Julius Lee Engineering

RE: 308959 - RICHARD KEEN - LOT 30 EE

1109 Coastal Bay Blvd.
Boynton Beach, FL 33435

Site Information:
Project Customer: RICHARD KEEN Project Name: 308959 Model: CUSTOM
Lot/Block: 30 Subdivision: EDGEWOOD EST.
Address:
City: COLUMBIA CTY State: FL

Name Address and License # of Structural Engineer of Record, If there is one, for the building.
Name: JAMES H. JOHNSTON III License #: CRC1328128
Address: 650 SW MAIN BLVD.
City: LAKE CITY State: FL

General Truss Engineering Criteria & Design Loads (Individual Truss Design Drawings Show Special Loading Conditions):
Design Code: FBC2007/TPI2002 Design Program: MiTek 20/20 7.1
Wind Code: ASCE 7-05 Wind Speed: 110 mph Floor Load: N/A psf
Roof Load: 32.0 psf

This package includes 28 individual, dated Truss Design Drawings and 0 Additional Drawings.
With my seal affixed to this sheet, I hereby certify that I am the Truss Design Engineer and this index sheet conforms to 61G15-31.003, section 5 of the Florida Board of Professional Engineers Rules.
This document processed per section 16G15-23.003 of the Florida Board of Professionals Rules

In the event of changes from Builder or E.O.R. additional coversheets and drawings may accompany this coversheet. The latest approval dates supersede and replace the previous drawings.

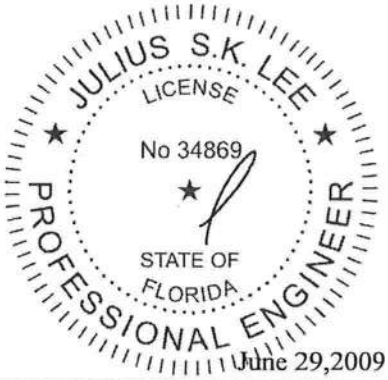
No.	Seal#	Truss Name	Date	No.	Seal#	Truss Name	Date
1	I4046145	CJ1	6/29/09	18	I4046162	T11	6/29/09
2	I4046146	CJ3	6/29/09	19	I4046163	T12	6/29/09
3	I4046147	CJ5	6/29/09	20	I4046164	T13	6/29/09
4	I4046148	EJ5	6/29/09	21	I4046165	T14	6/29/09
5	I4046149	EJ7	6/29/09	22	I4046166	T15	6/29/09
6	I4046150	HJ7	6/29/09	23	I4046167	T16	6/29/09
7	I4046151	HJ9	6/29/09	24	I4046168	T17	6/29/09
8	I4046152	T01	6/29/09	25	I4046169	T18	6/29/09
9	I4046153	T02	6/29/09	26	I4046170	T19	6/29/09
10	I4046154	T03	6/29/09	27	I4046171	T20	6/29/09
11	I4046155	T04	6/29/09	28	I4046172	T21	6/29/09
12	I4046156	T05	6/29/09				
13	I4046157	T06	6/29/09				
14	I4046158	T07	6/29/09				
15	I4046159	T08	6/29/09				
16	I4046160	T09	6/29/09				
17	I4046161	T10	6/29/09				

The truss drawing(s) referenced above have been prepared by MiTek Industries, Inc. under my direct supervision based on the parameters provided by Builders FirstSource (Lake City).

Truss Design Engineer's Name: Julius Lee

My license renewal date for the state of Florida is

NOTE: The seal on these drawings indicate acceptance of professional engineering responsibility solely for the truss components shown. The suitability and use of this component for any particular building is the responsibility of the building designer, per ANSI/TPI-1 Chapter 2.

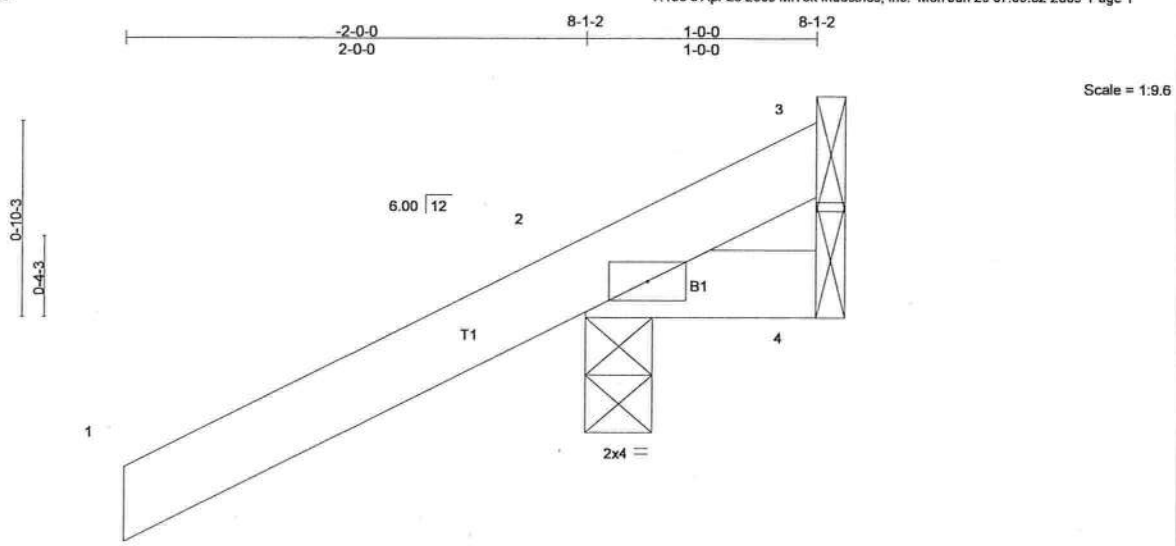


June 29,2009

Julius Lee

Job	Truss	Truss Type	Qty	Ply	RICHARD KEEN - LOT 30 EE	
308959	CJ1	JACK	14	1	Job Reference (optional)	I4046145

Builders FrstSource, Lake City, FL 32055 — 7.130 s Apr 28 2009 MiTek Industries, Inc. Mon Jun 29 07:09:32 2009 Page 1



LOADING (psf)		SPACING	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plates Increase	1.25	TC	0.34	Vert(LL)	-0.00	2	>999	360	MT20	244/190
TCDL	7.0	Lumber Increase	1.25	BC	0.01	Vert(TL)	-0.00	2	>999	240		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.00	Horz(TL)	0.00	3	n/a	n/a		
BCDL	5.0	Code FBC2007/TPI2002		(Matrix)		Wind(LL)	0.00	2	>999	240	Weight: 7 lb	

LUMBER
TOP CHORD 2 X 4 SYP No.2
BOT CHORD 2 X 4 SYP No.2

BRACING
TOP CHORD Structural wood sheathing directly applied or 1-0-0 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

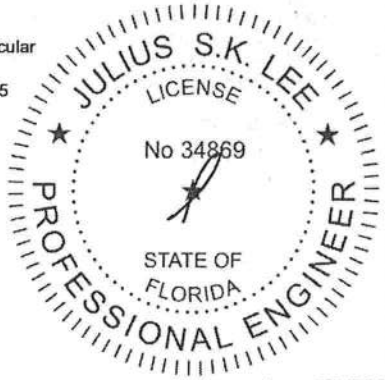
MiTek recommends that Stabilizers and required cross bracing be installed during truss erection, in accordance with Stabilizer Installation guide.

REACTIONS (lb/size) 2=256/0-1-8 (input: 0-3-8), 4=5/Mechanical, 3=-90/Mechanical
Max Horz 2=105(LC 6)
Max Uplift 2=-355(LC 6), 4=-12(LC 4), 3=-90(LC 1)
Max Grav 2=256(LC 1), 4=14(LC 2), 3=157(LC 6)

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

NOTES (8-9)
1) Wind: ASCE 7-05; 110mph (3-second gust); TCDL=4.2psf; BCDL=3.0psf; h=14ft; Cat. II; Exp C; enclosed; MWFRS (low-rise) gable end zone and C-C Exterior(2) zone; porch 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 SYP No.2 .
5) Refer to girder(s) for truss to truss connections.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 355 lb uplift at joint 2, 12 lb uplift at joint 4 and 90 lb uplift at joint 3.
7) "Semi-rigid pitchbreaks including heels" Member end fixity model was used in the analysis and design of this truss.
8) This manufactured product 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.
9) Truss Design Engineer: Julius Lee, PE: Florida P.E. License No. 34869: Address: 1109 Coastal Bay Blvd. Boynton Beach, FL 33435

LOAD CASE(S) Standard

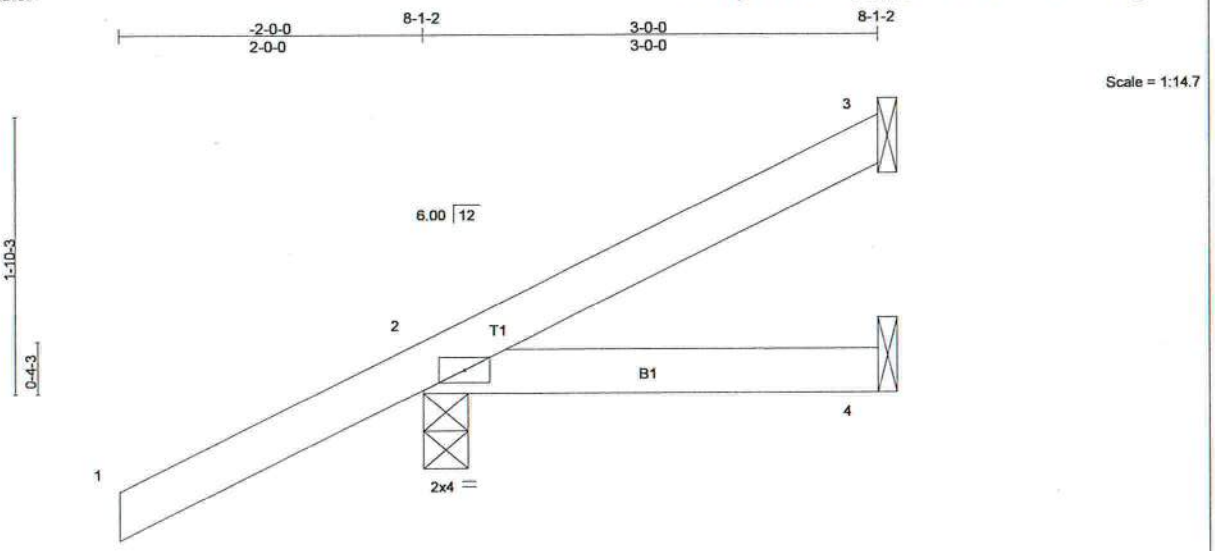


June 29,2009

Julius Lee Engineering
1109 Coastal Bay Blvd.
Boynton, FL 33435

Job	Truss	Truss Type	Qty	Ply	RICHARD KEEN - LOT 30 EE	I4046146
308959	CJ3	JACK	14	1	Job Reference (optional)	

Builders FrstSource, Lake City, FL 32055 — 7.130 s Apr 28 2009 MiTek Industries, Inc. Mon Jun 29 07:09:33 2009 Page 1



LOADING (psf)		SPACING	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plates Increase	1.25	TC	0.36	Vert(LL)	-0.00	2-4	>999	360	MT20	244/190
TCDL	7.0	Lumber Increase	1.25	BC	0.10	Vert(TL)	-0.01	2-4	>999	240		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.00	Horz(TL)	-0.00	3	n/a	n/a		
BCDL	5.0	Code FBC2007/TPI2002		(Matrix)		Wind(LL)	0.01	2-4	>999	240	Weight: 13 lb	

LUMBER
TOP CHORD 2 X 4 SYP No.2
BOT CHORD 2 X 4 SYP No.2

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

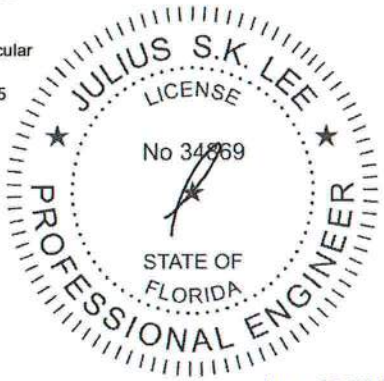
MiTek recommends that Stabilizers and required cross bracing be installed during truss erection, in accordance with Stabilizer Installation guide.

REACTIONS (lb/size) 3=31/Mechanical, 2=250/0-1-8 (input: 0-3-8), 4=14/Mechanical
Max Horz 2=159(LC 6)
Max Uplift 3=-35(LC 7), 2=-298(LC 6), 4=-34(LC 4)
Max Grav 3=31(LC 1), 2=250(LC 1), 4=42(LC 2)

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

NOTES (8-9)
1) Wind: ASCE 7-05; 110mph (3-second gust); TCDL=4.2psf; BCDL=3.0psf; h=14ft; Cat. II; Exp C; enclosed; MWFRS (low-rise) gable end zone and C-C Exterior(2) zone; porch 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 SYP No.2 .
5) Refer to girder(s) for truss to truss connections.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 35 lb uplift at joint 3, 298 lb uplift at joint 2 and 34 lb uplift at joint 4.
7) "Semi-rigid pitchbreaks including heels" Member end fixity model was used in the analysis and design of this truss.
8) This manufactured product 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.
9) Truss Design Engineer: Julius Lee, PE: Florida P.E. License No. 34869: Address: 1109 Coastal Bay Blvd. Boynton Beach, FL 33435

LOAD CASE(S) Standard

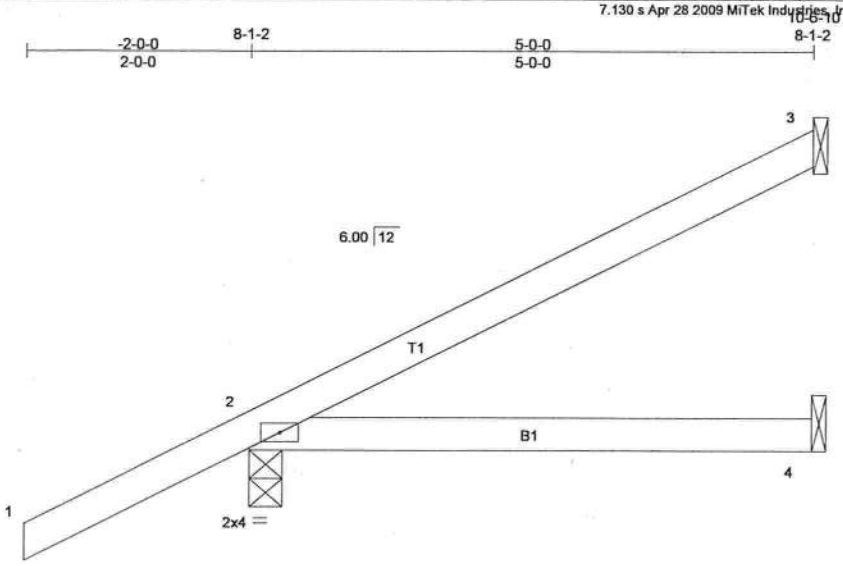


June 29,2009

Julius Lee Engineering
1109 Coastal Bay Blvd.
Boynton, FL 33435

Job	Truss	Truss Type	Qty	Ply	RICHARD KEEN - LOT 30 EE	I4046147
308959	CJ5	JACK	12	1	Job Reference (optional)	

Builders FrstSource, Lake City, FL 32055 — 7.130 s Apr 28 2009 MiTek Industries, Inc. Mon Jun 29 07:09:33 2009 Page 1



LOADING (psf)		SPACING	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plates Increase	1.25	TC	0.36	Vert(LL)	-0.03	2-4	>999	360	MT20	244/190
TCDL	7.0	Lumber Increase	1.25	BC	0.30	Vert(TL)	-0.05	2-4	>999	240		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.00	Horz(TL)	-0.00	3	n/a	n/a		
BCDL	5.0	Code FBC2007/TPI2002		(Matrix)		Wind(LL)	0.11	2-4	>547	240	Weight: 19 lb	

LUMBER
TOP CHORD 2 X 4 SYP No.2
BOT CHORD 2 X 4 SYP No.2

BRACING
TOP CHORD Structural wood sheathing directly applied or 5-0-0 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

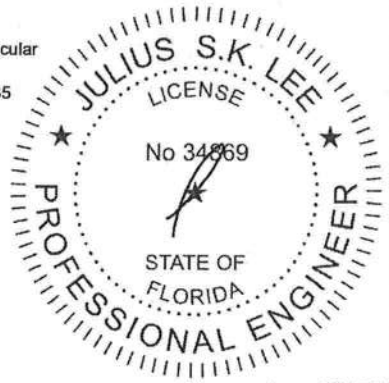
MiTek recommends that Stabilizers and required cross bracing be installed during truss erection, in accordance with Stabilizer Installation guide.

REACTIONS (lb/size) 3=103/Mechanical, 2=295/0-1-8 (input: 0-3-8), 4=24/Mechanical
Max Horz 2=215(LC 6)
Max Uplift 3=-109(LC 6), 2=-326(LC 6), 4=-58(LC 4)
Max Grav 3=103(LC 1), 2=295(LC 1), 4=72(LC 2)

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

NOTES (8-9)
1) Wind: ASCE 7-05; 110mph (3-second gust); TCDL=4.2psf; BCDL=3.0psf; h=14ft; Cat. II; Exp C; enclosed; MWFRS (low-rise) gable end zone and C-C Exterior(2) zone; porch 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 SYP No.2 .
5) Refer to girder(s) for truss to truss connections.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 109 lb uplift at joint 3, 326 lb uplift at joint 2 and 58 lb uplift at joint 4.
7) "Semi-rigid pitchbreaks including heels" Member end fixity model was used in the analysis and design of this truss.
8) This manufactured product 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.
9) Truss Design Engineer: Julius Lee, PE: Florida P.E. License No. 34869: Address: 1109 Coastal Bay Blvd. Boynton Beach, FL 33435

LOAD CASE(S) Standard

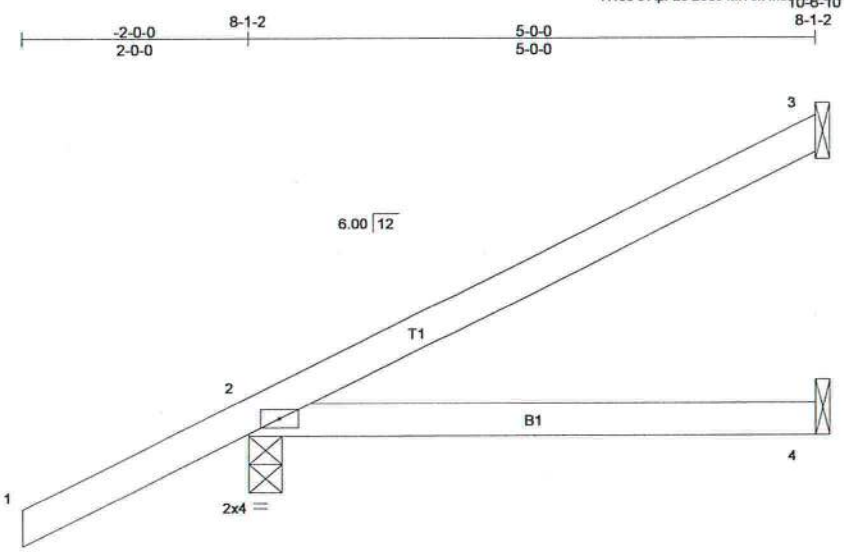


June 29,2009

Julius Lee Engineering
1109 Coastal Bay Blvd.
Boynton, FL 33435

Job	Truss	Truss Type	Qty	Ply	RICHARD KEEN - LOT 30 EE	I4046148
308959	EJ5	JACK	7	1	Job Reference (optional)	

Builders FrstSource, Lake City, FL 32055 — 7.130 s Apr 28 2009 MiTek Industries, Inc. Mon Jun 29 07:09:33 2009 Page 1



LOADING (psf)			SPACING	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0		Plates Increase	1.25	TC	0.36	Vert(LL)	-0.03	2-4	>999	360	MT20	244/190
TCDL	7.0		Lumber Increase	1.25	BC	0.30	Vert(TL)	-0.05	2-4	>999	240		
BCLL	0.0	*	Rep Stress Incr	YES	WB	0.00	Horz(TL)	-0.00	3	n/a	n/a		
BCDL	5.0		Code FBC2007/TPI2002		(Matrix)		Wind(LL)	0.11	2-4	>547	240	Weight: 19 lb	

LUMBER
TOP CHORD 2 X 4 SYP No.2
BOT CHORD 2 X 4 SYP No.2

BRACING
TOP CHORD Structural wood sheathing directly applied or 5-0-0 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

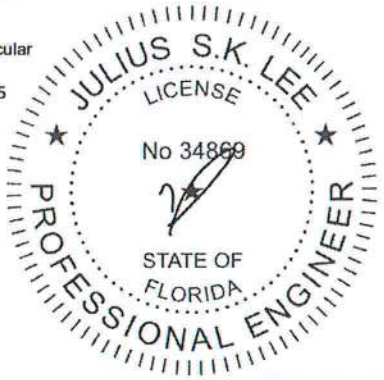
MiTek recommends that Stabilizers and required cross bracing be installed during truss erection, in accordance with Stabilizer Installation guide.

REACTIONS (lb/size) 3=103/Mechanical, 2=295/0-1-8 (input: 0-3-8), 4=24/Mechanical
Max Horz 2=215(LC 6)
Max Uplift 3=-109(LC 6), 2=-326(LC 6), 4=-58(LC 4)
Max Grav 3=103(LC 1), 2=295(LC 1), 4=72(LC 2)

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

NOTES (8-9)
1) Wind: ASCE 7-05; 110mph (3-second gust); TCDL=4.2psf; BCDL=3.0psf; h=14ft; Cat. II; Exp C; enclosed; MWFRS (low-rise) gable end zone and C-C Exterior(2) zone; porch 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 SYP No.2 .
5) Refer to girder(s) for truss to truss connections.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 109 lb uplift at joint 3, 326 lb uplift at joint 2 and 58 lb uplift at joint 4.
7) "Semi-rigid pitchbreaks including heels" Member end fixity model was used in the analysis and design of this truss.
8) This manufactured product 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.
9) Truss Design Engineer: Julius Lee, PE: Florida P.E. License No. 34869: Address: 1109 Coastal Bay Blvd. Boynton Beach, FL 33435

LOAD CASE(S) Standard



June 29,2009

Julius Lee Engineering
1109 Coastal Bay Blvd.
Boynton, FL 33435

Job	Truss	Truss Type	Qty	Ply	RICHARD KEEN - LOT 30 EE
308959	EJ7	JACK	33	1	Job Reference (optional)

Builders FrstSource, Lake City, FL 32055 — 7.110 s Dec 8 2008 MiTek Industries, Inc. Mon Jun 29 11:42:21 2009 Page 1

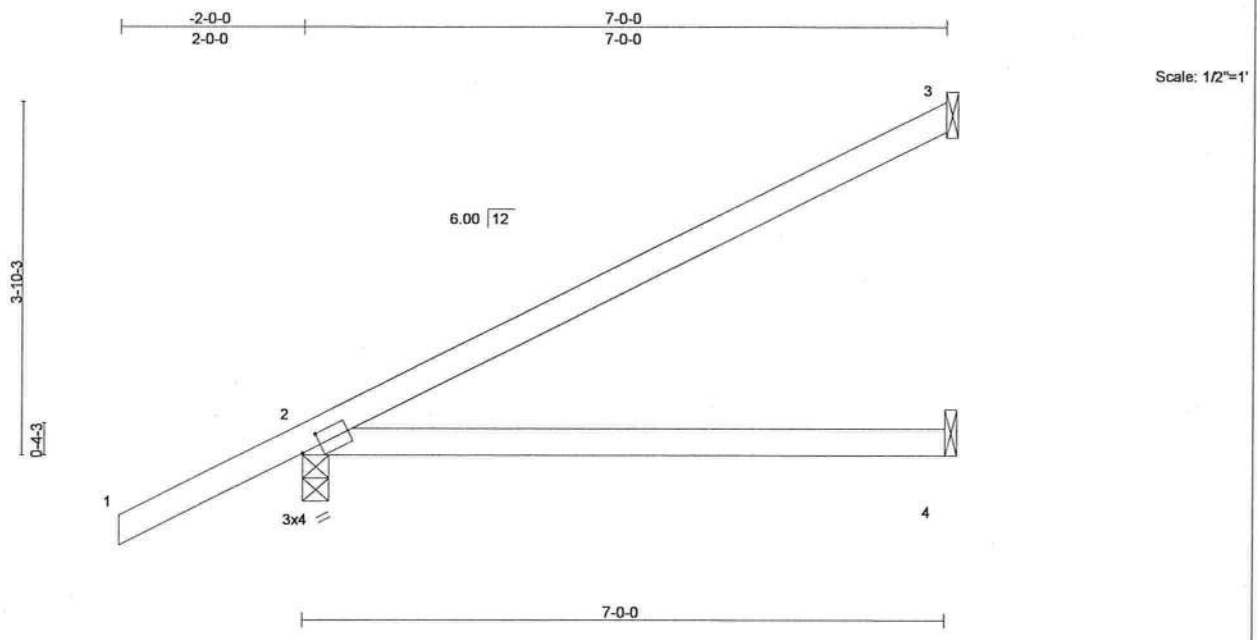


Plate Offsets (X,Y): [2:0-2-10,0-1-8]

LOADING (psf)		SPACING	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plates Increase	1.25	TC	0.62	Vert(LL)	-0.09	2-4	>921	360	MT20	244/190
TCDL	7.0	Lumber Increase	1.25	BC	0.57	Vert(TL)	-0.17	2-4	>476	240		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.00	Horz(TL)	-0.00	3	n/a	n/a		
BCDL	5.0	Code FBC2007/TPI2002		(Matrix)		Wind(LL)	0.40	2-4	>203	240	Weight: 26 lb	

LUMBER
TOP CHORD 2 X 4 SYP No.2
BOT CHORD 2 X 4 SYP 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.

MiTek recommends that Stabilizers and required cross bracing be installed during truss erection, in accordance with Stabilizer Installation guide.

REACTIONS (lb/size) 3=157/Mechanical, 2=352/0-1-8 (input: 0-3-8), 4=42/Mechanical
Max Horz 2=195(LC 6)
Max Uplift 3=-119(LC 6), 2=-287(LC 6), 4=-83(LC 5)
Max Grav 3=157(LC 1), 2=352(LC 1), 4=96(LC 2)

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

NOTES (7-8)
1) Wind: ASCE 7-05; 110mph (3-second gust); TCDL=4.2psf; BCDL=3.0psf; h=14ft; Cat. II; Exp C; enclosed; MWFRS (low-rise) and C-C Exterior(2) zone; porch left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
3) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
4) Refer to girder(s) for truss to truss connections.
5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 119 lb uplift at joint 3, 287 lb uplift at joint 2 and 83 lb uplift at joint 4.
6) "Semi-rigid pitchbreaks including heels" Member end fixity model was used in the analysis and design of this truss.
7) This manufactured product 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.
8) Truss Design Engineer: Julius Lee, PE: Florida P.E. License No. 34869: Address: 1109 Coastal Bay Blvd. Boynton Beach, FL 33435

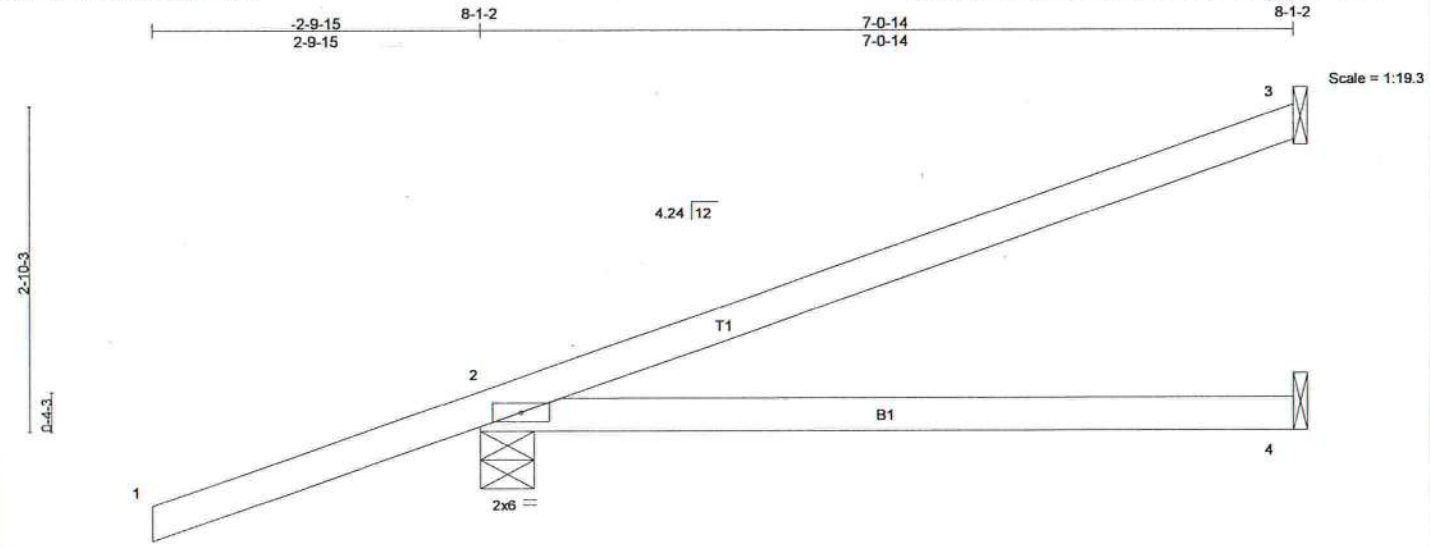
LOAD CASE(S) Standard

June 29,2009

Julius Lee Engineering
1109 Coastal Bay Blvd.
Boynton, FL 33435

Job	Truss	Truss Type	Qty	Ply	RICHARD KEEN - LOT 30 EE	I4046150
308959	HJ7	MONO TRUSS	1	1	Job Reference (optional)	

Builders FrstSource, Lake City, FL 32055 — 7.130 s Apr 28 2009 MiTek Industries, Inc. Mon Jun 29 07:09:34 2009 Page 1



LOADING (psf)			SPACING	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0		Plates Increase	1.25	TC	0.59	Vert(LL)	-0.09	2-4	>934	360	MT20	244/190
TCDL	7.0		Lumber Increase	1.25	BC	0.29	Vert(TL)	-0.15	2-4	>553	240		
BCLL	0.0	*	Rep Stress Incr	NO	WB	0.00	Horz(TL)	-0.00	3	n/a	n/a		
BCDL	5.0		Code FBC2007/TPI2002		(Matrix)		Wind(LL)	-0.03	2-4	>999	240	Weight: 26 lb	

LUMBER
TOP CHORD 2 X 4 SYP No.2
BOT CHORD 2 X 4 SYP No.2

BRACING
TOP CHORD Structural wood sheathing directly applied or 7-0-14 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

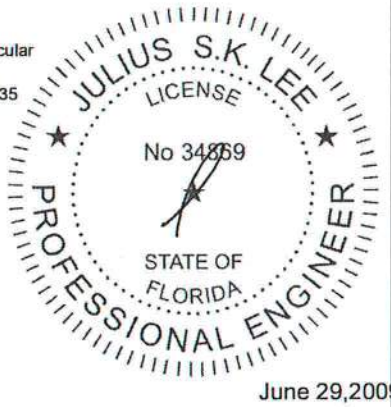
MiTek recommends that Stabilizers and required cross bracing be installed during truss erection, in accordance with Stabilizer Installation guide.

REACTIONS (lb/size) 3=184/Mechanical, 2=338/0-1-8 (input: 0-5-11), 4=38/Mechanical
Max Horz 2=202(LC 3)
Max Uplift 3=-180(LC 3), 2=-316(LC 3)
Max Grav 3=184(LC 1), 2=338(LC 1), 4=99(LC 2)

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

NOTES (9-10)
1) Wind: ASCE 7-05; 110mph (3-second gust); TCDL=4.2psf; BCDL=3.0psf; h=14ft; Cat. II; Exp C; enclosed; MWFRS (low-rise) gable end zone; 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 SYP No.2 .
5) Refer to girder(s) for truss to truss connections.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 180 lb uplift at joint 3 and 316 lb uplift at joint 2.
7) "Semi-rigid pitchbreaks including heels" Member end fixity model was used in the analysis and design of this truss.
8) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).
9) This manufactured product 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.
10) Truss Design Engineer: Julius Lee, PE: Florida P.E. License No. 34869: Address: 1109 Coastal Bay Blvd. Boynton Beach, FL 33435

LOAD CASE(S) Standard
1) Regular: Lumber Increase=1.25, Plate Increase=1.25
Uniform Loads (plf)
Vert: 1-2=-54
Trapezoidal Loads (plf)
Vert: 2=-3(F=25, B=25)-to-3=-95(F=-21, B=-21), 2=-0(F=5, B=5)-to-4=-18(F=-4, B=-4)



June 29,2009

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 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. Applicability of design parameters and proper incorporation of component is responsibility of building designer - not truss designer. Bracing shown is for lateral support of individual web members only. Additional temporary bracing to insure stability during construction is the responsibility of the erector. Additional permanent bracing of the overall structure is the responsibility of the building designer. For general guidance regarding fabrication, quality control, storage, delivery, erection and bracing, consult **ANSI/TPI1 Quality Criteria, DSB-89 and BCSI1 Building Component Safety Information** available from Truss Plate Institute, 583 D'Onofrio Drive, Madison, WI 53719.

Julius Lee Engineering
1109 Coastal Bay Blvd.
Boynton, FL 33435

Job	Truss	Truss Type	Qty	Ply	RICHARD KEEN - LOT 30 EE	I4046151
308959	HJ9	MONO TRUSS	6	1	Job Reference (optional)	

Builders FrstSource, Lake City, FL 32055 — 7.130 s Apr 28 2009 MiTek Industries, Inc. Mon Jun 29 07:09:35 2009 Page 1

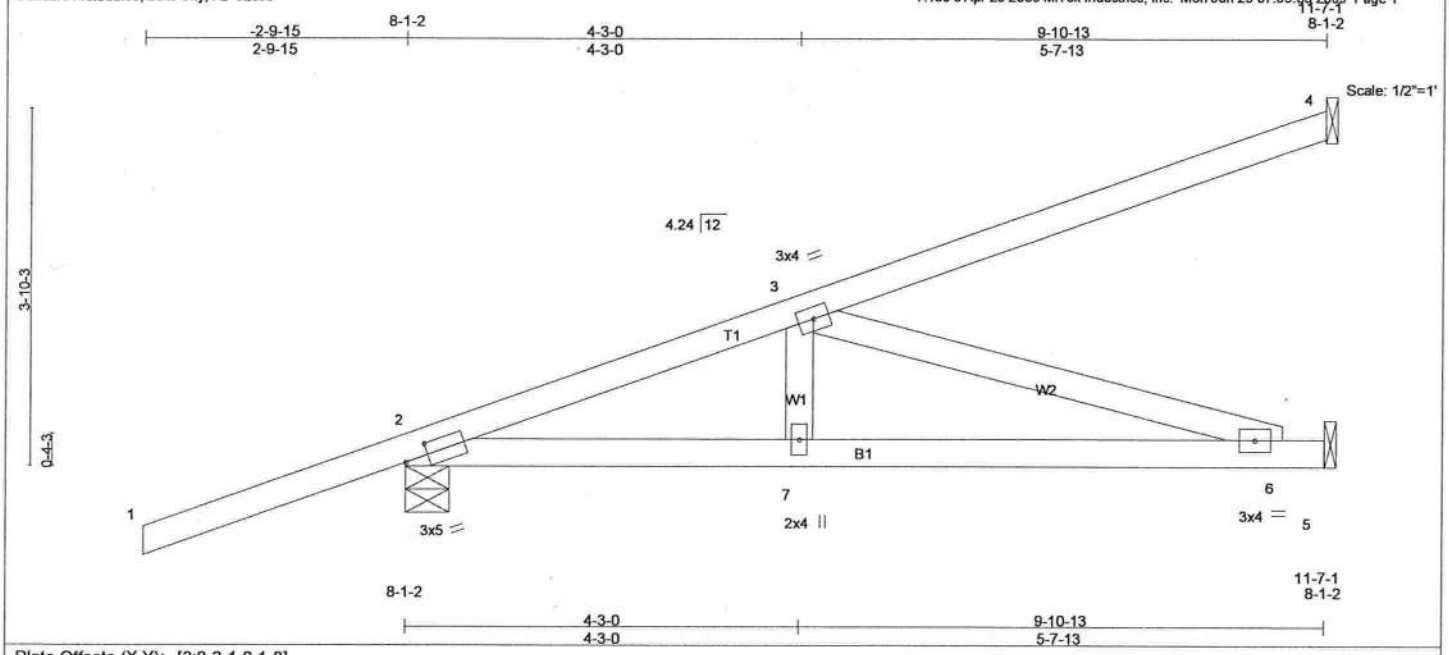


Plate Offsets (X,Y): [2:0-3-1,0-1-8]

LOADING (psf)		SPACING	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plates Increase	1.25	TC	0.61	Vert(LL)	-0.04	6-7	>999	360	MT20	244/190
TCDL	7.0	Lumber Increase	1.25	BC	0.35	Vert(TL)	-0.11	6-7	>999	240		
BCLL	0.0 *	Rep Stress Incr	NO	WB	0.34	Horz(TL)	0.01	5	n/a	n/a		
BCDL	5.0	Code FBC2007/TPI2002		(Matrix)		Wind(LL)	0.05	6-7	>999	240	Weight: 45 lb	

LUMBER
TOP CHORD 2 X 4 SYP No.2
BOT CHORD 2 X 4 SYP No.2
WEBS 2 X 4 SYP No.3

BRACING
TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins.
BOT CHORD Rigid ceiling directly applied or 9-2-9 oc bracing.

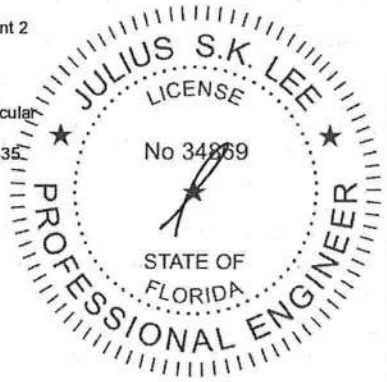
MiTek recommends that Stabilizers and required cross bracing be installed during truss erection, in accordance with Stabilizer Installation guide.

REACTIONS (lb/size) 4=269/Mechanical, 2=456/0-1-8 (input: 0-5-11), 5=216/Mechanical
Max Horz 2=325(LC 3)
Max Uplift 4=-292(LC 3), 2=-358(LC 3), 5=-88(LC 3)

FORCES (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-644/180
BOT CHORD 2-7=-400/590, 6-7=-400/590
WEBS 3-6=-615/418

NOTES (9-10)
1) Wind: ASCE 7-05; 110mph (3-second gust); TCDL=4.2psf; BCDL=3.0psf; h=14ft; Cat. II; Exp C; enclosed; MWFRS (low-rise) gable end zone; 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 SYP No.2 .
5) Refer to girder(s) for truss to truss connections.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 292 lb uplift at joint 4, 358 lb uplift at joint 2 and 88 lb uplift at joint 5.
7) "Semi-rigid pitchbreaks including heels" Member end fixity model was used in the analysis and design of this truss.
8) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).
9) This manufactured product 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.
10) Truss Design Engineer: Julius Lee, PE: Florida P.E. License No. 34869: Address: 1109 Coastal Bay Blvd. Boynton Beach, FL 33435

LOAD CASE(S) Standard
1) Regular: Lumber Increase=1.25, Plate Increase=1.25
Uniform Loads (plf)
Vert: 1-2=-54
Trapezoidal Loads (plf)
Vert: 2=-3(F=25, B=25)-to-4=-134(F=-40, B=-40), 2=-0(F=5, B=5)-to-5=-25(F=-7, B=-7)



June 29,2009

Julius Lee Engineering
1109 Coastal Bay Blvd.
Boynton, FL 33435

Job	Truss	Truss Type	Qty	Ply	RICHARD KEEN - LOT 30 EE	I4046152
308959	T01	HIP	1	1	Job Reference (optional)	

Builders FrstSource, Lake City, FL 32055 — 7.130 s Apr 28 2009 MiTek Industries, Inc. Mon Jun 29 07:09:37 2009 Page 1

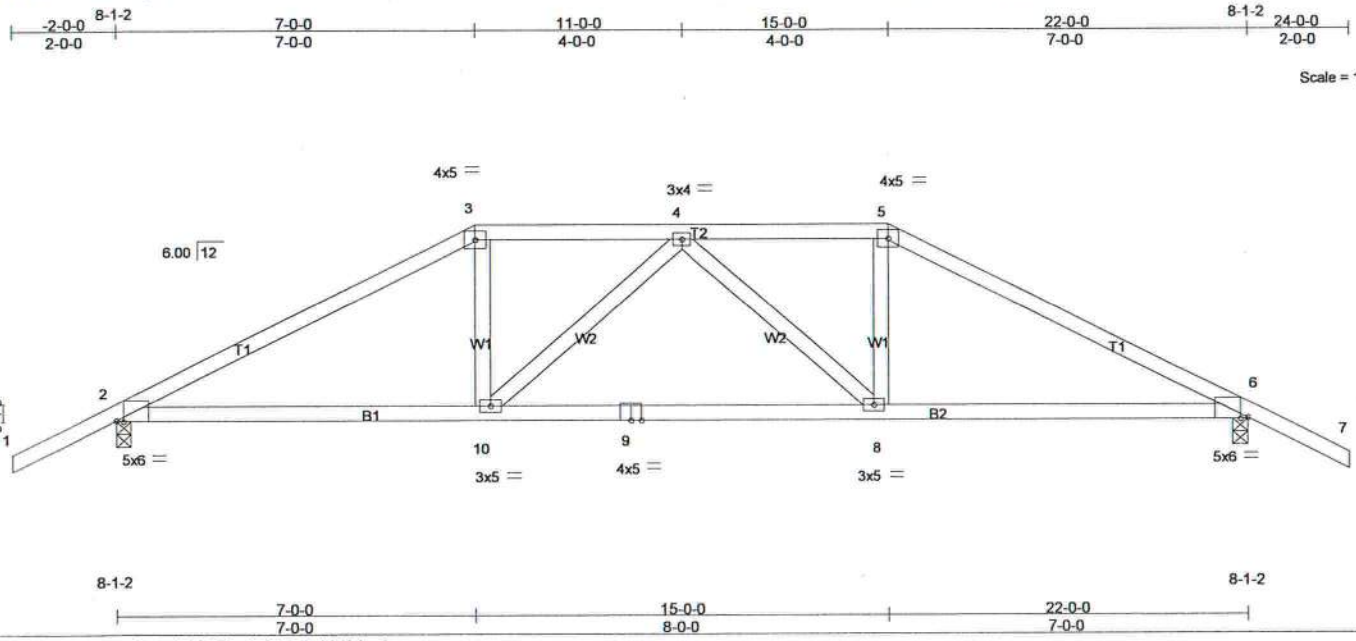


Plate Offsets (X,Y): [2:0-1-11,Edge], [6:0-1-11,Edge]

LOADING (psf)		SPACING	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plates Increase	1.25	TC	0.53	Vert(LL)	-0.11	8-10	>999	360	MT20	244/190
TCDL	7.0	Lumber Increase	1.25	BC	0.60	Vert(TL)	-0.32	8-10	>819	240		
BCLL	0.0 *	Rep Stress Incr	NO	WB	0.27	Horz(TL)	0.09	6	n/a	n/a		
BCDL	5.0	Code FBC2007/TPI2002		(Matrix)		Wind(LL)	0.12	8-10	>999	240	Weight: 99 lb	

LUMBER
TOP CHORD 2 X 4 SYP No.2
BOT CHORD 2 X 4 SYP No.2
WEBS 2 X 4 SYP No.3

BRACING
TOP CHORD Structural wood sheathing directly applied or 3-4-6 oc purlins.
BOT CHORD Rigid ceiling directly applied or 6-0-1 oc bracing.

MiTek recommends that Stabilizers and required cross bracing be installed during truss erection, in accordance with Stabilizer Installation guide.

REACTIONS (lb/size) 2=1521/0-1-13 (input: 0-3-8), 6=1521/0-1-13 (input: 0-3-8)
Max Horz 2=94(LC 5)
Max Uplift 2=-690(LC 5), 6=-690(LC 6)

FORCES (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-2686/1101, 3-4=-2340/1028, 4-5=-2340/1028, 5-6=-2686/1101
BOT CHORD 2-10=-937/2307, 9-10=-1106/2602, 8-9=-1106/2602, 6-8=-897/2307
WEBS 3-10=-340/842, 4-10=-448/303, 4-8=-448/303, 5-8=-339/842

NOTES (12-13)
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-05; 110mph (3-second gust); TCDL=4.2psf; BCDL=3.0psf; h=14ft; Cat. II; Exp C; enclosed; MWFRS (low-rise); 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 SYP No.2 .
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 690 lb uplift at joint 2 and 690 lb uplift at joint 6.
8) Girder carries hip end with 7-0-0 end setback.
9) "Semi-rigid pitchbreaks including heels" Member end fixity model was used in the analysis and design of this truss.
10) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 411 lb down and 220 lb up at 15-0-0, and 411 lb down and 220 lb up at 7-0-0 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).
12) This manufactured product 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.
13) Truss Design Engineer: Julius Lee, PE: Florida P.E. License No. 34869: Address: 1109 Coastal Bay Blvd. Boynton Beach, FL 33435

LOAD CASE(S) Standard
1) Regular: Lumber Increase=1.25, Plate Increase=1.25
Uniform Loads (plf)
Vert: 1-3=-54, 3-5=-118(F=-64), 5-7=-54, 2-10=-10, 8-10=-22(F=-12), 6-8=-10

JULIUS S.K. LEE LICENSE No 34869 STATE OF FLORIDA PROFESSIONAL ENGINEER

June 29,2009

Continued on page 2

Julius Lee Engineering
1109 Coastal Bay Blvd.
Boynton, FL 33435

Job	Truss	Truss Type	Qty	Ply	RICHARD KEEN - LOT 30 EE	I4046152
308959	T01	HIP	1	1	Job Reference (optional)	

LOAD CASE(S) Standard
Concentrated Loads (lb)
Vert: 10=-411(F) 8=-411(F)

June 29,2009

Julius Lee Engineering
1109 Coastal Bay Blvd.
Boynton, FL 33435

Job	Truss	Truss Type	Qty	Ply	RICHARD KEEN - LOT 30 EE	I4046153
308959	T02	HIP	1	1	Job Reference (optional)	

Builders FrstSource, Lake City, FL 32055 — 7.130 s Apr 28 2009 MiTek Industries, Inc. Mon Jun 29 07:09:38 2009 Page 1

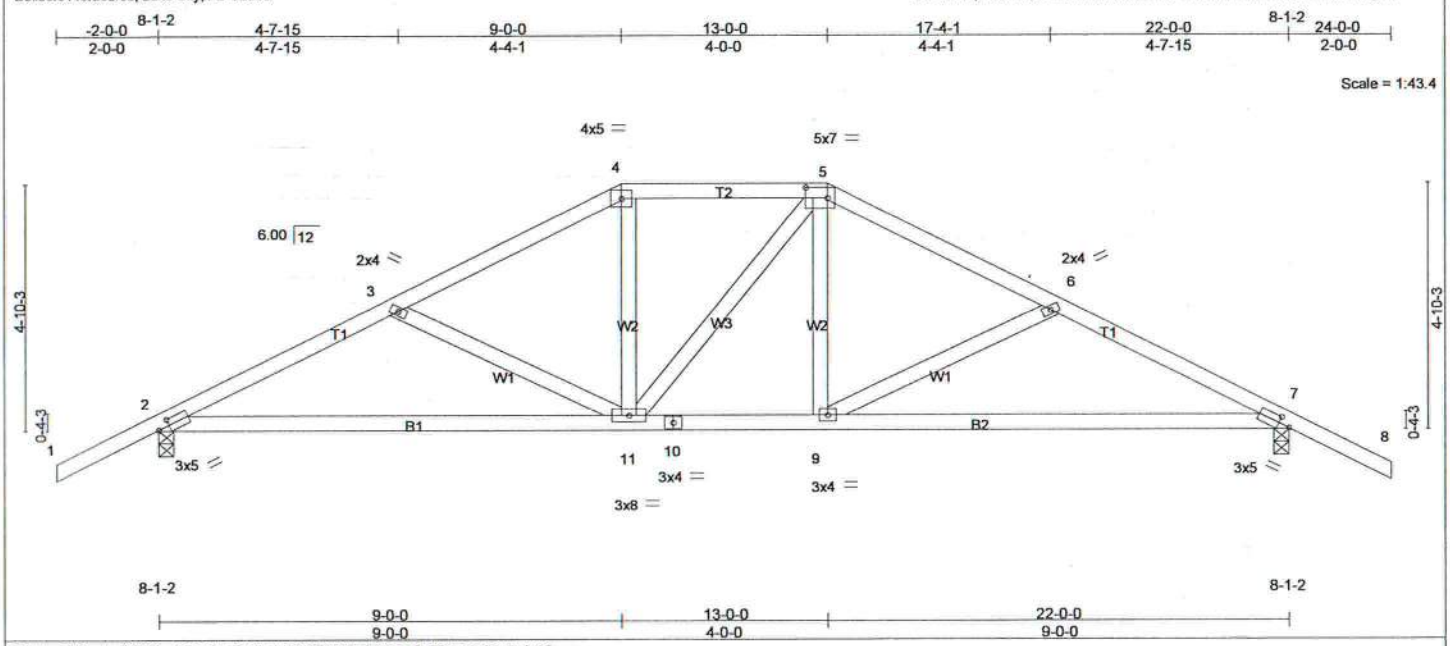


Plate Offsets (X,Y): [2:0-2-10,0-1-8], [5:0-5-4,0-2-8], [7:0-2-10,0-1-8]

LOADING (psf)		SPACING	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plates Increase	1.25	TC	0.37	Vert(LL)	-0.18	7-9	>999	360	MT20	244/190
TCDL	7.0	Lumber Increase	1.25	BC	0.41	Vert(TL)	-0.32	7-9	>818	240		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.12	Horz(TL)	0.04	7	n/a	n/a		
BCDL	5.0	Code FBC2007/TPI2002		(Matrix)		Wind(LL)	0.06	9-11	>999	240	Weight: 111 lb	

LUMBER
TOP CHORD 2 X 4 SYP No.2
BOT CHORD 2 X 4 SYP No.2
WEBS 2 X 4 SYP No.3

BRACING
TOP CHORD Structural wood sheathing directly applied or 5-8-10 oc purlins.
BOT CHORD Rigid ceiling directly applied or 8-5-0 oc bracing.

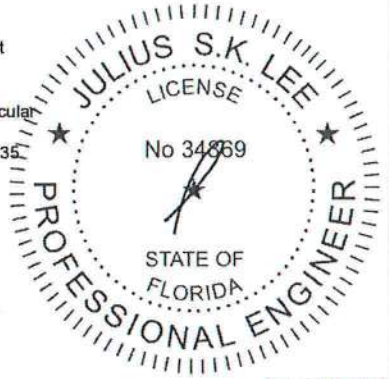
MiTek recommends that Stabilizers and required cross bracing be installed during truss erection, in accordance with Stabilizer Installation guide.

REACTIONS (lb/size) 2=811/0-1-8 (input: 0-3-8), 7=811/0-1-8 (input: 0-3-8)
Max Horz 2=108(LC 6)
Max Uplift 2=-324(LC 6), 7=-324(LC 7)

FORCES (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-1200/827, 3-4=-942/670, 4-5=-796/661, 5-6=-942/670, 6-7=-1200/827
BOT CHORD 2-11=-545/1014, 10-11=-286/796, 9-10=-286/796, 7-9=-545/1014
WEBS 3-11=-252/292, 6-9=-253/292

NOTES (9-10)
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-05; 110mph (3-second gust); TCDL=4.2psf; BCDL=3.0psf; h=14ft; Cat. II; Exp C; enclosed; MWFRS (low-rise) 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.
6) All bearings are assumed to be SYP No.2 .
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 324 lb uplift at joint 2 and 324 lb uplift at joint 7.
8) "Semi-rigid pitchbreaks including heels" Member end fixity model was used in the analysis and design of this truss.
9) This manufactured product 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.
10) Truss Design Engineer: Julius Lee, PE: Florida P.E. License No. 34869: Address: 1109 Coastal Bay Blvd. Boynton Beach, FL 33435

LOAD CASE(S) Standard



June 29,2009

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 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. Applicability of design parameters and proper incorporation of component is responsibility of building designer - not truss designer. Bracing shown is for lateral support of individual web members only. Additional temporary bracing to insure stability during construction is the responsibility of the erector. Additional permanent bracing of the overall structure is the responsibility of the building designer. For general guidance regarding fabrication, quality control, storage, delivery, erection and bracing, consult **ANSI/TPI1 Quality Criteria, DSB-89 and BCSI1 Building Component Safety Information** available from Truss Plate Institute, 583 D'Onofrio Drive, Madison, WI 53719.

Julius Lee Engineering
1109 Coastal Bay Blvd.
Boynton, FL 33435

Job	Truss	Truss Type	Qty	Ply	RICHARD KEEN - LOT 30 EE	I4046154
308959	T03	COMMON	5	1	Job Reference (optional)	

Builders FrstSource, Lake City, FL 32055 — 7.130 s Apr 28 2009 MiTek Industries, Inc. Mon Jun 29 07:09:39 2009 Page 1

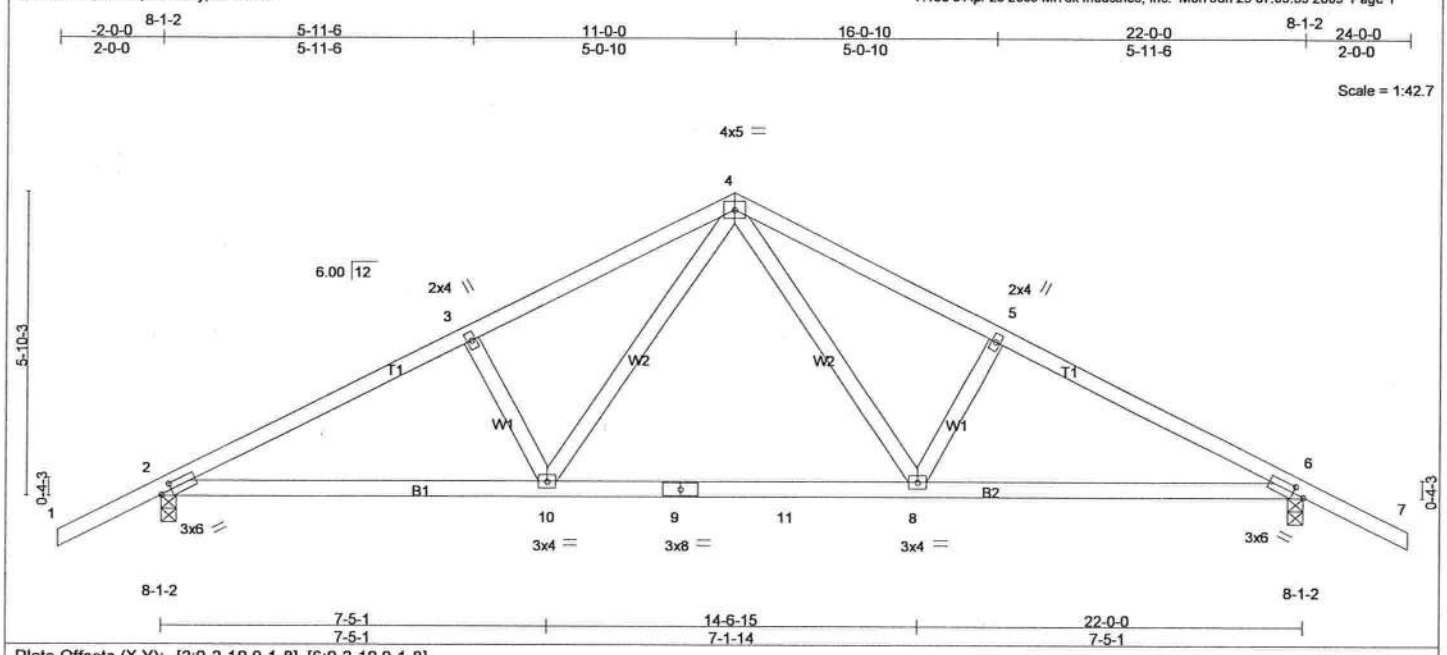


Plate Offsets (X,Y): [2:0-2-10,0-1-8], [6:0-2-10,0-1-8]

LOADING (psf)		SPACING	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plates Increase	1.25	TC	0.45	Vert(LL)	-0.31	8-10	>851	360	MT20	244/190
TCDL	7.0	Lumber Increase	1.25	BC	0.78	Vert(TL)	-0.44	8-10	>587	240		
BCLL	0.0 *	Rep Stress Incr	NO	WB	0.31	Horz(TL)	0.05	6	n/a	n/a		
BCDL	5.0	Code FBC2007/TPI2002		(Matrix)		Wind(LL)	0.22	8-10	>999	240	Weight: 104 lb	

LUMBER
TOP CHORD 2 X 4 SYP No.2
BOT CHORD 2 X 4 SYP No.2
WEBS 2 X 4 SYP No.3

BRACING
TOP CHORD Structural wood sheathing directly applied or 4-7-1 oc purlins.
BOT CHORD Rigid ceiling directly applied or 7-4-1 oc bracing.

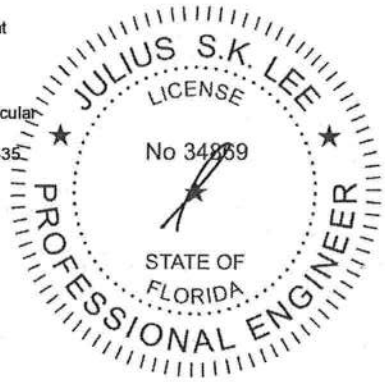
MiTek recommends that Stabilizers and required cross bracing be installed during truss erection, in accordance with Stabilizer Installation guide.

REACTIONS (lb/size) 2=1065/0-1-8 (input: 0-3-8), 6=1065/0-1-8 (input: 0-3-8)
Max Horz 2=122(LC 6)
Max Uplift 2=-387(LC 6), 6=-387(LC 7)

FORCES (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-1788/1034, 3-4=-1643/1051, 4-5=-1643/1051, 5-6=-1788/1034
BOT CHORD 2-10=-714/1521, 9-10=-348/1037, 9-11=-348/1037, 8-11=-348/1037, 6-8=-714/1521
WEBS 3-10=-250/316, 4-10=-405/698, 4-8=-405/698, 5-8=-250/316

NOTES (9-10)
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-05; 110mph (3-second gust); TCDL=4.2psf; BCDL=3.0psf; h=14ft; Cat. II; Exp C; enclosed; MWFRS (low-rise) 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) 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 = 5.0psf.
5) All bearings are assumed to be SYP No.2 .
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 387 lb uplift at joint 2 and 387 lb uplift at joint 6.
7) "Semi-rigid pitchbreaks including heels" Member end fixity model was used in the analysis and design of this truss.
8) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).
9) This manufactured product 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.
10) Truss Design Engineer: Julius Lee, PE: Florida P.E. License No. 34869: Address: 1109 Coastal Bay Blvd. Boynton Beach, FL 33435

LOAD CASE(S) Standard
1) Regular: Lumber Increase=1.25, Plate Increase=1.25
Uniform Loads (plf)
Vert: 1-4=-54, 4-7=-54, 2-10=-10, 9-10=-70(F=-60), 9-11=-110(F=-60), 8-11=-70(F=-60), 6-8=-10



June 29,2009

Julius Lee Engineering
1109 Coastal Bay Blvd.
Boynton, FL 33435

Job	Truss	Truss Type	Qty	Ply	RICHARD KEEN - LOT 30 EE	I4046155
308959	T04	SPECIAL	1	1	Job Reference (optional)	

Builders FrstSource, Lake City, FL 32055 — 7.130 s Apr 28 2009 MiTek Industries, Inc. Mon Jun 29 07:09:40 2009 Page 1

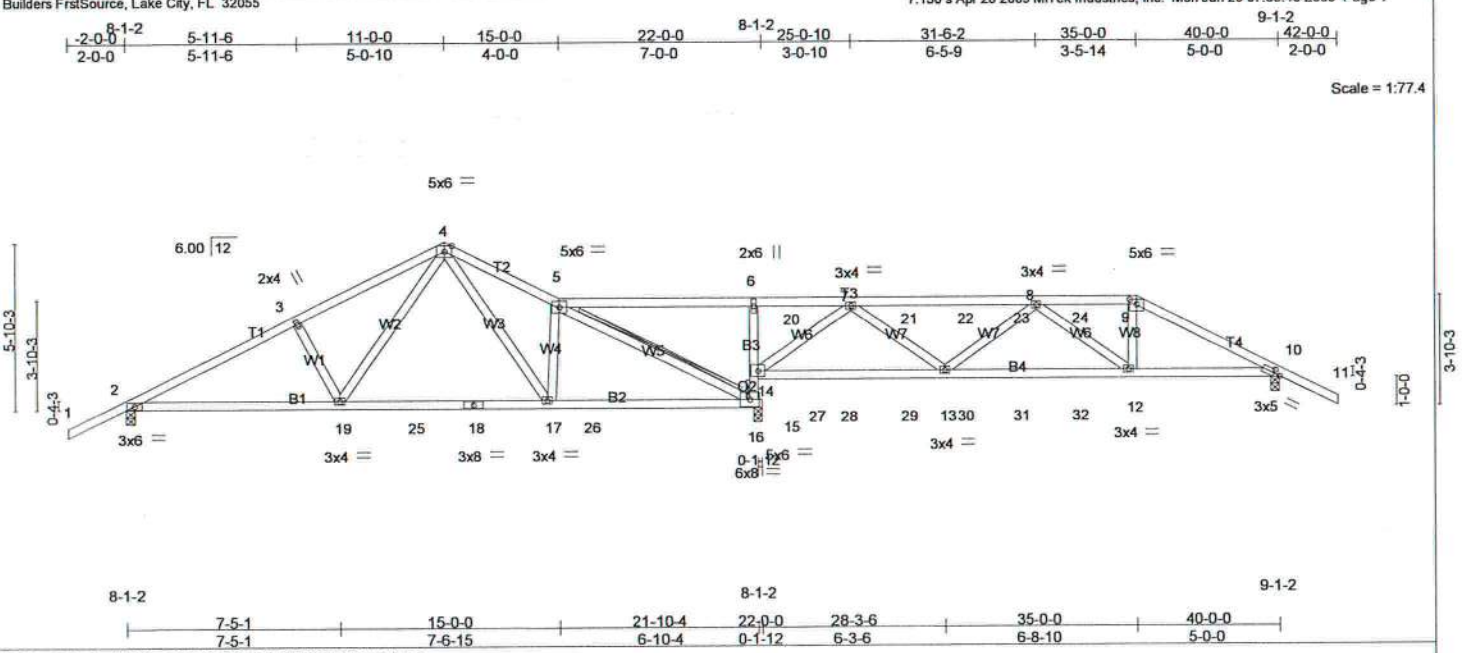


Plate Offsets (X,Y): [9:0-3-0,0-2-0], [10:0-2-10,0-1-8]

LOADING (psf)		SPACING	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plates Increase	1.25	TC	0.52	Vert(LL)	-0.30	17-19	>850	360	MT20	244/190
TCDL	7.0	Lumber Increase	1.25	BC	0.80	Vert(TL)	-0.44	17-19	>584	240		
BCLL	0.0 *	Rep Stress Incr	NO	WB	0.65	Horz(TL)	0.04	16	n/a	n/a		
BCDL	5.0	Code FBC2007/TPI2002		(Matrix)		Wind(LL)	0.16	12-13	>999	240	Weight: 201 lb	

LUMBER
TOP CHORD 2 X 4 SYP No.2
BOT CHORD 2 X 4 SYP No.2
WEBS 2 X 4 SYP No.3

BRACING
TOP CHORD Structural wood sheathing directly applied or 4-9-9 oc purlins.
BOT CHORD Rigid ceiling directly applied or 5-4-11 oc bracing. Except:
4-9-0 oc bracing: 14-16
WEBS T-Brace: 2 X 4 SYP No.3 - 5-16
Fasten T and I braces to narrow edge of web with 10d Common wire nails, 9in o.c.,with 4in minimum end distance.
Brace must cover 90% of web length.

MiTek recommends that Stabilizers and required cross bracing be installed during truss erection, in accordance with Stabilizer Installation guide.

REACTIONS (lb/size) 2=997/0-1-8 (input: 0-3-8), 10=903/0-1-8 (input: 0-3-8), 16=2021/0-2-6 (input: 0-3-8)
Max Horz 2=147(LC 5)
Max Uplift 2=-347(LC 5), 10=-792(LC 6), 16=-1210(LC 6)
Max Grav 2=997(LC 1), 10=909(LC 10), 16=2021(LC 1)

FORCES (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-1643/359, 3-4=-1499/377, 4-5=-1361/356, 5-6=-222/431, 6-20=-302/577, 7-20=-302/577, 7-21=-1032/1228, 21-22=-1032/1228, 22-23=-1032/1228, 8-23=-1032/1228, 8-24=-1203/1200, 9-24=-1203/1201, 9-10=-1411/1302
BOT CHORD 2-19=-335/1392, 19-25=-133/902, 18-25=-133/902, 17-18=-133/902, 17-26=-132/1175, 16-26=-132/1175, 14-16=-1187/1020, 6-14=-313/191, 14-27=-618/522, 27-28=-618/522, 28-29=-618/522, 13-29=-618/522, 13-30=-1335/1402, 30-31=-1335/1402, 31-32=-1335/1402, 12-32=-1335/1402, 10-12=-1047/1187
WEBS 3-19=-252/192, 4-19=-208/703, 4-17=-133/524, 5-16=-1818/489, 7-14=-1344/1247, 7-13=-609/688, 8-13=-481/307, 8-12=-251/353, 9-12=-296/390

NOTES (12-13)
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-05; 110mph (3-second gust); TCDL=4.2psf; BCDL=3.0psf; h=14ft; Cat. II; Exp C; enclosed; MWFRS (low-rise); 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 = 5.0psf.
6) All bearings are assumed to be SYP No.2 .
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 347 lb uplift at joint 2, 792 lb uplift at joint 10 and 1210 lb uplift at joint 16.
8) "Semi-rigid pitchbreaks including heels" Member end fixity model was used in the analysis and design of this truss.

JULIUS S.K. LEE LICENSE No 34869 STATE OF FLORIDA PROFESSIONAL ENGINEER

June 29,2009

Continued on page 2

Julius Lee Engineering
1109 Coastal Bay Blvd.
Boynton, FL 33435

Job	Truss	Truss Type	Qty	Ply	RICHARD KEEN - LOT 30 EE	I4046155
308959	T04	SPECIAL	1	1	Job Reference (optional)	

NOTES (12-13)

9) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 89 lb down and 93 lb up at 22-11-4, 89 lb down and 93 lb up at 24-11-4, 89 lb down and 93 lb up at 26-11-4, 89 lb down and 93 lb up at 28-11-4, 89 lb down and 93 lb up at 30-11-4, and 89 lb down and 93 lb up at 32-11-4, and 259 lb down and 257 lb up at 35-0-0 on top chord, and 42 lb down and 64 lb up at 22-11-4, 42 lb down and 64 lb up at 24-11-4, 42 lb down and 64 lb up at 26-11-4, 42 lb down and 64 lb up at 28-11-4, 42 lb down and 64 lb up at 30-11-4, and 42 lb down and 64 lb up at 32-11-4, and 111 lb down and 48 lb up at 34-11-4 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
10) Warning: Additional permanent and stability bracing for truss system (not part of this component design) is always required.
11) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).
12) This manufactured product 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.
13) Truss Design Engineer: Julius Lee, PE: Florida P.E. License No. 34869: Address: 1109 Coastal Bay Blvd. Boynton Beach, FL 33435

LOAD CASE(S) Standard

1) Regular: Lumber Increase=1.25, Plate Increase=1.25
   Uniform Loads (plf)
   Vert: 1-4=-54, 4-5=-54, 5-9=-54, 9-11=-54, 2-19=-10, 19-25=-70(F=-60), 18-25=-110(F=-60), 18-26=-70(F=-60), 16-26=-10, 15-16=-10, 10-14=-10
   Concentrated Loads (lb)
   Vert: 9=-179(F) 7=-49(F) 12=-42(F) 20=-49(F) 21=-49(F) 22=-49(F) 23=-49(F) 24=-49(F) 27=-14(F) 28=-14(F) 29=-14(F) 30=-14(F) 31=-14(F) 32=-14(F)

June 29,2009

Julius Lee Engineering
1109 Coastal Bay Blvd.
Boynton, FL 33435

Job	Truss	Truss Type	Qty	Ply	RICHARD KEEN - LOT 30 EE	I4046156
308959	T05	MONO HIP	1	1	Job Reference (optional)	

Builders FrstSource, Lake City, FL 32055 — 7.130 s Apr 28 2009 MiTek Industries, Inc. Mon Jun 29 07:09:41 2009 Page 1

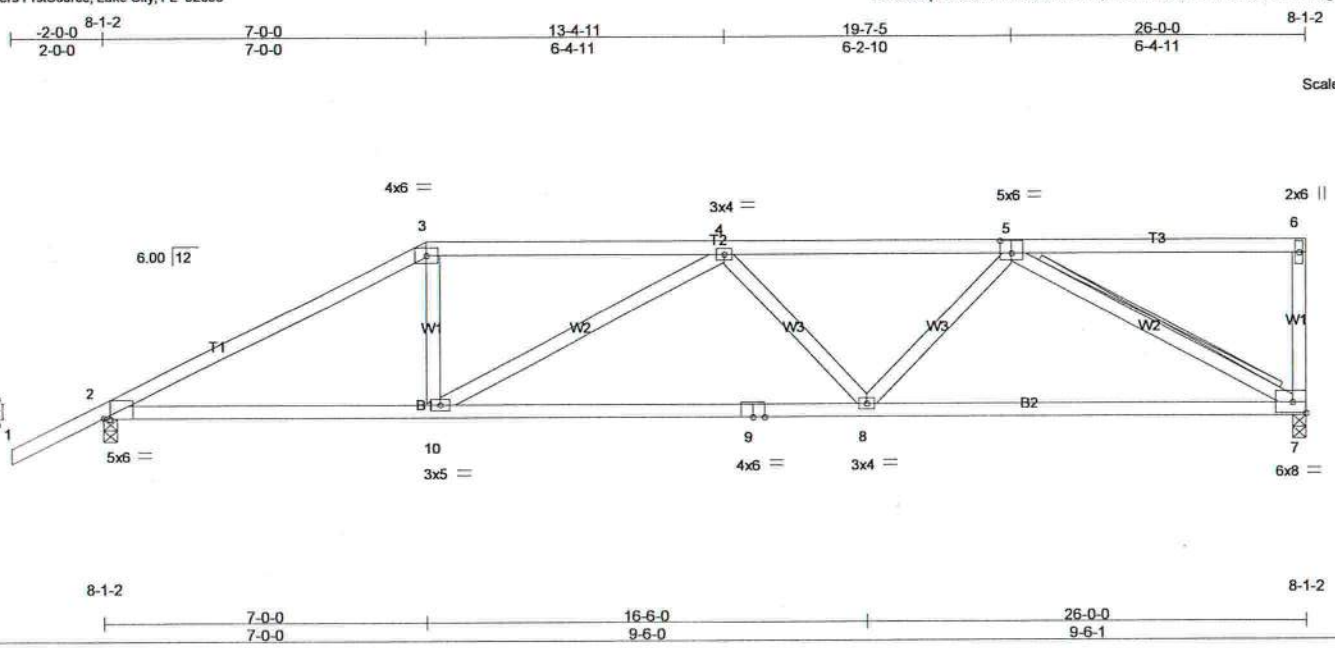


Plate Offsets (X,Y): [2:0-1-11,Edge], [5:0-3-0,0-3-4]

LOADING (psf)		SPACING	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plates Increase	1.25	TC	0.77	Vert(LL)	-0.18	8-10	>999	360	MT20	244/190
TCDL	7.0	Lumber Increase	1.25	BC	0.89	Vert(TL)	-0.50	8-10	>613	240		
BCLL	0.0 *	Rep Stress Incr	NO	WB	0.93	Horz(TL)	0.13	7	n/a	n/a		
BCDL	5.0	Code FBC2007/TPI2002		(Matrix)		Wind(LL)	0.20	8-10	>999	240	Weight: 126 lb	

LUMBER
TOP CHORD 2 X 4 SYP No.2
BOT CHORD 2 X 4 SYP No.2
WEBS 2 X 4 SYP No.3

BRACING
TOP CHORD Structural wood sheathing directly applied or 2-9-7 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 4-9-13 oc bracing.
WEBS T-Brace: 2 X 4 SYP No.3 - 5-7
Fasten T and I braces to narrow edge of web with 10d Common wire nails, 9in o.c.,with 4in minimum end distance.
Brace must cover 90% of web length.

MiTek recommends that Stabilizers and required cross bracing be installed during truss erection, in accordance with Stabilizer Installation guide.

REACTIONS (lb/size) 7=1829/0-2-3 (input: 0-3-8), 2=1762/0-2-1 (input: 0-3-8)
Max Horz 2=198(LC 5)
Max Uplift 7=-851(LC 4), 2=-764(LC 5)

FORCES (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-3229/1398, 3-4=-2831/1296, 4-5=-3101/1378, 6-7=-326/213
BOT CHORD 2-10=-1282/2793, 9-10=-1653/3465, 8-9=-1653/3465, 7-8=-1226/2541
WEBS 3-10=-360/920, 4-10=-731/468, 4-8=-554/418, 5-8=-231/849, 5-7=-2852/1390

NOTES (12-13)
1) Wind: ASCE 7-05; 110mph (3-second gust); TCDL=4.2psf; BCDL=3.0psf; h=14ft; Cat. II; Exp C; enclosed; MWFRS (low-rise); 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 SYP No.2 .
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 851 lb uplift at joint 7 and 764 lb uplift at joint 2.
7) Girder carries hip end with 0-0-0 right side setback, 7-0-0 left side setback, and 7-0-0 end setback.
8) "Semi-rigid pitchbreaks including heels" Member end fixity model was used in the analysis and design of this truss.
9) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 411 lb down and 220 lb up at 7-0-0 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
10) Warning: Additional permanent and stability bracing for truss system (not part of this component design) is always required.
11) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).
12) This manufactured product 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.
13) Truss Design Engineer: Julius Lee, PE: Florida P.E. License No. 34869: Address: 1109 Coastal Bay Blvd. Boynton Beach, FL 33435

JULIUS S.K. LEE LICENSE No 34869 STATE OF FLORIDA PROFESSIONAL ENGINEER

June 29,2009

LOAD CASE(S) Standard

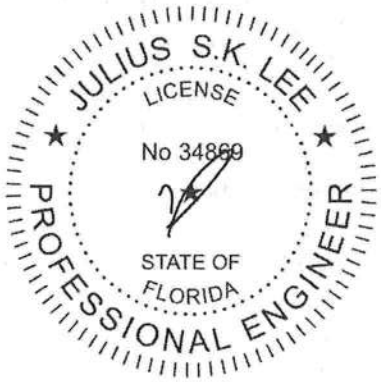
Continued on page 2

Julius Lee Engineering
1109 Coastal Bay Blvd.
Boynton, FL 33435

Job	Truss	Truss Type	Qty	Ply	RICHARD KEEN - LOT 30 EE	I4046156
308959	T05	MONO HIP	1	1	Job Reference (optional)	

LOAD CASE(S) Standard

1) Regular: Lumber Increase=1.25, Plate Increase=1.25
   Uniform Loads (plf)
   Vert: 1-3=-54, 3-6=-118(F=-64), 2-10=-10, 7-10=-22(F=-12)
   Concentrated Loads (lb)
   Vert: 10=-411(F)



June 29,2009

Julius Lee Engineering
1109 Coastal Bay Blvd.
Boynton, FL 33435

Job	Truss	Truss Type	Qty	Ply	RICHARD KEEN - LOT 30 EE	I4046157
308959	T06	MONO HIP	1	1	Job Reference (optional)	

Builders FrstSource, Lake City, FL 32055 — 7.130 s Apr 28 2009 MiTek Industries, Inc. Mon Jun 29 07:09:41 2009 Page 1

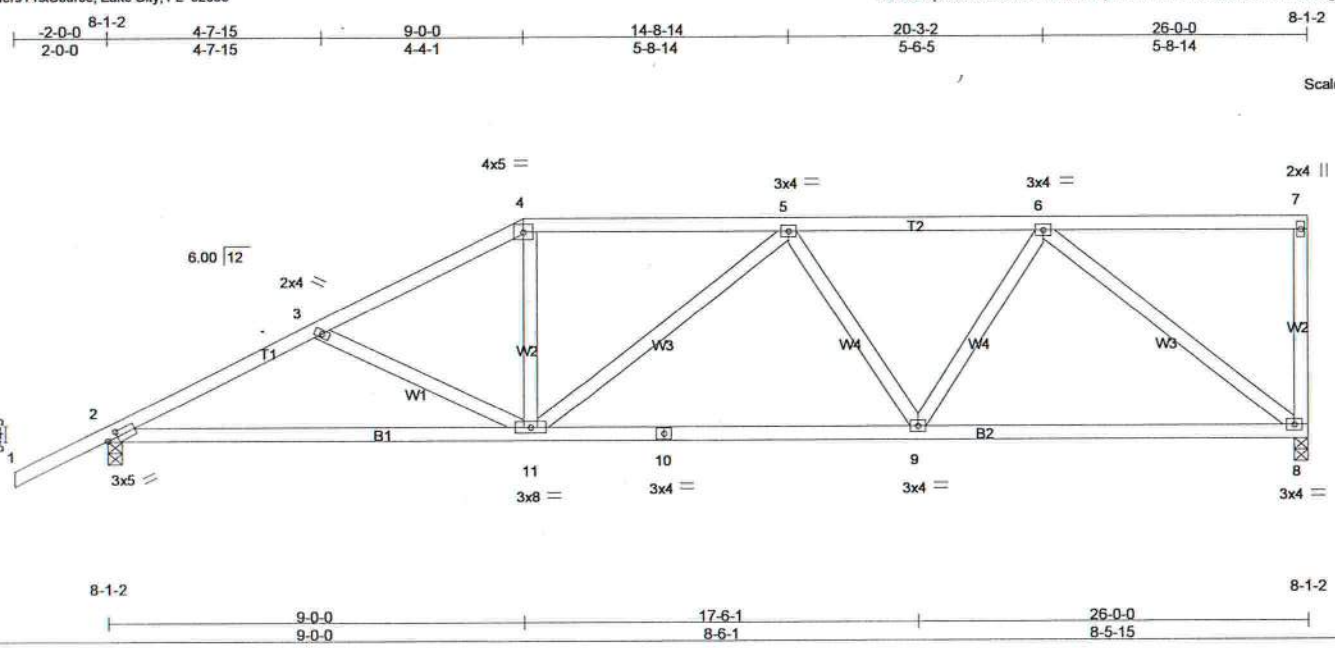


Plate Offsets (X,Y): [2:0-2-10,0-1-8]

LOADING (psf)		SPACING	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plates Increase	1.25	TC	0.39	Vert(LL)	-0.16	2-11	>999	360	MT20	244/190
TCDL	7.0	Lumber Increase	1.25	BC	0.42	Vert(TL)	-0.29	2-11	>999	240		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.95	Horz(TL)	0.05	8	n/a	n/a		
BCDL	5.0	Code FBC2007/TPI2002		(Matrix)		Wind(LL)	0.10	9-11	>999	240	Weight: 138 lb	

LUMBER
TOP CHORD 2 X 4 SYP No.2
BOT CHORD 2 X 4 SYP No.2
WEBS 2 X 4 SYP No.3

BRACING
TOP CHORD Structural wood sheathing directly applied or 5-1-11 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 6-1-10 oc bracing.

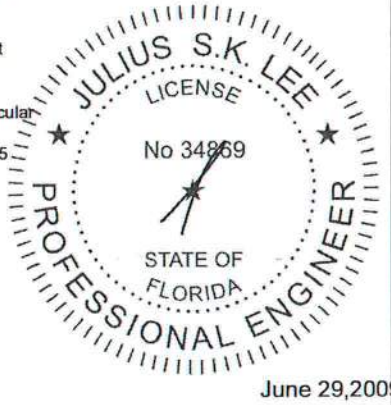
MiTek recommends that Stabilizers and required cross bracing be installed during truss erection, in accordance with Stabilizer Installation guide.

REACTIONS (lb/size) 8=818/0-1-8 (input: 0-3-8), 2=943/0-1-8 (input: 0-3-8)
Max Horz 2=236(LC 6)
Max Uplift 8=-308(LC 5), 2=-339(LC 6)

FORCES (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-1484/959, 3-4=-1237/808, 4-5=-1065/788, 5-6=-1010/702
BOT CHORD 2-11=-1036/1264, 10-11=-845/1157, 9-10=-845/1157, 8-9=-590/811
WEBS 3-11=-231/280, 4-11=-108/316, 5-9=-283/277, 6-9=-215/395, 6-8=-1026/753

NOTES (8-9)
1) Wind: ASCE 7-05; 110mph (3-second gust); TCDL=4.2psf; BCDL=3.0psf; h=14ft; Cat. II; Exp C; enclosed; MWFRS (low-rise) 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
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 SYP No.2 .
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 308 lb uplift at joint 8 and 339 lb uplift at joint 2.
7) "Semi-rigid pitchbreaks including heels" Member end fixity model was used in the analysis and design of this truss.
8) This manufactured product 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.
9) Truss Design Engineer: Julius Lee, PE: Florida P.E. License No. 34869: Address: 1109 Coastal Bay Blvd. Boynton Beach, FL 33435

LOAD CASE(S) Standard



June 29,2009

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 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. Applicability of design parameters and proper incorporation of component is responsibility of building designer - not truss designer. Bracing shown is for lateral support of individual web members only. Additional temporary bracing to insure stability during construction is the responsibility of the erector. Additional permanent bracing of the overall structure is the responsibility of the building designer. For general guidance regarding fabrication, quality control, storage, delivery, erection and bracing, consult **ANSI/TPI1 Quality Criteria, DSB-89 and BCSI1 Building Component Safety Information** available from Truss Plate Institute, 583 D'Onofrio Drive, Madison, WI 53719.

Julius Lee Engineering
1109 Coastal Bay Blvd.
Boynton, FL 33435

Job	Truss	Truss Type	Qty	Ply	RICHARD KEEN - LOT 30 EE	I4046158
308959	T07	HIP	1	1	Job Reference (optional)	

Builders FrstSource, Lake City, FL 32055 — 7.130 s Apr 28 2009 MiTek Industries, Inc. Mon Jun 29 07:09:42 2009 Page 1

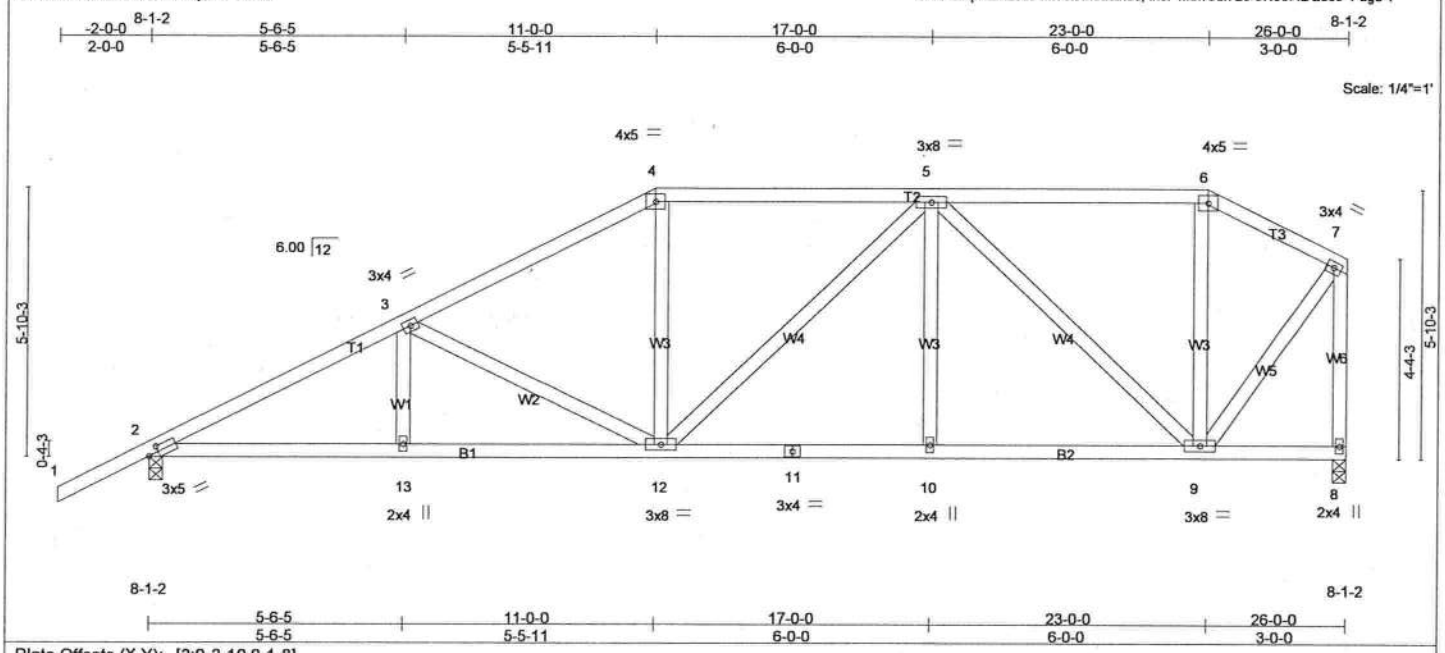


Plate Offsets (X,Y): [2:0-2-10,0-1-8]

LOADING (psf)		SPACING	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plates Increase	1.25	TC	0.36	Vert(LL)	-0.05	12-13	>999	360	MT20	244/190
TCDL	7.0	Lumber Increase	1.25	BC	0.26	Vert(TL)	-0.11	12-13	>999	240		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.77	Horz(TL)	0.04	8	n/a	n/a		
BCDL	5.0	Code FBC2007/TPI2002		(Matrix)		Wind(LL)	0.09	12-13	>999	240	Weight: 155 lb	

LUMBER
TOP CHORD 2 X 4 SYP No.2
BOT CHORD 2 X 4 SYP No.2
WEBS 2 X 4 SYP No.3 *Except*
W6: 2 X 4 SYP No.2

BRACING
TOP CHORD Structural wood sheathing directly applied or 5-0-12 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 6-4-0 oc bracing.

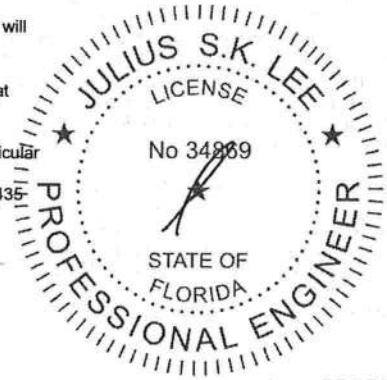
MiTek recommends that Stabilizers and required cross bracing be installed during truss erection, in accordance with Stabilizer Installation guide.

REACTIONS (lb/size) 2=943/0-1-8 (input: 0-3-8), 8=818/0-1-8 (input: 0-3-8)
Max Horz 2=239(LC 6)
Max Uplift 2=-356(LC 6), 8=-231(LC 5)

FORCES (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-1492/942, 3-4=-1113/779, 4-5=-937/768, 5-6=-402/359, 6-7=-477/352, 7-8=-807/585
BOT CHORD 2-13=-989/1266, 12-13=-989/1266, 11-12=-627/893, 10-11=-627/893, 9-10=-627/893
WEBS 3-12=-374/349, 4-12=-78/251, 5-9=-688/491, 7-9=-454/676

NOTES (9-10)
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-05; 110mph (3-second gust); TCDL=4.2psf; BCDL=3.0psf; h=14ft; Cat. II; Exp C; enclosed; MWFRS (low-rise) 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.
6) All bearings are assumed to be SYP No.2 .
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 356 lb uplift at joint 2 and 231 lb uplift at joint 8.
8) "Semi-rigid pitchbreaks including heels" Member end fixity model was used in the analysis and design of this truss.
9) This manufactured product 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.
10) Truss Design Engineer: Julius Lee, PE: Florida P.E. License No. 34869: Address: 1109 Coastal Bay Blvd. Boynton Beach, FL 33435

LOAD CASE(S) Standard



June 29,2009

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 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. Applicability of design parameters and proper incorporation of component is responsibility of building designer - not truss designer. Bracing shown is for lateral support of individual web members only. Additional temporary bracing to insure stability during construction is the responsibility of the erector. Additional permanent bracing of the overall structure is the responsibility of the building designer. For general guidance regarding fabrication, quality control, storage, delivery, erection and bracing, consult **ANSI/TPI1 Quality Criteria, DSB-89 and BCSI1 Building Component Safety Information** available from Truss Plate Institute, 583 D'Onofrio Drive, Madison, WI 53719.

Julius Lee Engineering
1109 Coastal Bay Blvd.
Boynton, FL 33435

Job	Truss	Truss Type	Qty	Ply	RICHARD KEEN - LOT 30 EE	I4046159
308959	T08	HIP	1	1	Job Reference (optional)	

Builders FrstSource, Lake City, FL 32055 — 7.130 s Apr 28 2009 MiTek Industries, Inc. Mon Jun 29 07:09:43 2009 Page 1

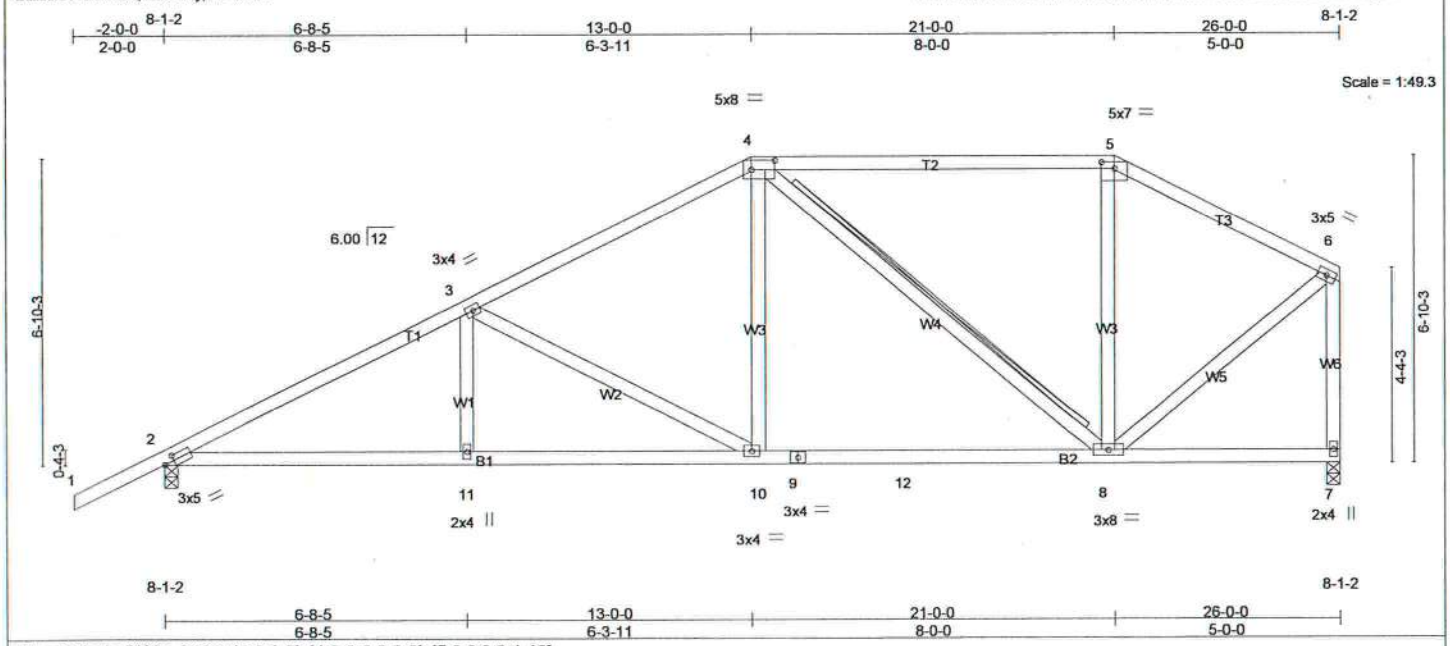


Plate Offsets (X,Y): [2:0-2-10,0-1-8], [4:0-6-0,0-2-8], [5:0-3-8,0-1-12]

LOADING (psf)		SPACING	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plates Increase	1.25	TC	0.42	Vert(LL)	-0.11	8-10	>999	360	MT20	244/190
TCDL	7.0	Lumber Increase	1.25	BC	0.42	Vert(TL)	-0.18	8-10	>999	240		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.40	Horz(TL)	0.04	7	n/a	n/a		
BCDL	5.0	Code FBC2007/TPI2002		(Matrix)		Wind(LL)	0.08	10-11	>999	240	Weight: 147 lb	

LUMBER
TOP CHORD 2 X 4 SYP No.2
BOT CHORD 2 X 4 SYP No.2
WEBS 2 X 4 SYP No.3 *Except*
W6: 2 X 4 SYP No.2

BRACING
TOP CHORD Structural wood sheathing directly applied or 4-9-4 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.
WEBS T-Brace: 2 X 4 SYP No.3 - 4-8
Fasten T and I braces to narrow edge of web with 10d Common wire nails, 9in o.c.,with 4in minimum end distance.
Brace must cover 90% of web length.

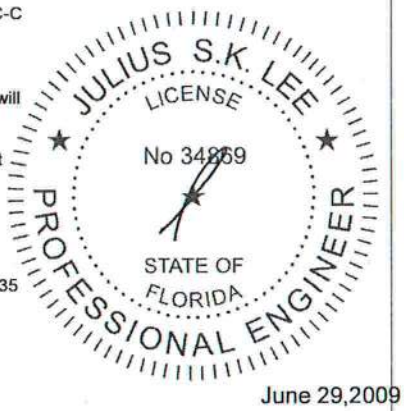
MiTek recommends that Stabilizers and required cross bracing be installed during truss erection, in accordance with Stabilizer Installation guide.

REACTIONS (lb/size) 2=999/0-1-8 (input: 0-3-8), 7=890/0-1-8 (input: 0-3-8)
Max Horz 2=254(LC 6)
Max Uplift 2=-368(LC 6), 7=-194(LC 7)

FORCES (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-1570/936, 3-4=-1131/727, 4-5=-589/500, 5-6=-708/478, 6-7=-880/603
BOT CHORD 2-11=-968/1326, 10-11=-968/1326, 9-10=-584/949, 9-12=-584/949, 8-12=-584/949
WEBS 3-10=-436/438, 4-10=-163/392, 4-8=-503/305, 6-8=-441/753

NOTES (10-11)
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-05; 110mph (3-second gust); TCDL=4.2psf; BCDL=3.0psf; h=14ft; Cat. II; Exp C; enclosed; MWFRS (low-rise) 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 = 5.0psf.
6) All bearings are assumed to be SYP No.2 .
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 368 lb uplift at joint 2 and 194 lb uplift at joint 7.
8) "Semi-rigid pitchbreaks including heels" Member end fixity model was used in the analysis and design of this truss.
9) Warning: Additional permanent and stability bracing for truss system (not part of this component design) is always required.
10) This manufactured product 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.
11) Truss Design Engineer: Julius Lee, PE: Florida P.E. License No. 34869: Address: 1109 Coastal Bay Blvd. Boynton Beach, FL 33435

LOAD CASE(S) Standard



June 29,2009

Julius Lee Engineering
1109 Coastal Bay Blvd.
Boynton, FL 33435

Job	Truss	Truss Type	Qty	Ply	RICHARD KEEN - LOT 30 EE	I4046160
308959	T09	SPECIAL	1	1	Job Reference (optional)	

Builders FrstSource, Lake City, FL 32055 — 7.130 s Apr 28 2009 MiTek Industries, Inc. Mon Jun 29 07:09:44 2009 Page 1

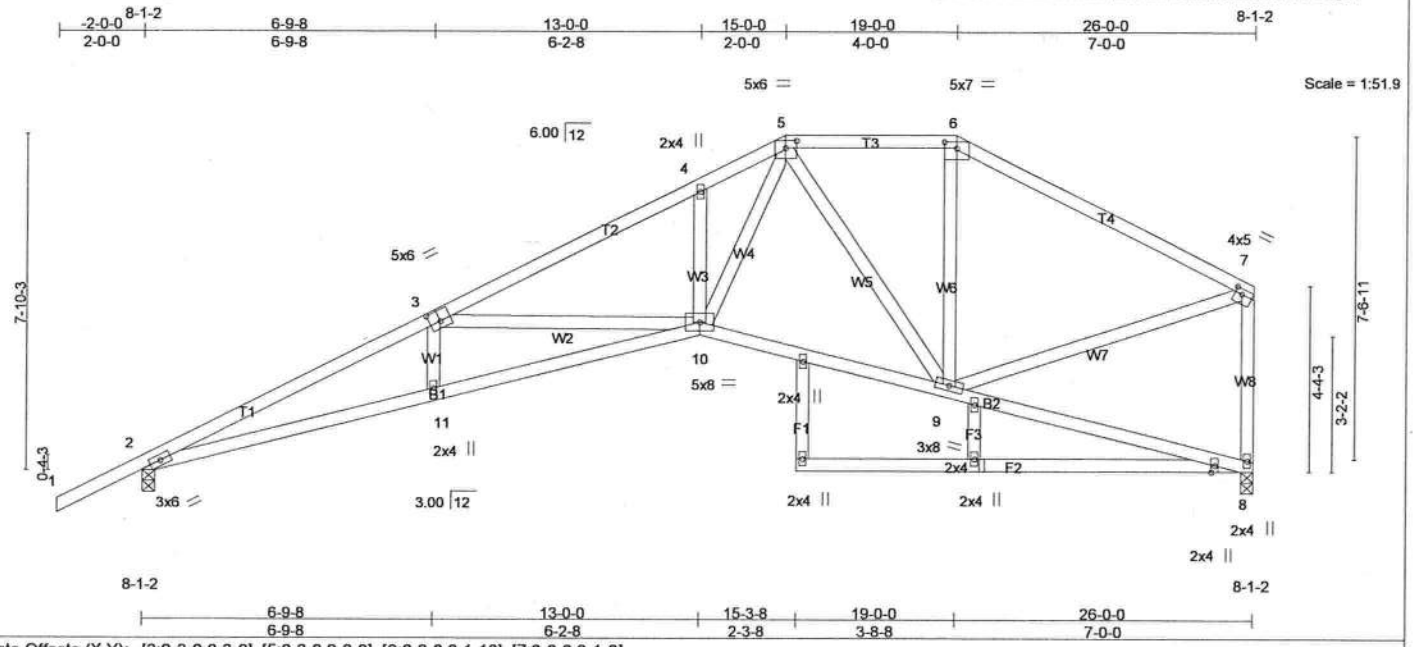


Plate Offsets (X,Y): [3:0-3-0,0-3-0], [5:0-3-0,0-2-0], [6:0-3-8,0-1-12], [7:0-2-0,0-1-8]

LOADING (psf)		SPACING	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plates Increase	1.25	TC	0.51	Vert(LL)	-0.18	10-11	>999	360	MT20	244/190
TCDL	7.0	Lumber Increase	1.25	BC	0.51	Vert(TL)	-0.36	10-11	>864	240		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.51	Horz(TL)	0.21	8	n/a	n/a		
BCDL	5.0	Code FBC2007/TPI2002		(Matrix)		Wind(LL)	0.29	10-11	>999	240	Weight: 164 lb	

LUMBER
TOP CHORD 2 X 4 SYP No.2
BOT CHORD 2 X 4 SYP No.2
WEBS 2 X 4 SYP No.3 *Except*
W8: 2 X 4 SYP No.2

BRACING
TOP CHORD Structural wood sheathing directly applied or 3-6-12 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 4-6-6 oc bracing. Except:
7-4-0 oc bracing: 8-10

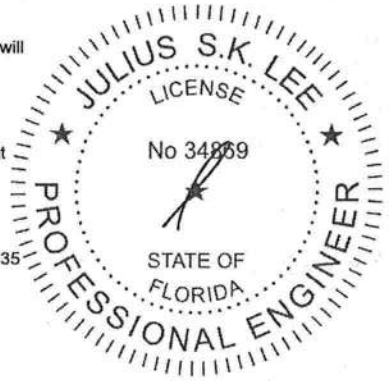
MiTek recommends that Stabilizers and required cross bracing be installed during truss erection, in accordance with Stabilizer Installation guide.

REACTIONS (lb/size) 2=943/0-1-8 (input: 0-3-8), 8=818/0-1-8 (input: 0-3-8)
Max Horz 2=267(LC 6)
Max Uplift 2=-377(LC 6), 8=-212(LC 7)

FORCES (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-2663/1909, 3-4=-1861/1387, 4-5=-1832/1553, 5-6=-737/696, 6-7=-905/672, 7-8=-792/630
BOT CHORD 2-11=-1887/2367, 10-11=-1891/2368, 9-10=-744/1087
WEBS 3-10=-705/656, 4-10=-269/354, 5-10=-1094/1308, 5-9=-602/422, 7-9=-479/746

NOTES (10-11)
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-05; 110mph (3-second gust); TCDL=4.2psf; BCDL=3.0psf; h=14ft; Cat. II; Exp C; enclosed; MWFRS (low-rise) 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.
6) All bearings are assumed to be SYP No.2 .
7) Bearing at joint(s) 2, 8 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 377 lb uplift at joint 2 and 212 lb uplift at joint 8.
9) "Semi-rigid pitchbreaks including heels" Member end fixity model was used in the analysis and design of this truss.
10) This manufactured product 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.
11) Truss Design Engineer: Julius Lee, PE: Florida P.E. License No. 34869: Address: 1109 Coastal Bay Blvd. Boynton Beach, FL 33435

LOAD CASE(S) Standard



June 29,2009

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 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. Applicability of design parameters and proper incorporation of component is responsibility of building designer - not truss designer. Bracing shown is for lateral support of individual web members only. Additional temporary bracing to insure stability during construction is the responsibility of the erector. Additional permanent bracing of the overall structure is the responsibility of the building designer. For general guidance regarding fabrication, quality control, storage, delivery, erection and bracing, consult **ANSI/TPI1 Quality Criteria, DSB-89 and BCSI1 Building Component Safety Information** available from Truss Plate Institute, 583 D'Onofrio Drive, Madison, WI 53719.

Julius Lee Engineering
1109 Coastal Bay Blvd.
Boynton, FL 33435

Job	Truss	Truss Type	Qty	Ply	RICHARD KEEN - LOT 30 EE	I4046161
308959	T10	SCISSORS	2	1	Job Reference (optional)	

Builders FrstSource, Lake City, FL 32055 — 7.130 s Apr 28 2009 MiTek Industries, Inc. Mon Jun 29 07:09:44 2009 Page 1

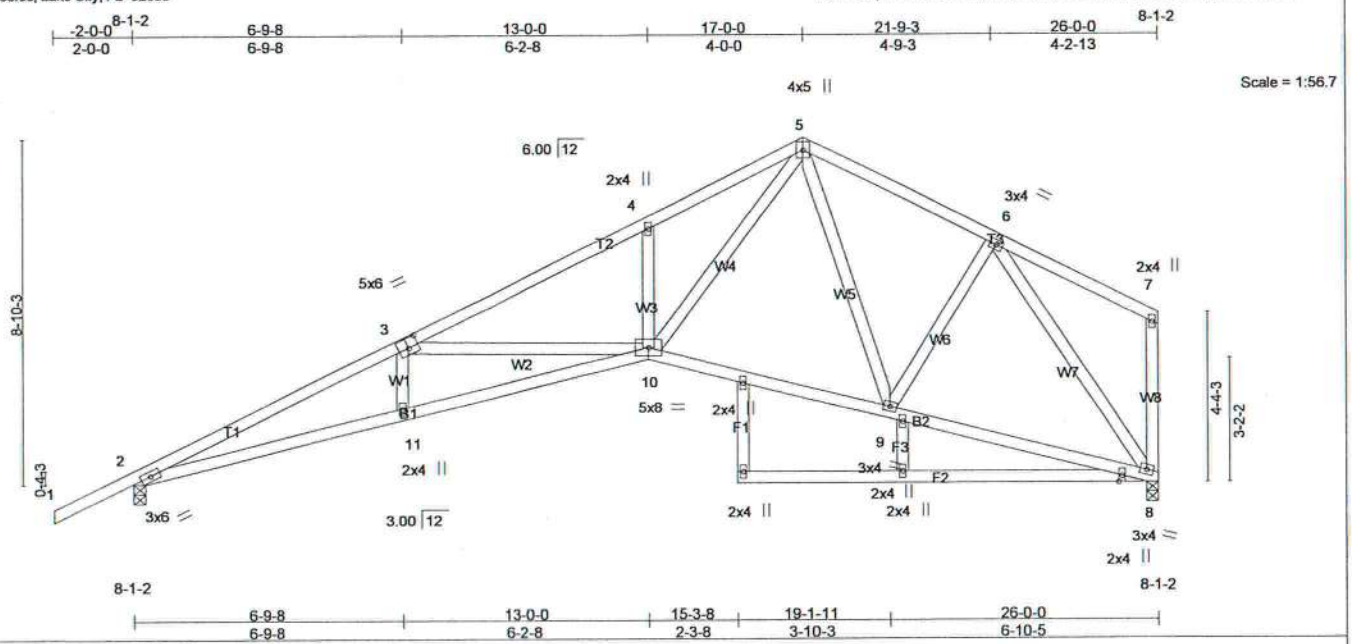


Plate Offsets (X,Y): [3:0-3-0,0-3-0]

LOADING (psf)		SPACING	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plates Increase	1.25	TC	0.51	Vert(LL)	-0.18	10-11	>999	360	MT20	244/190
TCDL	7.0	Lumber Increase	1.25	BC	0.51	Vert(TL)	-0.37	10-11	>842	240		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.93	Horz(TL)	0.22	8	n/a	n/a		
BCDL	5.0	Code FBC2007/TPI2002		(Matrix)		Wind(LL)	0.31	10-11	>999	240	Weight: 167 lb	

LUMBER
TOP CHORD 2 X 4 SYP No.2
BOT CHORD 2 X 4 SYP No.2
WEBS 2 X 4 SYP No.3 *Except*
W8: 2 X 4 SYP No.2

BRACING
TOP CHORD Structural wood sheathing directly applied or 3-6-12 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 4-6-1 oc bracing. Except:
8-11-0 oc bracing: 8-10

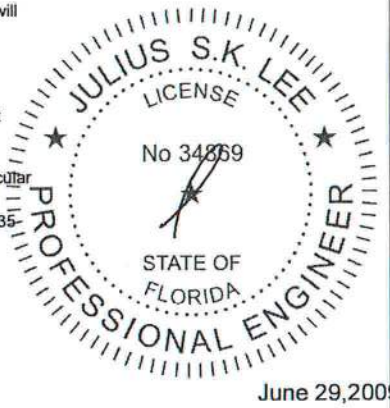
MiTek recommends that Stabilizers and required cross bracing be installed during truss erection, in accordance with Stabilizer Installation guide.

REACTIONS (lb/size) 2=943/0-1-8 (input: 0-3-8), 8=818/0-1-8 (input: 0-3-8)
Max Horz 2=281(LC 6)
Max Uplift 2=-383(LC 6), 8=-233(LC 6)

FORCES (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-2660/1933, 3-4=-1861/1413, 4-5=-1839/1592, 5-6=-834/740
BOT CHORD 2-11=-1908/2364, 10-11=-1912/2365, 9-10=-505/779, 8-9=-431/580
WEBS 3-10=-704/653, 4-10=-294/367, 5-10=-1188/1412, 6-9=-64/281, 6-8=-997/751

NOTES (9-10)
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-05; 110mph (3-second gust); TCDL=4.2psf; BCDL=3.0psf; h=14ft; Cat. II; Exp C; enclosed; MWFRS (low-rise) 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) 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 SYP No.2 .
6) Bearing at joint(s) 2, 8 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 383 lb uplift at joint 2 and 233 lb uplift at joint 8.
8) "Semi-rigid pitchbreaks including heels" Member end fixity model was used in the analysis and design of this truss.
9) This manufactured product 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.
10) Truss Design Engineer: Julius Lee, PE: Florida P.E. License No. 34869: Address: 1109 Coastal Bay Blvd. Boynton Beach, FL 33435

LOAD CASE(S) Standard



June 29,2009

Julius Lee Engineering
1109 Coastal Bay Blvd.
Boynton, FL 33435

Job	Truss	Truss Type	Qty	Ply	RICHARD KEEN - LOT 30 EE	I4046162
308959	T11	SCISSOR	3	1	Job Reference (optional)	

Builders FrstSource, Lake City, FL 32055 — 7.130 s Apr 28 2009 MiTek Industries, Inc. Mon Jun 29 07:09:45 2009 Page 1

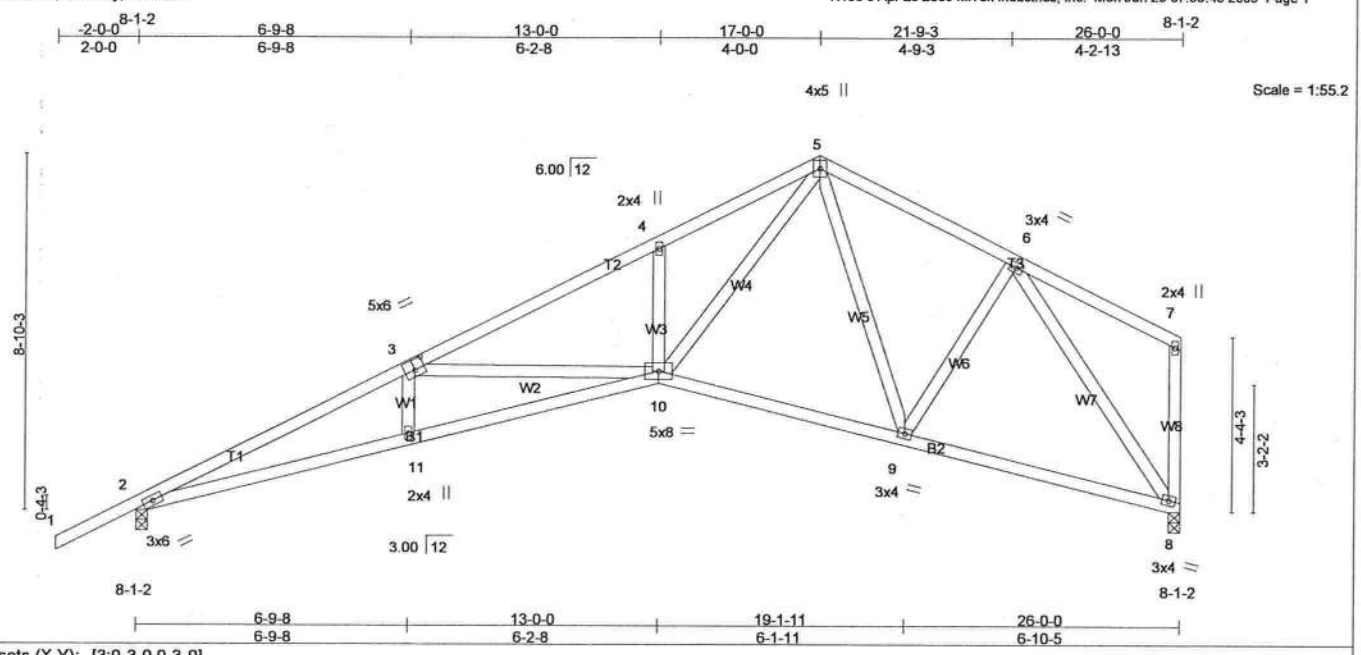


Plate Offsets (X,Y): [3:0-3-0,0-3-0]

LOADING (psf)		SPACING	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plates Increase	1.25	TC	0.51	Vert(LL)	-0.18	10-11	>999	360	MT20	244/190
TCDL	7.0	Lumber Increase	1.25	BC	0.51	Vert(TL)	-0.37	10-11	>841	240		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.93	Horz(TL)	0.22	8	n/a	n/a		
BCDL	5.0	Code FBC2007/TPI2002		(Matrix)		Wind(LL)	0.31	10-11	>999	240	Weight: 146 lb	

LUMBER
TOP CHORD 2 X 4 SYP No.2
BOT CHORD 2 X 4 SYP No.2
WEBS 2 X 4 SYP No.3 *Except*
W8: 2 X 4 SYP No.2

BRACING
TOP CHORD Structural wood sheathing directly applied or 3-6-12 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 4-6-0 oc bracing.

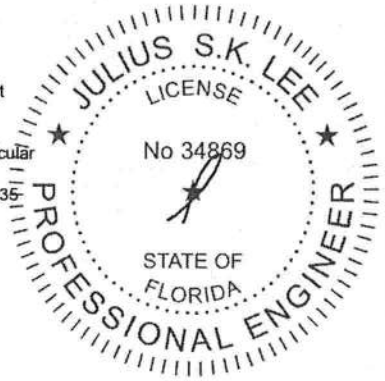
MiTek recommends that Stabilizers and required cross bracing be installed during truss erection, in accordance with Stabilizer Installation guide.

REACTIONS (lb/size) 2=943/0-1-8 (input: 0-3-8), 8=818/0-1-8 (input: 0-3-8)
Max Horz 2=281(LC 6)
Max Uplift 2=-384(LC 6), 8=-233(LC 6)

FORCES (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-2663/1934, 3-4=-1862/1413, 4-5=-1840/1592, 5-6=-834/740
BOT CHORD 2-11=-1910/2367, 10-11=-1914/2368, 9-10=-505/780, 8-9=-431/581
WEBS 3-10=-705/654, 4-10=-294/367, 5-10=-1189/1413, 6-9=-64/281, 6-8=-997/751

NOTES (9-10)
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-05; 110mph (3-second gust); TCDL=4.2psf; BCDL=3.0psf; h=14ft; Cat. II; Exp C; enclosed; MWFRS (low-rise) 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) 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 SYP No.2 .
6) Bearing at joint(s) 2, 8 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 384 lb uplift at joint 2 and 233 lb uplift at joint 8.
8) "Semi-rigid pitchbreaks including heels" Member end fixity model was used in the analysis and design of this truss.
9) This manufactured product 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.
10) Truss Design Engineer: Julius Lee, PE: Florida P.E. License No. 34869: Address: 1109 Coastal Bay Blvd. Boynton Beach, FL 33435

LOAD CASE(S) Standard



June 29,2009

Julius Lee Engineering
1109 Coastal Bay Blvd.
Boynton, FL 33435

Job	Truss	Truss Type	Qty	Ply	RICHARD KEEN - LOT 30 EE	I4046163
308959	T12	SPECIAL	1	1	Job Reference (optional)	

Builders FrstSource, Lake City, FL 32055 — 7.130 s Apr 28 2009 MiTek Industries, Inc. Mon Jun 29 07:09:46 2009 Page 1

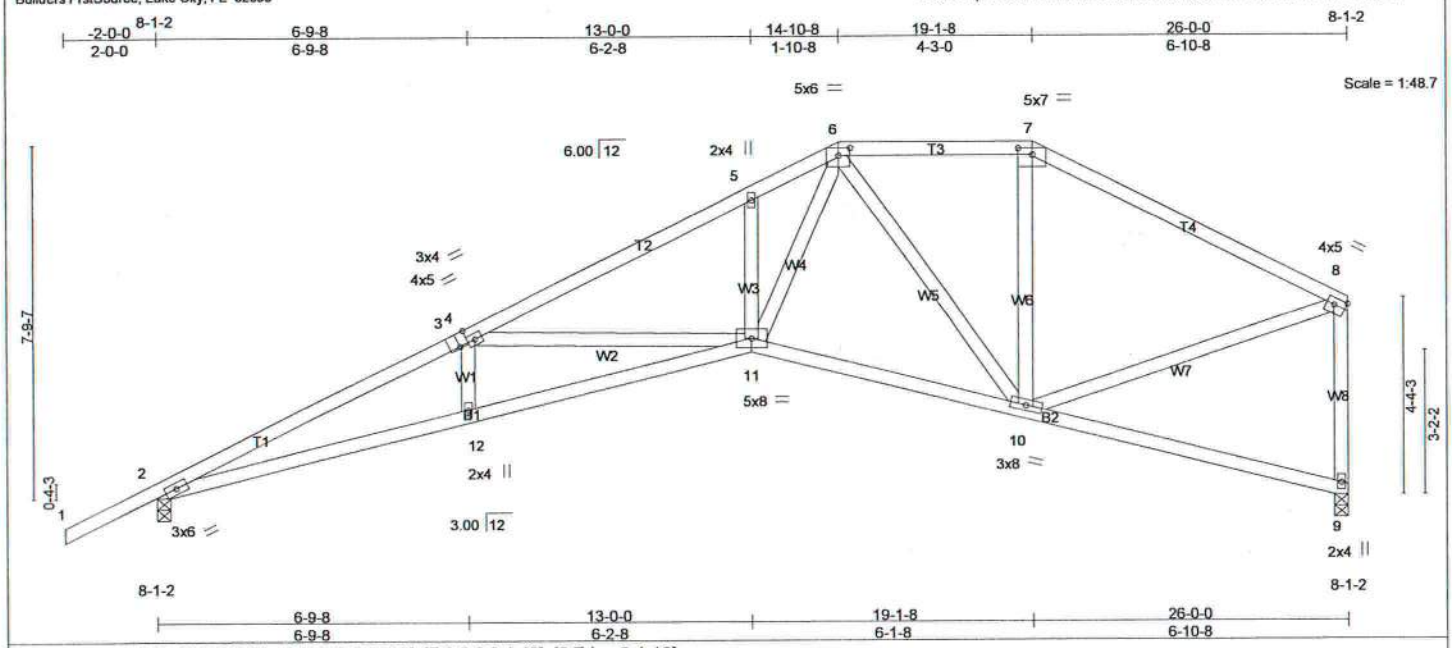


Plate Offsets (X,Y): [3:0-2-6,Edge], [6:0-3-0,0-2-0], [7:0-3-8,0-1-12], [8:Edge,0-1-12]

LOADING (psf)		SPACING	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plates Increase	1.25	TC	0.51	Vert(LL)	-0.18	11-12	>999	360	MT20	244/190
TCDL	7.0	Lumber Increase	1.25	BC	0.51	Vert(TL)	-0.36	11-12	>867	240		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.55	Horz(TL)	0.21	9	n/a	n/a		
BCDL	5.0	Code FBC2007/TPI2002		(Matrix)		Wind(LL)	0.29	11-12	>999	240	Weight: 143 lb	

LUMBER
TOP CHORD 2 X 4 SYP No.2
BOT CHORD 2 X 4 SYP No.2
WEBS 2 X 4 SYP No.3

BRACING
TOP CHORD Structural wood sheathing directly applied or 3-6-14 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 4-6-7 oc bracing.

MiTek recommends that Stabilizers and required cross bracing be installed during truss erection, in accordance with Stabilizer Installation guide.

REACTIONS (lb/size) 2=943/0-1-8 (input: 0-3-8), 9=818/0-1-8 (input: 0-3-8)
Max Horz 2=266(LC 6)
Max Uplift 2=-376(LC 6), 9=-211(LC 7)

FORCES (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-2659/1904, 3-4=-2496/1908, 4-5=-1862/1385, 5-6=-1832/1551, 6-7=-733/689, 7-8=-898/666, 8-9=-793/628
BOT CHORD 2-12=-1883/2363, 11-12=-1887/2365, 10-11=-764/1113
WEBS 4-11=-700/653, 5-11=-269/355, 6-11=-1089/1304, 6-10=-625/441, 8-10=-480/746

NOTES (10-11)
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-05; 110mph (3-second gust); TCDL=4.2psf; BCDL=3.0psf; h=14ft; Cat. II; Exp C; enclosed; MWFRS (low-rise) 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.
6) All bearings are assumed to be SYP No.2 .
7) Bearing at joint(s) 2, 9 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 376 lb uplift at joint 2 and 211 lb uplift at joint 9.
9) "Semi-rigid pitchbreaks including heels" Member end fixity model was used in the analysis and design of this truss.
10) This manufactured product 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.
11) Truss Design Engineer: Julius Lee, PE: Florida P.E. License No. 34869: Address: 1109 Coastal Bay Blvd. Boynton Beach, FL 33435

LOAD CASE(S) Standard

JULIUS S.K. LEE LICENSE No 34869 STATE OF FLORIDA PROFESSIONAL ENGINEER

June 29,2009

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 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. Applicability of design parameters and proper incorporation of component is responsibility of building designer - not truss designer. Bracing shown is for lateral support of individual web members only. Additional temporary bracing to insure stability during construction is the responsibility of the erector. Additional permanent bracing of the overall structure is the responsibility of the building designer. For general guidance regarding fabrication, quality control, storage, delivery, erection and bracing, consult **ANSI/TPI1 Quality Criteria, DSB-89 and BCSI1 Building Component Safety Information** available from Truss Plate Institute, 583 D'Onofrio Drive, Madison, WI 53719.

Julius Lee Engineering
1109 Coastal Bay Blvd.
Boynton, FL 33435

Job	Truss	Truss Type	Qty	Ply	RICHARD KEEN - LOT 30 EE	I4046164
308959	T13	SPECIAL	1	1	Job Reference (optional)	

Builders FrstSource, Lake City, FL 32055 — 7.130 s Apr 28 2009 MiTek Industries, Inc. Mon Jun 29 07:09:46 2009 Page 1

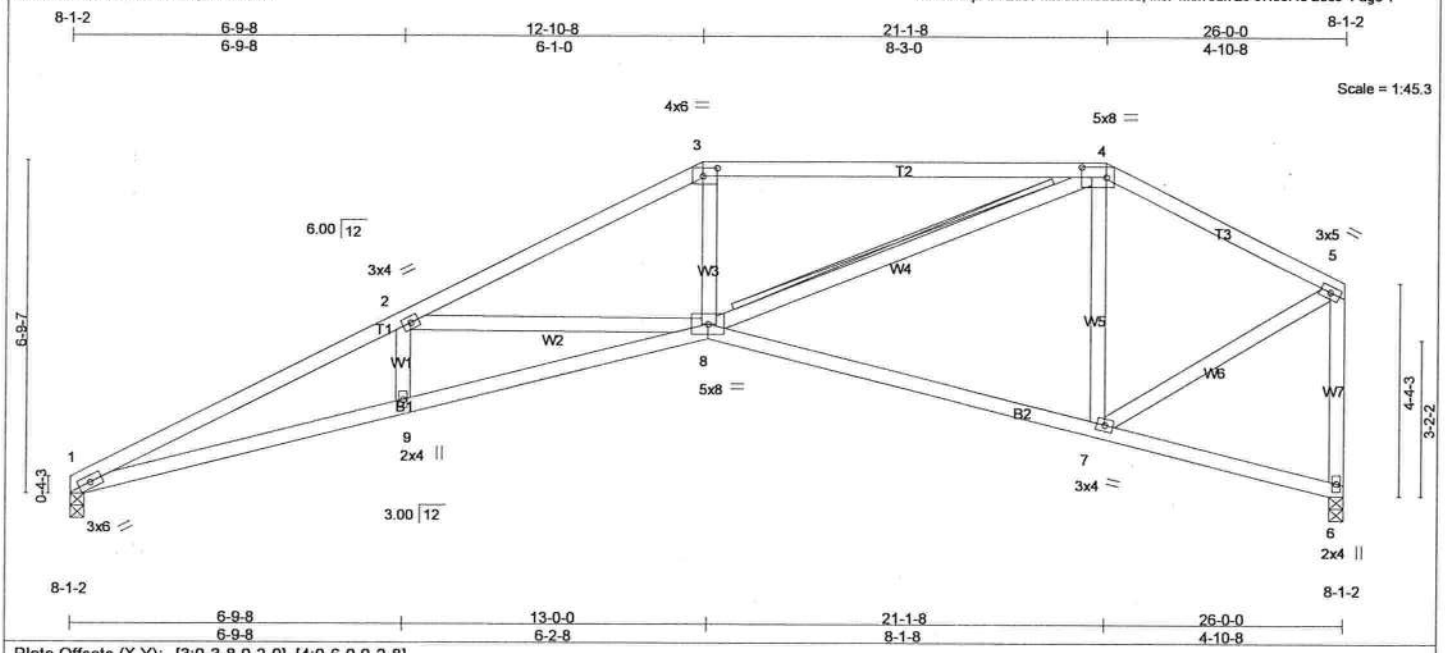


Plate Offsets (X,Y): [3:0-3-8,0-2-0], [4:0-6-0,0-2-8]

LOADING (psf)		SPACING	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plates Increase	1.25	TC	0.65	Vert(LL)	-0.19	8-9	>999	360	MT20	244/190
TCDL	7.0	Lumber Increase	1.25	BC	0.56	Vert(TL)	-0.37	8-9	>845	240		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.50	Horz(TL)	0.22	6	n/a	n/a		
BCDL	5.0	Code FBC2007/TPI2002		(Matrix)		Wind(LL)	0.31	8-9	>999	240	Weight: 131 lb	

LUMBER
TOP CHORD 2 X 4 SYP No.2
BOT CHORD 2 X 4 SYP No.2
WEBS 2 X 4 SYP No.3

BRACING
TOP CHORD Structural wood sheathing directly applied or 3-4-5 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 4-4-8 oc bracing.
WEBS T-Brace: 2 X 4 SYP No.3 - 4-8
Fasten T and I braces to narrow edge of web with 10d Common wire nails, 9in o.c.,with 4in minimum end distance.
Brace must cover 90% of web length.

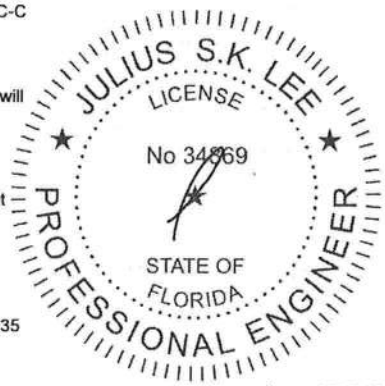
MiTek recommends that Stabilizers and required cross bracing be installed during truss erection, in accordance with Stabilizer Installation guide.

REACTIONS (lb/size) 1=823/0-1-8 (input: 0-3-8), 6=823/0-1-8 (input: 0-3-8)
Max Horz 1=195(LC 6)
Max Uplift 1=-248(LC 6), 6=-196(LC 6)

FORCES (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-2=-2705/2018, 2-3=-1897/1401, 3-4=-1645/1340, 4-5=-771/569, 5-6=-809/614
BOT CHORD 1-9=-2002/2428, 8-9=-2003/2428, 7-8=-446/665
WEBS 2-8=-722/756, 4-8=-827/1094, 4-7=-465/409, 5-7=-499/749, 3-8=-275/458

NOTES (11-12)
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-05; 110mph (3-second gust); TCDL=4.2psf; BCDL=3.0psf; h=14ft; Cat. II; Exp C; enclosed; MWFRS (low-rise) 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.
6) All bearings are assumed to be SYP No.2 .
7) Bearing at joint(s) 1, 6 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 248 lb uplift at joint 1 and 196 lb uplift at joint 6.
9) "Semi-rigid pitchbreaks including heels" Member end fixity model was used in the analysis and design of this truss.
10) Warning: Additional permanent and stability bracing for truss system (not part of this component design) is always required.
11) This manufactured product 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.
12) Truss Design Engineer: Julius Lee, PE: Florida P.E. License No. 34869: Address: 1109 Coastal Bay Blvd. Boynton Beach, FL 33435

LOAD CASE(S) Standard

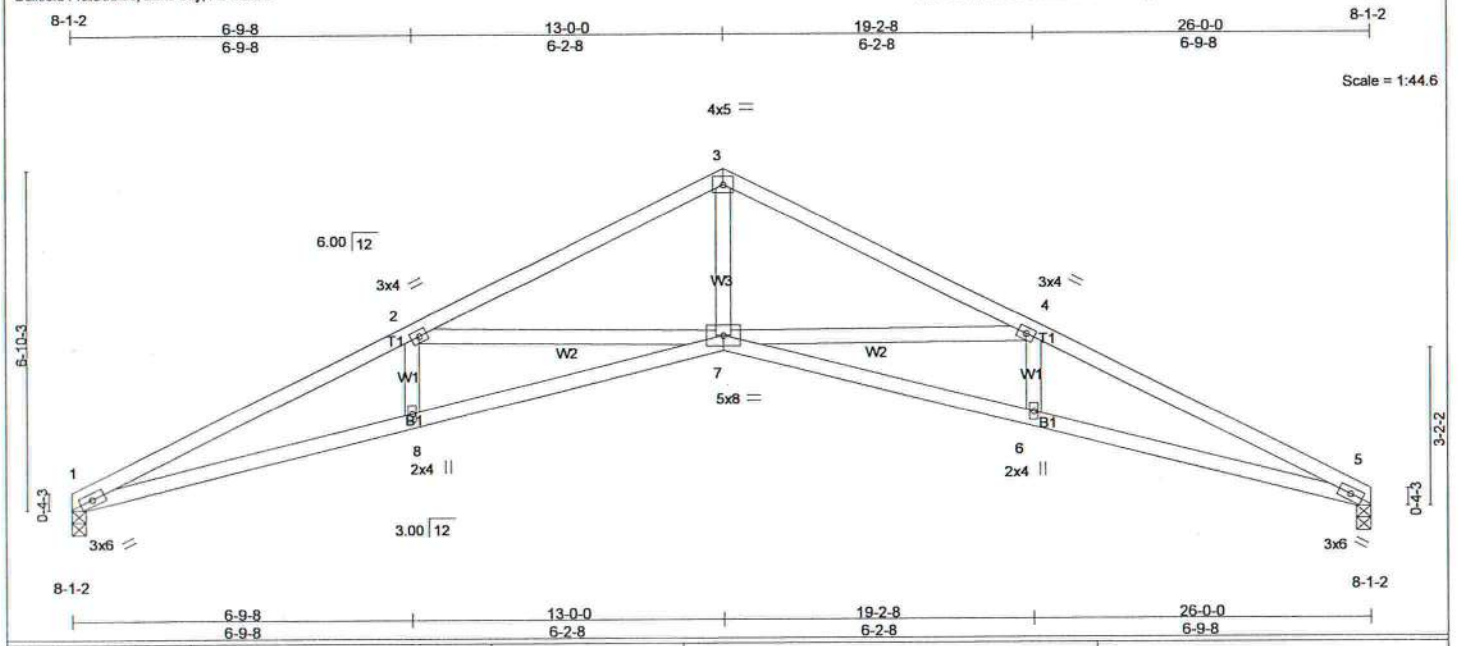


June 29,2009

Julius Lee Engineering
1109 Coastal Bay Blvd.
Boynton, FL 33435

Job	Truss	Truss Type	Qty	Ply	RICHARD KEEN - LOT 30 EE	I4046165
308959	T14	SCISSORS	5	1	Job Reference (optional)	

Builders FrstSource, Lake City, FL 32055 — 7.130 s Apr 28 2009 MiTek Industries, Inc. Mon Jun 29 07:09:47 2009 Page 1



LOADING (psf)		SPACING	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plates Increase	1.25	TC	0.53	Vert(LL)	-0.24	7-8	>999	360	MT20	244/190
TCDL	7.0	Lumber Increase	1.25	BC	0.55	Vert(TL)	-0.47	7-8	>651	240		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.55	Horz(TL)	0.34	5	n/a	n/a		
BCDL	5.0	Code FBC2007/TPI2002		(Matrix)		Wind(LL)	0.35	7-8	>879	240	Weight: 111 lb	

LUMBER
TOP CHORD 2 X 4 SYP No.2
BOT CHORD 2 X 4 SYP No.2
WEBS 2 X 4 SYP No.3

BRACING
TOP CHORD Structural wood sheathing directly applied or 3-4-8 oc purlins.
BOT CHORD Rigid ceiling directly applied or 4-10-4 oc bracing.

MiTek recommends that Stabilizers and required cross bracing be installed during truss erection, in accordance with Stabilizer Installation guide.

REACTIONS (lb/size) 1=823/0-1-8 (input: 0-3-8), 5=823/0-1-8 (input: 0-3-8)
Max Horz 1=-102(LC 4)
Max Uplift 1=-257(LC 6), 5=-257(LC 7)

FORCES (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-2=-2713/1902, 2-3=-1879/1261, 3-4=-1879/1261, 4-5=-2713/1902
BOT CHORD 1-8=-1634/2436, 7-8=-1635/2436, 6-7=-1635/2436, 5-6=-1634/2436
WEBS 2-7=-794/784, 3-7=-830/1306, 4-7=-794/784

NOTES (9-10)
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-05; 110mph (3-second gust); TCDL=4.2psf; BCDL=3.0psf; h=14ft; Cat. II; Exp C; enclosed; MWFRS (low-rise) 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) 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 SYP No.2 .
6) Bearing at joint(s) 1, 5 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 257 lb uplift at joint 1 and 257 lb uplift at joint 5.
8) "Semi-rigid pitchbreaks including heels" Member end fixity model was used in the analysis and design of this truss.
9) This manufactured product 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.
10) Truss Design Engineer: Julius Lee, PE: Florida P.E. License No. 34869: Address: 1109 Coastal Bay Blvd. Boynton Beach, FL 33435

LOAD CASE(S) Standard

JULIUS S.K. LEE LICENSE No 34869 STATE OF FLORIDA PROFESSIONAL ENGINEER

June 29,2009

Julius Lee Engineering
1109 Coastal Bay Blvd.
Boynton, FL 33435

Job	Truss	Truss Type	Qty	Ply	RICHARD KEEN - LOT 30 EE	I4046166
308959	T15	HIP	1	2	Job Reference (optional)	

Builders FrstSource, Lake City, FL 32055 — 7.130 s Apr 28 2009 MiTek Industries, Inc. Mon Jun 29 07:09:50 2009 Page 1

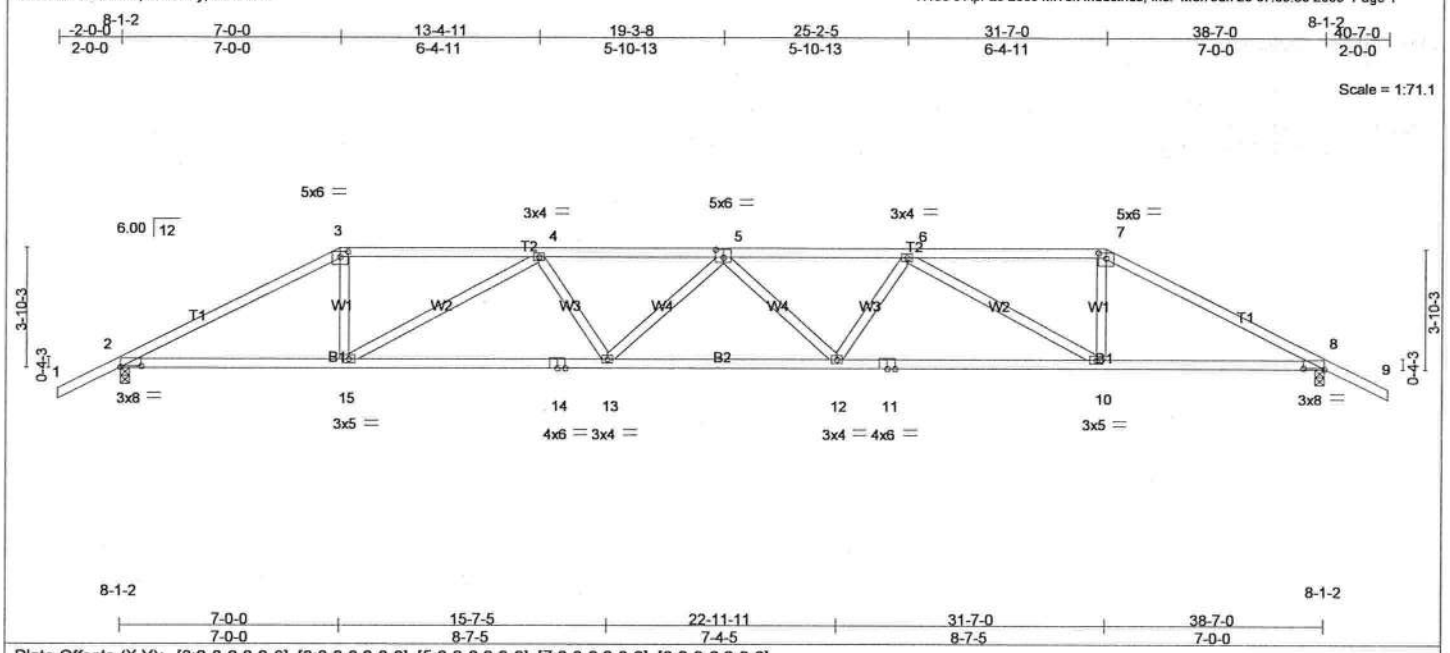


Plate Offsets (X,Y): [2:0-8-0,0-0-6], [3:0-3-0,0-2-0], [5:0-3-0,0-3-0], [7:0-3-0,0-2-0], [8:0-8-0,0-0-6]

LOADING (psf)		SPACING	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plates Increase	1.25	TC	0.42	Vert(LL)	-0.36	12-13	>999	360	MT20	244/190
TCDL	7.0	Lumber Increase	1.25	BC	0.76	Vert(TL)	-0.70	12-13	>661	240		
BCLL	0.0 *	Rep Stress Incr	NO	WB	0.55	Horz(TL)	0.20	8	n/a	n/a		
BCDL	5.0	Code FBC2007/TPI2002		(Matrix)		Wind(LL)	0.39	12-13	>999	240	Weight: 362 lb	

LUMBER
TOP CHORD 2 X 4 SYP No.2
BOT CHORD 2 X 4 SYP No.2
WEBS 2 X 4 SYP No.3

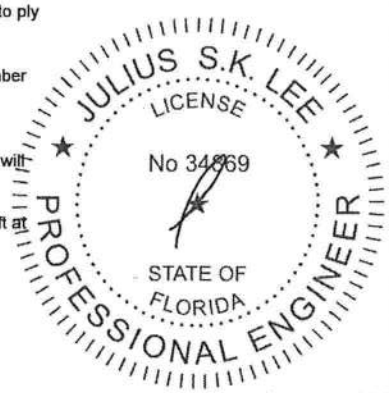
BRACING
TOP CHORD Structural wood sheathing directly applied or 4-9-2 oc purlins.
BOT CHORD Rigid ceiling directly applied or 7-5-6 oc bracing.

REACTIONS (lb/size) 2=2676/0-1-9 (input: 0-3-8), 8=2676/0-1-9 (input: 0-3-8)
Max Horz 2=94(LC 5)
Max Uplift 2=-1122(LC 4), 8=-1122(LC 3)

FORCES (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-5213/2296, 3-4=-4630/2111, 4-5=-7176/3248, 5-6=-7176/3248, 6-7=-4630/2111, 7-8=-5213/2296
BOT CHORD 2-15=-2001/4555, 14-15=-3110/6866, 13-14=-3110/6866, 12-13=-3376/7511, 11-12=-3070/6866, 10-11=-3070/6866, 8-10=-1961/4555
WEBS 3-15=-778/1853, 4-15=-2643/1312, 4-13=-142/610, 5-13=-493/322, 5-12=-493/322, 6-12=-142/610, 6-10=-2643/1312, 7-10=-778/1853

NOTES (13-14)
1) 2-ply truss to be connected together with 10d (0.131"x3") nails as follows:
Top chords connected as follows: 2 X 4 - 1 row at 0-9-0 oc.
Bottom chords connected as follows: 2 X 4 - 1 row at 0-9-0 oc.
Webs connected as follows: 2 X 4 - 1 row at 0-9-0 oc.
2) All loads are considered equally applied to all plies, except if noted as front (F) or back (B) face in the LOAD CASE(S) section. Ply to ply connections have been provided to distribute only loads noted as (F) or (B), unless otherwise indicated.
3) Unbalanced roof live loads have been considered for this design.
4) Wind: ASCE 7-05; 110mph (3-second gust); TCDL=4.2psf; BCDL=3.0psf; h=14ft; Cat. II; Exp C; enclosed; MWFRS (low-rise); Lumber DOL=1.60 plate grip DOL=1.60
5) Provide adequate drainage to prevent water ponding.
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 SYP No.2 .
9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 1122 lb uplift at joint 2 and 1122 lb uplift at joint 8.
10) Girder carries hip end with 7-0-0 end setback.
11) "Semi-rigid pitchbreaks including heels" Member end fixity model was used in the analysis and design of this truss.
12) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 411 lb down and 220 lb up at 31-7-0, and 411 lb down and 220 lb up at 7-0-0 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
13) This manufactured product 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.
14) Truss Design Engineer: Julius Lee, PE: Florida P.E. License No. 34869: Address: 1109 Coastal Bay Blvd. Boynton Beach, FL 33435

Continued on page 2



June 29,2009

Julius Lee Engineering
1109 Coastal Bay Blvd.
Boynton, FL 33435

Job	Truss	Truss Type	Qty	Ply	RICHARD KEEN - LOT 30 EE	I4046166
308959	T15	HIP	1	2	Job Reference (optional)	

LOAD CASE(S) Standard

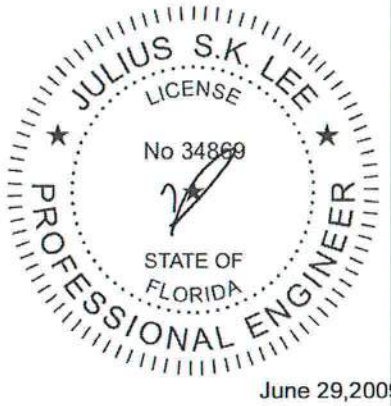
1) Regular: Lumber Increase=1.25, Plate Increase=1.25

Uniform Loads (plf)

Vert: 1-3=-54, 3-7=-118(F=-64), 7-9=-54, 2-15=-10, 10-15=-22(F=-12), 8-10=-10

Concentrated Loads (lb)

Vert: 15=-411(F) 10=-411(F)



June 29,2009

Julius Lee Engineering
1109 Coastal Bay Blvd.
Boynton, FL 33435

Job	Truss	Truss Type	Qty	Ply	RICHARD KEEN - LOT 30 EE	I4046167
308959	T16	HIP	1	1	Job Reference (optional)	

Builders FrstSource, Lake City, FL 32055 — 7.130 s Apr 28 2009 MiTek Industries, Inc. Mon Jun 29 07:09:51 2009 Page 1

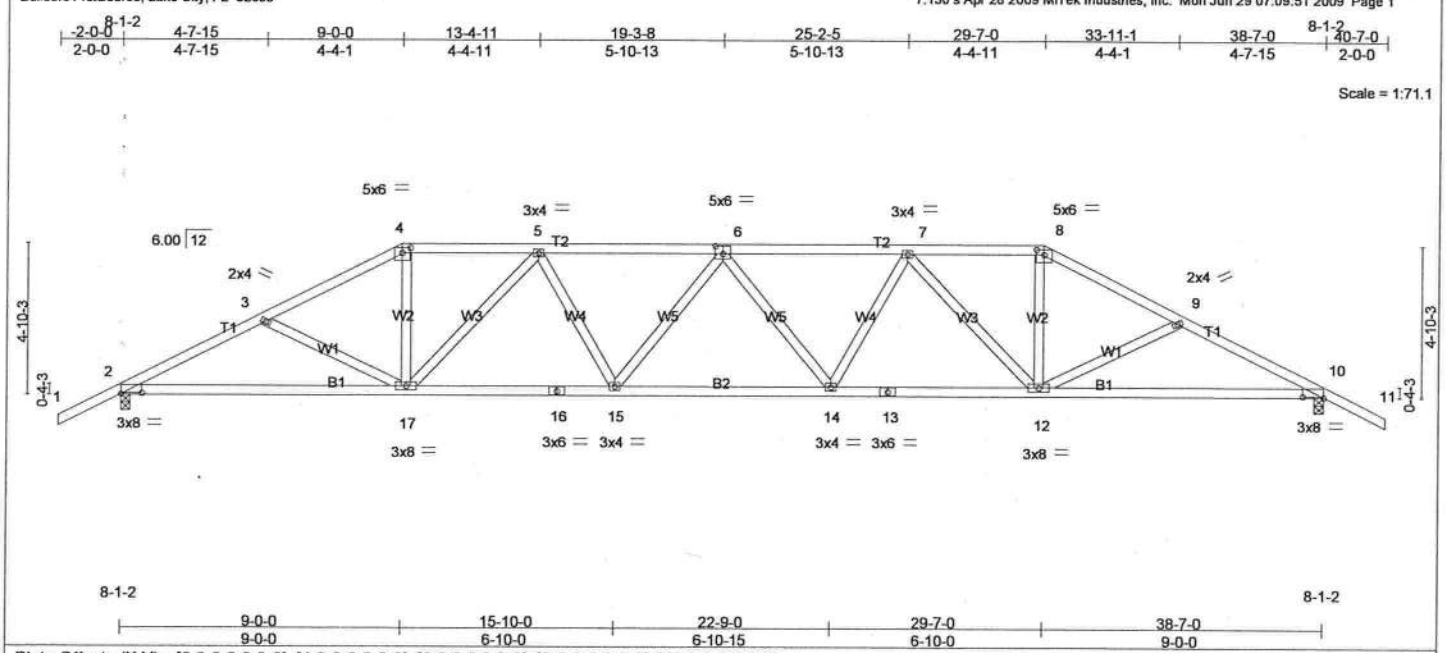


Plate Offsets (X,Y): [2:0-8-0,0-0-6], [4:0-3-0,0-2-0], [6:0-3-0,0-3-0], [8:0-3-0,0-2-0], [10:0-8-0,0-0-6]

LOADING (psf)		SPACING	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plates Increase	1.25	TC	0.47	Vert(LL)	-0.22	14-15	>999	360	MT20	244/190
TCDL	7.0	Lumber Increase	1.25	BC	0.63	Vert(TL)	-0.44	14-15	>999	240		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.52	Horz(TL)	0.14	10	n/a	n/a		
BCDL	5.0	Code FBC2007/TPI2002		(Matrix)		Wind(LL)	0.30	14-15	>999	240	Weight: 201 lb	

LUMBER
TOP CHORD 2 X 4 SYP No.2
BOT CHORD 2 X 4 SYP No.2
WEBS 2 X 4 SYP No.3

BRACING
TOP CHORD Structural wood sheathing directly applied or 3-10-7 oc purlins.
BOT CHORD Rigid ceiling directly applied or 5-2-6 oc bracing.

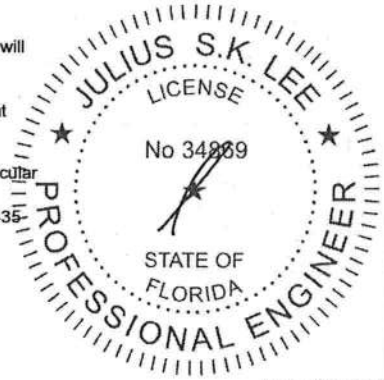
MiTek recommends that Stabilizers and required cross bracing be installed during truss erection, in accordance with Stabilizer Installation guide.

REACTIONS (lb/size) 2=1341/0-1-9 (input: 0-3-8), 10=1341/0-1-9 (input: 0-3-8)
Max Horz 2=108(LC 6)
Max Uplift 2=-420(LC 6), 10=-420(LC 7)

FORCES (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-2334/1584, 3-4=-2098/1441, 4-5=-1847/1362, 5-6=-2449/1767, 6-7=-2449/1767, 7-8=-1847/1362, 8-9=-2098/1441, 9-10=-2334/1584
BOT CHORD 2-17=-1214/2016, 16-17=-1330/2325, 15-16=-1330/2325, 14-15=-1506/2576, 13-14=-1330/2325, 12-13=-1330/2325, 10-12=-1214/2016
WEBS 3-17=-215/268, 4-17=-427/691, 5-17=-762/503, 5-15=-131/303, 6-15=-256/190, 6-14=-256/190, 7-14=-131/303, 7-12=-762/503, 8-12=-427/691, 9-12=-215/268

NOTES (9-10)
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-05; 110mph (3-second gust); TCDL=4.2psf; BCDL=3.0psf; h=14ft; Cat. II; Exp C; enclosed; MWFRS (low-rise) 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.
6) All bearings are assumed to be SYP No.2 .
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 420 lb uplift at joint 2 and 420 lb uplift at joint 10.
8) "Semi-rigid pitchbreaks including heels" Member end fixity model was used in the analysis and design of this truss.
9) This manufactured product 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.
10) Truss Design Engineer: Julius Lee, PE: Florida P.E. License No. 34869: Address: 1109 Coastal Bay Blvd. Boynton Beach, FL 33435

LOAD CASE(S) Standard



June 29,2009

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 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. Applicability of design paramenters and proper incorporation of component is responsibility of building designer - not truss designer. Bracing shown is for lateral support of individual web members only. Additional temporary bracing to insure stability during construction is the responsibility of the erector. Additional permanent bracing of the overall structure is the responsibility of the building designer. For general guidance regarding fabrication, quality control, storage, delivery, erection and bracing, consult **ANSI/TPI1 Quality Criteria, DSB-89 and BCSI1 Building Component Safety Information** available from Truss Plate Institute, 583 D'Onofrio Drive, Madison, WI 53719.

Julius Lee Engineering
1109 Coastal Bay Blvd.
Boynton, FL 33435

Job	Truss	Truss Type	Qty	Ply	RICHARD KEEN - LOT 30 EE	I4046168
308959	T17	HIP	1	1	Job Reference (optional)	

Builders FrstSource, Lake City, FL 32055 — 7.130 s Apr 28 2009 MiTek Industries, Inc. Mon Jun 29 07:09:52 2009 Page 1

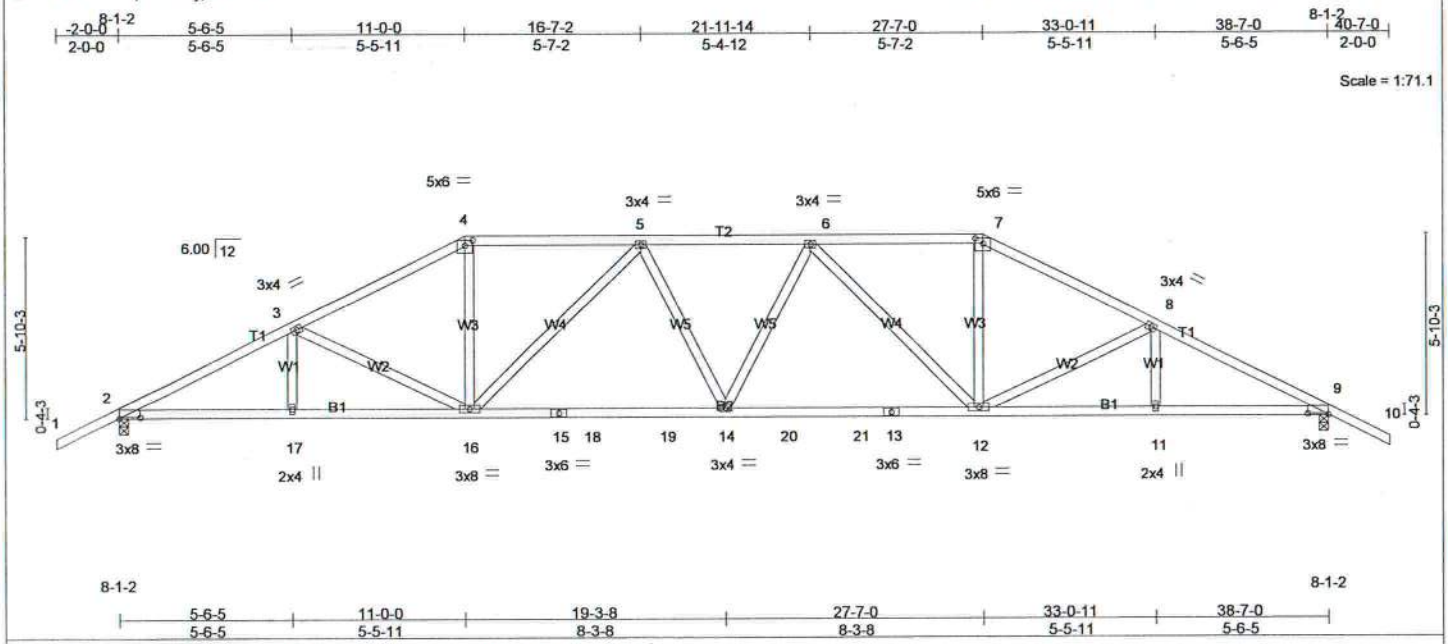


Plate Offsets (X,Y): [2:0-8-0,0-0-6], [4:0-3-0,0-2-0], [7:0-3-0,0-2-0], [9:0-8-0,0-0-6]

LOADING (psf)		SPACING	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plates Increase	1.25	TC	0.43	Vert(LL)	-0.25	12-14	>999	360	MT20	244/190
TCDL	7.0	Lumber Increase	1.25	BC	0.62	Vert(TL)	-0.45	12-14	>999	240		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.72	Horz(TL)	0.14	9	n/a	n/a		
BCDL	5.0	Code FBC2007/TPI2002		(Matrix)		Wind(LL)	0.25	14	>999	240	Weight: 206 lb	

LUMBER
TOP CHORD 2 X 4 SYP No.2
BOT CHORD 2 X 4 SYP No.2
WEBS 2 X 4 SYP No.3

BRACING
TOP CHORD Structural wood sheathing directly applied or 3-10-0 oc purlins.
BOT CHORD Rigid ceiling directly applied or 5-9-3 oc bracing.

MiTek recommends that Stabilizers and required cross bracing be installed during truss erection, in accordance with Stabilizer Installation guide.

REACTIONS (lb/size) 2=1434/0-1-11 (input: 0-3-8), 9=1434/0-1-11 (input: 0-3-8)
Max Horz 2=122(LC 6)
Max Uplift 2=-439(LC 6), 9=-439(LC 7)

FORCES (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-2540/1566, 3-4=-2196/1410, 4-5=-1919/1341, 5-6=-2375/1568, 6-7=-1919/1341, 7-8=-2196/1410, 8-9=-2540/1566
BOT CHORD 2-17=-1195/2194, 16-17=-1195/2194, 15-16=-1144/2323, 15-18=-1144/2323, 18-19=-1144/2323, 14-19=-1144/2323, 14-20=-1144/2323, 20-21=-1144/2323, 13-21=-1144/2323, 12-13=-1144/2323, 11-12=-1195/2194, 9-11=-1195/2194
WEBS 3-16=-331/336, 4-16=-361/670, 5-16=-671/344, 6-12=-671/344, 7-12=-361/670, 8-12=-331/336

NOTES (9-10)
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-05; 110mph (3-second gust); TCDL=4.2psf; BCDL=3.0psf; h=14ft; Cat. II; Exp C; enclosed; MWFRS (low-rise) 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 = 5.0psf.
6) All bearings are assumed to be SYP No.2 .
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 439 lb uplift at joint 2 and 439 lb uplift at joint 9.
8) "Semi-rigid pitchbreaks including heels" Member end fixity model was used in the analysis and design of this truss.
9) This manufactured product 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.
10) Truss Design Engineer: Julius Lee, PE: Florida P.E. License No. 34869: Address: 1109 Coastal Bay Blvd. Boynton Beach, FL 33435

LOAD CASE(S) Standard

JULIUS S.K. LEE LICENSE No 34869 STATE OF FLORIDA PROFESSIONAL ENGINEER

June 29,2009

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 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. Applicability of design paramenters and proper incorporation of component is responsibility of building designer - not truss designer. Bracing shown is for lateral support of individual web members only. Additional temporary bracing to insure stability during construction is the responsibility of the erector. Additional permanent bracing of the overall structure is the responsibility of the building designer. For general guidance regarding fabrication, quality control, storage, delivery, erection and bracing, consult **ANSI/TPI1 Quality Criteria, DSB-89 and BCSI1 Building Component Safety Information** available from Truss Plate Institute, 583 D'Onofrio Drive, Madison, WI 53719.

Julius Lee Engineering
1109 Coastal Bay Blvd.
Boynton, FL 33435

Job	Truss	Truss Type	Qty	Ply	RICHARD KEEN - LOT 30 EE	I4046169
308959	T18	HIP	2	1	Job Reference (optional)	

Builders FrstSource, Lake City, FL 32055 — 7.130 s Apr 28 2009 MiTek Industries, Inc. Mon Jun 29 07:09:53 2009 Page 1

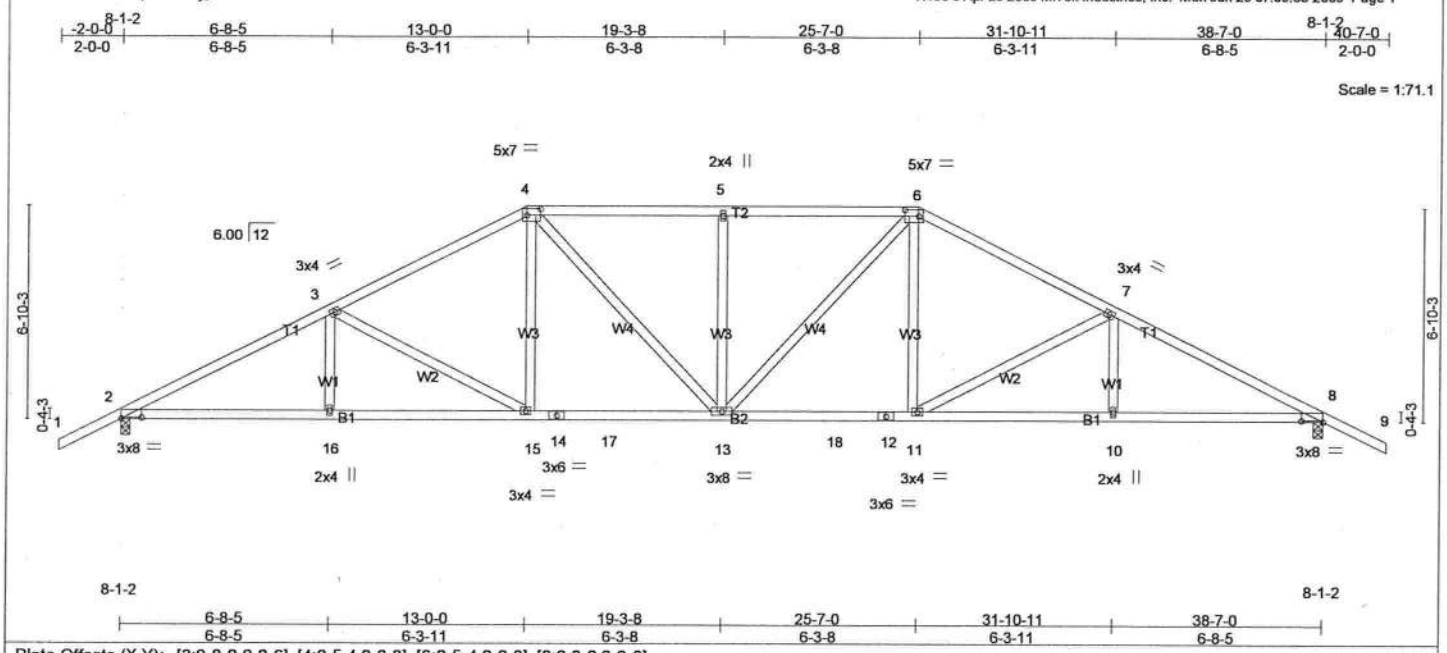


Plate Offsets (X,Y): [2:0-8-0,0-0-6], [4:0-5-4,0-2-8], [6:0-5-4,0-2-8], [8:0-8-0,0-0-6]

LOADING (psf)		SPACING	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plates Increase	1.25	TC	0.46	Vert(LL)	-0.19	11-13	>999	360	MT20	244/190
TCDL	7.0	Lumber Increase	1.25	BC	0.49	Vert(TL)	-0.34	11-13	>999	240		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.41	Horz(TL)	0.13	8	n/a	n/a		
BCDL	5.0	Code FBC2007/TPI2002		(Matrix)		Wind(LL)	0.22	13	>999	240	Weight: 210 lb	

LUMBER
TOP CHORD 2 X 4 SYP No.2
BOT CHORD 2 X 4 SYP No.2
WEBS 2 X 4 SYP No.3

BRACING
TOP CHORD Structural wood sheathing directly applied or 3-8-7 oc purlins.
BOT CHORD Rigid ceiling directly applied or 5-9-8 oc bracing.

MiTek recommends that Stabilizers and required cross bracing be installed during truss erection, in accordance with Stabilizer Installation guide.

REACTIONS (lb/size) 2=1442/0-1-11 (input: 0-3-8), 8=1442/0-1-11 (input: 0-3-8)
Max Horz 2=-137(LC 7)
Max Uplift 2=-457(LC 6), 8=-457(LC 7)

FORCES (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-2538/1572, 3-4=-2094/1366, 4-5=-2033/1441, 5-6=-2033/1441, 6-7=-2094/1366, 7-8=-2538/1572
BOT CHORD 2-16=-1186/2187, 15-16=-1186/2187, 14-15=-804/1804, 14-17=-804/1804, 13-17=-804/1804, 13-18=-804/1805, 12-18=-804/1805, 11-12=-804/1805, 10-11=-1186/2187, 8-10=-1186/2187
WEBS 3-15=-445/436, 4-15=-171/357, 4-13=-199/456, 5-13=-381/327, 6-13=-199/456, 6-11=-171/357, 7-11=-445/436

NOTES (9-10)
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-05; 110mph (3-second gust); TCDL=4.2psf; BCDL=3.0psf; h=14ft; Cat. II; Exp C; enclosed; MWFRS (low-rise) 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 = 5.0psf.
6) All bearings are assumed to be SYP No.2 .
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 457 lb uplift at joint 2 and 457 lb uplift at joint 8.
8) "Semi-rigid pitchbreaks including heels" Member end fixity model was used in the analysis and design of this truss.
9) This manufactured product 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.
10) Truss Design Engineer: Julius Lee, PE: Florida P.E. License No. 34869: Address: 1109 Coastal Bay Blvd. Boynton Beach, FL 33435

LOAD CASE(S) Standard

June 29,2009

Julius Lee Engineering
1109 Coastal Bay Blvd.
Boynton, FL 33435

Job	Truss	Truss Type	Qty	Ply	RICHARD KEEN - LOT 30 EE	I4046170
308959	T19	MONO HIP	1	1	Job Reference (optional)	

Builders FrstSource, Lake City, FL 32055 — 7.130 s Apr 28 2009 MiTek Industries, Inc. Mon Jun 29 07:09:53 2009 Page 1

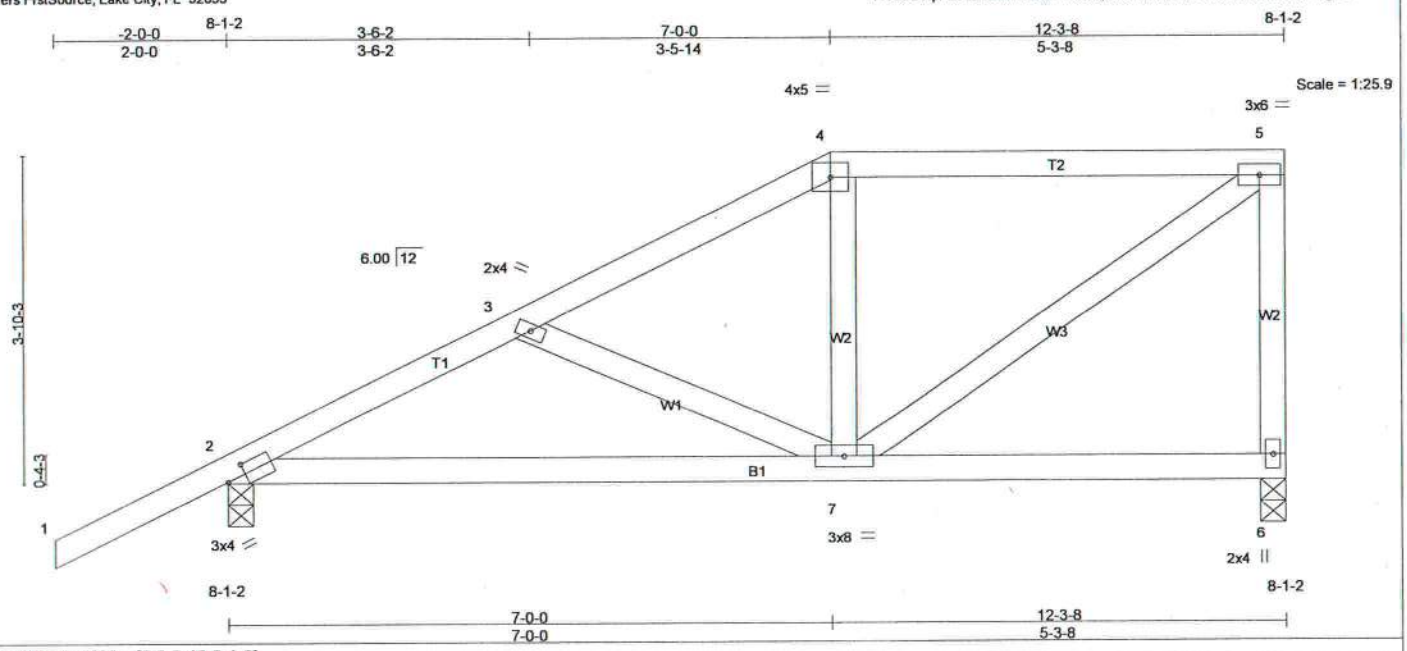


Plate Offsets (X,Y): [2:0-2-10,0-1-8]

LOADING (psf)			SPACING	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0		Plates Increase	1.25	TC	0.50	Vert(LL)	-0.06	2-7	>999	360	MT20	244/190
TCDL	7.0		Lumber Increase	1.25	BC	0.29	Vert(TL)	-0.10	2-7	>999	240		
BCLL	0.0	*	Rep Stress Incr	NO	WB	0.42	Horz(TL)	0.01	6	n/a	n/a		
BCDL	5.0		Code FBC2007/TPI2002		(Matrix)		Wind(LL)	0.10	2-7	>999	240	Weight: 65 lb	

LUMBER
TOP CHORD 2 X 4 SYP No.2
BOT CHORD 2 X 4 SYP No.2
WEBS 2 X 4 SYP No.3

BRACING
TOP CHORD Structural wood sheathing directly applied or 5-9-15 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 7-8-13 oc bracing.

MiTek recommends that Stabilizers and required cross bracing be installed during truss erection, in accordance with Stabilizer Installation guide.

REACTIONS (lb/size) 6=917/0-1-8 (input: 0-3-8), 2=764/0-1-8 (input: 0-3-8)
Max Horz 2=198(LC 5)
Max Uplift 6=-611(LC 4), 2=-555(LC 5)

FORCES (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-1113/630, 3-4=-955/599, 4-5=-834/563, 5-6=-862/582
BOT CHORD 2-7=-642/935
WEBS 5-7=-660/972

NOTES (11-12)
1) Wind: ASCE 7-05; 110mph (3-second gust); TCDL=4.2psf; BCDL=3.0psf; h=14ft; Cat. II; Exp C; enclosed; MWFRS (low-rise); porch 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 SYP No.2 .
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 611 lb uplift at joint 6 and 555 lb uplift at joint 2.
7) Girder carries hip end with 0-0-0 right side setback, 7-0-0 left side setback, and 7-0-0 end setback.
8) "Semi-rigid pitchbreaks including heels" Member end fixity model was used in the analysis and design of this truss.
9) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 411 lb down and 220 lb up at 7-0-0 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
10) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).
11) This manufactured product 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.
12) Truss Design Engineer: Julius Lee, PE: Florida P.E. License No. 34869: Address: 1109 Coastal Bay Blvd. Boynton Beach, FL 33435

LOAD CASE(S) Standard
1) Regular: Lumber Increase=1.25, Plate Increase=1.25
Uniform Loads (plf)
Vert: 1-4=-54, 4-5=-118(F=-64), 2-7=-10, 6-7=-22(F=-12)

JULIUS S.K. LEE LICENSE No 34869 STATE OF FLORIDA PROFESSIONAL ENGINEER

June 29,2009

Continued on page 2

Julius Lee Engineering
1109 Coastal Bay Blvd.
Boynton, FL 33435

Job	Truss	Truss Type	Qty	Ply	RICHARD KEEN - LOT 30 EE	I4046170
308959	T19	MONO HIP	1	1	Job Reference (optional)	

LOAD CASE(S) Standard
Concentrated Loads (lb)
Vert: 7=-411(F)

June 29,2009

Julius Lee Engineering
1109 Coastal Bay Blvd.
Boynton, FL 33435

Job	Truss	Truss Type	Qty	Ply	RICHARD KEEN - LOT 30 EE	I4046171
308959	T20	MONO HIP	1	1	Job Reference (optional)	

Builders FrstSource, Lake City, FL 32055 — 7.130 s Apr 28 2009 MiTek Industries, Inc. Mon Jun 29 07:09:54 2009 Page 1

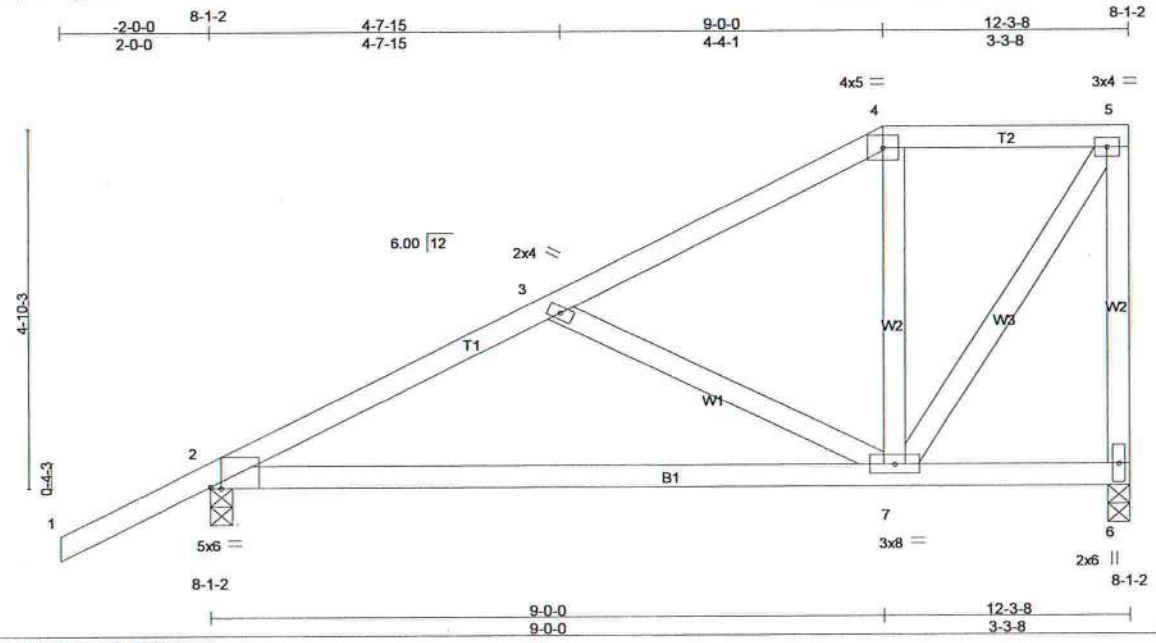


Plate Offsets (X,Y): [2:0-1-11,Edge]

LOADING (psf)		SPACING	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plates Increase	1.25	TC	0.36	Vert(LL)	-0.15	2-7	>968	360	MT20	244/190
TCDL	7.0	Lumber Increase	1.25	BC	0.64	Vert(TL)	-0.26	2-7	>551	240		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.46	Horz(TL)	-0.01	6	n/a	n/a		
BCDL	5.0	Code FBC2007/TPI2002		(Matrix)		Wind(LL)	0.53	2-7	>270	240	Weight: 69 lb	

LUMBER
TOP CHORD 2 X 4 SYP No.2
BOT CHORD 2 X 4 SYP No.2
WEBS 2 X 4 SYP 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 5-7-13 oc bracing.

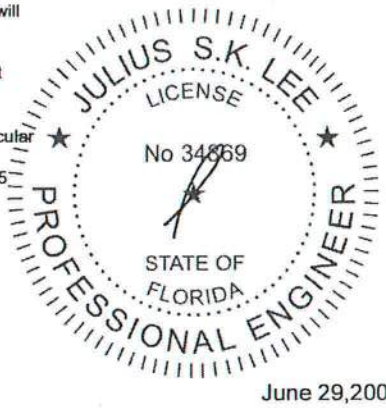
MiTek recommends that Stabilizers and required cross bracing be installed during truss erection, in accordance with Stabilizer Installation guide.

REACTIONS (lb/size) 6=374/0-1-8 (input: 0-3-8), 2=510/0-1-8 (input: 0-3-8)
Max Horz 2=236(LC 6)
Max Uplift 6=-315(LC 5), 2=-416(LC 6)

FORCES (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-561/735, 3-4=-290/495, 4-5=-203/502, 5-6=-378/844
BOT CHORD 2-7=-889/449
WEBS 3-7=-271/431, 5-7=-919/364

NOTES (8-9)
1) Wind: ASCE 7-05; 110mph (3-second gust); TCDL=4.2psf; BCDL=3.0psf; h=14ft; Cat. II; Exp C; enclosed; MWFRS (low-rise) and C-C Exterior(2) zone; porch 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 SYP No.2 .
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 315 lb uplift at joint 6 and 416 lb uplift at joint 2.
7) "Semi-rigid pitchbreaks including heels" Member end fixity model was used in the analysis and design of this truss.
8) This manufactured product 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.
9) Truss Design Engineer: Julius Lee, PE: Florida P.E. License No. 34869: Address: 1109 Coastal Bay Blvd. Boynton Beach, FL 33435

LOAD CASE(S) Standard



June 29,2009

Julius Lee Engineering
1109 Coastal Bay Blvd.
Boynton, FL 33435

Job	Truss	Truss Type	Qty	Ply	RICHARD KEEN - LOT 30 EE	I4046172
308959	T21	MONO HIP	1	1	Job Reference (optional)	

Builders FrstSource, Lake City, FL 32055 — 7.130 s Apr 28 2009 MiTek Industries, Inc. Mon Jun 29 07:09:54 2009 Page 1

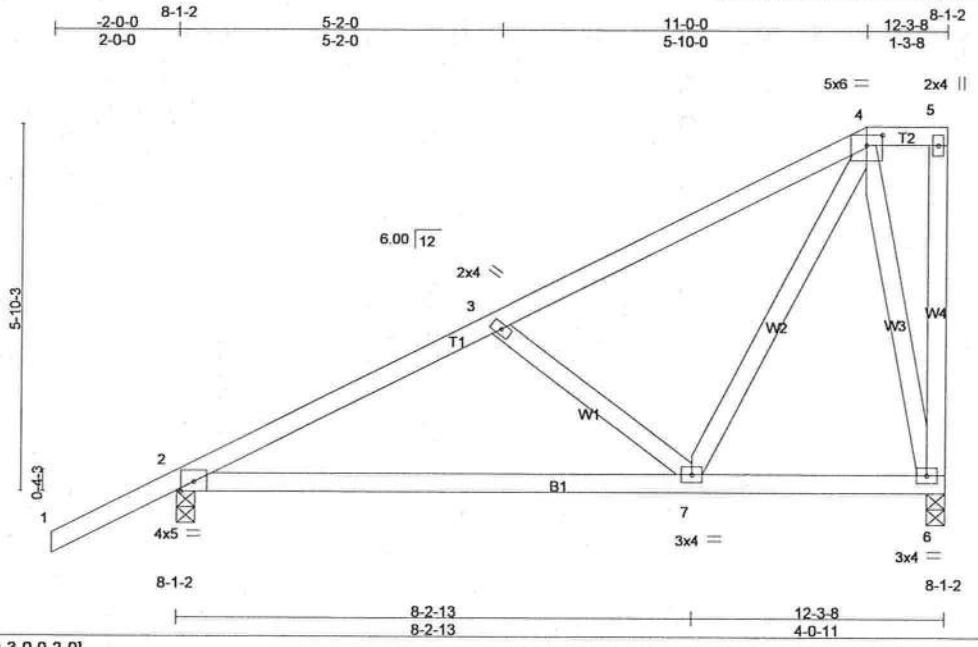


Plate Offsets (X,Y): [4:0-3-0,0-2-0]

LOADING (psf)		SPACING	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plates Increase	1.25	TC	0.36	Vert(LL)	-0.10	2-7	>999	360	MT20	244/190
TCDL	7.0	Lumber Increase	1.25	BC	0.49	Vert(TL)	-0.18	2-7	>798	240		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.60	Horz(TL)	-0.01	6	n/a	n/a		
BCDL	5.0	Code FBC2007/TPI2002		(Matrix)		Wind(LL)	0.36	2-7	>395	240	Weight: 72 lb	

LUMBER
TOP CHORD 2 X 4 SYP No.2
BOT CHORD 2 X 4 SYP No.2
WEBS 2 X 4 SYP 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 5-9-14 oc bracing.

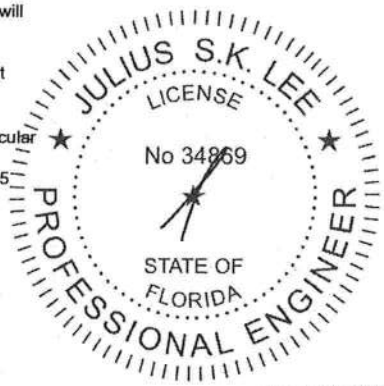
MiTek recommends that Stabilizers and required cross bracing be installed during truss erection, in accordance with Stabilizer Installation guide.

REACTIONS (lb/size) 6=374/0-1-8 (input: 0-3-8), 2=510/0-1-8 (input: 0-3-8)
Max Horz 2=275(LC 6)
Max Uplift 6=-351(LC 6), 2=-404(LC 6)

FORCES (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-566/707, 3-4=-317/540
BOT CHORD 2-7=-926/453
WEBS 3-7=-306/460, 4-7=-884/324, 4-6=-407/851

NOTES (8-9)
1) Wind: ASCE 7-05; 110mph (3-second gust); TCDL=4.2psf; BCDL=3.0psf; h=14ft; Cat. II; Exp C; enclosed; MWFRS (low-rise) and C-C Exterior(2) zone; porch 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 SYP No.2 .
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 351 lb uplift at joint 6 and 404 lb uplift at joint 2.
7) "Semi-rigid pitchbreaks including heels" Member end fixity model was used in the analysis and design of this truss.
8) This manufactured product 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.
9) Truss Design Engineer: Julius Lee, PE: Florida P.E. License No. 34869: Address: 1109 Coastal Bay Blvd. Boynton Beach, FL 33435

LOAD CASE(S) Standard

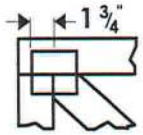


June 29,2009

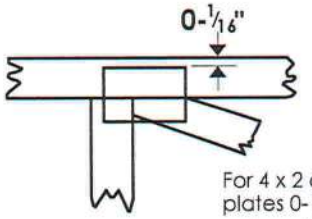
Julius Lee Engineering
1109 Coastal Bay Blvd.
Boynton, FL 33435

Symbols

PLATE LOCATION AND ORIENTATION



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



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

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

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

PLATE SIZE

4 x 4

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

LATERAL BRACING LOCATION

Indicated by symbol shown and/or by text in the bracing section of the output. Use T, I or Eliminator bracing if indicated.

BEARING

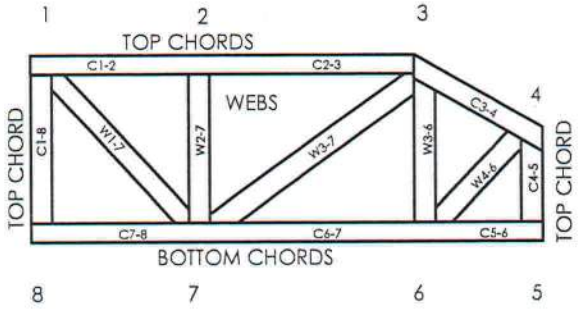
Indicates location where bearings (supports) occur. Icons vary but reaction section indicates joint number where bearings occur.

Industry Standards:

ANSI/TPI1: National Design Specification for Metal Plate Connected Wood Truss Construction.
DSB-89: Design Standard for Bracing.
BCSI1: Building Component Safety Information, Guide to Good Practice for Handling, Installing & Bracing of Metal Plate Connected Wood Trusses.

Numbering System

dimensions shown in ft-in-sixteenths (Drawings not to scale)



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, ER-5243, 9604B, 9730, 95-43, 96-31, 9667A
NER-487, NER-561
95110, 84-32, 96-67, ER-3907, 9432A

Julius Lee Engineering
1109 Coastal Bay Blvd.
Boynton, FL 33435

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 BCSI1.
2. Truss bracing must be designed by an engineer. For wide truss spacing, individual lateral braces themselves may require bracing, or alternative T, I, or Eliminator 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.

STEPDOWN CORNER SET

TOP CHORD 2X4 SO. PINE #2 or Better
BOT CHORD 2X4 SO. PINE #2 or Better
WEBS 2X4 SO. PINE #3 or Better

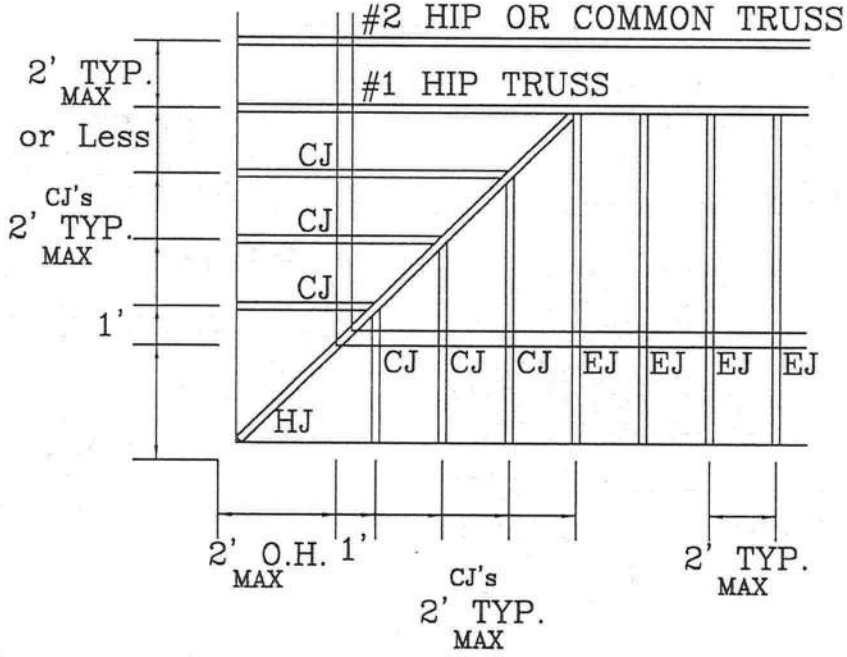
120 MPH MAX

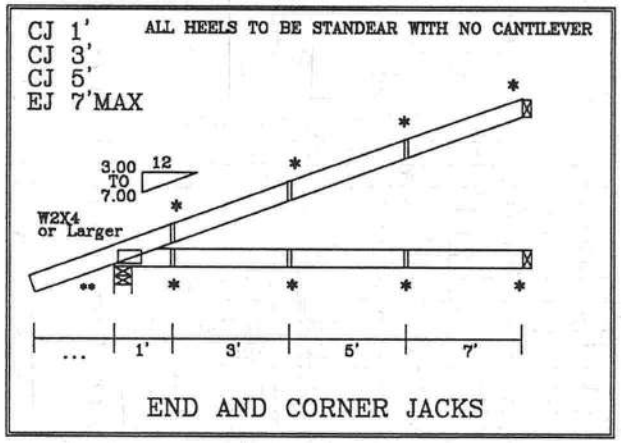
Setback 7' or Less

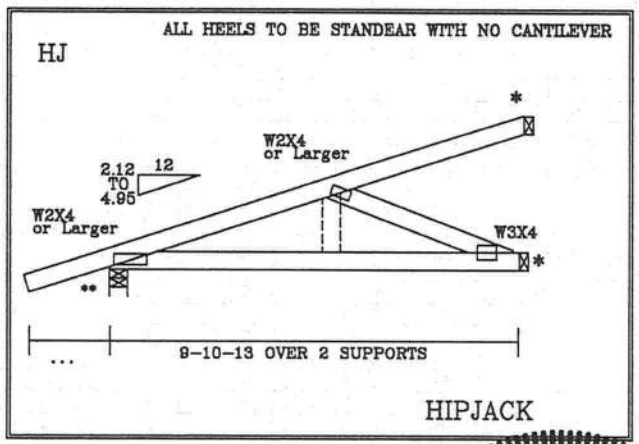
PROVIDE UPLIFT CONNECTIONS AT BEARINGS AS INDICATED.
UPLIFT: 400# or Less
BRG LOC: *
UPLIFT BASED ON 7.2 PSF TOTAL DEAD LOAD. WIND SPEED=120 "C" MPH. MEAN HGT=28 FT. ENCLOSED. (ASCE 7-02)

PROVIDE UPLIFT CONNECTIONS AT BEARINGS AS INDICATED. TILE
UPLIFT: 400# or Less
BRG LOC: *
UPLIFT BASED ON 15.0 PSF TOTAL DEAD LOAD. WIND SPEED=120 "C" MPH. MEAN HGT (of jacks)=28 FT. ENCLOSED. (ASCE 7-02)

PROVIDE UPLIFT CONNECTIONS AT BEARINGS AS INDICATED.
UPLIFT: 400# or Less
BRG LOC: *
UPLIFT BASED ON 7.2 PSF TOTAL DEAD LOAD. WIND SPEED=120 "B" MPH. MEAN HGT (of jacks)=28 FT. ENCLOSED. (ASCE 7-02)







* (3) 16d TOENAILS

** SEE EOR FOR TIE DOWN

UPLIFT VALUES DO TAKE INTO ACCOUNT PORCHES EXPOSED
BC LIVE LOAD IS NON CONCURRENT 10*

CORNER SET SETBACK
7'0" MAX

WARNING TRUSSES REQUIRE EXTREME CARE IN FABRICATING, HANDLING, SHIPPING, INSTALLING AND BRACING. REFER TO BCSI 1-03 (BUILDING COMPONENT SAFETY INFORMATION), PUBLISHED BY TPI (TRUSS PLATE INSTITUTE, 583 D'ONOFRIO DR., SUITE 200, MADISON, WI. 53719) AND WTCA (WOOD TRUSS COUNCIL OF AMERICA, 6300 ENTERPRISE LN, MADISON, WI 53719) FOR SAFETY PRACTICES PRIOR TO PERFORMING THESE FUNCTIONS. UNLESS OTHERWISE INDICATED, TOP CHORD SHALL HAVE PROPERLY ATTACHED STRUCTURAL PANELS AND BOTTOM CHORD SHALL HAVE A PROPERLY ATTACHED RIGID CEILING.

IMPORTANT FURNISH COPY OF THIS DESIGN TO INSTALLATION CONTRACTOR. ALPINE ENGINEERED PRODUCTS, INC., SHALL NOT BE RESPONSIBLE FOR ANY DEVIATION FROM THIS DESIGN; ANY FAILURE TO BUILD THE TRUSS IN CONFORMANCE WITH TPI; OR FABRICATING, HANDLING, SHIPPING, INSTALLING & BRACING OF TRUSSES. DESIGN CONFORMS WITH APPLICABLE PROVISIONS OF NDS (NATIONAL DESIGN SPEC BY AF&PA) AND TPI. ALPINE CONNECTOR PLATES ARE MADE OF 20/18/16GA (W,H/S/K) ASTN A653 GRADE 40/60 (W,K/H,S) GALV. STEEL. APPLY PLATES TO EACH FACE OF TRUSS AND, UNLESS OTHERWISE LOCATED ON THIS DESIGN, POSITION PER DRAWINGS 160A-Z. ANY INSPECTION OF PLATES FOLLOWED BY (I) SHALL BE PER ANNEX A3 OF TPI 1-2002 SEC. 3. A SEAL ON THIS DRAWING INDICATES ACCEPTANCE OF PROFESSIONAL ENGINEERING RESPONSIBILITY SOLELY FOR THE TRUSS COMPONENT DESIGN SHOWN. THE SUITABILITY AND USE OF THIS COMPONENT FOR ANY BUILDING IS THE RESPONSIBILITY OF THE BUILDING DESIGNER, PER ANSI/TPI 1 SEC. 2.

JULIUS LEE CONS. ENGINEERS, P.A.
1455 SW 4th AVENUE
DELRAY BEACH, FL 33444-2181

JULIUS LEE NO. 34869 STATE OF FLORIDA PROFESSIONAL ENGINEER

SHINGLE		
TC LL	20	MAX PSF
TC DL	7	MAX PSF
BC LL	10*	MAX PSF
BC DL	5	MAX PSF
TILE		
TC LL	20	MAX PSF
TC DL	20	MAX PSF
BC LL	10*	MAX PSF
BC DL	5	MAX PSF
DUR. FAC.	1.25	
SPACING	2' MAX	

REF	7'MAX STBK CS
DATE	Jun./27/2008
DRWG	
-ENG	

REVIEWED
By julius lee at 10:52 am, Jun 27, 2008

ASCE 7-02: 130 MPH WIND SPEED, 15' MEAN HEIGHT, ENCLOSED, I = 1.00, EXPOSURE C

MAX GABLE VERTICAL LENGTH

2X4 GABLE VERTICAL SPACING	SPECIES	BRACE GRADE	NO BRACES	(1) 1X4 "L" BRACE *		(1) 2X4 "L" BRACE *		(2) 2X4 "L" BRACE **		(1) 2X6 "L" BRACE *		(2) 2X6 "L" BRACE **	
				GROUP A	GROUP B	GROUP A	GROUP B	GROUP A	GROUP B	GROUP A	GROUP B	GROUP A	GROUP B
24" O.C.	SPF HF	#1 / #2	3' 4"	6' 10"	6' 0"	6' 11"	7' 1"	8' 3"	8' 6"	10' 10"	11' 2"	12' 11"	13' 3"
		#3	3' 3"	4' 11"	4' 11"	6' 6"	6' 6"	8' 3"	8' 3"	10' 1"	10' 1"	12' 11"	12' 11"
		STUD	3' 3"	4' 11"	4' 11"	6' 5"	6' 5"	8' 3"	8' 3"	10' 0"	10' 0"	12' 11"	12' 11"
		STANDARD	3' 3"	4' 2"	4' 2"	5' 6"	5' 6"	7' 5"	7' 5"	8' 8"	8' 8"	11' 6"	11' 6"
	SP DFL	#1	3' 8"	5' 10"	6' 3"	6' 11"	7' 5"	8' 3"	8' 11"	10' 10"	11' 8"	12' 11"	13' 11"
		#2	3' 7"	5' 10"	6' 3"	6' 11"	7' 5"	8' 3"	8' 11"	10' 10"	11' 8"	12' 11"	13' 11"
		#3	3' 6"	5' 0"	5' 0"	6' 8"	6' 8"	8' 3"	8' 8"	10' 4"	10' 4"	12' 11"	13' 7"
		STUD	3' 6"	5' 0"	5' 0"	6' 7"	6' 7"	8' 3"	8' 8"	10' 3"	10' 3"	12' 11"	13' 7"
		STANDARD	3' 4"	4' 3"	4' 3"	5' 8"	5' 8"	7' 8"	7' 8"	8' 10"	8' 10"	12' 0"	12' 0"
16" O.C.	SPF HF	#1 / #2	3' 10"	6' 8"	6' 10"	7' 11"	8' 1"	9' 6"	9' 8"	12' 6"	12' 9"	14' 0"	14' 0"
		#3	3' 9"	6' 0"	6' 0"	7' 11"	7' 11"	9' 5"	9' 5"	12' 4"	12' 4"	14' 0"	14' 0"
		STUD	3' 9"	6' 0"	6' 0"	7' 11"	7' 11"	9' 5"	9' 5"	12' 4"	12' 4"	14' 0"	14' 0"
		STANDARD	3' 9"	5' 2"	5' 2"	6' 10"	6' 10"	9' 2"	9' 2"	10' 7"	10' 7"	14' 0"	14' 0"
	SP DFL	#1	4' 3"	6' 8"	7' 2"	7' 11"	8' 6"	9' 5"	10' 2"	12' 5"	13' 5"	14' 0"	14' 0"
		#2	4' 2"	6' 8"	7' 2"	7' 11"	8' 6"	9' 5"	10' 2"	12' 5"	13' 5"	14' 0"	14' 0"
		#3	4' 0"	6' 2"	6' 2"	7' 11"	8' 2"	9' 6"	9' 11"	12' 6"	12' 8"	14' 0"	14' 0"
		STUD	4' 0"	6' 1"	6' 1"	7' 11"	8' 1"	9' 5"	9' 11"	12' 5"	12' 5"	14' 0"	14' 0"
		STANDARD	3' 10"	5' 3"	5' 3"	6' 11"	6' 11"	9' 4"	9' 4"	10' 10"	10' 10"	14' 0"	14' 0"
12" O.C.	SPF HF	#1 / #2	4' 3"	7' 4"	7' 7"	8' 9"	8' 11"	10' 6"	10' 8"	13' 8"	14' 0"	14' 0"	14' 0"
		#3	4' 2"	6' 11"	6' 11"	8' 9"	8' 9"	10' 5"	10' 5"	13' 8"	13' 8"	14' 0"	14' 0"
		STUD	4' 2"	6' 11"	6' 11"	8' 9"	8' 9"	10' 5"	10' 5"	13' 8"	13' 8"	14' 0"	14' 0"
		STANDARD	4' 2"	6' 11"	6' 11"	7' 10"	7' 10"	10' 6"	10' 6"	12' 3"	12' 3"	14' 0"	14' 0"
	SP DFL	#1	4' 8"	7' 4"	7' 11"	8' 9"	9' 5"	10' 5"	11' 2"	13' 8"	14' 0"	14' 0"	14' 0"
		#2	4' 7"	7' 4"	7' 11"	8' 9"	9' 5"	10' 6"	11' 2"	13' 8"	14' 0"	14' 0"	14' 0"
		#3	4' 4"	7' 2"	7' 2"	8' 9"	9' 2"	10' 5"	10' 11"	13' 6"	14' 0"	14' 0"	14' 0"
		STUD	4' 4"	7' 1"	7' 1"	8' 9"	9' 2"	10' 6"	10' 11"	13' 8"	14' 0"	14' 0"	14' 0"
		STANDARD	4' 3"	6' 1"	6' 1"	8' 0"	8' 0"	10' 5"	10' 8"	12' 6"	12' 6"	14' 0"	14' 0"

BRACING GROUP SPECIES AND GRADES:

GROUP A:

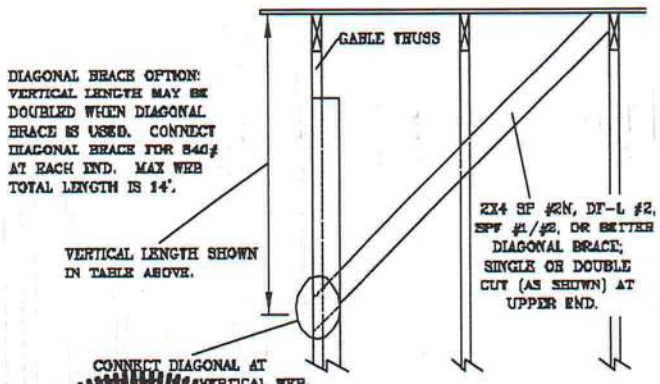
SPRUCE-PINE-FIR		HEM-FIR	
#1 / #2	STANDARD	#2	STUD
#3	STUD	#3	STANDARD

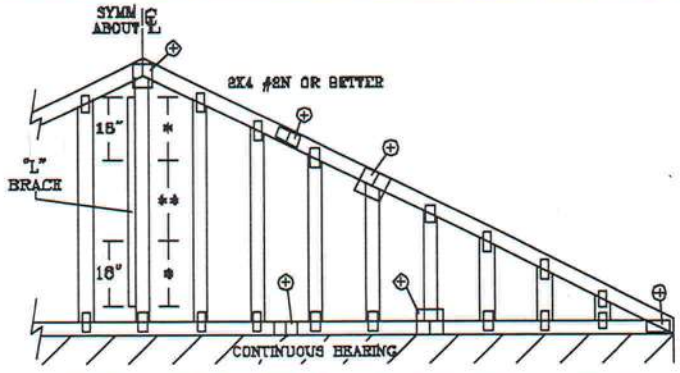
DOUGLAS FIR-LARCH	SOUTHERN PINE
#3	#3
STUD	STUD
STANDARD	STANDARD

GROUP B:

HEM-FIR
#1 & BTR
#1

SOUTHERN PINE	DOUGLAS FIR-LARCH
#1	#1
#2	#2





REFER TO CHART ABOVE FOR MAX GABLE VERTICAL LENGTH.

GABLE TRUSS DETAIL NOTES:

LIVE LOAD DEFLECTION CRITERIA IS L/240.

PROVIDE UPLIFT CONNECTIONS FOR 136 PLF OVER CONTINUOUS BEARING (6 PSF TC DEAD LOAD).

GABLE END SUPPORTS LOAD FROM 4' 0" OUTLOOKERS WITH 2' 0" OVERHANG, OR 12" PLYWOOD OVERHANG.

ATTACH EACH "L" BRACE WITH 10d NAILS.
* FOR (1) "L" BRACE: SPACE NAILS AT 2" O.C. IN 18" END ZONES AND 4" O.C. BETWEEN ZONES.
** FOR (2) "L" BRACES: SPACE NAILS AT 3" O.C. IN 18" END ZONES AND 6" O.C. BETWEEN ZONES.

"L" BRACING MUST BE A MINIMUM OF 90% OF WEB MEMBER LENGTH.

GABLE VERTICAL PLATE SIZES

VERTICAL LENGTH	NO SPLICE
LESS THAN 4' 0"	1X4 OR 2X3
GREATER THAN 4' 0", BUT LESS THAN 11' 8"	2X4
GREATER THAN 11' 8"	2.5X4

+ REFER TO COMMON TRUSS DESIGN FOR PEAK, SPLICE, AND HEEL PLATES.

JULIUS LEE LICENSE NO. 34869 STATE OF FLORIDA PROFESSIONAL ENGINEER

WARNING TRUSSES REQUIRE EXTREME CARE IN FABRICATING, HANDLING, SHIPPING, INSTALLING AND BRACING. REFER TO BCSI 1-03 (BUILDING COMPONENT SAFETY INFORMATION), PUBLISHED BY TPI (TRUSS PLATE INSTITUTE, 583 D'ONOFRIO DR, SUITE 200, MADISON, WI 53719) AND WTCA (WOOD TRUSS COUNCIL OF AMERICA, 6300 ENTERPRISE LN, MADISON, WI 53719) FOR SAFETY PRACTICES PRIOR TO PERFORMING THESE FUNCTIONS. UNLESS OTHERWISE INDICATED, TOP CHORD SHALL HAVE PROPERLY ATTACHED STRUCTURAL PANELS AND BOTTOM CHORD SHALL HAVE A PROPERLY ATTACHED RIGID CEILING.

REVIEWED
By julius lee at 12:00 pm, Jun 11, 2008

JULIUS LEE'S
CONS. ENGINEERS P.A.
1455 SW 4th AVENUE
DELRAY BEACH, FL 33444-2161

No: 34869
STATE OF FLORIDA

MAX. TOT. LD. 60 PSF

MAX. SPACING 24.0"

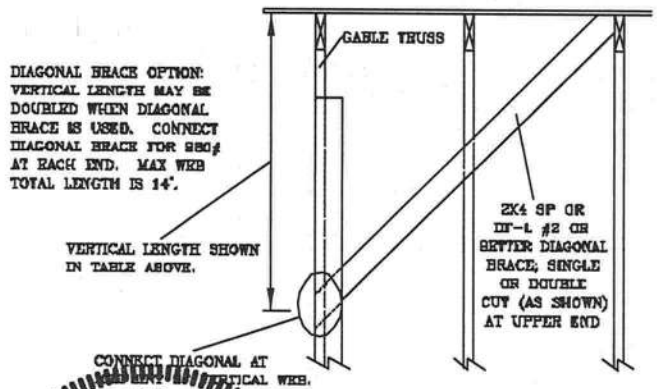
REF	ASCE7-02-GAB13015
DATE	11/26/03
DRWG	MITEK STD GABLE 15 E HT
-ENG	

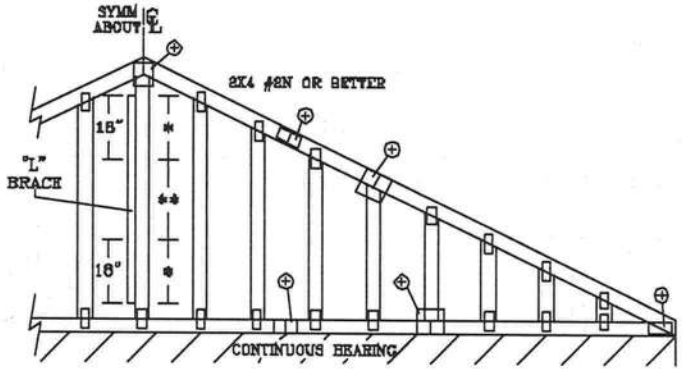
ASCE 7-02: 130 MPH WIND SPEED, 30' MEAN HEIGHT, ENCLOSED, I = 1.00, EXPOSURE C

MAX GABLE VERTICAL LENGTH

2X4 GABLE VERTICAL SPACING	SPECIES	BRACE GRADE	NO BRACES	(1) 1X4 "L" BRACE *		(1) 2X4 "L" BRACE *		(2) 2X4 "L" BRACE **		(1) 2X6 "L" BRACE *		(2) 2X6 "L" BRACE **	
				GROUP A	GROUP B	GROUP A	GROUP B	GROUP A	GROUP B	GROUP A	GROUP B	GROUP A	GROUP B
24" O.C.	SPF HF	#1 / #2	3' 2"	5' 6"	6' 6"	6' 6"	6' 9"	7' 10"	8' 0"	10' 3"	10' 7"	12' 3"	12' 7"
		#3	3' 1"	4' 5"	4' 5"	6' 10"	5' 10"	7' 10"	7' 10"	9' 1"	9' 1"	12' 3"	12' 3"
		STUD	3' 1"	4' 5"	4' 5"	5' 10"	5' 10"	7' 10"	7' 10"	9' 1"	9' 1"	12' 3"	12' 3"
		STANDARD	2' 11"	3' 9"	3' 9"	6' 0"	5' 0"	6' 9"	6' 9"	7' 10"	7' 10"	10' 7"	10' 7"
	SP DFL	#1	3' 6"	5' 6"	5' 11"	6' 8"	7' 0"	7' 10"	8' 5"	10' 3"	11' 1"	12' 3"	13' 2"
		#2	3' 5"	5' 6"	5' 11"	6' 8"	7' 0"	7' 10"	8' 5"	10' 3"	11' 1"	12' 3"	13' 2"
		#3	3' 3"	4' 6"	4' 6"	6' 0"	6' 0"	7' 10"	8' 1"	9' 4"	9' 4"	12' 3"	12' 6"
		STUD	3' 3"	4' 6"	4' 6"	5' 11"	5' 11"	7' 10"	8' 0"	9' 3"	9' 3"	12' 3"	12' 6"
		STANDARD	3' 0"	3' 10"	3' 10"	5' 1"	5' 1"	6' 11"	6' 11"	8' 0"	8' 0"	10' 10"	10' 10"
16" O.C.	SPF HF	#1 / #2	3' 8"	6' 4"	6' 6"	7' 6"	7' 8"	8' 11"	9' 2"	11' 9"	12' 1"	14' 0"	14' 0"
		#3	3' 7"	5' 5"	5' 5"	7' 2"	7' 2"	8' 11"	8' 11"	11' 2"	11' 2"	14' 0"	14' 0"
		STUD	3' 7"	5' 5"	5' 5"	7' 2"	7' 2"	8' 11"	8' 11"	11' 1"	11' 1"	14' 0"	14' 0"
		STANDARD	3' 7"	4' 6"	4' 6"	6' 2"	6' 2"	8' 3"	8' 3"	9' 7"	9' 7"	12' 11"	12' 11"
	SP DFL	#1	4' 0"	6' 4"	6' 10"	7' 6"	8' 1"	8' 11"	9' 7"	11' 9"	12' 8"	14' 0"	14' 0"
		#2	3' 11"	6' 4"	6' 10"	7' 6"	8' 1"	8' 11"	9' 7"	11' 9"	12' 8"	14' 0"	14' 0"
		#3	3' 9"	5' 7"	6' 7"	7' 4"	7' 4"	8' 11"	9' 6"	11' 5"	11' 6"	14' 0"	14' 0"
		STUD	3' 8"	5' 6"	5' 6"	7' 3"	7' 3"	8' 11"	9' 5"	11' 4"	11' 4"	14' 0"	14' 0"
		STANDARD	3' 8"	4' 9"	4' 9"	6' 3"	6' 3"	8' 5"	8' 5"	9' 9"	9' 9"	13' 3"	13' 3"
12" O.C.	SPF HF	#1 / #2	4' 0"	6' 11"	7' 2"	8' 3"	8' 6"	9' 10"	10' 1"	12' 11"	13' 4"	14' 0"	14' 0"
		#3	3' 11"	6' 3"	6' 3"	8' 3"	8' 3"	9' 10"	9' 10"	12' 11"	12' 11"	14' 0"	14' 0"
		STUD	3' 11"	6' 3"	6' 3"	8' 3"	8' 3"	9' 10"	9' 10"	12' 11"	12' 10"	14' 0"	14' 0"
		STANDARD	3' 11"	5' 4"	5' 4"	7' 1"	7' 1"	9' 6"	9' 6"	11' 1"	11' 1"	14' 0"	14' 0"
	SP DFL	#1	4' 5"	6' 11"	7' 5"	8' 3"	8' 11"	9' 10"	10' 7"	12' 11"	13' 11"	14' 0"	14' 0"
		#2	4' 4"	6' 11"	7' 5"	8' 3"	8' 11"	9' 10"	10' 7"	12' 11"	13' 11"	14' 0"	14' 0"
		#3	4' 2"	6' 5"	6' 5"	8' 3"	8' 6"	9' 10"	10' 4"	12' 11"	13' 3"	14' 0"	14' 0"
		STUD	4' 2"	6' 4"	6' 4"	8' 3"	8' 6"	9' 10"	10' 4"	12' 11"	13' 1"	14' 0"	14' 0"
		STANDARD	4' 0"	5' 6"	5' 6"	7' 3"	7' 3"	9' 9"	9' 9"	11' 4"	11' 4"	14' 0"	14' 0"

DIAGONAL BRACE OPTION: VERTICAL LENGTH MAY BE DOUBLED WHEN DIAGONAL BRACE IS USED. CONNECT DIAGONAL BRACE FOR 880# AT EACH END. MAX WEB TOTAL LENGTH IS 14'.





REFER TO CHART ABOVE FOR MAX GABLE VERTICAL LENGTH.

BRACING GROUP SPECIES AND GRADES:

GROUP A:

SPRUCE-PINE-FIR	
#1 / #2	STANDARD
#3	STUD

HEM-FIR	
#2	STUD
#3	STANDARD

DOUGLAS FIR-LARCH
#3
STUD
STANDARD

SOUTHERN PINE
#3
STUD
STANDARD

GROUP B:

HEM-FIR
#1 & BTR
#1

SOUTHERN PINE
#1
#2

DOUGLAS FIR-LARCH
#1
#2

GABLE TRUSS DETAIL NOTES:

LIVE LOAD DEFLECTION CRITERIA IS L/240.

PROVIDE UPLIFT CONNECTIONS FOR 180 PLF OVER CONTINUOUS BEARING (6 PSF TC DEAD LOAD).

GABLE END SUPPORTS LOAD FROM 4' 0" OUTLOOKERS WITH 2' 0" OVERHANG, OR 12" PLYWOOD OVERHANG.

ATTACH EACH "L" BRACE WITH 10d NAILS.
* FOR (1) "L" BRACE: SPACE NAILS AT 2" O.C. IN 18" END ZONES AND 4" O.C. BETWEEN ZONES.
** FOR (2) "L" BRACES: SPACE NAILS AT 3" O.C. IN 18" END ZONES AND 6" O.C. BETWEEN ZONES.

"L" BRACING MUST BE A MINIMUM OF 80% OF WEB MEMBER LENGTH.

GABLE VERTICAL PLATE SIZES	
VERTICAL LENGTH	NO SPLICE
LESS THAN 4' 0"	1X4 OR 2X3
GREATER THAN 4' 0", BUT LESS THAN 11' 6"	2X4
GREATER THAN 11' 6"	2.5X4

+ REFER TO COMMON TRUSS DESIGN FOR PEAK, SPLICE, AND HEEL PLATES.

JULIUS LEE LICENSE NO. 34869 STATE OF FLORIDA PROFESSIONAL ENGINEER

WARNING: TRUSSES REQUIRE EXTREME CARE IN FABRICATING, HANDLING, SHIPPING, INSTALLING AND BRACING. REFER TO BCSI 1-03 (BUILDING COMPONENT SAFETY INFORMATION), PUBLISHED BY TPI (TRUSS PLATE INSTITUTE, 583 D'ONOFRIO DR., SUITE 200, MADISON, WI 53719) AND WTCA (WOOD TRUSS COUNCIL OF AMERICA, 6300 ENTERPRISE LN, MADISON, WI 53719) FOR SAFETY PRACTICES PRIOR TO PERFORMING THESE FUNCTIONS. UNLESS OTHERWISE INDICATED, TOP CHORD SHALL HAVE PROPERLY ATTACHED STRUCTURAL PANELS AND BOTTOM CHORD SHALL HAVE A PROPERLY ATTACHED RIGID CEILING.

REVIEWED
By julius lee at 12:00 pm, Jun 11, 2008

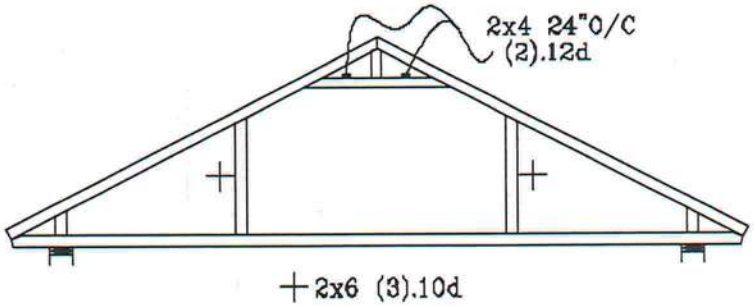
JULIUS LEE'S CONS. ENGINEERS P.A.
1456 SW 4th AVENUE
DELRAY BEACH, FL. 33444-2161
No: 34869
STATE OF FLORIDA

MAX. TOT. LD. 60 PSF

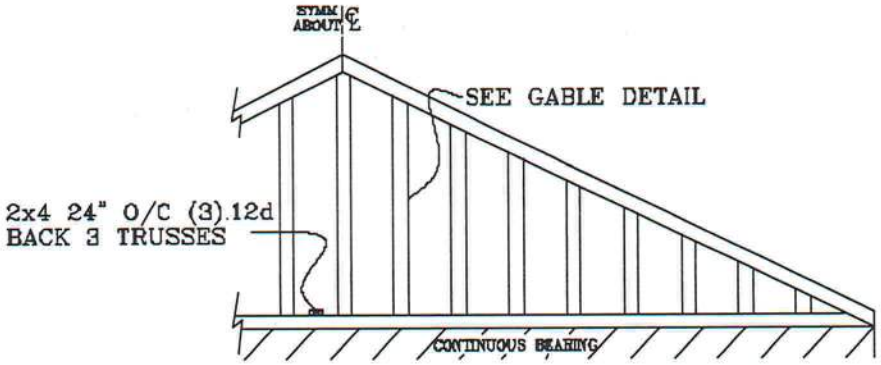
MAX. SPACING 24.0"

REF ASCE7-02-GAB13030
DATE 11/26/03
DWG MITEK STD GABLE 90' E W7
-ENG

TYPICAL ATTIC TRUSS BRACING

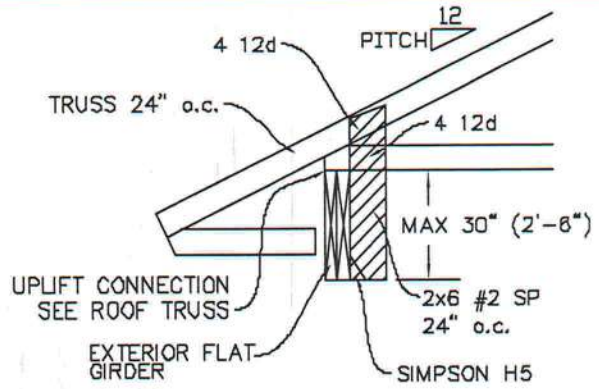


GABLE END TRUSS DETAIL



MINIMUM BC BRACING ON GABLE TRUSS. OTHER PERMANENT BRACING DESIGNS BY ARCHITECT OR EOR

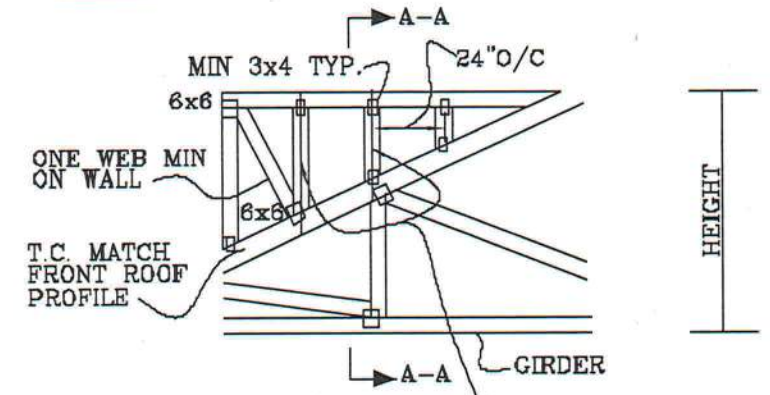
TYPICAL ALTERNATE BRACING DETAIL FOR EXTERIOR FLAT GIRDER TRUSS

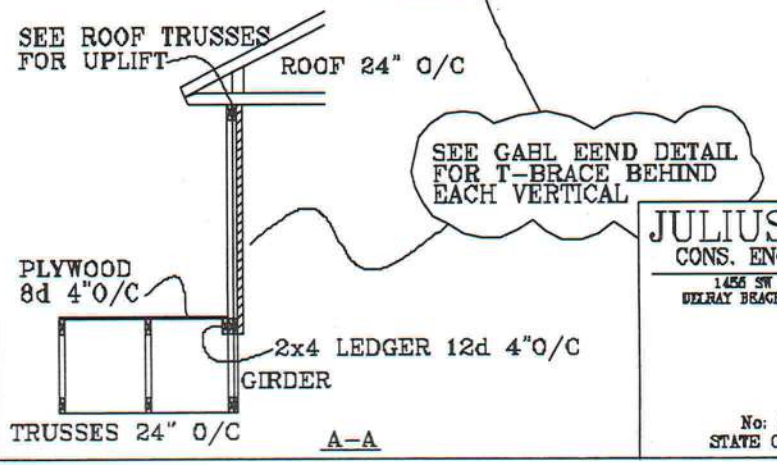


REVIEWED
By julius lee at 11:59 am, Jun 11, 2008

JULIUS LEE
LICENSE
NO. 34869
STATE OF
FLORIDA
PROFESSIONAL ENGINEER

TYPICAL WALL GIRDER VERTICAL WEB BRACING DETAIL





JULIUS LEE'S
CONS. ENGINEERS P.A.
1456 SW 4th AVENUE
DELRAY BEACH, FL 33444-2161

No: 34869
STATE OF FLORIDA

PIGGYBACK DETAIL

TOP CHORD 2X4 #2 OR BETTER
BOT CHORD 2X4 #2 OR BETTER
WEBS 2X4 #3 OR BETTER

REFER TO SEALED DESIGN FOR DASHED PLATES.

SPACE PIGGYBACK VERTICALS AT 4' OC MAX.

TOP AND BOTTOM CHORD SPLICES MUST BE STAGGERED SO THAT ONE SPLICE IS NOT DIRECTLY OVER ANOTHER.

PIGGYBACK BOTTOM CHORD MAY BE OMITTED. ATTACH VERTICAL WEBS TO TRUSS TOP CHORD WITH 1.5X3 PLATE.

ATTACH PURLINS TO TOP OF FLAT TOP CHORD. IF PIGGYBACK IS SOLID LUMBER OR THE BOTTOM CHORD IS OMITTED, PURLINS MAY BE APPLIED BENEATH THE TOP CHORD OF SUPPORTING TRUSS.

REFER TO ENGINEER'S SEALED DESIGN FOR REQUIRED PURLIN SPACING.

THIS DETAIL IS APPLICABLE FOR THE FOLLOWING WIND CONDITIONS:

110 MPH WIND, 30' MEAN HGT, ASCE 7-02, CLOSED BLDG, LOCATED ANYWHERE IN ROOF, 1 MI FROM COAST CAT I, EXP C, WIND TC DL=5 PSF, WIND BC DL=5 PSF

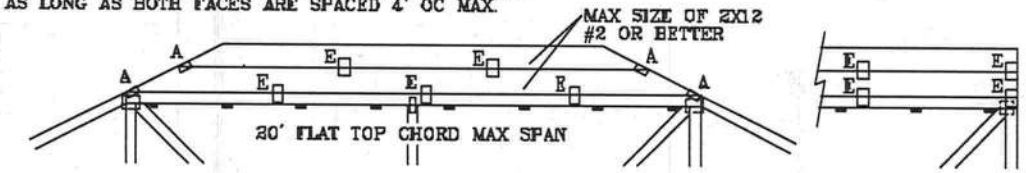
110 MPH WIND, 30' MEAN HGT, FBC ENCLOSED BLDG, LOCATED ANYWHERE IN ROOF WIND TC DL=5 PSF, WIND BC DL=5 PSF

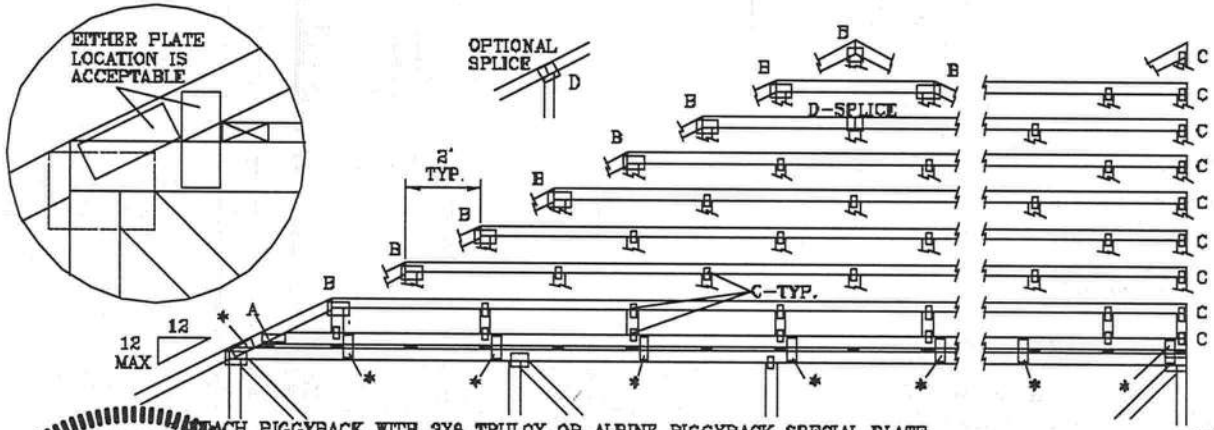
130 MPH WIND, 30' MEAN HGT, ASCE 7-02, CLOSED BLDG, LOCATED ANYWHERE IN ROOF, CAT II, EXP. C, WIND TC DL=6 PSF, WIND BC DL=6 PSF

FRONT FACE (E,*) PLATES MAY BE OFFSET FROM BACK FACE PLATES AS LONG AS BOTH FACES ARE SPACED 4' OC MAX.

JOINT TYPE	SPANS UP TO			
	30'	34'	38'	52'
A	2X4	2.5X4	2.5X4	3X5
B	4X6	5X6	5X8	5X6
C	1.5X3	1.5X4	1.5X4	1.5X4
D	5X4	5X6	5X5	5X6
E	4X6 OR 3X6 TRULOX AT 4' OC, ROTATED VERTICALLY			

ATTACH TRULOX PLATES WITH (6) 0.120" X 1.375" NAILS, OR EQUAL, PER FACE PER PLY. (4) NAILS IN EACH MEMBER TO BE CONNECTED. REFER TO DRAWING 160 TL FOR TRULOX INFORMATION.



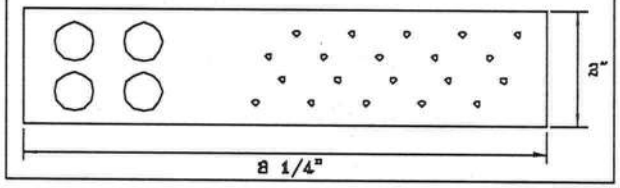


ATTACH PIGGYBACK WITH 3X8 TRULOX OR ALPINE PIGGYBACK SPECIAL PLATE.

WEB BRACING CHART	
WEB LENGTH	REQUIRED BRACING
0' TO 7'9"	NO BRACING
7'9" TO 10'	1x4 "T" BRACE. SAME GRADE, SPECIES AS WEB MEMBER, OR BETTER, AND 80% LENGTH OF WEB MEMBER. ATTACH WITH 8d NAILS AT 4" OC.
10' TO 14'	2x4 "T" BRACE. SAME GRADE, SPECIES AS WEB MEMBER, OR BETTER, AND 80% LENGTH OF WEB MEMBER. ATTACH WITH 16d NAILS AT 4" OC.

* PIGGYBACK SPECIAL PLATE

ATTACH TEETH TO THE PIGGYBACK AT THE TIME OF FABRICATION. ATTACH TO SUPPORTING TRUSS WITH (4) 0.120" X 1.375" NAILS PER FACE PER PLY. APPLY PIGGYBACK SPECIAL PLATE TO EACH TRUSS FACE AND SPACE 4' OC OR LESS.



THIS DRAWING REPLACES DRAWINGS 634,016 634,017 & 847,045

JULIUS LEE LICENSE NO. 34869 STATE OF FLORIDA PROFESSIONAL ENGINEER

WARNING: TRUSSES REQUIRE EXTREME CARE IN FABRICATING, HANDLING, SHIPPING, INSTALLING AND BRACING. REFER TO BCSI 1-03 BUILDING COMPONENT SAFETY INFORMATION), PUBLISHED BY TPI (TRUSS PLATE INSTITUTE, 583 D'ONOFRIO DR., SUITE 200, MADISON, WI. 53719) AND WTCA (WOOD TRUSS COUNCIL AMERICA, 6300 ENTERPRISE LN, MADISON, WI 53719) FOR SAFETY PRACTICES PRIOR TO PERFORMING THESE FUNCTIONS. UNLESS OTHERWISE INDICATED, TOP CHORD SHALL HAVE PROPERLY ATTACHED STRUCTURAL PANELS AND BOTTOM CHORD SHALL HAVE A PROPERLY ATTACHED RIGID CEILING.

REVIEWED
By julius lee at 11:59 am, Jun 11, 2008

JULIUS LEE'S
CONS. ENGINEERS P.A.
1400 SW 4th AVENUE
DELRAY BEACH, FL. 33444-2161

No: 34869
STATE OF FLORIDA

MAX LOADING
55 PSF AT 1.33 DUR. FAC.
50 PSF AT 1.25 DUR. FAC.
47 PSF AT 1.15 DUR. FAC.
SPACING 24.0"

REF PIGGYBACK
DATE 09/12/07
DRWG MITEK STD PIGGY
-ENG JL

VALLEY TRUSS DETAIL

TOP CHORD 2X4 SP #2 OR SPF #1/#2 OR BETTER.
BOT CHORD 2X3(*) OR 2X4 SP #2N OR SPF #1/#2 OR BETTER.
WEBS 2X4 SP #3 OR BETTER.

* 2X3 MAY BE RIPPED FROM A 2X6 (PITCHED OR SQUARE).

** ATTACH EACH VALLEY TO EVERY SUPPORTING TRUSS WITH: (2) 16d BOX (0.135" X 3.5") NAILS TOE-NAILED FOR FBC 2004 110 MPH, ASCE 7-02 110 MPH WIND OR (3) 16d FOR ASCE 7-02 130 MPH WIND. 15' MEAN HEIGHT, ENCLOSED BUILDING, EXP. C, RESIDENTIAL, WIND TC DL=5 PSF.

UNLESS SPECIFIED ON ENGINEER'S SEALED DESIGN, APPLY 1X4 "T"-BRACE, 80% LENGTH OF WEB, VALLEY WEB, SAME SPECIES AND GRADE OR BETTER, ATTACHED WITH 8d BOX (0.113" X 2.5") NAILS AT 6" OC, OR CONTINUOUS LATERAL BRACING, EQUALLY SPACED, FOR VERTICAL VALLEY WEBS GREATER THAN 7'9".

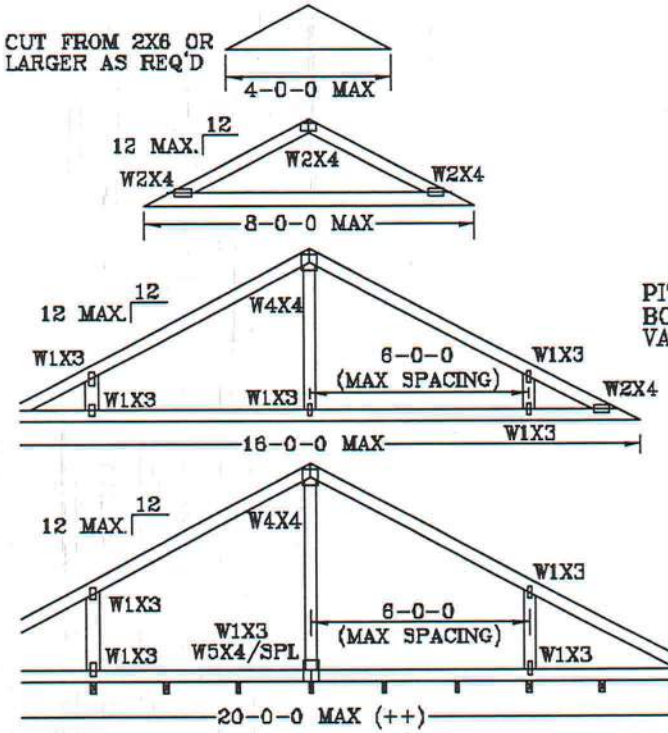
MAXIMUM VALLEY VERTICAL HEIGHT MAY NOT EXCEED 12'0".

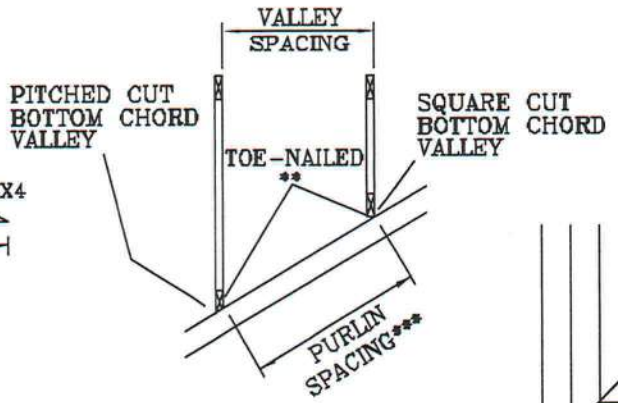
TOP CHORD OF TRUSS BENEATH VALLEY SET MUST BE BRACED WITH:
PROPERLY ATTACHED, RATED SHEATHING APPLIED PRIOR TO VALLEY TRUSS INSTALLATION
OR
PURLINS AT 24" OC OR AS OTHERWISE SPECIFIED ON ENGINEERS' SEALED DESIGN
OR
BY VALLEY TRUSSES USED IN LIEU OF PURLIN SPACING AS SPECIFIED ON ENGINEERS' SEALED DESIGN.

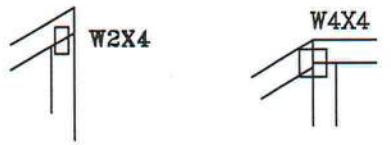
*** NOTE THAT THE PURLIN SPACING FOR BRACING THE TOP CHORD OF THE TRUSS BENEATH THE VALLEY IS MEASURED ALONG THE SLOPE OF THE TOP CHORD.

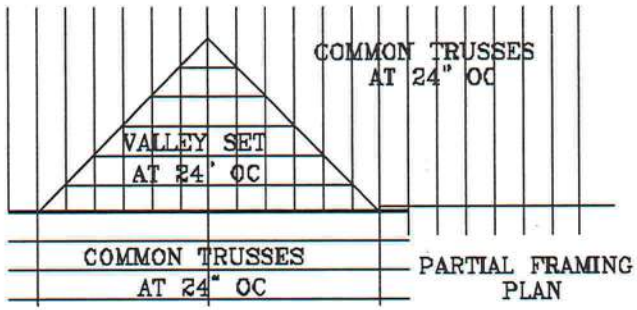
++ LARGER SPANS MAY BE BUILT AS LONG AS THE VERTICAL HEIGHT DOES NOT EXCEED 12'0".

BOTTOM CHORD MAY BE SQUARE OR PITCHED CUT AS SHOWN.









SUPPORTING TRUSSES AT 24" OC MAXIMUM SPACING.

THIS DRAWING REPLACES DRAWING A105

JULIUS LEE LICENSE NO. 34869 STATE OF FLORIDA PROFESSIONAL ENGINEER

REVIEWED
By julius lee at 11:59 am, Jun 11, 2008

JULIUS LEE'S
CONS. ENGINEERS P.A.
1455 SW 4th AVENUE
DELRAY BEACH, FL 33444-2161

No: 34869
STATE OF FLORIDA

TC LL	20	20	PSF	REF	VALLEY DETAIL
TC DL	7	15	PSF	DATE	11/26/03
BC DL	5	5	PSF	DRWG	VALTRUSS1103
BC LL	0	0	PSF	-ENG	JL
TOT. LD.	32	40	PSF		
DUR.FAC.	1.25	1.25			
SPACING		24"			

TOE-NAIL DETAIL

TOE-NAILS TO BE DRIVEN AT AN ANGLE OF APPROXIMATELY THIRTY DEGREES WITH THE PIECE AND STARTED APPROXIMATELY ONE-THIRD THE LENGTH OF THE NAIL FROM THE END OF THE MEMBER.

PER ANSI/AF&PA NDS-2001 SECTION 12.4.1 - EDGE DISTANCE, END DISTANCE, SPACING: "EDGE DISTANCES, END DISTANCES AND SPACINGS FOR NAILS AND SPIKES SHALL BE SUFFICIENT TO PREVENT SPLITTING OF THE WOOD."

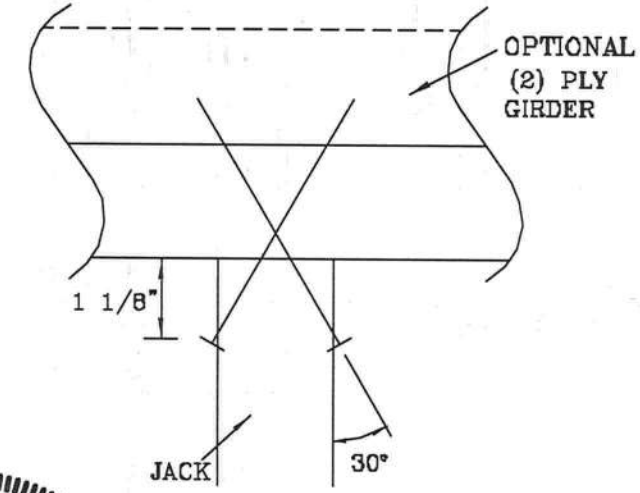
THE NUMBER OF TOE-NAILS TO BE USED IN A SPECIFIC APPLICATION IS DEPENDENT UPON PROPERTIES FOR THE CHORD SIZE, LUMBER SPECIES, AND NAIL TYPE. PROPER CONSTRUCTION PRACTICES AS WELL AS GOOD JUDGEMENT SHOULD DETERMINE THE NUMBER OF NAILS TO BE USED.

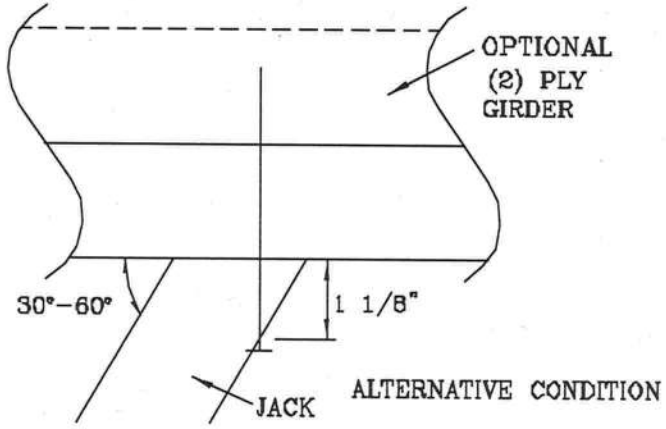
THIS DETAIL DISPLAYS A TOE-NAILED CONNECTION FOR JACK FRAMING INTO A SINGLE OR DOUBLE PLY SUPPORTING GIRDER.

MAXIMUM VERTICAL RESISTANCE OF 16d (0.162"X3.5") COMMON TOE-NAILS

NUMBER OF TOE-NAILS	SOUTHERN PINE		DOUGLAS FIR-LARCH		HEM-FIR		SPRUCE PINE FIR	
	1 PLY	2 PLIES	1 PLY	2 PLIES	1 PLY	2 PLIES	1 PLY	2 PLIES
2	197#	256#	181#	234#	156#	203#	154#	199#
3	296#	383#	271#	351#	234#	304#	230#	298#
4	394#	511#	361#	468#	312#	406#	307#	397#
5	493#	639#	452#	585#	390#	507#	384#	496#

ALL VALUES MAY BE MULTIPLIED BY APPROPRIATE DURATION OF LOAD FACTOR.





ALTERNATIVE CONDITION

THIS DRAWING REPLACES DRAWING 784040

JULIUS LEE LICENSE NO. 34869 STATE OF FLORIDA PROFESSIONAL ENGINEER

WARNING TRUSSES REQUIRE EXTREME CARE IN FABRICATING, HANDLING, SHIPPING, INSTALLING AND BRACING. REFER TO BCSI 1-03 (BUILDING COMPONENT SAFETY INFORMATION), PUBLISHED BY TPI (TRUSS PLATE INSTITUTE, 583 D'ONOFRIO DR., SUITE 200, MADISON, WI 53719) AND WTCA (WOOD TRUSS COUNCIL OF AMERICA, 6300 ENTERPRISE LN, MADISON, WI 53719) FOR SAFETY PRACTICES PRIOR TO PERFORMING THESE FUNCTIONS. UNLESS OTHERWISE INDICATED, TOP CHORD SHALL HAVE PROPERLY ATTACHED STRUCTURAL PANELS AND BOTTOM CHORD SHALL HAVE A PROPERLY ATTACHED RIGID CEILING.

REVIEWED
By julius lee at 11:59 am, Jun 11, 2008

JULIUS LEE'S
CONS. ENGINEERS P.A.
1455 SW 4th AVENUE
DELRAY BEACH, FL 33444-2161

No: 34869
STATE OF FLORIDA

TC LL	PSF	REF	TOE-NAIL
TC DL	PSF	DATE	09/12/07
BC DL	PSF	DRWG	CNTONAIL1103
BC LL	PSF	-ENG	JL
TOT. LD.	PSF		
DUR. FAC.	1.00		
SPACING			

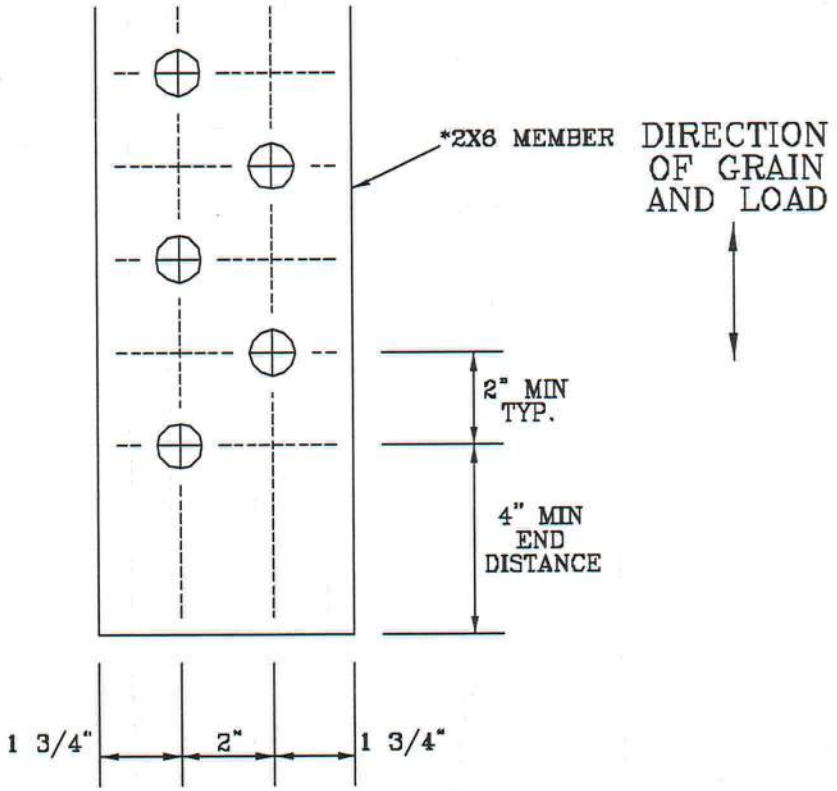
1/2" DIAMETER BOLT SPACING FOR LOAD APPLIED PARALLEL TO GRAIN.

* GRADE AND SPECIES AS SPECIFIED ON THE ALPINE DESIGN.

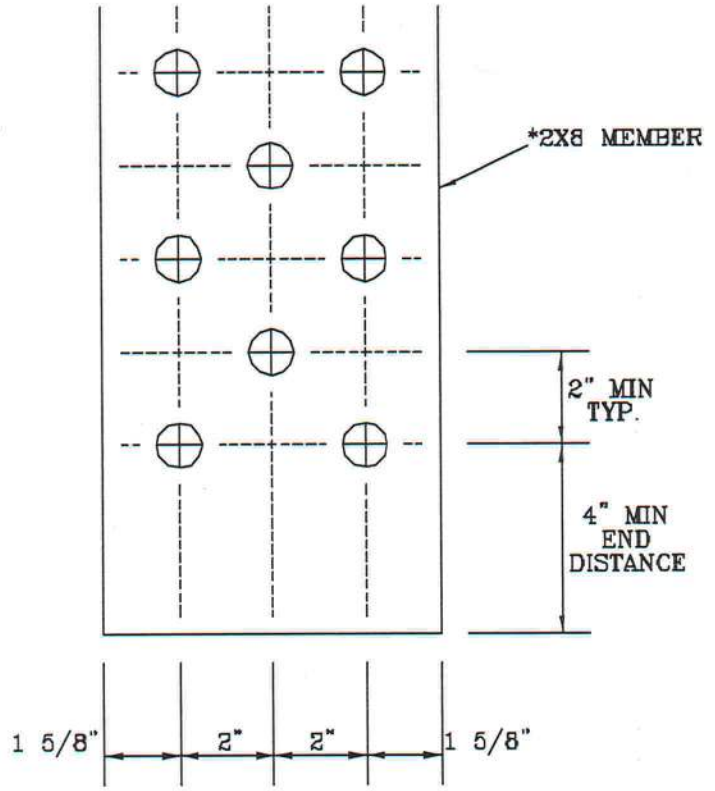
BOLT HOLES SHALL BE A MINIMUM OF 1/32" TO A MAXIMUM OF 1/16" LARGER THAN BOLT DIAMETER.

TYPICAL LOCATION OF 1/2" DIAMETER THRU BOLTS. BOLT QUANTITIES AS NOTED ON SEALED DESIGN MUST BE APPLIED IN ONE OF THE PATTERNS SHOWN BELOW.

WASHERS REQUIRED UNDER BOLT HEAD AND NUT



2X6 DETAIL



2X8 DETAIL

THIS DRAWING REPLACES DRAWING A628.016

JULIUS LEE LICENSE NO. 34869 STATE OF FLORIDA PROFESSIONAL ENGINEER

WARNING: TRUSSES REQUIRE EXTREME CARE IN FABRICATING, HANDLING, SHIPPING, INSTALLING AND BRACING. REFER TO BCSI 1-03 BUILDING COMPONENT SAFETY INFORMATION), PUBLISHED BY TPI (TRUSS PLATE INSTITUTE, 583 D'ONOFRIO DR., SUITE 200, MADISON, WI. 53719) AND WTCA (WOOD TRUSS COUNCIL OF AMERICA, 6300 ENTERPRISE LN, MADISON, WI 53719) FOR SAFETY PRACTICES PRIOR TO PERFORMING THESE FUNCTIONS. UNLESS OTHERWISE INDICATED, TOP CHORD SHALL HAVE PROPERLY ATTACHED STRUCTURAL PANELS AND BOTTOM CHORD SHALL HAVE A PROPERLY ATTACHED RIGID CEILING.

REVIEWED
By julius lee at 11:59 am, Jun 11, 2008

JULIUS LEE'S CONS. ENGINEERS P.A.
1455 SW 4th AVENUE
DELRAY BEACH, FL 33444-2161

No: 34869
STATE OF FLORIDA

TC LL	PSF	REF	BOLT SPACING
TC DL	PSF	DATE	11/26/03
BC DL	PSF	DRWG	CNBOLTSP1103
BC LL	PSF	-ENG	JL
TOT. LD.	PSF		
DUR. FAC.			
SPACING			

TRULOX CONNECTION DETAIL

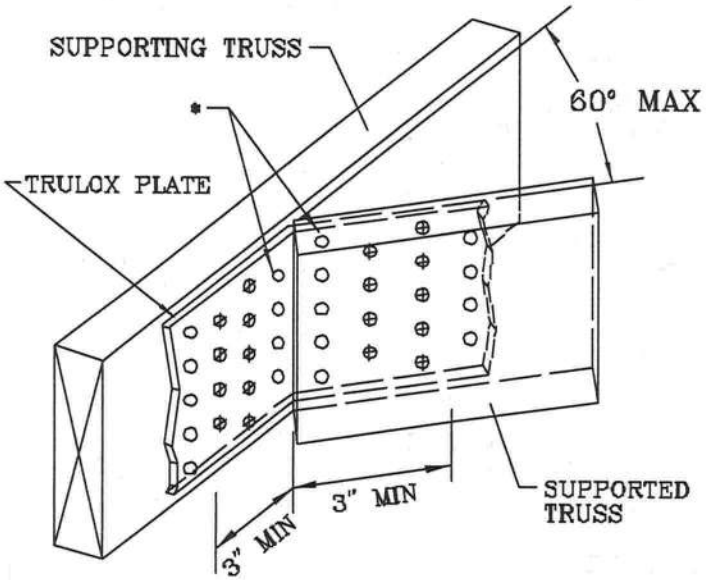
11 GAUGE (0.120" X 1.375") NAILS REQUIRED FOR TRULOX PLATE ATTACHMENT. FILL ROWS COMPLETELY WHERE SHOWN (⊕).

* NAILS MAY BE OMITTED FROM THESE ROWS.

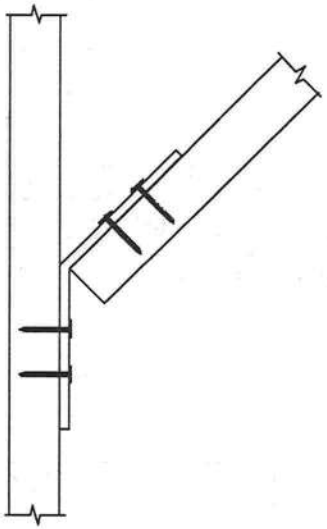
THIS DETAIL MAY BE USED WITH SO. PINE, DOUGLAS-FIR OR HEM-FIR CHORDS WITH A MINIMUM 1.00 DURATION OF LOAD OR SPRUCE-PINE-FIR CHORDS WITH A MINIMUM 1.15 DURATION OF LOAD. CHORD SIZE OF BOTH TRUSSES MUST EXCEED THE TRULOX PLATE WIDTH.

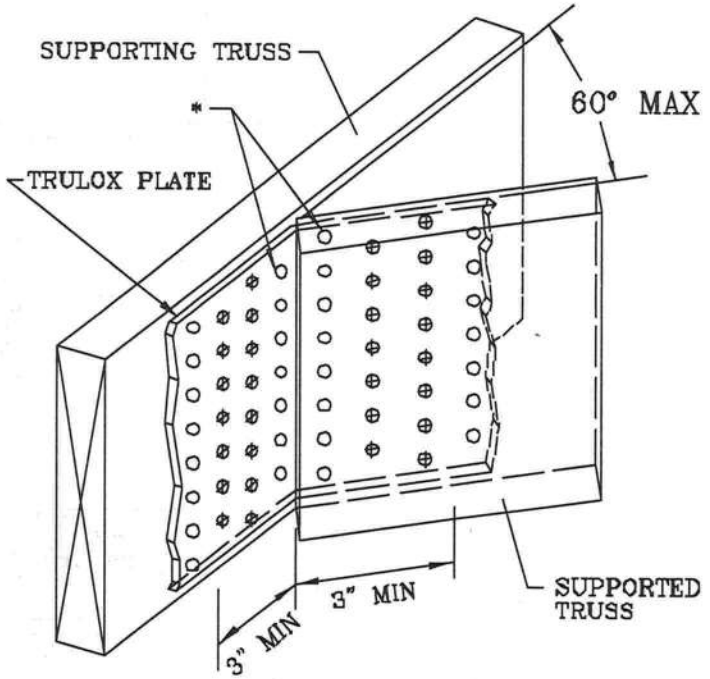
TRULOX PLATE IS CENTERED ON THE CHORDS AND BENT BETWEEN NAIL ROWS.

REFER TO ENGINEER'S SEALED DESIGN REFERENCING THIS DETAIL FOR LUMBER, PLATES, AND OTHER INFORMATION NOT SHOWN.



MINIMUM 3X6 TRULOX PLATE





MINIMUM 5X6 TRULOX PLATE

TRULOX PLATE SIZE	REQUIRED NAILS PER TRUSS	MAXIMUM LOAD UP OR DOWN
3X6	9	350#
5X6	15	990#

REVIEWED
By julius lee at 11:58 am, Jun 11, 2008

JULIUS LEE LICENSE NO. 34869 STATE OF FLORIDA PROFESSIONAL ENGINEER

THIS DRAWING REPLACES DRAWINGS 1,158,989 1,158,989/R 1,154,944 1,152,217 1,152,017 1,159,154 & 1,151,524

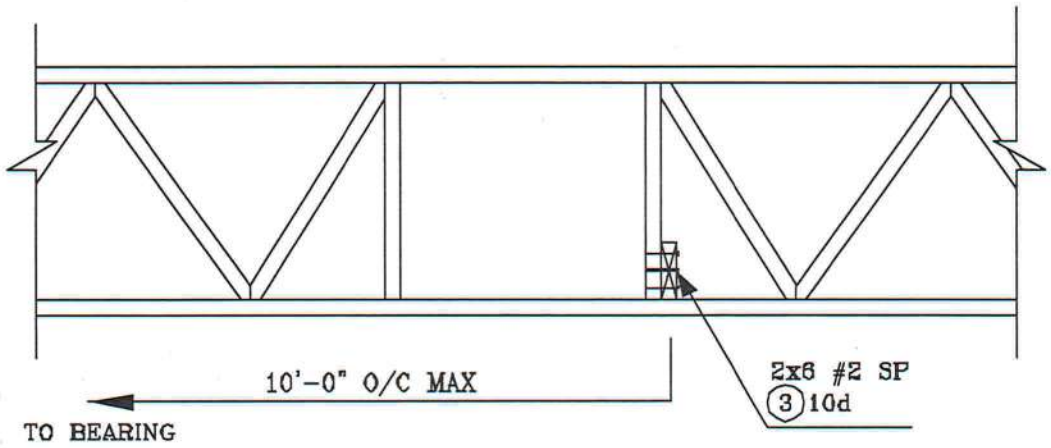
WARNING TRUSSES REQUIRE EXTREME CARE IN FABRICATING, HANDLING, SHIPPING, INSTALLING AND BRACING. REFER TO BCSI 1-03 (BUILDING COMPONENT SAFETY INFORMATION), PUBLISHED BY TPI (TRUSS PLATE INSTITUTE, 583 D'ONOFRIO DR., SUITE 200, MADISON, WI 53719) AND WTCA (WOOD TRUSS COUNCIL OF AMERICA, 6300 ENTERPRISE LN, MADISON, WI 53719) FOR SAFETY PRACTICES PRIOR TO PERFORMING THESE FUNCTIONS. UNLESS OTHERWISE INDICATED, TOP CHORD SHALL HAVE PROPERLY ATTACHED STRUCTURAL PANELS AND BOTTOM CHORD SHALL HAVE A PROPERLY ATTACHED RIGID CEILING.

JULIUS LEE'S
CONS. ENGINEERS P.A.
1455 SW 4th AVENUE
DELRAY BEACH, FL. 33444-2161

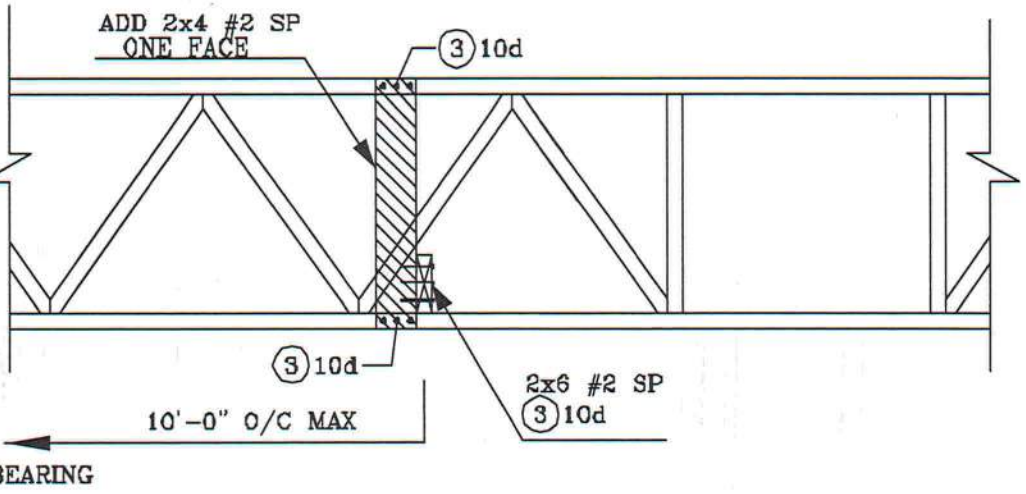
No: 34869
STATE OF FLORIDA

REF	TRULOX
DATE	11/26/03
DRWG	CNTRULOX1103
-ENG	JL

STRONG BACK DETAIL
SYSTEM–42 OR FLAT TRUSS



ALTERNATE DETAIL FOR
STRONG BACK WITH VERTICAL
NOT LINING UP



REVIEWED
By julius lee at 11:58 am, Jun 11, 2008

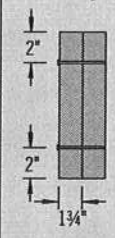
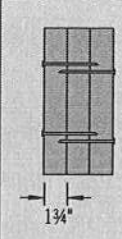
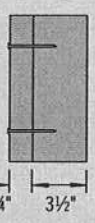
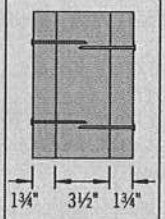
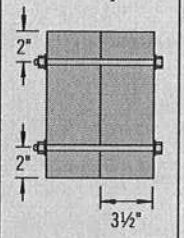
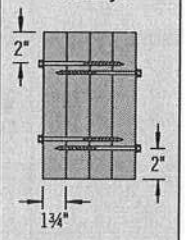
JULIUS LEE
LICENSE
NO. 34869
STATE OF
FLORIDA
PROFESSIONAL ENGINEER

JULIUS LEE'S
CONS. ENGINEERS P.A.
1456 SW 4th AVENUE
DELRAY BEACH, FL 33444-2161

No: 34869
STATE OF FLORIDA

MULTIPLE-MEMBER CONNECTIONS FOR SIDE-LOADED BEAMS

Maximum Uniform Load Applied to Either Outside Member (PLF)

Connector Type	Number of Rows	Connector On-Center Spacing	Connector Pattern					
			Assembly A 	Assembly B 	Assembly C 	Assembly D 	Assembly E 	Assembly F 
			3½" 2-ply	5¼" 3-ply	5¼" 2-ply	7" 3-ply	7" 2-ply	7" 4-ply
10d (0.128" x 3") Nail[1]	2	12"	370	***280***	280	***245***		
	3	12"	555	***415***	415	***370***		
½" A307 Through Bolts[2][4]	2	24"	505	380	520	465	860	340
		19.2"	635	475	655	580	1,075	425
		16"	760	570	785	695	1,290	505
SDS ¼" x 3½"[4]	2	24"	680	***510***	510	***455***		
		19.2"	850	***640***	640	***565***		
		16"	1,020	***765***	765	***680***		
SDS ¼" x 6"[3][4]	2	24"				***455***	***465***	***455***
		19.2"				***565***	***580***	***565***
		16"				***680***	***695***	***680***
USP WS35 [4]	2	24"	480	***360***	360	***320***		
		19.2"	600	***450***	450	***400***		
		16"	715	***540***	540	***480***		
USP WS6 [3][4]	2	24"				***350***	***525***	***350***
		19.2"				***440***	***660***	***440***
		16"				***525***	***790***	***525***
3⅛" TrussLok[4]	2	24"	635	***475***	475	***425***		
		19.2"	795	***595***	595	***530***		
		16"	955	***715***	715	***635***		
5" TrussLok[4]	2	24"		***500***	500	***445***	***480***	***445***
		19.2"		***625***	625	***555***	***600***	***555***
		16"		***750***	750	***665***	***725***	***665***
6¾" TrussLok[4]	2	24"				445	620	445
		19.2"				555	770	555
		16"				665	925	665

(1) Nailed connection values may be doubled for 6" on-center or tripled for 4" on-center nail spacing.

(2) Washers required. Bolt holes to be 9⁄16" maximum.

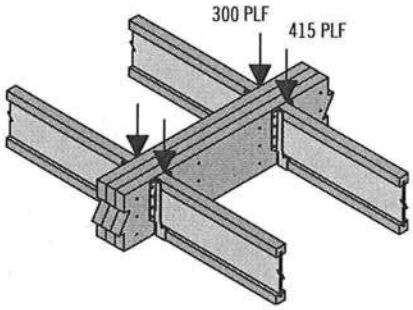
(3) 6" SDS or WS screws can be used with Parallam® PSL and Microllam® LVL, but are not recommended for TimberStrand® LSL.

(4) 24" on-center bolted and screwed connection values may be doubled for 12" on-center spacing.

General Notes

- Connections are based on NDS® 2005 or manufacturer's code report.
- Use specific gravity of 0.5 when designing lateral connections.
- Values listed are for 100% stress level. Increase 15% for snow-loaded roof conditions or 25% for non-snow roof conditions, where code allows.
- ***Bold Italic*** cells indicate **Connector Pattern** must be installed on both sides. Stagger fasteners on opposite side of beam by ½ the required **Connector Spacing**.
- Verify adequacy of beam in allowable load tables on pages 16–33.
- 7" wide beams should be side-loaded only when loads are applied to both sides of the members (to minimize rotation).
- Minimum end distance for bolts and screws is 6".
- Beams wider than 7" require special consideration by the design professional.

Uniform Load Design Example

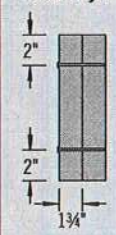
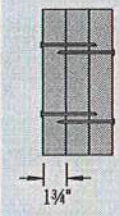
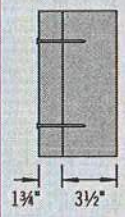
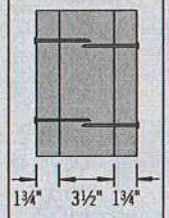
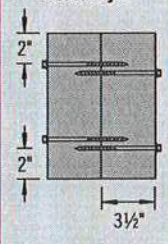
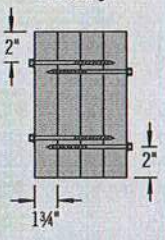


First, check the allowable load tables on pages 16–33 to verify that three pieces can carry the total load of 715 plf with proper live load deflection criteria. Maximum load applied to either outside member is 415 plf. For a 3-ply 1¾" assembly, two rows of 10d (0.128" x 3") nails at 12" on-center is good for only 280 plf. Therefore, use three rows of 10d (0.128" x 3") nails at 12" on-center (good for 415 plf).

Alternates:
Two rows of ½" bolts or SDS ¼" x 3½" screws at 19.2" on-center.

MULTIPLE-MEMBER CONNECTIONS FOR SIDE-LOADED BEAMS

Point Load—Maximum Point Load Applied to Either Outside Member (lbs)

Connector Type	Number of Connectors	Connector Pattern: Assembly A	Assembly B	Assembly C	Assembly D	Assembly E	Assembly F
							
		3½" 2-ply	5¼" 3-ply	5¼" 2-ply	7" 3-ply	7" 2-ply	7" 4-ply
10d (0.128" x 3") Nail	6	1,110	***835***	835	***740***		
	12	2,225	***1,670***	1,670	***1,485***		
	18	3,335	***2,505***	2,505	***2,225***		
	24	4,450	***3,335***	3,335	***2,965***		
SDS Screws ¼" x 3½" or WS35 ¼" x 6" or WS6(1)	4	1,915	1,435(4)	1,435	***1,275***	***1,860(2)***	***1,405(2)***
	6	2,870	2,150 (4)	2,150	***1,915***	***2,785(2)***	***2,110(2)***
	8	3,825	2,870 (4)	2,870	***2,550***	***3,715(2)***	***2,810(2)***
3⅜" or 5" TrussLok™	4	2,545	1,910 (4)	1,910	***1,695***	***1,925(3)***	***1,775(3)***
	6	3,815	2,860 (4)	2,860	***2,545***	***2,890(3)***	***2,665(3)***
	8	5,090	3,815 (4)	3,815	***3,390***	***3,855(3)***	***3,550(3)***

(1) 6" SDS or WS screws can be used with Parallam® PSL and Microllam® LVL, but are not recommended for TimberStrand® LSL.

See General Notes on page 38

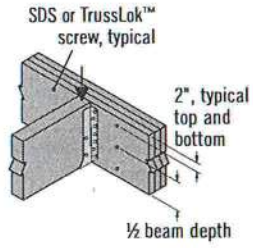
(2) 6" long screws required.

(3) 5" long screws required.

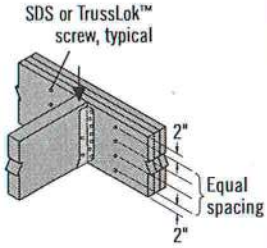
(4) 3½" and 3⅜" long screws must be installed on both sides.

Connections

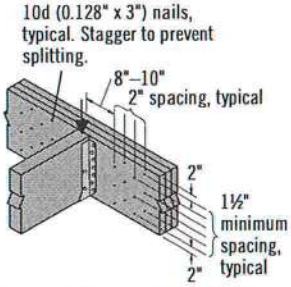
4 or 6 or Screw Connection



8 Screw Connection

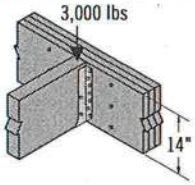


Nail Connection



There must be an equal number of nails on each side of the connection

Point Load Design Example



First, verify that a 3-ply 1¾" x 14" beam is capable of supporting the 3,000 lb point load as well as all other loads applied. The 3,000 lb point load is being transferred to the beam with a face mount hanger. For a 3-ply 1¾" assembly, eight 3⅜" TrussLok™ screws are good for 3,815 lbs with a face mount hanger.

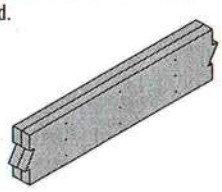
MULTIPLE-MEMBER CONNECTIONS FOR TOP-LOADED BEAMS

1¾" Wide Pieces

- Minimum of three rows of 10d (0.128" x 3") nails at 12" on-center.
- Minimum of four rows of 10d (0.128" x 3") nails at 12" on-center for 14" or deeper.
- If using 12d–16d (0.148"–0.162" diameter) nails, the number of nailing rows may be reduced by one.
- Minimum of two rows of SDS, WS, or TrussLok™ screws at 16" on-center. Use 3⅜" minimum length with two or three plies; 5" minimum for 4-ply members. 6" SDS and WS screws are not recommended for use with TimberStrand® LSL. For 3- or 4-ply members, connectors must be installed on both sides. Stagger fasteners on opposite side of beam by ½ of the required connector spacing.
- Load must be applied evenly across entire beam width. Otherwise, use connections for side-loaded beams.

3½" Wide Pieces

- Minimum of two rows of SDS, WS, or TrussLok™ screws, 5" minimum length, at 16" on-center. 6" SDS and WS screws are not recommended for use with TimberStrand® LSL. Connectors must be installed on both sides. Stagger fasteners on opposite side of beam by ½ of the required connector spacing.
- Load must be applied evenly across entire beam width. Otherwise, use connections for side-loaded beams.
- Minimum of two rows of ½" bolts at 24" on-center staggered.



Multiple pieces can be nailed or bolted together to form a header or beam of the required size, up to a maximum width of 7"

L6