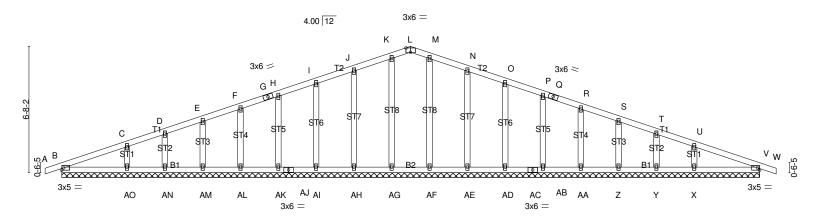
Job	Truss	Truss Type	Qty	Ply	H&H-NC/ENGAGE		
MASTER	A01	GABLE	1	1			
					Job Reference (optional)		
Builders FirstSource, N.Charleste	on, SC		Run: 7.640 s Apr 22 2016 Print: 7.640 s Apr 22 2016 MiTek Industries, Inc. Fri Jan 12 08:28:44 2018 Page 1				
		ID:SzABPCMxEuPMsuHkO6q6LKzwPcS-nISW9fDiboe2FFbucF7MjkjEZ13zR3QUw6cq4IzwA5n					
-Q-10 <sub>7</sub> 8	18-5-8	1			36-11-0 37-9-8		
0-10-8	19-5-9				18-5-8		



1			36-11-0					
	36-11-0							
Plate Offsets (X,Y)								
Tiate Offices (X,T)	[L.0 0 0,Luge]							
LOADING (psf)	SPACING- 2-0-0	CSI.	DEFL.	in (loc)	I/defl L/d	PLATES (	GRIP	
TCLL 20.0	Plate Grip DOL 1.15	TC 0.17	Vert(LL)	0.00 W	n/r 120	MT20 2	244/190	
TCDL 10.0	Lumber DOL 1.15	BC 0.09	Vert(TL)	0.01 W	n/r 120			
BCLL 0.0 *	Rep Stress Incr YES	WB 0.09	Horz(TL)	0.01 V	n/a n/a			
BCDL 10.0	Code IRC2009/TPI2007	(Matrix)	, ,			Weight: 198 lb	FT = 20%	

LUMBER-

TOP CHORD 2x4 SP No.2 BOT CHORD 2x4 SP No.2 OTHERS 2x4 SP No.3 BRACING-

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

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

**REACTIONS.** All bearings 36-11-0.

(lb) - Max Horz B=181(LC 6)

Max Uplift All uplift 100 lb or less at joint(s) AG except V=-138(LC 9), AH=-170(LC 8), AI=-140(LC 6), AK=-146(LC

8), AL=-143(LC 6), AM=-154(LC 8), AN=-110(LC 6), AO=-252(LC 6), AE=-177(LC 9), AD=-139(LC 7), AB=-147(LC

9), AA=-143(LC 7), Z=-154(LC 9), Y=-110(LC 7), X=-247(LC 7), B=-111(LC 8)

Max Grav All reactions 250 lb or less at joint(s) V, AG, AH, AI, AK, AL, AM, AN, AF, AE, AD, AB, AA, Z, Y, B except AO=268(LC 13), X=268(LC 14)

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

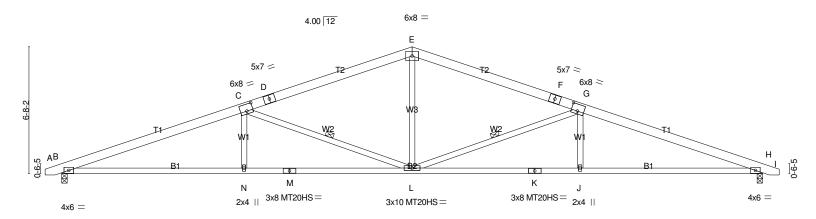
TOP CHORD I-J=-30/298, J-K=-30/376, K-L=-29/388, L-M=-29/388, M-N=-30/376, N-O=-30/298

WEBS C-AO=-192/312, U-X=-192/313

#### NOTES-

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-05; 130mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; enclosed; MWFRS (low-rise) gable end zone and C-C Exterior(2) zone; end vertical 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 Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- 4) This truss has been designed for basic load combinations, which include cases with reductions for multiple concurrent live loads.
- 5) All plates are 2x4 MT20 unless otherwise indicated.
- 6) Gable requires continuous bottom chord bearing.
- 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) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 10) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) AG except (jt=lb) V=138, AH=170, AI=140, AK=146, AL=143, AM=154, AN=110, AO=252, AE=177, AD=139, AB=147, AA=143, Z=154, Y=110, X=247, B=111.
- 11) This truss is designed in accordance with the 2009 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 12) "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	H&H-NC/ENGAGE		
MASTER	A02	Common	7	1	Job Reference (optional)		
Builders FirstSource, N.Charles	ton SC	Run: 7	Run: 7.640 s. Apr 22 2016 Print: 7.640 s. Apr 22 2016 MiTek Industries, Inc. Fri Jan 12 08:28:44 2018				
Danders First Course, 14. Crianes	ion, 00	ID:SzABPCMxEuPMsuHkO6a6LKzwPcS-nISW9fDiboe2FFbucF7Miki6S1rtRvOUw6ca4Izw					
-Q-10 <sub>7</sub> 8	9-7-4	18-5-8	2	7-3-12	36-11-0 37-9-8		
0-10-8	9-7-4	8-10-3		8-10-4	9-7-4 0-10-8		



	9-7-4 9-7-4	18-5-8 8-10-3	27-3-12 8-10-4	36-11-0 9-7-4
Plate Offsets (X,Y)	[C:0-4-0,0-4-4], [G:0-4-0,0-4-4]			
LOADING (psf) TCLL 20.0 TCDL 10.0 BCLL 0.0 * BCDL 10.0	SPACING- 2-0-0 Plate Grip DOL 1.15 Lumber DOL 1.15 Rep Stress Incr YES Code IRC2009/TPI2007	CSI. TC 0.69 BC 0.99 WB 0.54 (Matrix-S)	DEFL.         in (loc)         l/defl         L/d           Vert(LL)         -0.23         L-N         >999         360           Vert(TL)         -0.68         J-L         >655         240           Horz(TL)         0.22         H         n/a         n/a           Wind(LL)         0.37         L-N         >999         240	PLATES GRIP MT20 244/190 MT20HS 187/143 Weight: 195 lb FT = 20%

LUMBER-

TOP CHORD 2x6 SP No.2 BOT CHORD 2x4 SP No.2 2x4 SP No.3 WFBS

**BRACING-**

TOP CHORD **BOT CHORD** WFBS

Structural wood sheathing directly applied.

Rigid ceiling directly applied.

1 Row at midpt G-I C-I

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

REACTIONS. (lb/size) B=1513/0-3-8 (min. 0-1-13), H=1513/0-3-8 (min. 0-1-13)

Max Horz B=-151(LC 9)

Max UpliftB=-645(LC 6), H=-645(LC 7)

FORCES. (Ib) - Max. Comp./Max. Ten. - All forces 250 (Ib) or less except when shown. TOP CHORD B-C=-3509/3147, C-D=-2434/2269, D-E=-2350/2299, E-F=-2350/2299, F-G=-2434/2269,

G-H=-3509/3147

BOT CHORD B-N=-2794/3255, M-N=-2794/3255, L-M=-2794/3255, K-L=-2797/3255, J-K=-2797/3255,

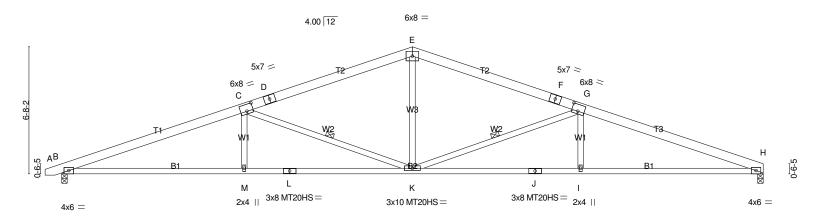
H-J=-2797/3255

**WEBS** E-L=-730/958, G-L=-1148/1178, G-J=0/355, C-L=-1148/1178, C-N=0/355

### NOTES-

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-05; 130mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; enclosed; MWFRS (low-rise) and C-C Exterior(2) zone; end vertical 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 basic load combinations, which include cases with reductions for multiple concurrent live loads.
- 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) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) B=645, H=645.
- 8) This truss is designed in accordance with the 2009 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 9) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and ½" gypsum sheetrock be applied directly to the bottom chord.
- 10) See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.

Job	Truss	Truss Type	Qty	Ply	H&H-NC/ENGAGE	
MASTER	A03	Common	1	1	Job Reference (optional)	
Builders FirstSource, N.Charlest		Run: 7.640 s Apr 22 2016 Print: 7.640 s Apr 22 2016 MiTek Industries, Inc. Fri Jan 12 08:28:44 2018 Page 1				
		IC	:SzABPCMxI	EuPMsuHk	lkO6q6LKzwPcS-nISW9fDiboe2FFbucF7Mjkj6Q1rtRyMUw6cq4IzwA5n	
-Q-10 <sub>7</sub> 8	9-7-4	18-5-8		27-3-12	36-11-0 37-9-8	
0-10-8	9-7-4	8-10-3		8-10-4	9-7-4 0-10-8	



	9-7-4	18-5-8 8-10-3	27-3-12 8-10-4	36-11-0 9-7-4
	[C:0-4-0,0-4-4], [G:0-4-0,0-4-4]			
LOADING (psf)         TCLL 20.0         TCDL 10.0         BCLL 0.0 *         BCDL 10.0	SPACING- 2-0-0 Plate Grip DOL 1.15 Lumber DOL 1.15 Rep Stress Incr YES Code IRC2009/TPI2007	CSI. TC 0.69 BC 0.99 WB 0.55 (Matrix-S)	DEFL.         in (loc)         l/defl         L/d           Vert(LL)         -0.23         K-M         >999         360           Vert(TL)         -0.68         K-M         >655         240           Horz(TL)         0.22         H         n/a         n/a           Wind(LL)         0.43         K-M         >999         240	PLATES GRIP MT20 244/190 MT20HS 187/143 Weight: 193 lb FT = 20%

LUMBER-

TOP CHORD 2x6 SP No.2 BOT CHORD 2x4 SP No.2 2x4 SP No.3 WFBS

**BRACING-**

TOP CHORD **BOT CHORD** WFBS

Structural wood sheathing directly applied.

Rigid ceiling directly applied.

1 Row at midpt G-K C-K

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

REACTIONS. (lb/size) B=1514/0-3-8 (min. 0-1-13), H=1476/0-3-8 (min. 0-1-12)

Max Horz B=195(LC 6)

Max UpliftB=-1093(LC 8), H=-1025(LC 9)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown. TOP CHORD B-C=-3510/3149, C-D=-2436/2271, D-E=-2351/2301, E-F=-2351/2302, F-G=-2436/2271,

G-H=-3513/3152

BOT CHORD B-M=-2816/3256, L-M=-2816/3256, K-L=-2816/3256, J-K=-2819/3260, I-J=-2819/3260,

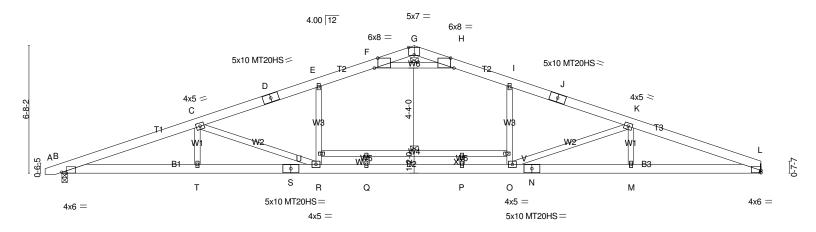
H-I=-2819/3260

E-K=-732/959, G-K=-1152/1182, G-I=0/355, C-K=-1148/1178, C-M=0/355

# **WEBS** NOTES-

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-05; 130mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; enclosed; MWFRS (low-rise) gable end zone and C-C Exterior(2) zone; end vertical 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 basic load combinations, which include cases with reductions for multiple concurrent live loads.
- 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) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) B=1093, H=1025.
- 8) This truss is designed in accordance with the 2009 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 9) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and ½" gypsum sheetrock be applied directly to the bottom chord.
- 10) See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.

	Job	Truss	Truss Type		Qty	Ply	H&H-NC/ENGAGE		
	MASTER	A04	Common		6	1			
							Job Reference (optional)		
Builders FirstSource, N.Charleston, SC				Run: 7.640 s Apr 22 2016 Print: 7.640 s Apr 22 2016 MiTek Industries, Inc. Fri Jan 12 08:28:45 2018 Page 1					
				ID:SzABPCMxEuPMsuHkO6q6LKzwPcS-GU0vN?EKM6mvsO94AyebFxFExRLvAI4d9			sO94AyebFxFExRLvAl4d9mMOck	zwA5m	
	-Q-10 <sub>1</sub> 8 7-1-	3 , 10	3-5-8 , 18	3-5-8	23-5-8	1	29-9-13	36-7-8	
	0-10-8 7-1-	3 6	5-4-5	-0-0	5-0-0		6-4-5	6-9-11	



	7-1-3 7-1-3	13-5-8 6-4-5	15-11-8	20-11-8 5-0-0	+ 23-5-8 2-6-0	29-9-13 6-4-5	36-7-8 6-9-11
Plate Offsets (X,Y) [B:0-2-12,Edge], [F:0-2-3,0-6-4], [G:0-3-8,Edge], [H:0-2-2,0-6-4], [L:0-0-0,0-1-7]							
LOADING (psf)           TCLL 20.0           TCDL 10.0           BCLL 0.0 *           BCDL 10.0	SPACING- Plate Grip D Lumber DOL Rep Stress I Code IRC20	1.15 ncr YES	CSI. TC 0.89 BC 0.37 WB 0.96 (Matrix-S)	( )	in (loc) -0.37 R-T -0.97 P-Q 0.11 L 0.51 P-Q	n/a n/a	PLATES GRIP MT20 244/190 MT20HS 187/143 Weight: 238 lb FT = 20%

LUMBER-

TOP CHORD 2x6 SP No.1 \*Except\*

T1.T3: 2x6 SP No.2

BOT CHORD 2x6 SP DSS

2x4 SP No.3 WFBS

**BRACING-**

WFBS

TOP CHORD **BOT CHORD**  Structural wood sheathing directly applied. Rigid ceiling directly applied.

1 Row at midpt U-V F-H

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

REACTIONS. (lb/size) B=1612/0-3-8 (min. 0-1-14), L=1555/Mechanical

Max Horz B=160(LC 8)

Max UpliftB=-546(LC 6), L=-486(LC 7)

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

TOP CHORD B-C=-3929/3010, C-D=-3095/2242, D-E=-2987/2249, E-F=-2759/2207, F-G=-618/1205,

G-H=-617/1205. H-I=-2759/2207. I-J=-2986/2249. J-K=-3095/2241. K-L=-3909/2993 B-T=-2734/3689, S-T=-2734/3689, R-S=-2734/3689, Q-R=-1805/2875, P-Q=-1805/2875,

BOT CHORD O-P=-1805/2875, N-O=-2717/3668, M-N=-2717/3668, L-M=-2717/3668

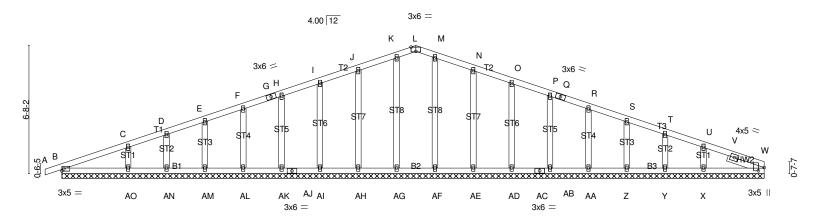
**WEBS** C-R=-1107/1039, R-U=-154/716, E-U=-149/736, O-V=-151/713, I-V=-145/733,

K-O=-1103/1021, F-H=-4083/2977

#### NOTES-

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-05; 130mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; enclosed; MWFRS (low-rise) and C-C Exterior(2) zone; end vertical left exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 3) 200.0lb AC unit load placed on the bottom chord, 18-5-8 from left end, supported at two points, 5-0-0 apart.
- 4) This truss has been designed for basic load combinations, which include cases with reductions for multiple concurrent live loads.
- 5) All plates are MT20 plates unless otherwise indicated.
- 6) All plates are 2x4 MT20 unless otherwise indicated.
- 7) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 8) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 9) Refer to girder(s) for truss to truss connections.
- 10) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) B=546, L=486.
- 11) This truss is designed in accordance with the 2009 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 12) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and ½" gypsum sheetrock be applied directly to the bottom chord.
- 13) See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.

Job	Truss	Truss Type	Qty Ply H&H-NC/ENGAGE		H&H-NC/ENGAGE		
MASTER	A05	GABLE	1	1			
					Job Reference (optional)		
Builders FirstSource, N.Charlesto	on, SC		Run: 7.640 s Apr 22 2016 Print: 7.640 s Apr 22 2016 MiTek Industries, Inc. Fri Jan 12 08:28:46 2018 Page 1				
		II	ID:SzABPCMxEuPMsuHkO6q6LKzwPcS-kgaHaKEy7PumUYkGkg9qo9oa0rlUvzxnNQ5x8AzwA5l				
-Q-10 <sub>7</sub> 8	-Q-10 <sub>1</sub> 8 18-5-8		36-7-8				
1100			10.0.0				



36-7-8 							
Plate Offsets (X,Y) [L:0-3-0,Edge], [W:0-2-0,0-3-10]							
LOADING (psf) TCLL 20.0	SPACING- 2-0-0 Plate Grip DOL 1.15	<b>CSI.</b> TC 0.17	DEFL.         in (loc)         l/defl         L/d         PLATES           Vert(LL)         -0.00         A         n/r         120         MT20	<b>GRIP</b> 244/190			
TCDL 10.0 BCLL 0.0 *	Lumber DOL 1.15 Rep Stress Incr YES	BC 0.09 WB 0.09	Vert(TL) 0.00 A n/r 120 Horz(TL) 0.01 W n/a n/a	,,			
BCDL 10.0	Code IRC2009/TPI2007	(Matrix)	Weight: 19	99 lb FT = 20%			

LUMBER-

TOP CHORD 2x4 SP No.2 BOT CHORD 2x4 SP No.2 **OTHERS** 2x4 SP No.3

Right 2x4 SP No.2 1-11-12 SLIDER

**BRACING-**

TOP CHORD **BOT CHORD**  Structural wood sheathing directly applied or 6-0-0 oc purlins. Rigid ceiling directly applied or 10-0-0 oc bracing.

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

REACTIONS. All bearings 36-7-8.

(lb) - Max Horz B=184(LC 6)

Max Uplift All uplift 100 lb or less at joint(s) W, AG except AH=-171(LC 8), AI=-140(LC 6), AK=-146(LC 8),

AL=-143(LC 6), AM=-154(LC 8), AN=-110(LC 6), AO=-252(LC 6), AE=-177(LC 9), AD=-139(LC 7), AB=-147(LC 7), AA=-143(LC 9), Z=-152(LC 7), Y=-116(LC 9), X=-250(LC 7), B=-112(LC 8)

Max Grav All reactions 250 lb or less at joint(s) W, AG, AH, AI, AK, AL, AM, AN, AF, AE, AD, AB, AA, Z, Y, X, B except AO=268(LC 13)

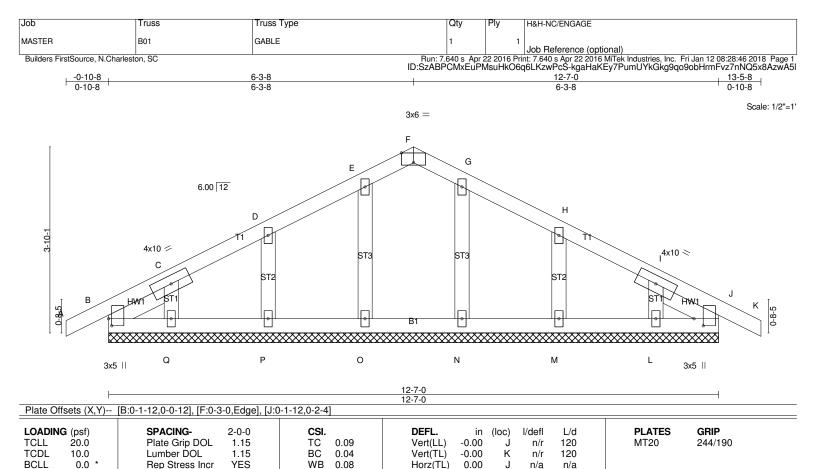
FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.

TOP CHORD I-J=-37/303, J-K=-37/381, K-L=-35/392, L-M=-35/392, M-N=-37/381, N-O=-37/303

WFBS C-AO=-192/312, U-X=-180/304

#### NOTES-

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-05; 130mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; enclosed; MWFRS (low-rise) gable end zone and C-C Exterior(2) zone; end vertical 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 Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- 4) This truss has been designed for basic load combinations, which include cases with reductions for multiple concurrent live loads.
- 5) All plates are 2x4 MT20 unless otherwise indicated.
- 6) Gable requires continuous bottom chord bearing.
- 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) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 10) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) W, AG except (jt=lb) AH=171, AI=140, AK=146, AL=143, AM=154, AN=110, AO=252, AE=177, AD=139, AB=147, AA=143, Z=152, Y=116, X=250, B=112.
- 11) This truss is designed in accordance with the 2009 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 12) "Semi-rigid pitchbreaks including heels" Member end fixity model was used in the analysis and design of this truss.



BRACING-

TOP CHORD

**BOT CHORD** 

Weight: 63 lb

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

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

FT = 20%

LUMBER-

BCDL

TOP CHORD 2x4 SP No.2 BOT CHORD 2x4 SP No.2 OTHERS 2x4 SP No.3

10.0

SLIDER Left 2x4 SP No.2 1-3-12, Right 2x4 SP No.2 1-3-12

Code IRC2009/TPI2007

**REACTIONS.** All bearings 12-7-0.

(lb) - Max Horz B=97(LC 8)

Max Uplift All uplift 100 lb or less at joint(s) B, J, O, N except P=-191(LC 8), Q=-169(LC 8), M=-194(LC 9),

(Matrix)

L=-161(LC 9)

Max Grav All reactions 250 lb or less at joint(s) B, J, O, P, Q, N, M, L

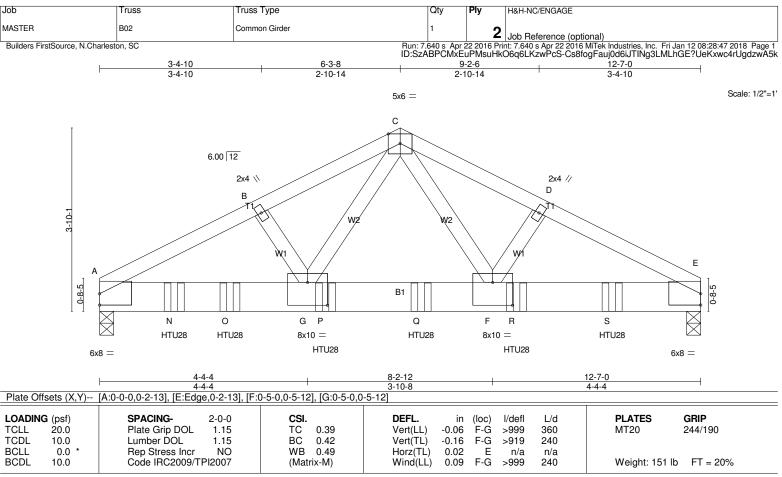
FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.

WEBS D-P=-125/271, H-M=-125/271

#### NOTES-

Unbalanced roof live loads have been considered for this design.

- 2) Wind: ASCE 7-05; 130mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; enclosed; MWFRS (low-rise) gable end zone and C-C Exterior(2) zone; end vertical 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 Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- 4) This truss has been designed for basic load combinations, which include cases with reductions for multiple concurrent live loads.
- 5) All plates are 2x4 MT20 unless otherwise indicated.
- 6) Gable requires continuous bottom chord bearing.
- 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) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 10) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) B, J, O, N except (it=lb) P=191, Q=169, M=194, L=161.
- 11) This truss is designed in accordance with the 2009 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1
- 12) "Semi-rigid pitchbreaks including heels" Member end fixity model was used in the analysis and design of this truss.



BRACING-

TOP CHORD

**BOT CHORD** 

Structural wood sheathing directly applied or 4-3-0 oc purlins.

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

LUMBER-

TOP CHORD 2x4 SP No.2 BOT CHORD 2x8 SP DSS

2x4 SP No.2 **WEBS** 

REACTIONS. (lb/size) A=5418/0-3-8 (min. 0-3-3), E=4798/0-3-8 (min. 0-2-13)

Max Horz A=-86(LC 4)

Max UpliftA=-1936(LC 6), E=-1735(LC 7)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown. TOP CHORD A-B=-7745/2780, B-C=-7658/2785, C-D=-7305/2671, D-E=-7390/2666

A-N=-2477/6873, N-O=-2477/6873, G-O=-2477/6873, G-P=-1649/4848, P-Q=-1649/4848, F-Q=-1649/4848, F-R=-2289/6547, **BOT CHORD** 

R-S=-2289/6547, E-S=-2289/6547 C-F=-1225/3380, C-G=-1429/4011

# **WEBS** NOTES-

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

Top chords connected as follows: 2x4 - 1 row at 0-9-0 oc.

Bottom chords connected as follows: 2x8 - 2 rows staggered at 0-5-0 oc.

Webs connected as follows: 2x4 - 1 row at 0-9-0 oc.

- 2) All loads are considered equally applied to all plies, except if noted as front (F) or back (B) face in the LOAD CASE(S) section. Ply to ply connections have been provided to distribute only loads noted as (F) or (B), unless otherwise indicated.
- 3) Unbalanced roof live loads have been considered for this design.
- 4) Wind: ASCE 7-05; 130mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; enclosed; MWFRS (low-rise) gable end zone; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 5) This truss has been designed for basic load combinations, which include cases with reductions for multiple concurrent live loads.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 7) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) A=1936,
- 9) This truss is designed in accordance with the 2009 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 10) "Semi-rigid pitchbreaks including heels" Member end fixity model was used in the analysis and design of this truss.
- 11) Use Simpson Strong-Tie HTU28 (26-10d Girder, 14-10dx1 1/2 Truss, Single Ply Girder) or equivalent spaced at 2-0-0 oc max. starting at 1-6-12 from the left end to 10-8-12 to connect truss(es) A04 (1 ply 2x6 SP) to back face of bottom chord.
- 12) Fill all nail holes where hanger is in contact with lumber.

#### LOAD CASE(S) Standard

1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15

Job	Truss	Truss Type	Qty	Ply	H&H-NC/ENGAGE
MASTER	B02	Common Girder	1	2	Job Reference (optional)

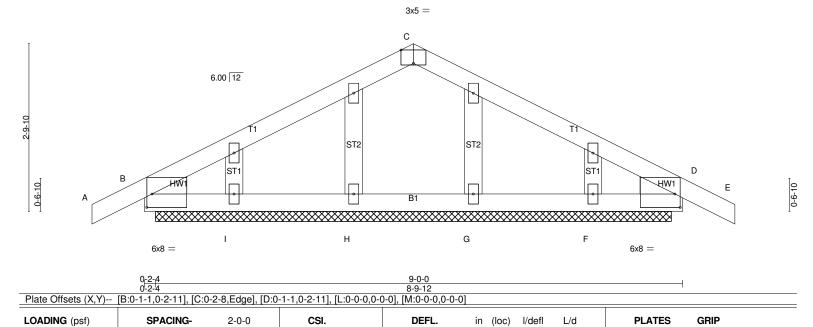
Builders FirstSource, N.Charleston, SC

Run: 7.640 s Apr 22 2016 Print: 7.640 s Apr 22 2016 MTek Industries, Inc. Fri Jan 12 08:28:47 2018 Page 2 ID:SzABPCMxEuPMsuHkO6q6LKzwPcS-Cs8fogFauj0d6iJTlNg3LMLhGE?UeKxwc4rUgdzwA5k

LOAD CASE(S) Standard
Uniform Loads (plf)
Vert: A-C=-60, C-E=-60, H-K=-20
Concentrated Loads (lb)
Vert: N=-1535(B) O=-1535(B) P=-1535(B) Q=-1535(B) R=-1535(B) S=-1535(B)

Job Truss Truss Type Qty Ply H&H-NC/ENGAGE MASTER C01 GABLE Job Reference (optional) Builders FirstSource, N.Charleston, SC Run: 7.640 s. Apr 22 2016 Print: 7.640 s. Apr 22 2016 MiTek Industries, Inc. Fri Jan 12 08:28:47 2018 Page 1 ID:SzABPCMxEuPMsuHkO6q6LKzwPcS-Cs8fogFauj0d6iJTINg3LMLh\_E1qeRdwc4rUgdzwA5k 9-0-0 9-10-8 -0-10-8 0-10-8 4-6-0 4-6-0 0-10-8

Scale = 1:19.3



Vert(LL)

Vert(TL)

Horz(TL)

**BRACING-**

TOP CHORD

**BOT CHORD** 

0.01

0.01

0.00

E

Ε

D

n/r

n/r

n/a

Installation guide.

120

120

n/a

MT20

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

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.

Weight: 41 lb

244/190

FT = 20%

LUMBER-

**TCLL** 

TCDL

**BCLL** 

BCDL

TOP CHORD 2x4 SP No.2 BOT CHORD 2x4 SP No.2 OTHERS 2x4 SP No.3

20.0

10.0

0.0

10.0

WEDGE Left: 2x4 SP No.3, Right: 2x4 SP No.3

**REACTIONS.** All bearings 8-7-8.

(lb) - Max Horz B=-80(LC 9)

Max Uplift All uplift 100 lb or less at joint(s) I, F except B=-298(LC 8), D=-299(LC 9)

Max Grav All reactions 250 lb or less at joint(s) H, I, G, F except B=276(LC 1), D=276(LC 1)

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

TOP CHORD B-C=-332/469, C-D=-332/469

#### NOTES-

Unbalanced roof live loads have been considered for this design.

Plate Grip DOL

Rep Stress Incr

Code IRC2009/TPI2007

Lumber DOL

1.15

1.15

YES

2) Wind: ASCE 7-05; 130mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; enclosed; MWFRS (low-rise) gable end zone and C-C Exterior(2) zone; end vertical left and right exposed; porch left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60

TC

ВС

WB

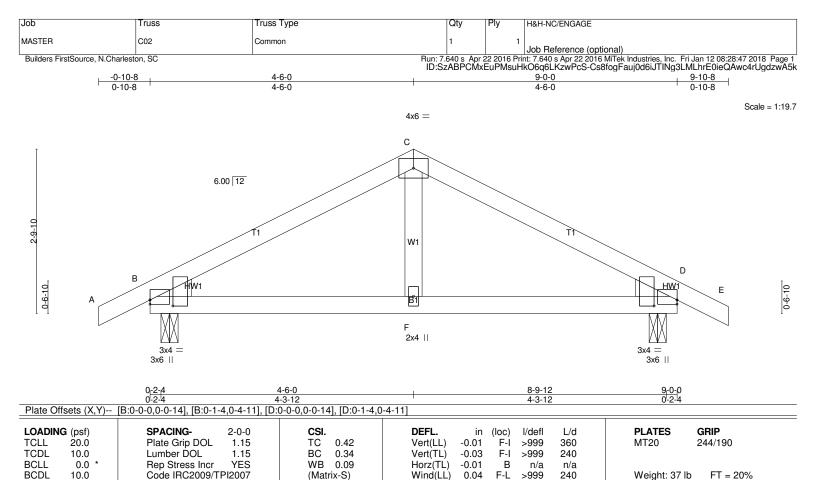
(Matrix)

0.41

0.27

0.00

- 3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- 4) This truss has been designed for basic load combinations, which include cases with reductions for multiple concurrent live loads.
- 5) All plates are 2x4 MT20 unless otherwise indicated.
- 6) Gable studs spaced at 2-0-0 oc.
- 7) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 8) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) I, F except (jt=lb) B=298, D=299.
- 10) Non Standard bearing condition. Review required.
- 11) This truss is designed in accordance with the 2009 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPL1
- 12) "Semi-rigid pitchbreaks including heels" Member end fixity model was used in the analysis and design of this truss.



BRACING-

TOP CHORD

**BOT CHORD** 

Structural wood sheathing directly applied.

MiTek recommends that Stabilizers and required cross bracing

be installed during truss erection, in accordance with Stabilizer

Rigid ceiling directly applied.

Installation guide.

LUMBER-

TOP CHORD 2x4 SP No.2 BOT CHORD 2x4 SP No.2 WEBS 2x4 SP No.3

WEDGE

Left: 2x4 SP No.3, Right: 2x4 SP No.3

**REACTIONS.** (lb/size) B=412/0-3-8 (min. 0-1-8), D=412/0-3-8 (min. 0-1-8)

Max Horz B=-92(LC 9)

Max UpliftB=-556(LC 8), D=-556(LC 9)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown. TOP CHORD B-C=-452/1128. C-D=-452/1128

BOT CHORD B-G=-432/1126, G-D=-432/1126 BOT CHORD B-F=-822/363, D-F=-822/363

WEBS C-F=-533/183

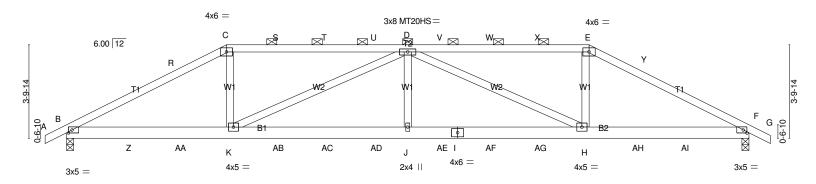
#### NOTES:

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

- 2) Wind: ASCE 7-05; 130mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; enclosed; MWFRS (low-rise) gable end zone and C-C Exterior(2) zone; end vertical left and right exposed; porch 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 basic load combinations, which include cases with reductions for multiple concurrent live loads.
- 4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 5) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) B=556, D=556.
- 7) This truss is designed in accordance with the 2009 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 8) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and ½" gypsum sheetrock be applied directly to the bottom chord.

Job	Truss	Truss Type	Qty	Ply	H&H-NC/ENGAGE		
MASTER	D01	Hip Girder	1	2	Job Reference (	optional)	
Builders FirstSource, N.Charles	ston, SC	Run: 7.640 s Apr 22 2016 Print: 7.640 s Apr 22 2016 MiTek Industries, Inc. Fri Jan 12 08:28:48 20 ID:SzABPCMxEuPMsuHkO6g6LKzwPcS-g3i1?0GCf18Ujsufr5BltatmyeI7NoO3rka/					
-0-10-8	6-6-8	13-11-8		21-4-8		27-11-0	28-9-8
0-10-8	6-6-8	7-5-0		7-5-0		6-6-8	0-10-8

Scale = 1:47.1



	6-6-8		3-11-8		21-4-8			27-11-0	
'	6-6-8		'-5-0	<u>'</u>	7-5-0		'	6-6-8	<u>'</u>
Plate Offsets (X,Y) [B:0-1-12,0-1-8], [F:0-1-12,0-1-8]									
LOADING (psf) TCLL 20.0	Plate Grip DOL	1.15	CSI. FC 0.78	<b>DEFL.</b> Vert(LL)	in (loc) -0.11 J	>999	L/d 360	PLATES MT20	<b>GRIP</b> 244/190
TCDL 10.0 BCLL 0.0 * BCDL 10.0	Lumber DOL Rep Stress Incr Code IRC2009/TP	NO	3C 0.59 WB 0.42 (Matrix-M)	Vert(TL) Horz(TL) Wind(LL)	-0.27 J-K 0.07 F 0.26 J	>999 n/a >999	240 n/a 240	MT20HS Weight: 298 lb	187/143 FT = 20%

LUMBER-

TOP CHORD 2x4 SP No.2 \*Except\*

T2: 2x4 SP No.1

BOT CHORD 2x6 SP No.2

WEBS 2x4 SP No.2

BRACING-

TOP CHORD S

Structural wood sheathing directly applied or 5-10-12 oc purlins, except

2-0-0 oc purlins (5-10-6 max.): C-E.

BOT CHORD Rigid ceiling directly applied or 7-4-9 oc bracing.

**REACTIONS.** (lb/size) B=2378/0-3-8 (min. 0-1-8), F=2378/0-3-8 (min. 0-1-8)

Max Horz B=-104(LC 7)

Max UpliftB=-2011(LC 6), F=-2011(LC 7)

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

TOP CHORD B-R=-4153/3593, C-R=-4041/3591, C-S=-3690/3315, S-T=-3690/3315, T-U=-3690/3315,

D-U=-3690/3315, D-V=-3690/3315, V-W=-3690/3315, W-X=-3690/3315, E-X=-3690/3315,

E-Y=-4041/3591, F-Y=-4152/3593

BOT CHORD B-Z=-3190/3639, Z-AA=-3190/3639, K-AA=-3190/3639, K-AB=-4716/5194, AB-AC=-4716/5194,

AC-AD=-4716/5194, J-AD=-4716/5194, J-AE=-4716/5194, I-AE=-4716/5194, I-AF=-4716/5194,

AF-AG=-4716/5194, H-AG=-4716/5194, H-AH=-3121/3638, AH-AI=-3121/3638, F-AI=-3121/3638

WEBS C-K=-891/1215, D-K=-1733/1745, D-J=0/596, D-H=-1733/1745, E-H=-891/1215

#### NOTES-

- 1) 2-ply truss to be connected together with 10d (0.131"x3") nails as follows:
  - Top chords connected as follows: 2x4 1 row at 0-9-0 oc.
  - Bottom chords connected as follows: 2x6 2 rows staggered at 0-9-0 oc.
- Webs connected as follows: 2x4 1 row at 0-9-0 oc.
- 2) All loads are considered equally applied to all plies, except if noted as front (F) or back (B) face in the LOAD CASE(S) section. Ply to ply connections have been provided to distribute only loads noted as (F) or (B), unless otherwise indicated.
- 3) Unbalanced roof live loads have been considered for this design.
- 4) Wind: ASCE 7-05; 130mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; enclosed; MWFRS (low-rise); end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 5) This truss has been designed for basic load combinations, which include cases with reductions for multiple concurrent live loads.
- 6) Provide adequate drainage to prevent water ponding.
- 7) All plates are MT20 plates unless otherwise indicated.
- 8) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 9) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 10) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) B=2011 , F=2011.
- 11) This truss is designed in accordance with the 2009 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 12) "Semi-rigid pitchbreaks including heels" Member end fixity model was used in the analysis and design of this truss
- 13) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

Job	Truss	Truss Type	Qty	Ply	H&H-NC/ENGAGE
MASTER	D01	Hip Girder	1	2	Job Reference (optional)
Builders FirstSource, N.Charlesto	on, SC			22 2016 Pri	nt: 7.640 s Apr 22 2016 MiTek Industries, Inc. Fri Jan 12 08:28:48 2018 Page 2 uHkO6q6LKzwPcS-g3i1?0GCf18Ujsufr5BltatmyeI7NoO3rka2D3zwA5j

NOTES-

14) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 39 lb down and 65 lb up at 4-7-4, 135 lb down and 238 lb up at 6-6-8, 116 lb down and 238 lb up at 8-7-4, 116 lb down and 238 lb up at 10-7-4, 116 lb down and 238 lb up at 12-7-4, 116 lb down and 238 lb up at 13-11-8, 116 lb down and 238 lb up at 15-3-12, 116 lb down and 238 lb up at 17-3-12, 116 lb down and 238 lb up at 19-3-12, and 135 lb down and 238 lb up at 23-3-12 on top chord, and 249 lb down and 249 lb up at 2-7-4, 170 lb down and 156 lb up at 23-3-12 on top chord, and 249 lb down and 249 lb up at 2-7-4, 170 lb down and 156 lb up at 2-7-4, 75 lb down and 27 lb up at 10-7-4, 75 lb down and 27 lb up at 10-7-4, 75 lb down and 27 lb up at 13-3-12, 75 lb down and 27 lb up at 13-3-12, 75 lb down and 27 lb up at 13-3-12, 75 lb down and 27 lb up at 13-3-12, 75 lb down and 27 lb up at 13-3-12, 75 lb down and 27 lb up at 13-3-12, 75 lb down and 27 lb up at 13-3-12, and 170 lb down and 156 lb up at 23-3-12, and 249 lb down and 249 lb up at 25-3-12 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.

### LOAD CASE(S) Standard

1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15 Uniform Loads (plf)

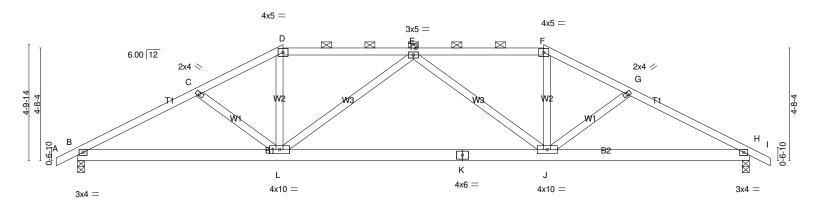
Vert: A-C=-60, C-E=-60, E-G=-60, L-O=-20

Concentrated Loads (lb)

Vert: C=-116(B) E=-116(B) K=-59(B) J=-59(B) H=-59(B) D=-116(B) S=-116(B) T=-116(B) U=-116(B) V=-116(B) W=-116(B) Z=-249(B) AA=-170(B) AB=-59(B) AC=-59(B) AD=-59(B) AE=-59(B) AF=-59(B) AG=-59(B) AH=-170(B) AI=-249(B)

Job	Truss	Truss Type	Qty	Ply	H&H-NC/ENGAGE		
MASTER	D02	Hip	1	1			
					Job Reference (optional)		
Builders FirstSource, N.Charlesto	on, SC		Run: 7.640 s Apr 22 2016 Print: 7.640 s Apr 22 2016 MiTek Industries, Inc. Fri Jan 12 08:28:49 2018 Page 1				
			ID:SzABPCMxEuPM	suHkO6q6	SLKzwPcS-8FFPDMHqQK	GLL0TrPoiXQnQ?F2gb6G	39D4OKblVzwA5i
-ρ-10-β 5-0	)-15   8-6-8	13-11-8	19-4-	8	22-10-1	27-11-0	28-9-8
o-10-8 5-0	)-15 3-5-9	5-5-0	5-5-0	)	3-5-9	5-0-15	0-10-8

Scale: 1/4"=1'



	8-6-8 8-6-8	-	19-4-8 10-10-0	+	27-11-0 8-6-8		
LOADING (psf) TCLL 20.0 TCDL 10.0 BCLL 0.0 * BCDL 10.0	SPACING- 2-0-0 Plate Grip DOL 1.15 Lumber DOL 1.15 Rep Stress Incr YES Code IRC2009/TPI2007	CSI. TC 0.55 BC 0.51 WB 0.38 (Matrix-S)	DEFL.         in (loc)         l/de           Vert(LL)         -0.11         J-L         >98           Vert(TL)         -0.34         J-L         >98           Horz(TL)         0.06         H         n.           Wind(LL)         0.13         J-L         >98	9 360 9 240 /a n/a	PLATES GRIP MT20 244/190  Weight: 157 lb FT = 20%		

LUMBER-

TOP CHORD 2x4 SP No.2 BOT CHORD 2x6 SP No.2 WFBS 2x4 SP No.3 **BRACING-**

Structural wood sheathing directly applied, except TOP CHORD

2-0-0 oc purlins (4-4-12 max.): D-F.

**BOT CHORD** Rigid ceiling directly applied.

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

**REACTIONS.** (lb/size) B=1169/0-3-8 (min. 0-1-8), H=1169/0-3-8 (min. 0-1-8)

Max Horz B=-124(LC 9) Max UpliftB=-426(LC 8), H=-426(LC 9)

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

TOP CHORD B-C=-1988/1731, C-D=-1786/1574, D-E=-1556/1478, E-F=-1556/1478, F-G=-1786/1574,

G-H=-1988/1731

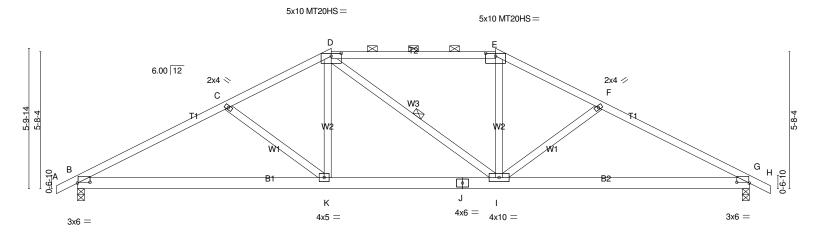
BOT CHORD B-L=-1359/1718, K-L=-1352/1804, J-K=-1352/1804, H-J=-1365/1718

C-L=-190/393, D-L=-356/512, E-L=-402/399, E-J=-402/399, F-J=-356/512, G-J=-190/393 **WEBS** 

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-05; 130mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; enclosed; MWFRS (low-rise) and C-C Exterior(2) zone; end vertical 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 basic load combinations, which include cases with reductions for multiple concurrent live loads.
- 4) Provide adequate drainage to prevent water ponding.
- 5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 6) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) B=426, H=426
- 8) This truss is designed in accordance with the 2009 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 9) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and ½" gypsum sheetrock be applied directly to the bottom chord.
- 10) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

Job	Truss	Truss Type		Qty	Ply	H&H-NC/ENGAGE			
MASTER	D03	Hip		1	1				
						Job Reference (op			
Builders FirstSource, N.Charlest	Builders FirstSource, N.Charleston, SC					Run: 7.640 s Apr 22 2016 Print: 7.640 s Apr 22 2016 MiTek Industries, Inc. Fri Jan 12 08:28:49 2018 F			
			ID:SzABPCMxEuPMsuHkO6q6LKzwPc\$-8FFPDMHqQKGLL0TrPoiXQnQyE2gx6JeD				QyE2gx6JeD4OKblVzwA5i		
-0-10-β	6-3-4	10-6-8	17-4-8		1	21-7-12	27-11-0	28-9-8	
0-10-8	6-3-4	4-3-4	6-10-0		I	4-3-4	6-3-4	0-10-8	

Scale: 1/4"=1'



Plata Offects (V V) [	10-6-8 B:0-6-4,0-0-6], [D:0-5-0,0-1-7], [E:0-5		6-10-0	I		10-6-8	
LOADING (psf) TCLL 20.0	SPACING- 2-0-0 Plate Grip DOL 1.15	<b>CSI.</b> TC 0.75	( )	in (loc) I/de 0.09 K-N >99	9 360	PLATES GRIP MT20 244/190	
TCDL 10.0 BCLL 0.0 * BCDL 10.0	Lumber DOL 1.15 Rep Stress Incr YES Code IRC2009/TPI2007	BC 0.49 WB 0.16 (Matrix-S)	Horz(TL) 0	1.26 K-N >99 1.05 G n/ 1.10 I >99	a n/a	MT20HS 187/143 Weight: 156 lb FT = 2	

17-4-8

LUMBER-

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

**BRACING-**

TOP CHORD **BOT CHORD**  Structural wood sheathing directly applied, except

2-0-0 oc purlins (3-3-3 max.): D-E. Rigid ceiling directly applied.

WFBS 1 Row at midpt

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

27-11-0

**REACTIONS.** (lb/size) B=1169/0-3-8 (min. 0-1-8), G=1169/0-3-8 (min. 0-1-8)

10-6-8

Max Horz B=-146(LC 9)

Max UpliftB=-451(LC 8), G=-451(LC 9)

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

TOP CHORD B-C=-1906/1726, C-D=-1633/1523, D-E=-1411/1455, E-F=-1633/1522, F-G=-1906/1725

**BOT CHORD** B-K=-1325/1637, J-K=-918/1411, I-J=-918/1411, G-I=-1329/1637

**WEBS** C-K=-276/506, D-K=-215/419, E-I=-212/419, F-I=-276/507

#### NOTES-

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-05; 130mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; enclosed; MWFRS (low-rise) and C-C Exterior(2) zone; end vertical 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 basic load combinations, which include cases with reductions for multiple concurrent live loads.
- 4) Provide adequate drainage to prevent water ponding.
- 5) All plates are MT20 plates unless otherwise indicated.
- 6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  7) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) B=451, G=451.
- 9) This truss is designed in accordance with the 2009 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 10) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and ½" gypsum sheetrock be applied directly to the bottom chord.
- 11) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

J	Job	Truss	Truss Type		Qty	Ply	H&H-NC/ENGAGE		
N	MASTER	D04	Hip		1	1			
							Job Reference (op		
	Builders FirstSource, N.Charlesto		Run: 7.640 s Apr 22 2016 Print: 7.640 s Apr 22 2016 MiTek Industries, Inc. Fri Jan 12 08:28:49 2018 Page						
				ID:SzABPC	MxEuPM	suHkO6q(	6LKzwPcS-8FFPD	MHqQKGLL0TrPoiXQnQye2iS	S6EWD4OKblVzwA5i
	-0-10-8	6-3-12	12-6-8	15-4-8		21-7	7-4	27-11-0	28-9-8
	0-10-8	6-3-12	6-2-12	2-10-0		6-2-	-12	6-3-12	0-10-8

Scale: 1/4"=1'

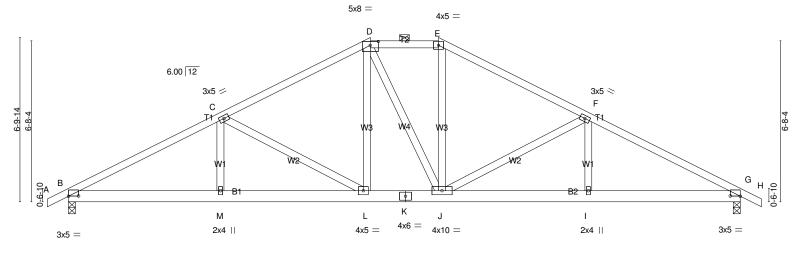


Plate Offsets (X,Y)	Plate Offsets (X,Y) [B:0-5-0,0-0-2], [D:0-4-0,0-1-15], [G:0-5-0,0-0-2]										
LOADING (psf)	SPACING- 2-0-0	<b>CSI.</b>	<b>DEFL.</b> in (loc) I/defl L/d	PLATES GRIP							
TCLL 20.0	Plate Grip DOL 1.15	TC 0.72	Vert(LL) -0.07 L >999 360	MT20 244/190							
TCDL 10.0	Lumber DOL 1.15	BC 0.33	Vert(TL) -0.07 L >999 300 Vert(TL) -0.18 L-M >999 240	W120 244/190							
BCLL 0.0 *	Rep Stress Incr YES	WB 0.49	Horz(TL) 0.05 G n/a n/a	Weight: 171 lb FT = 20%							
BCDL 10.0	Code IRC2009/TPI2007	(Matrix-S)	Wind(LL) 0.11 L >999 240								

2-10-0

LUMBER-

TOP CHORD 2x4 SP No.2 BOT CHORD 2x6 SP No.2 WEBS 2x4 SP No.3 BRACING-

TOP CHORD

Structural wood sheathing directly applied, except

2-0-0 oc purlins (5-1-3 max.): D-E.

BOT CHORD

Rigid ceiling directly applied.

6-2-12

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

6-3-12

**REACTIONS.** (lb/size) B=1169/0-3-8 (min. 0-1-8), G=1169/0-3-8 (min. 0-1-8)

Max Horz B=-168(LC 9)

Max UpliftB=-473(LC 8), G=-473(LC 9)

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

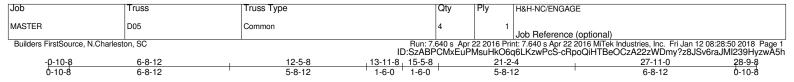
TOP CHORD B-C=-1972/1747, C-D=-1466/1423, D-E=-1231/1392, E-F=-1468/1425, F-G=-1971/1746 BOT CHORD B-M=-1352/1697, L-M=-1352/1697, K-L=-759/1228, J-K=-759/1228, I-J=-1358/1696,

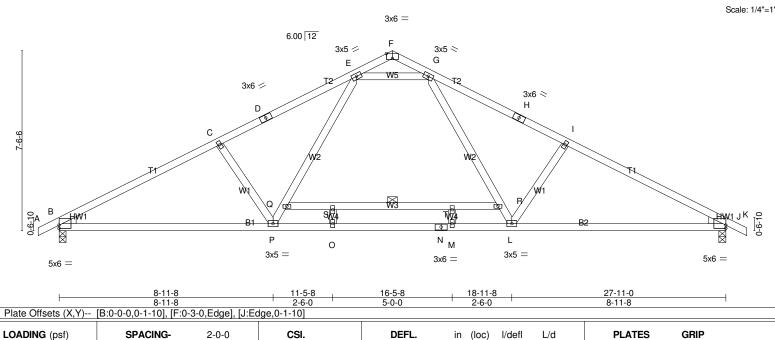
G-I=-1358/1696

C-L=-538/676, D-L=-272/364, E-J=-275/369, F-J=-534/673

# WEBS NOTES-

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-05; 130mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; enclosed; MWFRS (low-rise) and C-C Exterior(2) zone; end vertical 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 basic load combinations, which include cases with reductions for multiple concurrent live loads.
- 4) Provide adequate drainage to prevent water ponding.
- 5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 6) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) B=473, G=473.
- 8) This truss is designed in accordance with the 2009 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 9) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and ½" gypsum sheetrock be applied directly to the bottom chord.
- 10) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.





Vert(LL)

Vert(TL)

Horz(TL)

Wind(LL)

BRACING-

**WEBS** 

TOP CHORD

**BOT CHORD** 

-0.14

-0.75

0.10

0.17

M-O

J P

>999

>446

>999

1 Row at midpt

Installation guide.

n/a

Rigid ceiling directly applied.

360

240

n/a

Structural wood sheathing directly applied.

Q-R

MiTek recommends that Stabilizers and required cross bracing

be installed during truss erection, in accordance with Stabilizer

MT20

Weight: 146 lb

244/190

FT = 20%

LUMBER-

**TCLL** 

TCDL

**BCLL** 

BCDL

TOP CHORD 2x4 SP No.2 BOT CHORD 2x4 SP No.2 2x4 SP No.3 WFBS

20.0

10.0

0.0

10.0

WEDGE

Left: 2x4 SP No.3, Right: 2x4 SP No.3

**REACTIONS.** (lb/size) B=1271/0-3-8 (min. 0-1-8), J=1271/0-3-8 (min. 0-1-8)

Max Horz B=-186(LC 9)

Max UpliftB=-387(LC 8), J=-387(LC 9)

Plate Grip DOL

Rep Stress Incr

Code IRC2009/TPI2007

Lumber DOL

FORCES. (Ib) - Max. Comp./Max. Ten. - All forces 250 (Ib) or less except when shown. TOP CHORD B-C=-2129/1493, C-D=-1919/1427, D-E=-1839/1455, G-H=-1839/1455, H-I=-1919/1427,

1.15

1.15

YES

I-J=-2129/1493

**BOT CHORD** B-P=-1116/1818, O-P=-611/1382, N-O=-611/1382, M-N=-611/1382, L-M=-611/1382,

J-I = -1119/1818

**WEBS** G-R=-336/682, L-R=-381/607, I-L=-377/621, P-Q=-381/607, E-Q=-337/682, C-P=-377/621,

E-G=-1421/1474

### NOTES-

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-05; 130mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; enclosed; MWFRS (low-rise) and C-C Exterior(2) zone; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60

TC

ВС

WB

(Matrix-S)

0.66

0.94

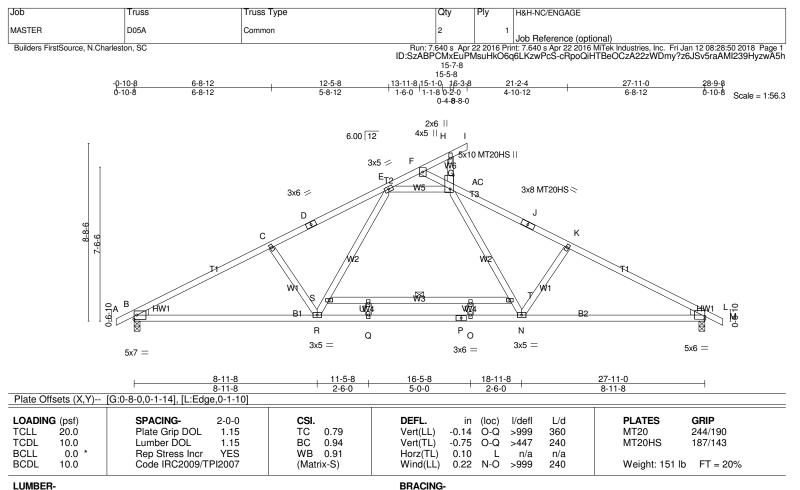
0.90

3) 200.0lb AC unit load placed on the bottom chord, 13-11-8 from left end, supported at two points, 5-0-0 apart.

4) This truss has been designed for basic load combinations, which include cases with reductions for multiple concurrent live loads.

5) All plates are 2x4 MT20 unless otherwise indicated.

- 6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) B=387,
- 9) This truss is designed in accordance with the 2009 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 10) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and ½" gypsum sheetrock be applied directly to the bottom chord.



TOP CHORD

BOT CHORD

WFBS

Structural wood sheathing directly applied, except end verticals.

MiTek recommends that Stabilizers and required cross bracing

be installed during truss erection, in accordance with Stabilizer

S-T

Rigid ceiling directly applied.

1 Row at midpt

Installation guide.

LUMBER-

TOP CHORD 2x4 SP No.2 BOT CHORD 2x4 SP No.2 2x4 SP No.3 WFBS

WEDGE

Left: 2x4 SP No.3, Right: 2x4 SP No.3

**REACTIONS.** (lb/size) B=1277/0-3-8 (min. 0-1-8), L=1281/0-3-8 (min. 0-1-8)

Max Horz B=277(LC 7)

Max UpliftB=-404(LC 8), L=-408(LC 9)

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

TOP CHORD B-C=-2127/1613, C-D=-1933/1555, D-E=-1855/1583, E-F=-366/67, F-G=-265/83,

G-AC=-1802/1835. J-AC=-1858/1827. J-K=-1938/1810. K-L=-2148/1881. G-H=-102/458

B-R=-1377/1828, Q-R=-919/1399, P-Q=-919/1399, O-P=-919/1399, N-O=-919/1399. **BOT CHORD** 

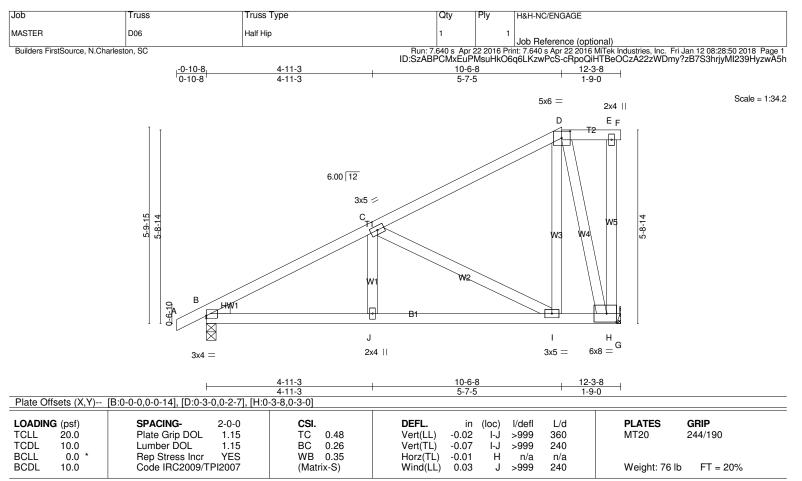
I-N=-1468/1835

**WEBS** G-T=-356/655, N-T=-397/565, K-N=-318/669, R-S=-393/564, E-S=-342/657, C-R=-312/606,

E-G=-1430/1897

#### NOTES-

- 1) Wind: ASCE 7-05; 130mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; enclosed; MWFRS (low-rise) and C-C Exterior(2) -0-10-8 to 28-9-8 zone; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 2) 200.0lb AC unit load placed on the bottom chord, 13-11-8 from left end, supported at two points, 5-0-0 apart.
- 3) This truss has been designed for basic load combinations, which include cases with reductions for multiple concurrent live loads.
- 4) All plates are MT20 plates unless otherwise indicated.
- 5) All plates are 2x4 MT20 unless otherwise indicated.
- 6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) B=404, L=408.
- 9) This truss is designed in accordance with the 2009 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1. 10) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and ½" gypsum
- sheetrock be applied directly to the bottom chord.
- 11) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



TOP CHORD 2x4 SP No.2 BOT CHORD 2x4 SP No.2 WEBS 2x4 SP No.3

WEDGE

Left: 2x4 SP No.3

**BRACING-**

TOP CHORD

Structural wood sheathing directly applied, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): D-F.

BOT CHORD Rigid ceiling directly applied.

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

**REACTIONS.** (lb/size) H=490/Mechanical, B=537/0-3-8 (min. 0-1-8)

Max Horz B=507(LC 8)

Max UpliftH=-450(LC 8), B=-370(LC 8) Max Grav H=490(LC 1), B=537(LC 13)

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

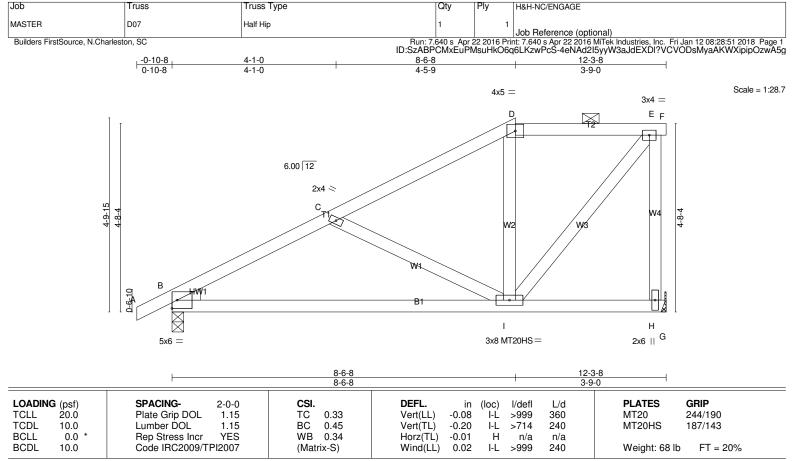
TOP CHORD B-C=-706/445

BOT CHORD B-J=-820/578, I-J=-820/578

WEBS C-I=-486/708, D-I=-245/343, D-H=-516/680

#### NOTES-

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-05; 130mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; enclosed; MWFRS (low-rise) gable end zone and C-C Exterior(2) zone; end vertical left 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 basic load combinations, which include cases with reductions for multiple concurrent live loads.
- 4) Provide adequate drainage to prevent water ponding.
- 5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 6) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 7) Refer to girder(s) for truss to truss connections.
- 8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) H=450, B=370.
- 9) This truss is designed in accordance with the 2009 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 10) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and ½" gypsum sheetrock be applied directly to the bottom chord.
- 11) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



TOP CHORD 2x4 SP No.2 BOT CHORD 2x4 SP No.2 2x4 SP No.3 WFBS

WFDGF

Left: 2x4 SP No.3

**BRACING-**

TOP CHORD

Structural wood sheathing directly applied, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): D-F.

**BOT CHORD** 

Rigid ceiling directly applied.

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

**REACTIONS.** (lb/size) H=490/Mechanical, B=535/0-3-8 (min. 0-1-8)

Max Horz B=415(LC 8)

Max UpliftH=-373(LC 8), B=-394(LC 8) Max Grav H=490(LC 1), B=535(LC 13)

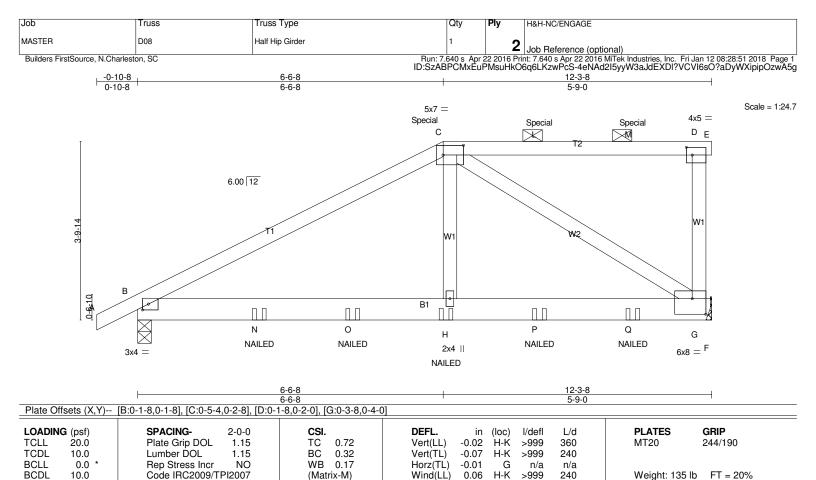
FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.

TOP CHORD B-C=-674/613, C-D=-404/291, D-E=-310/373, E-H=-467/590

**BOT CHORD** B-I=-871/589

C-I=-316/568, D-I=-95/275, E-I=-565/474 WFBS

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-05; 130mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; enclosed; MWFRS (low-rise) gable end zone and C-C Exterior(2) zone; end vertical left 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 basic load combinations, which include cases with reductions for multiple concurrent live loads.
- 4) Provide adequate drainage to prevent water ponding.
- 5) All plates are MT20 plates unless otherwise indicated.
- 6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- Refer to girder(s) for truss to truss connections.
- 9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) H=373, B=394.
- 10) This truss is designed in accordance with the 2009 International Residential Code sections R502.11.1 and R802.10.2 and referenced
- 11) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and ½" gypsum sheetrock be applied directly to the bottom chord.
- 12) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



TOP CHORD 2x4 SP No.2 BOT CHORD 2x6 SP No.2 2x4 SP No.2 **WEBS** 

**BRACING-**

**BOT CHORD** 

TOP CHORD

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

end verticals, and 2-0-0 oc purlins (6-0-0 max.): C-E. Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (lb/size) B=940/0-3-8 (min. 0-1-8), G=1067/Mechanical

Max Horz B=339(LC 6)

Max UpliftB=-910(LC 6), G=-1284(LC 7)

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

B-C=-1237/1217, D-G=-472/668 TOP CHORD

**BOT CHORD** B-N=-1209/1039, N-O=-1209/1039, H-O=-1209/1039, H-P=-1215/1052, P-Q=-1215/1052, G-Q=-1215/1052

WEBS C-H=-136/445, C-G=-1125/1277

# NOTES-

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

Top chords connected as follows: 2x4 - 1 row at 0-9-0 oc.

Bottom chords connected as follows: 2x6 - 2 rows staggered at 0-9-0 oc.

Webs connected as follows: 2x4 - 1 row at 0-9-0 oc.

- 2) All loads are considered equally applied to all plies, except if noted as front (F) or back (B) face in the LOAD CASE(S) section. Ply to ply connections have been provided to distribute only loads noted as (F) or (B), unless otherwise indicated.
- 3) Unbalanced roof live loads have been considered for this design.
- 4) Wind: ASCE 7-05; 130mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; enclosed; MWFRS (low-rise) gable end zone; end vertical left exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 5) This truss has been designed for basic load combinations, which include cases with reductions for multiple concurrent live loads.
- 6) Provide adequate drainage to prevent water ponding.
- 7) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 8) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 9) Refer to girder(s) for truss to truss connections.
- 10) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) B=910, G=1284
- 11) This truss is designed in accordance with the 2009 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 12) "Semi-rigid pitchbreaks including heels" Member end fixity model was used in the analysis and design of this truss.
- 13) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
  14) "NAILED" indicates 3-10d (0.148"x3") or 3-12d (0.148"x3.25") toe-nails. For more details refer to MiTek's ST-TOENAIL Detail.
- 15) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 267 lb down and 414 lb up at 6-6-8 , and 248 lb down and 420 lb up at 8-7-4, and 248 lb down and 420 lb up at 10-7-4 on top chord. The design/selection of such connection device(s) is the responsibility of others.

### LOAD CASE(S) Standard

Continued on page 2

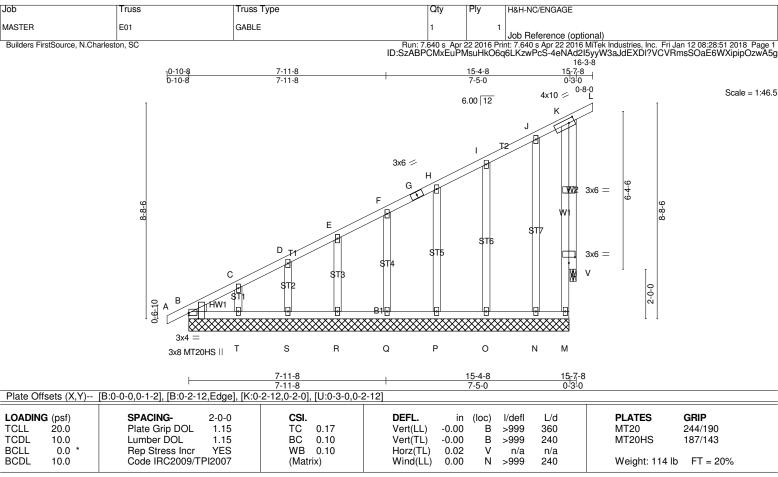
Job	Truss	Truss Type	Qty	Ply	H&H-NC/ENGAGE
MASTER	D08	Half Hip Girder	1	2	Job Reference (optional)

Builders FirstSource, N.Charleston, SC

Run: 7.640 s Apr 22 2016 Print: 7.640 s Apr 22 2016 WiTek Industries, Inc. Fri Jan 12 08:28:51 2018 Page 2 ID:SzABPCMxEuPMsuHkO6q6LKzwPcS-4eNAd2I5yyW3aJdEXDI?VCVI6sO?aDyWXipipOzwA5g

LOAD CASE(S) Standard

1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
 Uniform Loads (plf)
 Vert: A-C=-60, C-D=-60, D-E=-20, F-I=-20
 Concentrated Loads (lb)
 Vert: H=23(B) C=-248(B) L=-248(B) M=-248(B) N=-130(B) O=-177(B) P=23(B) Q=23(B)



TOP CHORD 2x4 SP No.2 BOT CHORD 2x4 SP No.2 2x4 SP No.2 WFBS

**OTHERS** 2x4 SP No.3 WEDGE

Left: 2x4 SP No.3

**BRACING-**

TOP CHORD

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

**BOT CHORD** Rigid ceiling directly applied or 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. All bearings 15-4-0 except (jt=length) V=0-3-0.

Max Horz B=664(LC 8) (lb) -

Max Uplift All uplift 100 lb or less at joint(s) except M=-119(LC 7), T=-244(LC 8), S=-171(LC 8), R=-169(LC 8), Q=-169(LC 8), P=-169(LC 8), O=-177(LC 8), N=-116(LC 8), V=-175(LC 9)

Max Grav All reactions 250 lb or less at joint(s) B, M, T, S, R, Q, P, O, N, V

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

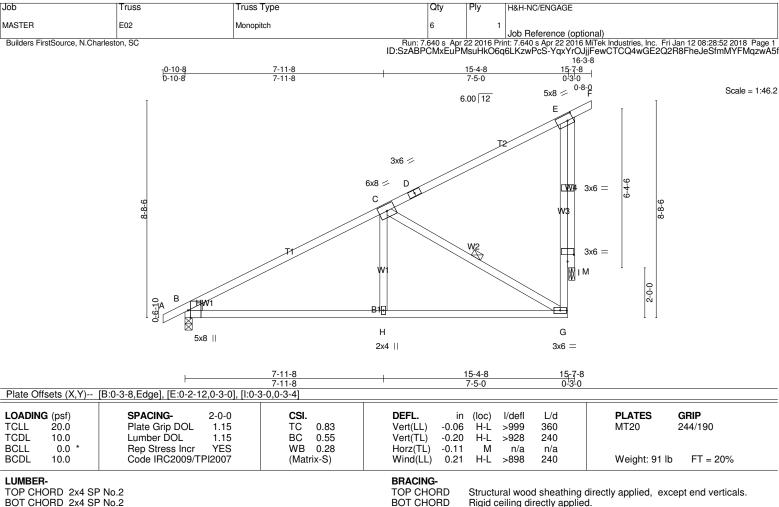
TOP CHORD B-C=-919/30, C-D=-753/25, D-E=-641/25, E-F=-530/25, F-G=-419/0, G-H=-412/25,

H-I=-308/25

**WEBS** C-T=-120/325

#### NOTES-

- 1) Wind: ASCE 7-05; 130mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; enclosed; MWFRS (low-rise) gable end zone and C-C Exterior(2) zone; end vertical 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 Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- 3) This truss has been designed for basic load combinations, which include cases with reductions for multiple concurrent live loads.
- 4) All plates are MT20 plates unless otherwise indicated.
- 5) All plates are 2x4 MT20 unless otherwise indicated.
- 6) Gable studs spaced at 2-0-0 oc.
- 7) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 8) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 9) Bearing at joint(s) V considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- 10) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 119 lb uplift at joint M, 244 lb uplift at joint T 171 lb uplift at joint S, 169 lb uplift at joint R, 169 lb uplift at joint Q, 169 lb uplift at joint P, 177 lb uplift at joint O, 116 lb uplift at joint N and 175 lb uplift at joint V.
- 11) This truss is designed in accordance with the 2009 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 12) "Semi-rigid pitchbreaks including heels" Member end fixity model was used in the analysis and design of this truss.



**WEBS** 

Rigid ceiling directly applied.

C-G

MiTek recommends that Stabilizers and required cross bracing

be installed during truss erection, in accordance with Stabilizer

1 Row at midpt

Installation guide.

TOP CHORD 2x4 SP No.2 BOT CHORD 2x4 SP No.2

2x4 SP No.2 \*Except\* **WEBS** W1,W2: 2x4 SP No.3

WEDGE

Left: 2x4 SP No.3

REACTIONS. (lb/size) B=673/0-3-8 (min. 0-1-8), M=661/0-3-0 (min. 0-1-8)

Max Horz B=673(LC 8)

Max UpliftB=-396(LC 8), M=-724(LC 8)

FORCES. (Ib) - Max. Comp./Max. Ten. - All forces 250 (Ib) or less except when shown. TOP CHORD B-C=-835/304, G-I=-443/429, E-I=-443/429

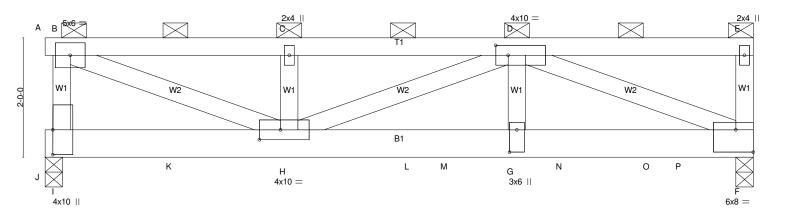
BOT CHORD B-H=-957/675, G-H=-957/675 WEBS C-H=0/335, C-G=-726/948

#### NOTES-

- 1) Wind: ASCE 7-05; 130mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; enclosed; MWFRS (low-rise) gable end zone and C-C Exterior(2) zone; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60
- 2) This truss has been designed for basic load combinations, which include cases with reductions for multiple concurrent live loads.
- 3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 4) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 5) Bearing at joint(s) M considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 396 lb uplift at joint B and 724 lb uplift at joint
- 7) This truss is designed in accordance with the 2009 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 8) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and ½" gypsum sheetrock be applied directly to the bottom chord.

Job Truss Truss Type Qty Ply H&H-NC/ENGAGE MASTER FG01 Flat Girder Job Reference (optional) Builders FirstSource, N.Charleston, SC Run: 7.640 s Apr 22 2016 Print: 7.640 s Apr 22 2016 MiTek Industries, Inc. Fri Jan 12 08:28:52 2018 Page 1 ID:SzABPCMxEuPMsuHkO6q6LKzwPcS-YqxYrOJjjFewCTCQ4wGE2Q2U\_Fd?JYafmMYFMqzwA5f 11-8-15 3-9-13

Scale = 1:19.3



-0 <sub>-</sub> 1 <sub>-</sub> 9 0-1-9	3-11-9 3-11-9	7-9-i 3-9-1		-	11-8-15 3-11-9
	[D:0-2-8,0-2-0], [F:Edge,0-4-8], [G:0-4				3-11-9
LOADING (psf) TCLL 20.0 TCDL 10.0 BCLL 0.0 * BCDL 10.0	SPACING- 2-0-0 Plate Grip DOL 1.15 Lumber DOL 1.15 Rep Stress Incr NO Code IRC2009/TPI2007	CSI. TC 0.65 BC 0.78 WB 0.66 (Matrix-M)	DEFL.         in (loc           Vert(LL)         -0.08 G-H           Vert(TL)         -0.18 G-H           Horz(TL)         -0.03 F           Wind(LL)         0.21 G-H	, H >999 360 H >755 240 = n/a n/a	PLATES GRIP MT20 244/190  Weight: 139 lb FT = 20%

BRACING-

TOP CHORD

**BOT CHORD** 

2-0-0 oc purlins (5-3-3 max.): A-E, except end verticals. Rigid ceiling directly applied or 5-11-6 oc bracing.

LUMBER-

TOP CHORD 2x4 SP No.2 BOT CHORD 2x6 SP No.1 2x4 SP No.2 **WEBS** 

REACTIONS. (lb/size) I=2654/0-3-8 (min. 0-1-9), F=3464/0-3-8 (min. 0-2-1)

Max Horz I=132(LC 5)

Max Upliftl=-2886(LC 4), F=-3690(LC 5)

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

TOP CHORD B-I=-2267/2521, B-C=-5165/5696, C-D=-5165/5696, D-E=-224/267

I-K=-337/224, H-K=-337/224, H-L=-6703/6125, L-M=-6703/6125, G-M=-6703/6125, G-N=-6703/6125, N-O=-6703/6125, **BOT CHORD** 

O-P=-6703/6125. F-P=-6703/6125

**WEBS** B-H=-5909/5370, C-H=-182/302, D-G=-2904/2719, D-F=-6413/6998, D-H=-1043/1105

#### NOTES-

- 1) 2-ply truss to be connected together with 10d (0.131"x3") nails as follows:
  - Top chords connected as follows: 2x4 1 row at 0-9-0 oc.
  - Bottom chords connected as follows: 2x6 2 rows staggered at 0-9-0 oc.
  - Webs connected as follows: 2x4 1 row at 0-9-0 oc.
- 2) All loads are considered equally applied to all plies, except if noted as front (F) or back (B) face in the LOAD CASE(S) section. Ply to ply connections have been provided to distribute only loads noted as (F) or (B), unless otherwise indicated.
- 3) Wind: ASCE 7-05; 130mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; enclosed; MWFRS (low-rise) gable end zone; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 4) This truss has been designed for basic load combinations, which include cases with reductions for multiple concurrent live loads.
- 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.
- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 2886 lb uplift at joint I and 3690 lb uplift at
- 9) This truss is designed in accordance with the 2009 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 10) "Semi-rigid pitchbreaks including heels" Member end fixity model was used in the analysis and design of this truss.
- 11) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

  12) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 641 lb down and 736 lb up at 2-0-12, 641 lb down and 736 lb up at 4-0-12, 641 lb down and 736 lb up at 6-0-12, 1047 lb down and 1296 lb up at 6-8-0, 641 lb down and 736 lb up at 8-0-12, 470 lb down and 385 lb up at 8-7-4, and 641 lb down and 736 lb up at 10-0-12, and 470 lb down and 462 lb up at 10-7-4 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.

Job	Truss	Truss Type	Qty	Ply	H&H-NC/ENGAGE
MASTER	FG01	Flat Girder	1	2	Job Reference (optional)

Builders FirstSource, N.Charleston, SC

Run: 7.640 s. Apr 22 2016 Print: 7.640 s. Apr 22 2016 MiTek Industries, Inc. Fri Jan 12 08:28:52 2018 Page 2 ID:SzABPCMxEuPMsuHkO6q6LKzwPcS-YqxYrOJjjFewCTCQ4wGE2Q2U\_Fd?JYafmMYFMqzwA5f

LOAD CASE(S) Standard

1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
 Uniform Loads (plf)
 Vert: A-B=-20, B-E=-60, F-J=-20
 Concentrated Loads (lb)
 Vert: H=-641(B) G=-641(B) K=-641(B) L=-641(B) M=-1047(F) N=-470(F) O=-641(B) P=-470(F)

Job Truss Truss Type Qty Ply H&H-NC/ENGAGE MASTER G01 GABLE 2 Job Reference (optional) Run: 7.640 s Apr 22 2016 Print: 7.640 s Apr 22 2016 MiTek Industries, Inc. Fri Jan 12 08:28:53 2018 Page 1 ID:SzABPCMxEuPMsuHkO6q6LKzwPcS-10Vw2kKLUZnnqdndeenTadbj6f2X296p\_0lpuGzwA5e Builders FirstSource, N.Charleston, SC 4<sub>г</sub>0<sub>⊐</sub>0 -0-10-8 0-10-8 3-10-8 0-1-8 Scale = 1:15.4 С 2x4 6.00 12 2x4 || 2-6-10 W1 ST1 R 0-6-10 0-3-8 D 2x4 || 2x4 || 5x7 =4-0-0 3-9-12 LOADING (psf) SPACING-**GRIP** CSI. DEFL. **PLATES** 2-0-0 (loc) I/defl L/d Plate Grip DOL TCLL 20.0 1.15 TC 0.43 Vert(LL) -0.01 D-I >999 360 MT20 244/190 ВС **TCDL** 10.0 Lumber DOL 1.15 0.45 Vert(TL) -0.03 D-I >999 240 **BCLL** 0.0 Rep Stress Incr YES WB 0.00 Horz(TL) -0.01 В n/a n/a Code IRC2009/TPI2007 Wind(LL) D-I Weight: 19 lb FT = 20%**BCDL** 10.0 (Matrix-M) 0.07 >700 240 LUMBER-**BRACING-**TOP CHORD Structural wood sheathing directly applied or 3-10-8 oc purlins, except end verticals.

**BOT CHORD** 

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

Installation guide

MiTek recommends that Stabilizers and required cross bracing

be installed during truss erection, in accordance with Stabilizer

TOP CHORD 2x4 SP No.2 BOT CHORD 2x4 SP No.2 2x4 SP No.3 WFBS

OTHERS 2x4 SP No.3 WFDGF

Left: 2x4 SP No.3

**REACTIONS.** (lb/size) B=213/0-3-8 (min. 0-1-8), D=148/0-1-8 (min. 0-1-8)

Max Horz B=221(LC 8)

Max UpliftB=-266(LC 8), D=-254(LC 8)

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

TOP CHORD C-D=-97/273

# NOTES-

- 1) Wind: ASCE 7-05; 130mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; enclosed; MWFRS (low-rise) gable end zone and C-C Exterior(2) zone; cantilever left exposed; end vertical left exposed; porch left 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 Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- 3) This truss has been designed for basic load combinations, which include cases with reductions for multiple concurrent live loads.
- 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) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 7) Bearing at joint(s) D considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- 8) Provide mechanical connection (by others) of truss to bearing plate at joint(s) D.
- 9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 266 lb uplift at joint B and 254 lb uplift at joint
- 10) This truss is designed in accordance with the 2009 International Residential Code sections R502.11.1 and R802.10.2 and referenced
- 11) "Semi-rigid pitchbreaks including heels" Member end fixity model was used in the analysis and design of this truss.

MASTER G02 Monopitch Job Reference (optional) Run: 7.640 s Apr 22 2016 Print: 7.640 s Apr 22 2016 MiTek Industries, Inc. Fri Jan 12 08:28:53 2018 Page 1 ID:SzABPCMxEuPMsuHkO6q6LKzwPcS-10Vw2kKLUZnnqdndeenTadbj6f2X296p\_0lpuGzwA5e Builders FirstSource, N.Charleston, SC 4<sub>г</sub>0<sub>⊐</sub>0 -0-10-8 0-10-8 3-10-8 0-1-8 Scale = 1:15.4 С 2x4 || 6.00 12 2-6-10 W1 R 0-6-10 B1 0-3-8 D 2x4 || 5x7 = 4-0-0 3-9-12 LOADING (psf) SPACING-**GRIP** CSI. DEFL. **PLATES** 2-0-0 (loc) I/defl L/d Plate Grip DOL 244/190 TCLL 20.0 1.15 TC 0.43 Vert(LL) -0.01 D-G >999 360 MT20 ВС **TCDL** 10.0 Lumber DOL 1.15 0.45 Vert(TL) -0.03 D-G >999 240 **BCLL** 0.0 Rep Stress Incr YES WB 0.00 Horz(TL) -0.01 В n/a n/a

Qty

Ply

H&H-NC/ENGAGE

LUMBER-

**BCDL** 

Job

TOP CHORD 2x4 SP No.2 BOT CHORD 2x4 SP No.2 WEBS 2x4 SP No.3

10.0

WEDGE

Left: 2x4 SP No.3

Wind(LL)

BRACING-

TOP CHORD Structural wood sheathing directly applied or 3-10-8 oc purlins, except end verticals.

BOT CHORD Rigid

0.07

D-G

>700

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

240

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

Weight: 18 lb

FT = 20%

**REACTIONS.** (lb/size) B=213/0-3-8 (min. 0-1-8), D=148/0-1-8 (min. 0-1-8)

Code IRC2009/TPI2007

Max Horz B=221(LC 8)

Truss

Truss Type

Max UpliftB=-266(LC 8), D=-254(LC 8)

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

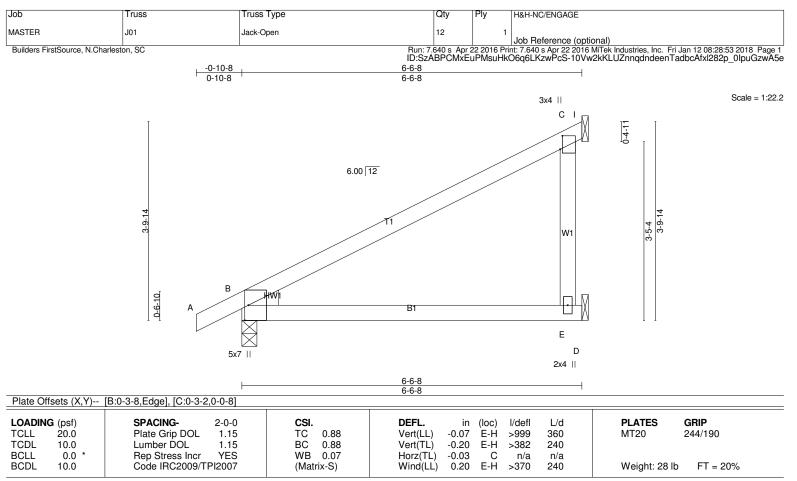
TOP CHORD C-D=-97/273

#### NOTES

1) Wind: ASCE 7-05; 130mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; enclosed; MWFRS (low-rise) gable end zone and C-C Exterior(2) zone; cantilever left exposed; end vertical left exposed; porch left exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60

(Matrix-M)

- 2) This truss has been designed for basic load combinations, which include cases with reductions for multiple concurrent live loads.
- 3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 4) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 5) Bearing at joint(s) D considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- 6) Provide mechanical connection (by others) of truss to bearing plate at joint(s) D.
- 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 266 lb uplift at joint B and 254 lb uplift at joint D.
- 8) This truss is designed in accordance with the 2009 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 9) "Semi-rigid pitchbreaks including heels" Member end fixity model was used in the analysis and design of this truss.



TOP CHORD 2x4 SP No.2 BOT CHORD 2x4 SP No.2 WEBS 2x4 SP No.3

WEDGE

Left: 2x4 SP No.3

BRACING-

TOP CHORD BOT CHORD Structural wood sheathing directly applied.

Rigid ceiling directly applied.

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

**REACTIONS.** (lb/size) B=314/0-3-8 (min. 0-1-8), E=-54/Mechanical, C=308/Mechanical

Max Horz B=338(LC 8)

Max UpliftB=-224(LC 8), E=-54(LC 1), C=-446(LC 8)

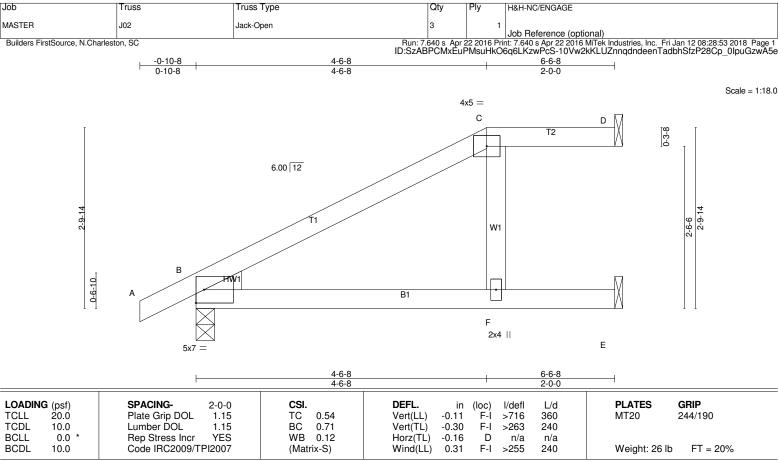
Max Grav B=314(LC 1), E=161(LC 8), C=308(LC 1)

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

WEBS C-E=-281/140

#### NOTES-

- Wind: ASCE 7-05; 130mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; enclosed; MWFRS (low-rise) gable end zone and C-C Exterior(2) zone; end vertical left exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOI =1.60
- 2) This truss has been designed for basic load combinations, which include cases with reductions for multiple concurrent live loads.
- 3) This truss is not designed to support a ceiling and is not intended for use where aesthetics are a consideration.
- 4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 5) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 6) Refer to girder(s) for truss to truss connections.
- 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 224 lb uplift at joint B, 54 lb uplift at joint E and 446 lb uplift at joint C.
- 8) This truss is designed in accordance with the 2009 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 9) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and ½" gypsum sheetrock be applied directly to the bottom chord.
- 10) Gap between inside of top chord bearing and first diagonal or vertical web shall not exceed 0.500in.



TOP CHORD 2x4 SP No.2 BOT CHORD 2x4 SP No.1 WEBS 2x4 SP No.3

WEDGE

Left: 2x4 SP No.3

BRACING-

TOP CHORD Structural wood sheathing directly applied, except

2-0-0 oc purlins: C-D.

BOT CHORD Rigid ceiling directly applied.

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

REACTIONS. (lb/size) D=58/Mechanical, B=315/0-3-8 (min. 0-1-8), E=197/Mechanical

Max Horz B=252(LC 8)

Max UpliftD=-73(LC 6), B=-256(LC 8), E=-150(LC 8)

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

WEBS C-F=-194/410

### NOTES-

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-05; 130mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; enclosed; MWFRS (low-rise) gable end zone and C-C Exterior(2) zone; end vertical left 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 basic load combinations, which include cases with reductions for multiple concurrent live loads.
- 4) Provide adequate drainage to prevent water ponding.
- 5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 6) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 7) Refer to girder(s) for truss to truss connections.
- 8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 73 lb uplift at joint D, 256 lb uplift at joint B and 150 lb uplift at joint E.
- 9) This truss is designed in accordance with the 2009 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 10) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and ½" gypsum sheetrock be applied directly to the bottom chord.
- 11) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

Job Truss Truss Type Qty Ply H&H-NC/ENGAGE MASTER J03 Jack-Open Girder 3 Job Reference (optional) Run: 7.640 s Apr 22 2016 Print: 7.640 s Apr 22 2016 MiTek Industries, Inc. Fri Jan 12 08:28:55 2018 Page 1 ID:SzABPCMxEuPMsuHkO6q6LKzwPcS-zPdhTPLb0A1V3xw?m3pxf2g5aToBW195SKnwz9zwA5c Builders FirstSource, N.Charleston, SC -0-10-8 2-6-8 6-6-8 0-10-8 2-6-8 4-0-0

Scale = 1:14.2

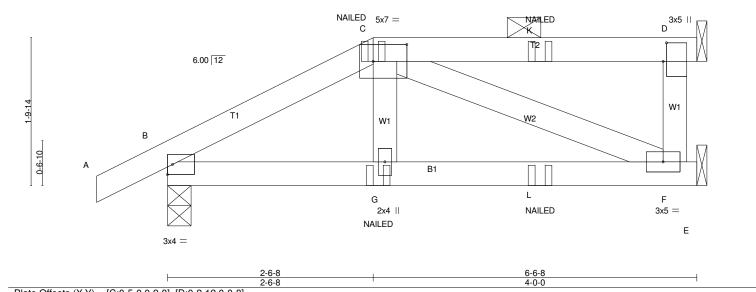


Plate Offsets (X,Y)-- [C:0-5-0,0-2-8], [D:0-2-12,0-0-8]

LOADING (	psf)	SPACING- 2-0-0	CSI.	DEFL.	in (loc)	I/defl L/d	PLATES	GRIP
TCLL 2	0.0	Plate Grip DOL 1.15	TC 0.31	Vert(LL) -(	0.01 F-G	>999 360	MT20	244/190
TCDL 1	0.0	Lumber DOL 1.15	BC 0.18	Vert(TL) -0	0.02 F-G	>999 240		
BCLL	0.0 *	Rep Stress Incr NO	WB 0.09	Horz(TL) (	0.00 F	n/a n/a		
BCDL 1	0.0	Code IRC2009/TPI2007	(Matrix-M)	Wind(LL) (	0.01 G	>999 240	Weight: 30 lb	FT = 20%

LUMBER-

TOP CHORD 2x4 SP No.2 BOT CHORD 2x4 SP No.2 WEBS 2x4 SP No.3 BRACING-

TOP CHORD

Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals, and 2-0-0 oc purlins: C-D.

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) D=113/Mechanical, B=316/0-3-8 (min. 0-1-8), F=150/Mechanical

Max Horz B=166(LC 6)

Max UpliftD=-152(LC 4), B=-289(LC 6), F=-65(LC 7) Max Grav D=113(LC 1), B=316(LC 1), F=168(LC 3)

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

TOP CHORD B-C=-332/208

BOT CHORD B-G=-212/258, G-L=-207/265, F-L=-207/265

WEBS C-F=-287/224

#### NOTES-

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-05; 130mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; enclosed; MWFRS (low-rise) gable end zone; end vertical left exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 3) This truss has been designed for basic load combinations, which include cases with reductions for multiple concurrent live loads.
- 4) Provide adequate drainage to prevent water ponding.
- 5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 6) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 7) Refer to girder(s) for truss to truss connections.
- 8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 152 lb uplift at joint D, 289 lb uplift at joint B and 65 lb uplift at joint F.
- This truss is designed in accordance with the 2009 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 10) "Semi-rigid pitchbreaks including heels" Member end fixity model was used in the analysis and design of this truss.
- 11) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
- 12) Gap between inside of top chord bearing and first diagonal or vertical web shall not exceed 0.500in.
- 13) "NAILED" indicates 3-10d (0.148"x3") or 3-12d (0.148"x3.25") toe-nails. For more details refer to MiTek's ST-TOENAIL Detail.
- 14) 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) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15 Uniform Loads (plf)

Vert: A-C=-60, C-D=-60, E-H=-20

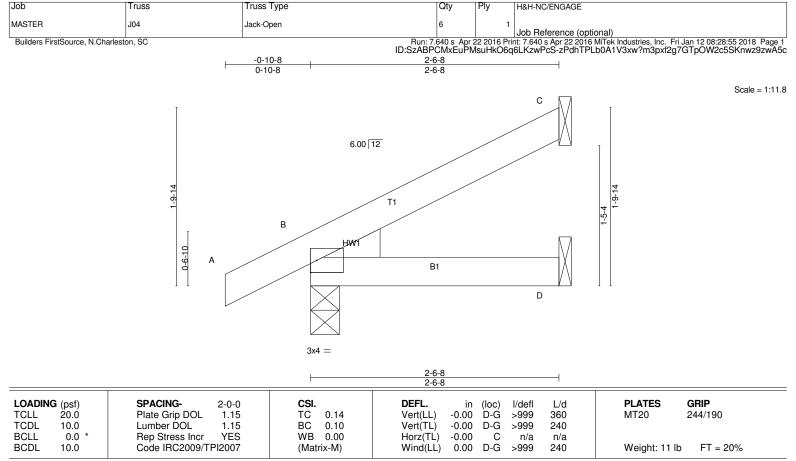
Continued on page 2

Job	Truss	Truss Type	Qty	Ply	H&H-NC/ENGAGE
MASTER	J03	Jack-Open Girder	3	1	Job Reference (optional)

Builders FirstSource, N.Charleston, SC

Run: 7.640 s. Apr 22 2016 Print: 7.640 s. Apr 22 2016 MiTek Industries, Inc. Fri Jan 12 08:28:55 2018 Page 2 ID:SzABPCMxEuPMsuHkO6q6LKzwPcS-zPdhTPLb0A1V3xw?m3pxf2g5aToBW195SKnwz9zwA5c

LOAD CASE(S) Standard Concentrated Loads (Ib) Vert: C=-2(F) G=-6(F) K=-2(F) L=-6(F)



**BRACING-**

TOP CHORD

**BOT CHORD** 

Structural wood sheathing directly applied or 2-6-8 oc purlins.

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.

Installation guide.

LUMBER-

TOP CHORD 2x4 SP No.2 BOT CHORD 2x4 SP No.2

WEDGE Left: 2x4 SP No.3

REACTIONS. (lb/size) C=61/Mechanical, B=165/0-3-8 (min. 0-1-8), D=26/Mechanical

Max Horz B=162(LC 8)

Max UpliftC=-97(LC 8), B=-156(LC 8)

Max Grav C=61(LC 1), B=165(LC 1), D=44(LC 3)

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

- 1) Wind: ASCE 7-05; 130mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; enclosed; MWFRS (low-rise) gable end zone and C-C Exterior(2) zone; end vertical left exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip
- 2) This truss has been designed for basic load combinations, which include cases with reductions for multiple concurrent live loads.
- 3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 5) Refer to girder(s) for truss to truss connections.
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 97 lb uplift at joint C and 156 lb uplift at joint
- 7) This truss is designed in accordance with the 2009 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 8) "Semi-rigid pitchbreaks including heels" Member end fixity model was used in the analysis and design of this truss.