

RE: 823690 - H&H-SC/Trillium/

Trenco  
 818 Soundside Rd  
 Edenton, NC 27932

**Site Information:**

Project Customer: H AND H Project Name: 823690  
 Lot/Block: AA Subdivision: ALL  
 Model:  
 Address:  
 City: Fayetteville State: NC

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

Design Code: IRC2015/TPI2014 Design Program: MiTek 20/20 8.2  
 Wind Code: ASCE 7-10 Wind Speed: 150 mph Design Method: MWFRS (Envelope)/C-C hybrid Wind ASCE 7-10  
 Roof Load: 40.0 psf Floor Load: N/A psf  
 Mean Roof Height (feet): 25 Exposure Category: C

No.	Seal#	Truss Name	Date	No.	Seal#	Truss Name	Date
1	I36912809	A01	5/1/19	35	I36912843	B07	5/1/19
2	I36912810	A02	5/1/19	36	I36912844	B08	5/1/19
3	I36912811	A03	5/1/19	37	I36912845	B09	5/1/19
4	I36912812	A04	5/1/19	38	I36912846	B10	5/1/19
5	I36912813	A05	5/1/19	39	I36912847	B11	5/1/19
6	I36912814	A06	5/1/19	40	I36912848	B12	5/1/19
7	I36912815	A06A	5/1/19	41	I36912849	B13	5/1/19
8	I36912816	A07	5/1/19	42	I36912850	B14	5/1/19
9	I36912817	A07A	5/1/19	43	I36912851	B15	5/1/19
10	I36912818	A08	5/1/19	44	I36912852	B16	5/1/19
11	I36912819	A09	5/1/19	45	I36912853	B17	5/1/19
12	I36912820	A10	5/1/19	46	I36912854	B18	5/1/19
13	I36912821	A11	5/1/19	47	I36912855	B19	5/1/19
14	I36912822	A12	5/1/19	48	I36912856	B20	5/1/19
15	I36912823	A13	5/1/19	49	I36912857	B21	5/1/19
16	I36912824	A14	5/1/19	50	I36912858	B22	5/1/19
17	I36912825	A15	5/1/19	51	I36912859	B23	5/1/19
18	I36912826	A16	5/1/19	52	I36912860	B24	5/1/19
19	I36912827	A17	5/1/19	53	I36912861	B25	5/1/19
20	I36912828	A18	5/1/19	54	I36912862	B26	5/1/19
21	I36912829	A19	5/1/19	55	I36912863	B27	5/1/19
22	I36912830	A20	5/1/19	56	I36912864	B28	5/1/19
23	I36912831	A21	5/1/19	57	I36912865	B29	5/1/19
24	I36912832	A21A	5/1/19	58	I36912866	B30	5/1/19
25	I36912833	A22	5/1/19	59	I36912867	B31	5/1/19
26	I36912834	A23	5/1/19	60	I36912868	B32	5/1/19
27	I36912835	A24	5/1/19	61	I36912869	B33	5/1/19
28	I36912836	A25	5/1/19	62	I36912870	B34	5/1/19
29	I36912837	B01	5/1/19	63	I36912871	B35	5/1/19
30	I36912838	B02	5/1/19	64	I36912872	B36	5/1/19
31	I36912839	B03	5/1/19	65	I36912873	B37	5/1/19
32	I36912840	B04	5/1/19	66	I36912874	B38	5/1/19
33	I36912841	B05	5/1/19	67	I36912875	B39	5/1/19
34	I36912842	B06	5/1/19	68	I36912876	B40	5/1/19

The truss drawing(s) referenced above have been prepared by MiTek USA, Inc. under my direct supervision based on the parameters provided by Builders FirstSource-Sumter,SC.

Truss Design Engineer's Name: Sevier, Scott

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

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



May 1, 2019

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No.	Seal#	Job ID#	Truss Name	Date	No.	Seal#	Job ID#	Truss Name	Date
69	I36912877	823690	B41	5/1/19	134	I36912942	823690	J46	5/1/19
70	I36912878	823690	B42	5/1/19	135	I36912943	823690	J47	5/1/19
71	I36912879	823690	C01	5/1/19	136	I36912944	823690	J48	5/1/19
72	I36912880	823690	C02	5/1/19	137	I36912945	823690	J49	5/1/19
73	I36912881	823690	C03	5/1/19	138	I36912946	823690	K01	5/1/19
74	I36912882	823690	CP01	5/1/19	139	I36912947	823690	L01	5/1/19
75	I36912883	823690	CP02	5/1/19	140	I36912948	823690	L02	5/1/19
76	I36912884	823690	CP03	5/1/19	141	I36912949	823690	L03	5/1/19
77	I36912885	823690	CP04	5/1/19	142	I36912950	823690	N01	5/1/19
78	I36912886	823690	D01	5/1/19	143	I36912951	823690	N02	5/1/19
79	I36912887	823690	D02	5/1/19	144	I36912952	823690	N03	5/1/19
80	I36912888	823690	E01	5/1/19	145	I36912953	823690	PB01	5/1/19
81	I36912889	823690	E02	5/1/19	146	I36912954	823690	PB02	5/1/19
82	I36912890	823690	E03	5/1/19	147	I36912955	823690	PB03	5/1/19
83	I36912891	823690	G01	5/1/19	148	I36912956	823690	PB04	5/1/19
84	I36912892	823690	G02	5/1/19	149	I36912957	823690	V01	5/1/19
85	I36912893	823690	H01	5/1/19					
86	I36912894	823690	I01	5/1/19					
87	I36912895	823690	I02	5/1/19					
88	I36912896	823690	I03	5/1/19					
89	I36912897	823690	J01	5/1/19					
90	I36912898	823690	J02	5/1/19					
91	I36912899	823690	J03	5/1/19					
92	I36912900	823690	J04	5/1/19					
93	I36912901	823690	J05	5/1/19					
94	I36912902	823690	J06	5/1/19					
95	I36912903	823690	J07	5/1/19					
96	I36912904	823690	J08	5/1/19					
97	I36912905	823690	J09	5/1/19					
98	I36912906	823690	J10	5/1/19					
99	I36912907	823690	J11	5/1/19					
100	I36912908	823690	J12	5/1/19					
101	I36912909	823690	J13	5/1/19					
102	I36912910	823690	J14	5/1/19					
103	I36912911	823690	J15	5/1/19					
104	I36912912	823690	J16	5/1/19					
105	I36912913	823690	J17	5/1/19					
106	I36912914	823690	J18	5/1/19					
107	I36912915	823690	J19	5/1/19					
108	I36912916	823690	J20	5/1/19					
109	I36912917	823690	J21	5/1/19					
110	I36912918	823690	J22	5/1/19					
111	I36912919	823690	J23	5/1/19					
112	I36912920	823690	J24	5/1/19					
113	I36912921	823690	J25	5/1/19					
114	I36912922	823690	J26	5/1/19					
115	I36912923	823690	J27	5/1/19					
116	I36912924	823690	J28	5/1/19					
117	I36912925	823690	J29	5/1/19					
118	I36912926	823690	J30	5/1/19					
119	I36912927	823690	J31	5/1/19					
120	I36912928	823690	J32	5/1/19					
121	I36912929	823690	J33	5/1/19					
122	I36912930	823690	J34	5/1/19					
123	I36912931	823690	J35	5/1/19					
124	I36912932	823690	J36	5/1/19					
125	I36912933	823690	J37	5/1/19					
126	I36912934	823690	J38	5/1/19					
127	I36912935	823690	J39	5/1/19					
128	I36912936	823690	J40	5/1/19					
129	I36912937	823690	J41	5/1/19					
130	I36912938	823690	J42	5/1/19					
131	I36912939	823690	J43	5/1/19					
132	I36912940	823690	J44	5/1/19					
133	I36912941	823690	J45	5/1/19					

Job 823690	Truss A01	Truss Type GABLE	Qty 2	Ply 1	H&H-SC/Trillium/ Job Reference (optional)	136912809
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Builders FirstSource, Sumter, SC - 29153,

8.220 s Nov 16 2018 MiTek Industries, Inc. Mon Apr 29 15:54:33 2019 Page 1

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4x6 =

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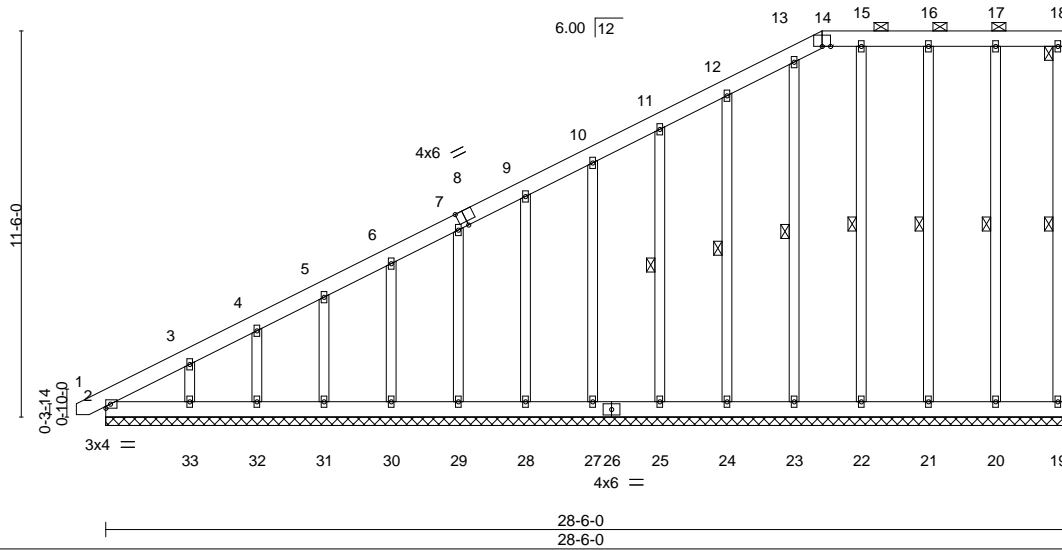


Plate Offsets (X,Y)--	[8:0-2-10,Edge]								
<b>LOADING</b> (psf)	<b>SPACING-</b>	2-0-0	<b>CSI.</b>	<b>DEFL.</b>	in (loc)	l/defl	L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL 20.0	Plate Grip DOL	1.15	TC 0.06	Vert(LL)	-0.00	1	n/r	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.02	Vert(CT)	0.00	1	n/r		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.13	Horz(CT)	-0.00	19	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-S					Weight: 289 lb	FT = 20%

<b>LUMBER-</b>	<b>BRACING-</b>
TOP CHORD 2x6 SP No.2	TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 14-18.
BOT CHORD 2x6 SP No.2	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 2x4 SP No.2	WEBS 1 Row at midpt 18-19, 17-20, 16-21, 15-22, 13-23, 12-24, 11-25
OTHERS 2x4 SP No.3	

**REACTIONS.** All bearings 28-6-0.  
 (lb) - Max Horz 2=766(LC 12)  
 Max Uplift All uplift 100 lb or less at joint(s) 19, 20, 21, 22 except 23=-106(LC 12), 24=-129(LC 12), 25=-126(LC 12), 27=-125(LC 12), 28=-126(LC 12), 29=-126(LC 12), 30=-125(LC 12), 31=-126(LC 12), 32=-118(LC 12), 33=-262(LC 12)  
 Max Grav All reactions 250 lb or less at joint(s) 19, 20, 21, 22, 23, 24, 25, 27, 28, 29, 30, 31, 32, 33 except 2=374(LC 12)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-3=-939/340, 3-4=-770/273, 4-5=-686/246, 5-6=-600/216, 6-7=-514/186, 7-9=-429/156, 9-10=-343/126, 10-11=-257/96  
 WEBS 3-33=-171/308

- NOTES-** (13)
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-10; Vult=150mph (3-second gust) Vasd=119mph; TC DL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; end vertical left exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - 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.
  - Provide adequate drainage to prevent water ponding.
  - All plates are 2x4 MT20 unless otherwise indicated.
  - Gable requires continuous bottom chord bearing.
  - Gable studs spaced at 2-0-0 oc.
  - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - \* 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.
  - All bearings are assumed to be User Defined crushing capacity of 565 psi.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 19, 20, 21, 22 except (jt=lb) 23=106, 24=129, 25=126, 27=125, 28=126, 29=126, 30=125, 31=126, 32=118, 33=262.
  - Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
  - This manufactured truss is designed as an individual building component. The suitability and use of this component for any particular building is the responsibility of the building designer per ANSI TPI 1 as referenced by the building code.



May 1, 2019

<p><b>WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 10/03/2015 BEFORE USE.</b></p> <p>Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see <b>ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information</b> available from Truss Plate Institute, 218 N. Lee Street, Suite 312, Alexandria, VA 22314.</p>	<p>ENGINEERING BY  <b>TRENCO</b>        A MiTek Affiliate</p> <p>818 Soundside Road        Edenton, NC 27932</p>
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Job	Truss	Truss Type	Qty	Ply	H&H-SC/Trillium/	136912810
823690	A02	PIGGYBACK BASE	2	1		

Builders FirstSource, Sumter, SC - 29153,

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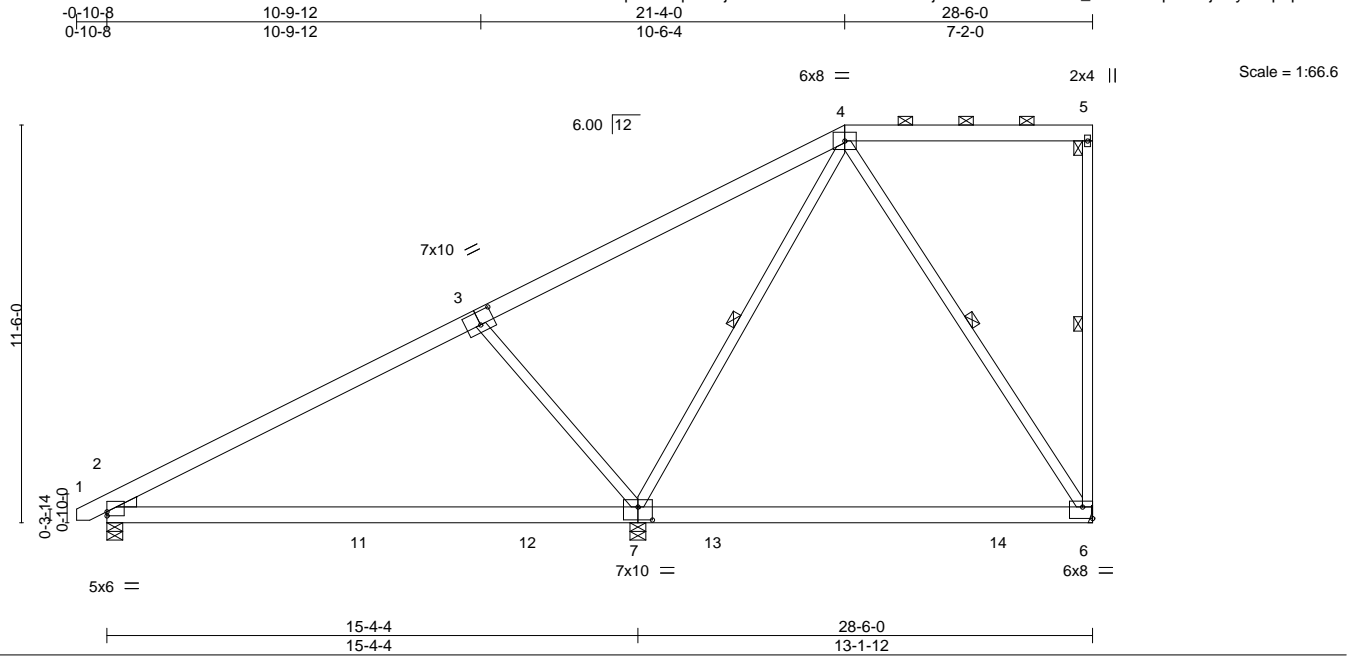


Plate Offsets (X,Y)--	[2:0-0-0,0-1-7], [3:0-5-0,0-4-8], [6:Edge,0-4-0], [7:0-5-0,0-4-8]
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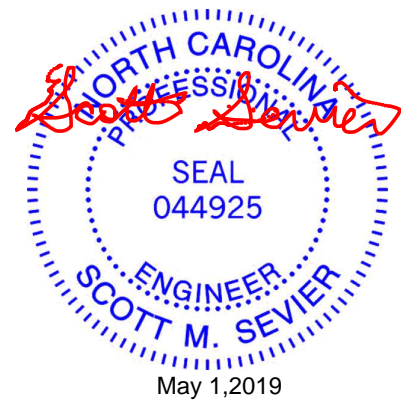
LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL	1.15	TC 0.57	Vert(LL)	-0.35	6-7	>451	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.96	Vert(CT)	-0.52	7-10	>353		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.70	Horz(CT)	0.03	2	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-AS	Wind(LL)	0.19	7-10	>991		
								Weight: 205 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x6 SP No.2	TOP CHORD Structural wood sheathing directly applied, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 4-5.
BOT CHORD 2x6 SP No.2	BOT CHORD Rigid ceiling directly applied.
WEBS 2x4 SP No.2 *Except* 3-7: 2x4 SP No.3	WEBS 1 Row at midpt 5-6, 4-7, 4-6
WEDGE Left: 2x4 SP No.3	

REACTIONS.	(lb/size)
	7=991/0-5-8, 6=597/Mechanical, 2=721/0-5-8
	Max Horz 2=763(LC 12)
	Max Uplift 7=-575(LC 12), 6=-352(LC 9), 2=-238(LC 12)
	Max Grav 7=1094(LC 2), 6=638(LC 2), 2=721(LC 1)

FORCES.	(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD	2-3=-729/159, 3-4=-345/16
BOT CHORD	2-7=-752/605, 6-7=-260/216
WEBS	3-7=-682/916, 4-6=-389/487

- NOTES-** (11)
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-10; Vult=150mph (3-second gust) Vasd=119mph; TC DL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; end vertical left exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - Provide adequate drainage to prevent water ponding.
  - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - \* 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.
  - All bearings are assumed to be User Defined crushing capacity of 565 psi.
  - Refer to girder(s) for truss to truss connections.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 7=575, 6=352, 2=238.
  - 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.
  - Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
  - This manufactured truss is designed as an individual building component. The suitability and use of this component for any particular building is the responsibility of the building designer per ANSI TPI 1 as referenced by the building code.



May 1, 2019

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Job	Truss	Truss Type	Qty	Ply	H&H-SC/Trillium/	136912811
823690	A03	Piggyback Base	42	1		

Builders FirstSource, Sumter, SC - 29153,

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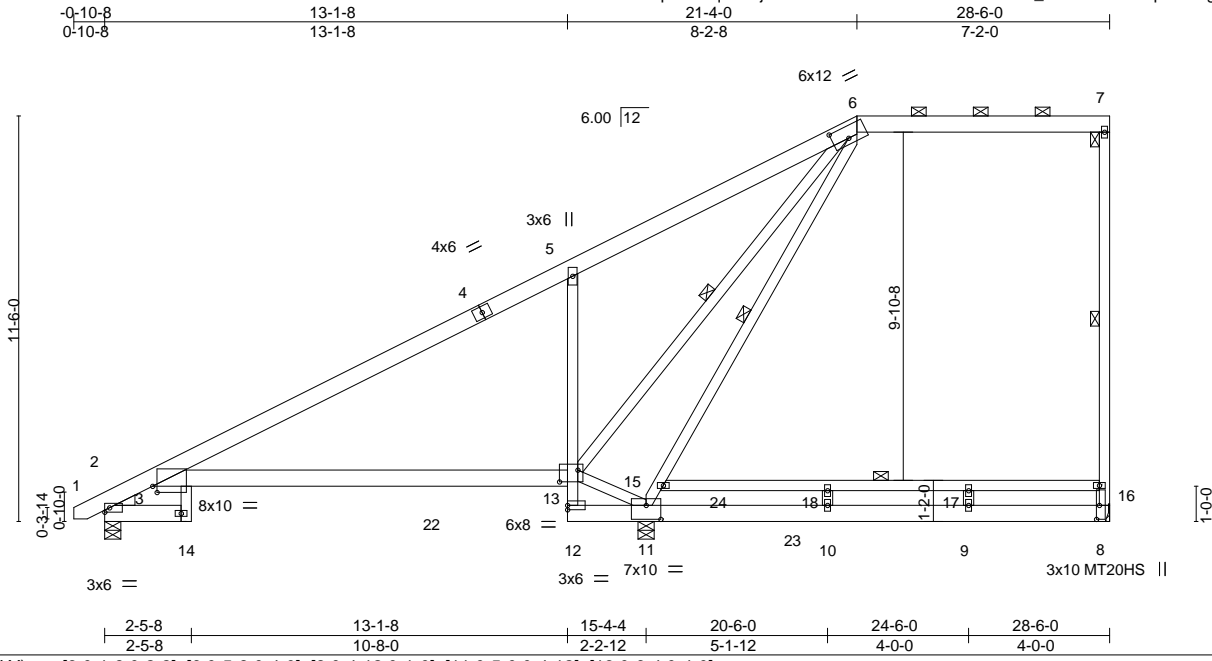


Plate Offsets (X,Y)--	[3:0-1-8,0-2-2], [6:0-5-8,0-4-0], [8:0-4-12,0-1-0], [11:0-5-0,0-4-12], [13:0-6-4,0-4-0]
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LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP	
TCLL 20.0	Plate Grip DOL	1.15	TC 0.86	Vert(LL)	-0.37	9-10	>423	360	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.71	Vert(CT)	-0.61	9-10	>257	240	MT20HS	187/143
BCLL 0.0 *	Rep Stress Incr	NO	WB 0.86	Horz(CT)	-0.27	11	n/a	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-AS	Wind(LL)	0.54	3-13	>339	240		
									Weight: 230 lb	FT = 20%

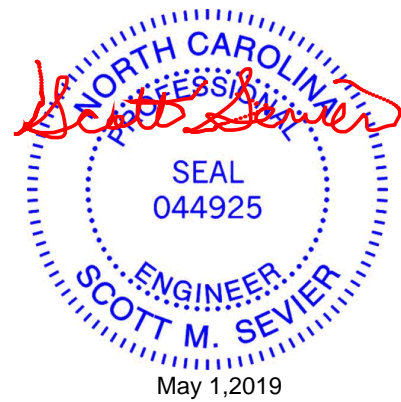
LUMBER-	BRACING-
TOP CHORD 2x6 SP No.2	TOP CHORD Structural wood sheathing directly applied, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 6-7.
BOT CHORD 2x6 SP No.2 *Except* 5-12,3-14: 2x4 SP No.2, 8-12: 2x6 SP DSS	BOT CHORD Rigid ceiling directly applied.
WEBS 2x4 SP No.2 *Except* 11-13,9-17,10-18: 2x4 SP No.3	WEBS 1 Row at midpt 7-8, 6-13, 6-11, 15-16

WEDGE  
Left: 2x4 SP No.3

**REACTIONS.** (lb/size) 8=348/Mechanical, 2=433/0-5-8, 11=1740/0-5-8  
 Max Horz 2=763(LC 12)  
 Max Uplift 8=-33(LC 8), 11=-1055(LC 12)  
 Max Grav 8=575(LC 3), 2=443(LC 19), 11=1795(LC 2)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 3-20=-711/151, 3-5=-787/382, 5-6=-365/308  
 BOT CHORD 12-13=-825/0, 5-13=-692/937, 11-12=-476/0  
 WEBS 11-13=-208/821, 6-13=-861/433, 11-15=-976/1356, 6-15=-998/1470

- NOTES-** (14)
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-10; Vult=150mph (3-second gust) Vasd=119mph; TC DL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; end vertical left exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - 200.0lb AC unit load placed on the bottom chord, 22-0-0 from left end, supported at two points, 5-0-0 apart.
  - Provide adequate drainage to prevent water ponding.
  - All plates are MT20 plates unless otherwise indicated.
  - All plates are 2x4 MT20 unless otherwise indicated.
  - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - \* 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.
  - All bearings are assumed to be User Defined crushing capacity of 565 psi.
  - Refer to girder(s) for truss to truss connections.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 8 except (jt=lb) 11=1055.
  - 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.
  - Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
  - This manufactured truss is designed as an individual building component. The suitability and use of this component for any particular building is the responsibility of the building designer per ANSI TPI 1 as referenced by the building code.



LOAD CASE(S) Standard

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 10/03/2015 BEFORE USE.**

Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 218 N. Lee Street, Suite 312, Alexandria, VA 22314.

**ENGINEERING BY**  
**TRENCO**  
 A MiTek Affiliate

818 Soundside Road  
 Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	H&H-SC/Trillium/	I36912811
823690	A03	Piggyback Base	42	1		
Job Reference (optional)						

Builders FirstSource, Sumter, SC - 29153,

8.220 s Nov 16 2018 MiTek Industries, Inc. Mon Apr 29 15:54:36 2019 Page 2  
 ID:N9ZpzacWqWTLjEbWrVVGbZQOD-tvzHMPR829KT\_MWPzn?4wPdpA3uFigDn\_0k11SzLpFn

**LOAD CASE(S)** Standard

- 1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
- Uniform Loads (plf)
  - Vert: 1-3=-60, 3-6=-60, 6-7=-60, 14-19=-20, 3-13=-20, 8-12=-20
- Concentrated Loads (lb)
  - Vert: 9=-100 23=-100

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 10/03/2015 BEFORE USE.**

Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 218 N. Lee Street, Suite 312, Alexandria, VA 22314.



818 Soundside Road  
 Edenton, NC 27932



Job	Truss	Truss Type	Qty	Ply	H&H-SC/Trillium/	I36912812
823690	A04	Piggyback Base	6	1		
Job Reference (optional)						

Builders FirstSource, Sumter, SC - 29153,

8.220 s Nov 16 2018 MiTek Industries, Inc. Mon Apr 29 15:54:37 2019 Page 2  
 ID:N9ZpzacWqWTLlJebWrVVGbZQOD-L5XfalSmpSSKcW5bXVWJTd90HTB6R8vxCgUbZuzLpFm

**LOAD CASE(S)** Standard

- 1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
- Uniform Loads (plf)
  - Vert: 1-3=-70, 3-6=-70, 6-7=-70, 14-19=-23, 3-13=-23, 8-12=-23
- Concentrated Loads (lb)
  - Vert: 9=-100 23=-100

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 10/03/2015 BEFORE USE.**

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818 Soundside Road  
 Edenton, NC 27932



Job	Truss	Truss Type	Qty	Ply	H&H-SC/Trillium/	136912813
823690	A05	ROOF SPECIAL	7	1		
Builders FirstSource, Sumter, SC - 29153,						Job Reference (optional)

8.220 s Nov 16 2018 MiTek Industries, Inc. Mon Apr 29 15:54:38 2019 Page 1  
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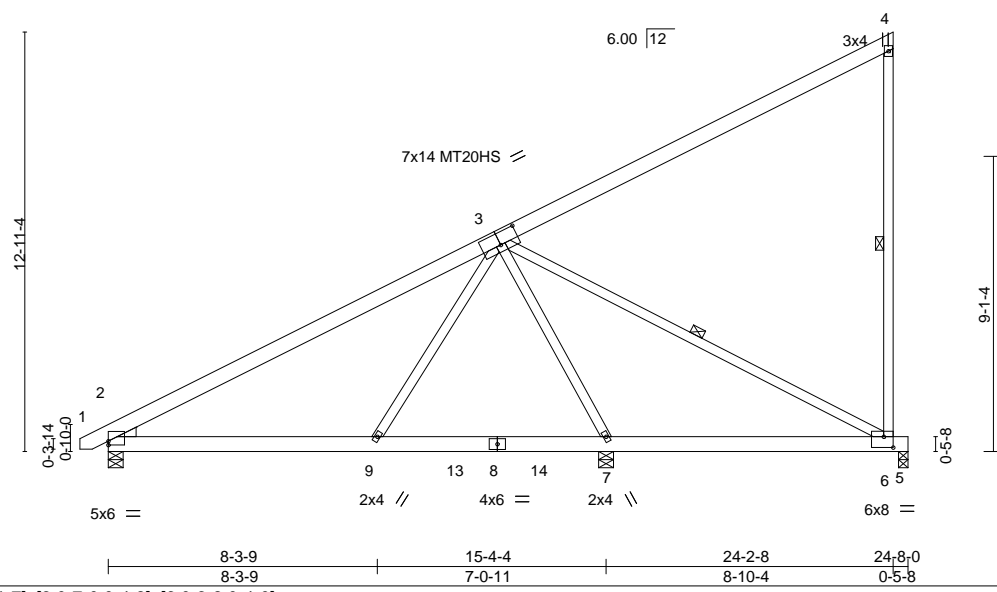


Plate Offsets (X,Y)--	[2:0-0,0-1-7], [3:0-7-0,0-4-8], [6:0-3-8,0-4-0]
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<b>LOADING</b> (psf)	<b>SPACING-</b>	<b>CSI.</b>	<b>DEFL.</b>	<b>PLATES</b>	<b>GRIP</b>
TCLL 20.0	2-0-0	TC 0.73	in (loc) l/defl L/d	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.15	BC 0.46	Vert(LL) 0.10 9-12 >999 240	MT20HS	187/143
BCLL 0.0 *	Lumber DOL 1.15	WB 0.83	Vert(CT) -0.11 6-7 >999 240		
BCDL 10.0	Rep Stress Incr YES	Matrix-AS	Horz(CT) -0.02 2 n/a n/a		
	Code IRC2015/TPI2014			Weight: 182 lb	FT = 20%

<b>LUMBER-</b>	<b>BRACING-</b>
TOP CHORD 2x6 SP No.2	TOP CHORD Structural wood sheathing directly applied, except end verticals.
BOT CHORD 2x6 SP No.2	BOT CHORD Rigid ceiling directly applied.
WEBS 2x4 SP No.2 *Except*	WEBS 1 Row at midpt 4-6, 3-6
3-9,3-7: 2x4 SP No.3	

**WEDGE**  
 Left: 2x4 SP No.3

**REACTIONS.** (lb/size) 2=673/0-5-8, 7=947/0-5-8, 5=355/0-3-8  
 Max Horz 2=856(LC 12)  
 Max Uplift 2=-190(LC 12), 7=-495(LC 12), 5=-435(LC 12)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-3=-754/10, 3-4=-263/90, 4-6=-283/396  
 BOT CHORD 2-9=-701/557, 7-9=-697/440, 6-7=-322/70  
 WEBS 3-9=-7/365, 3-7=-862/782, 3-6=-65/346

- NOTES-**
- 1) Wind: ASCE 7-10; Vult=150mph (3-second gust) Vasd=119mph; TC DL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; end vertical left exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - 2) All plates are MT20 plates unless otherwise indicated.
  - 3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - 4) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
  - 5) All bearings are assumed to be User Defined crushing capacity of 565 psi.
  - 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=190, 7=495, 5=435.
  - 7) 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.



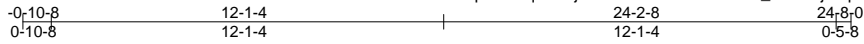
May 1, 2019

Job	Truss	Truss Type	Qty	Ply	H&H-SC/Trillium/	136912814
823690	A06	ROOF SPECIAL	7	1		

Builders FirstSource, Sumter, SC - 29153,

8.220 s Nov 16 2018 MiTek Industries, Inc. Mon Apr 29 15:54:39 2019 Page 1

ID:N9ZpzacWqWTLijEbWrVVGBzZQOD-IUfP\_RTOL4j2sqFzfwYnY2FMPHxjv1MDg\_zhemzLpFk



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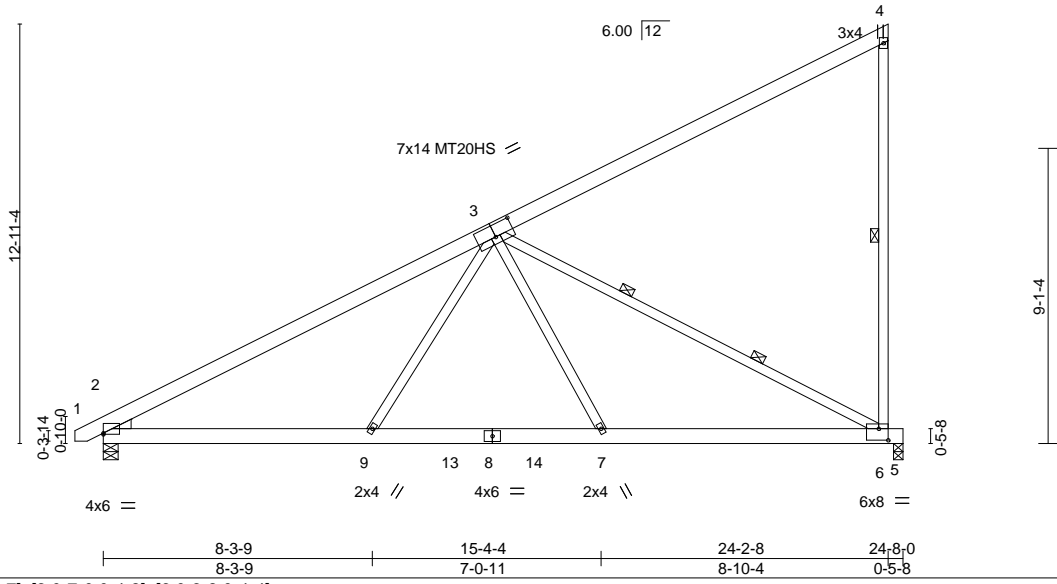


Plate Offsets (X,Y)--	[2:0-0-0,0-0-7], [3:0-7-0,0-4-8], [6:0-3-8,0-4-4]
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LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL 20.0	Plate Grip DOL 2-0-0	TC 0.73	in (loc) l/defl L/d	MT20	244/190
TCDL 10.0	Lumber DOL 1.15	BC 0.60	Vert(LL) -0.09 6-7 >999 360	MT20HS	187/143
BCLL 0.0 *	Rep Stress Incr YES	WB 0.83	Vert(CT) -0.21 6-7 >999 240		
BCDL 10.0	Code IRC2015/TPI2014	Matrix-AS	Horz(CT) -0.03 5 n/a n/a		
			Wind(LL) 0.15 6-7 >999 240	Weight: 182 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x6 SP No.2	TOP CHORD Structural wood sheathing directly applied, except end verticals.
BOT CHORD 2x6 SP No.2	BOT CHORD Rigid ceiling directly applied.
WEBS 2x4 SP No.2 *Except*	WEBS 1 Row at midpt 4-6
3-9,3-7: 2x4 SP No.3	2 Rows at 1/3 pts 3-6
WEDGE	
Left: 2x4 SP No.3	

**REACTIONS.** (lb/size) 2=1022/0-5-8, 5=953/0-3-8  
 Max Horz 2=856(LC 12)  
 Max Uplift 2=-373(LC 12), 5=-747(LC 12)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-3=-1466/445, 3-4=-265/88, 4-6=-287/398  
 BOT CHORD 2-9=-1087/1188, 7-9=-1095/1090, 6-7=-1050/1217  
 WEBS 3-9=0/333, 3-7=0/462, 3-6=-1355/1166

- NOTES-**
- 1) Wind: ASCE 7-10; Vult=150mph (3-second gust) Vasd=119mph; TC DL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; end vertical left exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - 2) All plates are MT20 plates unless otherwise indicated.
  - 3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - 4) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
  - 5) All bearings are assumed to be User Defined crushing capacity of 565 psi.
  - 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=373, 5=747.
  - 7) 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.



May 1, 2019

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**ENGINEERING BY**  
**TRENCO**  
 A MiTek Affiliate

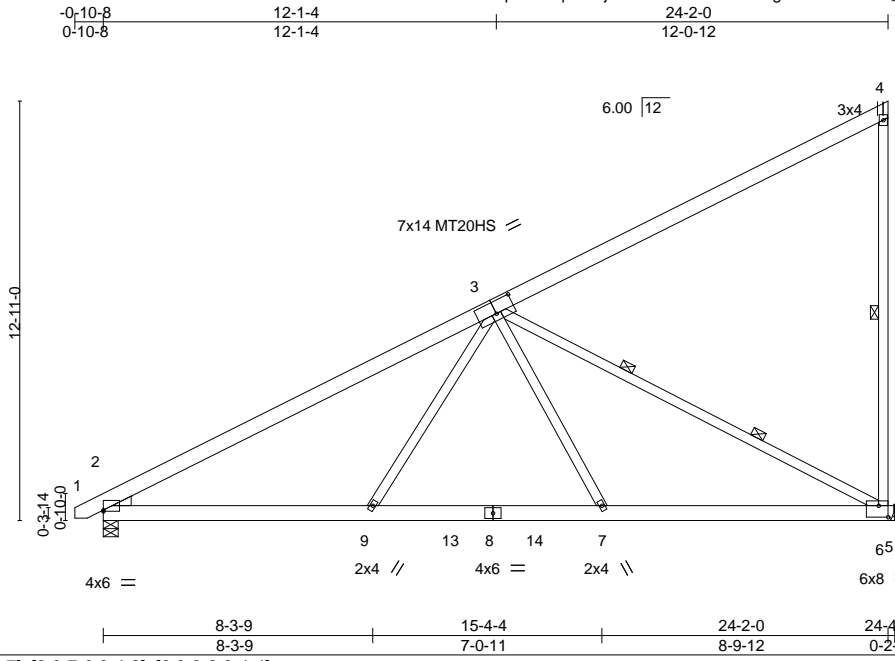
818 Soundside Road  
 Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	H&H-SC/Trillium/	136912815
823690	A06A	ROOF SPECIAL	2	1		

Builders FirstSource, Sumter, SC - 29153,

8.220 s Nov 16 2018 MiTek Industries, Inc. Mon Apr 29 15:54:40 2019 Page 1

ID:N9ZpzacWqWTLljEbWrVVGbZQOD-mgCoCnUe6NrvT\_qACd405FnWCgJheV?NueiFADzLpFj



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Plate Offsets (X,Y)--	[2:0-0,0,0-0-7], [3:0-7-0,0-4-8], [6:0-3-8,0-4-4]
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LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.73	in (loc) l/defl L/d	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.15	BC 0.49	Vert(LL) -0.07 6-7 >999 360	MT20HS	187/143
BCLL 0.0 *	Lumber DOL 1.15	WB 0.81	Vert(CT) -0.17 6-7 >999 240		
BCDL 10.0	Rep Stress Incr YES	Matrix-AS	Horz(CT) -0.03 5 n/a n/a		
	Code IRC2015/TPI2014		Wind(LL) 0.10 6-7 >999 240	Weight: 181 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x6 SP No.2	TOP CHORD Structural wood sheathing directly applied, except end verticals.
BOT CHORD 2x6 SP No.2	BOT CHORD Rigid ceiling directly applied.
WEBS 2x4 SP No.2 *Except*	WEBS 1 Row at midpt 4-6
3-9,3-7: 2x4 SP No.3	2 Rows at 1/3 pts 3-6
WEDGE	
Left: 2x4 SP No.3	

**REACTIONS.** (lb/size) 2=1014/0-5-8, 5=955/Mechanical  
 Max Horz 2=854(LC 12)  
 Max Uplift 2=-367(LC 12), 5=-753(LC 12)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-3=-1452/434, 3-4=-263/89, 4-6=-287/397  
 BOT CHORD 2-9=-1075/1175, 7-9=-1078/1072, 6-7=-1021/1184  
 WEBS 3-9=0/341, 3-7=0/437, 3-6=-1320/1135

- NOTES-**
- 1) Wind: ASCE 7-10; Vult=150mph (3-second gust) Vasd=119mph; TC DL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; end vertical left exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - 2) All plates are MT20 plates unless otherwise indicated.
  - 3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - 4) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
  - 5) All bearings are assumed to be User Defined crushing capacity of 565 psi.
  - 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) except (jt=lb) 2=367, 5=753.
  - 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.



May 1, 2019

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 10/03/2015 BEFORE USE.**

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**ENGINEERING BY**  
**TRENCO**  
 A MiTek Affiliate

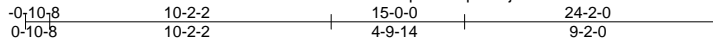
818 Soundside Road  
 Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	H&H-SC/Trillium/	136912816
823690	A07	MONOPITCH	35	1		

Builders FirstSource, Sumter, SC - 29153,

8.220 s Nov 16 2018 MiTek Industries, Inc. Mon Apr 29 15:54:41 2019 Page 1

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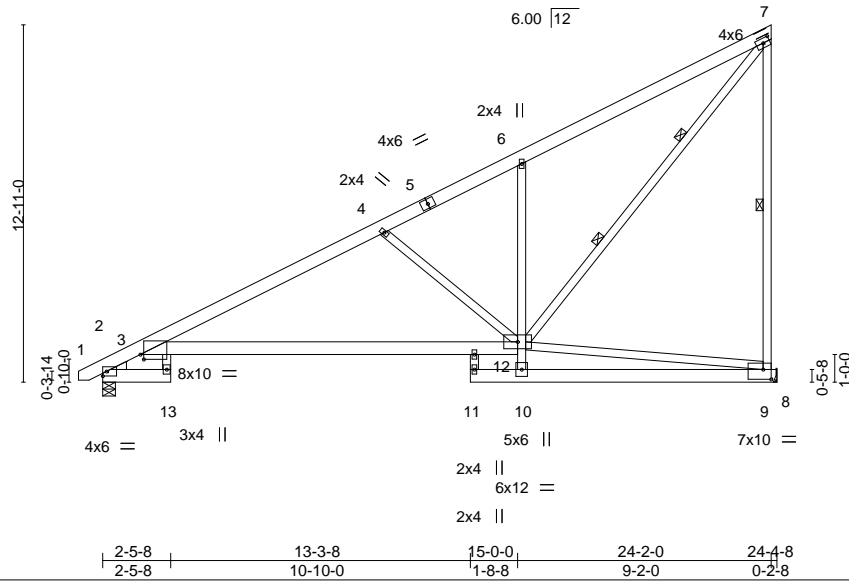


Plate Offsets (X,Y)--	[3:0-1-8,0-2-2], [7:0-2-15,0-2-0], [9:0-3-8,0-4-4]
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<b>LOADING</b> (psf)	<b>SPACING-</b>	2-0-0	<b>CSI.</b>	<b>DEFL.</b>	in (loc)	l/defl	L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL 20.0	Plate Grip DOL	1.15	TC 0.72	Vert(LL)	0.76	3-12	>385	240	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.89	Vert(CT)	-0.87	3-12	>335	240	
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.84	Horz(CT)	-0.34	8	n/a	n/a	
BCDL 10.0	Code IRC2015/TPI2014		Matrix-AS						
								Weight: 203 lb	FT = 20%

<b>LUMBER-</b>	<b>BRACING-</b>
TOP CHORD 2x6 SP No.2 *Except* 1-5: 2x6 SP DSS	TOP CHORD Structural wood sheathing directly applied, except end verticals.
BOT CHORD 2x6 SP No.2 *Except* 6-10,3-13: 2x4 SP No.2	BOT CHORD Rigid ceiling directly applied. Except: 10-0-0 oc bracing: 10-12
WEBS 2x4 SP No.3 *Except* 7-9,7-12: 2x4 SP No.2	WEBS 1 Row at midpt 7-9 2 Rows at 1/3 pts 7-12
WEDGE Left: 2x4 SP No.3	

<b>REACTIONS.</b>	(lb/size) 2=1039/0-5-8, 8=977/Mechanical Max Horz 2=854(LC 12) Max Uplift 2=-352(LC 12), 8=-740(LC 12)
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<b>FORCES.</b>	(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD	3-16=-618/0, 3-4=-1625/697, 4-6=-1133/419, 6-7=-1146/721, 7-9=-941/932
BOT CHORD	3-12=-1373/1454, 10-12=0/300, 6-12=-356/581
WEBS	7-12=-1255/1455, 4-12=-695/770

- NOTES-** (8)
- 1) Wind: ASCE 7-10; Vult=150mph (3-second gust) Vasd=119mph; TC DL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; end vertical 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) All bearings are assumed to be User Defined crushing capacity of 565 psi.
  - 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) except (jt=lb) 2=352, 8=740.
  - 7) 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.
  - 8) This manufactured truss is designed as an individual building component. The suitability and use of this component for any particular building is the responsibility of the building designer per ANSI TPI 1 as referenced by the building code.



May 1, 2019

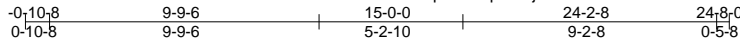
<p><b>WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 10/03/2015 BEFORE USE.</b></p> <p>Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see <b>ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information</b> available from Truss Plate Institute, 218 N. Lee Street, Suite 312, Alexandria, VA 22314.</p>	<p>ENGINEERING BY</p> <p><b>TRENCO</b></p> <p>A MiTek Affiliate</p> <p>818 Soundside Road Edenton, NC 27932</p>
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Job 823690	Truss A07A	Truss Type ROOF SPECIAL	Qty 14	Ply 1	H&H-SC/Trillium/ Job Reference (optional)	136912817
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Builders FirstSource, Sumter, SC - 29153,

8.220 s Nov 16 2018 MiTek Industries, Inc. Mon Apr 29 15:54:42 2019 Page 1

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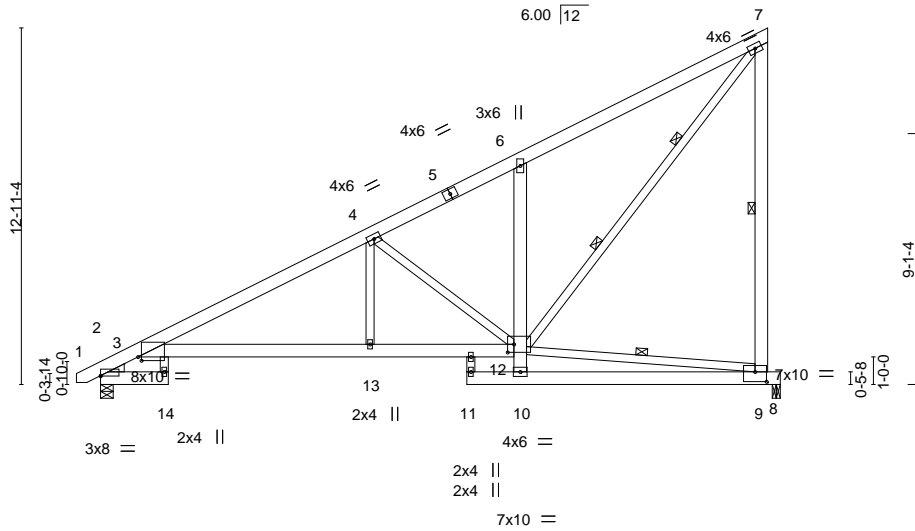


Plate Offsets (X,Y)-- [2:0-0-0,0-0-3], [3:0-1-8,0-1-10], [9:0-5-0,0-4-4], [12:0-2-12,0-3-8]

<b>LOADING</b> (psf)	<b>SPACING-</b>	2-0-0	<b>CSI.</b>	<b>DEFL.</b>	in (loc)	l/defl	L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL 20.0	Plate Grip DOL	1.15	TC 0.61	Vert(LL)	0.49	3-13	>601	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.88	Vert(CT)	-0.43	3-13	>682		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.80	Horz(CT)	-0.27	8	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-AS					Weight: 226 lb	FT = 20%

**LUMBER-**  
TOP CHORD 2x6 SP No.2 \*Except\*  
1-5: 2x6 SP DSS  
BOT CHORD 2x6 SP No.2 \*Except\*  
3-12: 2x6 SP No.1  
WEBS 2x4 SP No.3 \*Except\*  
7-9: 2x6 SP No.2, 7-12: 2x4 SP No.2  
WEDGE  
Left: 2x4 SP No.3

**BRACING-**  
TOP CHORD Structural wood sheathing directly applied, except end verticals.  
BOT CHORD Rigid ceiling directly applied. Except:  
10-0-0 oc bracing: 10-12  
WEBS 1 Row at midpt 7-9, 9-12  
2 Rows at 1/3 pts 7-12

**REACTIONS.** (lb/size) 2=1049/0-5-8, 8=972/0-3-8  
Max Horz 2=853(LC 12)  
Max Uplift 2=-358(LC 12), 8=-727(LC 12)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 3-17=-632/0, 3-4=-1800/772, 4-6=-1063/383, 6-7=-1102/708, 7-9=-903/914  
BOT CHORD 3-13=-1430/1596, 12-13=-1432/1597, 10-12=0/314, 6-12=-382/577, 9-10=-125/334  
WEBS 4-12=-932/866, 4-13=-100/414, 9-12=-306/92, 7-12=-1208/1371

- NOTES-**
- Wind: ASCE 7-10; Vult=150mph (3-second gust) Vasd=119mph; TC DL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; end vertical left exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - \* 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.
  - All bearings are assumed to be User Defined crushing capacity of 565 psi.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=358, 8=727.
  - 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.



May 1, 2019

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 10/03/2015 BEFORE USE.**

Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 218 N. Lee Street, Suite 312, Alexandria, VA 22314.



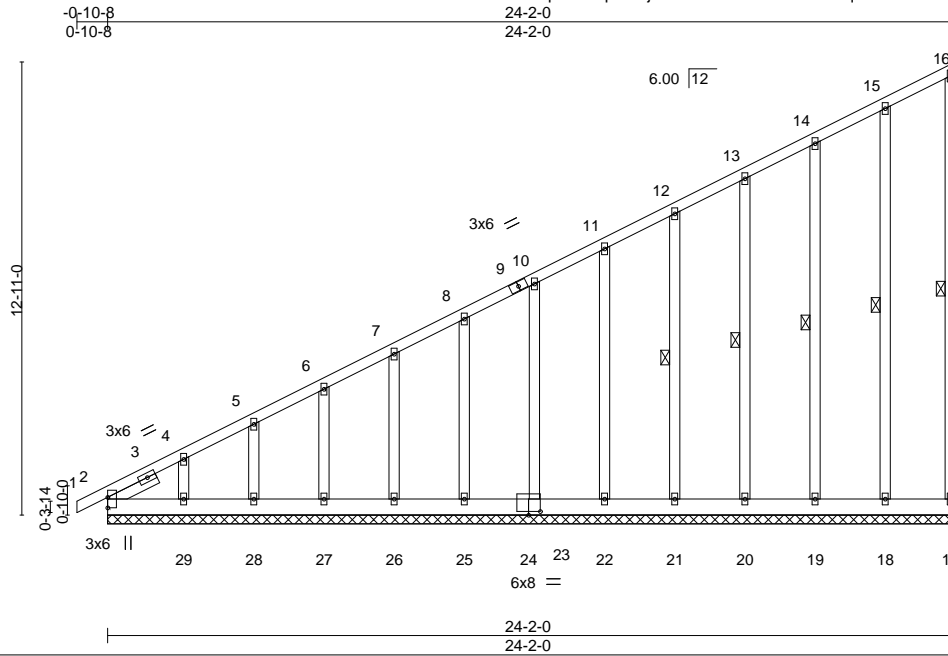
818 Soundside Road  
Edenton, NC 27932

Job 823690	Truss A08	Truss Type GABLE	Qty 2	Ply 1	H&H-SC/Trillium/ Job Reference (optional)	136912818
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Builders FirstSource, Sumter, SC - 29153,

8.220 s Nov 16 2018 MiTek Industries, Inc. Mon Apr 29 15:54:43 2019 Page 1

ID:N9ZpzacWqWTLijEbWrVVGBzQOD-AFuwwqoWXPIDUKRZludljuP9CuS5r?MpbcxvnYzLpFg



Scale = 1:65.7

Plate Offsets (X,Y)--	[23:0-1-12,0-0-0], [24:0-4-0,0-1-4], [24:0-0-0,0-2-12]
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LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.23	in (loc) l/def L/d	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.15	BC 0.06	Vert(LL) -0.00 1 n/r 120		
BCLL 0.0 *	Lumber DOL 1.15	WB 0.13	Vert(CT) -0.00 1 n/r 120		
BCDL 10.0	Rep Stress Incr YES	Matrix-S	Horz(CT) -0.00 17 n/a n/a		
	Code IRC2015/TPI2014			Weight: 220 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x4 SP No.2	TOP CHORD Structural wood sheathing directly applied or 5-4-9 oc purlins, except end verticals.
BOT CHORD 2x6 SP No.2	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 2x4 SP No.2	WEBS 1 Row at midpt 16-17, 15-18, 14-19, 13-20, 12-21
OTHERS 2x4 SP No.3	
SLIDER Left 2x4 SP No.3 1-6-7	

**REACTIONS.** All bearings 24-2-0.  
 (lb) - Max Horz 2=864(LC 12)  
 Max Uplift All uplift 100 lb or less at joint(s) 17, 28 except 18=-126(LC 12), 19=-128(LC 12), 20=-125(LC 12), 21=-126(LC 12), 22=-126(LC 12), 23=-125(LC 12), 25=-126(LC 12), 26=-123(LC 12), 27=-136(LC 12), 29=-365(LC 12)  
 Max Grav All reactions 250 lb or less at joint(s) 17, 18, 19, 20, 21, 22, 23, 25, 26, 27, 28, 29 except 2=507(LC 12)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-4=-1080/381, 4-5=-887/315, 5-6=-815/291, 6-7=-726/260, 7-8=-641/230, 8-10=-555/200, 10-11=-470/170, 11-12=-384/141, 12-13=-298/111  
 WEBS 4-29=-187/375

- NOTES-** (10)
- 1) Wind: ASCE 7-10; Vult=150mph (3-second gust) Vasd=119mph; TCdL=6.0psf; BCdL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; end vertical left exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - 2) 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.
  - 3) All plates are 2x4 MT20 unless otherwise indicated.
  - 4) Gable requires continuous bottom chord bearing.
  - 5) Gable studs spaced at 2-0-0 oc.
  - 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) All bearings are assumed to be User Defined crushing capacity of 565 psi.
  - 9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 17, 28 except (it=lb) 18=126, 19=128, 20=125, 21=126, 22=126, 23=125, 25=126, 26=123, 27=136, 29=365.
  - 10) This manufactured truss is designed as an individual building component. The suitability and use of this component for any particular building is the responsibility of the building designer per ANSI TPI 1 as referenced by the building code.



May 1, 2019

Job 823690	Truss A09	Truss Type GABLE COMMON	Qty 2	Ply 1	H&H-SC/Trillium/ Job Reference (optional)	136912819
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Builders FirstSource, Sumter, SC - 29153,

8.220 s Nov 16 2018 MiTek Industries, Inc. Mon Apr 29 15:54:44 2019 Page 1

ID:N9ZpzacWqWTLjEbWrVVGBzZQOD-eRSI28X9AcLLyb8xRT8yF5yKkInZaSQzpGgSJ\_zLpPf



3x6 =

Scale: 3/16"=1'

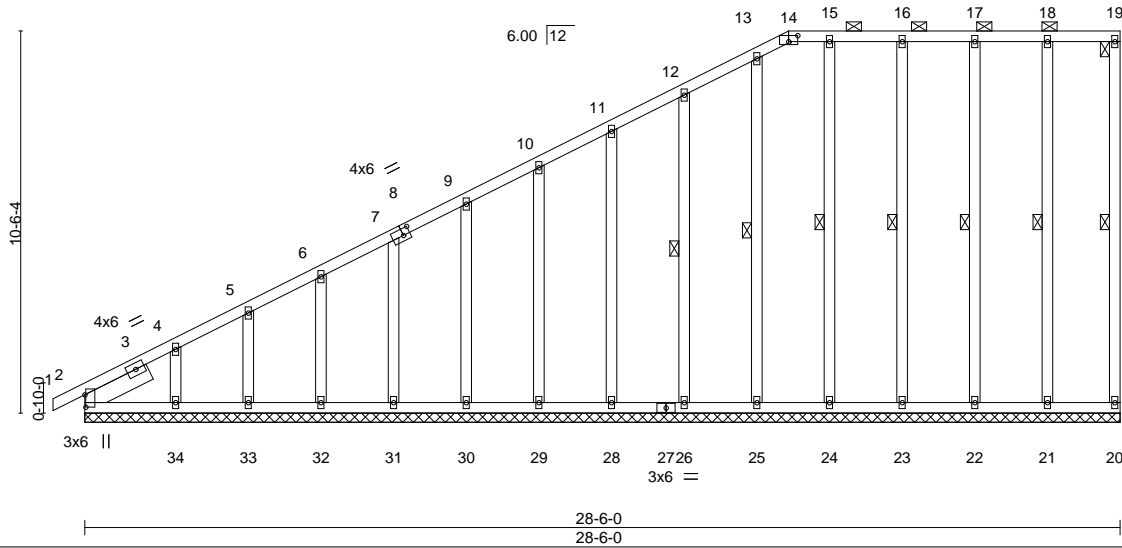


Plate Offsets (X,Y)--	[2:0-4-1,0-0-5], [7:0-1-15,0-0-0], [8:0-2-4,0-2-4], [8:0-0-0,0-1-12], [14:0-3-0,0-2-0]
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<b>LOADING</b> (psf)	<b>SPACING-</b>	2-0-0	<b>CSI.</b>	<b>DEFL.</b>	in (loc)	l/defl	L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL 20.0	Plate Grip DOL	1.15	TC 0.24	Vert(LL)	-0.00	1	n/r	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.04	Vert(CT)	0.00	1	n/r		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.14	Horz(CT)	-0.00	20	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-S						
								Weight: 242 lb	FT = 20%

<b>LUMBER-</b>	<b>BRACING-</b>
TOP CHORD 2x4 SP No.2	TOP CHORD Structural wood sheathing directly applied or 5-11-6 oc purlins, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 14-19.
BOT CHORD 2x4 SP No.2	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 2x4 SP No.2	WEBS 1 Row at midpt 19-20, 18-21, 17-22, 16-23, 15-24, 13-25, 12-26
OTHERS 2x4 SP No.3	
SLIDER Left 2x6 SP No.2 1-11-12	

**REACTIONS.** All bearings 28-6-0.  
 (lb) - Max Horz 2=705(LC 12)  
 Max Uplift All uplift 100 lb or less at joint(s) 20, 21, 22, 23, 24, 33 except 25=-112(LC 12), 26=-128(LC 12), 28=-125(LC 12), 29=-126(LC 12), 30=-126(LC 12), 31=-124(LC 12), 32=-133(LC 12), 34=-331(LC 12)  
 Max Grav All reactions 250 lb or less at joint(s) 20, 21, 22, 23, 24, 25, 26, 28, 29, 30, 31, 32, 33, 34 except 2=380(LC 12)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-4=-883/312, 4-5=-675/241, 5-6=-603/217, 6-7=-514/186, 7-9=-429/156, 9-10=-344/126, 10-11=-258/97  
 WEBS 4-34=-200/387

**NOTES-**

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-10; Vult=150mph (3-second gust) Vasd=119mph; TCCL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; end vertical left 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 2x4 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) All bearings are assumed to be User Defined crushing capacity of 565 psi.
- 11) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 20, 21, 22, 23, 24, 33 except (jt=lb) 25=112, 26=128, 28=125, 29=126, 30=126, 31=124, 32=133, 34=331.
- 12) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



May 1, 2019

<p><b>WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 10/03/2015 BEFORE USE.</b></p> <p>Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see <b>ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information</b> available from Truss Plate Institute, 218 N. Lee Street, Suite 312, Alexandria, VA 22314.</p>	<p>ENGINEERING BY</p> <p><b>TRENCO</b></p> <p>A MiTek Affiliate</p> <p>818 Soundside Road Edenton, NC 27932</p>
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Job	Truss	Truss Type	Qty	Ply	H&H-SC/Trillium/	136912820
823690	A10	HALF HIP	2	1		

Builders FirstSource, Sumter, SC - 29153,

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Scale = 1:65.6

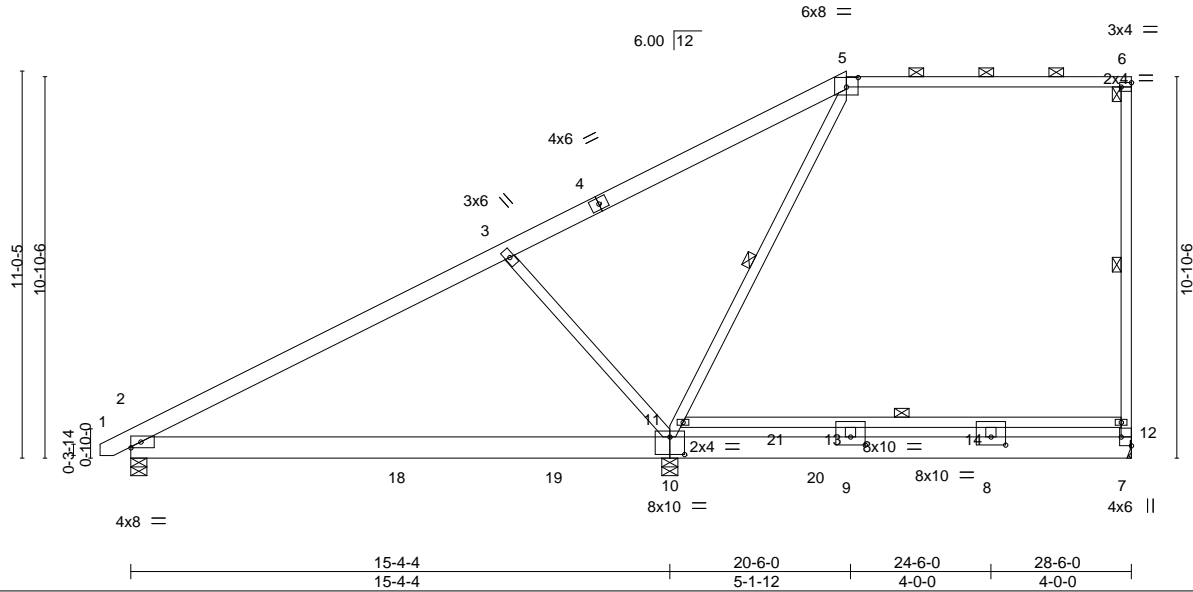


Plate Offsets (X, Y)--	[5:0-4-0,0-3-4], [6:Edge,0-1-8], [7:Edge,0-3-8], [10:0-5-0,0-6-0], [13:0-5-0,0-2-12], [14:0-5-0,0-2-12]
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LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL	1.15	TC 0.91	Vert(LL)	-0.20	8-9	>783	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.37	Vert(CT)	-0.32	8-9	>482		
BCLL 0.0 *	Rep Stress Incr	NO	WB 0.62	Horz(CT)	-0.01	2	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-AS	Wind(LL)	0.13	10-17	>999		
								Weight: 217 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x6 SP No.2 *Except* 5-6: 2x4 SP No.2	TOP CHORD Structural wood sheathing directly applied, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 5-6.
BOT CHORD 2x8 SP DSS	BOT CHORD Rigid ceiling directly applied.
WEBS 2x4 SP No.3 *Except* 6-7,11-12: 2x4 SP No.2	WEBS 1 Row at midpt 6-7, 5-10, 11-12

**REACTIONS.** (lb/size) 7=399/Mechanical, 10=1644/0-5-8, 2=467/0-5-8  
 Max Horz 2=724(LC 12)  
 Max Uplift 7=-60(LC 8), 10=-904(LC 12), 2=-51(LC 12)  
 Max Grav 7=590(LC 3), 10=1695(LC 2), 2=483(LC 19)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-3=-483/135, 3-5=-634/451, 7-12=-253/203  
 WEBS 3-10=-628/872, 10-11=-710/820, 5-11=-741/894

**NOTES-**

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-10; Vult=150mph (3-second gust) Vasd=119mph; TC DL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; end vertical left exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 200.0lb AC unit load placed on the bottom chord, 22-0-0 from left end, supported at two points, 5-0-0 apart.
- Provide adequate drainage to prevent water ponding.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- \* 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.
- All bearings are assumed to be User Defined crushing capacity of 565 psi.
- Refer to girder(s) for truss to truss connections.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 7, 2 except (jt=lb) 10=904.
- 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.
- 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

- Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15  
 Uniform Loads (plf)  
 Vert: 1-5=-60, 5-6=-60, 7-15=-20  
 Concentrated Loads (lb)  
 Vert: 8=-100 20=-100





Job	Truss	Truss Type	Qty	Ply	H&H-SC/Trillium/	136912821
823690	A11	HALF HIP	2	1		

Builders FirstSource, Sumter, SC - 29153, 8.220 s Nov 16 2018 MiTek Industries, Inc. Mon Apr 29 15:54:46 2019 Page 1  
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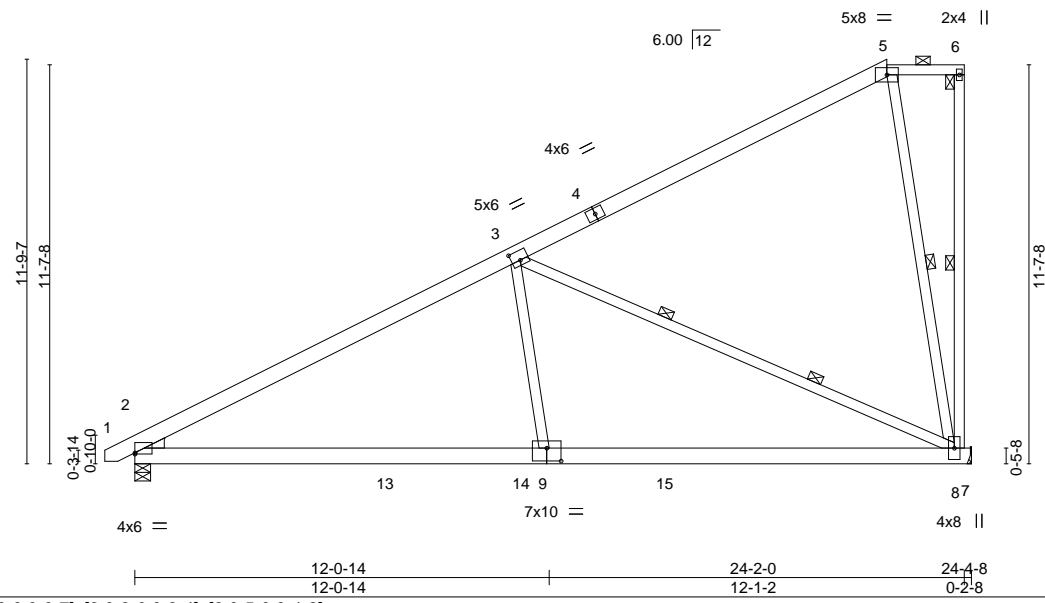
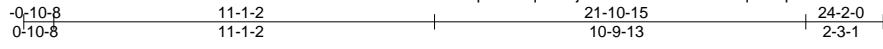


Plate Offsets (X,Y)--	[2:0-0,0,0-0-7], [3:0-3-0,0-3-4], [9:0-5-0,0-4-8]
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LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL	1.15	TC 0.60	Vert(LL)	-0.19	8-9	>999	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.75	Vert(CT)	-0.41	8-9	>714		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.91	Horz(CT)	-0.03	7	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-AS	Wind(LL)	0.13	9-12	>999		
								Weight: 182 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x6 SP No.2 *Except* 5-6: 2x4 SP No.2	TOP CHORD Structural wood sheathing directly applied, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 5-6.
BOT CHORD 2x6 SP No.2	BOT CHORD Rigid ceiling directly applied.
WEBS 2x4 SP No.2 *Except* 3-9,5-8: 2x4 SP No.3	WEBS 1 Row at midpt 6-8, 5-8 2 Rows at 1/3 pts 3-8
WEDGE Left: 2x4 SP No.3	

**REACTIONS.** (lb/size) 7=955/Mechanical, 2=1014/0-5-8  
 Max Horz 2=777(LC 12)  
 Max Uplift 7=656(LC 12), 2=401(LC 12)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-3=-1458/524, 3-5=-259/32  
 BOT CHORD 2-9=-1086/1209, 8-9=-1069/1291  
 WEBS 3-9=0/580, 3-8=-1340/1064, 5-8=-396/540

- NOTES-**
- 1) Unbalanced roof live loads have been considered for this design.
  - 2) Wind: ASCE 7-10; Vult=150mph (3-second gust) Vasd=119mph; TC DL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; end vertical left 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, with BCDL = 10.0psf.
  - 6) All bearings are assumed to be User Defined crushing capacity of 565 psi.
  - 7) Refer to girder(s) for truss to truss connections.
  - 8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 7=656, 2=401.
  - 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.



May 1, 2019

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 10/03/2015 BEFORE USE.**

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**ENGINEERING BY**  
**TRENCO**  
 A MiTek Affiliate

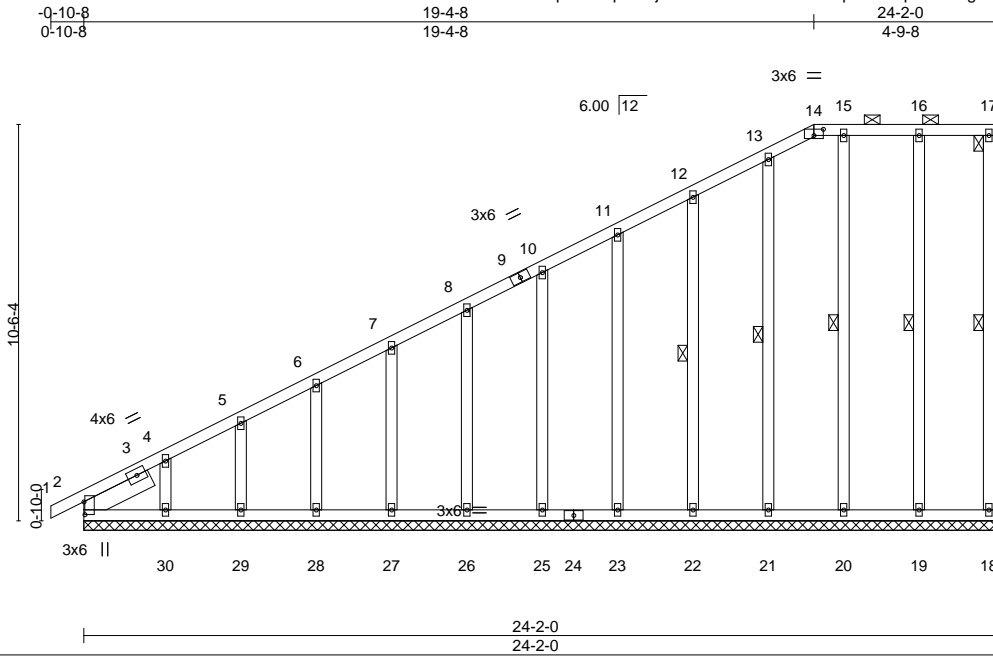
818 Soundside Road  
 Edenton, NC 27932

Job 823690	Truss A12	Truss Type Half Hip Supported	Qty 2	Ply 1	H&H-SC/Trillium/ Job Reference (optional)	136912822
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Builders FirstSource, Sumter, SC - 29153,

8.220 s Nov 16 2018 MiTek Industries, Inc. Mon Apr 29 15:54:48 2019 Page 1

ID:N9ZpzacWqWTLjEbWrVVGbzZQOD-XDhptWafDqrmRCRigJDuQx611v9cWGWYkuegSlzLpFb



Scale = 1:61.1

Plate Offsets (X,Y)--	[2:0-4-1,0-0-5], [14:0-3-0,0-2-0]				
<b>LOADING</b> (psf)	<b>SPACING-</b> 2-0-0	<b>CSI.</b>	<b>DEFL.</b> in (loc) l/defl L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL 20.0	Plate Grip DOL 1.15	TC 0.16	Vert(LL) -0.00 1 n/r 120	MT20	244/190
TCDL 10.0	Lumber DOL 1.15	BC 0.03	Vert(CT) -0.00 1 n/r 120		
BCLL 0.0 *	Rep Stress Incr YES	WB 0.13	Horz(CT) -0.00 18 n/a n/a		
BCDL 10.0	Code IRC2015/TPI2014	Matrix-S			
				Weight: 198 lb	FT = 20%

<b>LUMBER-</b>	<b>BRACING-</b>
TOP CHORD 2x4 SP No.2	TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 14-17.
BOT CHORD 2x4 SP No.2	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 2x4 SP No.2	WEBS 1 Row at midpt 17-18, 16-19, 15-20, 13-21, 12-22
OTHERS 2x4 SP No.3	
SLIDER Left 2x6 SP No.2 1-11-12	

**REACTIONS.** All bearings 24-2-0.  
 (lb) - Max Horz 2=705(LC 12)  
 Max Uplift All uplift 100 lb or less at joint(s) 18, 19, 20 except 21=-120(LC 12), 22=-127(LC 12), 23=-125(LC 12), 25=-126(LC 12), 26=-126(LC 12), 27=-125(LC 12), 28=-129(LC 12), 29=-110(LC 12), 30=-322(LC 12)  
 Max Grav All reactions 250 lb or less at joint(s) 18, 19, 20, 21, 22, 23, 25, 26, 27, 28, 29, 30 except 2=405(LC 12)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-4=-905/319, 4-5=-695/249, 5-6=-616/221, 6-7=-529/191, 7-8=-444/161, 8-10=-358/131, 10-11=-272/102  
 WEBS 4-30=-191/378

- NOTES-**
- 1) Wind: ASCE 7-10; Vult=150mph (3-second gust) Vasd=119mph; TC DL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; end vertical left exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - 2) 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.
  - 3) Provide adequate drainage to prevent water ponding.
  - 4) All plates are 2x4 MT20 unless otherwise indicated.
  - 5) Gable requires continuous bottom chord bearing.
  - 6) Gable studs spaced at 2-0-0 oc.
  - 7) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - 8) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
  - 9) All bearings are assumed to be User Defined crushing capacity of 565 psi.
  - 10) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 18, 19, 20 except (jt=lb) 21=120, 22=127, 23=125, 25=126, 26=126, 27=125, 28=129, 29=110, 30=322.
  - 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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<p><b>WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 10/03/2015 BEFORE USE.</b></p> <p>Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see <b>ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information</b> available from Truss Plate Institute, 218 N. Lee Street, Suite 312, Alexandria, VA 22314.</p>	<p>ENGINEERING BY</p> <p><b>TRENCO</b></p> <p>A MiTek Affiliate</p> <p>818 Soundside Road Edenton, NC 27932</p>
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Job 823690	Truss A13	Truss Type GABLE COMMON	Qty 2	Ply 1	H&H-SC/Trillium/ Job Reference (optional)	136912823
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Builders FirstSource, Sumter, SC - 29153,

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ID:N9ZpacWqWTLIjEbWrVvVBzZQOD-?PFB5rbl\_8zd2M0uE0k7y9fBPJVjFjizYOD\_BzLpFa



3x6 =

Scale = 1:63.3

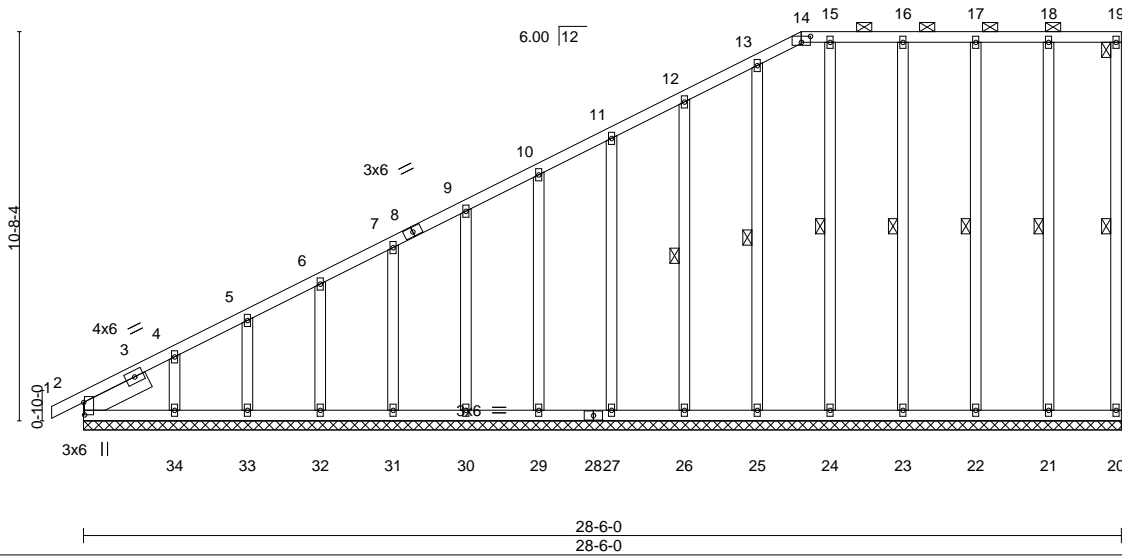


Plate Offsets (X,Y)--	[2:0-4-1,0-0-5], [14:0-3-0,0-2-0]
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LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.25	in (loc) l/defl L/d	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.15	BC 0.04	Vert(LL) -0.00 1 n/r 120		
BCLL 0.0 *	Lumber DOL 1.15	WB 0.14	Vert(CT) -0.00 1 n/r 120		
BCDL 10.0	Rep Stress Incr YES	Matrix-S	Horz(CT) -0.00 20 n/a n/a		
	Code IRC2015/TPI2014			Weight: 244 lb	FT = 20%

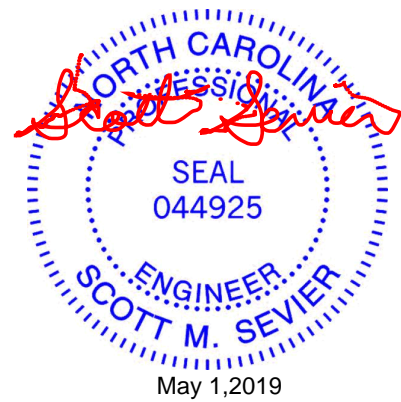
LUMBER-	BRACING-
TOP CHORD 2x4 SP No.2	TOP CHORD Structural wood sheathing directly applied or 5-10-11 oc purlins, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 14-19.
BOT CHORD 2x4 SP No.2	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 2x4 SP No.2	WEBS 1 Row at midpt 19-20, 18-21, 17-22, 16-23, 15-24, 13-25, 12-26
OTHERS 2x4 SP No.3	
SLIDER Left 2x6 SP No.2 1-11-12	

**REACTIONS.** All bearings 28-6-0.  
 (lb) - Max Horz 2=717(LC 12)  
 Max Uplift All uplift 100 lb or less at joint(s) 20, 21, 22, 23, 24, 33 except 25=-120(LC 12), 26=-127(LC 12), 27=-125(LC 12), 29=-126(LC 12), 30=-126(LC 12), 31=-124(LC 12), 32=-133(LC 12), 34=-334(LC 12)  
 Max Grav All reactions 250 lb or less at joint(s) 20, 21, 22, 23, 24, 25, 26, 27, 29, 30, 31, 32, 33, 34 except 2=388(LC 12)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-4=-899/317, 4-5=-689/246, 5-6=-618/222, 6-7=-529/191, 7-9=-444/161, 9-10=-358/131, 10-11=-272/102  
 WEBS 4-34=-201/390

**NOTES-**

- 1) Wind: ASCE 7-10; Vult=150mph (3-second gust) Vasd=119mph; TC DL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; end vertical left exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 2) 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.
- 3) Provide adequate drainage to prevent water ponding.
- 4) All plates are 2x4 MT20 unless otherwise indicated.
- 5) Gable requires continuous bottom chord bearing.
- 6) Gable studs spaced at 2-0-0 oc.
- 7) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 8) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 9) All bearings are assumed to be User Defined crushing capacity of 565 psi.
- 10) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 20, 21, 22, 23, 24, 33 except (jt=lb) 25=120, 26=127, 27=125, 29=126, 30=126, 31=124, 32=133, 34=334.
- 11) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

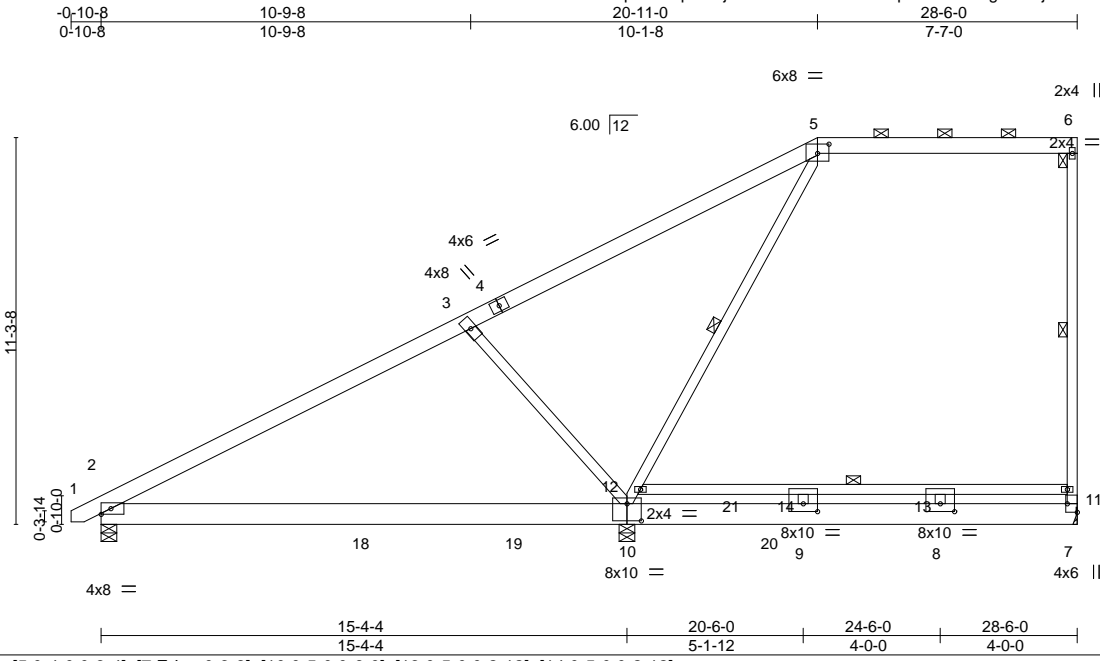


Job	Truss	Truss Type	Qty	Ply	H&H-SC/Trillium/	136912824
823690	A14	HALF HIP	2	1		

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Scale = 1:67.3

Plate Offsets (X,Y)--	[5:0-4-0,0-3-4], [7:Edge,0-3-8], [10:0-5-0,0-6-0], [13:0-5-0,0-2-12], [14:0-5-0,0-2-12]
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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 0.63	Vert(LL)	-0.20	8-9	>785	360	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.37	Vert(CT)	-0.33	8-9	>480	240		
BCLL 0.0 *	Rep Stress Incr	NO	WB 0.72	Horz(CT)	-0.01	2	n/a	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-AS	Wind(LL)	0.13	10-17	>999	240		
									Weight: 225 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x6 SP No.2	TOP CHORD Structural wood sheathing directly applied, except end verticals, and
BOT CHORD 2x8 SP DSS	2-0-0 oc purlins (6-0-0 max.): 5-6.
WEBS 2x4 SP No.3 *Except*	BOT CHORD Rigid ceiling directly applied.
6-7,11-12: 2x4 SP No.2	WEBS 1 Row at midpt 6-7, 5-10, 11-12

**REACTIONS.** (lb/size) 7=369/Mechanical, 10=1699/0-5-8, 2=442/0-5-8  
 Max Horz 2=748(LC 12)  
 Max Uplift 7=-41(LC 8), 10=-993(LC 12), 2=-6(LC 12)  
 Max Grav 7=583(LC 3), 10=1738(LC 2), 2=465(LC 19)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-3=-584/186, 3-5=-740/518  
 WEBS 3-10=-649/894, 10-12=-757/904, 5-12=-792/988

- NOTES-**
- 1) Wind: ASCE 7-10; Vult=150mph (3-second gust) Vasd=119mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; end vertical left exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - 2) 200.0lb AC unit load placed on the bottom chord, 22-0-0 from left end, supported at two points, 5-0-0 apart.
  - 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, with BCDL = 10.0psf.
  - 6) All bearings are assumed to be User Defined crushing capacity of 565 psi.
  - 7) Refer to girder(s) for truss to truss connections.
  - 8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 7, 2 except (jt=lb) 10=993.
  - 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.

**LOAD CASE(S)** Standard  
 1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15  
 Uniform Loads (plf)  
 Vert: 1-5=-60, 5-6=-60, 7-15=-20  
 Concentrated Loads (lb)  
 Vert: 8=-100 20=-100

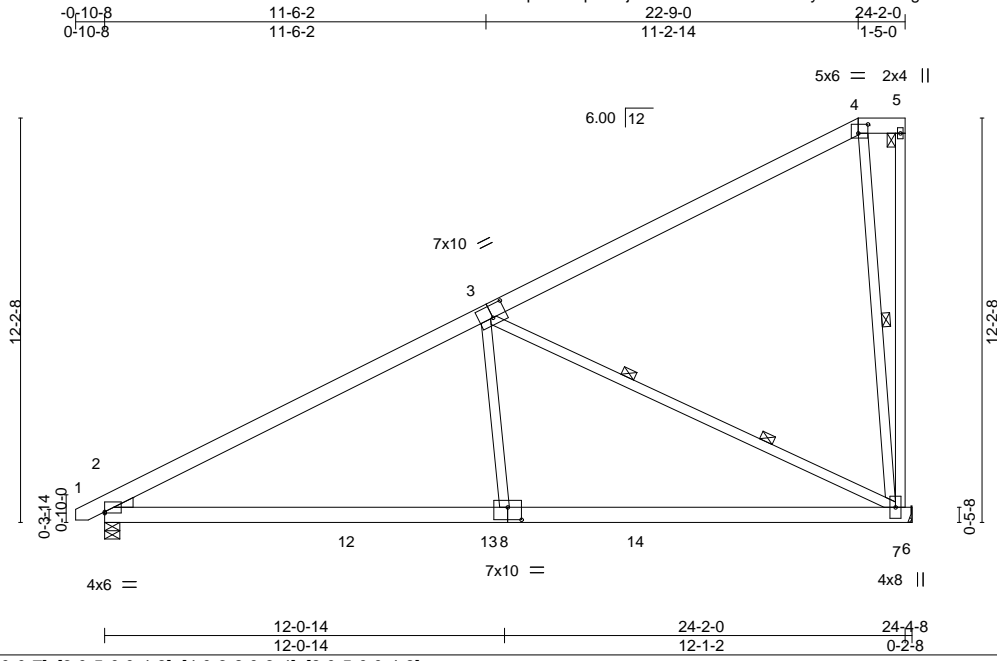


Job	Truss	Truss Type	Qty	Ply	H&H-SC/Trillium/	136912825
823690	A15	HALF HIP	3	1		

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Plate Offsets (X,Y)--	[2:0-0-0,0-0-7], [3:0-5-0,0-4-8], [4:0-3-8,0-3-4], [8:0-5-0,0-4-8]
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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 0.63	Vert(LL)	-0.18	7-8	>999	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.74	Vert(CT)	-0.38	7-8	>769		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.86	Horz(CT)	-0.03	6	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-AS	Wind(LL)	0.16	8-11	>999		
								Weight: 185 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x6 SP No.2	TOP CHORD Structural wood sheathing directly applied, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 4-5.
BOT CHORD 2x6 SP No.2	BOT CHORD Rigid ceiling directly applied.
WEBS 2x4 SP No.2 *Except* 3-8,4-7: 2x4 SP No.3	WEBS 1 Row at midpt 4-7 2 Rows at 1/3 pts 3-7
WEDGE Left: 2x4 SP No.3	

**REACTIONS.** (lb/size) 6=955/Mechanical, 2=1014/0-5-8  
 Max Horz 2=812(LC 12)  
 Max Uplift 6=695(LC 12), 2=386(LC 12)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-3=-1453/460, 3-4=-254/56, 5-7=-307/195  
 BOT CHORD 2-8=-1055/1200, 7-8=-1046/1247  
 WEBS 3-8=0/590, 3-7=-1327/1074, 4-7=-535/753

**NOTES-**

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-10; Vult=150mph (3-second gust) Vasd=119mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; end vertical left 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, with BCDL = 10.0psf.
- 6) All bearings are assumed to be User Defined crushing capacity of 565 psi.
- 7) Refer to girder(s) for truss to truss connections.
- 8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (it=lb) 6=695, 2=386.
- 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.



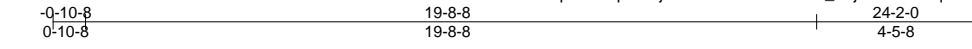
May 1, 2019

Job	Truss	Truss Type	Qty	Ply	H&H-SC/Trillium/	136912826
823690	A16	GABLE COMMON	3	1		

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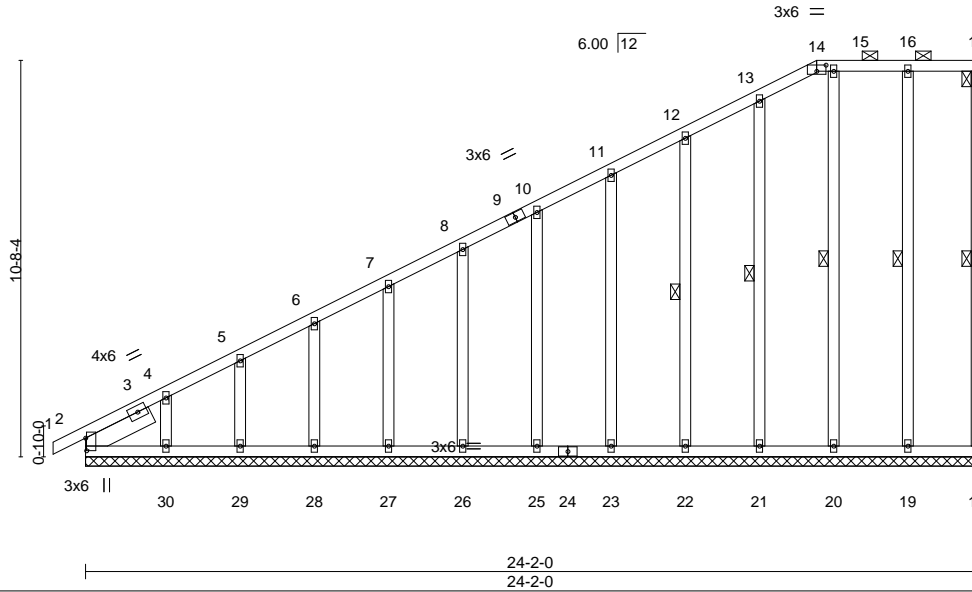


Plate Offsets (X,Y)--	[2:0-4-1,0-0-5], [14:0-3-0,0-2-0]
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LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.16	in (loc) l/defl L/d	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.15	BC 0.03	Vert(LL) -0.00 1 n/r 120		
BCLL 0.0 *	Lumber DOL 1.15	WB 0.13	Vert(CT) -0.00 1 n/r 120		
BCDL 10.0	Rep Stress Incr YES	Matrix-S	Horz(CT) -0.00 18 n/a n/a		
	Code IRC2015/TPI2014			Weight: 199 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x4 SP No.2	TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 14-17.
BOT CHORD 2x4 SP No.2	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 2x4 SP No.2	WEBS 1 Row at midpt 17-18, 16-19, 15-20, 13-21, 12-22
OTHERS 2x4 SP No.3	
SLIDER Left 2x6 SP No.2 1-11-12	

**REACTIONS.** All bearings 24-2-0.  
 (lb) - Max Horz 2=717(LC 12)  
 Max Uplift All uplift 100 lb or less at joint(s) 18, 19, 20 except 21=-125(LC 12), 22=-126(LC 12), 23=-125(LC 12), 25=-126(LC 12), 26=-126(LC 12), 27=-125(LC 12), 28=-129(LC 12), 29=-110(LC 12), 30=-325(LC 12)  
 Max Grav All reactions 250 lb or less at joint(s) 18, 19, 20, 21, 22, 23, 25, 26, 27, 28, 29, 30 except 2=414(LC 12)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-4=-921/324, 4-5=-710/254, 5-6=-631/226, 6-7=-543/196, 7-8=-458/166,  
 8-10=-372/136, 10-11=-287/107  
 WEBS 4-30=-192/382

- NOTES-**
- 1) Unbalanced roof live loads have been considered for this design.
  - 2) Wind: ASCE 7-10; Vult=150mph (3-second gust) Vasd=119mph; TCCL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; end vertical left 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 2x4 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) All bearings are assumed to be User Defined crushing capacity of 565 psi.
  - 11) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 18, 19, 20 except (jt=lb) 21=125, 22=126, 23=125, 25=126, 26=126, 27=125, 28=129, 29=110, 30=325.
  - 12) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



May 1, 2019

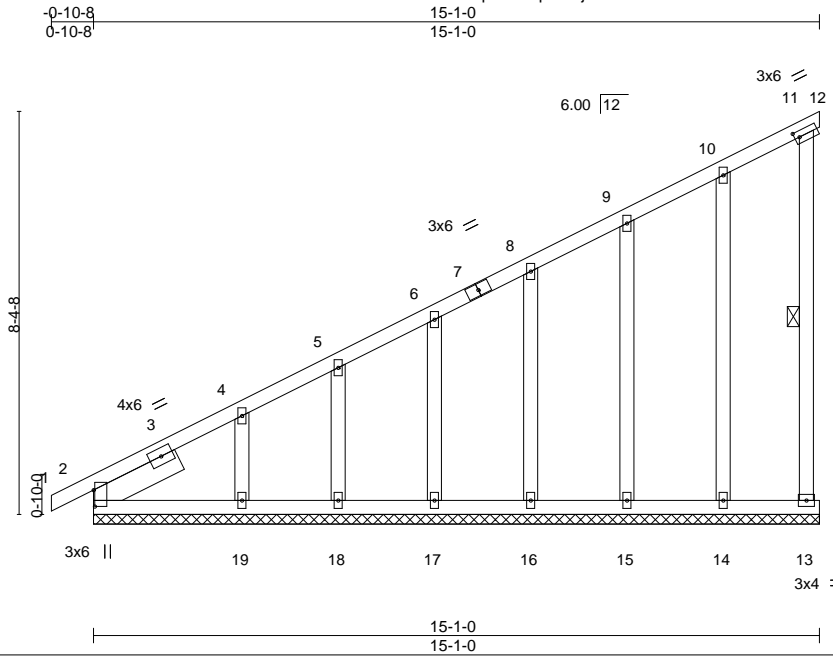
<p><b>WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 10/03/2015 BEFORE USE.</b></p> <p>Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see <b>ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information</b> available from Truss Plate Institute, 218 N. Lee Street, Suite 312, Alexandria, VA 22314.</p>	<p>ENGINEERING BY</p> <p><b>TRENCO</b></p> <p>A MiTek Affiliate</p> <p>818 Soundside Road Edenton, NC 27932</p>
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Job	Truss	Truss Type	Qty	Ply	H&H-SC/Trillium/	136912827
823690	A17	GABLE	3	1		

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Scale: 1/4"=1'

Plate Offsets (X,Y)--	[2:0-4-1,0-0-5], [11:0-1-3,0-1-8]
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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 0.73	Vert(LL)	-0.00	1	n/r	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.33	Vert(CT)	-0.00	1	n/r		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.18	Horz(CT)	-0.01	12	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-S						
								Weight: 104 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x4 SP No.2	TOP CHORD Structural wood sheathing directly applied or 5-7-15 oc purlins, except end verticals.
BOT CHORD 2x4 SP No.2	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 2x4 SP No.2	WEBS 1 Row at midpt 11-13
OTHERS 2x4 SP No.3	
SLIDER Left 2x6 SP No.2 1-11-12	

**REACTIONS.** All bearings 15-1-0.  
 (lb) - Max Horz 2=565(LC 9)  
 Max Uplift All uplift 100 lb or less at joint(s) 2, 18 except 12=-166(LC 12), 13=-328(LC 11), 14=-145(LC 12), 15=-121(LC 12), 16=-126(LC 12), 17=-134(LC 12), 19=-282(LC 12)  
 Max Grav All reactions 250 lb or less at joint(s) 12, 14, 15, 16, 17, 18, 19 except 13=252(LC 8), 2=282(LC 20)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-4=-858/451, 4-5=-638/358, 5-6=-578/343, 6-8=-482/308, 8-9=-393/277, 9-10=-309/252  
 WEBS 4-19=-249/425

- NOTES-**
- Wind: ASCE 7-10; Vult=150mph (3-second gust) Vasd=119mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; 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
  - 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.
  - All plates are 2x4 MT20 unless otherwise indicated.
  - Gable requires continuous bottom chord bearing.
  - Gable studs spaced at 2-0-0 oc.
  - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - \* 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.
  - All bearings are assumed to be User Defined crushing capacity of 565 psi.
  - Bearing at joint(s) 12 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 18 except (jt=lb) 12=166, 13=328, 14=145, 15=121, 16=126, 17=134, 19=282.



May 1, 2019

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 10/03/2015 BEFORE USE.**

Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 218 N. Lee Street, Suite 312, Alexandria, VA 22314.

**ENGINEERING BY**  
**TRENCO**  
 A MiTek Affiliate

818 Soundside Road  
 Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	H&H-SC/Trillium/	136912828
823690	A18	Monopitch	3	1		

Builders FirstSource, Sumter, SC - 29153,

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ID:N9ZpzacWqWTLjEbWrVVGbzZQOD-LN348ZfQpgcw97vs1ZKlfcMxtK5fwpfR6q5\_fPzLpFV



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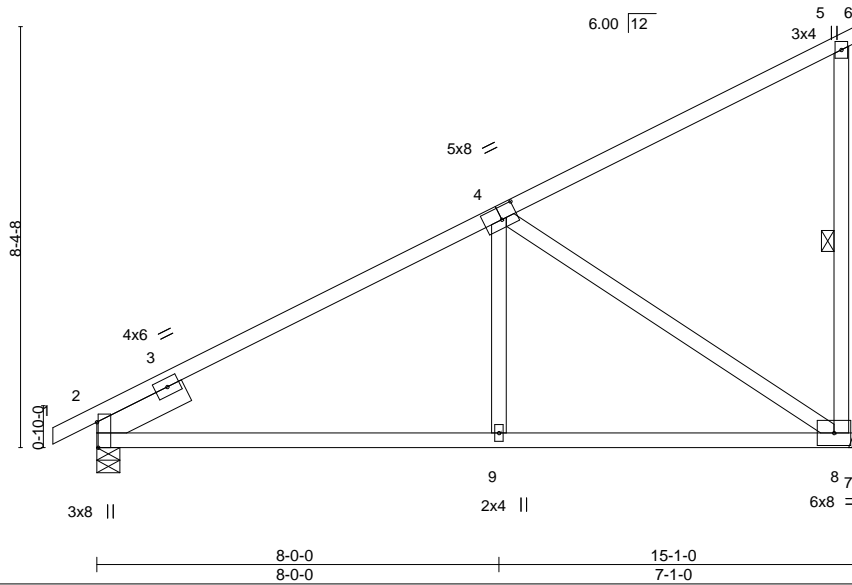


Plate Offsets (X,Y)--	[2:0-6-1,Edge], [4:0-3-12,0-3-0]
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LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.65	in (loc) l/defl L/d	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.15	BC 0.50	Vert(LL) 0.15 9-12 >999 240		
BCLL 0.0 *	Lumber DOL 1.15	WB 0.86	Vert(CT) -0.13 9-12 >999 240		
BCDL 10.0	Rep Stress Incr YES	Matrix-AS	Horz(CT) -0.05 2 n/a n/a		
	Code IRC2015/TPI2014			Weight: 83 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x4 SP No.2	TOP CHORD Structural wood sheathing directly applied, except end verticals.
BOT CHORD 2x4 SP No.2	BOT CHORD Rigid ceiling directly applied.
WEBS 2x4 SP No.3 *Except*	WEBS 1 Row at midpt 5-8
SLIDER 5-8: 2x4 SP No.2	
Left 2x6 SP No.2 1-11-12	

**REACTIONS.** (lb/size) 2=646/0-5-8, 8=602/Mechanical  
 Max Horz 2=548(LC 12)  
 Max Uplift 2=-227(LC 12), 8=-496(LC 12)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-4=-646/198, 5-8=-167/253  
 BOT CHORD 2-9=-603/577, 8-9=-603/578  
 WEBS 4-9=0/322, 4-8=-675/711

- NOTES-**
- 1) Wind: ASCE 7-10; Vult=150mph (3-second gust) Vasd=119mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; end vertical 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) All bearings are assumed to be User Defined crushing capacity of 565 psi.
  - 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) except (it=lb) 2=227, 8=496.
  - 7) 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.



May 1, 2019

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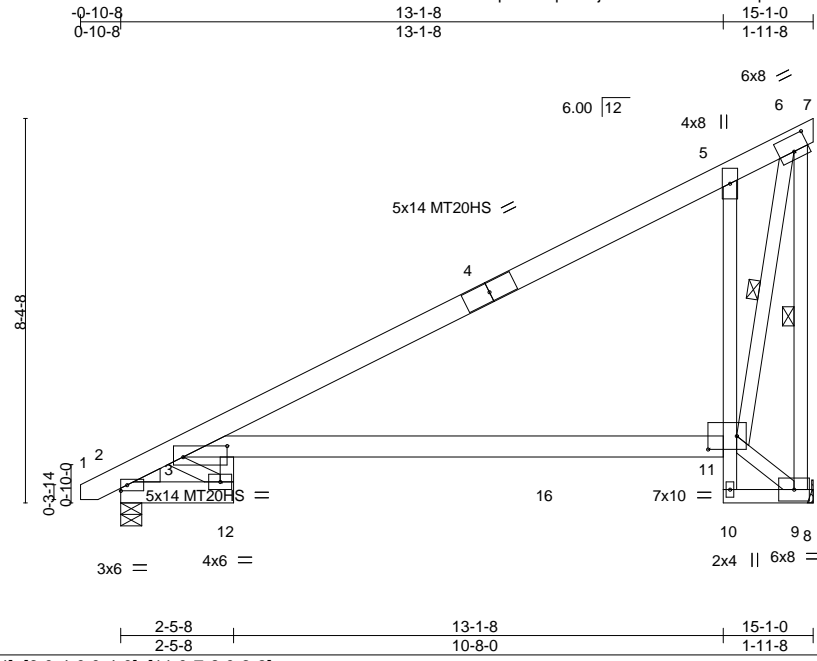


Job	Truss	Truss Type	Qty	Ply	H&H-SC/Trillium/	136912829
823690	A19	MONOPITCH	24	1		

Builders FirstSource, Sumter, SC - 29153,

8.220 s Nov 16 2018 MiTek Industries, Inc. Mon Apr 29 15:54:55 2019 Page 1

ID:N9ZpzacWqWTLjEbWrVVGbZQOD-qZcTLvf2a\_knmHT2bHrXCQv4qjMTfL\_aLURyCrzLpFU



Scale = 1:50.2

Plate Offsets (X,Y)--	[3:0-11-8,0-2-14], [6:0-4-0,0-4-0], [11:0-7-8,0-3-8]
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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 0.83	Vert(LL)	0.60	3-11	>294	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.79	Vert(CT)	-0.59	3-11	>304	MT20HS	187/143
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.53	Horz(CT)	-0.30	9	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-AS						
								Weight: 115 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x6 SP No.2	TOP CHORD Structural wood sheathing directly applied, except end verticals.
BOT CHORD 2x6 SP No.2 *Except* 5-10,8-10: 2x4 SP No.2	BOT CHORD Rigid ceiling directly applied.
WEBS 2x4 SP No.3 *Except* 6-9: 2x4 SP No.2	WEBS 1 Row at midpt 6-9, 6-11
WEDGE Left: 2x4 SP No.3	

**REACTIONS.** (lb/size) 9=604/Mechanical, 2=645/0-5-8  
 Max Horz 2=543(LC 12)  
 Max Uplift 9=489(LC 12), 2=218(LC 12)  
 Max Grav 9=621(LC 2), 2=645(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 3-14=-415/19, 3-5=-467/57, 5-6=-557/570, 6-9=-750/619  
 BOT CHORD 3-11=-359/353, 5-11=-944/1257, 9-10=-291/41  
 WEBS 9-11=-53/360, 6-11=-1316/1290

**NOTES-**

- 1) Wind: ASCE 7-10; Vult=150mph (3-second gust) Vasd=119mph; TC DL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; end vertical left exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 2) All plates are MT20 plates unless otherwise indicated.
- 3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 4) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- 5) All bearings are assumed to be User Defined crushing capacity of 565 psi.
- 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) except (jt=lb) 9=489, 2=218.
- 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.

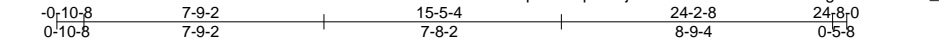


May 1, 2019

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Job	Truss	Truss Type	Qty	Ply	H&H-SC/Trillium/	136912830
823690	A20	Roof Special	4	1		

Builders FirstSource, Sumter, SC - 29153, 8.220 s Nov 16 2018 MiTek Industries, Inc. Mon Apr 29 15:54:56 2019 Page 1  
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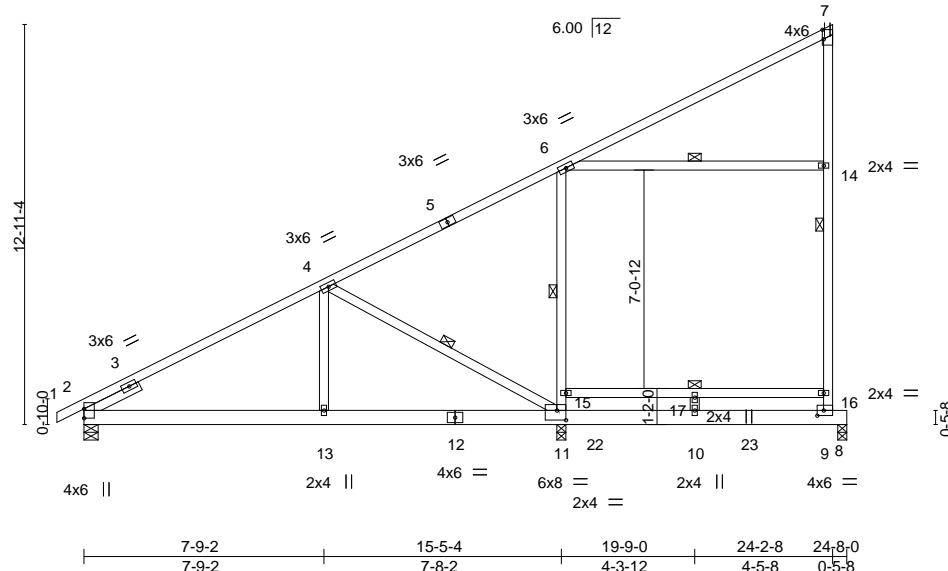


Plate Offsets (X,Y)--	[7:0-3-11,Edge], [9:0-2-8,0-2-0], [11:0-3-8,0-3-12]
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LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.79	in (loc) l/defl L/d	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.15	BC 0.78	Vert(LL) -0.14 9-10 >758 360		
BCLL 0.0 *	Lumber DOL 1.15	WB 0.54	Vert(CT) -0.24 9-10 >450 240		
BCDL 10.0	Rep Stress Incr NO	Matrix-AS	Horz(CT) -0.02 2 n/a n/a		
	Code IRC2015/TPI2014		Wind(LL) 0.08 13-20 >999 240	Weight: 176 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x4 SP No.2	TOP CHORD Structural wood sheathing directly applied, except end verticals.
BOT CHORD 2x6 SP No.2	BOT CHORD Rigid ceiling directly applied.
WEBS 2x4 SP No.3 *Except*	WEBS 1 Row at midpt 7-9, 4-11, 6-11, 6-14, 15-16
SLIDER Left 2x4 SP No.3 1-11-12	

**REACTIONS.** (lb/size) 2=635/0-5-8, 11=1198/0-3-8, 8=353/0-3-8  
 Max Horz 2=861(LC 12)  
 Max Uplift 2=-61(LC 12), 11=-737(LC 12), 8=-131(LC 12)  
 Max Grav 2=635(LC 1), 11=1208(LC 2), 8=458(LC 3)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-4=-666/78, 4-6=-576/212, 9-16=-253/286, 14-16=-211/293, 7-14=-211/293  
 BOT CHORD 2-13=-602/565, 11-13=-602/565  
 WEBS 4-13=-25/254, 4-11=-635/704, 11-15=-565/768, 6-15=-549/776

- NOTES-**
- 1) Wind: ASCE 7-10; Vult=150mph (3-second gust) Vasd=119mph; TCCL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; end vertical left exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - 2) 200.0lb AC unit load placed on the bottom chord, 19-0-0 from left end, supported at two points, 5-0-0 apart.
  - 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) All bearings are assumed to be User Defined crushing capacity of 565 psi.
  - 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2 except (jt=lb) 11=737, 8=131.
  - 7) 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.

**LOAD CASE(S)** Standard  
 1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15  
 Uniform Loads (plf)  
 Vert: 1-7=-60, 8-18=-20  
 Concentrated Loads (lb)  
 Vert: 22=-100 23=-100

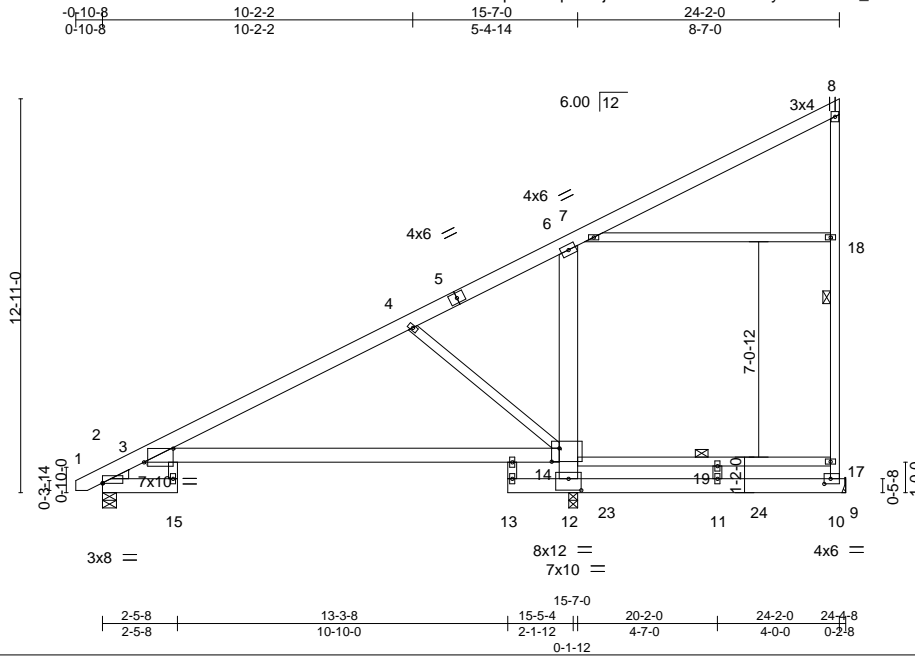


Job 823690	Truss A21	Truss Type MONOPITCH	Qty 10	Ply 1	H&H-SC/Trillium/ Job Reference (optional)	136912831
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Builders FirstSource, Sumter, SC - 29153,

8.220 s Nov 16 2018 MiTek Industries, Inc. Mon Apr 29 15:54:57 2019 Page 1

ID:N9ZpacWqWTLIjEbWrVVGbZQOD-mykDmbhJ6b\_V0bdRiht?Hr\_OZX?K7G5tpoKeGkzLpFS



Scale = 1:75.6

Plate Offsets (X,Y)--	[2:0-0,0,0-0-3], [3:0-11-8,0-5-6], [10:0-2-8,0-2-0], [12:0-5-0,0-4-8], [14:0-3-0,0-5-4]
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LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL	1.15	TC 0.88	Vert(LL)	-0.27	3-14	>671	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.95	Vert(CT)	-0.63	3-14	>290		
BCLL 0.0 *	Rep Stress Incr	NO	WB 0.50	Horz(CT)	-0.23	12	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-AS	Wind(LL)	0.48	3-14	>382	Weight: 207 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x6 SP No.2	TOP CHORD Structural wood sheathing directly applied, except end verticals.
BOT CHORD 2x6 SP No.2 *Except* 6-12: 2x8 SP DSS	BOT CHORD Rigid ceiling directly applied. Except: 6-0-0 oc bracing: 12-14
WEBS 2x4 SP No.3 *Except* 8-10,14-17: 2x4 SP No.2	WEBS 1 Row at midpt 8-10, 14-17
WEDGE Left: 2x4 SP No.3	

**REACTIONS.** (lb/size) 2=601/0-5-8, 12=1304/0-3-8, 9=316/Mechanical  
 Max Horz 2=854(LC 12)  
 Max Uplift 2=-20(LC 12), 12=-772(LC 12), 9=-97(LC 12)  
 Max Grav 2=601(LC 1), 12=1304(LC 1), 9=426(LC 3)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 3-21=-806/168, 3-4=-522/0, 4-6=-569/219, 10-17=-226/279, 17-18=-202/288,  
 8-18=-203/288  
 BOT CHORD 3-14=-471/408, 12-14=-1003/1074, 6-14=-442/650, 11-12=0/277, 10-11=0/277  
 WEBS 4-14=-598/716, 14-19=-280/0, 17-19=-277/0

- NOTES-** (10)
- 1) Wind: ASCE 7-10; Vult=150mph (3-second gust) Vasd=119mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; end vertical left exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - 2) 200.0lb AC unit load placed on the bottom chord, 19-0-0 from left end, supported at two points, 5-0-0 apart.
  - 3) All plates are 2x4 MT20 unless otherwise indicated.
  - 4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - 5) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
  - 6) All bearings are assumed to be User Defined crushing capacity of 565 psi.
  - 7) Refer to girder(s) for truss to truss connections.
  - 8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 9 except (jt=lb) 12=772.
  - 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) This manufactured truss is designed as an individual building component. The suitability and use of this component for any particular building is the responsibility of the building designer per ANSI TPI 1 as referenced by the building code.

**LOAD CASE(S)** Standard



Continued on page 2

<p><b>WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 10/03/2015 BEFORE USE.</b></p> <p>Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see <b>ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information</b> available from Truss Plate Institute, 218 N. Lee Street, Suite 312, Alexandria, VA 22314.</p>	<p><b>ENGINEERING BY</b>  <b>TRENCO</b>  <small>A MiTek Affiliate</small></p> <p>818 Soundside Road        Edenton, NC 27932</p>
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Job	Truss	Truss Type	Qty	Ply	H&H-SC/Trillium/	I36912831
823690	A21	MONOPITCH	10	1		
Job Reference (optional)						

Builders FirstSource, Sumter, SC - 29153,

8.220 s Nov 16 2018 MiTek Industries, Inc. Mon Apr 29 15:54:57 2019 Page 2  
 ID:N9ZpacWqWTLjEbWrVVGbzZQOD-mykDmbhJ6b\_V0bdRiht?Hr\_OZX?K7G5tpoKeGkzLpFS

**LOAD CASE(S)** Standard

- 1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
- Uniform Loads (plf)
  - Vert: 1-8=-60, 15-20=-20, 3-14=-20, 12-13=-20, 9-12=-20
- Concentrated Loads (lb)
  - Vert: 23=-100 24=-100

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 10/03/2015 BEFORE USE.**

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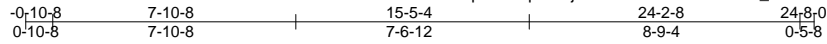
818 Soundside Road  
 Edenton, NC 27932

Job 823690	Truss A21A	Truss Type ROOF SPECIAL	Qty 4	Ply 1	H&H-SC/Trillium/ Job Reference (optional)	136912832
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ID:N9ZpzacWqWTLjEbWrVVGbZQOD-E8lb\_wixtv6MdlCdGPOEq2XY6xNMslI01S3CoAzLpFR



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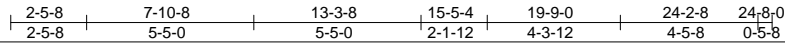
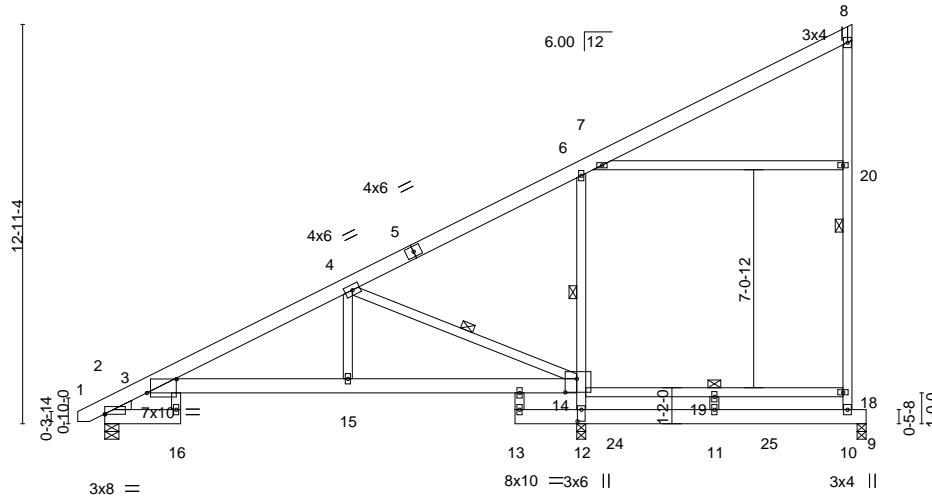


Plate Offsets (X,Y)-- [2:0-0-0,0-0-3], [3:0-11-8,0-5-6], [12:0-4-8,0-1-8], [14:0-4-8,0-5-4]

<b>LOADING</b> (psf)	<b>SPACING-</b>	2-0-0	<b>CSI.</b>	<b>DEFL.</b>	in (loc)	l/defl	L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL 20.0	Plate Grip DOL	1.15	TC 0.95	Vert(LL)	0.27	16	>698	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.78	Vert(CT)	-0.21	10-11	>510		
BCLL 0.0 *	Rep Stress Incr	NO	WB 0.37	Horz(CT)	-0.17	12	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-AS						
								Weight: 203 lb	FT = 20%

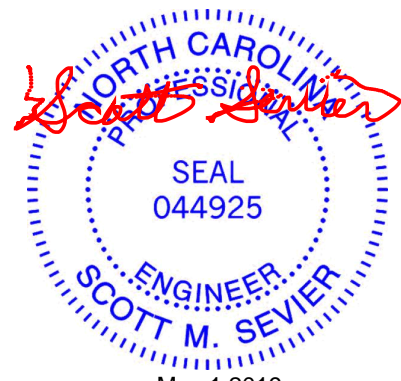
<b>LUMBER-</b>	<b>BRACING-</b>
TOP CHORD 2x6 SP No.2	TOP CHORD Structural wood sheathing directly applied, except end verticals.
BOT CHORD 2x6 SP No.2	BOT CHORD Rigid ceiling directly applied.
WEBS 2x4 SP No.3 *Except*	WEBS 1 Row at midpt 8-10, 6-12, 14-18, 4-14
8-10,6-12,14-18: 2x4 SP No.2	
<b>WEDGE</b>	
Left: 2x4 SP No.3	

**REACTIONS.** (lb/size) 2=645/0-5-8, 9=368/0-3-8, 12=1218/0-3-8  
 Max Horz 2=856(LC 12)  
 Max Uplift 2=-32(LC 12), 9=-103(LC 12), 12=-751(LC 12)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 3-22=-801/149, 3-4=-929/0, 4-6=-584/214, 10-18=-228/273, 18-20=-204/286,  
 8-20=-204/286  
 BOT CHORD 3-15=-719/816, 14-15=-721/817  
 WEBS 12-14=-979/1046, 6-14=-557/788, 4-14=-879/807, 4-15=-10/394

- NOTES-**
- 1) Wind: ASCE 7-10; Vult=150mph (3-second gust) Vasd=119mph; TC DL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; end vertical left exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - 2) 200.0lb AC unit load placed on the bottom chord, 19-0-0 from left end, supported at two points, 5-0-0 apart.
  - 3) All plates are 2x4 MT20 unless otherwise indicated.
  - 4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - 5) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
  - 6) All bearings are assumed to be User Defined crushing capacity of 565 psi.
  - 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2 except (it=lb) 9=103, 12=751.
  - 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.

**LOAD CASE(S)** Standard  
 1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15  
 Uniform Loads (plf)  
 Vert: 1-8=-60, 16-21=-20, 3-14=-20, 9-13=-20  
 Concentrated Loads (lb)  
 Vert: 24=-100 25=-100

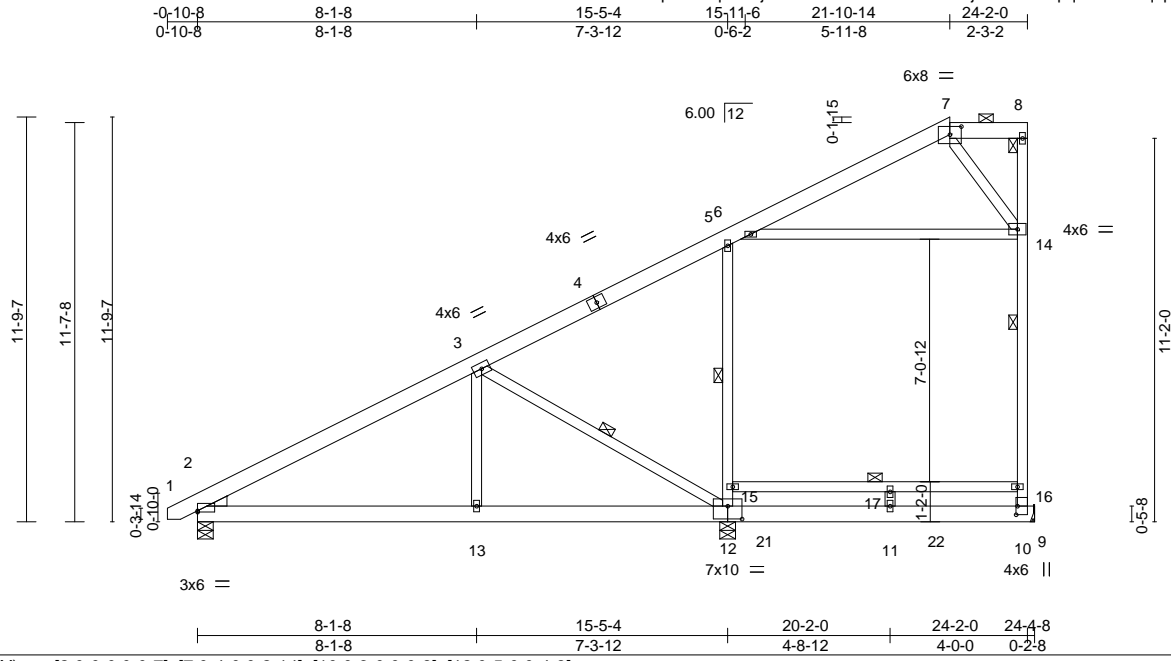


Job 823690	Truss A22	Truss Type MONOPITCH	Qty 1	Ply 1	H&H-SC/Trillium/ Job Reference (optional)	136912833
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Builders FirstSource, Sumter, SC - 29153,

8.220 s Nov 16 2018 MiTek Industries, Inc. Mon Apr 29 15:54:59 2019 Page 1

ID:N9ZpzacWqWTLljEbWrVvVGBzZQOD-iKszBGjZeDECfvnpq6vTMG4tqLpDbDHAG5pLczLpFQ



Scale = 1:67.1

Plate Offsets (X,Y)--	[2:0-0-0,0-0-7], [7:0-4-0,0-2-14], [10:0-3-0,0-0-8], [12:0-5-0,0-4-8]
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LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL 20.0	Plate Grip DOL 2-0-0	TC 0.32	in (loc) l/defl L/d	MT20	244/190
TCDL 10.0	Lumber DOL 1.15	BC 0.42	Vert(LL) -0.04 11 >999 360		
BCLL 0.0 *	Rep Stress Incr NO	WB 0.26	Vert(CT) -0.13 11 >852 240		
BCDL 10.0	Code IRC2015/TPI2014	Matrix-AS	Horz(CT) -0.01 2 n/a n/a		
			Wind(LL) 0.06 13-20 >999 240	Weight: 198 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x6 SP No.2	TOP CHORD Structural wood sheathing directly applied, except end verticals, and 2-0-0 oc purlins (10-0-0 max.): 7-8.
BOT CHORD 2x6 SP No.2	BOT CHORD Rigid ceiling directly applied.
WEBS 2x4 SP No.3 *Except* 8-10,5-12,15-16: 2x4 SP No.2	WEBS 1 Row at midpt 8-10, 5-12, 15-16, 3-12
WEDGE Left: 2x4 SP No.3	

**REACTIONS.** (lb/size) 9=375/Mechanical, 12=1159/0-5-8, 2=635/0-5-8  
 Max Horz 2=773(LC 12)  
 Max Uplift 9=68(LC 12), 12=677(LC 12), 2=112(LC 12)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-3=-745/0, 3-5=-441/158, 10-16=-245/259, 14-16=-229/270  
 BOT CHORD 2-13=-601/581, 12-13=-601/581  
 WEBS 12-15=-504/675, 5-15=-491/684, 7-14=-266/339, 3-12=-660/709, 3-13=-0/281

- NOTES-** (13)
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-10; Vult=150mph (3-second gust) Vasd=119mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; end vertical left exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - 200.0lb AC unit load placed on the bottom chord, 19-0-0 from left end, supported at two points, 5-0-0 apart.
  - Provide adequate drainage to prevent water ponding.
  - All plates are 2x4 MT20 unless otherwise indicated.
  - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - \* 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.
  - All bearings are assumed to be User Defined crushing capacity of 565 psi.
  - Refer to girder(s) for truss to truss connections.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 9 except (jt=lb) 12=677, 2=112.
  - 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.
  - Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
  - This manufactured truss is designed as an individual building component. The suitability and use of this component for any particular building is the responsibility of the building designer per ANSI TPI 1 as referenced by the building code.

**LOAD CASE(S)** Standard



May 1, 2019

Continued on page 2

<p><b>WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 10/03/2015 BEFORE USE.</b></p> <p>Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see <b>ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information</b> available from Truss Plate Institute, 218 N. Lee Street, Suite 312, Alexandria, VA 22314.</p>	<p>ENGINEERING BY  <b>TRENCO</b>  <small>A MiTek Affiliate</small></p> <p>818 Soundside Road        Edenton, NC 27932</p>
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Job	Truss	Truss Type	Qty	Ply	H&H-SC/Trillium/	I36912833
823690	A22	MONOPITCH	1	1		
Job Reference (optional)						

Builders FirstSource, Sumter, SC - 29153,

8.220 s Nov 16 2018 MiTek Industries, Inc. Mon Apr 29 15:54:59 2019 Page 2  
 ID:N9ZpacWqWTLljEbWrVVGbzZQOD-iKszBGjZeDECfvnpq6vTMG4tqLpDbDHAG5pLczLpFQ

**LOAD CASE(S)** Standard

- 1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
- Uniform Loads (plf)
  - Vert: 1-7=-60, 9-18=-20, 7-8=-60
- Concentrated Loads (lb)
  - Vert: 21=-100 22=-100

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 10/03/2015 BEFORE USE.**

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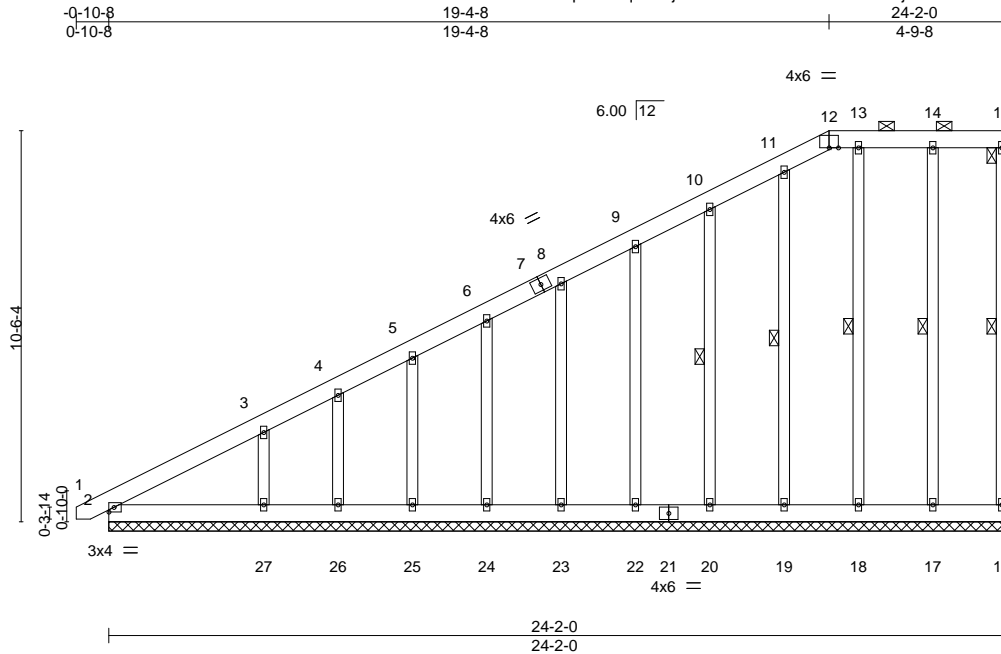
818 Soundside Road  
 Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	H&H-SC/Trillium/	136912834
823690	A23	GABLE COMMON	1	1		

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ID:N9ZpacWqWTLjEbWrVvGBzZQOD-AWQMocjBPWm3t2M0nqRivTc58kF5KjgJViyJt3zLpFP



Scale = 1:62.0

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 0.09	Vert(LL)	-0.00	1	n/r	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.05	Vert(CT)	0.00	1	n/r		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.12	Horz(CT)	-0.00	16	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-S						
								Weight: 229 lb	FT = 20%

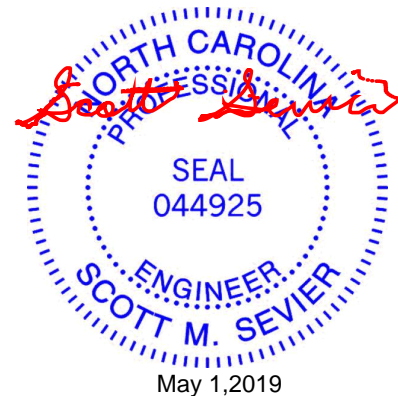
**LUMBER-**  
 TOP CHORD 2x6 SP No.2  
 BOT CHORD 2x6 SP No.2  
 WEBS 2x4 SP No.2  
 OTHERS 2x4 SP No.3

**BRACING-**  
 TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 12-15.  
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.  
 WEBS 1 Row at midpt 15-16, 14-17, 13-18, 11-19, 10-20

**REACTIONS.** All bearings 24-2-0.  
 (lb) - Max Horz 2=698(LC 12)  
 Max Uplift All uplift 100 lb or less at joint(s) 16, 17, 18, 26 except 19=115(LC 12), 20=129(LC 12), 22=126(LC 12), 23=125(LC 12), 24=125(LC 12), 25=132(LC 12), 27=318(LC 12)  
 Max Grav All reactions 250 lb or less at joint(s) 16, 17, 18, 19, 20, 22, 23, 24, 25, 26 except 2=256(LC 21), 27=329(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-3=-801/300, 3-4=-595/207, 4-5=-533/194, 5-6=-445/162, 6-8=-359/132, 8-9=-273/102  
 WEBS 3-27=-232/378

- NOTES-**
- 1) Wind: ASCE 7-10; Vult=150mph (3-second gust) Vasd=119mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; end vertical left exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - 2) 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.
  - 3) Provide adequate drainage to prevent water ponding.
  - 4) All plates are 2x4 MT20 unless otherwise indicated.
  - 5) Gable requires continuous bottom chord bearing.
  - 6) Gable studs spaced at 2-0-0 oc.
  - 7) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - 8) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
  - 9) All bearings are assumed to be User Defined crushing capacity of 565 psi.
  - 10) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 16, 17, 18, 26 except (jt=lb) 19=115, 20=129, 22=126, 23=125, 24=125, 25=132, 27=318.
  - 11) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 10/03/2015 BEFORE USE.**  
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 A MiTek Affiliate  
 818 Soundside Road  
 Edenton, NC 27932

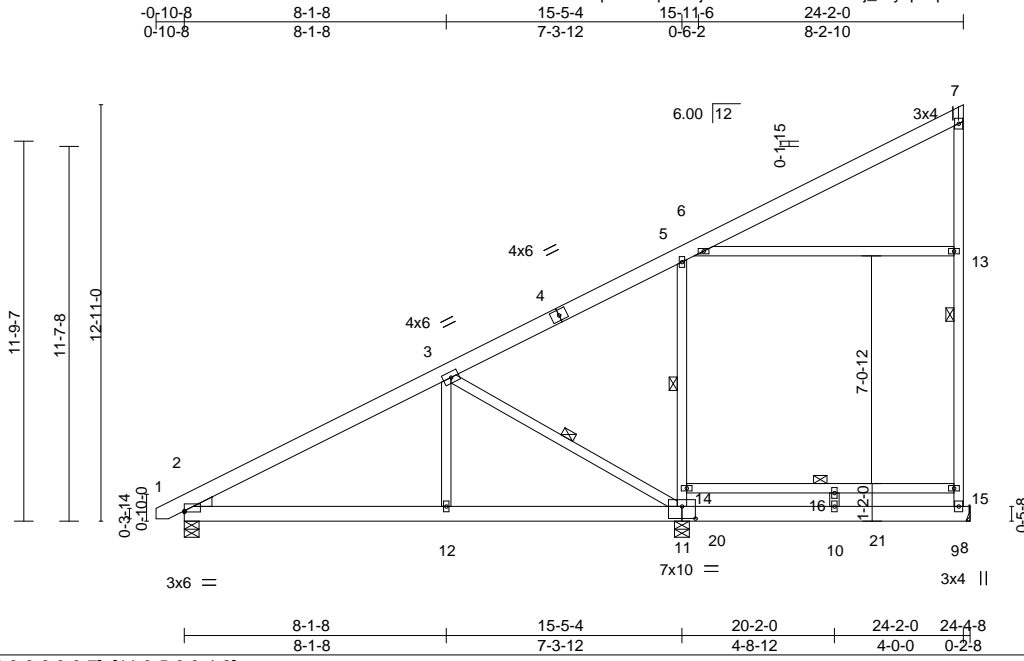


Job	Truss	Truss Type	Qty	Ply	H&H-SC/Trillium/	136912835
823690	A24	MONOPITCH	1	1		

Builders FirstSource, Sumter, SC - 29153,

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ID:N9ZpzacWqWTLjEbWrvVVGbZzQOD-aj\_kcykpAqUwUCxXyXrh9Ca8W137wTjPlsPVzLpFO



Scale = 1:71.5

Plate Offsets (X,Y)--	[2:0-0,0,0-0-7], [11:0-5-0,0-4-8]
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<b>LOADING</b> (psf)	<b>SPACING-</b>	2-0-0	<b>CSI.</b>	<b>DEFL.</b>	in (loc)	l/defl	L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL 20.0	Plate Grip DOL	1.15	TC 0.36	Vert(LL)	-0.04	10	>999	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.38	Vert(CT)	-0.13	10	>849		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.25	Horz(CT)	-0.01	2	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-AS	Wind(LL)	0.06	12-19	>999		
								Weight: 196 lb	FT = 20%

**LUMBER-**  
TOP CHORD 2x6 SP No.2  
BOT CHORD 2x6 SP No.2  
WEBS 2x4 SP No.3 \*Except\*  
7-9,5-11,14-15: 2x4 SP No.2

**WEDGE**  
Left: 2x4 SP No.3

**BRACING-**  
TOP CHORD Structural wood sheathing directly applied, except end verticals.  
BOT CHORD Rigid ceiling directly applied.  
WEBS 1 Row at midpt 7-9, 5-11, 14-15, 3-11

**REACTIONS.** (lb/size) 8=358/Mechanical, 11=1186/0-5-8, 2=625/0-5-8  
Max Horz 2=854(LC 12)  
Max Uplift 8=-135(LC 12), 11=-728(LC 12), 2=-58(LC 12)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 2-3=-720/0, 3-5=-560/205, 9-15=-228/286, 13-15=-212/295, 7-13=-212/296  
BOT CHORD 2-12=-574/557, 11-12=-574/557  
WEBS 11-14=-544/739, 5-14=-531/747, 3-11=-636/682, 3-12=0/282

- NOTES-** (10)
- 1) Wind: ASCE 7-10; Vult=150mph (3-second gust) Vasd=119mph; TC DL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; end vertical left exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - 2) 200.0lb AC unit load placed on the bottom chord, 19-0-0 from left end, supported at two points, 5-0-0 apart.
  - 3) All plates are 2x4 MT20 unless otherwise indicated.
  - 4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - 5) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
  - 6) All bearings are assumed to be User Defined crushing capacity of 565 psi.
  - 7) Refer to girder(s) for truss to truss connections.
  - 8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2 except (it=lb) 8=135, 11=728.
  - 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) This manufactured truss is designed as an individual building component. The suitability and use of this component for any particular building is the responsibility of the building designer per ANSI TPI 1 as referenced by the building code.



May 1, 2019

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**TRENCO**  
A MiTek Affiliate

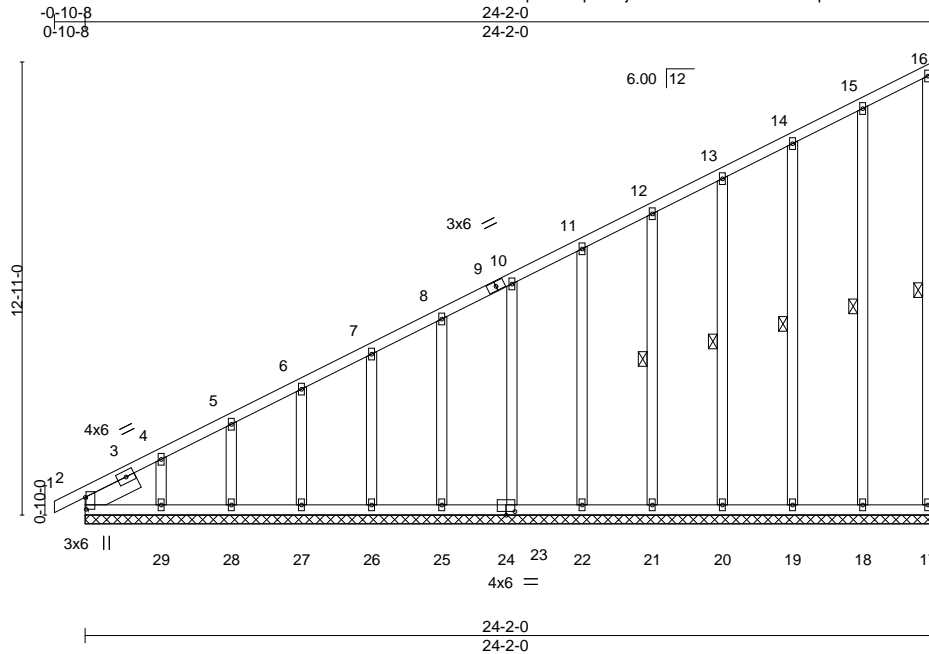
818 Soundside Road  
Edenton, NC 27932

Job 823690	Truss A25	Truss Type GABLE	Qty 1	Ply 1	H&H-SC/Trillium/ Job Reference (optional)	136912836
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Builders FirstSource, Sumter, SC - 29153,

8.220 s Nov 16 2018 MiTek Industries, Inc. Mon Apr 29 15:55:02 2019 Page 1

ID:N9ZpzacWqWTLIjEbWrVVGbzZQOD-6vY6pIIrW8cn6MWOVFTA\_uiOQYxgobzcy31PyxzLpFN



Scale = 1:65.7

Plate Offsets (X,Y)-- [2:0-4-1,0-0-5], [23:0-1-12,0-0-0], [24:0-3-0,0-1-4], [24:0-0-0,0-1-12]

LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.29	in (loc) l/def L/d	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.15	BC 0.05	Vert(LL) -0.00 1 n/r 120		
BCLL 0.0 *	Lumber DOL 1.15	WB 0.13	Vert(CT) -0.00 1 n/r 120		
BCDL 10.0	Rep Stress Incr YES	Matrix-S	Horz(CT) -0.00 17 n/a n/a		
	Code IRC2015/TPI2014			Weight: 204 lb	FT = 20%

**LUMBER-**

TOP CHORD 2x4 SP No.2  
 BOT CHORD 2x4 SP No.2  
 WEBS 2x4 SP No.2  
 OTHERS 2x4 SP No.3  
 SLIDER Left 2x6 SP No.2 1-7-14

**BRACING-**

TOP CHORD Structural wood sheathing directly applied or 5-2-1 oc purlins, except end verticals.  
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.  
 WEBS 1 Row at midpt 16-17, 15-18, 14-19, 13-20, 12-21

**REACTIONS.**

All bearings 24-2-0.  
 (lb) - Max Horz 2=865(LC 12)  
 Max Uplift All uplift 100 lb or less at joint(s) 17, 28 except 18=-127(LC 12), 19=-127(LC 12), 20=-125(LC 12), 21=-126(LC 12), 22=-126(LC 12), 23=-125(LC 12), 25=-126(LC 12), 26=-124(LC 12), 27=-134(LC 12), 29=-393(LC 12)  
 Max Grav All reactions 250 lb or less at joint(s) 17, 18, 19, 20, 21, 22, 23, 25, 26, 27, 28, 29 except 2=538(LC 12)

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

TOP CHORD 2-4=-1122/396, 4-5=-885/314, 5-6=-816/291, 6-7=-726/260, 7-8=-641/230, 8-10=-556/200, 10-11=-470/170, 11-12=-384/141, 12-13=-298/111  
 WEBS 4-29=-215/446

**NOTES-**

- Wind: ASCE 7-10; Vult=150mph (3-second gust) Vasd=119mph; TC DL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; end vertical left exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 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.
- All plates are 2x4 MT20 unless otherwise indicated.
- Gable requires continuous bottom chord bearing.
- Gable studs spaced at 2-0-0 oc.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- \* 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.
- All bearings are assumed to be User Defined crushing capacity of 565 psi.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 17, 28 except (jt=lb) 18=127, 19=127, 20=125, 21=126, 22=126, 23=125, 25=126, 26=124, 27=134, 29=393.



May 1, 2019

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 10/03/2015 BEFORE USE.**

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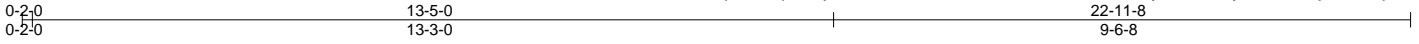


818 Soundside Road  
 Edenton, NC 27932

Job 823690	Truss B01	Truss Type GABLE	Qty 2	Ply 1	H&H-SC/Trillium/ Job Reference (optional)	136912837
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Builders FirstSource, Sumter, SC - 29153,

8.220 s Nov 16 2018 MiTek Industries, Inc. Mon Apr 29 15:55:03 2019 Page 1  
ID:N9ZpzacWqWTLjEbWrVVGbZQOD-b55U1em4hRkekW5b3y\_PX6EV2yEOX1DmBjnZUNzLpFM



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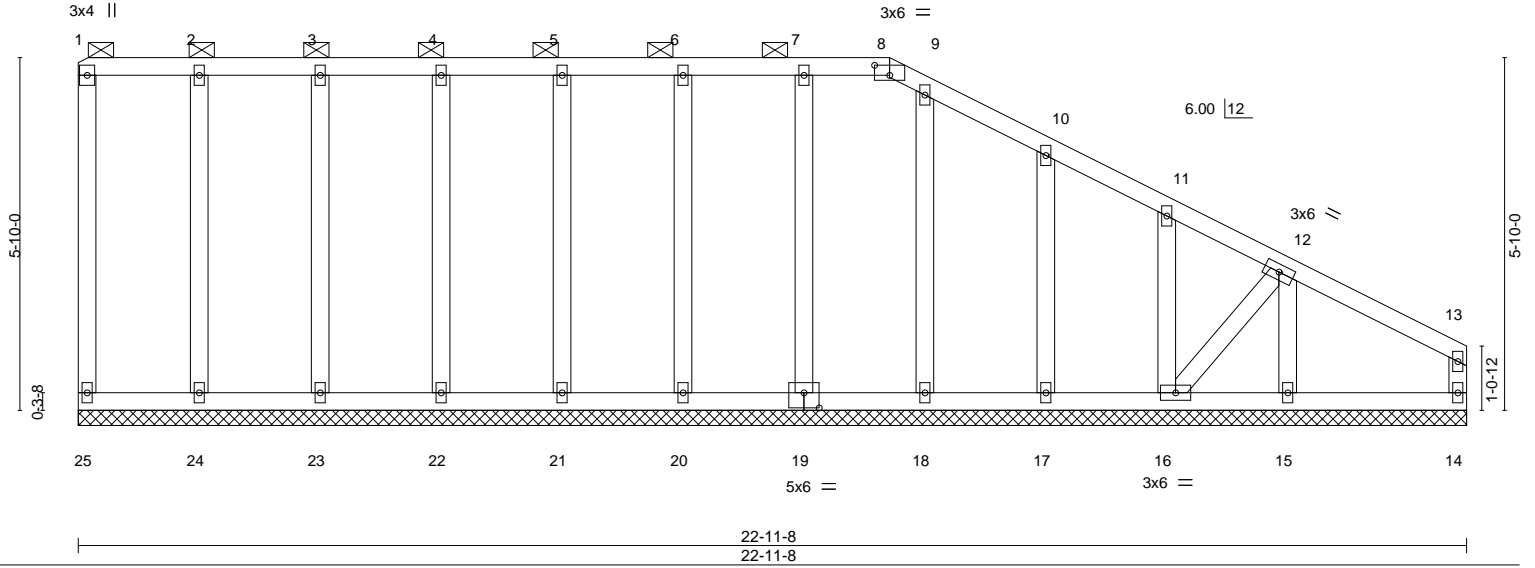


Plate Offsets (X,Y)-- [8:0-3-0,0-2-0], [19:0-3-0,0-3-0]

<b>LOADING</b> (psf)	<b>SPACING-</b>	2-0-0	<b>CSI.</b>	<b>DEFL.</b>	in (loc)	l/defl	L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL 20.0	Plate Grip DOL	1.15	TC 0.56	Vert(LL)	n/a	-	n/a	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.17	Vert(CT)	n/a	-	n/a		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.20	Horz(CT)	0.01	14	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-S						
								Weight: 150 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 end verticals, and 2-0-0 oc purlins (6-0-0 max.): 1-8.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS.** All bearings 22-11-8.  
(lb) - Max Horz 25=-388(LC 8)  
Max Uplift All uplift 100 lb or less at joint(s) 25, 14, 24, 23, 22, 21, 20, 18, 15 except 19=-105(LC 8), 17=-143(LC 13), 16=-346(LC 13)  
Max Grav All reactions 250 lb or less at joint(s) 25, 14, 24, 23, 22, 21, 20, 19, 18, 17, 16 except 15=356(LC 10)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 10-11=-264/183, 11-12=-334/204  
BOT CHORD 24-25=-275/499, 23-24=-275/499, 22-23=-275/499, 21-22=-275/499, 20-21=-275/499, 19-20=-275/499, 18-19=-275/499, 17-18=-275/499, 16-17=-275/499  
WEBS 12-15=-468/245, 12-16=-374/668

- NOTES-** (13)
- 1) Wind: ASCE 7-10; Vult=150mph (3-second gust) Vasd=119mph; TC DL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; 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) 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.
  - 3) Provide adequate drainage to prevent water ponding.
  - 4) All plates are 2x4 MT20 unless otherwise indicated.
  - 5) Gable requires continuous bottom chord bearing.
  - 6) Truss to be fully sheathed on one face or securely braced against lateral movement (i.e. diagonal web).
  - 7) Gable studs spaced at 2-0-0 oc.
  - 8) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - 9) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
  - 10) All bearings are assumed to be User Defined crushing capacity of 565 psi.
  - 11) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 25, 14, 24, 23, 22, 21, 20, 18, 15 except (jt=lb) 19=105, 17=143, 16=346.
  - 12) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
  - 13) This manufactured truss is designed as an individual building component. The suitability and use of this component for any particular building is the responsibility of the building designer per ANSI TPI 1 as referenced by the building code.



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818 Soundside Road  
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	H&H-SC/Trillium/	136912838
823690	B02	Hip	2	1		

Builders FirstSource, Sumter, SC - 29153,

8.220 s Nov 16 2018 MiTek Industries, Inc. Mon Apr 29 15:55:04 2019 Page 1

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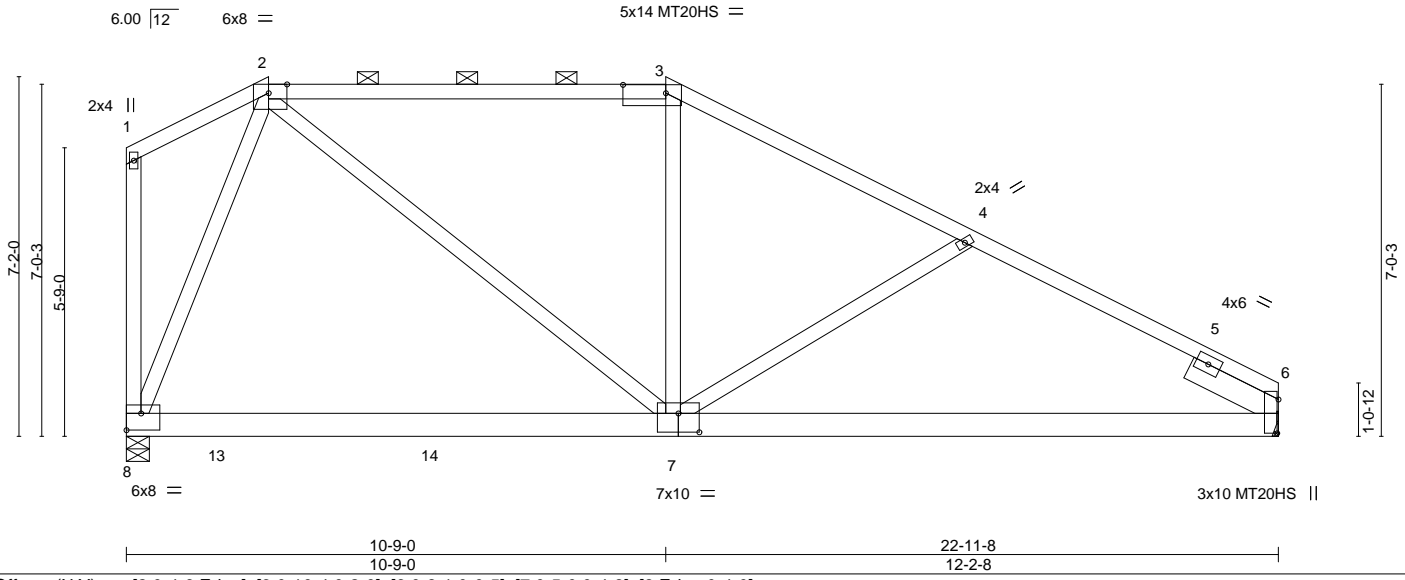


Plate Offsets (X,Y)--	[2:0-4-6,Edge], [3:0-10-4,0-2-0], [6:0-8-1,0-0-5], [7:0-5-0,0-4-8], [8:Edge,0-4-0]
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LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL	1.15	TC 0.89	Vert(LL)	-0.15	7-8	>999	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.55	Vert(CT)	-0.25	7-8	>999	MT20HS	187/143
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.87	Horz(CT)	0.02	6	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-AS	Wind(LL)	0.04	7	>999		
								Weight: 148 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x4 SP No.2	TOP CHORD Structural wood sheathing directly applied, except end verticals, and
BOT CHORD 2x6 SP No.2	2-0-0 oc purlins (2-2-0 max.): 2-3.
WEBS 2x4 SP No.3	BOT CHORD Rigid ceiling directly applied.
SLIDER Right 2x6 SP No.2 2-0-0	

**REACTIONS.** (lb/size) 6=912/Mechanical, 8=912/0-5-8  
 Max Horz 8=-369(LC 13)  
 Max Uplift 6=-390(LC 13), 8=-341(LC 8)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-3=-848/672, 3-4=-1015/626, 4-6=-1295/839  
 BOT CHORD 7-8=-75/407, 6-7=-600/1101  
 WEBS 2-7=-418/678, 4-7=-301/470, 2-8=-869/688

- NOTES-** (12)
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-10; Vult=150mph (3-second gust) Vasd=119mph; TC DL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - Provide adequate drainage to prevent water ponding.
  - All plates are MT20 plates unless otherwise indicated.
  - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - \* 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.
  - All bearings are assumed to be User Defined crushing capacity of 565 psi.
  - Refer to girder(s) for truss to truss connections.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 6=390, 8=341.
  - 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.
  - Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
  - This manufactured truss is designed as an individual building component. The suitability and use of this component for any particular building is the responsibility of the building designer per ANSI TPI 1 as referenced by the building code.



May 1, 2019

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**TRENCO**  
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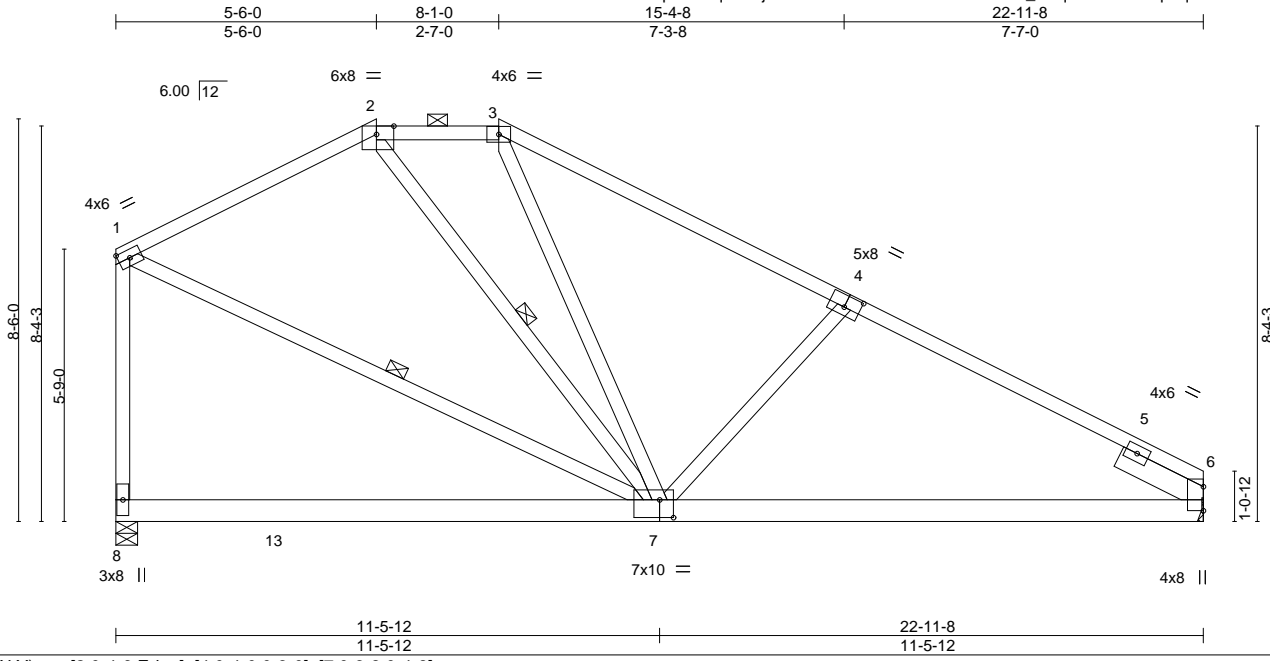
818 Soundside Road  
 Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	H&H-SC/Trillium/	136912839
823690	B03	Hip	2	1		

Builders FirstSource, Sumter, SC - 29153,

8.220 s Nov 16 2018 MiTek Industries, Inc. Mon Apr 29 15:55:05 2019 Page 1

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Scale = 1:48.6

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)	-0.11	7-8	>999	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.55	Vert(CT)	-0.24	7-8	>999		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.41	Horz(CT)	0.01	6	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-AS	Wind(LL)	0.05	7-11	>999	Weight: 157 lb	FT = 20%

<b>LUMBER-</b>	<b>BRACING-</b>
TOP CHORD 2x4 SP No.2	TOP CHORD Structural wood sheathing directly applied, except end verticals, and
BOT CHORD 2x6 SP No.2	2-0-0 oc purlins (6-0-0 max.); 2-3.
WEBS 2x4 SP No.3	BOT CHORD Rigid ceiling directly applied.
SLIDER Right 2x6 SP No.2 2-0-0	WEBS 1 Row at midpt 2-7, 1-7

**REACTIONS.** (lb/size) 8=912/0-5-8, 6=913/Mechanical  
 Max Horz 8=-409(LC 13)  
 Max Uplift 8=-389(LC 13), 6=-409(LC 13)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 1-2=-835/679, 2-3=-781/751, 3-4=-1015/703, 4-6=-1282/819, 1-8=-811/692  
 BOT CHORD 7-8=-100/404, 6-7=-564/1082  
 WEBS 2-7=-176/268, 4-7=-398/581, 1-7=-536/729

- NOTES-** (11)
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-10; Vult=150mph (3-second gust) Vasd=119mph; TC DL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; end vertical right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - Provide adequate drainage to prevent water ponding.
  - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - \* 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.
  - All bearings are assumed to be User Defined crushing capacity of 565 psi.
  - Refer to girder(s) for truss to truss connections.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 8=389, 6=409.
  - 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.
  - Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
  - This manufactured truss is designed as an individual building component. The suitability and use of this component for any particular building is the responsibility of the building designer per ANSI TPI 1 as referenced by the building code.



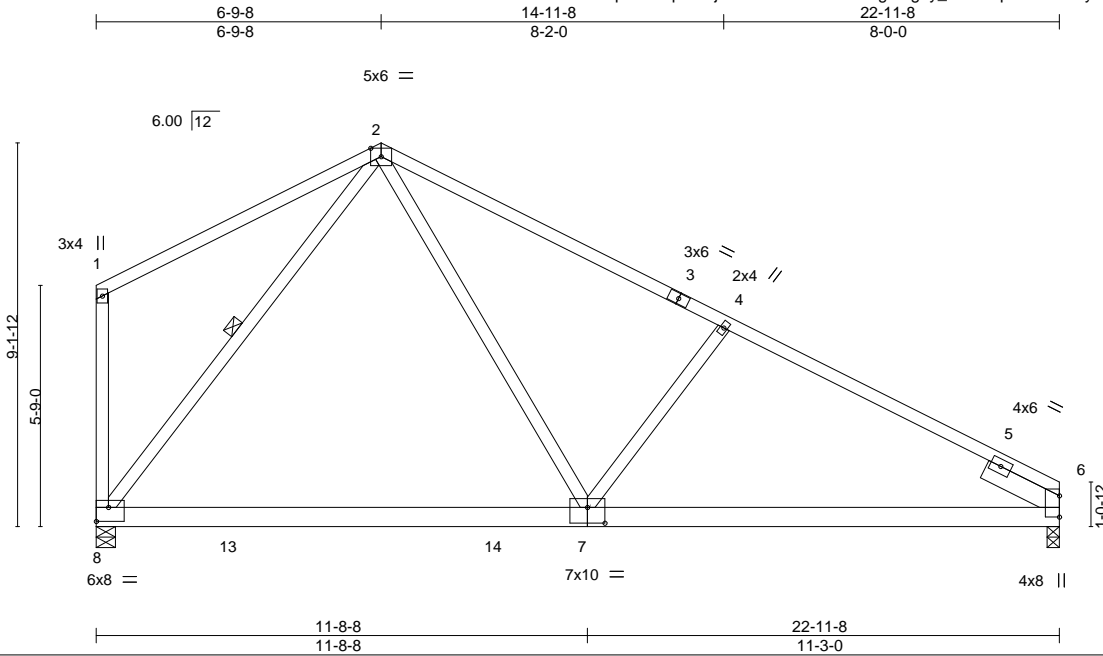
May 1, 2019

Job	Truss	Truss Type	Qty	Ply	H&H-SC/Trillium/	136912840
823690	B04	COMMON	2	1		

Builders FirstSource, Sumter, SC - 29153,

8.220 s Nov 16 2018 MiTek Industries, Inc. Mon Apr 29 15:55:06 2019 Page 1

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Scale = 1:54.9

Plate Offsets (X,Y)--	[7:0-5-0,0-4-8], [8:Edge,0-4-0]
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<b>LOADING</b> (psf)	<b>SPACING-</b>	2-0-0	<b>CSI.</b>	<b>DEFL.</b>	in (loc)	l/defl	L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL 20.0	Plate Grip DOL	1.15	TC 0.82	Vert(LL)	-0.27	7-8	>999	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.69	Vert(CT)	-0.41	7-8	>666		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.78	Horz(CT)	0.03	6	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-AS	Wind(LL)	0.06	7-11	>999		
								Weight: 143 lb	FT = 20%

<b>LUMBER-</b>	<b>BRACING-</b>
TOP CHORD 2x4 SP No.2	TOP CHORD Structural wood sheathing directly applied, except end verticals.
BOT CHORD 2x6 SP No.2	BOT CHORD Rigid ceiling directly applied.
WEBS 2x4 SP No.3	WEBS 1 Row at midpt 2-8
SLIDER Right 2x6 SP No.2 2-0-0	

**REACTIONS.** (lb/size) 6=913/0-3-8, 8=913/0-5-8  
 Max Horz 8=430(LC 13)  
 Max Uplift 6=-414(LC 13), 8=-423(LC 13)  
 Max Grav 6=913(LC 1), 8=937(LC 2)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-4=-1040/761, 4-6=-1239/817, 1-8=-214/258  
 BOT CHORD 7-8=-47/520, 6-7=-557/1078  
 WEBS 2-7=-403/750, 4-7=-445/621, 2-8=-767/560

- NOTES-** (8)
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-10; Vult=150mph (3-second gust) Vasd=119mph; TC DL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; end vertical right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - \* 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.
  - All bearings are assumed to be User Defined crushing capacity of 565 psi.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (it=lb) 6=414, 8=423.
  - 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.
  - This manufactured truss is designed as an individual building component. The suitability and use of this component for any particular building is the responsibility of the building designer per ANSI TPI 1 as referenced by the building code.



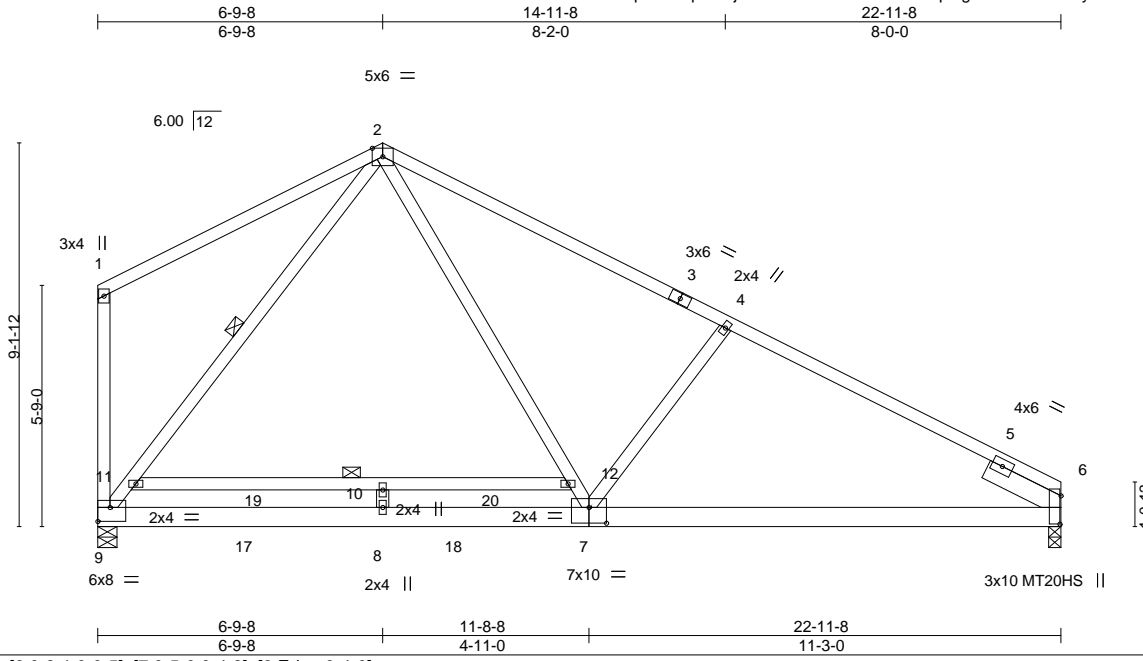
May 1, 2019

Job 823690	Truss B05	Truss Type COMMON	Qty 14	Ply 1	H&H-SC/Trillium/ Job Reference (optional)	136912841
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8.220 s Nov 16 2018 MiTek Industries, Inc. Mon Apr 29 15:55:07 2019 Page 1

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Scale = 1:54.9

Plate Offsets (X,Y)--	[6:0-8-1,0-0-5], [7:0-5-0,0-4-8], [9:Edge,0-4-0]
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LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.78	in (loc) l/defl L/d	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.15	BC 0.97	Vert(LL) -0.31 8-9 >883 360	MT20HS	187/143
BCLL 0.0 *	Lumber DOL 1.15	WB 0.67	Vert(CT) -0.58 8-9 >469 240		
BCDL 10.0	Rep Stress Incr NO	Matrix-AS	Horz(CT) 0.04 6 n/a n/a		
	Code IRC2015/TPI2014		Wind(LL) 0.06 7-15 >999 240	Weight: 159 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x4 SP No.2	TOP CHORD Structural wood sheathing directly applied, except end verticals.
BOT CHORD 2x6 SP No.2	BOT CHORD Rigid ceiling directly applied.
WEBS 2x4 SP No.3 *Except*	WEBS 1 Row at midpt 2-9, 11-12
SLIDER Right 2x6 SP No.2 2-0-0	

**REACTIONS.** (lb/size) 6=964/0-3-8, 9=1061/0-5-8  
 Max Horz 9=-430(LC 13)  
 Max Uplift 6=-363(LC 13), 9=-274(LC 13)  
 Max Grav 6=964(LC 1), 9=1069(LC 2)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-4=-1156/641, 4-6=-1396/699, 1-9=-224/251  
 BOT CHORD 8-9=0/612, 7-8=0/612, 6-7=-455/1178  
 WEBS 2-12=-282/981, 7-12=-299/885, 4-7=-434/632, 9-11=-859/489, 2-11=-818/501

- NOTES-** (10)
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-10; Vult=150mph (3-second gust) Vasd=119mph; TCCL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; end vertical right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - 200.0lb AC unit load placed on the bottom chord, 6-0-0 from left end, supported at two points, 5-0-0 apart.
  - All plates are MT20 plates unless otherwise indicated.
  - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - \* 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.
  - All bearings are assumed to be User Defined crushing capacity of 565 psi.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 6=363, 9=274.
  - 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.
  - This manufactured truss is designed as an individual building component. The suitability and use of this component for any particular building is the responsibility of the building designer per ANSI TPI 1 as referenced by the building code.

**LOAD CASE(S)** Standard  
 1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15  
 Uniform Loads (plf)  
 Vert: 1-2=-60, 2-6=-60, 9-13=-20



Continued on page 2

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**ENGINEERING BY**  
**TRENCO**  
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818 Soundside Road  
 Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	H&H-SC/Trillium/	I36912841
823690	B05	COMMON	14	1		
Job Reference (optional)						

Builders FirstSource, Sumter, SC - 29153,

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 ID:N9ZpzacWqWTLjEbWrvVGBzZQOD-TtL?s?palgE4D7OMlo3LhyP7WZPPTkvL6LIAd9zLpFI

**LOAD CASE(S)** Standard  
 Concentrated Loads (lb)  
 Vert: 17=-100 18=-100

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 10/03/2015 BEFORE USE.**

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818 Soundside Road  
 Edenton, NC 27932



Job	Truss	Truss Type	Qty	Ply	H&H-SC/Trillium/	136912842
823690	B06	COMMON	2	1		

Builders FirstSource, Sumter, SC - 29153,

8.220 s Nov 16 2018 MiTek Industries, Inc. Mon Apr 29 15:55:08 2019 Page 1

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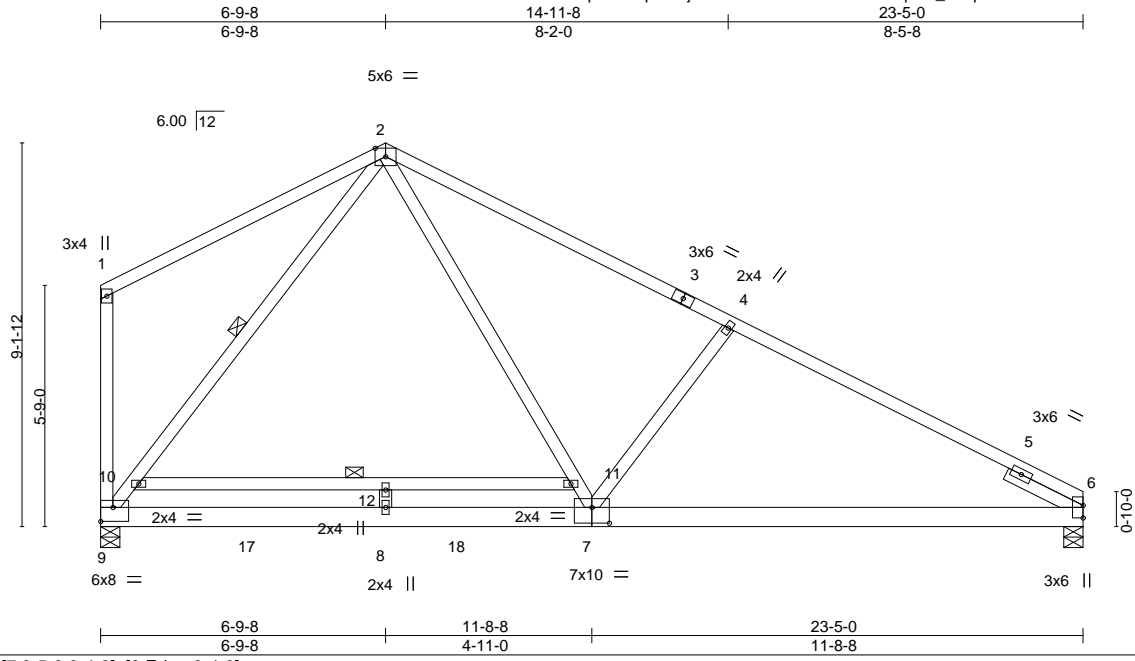


Plate Offsets (X,Y)--	[7:0-5-0,0-4-8], [9:Edge,0-4-0]
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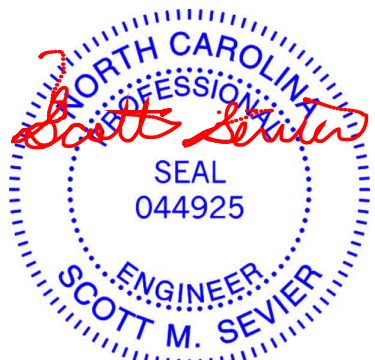
LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL	1.15	TC 0.52	Vert(LL)	-0.08	8-9	>999	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.29	Vert(CT)	-0.28	8-9	>985		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.67	Horz(CT)	0.01	6	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-AS	Wind(LL)	0.09	7-15	>999		
								Weight: 159 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x4 SP SS *Except* 3-6: 2x4 SP No.1	TOP CHORD Structural wood sheathing directly applied, except end verticals.
BOT CHORD 2x6 SP DSS	BOT CHORD Rigid ceiling directly applied.
WEBS 2x4 SP No.3 *Except* 1-9: 2x4 SP SS, 10-11: 2x4 SP No.2	WEBS 1 Row at midpt 2-9, 10-11
SLIDER Right 2x4 SP No.3 2-0-0	

**REACTIONS.** (lb/size) 9=1081/0-5-8, 6=981/0-5-8  
 Max Horz 9=-446(LC 13)  
 Max Uplift 9=-282(LC 13), 6=-376(LC 13)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-4=-1214/670, 4-6=-1308/731, 1-9=-225/252  
 BOT CHORD 8-9=0/608, 7-8=0/608, 6-7=-473/1246  
 WEBS 2-11=-314/879, 7-11=-325/829, 4-7=-464/651, 9-10=-886/507, 2-10=-848/514

- NOTES-** (9)
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-10; Vult=150mph (3-second gust) Vasd=119mph; TCCL=6.0psf; BCCL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; end vertical right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - 200.0lb AC unit load placed on the bottom chord, 6-0-0 from left end, supported at two points, 5-0-0 apart.
  - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - \* 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.
  - All bearings are assumed to be User Defined crushing capacity of 565 psi.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 9=282, 6=376.
  - 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.
  - This manufactured truss is designed as an individual building component. The suitability and use of this component for any particular building is the responsibility of the building designer per ANSI TPI 1 as referenced by the building code.



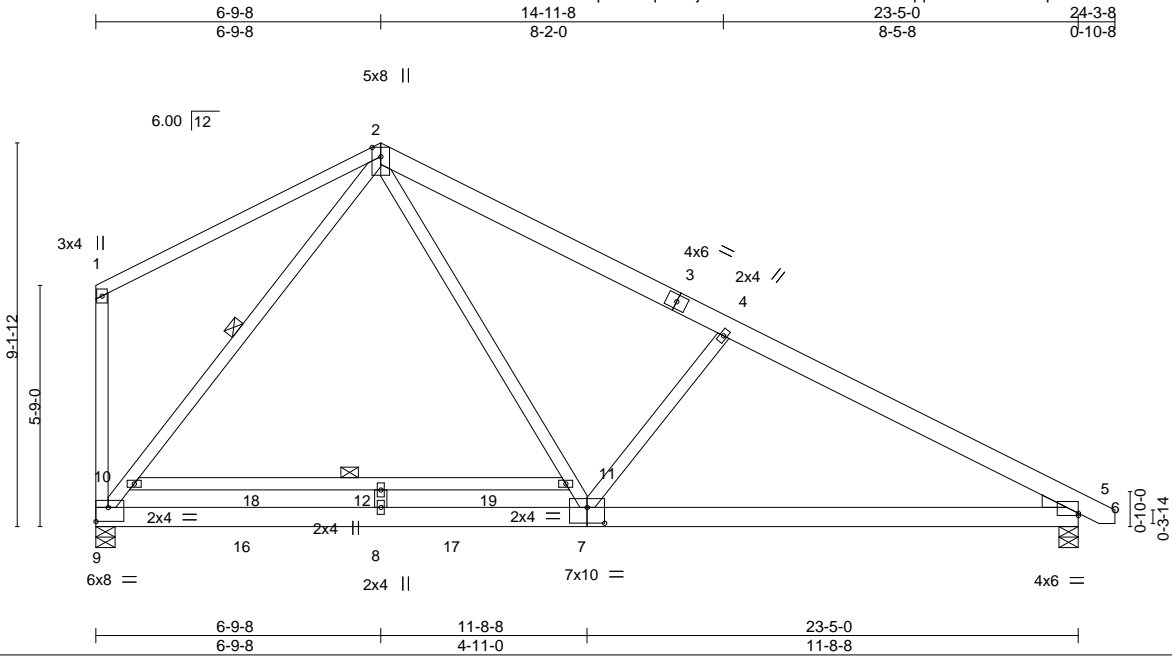
May 1, 2019

Job 823690	Truss B07	Truss Type COMMON	Qty 4	Ply 1	H&H-SC/Trillium/ Job Reference (optional)	136912843
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Builders FirstSource, Sumter, SC - 29153,

8.220 s Nov 16 2018 MiTek Industries, Inc. Mon Apr 29 15:55:09 2019 Page 1

ID:N9ZpzacWqWTLjEbWrvVGBzZQOD-PFTIHhqqHHVoSRYkPD5pmNUVHM4RxdheZIEHh1zLpFG



Scale = 1:54.9

Plate Offsets (X,Y)--	[5:0-0-0,0-0-11], [7:0-5-0,0-4-8], [9:Edge,0-4-0]
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LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL 20.0	2-0-12	TC 0.70	in (loc) l/defl L/d	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.15	BC 1.00	Vert(LL) -0.30 8-9 >922 360		
BCLL 0.0 *	Lumber DOL 1.15	WB 0.71	Vert(CT) -0.57 8-9 >491 240		
BCDL 10.0	Rep Stress Incr NO	Matrix-MS	Horz(CT) 0.02 5 n/a n/a		
	Code IRC2015/TPI2014		Wind(LL) 0.07 7-15 >999 240	Weight: 175 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x6 SP No.2 *Except* 1-2: 2x4 SP No.2	TOP CHORD Structural wood sheathing directly applied or 5-6-13 oc purlins, except end verticals.
BOT CHORD 2x6 SP No.2	BOT CHORD Rigid ceiling directly applied or 8-10-3 oc bracing.
WEBS 2x4 SP No.3 *Except* 1-9: 2x4 SP SS, 10-11: 2x4 SP No.2	WEBS 1 Row at midpt 2-9, 10-11

WEDGE  
Right: 2x4 SP No.3

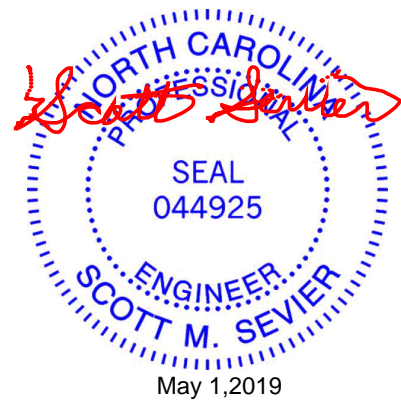
**REACTIONS.** (lb/size) 9=1109/0-5-8, 5=1053/0-5-8  
 Max Horz 9=-488(LC 13)  
 Max Uplift 9=-295(LC 13), 5=-423(LC 13)  
 Max Grav 9=1112(LC 2), 5=1053(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-4=-1265/698, 4-5=-1579/779, 1-9=-224/275  
 BOT CHORD 8-9=0/655, 7-8=0/655, 5-7=-500/1318  
 WEBS 2-11=-346/1085, 7-11=-361/989, 4-7=-522/725, 9-10=-912/500, 2-10=-869/509

- NOTES-** (8)
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-10; Vult=150mph (3-second gust) Vasd=119mph; TC DL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; end vertical right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - 200.0lb AC unit load placed on the bottom chord, 6-0-0 from left end, supported at two points, 5-0-0 apart.
  - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - \* 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.
  - All bearings are assumed to be User Defined crushing capacity of 565 psi.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 9=295, 5=423.
  - This manufactured truss is designed as an individual building component. The suitability and use of this component for any particular building is the responsibility of the building designer per ANSI TPI 1 as referenced by the building code.

**LOAD CASE(S)** Standard

- Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15  
 Uniform Loads (plf)  
 Vert: 1-2=-62, 2-6=-62, 9-13=-21  
 Concentrated Loads (lb)  
 Vert: 16=-100 17=-100



May 1, 2019

Job	Truss	Truss Type	Qty	Ply	H&H-SC/Trillium/	136912844
823690	B08	Common	18	1		

Builders FirstSource, Sumter, SC - 29153,

8.220 s Nov 16 2018 MiTek Industries, Inc. Mon Apr 29 15:55:10 2019 Page 1

ID:N9ZpacWqWTLjEbWrVVGbzQOD-tS07V1rT2bdf4b7xzcw2Ja1f1mUOg7GnoJzqETzLpFF



5x6 =

Scale = 1:55.9

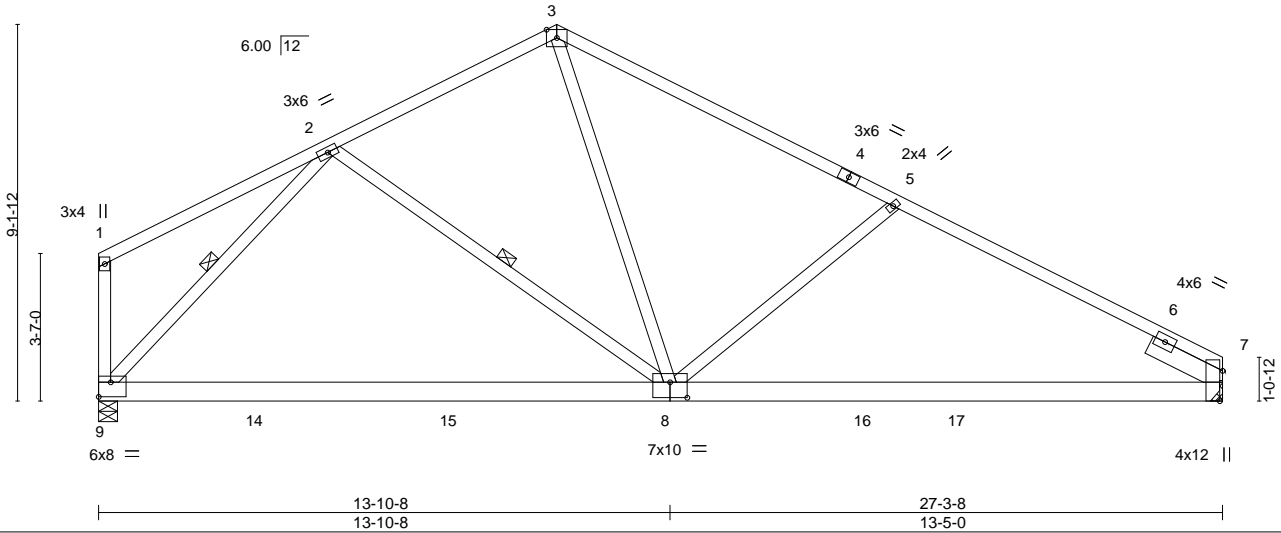


Plate Offsets (X,Y)--	[7:0-8-13,Edge], [8:0-5-0,0-4-8], [9:Edge,0-4-4]
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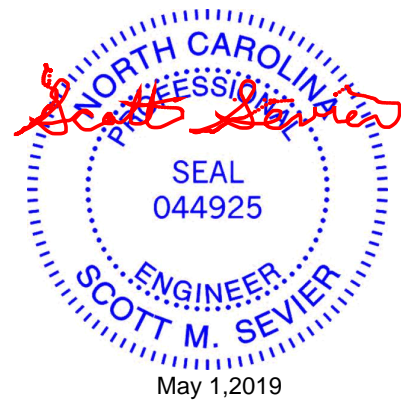
<b>LOADING</b> (psf)	<b>SPACING-</b> 2-0-0	<b>CSI.</b>	<b>DEFL.</b> in (loc) l/defl L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL 20.0	Plate Grip DOL 1.15	TC 0.72	Vert(LL) -0.28 8-9 >999 360	MT20	244/190
TCDL 10.0	Lumber DOL 1.15	BC 0.76	Vert(CT) -0.52 8-9 >629 240		
BCLL 0.0 *	Rep Stress Incr YES	WB 0.56	Horz(CT) 0.04 7 n/a n/a		
BCDL 10.0	Code IRC2015/TPI2014	Matrix-AS	Wind(LL) 0.07 8-9 >999 240	Weight: 168 lb	FT = 20%

<b>LUMBER-</b>	<b>BRACING-</b>
TOP CHORD 2x4 SP No.2	TOP CHORD Structural wood sheathing directly applied, except end verticals.
BOT CHORD 2x6 SP No.2	BOT CHORD Rigid ceiling directly applied.
WEBS 2x4 SP No.3 *Except*	WEBS 1 Row at midpt 2-8, 2-9
SLIDER Right 2x6 SP No.2 2-0-0	

**REACTIONS.** (lb/size) 9=1086/0-5-8, 7=1086/Mechanical  
 Max Horz 9=-336(LC 10)  
 Max Uplift 9=-448(LC 12), 7=-507(LC 13)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-3=-1017/847, 3-5=-1245/928, 5-7=-1600/1148, 1-9=-217/262  
 BOT CHORD 8-9=-384/801, 7-8=-847/1361  
 WEBS 2-8=-37/260, 3-8=-353/632, 5-8=-474/661, 2-9=-1036/831

- NOTES-** (9)
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-10; Vult=150mph (3-second gust) Vasd=119mph; TC DL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; 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
  - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - \* 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.
  - Bearings are assumed to be: Joint 9 User Defined crushing capacity of 565 psi.
  - Refer to girder(s) for truss to truss connections.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 9=448, 7=507.
  - 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.
  - This manufactured truss is designed as an individual building component. The suitability and use of this component for any particular building is the responsibility of the building designer per ANSI TPI 1 as referenced by the building code.



Job	Truss	Truss Type	Qty	Ply	H&H-SC/Trillium/	136912845
823690	B09	COMMON	9	1		

Builders FirstSource, Sumter, SC - 29153,

8.220 s Nov 16 2018 MiTek Industries, Inc. Mon Apr 29 15:55:11 2019 Page 1

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5x6 =

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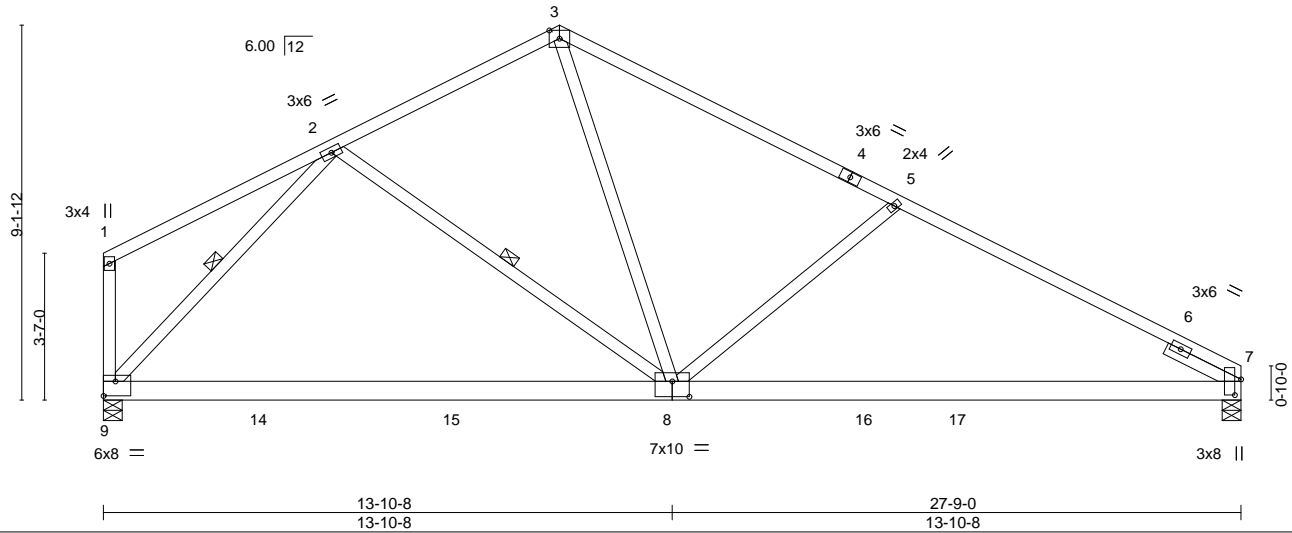


Plate Offsets (X,Y)-- [7:0-4-9,0-1-13], [8:0-5-0,0-4-8], [9:Edge,0-4-4]

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 0.75	Vert(LL)	-0.27	8-9	>999	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.83	Vert(CT)	-0.49	8-9	>675		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.59	Horz(CT)	0.02	7	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-AS	Wind(LL)	0.11	8-12	>999		
								Weight: 168 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x4 SP No.2	TOP CHORD Structural wood sheathing directly applied, except end verticals.
BOT CHORD 2x6 SP No.2	BOT CHORD Rigid ceiling directly applied.
WEBS 2x4 SP No.3 *Except*	WEBS 1 Row at midpt 2-8, 2-9
SLIDER 1-9: 2x4 SP No.2	
Right 2x4 SP No.3 2-0-0	

**REACTIONS.** (lb/size) 9=1104/0-5-8, 7=1104/0-5-8  
 Max Horz 9=-361(LC 13)  
 Max Uplift 9=-448(LC 12), 7=-512(LC 13)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-3=-1051/850, 3-5=-1298/939, 5-7=-1521/1174  
 BOT CHORD 8-9=-367/797, 7-8=-866/1439  
 WEBS 2-8=-30/279, 3-8=-369/669, 5-8=-514/696, 2-9=-1073/809

- NOTES-** (8)
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-10; Vult=150mph (3-second gust) Vasd=119mph; TC DL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; end vertical right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - \* 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.
  - All bearings are assumed to be User Defined crushing capacity of 565 psi.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (it=lb) 9=448, 7=512.
  - 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.
  - This manufactured truss is designed as an individual building component. The suitability and use of this component for any particular building is the responsibility of the building designer per ANSI TPI 1 as referenced by the building code.



May 1, 2019

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**ENGINEERING BY**  
**TRENCO**  
 A MiTek Affiliate

818 Soundside Road  
 Edenton, NC 27932

Job 823690	Truss B10	Truss Type HIP	Qty 3	Ply 1	H&H-SC/Trillium/ Job Reference (optional)	136912846
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Builders FirstSource, Sumter, SC - 29153,

8.220 s Nov 16 2018 MiTek Industries, Inc. Mon Apr 29 15:55:12 2019 Page 1

ID:N9ZpzacWqWTLijEbWrVVGbzZQOD-qq8uwjtjaCtMJuHJ4LeWO?6?ua9z82h4FdSxIMzLpFD



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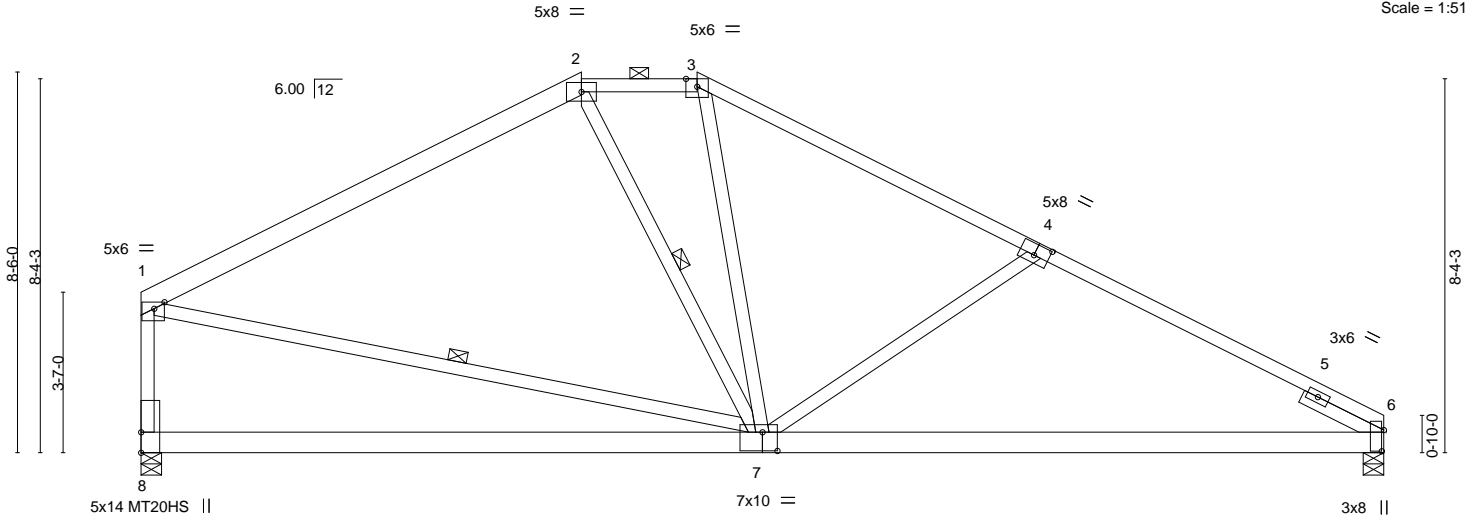


Plate Offsets (X,Y)--	[1:0-2-12,0-1-12], [4:0-4-0,0-3-0], [6:0-5-11,0-0-9], [7:0-4-0,0-5-0]
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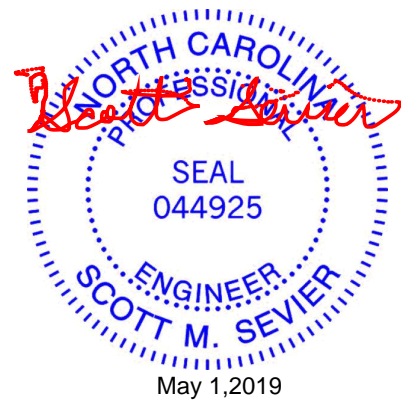
LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL	1.15	TC 0.68	Vert(LL)	-0.20	7-8	>999	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.82	Vert(CT)	-0.42	7-8	>795	MT20HS	187/143
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.50	Horz(CT)	0.01	6	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-AS	Wind(LL)	0.09	7-11	>999		
								Weight: 183 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x4 SP No.2 *Except* 1-2: 2x6 SP No.2	TOP CHORD Structural wood sheathing directly applied, except end verticals, and 2-0-0 oc purlins (5-1-1 max.): 2-3.
BOT CHORD 2x6 SP No.2	BOT CHORD Rigid ceiling directly applied.
WEBS 2x4 SP No.3 *Except* 1-8,1-7: 2x4 SP No.2	WEBS 1 Row at midpt 2-7, 1-7
SLIDER Right 2x4 SP No.3 2-0-0	

**REACTIONS.** (lb/size) 8=1104/0-5-8, 6=1104/0-5-8  
 Max Horz 8=-335(LC 13)  
 Max Uplift 8=-430(LC 12), 6=-503(LC 13)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 1-2=-1227/862, 2-3=-1027/903, 3-4=-1307/909, 4-6=-1549/1181, 1-8=-980/796  
 BOT CHORD 7-8=-103/319, 6-7=-881/1458  
 WEBS 2-7=-95/277, 3-7=-145/371, 4-7=-471/653, 1-7=-495/874

- NOTES-** (11)
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-10; Vult=150mph (3-second gust) Vasd=119mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; end vertical right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - Provide adequate drainage to prevent water ponding.
  - All plates are MT20 plates unless otherwise indicated.
  - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - \* 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.
  - All bearings are assumed to be User Defined crushing capacity of 565 psi.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 8=430, 6=503.
  - 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.
  - Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
  - This manufactured truss is designed as an individual building component. The suitability and use of this component for any particular building is the responsibility of the building designer per ANSI TPI 1 as referenced by the building code.

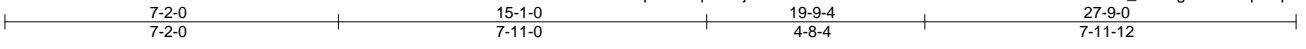


Job	Truss	Truss Type	Qty	Ply	H&H-SC/Trillium/	136912847
823690	B11	HIP	3	1		

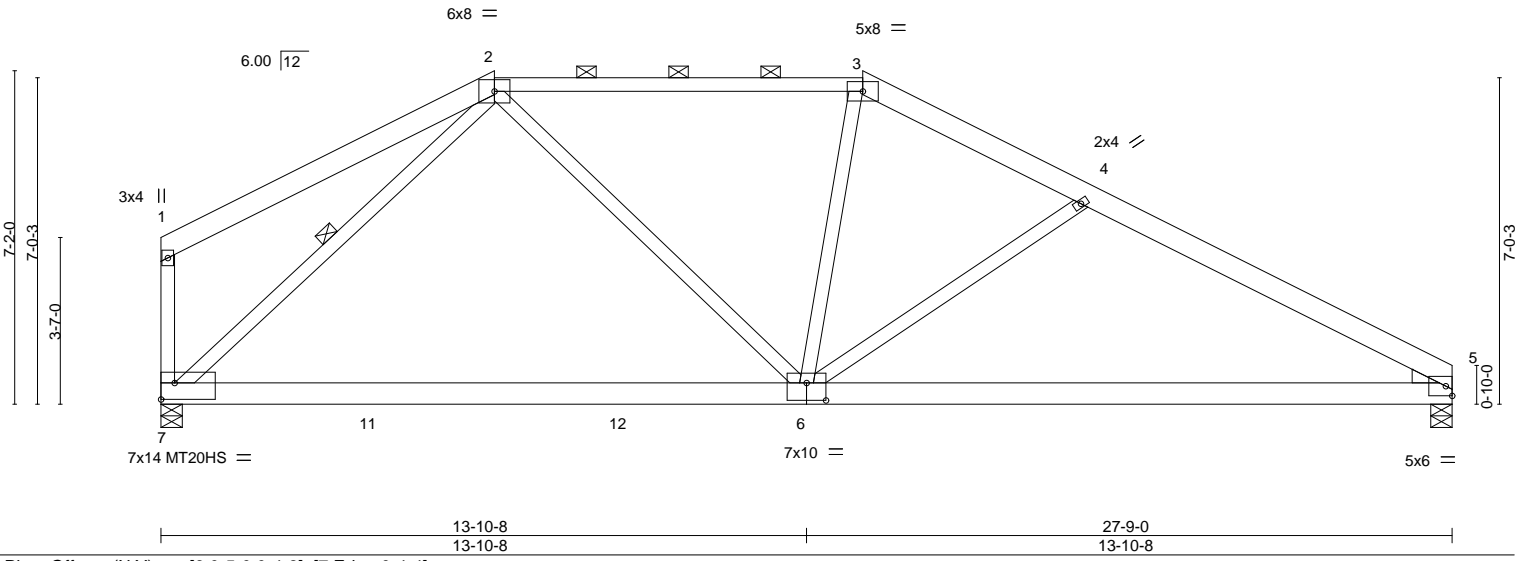
Builders FirstSource, Sumter, SC - 29153,

8.220 s Nov 16 2018 MiTek Industries, Inc. Mon Apr 29 15:55:13 2019 Page 1

ID:N9ZpzacWqWTLljEbWrVvVGBzZQOD-11iG73tLLW?Dx2sWe39lwDf7x\_VHtUgEUHCvqozLpFC



Scale = 1:49.5



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 0.85	Vert(LL)	-0.36	6-7	>914	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.81	Vert(CT)	-0.58	6-7	>571	MT20HS	187/143
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.52	Horz(CT)	0.03	5	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-AS	Wind(LL)	0.08	6-10	>999		
								Weight: 182 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x6 SP No.2 *Except* 2-3: 2x4 SP No.2	TOP CHORD Structural wood sheathing directly applied, except end verticals, and 2-0-0 oc purlins (2-8-10 max.): 2-3.
BOT CHORD 2x6 SP No.2	BOT CHORD Rigid ceiling directly applied.
WEBS 2x4 SP No.3 *Except* 1-7: 2x4 SP No.2	WEBS 1 Row at midpt 2-7

WEDGE  
Right: 2x4 SP No.3

REACTIONS. (lb/size) 5=1104/0-5-8, 7=1104/0-5-8  
Max Horz 7=-300(LC 13)  
Max Uplift 5=-475(LC 13), 7=-385(LC 12)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 2-3=-1200/907, 3-4=-1360/919, 4-5=-1733/1140, 1-7=-246/276  
BOT CHORD 6-7=-336/877, 5-6=-840/1459  
WEBS 2-6=-139/527, 3-6=-20/335, 2-7=-1093/736, 4-6=-357/509

- NOTES- (11)
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-10; Vult=150mph (3-second gust) Vasd=119mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; end vertical right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - Provide adequate drainage to prevent water ponding.
  - All plates are MT20 plates unless otherwise indicated.
  - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - \* 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.
  - All bearings are assumed to be User Defined crushing capacity of 565 psi.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 5=475, 7=385.
  - 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.
  - Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
  - This manufactured truss is designed as an individual building component. The suitability and use of this component for any particular building is the responsibility of the building designer per ANSI TPI 1 as referenced by the building code.



May 1, 2019

Job	Truss	Truss Type	Qty	Ply	H&H-SC/Trillium/	136912848
823690	B12	GABLE	3	1		

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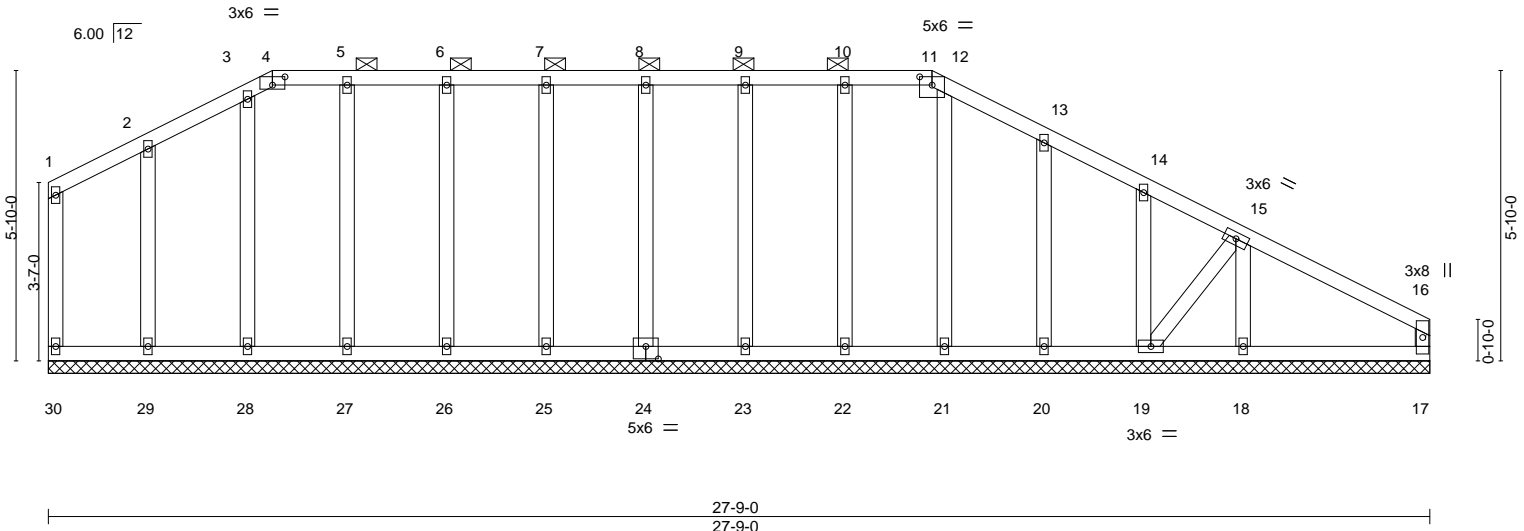


Plate Offsets (X, Y)-- [4:0-3-0,0-2-0], [11:0-0-0,0-1-12], [11:0-3-0,0-2-0], [12:0-1-12,0-0-14], [24:0-3-0,0-3-0]

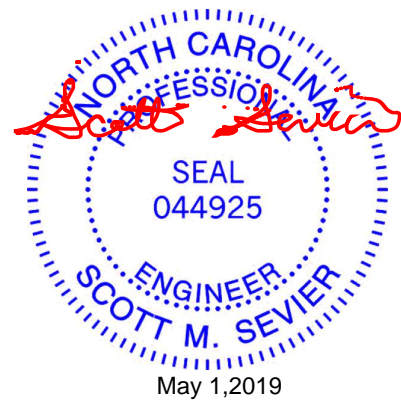
LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL	1.15	TC 0.21	Vert(LL)	n/a	-	n/a	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.09	Vert(CT)	n/a	-	n/a		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.13	Horz(CT)	0.01	17	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-S						
								Weight: 177 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x4 SP No.2	TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 4-11.
BOT CHORD 2x4 SP No.2	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 2x4 SP No.3	
OTHERS 2x4 SP No.3	

**REACTIONS.** All bearings 27-9-0.  
 (lb) - Max Horz 30=-282(LC 8)  
 Max Uplift All uplift 100 lb or less at joint(s) 30, 17, 28, 27, 26, 25, 24, 23, 22, 21, 18 except 29=-140(LC 12), 20=-149(LC 13), 19=-328(LC 13)  
 Max Grav All reactions 250 lb or less at joint(s) 30, 17, 29, 28, 27, 26, 25, 24, 23, 22, 21, 20, 19 except 18=290(LC 19)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 3-4=-148/260, 4-5=-144/263, 5-6=-144/263, 6-7=-144/263, 7-8=-144/263, 8-9=-144/263, 9-10=-144/263, 10-11=-144/263, 11-12=-146/258  
 BOT CHORD 29-30=-161/292, 28-29=-161/292, 27-28=-161/292, 26-27=-161/292, 25-26=-161/292, 24-25=-161/292, 23-24=-161/292, 22-23=-161/292, 21-22=-161/292, 20-21=-161/292, 19-20=-161/292  
 WEBS 15-19=-272/439

- NOTES-** (14)
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-10; Vult=150mph (3-second gust) Vasd=119mph; TC DL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; 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
  - 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.
  - Provide adequate drainage to prevent water ponding.
  - All plates are 2x4 MT20 unless otherwise indicated.
  - Gable requires continuous bottom chord bearing.
  - Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
  - Gable studs spaced at 2-0-0 oc.
  - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - \* 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.
  - All bearings are assumed to be User Defined crushing capacity of 565 psi.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 30, 17, 28, 27, 26, 25, 24, 23, 22, 21, 18 except (jt=lb) 29=140, 20=149, 19=328.
  - Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
  - This manufactured truss is designed as an individual building component. The suitability and use of this component for any particular building is the responsibility of the building designer per ANSI TPI 1 as referenced by the building code.



**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 10/03/2015 BEFORE USE.**

Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information available from Truss Plate Institute, 218 N. Lee Street, Suite 312, Alexandria, VA 22314.

**ENGINEERING BY**  
**TRENCO**  
 A MiTek Affiliate

818 Soundside Road  
 Edenton, NC 27932

Job 823690	Truss B13	Truss Type Flat Girder	Qty 2	Ply 1	H&H-SC/Trillium/ Job Reference (optional)	136912849
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Builders FirstSource, Sumter, SC - 29153,

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ID:N9ZpzacWqWTLjEbWrVVBZzQOD-ibOPI4wDdRNooWa5JBjTYrHdVBcP4sNgAFQ9R7zLpF9

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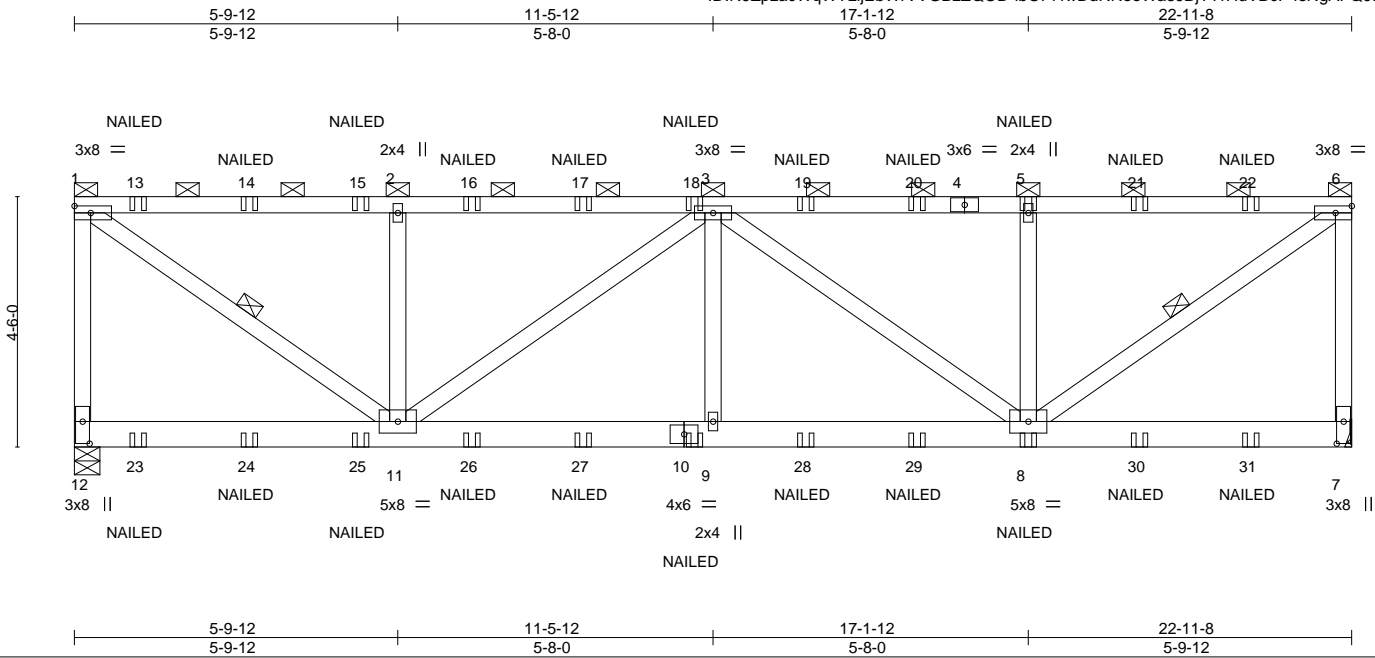


Plate Offsets (X,Y)--	[7:0-4-12,0-1-8], [12:0-4-12,0-1-8]				
<b>LOADING</b> (psf)	<b>SPACING-</b> 2-0-0	<b>CSI.</b>	<b>DEFL.</b> in (loc) l/defl L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL 20.0	Plate Grip DOL 1.15	TC 0.96	Vert(LL) 0.18 9-11 >999 240	MT20	244/190
TCDL 10.0	Lumber DOL 1.15	BC 0.40	Vert(CT) -0.12 9-11 >999 240		
BCLL 0.0 *	Rep Stress Incr NO	WB 0.46	Horz(CT) -0.03 7 n/a n/a		
BCDL 10.0	Code IRC2015/TPI2014	Matrix-MS		Weight: 155 lb	FT = 20%

<b>LUMBER-</b>	<b>BRACING-</b>
TOP CHORD 2x4 SP No.2	TOP CHORD 2-0-0 oc purlins (4-2-13 max.): 1-6, except end verticals.
BOT CHORD 2x6 SP No.2	BOT CHORD Rigid ceiling directly applied or 4-11-5 oc bracing.
WEBS 2x4 SP No.2	WEBS 1 Row at midpt 1-11, 6-8

**REACTIONS.** (lb/size) 12=1266/0-5-8, 7=1245/Mechanical  
 Max Uplift 12=-1562(LC 4), 7=-1501(LC 4)  
 Max Grav 12=1306(LC 29), 7=1252(LC 29)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 1-12=-1200/1508, 1-2=-1423/1700, 2-3=-1423/1700, 3-5=-1419/1695, 5-6=-1419/1695, 6-7=-1169/1465  
 BOT CHORD 9-11=-2223/1858, 8-9=-2223/1858  
 WEBS 1-11=-2054/1724, 2-11=-509/758, 3-11=-538/648, 3-9=-99/316, 3-8=-543/654, 5-8=-508/755, 6-8=-2050/1721

- NOTES-**
- 1) Wind: ASCE 7-10; Vult=150mph (3-second gust) Vasd=119mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; 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) All bearings are assumed to be User Defined crushing capacity of 565 psi.
  - 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) except (it=lb) 12=1562, 7=1501.
  - 8) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
  - 9) "NAILED" indicates 3-10d (0.148"x3") or 3-12d (0.148"x3.25") toe-nails per NDS guidelines.
  - 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: 1-6=-60, 7-12=-20
Concentrated Loads (lb)
Vert: 10=-18(F) 5=-46(F) 8=-18(F) 13=-46(F) 14=-46(F) 15=-46(F) 16=-46(F) 17=-46(F) 18=-46(F) 19=-46(F) 20=-46(F) 21=-46(F) 22=-46(F) 23=-18(F) 24=-18(F) 25=-18(F) 26=-18(F) 27=-18(F) 28=-18(F) 29=-18(F) 30=-18(F) 31=-18(F)





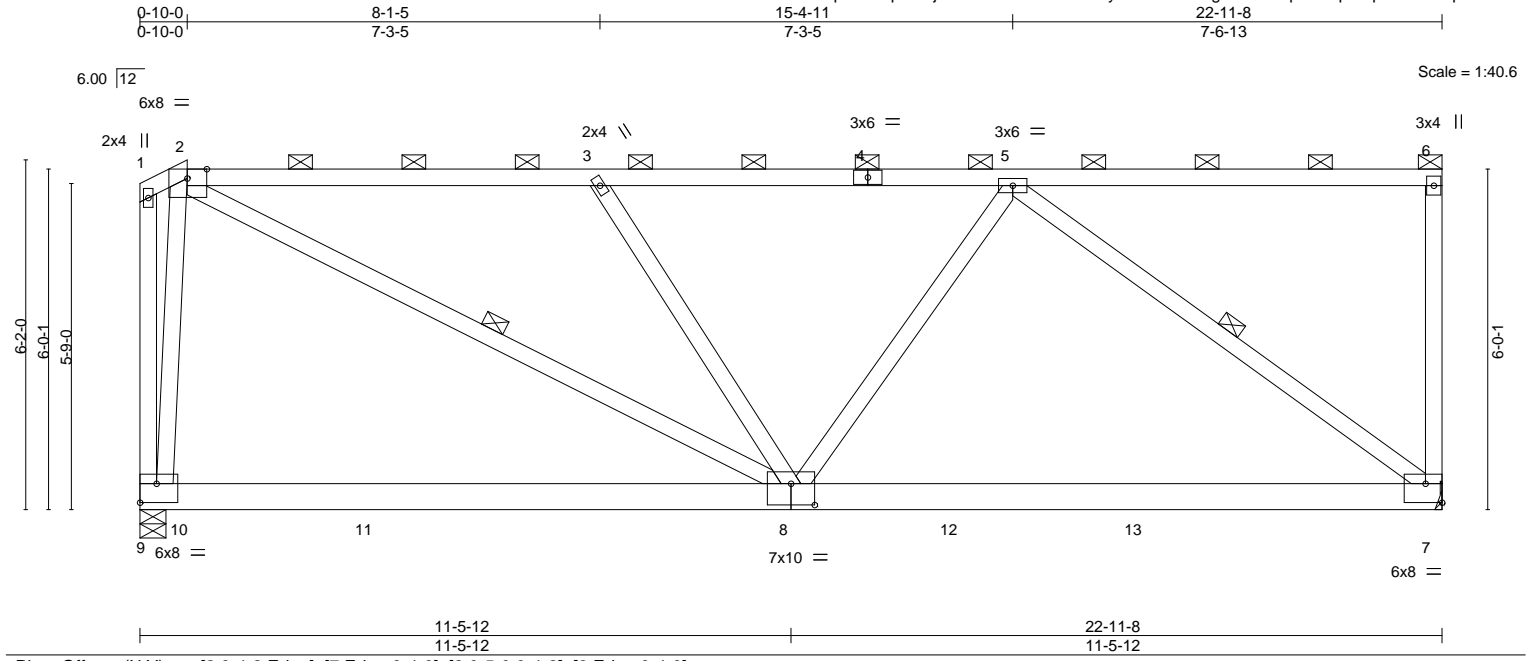
Job	Truss	Truss Type	Qty	Ply	H&H-SC/Trillium/	136912850
823690	B14	Half Hip	2	1		

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Job Reference (optional)



LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.70	in (loc) l/defl L/d	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.15	BC 0.58	Vert(LL) -0.11 7-8 >999 360		
BCLL 0.0 *	Lumber DOL 1.15	WB 0.60	Vert(CT) -0.23 7-8 >999 240		
BCDL 10.0	Rep Stress Incr YES	Matrix-AS	Horz(CT) 0.01 7 n/a n/a		
	Code IRC2015/TPI2014		Wind(LL) 0.07 8 >999 240	Weight: 161 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x4 SP No.2	TOP CHORD Structural wood sheathing directly applied, except end verticals, and 2-0-0 oc purlins (4-5-10 max.): 2-6.
BOT CHORD 2x6 SP No.2	BOT CHORD Rigid ceiling directly applied.
WEBS 2x4 SP No.3	WEBS 1 Row at midpt 2-8, 5-7

**REACTIONS.** (lb/size) 7=907/Mechanical, 9=907/0-5-8  
 Max Horz 9=16(LC 12)  
 Max Uplift 7=-516(LC 9), 9=-495(LC 9)  
 Max Grav 7=907(LC 1), 9=911(LC 2)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-3=-1218/764, 3-5=-936/487  
 BOT CHORD 7-8=-540/842  
 WEBS 2-8=-740/1226, 3-8=-535/523, 5-8=0/329, 5-7=-1010/652, 2-9=-968/782

**NOTES-**

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-10; Vult=150mph (3-second gust) Vasd=119mph; TC DL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 3) 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, with BCDL = 10.0psf.
- 6) All bearings are assumed to be User Defined crushing capacity of 565 psi.
- 7) Refer to girder(s) for truss to truss connections.
- 8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 7=516, 9=495.
- 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.



Job 823690	Truss B15	Truss Type Half Hip	Qty 2	Ply 1	H&H-SC/Trillium/ Job Reference (optional)	136912851
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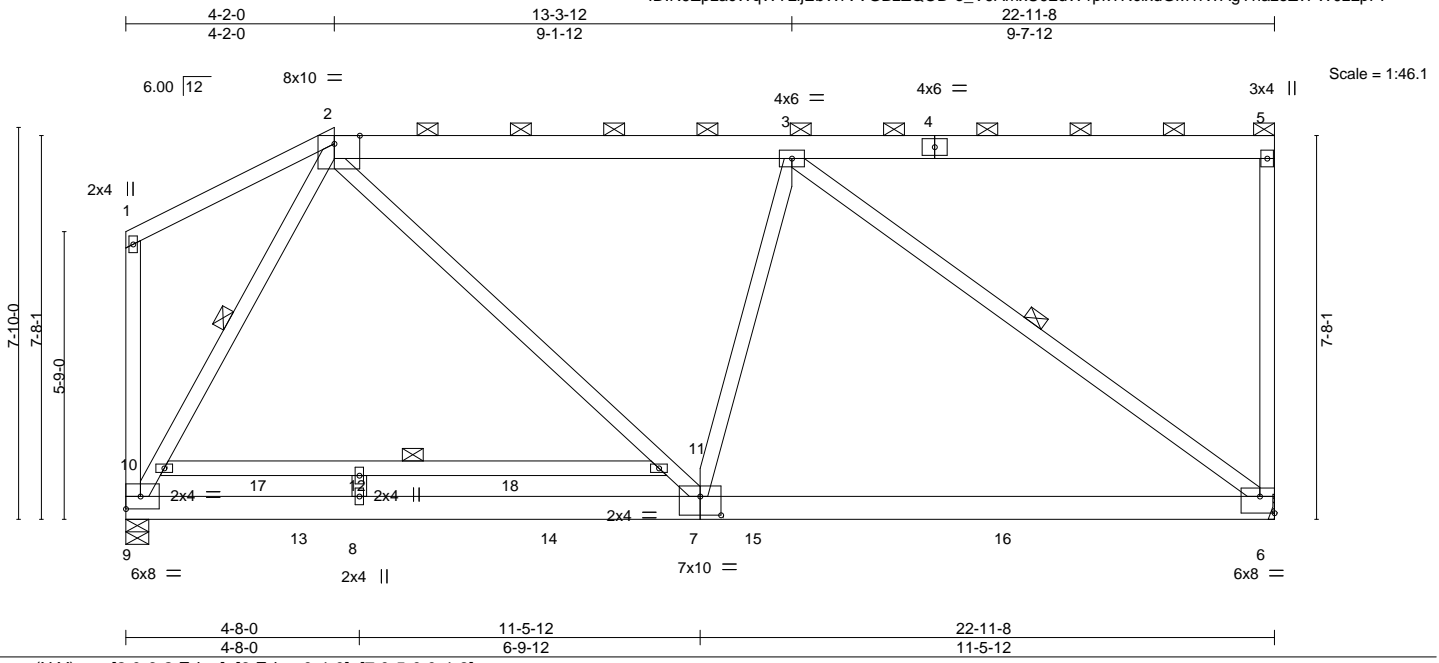


Plate Offsets (X, Y)--	[2:0-6-2, Edge], [6: Edge, 0-4-0], [7:0-5-0, 0-4-8]				
<b>LOADING</b> (psf)	<b>SPACING-</b> 2-0-0	<b>CSI.</b>	<b>DEFL.</b> in (loc) l/defl L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL 20.0	Plate Grip DOL 1.15	TC 0.68	Vert(LL) -0.25 7-8 >999 360	MT20	244/190
TCDL 10.0	Lumber DOL 1.15	BC 0.93	Vert(CT) -0.47 7-8 >582 240		
BCLL 0.0 *	Rep Stress Incr NO	WB 0.80	Horz(CT) 0.02 6 n/a n/a		
BCDL 10.0	Code IRC2015/TPI2014	Matrix-AS	Wind(LL) 0.04 7 >999 240	Weight: 192 lb	FT = 20%

<b>LUMBER-</b>	<b>BRACING-</b>
TOP CHORD 2x6 SP No.2 *Except* 1-2: 2x4 SP No.2	TOP CHORD Structural wood sheathing directly applied, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 2-5.
BOT CHORD 2x6 SP No.2	BOT CHORD Rigid ceiling directly applied.
WEBS 2x4 SP No.3 *Except* 1-9,10-11: 2x4 SP No.2	WEBS 1 Row at midpt 3-6, 2-9, 10-11

**REACTIONS.** (lb/size) 6=958/Mechanical, 9=1055/0-5-8  
 Max Horz 9=128(LC 12)  
 Max Uplift 6=-473(LC 9), 9=-248(LC 9)  
 Max Grav 6=977(LC 2), 9=1110(LC 2)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-3=-934/375  
 BOT CHORD 8-9=-331/536, 7-8=-331/536, 6-7=-450/903  
 WEBS 2-11=-89/706, 7-11=-100/613, 3-7=-51/363, 3-6=-1105/550, 9-10=-930/421,  
 2-10=-858/443

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-10; Vult=150mph (3-second gust) Vasd=119mph; TC DL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - 200.0lb AC unit load placed on the bottom chord, 6-0-0 from left end, supported at two points, 5-0-0 apart.
  - Provide adequate drainage to prevent water ponding.
  - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - \* 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.
  - All bearings are assumed to be User Defined crushing capacity of 565 psi.
  - Refer to girder(s) for truss to truss connections.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 6=473, 9=248.
  - 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.
  - 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 + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15  
 Uniform Loads (plf)  
 Vert: 1-2=-60, 2-5=-60, 6-9=-20



Continued on page 2

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 10/03/2015 BEFORE USE.**

Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 218 N. Lee Street, Suite 312, Alexandria, VA 22314.

**ENGINEERING BY**  
**TRENCO**  
 A MiTek Affiliate

818 Soundside Road  
 Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	H&H-SC/Trillium/	
823690	B15	Half Hip	2	1		I36912851
						Job Reference (optional)

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8.220 s Nov 16 2018 MiTek Industries, Inc. Mon Apr 29 15:55:18 2019 Page 2  
 ID:N9ZpzacWqWTLjEbWrVVGBzZQOD-e\_V9AmxU92dW1pkTRclxdGM1N?AgYhazeZvFW0zLpF7

**LOAD CASE(S)** Standard  
 Concentrated Loads (lb)  
 Vert: 13=-100 14=-100

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 10/03/2015 BEFORE USE.**

Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TP11 Quality Criteria, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 218 N. Lee Street, Suite 312, Alexandria, VA 22314.



818 Soundside Road  
 Edenton, NC 27932

Job 823690	Truss B16	Truss Type Half Hip	Qty 2	Ply 1	H&H-SC/Trillium/ Job Reference (optional)	136912852
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8.220 s Nov 16 2018 MiTek Industries, Inc. Mon Apr 29 15:55:19 2019 Page 1

ID:N9ZpzacWqWTLljEbWrVVGbZQOD-7A3XO6y6wMINfzJf?JGAAUv8WOWEH9i6sDfp2SzlP6

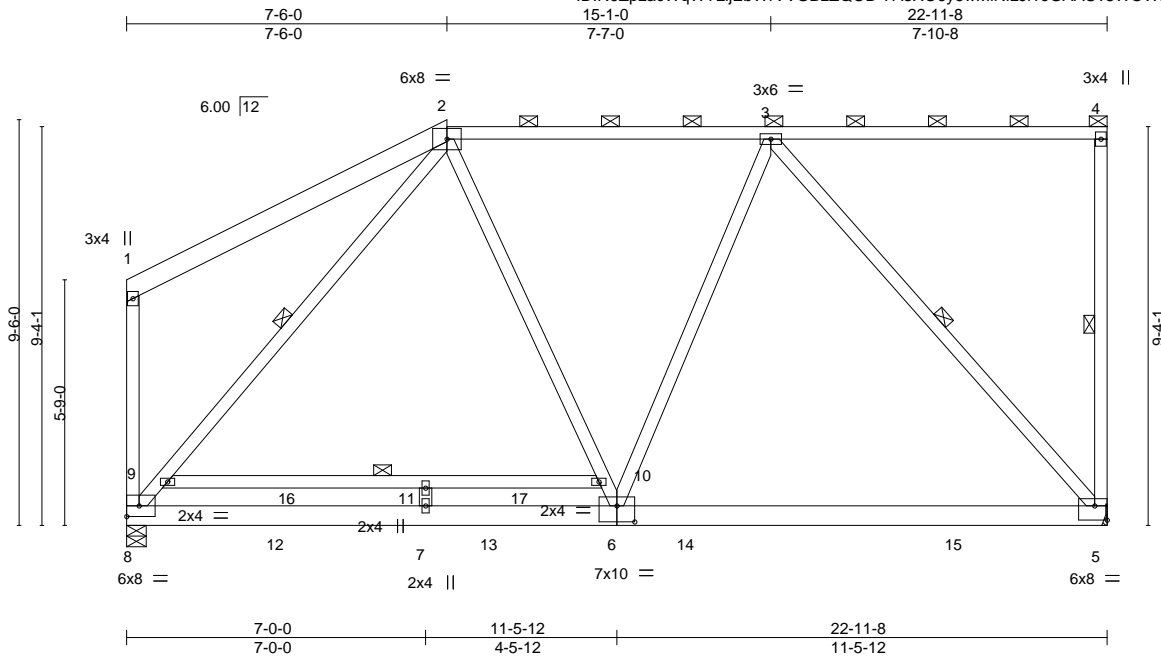


Plate Offsets (X,Y)--	[5:Edge,0-4-0], [6:0-5-0,0-4-8]				
<b>LOADING</b> (psf)	<b>SPACING-</b> 2-0-0	<b>CSI.</b>	<b>DEFL.</b> in (loc) l/defl L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL 20.0	Plate Grip DOL 1.15	TC 0.91	Vert(LL) -0.25 7-8 >999 360	MT20	244/190
TCDL 10.0	Lumber DOL 1.15	BC 0.91	Vert(CT) -0.47 7-8 >573 240		
BCLL 0.0 *	Rep Stress Incr NO	WB 0.68	Horz(CT) 0.01 5 n/a n/a		
BCDL 10.0	Code IRC2015/TPI2014	Matrix-AS	Wind(LL) 0.03 6 >999 240	Weight: 194 lb	FT = 20%

<b>LUMBER-</b>	<b>BRACING-</b>
TOP CHORD 2x6 SP No.2 *Except* 2-4: 2x4 SP No.2	TOP CHORD Structural wood sheathing directly applied, except end verticals, and 2-0-0 oc purlins (5-11-3 max.): 2-4.
BOT CHORD 2x6 SP No.2	BOT CHORD Rigid ceiling directly applied.
WEBS 2x4 SP No.3 *Except* 1-8,9-10: 2x4 SP No.2	WEBS 1 Row at midpt 4-5, 3-5, 2-8, 9-10

**REACTIONS.** (lb/size) 5=958/Mechanical, 8=1055/0-5-8  
 Max Horz 8=252(LC 12)  
 Max Uplift 5=-480(LC 9), 8=-152(LC 9)  
 Max Grav 5=1024(LC 2), 8=1114(LC 2)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-3=-758/340, 1-8=-230/284  
 BOT CHORD 7-8=-406/624, 6-7=-406/624, 5-6=-374/640  
 WEBS 2-10=0/445, 6-10=0/406, 3-6=0/430, 3-5=-950/553, 8-9=-913/219, 2-9=-877/247

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-10; Vult=150mph (3-second gust) Vasd=119mph; TCCL=6.0psf; BCCL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - 200.0lb AC unit load placed on the bottom chord, 6-0-0 from left end, supported at two points, 5-0-0 apart.
  - Provide adequate drainage to prevent water ponding.
  - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - \* 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 BCCL = 10.0psf.
  - All bearings are assumed to be User Defined crushing capacity of 565 psi.
  - Refer to girder(s) for truss to truss connections.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 5=480, 8=152.
  - 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.
  - 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 + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15  
 Uniform Loads (plf)  
 Vert: 1-2=-60, 2-4=-60, 5-8=-20



Job	Truss	Truss Type	Qty	Ply	H&H-SC/Trillium/	I36912852
823690	B16	Half Hip	2	1		
Job Reference (optional)						

Builders FirstSource, Sumter, SC - 29153,

8.220 s Nov 16 2018 MiTek Industries, Inc. Mon Apr 29 15:55:19 2019 Page 2  
 ID:N9ZpzacWqWTLjEbWrVVGbZzQOD-7A3XO6y6wMINfzJf?JGAAUv8WOWEH9i6sDfp2SzLpF6

**LOAD CASE(S)** Standard  
 Concentrated Loads (lb)  
 Vert: 12=-100 13=-100

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 10/03/2015 BEFORE USE.**

Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 218 N. Lee Street, Suite 312, Alexandria, VA 22314.



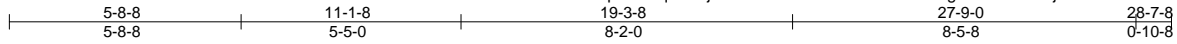
818 Soundside Road  
 Edenton, NC 27932

Job 823690	Truss B17	Truss Type COMMON	Qty 9	Ply 1	H&H-SC/Trillium/ Job Reference (optional)	136912853
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Builders FirstSource, Sumter, SC - 29153,

8.220 s Nov 16 2018 MiTek Industries, Inc. Mon Apr 29 15:55:20 2019 Page 1

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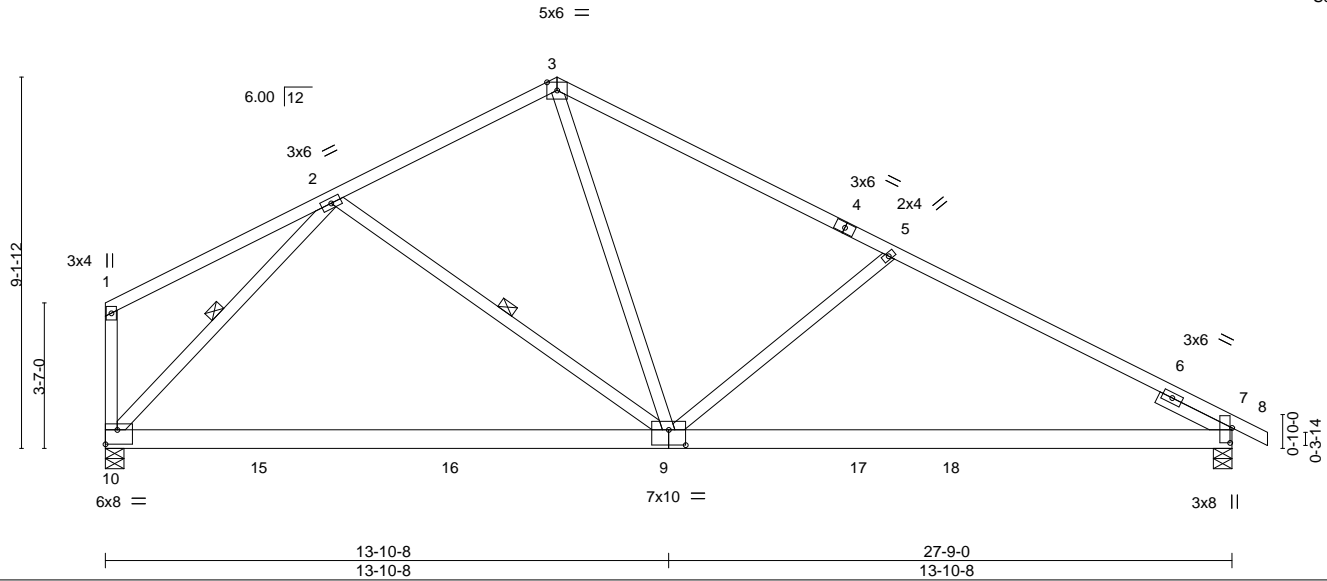


Plate Offsets (X,Y)--	[7:0-4-7,0-0-9], [9:0-5-0,0-4-8], [10:Edge,0-4-4]
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LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL	1.15	TC 0.75	Vert(LL)	-0.27	9-10	>999	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.82	Vert(CT)	-0.49	9-10	>674		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.59	Horz(CT)	0.02	7	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-AS	Wind(LL)	0.10	9-13	>999		
								Weight: 170 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x4 SP No.2	TOP CHORD Structural wood sheathing directly applied, except end verticals.
BOT CHORD 2x6 SP No.2	BOT CHORD Rigid ceiling directly applied.
WEBS 2x4 SP No.3 *Except*	WEBS 1 Row at midpt 2-9, 2-10
1-10: 2x4 SP No.2	
SLIDER Right 2x4 SP No.3 2-0-0	

**REACTIONS.** (lb/size) 10=1103/0-5-8, 7=1157/0-5-8  
 Max Horz 10=-387(LC 13)  
 Max Uplift 10=-448(LC 12), 7=-554(LC 13)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-3=-1050/849, 3-5=-1296/938, 5-7=-1517/1172  
 BOT CHORD 9-10=-354/807, 7-9=-834/1436  
 WEBS 2-9=-30/279, 3-9=-368/669, 5-9=-512/695, 2-10=-1071/808

- NOTES-** (8)
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-10; Vult=150mph (3-second gust) Vasd=119mph; TC DL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; end vertical right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - \* 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.
  - All bearings are assumed to be User Defined crushing capacity of 565 psi.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (it=lb) 10=448, 7=554.
  - 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.
  - This manufactured truss is designed as an individual building component. The suitability and use of this component for any particular building is the responsibility of the building designer per ANSI TPI 1 as referenced by the building code.

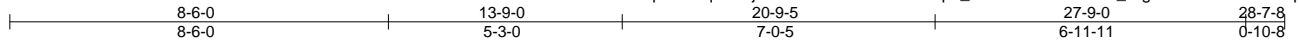


Job	Truss	Truss Type	Qty	Ply	H&H-SC/Trillium/	136912854
823690	B18	Hip	3	1		

Builders FirstSource, Sumter, SC - 29153,

8.220 s Nov 16 2018 MiTek Industries, Inc. Mon Apr 29 15:55:21 2019 Page 1

ID:N9ZpzacWqWTLljEbWrVvGBzZQOD-3ZBlpo\_MSz?5uHT26kJefV\_WgCBrl13PKX8w7LzLpF4



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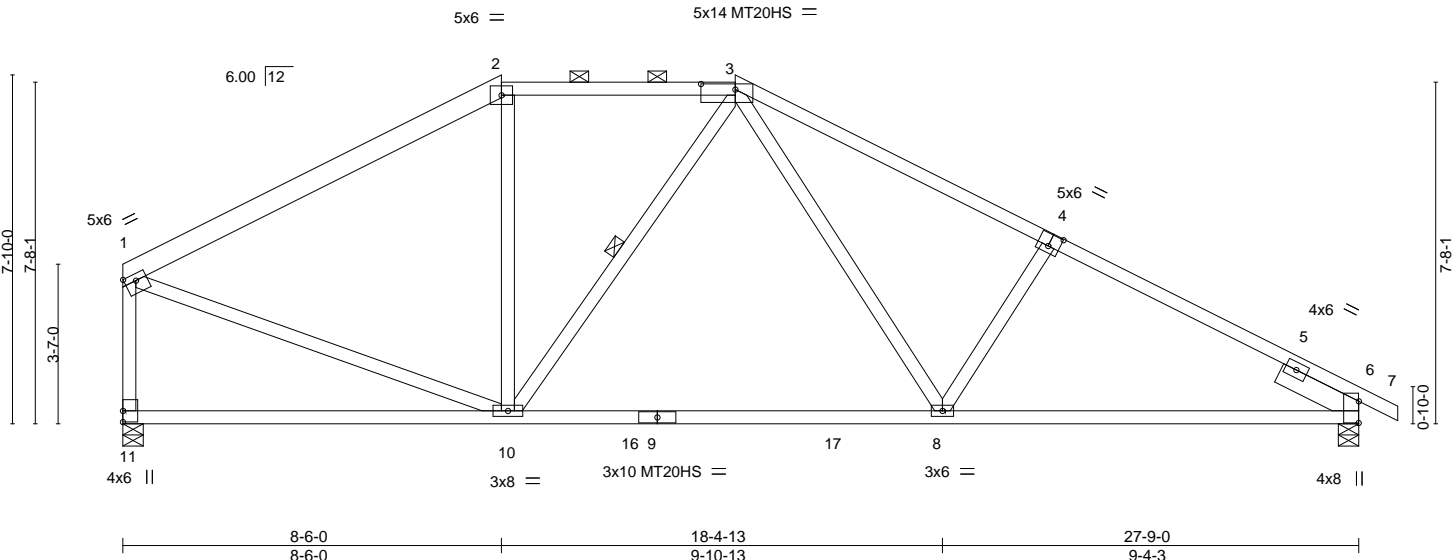


Plate Offsets (X,Y)--	[1:Edge,0-1-12], [3:0-9-4,0-1-8], [4:0-3-0,0-3-4], [6:0-5-13,0-0-1]
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<b>LOADING</b> (psf)	<b>SPACING-</b> 2-0-0	<b>CSI.</b>	<b>DEFL.</b> in (loc) l/defl L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL 20.0	Plate Grip DOL 1.15	TC 0.80	Vert(LL) -0.39 8-10 >846 360	MT20	244/190
TCDL 10.0	Lumber DOL 1.15	BC 0.96	Vert(CT) -0.59 8-10 >566 240	MT20HS	187/143
BCLL 0.0 *	Rep Stress Incr YES	WB 0.81	Horz(CT) 0.06 6 n/a n/a		
BCDL 10.0	Code IRC2015/TPI2014	Matrix-AS	Wind(LL) 0.10 8-10 >999 240		
				Weight: 161 lb	FT = 20%

<b>LUMBER-</b>	<b>BRACING-</b>
TOP CHORD 2x4 SP No.2 *Except* 1-2: 2x6 SP No.2	TOP CHORD Structural wood sheathing directly applied, except end verticals, and 2-0-0 oc purlins (5-9-13 max.): 2-3.
BOT CHORD 2x4 SP No.2	BOT CHORD Rigid ceiling directly applied.
WEBS 2x4 SP No.3	WEBS 1 Row at midpt 3-10
SLIDER Right 2x6 SP No.2 1-11-12	

**REACTIONS.** (lb/size) 11=1103/0-5-8, 6=1157/0-5-8  
 Max Horz 11=-321(LC 10)  
 Max Uplift 11=-414(LC 12), 6=-537(LC 13)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 1-2=-1135/786, 2-3=-921/843, 3-4=-1548/1159, 4-6=-1723/1167, 1-11=-1028/768  
 BOT CHORD 10-11=-97/285, 8-10=-374/1030, 6-8=-828/1472  
 WEBS 3-10=-276/266, 3-8=-369/573, 4-8=-323/505, 1-10=-520/911

**NOTES-**

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-10; Vult=150mph (3-second gust) Vasd=119mph; TCDFL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; 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
- Provide adequate drainage to prevent water ponding.
- All plates are MT20 plates unless otherwise indicated.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- \* 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.
- All bearings are assumed to be User Defined crushing capacity of 565 psi.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 11=414, 6=537.
- 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.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



May 1, 2019

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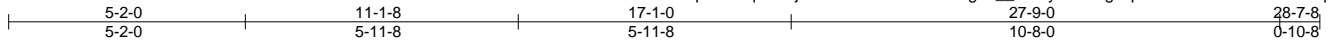
818 Soundside Road  
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	H&H-SC/Trillium/	136912855
823690	B19	HIP	3	1		

Builders FirstSource, Sumter, SC - 29153,

8.220 s Nov 16 2018 MiTek Industries, Inc. Mon Apr 29 15:55:22 2019 Page 1

ID:N9ZpzacWqWTLljEbWrvVGBzZQOD-Xllg08\_DH7yWR2EgSqto6XiocYGUa7ZZBtTfnzLpF3



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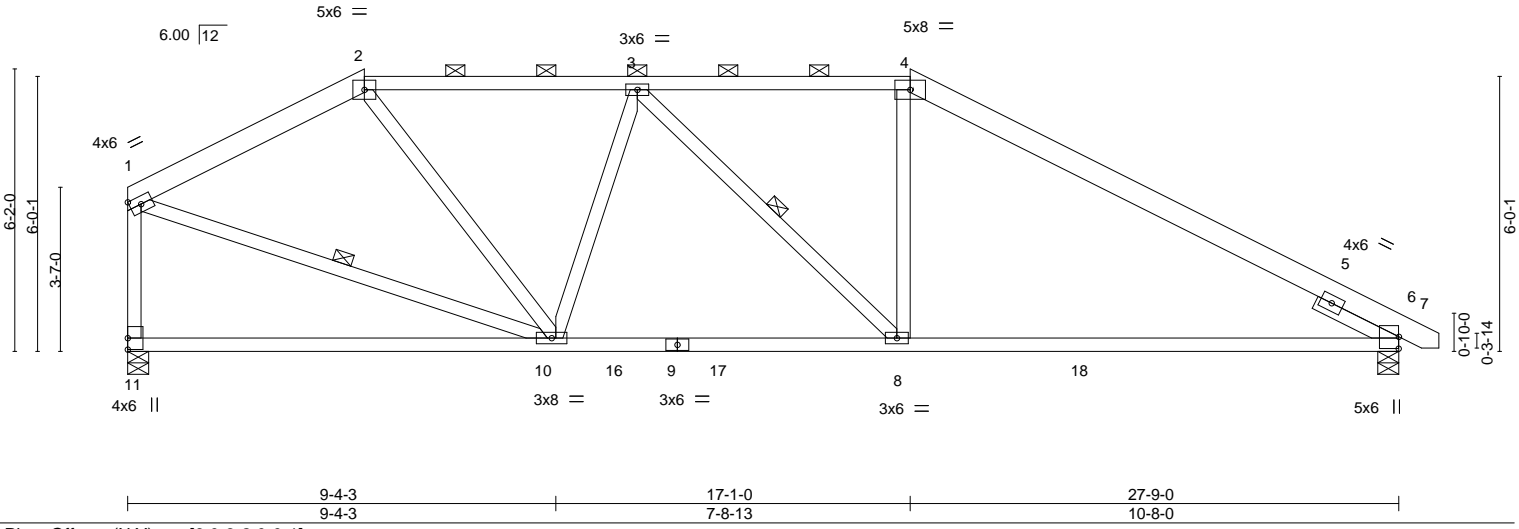


Plate Offsets (X,Y)-- [6:0-3-2,0-0-1]

<b>LOADING</b> (psf)	<b>SPACING-</b>	2-0-0	<b>CSI.</b>	<b>DEFL.</b>	in (loc)	l/defl	L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL 20.0	Plate Grip DOL	1.15	TC 0.71	Vert(LL)	-0.20	8-14	>999	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.89	Vert(CT)	-0.45	8-14	>738		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.44	Horz(CT)	0.04	6	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-AS	Wind(LL)	0.24	8-14	>999		
								Weight: 163 lb	FT = 20%

<b>LUMBER-</b>	<b>BRACING-</b>
TOP CHORD 2x6 SP No.2 *Except*	TOP CHORD Structural wood sheathing directly applied, except end verticals, and 2-0-0 oc purlins (4-7-5 max.): 2-4.
2-4: 2x4 SP No.2	
BOT CHORD 2x4 SP No.2	BOT CHORD Rigid ceiling directly applied.
WEBS 2x4 SP No.3	WEBS 1 Row at midpt 3-8, 1-10
SLIDER Right 2x4 SP No.3 1-11-12	

**REACTIONS.** (lb/size) 11=1104/0-5-8, 6=1146/0-5-8  
 Max Horz 11=-286(LC 10)  
 Max Uplift 11=-391(LC 9), 6=-485(LC 13)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 1-2=-1230/870, 2-3=-1173/889, 3-4=-1349/1036, 4-6=-1591/975, 1-11=-1016/752  
 BOT CHORD 10-11=-100/291, 8-10=-567/1308, 6-8=-592/1342  
 WEBS 2-10=-36/312, 3-10=-426/393, 4-8=-30/327, 1-10=-740/1065

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-10; Vult=150mph (3-second gust) Vasd=119mph; TC DL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; 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
  - Provide adequate drainage to prevent water ponding.
  - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - \* 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.
  - All bearings are assumed to be User Defined crushing capacity of 565 psi.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 11=391, 6=485.
  - 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.
  - Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



May 1, 2019

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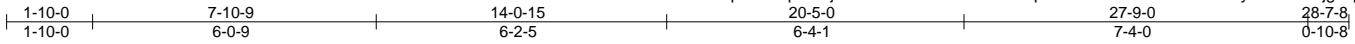


Job 823690	Truss B20	Truss Type HIP GIRDER	Qty 3	Ply 2	H&H-SC/Trillium/ Job Reference (optional)	136912856
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Builders FirstSource, Sumter, SC - 29153,

8.220 s Nov 16 2018 MiTek Industries, Inc. Mon Apr 29 15:55:24 2019 Page 1

ID:N9ZpacWqWTLjEbWrVVGbZQOD-T8tQRp0FluNfikBdnssLXC48PMwYUyr0UMajgzLpF1



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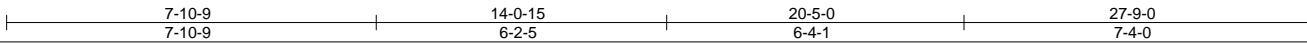
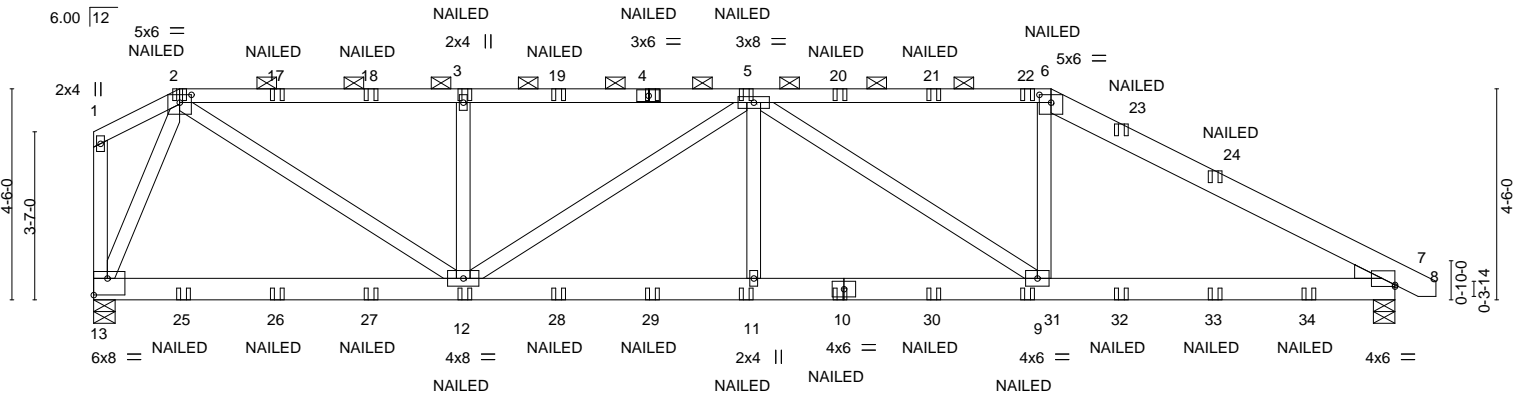


Plate Offsets (X, Y)-- [2:0-3-0,0-2-0], [6:0-3-0,0-2-0], [7:0-0-0,0-0-7], [13:Edge,0-4-4]

<b>LOADING</b> (psf)	<b>SPACING-</b>	2-0-0	<b>CSI.</b>	<b>DEFL.</b>	in (loc)	l/defl	L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL 20.0	Plate Grip DOL	1.15	TC 0.60	Vert(LL)	0.15	11	>999	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.36	Vert(CT)	-0.10	11	>999		
BCLL 0.0 *	Rep Stress Incr	NO	WB 0.45	Horz(CT)	-0.04	7	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-MS						
								Weight: 353 lb	FT = 20%

<b>LUMBER-</b>	<b>BRACING-</b>
TOP CHORD 2x4 SP No.2 *Except* 6-8: 2x6 SP No.2	TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 2-6.
BOT CHORD 2x6 SP No.2	BOT CHORD Rigid ceiling directly applied or 9-2-14 oc bracing.
WEBS 2x4 SP No.2	
WEDGE	
Right: 2x4 SP No.3	

**REACTIONS.** (lb/size) 7=1546/0-5-8, 13=1521/0-5-8  
 Max Horz 13=-253(LC 25)  
 Max Uplift 7=-1468(LC 9), 13=-1735(LC 4)  
 Max Grav 7=1546(LC 1), 13=1638(LC 36)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-3=-2408/2604, 3-5=-2408/2604, 5-6=-2205/2342, 6-7=-2571/2544  
 BOT CHORD 12-13=-708/777, 11-12=-3029/2973, 9-11=-3029/2973, 7-9=-2146/2240  
 WEBS 6-9=-695/773, 5-9=-905/1034, 2-12=-2239/2114, 5-11=-96/319, 3-12=-551/781,  
 5-12=-604/686, 2-13=-1657/1928

- NOTES-**
- 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, 2x6 - 2 rows staggered at 0-9-0 oc.  
 Bottom chords connected as follows: 2x6 - 2 rows staggered at 0-9-0 oc.  
 Webs connected as follows: 2x4 - 1 row at 0-9-0 oc.
  - 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.
  - Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-10; Vult=150mph (3-second gust) Vasd=119mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
  - Provide adequate drainage to prevent water ponding.
  - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - \* 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.
  - All bearings are assumed to be User Defined crushing capacity of 565 psi.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 7=1468, 13=1735.
  - Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
  - "NAILED" indicates 3-10d (0.148"x3") or 3-12d (0.148"x3.25") toe-nails per NDS guidelines.

**LOAD CASE(S)** Standard

Continued on page 2



May 1, 2019

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**ENGINEERING BY**  
**TRENCO**  
 A MiTek Affiliate

818 Soundside Road  
 Edenton, NC 27932

Job 823690	Truss B20	Truss Type HIP GIRDER	Qty 3	Ply <b>2</b>	H&H-SC/Trillium/ Job Reference (optional)	I36912856
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Builders FirstSource, Sumter, SC - 29153,

8.220 s Nov 16 2018 MiTek Industries, Inc. Mon Apr 29 15:55:24 2019 Page 2  
ID:N9ZpzacWqWTLijEbWrVVGbZzQOD-T8tQRp0FluNfikBdnssLtXc48PMwyUYr0UMajgzLPf1

**LOAD CASE(S)** Standard

1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15

Uniform Loads (plf)

Vert: 1-2=-60, 2-6=-60, 6-8=-60, 13-14=-20

Concentrated Loads (lb)

Vert: 2=-46(B) 4=-46(B) 10=-18(B) 5=-46(B) 12=-18(B) 11=-18(B) 3=-46(B) 17=-46(B) 18=-46(B) 19=-46(B) 20=-46(B) 21=-46(B) 22=-46(B) 24=-2(B) 25=-18(B) 26=-18(B) 27=-18(B) 28=-18(B) 29=-18(B) 30=-18(B) 31=-18(B) 32=-97(B) 33=-61(B) 34=-23(B)

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 10/03/2015 BEFORE USE.**

Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 218 N. Lee Street, Suite 312, Alexandria, VA 22314.



818 Soundside Road  
Edenton, NC 27932

Job 823690	Truss B21	Truss Type Flat Girder	Qty 2	Ply 1	H&H-SC/Trillium/ Job Reference (optional)	136912857
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Builders FirstSource, Sumter, SC - 29153,

8.220 s Nov 16 2018 MiTek Industries, Inc. Mon Apr 29 15:55:26 2019 Page 1

ID:N9ZpzacWqWTLjEbWrvVGBzZQOD-PX\_BsV1VHWeN\_2L0vHupyyhNpD2YQLx8TorhoYzLpF?



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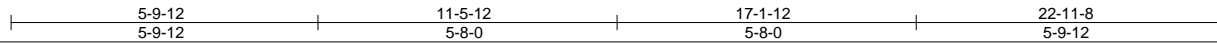
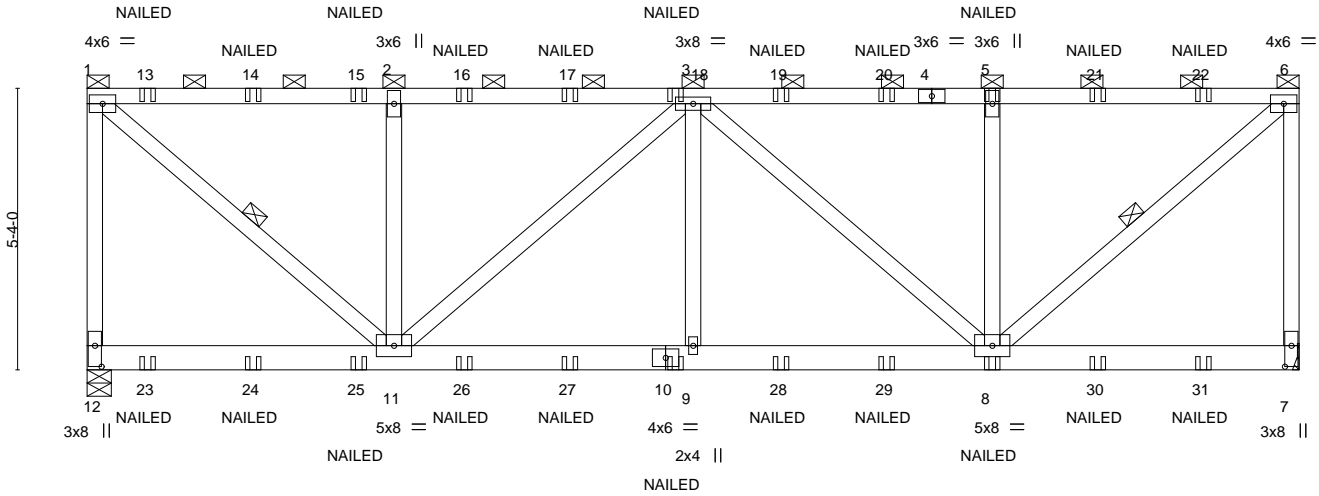


Plate Offsets (X,Y)--	[7:0-4-12,0-1-8], [12:0-4-12,0-1-8]				
<b>LOADING</b> (psf)	<b>SPACING-</b> 2-0-0	<b>CSI.</b>	<b>DEFL.</b> in (loc) l/defl L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL 20.0	Plate Grip DOL 1.15	TC 0.78	Vert(LL) 0.17 9-11 >999 240	MT20	244/190
TCDL 10.0	Lumber DOL 1.15	BC 0.35	Vert(CT) -0.09 9-11 >999 240		
BCLL 0.0 *	Rep Stress Incr NO	WB 0.58	Horz(CT) -0.03 7 n/a n/a		
BCDL 10.0	Code IRC2015/TPI2014	Matrix-MS		Weight: 164 lb	FT = 20%

**LUMBER-**

TOP CHORD 2x4 SP No.1  
 BOT CHORD 2x6 SP No.2  
 WEBS 2x4 SP No.2

**BRACING-**

TOP CHORD 2-0-0 oc purlins (5-1-11 max.): 1-6, except end verticals.  
 BOT CHORD Rigid ceiling directly applied or 4-10-4 oc bracing.  
 WEBS 1 Row at midpt 1-11, 6-8

**REACTIONS.**

(lb/size) 12=1266/0-5-8, 7=1245/Mechanical  
 Max Uplift 12=-1930(LC 4), 7=-1848(LC 4)  
 Max Grav 12=1422(LC 29), 7=1361(LC 29)

**FORCES.**

(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 1-12=-1308/1847, 1-2=-1293/1754, 2-3=-1293/1754, 3-5=-1289/1748, 5-6=-1289/1748,  
 6-7=-1263/1790  
 BOT CHORD 9-11=-2287/1683, 8-9=-2287/1683  
 WEBS 1-11=-2286/1688, 2-11=-513/880, 3-11=-519/708, 3-9=-170/313, 3-8=-524/715,  
 5-8=-512/876, 6-8=-2280/1685

**NOTES-**

- 1) Wind: ASCE 7-10; Vult=150mph (3-second gust) Vasd=119mph; TC DL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; 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) All bearings are assumed to be User Defined crushing capacity of 565 psi.
- 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) except (jt=lb) 12=1930, 7=1848.
- 8) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
- 9) "NAILED" indicates 3-10d (0.148"x3") or 3-12d (0.148"x3.25") toe-nails per NDS guidelines.
- 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: 1-6=-60, 7-12=-20  
 Concentrated Loads (lb)  
 Vert: 10=-18(F) 5=-46(F) 8=-18(F) 13=-46(F) 14=-46(F) 15=-46(F) 16=-46(F) 17=-46(F) 18=-46(F) 19=-46(F) 20=-46(F)  
 21=-46(F) 22=-46(F) 23=-18(F) 24=-18(F) 25=-18(F) 26=-18(F) 27=-18(F) 28=-18(F) 29=-18(F) 30=-18(F) 31=-18(F)



May 1, 2019

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 10/03/2015 BEFORE USE.**  
 Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 218 N. Lee Street, Suite 312, Alexandria, VA 22314.



818 Soundside Road  
 Edenton, NC 27932

Job 823690	Truss B22	Truss Type Half Hip	Qty 2	Ply 1	H&H-SC/Trillium/ Job Reference (optional)	136912858
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Builders FirstSource, Sumter, SC - 29153,

8.220 s Nov 16 2018 MiTek Industries, Inc. Mon Apr 29 15:55:27 2019 Page 1

ID:N9ZpzacWqWTLjEbWrVVGBzZQOD-ujYZ3r272pmEcCwCT?Q2VAEC4dJf9jRliSbEK\_zLpF\_



Scale: 1/4"=1'

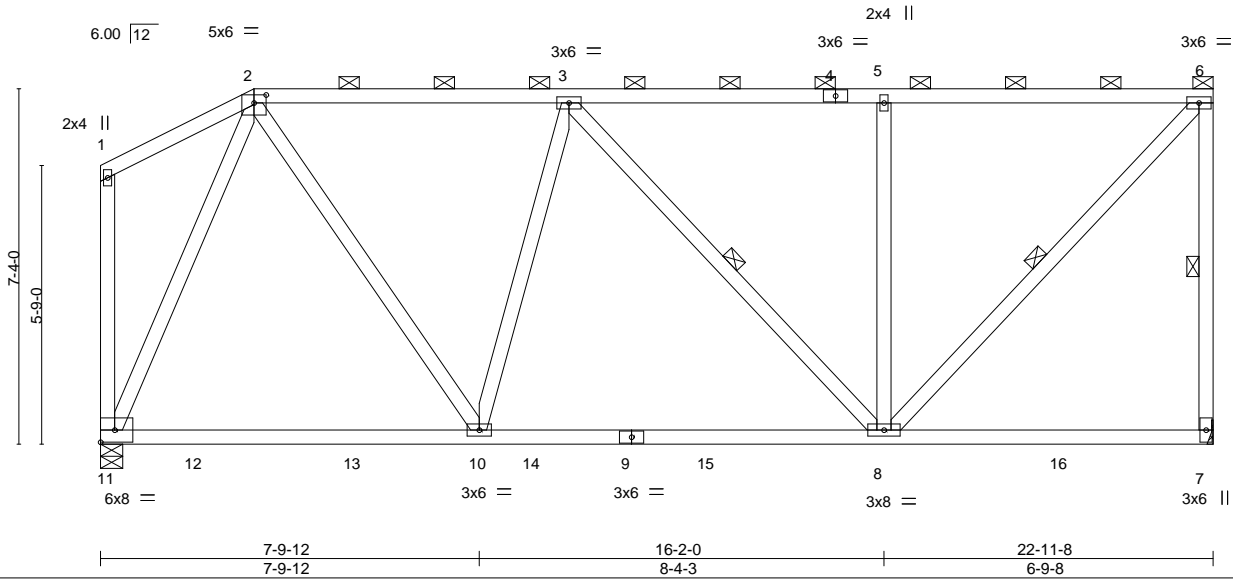


Plate Offsets (X,Y)-- [2:0-3-0,0-2-0]

<b>LOADING</b> (psf)	<b>SPACING-</b> 2-0-0	<b>CSI.</b>	<b>DEFL.</b> in (loc) l/defl L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL 20.0	Plate Grip DOL 1.15	TC 0.55	Vert(LL) -0.10 8-10 >999 360	MT20	244/190
TCDL 10.0	Lumber DOL 1.15	BC 0.68	Vert(CT) -0.18 8-10 >999 240		
BCLL 0.0 *	Rep Stress Incr YES	WB 0.95	Horz(CT) 0.01 7 n/a n/a		
BCDL 10.0	Code IRC2015/TPI2014	Matrix-AS	Wind(LL) 0.05 8-10 >999 240	Weight: 158 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, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 2-6.  
 BOT CHORD Rigid ceiling directly applied.  
 WEBS 1 Row at midpt 6-7, 3-8, 6-8

**REACTIONS.** (lb/size) 7=907/Mechanical, 11=907/0-5-8  
 Max Horz 11=106(LC 12)  
 Max Uplift 7=-527(LC 9), 11=-421(LC 9)  
 Max Grav 7=943(LC 2), 11=940(LC 2)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-3=-699/436, 3-5=-655/412, 5-6=-655/412, 6-7=-848/595  
 BOT CHORD 10-11=-316/348, 8-10=-512/758  
 WEBS 2-10=-255/646, 3-10=-328/327, 5-8=-420/417, 6-8=-583/927, 2-11=-845/509

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-10; Vult=150mph (3-second gust) Vasd=119mph; TC DL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - Provide adequate drainage to prevent water ponding.
  - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - \* 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.
  - All bearings are assumed to be User Defined crushing capacity of 565 psi.
  - Refer to girder(s) for truss to truss connections.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 7=527, 11=421.
  - 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.
  - Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



May 1, 2019

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 10/03/2015 BEFORE USE.**

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818 Soundside Road  
 Edenton, NC 27932

Job 823690	Truss B23	Truss Type Half Hip	Qty 2	Ply 1	H&H-SC/Trillium/ Job Reference (optional)	136912859
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Builders FirstSource, Sumter, SC - 29153,

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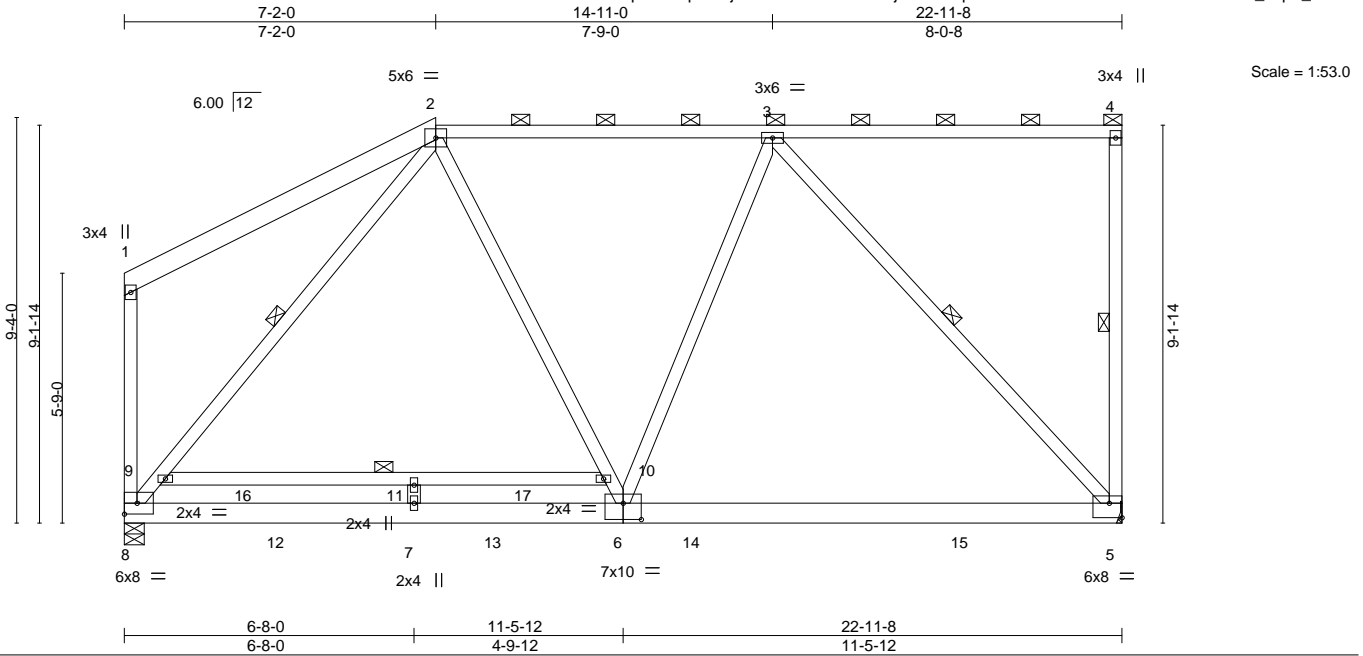


Plate Offsets (X,Y)--	[5:Edge,0-4-0], [6:0-5-0,0-4-8]
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<b>LOADING</b> (psf)	<b>SPACING-</b>	2-0-0	<b>CSI.</b>	<b>DEFL.</b>	in (loc)	l/defl	L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL 20.0	Plate Grip DOL	1.15	TC 0.95	Vert(LL)	-0.28	7-8	>982	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.93	Vert(CT)	-0.50	7-8	>546		
BCLL 0.0 *	Rep Stress Incr	NO	WB 0.69	Horz(CT)	0.02	5	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-AS	Wind(LL)	0.03	6	>999		
								Weight: 193 lb	FT = 20%

<b>LUMBER-</b>	<b>BRACING-</b>
TOP CHORD 2x6 SP No.2 *Except* 2-4: 2x4 SP No.2	TOP CHORD Structural wood sheathing directly applied, except end verticals, and 2-0-0 oc purlins (5-9-6 max.): 2-4.
BOT CHORD 2x6 SP No.2	BOT CHORD Rigid ceiling directly applied.
WEBS 2x4 SP No.3 *Except* 1-8,9-10: 2x4 SP No.2	WEBS 1 Row at midpt 4-5, 3-5, 2-8, 9-10

**REACTIONS.** (lb/size) 5=958/Mechanical, 8=1055/0-5-8  
 Max Horz 8=239(LC 12)  
 Max Uplift 5=-479(LC 9), 8=-161(LC 9)  
 Max Grav 5=1025(LC 2), 8=1140(LC 2)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-3=-780/340, 1-8=-217/266  
 BOT CHORD 7-8=-404/632, 6-7=-404/632, 5-6=-381/669  
 WEBS 2-10=0/462, 6-10=0/415, 3-6=0/429, 3-5=-969/549, 8-9=-939/245, 2-9=-884/274

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-10; Vult=150mph (3-second gust) Vasd=119mph; TC DL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - 200.0lb AC unit load placed on the bottom chord, 6-0-0 from left end, supported at two points, 5-0-0 apart.
  - Provide adequate drainage to prevent water ponding.
  - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - \* 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.
  - All bearings are assumed to be User Defined crushing capacity of 565 psi.
  - Refer to girder(s) for truss to truss connections.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 5=479, 8=161.
  - 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.
  - 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 + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15  
 Uniform Loads (plf)  
 Vert: 1-2=-60, 2-4=-60, 5-8=-20



May 1, 2019

Continued on page 2

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**ENGINEERING BY**  
**TRENCO**  
 A MiTek Affiliate

818 Soundside Road  
 Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	H&H-SC/Trillium/	I36912859
823690	B23	Half Hip	2	1		
Job Reference (optional)						

Builders FirstSource, Sumter, SC - 29153,

8.220 s Nov 16 2018 MiTek Industries, Inc. Mon Apr 29 15:55:27 2019 Page 2  
 ID:N9ZpacWqWTLjEbWrVVGbZQOD-ujYZ3r272pmEcCwCT?Q2VAEWsdFm9nVliSbEK\_zLpF\_

**LOAD CASE(S)** Standard  
 Concentrated Loads (lb)  
 Vert: 12=-100 13=-100

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 10/03/2015 BEFORE USE.**

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818 Soundside Road  
 Edenton, NC 27932

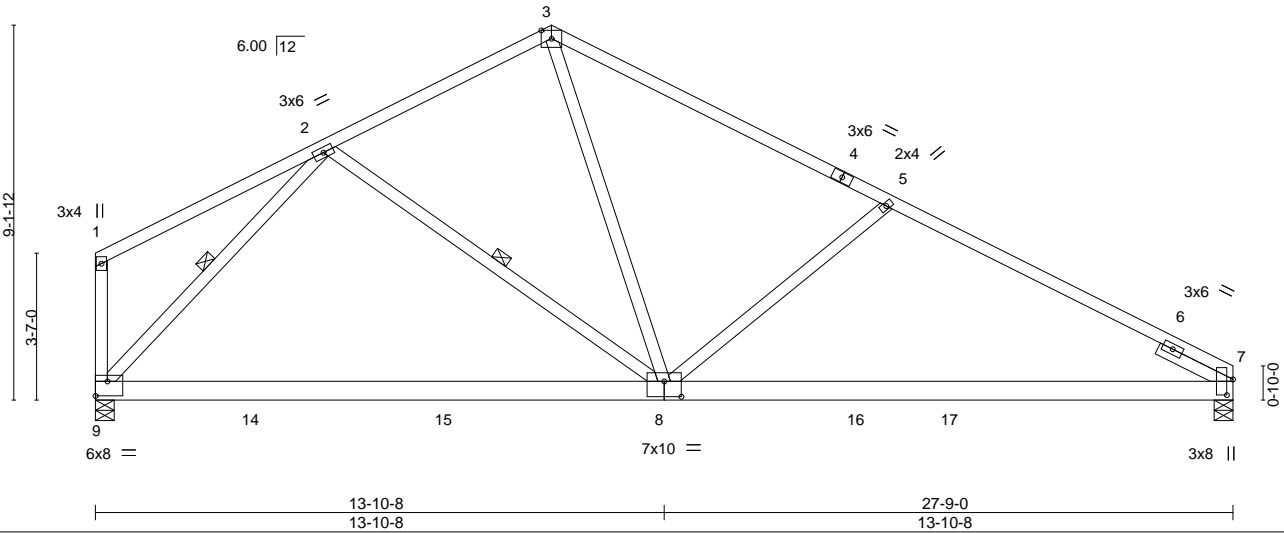
Job 823690	Truss B24	Truss Type COMMON	Qty 3	Ply 1	H&H-SC/Trillium/ Job Reference (optional)	136912860
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Builders FirstSource, Sumter, SC - 29153,

8.220 s Nov 16 2018 MiTek Industries, Inc. Mon Apr 29 15:55:28 2019 Page 1  
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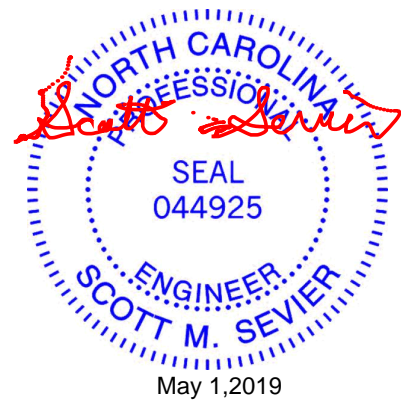
LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL	1.15	TC 0.75	Vert(LL)	-0.27	8-9	>999	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.83	Vert(CT)	-0.49	8-9	>675		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.62	Horz(CT)	0.02	7	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-AS	Wind(LL)	0.10	8-12	>999		
								Weight: 168 lb	FT = 20%

<b>LUMBER-</b>	<b>BRACING-</b>
TOP CHORD 2x4 SP No.2	TOP CHORD Structural wood sheathing directly applied, except end verticals.
BOT CHORD 2x6 SP No.2	BOT CHORD Rigid ceiling directly applied.
WEBS 2x4 SP No.3 *Except*	WEBS 1 Row at midpt 2-8, 2-9
SLIDER 1-9: 2x4 SP No.2 Right 2x4 SP No.3 2-0-0	

**REACTIONS.** (lb/size) 9=1104/0-5-8, 7=1104/0-5-8  
Max Horz 9=-341(LC 10)  
Max Uplift 9=-453(LC 12), 7=-519(LC 13)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 2-3=-1051/868, 3-5=-1298/963, 5-7=-1521/1198, 1-9=-214/260  
BOT CHORD 8-9=-379/821, 7-8=-886/1439  
WEBS 2-8=-30/258, 3-8=-387/669, 5-8=-514/697, 2-9=-1073/853

- NOTES-** (8)
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-10; Vult=150mph (3-second gust) Vasd=119mph; TC DL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; 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
  - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - \* 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.
  - All bearings are assumed to be User Defined crushing capacity of 565 psi.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (it=lb) 9=453, 7=519.
  - 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.
  - This manufactured truss is designed as an individual building component. The suitability and use of this component for any particular building is the responsibility of the building designer per ANSI TPI 1 as referenced by the building code.

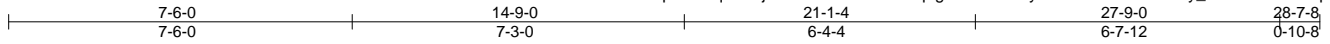


Job	Truss	Truss Type	Qty	Ply	H&H-SC/Trillium/	136912861
823690	B25	HIP	3	1		

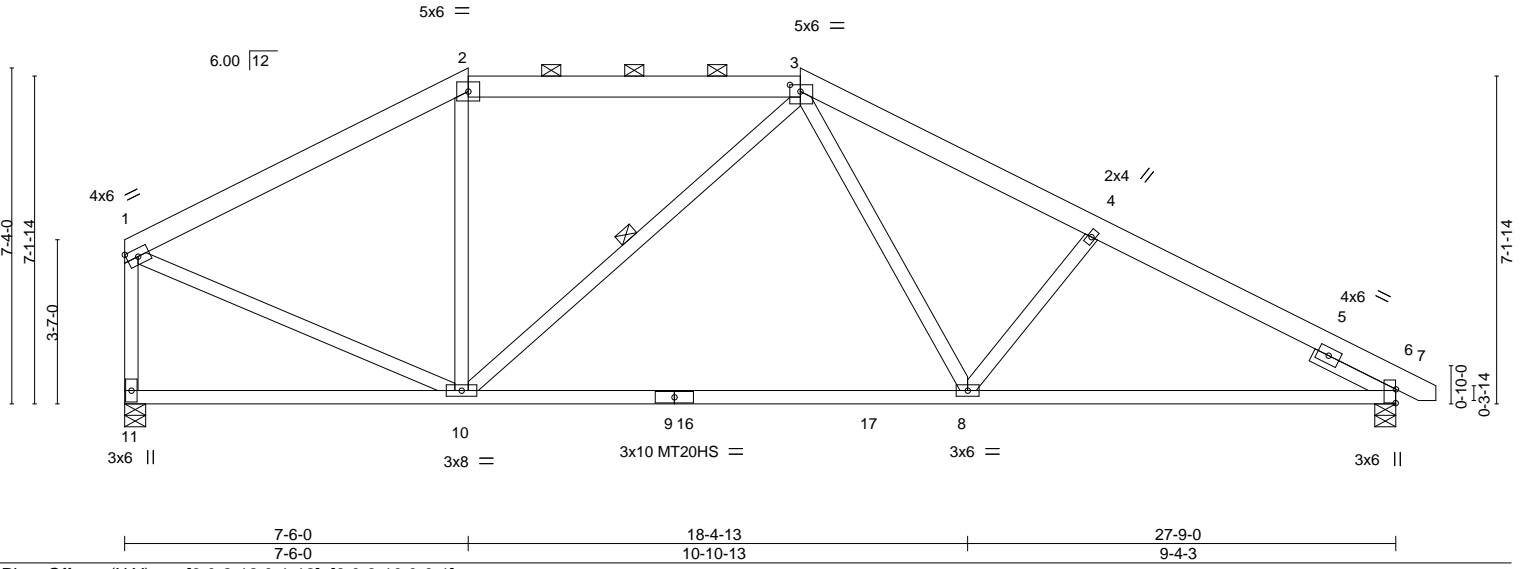
Builders FirstSource, Sumter, SC - 29153,

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Scale = 1:50.3



LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL	1.15	TC 0.59	Vert(LL)	-0.43	8-10	>769	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.82	Vert(CT)	-0.71	8-10	>468	MT20HS	187/143
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.61	Horz(CT)	0.04	6	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-AS	Wind(LL)	0.07	8-10	>999		
								Weight: 175 lb	FT = 20%

<b>LUMBER-</b>	<b>BRACING-</b>
TOP CHORD 2x6 SP No.2	TOP CHORD Structural wood sheathing directly applied, except end verticals, and
BOT CHORD 2x4 SP No.1	2-0-0 oc purlins (6-0-0 max.): 2-3.
WEBS 2x4 SP No.3	BOT CHORD Rigid ceiling directly applied.
SLIDER Right 2x4 SP No.3 1-11-12	WEBS 1 Row at midpt 3-10

**REACTIONS.** (lb/size) 11=1104/0-5-8, 6=1146/0-5-8  
 Max Horz 11=-324(LC 13)  
 Max Uplift 11=-392(LC 12), 6=-511(LC 13)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 1-2=-1115/730, 2-3=-924/789, 3-4=-1574/1102, 4-6=-1763/1159, 1-11=-1050/743  
 BOT CHORD 10-11=-65/309, 8-10=-456/1123, 6-8=-859/1509  
 WEBS 3-10=-350/281, 3-8=-265/557, 4-8=-271/456, 1-10=-518/970

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-10; Vult=150mph (3-second gust) Vasd=119mph; TC DL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; end vertical right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - Provide adequate drainage to prevent water ponding.
  - All plates are MT20 plates unless otherwise indicated.
  - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - \* 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.
  - All bearings are assumed to be User Defined crushing capacity of 565 psi.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 11=392, 6=511.
  - 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.
  - Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



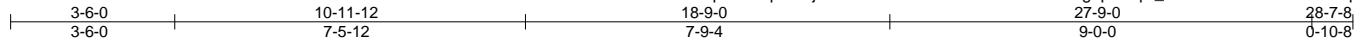


Job 823690	Truss B26	Truss Type HIP GIRDER	Qty 3	Ply 2	H&H-SC/Trillium/ Job Reference (optional)	136912862
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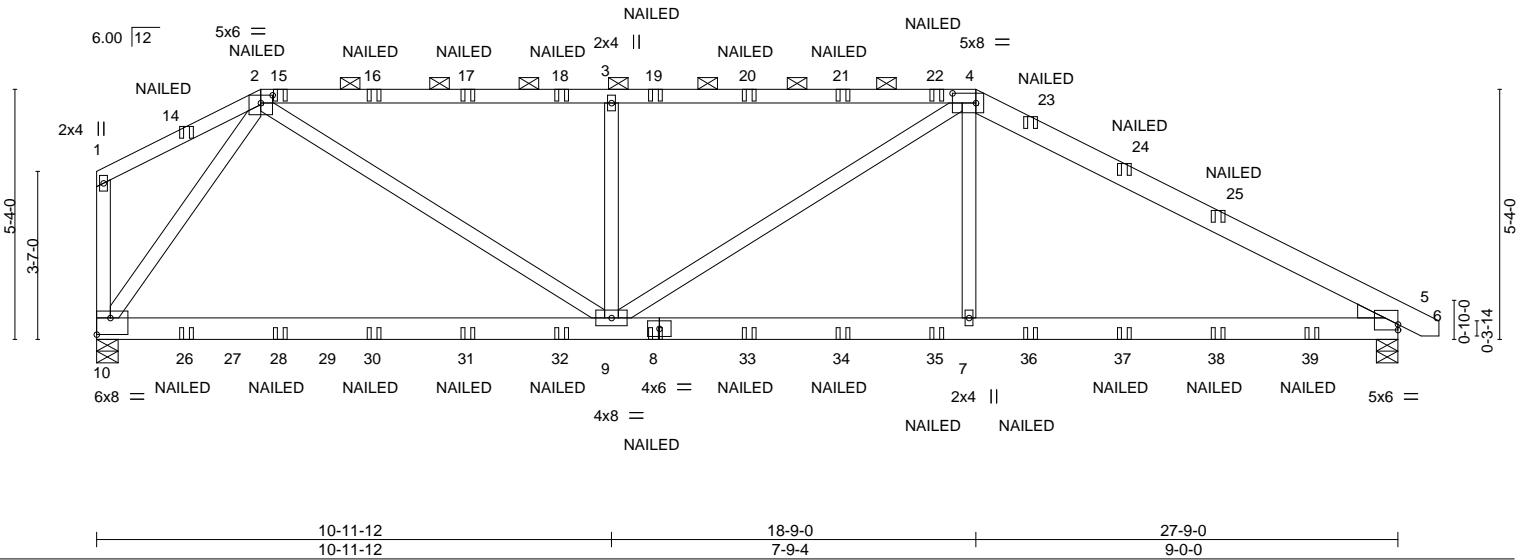
Builders FirstSource, Sumter, SC - 29153,

8.220 s Nov 16 2018 MiTek Industries, Inc. Mon Apr 29 15:55:31 2019 Page 1

ID:N9ZpacWqWTLljEbWrV/VGBzZQOD-mUo4vD5e52Gg5pEziqU\_f0OEIEk65bkt4ZSSmzLpEw



Scale = 1:49.1



<b>LOADING</b> (psf)	<b>SPACING-</b>	2-0-0	<b>CSI.</b>	<b>DEFL.</b>	in (loc)	l/defl	L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL 20.0	Plate Grip DOL	1.15	TC 0.76	Vert(LL)	0.23	9-10	>999	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.39	Vert(CT)	-0.19	9-10	>999		
BCLL 0.0 *	Rep Stress Incr	NO	WB 0.67	Horz(CT)	-0.04	5	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-MS						
								Weight: 345 lb	FT = 20%

**LUMBER-**  
TOP CHORD 2x4 SP No.2 \*Except\*  
2-4: 2x4 SP No.1, 4-6: 2x6 SP No.2  
BOT CHORD 2x6 SP No.2  
WEBS 2x4 SP No.2  
WEDGE  
Right: 2x4 SP No.3

**BRACING-**  
TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 2-4.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS.** (lb/size) 5=1559/0-5-8, 10=1564/0-5-8  
Max Horz 10=-272(LC 25)  
Max Uplift 5=-1695(LC 9), 10=-2016(LC 5)  
Max Grav 5=1577(LC 34), 10=1763(LC 36)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 2-3=-2601/3145, 3-4=-2601/3145, 4-5=-2596/2868  
BOT CHORD 9-10=-1233/1165, 7-9=-2437/2271, 5-7=-2427/2259  
WEBS 2-9=-2250/1924, 3-9=-819/1251, 4-9=-710/607, 4-7=-376/481, 2-10=-1706/2197

- NOTES-**
- 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, 2x6 - 2 rows staggered at 0-9-0 oc.  
Bottom chords connected as follows: 2x6 - 2 rows staggered at 0-9-0 oc.  
Webs connected as follows: 2x4 - 1 row at 0-9-0 oc.
  - 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.
  - Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-10; Vult=150mph (3-second gust) Vasd=119mph; TC DL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
  - Provide adequate drainage to prevent water ponding.
  - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - \* 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.
  - All bearings are assumed to be User Defined crushing capacity of 565 psi.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 5=1695, 10=2016.
  - Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
  - "NAILED" indicates 3-10d (0.148"x3") or 3-12d (0.148"x3.25") toe-nails per NDS guidelines.

**LOAD CASE(S)** Standard

Continued on page 2

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 10/03/2015 BEFORE USE.**

Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 218 N. Lee Street, Suite 312, Alexandria, VA 22314.

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Job	Truss	Truss Type	Qty	Ply	H&H-SC/Trillium/	I36912862
823690	B26	HIP GIRDER	3	<b>2</b>	Job Reference (optional)	

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 ID:N9ZpzacWqWTLjEbWrVVGbzZQOD-mUo4vD5e52Gg5pEziqU\_f0OEIEk65bkt4ZSSmzLpEw

**LOAD CASE(S)** Standard

1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15

Uniform Loads (plf)

Vert: 1-2=-60, 2-4=-60, 4-6=-60, 10-11=-20

Concentrated Loads (lb)

Vert: 8=-18(B) 15=-46(B) 16=-46(B) 17=-46(B) 18=-46(B) 19=-46(B) 20=-46(B) 21=-46(B) 22=-46(B) 25=-17(B) 26=-101(B) 28=-18(B) 30=-18(B) 31=-18(B)  
 32=-18(B) 33=-18(B) 34=-18(B) 35=-18(B) 36=-107(B) 37=-77(B) 38=-47(B) 39=-18(B)

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Job 823690	Truss B27	Truss Type Half Hip Girder	Qty 1	Ply 2	H&H-SC/Trillium/ Job Reference (optional)	136912863
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8.220 s Nov 16 2018 MiTek Industries, Inc. Mon Apr 29 15:55:34 2019 Page 1

ID:N9ZpacWqWTLjEbWrVVBzZQOD-A3TCXE8WOzeFyHyYNz2hHe0hoReKHztKJ2n634zLpEt



Scale: 3/16"=1'

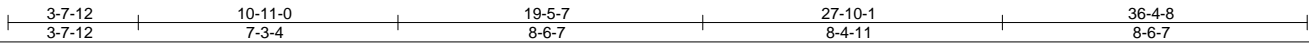
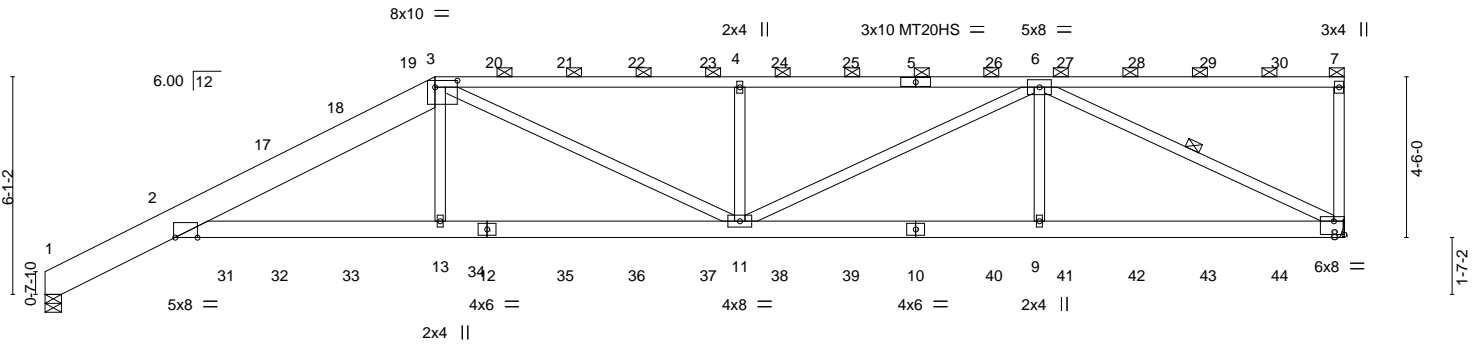


Plate Offsets (X, Y)-- [2:0-7-8,Edge], [3:0-7-8,0-2-4], [8:Edge,0-4-8]					
<b>LOADING</b> (psf)	<b>SPACING-</b> 2-0-0	<b>CSI.</b>	<b>DEFL.</b> in (loc) l/defl L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL 20.0	Plate Grip DOL 1.15	TC 0.97	Vert(LL) 0.66 13-16 >650 240	MT20	244/190
TCDL 10.0	Lumber DOL 1.15	BC 0.93	Vert(CT) -0.52 13-16 >832 240	MT20HS	187/143
BCLL 0.0 *	Rep Stress Incr NO	WB 0.58	Horz(CT) -0.32 8 n/a n/a		
BCDL 10.0	Code IRC2015/TPI2014	Matrix-MS		Weight: 451 lb	FT = 20%

**LUMBER-**  
TOP CHORD 2x4 SP No.1 \*Except\*  
1-3: 2x10 SP DSS  
BOT CHORD 2x6 SP No.2  
WEBS 2x4 SP No.2

**BRACING-**  
TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals, and 2-0-0 oc purlins (4-9-15 max.): 3-7.  
BOT CHORD Rigid ceiling directly applied or 7-7-1 oc bracing.  
WEBS 1 Row at midpt 6-8

**REACTIONS.** (lb/size) 1=2102/0-5-8, 8=2016/Mechanical  
Max Horz 1=391(LC 8)  
Max Uplift 1=1842(LC 8), 8=2353(LC 5)  
Max Grav 1=2102(LC 1), 8=2180(LC 32)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 1-2=-950/668, 2-3=-4356/4474, 3-4=-4887/5285, 4-6=-4887/5285, 7-8=-290/408  
BOT CHORD 2-13=-4312/4029, 11-13=-4325/4049, 9-11=-3940/3640, 8-9=-3940/3640  
WEBS 3-13=-398/653, 3-11=-1150/1042, 4-11=-754/1070, 6-11=-1499/1390, 6-9=-139/539, 6-8=-3976/4293

**NOTES-**

- 2-ply truss to be connected together with 10d (0.131"x3") nails as follows:  
Top chords connected as follows: 2x10 - 2 rows staggered at 0-9-0 oc, 2x4 - 1 row at 0-9-0 oc.  
Bottom chords connected as follows: 2x6 - 2 rows staggered at 0-9-0 oc.  
Webs connected as follows: 2x4 - 1 row at 0-9-0 oc.
- 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.
- Wind: ASCE 7-10; Vult=150mph (3-second gust) Vasd=119mph; TC DL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; Lumber DOL=1.60 plate grip DOL=1.60
- Provide adequate drainage to prevent water ponding.
- All plates are MT20 plates unless otherwise indicated.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- \* 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.
- All bearings are assumed to be User Defined crushing capacity of 565 psi.
- Refer to girder(s) for truss to truss connections.
- Bearing at joint(s) 1 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 1=1842, 8=2353.
- 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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Continued on page 2

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 10/03/2015 BEFORE USE.**

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Job	Truss	Truss Type	Qty	Ply	H&H-SC/Trillium/	136912863
823690	B27	Half Hip Girder	1	2	Job Reference (optional)	

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ID:N9ZpzacWqWTLijEbWrVVGbZzQOD-A3TCXE8WOzeFyHyYNz2hHe0hoReKHztKJ2n634zLpEt

**NOTES-**

13) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 37 lb down and 89 lb up at 6-6-12, 19 lb down and 48 lb up at 8-6-12, 167 lb down and 195 lb up at 10-6-12, 177 lb down and 189 lb up at 12-6-12, 177 lb down and 189 lb up at 14-6-12, 177 lb down and 189 lb up at 16-6-12, 177 lb down and 189 lb up at 18-6-12, 177 lb down and 189 lb up at 20-6-12, 177 lb down and 189 lb up at 22-6-12, 177 lb down and 189 lb up at 24-6-12, 177 lb down and 189 lb up at 26-6-12, 177 lb down and 189 lb up at 28-6-12, 177 lb down and 189 lb up at 30-6-12, and 177 lb down and 189 lb up at 32-6-12, and 177 lb down and 189 lb up at 34-6-12 on top chord, and 238 lb down and 195 lb up at 5-0-12, 46 lb down and 48 lb up at 6-6-12, 86 lb down and 125 lb up at 8-6-12, 51 lb down and 54 lb up at 10-6-12, 55 lb down and 62 lb up at 12-6-12, 55 lb down and 62 lb up at 14-6-12, 55 lb down and 62 lb up at 16-6-12, 55 lb down and 62 lb up at 18-6-12, 55 lb down and 62 lb up at 20-6-12, 55 lb down and 62 lb up at 22-6-12, 55 lb down and 62 lb up at 24-6-12, 55 lb down and 62 lb up at 26-6-12, 55 lb down and 62 lb up at 28-6-12, 55 lb down and 62 lb up at 30-6-12, and 55 lb down and 62 lb up at 32-6-12, and 55 lb down and 62 lb up at 34-6-12 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.

**LOAD CASE(S)** Standard

1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15

Uniform Loads (plf)

Vert: 1-15=-82, 3-15=-60, 3-7=-60, 8-14=-20

Concentrated Loads (lb)

Vert: 5=-46(F) 12=-18(F) 10=-18(F) 17=-18(F) 19=-47(F) 20=-46(F) 21=-46(F) 22=-46(F) 23=-46(F) 24=-46(F) 25=-46(F) 26=-46(F) 27=-46(F) 28=-46(F) 29=-46(F) 30=-46(F) 31=-238(F) 32=-46(F) 33=-82(F) 34=-18(F) 35=-18(F) 36=-18(F) 37=-18(F) 38=-18(F) 39=-18(F) 40=-18(F) 41=-18(F) 42=-18(F) 43=-18(F) 44=-18(F)

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 10/03/2015 BEFORE USE.**

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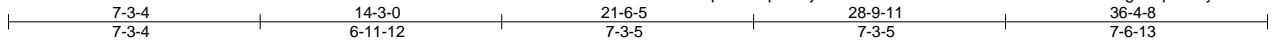
818 Soundside Road  
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	H&H-SC/Trillium/	136912864
823690	B28	Half Hip	1	1		

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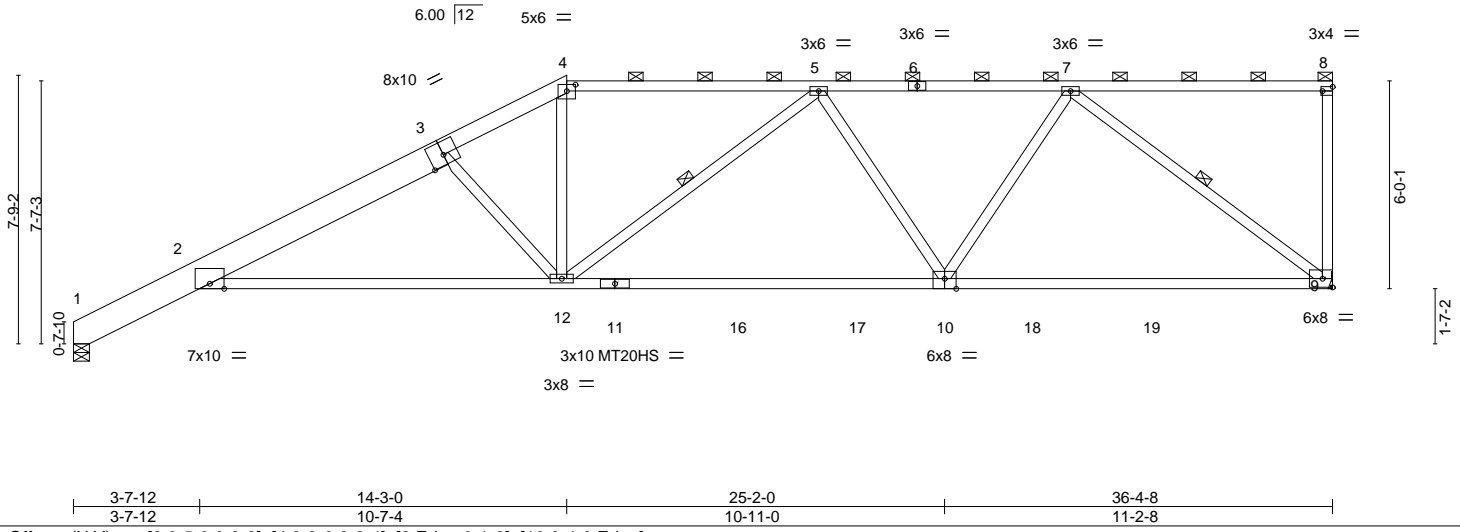


Plate Offsets (X,Y)-- [3:0-5-0,0-3-8], [4:0-3-0,0-2-4], [8:Edge,0-1-8], [10:0-4-0,Edge]

<b>LOADING</b> (psf)	<b>SPACING-</b>	2-0-0	<b>CSI.</b>	<b>DEFL.</b>	in (loc)	l/defl	L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL 20.0	Plate Grip DOL	1.15	TC 0.91	Vert(LL)	-0.34 10-12	>999	360	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.97	Vert(CT)	-0.76 12-15	>571	240	MT20HS	187/143
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.89	Horz(CT)	0.32 9	n/a	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-AS	Wind(LL)	0.49 12-15	>884	240		Weight: 208 lb FT = 20%

<b>LUMBER-</b>	<b>BRACING-</b>
TOP CHORD 2x4 SP No.2 *Except*	TOP CHORD Structural wood sheathing directly applied, except end verticals, and 2-0-0 oc purlins (2-10-14 max.): 4-8.
3-4: 2x6 SP No.2, 1-3: 2x10 SP DSS	BOT CHORD Rigid ceiling directly applied.
BOT CHORD 2x4 SP No.1	WEBS 1 Row at midpt 5-12, 7-9
WEBS 2x4 SP No.3	

**REACTIONS.** (lb/size) 9=1442/Mechanical, 1=1459/0-5-8  
 Max Horz 1=345(LC 12)  
 Max Uplift 9=-424(LC 9), 1=-273(LC 12)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 1-2=-640/0, 2-3=-2954/1869, 3-4=-2575/1692, 4-5=-2227/1550, 5-7=-1953/1222  
 BOT CHORD 2-12=-2088/2791, 10-12=-1518/2235, 9-10=-1023/1524  
 WEBS 3-12=-813/789, 4-12=-456/840, 5-10=-525/550, 7-10=-370/856, 7-9=-1868/1275

**NOTES-**

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-10; Vult=150mph (3-second gust) Vasd=119mph; TC DL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2) zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- Provide adequate drainage to prevent water ponding.
- All plates are MT20 plates unless otherwise indicated.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- \* 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.
- All bearings are assumed to be User Defined crushing capacity of 565 psi.
- Refer to girder(s) for truss to truss connections.
- Bearing at joint(s) 1 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 9=424, 1=273.
- 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.
- 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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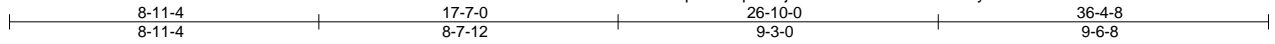
818 Soundside Road  
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Job	Truss	Truss Type	Qty	Ply	H&H-SC/Trillium/	136912865
823690	B29	Half Hip	1	1		

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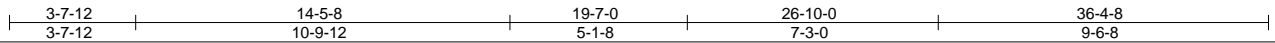
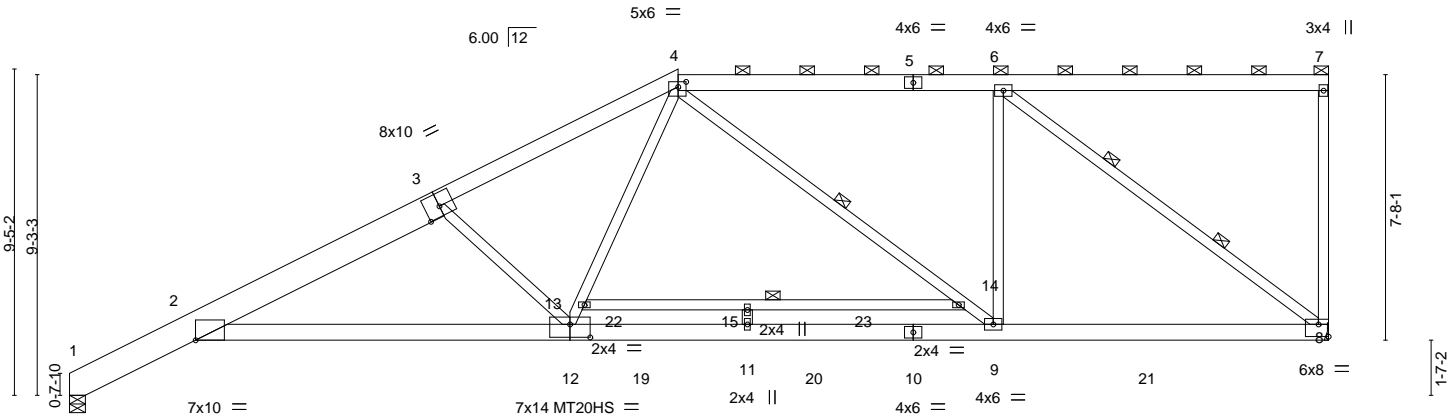


Plate Offsets (X, Y)-- [3:0-5-0,0-3-8], [4:0-2-12,0-1-12], [8:Edge,0-4-4], [12:0-7-0,0-4-8]

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 0.93	Vert(LL)	-0.38	9-11	>999	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.88	Vert(CT)	-0.75	9-11	>574	MT20HS	187/143
BCLL 0.0 *	Rep Stress Incr	NO	WB 0.97	Horz(CT)	0.29	8	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-AS	Wind(LL)	0.46	12-18	>930		
								Weight: 276 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x6 SP No.2 *Except* 1-3: 2x10 SP DSS	TOP CHORD Structural wood sheathing directly applied, except end verticals, and 2-0-0 oc purlins (5-2-0 max.): 4-7.
BOT CHORD 2x6 SP No.1 *Except* 2-12: 2x6 SP DSS	BOT CHORD Rigid ceiling directly applied.
WEBS 2x4 SP No.3 *Except* 4-9,6-8: 2x4 SP No.1, 13-14: 2x4 SP No.2	WEBS 1 Row at midpt 4-9, 13-14 2 Rows at 1/3 pts 6-8

**REACTIONS.** (lb/size) 8=1547/Mechanical, 1=1562/0-5-8  
 Max Horz 1=422(LC 12)  
 Max Uplift 8=-312(LC 9), 1=-189(LC 12)  
 Max Grav 8=1584(LC 2), 1=1562(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 1-2=-698/0, 2-3=-3326/1637, 3-4=-2945/1387, 4-6=-1733/852  
 BOT CHORD 2-12=-2002/3125, 11-12=-1140/2096, 9-11=-1140/2096, 8-9=-850/1733  
 WEBS 3-12=-894/932, 12-13=-475/1303, 4-13=-456/1398, 4-14=-474/396, 9-14=-524/372,  
 6-9=0/918, 6-8=-2164/1052

**NOTES-**

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-10; Vult=150mph (3-second gust) Vasd=119mph; TCCL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2) zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 200.0lb AC unit load placed on the bottom chord, 19-0-0 from left end, supported at two points, 5-0-0 apart.
- Provide adequate drainage to prevent water ponding.
- All plates are MT20 plates unless otherwise indicated.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- \* 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.
- All bearings are assumed to be User Defined crushing capacity of 565 psi.
- Refer to girder(s) for truss to truss connections.
- Bearing at joint(s) 1 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 8=312, 1=189.
- 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.
- 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

Continued on page 2



May 1, 2019

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 10/03/2015 BEFORE USE.**

Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information available from Truss Plate Institute, 218 N. Lee Street, Suite 312, Alexandria, VA 22314.



818 Soundside Road  
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	H&H-SC/Trillium/	I36912865
823690	B29	Half Hip	1	1		
Job Reference (optional)						

Builders FirstSource, Sumter, SC - 29153,

8.220 s Nov 16 2018 MiTek Industries, Inc. Mon Apr 29 15:55:37 2019 Page 2  
 ID:N9ZpzacWqWTLjEbWrV/VGBzZQOD-be9L9GAPhu0ppkh725bOvHeDcfgoUDZm?00mgPzLpEq

**LOAD CASE(S)** Standard

- 1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
- Uniform Loads (plf)
  - Vert: 1-17=-82, 4-17=-60, 4-7=-60, 8-16=-20
- Concentrated Loads (lb)
  - Vert: 19=-100 20=-100

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 10/03/2015 BEFORE USE.**

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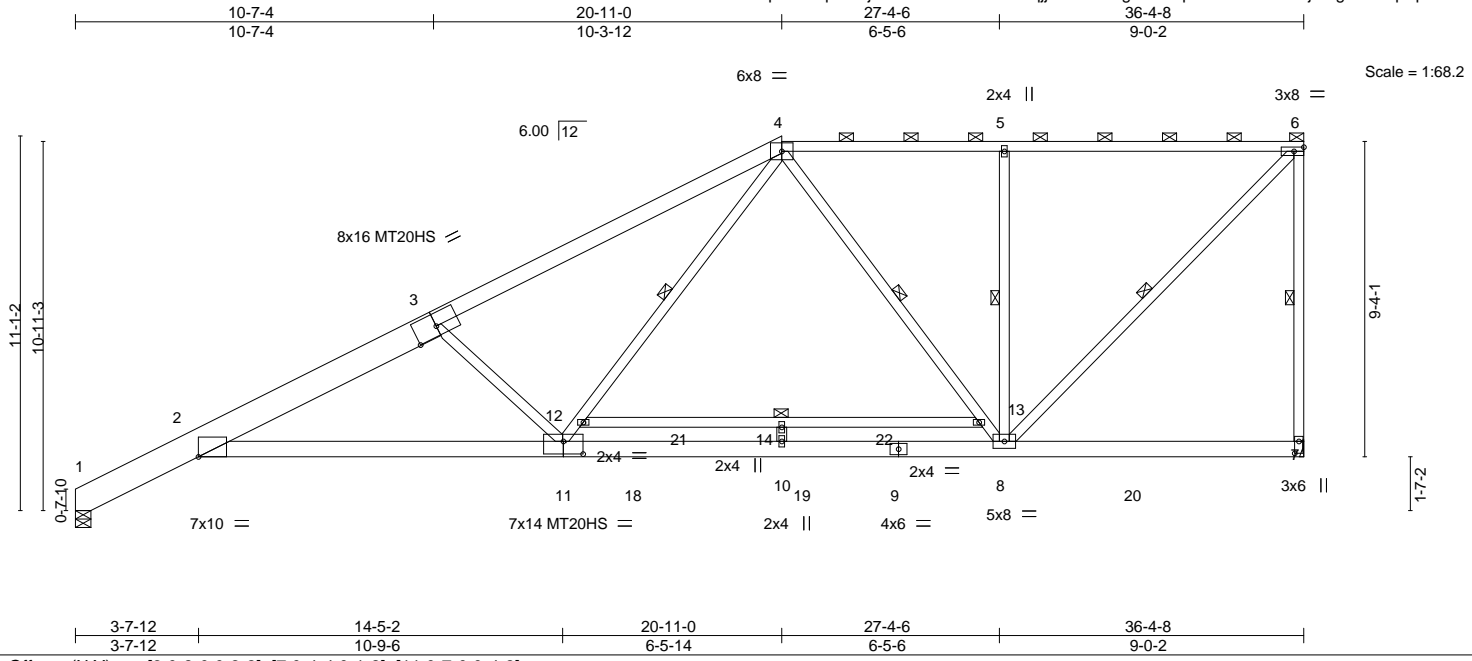
818 Soundside Road  
 Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	H&H-SC/Trillium/	136912866
823690	B30	Half Hip	1	1		

Builders FirstSource, Sumter, SC - 29153,

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ID:N9ZpzacWqWTLijEbWrVVGBzZQOD-3qjjjNcB1SC8gRuGJcp6dRUBO93?aDjtvEglJCsZpEp



LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.94	in (loc) l/defl L/d	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.15	BC 0.91	Vert(LL) -0.42 10 >999 360	MT20HS	187/143
BCLL 0.0 *	Lumber DOL 1.15	WB 0.78	Vert(CT) -0.85 10-11 >507 240		
BCDL 10.0	Rep Stress Incr NO	Matrix-AS	Horz(CT) 0.28 7 n/a n/a		
	Code IRC2015/TPI2014		Wind(LL) 0.47 11-17 >912 240	Weight: 275 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x6 SP No.2 *Except* 4-6: 2x4 SP No.1, 1-3: 2x10 SP DSS	TOP CHORD Structural wood sheathing directly applied, except end verticals, and 2-0-0 oc purlins (3-1-0 max.): 4-6.
BOT CHORD 2x6 SP No.1 *Except* 2-11: 2x6 SP DSS	BOT CHORD Rigid ceiling directly applied.
WEBS 2x4 SP No.2 *Except* 3-11,5-8,10-14: 2x4 SP No.3	WEBS 1 Row at midpt 6-7, 4-11, 4-8, 6-8, 5-8, 12-13

**REACTIONS.** (lb/size) 7=1547/Mechanical, 1=1562/0-5-8  
 Max Horz 1=506(LC 12)  
 Max Uplift 7=-305(LC 9), 1=-195(LC 12)  
 Max Grav 7=1610(LC 2), 1=1562(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 1-2=-708/0, 2-3=-3396/1715, 3-4=-2902/1404, 4-5=-1261/674, 5-6=-1261/674,  
 6-7=-1489/901  
 BOT CHORD 2-11=-2243/3210, 10-11=-1013/1672, 8-10=-1013/1672  
 WEBS 3-11=-1067/1192, 11-12=-705/1464, 4-12=-722/1582, 4-13=-533/510, 8-13=-622/524,  
 6-8=-934/1778, 5-8=-533/502

- NOTES-**
- 1) Unbalanced roof live loads have been considered for this design.
  - 2) Wind: ASCE 7-10; Vult=150mph (3-second gust) Vasd=119mph; TCCL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2) zone; end vertical left exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - 3) 200.0lb AC unit load placed on the bottom chord, 19-0-0 from left end, supported at two points, 5-0-0 apart.
  - 4) Provide adequate drainage to prevent water ponding.
  - 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) All bearings are assumed to be User Defined crushing capacity of 565 psi.
  - 9) Refer to girder(s) for truss to truss connections.
  - 10) Bearing at joint(s) 1 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
  - 11) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 7=305, 1=195.
  - 12) 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.
  - 13) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



May 1, 2019



Job	Truss	Truss Type	Qty	Ply	H&H-SC/Trillium/	I36912866
823690	B30	Half Hip	1	1		
Job Reference (optional)						

Builders FirstSource, Sumter, SC - 29153,

8.220 s Nov 16 2018 MiTek Industries, Inc. Mon Apr 29 15:55:38 2019 Page 2  
 ID:N9ZpzacWqWTLjEbWrVVGBzZQOD-3qjjNcB1SC8gRuGJcp6dRUBO93?aDjtvEgJCSzLpEp

**LOAD CASE(S)** Standard

- 1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
- Uniform Loads (plf)
  - Vert: 1-16=-82, 4-16=-60, 4-6=-60, 7-15=-20
- Concentrated Loads (lb)
  - Vert: 18=-100 19=-100

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 10/03/2015 BEFORE USE.**

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818 Soundside Road  
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Job 823690	Truss B31	Truss Type Roof Special	Qty 11	Ply 1	H&H-SC/Trillium/ Job Reference (optional)	136912867
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Builders FirstSource, Sumter, SC - 29153,

8.220 s Nov 16 2018 MiTek Industries, Inc. Mon Apr 29 15:55:39 2019 Page 1

ID:N9ZpzacWqWTLjEbWrVVGbZQOD-X1H5ayCfDVGX22rVAWds\_ikZ6SL6y773TKVklzLpEo



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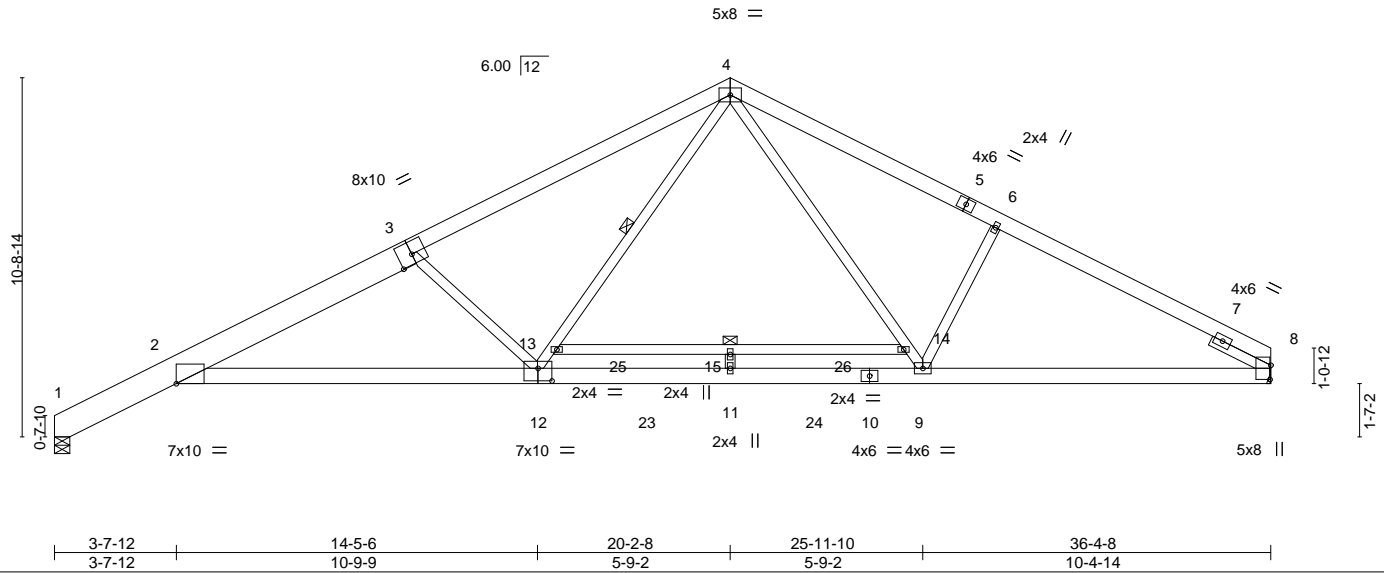


Plate Offsets (X,Y)--	[3:0-5-0,0-3-8], [8:0-5-2,0-0-5], [12:0-5-0,0-4-8]
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<b>LOADING</b> (psf)	<b>SPACING-</b>	2-0-0	<b>CSI.</b>	<b>DEFL.</b>	in (loc)	l/defl	L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL 20.0	Plate Grip DOL	1.15	TC 0.93	Vert(LL)	-0.36	11	>999	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.96	Vert(CT)	-0.76	11	>571		
BCLL 0.0 *	Rep Stress Incr	NO	WB 0.97	Horz(CT)	0.31	8	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-AS	Wind(LL)	0.44	12-18	>995		
								Weight: 255 lb	FT = 20%

<b>LUMBER-</b>	<b>BRACING-</b>
TOP CHORD 2x6 SP No.2 *Except* 1-3: 2x10 SP DSS	TOP CHORD Structural wood sheathing directly applied.
BOT CHORD 2x6 SP No.1 *Except* 8-10: 2x6 SP No.2	BOT CHORD Rigid ceiling directly applied.
WEBS 2x4 SP No.3 *Except* 13-14: 2x4 SP No.2	WEBS 1 Row at midpt 4-12, 13-14
SLIDER Right 2x4 SP No.3 1-11-12	

**REACTIONS.** (lb/size) 8=1559/Mechanical, 1=1561/0-5-8  
 Max Horz 1=244(LC 12)  
 Max Uplift 8=207(LC 13), 1=243(LC 12)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 1-2=-715/273, 2-3=-3356/1855, 3-4=-2873/1587, 4-6=-2393/1405, 6-8=-2571/1358  
 BOT CHORD 2-12=-1683/3173, 11-12=-654/1808, 9-11=-654/1808, 8-9=-1029/2198  
 WEBS 12-13=-606/1360, 4-13=-628/1482, 4-14=-315/841, 9-14=-296/701, 6-9=-373/582,  
 3-12=-1033/1040

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-10; Vult=150mph (3-second gust) Vasd=119mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2) zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - 200.0lb AC unit load placed on the bottom chord, 20-2-8 from left end, supported at two points, 5-0-0 apart.
  - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - \* 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.
  - All bearings are assumed to be User Defined crushing capacity of 565 psi.
  - Refer to girder(s) for truss to truss connections.
  - Bearing at joint(s) 1 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 8=207, 1=243.
  - 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.

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



Continued on page 2

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 10/03/2015 BEFORE USE.**

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**ENGINEERING BY**  
**TRENCO**  
 A MiTek Affiliate

818 Soundside Road  
 Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	H&H-SC/Trillium/	I36912867
823690	B31	Roof Special	11	1		
Job Reference (optional)						

Builders FirstSource, Sumter, SC - 29153,

8.220 s Nov 16 2018 MiTek Industries, Inc. Mon Apr 29 15:55:39 2019 Page 2  
 ID:N9ZpzacWqWTLjEbWrVVGBzZQOD-X1H5ayCfDVGX22rVAWds\_ikZ6SL6y773TKVtklzLpEo

**LOAD CASE(S)** Standard

Uniform Loads (plf)

Vert: 1-17=-82, 4-17=-60, 4-8=-60, 16-19=-20

Concentrated Loads (lb)

Vert: 23=-100 24=-100

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 10/03/2015 BEFORE USE.**

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818 Soundside Road  
 Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	H&H-SC/Trillium/	136912868
823690	B32	Roof Special	2	1		

Builders FirstSource, Sumter, SC - 29153,

8.220 s Nov 16 2018 MiTek Industries, Inc. Mon Apr 29 15:55:40 2019 Page 1

ID:N9ZpzacWqWTLijEbWrVVGBzZQOD-?DqToICH\_pOgCQjD85VWgksshLhaMCh\_EQGkzLpEn



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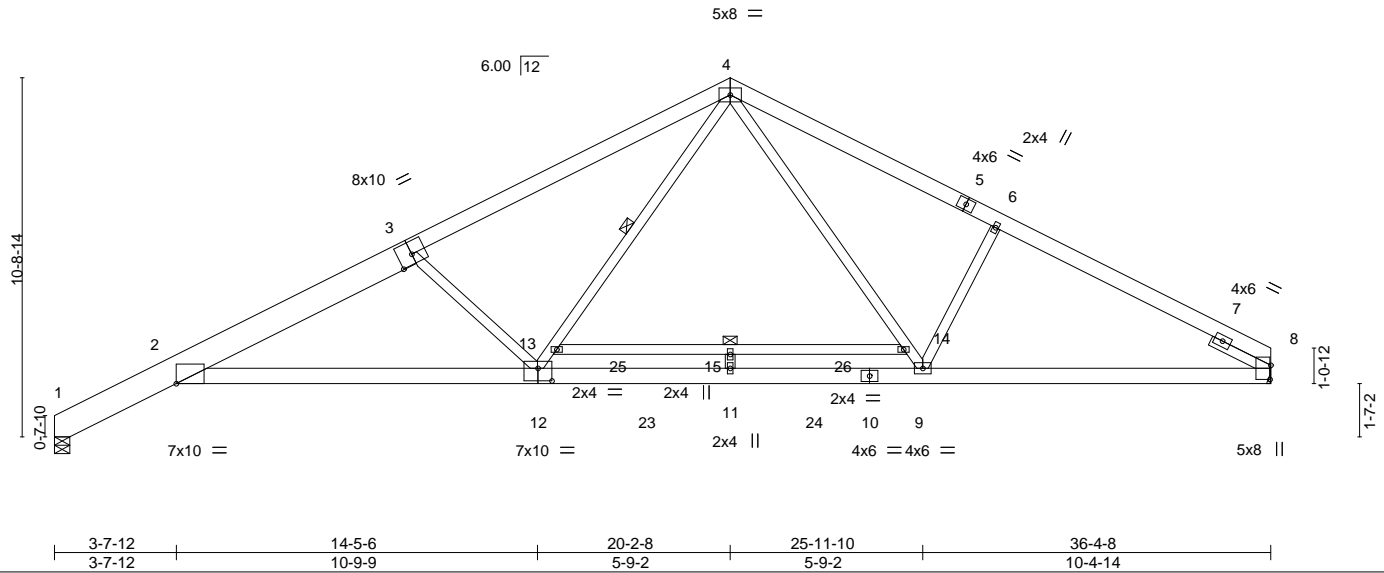


Plate Offsets (X,Y)-- [3:0-5-0,0-3-8], [8:0-5-2,0-0-5], [12:0-5-0,0-4-8]

<b>LOADING</b> (psf)	<b>SPACING-</b>	2-0-0	<b>CSI.</b>	<b>DEFL.</b>	in (loc)	l/defl	L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL 20.0	Plate Grip DOL	1.15	TC 0.93	Vert(LL)	-0.36	11	>999	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.96	Vert(CT)	-0.76	11	>571		
BCLL 0.0 *	Rep Stress Incr	NO	WB 0.97	Horz(CT)	0.31	8	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-AS	Wind(LL)	0.44	12-18	>995		
								Weight: 255 lb	FT = 20%

<b>LUMBER-</b>	<b>BRACING-</b>
TOP CHORD 2x6 SP No.2 *Except* 1-3: 2x10 SP DSS	TOP CHORD Structural wood sheathing directly applied.
BOT CHORD 2x6 SP No.1 *Except* 8-10: 2x6 SP No.2	BOT CHORD Rigid ceiling directly applied.
WEBS 2x4 SP No.3 *Except* 13-14: 2x4 SP No.2	WEBS 1 Row at midpt 4-12, 13-14
SLIDER Right 2x4 SP No.3 1-11-12	

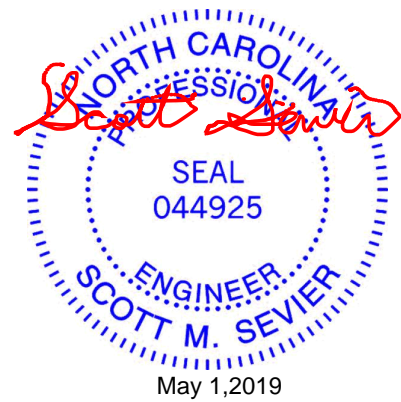
**REACTIONS.** (lb/size) 8=1559/Mechanical, 1=1561/0-5-8  
Max Horz 1=244(LC 12)  
Max Uplift 8=207(LC 13), 1=243(LC 12)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 1-2=-715/273, 2-3=-3356/1855, 3-4=-2873/1587, 4-6=-2393/1405, 6-8=-2571/1358  
BOT CHORD 2-12=-1683/3173, 11-12=-654/1808, 9-11=-654/1808, 8-9=-1029/2198  
WEBS 12-13=-606/1360, 4-13=-628/1482, 4-14=-315/841, 9-14=-296/701, 6-9=-373/582,  
3-12=-1033/1040

**NOTES-**

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-10; Vult=150mph (3-second gust) Vasd=119mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2) zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 200.0lb AC unit load placed on the bottom chord, 20-2-8 from left end, supported at two points, 5-0-0 apart.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- \* 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.
- All bearings are assumed to be User Defined crushing capacity of 565 psi.
- Refer to girder(s) for truss to truss connections.
- Bearing at joint(s) 1 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 8=207, 1=243.
- 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.

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



Continued on page 2

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**ENGINEERING BY**  
**TRENCO**  
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818 Soundside Road  
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	H&H-SC/Trillium/	I36912868
823690	B32	Roof Special	2	1		
Job Reference (optional)						

Builders FirstSource, Sumter, SC - 29153,

8.220 s Nov 16 2018 MiTek Industries, Inc. Mon Apr 29 15:55:40 2019 Page 2

ID:N9ZpzacWqWTLIjEbWrVVGBzZQOD-?DqToIcH\_pOgCQijD85WvGksshLhaMCh\_EQGkzLpEn

**LOAD CASE(S)** Standard

Uniform Loads (plf)

Vert: 1-17=-82, 4-17=-60, 4-8=-60, 16-19=-20

Concentrated Loads (lb)

Vert: 23=-100 24=-100

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 10/03/2015 BEFORE USE.**

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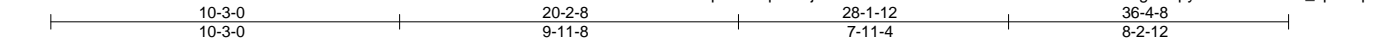
818 Soundside Road  
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	H&H-SC/Trillium/	136912869
823690	B33	Roof Special	1	1		

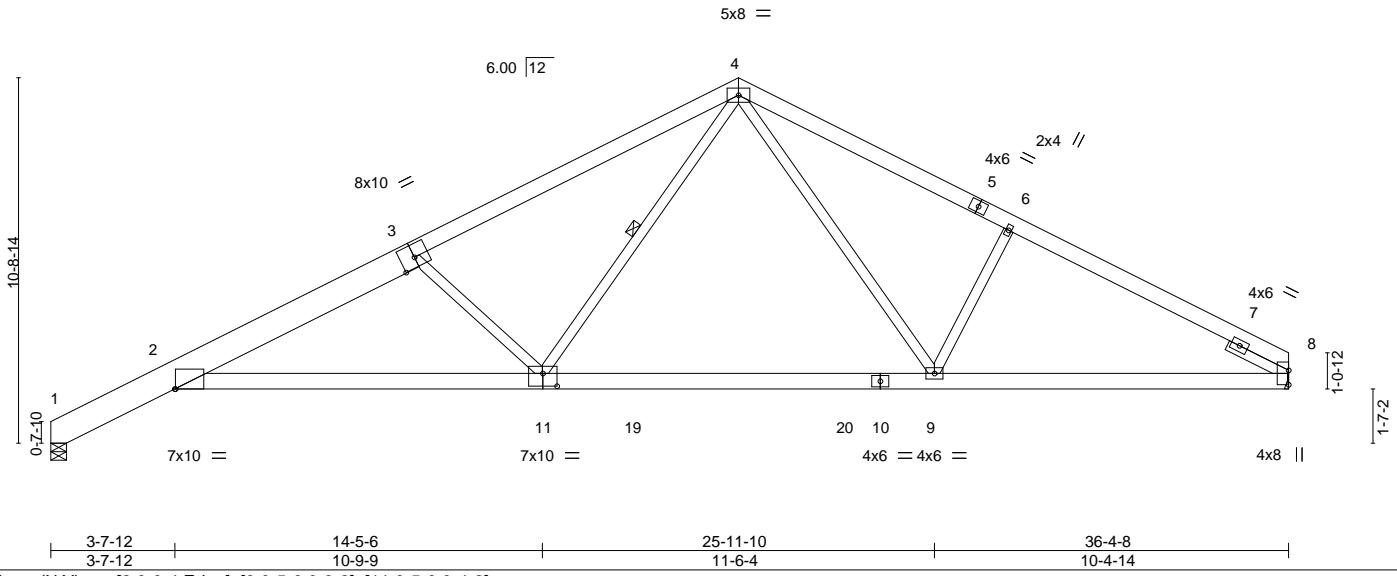
Builders FirstSource, Sumter, SC - 29153,

8.220 s Nov 16 2018 MiTek Industries, Inc. Mon Apr 29 15:55:41 2019 Page 1

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Scale = 1:67.7



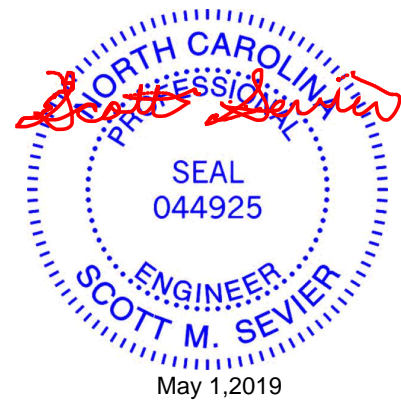
<b>LOADING</b> (psf)	<b>SPACING-</b>	2-0-0	<b>CSI.</b>	<b>DEFL.</b>	in (loc)	l/defl	L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL 20.0	Plate Grip DOL	1.15	TC 0.76	Vert(LL)	-0.33	9-11	>999	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.88	Vert(CT)	-0.67	11-14	>643		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.85	Horz(CT)	0.29	8	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-AS	Wind(LL)	0.44	11-14	>986		
								Weight: 239 lb	FT = 20%

<b>LUMBER-</b>	<b>BRACING-</b>
TOP CHORD 2x6 SP No.2 *Except* 1-3: 2x10 SP DSS	TOP CHORD Structural wood sheathing directly applied.
BOT CHORD 2x6 SP No.2	BOT CHORD Rigid ceiling directly applied.
WEBS 2x4 SP No.3	WEBS 1 Row at midpt 4-11
SLIDER Right 2x4 SP No.3 1-11-12	

**REACTIONS.** (lb/size) 8=1448/Mechanical, 1=1472/0-5-8  
 Max Horz 1=244(LC 12)  
 Max Uplift 8=-317(LC 13), 1=-332(LC 12)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 1-2=-672/313, 2-3=-3080/2133, 3-4=-2598/1861, 4-6=-2159/1639, 6-8=-2337/1592  
 BOT CHORD 2-11=-1940/2924, 9-11=-754/1516, 8-9=-1230/1996  
 WEBS 4-11=-788/1301, 4-9=-413/687, 6-9=-396/559, 3-11=-1030/1057

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-10; Vult=150mph (3-second gust) Vasd=119mph; TCCL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2) zone; 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
  - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - \* 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.
  - All bearings are assumed to be User Defined crushing capacity of 565 psi.
  - Refer to girder(s) for truss to truss connections.
  - Bearing at joint(s) 1 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 8=317, 1=332.
  - 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.



Job	Truss	Truss Type	Qty	Ply	H&H-SC/Trillium/	136912870
823690	B34	GABLE	1	1		

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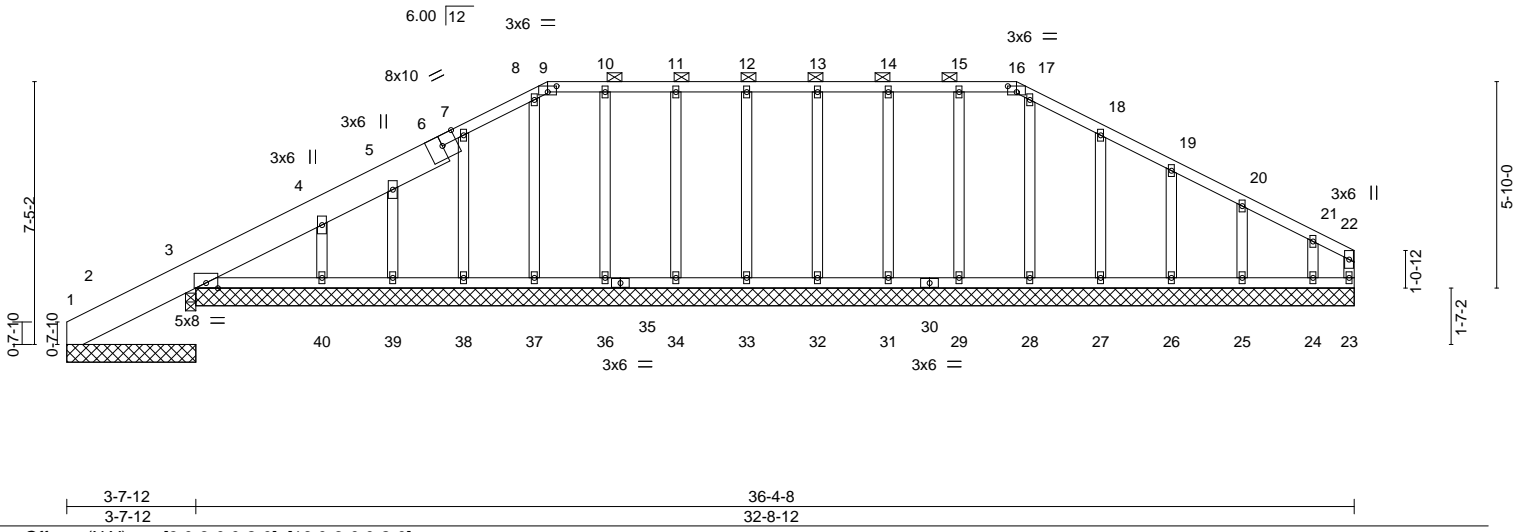


Plate Offsets (X,Y)--	[9:0-3-0,0-2-0], [16:0-3-0,0-2-0]				
<b>LOADING</b> (psf)	<b>SPACING-</b> 2-0-0	<b>CSI.</b>	<b>DEFL.</b> in (loc) l/defl L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL 20.0	Plate Grip DOL 1.15	TC 0.10	Vert(LL) -0.00 3-40 >999 360	MT20	244/190
TCDL 10.0	Lumber DOL 1.15	BC 0.08	Vert(CT) -0.01 3-40 >999 240		
BCLL 0.0 *	Rep Stress Incr YES	WB 0.07	Horz(CT) 0.01 22 n/a n/a		
BCDL 10.0	Code IRC2015/TPI2014	Matrix-S	Wind(LL) 0.00 24 >999 240	Weight: 227 lb	FT = 20%

<b>LUMBER-</b>	<b>BRACING-</b>
TOP CHORD 2x4 SP No.2 *Except* 1-6: 2x10 SP DSS	TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 9-16.
BOT CHORD 2x4 SP No.2	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 2x4 SP No.2	
OTHERS 2x4 SP No.3	

**REACTIONS.** All bearings 32-8-12 except (jt=length) 1=3-7-12, 2=0-3-8.  
 (lb) - Max Horz 3=269(LC 12)  
 Max Uplift All uplift 100 lb or less at joint(s) 33, 34, 36, 37, 32, 31, 29, 1, 2 except 3=151(LC 12), 38=134(LC 12), 39=136(LC 12), 40=174(LC 12), 27=144(LC 13), 26=124(LC 13), 25=121(LC 13), 24=193(LC 13)  
 Max Grav All reactions 250 lb or less at joint(s) 22, 23, 33, 34, 36, 37, 38, 39, 40, 32, 31, 29, 28, 27, 26, 25, 24, 1, 2 except 3=253(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 7-8=-122/283, 8-9=-124/292, 9-10=-118/298, 10-11=-118/298, 11-12=-118/298, 12-13=-118/298, 13-14=-118/298, 14-15=-118/298, 15-16=-118/298, 16-17=-124/291, 17-18=-123/284

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-10; Vult=150mph (3-second gust) Vasd=119mph; TCCL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; 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
  - 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.
  - Provide adequate drainage to prevent water ponding.
  - All plates are 2x4 MT20 unless otherwise indicated.
  - Gable studs spaced at 2-0-0 oc.
  - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - \* 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.
  - All bearings are assumed to be User Defined crushing capacity of 565 psi.
  - Bearing at joint(s) 22, 1 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 33, 34, 36, 37, 32, 31, 29, 1, 2 except (jt=lb) 3=151, 38=134, 39=136, 40=174, 27=144, 26=124, 25=121, 24=193.
  - Beveled plate or shim required to provide full bearing surface with truss chord at joint(s) 2.
  - Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



May 1, 2019

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 10/03/2015 BEFORE USE.**

Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 218 N. Lee Street, Suite 312, Alexandria, VA 22314.

**ENGINEERING BY**  
**TRENCO**  
 A MiTek Affiliate

818 Soundside Road  
 Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	H&H-SC/Trillium/	136912871
823690	B35	Hip	1	1		

Builders FirstSource, Sumter, SC - 29153,

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Job Reference (optional)



Scale = 1:65.7

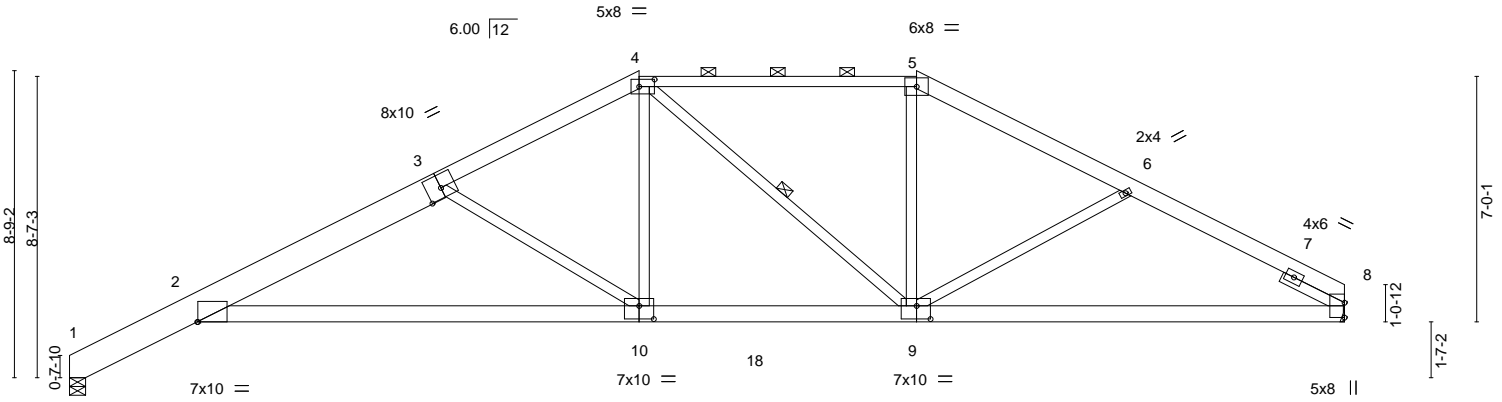


Plate Offsets (X, Y)--	[2:0-0-4,Edge], [3:0-5-0,0-3-8], [4:0-5-4,0-2-8], [9:0-4-12,0-4-8], [10:0-5-0,0-4-8]
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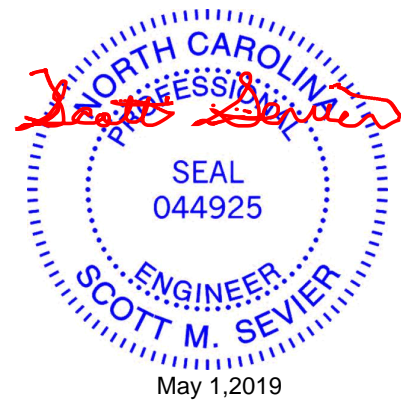
LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL	1.15	TC 0.90	Vert(LL)	-0.33	10-17	>999	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.82	Vert(CT)	-0.75	10-17	>576		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.90	Horz(CT)	0.30	8	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-AS	Wind(LL)	0.54	10-17	>805		
								Weight: 239 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x6 SP No.2 *Except* 4-5: 2x4 SP No.2, 1-3: 2x10 SP DSS	TOP CHORD Structural wood sheathing directly applied, except 2-0-0 oc purlins (2-2-0 max.): 4-5.
BOT CHORD 2x6 SP No.2	BOT CHORD Rigid ceiling directly applied.
WEBS 2x4 SP No.3	WEBS 1 Row at midpt 4-9
SLIDER Right 2x4 SP No.3 1-11-12	

**REACTIONS.** (lb/size) 8=1448/Mechanical, 1=1472/0-5-8  
 Max Horz 1=326(LC 12)  
 Max Uplift 8=-558(LC 13), 1=-607(LC 12)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 1-2=-646/304, 2-3=-2989/2006, 3-4=-2350/1606, 4-5=-1818/1386, 5-6=-2071/1418, 6-8=-2318/1596  
 BOT CHORD 2-10=-1800/2843, 9-10=-1063/2029, 8-9=-1252/1986  
 WEBS 3-10=-975/884, 4-10=-423/813, 4-9=-403/276, 5-9=-156/516, 6-9=-234/421

- NOTES-**
- 1) Unbalanced roof live loads have been considered for this design.
  - 2) Wind: ASCE 7-10; Vult=150mph (3-second gust) Vasd=119mph; TCCL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - 3) 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, with BCDL = 10.0psf.
  - 6) All bearings are assumed to be User Defined crushing capacity of 565 psi.
  - 7) Refer to girder(s) for truss to truss connections.
  - 8) Bearing at joint(s) 1 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
  - 9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 8=558, 1=607.
  - 10) 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.
  - 11) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.





Job	Truss	Truss Type	Qty	Ply	H&H-SC/Trillium/	136912872
823690	B36	Hip	1	1		

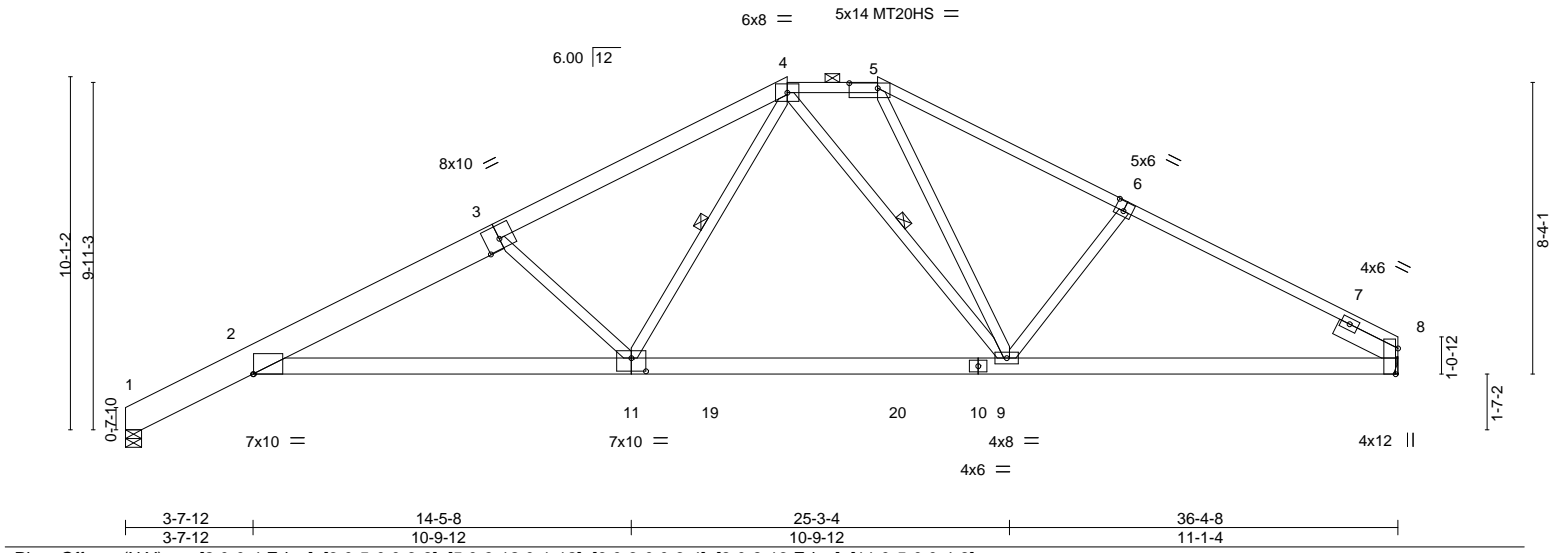
Builders FirstSource, Sumter, SC - 29153,

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Scale = 1:65.9



<b>LOADING</b> (psf)	<b>SPACING-</b>	2-0-0	<b>CSI.</b>	<b>DEFL.</b>	in (loc)	l/defl	L/d	<b>PLATES</b>	<b>GRIP</b>	
TCLL 20.0	Plate Grip DOL	1.15	TC 0.79	Vert(LL)	-0.32	11-14	>999	360	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.85	Vert(CT)	-0.69	11-14	>628	240	MT20HS	187/143
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.60	Horz(CT)	0.32	8	n/a	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-AS	Wind(LL)	0.55	11-14	>791	240	Weight: 235 lb	FT = 20%

<b>LUMBER-</b>	<b>BRACING-</b>
TOP CHORD 2x4 SP No.2 *Except* 3-4: 2x6 SP No.2, 1-3: 2x10 SP DSS, 6-8: 2x4 SP No.1	TOP CHORD Structural wood sheathing directly applied, except 2-0-0 oc purlins (4-4-4 max.): 4-5.
BOT CHORD 2x6 SP No.2	BOT CHORD Rigid ceiling directly applied.
WEBS 2x4 SP No.3	WEBS 1 Row at midpt 4-11, 4-9
SLIDER Right 2x6 SP No.2 1-11-12	

**REACTIONS.** (lb/size) 8=1448/Mechanical, 1=1472/0-5-8  
 Max Horz 1=370(LC 12)  
 Max Uplift 8=-598(LC 13), 1=-639(LC 12)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 1-2=-646/333, 2-3=-3073/2105, 3-4=-2596/1832, 4-5=-1513/1302, 5-6=-2062/1513,  
 6-8=-2292/1573  
 BOT CHORD 2-11=-1916/2916, 9-11=-834/1640, 8-9=-1217/1963  
 WEBS 3-11=-1008/1017, 4-11=-738/1161, 4-9=-399/317, 5-9=-395/644, 6-9=-346/519

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-10; Vult=150mph (3-second gust) Vasd=119mph; TCCL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - Provide adequate drainage to prevent water ponding.
  - All plates are MT20 plates unless otherwise indicated.
  - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - \* 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.
  - All bearings are assumed to be User Defined crushing capacity of 565 psi.
  - Refer to girder(s) for truss to truss connections.
  - Bearing at joint(s) 1 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 8=598, 1=639.
  - 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.
  - Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



May 1, 2019

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 10/03/2015 BEFORE USE.**

Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 218 N. Lee Street, Suite 312, Alexandria, VA 22314.

**ENGINEERING BY**  
**TRENCO**  
 A MiTek Affiliate

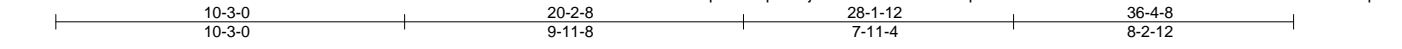
818 Soundside Road  
 Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	H&H-SC/Trillium/	136912873
823690	B37	Roof Special	1	1		

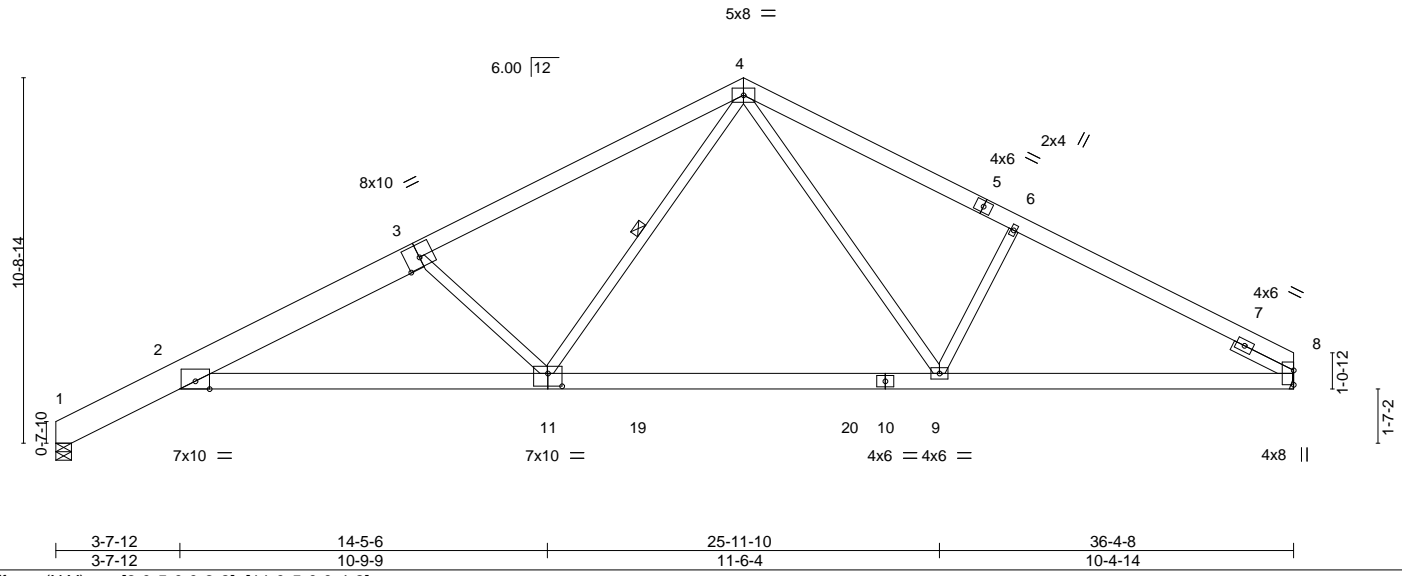
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Scale = 1:67.7



<b>LOADING</b> (psf)	<b>SPACING</b>	2-0-0	<b>CSI.</b>	<b>DEFL.</b>	in (loc)	l/defl	L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL 20.0	Plate Grip DOL	1.15	TC 0.76	Vert(LL)	-0.31 9-11	>999	360	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.66	Vert(CT)	-0.66 11-14	>656	240		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.86	Horz(CT)	0.29 8	n/a	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-AS	Wind(LL)	0.54 11-14	>808	240	Weight: 239 lb	FT = 20%

<b>LUMBER-</b>	<b>BRACING-</b>
TOP CHORD 2x6 SP No.2 *Except* 1-3: 2x10 SP DSS	TOP CHORD Structural wood sheathing directly applied.
BOT CHORD 2x6 SP No.1 *Except* 8-10: 2x6 SP No.2	BOT CHORD Rigid ceiling directly applied.
WEBS 2x4 SP No.3	WEBS 1 Row at midpt 4-11
SLIDER Right 2x4 SP No.3 1-11-12	

**REACTIONS.** (lb/size) 8=1448/Mechanical, 1=1472/0-5-8  
 Max Horz 1=387(LC 12)  
 Max Uplift 8=615(LC 13), 1=652(LC 12)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 1-2=-655/366, 2-3=-3081/2133, 3-4=-2601/1863, 4-6=-2158/1639, 6-8=-2335/1592  
 BOT CHORD 2-11=-1939/2921, 9-11=-755/1516, 8-9=-1230/1995  
 WEBS 4-11=-789/1250, 4-9=-418/675, 6-9=-396/559, 3-11=-1022/1053

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-10; Vult=150mph (3-second gust) Vasd=119mph; TCCL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - \* 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.
  - All bearings are assumed to be User Defined crushing capacity of 565 psi.
  - Refer to girder(s) for truss to truss connections.
  - Bearing at joint(s) 1 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 8=615, 1=652.
  - 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.



Job 823690	Truss B38	Truss Type ROOF SPECIAL	Qty 1	Ply 1	H&H-SC/Trillium/ Job Reference (optional)	136912874
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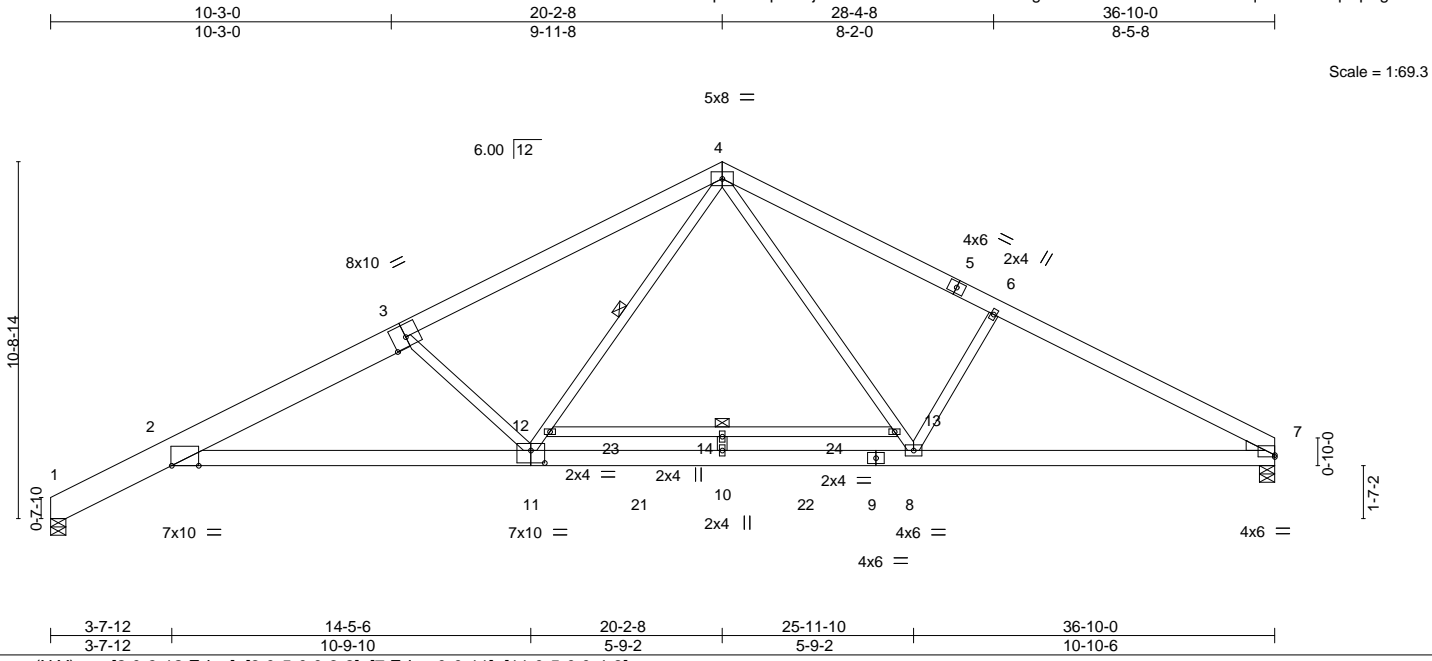


Plate Offsets (X, Y)--	[2:0-9-12,Edge], [3:0-5-0,0-3-8], [7:Edge,0-0-11], [11:0-5-0,0-4-8]
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<b>LOADING</b> (psf)	<b>SPACING-</b>	2-0-0	<b>CSI.</b>	<b>DEFL.</b>	in (loc)	l/defl	L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL 20.0	Plate Grip DOL	1.15	TC 0.94	Vert(LL)	-0.36	10	>999	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.96	Vert(CT)	-0.75	10	>584		
BCLL 0.0 *	Rep Stress Incr	NO	WB 0.91	Horz(CT)	0.31	7	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-AS	Wind(LL)	0.55	11-17	>802		
								Weight: 256 lb	FT = 20%

<b>LUMBER-</b>	<b>BRACING-</b>
TOP CHORD 2x6 SP No.2 *Except* 1-3: 2x10 SP DSS	TOP CHORD Structural wood sheathing directly applied.
BOT CHORD 2x6 SP No.1 *Except* 7-9: 2x6 SP No.2	BOT CHORD Rigid ceiling directly applied.
WEBS 2x4 SP No.3 *Except* 12-13: 2x4 SP No.2	WEBS 1 Row at midpt 4-11, 12-13
WEDGE Right: 2x4 SP No.3	

<b>REACTIONS.</b>	(lb/size) 1=1581/0-5-8, 7=1576/0-5-8
	Max Horz 1=378(LC 12)
	Max Uplift 1=-567(LC 12), 7=-518(LC 13)

<b>FORCES.</b>	(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD	1-2=-705/343, 2-3=-3413/1881, 3-4=-2929/1616, 4-6=-2517/1457, 6-7=-2752/1442
BOT CHORD	2-11=-1690/3227, 10-11=-659/1851, 8-10=-659/1851, 7-8=-1110/2353
WEBS	3-11=-1041/1040, 11-12=-608/1333, 4-12=-629/1476, 4-13=-356/937, 8-13=-337/798, 6-8=-440/633

- NOTES-**
- 1) Unbalanced roof live loads have been considered for this design.
  - 2) Wind: ASCE 7-10; Vult=150mph (3-second gust) Vasd=119mph; TCCL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - 3) 200.0lb AC unit load placed on the bottom chord, 20-2-8 from left end, supported at two points, 5-0-0 apart.
  - 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) All bearings are assumed to be User Defined crushing capacity of 565 psi.
  - 7) Bearing at joint(s) 1 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) except (jt=lb) 1=567, 7=518.
  - 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.

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



Continued on page 2

<p><b>WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 10/03/2015 BEFORE USE.</b></p> <p>Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see <b>ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information</b> available from Truss Plate Institute, 218 N. Lee Street, Suite 312, Alexandria, VA 22314.</p>	<p>ENGINEERING BY <b>TRENCO</b> A MiTek Affiliate</p> <p>818 Soundside Road Edenton, NC 27932</p>
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Job	Truss	Truss Type	Qty	Ply	H&H-SC/Trillium/	I36912874
823690	B38	ROOF SPECIAL	1	1		
Job Reference (optional)						

Builders FirstSource, Sumter, SC - 29153,

8.220 s Nov 16 2018 MiTek Industries, Inc. Mon Apr 29 15:55:47 2019 Page 2  
 ID:N9ZpzacWqWTLjEbWrVVGbZQOD-Izm7GhigKzHP0HS2dCmkJN3wuh2xqm?EIZRI0qzLpEg

**LOAD CASE(S)** Standard

Uniform Loads (plf)

Vert: 1-16=-82, 4-16=-60, 4-7=-60, 15-18=-20

Concentrated Loads (lb)

Vert: 21=-100 22=-100

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 10/03/2015 BEFORE USE.**

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Job 823690	Truss B39	Truss Type ROOF SPECIAL	Qty 2	Ply 1	H&H-SC/Trillium/ Job Reference (optional)	136912875
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Builders FirstSource, Sumter, SC - 29153,

8.220 s Nov 16 2018 MiTek Industries, Inc. Mon Apr 29 15:55:48 2019 Page 1

ID:N9ZpacWqWTLjEbWrVVGbzQOD-mlJVt1Ji5GPGdR1EBvlzrbc5f5OAZDENXDArZHzLpEf



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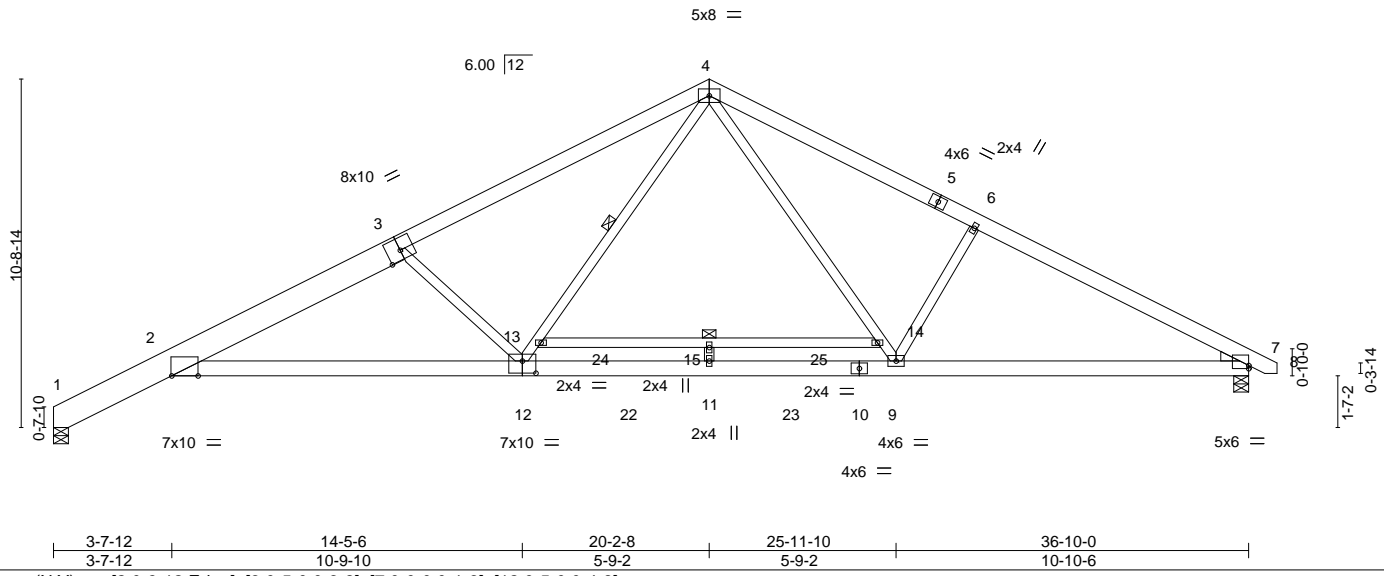


Plate Offsets (X, Y)--	[2:0-9-12,Edge], [3:0-5-0,0-3-8], [7:0-0-0,0-1-3], [12:0-5-0,0-4-8]
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LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL	1.15	TC 0.94	Vert(LL)	-0.36	11	>999	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.96	Vert(CT)	-0.75	11	>584		
BCLL 0.0 *	Rep Stress Incr	NO	WB 0.91	Horz(CT)	0.31	7	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-AS	Wind(LL)	0.55	12-18	>805		
								Weight: 258 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x6 SP No.2 *Except* 1-3: 2x10 SP DSS	TOP CHORD Structural wood sheathing directly applied.
BOT CHORD 2x6 SP No.1 *Except* 7-10: 2x6 SP No.2	BOT CHORD Rigid ceiling directly applied.
WEBS 2x4 SP No.3 *Except* 13-14: 2x4 SP No.2	WEBS 1 Row at midpt 4-12, 13-14
WEDGE Right: 2x4 SP No.3	

<b>REACTIONS.</b> (lb/size) 1=1581/0-5-8, 7=1617/0-5-8 Max Horz 1=368(LC 12) Max Uplift 1=-568(LC 12), 7=-550(LC 13)
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<b>FORCES.</b> (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-2=-702/362, 2-3=-3412/1875, 3-4=-2927/1610, 4-6=-2514/1454, 6-7=-2749/1438
BOT CHORD 2-12=-1660/3226, 11-12=-634/1850, 9-11=-634/1850, 7-9=-1084/2350
WEBS 3-12=-1041/1037, 12-13=-604/1333, 4-13=-625/1475, 4-14=-355/936, 9-14=-336/797, 6-9=-439/632

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-10; Vult=150mph (3-second gust) Vasd=119mph; TCCL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; 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
  - 200.0lb AC unit load placed on the bottom chord, 20-2-8 from left end, supported at two points, 5-0-0 apart.
  - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - \* 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.
  - All bearings are assumed to be User Defined crushing capacity of 565 psi.
  - Bearing at joint(s) 1 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 1=568, 7=550.
  - 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.

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



Continued on page 2

<p><b>WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 10/03/2015 BEFORE USE.</b></p> <p>Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see <b>ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information</b> available from Truss Plate Institute, 218 N. Lee Street, Suite 312, Alexandria, VA 22314.</p>	<p><b>ENGINEERING BY</b> <b>TRENCO</b> A MiTek Affiliate</p> <p>818 Soundside Road Edenton, NC 27932</p>
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Job	Truss	Truss Type	Qty	Ply	H&H-SC/Trillium/	I36912875
823690	B39	ROOF SPECIAL	2	1		
Job Reference (optional)						

Builders FirstSource, Sumter, SC - 29153,

8.220 s Nov 16 2018 MiTek Industries, Inc. Mon Apr 29 15:55:48 2019 Page 2  
 ID:N9ZpzacWqWTLjEbWrVVGbZQOD-mlJVT1Ji5GPgDR1EBvlzrbc5f5OAZDENXDArZHlPef

**LOAD CASE(S)** Standard

Uniform Loads (plf)

Vert: 1-17=-82, 4-17=-60, 4-8=-60, 16-19=-20

Concentrated Loads (lb)

Vert: 22=-100 23=-100

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 10/03/2015 BEFORE USE.**

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Job 823690	Truss B40	Truss Type HALF HIP GIRDER	Qty 1	Ply 2	H&H-SC/Trillium/ Job Reference (optional)	136912876
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Builders FirstSource, Sumter, SC - 29153,

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ID:N9ZpzacWqWTLljEbWrvVGBzZQOD-BK?d62LBOBnqUulps1rgTDDgSIRrmgrqDBPV9bzLpEc



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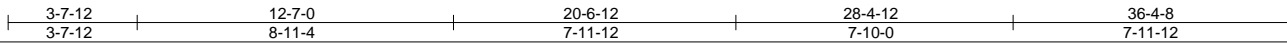
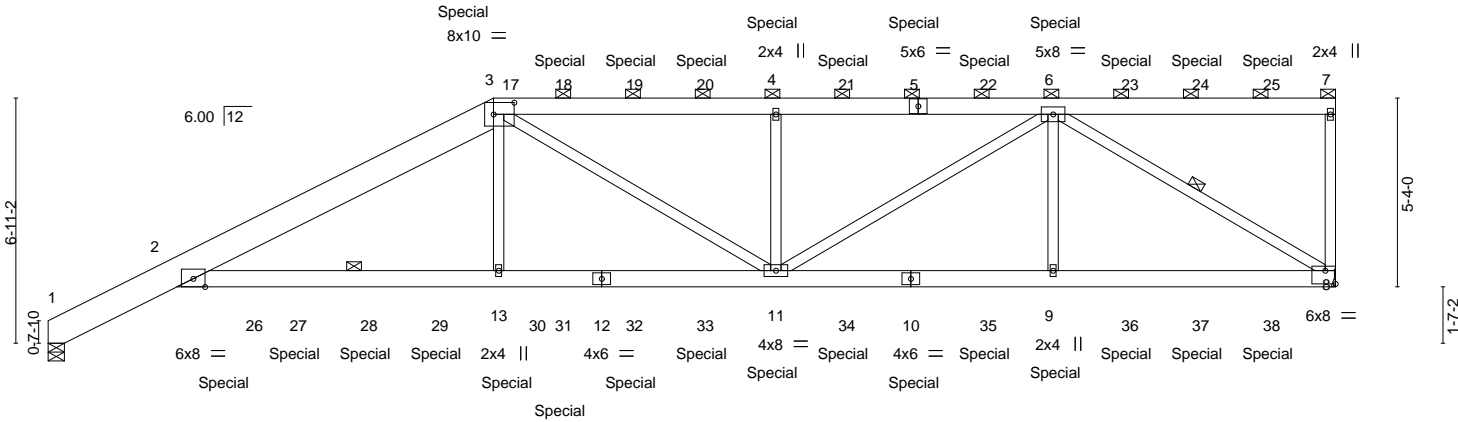


Plate Offsets (X,Y)-- [3:0-7-0,0-4-0], [8:Edge,0-4-8]					
<b>LOADING</b> (psf)	<b>SPACING-</b> 2-0-0	<b>CSI.</b>	<b>DEFL.</b> in (loc) l/defl L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL 20.0	Plate Grip DOL 1.15	TC 0.65	Vert(LL) 0.86 13-16 >505 240	MT20	244/190
TCDL 10.0	Lumber DOL 1.15	BC 0.90	Vert(CT) -0.59 13-16 >730 240		
BCLL 0.0 *	Rep Stress Incr NO	WB 0.54	Horz(CT) -0.38 8 n/a n/a		
BCDL 10.0	Code IRC2015/TPI2014	Matrix-MS		Weight: 507 lb	FT = 20%

<b>LUMBER-</b>	<b>BRACING-</b>
TOP CHORD 2x6 SP No.2 *Except* 1-3: 2x10 SP DSS	TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 3-7.
BOT CHORD 2x6 SP No.2	BOT CHORD Rigid ceiling directly applied or 6-9-12 oc bracing. Except:
WEBS 2x4 SP No.2	6-1-0 oc bracing: 2-13 1 Row at midpt 6-8

<b>REACTIONS.</b> (lb/size) 1=2094/0-5-8, 8=2023/Mechanical
Max Horz 1=443(LC 8)
Max Uplift 1=-2180(LC 8), 8=-2874(LC 5)
Max Grav 1=2094(LC 1), 8=2341(LC 36)

<b>FORCES.</b> (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-2=-995/738, 2-3=-4334/5020, 3-4=-4358/5353, 4-6=-4358/5353, 7-8=-270/412
BOT CHORD 2-13=-4882/3986, 11-13=-4903/4007, 9-11=-3878/3147, 8-9=-3878/3147
WEBS 3-13=-693/692, 3-11=-812/765, 4-11=-719/1117, 6-11=-1752/1426, 6-9=-256/508, 6-8=-3665/4515

- NOTES-**
- 2-ply truss to be connected together with 10d (0.131"x3") nails as follows:  
Top chords connected as follows: 2x10 - 2 rows staggered at 0-9-0 oc, 2x6 - 2 rows staggered at 0-9-0 oc, 2x4 - 1 row at 0-9-0 oc.  
Bottom chords connected as follows: 2x6 - 2 rows staggered at 0-9-0 oc.  
Webs connected as follows: 2x4 - 1 row at 0-9-0 oc.
  - 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.
  - Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-10; Vult=150mph (3-second gust) Vasd=119mph; TC DL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; end vertical left exposed; Lumber DOL=1.60 plate grip DOL=1.60
  - Provide adequate drainage to prevent water ponding.
  - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - \* 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.
  - All bearings are assumed to be User Defined crushing capacity of 565 psi.
  - Refer to girder(s) for truss to truss connections.
  - Bearing at joint(s) 1 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 1=2180, 8=2874.
  - Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



May 1, 2019

Continued on page 2

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**ENGINEERING BY**  
**TRENCO**  
A MiTek Affiliate

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Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	H&H-SC/Trillium/	136912876
823690	B40	HALF HIP GIRDER	1	2	Job Reference (optional)	

Builders FirstSource, Sumter, SC - 29153,

8.220 s Nov 16 2018 MiTek Industries, Inc. Mon Apr 29 15:55:51 2019 Page 2

ID:N9ZpzacWqWTLljEbWrvVGBzZQOD-BK?d62LBOBnqUulps1rgTDDgSIRmqrqDBPV9bzLpEc

**NOTES-**

- 13) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 185 lb down and 226 lb up at 13-0-12, 192 lb down and 226 lb up at 14-6-12, 192 lb down and 226 lb up at 16-6-12, 192 lb down and 226 lb up at 18-6-12, 192 lb down and 226 lb up at 20-6-12, 192 lb down and 226 lb up at 22-6-12, 192 lb down and 226 lb up at 24-6-12, 192 lb down and 226 lb up at 26-6-12, 192 lb down and 226 lb up at 28-6-12, 192 lb down and 226 lb up at 30-6-12, and 192 lb down and 226 lb up at 32-6-12, and 192 lb down and 226 lb up at 34-6-12 on top chord, and 238 lb down and 202 lb up at 5-0-12, 44 lb down and 52 lb up at 7-0-12, 78 lb down and 127 lb up at 9-0-12, 144 lb down and 275 lb up at 11-0-12, 67 lb down and 90 lb up at 13-0-12, 67 lb down and 90 lb up at 14-6-12, 67 lb down and 90 lb up at 16-6-12, 67 lb down and 90 lb up at 18-6-12, 67 lb down and 90 lb up at 20-6-12, 67 lb down and 90 lb up at 22-6-12, 67 lb down and 90 lb up at 24-6-12, 67 lb down and 90 lb up at 26-6-12, 67 lb down and 90 lb up at 28-6-12, 67 lb down and 90 lb up at 30-6-12, and 67 lb down and 90 lb up at 32-6-12, and 67 lb down and 90 lb up at 34-6-12 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.

**LOAD CASE(S)** Standard

- 1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15

Uniform Loads (plf)

Vert: 1-15=-82, 3-15=-60, 3-7=-60, 8-14=-20

Concentrated Loads (lb)

Vert: 5=-46(F) 4=-46(F) 11=-18(F) 9=-18(F) 6=-46(F) 10=-18(F) 17=-46(F) 18=-46(F) 19=-46(F) 20=-46(F) 21=-46(F) 22=-46(F) 23=-46(F) 24=-46(F) 25=-46(F) 26=-238(F) 27=-42(F) 28=-72(F) 29=-96(F) 30=-18(F) 31=-18(F) 32=-18(F) 33=-18(F) 34=-18(F) 35=-18(F) 36=-18(F) 37=-18(F) 38=-18(F)

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 10/03/2015 BEFORE USE.**

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Job 823690	Truss B41	Truss Type Half Hip	Qty 1	Ply 1	H&H-SC/Trillium/ Job Reference (optional)	136912877
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Builders FirstSource, Sumter, SC - 29153,

8.220 s Nov 16 2018 MiTek Industries, Inc. Mon Apr 29 15:55:52 2019 Page 1

ID:N9ZpzacWqWTLjEbWrVVGBzZQOD-fXZ0JOMp9Vvh62K?QIMv0Rmqeim5V0lZSr83i2zLpEb



Scale: 3/16"=1'

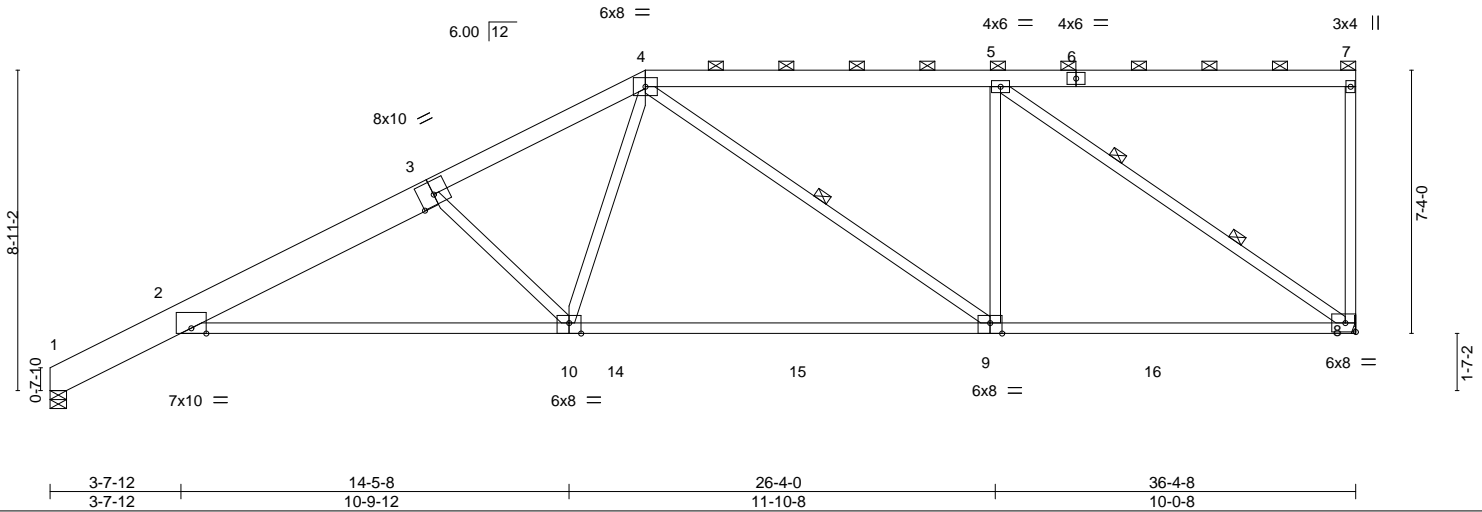


Plate Offsets (X,Y)--	[3:0-5-0,0-3-8], [9:0-4-0,Edge], [10:0-4-0,Edge]				
<b>LOADING</b> (psf)	<b>SPACING-</b> 2-0-0	<b>CSI.</b>	<b>DEFL.</b> in (loc) l/defl L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL 20.0	Plate Grip DOL 1.15	TC 0.75	Vert(LL) -0.47 9-10 >929 360	MT20	244/190
TCDL 10.0	Lumber DOL 1.15	BC 0.96	Vert(CT) -0.88 9-10 >492 240		
BCLL 0.0 *	Rep Stress Incr YES	WB 0.97	Horz(CT) 0.32 8 n/a n/a		
BCDL 10.0	Code IRC2015/TPI2014	Matrix-AS	Wind(LL) 0.57 10-13 >757 240	Weight: 230 lb	FT = 20%

<b>LUMBER-</b>	<b>BRACING-</b>
TOP CHORD 2x6 SP No.2 *Except* 1-3: 2x10 SP DSS	TOP CHORD Structural wood sheathing directly applied, except end verticals, and 2-0-0 oc purlins (5-1-13 max.): 4-7.
BOT CHORD 2x4 SP No.1	BOT CHORD Rigid ceiling directly applied.
WEBS 2x4 SP No.3 *Except* 4-9,5-8: 2x4 SP No.2	WEBS 1 Row at midpt 4-9 2 Rows at 1/3 pts 5-8

**REACTIONS.** (lb/size) 8=1442/Mechanical, 1=1459/0-5-8  
 Max Horz 1=582(LC 12)  
 Max Uplift 8=-758(LC 9), 1=-577(LC 12)  
 Max Grav 8=1445(LC 2), 1=1459(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 1-2=-658/0, 2-3=-2955/1883, 3-4=-2511/1642, 4-5=-1657/1078  
 BOT CHORD 2-10=-2207/2793, 9-10=-1387/1885, 8-9=-1077/1645  
 WEBS 3-10=-907/930, 4-10=-569/974, 4-9=-354/389, 5-9=-82/615, 5-8=-1974/1304

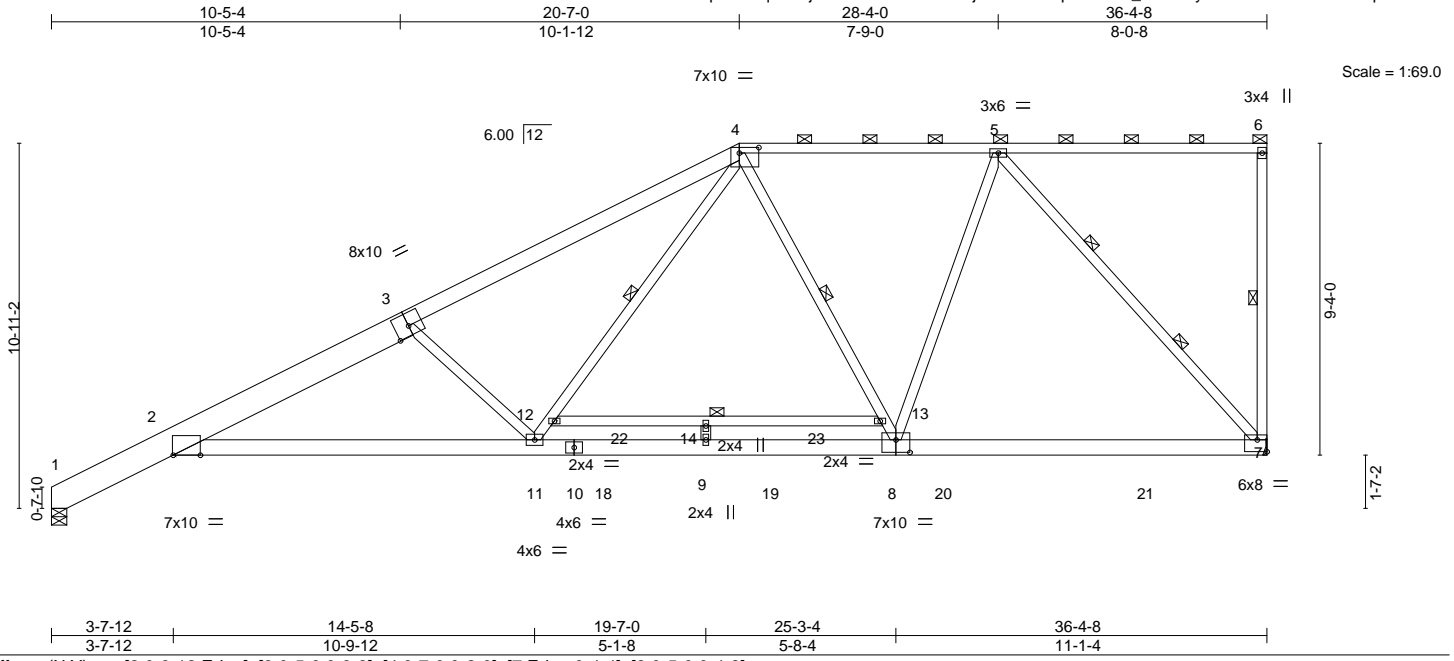
- NOTES-**
- 1) Unbalanced roof live loads have been considered for this design.
  - 2) Wind: ASCE 7-10; Vult=150mph (3-second gust) Vasd=119mph; TCCL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; end vertical left exposed;C-C for members 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, with BCDL = 10.0psf.
  - 6) All bearings are assumed to be User Defined crushing capacity of 565 psi.
  - 7) Refer to girder(s) for truss to truss connections.
  - 8) Bearing at joint(s) 1 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
  - 9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 8=758, 1=577.
  - 10) 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.
  - 11) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



Job	Truss	Truss Type	Qty	Ply	H&H-SC/Trillium/	136912878
823690	B42	Half Hip	1	1		

Builders FirstSource, Sumter, SC - 29153,

8.220 s Nov 16 2018 MiTek Industries, Inc. Mon Apr 29 15:55:53 2019 Page 1  
 ID:N9ZpzacWqWTLjEbWrVVBZQOD-7j7OWkMRwp1YkCvC\_St8YeJyM68YEUm7hVucEUzLpEa



<b>LOADING</b> (psf)	<b>SPACING-</b>	2-0-0	<b>CSI.</b>	<b>DEFL.</b>	in (loc)	l/defl	L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL 20.0	Plate Grip DOL	1.15	TC 0.95	Vert(LL)	-0.31 11-17	>999	360	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.88	Vert(CT)	-0.69 11-17	>625	240		
BCLL 0.0 *	Rep Stress Incr	NO	WB 0.96	Horz(CT)	0.30 7	n/a	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-AS	Wind(LL)	0.58 11-17	>741	240	Weight: 270 lb	FT = 20%

<b>LUMBER-</b>	<b>BRACING-</b>
TOP CHORD 2x6 SP No.2 *Except* 4-6: 2x4 SP No.2, 1-3: 2x10 SP DSS	TOP CHORD Structural wood sheathing directly applied, except end verticals, and 2-0-0 oc purlins (3-11-2 max.): 4-6.
BOT CHORD 2x6 SP No.2 *Except* 2-10: 2x6 SP No.1	BOT CHORD Rigid ceiling directly applied.
WEBS 2x4 SP No.3 *Except* 6-7,4-11,12-13: 2x4 SP No.2	WEBS 1 Row at midpt 6-7, 4-11, 4-8, 12-13 2 Rows at 1/3 pts 5-7

**REACTIONS.** (lb/size) 7=1547/Mechanical, 1=1562/0-5-8  
 Max Horz 1=726(LC 12)  
 Max Uplift 7=-621(LC 9), 1=-499(LC 12)  
 Max Grav 7=1612(LC 2), 1=1562(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 1-2=-765/0, 2-3=-3363/1714, 3-4=-2872/1410, 4-5=-1467/732  
 BOT CHORD 2-11=-2237/3187, 9-11=-979/1700, 8-9=-979/1700, 7-8=-657/1170  
 WEBS 3-11=-1099/1181, 11-12=-752/1394, 4-12=-747/1457, 4-13=-470/529, 8-13=-497/516,  
 5-8=-232/959, 5-7=-1735/971

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-10; Vult=150mph (3-second gust) Vasd=119mph; TC DL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; end vertical left exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - 200.0lb AC unit load placed on the bottom chord, 19-0-0 from left end, supported at two points, 5-0-0 apart.
  - Provide adequate drainage to prevent water ponding.
  - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - \* 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.
  - All bearings are assumed to be User Defined crushing capacity of 565 psi.
  - Refer to girder(s) for truss to truss connections.
  - Bearing at joint(s) 1 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 7=621, 1=499.
  - 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.
  - 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

Continued on page 2



May 1, 2019

Job	Truss	Truss Type	Qty	Ply	H&H-SC/Trillium/	I36912878
823690	B42	Half Hip	1	1		
Job Reference (optional)						

Builders FirstSource, Sumter, SC - 29153,

8.220 s Nov 16 2018 MiTek Industries, Inc. Mon Apr 29 15:55:53 2019 Page 2  
 ID:N9ZpzacWqWTLlJebWrVvGBzZQOD-7j7OWkMRwp1YkCvC\_St8YeJyM68YEUm7hVucEUzLpEa

**LOAD CASE(S)** Standard

- 1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
- Uniform Loads (plf)
  - Vert: 1-16=-82, 4-16=-60, 4-6=-60, 7-15=-20
- Concentrated Loads (lb)
  - Vert: 18=-100 19=-100

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 10/03/2015 BEFORE USE.**

Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TP11 Quality Criteria, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 218 N. Lee Street, Suite 312, Alexandria, VA 22314.



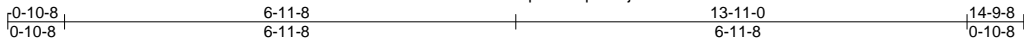
818 Soundside Road  
 Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	H&H-SC/Trillium/	136912879
823690	C01	Common Supported Gable	3	1		

Builders FirstSource, Sumter, SC - 29153,

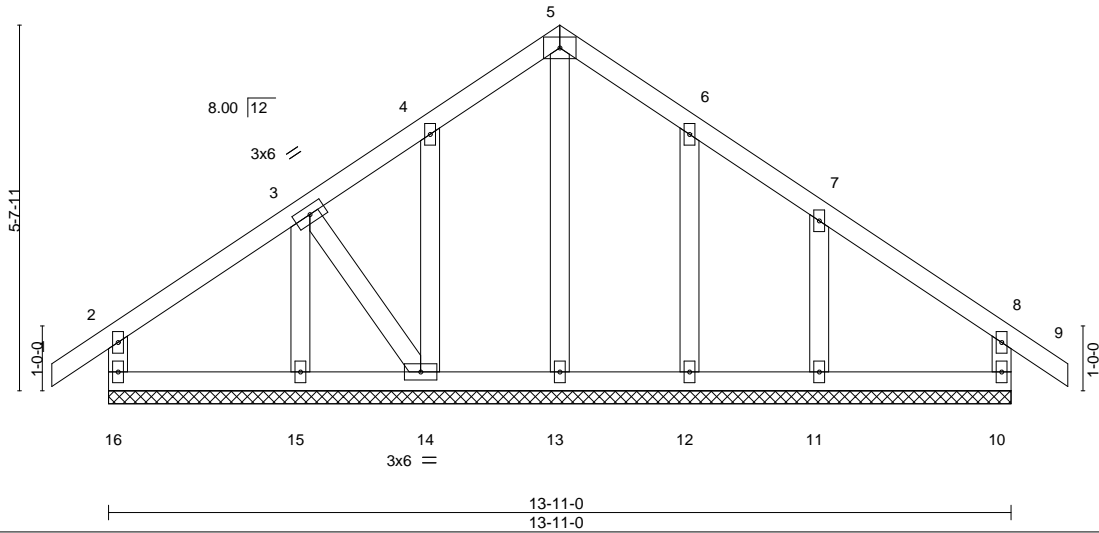
8.220 s Nov 16 2018 MiTek Industries, Inc. Mon Apr 29 15:55:54 2019 Page 1

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4x6 =

Scale = 1:35.5



<b>LOADING</b> (psf)	<b>SPACING-</b>	2-0-0	<b>CSI.</b>	<b>DEFL.</b>	in	(loc)	l/defl	L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL 20.0	Plate Grip DOL	1.15	TC 0.18	Vert(LL)	-0.00	8	n/r	120	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.07	Vert(CT)	-0.00	8	n/r	120		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.13	Horz(CT)	0.00	10	n/a	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-S						Weight: 81 lb	FT = 20%

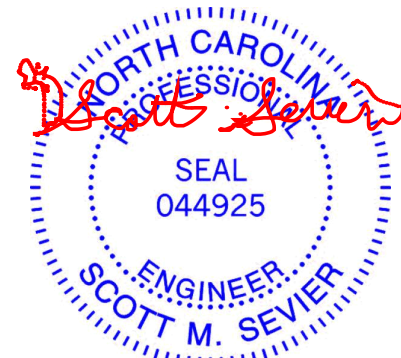
**LUMBER-**  
 TOP CHORD 2x4 SP No.2  
 BOT CHORD 2x4 SP No.2  
 WEBS 2x4 SP No.3  
 OTHERS 2x4 SP No.3

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

**REACTIONS.** All bearings 13-11-0.  
 (lb) - Max Horz 16=-282(LC 10)  
 Max Uplift All uplift 100 lb or less at joint(s) 13 except 16=-154(LC 12), 10=-105(LC 13), 14=-306(LC 12), 15=-167(LC 8), 12=-129(LC 13), 11=-232(LC 13)  
 Max Grav All reactions 250 lb or less at joint(s) 16, 10, 12 except 13=257(LC 13), 14=347(LC 10), 15=306(LC 20), 11=271(LC 20)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 3-4=-213/251, 4-5=-290/327, 5-6=-290/327  
 WEBS 3-15=-261/211, 7-11=-282/247, 3-14=-265/274

- NOTES-** (12)
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-10; Vult=150mph (3-second gust) Vasd=119mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; 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
  - 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.
  - All plates are 2x4 MT20 unless otherwise indicated.
  - Gable requires continuous bottom chord bearing.
  - Truss to be fully sheathed on one face or securely braced against lateral movement (i.e. diagonal web).
  - Gable studs spaced at 2-0-0 oc.
  - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - \* 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.
  - All bearings are assumed to be User Defined crushing capacity of 565 psi.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 13 except (jt=lb) 16=154, 10=105, 14=306, 15=167, 12=129, 11=232.
  - This manufactured truss is designed as an individual building component. The suitability and use of this component for any particular building is the responsibility of the building designer per ANSI TPI 1 as referenced by the building code.



May 1, 2019

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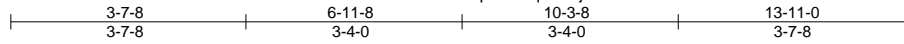
ENGINEERING BY  
**TRENCO**  
 A MiTek Affiliate  
 818 Soundside Road  
 Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	H&H-SC/Trillium/	136912880
823690	C02	COMMON GIRDER	2	1		

Builders FirstSource, Sumter, SC - 29153,

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ID:N9ZpzacWqWTLljEbWrVVGbZzQOD-36E8xQOhSQHGzV3a5twcd3OQ6vvqiPZP8pNjInzLpEY



4x6 ||

Scale = 1:35.5

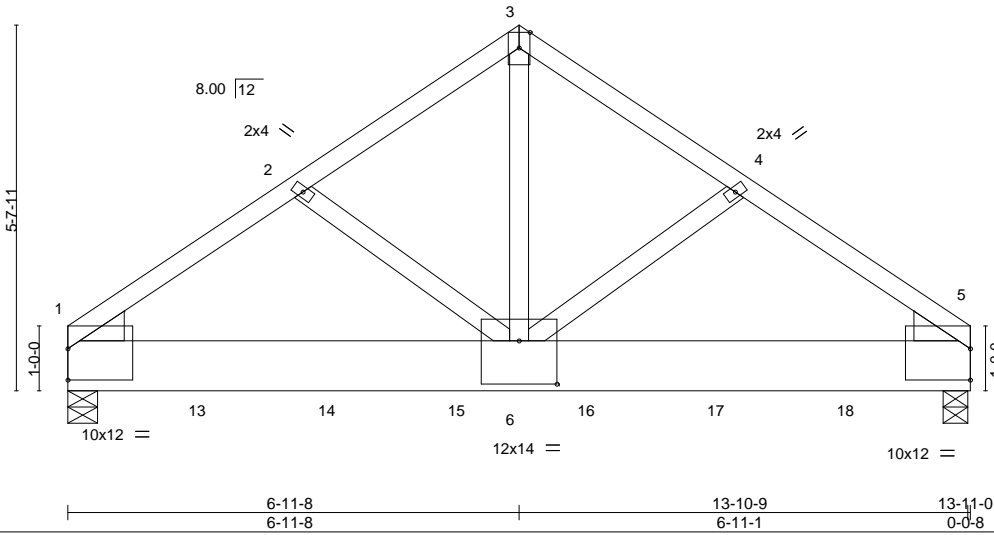


Plate Offsets (X,Y)--	[1:0-0,0-0-5-13], [5:0-0-0,0-5-13], [6:0-7-0,0-8-0]
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<b>LOADING</b> (psf)	<b>SPACING-</b>	2-0-0	<b>CSI.</b>	<b>DEFL.</b>	in (loc)	l/defl	L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL 20.0	Plate Grip DOL	1.15	TC 0.42	Vert(LL)	0.09	6-12	>999	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.51	Vert(CT)	-0.13	6-12	>999		
BCLL 0.0 *	Rep Stress Incr	NO	WB 0.87	Horz(CT)	0.01	1	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-MS						
								Weight: 102 lb	FT = 20%

<b>LUMBER-</b>	<b>BRACING-</b>
TOP CHORD 2x4 SP No.2	TOP CHORD Structural wood sheathing directly applied or 2-11-0 oc purlins.
BOT CHORD 2x10 SP DSS	BOT CHORD Rigid ceiling directly applied or 8-8-9 oc bracing.
WEBS 2x4 SP No.2	
WEDGE	
Left: 2x6 SP No.2, Right: 2x6 SP No.2	

**REACTIONS.** (lb/size) 1=3237/0-5-8, 5=3386/0-4-9  
 Max Horz 1=206(LC 5)  
 Max Uplift 1=-1428(LC 8), 5=-1417(LC 9)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 1-2=-3618/1581, 2-3=-3463/1555, 3-4=-3464/1554, 4-5=-3622/1580  
 BOT CHORD 1-6=-1361/2955, 5-6=-1242/2961  
 WEBS 3-6=-1550/3557, 4-6=-252/292, 2-6=-248/301

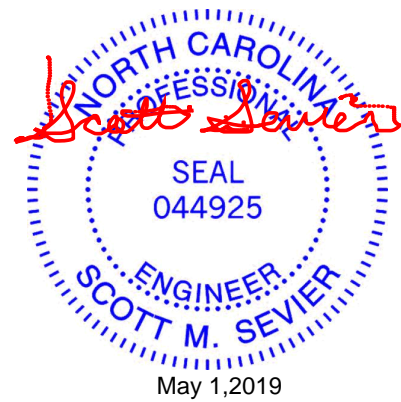
- NOTES-** (9)
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-10; Vult=150mph (3-second gust) Vasd=119mph; TC DL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
  - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - \* 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.
  - All bearings are assumed to be User Defined crushing capacity of 565 psi.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 1=1428, 5=1417.
  - Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 893 lb down and 410 lb up at 2-0-12, 893 lb down and 429 lb up at 4-0-12, 893 lb down and 434 lb up at 6-0-12, 944 lb down and 383 lb up at 8-0-12, and 944 lb down and 383 lb up at 10-0-12, and 944 lb down and 383 lb up at 12-0-12 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
  - In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).
  - This manufactured truss is designed as an individual building component. The suitability and use of this component for any particular building is the responsibility of the building designer per ANSI TPI 1 as referenced by the building code.

**LOAD CASE(S)** Standard

- Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15

Uniform Loads (plf)  
 Vert: 1-3=-60, 3-5=-60, 7-10=-20

Concentrated Loads (lb)  
 Vert: 13=-893(B) 14=-893(B) 15=-893 16=-944(B) 17=-944(B) 18=-944(B)



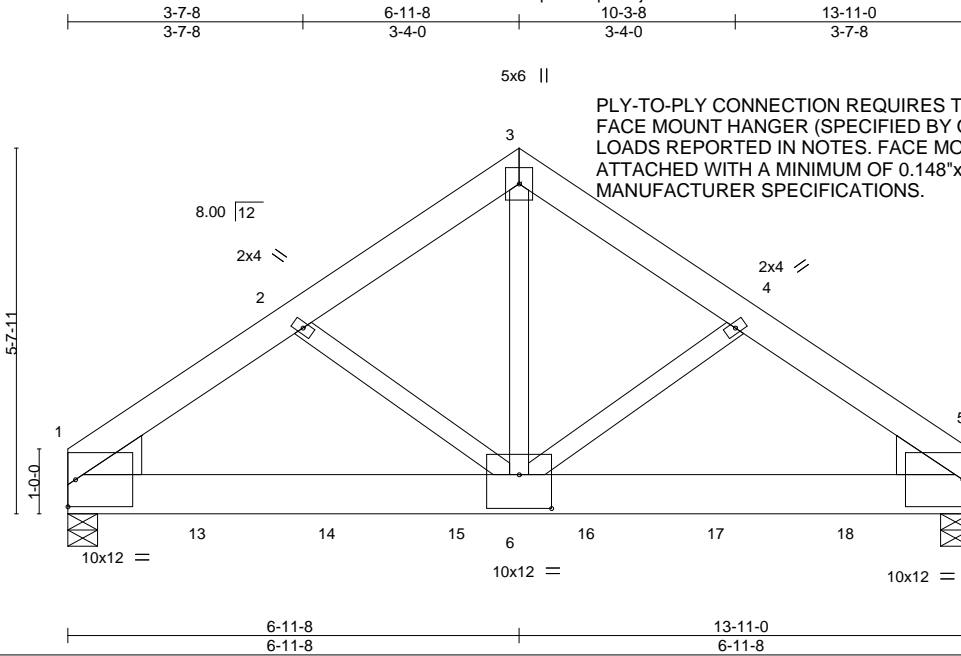
<p><b>WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 10/03/2015 BEFORE USE.</b></p> <p>Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see <b>ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information</b> available from Truss Plate Institute, 218 N. Lee Street, Suite 312, Alexandria, VA 22314.</p>	<p><b>ENGINEERING BY</b>  <b>TRENCO</b>  <small>A MiTek Affiliate</small></p> <p>818 Soundside Road        Edenton, NC 27932</p>
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Job	Truss	Truss Type	Qty	Ply	H&H-SC/Trillium/	136912881
823690	C03	COMMON GIRDER	1	2		

Builders FirstSource, Sumter, SC - 29153,

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ID:N9ZpacWqWTLijEbWrVVBzZQOD-XloW9mPJDKp7bfnfbRrAHxfOJEARuaZNT6GrpzLpEX



Scale = 1:35.5

Plate Offsets (X,Y)--	[6:0-6:0,0-6-4]				
<b>LOADING</b> (psf)	<b>SPACING-</b> 2-0-0	<b>CSI.</b>	<b>DEFL.</b> in (loc) l/defl L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL 20.0	Plate Grip DOL 1.15	TC 0.19	Vert(LL) 0.08 6-9 >999 240	MT20	244/190
TCDL 10.0	Lumber DOL 1.15	BC 0.57	Vert(CT) -0.12 6-12 >999 240		
BCLL 0.0 *	Rep Stress Incr NO	WB 0.70	Horz(CT) 0.01 5 n/a n/a		
BCDL 10.0	Code IRC2015/TPI2014	Matrix-MS		Weight: 215 lb	FT = 20%

**LUMBER-**  
 TOP CHORD 2x6 SP No.2  
 BOT CHORD 2x8 SP DSS  
 WEBS 2x4 SP No.2  
 WEDGE  
 Left: 2x8 SP No.2, Right: 2x8 SP No.2

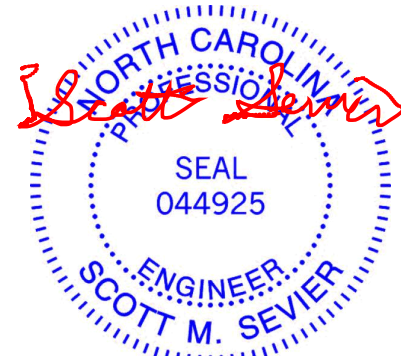
**BRACING-**  
 TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins.  
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS.** (lb/size) 1=4869/0-5-8, 5=5146/0-5-8  
 Max Horz 1=206(LC 24)  
 Max Uplift 1=-1690(LC 8), 5=-1247(LC 9)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 1-2=-5566/1723, 2-3=-5439/1680, 3-4=-5446/1663, 4-5=-5582/1661  
 BOT CHORD 1-6=-1505/4548, 5-6=-1270/4594  
 WEBS 3-6=-1647/5667, 4-6=-303/276, 2-6=-186/382

- NOTES-**
- 1) N/A
  - 2) 2-ply truss to be connected together with 10d (0.131"x3") nails as follows:  
 Top chords connected as follows: 2x6 - 2 rows staggered at 0-9-0 oc.  
 Bottom chords connected as follows: 2x8 - 2 rows staggered at 0-7-0 oc.  
 Webs connected as follows: 2x4 - 1 row at 0-9-0 oc.
  - 3) 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.
  - 4) Unbalanced roof live loads have been considered for this design.
  - 5) Wind: ASCE 7-10; Vult=150mph (3-second gust) Vasd=119mph; TC DL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
  - 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) All bearings are assumed to be User Defined crushing capacity of 565 psi.
  - 9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 1=1690, 5=1247.
  - 10) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 1428 lb down and 578 lb up at 2-0-12, 1428 lb down and 618 lb up at 4-0-12, 1428 lb down and 635 lb up at 6-0-12, 1539 lb down and 227 lb up at 8-0-12, and 1539 lb down and 227 lb up at 10-0-12, and 1539 lb down and 227 lb up at 12-0-12 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.

**LOAD CASE(S)** Standard



May 1, 2019

Continued on page 2

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

Job	Truss	Truss Type	Qty	Ply	H&H-SC/Trillium/	I36912881
823690	C03	COMMON GIRDER	1	<b>2</b>	Job Reference (optional)	

Builders FirstSource, Sumter, SC - 29153,

8.220 s Nov 16 2018 MiTek Industries, Inc. Mon Apr 29 15:55:56 2019 Page 2  
 ID:N9ZpacWqWTLjEbWrVVGbZQOD-XIoW9mPJDkP7bfnfbRrAHxfOJEARuaZNT6GrpzLpEX

**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, 7-10=-20
- Concentrated Loads (lb)
  - Vert: 13=-1428(B) 14=-1428(B) 15=-1428(B) 16=-1539(B) 17=-1539(B) 18=-1539(B)

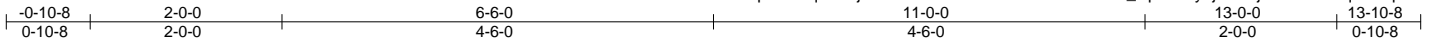
**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 10/03/2015 BEFORE USE.**

Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TP1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 218 N. Lee Street, Suite 312, Alexandria, VA 22314.

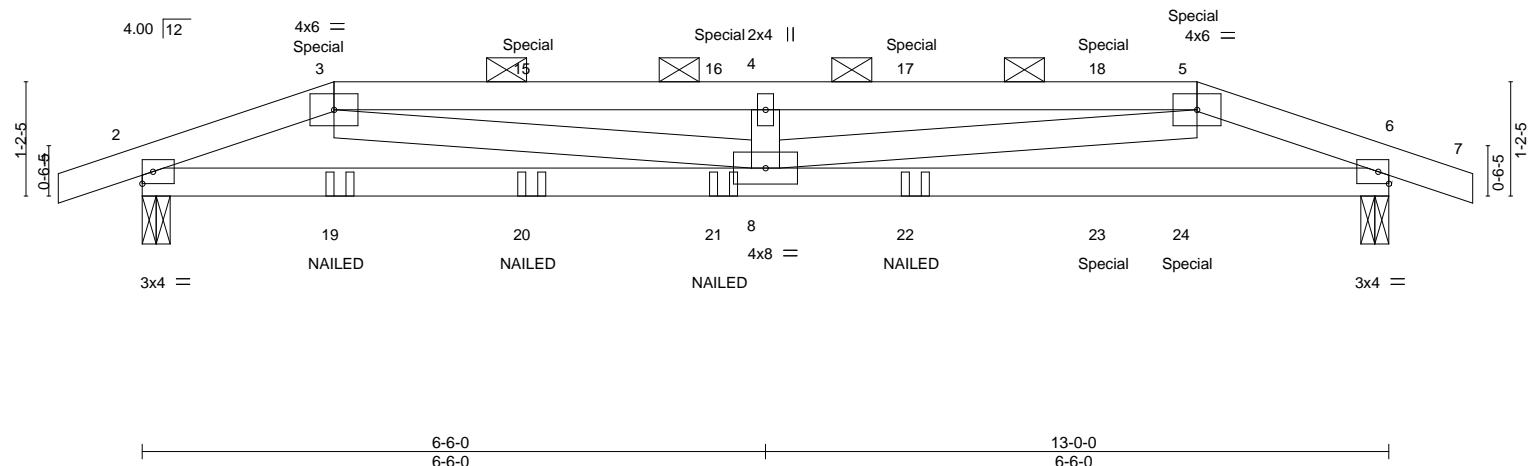


818 Soundside Road  
 Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	H&H-SC/Trillium/	136912882
823690	CP01	Hip Girder	9	1		
Builders FirstSource, Sumter, SC - 29153,						8.220 s Nov 16 2018 MiTek Industries, Inc. Mon Apr 29 15:55:57 2019 Page 1
						ID:N9ZpzacWqWTLjEbWrvVGBzZQOD-?UMvM6Pxz1Y_CpDzDly4jUTkTja0AQ?ic7sqNFzLpEW



Scale: 1/2"=1'



<b>LOADING</b> (psf)	<b>SPACING-</b>	2-0-0	<b>CSI.</b>	<b>DEFL.</b>	in (loc)	l/defl	L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL 20.0	Plate Grip DOL	1.15	TC 0.55	Vert(LL)	0.23	8	>687	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.53	Vert(CT)	-0.18	8	>883		
BCLL 0.0 *	Rep Stress Incr	NO	WB 0.36	Horz(CT)	-0.02	6	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-MS					Weight: 56 lb	FT = 20%

<b>LUMBER-</b>	<b>BRACING-</b>
TOP CHORD 2x4 SP No.2	TOP CHORD Structural wood sheathing directly applied or 5-5-5 oc purlins, except
BOT CHORD 2x4 SP No.2	2-0-0 oc purlins (3-9-8 max.): 3-5.
WEBS 2x4 SP No.2	BOT CHORD Rigid ceiling directly applied or 5-10-7 oc bracing.

**REACTIONS.** (lb/size) 2=580/0-3-8, 6=581/0-3-8  
 Max Horz 2=-31(LC 5)  
 Max Uplift 2=-592(LC 4), 6=-593(LC 5)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-3=-1082/1056, 3-4=-1946/1949, 4-5=-1946/1949, 5-6=-1084/1059  
 BOT CHORD 2-8=-967/1000, 6-8=-956/1001  
 WEBS 3-8=-970/985, 4-8=-285/270, 5-8=-968/983

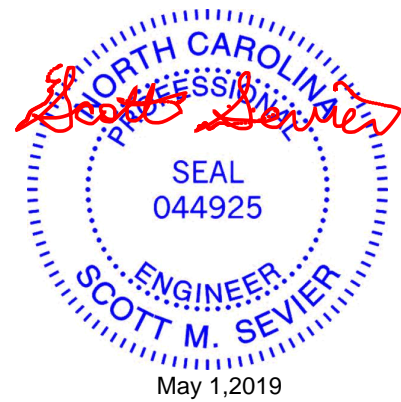
- NOTES-** (11)
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-10; Vult=150mph (3-second gust) Vasd=119mph; TC DL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; end vertical left and right exposed; porch left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
  - Provide adequate drainage to prevent water ponding.
  - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - \* 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.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=592, 6=593.
  - Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
  - "NAILED" indicates 3-10d (0.148"x3") or 3-12d (0.148"x3.25") toe-nails per NDS guidelines.
  - Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 25 lb down and 47 lb up at 2-0-0, 25 lb down and 47 lb up at 4-0-12, 25 lb down and 47 lb up at 6-0-12, 25 lb down and 47 lb up at 8-0-12, and 25 lb down and 47 lb up at 10-0-12, and 25 lb down and 47 lb up at 11-0-0 on top chord, and 8 lb down and 37 lb up at 10-0-12, and 8 lb down and 37 lb up at 10-11-4 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
  - In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).
  - This manufactured truss is designed as an individual building component. The suitability and use of this component for any particular building is the responsibility of the building designer per ANSI TPI 1 as referenced by the building code.

**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, 5-7=-60, 9-12=-20

Concentrated Loads (lb)  
 Vert: 19=-3(B) 20=-3(B) 21=-3(B) 22=-3(B) 23=-3(B) 24=-3(B)



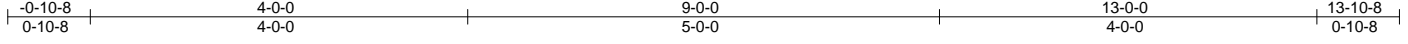


Job	Truss	Truss Type	Qty	Ply	H&H-SC/Trillium/	136912883
823690	CP02	Hip	9	1		

Builders FirstSource, Sumter, SC - 29153,

8.220 s Nov 16 2018 MiTek Industries, Inc. Mon Apr 29 15:55:58 2019 Page 1

ID:N9ZpzacWqWTLjEbWrVVGbZQOD-UhwHaRQakLgrqzo9n?TJFi0us7yKvxNsqrnNvhzLpEV



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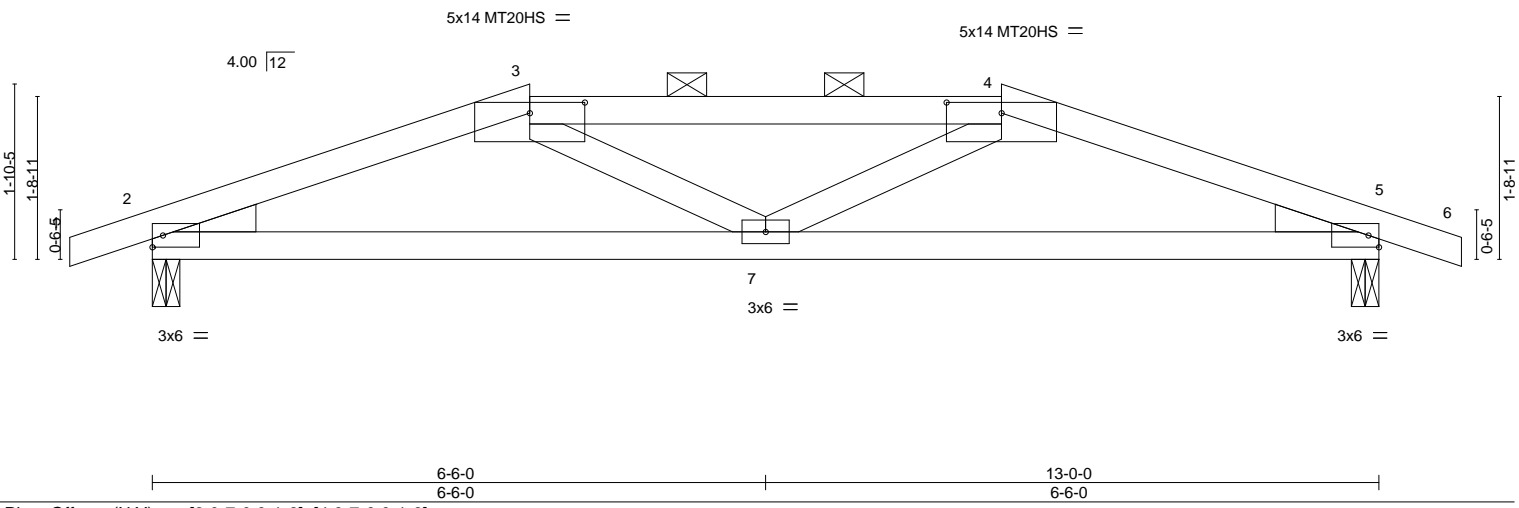


Plate Offsets (X,Y)--	[3:0-7-0,0-1-6], [4:0-7-0,0-1-6]
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LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL	1.15	TC 0.58	Vert(LL)	0.14	7-13	>999	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.40	Vert(CT)	-0.08	7-10	>999	MT20HS	187/143
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.10	Horz(CT)	-0.02	5	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-AS						
								Weight: 53 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x4 SP No.2	TOP CHORD Structural wood sheathing directly applied, except
BOT CHORD 2x4 SP No.2	2-0-0 oc purlins (5-1-2 max.): 3-4.
WEBS 2x4 SP No.3	BOT CHORD Rigid ceiling directly applied.
WEDGE	
Left: 2x4 SP No.3, Right: 2x4 SP No.3	

**REACTIONS.** (lb/size) 2=573/0-3-8, 5=573/0-3-8  
 Max Horz 2=-47(LC 13)  
 Max Uplift 2=-567(LC 8), 5=-567(LC 9)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-3=-1051/1835, 3-4=-1055/2198, 4-5=-1051/1835  
 BOT CHORD 2-7=-1662/967, 5-7=-1667/967  
 WEBS 3-7=-476/246, 4-7=-476/246

- NOTES-** (10)
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-10; Vult=150mph (3-second gust) Vasd=119mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; end vertical left and right exposed; porch left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - Provide adequate drainage to prevent water ponding.
  - All plates are MT20 plates unless otherwise indicated.
  - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - \* 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.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=567, 5=567.
  - 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.
  - Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
  - This manufactured truss is designed as an individual building component. The suitability and use of this component for any particular building is the responsibility of the building designer per ANSI TPI 1 as referenced by the building code.



May 1, 2019

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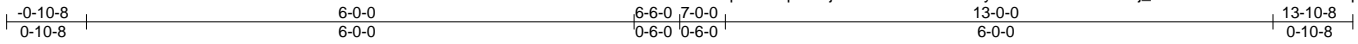
**ENGINEERING BY**  
**TRENCO**  
 A MiTek Affiliate

818 Soundside Road  
 Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	H&H-SC/Trillium/	136912884
823690	CP03	HIP	9	1		
Builders FirstSource, Sumter, SC - 29153,						Job Reference (optional)

8.220 s Nov 16 2018 MiTek Industries, Inc. Mon Apr 29 15:55:59 2019 Page 1

ID:N9ZpacWqWTLjEbWrVVBzZQOD-ytUfnnRCVfoiS7NLKj\_YovZ57WlleOi?3RLwR8zLpEU



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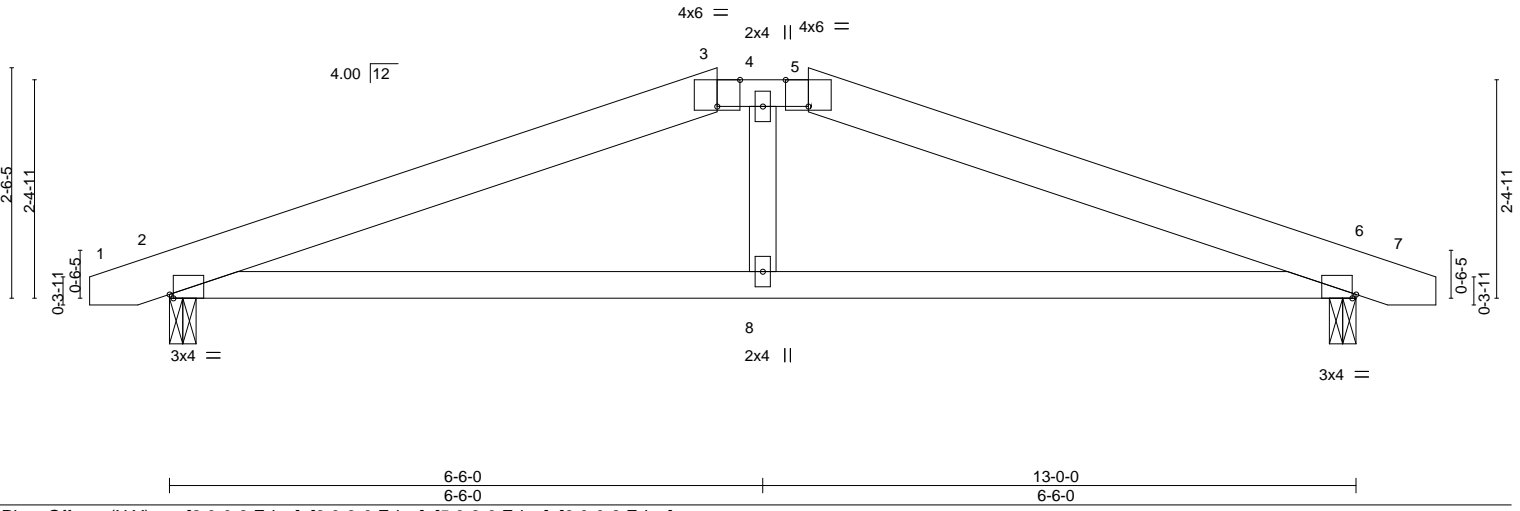


Plate Offsets (X,Y)--	[2:0-0-8,Edge], [3:0-3-0,Edge], [5:0-3-0,Edge], [6:0-0-8,Edge]				
<b>LOADING</b> (psf)	<b>SPACING-</b> 2-0-0	<b>CSI.</b>	<b>DEFL.</b> in (loc) l/defl L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL 20.0	Plate Grip DOL 1.15	TC 0.48	Vert(LL) 0.11 8-14 >999 240	MT20	244/190
TCDL 10.0	Lumber DOL 1.15	BC 0.41	Vert(CT) -0.06 8-14 >999 240		
BCLL 0.0 *	Rep Stress Incr YES	WB 0.09	Horz(CT) -0.02 6 n/a n/a		
BCDL 10.0	Code IRC2015/TPI2014	Matrix-AS		Weight: 58 lb	FT = 20%

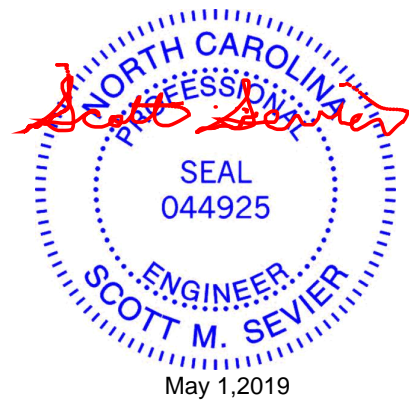
**LUMBER-**  
 TOP CHORD 2x6 SP No.2 \*Except\*  
 3-5: 2x4 SP No.2  
 BOT CHORD 2x4 SP No.2  
 WEBS 2x4 SP No.3

**BRACING-**  
 TOP CHORD Structural wood sheathing directly applied, except  
 2-0-0 oc purlins (6-0-0 max.): 3-5.  
 BOT CHORD Rigid ceiling directly applied.

**REACTIONS.** (lb/size) 2=557/0-3-8, 6=557/0-3-8  
 Max Horz 2=-65(LC 13)  
 Max Uplift 2=-526(LC 8), 6=-526(LC 9)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-3=-930/1716, 3-4=-853/1712, 4-5=-853/1712, 5-6=-930/1716  
 BOT CHORD 2-8=-1533/853, 6-8=-1533/853  
 WEBS 4-8=-503/249

- NOTES-** (10)
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-10; Vult=150mph (3-second gust) Vasd=119mph; TC DL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; end vertical left and right exposed; porch left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - Provide adequate drainage to prevent water ponding.
  - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - \* 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.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=526, 6=526.
  - 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.
  - See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.
  - Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
  - This manufactured truss is designed as an individual building component. The suitability and use of this component for any particular building is the responsibility of the building designer per ANSI TPI 1 as referenced by the building code.



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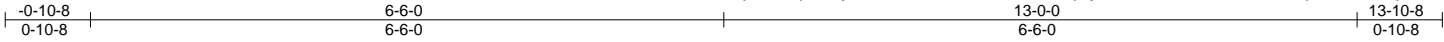
818 Soundside Road  
 Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	H&H-SC/Trillium/	136912885
823690	CP04	Common	9	1		

Builders FirstSource, Sumter, SC - 29153,

8.220 s Nov 16 2018 MiTek Industries, Inc. Mon Apr 29 15:56:00 2019 Page 1

ID:N9ZpzacWqWTLjEbWrvVGBzZQOD-Q321\_7SqGywZ3HxYUqVnK75DBwcFNrp8l54U\_azLpET



Scale = 1:23.6

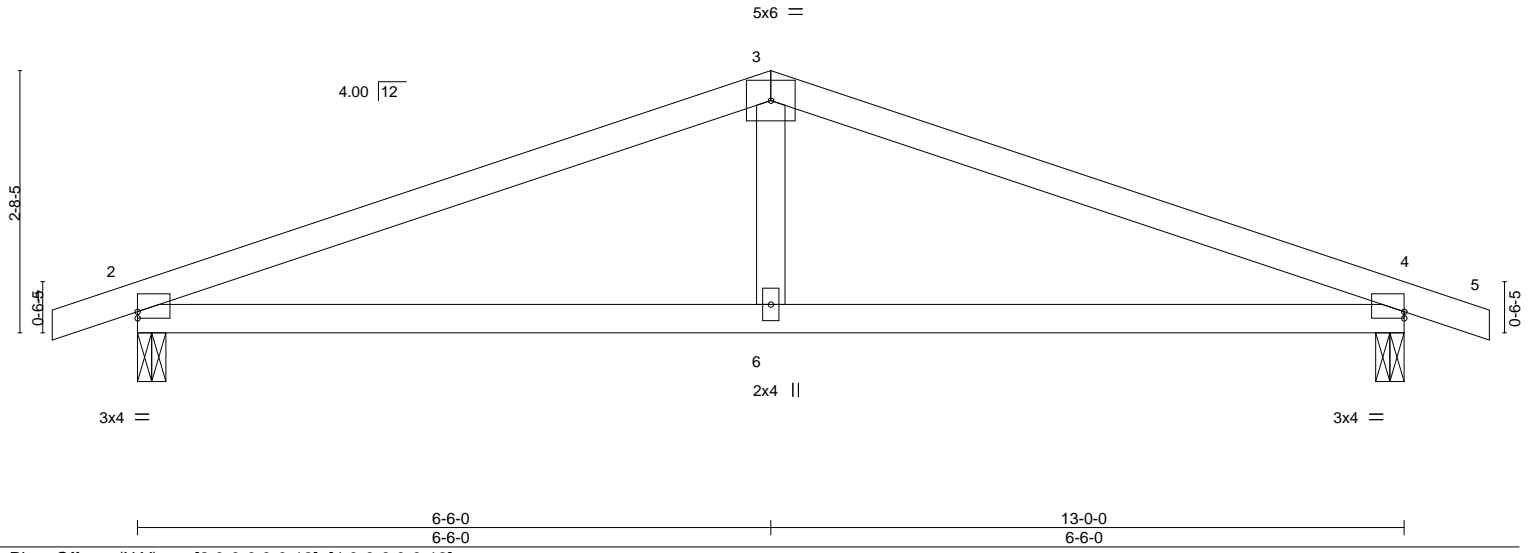


Plate Offsets (X,Y)--	[2:0-0-0,0-0-13], [4:0-0-0,0-0-13]				
<b>LOADING</b> (psf)	<b>SPACING-</b> 2-0-0	<b>CSI.</b>	<b>DEFL.</b> in (loc) l/defl L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL 20.0	Plate Grip DOL 1.15	TC 0.59	Vert(LL) 0.13 6-12 >999 240	MT20	244/190
TCDL 10.0	Lumber DOL 1.15	BC 0.50	Vert(CT) -0.08 6-9 >999 240		
BCLL 0.0 *	Rep Stress Incr YES	WB 0.10	Horz(CT) -0.01 4 n/a n/a		
BCDL 10.0	Code IRC2015/TPI2014	Matrix-AS		Weight: 46 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.

**REACTIONS.** (lb/size) 2=573/0-3-8, 4=573/0-3-8  
Max Horz 2=74(LC 12)  
Max Uplift 2=-541(LC 8), 4=-541(LC 9)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 2-3=-900/1641, 3-4=-900/1641  
BOT CHORD 2-6=-1435/797, 4-6=-1435/797  
WEBS 3-6=-554/271

- NOTES-** (7)
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-10; Vult=150mph (3-second gust) Vasd=119mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; end vertical left and right exposed; porch left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - \* 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.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=541, 4=541.
  - 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.
  - This manufactured truss is designed as an individual building component. The suitability and use of this component for any particular building is the responsibility of the building designer per ANSI TPI 1 as referenced by the building code.



May 1, 2019

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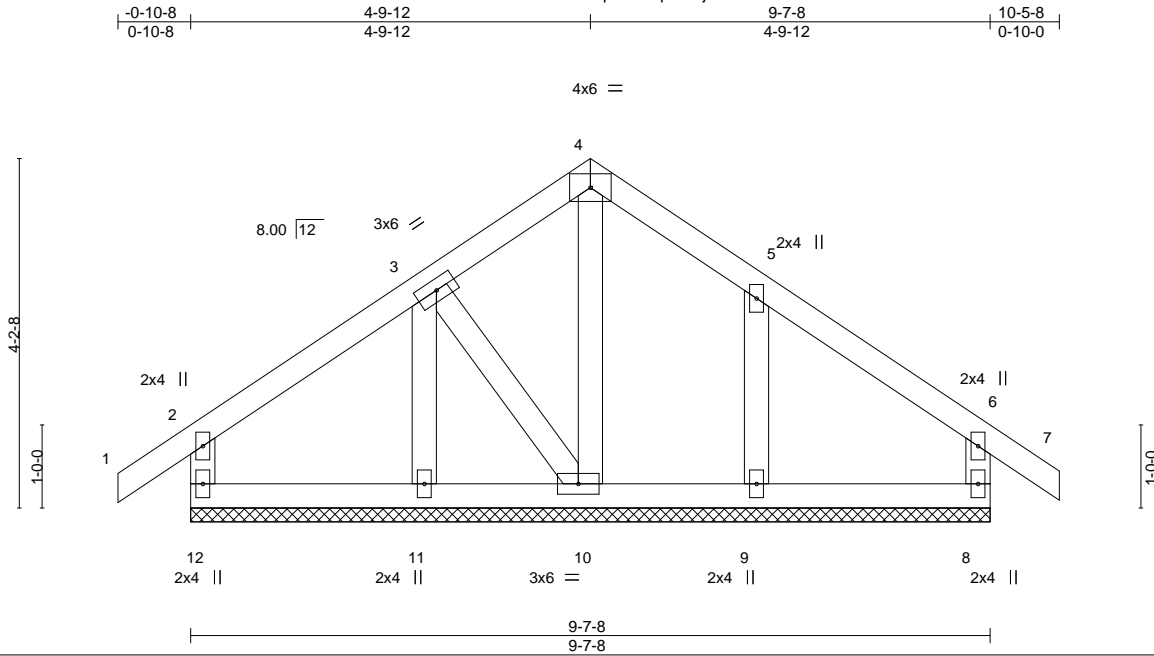
818 Soundside Road  
Edenton, NC 27932

Job 823690	Truss D01	Truss Type Common Supported Gable	Qty 3	Ply 1	H&H-SC/Trillium/ Job Reference (optional)	136912886
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Builders FirstSource, Sumter, SC - 29153,

8.220 s Nov 16 2018 MiTek Industries, Inc. Mon Apr 29 15:56:01 2019 Page 1

ID:N9ZpacWqWTLjEbWrVVGbZzQOD-uGcPCTTS1G2PhQWkS810tKeVPK3L6laWlq1W0zLpES



Scale = 1:27.7

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP	
TCLL 20.0	Plate Grip DOL	1.15	TC 0.17	Vert(LL)	-0.00	6	n/r	120	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.06	Vert(CT)	-0.00	6	n/r	120		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.07	Horz(CT)	0.00	8	n/a	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-S						Weight: 53 lb	FT = 20%

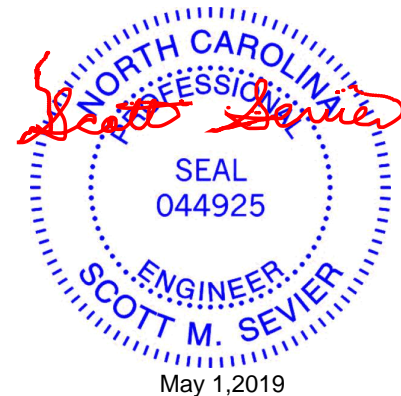
**LUMBER-**  
 TOP CHORD 2x4 SP No.2  
 BOT CHORD 2x4 SP No.2  
 WEBS 2x4 SP No.3  
 OTHERS 2x4 SP No.3

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

**REACTIONS.** All bearings 9-7-8.  
 (lb) - Max Horz 12=218(LC 11)  
 Max Uplift All uplift 100 lb or less at joint(s) except 12=160(LC 12), 8=128(LC 13), 10=179(LC 11), 11=123(LC 13), 9=212(LC 13)  
 Max Grav All reactions 250 lb or less at joint(s) 12, 8 except 10=289(LC 8), 11=256(LC 20), 9=264(LC 20)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-12=-248/257, 3-4=-231/256, 4-5=-231/259  
 WEBS 5-9=-278/236

- NOTES-** (11)
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-10; Vult=150mph (3-second gust) Vasd=119mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; 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
  - 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.
  - Gable requires continuous bottom chord bearing.
  - Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
  - Gable studs spaced at 2-0-0 oc.
  - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - \* 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.
  - All bearings are assumed to be User Defined crushing capacity of 565 psi.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 160 lb uplift at joint 12, 128 lb uplift at joint 8, 179 lb uplift at joint 10, 123 lb uplift at joint 11 and 212 lb uplift at joint 9.
  - This manufactured truss is designed as an individual building component. The suitability and use of this component for any particular building is the responsibility of the building designer per ANSI TPI 1 as referenced by the building code.



May 1, 2019

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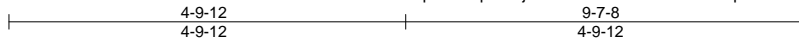
ENGINEERING BY  
**TRENCO**  
 A MiTek Affiliate  
 818 Soundside Road  
 Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	H&H-SC/Trillium/	136912887
823690	D02	COMMON GIRDER	3	1		

Builders FirstSource, Sumter, SC - 29153,

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ID:N9ZpzacWqWTLljEbWrVVGbZzQOD-MSAoPpT4oaAGJa5w0rYFQYBahkKRrdNRIPZb2TzLpER



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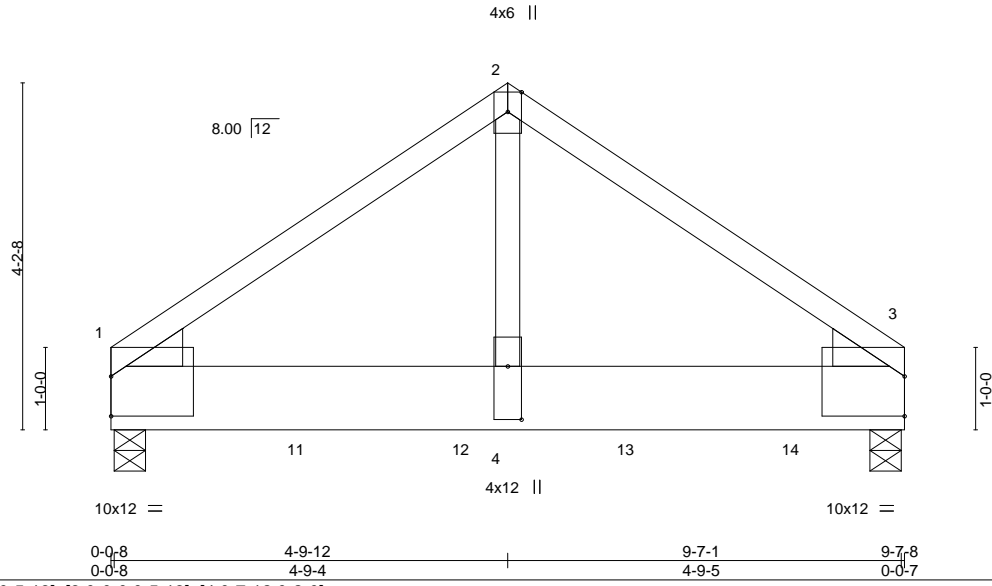


Plate Offsets (X,Y)--	[1:0-0-0,0-5-13], [3:0-0-0,0-5-13], [4:0-7-12,0-2-0]
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LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.52	in (loc) l/defl L/d	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.15	BC 0.32	Vert(LL) 0.04 4-10 >999 240		
BCLL 0.0 *	Lumber DOL 1.15	WB 0.61	Vert(CT) -0.06 4-10 >999 240		
BCDL 10.0	Rep Stress Incr NO	Matrix-MS	Horz(CT) -0.01 1 n/a n/a		
	Code IRC2015/TPI2014			Weight: 63 lb	FT = 20%

**LUMBER-**  
TOP CHORD 2x4 SP No.2  
BOT CHORD 2x10 SP DSS  
WEBS 2x4 SP No.2  
WEDGE  
Left: 2x6 SP No.2, Right: 2x6 SP No.2

**BRACING-**  
TOP CHORD Structural wood sheathing directly applied or 3-4-14 oc purlins.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

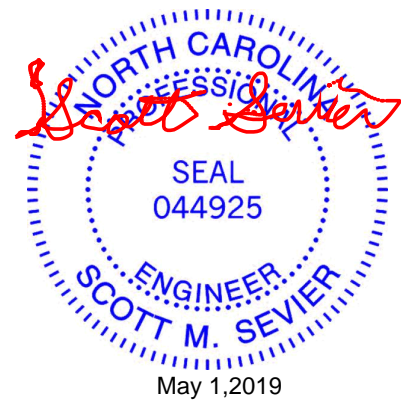
**REACTIONS.** (lb/size) 1=3338/0-4-9, 3=2768/0-4-9  
Max Horz 1=143(LC 5)  
Max Uplift 1=-1593(LC 8), 3=-1322(LC 9)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 1-2=-2556/1253, 2-3=-2555/1252  
BOT CHORD 1-4=-962/2055, 3-4=-962/2055  
WEBS 2-4=-1174/2493

- NOTES-** (9)
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-10; Vult=150mph (3-second gust) Vasd=119mph; TC DL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
  - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - \* 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.
  - All bearings are assumed to be User Defined crushing capacity of 565 psi.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 1593 lb uplift at joint 1 and 1322 lb uplift at joint 3.
  - Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 1073 lb down and 520 lb up at 0-4-0, 1066 lb down and 527 lb up at 2-4-0, 1066 lb down and 527 lb up at 4-4-0, and 1066 lb down and 527 lb up at 6-4-0, and 1066 lb down and 527 lb up at 8-4-0 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
  - In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).
  - This manufactured truss is designed as an individual building component. The suitability and use of this component for any particular building is the responsibility of the building designer per ANSI TPI 1 as referenced by the building code.

**LOAD CASE(S)** Standard

- Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15  
Uniform Loads (plf)  
Vert: 1-2=-60, 2-3=-60, 5-8=-20  
Concentrated Loads (lb)  
Vert: 7=-1073(B) 11=-1066(B) 12=-1066(B) 13=-1066(B) 14=-1066(B)

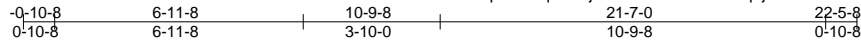


Job 823690	Truss E01	Truss Type GABLE	Qty 3	Ply 1	H&H-SC/Trillium/ Job Reference (optional)	136912888
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Builders FirstSource, Sumter, SC - 29153,

8.220 s Nov 16 2018 MiTek Industries, Inc. Mon Apr 29 15:56:03 2019 Page 1

ID:N9ZpacWqWTLijEbWrVVGBzZQOD-qejAd9UiZi17wkg7ZZ3UyljgY8bma8pb\_3J8bvzLpEQ



4x6 ||

Scale: 3/16"=1'

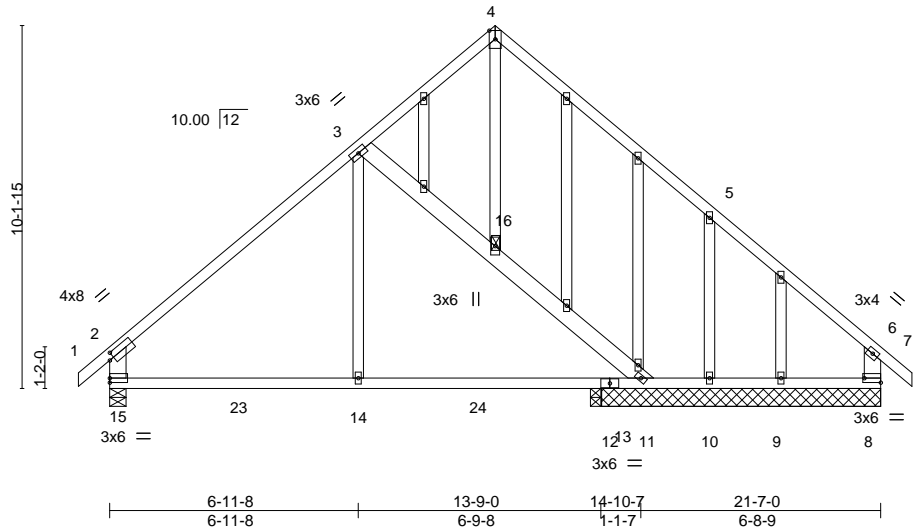


Plate Offsets (X,Y)--	[2:0-1-11,0-2-0], [8:Edge,0-1-8]
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LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.84	in (loc) l/defl L/d	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.15	BC 0.70	Vert(LL) -0.05 13-14 >999 360		
BCLL 0.0 *	Lumber DOL 1.15	WB 0.34	Vert(CT) -0.11 13-14 >999 240		
BCDL 10.0	Rep Stress Incr NO	Matrix-AS	Horz(CT) 0.02 8 n/a n/a		
	Code IRC2015/TPI2014		Wind(LL) -0.05 13-14 >999 240	Weight: 158 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x4 SP No.2	TOP CHORD Structural wood sheathing directly applied, except end verticals.
BOT CHORD 2x4 SP No.2	BOT CHORD Rigid ceiling directly applied.
WEBS 2x6 SP No.2 *Except*	JOINTS 1 Brace at Jt(s): 16
3-14: 2x4 SP No.3	
OTHERS 2x4 SP No.3	

**REACTIONS.** All bearings 7-9-12 except (jt=length) 15=0-5-8, 13=0-3-8.  
 (lb) - Max Horz 15=-498(LC 10)  
 Max Uplift All uplift 100 lb or less at joint(s) except 15=-223(LC 12), 11=-318(LC 12), 10=-458(LC 13), 9=-127(LC 13)  
 Max Grav All reactions 250 lb or less at joint(s) 9 except 15=998(LC 19), 8=650(LC 19), 11=473(LC 19), 10=682(LC 20), 13=296(LC 3)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-3=-1003/222, 3-4=-586/269, 4-5=-549/189, 5-6=-604/25, 2-15=-905/391, 6-8=-490/0  
 BOT CHORD 14-15=-194/942, 13-14=-194/939, 11-13=-194/939, 10-11=-86/449, 9-10=-86/449, 8-9=-86/449  
 WEBS 3-16=-731/484, 11-16=-736/438, 4-16=-89/255, 3-14=0/323, 5-10=-772/588

- NOTES-**
- 1) Unbalanced roof live loads have been considered for this design.
  - 2) Wind: ASCE 7-10; Vult=150mph (3-second gust) Vasd=119mph; TCCL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; 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 2x4 MT20 unless otherwise indicated.
  - 5) Gable studs spaced at 2-0-0 oc.
  - 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) All bearings are assumed to be User Defined crushing capacity of 565 psi.
  - 9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 223 lb uplift at joint 15, 318 lb uplift at joint 11, 458 lb uplift at joint 10 and 127 lb uplift at joint 9.
  - 10) 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.
  - 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

Continued on page 2



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**ENGINEERING BY**  
**TRENCO**  
 A MiTek Affiliate

818 Soundside Road  
 Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	H&H-SC/Trillium/	I36912888
823690	E01	GABLE	3	1		
Job Reference (optional)						

Builders FirstSource, Sumter, SC - 29153,

8.220 s Nov 16 2018 MiTek Industries, Inc. Mon Apr 29 15:56:03 2019 Page 2  
 ID:N9ZpacWqWTLIjEbWrVVGBzZQOD-qejAd9UiZt17wkg7ZZ3UyJlgY8bma8pb\_3J8bvzLpEQ

**LOAD CASE(S)** Standard

1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15

Uniform Loads (plf)

Vert: 1-2=-60, 2-3=-60, 3-4=-75(F=-15), 4-6=-75(F=-15), 6-7=-75(F=-15), 12-15=-20, 8-12=-35(F=-15), 3-11=-45(F)

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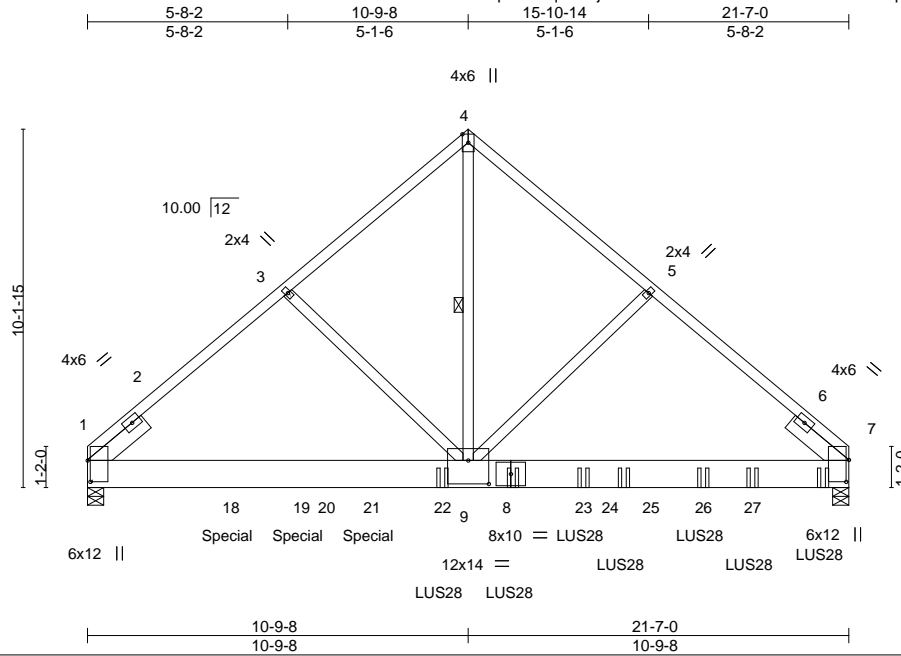
818 Soundside Road  
 Edenton, NC 27932

Job 823690	Truss E02	Truss Type COMMON GIRDER	Qty 2	Ply 2	H&H-SC/Trillium/ Job Reference (optional)	136912889
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Builders FirstSource, Sumter, SC - 29153,

8.220 s Nov 16 2018 MiTek Industries, Inc. Mon Apr 29 15:56:05 2019 Page 1

ID:N9ZpzacWqWTLjEbWrvVGBzZQOD-m1rw2rWz5VYrA2qVhz5y1Ap5ExIH2xOurNoFnzLpEO



Scale = 1:65.3

Plate Offsets (X,Y)--	[1:0-7-4,0-0-15], [7:0-7-7,0-0-15], [9:0-7-0,0-8-0]
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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 0.57	Vert(LL)	0.23	9-12	>999	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.63	Vert(CT)	-0.27	9-16	>969		
BCLL 0.0 *	Rep Stress Incr	NO	WB 0.79	Horz(CT)	-0.02	1	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-MS						
								Weight: 341 lb	FT = 20%

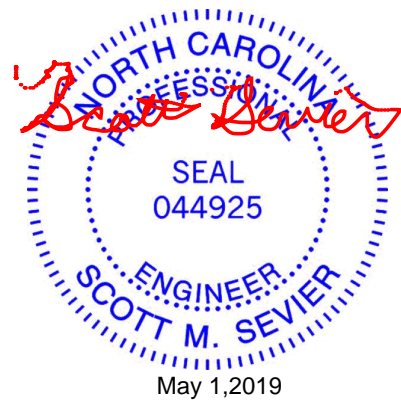
LUMBER-	BRACING-
TOP CHORD 2x4 SP No.2	TOP CHORD Structural wood sheathing directly applied or 4-10-7 oc purlins.
BOT CHORD 2x10 SP DSS	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 2x4 SP No.2	WEBS 1 Row at midpt 4-9
SLIDER Left 2x6 SP No.2 1-11-12, Right 2x6 SP No.2 1-11-12	

**REACTIONS.** (lb/size) 1=4945/0-5-8, 7=6558/0-5-8  
 Max Horz 1=400(LC 24)  
 Max Uplift 1=-3063(LC 8), 7=-3036(LC 9)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 1-3=-5527/2928, 3-4=-5344/2946, 4-5=-5352/2940, 5-7=-5492/2918  
 BOT CHORD 1-9=-2312/4181, 7-9=-2118/4219  
 WEBS 4-9=-3497/6412, 5-9=-368/435, 3-9=-332/476

- NOTES-**
- 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: 2x10 - 2 rows staggered at 0-7-0 oc.  
 Webs connected as follows: 2x4 - 1 row at 0-9-0 oc.
  - 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.
  - Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-10; Vult=150mph (3-second gust) Vasd=119mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
  - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - \* 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.
  - All bearings are assumed to be User Defined crushing capacity of 565 psi.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 3063 lb uplift at joint 1 and 3036 lb uplift at joint 7.
  - Use Simpson Strong-Tie LUS28 (6-SD9212 Girder, 4-SD9212 Truss) or equivalent spaced at 2-3-0 oc max. starting at 10-0-12 from the left end to 18-10-4 to connect truss(es) to back face of bottom chord.
  - Use Simpson Strong-Tie LUS28 (6-10d Girder, 3-10d Truss, Single Ply Girder) or equivalent at 20-10-4 from the left end to connect truss(es) to back face of bottom chord.
  - Fill all nail holes where hanger is in contact with lumber.
  - Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 1225 lb down and 1521 lb up at 4-0-12, and 887 lb down and 536 lb up at 6-0-12, and 938 lb down and 493 lb up at 8-0-12 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.

**LOAD CASE(S)** Standard  
 Continued on page 2



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**ENGINEERING BY**  
**TRENCO**  
 A MiTek Affiliate

818 Soundside Road  
 Edenton, NC 27932



Job	Truss	Truss Type	Qty	Ply	H&H-SC/Trillium/	I36912889
823690	E02	COMMON GIRDER	2	<b>2</b>	Job Reference (optional)	

Builders FirstSource, Sumter, SC - 29153,

8.220 s Nov 16 2018 MiTek Industries, Inc. Mon Apr 29 15:56:05 2019 Page 2  
 ID:N9ZpacWqWTLljEbWrVVGbzZQOD-m1rw2rWz5VYrA2qVhz5y1Ap5ExIH2xOurNoFfnzLpEO

**LOAD CASE(S)** Standard

1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15

Uniform Loads (plf)

Vert: 1-4=-60, 4-7=-60, 10-14=-20

Concentrated Loads (lb)

Vert: 8=-944(B) 16=-1069(B) 18=-1225(B) 19=-887(B) 21=-938(B) 22=-938(B) 23=-944(B) 25=-944(B) 26=-944(B) 27=-944(B)

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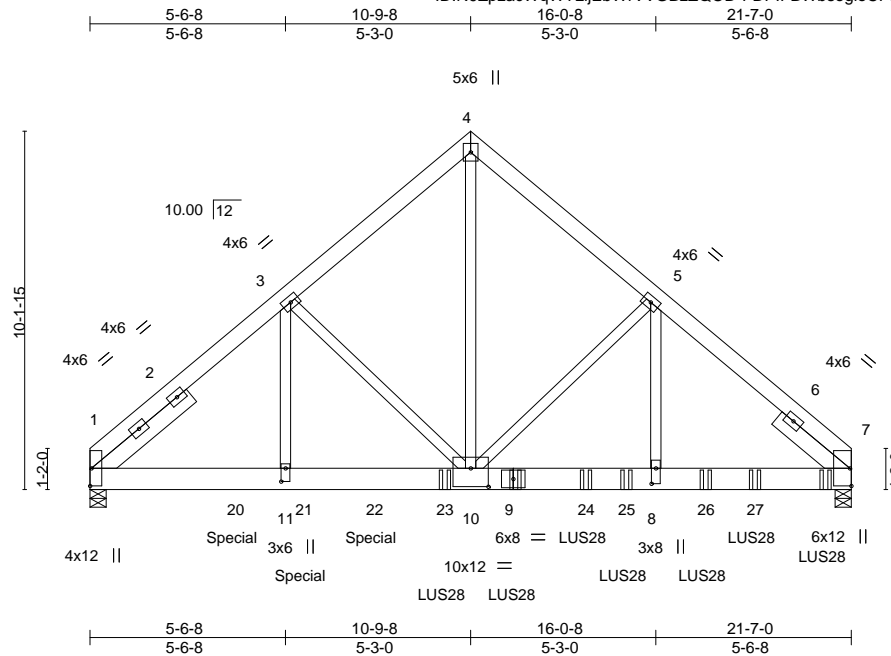
818 Soundside Road  
 Edenton, NC 27932

Job 823690	Truss E03	Truss Type COMMON GIRDER	Qty 1	Ply 3	H&H-SC/Trillium/ Job Reference (optional)	136912890
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Builders FirstSource, Sumter, SC - 29153,

8.220 s Nov 16 2018 MiTek Industries, Inc. Mon Apr 29 15:56:06 2019 Page 1

ID:N9ZpacWqWTLjEbWrVVGbZQOD-FDPIFBWbsogioCPIFhcBaOLGJLhnnQJ1XoBEzLpEN



Scale = 1:65.3

Plate Offsets (X,Y)--	[8:0-5-4,0-1-8], [10:0-6-0,0-6-4], [11:0-4-8,0-1-8]
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<b>LOADING</b> (psf)	<b>SPACING-</b>	2-0-0	<b>CSI.</b>	<b>DEFL.</b>	in (loc)	l/defl	L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL 20.0	Plate Grip DOL	1.15	TC 0.55	Vert(LL)	-0.08	8-10	>999	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.36	Vert(CT)	-0.17	8-10	>999		
BCLL 0.0 *	Rep Stress Incr	NO	WB 0.68	Horz(CT)	0.05	7	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-MS	Wind(LL)	0.10	8-10	>999		
								Weight: 587 lb	FT = 20%

<b>LUMBER-</b>	<b>BRACING-</b>
TOP CHORD 2x6 SP No.2	TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins.
BOT CHORD 2x8 SP DSS	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 2x4 SP No.2	
SLIDER Left 2x6 SP No.2 3-6-0, Right 2x6 SP No.2 2-6-0	

<b>REACTIONS.</b> (lb/size)	1=7419/0-5-8, 7=9398/0-5-8
	Max Horz 1=-391(LC 4)
	Max Uplift 1=-3283(LC 8), 7=-2553(LC 9)

<b>FORCES.</b> (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-3=-9129/3687, 3-4=-6997/2166, 4-5=-7002/2173, 5-7=-9780/2480
BOT CHORD 1-11=-2842/6728, 10-11=-2842/6728, 8-10=-1750/7250, 7-8=-1750/7250
WEBS 4-10=-2445/8297, 5-10=-2640/743, 5-8=-529/3730, 3-10=-1906/2005, 3-11=-2219/2876

- NOTES-**
- 3-ply truss to be connected together with 10d (0.131"x3") nails as follows:  
Top chords connected as follows: 2x6 - 2 rows staggered at 0-9-0 oc.  
Bottom chords connected as follows: 2x8 - 2 rows staggered at 0-4-0 oc.  
Webs connected as follows: 2x4 - 1 row at 0-9-0 oc.
  - 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.
  - Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-10; Vult=150mph (3-second gust) Vasd=119mph; TC DL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
  - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - \* 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.
  - All bearings are assumed to be User Defined crushing capacity of 565 psi.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 3283 lb uplift at joint 1 and 2553 lb uplift at joint 7.
  - Use Simpson Strong-Tie LUS28 (6-SD9212 Girder, 4-SD9212 Truss) or equivalent spaced at 2-3-0 oc max. starting at 10-0-12 from the left end to 18-10-4 to connect truss(es) to back face of bottom chord.
  - Use Simpson Strong-Tie LUS28 (6-10d Girder, 3-10d Truss, Single Ply Girder) or equivalent at 20-10-4 from the left end to connect truss(es) to back face of bottom chord.
  - Fill all nail holes where hanger is in contact with lumber.
  - Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 2001 lb down and 2373 lb up at 4-1-8, and 1422 lb down and 444 lb up at 6-0-12, and 1527 lb down and 332 lb up at 8-0-12 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.

**LOAD CASE(S)** Standard  
Continued on page 2



**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 10/03/2015 BEFORE USE.**

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**ENGINEERING BY**  
**TRENCO**  
A MiTek Affiliate

818 Soundside Road  
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	H&H-SC/Trillium/	I36912890
823690	E03	COMMON GIRDER	1	<b>3</b>	Job Reference (optional)	

Builders FirstSource, Sumter, SC - 29153,

8.220 s Nov 16 2018 MiTek Industries, Inc. Mon Apr 29 15:56:06 2019 Page 2  
 ID:N9ZpacWqWTLijEbWrVVGbZQOD-FDPIFBWbsogioCPIFhcBaOLGJLhhnQJ1g1XoBEzLpEN

**LOAD CASE(S)** Standard

1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15

Uniform Loads (plf)

Vert: 1-4=-60, 4-7=-60, 12-16=-20

Concentrated Loads (lb)

Vert: 9=-1539(B) 18=-1071(B) 20=-1996(B) 21=-1422(B) 22=-1527(B) 23=-1527(B) 24=-1539(B) 25=-1539(B) 26=-1539(B) 27=-1428(B)

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 10/03/2015 BEFORE USE.**

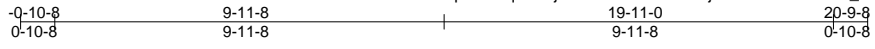
Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 218 N. Lee Street, Suite 312, Alexandria, VA 22314.



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Job	Truss	Truss Type	Qty	Ply	H&H-SC/Trillium/	136912891
823690	G01	GABLE	3	1		

Builders FirstSource, Sumter, SC - 29153, 8.220 s Nov 16 2018 MiTek Industries, Inc. Mon Apr 29 15:56:07 2019 Page 1  
 ID:N9ZpzacWqWTLjEbWrVVGbzZQOD-jPzhSWXDd6oZPL\_uoO7Q7buXvi49W\_fAvhHLkgZLPem



4x6 =

Scale = 1:58.9

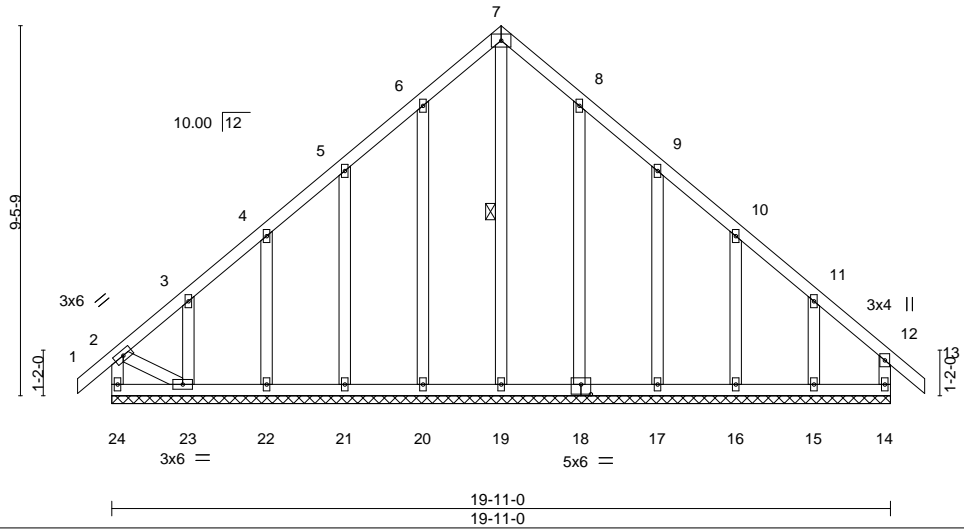


Plate Offsets (X,Y)--	[18:0-3-0,0-3-0]
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LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL	1.15	TC 0.17	Vert(LL)	-0.00	13	n/r	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.16	Vert(CT)	-0.00	13	n/r		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.22	Horz(CT)	0.01	14	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-S						
								Weight: 147 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x4 SP No.2	TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
BOT CHORD 2x4 SP No.2	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except:
WEBS 2x4 SP No.2 *Except*	6-0-0 oc bracing: 23-24.
OTHERS 2-23: 2x4 SP No.3	WEBS 1 Row at midpt 7-19
OTHERS 2x4 SP No.3	

**REACTIONS.** All bearings 19-11-0.  
 (lb) - Max Horz 24=-463(LC 10)  
 Max Uplift All uplift 100 lb or less at joint(s) 14 except 24=-355(LC 8), 19=-137(LC 11), 20=-180(LC 12), 21=-194(LC 12), 22=-188(LC 12), 23=-333(LC 12), 18=-169(LC 13), 17=-206(LC 13), 16=-157(LC 13), 15=-312(LC 13)  
 Max Grav All reactions 250 lb or less at joint(s) 14, 20, 21, 22, 18, 17, 16, 15 except 24=414(LC 11), 19=536(LC 13), 23=336(LC 10)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-24=-391/358, 2-3=-391/377, 3-4=-345/343, 4-5=-302/338, 5-6=-330/430, 6-7=-438/509, 7-8=-438/508, 8-9=-328/380  
 BOT CHORD 23-24=-426/419  
 WEBS 7-19=-519/386, 11-15=-279/270, 2-23=-354/386

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-10; Vult=150mph (3-second gust) Vasd=119mph; TC DL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; 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
  - 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.
  - All plates are 2x4 MT20 unless otherwise indicated.
  - Gable requires continuous bottom chord bearing.
  - Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
  - Gable studs spaced at 2-0-0 oc.
  - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - \* 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.
  - All bearings are assumed to be User Defined crushing capacity of 565 psi.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 14 except (jt=lb) 24=355, 19=137, 20=180, 21=194, 22=188, 23=333, 18=169, 17=206, 16=157, 15=312.



May 1, 2019

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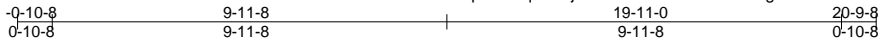
818 Soundside Road  
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Job	Truss	Truss Type	Qty	Ply	H&H-SC/Trillium/	136912892
823690	G02	COMMON	6	1		

Builders FirstSource, Sumter, SC - 29153,

8.220 s Nov 16 2018 MiTek Industries, Inc. Mon Apr 29 15:56:08 2019 Page 1

ID:N9ZpzacWqWTLjEbWrVVBzZQOD-BcX3gsYrOQwQ1VZ4M6ffpRbh9HHFR2K7L0vG6zLpEL



7x10 //

Scale = 1:58.1

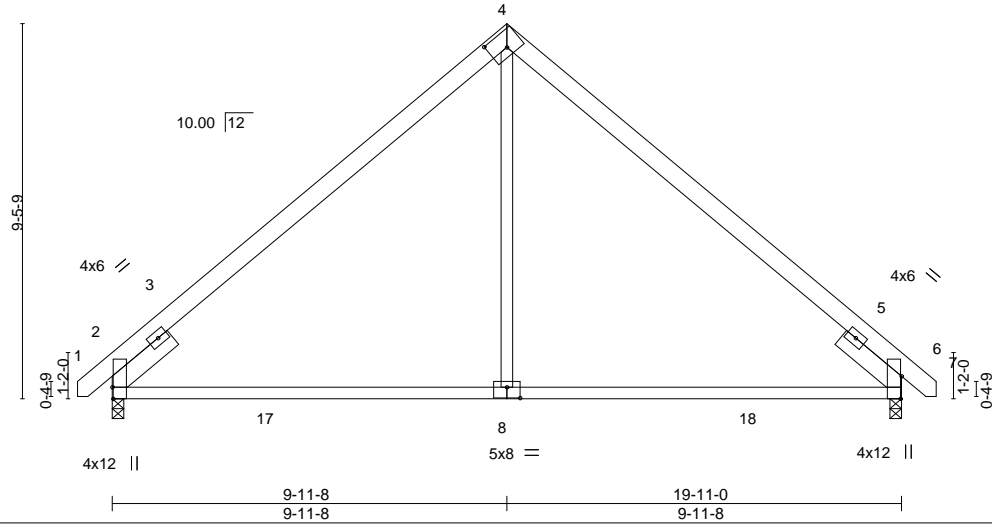


Plate Offsets (X,Y)-- [2:0-3-8,Edge], [4:0-5-4,0-4-8], [6:0-6-13,Edge], [8:0-4-0,0-3-4]

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 0.62	Vert(LL)	-0.17	8-15	>999	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.74	Vert(CT)	-0.29	8-15	>816		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.22	Horz(CT)	-0.10	2	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-AS	Wind(LL)	0.23	8-11	>999		
								Weight: 119 lb	FT = 20%

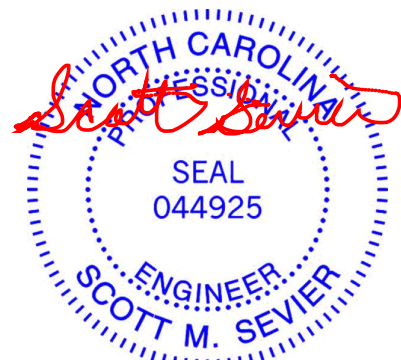
**LUMBER-**  
 TOP CHORD 2x6 SP No.2  
 BOT CHORD 2x4 SP No.1  
 WEBS 2x4 SP No.3  
 SLIDER Left 2x6 SP No.2 1-11-12, Right 2x6 SP No.2 1-11-12

**BRACING-**  
 TOP CHORD Structural wood sheathing directly applied.  
 BOT CHORD Rigid ceiling directly applied.

**REACTIONS.** (lb/size) 2=841/0-3-8, 6=841/0-3-8  
 Max Horz 2=396(LC 11)  
 Max Uplift 2=-352(LC 12), 6=-352(LC 13)  
 Max Grav 2=962(LC 19), 6=962(LC 20)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-4=-1019/454, 4-6=-1019/454  
 BOT CHORD 2-8=-137/769, 6-8=-137/769  
 WEBS 4-8=0/564

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-10; Vult=150mph (3-second gust) Vasd=119mph; TC DL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; 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
  - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - \* 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.
  - All bearings are assumed to be User Defined crushing capacity of 565 psi.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (it=lb) 2=352, 6=352.
  - 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.



May 1, 2019

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Job	Truss	Truss Type	Qty	Ply	H&H-SC/Trillium/	136912893
823690	H01	GABLE	3	1		

Builders FirstSource, Sumter, SC - 29153,

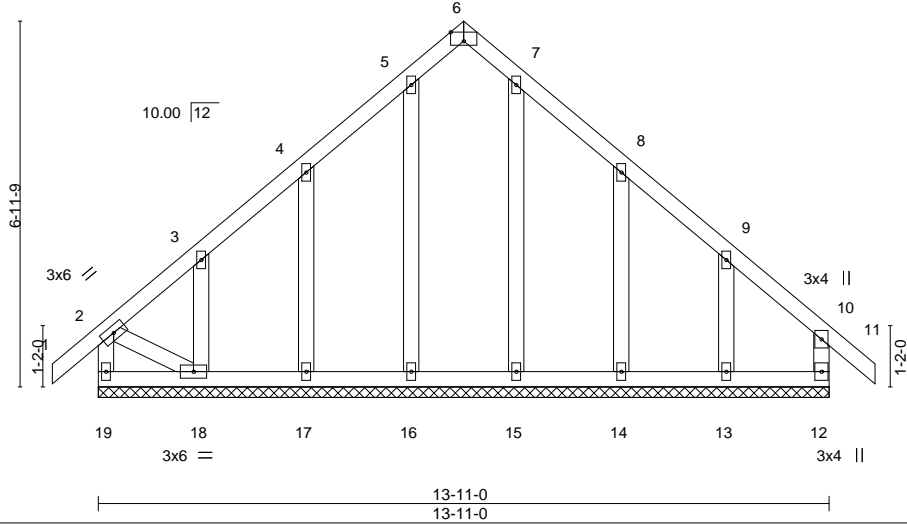
8.220 s Nov 16 2018 MiTek Industries, Inc. Mon Apr 29 15:56:09 2019 Page 1

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3x6 =

Scale = 1:43.9



LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.20	in (loc) l/defl L/d	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.15	BC 0.18	Vert(LL) -0.00 11 n/r 120		
BCLL 0.0 *	Lumber DOL 1.15	WB 0.12	Vert(CT) -0.00 11 n/r 120		
BCDL 10.0	Rep Stress Incr YES	Matrix-S	Horz(CT) 0.00 12 n/a n/a		
	Code IRC2015/TPI2014			Weight: 91 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x4 SP No.2	TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
BOT CHORD 2x4 SP No.2	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except: 6-0-0 oc bracing: 18-19.
WEBS 2x4 SP No.2 *Except* 2-18: 2x4 SP No.3	
OTHERS 2x4 SP No.3	

**REACTIONS.** All bearings 13-11-0.  
 (lb) - Max Horz 19=-352(LC 10)  
 Max Uplift All uplift 100 lb or less at joint(s) 12, 16 except 19=-200(LC 8), 17=-230(LC 12), 18=-300(LC 12), 14=-212(LC 13), 13=-313(LC 13)  
 Max Grav All reactions 250 lb or less at joint(s) 12, 16, 17, 15, 14, 13 except 19=281(LC 20), 18=281(LC 10)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-19=-262/205, 2-3=-263/239  
 BOT CHORD 18-19=-320/313  
 WEBS 4-17=-276/271, 8-14=-268/253, 9-13=-280/265, 2-18=-240/282

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-10; Vult=150mph (3-second gust) Vasd=119mph; TC DL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; 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
  - 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.
  - All plates are 2x4 MT20 unless otherwise indicated.
  - Gable requires continuous bottom chord bearing.
  - Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
  - Gable studs spaced at 2-0-0 oc.
  - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - \* 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.
  - All bearings are assumed to be User Defined crushing capacity of 565 psi.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 12, 16 except (jt=lb) 19=200, 17=230, 18=300, 14=212, 13=313.



May 1, 2019

Job 823690	Truss I01	Truss Type GABLE	Qty 3	Ply 1	H&H-SC/Trillium/ Job Reference (optional)	136912894
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Builders FirstSource, Sumter, SC - 29153,

8.220 s Nov 16 2018 MiTek Industries, Inc. Mon Apr 29 15:56:10 2019 Page 1

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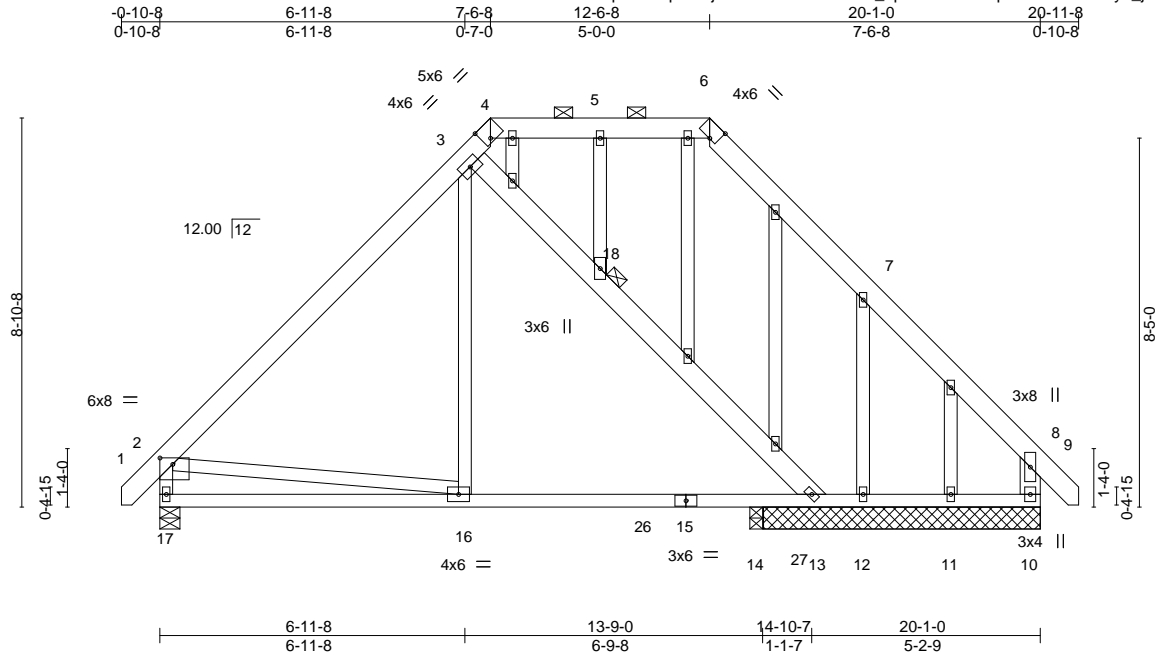


Plate Offsets (X,Y)--	[2:0-3-8,0-1-12], [4:0-2-2,Edge], [6:0-2-2,Edge]
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LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL	1.15	TC 1.00	Vert(LL)	-0.07	14-16	>999	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.47	Vert(CT)	-0.10	16-17	>999		
BCLL 0.0 *	Rep Stress Incr	NO	WB 0.27	Horz(CT)	0.01	10	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-MS	Wind(LL)	0.01	16	>999		
								Weight: 181 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x6 SP No.2	TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 4-6.
BOT CHORD 2x4 SP No.2	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except:
WEBS 2x4 SP No.3 *Except*	8-4-12 oc bracing: 16-17.
8-10,3-13: 2x6 SP No.2	1 Brace at Jt(s): 18
OTHERS 2x4 SP No.3	

**REACTIONS.** All bearings 6-3-12 except (jt=length) 17=0-5-8, 14=0-3-8.  
 (lb) - Max Horz 17=442(LC 11)  
 Max Uplift All uplift 100 lb or less at joint(s) 11 except 17=-171(LC 12), 13=-271(LC 12), 12=-428(LC 13)  
 Max Grav All reactions 250 lb or less at joint(s) 11 except 17=895(LC 1), 10=727(LC 24), 13=375(LC 10), 12=510(LC 20), 14=274(LC 18)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-3=-888/249, 3-4=-524/297, 6-7=-601/243, 7-8=-639/92, 2-17=-832/365, 8-10=-613/4, 4-5=-400/236, 5-6=-399/236  
 BOT CHORD 16-17=-488/586, 14-16=-241/670, 13-14=-241/670, 12-13=-108/429, 11-12=-106/429, 10-11=-106/429  
 WEBS 3-16=0/252, 2-16=-146/646, 3-18=-582/386, 13-18=-595/356, 7-12=-623/528

- NOTES-**
- 1) Unbalanced roof live loads have been considered for this design.
  - 2) Wind: ASCE 7-10; Vult=150mph (3-second gust) Vasd=119mph; TCCL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; 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 2x4 MT20 unless otherwise indicated.
  - 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, with BCDL = 10.0psf.
  - 9) All bearings are assumed to be User Defined crushing capacity of 565 psi.
  - 10) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 11 except (jt=lb) 17=171, 13=271, 12=428.
  - 11) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
  - 12) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

**LOAD CASE(S)** Standard

Continued on page 2



May 1, 2019

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**TRENCO**  
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Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	H&H-SC/Trillium/	I36912894
823690	I01	GABLE	3	1		
Job Reference (optional)						

Builders FirstSource, Sumter, SC - 29153,

8.220 s Nov 16 2018 MiTek Industries, Inc. Mon Apr 29 15:56:10 2019 Page 2  
 ID:N9ZpzacWqWTLjEbWrVGBzZQOD-7\_ep5Ya5w1A8GpiTUXh7kEWREy1\_jKgdbE0K?zLpEJ

**LOAD CASE(S)** Standard

1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15

Uniform Loads (plf)

Vert: 1-2=-60, 2-3=-60, 3-4=-75(F=-15), 6-8=-75(F=-15), 8-9=-75(F=-15), 17-27=-20, 10-27=-35(F=-15), 3-13=-45(F), 4-6=-75(F=-15)

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 10/03/2015 BEFORE USE.**

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Job 823690	Truss 102	Truss Type Hip Girder	Qty 2	Ply 2	H&H-SC/Trillium/ Job Reference (optional)	136912895
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Builders FirstSource, Sumter, SC - 29153,

8.220 s Nov 16 2018 MiTek Industries, Inc. Mon Apr 29 15:56:12 2019 Page 1

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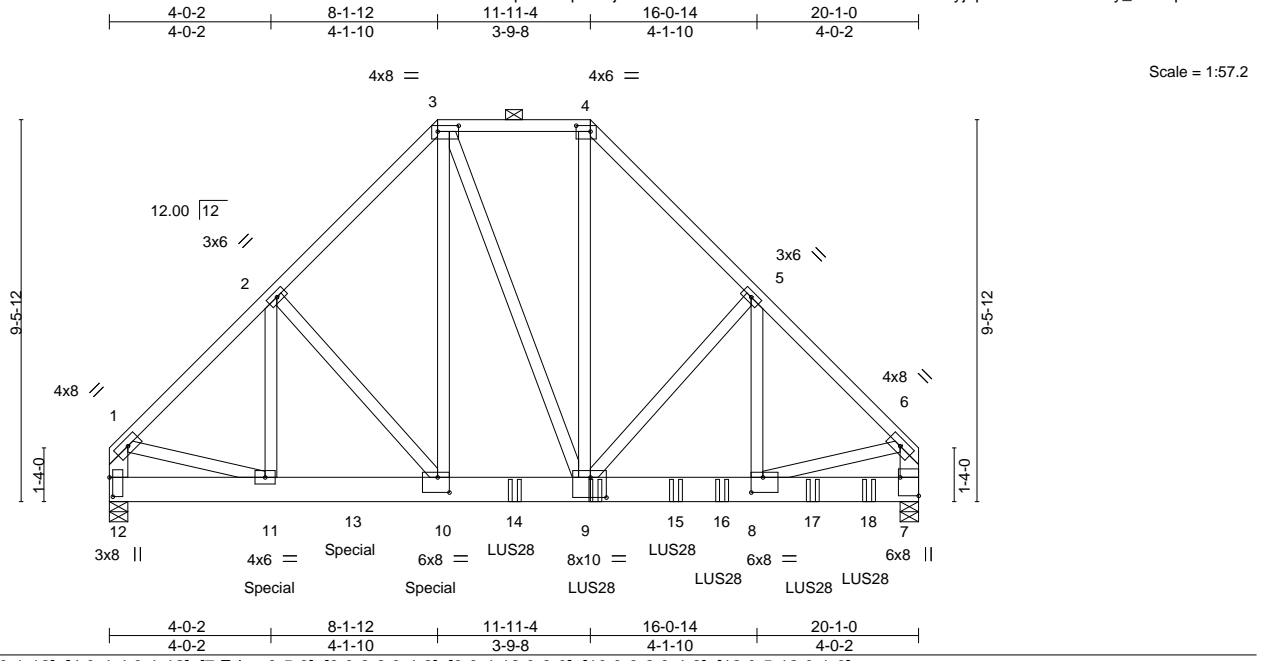


Plate Offsets (X,Y)--	[3:0-6-4,0-1-12], [4:0-4-4,0-1-12], [7:Edge,0-5-8], [8:0-3-8,0-4-8], [9:0-4-12,0-6-0], [10:0-3-8,0-4-8], [12:0-5-12,0-1-0]
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<b>LOADING</b> (psf)	<b>SPACING-</b>	2-0-0	<b>CSI.</b>	<b>DEFL.</b>	in (loc)	l/defl	L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL 20.0	Plate Grip DOL	1.15	TC 0.45	Vert(LL)	0.09 10-11	>999	240	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.23	Vert(CT)	-0.09 10-11	>999	240		
BCLL 0.0 *	Rep Stress Incr	NO	WB 0.57	Horz(CT)	0.01 7	n/a	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-MS					Weight: 374 lb	FT = 20%

<b>LUMBER-</b>	<b>BRACING-</b>
TOP CHORD 2x4 SP No.2	TOP CHORD Structural wood sheathing directly applied or 5-4-9 oc purlins, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 3-4.
BOT CHORD 2x8 SP DSS	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 2x4 SP No.2 *Except* 1-12,6-7: 2x6 SP No.2	

<b>REACTIONS.</b> (lb/size)	12=4467/0-5-8, 7=5816/0-5-8
Max Horz	12=-423(LC 4)
Max Uplift	12=-3053(LC 8), 7=-2647(LC 9)

<b>FORCES.</b> (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-2=-4816/3298, 2-3=-4207/2478, 3-4=-3047/1776, 4-5=-4427/2373, 5-6=-5318/2497, 1-12=-4299/2942, 6-7=-4681/2208
BOT CHORD 11-12=-627/602, 10-11=-2471/3349, 9-10=-1713/2929, 8-9=-1653/3702, 7-8=-322/611
WEBS 2-11=-1402/787, 2-10=-843/1359, 3-10=-1926/2422, 3-9=0/448, 4-9=-1580/2845, 5-9=-1020/623, 5-8=-387/1190, 1-11=-2054/3118, 6-8=-1439/3209

- NOTES-**
- 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, 2x6 - 2 rows staggered at 0-9-0 oc.  
Bottom chords connected as follows: 2x8 - 2 rows staggered at 0-7-0 oc.  
Webs connected as follows: 2x4 - 1 row at 0-9-0 oc.
  - 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.
  - Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-10; Vult=150mph (3-second gust) Vasd=119mph; TCdL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
  - Provide adequate drainage to prevent water ponding.
  - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - \* 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.
  - All bearings are assumed to be User Defined crushing capacity of 565 psi.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 12=3053, 7=2647.
  - Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
  - Use Simpson Strong-Tie LUS28 (6-SD9212 Girder, 4-SD9212 Truss) or equivalent spaced at 2-3-0 oc max. starting at 10-0-12 from the left end to 18-10-4 to connect truss(es) to back face of bottom chord.
  - Fill all nail holes where hanger is in contact with lumber.
  - Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 1243 lb down and 1868 lb up at 4-0-12, and 923 lb down and 547 lb up at 6-0-12, and 960 lb down and 499 lb up at 8-0-12 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.



Continued on page 2

**LOAD CASE(S)** Standard

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 10/03/2015 BEFORE USE.**

Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 218 N. Lee Street, Suite 312, Alexandria, VA 22314.

**ENGINEERING BY**  
**TRENCO**  
A MiTek Affiliate

818 Soundside Road  
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	H&H-SC/Trillium/	I36912895
823690	I02	Hip Girder	2	<b>2</b>	Job Reference (optional)	

Builders FirstSource, Sumter, SC - 29153,

8.220 s Nov 16 2018 MiTek Industries, Inc. Mon Apr 29 15:56:12 2019 Page 2  
 ID:N9ZpzacWqWTLjEbWrVVGbZQOD-3NmaWEbMReQsW7srbyjbpfbJGmnBBAWw2y\_6PtzLpEH

**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, 4-6=-60, 7-12=-20

Concentrated Loads (lb)

Vert: 9=-944(B) 11=-1225(B) 10=-938(B) 13=-887(B) 14=-944(B) 15=-944(B) 16=-944(B) 17=-944(B) 18=-944(B)

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 10/03/2015 BEFORE USE.**

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818 Soundside Road  
 Edenton, NC 27932

Job 823690	Truss 103	Truss Type Hip Girder	Qty 1	Ply 3	H&H-SC/Trillium/ Job Reference (optional)	136912896
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Builders FirstSource, Sumter, SC - 29153,

8.220 s Nov 16 2018 MiTek Industries, Inc. Mon Apr 29 15:56:13 2019 Page 1

ID:N9ZpzacWqWTLjEbWrVVGbZQOD-XZKyjac\_CyZj7GR29fEqMs8WFA6NwfQ3HckgxKzLpEG

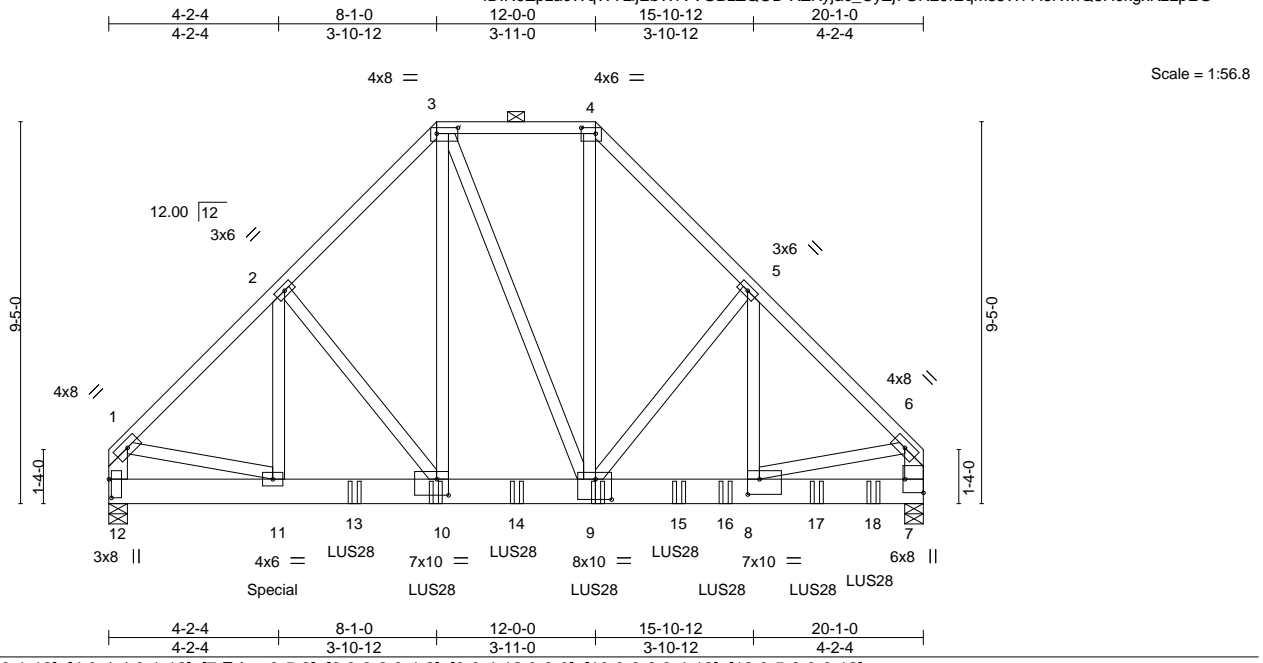


Plate Offsets (X,Y)--	[3:0-6-4,0-1-12], [4:0-4-4,0-1-12], [7:Edge,0-5-8], [8:0-3-8,0-4-8], [9:0-4-12,0-6-0], [10:0-3-8,0-4-12], [12:0-5-8,0-0-12]
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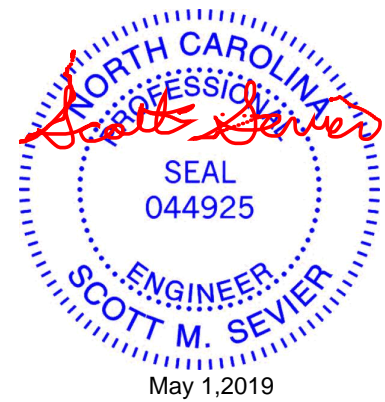
<b>LOADING</b> (psf)	<b>SPACING-</b>	2-0-0	<b>CSI.</b>	<b>DEFL.</b>	in (loc)	l/defl	L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL 20.0	Plate Grip DOL	1.15	TC 0.37	Vert(LL)	0.08 10-11	>999	240	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.23	Vert(CT)	-0.10 10-11	>999	240		
BCLL 0.0 *	Rep Stress Incr	NO	WB 0.40	Horz(CT)	0.01 7	n/a	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-MS					Weight: 563 lb	FT = 20%

<b>LUMBER-</b>	<b>BRACING-</b>
TOP CHORD 2x4 SP No.2	TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 3-4.
BOT CHORD 2x8 SP DSS	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 2x4 SP No.2 *Except* 1-12,6-7: 2x6 SP No.2	

<b>REACTIONS.</b> (lb/size)	12=6756/0-5-8, 7=8999/0-5-8
Max Horz	12=420(LC 7)
Max Uplift	12=3852(LC 8), 7=2312(LC 9)

<b>FORCES.</b> (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-2=-7366/4184, 2-3=-6459/2811, 3-4=-4724/1786, 4-5=-6788/2393, 5-6=-8161/2287, 1-12=-6503/3695, 6-7=-7092/2014
BOT CHORD 11-12=-702/780, 10-11=-3090/5143, 9-10=-1961/4539, 8-9=-1496/5702, 7-8=-296/1000
WEBS 2-11=-2352/1368, 2-10=-1266/2039, 3-10=-2701/3894, 3-9=0/1022, 4-9=-1596/4540, 5-9=-1607/379, 5-8=-38/2004, 1-11=-2614/4774, 6-8=-1324/4866

- NOTES-**
- 3-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, 2x6 - 2 rows staggered at 0-9-0 oc.  
Bottom chords connected as follows: 2x8 - 3 rows staggered at 0-5-0 oc.  
Webs connected as follows: 2x4 - 1 row at 0-9-0 oc.
  - 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.
  - Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-10; Vult=150mph (3-second gust) Vasd=119mph; TCdL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
  - Provide adequate drainage to prevent water ponding.
  - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - \* 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.
  - All bearings are assumed to be User Defined crushing capacity of 565 psi.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 12=3852, 7=2312.
  - Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
  - Use Simpson Strong-Tie LUS28 (6-SD9112 Girder, 4-SD9212 Truss, Single Ply Girder) or equivalent at 6-0-12 from the left end to connect truss(es) to back face of bottom chord.
  - Use Simpson Strong-Tie LUS28 (6-SD9212 Girder, 4-SD9212 Truss) or equivalent spaced at 2-3-0 oc max. starting at 8-0-12 from the left end to 18-10-4 to connect truss(es) to back face of bottom chord.
  - Fill all nail holes where hanger is in contact with lumber.
  - Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 2161 lb down and 2894 lb up at joint(s) on bottom chord. The design/selection of such connection device(s) is the responsibility of others.



**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 10/03/2015 BEFORE USE.**

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818 Soundside Road  
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	H&H-SC/Trillium/	I36912896
823690	I03	Hip Girder	1	<b>3</b>	Job Reference (optional)	

Builders FirstSource, Sumter, SC - 29153,

8.220 s Nov 16 2018 MiTek Industries, Inc. Mon Apr 29 15:56:13 2019 Page 2  
 ID:N9ZpzacWqWTLjEbWrVVGbZQOD-XZKyjac\_CyZj7GR29fEqMs8WFA6NwfQ3HckgxKzLpEG

**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, 4-6=-60, 7-12=-20

Concentrated Loads (lb)

Vert: 9=-1539(B) 11=-2003(B) 10=-1527(B) 13=-1422(B) 14=-1539(B) 15=-1539(B) 16=-1539(B) 17=-1539(B) 18=-1539(B)

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 10/03/2015 BEFORE USE.**

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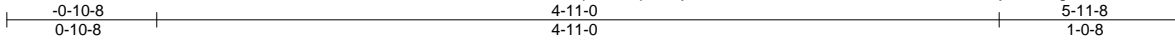
818 Soundside Road  
 Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	H&H-SC/Trillium/	136912897
823690	J01	Half Hip	3	1		

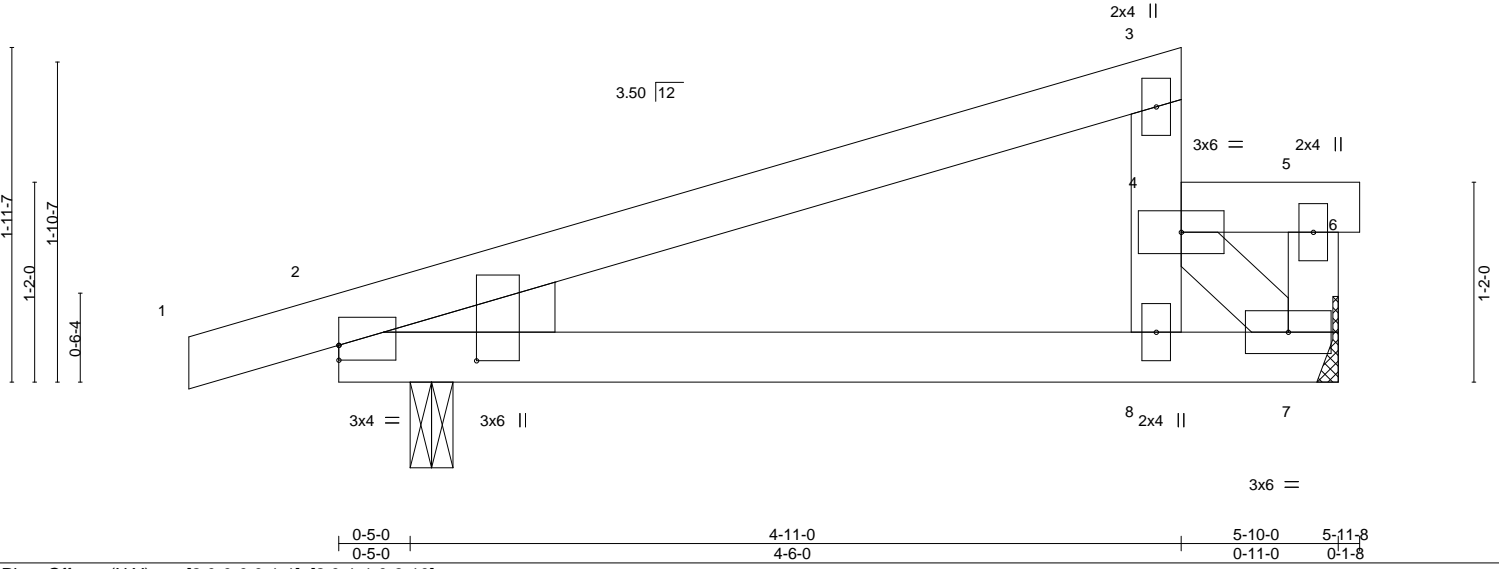
Builders FirstSource, Sumter, SC - 29153,

8.220 s Nov 16 2018 MiTek Industries, Inc. Mon Apr 29 15:56:14 2019 Page 1

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Scale = 1:13.4



<b>LOADING</b> (psf)	<b>SPACING-</b>	2-0-0	<b>CSI.</b>	<b>DEFL.</b>	in (loc)	l/defl	L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL 20.0	Plate Grip DOL	1.15	TC 0.52	Vert(LL)	0.03	8-13	>999	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.28	Vert(CT)	-0.03	8-13	>999		
BCLL 0.0 *	Rep Stress Incr	NO	WB 0.14	Horz(CT)	-0.00	2	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-MP					Weight: 25 lb	FT = 20%

<b>LUMBER-</b>	<b>BRACING-</b>
TOP CHORD 2x4 SP No.2	TOP CHORD Structural wood sheathing directly applied or 5-11-8 oc purlins, except end verticals, and 2-0-0 oc purlins: 4-8, 4-6.
BOT CHORD 2x4 SP No.2	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 2x4 SP No.3 *Except* 3-8: 2x4 SP No.2	
<b>WEDGE</b> Left: 2x4 SP No.3	

**REACTIONS.** (lb/size) 7=545/Mechanical, 2=378/0-3-0  
 Max Horz 2=141(LC 12)  
 Max Uplift 2=180(LC 8)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-3=-330/78  
 BOT CHORD 2-8=-152/373, 7-8=-222/627  
 WEBS 4-7=-836/280

- NOTES-** (11)
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-10; Vult=150mph (3-second gust) Vasd=119mph; TCCL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) -0-10-8 to 5-11-8 zone; 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
  - Provide adequate drainage to prevent water ponding.
  - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - \* 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.
  - Refer to girder(s) for truss to truss connections.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=180.
  - Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
  - Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) . The design/selection of such connection device(s) is the responsibility of others.
  - In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).
  - This manufactured truss is designed as an individual building component. The suitability and use of this component for any particular building is the responsibility of the building designer per ANSI TPI 1 as referenced by the building code.

**LOAD CASE(S)** Standard  
 1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15  
 Uniform Loads (plf)  
 Vert: 1-3=-60, 4-5=-60, 5-6=-20, 7-9=-20



Continued on page 2

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**TRENCO**  
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818 Soundside Road  
 Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	H&H-SC/Trillium/	I36912897
823690	J01	Half Hip	3	1		
Job Reference (optional)						

Builders FirstSource, Sumter, SC - 29153,

8.220 s Nov 16 2018 MiTek Industries, Inc. Mon Apr 29 15:56:14 2019 Page 2  
 ID:N9ZpzacWqWTLljEbWrVVGbZQOD-0muKwwdczGhZlQ0EjMm3v4gemZRsf9eCWGTDTmzLpEF

**LOAD CASE(S)** Standard  
 Concentrated Loads (lb)  
 Vert: 4=-410(F)

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 10/03/2015 BEFORE USE.**

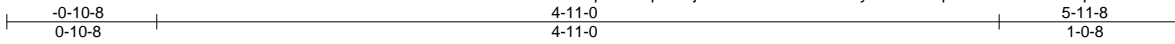
Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TP11 Quality Criteria, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 218 N. Lee Street, Suite 312, Alexandria, VA 22314.



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 Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	H&H-SC/Trillium/	136912898
823690	J02	Half Hip	21	1		
Builders FirstSource, Sumter, SC - 29153,						Job Reference (optional)

8.220 s Nov 16 2018 MiTek Industries, Inc. Mon Apr 29 15:56:15 2019 Page 1  
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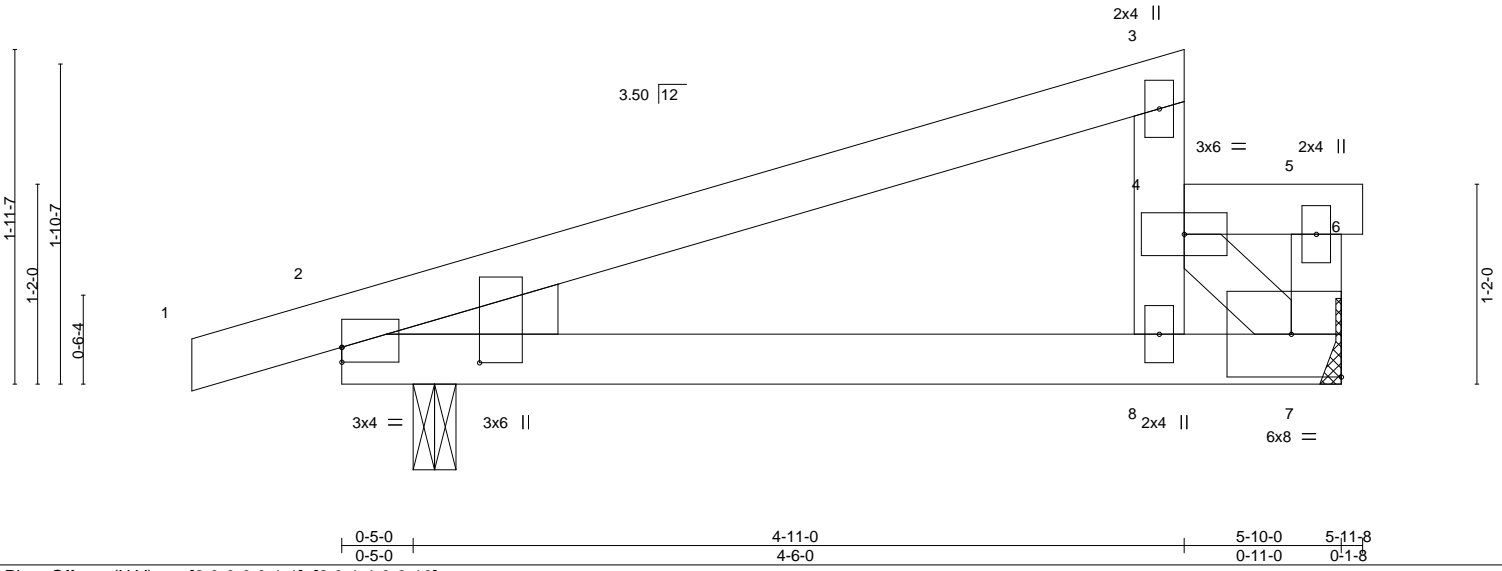


Plate Offsets (X,Y)--	[2:0-0-0,0-1-1], [2:0-1-1,0-9-10]
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LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL	1.15	TC 0.52	Vert(LL)	0.05	8-13	>999	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.30	Vert(CT)	-0.03	8-13	>999		
BCLL 0.0 *	Rep Stress Incr	NO	WB 0.27	Horz(CT)	-0.01	2	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-MP					Weight: 25 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x4 SP No.2	TOP CHORD Structural wood sheathing directly applied or 5-11-8 oc purlins, except end verticals, and 2-0-0 oc purlins: 4-8, 4-6.
BOT CHORD 2x4 SP No.2	BOT CHORD Rigid ceiling directly applied or 6-10-9 oc bracing.
WEBS 2x4 SP No.3 *Except* 3-8: 2x4 SP No.2	
WEDGE Left: 2x4 SP No.3	

**REACTIONS.** (lb/size) 7=545/Mechanical, 2=378/0-3-0  
 Max Horz 2=170(LC 12)  
 Max Uplift 7=111(LC 8), 2=290(LC 8)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-3=-330/324, 4-8=-400/102  
 BOT CHORD 2-8=-375/302, 7-8=-667/534  
 WEBS 4-7=-738/922

- NOTES-** (10)
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-10; Vult=150mph (3-second gust) Vasd=119mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) -0-10-8 to 5-11-8 zone; cantilever left exposed; end vertical left exposed; porch left exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - Provide adequate drainage to prevent water ponding.
  - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - \* 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.
  - Refer to girder(s) for truss to truss connections.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 7=111, 2=290.
  - Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
  - Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s). The design/selection of such connection device(s) is the responsibility of others.
  - This manufactured truss is designed as an individual building component. The suitability and use of this component for any particular building is the responsibility of the building designer per ANSI TPI 1 as referenced by the building code.

**LOAD CASE(S)** Standard  
 1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15  
 Uniform Loads (plf)  
 Vert: 1-3=-60, 4-5=-60, 5-6=-20, 7-9=-20



Job	Truss	Truss Type	Qty	Ply	H&H-SC/Trillium/	I36912898
823690	J02	Half Hip	21	1		
Job Reference (optional)						

Builders FirstSource, Sumter, SC - 29153,

8.220 s Nov 16 2018 MiTek Industries, Inc. Mon Apr 29 15:56:15 2019 Page 2  
 ID:N9ZpzacWqWTLjEbWrVVGBzZQOD-UySi8FdEkZpQNabQG4HIRHDpVznoOasMlwDn0CzLpEE

**LOAD CASE(S)** Standard  
 Concentrated Loads (lb)  
 Vert: 4=-410

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 10/03/2015 BEFORE USE.**

Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 218 N. Lee Street, Suite 312, Alexandria, VA 22314.



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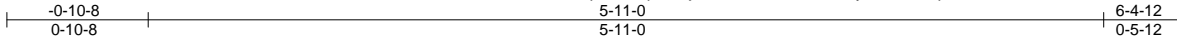


Job	Truss	Truss Type	Qty	Ply	H&H-SC/Trillium/	136912899
823690	J03	Half Hip	6	1		

Builders FirstSource, Sumter, SC - 29153,

8.220 s Nov 16 2018 MiTek Industries, Inc. Mon Apr 29 15:56:15 2019 Page 1

ID:N9ZpzacWqWTLjEbWrVVBzZQOD-UySi8FdEkZpQNabQG4HIRHDmCznJOa\_MlwDn0CzLpEE



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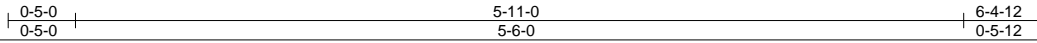
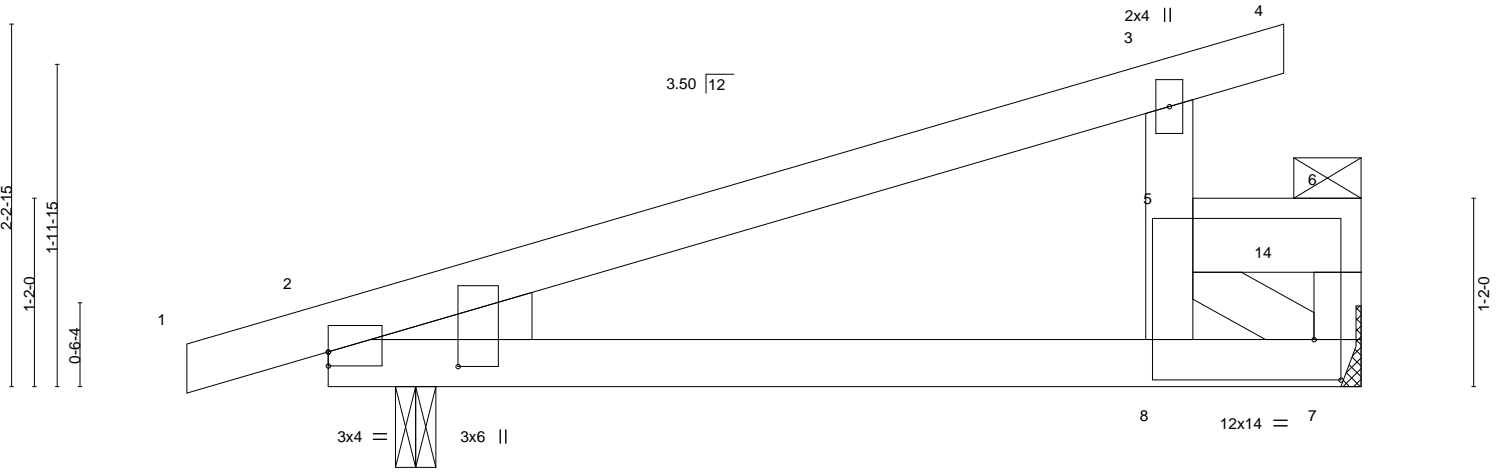


Plate Offsets (X, Y)--	[2:0-1-1,0-9-10], [2:0-0-0,0-1-1], [6:0-1-12,0-0-0], [8:0-2-0,0-3-0], [8:0-1-12,0-0-0]
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LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL	1.15	TC 0.73	Vert(LL)	-0.02	8-13	>999	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.27	Vert(CT)	-0.05	8-13	>999		
BCLL 0.0 *	Rep Stress Incr	NO	WB 0.27	Horz(CT)	-0.01	2	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-MP	Wind(LL)	0.05	8-13	>999	Weight: 28 lb	FT = 20%

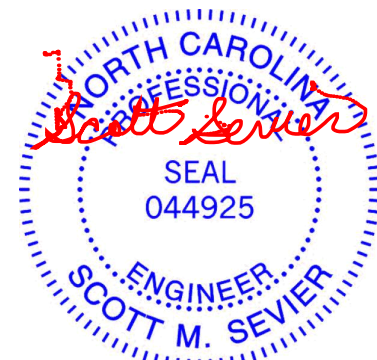
LUMBER-	BRACING-
TOP CHORD 2x4 SP No.2 *Except* 5-6: 2x6 SP No.2	TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals, and 2-0-0 oc purlins: 3-8, 5-6. Except: 6-0-0 oc bracing: 3-5
BOT CHORD 2x4 SP No.2	BOT CHORD Rigid ceiling directly applied or 7-1-1 oc bracing.
WEBS 2x4 SP No.3 *Except* 3-8: 2x4 SP No.2	
WEDGE Left: 2x4 SP No.3	

REACTIONS.	(lb/size)	7=1444/Mechanical, 2=403/0-3-0
	Max Horz	2=181(LC 12)
	Max Uplift	7=-553(LC 12), 2=-241(LC 8)
	Max Grav	7=1639(LC 19), 2=403(LC 1)

FORCES.	(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD	2-3=-365/269, 3-5=-64/265, 6-7=-1168/654
BOT CHORD	2-8=-350/442, 7-8=-686/882
WEBS	5-7=-1083/896

- NOTES-** (11)
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-10; Vult=150mph (3-second gust) Vasd=119mph; TC DL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) -0-10-8 to 6-3-0 zone; 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
  - Provide adequate drainage to prevent water ponding.
  - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - \* 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.
  - Bearings are assumed to be: , Joint 7 User Defined crushing capacity of 565 psi.
  - Refer to girder(s) for truss to truss connections.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 7=553, 2=241.
  - Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
  - Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) . The design/selection of such connection device(s) is the responsibility of others.
  - This manufactured truss is designed as an individual building component. The suitability and use of this component for any particular building is the responsibility of the building designer per ANSI TPI 1 as referenced by the building code.

**LOAD CASE(S)** Standard



Continued on page 2

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 10/03/2015 BEFORE USE.**

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**ENGINEERING BY**  
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Job	Truss	Truss Type	Qty	Ply	H&H-SC/Trillium/	I36912899
823690	J03	Half Hip	6	1		
Job Reference (optional)						

Builders FirstSource, Sumter, SC - 29153,

8.220 s Nov 16 2018 MiTek Industries, Inc. Mon Apr 29 15:56:15 2019 Page 2  
 ID:N9ZpzacWqWTLijEbWrVVBzZQOD-UySi8FdEkZpQNabQG4HIRHDmCznJOa\_MlwDn0CzLpEE

**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, 5-14=-20, 6-14=-60, 7-9=-20
- Concentrated Loads (lb)
  - Vert: 14=-1280

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 10/03/2015 BEFORE USE.**

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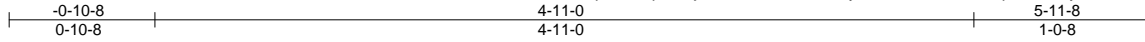
818 Soundside Road  
 Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	H&H-SC/Trillium/	136912900
823690	J04	Half Hip	18	1		

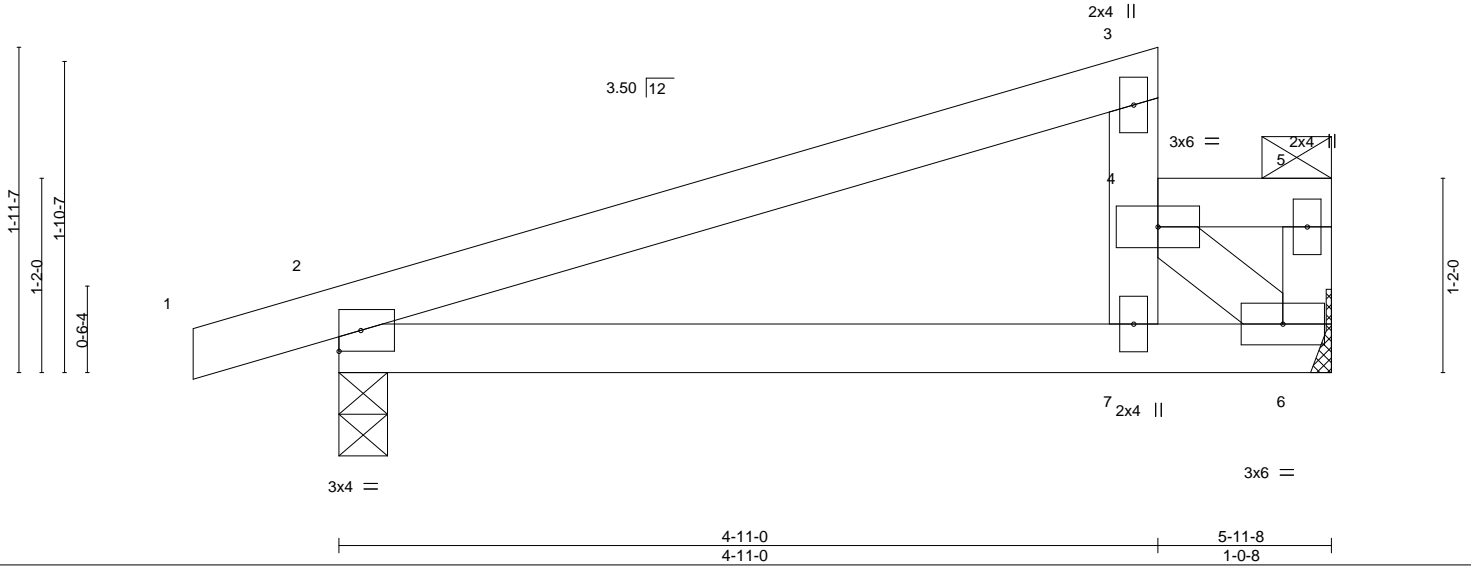
Builders FirstSource, Sumter, SC - 29153,

8.220 s Nov 16 2018 MiTek Industries, Inc. Mon Apr 29 15:56:16 2019 Page 1

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Scale = 1:13.8



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 0.63	Vert(LL)	-0.02	7-10	>999	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.35	Vert(CT)	-0.04	7-10	>999		
BCLL 0.0 *	Rep Stress Incr	NO	WB 0.17	Horz(CT)	-0.01	2	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-MP	Wind(LL)	0.03	7-10	>999	Weight: 24 lb	FT = 20%

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

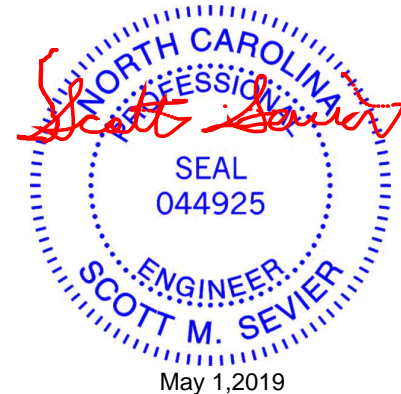
**BRACING-**  
 TOP CHORD Structural wood sheathing directly applied or 5-11-8 oc purlins, except end verticals, and 2-0-0 oc purlins: 4-7, 4-5.  
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS.** (lb/size) 2=362/0-3-8, 6=565/Mechanical  
 Max Horz 2=170(LC 12)  
 Max Uplift 2=164(LC 8)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-3=-403/78  
 BOT CHORD 2-7=-138/392, 6-7=-230/700  
 WEBS 4-6=-914/301

- NOTES-** (10)
- 1) Unbalanced roof live loads have been considered for this design.
  - 2) Wind: ASCE 7-10; Vult=150mph (3-second gust) Vasd=119mph; TCCL=6.0psf; BCCL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) -0-10-8 to 5-9-12 zone; end vertical left 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) All bearings are assumed to be User Defined crushing capacity of 565 psi.
  - 7) Refer to girder(s) for truss to truss connections.
  - 8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (it=lb) 2=164.
  - 9) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
  - 10) This manufactured truss is designed as an individual building component. The suitability and use of this component for any particular building is the responsibility of the building designer per ANSI TPI 1 as referenced by the building code.

**LOAD CASE(S)** Standard  
 1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15  
 Uniform Loads (plf)  
 Vert: 1-3=-60, 4-5=-60, 6-8=-20  
 Concentrated Loads (lb)  
 Vert: 4=-410



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 Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 218 N. Lee Street, Suite 312, Alexandria, VA 22314.

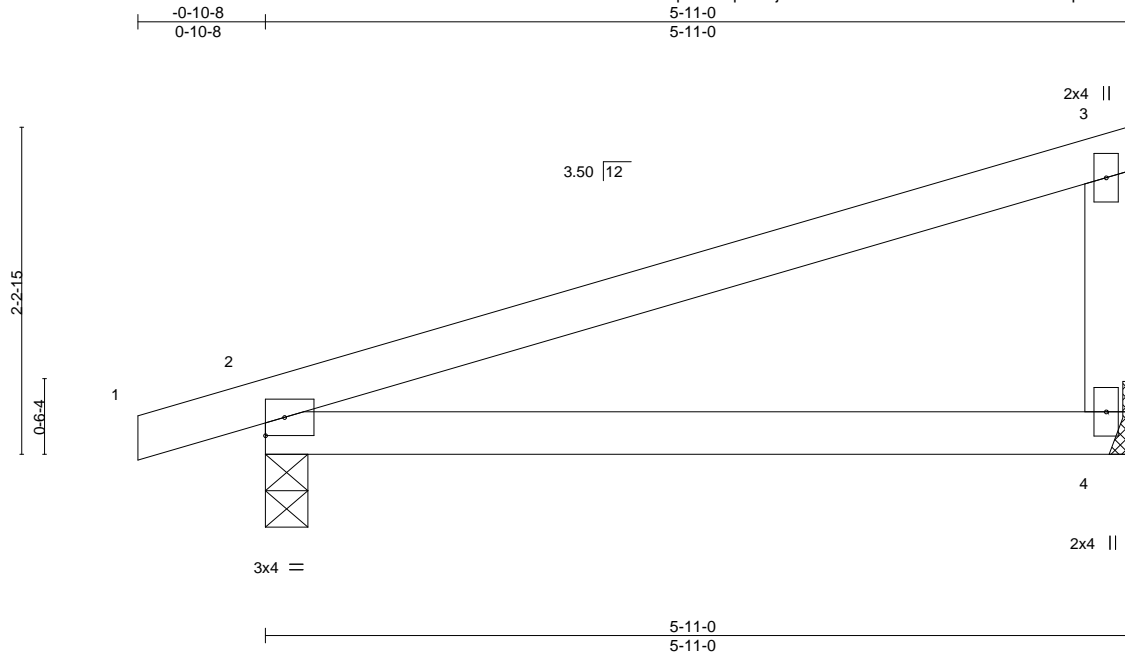
ENGINEERING BY  
**TRENCO**  
 A MiTek Affiliate  
 818 Soundside Road  
 Edenton, NC 27932

Job 823690	Truss J05	Truss Type Monopitch	Qty 15	Ply 1	H&H-SC/Trillium/ Job Reference (optional)	136912901
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Builders FirstSource, Sumter, SC - 29153,

8.220 s Nov 16 2018 MiTek Industries, Inc. Mon Apr 29 15:56:17 2019 Page 1

ID:N9ZpzacWqWTLljEbWrVVGBzZQOD-QLaTZxfUGB38culpOVJmWii9EnR?sYefCEit45zLpEC



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 0.50	Vert(LL)	-0.04	4-7	>999	360	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.45	Vert(CT)	-0.10	4-7	>664	240		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.00	Horz(CT)	-0.01	2	n/a	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-AS	Wind(LL)	0.08	4-7	>848	240		
									Weight: 22 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, except end verticals.  
 BOT CHORD Rigid ceiling directly applied.

**REACTIONS.** (lb/size) 4=227/Mechanical, 2=287/0-3-8  
 Max Horz 2=140(LC 8)  
 Max Uplift 4=-150(LC 12), 2=-185(LC 8)

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

- NOTES-** (8)
- 1) Wind: ASCE 7-10; Vult=150mph (3-second gust) Vasd=119mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; end vertical 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) All bearings are assumed to be User Defined crushing capacity of 565 psi.
  - 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) except (jt=lb) 4=150, 2=185.
  - 7) 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.
  - 8) This manufactured truss is designed as an individual building component. The suitability and use of this component for any particular building is the responsibility of the building designer per ANSI TPI 1 as referenced by the building code.



**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 10/03/2015 BEFORE USE.**

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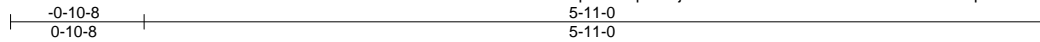
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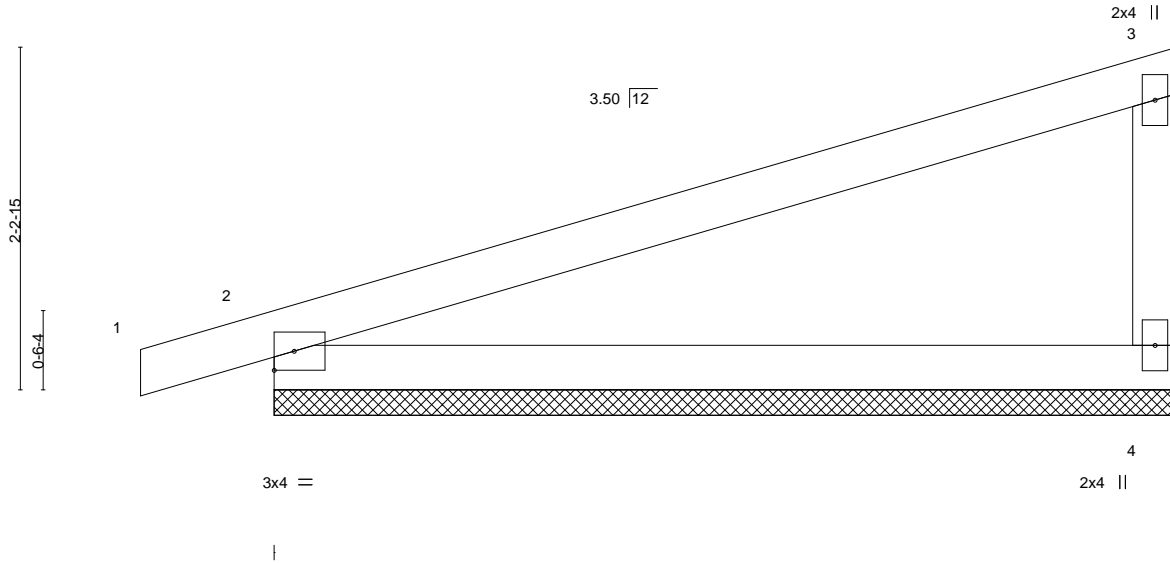
Job 823690	Truss J06	Truss Type GABLE	Qty 3	Ply 1	H&H-SC/Trillium/ Job Reference (optional)	136912902
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Builders FirstSource, Sumter, SC - 29153,

8.220 s Nov 16 2018 MiTek Industries, Inc. Mon Apr 29 15:56:17 2019 Page 1  
ID:N9ZpacWqWTLjEbWrVVGbZQOD-QLaTZxUGB38culpOVJmWii4InRKsYefCEit45zLpEC



Scale = 1:15.1



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 0.79	Vert(LL)	-0.02	1	n/r	120	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.42	Vert(CT)	0.01	1	n/r	120		
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: 22 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 5-11-0 oc purlins, except end verticals.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS.** (lb/size) 4=227/5-11-0, 2=287/5-11-0  
Max Horz 2=143(LC 9)  
Max Uplift 4=-139(LC 12), 2=-197(LC 8)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 3-4=-189/302

- NOTES-** (9)
- 1) Wind: ASCE 7-10; Vult=150mph (3-second gust) Vasd=119mph; TCCL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; 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) 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.
  - 3) Gable requires continuous bottom chord bearing.
  - 4) Gable studs spaced at 2-0-0 oc.
  - 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) All bearings are assumed to be User Defined crushing capacity of 565 psi.
  - 8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 4=139, 2=197.
  - 9) This manufactured truss is designed as an individual building component. The suitability and use of this component for any particular building is the responsibility of the building designer per ANSI TPI 1 as referenced by the building code.



**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 10/03/2015 BEFORE USE.**

Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 218 N. Lee Street, Suite 312, Alexandria, VA 22314.



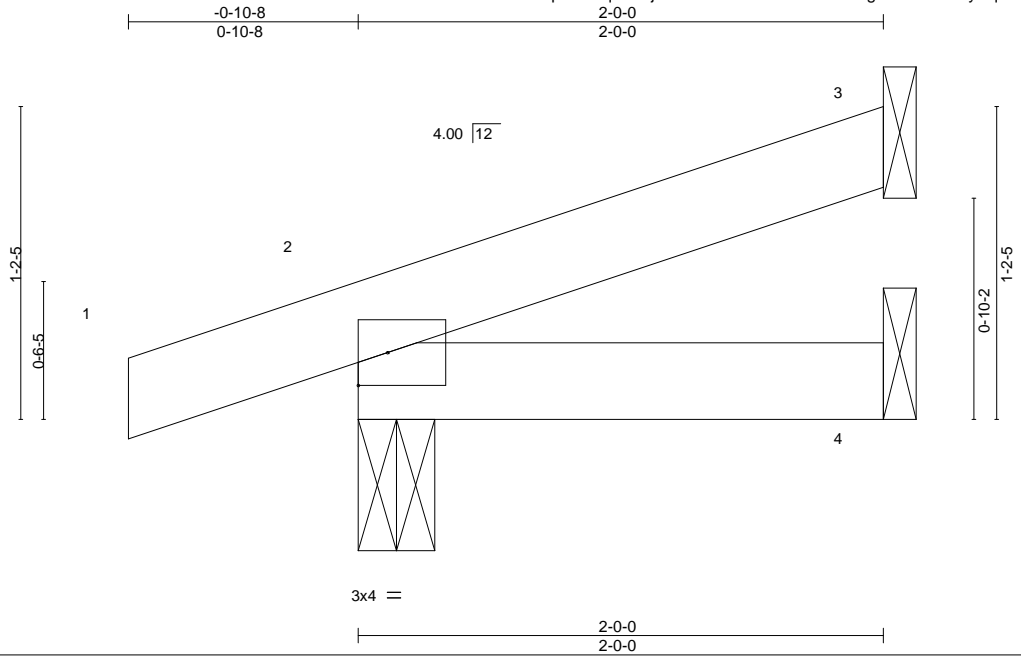
818 Soundside Road  
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	H&H-SC/Trillium/	136912903
823690	J07	Jack-Open	54	1		

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ID:N9ZpzacWqWTLijEbWrVVGbZQOD-uX7rmHg61UB?E2K?yCq?3wrQiBs8b?uoRuRRcXzLpEB



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	7 >999	240	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.07	Vert(CT)	-0.00	7 >999	240		
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-MP					Weight: 8 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 2-0-0 oc purlins.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS.** (lb/size) 3=47/Mechanical, 2=144/0-3-8, 4=21/Mechanical  
Max Horz 2=73(LC 8)  
Max Uplift 3=-53(LC 8), 2=-150(LC 8), 4=-24(LC 9)  
Max Grav 3=47(LC 1), 2=144(LC 1), 4=35(LC 3)

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

- NOTES-** (6)
- 1) Wind: ASCE 7-10; Vult=150mph (3-second gust) Vasd=119mph; TC DL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; end vertical left 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) 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, 4 except (jt=lb) 2=150.
  - 6) This manufactured truss is designed as an individual building component. The suitability and use of this component for any particular building is the responsibility of the building designer per ANSI TPI 1 as referenced by the building code.



Job	Truss	Truss Type	Qty	Ply	H&H-SC/Trillium/	136912904
823690	J08	Jack-Open	64	1		
Job Reference (optional)						

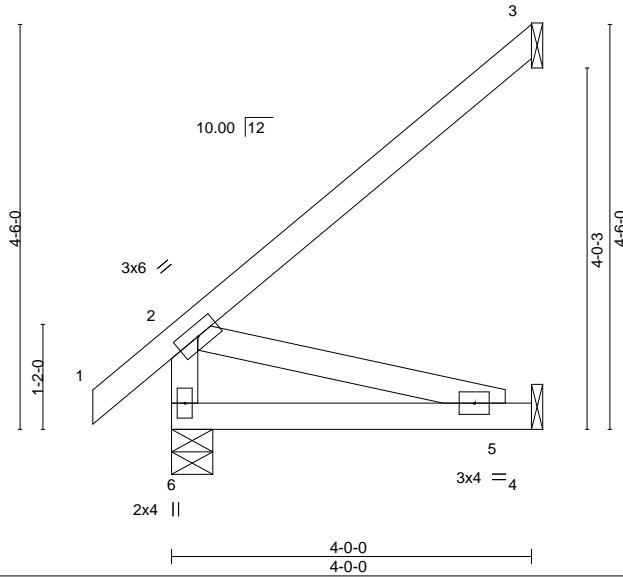
Builders FirstSource, Sumter, SC - 29153,

8.220 s Nov 16 2018 MiTek Industries, Inc. Mon Apr 29 15:56:19 2019 Page 1

ID:N9ZpzacWqWTLlJbWrvVGBzZQOD-MjhD\_dhlooJsrBuBVwLEc7OVPaAnKRxfYB\_9\_zLpEA



Scale = 1:25.6



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)	-0.01 5-6	>999	360	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.17	Vert(CT)	-0.02 5-6	>999	240		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.10	Horz(CT)	-0.00 3	n/a	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-MP	Wind(LL)	0.00 5-6	>999	240		
								Weight: 22 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) 6=221/0-5-8, 3=106/Mechanical, 4=38/Mechanical  
 Max Horz 6=247(LC 12)  
 Max Uplift 3=-188(LC 12), 4=-42(LC 12)  
 Max Grav 6=221(LC 1), 3=146(LC 19), 4=76(LC 3)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 BOT CHORD 5-6=-333/263  
 WEBS 2-5=-272/344

- NOTES-**
- 1) Wind: ASCE 7-10; Vult=150mph (3-second gust) Vasd=119mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; end vertical 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) All bearings are assumed to be User Defined crushing capacity of 565 psi.
  - 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) 4 except (jt=lb) 3=188.



May 1, 2019

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 10/03/2015 BEFORE USE.**

Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 218 N. Lee Street, Suite 312, Alexandria, VA 22314.



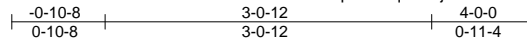
818 Soundside Road  
 Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	H&H-SC/Trillium/	136912905
823690	J09	Half Hip	3	1		
Job Reference (optional)						

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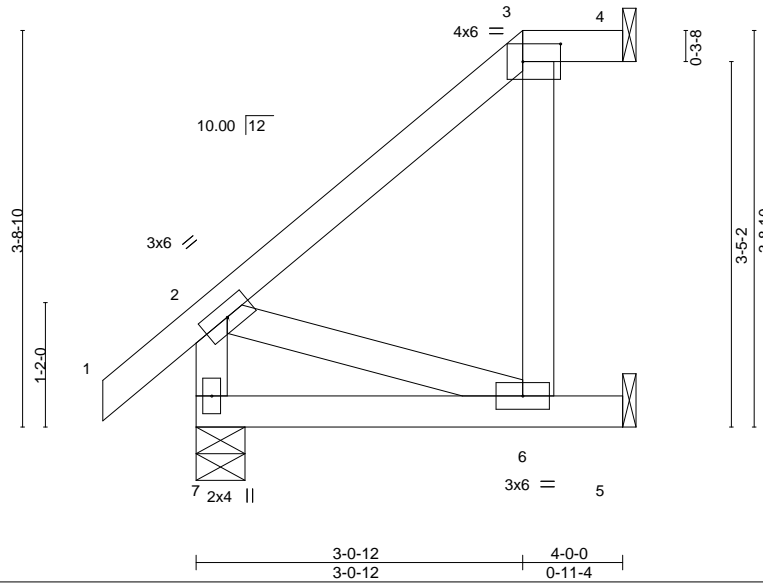


Plate Offsets (X,Y)--	[3:0-4-4,0-2-0]									
<b>LOADING</b> (psf)	<b>SPACING-</b>	2-0-0	<b>CSI.</b>	<b>DEFL.</b>	in	(loc)	l/defl	L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL 20.0	Plate Grip DOL	1.15	TC 0.28	Vert(LL)	0.03	6-7	>999	240	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.33	Vert(CT)	-0.03	6-7	>999	240		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.08	Horz(CT)	0.03	4	n/a	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-MP						Weight: 25 lb	FT = 20%

<b>LUMBER-</b>		<b>BRACING-</b>	
TOP CHORD	2x4 SP No.2	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	2x4 SP No.2	BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS	2x4 SP No.3		

**REACTIONS.** (lb/size) 4=26/Mechanical, 7=221/0-5-8, 5=117/Mechanical  
 Max Horz 7=200(LC 12)  
 Max Uplift 4=-25(LC 8), 7=-35(LC 12), 5=-148(LC 12)  
 Max Grav 4=26(LC 1), 7=221(LC 1), 5=143(LC 19)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 BOT CHORD 6-7=-280/222  
 WEBS 2-6=-225/285

- NOTES-**
- 1) Unbalanced roof live loads have been considered for this design.
  - 2) Wind: ASCE 7-10; Vult=150mph (3-second gust) Vasd=119mph; TC DL=6.0psf; BC DL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; end vertical left 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) All bearings are assumed to be User Defined crushing capacity of 565 psi.
  - 7) Refer to girder(s) for truss to truss connections.
  - 8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 4, 7 except (jt=lb) 5=148.
  - 9) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



May 1, 2019

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**ENGINEERING BY**  
**TRENCO**  
 A MiTek Affiliate

818 Soundside Road  
 Edenton, NC 27932



Job	Truss	Truss Type	Qty	Ply	H&H-SC/Trillium/	136912906
823690	J10	Half Hip	3	1		

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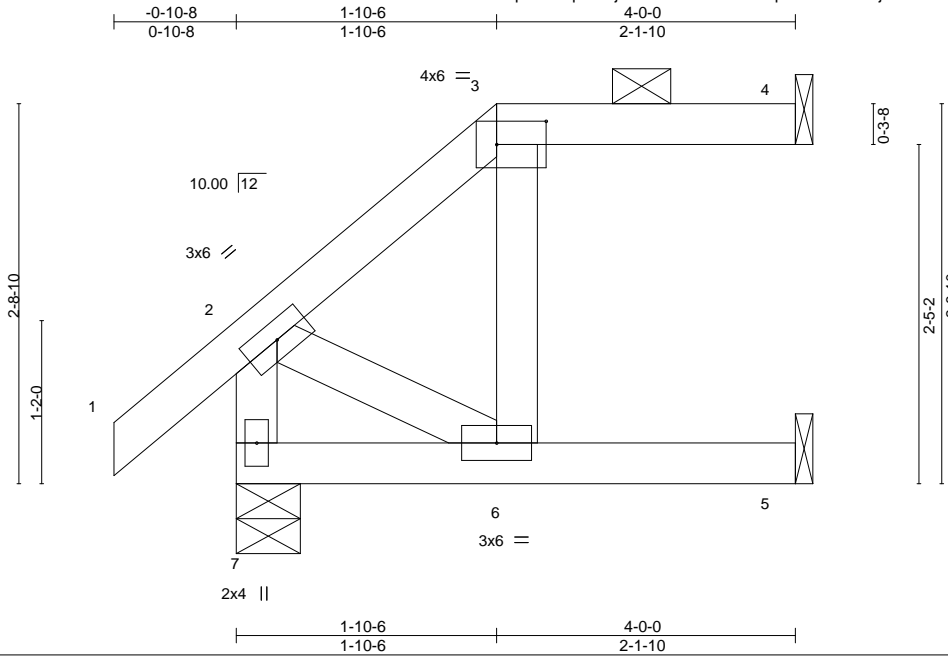


Plate Offsets (X,Y)--	[3:0-4-4,0-2-0]				
<b>LOADING</b> (psf)	<b>SPACING-</b> 2-0-0	<b>CSI.</b>	<b>DEFL.</b> in (loc) l/defl L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL 20.0	Plate Grip DOL 1.15	TC 0.14	Vert(LL) 0.05 6 >878 240	MT20	244/190
TCDL 10.0	Lumber DOL 1.15	BC 0.39	Vert(CT) -0.04 6 >999 240		
BCLL 0.0 *	Rep Stress Incr YES	WB 0.06	Horz(CT) -0.07 4 n/a n/a		
BCDL 10.0	Code IRC2015/TPI2014	Matrix-MP		Weight: 22 lb	FT = 20%

<b>LUMBER-</b>	<b>BRACING-</b>
TOP CHORD 2x4 SP No.2	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 2x4 SP No.2	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 2x4 SP No.3	

**REACTIONS.** (lb/size) 4=62/Mechanical, 7=221/0-5-8, 5=81/Mechanical  
 Max Horz 7=130(LC 12)  
 Max Uplift 4=-60(LC 8), 7=-74(LC 12), 5=-56(LC 12)  
 Max Grav 4=62(LC 1), 7=221(LC 1), 5=90(LC 3)

**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=150mph (3-second gust) Vasd=119mph; TC DL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; end vertical left 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) All bearings are assumed to be User Defined crushing capacity of 565 psi.
- 7) Refer to girder(s) for truss to truss connections.
- 8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 4, 7, 5.
- 9) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



May 1, 2019

Job 823690	Truss J11	Truss Type Half Hip Girder	Qty 3	Ply 1	H&H-SC/Trillium/ Job Reference (optional)	136912907
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Builders FirstSource, Sumter, SC - 29153,

8.220 s Nov 16 2018 MiTek Industries, Inc. Mon Apr 29 15:56:21 2019 Page 1  
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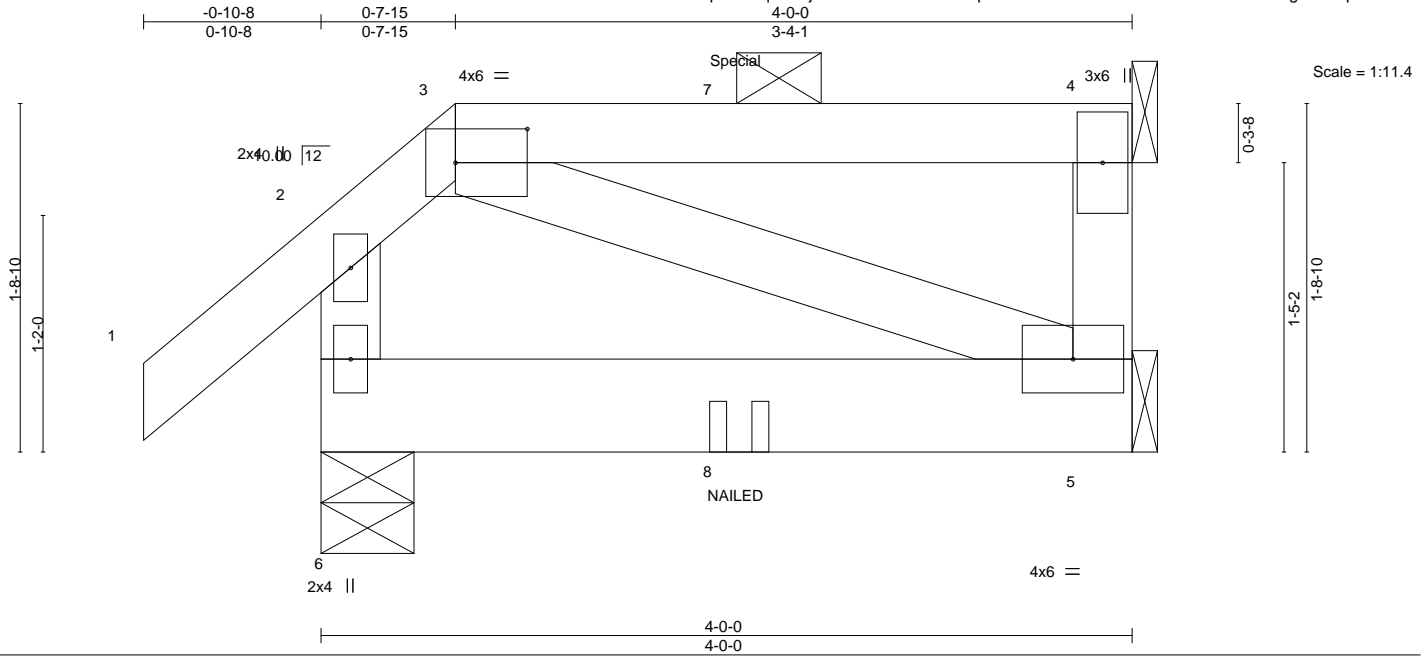


Plate Offsets (X,Y)--	[3:0-4-4,0-2-0]
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LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL	1.15	TC 0.13	Vert(LL)	-0.00	5-6	>999	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.05	Vert(CT)	-0.00	5-6	>999		
BCLL 0.0 *	Rep Stress Incr	NO	WB 0.01	Horz(CT)	0.00	4	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-MP	Wind(LL)	-0.00	5-6	>999	Weight: 25 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x4 SP No.2	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 2x6 SP No.2	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 2x4 SP No.2	

**REACTIONS.** (lb/size) 6=217/0-5-8, 5=39/Mechanical, 4=101/Mechanical  
 Max Horz 6=114(LC 5)  
 Max Uplift 6=-110(LC 8), 5=-12(LC 5), 4=-97(LC 4)  
 Max Grav 6=217(LC 1), 5=75(LC 3), 4=101(LC 1)

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

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-10; Vult=150mph (3-second gust) Vasd=119mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
  - Provide adequate drainage to prevent water ponding.
  - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - \* 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.
  - All bearings are assumed to be User Defined crushing capacity of 565 psi.
  - Refer to girder(s) for truss to truss connections.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 5, 4 except (jt=lb) 6=110.
  - Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
  - Gap between inside of top chord bearing and first diagonal or vertical web shall not exceed 0.500in.
  - "NAILED" indicates 3-10d (0.148"x3") or 3-12d (0.148"x3.25") toe-nails per NDS guidelines.
  - Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 21 lb down and 43 lb up at 2-0-12 on top chord. The design/selection of such connection device(s) is the responsibility of others.
  - 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: 1-2=-60, 2-3=-60, 3-4=-60, 5-6=-20
Concentrated Loads (lb)
Vert: 8=1(B)



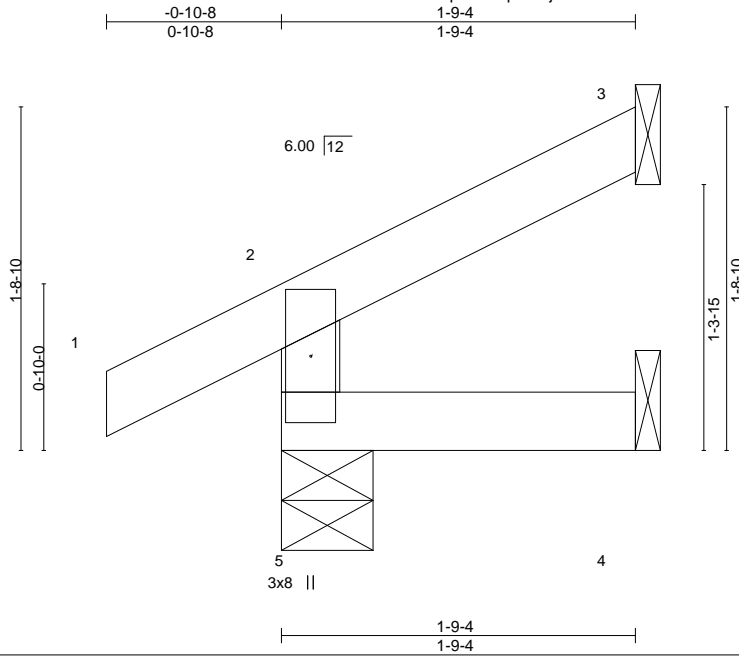
May 1, 2019

Job 823690	Truss J12	Truss Type Jack-Open	Qty 6	Ply 1	H&H-SC/Trillium/ Job Reference (optional)	136912908
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Builders FirstSource, Sumter, SC - 29153,

8.220 s Nov 16 2018 MiTek Industries, Inc. Mon Apr 29 15:56:22 2019 Page 1

ID:N9ZpzacWqWTLjEbWrVVGbZQOD-nlNLCfd5jhRifdmB2vxDm05?oD1XptOMWPellzLpE7



Scale = 1:11.5

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	5	>999	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.07	Vert(CT)	-0.00	5	>999		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.00	Horz(CT)	-0.00	3	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-MR	Wind(LL)	0.00	4-5	>999		
								Weight: 8 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 1-9-4 oc purlins, except end verticals.  
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS.** (lb/size) 5=145/0-5-8, 3=33/Mechanical, 4=12/Mechanical  
 Max Horz 5=73(LC 9)  
 Max Uplift 5=-62(LC 12), 3=-55(LC 12), 4=-4(LC 12)  
 Max Grav 5=145(LC 1), 3=33(LC 1), 4=29(LC 3)

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

**NOTES-**

- 1) Wind: ASCE 7-10; Vult=150mph (3-second gust) Vasd=119mph; TC DL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; end vertical 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) All bearings are assumed to be User Defined crushing capacity of 565 psi.
- 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) 5, 3, 4.



May 1, 2019

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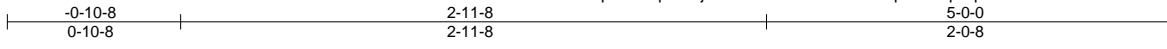
818 Soundside Road  
 Edenton, NC 27932

Job 823690	Truss J13	Truss Type GABLE	Qty 2	Ply 1	H&H-SC/Trillium/ Job Reference (optional)	136912909
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Builders FirstSource, Sumter, SC - 29153,

8.220 s Nov 16 2018 MiTek Industries, Inc. Mon Apr 29 15:56:23 2019 Page 1

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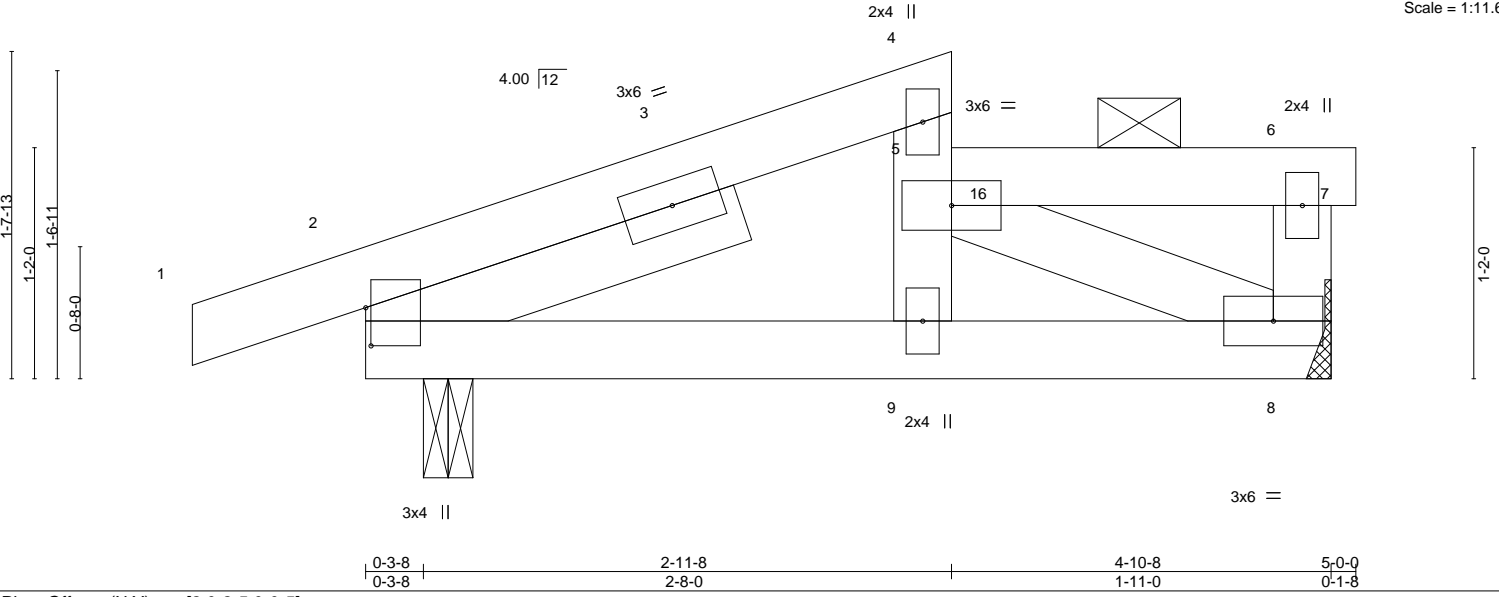


Plate Offsets (X,Y)--	[2:0-2-5,0-0-5]
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LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL	1.15	TC 0.45	Vert(LL)	-0.00	9	>999	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.28	Vert(CT)	-0.01	9	>999		
BCLL 0.0 *	Rep Stress Incr	NO	WB 0.13	Horz(CT)	0.00	8	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-MP	Wind(LL)	0.01	9	>999	Weight: 24 lb	FT = 20%

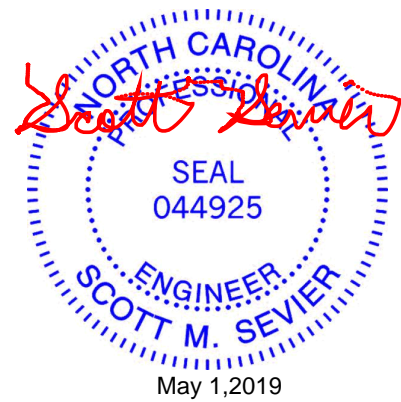
LUMBER-	BRACING-
TOP CHORD 2x4 SP No.2	TOP CHORD Structural wood sheathing directly applied or 5-0-0 oc purlins, except end verticals, and 2-0-0 oc purlins: 5-9, 5-7.
BOT CHORD 2x4 SP No.2	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 2x4 SP No.3 *Except* 4-9: 2x4 SP No.2	
SLIDER Left 2x4 SP No.3 1-11-12	

**REACTIONS.** (lb/size) 8=433/Mechanical, 2=413/0-3-0  
 Max Horz 2=100(LC 9)  
 Max Uplift 8=-5(LC 9), 2=-125(LC 8)  
 Max Grav 8=509(LC 19), 2=413(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-4=-406/86  
 BOT CHORD 2-9=-149/442, 8-9=-194/629  
 WEBS 5-8=-667/192

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-10; Vult=150mph (3-second gust) Vasd=119mph; TCCL=6.0psf; BCCL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) -0-10-8 to 5-0-0 zone; 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
  - 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.
  - Provide adequate drainage to prevent water ponding.
  - Gable studs spaced at 2-0-0 oc.
  - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - \* 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.
  - All bearings are assumed to be User Defined crushing capacity of 565 psi.
  - Refer to girder(s) for truss to truss connections.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 8 except (jt=lb) 2=125.
  - 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 + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15  
 Uniform Loads (plf)  
 Vert: 1-4=-60, 5-6=-60, 6-7=-20, 8-10=-20



Continued on page 2

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 10/03/2015 BEFORE USE.**

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Job	Truss	Truss Type	Qty	Ply	H&H-SC/Trillium/	I36912909
823690	J13	GABLE	2	1		
						Job Reference (optional)

Builders FirstSource, Sumter, SC - 29153,

8.220 s Nov 16 2018 MiTek Industries, Inc. Mon Apr 29 15:56:23 2019 Page 2  
 ID:N9ZpacWqWTLjEbWrVVBZQOD-FUxkp?kFs1pIKpCzklQAmzYBWCW2GE4XaA9ClzLpE6

**LOAD CASE(S)** Standard  
 Concentrated Loads (lb)  
 Vert: 16--410

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Job	Truss	Truss Type	Qty	Ply	H&H-SC/Trillium/	136912910
823690	J14	Half Hip	18	1		

Builders FirstSource, Sumter, SC - 29153,

8.220 s Nov 16 2018 MiTek Industries, Inc. Mon Apr 29 15:56:24 2019 Page 1

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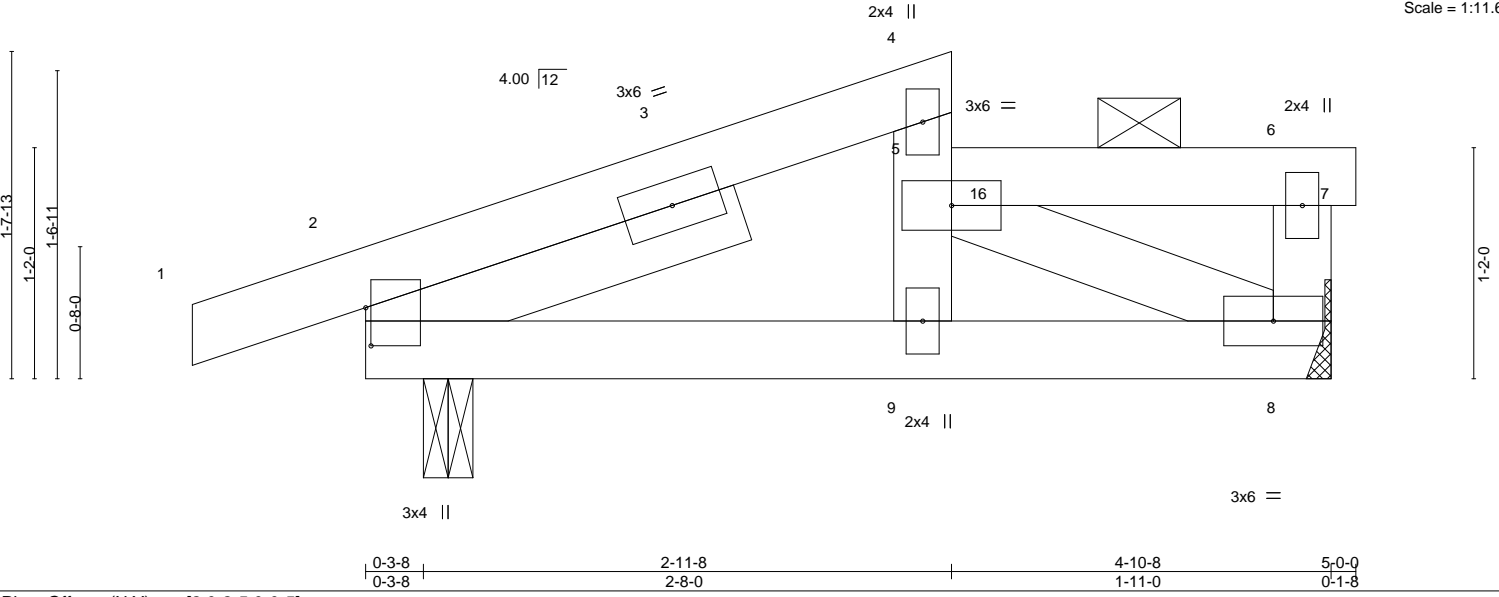


Plate Offsets (X,Y)--	[2:0-2-5,0-0-5]
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LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL	1.15	TC 0.45	Vert(LL)	-0.00	9	>999	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.28	Vert(CT)	-0.01	9	>999		
BCLL 0.0 *	Rep Stress Incr	NO	WB 0.13	Horz(CT)	0.00	8	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-MP	Wind(LL)	0.01	9	>999	Weight: 24 lb	FT = 20%

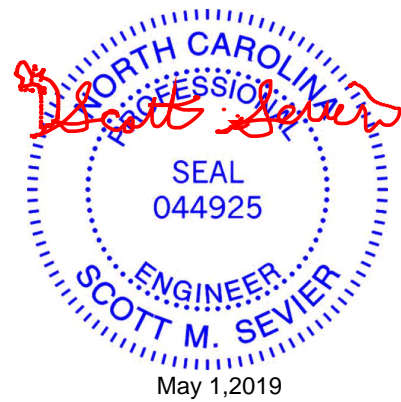
LUMBER-	BRACING-
TOP CHORD 2x4 SP No.2	TOP CHORD Structural wood sheathing directly applied or 5-0-0 oc purlins, except end verticals, and 2-0-0 oc purlins: 5-9, 5-7.
BOT CHORD 2x4 SP No.2	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 2x4 SP No.3 *Except*	
4-9: 2x4 SP No.2	
SLIDER Left 2x4 SP No.3 1-11-12	

**REACTIONS.** (lb/size) 8=433/Mechanical, 2=413/0-3-0  
 Max Horz 2=100(LC 9)  
 Max Uplift 8=-5(LC 9), 2=-125(LC 8)  
 Max Grav 8=509(LC 19), 2=413(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-4=-406/86  
 BOT CHORD 2-9=-149/442, 8-9=-194/629  
 WEBS 5-8=-667/192

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-10; Vult=150mph (3-second gust) Vasd=119mph; TCCL=6.0psf; BCCL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) -0-10-8 to 5-0-0 zone; 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
  - Provide adequate drainage to prevent water ponding.
  - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - \* 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.
  - All bearings are assumed to be User Defined crushing capacity of 565 psi.
  - Refer to girder(s) for truss to truss connections.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 8 except (jt=lb) 2=125.
  - 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 + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15  
 Uniform Loads (plf)  
 Vert: 1-4=-60, 5-6=-60, 6-7=-20, 8-10=-20  
 Concentrated Loads (lb)  
 Vert: 16=-410



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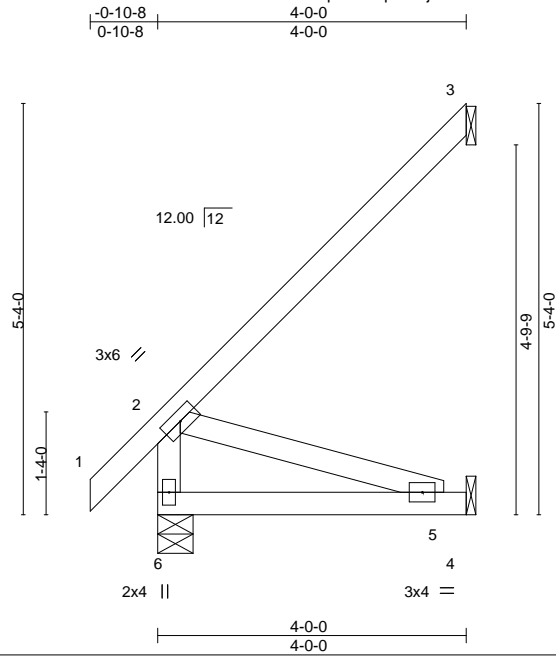


Job	Truss	Truss Type	Qty	Ply	H&H-SC/Trillium/	136912912
823690	J16	Jack-Open	58	1		
Job Reference (optional)						

Builders FirstSource, Sumter, SC - 29153,

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ID: N9ZpzacWqWTLjEbWrVVBzZQOD-Bt2UEglVNe30Z6MLsASerOeWc?EBk9gq2UeiMdzLpE4



Scale = 1:29.9

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 0.54	Vert(LL)	-0.01 5-6	>999	360	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.17	Vert(CT)	-0.02 5-6	>999	240		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.12	Horz(CT)	-0.01 3	n/a	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-MP	Wind(LL)	0.00 5-6	>999	240	Weight: 23 lb	FT = 20%

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

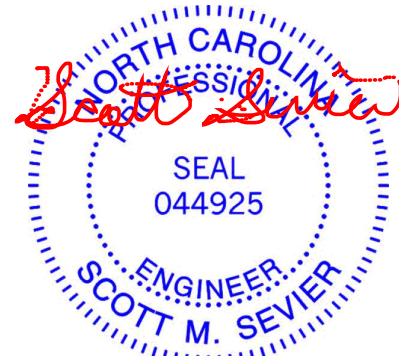
**BRACING-**  
 TOP CHORD Structural wood sheathing directly applied or 4-0-0 oc purlins, except end verticals.  
 BOT CHORD Rigid ceiling directly applied or 9-4-6 oc bracing.

**REACTIONS.** (lb/size) 6=221/0-5-8, 3=106/Mechanical, 4=38/Mechanical  
 Max Horz 6=297(LC 12)  
 Max Uplift 3=226(LC 12), 4=70(LC 12)  
 Max Grav 6=221(LC 1), 3=156(LC 19), 4=79(LC 10)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 BOT CHORD 5-6=-399/315  
 WEBS 2-5=-331/418

**NOTES-**

- 1) Wind: ASCE 7-10; Vult=150mph (3-second gust) Vasd=119mph; TC DL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; end vertical 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) All bearings are assumed to be User Defined crushing capacity of 565 psi.
- 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) 4 except (jt=lb) 3=226.



May 1, 2019

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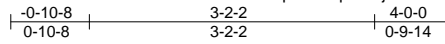


Job 823690	Truss J17	Truss Type Half Hip	Qty 3	Ply 1	H&H-SC/Trillium/ Job Reference (optional)	136912913
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Builders FirstSource, Sumter, SC - 29153,

8.220 s Nov 16 2018 MiTek Industries, Inc. Mon Apr 29 15:56:26 2019 Page 1

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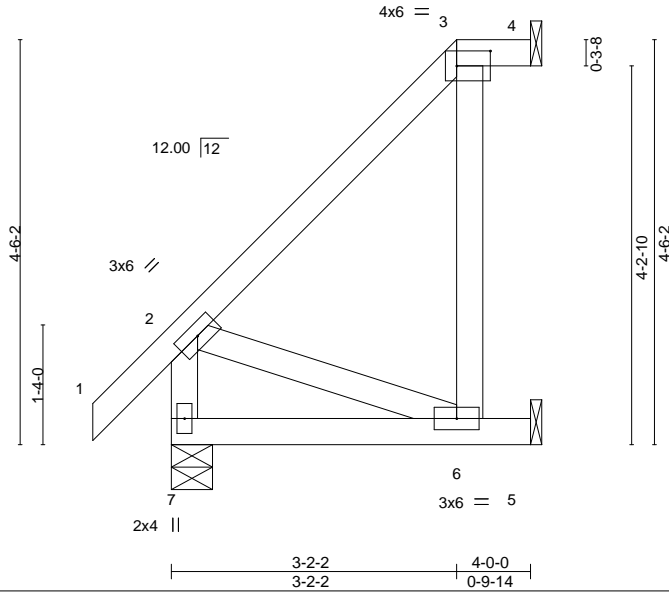


Plate Offsets (X,Y)--	[3:0-4-8,0-2-0]				
<b>LOADING</b> (psf)	<b>SPACING-</b> 2-0-0	<b>CSI.</b>	<b>DEFL.</b> in (loc) l/defl L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL 20.0	Plate Grip DOL 1.15	TC 0.36	Vert(LL) 0.04 6-7 >999 240	MT20	244/190
TCDL 10.0	Lumber DOL 1.15	BC 0.36	Vert(CT) -0.03 6-7 >999 240		
BCLL 0.0 *	Rep Stress Incr YES	WB 0.11	Horz(CT) -0.04 4 n/a n/a		
BCDL 10.0	Code IRC2015/TPI2014	Matrix-MP		Weight: 28 lb	FT = 20%

<b>LUMBER-</b>	<b>BRACING-</b>
TOP CHORD 2x4 SP No.2	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 2x4 SP No.2	BOT CHORD Rigid ceiling directly applied or 9-1-14 oc bracing.
WEBS 2x4 SP No.3	

**REACTIONS.** (lb/size) 4=23/Mechanical, 7=221/0-5-8, 5=121/Mechanical  
 Max Horz 7=248(LC 12)  
 Max Uplift 4=-22(LC 8), 5=-206(LC 12)  
 Max Grav 4=23(LC 1), 7=221(LC 1), 5=166(LC 19)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 BOT CHORD 6-7=-345/273  
 WEBS 2-6=-283/358

- NOTES-**
- 1) Unbalanced roof live loads have been considered for this design.
  - 2) Wind: ASCE 7-10; Vult=150mph (3-second gust) Vasd=119mph; TC DL=6.0psf; BC DL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; end vertical left 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) All bearings are assumed to be User Defined crushing capacity of 565 psi.
  - 7) Refer to girder(s) for truss to truss connections.
  - 8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 4 except (jt=lb) 5=206.
  - 9) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



May 1, 2019

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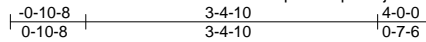
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Job 823690	Truss J18	Truss Type Half Hip	Qty 3	Ply 1	H&H-SC/Trillium/ Job Reference (optional)	136912914
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Builders FirstSource, Sumter, SC - 29153,

8.220 s Nov 16 2018 MiTek Industries, Inc. Mon Apr 29 15:56:26 2019 Page 1

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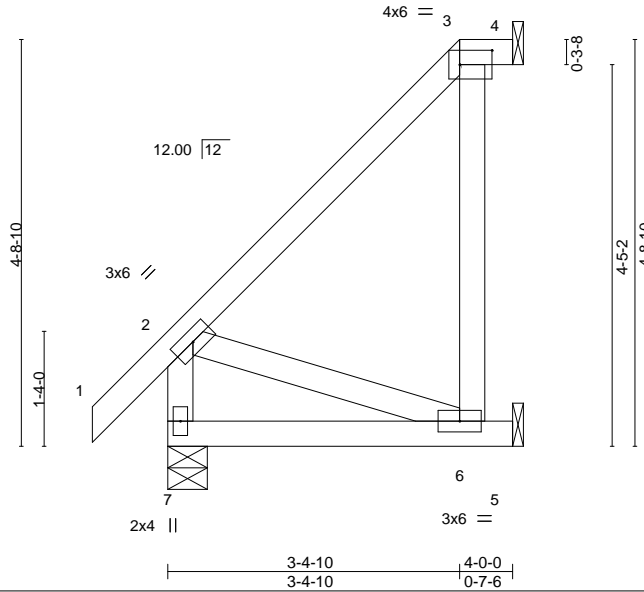


Plate Offsets (X,Y)-- [3:0-4-8,0-2-0]

<b>LOADING</b> (psf)	<b>SPACING-</b>	2-0-0	<b>CSI.</b>	<b>DEFL.</b>	in (loc)	l/defl	L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL 20.0	Plate Grip DOL	1.15	TC 0.40	Vert(LL)	0.03	6-7	>999	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.28	Vert(CT)	-0.03	6-7	>999		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.11	Horz(CT)	-0.02	4	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-MP					Weight: 29 lb	FT = 20%

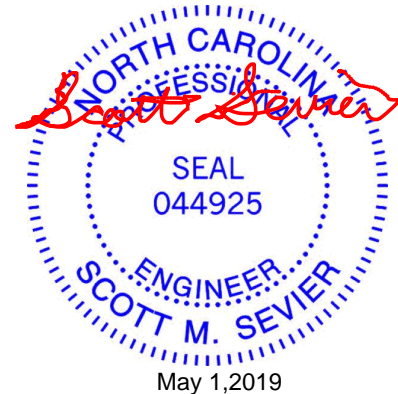
**LUMBER-**  
 TOP CHORD 2x4 SP No.2  
 BOT CHORD 2x4 SP No.2  
 WEBS 2x4 SP No.3

**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 9-3-2 oc bracing.

**REACTIONS.** (lb/size) 4=17/Mechanical, 7=221/0-5-8, 5=127/Mechanical  
 Max Horz 7=263(LC 12)  
 Max Uplift 4=-16(LC 8), 5=-230(LC 12)  
 Max Grav 4=17(LC 1), 7=221(LC 1), 5=181(LC 19)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 BOT CHORD 6-7=-361/286  
 WEBS 2-6=-294/372

- NOTES-**
- 1) Unbalanced roof live loads have been considered for this design.
  - 2) Wind: ASCE 7-10; Vult=150mph (3-second gust) Vasd=119mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; end vertical left 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) All bearings are assumed to be User Defined crushing capacity of 565 psi.
  - 7) Refer to girder(s) for truss to truss connections.
  - 8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 4 except (jt=lb) 5=230.
  - 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 823690	Truss J19	Truss Type Half Hip	Qty 3	Ply 1	H&H-SC/Trillium/ Job Reference (optional)	136912915
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Builders FirstSource, Sumter, SC - 29153,

8.220 s Nov 16 2018 MiTek Industries, Inc. Mon Apr 29 15:56:27 2019 Page 1

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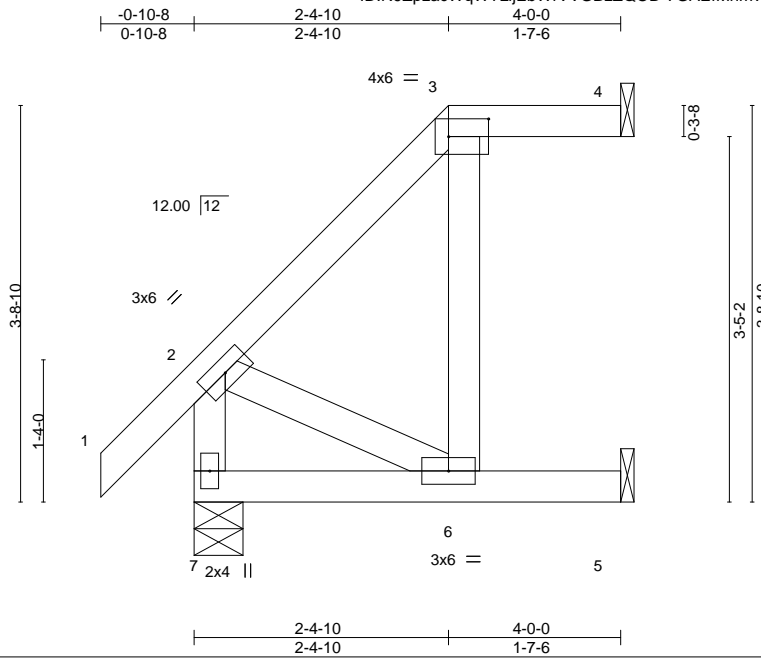


Plate Offsets (X,Y)--	[3:0-4-8,0-2-0]				
<b>LOADING</b> (psf)	<b>SPACING-</b> 2-0-0	<b>CSI.</b>	<b>DEFL.</b> in (loc) l/defl L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL 20.0	Plate Grip DOL 1.15	TC 0.21	Vert(LL) 0.06 6-7 >759 240	MT20	244/190
TCDL 10.0	Lumber DOL 1.15	BC 0.50	Vert(CT) -0.03 6-7 >999 240		
BCLL 0.0 *	Rep Stress Incr YES	WB 0.09	Horz(CT) -0.09 4 n/a n/a		
BCDL 10.0	Code IRC2015/TPI2014	Matrix-MP		Weight: 25 lb	FT = 20%

<b>LUMBER-</b>	<b>BRACING-</b>
TOP CHORD 2x4 SP No.2	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 2x4 SP No.2	BOT CHORD Rigid ceiling directly applied or 9-2-9 oc bracing.
WEBS 2x4 SP No.3	

**REACTIONS.** (lb/size) 4=47/Mechanical, 7=221/0-5-8, 5=97/Mechanical  
 Max Horz 7=193(LC 12)  
 Max Uplift 4=-45(LC 8), 7=-30(LC 12), 5=-123(LC 12)  
 Max Grav 4=47(LC 1), 7=221(LC 1), 5=115(LC 19)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 BOT CHORD 6-7=-284/226  
 WEBS 2-6=-242/305

- NOTES-**
- 1) Unbalanced roof live loads have been considered for this design.
  - 2) Wind: ASCE 7-10; Vult=150mph (3-second gust) Vasd=119mph; TC DL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; end vertical left 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) All bearings are assumed to be User Defined crushing capacity of 565 psi.
  - 7) Refer to girder(s) for truss to truss connections.
  - 8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 4, 7 except (jt=lb) 5=123.
  - 9) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



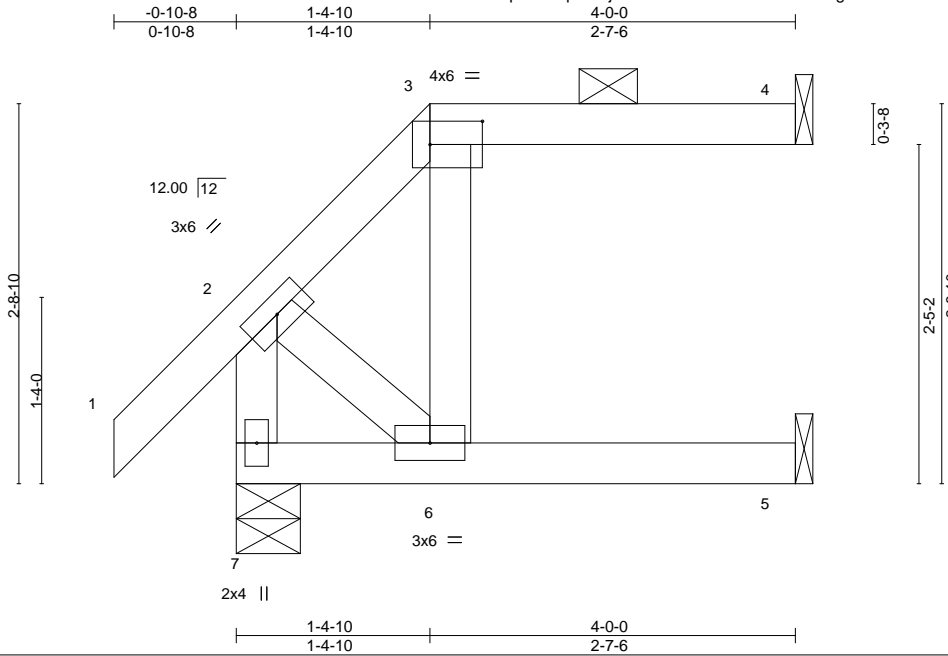
May 1, 2019

Job	Truss	Truss Type	Qty	Ply	H&H-SC/Trillium/	136912916
823690	J20	Half Hip	3	1		

Builders FirstSource, Sumter, SC - 29153,

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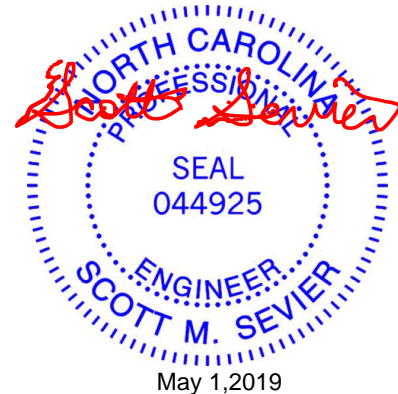
Plate Offsets (X,Y)--	[3:0-4-8,0-2-0]				
<b>LOADING</b> (psf)	<b>SPACING-</b> 2-0-0	<b>CSI.</b>	<b>DEFL.</b> in (loc) l/defl L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL 20.0	Plate Grip DOL 1.15	TC 0.17	Vert(LL) 0.06 5-6 >821 240	MT20	244/190
TCDL 10.0	Lumber DOL 1.15	BC 0.45	Vert(CT) -0.03 5-6 >999 240		
BCLL 0.0 *	Rep Stress Incr YES	WB 0.08	Horz(CT) -0.09 4 n/a n/a		
BCDL 10.0	Code IRC2015/TPI2014	Matrix-MP		Weight: 22 lb	FT = 20%

<b>LUMBER-</b>	<b>BRACING-</b>
TOP CHORD 2x4 SP No.2	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 2x4 SP No.2	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 2x4 SP No.3	

**REACTIONS.** (lb/size) 4=77/Mechanical, 7=221/0-5-8, 5=67/Mechanical  
 Max Horz 7=124(LC 12)  
 Max Uplift 4=-73(LC 8), 7=-67(LC 12), 5=-42(LC 12)  
 Max Grav 4=77(LC 1), 7=221(LC 1), 5=85(LC 3)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 WEBS 2-6=-207/256

- NOTES-**
- 1) Unbalanced roof live loads have been considered for this design.
  - 2) Wind: ASCE 7-10; Vult=150mph (3-second gust) Vasd=119mph; TCCL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; end vertical left 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) All bearings are assumed to be User Defined crushing capacity of 565 psi.
  - 7) Refer to girder(s) for truss to truss connections.
  - 8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 4, 7, 5.
  - 9) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



May 1, 2019

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Job 823690	Truss J21	Truss Type Half Hip Girder	Qty 3	Ply 1	H&H-SC/Trillium/ Job Reference (optional)	136912917
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Builders FirstSource, Sumter, SC - 29153,

8.220 s Nov 16 2018 MiTek Industries, Inc. Mon Apr 29 15:56:29 2019 Page 1  
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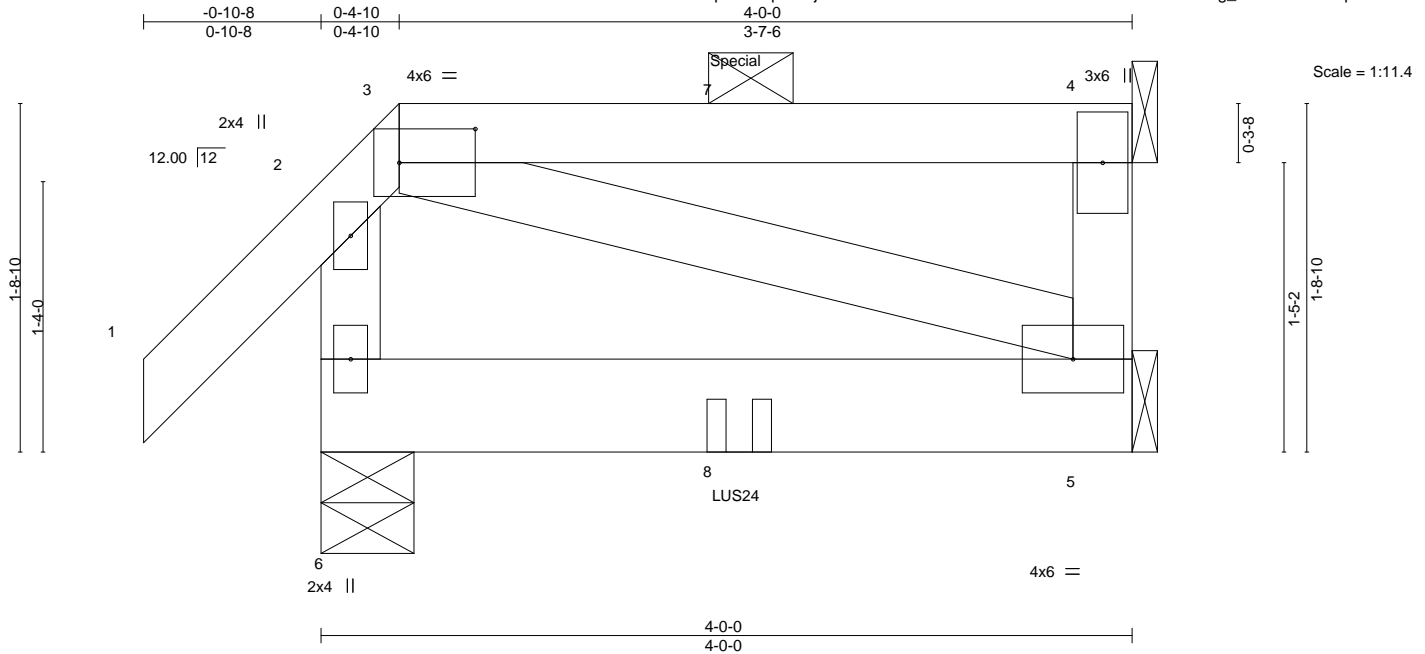


Plate Offsets (X,Y)--	[3:0-4-8,0-2:0]				
<b>LOADING</b> (psf)	<b>SPACING-</b> 2-0-0	<b>CSI.</b>	<b>DEFL.</b> in (loc) l/defl L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL 20.0	Plate Grip DOL 1.15	TC 0.16	Vert(LL) -0.00 5-6 >999 360	MT20	244/190
TCDL 10.0	Lumber DOL 1.15	BC 0.05	Vert(CT) -0.00 5-6 >999 240		
BCLL 0.0 *	Rep Stress Incr NO	WB 0.01	Horz(CT) 0.00 4 n/a n/a		
BCDL 10.0	Code IRC2015/TPI2014	Matrix-MP	Wind(LL) -0.00 5-6 >999 240	Weight: 26 lb	FT = 20%

**LUMBER-**  
TOP CHORD 2x4 SP No.2  
BOT CHORD 2x6 SP No.2  
WEBS 2x4 SP No.3 \*Except\*  
4-5: 2x4 SP No.2

**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) 5=33/Mechanical, 6=208/0-5-8, 4=106/Mechanical  
Max Horz 6=77(LC 5)  
Max Uplift 6=95(LC 8), 4=102(LC 4)  
Max Grav 5=73(LC 3), 6=208(LC 1), 4=106(LC 20)

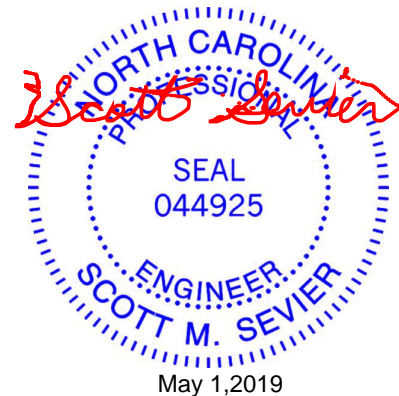
**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.

**NOTES-**

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-10; Vult=150mph (3-second gust) Vasd=119mph; TCdL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; end vertical left exposed; Lumber DOL=1.60 plate grip DOL=1.60
- Provide adequate drainage to prevent water ponding.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- \* 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.
- All bearings are assumed to be User Defined crushing capacity of 565 psi.
- Refer to girder(s) for truss to truss connections.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 6 except (jt=lb) 4=102.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
- Gap between inside of top chord bearing and first diagonal or vertical web shall not exceed 0.500in.
- Use Simpson Strong-Tie LUS24 (4-10d Girder, 2-10d Truss, Single Ply Girder) or equivalent at 2-0-12 from the left end to connect truss(es) to back face of bottom chord.
- Fill all nail holes where hanger is in contact with lumber.
- Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 21 lb down and 43 lb up at 2-0-12 on top chord. The design/selection of such connection device(s) is the responsibility of others.
- 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

- Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15  
Uniform Loads (plf)  
Vert: 1-2=-60, 2-3=-20, 3-4=-60, 5-6=-20  
Concentrated Loads (lb)  
Vert: 8=1(B)



**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 10/03/2015 BEFORE USE.**

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Job	Truss	Truss Type	Qty	Ply	H&H-SC/Trillium/	136912918
823690	J22	Half Hip	15	1		

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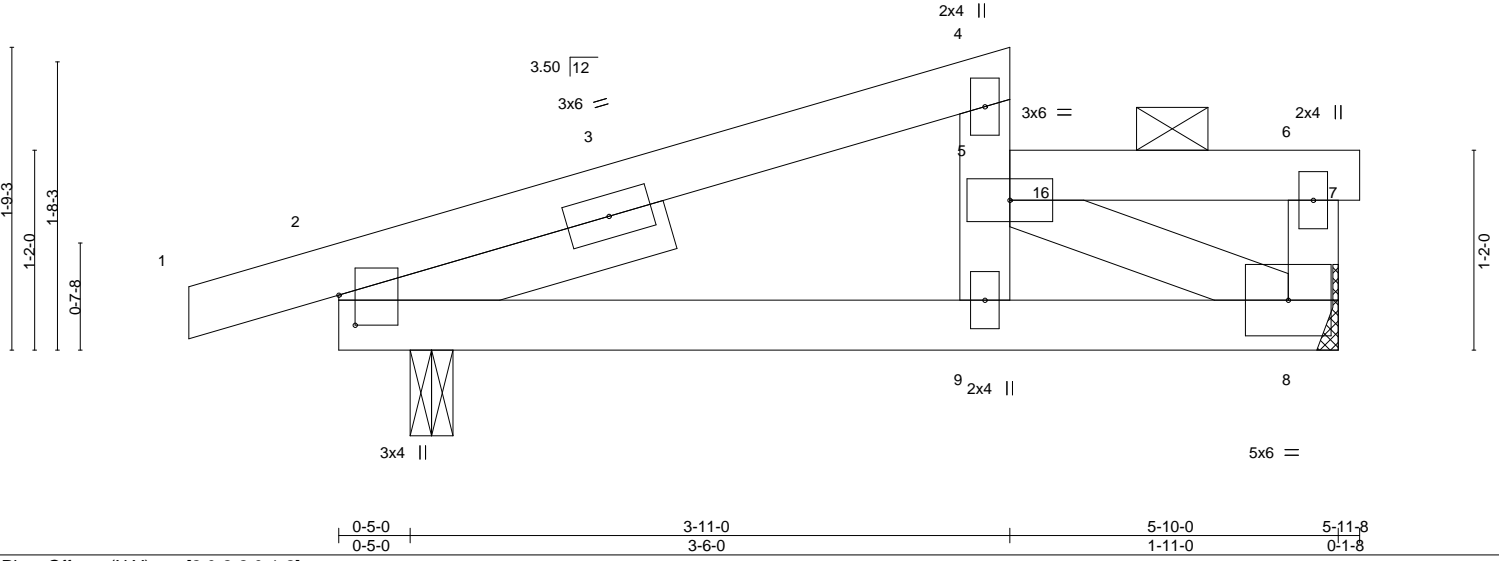


Plate Offsets (X,Y)--	[2:0-2-2,0-1-2]
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LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL	1.15	TC 0.59	Vert(LL)	-0.01	9	>999	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.31	Vert(CT)	-0.02	9	>999		
BCLL 0.0 *	Rep Stress Incr	NO	WB 0.26	Horz(CT)	-0.01	8	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-MP	Wind(LL)	0.03	9-14	>999	Weight: 27 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x4 SP No.2	TOP CHORD Structural wood sheathing directly applied or 5-11-8 oc purlins, except end verticals, and 2-0-0 oc purlins: 5-9, 5-7.
BOT CHORD 2x4 SP No.2	BOT CHORD Rigid ceiling directly applied or 6-6-12 oc bracing.
WEBS 2x4 SP No.3 *Except*	
4-9: 2x4 SP No.2	
SLIDER Left 2x4 SP No.3 1-11-12	

**REACTIONS.** (lb/size) 8=503/Mechanical, 2=420/0-3-0  
 Max Horz 2=135(LC 12)  
 Max Uplift 8=-96(LC 8), 2=-275(LC 8)  
 Max Grav 8=575(LC 2), 2=420(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-4=-447/468  
 BOT CHORD 2-9=-502/412, 8-9=-805/672  
 WEBS 5-8=-739/885

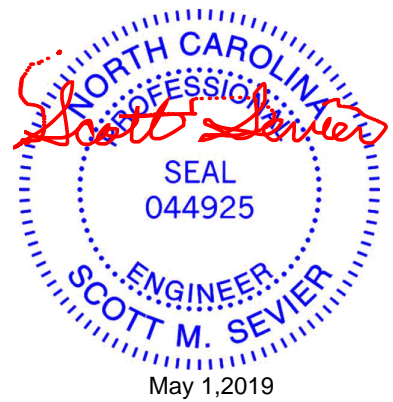
- NOTES-**
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-10; Vult=150mph (3-second gust) Vasd=119mph; TCCL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) -0-10-8 to 5-11-8 zone; cantilever left exposed; end vertical left exposed; porch left exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - Provide adequate drainage to prevent water ponding.
  - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - \* 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.
  - All bearings are assumed to be User Defined crushing capacity of 565 psi.
  - Refer to girder(s) for truss to truss connections.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 8 except (jt=lb) 2=275.
  - Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
  - Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 462 lb down and 105 lb up at 4-2-12 on top chord. The design/selection of such connection device(s) is the responsibility of others.

**LOAD CASE(S)** Standard

- Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15

Uniform Loads (plf)  
 Vert: 1-4=-60, 5-6=-60, 6-7=-20, 8-10=-20

Concentrated Loads (lb)  
 Vert: 16=-410



**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 10/03/2015 BEFORE USE.**

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Job	Truss	Truss Type	Qty	Ply	H&H-SC/Trillium/	136912919
823690	J23	Half Hip	3	1		

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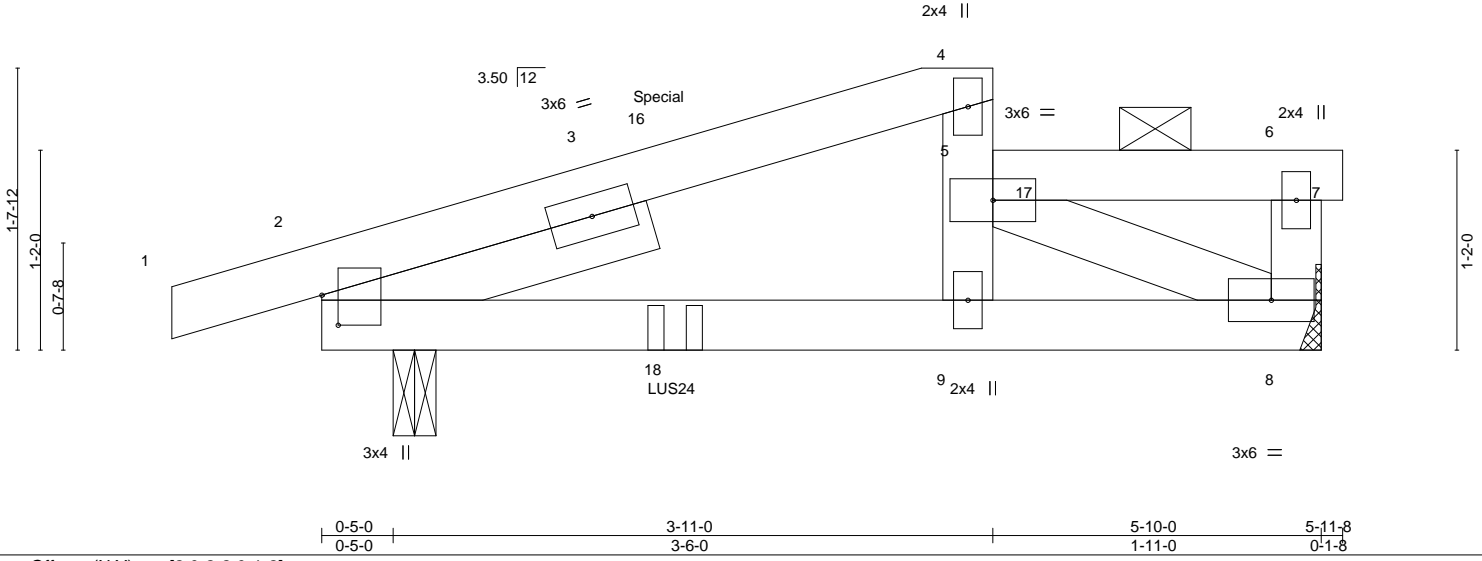


Plate Offsets (X,Y)--	[2:0-2-2,0-1-2]						
<b>LOADING</b> (psf)	<b>SPACING-</b>	2-0-0	<b>CSI.</b>	<b>DEFL.</b>	in (loc)	l/defl	L/d
TCLL 20.0	Plate Grip DOL 1.15		TC 0.56	Vert(LL) -0.01	9	>999	360
TCDL 10.0	Lumber DOL 1.15		BC 0.32	Vert(CT) -0.02	9	>999	240
BCLL 0.0 *	Rep Stress Incr NO		WB 0.15	Horz(CT) 0.00	8	n/a	n/a
BCDL 10.0	Code IRC2015/TPI2014		Matrix-MP	Wind(LL) 0.01	9-14	>999	240
							<b>PLATES</b>
							MT20
							<b>GRIP</b>
							244/190
							Weight: 27 lb
							FT = 20%

**LUMBER-**  
TOP CHORD 2x4 SP No.2  
BOT CHORD 2x4 SP No.2  
WEBS 2x4 SP No.3 \*Except\*  
4-9: 2x4 SP No.2  
SLIDER Left 2x4 SP No.3 1-11-12

**BRACING-**  
TOP CHORD Structural wood sheathing directly applied or 5-11-8 oc purlins, except end verticals, and 2-0-0 oc purlins: 5-9, 5-7.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS.** (lb/size) 8=494/Mechanical, 2=400/0-3-0  
Max Horz 2=110(LC 5)  
Max Uplift 8=-12(LC 5), 2=-172(LC 4)  
Max Grav 8=566(LC 2), 2=400(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 2-4=-432/0  
BOT CHORD 2-9=-24/410, 8-9=-16/654  
WEBS 5-8=-712/30

**NOTES-**

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-10; Vult=150mph (3-second gust) Vasd=119mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- Provide adequate drainage to prevent water ponding.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- \* 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.
- All bearings are assumed to be User Defined crushing capacity of 565 psi.
- Refer to girder(s) for truss to truss connections.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 8 except (jt=lb) 2=172.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
- Use Simpson Strong-Tie LUS24 (4-10d Girder, 2-10d Truss, Single Ply Girder) or equivalent at 2-0-12 from the left end to connect truss(es) to back face of bottom chord.
- Fill all nail holes where hanger is in contact with lumber.
- Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 22 lb down and 20 lb up at 2-0-12 on top chord. The design/selection of such connection device(s) is the responsibility of others.
- 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



Continued on page 2

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**ENGINEERING BY**  
**TRENCO**  
A MiTek Affiliate

818 Soundside Road  
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	H&H-SC/Trillium/	I36912919
823690	J23	Half Hip	3	1		
Job Reference (optional)						

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8.220 s Nov 16 2018 MiTek Industries, Inc. Mon Apr 29 15:56:31 2019 Page 2  
 ID:N9ZpzacWqWTLjEbWrVGBzZQOD-01QlVkgZuq9H1pVCRZ25ftYnQEC8sljQQ5daHzLpE\_

**LOAD CASE(S)** Standard

Uniform Loads (plf)

Vert: 1-4=-60, 5-6=-60, 6-7=-20, 8-10=-20

Concentrated Loads (lb)

Vert: 17=-410 18=28(B)

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 10/03/2015 BEFORE USE.**

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Job	Truss	Truss Type	Qty	Ply	H&H-SC/Trillium/	136912920
823690	J24	Jack-Open	3	1		
Builders FirstSource, Sumter, SC - 29153,						8.220 s Nov 16 2018 MiTek Industries, Inc. Mon Apr 29 15:56:31 2019 Page 1
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						Job Reference (optional)

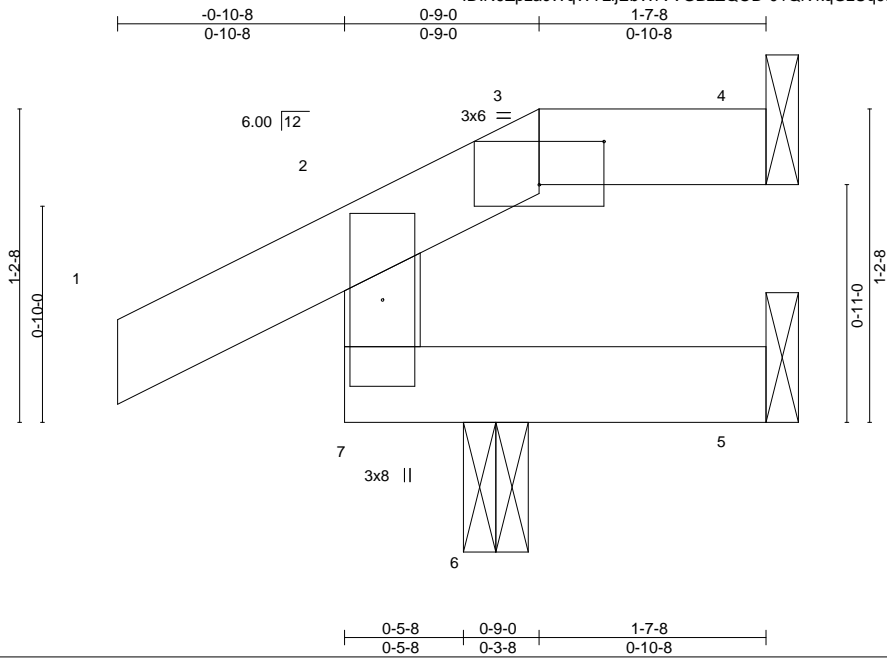


Plate Offsets (X,Y)--	[3:0-3-0,0-2-0]				
<b>LOADING</b> (psf)	<b>SPACING-</b> 2-0-0	<b>CSI.</b>	<b>DEFL.</b> in (loc) l/defl L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL 20.0	Plate Grip DOL 1.15	TC 0.14	Vert(LL) 0.00 6 >999 360	MT20	244/190
TCDL 10.0	Lumber DOL 1.15	BC 0.13	Vert(CT) 0.00 6 >999 240		
BCLL 0.0 *	Rep Stress Incr YES	WB 0.00	Horz(CT) -0.00 4 n/a n/a		
BCDL 10.0	Code IRC2015/TPI2014	Matrix-MR	Wind(LL) -0.00 6 >999 240	Weight: 7 lb	FT = 20%

<b>LUMBER-</b>	<b>BRACING-</b>
TOP CHORD 2x4 SP No.2	TOP CHORD Structural wood sheathing directly applied or 1-7-8 oc purlins, except end verticals, and 2-0-0 oc purlins: 3-4.
BOT CHORD 2x4 SP No.2	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 2x4 SP No.3	

**REACTIONS.** (lb/size) 4=19/Mechanical, 5=-41/Mechanical, 6=201/0-3-0  
 Max Horz 6=52(LC 9)  
 Max Uplift 4=-36(LC 9), 5=-41(LC 1), 6=-107(LC 12)  
 Max Grav 4=29(LC 24), 5=31(LC 12), 6=201(LC 1)

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

**NOTES-**

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-10; Vult=150mph (3-second gust) Vasd=119mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) -0-10-8 to 1-7-6 zone; cantilever left exposed; end vertical left exposed; porch left exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- Provide adequate drainage to prevent water ponding.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- \* 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.
- All bearings are assumed to be User Defined crushing capacity of 565 psi.
- Refer to girder(s) for truss to truss connections.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 4, 5 except (jt=lb) 6=107.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



May 1, 2019

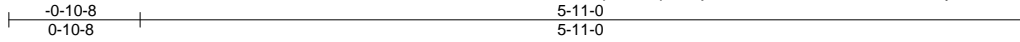
<p><b>WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 10/03/2015 BEFORE USE.</b></p> <p>Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see <b>ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information</b> available from Truss Plate Institute, 218 N. Lee Street, Suite 312, Alexandria, VA 22314.</p>	<p>ENGINEERING BY</p> <p><b>TRENCO</b></p> <p>A MiTek Affiliate</p> <p>818 Soundside Road Edenton, NC 27932</p>
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Job	Truss	Truss Type	Qty	Ply	H&H-SC/Trillium/	136912921
823690	J25	Monopitch	8	1		

Builders FirstSource, Sumter, SC - 29153,

8.220 s Nov 16 2018 MiTek Industries, Inc. Mon Apr 29 15:56:32 2019 Page 1

ID:N9ZpzacWqWTLlJebWrVvGBzZQOD-UD\_714rukoy0vB0hm84HdtQjxqXztKLSf4qA5jzLpDz



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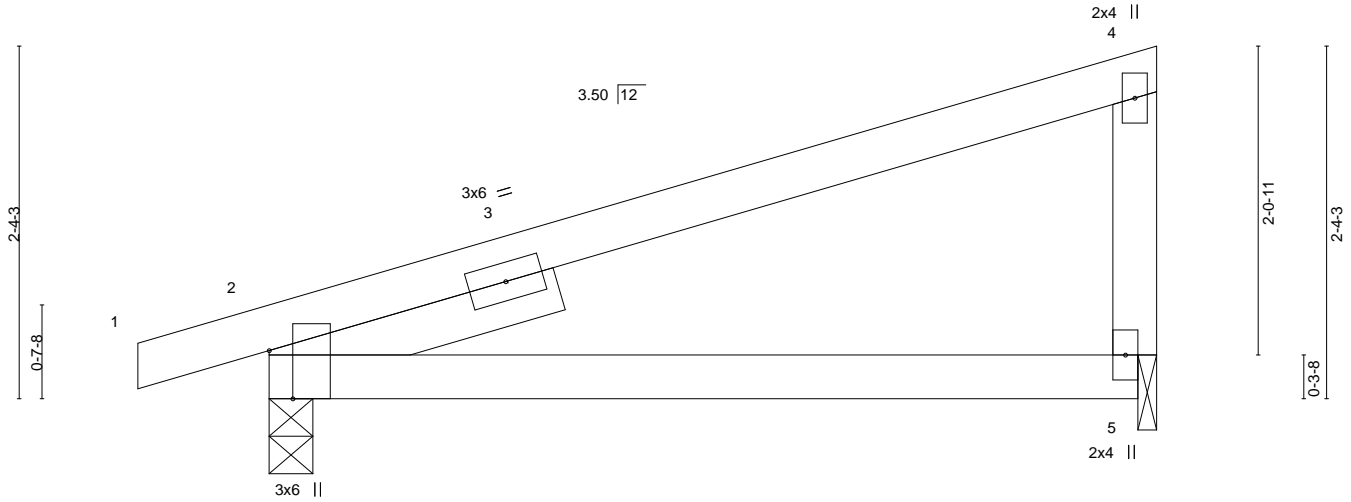


Plate Offsets (X,Y)--		[2-0-3-14,Edge]									
<b>LOADING</b> (psf)		<b>SPACING-</b>	2-0-0	<b>CSI.</b>		<b>DEFL.</b>	in (loc)	l/defl	L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL	20.0	Plate Grip DOL	1.15	TC	0.47	Vert(LL)	0.10	5-8	>685	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.48	Vert(CT)	-0.10	5-8	>664		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.00	Horz(CT)	-0.02	2	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix	AS					Weight: 25 lb	FT = 20%

**LUMBER-**  
 TOP CHORD 2x4 SP No.2  
 BOT CHORD 2x4 SP No.2  
 WEBS 2x4 SP No.3  
 SLIDER Left 2x4 SP No.3 1-11-12

**BRACING-**  
 TOP CHORD Structural wood sheathing directly applied, except end verticals.  
 BOT CHORD Rigid ceiling directly applied.

**REACTIONS.** (lb/size) 2=287/0-3-8, 5=227/0-1-8  
 Max Horz 2=150(LC 11)  
 Max Uplift 2=-195(LC 8), 5=-140(LC 12)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-4=-317/95

- NOTES-**
- 1) Wind: ASCE 7-10; Vult=150mph (3-second gust) Vasd=119mph; TCCL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; 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) All bearings are assumed to be User Defined crushing capacity of 565 psi.
  - 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) except (jt=lb) 2=195, 5=140.
  - 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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 Edenton, NC 27932

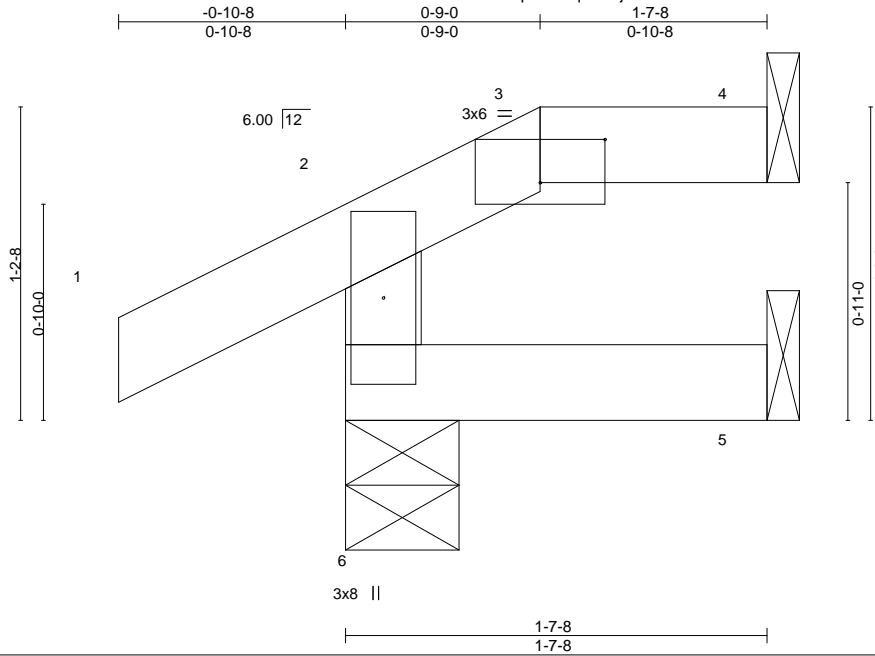


Job 823690	Truss J27	Truss Type Half Hip	Qty 1	Ply 1	H&H-SC/Trillium/ Job Reference (optional)	136912923
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Builders FirstSource, Sumter, SC - 29153,

8.220 s Nov 16 2018 MiTek Industries, Inc. Mon Apr 29 15:56:34 2019 Page 1

ID:N9ZpzacWqWTLlEjEbWrVVGBzZQOD-Qc5u7Is9GPCk9VY4uZ6ljiV8RdKPLEr96NJHAczLpDx



Scale = 1:8.9

Plate Offsets (X,Y)--	[3:0-3-0,0-2-0]				
<b>LOADING</b> (psf)	<b>SPACING-</b> 2-0-0	<b>CSI.</b>	<b>DEFL.</b> in (loc) l/defl L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL 20.0	Plate Grip DOL 1.15	TC 0.15	Vert(LL) -0.00 6 >999 360	MT20	244/190
TCDL 10.0	Lumber DOL 1.15	BC 0.03	Vert(CT) -0.00 6 >999 240		
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-MR	Wind(LL) 0.00 6 >999 240	Weight: 7 lb	FT = 20%

<b>LUMBER-</b>	<b>BRACING-</b>
TOP CHORD 2x4 SP No.2	TOP CHORD Structural wood sheathing directly applied or 1-7-8 oc purlins, except end verticals, and 2-0-0 oc purlins: 3-4.
BOT CHORD 2x4 SP No.2	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 2x4 SP No.3	

**REACTIONS.** (lb/size) 4=27/Mechanical, 6=141/0-5-4, 5=10/Mechanical  
 Max Horz 6=53(LC 11)  
 Max Uplift 4=-37(LC 9), 6=-77(LC 12)  
 Max Grav 4=33(LC 24), 6=141(LC 1), 5=26(LC 3)

**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=150mph (3-second gust) Vasd=119mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) -0-10-8 to 1-7-6 zone; 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) All bearings are assumed to be User Defined crushing capacity of 565 psi.
  - 7) Refer to girder(s) for truss to truss connections.
  - 8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 4, 6.
  - 9) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



May 1, 2019

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**ENGINEERING BY**  
**TRENCO**  
 A MiTek Affiliate

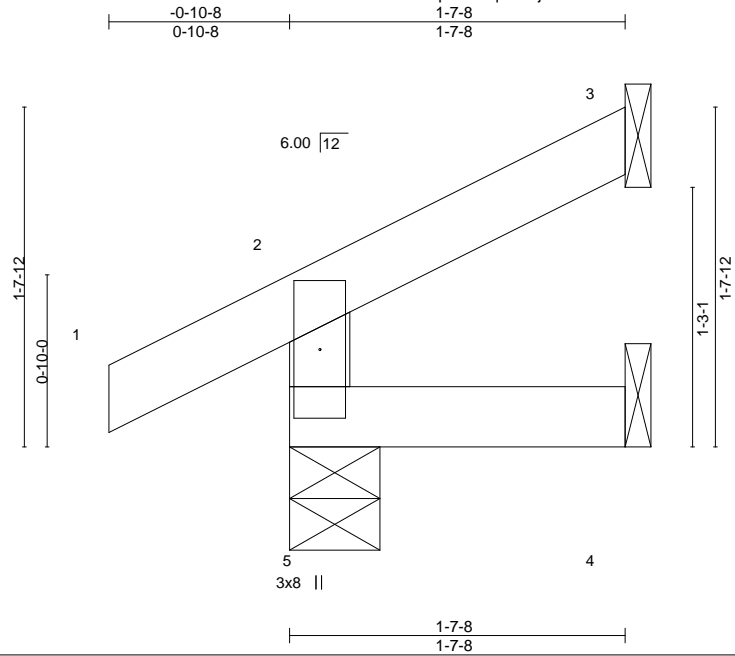
818 Soundside Road  
 Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	H&H-SC/Trillium/	136912924
823690	J28	Jack-Open	1	1		

Builders FirstSource, Sumter, SC - 29153,

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ID:N9ZpzacWqWTLjEbWrvVGBzZQOD-Qc5u7Is9GPck9VY4uZ6ijV8?dK\_LEr96NJHAczLpDx



Scale = 1:11.2

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	5 >999	360	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.06	Vert(CT)	-0.00	5 >999	240		
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-MR	Wind(LL)	0.00	5 >999	240		
								Weight: 7 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 1-7-8 oc purlins, except end verticals.  
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS.** (lb/size) 5=141/0-5-4, 3=27/Mechanical, 4=10/Mechanical  
 Max Horz 5=70(LC 9)  
 Max Uplift 5=61(LC 12), 3=50(LC 12), 4=4(LC 12)  
 Max Grav 5=141(LC 1), 3=27(LC 1), 4=26(LC 3)

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

**NOTES-**

- 1) Wind: ASCE 7-10; Vult=150mph (3-second gust) Vasd=119mph; TC DL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; end vertical 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) All bearings are assumed to be User Defined crushing capacity of 565 psi.
- 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) 5, 3, 4.



May 1, 2019

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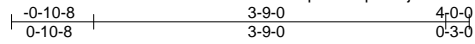
818 Soundside Road  
 Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	H&H-SC/Trillium/	136912925
823690	J29	HALF HIP	1	1		

Builders FirstSource, Sumter, SC - 29153,

8.220 s Nov 16 2018 MiTek Industries, Inc. Mon Apr 29 15:56:35 2019 Page 1

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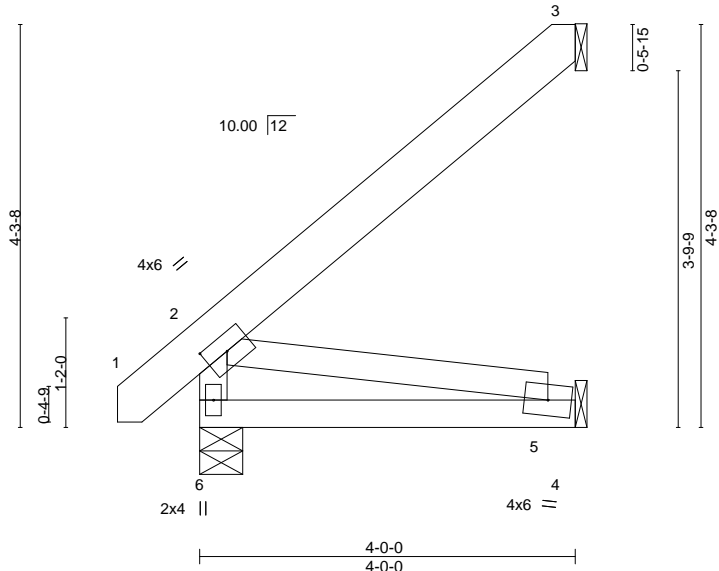


Plate Offsets (X,Y)--	[2:0-2-14,0-2-0]
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LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL	1.15	TC 0.18	Vert(LL)	-0.01	5-6	>999	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.17	Vert(CT)	-0.02	5-6	>999		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.10	Horz(CT)	-0.00	3	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-AS	Wind(LL)	0.00	5-6	>999	Weight: 27 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x6 SP No.2	TOP CHORD Structural wood sheathing directly applied, except end verticals.
BOT CHORD 2x4 SP No.2	BOT CHORD Rigid ceiling directly applied.
WEBS 2x4 SP No.3	

**REACTIONS.** (lb/size) 3=107/Mechanical, 6=211/0-5-8, 4=38/Mechanical  
 Max Horz 6=243(LC 12)  
 Max Uplift 3=191(LC 12), 4=34(LC 12)  
 Max Grav 3=148(LC 19), 6=211(LC 1), 4=76(LC 3)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 BOT CHORD 5-6=-322/254  
 WEBS 2-5=-261/331

**NOTES-**

- 1) Wind: ASCE 7-10; Vult=150mph (3-second gust) Vasd=119mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; 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) All bearings are assumed to be User Defined crushing capacity of 565 psi.
- 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) 4 except (jt=lb) 3=191.
- 7) 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.



May 1, 2019

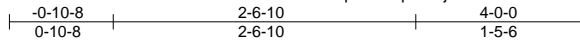
<p><b>WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 10/03/2015 BEFORE USE.</b></p> <p>Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see <b>ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information</b> available from Truss Plate Institute, 218 N. Lee Street, Suite 312, Alexandria, VA 22314.</p>	<p>ENGINEERING BY</p> <p><b>TRENCO</b></p> <p>A MiTek Affiliate</p> <p>818 Soundside Road Edenton, NC 27932</p>
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Job	Truss	Truss Type	Qty	Ply	H&H-SC/Trillium/	136912926
823690	J30	Half Hip	1	1		
Job Reference (optional)						

Builders FirstSource, Sumter, SC - 29153,

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ID:N9ZpzacWqWTLIjEbWrvVVBzZQOD-M\_DeYRuPo0SSOpit?\_9DojbTCRw0p7ASahoOEuzLpDv



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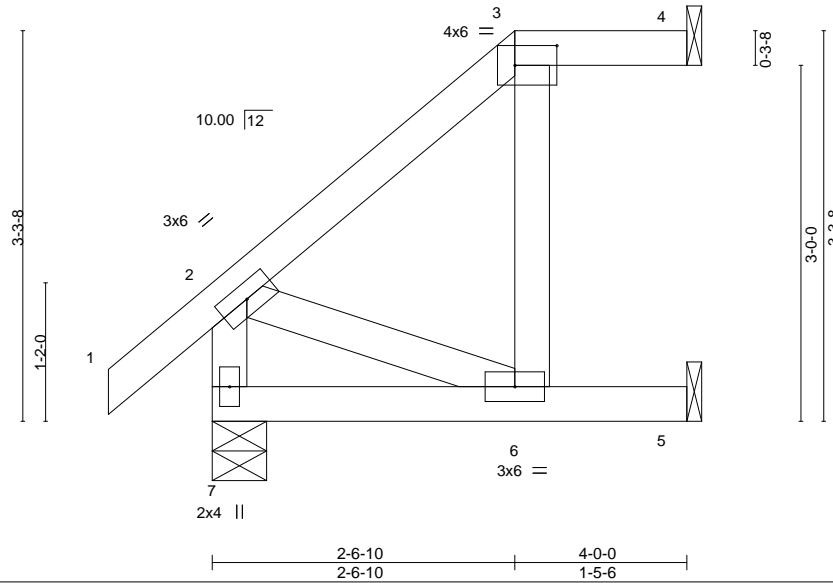


Plate Offsets (X,Y)-- [3:0-4-4,0-2-0]

<b>LOADING</b> (psf)	<b>SPACING-</b>	2-0-0	<b>CSI.</b>	<b>DEFL.</b>	in	(loc)	l/defl	L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL 20.0	Plate Grip DOL	1.15	TC 0.20	Vert(LL)	0.05	6-7	>980	240	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.41	Vert(CT)	-0.03	6-7	>999	240		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.08	Horz(CT)	0.05	4	n/a	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-MP						Weight: 24 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) 4=42/Mechanical, 7=221/0-5-8, 5=102/Mechanical  
 Max Horz 7=170(LC 12)  
 Max Uplift 4=-40(LC 8), 7=-55(LC 12), 5=-105(LC 12)  
 Max Grav 4=42(LC 1), 7=221(LC 1), 5=113(LC 19)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 WEBS 2-6=-202/255

**NOTES-**

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-10; Vult=150mph (3-second gust) Vasd=119mph; TC DL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; end vertical left 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) All bearings are assumed to be User Defined crushing capacity of 565 psi.
- 7) Refer to girder(s) for truss to truss connections.
- 8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 4, 7 except (jt=lb) 5=105.
- 9) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



May 1, 2019

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818 Soundside Road  
 Edenton, NC 27932

Job 823690	Truss J31	Truss Type Half Hip	Qty 1	Ply 1	H&H-SC/Trillium/ Job Reference (optional)	136912927
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Builders FirstSource, Sumter, SC - 29153,

8.220 s Nov 16 2018 MiTek Industries, Inc. Mon Apr 29 15:56:36 2019 Page 1

ID:N9ZpzacWqWTLjEbWrvVGBzZQOD-M\_DeYRuPo0SSOpIT?\_9DojbU0Rxp8RSahoOEuzLpDv

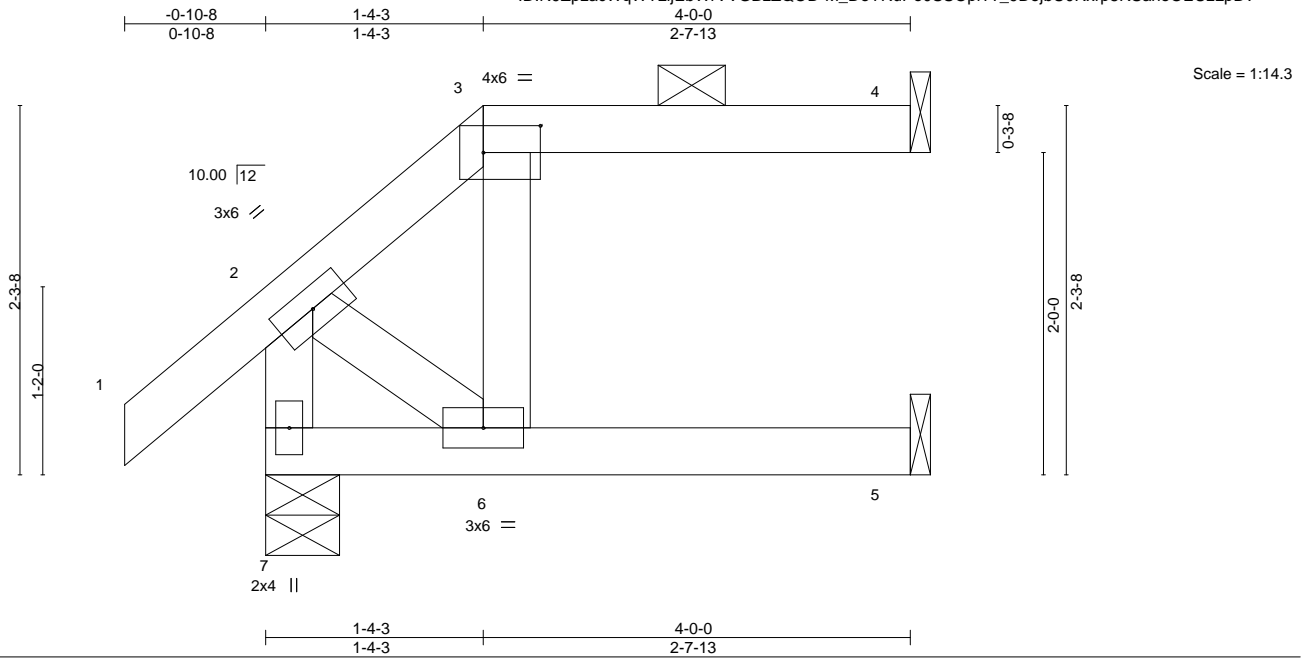


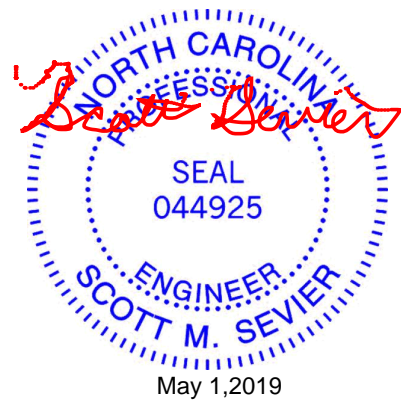
Plate Offsets (X,Y)--	[3:0-4-4,0-2-0]								
<b>LOADING</b> (psf)	<b>SPACING-</b>	2-0-0	<b>CSI.</b>	<b>DEFL.</b>	in (loc)	l/defl	L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL 20.0	Plate Grip DOL	1.15	TC 0.14	Vert(LL)	0.05	5-6	>999	240	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.36	Vert(CT)	-0.03	5-6	>999	240	
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.06	Horz(CT)	-0.06	4	n/a	n/a	
BCDL 10.0	Code IRC2015/TPI2014		Matrix-MP						
								Weight: 20 lb	FT = 20%

<b>LUMBER-</b>	<b>BRACING-</b>
TOP CHORD 2x4 SP No.2	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 2x4 SP No.2	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 2x4 SP No.3	

**REACTIONS.** (lb/size) 4=78/Mechanical, 7=221/0-5-8, 5=66/Mechanical  
 Max Horz 7=101(LC 9)  
 Max Uplift 4=-74(LC 8), 7=-82(LC 12), 5=-28(LC 9)  
 Max Grav 4=78(LC 1), 7=221(LC 1), 5=85(LC 3)

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

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-10; Vult=150mph (3-second gust) Vasd=119mph; TC DL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; end vertical left exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - Provide adequate drainage to prevent water ponding.
  - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - \* 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.
  - All bearings are assumed to be User Defined crushing capacity of 565 psi.
  - Refer to girder(s) for truss to truss connections.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 4, 7, 5.
  - Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.





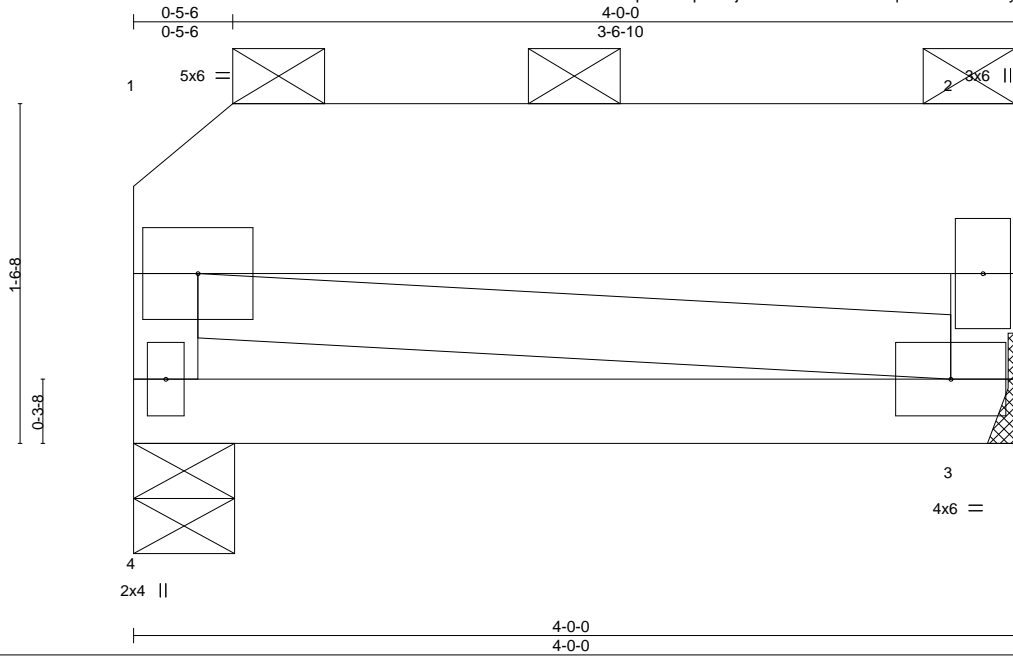
Job 823690	Truss J32	Truss Type HALF HIP GIRDER	Qty 1	Ply 1	H&H-SC/Trillium/ Job Reference (optional)	136912928
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Builders FirstSource,

Sumter, SC - 29153,

8.220 s Nov 16 2018 MiTek Industries, Inc. Mon Apr 29 15:56:37 2019 Page 1

ID:N9ZpzacWqWTLjEbWrVVGbZQOD-qBn0Inu1ZKaJyHFZigSKw7gnrHYyblboLYmxzLpDu



Scale = 1:10.5

LOADING (psf)	SPACING- 3-7-12	CSI.	DEFL. in (loc) l/defl L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL 1.15	TC 0.08	Vert(LL) -0.02 3-4 >999 360	MT20	244/190
TCDL 10.0	Lumber DOL 1.15	BC 0.33	Vert(CT) -0.04 3-4 >999 240		
BCLL 0.0 *	Rep Stress Incr NO	WB 0.02	Horz(CT) -0.00 3 n/a n/a		
BCDL 10.0	Code IRC2015/TPI2014	Matrix-MP	Wind(LL) 0.00 4 **** 240	Weight: 28 lb	FT = 20%

**LUMBER-**

TOP CHORD 2x10 SP DSS  
 BOT CHORD 2x4 SP No.2  
 WEBS 2x4 SP No.2 \*Except\*  
 1-3: 2x4 SP No.3

**BRACING-**

TOP CHORD 2-0-0 oc purlins, except end verticals  
 (Switched from sheeted: Spacing > 2-8-0).  
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS.** (lb/size) 3=270/Mechanical, 4=270/0-5-8  
 Max Horz 4=-89(LC 10)  
 Max Uplift 3=-163(LC 9), 4=-161(LC 8)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-3=-203/310, 1-4=-203/321

**NOTES-**

- 1) Wind: ASCE 7-10; Vult=150mph (3-second gust) Vasd=119mph; TC DL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; end vertical left exposed; C-C for members and forces & MWFRS for reactions shown; 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) All bearings are assumed to be User Defined crushing capacity of 565 psi.
- 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) except (jt=lb) 3=163, 4=161.
- 8) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



May 1, 2019

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Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 218 N. Lee Street, Suite 312, Alexandria, VA 22314.

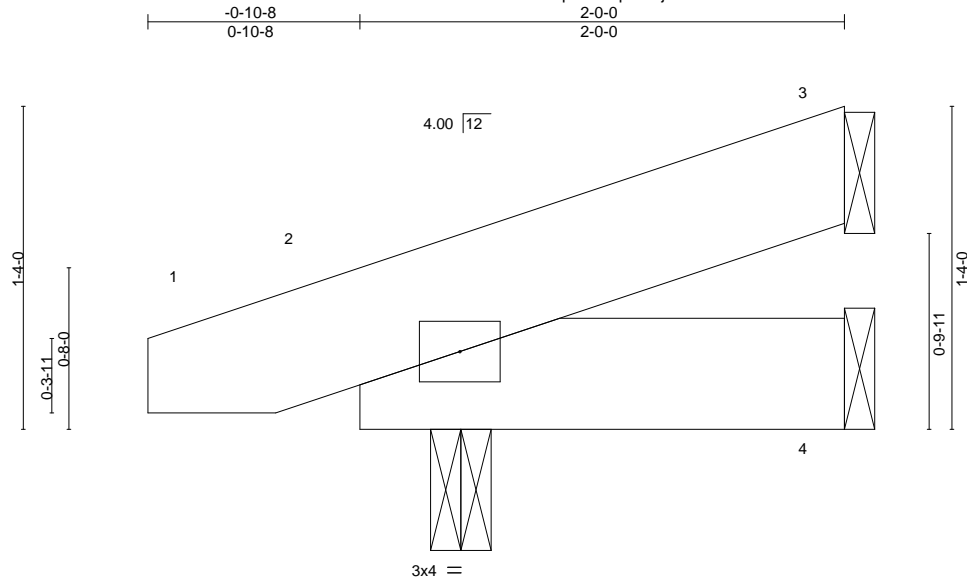


818 Soundside Road  
 Edenton, NC 27932

Job 823690	Truss J33	Truss Type JACK-OPEN	Qty 2	Ply 1	H&H-SC/Trillium/ Job Reference (optional)	136912929
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Builders FirstSource, Sumter, SC - 29153,

8.220 s Nov 16 2018 MiTek Industries, Inc. Mon Apr 29 15:56:38 2019 Page 1  
ID:N9ZpzacWqWTLjEbWrVVGbzZQOD-JNLPz7vfKei9drr7PBht8gsJFhMH2qk1?HUJNzLpDt



Scale = 1:9.5

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 0.03	Vert(LL)	0.00	7	>999	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.03	Vert(CT)	-0.00	7	>999		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.00	Horz(CT)	-0.00	2	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-MP						
								Weight: 12 lb	FT = 20%

**LUMBER-**

TOP CHORD 2x6 SP No.2  
BOT CHORD 2x6 SP No.2

**BRACING-**

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

**REACTIONS.** (lb/size) 3=46/Mechanical, 4=28/Mechanical, 2=122/0-3-0  
Max Horz 2=65(LC 8)  
Max Uplift 3=-52(LC 8), 4=-32(LC 8), 2=-122(LC 8)  
Max Grav 3=46(LC 1), 4=34(LC 3), 2=122(LC 1)

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

**NOTES-**

- 1) Wind: ASCE 7-10; Vult=150mph (3-second gust) Vasd=119mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; cantilever left exposed; end vertical left 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) All bearings are assumed to be User Defined crushing capacity of 565 psi.
- 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) 3, 4 except (jt=lb) 2=122.



May 1, 2019

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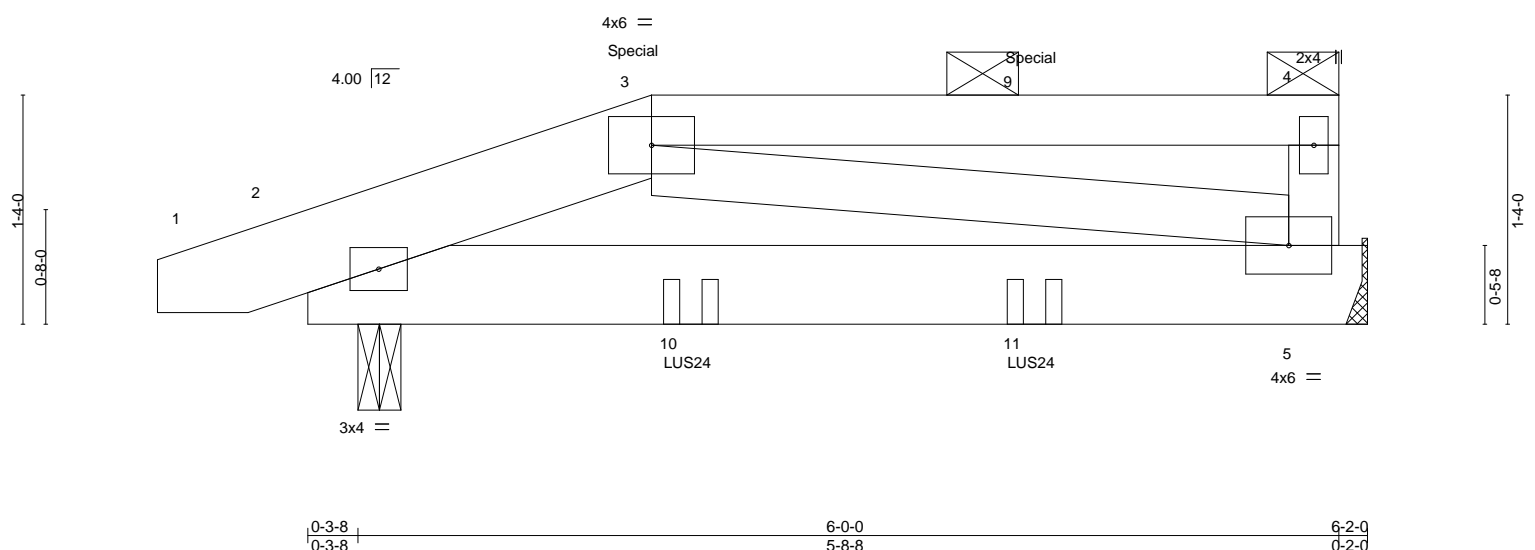
818 Soundside Road  
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	H&H-SC/Trillium/	136912930
823690	J34	Half Hip Girder	1	1		
Builders FirstSource, Sumter, SC - 29153,						Job Reference (optional)

8.220 s Nov 16 2018 MiTek Industries, Inc. Mon Apr 29 15:56:39 2019 Page 1  
 ID:N9ZpzacWqWTLjEbWrvVGBzZQOD-nZvnATwI4xq0FGQ1g6iwQLDyWe?w0UjuGf12rpzLpDs



Scale = 1:13.4



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 0.32	Vert(LL)	0.02	5-8	>999	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.14	Vert(CT)	-0.01	5-8	>999		
BCLL 0.0 *	Rep Stress Incr	NO	WB 0.09	Horz(CT)	-0.00	5	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-MP					Weight: 34 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x6 SP No.2 *Except* 3-4: 2x4 SP No.2	TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals, and 2-0-0 oc purlins: 3-4.
BOT CHORD 2x6 SP No.2	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 2x4 SP No.2	

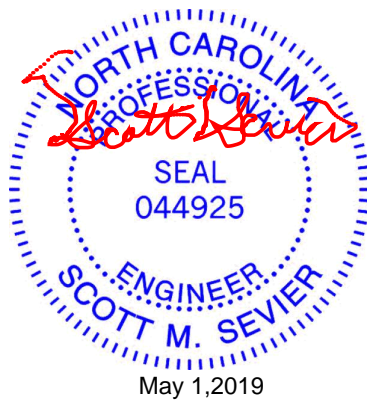
**REACTIONS.** (lb/size) 5=242/Mechanical, 2=280/0-3-0  
 Max Horz 2=72(LC 23)  
 Max Uplift 5=-245(LC 4), 2=-286(LC 4)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-3=-315/298  
 BOT CHORD 2-5=-309/294  
 WEBS 3-5=-303/319

**NOTES-**

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-10; Vult=150mph (3-second gust) Vasd=119mph; TCCL=6.0psf; BCCL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left exposed; end vertical left exposed; porch left exposed; 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) All bearings are assumed to be User Defined crushing capacity of 565 psi.
- 7) Refer to girder(s) for truss to truss connections.
- 8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 5=245, 2=286.
- 9) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
- 10) Use Simpson Strong-Tie LUS24 (4-10d Girder, 2-10d Truss, Single Ply Girder) or equivalent spaced at 2-0-0 oc max. starting at 2-2-12 from the left end to 4-2-12 to connect truss(es) to front face of bottom chord.
- 11) Fill all nail holes where hanger is in contact with lumber.
- 12) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 25 lb down and 45 lb up at 2-0-0, and 25 lb down and 45 lb up at 4-2-12 on top chord. The design/selection of such connection device(s) is the responsibility of others.
- 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  
 1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15  
 Uniform Loads (plf)  
 Vert: 1-3=-60, 3-4=-60, 5-6=-20



Continued on page 2

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**ENGINEERING BY**  
**TRENCO**  
 A MiTek Affiliate

818 Soundside Road  
 Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	H&H-SC/Trillium/	I36912930
823690	J34	Half Hip Girder	1	1		
						Job Reference (optional)

Builders FirstSource, Sumter, SC - 29153,

8.220 s Nov 16 2018 MiTek Industries, Inc. Mon Apr 29 15:56:39 2019 Page 2  
 ID:N9ZpzacWqWTLjEbWrVVGbZQOD-nZvnATwI4xq0FGQ1g6iwQLDyWe?w0UjuGf12rpzLpDs

**LOAD CASE(S)** Standard  
 Concentrated Loads (lb)  
 Vert: 10=-8(F) 11=-8(F)

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 10/03/2015 BEFORE USE.**

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818 Soundside Road  
 Edenton, NC 27932



Job	Truss	Truss Type	Qty	Ply	H&H-SC/Trillium/	136912932
823690	J36	Monopitch	7	1		

Builders FirstSource,

Sumter, SC - 29153,

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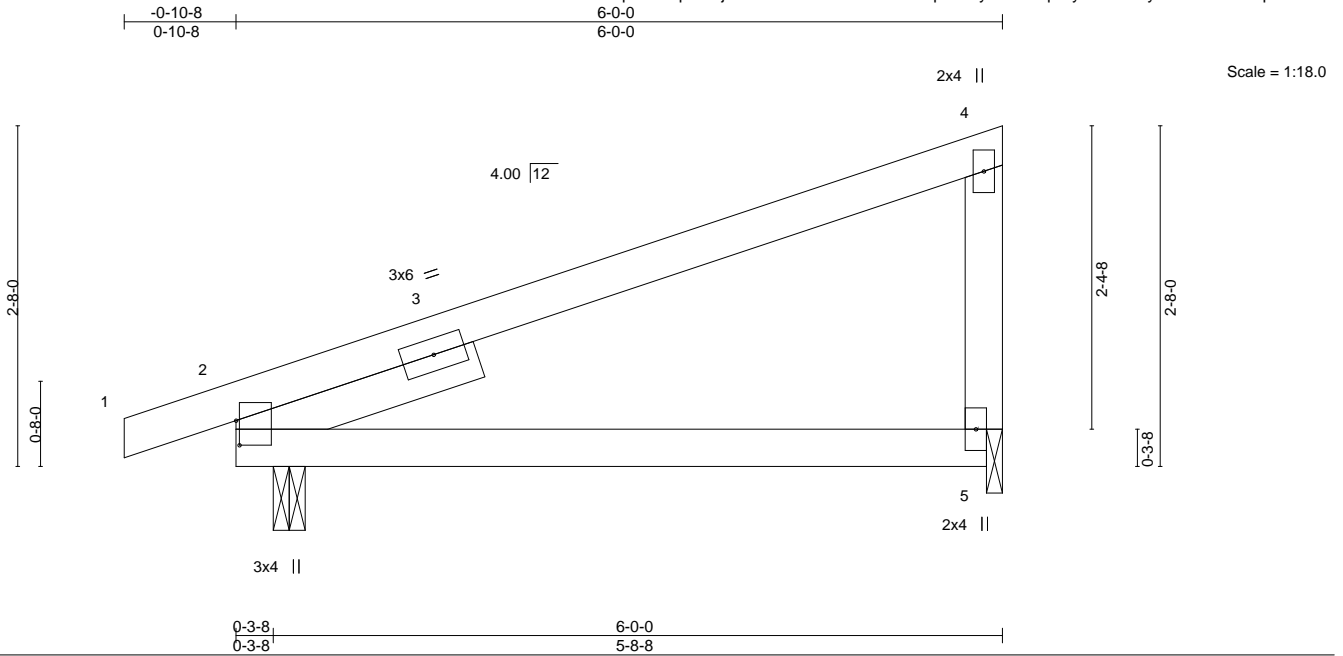


Plate Offsets (X,Y)--	[2-0-2-5,0-0-5]				
<b>LOADING</b> (psf)	<b>SPACING-</b> 2-0-0	<b>CSI.</b>	<b>DEFL.</b> in (loc) l/defl L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL 20.0	Plate Grip DOL 1.15	TC 0.64	Vert(LL) 0.17 5-10 >409 240	MT20	244/190
TCDL 10.0	Lumber DOL 1.15	BC 0.60	Vert(CT) -0.08 5-10 >911 240		
BCLL 0.0 *	Rep Stress Incr YES	WB 0.00	Horz(CT) -0.04 2 n/a n/a		
BCDL 10.0	Code IRC2015/TPI2014	Matrix-AS		Weight: 26 lb	FT = 20%

<b>LUMBER-</b>	<b>BRACING-</b>
TOP CHORD 2x4 SP No.2	TOP CHORD Structural wood sheathing directly applied, except end verticals.
BOT CHORD 2x4 SP No.2	BOT CHORD Rigid ceiling directly applied.
WEBS 2x4 SP No.3	
SLIDER Left 2x4 SP No.3 1-11-12	

**REACTIONS.** (lb/size) 2=313/0-3-0, 5=208/0-1-8  
 Max Horz 2=162(LC 8)  
 Max Uplift 2=-294(LC 8), 5=-236(LC 8)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-4=-155/265, 4-5=-150/280

- NOTES-**
- 1) Wind: ASCE 7-10; Vult=150mph (3-second gust) Vasd=119mph; TCCL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; cantilever left exposed; end vertical left 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) All bearings are assumed to be User Defined crushing capacity of 565 psi.
  - 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) except (jt=lb) 2=294, 5=236.
  - 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.



May 1, 2019

Job	Truss	Truss Type	Qty	Ply	H&H-SC/Trillium/	136912933
823690	J37	HALF HIP	1	1		

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Scale = 1:11.8

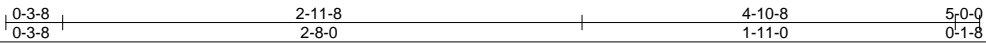
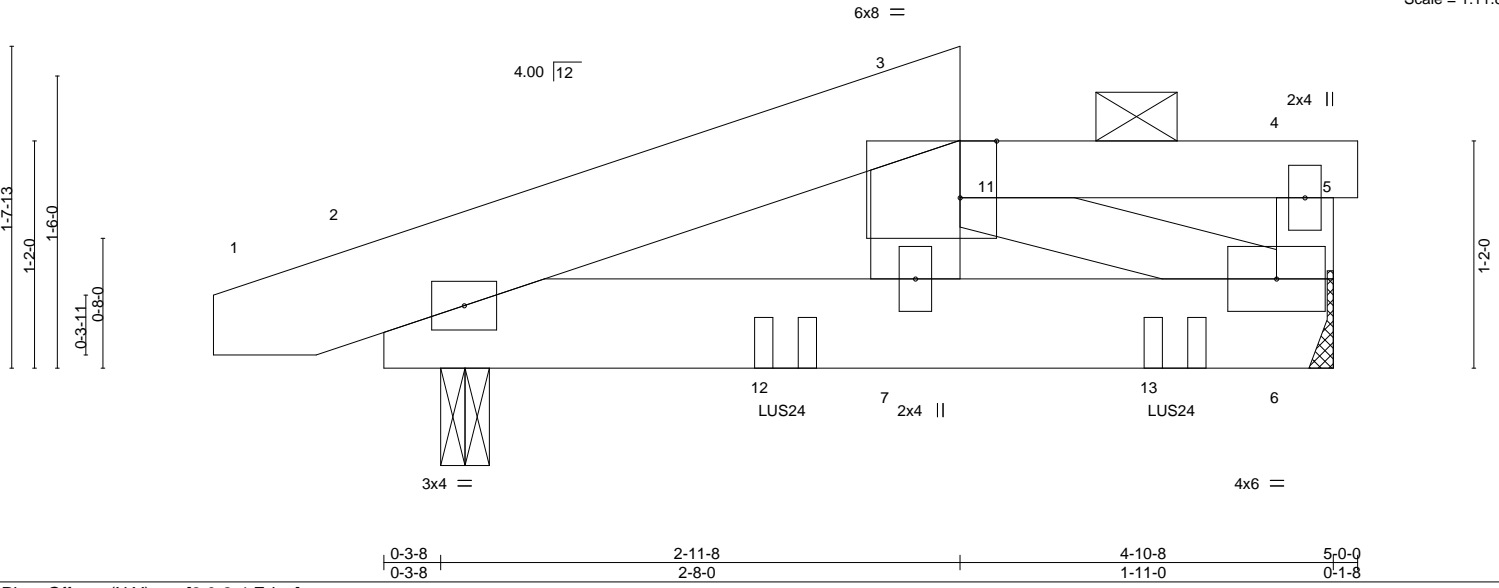


Plate Offsets (X, Y)-- [3:0-2-4,Edge]

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 0.53	Vert(LL)	0.01	7	>999	240	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.31	Vert(CT)	-0.01	7	>999	240		
BCLL 0.0 *	Rep Stress Incr	NO	WB 0.13	Horz(CT)	-0.00	6	n/a	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-MP						Weight: 29 lb	FT = 20%

**LUMBER-**  
 TOP CHORD 2x6 SP No.2 \*Except\*  
 3-5: 2x4 SP No.2  
 BOT CHORD 2x6 SP No.2  
 WEBS 2x4 SP No.2 \*Except\*  
 3-7: 2x6 SP No.2

**BRACING-**  
 TOP CHORD Structural wood sheathing directly applied or 5-0-0 oc purlins, except end verticals, and 2-0-0 oc purlins: 3-7, 3-5.  
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS.** (lb/size) 6=733/Mechanical, 2=510/0-3-0  
 Max Horz 2=60(LC 4)  
 Max Uplift 6=-404(LC 4), 2=-360(LC 4)  
 Max Grav 6=772(LC 2), 2=510(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-3=-953/512, 3-7=-302/103  
 BOT CHORD 2-7=-516/930, 6-7=-516/930  
 WEBS 3-6=-1000/555

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-10; Vult=150mph (3-second gust) Vasd=119mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left exposed; end vertical left exposed; porch left exposed; Lumber DOL=1.60 plate grip DOL=1.60
  - Provide adequate drainage to prevent water ponding.
  - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - \* 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.
  - All bearings are assumed to be User Defined crushing capacity of 565 psi.
  - Refer to girder(s) for truss to truss connections.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 6=404, 2=360.
  - Load case(s) 1, 2, 3, 4, 5, 8, 9, 10, 11, 14, 19, 20, 21, 22, 23, 24, 27, 28, 29, 30 has/have been modified. Building designer must review loads to verify that they are correct for the intended use of this truss.
  - Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
  - Use Simpson Strong-Tie LUS24 (4-10d Girder, 2-10d Truss, Single Ply Girder) or equivalent spaced at 2-0-0 oc max. starting at 2-0-12 from the left end to 4-0-12 to connect truss(es) to back face of bottom chord.
  - Fill all nail holes where hanger is in contact with lumber.
  - 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



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Continued on page 2

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ENGINEERING BY  
**TRENCO**  
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 Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	H&H-SC/Trillium/	
823690	J37	HALF HIP	1	1		I36912933
					Job Reference (optional)	

Builders FirstSource, Sumter, SC - 29153,

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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, 3-4=-60, 4-5=-20, 6-8=-20  
Concentrated Loads (lb)  
Vert: 11=-410 12=-222(B) 13=-191(B)
- 2) Dead + 0.75 Roof Live (balanced) + 0.75 Attic Floor: Lumber Increase=1.15, Plate Increase=1.15  
Uniform Loads (plf)  
Vert: 1-3=-50, 3-4=-110, 4-5=-80, 6-8=-20  
Concentrated Loads (lb)  
Vert: 11=-390 12=-190(B) 13=-166(B)
- 3) Dead + Uninhabitable Attic Without Storage: Lumber Increase=1.25, Plate Increase=1.25  
Uniform Loads (plf)  
Vert: 1-3=-20, 3-4=-20, 4-5=-20, 6-8=-40  
Concentrated Loads (lb)  
Vert: 11=-370 12=-140(B) 13=-126(B)
- 4) Dead + 0.6 MWFRS Wind (Pos. Internal) Left: Lumber Increase=1.60, Plate Increase=1.60  
Uniform Loads (plf)  
Vert: 1-2=80, 2-3=57, 3-4=57, 4-5=17, 6-8=21  
Horz: 1-2=-92, 2-3=-69  
Concentrated Loads (lb)  
Vert: 11=-93 12=225(B) 13=206(B)
- 5) Dead + 0.6 MWFRS Wind (Pos. Internal) Right: Lumber Increase=1.60, Plate Increase=1.60  
Uniform Loads (plf)  
Vert: 1-2=25, 2-3=35, 3-4=57, 4-5=47, 6-8=-12  
Horz: 1-2=-37, 2-3=-47  
Concentrated Loads (lb)  
Vert: 11=-159 12=258(B) 13=234(B)
- 8) Dead + 0.6 MWFRS Wind (Pos. Internal) 1st Parallel: Lumber Increase=1.60, Plate Increase=1.60  
Uniform Loads (plf)  
Vert: 1-2=47, 2-3=57, 3-4=27, 4-5=17, 6-8=-12  
Horz: 1-2=-59, 2-3=-69  
Concentrated Loads (lb)  
Vert: 11=-159 12=258(B) 13=234(B)
- 9) Dead + 0.6 MWFRS Wind (Pos. Internal) 2nd Parallel: Lumber Increase=1.60, Plate Increase=1.60  
Uniform Loads (plf)  
Vert: 1-2=17, 2-3=27, 3-4=27, 4-5=47, 6-8=-12  
Horz: 1-2=-29, 2-3=-39  
Concentrated Loads (lb)  
Vert: 11=-219 12=258(B) 13=234(B)
- 10) Dead + 0.6 MWFRS Wind (Pos. Internal) 3rd Parallel: Lumber Increase=1.60, Plate Increase=1.60  
Uniform Loads (plf)  
Vert: 1-2=47, 2-3=57, 3-4=27, 4-5=17, 6-8=-12  
Horz: 1-2=-59, 2-3=-69  
Concentrated Loads (lb)  
Vert: 11=-159 12=258(B) 13=234(B)
- 11) Dead + 0.6 MWFRS Wind (Pos. Internal) 4th Parallel: Lumber Increase=1.60, Plate Increase=1.60  
Uniform Loads (plf)  
Vert: 1-2=17, 2-3=27, 3-4=27, 4-5=47, 6-8=-12  
Horz: 1-2=-29, 2-3=-39  
Concentrated Loads (lb)  
Vert: 11=-219 12=258(B) 13=234(B)
- 14) Dead: Lumber Increase=0.90, Plate Increase=0.90 Plt. metal=0.90  
Uniform Loads (plf)  
Vert: 1-3=-20, 3-4=-100, 4-5=-100, 6-8=-20  
Concentrated Loads (lb)  
Vert: 11=-330 12=-96(B) 13=-89(B)
- 19) 1st Dead + Roof Live (unbalanced): Lumber Increase=1.15, Plate Increase=1.15  
Uniform Loads (plf)  
Vert: 1-3=-60, 3-4=-60, 4-5=-20, 6-8=-20  
Concentrated Loads (lb)  
Vert: 11=-410 12=-222(B) 13=-191(B)
- 20) 2nd Dead + Roof Live (unbalanced): Lumber Increase=1.15, Plate Increase=1.15  
Uniform Loads (plf)  
Vert: 1-3=-20, 3-4=-60, 4-5=-20, 6-8=-20  
Concentrated Loads (lb)  
Vert: 11=-410 12=-222(B) 13=-191(B)
- 21) 3rd Dead + 0.75 Roof Live (unbalanced) + 0.75 Attic Floor: Lumber Increase=1.15, Plate Increase=1.15  
Uniform Loads (plf)  
Vert: 1-3=-50, 3-4=-110, 4-5=-80, 6-8=-20  
Concentrated Loads (lb)  
Vert: 11=-390 12=-190(B) 13=-166(B)
- 22) 4th Dead + 0.75 Roof Live (unbalanced) + 0.75 Attic Floor: Lumber Increase=1.15, Plate Increase=1.15  
Uniform Loads (plf)  
Vert: 1-3=-20, 3-4=-110, 4-5=-80, 6-8=-20  
Concentrated Loads (lb)  
Vert: 11=-390 12=-190(B) 13=-166(B)

Continued on page 3

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 10/03/2015 BEFORE USE.**

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Job	Truss	Truss Type	Qty	Ply	H&H-SC/Trillium/	
823690	J37	HALF HIP	1	1		I36912933
						Job Reference (optional)

Builders FirstSource, Sumter, SC - 29153,

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ID:N9ZpzacWqWTLjEbWrVVGBzZQOD-jy0Xb8yYcZ4kUaaQoXIOVmlFoSfhUNZBjzW9vizLpDq

**LOAD CASE(S)** Standard

- 23) Reversal: Dead + 0.6 MWFRS Wind (Pos. Internal) Left: Lumber Increase=1.60, Plate Increase=1.60  
Uniform Loads (plf)  
Vert: 1-2=80, 2-3=57, 3-4=57, 4-5=17, 6-8=21  
Horz: 1-2=-92, 2-3=-69  
Concentrated Loads (lb)  
Vert: 11=-93 12=-100(B) 13=-90(B)
- 24) Reversal: Dead + 0.6 MWFRS Wind (Pos. Internal) Right: Lumber Increase=1.60, Plate Increase=1.60  
Uniform Loads (plf)  
Vert: 1-2=25, 2-3=35, 3-4=57, 4-5=47, 6-8=-12  
Horz: 1-2=-37, 2-3=-47  
Concentrated Loads (lb)  
Vert: 11=-159 12=-67(B) 13=-62(B)
- 27) Reversal: Dead + 0.6 MWFRS Wind (Pos. Internal) 1st Parallel: Lumber Increase=1.60, Plate Increase=1.60  
Uniform Loads (plf)  
Vert: 1-2=47, 2-3=57, 3-4=27, 4-5=17, 6-8=-12  
Horz: 1-2=-59, 2-3=-69  
Concentrated Loads (lb)  
Vert: 11=-159 12=-67(B) 13=-62(B)
- 28) Reversal: Dead + 0.6 MWFRS Wind (Pos. Internal) 2nd Parallel: Lumber Increase=1.60, Plate Increase=1.60  
Uniform Loads (plf)  
Vert: 1-2=17, 2-3=27, 3-4=27, 4-5=47, 6-8=-12  
Horz: 1-2=-29, 2-3=-39  
Concentrated Loads (lb)  
Vert: 11=-219 12=-67(B) 13=-62(B)
- 29) Reversal: Dead + 0.6 MWFRS Wind (Pos. Internal) 3rd Parallel: Lumber Increase=1.60, Plate Increase=1.60  
Uniform Loads (plf)  
Vert: 1-2=47, 2-3=57, 3-4=27, 4-5=17, 6-8=-12  
Horz: 1-2=-59, 2-3=-69  
Concentrated Loads (lb)  
Vert: 11=-159 12=-67(B) 13=-62(B)
- 30) Reversal: Dead + 0.6 MWFRS Wind (Pos. Internal) 4th Parallel: Lumber Increase=1.60, Plate Increase=1.60  
Uniform Loads (plf)  
Vert: 1-2=17, 2-3=27, 3-4=27, 4-5=47, 6-8=-12  
Horz: 1-2=-29, 2-3=-39  
Concentrated Loads (lb)  
Vert: 11=-219 12=-67(B) 13=-62(B)

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 10/03/2015 BEFORE USE.**

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Job 823690	Truss J38	Truss Type Jack-Open	Qty 6	Ply 1	H&H-SC/Trillium/ Job Reference (optional)	136912934
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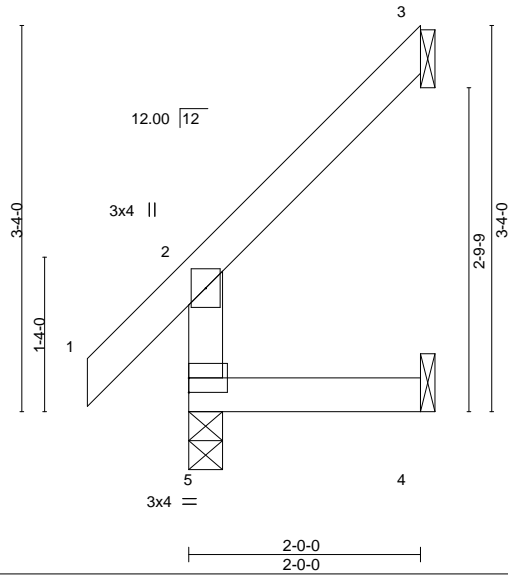
Builders FirstSource, Sumter, SC - 29153,

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Scale = 1:19.9



<b>LOADING</b> (psf)	<b>SPACING-</b>	2-0-0	<b>CSI.</b>	<b>DEFL.</b>	in	(loc)	l/defl	L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL 20.0	Plate Grip DOL	1.15	TC 0.42	Vert(LL)	0.01	4-5	>999	240	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.26	Vert(CT)	0.01	4-5	>999	180		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.00	Horz(CT)	-0.02	3	n/a	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-MR						Weight: 11 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 2-0-0 oc purlins, except end verticals.  
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS.** (lb/size) 5=152/0-3-8, 3=40/Mechanical, 4=16/Mechanical  
 Max Horz 5=162(LC 12)  
 Max Uplift 3=-135(LC 12), 4=-47(LC 12)  
 Max Grav 5=152(LC 1), 3=79(LC 19), 4=49(LC 10)

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

**NOTES-**

- 1) Wind: ASCE 7-10; Vult=150mph (3-second gust) Vasd=119mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; end vertical 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) All bearings are assumed to be User Defined crushing capacity of 565 psi.
- 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) 4 except (jt=lb) 3=135.



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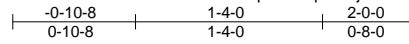
818 Soundside Road  
 Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	H&H-SC/Trillium/	136912935
823690	J39	Half Hip	4	1		

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ID:N9ZpacWqWTLlJebWrVVGbzZQOD-B8avpUyAnScb6k9cMFGd1\_rTks1\_DsqKyGdIS8zLpDp



Scale = 1:16.4

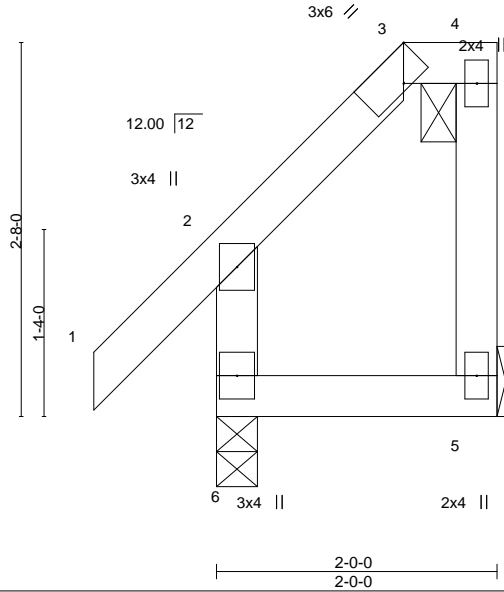


Plate Offsets (X,Y)--	[3:0-2-8,Edge]								
<b>LOADING</b> (psf)	<b>SPACING-</b>	2-0-0	<b>CSI.</b>	<b>DEFL.</b>	in (loc)	l/defl	L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL 20.0	Plate Grip DOL	1.15	TC 0.32	Vert(LL)	-0.00	6	>999	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.18	Vert(CT)	-0.00	5-6	>999		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.00	Horz(CT)	-0.00	5	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-MR						
								Weight: 14 lb	FT = 20%

<b>LUMBER-</b>		<b>BRACING-</b>	
TOP CHORD	2x4 SP No.2	TOP CHORD	Structural wood sheathing directly applied or 2-0-0 oc purlins, except end verticals, and 2-0-0 oc purlins: 3-4.
BOT CHORD	2x4 SP No.2	BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS	2x4 SP No.3		

**REACTIONS.** (lb/size) 5=50/Mechanical, 6=148/0-3-8  
 Max Horz 6=188(LC 9)  
 Max Uplift 5=-143(LC 9), 6=-60(LC 8)  
 Max Grav 5=95(LC 10), 6=174(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=150mph (3-second gust) Vasd=119mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; 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) All bearings are assumed to be User Defined crushing capacity of 565 psi.
- 7) Refer to girder(s) for truss to truss connections.
- 8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 6 except (jt=lb) 5=143.
- 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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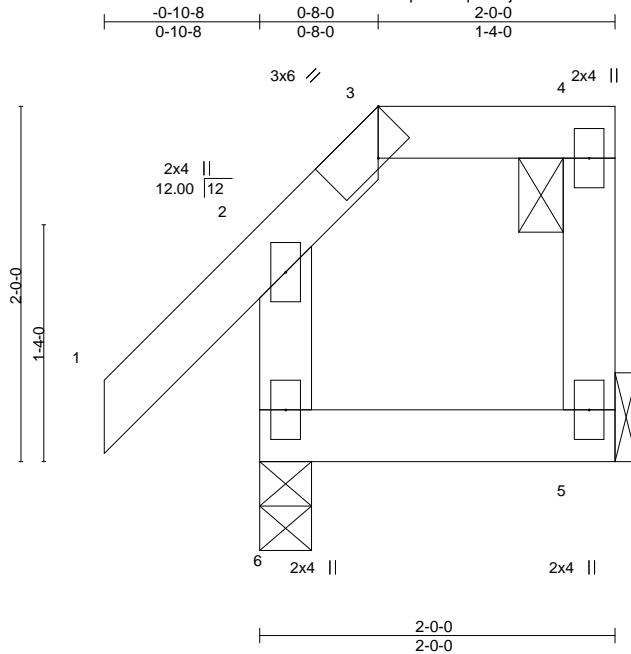
<p><b>WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 10/03/2015 BEFORE USE.</b></p> <p>Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see <b>ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information</b> available from Truss Plate Institute, 218 N. Lee Street, Suite 312, Alexandria, VA 22314.</p>	<p>ENGINEERING BY</p> <p><b>TRENCO</b></p> <p>A MiTek Affiliate</p> <p>818 Soundside Road Edenton, NC 27932</p>
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Job	Truss	Truss Type	Qty	Ply	H&H-SC/Trillium/	136912936
823690	J40	Half Hip	4	1		

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ID: N9ZpzacWqWTLjEbWrVVGbzZQOD-fl8l0qzo8AKSktpyvynsaBNgnGOHyJ4UBH?F\_azLpDo



Scale = 1:13.0

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

LOADING (psf)	SPACING-	CSL	DEFL.	PLATES	GRIP
TCLL 20.0	Plate Grip DOL 1.15	TC 0.24	in (loc) l/defl L/d	MT20	244/190
TCDL 10.0	Lumber DOL 1.15	BC 0.11	Vert(LL) -0.00 6 >999 240		
BCLL 0.0 *	Rep Stress Incr YES	WB 0.00	Vert(CT) -0.00 6 >999 180		
BCDL 10.0	Code IRC2015/TPI2014	Matrix-MR	Horz(CT) -0.00 5 n/a n/a		
				Weight: 12 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'-0" oc purlins, except end verticals, and 2'-0" oc purlins: 3-4.  
 BOT CHORD Rigid ceiling directly applied or 10'-0" oc bracing.

**REACTIONS.** (lb/size) 5=50/Mechanical, 6=148/0-3-8  
 Max Horz 6=143(LC 9)  
 Max Uplift 5=-99(LC 9), 6=-72(LC 12)  
 Max Grav 5=59(LC 24), 6=148(LC 1)

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

**NOTES-**

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-10; Vult=150mph (3-second gust) Vasd=119mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) -0-10-8 to 1-10-4 zone; 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
- Provide adequate drainage to prevent water ponding.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3'-6" tall by 2'-0" wide will fit between the bottom chord and any other members.
- All bearings are assumed to be User Defined crushing capacity of 565 psi.
- Refer to girder(s) for truss to truss connections.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 5, 6.
- 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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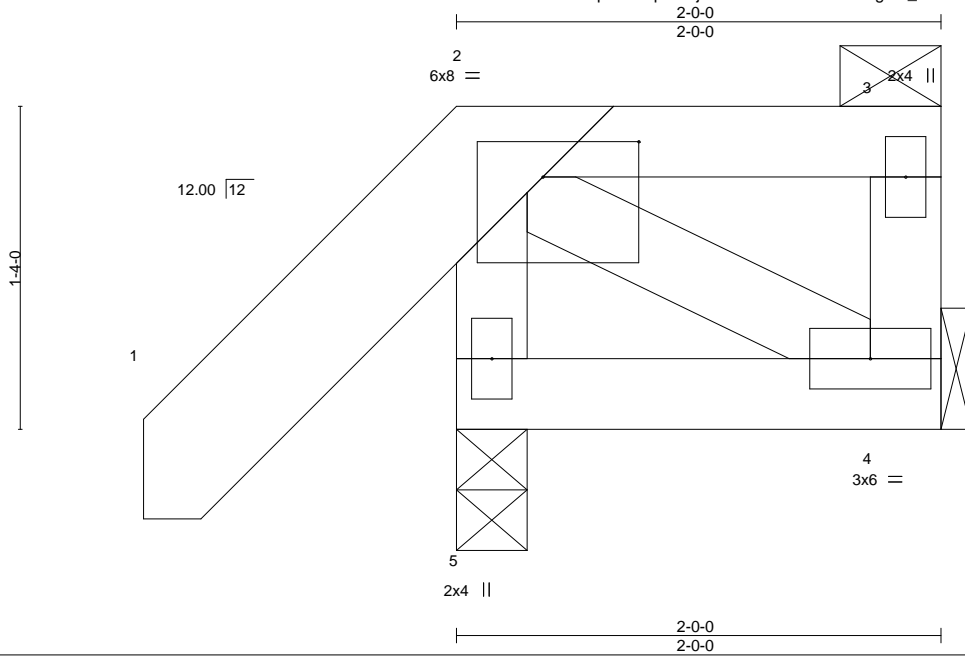
818 Soundside Road  
 Edenton, NC 27932

Job 823690	Truss J41	Truss Type FLAT	Qty 4	Ply 1	H&H-SC/Trillium/ Job Reference (optional)	136912937
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Builders FirstSource, Sumter, SC - 29153,

8.220 s Nov 16 2018 MiTek Industries, Inc. Mon Apr 29 15:56:44 2019 Page 1

ID:N9ZpacWqWTLjEbwVrVVGBzZQOD-7XigDA\_QvUTJL1J?Tgl56PwpAflnm?dPxlpW1zLpDn



Scale = 1:9.5

Plate Offsets (X,Y)--	[2:0-4-12,0-1-12]				
<b>LOADING</b> (psf)	<b>SPACING-</b> 2-0-0	<b>CSI.</b>	<b>DEFL.</b> in (loc) l/defl L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL 20.0	Plate Grip DOL 1.15	TC 0.33	Vert(LL) 0.00 5 >999 240	MT20	244/190
TCDL 10.0	Lumber DOL 1.15	BC 0.03	Vert(CT) -0.00 5 >999 180		
BCLL 0.0 *	Rep Stress Incr YES	WB 0.02	Horz(CT) -0.00 4 n/a n/a		
BCDL 10.0	Code IRC2015/TPI2014	Matrix-MP		Weight: 16 lb	FT = 20%

<b>LUMBER-</b>	<b>BRACING-</b>
TOP CHORD 2x4 SP No.2 *Except* 1-2: 2x6 SP No.2	TOP CHORD Structural wood sheathing directly applied or 2-0-0 oc purlins, except end verticals, and 2-0-0 oc purlins: 2-3.
BOT CHORD 2x4 SP No.2	BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.
WEBS 2x4 SP No.3	

**REACTIONS.** (lb/size) 5=178/0-3-8, 4=38/Mechanical  
 Max Horz 5=122(LC 9)  
 Max Uplift 5=102(LC 9), 4=43(LC 9)  
 Max Grav 5=178(LC 1), 4=42(LC 21)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-5=-162/257

**NOTES-**

- 1) Wind: ASCE 7-10; Vult=150mph (3-second gust) Vasd=119mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) -1-2-1 to 1-10-4 zone; end vertical left exposed; C-C for members and forces & MWFRS for reactions shown; 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) All bearings are assumed to be User Defined crushing capacity of 565 psi.
- 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) 4 except (jt=lb) 5=102.
- 8) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



May 1, 2019

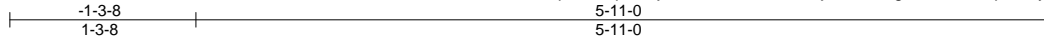
<p><b>WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 10/03/2015 BEFORE USE.</b></p> <p>Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see <b>ANSI/TP1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information</b> available from Truss Plate Institute, 218 N. Lee Street, Suite 312, Alexandria, VA 22314.</p>	<p>ENGINEERING BY  <b>TRENCO</b>        A MiTek Affiliate</p> <p>818 Soundside Road        Edenton, NC 27932</p>
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Job	Truss	Truss Type	Qty	Ply	H&H-SC/Trillium/	136912938
823690	J42	Monopitch	16	1		

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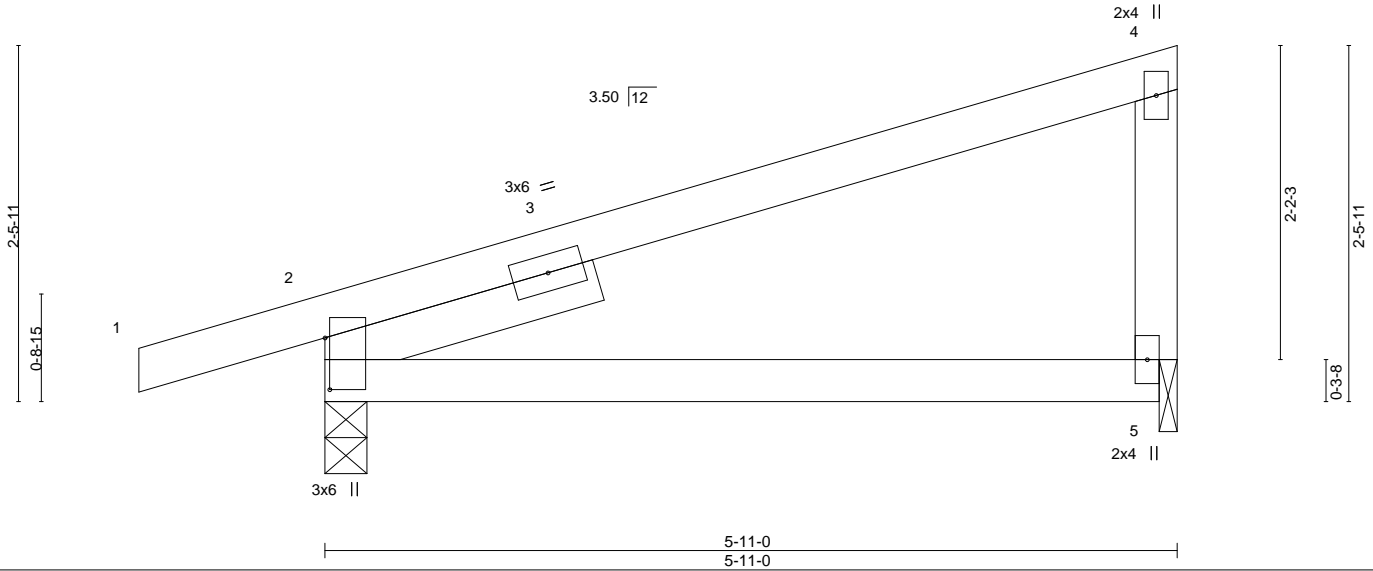


Plate Offsets (X,Y)--	[2-0-4-5,0-0-6]									
<b>LOADING</b> (psf)	<b>SPACING-</b>	2-0-0	<b>CSI.</b>	<b>DEFL.</b>	in	(loc)	l/defl	L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL 20.0	Plate Grip DOL 1.15		TC 0.49	Vert(LL) 0.09	5-8	>780	240		MT20	244/190
TCDL 10.0	Lumber DOL 1.15		BC 0.46	Vert(CT) -0.09	5-8	>729	240			
BCLL 0.0 *	Rep Stress Incr YES		WB 0.00	Horz(CT) -0.03	2	n/a	n/a			
BCDL 10.0	Code IRC2015/TPI2014		Matrix-AS						Weight: 26 lb	FT = 20%

<b>LUMBER-</b>		<b>BRACING-</b>	
TOP CHORD	2x4 SP No.2	TOP CHORD	Structural wood sheathing directly applied, except end verticals.
BOT CHORD	2x4 SP No.2	BOT CHORD	Rigid ceiling directly applied.
WEBS	2x4 SP No.3		
SLIDER	Left 2x4 SP No.3 1-11-12		

**REACTIONS.** (lb/size) 2=317/0-3-8, 5=222/0-1-8  
 Max Horz 2=152(LC 8)  
 Max Uplift 2=-219(LC 8), 5=-151(LC 12)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-4=-279/43

- NOTES-**
- 1) Wind: ASCE 7-10; Vult=150mph (3-second gust) Vasd=119mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; end vertical 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) All bearings are assumed to be User Defined crushing capacity of 565 psi.
  - 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) except (jt=lb) 2=219, 5=151.
  - 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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**ENGINEERING BY**  
**TRENCO**  
 A MiTek Affiliate

818 Soundside Road  
 Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	H&H-SC/Trillium/	136912939
823690	J43	Half Hip Girder	2	1		

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ID:N9ZpzacWqWTLjEbWrVvGBzZQOD-bjG2RW?2gnbAzBuB1NpKfcT1k33dQDomebUM3TzLpDm



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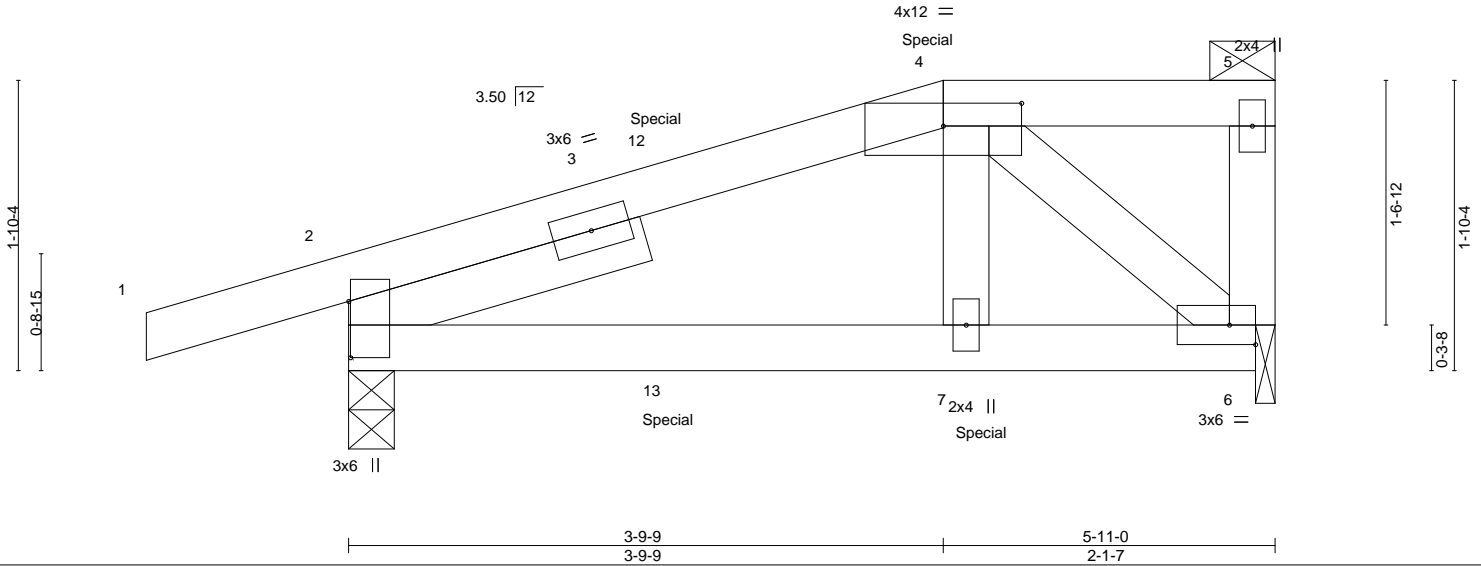


Plate Offsets (X,Y)--	[2-0-4-5,0-0-2], [4-0-6-0,0-1-12]
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LOADING (psf)	SPACING-	CSL.	DEFL.	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.15	in (loc) l/defl L/d	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.15	BC 0.12	Vert(LL) 0.01 7-10 >999 240		
BCLL 0.0 *	Lumber DOL 1.15	WB 0.04	Vert(CT) -0.01 7-10 >999 240		
BCDL 10.0	Rep Stress Incr NO	Matrix-MP	Horz(CT) -0.00 2 n/a n/a		
	Code IRC2015/TPI2014			Weight: 29 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x4 SP No.2	TOP CHORD Structural wood sheathing directly applied or 5-11-0 oc purlins, except end verticals, and 2-0-0 oc purlins: 4-5.
BOT CHORD 2x4 SP No.2	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 2x4 SP No.2	
SLIDER Left 2x4 SP No.2 1-11-12	

**REACTIONS.** (lb/size) 2=316/0-3-8, 6=220/0-1-8  
 Max Horz 2=118(LC 25)  
 Max Uplift 2=-250(LC 4), 6=-141(LC 4)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 WEBS 4-6=-253/158

- NOTES-**
- 1) Wind: ASCE 7-10; Vult=150mph (3-second gust) Vasd=119mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; 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) All bearings are assumed to be User Defined crushing capacity of 565 psi.
  - 6) Bearing at joint(s) 6 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
  - 7) Provide mechanical connection (by others) of truss to bearing plate at joint(s) 6.
  - 8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=250, 6=141.
  - 9) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
  - 10) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 78 lb down and 60 lb up at 2-0-12, and 92 lb down and 25 lb up at 3-9-9 on top chord, and 3 lb down and 10 lb up at 2-0-12, and 8 lb down and 15 lb up at 4-0-12 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
  - 11) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

**LOAD CASE(S)** Standard

- 1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15  
 Uniform Loads (plf)  
 Vert: 1-4=-60, 4-5=-60, 6-8=-20  
 Concentrated Loads (lb)  
 Vert: 7=5(F) 13=-1(F)

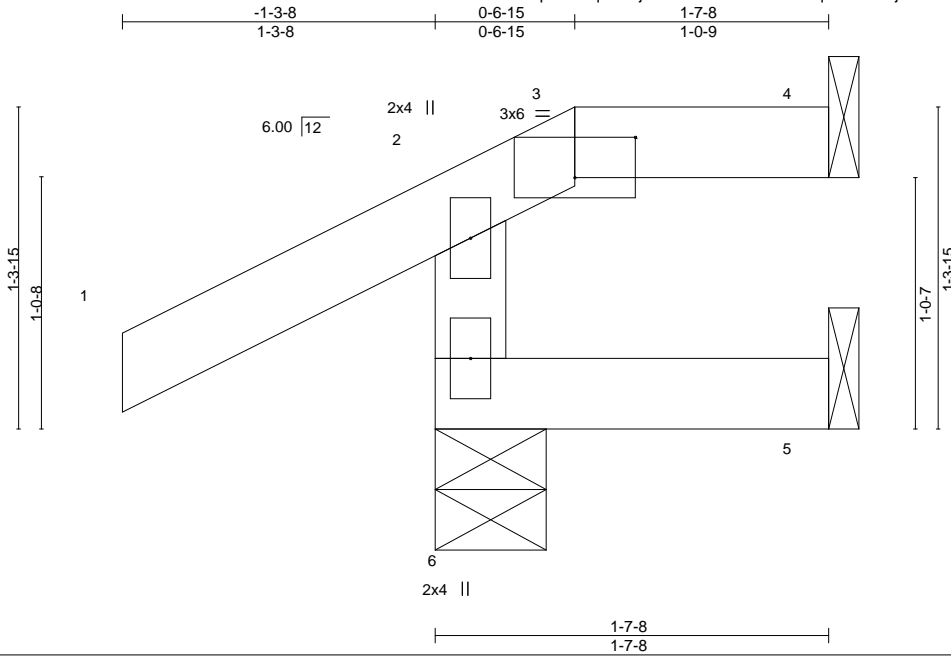


Job 823690	Truss J44	Truss Type Half Hip	Qty 2	Ply 1	H&H-SC/Trillium/ Job Reference (optional)	136912940
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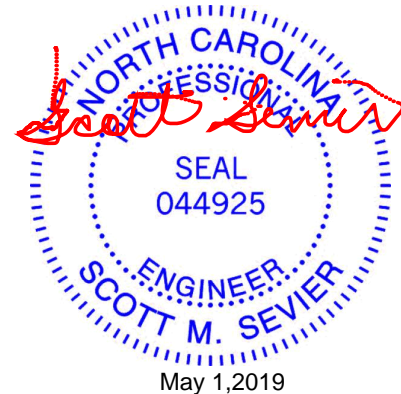
Plate Offsets (X,Y)--	[3:0-3-0,0-2-0]				
<b>LOADING</b> (psf)	<b>SPACING-</b> 2-0-0	<b>CSI.</b>	<b>DEFL.</b> in (loc) l/defl L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL 20.0	Plate Grip DOL 1.15	TC 0.25	Vert(LL) 0.00 6 >999 360	MT20	244/190
TCDL 10.0	Lumber DOL 1.15	BC 0.04	Vert(CT) -0.00 6 >999 240		
BCLL 0.0 *	Rep Stress Incr YES	WB 0.00	Horz(CT) -0.00 4 n/a n/a		
BCDL 10.0	Code IRC2015/TPI2014	Matrix-MR	Wind(LL) 0.00 6 >999 240	Weight: 8 lb	FT = 20%

<b>LUMBER-</b>	<b>BRACING-</b>
TOP CHORD 2x4 SP No.2	TOP CHORD Structural wood sheathing directly applied or 1-7-8 oc purlins, except end verticals, and 2-0-0 oc purlins: 3-4.
BOT CHORD 2x4 SP No.2	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 2x4 SP No.3	

**REACTIONS.** (lb/size) 4=12/Mechanical, 6=187/0-5-8, 5=5/Mechanical  
 Max Horz 6=68(LC 11)  
 Max Uplift 4=-35(LC 9), 6=-108(LC 12), 5=-2(LC 9)  
 Max Grav 4=30(LC 24), 6=187(LC 1), 5=24(LC 3)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-6=-162/279

- NOTES-**
- 1) Unbalanced roof live loads have been considered for this design.
  - 2) Wind: ASCE 7-10; Vult=150mph (3-second gust) Vasd=119mph; TC DL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) -1-3-8 to 1-7-6 zone; 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) All bearings are assumed to be User Defined crushing capacity of 565 psi.
  - 7) Refer to girder(s) for truss to truss connections.
  - 8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 4, 5 except (jt=lb) 6=108.
  - 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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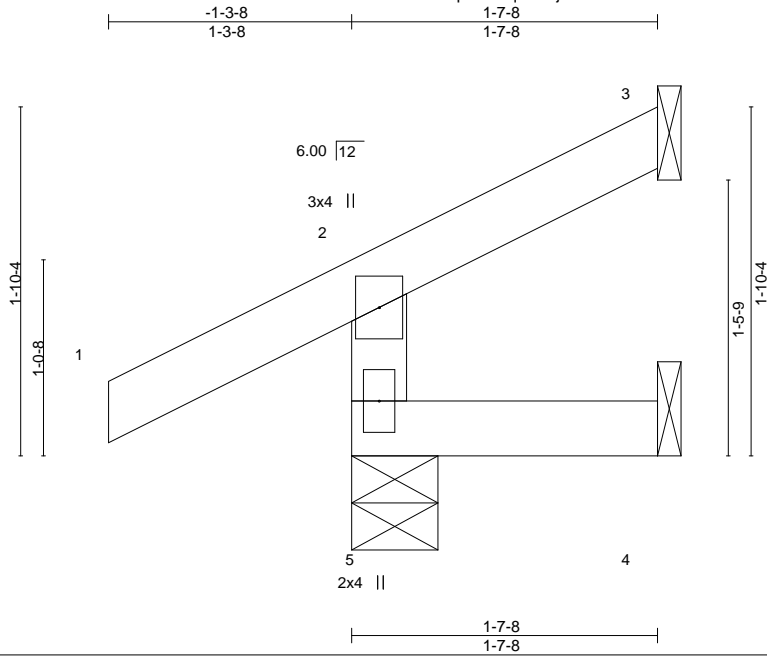


Job	Truss	Truss Type	Qty	Ply	H&H-SC/Trillium/	136912941
823690	J45	Jack-Open	2	1		
Job Reference (optional)						

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ID:N9ZpzacWqWTLjEbWrvVGBzZQOD-Y6OosCOJCoruCV1a8orok1YLlthU7335vzT7MzLpDk



Scale = 1:12.2

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 0.30	Vert(LL)	0.00	5	>999	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.08	Vert(CT)	-0.00	5	>999		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.00	Horz(CT)	-0.00	3	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-MR	Wind(LL)	0.00	4-5	>999		
								Weight: 8 lb	FT = 20%

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

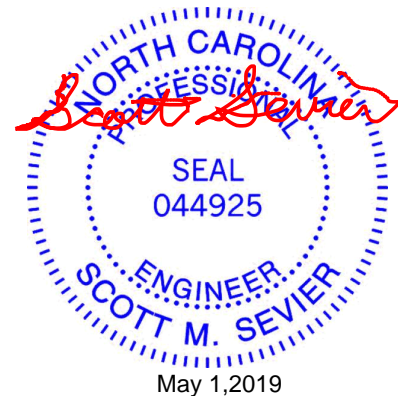
**BRACING-**  
 TOP CHORD Structural wood sheathing directly applied or 1-7-8 oc purlins, except end verticals.  
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS.** (lb/size) 5=187/0-5-8, 3=12/Mechanical, 4=4/Mechanical  
 Max Horz 5=84(LC 9)  
 Max Uplift 5=86(LC 12), 3=-42(LC 12), 4=-8(LC 9)  
 Max Grav 5=187(LC 1), 3=16(LC 19), 4=24(LC 3)

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

**NOTES-**

- 1) Wind: ASCE 7-10; Vult=150mph (3-second gust) Vasd=119mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; end vertical 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) All bearings are assumed to be User Defined crushing capacity of 565 psi.
- 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) 5, 3, 4.



**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 10/03/2015 BEFORE USE.**

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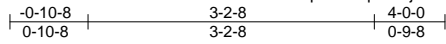
818 Soundside Road  
 Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	H&H-SC/Trillium/	136912942
823690	J46	Half Hip	1	1		
Job Reference (optional)						

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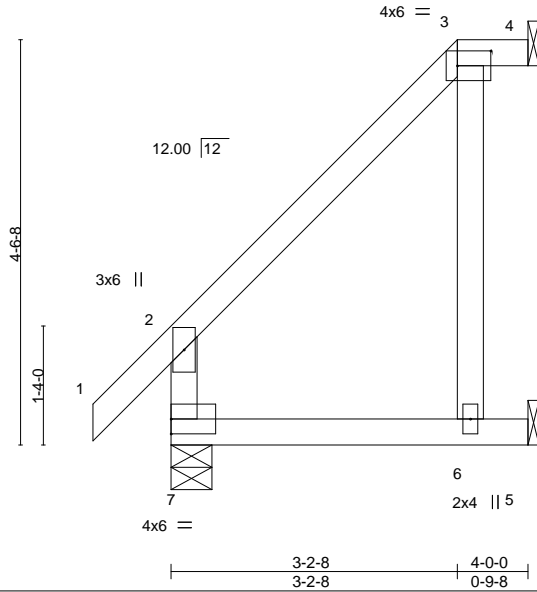


Plate Offsets (X,Y)--	[3:0-4-8,0-2-0]
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<b>LOADING</b> (psf)	<b>SPACING-</b>	2-0-0	<b>CSI.</b>	<b>DEFL.</b>	in (loc)	l/defl	L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL 20.0	Plate Grip DOL	1.15	TC 0.59	Vert(LL)	0.07	6-7	>666	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.43	Vert(CT)	0.06	6-7	>756		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.10	Horz(CT)	-0.13	4	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-MP						
								Weight: 23 lb	FT = 20%

<b>LUMBER-</b>	<b>BRACING-</b>
TOP CHORD 2x4 SP No.2	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 2x4 SP No.2	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 2x4 SP No.3	

**REACTIONS.** (lb/size) 4=27/Mechanical, 7=221/0-5-8, 5=116/Mechanical  
 Max Horz 7=251(LC 12)  
 Max Uplift 4=-24(LC 8), 5=-255(LC 12)  
 Max Grav 4=40(LC 21), 7=221(LC 1), 5=174(LC 19)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 WEBS 3-6=-280/326

- NOTES-**
- 1) Unbalanced roof live loads have been considered for this design.
  - 2) Wind: ASCE 7-10; Vult=150mph (3-second gust) Vasd=119mph; TC DL=6.0psf; BC DL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; end vertical left 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) All bearings are assumed to be User Defined crushing capacity of 565 psi.
  - 7) Refer to girder(s) for truss to truss connections.
  - 8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 4 except (jt=lb) 5=255.
  - 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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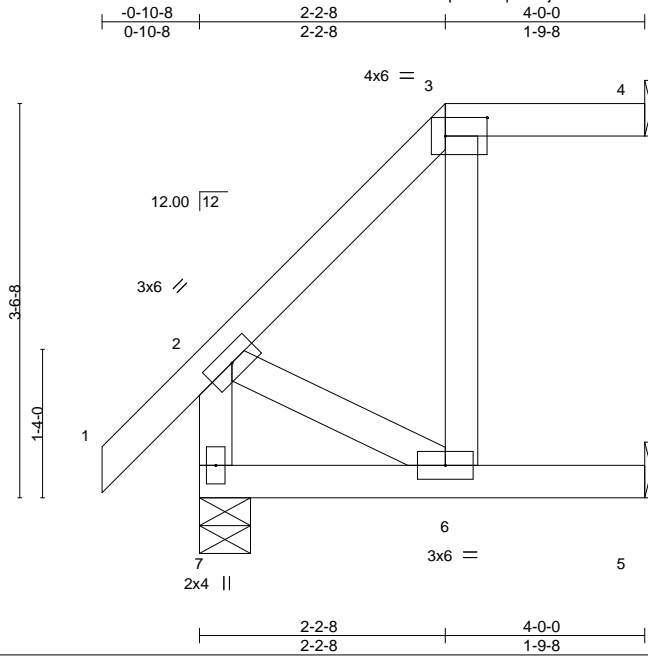
<p><b>WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 10/03/2015 BEFORE USE.</b></p> <p>Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see <b>ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information</b> available from Truss Plate Institute, 218 N. Lee Street, Suite 312, Alexandria, VA 22314.</p>	<p>ENGINEERING BY</p> <p><b>TRENCO</b></p> <p>A MiTek Affiliate</p> <p>818 Soundside Road Edenton, NC 27932</p>
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Job 823690	Truss J47	Truss Type Half Hip	Qty 1	Ply 1	H&H-SC/Trillium/ Job Reference (optional)	136912943
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ID:N9ZpacWqWTLljEbWrVVGbzZQOD-0lxB3Y1xzizlqfcmiVN1HF5XOH?RdZyDKZj0fozLpDj



Scale = 1:20.7

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

<b>LOADING</b> (psf)	<b>SPACING-</b>	2-0-0	<b>CSI.</b>	<b>DEFL.</b>	in (loc)	l/defl	L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL 20.0	Plate Grip DOL	1.15	TC 0.18	Vert(LL)	0.06	6-7	>741	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.50	Vert(CT)	-0.04	6	>999		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.09	Horz(CT)	-0.09	4	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-MP						
								Weight: 24 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 9-4-6 oc bracing.

**REACTIONS.** (lb/size) 4=52/Mechanical, 7=221/0-5-8, 5=92/Mechanical  
 Max Horz 7=181(LC 12)  
 Max Uplift 4=50(LC 8), 7=38(LC 12), 5=107(LC 12)  
 Max Grav 4=52(LC 1), 7=221(LC 1), 5=105(LC 19)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 BOT CHORD 6-7=-271/215  
 WEBS 2-6=-234/294

- NOTES-**
- 1) Unbalanced roof live loads have been considered for this design.
  - 2) Wind: ASCE 7-10; Vult=150mph (3-second gust) Vasd=119mph; TCdL=6.0psf; BCdL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; end vertical left 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) All bearings are assumed to be User Defined crushing capacity of 565 psi.
  - 7) Refer to girder(s) for truss to truss connections.
  - 8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 4, 7 except (jt=lb) 5=107.
  - 9) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



May 1, 2019

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 Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 218 N. Lee Street, Suite 312, Alexandria, VA 22314.

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

Job	Truss	Truss Type	Qty	Ply	H&H-SC/Trillium/	136912944
823690	J48	Half Hip	1	1		
Builders FirstSource, Sumter, SC - 29153,						Job Reference (optional)

8.220 s Nov 16 2018 MiTek Industries, Inc. Mon Apr 29 15:56:49 2019 Page 1  
 ID:N9ZpzacWqWTLjEbWrVVGbzZQOD-UVVZHu2Zk05cSoByGDuGpSdiKgMsM00MZDSaCEzLpDi

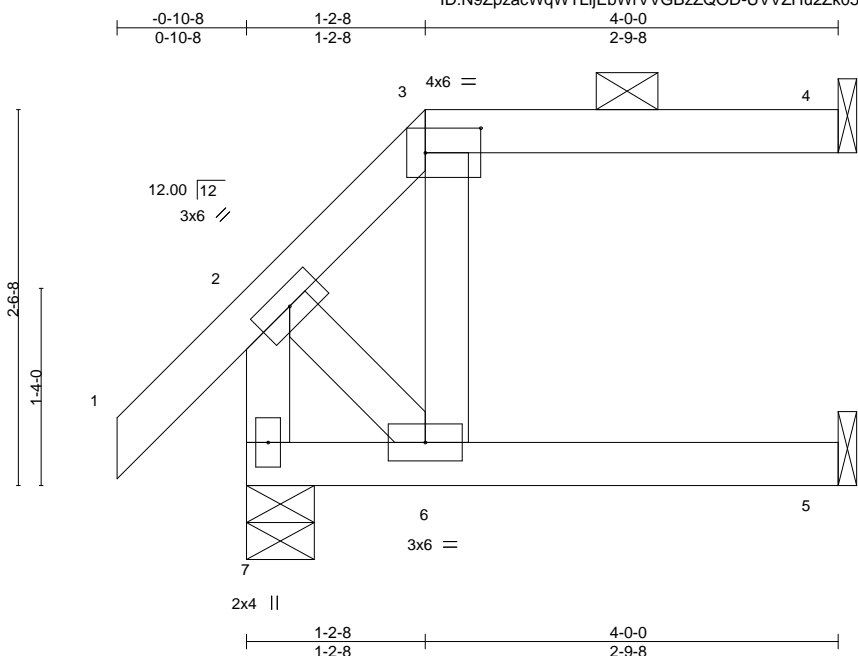


Plate Offsets (X,Y)--	[3:0-4-8,0-2-0]
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<b>LOADING</b> (psf)	<b>SPACING-</b>	2-0-0	<b>CSI.</b>	<b>DEFL.</b>	in (loc)	l/defl	L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL 20.0	Plate Grip DOL	1.15	TC 0.17	Vert(LL)	0.05	5-6	>898	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.42	Vert(CT)	-0.03	5-6	>999		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.08	Horz(CT)	-0.09	4	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-MP					Weight: 21 lb	FT = 20%

<b>LUMBER-</b>	<b>BRACING-</b>
TOP CHORD 2x4 SP No.2	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 2x4 SP No.2	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 2x4 SP No.3	

**REACTIONS.** (lb/size) 4=82/Mechanical, 7=221/0-5-8, 5=62/Mechanical  
 Max Horz 7=116(LC 9)  
 Max Uplift 4=-78(LC 8), 7=-71(LC 12), 5=-32(LC 9)  
 Max Grav 4=82(LC 1), 7=221(LC 1), 5=84(LC 3)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 WEBS 2-6=-206/253

- NOTES-**
- 1) Unbalanced roof live loads have been considered for this design.
  - 2) Wind: ASCE 7-10; Vult=150mph (3-second gust) Vasd=119mph; TC DL=6.0psf; BC DL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; end vertical left 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) All bearings are assumed to be User Defined crushing capacity of 565 psi.
  - 7) Refer to girder(s) for truss to truss connections.
  - 8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 4, 7, 5.
  - 9) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



May 1, 2019

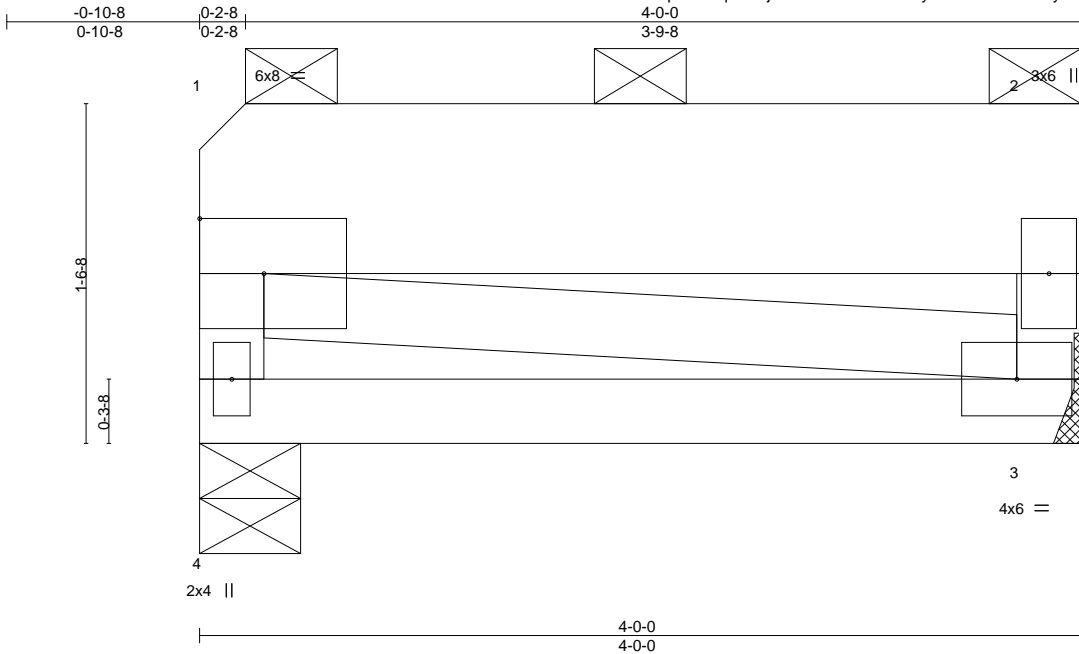
<p><b>WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 10/03/2015 BEFORE USE.</b></p> <p>Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see <b>ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information</b> available from Truss Plate Institute, 218 N. Lee Street, Suite 312, Alexandria, VA 22314.</p>	<p>818 Soundside Road Edenton, NC 27932</p>
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Job 823690	Truss J49	Truss Type HALF HIP GIRDER	Qty 1	Ply 1	H&H-SC/Trillium/ Job Reference (optional)	136912945
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Builders FirstSource, Sumter, SC - 29153,

8.220 s Nov 16 2018 MiTek Industries, Inc. Mon Apr 29 15:56:50 2019 Page 1

ID:N9ZpzacWqWTLlJebWrvVGBzZQOD-yh3xUD3BVJDT3ym9qwPVMgAuS4ja5TPWotC7khzLpDh



Scale = 1:10.5

LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	3-7-12 Plate Grip DOL 1.15	TC 0.08	Vert(LL) -0.02	3-4	>999	360	MT20	244/190
TCDL 10.0	Lumber DOL 1.15	BC 0.33	Vert(CT) -0.04	3-4	>999	240		
BCLL 0.0 *	Rep Stress Incr NO	WB 0.03	Horz(CT) 0.00	3	n/a	n/a		
BCDL 10.0	Code IRC2015/TPI2014	Matrix-MP	Wind(LL) 0.00	4	****	240	Weight: 28 lb	FT = 20%

**LUMBER-**

TOP CHORD 2x10 SP DSS  
 BOT CHORD 2x4 SP No.2  
 WEBS 2x4 SP No.2

**BRACING-**

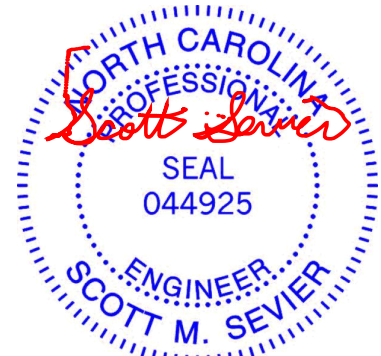
TOP CHORD 2-0-0 oc purlins, except end verticals  
 (Switched from sheeted: Spacing > 2-8-0).  
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS.** (lb/size) 3=270/Mechanical, 4=270/0-5-8  
 Max Horz 4=120(LC 9)  
 Max Uplift 3=-170(LC 9), 4=-170(LC 8)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-3=-203/310, 1-4=-203/338

**NOTES-**

- 1) Wind: ASCE 7-10; Vult=150mph (3-second gust) Vasd=119mph; TC DL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; 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) 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) All bearings are assumed to be User Defined crushing capacity of 565 psi.
- 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) except (jt=lb) 3=170, 4=170.
- 8) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



May 1, 2019

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 10/03/2015 BEFORE USE.**

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Job	Truss	Truss Type	Qty	Ply	H&H-SC/Trillium/	136912946
823690	K01	GABLE	3	1		

Builders FirstSource, Sumter, SC - 29153,

8.220 s Nov 16 2018 MiTek Industries, Inc. Mon Apr 29 15:56:51 2019 Page 1

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3x6 ||

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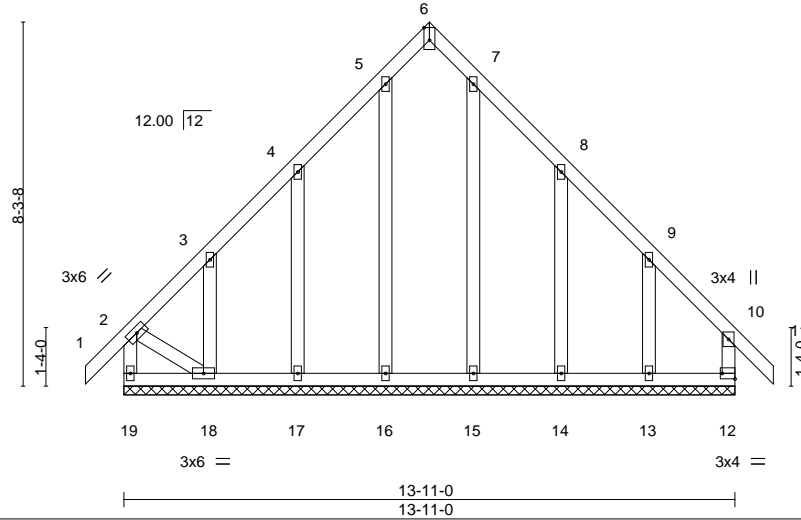


Plate Offsets (X,Y)-- [6:0-3-7,Edge], [12:Edge,0-1-8]

<b>LOADING</b> (psf)	<b>SPACING-</b>	2-0-0	<b>CSI.</b>	<b>DEFL.</b>	in (loc)	l/defl	L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL 20.0	Plate Grip DOL	1.15	TC 0.28	Vert(LL)	-0.00	11	n/r	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.27	Vert(CT)	-0.00	11	n/r		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.19	Horz(CT)	0.01	12	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-S						
								Weight: 102 lb	FT = 20%

<b>LUMBER-</b>	<b>BRACING-</b>
TOP CHORD 2x4 SP No.2	TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
BOT CHORD 2x4 SP No.2	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except: 6-0-0 oc bracing: 18-19.
WEBS 2x4 SP No.2 *Except*	
OTHERS 2x4 SP No.3	

**REACTIONS.** All bearings 13-11-0.  
 (lb) - Max Horz 19=-421(LC 10)  
 Max Uplift All uplift 100 lb or less at joint(s) 12, 16 except 19=-287(LC 10), 17=-287(LC 12), 18=-400(LC 12), 14=-259(LC 13), 13=-423(LC 13)  
 Max Grav All reactions 250 lb or less at joint(s) 12, 17, 15, 14 except 19=399(LC 9), 16=255(LC 19), 18=346(LC 10), 13=275(LC 11)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-19=-383/296, 2-3=-340/309, 3-4=-257/242, 4-5=-249/313, 7-8=-247/279, 9-10=-274/245  
 BOT CHORD 18-19=-390/381, 17-18=-241/295, 16-17=-241/295, 15-16=-241/295, 14-15=-241/295, 13-14=-241/295, 12-13=-241/295  
 WEBS 4-17=-328/336, 3-18=-261/224, 8-14=-314/309, 9-13=-336/336, 2-18=-307/370

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-10; Vult=150mph (3-second gust) Vasd=119mph; TC DL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; 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
  - 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.
  - All plates are 2x4 MT20 unless otherwise indicated.
  - Gable requires continuous bottom chord bearing.
  - Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
  - Gable studs spaced at 2-0-0 oc.
  - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - \* 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.
  - All bearings are assumed to be User Defined crushing capacity of 565 psi.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 12, 16 except (jt=lb) 19=287, 17=287, 18=400, 14=259, 13=423.



May 1, 2019

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**ENGINEERING BY**  
**TRENCO**  
 A MiTek Affiliate

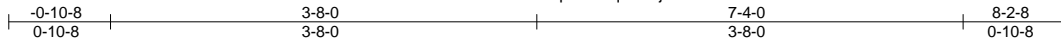
818 Soundside Road  
 Edenton, NC 27932

Job 823690	Truss L01	Truss Type Common	Qty 3	Ply 1	H&H-SC/Trillium/ Job Reference (optional)	136912947
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Builders FirstSource, Sumter, SC - 29153,

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ID:N9ZpzacWqWTLjEbWrVVGbzZQOD-u3Bhvv4R1xTAJGwXxLRzR5FEHuTCZNioFBhEozLpDf



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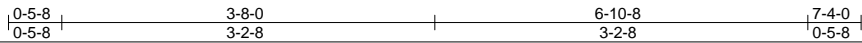
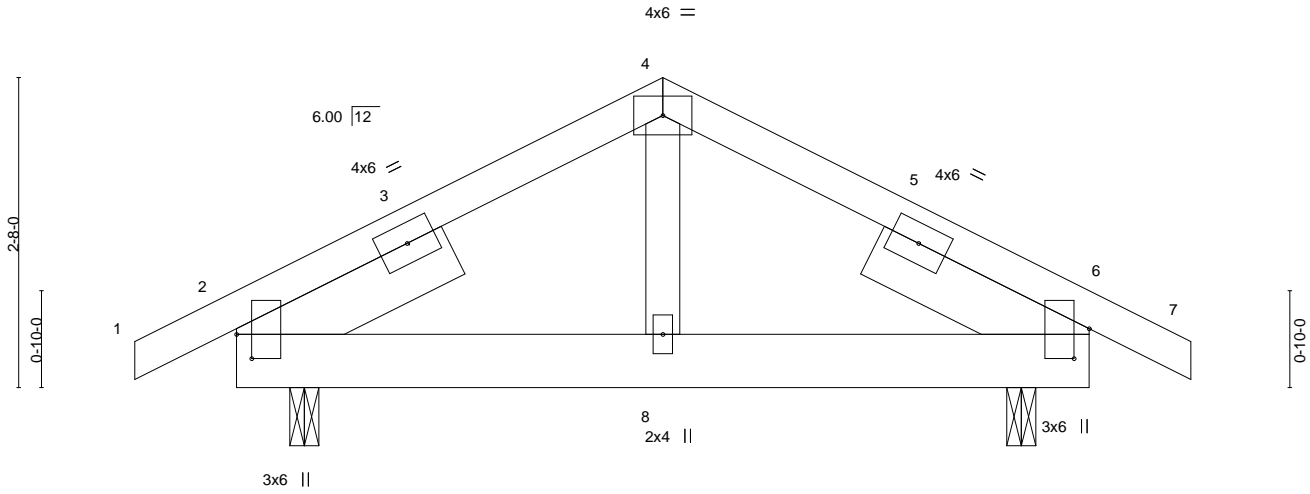


Plate Offsets (X,Y)--	[2:0-2-8,0-1-9], [6:0-3-1,0-1-9]
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LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.13	in (loc) l/defl L/d	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.15	BC 0.06	Vert(LL) 0.00 8 >999 240		
BCLL 0.0 *	Lumber DOL 1.15	WB 0.04	Vert(CT) -0.00 8 >999 240		
BCDL 10.0	Rep Stress Incr YES	Matrix-AS	Horz(CT) 0.00 6 n/a n/a		
	Code IRC2015/TPI2014			Weight: 45 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x4 SP No.2	TOP CHORD Structural wood sheathing directly applied.
BOT CHORD 2x6 SP No.2	BOT CHORD Rigid ceiling directly applied.
WEBS 2x4 SP No.3	
SLIDER Left 2x6 SP No.2 1-11-14, Right 2x6 SP No.2 1-11-14	

REACTIONS.	(lb/size)
	2=346/0-3-0, 6=346/0-3-0
	Max Horz 2=-68(LC 17)
	Max Uplift 2=-180(LC 9), 6=-180(LC 8)

FORCES.	(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD	2-4=-179/483, 4-6=-179/483
BOT CHORD	2-8=-264/160, 6-8=-264/160

- NOTES-**
- 1) Unbalanced roof live loads have been considered for this design.
  - 2) Wind: ASCE 7-10; Vult=150mph (3-second gust) Vasd=119mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; 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 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) All bearings are assumed to be User Defined crushing capacity of 565 psi.
  - 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=180, 6=180.
  - 7) 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.



May 1, 2019

<p><b>WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 10/03/2015 BEFORE USE.</b></p> <p>Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see <b>ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information</b> available from Truss Plate Institute, 218 N. Lee Street, Suite 312, Alexandria, VA 22314.</p>	<p>ENGINEERING BY</p> <p><b>TRENCO</b></p> <p>A MiTek Affiliate</p> <p>818 Soundside Road Edenton, NC 27932</p>
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Job	Truss	Truss Type	Qty	Ply	H&H-SC/Trillium/	136912948
823690	L02	Common	3	1		

Builders FirstSource, Sumter, SC - 29153,

8.220 s Nov 16 2018 MiTek Industries, Inc. Mon Apr 29 15:56:52 2019 Page 1

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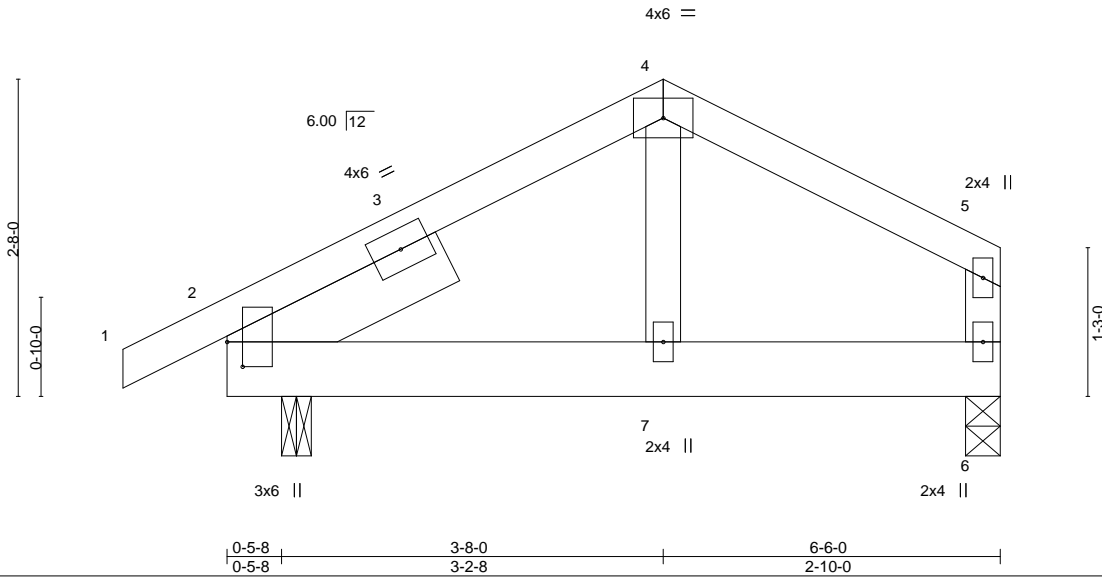


Plate Offsets (X,Y)-- [2:0-2-8,0-1-9]

LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.22	in (loc) l/defl L/d	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.15	BC 0.45	Vert(LL) -0.03 7 >999 360		
BCLL 0.0 *	Lumber DOL 1.15	WB 0.06	Vert(CT) -0.06 7 >999 240		
BCDL 10.0	Rep Stress Incr YES	Matrix-AS	Horz(CT) -0.02 2 n/a n/a		
	Code IRC2015/TPI2014		Wind(LL) 0.10 7 >773 240	Weight: 36 lb	FT = 20%

**LUMBER-**  
 TOP CHORD 2x4 SP No.2  
 BOT CHORD 2x6 SP No.2  
 WEBS 2x4 SP No.3  
 SLIDER Left 2x6 SP No.2 1-11-12

**BRACING-**  
 TOP CHORD Structural wood sheathing directly applied, except end verticals.  
 BOT CHORD Rigid ceiling directly applied.

**REACTIONS.** (lb/size) 2=334/0-3-0, 6=226/0-3-8  
 Max Horz 2=100(LC 12)  
 Max Uplift 2=-169(LC 12), 6=-122(LC 8)

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

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-10; Vult=150mph (3-second gust) Vasd=119mph; TC DL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; cantilever left exposed; end vertical left exposed; porch left exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - \* 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.
  - All bearings are assumed to be User Defined crushing capacity of 565 psi.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=169, 6=122.
  - 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.



**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 10/03/2015 BEFORE USE.**

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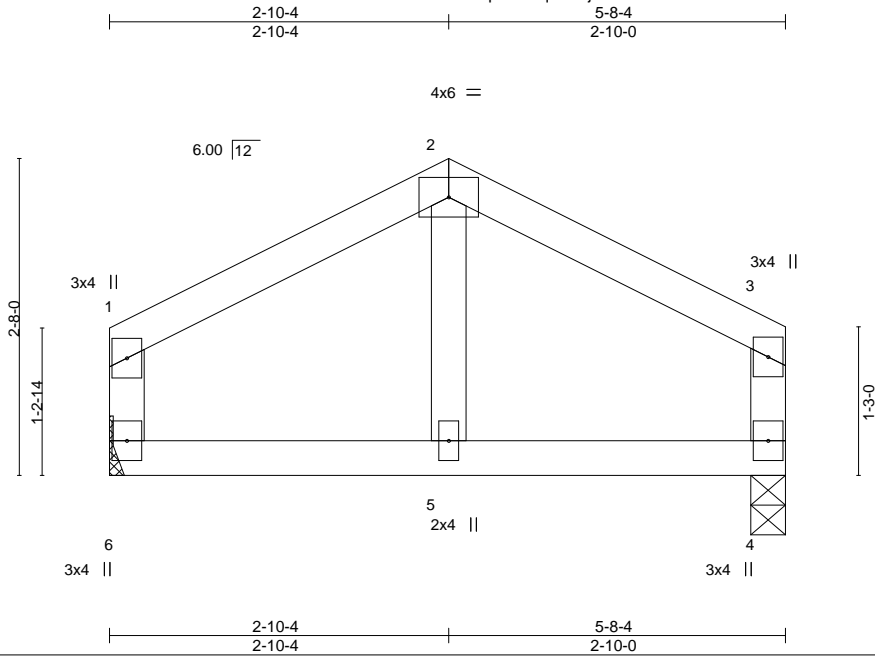


Job 823690	Truss L03	Truss Type Common	Qty 6	Ply 1	H&H-SC/Trillium/ Job Reference (optional)	136912949
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Builders FirstSource, Sumter, SC - 29153,

8.220 s Nov 16 2018 MiTek Industries, Inc. Mon Apr 29 15:56:53 2019 Page 1

ID:N9ZpzacWqWTLjEbWrVVGbZQOD-MGI46F54nEb1wQVkv3yC\_loKvInXlq8yUrQnL?zLpDe



Scale = 1:19.4

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)	0.02	5	>999	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.18	Vert(CT)	-0.01	5	>999		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.03	Horz(CT)	-0.00	4	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-AS					Weight: 24 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, except end verticals.  
 BOT CHORD Rigid ceiling directly applied.

**REACTIONS.** (lb/size) 6=216/Mechanical, 4=216/0-3-8  
 Max Horz 6=-78(LC 10)  
 Max Uplift 6=-106(LC 8), 4=-112(LC 8)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 1-2=-170/355, 2-3=-169/359, 1-6=-158/306, 3-4=-158/312

**NOTES-**

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-10; Vult=150mph (3-second gust) Vasd=119mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; end vertical left exposed; porch left 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) All bearings are assumed to be User Defined crushing capacity of 565 psi.
- 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) except (jt=lb) 6=106, 4=112.
- 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.



May 1, 2019

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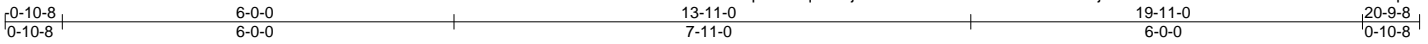
818 Soundside Road  
 Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	H&H-SC/Trillium/	136912950
823690	N01	GABLE	2	1		

Builders FirstSource, Sumter, SC - 29153,

8.220 s Nov 16 2018 MiTek Industries, Inc. Mon Apr 29 15:56:54 2019 Page 1

ID:N9ZpacWqWTLijEbWrVVBzZQOD-rSJSKb6iYYjuYa4w3mTRWWKZGh8t1Gc5iVALtSzLpDd



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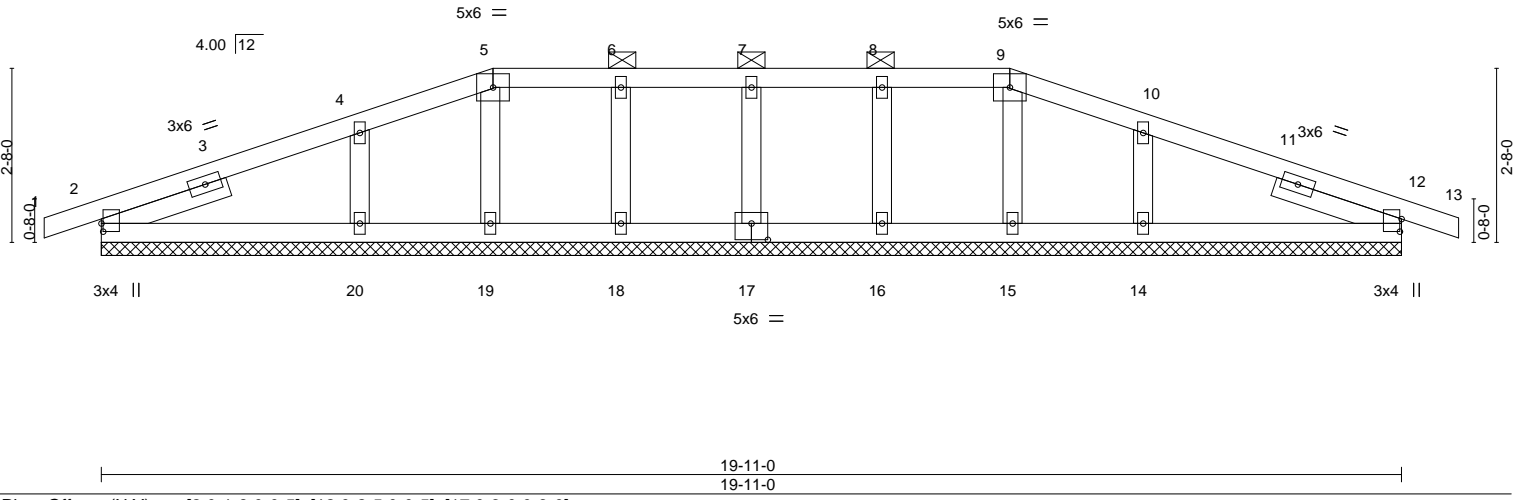


Plate Offsets (X,Y)--	[2:0-1-8,0-0-5], [12:0-2-5,0-0-5], [17:0-3-0,0-3-0]				
<b>LOADING</b> (psf)	<b>SPACING-</b> 2-0-0	<b>CSI.</b>	<b>DEFL.</b> in (loc) l/defl L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL 20.0	Plate Grip DOL 1.15	TC 0.16	Vert(LL) 0.00 13 n/r 120	MT20	244/190
TCDL 10.0	Lumber DOL 1.15	BC 0.11	Vert(CT) 0.01 13 n/r 120		
BCLL 0.0 *	Rep Stress Incr YES	WB 0.08	Horz(CT) 0.00 12 n/a n/a		
BCDL 10.0	Code IRC2015/TPI2014	Matrix-S		Weight: 89 lb	FT = 20%

<b>LUMBER-</b>	<b>BRACING-</b>
TOP CHORD 2x4 SP No.2	TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except
BOT CHORD 2x4 SP No.2	2-0-0 oc purlins (6-0-0 max.): 5-9.
OTHERS 2x4 SP No.3	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
SLIDER Left 2x4 SP No.3 2-0-6, Right 2x4 SP No.3 2-0-6	

**REACTIONS.** All bearings 19-11-0.  
 (lb) - Max Horz 2=-69(LC 13)  
 Max Uplift All uplift 100 lb or less at joint(s) 17, 18, 19, 16, 15 except 2=-167(LC 8), 20=-206(LC 12), 14=-201(LC 13), 12=-176(LC 9)  
 Max Grav All reactions 250 lb or less at joint(s) 2, 17, 18, 19, 16, 15, 12 except 20=297(LC 23), 14=297(LC 24)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 WEBS 4-20=-214/259, 10-14=-214/258

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-10; Vult=150mph (3-second gust) Vasd=119mph; TC DL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; 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
  - 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.
  - Provide adequate drainage to prevent water ponding.
  - All plates are 2x4 MT20 unless otherwise indicated.
  - Gable requires continuous bottom chord bearing.
  - Gable studs spaced at 2-0-0 oc.
  - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - \* 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.
  - All bearings are assumed to be User Defined crushing capacity of 565 psi.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 17, 18, 19, 16, 15 except (jt=lb) 2=167, 20=206, 14=201, 12=176.
  - Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



May 1, 2019

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**ENGINEERING BY**  
**TRENCO**  
 A MiTek Affiliate

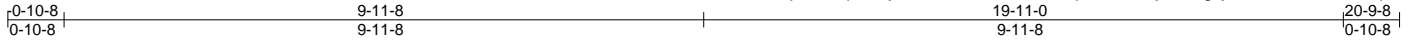
818 Soundside Road  
 Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	H&H-SC/Trillium/	136912951
823690	N02	COMMON	18	1		

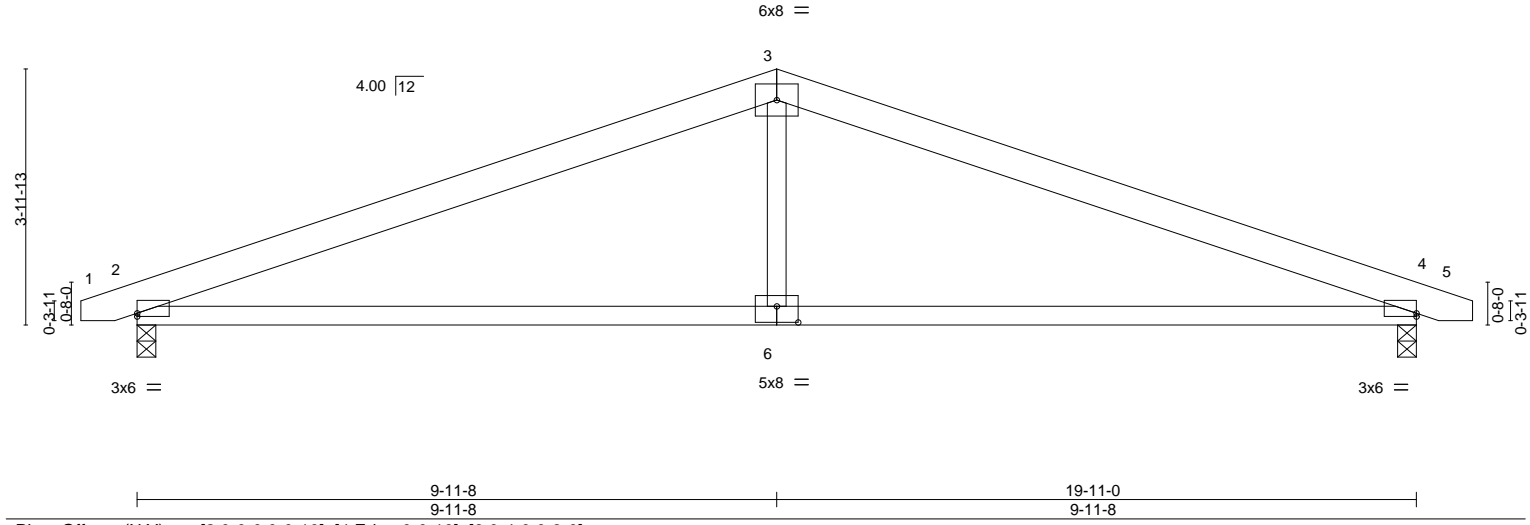
Builders FirstSource, Sumter, SC - 29153,

8.220 s Nov 16 2018 MiTek Industries, Inc. Mon Apr 29 15:56:55 2019 Page 1

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Scale = 1:35.9



LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.53	in (loc) l/defl L/d	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.15	BC 0.87	Vert(LL) -0.13 6-12 >999 360		
BCLL 0.0 *	Lumber DOL 1.15	WB 0.15	Vert(CT) -0.29 6-12 >837 240		
BCDL 10.0	Rep Stress Incr YES	Matrix-AS	Horz(CT) 0.03 4 n/a n/a		
	Code IRC2015/TPI2014		Wind(LL) 0.14 6-9 >999 240	Weight: 88 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x6 SP No.2	TOP CHORD Structural wood sheathing directly applied.
BOT CHORD 2x4 SP No.2	BOT CHORD Rigid ceiling directly applied.
WEBS 2x4 SP No.3	

**REACTIONS.** (lb/size) 2=833/0-3-8, 4=833/0-3-8  
 Max Horz 2=106(LC 12)  
 Max Uplift 2=440(LC 8), 4=440(LC 9)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-3=-1417/921, 3-4=-1417/921  
 BOT CHORD 2-6=-718/1265, 4-6=-718/1265  
 WEBS 3-6=0/402

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-10; Vult=150mph (3-second gust) Vasd=119mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; 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
  - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - \* 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.
  - All bearings are assumed to be User Defined crushing capacity of 565 psi.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=440, 4=440.
  - 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.



May 1, 2019

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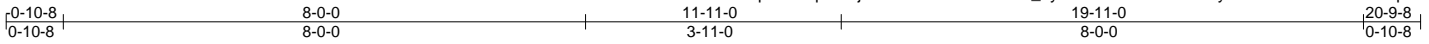
Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 218 N. Lee Street, Suite 312, Alexandria, VA 22314.

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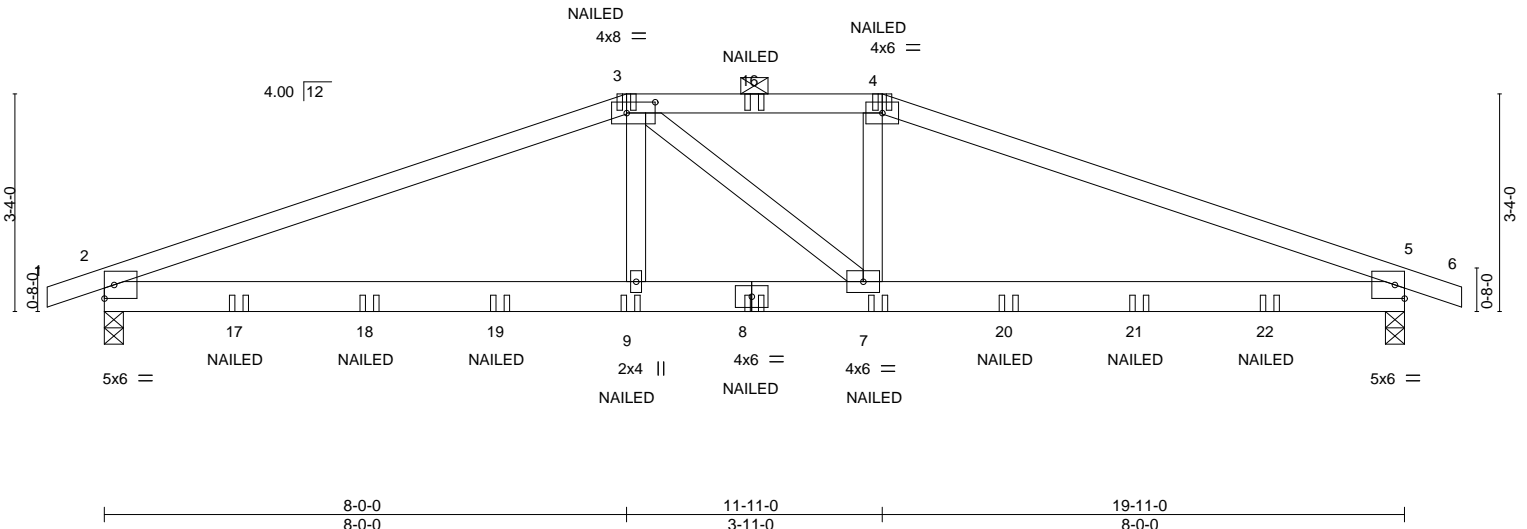
Job	Truss	Truss Type	Qty	Ply	H&H-SC/Trillium/	136912952
823690	N03	Hip Girder	2	1		
Builders FirstSource, Sumter, SC - 29153,						Job Reference (optional)

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ID:N9ZpacWqWTLljEbWrVVGbzZQOD-F1\_ayd8arT5TP1oVku1888ytcv2mEeZXPSo?UnzLpDa



Scale = 1:35.3



LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL	1.15	TC 0.98	Vert(LL)	0.19	7-15	>999	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.55	Vert(CT)	-0.13	7-15	>999		
BCLL 0.0 *	Rep Stress Incr	NO	WB 0.06	Horz(CT)	-0.03	5	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-MS					Weight: 94 lb	FT = 20%

**LUMBER-**  
 TOP CHORD 2x4 SP No.2  
 BOT CHORD 2x6 SP No.2  
 WEBS 2x4 SP No.2

**BRACING-**  
 TOP CHORD Structural wood sheathing directly applied, except 2-0-0 oc purlins (4-7-7 max.): 3-4.  
 BOT CHORD Rigid ceiling directly applied or 5-3-2 oc bracing.

**REACTIONS.** (lb/size) 2=935/0-3-8, 5=935/0-3-8  
 Max Horz 2=89(LC 8)  
 Max Uplift 2=-1013(LC 4), 5=-1013(LC 5)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-3=-1644/1896, 3-4=-1489/1871, 4-5=-1643/1894  
 BOT CHORD 2-9=-1727/1481, 7-9=-1739/1491, 5-7=-1650/1480  
 WEBS 4-7=-252/245

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-10; Vult=150mph (3-second gust) Vasd=119mph; TCdL=6.0psf; BCdL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
  - Provide adequate drainage to prevent water ponding.
  - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - \* 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.
  - All bearings are assumed to be User Defined crushing capacity of 565 psi.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=1013, 5=1013.
  - Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
  - "NAILED" indicates 3-10d (0.148"x3") or 3-12d (0.148"x3.25") toe-nails per NDS guidelines.
  - 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

- Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15  
 Uniform Loads (plf)  
 Vert: 1-3=-60, 3-4=-60, 4-6=-60, 10-13=-20  
 Concentrated Loads (lb)  
 Vert: 8=1(B) 9=1(B) 7=1(B) 17=-18(B) 18=-39(B) 19=-30(B) 20=-30(B) 21=-39(B) 22=-18(B)



May 1, 2019

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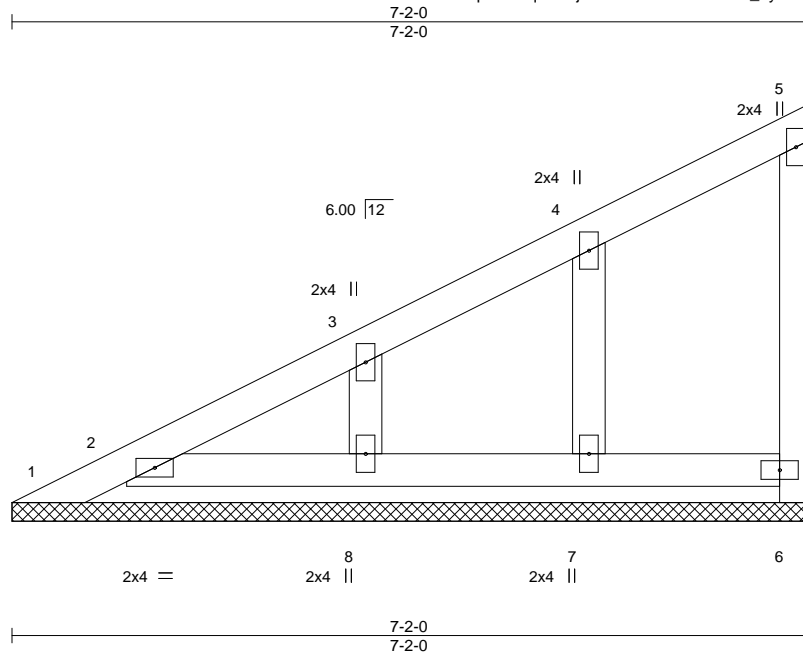
818 Soundside Road  
 Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	H&H-SC/Trillium/	136912953
823690	PB01	GABLE	2	1		
Builders FirstSource, Sumter, SC - 29153,						Job Reference (optional)

Builders FirstSource, Sumter, SC - 29153,

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ID:N9ZpzacWqWTLjEbWrVVGbZQOD-F1\_ayd8arT5TP1oVku1888y2gvAIEdNXPSO?UnzLpDa



Scale = 1:20.6

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 0.28	Vert(LL)	n/a	-	n/a	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.04	Vert(CT)	n/a	-	n/a		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.07	Horz(CT)	-0.00	9	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-P					Weight: 30 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 end verticals.  
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS.** All bearings 7-2-0.  
 (lb) - Max Horz 1=237(LC 9)  
 Max Uplift All uplift 100 lb or less at joint(s) 1, 2, 6 except 7=-133(LC 12), 8=-134(LC 12)  
 Max Grav All reactions 250 lb or less at joint(s) 1, 2, 6, 7, 8

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 1-2=-537/326, 2-3=-370/200  
 WEBS 3-8=-143/252

- NOTES-** (11)
- 1) Wind: ASCE 7-10; Vult=150mph (3-second gust) Vasd=119mph; TC DL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; 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) 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.
  - 3) Gable requires continuous bottom chord bearing.
  - 4) Gable studs spaced at 2-0-0 oc.
  - 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) All bearings are assumed to be User Defined crushing capacity of 565 psi.
  - 8) Bearing at joint(s) 1, 9, 2, 6 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
  - 9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 2, 6 except (jt=lb) 7=133, 8=134.
  - 10) See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.
  - 11) This manufactured truss is designed as an individual building component. The suitability and use of this component for any particular building is the responsibility of the building designer per ANSI TPI 1 as referenced by the building code.



May 1, 2019

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 Edenton, NC 27932





Job	Truss	Truss Type	Qty	Ply	H&H-SC/Trillium/	136912956
823690	PB04	GABLE	2	1		

Builders FirstSource, Sumter, SC - 29153,

8.220 s Nov 16 2018 MiTek Industries, Inc. Mon Apr 29 15:57:00 2019 Page 1

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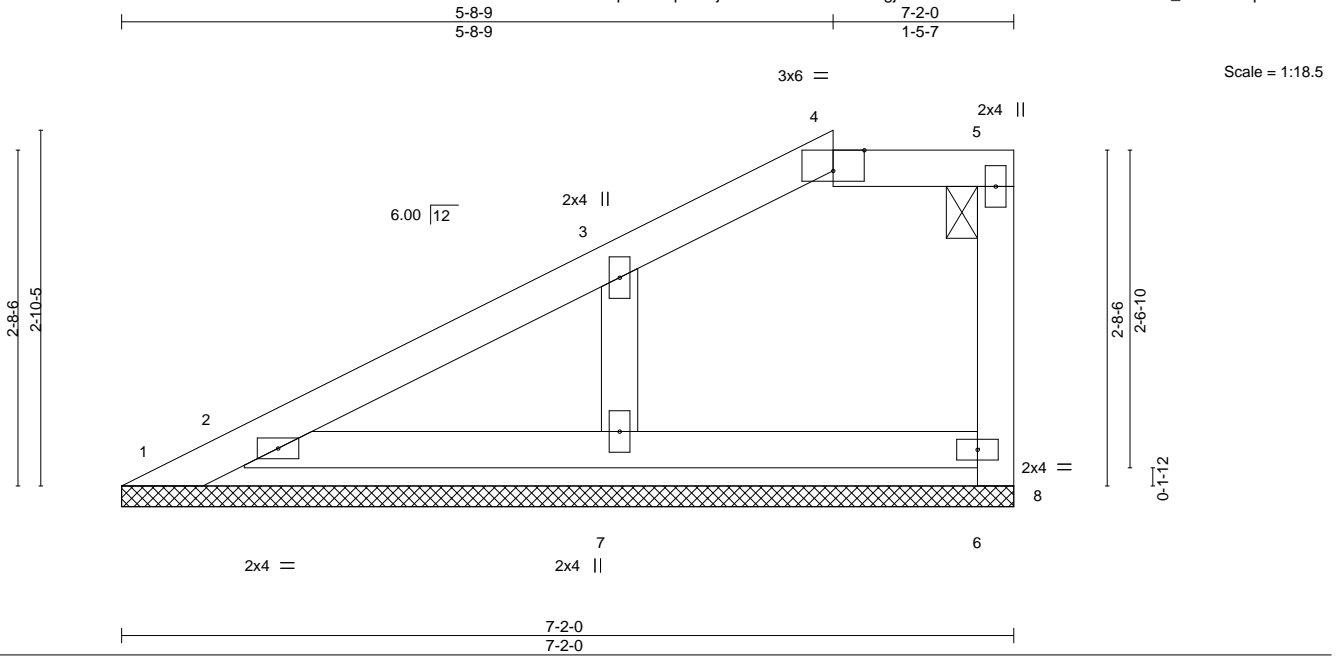


Plate Offsets (X,Y)--	[4:0-3-0,Edge]				
<b>LOADING</b> (psf)	<b>SPACING-</b> 2-0-0	<b>CSI.</b>	<b>DEFL.</b> in (loc) l/defl L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL 20.0	Plate Grip DOL 1.15	TC 0.48	Vert(LL) n/a - n/a 999	MT20	244/190
TCDL 10.0	Lumber DOL 1.15	BC 0.09	Vert(CT) n/a - n/a 999		
BCLL 0.0 *	Rep Stress Incr YES	WB 0.17	Horz(CT) 0.01 8 n/a n/a		
BCDL 10.0	Code IRC2015/TPI2014	Matrix-P		Weight: 26 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 end verticals, and 2-0-0 oc purlins: 4-5.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS.** All bearings 7-2-0.  
(lb) - Max Horz 1=179(LC 9)  
Max Uplift All uplift 100 lb or less at joint(s) 1, 6 except 2=111(LC 12), 7=214(LC 12)  
Max Grav All reactions 250 lb or less at joint(s) 1, 2, 6 except 7=362(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 1-2=-385/232, 2-3=-280/170  
WEBS 3-7=-341/560

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-10; Vult=150mph (3-second gust) Vasd=119mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; 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
  - 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.
  - Provide adequate drainage to prevent water ponding.
  - Gable requires continuous bottom chord bearing.
  - Gable studs spaced at 4-0-0 oc.
  - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - \* 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.
  - All bearings are assumed to be User Defined crushing capacity of 565 psi.
  - Bearing at joint(s) 1, 8, 2, 6 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 6 except (jt=lb) 2=111, 7=214.
  - See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.
  - Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



May 1, 2019

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 10/03/2015 BEFORE USE.**

Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 218 N. Lee Street, Suite 312, Alexandria, VA 22314.



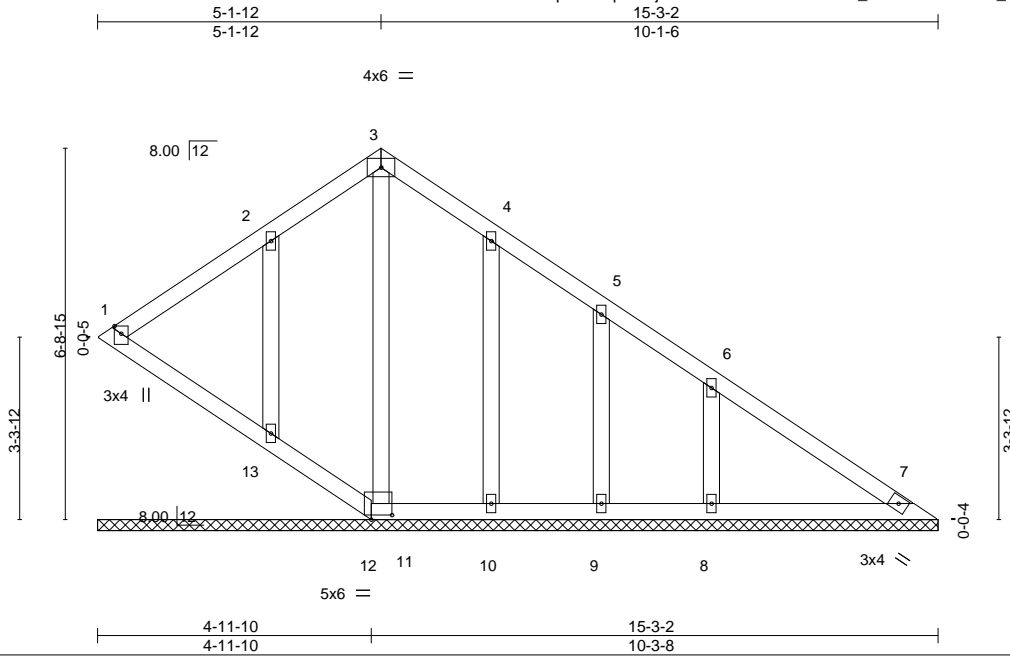
818 Soundside Road  
Edenton, NC 27932



Job 823690	Truss V01	Truss Type GABLE	Qty 3	Ply 1	H&H-SC/Trillium/ Job Reference (optional)	136912957
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Builders FirstSource, Sumter, SC - 29153,

8.220 s Nov 16 2018 MiTek Industries, Inc. Mon Apr 29 15:57:01 2019 Page 1  
ID:N9ZpzacWqWTLjEbWrVVGbZQOD-7oE5o\_B5vicvuf6Gzk54J\_7lvWXIAQ57J4MCDyZLpDW



Scale = 1:41.8

Plate Offsets (X,Y)--	[11:0-1-12,0-0-0], [12:0-4-8,0-1-0], [12:0-0-0,0-1-12]				
<b>LOADING</b> (psf)	<b>SPACING-</b> 2-0-0	<b>CSI.</b>	<b>DEFL.</b> in (loc) l/defl L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL 20.0	Plate Grip DOL 1.15	TC 0.20	Vert(LL) n/a - n/a 999	MT20	244/190
TCDL 10.0	Lumber DOL 1.15	BC 0.10	Vert(CT) n/a - n/a 999		
BCLL 0.0 *	Rep Stress Incr YES	WB 0.16	Horz(CT) 0.01 7 n/a n/a		
BCDL 10.0	Code IRC2015/TPI2014	Matrix-S		Weight: 80 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 15-3-2.  
(lb) - Max Horz 1=317(LC 13)  
Max Uplift All uplift 100 lb or less at joint(s) 11 except 12=138(LC 13), 13=228(LC 12), 10=166(LC 13),  
9=105(LC 13), 8=280(LC 13)  
Max Grav All reactions 250 lb or less at joint(s) 1, 7, 12, 11, 10, 9 except 13=300(LC 19), 8=359(LC 20)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 2-3=-232/268  
BOT CHORD 1-13=-196/256, 12-13=-175/254  
WEBS 2-13=-284/251, 6-8=-349/304

- NOTES-** (10)
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-10; Vult=150mph (3-second gust) Vasd=119mph; TC DL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; 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
  - All plates are 2x4 MT20 unless otherwise indicated.
  - Gable requires continuous bottom chord bearing.
  - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - \* 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.
  - All bearings are assumed to be User Defined crushing capacity of 565 psi.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 11 except (jt=lb) 12=138, 13=228, 10=166, 9=105, 8=280.
  - Beveled plate or shim required to provide full bearing surface with truss chord at joint(s) 1, 13.
  - This manufactured truss is designed as an individual building component. The suitability and use of this component for any particular building is the responsibility of the building designer per ANSI TPI 1 as referenced by the building code.



May 1, 2019

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 10/03/2015 BEFORE USE.**

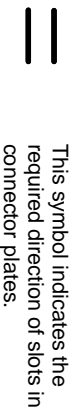
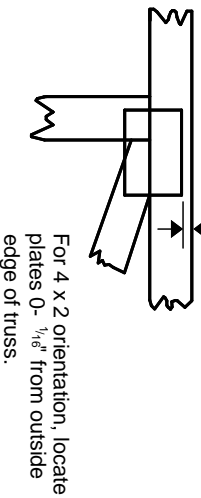
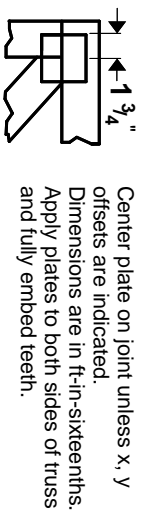
Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 218 N. Lee Street, Suite 312, Alexandria, VA 22314.



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# Symbols

## PLATE LOCATION AND ORIENTATION



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

## PLATE SIZE

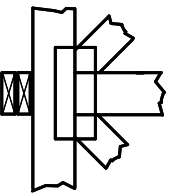
**4 X 4**

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

## LATERAL BRACING LOCATION



## BEARING

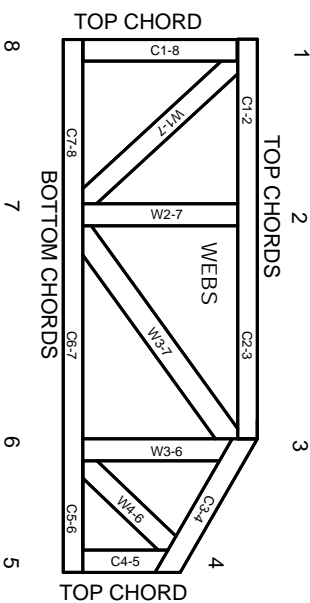


Indicates location where bearings (supports) occur. Icons vary but reaction section indicates joint number where bearings occur. Min size shown is for crushing only.

## Industry Standards:

ANSI/TPI 1: 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.