

CUSTOMER KINGS WAY HOMES INC.

**QUOTE # B1000359** 

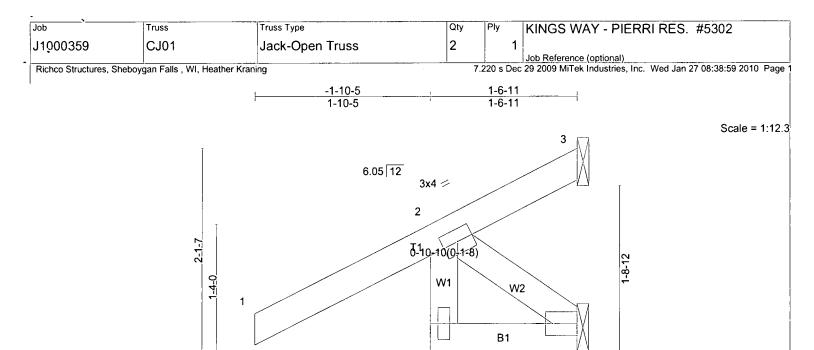
ORDER # J1000359

LOADING TCLL-TCDL-BCLL-BCDL STRESS INCR ROOF TRUSSES ROOF TRUSS SPACING: 24.0 IN. O.C. (TYP.) INFORMATION 30.0.7.0.0.0.10.0 1.15 CHECKED OTY QTY PITCH **TYPE** BASE **PROFILE** O/A LUMBER **OVERHANG CANTILEVER HEELS** SHIPPED BY PLY ID SPAN **SPAN** TOP ! вот LEFT TOP BOT LEFT RIGHT LEFT RIGHT RIGHT Jack-Open 4 2 0.00 01-11-04 2 X 4 2 X 4 00-11-04 00-04-15 00-10-11 7.00 01-11-04 J15 Common Truss 1 12.00 23-06-00 | 2 X 4 | 2 X 4 | 00-11-04 | 00-11-04 0.00 T01E 23-06-00 01-04-00 01-04-00 Common Truss  $\mathcal{M}$ 2 12.00 0.00 T02 23-06-00 23-06-00 | 2 X 4 | 2 X 4 | 00-11-04 | 00-11-04 01-04-00 01-04-00 Special Truss  $\triangle h$ 11 12.00 12.00 T03 23-00-00 23-00-00 2 X 4 2 X 4 00-11-04 01-03-00 01-04-00 Special Truss  $\triangle$ 1 12.00 0.00 T04 21-05-04 21-05-04 2 X 4 2 X 4 00-11-04 01-10-12 01-04-00 Common Truss  $\Delta$ 1 12.00 0.00 T05E 11-08-00 11-08-00 2 X 4 2 X 4 00-11-04 00-11-04 01-04-00 01-04-00 Common Truss  $\Delta \Lambda$ 2 Ply 12.00 0.00 T06G 11-08-00 11-08-00 2 X 4 2 X 6 01-04-00 01-04-00 Hip Truss 1 7.00 0.00 T07G 14-07-00 14-07-00 2 X 4 2 X 6 00-11-04 00-11-04 00-10-11 00-10-11 Common Truss 2 7.00 0.00 T08 14-07-00 14-07-00 2 X 4 2 X 4 00-11-04 00-10-11 00-10-11 Hip Truss 2 Ply 7.00 0.00 T09G 42-00-00 42-00-00 2 X 4 2 X 6 00-11-04 00-11-04 00-10-11 00-10-11 Hip Truss 2 Pły 7.00 0.00 T09GA 42-00-00 42-00-00 2 X 4 2 X 6 00-11-04 00-11-04 00-10-11 00-10-11 Hip Truss 2 7.00 0.00 42-00-00 2 X 4 2 X 4 00-11-04 00-11-04 T10 42-00-00 00-10-11 00-10-11 Hip Truss 2 7.00 0.00 42-00-00 42-00-00 2 X 4 2 X 4 00-11-04 00-11-04 T11 00-10-11 | 00-10-11 Hip Truss 1 7.00 0.00 42-00-00 42-00-00 2 X 4 2 X 4 00-11-04 00-11-04 T12 00-10-11 00-10-11 Hip Truss AM1 7.00 0.00 T12A 41-08-14 41-08-14 2 X 4 2 X 4 00-11-04 01-00-08 00-10-11 Common Truss 1 7.00 0.00 T13 42-00-00 42-00-00 2 X 4 2 X 4 00-11-04 00-11-04 00-10-11 00-10-11 Common Truss 6 7.00 0.00 41-08-14 41-08-14 2 X 4 2 X 4 00-11-04 T13A 01-00-08 | 00-10-11 Hip Truss 1 7.00 0.00 18-00-00 18-00-00 2 X 4 2 X 6 00-11-04 00-11-04 T14G 00-10-11 00-10-11 Common Truss 4 7.00 0.00 18-00-00 18-00-00 2 X 4 2 X 4 00-11-04 00-11-04 T15 00-10-11 00-10-11 Common Truss 4 7.00 0.00 18-00-00 18-00-00 2 X 4 2 X 4 00-11-04 T16 00-10-11 00-10-11 Common Truss 3 7.00 0.00 T16A 17-10-04 17-10-04 2 X 4 2 X 4 00-11-04 00-11-11 00-10-11 Monopitch 2 4.00 0.00 T17E 08-00-00 08-00-00 2 X 4 2 X 4 00-11-04 03-03-08 00-07-08 Monopitch 13 4.00 0.00 T18 08-00-00 08-00-00 2 X 4 2 X 4 00-11-04 03-03-08 00-07-08

# **ITEMS**

QTY	ITEM TYPE	SIZE	LENGTH FT-IN-16	NOTES	CHECKED BY	QTY SHIPPED
1	EWP	1 3/4x9 1/2 V-LAM SP 2.0 3100	10-00-00			
130	Hardware	H2.5T				
6	Hardware	HUS26				
16	Hardware	LUS24				
6	Hardware	LUS26				
11	Hardware	MUS26				

Rec'd By:
Rec'd Time:
Rec'd Date:
Del By:
Del Date:



1-6-11 1-6-11 Plate Offsets (Y.V): [4:Edge 0-1-8]

LOADING	G (psf)	SPACING	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	30.ó	Plates Increase	1.15	TC	0.49	Vert(LL)	-0.00	5	>999	240	MT20	197/144
<b>FCDL</b>	7.0	Lumber Increase	1.15	ВС	0.02	Vert(TL)	-0.00	5	>999	180		
3CLL	0.0	Rep Stress Incr	YES	WB	0.07	Horz(TL)	-0.00	3	n/a	n/a		
3CDL	10.0	Code WISC/IRC06/	TPI2002	(Mati	rix)	, ,					Weight: 9 lb	

LUMBER

TOP CHORD 2 X 4 SPF No.1 or SPF No.2 BOT CHORD 2 X 4 SPF No.1 or SPF No.2

WEBS 2 X 4 SPF No.1 or SPF No.2 \*Except\*

W2: 2 X 4 SPF Stud

BRACING

1.5x4 ||

TOP CHORD **BOT CHORD**  Structural wood sheathing directly applied or 1-6-11 oc purlins,

except end verticals.

Rigid ceiling directly applied or 10-0-0 oc bracing.

4

3x4 =

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

REACTIONS (lb/size) 5=321/0-10-10 (min. 0-1-8), 4=14/Mechanical, 3=-55/Mechanical

Max Horz 5=73(LC 9)

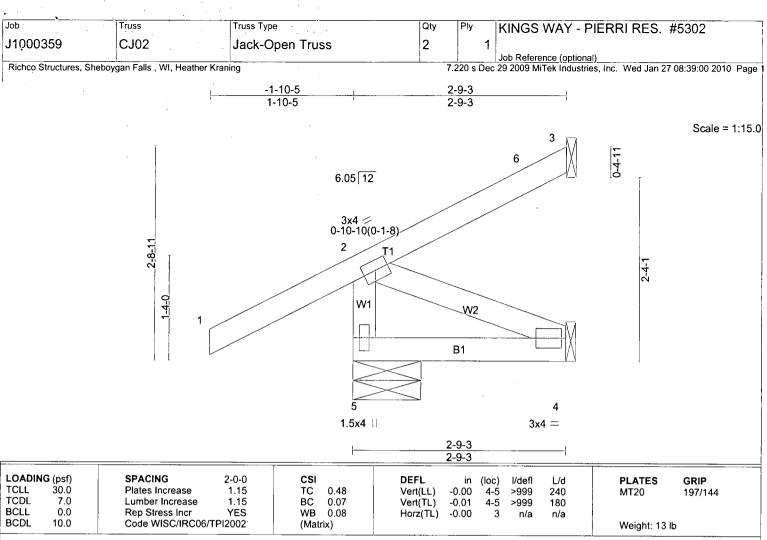
Max Uplift5=-105(LC 9), 4=-48(LC 9), 3=-55(LC 1) Max Grav 5=321(LC 1), 4=28(LC 2), 3=54(LC 9)

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

TOP CHORD 2-5=-307/336

### NOTES

- 1) Wind: ASCE 7-05; 90mph; TCDL=4.2psf; BCDL=6.0psf; h=25ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp C; enclosed; MWFRS (all heights) and C-C Corner(3) zone; cantilever left and right exposed ;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 3) Refer to girder(s) for truss to truss connections.
- 4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 4, 3 except (jt=lb) 5=105.
- 5) "Semi-rigid pitchbreaks including heels" Member end fixity model was used in the analysis and design of this truss.



TOP CHORD 2 X 4 SPF No.1 or SPF No.2 BOT CHORD 2 X 4 SPF No.1 or SPF No.2 **WEBS** 

2 X 4 SPF No.1 or SPF No.2 \*Except\* W2: 2 X 4 SPF Stud

**BRACING** 

TOP CHORD **BOT CHORD** 

except end verticals.

Installation guide.

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

Structural wood sheathing directly applied or 2-9-3 oc purlins,

REACTIONS (lb/size) 5=328/0-10-10 (min. 0-1-8), 3=36/Mechanical, 4=26/Mechanical

Max Horz 5=92(LC 9)

Max Uplift5=-91(LC 9), 3=-16(LC 6), 4=-23(LC 9) Max Grav 5=328(LC 1), 3=37(LC 7), 4=52(LC 2)

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

TOP CHORD 2-5=-301/325

WEBS 2-4=0/259

## NOTES

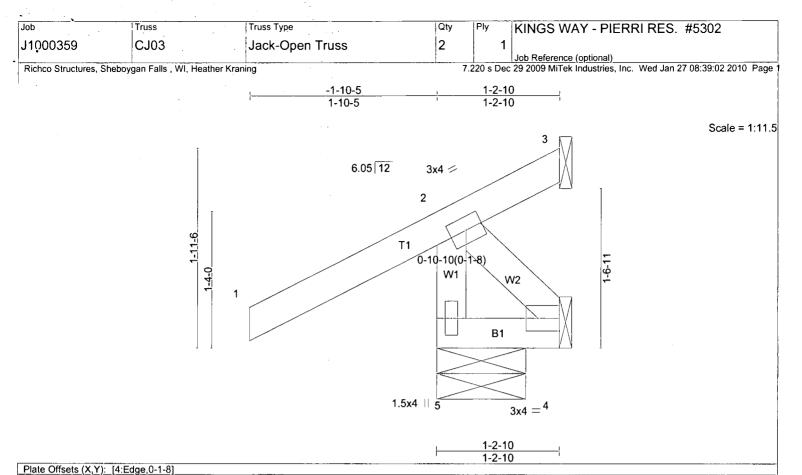
1) Wind: ASCE 7-05; 90mph; TCDL=4.2psf; BCDL=6.0psf; h=25ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp C; enclosed; MWFRS (all heights) and C-C Corner(3) -1-10-5 to 2-4-9, Exterior(2) 2-4-9 to 2-8-7 zone; cantilever left and right exposed ;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60

2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.

3) Refer to girder(s) for truss to truss connections.

4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 5, 3, 4.

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



LOADING (psf) **SPACING** 2-0-0 DEFL **PLATES GRIP** I/defl L/d (loc) **TCLL** 30.0 Plates Increase 1.15 TC 0.49 Vert(LL) -0.00 Ś >999 240 MT20 197/144 TCDL 7.0 Lumber Increase 1.15 вс 0.01 Vert(TL) -0.00 5 >999 180 BCLL 0.0 Rep Stress Incr YES WB 0.08 Horz(TL) -0.00 3 n/a n/a BCDL 10.0 Code WISC/IRC06/TPI2002 (Matrix) Weight: 8 lb

LUMBER

TOP CHORD 2 X 4 SPF No.1 or SPF No.2 BOT CHORD 2 X 4 SPF No.1 or SPF No.2

WEBS 2 X 4 SPF No.1 or SPF No.2 \*Except\*

W2: 2 X 4 SPF Stud

BRACING

TOP CHORD BOT CHORD

Structural wood sheathing directly applied or 1-2-10 oc purlins,

except end verticals.

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) 5=339/0-10-10 (min. 0-1-8), 4=11/Mechanical, 3=-101/Mechanical

Max Horz 5=67(LC 9)

Max Uplift5=-117(LC'9), 4=-62(LC 9), 3=-101(LC 1)

Max Grav 5=339(LC 1), 4=21(LC 2), 3=84(LC 9)

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

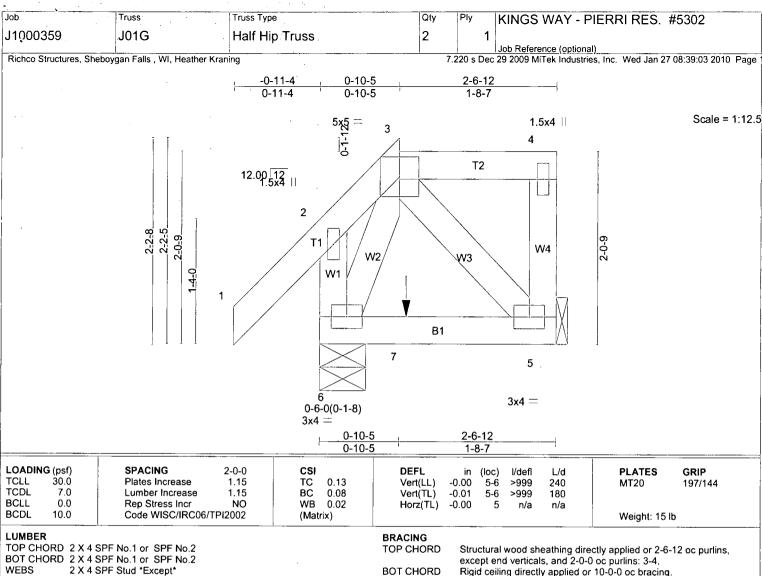
TOP CHORD 2-5=-328/362

### NOTES

- 1) Wind: ASCE 7-05; 90mph; TCDL=4.2psf; BCDL=6.0psf; h=25ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp C; enclosed; MWFRS (all heights) and C-C Corner(3) zone; cantilever left and right exposed ;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.

3) Refer to girder(s) for truss to truss connections.

- 4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 4 except (jt=lb) 5=117, 3=101.
- 5) "Semi-rigid pitchbreaks including heels" Member end fixity model was used in the analysis and design of this truss.



W1: 2 X 4 SPF No.1 or SPF No.2

JOINTS

Rigid ceiling directly applied or 10-0-0 oc bracing.

1 Brace at Jt(s): 4

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

REACTIONS (lb/size) 5=98/Mechanical, 6=226/0-6-0 (min. 0-1-8)

Max Horz 6=74(LC 7)

Max Uplift5=-37(LC 4), 6=-45(LC 7)

Max Grav 5=107(LC 12), 6=226(LC 1)

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

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

2) Wind: ASCE 7-05; 90mph; TCDL=4.2psf; BCDL=6.0psf; h=25ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp C; enclosed; MWFRS (all heights); cantilever left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60

3) Provide adequate drainage to prevent water ponding.

4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.

5) Refer to girder(s) for truss to truss connections.

6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 5, 6.

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

8) Design assumes 4x2 (flat orientation) purlins at oc spacing indicated, fastened to truss TC w/ 2-10d nails.

9) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 31 lb down and 7 lb up at 0-11-3 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.

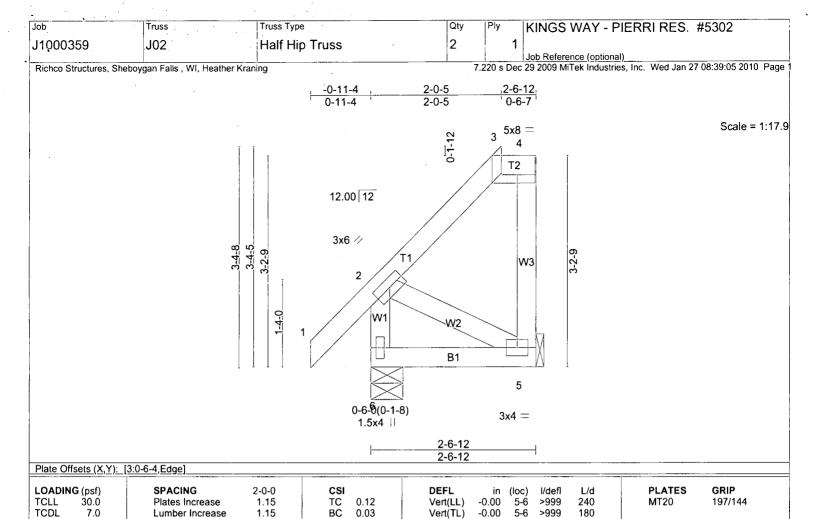
10) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

LOAD CASE(S) Standard

1) Regular: Lumber Increase=1.15, Plate Increase=1.15 Uniform Loads (plf)

Vert: 1-2=-74, 2-3=-74, 3-4=-74, 5-6=-20

Concentrated Loads (lb) Vert: 7=-31(F)



7.0

0.0

10.0

TCDL

BCLL

**BCDL** 

TOP CHORD 2 X 4 SPF No.1 or SPF No.2 BOT CHORD 2 X 4 SPF No.1 or SPF No.2 2 X 4 SPF Stud \*Except\* WEBS

W1: 2 X 4 SPF No.1 or SPF No.2

BRACING

0.03

0.04

WB

(Matrix)

TOP CHORD

Vert(TL)

Horz(TL)

**BOT CHORD JOINTS** 

Structural wood sheathing directly applied or 2-6-12 oc purlins, except end verticals, and 2-0-0 oc purlins: 3-4.

Weight: 15 lb

Rigid ceiling directly applied or 10-0-0 oc bracing.

180

n/a

1 Brace at Jt(s): 4

5-6

>999

n/a

-0.00

-0.00

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

**REACTIONS** (lb/size) 5=88/Mechanical, 6=206/0-6-0 (min. 0-1-8) Max Horz 6=112(LC 9)

Lumber Increase

Code WISC/IRC06/TPI2002

Rep Stress Incr

Max Uplift5=-70(LC 9), 6=-3(LC 9)

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

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

2) Wind: ASCE 7-05; 90mph, TCDL=4.2psf; BCDL=6.0psf; h=25ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp C; enclosed; MWFRS (all heights) and C-C Exterior(2) zone; cantilever left and right exposed ;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60

3) 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.

1.15

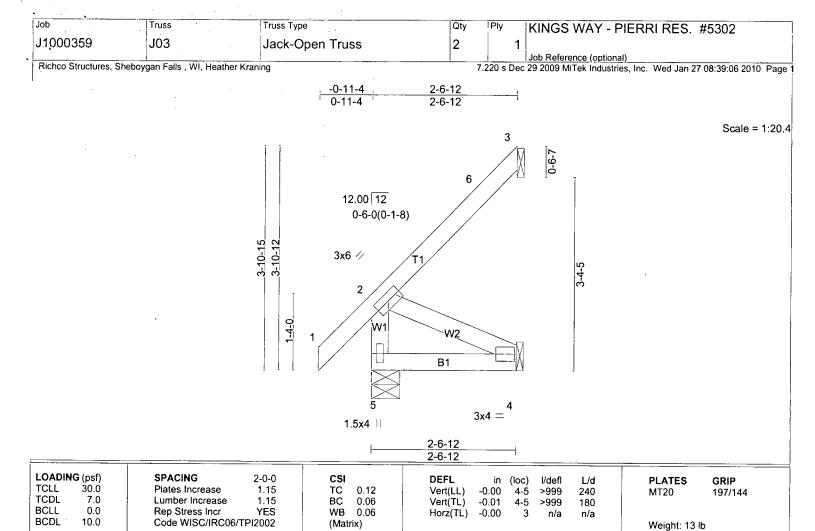
YES

5) Refer to girder(s) for truss to truss connections.

6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 5, 6.

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

8) Design assumes 4x2 (flat orientation) purlins at oc spacing indicated, fastened to truss TC w/ 2-10d nails.



TOP CHORD 2 X 4 SPF No.1 or SPF No.2 BOT CHORD 2 X 4 SPF No.1 or SPF No.2

WEBS 2 X 4 SPF No.1 or SPF No.2 \*Except\*

W2: 2 X 4 SPF Stud

BRACING

TOP CHORD

BOT CHORD

Structural wood sheathing directly applied or 2-6-12 oc purlins, except end verticals.

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) 5=210/0-6-0 (min. 0-1-8), 3=69/Mechanical, 4=24/Mechanical

Max Horz 5=131(LC 9)

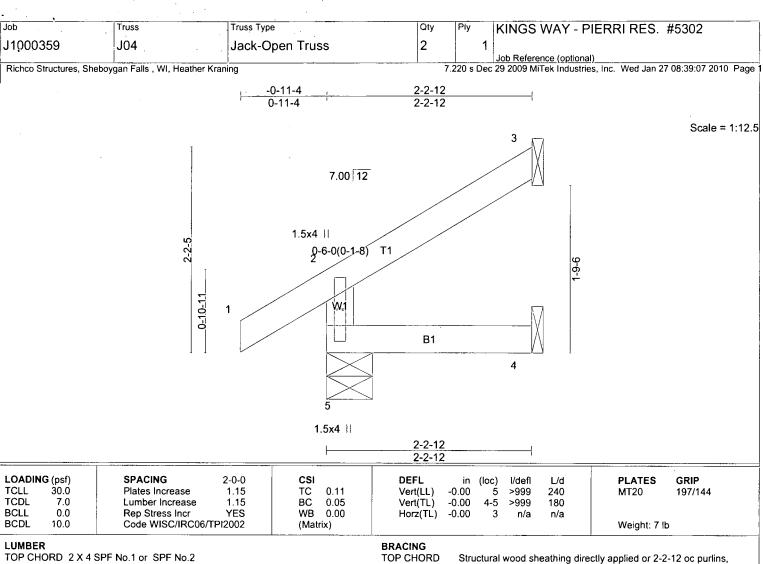
Max Uplift3=-45(LC 9), 4=-46(LC 9)

Max Grav 5=210(LC 1), 3=69(LC 1), 4=48(LC 2)

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

### NOTES

- 1) Wind: ASCE 7-05; 90mph; TCDL=4.2psf; BCDL=6.0psf; h=25ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp C; enclosed; MWFRS (all heights) and C-C Exterior(2) -0-11-4 to 2-0-12, Interior(1) 2-0-12 to 2-6-0 zone; cantilever left and right exposed ;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 3) Refer to girder(s) for truss to truss connections.
- 4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 3, 4.
- 5) "Semi-rigid pitchbreaks including heels" Member end fixity model was used in the analysis and design of this truss.



TOP CHORD 2 X 4 SPF No.1 or SPF No.2 BOT CHORD 2 X 4 SPF No.1 or SPF No.2

**WEBS** 2 X 4 SPF No.1 or SPF No.2

TOP CHORD **BOT CHORD** 

except end verticals.

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) 5=197/0-6-0 (min. 0-1-8), 3=56/Mechanical, 4=17/Mechanical Max Horz 5=70(LC 9)

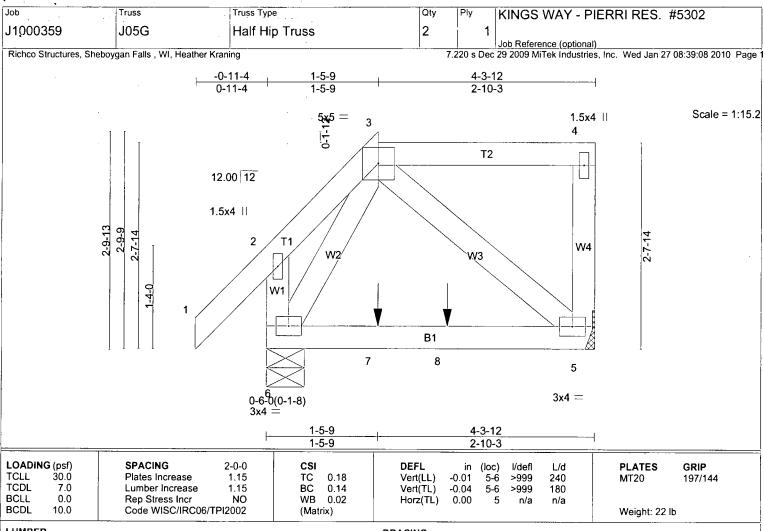
Max Uplift5=-40(LC 9), 3=-32(LC 9)

Max Grav 5=197(LC 1), 3=56(LC 1), 4=37(LC 2)

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

# NOTES

- 1) Wind: ASCE 7-05; 90mph; TCDL=4.2psf; BCDL=6.0psf; h=25ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp C; enclosed; MWFRS (all heights) and C-C Exterior(2) zone; cantilever left and right exposed ;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 3) Refer to girder(s) for truss to truss connections.
- 4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 5, 3.
- 5) "Semi-rigid pitchbreaks including heels" Member end fixity model was used in the analysis and design of this truss.



TOP CHORD 2 X 4 SPF No.1 or SPF No.2 BOT CHORD 2 X 4 SPF 2400F 2.0E

2 X 4 SPF Stud \*Except\* **WEBS** 

W1: 2 X 4 SPF No.1 or SPF No.2

BRACING

TOP CHORD

**BOT CHORD JOINTS** 

Structural wood sheathing directly applied or 4-3-12 oc purlins, except end verticals, and 2-0-0 oc purlins: 3-4. Rigid ceiling directly applied or 10-0-0 oc bracing.

1 Brace at Jt(s): 4

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

REACTIONS (lb/size) 5=206/Mechanical, 6=313/0-6-0 (min. 0-1-8)

Max Horz 6=94(LC 7)

Max Uplift5=-61(LC 4), 6=-54(LC 7)

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

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

2) Wind: ASCE 7-05; 90mph; TCDL=4.2psf; BCDL=6.0psf; h=25ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp C; enclosed; MWFRS (all heights); cantilever left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60

3) Provide adequate drainage to prevent water ponding.

4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.

5) Refer to girder(s) for truss to truss connections.

6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 5, 6.

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

8) Design assumes 4x2 (flat orientation) purlins at oc spacing indicated, fastened to truss TC w/ 2-10d nails.

- 9) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 26 lb down and 6 lb up at 1-5-9. and 34 lb down and 8 lb up at 2-4-8 on bottom chord. The design/selection of such connection device(s) is the responsibility of
- 10) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

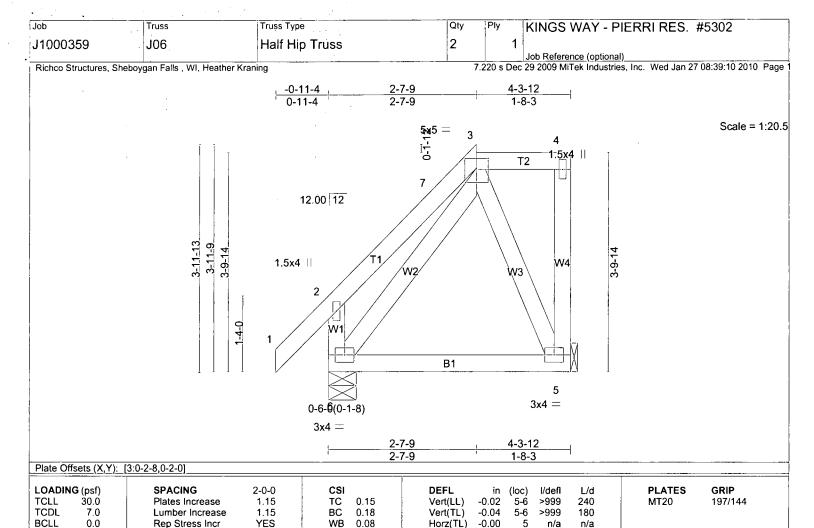
# LOAD CASE(S) Standard

1) Regular: Lumber Increase=1.15, Plate Increase=1.15 Uniform Loads (plf)

Vert: 1-2=-74, 2-3=-74, 3-4=-74, 5-6=-20

Concentrated Loads (lb)

Vert: 7=-26(F) 8=-34(F)



10.0

**BCDL** 

TOP CHORD 2 X 4 SPF No.1 or SPF No.2 BOT CHORD 2 X 4 SPF No.1 or SPF No.2

2 X 4 SPF Stud \*Except\* WEBS

W1: 2 X 4 SPF No.1 or SPF No.2

BRACING

TOP CHORD

**BOT CHORD** 

JOINTS

Structural wood sheathing directly applied or 4-3-12 oc purlins, except end verticals, and 2-0-0 oc purlins: 3-4.

Weight: 26 lb

Rigid ceiling directly applied or 10-0-0 oc bracing. 1 Brace at Jt(s): 4

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

REACTIONS (lb/size) 5=178/Mechanical, 6=280/0-6-0 (min. 0-1-8) Max Horz 6=132(LC 9)

Code WISC/IRC06/TPI2002

Max Uplift5=-72(LC 9), 6=-22(LC 9)

FORCES (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown. TOP CHORD 2-6=-190/262

### NOTES

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

2) Wind: ASCE 7-05; 90mph; TCDL=4.2psf; BCDL=6.0psf; h=25ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp C; enclosed; MWFRS (all heights) and C-C Exterior(2) -0-11-4 to 2-0-12, Interior(1) 2-0-12 to 2-7-9, Exterior(2) 2-7-9 to 4-2-0 zone; cantilever left and right exposed ;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60

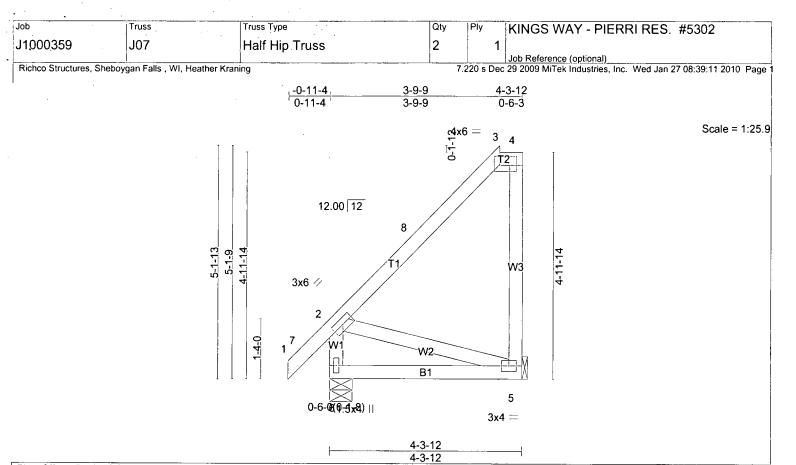
(Matrix)

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) Refer to girder(s) for truss to truss connections.

- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 5, 6.
- 7) "Semi-rigid pitchbreaks including heels" Member end fixity model was used in the analysis and design of this truss.
- 8) Design assumes 4x2 (flat orientation) purlins at oc spacing indicated, fastened to truss TC w/ 2-10d nails.



LOADING (psf)	SPACING 2-0-0	CSI	DEFL	in	(loc)	i/defi	L/d	PLATES	GRIP
TCLL 30.0	Plates Increase 1.15	TC 0.24	Vert(LL)	-0.01	5-6	>999	240	MT20	197/144
TCDL 7.0	Lumber Increase 1.15	BC 0.10	Vert(TL)	-0.02	5-6	>999	180		
BCLL 0.0	Rep Stress Incr YES	WB 0.08	Horz(TL)	-0.00	5	n/a	n/a		
BCDL 10.0	Code WISC/IRC06/TPI2002	(Matrix)			•			Weight: 24 lb	

TOP CHORD 2 X 4 SPF No.1 or SPF No.2 BOT CHORD 2 X 4 SPF No.1 or SPF No.2

2 X 4 SPF Stud \*Except\* WEBS

W1: 2 X 4 SPF No.1 or SPF No.2

**BRACING** 

TOP CHORD

**BOT CHORD** 

**JOINTS** 

Structural wood sheathing directly applied or 4-3-12 oc purlins, except end verticals, and 2-0-0 oc purlins: 3-4.

Rigid ceiling directly applied or 10-0-0 oc bracing.

1 Brace at Jt(s): 4

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

REACTIONS (lb/size) 5=178/Mechanical, 6=280/0-6-0 (min. 0-1-8)

Max Horz 6=170(LC 9) Max Uplift5=-111(LC 9)

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

BOT CHORD 5-6=-256/93

**WEBS** 2-5=-90/256

# **NOTES**

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

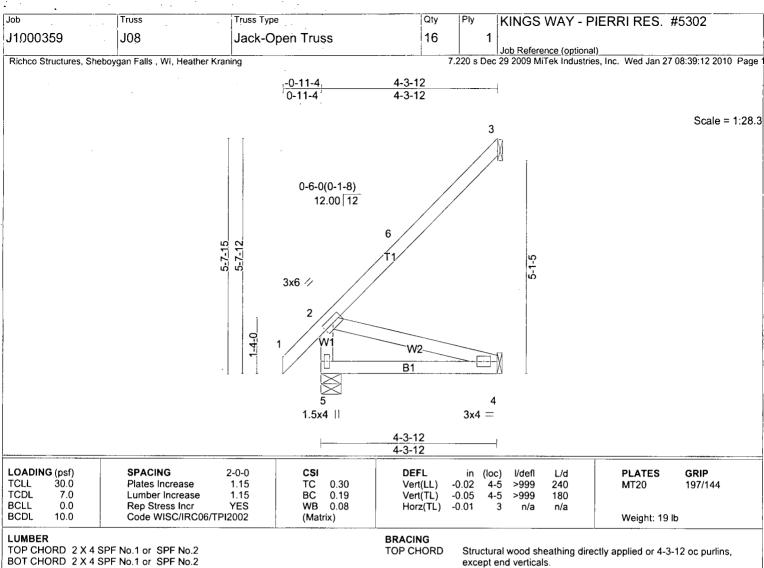
2) Wind: ASCE 7-05; 90mph; TCDL=4.2psf; BCDL=6.0psf; h=25ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp C; enclosed; MWFRS (all heights) and C-C Exterior(2) -0-11-4 to 2-0-12, Interior(1) 2-0-12 to 3-9-9, Exterior(2) 3-9-9 to 4-2-0 zone; cantilever left and right exposed ;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60

3) 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) Refer to girder(s) for truss to truss connections.

- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 5=111.
- 7) "Semi-rigid pitchbreaks including heels" Member end fixity model was used in the analysis and design of this truss.
- 8) Design assumes 4x2 (flat orientation) purlins at oc spacing indicated, fastened to truss TC w/ 2-10d nails.



WEBS 2 X 4 SPF No.1 or SPF No.2 \*Except\*

W2: 2 X 4 SPF Stud

BOT CHORD

Rigid ceiling directly applied or 10-0-0 oc bracing.

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

**REACTIONS** (lb/size) 5=284/0-6-0 (min. 0-1-8), 3=141/Mechanical, 4=42/Mechanical

Max Horz 5=188(LC 9)

Max Uplift3=-104(LC 9), 4=-26(LC 9)

Max Grav 5=284(LC 1), 3=141(LC 1), 4=83(LC 2)

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

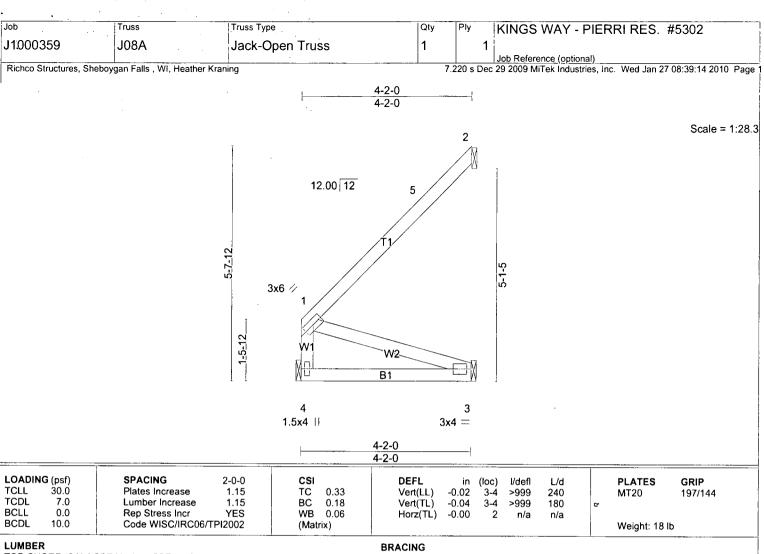
WEBS 2-4=-46/255

### NOTES

- 1) Wind: ASCE 7-05; 90mph; TCDL=4.2psf; BCDL=6.0psf; h=25ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp C; enclosed; MWFRS (all heights) and C-C Exterior(2) -0-11-4 to 2-0-12, Interior(1) 2-0-12 to 4-3-0 zone; cantilever left and right exposed ;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.

3) Refer to girder(s) for truss to truss connections.

- 4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 4 except (jt=lb) 3=104.
- 5) "Semi-rigid pitchbreaks including heels" Member end fixity model was used in the analysis and design of this truss.



TOP CHORD 2 X 4 SPF No.1 or SPF No.2 BOT CHORD 2 X 4 SPF No.1 or SPF No.2

2 X 4 SPF Stud WEBS

TOP CHORD

**BOT CHORD** 

Structural wood sheathing directly applied or 4-2-0 oc purlins, except end verticals.

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) 4=187/Mechanical, 2=146/Mechanical, 3=40/Mechanical

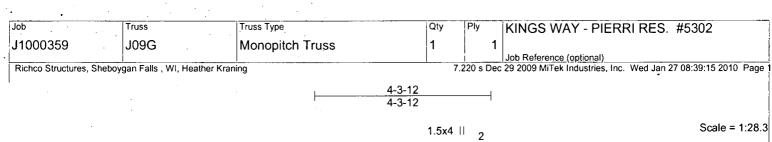
Max Horz 4=130(LC 9)

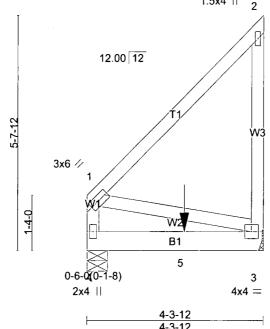
Max Uplift2=-113(LC 9), 3=-17(LC 9)

Max Grav 4=187(LC 1), 2=146(LC 1), 3=80(LC 2)

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

- 1) Wind: ASCE 7-05; 90mph; TCDL=4.2psf; BCDL=6.0psf; h=25ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp C; enclosed; MWFRS (all heights) and C-C Exterior(2) 0-1-12 to 3-1-12, Interior(1) 3-1-12 to 4-1-4 zone; cantilever left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 3) Refer to girder(s) for truss to truss connections.
- 4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 3 except (jt=lb)
- 5) "Semi-rigid pitchbreaks including heels" Member end fixity model was used in the analysis and design of this truss.





F				T		1012					T	<del></del>
LOADIN	G (psf)	SPACING	~ 2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	30.Ó	Plates Increase	1,15	тс	0.39	Vert(LL)	-0.02	3-4	>999	240	MT20	197/144
TCDL	7.0	Lumber Increase	1.15	ВС	0.39	Vert(TL)	-0.05	3-4	>999	180		
BCLL	0.0	Rep Stress Incr	NO	l wb	0.04	Horz(TL)	-0.00	3	n/a	n/a		
BCDL	10.0	Code WISC/IRC06/	TPI2002	(Mat	rix)	` ´					Weight: 28 lb	

TOP CHORD 2 X 4 SPF No.1 or SPF No.2 BOT CHORD 2 X 6 SYP 2400F 2.0E **WEBS** 

2 X 4 SPF Stud \*Except\*

W1: 2 X 4 SPF No.1 or SPF No.2

**BRACING** 

TOP CHORD

**BOT CHORD** 

except end verticals.

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.

Structural wood sheathing directly applied or 4-3-12 oc purlins,

REACTIONS (lb/size) 3=549/Mechanical, 4=478/0-6-0 (min. 0-1-8) Max Horz 4=132(LC 7)

Max Uplift3=-180(LC 7), 4=-18(LC 5)

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

### NOTES

- 1) Wind: ASCE 7-05; 90mph; TCDL=4.2psf; BCDL=6.0psf; h=25ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp C; enclosed; MWFRS (all heights); cantilever left and right exposed; 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) Refer to girder(s) for truss to truss connections.

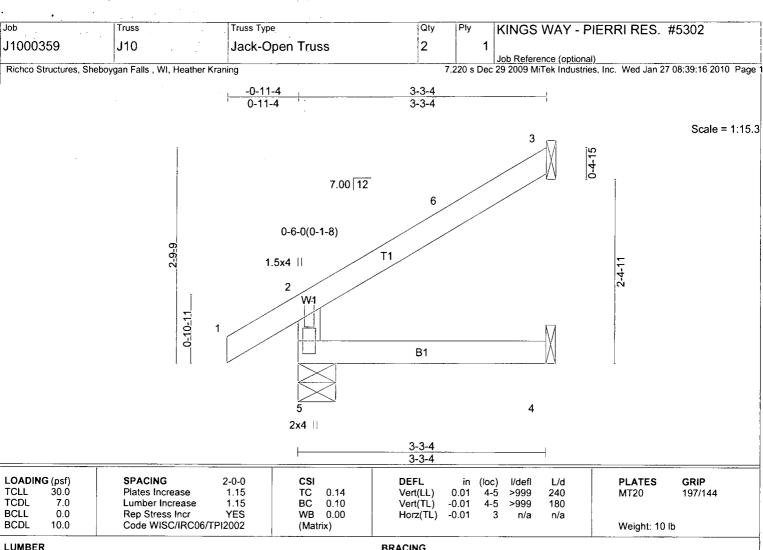
- 4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 4 except (jt=lb) 3=180.
- 5) "Semi-rigid pitchbreaks including heels" Member end fixity model was used in the analysis and design of this truss.
- 6) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 649 lb down and 99 lb up at 2-4-8 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
- 7) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

## LOAD CASE(S) Standard

1) Regular: Lumber Increase=1.15, Plate Increase=1.15 Uniform Loads (plf) Vert: 1-2=-74, 3-4=-20

Concentrated Loads (lb)

Vert: 5=-649(F)



TOP CHORD 2 X 4 SPF No.1 or SPF No.2 BOT CHORD 2 X 4 SPF No.1 or SPF No.2 2 X 4 SPF No.1 or SPF No.2 WEBS

**BRACING** 

TOP CHORD **BOT CHORD**  Structural wood sheathing directly applied or 3-3-4 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) 5=238/0-6-0 (min. 0-1-8), 3=96/Mechanical, 4=34/Mechanical

Max Horz 5=90(LC 9)

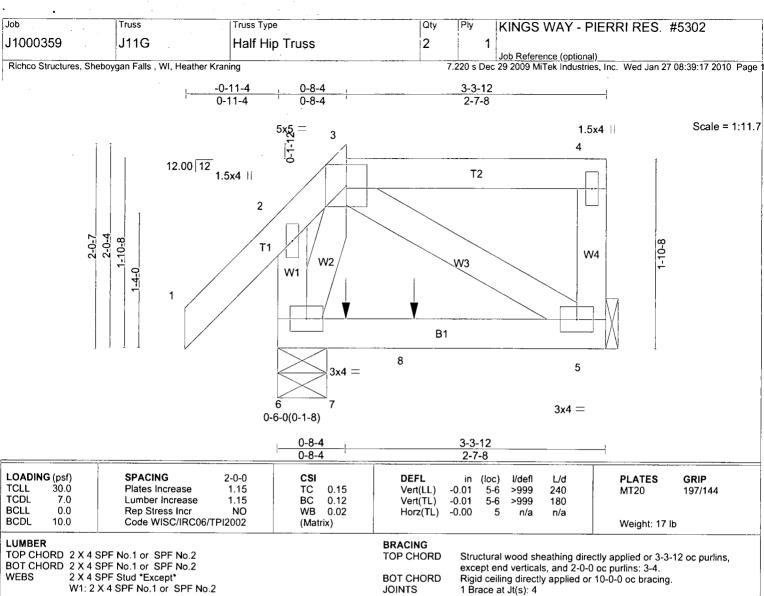
Max Uplift5=-38(LC 9), 3=-50(LC 9)

Max Grav 5=238(LC 1), 3=96(LC 1), 4=57(LC 2)

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

# NOTES

- 1) Wind: ASCE 7-05; 90mph; TCDL=4.2psf; BCDL=6.0psf; h=25ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp C; enclosed; MWFRS (all heights) and C-C Exterior(2) -0-11-4 to 2-0-12, Interior(1) 2-0-12 to 3-2-8 zone; cantilever left and right exposed ;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 3) Refer to girder(s) for truss to truss connections.
- 4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 5, 3.
- 5) "Semi-rigid pitchbreaks including heels" Member end fixity model was used in the analysis and design of this truss.



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

**REACTIONS** (lb/size) 5=135/Mechanical, 6=253/0-6-0 (min. 0-1-8)

Max Horz 6=69(LC 7)

Max Uplift5=-41(LC 4), 6=-56(LC 7)

Max Grav 5=144(LC 12), 6=253(LC 1)

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

### NOTES

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

2) Wind: ASCE 7-05; 90mph; TCDL=4.2psf; BCDL=6.0psf; h=25ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp C; enclosed; MWFRS (all heights); cantilever left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60

3) Provide adequate drainage to prevent water ponding.

4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.

5) Refer to girder(s) for truss to truss connections.

6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 5, 6.

7) "Semi-rigid pitchbreaks including heels" Member end fixity model was used in the analysis and design of this truss. 8) Design assumes 4x2 (flat orientation) purlins at oc spacing indicated, fastened to truss TC w/ 2-10d nails.

9) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 11 lb down and 3 lb up at 0-8-4, and 13 lb down and 3 lb up at 1-4-8 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.

10) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

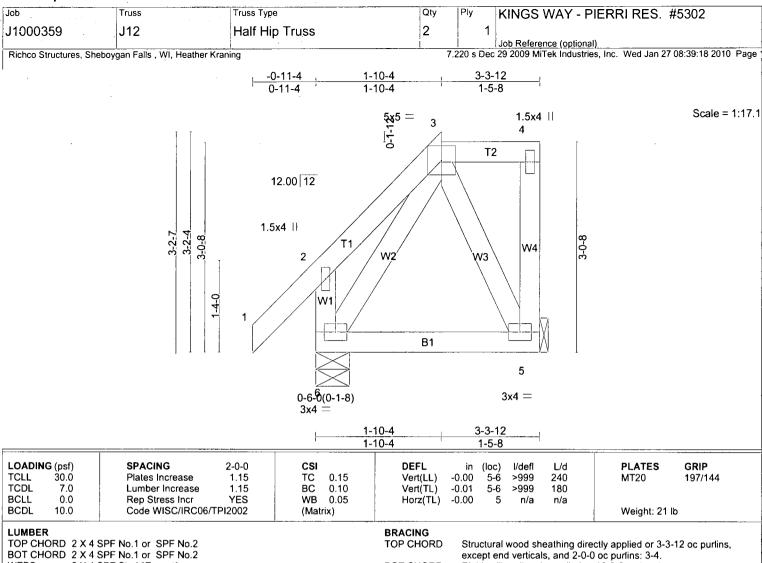
# LOAD CASE(S) Standard

1) Regular: Lumber Increase=1.15, Plate Increase=1.15

Uniform Loads (plf) Vert: 1-2=-74, 2-3=-74, 3-4=-74, 5-6=-20

Concentrated Loads (ib)

Vert: 7=-11(F) 8=-13(F)



2 X 4 SPF Stud \*Except\* **WEBS** 

W1: 2 X 4 SPF No.1 or SPF No.2

**BOT CHORD** JOINTS

Rigid ceiling directly applied or 10-0-0 oc bracing.

1 Brace at Jt(s): 4

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

**REACTIONS** (lb/size) 5=128/Mechanical, 6=237/0-6-0 (min. 0-1-8)

Max Horz 6=107(LC 9)

Max Uplift5=-55(LC 9), 6=-27(LC 9)

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

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-05; 90mph; TCDL=4.2psf; BCDL=6.0psf; h=25ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp C; enclosed; MWFRS (all heights) and C-C Exterior(2) zone; cantilever left and right exposed ;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 3) 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) Refer to girder(s) for truss to truss connections.
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 5, 6.
- 7) "Semi-rigid pitchbreaks including heels" Member end fixity model was used in the analysis and design of this truss.
- 8) Design assumes 4x2 (flat orientation) purlins at oc spacing indicated, fastened to truss TC w/ 2-10d nails.

Job	Truss	Truss Type	<del></del>	Qty	Ply KINGS WAY -	PIERRI RES. #5302
J1000359	J13	Half Hip	Truss	2	1	
Richco Structures, She	eboygan Falls , Wi, Hea	ther Kraning			7.220 s Dec 29 2009 MiTek Indust	nal) ries, Inc. Wed Jan 27 08:39:19 2010 Page
			0-11-4	3-0-4 3-0-4	3-3-12	
			0-11-4	3-0-4	0-3-8	
				1.5	$5x4 = \frac{3}{3}$	Scale = 1:22.5
		j ].				
			45.55	6 /		
			12.00 12			
		4-4-7		/T4 /	W3	
		4 4	3x6 //		M3   4-2-4	
			2 /			
		1-4-0	1 / W1	W2.		
		-	'// <u> </u>			
		] ] ]		B1	N !	•
					4	
			0-6- <b>5</b> (0-1-8	)	3x4 =	
			1.5x4	2 2 4 2		
			<u> </u>	3-3-12 3-3-12	<del></del>	
LOADING ( O	OD A CINIC			5		

LOADIN	G (psf)	SPACING	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	30.0	Plates Increase	1.15	TC	0.14	Vert(LL)	-0.00	4-5	>999	240	MT20	197/144
TCDL	7.0	Lumber Increase	1.15	BC	0.10	Vert(TL)	-0.01	4-5	>999	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.07	Horz(TL)	-0.00	4	n/a	n/a		
BCDL	10.0	Code WISC/IRC06/	TPI2002	(Mat	rix)	, ,					Weight: 19 lb	)

TOP CHORD 2 X 4 SPF No.1 or SPF No.2 BOT CHORD 2 X 4 SPF No.1 or SPF No.2 WEBS 2 X 4 SPF Stud \*Except\*

W1: 2 X 4 SPF No.1 or SPF No.2

BRACING

**TOP CHORD BOT CHORD** 

except end verticals.

Structural wood sheathing directly applied or 3-3-12 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.

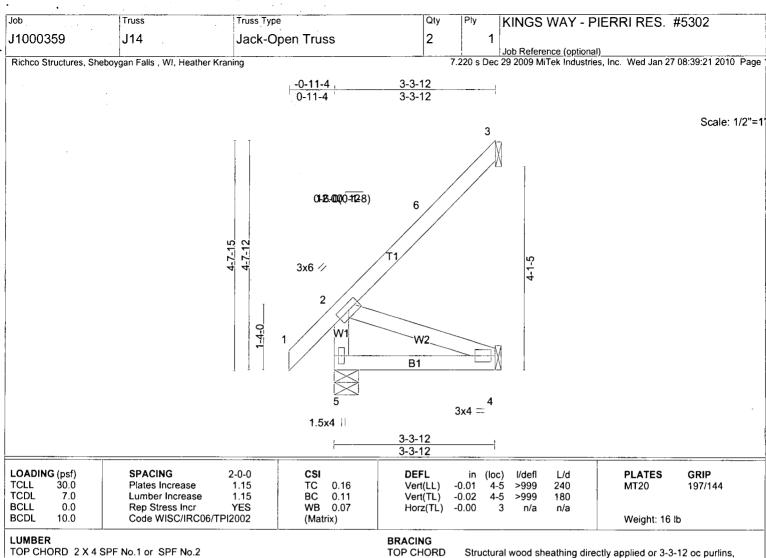
**REACTIONS** (lb/size) 4=128/Mechanical, 5=237/0-6-0 (min. 0-1-8)

Max Horz 5=152(LC 9) Max Uplift4=-107(LC 9)

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

## **NOTES**

- 1) Wind: ASCE 7-05; 90mph; TCDL=4.2psf; BCDL=6.0psf; h=25ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp C; enclosed; MWFRS (all heights) and C-C Exterior(2) -0-11-4 to 2-0-12, Interior(1) 2-0-12 to 3-2-0 zone; cantilever left and right exposed ;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 3) Refer to girder(s) for truss to truss connections.
- 4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb)
- 5) "Semi-rigid pitchbreaks including heels" Member end fixity model was used in the analysis and design of this truss.



TOP CHORD 2 X 4 SPF No.1 or SPF No.2 BOT CHORD 2 X 4 SPF No.1 or SPF No.2 WEBS 2 X 4 SPF No.1 or SPF No.2 \*Except\*

W2: 2 X 4 SPF Stud

**BOT CHORD** 

Installation guide.

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

REACTIONS (lb/size) 5=241/0-6-0 (min. 0-1-8), 3=101/Mechanical, 4=32/Mechanical

Max Horz 5=155(LC 9)

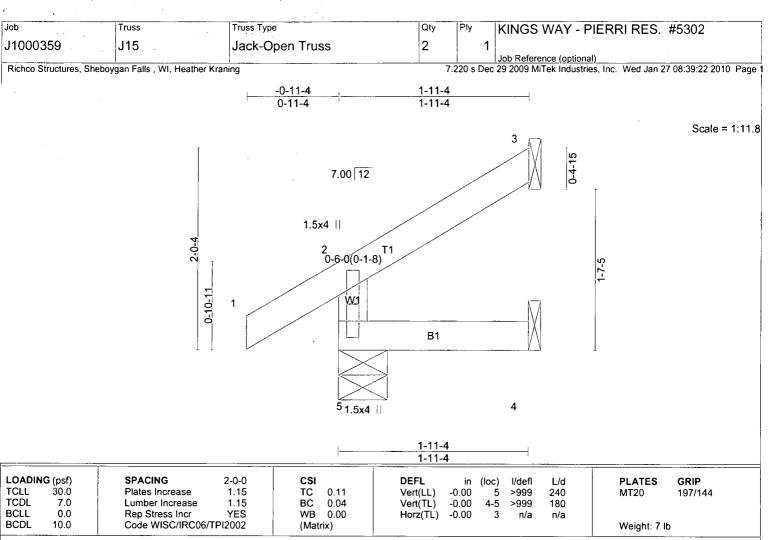
Max Uplift3=-72(LC 9), 4=-36(LC 9)

Max Grav 5=241(LC 1), 3=101(LC 1), 4=63(LC 2)

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

# NOTES

- 1) Wind: ASCE 7-05; 90mph; TCDL=4.2psf; BCDL=6.0psf; h=25ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp C; enclosed; MWFRS (all heights) and C-C Exterior(2) -0-11-4 to 2-0-12, Interior(1) 2-0-12 to 3-3-0 zone; cantilever left and right exposed ;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 3) Refer to girder(s) for truss to truss connections.
- 4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 3, 4.
- 5) "Semi-rigid pitchbreaks including heels" Member end fixity model was used in the analysis and design of this truss.



TOP CHORD 2 X 4 SPF No.1 or SPF No.2 BOT CHORD 2 X 4 SPF No.1 or SPF No.2 WEBS

2 X 4 SPF No.1 or SPF No.2

**BRACING** 

TOP CHORD **BOT CHORD**  Structural wood sheathing directly applied or 1-11-4 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) 5=188/0-6-0 (min. 0-1-8), 4=13/Mechanical, 3=46/Mechanical Max Horz 5=65(LC 9)

Max Uplift5=-40(LC 9), 3=-27(LC 9)

Max Grav 5=188(LC 1), 4=32(LC 2), 3=46(LC 1)

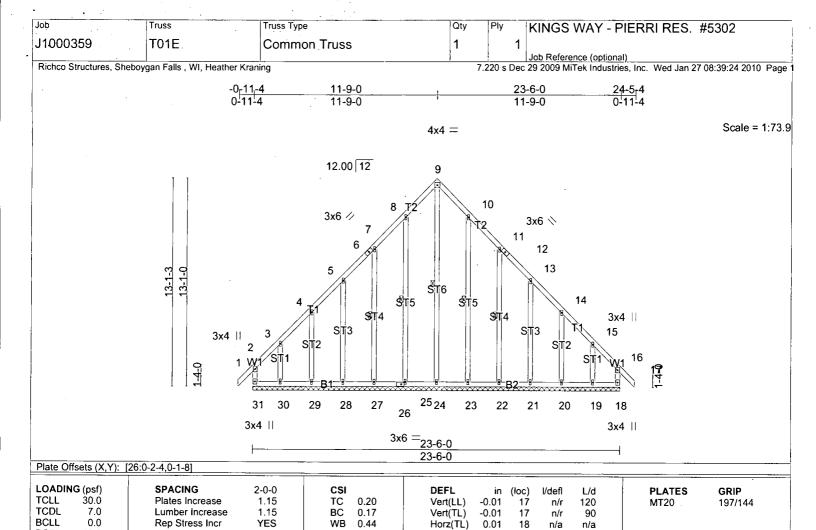
FORCES (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.

# NOTES

- 1) Wind: ASCE 7-05; 90mph; TCDL=4.2psf; BCDL=6.0psf; h=25ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp C; enclosed; MWFRS (all heights) and C-C Exterior(2) zone; cantilever left and right exposed ;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.

3) Refer to girder(s) for truss to truss connections.

- 4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 5, 3.
- 5) "Semi-rigid pitchbreaks including heels" Member end fixity model was used in the analysis and design of this truss.



10.0

**BCDL** 

TOP CHORD 2 X 4 SPF No.1 or SPF No.2 BOT CHORD 2 X 4 SPF No.1 or SPF No.2

2 X 4 SPF No.1 or SPF No.2 WEBS 2 X 4 SPF Stud \*Except\* OTHERS

ST6,ST5,ST4: 2 X 4 SPF No.1 or SPF No.2

Code WISC/IRC06/TPI2002

BRACING

**WEBS** 

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.

9-24, 8-25, 7-27, 10-23, 11-22

Weight: 159 lb

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

REACTIONS All bearings 23-6-0

Max Horz 31=-299(LC 7) (lb) -

Max Uplift All uplift 100 lb or less at joint(s) 25, 28, 29, 23, 21, 20 except 31=-281(LC 7), 18=-246(LC 8), 27=-103(LC 9), 30=-188(LC 6), 22=-103(LC 9), 19=-176(LC 5)

Max Grav All reactions 250 lb or less at joint(s) 18, 25, 27, 28, 29, 23, 22, 21, 20, 19 except 31=270(LC 8), 24=529(LC 9), 30=262(LC 7)

(Matrix)

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

TOP CHORD 2-3=-250/280, 5-6=-113/269, 6-7=-102/275, 7-8=-83/396, 8-9=-59/486, 9-10=-59/486,

10-11=-56/396, 11-12=-76/275, 12-13=-86/269

WEBS 9-24=-597/17

## **NOTES**

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

- 2) Wind: ASCE 7-05; 90mph; TCDL=4.2psf; BCDL=6.0psf; h=25ft; B=45ft; L=24ft; eave=2ft; Cat. II; Exp C; enclosed; MWFRS (all heights) and C-C Corner(3) -0-11-4 to 2-0-12, Exterior(2) 2-0-12 to 11-9-0, Corner(3) 11-9-0 to 14-9-0 zone; cantilever left and right exposed ;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see MiTek "Standard Gable End Detail"
- 4) All plates are 1.5x4 MT20 unless otherwise indicated.
- 5) Gable requires continuous bottom chord bearing.
- 6) Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).

7) Gable studs spaced at 2-0-0 oc.

- 8) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 25, 28, 29, 23, 21, 20 except (jt=lb) 31=281, 18=246, 27=103, 30=188, 22=103, 19=176.
- 10) "Semi-rigid pitchbreaks including heels" Member end fixity model was used in the analysis and design of this truss.

Job	Truss	Truss Type	Qty Ply	KINGS WAY - I	PIERRI RES. #5302
J1000359	T02	Common Truss	2 1	Job Reference (option	
Richco Structures, She	boygan Falls , WI, Heather Kra	ning			ies, Inc. Wed Jan 27 08:39:26 2010 Page
		1-4 6-0-4 11-9-0	17-5-12	22 6 0 2	A E A
	-0 <u>-1</u> 0-1	1-4 6-0-4 11-9-0 1-4 6-0-4 5-8-12	5-8-12	23-6-0 2 6-0-4 0	<del>4-5-</del> 4 -11-4
	0.1	, , , , , , , , , , , , , , , , , , , ,	0012		
			4x5		Scale = 1:75.5
		12.00 12	5		
		3x6 // 16 T2	// \\ \T2 17 3	x6 ◇	
		4x4 // 4 // /	6	4x4 📏	
		3 / W4	W4	7	
	13 <u>-1-3</u> 13 <u>-1-0</u>		\\ <sub>3</sub>		
	13		\\ //		
		11/	\\	\\X <b>1</b>	<b>(5</b>
	3x5	15/5// \\ //	\\	18	
		2 //// W3 //	\\		0
	၂ ရ 1		\\/		(1 <sup>8</sup> 99
	0-4-1	B1	B2_	7	0-1-1-0-0-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1
		13 12	11		
	0-4-0	(0.14 - 1.13) 3x6 = 3x6 =	3x4 ==	0-4-0(	10 0-1-13) 6 =
				34	
		7-11-3 $3x4 =$	15-6-13	23-6-0	-
<u> </u>		7-11-3	7-7-11	7-11-3	
LOADING (psf)		2-0-0 <b>CS</b> I	DEFL in (loc)		PLATES GRIP
TCLL 30.0 TCDL 7.0	Plates Increase Lumber Increase	1.15 TC 0.40 1.15 BC 0.41	Vert(LL) -0.09 10-11 Vert(TL) -0.22 10-11		MT20 197/144
BCLL 0.0	Rep Stress Incr	YES WB 0.35	Horz(TL) 0.03 10		
BCDL 10.0	Code WISC/IRC06/TPI	2002 (Matrix)			Weight: 136 lb
LUMBER			RACING		
	PF No.1 or SPF No.2 PF No.1 or SPF No.2	TO		l wood sheathing dir nd verticals	ectly applied or 5-3-0 oc purlins,

BOT CHORD 2 X 4 SPF No.1 or SPF No.2 WEBS 2 X 4 SPF No.1 or SPF No.2 \*Except\*

W3: 2 X 4 SPF Stud

**BOT CHORD** 

WEBS

except end verticals.

Rigid ceiling directly applied or 10-0-0 oc bracing. 1 Row at midpt 5-11, 5-13, 3-14, 7-10

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

**REACTIONS** (lb/size) 14=1171/0-4-0 (min. 0-1-13), 10=1171/0-4-0 (min. 0-1-13)

Max Horz 14=-299(LC 7)

Max Uplift14=-188(LC 9), 10=-188(LC 9)

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

TOP CHORD 2-15=-408/275, 3-15=-177/298, 3-4=-1056/369, 4-16=-911/382, 5-16=-891/399, 5-17=-891/399, 6-17=-911/382, 6-7=-1056/369, 7-18=-177/298, 8-18=-408/275,

2-14=-473/332, 8-10=-473/332

**BOT CHORD** 13-14=-66/708, 12-13=-25/499, 11-12=-25/499, 10-11=-15/708

**WEBS** 5-11=-209/488, 7-11=-320/309, 5-13=-209/488, 3-13=-320/309, 3-14=-815/0,

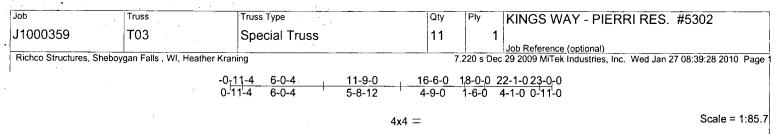
1) Unbalanced roof live loads have been considered for this design.

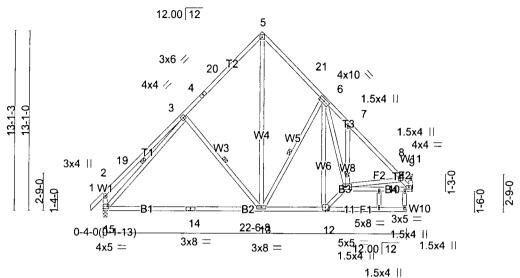
2) Wind: ASCE 7-05; 90mph; TCDL=4.2psf; BCDL=6.0psf; h=25ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp C; enclosed; MWFRS (all heights) and C-C Exterior(2) -0-11-4 to 2-0-12, Interior(1) 2-0-12 to 11-9-0, Exterior(2) 11-9-0 to 14-9-0 zone; cantilever left and right exposed ;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60

3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.

4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 14=188, 10=188.

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





235<del>84</del>0 || 6 - 0 - 411-9-0 16-6-0 1,8-0-0 5-8-12 4-9-0 1-6-0 5-0-0 Plata Officata /V V). (111.0 E 4.0.2.41 (12.0.0.12.0.2.0)

	CRACING 2.0.0			
LOADING (psf) TCLL 30.0	SPACING 2-0-0 Plates Increase 1.15	CSI TC 0.52	DEFL         in (loc)         l/defl         L/d         PLATES         GRIP           Vert(LL)         -0.45 13-15         >604         240         MT20         197/144	
TCDL 7.0	Lumber Increase 1.15	BC 1.00	Vert(LL) -0.45 13-15 >604 240 MT20 197/144 Vert(TL) -1.13 13-15 >240 180	
BCLL 0.0	Rep Stress Incr YES	WB 0.74	Horz(TL) 0.05 10 n/a n/a	
BCDL 10.0	Code WISC/IRC06/TPI2002	(Matrix)	Weight: 149 lb	

## LUMBER

TOP CHORD 2 X 4 SPF No.1 or SPF No.2 BOT CHORD 2 X 4 SPF No.1 or SPF No.2 **WEBS** 2 X 4 SPF Stud \*Except\*

W4,W5,W6,W1,W3,W2: 2 X 4 SPF No.1 or SPF No.2

# BRACING

TOP CHORD

BOT CHORD WEBS JOINTS

Structural wood sheathing directly applied or 4-11-12 oc purlins, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 8-9.

Rigid ceiling directly applied or 2-2-0 oc bracing. 1 Row at midpt 6-13, 3-13, 3-15

1 Brace at Jt(s): 9, 11

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

**REACTIONS** (lb/size) 10=1065/Mechanical, 15=1149/0-4-0 (min. 0-1-13)

Max Horz 15=295(LC 8)

Max Uplift10=-144(LC 9), 15=-181(LC 9)

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

TOP CHORD

2-19=-475/219, 3-19=-317/241, 3-4=-873/261, 4-20=-725/274, 5-20=-704/292, 5-21=-704/300, 6-21=-826/282, 6-7=-1193/332, 7-8=-1270/219, 2-15=-518/290

BOT CHORD 14-15=-114/671, 13-14=-114/671, 12-13=-45/623, 11-12=-54/866, 10-11=-178/884 WEBS

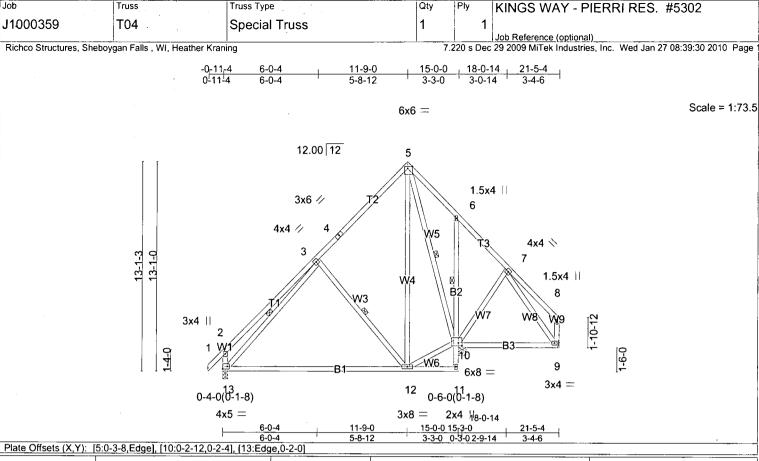
5-13=-258/635, 6-13=-289/223, 6-12=-578/29, 6-11=-158/883, 8-10=-1317/306,

3-13=-292/266, 3-15=-680/53

## **NOTES**

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

- 2) Wind: ASCE 7-05; 90mph; TCDL=4.2psf; BCDL=6.0psf; h=25ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp C; enclosed; MWFRS (all heights) and C-C Exterior(2) -0-11-4 to 2-0-12, Interior(1) 2-0-12 to 11-9-0, Exterior(2) 11-9-0 to 14-9-0, Interior(1) 22-10-4 zone; cantilever left and right exposed ;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 3) 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) Refer to girder(s) for truss to truss connections.
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 10=144, 15=181.
- 7) "Semi-rigid pitchbreaks including heels" Member end fixity model was used in the analysis and design of this truss.
- 8) Design assumes 4x2 (flat orientation) purlins at oc spacing indicated, fastened to truss TC w/ 2-10d nails.



Qty

LOADING (psf)	SPACING 2-0-0	CSI	DEFL in (loc) I/defl	L/d PLATES GRIP
TCLL 30.0	Plates Increase 1.15	TC 0.49	Vert(LL) -0.34 12-13 >521	240 MT20 197/144
TCDL 7.0	Lumber Increase 1.15	BC 0.62	Vert(TL) -0.85 12-13 >208	180
BCLL 0.0	Rep Stress Incr YES	WB 0.38	Horz(TL) 0.00 9 n/a	n/a
BCDL 10.0	Code WISC/IRC06/TPI2002	(Matrix)		Weight: 137 lb

LUMBER

TOP CHORD 2 X 4 SPF 1650F 1.5E BOT CHORD 2 X 4 SPF 2100F 1.8E

2 X 4 SPF No.1 or SPF No.2 \*Except\* **WEBS** 

W6,W7,W8: 2 X 4 SPF Stud

Truss

Truss Type

BRACING

**WEBS** 

TOP CHORD **BOT CHORD** 

Structural wood sheathing directly applied or 6-0-0 oc purlins,

except end verticals. Rigid ceiling directly applied or 6-0-0 oc bracing. Except:

1 Row at midpt

6-10

1 Row at midpt 5-10, 3-12, 3-13

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

REACTIONS (lb/size) 10=851/0-6-0 (min. 0-1-8), 9=400/Mechanical, 13=817/0-4-0 (min. 0-1-8)

Max Horz 13=284(LC 6)

Max Uplift10=-213(LC 7), 13=-103(LC 7)

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

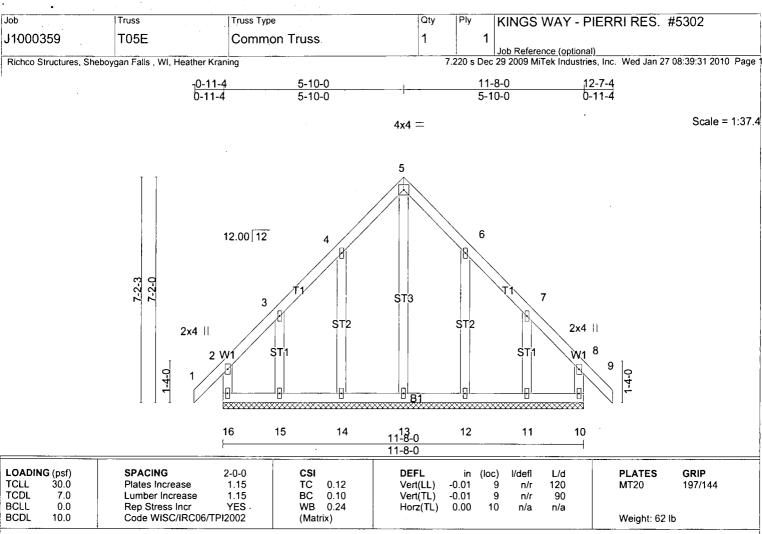
2-3=-440/202, 3-4=-448/135, 4-5=-275/166, 2-13=-491/238 TOP CHORD

**BOT CHORD** 12-13=-129/394, 6-10=-253/169 **WEBS** 

5-12=-134/404, 10-12=-49/299, 5-10=-392/10, 3-12=-313/270, 3-13=-285/128

# **NOTES**

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-05; 90mph; TCDL=4.2psf; BCDL=6.0psf; h=25ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp C; enclosed; MWFRS (all heights); cantilever left and right exposed; 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) Refer to girder(s) for truss to truss connections.
- 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (it=lb)
- 6) "Semi-rigid pitchbreaks including heels" Member end fixity model was used in the analysis and design of this truss.



TOP CHORD 2 X 4 SPF No.1 or SPF No.2

BOT CHORD 2 X 4 SPF No.1 or SPF No.2 WEBS

2 X 4 SPF No.1 or SPF No.2

OTHERS 2 X 4 SPF Stud **BRACING** 

TOP CHORD **BOT CHORD** 

except end verticals

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.

Structural wood sheathing directly applied or 6-0-0 oc purlins,

**REACTIONS** All bearings 11-8-0.

(lb) - Max Horz 16=148(LC 8)

Max Uplift All uplift 100 lb or less at joint(s) 14, 12 except 16=-115(LC 7), 10=-101(LC 8), 15=-120(LC 9),

Max Grav All reactions 250 lb or less at joint(s) 16, 10, 13, 14, 15, 12, 11

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

**WEBS** 

5-13=-256/0

# NOTES

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

- 2) Wind: ASCE 7-05; 90mph; TCDL=4.2psf; BCDL=6.0psf; h=25ft; B=45ft; L=24ft; eave=2ft; Cat. II; Exp C; enclosed; MWFRS (all heights) and C-C Corner(3) -0-11-4 to 1-10-0, Exterior(2) 1-10-0 to 5-10-0, Corner(3) 5-10-0 to 8-10-0 zone; cantilever left and right exposed ;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see MiTek "Standard Gable End Detail"
- 4) All plates are 1.5x4 MT20 unless otherwise indicated.

5) Gable requires continuous bottom chord bearing.

6) Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).

7) Gable studs spaced at 2-0-0 oc.

- 8) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 14, 12 except (jt=lb) 16=115, 10=101, 15=120, 11=120.
- 10) "Semi-rigid pitchbreaks including heels" Member end fixity model was used in the analysis and design of this truss.

Job Truss Truss Type Qty KINGS WAY - PIERRI RES. #5302 J1000359 T06G Common Truss 1 Job Reference (optional) Richco Structures, Sheboygan Falls, WI, Heather Kraning 7.220 s Dec 29 2009 MiTek Industries, Inc. Wed Jan 27 08:39:33 2010 Page 1 3-0-12 5-10-0 8-7-4 11-8-0 3-0-12 2-9-4 2-9-4 3-0-12 Scale = 1:40.3 5x6 II 3 12.00 12 4x6 // 4x6 \ 4 2 7-2-0 4x6 💉 4x6 / 5 1-4-0 B1 11 12 13 8 7 0-6-4(0-2-6) 0-6-4(0-2-15) 3x4 II 3x4 II 7x10 =8x8 = 7x10 =3-0-12 5-10-0 8-7-4 11-8-0 3-0-12 2-9-4 2-9-4 3-0-12 Plate Offsets (X,Y): [1:0-2-12,0-1-8], [5:0-2-12,0-1-8], [7:0-3-8,0-4-8], [8:0-4-0,0-4-8], [9:0-3-8,0-4-8] LOADING (psf) **SPACING** 2-0-0 CSI I/defl **PLATES** GRIP L/d (loc) TCLL 30.0 Plates Increase 1.15 TC 0.38 -0.06 Vert(LL) 7-8 >999 240 MT20 197/144 TCDL 7.0 Lumber Increase вс 0.37 1.15 Vert(TL) -0.107-8 >999 180 Rep Stress Incr **BCLL** 0.0 NO WB 0.98 0.01 Horz(TL) 6 n/a n/a BCDL 10.0 Code WISC/IRC06/TPI2002 (Matrix) Weight: 161 lb LUMBER **BRACING** TOP CHORD 2 X 4 SPF No.1 or SPF No.2 TOP CHORD Structural wood sheathing directly applied or 4-10-3 oc purlins, BOT CHORD 2 X 6 SYP 2400F 2.0E except end verticals **WEBS** 2 X 4 SPF Stud \*Except\* BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing W5,W1: 2 X 4 SPF No.1 or SPF No.2 **REACTIONS** (lb/size) 10=5665/0-6-4 (min. 0-2-6), 6=7051/0-6-4 (min. 0-2-15) Max Horz 10=-145(LC 5) Max Uplift10=-782(LC 7), 6=-974(LC 7) FORCES (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown. TOP CHORD 1-2=-5462/773, 2-3=-4584/729, 3-4=-4582/729, 4-5=-6160/870, 1-10=-5294/747, 5-6=-5965/840

**BOT CHORD** 9-12=-532/3819, 8-12=-532/3819, 8-13=-569/4311, 7-13=-569/4311

**WEBS** 3-8=-971/6192, 4-8=-1954/361, 4-7=-356/2550, 2-8=-1095/242, 2-9=-188/1349,

1-9=-532/4056, 5-7=-604/4579

## **NOTES**

2-ply truss to be connected together with 10d (0.131"x3") nails as follows: Top chords connected as follows: 2 X 4 - 1 row at 0-9-0 oc.

Bottom chords connected as follows: 2 X 6 - 2 rows at 0-5-0 oc.

Webs connected as follows: 2 X 4 - 1 row at 0-9-0 oc.

2) All loads are considered equally applied to all plies, except if noted as front (F) or back (B) face in the LOAD CASE(S) section. Ply to ply connections have been provided to distribute only loads noted as (F) or (B), unless otherwise indicated.

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

4) Wind: ASCE 7-05; 90mph; TCDL=4.2psf; BCDL=6.0psf; h=25ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp C; enclosed; MWFRS (all heights); cantilever left and right exposed; 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) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb)

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

8) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 1941 lb down and 269 lb up at 2-4-0, 1941 lb down and 269 lb up at 4-4-0, 1941 lb down and 269 lb up at 5-7-8, 1941 lb down and 269 lb up at 7-7-8, and 1941 lb down and 269 lb up at 8-4-0, and 1941 lb down and 269 lb up at 10-4-0 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.

# LOAD CASE(S) Standard

1) Regular: Lumber Increase=1.15, Plate Increase=1.15

Uniform Loads (plf)

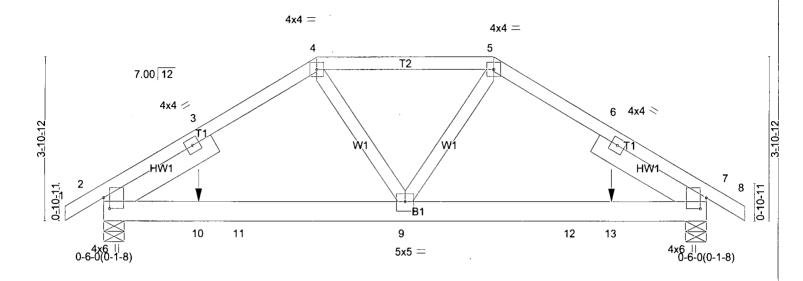
Vert: 1-3=-74, 3-5=-74, 6-10=-20

Concentrated Loads (lb)

Vert: 8=-1941(B) 7=-1941(B) 11=-1941(B) 12=-1941(B) 13=-1941(B) 14=-1941(B)

Job	Truss	Truss Type	(	Qty Pl	/	KINGS WAY - PIERR	II RES. #5302
J1000359	T07G	Hip Truss		1	1		
		' ·				Job Reference (optional)	
Richco Structures, S	heboygan Falls, WI, Hea	ather Kraning		7.220	s De	c 29 2009 MiTek Industries, Inc.	Wed Jan 27 08:39:35 2010 Page
<sub>1</sub> -0-11-4,	5-	1-13	9-5-3			14-7-0	15-6-4
0-11-4	5-	1-13	4-3-6		-	5-1-13	0-11-4

Scale = 1:28.0



7-3-8 7-3-8 Plate Offsets (X,Y): [2:0-3-2,0-1-12], [7:0-3-2,0-1-12], [9:0-2-8,0-2-12] LOADING (psf) SPACING 2-0-0 CSI DEFL I/defl **PLATES** GRIP 1/din (loc) **TCLL** 30.Ó Plates Increase 1.15 TC 0.60 Vert(LL) -0.05 7-9 >999 240 197/144 MT20 ВČ TCDL 7.0 Lumber Increase 0.40 -0.11 >999 180 1.15 Vert(TL) 7-9 0.0 0.23 BCLL Rep Stress Incr WB NO Horz(TL) `0.01 n/a n/a Code WISC/IRC06/TPI2002 BCDL 10.0 (Matrix) Weight: 75 lb

LUMBER

TOP CHORD 2 X 4 SPF No.1 or SPF No.2

BOT CHORD 2 X 6 SYP 2400F 2.0E WEBS 2 X 4 SPF Stud

SLIDER

Left 2 X 6 SPF 1650F 1.5E 3-0-6, Right 2 X 6 SPF 1650F 1.5E 3-0-6

7-3-8

**BRACING** 

**BOT CHORD** 

TOP CHORD

Structural wood sheathing directly applied or 4-4-12 oc purlins, except

2-0-0 oc purlins (4-2-12 max.): 4-5. Rigid ceiling directly applied or 10-0-0 oc bracing.

14-7-0

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

**REACTIONS** (lb/size) 2=1241/0-6-0 (min. 0-1-8), 7=1241/0-6-0 (min. 0-1-8)

Max Horz 2=80(LC 6)

Max Uplift2=-192(LC 7), 7=-192(LC 7)

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

TOP CHORD 2-3=-1461/220, 3-4=-1346/230, 4-5=-1362/226, 5-6=-1346/230, 6-7=-1461/220

**BOT CHORD** 2-10=-167/1110, 10-11=-167/1110, 9-11=-167/1110, 9-12=-153/1110, 12-13=-153/1110,

7-13=-153/1110

4-9=-41/545, 5-9=-41/545

# **WEBS** NOTES

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

2) Wind: ASCE 7-05; 90mph; TCDL=4.2psf; BCDL=6.0psf; h=25ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp C; enclosed; MWFRS (all heights); cantilever left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60

3) Provide adequate drainage to prevent water ponding.

- 4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=192, 7=192.
- 6) "Semi-rigid pitchbreaks including heels" Member end fixity model was used in the analysis and design of this truss.

7) Design assumes 4x2 (flat orientation) purlins at oc spacing indicated, fastened to truss TC w/ 2-10d nails.

- 8) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 226 lb down and 54 lb up at 2-3-8, and 226 lb down and 54 lb up at 12-3-8 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
- 9) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

# LOAD CASE(S) Standard

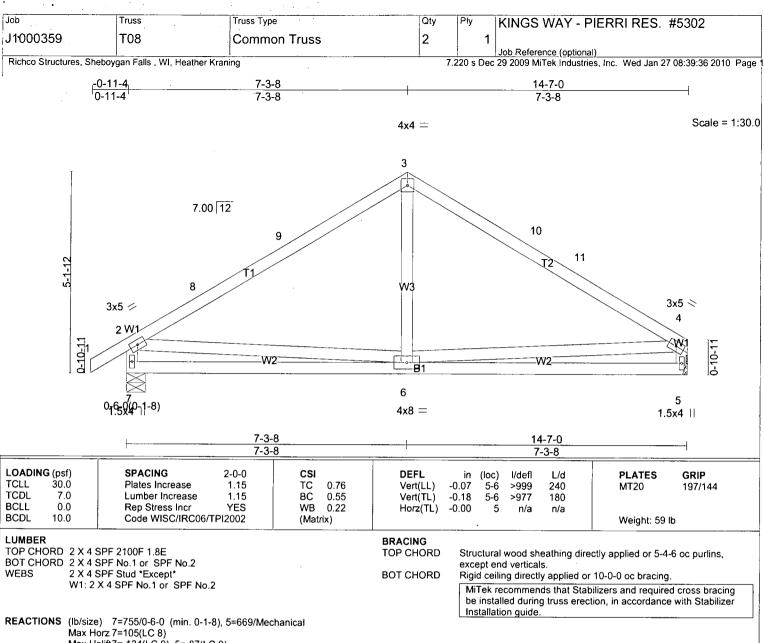
1) Regular: Lumber Increase=1.15, Plate Increase=1.15

Uniform Loads (plf)

Vert: 1-4=-74, 4-5=-74, 5-8=-74, 2-11=-20, 11-12=-85(F=-65), 7-12=-20

Concentrated Loads (lb)

Vert: 10=-226(F) 13=-226(F)



Max Uplift7=-134(LC 9), 5=-87(LC 9)

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

TOP CHORD 2-8=-709/88, 8-9=-599/96, 3-9=-581/107, 3-10=-578/107, 10-11=-599/94, 4-11=-706/93, 2-7=-701/207,

4-5=-614/154 WEBS 3-6=0/294, 2-6

3-6=0/294, 2-6=0/520, 4-6=-3/520

### **NOTES**

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

- 2) Wind: ASCE 7-05; 90mph; TCDL=4.2psf; BCDL=6.0psf; h=25ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp C; enclosed; MWFRS (all heights) and C-C Exterior(2) -0-11-4 to 2-0-12, Interior(1) 2-0-12 to 7-3-8, Exterior(2) 7-3-8 to 10-3-8 zone; cantilever left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.

4) Refer to girder(s) for truss to truss connections.

- 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 5 except (jt=lb) 7=134.
- 6) "Semi-rigid pitchbreaks including heels" Member end fixity model was used in the analysis and design of this truss.

•		•				
	Job	Truss	Truss Type	Qty	Ply	KINGS WAY - PIERRI RES. #5302
	J1000359	T09G	Hip Truss	1	2	Job Reference (optional)
	Richco Structures, Sheboy	gan Falls, WI, Heather Kra	ning		7.220 s Dec	29 2009 MiTek Industries, Inc. Wed Jan 27 08:39:38 2010 Page
	-0-11-4 4-2-	11 , 8-1-13 , 1	3-4-9 , 18-5-8 , 23-6	-8 , 2	8-7-7	33-10-3 37-9-5 42-0-0 42-11-4

5-1-0

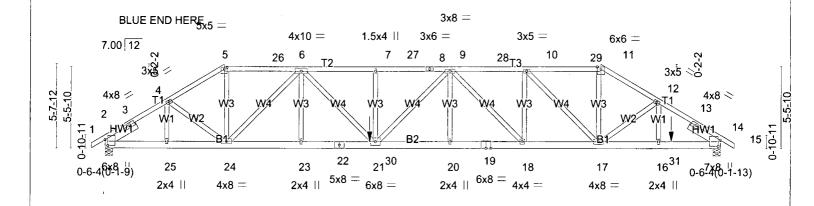
5-1-0

5-2-12

3-11-3

Scale = 1:78.8

4-2-11 0-11-4



(	4-2-11 8-1-13	13-4-9	18-5-8	23-6-8	28-7-7	33-10-3	37-9-5 42-0-0
	4-2-11 3-11-3	5-2-12	5-1-0	5-1-0	5-1-0	5-2-12	3-11-3 4-2-11
Plate Offsets (X,Y)	<u>: [2:0-4-10,0-2-4], [5:0-2-4,</u>	0-1-7], [14:0-4-	14,0-2-0]				
LOADING (psf)	SPACING	2-0-0	CSI	DEFL	in (loc)	l/defl L/d	PLATES GRIP
TCLL 30.0	Plates Increase	1.15	TC 0.88	Vert(LL)	-0.36 20-21	>999 240	MT20 197/14
TCDL 7.0	Lumber Increase	1.15	BC 0.38	Vert(TL)	-0.66 20-21	>761 180	
BCLL 0.0	Rep Stress Incr	NO	WB 0.93	Horz(TL)	0.13 14	n/a n/a	
BCDL 10.0	Code WISC/IRC06	/TP12002	(Matrix)	1 '			Weight: 495 lb

LUMBER

TOP CHORD 2 X 4 SPF 1650F 1.5E \*Except\*

T2,T3: 2 X 4 SPF No.1 or SPF No.2

BOT CHORD 2 X 6 SYP 2400F 2.0E

0-11-4 4-2-11

3-11-3

5-2-12

5-1-0

2 X 4 SPF Stud **WEBS** 

**SLIDER** Left 2 X 6 SPF 1650F 1.5E 2-4-14,

Right 2 X 6 SPF 1650F 1.5E 2-4-14

**BRACING** 

TOP CHORD Structural wood sheathing directly applied or 3-8-11 oc purlins,

except

2-0-0 oc purlins (3-5-5 max.): 5-11.

**BOT CHORD** Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS** (lb/size) 2=3723/0-6-4 (min. 0-1-9), 14=4432/0-6-4 (min. 0-1-13)

Max Horz 2=118(LC 6)

Max Uplift2=-518(LC 7), 14=-612(LC 7)

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

TOP CHORD 2-3=-5786/760, 3-4=-5705/771, 4-5=-5975/838, 5-26=-5266/769, 6-26=-5269/769,

6-27=-10010/1394, 7-27=-10010/1394, 7-8=-10010/1394, 8-9=-10010/1394, 9-28=-8365/1180, 10-28=-8365/1180, 10-29=-5995/865, 11-29=-5992/865,

11-12=-6787/945, 12-13=-6803/913, 13-14=-6880/903

**BOT CHORD** 2-25=-574/4724, 24-25=-574/4724, 23-24=-962/7983, 22-23=-962/7983, 22-30=-962/7983,

21-30=-962/7983, 20-21=-1188/9710, 19-20=-1188/9710, 18-19=-1188/9710, 17-18=-1011/8365, 16-17=-694/5636, 16-31=-694/5636, 14-31=-694/5636

4-25=-268/87, 4-24=-105/760, 5-24=-308/2588, 6-24=-3916/515, 6-23=0/266

6-21=-383/2935, 7-21=-354/119, 9-21=-87/492, 9-20=-18/661, 9-18=-1968/251,

10-18=-181/1957, 10-17=-3430/449, 11-17=-359/2978, 12-17=-71/516

# NOTES

WEBS

1) 2-ply truss to be connected together with 10d (0.131"x3") nails as follows:

Top chords connected as follows: 2 X 4 - 1 row at 0-9-0 oc.

Bottom chords connected as follows: 2 X 6 - 2 rows at 0-6-0 oc.

Webs connected as follows: 2 X 4 - 1 row at 0-9-0 oc.

2) All loads are considered equally applied to all plies, except if noted as front (F) or back (B) face in the LOAD CASE(S) section. Ply to ply connections have been provided to distribute only loads noted as (F) or (B), unless otherwise indicated.

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

4) Wind: ASCE 7-05; 90mph; TCDL=4.2psf; BCDL=6.0psf; h=25ft; B=45ft; L=42ft; eave=5ft; Cat. II; Exp C; enclosed; MWFRS (all heights); cantilever left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60

5) Provide adequate drainage to prevent water ponding.

- 6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb)
- 8) "Semi-rigid pitchbreaks including heels" Member end fixity model was used in the analysis and design of this truss.

9) Design assumes 4x2 (flat orientation) purlins at oc spacing indicated, fastened to truss TC w/ 2-10d nails.

10) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 1686 lb down and 238 lb up at 18-0-12, and 313 lb down and 44 lb up at 38-7-8 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.

	•				
Job	Truss	Truss Type	Qty	Ply	KINGS WAY - PIERRI RES. #5302
J1000359	T09G	Hip Truss	1	2	
		<u> </u>			Job Reference (optional)
0' 1 0' 1 0' 1	E 11 140 11 41	14		7 000 - 0	- 00 0000 MT-1 1-1 1 14/- 4 1 07 00:00:00 0040 D

Richco Structures, Sheboygan Falls , WI, Heather Kraning

7.220 s Dec 29 2009 MiTek Industries, Inc. Wed Jan 27 08:39:38 2010 Page 2

LOAD CASE(S) Standard

1) Regular: Lumber Increase=1.15, Plate Increase=1.15
 Uniform Loads (plf)
 Vert: 1-5=-74, 5-11=-74, 11-15=-74, 2-30=-20, 16-30=-125(F=-105), 14-16=-20
 Concentrated Loads (lb)
 Vert: 30=-1686(F) 31=-313(F)

•										
Job	Truss	Truss Type			Qty		KINGS W	VAY - PIE	RRI RES.	#5302
J1000359	T09GA	Hip Truss			1	2	Job Referenc	(4:4)		
Richco Structures, Sh	eboygan Falls , WI, Heather K	raning			7.2	20 s Dec			nc. Wed Jan 27	7 08:39:40 2010 Page
-0 <sub>-</sub> 11-4 4 0-11-4 4		13-4-9 5-2-12 18-5-5-1		23-6-8 5-1-0		4 28-7 <sub>-</sub> 2 1-3-3				<u>-0 42-11</u> -4  1 0-11-4
										Scale = 1:78.8
				_						
	UE END HERE <sub>6x6</sub> =	3x8 =	1.5x4	-	<8 = =	3x4 =	= (5 =	E., E -	_	
7.00	12 N 5	aa 6		7 29 <sub>8</sub>	9	30 <sub>T3</sub>		5x5 = 31 12		Ä
	3%			0		T3_			3x5 ×	· ·
1 1 HW	3 W1 W2 W3	W4 W3 W		W4 V	v3 W5	W3 W	3 W4	W3 W;	13 T1 W1	4x6 / 14   15   11   15   16   17   16   17   16   17   16   17   17
0-6-4(\(\frac{7}{2}\textit{\beta}\)-1	<sup>32</sup> 27 26		4 23		22 2	1 20 1	33 9	18	17 0	-6 <sup>6</sup> 4(0-1-8)
0-6-4(0-T-1	2x4    4x8 =	Ev.	$3=\frac{23}{4x8}$		 <4    5x8			4x8 =	2x4	1-6-4(0-1-8)
						4x4 =				P.
										Į.
										!
		13-4-9 18-5		23-6-8	27-4-	4 28-7-	7 33-10-3			
	2-11 3-11-3 [2:0-4-14,0-1-12], [12:0-2-8,	<u>5-2-12                                  </u>		5-1-0	3-9-1	2 1-3-3	5-2-12	3-11	l-3 ' 4-2-1	11
LOADING (psf)	SPACING	2-0-0 CS		DEF		in (loc		L/d	PLATES	GRIP
TCLL 30.0 TCDL 7.0	Plates Increase Lumber Increase	1.15 TC 1.15 BC		Vert Vert		.32 22-23 .59 22-23		240 180	MT20	197/144
BCLL 0.0 BCDL 10.0	Rep Stress Incr Code WISC/IRC06/T		3 0.80 atrix)	Horz	(TL) 0.	.12 15	5 n/a	n/a	Weight: 518	5 lb
LUMBER	<u> </u>		<u> </u>	BRACIN	G					
TOP CHORD 2 X 4 BOT CHORD 2 X 6	SPF No.1 or SPF No.2 SYP 2400F 2.0E			TOP CH		Structura except	al wood shea	thing directly	applied or 2-5	-14 oc purlins,
	SPF Stud X 6 SPF 1650F 1.5E 2-4-14			вот сн		2-0-0 oc		I-11 max.): 5	i-12. I-0-0 oc bracing	,
	2 X 6 SPF 1650F 1.5E 2-4-1			201 011	OND	rtigio cci	iiiig directly t	applied of Te	-o-o oc bracing	<b>J</b> .
Max H	e) 2=4235/0-6-4 (min. 0-1- lorz 2=-118(LC 5)  plift2=-586(LC 7), 15=-467(	•	nin. 0-1-8)							
	Comp./Max. Ten All force	,	ot when sh	nown.						
TOP CHORD 2-3=	-6542/859, 3-4=-6465/871, =-8452/1189, 7-29=-8452/1	4-5=-6306/881, 5-28=-	5563/808,	6-28=-5566/8		,				
12-1	0=-7318/1041, 10-11=-7010 3=-5271/745, 13-14=-5055/	686, 14-15=-5137/675	,	,						
23-2	=-658/5360, 27-32=-658/53 24=-910/7587, 22-23=-1002 3=-1002/8294, 19-20=-867/	/8294, 21-22=-1002/82	94, 21-33:	=-1002/8294,	=-910/758	37,				
15-1	7=-504/4188 =0/265, 4-26=-45/334, 5-26									i
6-23 11-1	=-156/1290, 7-23=-364/121 8=-3357/442, 12-18=-262/2 9=-1449/183	9-23=-57/290, 9-22=-	38/761, 11	-19=-176/186						
NOTES										
	onnected together with 10d ( cted as follows: 2 X 4 - 1 rov		ows:							
	nected as follows: 2 X 6 - 2 is follows: 2 X 4 - 1 row at 0-									į

Webs connected as follows: 2 X 4 - 1 row at 0-9-0 oc.

2) All loads are considered equally applied to all plies, except if noted as front (F) or back (B) face in the LOAD CASE(S) section. Ply to ply connections have been provided to distribute only loads noted as (F) or (B), unless otherwise indicated.

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

4) Wind: ASCE 7-05; 90mph; TCDL=4.2psf; BCDL=6.0psf; h=25ft; B=45ft; L=42ft; eave=5ft; Cat. II; Exp C; enclosed; MWFRS (all heights); cantilever left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60

5) Provide adequate drainage to prevent water ponding.
6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=586, 15=467.

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

9) Design assumes 4x2 (flat orientation) purlins at oc spacing indicated, fastened to truss TC w/ 2-10d nails.

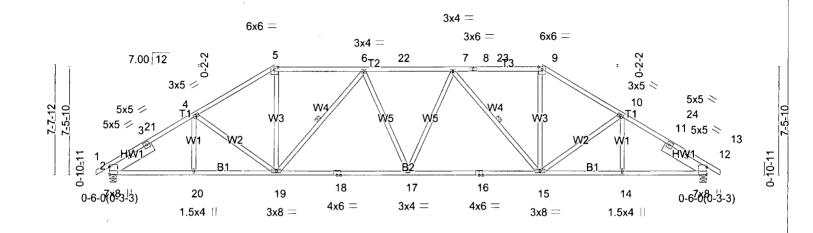
10) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 313 lb down and 44 lb up at 3-4-8, and 478 lb down and 67 lb up at 27-4-4 on bottom chord. The design/selection of such connection device(s) is the

responsibility of others. Continued on page 2

Job	Truss	Truss Type	Qty	Ply	KINGS WAY - PIERRI RES. #5302
J1000359	T09GA	Hip Truss	1	2	Job Reference (optional)
Richco Structures, S	heboygan Falls , WI, Heath	er Kraning			c 29 2009 MiTek Industries, Inc. Wed Jan 27 08:39:40 2010 Page
Uniform Loads (p Vert: 1-5 Concentrated Lo	r Increase=1.15, Plate Inc olf) :=-74, 5-12=-74, 12-16=-7	crease=1.15 24, 2-32=-20, 32-33=-137(F=-117), 15-3	3=-20		
					·
		·			

Job	Truss	Truss Type	Qty Ply	KINGS WAY - PIERRI RES. #5302
J1000359	T10	Hip Truss	2 1	
1				Job Reference (optional)
Richco Structures, Sheb	oygan Falls , WI, Heather Kr	aning	7.220 s De	c 29 2009 MiTek Industries, Inc. Wed Jan 27 08:39:42 2010 Page 1
-0 <del>-</del> 11-4	5-11-4 , 11-6-1	5 17-10-5 24-1-11	30-5-1	36-0-12 42-0-0 42-11-4
0-11-4	5-11-4 5-7-1	2 6-3-6 6-3-6	6-3-6	5-7-12 5-11-4 0-11-4

Scale = 1:81.2



1	5-1 <b>1</b> -4 <sub>1</sub> 11-6	-15	21-0-0	, 30-5-1	, 36-0-12	42-0-0
	5-11-4 5-7-	12	9-5-1	9-5-1	5-7-12	5-11-4
Plate Offsets (X,Y):	[2:Edge,0-0-0], [12:Edge,0	-0-0]				
LOADING (psf)	SPACING	2-0-0	CSI	DEFL in (loc)	l/defl L/d	PLATES GRIP
TCLL 30.0	Plates Increase	1.15	TC 0.94	Vert(LL) -0.26 17	>999 240	MT20 197/144
TCDL 7.0	Lumber Increase	1.15	BC 0.89	Vert(TL) -0.62 15-17	>807 180	
BCLL 0.0	Rep Stress Incr	YES	WB 0.39	Horz(TL) 0.21 12	n/a n/a	
BCDL 10.0	Code WISC/IRC06/	TPI2002	(Matrix)	• •		Weight: 202 lb

**BRACING** 

TOP CHORD

**BOT CHORD** 

**WEBS** 

Structural wood sheathing directly applied, except

Rigid ceiling directly applied or 9-2-5 oc bracing.

6-19, 7-15

MiTek recommends that Stabilizers and required cross bracing

be installed during truss erection, in accordance with Stabilizer

2-0-0 oc purlins (3-0-11 max.): 5-9.

1 Row at midpt

Installation guide.

LUMBER

TOP CHORD 2 X 4 SPF 1650F 1.5E \*Except\*

T3,T2: 2 X 4 SPF No.1 or SPF No.2

BOT CHORD 2 X 4 SPF No.1 or SPF No.2

WEBS

2 X 4 SPF Stud \*Except\*

W4,W5: 2 X 4 SPF No.1 or SPF No.2

SLIDER Left 2 X 8 SYP M 23 3-5-13, Right 2 X 8 SYP M 23 3-5-13

**REACTIONS** (lb/size) 2=2043/0-6-0 (min. 0-3-3), 12=2043/0-6-0 (min. 0-3-3)

Max Horz 2=-165(LC 7)

Max Uplift2=-298(LC 9), 12=-298(LC 9)

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

TOP CHORD 2-3=-3127/529, 3-21=-2998/538, 4-21=-2982/551, 4-5=-2729/560, 5-22=-2331/534,

6-22=-2331/533, 6-7=-2889/619, 7-23=-2329/532, 8-23=-2329/532, 8-9=-2329/534,

9-10=-2729/560, 10-24=-2982/551, 11-24=-2998/538, 11-12=-3127/529

BOT CHORD 2-20=-385/2487, 19-20=-385/2487, 18-19=-393/2845, 17-18=-393/2845, 16-17=-400/2848,

15-16=-400/2848, 14-15=-379/2486, 12-14=-379/2486

WEBS 5-19=-113/893, 6-19=-928/188, 7-15=-931/189, 9-15=-113/896

## NOTES

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

2) Wind: ASCE 7-05; 90mph; TCDL=4.2psf; BCDL=6.0psf; h=25ff; B=45ff; L=42ff; eave=5ff; Cat. II; Exp C; enclosed; MWFRS (all heights) and C-C Exterior(2) -0-11-4 to 3-3-2, Interior(1) 3-3-2 to 11-6-15, Exterior(2) 11-6-15 to 36-0-12, Interior(1) 36-0-12 to 42-11-4 zone; cantilever left and right exposed ;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60

3) 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) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=298 12=298
- 6) "Semi-rigid pitchbreaks including heels" Member end fixity model was used in the analysis and design of this truss.

7) Design assumes 4x2 (flat orientation) purlins at oc spacing indicated, fastened to truss TC w/ 2-10d nails.

	Job	Truss	Truss Type		Qty	Ply	KINGS WAY - P	IERRI RES.	#5302
	J1000359	T11	Hip Truss		2	1			
•			'			1	Job Reference (optiona	1)	
	Richco Structures, Sheboy	gan Falls, WI, Heather Kra	ning		7.2	220 s Dec	29 2009 MiTek Industrie	s, Inc. Wed Jan 2	7 08:39:44 2010 Page
	-0-11-4	7-7-13	15-0-2	21-0-0 , 2	6-11-14		34-4-3	42-0-0	42-11-4
	0-11-4	7-7-13	7-4-5		5-11-14	<del></del>	7-4-5	7-7-13	0-11-4

34-4-3

2-0-0 oc purlins (3-8-9 max.): 6-8

1 Row at midpt

Installation guide.

Rigid ceiling directly applied or 9-9-2 oc bracing.

Scale = 1:79.3

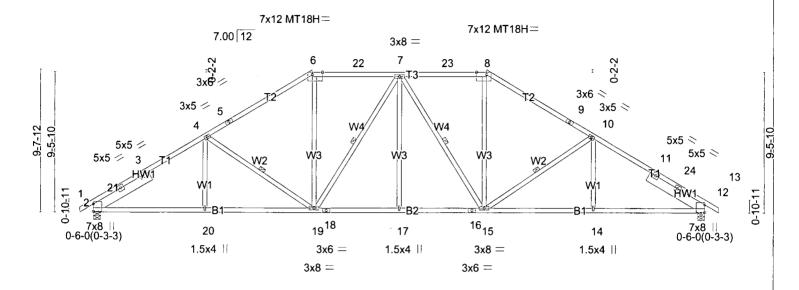
42-0-0

Structural wood sheathing directly applied or 2-7-4 oc purlins, except

MiTek recommends that Stabilizers and required cross bracing

be installed during truss erection, in accordance with Stabilizer

4-19, 7-19, 7-15, 10-15



	7-7-13 '	7-4-5	' 5-11-14	5-11-14	7-4-5	7-7-13
Plate Offsets (X,Y):	[2:Edge,0-0-0], [6:0-8-6,Ed	ge], [8:0-8-6,E	dge], [12:Edge,0-0-0]			
LOADING (psf)	SPACING	2-0-0	CSI	DEFL in (loc)	l/defl L/d	PLATES GRIP
TCLL 30.0	Plates Increase	1.15	TC 0.80	Vert(LL) -0.20 17	>999 240	MT20 197/144
TCDL 7.0	Lumber Increase	1.15	BC 0.72	Vert(TL) -0.42 19-20	>999 180	MT18H 197/144
BCLL 0.0	Rep Stress Incr	YES	WB 0.31	Horz(TL) 0.20 12	n/a n/a	
BCDL 10.0	Code WISC/IRC06/	TPI2002	(Matrix)	, ,		Weight: 217 lb
	<b>.</b>					

**BRACING** 

WEBS

TOP CHORD

**BOT CHORD** 

26-11-14

21-0-0

LUMBER

TOP CHORD 2 X 4 SPF 1650F 1.5E \*Except\*

T3: 2 X 4 SPF No.1 or SPF No.2

7-7-13

BOT CHORD 2 X 4 SPF No.1 or SPF No.2

WEBS 2 X 4 SPF No.1 or SPF No.2 \*Except\*

W1: 2 X 4 SPF Stud

**SLIDER** 

Left 2 X 8 SYP M 23 4-5-11, Right 2 X 8 SYP M 23 4-5-11

**REACTIONS** (lb/size) 2=2043/0-6-0 (min. 0-3-3), 12=2043/0-6-0 (min. 0-3-3)

Max Horz 2=-211(LC 7)

Max Uplift2=-298(LC 9), 12=-298(LC 9)

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

TOP CHORD 2-21=-3106/509, 3-21=-2972/513, 3-4=-2974/534, 4-5=-2531/512, 5-6=-2390/539,

6-22=-2088/527, 7-22=-2091/526, 7-23=-2091/526, 8-23=-2088/527, 8-9=-2390/539,

15-0-2

9-10=-2531/512, 10-11=-2974/534, 11-24=-2972/513, 12-24=-3106/509 2-20=-360/2497, 19-20=-360/2497, 18-19=-252/2284, 17-18=-252/2284, 16-17=-252/2284, **BOT CHORD** 

15-16=-252/2284, 14-15=-353/2497, 12-14=-353/2497

WEBS 4-20=0/316, 4-19=-535/180, 6-19=-89/732, 7-19=-570/93, 7-15=-570/93, 8-15=-89/732,

10-15=-535/180, 10-14=0/316

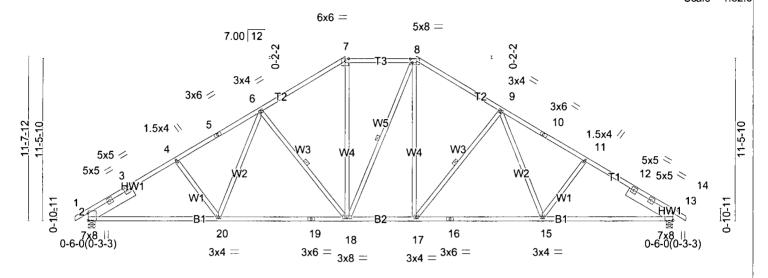
### NOTES

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

- 2) Wind: ASCE 7-05; 90mph; TCDL=4.2psf; BCDL=6.0psf; h=25ft; B=45ft; L=42ft; eave=5ft; Cat. II; Exp C; enclosed; MWFRS (all heights) and C-C Exterior(2) -0-11-4 to 3-3-2, Interior(1) 3-3-2 to 15-0-2, Exterior(2) 15-0-2 to 32-11-3, Interior(1) 32-11-3 to 42-11-4 zone; cantilever left and right exposed ;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip
- 3) Provide adequate drainage to prevent water ponding
- 4) All plates are MT20 plates unless otherwise indicated.
- 5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb)
- 7) "Semi-rigid pitchbreaks including heels" Member end fixity model was used in the analysis and design of this truss.
- 8) Design assumes 4x2 (flat orientation) purlins at oc spacing indicated, fastened to truss TC w/ 2-10d nails.

ĺ	Job	Truss	Truss Type				Qty	Ply	KINGS WAY - I	PIERF	RI RES.	#5302
-	J1000359	T12	Hip Trus	S			1	1	Job Reference (option	al)		
·	Richco Structures, Sheboy	gan Falls , WI, He	ather Kraning					7.220 s Dec	29 2009 MiTek Industr	ies, Inc.	Wed Jan	27 08:39:47 2010 Page
- 1	-0 <del>,</del> 11-4	6-4-1	12-4-11	18-5-4	t	23-6-12_		29-7-5	35-7-15	Į.	42-0-0	42-11-4
	0-11-4	6-4-1	6-0-9	6-0-9	1	5-1-8	1	6-0-9	6-0-9	1	6-4-1	0-11-4

Scale = 1:82.9



		9-4-6	!	18-5-4		23-6-12	32-7-10	)		42-0-0	I
	i	9-4-6		9-0-14		5-1-8	9-0-14			9-4-6	7
Plate Off	sets (X,Y):	[2:Edge,0-0-0], [8:0-1-12,0	-3-4], [13:Ed	ge,0-0-0]							
LOADIN	G (psf)	SPACING	2-0-0	CSI		DEFL	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL	30.0	Plates Increase	1.15	TC	0.87	Vert(LL)	-0.21 15-17	>999	240	MT20	197/144
TCDL	7.0	Lumber Increase	1.15	ВС	0.80	Vert(TL)	-0.56 15-17	>897	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.32	Horz(TL)	0.19 13	n/a	n/a		
BCDL	10.0	Code WISC/IRC06/	TPI2002	(Mat	rix)	, ,				Weight: 218	lb

BRACING

TOP CHORD

**BOT CHORD** 

**WEBS** 

Structural wood sheathing directly applied or 2-2-0 oc purlins, except

6-18, 8-18, 9-17

MiTek recommends that Stabilizers and required cross bracing

be installed during truss erection, in accordance with Stabilizer

2-0-0 oc purlins (3-11-14 max.): 7-8.

1 Row at midpt

Installation guide.

Rigid ceiling directly applied or 9-8-5 oc bracing.

LUMBER

TOP CHORD 2 X 4 SPF No.1 or SPF No.2 \*Except\*

T1: 2 X 4 SPF 1650F 1.5E BOT CHORD 2 X 4 SPF No.1 or SPF No.2

2 X 4 SPF No.1 or SPF No.2 \*Except\* WEBS

W1: 2 X 4 SPF Stud

SLIDER Left 2 X 8 SYP M 23 3-8-12, Right 2 X 8 SYP M 23 3-8-12

**REACTIONS** (lb/size) 2=2043/0-6-0 (min. 0-3-3), 13=2043/0-6-0 (min. 0-3-3)

Max Horz 2=-256(LC 7)

Max Uplift2=-298(LC 9), 13=-298(LC 9)

FORCES (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown. TOP CHORD 2-3=-3108/507, 3-4=-2972/527, 4-5=-2810/521, 5-6=-2720/535, 6-7=-2224/523,

7-8=-1830/505, 8-9=-2223/523, 9-10=-2720/535, 10-11=-2810/521, 11-12=-2972/527,

12-13=-3109/507

**BOT CHORD** 2-20=-357/2472, 19-20=-265/2236, 18-19=-265/2236, 17-18=-116/1829, 16-17=-256/2236,

15-16=-256/2236, 13-15=-348/2472

6-20=-9/401, 6-18=-685/228, 7-18=-103/656, 8-18=-275/278, 8-17=-100/669, **WEBS** 

9-17=-686/229, 9-15=-9/401

### NOTES

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

- 2) Wind: ASCE 7-05; 90mph; TCDL=4.2psf; BCDL=6.0psf; h=25ft; B=45ft; L=42ft; eave=5ft; Cat. II; Exp C; enclosed; MWFRS (all heights) and C-C Exterior(2) -0-11-4 to 3-3-2, Interior(1) 3-3-2 to 18-5-4, Exterior(2) 18-5-4 to 23-6-12, Interior(1) 29-7-5 to 42-11-4 zone; cantilever left and right exposed ;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip
- 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) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=298, 13=298
- 6) "Semi-rigid pitchbreaks including heels" Member end fixity model was used in the analysis and design of this truss.
- 7) Design assumes 4x2 (flat orientation) purlins at oc spacing indicated, fastened to truss TC w/ 2-10d nails.

	Job	Truss	Truss Type		Qty	Ply	KINGS WAY - PIER	RI RES. #5302
	J1000359	T12A	Hip Truss		1	1		
			L				Job Reference (optional)	
Į	Richco Structures, Sheboy	gan Falls , WI, Heather Kran	ing		7.22	20 s Dec	29 2009 MiTek Industries, Inc.	. Wed Jan 27 08:39:49 2010 Page 1
ſ	0.44.4	0.1.4	44 40 5 4	00.0.40			05.71.5	
	-0 <u>-11-4</u>	<u>6-4-1</u> 12-4	<u>-11   18-5-4</u>	23-6-12		<del>9-7-5</del>	35-7-15	41-8-14
	0-11-4	6-4-1 . 6-0	-9 ' 6-0-9	5-1-8	' ε	-0-9	6-0-10	6-0-15

Scale = 1:81.9

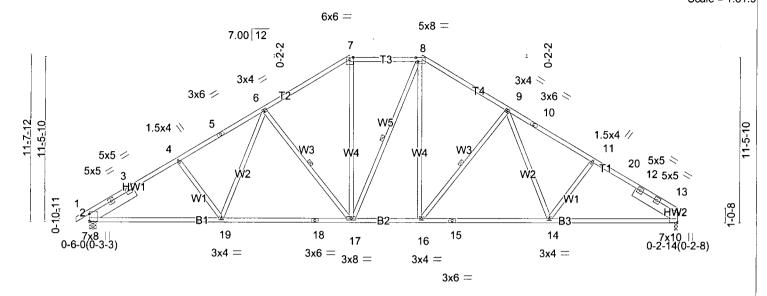


Plate Offsets (X,Y): [	9-4-6 2:Edge,0-0-0], [8:0-1-12,0	-3-4], [13:0-7-	9-0-14 15,0-0-31	5-1-8	9-0-14			9-1-4	<del> </del> 
LOADING (psf) TCLL 30.0 TCDL 7.0 BCLL 0.0 BCDL 10.0	SPACING Plates Increase Lumber Increase Rep Stress Incr Code WISC/IRC06/	2-0-0 1.15 1.15 YES	CSI TC 0.81 BC 0.80 WB 0.32 (Matrix)	DEFL Vert(LL) Vert(TL) Horz(TL)	in (loc) -0.19 14-16 -0.51 17-19 0.17 13	l/defl >999 >975 n/a	L/d 240 180 n/a	PLATES MT20 Weight: 216	<b>GRIP</b> 197/144

**BRACING** 

TOP CHORD

**BOT CHORD** 

**WEBS** 

23-6-12

32-7-10

1 Row at midpt

Installation guide.

2-0-0 oc purlins (4-0-2 max.): 7-8.

Rigid ceiling directly applied or 9-9-9 oc bracing.

41\_8\_14

Structural wood sheathing directly applied or 2-5-1 oc purlins, except

6-17, 8-17, 9-16

MiTek recommends that Stabilizers and required cross bracing

be installed during truss erection, in accordance with Stabilizer

LUMBER

TOP CHORD 2 X 4 SPF No.1 or SPF No.2 \*Except\*

T1: 2 X 4 SPF 2100F 1.8E

BOT CHORD 2 X 4 SPF No.1 or SPF No.2 \*Except\*

B3: 2 X 4 SPF 2100F 1.8E

WEBS 2 X 4 SPF No.1 or SPF No.2 \*Except\*

W1: 2 X 4 SPF Stud

SLIDER Left 2 X 8 SYP M 23 3-8-12, Right 2 X 8 SYP M 23 3-7-13

9-4-6

**REACTIONS** (lb/size) 2=2032/0-6-0 (min. 0-3-3), 13=1961/0-2-14 (min. 0-2-8) Max Horz 2=-257(LC 7)

Max Uplift2=-297(LC 9), 13=-257(LC 9)

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

TOP CHORD 2-3~-3089/504, 3-4=-2952/524, 4-5=-2790/519, 5-6=-2700/532, 6-7=-2202/521,

7-8=-1811/505, 8-9=-2195/523, 9-10=-2545/533, 10-11=-2728/519, 11-20=-2830/524,

12-20=-2878/515, 12-13=-3015/503

BOT CHORD 2-19=-349/2456, 18-19=-257/2218, 17-18=-257/2218, 16-17=-112/1805, 15-16=-249/2192,

14-15=-249/2192, 13-14=-331/2365

6-19=-10/402, 6-17=-685/228, 7-17=-102/644, 8-17=-263/287, 8-16=-98/646,

9-16=-658/223, 9-14=-7/364

#### NOTES

**WEBS** 

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

2) Wind: ASCE 7-05; 90mph; TCDL=4.2psf; BCDL=6.0psf; h=25ft; B=45ft; L=42ft; eave=5ft; Cat. II; Exp C; enclosed; MWFRS (all heights) and C-C Exterior(2) -0-11-4 to 3-2-13, Interior(1) 3-2-13 to 18-5-4, Exterior(2) 18-5-4 to 23-6-12, Interior(1) 29-7-5 to 41-8-14 zone; cantilever left and right exposed ;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOI =1.60

18-5-4

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) Provide mechanical connection (by others) of truss to bearing plate at joint(s) 13.

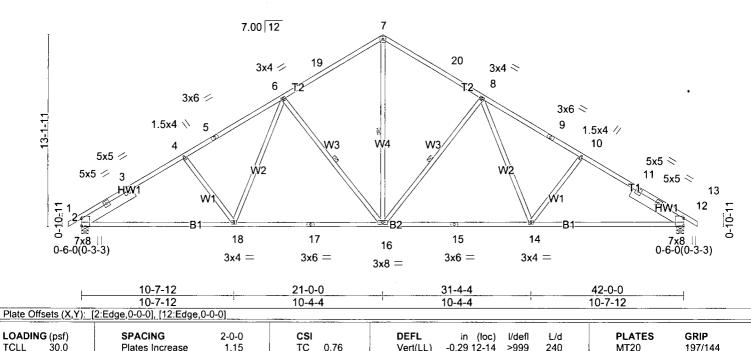
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=297, 13=257.
- 7) "Semi-rigid pitchbreaks including heels" Member end fixity model was used in the analysis and design of this truss.

8) Design assumes 4x2 (flat orientation) purlins at oc spacing indicated, fastened to truss TC w/ 2-10d nails.

	Job	Truss	Truss Type	Qty	Ply	KINGS WAY -	PIERRI RES.	#5302	
	J1000359	T13	Common Truss	1	1				
'						Job Reference (option	nal)		
ĺ	Richco Structures, Sheboy	gan Falls , WI, Heatl	ner Kraning	7.	220 s Dec	: 29 2009 MiTek Indust	tries, Inc. Wed Jan 2	27 08:39:51 2010	Page
	-0-11-4	7-2-5	14-1-3 21-0-0	27-10-1	3	34-9-11	42-0-0	42-11-4	
	0-11-4	7-2-5	6-10-13 6-10-1	3 6-10-13		6-10-13	7-2-5	0-11-4	

5x5 =

Scale = 1:80.5



LOADING (psf) **TCLL** 30.Ó Plates Increase 1.15 -0.29 12-14 240 197/144 TC 0.76 Vert(LL) >999 MT20 TCDL BC 7.0 Lumber Increase 1.15 0.91 Vert(TL) -0.77 12-14 >657 180 BCLL WB 0.48 0.0 Rep Stress Incr YES Horz(TL) 0.19 n/a 12 n/a Code WISC/IRC06/TPI2002 Weight: 205 lb BCDL 10.0 (Matrix)

**BRACING** 

WEBS

TOP CHORD

BOT CHORD

Structural wood sheathing directly applied or 2-6-9 oc purlins.

7-16, 8-16, 6-16

MiTek recommends that Stabilizers and required cross bracing

be installed during truss erection, in accordance with Stabilizer

Rigid ceiling directly applied or 10-0-0 oc bracing.

1 Row at midpt

Installation guide.

LUMBER

TOP CHORD 2 X 4 SPF No.1 or SPF No.2 \*Except\*

T1: 2 X 4 SPF 1650F 1.5E **BOT CHORD** 2 X 4 SPF No.1 or SPF No.2

WEBS 2 X 4 SPF No.1 or SPF No.2 \*Except\* W1: 2 X 4 SPF Stud

SLIDER Left 2 X 8 SYP M 23 4-2-11, Right 2 X 8 SYP M 23 4-2-11

**REACTIONS** (lb/size) 2=2043/0-6-0 (min. 0-3-3), 12=2043/0-6-0 (min. 0-3-3)

Max Horz 2=-292(LC 7)

Max Uplift2=-298(LC 9), 12=-298(LC 9)

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

TOP CHORD 2-3=-3084/462, 3-4=-2946/484, 4-5=-2779/464, 5-6=-2667/490, 6-19=-2042/437,

7-19=-1897/463, 7-20=-1897/463, 8-20=-2042/437, 8-9=-2667/490, 9-10=-2779/464,

10-11=-2946/484, 11-12=-3084/462

**BOT CHORD** 2-18=-298/2468, 17-18=-172/2133, 16-17=-172/2133, 15-16=-172/2133, 14-15=-172/2133,

12-14=-298/2468

7-16=-277/1464, 8-16=-829/257, 8-14=-30/505, 10-14=-313/202, 6-16=-829/257,

6-18=-30/505, 4-18=-313/202

## **NOTES**

**WEBS** 

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

2) Wind: ASCE 7-05; 90mph; TCDL=4.2psf; BCDL=6.0psf; h=25ft; B=45ft; L=42ft; eave=5ft; Cat. II; Exp C; enclosed; MWFRS (all heights) and C-C Exterior(2) -0-11-4 to 3-3-2, Interior(1) 3-3-2 to 21-0-0, Exterior(2) 21-0-0 to 25-2-6 zone; cantilever left and right exposed ;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60

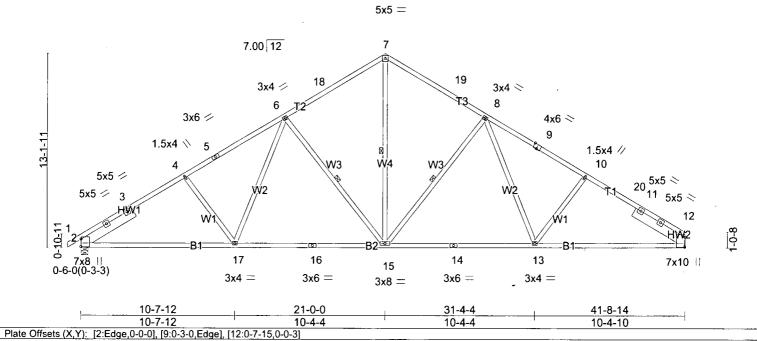
3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.

4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=298, 12=298

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

	Job	Truss	Truss Type		Qty	Ply	KINGS WAY - PIERI	RI RES. #5302
	J1000359	T13A	Common Trus	S	6	1		
•							Job Reference (optional)	
	Richco Structures, Sheboy	gan Falls , WI, Heather Kran	ing		7.2	20 s Dec	29 2009 MiTek Industries, Inc.	Wed Jan 27 08:39:53 2010 Page 1
	-0 <sub>t</sub> 11 <sub>t</sub> -4	7-2-5	4-1-3	21-0-0	27-10-13	3 ,	34-9-11	41-8-14
	0-11-4	7-2-5 6-	10-13	6-10-13	6-10-13	ı	6-10-14	6-11-3
		·						1

Scale = 1:79.7



LOADING (psf) **SPACING** 2-0-0 CSI DEFL **PLATES GRIP** in (loc) I/defl L/d TCLL 30.0 Plates Increase 1.15 TC 1.00 -0.29 2-17 240 197/144 Vert(LL) >999 MT20 TCDL 7.0 Lumber Increase 1.15 вС 0.91 Vert(TL) -0.77 2-17 >654 180 WB **BCLL** 0.0 Rep Stress Incr YES 0.48 Horz(TL) 0.18 12 n/a n/a **BCDL** 10.0 Code WISC/IRC06/TPI2002 (Matrix) Weight: 203 lb

**BRACING** 

WERS

TOP CHORD

**BOT CHORD** 

Structural wood sheathing directly applied.

1 Row at midpt

Installation guide

Rigid ceiling directly applied or 10-0-0 oc bracing.

6-15, 7-15, 8-15

MiTek recommends that Stabilizers and required cross bracing

be installed during truss erection, in accordance with Stabilizer

LUMBER

TOP CHORD 2 X 4 SPF No.1 or SPF No.2 \*Except\*

T1: 2 X 4 SPF 2100F 1.8E

BOT CHORD 2 X 4 SPF No.1 or SPF No.2

2 X 4 SPF No.1 or SPF No.2 \*Except\* WEBS

W1: 2 X 4 SPF Stud

SLIDER Left 2 X 8 SYP M 23 4-2-11, Right 2 X 8 SYP M 23 4-1-12

REACTIONS (lb/size) 2=2032/0-6-0 (min. 0-3-3), 12=1961/Mechanical

Max Horz 2=-293(LC 7)

Max Uplift2=-297(LC 9), 12=-257(LC 9)

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

TOP CHORD 2-3=-3065/460, 3-4=-2928/482, 4-5=-2760/462, 5-6=-2647/488, 6-18=-2020/433,

7-18=-1875/460, 7-19=-1875/462, 8-19=-2020/435, 8-9=-2582/488, 9-10=-2682/472,

10-20=-2832/481, 11-20=-2864/468, 11-12=-3016/458

BOT CHORD 2-17=-296/2453, 16-17=-166/2114, 15-16=-166/2114, 14-15=-167/2097, 13-14=-167/2097.

12-13=-288/2373

4-17=-316/203, 6-17=-31/507, 6-15=-829/257, 7-15=-276/1443, 8-15=-805/254,

8-13=-28/456, 10-13=-262/198

#### NOTES

**WEBS** 

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

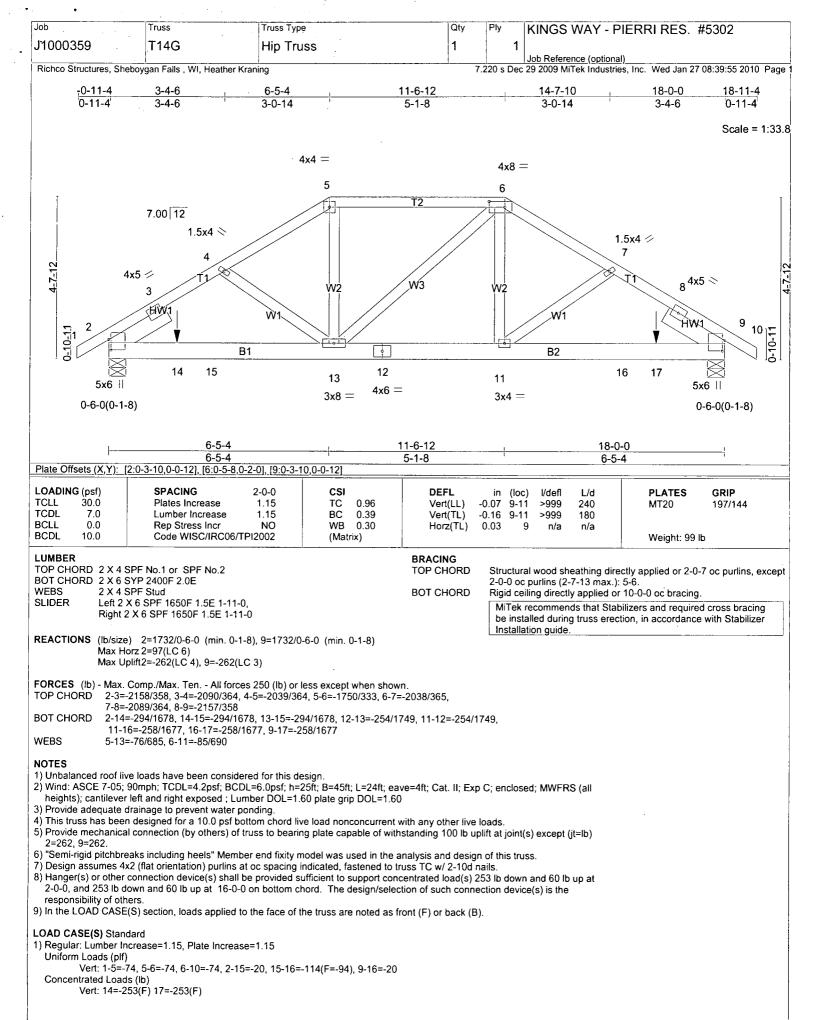
2) Wind: ASCE 7-05; 90mph; TCDL=4.2psf; BCDL=6.0psf; h=25ft; B=45ft; L=42ft; eave=5ft; Cat. II; Exp C; enclosed; MWFRS (all heights) and C-C Exterior(2) -0-11-4 to 3-2-13, Interior(1) 3-2-13 to 21-0-0, Exterior(2) 21-0-0 to 25-2-1 zone; cantilever left and right exposed ;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60

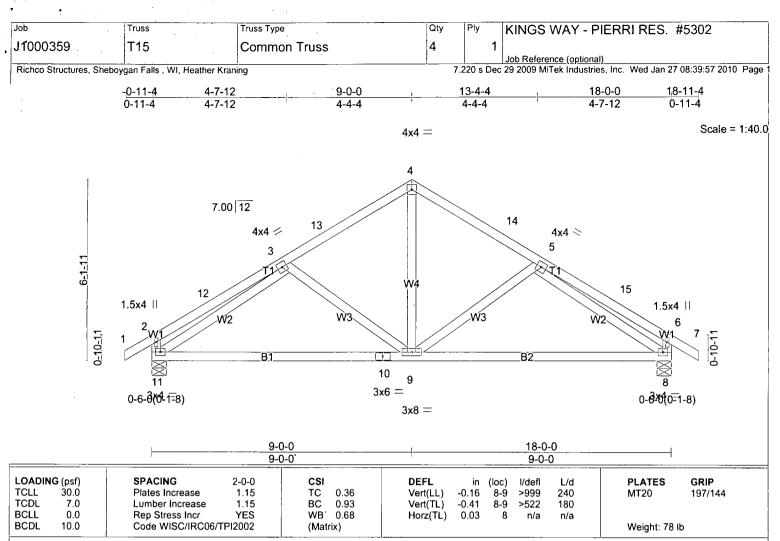
3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.

4) Refer to girder(s) for truss to truss connections.

5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=297, 12=257.

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





LUMBER

TOP CHORD 2 X 4 SPF No.1 or SPF No.2 BOT CHORD 2 X 4 SPF No.1 or SPF No.2 **WEBS** 2 X 4 SPF Stud \*Except\*

W1: 2 X 4 SPF No.1 or SPF No.2

**BRACING** 

TOP CHORD **BOT CHORD** 

Rigid ceiling directly applied or 2-2-0 oc bracing.

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

Structural wood sheathing directly applied or 6-0-0 oc purlins,

**REACTIONS** (lb/size) 11=912/0-6-0 (min. 0-1-8), 8=912/0-6-0 (min. 0-1-8)

Max Horz 11=-117(LC 7)

Max Uplift11=-154(LC 9), 8=-154(LC 9)

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

TOP CHORD 3-13=-862/153, 4-13=-761/168, 4-14=-761/168, 5-14=-862/153 BOT CHORD

10-11=-109/856, 9-10=-109/856, 8-9=-118/856 **WEBS** 

4-9=-63/505, 5-9=-272/174, 3-9=-272/174, 3-11=-1063/146, 5-8=-1063/146

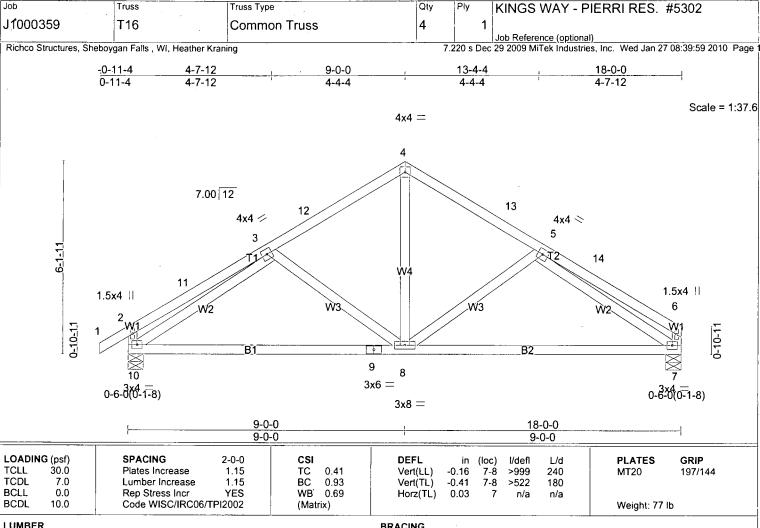
#### NOTES

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

2) Wind: ASCE 7-05; 90mph; TCDL=4.2psf; BCDL=6.0psf; h=25ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp C; enclosed; MWFRS (all heights) and C-C Exterior(2) -0-11-4 to 2-0-12, Interior(1) 2-0-12 to 9-0-0, Exterior(2) 9-0-0 to 12-0-0 zone; cantilever left and right exposed ;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60

3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads

- 4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (it=lb) 11=154, 8=154
- 5) "Semi-rigid pitchbreaks including heels" Member end fixity model was used in the analysis and design of this truss.



,

TOP CHORD 2 X 4 SPF No.1 or SPF No.2 BOT CHORD 2 X 4 SPF No.1 or SPF No.2 **WEBS** 2 X 4 SPF Stud \*Except\*

W1: 2 X 4 SPF No.1 or SPF No.2

BRACING

TOP CHORD

**BOT CHORD** 

Structural wood sheathing directly applied or 5-11-9 oc purlins, except end verticals.

Rigid ceiling directly applied or 2-2-0 oc bracing.

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

**REACTIONS** (lb/size) 10=915/0-6-0 (min. 0-1-8), 7=830/0-6-0 (min. 0-1-8)

Max Horz 10=128(LC 8)

Max Uplift10=-155(LC 9), 7=-109(LC 9)

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

3-12=-866/153, 4-12=-765/168, 4-13=-765/174, 5-13=-867/158 TOP CHORD

BOT CHORD 9-10=-138/860, 8-9=-138/860, 7-8=-140/870

4-8=-70/511, 5-8=-283/176, 3-8=-271/173, 3-10=-1067/150, 5-7=-1079/174

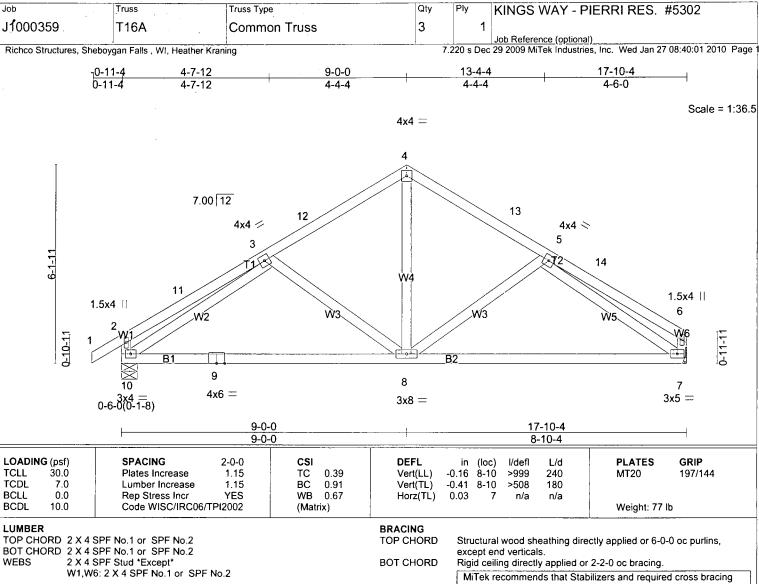
# WEBS **NOTES**

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

2) Wind: ASCE 7-05; 90mph; TCDL=4.2psf; BCDL=6.0psf; h=25ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp C; enclosed; MWFRS (all heights) and C-C Exterior(2) -0-11-4 to 2-0-12, Interior(1) 2-0-12 to 9-0-0, Exterior(2) 9-0-0 to 12-0-0 zone; cantilever left and right exposed ;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60

3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.

- 4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 10=155, 7=109
- 5) "Semi-rigid pitchbreaks including heels" Member end fixity model was used in the analysis and design of this truss.



be installed during truss erection, in accordance with Stabilizer Installation guide.

REACTIONS (lb/size) 10=908/0-6-0 (min. 0-1-8), 7=823/Mechanical Max Horz 10=127(LC 8)

Max Uplift10=-154(LC 9), 7=-108(LC 9)

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

3-12=-854/151, 4-12=-752/167, 4-13=-752/172, 5-13=-854/157 9-10=-140/850, 8-9=-140/850, 7-8=-137/841 TOP CHORD

BOT CHORD

3-8=-272/174, 4-8=-68/497, 5-8=-265/171, 3-10=-1055/149, 5-7=-1056/172

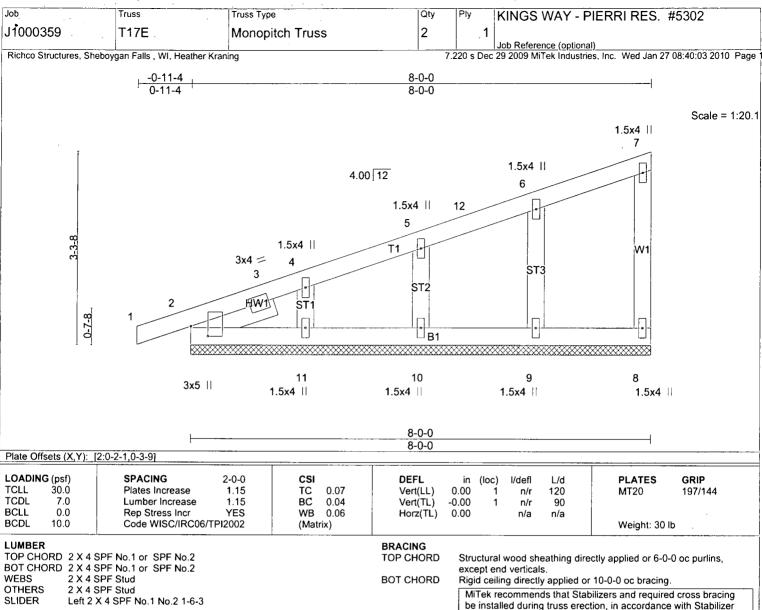
# WEBS **NOTES**

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

- 2) Wind: ASCE 7-05; 90mph; TCDL=4.2psf; BCDL=6.0psf; h=25ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp C; enclosed; MWFRS (all heights) and C-C Exterior(2) -0-11-4 to 2-0-12, Interior(1) 2-0-12 to 9-0-0, Exterior(2) 9-0-0 to 12-0-0 zone; cantilever left and right exposed ;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.

4) Refer to girder(s) for truss to truss connections.

- 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 10=154, 7=108.
- 6) "Semi-rigid pitchbreaks including heels" Member end fixity model was used in the analysis and design of this truss.



be installed during truss erection, in accordance with Stabilizer Installation guide.

**REACTIONS** All bearings 8-0-0.

(ib) - Max Horz 2=96(LC 9)

Max Uplift All uplift 100 lb or less at joint(s) 8, 2, 9, 10, 11 Max Grav All reactions 250 lb or less at joint(s) 8, 2, 9, 10, 11

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

- 1) Wind: ASCE 7-05; 90mph; TCDL=4.2psf; BCDL=6.0psf; h=25ft; B=45ft; L=24ft; eave=2ft; Cat. II; Exp C; enclosed; MWFRS (all heights) and C-C Corner(3) -0-11-4 to 2-0-0, Exterior(2) 2-0-0 to 7-10-4 zone; cantilever left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 2) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see MiTek "Standard Gable End Detail"
- 3) Gable requires continuous bottom chord bearing.
- 4) Gable studs spaced at 2-0-0 oc.
- 5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 8, 2, 9, 10, 11.
- 7) "Semi-rigid pitchbreaks including heels" Member end fixity model was used in the analysis and design of this truss.

# **GENERAL NOTES**

Trusses are not marked in any way to identify the frequency or location of temporary lateral estraint and diagonal bracing. Follow the recommendations for handling, installing and emporary restraining and bracing of trusses. Refer to BCSI Guide to Good Practice for Handling, Installing, Restraining & Bracing of Metal Plate Connected Wood Trusses\*\*\* for more detailed information.

Truss Design Drawings may specify locations of individual truss members. Refer to the BCSI-B3 Summary Sheet - Permanent Restraint/ Bracing of Chords & Web Members\*\*\* for more nformation. All other permanent bracing design is the responsibility of the Building Designer.

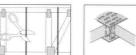
# **NOTAS GENERALES**

Los trusses no están marcados de ningún modo que identifique la frecuencia o localización de restricción lateral y arriostre diagonal temporales. Use las recomendaciones los trusses. Vea el folleto BCSI Guía de Buena Práctica para el Manejo, Instalación, Restricción y Arriostre de los Trusses de Madera Conectados con Placas de Metal\*\*\* para información más detallada.

Los dibujos de diseño de los trusses pueden especificar las localizaciones de restricción lateral permanente o refuerzo en los miembros individuales del truss. Vea la hoja resumen BCSI-B3 — Restricción/Arriostre Permanente de Cuerdas y Miembros Secundarios\*\*\* para más información. E responsabilidad del Diseñador del Edificio.







A Banding and truss plates have sharp edges. Wear gloves when handling and safety glasses when

The consequences of improper handling, erect-

ing, installing, restraining and bracing can result in a collapse of the structure, or worse, serious

El resultado de un manejo, levantamiento,

#### HOISTING RECOMMENDATIONS FOR TRUSS BUNDLES RECOMENDACIONES PARA LEVANTAR PAQUETES DE TRUSSES



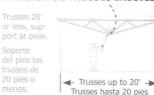
A single lift point may be used for bundles vith trusses up to 45'. Two lift points may be used for bundles with

Puede usar un solo lugar de levantar para Puede usar dos puntos de levantar para

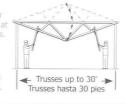
iAdvertencia! No sobrecargue la estructura

✓ Place truss bundles in stable position. Puse paquetes de trusses en una posición

# INSTALLATION OF SINGLE TRUSSES BY HAND INSTALACIÓN DE TRUSSES INDIVIDUALES POR LA MANO



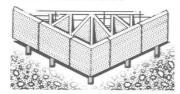
Soporte de



# **HANDLING — MANEJO**



nente los trusses en la obra.



If trusses are to be stored horizontally, place

Handling, Installing, Restraining & Bracing



✓ Use proper rig-



O Do not store



0







# Refer to BCSI-B2 Summary Sheet - Truss

Locate ground braces for first truss directly in

las filas de restricción lateral temporal de la

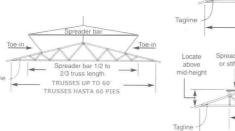


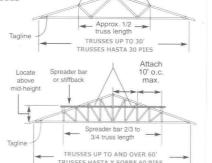
# HOISTING OF SINGLE TRUSSES — LEVANTAMIENTO DE TRUSSES INDIVIDUALES Hold each truss in position with the erection equipment until top chord temporary lateral restraint

Sostenga cada truss en posición con equipo de grúa hasta que la restricción lateral temporal de la cuerda superior esté instalado y el truss está asegurado en los soportes

Warning! Using a single pick-point at the peak can damage the truss. iAdvertencia! El uso de un solo lugar en el





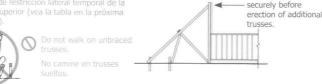


Lateral Restraint

Brace first truss

60° or less

# **TEMPORARY RESTRAINT & BRACING RESTRICCION Y ARRIOSTRE TEMPORAL**



# STEPS TO SETTING TRUSSES LAS MEDIDAS DE LA INSTALACIÓN DE LOS TRUSSES

1) Install ground bracing. 2) Set first truss and attach securely to ground bracing. 3) Set next 4 bracing (see below). 5) Install web member plane diagonal bracing to stabilize the first five trusses 7) Repeat process on groups of four trusses until all trusses are set.

1) Instale los arriostres de tierra. 2) Instale el primero truss y ate seguramente al arriostre de tierra. 3) Instale los próximos 4 trusses con restricción lateral temporal de miembro corto (vea abajo). 4) Instale el arriostre diagonal de la cuerda superior (vea abajo). 5) Instale arriostre (vea abajo). 6) Instale la restricción lateral temporal y arriostre diagonal para la cuerda inferior (vea abajo). 7) Repita este procedimiento en grupos de cuatro trusses hasta que todos los trusses

Refer to BCSI-B2 Summary Sheet - Truss Installation & Temporary Restraint/Bracing\*\*\* for more

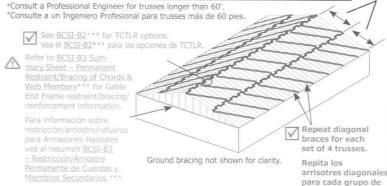
Vea el resumen BCSI-B2 - Instalación de Trusses y Restricción/Arriostre Temporal\*\*\* para más

#### RESTRAINT/BRACING FOR ALL PLANES OF TRUSSES RESTRICCIÓN/ARRIOSTRE PARA TODOS PLANOS DE TRUSSES

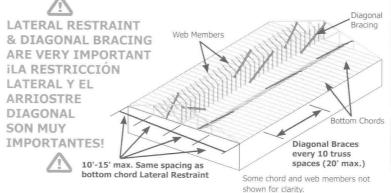
This restraint & bracing method is for all trusses except 3x2 and 4x2 parallel chord trusses Este método de restricción y arriostre es para todo trusses excepto trusses de cuerdas paralelas

#### 1) TOP CHORD - CUERDA SUPERIOR

Truss Span	Top Chord Temporary Lateral Restraint (TCTLR) Spacing
Longitud de Tramo	Espaciamiento del Arriostre Temporal de la Cuerda Superior
Up to 30'	10' o.c. max.
Hasta 30 pies	10 pies máximo
30' to 45'	8' o.c. max.
30 a 45 pies	8 pies máximo
45' to 60'	6' o.c. max.
45 a 60 pies	6 pies máximo
60' to 80'*	4' o.c. max.
60 a 80 pies*	4 pies máximo



2) WEB MEMBER PLANE — PLANO DE LOS MIEMBROS SECUNDARIOS 4 trusses.



3) BOTTOM CHORD - CUERDA INFERIOR Lateral Restraints - 2x4x12' or greater lapped over two trusse Diagonal Braces every 10 truss spaces (20' max.) 10'-15' Some chord and web members not shown for clarity.

#### RESTRAINT & BRACING FOR 3x2 AND 4x2 PARALLEL CHORD TRUSSES RESTRICCIÓN Y ARRIOSTRE PARA TRUSSES DE CUERDAS PARALELAS 3X2 Y 4X2

Repeat Diagonal Bracing every 15 truss spaces (30') Apply Diagonal Brace to vertical webs at end of cantilever and at bearing All Lateral Restraints locations lapped at least two trusses. \*Top chord Temporary Lateral Restraint spacing shall be

10' o.c. max. for 3x2 chords and 15' o.c. for 4x2 chords. INSTALLING — INSTALACIÓN



# CONSTRUCTION LOADING — CARGA DE CONSTRUCCIÓN

mary Sheet - Construction Loading\*\*\* for more information No exceda las alturas máximas de montón. Vea el resumen



Place loads over as many trusses as possible.

Coloque las cargas sobre tantos trusses como sea posible. Position loads over load bearing walls.

# Position loads over load bearing round Coloque las cargas sobre las paredes soportante

# Refer to BCSI-B5 Summary Sheet - Truss Damage, Jobsite Modifications & Installation Errors.\*

Trusses that have been overloaded during construction or altered without the Tru

# 'Contact the Component Manufacturer for more information or consult a Professional Engineer for assistance



218 N. Lee St., Ste. 312 • Alexandira, VA 22314

Maximum Stack Height

vpsum Board

wood or OSB

sphalt Shingles

oncrete Block

Clay Tile

Height

2 bundles

8"

3-4 tiles hig

HOJA RESUMEN DE LA GUÍA DE BUENA PRÁCTICA PARA EL MANEJO, INSTALACIÓN, RESTRICCIÓN Y ARRIOSTRE DE LOS TRUSSES Vanos más de 60 pies pueden requerir arriostre permanente complejo. Por favor, siempre consulte a un Ingeniero Profesional

# Richco Structures

Division of Richardson Industries, Inc.

P.O. Box 904 Monroe St Sheboygan Falls, WI 53085

Ph: 800-845-8910 HA 800-472-9662 DP

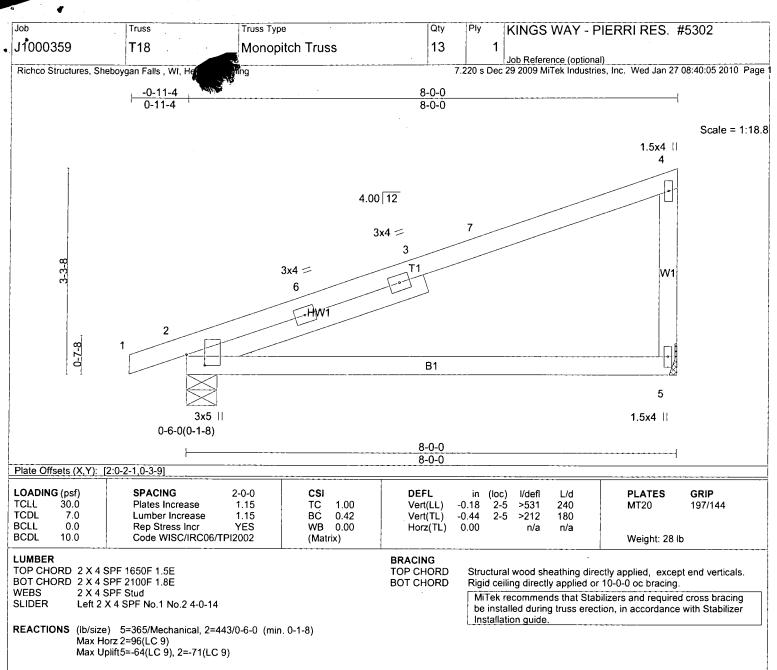
Fax: 920-467-5916

DATE 02/01/10 PAGE 1

1-414-333-2401-ATTN: JOHN H. **QUOTE # B1000359** ORDER # J1000359 KINGS WAY HOMES INC. PIERRI RES. - #PIE 5302 700 N. PILGRIM PARKWAY County 40-MILWAUKEE-WI 1000 CHURCHILL LANE ELM GROVE, WI 53122 **FOX POINT, WI** (262) 797-3600 (262) 797-3610 PIERRI - #PIE 5302 Job Name: Quoted: 01/20/10 Salesman Bob Happach Model: BELMONT II (ROOF) Revised: Lot P.O.# Plan Date: Orderd: 01/20/10 Designer AJR Contractor: Bld Plt: HVN Estimator AJR MIMUM TRUSS HEIGHT 13-01-11 SCH DELIVERY 02/12/10 **Delivery Instructions** Special Notes

ROOF T	RUS	SES		OADING IFORMATION	TCLL-TCDL-B 30.0,7.0,0		TRESS 1.1		ROC	F TRUS	S SPACII	NG:24.0 II	N. O.C. (1	a và 'a ſYP.)	प्राची केंद्र विकास केंद्र	<b>3</b> (2)
PROFILE	QTY		СН	TYPE	BASE	O/A	LUN	IBER	OVER	HANG	CANT	ILEVER	HE	ELS	CHECKED	
<u> </u>	PLY	TOP	BOT	ID	SPAN	SPAN	TOP	вот	LEFT	RIGHT	LEFT	RIGHT	LEFT	RIGHT	BY	SHIPPED
	2	6.05	0.00	Jack-Open CJ01	01-06-11	01-06-11	2 X 4	2 X 4	01-10-05				02-01-07	01-04-00		
	2	6.05	0.00	Jack-Open CJ02	02-09-03	02-09-03	2 X 4	2 X 4	01-10-05				00-04-11	01-04-00		
	2	6.05	0.00	Jack-Open CJ03	01-02-10	01-02-10	2 X 4	2 X 4	01-10-05					01-04-00		
	2	12.00	0.00	Half Hip Truss J01G	02-06-12	02-06-12	2 X 4	2 X 4	00-11-04					01-04-00		
A	2	12.00	0.00	Half Hip Truss	02-06-12			-								
6				Jack-Open						- <b>-</b>			03-02-09	01-04-00		
	2	12.00	0.00	J03 Jack-Open	02-06-12	02-06-12	2 X 4	2 X 4	00-11-04				00-06-07	01-04-00		
L	2	7.00	0.00		02-02-12	02-02-12	2 X 4	2 X 4	00-11-04				02-02-05	00-10-11		
	2	12.00	0.00	Half Hip Truss J05G	04-03-12	04-03-12	2 X 4	2 X 4	00-11-04				02-07-14	01-04-00		
	2	12.00	0.00	Half Hip Truss J06	04-03-12	04-03-12	2 X 4	2 X 4	00-11-04				03-09-14	01-04-00		
	2	12.00	0.00	Half Hip Truss J07	04-03-12	04-03-12	2 X 4	2 X 4	00-11-04				04-11-14	01-04-00		
	16	12.00	0.00	Jack-Open J08	04-03-12	04-03-12	2 X 4	2 X 4	00-11-04		:	തരാ		01-04-00	-[iii]	
4	1	12.00	0.00	Jack-Open J08A	04-02-00	04-02-00	2 X 4	2 X 4					05-07-12-	04-05-12		
4	1	12.00	0.00	Monopitch J09G		04-03-12							05-07-12			
4	2	7.00	0.00	Jack-Open J10		03-03-04				-			00-04-15			
	2	12.00	0.00	Half Hip Truss J11G	03-03-12								01-10-08			
	2	12.00	0.00	Half Hip Truss J12		03-03-12							03-00-08			
A	2	12.00	0.00	Half Hip Truss J13	03-03-12								04-02-08			
6	2	12.00	0.00	Jack-Open J14	03-03-12								04-07-12			

CANSHIP Z ZZ:10



FORCES (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown. TOP CHORD 4-5=-286/183

1) Wind: ASCE 7-05; 90mph; TCDL=4.2psf; BCDL=6.0psf; h=25ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp C; enclosed; MWFRS (all heights) and C-C Exterior(2) -0-11-4 to 2-0-12, Interior(1) 2-0-12 to 7-10-4 zone; cantilever left and right exposed ;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60

2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.

3) Refer to girder(s) for truss to truss connections.

4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 5, 2.

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

DE Freshop My Brothers)

Detress Hugen - Conga

3)

Structural Calculations for:

# Pierri Residence

Fox Point, WI

Kings Way Homes, L.L.C. Client # PIE5302 Model: The Belmont II

STL Consulting Project No. 09021

SCOTT T. LUCKIESH E-33012 MENOMONEE FALLS

ENOMICINEE TREES

ONAL 10/25/200

# KINGS WAY HOMES

Pierri Residence - The Belmont II

# DESIGN CRITERIA

Roof	LC	adi	na

Dead Load 22 psf

Live Load 30 psf (drift loading as required per Wisconsin Code)

Floor Loading

Dead Load (typical) 10 psf

Tile Flooring 20 psf

Partitions 10 psf Live Load (typical) 40 psf

Bathrooms 50 psf

Soil (Assumed)

Lateral Pressure 50 psf/ft

Bearing Capacity 3000 psf

**Wind** 

MWFRS 20 psf

Components and Cladding 20 psf

Wood (2005 National Design Specifications for Wood Construction):

No.1/No.2 or Better S-P-F Stud Grade S-P-F Fb= 875 psi Fb = 675 psi 450 psi 350 psi Ft = Ft = Fv= Fv = 135 psi 135 psi Fc perp = 425 psi Fc perp = 425 psi Fc para = 725 psi Fc para ≃ 1150 psi E = 1.4E6 psi E = 1.2E6 psi

Engineered Lumber:

2.0E VERSA-LAM LVL 1.7E VERSA-LAM Beams and Headers Columns and Studs 1.7E6 psi E = 2.0E6 psi E = Fb= Fb= 2650 psi 3100 psi Fv = 285 psi Fv = 285 psi

Masonry

f'm 1350 psi

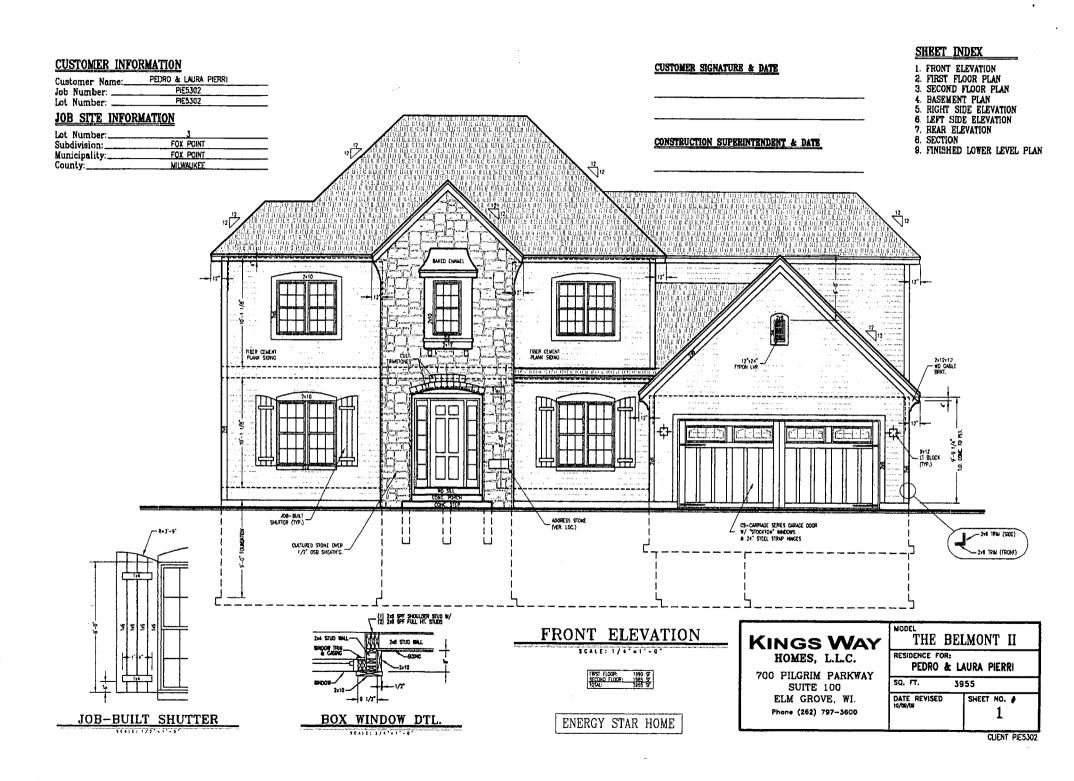
Concrete

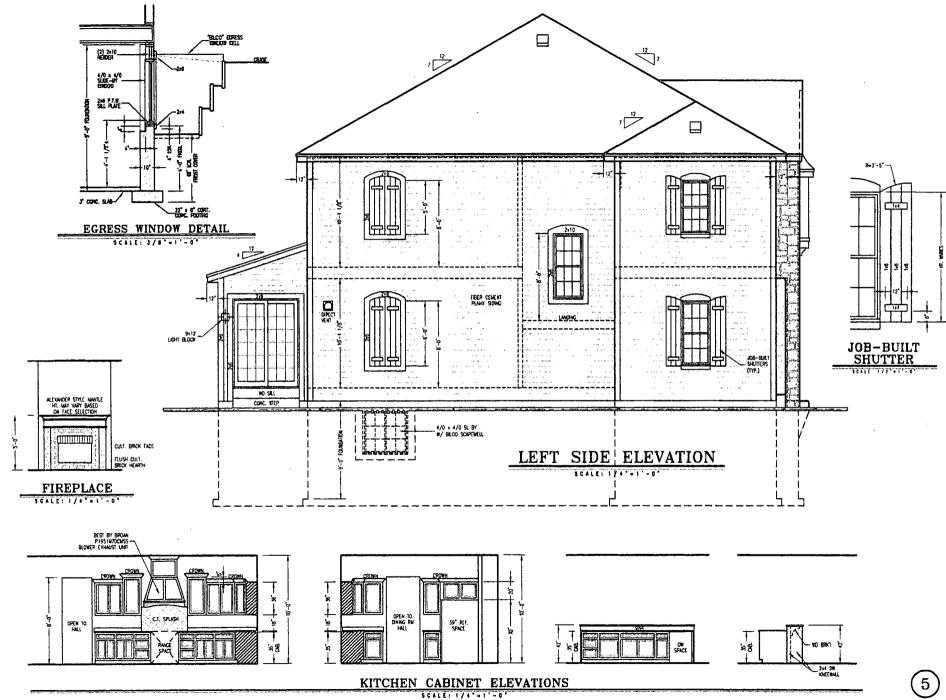
fc 3000 psi

fy (reinforcement) 60,000 psi

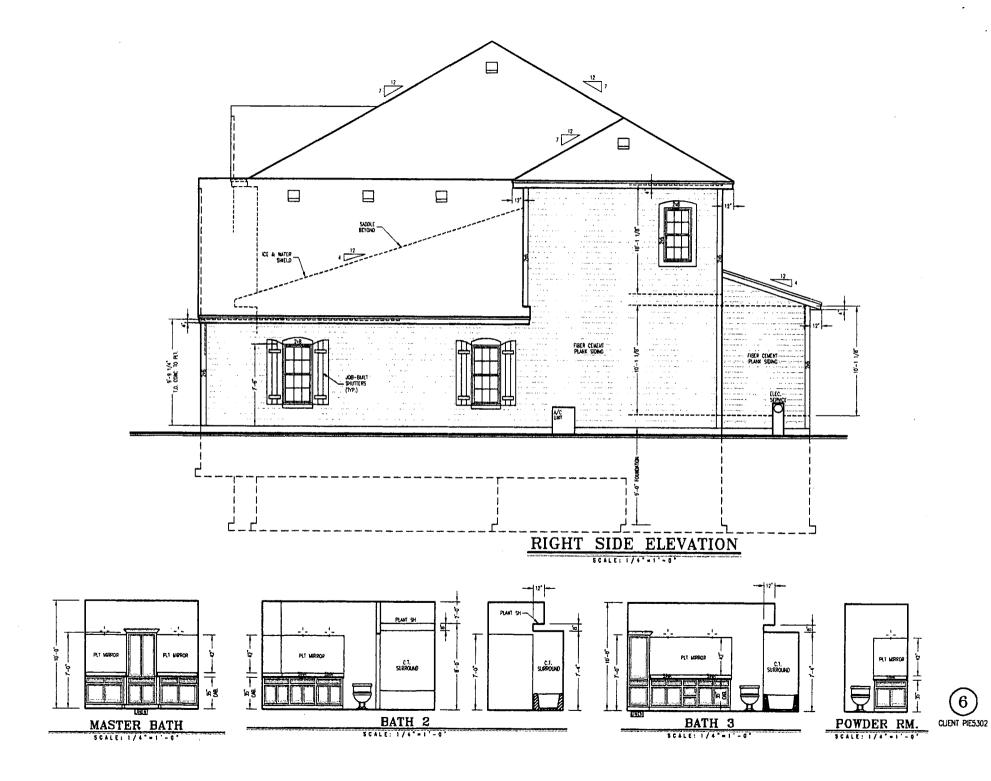
Structural Steel

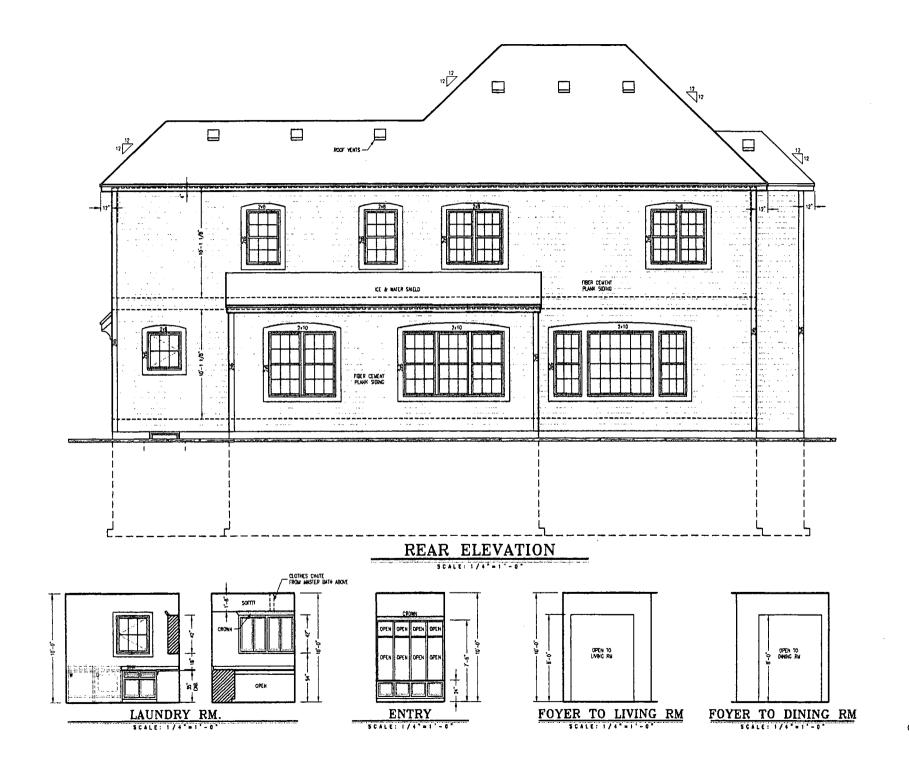
ASTM A36 Fy = 36,000 psi



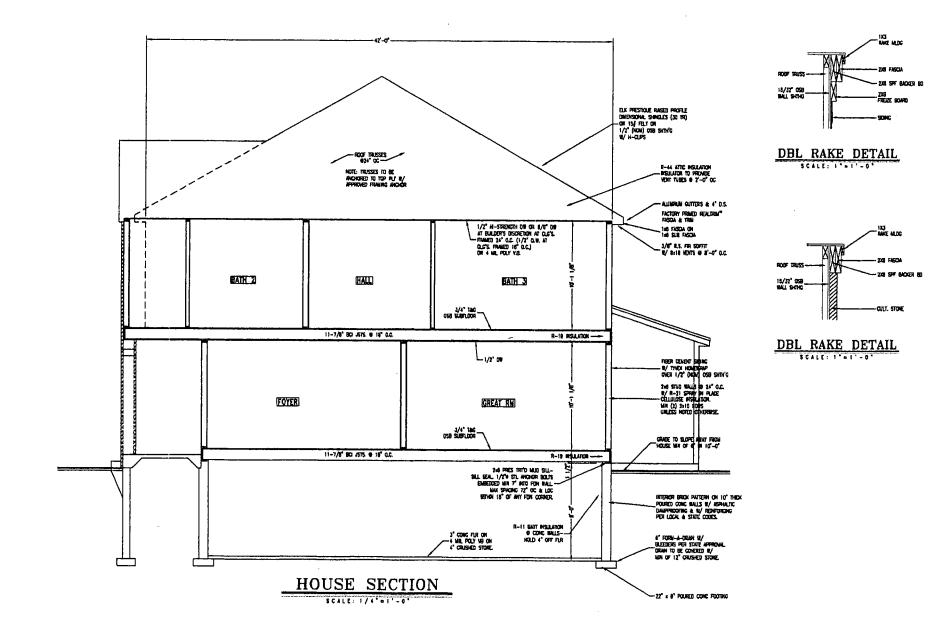


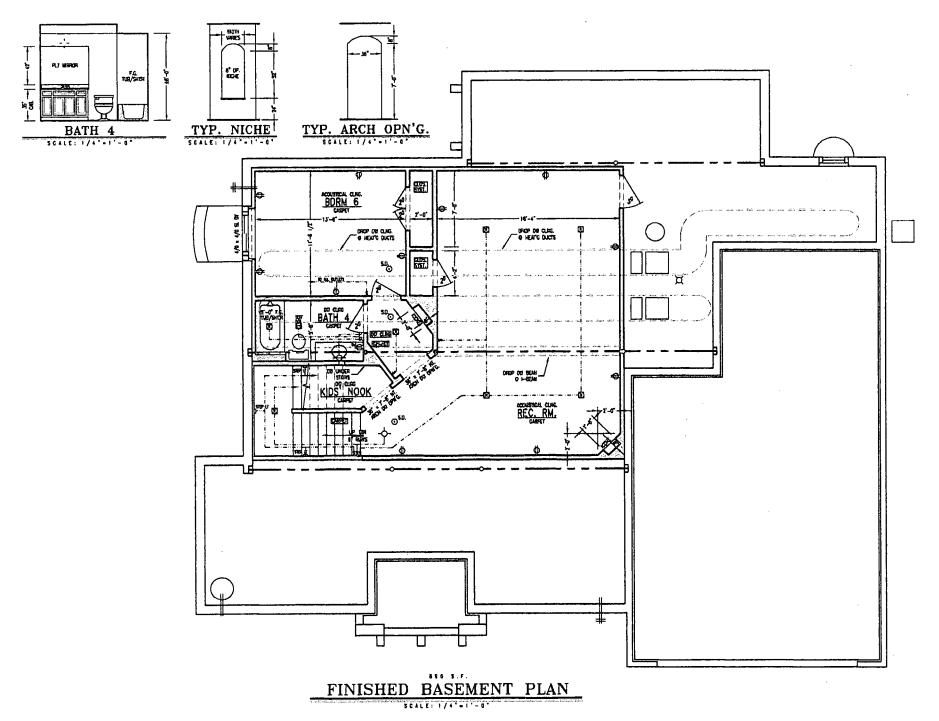
CLIENT PIE5302





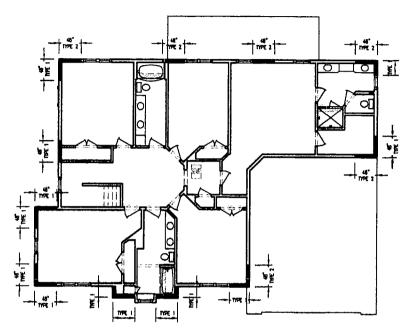




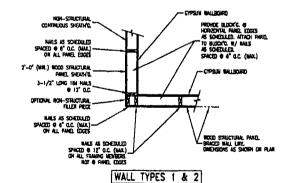


MODEL 1966

CLIENT PIE5302



# SECOND FLOOR SHEAR WALL BRACING PLAN



TYP. EXTERIOR CORNER FRAMING FOR CONTINUOUS STRUCTURAL PANEL SHEATH'G.

THE I BRACED BALL PAREL:

PASSED TO STUDY USING AN COMMON OR DEPORADD WALS (1-1/2") OR STAPLES

SPACED (AULX)

12" O ROTHERD AND EDGES

12" O ROTHERD AND EDGES

THE BRACED BALL PAREL:

PASSED TO STUDY USING OF COMMON OR DEPORADD WALS (1-1/2") OR STAPLES

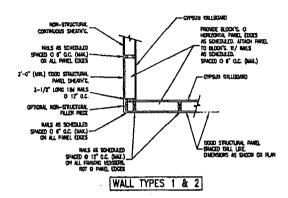
SPACED (AULX)

6" O SELENHARD, PAREL EDGES

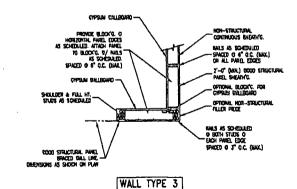
12" O AUTERADDATE SUPPORTS

PROMED ST. ONGENORIAL BLOCKS, O ALL MOREGISTA, EDGES OF SPEANYC,

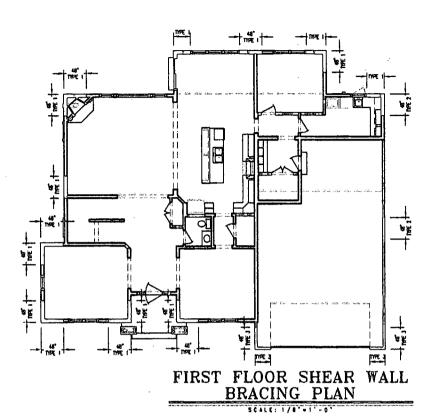
"SEE ORTHIR."



TYP. EXTERIOR CORNER FRAMING FOR CONTINUOUS STRUCTURAL PANEL SHEATH'G.



GARAGE DOOR CORNER FRAMING FOR CONTINUOUS STRUCTURAL PANEL SHEATH'G.



THE I BRACED SALL PANCE:

FASIER IN STUDY USKIK BE COLAMON OR OFFICIALE INALE (1-1/2\*) OR STAPLES

SPACIES (MAL)

8" O SHERTHRO, PANGE COCKS

\*FEE COCKE."

THE I BRACED TRAIL PANGE.

THE I BRACED TRAIL PANGE.

THE I BRACED TRAIL PANGE.

THE STUDY IN STARLES SUPPORTS

SACIONS (MAL) SALTHORS, PANGE COCKS

SACIONS (MAL) SALTHORS, PANGE COCKS

6" O SHERTHRO, PANGE COCKS

FROM TO STUDY USKIK SEE COCKS

FROM TO STUDY USKIK SEE COCKS

SPACIES (MAL)

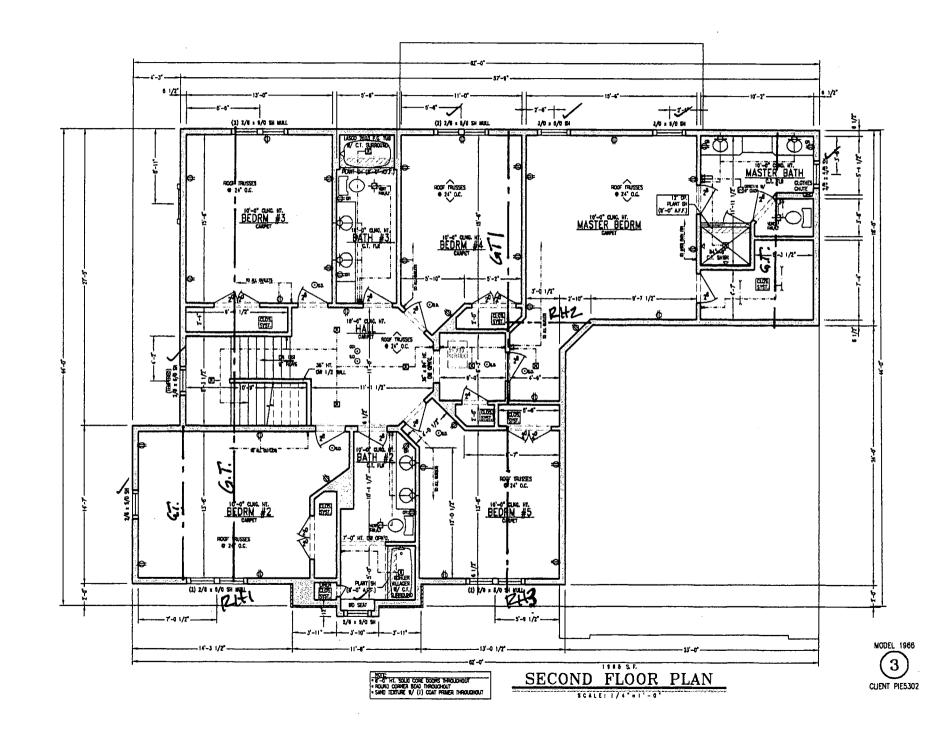
THE I BRACED BALL PANGE.

\*\*SEC COCKS

\*\*SACIONS (MAL)

\*\*O SHERTHRO, PANGE COCKS

\*\*SEC CO



Roof Beam\RH1

BC CALC® 2.0 Design Report - US

1 span | No cantilevers | 0/12 slope

Saturday, October 24, 2009 19:22

Build 285

Job Name: Address: City, State, Zip:

Kings Way Homes, L.L.C.

Customer: Kings Way Code reports: ESR-1040

File Name: Pierri Description: RH1 Specifier: stl

Designer: stl
Company: STL Consulting

Misc:

12

05-00-00

<u>en digitation de la Sergia, de la tradición de la persona de la fille qualitat de la fille de la compactación</u>

B0, 3-1/2" DL 2,258 lbs SL 2,162 lbs B1, 3-1/2" DL 1,369 lbs SL 1,303 lbs

Total Horizontal Product Length = 05-00-00

10	Load Summary					Live	Dead	Snow	Wind	Roof Liv	е
	Description	Load Type	Ref.	Start	End	100%	90%	115%	133%	125%	Trib.
1	Standard Load	Unf. Area (psf)	Left	00-00-00	02-06-00		31	30		2	1-00-00
2	GT	Conc. Pt. (lbs)	Left	02-06-00	02-06-00		1,953	1,890			n/a

<b>Controls Summary</b>	Value	% Allowable	Duration	Case	Span
Pos. Moment	6,031 ft-lbs	37.6%	115%	3	1 - Internal
End Shear	3,022 lbs	41.6%	115%	3	1 - Left
Total Load Defl.	L/1,420 (0.038")	12.7%		3	1
Live Load Defl.	L/2,901 (0.019")	12.4%		3	1
Max Defl.	0.038"	3.8%		3	1
Span / Depth	5.7	n/a			1

Bear	ring Supports	Dim. (L x W)	Value	% Allow Support	% Allow Member	Material
B0	Wall/Plate	3-1/2" x 3-1/2"	4,420 lbs	84.9%	48.1%	Spruce-Pine-Fir
B1	Wall/Plate	3-1/2" x 3-1/2"	2,672 lbs	51.3%	29.1%	Spruce-Pine-Fir

## Cautions

For roof members with slope (1/4)/12 or less final design must ensure that ponding instability will not occur.

For roof members with slope (1/2)/12 or less final design must account for Rain-on-Snow surcharge load.

# Notes

Design meets Code minimum (L/180) Total load deflection criteria. Design meets User specified (L/360) Live load deflection criteria. Design meets arbitrary (1") Maximum load deflection criteria.

#### Disclosure

Completeness and accuracy of input must be verified by anyone who would rely on output as evidence of suitability for particular application. Output here based on building code-accepted design properties and analysis methods. Installation of BOISE engineered wood products must be in accordance with current Installation Guide and applicable building codes. To obtain Installation Guide or ask questions, please call (800)232-0788 before installation.



Roof Beam\RH1

BC CALC® 2.0 Design Report - US Build 285

1 span | No cantilevers | 0/12 slope

Saturday, October 24, 2009 19:22

Job Name: Address:

City, State, Zip:

Customer: Kings Way Homes, L.L.C.

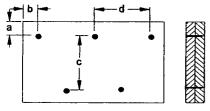
Code reports: ESR-1040

File Name: Pierri Description: RH1 Specifier: stl Designer: stl

Company: STL Consulting

Misc:

# **Connection Diagram**



a minimum = 2"

c = 5-1/2"

b minimum = 3"

d = 12"

Connection design assumes point load is 'top-loaded'. For connection design of 'side-loaded' point loads, please consult a technical representative or professional of Record.

Member has no side loads.

Concentrated loads are not considered in side load analysis.

Connectors are: 16d Common Nails

#### Disclosure

Completeness and accuracy of input must be verified by anyone who would rely on output as evidence of suitability for particular application. Output here based on building code-accepted design properties and analysis methods. Installation of BOISE engineered wood products must be in accordance with current Installation Guide and applicable building codes. To obtain Installation Guide or ask questions, please call (800)232-0788 before installation.

edise"

Double 1-3/4" x 9-1/2" VERSA-LAM® 2.0 3100 SP

Roof Beam\RH2

BC CALC® 2.0 Design Report - US

1 span | No cantilevers | 0/12 slope

Saturday, October 24, 2009 19:36

Build 285

Customer:

Job Name: Address: City, State, Zip:

, Kings Way Homes, L.L.C.

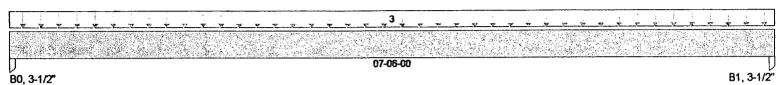
Code reports: ESR-1040

File Name: Pierri Description: RH2 Specifier: stl Designer: stl

Company: STL Consulting

Misc:

12 0



B0, 3-1/2" DL 1,139 lbs SL 1,069 lbs B1, 3-1/2" DL 1,139 lbs SL 1,069 lbs

Total Horizontal Product Length = 07-08-00

Load Summary		<del></del>		<del></del>	Live	Dead	Snow	₩ind	Roof Liv	re
Tag Description	Load Type	Ref.	Start	End	100%	90%	115%	133%	125%	Trib.
3 LEFT	Unf. Area (psf)	Left	00-00-00	07-06-00		31	30		0	9-06-00

Controls Summary	Value	% Allowable	Duration	Case	Span
Pos. Moment	3,650 ft-lbs	22.7%	115%	3	1 - Interna
End Shear	1,570 lbs	21.6%	115%	3	1 - Left
Total Load Defl.	L/1,297 (0.065")	13.9%		3	1
Live Load Defl.	L/2,681 (0.032")	13.4%		3	1
Max Defl.	0.065"	6.5%		3	1
Span / Depth	8.9	n/a			1

Bear	ring Supports	Dim. (L x ₩)	Value	% Allow Support	% Allow Member	Material
B0	Post	3-1/2" x 3-1/2"	2,208 lbs	24.9%	24.0%	Spruce-Pine-Fir
B1	Post	3-1/2" x 3-1/2"	2,208 lbs	24.9%	24.0%	Spruce-Pine-Fir

### Cautions

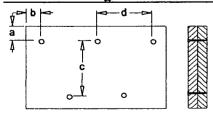
For roof members with slope (1/4)/12 or less final design must ensure that ponding instability will not occur.

For roof members with slope (1/2)/12 or less final design must account for Rain-on-Snow surcharge load.

# Notes

Design meets Code minimum (L/180) Total load deflection criteria. Design meets User specified (L/360) Live load deflection criteria. Design meets arbitrary (1") Maximum load deflection criteria.

#### Connection Diagram



a minimum = 2"

c = 5-1/2"

b minimum = 3"

d = 12"

Member has no side loads.

Connectors are: 16d Common Nails

# Disclosure

Completeness and accuracy of input must be verified by anyone who would rely on output as evidence of suitability for particular application. Output here based on building code-accepted design properties and analysis methods. Installation of BOISE engineered wood products must be in accordance with current Installation Guide and applicable building codes. To obtain Installation Guide or ask questions, please call (800)232-0788 before installation.

BOİSE

# Single 1-3/4" x 3-1/2" VERSA-LAM® 2.0 3100 SP

Roof Beam\GT1

BC CALC® 2.0 Design Report - US Build 285

1 span | No cantilevers | 0/12 slope

Saturday, October 24, 2009 19:32

Job Name: Address:

Code reports:

City, State, Zip: ,
Customer: Kings Way Homes, L.L.C.

ESR-1040

File Name: Pierri Description: GT1 Specifier: stl Designer: stl

Company: STL Consulting

Misc:

41

12

B0, 3-1/2"

DL 2,353 lbs SL 2,242 lbs B1, 3-1/2" DL 2,120 lbs SL 2,018 lbs

Total Horizontal Product Length = 41-00-00

41-00-00

Lo	ad Summary					Live	Dead	Snow	Wind	Roof Liv	'e
Tag	Description	Load Type	Ref.	Start	End	100%	90%	115%	133%	125%	Trib.
1	FRONT	Unf. Area (psf)	Left	00-00-00	22-00-00		31	30		0	3-00-00
2	BACK	Unf. Area (psf)	Left	22-00-00	41-00-00		31	30		0	2-00-00
3	GT	Conc. Pt. (lbs)	Left	22-00-00	22-00-00		1,178	1,140			n/a

W Allow

<b>Controls Summary</b>	Value	% Allowable	Duration	Case	Span
Pos. Moment	55,329 ft-lbs	4546.2%	115%	3	1-Internal
End Shear	4,487 lbs	335.3%	115%	-3	1 - Left
Total Load Deft.	L/0 (1,208.243	<b>''</b> \$4703.8%		3	1
Live Load Defl.	L/4 (590.095")	43665.8%	-1011	3	1
Max Defi.	1,208.245"	120824_3%	MIA	3	1
Span / Depth	139.0	n/a	•		1
•					

Bearing S	upporte	Dim. (L x W)	Value	Support	Member	Material In
B0 W	H/Plate	3-1/2" x 1-3/4"	4,595 lbs	176.5%	100.0%	Spruce-Pine-Fir
B1 Wa	all/Plate	3-1/2" x 1-3/4"	4,138 lbs	159.0%	90.1%	Spruce-Pine-Fire

# **Cautions**

Member has insufficient Pos. Moment resistance to carry loads.

Member has insufficient End Reaction resistance to carry loads. Member has insufficient End Shear resistance to carry the loads.

Member is insufficient to carry loads for Code minimum load deflection at limit of L/180.

Member is insufficient to carry loads for Code minimum Live load deflection at limit of L/240.

Member is insufficient to carry loads for Code minimum Live load defection at mint of D2

Member is insufficient to carry loads for Maximum load deflection at limit of 1".

Bearing length at bearing B0 should be at least 6-3/16".

Bearing B0 cannot support a load of 4,595 lbs.

Bearing length at bearing B1 should be at least 5-5/8".

Bearing B1 cannot support a load of 4,138 lbs.

For roof members with slope (1/4)/12 or less final design must ensure that ponding instability will not occur.

For roof members with slope (1/2)/12 or less final design must account for Rain-on-Snow surcharge load.

#### **Disclosure**

Completeness and accuracy of input must be verified by anyone who would rely on output as evidence of suitability for particular application. Output here based on building code-accepted design properties and analysis methods. Installation of BOISE engineered wood products must be in accordance with current installation Guide and applicable building codes. To obtain Installation Guide or ask questions, please call (800)232-0788 before installation.

Roof Beam\RH3

BC CALC® 2.0 Design Report - US

1 span | No cantilevers | 0/12 slope

Saturday, October 24, 2009 19:49

Build 285

Job Name: Address:

City, State, Zip:

Customer:

Kings Way Homes, L.L.C.

Code reports: ESR-1040

File Name: Pierri Description: RH3

Specifier: stl Designer: stl

Company: STL Consulting

Misc:

12 0

B0, 3-1/2" DL 1,975 lbs SL 1,862 lbs B1, 4-3/8" DL 3,075 lbs SL 2,900 lbs

Total Horizontal Product Length = 05-00-00

Load Summary					Live	Dead	Snow	Wind	Roof Liv	е
Tag Description	Load Type	Ref.	Start	End	100%	90%	115%	133%	125%	Trib.
1 Standard Load	Unf. Area (psf)	Left	00-00-00	04-00-00		31	30		2	1-00-00
2 GT1	Conc. Pt. (lbs)	Left	04-00-00	04-00-00		2,353	2,242			n/a

Controls Summary	Value	% Allowable	Duration	Case	Span
Pos. Moment	4,819 ft-lbs	30.0%	115%	3	1 - Internal
End Shear	-4,847 lbs	66.7%	115%	3	1 - Right
Total Load Defl.	L/1,533 (0.035")	11.7%		3	1
Live Load Defl.	<b> 13,156 (0.017")</b>	11.4%		3	1
Max Defl.	0.035"	3.5%		3	1
Span / Depth	5.6	n/a			1

Be	aring Supports	Dim. (L x W)	Value	% Allow Support	% Allow Member	Material
BO	Wall/Plate	3-1/2" x 3-1/2"	3,837 lbs	73.7%	41.8%	Spruce-Pine-Fir
B1	Wall/Plate	4-3/8" x 3-1/2"	5,976 lbs	91.8%	52.0%	Spruce-Pine-Fir

#### Cautions

For roof members with slope (1/4)/12 or less final design must ensure that ponding instability will not occur.

For roof members with slope (1/2)/12 or less final design must account for Rain-on-Snow surcharge load.

# Notes

Design meets Code minimum (L/180) Total load deflection criteria. Design meets User specified (L/360) Live load deflection criteria. Design meets arbitrary (1") Maximum load deflection criteria.

## Disclosure

Completeness and accuracy of input must be verified by anyone who would rely on output as evidence of suitability for particular application. Output here based on building code-accepted design properties and analysis methods. Installation of BOISE engineered wood products must be in accordance with current Installation Guide and applicable building codes. To obtain Installation Guide or ask questions, please call (800)232-0788 before installation.



Roof Beam\RH3

BC CALC® 2.0 Design Report - US Build 285

1 span | No cantilevers | 0/12 slope

Saturday, October 24, 2009 19:49

Job Name:

Address: City, State, Zip:

Customer:

Code reports:

Kings Way Homes, L.L.C.

**ESR-1040** 

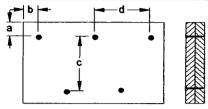
File Name: Pierri Description: RH3

Specifier: Designer: stl

Company: STL Consulting

Misc:

# **Connection Diagram**



a minimum = 2"

c = 5-1/2"

b minimum = 3"

d = 12"

Connection design assumes point load is 'top-loaded'. For connection design of 'side-loaded' point loads, please consult a technical representative or professional of Record.

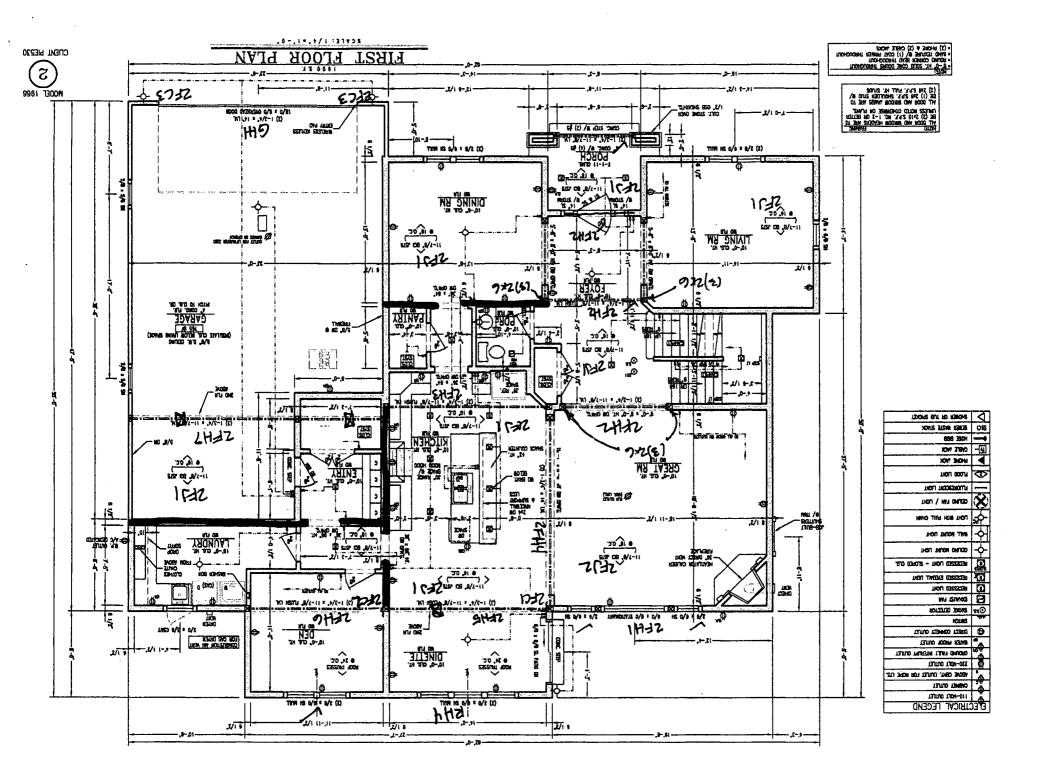
Member has no side loads.

Concentrated loads are not considered in side load analysis.

Connectors are: 16d Common Nails

### Disclosure

Completeness and accuracy of input must be verified by anyone who would rely on output as evidence of suitability for particular application. Output here based on building code-accepted design properties and analysis methods. Installation of BOISE engineered wood products must be in accordance with current Installation Guide and applicable building codes. To obtain Installation Guide or ask questions, please call (800)232-0788 before installation.





Single 11-7/8" BCI® 4500s-1.8 SP

1 span | No cantilevers | 0/12 slope 16" OCS | Repetitive | Glued & nailed construction Saturday, October 24, 2009 20:15

Joist\2FJ1

Job Name: Address:

Build 285

City, State, Zip: Customer:

er: Kings Way Homes, L.L.C.

Code reports: ESR-1336

BC CALC® 2.0 Design Report - US

File Name: Pierri Description: 2FJ1

Specifier: stl Designer: stl

Company: STL Consulting

Misc:

B0, 2-1/2" LL 467 ibs DL 280 lbs B1, 2-1/2" LL 467 lbs DL 280 lbs

Total Horizontal Product Length = 14-00-00

Load Summary		<del>خوارون نظام پر داران کا</del>			Live	Dead	Snow	Wind	Roof Live	,
Tag Description	Load Type	Ref.	Start	End	100%	90%	115%	133%	125%	ocs
2 BATHROOM - CT FLR	Unf. Area (psf)	Left	00-00-00	14-00-00	50	30				16"

<b>Controls Summary</b>	Value	% Allowable	Duration	Case	Span
Pos. Moment	2,506 ft-lbs	82.8%	100%	1	1 - Interna
End Reaction	724 lbs	61.0%	100%	1	1 - Left
Total Load Defl.	L/552 (0.298")	65.2%		1	1
Live Load Defl.	L/883 (0.186")	67.9%		1	1
Max Defl.	0.298"	59.6%		1	1
Span / Depth	13.9	n/a			1

Bear	ing Supports	Dim. (L x W)	Value	% Allow Support	% Allow Member	Material
B0	Wall/Plate	2-1/2" x 1-3/4"	747 lbs	40.2%	n/a	Spruce-Pine-Fir
B1	Wall/Plate	2-1/2" x 1-3/4"	747 lbs	n/a	n/a	Unspecified

### Notes

Design meets User specified (L/360) Total load deflection criteria.

Design meets User specified (L/600) Live load deflection criteria.

Design meets arbitrary (0.5") Maximum load deflection criteria.

Composite El value based on 23/32" thick sheathing glued and nailed to joist.

## **Disclosure**

Completeness and accuracy of input must be verified by anyone who would rely on output as evidence of suitability for particular application. Output here based on building code-accepted design properties and analysis methods. Installation of BOISE engineered wood products must be in accordance with current Installation Guide and applicable building codes. To obtain Installation Guide or ask questions, please call (800)232-0788 before installation.



BC CALC® 2.0 Design Report - US Build 285

Single 11-7/8" BCI® 60s-2.0 SP

1 span | No cantilevers | 0/12 slope 16" OCS | Repetitive | Glued & nailed construction Joist\2FJ2 Saturday, October 24, 2009 20:18

Job Name: Address: City, State, Zip:

Customer:

, בוף. , Kings Way Homes, L.L.C.

Code reports: ESR-1336

File Name: Pierri Description: 2FJ2

Specifier: stl Designer: stl

Company: STL Consulting

Misc:

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X														-				18-1	06-0	Ю								 			 				×

B0, 2-1/2" LL 614 lbs DL 368 lbs B1, 3-1/2" LL 619 lbs DL 372 lbs

Total Horizontal Product Length = 18-06-00

								205	D (1	
Load Summary					Live	Dead	Snow	Wind	Roof Live	
Tag Description	Load Type	Ref.	Start	End	100%	90%	115%	133%	125%	ocs
1 BATHROOM - CT FLR	Unf. Area (psf)	Left	00-00-00	18-06-00	50	30				16"

Controls Summary	Value	% Allowable	Duration	Case	Span
Pos. Moment	4,390 ft-lbs	70.4%	100%	1	1 - Internal
End Reaction	960 lbs	71.5%	100%	1	1 - Left
Total Load Defl.	L/395 (0.551")	91.0%		1	1
Live Load Defl.	L/633 (0.344")	94.8%		1	1
Max Defl.	0.551"	55.1%		1	1
Span / Depth	18.3	n/a			1
			Of Allows	g/ Allow	

Bear	ing Supports	Dim. (L x ₩)	Value	% Allow Support	% Allow Wember	Waterial
B0	Wall/Plate	2-1/2" x 2-5/16"	982 lbs	40.0%	n/a	Spruce-Pine-Fir
B1	Wali/Plate	3-1/2" x 2-5/16"	991 lbs	28.8%	n/a	Spruce-Pine-Fir

# Notes

Design meets User specified (L/360) Total load deflection criteria. Design meets User specified (L/600) Live load deflection criteria. Design meets arbitrary (1") Maximum load deflection criteria.

Composite El value based on 23/32" thick sheathing glued and nailed to joist.

### Disclosure

Completeness and accuracy of input must be verified by anyone who would rely on output as evidence of suitability for particular application. Output here based on building code-accepted design properties and analysis methods. Installation of BOISE engineered wood products must be in accordance with current Installation Guide and applicable building codes. To obtain Installation Guide or ask questions, please call (800)232-0788 before installation.

Roof Beam\RH4

BC CALC® 2.0 Design Report - US

1 span | No cantilevers | 0/12 slope

Saturday, October 24, 2009 20:35

**Build 285** 

Job Name: Address: City, State, Zip:

Customer: Kings Way Homes, L.L.C.

Code reports: **ESR-1040**  File Name: Pierri Description: RH4 Specifier: stl Designer. stl

Company: STL Consulting

Misc:

09-06-00

BO, 3-1/2" **DL 676 lbs** SL 1,697 lbs

B1, 4-3/8" DL 640 lbs SL 1,723 lbs

Total Horizontal Product Length = 09-06-00

Load Summary					Live	Dead	Snow	Wind	Roof Liv	е
Tag Description	Load Type	Ref.	Start	End	100%	90%	115%	133%	125%	Trib.
1 DRIFT SNOW	Unf. Area (psf)	Left	00-00-00	09-06-00		31	90		04	4-00-00

<b>Controls Summar</b>	y Value	% Allowable	Duration	Case	Span
Pos. Moment	5,020 ft-lbs	31.3%	115%	3	1 - Internal
End Shear	1,824 lbs	25.1%	115%	3	1 - Left
Total Load Defl.	<b></b>	24.3%		3	1
Live Load Defl.	Ľ1,027 (0.105")	35.1%		3	1
Max Defl.	0.145"	14.5%		3	1
Span / Depth	11.3	n/a			1

Bear	ing Supports	Dim. (L x W)	Value	% Allow Support	% Allow Member	Material
B0	Wall/Plate	3-1/2" x 3-1/2"	2,373 lbs	45.6%	25.8%	Spruce-Pine-Fir
B1	Wall/Plate	4-3/8" x 3-1/2"	2,363 ibs	36.3%	20.6%	Spruce-Pine-Fir

# **Cautions**

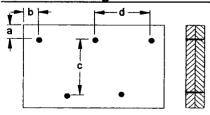
For roof members with slope (1/4)/12 or less final design must ensure that ponding instability will not occur.

For roof members with slope (1/2)/12 or less final design must account for Rain-on-Snow surcharge load.

# Notes

Design meets Code minimum (L/180) Total load deflection criteria. Design meets User specified (L/360) Live load deflection criteria. Design meets arbitrary (1") Maximum load deflection criteria.

# Connection Diagram



a minimum = 2"

c = 5-1/2"

b minimum = 3"

d = 12"

Member has no side loads.

Connectors are: 16d Common Nails

#### **Disclosure**

Completeness and accuracy of input must be verified by anyone who would rely on output as evidence of suitability for particular application. Output here based on building code-accepted design properties and analysis methods. Installation of BOISE engineered wood products must be in accordance with current Installation Guide and applicable building codes. To obtain Installation Guide or ask questions, please call (800)232-0788 before installation.

Floor Beam\2FH1

BC CALC® 2.0 Design Report - US Build 285

1 span | No cantilevers | 0/12 slope

Sunday, October 25, 2009 10:56

Job Name:

Address: City, State, Zip:

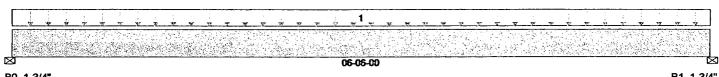
Kings Way Homes, L.L.C.

Customer: Code reports: ESR-1040 File Name: Pierri Description: 2FH1 Specifier: sti

Designer. stl

Company: STL Consulting

Misc:



BO, 1-3/4" LL 1.625 lbs DL 1,005 lbs

B1, 1-3/4" LL 1,625 lbs DL 1,005 lbs

Total Horizontal Product Length = 06-06-00

Load Summary					Live	Dead	Snow	Wind	Roof Liv	e
Tag Description	Load Type	Ref.	Start	End	100%	90%	115%	133%	125%	Trib.
1 2FJ2	Unf. Area (psf)	Left	00-00-00	06-06-00	50	30			10	0-00-00

Controls Summary	Value	% Allowable	Duration	Case	Span
Pos. Moment	4,058 ft-lbs	29.1%	100%	1	1 - Internal
End Shear	1,872 lbs	29.6%	100%	1	1 - Left
Total Load Defl.	L/1,297 (0.059")	18.5%		1	1
Live Load Defl.	L/2,100 (0.036")	22.9%		1	1
Max Defl.	0.059"	5.9%		1	1
Span / Depth	8.0	n/a			1

Bear	ing Supports	Dim. (L x ₩)	Value	% Allow Support	% Allow Member	Waterial
B0	Wall/Plate	1-3/4" x 3-1/2"	2,630 lbs	(101.0%)	57.3%	Spruce-Pine-Fi
B1	Wall/Plate	1-3/4" x 3-1/2"	2,630 lbs	101.0%	57.3%	Spruce-Pine-Fi
Cand	ione				BAY OF	

Cautions

Bearing length at bearing B0 should be at least 1-13/16".

Bearing B0 cannot support a load of 2,630 lbs.

Bearing length at bearing B1 should be at least 1-13/16".

Bearing B1 cannot support a load of 2,630 lbs.

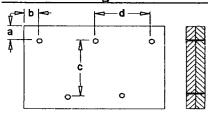
# Notes

Design meets Code minimum (L/240) Total load deflection criteria.

Design meets User specified (L/480) Live load deflection criteria.

Design meets arbitrary (1") Maximum load deflection criteria.

# Connection Diagram



a minimum = 2"

c = 5-1/2"

b minimum = 3"

d = 12"

Member has no side loads.

Connectors are: 16d Common Nails

#### Disclosure

Completeness and accuracy of input must be verified by anyone who would rely on output as evidence of suitability for particular application. Output here based on building code-accepted design properties and analysis methods. Installation of BOISE engineered wood products must be in accordance with current Installation Guide and applicable building codes. To obtain Installation Guide or ask questions, please ircall (800)232-0788 before installation.



Figor Beam\2FH2

BC CALC® 2.0 Design Report - US Build 285

1 span | No cantilevers | 0/12 slope

Sunday, October 25, 2009 10:47

Job Name: Address:

City, State, Zip:

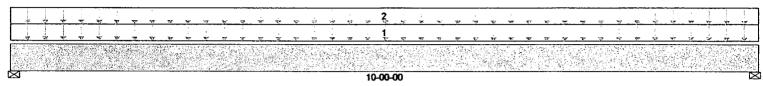
Kings Way Homes, L.L.C.

Customer: ESR-1040 Code reports:

File Name: Pierri Description: 2FH2 Specifier. stl Designer. stl

Company: STL Consulting

Misc:



BO. 4-3/8" LL 3,500 lbs DL 2,086 lbs

B1, 4-3/8" LL 3.500 lbs DL 2,064 lbs

Total Horizontal Product Length = 10-00-00

Load Summary				·	Live	Dead	Snow	Wind	Roof Liv	/e
Tag Description	Load Type	Ref.	Start	End	100%	90%	115%	133%	125%	Trib.
1 2FJ1	Unf. Area (psf)	Left	00-00-00	10-00-00	40	20			0	5-00-00
2 2FJ2	Unf. Area (psf)	Left	00-00-00	10-00-00	50	30			1	0-00-00

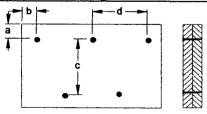
<b>Controls Summary</b>	Value	% Allowable	Duration	Case	Span
Pos. Moment	12,292 ft-lbs	57.8%	100%	1	1 - Internal
End Shear	4,068 lbs	51.5%	100%	1	1 - Left
Total Load Defl.	L/564 (0.2")	63.9%		1	1
Live Load Defl.	L/897 (0.126")	53.5%		1	1
Max Defl.	0.2" ` ′	20.0%		1	1
Span / Depth	9.5	n/a			1

Beari	ing Supports	Dim. (L x W)	Value	% Allow Support	% Allow Member	Material
B0	Wall/Plate	4-3/8" x 3-1/2"	5,586 lbs	85.8%	48.6%	Spruce-Pine-Fir
B1	Wall/Plate	4-3/8" x 3-1/2"	5,564 lbs	85.5%	48.4%	Spruce-Pine-Fir

## **Notes**

Design meets User specified (L/360) Total load deflection criteria. Design meets User specified (L/480) Live load deflection criteria. Design meets arbitrary (1") Maximum load deflection criteria.

# **Connection Diagram**



a minimum = 2"

c = 7-7/8"

b minimum = 3"

d = 12"

Member has no side loads.

Connectors are: 16d Common Nails

## **Disclosure**

Completeness and accuracy of input must be verified by anyone who would rely on output as evidence of suitability for particular application. Output here based on building code-accepted design properties and analysis methods. Installation of BOISE engineered wood products must be in accordance with current Installation Guide and applicable building codes. To obtain Installation Guide or ask questions, please call (800)232-0788 before installation.

Floor Beam\2FH3

BC CALC® 2.0 Design Report - US

1 span | No cantilevers | 0/12 slope

Sunday, October 25, 2009 10:50

Build 285

Job Name:

Customer:

Address:

File Name: Pierri Description: 2FH3

Specifier: stl Designer: stl

Designer: Company:

Misc:

STL Consulting

Kings Way Homes, L.L.C. ESR-1040

\_\_\_\_\_

Code reports:

City, State, Zip:

14-06-00

B0, 3-1/2" LL 1,450 lbs DL 941 lbs B1, 3-1/2" LL 1,450 lbs DL 862 lbs

Total Horizontal Product Length = 14-06-00

Load Summary					Live	Dead	Snow	Wind	Roof Live	e
Tag Description	Load Type	Ref.	Start	End	100%	90%	115%	133%	125%	Trib.
1 2FJ1	Unf. Area (psf)	Left	00-00-00	14-06-00	40	20			05	5-00-00

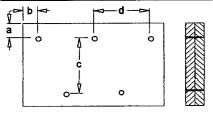
Controls Summary	Value	% Allowable	Duration	Case	Span
Pos. Moment	8,007 ft-lbs	37.6%	100%	1	1 - Internal
End Shear	1,959 lbs	24.8%	100%	1	1 - Left
Total Load Defl.	L/580 (0.291")	62.1%		1	1
Live Load Defl.	L/941 (0.179")	51.0%		1	1
Max Defl.	0.291"	29.1%		1	1
Span / Depth	14.2	n/a			1

Bear	ring Supports	Dim. (L x ₩)	Value	% Allow Support	% Allow Member	₩aterial
B0	Wall/Plate	3-1/2" x 3-1/2"	2,391 lbs	45.9%	26.0%	Spruce-Pine-Fir
B1	Wall/Plate	3-1/2" x 3-1/2"	2,312 lbs	44.4%	25.2%	Spruce-Pine-Fir

# Notes

Design meets User specified (L/360) Total load deflection criteria. Design meets User specified (L/480) Live load deflection criteria. Design meets arbitrary (1") Maximum load deflection criteria.

Connection Diagram



a minimum = 2"

c = 7-7/8"

b minimum = 3"

d = 12"

Calculated Side Load = 150.0 plf

Connectors are: 16d Common Nails

# Disclosure

Completeness and accuracy of input must be verified by anyone who would rely on output as evidence of suitability for particular application. Output here based on building code-accepted design properties and analysis methods. Installation of BOISE engineered wood products must be in accordance with current Installation Guide and applicable building codes. To obtain Installation Guide or ask questions, please call (800)232-0788 before installation.



### Triple 1-3/4" x 14" VERSA-LAM® 2.0 3100 SP

### Floor Header\2FH4

BC CALC® 2.0 Design Report - US Build 285

1 span | No cantilevers | 0/12 slope 01-04-00 OCS Sunday, October 25, 2009 19:29

Job Name: Address:

City, State, Zip: ,
Customer: Kings Way Homes, L.L.C.

Code reports: ESR-1040

File Name: Pierri Description: 2FH4 Specifier: stl Designer: stl

Company: STL Consulting

Misc:

T - W - W - W	<del>* * * * * * * * * * * * * * * * * * * </del>	* * * * * *
$\bowtie$	18-00-00	×

B0, 3-1/2" LL 2,880 lbs DL 1,626 lbs B1, 3-1/2" LL 2,880 lbs DL 1,626 lbs

Total Horizontal Product Length = 18-00-00

Load Summary					Live	Dead	Snow	Wind	Roof Live	e
Tag Description	Load Type	Ref.	Start	End	100%	90%	115%	133%	125%	ocs
1 2FH1	Unf. Area (psf)	Left	00-00-00	18-00-00	40	20			30	3-00-00

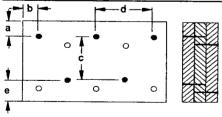
<b>Controls Summar</b>	y Value	% Allowable	Duration	Case	Span
Pos. Moment	19,259 ft-lbs	44.2%	100%	1	1 - Internal
End Shear	3,776 lbs	27.0%	100%	1	1 - Left
Total Load Defl.	L/474 (0.444")	50.7%		1	1
Live Load Defl.	L/741 (0.284'')	64.7%		1	1
Max Defl.	0.444"`	44.4%		1	1
Span / Depth	15.0	n/a		•	1

Bear	ing Supports	Dim. (L x W)	Value	% Allow Support	% Allow Member	Material
B0	Wall/Plate	3-1/2" x 5-1/4"	4,506 lbs	57.7%	32.7%	Spruce-Pine-Fir
B1	Wall/Plate	3-1/2" x 5-1/ <b>4"</b>	4,506 lbs	57.7%	32.7%	Spruce-Pine-Fir

### **Notes**

Design meets Code minimum (L/240) Total load deflection criteria. Design meets User specified (L/480) Live load deflection criteria. Design meets arbitrary (1") Maximum load deflection criteria.

**Connection Diagram** 



a minimum = 2"

c = 9"

b minimum = 3"

d = 12"

e minimum = 3"

Member has no side loads.

Connectors are: 16d Common Nails

### Disclosure

Completeness and accuracy of input must be verified by anyone who would rely on output as evidence of suitability for particular application. Output here based on building code-accepted design properties and analysis methods. Installation of BOISE engineered wood products must be in accordance with current Installation Guide and applicable building codes. To obtain Installation Guide or ask questions, please call (800)232-0788 before installation.

Triple 1-3/4" x 16" VERSA-LAM® 2.0 3100 SP

Floor Header\2FH5

BC CALC® 2.0 Design Report - US Build 285

1 span | No cantilevers | 0/12 slope 05-00-00 OCS

Sunday, October 25, 2009 19:12

Job Name: Address: City, State, Zip:

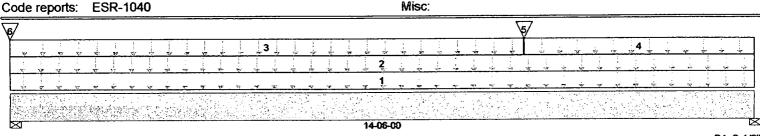
Customer:

File Name: Pierri Description: 2FH5 Specifier: sti Designer: stl

Kings Way Homes, L.L.C. **ESR-1040** 

Company: STL Consulting

Misc:



B0, 5-1/2" LL 3,450 lbs DL 8,594 lbs SL 8,551 lbs

B1, 2-1/2" LL 570 lbs DL 6,336 lbs SL 7,807 lbs

Total Horizontal Product Length = 14-06-00

L	oad Summary					Live	Dead	Snow	Wind	Roof Li	ve
	g Description	Load Type	Ref.	Start	End	100%	90%	115%	133%	125%	<u>ocs</u>
1	LOW ROOF	Unf. Area (psf)	Left	00-00-00	14-06-00		31	90		(	05-00-00
2	2FJ1	Unf. Area (psf)	Left	00-00-00	14-06-00	40	20			(	02-00-00
3	FULL ROOF	Unf. Area (psf)	Left	00-00-00	10-00-00		31	30		2	22-00-00
4	PARTIAL ROOF	Unf. Area (psf)	Left	10-00-00	14-06-00		31	30		(	09-00-00
5	GT1	Conc. Pt. (lbs)	Left	10-00-00	10-00-00		2,120	2,018			n/a
6	2FH4	Conc. Pt. (lbs)	Left	00-00-00	00-00-00	2,860	1,564				n/a

Controls Summary	Value	% Allowable	Duration	Case	Span
Pos. Moment	56,302 ft-lbs	87.4%	115%	2	1 - Internal
End Shear	-12,713 lbs	69.3%	115%	2	1 - Right
Total Load Defl.	L/305 (0.549")	78.7%		2	1
Live Load Defl.	<b>∟/543 (0.308")</b>	88.3%		2	· 1
Max Defl.	0.549"	54.9%		2	1
Span / Depth	10.5	n/a			1

Bear	ing Supports	Dim. (L x ₩)	Value	% Allow Support	% Allow Member	Material
B0	Wall/Plate	5-1/2" x 5-1/4"	20,595 lbs	0.7%	95.1%	Steel
- <del>B</del> 1	Wall/Plate-	-2-1/2" x 5-1/4"	14,713 lbs	1.1%	149.5%	<del>Steel -</del>
			·	SEE	2862	

### Cautions

Bearing length at bearing B1 should be at least 3-3/4".

### Notes

Design meets Code minimum (L/240) Total load deflection criteria. Design meets User specified (L/480) Live load deflection criteria. Design meets arbitrary (1") Maximum load deflection criteria.

### Disclosure

Completeness and accuracy of input must be verified by anyone who would rely on output as evidence of suitability for particular application. Output here based on building code-accepted design properties and analysis methods. Installation of BOISE engineered wood products must be in accordance with current Installation Guide and applicable building codes. To obtain Installation Guide or ask questions, please call (800)232-0788 before installation.



### Triple 1-3/4" x 16" VERSA-LAM® 2.0 3100 SP

### Floor Header\2FH5

BC CALC® 2.0 Design Report - US Build 285

1 span | No cantilevers | 0/12 slope 05-00-00 OCS Sunday, October 25, 2009 19:12

Job Name: Address:

Code reports:

City, State, Zip: ,
Customer: Kings Way Homes, L.L.C

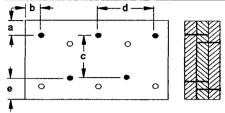
Kings Way Homes, L.L.C. ESR-1040

File Name: Pierri Description: 2FH5 Specifier: stl Designer: stl

Company: STL Consulting

Misc:

### **Connection Diagram**



a minimum = 2" b minimum = 3" c = 11"

m = 3" d = 12"

e minimum = 3"

Calculated Side Load = 60.0 plf

Connection design assumes point load is 'top-loaded'. For connection design of 'side-loaded' point loads, please consult a technical representative or professional of Record.

Nailing schedule applies to both sides of the member.

Concentrated loads are not considered in side load analysis.

Connectors are: 16d Common Nails

### Disclosure

Completeness and accuracy of input must be verified by anyone who would rely on output as evidence of suitability for particular application. Output here based on building code-accepted design properties and analysis methods. Installation of BOISE engineered wood products must be in accordance with current Installation Guide and applicable building codes. To obtain Installation Guide or ask questions, please call (800)232-0788 before installation.



Triple 1-3/4" x 11-7/8" VERSA-LAM® 2.0 3100 SP

Floor Header\2FH6

BC CALC® 2.0 Design Report - US Build 285

1 span | No cantilevers | 0/12 slope 05-00-00 OCS

Sunday, October 25, 2009 19:13

Job Name: Address:

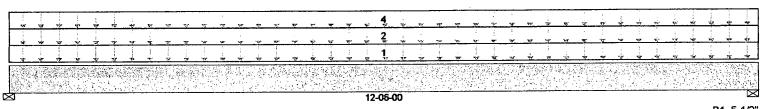
City, State, Zip:

File Name: Pierri Description: 2FH6 Specifier stl Designer. stl

Company: STL Consulting

Misc:

Kings Way Homes, L.L.C. Customer: ESR-1040 Code reports:



BO, 2-1/2" LL 980 lbs DL 3,403 lbs SL 4,410 lbs

B1, 5-1/2" LL 1,020 lbs DL 3,542 lbs SL 4,590 lbs

Total Horizontal Product Length = 12-06-00

	<u></u>	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	7110E 1 100CC1							
Load Summary					Live	Dead	Snow	Wind	Roof Liv	re
Tag Description	Load Type Ref.	Ref.	Start	End	100%	90%	115%	133%	125%	ocs
1 LOW ROOF	Unf. Area (psf)	Left	00-00-00	12-06-00		31	90		0	5-00-00
2 2FJ1	Unf. Area (psf)	Left	00-00-00	12-06-00	40	20			0	4-00-00
4 ROOF	Unf. Area (psf)	Left	00-00-00	12-06-00		31	30		0	9-00-00

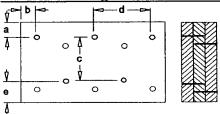
<b>Controls Summary</b>	Value	% Allowable	Duration	Case	Span
Pos. Moment	25,661 ft-lbs	69.9%	115%	13	1 - Internal
End Shear	7,073 lbs	51.9%	115%	2	1 - Left
Total Load Defl.	L∕318 (0.451")	75.4%		13	1
Live Load Defl.	Ľ519 (0.276")	92.4%		13	1
Max Defl.	0.451" <sup>^</sup>	45.1%		13	1
Span / Depth	12.1	n/a			1

<b>-</b>	O			% Allow	% Allow	DO-AI-J
Bear	ing Supports	Dim. (L x 44)	<b>Value</b>	Support	Member_	Material
B0	Wall/Plate	2-1/2" x 5-1/4"	8,793 lbs	0.7%	89.3%	Steel
B1	Wall/Plate	5-1/2" x 5-1/4"	9,152 lbs	74.6%	42.3%	Spruce-Pine-Fir

### Notes

Design meets Code minimum (L/240) Total load deflection criteria. Design meets User specified (L/480) Live load deflection criteria. Design meets arbitrary (1") Maximum load deflection criteria.

Connection Diagram



a minimum = 2" b minimum = 3"

c = 6-7/8"

d = 12"

e minimum = 3"

Calculated Side Load = 120.0 plf

Nailing schedule applies to both sides of the member.

Connectors are: 16d Common Nails

### Disclosure

Completeness and accuracy of input must be verified by anyone who would rely on output as evidence of suitability for particular application. Output here based on building code-accepted design properties and analysis methods. Installation of BOISE engineered wood products must be in accordance with current Installation Guide and applicable building codes. To obtain Installation Guide or ask questions, please call (800)232-0788 before installation.



COMPANY

STL Consulting Oct. 25, 2009 19:18 **PROJECT** 

Column 1 - ZFC1

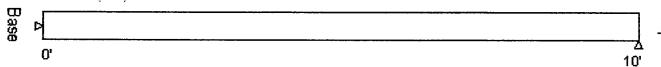
### **Design Check Calculation Sheet**

Sizer 8.1

### LOADIS:

Load	Type	Distribution	Pat-	Location [ft]	Magnitude	Unit
			tern	Start End	Start End	
Loadl	Dead	Axial		(Ecc. = 0.00")	8594	lbs
Load2	Live	Axial		(Ecc. = 0.00")	3450	lbs
Load3	Snow	Axial		(Rec. = 0.00")	8551	lbs

### MAXIMUM REACTIONS (thes):



Lumber n-ply, S-P-F, Stud, 2x6". 2-Plys

PRESSURE

Self-weight of 5.0 plf included in loads;

Pinned base; Loadface = width(b); Built-up fastener: nails; Ke  $\times$  Lb: 1.00  $\times$  0.00= 0.00 [ft]; Ke  $\times$  Ld: 1.00  $\times$  0.00= 0.00 [ft]; Repetitive factor: applied where permitted (refer to online help);

### Analysis vs. Allowable Stress (psi) and Deflection (in) using IIDS 2005:

	Criterion	Analysis Value	Design Value	Analysis/Design
	Axial	fc = 713	Fc' = 834	fc/Fc' = 0.86
l	Axial Bearing	fc = 713	Fc* = 834	fc/Fc* = 0.86*

<sup>\*</sup>Column requires a bearing plate at top as per NDS 3.10.1.3

### ADDITIONAL DATA:

FACTORS: F/E CM Ct CL/CP CF Cfu Cr Cfrt Ci LC# Fc' 725 1.15 1.00 1.00 1.000 1.000 1.00 1.00 Fc\* 725 1.15 1.00 1.00 1.000 1.00 1.00 3

Axial : LC #3 = D+.75(L+S), P = 17645 lbs Kf = 1.00

D=dead L=live S=snow W=wind I=impact Lr=roof live Lc=concentrated

All LC's are listed in the Analysis output

Load combinations: ICC-IBC

### DESIGN NOTES:

- 1. Please verify that the default deflection limits are appropriate for your application.
- 2. BUILT-UP COLUMNS: nailed or botted built-up columns shall conform to the provisions of NDS Clause 15.3.



COMPANY STL Consulting Oct. 25, 2009 19:34 PPND DECT

Column 1 - 2FCZ

용

Design Check Calculation Sheet Sizer 8.1

### LOADS:

Load	Туре	Distribution	Pat-	Location [ft]		Magnitude		Unit	
			tern	Start	End	Start	End		
Loadl	Dead	Axial		(Ecc. = 0.0	00")	9878		lbs	
Load2	Live	Axial		(Ecc. = 0.0	00"}	1590		lbs	
Load3	Snow	Axial		(Ecc. $= 0.0$	00")	12397		lbs	

### MAXIMUM REACTIONS (Ins):

8 P 10'

### Lumber n-ply, S-P-F, Stud, 2x6", 5-Plys

Self-weight of 8.34 plf included in loads;

Pinned base; Loadface = width(b); Built-up fastener: nails; Ke x Lb:  $1.00 \times 0.00 = 0.00$  [ft]; Ke x Ld:  $1.00 \times 10.00 = 10.00$  [ft]; Repetitive factor: applied where permitted (refer to online help);

WARNING: 5-ply built-up columns are not recommended. Refer to Design Note below.

Analysis vs. Allowable Stress (psi) and Deflection (in) using IMS 2005:

Criterion	Analysis Value	Design Value	Analysis/Design
Axial	fc = 542	Fc' = 549	fc/Fc' = 0.99
Axial Bearing	fc = 542	Fc* = 834	fc/Fc* = 0.65

### AIMINTICINAL DATA:

FACTORS: F/E CD CH CL/CP CF Cfu Cfrt Ci LC# Ct Cr Fc' 725 1.15 1.00 1.00 1.00 1.00 0.658 1.000 Fc\* 725 1.15 1.00 1.00 1.000 1.00 1.00

Axial : LC #4 = D+S, P = 22358 lbs Kf = 1.00

D=dead L=live S=snow W=wind I=impact Lr=roof live Lc=concentrated

All LC's are listed in the Analysis output

Load combinations: ICC-IBC

### DESIGN NOTES:

- 1. Please verify that the default deflection limits are appropriate for your application.
- 2. BUILT-UP COLUMNS: nailed or botted built-up columns shall conform to the provisions of NDS Clause 15.3.



### Triple 1-3/4" x 11-7/8" VERSA-LAM® 2.0 3100 SP

1 span | No cantilevers | 0/12 slope

Sunday, October 25, 2009 19:45

BC CALC® 2.0 Design Report - US Build 285

05-00-00 OCS

Floor Header\2FH7

Job Name: Address:

File Name: Pierri Description: 2FH7 Specifier. stl Designer: stl

City, State, Zip: Customer:

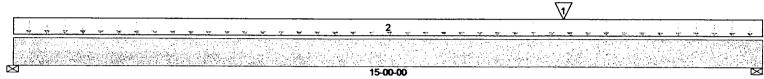
Kings Way Homes, L.L.C.

Code reports:

**ESR-1040** 

Company: STL Consulting

Misc:



B0, 2-1/2" LL 1,865 lbs DL 1.872 lbs SL 309 lbs

B1, 3-1/2" LL 1,885 lbs DL 2,401 lbs SL 891 lbs

Total Horizontal Product Length = 15-00-00

Load Summary						Live	Dead	Snow	Wind	Roof Liv	ve
<u>Ta</u>	g Description	Load Type	Ref.	Start	End	100%	90%	115%	133%	125%	ocs
1	ROOF	Conc. Pt. (lbs)	Left	11-00-00	11-00-00		1,240	1,200		-	n/a
2	2FJ1	Unf. Area (psf)	Left	00-00-00	15-00-00	50	30	,		0	5-00-00

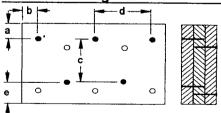
<b>Controls Summary</b>	Value	% Allowabie	Duration	Case	Span
Pos. Moment	17,243 ft-lbs	47.0%	115%	2	1 - Internal
End Shear	-4,642 lbs	34.1%	115%	2	1 - Right
Total Load Defl.	L/387 (0.454")	93.1%		2	1
Live Load Defl.	L/728 (0.241")	65.9%		2	1
Max Defl.	0.454" ´	45.4%		2	1
Span / Depth	14.8	n/a		_	1

Bear	ing Supports	Dim. (L x W)	Value	% Allow Support	% Allow Member	Material
B0	Wall/Plate	2-1/2" x 5-1/4"	4,046 lbs	72.5%	41.1%	Spruce-Pine-Fir
B1	Wall/Plate	3-1/2" x 5-1/4"	5,177 lbs	66.3%	37.6%	Spruce-Pine-Fir

### Notes

Design meets User specified (L/360) Total load deflection criteria. Design meets User specified (L/480) Live load deflection criteria. Design meets arbitrary (1") Maximum load deflection criteria.

**Connection Diagram** 



a minimum = 2" b minimum = 3"

c = 6-7/8" d = 12"

e minimum = 3"

Calculated Side Load = 200.0 plf

Connection design assumes point load is 'top-loaded'. For connection design of 'side-loaded' point loads, please consult a technical representative or professional of

Concentrated loads are not considered in side load analysis.

Connectors are: 16d Common Nails

### Disclosure

Completeness and accuracy of input must be verified by anyone who would rely on output as evidence of suitability for particular application. Output here based on building code-accepted design properties and analysis methods. Installation of BOISE engineered wood products must be in accordance with current Installation Guide and applicable building codes. To obtain Installation Guide or ask questions, please call (800)232-0788 before installation.



Double 1-3/4" x 14" VERSA-LAM® 2.0 3100 SP

Roof Beam\GH1

BC CALC® 2.0 Design Report - US

1 span | No cantilevers | 0/12 slope

Sunday, October 25, 2009 19:51

Build 285

Job Name: Address: City, State, Zip: Customer:

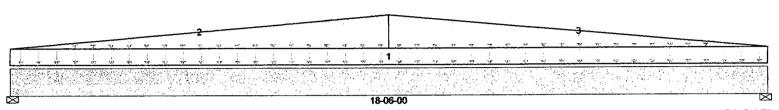
Kings Way Homes, L.L.C.

Code reports: **ESR-1040**  File Name: Pierri Description: GH1 Specifier: stl Designer. stl

Misc:

Company: STL Consulting

12



B0. 2-1/2" DL 1,876 lbs SL 1,110 lbs

B1, 2-1/2" DL 1,876 lbs SL 1,110 lbs

Total Horizontal Product Length = 18-06-00

	ad Summary					Live	Dead	Snow	Wind	Roof Live	
	Description	Load Type	Ref.	Start	End	100%	90%	115%	133%	125%	Trib.
1	Standard Load	Unf. Area (psf)	Left	00-00-00	18-06-00		31	30	•	(	04-00-00
2	GABLE END	Trapezoidal (plf)	Left	00-00-00			0				n/a
					09-03-00		130				n/a
3	GABLE END	Trapezoidal (plf)	Left	09-03-00			130				n/a
		, , ,			18-06-00		0				n/a

<b>Controls Summary</b>	Value	% Allowable	Duration	Case	Span
Pos. Moment	14,304 ft-lbs	42.8%	115%	3	1 - Internal
End Shear	2,618 lbs	24.5%	115%	3	1 - Left
Total Load Defl.	L/414 (0.528")	87.0%		3	1
Live Load Defl.	L/1,178 (0.185")	30.5%		3	1
Max Defl.	0.528"	52.8%		3	1
Span / Depth	15.6	n/a			1

Bear	ring Supports	Dim. (L x W)	Value	% Allow Support	% Allow Member	Waterial
B0	Wall/Plate	2-1/2" x 3-1/2"	2,986 lbs	80.3%	45.5%	Spruce-Pine-Fir
B1	Wall/Plate	2-1/2" x 3-1/2"	2,986 lbs	80.3%	45.5%	Spruce-Pine-Fir

### **Cautions**

For roof members with slope (1/4)/12 or less final design must ensure that ponding instability will not occur.

For roof members with slope (1/2)/12 or less final design must account for Rain-on-Snow surcharge load.

### Notes

Design meets User specified (L/360) Total load deflection criteria. Design meets User specified (L/360) Live load deflection criteria. Design meets arbitrary (1") Maximum load deflection criteria.

### Disclosure

Completeness and accuracy of input must be verified by anyone who would rely on output as evidence of suitability for particular application. Output here based on building code-accepted design properties and analysis methods. Installation of BOISE engineered wood products must be in accordance with current Installation Guide and applicable building codes. To obtain Installation Guide or ask questions, please call (800)232-0788 before installation.



### Double 1-3/4" x 14" VERSA-LAM® 2.0 3100 SP

Roof Beam\GH1

BC CALC® 2.0 Design Report - US Build 285

1 span | No cantilevers | 0/12 slope

Sunday, October 25, 2009 19:51

Job Name: Address:

City, State, Zip:

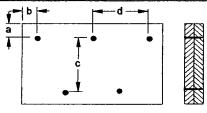
Customer: Kings Way Homes, L.L.C. Code reports: ESR-1040

File Name: Pierri Description: GH1 Specifier: stl Designer: stl

Company: STL Consulting

Misc:

**Connection Diagram** 



a minimum = 2"

c = 10"

b minimum = 3"

d = 12"

Member has no side loads.

Connectors are: 16d Common Nails

### Disclosure

Completeness and accuracy of input must be verified by anyone who would rely on output as evidence of suitability for particular application. Output here based on building code-accepted design properties and analysis methods. Installation of BOISE engineered wood products must be in accordance with current Installation Guide and applicable building codes. To obtain Installation Guide or ask questions, please call (800)232-0788 before installation.



COMPAIN STL Consulting Oct. 25, 2009 19:58 PPOJECT

Column1 - 2FC3A

### Design Check Calculation Sheet Sizer 8.1

### LOAIIS:

Load	Type	Distribution Pat- Location [ft]		Magnitude		Unit		
			tern	Start	Knd	Start	End	
Loadl	Dead	Axial		(Ecc. = 0.	("00	1876	•	lbs
LoadZ	Snow	Axial	1	(Bcc. = 0.	.00"}	1110		lbs

### MAXIMUM REACTIONS (Illis):

86 P 10'

Lumber n-ply. S-P-F, Stud. 2×6", 2-Plys

Self-weight of 3.33 plf included in loads;

Pinned base; Loadface = width(b); Built-up fastener: nails; Ke x Lb:  $1.00 \times 0.00 = 0.00$  [ft]; Ke x Ld:  $1.00 \times 10.00 = 10.00$  [ft];

Analysis vs. Allowable Stress (psi) and Deflection find using IDS 2005:

Criterion	Analysis Value	Design Valu	e Analysis/Design
Axial	fc = 183	Fc' = 549	fc/Fc' = 0.33
Axial Bearing	fc = 183	Fc* = 834	fc/Fc* = 0.22

### ADMINITIONAL DATA:

CL/CP Ci LC# FACTORS: F/E CD CM Ct CF Cfu Cfrt 1.00 1.00 2 Fc' 725 1.15 1.00 0.658 1.000 1.00 1.00 1.00 2 Fc\* 725 1.15 1.00 1.00 1.000

Axial : LC #2 = D+S, P = 3019 lbs Kf = 1.00

D=dead L=live S=snow W=wind I=impact Lr=roof live Lc=concentrated

All LC's are listed in the Analysis output

Load combinations: ICC-IBC

### THESIGN MOTES:

- 1. Please verify that the default deflection limits are appropriate for your application.
- 2. BUILT-UP COLUMNS: nailed or bolted built-up columns shall conform to the provisions of NDS Clause 15.3.



COMPANY STL Consulting Oct. 25, 2009 19:59 **PROJECT** 

Column - 2FC3B

### **Design Check Calculation Sheet**

Sizer 8.1

### LOADS:

Load	Type	Distribution	Pat-	Location	[ft]	Magnitu	.de	Unit
			tern	Start	End	Start	End	ŀ
Loadl	Wind	Full Area				20.00 (9	.00)*	psf
*Tvibut ave	Titale la / fe l	· · · · · · · · · · · · · · · · · · ·						<u> </u>

<sup>\*</sup>Tributary Width (ft)

### MAXIMUM REACTIONS (lbs):

3ase	D	- C	3
	O'	Δ	
	U	10'	

Unfactored:		
Dead		
Other	900	
Factored:		
Total	900	

### Lumber n-ply, S-P-F, Stud. 2x6", 3-Plys

Self-weight of 5.0 plf included in loads;

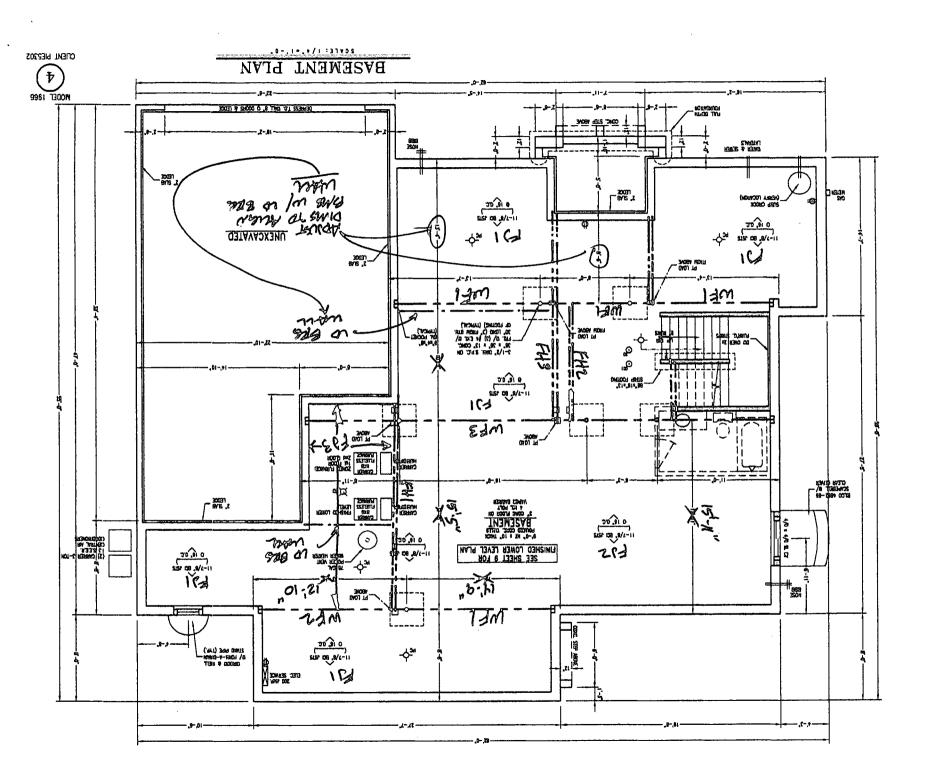
Pinned base; Loadface = width(b); Built-up fastener: nails; Ke  $\times$  Lb: 1.00  $\times$  0.00= 0.00 [ft]; Ke  $\times$  Ld: 1.00  $\times$  10.00= 10.00 [ft]; Lateral support: top = Lb, bottom = Lb; Repetitive factor: applied where permitted (refer to online help);

### Analysis vs. Allowable Stress (psi) and Deflection (in) using HDS 2005:

Criterion	Analysis Value	Design Value	Analysis/Design
Shear	fv = 55	Fv' = 216	fv/Fv' = 0.25
Bending(+)	fb = 1190	Fb' = 1242	fb/Fb' = 0.96
Axial	fc = 2	Fc' = 483	fc/Fc' = 0.00
Axial Bearing	fc = 2	Fc* = 652	fc/Fc* = 0.00
Combined (axia)	compression + s:	de load bending)	Eq. 3.9-3 = 0.96
Live Defl'n	0.54 = L/221	0.67 = L/180	0.81
Total Defl'n	0.54 = L/221	0.67 = L/180	0.81

### ADDITIONAL DATA:

FACTORS:	F/E	CD	CM	Ct	CL/CP	CF	Cfu	Cr	Cfrt	Ci	LC#
Fv'	135	1.60	1.00	1.00		-	-	_	1.00	1.00	2
					1.000						
Fc'	725	0.90	1.00	1.00	0.741	1.000	_	_	1.00	1.00	1
Fc comb											





Single 11-7/8" BCI® 4500s-1.8 SP

Sunday, October 25, 2009 20:12

Joist\FJ1

BC CALC® 2.0 Design Report - US Build 285

1 span | No cantilevers | 0/12 slope 16" OCS | Repetitive | Glued & nailed construction

File Name: Pierri

Description: FJ1 Specifier: stl Designer: stl

Company: STL Consulting

Misc:

Job Name: Address:

City, State, Zip:

Customer: Kings Way Homes, L.L.C.

Code reports: ESR-1336

14-00-00 E

B0, 2-1/2" LL 373 lbs DL 187 lbs B1, 2-1/2" LL 373 lbs DL 187 lbs

Total Horizontal Product Length = 14-00-00

Load Summary		:			Live	Dead	Snow	Wind	Roof Live	
Tag Description	Load Type	Ref.	Start	End	100%	90%	115%	133%	125%	ocs
1 Standard Load	Unf. Area (psf)	Left	00-00-00	14-00-00	40	20	<u>.</u>			16"

<b>Controls Summary</b>	Value	% Allowable	Duration	Case	Span
Pos. Moment	1,879 ft-lbs	62.1%	100%	1	1 - Internal
End Reaction	543 lbs	45.8%	100%	1	1 - Right
Total Load Defl.	L/736 (0.224")	48.9%		1	1
Live Load Defl.	L/1,104 (0.149")	54.4%		1	1
Max Defl.	0.224"	22.4%		1	1
Span / Depth	13.9	n/a		•	1

Beari	ng Supports	Dim. (L x W)	Value	% Allow Support	% Allow Member	Material
B0	Wall/Plate	2-1/2" x 1-3/4"	560 lbs	n/a	n/a	Unspecified
B1	Wall/Plate	2-1/2" x 1-3/4"	560 lbs	n/a	n/a	Unspecified

### Notes

Design meets User specified (L/360) Total load deflection criteria.

Design meets User specified (L/600) Live load deflection criteria.

Design meets arbitrary (1") Maximum load deflection criteria.

Composite El value based on 23/32" thick sheathing glued and nailed to joist.

### **Disclosure**

Completeness and accuracy of input must be verified by anyone who would rely on output as evidence of suitability for particular application. Output here based on building code-accepted design properties and analysis methods. Installation of BOISE engineered wood products must be in accordance with current Installation Guide and applicable building codes. To obtain Installation Guide or ask questions, please call (800)232-0788 before installation.



BC CALC® 2.0 Design Report - US
Build 285

### Single 11-7/8" BCI® 4500s-1.8 SP

1 span | No cantilevers | 0/12 slope 16" OCS | Repetitive | Glued & nailed construction Sunday, October 25, 2009 20:25

Job Name: Address: City, State, Zip:

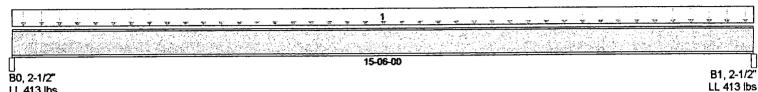
Customer: Kings Way Homes, L.L.C.

Code reports: ESR-1336

File Name: Pierri Description: FJ2 Specifier: stl

Designer: stl Company: STL Consulting

Misc:



B0, 2-1/2" LL 413 lbs DL 207 lbs

Total Horizontal Product Length = 15-06-00

Load Summary					Live	Dead	Snow	Wind	Roof Live	
Tag Description	Load Type	Ref.	Start	End	100%	90%	115%	133%	125%	ocs
1 Standard Load	Unf Area (psf)	Left	00-00-00	15-06-00	40	20				16"

<b>Controls Summary</b>	<b>Value</b>	% Allowable	Duration	Case	Span
Pos. Moment	2,313 ft-lbs	76.5%	100%	1	1 - Interna
End Reaction	603 lbs	50.8%	100%	1	1 - Left
Total Load Defl.	L/553 (0.33")	65.1%		1	1
Live Load Defl.	L/829 (0.22")	72.3%		1	1
Max Defl.	0.33" ` ´	33.0%		1	1
Span / Depth	15.4	n/a			1

Bear	ing Supports	Dim. (L x ₩)	Value	% Allow Support	% Allow Member	Material	
B0	Beam	2-1/2" x 1-3/4"	620 lbs	0.1%	n/a	Steel	
B1	Beam	2-1/2" x 1-3/4"	620 lbs	0.1%	n/a	Steel	

### Notes

Design meets User specified (L/360) Total load deflection criteria. Design meets User specified (L/600) Live load deflection criteria. Design meets arbitrary (1") Maximum load deflection criteria.

Composite El value based on 23/32" thick sheathing glued and nailed to joist.

### Disclosure

Completeness and accuracy of input must be verified by anyone who would rely on output as evidence of suitability for particular application. Output here based on building code-accepted design properties and analysis methods. Installation of BOISE engineered wood products must be in accordance with current Installation Guide and applicable building codes. To obtain Installation Guide or ask questions, please call (800)232-0788 before installation.

DL 207 lbs

### BOÏSE

Single 11-7/8" BCI® 4500s-1.8 SP

1 span | No cantilevers | 0/12 slope 8" OCS | Repetitive | Glued & nailed construction Sunday, October 25, 2009 20:35

Job Name: Address: City, State, Zip:

Build 285

Customer: Kings Way Homes, L.L.C.

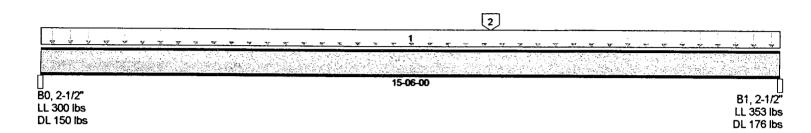
BC CALC® 2.0 Design Report - US

Code reports: ESR-1336

File Name: Pierri Description: FJ3 Specifier: stl Designer: sti

Company: STL Consulting

Misc:



Total Horizontal Product Length = 15-06-00

Load Summary					Live	Dead	Snow	Wind	Roof Live	
Tag Description	Load Type	Ref.	Start	End	100%	90%	115%	133%	125%	ocs
1 Standard Load	Unf. Area (psf)	Left	00-00-00	15-06-00	40	20				8"
2 LD BRG WALL	Conc. Lin. (plf)	Left	09-05-00	09-05-00	360	180				8"

<b>Controls Summary</b>	Value	% Allowable	Duration	Case	Span
Pos. Moment	2,403 ft-lbs	79.4%	100%	1	1 - internal
End Reaction	521 lbs	43.9%	100%	1	1 - Right
Total Load Defl.	L/471 (0.388")	76.5%		1	1
Live Load Defl.	L/706 (0.258")	85.0%		i	1
Max Defl.	0.388"	38.8%		1	i
Span / Depth	15.4	n/a		•	i

Beari	ng Supports	Dim. (L x W)	Value	% Allow Support	% Allow Member	Material	
B0	Beam	2-1/2" x 1-3/4"	451 lbs	0.1%	n/a	Steel	_
B1	Beam	2-1/2" x 1-3/4"	529 lbs	0.1%	n/a	Steel	

### Notes

Design meets User specified (L/360) Total load deflection criteria.

Design meets User specified (L/600) Live load deflection criteria.

Design meets arbitrary (1") Maximum load deflection criteria.

Composite El value based on 23/32" thick sheathing glued and nailed to joist.

### **Disclosure**

Completeness and accuracy of input must be verified by anyone who would rely on output as evidence of suitability for particular application. Output here based on building code-accepted design properties and analysis methods. Installation of BOISE engineered wood products must be in accordance with current Installation Guide and applicable building codes. To obtain Installation Guide or ask questions, please call (800)232-0788 before installation.

Triple 1-3/4" x 11-7/8" VERSA-LAM® 2.0 3100 SP

Floor Beam\FH1

BC CALC® 2.0 Design Report - US Build 285

1 span | No cantilevers | 0/12 slope

Sunday, October 25, 2009 20:42

Job Name: Address:

City, State, Zip:

Customer.

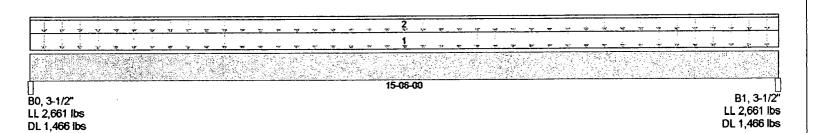
Kings Way Homes, L.L.C.

ESR-1040 Code reports:

File Name: Pierri Description: FH1 Specifier. stl stl Designer:

Company: STL Consulting

Misc:



Total Horizontal Product Length = 15-06-00

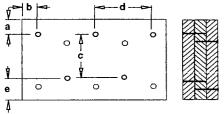
Load Summary	<del></del>	==:	<del></del>		Live	Dead	Snow	Wind	Roof Liv	/e
Tag Description	Load Type	Ref.	Start	End	100%	90%	115%	133%	125%	Trib.
1 STD	Unf. Area (psf)	Left	00-00-00	15-06-00	40	20			0	1-04-00
2 LD BRG WALL	Unf. Lin. (plf)	Left	00-00-00	15-06-00	290	145				n/a

<b>Controls Summary</b>	Value	% Allowable	Duration	Case	Span
Pos. Moment	15,061 ft-lbs	47.2%	100%	1	1 - Internal
End Shear	3,445 lbs	29.1%	100%	1	1 - Left
Total Load Defl.	<b></b>	83.5%		1	1
Live Load Defl.	L/669 (0.27")	89.7%		1	1
Max Defl.	0.419"	41.9%		1	1
Span / Depth	15.2	n/a			1

Bear	ing Supports	Dim. (L x W)	Value	% Allow Support	% Allow Wember	₩aterial	
B0	Beam	3-1/2" x 5-1/4"	4,127 lbs	0.2%	29.9%	Steel	
B1	Beam	3-1/2" x 5-1/4"	4,127 lbs	0.2%	29.9%	Steel	

Design meets User specified (L/360) Total load deflection criteria. Design meets User specified (L/600) Live load deflection criteria. Design meets arbitrary (1") Maximum load deflection criteria.

### **Connection Diagram**



a minimum = 2"

c = 6-7/8"

b minimum = 3"

d = 12"

e minimum = 3"

Member has no side loads.

Connectors are: 16d Common Nails

### Disclosure

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### Double 1-3/4" x 11-7/8" VERSA-LAM® 2.0 3100 SP

Floor Beam\FH2

BC CALC® 2.0 Design Report - US Build 285

1 span | No cantilevers | 0/12 slope

Sunday, October 25, 2009 20:47

Job Name:

Address: City, State, Zip:,

Customer:

Kings Way Homes, L.L.C.

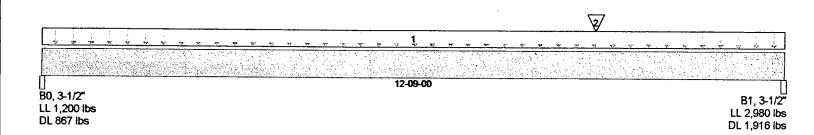
Code reports:

ESR-1040

File Name: Pierri Description: FH2 Specifier: stl

Designer: stl
Company: STL Consulting

Misc:



Total Horizontal Product Length = 12-09-00

					g 12 00						
Load St	ummary					Live	Dead	Snow	Wind	Roof L	ive
Tag Desc		Load Type	Ref.	Start	End	100%	90%	115%	133%	125%	Trib.
1 STD		Unf. Area (psf)	Left	00-00-00	12-09-00	40	20				01-04-00
2 2FH	2	Conc. Pt. (lbs)	Left	09-06-00	09-06-00	3,500	2,064				n/a

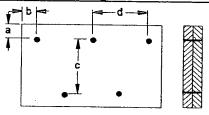
<b>Controls Summary</b>	Value	% Allowable	Duration	Case	Span
Pos. Moment	14,194 ft-lbs	66.7%	100%	1	1 - internal
End Shear	-4,755 lbs	60.2%	100%	1	1 - Right
Total Load Defl.	L/462 (0.319")	77.9%		1	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
Live Load Defl.	L/765 (0.193")	78.4%		1	1
Max Defl.	0.319"	31.9%		1	1
Span / Depth	12.4	n/a		•	i 1

Beari	ng Supports	Dim. (L x W)	Value	% Allow Support	% Allow Member	Material	
B0	Beam	3-1/2" x 3-1/2"	2,067 lbs	0.2%	22.5%	Steel	
B1	Beam	3-1/2" x 3-1/2"	4,896 lbs	0.4%	53.3%	Steel	

### Notes

Design meets User specified (L/360) Total load deflection criteria. Design meets User specified (L/600) Live load deflection criteria. Design meets arbitrary (1") Maximum load deflection criteria.

### Connection Diagram



a minimum = 2"

c = 7-7/8"

b minimum = 3"

d = 12"

Connection design assumes point load is 'top-loaded'. For connection design of 'side-loaded' point loads, please consult a technical representative or professional of Record.

Member has no side loads.

Concentrated loads are not considered in side load analysis.

Connectors are: 16d Common Nails

### Disclosure

Completeness and accuracy of input must be verified by anyone who would rely on output as evidence of suitability for particular application. Output here based on building code-accepted design properties and analysis methods. Installation of BOISE engineered wood products must be in accordance with current Installation Guide and applicable building codes. To obtain Installation Guide or ask questions, please call (800)232-0788 before installation.

Double 1-3/4" x 11-7/8" VERSA-LAM® 2.0 3100 SP

Floor Beam\FH3

BC CALC® 2.0 Design Report - US

Build 285

1 span | No cantilevers | 0/12 slope

Sunday, October 25, 2009 20:50

Job Name: Address:

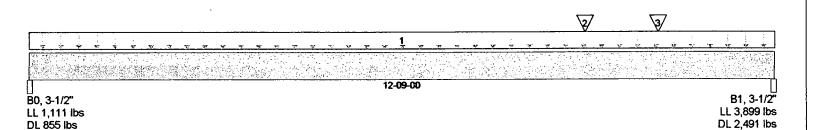
City, State, Zip:,

Customer: Kings Way Homes, L.L.C. ESR-1040 Code reports:

File Name: Pierri Description: FH3 Specifier: sti Designer: stl

Company: STL Consulting

Misc:



Total Horizontal Product Length = 12-09-00

		700,710120								
Load Summary					Live	Dead	Snow	Wind	Roof Liv	æ
Tag Description	Load Type	Ref.	Start	End	100%	90%	115%	133%	125%	Trib.
1 STD	Unf. Area (psf)	Left	00-00-00	12-09-00	40	20			0	1-04-00
2 2FH3	Conc. Pt. (lbs)	Left	09-06-00	09-06-00	1,450	941				n/a
3 2FH4	Conc. Pt. (lbs)	Left	10-09-00	10-09-00	2,880	1,626				n/a

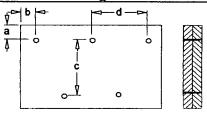
<b>Controls Summary</b>	Value	% Ailowable	Duration	Case	Span
Pos. Moment	13,051 ft-lbs	61.3%	100%	1	1 - Internal
End Shear	-6,243 lbs	79.1%	100%	1	1 - Right
Total Load Defl.	L/484 (0.304")	74.3%		1	1
Live Load Defl.	L/817 (0.181")	73.5%		1	1
Max Defl.	0.304"` ′	30.4%		1	1
Span / Depth	12.4	n/a			1

Beari	ing Supports	Dim. (L x W)	Value	% Allow Support	% Allow Member	Waterial
B0	Beam	3-1/2" x 3-1/2"	1,966 lbs	0.2%	21.4%	Steel
B1	Beam	3-1/2" x 3-1/2"	6,389 lbs	0.5%	69.5%	Steel

### Notes

Design meets User specified (L/360) Total load deflection criteria. Design meets User specified (L/600) Live load deflection criteria. Design meets arbitrary (1") Maximum load deflection criteria.

### Connection Diagram



a minimum = 2"

c = 7-7/8"

b minimum = 3"

d = 12"

Connection design assumes point load is 'top-loaded'. For connection design of 'side-loaded' point loads, please consult a technical representative or professional of Record.

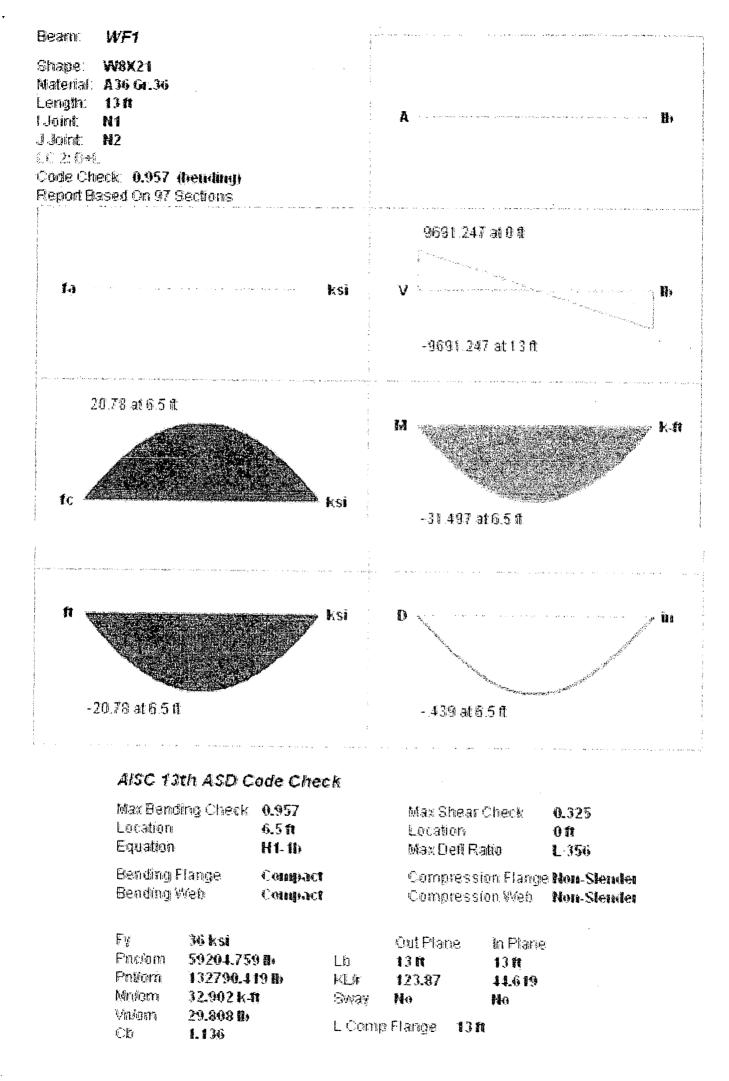
Member has no side loads.

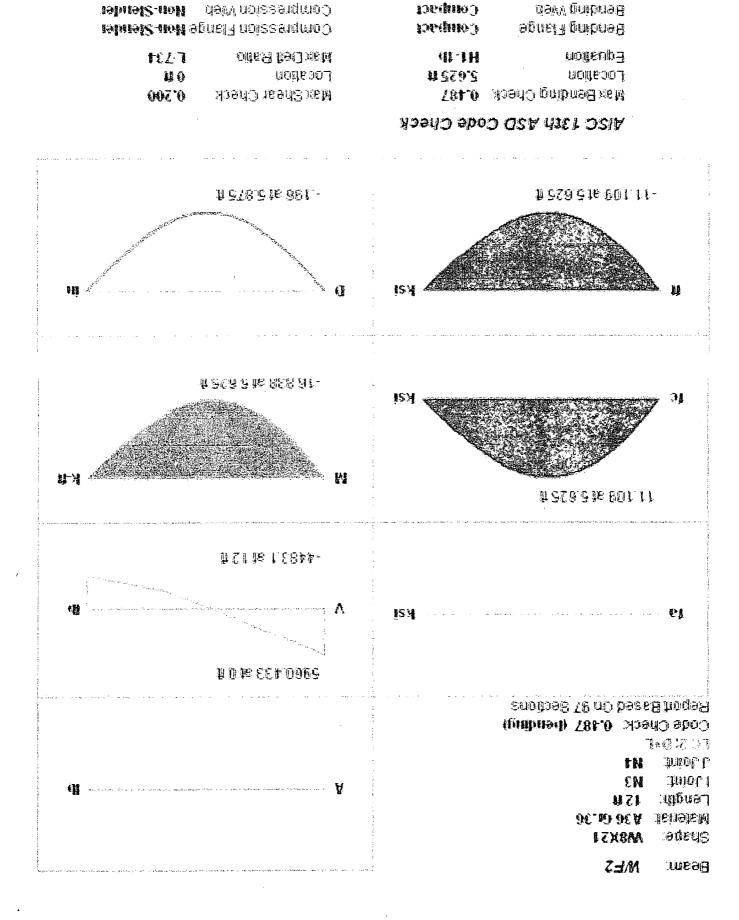
Concentrated loads are not considered in side load analysis.

Connectors are: 16d Common Nails

### Disclosure

Completeness and accuracy of input must be verified by anyone who would rely on output as evidence of suitability for particular application. Output here based on building code-accepted design properties and analysis methods. Installation of BOISE engineered wood products must be in accordance with current Installation Guide and applicable building codes. To obtain Installation Guide or ask questions, please call (800)232-0788 before installation.





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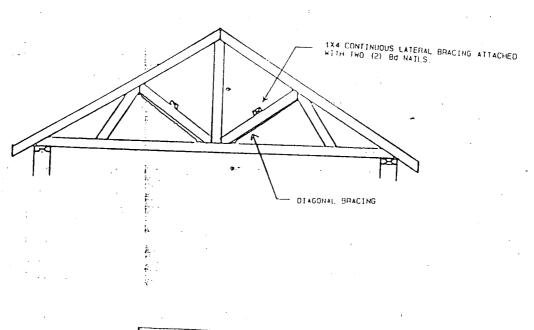
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### PICHCO STRUCTURES

# IMPORTANT DOCUMENTS

### LATERAL BRACING



14422 3339

DIAGONAL BRACING REPEATED AT EACH END

CF BUILDING AND AT 20. INTERVALS

1X4 CONTINUOUS LATERAL BRACING

- CEILING

## AITYCE OE EOX BOINT SITE PLAN REVIEW

