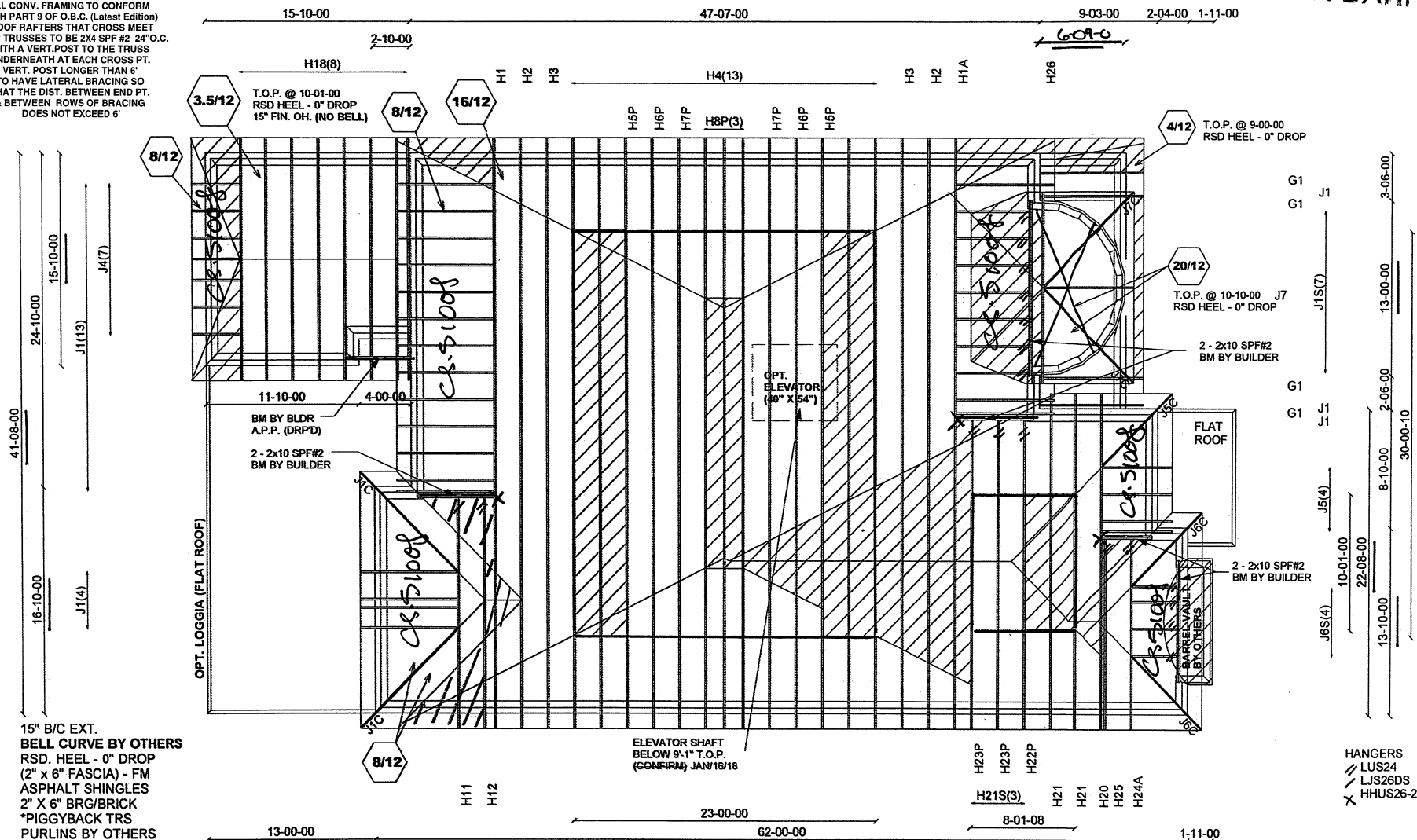


ALPA-BARRIE

ALL CONV. FRAMING TO CONFORM WITH PART 9 OF O.B.C. (Latest Edition) 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 6' TO HAVE LATERAL BRACING SO THAT THE DIST. BETWEEN END PT. & BETWEEN ROWS OF BRACING DOES NOT EXCEED 6'



15" B/C EXT. BELL CURVE BY OTHERS RSD. HEEL - 0" DROP (2" x 6" FASCIA) - FM ASPHALT SHINGLES 2" X 6" BRG/BRICK *PIGGYBACK TRS PURLINS BY OTHERS

CONFIRM TRUSS DIRECTION/LAYOUT P.L. 95914

A-18023696-A-18023703
A-18023706-A-18023707
A-18023713, A-18023726-A-18023735

HANGERS
LUS24
LUS26DS
HHUS26-2

CONVENTIONAL FRAMING BY OTHERS

P.L. 99352



Job Track: 45147
Layout ID: 292657
Plan Log: 95914

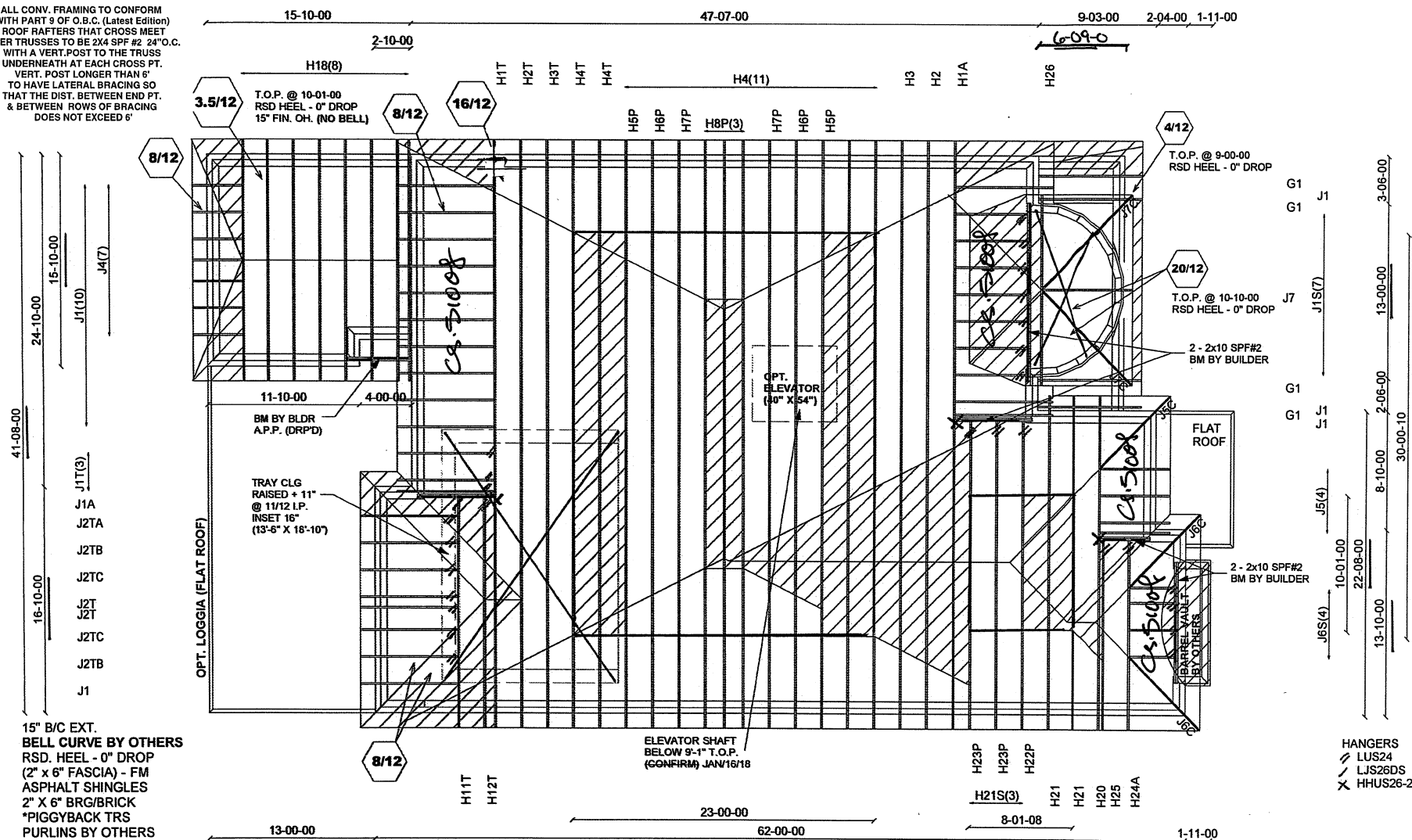
Builder / Location:
GOLD PARK HOMES / VAUGHAN
Project: **PINE VALLEY**
Date: 1/19/2018 Designer: AMANDA

Model / Elevation: 5005 REV1
STD OR OPT TWO FLR (SIBED) AND/OR OPT / B ELEVATOR OR OPT LOGGIA (FLAT)

THESE DRAWINGS CONSTITUTE THE PROPERTY OF ALPA 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 ALPA ROOF TRUSSES INC AND WILL BE RETRACTED BY ALPA ROOF TRUSSES INC IF UTILIZED FOR ANY OTHER PURPOSE.

ALPA-BARRIE

ALL CONV. FRAMING TO CONFORM WITH PART 9 OF O.B.C. (Latest Edition) 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 6' TO HAVE LATERAL BRACING SO THAT THE DIST. BETWEEN END PT. & BETWEEN ROWS OF BRACING DOES NOT EXCEED 6'



15" B/C EXT.
BELL CURVE BY OTHERS
RSD. HEEL - 0" DROP
(2" x 6" FASCIA) - FM
ASPHALT SHINGLES
2" X 6" BRG/BRICK
*PIGGYBACK TRS
PURLINS BY OTHERS

CONFIRM TRUSSES DIRECTION/LAYOUT
P.L. 95914

A-18023799-A-18023703
A-18023706-A-18023707
A-18023713-A-18023721
A-18023723-A-18023735

HANGERS
/ LUS24
/ LJS28DS
X HHUS26-2

CONVENTIONAL FRAMING BY OTHERS

HIGHBOURNE KNIGHTS LTD

Model / Elevation: 5005 REV1 / B OPT TRAY OPT ELEVATOR OR OPT LOGGIA



Job Track: 45147
Layout ID: 292658
Plan Log: 95914

Builder / Location: GOLD PARK HOMES / VAUGHAN

Project: PINE VALLEY

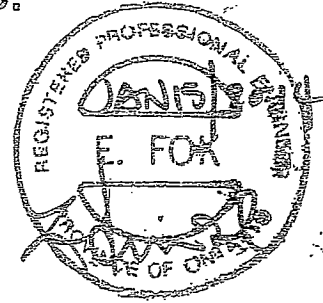
Date: 1/19/2018 Designer: AMANDA

THESE DRAWINGS CONSTITUTE THE PROPERTY OF ALPA 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 ALPA ROOF TRUSSES INC AND WILL BE RETRACTED BY ALPA ROOF TRUSSES INC IF UTILIZED FOR ANY OTHER PURPOSE.

P.L. 99352

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



JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
292655	H1	1	1	TRUSS DESC.	

PLATES (table is in inches)

JT	TYPE	PLATES	W	LEN	Y	X
S	BMVWW-I	MT20	7.0	8.0	4.25	2.50
T	BS-I	MT18HS	5.0	12.0		
U	BMVWW-I	MT20	6.0	9.0	2.50	3.00
V	BMVWW-I	MT20	5.0	6.0	2.50	2.25
W	BMV1-I	MT20	6.0	9.0	Edge	

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) 134.1 lbs FACTORED DOWN AT 2-4-5 ON TOP CHORD, AND 1777.8 lbs FACTORED DOWN AT 25-1-8 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

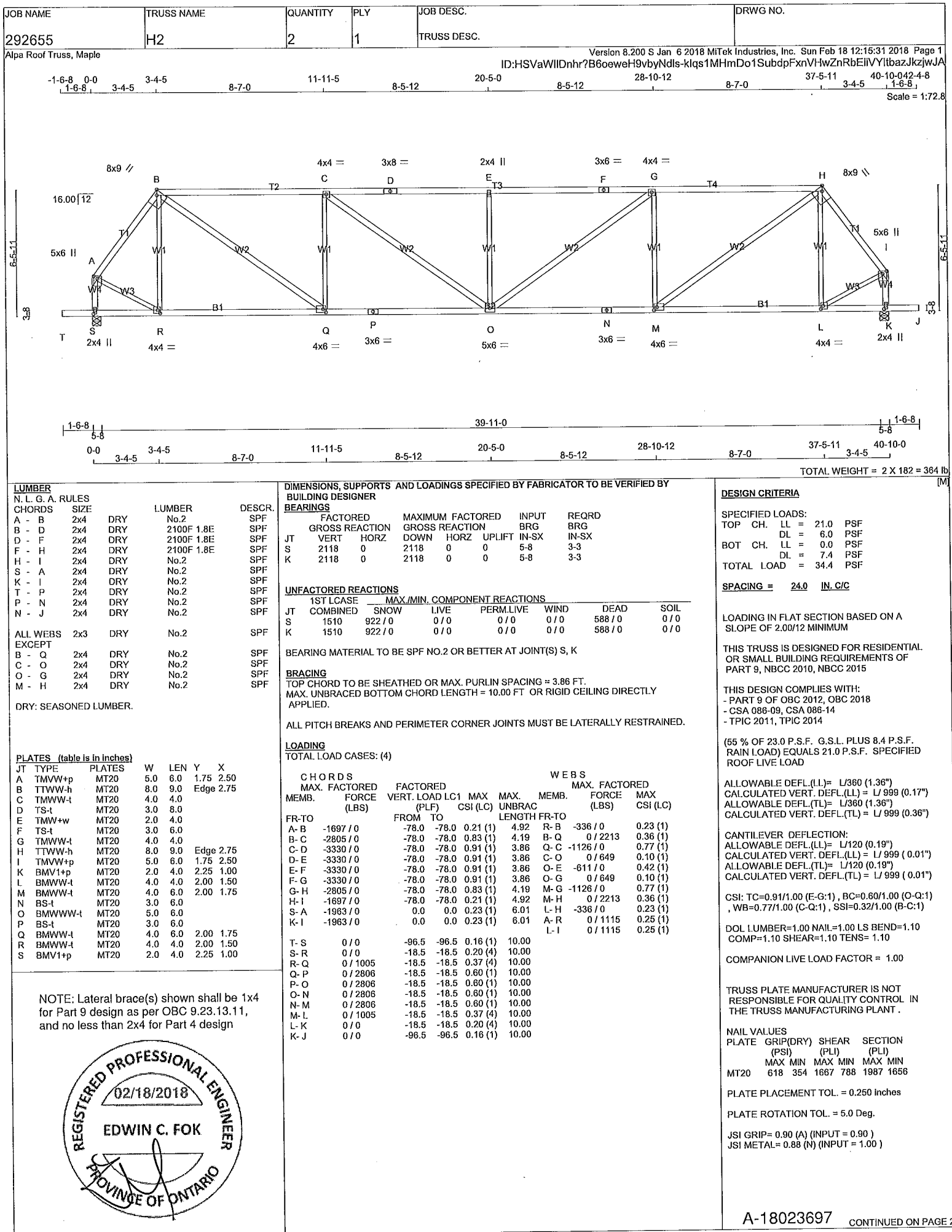
PLATE	GRIP(DRY)	SHEAR	SECTION
	(PSI)	(PL)	(PL)
	MAX	MIN	MAX
MT20	618	354	1667
MT18HS	511	354	1382

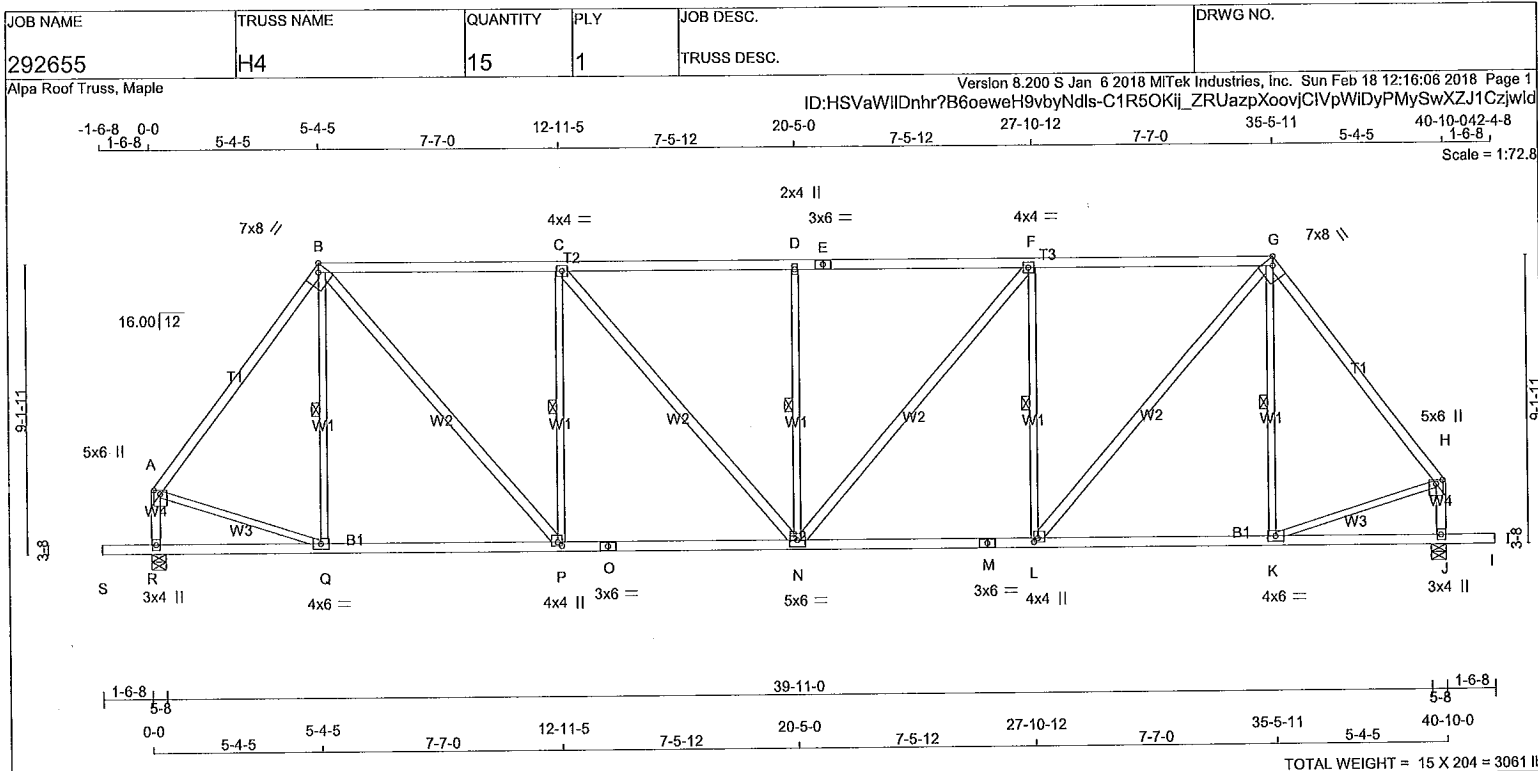
PLATE PLACEMENT TOL. = 0.250 inches
PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.88 (O) (INPUT = 0.90)
JSI METAL= 0.94 (Q) (INPUT = 1.00)



A-1802369660





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

DRY: SEASONED LUMBER.

PLATES (table is in inches)				
JT	TYPE	PLATES	W	LEN Y X
A	TMVW+p	MT20	5.0	6.0 1.50 2.50
B	TTVW-h	MT20	7.0	8.0 Edge 2.75
C	TMVW-t	MT20	4.0	4.0
D	TMVW-w	MT20	2.0	4.0
E	TS-t	MT20	3.0	6.0
F	TMVW-t	MT20	4.0	4.0
G	TTVW-h	MT20	7.0	8.0 Edge 2.75
H	TMVW+p	MT20	5.0	6.0 1.50 2.50
J	BMV1+p	MT20	3.0	4.0
K	BMVW-t	MT20	4.0	6.0
L	BMVW-t	MT20	4.0	4.0 1.50 1.50
M	BS-t	MT20	3.0	6.0
N	BMVW-t	MT20	5.0	6.0
O	BS-t	MT20	3.0	6.0
P	BMVW-t	MT20	4.0	4.0 1.50 1.50
Q	BMVW-t	MT20	4.0	6.0
R	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		FACTORED		MAXIMUM FACTORED		INPUT		REQRD	
JT	GROSS REACTION	VERT	HORZ	DOWN	HORZ	BRG	IN-SX	BRG	IN-SX
R	2231	0	2231	0	0	5-8	3-9	3-9	
J	2231	0	2231	0	0	5-8	3-9	3-9	

UNFACTORED REACTIONS		1ST LCASE		MAX./MIN. COMPONENT REACTIONS		DEAD		SOIL	
JT	COMBINED	SNOW	LIVE	PERM.LIVE	WIND				
R	1601	922 / 0	0 / 0	0 / 0	0 / 0	679 / 0	0 / 0	0 / 0	
J	1601	922 / 0	0 / 0	0 / 0	0 / 0	679 / 0	0 / 0	0 / 0	

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

BRACING
FOR SECTION B-G, MAX. PURLIN SPACING = 2.00 FT.
FOR OTHER SECTIONS, TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 4.57 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 B-Q, C-P, D-N, F-L, G-K.

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

CHORDS		FACTORED		WEBS		FACTORED	
MEMB.	MAX. FORCE (LBS)	VERT. LOAD (PLF)	LC1 MAX (CSI (LC))	MEMB.	MAX. FORCE (LBS)	MAX. UNBRACED LENGTH (LBS)	MAX. FACTORED (CSI (LC))
FR-TO		FROM TO		FR-TO			
A-B	-1879 / 0	-78.0 -78.0	0.44 (1)	4.57	Q-B	-198 / 3	0.11 (1)
B-C	-2176 / 0	-85.5 -85.5	0.73 (1)	2.00	B-P	0 / 1618	0.26 (1)
C-D	-2482 / 0	-85.5 -85.5	0.72 (1)	2.00	P-C	-1084 / 0	0.59 (1)
D-E	-2482 / 0	-85.5 -85.5	0.72 (1)	2.00	C-N	0 / 474	0.08 (1)
E-F	-2482 / 0	-85.5 -85.5	0.72 (1)	2.00	N-D	-589 / 0	0.32 (1)
F-G	-2176 / 0	-85.5 -85.5	0.73 (1)	2.00	N-F	0 / 474	0.08 (1)
G-H	-1879 / 0	-78.0 -78.0	0.44 (1)	4.57	L-F	-1084 / 0	0.59 (1)
H-A	-2046 / 0	0.0 0.0	0.24 (1)	5.91	L-G	0 / 1618	0.26 (1)
J-H	-2046 / 0	0.0 0.0	0.24 (1)	5.91	K-G	-198 / 3	0.11 (1)
					A-Q	0 / 1170	0.26 (1)
					K-H	0 / 1170	0.26 (1)
S-R	0 / 0	-96.5 -96.5	0.16 (1)	10.00			
R-Q	0 / 0	-18.5 -18.5	0.18 (4)	10.00			
Q-P	0 / 1120	-18.5 -18.5	0.33 (4)	10.00			
P-O	0 / 2176	-18.5 -18.5	0.47 (1)	10.00			
O-N	0 / 2176	-18.5 -18.5	0.47 (1)	10.00			
N-M	0 / 2176	-18.5 -18.5	0.47 (1)	10.00			
M-L	0 / 2176	-18.5 -18.5	0.47 (1)	10.00			
L-K	0 / 1120	-18.5 -18.5	0.33 (4)	10.00			
K-J	0 / 0	-18.5 -18.5	0.18 (4)	10.00			
J-I	0 / 0	-96.5 -96.5	0.16 (1)	10.00			

DESIGN CRITERIA

SPECIFIED LOADS:
TOP CH. LL = 21.0 PSF
DL = 6.0 PSF
BOT CH. LL = 0.0 PSF
DL = 7.4 PSF
TOTAL LOAD = 34.4 PSF

SPACING = 24.0 IN. C/C

LOADING IN FLAT SECTION BASED ON PIGGYBACK TRUSS WITH SLOPES OF 6.00/12 AND -6.00/12 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, NBCC 2015

THIS DESIGN COMPLIES WITH:
- PART 9 OF OBC 2012, OBC 2018
- CSA 086-09, CSA 086-14
- TPIC 2011, TPIC 2014

(55 % OF 23.0 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 21.0 P.S.F. SPECIFIED ROOF LIVE LOAD

ALLOWABLE DEFL.(LL)= L/360 (1.36")
CALCULATED VERT. DEFL.(LL)= L/999 (0.11")
ALLOWABLE DEFL.(TL)= L/360 (1.36")
CALCULATED VERT. DEFL.(TL)= L/999 (0.25")

CANTILEVER DEFLECTION:
ALLOWABLE DEFL.(LL)= L/120 (0.19")
CALCULATED VERT. DEFL.(LL)= L/999 (0.01")
ALLOWABLE DEFL.(TL)= L/120 (0.19")
CALCULATED VERT. DEFL.(TL)= L/999 (0.01")

CSI: TC=0.73/1.00 (B-C:1), BC=0.47/1.00 (N-P:1), WB=0.59/1.00 (C-P:1), SSI=0.31/1.00 (B-C: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 = 1.00

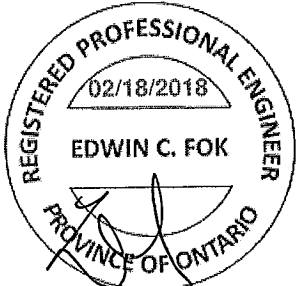
TRUSS PLATE MANUFACTURER IS NOT RESPONSIBLE FOR QUALITY CONTROL IN THE TRUSS MANUFACTURING PLANT.

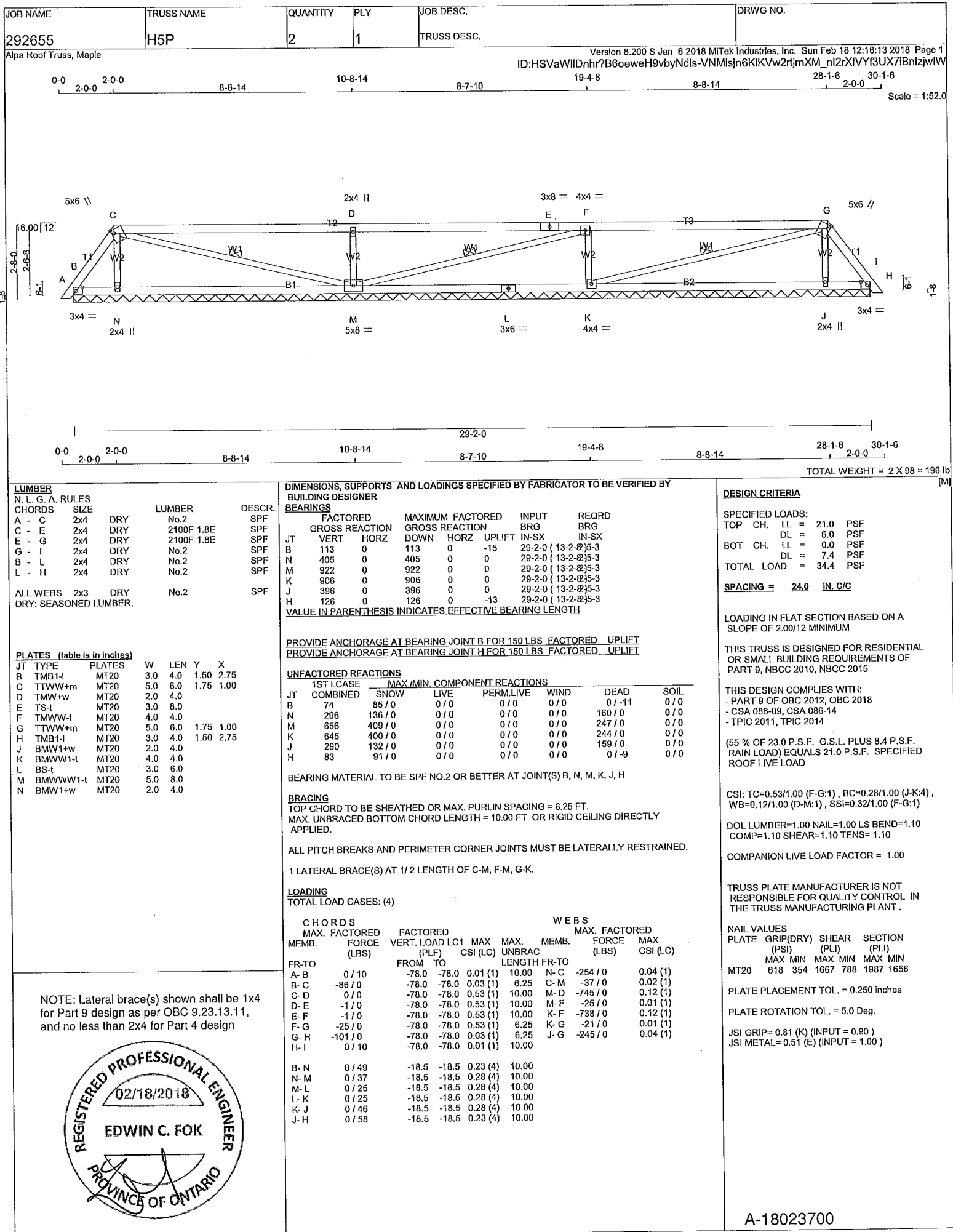
NAIL VALUES		PLATE GRIP(DRY) SHEAR		SECTION	
(PSI)	(PLI)	(PSI)	(PLI)	(PSI)	(PLI)
MAX MIN	MAX MIN	MAX MIN	MAX MIN	MAX MIN	MAX MIN
MT20	618	354	1667	788	1987

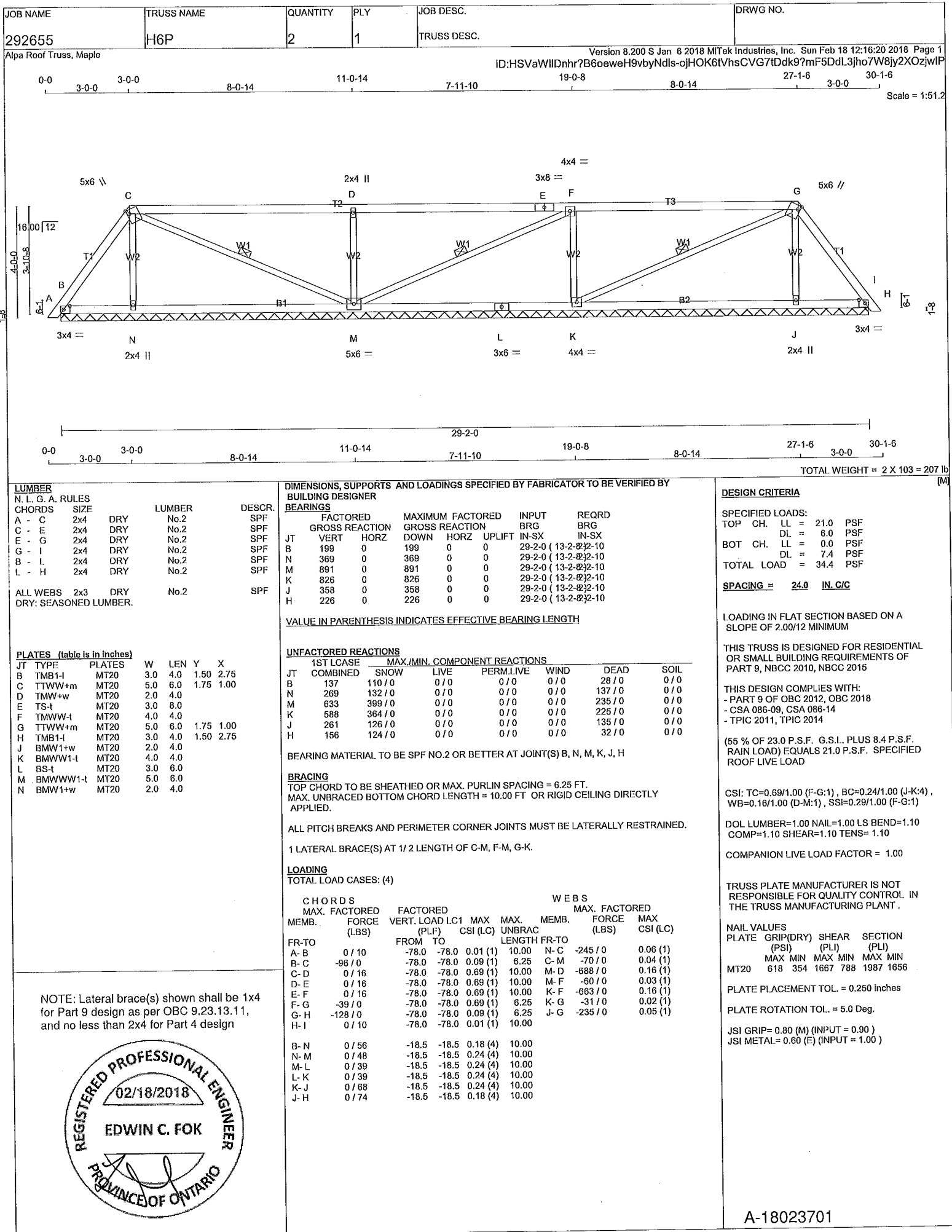
PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.89 (P) (INPUT = 0.90)
JSI METAL= 0.62 (H) (INPUT = 1.00)





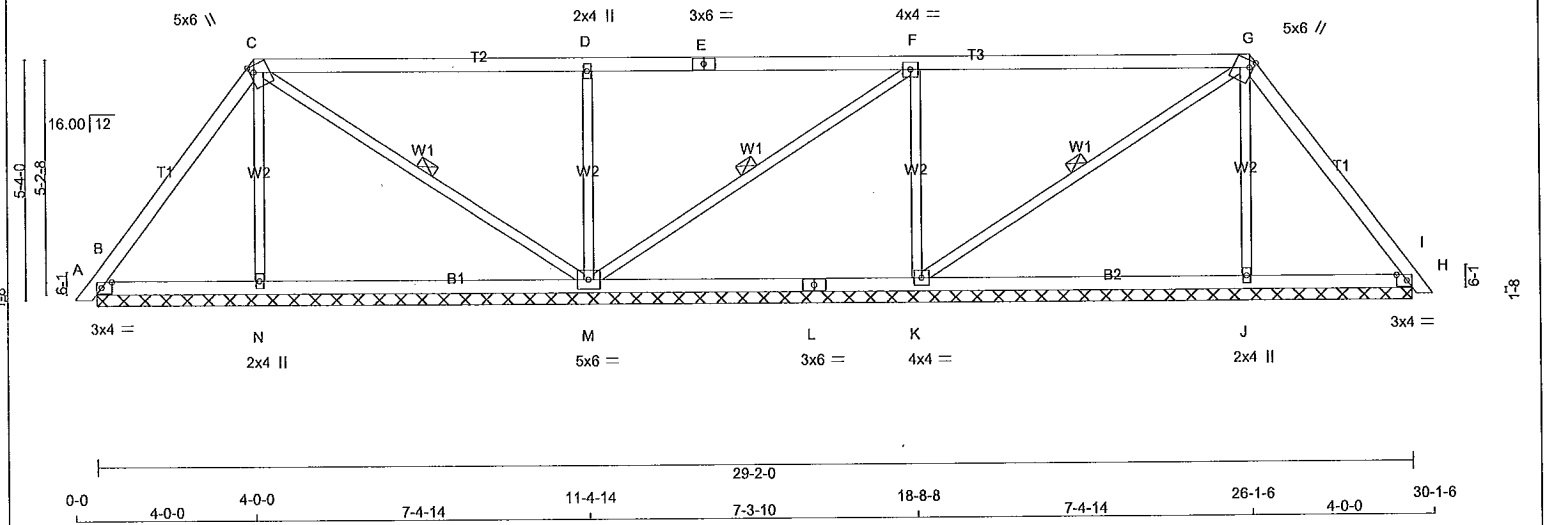


JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
292655	H7P	2	1	TRUSS DESC.	

Alpa Roof Truss, Maple

Version 8.200 S Jan 6 2018 MiTek Industries, Inc. Sun Feb 18 12:16:32 2018 Page 1
ID:HSVaWIIIDnhr?B6oeweH9vbyNdls-S10wrD01sYjoizoXKFNPfNaHFB96VDfHvashy/zjwID

0-0 4-0-0 4-0-0 7-4-14 11-4-14 7-3-10 18-8-8 7-4-14 26-1-6 4-0-0 30-1-6
Scale = 1:51.2



LUMBER N. L. G. A. RULES CHORDS SIZE LUMBER DESCR. A - C 2x4 DRY No.2 SPF C - E 2x4 DRY No.2 SPF E - G 2x4 DRY No.2 SPF G - I 2x4 DRY No.2 SPF B - L 2x4 DRY No.2 SPF L - H 2x4 DRY No.2 SPF ALL WEBS 2x3 DRY No.2 SPF DRY: SEASONED LUMBER.							DIMENSIONS, SUPPORTS AND LOADINGS SPECIFIED BY FABRICATOR TO BE VERIFIED BY BUILDING DESIGNER BEARINGS <table><tr><th></th><th>FACTORED GROSS REACTION</th><th>MAXIMUM FACTORED GROSS REACTION</th><th>INPUT BRG</th><th>REQRD BRG</th></tr><tr><th></th><th>VERT</th><th>HORZ</th><th>DOWN</th><th>UP</th></tr><tr><td>JT</td><td></td><td></td><td></td><td></td></tr><tr><td>B</td><td>260</td><td>0</td><td>260</td><td>0</td></tr><tr><td>N</td><td>347</td><td>0</td><td>347</td><td>0</td></tr><tr><td>M</td><td>885</td><td>0</td><td>885</td><td>0</td></tr><tr><td>K</td><td>733</td><td>0</td><td>733</td><td>0</td></tr><tr><td>J</td><td>340</td><td>0</td><td>340</td><td>0</td></tr><tr><td>H</td><td>304</td><td>0</td><td>304</td><td>0</td></tr></table> VALUE IN PARENTHESIS INDICATES EFFECTIVE BEARING LENGTH UNFACTORED REACTIONS <table><tr><th>JT</th><th>1ST LCASE</th><th>SNOW</th><th>LIVE</th><th>PERM.LIVE</th><th>WIND</th><th>DEAD</th><th>SOIL</th></tr><tr><td>B</td><td>182</td><td>132 / 0</td><td>0 / 0</td><td>0 / 0</td><td>0 / 0</td><td>50 / 0</td><td>0 / 0</td></tr><tr><td>N</td><td>253</td><td>125 / 0</td><td>0 / 0</td><td>0 / 0</td><td>0 / 0</td><td>128 / 0</td><td>0 / 0</td></tr><tr><td>M</td><td>628</td><td>402 / 0</td><td>0 / 0</td><td>0 / 0</td><td>0 / 0</td><td>225 / 0</td><td>0 / 0</td></tr><tr><td>K</td><td>522</td><td>320 / 0</td><td>0 / 0</td><td>0 / 0</td><td>0 / 0</td><td>202 / 0</td><td>0 / 0</td></tr><tr><td>J</td><td>248</td><td>121 / 0</td><td>0 / 0</td><td>0 / 0</td><td>0 / 0</td><td>127 / 0</td><td>0 / 0</td></tr><tr><td>H</td><td>212</td><td>155 / 0</td><td>0 / 0</td><td>0 / 0</td><td>0 / 0</td><td>57 / 0</td><td>0 / 0</td></tr></table> BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S) B, N, M, K, J, H 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. 1 LATERAL BRACE(S) AT 1/2 LENGTH OF C-M, F-M, G-K. LOADING TOTAL LOAD CASES: (4) <table><tr><th>CHORDS</th><th>MAX. FACTORED FORCE (LBS)</th><th>FACTORED VERT. LOAD (PLF)</th><th>MAX. FACTORED CSI (LC)</th><th>MAX. UNBRACED LENGTH</th><th>WEBS</th><th>MAX. FACTORED FORCE (LBS)</th><th>MAX. FACTORED CSI (LC)</th></tr><tr><td>FR-TO</td><td></td><td>FROM TO</td><td></td><td></td><td>FR-TO</td><td></td><td></td></tr><tr><td>A-B</td><td>0 / 10</td><td>-78.0 -78.0</td><td>0.01 (1)</td><td>10.00</td><td>N-C</td><td>-231 / 0</td><td>0.09 (1)</td></tr><tr><td>B-C</td><td>-98 / 0</td><td>-78.0 -78.0</td><td>0.17 (1)</td><td>6.25</td><td>C-M</td><td>-108 / 0</td><td>0.06 (1)</td></tr><tr><td>C-D</td><td>0 / 37</td><td>-78.0 -78.0</td><td>0.58 (1)</td><td>10.00</td><td>M-D</td><td>-631 / 0</td><td>0.25 (1)</td></tr><tr><td>D-E</td><td>0 / 36</td><td>-78.0 -78.0</td><td>0.58 (1)</td><td>10.00</td><td>M-F</td><td>-104 / 0</td><td>0.06 (1)</td></tr><tr><td>E-F</td><td>0 / 36</td><td>-78.0 -78.0</td><td>0.58 (1)</td><td>10.00</td><td>K-F</td><td>-572 / 0</td><td>0.23 (1)</td></tr><tr><td>F-G</td><td>-50 / 0</td><td>-78.0 -78.0</td><td>0.58 (1)</td><td>6.25</td><td>K-G</td><td>-41 / 0</td><td>0.02 (1)</td></tr><tr><td>G-H</td><td>-152 / 0</td><td>-78.0 -78.0</td><td>0.17 (1)</td><td>6.25</td><td>J-G</td><td>-224 / 0</td><td>0.09 (1)</td></tr><tr><td>H-I</td><td>0 / 10</td><td>-78.0 -78.0</td><td>0.01 (1)</td><td>10.00</td><td></td><td></td><td></td></tr><tr><td>B-N</td><td>0 / 57</td><td>-18.5 -18.5</td><td>0.15 (4)</td><td>10.00</td><td></td><td></td><td></td></tr><tr><td>N-M</td><td>0 / 53</td><td>-18.5 -18.5</td><td>0.20 (4)</td><td>10.00</td><td></td><td></td><td></td></tr><tr><td>M-L</td><td>0 / 50</td><td>-18.5 -18.5</td><td>0.20 (4)</td><td>10.00</td><td></td><td></td><td></td></tr><tr><td>L-K</td><td>0 / 50</td><td>-18.5 -18.5</td><td>0.20 (4)</td><td>10.00</td><td></td><td></td><td></td></tr><tr><td>K-J</td><td>0 / 84</td><td>-18.5 -18.5</td><td>0.21 (4)</td><td>10.00</td><td></td><td></td><td></td></tr><tr><td>J-H</td><td>0 / 89</td><td>-18.5 -18.5</td><td>0.15 (4)</td><td>10.00</td><td></td><td></td><td></td></tr></table>								FACTORED GROSS REACTION	MAXIMUM FACTORED GROSS REACTION	INPUT BRG	REQRD BRG		VERT	HORZ	DOWN	UP	JT					B	260	0	260	0	N	347	0	347	0	M	885	0	885	0	K	733	0	733	0	J	340	0	340	0	H	304	0	304	0	JT	1ST LCASE	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL	B	182	132 / 0	0 / 0	0 / 0	0 / 0	50 / 0	0 / 0	N	253	125 / 0	0 / 0	0 / 0	0 / 0	128 / 0	0 / 0	M	628	402 / 0	0 / 0	0 / 0	0 / 0	225 / 0	0 / 0	K	522	320 / 0	0 / 0	0 / 0	0 / 0	202 / 0	0 / 0	J	248	121 / 0	0 / 0	0 / 0	0 / 0	127 / 0	0 / 0	H	212	155 / 0	0 / 0	0 / 0	0 / 0	57 / 0	0 / 0	CHORDS	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	MAX. FACTORED CSI (LC)	MAX. UNBRACED LENGTH	WEBS	MAX. FACTORED FORCE (LBS)	MAX. FACTORED CSI (LC)	FR-TO		FROM TO			FR-TO			A-B	0 / 10	-78.0 -78.0	0.01 (1)	10.00	N-C	-231 / 0	0.09 (1)	B-C	-98 / 0	-78.0 -78.0	0.17 (1)	6.25	C-M	-108 / 0	0.06 (1)	C-D	0 / 37	-78.0 -78.0	0.58 (1)	10.00	M-D	-631 / 0	0.25 (1)	D-E	0 / 36	-78.0 -78.0	0.58 (1)	10.00	M-F	-104 / 0	0.06 (1)	E-F	0 / 36	-78.0 -78.0	0.58 (1)	10.00	K-F	-572 / 0	0.23 (1)	F-G	-50 / 0	-78.0 -78.0	0.58 (1)	6.25	K-G	-41 / 0	0.02 (1)	G-H	-152 / 0	-78.0 -78.0	0.17 (1)	6.25	J-G	-224 / 0	0.09 (1)	H-I	0 / 10	-78.0 -78.0	0.01 (1)	10.00				B-N	0 / 57	-18.5 -18.5	0.15 (4)	10.00				N-M	0 / 53	-18.5 -18.5	0.20 (4)	10.00				M-L	0 / 50	-18.5 -18.5	0.20 (4)	10.00				L-K	0 / 50	-18.5 -18.5	0.20 (4)	10.00				K-J	0 / 84	-18.5 -18.5	0.21 (4)	10.00				J-H	0 / 89	-18.5 -18.5	0.15 (4)	10.00				DESIGN CRITERIA SPECIFIED LOADS: TOP CH. LL = 21.0 PSF DL = 6.0 PSF BOT CH. LL = 0.0 PSF DL = 7.4 PSF TOTAL LOAD = 34.4 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, NBCC 2015 THIS DESIGN COMPLIES WITH: - PART 9 OF OBC 2012, OBC 2018 - CSA 086-09, CSA 086-14 - TPIC 2011, TPIC 2014 (55 % OF 23.0 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 21.0 P.S.F. SPECIFIED ROOF LIVE LOAD CSI: TC=0.58/1.00 (D-F:1), BC=0.21/1.00 (J-K:4), WB=0.25/1.00 (D-M:1), SSI=0.27/1.00 (F-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 = 1.00 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 788 1987 1656 PLATE PLACEMENT TOL. = 0.250 inches PLATE ROTATION TOL. = 5.0 Deg. JSI GRIP= 0.64 (G) (INPUT = 0.90) JSI METAL= 0.16 (E) (INPUT = 1.00)						
	FACTORED GROSS REACTION	MAXIMUM FACTORED GROSS REACTION	INPUT BRG	REQRD BRG																																																																																																																																																																																																																																																					
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JT																																																																																																																																																																																																																																																									
B	260	0	260	0																																																																																																																																																																																																																																																					
N	347	0	347	0																																																																																																																																																																																																																																																					
M	885	0	885	0																																																																																																																																																																																																																																																					
K	733	0	733	0																																																																																																																																																																																																																																																					
J	340	0	340	0																																																																																																																																																																																																																																																					
H	304	0	304	0																																																																																																																																																																																																																																																					
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N	253	125 / 0	0 / 0	0 / 0	0 / 0	128 / 0	0 / 0																																																																																																																																																																																																																																																		
M	628	402 / 0	0 / 0	0 / 0	0 / 0	225 / 0	0 / 0																																																																																																																																																																																																																																																		
K	522	320 / 0	0 / 0	0 / 0	0 / 0	202 / 0	0 / 0																																																																																																																																																																																																																																																		
J	248	121 / 0	0 / 0	0 / 0	0 / 0	127 / 0	0 / 0																																																																																																																																																																																																																																																		
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PLATES (table is in inches) <table><tr><th>JT</th><th>TYPE</th><th>PLATES</th><th>W</th><th>LEN</th><th>Y</th><th>X</th></tr><tr><td>B</td><td>TMB1-I</td><td>MT20</td><td>3.0</td><td>4.0</td><td>1.50</td><td>2.75</td></tr><tr><td>C</td><td>TTWW+m</td><td>MT20</td><td>5.0</td><td>6.0</td><td>1.75</td><td>1.00</td></tr><tr><td>D</td><td>TMW+w</td><td>MT20</td><td>2.0</td><td>4.0</td><td></td><td></td></tr><tr><td>E</td><td>TS-t</td><td>MT20</td><td>3.0</td><td>6.0</td><td></td><td></td></tr><tr><td>F</td><td>TMWW-t</td><td>MT20</td><td>4.0</td><td>4.0</td><td></td><td></td></tr><tr><td>G</td><td>TTWW+m</td><td>MT20</td><td>5.0</td><td>6.0</td><td>1.75</td><td>1.00</td></tr><tr><td>H</td><td>TMB1-I</td><td>MT20</td><td>3.0</td><td>4.0</td><td>1.50</td><td>2.75</td></tr><tr><td>J</td><td>BMW1+w</td><td>MT20</td><td>2.0</td><td>4.0</td><td></td><td></td></tr><tr><td>K</td><td>BMWW1-t</td><td>MT20</td><td>4.0</td><td>4.0</td><td></td><td></td></tr><tr><td>L</td><td>BS-t</td><td>MT20</td><td>3.0</td><td>6.0</td><td></td><td></td></tr><tr><td>M</td><td>BMWW1-t</td><td>MT20</td><td>5.0</td><td>6.0</td><td></td><td></td></tr><tr><td>N</td><td>BMW1+w</td><td>MT20</td><td>2.0</td><td>4.0</td><td></td><td></td></tr></table>							JT	TYPE	PLATES	W	LEN	Y	X	B	TMB1-I	MT20	3.0	4.0	1.50	2.75	C	TTWW+m	MT20	5.0	6.0	1.75	1.00	D	TMW+w	MT20	2.0	4.0			E	TS-t	MT20	3.0	6.0			F	TMWW-t	MT20	4.0	4.0			G	TTWW+m	MT20	5.0	6.0	1.75	1.00	H	TMB1-I	MT20	3.0	4.0	1.50	2.75	J	BMW1+w	MT20	2.0	4.0			K	BMWW1-t	MT20	4.0	4.0			L	BS-t	MT20	3.0	6.0			M	BMWW1-t	MT20	5.0	6.0			N	BMW1+w	MT20	2.0	4.0																																																																																																																																																										
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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																																																																																																																																																																																																																																																									

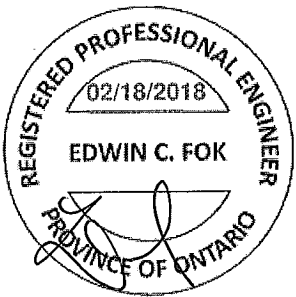
REGISTERED PROFESSIONAL ENGINEER

02/18/2018

EDWIN C. FOK

PROVINCE OF ONTARIO

A-18023702



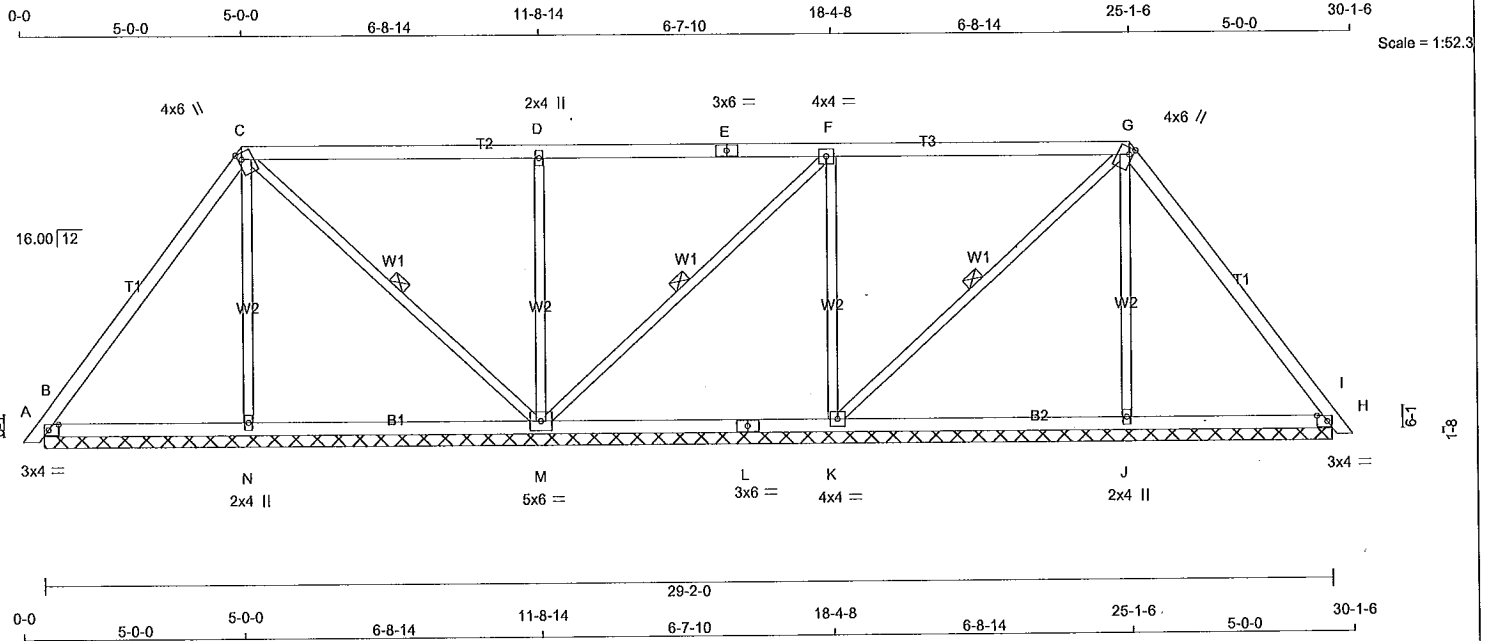
A-18023702

JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
292655	H8P	2	1	TRUSS DESC.	

Alpa Roof Truss, Maple

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

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	310	0	310	0	29-2-0 (13-2-8)2-0	29-2-0 (13-2-8)2-0
N	332	0	332	0	29-2-0 (13-2-8)2-0	29-2-0 (13-2-8)2-0
M	890	0	890	0	29-2-0 (13-2-8)2-0	29-2-0 (13-2-8)2-0
K	638	0	638	0	29-2-0 (13-2-8)2-0	29-2-0 (13-2-8)2-0
J	330	0	330	0	29-2-0 (13-2-8)2-0	29-2-0 (13-2-8)2-0
H	369	0	369	0	29-2-0 (13-2-8)2-0	29-2-0 (13-2-8)2-0

VALUE IN PARENTHESIS INDICATES EFFECTIVE BEARING LENGTH

UNFACTORED REACTIONS

JT	1ST LCASE	MAX./MIN. COMPONENT REACTIONS					
	COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
B	218	151 / 0	0 / 0	0 / 0	0 / 0	67 / 0	0 / 0
N	242	117 / 0	0 / 0	0 / 0	0 / 0	126 / 0	0 / 0
M	629	412 / 0	0 / 0	0 / 0	0 / 0	217 / 0	0 / 0
K	455	277 / 0	0 / 0	0 / 0	0 / 0	178 / 0	0 / 0
J	241	115 / 0	0 / 0	0 / 0	0 / 0	125 / 0	0 / 0
H	259	183 / 0	0 / 0	0 / 0	0 / 0	76 / 0	0 / 0

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

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.

1 LATERAL BRACE(S) AT 1/2 LENGTH OF C-M, F-M, G-K.

LOADING

TOTAL LOAD CASES: (4)

CHORDS					WEBS				
MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	LC1 MAX CSI (LC)	MAX. UNBRACED LENGTH	MEMB.	MAX. FACTORED FORCE (LBS)	MAX CSI (LC)		
FR-TO		FROM	TO		FR-TO				
A-B	0 / 10	-78.0	-78.0	0.01 (1)	10.00	N-C	-216 / 0 . 0.15 (1)		
B-C	-95 / 0	-78.0	-78.0	0.27 (1)	6.25	C-M	-139 / 0 . 0.08 (1)		
C-D	0 / 51	-78.0	-78.0	0.48 (1)	10.00	M-D	-573 / 0 . 0.40 (1)		
D-E	0 / 50	-78.0	-78.0	0.48 (1)	10.00	M-F	-143 / 0 . 0.08 (1)		
E-F	0 / 50	-78.0	-78.0	0.48 (1)	10.00	K-F	-475 / 0 . 0.33 (1)		
F-G	-53 / 0	-78.0	-78.0	0.48 (1)	6.25	K-G	-57 / 0 . 0.03 (1)		
G-H	-168 / 0	-78.0	-78.0	0.28 (1)	6.25	J-G	-214 / 0 . 0.15 (1)		
H-I	0 / 10	-78.0	-78.0	0.01 (1)	10.00				
B-N	0 / 56	-18.5	-18.5	0.14 (4)	10.00				
N-M	0 / 52	-18.5	-18.5	0.17 (4)	10.00				
M-L	0 / 53	-18.5	-18.5	0.17 (4)	10.00				
L-K	0 / 53	-18.5	-18.5	0.17 (4)	10.00				
K-J	0 / 95	-18.5	-18.5	0.17 (4)	10.00				
J-H	0 / 99	-18.5	-18.5	0.15 (4)	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

DESIGN CRITERIA

SPECIFIED LOADS:

TOP CH.	LL = 21.0 PSF
	DL = 6.0 PSF
BOT CH.	LL = 0.0 PSF
	DL = 7.4 PSF
TOTAL LOAD	= 34.4 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, NBCC 2015

THIS DESIGN COMPLIES WITH:

- PART 9 OF OBC 2012, OBC 2018
- CSA 086-09, CSA 086-14
- TPIC 2011, TPIC 2014

(55% OF 23.0 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 21.0 P.S.F. SPECIFIED ROOF LIVE LOAD

CSI: TC=0.48/1.00 (D-F:1), BC=0.17/1.00 (J-K:4), WB=0.40/1.00 (D-M:1), SSI=0.25/1.00 (F-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 = 1.00

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

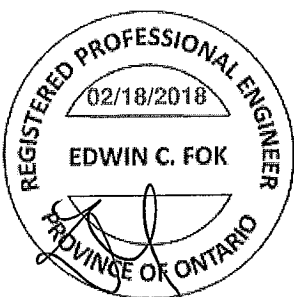
NAIL VALUES	GRIP(DRY)	SHEAR	SECTION
PLATE	(PSI)	(PLI)	(PLI)
	MAX MIN	MAX MIN	MAX MIN
MT20	618 354	1667 788	1987 1656

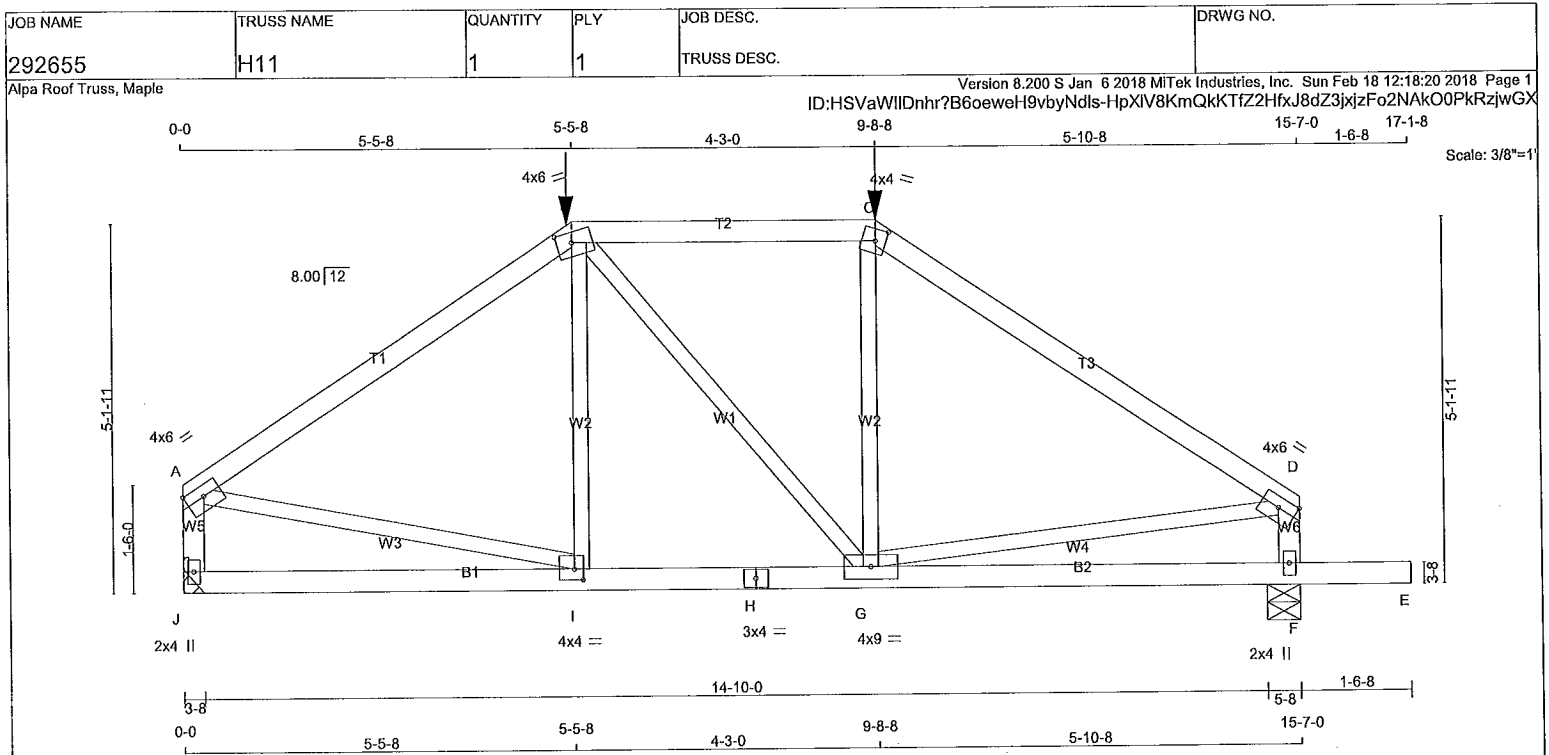
PLATE PLACEMENT TOL. = 0.250 Inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.64 (G) (INPUT = 0.90)
JSI METAL= 0.17 (H) (INPUT = 1.00)

A-18023703





LUMBER	N. L. G. A. RULES	CHORDS	SIZE	LUMBER	DESCR.
A - B	2x4 DRY	No.2	SPF		
B - C	2x4 DRY	No.2	SPF		
C - D	2x4 DRY	No.2	SPF		
J - A	2x4 DRY	No.2	SPF		
F - D	2x4 DRY	No.2	SPF		
J - H	2x4 DRY	No.2	SPF		
H - E	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
A	TMVW-t	MT20	4.0	6.0	1.75	Edge
B	TTWW-m	MT20	4.0	6.0	1.75	2.50
C	TTW-m	MT20	4.0	4.0	2.00	1.75
D	TMVW-t	MT20	4.0	6.0	1.75	Edge
F	BMV1+p	MT20	2.0	4.0		
G	BMVWW-t	MT20	4.0	9.0		
H	BS-t	MT20	3.0	4.0		
I	BMVW-t	MT20	4.0	4.0	1.75	1.50
J	BMV1+p	MT20	2.0	4.0		

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

HANGERS NOTES

- SPECIAL HANGER(S) OR CONNECTION(S) REQUIRED TO SUPPORT CONCENTRATED LOAD(S) 334.0 lbs FACTORED DOWN AT 9-8-8, AND 310.3 lbs FACTORED DOWN AT 5-5-8 ON TOP CHORD. DESIGN FOR UNSPECIFIED CONNECTION(S) IS DELEGATED TO THE BUILDING DESIGNER.

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
J	1384	0	1384	0
F	1513	0	1513	0

UNFACTORED REACTIONS

1ST LCASE	MAX./MIN. COMPONENT REACTIONS	PERM.LIVE	WIND	DEAD	SOIL
JT	COMBINED	SNOW	LIVE	WIND	DEAD
J	988	592 / 0	0 / 0	0 / 0	386 / 0
F	1081	646 / 0	0 / 0	0 / 0	435 / 0

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

BRACING

TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 4.47 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	MAX. FACTORED	FACTORED	VERT. LOAD	LC1	MAX	MAX.	MEMB.	MAX. FACTORED
MEMB.	FORCE (LBS)	(PLF)	CS1 (LC)	UNBRAC	LENGTH	FR-TO	MEMB.	FORCE (LBS)
FR-TO		FROM	TO					
A-B	-1479 / 0	-78.0	-78.0	0.54 (1)	4.69	I-B	-78 / 106	0.04 (4)
B-C	-1271 / 0	-153.5	-153.5	0.57 (1)	4.81	B-G	0 / 68	0.02 (1)
C-D	-1531 / 0	-78.0	-78.0	0.65 (1)	4.47	G-C	-38 / 134	0.05 (4)
J-A	-1297 / 0	0.0	0.0	0.15 (1)	7.05	A-I	0 / 1257	0.31 (1)
F-D	-1271 / 0	0.0	0.0	0.14 (1)	7.11	G-D	0 / 1287	0.32 (1)
J-I	0 / 0	-36.4	-36.4	0.26 (4)	10.00			
I-H	0 / 1228	-36.4	-36.4	0.41 (4)	10.00			
H-G	0 / 1228	-36.4	-36.4	0.41 (4)	10.00			
G-F	0 / 0	-36.4	-36.4	0.30 (4)	10.00			
F-E	0 / 0	-96.5	-96.5	0.17 (1)	10.00			

FACTORED CONCENTRATED LOADS (LBS)

JT	LOC.	LC1	MAX-	MAX+	FACE	DIR.	TYPE
B	5-5-8	-310	-310	---	FRONT	VERT	TOTAL
C	9-8-8	-334	-334	---	FRONT	VERT	TOTAL

DESIGN CRITERIA

SPECIFIED LOADS:

TOP CH.	LL = 21.0	PSF
DL = 6.0	PSF	
BOT CH.	LL = 0.0	PSF
DL = 7.4	PSF	
TOTAL LOAD = 34.4	PSF	

SPACING = 24.0 IN. C/C

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

GIRDER TYPE: CPrimeHlp
LEFT SETBACK = 5-5-8
RIGHT SETBACK = 5-10-8
END SETBACK = 5-10-8
END WALL WIDTH = 0-0
CORNER FRAMING TYPE: CONVENTIONAL
END JACK TYPE: CONVENTIONAL
APPLIED TO FRONT SIDE
- ADD'L LOADS BASED ON 55 % OF GSL.

THIS TRUSS IS DESIGNED FOR RESIDENTIAL OR SMALL BUILDING REQUIREMENTS OF PART 9, NBCC 2010, NBCC 2015

THIS DESIGN COMPLIES WITH:
- PART 9 OF OBC 2012, OBC 2018
- CSA 086-09, CSA 086-14
- TPIC 2011, TPIC 2014

(55 % OF 23.0 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 21.0 P.S.F. SPECIFIED ROOF LIVE LOAD

ALLOWABLE DEFL.(LL) = L/360 (0.52")
CALCULATED VERT. DEFL.(LL) = L/999 (0.03")
ALLOWABLE DEFL.(TL) = L/360 (0.52")
CALCULATED VERT. DEFL.(TL) = L/999 (0.10")

CANTILEVER DEFLECTION:
ALLOWABLE DEFL.(LL) = L/120 (0.19")
CALCULATED VERT. DEFL.(LL) = L/999 (0.01")
ALLOWABLE DEFL.(TL) = L/120 (0.19")
CALCULATED VERT. DEFL.(TL) = L/999 (0.01")

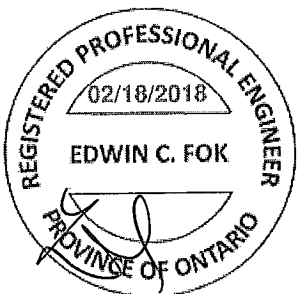
CSI: TC=0.65/1.00 (C-D:1), BC=0.41/1.00 (G-I:4), WB=0.32/1.00 (D-G:1), SSI=0.28/1.00 (B-C:1)

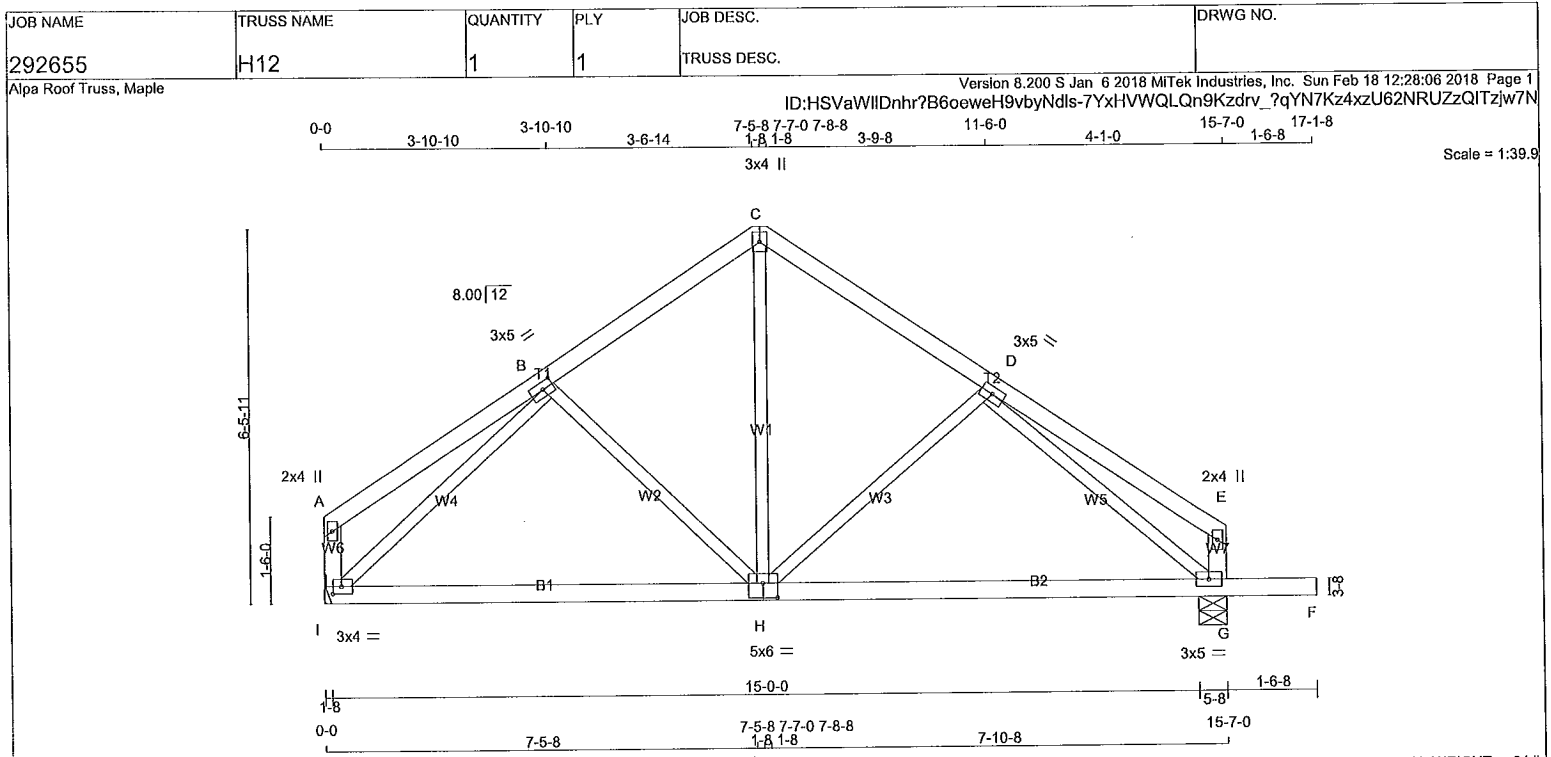
DOL LUMBER=1.00 NAIL=1.00 LS BEND=1.00
COMP=1.00 SHEAR=1.00 TENS= 1.00

COMPANION LIVE LOAD FACTOR = 1.00

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 788 1987 1656





TOTAL WEIGHT = 64 lb (M)F

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

PLATES (table is in inches)					
JT	TYPE	PLATES	W	LEN	Y X
A	TMV+p	MT20	2.0	4.0	
B	TMWW-t	MT20	3.0	5.0	1.50 2.25
C	TTW+p	MT20	3.0	4.0	
D	TMWW-t	MT20	3.0	5.0	
E	TMV+p	MT20	2.0	4.0	
G	BMVW1-t	MT20	3.0	5.0	
H	BSWWW-t	MT20	5.0	6.0	3.00 3.00
I	BMVW1-t	MT20	3.0	4.0	1.50 1.75

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

BEARINGS	FACTORED GROSS REACTION		MAXIMUM FACTORED GROSS REACTION		INPUT		REQRD	
	VERT	HORZ	DOWN	HORZ	BRG	IN-SX	BRG	IN-SX
JT	752	0	752	0	0	HANGER BY OTHERS		
I						MIN. SEAT SIZE: 1-8		
G	900	0	900	0	0	5-8	1-8	

UNFACTORED REACTIONS

1ST LCASE	MAX./MIN. COMPONENT REACTIONS					
	COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD
JT	536	327 / 0	0 / 0	0 / 0	0 / 0	209 / 0
I						0 / 0
G	642	392 / 0	0 / 0	0 / 0	0 / 0	250 / 0

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

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)	VERT. LOAD (PLF)	LC1 MAX (LC)	MAX. UNBRAC LENGTH	MEMB.	MAX. FACTORED FORCE (LBS)	MAX. CSI (LC)
FR-TO		FROM	TO		FR-TO		
A-B	0 / 19	-78.0	-78.0 0.18 (1)	10.00	H-C	0 / 389	0.09 (1)
B-C	-583 / 0	-78.0	-78.0 0.14 (1)	6.25	I-B	-812 / 0	0.36 (1)
C-D	-584 / 0	-78.0	-78.0 0.15 (1)	6.25	B-H	-155 / 0	0.07 (1)
D-E	0 / 20	-78.0	-78.0 0.20 (1)	10.00	H-D	-208 / 0	0.10 (1)
I-A	-113 / 0	0.0	0.0 0.01 (1)	7.81	D-G	-839 / 0	0.39 (1)
G-E	-119 / 0	0.0	0.0 0.01 (1)	7.81			
I-H	0 / 580	-18.5	-18.5 0.36 (4)	10.00			
H-G	0 / 625	-18.5	-18.5 0.40 (4)	10.00			
G-F	0 / 0	-96.5	-96.5 0.16 (1)	10.00			

DESIGN CRITERIA

SPECIFIED LOADS:
TOP CH. LL = 21.0 PSF
DL = 6.0 PSF
BOT CH. LL = 0.0 PSF
DL = 7.4 PSF
TOTAL LOAD = 34.4 PSF

SPACING = 24.0 IN. C/C

THIS TRUSS IS DESIGNED FOR RESIDENTIAL OR SMALL BUILDING REQUIREMENTS OF PART 9, NBCC 2010, NBCC 2015

THIS DESIGN COMPLIES WITH:
- PART 9 OF OBC 2012, OBC 2018
- CSA 086-09, CSA 086-14
- TPIC 2011, TPIC 2014

(55 % OF 23.0 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 21.0 P.S.F. SPECIFIED ROOF LIVE LOAD

ALLOWABLE DEFL.(LL)= L/360 (0.52")
CALCULATED VERT. DEFL.(LL) = L/999 (0.02")
ALLOWABLE DEFL.(TL)= L/360 (0.52")
CALCULATED VERT. DEFL.(TL) = L/937 (0.20")

CANTILEVER DEFLECTION:
ALLOWABLE DEFL.(LL)= L/120 (0.19")
CALCULATED VERT. DEFL.(LL) = L/999 (0.01")
ALLOWABLE DEFL.(TL)= L/120 (0.19")
CALCULATED VERT. DEFL.(TL) = L/999 (0.01")

CSI: TC=0.20/1.00 (D-E:1), BC=0.40/1.00 (G-H:4), WB=0.39/1.00 (D-G:1), CSI=0.13/1.00 (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 = 1.00

AUTOSOLVE HEELS OFF

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

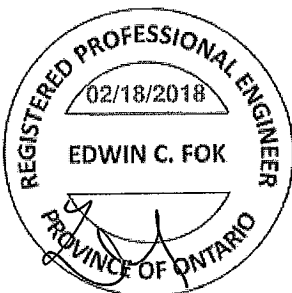
NAIL VALUES
PLATE GRIP(DRY) SHEAR SECTION
(PSI) (PLI) (PLI)
MAX MIN MAX MIN MAX MIN
MT20 618 354 1667 788 1987 1656

PLATE PLACEMENT TOL. = 0.250 inches

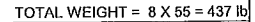
PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.90 (I) (INPUT = 0.90)
JSI METAL= 0.23 (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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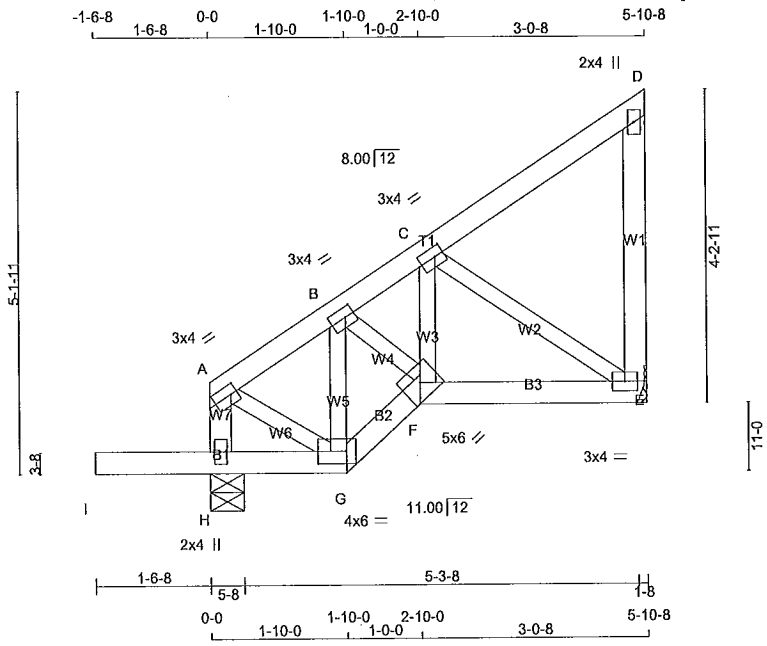
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JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
292656	J1T	3	1	TRUSS DESC.	

Alpa Roof Truss, Maple

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LUMBER

N. L. G. A. RULES

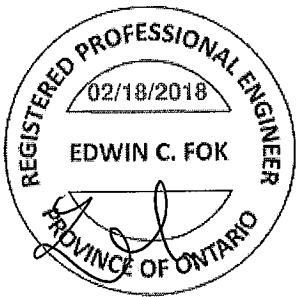
CHORDS	SIZE	LUMBER	DESCR.
H - A	2x4	DRY No.2	SPF
A - D	2x4	DRY No.2	SPF
E - D	2x4	DRY No.2	SPF
I - G	2x4	DRY No.2	SPF
G - F	2x4	DRY No.2	SPF
F - E	2x4	DRY No.2	SPF

ALL WEBS 2x3 DRY No.2 SPF
 DRY: SEASONED LUMBER.

PLATES (table is in inches)

JT	TYPE	PLATES	W	LEN	Y	X
A	TMVW-t	MT20	3.0	4.0	1.50	1.00
B	TMVW-t	MT20	3.0	4.0	1.50	1.50
C	TMVW-t	MT20	3.0	4.0	1.50	1.50
D	TMV+p	MT20	2.0	4.0		
E	BMVW-t	MT20	3.0	4.0		
F	BBVW-t	MT20	5.0	6.0		
G	BBVW-t	MT20	4.0	6.0	2.00	4.50
H	BMV1+p	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	DOWN	IN-SX	IN-SX
H	452	0	5-8	1-8
E	264	0	HANGER BY OTHERS MIN. SEAT SIZE: 1-8	

UNFACTORED REACTIONS

JT	1ST LCASE COMBINED	MAX/MIN. SNOW	MAX/MIN. LIVE	MAX/MIN. PERM. LIVE	MAX/MIN. WIND	MAX/MIN. DEAD	MAX/MIN. SOIL
JT	322	197 / 0	0 / 0	0 / 0	0 / 0	125 / 0	0 / 0
E	188	115 / 0	0 / 0	0 / 0	0 / 0	73 / 0	0 / 0

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

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	MAX. UNBRACED LENGTH	MEMB.	WEBS MAX. FACTORED FORCE (LBS)	MAX. CSI (LC)
FR-TO		FROM TO			FR-TO		
H-A	-223 / 0	0.0	0.0	0.02 (1)	A-G	0 / 154	0.03 (1)
A-B	-165 / 0	-78.0	-78.0	0.04 (1)	G-B	-220 / 0	0.03 (1)
B-C	-239 / 0	-78.0	-78.0	0.08 (1)	B-F	0 / 130	0.03 (1)
C-D	-11 / 0	-78.0	-78.0	0.08 (1)	F-C	0 / 63	0.02 (4)
E-D	-95 / 0	0.0	0.0	0.03 (1)	C-E	-259 / 0	0.06 (1)
I-H	0 / 0	-96.5	-96.5	0.16 (1)			
H-G	0 / 0	-18.5	-18.5	0.16 (1)			
G-F	0 / 173	-18.5	-18.5	0.03 (1)			
F-E	0 / 216	-18.5	-18.5	0.07 (4)			

DESIGN CRITERIA

SPECIFIED LOADS:
 TOP CH. LL = 21.0 PSF
 DL = 6.0 PSF
 BOT CH. LL = 0.0 PSF
 DL = 7.4 PSF
 TOTAL LOAD = 34.4 PSF

SPACING = 24.0 IN. C/C

THIS TRUSS IS DESIGNED FOR RESIDENTIAL OR SMALL BUILDING REQUIREMENTS OF PART 9, NBCC 2010, NBCC 2015

THIS DESIGN COMPLIES WITH:
 - PART 9 OF OBC 2012, OBC 2018
 - CSA 086-09, CSA 086-14
 - TPIC 2011, TPIC 2014

DESIGN ASSUMPTIONS
 - OVERHANG NOT TO BE ALTERED OR CUT OFF.

(55 % OF 23.0 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 21.0 P.S.F. SPECIFIED ROOF LIVE LOAD

ALLOWABLE DEFL.(LL)= L/360 (0.20")
 CALCULATED VERT. DEFL.(LL) = L/999 (0.00")
 ALLOWABLE DEFL.(TL)= L/360 (0.20")
 CALCULATED VERT. DEFL.(TL) = L/999 (0.01")

CANTILEVER DEFLECTION:
 ALLOWABLE DEFL.(LL)= L/120 (0.19")
 CALCULATED VERT. DEFL.(LL) = L/999 (0.02")
 ALLOWABLE DEFL.(TL)= L/120 (0.19")
 CALCULATED VERT. DEFL.(TL) = L/588 (0.03")

CSI: TC=0.08/1.00 (B-C:1) , BC=0.16/1.00 (G-H:1) , WB=0.06/1.00 (C-E:1) , SSI=0.12/1.00 (H:1)

DOI. LUMBER=1.00 NAIL=1.00 LS BEND=1.10
 COMP=1.10 SHEAR=1.10 TENS= 1.10

COMPANION LIVE LOAD FACTOR = 1.00

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 788 1987 1656

PLATE PLACEMENT TOL. = 0.250 inches

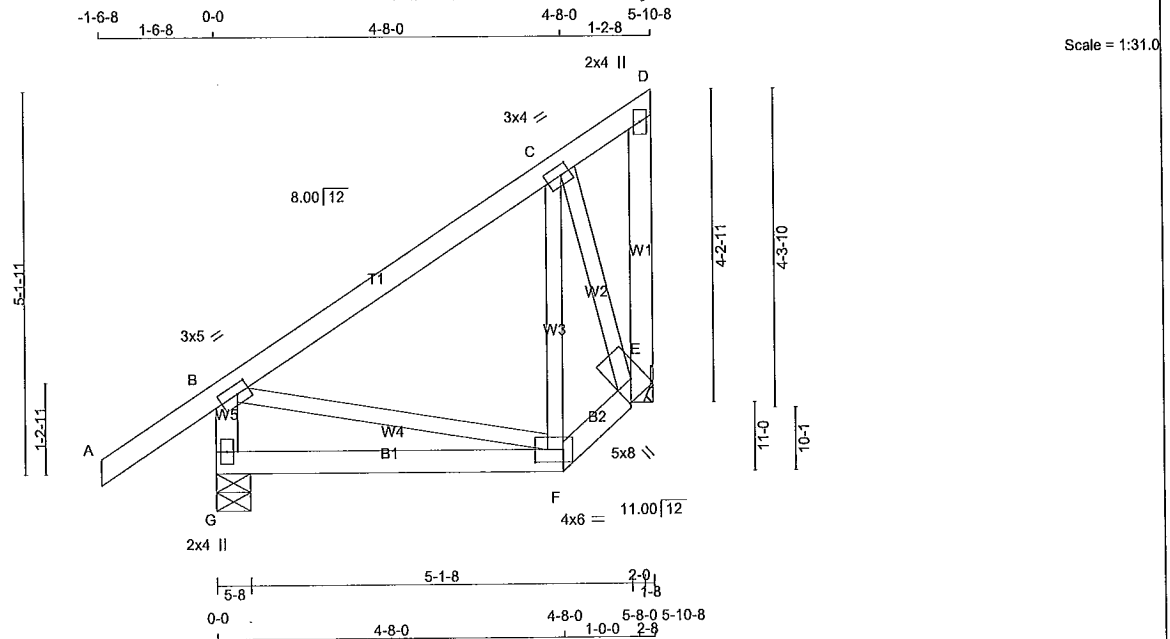
PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.50 (A) (INPUT = 0.90)
 JSI METAL= 0.08 (E) (INPUT = 1.00)

JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
292656	J2T	2	1	TRUSS DESC.	

Alpa Roof Truss, Maple

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ID:HSVaWIIIDnhr?B6oeWeH9vbyNdlS-GnUY8GCLF?ozMSdLnE5XR_62uN7VEsJ2MNOSZGzjv5p



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

PLATES (table is in inches)

JT	TYPE	PLATES	W	LEN	Y	X
B	TMVW-I	MT20	3.0	5.0	1.50	2.00
C	TMVW-I	MT20	3.0	4.0	1.50	1.50
D	TMV+p	MT20	2.0	4.0		
E	BVMW-I	MT20	5.0	8.0	2.75	2.75
F	BBWW-I	MT20	4.0	6.0	2.00	4.50
G	BMV1+p	MT20	2.0	4.0		

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	
G	410	0	410	0	0	5-8	1-8	
E	283	0	283	0	0	HANGER BY OTHERS MIN. SEAT SIZE: 1-8		

UNFACTORED REACTIONS

JT	1ST LCASE	MAX./MIN. COMPONENT REACTIONS	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
G	290	191 / 0	0 / 0	0 / 0	0 / 0	0 / 0	98 / 0	0 / 0
E	202	123 / 0	0 / 0	0 / 0	0 / 0	0 / 0	79 / 0	0 / 0

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

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	MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	MAX LC1	MAX LC2	MAX UNBRACED LENGTH	WEBS	MEMB.	MAX. FACTORED FORCE (LBS)	MAX LC1
FR-TO							FR-TO			
G-B	-367 / 0	0.0	0.0	0.04 (1)	7.81		B-F	0 / 115	0.03 (1)	
A-B	0 / 35	-78.0	-78.0	0.15 (1)	10.00		F-C	-71 / 20	0.02 (1)	
B-C	-117 / 0	-78.0	-78.0	0.22 (1)	6.25		C-E	-261 / 0	0.06 (1)	
C-D	-66 / 0	-78.0	-78.0	0.21 (1)	6.25					
E-D	0 / 68	0.0	0.0	0.01 (1)	10.00					
G-F	0 / 0	-18.5	-18.5	0.12 (4)	10.00					
F-E	0 / 153	-18.5	-18.5	0.03 (1)	10.00					

DESIGN CRITERIA

SPECIFIED LOADS:
TOP CH. LL = 21.0 PSF
DL = 6.0 PSF
BOT CH. LL = 0.0 PSF
DL = 7.4 PSF
TOTAL LOAD = 34.4 PSF

SPACING = 24.0 IN. C/C

THIS TRUSS IS DESIGNED FOR RESIDENTIAL OR SMALL BUILDING REQUIREMENTS OF PART 9, NBCC 2010, NBCC 2015

THIS DESIGN COMPLIES WITH:
- PART 9 OF OBC 2012, OBC 2018
- CSA 086-09, CSA 086-14
- TPIC 2011, TPIC 2014

(55 % OF 23.0 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 21.0 P.S.F. SPECIFIED ROOF LIVE LOAD

ALLOWABLE DEFL.(LL)= L/360 (0.20")
CALCULATED VERT. DEFL.(LL) = L/999 (0.00")
ALLOWABLE DEFL.(TL)= L/360 (0.20")
CALCULATED VERT. DEFL.(TL) = L/999 (0.02")

CSI: TC=0.22/1.00 (B-C:1) , BC=0.12/1.00 (F-G:4) , WB=0.06/1.00 (C-E:1) , SSI=0.14/1.00 (B-C: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 = 1.00

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

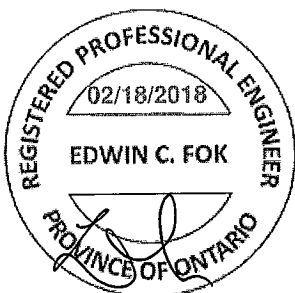
NAIL VALUES
PLATE GRIP(DRY) SHEAR SECTION
(PSI) (PLI) (PLI)
MAX MIN MAX MIN MAX MIN
MT20 618 354 1667 788 1987 1656

PLATE PLACEMENT TOL. = 0.250 inches

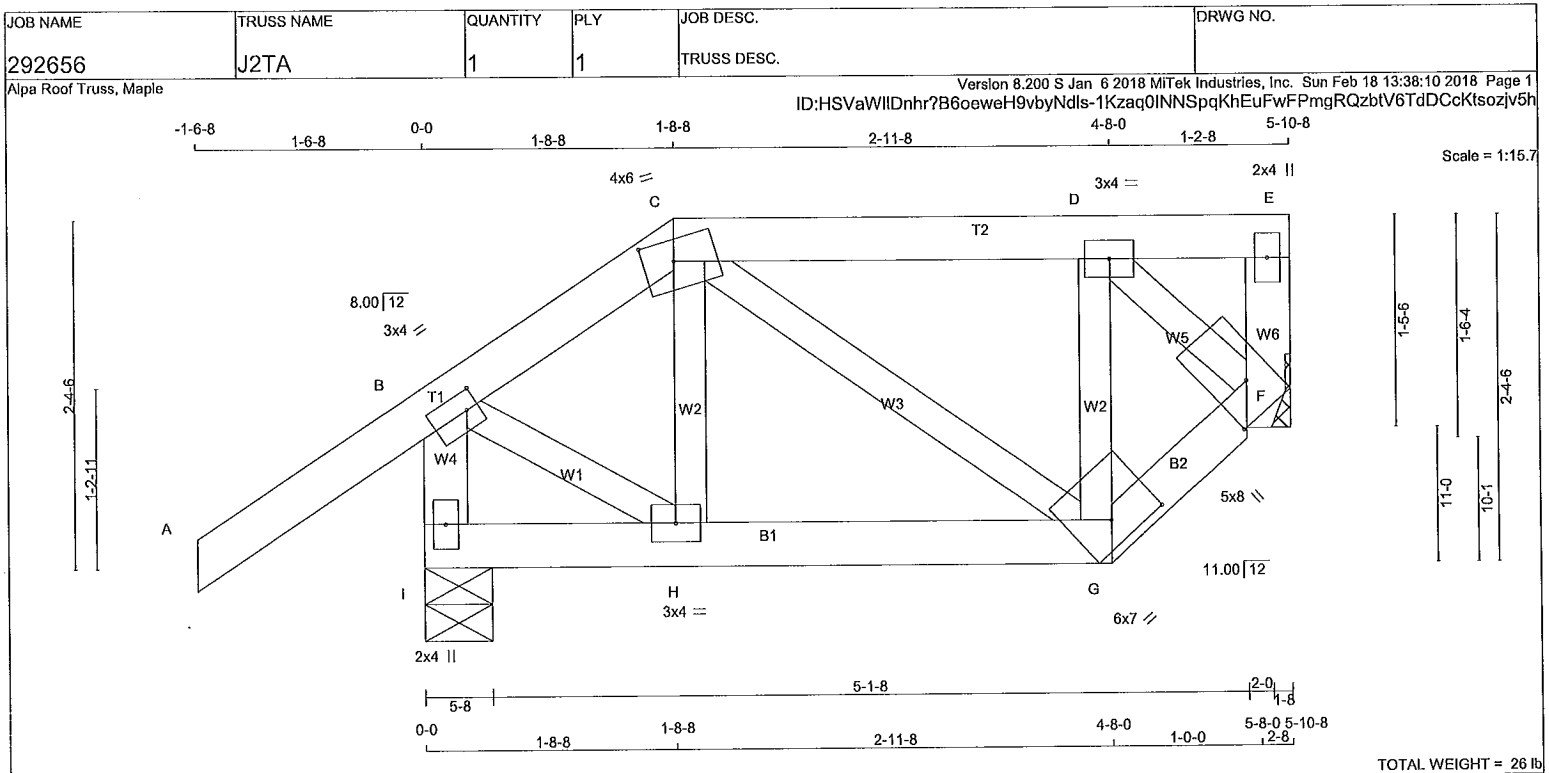
PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.33 (B) (INPUT = 0.90)
JSI METAL= 0.10 (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



A-18023722



LUMBER				DESCR.	
N. L. G. A. RULES	SIZE	LUMBER			
CHORDS					
A - C	2x4	DRY	No.2	SPF	
C - E	2x4	DRY	No.2	SPF	
F - E	2x4	DRY	No.2	SPF	
I - B	2x4	DRY	No.2	SPF	
I - G	2x4	DRY	No.2	SPF	
G - F	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	TMVW-I	MT20	3.0	4.0	1.50 1.00
C	TTWW-m	MT20	4.0	6.0	1.75 2.50
D	TMVW-I	MT20	3.0	4.0	
E	TMV+p	MT20	2.0	4.0	
F	BMVW1-H	MT20	5.0	8.0	2.75 2.75
G	BBVW-h	MT20	6.0	7.0	2.00 4.00
H	BMVW-I	MT20	3.0	4.0	
I	BMV1+p	MT20	2.0	4.0	

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

BEARINGS		FACTORED		MAXIMUM FACTORED		INPUT		REQRD	
JT	GROSS REACTION	VERT	HORZ	DOWN	HORZ	BRG	IN-SX	BRG	IN-SX
I	427	0	427	0	0	5-8	1-8		
F	266	0	266	0	0	HANGER BY OTHERS MIN. SEAT SIZE: 1-8			

UNFACTORED REACTIONS

JT	1ST LCASE	MAX/MIN. COMPONENT REACTIONS					
JT	COMBINED	SNOW	LIVE	PERM. LIVE	WIND	DEAD	SOIL
I	302	201 / 0	0 / 0	0 / 0	0 / 0	101 / 0	0 / 0
F	190	114 / 0	0 / 0	0 / 0	0 / 0	76 / 0	0 / 0

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

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		FACTORED		WEBS		FACTORED	
MEMB.	FORCE (LBS)	VERT. LOAD (PLF)	LC1 MAX (CSI (L))	MEMB.	FORCE (LBS)	MAX. UNBRACED LENGTH (L)	MAX. FACTORED (CSI (L))
FR-TO		FROM	TO	FR-TO			
A-B	0 / 35	-78.0	-78.0 0.15 (1)	10.00	H-C	-18 / 28	0.01 (4)
B-C	-202 / 0	-78.0	-78.0 0.14 (1)	6.25	C-G	-11 / 22	0.00 (1)
C-D	-156 / 0	-78.0	-78.0 0.07 (1)	6.25	G-D	-118 / 0	0.02 (1)
D-E	0 / 0	-78.0	-78.0 0.07 (1)	10.00	B-H	0 / 156	0.04 (1)
F-E	-10 / 0	0.0	0.0 0.00 (1)	7.81	D-F	-183 / 0	0.03 (1)
I-B	-417 / 0	0.0	0.0 0.04 (1)	7.81			
I-H	0 / 0	-18.5	-18.5 0.03 (4)	10.00			
H-G	0 / 138	-18.5	-18.5 0.05 (4)	10.00			
G-F	0 / 206	-18.5	-18.5 0.04 (1)	10.00			

DESIGN CRITERIA

SPECIFIED LOADS:

TOP CH.	LL	=	21.0	PSF
	DL	=	6.0	PSF
BOT CH.	LL	=	0.0	PSF
	DL	=	7.4	PSF
TOTAL LOAD	=	34.4	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, NBCC 2015

THIS DESIGN COMPLIES WITH:

- PART 9 OF OBC 2012, OBC 2018
- CSA 086-09, CSA 086-14
- TPIC 2011, TPIC 2014

DESIGN ASSUMPTIONS

- OVERHANG NOT TO BE ALTERED OR CUT OFF.

(55% OF 23.0 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 21.0 P.S.F. SPECIFIED ROOF LIVE LOAD

ALLOWABLE DEFL.(LL)= L/360 (0.20")
CALCULATED VERT. DEFL.(LL) = L/999 (0.00")
ALLOWABLE DEFL.(TL)= L/360 (0.20")
CALCULATED VERT. DEFL.(TL) = L/999 (0.00")

CSI: TC=0.15/1.00 (A-B:1), BC=0.05/1.00 (G-H:4), WB=0.04/1.00 (B-H:1), SSI=0.10/1.00 (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 = 1.00

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

NAIL VALUES

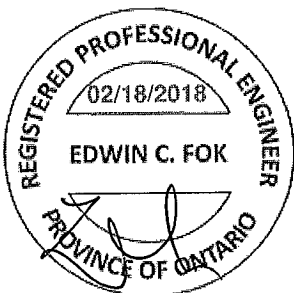
PLATE	GRIP(DRY)	SHEAR	SECTION
(PSI)	(PLI)	(PLI)	(PLI)
	MAX	MIN	MAX
MT20	618	354	1667
	788	1987	1656

PLATE PLACEMENT TOL. = 0.250 inches

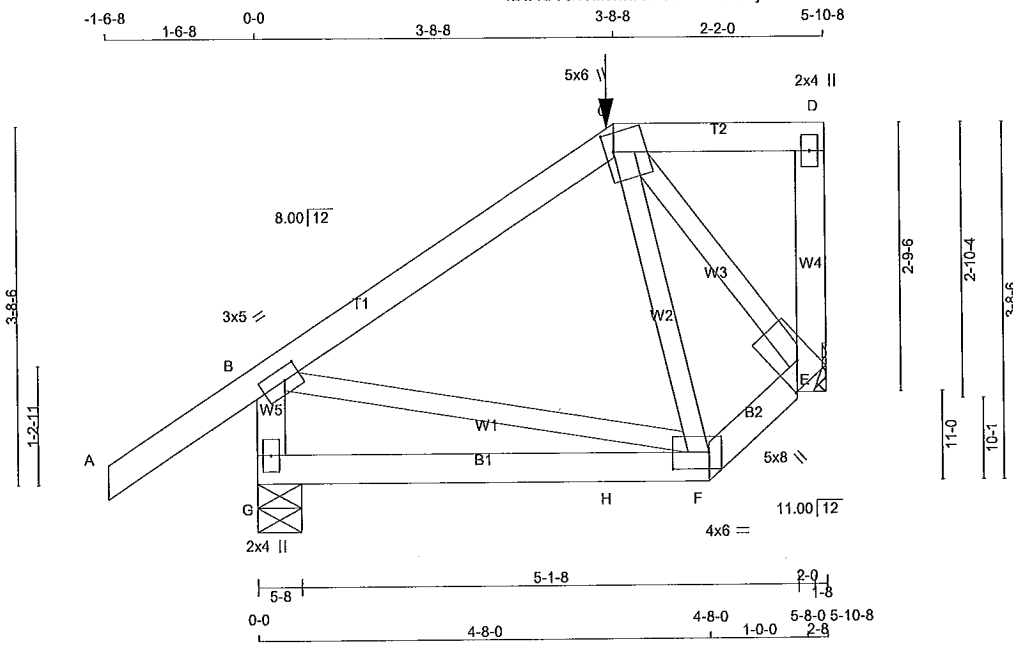
PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.51 (B) (INPUT = 0.90)
JSI METAL= 0.12 (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



A-18023723



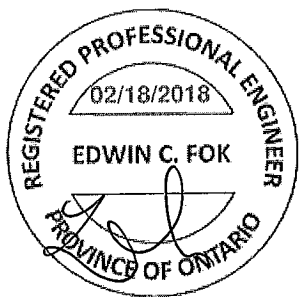
TOTAL WEIGHT = 2 X 29 = 58 lb

LUMBER				
N. L. G. A. RULES				
CHORDS	SIZE	LUMBER	DESCR.	
A - C	2x4	DRY	No.2	SPF
C - D	2x4	DRY	No.2	SPF
E - D	2x4	DRY	No.2	SPF
G - B	2x4	DRY	No.2	SPF
G - F	2x4	DRY	No.2	SPF
F - E	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	X
B	TMVW-1	MT20	3.0	5.0	1.50 2.00
C	TTVW+m	MT20	5.0	6.0	2.25 1.00
D	TMV+p	MT20	2.0	4.0	
E	BVMW1+1	MT20	5.0	8.0	2.75 2.75
F	BBVW-1	MT20	4.0	6.0	2.00 4.50
G	BMV1+p	MT20	2.0	4.0	

HANGERS NOTES
1) SPECIAL HANGER(S) OR CONNECTION(S) REQUIRED TO SUPPORT CONCENTRATED LOAD(S) 106.4 lbs FACTORED DOWN AT 3-8 ON TOP CHORD. DESIGN FOR UNSPECIFIED CONNECTION(S) IS DELEGATED TO THE BUILDING DESIGNER.

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
G	486	0	486	0	0	5-8	1-8		
E	433	0	433	0	0			HANGER BY OTHERS	MIN. SEAT SIZE: 1-8

UNFACTORED REACTIONS		1ST LCASE		MAX/MIN. COMPONENT REACTIONS		WIND		DEAD		SOIL	
JT	COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL	COMBINED	SNOW	LIVE	PERM.LIVE
G	345	220 / 0	0 / 0	0 / 0	0 / 0	125 / 0	0 / 0				
E	308	191 / 0	0 / 0	0 / 0	0 / 0	117 / 0	0 / 0				

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

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		MEMB.		FORCE		VERT. LOAD		MAX. FACTORED		WEBS		MEMB.		FORCE		MAX. FACTORED	
FR-TO	FROM	TO	FROM	TO	FROM	TO	FROM	TO	FROM	TO	FR-TO	FROM	TO	FROM	TO	FROM	TO
A-B	0 / 35	-78.0	-78.0	0.16 (1)	10.00	C-F	-101 / 20	0.02 (1)									
B-C	-215 / 0	-78.0	-78.0	0.20 (1)	6.25	B-F	0 / 181	0.04 (1)									
C-D	0 / 0	-111.3	-111.3	0.10 (1)	10.00	C-E	-216 / 0	0.04 (1)									
E-D	-121 / 0	0.0	0.0	0.02 (1)	7.81												
G-B	-424 / 0	0.0	0.0	0.05 (1)	7.81												
G-H	0 / 0	-26.4	-26.4	0.19 (4)	10.00												
H-F	0 / 0	-26.4	-26.4	0.19 (4)	10.00												
F-E	0 / 206	-26.4	-26.4	0.04 (1)	10.00												

FACTORED CONCENTRATED LOADS (LBS)		LOC.		MAX.		MAX+		FACE		DIR.		TYPE	
JT	LOC.	LC1	MAX	MAX+	FACE	DIR.	TYPE	JT	LOC.	LC1	MAX	MAX+	FACE
C	3-8-8	-106	-106	---	FRONT	VERT	TOTAL						

DESIGN CRITERIA

SPECIFIED LOADS:	
TOP CH.	LL = 21.0 PSF
	DL = 6.0 PSF
BOT CH.	LL = 0.0 PSF
	DL = 7.4 PSF
TOTAL LOAD	= 34.4 PSF

SPACING = 24.0 IN. C/C

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

GIRDER TYPE: CPrimeHip
LEFT SETBACK = 3-8-8
RIGHT SETBACK = 0-0
END SETBACK = 3-8-8
END WALL WIDTH = 0-0
CORNER FRAMING TYPE: CONVENTIONAL
END JACK TYPE: CONVENTIONAL
APPLIED TO FRONT SIDE
- ADD'L LOADS BASED ON 55 % OF GSL.

THIS TRUSS IS DESIGNED FOR RESIDENTIAL OR SMALL BUILDING REQUIREMENTS OF PART 9, NBCC 2010, NBCC 2015

THIS DESIGN COMPLIES WITH:
- PART 9 OF OBC 2012, OBC 2018
- CSA 086-09, CSA 086-14
- TPIC 2011, TPIC 2014

(55 % OF 23.0 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 21.0 P.S.F. SPECIFIED ROOF LIVE LOAD

ALLOWABLE DEFL.(LL)= L/360 (0.20")
CALCULATED VERT. DEFL.(LL) = L/ 999 (0.00")
ALLOWABLE DEFL.(TL)= L/360 (0.20")
CALCULATED VERT. DEFL.(TL) = L/ 999 (0.03")

CSI: TC=0.20/1.00 (B-C:1) , BC=0.19/1.00 (F-G:4) , WB=0.04/1.00 (C-E:1) , SSI=0.10/1.00 (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 = 1.00

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 788 1987 1656

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.39 (B) (INPUT = 0.90)
JSI METAL= 0.11 (B) (INPUT = 1.00)

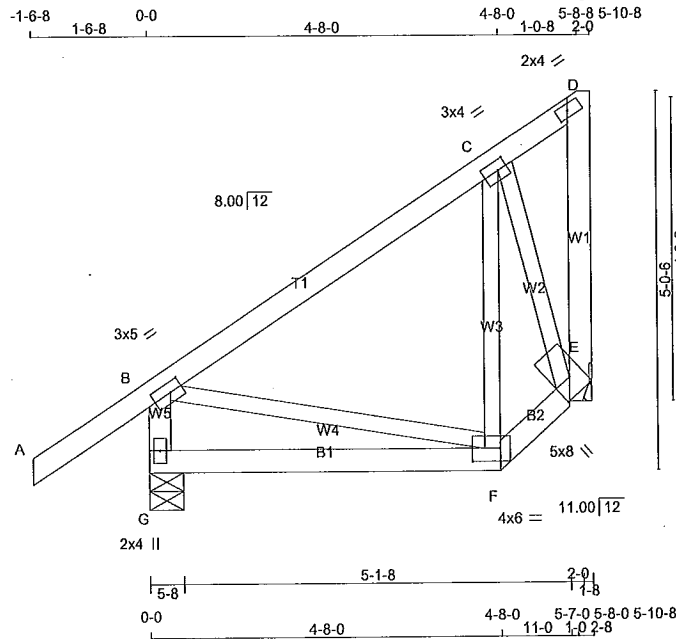
A-18023724

JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
292656	J2TC	2	1	TRUSS DESC.	

Alpa Roof Truss, Maple

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ID:HSVaWIIDnhr?B6oeweH9vbyNdls-hdh6L6RuY8K7mX9ByRSDFCxSrRyBwvG_yUEWH6zjv5V



TOTAL WEIGHT = 2 X 32 = 63 lb

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

DRY: SEASONED LUMBER.

PLATES (table is in inches)

JT	TYPE	PLATES	W	LEN	Y	X
B	TMVW-I	MT20	3.0	5.0	1.50	2.00
C	TMWW-I	MT20	3.0	4.0	1.50	1.50
D	TVM-I	MT20	2.0	4.0	1.00	1.75
E	BMVW1+I	MT20	5.0	8.0	2.75	2.75
F	BBWW-I	MT20	4.0	6.0	2.00	4.50
G	BMV1+p	MT20	2.0	4.0		

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

JT	FACTORED GROSS REACTION		MAXIMUM FACTORED GROSS REACTION		INPUT BRG IN-SX	REQRD BRG IN-SX
	VERT	HORZ	DOWN	HORZ		
G	410	0	410	0	5-8	1-8
E	283	0	283	0	HANGER BY OTHERS	MIN. SEAT SIZE: 1-8

UNFACTORED REACTIONS

JT	1ST LCASE COMBINED	MAX./MIN. COMPONENT REACTIONS					DEAD	SOIL
		SNOW	LIVE	PERM.LIVE	WIND			
G	290	191 / 0	0 / 0	0 / 0	0 / 0	98 / 0	0 / 0	
E	202	123 / 0	0 / 0	0 / 0	0 / 0	79 / 0	0 / 0	

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

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)	LC1 MAX CSI (LC)	MAX. UNBRACED LENGTH	MEMB.	MAX. FACTORED FORCE (LBS)	MAX. CSI (LC)	
FR-TO		FROM TO			FR-TO			
A-B	0 / 35	-78.0	-78.0	0.15 (1)	10.00	F-C	-71 / 20	0.02 (1)
B-C	-117 / 0	-78.0	-78.0	0.22 (1)	6.25	C-E	-261 / 0	0.06 (1)
C-D	-66 / 0	-78.0	-78.0	0.21 (1)	6.25	B-F	0 / 115	0.03 (1)
E-D	0 / 68	0.0	0.0	0.01 (1)	10.00			
G-B	-367 / 0	0.0	0.0	0.04 (1)	7.81			
G-F	0 / 0	-18.5	-18.5	0.12 (4)	10.00			
F-E	0 / 153	-18.5	-18.5	0.03 (1)	10.00			

DESIGN CRITERIA

SPECIFIED LOADS:
TOP CH. LL = 21.0 PSF
DL = 6.0 PSF
BOT CH. LL = 0.0 PSF
DL = 7.4 PSF
TOTAL LOAD = 34.4 PSF

SPACING = 24.0 IN. C/C

THIS TRUSS IS DESIGNED FOR RESIDENTIAL OR SMALL BUILDING REQUIREMENTS OF PART 9, NBCC 2010, NBCC 2015

THIS DESIGN COMPLIES WITH:
- PART 9 OF OBC 2012, OBC 2018
- CSA 086-09, CSA 086-14
- TPIC 2011, TPIC 2014

(55 % OF 23.0 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 21.0 P.S.F. SPECIFIED ROOF LIVE LOAD

ALLOWABLE DEFL.(LL)= L/360 (0.20")
CALCULATED VERT. DEFL.(LL) = L/999 (0.00")
ALLOWABLE DEFL.(TL)= L/360 (0.20")
CALCULATED VERT. DEFL.(TL) = L/999 (0.02")

CSI: TC=0.22/1.00 (B-C:1), BC=0.12/1.00 (F-G:4), WB=0.06/1.00 (C-E:1), SSI=0.14/1.00 (B-C: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 = 1.00

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

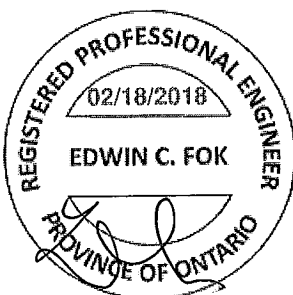
NAIL VALUES
PLATE GRIP(DRY) SHEAR SECTION (PSI) (PLI) (PLI)
MAX MIN MAX MIN MAX MIN
MT20 618 354 1667 788 1987 1656

PLATE PLACEMENT TOL. = 0.250 inches

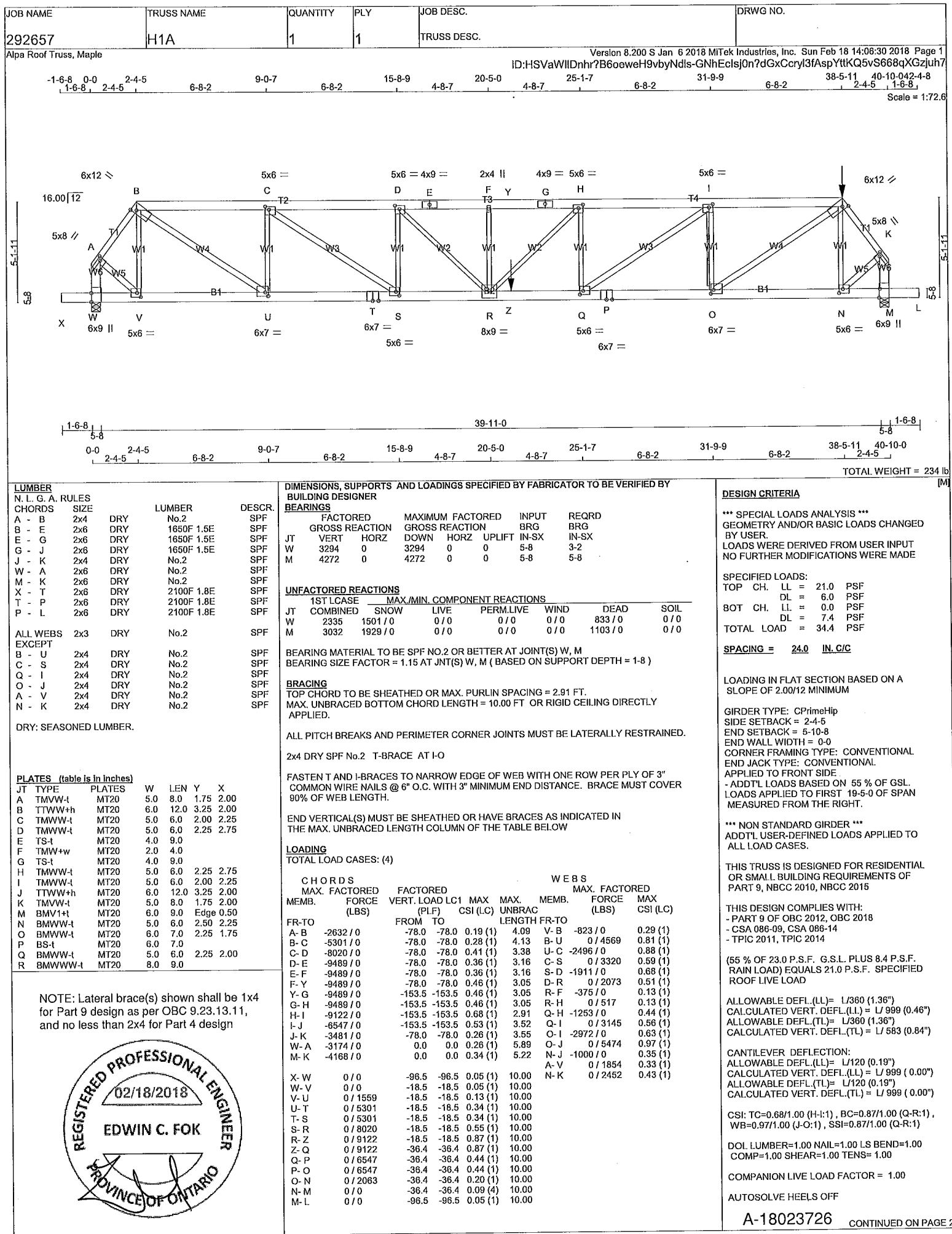
PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.33 (B) (INPUT = 0.90)
JSI METAL= 0.10 (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



A-18023725



JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
292657	H1A	1	1	TRUSS DESC.	

PLATES (table is in inches)							FACTORED CONCENTRATED LOADS (LBS)							TRUSS PLATE MANUFACTURER IS NOT RESPONSIBLE FOR QUALITY CONTROL IN THE TRUSS MANUFACTURING PLANT .				
JT	TYPE	PLATES	W	LEN	Y	X	JT	LOC.	LC1	MAX-	MAX+	FACE	DIR.	TYPE	NAIL VALUES			
S	BMWV-t	MT20	5.0	6.0	2.25	2.00	J	38-5-11	-134	-134	---	FRONT	VERT	TOTAL	PLATE	GRIP(DRY)	SHEAR	SECTION
T	BS-t	MT20	6.0	7.0			Z	21-6-8	-1559	-1559	---	FRONT	VERT	TOTAL	(PSI)	(PLI)	(PLI)	
U	BMWV-t	MT20	6.0	7.0	2.25	1.75									MAX	MIN	MAX	MIN
V	BMWV-t	MT20	5.0	6.0	2.50	2.25									MT20	618	354	1667
W	BMV1-t	MT20	6.0	9.0	Edge												788	1987
																		1656

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) 134.1 lbs FACTORED DOWN AT 38-5-11 ON TOP CHORD, AND 1559.0 lbs FACTORED DOWN AT 21-6-8 ON BOTTOM CHORD. DESIGN FOR UNSPECIFIED CONNECTION(S) IS DELEGATED TO THE BUILDING DESIGNER.

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

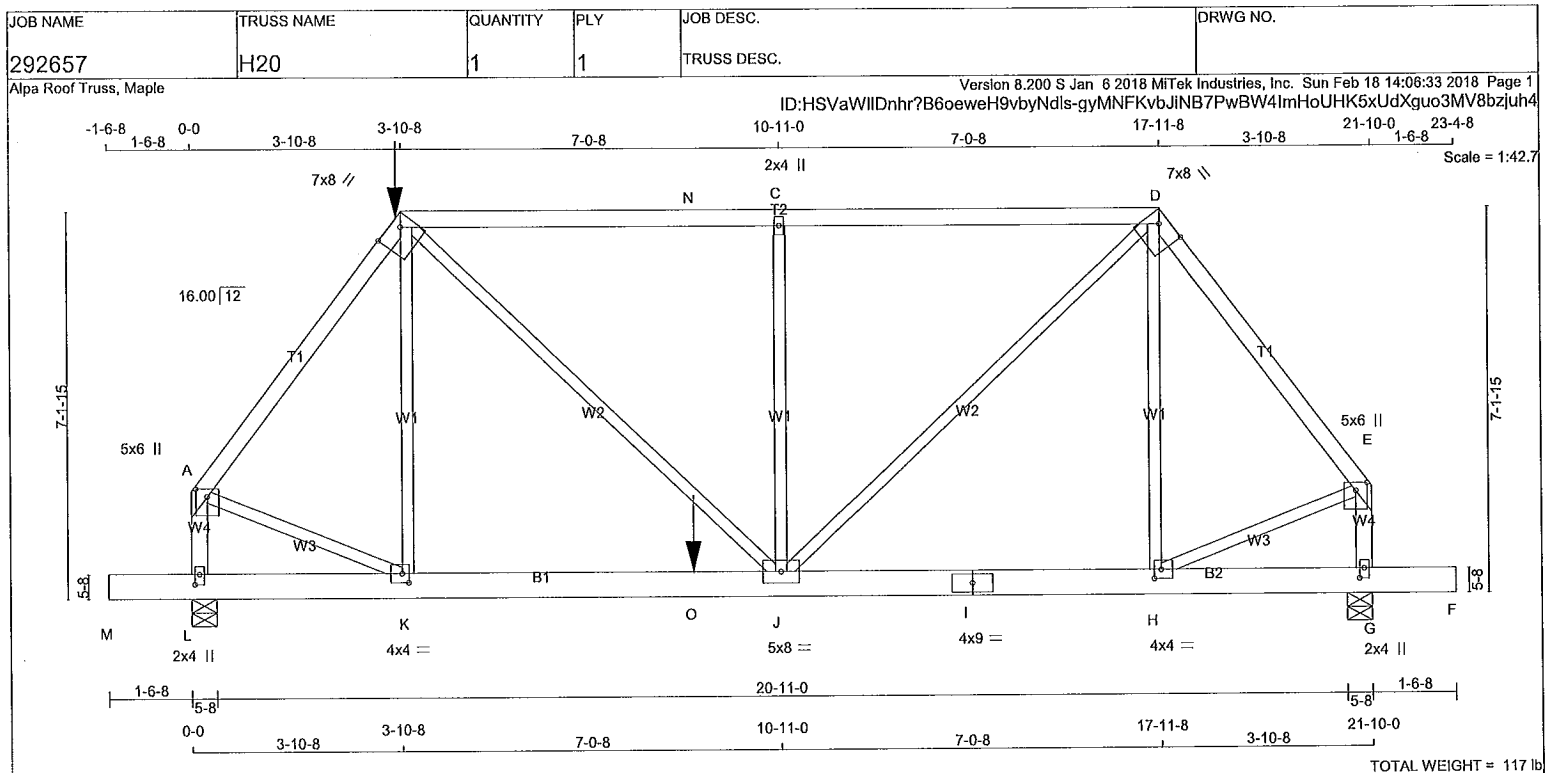
REGISTERED PROFESSIONAL ENGINEER

02/18/2018

EDWIN C. FOK

PROVINCE OF ONTARIO

A-18023726(v)



LUMBER			
N. L. G. A. RULES			
CHORDS	SIZE	LUMBER	DESCR.
A - B	2x4	DRY	No.2
B - D	2x4	DRY	1650F 1.5E
D - E	2x4	DRY	No.2
L - A	2x4	DRY	No.2
G - E	2x4	DRY	No.2
M - I	2x6	DRY	No.2
I - F	2x6	DRY	No.2

ALL WEBS 2x3 DRY No.2 SPF

EXCEPT

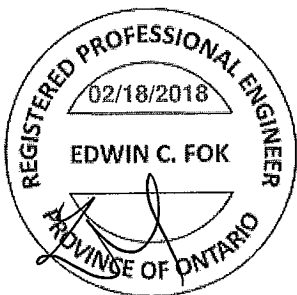
DRY: SEASONED LUMBER.

PLATES (table is in inches)					
JT	TYPE	PLATES	W	LEN	Y X
A	TMVW+p	MT20	5.0	6.0	1.75 2.50
B	TTWW-h	MT20	7.0	8.0	2.00 5.25
C	TMW-w	MT20	2.0	4.0	
D	TTWW-h	MT20	7.0	8.0	2.00 5.25
E	TMVW+p	MT20	5.0	6.0	1.75 2.50
G	BMV1+p	MT20	2.0	4.0	2.25 1.00
H	BMWW-l	MT20	4.0	4.0	2.00 1.50
I	BS-l	MT20	4.0	9.0	
J	BMWWW-l	MT20	5.0	8.0	
K	BMWW-l	MT20	4.0	4.0	2.00 1.50
L	BMV1+p	MT20	2.0	4.0	2.25 1.00

HANGERS NOTES

1) SPECIAL HANGER(S) OR CONNECTION(S) REQUIRED TO SUPPORT CONCENTRATED LOAD(S) 119.6 lbs FACTORED DOWN AT 3-10-8 ON TOP CHORD, AND 927.0 lbs FACTORED DOWN AT 9-3-8 ON BOTTOM CHORD. DESIGN FOR UNSPECIFIED CONNECTION(S) IS DELEGATED TO THE BUILDING DESIGNER.

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		REQRD BRG	
	VERT	HORZ	DOWN	HORZ	UPLIFT	IN-SX	IN-SX	
L	2034	0	2034	0	0	5-8	3-0	
G	1694	0	1694	0	0	5-8	2-8	

UNFACTORED REACTIONS

JT	1ST LCASE		MAX./MIN. COMPONENT REACTIONS		WIND	DEAD	SOIL
	COMBINED	SNOW	LIVE	PERM.LIVE			
L	1441	931 / 0	0 / 0	0 / 0	0 / 0	511 / 0	0 / 0
G	1201	774 / 0	0 / 0	0 / 0	0 / 0	426 / 0	0 / 0

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

BRACING

TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 4.20 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)

FR-TO	CHORDS		WEBS	
	MEMB.	FORCE (LBS)	MEMB.	FORCE (LBS)
A-B	-1727 / 0	-78.0 -78.0 0.32 (1)	K-B	0 / 119
B-N	-1794 / 0	-114.5 -114.5 0.84 (1)	H-D	-293 / 0
N-C	-1794 / 0	-78.0 -78.0 0.84 (1)	A-K	0 / 1103
C-D	-1794 / 0	-78.0 -78.0 0.84 (1)	H-E	0 / 831
D-E	-1301 / 0	-78.0 -78.0 0.28 (1)	J-D	0 / 1416
L-A	-1931 / 0	0.0 0.0 0.23 (1)	B-J	0 / 1057
G-E	-1492 / 0	0.0 0.0 0.18 (1)	J-C	-759 / 0
M-L	0 / 0	-96.5 -96.5 0.08 (1)		
L-K	0 / 0	-27.2 -27.2 0.29 (1)		
K-O	0 / 1031	-27.2 -27.2 0.71 (1)		
O-J	0 / 1031	-18.5 -18.5 0.71 (1)		
J-I	0 / 772	-18.5 -18.5 0.46 (1)		
I-H	0 / 772	-18.5 -18.5 0.46 (1)		
H-G	0 / 0	-18.5 -18.5 0.06 (1)		
G-F	0 / 0	-96.5 -96.5 0.08 (1)		

FACTORED CONCENTRATED LOADS (LBS)

JT	LOC.	LC1	MAX	MAX+	FACE	DIR.	TYPE
B	3-10-8	-120	-120	---	FRONT	VERT	TOTAL
O	9-3-8	-927	-927	---	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 = 21.0 PSF
DL = 6.0 PSF
BOT CH. LL = 0.0 PSF
DL = 7.4 PSF
TOTAL LOAD = 34.4 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 = 3-10-8
END SETBACK = 3-10-8
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 9-3-8 OF SPAN MEASURED FROM THE LEFT.

*** 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, NBCC 2015

THIS DESIGN COMPLIES WITH:
- PART 9 OF OBC 2012, OBC 2018
- CSA 086-09, CSA 086-14
- TPIC 2011, TPIC 2014

(55 % OF 23.0 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 21.0 P.S.F. SPECIFIED ROOF LIVE LOAD

ALLOWABLE DEFL.(LL)= L/360 (0.73")
CALCULATED VERT. DEFL.(LL) = L/999 (0.11")
ALLOWABLE DEFL.(TL)= L/360 (0.73")
CALCULATED VERT. DEFL.(TL) = L/999 (0.19")

CANTILEVER DEFLECTION:
ALLOWABLE DEFL.(LL)= L/120 (0.19")
CALCULATED VERT. DEFL.(LL) = L/999 (0.00")
ALLOWABLE DEFL.(TL)= L/120 (0.19")
CALCULATED VERT. DEFL.(TL) = L/999 (0.00")

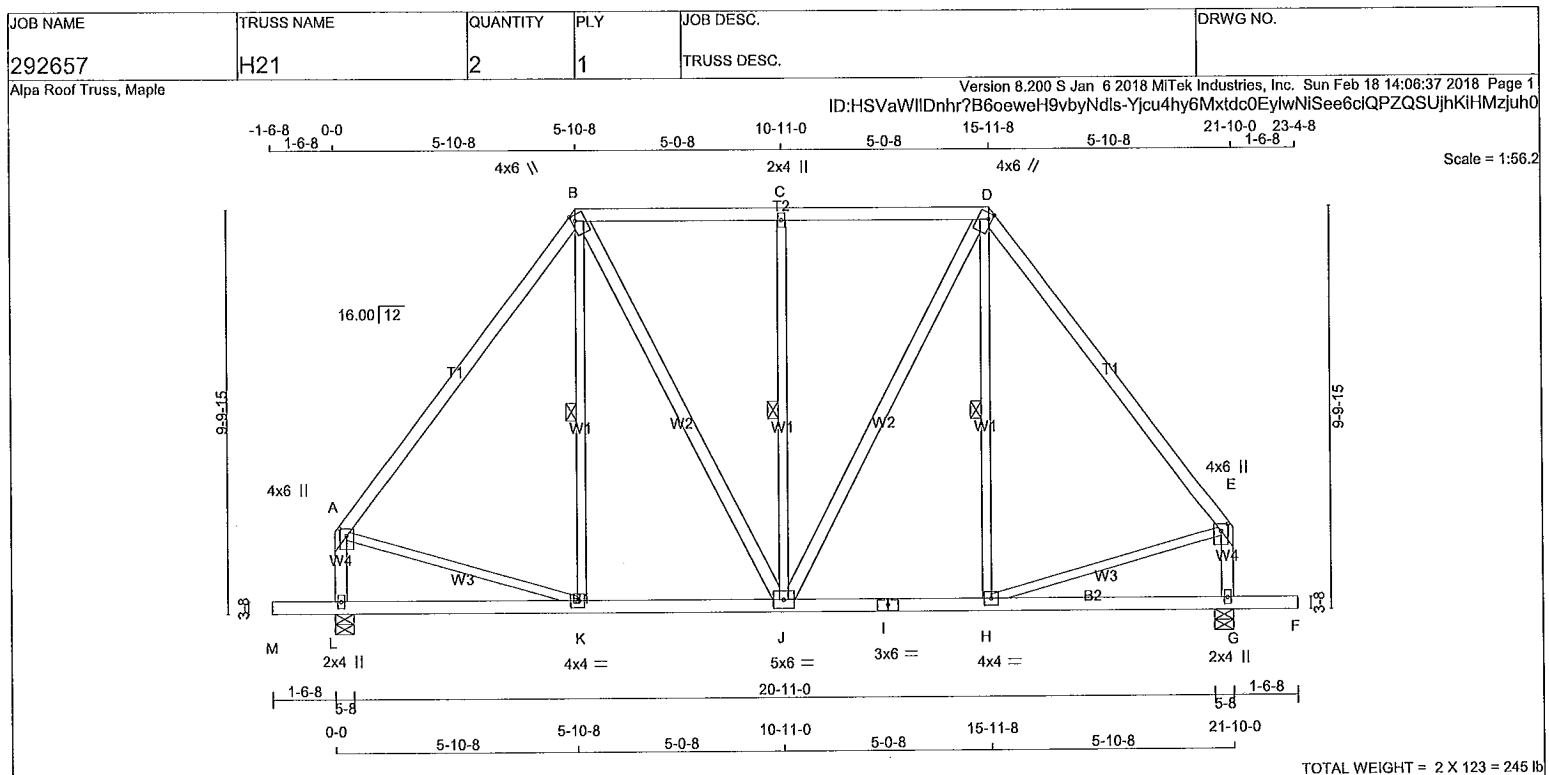
CSI: TC=0.84/1.00 (B-C:1), BC=0.71/1.00 (J-K:1), WB=0.65/1.00 (C-J:1), SSI=0.53/1.00 (J-K:1)

DOL LUMBER=1.00 NAIL=1.00 I.S BEND=1.00
COMP=1.00 SHEAR=1.00 TENS= 1.00

COMPANION LIVE LOAD FACTOR = 1.00

A-18023727

CONTINUED ON PAGE 2



LUMBER					
N. L. G. A. RULES					
CHORDS	SIZE	LUMBER	DESCR.		
A - B	2x4	DRY	1650F 1.5E	SPF	
B - D	2x4	DRY	No.2	SPF	
D - E	2x4	DRY	1650F 1.5E	SPF	
L - A	2x4	DRY	No.2	SPF	
G - E	2x4	DRY	No.2	SPF	
M - I	2x4	DRY	No.2	SPF	
I - F	2x4	DRY	No.2	SPF	
ALL WEBS	2x3	DRY	No.2	SPF	
EXCEPT					
B - J	2x4	DRY	No.2	SPF	
J - D	2x4	DRY	No.2	SPF	

DRY: SEASONED LUMBER.

PLATES (table is in inches)

JT	TYPE	PLATES	W	LEN	Y	X
A	TMVW+p	MT20	4.0	6.0	2.00	2.00
B	TTWW+m	MT20	4.0	6.0	1.75	1.00
C	TMW+w	MT20	2.0	4.0		
D	TTWW+m	MT20	4.0	6.0	1.75	1.00
E	TMVW+p	MT20	4.0	6.0	2.00	2.00
G	BMV1+p	MT20	2.0	4.0		
H	BMWW-t	MT20	4.0	4.0		
I	BS-t	MT20	3.0	6.0		
J	BMWWW-t	MT20	5.0	6.0		
K	BMWW-t	MT20	4.0	4.0		
L	BMV1+p	MT20	2.0	4.0		

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
	VERT	HORZ	UP/LIFT	IN-SX
JT				
L	1240	0	1240	0
G	1240	0	1240	0

UNFACTORED REACTIONS

	1ST LCASE	MAX/MIN. COMPONENT REACTIONS					
	COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
JT	887	523 / 0	0 / 0	0 / 0	0 / 0	364 / 0	0 / 0
G	887	523 / 0	0 / 0	0 / 0	0 / 0	364 / 0	0 / 0

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

BRACING

FOR SECTION B-D, MAX. PURLIN SPACING = 2.00 FT.
FOR OTHER SECTIONS, 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.

1 LATERAL BRACE(S) AT 1/2 LENGTH OF B-K, C-J, D-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)	MAX. FACTORED LC1 MAX (LC)	MEMB.	MAX. FACTORED FORCE (LBS)	MAX. FACTORED LC1 MAX (LC)	
FR-TO		FROM	TO	FR-TO		FROM	TO
A-B	-849 / 0	-78.0	-78.0 0.31 (1)	6.25	K-B	-16 / 75	0.03 (4)
B-C	-665 / 0	-85.5	-85.5 0.28 (1)	2.00	B-J	0 / 337	0.05 (1)
C-D	-665 / 0	-85.5	-85.5 0.28 (1)	2.00	J-C	-522 / 0	0.34 (1)
D-E	-849 / 0	-78.0	-78.0 0.31 (1)	6.25	J-D	0 / 337	0.05 (1)
L-A	-1046 / 0	0.0	0.0 0.12 (1)	7.69	H-D	-16 / 75	0.03 (4)
G-E	-1046 / 0	0.0	0.0 0.12 (1)	7.69	A-K	0 / 526	0.12 (1)
					H-E	0 / 526	0.12 (1)
M-L	0 / 0	-96.5	-96.5 0.16 (1)	10.00			
L-K	0 / 0	-18.5	-18.5 0.15 (4)	10.00			
K-J	0 / 507	-18.5	-18.5 0.20 (4)	10.00			
J-I	0 / 507	-18.5	-18.5 0.20 (4)	10.00			
I-H	0 / 507	-18.5	-18.5 0.20 (4)	10.00			
H-G	0 / 0	-18.5	-18.5 0.15 (4)	10.00			
G-F	0 / 0	-96.5	-96.5 0.16 (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

DESIGN CRITERIA

SPECIFIED LOADS:

TOP CH.	LL = 21.0 PSF
	DL = 6.0 PSF
BOT CH.	LL = 0.0 PSF
	DL = 7.4 PSF
TOTAL LOAD	= 34.4 PSF

SPACING = 24.0 IN. C/C

LOADING IN FLAT SECTION BASED ON PIGGYBACK TRUSS WITH SLOPES OF 6.00/12 AND -6.00/12 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, NBCC 2015

THIS DESIGN COMPLIES WITH:
- PART 9 OF OBC 2012, OBC 2018
- CSA 086-09, CSA 086-14
- TPIC 2011, TPIC 2014

(55 % OF 23.0 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 21.0 P.S.F. SPECIFIED ROOF LIVE LOAD

ALLOWABLE DEFL.(LL)= L/360 (0.73")
CALCULATED VERT. DEFL.(LL) = L/999 (0.02")
ALLOWABLE DEFL.(TL)= L/360 (0.73")
CALCULATED VERT. DEFL.(TL) = L/999 (0.04")

CANTILEVER DEFLECTION:
ALLOWABLE DEFL.(LL)= L/120 (0.19")
CALCULATED VERT. DEFL.(LL) = L/999 (0.01")
ALLOWABLE DEFL.(TL)= L/120 (0.19")
CALCULATED VERT. DEFL.(TL) = L/999 (0.01")

CSI: TC=0.31/1.00 (A-B:1), BC=0.20/1.00 (J-K:4), WB=0.34/1.00 (C-J:1), SSI=0.21/1.00 (B-C: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 = 1.00

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

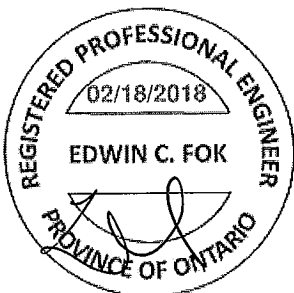
NAIL VALUES
PLATE GRIP(DRY) SHEAR SECTION (PSI) (PLI) (PLI)
MAX MIN MAX MIN MAX MIN
MT20 618 354 1667 788 1987 1656

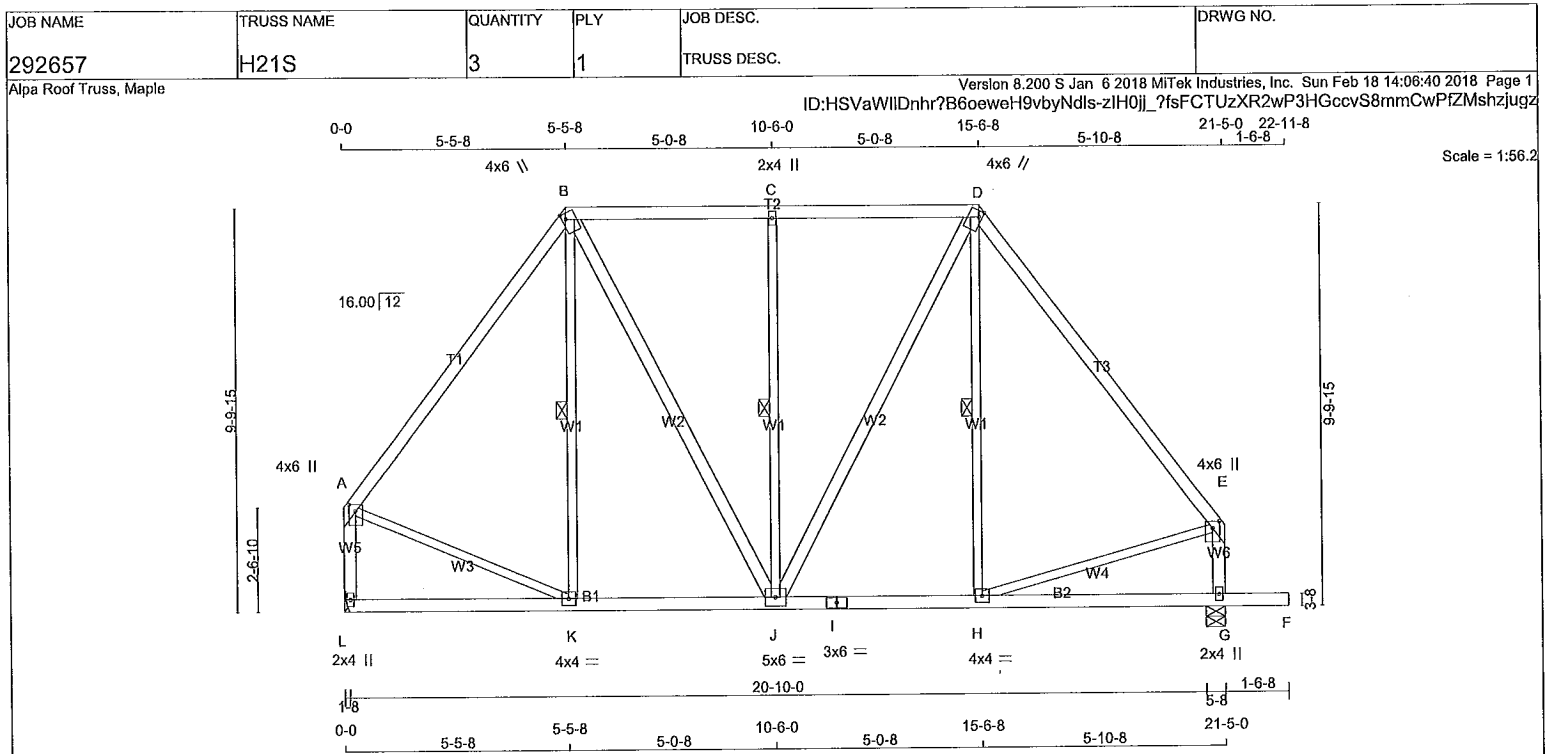
PLATE PLACEMENT TOL. = 0.250 Inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.79 (B) (INPUT = 0.90)
JSI METAL= 0.32 (E) (INPUT = 1.00)

A-18023728





LUMBER				N. L. G. A. RULES	
CHORDS	SIZE	LUMBER	DESCR.	CHORDS	SIZE
A - B	2x4	DRY	No.2	SPF	
B - D	2x4	DRY	No.2	SPF	
D - E	2x4	DRY	1650F 1.5E	SPF	
L - A	2x4	DRY	No.2	SPF	
G - E	2x4	DRY	No.2	SPF	
L - I	2x4	DRY	No.2	SPF	
I - F	2x4	DRY	No.2	SPF	

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

DRY: SEASONED LUMBER.

PLATES (table is in inches)					
JT	TYPE	PLATES	W	LEN	Y X
A	TMVW+p	MT20	4.0	6.0	2.00 2.00
B	TTWW+m	MT20	4.0	6.0	1.75 1.00
C	TMW+w	MT20	2.0	4.0	
D	TTWW+m	MT20	4.0	6.0	1.75 1.00
E	TMVW+p	MT20	4.0	6.0	2.00 2.00
G	BMV1+p	MT20	2.0	4.0	
H	BMWW-t	MT20	4.0	4.0	
I	BS-t	MT20	3.0	6.0	
J	BMWW-t	MT20	5.0	6.0	
K	BMWW-t	MT20	4.0	4.0	
L	BMV1+p	MT20	2.0	4.0	

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

BEARINGS		FACTORED		MAXIMUM FACTORED		INPUT		REQRD	
JT	GROSS REACTION	VERT	HORZ	DOWN	HORZ	BRG	IN-SX	BRG	IN-SX
L	1072	0	0	1072	0	0	HANGER BY OTHERS		
G	1219	0	0	1219	0	0	MIN. SEAT SIZE: 1-8	5-8	1-13

UNFACTORED REACTIONS

1ST LCASE		MAX/MIN. COMPONENT REACTIONS		LIVE		PERM. LIVE		WIND		DEAD		SOIL	
JT	COMBINED	SNOW	LIVE	DOWN	HORZ	UP	DOWN	WIND	DEAD	SOIL	DEAD	SOIL	DEAD
L	767	450 / 0	0 / 0	0 / 0	0 / 0	0 / 0	0 / 0	0 / 0	318 / 0	0 / 0	0 / 0	0 / 0	0 / 0
G	872	514 / 0	0 / 0	0 / 0	0 / 0	0 / 0	0 / 0	0 / 0	358 / 0	0 / 0	0 / 0	0 / 0	0 / 0

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

BRACING

FOR SECTION B-D, MAX. PURLIN SPACING = 2.00 FT.
FOR OTHER SECTIONS, 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.

1 LATERAL BRACE(S) AT 1/2 LENGTH OF B-K, C-J, D-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		FACTORED		MAX. FACTORED		WEBS		MAX. FACTORED	
MEMB.	FORCE (LBS)	VERT. LOAD (PLF)	LC1 (LC)	MAX. UNBRACED LENGTH	MEMB.	FORCE (LBS)	MAX. UNBRACED LENGTH	MEMB.	FORCE (LBS)
FR-TO		FROM	TO		FR-TO			FR-TO	
A-B	-791 / 0	-78.0	-78.0	0.33 (1)	6.25	K-B	-89 / 48	0.04 (1)	
B-C	-641 / 0	-85.5	-85.5	0.28 (1)	2.00	B-J	0 / 363	0.06 (1)	
C-D	-641 / 0	-85.5	-85.5	0.28 (1)	2.00	J-C	-522 / 0	0.34 (1)	
D-E	-828 / 0	-78.0	-78.0	0.31 (1)	6.25	J-D	0 / 314	0.05 (1)	
L-A	-1030 / 0	0.0	0.0	0.14 (1)	7.73	H-D	-13 / 76	0.03 (4)	
L-E	-1025 / 0	0.0	0.0	0.12 (1)	7.74	A-K	0 / 507	0.11 (1)	
						H-E	0 / 512	0.12 (1)	
L-K	0 / 0	-18.5	-18.5	0.13 (4)	10.00				
K-J	0 / 472	-18.5	-18.5	0.18 (4)	10.00				
J-I	0 / 494	-18.5	-18.5	0.20 (4)	10.00				
I-H	0 / 494	-18.5	-18.5	0.20 (4)	10.00				
H-G	0 / 0	-18.5	-18.5	0.15 (4)	10.00				
G-F	0 / 0	-96.5	-96.5	0.16 (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

DESIGN CRITERIA

SPECIFIED LOADS:

TOP CH.	LL	=	21.0	PSF
	DL	=	6.0	PSF
BOT CH.	LL	=	0.0	PSF
	DL	=	7.4	PSF
TOTAL LOAD		=	34.4	PSF

SPACING = 24.0 IN. C/C

LOADING IN FLAT SECTION BASED ON PIGGYBACK TRUSS WITH SLOPES OF 6.00/12 AND -6.00/12 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, NBCC 2015

THIS DESIGN COMPLIES WITH:
- PART 9 OF OBC 2012, OBC 2018
- CSA 086-08, CSA 086-14
- TPIC 2011, TPIC 2014

(55 % OF 23.0 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 21.0 P.S.F. SPECIFIED ROOF LIVE LOAD

ALLOWABLE DEFL.(LL)= L/360 (0.71")
CALCULATED VERT. DEFL.(LL)= L/999 (0.01")
ALLOWABLE DEFL.(TL)= L/360 (0.71")
CALCULATED VERT. DEFL.(TL)= L/999 (0.04")

CANTILEVER DEFLECTION:
ALLOWABLE DEFL.(LL)= L/120 (0.19")
CALCULATED VERT. DEFL.(LL)= L/999 (0.01")
ALLOWABLE DEFL.(TL)= L/120 (0.19")
CALCULATED VERT. DEFL.(TL)= L/999 (0.01")

CSI: TC=0.33/1.00 (A-B:1), BC=0.20/1.00 (H-J:4), WB=0.34/1.00 (C-J:1), SSI=0.21/1.00 (B-C: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 = 1.00

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

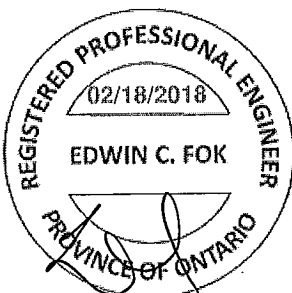
NAIL VALUES		PLATE GRIP(DRY)		SHEAR		SECTION	
(PSI)	(PLI)	(PSI)	(PLI)	(PSI)	(PLI)	(PSI)	(PLI)
MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
MT20	618	354	1667	788	1987	1656	

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.76 (D) (INPUT = 0.90)
JSI METAL= 0.32 (E) (INPUT = 1.00)

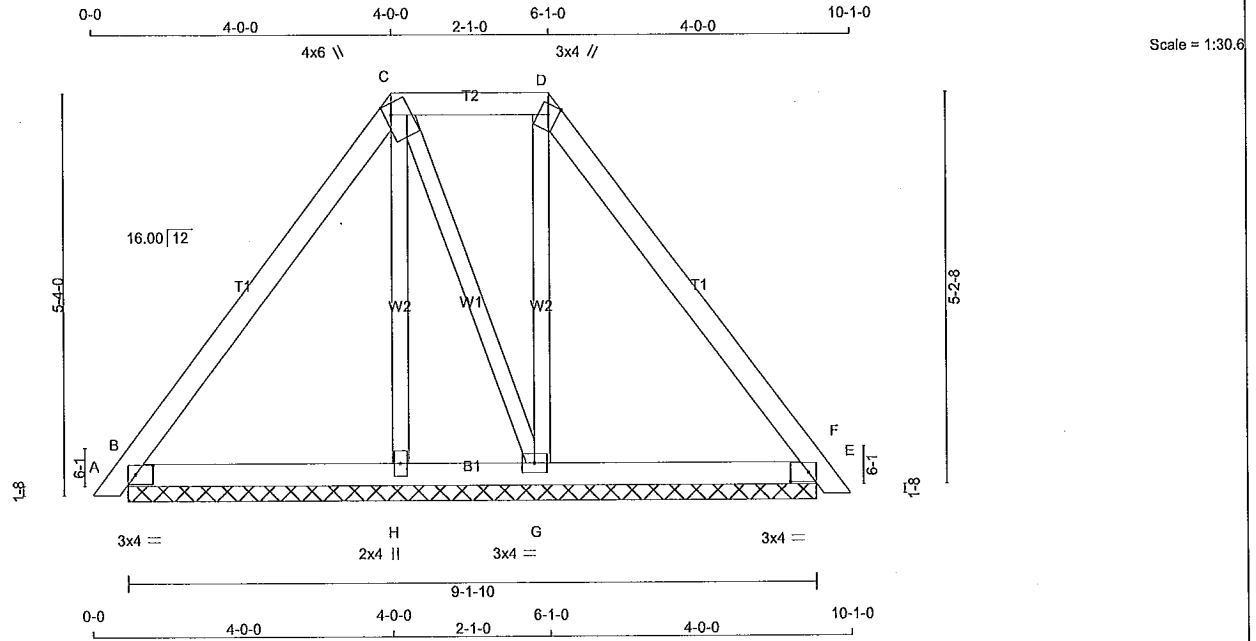
A-18023729



JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
292657	H22P	1	1	TRUSS DESC.	

Alpa Roof Truss, Maple

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ID:HSVaWIIIDnhr?B6oeweh9vbyNdls-Ntz9LI0tyndnKxh66AT6hvu9L7W9zBEM5dn1T0zjugw



TOTAL WEIGHT = 40 lb

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

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

JT	FACTORED GROSS REACTION		MAXIMUM FACTORED GROSS REACTION		INPUT BRG	REQRD BRG
	VERT	HORZ	DOWN	HORZ		
B	276	0	276	0	9-1-10	7-2
E	251	0	251	0	9-1-10	7-2
H	145	0	145	0	9-1-10	7-2
G	264	0	264	0	9-1-10	7-2

UNFACTORED REACTIONS

JT	1ST LCASE COMBINED		MAX/MIN. COMPONENT REACTIONS		WIND	DEAD	SOIL
	SNOW	LIVE	PERM. LIVE	WIND			
B	194	133 / 0	0 / 0	0 / 0	61 / 0	0 / 0	0 / 0
E	177	120 / 0	0 / 0	0 / 0	57 / 0	0 / 0	0 / 0
H	107	48 / 0	0 / 0	0 / 0	59 / 0	0 / 0	0 / 0
G	189	112 / 0	0 / 0	0 / 0	77 / 0	0 / 0	0 / 0

BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S) B, E, H, G

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		FACTORED		MAX. UNBRACED LENGTH	WEBS		MAX. UNBRACED LENGTH
	MAX. FACTORED FORCE (LBS)	VERT. LOAD (PLF)	LC1	MAX. CSI (LC)		MAX. FACTORED FORCE (LBS)	MAX. CSI (LC)	
FR-TO		FROM	TO					
A-B	0 / 10	-78.0	-78.0	0.01 (1)	10.00	H-C	-89 / 0	0.04 (1)
B-C	-102 / 0	-78.0	-78.0	0.17 (1)	6.25	C-G	-51 / 0	0.02 (1)
C-D	-39 / 0	-78.0	-78.0	0.06 (1)	6.25	G-D	-160 / 0	0.06 (1)
D-E	-72 / 0	-78.0	-78.0	0.17 (1)	6.25			
E-F	0 / 10	-78.0	-78.0	0.01 (1)	10.00			
B-H	0 / 60	-18.5	-18.5	0.05 (4)	10.00			
H-G	0 / 58	-18.5	-18.5	0.05 (4)	10.00			
G-E	0 / 42	-18.5	-18.5	0.05 (4)	10.00			

DESIGN CRITERIA

SPECIFIED LOADS:
TOP CH. LL = 21.0 PSF
DL = 6.0 PSF
BOT CH. LL = 0.0 PSF
DL = 7.4 PSF
TOTAL LOAD = 34.4 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, NBCC 2015

THIS DESIGN COMPLIES WITH:
- PART 9 OF OBC 2012, OBC 2018
- CSA 086-09, CSA 086-14
- TPIC 2011, TPIC 2014

(55% OF 23.0 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 21.0 P.S.F. SPECIFIED ROOF LIVE LOAD

CSI: TC=0.17/1.00 (B-C:1), BC=0.05/1.00 (B-H:4), WB=0.06/1.00 (D-G:1), SSI=0.06/1.00 (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 = 1.00

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

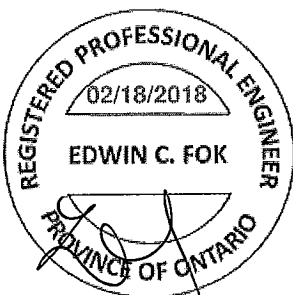
NAIL VALUES
PLATE GRIP(DRY) SHEAR SECTION
(PSI) (PLI) (PLI)
MAX MIN MAX MIN MAX MIN
MT20 618 354 1667 788 1987 1656

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.32 (B) (INPUT = 0.90)
JSI METAL= 0.12 (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

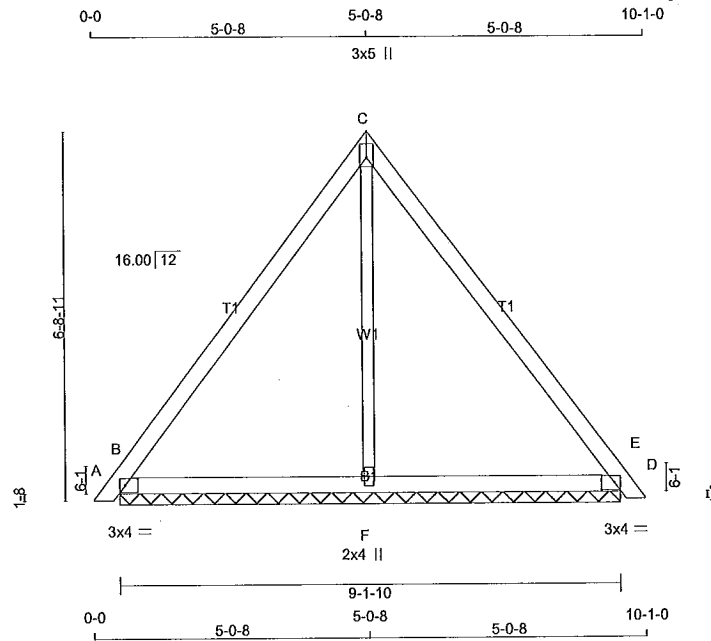


A-18023730

JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
292657	H23P	2	1	TRUSS DESC.	

Alpa Roof Truss, Maple

Version 8.200 S Jan 6 2018 MITek Industries, Inc. Sun Feb 18 14:08:46 2018 Page 1
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Scale = 1:42.0

TOTAL WEIGHT = 2 X 34 = 69 lb

LUMBER					
N. L. G. A. RULES					
CHORDS	SIZE		LUMBER		DESCR.
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	No.2		SPF
DRY: SEASONED LUMBER.					

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

JT	FACTORED GROSS REACTION		MAXIMUM FACTORED GROSS REACTION		INPUT BRG	REQRD BRG
	VERT	HORZ	DOWN	HORZ		
B	335	0	335	0	9-1-10	11-0
D	335	0	335	0	9-1-10	11-0
F	267	0	267	0	9-1-10	11-0

UNFACTORED REACTIONS

JT	1ST LCASE COMBINED		MAX/MIN. COMPONENT REACTIONS		WIND	DEAD	SOIL
	SNOW	LIVE	PERM. LIVE	WIND			
B	235	163 / 0	0 / 0	0 / 0	0 / 0	72 / 0	0 / 0
D	235	163 / 0	0 / 0	0 / 0	0 / 0	72 / 0	0 / 0
F	196	87 / 0	0 / 0	0 / 0	0 / 0	109 / 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)

MEMB.	CHORDS MAX. FACTORED FORCE (LBS)		FACTORED VERT. LOAD (PLF)		MAX. UNBRACED LENGTH	WEBS MAX. FACTORED FORCE (LBS)	
	FR-TO	FROM TO	LC1	LC2		FR-TO	FROM TO
A-B	0 / 10	-78.0	-78.0	0.01 (1)	10.00	F-C	-161 / 0
B-C	-121 / 0	-78.0	-78.0	0.28 (1)	6.25		
C-D	-121 / 0	-78.0	-78.0	0.28 (1)	6.25		
D-E	0 / 10	-78.0	-78.0	0.01 (1)	10.00		
B-F	0 / 72	-18.5	-18.5	0.12 (4)	10.00		
F-D	0 / 72	-18.5	-18.5	0.12 (4)	10.00		

DESIGN CRITERIA

SPECIFIED LOADS:
TOP CH. LL = 21.0 PSF
DL = 6.0 PSF
BOT CH. LL = 0.0 PSF
DL = 7.4 PSF
TOTAL LOAD = 34.4 PSF

SPACING = 24.0 IN. C/C

THIS TRUSS IS DESIGNED FOR RESIDENTIAL OR SMALL BUILDING REQUIREMENTS OF PART 9, NBCC 2010, NBCC 2015

THIS DESIGN COMPLIES WITH:
- PART 9 OF OBC 2012, OBC 2018
- CSA 086-09, CSA 086-14
- TPIC 2011, TPIC 2014

(55 % OF 23.0 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 21.0 P.S.F. SPECIFIED ROOF LIVE LOAD

CSI: TC=0.28/1.00 (C-D:1), BC=0.12/1.00 (D-F:4), WB=0.11/1.00 (C-F:1), SSI=0.08/1.00 (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 = 1.00

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

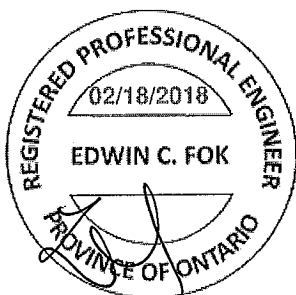
NAIL VALUES
PLATE GRIP(DRY) SHEAR SECTION
(PSI) (PLI) (PLI)
MAX MIN MAX MIN MAX MIN
MT20 618 354 1667 788 1987 1656

PLATE PLACEMENT TOL. = 0.250 inches

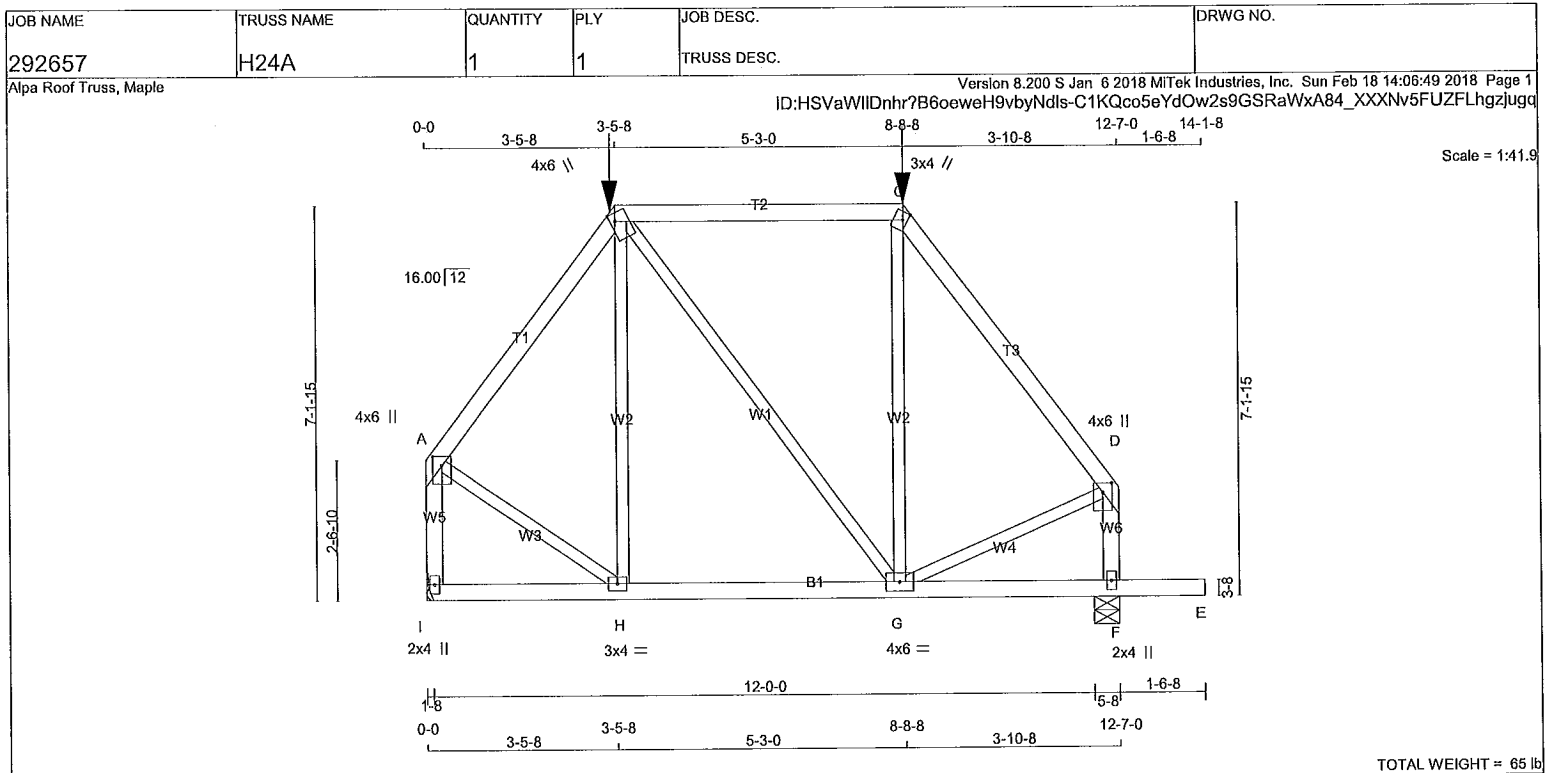
PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.40 (D) (INPUT = 0.80)
JSI METAL= 0.15 (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



A-18023731



LUMBER				
N. L. G. A. RULES				
CHORDS	SIZE	LUMBER	DESCR.	
A - B	2x4	DRY	No.2	SPF
B - C	2x4	DRY	No.2	SPF
C - D	2x4	DRY	No.2	SPF
I - A	2x4	DRY	No.2	SPF
F - D	2x4	DRY	No.2	SPF
I - E	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
A	TMVW+p	MT20	4.0	6.0	2.00	2.00
B	TTWW+m	MT20	4.0	6.0	1.75	1.00
C	TTW+m	MT20	3.0	4.0	1.75	1.00
D	TMVW+p	MT20	4.0	6.0	2.00	2.00
F	BMV1+p	MT20	2.0	4.0		
G	BMVWW-t	MT20	4.0	6.0		
H	BMVWW-t	MT20	3.0	4.0		
I	BMV1+p	MT20	2.0	4.0		

HANGERS NOTES

- SPECIAL HANGER(S) OR CONNECTION(S) REQUIRED TO SUPPORT CONCENTRATED LOAD(S) 119.6 lbs FACTORED DOWN AT 8-8-8, AND 106.7 lbs FACTORED DOWN AT 3-5-8 ON TOP CHORD. DESIGN FOR UNSPECIFIED CONNECTION(S) IS DELEGATED TO THE BUILDING DESIGNER.

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

BEARINGS

JT	FACTORED GROSS REACTION		MAXIMUM FACTORED GROSS REACTION		INPUT BRG	REQRD BRG
	VERT	HORZ	DOWN	HORZ	IN-SX	IN-SX
I	875	0	875	0	0	HANGER BY OTHERS
F	1015	0	1015	0	0	MIN. SEAT SIZE: 1-8

UNFACTORED REACTIONS

JT	1ST CASE COMBINED		MAX./MIN. LIVE		PERM. LIVE	WIND	DEAD	SOIL
	SNOW							
I	624	379 / 0	0 / 0	0 / 0	0 / 0	0 / 0	245 / 0	0 / 0
F	724	439 / 0	0 / 0	0 / 0	0 / 0	0 / 0	285 / 0	0 / 0

BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S) 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. LC1 (LC)	MAX. UNBRACED LENGTH	MEMB.	MAX. FACTORED FORCE (LBS)	MAX. LC1 (LC)
FR-TO		FROM TO			FR-TO		
A-B	-606 / 0	-78.0 -78.0	0.19 (1)	6.25	H-B	-89 / 60	0.08 (1)
B-C	-385 / 0	-114.5 -114.5	0.60 (1)	6.25	B-G	0 / 42	0.01 (1)
C-D	-647 / 0	-78.0 -78.0	0.24 (1)	6.25	G-C	-52 / 80	0.05 (1)
I-A	-840 / 0	0.0 0.0	0.12 (1)	7.81	A-H	0 / 422	0.10 (1)
F-D	-826 / 0	0.0 0.0	0.10 (1)	7.81	G-D	0 / 416	0.10 (1)
I-H	0 / 0	-27.2 -27.2	0.13 (4)	10.00			
H-G	0 / 360	-27.2 -27.2	0.18 (4)	10.00			
G-F	0 / 0	-27.2 -27.2	0.14 (4)	10.00			
F-E	0 / 0	-96.5 -96.5	0.17 (1)	10.00			

FACTORED CONCENTRATED LOADS (LBS)

JT	LOC.	LC1	MAX-	MAX+	FACE	DIR.	TYPE
B	3-5-8	-107	-107	---	FRONT	VERT	TOTAL
C	8-8-8	-120	-120	---	FRONT	VERT	TOTAL

DESIGN CRITERIA

SPECIFIED LOADS:

TOP CH.	LL = 21.0	PSF
	DL = 6.0	PSF
BOT CH.	LL = 0.0	PSF
	DL = 7.4	PSF
TOTAL LOAD	= 34.4	PSF

SPACING = 24.0 IN. C/C

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

GIRDER TYPE: CPrimeHip

LEFT SETBACK = 3-5-8

RIGHT SETBACK = 3-10-8

END SETBACK = 3-10-8

END WALL WIDTH = 0-0

CORNER FRAMING TYPE: CONVENTIONAL

END JACK TYPE: CONVENTIONAL

APPLIED TO FRONT SIDE

- ADDTL LOADS BASED ON 55 % OF GSL.

THIS TRUSS IS DESIGNED FOR RESIDENTIAL OR SMALL BUILDING REQUIREMENTS OF PART 9, NBCC 2010, NBCC 2015

THIS DESIGN COMPLIES WITH:

- PART 9 OF OBC 2012, OBC 2018

- CSA 086-09, CSA 086-14

- TPIC 2011, TPIC 2014

(55 % OF 23.0 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 21.0 P.S.F. SPECIFIED ROOF LIVE LOAD

ALLOWABLE DEFL.(LL)= L/360 (0.42")
CALCULATED VERT. DEFL.(LL) = L/999 (0.01")
ALLOWABLE DEFL.(TL)= L/360 (0.42")
CALCULATED VERT. DEFL.(TL) = L/999 (0.02")

CANTILEVER DEFLECTION:

ALLOWABLE DEFL.(LL)= L/120 (0.19")
CALCULATED VERT. DEFL.(LL) = L/999 (0.01")
ALLOWABLE DEFL.(TL)= L/120 (0.19")
CALCULATED VERT. DEFL.(TL) = L/999 (0.01")

CSI: TC=0.60/1.00 (B-C:1), BC=0.18/1.00 (G-H:4),
WB=0.10/1.00 (A-H:1), SSI=0.26/1.00 (B-C: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 = 1.00

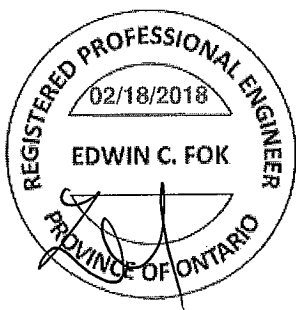
TRUSS PLATE MANUFACTURER IS NOT RESPONSIBLE FOR QUALITY CONTROL IN THE TRUSS MANUFACTURING PLANT.

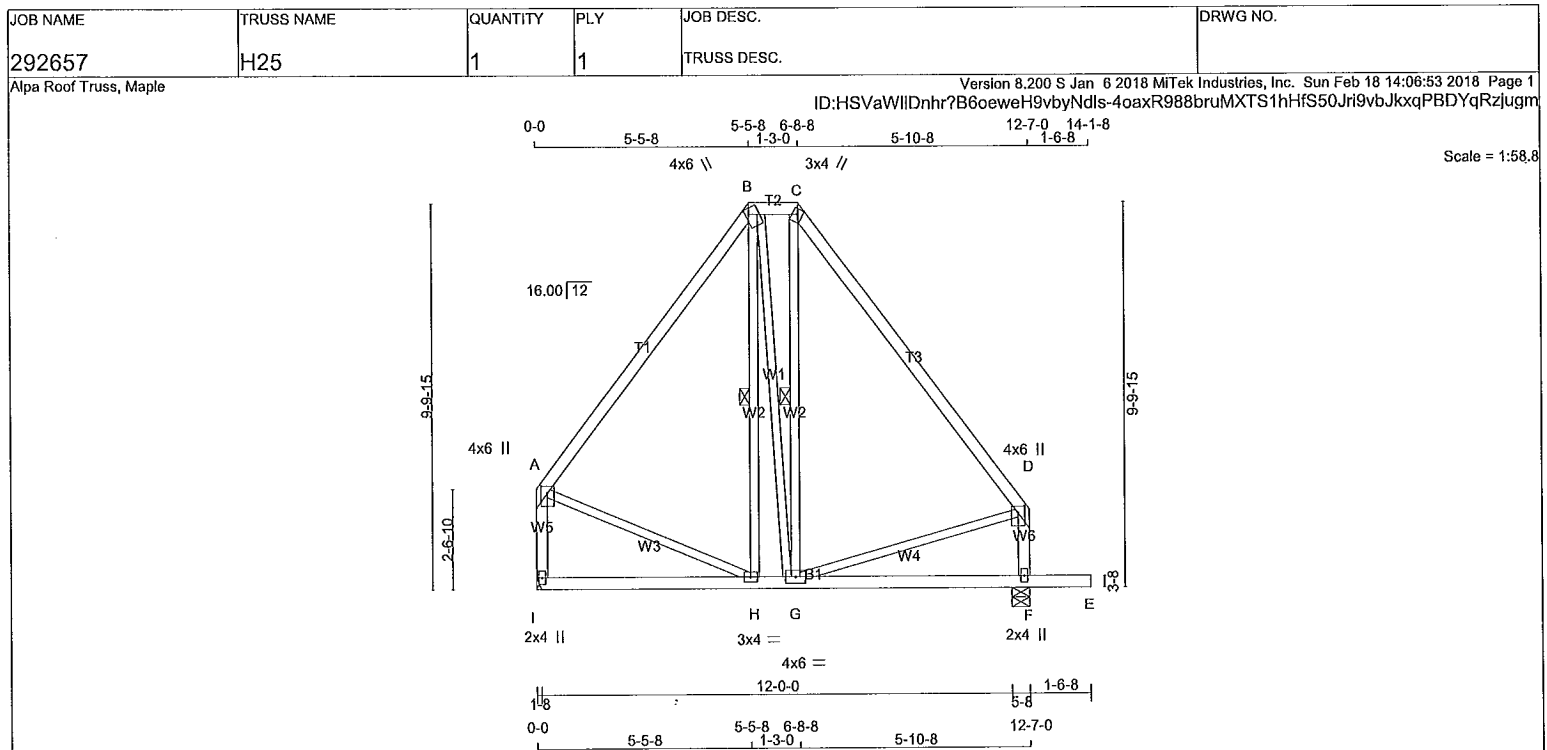
NAIL VALUES
PLATE GRIP(DRY) SHEAR SECTION
(PSI) (PLI)
MAX MIN MAX MIN MAX MIN
MT20 618 354 1667 788 1987 1656

A-18023732

CONTINUED ON PAGE 2

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





TOTAL WEIGHT = 76 lb

LUMBER				
N. L. G. A. RULES				
CHORDS	SIZE	LUMBER	DESCR.	
A - B	2x4	DRY	No.2	SPF
B - C	2x4	DRY	No.2	SPF
C - D	2x4	DRY	1650F 1.5E	SPF
I - A	2x4	DRY	No.2	SPF
F - D	2x4	DRY	No.2	SPF
I - E	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
A	TMVV+p	MT20	4.0	6.0	2.00	2.00
B	TTWW+m	MT20	4.0	6.0	1.75	1.00
C	TTW+m	MT20	3.0	4.0	Edge	
D	TMVV+p	MT20	4.0	6.0	2.00	2.00
F	BMV1+p	MT20	2.0	4.0		
G	BMWW-t	MT20	4.0	6.0		
H	BMWW-t	MT20	3.0	4.0		
I	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

	FACTORED GROSS REACTION	MAXIMUM FACTORED GROSS REACTION	INPUT BRG	REQRD BRG
	VERT	HORZ	DOWN	HORZ
JT				
I	607	0	607	0
F	756	0	756	0

UNFACTORED REACTIONS

	1ST LCASE	MAX./MIN. SNOW	MAX./MIN. LIVE	MAX./MIN. WIND	MAX./MIN. DEAD	MAX./MIN. SOIL
JT	433	264 / 0	0 / 0	0 / 0	169 / 0	0 / 0
I	539	329 / 0	0 / 0	0 / 0	210 / 0	0 / 0

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

1 LATERAL BRACE(S) AT 1/2 LENGTH OF B-H, C-G.

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. LC1 (LC)	MEMB.	MAX. FACTORED FORCE (LBS)	MAX. LC1 (LC)	
FR-TO		FROM	TO	FR-TO			
A-B	-341 / 0	-78.0	-78.0 0.30 (1)	H-B	-16 / 34	0.01 (4)	
B-C	-207 / 0	-78.0	-78.0 0.02 (1)	B-G	0 / 28	0.01 (4)	
C-D	-346 / 0	-78.0	-78.0 0.29 (1)	G-C	0 / 54	0.02 (4)	
I-A	-565 / 0	0.0	0.0 0.08 (1)	A-H	0 / 218	0.05 (1)	
F-D	-562 / 0	0.0	0.0 0.06 (1)	G-D	0 / 214	0.05 (1)	
I-H	0 / 0	-18.5	-18.5 0.13 (4)				
H-G	0 / 203	-18.5	-18.5 0.18 (4)				
G-F	0 / 0	-18.5	-18.5 0.15 (4)				
F-E	0 / 0	-96.5	-96.5 0.16 (1)				

DESIGN CRITERIA

SPECIFIED LOADS:

TOP CH.	LL = 21.0	PSF
	DL = 6.0	PSF
BOT CH.	LL = 0.0	PSF
	DL = 7.4	PSF
TOTAL LOAD	= 34.4	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, NBCC 2015

THIS DESIGN COMPLIES WITH:
- PART 9 OF OBC 2012, OBC 2018
- CSA 086-09, CSA 086-14
- TPIC 2011, TPIC 2014

(55 % OF 23.0 P.S.F. G.S.I. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 21.0 P.S.F. SPECIFIED ROOF LIVE LOAD

ALLOWABLE DEFL.(LL) =	L/360 (0.42")
CALCULATED VERT. DEFL.(LL) =	L/999 (0.00")
ALLOWABLE DEFL.(TL) =	L/360 (0.42")
CALCULATED VERT. DEFL.(TL) =	L/999 (0.04")

CANTILEVER DEFLECTION:

ALLOWABLE DEFL.(LL) =	L/120 (0.19")
CALCULATED VERT. DEFL.(LL) =	L/999 (0.01")
ALLOWABLE DEFL.(TL) =	L/120 (0.19")
CALCULATED VERT. DEFL.(TL) =	L/999 (0.01")

CSI: TC=0.30/1.00 (A-B:1), BC=0.18/1.00 (G-H:4), WB=0.05/1.00 (A-H:1), SSI=0.12/1.00 (E-F: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 = 1.00

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

NAIL VALUES

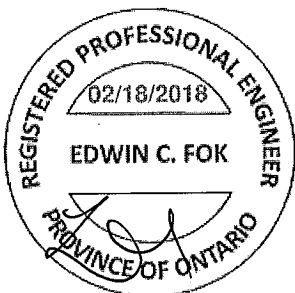
PLATE	GRIP(DRY)	SHEAR	SECTION
	(PSI)	(PLI)	(PLI)
	MAX MIN	MAX MIN	MAX MIN
MT20	618 354	1667 788	1987 1656

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.45 (C) (INPUT = 0.90)
JSI METAL= 0.17 (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

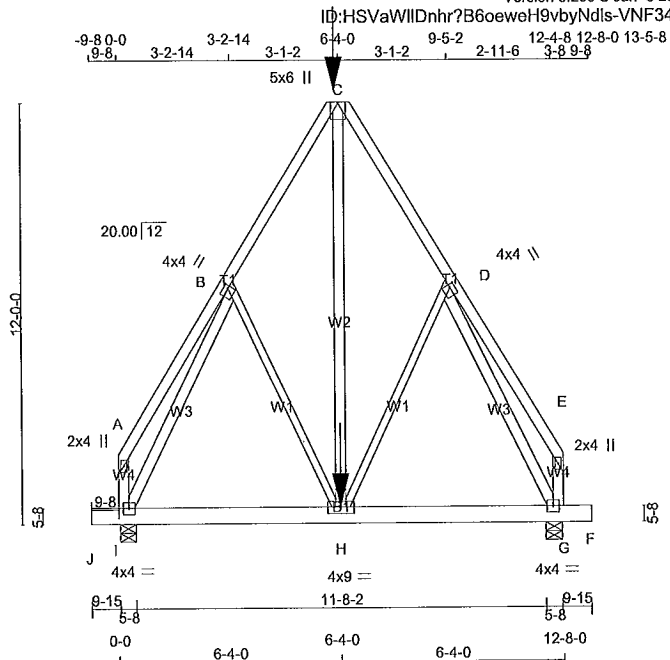


A-18023733

JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
292657	H26	1	1	TRUSS DESC.	

Alpa Roof Truss, Maple

Version 8.200 S Jan 6 2018 MiTek Industries, Inc. Sun Feb 18 14:08:56 2018 Page 1



Scale = 1:65.6

TOTAL WEIGHT = 97 lb

LUMBER	N. L. G. A. RULES	CHORDS	SIZE	LUMBER	DESCR.
A - C	2x4	DRY	No.2	SPF	
C - E	2x4	DRY	No.2	SPF	
I - A	2x4	DRY	No.2	SPF	
G - E	2x4	DRY	No.2	SPF	
J - F	2x6	DRY	No.2	SPF	
ALL WEBS EXCEPT	2x4	DRY	No.2	SPF	
B - H	2x3	DRY	No.2	SPF	
H - D	2x3	DRY	No.2	SPF	

DRY: SEASONED LUMBER.

PLATES (table is in inches)

JT TYPE	PLATES	W	LEN	Y	X
A - TMV+p	MT20	2.0	4.0		
B - TMVW-t	MT20	4.0	4.0	1.50	1.00
C - TMTMW+p	MT20	5.0	6.0	Edge	
D - TMVW-t	MT20	4.0	4.0	1.50	1.00
E - TMV+p	MT20	2.0	4.0		
G - BMVW1-t	MT20	4.0	4.0		
H - BMVW1-t	MT20	4.0	9.0		
I - BMVW1-t	MT20	4.0	4.0		

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

HANGERS NOTES

- SPECIAL HANGER(S) OR CONNECTION(S) REQUIRED TO SUPPORT CONCENTRATED LOAD(S) 793.3 lbs FACTORED DOWN AT 6-4-0 ON TOP CHORD, AND 306.6 lbs FACTORED DOWN AT 6-4-0 ON BOTTOM CHORD. DESIGN FOR UNSPECIFIED CONNECTION(S) IS DELEGATED TO THE BUILDING DESIGNER.

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
	VERT	HORZ	DOWN	HORZ		
JT	1364	0	1364	0	5-8	1-8
I	1364	0	1364	0	5-8	1-8
G	1364	0	1364	0	5-8	1-8

UNFACTORED REACTIONS

JT	1ST LCASE	MAX./MIN. COMPONENT REACTIONS					
		COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD
I	973	593 / 0	0 / 0	0 / 0	0 / 0	379 / 0	0 / 0
G	973	593 / 0	0 / 0	0 / 0	0 / 0	379 / 0	0 / 0

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

BRACING

TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 6.09 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		WEBS	
	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	MAX. MEMB. UNBRACED LENGTH (FT)	MAX. FACTORED FORCE (LBS)
FR-TO		FROM TO		
A-B	0 / 24	-78.0 -78.0 0.13 (1)	10.00	H-C 0 / 655
B-C	-986 / 0	-78.0 -78.0 0.16 (1)	6.09	I-B -1211 / 0
C-D	-986 / 0	-78.0 -78.0 0.16 (1)	6.09	B-H -33 / 13
D-E	0 / 24	-78.0 -78.0 0.13 (1)	10.00	H-D -33 / 13
I-A	-91 / 0	0.0 0.0 0.01 (1)	7.81	D-G -1211 / 0
G-E	-91 / 0	0.0 0.0 0.01 (1)	7.81	
J-I	0 / 0	-96.5 -96.5 0.02 (1)	10.00	
I-H	0 / 511	-38.5 -38.5 0.26 (4)	10.00	
H-G	0 / 511	-38.5 -38.5 0.26 (4)	10.00	
G-F	0 / 0	-96.5 -96.5 0.02 (1)	10.00	

FACTORED CONCENTRATED LOADS (LBS)

JT	LOC.	LC1	MAX-	MAX+	FACE	DIR.	TYPE
C	6-4-0	-793	-793	—	FRONT	VERT	TOTAL
H	6-4-0	-307	-307	—	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 = 21.0	PSF
	DL = 6.0	PSF
BOT CH.	LL = 0.0	PSF
	DL = 7.4	PSF
TOTAL LOAD	= 34.4	PSF

SPACING = 24.0 IN. C/C

GIRDER TYPE: CPrimeHip
LEFT SETBACK = 6-3-9
RIGHT SETBACK = 6-4-0
END SETBACK = 6-4-0
END WALL WIDTH = 0-0
CORNER FRAMING TYPE: CONVENTIONAL
END JACK TYPE: CONVENTIONAL
APPLIED TO FRONT SIDE
- ADDTL LOADS BASED ON 55 % OF GSL.

*** 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, NBC 2010, NBC 2015

THIS DESIGN COMPLIES WITH:
- PART 9 OF OBC 2012, OBC 2018
- CSA 086-09, CSA 086-14
- TPIC 2011, TPIC 2014

(55 % OF 23.0 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 21.0 P.S.F. SPECIFIED ROOF LIVE LOAD

ALLOWABLE DEFL.(LL)= L/360 (0.42")
CALCULATED VERT. DEFL.(LL) = L/999 (0.02")
ALLOWABLE DEFL.(TL)= L/360 (0.42")
CALCULATED VERT. DEFL.(TL) = L/999 (0.04")

CANTILEVER DEFLECTION:
ALLOWABLE DEFL.(LL)= L/120 (0.19")
CALCULATED VERT. DEFL.(LL) = L/999 (0.00")
ALLOWABLE DEFL.(TL)= L/120 (0.19")
CALCULATED VERT. DEFL.(TL) = L/999 (0.00")

CSI: TC=0.16/1.00 (B-C:1), BC=0.26/1.00 (G-H:4), WB=0.88/1.00 (B-I:1), SS=0.17/1.00 (H-I:4)

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

COMPANION LIVE LOAD FACTOR = 1.00

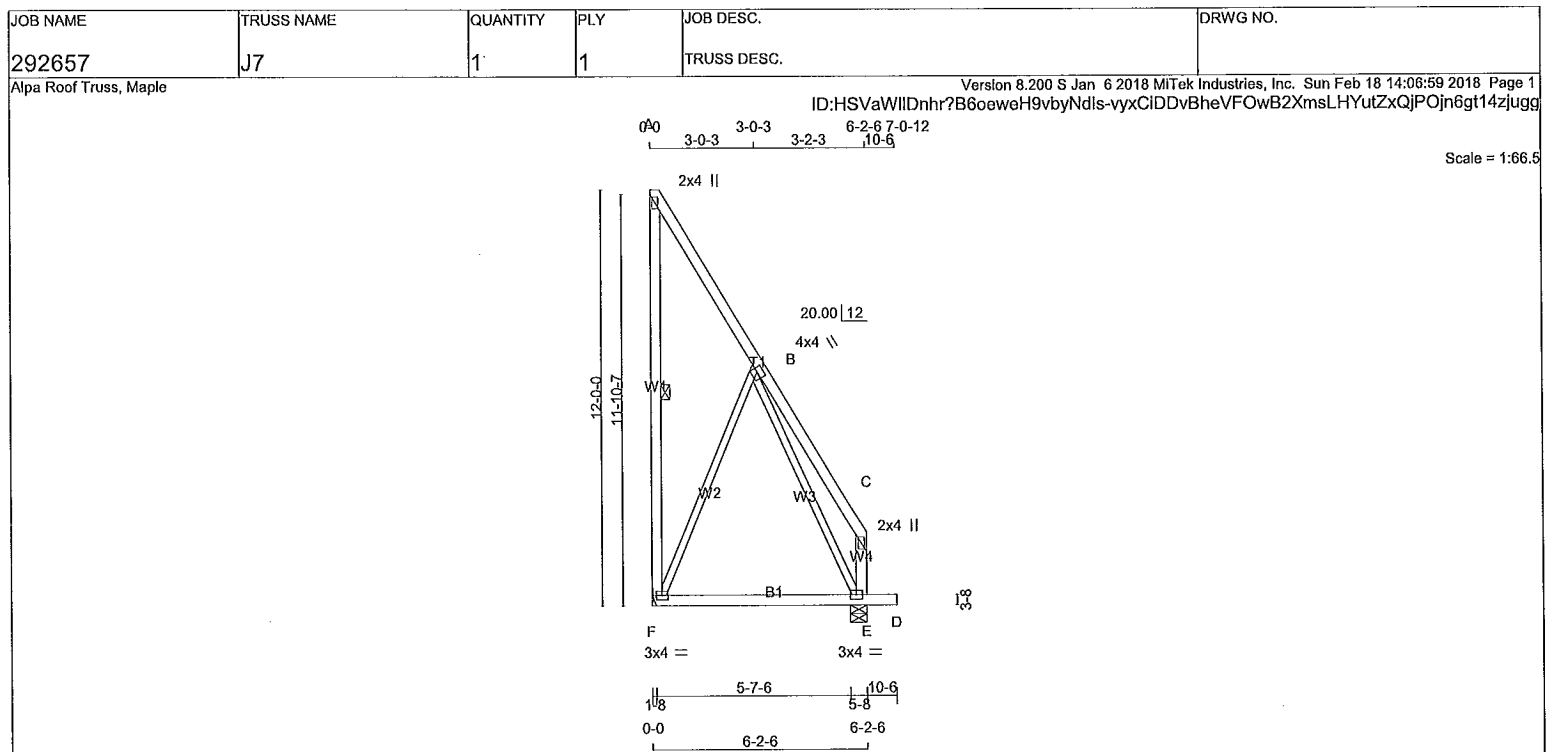
AUTOSOLVE HEELS OFF

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

A-18023734 CONTINUED ON PAGE 2

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





TOTAL WEIGHT = 49 lb

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

PLATES (table is in inches)					
JT	TYPE	PLATES	W	LEN	Y X
A	TMV+p	MT20	2.0	4.0	
B	TMVW-t	MT20	4.0	4.0	2.00 1.50
C	TMV+p	MT20	2.0	4.0	
E	BMVW1-t	MT20	3.0	4.0	
F	BMVW1-t	MT20	3.0	4.0	

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	IN-SX	IN-SX	IN-SX	IN-SX
F		299	0	299	0	0	0	5-8	1-8
E		382	0	382	0	0	0	5-8	1-8

UNFACTORED REACTIONS

JT	1ST LCASE	MAX / MIN	SNOW	LIVE	PERM. LIVE	WIND	DEAD	SOIL
F	213	130 / 0	0 / 0	0 / 0	0 / 0	0 / 0	83 / 0	0 / 0
E	273	166 / 0	0 / 0	0 / 0	0 / 0	0 / 0	106 / 0	0 / 0

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

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.

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

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 LC1 (PLF)	MAX. MEMB. FORCE (LBS)
FR-TO		FROM TO	LENGTH FR-TO
F-A	-96 / 0	0.0 0.0 0.08 (1)	6.25
A-B	-25 / 0	-78.0 -78.0 0.10 (1)	6.25
B-C	0 / 26	-78.0 -78.0 0.13 (1)	10.00
E-C	-86 / 0	0.0 0.0 0.01 (1)	7.81
F-E	0 / 70	-18.5 -18.5 0.21 (4)	10.00
E-D	0 / 0	-96.5 -96.5 0.05 (1)	10.00

DESIGN CRITERIA

SPECIFIED LOADS:
TOP CH. LL = 21.0 PSF
DL = 6.0 PSF
BOT CH. LL = 0.0 PSF
DL = 7.4 PSF
TOTAL LOAD = 34.4 PSF

SPACING = 24.0 IN. C/C

THIS TRUSS IS DESIGNED FOR RESIDENTIAL OR SMALL BUILDING REQUIREMENTS OF PART 9, NBCC 2010, NBCC 2015

THIS DESIGN COMPLIES WITH:
- PART 9 OF OBC 2012, OBC 2018
- CSA 086-09, CSA 086-14
- TPIC 2011, TPIC 2014

(55 % OF 23.0 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 21.0 P.S.F. SPECIFIED ROOF LIVE LOAD

ALLOWABLE DEFL.(TL) = L/360 (0.21")
CALCULATED VERT. DEFL.(TL) = L/999 (0.07")

CANTILEVER DEFLECTION:
ALLOWABLE DEFL.(LL) = L/120 (0.19")
CALCULATED VERT. DEFL.(LL) = L/999 (0.00")
ALLOWABLE DEFL.(TL) = L/120 (0.19")
CALCULATED VERT. DEFL.(TL) = L/999 (0.00")

CSI: TC=0.13/1.00 (B-C:1), BC=0.21/1.00 (E-F:4), WB=0.18/1.00 (B-E:1), SSI=0.08/1.00 (E-F:4)

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

COMPANION LIVE LOAD FACTOR = 1.00

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

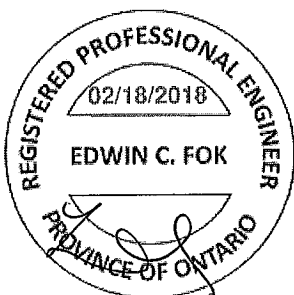
NAIL VALUES
PLATE GRIP(DRY) SHEAR SECTION
(PSI) (PLI) (PLI)
MAX MIN MAX MIN MAX MIN
MT20 618 354 1667 788 1987 1656

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

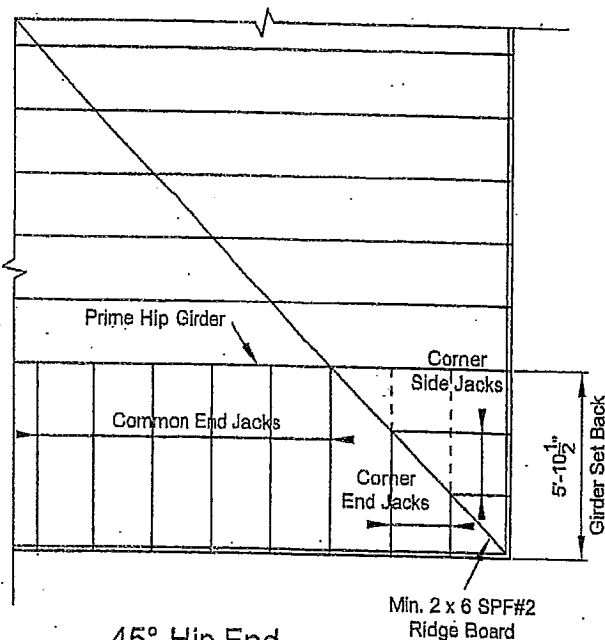
JSI GRIP= 0.24 (B) (INPUT = 0.90)
JSI METAL= 0.10 (B) (INPUT = 1.00)

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



A-18023735

STRACON ENGINEERING INC.



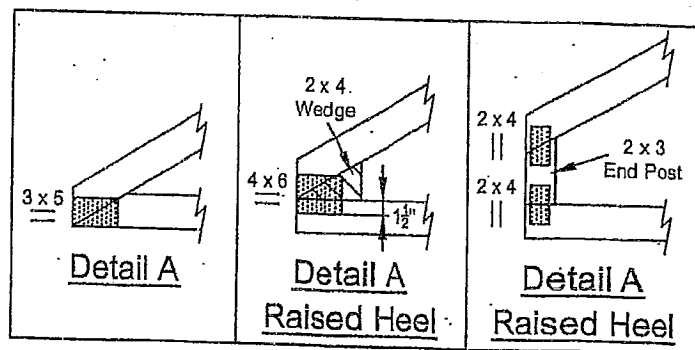
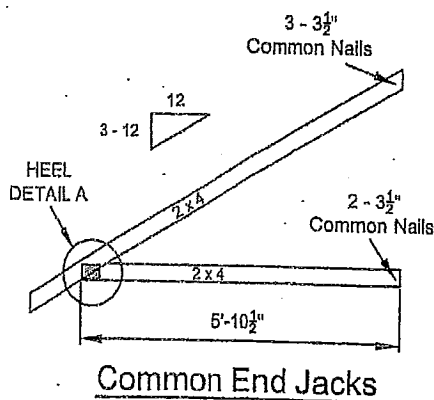
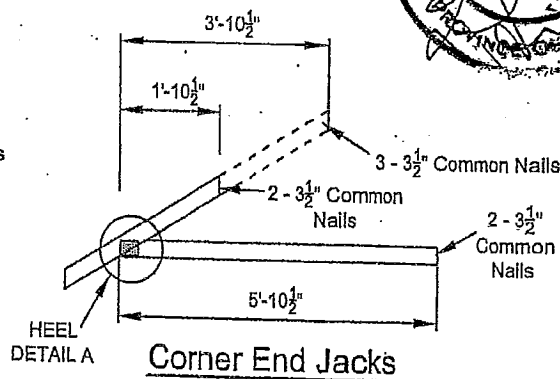
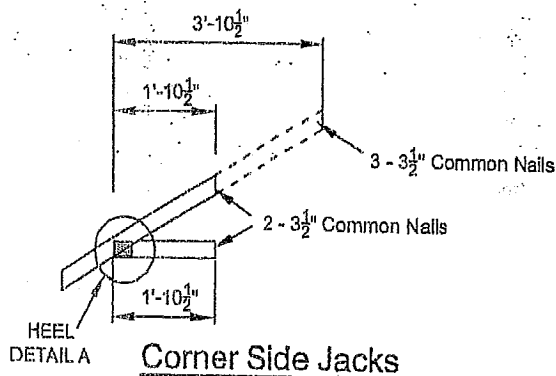
LUMBER SPECIFICATION

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



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

CS-51008

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:

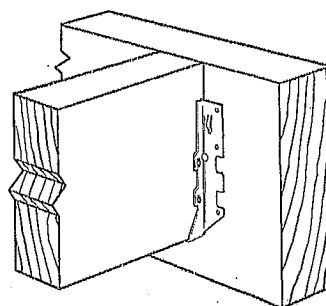
- Factored resistances are in accordance with CSA O86-14.
- Uplift resistances have been increased 15%. No further increase is permitted.
- Wood shear is not considered in the factored resistances given. The specifier must ensure that the joist and header capacities are capable of withstanding these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

Installation:

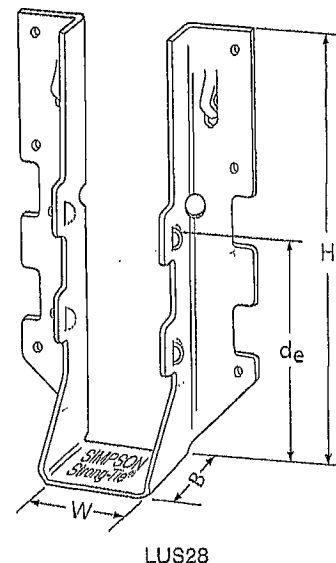
- Use all specified fasteners.
- Nails: 16d = 0.162" dia. x 3 1/2" long common wire,
10d = 0.148" x 3" long common wire.
- Double shear nails must be driven at an angle through the joist or truss into the header to achieve the table loads.
- Not designed for welded or naller applications.

Options:

- These hangers cannot be modified



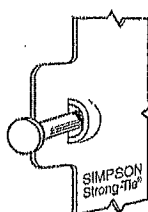
Typical LUS
Installation



LUS28

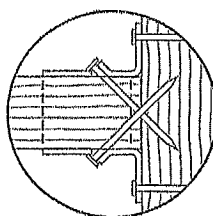
Model No.	Ga.	Dimensions (in.)				Fasteners		Factored Resistance (lb.)			
								D.Fir-L		S-P-F	
		W	H	B	d _e ¹	Face	Joist	Uplift (K _u =1.15)	Normal (K _n =1.00)	Uplift (K _u =1.15)	Normal (K _n =1.00)
LUS24	18	1 1/8	3 1/8	1 1/4	1 1/8	(4) 10d	(2) 10d	710	1630	645	1155
LUS24-2	18	3 1/8	3 1/8	2	1 1/8	(4) 16d	(2) 16d	835	2020	590	1435
LUS26	18	1 1/8	4 3/8	1 1/4	3/8	(4) 10d	(4) 10d	1420	2170	1290	1630
LUS26-2	18	3 1/8	4 3/8	2	4	(4) 16d	(4) 16d	1720	2595	1545	1920
LUS26-3	18	4 3/8	4 3/8	2	3/4	(4) 16d	(4) 16d	1720	2595	1545	2340
LUS28	18	1 1/8	6 3/8	1 1/4	3/8	(6) 10d	(6) 10d	1420	2520	1290	1790
LUS28-2	18	3 1/8	7	2	4	(6) 16d	(4) 16d	1720	3325	1545	2575
LUS28-3	18	4 3/8	6 1/4	2	3/4	(6) 16d	(4) 16d	1720	3325	1545	2375
LUS210	18	1 1/8	7 1/8	1 1/4	3/8	(8) 10d	(4) 10d	1420	2785	1290	2210
LUS210-2	18	3 1/8	9	2	6	(8) 16d	(6) 16d	2580	4500	2320	3195
LUS210-3	18	4 3/8	8 3/8	2	5 1/4	(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.

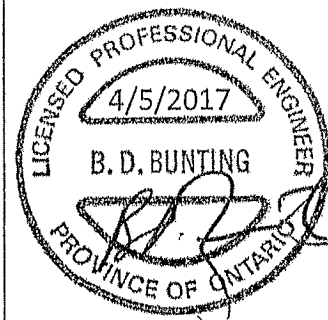


Dome Double
Shear Nailing
prevents tabs
breaking off
(available on
some models).

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 at strongtie.com.

© 2017 Simpson Strong-Tie Company Inc.

T-SPEC/LUS17/3/17 exp. 6/19

(800) 999-5099
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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:

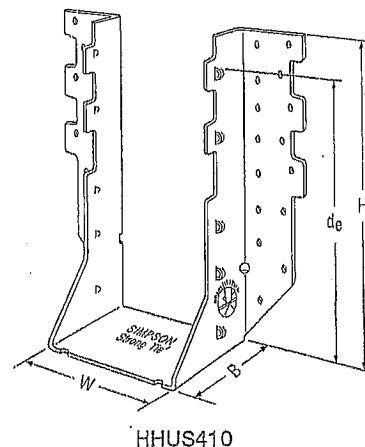
- Factored resistances are in accordance with CSA O86-14.
- Uplift resistances have been increased 15%. No further increase is permitted.
- Wood shear is not considered in the factored resistances given. The specifier must ensure that the joist and header capacities are capable of withstanding these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

Installation:

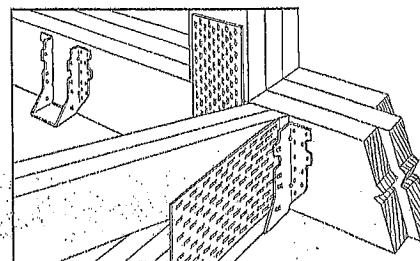
- Use all specified fasteners
- Nails: 16d = 0.162" dia. x 3 1/2" long common wire
- Double shear nails must be driven at an angle through the joist or truss into the header to achieve the table loads
- Not designed for welded or nailer applications

Options:

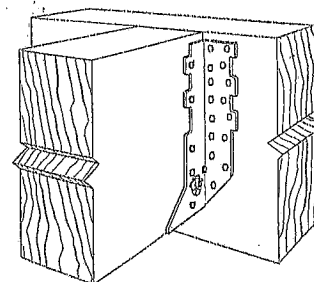
- See current catalogue for options



HHUS410



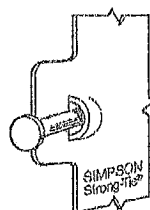
Typical HHUS Installation
(Truss Designer to provide fastener quantity for connecting multiple members together)



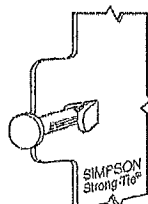
Typical HHUS Installation

Model No.	Ga.	Dimensions (in.)				Fasteners		Factored Resistance (lb.)			
		W	H	B	d _g ¹	Face	Joist	D.Flr-L		S-P-F	
								Uplift	Normal	Uplift	Normal
								(K _p =1.15)	(K _p =1.00)	(K _p =1.15)	(K _p =1.00)
HHUS26-2	14	3 5/16	5 1/16	3	3 1/16	(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 9/32	3	8	(30) 16d	(10) 16d	4745	9660	4310	7000
HHUS210-3	14	4 1/16	9	3	7 1/16	(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 1/32	3	3 1/16	(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

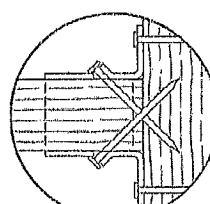
1. d_g is the distance from the seat of the hanger to the highest joist nail.



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



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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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:

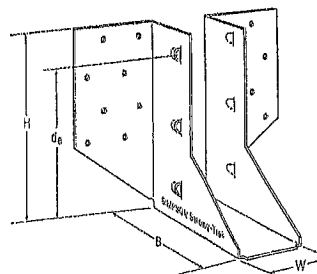
- Factored resistances are in accordance with CSA O86 -14.
- Uplift resistances have been increased 15%. No further increase is permitted.
- Wood shear is not considered in the factored resistances given. The specifier must ensure that the joist and header capacities are capable of withstanding these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

Installation:

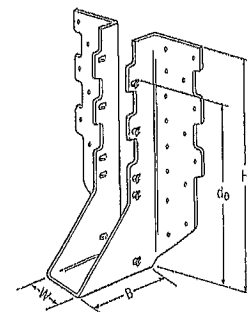
- Use all specified fasteners
- Nails: 16d = 0.162" dia. x 3½" long common wire
- Double shear nails must be driven at an angle through the joist or truss into the header to achieve the table loads
- Not designed for welded or nailer applications

Options:

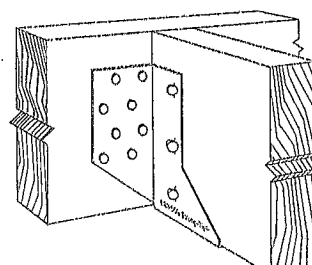
- See current catalogue for options



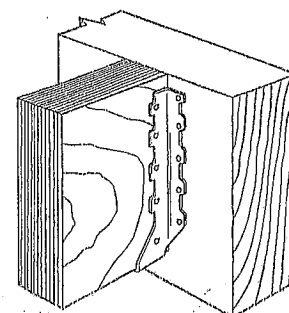
LJS26DS



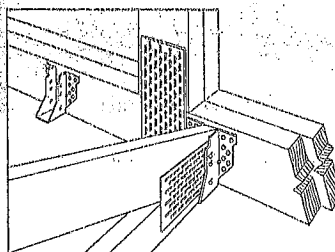
HUS210
(HUS26, HUS28, similar)



Typical LJS26DS
Installation



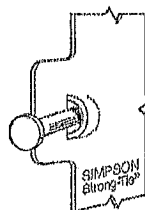
Typical HUS
Installation



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

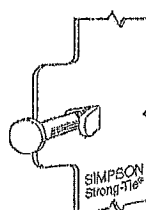
Model No.	Ga.	Dimensions (In.)					Fasteners		Factored Resistance (lb.)			
		W	H	B	d ₀ ¹	Face	Joist		D.Fir-L		S-P-F	
									Uplift (K ₀ =1.15)	Normal (K ₀ =1.00)	Uplift (K ₀ =1.15)	Normal (K ₀ =1.00)
LJS26DS	18	1 1/16	5	3 1/2	4 5/8	(16) 16d	(6) 16d		2055	4265	1480	4115
HUS26	16	1 1/8	5 3/8	3	3 15/16	(14) 16d	(6) 16d		2705	4940	2065	3875
HUS28	16	1 1/8	7 3/8	3	6 3/32	(22) 16d	(8) 16d		3605	5365	2675	4345
HUS210	16	1 1/8	9 3/8	3	7 21/32	(30) 16d	(10) 16d		4505	5795	4010	4740
HUS1.81/10	16	1 1/16	9	3	8	(30) 16d	(10) 16d		4505	6450	4010	5200

1. d₀ is the distance from the seat of the hanger to the highest joist nail.

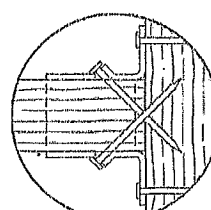


Dome Double Shear Nailing prevents tabs breaking off (available on some models).

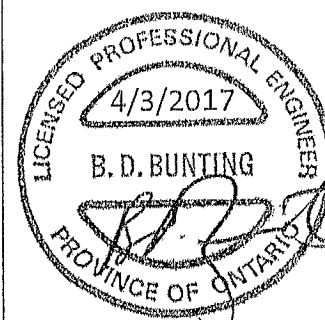
U.S. Patent
5,603,580



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



Double Shear Nailing Top View.



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