

**MiTek Industries, Inc.**

14515 North Outer Forty Drive  
Suite 300  
Chesterfield, MO 63017-5746

Re: HABITAT\_08\_21\_2008  
HABITAT 8\_21\_2008

The truss drawing(s) referenced below have been prepared by MiTek Industries, Inc. under my direct supervision based on the parameters provided by Norwood Lumber & Bldg. Components.

Pages or sheets covered by this seal: I14318355 thru I14318361

My license renewal date for the state of Indiana is July 31, 2008.



August 4, 2008

Liu, Xuegang

The seal on these drawings indicate acceptance of professional engineering responsibility solely for the truss components shown. The suitability and use of this component for any particular building is the responsibility of the building designer, per ANSI/TPI-2002 Chapter 2.

Job HABITAT_08_21_2008	Truss A	Truss Type COMMON	Qty 7	Ply 1	HABITAT 8_21_2008 Job Reference (optional)	114318355
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Norwood Lumber & Building Components LLC, Indianapolis, IN 46241

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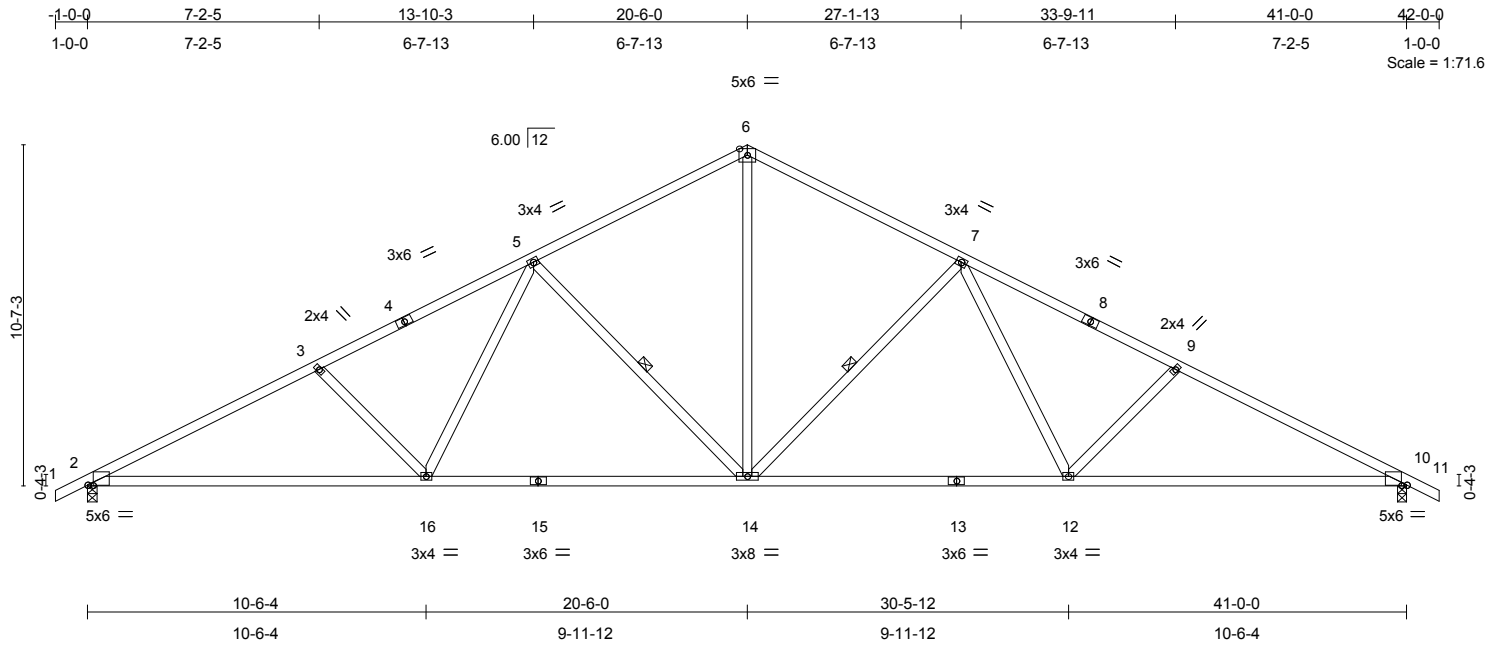


Plate Offsets (X,Y): [2:0-2-0,0-0-2], [10:0-2-0,0-0-2]

LOADING (psf)	SPACING	CSI	DEFL	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	2-0-0 Plates Increase 1.15	TC 0.77	Vert(LL)	-0.28	10-12	>999	MT20	197/144
TCDL 10.0	Lumber Increase 1.15	BC 1.00	Vert(TL)	-0.84	10-12	>582		
BCLL 0.0	Rep Stress Incr YES	WB 0.54	Horz(TL)	0.20	10	n/a		
BCDL 10.0	Code IRC2003/TPI2002	(Matrix)						Weight: 162 lb

**LUMBER**

TOP CHORD 2 X 4 SPF No.2  
 BOT CHORD 2 X 4 SPF No.2  
 WEBS 2 X 4 SPF No.3

**BRACING**

TOP CHORD Sheathed or 2-4-2 oc purlins.  
 BOT CHORD Rigid ceiling directly applied or 2-2-0 oc bracing.  
 WEBS 1 Row at midpt 5-14, 7-14

**REACTIONS**

(lb/size) 2=1697/0-3-8, 10=1697/0-3-8  
 Max Horz 2=152(load case 5)  
 Max Uplift 2=365(load case 5), 10=365(load case 6)

**FORCES** (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=0/26, 2-3=-3047/597, 3-4=-2763/524, 4-5=-2668/556, 5-6=-1925/457, 6-7=-1925/457, 7-8=-2668/556, 8-9=-2763/524, 9-10=-3047/597, 10-11=0/26  
 BOT CHORD 2-16=-560/2654, 15-16=-344/2143, 14-15=-344/2143, 13-14=-226/2143, 12-13=-226/2143, 10-12=-408/2654  
 WEBS 3-16=-390/264, 5-16=-77/602, 5-14=-741/318, 6-14=-219/1233, 7-14=-741/319, 7-12=-77/602, 9-12=-390/264

**NOTES**

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-02; 90mph; h=30ft; TCDL=6.0psf; BCDL=6.0psf; Category II; Exp C; enclosed; MWFRS gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.33 plate grip DOL=1.33.
- 3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 4) This truss requires plate inspection per the Tooth Count Method when this truss is chosen for quality assurance inspection.
- 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 365 lb uplift at joint 2 and 365 lb uplift at joint 10.
- 6) This truss is designed in accordance with the 2003 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

**LOAD CASE(S)** Standard

*Xium Liu*



August 4, 2008

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

Design valid for use only with MiTek connectors. This design is based only upon parameters shown, and is for an individual building component. Applicability of design parameters and proper incorporation of component is responsibility of building designer - not truss designer. Bracing shown is for lateral support of individual web members only. Additional temporary bracing to insure stability during construction is the responsibility of the erector. Additional permanent bracing of the overall structure is the responsibility of the building designer. For general guidance regarding fabrication, quality control, storage, delivery, erection and bracing, consult **ANSI/TPI1 Quality Criteria, DSB-89 and BCS11 Building Component Safety Information** available from Truss Plate Institute, 583 D'Onofrio Drive, Madison, WI 53719.



Job HABITAT_08_21_2008	Truss A1	Truss Type COMMON	Qty 8	Ply 1	HABITAT 8_21_2008	114318356
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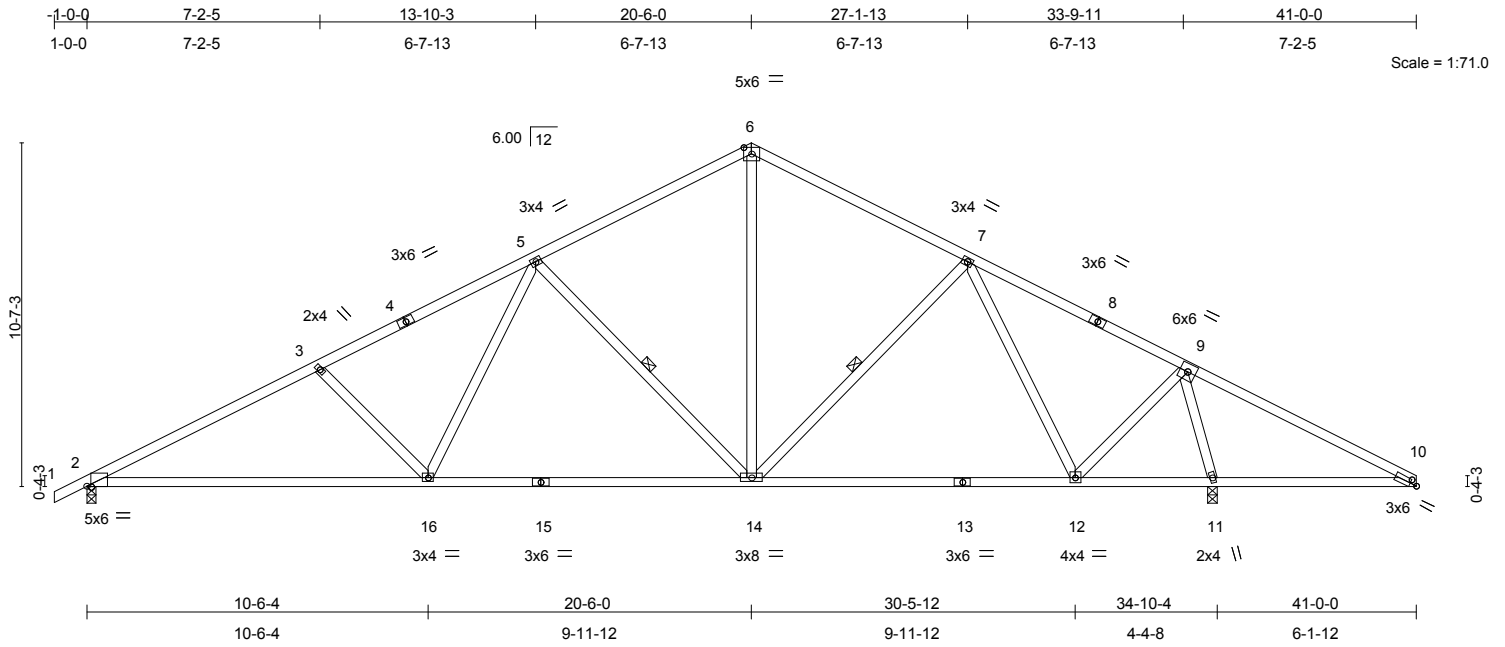


Plate Offsets (X,Y): [2:0-1-10,Edge], [10:0-2-10,0-1-8]

LOADING (psf)	SPACING	CSI	DEFL	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.64	Vert(LL)	-0.27	2-16	>999	240	MT20
TCDL 10.0	Plates Increase 1.15	BC 0.90	Vert(TL)	-0.78	2-16	>535	180	197/144
BCLL 0.0	Rep Stress Incr YES	WB 0.86	Horz(TL)	0.10	11	n/a	n/a	
BCDL 10.0	Code IRC2003/TPI2002	(Matrix)						Weight: 165 lb

**LUMBER**

TOP CHORD 2 X 4 SPF No.2  
 BOT CHORD 2 X 4 SPF No.2  
 WEBS 2 X 4 SPF No.3

**BRACING**

TOP CHORD Sheathed or 2-11-6 oc purlins.  
 BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.  
 WEBS 1 Row at midpt 5-14, 7-14

**REACTIONS**

(lb/size) 2=1409/0-3-8, 11=1928/0-3-8  
 Max Horz 2=163(load case 5)  
 Max Uplift 2=328(load case 5), 11=526(load case 6)

**FORCES** (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=0/26, 2-3=-2418/517, 3-4=-2132/444, 4-5=-2036/477, 5-6=-1290/356, 6-7=-1290/375, 7-8=-805/232, 8-9=-901/199, 9-10=-262/587  
 BOT CHORD 2-16=-501/2096, 15-16=-283/1577, 14-15=-283/1577, 13-14=-97/1017, 12-13=-97/1017, 11-12=-67/182, 10-11=-429/288  
 WEBS 3-16=-397/265, 5-16=-79/601, 5-14=-743/320, 6-14=-145/677, 7-14=-32/182, 7-12=-691/199, 9-12=-80/1054, 9-11=-1838/466

**NOTES**

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-02; 90mph; h=30ft; TCDL=6.0psf; BCDL=6.0psf; Category II; Exp C; enclosed; MWFRS gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.33 plate grip DOL=1.33.
- 3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 4) This truss requires plate inspection per the Tooth Count Method when this truss is chosen for quality assurance inspection.
- 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 328 lb uplift at joint 2 and 526 lb uplift at joint 11.
- 6) This truss is designed in accordance with the 2003 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

**LOAD CASE(S)** Standard

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August 4, 2008

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Job HABITAT_08_21_2008	Truss AGE	Truss Type GABLE	Qty 2	Ply 1	HABITAT 8_21_2008 Job Reference (optional)	114318357
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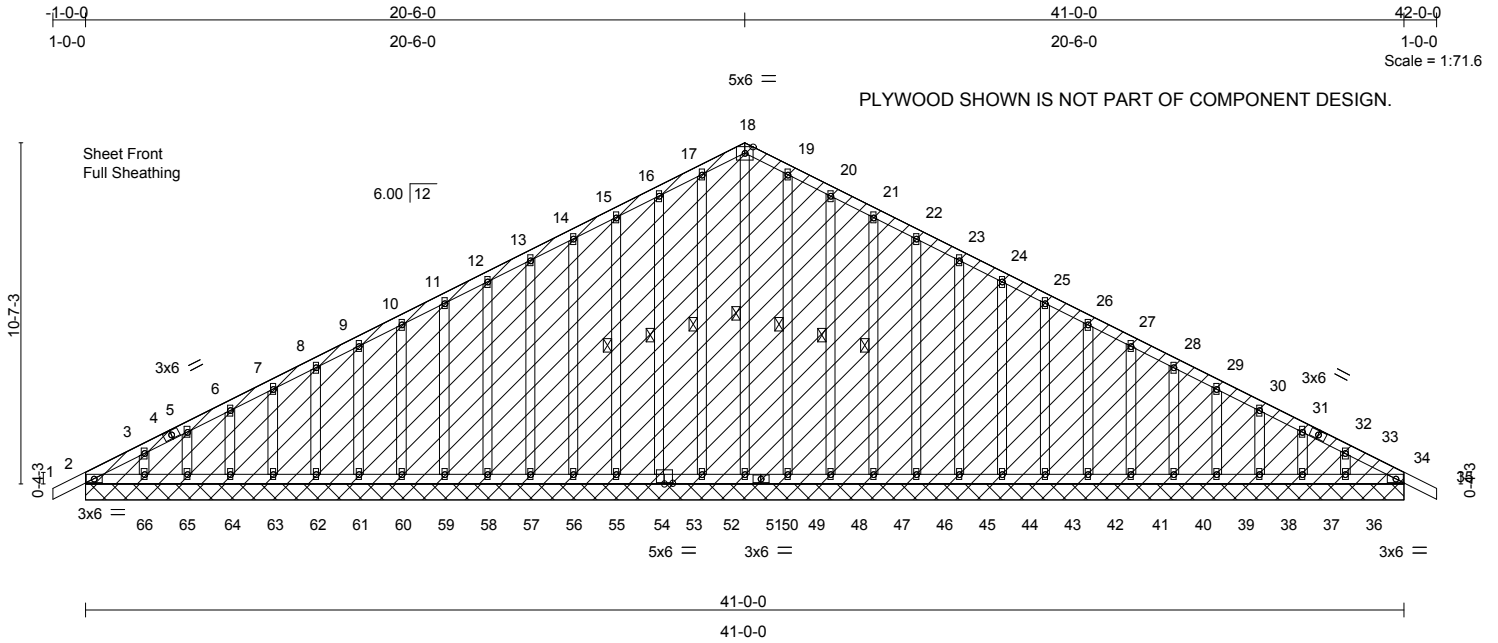


Plate Offsets (X,Y): [53:0-3-0,0-0-4]

LOADING (psf)	SPACING	CSI	DEFL	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plates Increase 1.15	TC 0.15	Vert(LL) -0.00	35	n/r	120	MT20	197/144
TCDL 10.0	Lumber Increase 1.15	BC 0.06	Vert(TL) -0.00	35	n/r	120		
BCLL 0.0	Rep Stress Incr NO	WB 0.10	Horz(TL) 0.01	34	n/a	n/a		
BCDL 10.0	Code IRC2003/TPI2002	(Matrix)						
							Weight: 656 lb	

**LUMBER**

TOP CHORD 2 X 4 SPF No.2  
 BOT CHORD 2 X 4 SPF No.2  
 OTHERS 2 X 4 SPF No.3

**BRACING**

TOP CHORD Sheathed or 6-0-0 oc purlins.  
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.  
 WEBS 1 Row at midpt 18-51, 17-52, 16-54, 15-55, 19-49, 20-48, 21-47

**REACTIONS (lb/size)** 2=146/41-0-0, 51=99/41-0-0, 52=106/41-0-0, 54=107/41-0-0, 55=107/41-0-0, 56=107/41-0-0, 57=107/41-0-0, 58=107/41-0-0, 59=107/41-0-0, 60=107/41-0-0, 61=107/41-0-0, 62=107/41-0-0, 63=106/41-0-0, 64=108/41-0-0, 65=102/41-0-0, 66=122/41-0-0, 49=106/41-0-0, 48=107/41-0-0, 47=107/41-0-0, 46=107/41-0-0, 45=107/41-0-0, 44=107/41-0-0, 43=107/41-0-0, 42=107/41-0-0, 41=107/41-0-0, 40=107/41-0-0, 39=106/41-0-0, 38=108/41-0-0, 37=102/41-0-0, 36=122/41-0-0, 34=146/41-0-0

Max Horz2=152(load case 5)  
 Max Uplift2=-38(load case 3), 52=-3(load case 5), 54=-49(load case 5), 55=-41(load case 5), 56=-40(load case 5), 57=-40(load case 5), 58=-40(load case 5), 59=-40(load case 5), 60=-40(load case 5), 61=-40(load case 5), 62=-40(load case 5), 63=-40(load case 5), 64=-39(load case 5), 65=-45(load case 5), 66=-31(load case 5), 48=-51(load case 6), 47=-41(load case 6), 46=-40(load case 6), 45=-40(load case 6), 44=-40(load case 6), 43=-40(load case 6), 42=-40(load case 6), 41=-40(load case 6), 40=-40(load case 6), 39=-40(load case 6), 38=-39(load case 6), 37=-45(load case 6), 36=-30(load case 6), 34=-11(load case 6)  
 Max Grav2=146(load case 1), 51=187(load case 6), 52=107(load case 9), 54=108(load case 9), 55=107(load case 1), 56=107(load case 1), 57=107(load case 9), 58=107(load case 9), 59=107(load case 1), 60=107(load case 9), 61=107(load case 1), 62=107(load case 9), 63=106(load case 1), 64=108(load case 1), 65=102(load case 9), 66=122(load case 9), 49=107(load case 10), 48=108(load case 10), 47=107(load case 1), 46=107(load case 1), 45=107(load case 10), 44=107(load case 10), 43=107(load case 1), 42=107(load case 10), 41=107(load case 1), 40=107(load case 10), 39=106(load case 1), 38=108(load case 1), 37=102(load case 10), 36=122(load case 10), 34=146(load case 1)

*Xing Liu*

**FORCES (lb) - Maximum Compression/Maximum Tension**

**TOP CHORD** 1-2=0/25, 2-3=-222/50, 3-4=-184/51, 4-5=-177/57, 5-6=-151/67, 6-7=-119/76, 7-8=-87/88, 8-9=-66/111, 9-10=-47/133, 10-11=-28/156, 11-12=-28/178, 12-13=-28/200, 13-14=-28/223, 14-15=-28/245, 15-16=-28/268, 16-17=-28/295, 17-18=-27/297, 18-19=-27/292, 19-20=-28/280, 20-21=-28/244, 21-22=-28/211, 22-23=-28/179, 23-24=-28/147, 24-25=-28/114, 25-26=-28/91, 26-27=-28/68, 27-28=-28/46, 28-29=-28/28, 29-30=-54/18, 30-31=-86/12, 31-32=-112/10, 32-33=-119/0, 33-34=-156/16, 34-35=0/25  
**BOT CHORD** 2-66=0/187, 65-66=0/187, 64-65=0/187, 63-64=0/187, 62-63=0/187, 61-62=0/187, 60-61=0/187, 59-60=0/187, 58-59=0/187, 57-58=0/187, 56-57=0/187, 55-56=0/187, 54-55=0/187, 53-54=0/187, 52-53=0/187, 51-52=0/187, 50-51=0/187, 49-50=0/187, 48-49=0/187, 47-48=0/187, 46-47=0/187, 45-46=0/187, 44-45=0/187, 43-44=0/187, 42-43=0/187, 41-42=0/187, 40-41=0/187, 39-40=0/187, 38-39=0/187, 37-38=0/187, 36-37=0/187, 34-36=0/187  
**WEBS** 18-51=-171/0, 17-52=-80/19, 16-54=-81/65, 15-55=-80/57, 14-56=-80/56, 13-57=-80/56, 12-58=-80/56, 11-59=-80/56, 10-60=-80/56, 9-61=-80/56, 8-62=-80/56, 7-63=-80/56, 6-64=-81/56, 5-65=-76/57, 3-66=-93/61, 19-49=-80/10, 20-48=-81/67, 21-47=-80/57, 22-46=-80/56, 23-45=-80/56, 24-44=-80/56, 25-43=-80/56, 26-42=-80/56, 27-41=-80/56, 28-40=-80/56, 29-39=-80/56, 30-38=-81/56, 31-37=-76/56, 33-36=-93/60



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Continued on page 2

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

Design valid for use only with MiTek connectors. This design is based only upon parameters shown, and is for an individual building component. Applicability of design parameters and proper incorporation of component is responsibility of building designer - not truss designer. Bracing shown is for lateral support of individual web members only. Additional temporary bracing to insure stability during construction is the responsibility of the erector. Additional permanent bracing of the overall structure is the responsibility of the building designer. For general guidance regarding fabrication, quality control, storage, delivery, erection and bracing, consult **ANSI/TPI1 Quality Criteria, D58-89 and BCS11 Building Component Safety Information** available from Truss Plate Institute, 583 D'Onofrio Drive, Madison, WI 53719.



Job	Truss	Truss Type	Qty	Ply	HABITAT 8_21_2008	114318357
HABITAT_08_21_2008	AGE	GABLE	2	1	Job Reference (optional)	

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**NOTES**

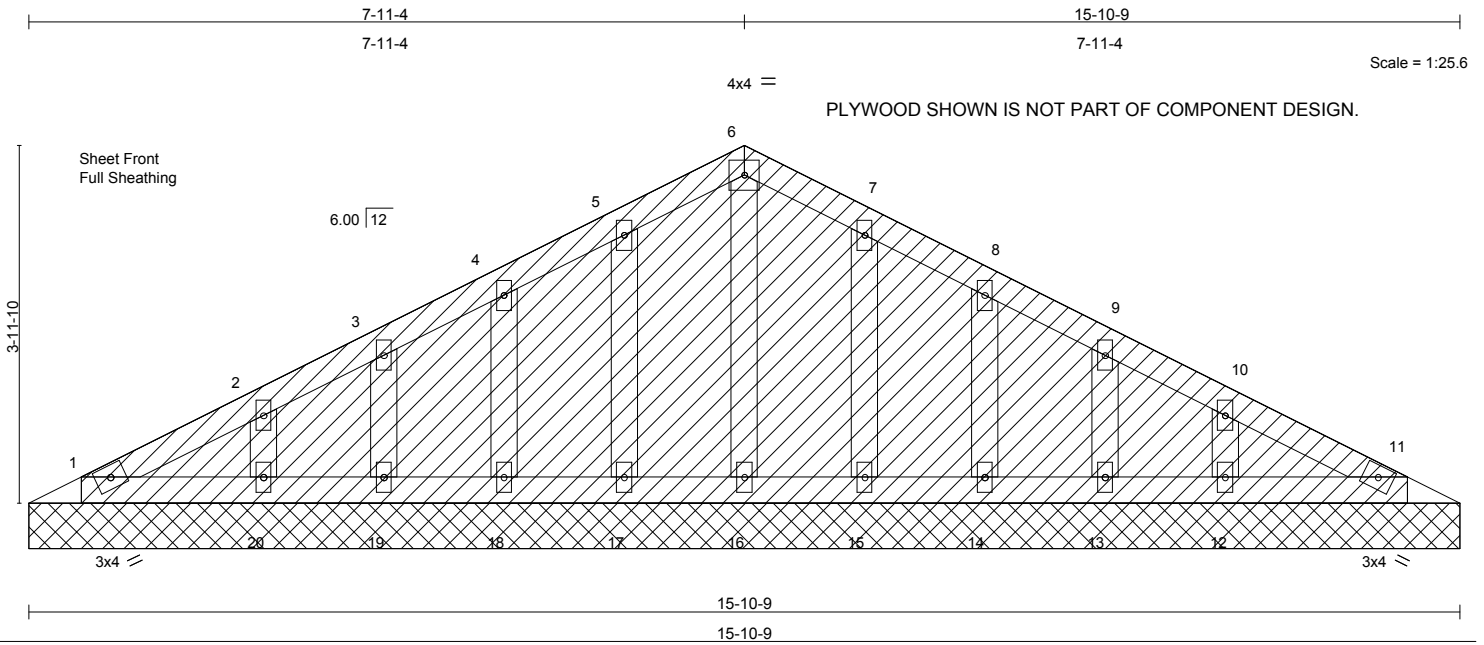
- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-02; 90mph; h=30ft; TCDL=6.0psf; BCDL=6.0psf; Category II; Exp C; enclosed; MWFRS gable end zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.33 plate grip DOL=1.33.
- 3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1-2002.
- 4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 5) All plates are 2x4 MT20 unless otherwise indicated.
- 6) This truss requires plate inspection per the Tooth Count Method when this truss is chosen for quality assurance inspection.
- 7) Gable requires continuous bottom chord bearing.
- 8) Gable studs spaced at 1-4-0 oc.
- 9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 38 lb uplift at joint 2, 3 lb uplift at joint 52, 49 lb uplift at joint 54, 41 lb uplift at joint 55, 40 lb uplift at joint 56, 40 lb uplift at joint 57, 40 lb uplift at joint 58, 40 lb uplift at joint 59, 40 lb uplift at joint 60, 40 lb uplift at joint 61, 40 lb uplift at joint 62, 40 lb uplift at joint 63, 39 lb uplift at joint 64, 45 lb uplift at joint 65, 31 lb uplift at joint 66, 51 lb uplift at joint 48, 41 lb uplift at joint 47, 40 lb uplift at joint 46, 40 lb uplift at joint 45, 40 lb uplift at joint 44, 40 lb uplift at joint 43, 40 lb uplift at joint 42, 40 lb uplift at joint 41, 40 lb uplift at joint 40, 40 lb uplift at joint 39, 39 lb uplift at joint 38, 45 lb uplift at joint 37, 30 lb uplift at joint 36 and 11 lb uplift at joint 34.
- 10) This truss is designed in accordance with the 2003 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

**LOAD CASE(S)** Standard

Job	Truss	Truss Type	Qty	Ply	HABITAT 8_21_2008	I14318358
HABITAT_08_21_2008	V1GE	GABLE	1	1	Job Reference (optional)	

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LOADING (psf)	SPACING	CSI	DEFL	PLATES	GRIP
TCLL 20.0	Plates Increase 1.15	TC 0.05	in (loc) l/defl L/d	MT20	197/144
TCDL 10.0	Lumber Increase 1.15	BC 0.03	Vert(LL) n/a - n/a 999		
BCLL 0.0	Rep Stress Incr NO	WB 0.03	Vert(TL) n/a - n/a 999		
BCDL 10.0	Code IRC2003/TPI2002	(Matrix)	Horz(TL) 0.00 11 n/a n/a		
				Weight: 110 lb	

**LUMBER**

TOP CHORD 2 X 4 SPF No.2  
 BOT CHORD 2 X 4 SPF No.2  
 OTHERS 2 X 4 SPF No.3

**BRACING**

TOP CHORD Sheathed or 6-0-0 oc purlins.  
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS** (lb/size) 1=69/15-10-9, 11=69/15-10-9, 16=98/15-10-9, 17=105/15-10-9, 18=111/15-10-9, 19=87/15-10-9, 20=163/15-10-9, 15=105/15-10-9, 14=111/15-10-9, 13=87/15-10-9, 12=163/15-10-9  
 Max Horz 1=50(load case 3)  
 Max Uplift 1=6(load case 6), 17=33(load case 5), 18=44(load case 5), 19=33(load case 5), 20=61(load case 5), 15=32(load case 6), 14=45(load case 6), 13=33(load case 6), 12=61(load case 6)  
 Max Grav 1=69(load case 1), 11=69(load case 1), 16=98(load case 1), 17=108(load case 9), 18=111(load case 1), 19=87(load case 1), 20=163(load case 9), 15=108(load case 10), 14=111(load case 1), 13=87(load case 1), 12=163(load case 10)

**FORCES** (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=-67/25, 2-3=-32/38, 3-4=-27/59, 4-5=-28/82, 5-6=-28/101, 6-7=-28/97, 7-8=-28/68, 8-9=-27/39, 9-10=-32/18, 10-11=-47/22  
 BOT CHORD 1-2=0/58, 19-20=0/58, 18-19=0/58, 17-18=0/58, 16-17=0/58, 15-16=0/58, 14-15=0/58, 13-14=0/58, 12-13=0/58, 11-12=0/58  
 WEBS 6-16=-71/0, 5-17=-82/49, 4-18=-82/60, 3-19=-69/50, 2-20=-114/75, 7-15=-82/48, 8-14=-82/60, 9-13=-69/50, 10-12=-114/75

**NOTES**

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-02; 90mph; h=30ft; TCDL=6.0psf; BCDL=6.0psf; Category II; Exp C; enclosed; MWFRS gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.33 plate grip DOL=1.33.
- 3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1-2002.
- 4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 5) All plates are 2x4 MT20 unless otherwise indicated.
- 6) This truss requires plate inspection per the Tooth Count Method when this truss is chosen for quality assurance inspection.
- 7) Gable requires continuous bottom chord bearing.
- 8) Gable studs spaced at 1-4-0 oc.
- 9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 6 lb uplift at joint 1, 33 lb uplift at joint 17, 44 lb uplift at joint 18, 33 lb uplift at joint 19, 61 lb uplift at joint 20, 32 lb uplift at joint 15, 45 lb uplift at joint 14, 33 lb uplift at joint 13 and 61 lb uplift at joint 12.
- 10) This truss is designed in accordance with the 2003 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

**LOAD CASE(S)** Standard

*Xun Liu*



August 4, 2008

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

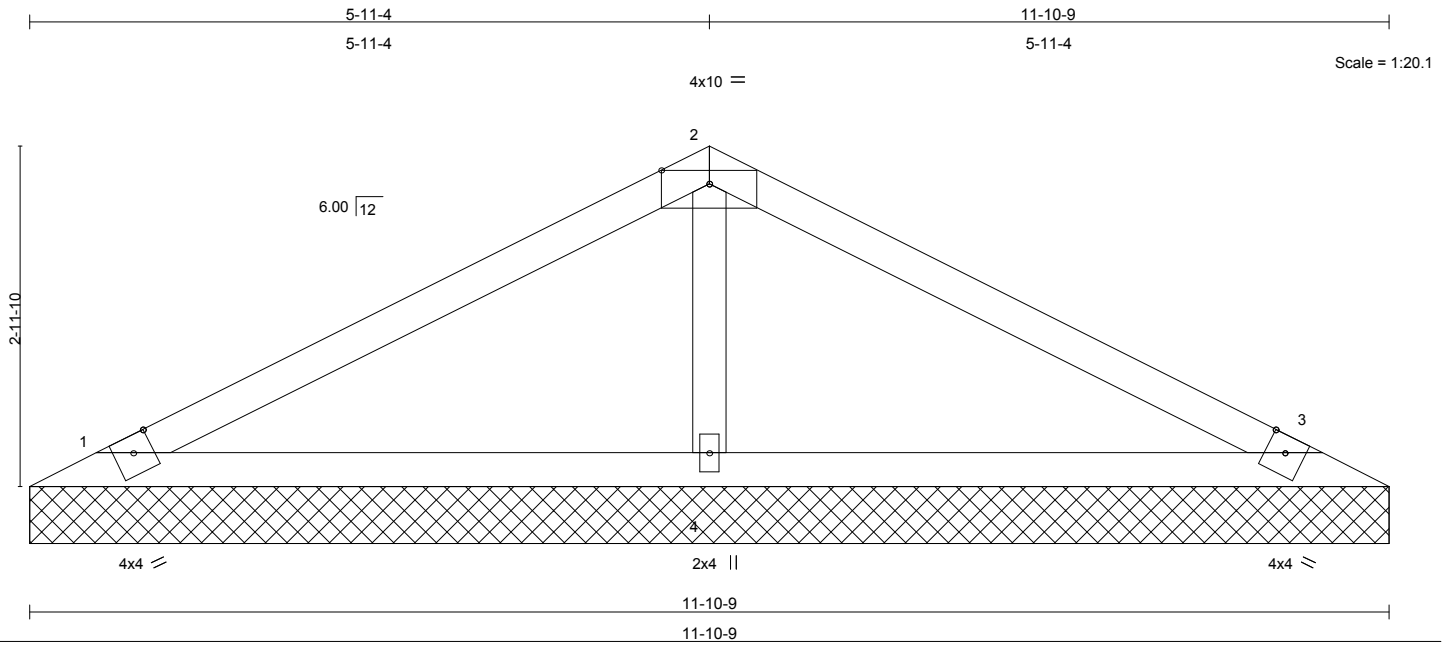
Design valid for use only with MiTek connectors. This design is based only upon parameters shown, and is for an individual building component. Applicability of design parameters and proper incorporation of component is responsibility of building designer - not truss designer. Bracing shown is for lateral support of individual web members only. Additional temporary bracing to insure stability during construction is the responsibility of the erector. Additional permanent bracing of the overall structure is the responsibility of the building designer. For general guidance regarding fabrication, quality control, storage, delivery, erection and bracing, consult **ANSI/TPI1 Quality Criteria, D58-89 and BCS11 Building Component Safety Information** available from Truss Plate Institute, 583 D'Onofrio Drive, Madison, WI 53719.



Job HABITAT_08_21_2008	Truss V2	Truss Type VALLEY	Qty 1	Ply 1	HABITAT 8_21_2008 Job Reference (optional)	114318359
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LOADING (psf)	SPACING	CSI	DEFL	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.31	Vert(LL)	n/a	-	n/a	MT20	197/144
TCDL 10.0	Plates Increase 1.15	BC 0.24	Vert(TL)	n/a	-	n/a		
BCLL 0.0	Lumber Increase 1.15	WB 0.08	Horz(TL)	0.00	3	n/a		
BCDL 10.0	Rep Stress Incr YES	(Matrix)						
	Code IRC2003/TPI2002							Weight: 30 lb

**LUMBER**

TOP CHORD 2 X 4 SPF No.2  
 BOT CHORD 2 X 4 SPF No.2  
 OTHERS 2 X 4 SPF No.3

**BRACING**

TOP CHORD Sheathed or 6-0-0 oc purlins.  
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS** (lb/size) 1=182/11-10-9, 3=182/11-10-9, 4=487/11-10-9

Max Horz 1=-36(load case 3)  
 Max Uplift1=-47(load case 5), 3=-53(load case 6), 4=-68(load case 5)  
 Max Grav 1=189(load case 9), 3=189(load case 10), 4=487(load case 1)

**FORCES** (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=-111/66, 2-3=-111/52  
 BOT CHORD 1-4=0/45, 3-4=0/45  
 WEBS 2-4=-324/116

**NOTES**

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-02; 90mph; h=30ft; TCDL=6.0psf; BCDL=6.0psf; Category II; Exp C; enclosed; MWFRS gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.33 plate grip DOL=1.33.
- 3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 4) This truss requires plate inspection per the Tooth Count Method when this truss is chosen for quality assurance inspection.
- 5) Gable requires continuous bottom chord bearing.
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 47 lb uplift at joint 1, 53 lb uplift at joint 3 and 68 lb uplift at joint 4.
- 7) This truss is designed in accordance with the 2003 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

**LOAD CASE(S)** Standard

*Xun Lin*



August 4, 2008

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

Design valid for use only with MiTek connectors. This design is based only upon parameters shown, and is for an individual building component. Applicability of design parameters and proper incorporation of component is responsibility of building designer - not truss designer. Bracing shown is for lateral support of individual web members only. Additional temporary bracing to insure stability during construction is the responsibility of the erector. Additional permanent bracing of the overall structure is the responsibility of the building designer. For general guidance regarding fabrication, quality control, storage, delivery, erection and bracing, consult **ANSI/TPI1 Quality Criteria, DSB-89 and BCS11 Building Component Safety Information** available from Truss Plate Institute, 583 D'Onofrio Drive, Madison, WI 53719.



Job HABITAT_08_21_2008	Truss V3	Truss Type VALLEY	Qty 1	Ply 1	HABITAT 8_21_2008 Job Reference (optional)	114318360
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Norwood Lumber & Building Components LLC, Indianapolis, IN 46241

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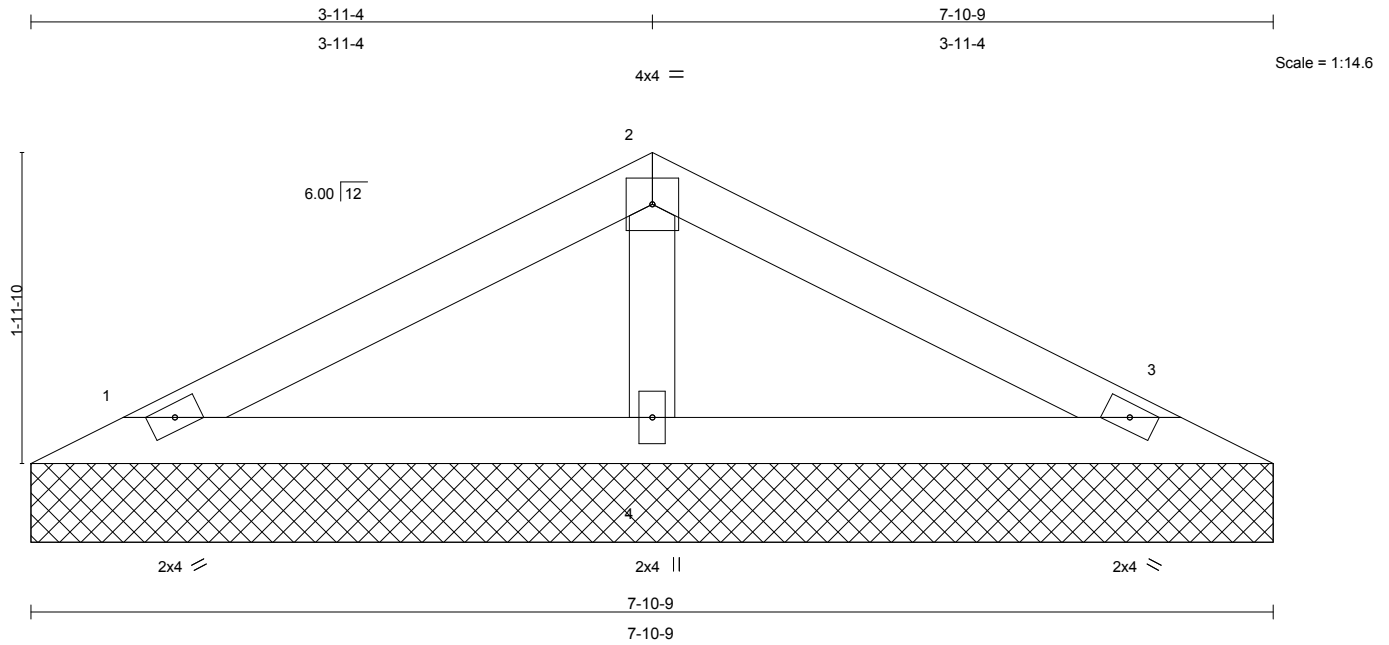


Plate Offsets (X,Y): [3:0-0-0,0-0-0]

LOADING (psf)	SPACING	CSI	DEFL	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.20	Vert(LL)	n/a	-	n/a	MT20	197/144
TCDL 10.0	Plates Increase 1.15	BC 0.12	Vert(TL)	n/a	-	n/a		
BCLL 0.0	Lumber Increase 1.15	WB 0.04	Horz(TL)	0.00	3	n/a		
BCDL 10.0	Rep Stress Incr YES	(Matrix)						
	Code IRC2003/TPI2002							
							Weight: 19 lb	

**LUMBER**

TOP CHORD 2 X 4 SPF No.2  
 BOT CHORD 2 X 4 SPF No.2  
 OTHERS 2 X 4 SPF No.3

**BRACING**

TOP CHORD Sheathed or 6-0-0 oc purlins.  
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS** (lb/size) 1=135/7-10-9, 3=135/7-10-9, 4=261/7-10-9

Max Horz 1=-23(load case 3)

Max Uplift 1=-42(load case 5), 3=-46(load case 6), 4=-16(load case 5)

**FORCES** (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=-60/40, 2-3=-60/31

BOT CHORD 1-4=0/22, 3-4=0/22

WEBS 2-4=-178/66

**NOTES**

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-02; 90mph; h=30ft; TCDL=6.0psf; BCDL=6.0psf; Category II; Exp C; enclosed; MWFRS gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.33 plate grip DOL=1.33.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- This truss requires plate inspection per the Tooth Count Method when this truss is chosen for quality assurance inspection.
- Gable requires continuous bottom chord bearing.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 42 lb uplift at joint 1, 46 lb uplift at joint 3 and 16 lb uplift at joint 4.
- This truss is designed in accordance with the 2003 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

**LOAD CASE(S)** Standard

*Xun Liu*



August 4, 2008

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Job HABITAT_08_21_2008	Truss V4	Truss Type VALLEY	3x4 =	Qty 1	Ply 1	HABITAT 8_21_2008	I14318361
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Norwood Lumber & Building Components LLC, Indianapolis, IN 46241

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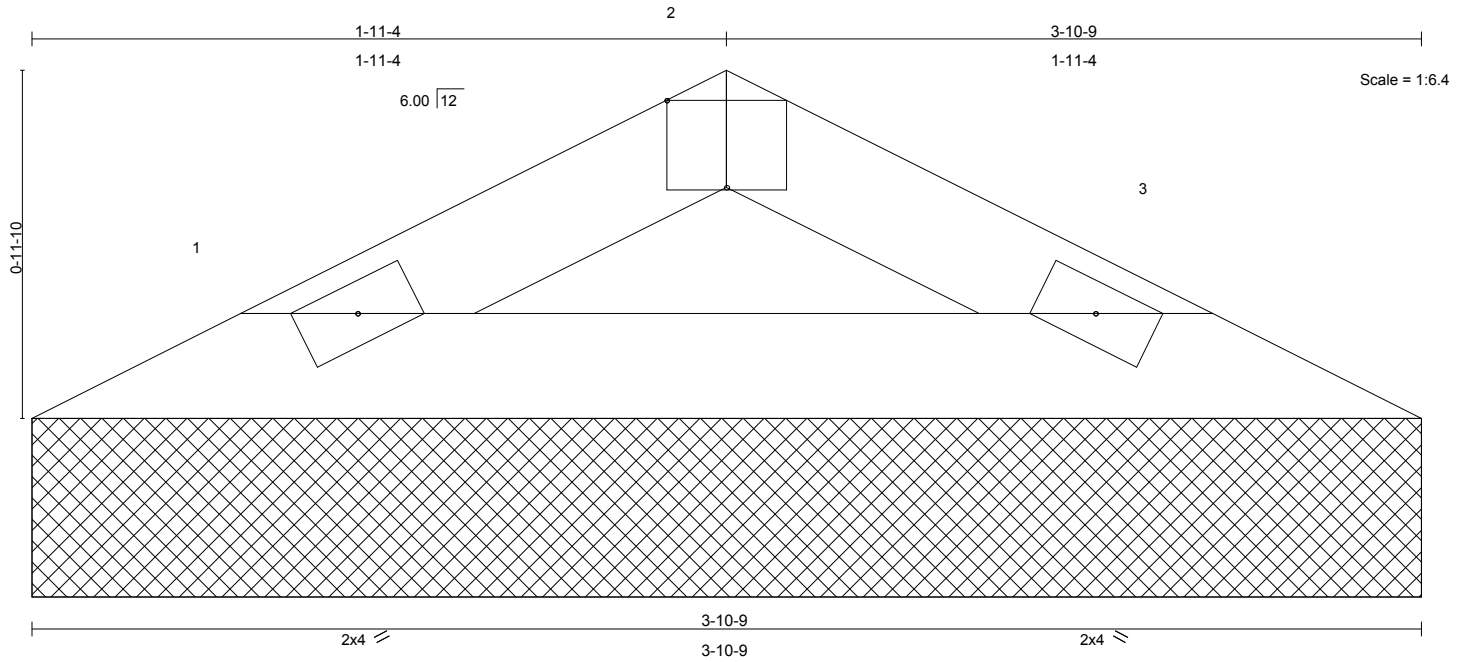


Plate Offsets (X,Y): [2:0-2-0,Edge], [3:0-0-0,0-0-0]

LOADING (psf)	SPACING	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plates Increase	1.15	TC 0.03	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL 10.0	Lumber Increase	1.15	BC 0.08	Vert(TL)	n/a	-	n/a	999		
BCLL 0.0	Rep Stress Incr	YES	WB 0.00	Horz(TL)	0.00	3	n/a	n/a		
BCDL 10.0	Code	IRC2003/TPI2002	(Matrix)							Weight: 8 lb

**LUMBER**

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

**BRACING**

TOP CHORD Sheathed or 3-10-9 oc purlins.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS**

(lb/size) 1=106/3-10-9, 3=106/3-10-9  
Max Horz 1=9(load case 4)  
Max Uplift 1=-20(load case 5), 3=-20(load case 6)

**FORCES** (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=-103/42, 2-3=-103/42  
BOT CHORD 1-3=-25/79

**NOTES**

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-02; 90mph; h=30ft; TCDL=6.0psf; BCDL=6.0psf; Category II; Exp C; enclosed; MWFRS gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.33 plate grip DOL=1.33.
- 3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 4) This truss requires plate inspection per the Tooth Count Method when this truss is chosen for quality assurance inspection.
- 5) Gable requires continuous bottom chord bearing.
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 20 lb uplift at joint 1 and 20 lb uplift at joint 3.
- 7) This truss is designed in accordance with the 2003 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

**LOAD CASE(S)** Standard

*Xm Liu*



August 4, 2008

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