

MiTek Industries, Inc.

Typical 2x4 L-Brace Nailed To  
2x Verticals W/10d Nails, 6" o.c.

Vertical Stud

SECTION B-B

TRUSS GEOMETRY AND CONDITIONS  
SHOWN ARE FOR ILLUSTRATION ONLY.

Varies to Common Truss  
12

SEE INDIVIDUAL MITTEK ENGINEERING  
DRAWINGS FOR DESIGN CRITERIA

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

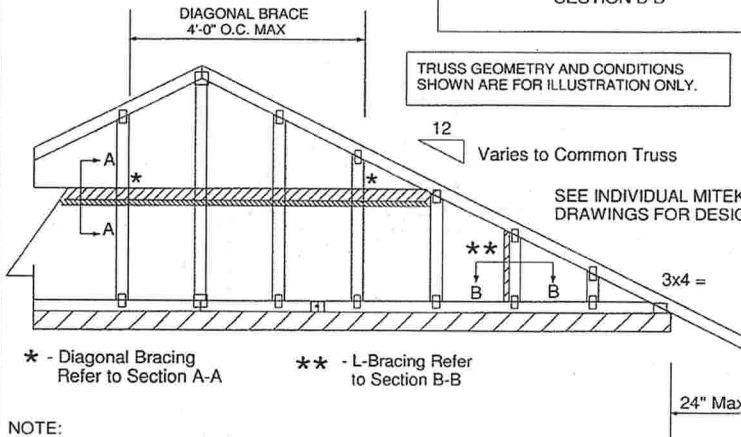
Roof Sheathing

1'-3" Max.  
(2) - 10d  
(2) - 10d NAILS  
Trusses @ 24" o.c.

Diag. Brace  
at 1/3 points  
if needed

End Wall

HORIZONTAL BRACE  
(SEE SECTION A-A)



\* - Diagonal Bracing  
Refer to Section A-A

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

## 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.	4-0-7	4-3-2	6-0-4	8-0-15	12-1-6
2x4 SPF Std/Stud	16" O.C.	3-7-0	3-8-4	5-2-10	7-1-15	10-8-15
2x4 SPF Std/Stud	24" O.C.	2-11-1	3-0-2	4-3-2	5-10-3	8-9-4

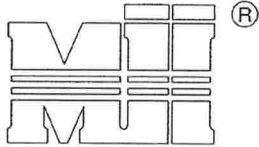
- \* Diagonal braces over 6'-3" require a 2x4 T-Brace attached to one edge. Diagonal braces over 12'-6" require 2x4 I-braces attached to both edges. Fasten T and I braces to narrow edge of web with 10d common wire nails 8in o.c., with 3in minimum end distance. Brace must cover 90% of diagonal length.

MAX MEAN ROOF HEIGHT = 30 FEET  
CATEGORY II BUILDING  
EXPOSURE B or C  
ASCE 7-98, ASCE 7-02, ASCE 7-05 130 MPH  
ASCE 7-10 160 MPH  
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

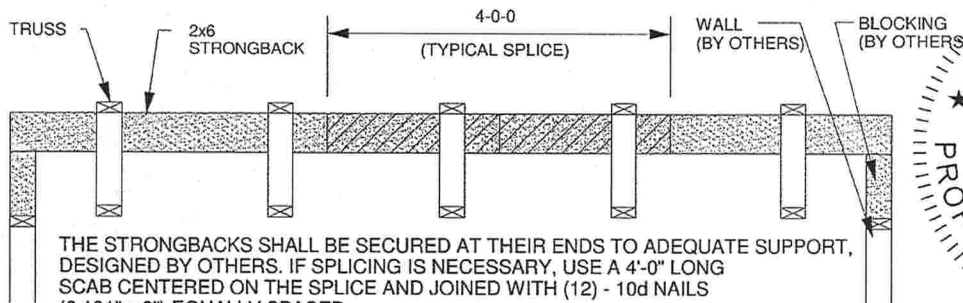
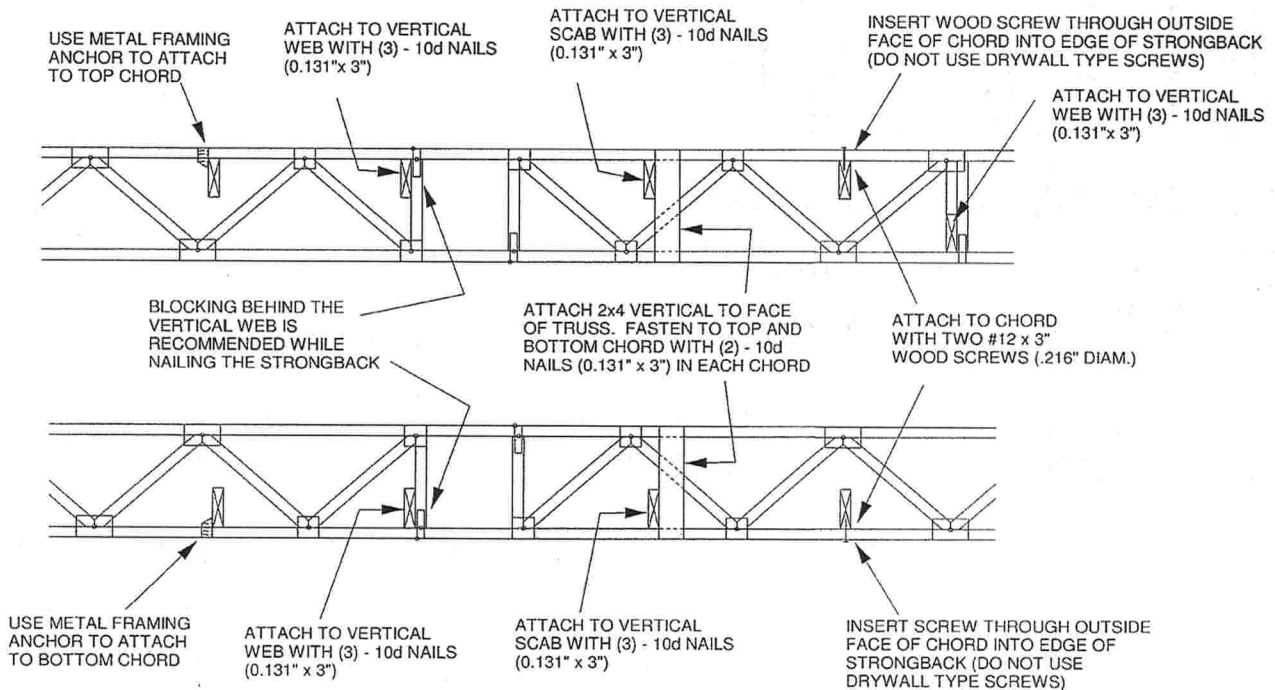


MiTek Industries, Inc.

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.

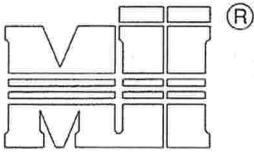


THE STRONGBACKS SHALL BE SECURED AT THEIR ENDS TO ADEQUATE SUPPORT, DESIGNED BY OTHERS. IF SPLICING IS NECESSARY, USE A 4'-0" LONG SCAB CENTERED ON THE SPLICE AND JOINED WITH (12) - 10d NAILS (0.131" x 3") EQUALLY SPACED.

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)



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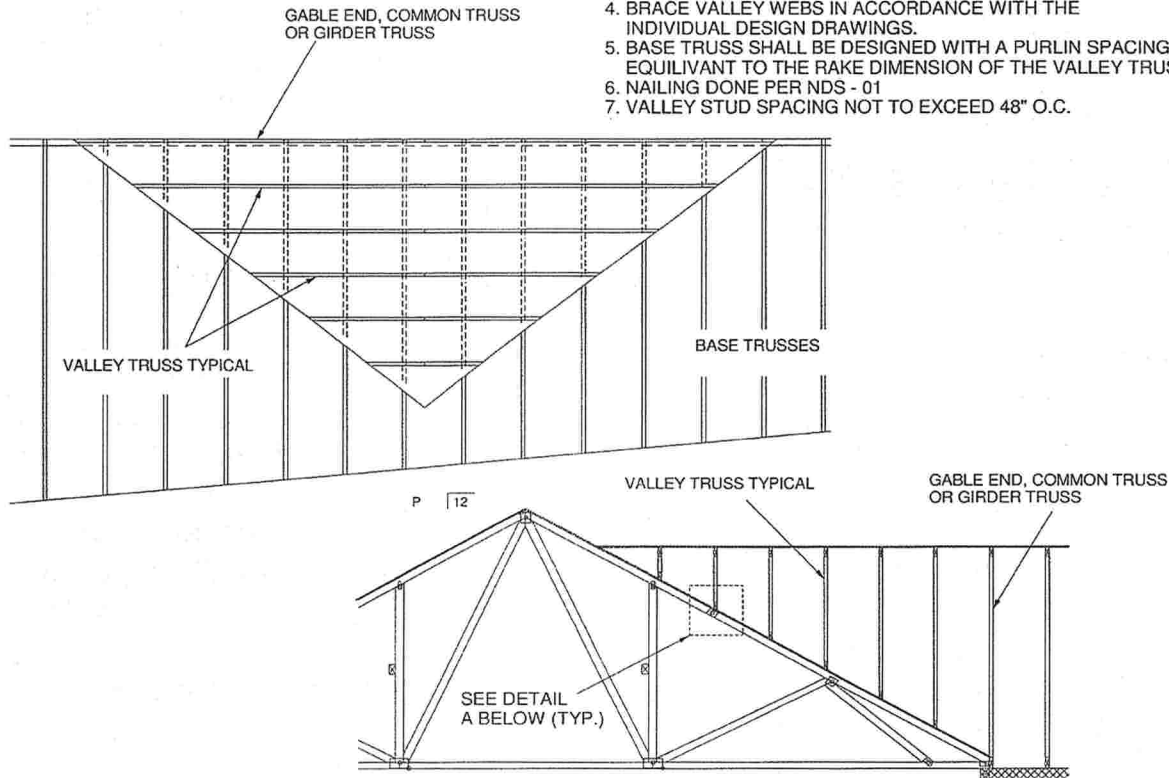


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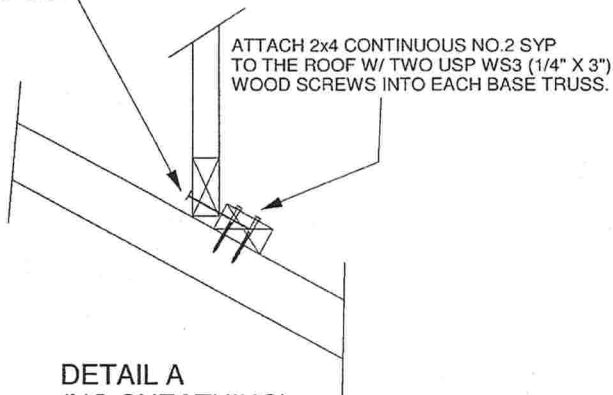
MiTek Industries, Chesterfield, MO Page 1 of 1

## 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 EQUIVARIANT 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.

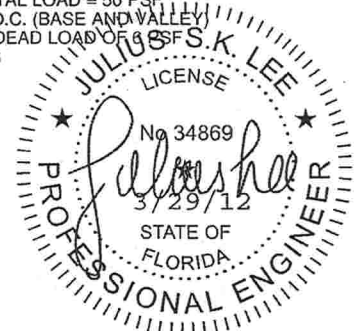


SECURE VALLEY TRUSS  
W/ ONE ROW OF 10d  
NAILS 6" O.C.



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

WIND DESIGN PER ASCE 7-98, ASCE 7-02, ASCE 7-05 146 MPH  
WIND DESIGN PER ASCE 7-10 160 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



Job 466999	Truss T19G	Truss Type Common Truss	Qty 1	Ply 1	MIKE ROBERTS - SPEC HSE	16380650
Builders FirstSource, Lake City, FL 32055		7.350 s Jul 31 2012 MiTek Industries, Inc. Fri Feb 08 12:59:14 2013 Page 1 ID:jRhrov9QzLs40H7EpCZ11VyVpE7-fgR1qQ0Rw8oMOdtlxFQXbXwNTJTc_A1M3KVVHHznBjx				
Plate Offsets (X,Y): [2,0-4,0,0-3-1], [10,0-4,0,0-3-1]						
<b>LOADING (psf)</b> TCCL 20.0 TCCL 7.0 BCCL 0.0 BCDL 5.0		<b>SPACING</b> 2-0-0 Plates Increase 1.25 Lumber Increase 1.25 Rep Stress Incr YES Code FBC2010/TPI2007		<b>CSI</b> TC 0.33 BC 0.05 WB 0.05 (Matrix)		<b>DEFL</b> in (loc) l/defl L/d Vert(LL) -0.02 11 n/r 120 Vert(TL) -0.04 11 n/r 120 Horz(TL) 0.00 10 n/a n/a
				<b>PLATES</b> MT20 <b>GRIP</b> 244/190 Weight: 65 lb FT = 20%		
<b>LUMBER</b> TOP CHORD 2x4 SP No.2 BOT CHORD 2x4 SP No.2 OTHERS 2x4 SP No.3			<b>BRACING</b> TOP CHORD BOT CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins. 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.			
<b>REACTIONS</b> All bearings 13-2-0. (lb) - Max Horz 2=83(LC 12) Max Uplift All uplift 100 lb or less at joint(s) 16, 12 except 2=-124(LC 12), 10=-137(LC 13), 15=-107(LC 12), 13=-106(LC 13) Max Grav All reactions 250 lb or less at joint(s) 2, 10, 14, 15, 16, 13, 12						
<b>FORCES</b> (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.						
<b>NOTES</b> (12-14) 1) Unbalanced roof live loads have been considered for this design. 2) Wind: ASCE 7-10; 130mph (3-second gust) Vasd=101mph; TCCL=4.2psf; BCDL=3.0psf; h=18ft; Cat. II; Exp C; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60 3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1. 4) All plates are 2x4 MT20 unless otherwise indicated. 5) Gable requires continuous bottom chord bearing. 6) Gable studs spaced at 2-0-0 oc. 7) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads. 8) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members. 9) All bearings are assumed to be SP No 2 crushing capacity of 565 psi. 10) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 16, 12 except (jl=1b) 2=124, 10=137, 15=107, 13=106. 11) "Semi-rigid pitchbreaks including heels" Member end fixity model was used in the analysis and design of this truss. 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) Note: Visually graded lumber designation SPp, represents new lumber design values as per SPIB. 14) Truss Design Engineer: Julius Lee, PE: Florida P.E. License No. 34869; Address: 1109 Coastal Bay Blvd. Boynton Beach, FL 33435						
<b>LOAD CASE(S)</b> Standard						



February 8, 2013

**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, D58-89 and BCS11 Building Component Safety Information** available from Truss Plate Institute, 583 D'Onofrio Drive, Madison, WI 53719.

Julius Lee PE.  
 1109 Coastal Bay  
 Boynton Beach, FL 33435

Job 466999	Truss T19	Truss Type COMMON TRUSS	Qty 1	Ply 2	MIKE ROBERTS - SPEC HSE Job Reference (optional) 7.350 s Jul 31 2012 MiTek Industries, Inc. Fri Feb 08 12:59:13 2013 Page 1 ID: jRhrov9QzLS40H7EpCZ11VyVpE7-BTtfc47p9qgVnTi6NY7B?N_UJ4ottMlu7PayzrnBjy	i6380649
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Builders FirstSource, Lake City, FL 32055

Scale = 1/4\"

Plate Offsets (X,Y): [2-0-0-12,0-0-4], [6-0-0-12,0-0-4], [8-0-4-0,0-4-4]	
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LOADING (psf)	SPACING	CSI	DEFL	PLATES	GRIP
TCLL 20.0	Plates Increase 1.25	TC 0.42	in (loc) l/defl L/d	MT20	244/190
TCDL 7.0	Lumber Increase 1.25	BC 0.77	Vert(LL) -0.08 7-8 >999 240		
BCLL 0.0 *	Rep Stress Incr NO	WB 0.73	Vert(TL) -0.15 7-8 >999 180		
BCDL 5.0	Code FBC2010/TPI2007	(Matrix-M)	Horz(TL) 0.04 6 n/a n/a		
			Weight: 148 lb	FT = 20%	

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

**BRACING**  
TOP CHORD Structural wood sheathing directly applied or 4-5-8 oc purlins.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS** (lb/size) 6=2938/0-3-8 (min. 0-2-0), 2=1799/0-3-8 (min. 0-1-8)  
Max Horz 2=111(LC 8)  
Max Uplift 6=1025(LC 9), 2=765(LC 8)  
Max Grav 6=3421(LC 2), 2=2127(LC 2)

**FORCES** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 2-3=-4105/1358, 3-4=-4260/1435, 4-5=-4258/1427, 5-6=-6701/2040  
BOT CHORD 2-9=-1227/3647, 8-9=-1227/3647, 8-14=-1772/5956, 14-15=-1772/5956, 7-15=-1772/5956, 7-16=-1772/5956, 6-16=-1772/5956  
WEBS 4-8=-1174/3580, 5-8=-2505/726, 5-7=-516/2172, 3-8=-256/290, 3-9=-285/154

**NOTES** (11-13)  
1) 2-ply truss to be connected together with 10d (0.131"x3") nails as follows:  
Top chords connected as follows: 2x4 - 1 row at 0-9-0 oc.  
Bottom chords connected as follows: 2x6 - 2 rows staggered at 0-5-0 oc.  
Webs connected as follows: 2x4 - 1 row at 0-9-0 oc.  
2) All loads are considered equally applied to all plies, except if noted as front (F) or back (B) face in the LOAD CASE(S) section. Ply to ply connections have been provided to distribute only loads noted as (F) or (B), unless otherwise indicated.  
3) Unbalanced roof live loads have been considered for this design.  
4) Wind: ASCE 7-10; 130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=18ft; Cat. II; Exp C; Encl., GCp=0.18; MWFRS (envelope) gable end zone; Lumber DOL=1.60 plate grip DOL=1.60  
5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.  
6) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.  
7) All bearings are assumed to be SP No.2 crushing capacity of 565 psi.  
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (if=lb) 6=1025, 2=765.  
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) 2268 lb down and 852 lb up at 7-1-9, and 1165 lb down and 264 lb up at 9-0-12, and 1165 lb down and 251 lb up at 11-0-12 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.  
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) Note: Visually graded lumber designation SPp, represents new lumber design values as per SPIB.  
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

Continued on page 2



February 8, 2013



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Julius Lee PE  
1109 Coastal Bay  
Boynton Beach, FL 33435

Job 466999	Truss T18	Truss Type Common Truss	Qty 1	Ply 2	MIKE ROBERTS - SPEC HSE	16380648
Builders FirstSource, Lake City, FL 32055		7.350 s Jul 31 2012 MiTek Industries, Inc. Fri Feb 08 12:59:11 2013 Page 1 ID:jRhrov9QzLs40H7EpCZ11VyVpE7-F5lvCO_ZdDPnX98kF75jvyvQYG8MPVQbg55rvznBk				
Plate Offsets (X,Y): [2-0-8-0,0-0-9], [6-0-8-0,0-0-9], [8-0-4-0,0-4-8]						
<b>LOADING</b> (psf) TCCL 20.0 TCDL 7.0 BCCL 0.0 * BCDL 5.0		<b>SPACING</b> Plates Increase 2-0-0 Lumber Increase 1.25 Rep Stress Incr NO Code FBC2010/TPI2007		<b>CSI</b> TC 0.37 BC 0.65 WB 0.56 (Matrix-M)		<b>DEFL</b> in (loc) l/defl L/d Vert(LL) -0.09 8-9 >999 240 Vert(TL) -0.17 8-9 >999 180 Horz(TL) 0.05 6 n/a n/a
<b>LUMBER</b> TOP CHORD 2x4 SP No.2 BOT CHORD 2x6 SYP No.2 WEBS 2x4 SP No.3		<b>BRACING</b> TOP CHORD BOT CHORD		Structural wood sheathing directly applied or 5-2-8 oc purlins. Rigid ceiling directly applied or 10-0-0 oc bracing.		
<b>REACTIONS</b> (lb/size) 6=2264/0-3-8 (min. 0-1-9), 2=1758/0-3-8 (min. 0-1-8) Max Horz 2=141(LC 8) Max Uplift 6=929(LC 9), 2=798(LC 8) Max Grav 6=2683(LC 2), 2=2091(LC 2)						
<b>FORCES</b> (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown. TOP CHORD 2-3=-4236/1503, 3-4=-3401/1211, 4-5=-3405/1208, 5-6=-5056/1728 BOT CHORD 2-9=-1369/3744, 9-14=-1369/3744, 14-15=-1369/3744, 8-15=-1369/3744, 8-16=-1476/4487, 16-17=-1476/4487, 7-17=-1476/4487, 7-18=-1476/4487, 18-19=-1476/4487, 6-19=-1476/4487 WEBS 4-8=-941/2755, 5-8=-1712/685, 5-7=-366/1285, 3-8=-863/453, 3-9=-174/558						
<b>NOTES</b> (11-13) 1) 2-ply truss to be connected together with 10d (0.131"x3") nails as follows: Top chords connected as follows: 2x4 - 1 row at 0-9-0 oc. Bottom chords connected as follows: 2x6 - 2 rows staggered at 0-9-0 oc. Webs connected as follows: 2x4 - 1 row at 0-9-0 oc. 2) All loads are considered equally applied to all plies, except if noted as front (F) or back (B) face in the LOAD CASE(S) section. Ply to ply connections have been provided to distribute only loads noted as (F) or (B), unless otherwise indicated. 3) Unbalanced roof live loads have been considered for this design. 4) Wind: ASCE 7-10; 130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=18ft; Cat. II; Exp C; Encl., GCpi=0.18; MWFRS (envelope) gable end zone; Lumber DOL=1.60 plate grip DOL=1.60 5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads. 6) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members. 7) All bearings are assumed to be SP No 2 crushing capacity of 565 psi. 8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 6=929, 2=798. 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) 904 lb down and 343 lb up at 7-0-12, 514 lb down and 173 lb up at 9-0-12, 517 lb down and 157 lb up at 11-0-12, 512 lb down and 163 lb up at 13-0-12, and 510 lb down and 164 lb up at 15-0-12, and 492 lb down and 155 lb up at 17-0-12 on bottom chord. The design/selection of such connection device(s) is the responsibility of others. 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) Note: Visually graded lumber designation SPP, represents new lumber design values as per SPIB. 13) Truss Design Engineer: Julius Lee, PE; Florida P.E. License No. 34869; Address: 1109 Coastal Bay Blvd. Boynton Beach, FL 33435						
<b>LOAD CASE(S)</b> Standard						

Continued on page 2



February 8, 2013

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Julius Lee PE,  
 1109 Coastal Bay  
 Boynton Beach, FL 33435



Job 466999	Truss T17	Truss Type Common Truss	Qty 1	Ply 1	MIKE ROBERTS - SPEC HSE	I6380646
Builders FirstSource, Lake City, FL 32055		Job Reference (optional) 7.350 s Jul 31 2012 MiTek Industries, Inc. Fri Feb 08 12:59:08 2013 Page 1 ID: jRhrov9QzLS40H7EpCZ11VyVpE7-qW4mZMxgLI1DgiP9a?X0IKHvo384CEd9_7tBleznBk1				
Plate Offsets (X,Y): [2-0-2-10,0-1-8], [6-0-2-10,0-1-8], [8-0-4-0,0-3-0]						

<b>LOADING (psf)</b> TCCL 20.0 TCDL 7.0 BCCL 0.0 * BCDL 5.0	<b>SPACING</b> 2-0-0 Plates Increase 1.25 Lumber Increase 1.25 Rep Stress Incr YES Code FBC2010/TPI2007	<b>CSI</b> TC 0.34 BC 0.56 WB 0.18 (Matrix-M)	<b>DEFL</b> in (loc) l/defl L/d Vert(LL) -0.10 8-14 >999 240 Vert(TL) -0.19 8-14 >999 180 Horz(TL) 0.03 6 n/a n/a	<b>PLATES</b> GRIP MT20 244/190  Weight: 88 lb FT = 20%
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**LUMBER**  
 TOP CHORD 2x4 SP No.2  
 BOT CHORD 2x4 SP No.2  
 WEBS 2x4 SP No.3

**BRACING**  
 TOP CHORD  
 BOT CHORD

Structural wood sheathing directly applied or 5-7-15 oc purlins.  
 Rigid ceiling directly applied or 8-11-2 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=601/0-3-8 (min. 0-1-8), 6=601/0-3-8 (min. 0-1-8)  
 Max Horz 2=121(LC 12)  
 Max Uplift 2=-332(LC 12), 6=-332(LC 13)  
 Max Grav 2=716(LC 2), 6=716(LC 2)

**FORCES** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-3=-1046/625, 3-4=-769/475, 4-5=-769/475, 5-6=-1061/625  
 BOT CHORD 2-8=-426/1241, 6-8=-431/1314  
 WEBS 4-8=-225/401, 5-8=-322/295, 3-8=-323/295

**NOTES** (8-10)  
 1) Unbalanced roof live loads have been considered for this design.  
 2) Wind: ASCE 7-10; 130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=18ft; Cat. II; Exp C, Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60  
 3) 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 SP No.2 crushing capacity of 565 psi.  
 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 332 lb uplift at joint 2 and 332 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) 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



February 8, 2013



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Julius Lee PE,  
 1109 Coastal Bay  
 Boynton Beach, FL 33435



Job 465999	Truss T15	Truss Type Hip Truss	Qty 1	Ply 1	MIKE ROBERTS - SPEC HSE	16380644																																				
Builders FirstSource, Lake City, FL 32055			7.350 s Jul 31 2012 MiTek Industries, Inc. Fri Feb 08 12:59:06 2013 Page 1																																							
			ID: jRhrov9QzLs40H7EpCZ11VyVpE7-u7y08hwQpgnVROGmTaVYCVwYFU0kKgsWpO4ElznBk3																																							
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<p><b>LUMBER</b></p> <p>TOP CHORD 2x4 SP No.2</p> <p>BOT CHORD 2x4 SP No.2</p> <p>WEBS 2x4 SP No.3</p> <p><b>BRACING</b></p> <p>TOP CHORD Structural wood sheathing directly applied or 4-1-14 oc purins.</p> <p>BOT CHORD Rigid ceiling directly applied or 6-2-2 oc bracing.</p> <p style="border: 1px solid black; padding: 2px; margin-top: 5px;">MiTek recommends that Stabilizers and required cross bracing be installed during truss erection, in accordance with Stabilizer Installation guide.</p>																																										
<p><b>REACTIONS</b> (lb/size) 2=828/0-3-8 (min. 0-1-8), 5=837/0-3-8 (min. 0-1-8)</p> <p>Max Horz 2=56(LC 12)</p> <p>Max Uplift 2=-612(LC 5), 5=-626(LC 4)</p> <p>Max Grav 2=984(LC 2), 5=995(LC 2)</p>																																										
<p><b>FORCES</b> (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.</p> <p>TOP CHORD 2-3=-1448/1032, 3-4=-1249/986, 4-5=-1475/1065</p> <p>BOT CHORD 2-8=-883/1215, 7-8=-895/1226, 5-7=-889/1239</p> <p>WEBS 3-8=-304/356, 4-7=-281/346</p>																																										
<p><b>NOTES</b> (11-13)</p> <p>1) Unbalanced roof live loads have been considered for this design.</p> <p>2) Wind: ASCE 7-10; 130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=18ft; Cat. II; Exp C; Encl., GCpi=0.18; MWFRS (envelope); porch left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60</p> <p>3) Provide adequate drainage to prevent water ponding.</p> <p>4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.</p> <p>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.</p> <p>6) All bearings are assumed to be SP No.2 crushing capacity of 565 psi.</p> <p>7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 612 lb uplift at joint 2 and 626 lb uplift at joint 5.</p> <p>8) "Semi-rigid pitchbreaks including heels" Member end fixity model was used in the analysis and design of this truss.</p> <p>9) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 85 lb down and 92 lb up at 7-0-0, and 178 lb down and 238 lb up at 9-0-0 on top chord, and 241 lb down and 262 lb up at 7-0-0, and 241 lb down and 262 lb up at 8-11-4 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.</p> <p>10) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).</p> <p>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.</p> <p>12) Note: Visually graded lumber designation SPp, represents new lumber design values as per SPIB.</p> <p>13) Truss Design Engineer: Julius Lee, PE; Florida P.E. License No. 34869; Address: 1109 Coastal Bay Blvd, Boynton Beach, FL 33435</p>																																										
<p><b>LOAD CASE(S)</b> Standard</p> <p>1) Regular: Lumber Increase=1.25, Plate Increase=1.25</p> <p>Uniform Loads (plf)</p> <p>Vert: 1-3=-44, 3-4=-44, 4-6=-44, 9-12=-10</p> <p>Concentrated Loads (lb)</p> <p>Vert: 3=-69(B) 4=-146(B) 8=-205(B) 7=-205(B)</p>																																										



February 8, 2013

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Julius Lee PE,  
1109 Coastal Bay  
Boynton Beach, FL 33435

Job 466999	Truss T13	Truss Type Special Truss	Qty 3	Ply 1	MIKE ROBERTS - SPEC HSE Job Reference (optional)	I6380642																																						
Builders FirstSource, Lake City, FL 32055		7.350 s Jul 31 2012 MiTek Industries, Inc. Fri Feb 08 12:59:03 2013 Page 1																																										
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<b>REACTIONS</b> (lb/size) 1=993/0-3-8 (min. 0-1-8), 9=1099/0-3-8 (min. 0-1-10) Max Horz 1=142(LC 8) Max Uplift 1=279(LC 12), 9=317(LC 13) Max Grav 1=1175(LC 2), 9=1304(LC 2)																																												
<b>FORCES</b> (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown. TOP CHORD 1-2=-4392/2401, 2-3=-4077/2176, 3-4=-3262/1676, 4-5=-3256/1779, 5-6=-2646/1603, 6-7=-2461/1403, 7-8=-2565/1392, 8-9=-2304/1274 BOT CHORD 1-16=-2064/4034, 15-16=-1657/3593, 14-15=-636/1908, 6-14=-413/388, 9-11=-988/2269 WEBS 2-16=-291/327, 3-16=-152/335, 3-15=-666/534, 5-15=-994/2067, 5-14=-563/689, 11-14=-962/2051, 8-11=-486/295																																												
<b>NOTES</b> (9-11) 1) Unbalanced roof live loads have been considered for this design. 2) Wind: ASCE 7-10; 130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=18ft; Cat. II; Exp C; Encl., GCPI=0.18; MWFRS (envelope) and C-C Exterior(2) zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60 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 SP No.2 crushing capacity of 565 psi. 6) Bearing at joint(s) 1 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface. 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 279 lb uplift at joint 1 and 317 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) 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																																												
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Julius Lee PE,  
 1109 Coastal Bay  
 Boynton Beach, FL 33435

Job 466999	Truss T11	Truss Type Hip Truss	Qty 1	Ply 1	MIKE ROBERTS - SPEC HSE  Job Reference (optional) 7.350 s Jul 31 2012 MiTek Industries, Inc. Fri Feb 08 12:59:00 2013 Page 1 ID:jRhrov9QzLs40H7EpCZ11VyVpE7-3zbludrDq1LJToc6JO8zeyR9qJgKUhz8xm05znBk9	I6380640																																						
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February 8, 2013

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Julius Lee PE,  
1109 Coastal Bay  
Boynton Beach, FL 33435

Job 466999	Truss T09	Truss Type Hip Truss	Qty 1	Ply 1	MIKE ROBERTS - SPEC HSE	16380638
Builders FirstSource, Lake City, FL 32055					Job Reference (optional) 7.350 s Jul 31 2012 MiTek Industries, Inc. Fri Feb 08 12:58:56 2013 Page 1	
ID:jRhrov9QzLs40H7EpCZ11VyVpE7-BCLE2Go99cWvEsVrtTJCoonneD2QOI4NDGzZIKznBkD						
<div style="display: flex; justify-content: space-between;"> <div> 5-7-11 5-7-11 </div> <div> 11-0-0 5-4-5 </div> <div> 18-4-4 7-4-4 </div> <div> 25-8-8 7-4-4 </div> <div> 31-0-13 5-4-5 </div> <div> 36-8-8 5-7-11 </div> </div>						
Scale = 1/62.1						
<div style="display: flex; justify-content: space-between;"> <div> 5-7-11 5-7-11 </div> <div> 11-0-0 5-4-5 </div> <div> 18-4-4 7-4-4 </div> <div> 25-8-8 7-4-4 </div> <div> 31-0-13 5-4-5 </div> <div> 36-8-8 5-7-11 </div> </div>						
Plate Offsets (X,Y): [3-0-6-0,0-2-8], [5-0-6-0,0-2-8]						
<b>LOADING (psf)</b> TCCL 20.0 TCCL 7.0 BCCL 0.0 * BCDL 5.0		<b>SPACING</b> 2-0-0 Plates Increase 1.25 Lumber Increase 1.25 Rep Stress Incr YES Code FBC2010/TPI2007		<b>CSI</b> TC 0.67 BC 0.55 WB 0.41 (Matrix-M)		<b>DEFL</b> in (loc) l/defl L/d Vert(LL) 0.23 11 >999 240 Vert(TL) -0.34 11-13 >999 180 Horz(TL) 0.12 7 n/a n/a
				<b>PLATES</b> MT20 <b>GRIP</b> 244/190  Weight: 188 lb FT = 20%		
<b>LUMBER</b> TOP CHORD 2x4 SP No.2 BOT CHORD 2x4 SP No.2 WEBS 2x4 SP No.3			<b>BRACING</b> TOP CHORD BOT CHORD Structural wood sheathing directly applied or 3-0-12 oc purlins. Rigid ceiling directly applied or 5-9-1 oc bracing. <div style="border: 1px solid black; padding: 2px; margin-top: 5px;">           MiTek recommends that Stabilizers and required cross bracing be installed during truss erection, in accordance with Stabilizer Installation guide.         </div>			
<b>REACTIONS</b> (lb/size) 1=1058/0-3-8 (min. 0-1-8), 7=1058/Mechanical Max Horz 1=75(LC 9) Max Uplift 1=241(LC 12), 7=241(LC 13) Max Grav 1=1175(LC 2), 7=1175(LC 2)						
<b>FORCES</b> (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown. TOP CHORD 1-2=-2411/1274, 2-3=-2087/1132, 3-4=-2206/1269, 4-5=-2206/1269, 5-6=-2087/1132, 6-7=-2411/1274 BOT CHORD 1-14=-1048/2086, 13-14=-1048/2086, 12-13=-778/1766, 12-21=-778/1766, 11-21=-778/1766, 11-22=-778/1766, 10-22=-778/1766, 9-10=-778/1766, 8-9=-1048/2086, 7-8=-1048/2086 WEBS 2-13=-370/308, 3-13=-110/310, 3-11=-244/544, 4-11=-458/342, 5-11=-244/544, 5-9=-110/310, 6-9=-370/308						
<b>NOTES</b> (9-12) 1) Unbalanced roof live loads have been considered for this design. 2) Wind: ASCE 7-10; 130mph (3-second gust) Vasd=101mph; TCCL=4.2psf; BCDL=3.0psf; h=18ft; Cat. II; Exp C; Encl., GCpi=0.18; MWFRS (envelope) and C-C Exterior(2) zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60 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 SP No.2 crushing capacity of 565 psi. 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 241 lb uplift at joint 1 and 241 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) 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 12) Use Simpson HTU26 to attach Truss to Carrying member						
LOAD CASE(S) Standard						



February 8, 2013



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Julius Lee PE.  
1109 Coastal Bay  
Boynton Beach, FL 33435

Job	Truss	Truss Type	Qty	Ply	MIKE ROBERTS - SPEC HSE
466999	T07	HIP TRUSS	1	2	I6380636

Builders FirstSource, Lake City, FL 32055

7.350 s Jul 31 2012 MiTek Industries, Inc. Fri Feb 08 12:58:52 2013 Page 2  
ID:jRhrov9QzLs40H7EpCZ11VyVpE7-IR6jCule6N0UIFB4eeFGeyd8Fcd2Syfole?LkZznBkH

**NOTES** (12-15)

11) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 85 lb down and 92 lb up at 7-0-0, 85 lb down and 92 lb up at 9-0-12, 85 lb down and 92 lb up at 11-0-12, 85 lb down and 92 lb up at 13-0-12, 85 lb down and 92 lb up at 15-0-12, 85 lb down and 92 lb up at 17-0-12, 85 lb down and 92 lb up at 19-0-12, 85 lb down and 92 lb up at 21-0-12, 85 lb down and 92 lb up at 23-0-12, 85 lb down and 92 lb up at 25-0-12, and 85 lb down and 92 lb up at 27-0-12, and 85 lb down and 92 lb up at 29-0-12 on top chord, and 241 lb down and 262 lb up at 7-0-0, 49 lb down at 9-0-12, 49 lb down at 11-0-12, 49 lb down at 13-0-12, 49 lb down at 15-0-12, 49 lb down at 17-0-12, 49 lb down at 19-0-12, 49 lb down at 21-0-12, 49 lb down at 23-0-12, 49 lb down at 25-0-12, 49 lb down at 27-0-12, 49 lb down at 29-0-12, 157 lb down and 84 lb up at 31-0-12, and 157 lb down and 84 lb up at 33-0-12, and 157 lb down and 84 lb up at 35-0-12 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.

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) Note: Visually graded lumber designation SPp, represents new lumber design values as per SPIB.

14) Truss Design Engineer: Julius Lee, PE: Florida P.E. License No. 34869: Address: 1109 Coastal Bay Blvd. Boynton Beach, FL 33435

15) Use Simpson HHUS26-2 to attach Truss to Carrying member

**LOAD CASE(S)** Standard

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

Uniform Loads (plf)

Vert: 1-3=-44, 3-8=-44, 8-9=-44, 17-20=-10

Concentrated Loads (lb)

Vert: 3=-69(B) 16=-205(B) 14=-22(B) 10=-131(B) 23=-69(B) 24=-69(B) 25=-69(B) 26=-69(B) 27=-69(B) 28=-69(B) 29=-69(B) 30=-69(B) 31=-69(B) 32=-69(B) 33=-69(B) 34=-22(B) 35=-22(B) 36=-22(B) 37=-22(B) 38=-22(B) 39=-22(B) 40=-22(B) 41=-22(B) 42=-22(B) 43=-22(B) 44=-131(B) 45=-131(B)

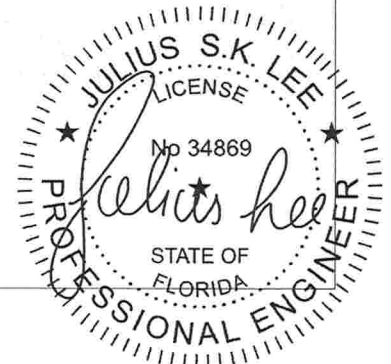


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Julius Lee PE.  
1109 Coastal Bay  
Boynton Beach, FL 33435

Job 466999	Truss T06	Truss Type Hip Truss	Qty 1	Ply 1	MIKE ROBERTS - SPEC HSE Job Reference (optional)	16380635																																				
Builders FirstSource, Lake City, FL 32055			7.350 s Jul 31 2012 MiTek Industries, Inc. Fri Feb 08 12:58:48 2013 Page 1																																							
<div style="display: flex; justify-content: space-between;"> <span>ID: jRhrov9QzLs40H7EpCZ11VyVpE7-QfsCNXi728W2HduJPoAJU6STI7KkV7WCN017boznBkL</span> </div>																																										
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<table border="1" style="width:100%; border-collapse: collapse;"> <tr> <td style="width:20%;">LOADING (psf)</td> <td style="width:20%;">SPACING</td> <td style="width:10%;">CSI</td> <td style="width:10%;">DEFL</td> <td style="width:10%;">PLATES</td> <td style="width:10%;">GRIP</td> </tr> <tr> <td>TCLL 20.0</td> <td>Plates Increase 1.25</td> <td>TC 0.41</td> <td>in (loc) l/defl L/d</td> <td>MT20</td> <td>244/190</td> </tr> <tr> <td>TCDL 7.0</td> <td>Lumber Increase 1.25</td> <td>BC 0.47</td> <td>Vert(LL) -0.12 12-14 &gt;999 240</td> <td></td> <td></td> </tr> <tr> <td>BCLL 0.0 *</td> <td>Rep Stress Incr YES</td> <td>WB 0.42</td> <td>Vert(TL) -0.20 12-14 &gt;999 180</td> <td></td> <td></td> </tr> <tr> <td>BCDL 5.0</td> <td>Code FBC2010/TPI2007</td> <td>(Matrix-M)</td> <td>Horz(TL) 0.01 11 n/a n/a</td> <td></td> <td></td> </tr> <tr> <td colspan="4"></td> <td colspan="2" style="text-align: right;">Weight: 209 lb FT = 20%</td> </tr> </table>							LOADING (psf)	SPACING	CSI	DEFL	PLATES	GRIP	TCLL 20.0	Plates Increase 1.25	TC 0.41	in (loc) l/defl L/d	MT20	244/190	TCDL 7.0	Lumber Increase 1.25	BC 0.47	Vert(LL) -0.12 12-14 >999 240			BCLL 0.0 *	Rep Stress Incr YES	WB 0.42	Vert(TL) -0.20 12-14 >999 180			BCDL 5.0	Code FBC2010/TPI2007	(Matrix-M)	Horz(TL) 0.01 11 n/a n/a							Weight: 209 lb FT = 20%	
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<b>REACTIONS</b> (lb/size) 2=375/0-3-8 (min. 0-1-8), 15=1469/0-3-8 (min. 0-2-2), 11=383/Mechanical Max Horz 2=133(LC 16) Max Uplift 2=135(LC 12), 15=342(LC 12), 11=145(LC 13) Max Grav 2=522(LC 27), 15=1565(LC 2), 11=502(LC 28)																																										
<b>FORCES</b> (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown. TOP CHORD 2-3=-989/193, 3-4=-293/121, 5-6=-143/558, 6-7=-53/443, 7-8=-13/312, 8-9=-385/284, 9-10=-498/267, 10-11=-768/449 BOT CHORD 2-17=-276/1251, 14-15=-313/378, 14-26=-53/265, 13-26=-53/265, 13-27=-53/265, 12-27=-53/265, 11-12=-620/974 WEBS 3-17=-309/286, 5-17=-177/413, 5-15=-620/448, 6-15=-452/230, 7-15=-867/462, 7-14=-276/499, 8-14=-622/452, 8-12=-184/413, 10-12=-304/288																																										
<b>NOTES</b> (9-11) 1) Unbalanced roof live loads have been considered for this design. 2) Wind: ASCE 7-10; 130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=18ft; Cat. II; Exp C; Encl., GCpi=0.18; MWFRS (envelope) and C-C Exterior(2) zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60 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 SP No.2 crushing capacity of 565 psi. 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 135 lb uplift at joint 2, 342 lb uplift at joint 15 and 145 lb uplift at joint 11. 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) 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																																										



February 8, 2013



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Julius Lee PE,  
1109 Coastal Bay  
Boynton Beach, FL 33435

Job 466999	Truss T04	Truss Type Hip Truss	Qty 1	Ply 1	MIKE ROBERTS - SPEC HSE	I6380633
Builders FirstSource, Lake City, FL 32055					7.350 s Jul 31 2012 MiTek Industries, Inc. Fri Feb 08 12:58:45 2013 Page 1	
					Job Reference (optional) ID:jRhrov9QzLs40H7EpCZ11VyVpE7-04B4kVgFID8TQA9kkgdcsTqyKnMsJg2mh2oT_TznBkO	

LOADING (psf)	SPACING	CSI	DEFL	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plates Increase 1.25	TC 0.42	Vert(LL) -0.04	11-12	>999	240	MT20	244/190
TCDL 7.0	Lumber Increase 1.25	BC 0.29	Vert(TL) -0.07	9-18	>999	180		
BCLL 0.0 *	Rep Stress Incr YES	WB 0.88	Horz(TL) 0.02	8	n/a	n/a		
BCDL 5.0	Code FBC2010/TPI2007	(Matrix-M)					Weight: 198 lb	FT = 20%

**LUMBER**

TOP CHORD 2x4 SP No.2

BOT CHORD 2x4 SP No.2

WEBS 2x4 SP No.3

**BRACING**

TOP CHORD

BOT CHORD

Structural wood sheathing directly applied or 5-11-0 oc purlins.

Rigid ceiling directly applied or 6-0-0 oc bracing.

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

**REACTIONS** (lb/size) 8=410/Mechanical, 2=412/0-3-8 (min. 0-1-8), 12=1320/0-3-8 (min. 0-1-15)

Max Horz 2=108(LC 12)

Max Uplift 8=153(LC 13), 2=156(LC 12), 12=258(LC 12)

Max Grav 8=522(LC 28), 2=544(LC 27), 12=1481(LC 2)

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

TOP CHORD 2-3=-968/264, 4-5=-96/455, 6-7=-294/193, 7-8=-809/518

BOT CHORD 2-15=-379/1225, 14-15=-131/431, 13-14=-131/431, 12-22=-370/351, 22-23=-370/351, 11-23=-370/351, 10-11=-244/607, 9-10=-244/607, 8-9=-714/1053

WEBS 3-13=-552/401, 4-13=-157/301, 4-12=-730/423, 5-12=-891/538, 5-11=-375/707, 7-11=-532/408

**NOTES** (9-12)

1) Unbalanced roof live loads have been considered for this design.

2) Wind: ASCE 7-10, 130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=18ft; Cat. II; Exp C; Encl., GCpi=0.18; MWFRS (envelope) and C-C Exterior(2) zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60

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 SP No.2 crushing capacity of 565 psi.

7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 153 lb uplift at joint 8, 156 lb uplift at joint 2 and 258 lb uplift at joint 12.

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) 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

12) Use Simpson HTU26 to attach Truss to Carrying member

**LOAD CASE(S)** Standard



February 8, 2013



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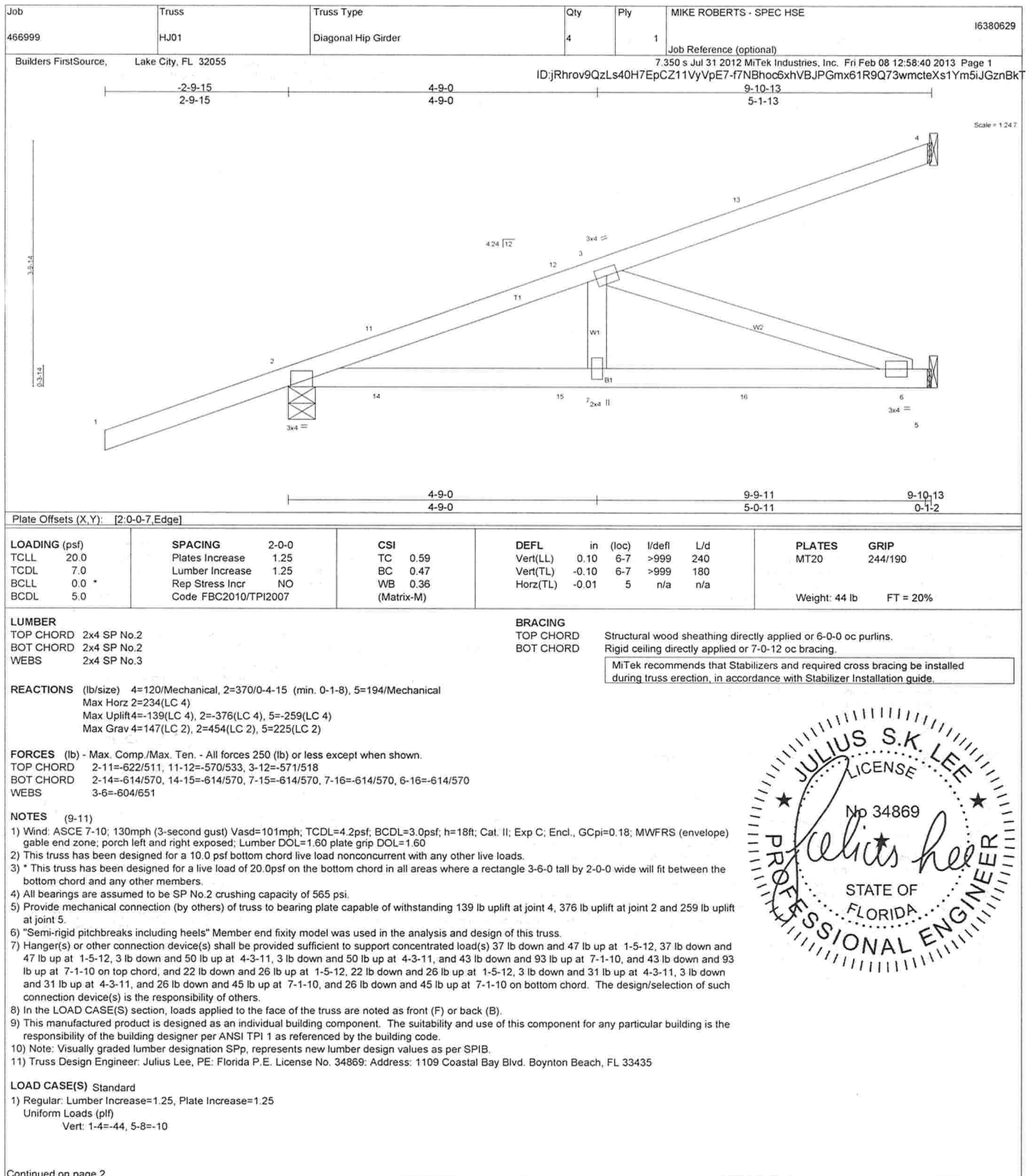
Julius Lee PE,  
1109 Coastal Bay  
Boynton Beach, FL 33435



Job 456999	Truss T02	Truss Type Half Hip Truss	Qty 1	Ply 1	MIKE ROBERTS - SPEC HSE  Job Reference (optional) 7.350 s Jul 31 2012 MiTek Industries, Inc. Fri Feb 08 12:58:43 2013 Page 1 ID:jRhrov9QzLs40H7EpCZ11VyVpE7-3i3JJpe?DcumAs?LcFa8n2iZ1_a1rILTEKJNwaznBkQ	I6380631
Builders FirstSource, Lake City, FL 32055						

Scale = 1/65.6

Job 466999	Truss T01	Truss Type Half Hip Truss	Qty 1	Ply 1	MIKE ROBERTS - SPEC HSE  Job Reference (optional) 7.350 s Jul 31 2012 MiTek Industries, Inc. Fri Feb 08 12:58:41 2013 Page 1 ID: jRhrov9QzLs40H7EpCZ11VyVpE7-7JxZv8cki?e2xYrzVqYgidfCdAu2NrZAmQqGrznBks	16380630																
Builders FirstSource, Lake City, FL 32055																						
<div style="display: flex; justify-content: space-between;"> <div style="width: 60%;"> <table border="1" style="width:100%; border-collapse: collapse;"> <tr> <td style="width:10%;">-2-0-0</td> <td style="width:10%;">7-0-0</td> <td style="width:10%;">12-2-4</td> <td style="width:10%;">17-2-12</td> <td style="width:10%;">22-2-8</td> <td style="width:10%;">26-10-12</td> <td style="width:10%;">31-7-0</td> <td style="width:10%;">36-8-8</td> </tr> <tr> <td>2-0-0</td> <td>7-0-0</td> <td>5-2-4</td> <td>5-0-8</td> <td>4-11-12</td> <td>4-8-4</td> <td>4-8-4</td> <td>5-1-9</td> </tr> </table> </div> <div style="width: 35%; text-align: right;">           Scale = 1/65.6         </div> </div>							-2-0-0	7-0-0	12-2-4	17-2-12	22-2-8	26-10-12	31-7-0	36-8-8	2-0-0	7-0-0	5-2-4	5-0-8	4-11-12	4-8-4	4-8-4	5-1-9
-2-0-0	7-0-0	12-2-4	17-2-12	22-2-8	26-10-12	31-7-0	36-8-8															
2-0-0	7-0-0	5-2-4	5-0-8	4-11-12	4-8-4	4-8-4	5-1-9															



February 8, 2013

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Job 466999	Truss EJ01	Truss Type Jack-Partial Truss	Qty 29	Ply 1	MIKE ROBERTS - SPEC HSE Job Reference (optional) 7.350 s Jul 31 2012 MiTek Industries, Inc. Fri Feb 08 12:58:38 2013 Page 1 ID:jRhrov9QzLs40H7EpCZ11VyVpE7-jkGQG6asP4FT457Oqh?z472kxzzrAi_k4SccENznBkV	I6380627
Builders FirstSource, Lake City, FL 32055						

Plate Offsets (X,Y): [2:0-6-0,0-0-10]									
<b>LOADING</b> (psf)		<b>SPACING</b>		<b>CSI</b>		<b>DEFL</b>		<b>PLATES GRIP</b>	
TCLL	20.0	Plates Increase	1.25	TC	0.56	Vert(LL)	-0.06	4-7	>999
TCDL	7.0	Lumber Increase	1.25	BC	0.32	Vert(TL)	-0.11	4-7	>745
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.00	Horz(TL)	0.01	2	n/a
BCDL	5.0	Code FBC2010/TPI2007		(Matrix-M)					
							Weight: 26 lb		FT = 20%

**LUMBER**

TOP CHORD 2x4 SP No.2

BOT CHORD 2x4 SP No.2

**BRACING**

TOP CHORD

BOT CHORD

Structural wood sheathing directly applied or 5-1-9 oc purlins.

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=113/Mechanical, 2=318/0-3-8 (min. 0-1-8), 4=32/Mechanical  
 Max Horz 2=144(LC 12)  
 Max Uplift 3=86(LC 12), 2=97(LC 12)  
 Max Grav 3=139(LC 2), 2=380(LC 2), 4=79(LC 3)

**FORCES** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-3=-1212/532  
 BOT CHORD 2-4=-1041/1713

**NOTES** (7-9)  
 1) Wind: ASCE 7-10; 130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=18ft; Cat. II; Exp C; Encl., GCpi=0.18; MWFRS (envelope) and C-C Exterior(2) zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60  
 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 SP No.2 crushing capacity of 565 psi.  
 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 86 lb uplift at joint 3 and 97 lb uplift at joint 2.  
 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) Note: Visually graded lumber designation SPP, represents new lumber design values as per SPIB.  
 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

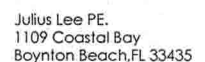


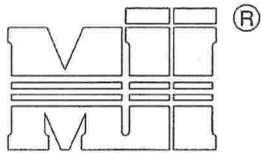
February 8, 2013



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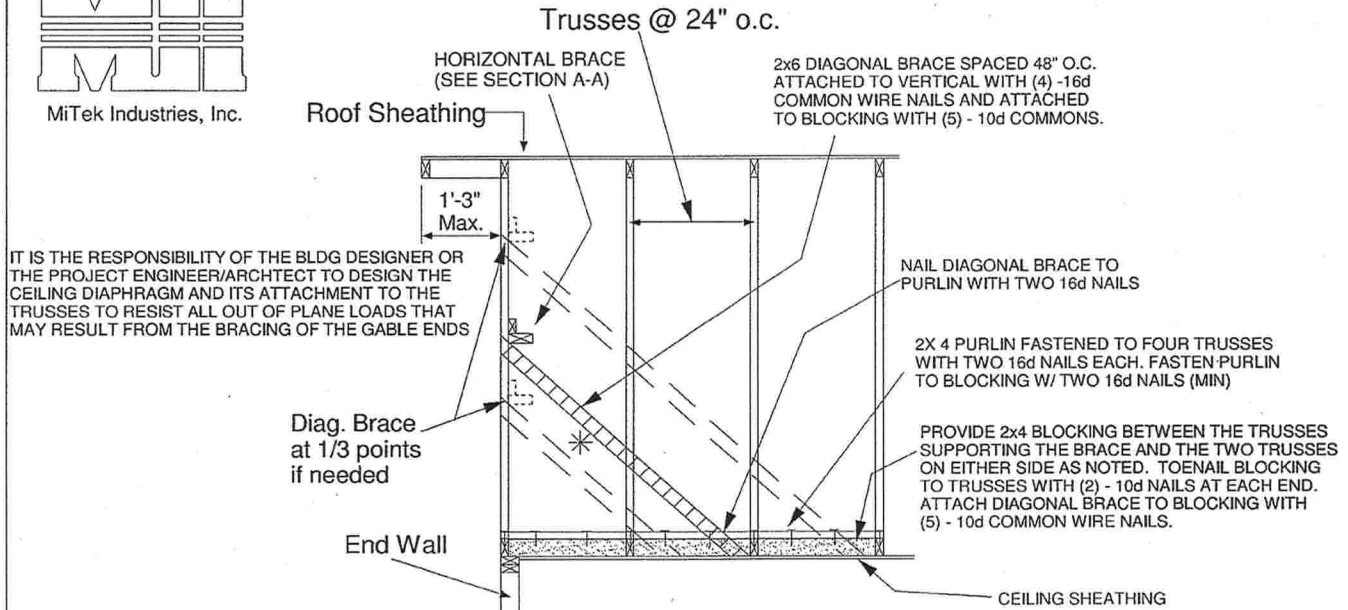
February 8, 2013



MiTek Industries, Inc.

MiTek Industries, Chesterfield, MO Page 2 of 2

## ALTERNATE DIAGONAL BRACING TO THE BOTTOM CHORD



## BRACING REQUIREMENTS FOR STRUCTURAL GABLE TRUSSES

STRUCTURAL GABLE TRUSSES MAY BE BRACED AS NOTED:

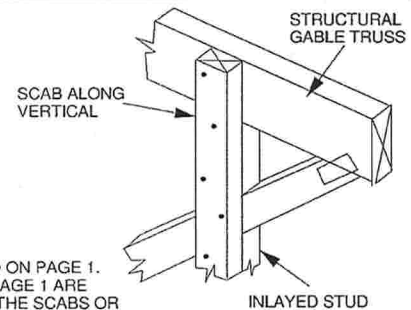
METHOD 1 : ATTACH A MATCHING GABLE TRUSS TO THE INSIDE FACE OF THE STRUCTURAL GABLE AND FASTEN PER THE FOLLOWING NAILING SCHEDULE.

METHOD 2 : ATTACH 2X SCABS TO THE FACE OF EACH VERTICAL MEMBER ON THE STRUCTURAL GABLE PER THE FOLLOWING NAILING SCHEDULE. SCABS ARE TO BE OF THE SAME SIZE, GRADE AND SPECIES AS THE TRUSS VERTICALS

NAILING SCHEDULE:

- FOR WIND SPEEDS 120 MPH (ASCE 7-98, 02, 05), 150 MPH (ASCE 7-10) OR LESS, NAIL ALL MEMBERS WITH ONE ROW OF 10d (.131" X 3") NAILS SPACED 6" O.C.
- FOR WIND SPEEDS GREATER 120 MPH (ASCE 7-98, 02, 05), 150 MPH (ASCE 7-10) NAIL ALL MEMBERS WITH TWO ROWS OF 10d (.131" X 3") NAILS SPACED 6" O.C. (2X 4 STUDS MINIMUM)

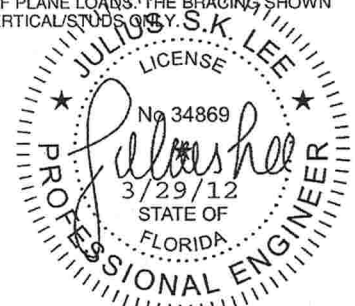
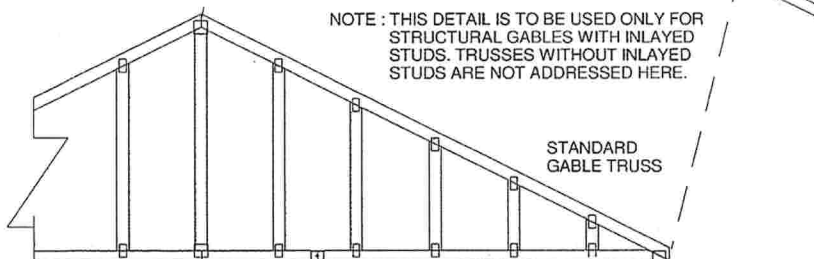
MAXIMUM STUD LENGTHS ARE LISTED ON PAGE 1. ALL BRACING METHODS SHOWN ON PAGE 1 ARE VALID AND ARE TO BE FASTENED TO THE SCABS OR VERTICAL STUDS OF THE STANDARD GABLE TRUSS ON THE INTERIOR SIDE OF THE STRUCTURE.



STRUCTURAL GABLE TRUSS

AN ADEQUATE DIAPHRAGM OR OTHER METHOD OF BRACING MUST BE PRESENT TO PROVIDE FULL LATERAL SUPPORT OF THE BOTTOM CHORD TO RESIST ALL OUT OF PLANE LOADS. THE BRACING SHOWN IN THIS DETAIL IS FOR THE VERTICAL STUDS ONLY.

NOTE : THIS DETAIL IS TO BE USED ONLY FOR STRUCTURAL GABLES WITH INLAVED STUDS. TRUSSES WITHOUT INLAVED STUDS ARE NOT ADDRESSED HERE.



1109 COASTAL BAY  
BOYNTON BC, FL 33435