Julius Lee

RE: 384283 - TOMMY BULLOCK RES.

1109 Coastal Bay Blvd.
Boynton Beach, FL 33435

Site Information:
Project Customer: TOMMY BULLOCK - O/H Project Name: 384283 Model: CUSTOM
Lot/Block: Subdivision:
Address: 563 SW BLAYLOCK CT
City: COLUMBIA CTY State: FL

Name Address and License # of Structural Engineer of Record, If there is one, for the building.
Name: License #:
Address:
City: State:

General Truss Engineering Criteria & Design Loads (Individual Truss Design Drawings Show Special Loading Conditions):
Design Code: FBC2010/TPI2007 Design Program: MiTek 20/20 7.3
Wind Code: ASCE 7-10 Wind Speed: 130 mph Floor Load: 65.0 psf
Roof Load: N/A psf

This package includes 10 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
1	I5328166	F01	3/13/012
2	I5328167	F01G	3/13/012
3	I5328168	F02	3/13/012
4	I5328169	F02G	3/13/012
5	I5328170	F03	3/13/012
6	I5328171	F03G	3/13/012
7	I5328172	F04	3/13/012
8	I5328173	F05	3/13/012
9	I5328174	F06	3/13/012
10	I5328175	KW1	3/13/012

COLUMBIA COUNTY BUILDING DEPARTMENT
Received for FILE COPY
Code Compliance
PLANS EXAMINER

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 February 28, 2013.

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.

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

March 13,2012

Julius Lee

Job	Truss	Truss Type	Qty	Ply	TOMMY BULLOCK RES.
384283	F01	FLOOR	24	1	I5328166

Job Reference (optional)

Builders FirstSource, Lake City, FL 32055

7.330 s Dec 20 2011 MiTek Industries, Inc. Tue Mar 13 11:06:36 2012 Page 1

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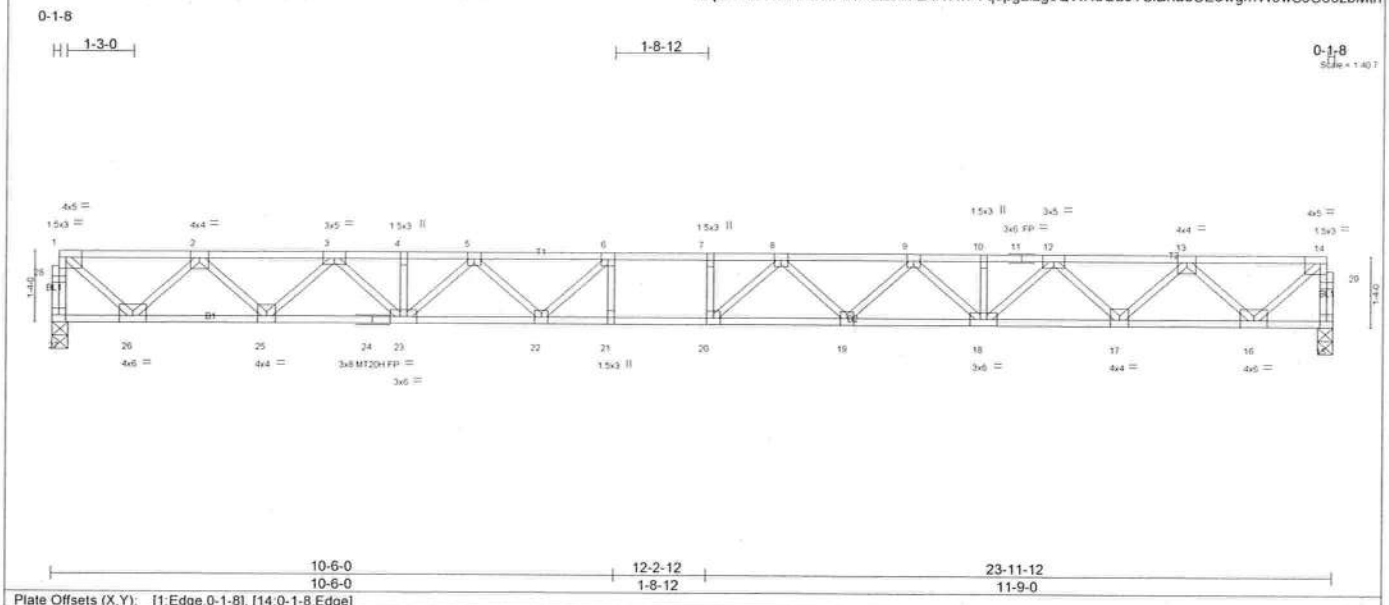

Plate Offsets (X,Y): [1:Edge,0-1-8], [14:0-1-8,Edge]

LOADING (psf)		SPACING	1-4-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	40.0	Plates Increase	1.00	TC	0.37	Vert(LL)	-0.39	20	>726	360	MT20	244/190
TCDL	15.0	Lumber Increase	1.00	BC	0.62	Vert(TL)	-0.76	19-20	>373	240	MT20H	187/143
BCLL	0.0	Rep Stress Incr	YES	WB	0.71	Horz(TL)	0.11	15	n/a	n/a		
BCDL	10.0	Code FBC2010/TPI2007		(Matrix)							Weight: 125 lb	FT = 2%F, 11%E

LUMBER
TOP CHORD 2x4 SYP M 31(flat)
BOT CHORD 2x4 SYP M 31(flat)
WEBS 2x4 SPp No.3(flat)

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

REACTIONS (lb/size) 27=1024/0-3-8 (min. 0-1-8), 15=1024/0-3-8 (min. 0-1-8)

FORCES (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 27-28=-1017/0, 1-28=-1016/0, 15-29=-1017/0, 14-29=-1016/0, 1-2=-1074/0, 2-3=-2739/0, 3-4=-3986/0, 4-5=-3986/0, 5-6=-4721/0, 6-7=-5006/0, 7-8=-5006/0, 8-9=-4726/0, 9-10=-3983/0, 10-11=-3983/0, 11-12=-3983/0, 12-13=-2740/0, 13-14=-1074/0
BOT CHORD 25-26=0/2018, 24-25=0/3425, 23-24=0/3425, 22-23=0/4442, 21-22=0/5006, 20-21=0/5006, 19-20=0/4957, 18-19=0/4448, 17-18=0/3424, 16-17=0/2018
WEBS 14-16=0/1388, 1-26=0/1388, 13-16=-1314/0, 2-26=-1313/0, 13-17=0/1003, 2-25=0/1003, 12-17=-952/0, 3-25=-954/0, 12-18=0/759, 3-23=0/762, 9-18=-633/0, 5-23=-620/0, 9-19=0/386, 5-22=0/499, 8-19=-373/0, 6-22=-599/0, 8-20=-231/410

NOTES (8-10)
1) Unbalanced floor live loads have been considered for this design.
2) This truss has been designed for basic load combinations, which include cases with reductions for multiple concurrent live loads.
3) All plates are MT20 plates unless otherwise indicated.
4) All plates are 3x3 MT20 unless otherwise indicated.
5) All bearings are assumed to be SYP No.2 crushing capacity of 565 psi.
6) "Semi-rigid pitchbreaks including heels" Member end fixity model was used in the analysis and design of this truss.
7) Recommend 2x6 strongbacks, on edge, spaced at 10-0-0 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.
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) Note: Visually graded lumber designation SPp, represents new lumber design values as per SPIB.
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

March 13,2012

Julius Lee
1109 Coastal Bay Blvd.
Boynton, FL 33435

Job	Truss	Truss Type	Qty	Ply	TOMMY BULLOCK RES.	I5328167
384283	F01G	FLOOR	1	1	Job Reference (optional)	

Builders FirstSource, Lake City, FL 32055

7.330 s Dec 20 2011 MiTek Industries, Inc. Tue Mar 13 11:06:39 2012 Page 1

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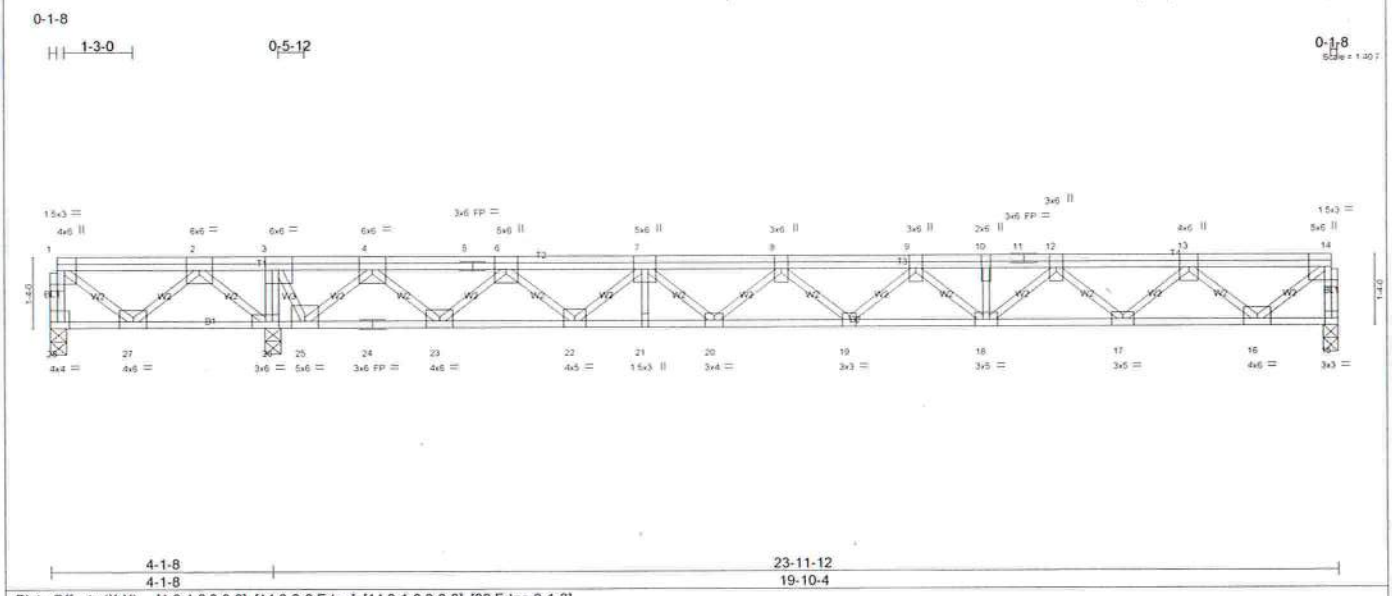

Plate Offsets (X,Y): [1:0-1-8,0-0-8], [14:0-3-0,Edge], [14:0-1-8,0-0-8], [28:Edge,0-1-8]

LOADING (psf)		SPACING	1-4-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	40.0	Plates Increase	1.00	TC	0.26	Vert(LL)	-0.13	19	>999	360	MT20	244/190
TCDL	15.0	Lumber Increase	1.00	BC	0.45	Vert(TL)	-0.26	18-19	>928	240		
BCLL	0.0	Rep Stress Incr	NO	WB	0.70	Horz(TL)	0.03	15	n/a	n/a		
BCDL	10.0	Code FBC2010/TPI2007		(Matrix)							Weight: 161 lb	FT = 2%F, 11%E

LUMBER
TOP CHORD 2x4 SYP M 31(flat)
BOT CHORD 2x4 SYP M 31(flat)
WEBS 2x4 SPp No.3(flat)

BRACING
TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except:
6-0-0 oc bracing: 26-27,25-26,23-25.

REACTIONS (lb/size) 28=-790/0-3-6 (min. 0-1-8), 15=919/0-3-6 (min. 0-1-8), 26=2313/0-3-8 (min. 0-1-8)
Max Uplift 28=-892(LC 4)
Max Grav 15=920(LC 4), 26=2313(LC 1)

FORCES (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-28=0/898, 14-15=-913/0, 1-2=0/1107, 2-3=0/3263, 3-4=0/2716, 4-5=0/553, 5-6=0/553, 6-7=-1189/0, 7-8=-2496/0, 8-9=-3259/0, 9-10=-3570/0, 10-11=-3570/0, 11-12=-3570/0, 12-13=-2511/0, 13-14=-1005/0
BOT CHORD 26-27=-2117/0, 25-26=-3263/0, 24-25=-1564/0, 23-24=-1564/0, 22-23=0/430, 21-22=0/1949, 20-21=0/1949, 19-20=0/2981, 18-19=0/3499, 17-18=0/3111, 16-17=0/1871
WEBS 3-26=-1207/0, 1-27=-1430/0, 2-27=0/1370, 2-26=-1619/0, 14-16=0/1297, 13-16=-1176/0, 13-17=0/868, 12-17=-815/0, 12-18=0/610, 10-18=-432/0, 9-19=-327/0, 8-19=0/378, 8-20=-661/0, 7-20=0/727, 7-22=-1011/0, 6-22=0/1030, 6-23=-1316/0, 4-23=0/1371, 4-25=-1563/0, 3-25=0/1173

NOTES (8-10)
1) Unbalanced floor live loads have been considered for this design.
2) This truss has been designed for basic load combinations, which include cases with reductions for multiple concurrent live loads.
3) All bearings are assumed to be SYP No.2 crushing capacity of 565 psi.
4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 892 lb uplift at joint 28.
5) "Semi-rigid pitchbreaks including heels" Member end fixity model was used in the analysis and design of this truss.
6) Recommend 2x6 strongbacks, on edge, spaced at 10-0-0 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.
7) CAUTION, Do not erect truss backwards.
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) Note: Visually graded lumber designation SPp, represents new lumber design values as per SPIB.
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) Floor: Lumber Increase=1.00, Plate Increase=1.00
Uniform Loads (plf)
Vert: 15-28=-13, 1-14=-73
Concentrated Loads (lb)
Vert: 10=-385

March 13,2012

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
1109 Coastal Bay Blvd.
Boynton, FL 33435

Job	Truss	Truss Type	Qty	Ply	TOMMY BULLOCK RES.
384283	F02	FLOOR	6	1	I5328168
					Job Reference (optional)

Builders FirstSource, Lake City, FL 32055 — 7.330 s Dec 20 2011 MiTek Industries, Inc. Tue Mar 13 11:06:40 2012 Page 1

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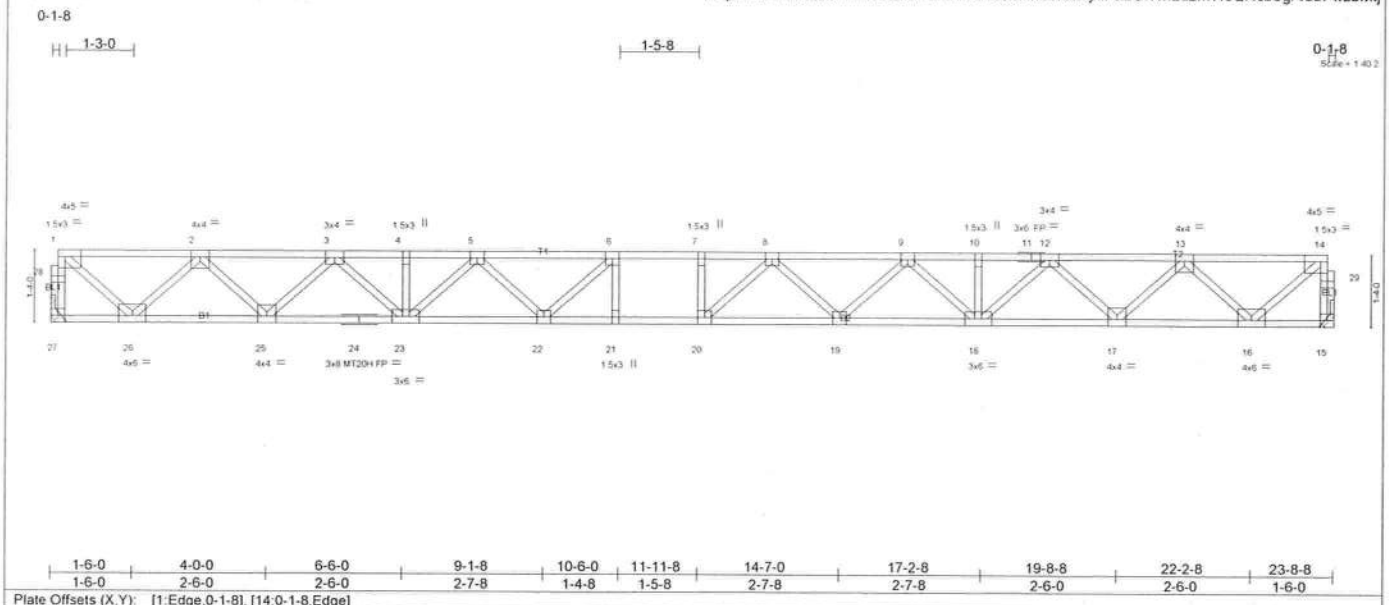


Plate Offsets (X,Y): [1:Edge,0-1-8], [14:0-1-8,Edge]

LOADING (psf)		SPACING	1-4-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	40.0	Plates Increase	1.00	TC	0.30	Vert(LL)	-0.37	20	>756	360	MT20	244/190
TCDL	15.0	Lumber Increase	1.00	BC	0.58	Vert(TL)	-0.73	19-20	>388	240	MT20H	187/143
BCLL	0.0	Rep Stress Incr	YES	WB	0.70	Horz(TL)	0.11	15	n/a	n/a		
BCDL	10.0	Code FBC2010/TPI2007		(Matrix)							Weight: 124 lb	FT = 2%F, 11%E

LUMBER
TOP CHORD 2x4 SYP M 31(flat)
BOT CHORD 2x4 SYP M 31(flat)
WEBS 2x4 SPp No.3(flat)

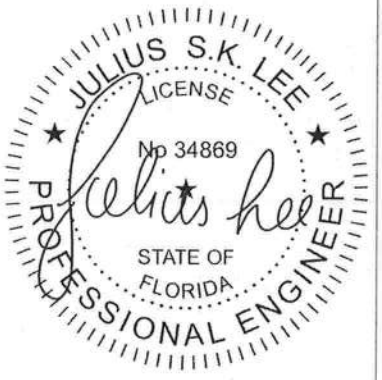
BRACING
TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (lb/size) 27=1012/Mechanical, 15=1012/Mechanical

FORCES (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 27-28=-1005/0, 1-28=-1004/0, 15-29=-1005/0, 14-29=-1004/0, 1-2=-1060/0, 2-3=-2702/0, 3-4=-3923/0, 4-5=-3923/0, 5-6=-4634/0, 6-7=-4897/0, 7-8=-4897/0, 8-9=-4638/0, 9-10=-3921/0, 10-11=-3921/0, 11-12=-3921/0, 12-13=-2702/0, 13-14=-1060/0
BOT CHORD 25-26=0/1993, 24-25=0/3375, 23-24=0/3375, 22-23=0/4369, 21-22=0/4897, 20-21=0/4897, 19-20=0/4859, 18-19=0/4373, 17-18=0/3375, 16-17=0/1993
WEBS 14-16=0/1371, 1-26=0/1371, 13-16=-1297/0, 2-26=-1296/0, 13-17=0/987, 2-25=0/986, 12-17=-935/0, 3-25=-937/0, 12-18=0/742, 3-23=0/744, 9-18=-615/0, 5-23=-606/0, 9-19=0/371, 5-22=0/475, 8-19=-356/0, 6-22=-556/0, 8-20=-233/378

NOTES (8-11)
1) Unbalanced floor live loads have been considered for this design.
2) This truss has been designed for basic load combinations, which include cases with reductions for multiple concurrent live loads.
3) All plates are MT20 plates unless otherwise indicated.
4) All plates are 3x3 MT20 unless otherwise indicated.
5) All bearings are assumed to be SYP No.2 crushing capacity of 565 psi.
6) "Semi-rigid pitchbreaks including heels" Member end fixity model was used in the analysis and design of this truss.
7) Recommend 2x6 strongbacks, on edge, spaced at 10-0-0 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.
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) Note: Visually graded lumber designation SPp, represents new lumber design values as per SPIB.
10) Truss Design Engineer: Julius Lee, PE: Florida P.E. License No. 34869: Address: 1109 Coastal Bay Blvd. Boynton Beach, FL 33435
11) Use Simpson THA422 to attach Truss to Carrying member

LOAD CASE(S) Standard



March 13,2012

Julius Lee
1109 Coastal Bay Blvd.
Boynton, FL 33435

Job	Truss	Truss Type	Qty	Ply	TOMMY BULLOCK RES.	I5328169
384283	F02G	FLOOR	1	1	Job Reference (optional)	

Builders FirstSource, Lake City, FL 32055

7.330 s Dec 20 2011 MiTek Industries, Inc. Tue Mar 13 11:06:42 2012 Page 1

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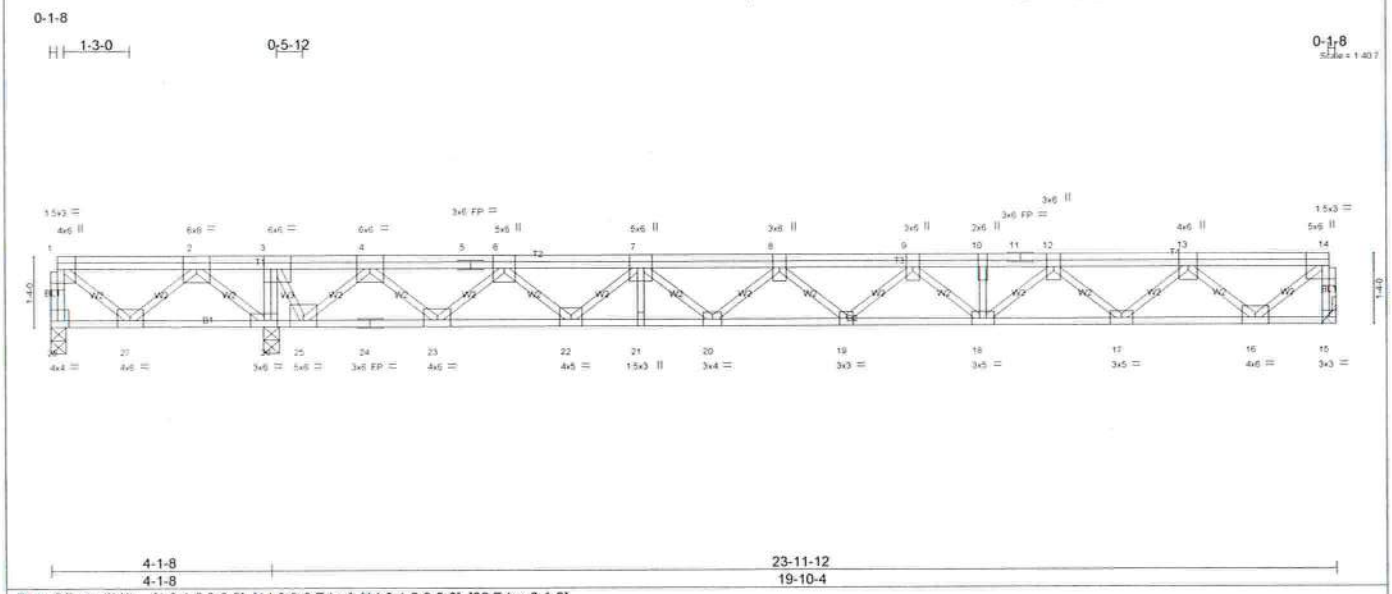

Plate Offsets (X,Y): [1:0-1-8,0-0-8], [14:0-3-0,Edge], [14:0-1-8,0-0-8], [28:Edge,0-1-8]

LOADING (psf)		SPACING	1-4-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	40.0	Plates Increase	1.00	TC	0.26	Vert(LL)	-0.13	19	>999	360	MT20	244/190
TCDL	15.0	Lumber Increase	1.00	BC	0.45	Vert(TL)	-0.25	18-19	>932	240		
BCLL	0.0	Rep Stress Incr	NO	WB	0.69	Horz(TL)	0.03	15	n/a	n/a		
BCDL	10.0	Code FBC2010/TPI2007		(Matrix)							Weight: 161 lb	FT = 2%F, 11%E

LUMBER
TOP CHORD 2x4 SYP M 31(flat)
BOT CHORD 2x4 SYP M 31(flat)
WEBS 2x4 SPp No.3(flat)

BRACING
TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing. Except:
6-0-0 oc bracing: 26-27,25-26,23-25.

REACTIONS (lb/size) 28=-787/0-3-6 (min. 0-1-8), 15=916/Mechanical, 26=2307/0-3-8 (min. 0-1-8)
Max Uplift 28=-889(LC 4)
Max Grav 15=917(LC 4), 26=2307(LC 1)

FORCES (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-28=0/895, 14-15=-909/0, 1-2=0/1104, 2-3=0/3252, 3-4=0/2707, 4-5=0/550, 5-6=0/550, 6-7=-1187/0, 7-8=-2488/0, 8-9=-3246/0, 9-10=-3552/0, 10-11=-3552/0, 11-12=-3552/0, 12-13=-2499/0, 13-14=-1001/0
BOT CHORD 26-27=-2110/0, 25-26=-3252/0, 24-25=-1558/0, 23-24=-1558/0, 22-23=0/431, 21-22=0/1945, 20-21=0/1945, 19-20=0/2971, 18-19=0/3483, 17-18=0/3096, 16-17=0/1863
WEBS 3-26=-1204/0, 1-27=-1425/0, 2-27=0/1366, 2-26=-1615/0, 14-16=0/1292, 13-16=-1171/0, 13-17=0/863, 12-17=-810/0, 12-18=0/605, 10-18=-427/0, 9-19=-323/0, 8-19=0/374, 8-20=-657/0, 7-20=0/723, 7-22=-1007/0, 6-22=0/1026, 6-23=-1313/0, 4-23=0/1367, 4-25=-1559/0, 3-25=0/1170

NOTES (8-11)
1) Unbalanced floor live loads have been considered for this design.
2) This truss has been designed for basic load combinations, which include cases with reductions for multiple concurrent live loads.
3) Bearings are assumed to be: Joint 28 SYP No.2 , Joint 26 SYP No.2 .
4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 889 lb uplift at joint 28.
5) "Semi-rigid pitchbreaks including heels" Member end fixity model was used in the analysis and design of this truss.
6) Recommend 2x6 strongbacks, on edge, spaced at 10-0-0 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.
7) CAUTION, Do not erect truss backwards.
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) Note: Visually graded lumber designation SPp, represents new lumber design values as per SPIB.
10) Truss Design Engineer: Julius Lee, PE: Florida P.E. License No. 34869: Address: 1109 Coastal Bay Blvd. Boynton Beach, FL 33435
11) Use Simpson THA422 to attach Truss to Carrying member

LOAD CASE(S) Standard
1) Floor: Lumber Increase=1.00, Plate Increase=1.00
Uniform Loads (plf)
Vert: 15-28=-13, 1-14=-73
Concentrated Loads (lb)
Vert: 10=-380

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

March 13,2012

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
1109 Coastal Bay Blvd.
Boynton, FL 33435

Job	Truss	Truss Type	Qty	Ply	TOMMY BULLOCK RES.
384283	F03	FLOOR	1	1	I5328170
					Job Reference (optional)

Builders FirstSource, Lake City, FL 32055

7.330 s Dec 20 2011 MiTek Industries, Inc. Tue Mar 13 11:06:45 2012 Page 1

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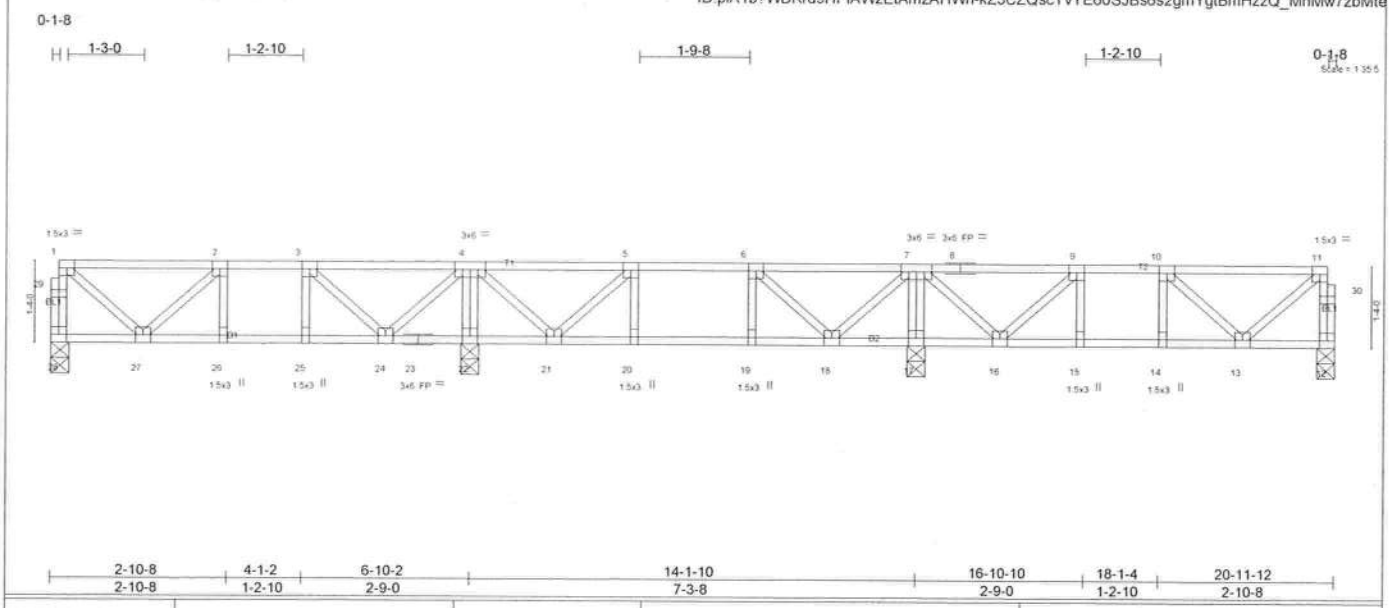

LOADING (psf)		SPACING	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	40.0	Plates Increase	1.00	TC	0.53	Vert(LL)	-0.02	26-27	>999	360	MT20	244/190
TCDL	15.0	Lumber Increase	1.00	BC	0.44	Vert(TL)	-0.04	26-27	>999	240		
BCLL	0.0	Rep Stress Incr	YES	WB	0.24	Horz(TL)	0.01	12	n/a	n/a		
BCDL	10.0	Code FBC2010/TPI2007		(Matrix)							Weight: 114 lb	FT = 2%F, 11%E

LUMBER
TOP CHORD 2x4 SPp No.2(flat)
BOT CHORD 2x4 SPp No.2(flat)
WEBS 2x4 SPp No.3(flat)

BRACING
TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except:
6-0-0 oc bracing: 22-24,21-22,17-18,16-17.

REACTIONS All bearings 0-3-8.
(lb) - Max Grav All reactions 250 lb or less at joint(s) except 28=411(LC 14), 12=411(LC 13), 22=972(LC 13), 17=972(LC 14)

FORCES (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 28-29=-402/0, 1-29=-402/0, 12-30=-402/0, 11-30=-402/0, 1-2=-323/0, 2-3=-576/0, 3-4=-270/14, 4-5=-277/0, 5-6=-571/0, 6-7=-277/0, 7-8=-270/14, 8-9=-270/14, 9-10=-576/0, 10-11=-323/0
BOT CHORD 26-27=0/576, 25-26=0/576, 24-25=0/576, 23-24=-286/0, 22-23=-286/0, 21-22=-286/0, 20-21=0/571, 19-20=0/571, 18-19=0/571, 17-18=-286/0, 16-17=-286/0, 15-16=0/576, 14-15=0/576, 13-14=0/576
WEBS 4-22=-924/0, 7-17=-924/0, 1-27=0/410, 4-24=0/477, 2-27=-344/0, 3-24=-495/0, 7-18=0/465, 4-21=0/465, 6-18=-439/0, 5-21=-439/0, 11-13=0/410, 7-16=0/477, 10-13=-344/0, 9-16=-495/0

NOTES (8-10)
1) Unbalanced floor live loads have been considered for this design.
2) This truss has been designed for basic load combinations, which include cases with reductions for multiple concurrent live loads.
3) All plates are 3x3 MT20 unless otherwise indicated.
4) Bearings are assumed to be: Joint 28 SYP No.2 , Joint 12 SYP No.2 .
5) "Semi-rigid pitchbreaks including heels" Member end fixity model was used in the analysis and design of this truss.
6) Recommend 2x6 strongbacks, on edge, spaced at 10-0-0 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.
7) CAUTION, Do not erect truss backwards.
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) Note: Visually graded lumber designation SPp, represents new lumber design values as per SPIB.
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

March 13,2012

Julius Lee
1109 Coastal Bay Blvd.
Boynton, FL 33435

Job	Truss	Truss Type	Qty	Ply	TOMMY BULLOCK RES.	I5328171
384283	F03G	FLOOR	1	1	Job Reference (optional)	

Builders FirstSource, Lake City, FL 32055

7.330 s Dec 20 2011 MiTek Industries, Inc. Tue Mar 13 11:06:48 2012 Page 1

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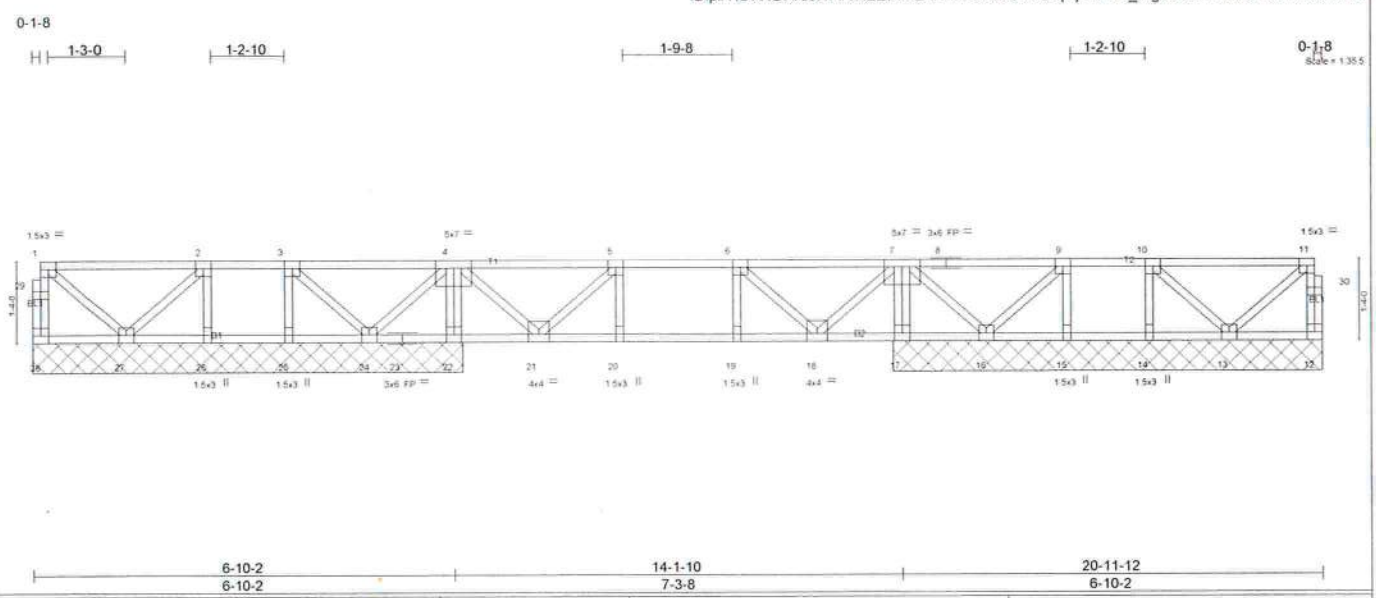

LOADING (psf)		SPACING	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	40.0	Plates Increase	1.00	TC	0.32	Vert(LL)	-0.01	20	>999	360	MT20	244/190
TCDL	15.0	Lumber Increase	1.00	BC	0.12	Vert(TL)	-0.03	20	>999	240		
BCLL	0.0	Rep Stress Incr	NO	WB	0.45	Horz(TL)	0.00	17	n/a	n/a		
BCDL	10.0	Code FBC2010/TPI2007		(Matrix)							Weight: 114 lb	FT = 2%F, 11%E

LUMBER
TOP CHORD 2x4 SYP M 31(flat)
BOT CHORD 2x4 SYP M 31(flat)
WEBS 2x4 SPp No.3(flat)

BRACING
TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing, Except:
10-0-0 oc bracing: 20-21,19-20,18-19,12-13.

REACTIONS All bearings 6-11-14.
(lb) - Max Uplift All uplift 100 lb or less at joint(s) 28, 15 except 25=-133(LC 4)
Max Grav All reactions 250 lb or less at joint(s) 28, 12, 27, 24, 25, 13, 16, 15 except 22=1363(LC 9), 17=1363(LC 10), 26=331(LC 9), 14=331(LC 10)

FORCES (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 3-4=0/375, 4-5=-277/0, 5-6=-807/0, 6-7=-277/0, 7-8=0/375, 8-9=0/375
BOT CHORD 23-24=-630/0, 22-23=-630/0, 21-22=-630/0, 20-21=0/807, 19-20=0/807, 18-19=0/807, 17-18=-630/0, 16-17=-630/0
WEBS 4-22=-1316/0, 7-17=-1316/0, 4-24=0/340, 3-24=-333/0, 2-26=-307/0, 7-18=0/896, 4-21=0/896, 6-18=-830/0, 5-21=-844/0, 7-16=0/340, 9-16=-333/0, 10-14=-307/0

NOTES (8-10)
1) Unbalanced floor live loads have been considered for this design.
2) This truss has been designed for basic load combinations, which include cases with reductions for multiple concurrent live loads.
3) All plates are 3x3 MT20 unless otherwise indicated.
4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 28, 15 except (jt=lb) 25=133.
5) "Semi-rigid pitchbreaks including heels" Member end fixity model was used in the analysis and design of this truss.
6) Recommend 2x6 strongbacks, on edge, spaced at 10-0-0 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.
7) CAUTION, Do not erect truss backwards.
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) Note: Visually graded lumber designation SPp, represents new lumber design values as per SPIB.
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) Floor: Lumber Increase=1.00, Plate Increase=1.00
Uniform Loads (plf)
Vert: 12-28=-20, 1-4=-110, 4-7=-230, 7-11=-110

March 13,2012

Julius Lee
1109 Coastal Bay Blvd.
Boynton, FL 33435

Job	Truss	Truss Type	Qty	Ply	TOMMY BULLOCK RES.
384283	F04	FLOOR	2	1	I5328172
					Job Reference (optional)

Builders FirstSource, Lake City, FL 32055 — 7.330 s Dec 20 2011 MiTek Industries, Inc. Tue Mar 13 11:06:49 2012 Page 1

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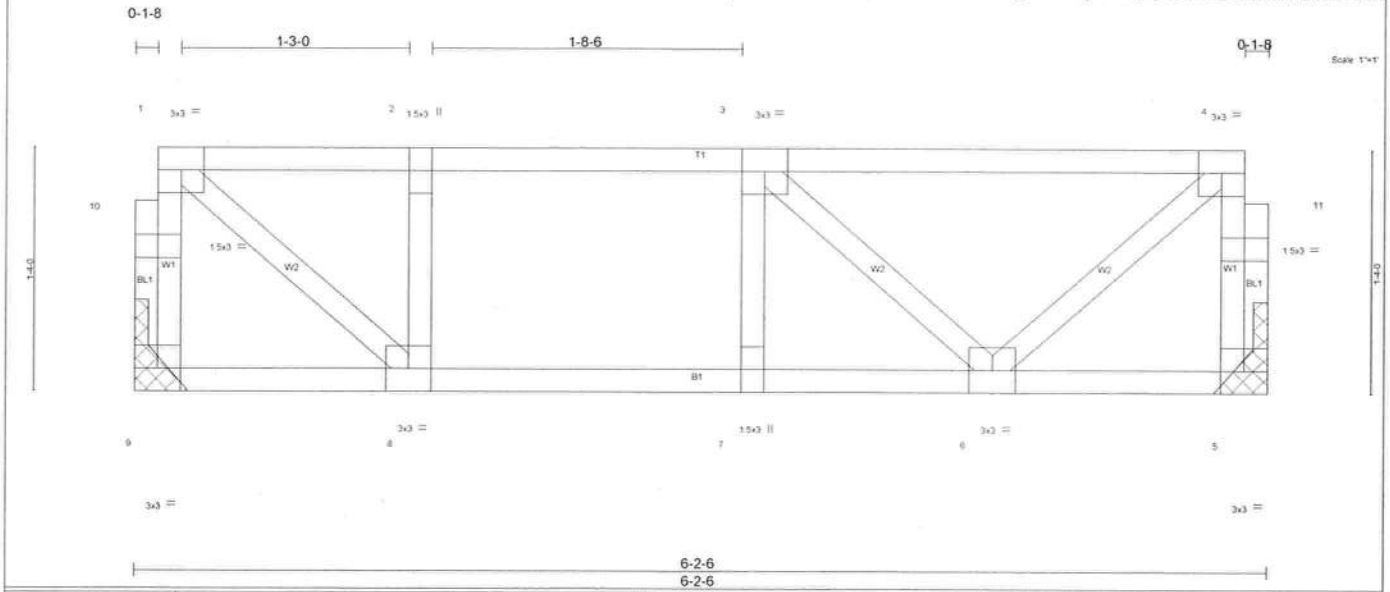

LOADING (psf)		SPACING	1-4-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	40.0	Plates Increase	1.00	TC	0.38	Vert(LL)	-0.03	7	>999	360	MT20	244/190
TCDL	15.0	Lumber Increase	1.00	BC	0.38	Vert(TL)	-0.05	7	>999	240		
BCLL	0.0	Rep Stress Incr	YES	WB	0.19	Horz(TL)	0.00	5	n/a	n/a		
BCDL	10.0	Code FBC2010/TPI2007		(Matrix)							Weight: 35 lb	FT = 2%F, 11%E

LUMBER
TOP CHORD 2x4 SPp No.2(flat)
BOT CHORD 2x4 SPp No.2(flat)
WEBS 2x4 SPp No.3(flat)

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

REACTIONS (lb/size) 9=253/Mechanical, 5=253/Mechanical

FORCES (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 9-10=-271/0, 1-10=-271/0, 5-11=-252/0, 4-11=-252/0, 1-2=-300/0, 2-3=-300/0
BOT CHORD 7-8=0/300, 6-7=0/300
WEBS 1-8=0/381

NOTES (6-9)
1) Unbalanced floor live loads have been considered for this design.
2) This truss has been designed for basic load combinations, which include cases with reductions for multiple concurrent live loads.
3) All bearings are assumed to be SYP No.2 crushing capacity of 565 psi.
4) "Semi-rigid pitchbreaks including heels" Member end fixity model was used in the analysis and design of this truss.
5) Recommend 2x6 strongbacks, on edge, spaced at 10-0-0 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.
6) 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.
7) Note: Visually graded lumber designation SPp, represents new lumber design values as per SPIB.
8) Truss Design Engineer: Julius Lee, PE: Florida P.E. License No. 34869: Address: 1109 Coastal Bay Blvd. Boynton Beach, FL 33435
9) Use Simpson THA422 to attach Truss to Carrying member

LOAD CASE(S) Standard

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

March 13,2012

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
1109 Coastal Bay Blvd.
Boynton, FL 33435

Job	Truss	Truss Type	Qty	Ply	TOMMY BULLOCK RES.
384283	F05	FLOOR	2	1	I5328173
					Job Reference (optional)

Builders FirstSource, Lake City, FL 32055

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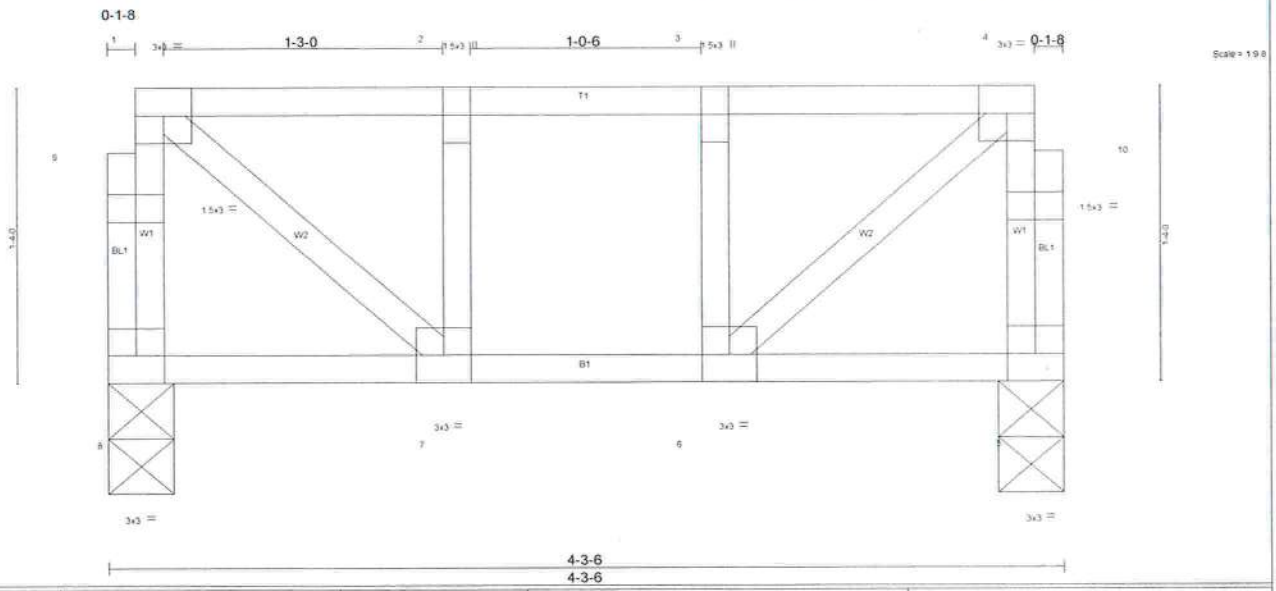

LOADING (psf)		SPACING	1-4-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	40.0	Plates Increase	1.00	TC	0.09	Vert(LL)	-0.00	7	>999	360	MT20	244/190
TCDL	15.0	Lumber Increase	1.00	BC	0.08	Vert(TL)	-0.00	7	>999	240		
BCLL	0.0	Rep Stress Incr	YES	WB	0.09	Horz(TL)	0.00	5	n/a	n/a		
BCDL	10.0	Code FBC2010/TPI2007		(Matrix)							Weight: 26 lb	FT = 2%F, 11%E

LUMBER
TOP CHORD 2x4 SPp No.2(flat)
BOT CHORD 2x4 SPp No.2(flat)
WEBS 2x4 SPp No.3(flat)

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

REACTIONS (lb/size) 8=170/0-3-8 (min. 0-1-8), 5=170/0-3-8 (min. 0-1-8)

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

NOTES (6-8)
1) Unbalanced floor live loads have been considered for this design.
2) This truss has been designed for basic load combinations, which include cases with reductions for multiple concurrent live loads.
3) All bearings are assumed to be SYP No.2 crushing capacity of 565 psi.
4) "Semi-rigid pitchbreaks including heels" Member end fixity model was used in the analysis and design of this truss.
5) Recommend 2x6 strongbacks, on edge, spaced at 10-0-0 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.
6) 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.
7) Note: Visually graded lumber designation SPp, represents new lumber design values as per SPIB.
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

March 13,2012

Julius Lee
1109 Coastal Bay Blvd.
Boynton, FL 33435

Job	Truss	Truss Type	Qty	Ply	TOMMY BULLOCK RES.
384283	F06	FLOOR	1	1	I5328174
					Job Reference (optional)

Builders FirstSource, Lake City, FL 32055

7.330 s Dec 20 2011 MiTek Industries, Inc. Tue Mar 13 11:06:50 2012 Page 1

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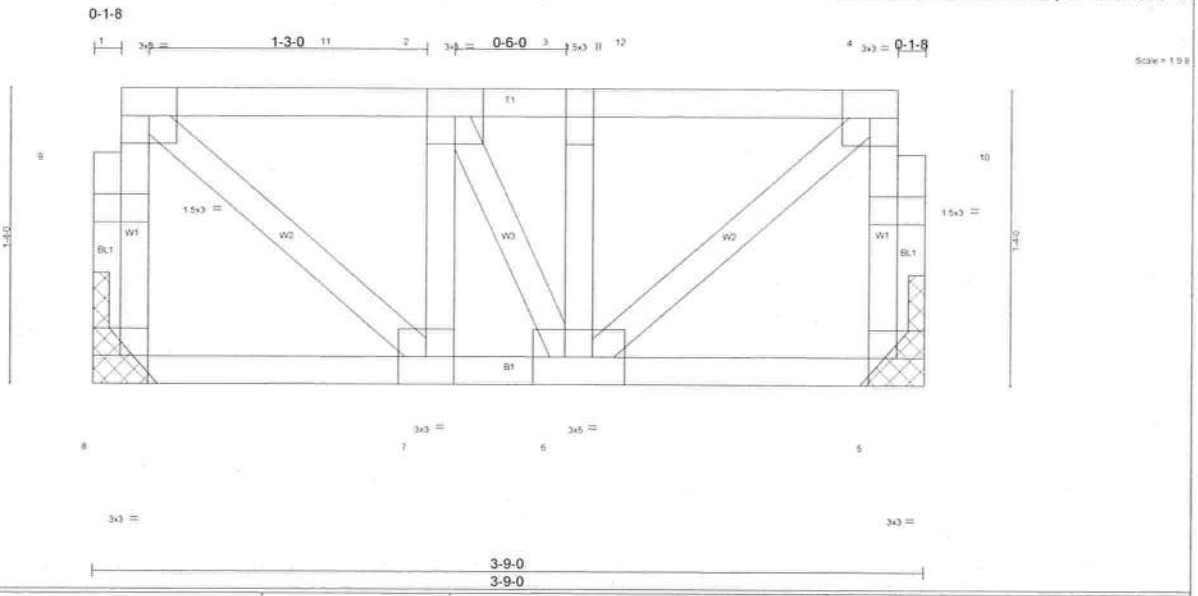

LOADING (psf)		SPACING	1-4-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	40.0	Plates Increase	1.00	TC	0.35	Vert(LL)	-0.00	7	>999	360	MT20	244/190
TCDL	15.0	Lumber Increase	1.00	BC	0.12	Vert(TL)	-0.01	6	>999	240		
BCLL	0.0	Rep Stress Incr	NO	WB	0.23	Horz(TL)	0.00	5	n/a	n/a		
BCDL	10.0	Code FBC2010/TPI2007		(Matrix)							Weight: 27 lb	FT = 2%F, 11%E

LUMBER
TOP CHORD 2x4 SPp No.2(flat)
BOT CHORD 2x4 SPp No.2(flat)
WEBS 2x4 SPp No.3(flat)

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

REACTIONS (lb/size) 8=394/Mechanical, 5=389/Mechanical

FORCES (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 8-9=-386/0, 1-9=-385/0, 5-10=-378/0, 4-10=-377/0, 1-11=-361/0, 2-11=-361/0, 2-3=-356/0, 3-12=-356/0, 4-12=-356/0
BOT CHORD 6-7=0/361
WEBS 4-6=0/448, 1-7=0/454, 2-7=-282/0, 3-6=-278/0

NOTES (5-8)
1) This truss has been designed for basic load combinations, which include cases with reductions for multiple concurrent live loads.
2) All bearings are assumed to be SYP No.2 crushing capacity of 565 psi.
3) "Semi-rigid pitchbreaks including heels" Member end fixity model was used in the analysis and design of this truss.
4) Recommend 2x6 strongbacks, on edge, spaced at 10-0-0 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.
5) 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.
6) Note: Visually graded lumber designation SPp, represents new lumber design values as per SPIB.
7) Truss Design Engineer: Julius Lee, PE: Florida P.E. License No. 34869: Address: 1109 Coastal Bay Blvd. Boynton Beach, FL 33435
8) Use Simpson THA422 to attach Truss to Carrying member

LOAD CASE(S) Standard
1) Floor: Lumber Increase=1.00, Plate Increase=1.00
Uniform Loads (plf)
Vert: 5-8=-13, 1-4=-73
Concentrated Loads (lb)
Vert: 11=-244 12=-244

March 13,2012

Julius Lee
1109 Coastal Bay Blvd.
Boynton, FL 33435

Job	Truss	Truss Type	Qty	Ply	TOMMY BULLOCK RES.	I5328175
384283	KW1	GABLE	2	1	Job Reference (optional)	

Builders FirstSource, Lake City, FL 32055

7.330 s Dec 20 2011 MiTek Industries, Inc. Tue Mar 13 11:06:51 2012 Page 1

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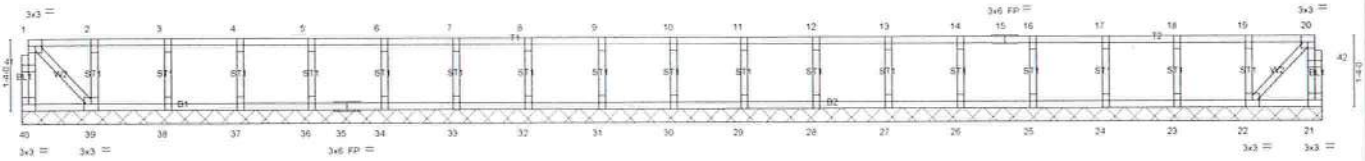
0-1-8



Scale = 1:40.3

1-4-0	2-8-0	4-0-0	5-4-0	6-8-0	8-0-0	9-4-0	10-8-0	11-11-14	13-3-12	14-7-12	15-11-12	17-3-12	18-7-12	19-11-12	21-3-12	22-7-12	23-11-12
1-4-0	1-4-0	1-4-0	1-4-0	1-4-0	1-4-0	1-4-0	1-4-0	1-3-14	1-3-14	1-4-0	1-4-0	1-4-0	1-4-0	1-4-0	1-4-0	1-4-0	1-4-0

LOADING (psf)		SPACING	1-4-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	40.0	Plates Increase	1.00	TC	0.06	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	15.0	Lumber Increase	1.00	BC	0.01	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0	Rep Stress Incr	YES	WB	0.03	Horz(TL)	-0.00	22	n/a	n/a		
BCDL	10.0	Code FBC2010/TPI2007		(Matrix)							Weight: 109 lb	FT = 2%F, 11%E

LUMBER

TOP CHORD 2x4 SPp No.2(flat)
BOT CHORD 2x4 SPp No.2(flat)
WEBS 2x4 SPp No.3(flat)
OTHERS 2x4 SPp No.3(flat)

BRACING

TOP CHORD Structural wood sheathing directly applied or 10-0-0 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing, Except:
10-0-0 oc bracing: 39-40,21-22.

REACTIONS All bearings 23-11-12.
(lb) - Max Grav All reactions 250 lb or less at joint(s) 40, 21, 30, 22, 23, 24, 25, 26, 27, 28, 29, 39, 38, 37, 36, 34, 33, 32, 31

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

NOTES (9-11)

1) This truss has been designed for basic load combinations, which include cases with reductions for multiple concurrent live loads.
2) All plates are 1.5x3 MT20 unless otherwise indicated.
3) Gable requires continuous bottom chord bearing.
4) Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
5) Gable studs spaced at 1-4-0 oc.
6) All bearings are assumed to be SYP No.2 crushing capacity of 565 psi.
7) "Semi-rigid pitchbreaks including heels" Member end fixity model was used in the analysis and design of this truss.
8) Recommend 2x6 strongbacks, on edge, spaced at 10-0-0 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.
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) Note: Visually graded lumber designation SPp, represents new lumber design values as per SPIB.
11) Truss Design Engineer: Julius Lee, PE: Florida P.E. License No. 34869: Address: 1109 Coastal Bay Blvd. Boynton Beach, FL 33435

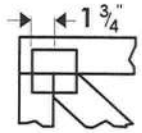
LOAD CASE(S) Standard

March 13,2012

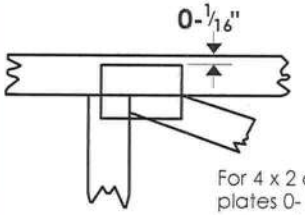
Julius Lee
1109 Coastal Bay Blvd.
Boynton, FL 33435

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

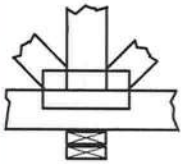
4 x 4

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

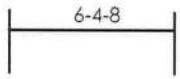


Indicates location where bearings (supports) occur. Icons vary but reaction section indicates joint number where bearings occur.

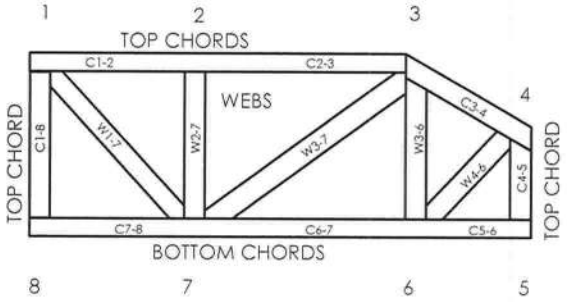
Industry Standards:

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
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.

MiTek Industries, Inc.

Note: T-Bracing / I-Bracing to be used when continuous lateral bracing is impractical. T-Brace / I-Brace must cover 90% of web length.

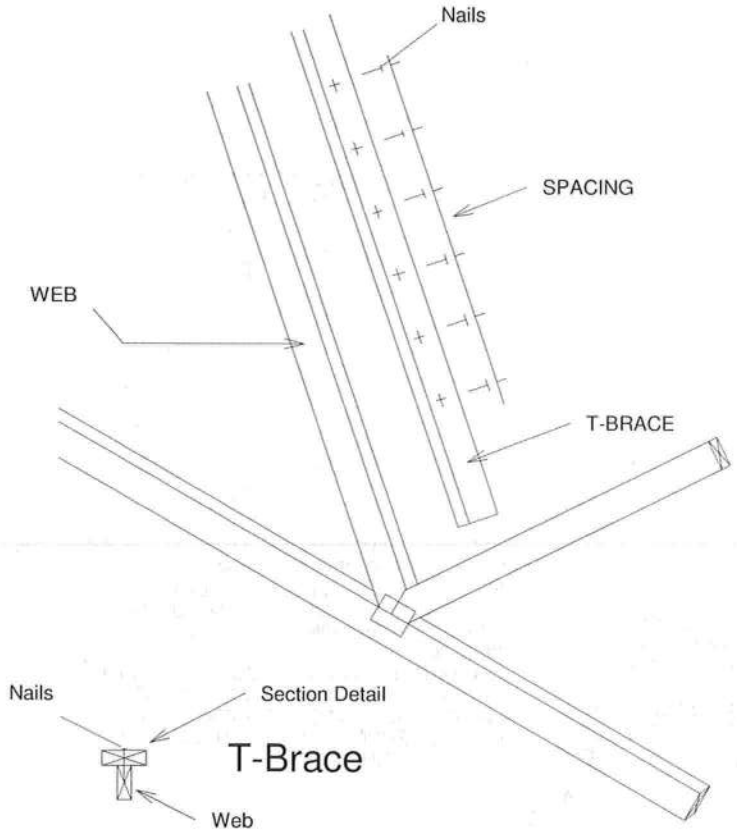
Note: This detail NOT to be used to convert T-Brace / I-Brace webs to continuous lateral braced webs.

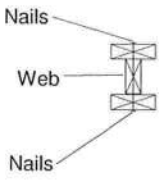
Nailing Pattern		
T-Brace size	Nail Size	Nail Spacing
2x4 or 2x6 or 2x8	10d	6" o.c.
Note: Nail along entire length of T-Brace / I-Brace (On Two-Ply's Nail to Both Plies)		

	Brace Size for One-Ply Truss	
	Specified Continuous Rows of Lateral Bracing	
Web Size	1	2
2x3 or 2x4	2x4 T-Brace	2x4 I-Brace
2x6	2x6 T-Brace	2x6 I-Brace
2x8	2x8 T-Brace	2x8 I-Brace

	Brace Size for Two-Ply Truss	
	Specified Continuous Rows of Lateral Bracing	
Web Size	1	2
2x3 or 2x4	2x4 T-Brace	2x4 I-Brace
2x6	2x6 T-Brace	2x6 I-Brace
2x8	2x8 T-Brace	2x8 I-Brace

T-Brace / I-Brace must be same species and grade (or better) as web member.





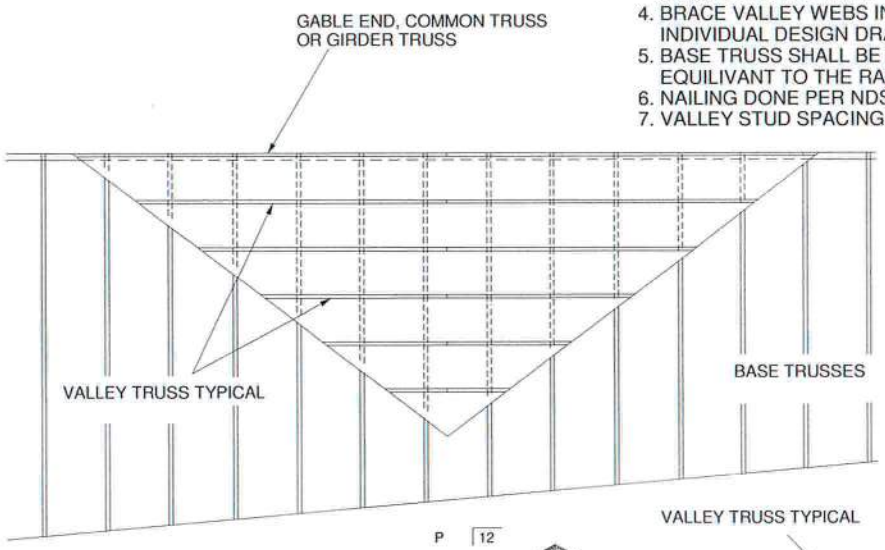
1109 COASTAL BAY
BOYNTON BC, FL 33435

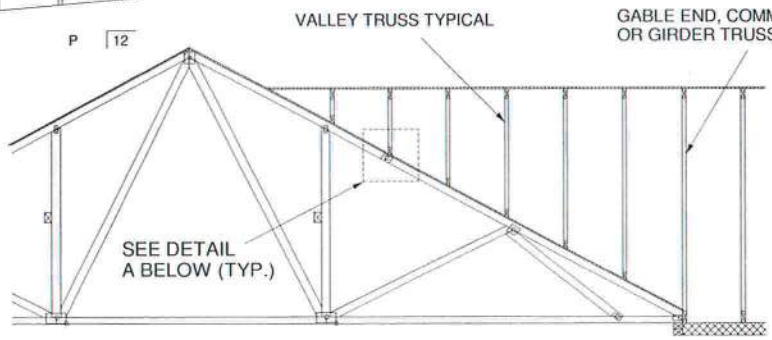
OCTOBER 25, 2010	TRUSSED VALLEY SET DETAIL	ST-VALLEY HIGH WIND1

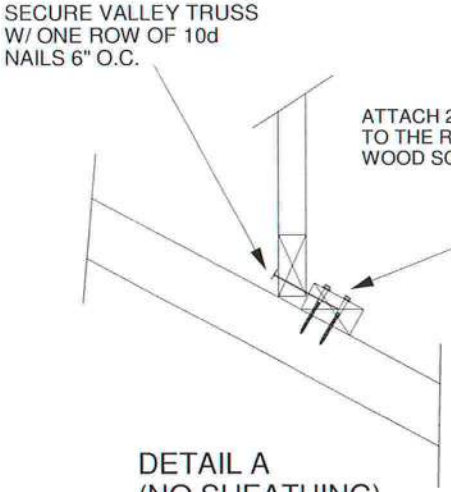
MiTek Industries, Inc.

GENERAL SPECIFICATIONS

1. NAIL SIZE = 3" X 0.131" = 10d
2. WOOD SCREW = 3" WS3 USP OR EQUIVALENT
   DO NOT USE DRYWALL OR DECKING TYPE SCREW
3. INSTALL VALLEY TRUSSES (24" O.C. MAXIMUM) AND
   SECURE PER DETAIL A
4. BRACE VALLEY WEBS IN ACCORDANCE WITH THE
   INDIVIDUAL DESIGN DRAWINGS.
5. BASE TRUSS SHALL BE DESIGNED WITH A PURLIN SPACING
   EQUILIVANT TO THE RAKE DIMENSION OF THE VALLEY TRUSS SPACING.
6. NAILING DONE PER NDS - 01
7. VALLEY STUD SPACING NOT TO EXCEED 48" O.C.

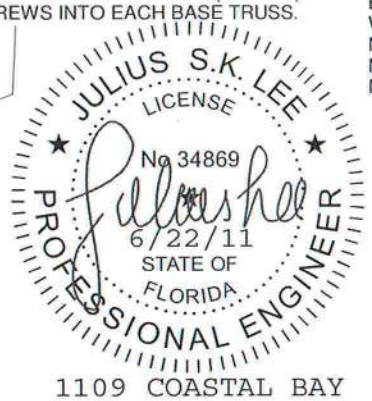






DETAIL A
(NO SHEATHING)
N.T.S.

WIND DESIGN PER ASCE 7-98, ASCE 7-02, ASCE 7-05
MAXIMUM WIND SPEED = 146 MPH
MAX MEAN ROOF HEIGHT = 30 FEET
ROOF PITCH = MINIMUM 3/12 MAXIMUM 6/12
CATEGORY II BUILDING
EXPOSURE C
WIND DURATION OF LOAD INCREASE : 1.60
MAX TOP CHORD TOTAL LOAD = 50 PSF
MAX SPACING = 24" O.C. (BASE AND VALLEY)
MINIMUM REDUCED DEAD LOAD OF 6 PSF
ON THE TRUSSES



1109 COASTAL BAY
BOYNTON BC, FL 33435

JANUARY 1, 2009	LATERAL TOE-NAIL DETAIL	ST-TOENAIL_SP

MiTek Industries, Chesterfield, MO

MiTek Industries, Inc.

NOTES:
1. TOE-NAILS SHALL BE DRIVEN AT AN ANGLE OF 45 DEGREES WITH THE MEMBER AND MUST HAVE FULL WOOD SUPPORT. (NAIL MUST BE DRIVEN THROUGH AND EXIT AT THE BACK CORNER OF THE MEMBER END AS SHOWN.
2. THE END DISTANCE, EDGE DISTANCE, AND SPACING OF NAILS SHALL BE SUCH AS TO AVOID UNUSUAL SPLITTING OF THE WOOD.
3. ALLOWABLE VALUE SHALL BE THE LESSER VALUE OF THE TWO SPECIES FOR MEMBERS OF DIFFERENT SPECIES.

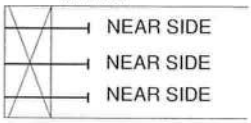
	TOE-NAIL SINGLE SHEAR VALUES PER NDS 2001 (lb/nail)					
	DIAM.	SYP	DF	HF	SPF	SPF-S
3.5" LONG	.131	88.0	80.6	69.9	68.4	59.7
	.135	93.5	85.6	74.2	72.6	63.4
	.162	108.8	99.6	86.4	84.5	73.8
3.25" LONG	.128	74.2	67.9	58.9	57.6	50.3
	.131	75.9	69.5	60.3	59.0	51.1
	.148	81.4	74.5	64.6	63.2	52.5

THIS DETAIL APPLICABLE TO THE THREE END DETAILS SHOWN BELOW

VIEWS SHOWN ARE FOR ILLUSTRATION PURPOSES ONLY

SIDE VIEW

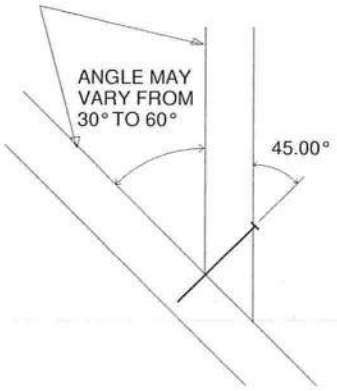
3 NAILS

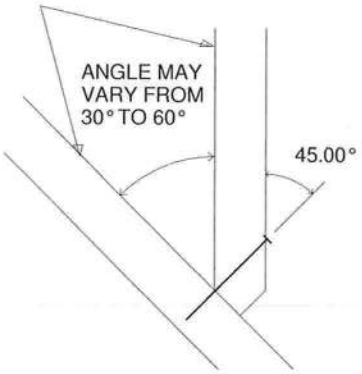


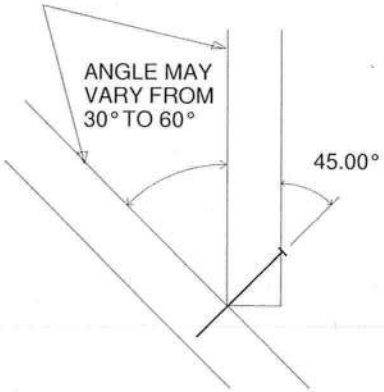
VALUES SHOWN ARE CAPACITY PER TOE-NAIL.
APPLICABLE DURATION OF LOAD INCREASES MAY BE APPLIED.

EXAMPLE:
(3) - 16d NAILS (.162" diam. x 3.5") WITH SPF SPECIES BOTTOM CHORD

For load duration increase of 1.15:
3 (nails) X 84.5 (lb/nail) X 1.15 (DOL) = 291.5 lb Maximum Capacity







1109 COASTAL BAY
BOYNTON BC, FL 33435

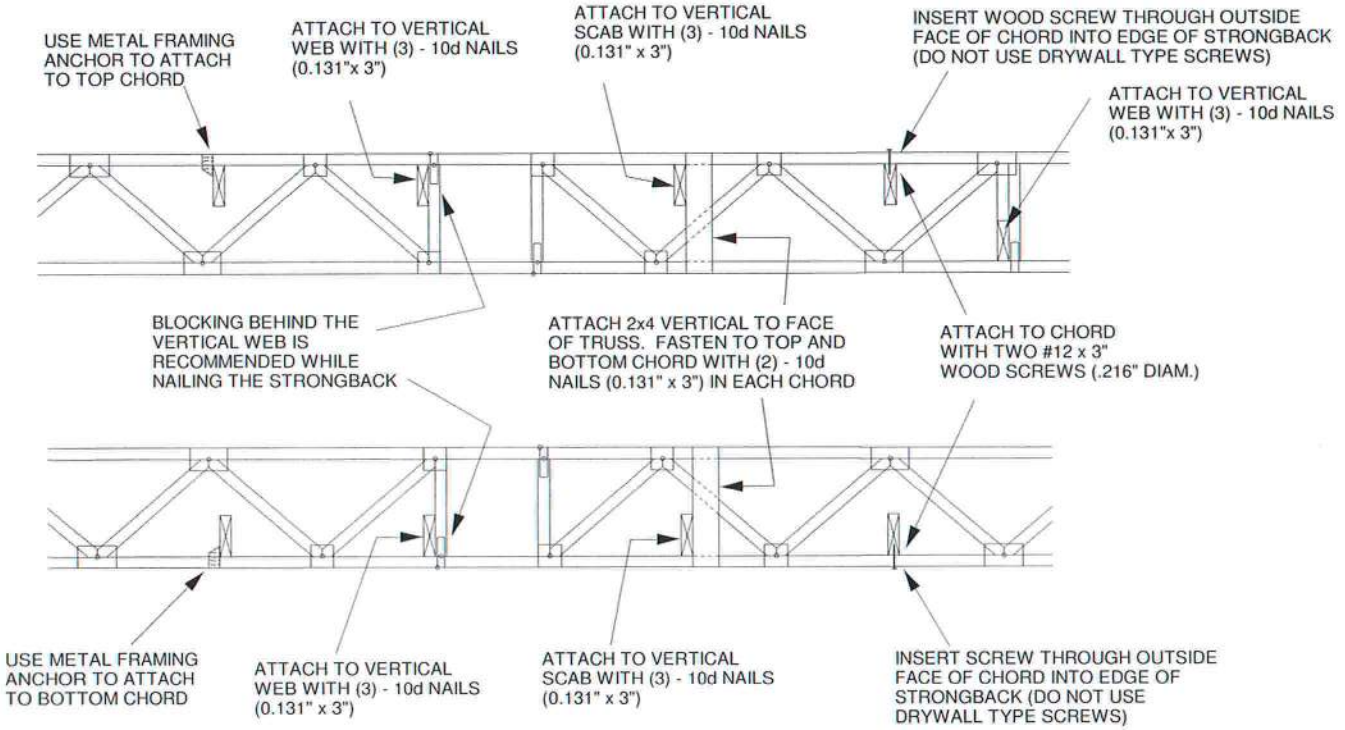
FEBRUARY 8, 2008	LATERAL BRACING RECOMMENDATIONS	ST-STRGBCK

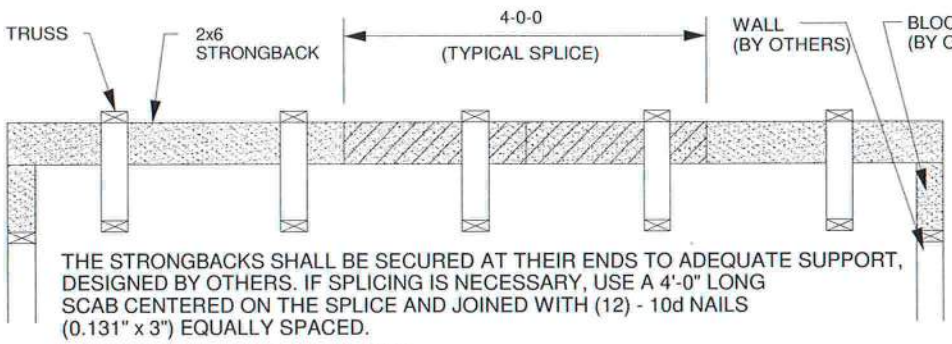
MiTek Industries, Inc.

TO MINIMIZE VIBRATION COMMON TO ALL SHALLOW FRAMING SYSTEMS, 2x6 "STRONGBACK" IS RECOMMENDED, LOCATED EVERY 8 TO 10 FEET ALONG A FLOOR TRUSS.

NOTE 1: 2X6 STRONGBACK ORIENTED VERTICALLY MAY BE POSITIONED DIRECTLY UNDER THE TOP CHORD OR DIRECTLY ABOVE THE BOTTOM CHORD. SECURELY FASTENED TO THE TRUSS USING ANY OF THE METHODS ILLUSTRATED BELOW.

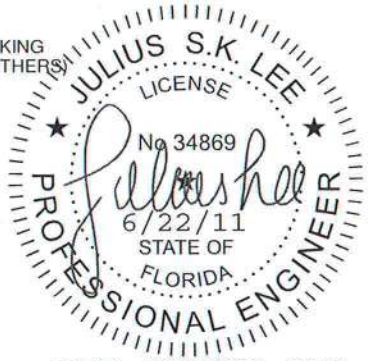
NOTE 2: STRONGBACK BRACING ALSO SATISFIES THE LATERAL BRACING REQUIREMENTS FOR THE BOTTOM CHORD OF THE TRUSS WHEN IT IS PLACED ON TOP OF THE BOTTOM CHORD, IS CONTINUOUS FROM END TO END, CONNECTED WITH A METHOD OTHER THAN METAL FRAMING ANCHOR, AND PROPERLY CONNECTED, BY OTHERS, AT THE ENDS.





THE STRONGBACKS SHALL BE SECURED AT THEIR ENDS TO ADEQUATE SUPPORT, DESIGNED BY OTHERS. IF SPLICING IS NECESSARY, USE A 4'-0" LONG SCAB CENTERED ON THE SPLICE AND JOINED WITH (12) - 10d NAILS (0.131" x 3") EQUALLY SPACED.

ALTERNATE METHOD OF SPLICING:
OVERLAP STRONGBACK MEMBERS A MINIMUM OF 4'-0" AND FASTEN WITH (12) - 10d NAILS (0.131" x 3") STAGGERED AND EQUALLY SPACED.
(TO BE USED ONLY WHEN STRONGBACK IS NOT ALIGNED WITH A VERTICAL)



1109 COASTAL BAY
BOYNTON BC, FL 33435

JANUARY 20, 2011	STANDARD PIGGYBACK TRUSS CONNECTION DETAIL	ST-PIGGY

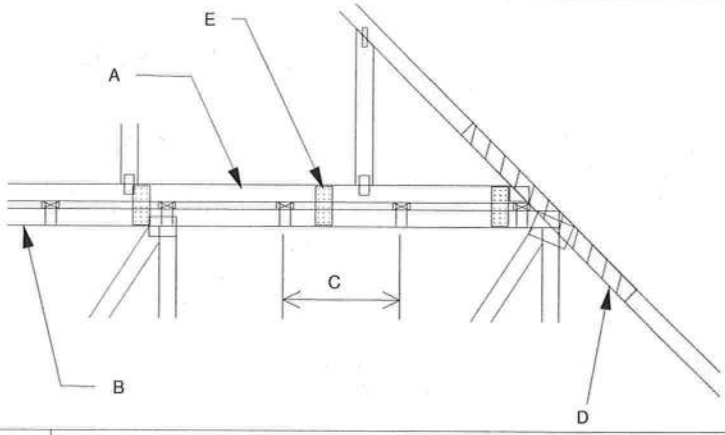
MiTek Industries, Chesterfield, MO

MiTek Industries, Inc.

MAXIMUM WIND SPEED = REFER TO NOTES D AND OR E MAX MEAN ROOF HEIGHT = 30 FEET MAX TRUSS SPACING = 24 " O.C. CATEGORY II BUILDING EXPOSURE B or C ASCE 7-02, ASCE 7-05 DURATION OF LOAD INCREASE : 1.60
DETAIL IS NOT APPLICABLE FOR TRUSSES TRANSFERING DRAG LOADS (SHEAR TRUSSES). ADDITIONAL CONSIDERATIONS BY BUILDING ENGINEER/DESIGNER ARE REQUIRED.

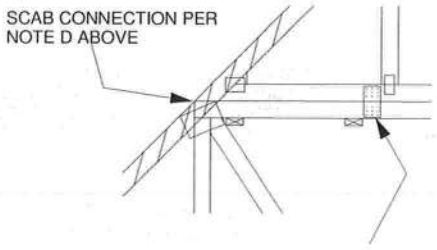
A - PIGGBACK TRUSS, REFER TO MITEK TRUSS DESIGN DRAWING. SHALL BE CONNECTED TO EACH PURLIN WITH (2) 0.131" X 3.5" TOE NAILED.
B - BASE TRUSS, REFER TO MITEK TRUSS DESIGN DRAWING.
C - PURLINS AT EACH BASE TRUSS JOINT AND A MAXIMUM 24" O.C. UNLESS SPECIFIED CLOSER ON MITEK TRUSS DESIGN DRAWING. CONNECT TO BASE TRUSS WITH (2) 0.131" X 3.5" NAILS EACH.
D - 2 X __ X 4'-0" SCAB, SIZE AND GRADE TO MATCH TOP CHORD OF PIGGYBACK TRUSS, ATTACHED TO ONE FACE, CENTERED ON INTERSECTION, WITH (2) ROWS OF 0.131" X 3" NAILS @ 4" O.C. SCAB MAY BE OMITTED PROVIDED THE TOP CHORD SHEATHING IS CONTINUOUS OVER INTERSECTION AT LEAST 1 FT. IN BOTH DIRECTIONS AND:
1. WIND SPEED OF 90 MPH OR LESS FOR ANY PIGGYBACK SPAN, OR
2. WIND SPEED OF 91 MPH TO 140 MPH WITH A MAXIMUM PIGGYBACK SPAN OF 12 ft.

E - FOR WIND SPEEDS BETWEEN 101 AND 140 MPH, ATTACH MITEK 3X8 20 GA Nail-On PLATES TO EACH FACE OF TRUSSES AT 72" O.C. W/ (4) 0.131" X 1.5" PER MEMBER. STAGGER NAILS FROM OPPOSING FACES. ENSURE 0.5" EDGE DISTANCE. (MIN. 2 PAIRS OF PLATES REQ. REGARDLESS OF SPAN)

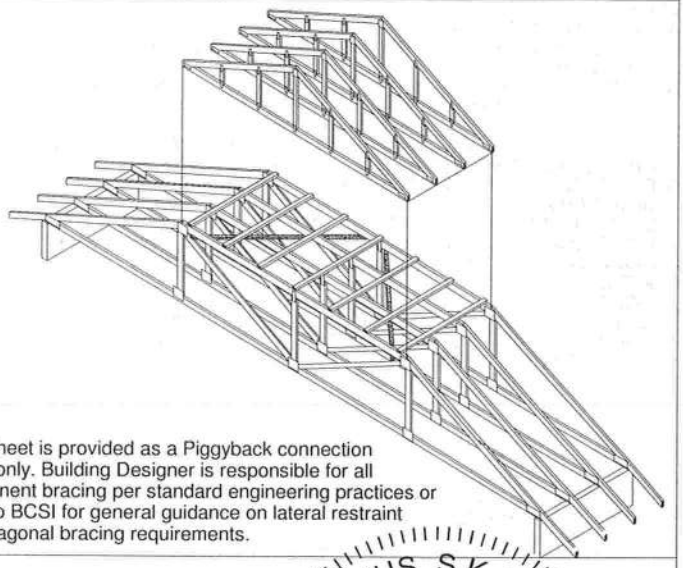


WHEN NO GAP BETWEEN PIGGYBACK AND BASE TRUSS EXISTS:

REPLACE TOE NAILING OF PIGGYBACK TRUSS TO PURLINS WITH Nail-On PLATES AS SHOWN, AND INSTALL PURLINS TO BOTTOM EDGE OF BASE TRUSS TOP CHORD AT SPECIFIED SPACING SHOWN ON BASE TRUSS MITEK DESIGN DRAWING.

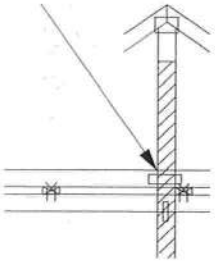


FOR ALL WIND SPEEDS, ATTACH MITEK 3X6 20 GA Nail-On PLATES TO EACH FACE OF TRUSSES AT 48" O.C. W/ (4) 0.131" X 1.5" PER MEMBER. STAGGER NAILS FROM OPPOSING FACES ENSURE 0.5" EDGE DISTANCE.



This sheet is provided as a Piggyback connection detail only. Building Designer is responsible for all permanent bracing per standard engineering practices or refer to BCSI for general guidance on lateral restraint and diagonal bracing requirements.

VERTICAL WEB TO EXTEND THROUGH BOTTOM CHORD OF PIGGYBACK



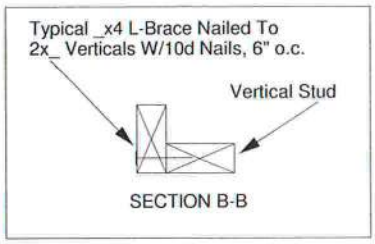
FOR LARGE CONCENTRATED LOADS APPLIED TO CAP TRUSS REQUIRING A VERTICAL WEB:

1) VERTICAL WEBS OF PIGGYBACK AND BASE TRUSS MUST MATCH IN SIZE, GRADE, AND MUST LINE UP AS SHOWN IN DETAIL.
2) ATTACH 2 x ___ x 4'-0" SCAB TO EACH FACE OF TRUSS ASSEMBLY WITH 2 ROWS OF 10d (0.131" X 3") NAILS SPACED 4" O.C. FROM EACH FACE. (SIZE AND GRADE TO MATCH VERTICAL WEBS OF PIGGYBACK AND BASE TRUSS.) (MINIMUM 2X4)
3) THIS CONNECTION IS ONLY VALID FOR A MAXIMUM CONCENTRATED LOAD OF 4000 LBS (@1.15). REVIEW BY A QUALIFIED ENGINEER IS REQUIRED FOR LOADS GREATER THAN 4000 LBS.
4) FOR PIGGYBACK TRUSSES CARRYING GIRDER LOADS, NUMBER OF PLYS OF PIGGYBACK TRUSS TO MATCH BASE TRUSS.
5) CONCENTRATED LOAD MUST BE APPLIED TO BOTH THE PIGGYBACK AND THE BASE TRUSS DESIGN.

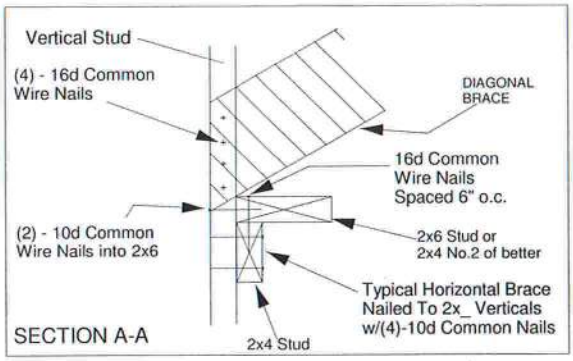
1109 COASTAL BAY
BOYNTON BC, FL 33435

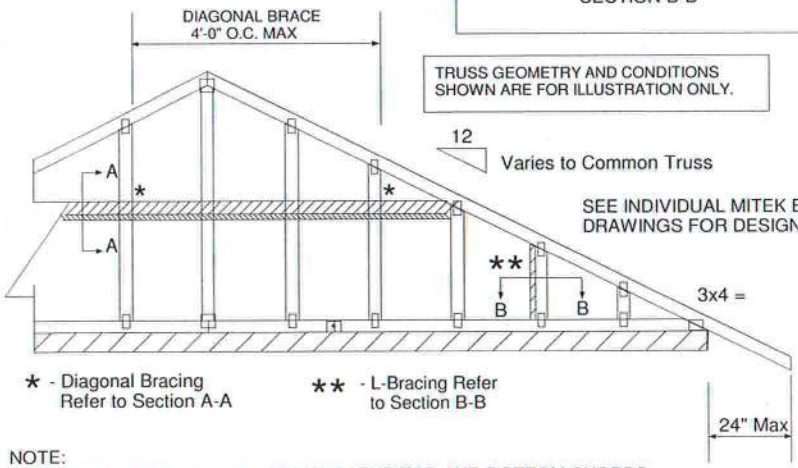
JANUARY 1, 2009	Standard Gable End Detail	ST-GE120-001

MiTek Industries, Inc.



MiTek Industries, Chesterfield, MO





TRUSS GEOMETRY AND CONDITIONS SHOWN ARE FOR ILLUSTRATION ONLY.

12 Varies to Common Truss

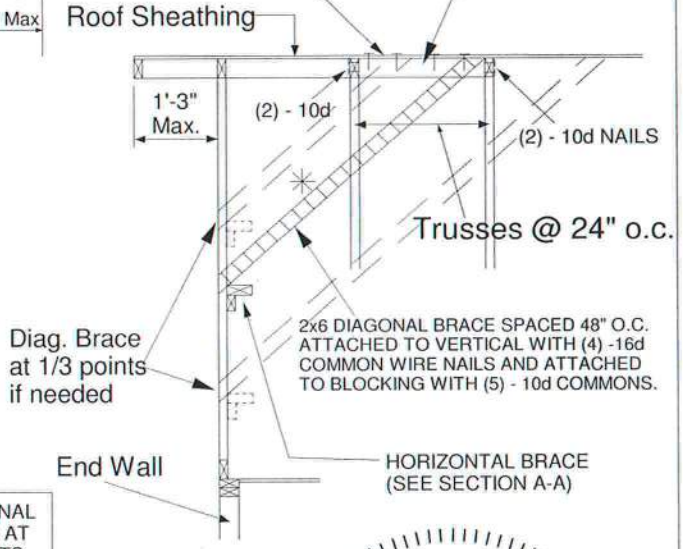
SEE INDIVIDUAL MITEK ENGINEERING DRAWINGS FOR DESIGN CRITERIA

* - Diagonal Bracing Refer to Section A-A

** - L-Bracing Refer to Section B-B

PROVIDE 2x4 BLOCKING BETWEEN THE FIRST TWO TRUSSES AS NOTED. TOENAIL BLOCKING TO TRUSSES WITH (2) - 10d NAILS AT EACH END. ATTACH DIAGONAL BRACE TO BLOCKING WITH (5) - 10d COMMON WIRE NAILS.

(4) - 8d NAILS MINIMUM, PLYWOOD SHEATHING TO 2x4 STD SPF BLOCK



NOTE:
1. MINIMUM GRADE OF #2 MATERIAL IN THE TOP AND BOTTOM CHORDS.
2. CONNECTION BETWEEN BOTTOM CHORD OF GABLE END TRUSS AND WALL TO BE PROVIDED BY PROJECT ENGINEER OR ARCHITECT.
3. BRACING SHOWN IS FOR INDIVIDUAL TRUSS ONLY. CONSULT BLDG. ARCHITECT OR ENGINEER FOR TEMPORARY AND PERMANENT BRACING OF ROOF SYSTEM.
4. "L" BRACES SPECIFIED ARE TO BE FULL LENGTH. GRADES: 1x4 SRB OR 2x4 STUD OR BETTER WITH ONE ROW OF 10d NAILS SPACED 6" O.C.
5. DIAGONAL BRACE TO BE APPROXIMATELY 45 DEGREES TO ROOF DIAPHRAM AT 4'-0" O.C.
6. CONSTRUCT HORIZONTAL BRACE CONNECTING A 2x6 STUD AND A 2x4 STUD AS SHOWN WITH 16d NAILS SPACED 6" O.C. HORIZONTAL BRACE TO BE LOCATED AT THE MIDSPAN OF THE LONGEST STUD. ATTACH TO VERTICAL STUDS WITH (4) 10d NAILS THROUGH 2x4. (REFER TO SECTION A-A)
7. GABLE STUD DEFLECTION MEETS OR EXCEEDS L/240.
8. THIS DETAIL DOES NOT APPLY TO STRUCTURAL GABLES.
9. DO NOT USE FLAT BOTTOM CHORD GABLES NEXT TO SCISSOR TYPE TRUSSES.

Minimum Stud Size Species and Grade	Stud Spacing	Without Brace	1x4 L-Brace	2x4 L-Brace	DIAGONAL BRACE	2 DIAGONAL BRACES AT 1/3 POINTS
		Maximum Stud Length				
2x4 SPF Std/Stud	12" O.C.	4-3-2	4-7-6	6-6-5	8-6-3	12-9-6
2x4 SPF Std/Stud	16" O.C.	3-10-7	4-0-0	5-7-13	7-8-14	11-7-5
2x4 SPF Std/Stud	24" O.C.	3-2-0	3-3-2	4-7-6	6-4-0	9-6-0

✳ Diagonal braces over 6'-3" require a 2x4 T-Brace attached to one edge. Diagonal braces over 12'-6" require 2x4 I-braces attached to both edges. Fasten T and I braces to narrow edge of web with 10d common wire nails 8in o.c., with 3in minimum end distance. Brace must cover 90% of diagonal length.

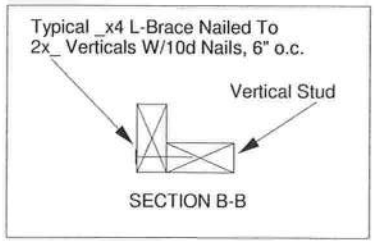
MAXIMUM WIND SPEED = 120 MPH
MAX MEAN ROOF HEIGHT = 30 FEET
CATEGORY II BUILDING
EXPOSURE B or C
ASCE 7-98, ASCE 7-02, ASCE 7-05
DURATION OF LOAD INCREASE : 1.60

STUD DESIGN IS BASED ON COMPONENTS AND CLADDING.
CONNECTION OF BRACING IS BASED ON MWFRS.

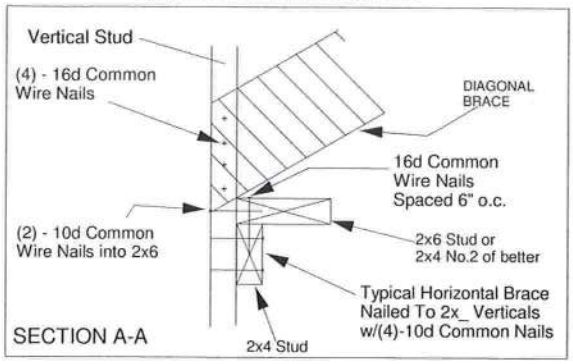
1109 COASTAL BAY
BOYNTON BC, FL 33435
6/22/11

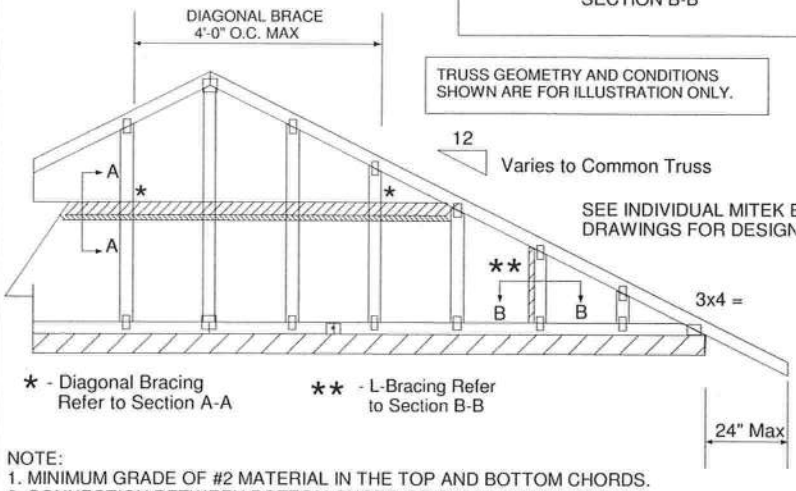
JANUARY 1, 2009	Standard Gable End Detail	ST-GE140-001

MiTek Industries, Inc.



MiTek Industries, Chesterfield, MO





TRUSS GEOMETRY AND CONDITIONS SHOWN ARE FOR ILLUSTRATION ONLY.

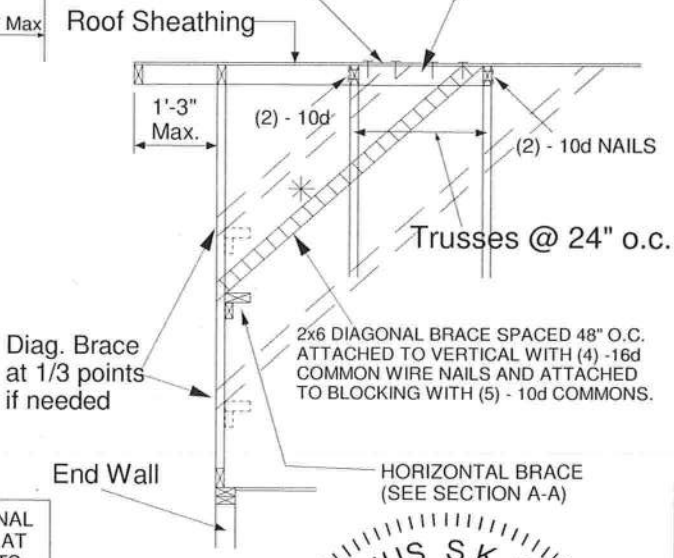
SEE INDIVIDUAL MITEK ENGINEERING DRAWINGS FOR DESIGN CRITERIA

* - Diagonal Bracing Refer to Section A-A

** - L-Bracing Refer to Section B-B

PROVIDE 2x4 BLOCKING BETWEEN THE FIRST TWO TRUSSES AS NOTED. TOENAIL BLOCKING TO TRUSSES WITH (2) - 10d NAILS AT EACH END. ATTACH DIAGONAL BRACE TO BLOCKING WITH (5) - 10d COMMON WIRE NAILS.

(4) - 8d NAILS MINIMUM, PLYWOOD SHEATHING TO 2x4 STD SPF BLOCK



NOTE:
1. MINIMUM GRADE OF #2 MATERIAL IN THE TOP AND BOTTOM CHORDS.
2. CONNECTION BETWEEN BOTTOM CHORD OF GABLE END TRUSS AND WALL TO BE PROVIDED BY PROJECT ENGINEER OR ARCHITECT.
3. BRACING SHOWN IS FOR INDIVIDUAL TRUSS ONLY. CONSULT BLDG. ARCHITECT OR ENGINEER FOR TEMPORARY AND PERMANENT BRACING OF ROOF SYSTEM.
4. "L" BRACES SPECIFIED ARE TO BE FULL LENGTH. GRADES: 1x4 SRB OR 2x4 STUD OR BETTER WITH ONE ROW OF 10d NAILS SPACED 6" O.C.
5. DIAGONAL BRACE TO BE APPROXIMATELY 45 DEGREES TO ROOF DIAPHRAM AT 4'-0" O.C.
6. CONSTRUCT HORIZONTAL BRACE CONNECTING A 2x6 STUD AND A 2x4 STUD AS SHOWN WITH 16d NAILS SPACED 6" O.C. HORIZONTAL BRACE TO BE LOCATED AT THE MIDSPAN OF THE LONGEST STUD. ATTACH TO VERTICAL STUDS WITH (4) 10d NAILS THROUGH 2x4. (REFER TO SECTION A-A)
7. GABLE STUD DEFLECTION MEETS OR EXCEEDS L/240.
8. THIS DETAIL DOES NOT APPLY TO STRUCTURAL GABLES.
9. DO NOT USE FLAT BOTTOM CHORD GABLES NEXT TO SCISSOR TYPE TRUSSES.

Minimum Stud Size Species and Grade	Stud Spacing	Without Brace	1x4 L-Brace	2x4 L-Brace	DIAGONAL BRACE	2 DIAGONAL BRACES AT 1/3 POINTS
		Maximum Stud Length				
2x4 SPF Std/Stud	12" O.C.	3-10-1	3-11-7	5-7-2	7-8-2	11-6-4
2x4 SPF Std/Stud	16" O.C.	3-3-14	3-5-1	4-10-2	6-7-13	9-11-11
2x4 SPF Std/Stud	24" O.C.	2-8-9	2-9-8	3-11-7	5-5-2	8-1-12

✳ Diagonal braces over 6'-3" require a 2x4 T-Brace attached to one edge. Diagonal braces over 12'-6" require 2x4 I-braces attached to both edges. Fasten T and I braces to narrow edge of web with 10d common wire nails 8in o.c., with 3in minimum end distance. Brace must cover 90% of diagonal length.

MAXIMUM WIND SPEED = 140 MPH
MAX MEAN ROOF HEIGHT = 30 FEET
CATEGORY II BUILDING
EXPOSURE B or C
ASCE 7-98, ASCE 7-02, ASCE 7-05
DURATION OF LOAD INCREASE : 1.60

STUD DESIGN IS BASED ON COMPONENTS AND CLADDING. CONNECTION OF BRACING IS BASED ON MWFRS.

1109 COASTAL BAY
BOYNTON BC, FL 33435

6/22/11