

ALL CONV. FRAMING TO CONFORM WITH PART 9 OF O.B.C. 2012. ROOF RAFTERS THAT CROSS MEET OVER TRUSSES TO BE 2X4 SPF #2 24' O.C. WITH A VERT. POST TO THE TRUSS UNDERNEATH AT EACH CROSS PT. VERT. POST LONGER THAN 8' TO HAVE LATERAL BRACING SO THAT THE DIST. BETWEEN END PT. BETWEEN JOISTS OF BRACING DOES NOT EXCEED 8'.



Job Track: 38514
Layout ID: 264490
Plan Log: 84728

Builder / Location: BAYVIEW WELLINGTON HOMES / BRADFORD
Project: GREEN VALLEY ESTATES
Date: 2/9/2016 Designer: jazy

Model / Elevation: S50-2 / A

THESE DRAWINGS CONSTITUTE THE PROPERTY OF ALPHA ROOF TRUSSES INC. SHALL NOT BE REPRODUCED, PUBLISHED, OR REDISTRIBUTED IN ANY MANNER OR UTILIZED FOR ANY PURPOSE OTHER THAN THE MANUFACTURE OF TRUSSES BY ALPHA ROOF TRUSSES INC. AND WILL BE RETRACTED BY ALPHA ROOF TRUSSES INC. IF UTILIZED FOR ANY OTHER PURPOSE.

12" FIN. OH.
RSD HEEL-0" DROP
(2"x6" FASCIA)-FM
ASPHALT SHINGLES
2"x6" BRG./BRK.

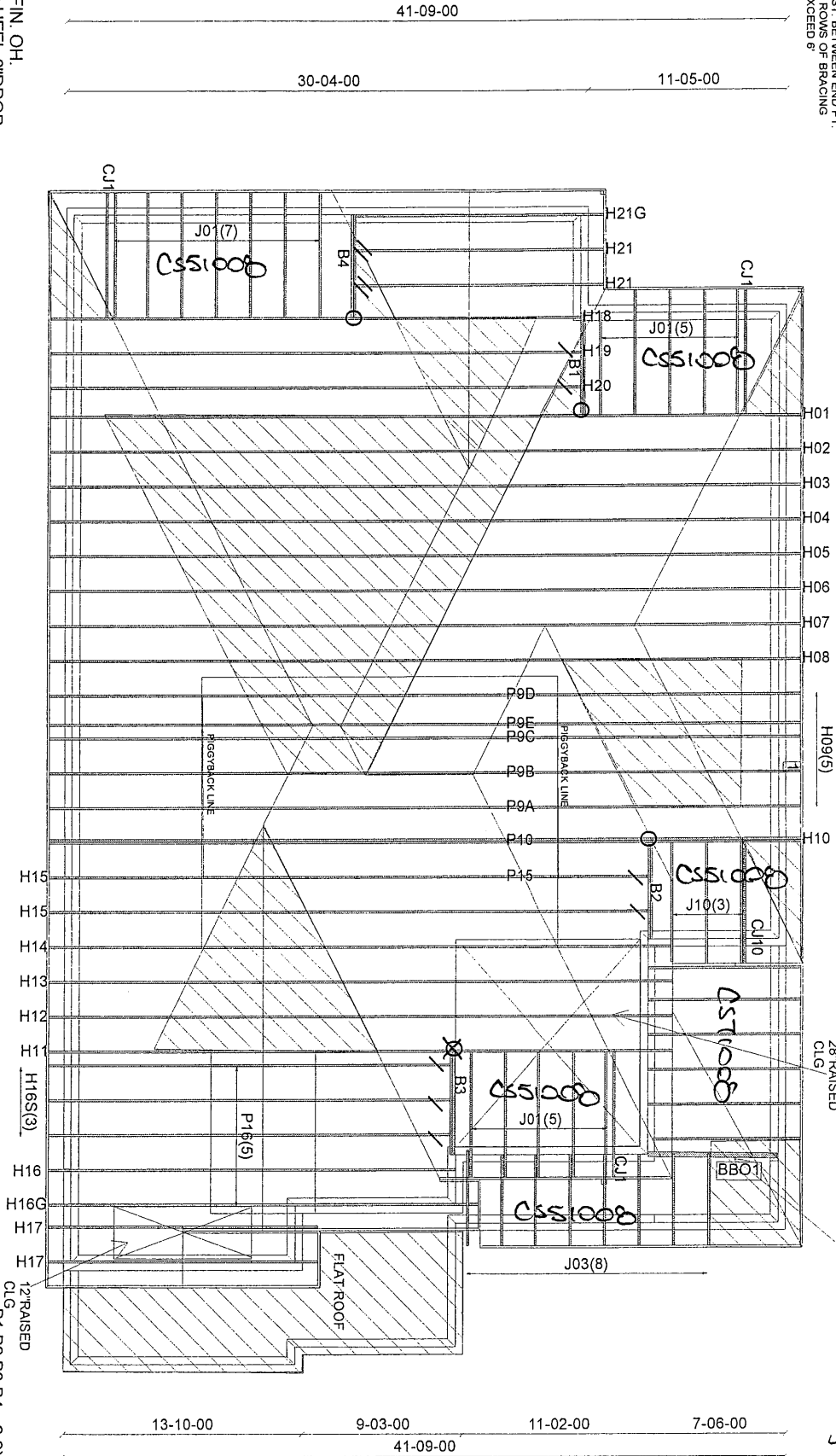
PL#: 96227

A.18012412 - A.18012443

huc26-2

CONVENTIONAL FRAMING BY OTHERS

Mitek Ver 7.5.0

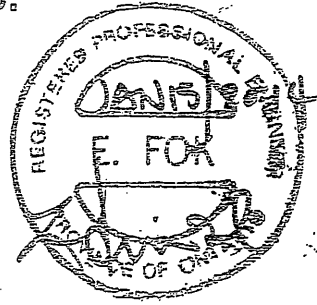


B1, B2, B3, B4
= 2-2X10SPF#2
BY OTHERS

SITE COPY

Stracon Engineering Inc.

69 Graydon Crescent
Richmond Hill, Ontario
L4B 3W7
(905) 832-2250 Fax (905) 832-0286



RESPONSIBILITIES

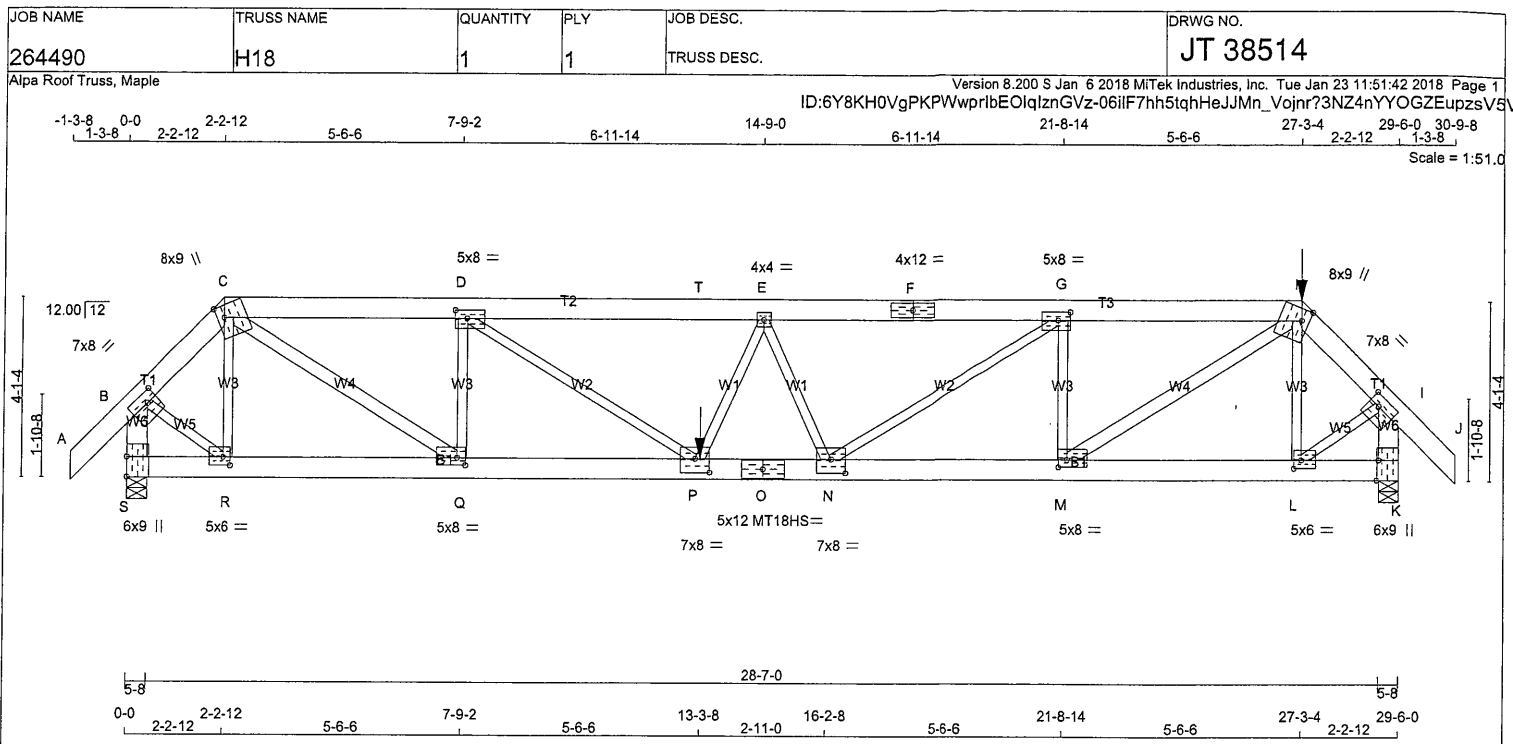
1. Stracon Engineering Inc. is responsible for the design of trusses as individual components.
2. It is the responsibility of others to ascertain that the design loads utilized on this drawing meet or exceed the actual dead load imposed by the structure and the live load imposed by the local building code or the authorities with jurisdictions.
3. All dimensions are to be verified by owner contractor, architect or other authority before manufacture.
4. Stracon Engineering Inc. bears no responsibility for the erection of the trusses. Persons erecting trusses are cautioned to seek professional advice regarding temporary and permanent bracing system. Bracing shown on Stracon Engineering Inc. drawings is specified for the truss as a component only and forms an integral part of the truss design.
5. It is the truss manufacture's responsibility to ensure that trusses are manufactured in conformance with Stracon Engineering Inc. specifications outlined below.

SPECIFICATIONS

1. Trusses designed by Stracon Engineering Inc. conforms to the relevant section of the Ontario Building Code of Canada (Part 9 or Part 4) or to the Canadian code for farm buildings, whichever applies to the building type indicated on the drawings as well as to the procedures established by the truss plate institute of Canada. Unit stresses used are as per CSA-086-09.
2. Lumber is to be the sizes and grade specified.
3. Moisture content of lumber is not to exceed 19% in service unless otherwise specified.
4. Lumber not to be treated with chemicals unless otherwise specified.
5. Plates shall be applied to both faces of the truss at each joint and shall be positioned as specified.
6. The top chord is assumed to be continuously laterally braced by the roof sheathing or purlins at intervals not exceeding 12.5 times in thickness.
7. Where not rigid ceiling is attached directly to the bottom chord, laterally brace the chords at intervals not exceeding 3M (10') o.c.

January 15, 2014

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LUMBER				
N. L. G. A. RULES				
CHORDS	SIZE	LUMBER	DESCR.	
A - C	2x6	DRY No.2	SPF	
C - F	2x6	DRY 1650F 1.5E	SPF	
F - H	2x6	DRY 1650F 1.5E	SPF	
H - J	2x6	DRY No.2	SPF	
S - B	2x6	DRY No.2	SPF	
K - I	2x6	DRY No.2	SPF	
S - O	2x6	DRY 1650F 1.5E	SPF	
O - K	2x6	DRY 1650F 1.5E	SPF	
ALL WEBS	2x3	DRY No.2	SPF	
EXCEPT				
C - Q	2x4	DRY No.2	SPF	
M - H	2x4	DRY No.2	SPF	
DRY: SEASONED LUMBER.				

PLATES (table is in inches)				
JT	TYPE	PLATES	W	LEN Y X
B	TMVW-t	MT20	7.0	8.0 2.75 3.00
C	TTWW+m	MT20	8.0	9.0 3.25 2.00
D	TMVW-t	MT20	5.0	8.0 2.25 3.25
E	TMVW-t	MT20	4.0	4.0
F	TS-t	MT20	4.0	12.0
G	TMVW-t	MT20	5.0	8.0 2.25 3.25
H	TTWW+m	MT20	8.0	9.0 3.25 2.00
I	TMVW-t	MT20	7.0	8.0 2.75 3.00
K	BMV1+t	MT20	6.0	9.0 Edge 0.50
L	BMVW-t	MT20	5.0	6.0 2.25 2.00
M	BMVW-t	MT20	5.0	8.0 2.00 2.25
N	BMVW-t	MT20	7.0	8.0 3.75 4.00
O	BS-t	MT18HS	5.0	12.0
P	BMVW-t	MT20	7.0	8.0 3.75 4.00
Q	BMVW-t	MT20	5.0	8.0 2.00 2.25
R	BMVW-t	MT20	5.0	6.0 2.25 2.00
S	BMV1+t	MT20	6.0	9.0 5.50

Edge - INDICATES REFERENCE CORNER OF PLATE TOUCHES EDGE OF CHORD.

NOTE: Lateral brace(s) shown shall be 1x4 for Part 9 design as per OBC 9.23.13.11, and no less than 2x4 for Part 4 design.



DIMENSIONS, SUPPORTS AND LOADINGS SPECIFIED BY FABRICATOR TO BE VERIFIED BY BUILDING DESIGNER

BEARINGS		FACTORED		MAXIMUM FACTORED		INPUT		REQRD	
JT	VERT	HORZ	GROSS REACTION	DOWN	HORZ	UPLIFT	IN-SX	BRG	IN-SX
S	3272	0	3272	0	0	5-8	5-2		
K	3934	0	3934	0	0	5-8	5-8		

UNFACTORED REACTIONS

1ST LCASE		MAX/MIN. COMPONENT REACTIONS		SNOW		LIVE		PERM. LIVE		WIND		DEAD		SOIL	
JT	COMBINED	S	K	S	K	S	K	S	K	S	K	S	K	S	K
S	2270	1736 / 0	0 / 0	0 / 0	0 / 0	0 / 0	0 / 0	0 / 0	0 / 0	535 / 0	0 / 0	535 / 0	0 / 0	0 / 0	0 / 0
K	2732	2078 / 0	0 / 0	0 / 0	0 / 0	0 / 0	0 / 0	0 / 0	0 / 0	653 / 0	0 / 0	653 / 0	0 / 0	0 / 0	0 / 0

BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S) S, K
BEARING SIZE FACTOR = 1.15 AT JNT(S) K (BASED ON SUPPORT DEPTH = 1-8)

BRACING

TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 3.07 FT.
MAX. UNBRACED BOTTOM CHORD LENGTH = 10.00 FT OR RIGID CEILING DIRECTLY APPLIED.

ALL PITCH BREAKS AND PERIMETER CORNER JOINTS MUST BE Laterally RESTRAINED.

LOADING

TOTAL LOAD CASES: (4)

CHORDS				WEBS				
MAX. FACTORED		FACTORED		MAX. FACTORED		MAX. FACTORED		
MEMB.	FORCE	VERT. LOAD	LC1	MAX	MEMB.	FORCE	MAX	
	(LBS)	(PLF)	CSI (LC)	(LC)		(LBS)	CSI (LC)	
FR-TO		FROM	TO		FR-TO			
A-B	0 / 54	-104.9	-104.9	0.09 (1)	10.00	R-C	-947 / 0	0.23 (1)
B-C	-2723 / 0	-104.9	-104.9	0.09 (1)	4.97	C-Q	0 / 4567	0.81 (1)
C-D	-5705 / 0	-104.9	-104.9	0.26 (1)	4.01	Q-D	-2369 / 0	0.57 (1)
D-T	-8273 / 0	-104.9	-104.9	0.54 (1)	3.19	D-P	0 / 3093	0.77 (1)
T-E	-8273 / 0	-206.6	-206.6	0.54 (1)	3.19	P-E	-352 / 2	0.10 (1)
E-F	-8026 / 0	-206.6	-206.6	0.66 (1)	3.07	E-N	-978 / 0	0.27 (1)
F-G	-8026 / 0	-206.6	-206.6	0.66 (1)	3.07	N-G	0 / 1958	0.48 (1)
G-H	-6400 / 0	-206.6	-206.6	0.53 (1)	3.49	M-G	-2500 / 0	0.60 (1)
H-I	-3321 / 0	-104.9	-104.9	0.10 (1)	4.57	M-H	0 / 4902	0.87 (1)
I-J	0 / 54	-104.9	-104.9	0.09 (1)	10.00	L-H	-1078 / 0	0.26 (1)
S-B	-3294 / 0	0.0	0.0	0.24 (1)	5.80	B-R	0 / 2189	0.54 (1)
K-I	-3958 / 0	0.0	0.0	0.29 (1)	5.34	L-I	0 / 2670	0.66 (1)
S-R	0 / 0	-18.5	-18.5	0.05 (1)	10.00			
R-Q	0 / 1878	-18.5	-18.5	0.21 (1)	10.00			
Q-P	0 / 5705	-18.5	-18.5	0.56 (1)	10.00			
P-O	0 / 8411	-36.4	-36.4	0.78 (1)	10.00			
O-N	0 / 8411	-36.4	-36.4	0.78 (1)	10.00			
N-M	0 / 6401	-36.4	-36.4	0.61 (1)	10.00			
M-L	0 / 2292	-36.4	-36.4	0.27 (1)	10.00			
L-K	0 / 0	-36.4	-36.4	0.08 (1)	10.00			

FACTORED CONCENTRATED LOADS (LBS)

JT	LOC.	LC1	MAX-	MAX+	FACE	DIR.	TYPE
H	27-3-4	-171	-171	---	FRONT	VERT	TOTAL
P	13-3-8	-1376	-1376	---	FRONT	VERT	TOTAL

DESIGN CRITERIA

*** SPECIAL LOADS ANALYSIS ***
GEOMETRY AND/OR BASIC LOADS CHANGED BY USER.
LOADS WERE DERIVED FROM USER INPUT
NO FURTHER MODIFICATIONS WERE MADE

SPECIFIED LOADS:

TOP CH.	LL	=	32.5	PSF
	DL	=	3.0	PSF
BOT CH.	LL	=	0.0	PSF
	DL	=	7.4	PSF
TOTAL LOAD	=	42.9	PSF	

SPACING = 24.0 IN. C/C

LOADING IN FLAT SECTION BASED ON A SLOPE OF 2.00/12 MINIMUM

GIRDER TYPE: CPrimeHip
SIDE SETBACK = 2-2-12
END SETBACK = 5-10-8
END WALL WIDTH = 0-0
CORNER FRAMING TYPE: CONVENTIONAL
END JACK TYPE: CONVENTIONAL
APPLIED TO FRONT SIDE
- ADDTL. LOADS BASED ON 55% OF G.S.L.
LOADS APPLIED TO FIRST 16-2-8 OF SPAN
MEASURED FROM THE RIGHT.

*** NON STANDARD GIRDER ***
ADDTL. USER-DEFINED LOADS APPLIED TO ALL LOAD CASES.

THIS TRUSS IS DESIGNED FOR RESIDENTIAL OR SMALL BUILDING REQUIREMENTS OF PART 9, NBCC 2010

THIS DESIGN COMPLIES WITH:
- PART 9 OF OBC 2012, BCBC 2012, ABC 2014
- CSA 086-09
- TPIC 2011

(55% OF 43.9 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 32.5 P.S.F. SPECIFIED ROOF LIVE LOAD

ALLOWABLE DEFL.(LL)= L/360 (0.98")
CALCULATED VERT. DEFL.(LL)= L/999 (0.32")
ALLOWABLE DEFL.(TL)= L/360 (0.98")
CALCULATED VERT. DEFL.(TL)= L/664 (0.53")

CSI: TC=0.66/1.00 (E-G:1), BC=0.78/1.00 (N-P:1), WB=0.87/1.00 (H-M:1), SSI=0.50/1.00 (E-G:1)

DOL LUMBER=1.00 NAIL=1.00 LS BEND=1.00
COMP=1.00 SHEAR=1.00 TENS=1.00

COMPANION LIVE LOAD FACTOR = 0.50

TRUSS PLATE MANUFACTURER IS NOT RESPONSIBLE FOR QUALITY CONTROL IN THE TRUSS MANUFACTURING PLANT.

NAIL VALUES
PLATE GRIP(DRY) SHEAR SECTION
(PSI) (PLI) (PLI)
MAX MIN MAX MIN MAX MIN
MT20 618 354 1667 822 2284 1656

CONTINUED ON PAGE 2

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JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
264490	H18	1	1	TRUSS DESC.	

Alpa Roof Truss, Maple

Version 8.200 S Jan 6 2018 MiTek Industries, Inc. Tue Jan 23 11:51:42 2018 Page 2
ID:6Y8KH0VgPKPWwprlbEOlqlznGVz-06ilF7hh5tqhHeJJMn Vojnr?3NZ4nYYOGZEupzsV5V

HANGERS NOTES
 1) SPECIAL HANGER(S) OR CONNECTION(S)
 REQUIRED TO SUPPORT CONCENTRATED
 LOAD(S) 170.6 lbs FACTORED DOWN AT 27-3-4
 ON TOP CHORD, AND 1376.0 lbs FACTORED
 DOWN AT 13-3-8 ON BOTTOM CHORD. DESIGN
 FOR UNSPECIFIED CONNECTION(S) IS
 DELEGATED TO THE BUILDING DESIGNER.

MT18HS 580 354 2729 1405 4191 2010

 PLATE PLACEMENT TOL. = 0.250 inches

 PLATE ROTATION TOL. = 5.0 Deg.

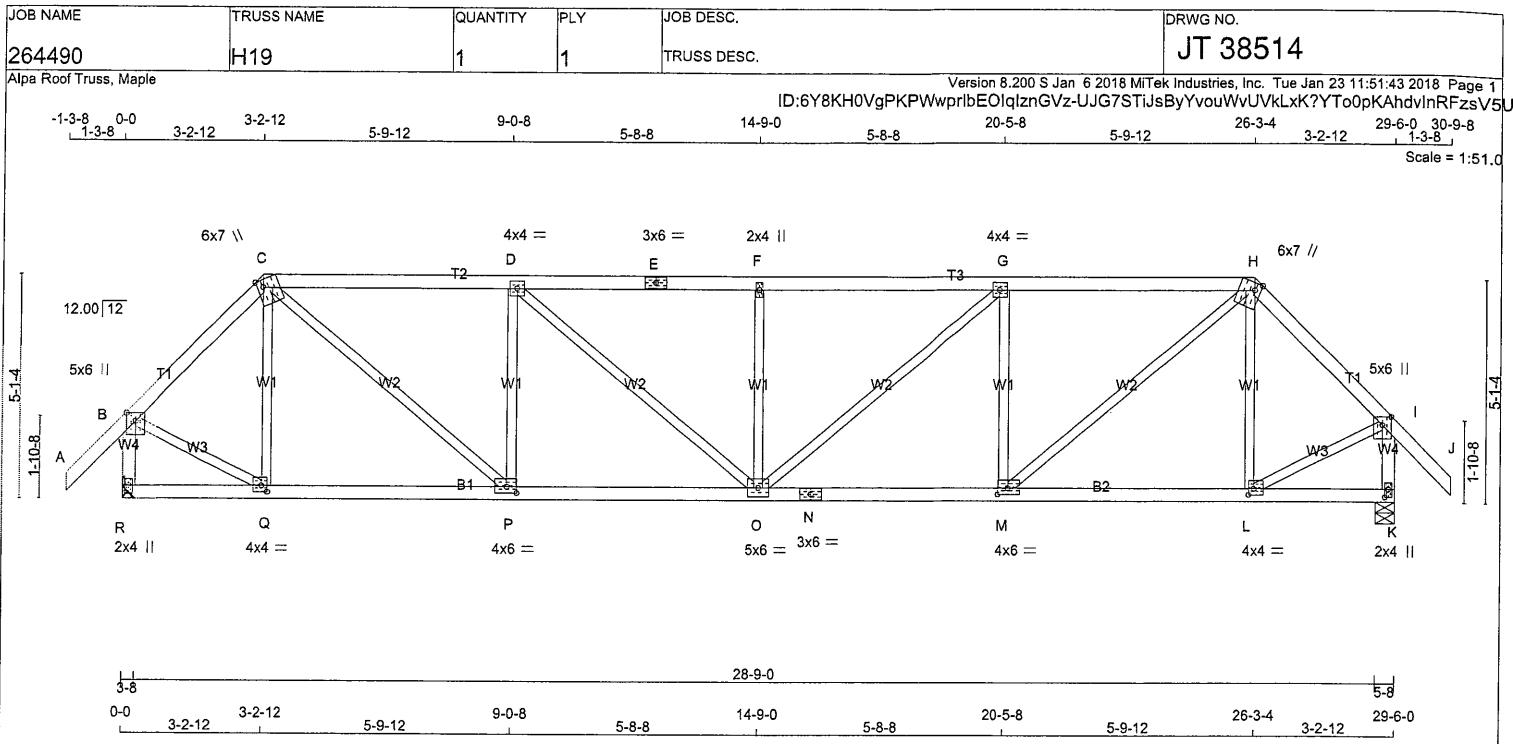
 JSI GRIP= 0.89 (R) (INPUT = 0.90)
 JSI METAL= 0.77 (M) (INPUT = 1.00)

NOTE: Lateral brace(s) shown shall be 1x4 for Part 9 design as per OBC 9.23.13.11, and no less than 2x4 for Part 4 design.



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LUMBER				DIMENSIONS, SUPPORTS AND LOADINGS SPECIFIED BY FABRICATOR TO BE VERIFIED BY BUILDING DESIGNER										DESIGN CRITERIA		
N. L. G. A. RULES				BEARINGS										SPECIFIED LOADS:		
CHORDS	SIZE	LUMBER	DESCR.	FACTORED	GROSS REACTION	MAXIMUM FACTORED	INPUT	REQRD						TOP CH. LL = 32.5 PSF		
A - C	2x4	DRY	No.2	SPF	VERT	DOWN	HORZ	UPLIFT	IN-SX	IN-SX					DL = 3.0 PSF	
C - E	2x4	DRY	No.2	SPF	R	1967	0	1967	0	0					BOT CH. LL = 0.0 PSF	
E - H	2x4	DRY	No.2	SPF						DL = 7.4 PSF						
H - J	2x4	DRY	No.2	SPF						TOTAL LOAD = 42.9 PSF						
R - B	2x4	DRY	No.2	SPF						SPACING = 24.0 IN. C/C						
K - I	2x4	DRY	No.2	SPF						LOADING IN FLAT SECTION BASED ON A SLOPE OF 2.00/12 MINIMUM						
R - N	2x4	DRY	No.2	SPF						THIS TRUSS IS DESIGNED FOR RESIDENTIAL OR SMALL BUILDING REQUIREMENTS OF PART 9, NBCC 2010						
N - K	2x4	DRY	No.2	SPF						THIS DESIGN COMPLIES WITH:						
ALL WEBS 2x3 DRY No.2 SPF				UNFACTORED REACTIONS										55% OF 43.9 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 32.5 P.S.F. SPECIFIED ROOF LIVE LOAD		
EXCEPT				1ST LCASE MAX./MIN. COMPONENT REACTIONS										ALLOWABLE DEFL.(LL) = L/360 (0.98")		
DRY: SEASONED LUMBER.				JT COMBINED SNOW LIVE PERM.LIVE WIND DEAD SOIL										CALCULATED VERT. DEFL.(LL) = L/999 (0.15")		
				R 1364 1049/0 0/0 0/0 0/0 315/0 0/0										ALLOWABLE DEFL.(TL) = L/360 (0.98")		
				K 1364 1049/0 0/0 0/0 0/0 315/0 0/0										CALCULATED VERT. DEFL.(TL) = L/999 (0.24")		
				BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S) K										CSI: TC=0.74/1.00 (F-G:1), BC=0.45/1.00 (M-O:1), WB=0.39/1.00 (C-P:1), SSI=0.29/1.00 (G-H:1)		
				BRACING										DOL LUMBER=1.00 NAIL=1.00 LS BEND=1.10		
				TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 3.36 FT.										COMP=1.10 SHEAR=1.10 TENS=1.10		
				MAX. UNBRACED BOTTOM CHORD LENGTH = 10.00 FT OR RIGID CEILING DIRECTLY APPLIED.										COMPANION LIVE LOAD FACTOR = 0.50		
				ALL PITCH BREAKS AND PERIMETER CORNER JOINTS MUST BE Laterally RESTRAINED.										TRUSS PLATE MANUFACTURER IS NOT RESPONSIBLE FOR QUALITY CONTROL IN THE TRUSS MANUFACTURING PLANT.		
				LOADING										NAIL VALUES		
				TOTAL LOAD CASES: (4)										PLATE GRIP(DRY) SHEAR SECTION		
				CHORDS										(PSI) (PLI) (PLI)		
				MEMB. MAX. FACTORED FORCE (LBS)										MAX MIN MAX MIN MAX MIN		
				FR-TO FROM TO										MT20 618 354 1667 822 2284 1656		
				A-B 0/52 -104.9 -104.9 0.15 (1) 10.00 Q-C -411/0 0.16 (1)										PLATE PLACEMENT TOL. = 0.250 inches		
				B-C -1583/0 -104.9 -104.9 0.23 (1) 5.00 C-P 0/1748 0.39 (1)										PLATE ROTATION TOL. = 5.0 Deg.		
				C-D -2455/0 -104.9 -104.9 0.69 (1) 3.64 P-D -1005/0 0.39 (1)										JSI GRIP= 0.89 (P) (INPUT = 0.90)		
				D-E -2844/0 -104.9 -104.9 0.74 (1) 3.36 D-O 0/508 0.11 (1)										JSI METAL= 0.64 (N) (INPUT = 1.00)		
				E-F -2844/0 -104.9 -104.9 0.74 (1) 3.36 O-F -552/0 0.21 (1)												
				F-G -2844/0 -104.9 -104.9 0.74 (1) 3.36 O-G 0/508 0.11 (1)												
				G-H -2455/0 -104.9 -104.9 0.69 (1) 3.64 M-G -1005/0 0.39 (1)												
				H-I -1583/0 -104.9 -104.9 0.23 (1) 5.00 M-H 0/1748 0.39 (1)												
				I-J 0/52 -104.9 -104.9 0.15 (1) 10.00 L-H -411/0 0.16 (1)												
				R-B -1950/0 0.0 0.0 0.22 (1) 6.03 B-Q 0/1225 0.28 (1)												
				K-I -1950/0 0.0 0.0 0.22 (1) 6.03 L-I 0/1225 0.28 (1)												
				R-Q 0/0 -18.5 -18.5 0.10 (4) 10.00												
				Q-P 0/1105 -18.5 -18.5 0.24 (1) 10.00												
				P-O 0/2455 -18.5 -18.5 0.45 (1) 10.00												
				O-N 0/2455 -18.5 -18.5 0.45 (1) 10.00												
				N-M 0/2455 -18.5 -18.5 0.45 (1) 10.00												
				M-L 0/1105 -18.5 -18.5 0.24 (1) 10.00												
				L-K 0/0 -18.5 -18.5 0.10 (4) 10.00												

Edge - INDICATES REFERENCE CORNER OF PLATE TOUCHES EDGE OF CHORD.

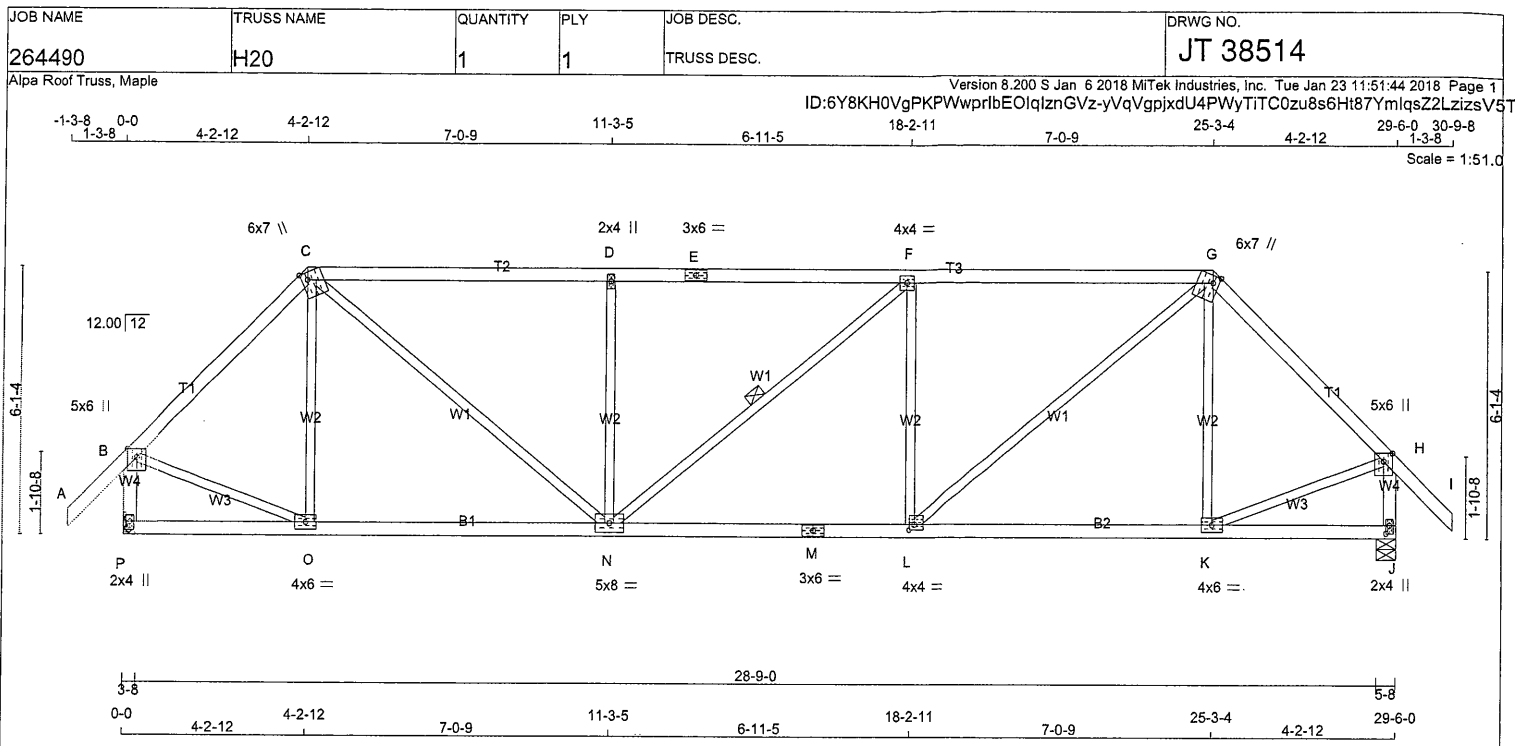
NOTE: Lateral brace(s) shown shall be 1x4 for Part 9 design as per OBC 9.23.13.11, and no less than 2x4 for Part 4 design.

NOTE: Lateral brace(s) shown shall be 1x4 for Part 9 design as per OBC 9.23.13.11, and no less than 2x4 for Part 4 design.



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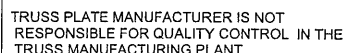
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NUMBER				N. L. G. A. RULES				DIMENSIONS, SUPPORTS AND LOADINGS SPECIFIED BY FABRICATOR TO BE VERIFIED BY BUILDING DESIGNER				DESIGN CRITERIA			
CHORDS		SIZE	LUMBER	DESCR.	BEARINGS				SPECIFIED LOADS:						
A - C	2x4	DRY	No.2	SPF	FACTORED		MAXIMUM FACTORED		INPUT		REQRD				
C - E	2x4	DRY	No.2	SPF	GROSS REACTION		GROSS REACTION		BRG		BRG				
E - G	2x4	DRY	No.2	SPF	JT	VERT	HORZ	DOWN	HORZ	UPLIFT	IN-SX	IN-SX			
G - I	2x4	DRY	No.2	SPF	P	1967	0	1967	0	0	HANGER BY OTHERS				
P - B	2x4	DRY	No.2	SPF	J	1967	0	1967	0	0	MIN. SEAT SIZE: 2-14				
J - H	2x4	DRY	No.2	SPF									5-8	2-15	
P - M	2x4	DRY	No.2	SPF											
M - J	2x4	DRY	No.2	SPF											
ALL WEBS 2x3 DRY No.2				SPF									UNFACTORED REACTIONS		
EXCEPT													1ST LCASE		
DRY: SEASONED LUMBER.													MAX./MIN. COMPONENT REACTIONS		
					JT	COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL			
					P	1364	1049 / 0	0 / 0	0 / 0	0 / 0	315 / 0	0 / 0			
					J	1364	1049 / 0	0 / 0	0 / 0	0 / 0	315 / 0	0 / 0			
BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S) J															
BRACING															
TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 3.26 FT.															
MAX. UNBRACED BOTTOM CHORD LENGTH = 10.00 FT OR RIGID CEILING DIRECTLY APPLIED.															
ALL PITCH BREAKS AND PERIMETER CORNER JOINTS MUST BE Laterally RESTRAINED.															
1 LATERAL BRACE(S) AT 1/2 LENGTH OF F-N.															
END VERTICAL(S) MUST BE SHEATHED OR HAVE BRACES AS INDICATED IN THE MAX. UNBRACED LENGTH COLUMN OF THE TABLE BELOW															
LOADING															
TOTAL LOAD CASES: (4)															
CHORDS															
MEMB. MAX. FACTORED FORCE (LBS)															
VERT. LOAD LC1 MAX (PLF) CSI (LC)															
UNBRACED LENGTH FR-TO															
FR-TO															
A - B 0 / 52															
B - C -1644 / 0															
C - D -2278 / 0															
D - E -2279 / 0															
E - F -2279 / 0															
F - G -2280 / 0															
G - H -1643 / 0															
H - I 0 / 52															
P - B -1942 / 0															
J - H -1941 / 0															
P - O 0 / 0															
O - N 0 / 1153															
N - M 0 / 2280															
M - L 0 / 2280															
L - K 0 / 1153															
K - J 0 / 0															
P - O 0 / 0															
O - N 0 / 1153															
N - M 0 / 2280															
M - L 0 / 2280															
L - K 0 / 1153															
K - J 0 / 0															
P - O 0 / 0															
O - N 0 / 1153															
N - M 0 / 2280															
M - L 0 / 2280															
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DRWG NO.
JT 38514

Version 8.200 S Jan 6 2018 MiTek Industries, Inc. Tue Jan 23 11:51:33 2018 Page 1
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SITE COPY

JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
264490	H11	1	1	TRUSS DESC.	
Alpa Roof Truss, Maple					
Version 8.200 S Jan 6 2018 MiTek Industries, Inc. Tue Jan 23 11:51:33 2018 Page 2					
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Edge - INDICATES REFERENCE CORNER OF PLATE TOUCHES EDGE OF CHORD.

HANGERS NOTES
1) SPECIAL HANGER(S) OR CONNECTION(S) REQUIRED TO SUPPORT CONCENTRATED LOAD(S) 170.6 lbs FACTORED DOWN AT 31-2-4 ON TOP CHORD, AND 2169.1 lbs FACTORED DOWN AT 22-0-4 ON BOTTOM CHORD. DESIGN FOR UNSPECIFIED CONNECTION(S) IS DELEGATED TO THE BUILDING DESIGNER.

NAIL VALUES
PLATE GRIP(DRY) SHEAR SECTION
(PSI) (PLI) (PLI)
MAX MIN MAX MIN MAX MIN
MT20 618 354 1667 822 2284 1656

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

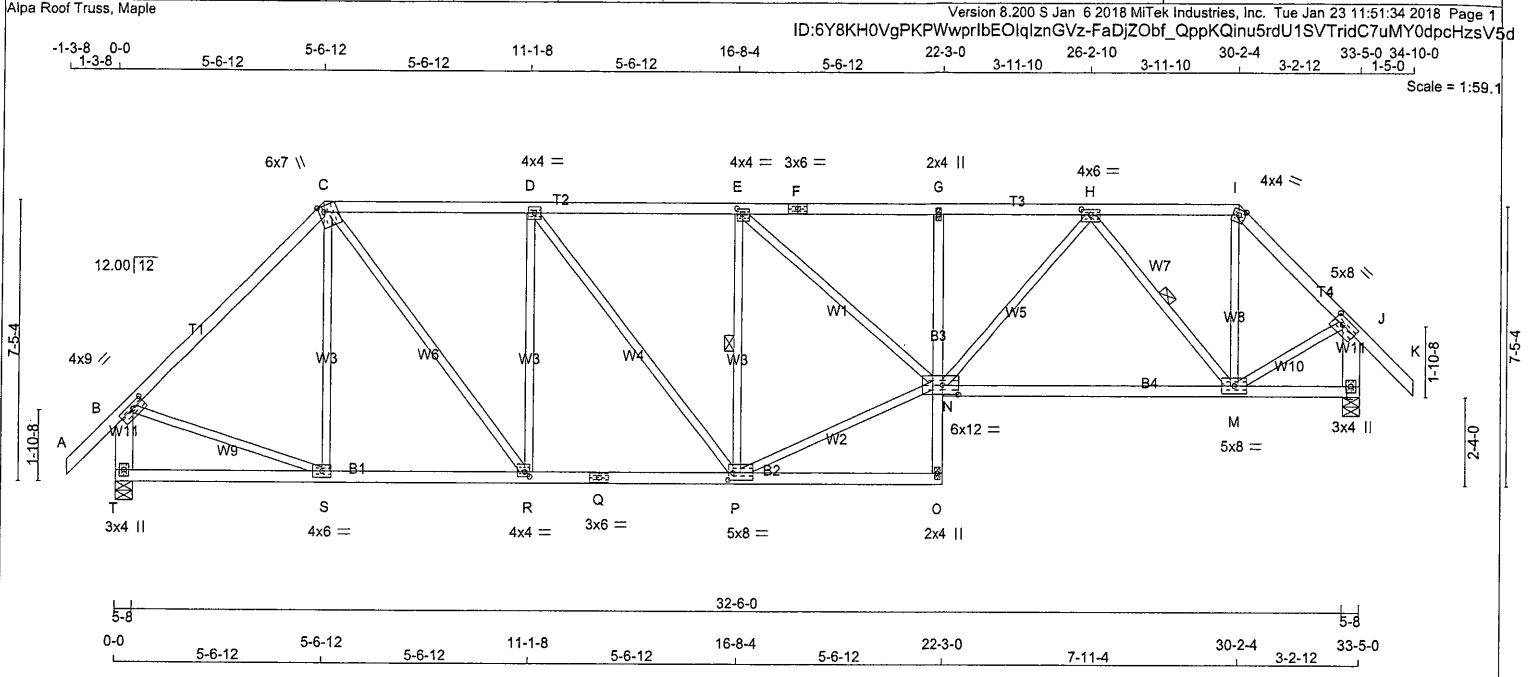
JSI GRIP= 0.90 (D) (INPUT = 0.90)
JSI METAL= 0.94 (E) (INPUT = 1.00)

NOTE: Lateral brace(s) shown shall be 1x4 for Part 9 design as per OBC 9.23.13.11, and no less than 2x4 for Part 4 design.



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SITE COPY



LUMBER

N. L. G. A. RULES

CHORDS	SIZE	LUMBER	DESCR.
A - C	2x4	1650F 1.5E	SPF
C - F	2x4	DRY	No.2
F - I	2x4	DRY	No.2
I - K	2x4	DRY	No.2
T - B	2x6	DRY	No.2
L - J	2x6	DRY	No.2
T - Q	2x4	DRY	No.2
Q - O	2x4	DRY	No.2
O - G	2x4	DRY	No.2
N - L	2x4	DRY	No.2
ALL WEBS EXCEPT	2x3	DRY	No.2

DRY: SEASONED LUMBER.

PLATES (table is in inches)

JT	TYPE	PLATES	W	LEN	Y	X
B	TMW-t	MT20	4.0	9.0	1.50	4.00
C	TTWW+m	MT20	6.0	7.0	Edge	1.75
D	TMW-t	MT20	4.0	4.0		
E	TMW-t	MT20	4.0	4.0	1.75	1.75
F	TS-t	MT20	3.0	6.0		
G	TMV+p	MT20	2.0	4.0		
H	TMW-t	MT20	4.0	6.0	1.75	3.00
I	TTW-m	MT20	4.0	4.0	1.75	2.00
J	TMW-t	MT20	5.0	8.0	2.25	3.00
L	BMV1+p	MT20	3.0	4.0		
M	BMW-t	MT20	5.0	8.0		
N	BMW-t	MT20	6.0	12.0	3.00	5.00
O	BMV+p	MT20	2.0	4.0		
P	BMW-t	MT20	5.0	8.0	2.25	1.50
Q	BS-t	MT20	3.0	6.0		
R	BMW-t	MT20	4.0	4.0	1.50	1.50
S	BMW-t	MT20	4.0	6.0		
T	BMV1+p	MT20	3.0	4.0		

Edge - INDICATES REFERENCE CORNER OF PLATE TOUCHES EDGE OF CHORD.

NOTE: Lateral brace(s) shown shall be 1x4 for Part 9 design as per OBC 9.23.13.11, and no less than 2x4 for Part 4 design.



DIMENSIONS, SUPPORTS AND LOADINGS SPECIFIED BY FABRICATOR TO BE VERIFIED BY BUILDING DESIGNER

BEARINGS

JT	FACTORED GROSS REACTION	MAXIMUM FACTORED GROSS REACTION	INPUT BRG	REQD BRG
T	2209	0	5-8	2-6
L	2222	0	5-8	2-7

UNFACTORED REACTIONS

JT	1ST CASE	MAX./MIN. COMPONENT REACTIONS	SNOW	LIVE	PERM. LIVE	WIND	DEAD	SOIL
T	1532	1176 / 0	0 / 0	0 / 0	0 / 0	0 / 0	356 / 0	0 / 0
L	1541	1184 / 0	0 / 0	0 / 0	0 / 0	0 / 0	357 / 0	0 / 0

BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S) T, L

BRACING
TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 3.39 FT.
MAX. UNBRACED BOTTOM CHORD LENGTH = 7.81 FT OR RIGID CEILING DIRECTLY APPLIED.

ALL PITCH BREAKS AND PERIMETER CORNER JOINTS MUST BE Laterally RESTRAINED.
1 LATERAL BRACE(S) AT 1/2 LENGTH OF E-P, H-M.

END VERTICAL(S) MUST BE SHEATHED OR HAVE BRACES AS INDICATED IN THE MAX. UNBRACED LENGTH COLUMN OF THE TABLE BELOW

LOADING

TOTAL LOAD CASES: (4)

MEMB.	CHORDS			MEMB.	WEBS		
	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	MAX. FACTORED VERT. LOAD (LC)		MAX. FACTORED FORCE (LBS)	MAX. FACTORED VERT. LOAD (LC)	MAX. FACTORED VERT. LOAD (LC)
FR-TO		FROM	TO	FR-TO		FROM	TO
A-B	0 / 52	-104.9	-104.9	0.12 (1)	10.00	S-C	-246 / 44
B-C	-1924 / 0	-104.9	-104.9	0.61 (1)	4.74	C-R	0 / 1363
C-D	-2192 / 0	-104.9	-104.9	0.60 (1)	3.93	R-D	-981 / 0
D-E	-2454 / 0	-104.9	-104.9	0.63 (1)	3.72	D-P	0 / 425
E-F	-3232 / 0	-104.9	-104.9	0.60 (1)	3.39	P-E	-1267 / 0
F-G	-3232 / 0	-104.9	-104.9	0.60 (1)	3.39	P-N	0 / 2645
G-H	-3244 / 0	-104.9	-104.9	0.42 (1)	3.54	E-N	0 / 1041
H-I	-1311 / 0	-104.9	-104.9	0.24 (1)	5.36	N-H	0 / 1249
I-J	-1834 / 0	-104.9	-104.9	0.24 (1)	4.71	H-M	-1789 / 0
J-K	0 / 56	-104.9	-104.9	0.17 (1)	10.00	M-I	0 / 954
T-B	-2167 / 0	0.0	0.0	0.16 (1)	6.92	B-S	0 / 1405
L-J	-2222 / 0	0.0	0.0	0.16 (1)	6.85	M-J	0 / 1419
T-S	0 / 0	-18.5	-18.5	0.14 (4)	10.00		
S-R	0 / 1353	-18.5	-18.5	0.30 (1)	10.00		
R-Q	0 / 2193	-18.5	-18.5	0.42 (1)	10.00		
Q-P	0 / 2193	-18.5	-18.5	0.42 (1)	10.00		
P-O	0 / 24	-18.5	-18.5	0.14 (4)	10.00		
O-N	0 / 44	0.0	0.0	0.08 (1)	10.00		
N-G	-493 / 0	0.0	0.0	0.14 (1)	7.81		
G-M	0 / 2432	-18.5	-18.5	0.53 (1)	10.00		
M-L	0 / 0	-18.5	-18.5	0.26 (4)	10.00		

DESIGN CRITERIA

SPECIFIED LOADS:
TOP CH. LL = 32.5 PSF
DL = 3.0 PSF
BOT CH. LL = 0.0 PSF
DL = 7.4 PSF
TOTAL LOAD = 42.9 PSF

SPACING = 24.0 IN. C/C

LOADING IN FLAT SECTION BASED ON A SLOPE OF 2.00/12 MINIMUM

THIS TRUSS IS DESIGNED FOR RESIDENTIAL OR SMALL BUILDING REQUIREMENTS OF PART 9, NBCC 2010

THIS DESIGN COMPLIES WITH:
- PART 9 OF OBC 2012, BCBC 2012, ABC 2014
- CSA 086-09
- TPIC 2011

(55 % OF 43.9 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 32.5 P.S.F. SPECIFIED ROOF LIVE LOAD

ALLOWABLE DEFL.(LL)= L/360 (1.11")
CALCULATED VERT. DEFL.(LL) = L/999 (0.17")
ALLOWABLE DEFL.(TL)= L/360 (1.11")
CALCULATED VERT. DEFL.(TL) = L/999 (0.32")

CSI: TC=0.63/1.00 (D-E:1), BC=0.53/1.00 (M-N:1), WB=0.97/1.00 (D-R:1), SSI=0.27/1.00 (C-D:1)

DOL LUMBER=1.00 NAIL=1.00 LS BEND=1.10
COMP=1.10 SHEAR=1.10 TENS=1.10

COMPANION LIVE LOAD FACTOR = 0.50

AUTOSOLVE HEELS OFF

TRUSS PLATE MANUFACTURER IS NOT RESPONSIBLE FOR QUALITY CONTROL IN THE TRUSS MANUFACTURING PLANT.

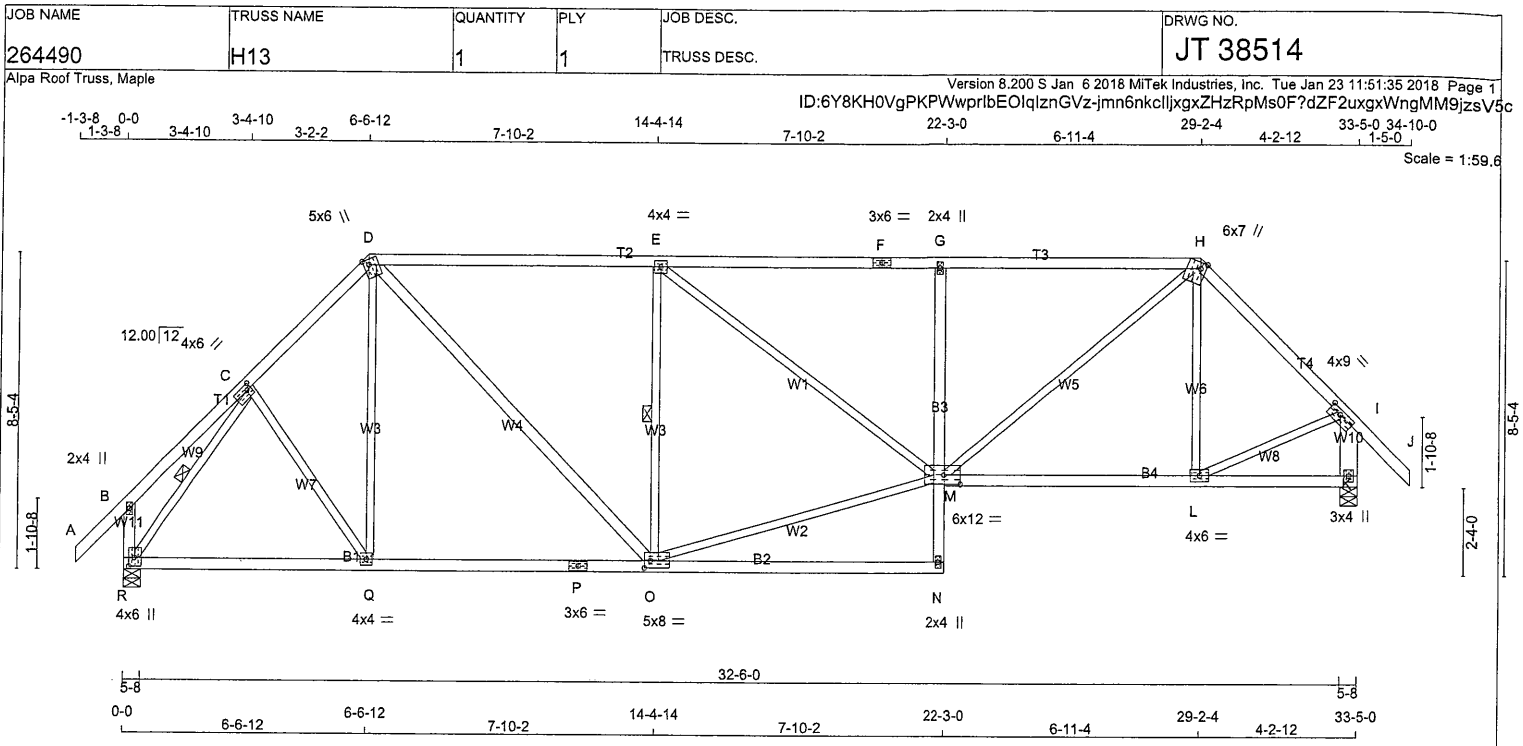
NAIL VALUES

PLATE	GRIP(DRY)	SHEAR (PSI)	SECTION (PLI)
MT20	618	354	1667
	822	2284	1656

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.89 (I) (INPUT = 0.90)
JSI METAL= 0.60 (Q) (INPUT = 1.00)



LUMBER				
N. L. G. A. RULES				
CHORDS	SIZE		LUMBER	DESCR.
A - D	2x4	DRY	No.2	SPF
D - F	2x4	DRY	2100F 1.8E	SPF
F - H	2x4	DRY	2100F 1.8E	SPF
H - J	2x4	DRY	No.2	SPF
R - B	2x4	DRY	No.2	SPF
K - I	2x6	DRY	No.2	SPF
R - P	2x4	DRY	No.2	SPF
P - N	2x4	DRY	No.2	SPF
N - G	2x4	DRY	No.2	SPF
M - K	2x4	DRY	No.2	SPF
ALL WEBS EXCEPT	2x3	DRY	No.2	SPF
D - O	2x4	DRY	No.2	SPF
DRY: SEASONED LUMBER.				

PLATES (table is in inches)				
JT	TYPE	PLATES	W	LEN Y X
B	TMV+p	MT20	2.0	4.0
C	TMWW-t	MT20	4.0	6.0 1.75 1.50
D	TTWW+m	MT20	5.0	6.0 1.75 1.75
E	TMWW-t	MT20	4.0	4.0
F	TS-t	MT20	3.0	6.0
G	TMV+p	MT20	2.0	4.0
H	TTWW+m	MT20	6.0	7.0 Edge 1.75
I	TMVW-t	MT20	4.0	9.0 1.50 4.00
K	BMV1+p	MT20	3.0	4.0
L	BMWW-t	MT20	4.0	6.0
M	BMVWW-I	MT20	6.0	12.0 3.00 5.25
N	BMV+p	MT20	2.0	4.0
O	BMWW-t	MT20	5.0	8.0 2.25 2.00
P	BS-t	MT20	3.0	6.0
Q	BMWW-t	MT20	4.0	4.0
R	BMVW1+p	MT20	4.0	6.0 2.75 1.75

Edge - INDICATES REFERENCE CORNER OF PLATE TOUCHES EDGE OF CHORD.

DIMENSIONS, SUPPORTS AND LOADINGS SPECIFIED BY FABRICATOR TO BE VERIFIED BY BUILDING DESIGNER

FACTORED GROSS REACTION		MAXIMUM FACTORED GROSS REACTION		INPUT BRG		REQRD BRG	
VERT	HORZ	DOWN	HORZ	UPLIFT	IN-SX	IN-SX	
JT	2222	0	2222	0	5-8	2-7	
R	2209	0	2209	0	5-8	2-6	

UNFACTORED REACTIONS

1ST LCASE		MAX/MIN. COMPONENT REACTIONS					
JT	COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
K	1541	1184 / 0	0 / 0	0 / 0	0 / 0	357 / 0	0 / 0
R	1532	1176 / 0	0 / 0	0 / 0	0 / 0	356 / 0	0 / 0

BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S) K, R

BRACING

TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 4.11 FT.
MAX. UNBRACED BOTTOM CHORD LENGTH = 7.81 FT OR RIGID CEILING DIRECTLY APPLIED.

ALL PITCH BREAKS AND PERIMETER CORNER JOINTS MUST BE Laterally RESTRAINED.

1 LATERAL BRACE(S) AT 1/2 LENGTH OF E-O, C-R.

END VERTICAL(S) MUST BE SHEATHED OR HAVE BRACES AS INDICATED IN THE MAX. UNBRACED LENGTH COLUMN OF THE TABLE BELOW

LOADING

TOTAL LOAD CASES: (4)

CHORDS		WEBS	
MEMB.	MAX. FACTORED FORCE (LBS)	MEMB.	MAX. FACTORED FORCE (LBS)
FR-TO		FR-TO	
A-B	0 / 52	C-Q	0 / 124
B-C	0 / 26	Q-D	0 / 100
C-D	-1944 / 0	D-O	0 / 1170
D-E	-2158 / 0	O-E	-1330 / 0
E-F	-2737 / 0	E-M	0 / 2249
F-G	-2737 / 0	M-H	0 / 704
G-H	-2745 / 0	H-I	0 / 1822
H-I	-1901 / 0	I-J	-334 / 38
I-J	0 / 56	J-K	-2273 / 0
K-R	-280 / 0	R-C	0 / 1420
R-I	-2201 / 0		
R-Q	0 / 1278		
Q-P	0 / 1351		
P-O	0 / 1351		
O-N	0 / 20		
N-M	0 / 64		
M-G	-822 / 0		
M-L	0 / 1334		
L-K	0 / 0		

DESIGN CRITERIA

SPECIFIED LOADS:
TOP CH. LL = 32.5 PSF
DL = 3.0 PSF
BOT CH. LL = 0.0 PSF
DL = 7.4 PSF
TOTAL LOAD = 42.9 PSF

SPACING = 24.0 IN./C

LOADING IN FLAT SECTION BASED ON A SLOPE OF 2.00/12 MINIMUM

THIS TRUSS IS DESIGNED FOR RESIDENTIAL OR SMALL BUILDING REQUIREMENTS OF PART 9, NBCC 2010

THIS DESIGN COMPLIES WITH:
- PART 9 OF OBC 2012, BCBC 2012, ABC 2014
- CSA 086-09
- TPIC 2011

(55% OF 43.9 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 32.5 P.S.F. SPECIFIED ROOF LIVE LOAD

ALLOWABLE DEFL.(LL) = L/360 (1.11")
CALCULATED VERT. DEFL.(LL) = L/999 (0.13")
ALLOWABLE DEFL.(TL) = L/360 (1.11")
CALCULATED VERT. DEFL.(TL) = L/999 (0.29")

CSI: TC=0.80/1.00 (E-G:1), BC=0.53/1.00 (G-M:1),
WB=0.60/1.00 (O-E:1), SSI=0.39/1.00 (D-E:1)

DOL LUMBER=1.00 NAIL=1.00 LS BEND=1.10
COMP=1.10 SHEAR=1.10 TENS=1.10

COMPANION LIVE LOAD FACTOR = 0.50

AUTOSOLVE LEFT HEEL ONLY

TRUSS PLATE MANUFACTURER IS NOT RESPONSIBLE FOR QUALITY CONTROL IN THE TRUSS MANUFACTURING PLANT.

NAIL VALUES
PLATE GRIP(DRY) SHEAR SECTION
(PSI) (PLI) (PLI)
MAX MIN MAX MIN MAX MIN
MT20 618 354 1667 822 2284 1656

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP = 0.69 (D) (INPUT = 0.90)
JSI METAL = 0.55 (C) (INPUT = 1.00)

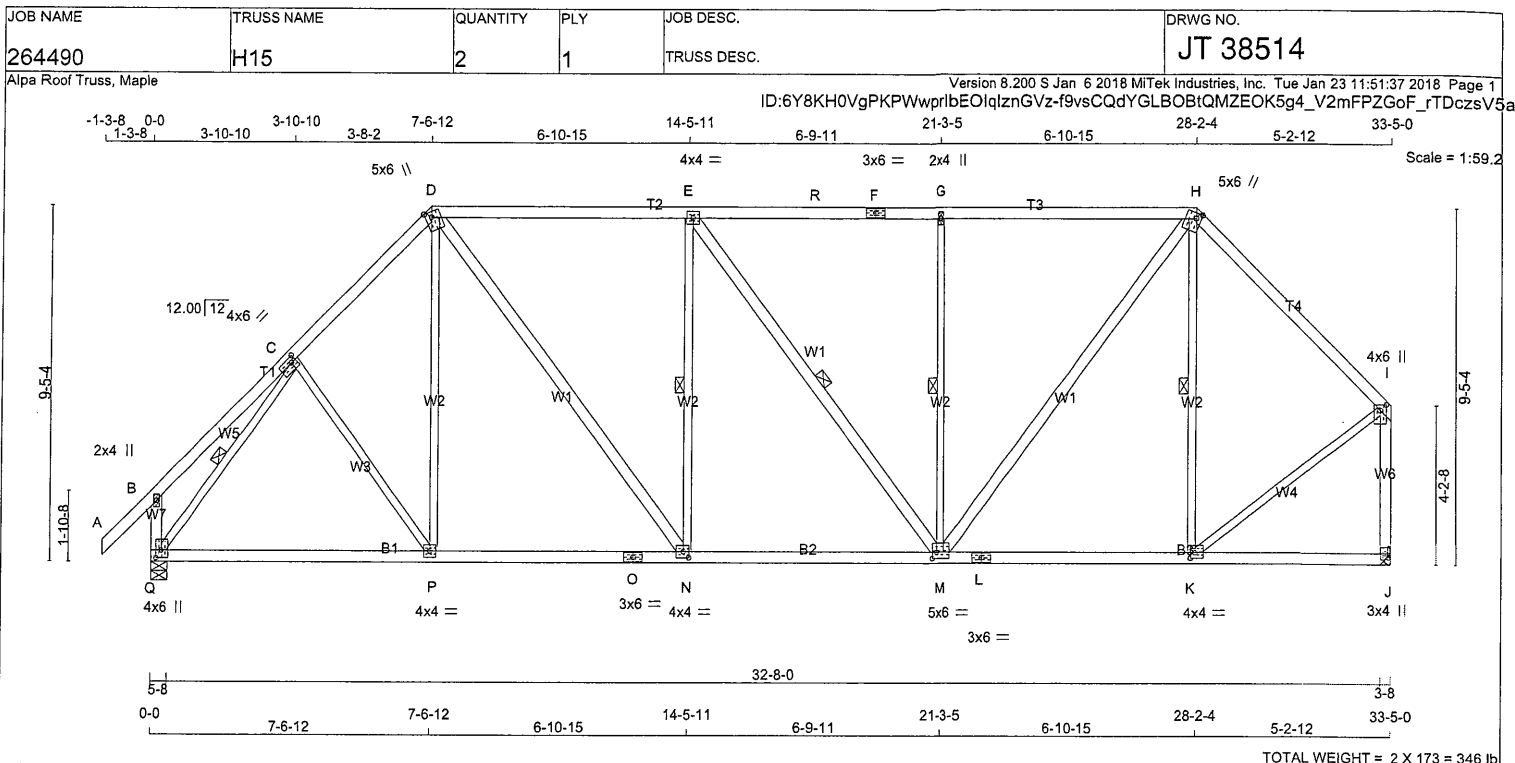
NOTE: Lateral brace(s) shown shall be 1x4 for Part 9 design as per OBC 9.23.13.11, and no less than 2x4 for Part 4 design.



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LUMBER				N. L. G. A. RULES			
CHORDS	SIZE	LUMBER	DESCR.	CHORDS	SIZE	LUMBER	DESCR.
A - D	2x4	DRY	No.2	SPF			
D - F	2x4	DRY	No.2	SPF			
F - H	2x4	DRY	No.2	SPF			
H - I	2x4	DRY	No.2	SPF			
Q - B	2x4	DRY	No.2	SPF			
J - I	2x4	DRY	No.2	SPF			
Q - O	2x4	DRY	No.2	SPF			
O - L	2x4	DRY	No.2	SPF			
L - J	2x4	DRY	No.2	SPF			
ALL WEBS	2x3	DRY	No.2	SPF			
EXCEPT							
D - N	2x4	DRY	No.2	SPF			
E - M	2x4	DRY	No.2	SPF			
M - H	2x4	DRY	No.2	SPF			

DRY: SEASONED LUMBER.

PLATES (table is in inches)

JT	TYPE	PLATES	W	LEN	Y	X
B	TMV+p	MT20	2.0	4.0		
C	TMVW-t	MT20	4.0	6.0	1.75	1.50
D	TTWV+m	MT20	5.0	6.0	1.75	2.00
E	TMVW-t	MT20	4.0	4.0		
F	TS-t	MT20	3.0	6.0		
G	TMVW+w	MT20	2.0	4.0		
H	TTWV+m	MT20	5.0	6.0	1.75	1.50
I	TMVW+p	MT20	4.0	6.0	1.75	2.00
J	BMV1+p	MT20	3.0	4.0		
K	BMVW-t	MT20	4.0	4.0	1.75	1.50
L	BS-t	MT20	3.0	6.0		
M	BMVWV-t	MT20	5.0	6.0	2.00	1.50
N	BMVW-t	MT20	4.0	4.0	2.00	1.75
O	BS-t	MT20	3.0	6.0		
P	BMVW-t	MT20	4.0	4.0		
Q	BMVW1+p	MT20	4.0	6.0	2.50	1.75

NOTE: Lateral brace(s) shown shall be 1x4 for Part 9 design as per OBC 9.23.13.11, and no less than 2x4 for Part 4 design.



DIMENSIONS, SUPPORTS AND LOADINGS SPECIFIED BY FABRICATOR TO BE VERIFIED BY BUILDING DESIGNER

BEARINGS				FACTORED				MAXIMUM FACTORED				INPUT				REQRD			
JT	VERT	HORZ	GROSS REACTION	JT	VERT	HORZ	DOWN	JT	VERT	HORZ	UPLIFT	JT	IN-SX	OUT-SX	BRG	JT	IN-SX	OUT-SX	BRG
Q	2281	0	2281	0	0	0	0	Q	2281	0	0	Q	5-8	2-8	5-8	Q	5-8	2-8	5-8
J	2145	0	2145	0	0	0	0	J	2145	0	0	J	5-8	2-8	5-8	J	5-8	2-8	5-8

UNFACTORED REACTIONS

1ST LCASE				MAX./MIN. COMPONENT REACTIONS			
JT	COMBINED	SNOW	LIVE	JT	COMBINED	SNOW	LIVE
Q	1589	1176 / 0	0 / 0	Q	1589	1176 / 0	0 / 0
J	1499	1085 / 0	0 / 0	J	1499	1085 / 0	0 / 0

BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S) Q

BRACING

FOR SECTION D-H, MAX. PURLIN SPACING = 2.00 FT.
FOR OTHER SECTIONS, TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 4.58 FT.
MAX. UNBRACED BOTTOM CHORD LENGTH = 10.00 FT. OR RIGID CEILING DIRECTLY APPLIED.

ALL PITCH BREAKS AND PERIMETER CORNER JOINTS MUST BE LATERALLY RESTRAINED.

1 LATERAL BRACE(S) AT 1/2 LENGTH OF E-N, E-M, G-M, H-K, C-Q.

END VERTICAL(S) MUST BE SHEATHED OR HAVE BRACES AS INDICATED IN THE MAX. UNBRACED LENGTH COLUMN OF THE TABLE BELOW

LOADING

TOTAL LOAD CASES: (4)

CHORDS				WEBS			
MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	MAX. FACTORED CSI (LC)	MEMB.	MAX. FACTORED FORCE (LBS)	MAX. FACTORED CSI (LC)	
FR-TO		FROM TO		FR-TO		FROM TO	
A-B	0 / 52	-104.9 -104.9	0.15 (1)	C-P	0 / 73	0.03 (4)	
B-C	0 / 31	-104.9 -104.9	0.23 (1)	P-D	0 / 117	0.04 (4)	
C-D	-2010 / 0	-104.9 -104.9	0.24 (1)	D-N	0 / 1015	0.16 (1)	
D-E	-2008 / 0	-112.4 -112.4	0.71 (1)	N-E	-689 / 0	0.41 (1)	
E-F	-1897 / 0	-112.4 -112.4	0.63 (1)	E-M	-187 / 0	0.14 (1)	
F-G	-1897 / 0	-112.4 -112.4	0.63 (1)	M-G	-837 / 0	0.49 (1)	
G-H	-1897 / 0	-112.4 -112.4	0.63 (1)	M-H	0 / 1395	0.22 (1)	
H-I	-1896 / 0	-112.4 -112.4	0.70 (1)	K-H	-641 / 0	0.38 (1)	
I-J	-1505 / 0	-104.9 -104.9	0.43 (1)	Q-C	-2361 / 0	0.68 (1)	
Q-B	-298 / 0	0.0 0.0	0.03 (1)	K-I	0 / 1309	0.29 (1)	
J-I	-2109 / 0	0.0 0.0	0.64 (1)				

Q-P	0 / 1367	-18.5 -18.5	0.36 (1)	10.00
P-O	0 / 1395	-18.5 -18.5	0.36 (1)	10.00
O-N	0 / 1395	-18.5 -18.5	0.36 (1)	10.00
N-M	0 / 2008	-18.5 -18.5	0.41 (1)	10.00
M-L	0 / 1054	-18.5 -18.5	0.27 (1)	10.00
L-K	0 / 1054	-18.5 -18.5	0.27 (1)	10.00
K-J	0 / 0	-18.5 -18.5	0.16 (4)	10.00

DESIGN CRITERIA

SPECIFIED LOADS:

TOP CH.	LL	=	32.5	PSF
	DL	=	3.0	PSF
BOT CH.	LL	=	0.0	PSF
	DL	=	7.4	PSF
TOTAL LOAD	=	42.9	PSF	

SPACING = 24.0 IN./C

LOADING IN FLAT SECTION BASED ON PIGGYBACK TRUSS WITH SLOPES OF 12.00/12 AND -12.00/12 AND RESPECTIVE WALL HEIGHTS OF 0-0 AND 0-0 AND AN ADDITIONAL DEAD LOAD OF 3.0 P.S.F.

THIS TRUSS IS DESIGNED FOR RESIDENTIAL OR SMALL BUILDING REQUIREMENTS OF PART 9, NBCC 2010

THIS DESIGN COMPLIES WITH:
- PART 9 OF OBC 2012, BCBC 2012, ABC 2014
- CSA 086-09
- TPIC 2011

(55 % OF 43.9 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 32.5 P.S.F. SPECIFIED ROOF LIVE LOAD

ALLOWABLE DEFL.(LL) = L/360 (1.11")
CALCULATED VERT. DEFL.(LL) = L/999 (0.09")
ALLOWABLE DEFL.(TL) = L/360 (1.11")
CALCULATED VERT. DEFL.(TL) = L/999 (0.17")

CSI: TC=0.71/1.00 (D-E:1), BC=0.41/1.00 (M-N:1), WB=0.68/1.00 (C-Q:1), SS=0.36/1.00 (D-E:1)

DOL LUMBER=1.00 NAIL=1.00 LS BEND=1.10
COMP=1.10 SHEAR=1.10 TENS=1.10

COMPANION LIVE LOAD FACTOR = 0.50

TRUSS PLATE MANUFACTURER IS NOT RESPONSIBLE FOR QUALITY CONTROL IN THE TRUSS MANUFACTURING PLANT.

NAIL VALUES

PLATE	GRIP(DRY)	SHEAR	SECTION
(PSI)	(PLI)	(PLI)	
MAX MIN	MAX MIN	MAX MIN	
MT20	618	354	1667 822 2284 1656

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP = 0.90 (N) (INPUT = 0.90)
JSI METAL = 0.58 (C) (INPUT = 1.00)

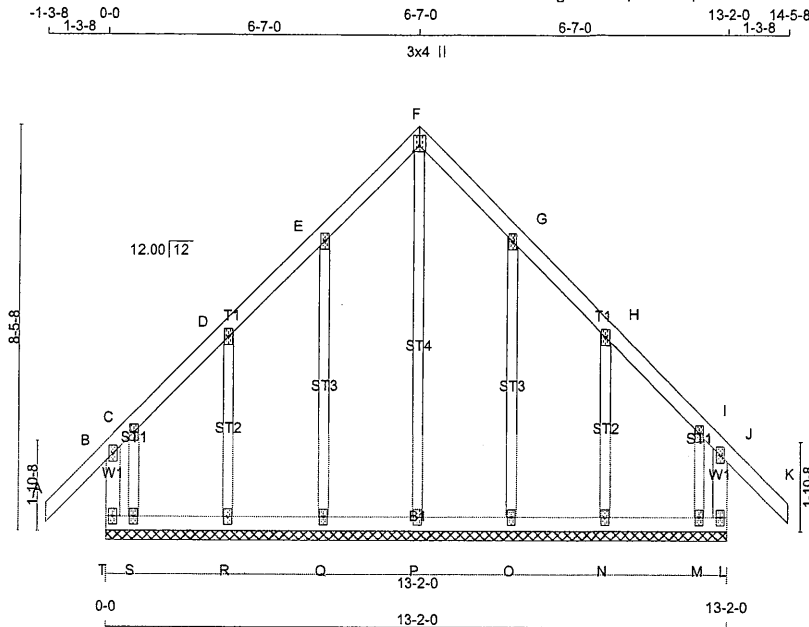
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JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
264490	H21G	1	1	TRUSS DESC.	JT 38514

Alpa Roof Truss, Maple

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ID:6Y8KH0VgPKPWwprlbEOlqlznGVz-utxG4VkB96K7mGc5bd3RzZy1hxU0ii7JtXR2azsV5R



TOTAL WEIGHT = 70 lb

LUMBER				DESIGN CRITERIA			
N. L. G. A. RULES				SPECIFIED LOADS:			
CHORDS	SIZE	LUMBER	DESCR.	TOP CH. LL = 32.5 PSF			
T - B	2x4	DRY	No.2	DL = 3.0 PSF			
A - F	2x4	DRY	No.2	BOT CH. LL = 0.0 PSF			
F - K	2x4	DRY	No.2	DL = 7.4 PSF			
L - J	2x4	DRY	No.2	TOTAL LOAD = 42.9 PSF			
T - L	2x4	DRY	No.2	SPACING = 24.0 IN./C			
ALL WEBS	2x3	DRY	No.2	THIS TRUSS IS DESIGNED FOR RESIDENTIAL			
ALL GABLE WEBS	2x3	DRY	No.2	OR SMALL BUILDING REQUIREMENTS OF PART			
DRY: SEASONED LUMBER.				9, NBCC 2010			
GABLE STUDS SPACED AT 2-0-0 OC.				THIS DESIGN COMPLIES WITH:			
				- PART 9 OF OBC 2012, BCBC 2012, ABC 2014			
				- CSA 086-09			
				- TPIC 2011			
				DESIGN ASSUMPTIONS			
				- OVERHANG NOT TO BE ALTERED OR CUT OFF.			
				(55 % OF 43.9 P.S.F. G.S.L. PLUS 8.4 P.S.F.			
				RAIN LOAD) EQUALS 32.5 P.S.F. SPECIFIED			
				ROOF LIVE LOAD			
				CSI: TC=0.15/1.00 (A-B:1), BC=0.02/1.00 (N-O:4),			
				WB=0.34/1.00 (F-P:1), SSI=0.08/1.00 (A-B:1)			
				DOL LUMBER=1.00 NAIL=1.00 LS BEND=1.10			
				COMP=1.10 SHEAR=1.10 TENS=1.10			
				COMPANION LIVE LOAD FACTOR = 0.50			
				TRUSS PLATE MANUFACTURER IS NOT			
				RESPONSIBLE FOR QUALITY CONTROL IN THE			
				TRUSS MANUFACTURING PLANT.			
				NAIL VALUES			
				PLATE GRIP(DRY) SHEAR SECTION			
				(PSI) (PLI) (PLI)			
				MAX MIN MAX MIN MAX MIN			
				MT20 618 354 1667 822 2284 1656			
				PLATE PLACEMENT TOL. = 0.250 inches			
				PLATE ROTATION TOL. = 5.0 Deg.			
				JSI GRIP= 0.40 (F) (INPUT = 0.90)			
				JSI METAL= 0.08 (F) (INPUT = 1.00)			

PLATES (table is in inches)				
JT	TYPE	PLATES	W	LEN Y X
B	TMV+p	MT20	2.0	4.0
C, D, E, G, H, I				
C	TMW+w	MT20	2.0	4.0
F	TTW+p	MT20	3.0	4.0
J	TMV+p	MT20	2.0	4.0
L	BMV1+p	MT20	2.0	4.0
M, N, O, P, Q, R, S				
M	BMW1+w	MT20	2.0	4.0
T	BMV1+p	MT20	2.0	4.0

Edge - INDICATES REFERENCE CORNER OF PLATE TOUCHES EDGE OF CHORD.

DIMENSIONS, SUPPORTS AND LOADINGS SPECIFIED BY FABRICATOR TO BE VERIFIED BY BUILDING DESIGNER

BEARINGS
THIS TRUSS DESIGNED FOR CONTINUOUS BEARINGS.
THIS TRUSS REQUIRES RIGID SHEATHING ON EXPOSED FACE.
BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S)

BRACING
TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 6.25 FT.
MAX. UNBRACED BOTTOM CHORD LENGTH = 6.25 FT OR RIGID CEILING DIRECTLY APPLIED.
ALL PITCH BREAKS AND PERIMETER CORNER JOINTS MUST BE LATERALLY RESTRAINED.

LOADING

CHORDS				WEBS			
MEMB.	MAX. FACTORED FORCE (LBS)	VERT. LOAD (PLF)	MAX. FACTORED (LC)	MEMB.	MAX. FACTORED FORCE (LBS)	MAX. FACTORED (LC)	
FR-TO		FROM TO		FR-TO			
T-B	-279 / 0	0.0	0.03 (1)	P-F	-250 / 0	0.34 (1)	
A-B	0 / 52	-104.9	-104.9	Q-E	-215 / 0	0.14 (1)	
B-C	-71 / 0	-104.9	-104.9	R-D	-207 / 0	0.06 (1)	
C-D	0 / 13	-104.9	-104.9	S-C	-12 / 0	0.00 (1)	
D-E	0 / 19	-104.9	-104.9	O-G	-215 / 0	0.14 (1)	
E-F	0 / 22	-104.9	-104.9	N-H	-207 / 0	0.06 (1)	
F-G	0 / 22	-104.9	-104.9	M-I	-12 / 0	0.00 (1)	
G-H	0 / 19	-104.9	-104.9				
H-I	0 / 13	-104.9	-104.9				
I-J	-71 / 0	-104.9	-104.9				
J-K	0 / 52	-104.9	-104.9				
L-J	-279 / 0	0.0	0.03 (1)				
T-S	-7 / 0	-18.5	-18.5				
S-R	-7 / 0	-18.5	-18.5				
R-Q	-13 / 0	-18.5	-18.5				
Q-P	-16 / 0	-18.5	-18.5				
P-O	-16 / 0	-18.5	-18.5				
O-N	-13 / 0	-18.5	-18.5				
N-M	-7 / 0	-18.5	-18.5				
M-L	-7 / 0	-18.5	-18.5				

NOTE: Lateral brace(s) shown shall be 1x4 for Part 9 design as per OBC 9.23.13.11, and no less than 2x4 for Part 4 design.



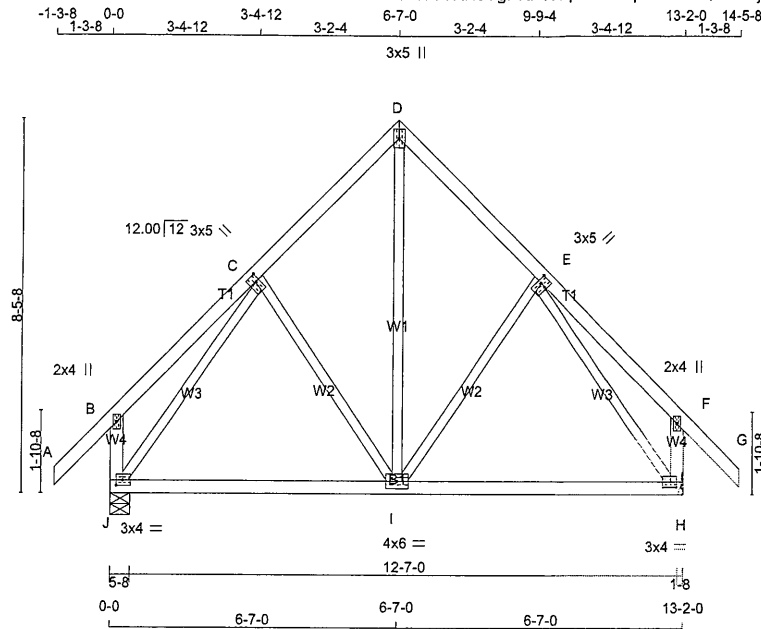
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JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
264490	H21	2	1	TRUSS DESC.	JT 38514

Alpa Roof Truss, Maple

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ID:6Y8KH0VgPKPWwprlbEOIqlznGVz-QhNut9JZOoCG862u1vXCQMUIHYHE4_4DnuV8zsV5S



Scale = 1:50.4

TOTAL WEIGHT = 2 X 69 = 137 lb

LUMBER	N. L. G. A. RULES	CHORDS	SIZE	LUMBER	DESCR.
A - D	2x4	DRY	No.2	SPF	
D - G	2x4	DRY	No.2	SPF	
J - B	2x4	DRY	No.2	SPF	
H - F	2x4	DRY	No.2	SPF	
J - H	2x4	DRY	No.2	SPF	
ALL WEBS	2x3	DRY	No.2	SPF	
EXCEPT					

DRY: SEASONED LUMBER.

PLATES (table is in inches)

JT	TYPE	PLATES	W	LEN	Y	X
B	TMV+p	MT20	2.0	4.0		
C	TMWW+t	MT20	3.0	5.0	2.00	1.00
D	TTW+p	MT20	3.0	5.0		
E	TMWW+t	MT20	3.0	5.0	2.00	1.00
F	TMV+p	MT20	2.0	4.0		
H	BMVW1-t	MT20	3.0	4.0	1.50	1.75
I	BMVWW-t	MT20	4.0	6.0		
J	BMVW1-t	MT20	3.0	4.0	1.50	1.75

DIMENSIONS, SUPPORTS AND LOADINGS SPECIFIED BY FABRICATOR TO BE VERIFIED BY BUILDING DESIGNER

	FACTORED GROSS REACTION	MAXIMUM FACTORED GROSS REACTION	INPUT BRG	REQRD BRG
JT	VERT	HORZ	DOWN	HORZ
J	959	0	959	0
H	959	0	959	0

MIN. SEAT SIZE: 1-8

UNFACTORED REACTIONS

JT	1ST LCASE	MAX. MIN. COMPONENT REACTIONS	WIND	DEAD	SOIL
JT	COMBINED	SNOW	LIVE	PERM. LIVE	
J	664	518 / 0	0 / 0	0 / 0	145 / 0
H	664	518 / 0	0 / 0	0 / 0	145 / 0

BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S) J

BRACING

TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 6.25 FT.
MAX. UNBRACED BOTTOM CHORD LENGTH = 10.00 FT OR RIGID CEILING DIRECTLY APPLIED.

ALL PITCH BREAKS AND PERIMETER CORNER JOINTS MUST BE Laterally RESTRAINED.

LOADING

TOTAL LOAD CASES: (4)

CHORDS				WEBS			
MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	MAX. FACTORED VERT. LOAD LC1 (LC)	MEMB.	MAX. FACTORED FORCE (LBS)	MAX. FACTORED VERT. LOAD LC1 (LC)	UNBRACED LENGTH FR-TO
FR-TO				FR-TO			
A-B	0 / 52	-104.9	-104.9 0.15 (1)	I-D	0 / 411	0.09 (1)	10.00
B-C	0 / 28	-104.9	-104.9 0.18 (1)	I-E	-159 / 6	0.09 (1)	10.00
C-D	-510 / 0	-104.9	-104.9 0.14 (1)	C-I	-159 / 6	0.09 (1)	6.25
D-E	-510 / 0	-104.9	-104.9 0.14 (1)	J-C	-769 / 0	0.43 (1)	6.25
E-F	0 / 28	-104.9	-104.9 0.18 (1)	E-H	-769 / 0	0.43 (1)	10.00
F-G	0 / 52	-104.9	-104.9 0.15 (1)				10.00
J-B	-277 / 0	0.0	0.0 0.03 (1)				7.81
H-F	-277 / 0	0.0	0.0 0.03 (1)				7.81
J-I	0 / 433	-18.5	-18.5 0.25 (4)				10.00
I-H	0 / 433	-18.5	-18.5 0.25 (4)				10.00

DESIGN CRITERIA

SPECIFIED LOADS:	
TOP CH. LL	= 32.5 PSF
DL	= 3.0 PSF
BOT CH. LL	= 0.0 PSF
DL	= 7.4 PSF
TOTAL LOAD	= 42.9 PSF

SPACING = 24.0 IN. C/C

THIS TRUSS IS DESIGNED FOR RESIDENTIAL OR SMALL BUILDING REQUIREMENTS OF PART 9, NBCC 2010

THIS DESIGN COMPLIES WITH:

- PART 9 OF OBC 2012, BCBC 2012, ABC 2014
- CSA 086-09
- TPIC 2011

(55 % OF 43.9 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 32.5 P.S.F. SPECIFIED ROOF LIVE LOAD

ALLOWABLE DEFL.(LL)= L/360 (0.44")
CALCULATED VERT. DEFL.(LL) = L/999 (0.01")
ALLOWABLE DEFL.(TL)= L/360 (0.44")
CALCULATED VERT. DEFL.(TL) = L/999 (0.05")

CSI: TC=0.18/1.00 (E-F:1), BC=0.25/1.00 (H-I:4), WB=0.43/1.00 (C-J:1), SSI=0.12/1.00 (D-E:1)

DOL LUMBER=1.00 NAIL=1.00 LS BEND=1.10
COMP=1.10 SHEAR=1.10 TENS=1.10

COMPANION LIVE LOAD FACTOR = 0.50

TRUSS PLATE MANUFACTURER IS NOT RESPONSIBLE FOR QUALITY CONTROL IN THE TRUSS MANUFACTURING PLANT.

NAIL VALUES
PLATE GRIP(DRY) SHEAR SECTION
(PSI) (PLI) (PLI)
MAX MIN MAX MIN MAX MIN
MT20 618 354 1667 822 2284 1656

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.88 (H) (INPUT = 0.90)
JSI METAL= 0.36 (C) (INPUT = 1.00)

NOTE: Lateral brace(s) shown shall be 1x4 for Part 9 design as per OBC 9.23.13.11, and no less than 2x4 for Part 4 design.



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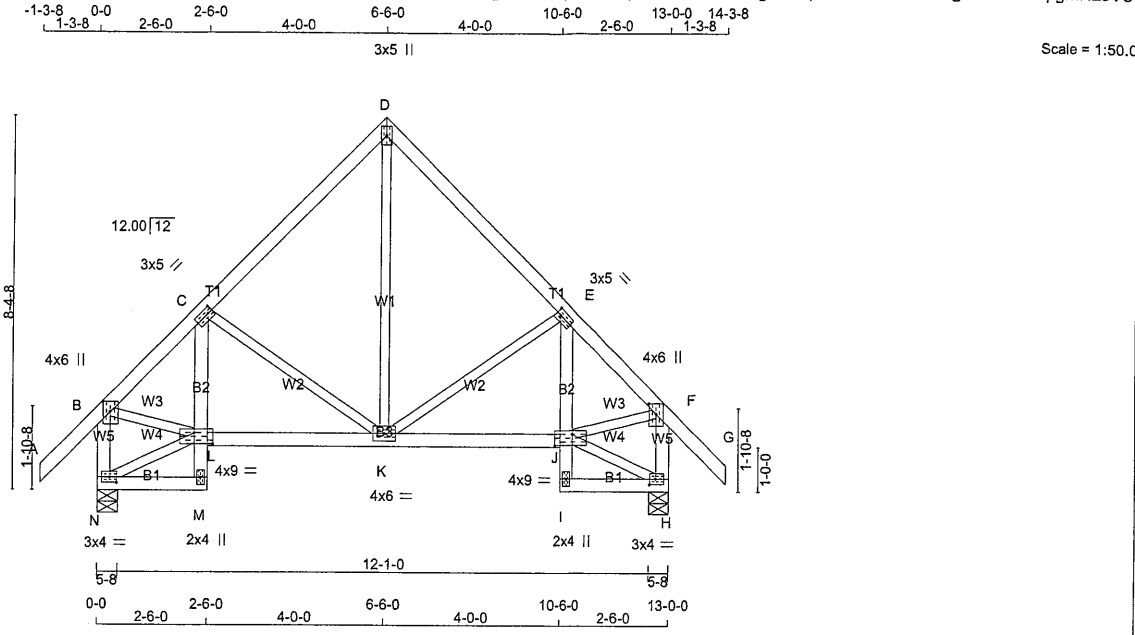
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JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
264490	H17	2	1	TRUSS DESC.	JT 38514

Alpa Roof Truss, Maple

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LUMBER				DIMENSIONS, SUPPORTS AND LOADINGS SPECIFIED BY FABRICATOR TO BE VERIFIED BY BUILDING DESIGNER						TOTAL WEIGHT = 2 X 72 = 144 lb	
N. L. G. A. RULES	CHORDS	SIZE	LUMBER	DESCR.	BEARINGS						(M)(F)
A - D	2x4	DRY	No.2	SPF	FACTORED						
D - G	2x4	DRY	No.2	SPF	GROSS REACTION						
N - B	2x4	DRY	No.2	SPF	JT	VERT	HORZ	DOWN	HORZ	UPLIFT	REQD
H - F	2x4	DRY	No.2	SPF	H	949	0	949	0	5-8	1-8
N - M	2x4	DRY	No.2	SPF	N	949	0	949	0	5-8	1-8
M - C	2x4	DRY	No.2	SPF	UNFACTORED REACTIONS						
L - J	2x4	DRY	No.2	SPF	1ST LCASE MAX./MIN. COMPONENT REACTIONS						
I - E	2x4	DRY	No.2	SPF	JT	COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD
I - H	2x4	DRY	No.2	SPF	H	656	513 / 0	0 / 0	0 / 0	0 / 0	144 / 0
ALL WEBS EXCEPT	2x3	DRY	No.2	SPF	N	656	513 / 0	0 / 0	0 / 0	0 / 0	144 / 0
DRY: SEASONED LUMBER.				BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S) H, N							

PLATES (table is in inches)					
JT	TYPE	PLATES	W	LEN	Y X
B	TMVW+p	MT20	4.0	6.0	2.75 2.00
C	TMVW-t	MT20	3.0	5.0	1.50 1.25
D	TTW+p	MT20	3.0	5.0	
E	TMVW-t	MT20	3.0	5.0	1.50 1.25
F	TMVW+p	MT20	4.0	6.0	2.75 2.00
H	BMVW1-t	MT20	3.0	4.0	1.50 1.75
I	BMV+p	MT20	2.0	4.0	
J	BMVWW-I	MT20	4.0	9.0	3.00 5.00
K	BMVWW-t	MT20	4.0	6.0	
L	BMVWW-I	MT20	4.0	9.0	3.00 5.00
M	BMV+p	MT20	2.0	4.0	
N	BMVW1-t	MT20	3.0	4.0	1.50 1.75

BRACING					
TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 6.25 FT.					
MAX. UNBRACED BOTTOM CHORD LENGTH = 7.81 FT. OR RIGID CEILING DIRECTLY APPLIED.					
ALL PITCH BREAKS AND PERIMETER CORNER JOINTS MUST BE Laterally RESTRAINED.					
LOADING					
TOTAL LOAD CASES: (4)					
CHORDS			WEBS		
MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	MAX. MEMB. FORCE (LBS)	MAX. FACTORED FORCE (LBS)	MAX. MEMB. FORCE (LBS)
FR-TO			FR-TO		
A-B	0 / 52	-104.9 -104.9 0.15 (1)	10.00	K-D	0 / 394
B-C	-813 / 0	-104.9 -104.9 0.17 (1)	6.25	K-E	-289 / 0
C-D	-559 / 0	-104.9 -104.9 0.21 (1)	6.25	J-H	-14 / 0
D-E	-559 / 0	-104.9 -104.9 0.21 (1)	6.25	J-F	0 / 619
E-F	-813 / 0	-104.9 -104.9 0.17 (1)	6.25	C-K	-289 / 0
F-G	0 / 52	-104.9 -104.9 0.15 (1)	10.00	N-L	-14 / 0
N-B	-921 / 0	0.0 0.0 0.10 (1)	7.81	B-L	0 / 619
H-F	-921 / 0	0.0 0.0 0.10 (1)	7.81		
N-M	0 / 13	-18.5 -18.5 0.03 (4)	10.00		
M-L	0 / 24	0.0 0.0 0.02 (1)	10.00		
L-C	-50 / 35	0.0 0.0 0.02 (4)	7.81		
L-K	0 / 614	-18.5 -18.5 0.15 (1)	10.00		
K-J	0 / 614	-18.5 -18.5 0.15 (1)	10.00		
I-J	0 / 24	0.0 0.0 0.02 (1)	10.00		
J-E	-50 / 35	0.0 0.0 0.02 (4)	7.81		
I-H	0 / 13	-18.5 -18.5 0.03 (4)	10.00		

DESIGN CRITERIA

SPECIFIED LOADS:
TOP CH. LL = 32.5 PSF
DL = 3.0 PSF
BOT CH. LL = 0.0 PSF
DL = 7.4 PSF
TOTAL LOAD = 42.9 PSF

SPACING = 24.0 IN. C/C

THIS TRUSS IS DESIGNED FOR RESIDENTIAL OR SMALL BUILDING REQUIREMENTS OF PART 9, NBCC 2010

THIS DESIGN COMPLIES WITH:
- PART 9 OF OBC 2012, BCBC 2012, ABC 2014
- CSA 086-09
- TPIC 2011

(55 % OF 43.9 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 32.5 P.S.F. SPECIFIED ROOF LIVE LOAD

ALLOWABLE DEFL.(LL)= L/360 (0.43")
CALCULATED VERT. DEFL.(LL) = L/ 999 (0.01")
ALLOWABLE DEFL.(TL)= L/360 (0.43")
CALCULATED VERT. DEFL.(TL) = L/ 999 (0.03")

CSI: TC=0.21/1.00 (C-D:1) , BC=0.15/1.00 (J-K:1) , WB=0.14/1.00 (F-J:1) , SSI=0.14/1.00 (C-D:1)

DOL LUMBER=1.00 NAIL=1.00 LS BEND=1.10
COMP=1.10 SHEAR=1.10 TENS= 1.10

COMPANION LIVE LOAD FACTOR = 0.50

AUTOSOLVE HEELS OFF

TRUSS PLATE MANUFACTURER IS NOT RESPONSIBLE FOR QUALITY CONTROL IN THE TRUSS MANUFACTURING PLANT .

NAIL VALUES

PLATE	GRIP(DRY)	SHEAR (PSI)	SECTION (PLI)
	MAX	MIN	MAX MIN
MT20	618	354	1667 822 2284 1656

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

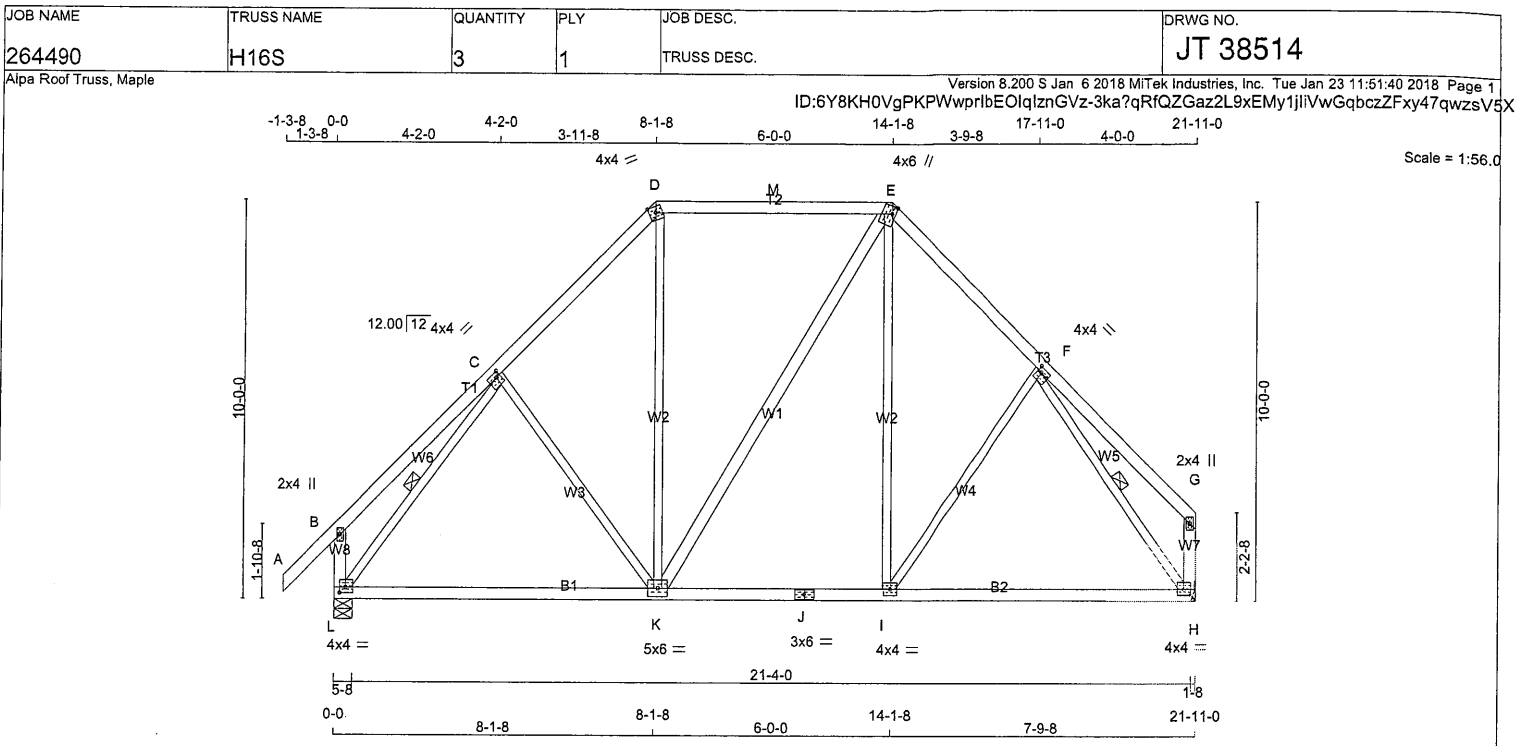
JSI GRIP= 0.79 (H) (INPUT = 0.90)
JSI METAL= 0.20 (B) (INPUT = 1.00)

NOTE: Lateral brace(s) shown shall be 1x4 for Part 9 design as per OBC 9.23.13.11, and no less than 2x4 for Part 4 design.



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LUMBER				DIMENSIONS, SUPPORTS AND LOADINGS SPECIFIED BY FABRICATOR TO BE VERIFIED BY BUILDING DESIGNER				DESIGN CRITERIA			
N. L. G. A. RULES	SIZE	LUMBER	DESCR.	FACTORED	MAXIMUM FACTORED	INPUT	REQRD	SPECIFIED LOADS:			
CHORDS				GROSS REACTION	GROSS REACTION	BRG	BRG	TOP CH. LL = 32.5 PSF			
A - D	2x4	DRY	No.2	VERT	DOWN	UPLIFT	IN-SX	DL = 3.0 PSF			
D - E	2x4	DRY	No.2	L	1521	0	5-8	BOT CH. LL = 0.0 PSF			
E - G	2x4	DRY	No.2	H	1375	0	1-10	DL = 7.4 PSF			
L - B	2x4	DRY	No.2				HANGER BY OTHERS	DL = 3.0 PSF			
H - G	2x4	DRY	No.2				MIN. SEAT SIZE: 1-8	TOTAL LOAD = 42.9 PSF			
L - J	2x4	DRY	No.2								
J - H	2x4	DRY	No.2								
ALL WEBS	2x3	DRY	No.2								
EXCEPT											
K - E	2x4	DRY	No.2								
DRY: SEASONED LUMBER.											

PLATES (table is in inches)					
JT	TYPE	PLATES	W	LEN	Y X
B	TMV+p	MT20	2.0	4.0	
C	TMWW-t	MT20	4.0	4.0	1.50 1.25
D	TTW-m	MT20	4.0	4.0	Edge
E	TTWW+m	MT20	4.0	6.0	Edge 1.00
F	TMWW-t	MT20	4.0	4.0	1.50 1.25
G	TMV+p	MT20	2.0	4.0	
H	BMVW1-t	MT20	4.0	4.0	1.75 2.00
I	BMWW-t	MT20	4.0	4.0	
J	BS-t	MT20	3.0	6.0	
K	BMWWW-t	MT20	5.0	6.0	
L	BMVW1-t	MT20	4.0	4.0	1.75 1.75

Edge - INDICATES REFERENCE CORNER OF PLATE TOUCHES EDGE OF CHORD.

BRACING					
FOR SECTION D-E, MAX. PURLIN SPACING = 2.00 FT.					
FOR OTHER SECTIONS, TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 5.80 FT.					
MAX. UNBRACED BOTTOM CHORD LENGTH = 10.00 FT OR RIGID CEILING DIRECTLY APPLIED.					
ALL PITCH BREAKS AND PERIMETER CORNER JOINTS MUST BE Laterally RESTRAINED.					
1 LATERAL BRACE(S) AT 1/2 LENGTH OF C-L, F-H.					
END VERTICAL(S) MUST BE SHEATHED OR HAVE BRACES AS INDICATED IN THE MAX. UNBRACED LENGTH COLUMN OF THE TABLE BELOW					
LOADING					
TOTAL LOAD CASES: (4)					
CHORDS			WEBS		
MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	MEMB.	MAX. FACTORED FORCE (LBS)	MAX. FACTORED CSI (LC)
FR-TO		FROM TO	FR-TO		
A-B	0 / 52	-104.9 -104.9	C-K	-154 / 21	0.14 (1)
B-C	0 / 36	-104.9 -104.9	K-D	0 / 243	0.05 (1)
C-D	-1087 / 0	-104.9 -104.9	K-E	0 / 27	0.00 (1)
D-M	-744 / 0	-112.4 -112.4	I-E	0 / 213	0.05 (1)
M-E	-744 / 0	-112.4 -112.4	I-F	-95 / 32	0.09 (1)
E-F	-1066 / 0	-104.9 -104.9	L-C	-1421 / 0	0.45 (1)
F-G	0 / 34	-104.9 -104.9	F-H	-1399 / 0	0.45 (1)
L-B	-307 / 0	0.0 0.0			
H-G	-154 / 0	0.0 0.0			
L-K	0 / 834	-18.5 -18.5			
K-J	0 / 730	-18.5 -18.5			
J-I	0 / 730	-18.5 -18.5			
I-H	0 / 782	-18.5 -18.5			

THIS TRUSS IS DESIGNED FOR RESIDENTIAL OR SMALL BUILDING REQUIREMENTS OF PART 9, NBCC 2010

THIS DESIGN COMPLIES WITH:

- PART 9 OF OBC 2012, BCBC 2012, ABC 2014
- CSA 086-09
- TPIC 2011

(55 % OF 43.9 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 32.5 P.S.F. SPECIFIED ROOF LIVE LOAD

ALLOWABLE DEFL.(LL)= L/360 (0.73")
 CALCULATED VERT. DEFL.(LL) = L/999 (0.03")
 ALLOWABLE DEFL.(TL)= L/360 (0.73")
 CALCULATED VERT. DEFL.(TL) = L/999 (0.15")

CSI: TC=0.70/1.00 (D-E:1), BC=0.30/1.00 (K-L:4), WB=0.45/1.00 (C-L:1), SSI=0.26/1.00 (D-E:1)

DOL LUMBER=1.00 NAIL=1.00 LS BEND=1.10
 COMP=1.10 SHEAR=1.10 TENS=1.10

COMPANION LIVE LOAD FACTOR = 0.50

TRUSS PLATE MANUFACTURER IS NOT RESPONSIBLE FOR QUALITY CONTROL IN THE TRUSS MANUFACTURING PLANT.

NAIL VALUES

PLATE	GRIP(DRY)	SHEAR	SECTION
(PSI)	(PLI)	(PLI)	(PLI)
MAX	MIN	MAX	MIN
MT20	618	354	1667
	822	2284	1656

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.89 (H) (INPUT = 0.90)
 JSI METAL= 0.53 (C) (INPUT = 1.00)

NOTE: Lateral brace(s) shown shall be 1x4 for Part 9 design as per OBC 9.23.13.11, and no less than 2x4 for Part 4 design.



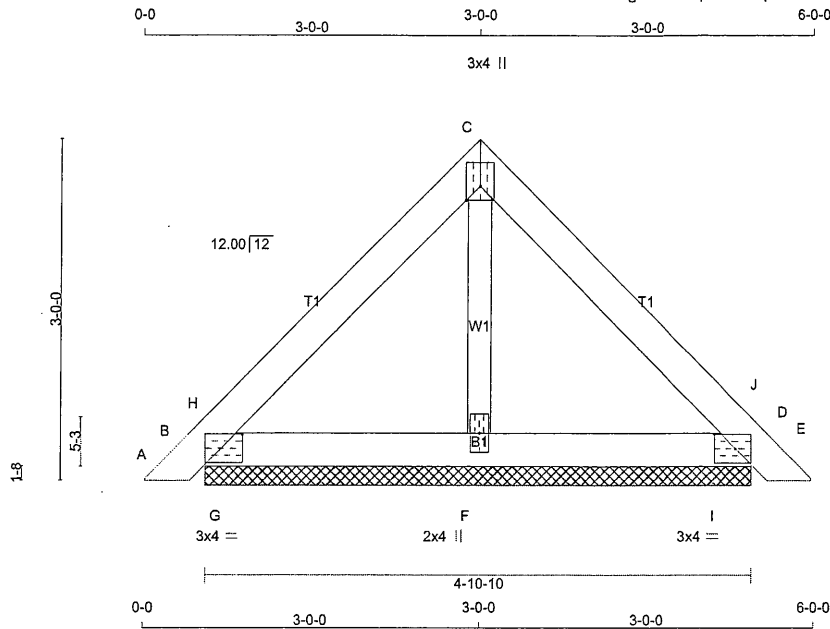
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JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
264490	P16	5	1	TRUSS DESC.	JT 38514

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Scale = 1:19.6

TOTAL WEIGHT = 5 X 17 = 85 lb

LUMBER					DESCR.
N. L. G. A. RULES	CHORDS	SIZE	LUMBER		
A - C	2x4	DRY	No.2	SPF	
C - E	2x4	DRY	No.2	SPF	
B - D	2x4	DRY	No.2	SPF	
ALL WEBS 2x3 DRY					SPF
DRY: SEASONED LUMBER.					

PLATES (table is in inches)						
JT	TYPE	PLATES	W	LEN	Y	X
B	TMB1-I	MT20	3.0	4.0	1.50	2.50
C	TTW+p	MT20	3.0	4.0	Edge	
D	TMB1-I	MT20	3.0	4.0	1.50	2.50
F	BMW1+w	MT20	2.0	4.0		

Edge - INDICATES REFERENCE CORNER OF PLATE TOUCHES EDGE OF CHORD.

DIMENSIONS, SUPPORTS AND LOADINGS SPECIFIED BY FABRICATOR TO BE VERIFIED BY BUILDING DESIGNER

JT	FACTORED GROSS REACTION		MAXIMUM FACTORED GROSS REACTION		INPUT BRG	REQD BRG
	VERT	HORZ	DOWN	HORZ		
B	251	0	251	0	4-10-10	4-4
D	251	0	251	0	4-10-10	4-4
F	193	0	193	0	4-10-10	4-4

UNFACTORED REACTIONS

JT	1ST LCASE COMBINED	MAX./MIN. COMPONENT REACTIONS					
		SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
B	173	143 / 0	0 / 0	0 / 0	0 / 0	30 / 0	0 / 0
D	173	143 / 0	0 / 0	0 / 0	0 / 0	30 / 0	0 / 0
F	137	89 / 0	0 / 0	0 / 0	0 / 0	48 / 0	0 / 0

BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S) B, D, F

BRACING

TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 6.25 FT.
MAX. UNBRACED BOTTOM CHORD LENGTH = 10.00 FT OR RIGID CEILING DIRECTLY APPLIED.

ALL PITCH BREAKS AND PERIMETER CORNER JOINTS MUST BE Laterally RESTRAINED.

LOADING

TOTAL LOAD CASES: (4)

CHORDS				WEBS			
MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. (PLF)	FACTORED LC1 MAX. (LC)	MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. (PLF)	FACTORED LC1 MAX. (LC)
FR-TO		FROM	TO	FR-TO		FROM	TO
A-B	0 / 15	-104.9	-104.9 0.02 (1)	10.00	F-C	-73 / 0	0.01 (1)
B-H	-18 / 0	-104.9	-104.9 0.04 (1)	6.25	G-H	-255 / 0	0.00 (1)
H-C	-105 / 0	-104.9	-104.9 0.07 (1)	6.25	I-J	-255 / 0	0.00 (1)
C-J	-105 / 0	-104.9	-104.9 0.07 (1)	6.25			
J-D	-18 / 0	-104.9	-104.9 0.04 (1)	6.25			
D-E	0 / 15	-104.9	-104.9 0.02 (1)	10.00			
B-G	0 / 68	-18.5	-18.5 0.08 (1)	10.00			
G-F	0 / 68	-18.5	-18.5 0.08 (1)	10.00			
F-I	0 / 68	-18.5	-18.5 0.08 (1)	10.00			
I-D	0 / 68	-18.5	-18.5 0.08 (1)	10.00			

DESIGN CRITERIA

SPECIFIED LOADS:

TOP CH.	LL	=	32.5	PSF
	DL	=	3.0	PSF
BOT CH.	LL	=	0.0	PSF
	DL	=	7.4	PSF
TOTAL LOAD	=	42.9	PSF	

SPACING = 24.0 IN./C

THIS TRUSS IS DESIGNED FOR RESIDENTIAL OR SMALL BUILDING REQUIREMENTS OF PART 9, NBCC 2010

THIS DESIGN COMPLIES WITH:

- PART 9 OF OBC 2012, BCBC 2012, ABC 2014
- CSA 086-09
- TPIC 2011

(55 % OF 43.9 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 32.5 P.S.F. SPECIFIED ROOF LIVE LOAD

CSI: TC=0.07/1.00 (C-H:1), BC=0.08/1.00 (F-G:1), WB=0.01/1.00 (C-F:1), SSI=0.19/1.00 (B-G:1)

DOL LUMBER=1.00 NAIL=1.00 LS BEND=1.10 COMP=1.10 SHEAR=1.10 TENS= 1.10

COMPANION LIVE LOAD FACTOR = 0.50

TRUSS PLATE MANUFACTURER IS NOT RESPONSIBLE FOR QUALITY CONTROL IN THE TRUSS MANUFACTURING PLANT.

NAIL VALUES

PLATE	GRIP(DRY)	SHEAR	SECTION
	(PSI)	(PLI)	(PLI)
	MAX	MIN	MAX MIN
MT20	618	354	1667 822 2284 1656

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.26 (B) (INPUT = 0.90)
JSI METAL= 0.06 (B) (INPUT = 1.00)

NOTE: Lateral brace(s) shown shall be 1x4 for Part 9 design as per OBC 9.23.13.11, and no less than 2x4 for Part 4 design.



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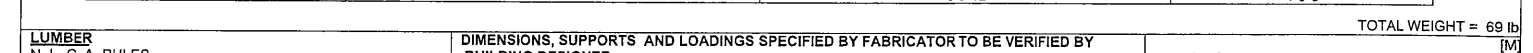
Alpa Roof Truss, Maple

Version 8.200 S Jan 6 2018 MiTek Industries, Inc. Tue Jan 23 11:51:46 2018 Page 1

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Scale = 1:33.7

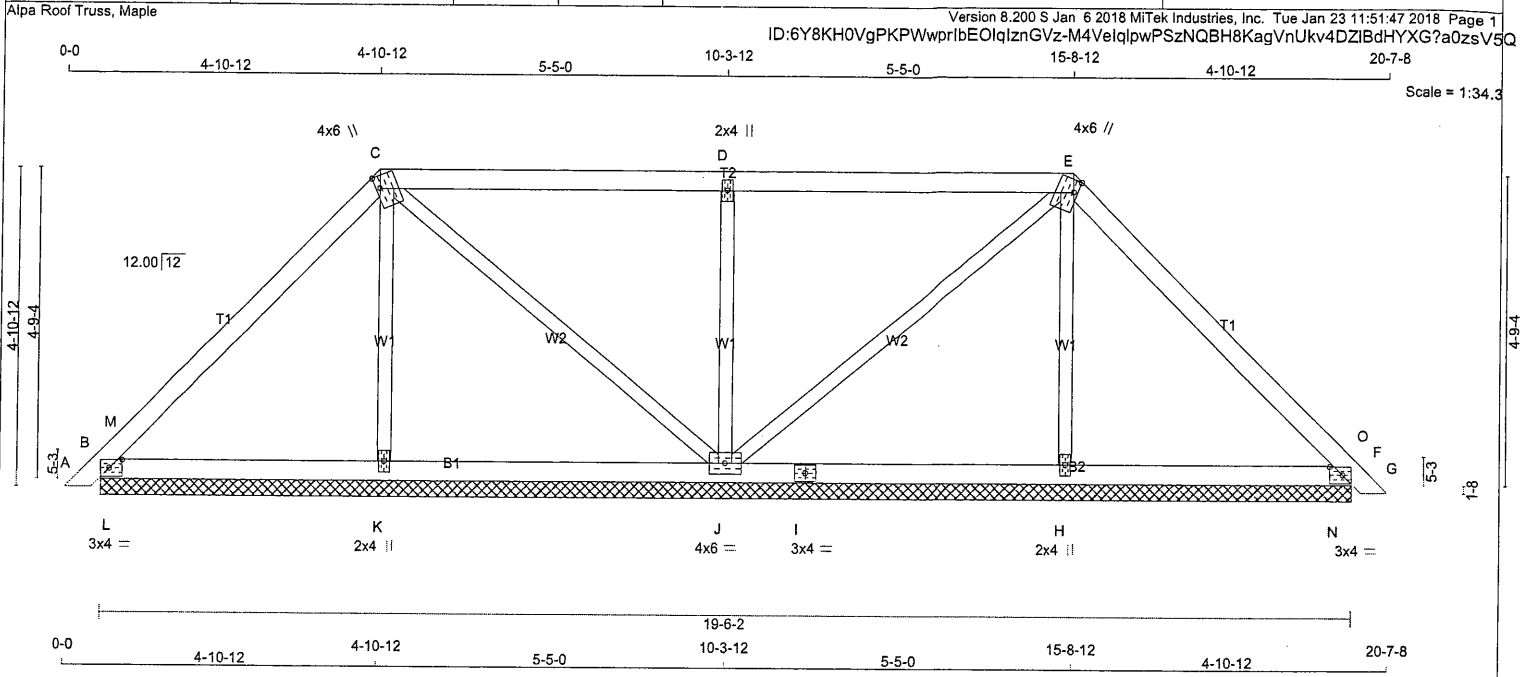


JSI GRIP= 0.68 (E) (INPUT = 0.90)
JSI METAL= 0.15 (D) (INPUT = 1.00)

B-L	0 / 111	-18.5	-18.5	0.14 (1)	10.00
L-K	0 / 111	-18.5	-18.5	0.14 (1)	10.00
K-J	0 / 104	-18.5	-18.5	0.16 (4)	10.00
J-I	0 / 104	-18.5	-18.5	0.16 (4)	10.00
I-H	0 / 104	-18.5	-18.5	0.16 (4)	10.00
H-N	0 / 111	-18.5	-18.5	0.14 (1)	10.00
N-F	0 / 111	-18.5	-18.5	0.14 (1)	10.00

A circular professional engineer seal for the Province of Ontario. The outer ring contains the text "LICENSED PROFESSIONAL ENGINEER" at the top and "PROVINCE OF ONTARIO" at the bottom. In the center, the name "D. O'CONNOR" is printed above the license number "100009580". A handwritten signature is scrawled over the name and number. Below the license number, a semi-circular banner contains the date "01/23/2018".

SITE COPY



LUMBER				DIMENSIONS, SUPPORTS AND LOADINGS SPECIFIED BY FABRICATOR TO BE VERIFIED BY BUILDING DESIGNER				DESIGN CRITERIA			
N. L. G. A. RULES	CHORDS	SIZE	LUMBER	DESCR.	FACTORED GROSS REACTION	MAXIMUM FACTORED GROSS REACTION	INPUT BRG	REQRD BRG	SPECIFIED LOADS:		
A - C	2x4	DRY	No.2	SPF	VERT	HORZ	DOWN	HORZ	UPLIFT	IN-SX	IN-SX
C - E	2x4	DRY	No.2	SPF	JT	B	449	0	449	0	0
E - G	2x4	DRY	No.2	SPF	K	345	0	345	0	0	0
B - I	2x4	DRY	No.2	SPF	J	914	0	914	0	0	0
I - F	2x4	DRY	No.2	SPF	H	345	0	345	0	0	0
					F	449	0	449	0	0	0
ALL WEBS 2x3 DRY				No.2							
DRY: SEASONED LUMBER.				SPF							

PLATES (table is in inches)

JT	TYPE	PLATES	W	LEN	Y	X
B	TMB1-I	MT20	3.0	4.0	1.50	2.50
C	TTWW+m	MT20	4.0	6.0	2.25	0.75
D	TMW+w	MT20	2.0	4.0		
E	TTWW+m	MT20	4.0	6.0	2.25	0.75
F	TMB1-I	MT20	3.0	4.0	1.50	2.50
H	BMW1+w	MT20	2.0	4.0		
I	BS-I	MT20	3.0	4.0		
J	BMWW1-t	MT20	4.0	6.0		
K	BMW1+w	MT20	2.0	4.0		

UNFACTORED REACTIONS

JT	1ST LCASE	MAX/MIN. COMPONENT REACTIONS	SNOW	LIVE	PERM. LIVE	WIND	DEAD	SOIL
B	308	254 / 0	0 / 0	0 / 0	0 / 0	0 / 0	54 / 0	0 / 0
K	245	157 / 0	0 / 0	0 / 0	0 / 0	0 / 0	88 / 0	0 / 0
J	631	504 / 0	0 / 0	0 / 0	0 / 0	0 / 0	127 / 0	0 / 0
H	245	157 / 0	0 / 0	0 / 0	0 / 0	0 / 0	88 / 0	0 / 0
F	308	254 / 0	0 / 0	0 / 0	0 / 0	0 / 0	54 / 0	0 / 0

BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S) B, K, J, H, F

BRACING
TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 6.25 FT.
MAX. UNBRACED BOTTOM CHORD LENGTH = 10.00 FT OR RIGID CEILING DIRECTLY APPLIED.

ALL PITCH BREAKS AND PERIMETER CORNER JOINTS MUST BE Laterally RESTRAINED.

LOADING
TOTAL LOAD CASES: (4)

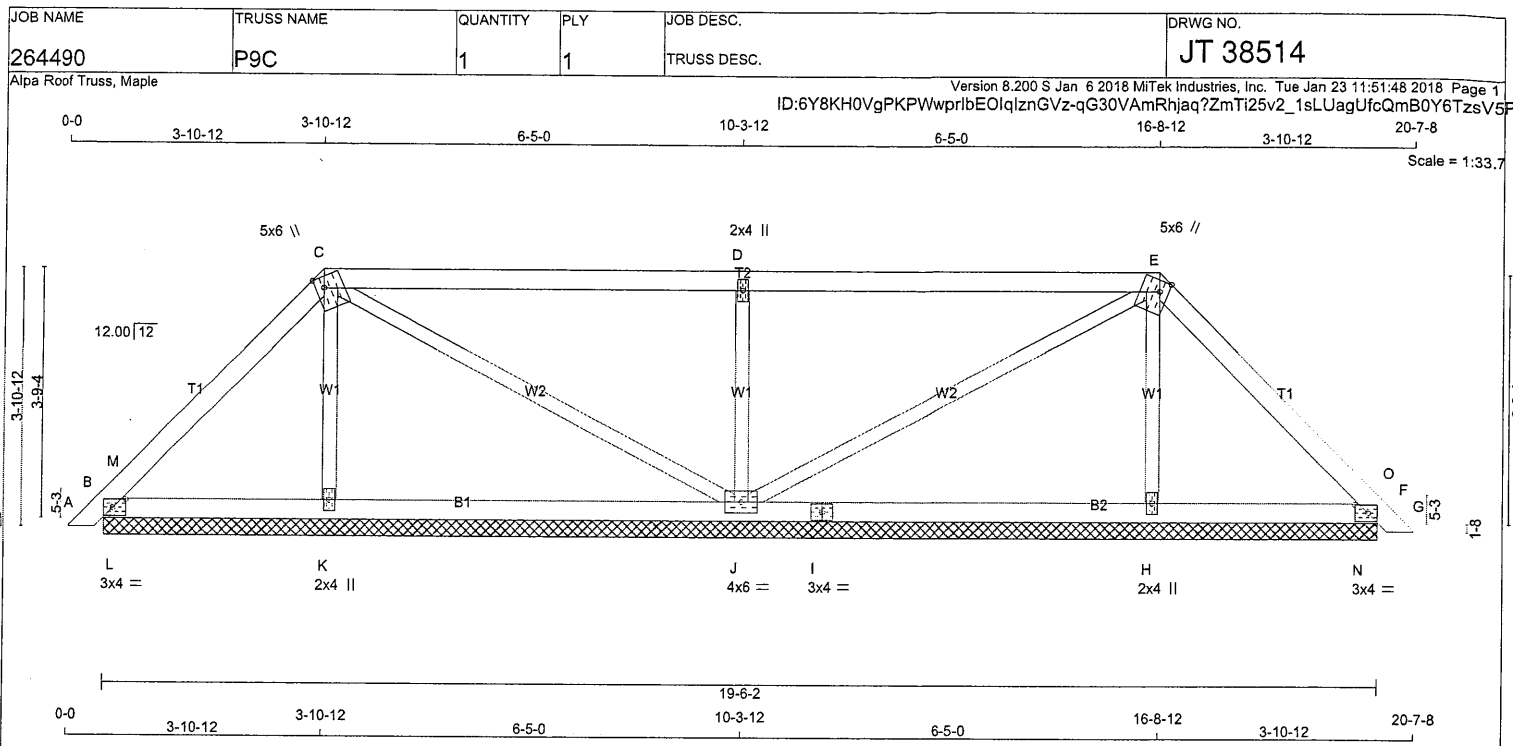
MEMB.	CHORDS MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	LC1 MAX	CS1 (LC)	MEMB. MAX. UNBRAC LENGTH	FR-TO	MEMB. MAX. FACTORED FORCE (LBS)	MAX CS1 (LC)
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FR-TO	CHORDS MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	LC1 MAX	CS1 (LC)	MEMB. MAX. UNBRAC LENGTH	FR-TO	MEMB. MAX. FACTORED FORCE (LBS)	MAX CS1 (LC)
A-B	0 / 15	-104.9	-104.9	0.02 (1)	10.00	K-C	-192 / 0	0.06 (1)
B-M	-42 / 169	-104.9	-104.9	0.17 (1)	6.25	C-J	-102 / 0	0.09 (1)
M-C	-227 / 0	-104.9	-104.9	0.24 (1)	6.25	J-D	-709 / 0	0.24 (1)
C-D	-64 / 0	-104.9	-104.9	0.52 (1)	6.25	J-E	-102 / 0	0.09 (1)
D-E	-64 / 0	-104.9	-104.9	0.52 (1)	6.25	H-E	-192 / 0	0.06 (1)
E-O	-227 / 0	-104.9	-104.9	0.24 (1)	6.25	L-M	-714 / 0	0.00 (1)
O-F	-42 / 169	-104.9	-104.9	0.17 (1)	6.25	N-O	-714 / 0	0.00 (1)
F-G	0 / 15	-104.9	-104.9	0.02 (1)	10.00			

B-L	0 / 147	-18.5	-18.5	0.22 (1)	10.00
L-K	0 / 147	-18.5	-18.5	0.22 (1)	10.00
K-J	0 / 143	-18.5	-18.5	0.14 (1)	10.00
J-I	0 / 143	-18.5	-18.5	0.14 (1)	10.00
I-H	0 / 143	-18.5	-18.5	0.14 (1)	10.00
H-N	0 / 147	-18.5	-18.5	0.22 (1)	10.00
N-F	0 / 147	-18.5	-18.5	0.22 (1)	10.00

NOTE: Lateral brace(s) shown shall be 1x4 for Part 9 design as per OBC 9.23.13.11, and no less than 2x4 for Part 4 design.





LUMBER					DIMENSIONS, SUPPORTS AND LOADINGS SPECIFIED BY FABRICATOR TO BE VERIFIED BY BUILDING DESIGNER										DESIGN CRITERIA	
N. L. G. A. RULES					BEARINGS										SPECIFIED LOADS:	
CHORDS	SIZE	LUMBER	DESCR.		FACTORED GROSS REACTION			MAXIMUM FACTORED GROSS REACTION			INPUT BRG	REQRD BRG	TOP CH.	LL		
A - C	2x4	DRY	No.2	SPF	JT	VERT	HORZ	DOWN	HORZ	UPLIFT	IN-SX	IN-SX	DL			
C - E	2x4	DRY	No.2	SPF	B	346	0	346	0	0	19-6-2 (8-6-2)	1-7-8	32.5	PSF		
E - G	2x4	DRY	No.2	SPF	K	392	0	392	0	0	19-6-2 (8-6-2)	1-7-8	3.0	PSF		
B - I	2x4	DRY	No.2	SPF	J	1025	0	1025	0	0	19-6-2 (8-6-2)	1-7-8	0.0	PSF		
I - F	2x4	DRY	No.2	SPF	H	392	0	392	0	0	19-6-2 (8-6-2)	1-7-8	7.4	PSF		
TOTAL LOAD = 42.9 PSF																
SPACING = 24.0 IN. C/C																
ALL WEBS 2x3 DRY: SEASONED LUMBER.																

PLATES (table is in inches)					
JT	TYPE	PLATES	W	LEN	Y
B	TMB1-I	MT20	3.0	4.0	1.50
C	TTWW+m	MT20	5.0	6.0	2.00
D	TTWW+w	MT20	2.0	4.0	
E	TTWW+m	MT20	5.0	6.0	2.00
F	TMB1-I	MT20	3.0	4.0	1.50
H	BMW1+w	MT20	2.0	4.0	
I	BS-t	MT20	3.0	4.0	
J	BMWWW1-t	MT20	4.0	6.0	
K	BMW1+w	MT20	2.0	4.0	

UNFACTORED REACTIONS							
JT	1ST LCASE	MAX./MIN. COMPONENT REACTIONS	SNOW	LIVE	PERM. LIVE	WIND	DEAD
B	237	202 / 0	0 / 0	0 / 0	0 / 0	0 / 0	34 / 0
K	277	181 / 0	0 / 0	0 / 0	0 / 0	0 / 0	96 / 0
J	709	558 / 0	0 / 0	0 / 0	0 / 0	0 / 0	151 / 0
H	277	181 / 0	0 / 0	0 / 0	0 / 0	0 / 0	96 / 0
F	237	202 / 0	0 / 0	0 / 0	0 / 0	0 / 0	34 / 0

BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S) B, K, J, H, F

BRACING
TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 6.25 FT.
MAX. UNBRACED BOTTOM CHORD LENGTH = 10.00 FT OR RIGID CEILING DIRECTLY APPLIED.

ALL PITCH BREAKS AND PERIMETER CORNER JOINTS MUST BE Laterally RESTRAINED.

LOADING
TOTAL LOAD CASES: (4)

CHORDS				WEBS			
MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	MAX. FACTORED LC1 MAX. (LC)	MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	MAX. FACTORED LC1 MAX. (LC)
FR-TO		FROM TO	CS (LC)	FR-TO		FROM TO	CS (LC)
A-B	0 / 15	-104.9 -104.9	0.02 (1)	K-C	-255 / 0	-104.9 -104.9	0.06 (1)
B-M	-4 / 56	-104.9 -104.9	0.09 (1)	C-J	-74 / 0	-104.9 -104.9	0.07 (1)
M-C	-166 / 0	-104.9 -104.9	0.14 (1)	J-D	-841 / 0	-104.9 -104.9	0.19 (1)
C-D	-34 / 0	-104.9 -104.9	0.73 (1)	D-E	-74 / 0	-104.9 -104.9	0.07 (1)
D-E	-34 / 0	-104.9 -104.9	0.73 (1)	E-H	-255 / 0	-104.9 -104.9	0.06 (1)
E-O	-166 / 0	-104.9 -104.9	0.14 (1)	H-M	-448 / 0	-104.9 -104.9	0.00 (1)
O-F	-4 / 56	-104.9 -104.9	0.09 (1)	M-N	-448 / 0	-104.9 -104.9	0.00 (1)
F-G	0 / 15	-104.9 -104.9	0.02 (1)				

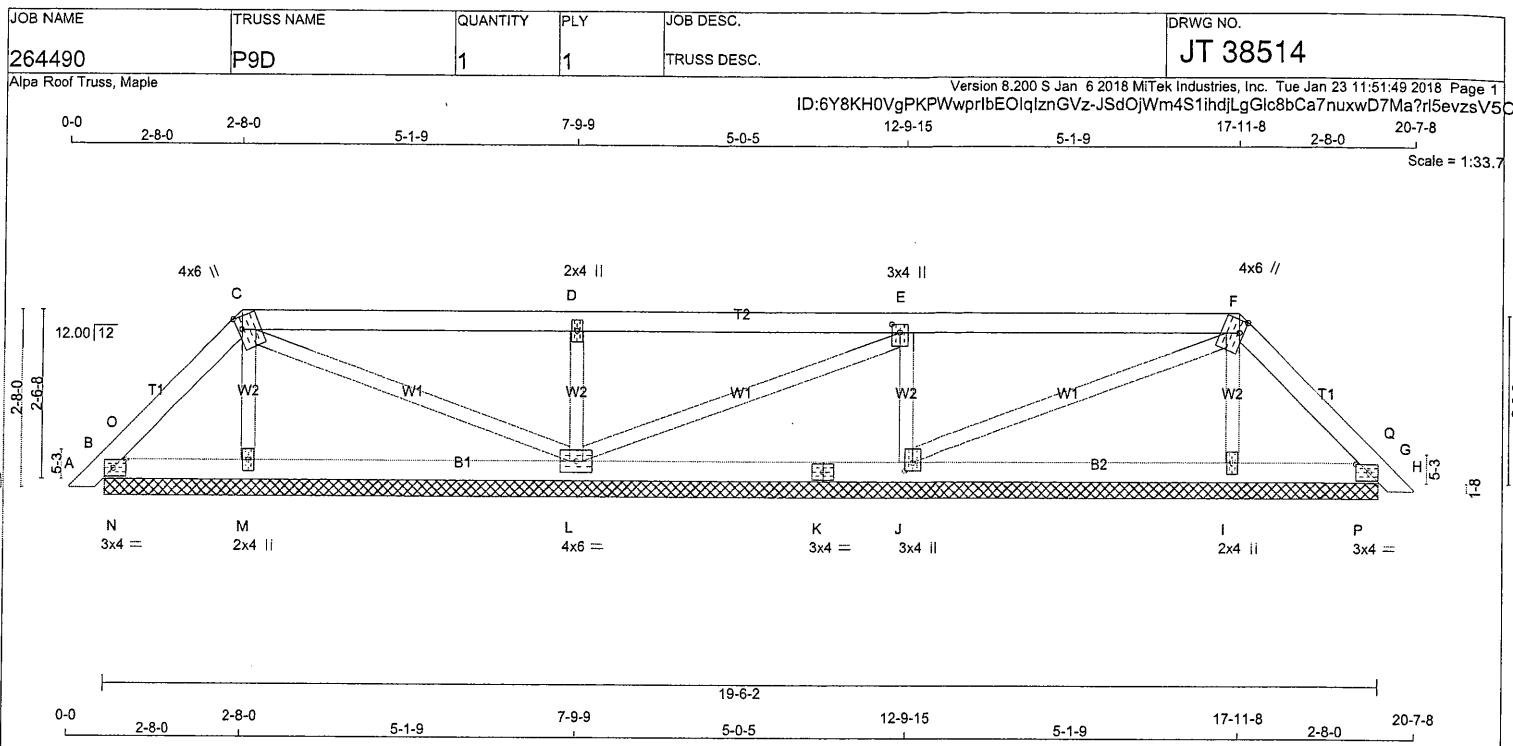
B-L	0 / 108	-18.5 -18.5	0.14 (1)	10.00
L-K	0 / 108	-18.5 -18.5	0.14 (1)	10.00
K-J	0 / 100	-18.5 -18.5	0.16 (4)	10.00
J-I	0 / 100	-18.5 -18.5	0.16 (4)	10.00
I-H	0 / 100	-18.5 -18.5	0.16 (4)	10.00
H-N	0 / 108	-18.5 -18.5	0.14 (1)	10.00
N-F	0 / 108	-18.5 -18.5	0.14 (1)	10.00

NOTE: Lateral brace(s) shown shall be 1x4 for Part 9 design as per OBC 9.23.13.11, and no less than 2x4 for Part 4 design.



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LUMBER				DIMENSIONS, SUPPORTS AND LOADINGS SPECIFIED BY FABRICATOR TO BE VERIFIED BY BUILDING DESIGNER				DESIGN CRITERIA			
N. L. G. A. RULES				BEARINGS				SPECIFIED LOADS:			
CHORDS	SIZE	LUMBER	DESCR.	FACTORED GROSS REACTION	MAXIMUM FACTORED GROSS REACTION	INPUT BRG	REQRD BRG	TOP CH.	LL	32.5	PSF
A - C	2x4	DRY	No.2	VERT	HORZ	DOWN	HORZ	DL	3.0	PSF	
C - F	2x4	DRY	No.2	JT		UPLIFT	IN-SX	BOT CH.	LL	0.0	PSF
F - H	2x4	DRY	No.2	B	221	0	0	DL	7.4	PSF	
B - K	2x4	DRY	No.2	M	326	0	0	TOTAL LOAD = 42.9 PSF			
K - G	2x4	DRY	No.2	L	725	0	0	SPACING = 24.0 IN./C			
ALL WEBS 2x3 DRY				J	671	0	0	LOADING IN FLAT SECTION BASED ON A SLOPE OF 2.00/12 MINIMUM			
DRY: SEASONED LUMBER.				I	320	0	0	THIS TRUSS IS DESIGNED FOR RESIDENTIAL OR SMALL BUILDING REQUIREMENTS OF PART 9, NBCC 2010			
				G	239	0	0	THIS DESIGN COMPLIES WITH:			
				VALUE IN PARENTHESIS INDICATES EFFECTIVE BEARING LENGTH				- PART 9 OF OBC 2012, BCBC 2012, ABC 2014			
				UNFACTORED REACTIONS				- CSA 086-09			
				1ST LCASE	SNOW	LIVE	PERM.LIVE	- TPIC 2011			
				B	150	133 / 0	0 / 0	(55 % OF 43.9 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 32.5 P.S.F. SPECIFIED ROOF LIVE LOAD			
				M	230	153 / 0	0 / 0	CSI: TC=0.37/1.00 (D-E:1), BC=0.10/1.00 (I-J:4), WB=0.09/1.00 (D-L:1), SSI=0.25/1.00 (E-F:1)			
				L	502	390 / 0	0 / 0	DOL LUMBER=1.00 NAIL=1.00 LS BEND=1.10 COMP=1.10 SHEAR=1.10 TENS=1.10			
				J	465	356 / 0	0 / 0	COMPANION LIVE LOAD FACTOR = 0.50			
				I	226	149 / 0	0 / 0	TRUSS PLATE MANUFACTURER IS NOT RESPONSIBLE FOR QUALITY CONTROL IN THE TRUSS MANUFACTURING PLANT.			
				G	163	144 / 0	0 / 0	NAIL VALUES			
				BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S) B, M, L, J, I, G				PLATE GRIP(DRY) SHEAR SECTION			
				BRACING				(PSI) (PLI) (PLI)			
				TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 6.25 FT.				MAX MIN MAX MIN MAX MIN			
				MAX. UNBRACED BOTTOM CHORD LENGTH = 10.00 FT OR RIGID CEILING DIRECTLY APPLIED.				MT20 618 354 1667 822 2284 1656			
				ALL PITCH BREAKS AND PERIMETER CORNER JOINTS MUST BE Laterally RESTRAINED.				PLATE PLACEMENT TOL. = 0.250 inches			
				LOADING				PLATE ROTATION TOL. = 5.0 Deg.			
				TOTAL LOAD CASES: (4)				JSI GRIP= 0.86 (J) (INPUT = 0.90)			
				CHORDS	FACTORED	FACTORED	FACTORED	JSI METAL= 0.11 (D) (INPUT = 1.00)			
				MEMB.	FORCE	VERT. LOAD	MAX				
					(LBS)	(PLF)	CS1 (LC)				
				FR-TO	FROM	TO	LENGTH				
				A-B	0 / 15	-104.9	-104.9				
				B-O	-13 / 7	-104.9	-104.9				
				O-C	-87 / 0	-104.9	-104.9				
				C-D	0 / 12	-104.9	-104.9				
				D-E	0 / 12	-104.9	-104.9				
				E-F	-34 / 0	-104.9	-104.9				
				F-Q	-112 / 0	-104.9	-104.9				
				Q-G	-41 / 5	-104.9	-104.9				
				G-H	0 / 15	-104.9	-104.9				
				B-N	0 / 55	-18.5	-18.5				
				N-M	0 / 55	-18.5	-18.5				
				M-L	0 / 45	-18.5	-18.5				
				L-K	0 / 34	-18.5	-18.5				
				K-J	0 / 34	-18.5	-18.5				
				J-I	0 / 63	-18.5	-18.5				
				I-P	0 / 73	-18.5	-18.5				
				P-G	0 / 73	-18.5	-18.5				

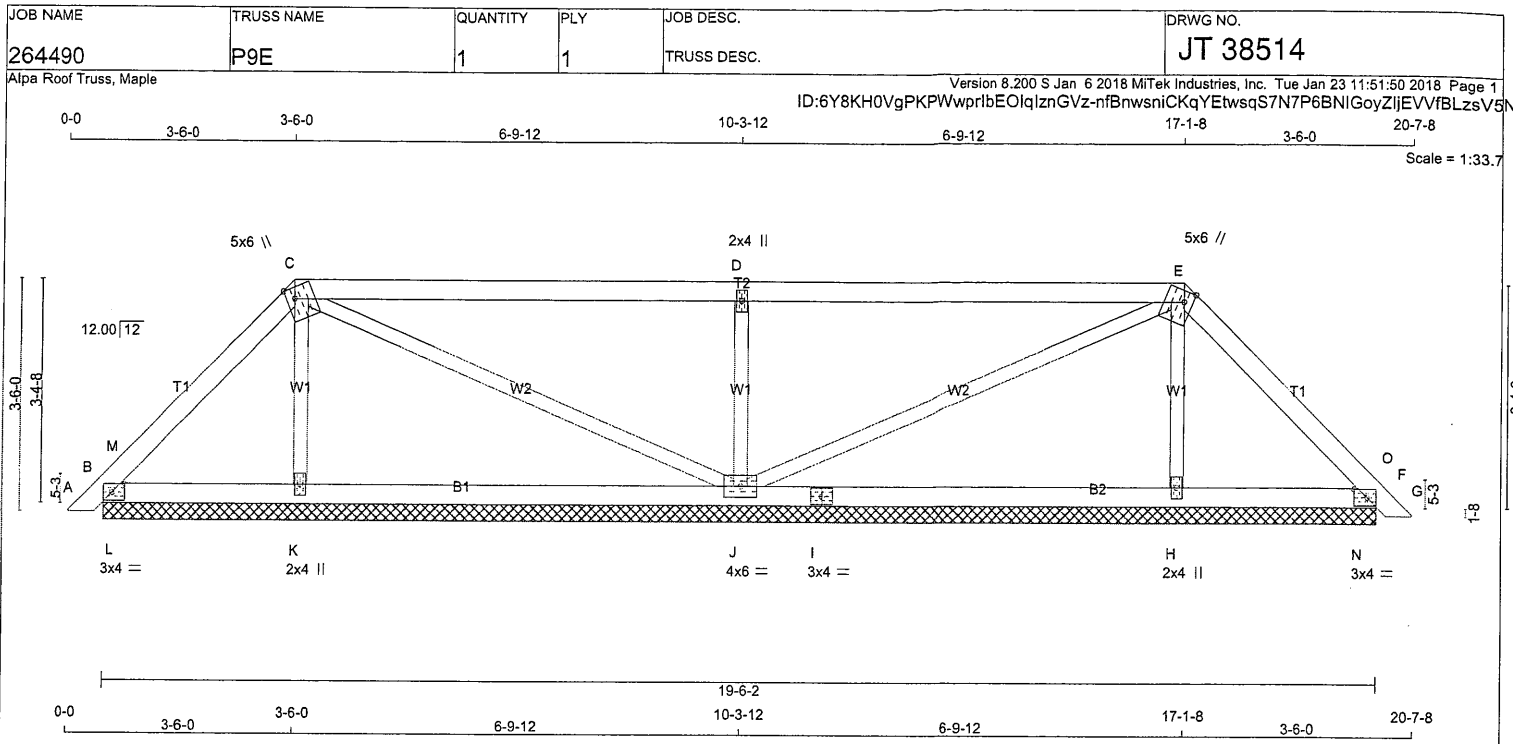
PLATES (table is in inches)					
JT	TYPE	PLATES	W	LEN	Y X
B	TMB1-I	MT20	3.0	4.0	1.50 2.50
C	TTWW+m	MT20	4.0	6.0	2.25 0.75
D	TMW+w	MT20	2.0	4.0	
E	TMWW+t	MT20	3.0	4.0	1.50 1.50
F	TTWW+m	MT20	4.0	6.0	2.25 0.75
G	TMB1-I	MT20	3.0	4.0	1.50 2.50
I	BMW1+w	MT20	2.0	4.0	
J	BMWW1+t	MT20	3.0	4.0	1.50 1.50
K	BS-t	MT20	3.0	4.0	
L	BMWW1-I	MT20	4.0	6.0	
M	BMW1+w	MT20	2.0	4.0	

NOTE: Lateral brace(s) shown shall be 1x4 for Part 9 design as per OBC 9.23.13.11, and no less than 2x4 for Part 4 design.



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LUMBER					DIMENSIONS, SUPPORTS AND LOADINGS SPECIFIED BY FABRICATOR TO BE VERIFIED BY BUILDING DESIGNER										TOTAL WEIGHT = 6710																																																	
N. L. G. A. RULES															[M]																																																	
CHORDS					SIZE					LUMBER					DESCR.					DESIGN CRITERIA																																												
A - C					2x4					DRY					No.2					SPF					FACTORED					MAXIMUM FACTORED					INPUT					REQRD					SPECIFIED LOADS:																			
C - E					2x4					DRY					No.2					SPF					GROSS REACTION					GROSS REACTION					BRG					BRG					TOP CH. LL = 32.5 PSF																			
E - G					2x4					DRY					No.2					SPF					VERT					HORZ					DOWN					HORZ					UPLIFT					IN-SX					IN-SX					DL = 3.0 PSF				
B - I					2x4					DRY					No.2					SPF					JT					B					306					0					0					19-6-2 (8-6-2) 1-8-7					19-6-2 (8-6-2) 1-8-7					BOT CH. LL = 0.0 PSF				
I - F					2x4					DRY					No.2					SPF					K					411					0					0					19-6-2 (8-6-2) 1-8-7					19-6-2 (8-6-2) 1-8-7					DL = 7.4 PSF									
																									J					1069					0					0					19-6-2 (8-6-2) 1-8-7					19-6-2 (8-6-2) 1-8-7					TOTAL LOAD = 42.9 PSF									
ALL WEBS					2x3					DRY					No.2					SPF					H					411					0					0					19-6-2 (8-6-2) 1-8-7					19-6-2 (8-6-2) 1-8-7														
DRY: SEASONED LUMBER.																									F					306					0					0					19-6-2 (8-6-2) 1-8-7					19-6-2 (8-6-2) 1-8-7					SPACING = 24.0 IN. C/C									

PLATES (table is in inches)

JT	TYPE	PLATES	W	LEN	Y	X
B	TMB1-I	MT20	3.0	4.0	1.50	2.50
C	TTWW+m	MT20	5.0	6.0	2.00	1.50
D	TMW+w	MT20	2.0	4.0		
E	TTWW+m	MT20	5.0	6.0	2.00	1.50
F	TMB1-I	MT20	3.0	4.0	1.50	2.50
H	BMW1+w	MT20	2.0	4.0		
I	BS-t	MT20	3.0	4.0		
J	BMWW1-t	MT20	4.0	6.0		
K	BMW1+w	MT20	2.0	4.0		

UNFACTORED REACTIONS

JT	1ST LCASE	MAX./MIN. COMPONENT REACTIONS	PERM. LIVE	WIND	DEAD	SOIL
B	208	183/0	0/0	0/0	25/0	0/0
K	291	190/0	0/0	0/0	101/0	0/0
J	739	580/0	0/0	0/0	159/0	0/0
H	291	190/0	0/0	0/0	101/0	0/0
F	208	183/0	0/0	0/0	25/0	0/0

BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S) B, K, J, H, F

BRACING
TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 6.25 FT.
MAX. UNBRACED BOTTOM CHORD LENGTH = 10.00 FT OR RIGID CEILING DIRECTLY APPLIED.

ALL PITCH BREAKS AND PERIMETER CORNER JOINTS MUST BE Laterally RESTRAINED.

LOADING
TOTAL LOAD CASES: (4)

CHORDS				WEBS			
MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	MAX. FACTORED CSI (LC)	MEMB.	MAX. FACTORED FORCE (LBS)	MAX. FACTORED CSI (LC)	
FR-TO		FROM TO		FR-TO			
A-B	0/15	-104.9 -104.9	0.02 (1)	K-C	-276/0	0.05 (1)	
B-M	0/28	-104.9 -104.9	0.07 (1)	C-J	-61/0	0.07 (1)	
M-C	-145/0	-104.9 -104.9	0.10 (1)	J-D	-893/0	0.18 (1)	
C-D	-28/0	-104.9 -104.9	0.83 (1)	D-E	-61/0	0.07 (1)	
D-E	-28/0	-104.9 -104.9	0.83 (1)	E-H	-276/0	0.05 (1)	
E-O	-145/0	-104.9 -104.9	0.10 (1)	H-M	-368/0	0.00 (1)	
O-F	0/28	-104.9 -104.9	0.07 (1)	M-N	-368/0	0.00 (1)	
F-G	0/15	-104.9 -104.9	0.02 (1)				
B-L	0/93	-18.5 -18.5	0.11 (1)				
L-K	0/93	-18.5 -18.5	0.13 (4)				
K-J	0/84	-18.5 -18.5	0.18 (4)				
J-I	0/84	-18.5 -18.5	0.18 (4)				
I-H	0/84	-18.5 -18.5	0.18 (4)				
H-N	0/93	-18.5 -18.5	0.13 (4)				
N-F	0/93	-18.5 -18.5	0.11 (1)				

NOTE: Lateral brace(s) shown shall be 1x4 for Part 9 design as per OBC 9.23.13.11, and no less than 2x4 for Part 4 design.



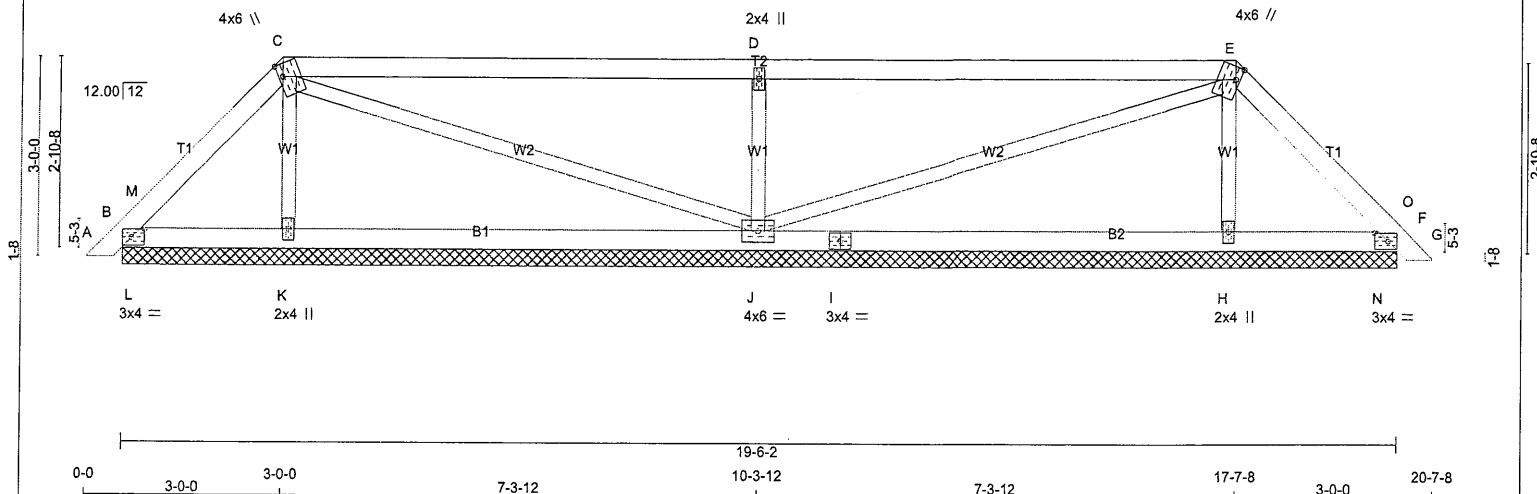
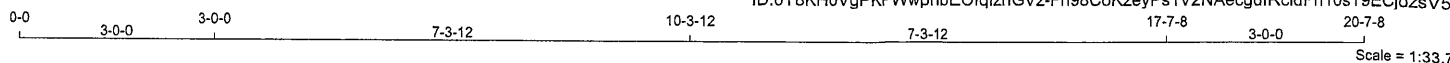
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JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
264490	P10	1	2	TRUSS DESC.	JT 38514

Alpa Roof Truss, Maple

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TOTAL WEIGHT = 2 X 66 = 132 lb

LUMBER			
N. L. G. A. RULES			
CHORDS	SIZE	LUMBER	DESCR.
A - C	2x4	DRY	No.2
C - E	2x4	DRY	No.2
E - G	2x4	DRY	No.2
B - I	2x4	DRY	No.2
I - F	2x4	DRY	No.2
ALL WEBS	2x3	DRY	No.2
DRY: SEASONED LUMBER.			

DESIGN CONSISTS OF 2 TRUSSES BUILT SEPARATELY THEN FASTENED TOGETHER AS FOLLOWS:

CHORDS #ROWS	SURFACE SPACING (IN)	LOAD(PLF)
TOP CHORDS : (0.122"x3") SPIRAL NAILS		
A-C	12	TOP
C-E	12	TOP
E-G	12	TOP
BOTTOM CHORDS : (0.122"x3") SPIRAL NAILS		
B-I	12	TOP
I-F	12	TOP
WEBS : (0.122"x3") SPIRAL NAILS		
2x3	6	

NAILS TO BE DRIVEN FROM ONE SIDE ONLY.

TOP - COMPONENTS ARE LOADED FROM THE TOP AND MUST BE PLACED ON TOP EDGE OF ALL PLIES FOR THE LOAD TO BE TRANSFERRED TO EACH PLY.

PLATES (table is in inches)

JT	TYPE	PLATES	W	LEN	Y	X
B	TMB1-I	MT20	3.0	4.0	1.50	2.50
C	TTWW+m	MT20	4.0	6.0	2.25	0.75
D	TMW+w	MT20	2.0	4.0		
E	TTWW+m	MT20	4.0	6.0	2.25	0.75
F	TMB1-I	MT20	3.0	4.0	1.50	2.50
H	BMW1+w	MT20	2.0	4.0		
I	BS-t	MT20	3.0	4.0		
J	BMWVVW1-t	MT20	4.0	6.0		
K	BMW1+w	MT20	2.0	4.0		

NOTE: Lateral brace(s) shown shall be 1x4 for Part 9 design as per OBC 9.23.13.11, and no less than 2x4 for Part 4 design.



DIMENSIONS, SUPPORTS AND LOADINGS SPECIFIED BY FABRICATOR TO BE VERIFIED BY BUILDING DESIGNER

BEARINGS		FACTORED GROSS REACTION		MAXIMUM FACTORED GROSS REACTION		INPUT BRG		REQRD BRG	
JT	VERT	HORZ	DOWN	HORZ	UPLIFT	IN-SX	IN-SX	IN-SX	IN-SX
B	254	0	254	0	0	19-6-2	(8-6-2)	2-4-0	
K	433	0	433	0	0	19-6-2	(8-6-2)	2-4-0	
J	1127	0	1127	0	0	19-6-2	(8-6-2)	2-4-0	
H	433	0	433	0	0	19-6-2	(8-6-2)	2-4-0	
F	254	0	254	0	0	19-6-2	(8-6-2)	2-4-0	

VALUE IN PARENTHESIS INDICATES EFFECTIVE BEARING LENGTH

UNFACTORED REACTIONS

JT	1ST CASE	SNOW	LIVE	PERM. LIVE	WIND	DEAD	SOIL
B	171	159/0	0/0	0/0	0/0	12/0	0/0
K	307	198/0	0/0	0/0	0/0	109/0	0/0
J	779	610/0	0/0	0/0	0/0	169/0	0/0
H	307	198/0	0/0	0/0	0/0	109/0	0/0
F	171	159/0	0/0	0/0	0/0	12/0	0/0

BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S) B, K, J, H, F

BRACING

TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 6.25 FT.
MAX. UNBRACED BOTTOM CHORD LENGTH = 10.00 FT OR RIGID CEILING DIRECTLY APPLIED.

ALL PITCH BREAKS AND PERIMETER CORNER JOINTS MUST BE Laterally RESTRAINED.

LOADING

TOTAL LOAD CASES: (4)

CHORDS				WEBS			
MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	MAX. FACTORED LC1 MAX. (LC)	MEMB.	MAX. FACTORED FORCE (LBS)	MAX. FACTORED LC1 MAX. (LC)	UNBRACED LENGTH (FT)
FR-TO		FROM TO		FR-TO			
A-B	0/15	-104.9 -104.9	0.01 (1)	10.00	K-C	-297/0	0.03 (1)
B-M	0/32	-104.9 -104.9	0.02 (1)	10.00	C-J	-45/0	0.03 (1)
M-C	-122/0	-104.9 -104.9	0.03 (1)	6.25	J-D	-959/0	0.08 (1)
C-D	-23/0	-104.9 -104.9	0.48 (1)	6.25	J-E	-45/0	0.03 (1)
D-E	-23/0	-104.9 -104.9	0.48 (1)	6.25	H-E	-297/0	0.03 (1)
E-O	-122/0	-104.9 -104.9	0.03 (1)	6.25	L-M	-278/0	0.00 (1)
O-F	0/32	-104.9 -104.9	0.02 (1)	10.00	N-O	-278/0	0.00 (1)
F-G	0/15	-104.9 -104.9	0.01 (1)	10.00			
B-L	0/78	-18.5 -18.5	0.04 (1)	10.00			
L-K	0/78	-18.5 -18.5	0.07 (4)	10.00			
K-J	0/66	-18.5 -18.5	0.11 (4)	10.00			
J-I	0/66	-18.5 -18.5	0.11 (4)	10.00			
I-H	0/66	-18.5 -18.5	0.11 (4)	10.00			
H-N	0/78	-18.5 -18.5	0.07 (4)	10.00			
N-F	0/78	-18.5 -18.5	0.04 (1)	10.00			

DESIGN CRITERIA

SPECIFIED LOADS:

TOP CH.	LL	=	32.5	PSF
	DL	=	3.0	PSF
BOT CH.	LL	=	0.0	PSF
	DL	=	7.4	PSF
TOTAL LOAD	=	42.9	PSF	

SPACING = 24.0 IN. C/C

LOADING IN FLAT SECTION BASED ON A SLOPE OF 2.00/12 MINIMUM

THIS TRUSS IS DESIGNED FOR RESIDENTIAL OR SMALL BUILDING REQUIREMENTS OF PART 9, NBCC 2010

THIS DESIGN COMPLIES WITH:
- PART 9 OF OBC 2012, BCBC 2012, ABC 2014
- CSA 086-09
- TPIC 2011

(55% OF 43.9 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 32.5 P.S.F. SPECIFIED ROOF LIVE LOAD

CSI: TC=0.48/1.00 (C-D:1), BC=0.11/1.00 (J-K:4), WB=0.08/1.00 (D-J:1), SSI=0.19/1.00 (C-D:1)

DOL LUMBER=1.00 NAIL=1.00 LS BEND=1.10
COMP=1.10 SHEAR=1.10 TENS=1.10

COMPANION LIVE LOAD FACTOR = 0.50

TRUSS PLATE MANUFACTURER IS NOT RESPONSIBLE FOR QUALITY CONTROL IN THE TRUSS MANUFACTURING PLANT.

NAIL VALUES	PLATE GRIP(DRY)	SHEAR (PSI)	SECTION (PLI)
	MAX	MIN	MAX
MT20	618	354	1667
	822	2284	1656

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.85 (E) (INPUT = 0.90)
JSI METAL= 0.09 (D) (INPUT = 1.00)

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JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
264490	H10	1	2	TRUSS DESC.	

Alpa Roof Truss, Maple

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2x4

1

6

NAILS TO BE DRIVEN FROM ONE SIDE ONLY.

GIRDER NAILING ASSUMES NAILED HANGERS ARE FASTENED WITH MIN. 3-0 INCH NAILS.

PLATES (table is in inches)

JT	TYPE	PLATES	W	LEN	Y	X
B	TMVW-t	MT20	6.0	7.0	2.25	2.00
C	TTWW+m	MT20	8.0	9.0	Edge	
D	TTWW-m	MT20	6.0	9.0	3.75	2.75
E	TTWW-h	MT20	5.0	6.0	1.50	3.25
F	TMV+w	MT20	2.0	4.0		
G	TS-t	MT20	3.0	6.0		
H	TMWW-t	MT20	4.0	4.0		
I	TTWW+m	MT20	5.0	6.0	2.00	1.50
J	TMWW-t	MT20	4.0	6.0	2.00	1.75
K	TMV+p	MT20	2.0	4.0		
M	BMVW1+p	MT20	4.0	6.0	3.00	1.75
N	BMWW-t	MT20	4.0	4.0		
O	BS-t	MT20	4.0	6.0		
P	BMWW-t	MT20	4.0	6.0		
Q	BMWWW-t	MT20	5.0	6.0		
R	BS-t	MT20	4.0	6.0		
S	BMWW-t	MT20	6.0	7.0	2.75	3.50
T	BMWW-t	MT20	6.0	7.0	2.75	2.50
U	BMWW-t	MT20	5.0	6.0	2.25	2.50
V	BMV1+p	MT20	3.0	5.0		

Edge - INDICATES REFERENCE CORNER OF PLATE TOUCHES EDGE OF CHORD.

HANGERS NOTES

1) SPECIAL HANGER(S) OR CONNECTION(S) REQUIRED TO SUPPORT CONCENTRATED LOAD(S) 157.8 lbs FACTORED DOWN AT 2-0-12 ON TOP CHORD, AND 3212.7 lbs FACTORED DOWN AT 7-4-8 ON BOTTOM CHORD. DESIGN FOR UNSPECIFIED CONNECTION(S) IS DELEGATED TO THE BUILDING DESIGNER.

TRUSS PLATE MANUFACTURER IS NOT RESPONSIBLE FOR QUALITY CONTROL IN THE TRUSS MANUFACTURING PLANT .

NAIL VALUES

PLATE	GRIP(DRY)	SHEAR	SECTION
	(PSI)	(PLI)	(PLI)
MAX	MIN	MAX	MIN
MT20	618	354	1667
		822	2284
			1656

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

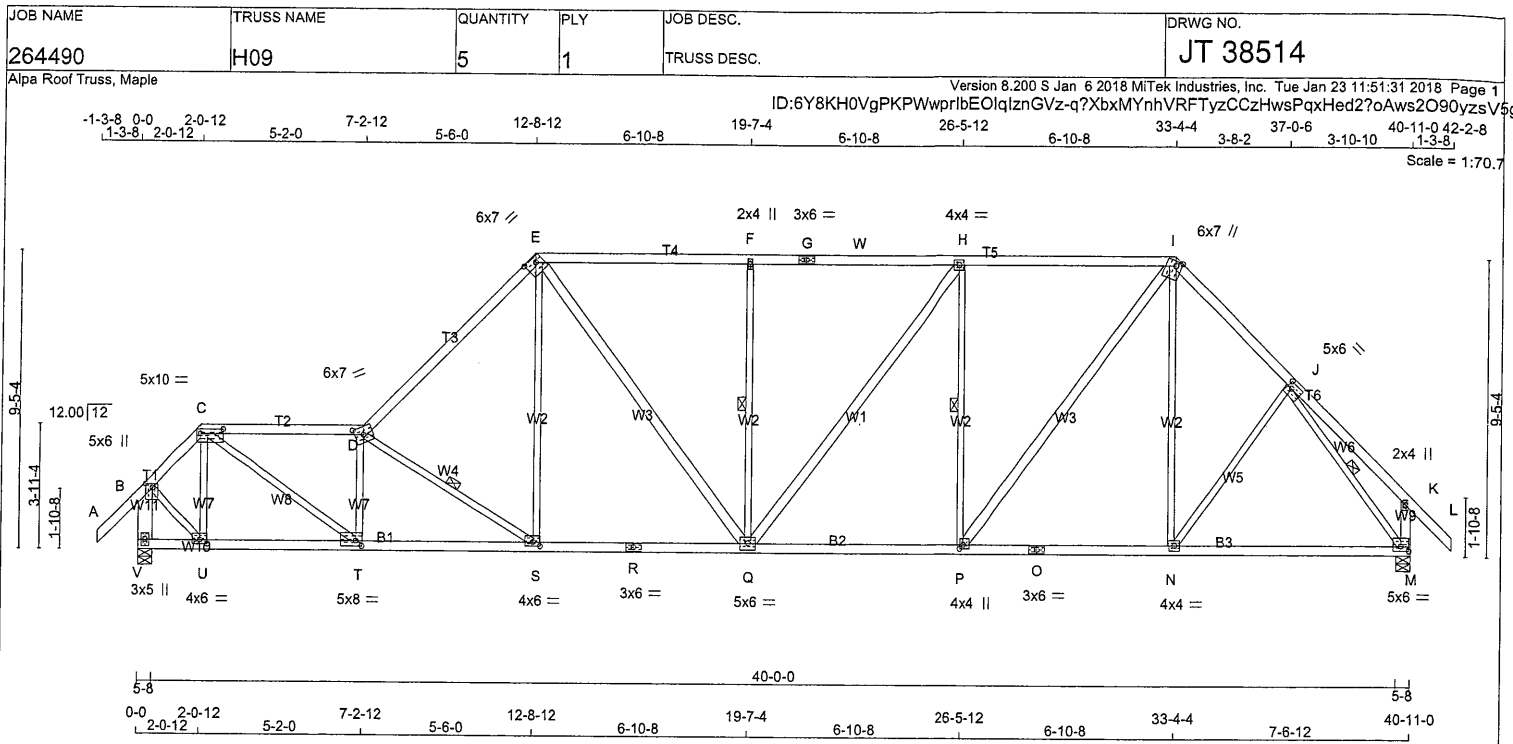
JSI GRIP= 0.90 (S) (INPUT = 0.90)

JSI METAL= 0.97 (D) (INPUT = 1.00)

NOTE: Lateral brace(s) shown shall be 1x4 for Part 9 design as per OBC 9.23.13.11, and no less than 2x4 for Part 4 design.

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LUMBER

N. L. G. A. RULES

CHORDS	SIZE	LUMBER	DESCR.
A - C	2x4	DRY No.2	SPF
C - D	2x4	DRY No.2	SPF
D - E	2x4	DRY No.2	SPF
E - G	2x4	DRY No.2	SPF
G - I	2x4	DRY No.2	SPF
I - L	2x4	DRY No.2	SPF
V - B	2x6	DRY No.2	SPF
M - K	2x4	DRY No.2	SPF
V - R	2x4	DRY No.2	SPF
R - O	2x4	DRY No.2	SPF
O - M	2x4	DRY No.2	SPF
ALL WEBS EXCEPT	2x3	DRY No.2	SPF
E - Q	2x4	DRY No.2	SPF
Q - H	2x4	DRY No.2	SPF
P - I	2x4	DRY No.2	SPF

DRY: SEASONED LUMBER.

PLATES (table is in inches)

JT	TYPE	PLATES	W	LEN	Y	X
B	TMVW+p	MT20	5.0	6.0	1.50	2.75
C	TTWW-I	MT20	5.0	10.0	1.75	8.25
D	TTWW-m	MT20	6.0	7.0	3.00	3.25
E	TTWW-h	MT20	6.0	7.0	2.00	4.25
F	TMVW+w	MT20	2.0	4.0		
G	TS-I	MT20	3.0	6.0		
H	TMVW-t	MT20	4.0	4.0		
I	TTWW+m	MT20	6.0	7.0	Edge	2.25
J	TMVW-t	MT20	5.0	6.0	2.25	1.75
K	TMV+p	MT20	2.0	4.0		
M	BMVW1-t	MT20	5.0	6.0	1.75	3.00
N	BMVW-I	MT20	4.0	4.0		
O	BS-I	MT20	3.0	6.0		
P	BMVW+I	MT20	4.0	4.0	1.50	1.50
Q	BMVW+I	MT20	5.0	6.0		
R	BS-I	MT20	3.0	6.0		
S	BMVW-I	MT20	4.0	6.0	1.50	2.75
T	BMVW-I	MT20	5.0	8.0	2.00	2.25
U	BMVW-I	MT20	4.0	6.0	1.50	2.75
V	BMV1+p	MT20	3.0	5.0		

NOTE: Lateral brace(s) shown shall be 1x4 for Part 9 design as per OBC 9.23.13.11, and no less than 2x4 for Part 4 design.



DIMENSIONS, SUPPORTS AND LOADINGS SPECIFIED BY FABRICATOR TO BE VERIFIED BY BUILDING DESIGNER

BEARINGS

JT	VERT	HORZ	DOWN	HORZ	UPLIFT	IN-SX	BRG	REQRD
V	2739	0	2739	0	0	5-8	3-6	
M	2759	0	2759	0	0	5-8	3-15	

UNFACTORED REACTIONS

JT	1ST LCASE	MAX/MIN	COMBINED	PERM. LIVE	WIND	DEAD	SOIL
V	1907	1419 / 0	0 / 0	0 / 0	0 / 0	488 / 0	0 / 0
M	1923	1419 / 0	0 / 0	0 / 0	0 / 0	504 / 0	0 / 0

BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S) V, M

BRACING

FOR SECTION E-I, MAX. PURLIN SPACING = 2.00 FT.
FOR OTHER SECTIONS, TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 2.91 FT.
MAX. UNBRACED BOTTOM CHORD LENGTH = 10.00 FT OR RIGID CEILING DIRECTLY APPLIED.

ALL PITCH BREAKS AND PERIMETER CORNER JOINTS MUST BE LATERALLY RESTRAINED.

1 LATERAL BRACE(S) AT 1/2 LENGTH OF D-S, F-Q, H-P, J-M.

END VERTICAL(S) MUST BE SHEATHED OR HAVE BRACES AS INDICATED IN THE MAX. UNBRACED LENGTH COLUMN OF THE TABLE BELOW

LOADING

TOTAL LOAD CASES: (4)

CHORDS				WEBS			
MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	MAX. CSI (LC)	MEMB.	MAX. FACTORED FORCE (LBS)	MAX. CSI (LC)	UNBRACED LENGTH
FR-TO		FROM TO		FR-TO			
A-B	0 / 52	-104.9 -104.9	0.15 (1)	U-C	-907 / 0	0.22 (1)	
B-C	-2069 / 0	-104.9 -104.9	0.10 (1)	C-T	0 / 3444	0.77 (1)	
C-D	-4229 / 0	-104.9 -104.9	0.62 (1)	T-D	-1937 / 0	0.46 (1)	
D-E	-3559 / 0	-104.9 -104.9	0.78 (1)	D-S	-2104 / 0	0.65 (1)	
E-F	-3008 / 0	-112.4 -112.4	0.82 (1)	S-E	0 / 1271	0.29 (1)	
F-G	-3009 / 0	-112.4 -112.4	0.76 (1)	E-Q	0 / 792	0.13 (1)	
G-W	-3009 / 0	-112.4 -112.4	0.76 (1)	Q-F	-834 / 0	0.49 (1)	
W-H	-3009 / 0	-112.4 -112.4	0.76 (1)	Q-H	0 / 411	0.07 (1)	
H-I	-2761 / 0	-112.4 -112.4	0.79 (1)	P-H	-1167 / 0	0.69 (1)	
I-J	-2573 / 0	-104.9 -104.9	0.27 (1)	P-I	0 / 1611	0.26 (1)	
J-K	0 / 30	-104.9 -104.9	0.22 (1)	N-I	0 / 93	0.03 (4)	
K-L	0 / 52	-104.9 -104.9	0.15 (1)	N-J	0 / 142	0.03 (4)	
V-B	-2749 / 0	0.0 0.0	0.20 (1)	B-U	0 / 1775	0.40 (1)	
M-K	-299 / 0	0.0 0.0	0.03 (1)	J-M	-2946 / 0	0.84 (1)	
V-U	0 / 0	-18.5 -18.5	0.09 (1)				
U-T	0 / 1426	-18.5 -18.5	0.32 (1)				
T-S	0 / 4285	-18.5 -18.5	0.78 (1)				
S-R	0 / 2531	-18.5 -18.5	0.50 (1)				
R-Q	0 / 2531	-18.5 -18.5	0.50 (1)				
Q-P	0 / 2762	-18.5 -18.5	0.53 (1)				
P-O	0 / 1792	-18.5 -18.5	0.42 (1)				
O-N	0 / 1792	-18.5 -18.5	0.42 (1)				
N-M	0 / 1706	-18.5 -18.5	0.41 (1)				

DESIGN CRITERIA

SPECIFIED LOADS:
TOP CH. LL = 32.5 PSF
DL = 3.0 PSF
BOT CH. LL = 0.0 PSF
DL = 7.4 PSF
TOTAL LOAD = 42.9 PSF

SPACING = 24.0 IN. C/C

LOADING IN HIGHEST FLAT SECTION BASED ON PIGGYBACK TRUSS WITH SLOPES OF 12.00/12 AND -12.00/12 AND RESPECTIVE WALL HEIGHTS OF 0-0 AND 0-0 AND AN ADDITIONAL DEAD LOAD OF 3.0 P.S.F.

LOADING IN OTHER FLAT SECTIONS BASED ON A SLOPE OF 12.00/12

THIS TRUSS IS DESIGNED FOR RESIDENTIAL OR SMALL BUILDING REQUIREMENTS OF PART 9, NBC 2010

THIS DESIGN COMPLIES WITH:
- PART 9 OF OBC 2012, BCBC 2012, ABC 2014
- CSA 086-09
- TPIC 2011

(55 % OF 43.9 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 32.5 P.S.F. SPECIFIED ROOF LIVE LOAD

ALLOWABLE DEFL.(LL)= L/360 (1.36")
CALCULATED VERT. DEFL.(LL)= L/999 (0.24")
ALLOWABLE DEFL.(TL)= L/360 (1.36")
CALCULATED VERT. DEFL.(TL)= L/999 (0.43")

CSI: TC=0.82/1.00 (E-F:1), BC=0.78/1.00 (S-T:1), WB=0.84/1.00 (J-M:1), SSI=0.36/1.00 (H-I:1)

DOL LUMBER=1.00 NAIL=1.00 LS BEND=1.10
COMP=1.10 SHEAR=1.10 TENS=1.10

COMPANION LIVE LOAD FACTOR = 0.50

AUTOSOLVE RIGHT HEEL ONLY

TRUSS PLATE MANUFACTURER IS NOT RESPONSIBLE FOR QUALITY CONTROL IN THE TRUSS MANUFACTURING PLANT.

NAIL VALUES
PLATE GRIP(DRY) SHEAR SECTION (PSI) (PLI) (PLI)
MAX MIN MAX MIN MAX MIN
MT20 618 354 1667 822 2284 1656

PLATE PLACEMENT TOL. = 0.250 inches

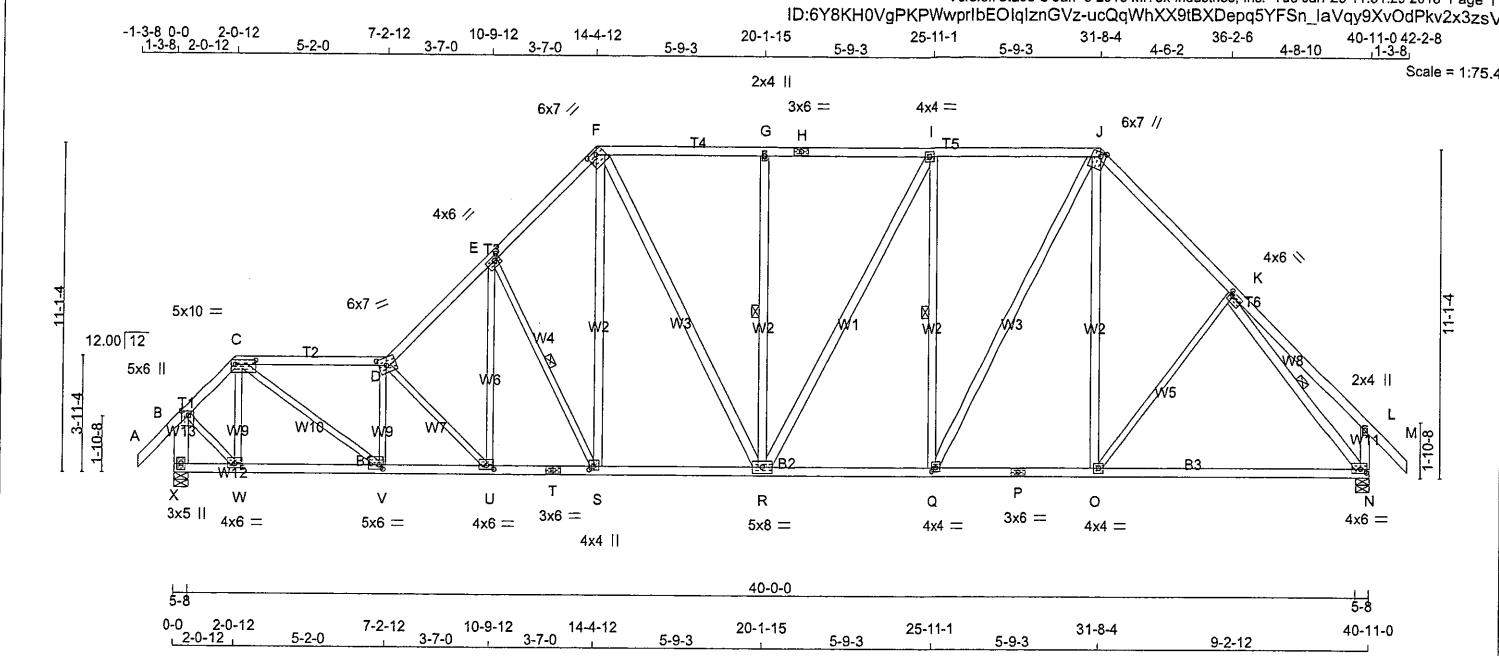
PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.90 (T) (INPUT = 0.90)
JSI METAL= 0.72 (J) (INPUT = 1.00)

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LUMBER

N. L. G. A. RULES	CHORDS	SIZE	LUMBER	DESCR.
A - C	2x4	DRY	No.2	SPF
C - D	2x4	DRY	No.2	SPF
D - F	2x4	DRY	No.2	SPF
F - H	2x4	DRY	No.2	SPF
H - J	2x4	DRY	No.2	SPF
J - M	2x4	DRY	No.2	SPF
X - B	2x6	DRY	No.2	SPF
N - L	2x4	DRY	No.2	SPF
X - T	2x4	DRY	No.2	SPF
T - P	2x4	DRY	No.2	SPF
P - N	2x4	DRY	No.2	SPF

ALL WEBS EXCEPT

W - C	2x3	DRY	No.2	SPF
C - V	2x3	DRY	No.2	SPF
V - D	2x3	DRY	No.2	SPF
D - U	2x3	DRY	No.2	SPF
U - E	2x3	DRY	No.2	SPF
E - S	2x3	DRY	No.2	SPF
O - K	2x3	DRY	No.2	SPF
B - W	2x3	DRY	No.2	SPF

DRY: SEASONED LUMBER.

PLATES (table is in inches)

JT	TYPE	PLATES	W	LEN	Y	X
B	TMVW+p	MT20	5.0	6.0	1.75	2.75
C	TTWW-I	MT20	5.0	10.0	1.75	8.25
D	TTWW-m	MT20	6.0	7.0	3.00	3.00
E	TMVW-t	MT20	4.0	6.0	1.75	2.25
F	TTWW-h	MT20	6.0	7.0	1.50	3.75
G	TMVW+w	MT20	2.0	4.0		
H	TS-t	MT20	3.0	6.0		
I	TMVW-t	MT20	4.0	4.0		
J	TTWW+m	MT20	6.0	7.0	Edge	2.25
K	TMVW-t	MT20	4.0	6.0	1.50	1.50
L	TMV+p	MT20	2.0	4.0		
N	BMVW1-t	MT20	4.0	6.0	1.50	2.50
O	BMVW-t	MT20	4.0	4.0		
P	BS-t	MT20	3.0	6.0		
Q	BMVW-t	MT20	4.0	4.0	1.50	1.75

NOTE: Lateral brace(s) shown shall be 1x4 for Part 9 design as per OBC 9.23.13.11, and no less than 2x4 for Part 4 design.



DIMENSIONS, SUPPORTS AND LOADINGS SPECIFIED BY FABRICATOR TO BE VERIFIED BY BUILDING DESIGNER

BEARINGS

	FACTORED GROSS REACTION	MAXIMUM FACTORED GROSS REACTION	INPUT BRG	REQD BRG
	VERT	HORZ	DOWN	HORZ
JT	2672	0	2672	0
X	2672	0	2672	0
N	2672	0	2672	0

UNFACTORED REACTIONS

	1ST LCASE	MAX. MIN. COMPONENT REACTIONS					
	COMBINED	SNOW	LIVE	PERM. LIVE	WIND	DEAD	SOIL
X	1853	1419 / 0	0 / 0	0 / 0	0 / 0	434 / 0	0 / 0
N	1853	1419 / 0	0 / 0	0 / 0	0 / 0	434 / 0	0 / 0

BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S) X, N

BRACING
TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 2.67 FT.
MAX. UNBRACED BOTTOM CHORD LENGTH = 10.00 FT OR RIGID CEILING DIRECTLY APPLIED.

ALL PITCH BREAKS AND PERIMETER CORNER JOINTS MUST BE LATERALLY RESTRAINED.
1 LATERAL BRACE(S) AT 1/2 LENGTH OF E-S, G-R, I-Q, K-N.

END VERTICAL(S) MUST BE SHEATHED OR HAVE BRACES AS INDICATED IN THE MAX. UNBRACED LENGTH COLUMN OF THE TABLE BELOW

LOADING
TOTAL LOAD CASES: (4)

CHORDS				WEBS			
MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	MAX. FACTORED LC1 (LC)	MEMB.	MAX. FACTORED FORCE (LBS)	MAX. FACTORED UNBRACED LENGTH (LC)	
FR-TO		FROM TO		FR-TO			
A-B	0 / 52	-104.9 -104.9	0.15 (1)	W-C	-879 / 0	0.21 (1)	
B-C	-2013 / 0	-104.9 -104.9	0.12 (1)	C-V	0 / 3326	0.75 (1)	
C-D	-4095 / 0	-104.9 -104.9	0.84 (1)	V-D	-1874 / 0	0.45 (1)	
D-E	-3942 / 0	-104.9 -104.9	0.47 (1)	D-U	-1887 / 0	0.80 (1)	
E-F	-3115 / 0	-104.9 -104.9	0.38 (1)	U-E	0 / 1393	0.31 (1)	
F-G	-2424 / 0	-104.9 -104.9	0.64 (1)	E-S	-1405 / 0	0.62 (1)	
G-H	-2424 / 0	-104.9 -104.9	0.65 (1)	S-F	0 / 1350	0.22 (1)	
H-I	-2424 / 0	-104.9 -104.9	0.65 (1)	F-R	0 / 496	0.08 (1)	
I-J	-2252 / 0	-104.9 -104.9	0.63 (1)	R-G	-650 / 0	0.41 (1)	
J-K	-2431 / 0	-104.9 -104.9	0.56 (1)	K-I	0 / 366	0.06 (1)	
K-L	0 / 40	-104.9 -104.9	0.36 (1)	Q-I	-976 / 0	0.62 (1)	
L-M	0 / 52	-104.9 -104.9	0.15 (1)	Q-J	0 / 1196	0.19 (1)	
X-B	-2682 / 0	0.0	0.20 (1)	O-J	0 / 198	0.04 (4)	
N-L	-329 / 0	0.0	0.04 (1)	O-K	-28 / 54	0.03 (1)	
				B-W	0 / 1727	0.39 (1)	
				K-N	-2839 / 0	0.79 (1)	
X-W	0 / 0	-18.5	-18.5	0.09 (1)			
W-V	0 / 1388	-18.5	-18.5	0.31 (1)			
V-U	0 / 4149	-18.5	-18.5	0.74 (1)			
U-T	0 / 2820	-18.5	-18.5	0.52 (1)			
T-S	0 / 2820	-18.5	-18.5	0.52 (1)			
S-R	0 / 2190	-18.5	-18.5	0.42 (1)			
R-Q	0 / 2252	-18.5	-18.5	0.43 (1)			
Q-P	0 / 1688	-18.5	-18.5	0.47 (1)			
P-O	0 / 1688	-18.5	-18.5	0.47 (1)			
O-N	0 / 1703	-18.5	-18.5	0.47 (1)			

DESIGN CRITERIA

SPECIFIED LOADS:
TOP CH. LL = 32.5 PSF
DL = 3.0 PSF
BOT CH. LL = 0.0 PSF
DL = 7.4 PSF
TOTAL LOAD = 42.9 PSF

SPACING = 24.0 IN. C/C

LOADING IN ALL FLAT SECTIONS BASED ON A SLOPE OF 2.00/12 MINIMUM

THIS TRUSS IS DESIGNED FOR RESIDENTIAL OR SMALL BUILDING REQUIREMENTS OF PART 9, NBC 2010

THIS DESIGN COMPLIES WITH:
- PART 9 OF OBC 2012, BCBC 2012, ABC 2014
- CSA 086-09
- TPIC 2011

(55 % OF 43.9 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 32.5 P.S.F. SPECIFIED ROOF LIVE LOAD

ALLOWABLE DEFL.(LL) = L/360 (1.36")
CALCULATED VERT. DEFL.(LL) = L/999 (0.24")
ALLOWABLE DEFL.(TL) = L/360 (1.36")
CALCULATED VERT. DEFL.(TL) = L/999 (0.40")

CSI: TC=0.84/1.00 (C-D:1), BC=0.74/1.00 (U-V:1), WB=0.80/1.00 (D-U:1), SSI=0.28/1.00 (I-J:1)

DOL LUMBER=1.00 NAIL=1.00 LS BEND=1.10
COMP=1.10 SHEAR=1.10 TENS=1.10

COMPANION LIVE LOAD FACTOR = 0.50

AUTOSOLVE RIGHT HEEL ONLY

TRUSS PLATE MANUFACTURER IS NOT RESPONSIBLE FOR QUALITY CONTROL IN THE TRUSS MANUFACTURING PLANT.

NAIL VALUES

PLATE	GRIP(DRY)	SHEAR (PSI)	SECTION (PLI)
MT20	618	354	1667
	822	2284	1656

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.89 (N) (INPUT = 0.90)
JSI METAL= 0.72 (T) (INPUT = 1.00)

JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
264490	H08	1	1	TRUSS DESC.	

Alpa Roof Truss, Maple

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PLATES (table is in inches)

JT	TYPE	PLATES	W	LEN	Y	X
R	BMWW-t	MT20	5.0	8.0		
S	BMWW-t	MT20	4.0	4.0	1.50	1.75
T	BS-t	MT20	3.0	6.0		
U	BMWW-t	MT20	4.0	6.0	1.50	3.00
V	BMWW-t	MT20	5.0	6.0	1.75	1.50
W	BMWW-t	MT20	4.0	6.0	1.50	3.00
X	BMV1+p	MT20	3.0	5.0		

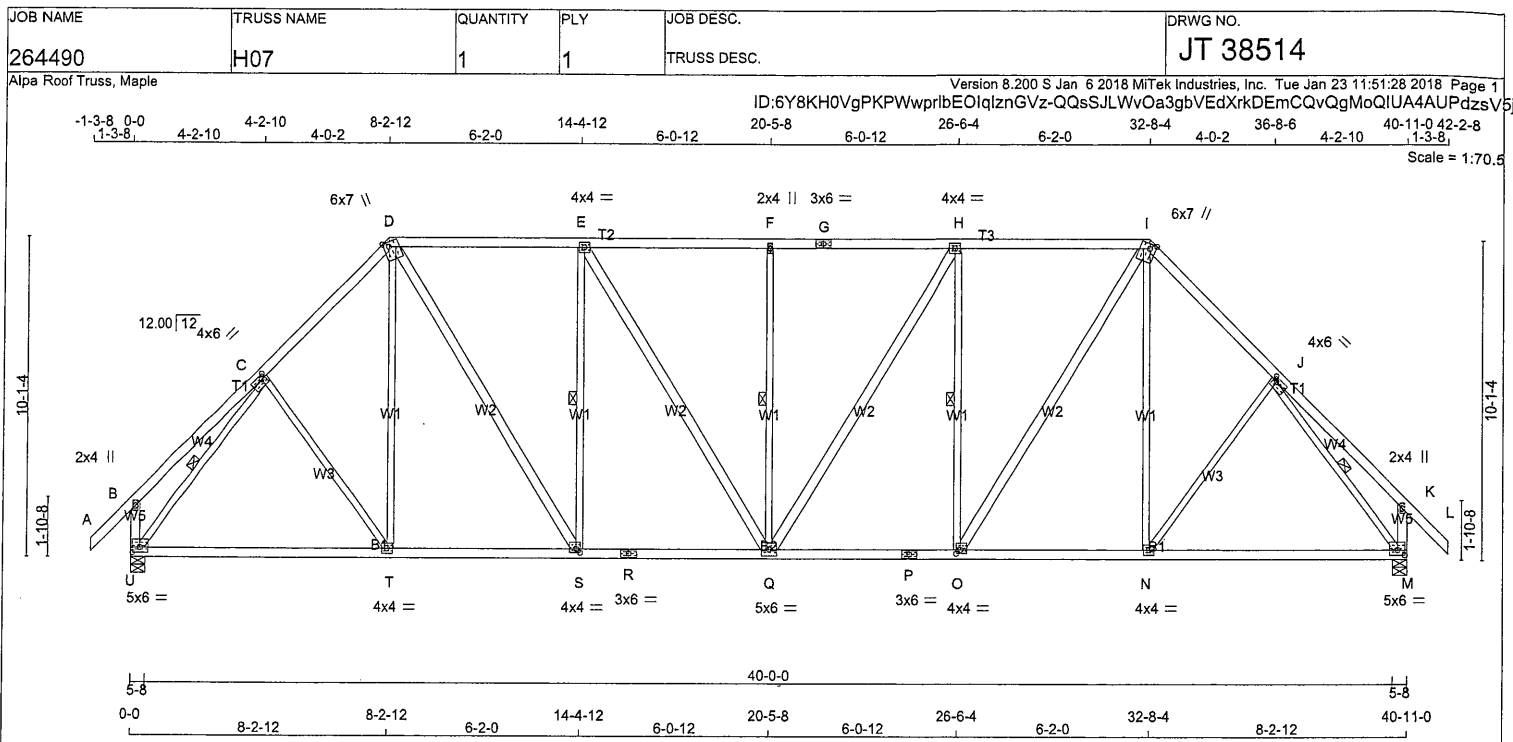
Edge - INDICATES REFERENCE CORNER OF PLATE
TOUCHES EDGE OF CHORD.

NOTE: Lateral brace(s) shown shall be 1x4 for Part 9 design as per OBC 9.23.13.11, and no less than 2x4 for Part 4 design.



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LUMBER			
N. L. G. A. RULES			
CHORDS	SIZE	LUMBER	DESCR.
A - D	2x4	DRY No.2	SPF
D - G	2x4	DRY No.2	SPF
G - I	2x4	DRY No.2	SPF
I - L	2x4	DRY No.2	SPF
U - B	2x4	DRY No.2	SPF
M - K	2x4	DRY No.2	SPF
U - R	2x4	DRY No.2	SPF
R - P	2x4	DRY No.2	SPF
P - M	2x4	DRY No.2	SPF
ALL WEBS EXCEPT	2x3	DRY No.2	SPF
D - S	2x4	DRY No.2	SPF
E - Q	2x4	DRY No.2	SPF
Q - H	2x4	DRY No.2	SPF
O - I	2x4	DRY No.2	SPF

PLATES (table is in inches)				
JT TYPE	PLATES	W	LEN	Y X
B TMV+p	MT20	2.0	4.0	
C TMWW+t	MT20	4.0	6.0	1.50 1.50
D TMWW+m	MT20	6.0	7.0	Edge 2.25
E TMWW-t	MT20	4.0	4.0	
F TMW+w	MT20	2.0	4.0	
G TS-t	MT20	3.0	6.0	
H TMWW-t	MT20	4.0	4.0	
I TTWW+m	MT20	6.0	7.0	Edge 2.25
J TMWW-t	MT20	4.0	6.0	1.50 1.50
K TMV+p	MT20	2.0	4.0	
M BMVW1-t	MT20	5.0	6.0	2.00 2.75
N BMWW-t	MT20	4.0	4.0	
O BMWW-t	MT20	4.0	4.0	1.50 1.50
P BS-t	MT20	3.0	6.0	
Q BMWWW-t	MT20	5.0	6.0	
R BS-t	MT20	3.0	6.0	
S BMWW-t	MT20	4.0	4.0	1.50 1.50
T BMWW-t	MT20	4.0	4.0	
U BMVW1-t	MT20	5.0	6.0	2.00 2.75

NOTE: Lateral brace(s) shown shall be 1x4 for Part 9 design as per OBC 9.23.13.11, and no less than 2x4 for Part 4 design.

DIMENSIONS, SUPPORTS AND LOADINGS SPECIFIED BY FABRICATOR TO BE VERIFIED BY BUILDING DESIGNER

JT	FACTORED GROSS REACTION		MAXIMUM FACTORED GROSS REACTION		INPUT BRG	REQD BRG
	VERT	HORZ	DOWN	HORZ		
U	2672	0	2672	0	5-8	3-10
M	2672	0	2672	0	5-8	3-10

UNFACTORED REACTIONS

JT	1ST CASE COMBINED		MAX/MIN. COMPONENT REACTIONS		PERM. LIVE	WIND	DEAD	SOIL
	U	M	U	M				
U	1853	1419 / 0	0 / 0	0 / 0	0 / 0	0 / 0	434 / 0	0 / 0
M	1853	1419 / 0	0 / 0	0 / 0	0 / 0	0 / 0	434 / 0	0 / 0

BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S) U, M

BRACING

TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 3.31 FT.
MAX. UNBRACED BOTTOM CHORD LENGTH = 10.00 FT OR RIGID CEILING DIRECTLY APPLIED.

ALL PITCH BREAKS AND PERIMETER CORNER JOINTS MUST BE Laterally RESTRAINED.

1 LATERAL BRACE(S) AT 1/2 LENGTH OF E-S, F-Q, H-O, C-U, J-M.

END VERTICAL(S) MUST BE SHEATHED OR HAVE BRACES AS INDICATED IN THE MAX. UNBRACED LENGTH COLUMN OF THE TABLE BELOW

LOADING

TOTAL LOAD CASES: (4)

CHORDS				WEBS			
MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	MAX. FACTORED UNBRACED LENGTH (LC)	MEMB.	MAX. FACTORED FORCE (LBS)	MAX. FACTORED UNBRACED LENGTH (LC)	
FR-TO		FROM TO		FR-TO			
A-B	0 / 52	-104.9 -104.9	0.15 (1)	10.00	C-T	0 / 68	0.02 (4)
B-C	0 / 34	-104.9 -104.9	0.27 (1)	10.00	T-D	0 / 125	0.04 (4)
C-D	-2458 / 0	-104.9 -104.9	0.42 (1)	4.03	D-S	0 / 1385	0.22 (1)
D-E	-2447 / 0	-104.9 -104.9	0.80 (1)	3.48	S-E	-1072 / 0	0.75 (1)
E-F	-2664 / 0	-104.9 -104.9	0.83 (1)	3.31	E-Q	0 / 411	0.07 (1)
F-G	-2664 / 0	-104.9 -104.9	0.83 (1)	3.31	Q-F	-585 / 0	0.41 (1)
G-H	-2664 / 0	-104.9 -104.9	0.83 (1)	3.31	Q-H	0 / 411	0.07 (1)
H-I	-2447 / 0	-104.9 -104.9	0.80 (1)	3.48	O-H	-1072 / 0	0.75 (1)
I-J	-2458 / 0	-104.9 -104.9	0.42 (1)	4.03	O-I	0 / 1385	0.22 (1)
J-K	0 / 34	-104.9 -104.9	0.27 (1)	10.00	N-I	0 / 125	0.04 (4)
K-L	0 / 52	-104.9 -104.9	0.15 (1)	10.00	N-J	0 / 68	0.02 (4)
U-B	-311 / 0	0.0	0.03 (1)	7.81	U-C	-2840 / 0	0.92 (1)
M-K	-311 / 0	0.0	0.03 (1)	7.81	J-M	-2840 / 0	0.92 (1)
U-T	0 / 1671	-18.5 -18.5	0.42 (1)	10.00			
T-S	0 / 1709	-18.5 -18.5	0.43 (1)	10.00			
S-R	0 / 2448	-18.5 -18.5	0.46 (1)	10.00			
R-Q	0 / 2448	-18.5 -18.5	0.46 (1)	10.00			
Q-P	0 / 2448	-18.5 -18.5	0.46 (1)	10.00			
P-O	0 / 2448	-18.5 -18.5	0.46 (1)	10.00			
O-N	0 / 1709	-18.5 -18.5	0.43 (1)	10.00			
N-M	0 / 1671	-18.5 -18.5	0.42 (1)	10.00			

DESIGN CRITERIA

SPECIFIED LOADS:
TOP CH. LL = 32.5 PSF
DL = 3.0 PSF
BOT CH. LL = 0.0 PSF
DL = 7.4 PSF
TOTAL LOAD = 42.9 PSF

SPACING = 24.0 IN. C/C

LOADING IN FLAT SECTION BASED ON A SLOPE OF 2.00/12 MINIMUM

THIS TRUSS IS DESIGNED FOR RESIDENTIAL OR SMALL BUILDING REQUIREMENTS OF PART 9, NBCC 2010

THIS DESIGN COMPLIES WITH:
- PART 9 OF OBC 2012, BCBC 2012, ABC 2014
- CSA 086-09
- TPIC 2011

(55% OF 43.9 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 32.5 P.S.F. SPECIFIED ROOF LIVE LOAD

ALLOWABLE DEFL.(LL)= L/360 (1.36")
CALCULATED VERT. DEFL.(LL)= L/999 (0.17")
ALLOWABLE DEFL.(TL)= L/360 (1.36")
CALCULATED VERT. DEFL.(TL)= L/999 (0.27")

CSI: TC=0.83/1.00 (F-H:1), BC=0.46/1.00 (O-Q:1), WB=0.92/1.00 (J-M:1), SSI=0.30/1.00 (D-E:1)

DOL LUMBER=1.00 NAIL=1.00 LS BEND=1.10
COMP=1.10 SHEAR=1.10 TENS=1.10

COMPANION LIVE LOAD FACTOR = 0.50

TRUSS PLATE MANUFACTURER IS NOT RESPONSIBLE FOR QUALITY CONTROL IN THE TRUSS MANUFACTURING PLANT.

NAIL VALUES
PLATE GRIP(DRY) SHEAR SECTION
(PSI) (PLI) (PLI)
MAX MIN MAX MIN MAX MIN
MT20 618 354 1667 822 2284 1656

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.88 (C) (INPUT = 0.90)
JSI METAL= 0.70 (J) (INPUT = 1.00)

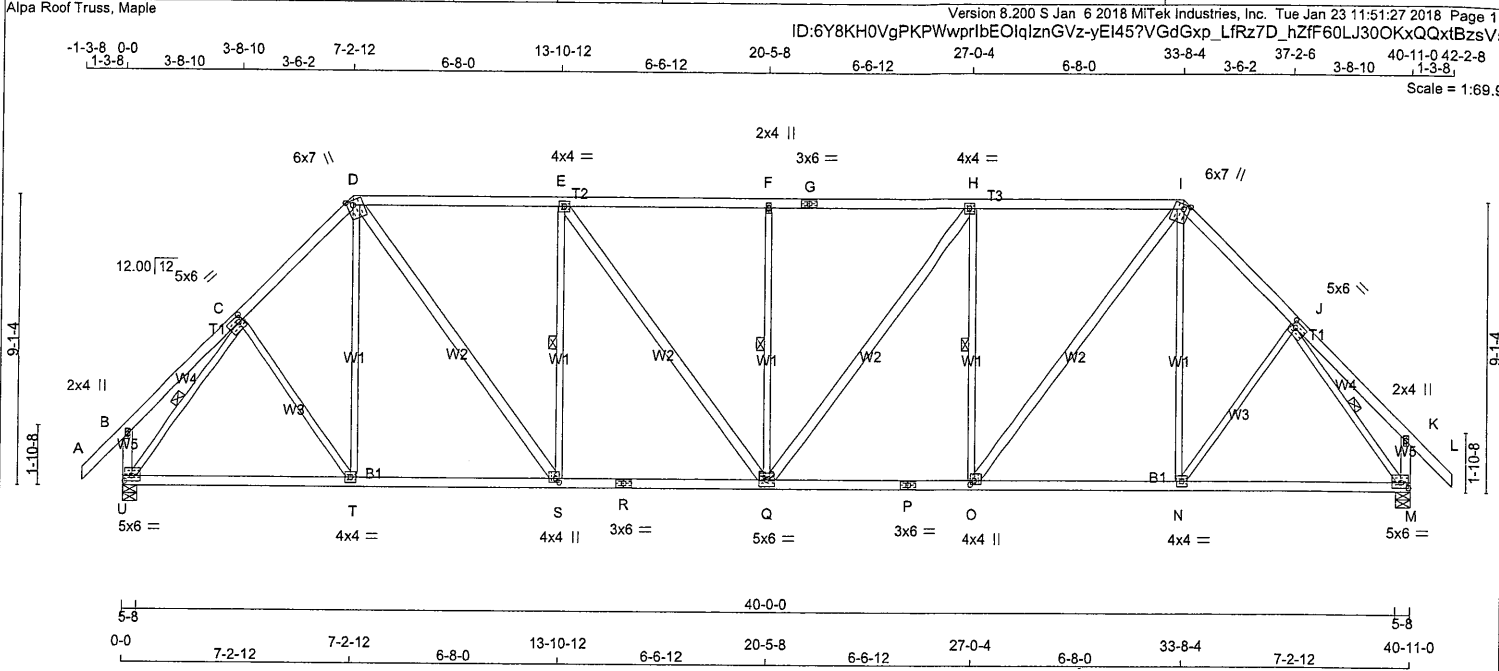


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JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
264490	H06	1	1	TRUSS DESC.	JT 38514



LUMBER				DIMENSIONS, SUPPORTS AND LOADINGS SPECIFIED BY FABRICATOR TO BE VERIFIED BY BUILDING DESIGNER				DESIGN CRITERIA			
CHORDS	SIZE	LUMBER	DESCR.	BEARINGS				SPECIFIED LOADS:			
A - D	2x4	DRY	No.2	FACTORED				TOP CH. LL = 32.5 PSF			
D - G	2x4	DRY	No.2	GROSS REACTION				DL = 3.0 PSF			
G - I	2x4	DRY	No.2	MAXIMUM FACTORED				BOT CH. LL = 0.0 PSF			
I - L	2x4	DRY	No.2	INPUT				DL = 7.4 PSF			
U - B	2x4	DRY	No.2	REQRD				TOTAL LOAD = 42.9 PSF			
M - K	2x4	DRY	No.2	BRG				SPACING = 24.0 IN. C/C			
U - R	2x4	DRY	No.2	IN-SX				LOADING IN FLAT SECTION BASED ON A SLOPE			
R - P	2x4	DRY	No.2	IN-SX				OF 2.00/12 MINIMUM			
P - M	2x4	DRY	No.2	IN-SX				THIS TRUSS IS DESIGNED FOR RESIDENTIAL			
ALL WEBS	2x3	DRY	No.2	UNFACTORED REACTIONS				OR SMALL BUILDING REQUIREMENTS OF PART			
EXCEPT				1ST LCASE				9, NBCC 2010			
D - S	2x4	DRY	No.2	MAX/MIN. COMPONENT REACTIONS				THIS DESIGN COMPLIES WITH:			
E - Q	2x4	DRY	No.2	JT COMBINED				- PART 9 OF OBC 2012, BCBC 2012, ABC 2014			
Q - H	2x4	DRY	No.2	U				- CSA 086-09			
O - I	2x4	DRY	No.2	M				- TPIC 2011			
DRY: SEASONED LUMBER.				1 LATERAL BRACE(S) AT 1/2 LENGTH OF E-S, F-Q, H-O, C-U, J-M.				(55 % OF 43.9 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 32.5 P.S.F. SPECIFIED ROOF LIVE LOAD			
				END VERTICAL(S) MUST BE SHEATHED OR HAVE BRACES AS INDICATED IN THE MAX. UNBRACED LENGTH COLUMN OF THE TABLE BELOW				ALLOWABLE DEFL.(LL)= L/360 (1.36")			
				ALL PITCH BREAKS AND PERIMETER CORNER JOINTS MUST BE Laterally RESTRAINED.				CALCULATED VERT. DEFL.(LL) = L/999 (0.18")			
				1 LATERAL BRACE(S) AT 1/2 LENGTH OF E-S, F-Q, H-O, C-U, J-M.				ALLOWABLE DEFL.(TL)= L/360 (1.36")			
				END VERTICAL(S) MUST BE SHEATHED OR HAVE BRACES AS INDICATED IN THE MAX. UNBRACED LENGTH COLUMN OF THE TABLE BELOW				CALCULATED VERT. DEFL.(TL) = L/999 (0.30")			
				ALL PITCH BREAKS AND PERIMETER CORNER JOINTS MUST BE Laterally RESTRAINED.				CSI: TC=0.77/1.00 (E-F:1), BC=0.51/1.00 (O-Q:1), WB=0.77/1.00 (J-M:1), SSI=0.33/1.00 (D-E:1)			
				1 LATERAL BRACE(S) AT 1/2 LENGTH OF E-S, F-Q, H-O, C-U, J-M.				DOL LUMBER=1.00 NAIL=1.00 LS BEND=1.10			
				END VERTICAL(S) MUST BE SHEATHED OR HAVE BRACES AS INDICATED IN THE MAX. UNBRACED LENGTH COLUMN OF THE TABLE BELOW				COMP=1.10 SHEAR=1.10 TENS=1.10			
				ALL PITCH BREAKS AND PERIMETER CORNER JOINTS MUST BE Laterally RESTRAINED.				COMpanion LIVE LOAD FACTOR = 0.50			
				1 LATERAL BRACE(S) AT 1/2 LENGTH OF E-S, F-Q, H-O, C-U, J-M.				TRUSS PLATE MANUFACTURER IS NOT RESPONSIBLE FOR QUALITY CONTROL IN THE TRUSS MANUFACTURING PLANT.			
				END VERTICAL(S) MUST BE SHEATHED OR HAVE BRACES AS INDICATED IN THE MAX. UNBRACED LENGTH COLUMN OF THE TABLE BELOW				NAIL VALUES			
				ALL PITCH BREAKS AND PERIMETER CORNER JOINTS MUST BE Laterally RESTRAINED.				PLATE GRIP(DRY) SHEAR SECTION			
				1 LATERAL BRACE(S) AT 1/2 LENGTH OF E-S, F-Q, H-O, C-U, J-M.				(PSI) (PLI) (PLI)			
				END VERTICAL(S) MUST BE SHEATHED OR HAVE BRACES AS INDICATED IN THE MAX. UNBRACED LENGTH COLUMN OF THE TABLE BELOW				MAX MIN MAX MIN MAX MIN			
				ALL PITCH BREAKS AND PERIMETER CORNER JOINTS MUST BE Laterally RESTRAINED.				MT20 618 354 1667 822 2284 1656			
				1 LATERAL BRACE(S) AT 1/2 LENGTH OF E-S, F-Q, H-O, C-U, J-M.				PLATE PLACEMENT TOL. = 0.250 inches			
				END VERTICAL(S) MUST BE SHEATHED OR HAVE BRACES AS INDICATED IN THE MAX. UNBRACED LENGTH COLUMN OF THE TABLE BELOW				PLATE ROTATION TOL. = 5.0 Deg.			
				ALL PITCH BREAKS AND PERIMETER CORNER JOINTS MUST BE Laterally RESTRAINED.				JSI GRIP= 0.89 (M) (INPUT = 0.90)			
				1 LATERAL BRACE(S) AT 1/2 LENGTH OF E-S, F-Q, H-O, C-U, J-M.				JSI METAL= 0.73 (P) (INPUT = 1.00)			
				END VERTICAL(S) MUST BE SHEATHED OR HAVE BRACES AS INDICATED IN THE MAX. UNBRACED LENGTH COLUMN OF THE TABLE BELOW							

PLATES (table is in inches)	PLATES	W	LEN	Y	X
JT	TMV+p	MT20	2.0	4.0	
B	TMV+p	MT20	5.0	6.0	2.25 1.75
C	TMV+p	MT20	6.0	7.0	Edge 2.25
D	TMV+p	MT20	4.0	4.0	
E	TMV+p	MT20	2.0	4.0	
F	TMV+p	MT20	3.0	6.0	
G	TS-I	MT20	4.0	4.0	
H	TMV+p	MT20	6.0	7.0	Edge 2.25
I	TMV+p	MT20	5.0	6.0	2.25 1.75
J	TMV+p	MT20	2.0	4.0	
K	TMV+p	MT20	5.0	6.0	2.00 2.75
M	BMVW-I	MT20	4.0	4.0	
N	BMVW-I	MT20	4.0	4.0	
O	BMVW-I	MT20	4.0	4.0	1.50 1.50
P	BS-I	MT20	3.0	6.0	
Q	BMVW-I	MT20	5.0	6.0	
R	BS-I	MT20	3.0	6.0	
S	BMVW-I	MT20	4.0	4.0	1.50 1.50
T	BMVW-I	MT20	4.0	4.0	
U	BMVW-I	MT20	5.0	6.0	2.00 2.75

NOTE: Lateral brace(s) shown shall be 1x4 for Part 9 design as per OBC 9.23.13.11, and no less than 2x4 for Part 4 design.



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Alpa Roof Truss, Maple

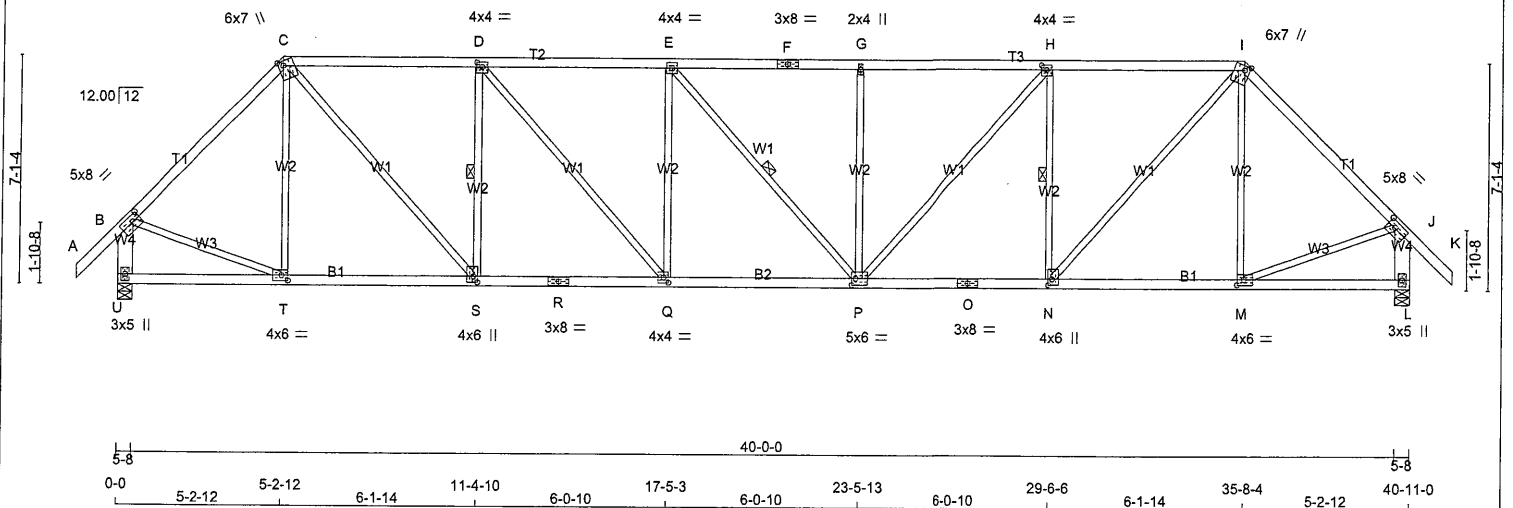
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-1-3-8 0-0 5-2-12 6-1-14 11-4-10 17-5-3 6-0-10 23-5-13 6-0-10 29-6-6 6-1-14 35-8-4 5-2-12 40-11-0 42-2-8

1-3-8 5-2-12 6-1-14 11-4-10 17-5-3 6-0-10 23-5-13 6-0-10 29-6-6 6-1-14 35-8-4 5-2-12 40-11-0 42-2-8

Scale = 1:69.6



LUMBER										DIMENSIONS, SUPPORTS AND LOADINGS SPECIFIED BY FABRICATOR TO BE VERIFIED BY BUILDING DESIGNER										TOTAL WEIGHT = 185 lb									
N. L. G. A. RULES																				[M]									
CHORDS					SIZE					LUMBER					DESCR.					BEARINGS					DESIGN CRITERIA				
A - C	2x4	DRY				No.2	SPF	FACTORED			MAXIMUM FACTORED			INPUT			REQRD			SPECIFIED LOADS:									
C - F	2x4	DRY	1650F 1.5E			SPF	GROSS REACTION			GROSS REACTION			BRG			BRG			TOP CH. LL = 32.5 PSF										
F - I	2x4	DRY	1650F 1.5E			SPF	JT VERT			DOWN			HORIZ			UPLIFT			DL = 3.0 PSF										
I - K	2x4	DRY	No.2			SPF	U 2672 0			2672 0			0 0			5-8 3-3			BOT CH. LL = 0.0 PSF										
U - B	2x6	DRY	No.2			SPF	L 2672 0			2672 0			0 0			5-8 3-3			DL = 7.4 PSF										
L - J	2x6	DRY	No.2			SPF																							
U - R	2x4	DRY	No.2			SPF																							
R - O	2x4	DRY	No.2			SPF																							
O - L	2x4	DRY	No.2			SPF																							
UNFACTORED REACTIONS																				SPECIFIED LOADS:									
1ST LCASE										MAX./MIN. COMPONENT REACTIONS										TOP CH. LL = 32.5 PSF									
																				DL = 3.0 PSF									
																				BOT CH. LL = 0.0 PSF									
																				DL = 7.4 PSF									
																				TOTAL LOAD = 42.9 PSF									
																				SPACING = 24.0 IN. C/C									

DRY: SEASONED LUMBER.

PLATES (table is in inches)						
J	TYPE	PLATES	W	LEN	Y	X
B	TMWw-t	MT20	5.0	8.0	2.25	3.00
C	TTWW+m	MT20	6.0	7.0	1.75	2.00
D	TMWw-t	MT20	4.0	4.0	1.75	2.00
E	TMWw-t	MT20	4.0	4.0		
F	TS-t	MT20	3.0	8.0		
G	TMWw	MT20	2.0	4.0		
H	TMWw-t	MT20	4.0	4.0	1.75	2.00
I	TTWW+m	MT20	6.0	7.0	1.75	2.00
J	TMWv-t	MT20	5.0	8.0	2.25	3.00
L	BMV1+P	MT20	3.0	5.0		
M	BMWw-t	MT20	4.0	6.0	2.00	2.50
O	BMWw-t	MT20	4.0	6.0	2.25	1.50
O	BS-t	MT20	3.0	8.0		
P	BMWwW-t	MT20	5.0	6.0	2.50	1.50
Q	BMWw-t	MT20	4.0	4.0	2.00	1.75
R	BS-t	MT20	3.0	8.0		
S	BMWw-t	MT20	4.0	6.0	2.25	1.50
T	BMWw-t	MT20	4.0	6.0	2.00	2.50
U	BMV1+P	MT20	3.0	5.0		

NOTE: Lateral brace(s) shown shall be 1x4 for Part 9 design as per OBC 9.23.13.11, and no less than 2x4 for Part 4 design.



DIMENSIONS, SUPPORTS AND LOADINGS SPECIFIED BY FABRICATOR TO BE VERIFIED BY BUILDING DESIGNER
BEARINGS

JT	FACTORED		MAXIMUM FACTORED			INPUT	REQRD
	GROSS	REACTION	GROSS	REACTION	UPLIFT	BRG	BRG
U	VERT	HORZ	DOWN	HORZ		IN-SX	IN-SX
L	2672	0	2672	0	0	5-8	3-3
	2672	0	2672	0	0	5-8	3-3

UNFACTORED REACTIONS

1ST LCASE		MAX./MIN. COMPONENT REACTIONS					
JT	COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
U	1853	1419 / 0	0 / 0	0 / 0	0 / 0	434 / 0	0 / 0
L	1853	1419 / 0	0 / 0	0 / 0	0 / 0	434 / 0	0 / 0

BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S) U, L

BRACING

TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 3.53 FT.
MAX. UNBRACED BOTTOM CHORD LENGTH = 10.00 FT OR RIGID CEILING DIRECTLY APPLIED.

ALL PITCH BREAKS AND PERIMETER CORNER JOINTS MUST BE LATERALLY RESTRAINED.

1 LATERAL BRACE(S) AT 1/2 LENGTH OF D-S, E-P, H-N.

END VERTICAL(S) MUST BE SHEATHED OR HAVE BRACES AS INDICATED IN THE MAX. UNBRACED LENGTH COLUMN OF THE TABLE BELOW

LOADING

TOTAL LOAD CASES: (4)

CHORDS				WEBBS			
MAX. FACTORED		FACTORED		MAX. FACTORED			
MEMB.	FORCE (LBS)	VERT. LOAD (PLF)	LC1 MAX CSI (LC)	MAX. UNBRAC LENGTH	MEMB.	FORCE (LBS)	MAX CSI (LC)
FR-TO		FROM	TO		FR-TO		
A-B	0 / 52	-104.9	-104.9	0.15 (1)	10.00	T-C	-370 / 15 0.32 (1)
B-C	-2431 / 0	-104.9	-104.9	0.80 (1)	3.66	C-S	0 / 2087 0.47 (1)
C-D	-3110 / 0	-104.9	-104.9	0.64 (1)	3.86	S-D	-1436 / 0 0.46 (1)
D-E	-3758 / 0	-104.9	-104.9	0.69 (1)	3.53	D-Q	0 / 975 0.22 (1)
E-F	-3757 / 0	-104.9	-104.9	0.54 (1)	3.74	Q-E	-617 / 0 0.54 (1)
F-G	-3757 / 0	-104.9	-104.9	0.54 (1)	3.74	P-E	-2 / 0 0.00 (0)
G-H	-3757 / 0	-104.9	-104.9	0.70 (1)	3.53	P-G	-616 / 0 0.54 (1)
H-I	-3111 / 0	-104.9	-104.9	0.64 (1)	3.86	P-H	0 / 972 0.22 (1)
I-J	-2431 / 0	-104.9	-104.9	0.80 (1)	3.66	N-H	-1436 / 0 0.46 (1)
J-K	0 / 52	-104.9	-104.9	0.15 (1)	10.00	N-I	0 / 2088 0.47 (1)
L-B	-2634 / 0	0.0	0.0	0.19 (1)	6.41	M-I	-370 / 14 0.32 (1)
U-J	-2634 / 0	0.0	0.0	0.19 (1)	6.41	B-T	0 / 1782 0.40 (1)

U-T	0/0	-18.5	-18.5	0.14 (4)	10.00
T-S	0/1708	-18.5	-18.5	0.36 (1)	10.00
S-R	0/3111	-18.5	-18.5	0.56 (1)	10.00
R-Q	0/3111	-18.5	-18.5	0.56 (1)	10.00
Q-P	0/3758	-18.5	-18.5	0.66 (1)	10.00
P-O	0/3111	-18.5	-18.5	0.56 (1)	10.00
O-N	0/3111	-18.5	-18.5	0.56 (1)	10.00
N-M	0/1708	-18.5	-18.5	0.36 (1)	10.00
M-L	0/0	-18.5	-18.5	0.14 (4)	10.00

DESIGN CRITERIA

SPECIFIED LOADS:

TOP	CH.	LL =	32.5	PSF
		DL =	3.0	PSF
BOT	CH.	LL =	0.0	PSF
		DL =	7.4	PSF

TOTAL LOAD = 42.9 PSF

SPACING = 24.0 IN. C/C

LOADING IN FLAT SECTION BASED ON A SLOPE
OF 2.00/12 MINIMUM

THIS TRUSS IS DESIGNED FOR RESIDENTIAL
OR SMALL BUILDING REQUIREMENTS OF PART
9, NBCC 2010

THIS DESIGN COMPLIES WITH:

- PART 9 OF OBC 2012 , BCBC 2012 , ABC 2014
- CSA 086-09
- TPIC 2011

(55 % OF 43.9 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 32.5 P.S.F. SPECIFIED ROOF LIVE LOAD

ALLOWABLE DEFL.(LL)= L/360 (1.36")
CALCULATED VERT. DEFL.(LL) = L/ 999 (0.25")
ALLOWABLE DEFL.(TL)= L/360 (1.36")
CALCULATED VERT. DEFL.(TL) = L/ 999 (0.43")

CSI: TC=0.80/1.00 (B-C:1), BC=0.66/1.00 (P-Q:1), WB=0.54/1.00 (E-Q:1), SSI=0.30/1.00 (H-I:1)

DOL LUMBER=1.00 NAIL=1.00 LS BEND=1.10
COMP=1.10 SHEAR=1.10 TENS= 1.10

COMPANION LIVE LOAD FACTOR = 0.50

TRUSS PLATE MANUFACTURER IS NOT RESPONSIBLE FOR QUALITY CONTROL IN THE TRUSS MANUFACTURING PLANT.

NAIL VALUES

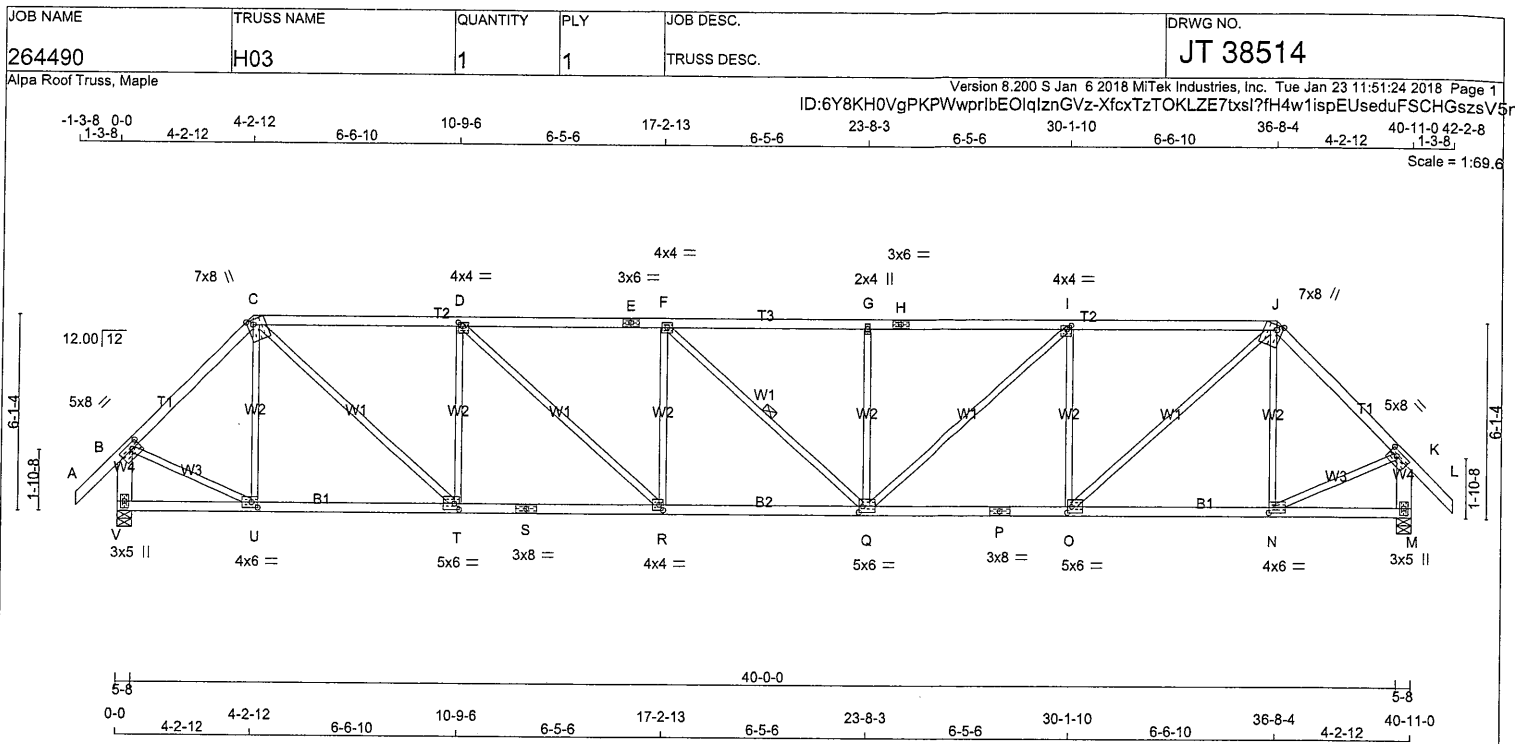
PLATE	GRIP(DRY) (PSI)		SHEAR (PLI)		SECTION (PLI)	
	MAX	MIN	MAX	MIN	MAX	MIN
MT20	618	354	1667	822	2284	1656

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.90 (B) (INPUT = 0.90)
JSI METAL= 0.85 (O) (INPUT = 1.00)

SITE COPY



LUMBER					N. L. G. A. RULES				
CHORDS	SIZE	LUMBER	DESCR.		CHORDS	SIZE	LUMBER	DESCR.	
A - C	2x4	DRY	No.2	SPF	A - C	2x4	DRY	No.2	SPF
C - E	2x4	DRY	1650F 1.5E	SPF	C - E	2x4	DRY	1650F 1.5E	SPF
E - H	2x4	DRY	1650F 1.5E	SPF	E - H	2x4	DRY	1650F 1.5E	SPF
H - J	2x4	DRY	1650F 1.5E	SPF	H - J	2x4	DRY	1650F 1.5E	SPF
J - L	2x4	DRY	No.2	SPF	J - L	2x4	DRY	No.2	SPF
V - B	2x6	DRY	No.2	SPF	V - B	2x6	DRY	No.2	SPF
M - K	2x6	DRY	No.2	SPF	M - K	2x6	DRY	No.2	SPF
V - S	2x4	DRY	No.2	SPF	V - S	2x4	DRY	No.2	SPF
S - P	2x4	DRY	No.2	SPF	S - P	2x4	DRY	No.2	SPF
P - M	2x4	DRY	No.2	SPF	P - M	2x4	DRY	No.2	SPF
ALL WEBS EXCEPT	2x3	DRY	No.2	SPF	ALL WEBS EXCEPT	2x3	DRY	No.2	SPF

PLATES (table is in inches)					
JT	TYPE	PLATES	W	LEN	Y X
B	TMVW-t	MT20	5.0	8.0	2.00 3.00
C	TTWW+m	MT20	7.0	8.0	Edge 2.25
D	TMVW-t	MT20	4.0	4.0	1.50 1.75
E	TS-t	MT20	3.0	6.0	
F	TMVW-t	MT20	4.0	4.0	
G	TMVW-w	MT20	2.0	4.0	
H	TS-t	MT20	3.0	6.0	
I	TMVW-t	MT20	4.0	4.0	1.50 1.75
J	TTWW+m	MT20	7.0	8.0	Edge 2.25
K	TMVW-t	MT20	5.0	8.0	2.00 3.00
M	BMV1+p	MT20	3.0	5.0	
N	BMVW-t	MT20	4.0	6.0	2.00 2.50
O	BMVW-t	MT20	5.0	6.0	2.25 1.75
P	BS-t	MT20	3.0	8.0	
Q	BMVW-t	MT20	5.0	6.0	2.25 1.50
R	BMVW-t	MT20	4.0	4.0	2.00 1.50
S	BS-t	MT20	3.0	8.0	
T	BMVW-t	MT20	5.0	6.0	2.25 1.75
U	BMVW-t	MT20	4.0	6.0	2.00 2.50
V	BMV1+p	MT20	3.0	5.0	

Edge - INDICATES REFERENCE CORNER OF PLATE TOUCHES EDGE OF CHORD.

NOTE: Lateral brace(s) shown shall be 1x4 for Part 9 design as per OBC 9.23.13.11, and no less than 2x4 for Part 4 design.



DIMENSIONS, SUPPORTS AND LOADINGS SPECIFIED BY FABRICATOR TO BE VERIFIED BY BUILDING DESIGNER

BEARINGS		FACTORED GROSS REACTION	MAXIMUM FACTORED GROSS REACTION	INPUT BRG	REQD BRG
JT	VERT	HORZ	DOWN	HORZ	UPLIFT
V	2672	0	2672	0	5-8
M	2672	0	2672	0	5-8

UNFACTORED REACTIONS

1ST CASE		MAX./MIN. COMPONENT REACTIONS					
JT	COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
V	1853	1419 / 0	0 / 0	0 / 0	0 / 0	434 / 0	0 / 0
M	1853	1419 / 0	0 / 0	0 / 0	0 / 0	434 / 0	0 / 0

BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S) V, M

BRACING

TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 3.13 FT.
MAX. UNBRACED BOTTOM CHORD LENGTH = 10.00 FT OR RIGID CEILING DIRECTLY APPLIED.

ALL PITCH BREAKS AND PERIMETER CORNER JOINTS MUST BE LATERALLY RESTRAINED.

1 LATERAL BRACE(S) AT 1/2 LENGTH OF F-Q.

END VERTICAL(S) MUST BE SHEATHED OR HAVE BRACES AS INDICATED IN THE MAX. UNBRACED LENGTH COLUMN OF THE TABLE BELOW

LOADING

TOTAL LOAD CASES: (4)

CHORDS		FACTORED				WEBS			
MEMB.	FORCE (LBS)	VERT. LOAD	LC1	MAX	UNBRAC	MEMB.	FORCE (LBS)	MAX	UNBRAC
FR-TO		FROM	TO	LENGTH	FR-TO				
A-B	0 / 52	-104.9	-104.9	0.15 (1)	10.00	U-C	-474 / 0	0.28 (1)	
B-C	-2379 / 0	-104.9	-104.9	0.48 (1)	4.01	C-T	0 / 2493	0.56 (1)	
C-D	-3536 / 0	-104.9	-104.9	0.79 (1)	3.52	T-D	-1530 / 0	0.90 (1)	
D-E	-4398 / 0	-104.9	-104.9	0.90 (1)	3.13	D-R	0 / 1160	0.26 (1)	
E-F	-4398 / 0	-104.9	-104.9	0.90 (1)	3.13	R-F	-657 / 0	0.38 (1)	
F-G	-4397 / 0	-104.9	-104.9	0.71 (1)	3.39	F-Q	-1 / 0	0.00 (1)	
G-H	-4397 / 0	-104.9	-104.9	0.90 (1)	3.13	Q-G	-657 / 0	0.38 (1)	
H-I	-4397 / 0	-104.9	-104.9	0.90 (1)	3.13	I-Q	0 / 1158	0.26 (1)	
I-J	-3537 / 0	-104.9	-104.9	0.79 (1)	3.52	O-I	-1530 / 0	0.90 (1)	
J-K	-2379 / 0	-104.9	-104.9	0.48 (1)	4.01	O-J	0 / 2493	0.56 (1)	
K-L	0 / 52	-104.9	-104.9	0.15 (1)	10.00	N-J	-474 / 0	0.28 (1)	
V-B	-2645 / 0	0.0	0.0	0.19 (1)	6.40	B-U	0 / 1777	0.40 (1)	
M-K	-2645 / 0	0.0	0.0	0.19 (1)	6.40	N-K	0 / 1777	0.40 (1)	
V-U	0 / 0	-18.5	-18.5	0.13 (4)	10.00				
U-T	0 / 1668	-18.5	-18.5	0.35 (1)	10.00				
T-S	0 / 3537	-18.5	-18.5	0.64 (1)	10.00				
S-R	0 / 3537	-18.5	-18.5	0.64 (1)	10.00				
R-Q	0 / 4398	-18.5	-18.5	0.77 (1)	10.00				
Q-P	0 / 3537	-18.5	-18.5	0.64 (1)	10.00				
P-O	0 / 3537	-18.5	-18.5	0.64 (1)	10.00				
O-N	0 / 1667	-18.5	-18.5	0.35 (1)	10.00				
N-M	0 / 0	-18.5	-18.5	0.13 (4)	10.00				

DESIGN CRITERIA

SPECIFIED LOADS:

TOP CH. LL = 32.5 PSF
DL = 3.0 PSF
BOT CH. LL = 0.0 PSF
DL = 7.4 PSF
TOTAL LOAD = 42.9 PSF

SPACING = 24.0 IN. C/C

LOADING IN FLAT SECTION BASED ON A SLOPE OF 2.00/12 MINIMUM

THIS TRUSS IS DESIGNED FOR RESIDENTIAL OR SMALL BUILDING REQUIREMENTS OF PART 9, NBCC 2010

THIS DESIGN COMPLIES WITH:

- PART 9 OF OBC 2012, BCBC 2012, ABC 2014
- CSA 086-09
- TPIC 2011

(55% OF 43.9 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 32.5 P.S.F. SPECIFIED ROOF LIVE LOAD

ALLOWABLE DEFL.(LL)= L/360 (1.36")
CALCULATED VERT. DEFL.(LL) = L/999 (0.32")
ALLOWABLE DEFL.(TL)= L/360 (1.36")
CALCULATED VERT. DEFL.(TL) = L/900 (0.55")

CSI: TC=0.90/1.00 (G-I:1), BC=0.77/1.00 (Q-R:1), WB=0.90/1.00 (D-T:1), SSI=0.32/1.00 (I-J:1)

DOL LUMBER=1.00 NAIL=1.00 LS BEND=1.10
COMP=1.10 SHEAR=1.10 TENS=1.10

COMPANION LIVE LOAD FACTOR = 0.50

TRUSS PLATE MANUFACTURER IS NOT RESPONSIBLE FOR QUALITY CONTROL IN THE TRUSS MANUFACTURING PLANT.

NAIL VALUES

PLATE GRIP(DRY) SHEAR SECTION
(PSI) (PLI) (PLI)
MAX MIN MAX MIN MAX MIN
MT20 618 354 1667 822 2284 1656

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.90 (T) (INPUT = 0.90)
JSI METAL= 0.95 (P) (INPUT = 1.00)

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CONTINUED ON PAGE 2

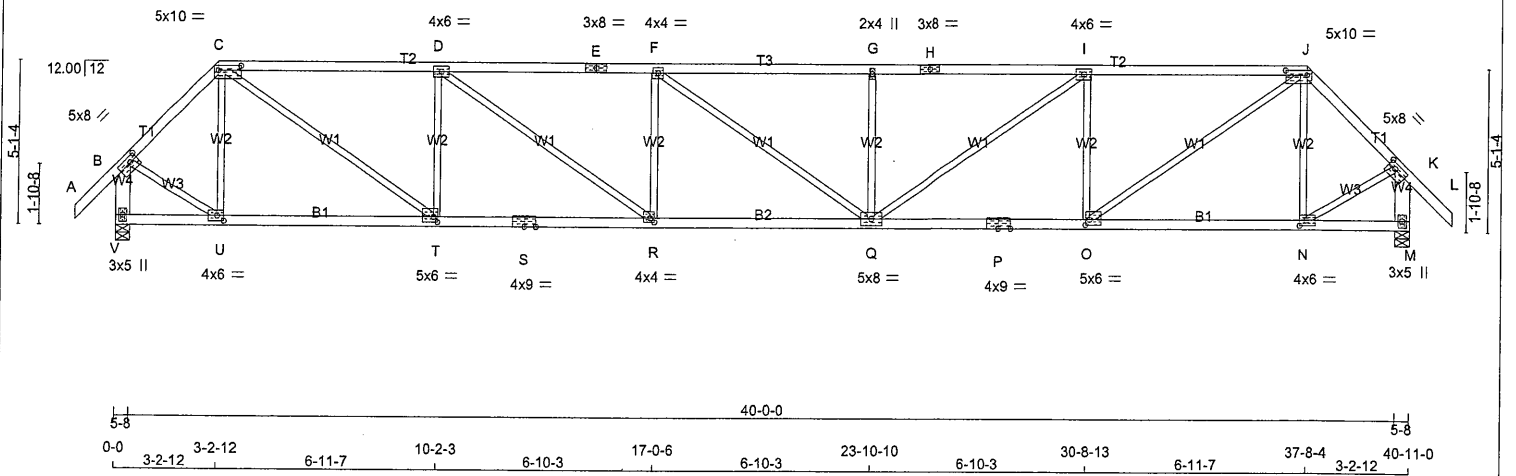
SITE COPY

JOB NAME 264490	TRUSS NAME H02	QUANTITY 1	PLY 1	JOB DESC. TRUSS DESC.	DRWG NO. JT 38514
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Alpa Roof Truss, Maple

Version 8.200 S Jan 6 2018 MiTek Industries, Inc. Tue Jan 23 11:51:22 2018 Page 1
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1-3-8 0-0 3-2-12 3-2-12 6-11-7 10-2-3 6-10-3 17-0-6 6-10-3 23-10-10 6-10-3 30-8-13 6-11-7 37-8-4 3-2-12 40-11-0 42-2-8 1-3-8
Scale = 1:69.6



LUMBER				DIMENSIONS, SUPPORTS AND LOADINGS SPECIFIED BY FABRICATOR TO BE VERIFIED BY BUILDING DESIGNER				DESIGN CRITERIA			
N. L. G. A. RULES				BEARINGS				SPECIFIED LOADS:			
CHORDS	SIZE	LUMBER	DESCR.	FACTORED	MAXIMUM FACTORED	INPUT	REQD	TOP CH.	LL =	32.5	PSF
A - C	2x4	DRY	No.2	GROSS REACTION	GROSS REACTION	BRG	BRG	BOT CH.	LL =	3.0	PSF
C - E	2x4	DRY	2100F 1.8E	VERT	HORZ	UPLIFT	IN-SX		LL =	0.0	PSF
E - H	2x4	DRY	2100F 1.8E	V	2672	0	5-8	TOTAL LOAD	=	42.9	PSF
H - J	2x4	DRY	2100F 1.8E	M	2672	0	5-8				
J - L	2x4	DRY	No.2	UNFACTORED REACTIONS				SPACING = 24.0 IN. C/C			
V - B	2x6	DRY	No.2	1ST LCASE	MAX/MIN	COMPONENT REACTIONS		LOADING IN FLAT SECTION BASED ON A SLOPE OF 2.00/12 MINIMUM			
M - K	2x6	DRY	No.2	JT	COMBINED	SNOW	LIVE	PERM	LIVE	WIND	DEAD
V - S	2x4	DRY	No.2	V	1853	1419 / 0	0 / 0	0 / 0	0 / 0	434 / 0	0 / 0
S - P	2x4	DRY	No.2	M	1853	1419 / 0	0 / 0	0 / 0	0 / 0	434 / 0	0 / 0
P - M	2x4	DRY	No.2	BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S) V, M				THIS TRUSS IS DESIGNED FOR RESIDENTIAL OR SMALL BUILDING REQUIREMENTS OF PART 9, NBCC 2010			
ALL WEBS EXCEPT	2x3	DRY	No.2	BRACING				THIS DESIGN COMPLIES WITH:			
				TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 3.19 FT.				- PART 9 OF OBC 2012, BCBC 2012, ABC 2014			
				MAX. UNBRACED BOTTOM CHORD LENGTH = 10.00 FT OR RIGID CEILING DIRECTLY APPLIED.				- CSA 086-09			
				ALL PITCH BREAKS AND PERIMETER CORNER JOINTS MUST BE Laterally RESTRAINED.				- TPIC 2011			
				LOADING				(55 % OF 43.9 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 32.5 P.S.F. SPECIFIED ROOF LIVE LOAD			
				TOTAL LOAD CASES: (4)				ALLOWABLE DEFL.(LL)= L/360 (1.36")			
				CHORDS				CALCULATED VERT. DEFL.(LL) = L/ 999 (0.41")			
				MAX. FACTORED				ALLOWABLE DEFL.(TL)= L/360 (1.36")			
				MEMB. FORCE (LBS)				CALCULATED VERT. DEFL.(TL) = L/ 708 (0.69")			
				FR-TO				CSI: TC=0.90/1.00 (D-F:1), BC=0.93/1.00 (Q-R:1), WB=0.69/1.00 (C-T:1), SSI=0.34/1.00 (C-D:1)			
				A-B				DOL LUMBER=1.00 NAIL=1.00 LS BEND=1.10			
				B-C				COMP=1.10 SHEAR=1.10 TENS=1.10			
				C-D				COMPANION LIVE LOAD FACTOR = 0.50			
				D-E				TRUSS PLATE MANUFACTURER IS NOT RESPONSIBLE FOR QUALITY CONTROL IN THE TRUSS MANUFACTURING PLANT.			
				E-F				NAIL VALUES			
				F-G				PLATE GRIP(DRY) SHEAR SECTION			
				G-H				(PSI) (PLI) (PLI)			
				H-I				MAX MIN MAX MIN MAX MIN			
				I-J				MT20 618 354 1667 822 2284 1656			
				J-K				PLATE PLACEMENT TOL. = 0.250 inches			
				K-L				PLATE ROTATION TOL. = 5.0 Deg.			
				L-M				JSI GRIP= 0.89 (B) (INPUT = 0.90)			
				M-N				JSI METAL= 0.83 (S) (INPUT = 1.00)			
				N-O							
				O-P							
				P-Q							
				Q-R							
				R-S							
				S-T							
				T-U							
				U-V							
				V-W							
				W-X							
				X-Y							
				Y-Z							
				Z-A							

PLATES (table is in inches)			
JT	TYPE	PLATES	W LEN Y X
B	TMVW-t	MT20	5.0 8.0 2.00 3.00
C	TTWW-I	MT20	5.0 10.0 1.75 8.25
D	TMVW-t	MT20	4.0 6.0
E	TS-t	MT20	3.0 8.0
F	TMVW-t	MT20	4.0 4.0
G	TMVW-t	MT20	2.0 4.0
H	TS-t	MT20	3.0 8.0
I	TMVW-t	MT20	4.0 6.0
J	TTWW-I	MT20	5.0 10.0 1.75 8.25
K	TMVW-t	MT20	5.0 8.0 2.00 3.00
M	BMV1+p	MT20	3.0 5.0
N	BMVW-t	MT20	4.0 6.0 2.00 2.50
O	BMVW-t	MT20	5.0 6.0 2.00 1.50
P	BS-t	MT20	4.0 9.0
Q	BMVW-t	MT20	5.0 8.0
R	BMVW-t	MT20	4.0 4.0 1.50 1.50
S	BS-t	MT20	4.0 9.0
T	BMVW-t	MT20	5.0 6.0 2.00 1.50
U	BMVW-t	MT20	4.0 6.0 2.00 2.50
V	BMV1+p	MT20	3.0 5.0

NOTE: Lateral brace(s) shown shall be 1x4 for Part 9 design as per OBC 9.23.13.11, and no less than 2x4 for Part 4 design.



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SITE COPY

Alpa Roof Truss, Maple

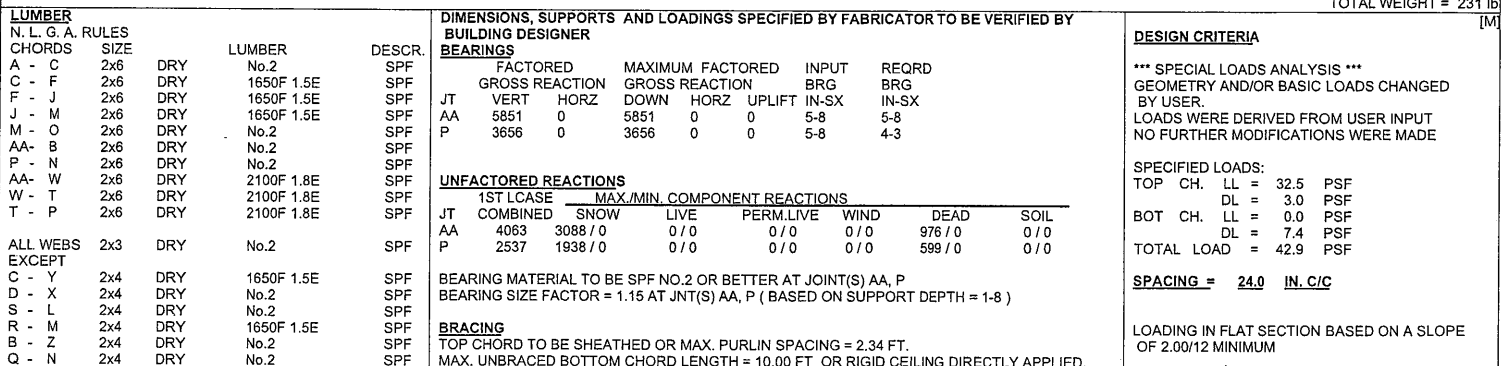
Version 8.200 S Jan 6 2018 MITek Industries, Inc. Tue Jan 23 11:51:21 2018 Page 1

ID:6Y8KH0VgPKPWwprlEOIqlznGVz-74xprxRW2QAAGQCHdt6aSIPEucD_ffcSZUzdfXzsV5

-1-3-8 0-0 2-2-12 4-6-6 6-9-2 11-3-8 17-4-13 20-5-8 23-6-3 29-7-8 34-1-14 38-8-4 40-1-0 42-2-8

1-3-8 2-2-12 4-6-6 6-1-5 3-0-11 3-0-11 6-1-5 4-6-6 2-2-12 1-3-8

Scale = 1:69.9



DRY: SEASONED LUMBER.

PLATES (table is in inches)						
JT	TYPE	PLATES	W	LEN	Y	X
B	TMVW+	MT20	7.0	8.0	2.00	2.25
C	TMVW+m	MT20	10.0	12.0	Edge	3.00
D	TMVW+	MT20	6.0	9.0	2.50	3.00
E	TMVW+	MT20	5.0	8.0	2.50	2.50
F	TS+	MT20	4.0	12.0		
G	TMVW+	MT20	2.0	4.0		
H	TMVW+	MT20	4.0	6.0		
I	TMW+	MT20	2.0	4.0		
J	TS+	MT20	4.0	12.0		
K	TMVW+	MT20	5.0	8.0	2.50	2.50
L	TMVW+	MT20	6.0	9.0	Edge	3.00
M	TMVW+m	MT20	10.0	12.0	2.50	3.00
N	TMVW+	MT20	7.0	8.0	2.00	2.25
P	BMV1+	MT20	6.0	9.0	Edge	0.50
Q	BMVW+	MT20	5.0	8.0	2.25	2.50
R	BMVW+	MT20	8.0	9.0	3.25	2.75
S	BMVW+	MT20	8.0	9.0	4.25	3.50
T	BS+	MT18HS	6.0	14.0		

NOTE: Lateral brace(s) shown shall be 1x4 for Part 9 design as per OBC 9.23.13.11, and no less than 2x4 for Part 4 design.



DIMENSIONS, SUPPORTS AND LOADINGS SPECIFIED BY FABRICATOR TO BE VERIFIED BY BUILDING DESIGNER

FACTORED			MAXIMUM FACTORED			INPUT	REQUIRE
	GROSS REACTION		GROSS REACTION			BRG	BRG
JT	VERT	HORZ	DOWN	HORZ	UPLIFT	IN-SX	IN-SX
AA	5851	0	5851	0	0	5-8	5-8
P	3656	0	3656	0	0	5-8	4-3

UNFACTORED REACTIONS

1ST LCASE		MAX./MIN. COMPONENT REACTIONS					
JT	COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
AA	4063	3088 / 0	0 / 0	0 / 0	0 / 0	976 / 0	0 / 0
P	2537	1938 / 0	0 / 0	0 / 0	0 / 0	599 / 0	0 / 0

BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S) AA, P
BEARING SIZE FACTOR = 1.15 AT JNT(S) AA, P (BASED ON SUPPORT DEPTH = 1-8)

BRACING

TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 2.34 FT.
MAX. UNBRACED BOTTOM CHORD LENGTH = 10.00 FT OR RIGID CEILING DIRECTLY APPLIED.

ALL PITCH BREAKS AND PERIMETER CORNER JOINTS MUST BE LATERALLY RESTRAINED.

2x4 DRY SPF No.2 T-BRACE AT D-Y

FASTEN T AND I-BRACES TO NARROW EDGE OF WEB WITH ONE ROW PER PLY OF 3" COMMON WIRE NAILS @ 6" O.C. WITH 3" MINIMUM END DISTANCE. BRACE MUST COVER 90% OF WEB LENGTH.

END VERTICAL(S) MUST BE SHEATHED OR HAVE BRACES AS INDICATED IN THE MAX. UNBRACED LENGTH COLUMN OF THE TABLE BELOW

LOADING

TOTAL LOAD CASES: (4)

CHORDS				WEBBS			
MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	LC1 MAX CSI (LC)	MAX. UNBRAC	MEMB.	MAX. FACTORED FORCE (LBS)	MAX CSI (LC)
FR-TO		FROM TO		LENGTH	FR-TO		
A-B	0 / 54	-104.9 -104.9	0.09 (1)	10.00	Z-C	-1751 / 0	0.42 (1)
B-C	-5060 / 0	-104.9 -104.9	0.18 (1)	3.74	C-Y	0 / 7368	0.94 (1)
C-D	-8259 / 0	-206.6 -206.6	0.47 (1)	3.08	Y-D	-4415 / 0	0.79 (1)
D-E	-13568 / 0	-206.6 -206.6	0.74 (1)	2.34	D-X	0 / 5530	0.98 (1)
E-F	-13252 / 0	-104.9 -104.9	0.82 (1)	2.35	X-E	-562 / 0	0.13 (1)
F-G	-13252 / 0	-104.9 -104.9	0.82 (1)	2.35	E-V	-368 / 0	0.35 (1)
G-H	-13252 / 0	-104.9 -104.9	0.57 (1)	2.52	V-G	-532 / 0	0.13 (1)
H-I	-11562 / 0	-104.9 -104.9	0.46 (1)	2.79	V-H	0 / 1165	0.29 (1)
I-J	-11562 / 0	-104.9 -104.9	0.65 (1)	2.66	H-U	-1465 / 0	0.54 (1)
J-K	-11562 / 0	-104.9 -104.9	0.65 (1)	2.66	U-I	-488 / 0	0.12 (1)
K-L	-8760 / 0	-104.9 -104.9	0.37 (1)	3.25	U-K	0 / 3263	0.81 (1)
L-M	-5737 / 0	-104.9 -104.9	0.21 (1)	4.05	S-K	-2287 / 0	0.55 (1)
M-N	-3078 / 0	-104.9 -104.9	0.10 (1)	4.72	S-L	0 / 3880	0.69 (1)
N-O	0 / 54	-104.9 -104.9	0.09 (1)	10.00	R-L	-2847 / 0	0.68 (1)
AA-B	-5890 / 0	0.0 0.0	0.44 (1)	4.37	R-M	0 / 4616	0.59 (1)
P-N	-3689 / 0	0.0 0.0	0.27 (1)	5.52	Q-M	-1060 / 0	0.25 (1)
					B-Z	0 / 4068	0.72 (1)
AA-Z	0 / 0	-36.4 -36.4	0.08 (1)	10.00	Q-N	0 / 2475	0.44 (1)
Z-Y	0 / 3489	-36.4 -36.4	0.26 (1)	10.00			
Y-X	0 / 9259	-36.4 -36.4	0.60 (1)	10.00			
X-W	0 / 13568	-18.5 -18.5	0.83 (1)	10.00			
W-V	0 / 13568	-18.5 -18.5	0.83 (1)	10.00			
V-U	0 / 12503	-18.5 -18.5	0.74 (1)	10.00			
U-T	0 / 8760	-18.5 -18.5	0.54 (1)	10.00			
T-S	0 / 8760	-18.5 -18.5	0.54 (1)	10.00			
S-R	0 / 5737	-18.5 -18.5	0.33 (1)	10.00			
R-Q	0 / 2123	-18.5 -18.5	0.16 (1)	10.00			
Q-P	0 / 0	-18.5 -18.5	0.05 (1)	10.00			

DESIGN CRITERIA

*** SPECIAL LOADS ANALYSIS ***
GEOMETRY AND/OR BASIC LOADS CHANGED
BY USER.
LOADS WERE DERIVED FROM USER INPUT
NO FURTHER MODIFICATIONS WERE MADE

SPECIFIED LOADS:

TOP CH.	LL =	32.5	PSF
	DL =	3.0	PSF
BOT CH.	LL =	0.0	PSF
	DL =	7.4	PSF
TOTAL LOAD =		42.9	PSF

SPACING = 24.0 IN. C/C

LOADING IN FLAT SECTION BASED ON A SLOPE
OF 2.00/12 MINIMUM

GIRDER TYPE: CPrimeHip
SIDE SETBACK = 2-2-12
END SETBACK = 5-10-8
END WALL WIDTH = 0-0
CORNER FRAMING TYPE: CONVENTIONAL
END JACK TYPE: CONVENTIONAL
APPLIED TO FRONT SIDE
- ADDTL LOADS BASED ON 55 % OF GSL.
LOADS APPLIED TO FIRST 11-3-8 OF SPAN
MEASURED FROM THE LEFT.

*** NON-STANDARD GIRDER ***
ADD'TL USER-DEFINED LOADS APPLIED TO ALL
LOAD CASES.

THIS TRUSS IS DESIGNED FOR RESIDENTIAL
OR SMALL BUILDING REQUIREMENTS OF PART
9, NBCC 2010

THIS DESIGN COMPLIES WITH:
- PART 9 OF OBC 2012 , BCBC 2012 , ABC 2014
- CSA 086-09
- TPIC 2011

(55 % OF 43.9 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 32.5 P.S.F. SPECIFIED ROOF LIVE LOAD

ALLOWABLE DEFL.(LL)= $L/360$ (1.36")
CALCULATED VERT. DEFL.(LL) = $L/647$ (0.76")
ALLOWABLE DEFL.(TL)= $L/360$ (1.36")
CALCULATED VERT. DEFL.(TL) = $L/392$ (1.25")

CSI: TC=0.82/1.00 (E-G:1), BC=0.83/1.00 (V-X:1), WB=0.98/1.00 (D-X:1), SSI=0.36/1.00 (C-D:1)

DOL LUMBER=1.00 NAIL=1.00 LS BEND=1.00
COMP=1.00 SHEAR=1.00 TENS= 1.00

COMPANION LIVE LOAD FACTOR = 0.50

TRUSS PLATE MANUFACTURER IS NOT RESPONSIBLE FOR QUALITY CONTROL IN THE TRUSS MANUFACTURING PLANT.

NAIL VALUES					
PLATE	GRIP(DRY)		SHEAR		SECTION
	(PSI)		(PLI)		(PLI)
	MAX	MIN	MAX	MIN	MAX MIN
MT20	618	354	1667	822	2284 1656

CONTINUED ON PAGE 2

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JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
264490	H01	1	1	TRUSS DESC.	JT 38514

Alpa Roof Truss, Maple

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ID:6Y8KH0VgPKPWwprlbEOlqlznGVz-74xprxRW2QAgGQCHdt6aSIPEucD fFcSZUzdfXzsV5q

PLATES (table is in inches)

JT	TYPE	PLATES	W	LEN	Y	X
U	BMWWW-t	MT20	5.0	10.0	2.25	2.75
V	BMWWW-t	MT20	5.0	10.0	2.25	4.75
W	BS-t	MT18HS	6.0	14.0		
X	BMWWW-t	MT20	8.0	9.0	4.25	3.50
Y	BMWWW-t	MT20	8.0	9.0	3.25	2.75
Z	BMWWW-t	MT20	5.0	8.0	2.25	2.50
AA	BMV1-t	MT20	6.0	9.0	5.50	

Edge - INDICATES REFERENCE CORNER OF PLATE TOUCHES EDGE OF CHORD.

HANGERS NOTES

- 1) SPECIAL HANGER(S) OR CONNECTION(S) REQUIRED TO SUPPORT CONCENTRATED LOAD(S) 170.6 lbs FACTORED DOWN AT 2-2-12 ON TOP CHORD, AND 2857.1 lbs FACTORED DOWN AT 11-3-8 ON BOTTOM CHORD. DESIGN FOR UNSPECIFIED CONNECTION(S) IS DELEGATED TO THE BUILDING DESIGNER.

FACTORED CONCENTRATED LOADS (LBS)

JT	LOC.	LC1	MAX-	MAX+	FACE	DIR.	TYPE
C	2-2-12	-171	-171	---	FRONT	VERT	TOTAL
X	11-3-8	-2857	-2857	---	FRONT	VERT	TOTAL

MT18HS 580 354 2729 1405 4191 2010

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.90 (V) (INPUT = 0.90)

JSI METAL= 1.00 (W) (INPUT = 1.00)

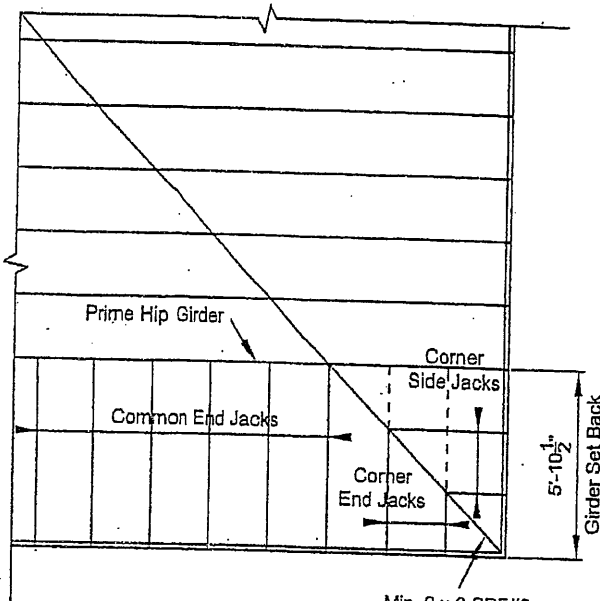
NOTE: Lateral brace(s) shown shall be 1x4 for Part 9 design as per OBC 9.23.13.11, and no less than 2x4 for Part 4 design.



A18012443(2)

SITE COPY

STRACON ENGINEERING INC.



45° Hip End

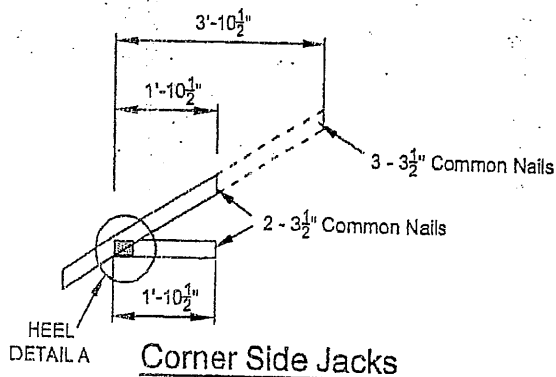
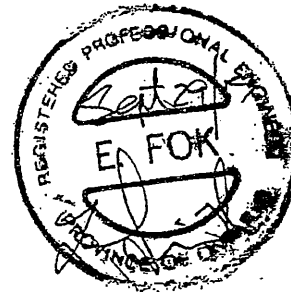
LUMBER SPECIFICATION

TOP CHORD : 2 x 4 SPF#2
 BOTTOM CHORD : 2 x 4 SPF#2
 WEBS : 2 x 3 SPF#2
 UNLESS OTHERWISE SHOWN

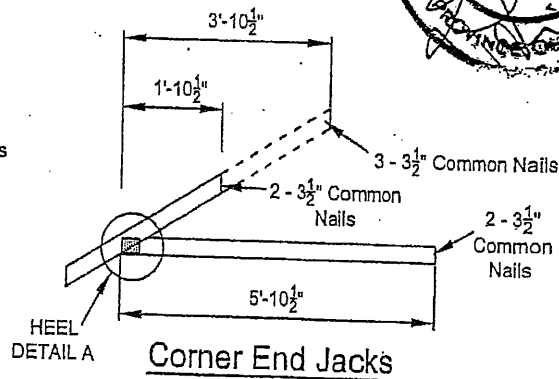
DESIGN LOAD

TOP CHORD SNOW LOAD : 40.5 P.S.F.
 TOP CHORD DEAD LOAD : 3.0 P.S.F.
 BOTTOM CHORD LIVE LOAD : 0.0 P.S.F.
 BOTTOM CHORD DEAD LOAD : 7.0 P.S.F.

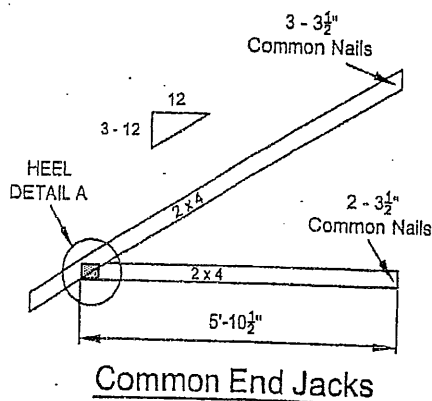
TOTAL LOAD : 50.5 P.S.F



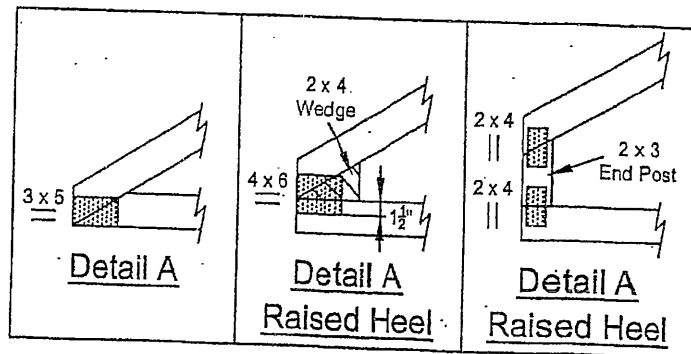
Corner Side Jacks



Corner End Jacks



Common End Jacks

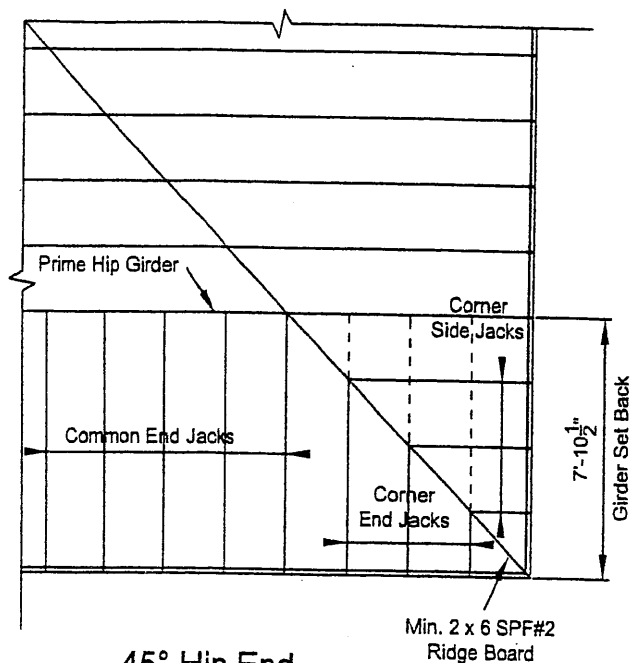


NOTE: DESIGN CONFORMS TO PART 9, O.B.C. 2012 (L.S.D. DESIGN)

CS-51008

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STRACON ENGINEERING INC.



45° Hip End

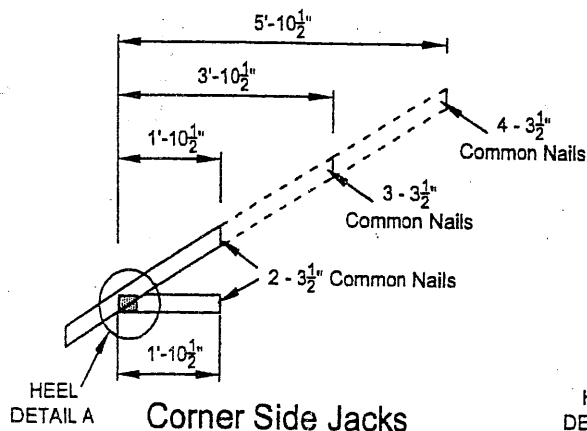
LUMBER SPECIFICATION

TOP CHORD : 2 x 4 SPF#2
 BOTTOM CHORD : 2 x 4 SPF#2
 WEBS : 2 x 3 SPF#2
 UNLESS OTHERWISE SHOWN

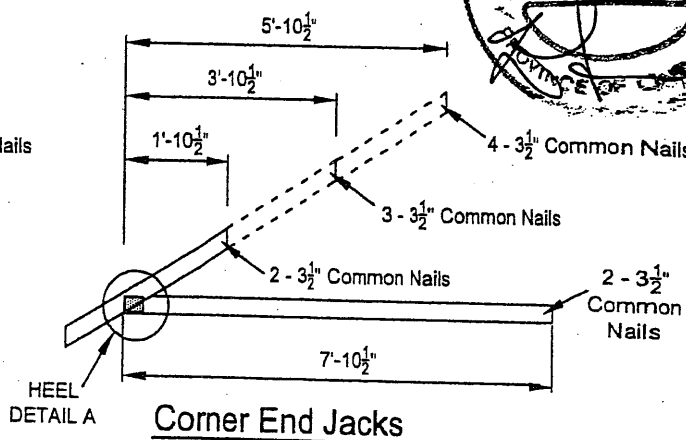
DESIGN LOAD

TOP CHORD SNOW LOAD : 34.8 P.S.F.
 TOP CHORD DEAD LOAD : 3.0 P.S.F.
 BOTTOM CHORD LIVE LOAD : 0.0 P.S.F.
 BOTTOM CHORD DEAD LOAD : 7.0 P.S.F.

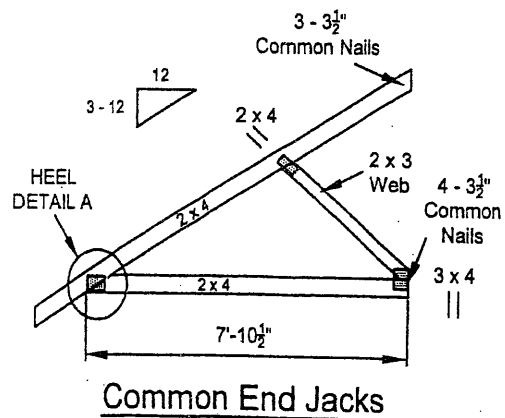
TOTAL LOAD : 44.8 P.S.F



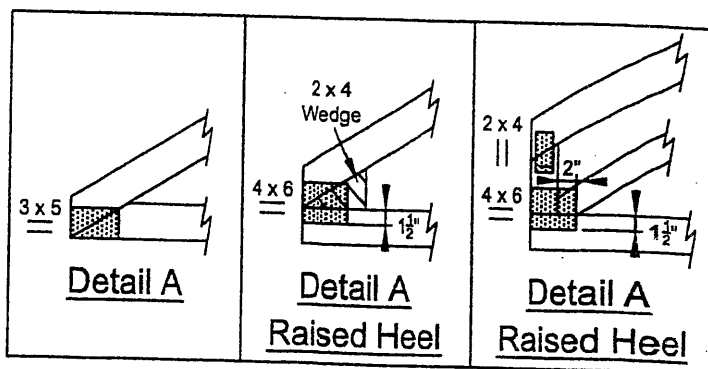
Corner Side Jacks



Corner End Jacks



Common End Jacks



NOTE: DESIGN CONFORMS TO PART 9, O.B.C. 2012 (L.S.D. DESIGN)

CS-71008N

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LUS – Double Shear Joist Hangers

All LUS hangers have double shear nailing. This patented innovation distributes the load through two points on each joist nail for greater strength. It also allows the use of fewer nails, faster installation and the use of common nails for all connections.

Material: 18 gauge

Finish: G90 galvanized

Design:

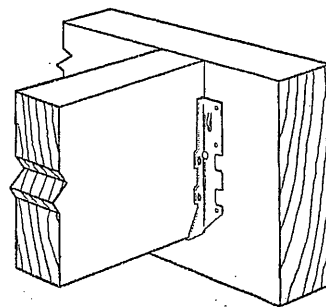
- Factored resistances are in accordance with CSA O86-14.
- Uplift resistances have been increased 15%. No further increase is permitted.
- Wood shear is not considered in the factored resistances given. The specifier must ensure that the joist and header capacities are capable of withstanding these loads.

Installation:

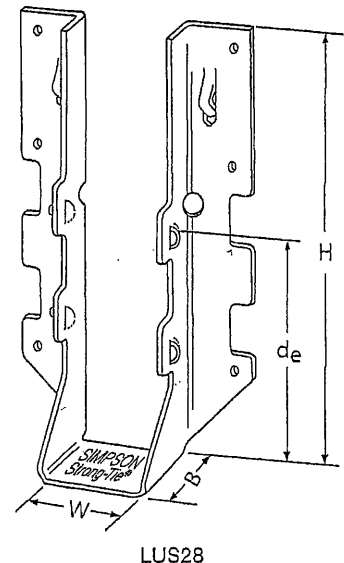
- Use all specified fasteners.
- Nails: 16d = 0.162" dia. x 3½" long common wire,
10d = 0.148" x 3" long common wire.
- Double shear nails must be driven at an angle through the joist or truss into the header to achieve the table loads.
- Not designed for welded or nailer applications.

Options:

- These hangers cannot be modified

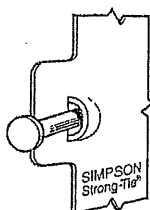


Typical LUS
Installation

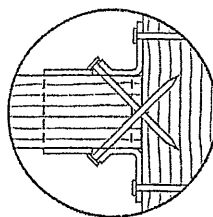


Model No.	Ga.	Dimensions (in.)				Fasteners		Factored Resistance (lb.)			
		W	H	B	d _e ¹	Face	Joist	D.Fir-L		S-P-F	
								Uplift (K _p =1.15)	Normal (K _p =1.00)	Uplift (K _p =1.15)	Normal (K _p =1.00)
LUS24	18	1⅞	3⅞	1¾	1⅞	(4) 10d	(2) 10d	710	1630	645	1155
LUS24-2	18	3⅞	3⅞	2	1⅞	(4) 16d	(2) 16d	835	2020	590	1435
LUS26	18	1⅞	4¾	1¾	3⅞	(4) 10d	(4) 10d	1420	2170	1290	1630
LUS26-2	18	3⅞	4¾	2	4	(4) 16d	(4) 16d	1720	2595	1545	1920
LUS26-3	18	4⅞	4⅞	2	3¼	(4) 16d	(4) 16d	1720	2595	1545	2340
LUS28	18	1⅞	6⅞	1¾	3¾	(6) 10d	(6) 10d	1420	2520	1290	1790
LUS28-2	18	3⅞	7	2	4	(6) 16d	(4) 16d	1720	3325	1545	2575
LUS28-3	18	4⅞	6¼	2	3¼	(6) 16d	(4) 16d	1720	3325	1545	2375
LUS210	18	1⅞	7⅞	1¾	3⅞	(8) 10d	(4) 10d	1420	2785	1290	2210
LUS210-2	18	3⅞	9	2	6	(8) 16d	(6) 16d	2580	4500	2320	3195
LUS210-3	18	4⅞	8⅞	2	5¼	(8) 16d	(6) 16d	2580	3345	2320	2375

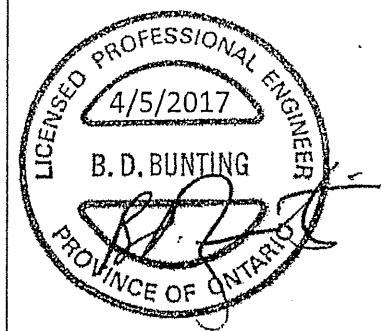
1. d_e is the distance from the seat of the hanger to the highest joist nail.



Dome Double Shear Nailing prevents tabs breaking off (available on some models).
U.S. Patent 5,603,580



Double Shear Nailing
Top View.



LIMIT
STATES
DESIGN

This technical bulletin is effective until June 30, 2019, and reflects information available as of March 1, 2017. This information is updated periodically and should not be relied upon after June 30, 2019. Contact Simpson Strong-Tie for current information and limited warranty or see strongtie.com.

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T-SPECLUS17-3/17 exp. 6/19

(800) 999-5099
strongtie.com

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HUS/LJS – Double Shear Joist Hangers



All hangers have double shear nailing. This patented innovation distributes the load through two points on each joist nail for greater strength. It also allows the use of fewer nails, faster installation and the use of common nails for all connections. Do not bend or remove tabs.

Material: See table

Finish: G90 galvanized

Design:

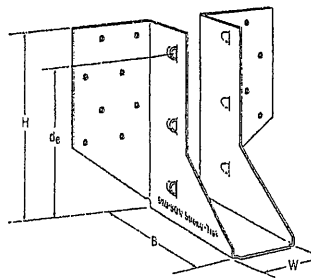
- Factored resistances are in accordance with CSA O86 -14.
- Uplift resistances have been increased 15%. No further increase is permitted.
- Wood shear is not considered in the factored resistances given. The specifier must ensure that the joist and header capacities are capable of withstanding these loads.

Installation:

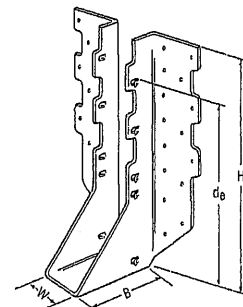
- Use all specified fasteners
- Nails: 16d = 0.162" dia. x 3 1/2" long common wire
- Double shear nails must be driven at an angle through the joist or truss into the header to achieve the table loads
- Not designed for welded or nailer applications

Options:

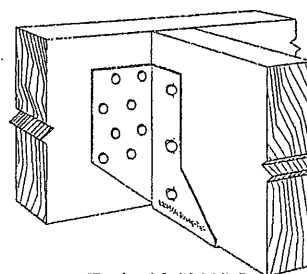
- See current catalogue for options



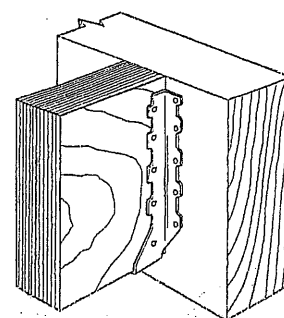
LJS26DS



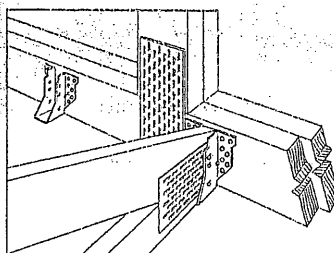
HUS210
(HUS26, HUS28, similar)



Typical LJS26DS
Installation



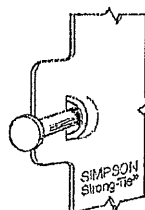
Typical HUS
Installation



Typical HUS Installation
(Truss Designer to provide fastener quantity for connecting multiple members together)

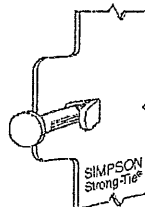
Model No.	Ga.	Dimensions (in.)					Fasteners		Factored Resistance (lb.)			
		W	H	B	d _e ¹	Face	Joist		D.Fir-L		S-P-F	
									Uplift (K _p =1.15) lb.	Normal (K _p =1.00) lb.	Uplift (K _p =1.15) lb.	Normal (K _p =1.00) lb.
LJS26DS	18	1 1/16	5	3 1/2	4 5/8	(16) 16d	(6) 16d		2055	4265	1460	4115
HUS26	16	1 5/8	5 3/8	3	3 15/16	(14) 16d	(6) 16d		2705	4940	2065	3875
HUS28	16	1 5/8	7 3/32	3	6 3/32	(22) 16d	(8) 16d		3605	5365	2675	4345
HUS210	16	1 5/8	9 3/32	3	7 31/32	(30) 16d	(10) 16d		4505	5795	4010	4740
HUS1.81/10	16	1 15/16	9	3	8	(30) 16d	(10) 16d		4505	6450	4010	5200

1. d_e is the distance from the seat of the hanger to the highest joist nail.

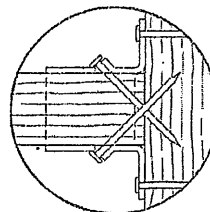


Dome Double Shear Nailing prevents tabs breaking off (available on some models).

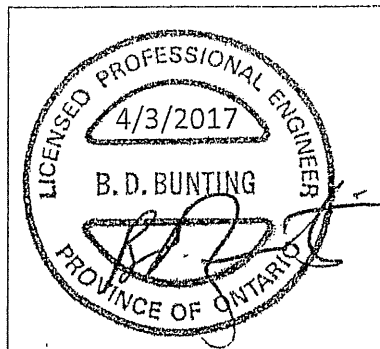
U.S. Patent
5,603,680



Double Shear Nailing Side View. Do not bend tab back.



Double Shear Nailing Top View.



LIMIT
STATES
DESIGN

This technical bulletin is effective until June 30, 2019, and reflects information available as of March 1, 2017. This information is updated periodically and should not be relied upon after June 30, 2019. Contact Simpson Strong-Tie for current information and limited warranty or see strongtie.com.

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T-SPECHUS17 3/17 exp. 6/19

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HHUS – Double Shear Joist Hangers



All HHUS hangers have double shear nailing. This patented innovation distributes the load through two points on each joist nail for greater strength. It also allows the use of fewer nails, faster installation and the use of common nails for all connections. Do not bend or remove tabs.

Material: 14 gauge

Finish: G90 galvanized

Design:

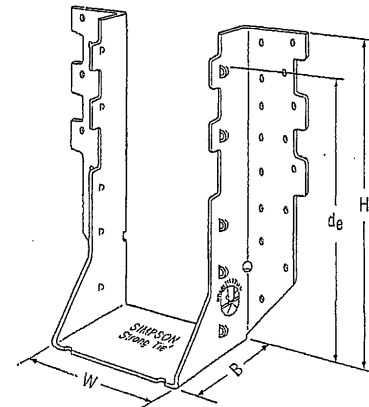
- Factored resistances are in accordance with CSA O86-14.
- Uplift resistances have been increased 15%. No further increase is permitted.
- Wood shear is not considered in the factored resistances given. The specifier must ensure that the joist and header capacities are capable of withstanding these loads.

Installation:

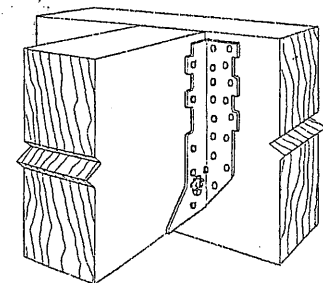
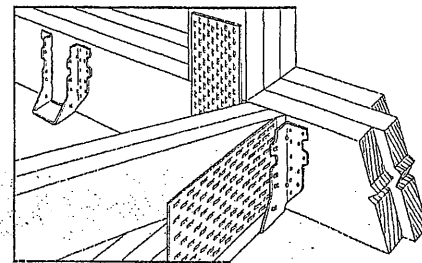
- Use all specified fasteners
- Nails: 16d = 0.162" dia. x 3 1/2" long common wire
- Double shear nails must be driven at an angle through the joist or truss into the header to achieve the table loads
- Not designed for welded or nailer applications

Options:

- See current catalogue for options

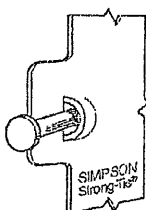


HHUS410



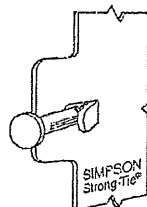
Model No.	Ga.	Dimensions (In.)				Fasteners		Factored Resistance (lb.)			
		W	H	B	d _e ¹	Face	Joist	D-Fir-L		S-P-F	
								Uplift (K _o =1.15)	Normal (K _o =1.00)	Uplift (K _o =1.15)	Normal (K _o =1.00)
HHUS26-2	14	3 5/16	5 1/16	3	3 15/16	(14) 16d	(6) 16d	2850	7335	2065	5205
HHUS28-2	14	3 5/16	7 7/32	3	6 5/32	(22) 16d	(8) 16d	3765	8940	2675	6345
HHUS210-2	14	3 5/16	9 3/32	3	8	(30) 16d	(10) 16d	4745	9660	4310	7000
HHUS210-3	14	4 1 1/16	9	3	7 15/16	(30) 16d	(10) 16d	4745	10545	4310	7485
HHUS210-4	14	6 1/8	8 29/32	3	7 27/32	(30) 16d	(10) 16d	4745	10545	4310	7485
HHUS46	14	3 3/8	5 13/32	3	3 15/16	(14) 16d	(6) 16d	2540	7335	2065	5205
HHUS48	14	3 3/8	7 1/8	3	6 1/8	(22) 16d	(8) 16d	3765	8945	2267	6345
HHUS410	14	3 3/8	9	3	8	(30) 16d	(10) 16d	4745	9855	4310	7000
HHUS5.50/10	14	5 1/2	9	3	8	(30) 16d	(10) 16d	4745	10545	4310	7485
HHUS7.25/10	14	7 1/4	9	3 5/16	7 29/32	(30) 16d	(10) 16d	4745	10770	4310	7650

1. d_e is the distance from the seat of the hanger to the highest joist nail.

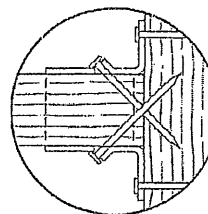


Dome Double Shear Nailing prevents tabs breaking off (available on some models).

U.S. Patent 5,603,680



Double Shear Nailing Side View. Do not bend tab back.



Double Shear Nailing Top View.



LIMIT STATES DESIGN

This technical bulletin is effective until June 30, 2019, and reflects information available as of March 1, 2017. This information is updated periodically and should not be relied upon after June 30, 2019. Contact Simpson Strong-Tie for current information and limited warranty or see strongtie.com.

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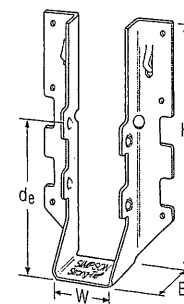
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FACE MOUNT HANGERS – SOLID SAWN LUMBER

Joist Size	Model No.	Ga	Dimensions (in)				Fasteners			Factored Resistance				Installed Cost Index
			W	H	B	d _a ⁶	Min/Max	Header	Joist	D-Fir-L		S-P-F		
										Uplift	Normal	Uplift	Normal	
										(K _D = 1.15)	(K _D = 1.00)	(K _D = 1.15)	(K _D = 1.00)	
lbs	lbs	lbs	lbs	kN	kN	kN	kN							
SAWN LUMBER SIZES														
2x4	LU24L	22	1 1⁄8	3 3⁄8	1 1⁄8	2 1⁄16	—	4-10d	2-10dx1 1⁄2	360	1020	320	725	Lowest
										1.60	4.54	1.42	3.22	
	LUS24	18	1 1⁄8	3 3⁄8	1 3⁄4	2 1⁄4	—	4-10d	2-10d	710	1625	645	1155	+11%
										3.16	7.23	2.87	5.14	
U24	16	1 1⁄8	3 3⁄8	1 1⁄2	1 13⁄16	—	4-10d	2-10dx1 1⁄2	450	1340	355	1030	+90%	
									2.00	5.96	1.58	4.58		
HU26	14	1 1⁄8	3 3⁄8	2 1⁄4	1 1⁄8	—	4-16d	2-10dx1 1⁄2	490	1525	450	1080	+490%	
									2.18	6.78	2.00	4.80		
DBL 2x4	LUS24-2	18	3 3⁄8	3 3⁄8	2	1 17⁄32	—	4-16d	2-16d	835	2020	590	1435	Lowest
									3.71	8.99	2.62	6.38		
	U24-2	16	3 3⁄8	3	2	1 15⁄16	—	4-10d	2-10d	480	1340	445	1030	+59%
										2.14	5.96	1.98	4.58	
HU24-2/ HUC24-2	14	3 3⁄8	3 1⁄8	2 1⁄2	2 1⁄16	—	4-16d	2-10d	525	1710	490	1585	+244%	
									2.34	7.61	2.18	7.05		
2x6	LU26L	22	1 1⁄8	5	1 1⁄8	4 19⁄32	—	6-10d	4-10dx1 1⁄2	720	1605	645	1140	Lowest
									3.20	7.14	2.87	5.07		
	LUS26	18	1 1⁄8	4 3⁄4	1 3⁄4	3 25⁄32	—	4-10d	4-10d	1420	2170	1290	1630	+10%
										6.32	9.65	5.74	7.25	
U26	16	1 1⁄8	4 3⁄4	2	3 15⁄16	—	6-10d	4-10dx1 1⁄2	895	2005	780	1860	+70%	
									3.98	8.92	3.47	8.27		
LUC26Z	18	1 1⁄8	4 3⁄4	1 3⁄4	4	—	6-10d	4-10dx1 1⁄2	830	1605	710	1140	+74%	
									3.69	7.14	3.16	5.07		
HUS26	16	1 1⁄8	5 3⁄8	3	3 15⁄16	—	14-16d	6-16d	2705	4940	2065	3875	+320%	
									12.03	21.97	9.20	17.24		
DBL 2x6	LU26-2L	20	3 3⁄8	5	1 1⁄8	4 19⁄32	—	6-10d	4-10dx1 1⁄2	760	1605	680	1140	Lowest
									3.38	7.14	3.02	5.07		
	LUS26-2	18	3 3⁄8	4 7⁄8	2	4 1⁄32	—	4-16d	4-16d	1720	2595	1545	1920	+24%
										7.65	11.54	6.87	8.54	
U26-2	16	3 3⁄8	5	2	3 13⁄16	—	8-10d	4-10d	960	2675	890	2475	+124%	
									4.27	11.90	3.96	11.01		
HU26-2/ HUC26-2	14	3 3⁄8	5 3⁄8	2 1⁄2	5	Min	8-16d	4-10d	1055	3420	980	2845	+358%	
						Max	12-16d	6-10d	4.69	15.21	4.36	12.66		
									1580	4415	1470	3135	+372%	
									7.03	19.64	6.54	13.95		
TPL 2x6	LUS26-3	18	4 3⁄8	4 1⁄8	2	3 3⁄32	—	4-16d	4-16d	1720	2595	1545	2340	Lowest
									7.65	11.54	6.87	10.41		
	U26-3	16	4 3⁄8	4 1⁄4	2	3 11⁄16	—	8-10d	4-10d	960	2675	890	2475	+87%
										4.27	11.90	3.96	11.01	
HU26-3/ HUC26-3	14	4 11⁄16	5 3⁄8	2 1⁄2	5	Min	8-16d	4-10d	1055	3420	980	2845	+193%	
						Max	12-16d	6-10d	4.69	15.21	4.36	12.66		
									1580	4415	1470	3135	+198%	
									7.03	19.64	6.54	13.95		
2x8	LU26L	22	1 1⁄8	5	1 1⁄8	4 19⁄32	—	6-10d	4-10dx1 1⁄2	720	1605	645	1140	Lowest
									3.20	7.14	2.87	5.07		
	LUS26	18	1 1⁄8	4 3⁄4	1 3⁄4	3 25⁄32	—	4-10d	4-10d	1420	2170	1290	1630	+10%
										6.32	9.65	5.74	7.25	
LU28L	20	1 1⁄8	6 3⁄4	1 1⁄8	5 7⁄8	—	8-10d	6-10dx1 1⁄2	1140	2185	1020	1550	+29%	
									5.07	9.72	4.54	6.89		
LUS28	18	1 1⁄8	6 3⁄8	1 3⁄4	3 25⁄32	—	6-10d	4-10d	1420	2520	1290	1790	+42%	
									6.32	11.21	5.74	7.96		
U26	16	1 1⁄8	4 3⁄4	2	3 15⁄16	—	6-10d	4-10dx1 1⁄2	895	2005	780	1860	+70%	
									3.98	8.92	3.47	8.27		
LUC26Z	18	1 1⁄8	4 3⁄4	1 3⁄4	4	—	6-10d	4-10dx1 1⁄2	830	1605	710	1140	+70%	
									3.69	7.14	3.16	5.07		
HU28	14	1 1⁄8	5 1⁄4	2 1⁄4	4 7⁄8	—	6-16d	4-10dx1 1⁄2	980	2565	905	2380	+415%	
									4.36	11.41	4.03	10.59		
HUS28	16	1 3⁄8	7 3⁄32	3	6 3⁄32	—	22-16d	8-16d	3605	5365	2675	4345	+457%	
									16.04	23.86	11.90	19.33		



These products are available with additional corrosion protection. Additional products on this page may also be available with this option, check with Simpson Strong-Tie for details.

These products are approved for installation with the Strong-Drive® SD Connector screw. See page 24 for more information.

Solid Sawn Lumber Connectors

1. 10d common nails may be used instead of the specified 16d nails at 0.83 of the tabulated value.
2. Factored uplift resistances have been increased 15% for earthquake or wind loading with no further increase allowed. Reduce by 15% for standard term loading such as in cantilever construction.
3. MIN nailing quantity and factored resistances—fill all round holes; MAX nailing quantity and factored resistances—fill all round and triangle holes.

4. D-Fir-L factored resistances can be used for most LVL. Verify with manufacturer prior to selecting hanger.
5. See page 22 for hangers with reduced capacity due to installation with different nails.
6. d_a is the distance from the bearing seat to the top joist nail.
7. NAILS: 16d = 0.162" dia. x 3 1/2" long, 10d = 0.148" dia. x 3" long, 10dx1 1/2 = 0.148" dia. x 1 1/2" long. See pages 22-23 for other nail sizes and information.

*Hangers do not have an Installed Cos

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