

Project:	PINE
Date:	8/10/2018

ARK HOMES
/ALLEY
Designer: AMANDA

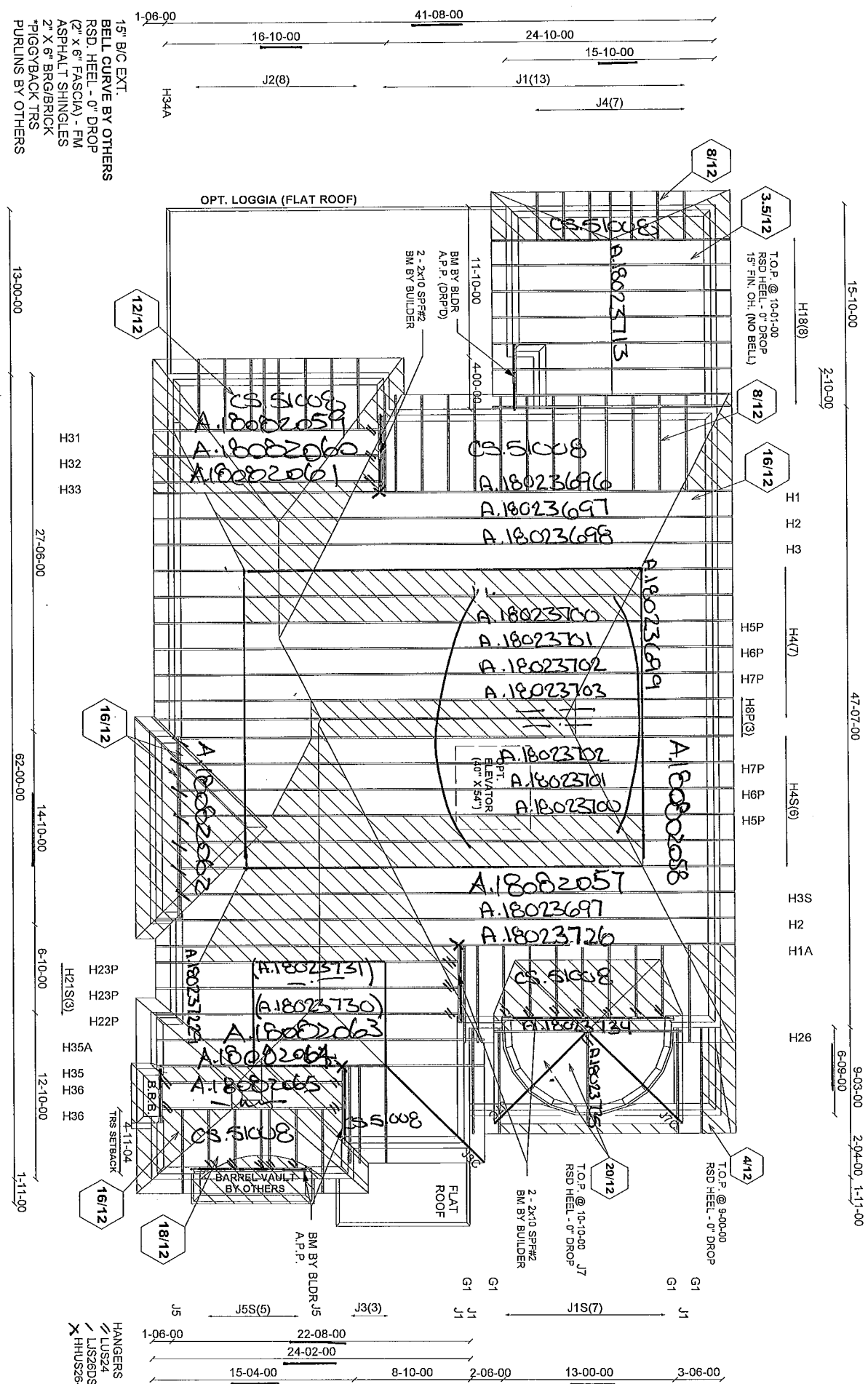
THESE DRAWINGS CO
REDISTRIBUTED IN AN
ALPA ROOF TRUSSES

5005 / E

NOT 158 LOGGIA, U.S.A., L.S.O.

ALL CONVENTIONAL FRAMING TO CONFORM WITH PART 9 OF C. LATEST EDITION. ROOF RAFTERS THAT CROSS OVER TRUSSES TO BE 2X4 SPF #2 @ 24" O.C WITH A VERT. POST TO THE TRUSS UNDERNEATH AT EACH CROSS POINT. VERT. POSTS LONGER THAN 6' TO HAVE LATERAL BRACING SO THAT THE DISTANCE BETWEEN END POINTS & BETWEEN ROWS OF BRACING DOES NOT EXCEED 6'	CONVENTIONAL FRAMING BY OTHERS
--	--------------------------------

Mitek V. 8.2.



ALPA-BARRIE

Stracon Engineering Inc.

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



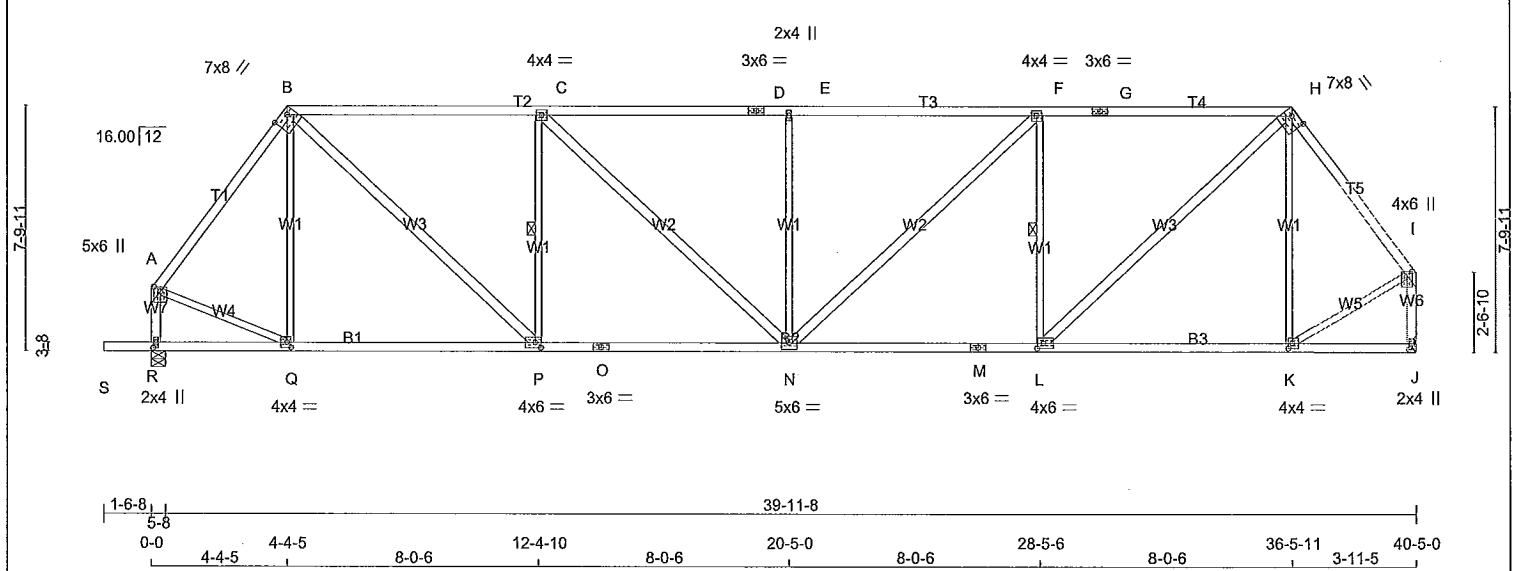
RESPONSIBILITIES

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



LUMBER N. L. G. A. RULES CHORDS SIZE LUMBER DESCR. DIMENSIONS, SUPPORTS AND LOADINGS SPECIFIED BY FABRICATOR TO BE VERIFIED BY BUILDING DESIGNER BEARINGS

CHORDS	SIZE	LUMBER	DESCR.	FACTORED	MAXIMUM FACTORED	INPUT	REQD
A - B	2x4	DRY	No.2	SPF	GROSS REACTION	GROSS REACTION	BRG
B - D	2x4	DRY	1650F 1.5E	SPF	JT VERT	DOWN	IN-SX
D - G	2x4	DRY	1650F 1.5E	SPF	R 2098	0	0
G - H	2x4	DRY	1650F 1.5E	SPF	J 1949	0	0
H - I	2x4	DRY	No.2	SPF			
I - J	2x4	DRY	No.2	SPF			
J - K	2x4	DRY	No.2	SPF			
K - L	2x4	DRY	No.2	SPF			
L - M	2x4	DRY	No.2	SPF			
M - N	2x4	DRY	No.2	SPF			
N - O	2x4	DRY	No.2	SPF			
O - P	2x4	DRY	No.2	SPF			
P - Q	2x4	DRY	No.2	SPF			
Q - R	2x4	DRY	No.2	SPF			
R - S	2x4	DRY	No.2	SPF			
S - T	2x4	DRY	No.2	SPF			
T - U	2x4	DRY	No.2	SPF			
U - V	2x4	DRY	No.2	SPF			
V - W	2x4	DRY	No.2	SPF			
W - X	2x4	DRY	No.2	SPF			
X - Y	2x4	DRY	No.2	SPF			
Y - Z	2x4	DRY	No.2	SPF			
Z - A	2x4	DRY	No.2	SPF			

DESIGN CRITERIA SPECIFIED LOADS: TOP CH. LL = 21.0 PSF BOT CH. LL = 0.0 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

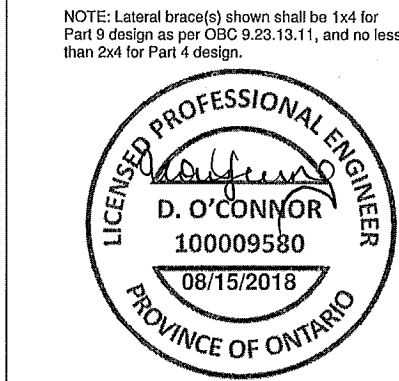
ALLOWABLE DEFL.(LL)= L/360 (1.35") CALCULATED VERT. DEFL.(LL)= L/999 (0.13") ALLOWABLE DEFL.(TL)= L/360 (1.35") CALCULATED VERT. DEFL.(TL)= L/999 (0.28")

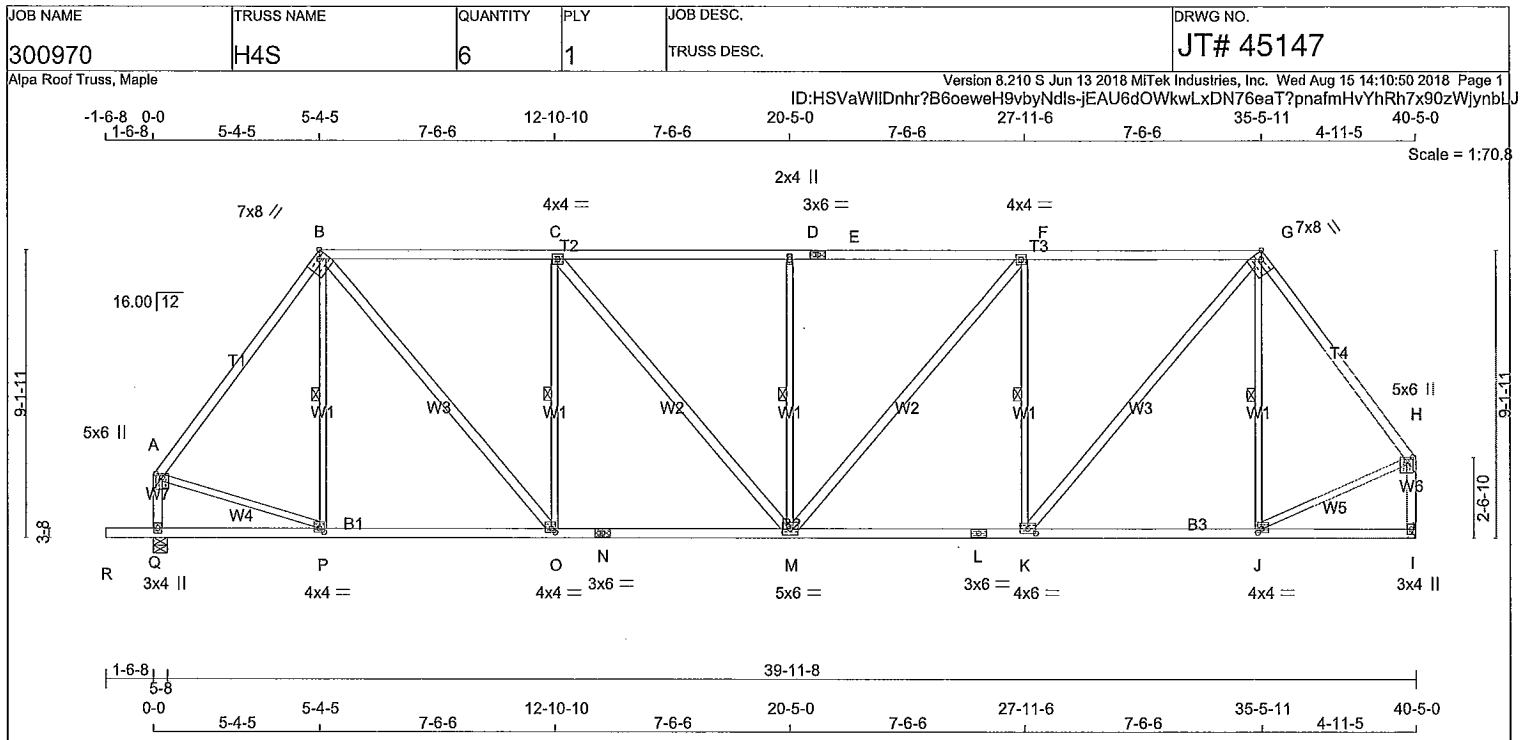
CANTILEVER DEFLECTION: ALLOWABLE DEFL.(LL)= L/120 (0.19") CALCULATED VERT. DEFL.(LL)= L/999 (0.01") ALLOWABLE DEFL.(TL)= L/120 (0.19") CALCULATED VERT. DEFL.(TL)= L/999 (0.01")

CSI: TC=0.92/1.00 (C-E:1), BC=0.51/1.00 (N-P:1), WB=0.66/1.00 (E-N:1), SSI=0.30/1.00 (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= 0.90 (L) (INPUT = 0.90) JSI METAL= 0.70 (O) (INPUT = 1.00)





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
Q - A	2x4	DRY	No.2 SPF
I - H	2x4	DRY	No.2 SPF
R - N	2x4	DRY	No.2 SPF
N - L	2x4	DRY	No.2 SPF
L - I	2x4	DRY	No.2 SPF

ALL WEBS EXCEPT			
B - O	2x4	DRY	No.2 SPF
C - M	2x4	DRY	No.2 SPF
M - F	2x4	DRY	No.2 SPF
K - 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	TTWW-h	MT20	7.0	8.0	Edge	2.75
C	TMWW-l	MT20	4.0	4.0		
D	TMW+w	MT20	2.0	4.0		
E	TS-l	MT20	3.0	6.0		
F	TMWW-l	MT20	4.0	4.0		
G	TTWW-h	MT20	7.0	8.0	Edge	2.75
H	TMVW+p	MT20	5.0	6.0	1.50	2.50
I	BMV1+p	MT20	3.0	4.0		
J	BMWW-l	MT20	4.0	4.0	1.50	1.50
K	BMWW-l	MT20	4.0	6.0	1.75	3.00
L	BS-l	MT20	3.0	6.0		
M	BMWW-l	MT20	5.0	6.0		
N	BS-l	MT20	3.0	6.0		
O	BMWW-l	MT20	4.0	4.0	1.50	1.50
P	BMWW-l	MT20	4.0	4.0	1.50	1.75
Q	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	REQ'D
		GROSS REACTION	GROSS REACTION	BRG	BRG
JT	VERT	HORZ	DOWN	HORZ	UPLIFT
Q	2210	0	2210	0	5-8
I	2064	0	2064	0	MECHANICAL

A SUITABLE HANGER/MECHANICAL CONNECTION IS REQUIRED AT JOINT I. MINIMUM BEARING LENGTH AT JOINT I = 3-3.

UNFACTORED REACTIONS

JT	1ST CASE	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
Q	1585	913/0	0/0	0/0	0/0	672/0	0/0
I	1481	848/0	0/0	0/0	0/0	633/0	0/0

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

BRACING

FOR SECTION B-G, MAX. PURLIN SPACING = 2.00 FT.
FOR OTHER SECTIONS, TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 4.59 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-P, C-O, D-M, F-K, G-J.

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)	LC1 MAX CSI (LC)	MAX. UNBRAC	MEMB.	MAX. FACTORED FORCE (LBS)	MAX CSI (LC)
FR-TO		FROM	TO	LENGTH	FR-TO		
A-B	-1857 / 0	-78.0	-78.0 0.44 (1)	4.59	P-B	-195 / 4	0.11 (1)
B-C	-2140 / 0	-85.5	-85.5 0.71 (1)	2.00	B-O	0 / 1589	0.26 (1)
C-D	-2434 / 0	-85.5	-85.5 0.71 (1)	2.00	O-C	-1066 / 0	0.58 (1)
D-E	-2434 / 0	-85.5	-85.5 0.71 (1)	2.00	C-M	0 / 454	0.07 (1)
E-F	-2434 / 0	-85.5	-85.5 0.71 (1)	2.00	M-D	-597 / 0	0.33 (1)
F-G	-2104 / 0	-85.5	-85.5 0.71 (1)	2.00	M-F	0 / 510	0.08 (1)
G-H	-1738 / 0	-78.0	-78.0 0.35 (1)	4.78	K-F	-1109 / 0	0.60 (1)
Q-A	-2024 / 0	0.0	0.0 0.23 (1)	5.94	K-G	0 / 1646	0.26 (1)
I-H	-2031 / 0	0.0	0.0 0.28 (1)	5.93	J-G	-317 / 0	0.17 (1)
					A-P	0 / 1156	0.26 (1)
R-Q	0 / 0	-96.5	-96.5 0.16 (1)	10.00	J-H	0 / 1129	0.25 (1)
Q-P	0 / 0	-18.5	-18.5 0.18 (4)	10.00			
P-O	0 / 1107	-18.5	-18.5 0.32 (4)	10.00			
O-N	0 / 2140	-18.5	-18.5 0.46 (1)	10.00			
N-M	0 / 2140	-18.5	-18.5 0.46 (1)	10.00			
M-L	0 / 2104	-18.5	-18.5 0.46 (1)	10.00			
L-K	0 / 2104	-18.5	-18.5 0.46 (1)	10.00			
K-J	0 / 1034	-18.5	-18.5 0.32 (4)	10.00			
J-I	0 / 0	-18.5	-18.5 0.17 (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 PIGGYBACK TRUSS WITH SLOPES OF 16.00/12 AND -16.00/12 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 (1.35")
CALCULATED VERT. DEFL.(LL) = L/999 (0.11")
ALLOWABLE DEFL.(TL) = L/360 (1.35")
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=0.71/1.00 (C-D:1), BC=0.46/1.00 (M-O:1), WB=0.60/1.00 (F-K:1), SSI=0.30/1.00 (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

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= 0.89 (O) (INPUT = 0.90)
JSI METAL= 0.62 (A) (INPUT = 1.00)

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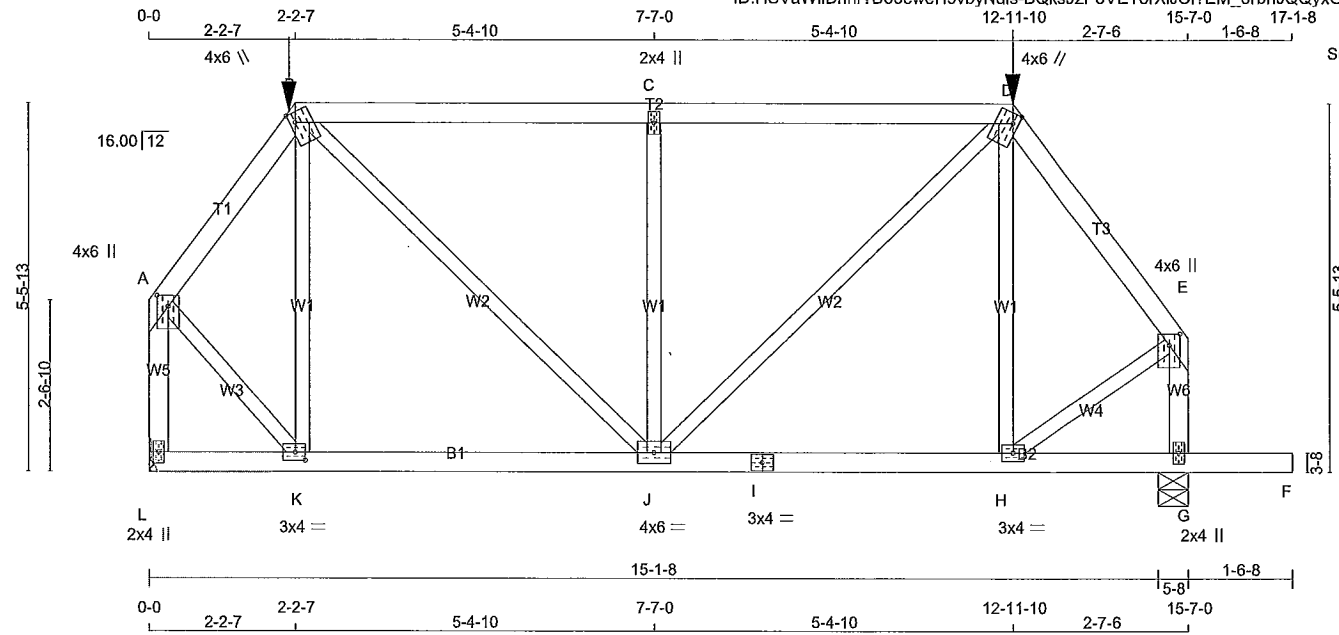


JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
300970	H31	1	1	TRUSS DESC.	JT# 45147

Alpa Roof Truss, Maple

Version 8.210 S Jun 13 2018 MiTek Industries, Inc. Wed Aug 15 14:10:51 2018 Page 1
ID:HSVaWIIIDnh7B6oeweH9vbyNdls-BQksJzP8VETorXiJCI7EM_6rbhJQYxGAplX29ynbL

Scale = 1:33.1



TOTAL WEIGHT = 74 lb [M]

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

DRY: SEASONED LUMBER.

PLATES (table is in inches)

JT	TYPE	PLATES	W	LEN	Y	X
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	3.0	4.0		
I	BS-t	MT20	3.0	4.0		
J	BMWW-t	MT20	4.0	6.0		
K	BMWW-t	MT20	3.0	4.0	1.50	1.75
L	BMV1+p	MT20	2.0	4.0		

HANGERS NOTES

- SPECIAL HANGER(S) OR CONNECTION(S) REQUIRED TO SUPPORT CONCENTRATED LOAD(S) 80.7 lbs FACTORED DOWN AT 12-11-10, AND 68.0 lbs FACTORED DOWN AT 2-2-7 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		MAXIMUM FACTORED		INPUT		REQ'D	
JT	VERT	GROSS REACTION	DOWN	HORZ	UPLIFT	BRG	IN-SX	BRG	IN-SX
L	1093	0	1093	0	0	MECHANICAL			
G	1236	0	1236	0	0	5-8	1-13		

A SUITABLE HANGER/MECHANICAL CONNECTION IS REQUIRED AT JOINT L. MINIMUM BEARING LENGTH AT JOINT L = 1-8.

UNFACTORED REACTIONS

JT	1ST LCASE	COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
L	780	475 / 0	0 / 0	0 / 0	0 / 0	0 / 0	305 / 0	0 / 0
G	882	536 / 0	0 / 0	0 / 0	0 / 0	0 / 0	345 / 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 = 5.26 FT.
MAX. UNBRACED BOTTOM CHORD LENGTH = 10.00 FT OR RIGID CEILING DIRECTLY APPLIED.

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

LOADING

TOTAL LOAD CASES: (4)

CHORDS					WEBS			
MAX. FACTORED		FACTORED			MAX. FACTORED			
MEMB.	FORCE	VERT. LOAD	LC1	MAX	MEMB.	FORCE	MAX	
	(LBS)	(PLF)	CSI (LC)	UNBRAC		(LBS)	CSI (LC)	
FR-TO		FROM	TO	LENGTH	FR-TO			
A-B	-733 / 0	-78.0	-78.0	0.08 (1)	6.25	K-B	-284 / 0	0.13 (1)
B-C	-929 / 0	-114.5	-114.5	0.65 (1)	5.26	B-J	0 / 692	0.17 (1)
C-D	-929 / 0	-114.5	-114.5	0.65 (1)	5.26	J-C	-748 / 0	0.35 (1)
D-E	-837 / 0	-78.0	-78.0	0.11 (1)	6.25	J-D	0 / 602	0.15 (1)
L-A	-1084 / 0	0.0	0.0	0.16 (1)	7.55	H-D	-168 / 21	0.08 (1)
G-E	-1069 / 0	0.0	0.0	0.13 (1)	7.60	A-K	0 / 597	0.15 (1)
						H-E	0 / 578	0.14 (1)
L-K	0 / 0	-27.2	-27.2	0.12 (4)	10.00			
K-J	0 / 430	-27.2	-27.2	0.22 (4)	10.00			
J-I	0 / 495	-27.2	-27.2	0.23 (4)	10.00			
I-H	0 / 495	-27.2	-27.2	0.23 (4)	10.00			
H-G	0 / 0	-27.2	-27.2	0.12 (4)	10.00			
G-F	0 / 0	-96.5	-96.5	0.17 (1)	10.00			

FACTORED CONCENTRATED LOADS (LBS)

JT	LOC.	LC1	MAX-	MAX+	FACE	DIR.	TYPE
B	2-2-7	-68	-68	---	FRONT	VERT	TOTAL
D	12-11-10	-81	-81	---	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 = 2-2-7

RIGHT SETBACK = 2-7-6

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 G.S.L.

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/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=0.65/1.00 (C-D:1), BC=0.23/1.00 (H-J:4), WB=0.35/1.00 (C-J:1), SSI=0.33/1.00 (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

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

A18082059

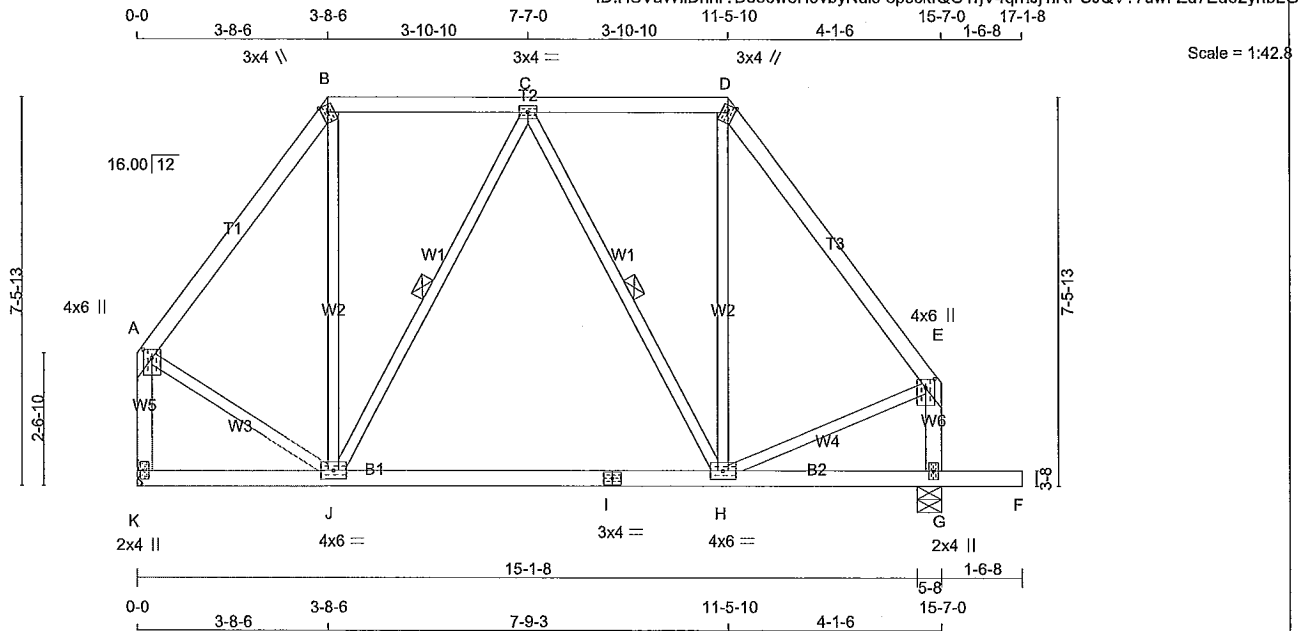
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JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
300970	H32	1	1	TRUSS DESC.	JT# 45147

Alpa Roof Truss, Maple

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ID:HSVaWIIInhr?B6oeweH9vbyNdls-8psckfQO1rjV4qrhJj1iRJCQV?7uwFZd7Ed62ynbL6



TOTAL WEIGHT = 79 lb
(M/JF)

LUMBER	N. L. G. A. RULES	CHORDS	SIZE	LUMBER	DESCR.
A - B	2x4	DRY	No.2	SPF	
B - D	2x4	DRY	No.2	SPF	
D - E	2x4	DRY	No.2	SPF	
K - A	2x4	DRY	No.2	SPF	
G - E	2x4	DRY	No.2	SPF	
K - I	2x4	DRY	No.2	SPF	
I - 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
A	TMVW+p	MT20	4.0	6.0	2.00	2.00
B	TTW+m	MT20	3.0	4.0	Edge	
C	TMWW-t	MT20	3.0	4.0		
D	TTW+m	MT20	3.0	4.0	Edge	
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	6.0		
I	BS-t	MT20	3.0	4.0		
J	BMWW-t	MT20	4.0	6.0		
K	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	REQD BRG
JT	VERT	HORZ	DOWN	HORZ
K	752	0	752	0
G	900	0	900	0

A SUITABLE HANGER/MECHANICAL CONNECTION IS REQUIRED AT JOINT K. MINIMUM BEARING LENGTH AT JOINT K = 1-8.

UNFACTORED REACTIONS

JT	1ST LCASE COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
K	536	327 / 0	0 / 0	0 / 0	0 / 0	209 / 0	0 / 0
G	642	392 / 0	0 / 0	0 / 0	0 / 0	250 / 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.

1 LATERAL BRACE(S) AT 1/2 LENGTH OF C-J, C-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)	LC1 MAX CSI (LC)	MAX. UNBRACED LENGTH	MEMB.	MAX. FACTORED FORCE (LBS)	MAX CSI (LC)		
FR-TO		FROM TO			FR-TO				
A-B	-518 / 0	-78.0	-78.0 0.14 (1)	6.25	J-B	0 / 152	0.04 (4)		
B-C	-310 / 0	-78.0	-78.0 0.15 (1)	6.25	J-C	-230 / 0	0.10 (1)		
C-D	-332 / 0	-78.0	-78.0 0.15 (1)	6.25	C-H	-184 / 0	0.08 (1)		
D-E	-553 / 0	-78.0	-78.0 0.18 (1)	6.25	H-D	0 / 164	0.04 (4)		
K-A	-735 / 0	0.0	0.0 0.10 (1)	7.81	A-J	0 / 355	0.08 (1)		
G-E	-730 / 0	0.0	0.0 0.08 (1)	7.81	H-E	0 / 353	0.08 (1)		
K-J	0 / 0	-18.5	-18.5 0.17 (4)	10.00					
J-I	0 / 418	-18.5	-18.5 0.21 (4)	10.00					
I-H	0 / 418	-18.5	-18.5 0.21 (4)	10.00					
H-G	0 / 0	-18.5	-18.5 0.17 (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 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

ALLOWABLE DEFL.(LL) = L/360 (0.52")
CALCULATED VERT. DEFL.(LL) = L/999 (0.01")
ALLOWABLE DEFL.(TL) = L/360 (0.52")
CALCULATED VERT. DEFL.(TL) = L/999 (0.06")

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=0.18/1.00 (D-E:1), BC=0.21/1.00 (H-J:4), WB=0.10/1.00 (C-J:1), SSI=0.15/1.00 (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) (PSI)	SHEAR (PLI)	SECTION (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 = 0.82 (D) (INPUT = 0.90)
JSI METAL = 0.22 (I) (INPUT = 1.00)

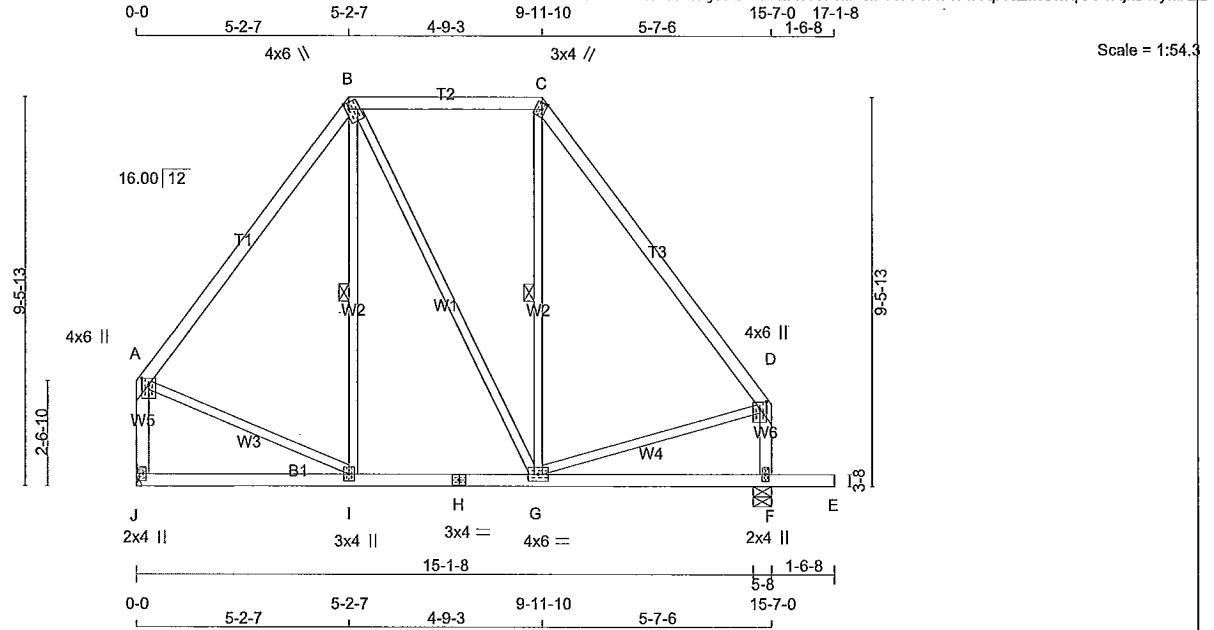
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JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
300970	H33	1	1	TRUSS DESC.	JT# 45147

Alpa Roof Truss, Maple

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ID:HSVaWIIIDnhr?B6oeweH9vbyNdlS-4CzN9KSeZSzk874R83AWqHcZlHUMqGs4RjkBwynbLE



TOTAL WEIGHT = 82 lb
[M][F]

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
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	BS-t	MT20	3.0	4.0		
I	BMVWW-t	MT20	3.0	4.0		
J	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	REQD
	GROSS REACTION	GROSS REACTION	BRG	BRG
JT	VERT	HORZ	DOWN	HORZ
J	752	0	752	0
F	900	0	900	0

A SUITABLE HANGER/MECHANICAL CONNECTION IS REQUIRED AT JOINT J. MINIMUM BEARING LENGTH AT JOINT J = 1-8.

UNFACTORED REACTIONS

JT	1ST CASE	MAX/MIN	COMPONENT REACTIONS
	COMBINED	SNOW	LIVE
J	536	327 / 0	0 / 0
F	642	392 / 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-I, 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)

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			
A-B	-486 / 0	-78.0	-78.0	0.28 (1)	6.25	I-B	-22 / 61	0.02 (4)	
B-C	-301 / 0	-78.0	-78.0	0.23 (1)	6.25	B-G	0 / 25	0.01 (1)	
C-D	-504 / 0	-78.0	-78.0	0.33 (1)	6.25	G-C	0 / 75	0.03 (4)	
J-A	-711 / 0	0.0	0.0	0.10 (1)	7.81	A-I	0 / 313	0.07 (1)	
F-D	-707 / 0	0.0	0.0	0.08 (1)	7.81	G-D	0 / 313	0.07 (1)	
J-I	0 / 0	-18.5	-18.5	0.11 (4)	10.00				
I-H	0 / 290	-18.5	-18.5	0.15 (4)	10.00				
H-G	0 / 290	-18.5	-18.5	0.15 (4)	10.00				
G-F	0 / 0	-18.5	-18.5	0.13 (4)	10.00				
F-E	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

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

ALLOWABLE DEFL.(LL) = L/360 (0.52")
CALCULATED VERT. DEFL.(LL) = L/999 (0.01")
ALLOWABLE DEFL.(TL) = L/360 (0.52")
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 (C-D:1), BC=0.16/1.00 (E-F:1), WB=0.07/1.00 (A-I: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

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

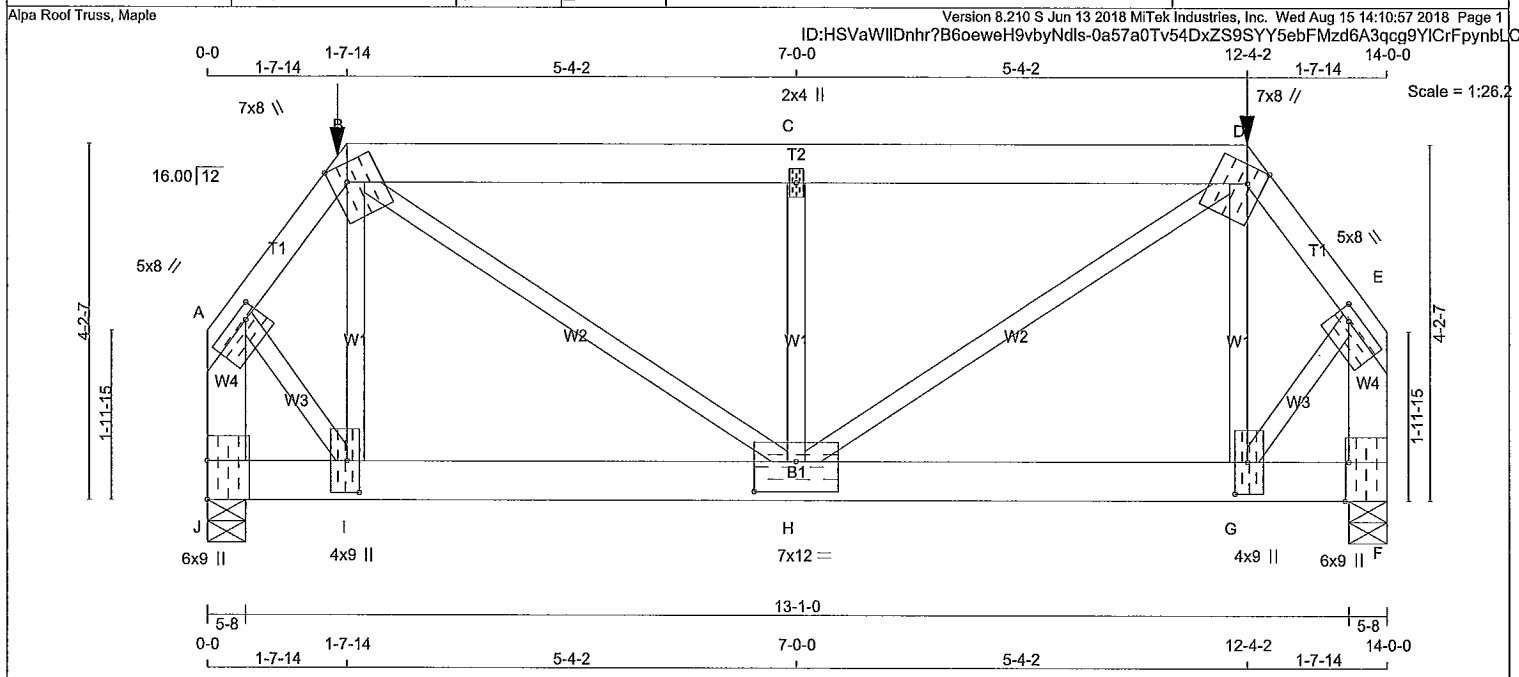
PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP=0.75 (I) (INPUT = 0.90)
JSI METAL=0.21 (D) (INPUT = 1.00)



A18082061



LUMBER
N. L. G. A. RULES
CHORDS SIZE LUMBER DESCR.
A - B 2x4 DRY No.2 SPF
B - D 2x6 DRY No.2 SPF
D - E 2x4 DRY No.2 SPF
J - A 2x6 DRY No.2 SPF
F - E 2x6 DRY No.2 SPF
J - F 2x6 DRY No.2 SPF
ALL WEBS 2x3 DRY No.2 SPF
EXCEPT
DRY: SEASONED LUMBER.
DESIGN CONSISTS OF 2 TRUSSES BUILT SEPARATELY THEN FASTENED TOGETHER AS FOLLOWS:
CHORDS #ROWS SURFACE SPACING (IN) LOAD(PLF)
TOP CHORDS : (0.122"x3") SPIRAL NAILS
A-B 1 12 SIDE(61.0)
D-E 1 12 SIDE(61.0)
B-D 2 12 SIDE(61.0)
J-A 2 12 TOP
F-E 2 12 TOP
BOTTOM CHORDS : (0.122"x3") SPIRAL NAILS
J-F 2 6 SIDE(457.7)
WEBS : (0.122"x3") SPIRAL NAILS
2x3 1 6
NAILS TO BE DRIVEN FROM ONE SIDE ONLY.
GIRDER NAILING ASSUMES NAILED HANGERS ARE FASTENED WITH MIN. 3-0 INCH NAILS.
TOP - COMPONENTS ARE LOADED FROM THE TOP AND MUST BE PLACED ON TOP EDGE OF ALL PLIES FOR THE LOAD TO BE TRANSFERRED TO EACH PLY.
SIDE - PLF SHOWN IS THE EQUIVALENT UDL APPLIED TO ONE SIDE THAT THE CORRESPONDING NAILING PATTERN SHALL BE CAPABLE OF TRANSFERING. REMAINING PLF MUST BE APPLIED ON THE OPPOSITE SIDE OR ON THE TOP.

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	REORD BRG			
JT	VERT	HORZ	DOWN	HORZ	UPLIFT	IN-SX	IN-SX		
J	7094	0	7094	0	0	5-8	5-8		
F	7094	0	7094	0	0	5-8	5-8		
UNFACTORED REACTIONS									
	1ST LCASE	MAX./MIN. COMPONENT REACTIONS							
JT	COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL		
J	5058	3088 / 0	0 / 0	0 / 0	0 / 0	1970 / 0	0 / 0		
F	5058	3088 / 0	0 / 0	0 / 0	0 / 0	1970 / 0	0 / 0		
BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S) J, F									
BEARING SIZE FACTOR = 1.15 AT JNT(S) J, F (BASED ON SUPPORT DEPTH = 1-8)									
BRACING									
TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 4.11 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					W E B S				
MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	MAX. LC1 (LC)	MAX. UNBRAC LENGTH	MEMB.	MAX. FACTORED FORCE (LBS)	MAX. LC1 (LC)		
FR-TO		FROM TO			FR-TO				
A-B	-5406 / 0	-78.0 -78.0	0.11 (1)	4.11	I-B	0 / 1303	0.16 (1)		
B-C	-7170 / 0	-78.0 -78.0	0.19 (1)	4.35	B-H	0 / 4755	0.59 (1)		
C-D	-7170 / 0	-78.0 -78.0	0.19 (1)	4.35	H-C	-381 / 0	0.05 (1)		
D-E	-5406 / 0	-78.0 -78.0	0.11 (1)	4.11	H-D	0 / 4755	0.59 (1)		
J-A	-7194 / 0	0.0 0.0	0.29 (1)	5.58	G-D	0 / 1303	0.16 (1)		
F-E	-7194 / 0	0.0 0.0	0.29 (1)	5.58	A-I	0 / 4280	0.53 (1)		
					G-E	0 / 4280	0.53 (1)		
J-I	0 / 0	-934.0 -934.0	0.60 (1)	10.00					
I-H	0 / 3273	-934.0 -934.0	0.98 (1)	10.00					
H-G	0 / 3273	-934.0 -934.0	0.98 (1)	10.00					
G-F	0 / 0	-934.0 -934.0	0.60 (1)	10.00					
FACTORED CONCENTRATED LOADS (LBS)									
JT	LOC.	LC1	MAX-	MAX+	FACE	DIR.	TYPE		
B	1-7-14	-11	-11	---	BACK	VERT	TOTAL		
D	12-4-2	-11	-11	---	BACK	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: CStdGirder
START DISTANCE = 0-0
START SPAN CARRIED = 40-5-0
END DISTANCE = 14-0-0
END SPAN CARRIED = 40-5-0
END WALL WIDTH = 5-8
APPLIED TO FRONT SIDE OF BOTTOM CHORD.
- ADDTL LOADS BASED ON 55 % OF GSL.
GIRDER TYPE: CPrimeHip
SIDE SETBACK = 1-7-14
END SETBACK = 2-0-0
END WALL WIDTH = 0-0
CORNER FRAMING TYPE: CONVENTIONAL
END JACK TYPE: CONVENTIONAL
APPLIED TO BACK 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 (0.47")
CALCULATED VERT. DEFL.(LL) = L/999 (0.07")
ALLOWABLE DEFL.(TL)= L/360 (0.47")
CALCULATED VERT. DEFL.(TL) = L/999 (0.14")
CSI: TC=0.29/1.00 (E-F:1), BC=0.98/1.00 (H-I:1), WB=0.59/1.00 (D-H:1), SS=0.84/1.00 (G-F: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
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
A18082062



JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
300970	H34A	1	2	TRUSS DESC.	

Alpa Roof Truss, Maple

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ID:HSVavWIIIDnhr?B6oeweH9vbyNdIs-0a57a0Tv54DxZS9SYY5ebFMzd6A3qcg9YICrFpynbLC

PLATES (table is in inches)							PLATE PLACEMENT TOL. = 0.250 inches
JT	TYPE	PLATES	W	LEN	Y	X	PLATE ROTATION TOL. = 5.0 Deg.
A	TMVW-t	MT20	5.0	8.0	1.50	2.00	JSI GRIP= 0.87 (I) (INPUT = 0.90)
B	TTWW+m	MT20	7.0	8.0	2.50	2.25	JSI METAL= 0.74 (G) (INPUT = 1.00)
C	TMW+w	MT20	2.0	4.0			
D	TTWW+m	MT20	7.0	8.0	2.50	2.25	
E	TMVW-t	MT20	5.0	8.0	1.50	2.00	
F	BMV1+t	MT20	6.0	9.0	Edge	0.50	
G	BMWW+t	MT20	4.0	9.0	4.50	1.75	
H	BMWWW-t	MT20	7.0	12.0	4.25	6.00	
I	BMWW+t	MT20	4.0	9.0	4.50	1.75	
J	BMV1+t	MT20	6.0	9.0	5.50		

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

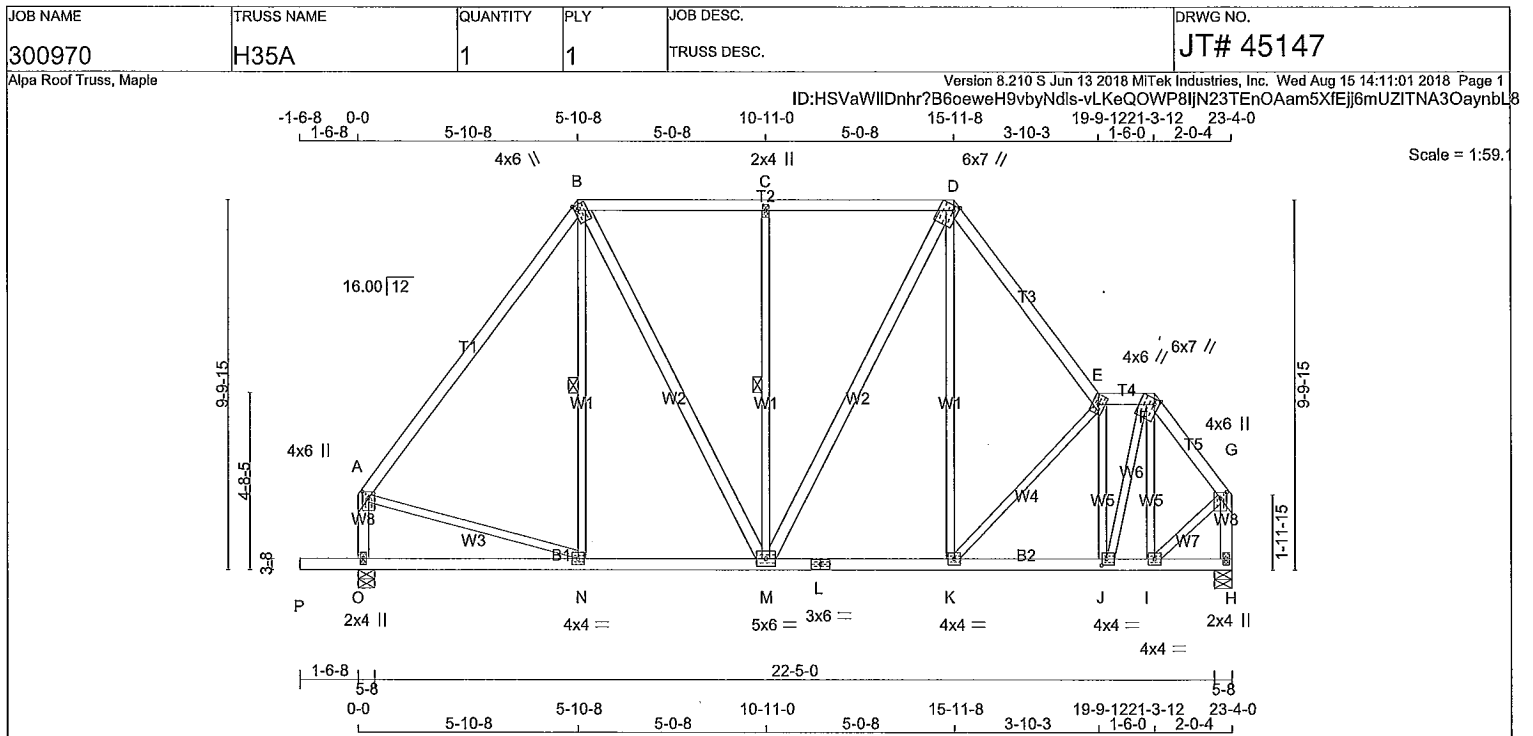
HANGERS NOTES

1) SPECIAL HANGER(S) OR CONNECTION(S) REQUIRED TO SUPPORT CONCENTRATED LOAD(S) 10.8 lbs FACTORED DOWN AT 12-4-2, AND 10.8 lbs FACTORED DOWN AT 1-7-14 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.



A18082062(2)



TOTAL WEIGHT = 136 lb
(M)F

LUMBER			
N. L. G. A. RULES	CHORDS	SIZE	DESCR.
A - B	2x4	DRY	SPF
B - D	2x4	DRY	SPF
D - E	2x4	DRY	SPF
E - F	2x4	DRY	SPF
F - G	2x4	DRY	SPF
G - A	2x4	DRY	SPF
H - G	2x4	DRY	SPF
P - L	2x4	DRY	SPF
L - H	2x4	DRY	SPF
ALL WEBS	2x3	DRY	SPF
EXCEPT			
B - M	2x4	DRY	SPF
M - D	2x4	DRY	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	TMVW+p	MT20	2.0	4.0		
D	TTWW+m	MT20	6.0	7.0	Edge	1.50
E	TTWW+m	MT20	4.0	6.0		
F	TTWW+m	MT20	6.0	7.0	Edge	1.50
G	TMVW+p	MT20	4.0	6.0	2.00	2.00
H	BMV1+p	MT20	2.0	4.0		
I, K, N						
I	BMWW-t	MT20	4.0	4.0		
J	BMWW-t	MT20	4.0	4.0	2.00	1.50
L	BS-t	MT20	3.0	6.0		
M	BMWW-t	MT20	5.0	6.0		
O	BMV1+p	MT20	2.0	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		REQ'D	
		GROSS REACTION		DOWN		BRG		BRG	
JT		VERT	HORZ	DOWN	HORZ	IN-SX	IN-SX	IN-SX	IN-SX
O	941	0	1314	0	0	5-8	1-15		
H	1161	0	1161	0	0	5-8	1-12		

UNFACTORED REACTIONS		1ST LCASE		MAX/MIN. COMPONENT REACTIONS					
JT		COMBINED	SNOW	LIVE	PERM. LIVE	WIND	DEAD	SOIL	
O	941	554 / 0	0 / 0	0 / 0	0 / 0	0 / 0	388 / 0	0 / 0	
H	831	490 / 0	0 / 0	0 / 0	0 / 0	0 / 0	341 / 0	0 / 0	

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

BRACING
FOR SECTION B-D, MAX. PURLIN SPACING = 2.00 FT.
FOR OTHER SECTIONS, TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 5.98 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-N, C-M.

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

LOADING		TOTAL LOAD CASES: (4)							
		CHORDS		WEBS					
		MAX. FACTORED		MAX. FACTORED					
		FORCE		FORCE					
		(LBS)		(PLF)					
		VERT. LOAD		LC1					
		CS1 (LC)		UNBRAC					
		MAX.		MAX.					
		FR-TO		FR-TO					
		FROM		TO					
A-B	-927 / 0	-78.0	-78.0	0.31 (1)	6.25	N-B	-31 / 68	0.02 (4)	
B-C	-751 / 0	-85.5	-85.5	0.28 (1)	2.00	B-M	0 / 423	0.07 (1)	
C-D	-751 / 0	-85.5	-85.5	0.28 (1)	2.00	M-C	-520 / 0	0.34 (1)	
D-E	-1045 / 0	-78.0	-78.0	0.17 (1)	5.98	M-D	0 / 260	0.04 (1)	
E-F	-778 / 0	-78.0	-78.0	0.03 (1)	6.25	K-D	0 / 286	0.06 (1)	
F-G	-861 / 0	-78.0	-78.0	0.05 (1)	6.25	K-E	-255 / 0	0.15 (1)	
O-A	-1121 / 0	0.0	0.0	0.13 (1)	7.49	J-E	-856 / 0	0.28 (1)	
H-G	-1157 / 0	0.0	0.0	0.13 (1)	7.40	J-F	0 / 899	0.20 (1)	
P-O	0 / 0	-96.5	-96.5	0.16 (1)	10.00	I-F	-300 / 0	0.10 (1)	
O-N	0 / 0	-18.5	-18.5	0.15 (4)	10.00	A-N	0 / 573	0.13 (1)	
N-M	0 / 553	-18.5	-18.5	0.20 (4)	10.00	I-G	0 / 640	0.14 (1)	
M-L	0 / 630	-18.5	-18.5	0.15 (1)	10.00				
L-K	0 / 630	-18.5	-18.5	0.15 (1)	10.00				
K-J	0 / 798	-18.5	-18.5	0.18 (1)	10.00				
J-I	0 / 503	-18.5	-18.5	0.13 (1)	10.00				
I-H	0 / 0	-18.5	-18.5	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

LOADING IN HIGHEST FLAT SECTION BASED ON PIGGYBACK TRUSS WITH SLOPES OF 16.00/12 AND -16.00/12 AND RESPECTIVE WALL HEIGHTS OF 0-0 AND 0-0 AND AN ADDITIONAL DEAD LOAD OF 3.0 P.S.F.

LOADING IN OTHER FLAT SECTIONS BASED ON A SLOPE OF 16.00/12

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 (0.78")
CALCULATED VERT. DEFL.(LL) = L/999 (0.02")
ALLOWABLE DEFL.(TL)= L/360 (0.78")
CALCULATED VERT. DEFL.(TL) = L/999 (0.06")

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 (M-N:4), WB=0.34/1.00 (C-M:1), SSI=0.21/1.00 (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 RIGHT HEEL ONLY

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

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

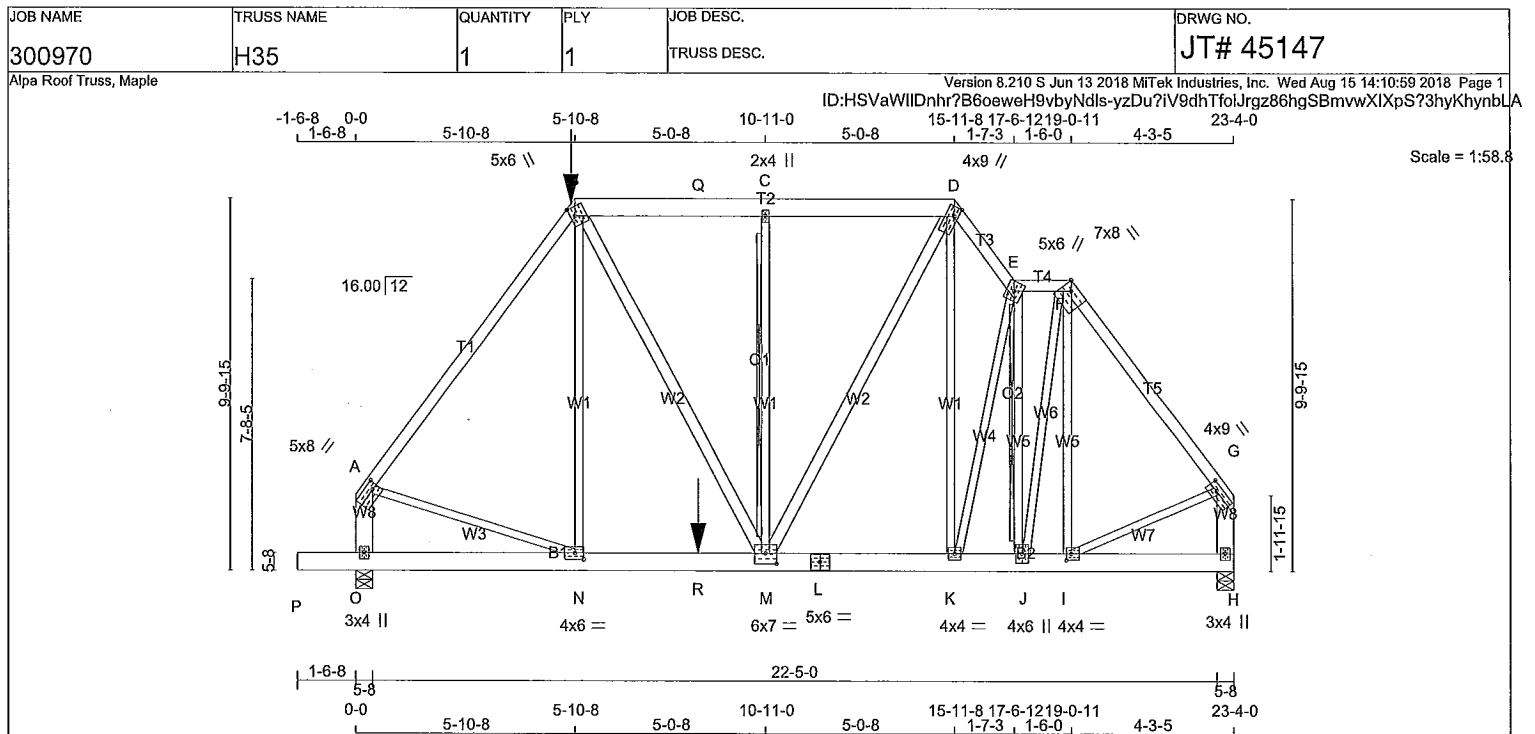
PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

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CONTINUED ON PAGE 2





TOTAL WEIGHT = 170 lb [M]

LUMBER			
N. L. G. A. RULES			
CHORDS	SIZE	LUMBER	DESCR.
A - B	2x4	DRY	1650F 1.5E
B - D	2x6	DRY	No.2
D - E	2x4	DRY	No.2
E - F	2x4	DRY	No.2
F - G	2x4	DRY	No.2
O - A	2x6	DRY	No.2
H - G	2x6	DRY	No.2
P - L	2x6	DRY	1650F 1.5E
L - H	2x6	DRY	1650F 1.5E
ALL WEBS	2x3	DRY	No.2
EXCEPT			
B - M	2x4	DRY	No.2
M - D	2x4	DRY	No.2

DRY: SEASONED LUMBER.

PLATES (table is in inches)

JT	TYPE	PLATES	W	LEN	Y	X
A	TMVW-t	MT20	5.0	8.0	2.25	2.00
B	TTWW+m	MT20	5.0	6.0	2.75	1.50
C	TMW-w	MT20	2.0	4.0		
D	TTWW+m	MT20	4.0	9.0	3.00	1.25
E	TTWW+m	MT20	5.0	6.0		
F	TTWW-h	MT20	7.0	8.0	Edge	2.75
G	TMVW-t	MT20	4.0	9.0	1.75	3.00
H	BMV1+p	MT20	3.0	4.0		
J	BMVW-t	MT20	4.0	4.0	2.00	1.50
K	BMVW-t	MT20	4.0	4.0		
L	BS-t	MT20	5.0	6.0		
M	BMVW-t	MT20	6.0	7.0	3.25	3.50
N	BMVW-t	MT20	4.0	6.0	2.00	2.75
O	BMV1+p	MT20	3.0	4.0		

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

HANGERS NOTES

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		REQ'D	
JT	VERT	GROSS REACTION	HORZ	GROSS REACTION	DOWN	HORZ	UPLIFT	BRG	BRG
O	2724	0	2724	0	0	5-8	3-2		
H	1899	0	1899	0	0	5-8	2-1		

UNFACTORED REACTIONS

JT	COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
O	1929	1254 / 0	0 / 0	0 / 0	0 / 0	675 / 0	0 / 0
H	1343	882 / 0	0 / 0	0 / 0	0 / 0	461 / 0	0 / 0

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

BRACING

TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 4.34 FT.
MAX. UNBRACED BOTTOM CHORD LENGTH = 10.00 FT OR RIGID CEILING DIRECTLY APPLIED.

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

2x4 DRY SPF No.2 T-BRACE AT C-M, E-J

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

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

LOADING

TOTAL LOAD CASES: (4)

CHORDS				WEBS			
MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	FACTORED LC1 MAX. (LC)	MEMB.	MAX. FACTORED FORCE (LBS)	MAX. UNBRACED LENGTH	FACTORED MAX. (LC)
FR-TO		FROM TO		FR-TO			
A-B	-2428 / 0	-78.0	-78.0 0.82 (1)	4.34	N-B	0 / 395	0.10 (4)
B-Q	-1821 / 0	-153.5	-153.5 0.26 (1)	5.58	B-M	0 / 761	0.13 (1)
Q-C	-1821 / 0	-78.0	-78.0 0.26 (1)	5.58	M-C	-567 / 0	0.39 (1)
C-D	-1821 / 0	-78.0	-78.0 0.21 (1)	5.66	M-D	0 / 1332	0.24 (1)
D-E	-1955 / 0	-78.0	-78.0 0.09 (1)	4.74	K-D	0 / 168	0.05 (4)
E-F	-1214 / 0	-78.0	-78.0 0.05 (1)	5.75	K-E	-344 / 0	0.38 (1)
F-G	-1711 / 0	-78.0	-78.0 0.40 (1)	4.69	J-E	-1340 / 0	0.55 (1)
O-A	-2543 / 0	0.0	0.0 0.21 (1)	6.46	J-F	0 / 1169	0.29 (1)
H-G	-1895 / 0	0.0	0.0 0.15 (1)	7.25	I-F	-4 / 49	0.02 (4)
					A-N	0 / 1502	0.37 (1)
					I-G	0 / 1081	0.27 (1)
P-O	0 / 0	-96.5	-96.5 0.06 (1)	10.00			
O-N	0 / 0	-36.4	-36.4 0.23 (1)	10.00			
N-R	0 / 1460	-36.4	-36.4 0.72 (1)	10.00			
R-M	0 / 1460	-18.5	-18.5 0.72 (1)	10.00			
M-L	0 / 1190	-18.5	-18.5 0.44 (1)	10.00			
L-K	0 / 1190	-18.5	-18.5 0.44 (1)	10.00			
K-J	0 / 1266	-18.5	-18.5 0.22 (1)	10.00			
J-I	0 / 1021	-18.5	-18.5 0.16 (1)	10.00			
I-H	0 / 0	-18.5	-18.5 0.08 (1)	10.00			

FACTORED CONCENTRATED LOADS (LBS)

JT	LOC.	LC1	MAX-	MAX+	FACE	DIR.	TYPE
B	5-10-8	-334	-334	---	FRONT	VERT	TOTAL
R	9-1-7	-1481	-1481	---	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 ALL FLAT SECTIONS BASED ON A SLOPE OF 2.00/12 MINIMUM

GIRDER TYPE: CPrimeHip
LEFT SETBACK = 5-10-8
RIGHT SETBACK = 4-3-5
END SETBACK = 5-10-8
END WALL WIDTH = 0-0
CORNER FRAMING TYPE: CONVENTIONAL
END JACK TYPE: CONVENTIONAL
APPLIED TO FRONT SIDE
- ADDTL LOADS BASED ON 5% OF GSL.
LOADS APPLIED TO FIRST 9-1-7 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 (0.78")
CALCULATED VERT. DEFL.(LL) = L/999 (0.10")
ALLOWABLE DEFL.(TL) = L/360 (0.78")
CALCULATED VERT. DEFL.(TL) = L/999 (0.18")

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=0.82/1.00 (A-B:1), BC=0.72/1.00 (M-N:1), WB=0.55/1.00 (E-J:1), SS=0.70/1.00 (M-N: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

AUTOSOLVE HEELS OFF

A18082064

CONTINUED ON PAGE 2

JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
300970	H35	1	1	TRUSS DESC.	

Alpa Roof Truss, Maple

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ID:HSVawIIIDnhr?B6oeweH9vbyNdls-yzDu?iV9dhTfolJrgz86hgSBmwWlXIXpS?3hyKhybnbLA

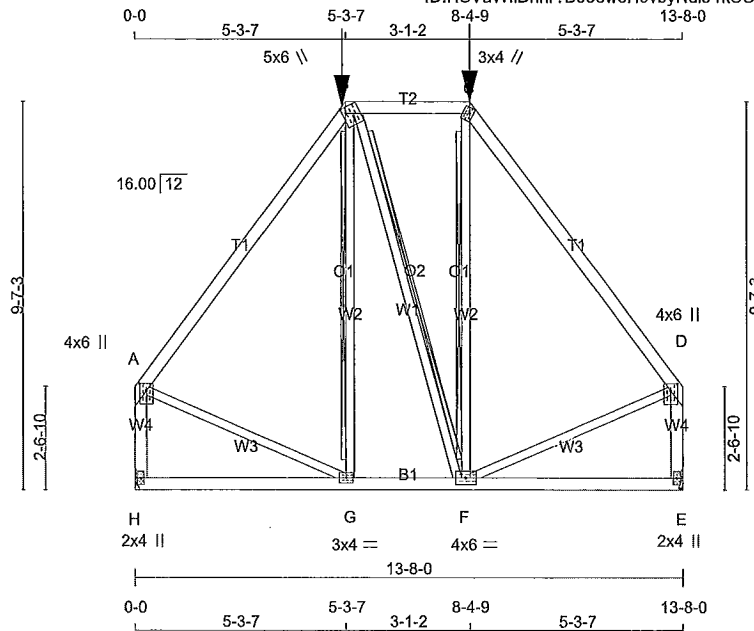
HANGERS NOTES 1) SPECIAL HANGER(S) OR CONNECTION(S) REQUIRED TO SUPPORT CONCENTRATED LOAD(S) 334.0 lbs FACTORED DOWN AT 5-10-8 ON TOP CHORD, AND 1481.3 lbs FACTORED DOWN AT 9-1-7 ON BOTTOM CHORD. DESIGN FOR UNSPECIFIED CONNECTION(S) IS DELEGATED TO THE BUILDING DESIGNER.	TRUSS PLATE MANUFACTURER IS NOT RESPONSIBLE FOR QUALITY CONTROL IN THE TRUSS MANUFACTURING PLANT . NAIL VALUES <table><tr><td>PLATE</td><td>GRIP(DRY)</td><td>SHEAR</td><td>SECTION</td></tr><tr><td></td><td>(PSI)</td><td>(PLI)</td><td>(PLI)</td></tr><tr><td></td><td>MAX</td><td>MIN</td><td>MAX MIN</td></tr><tr><td>MT20</td><td>618</td><td>354</td><td>1667 788 1987 1656</td></tr></table> PLATE PLACEMENT TOL. = 0.250 inches PLATE ROTATION TOL. = 5.0 Deg. JSI GRIP= 0.89 (O) (INPUT = 0.90) JSI METAL= 0.54 (L) (INPUT = 1.00)	PLATE	GRIP(DRY)	SHEAR	SECTION		(PSI)	(PLI)	(PLI)		MAX	MIN	MAX MIN	MT20	618	354	1667 788 1987 1656
PLATE	GRIP(DRY)	SHEAR	SECTION														
	(PSI)	(PLI)	(PLI)														
	MAX	MIN	MAX MIN														
MT20	618	354	1667 788 1987 1656														
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. 	A18082064(2)																

JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
300970	H36	2	1	TRUSS DESC.	JT# 45147

Alpa Roof Truss, Maple

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ID:HSVaWIDnhr?B6oeweH9vbyNdls-rkSOq3Yfgwz5HNccvpC2rWcx3XP3ESS2whf9TTynbL6



Scale = 1:55

TOTAL WEIGHT = 2 X 76 = 152 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	No.2	SPF
H - A	2x4	DRY	No.2	SPF
E - D	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+p	MT20	4.0	6.0	2.00	2.00
B	TTWW+m	MT20	5.0	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
E	BMV1+p	MT20	2.0	4.0		
F	BMWW-t	MT20	4.0	6.0		
G	BMWW-t	MT20	3.0	4.0		
H	BMV1+p	MT20	2.0	4.0		

HANGERS NOTES

- SPECIAL HANGER(S) OR CONNECTION(S) REQUIRED TO SUPPORT CONCENTRATED LOAD(S) 236.1 lbs FACTORED DOWN AT 8-4-9, AND 236.1 lbs FACTORED DOWN AT 5-3-7 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	MAXIMUM FACTORED	INPUT	REQD
		GROSS REACTION	GROSS REACTION	BRG	BRG
JT	VERT	HORZ	DOWN	HORZ	UPLIFT
H	1077	0	1077	0	0
E	1077	0	1077	0	0

A SUITABLE HANGER/MECHANICAL CONNECTION IS REQUIRED AT JOINT H, E. MINIMUM BEARING LENGTH AT JOINT H = 1-8, JOINT E = 1-8.

UNFACTORED REACTIONS

JT	1ST LCASE	MAX/MIN. COMPONENT REACTIONS					
	COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
H	769	462 / 0	0 / 0	0 / 0	0 / 0	307 / 0	0 / 0
E	769	462 / 0	0 / 0	0 / 0	0 / 0	307 / 0	0 / 0

BRACING

TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 6.18 FT.
MAX. UNBRACED BOTTOM CHORD LENGTH = 10.00 FT OR RIGID CEILING DIRECTLY APPLIED.

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

2x4 DRY SPF No.2 T-BRACE AT B-G, B-F, C-F

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

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

LOADING

TOTAL LOAD CASES: (4)

CHORDS		WEBS	
MEMB.	MAX. FACTORED FORCE (LBS)	MEMB.	MAX. FACTORED FORCE (LBS)
FR-TO	FR-TO	FR-TO	FR-TO
A-B	-765 / 0	G-B	-37 / 93
B-C	-457 / 0	B-F	0 / 0
C-D	-765 / 0	F-C	-38 / 94
H-A	-1003 / 0	A-G	0 / 493
E-D	-1003 / 0	F-D	0 / 493
H-G	0 / 0		
G-F	0 / 457		
F-E	0 / 0		

FACTORED CONCENTRATED LOADS (LBS)

JT	LOC.	LC1	MAX.	MAX+	FACE	DIR.	TYPE
B	5-3-7	-236	-236	---	FRONT	VERT	TOTAL
C	8-4-9	-236	-236	---	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

SIDE SETBACK = 5-3-7
END SETBACK = 4-11-4
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 (0.46")
CALCULATED VERT. DEFL.(LL) = L/999 (0.01")
ALLOWABLE DEFL.(TL)= L/360 (0.46")
CALCULATED VERT. DEFL.(TL) = L/999 (0.05")

CSI: TC=0.49/1.00 (A-B:1), BC=0.24/1.00 (F-G:4), WB=0.12/1.00 (A-G:1), SSI=0.18/1.00 (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
MT20	618	354	1667

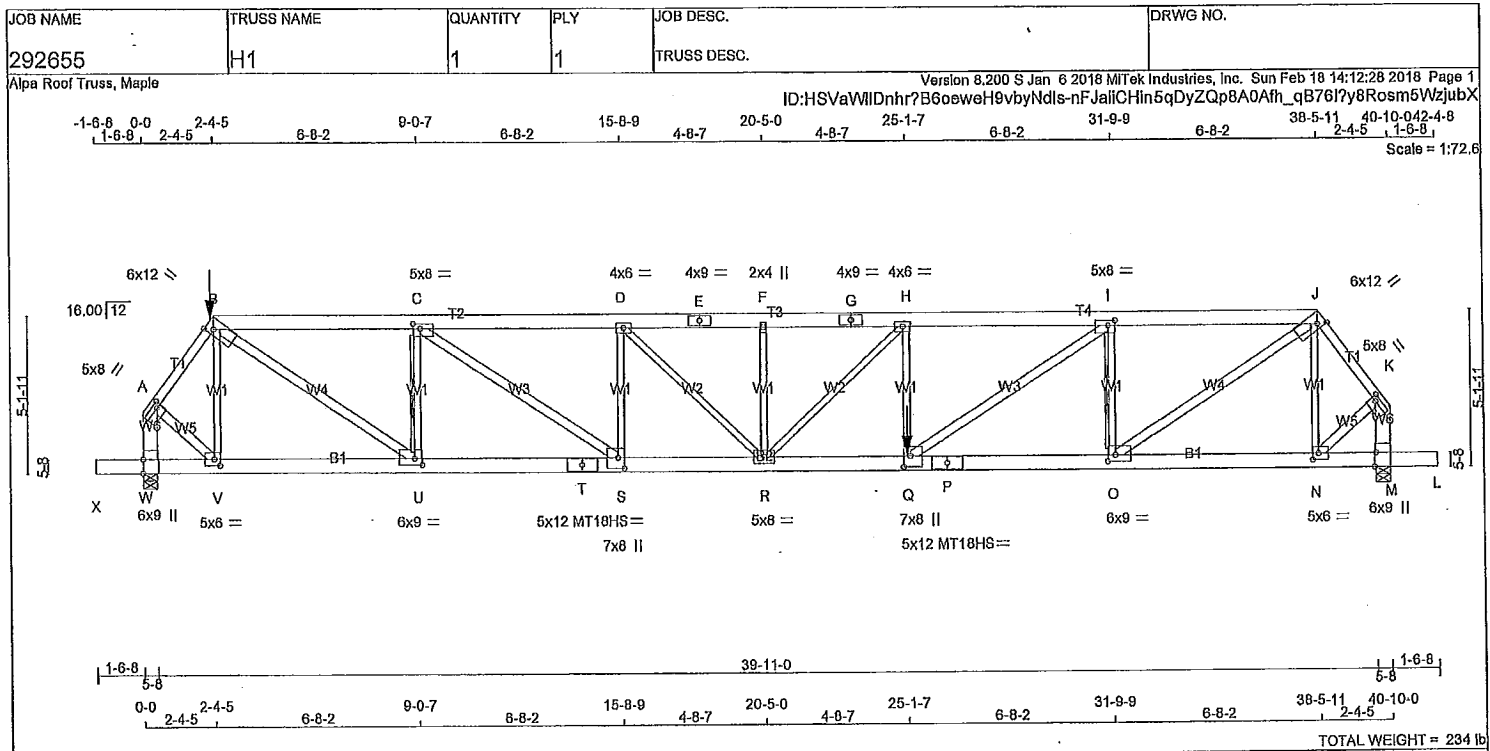
PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.72 (G) (INPUT = 0.90)
JSI METAL = 0.29 (A) (INPUT = 1.00)

A18082065





LUMBER			
N. L. G. A. RULES			
CHORDS	SIZE	LUMBER	DESCR.
A - B	2x4	DRY	No.2
B - E	2x6	DRY	1650F 1.5E
E - G	2x6	DRY	1650F 1.5E
G - J	2x6	DRY	1650F 1.5E
J - K	2x4	DRY	No.2
W - A	2x6	DRY	No.2
M - K	2x6	DRY	No.2
X - T	2x6	DRY	2100F 1.8E
T - P	2x6	DRY	2100F 1.8E
P - L	2x6	DRY	2100F 1.8E
ALL WEBS	2x3	DRY	No.2
EXCEPT			
B - U	2x4	DRY	No.2
C - S	2x4	DRY	No.2
Q - I	2x4	DRY	No.2
O - J	2x4	DRY	No.2
A - V	2x4	DRY	No.2
N - K	2x4	DRY	No.2

DRY: SEASONED LUMBER.

PLATES (table is in inches)					
JT	TYPE	PLATES	W	LEN	X
A	TMVW-I	MT20	5.0	8.0	1.75 2.00
B	TTVWV+H	MT20	6.0	12.0	3.25 2.00
C	TMVWV-I	MT20	5.0	8.0	2.00 2.75
D	TMVWV-I	MT20	4.0	8.0	
E	TS-I	MT20	4.0	9.0	
F	TMVW+V	MT20	2.0	4.0	
G	TS-I	MT20	4.0	9.0	
H	TMVWV-I	MT20	4.0	6.0	
I	TMVWV-I	MT20	5.0	8.0	2.00 2.75
J	TTVWV+H	MT20	6.0	12.0	3.25 2.00
K	TMVW-I	MT20	5.0	8.0	1.75 2.00
M	BMV-I+I	MT20	6.0	9.0	Edge 0.50
N	BMVWV-I	MT20	5.0	6.0	2.50 2.25
O	BMVWV-I	MT20	6.0	9.0	2.50 3.00
P	BS-I	MT18HS	5.0	12.0	
Q	BMVWV+H	MT20	7.0	8.0	4.25 2.50
R	BMVWV+H	MT20	5.0	8.0	

DIMENSIONS, SUPPORTS AND LOADINGS SPECIFIED BY FABRICATOR TO BE VERIFIED BY BUILDING DESIGNER									
BEARINGS									
	FACTORED	MAXIMUM FACTORED	INPUT	REQRD					
	GROSS REACTION	GROSS REACTION	BRG	BRG					
JT	VERT	HORZ	DOWN	UPLIFT	IN-SX	IN-SX			
W	4381	0	4381	0	0	5-8	5-8		
M	3937	0	3937	0	0	5-8	4-11		
UNFACTORED REACTIONS									
	1ST LCASE	MAX/MIN	COMPONENT REACTIONS						
JT	COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL		
W	3112	1964 / 0	0 / 0	0 / 0	0 / 0	1148 / 0	0 / 0		
M	2787	1813 / 0	0 / 0	0 / 0	0 / 0	973 / 0	0 / 0		
BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S) W, M									
BEARING SIZE FACTOR = 1.15 AT JNT(S) W, M (BASED ON SUPPORT DEPTH = 1'-8")									
BRACING									
TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 2.84 FT.									
MAX. UNBRACED BOTTOM CHORD LENGTH = 10.00 FT. OR RIGID CEILING DIRECTLY APPLIED.									
ALL PITCH BREAKS AND PERIMETER CORNER JOINTS MUST BE Laterally RESTRAINED.									
2x4 DRY SPF No.2 T-BRACE AT C-U, I-O									
FASTEN T AND I-BRACES TO NARROW EDGE OF WEB WITH ONE ROW PER PLY OF 3"									
COMMON WIRE NAILS @ 6" O.C. WITH 3" MINIMUM END DISTANCE. BRACE MUST COVER 90% OF WEB LENGTH.									
END VERTICAL(S) MUST BE SHEATHED OR HAVE BRACES AS INDICATED IN THE MAX. UNBRACED LENGTH COLUMN OF THE TABLE BELOW									
LOADING									
TOTAL LOAD CASES: (4)									
CHORDS					WEBS				
MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	MAX. CS1 (LC)	MAX. UNBRAC LENGTH	MEMB.	MAX. FACTORED FORCE (LBS)	MAX. CS1 (LC)		
FR-TO		FROM TO			FR-TO				
A-B	-3568 / 0	-78.0 -78.0	0.27 (1)	3.50	V-B	-1050 / 0	0.37 (1)		
B-C	-6769 / 0	-153.5 -153.5	0.54 (1)	3.48	B-U	0 / 5663	1.00 (1)		
C-D	-9437 / 0	-153.5 -153.5	0.71 (1)	2.84	U-C	-3039 / 0	0.64 (1)		
D-E	-10229 / 0	-153.5 -153.5	0.50 (1)	2.92	C-S	0 / 3258	0.58 (1)		
E-F	-10229 / 0	-153.5 -153.5	0.50 (1)	2.92	S-D	-1648 / 0	0.58 (1)		
F-G	-10229 / 0	-153.5 -153.5	0.48 (1)	2.94	D-R	0 / 1119	0.28 (1)		
G-H	-10229 / 0	-153.5 -153.5	0.48 (1)	2.94	R-F	-687 / 0	0.24 (1)		
H-I	-10172 / 0	-78.0 -78.0	0.54 (1)	2.94	R-H	0 / 173	0.07 (4)		
I-J	-6535 / 0	-78.0 -78.0	0.32 (1)	3.76	Q-H	-652 / 0	0.23 (1)		
J-K	-3189 / 0	-78.0 -78.0	0.23 (1)	3.72	Q-I	0 / 4443	0.79 (1)		
W-A	-4270 / 0	0.0 0.0	0.34 (1)	5.16	O-I	-3134 / 0	0.66 (1)		
M-K	-3826 / 0	0.0 0.0	0.31 (1)	5.42	O-J	0 / 5673	1.00 (1)		
					N-J	-1015 / 0	0.36 (1)		
X-W	0 / 0	-96.5 -96.5	0.05 (1)	10.00	A-V	0 / 2513	0.44 (1)		
W-V	0 / 0	-36.4 -36.4	0.09 (4)	10.00	N-K	0 / 2246	0.40 (1)		
V-U	0 / 2114	-36.4 -36.4	0.19 (1)	10.00					
U-T	0 / 6769	-36.4 -36.4	0.43 (1)	10.00					
T-S	0 / 6769	-36.4 -36.4	0.43 (1)	10.00					
S-R	0 / 9437	-36.4 -36.4	0.65 (1)	10.00					
R-Q	0 / 10172	-36.4 -36.4	0.61 (1)	10.00					
Q-P	0 / 6535	-18.5 -18.5	0.41 (1)	10.00					
P-O	0 / 6535	-18.5 -18.5	0.41 (1)	10.00					
O-N	0 / 1888	-18.5 -18.5	0.16 (1)	10.00					
N-M	0 / 0	-18.5 -18.5	0.06 (1)	10.00					
M-L	0 / 0	-96.5 -96.5	0.05 (1)	10.00					
FACTORED CONCENTRATED LOADS (LBS)									
JT	LOC.	LC1	MAX.	FACE	DIR.	TYPE			
B	2-4-5	-134	-134	FRONT	VERT	TOTAL			
Q	25-1-8	-1778	-1778	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./G/G	
LOADING IN FLAT SECTION BASED ON A SLOPE OF 2.00/12 MINIMUM	
GIRDER TYPE: CPPrimeHlp	
SIDE SETBACK = 2-4-6	
END SETBACK = 5-10-8	
END WALL WIDTH = 0-0	
CORNER FRAMING TYPE: CONVENTIONAL	
END JACK TYPE: CONVENTIONAL	
APPLIED TO FRONT SIDE	
- ADDTL LOADS BASED ON 55 % OF GSL.	
LOADS APPLIED TO FIRST 25-1-8 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, NBC 2010, NBC 2015	
THIS DESIGN COMPLIES WITH:	
- PART 9 OF OBC 2012, OBC 2018	
- CSA 088-09, CSA 088-14	
- 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 (0.47")	
ALLOWABLE DEFL.(TL)= L/360 (1.36")	
CALCULATED VERT. DEFL.(TL)= L/555 (0.86")	
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=0.71/1.00 (C-D:1), BC=0.61/1.00 (Q-R:1)	
, WB=1.00/1.00 (B-U:1), SSI=0.41/1.00 (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	
AUTOSOLVE HEELS OFF	
A-18023696	
CONTINUED ON PAGE	

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

Alpa Roof Truss, Maple

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ID:HSVawMIDnhr7B6oeweH9vbyNdlis-nFJalICHin5qDyZQp8A0Afh_gB76I7y8R0sm5WzjubX

PLATES (table is in inches)

JT	TYPE	PLATES	W	LEN	Y	X
S	BMWV+I	MT20	7.0	8.0	4.25	2.60
T	BS-I	MT18HS	5.0	12.0		
U	BMWV-I	MT20	6.0	9.0	2.50	3.00
V	BMWV-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)	(PL)
MAX	MIN	MAX	MIN
MT20	618	354	1867
MT18HS	511	354	2455

PLATE PLACEMENT TOL. = 0.250 inches

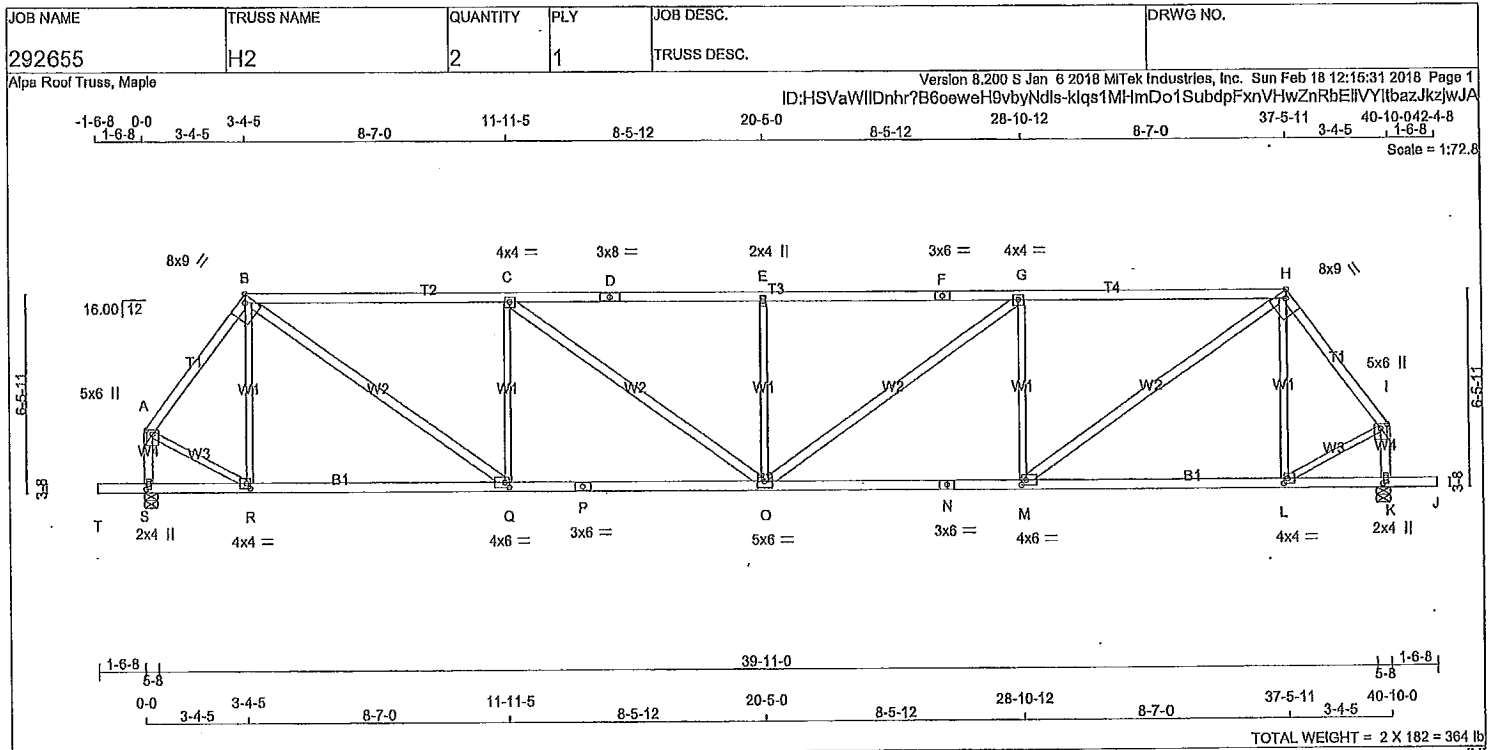
PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.88 (Q) (INPUT = 0.90)

JSI METAL= 0.94 (Q) (INPUT = 1.00)



A-18023696620



LUMBER

N. L. G. A. RULES

CHORDS	SIZE	DRY	LUMBER	DESCR.
A - B	2x4	DRY	No.2	SPF
B - D	2x4	DRY	2100F 1.8E	SPF
D - F	2x4	DRY	2100F 1.8E	SPF
F - H	2x4	DRY	2100F 1.8E	SPF
H - I	2x4	DRY	No.2	SPF
S - A	2x4	DRY	No.2	SPF
K - I	2x4	DRY	No.2	SPF
T - P	2x4	DRY	No.2	SPF
P - N	2x4	DRY	No.2	SPF
N - J	2x4	DRY	No.2	SPF
ALL WEBS EXCEPT	2x3	DRY	No.2	SPF
B - Q	2x4	DRY	No.2	SPF
C - O	2x4	DRY	No.2	SPF
O - G	2x4	DRY	No.2	SPF
M - H	2x4	DRY	No.2	SPF

DRY: SEASONED LUMBER.

PLATES (table is in inches)

JT	TYPE	PLATES	W	LEN	Y	X
A	TMVW+p	MT20	5.0	6.0	1.75	2.50
B	TTWW-h	MT20	8.0	9.0	Edge	2.75
C	TMVW-l	MT20	4.0	4.0		
D	TS-l	MT20	3.0	8.0		
E	TMVW+w	MT20	2.0	4.0		
F	TS-l	MT20	3.0	6.0		
G	TMVW-l	MT20	4.0	4.0		
H	TTWW-h	MT20	8.0	9.0	Edge	2.75
I	TMVW+p	MT20	5.0	6.0	1.75	2.50
K	BMV1+p	MT20	2.0	4.0	2.25	1.00
L	BMVW-l	MT20	4.0	4.0	2.00	1.50
M	BMVW-l	MT20	4.0	6.0	2.00	1.75
N	BS-l	MT20	3.0	6.0		
O	BMVW-l	MT20	5.0	6.0		
P	BS-l	MT20	3.0	6.0		
Q	BMVW-l	MT20	4.0	6.0	2.00	1.75
R	BMVW-l	MT20	4.0	4.0	2.00	1.50
S	BMV1+p	MT20	2.0	4.0	2.25	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

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

BEARINGS

	FACTORED GROSS REACTION	MAXIMUM FACTORED GROSS REACTION	INPUT BRG	REQD BRG
JT	VERT	DOWN	5-8	3-3
S	HORZ	UPLIFT	5-8	3-3
K	VERT	DOWN	5-8	3-3

UNFACTORED REACTIONS

	1ST COMBINED	SNOW	LIVE	PERM. LIVE	WIND	DEAD	SOIL
JT	1510	922 / 0	0 / 0	0 / 0	0 / 0	588 / 0	0 / 0
K	1510	922 / 0	0 / 0	0 / 0	0 / 0	588 / 0	0 / 0

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

BRACING

TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 3.86 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. CS1 (LC)	MEMB.	MAX. FACTORED FORCE (LBS)	MAX. CS1 (LC)	MAX. UNBRACED LENGTH
FR-TO		FROM TO		FR-TO			
A-B	-1897 / 0	-78.0 -78.0	0.21 (1)	R-B	-336 / 0	0.23 (1)	4.92
B-C	-2805 / 0	-78.0 -78.0	0.83 (1)	B-Q	0 / 2213	0.36 (1)	4.19
C-D	-3330 / 0	-78.0 -78.0	0.91 (1)	Q-C	-1126 / 0	0.77 (1)	3.86
D-E	-3330 / 0	-78.0 -78.0	0.91 (1)	C-O	0 / 649	0.10 (1)	3.86
E-F	-3330 / 0	-78.0 -78.0	0.91 (1)	O-E	-611 / 0	0.42 (1)	3.86
F-G	-3330 / 0	-78.0 -78.0	0.91 (1)	G-O	0 / 649	0.10 (1)	3.86
G-H	-2805 / 0	-78.0 -78.0	0.83 (1)	M-G	-1126 / 0	0.77 (1)	4.19
H-I	-1697 / 0	-78.0 -78.0	0.21 (1)	M-H	0 / 2213	0.36 (1)	4.92
S-A	-1963 / 0	0.0 0.0	0.23 (1)	L-H	-336 / 0	0.23 (1)	6.01
K-I	-1963 / 0	0.0 0.0	0.23 (1)	A-R	0 / 1116	0.25 (1)	6.01
				L-I	0 / 1116	0.25 (1)	
T-S	0 / 0	-96.5 -96.5	0.16 (1)				10.00
S-R	0 / 0	-18.5 -18.5	0.20 (4)				10.00
R-Q	0 / 1005	-18.5 -18.5	0.37 (4)				10.00
Q-P	0 / 2806	-18.5 -18.5	0.60 (1)				10.00
P-O	0 / 2806	-18.5 -18.5	0.60 (1)				10.00
O-N	0 / 2806	-18.5 -18.5	0.60 (1)				10.00
N-M	0 / 2806	-18.5 -18.5	0.60 (1)				10.00
M-L	0 / 1005	-18.5 -18.5	0.37 (4)				10.00
L-K	0 / 0	-18.5 -18.5	0.20 (4)				10.00
K-J	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 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

(65 % 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)= 1/360 (1.36")
CALCULATED VERT. DEFL.(LL)= 1/999 (0.17")
ALLOWABLE DEFL.(TL)= 1/360 (1.36")
CALCULATED VERT. DEFL.(TL)= 1/999 (0.36")

CANTILEVER DEFLECTION:
ALLOWABLE DEFL.(LL)= 1/120 (0.19")
CALCULATED VERT. DEFL.(LL)= 1/999 (0.01")
ALLOWABLE DEFL.(TL)= 1/120 (0.19")
CALCULATED VERT. DEFL.(TL)= 1/999 (0.01")

CSI: TC=0.91/1.00 (E-G:1), BC=0.60/1.00 (O-Q:1), WB=0.77/1.00 (C-Q:1), SSI=0.32/1.00 (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

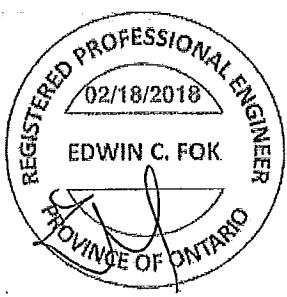
PLATE	GRIP(DRY)	SHEAR (PSI)	SECTION (PLI)
MT20	618	354	1667 788 1987 1656

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.80 (A) (INPUT = 0.90)
JSI METAL= 0.88 (N) (INPUT = 1.00)

A-18023697



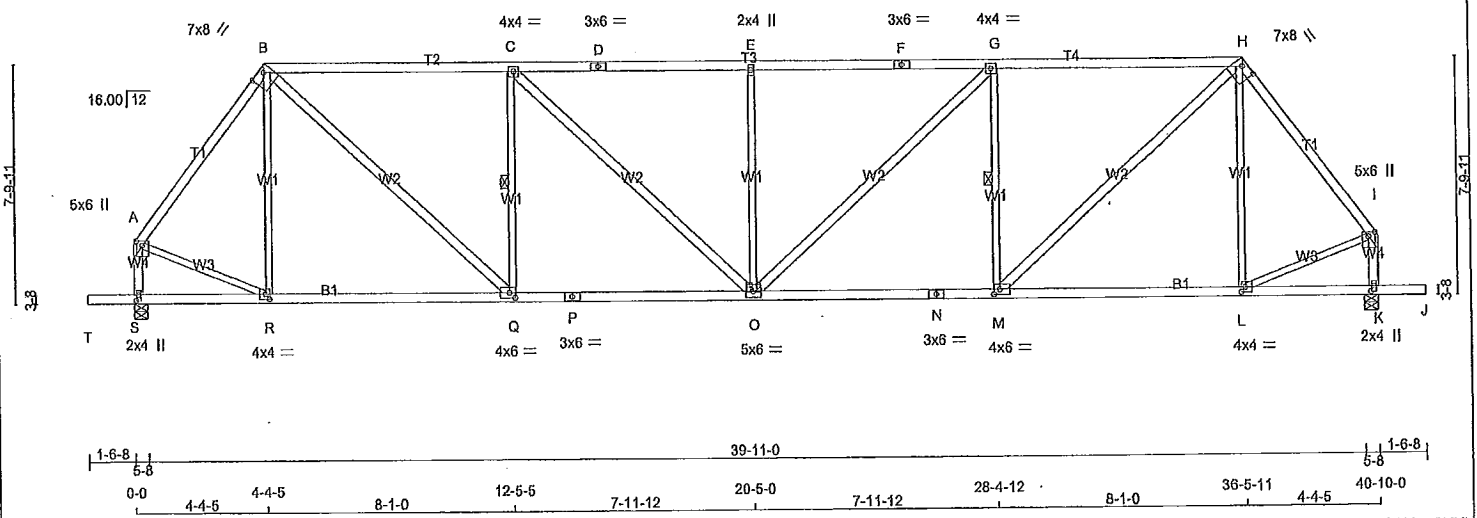
JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
292655	H3	2	1	TRUSS DESC.	

Alpa Roof Truss, Maple

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ID:HSVaWIIDnr7B6oeweH9vbyNdls-881QEBWJVYcHg9fQ8B58OC6f6kOZGFTIQ0?azjwls

-1-6-8 0-0 4-4-5 4-4-5 8-1-0 12-5-5 7-11-12 20-5-0 7-11-12 28-4-12 8-1-0 36-5-11 4-4-5 40-10-4-8
1-6-8 1-6-8
Scale = 1:72.8



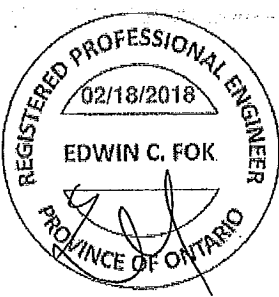
TOTAL WEIGHT = 2 X 193 = 385 lb

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

DRY: SEASONED LUMBER.

PLATES (table is in inches)	JT	TYPE	PLATES	W	LEN	Y	X
A	TMVW+p	MT20	5.0	6.0	1.75	2.50	
B	TTWW-h	MT20	7.0	8.0	1.75	5.00	
C	TMVW-l	MT20	4.0	4.0			
D	TS-t	MT20	3.0	6.0			
E	TMVW-w	MT20	2.0	4.0			
F	TS-t	MT20	3.0	6.0			
G	TMVW-t	MT20	4.0	4.0			
H	TTWW-h	MT20	7.0	8.0	1.75	5.00	
I	TMVW+p	MT20	5.0	6.0	1.75	2.50	
K	BMV1+p	MT20	2.0	4.0	2.25	1.00	
L	BMVW-t	MT20	4.0	4.0	2.00	1.50	
M	BMVW-t	MT20	4.0	6.0	2.00	2.25	
N	BS-t	MT20	3.0	6.0			
O	BMVW-t	MT20	5.0	6.0			
P	BS-t	MT20	3.0	6.0			
Q	BMVW-t	MT20	4.0	6.0	2.00	2.25	
R	BMVW-t	MT20	4.0	4.0	2.00	1.50	
S	BMV1+p	MT20	2.0	4.0	2.25	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



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

BEARINGS		FACTORED		MAXIMUM FACTORED		INPUT		REQD	
JT	VERT	GROSS REACTION	DOWN	GROSS REACTION	DOWN	BRG	IN-SX	BRG	IN-SX
S	2118	0	2118	0	0	5-8	3-3		
K	2118	0	2118	0	0	5-8	3-3		

UNFACTORED REACTIONS		1ST LC CASE		MAX/MIN. COMPONENT REACTIONS		WIND		DEAD		SOIL	
JT	COMBINED	SNOW	LIVE	PERM. LIVE	WIND	DEAD	SOIL				
S	1510	922 / 0	0 / 0	0 / 0	0 / 0	588 / 0	0 / 0				
K	1510	922 / 0	0 / 0	0 / 0	0 / 0	588 / 0	0 / 0				

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

BRACING
TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 3.76 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-Q, G-M.

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

LOADING
TOTAL LOAD CASES: (4)

CHORDS		FACTORED		MAX. FACTORED		WEBS		MAX. FACTORED	
MEMB.	FORCE (LBS)	VERT. LOAD	LC1	MAX. UNBRAC	MEMB.	FORCE (LBS)	MAX. UNBRAC	MEMB.	FORCE (LBS)
FR-TO		FROM	TO	LENGTH	FR-TO				
A-B	-1746 / 0	-78.0	-78.0	0.38 (1)	4.71	R-B	-245 / 0	0.28 (1)	
B-C	-2360 / 0	-78.0	-78.0	0.87 (1)	4.03	B-Q	0 / 1787	0.29 (1)	
C-D	-2732 / 0	-78.0	-78.0	0.93 (1)	3.76	Q-C	-1061 / 0	0.41 (1)	
D-E	-2732 / 0	-78.0	-78.0	0.93 (1)	3.76	C-O	0 / 524	0.08 (1)	
E-F	-2732 / 0	-78.0	-78.0	0.93 (1)	3.76	O-E	-574 / 0	0.65 (1)	
F-G	-2732 / 0	-78.0	-78.0	0.93 (1)	3.76	O-G	0 / 524	0.08 (1)	
G-H	-2360 / 0	-78.0	-78.0	0.87 (1)	4.03	M-G	-1061 / 0	0.41 (1)	
H-I	-1746 / 0	-78.0	-78.0	0.38 (1)	4.71	M-H	0 / 1787	0.29 (1)	
S-A	-1946 / 0	0.0	0.0	0.22 (1)	6.03	L-H	-245 / 0	0.28 (1)	
K-I	-1946 / 0	0.0	0.0	0.22 (1)	6.03	A-R	0 / 1107	0.25 (1)	
						L-I	0 / 1107	0.25 (1)	
T-S	0 / 0	-96.5	-96.5	0.16 (1)	10.00				
S-R	0 / 0	-18.5	-18.5	0.18 (4)	10.00				
R-Q	0 / 1038	-18.5	-18.5	0.34 (4)	10.00				
Q-P	0 / 2351	-18.5	-18.5	0.51 (1)	10.00				
P-O	0 / 2351	-18.5	-18.5	0.51 (1)	10.00				
O-N	0 / 2351	-18.5	-18.5	0.51 (1)	10.00				
N-M	0 / 2351	-18.5	-18.5	0.51 (1)	10.00				
M-L	0 / 1038	-18.5	-18.5	0.34 (4)	10.00				
L-K	0 / 0	-18.5	-18.5	0.18 (4)	10.00				
K-J	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 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

ALLOWABLE DEFL.(LL) = L/360 (1.36")
CALCULATED VERT. DEFL.(LL) = L/999 (0.14")
ALLOWABLE DEFL.(TL) = L/360 (1.36")
CALCULATED VERT. DEFL.(TL) = L/999 (0.29")

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=0.93/1.00 (C-E:1), BC=0.51/1.00 (O-Q:1), WB=0.65/1.00 (E-O:1), SSI=0.30/1.00 (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

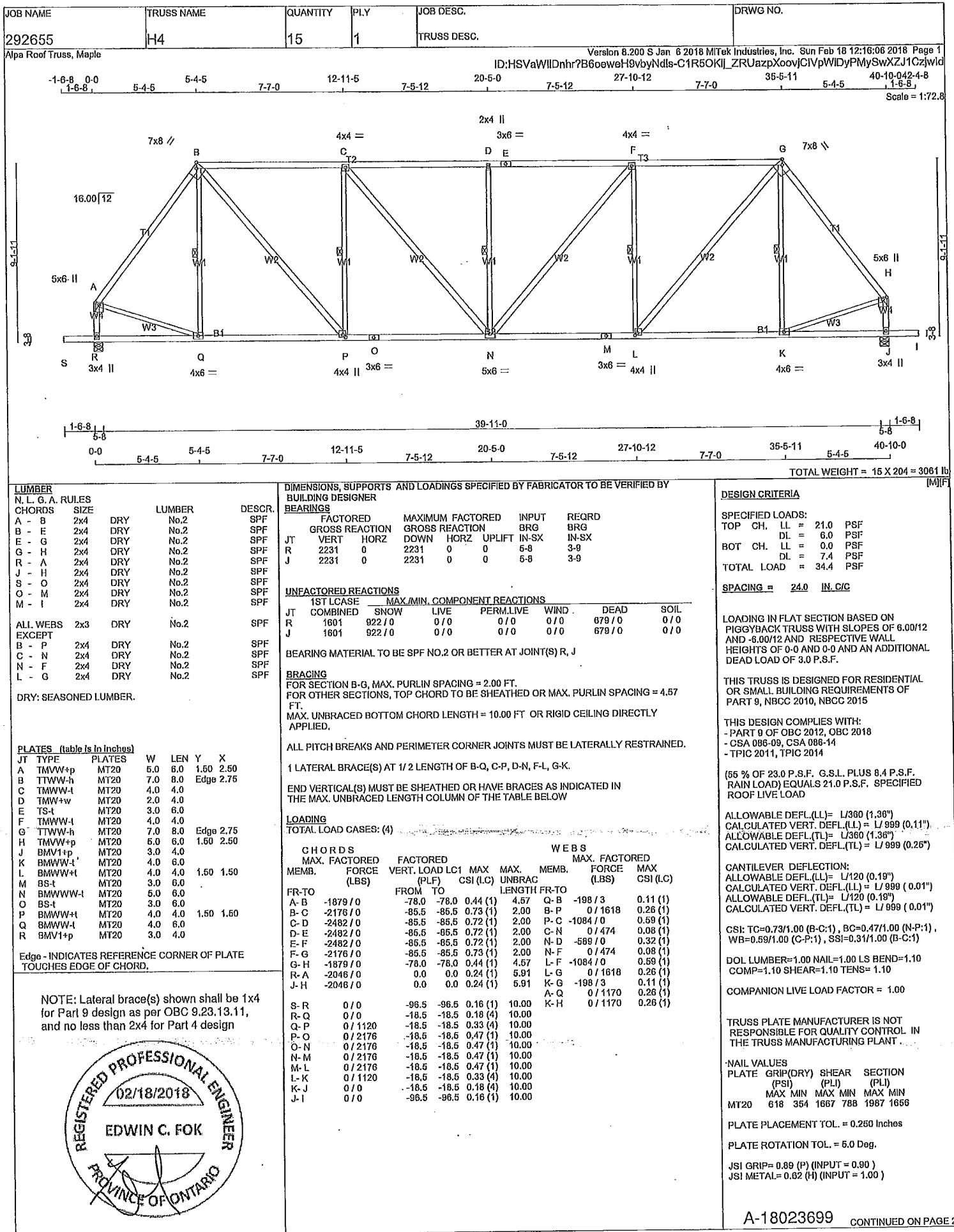
TRUSS PLATE MANUFACTURER IS NOT RESPONSIBLE FOR QUALITY CONTROL IN THE TRUSS MANUFACTURING PLANT.

NAIL VALUES
PLATE GRIP(DRY) SHEAR SECTION (PLI)
(PSI) (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= 0.89 (A) (INPUT = 0.90)
JSI METAL= 0.70 (N) (INPUT = 1.00)



Alpe Roof Truss, Maple

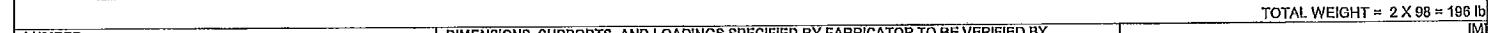
Version 8.200 S Jan 8 2018 MiTek Industries, Inc. Sun Feb 18 12:16:13 2018 Page 1

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0-0 2-0-0 8-8-14 10-8-14 8-7-10 19-4-8 8-8-14 28-1-6 2-0-0 30-1-6

2-0-0 8-8-14

Scale = 1/52.0



PLATES (table to be attached)	PROVIDE ANCHORAGE AT BEARING JOINT B FOR 150 LBS. FACTORED UPLIFT PROVIDE ANCHORAGE AT BEARING JOINT H FOR 150 LBS. FACTORED UPLIFT	THIS TRUSS IS DESIGNED FOR RESIDENTIAL
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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.

	LOADING TOTAL LOAD CASES: (4)	TRUSS PLATE MANUFACTURER IS NOT RESPONSIBLE FOR QUALITY CONTROL IN THE TRUSS MANUFACTURING PLANT .
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FR-TO	FROM	TO	LENGTH	FR-TO	MAX MIN	MAX MIN	MAX MIN
A-B	0/10	-78.0	-78.0	0.01 (1)	10.00	N-C	-254/0
B-C	-86/0	-78.0	-78.0	0.03 (1)	6.25	C-M	-37/0
C-D	0/0	-78.0	-78.0	0.53 (1)	10.00	M-D	-745/0

NOTE: Lateral brace(s) shown shall be 1x4

MT20 618 354 1667 788 1887 1656

PLATE PLACEMENT TOL. = 0.250 Inches

H-I	0/10	-78.0	-78.0	0.01 (1)	10.00
B-N	0/49	-18.5	-18.5	0.23 (4)	10.00
N-M	0/37	-18.5	-18.5	0.28 (4)	10.00

JSI METAL= 0.51 (E) (INPUT = 1.00)

REG EDWIN C. FOK NEER	0-11	0798	1000 - 1000 class (1) 10000
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		A-18023700
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JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
292655	H6P	2	1	TRUSS DESC.	

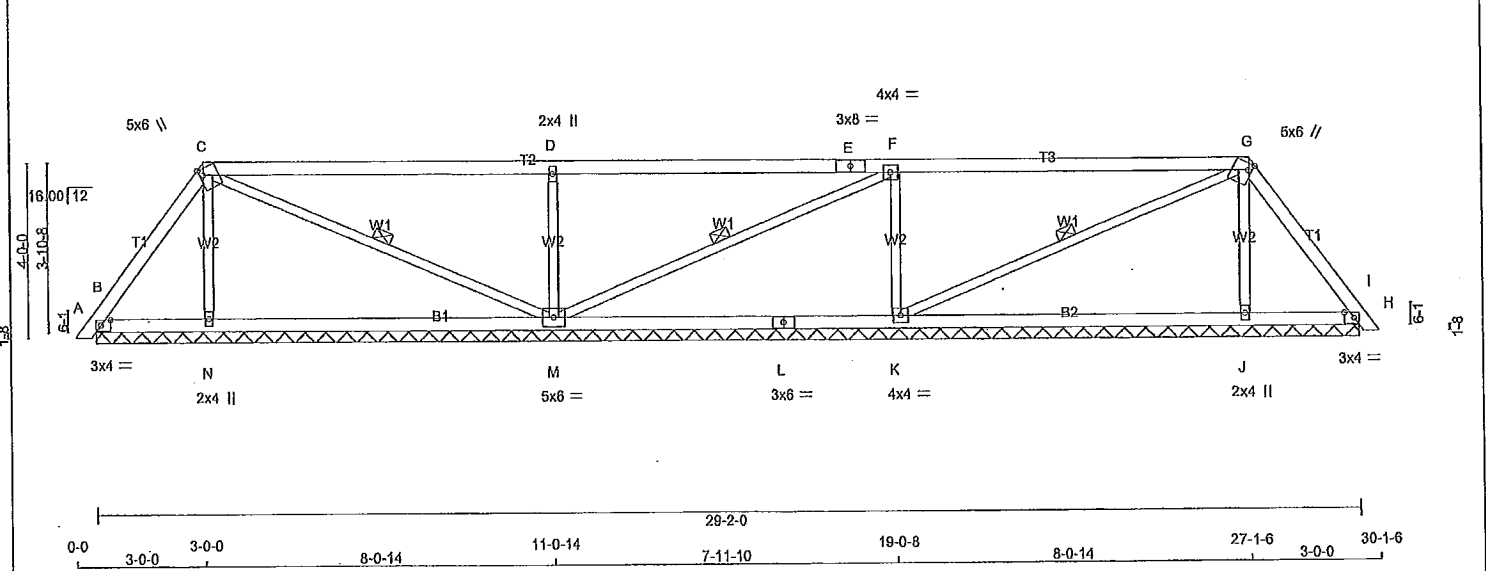
Alpa Roof Truss, Maple

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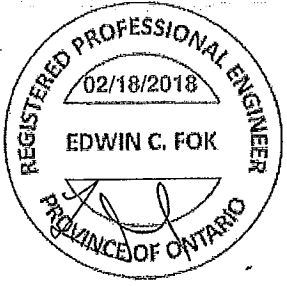
0-0 3-0-0 3-0-0 8-0-14 11-0-14 7-11-10 19-0-8 8-0-14 27-1-6 3-0-0 30-1-6

Scale = 1:51.2



TOTAL WEIGHT = 2 X 103 = 207 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 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.				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 (65 % 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=0.69/1.00 (F-G:1), BC=0.24/1.00 (J-K:4), WB=0.16/1.00 (D-M:1), SSI=0.29/1.00 (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) SHEAR SECTION (PSI) (PLI) (PLI) MAX MIN MAX MIN MAX MIN MT20 618 354 1667 788 1987 1656 PLATE PLACEMENT TOL. = 0.260 inches PLATE ROTATION TOL. = 5.0 Deg. JSI GRIP= 0.80 (M) (INPUT = 0.90) JSI METAL= 0.60 (E) (INPUT = 1.00)			
PLATES (table is in inches) 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-I MT20 3.0 8.0 F TMWW-I 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-I MT20 4.0 4.0 L BS-I MT20 3.0 6.0 M BMWW1-I MT20 5.0 6.0 N BMW1+w MT20 2.0 4.0				DIMENSIONS, SUPPORTS AND LOADINGS SPECIFIED BY FABRICATOR TO BE VERIFIED BY BUILDING DESIGNER BEARINGS FACTORED MAXIMUM FACTORED INPUT REQD GROSS REACTION GROSS REACTION BRG BRG DOWN HORZ UPLIFT IN-SX IN-SX JT 199 0 199 0 0 29-2-0 (13-2-0)2-10 B 369 0 369 0 0 29-2-0 (13-2-0)2-10 N 891 0 891 0 0 29-2-0 (13-2-0)2-10 M 826 0 826 0 0 29-2-0 (13-2-0)2-10 K 358 0 358 0 0 29-2-0 (13-2-0)2-10 J 226 0 226 0 0 29-2-0 (13-2-0)2-10 H- 226 0 226 0 0 29-2-0 (13-2-0)2-10 VALUE IN PARENTHESIS INDICATES EFFECTIVE BEARING LENGTH UNFACTORED REACTIONS 1ST LCASE MAX./MIN. COMPONENT REACTIONS JT COMBINED SNOW LIVE PERM.LIVE WIND DEAD SOIL B 137 110/0 0/0 0/0 0/0 28/0 0/0 N 209 132/0 0/0 0/0 0/0 137/0 0/0 M 633 399/0 0/0 0/0 0/0 235/0 0/0 K 688 364/0 0/0 0/0 0/0 225/0 0/0 J 261 126/0 0/0 0/0 0/0 135/0 0/0 H 166 124/0 0/0 0/0 0/0 32/0 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 MAX. FACTORED FORCE VERT. LOAD LC1 MAX. FACTORED FORCE VERT. LOAD LC1 MAX. FACTORED FORCE VERT. LOAD LC1 MEMB. (LBS) (PLF) CSI (LC) UNBRAC LENGTH FR-TO MEMB. MAX. FACTORED FORCE VERT. LOAD LC1 MAX. FACTORED FORCE VERT. LOAD LC1 FR-TO (LBS) (PLF) CSI (LC) UNBRAC LENGTH FR-TO MEMB. MAX. FACTORED FORCE VERT. LOAD LC1 MAX. FACTORED FORCE VERT. LOAD LC1 A-B 0/10 -78.0 -78.0 0.01 (1) 10.00 N-C -245/0 0.08 (1) B-C -98/0 -78.0 -78.0 0.09 (1) 6.25 C-M -70/0 0.04 (1) C-D 0/16 -78.0 -78.0 0.69 (1) 10.00 M-D -688/0 0.16 (1) D-E 0/16 -78.0 -78.0 0.69 (1) 10.00 M-F -60/0 0.03 (1) E-F 0/16 -78.0 -78.0 0.69 (1) 10.00 K-F -683/0 0.16 (1) F-G -39/0 -78.0 -78.0 0.69 (1) 8.25 K-G -31/0 0.02 (1) G-H -128/0 -78.0 -78.0 0.09 (1) 8.25 J-G -235/0 0.05 (1) H-I 0/10 -78.0 -78.0 0.01 (1) 10.00 B-N 0/66 -18.5 -18.5 0.18 (4) 10.00 N-M 0/48 -18.5 -18.5 0.24 (4) 10.00 M-L 0/39 -18.5 -18.5 0.24 (4) 10.00 L-K 0/39 -18.5 -18.5 0.24 (4) 10.00 K-J 0/68 -18.5 -18.5 0.24 (4) 10.00 J-H 0/74 -18.5 -18.5 0.18 (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							

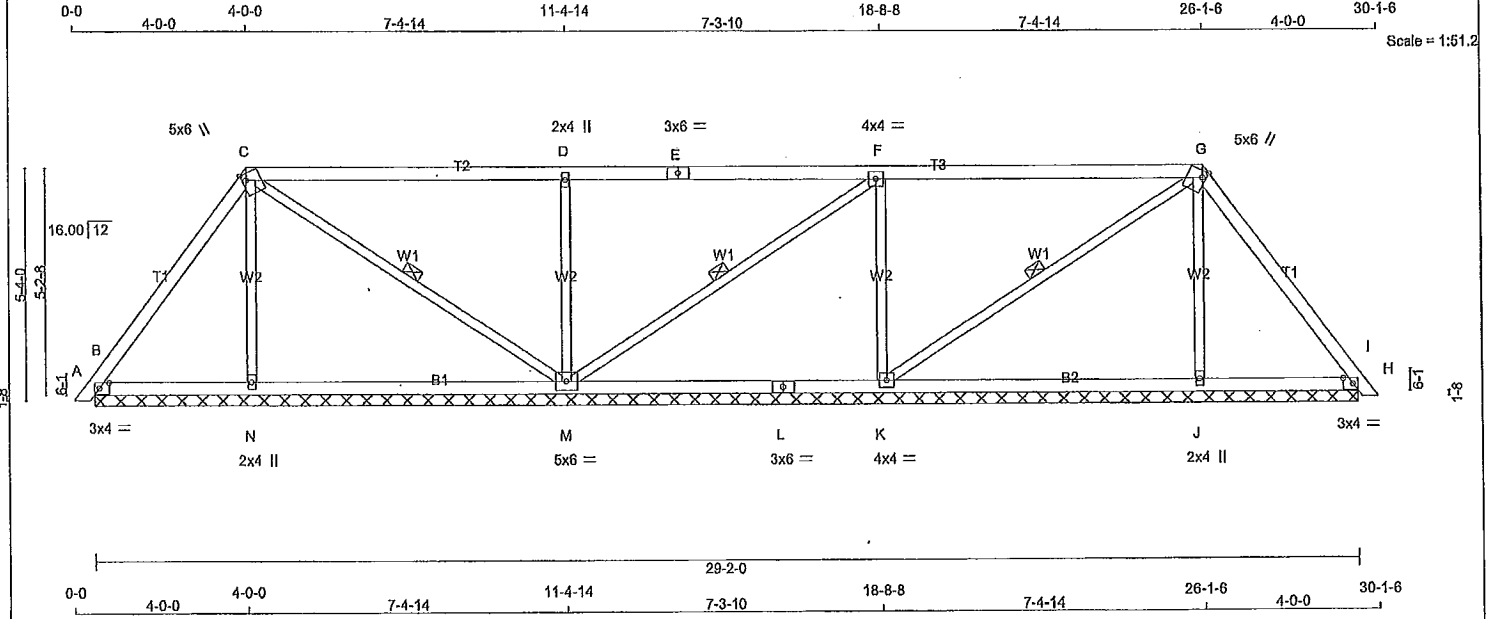


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JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
292655	H7P	2	1	TRUSS DESC.	

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LUMBER				DIMENSIONS, SUPPORTS AND LOADINGS SPECIFIED BY FABRICATOR TO BE VERIFIED BY BUILDING DESIGNER				DESIGN CRITERIA			
N. L. G. A. RULES	CHORDS	SIZE	LUMBER	DESCR.	BEARINGS	FACTORED GROSS REACTION	MAXIMUM FACTORED GROSS REACTION	INPUT BRG	REQD BRG	SPECIFIED LOADS:	
A - C	2x4	DRY	No.2	SPF	JT	VERT	HORZ	DOWN	HORZ	UPLIFT	TOP CH. LL = 21.0 PSF
C - E	2x4	DRY	No.2	SPF	N	260	0	260	0	0	DL = 6.0 PSF
E - G	2x4	DRY	No.2	SPF	M	347	0	347	0	0	BOT CH. LL = 0.0 PSF
G - I	2x4	DRY	No.2	SPF	K	885	0	885	0	0	DL = 7.4 PSF
I - L	2x4	DRY	No.2	SPF	J	733	0	733	0	0	TOTAL LOAD = 34.4 PSF
L - H	2x4	DRY	No.2	SPF	H	340	0	340	0	0	
ALL WEBS	2x3	DRY	No.2	SPF							
DRY: SEASONED LUMBER.											

PLATES (table is in inches)					
JT	TYPE	PLATES	W	LEN	Y X
B	TMB1-I	MT20	3.0	4.0	1.50 2.75
C	TTWW+m	MT20	5.0	6.0	1.75 1.00
D	TMW+w	MT20	2.0	4.0	
E	TS-I	MT20	3.0	6.0	
F	TMWW-I	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-I	MT20	4.0	4.0	
L	BS-I	MT20	3.0	6.0	
M	BMWW1-I	MT20	5.0	6.0	
N	BMW1+w	MT20	2.0	4.0	

UNFACTORED REACTIONS					
JT	1ST CASE	MAX/MIN	COMPONENT REACTIONS		
B	182	132 / 0	0 / 0	0 / 0	50 / 0
N	253	125 / 0	0 / 0	0 / 0	128 / 0
M	628	402 / 0	0 / 0	0 / 0	225 / 0
K	522	320 / 0	0 / 0	0 / 0	202 / 0
J	248	121 / 0	0 / 0	0 / 0	127 / 0
H	212	155 / 0	0 / 0	0 / 0	57 / 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.

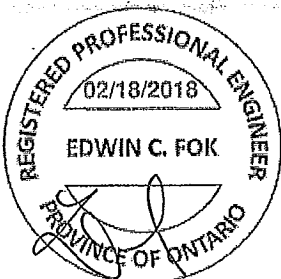
ALL PITCH BREAKS AND PERIMETER CORNER JOINTS MUST BE LATERALLY RESTRAINED.

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)	MAX. UNBRACED LENGTH (LC)	MEMB.	MAX. FACTORED FORCE (LBS)	MAX. UNBRACED LENGTH (LC)	
A-B	0 / 10	-78.0	-78.0 0.01 (1)	N-C	-231 / 0	0.09 (1)	
B-C	-98 / 0	-78.0	-78.0 0.17 (1)	C-M	-106 / 0	0.06 (1)	
C-D	0 / 37	-78.0	-78.0 0.58 (1)	M-D	-631 / 0	0.25 (1)	
D-E	0 / 36	-78.0	-78.0 0.58 (1)	M-F	-104 / 0	0.06 (1)	
E-F	0 / 36	-78.0	-78.0 0.58 (1)	K-F	-572 / 0	0.23 (1)	
F-G	-50 / 0	-78.0	-78.0 0.58 (1)	K-G	-41 / 0	0.02 (1)	
G-H	-152 / 0	-78.0	-78.0 0.17 (1)	J-G	-224 / 0	0.09 (1)	
H-I	0 / 10	-78.0	-78.0 0.01 (1)				
B-N	0 / 57	-18.5	-18.5 0.15 (4)				
N-M	0 / 53	-18.5	-18.5 0.20 (4)				
M-L	0 / 50	-18.5	-18.5 0.20 (4)				
L-K	0 / 50	-18.5	-18.5 0.20 (4)				
K-J	0 / 84	-18.5	-18.5 0.21 (4)				
J-H	0 / 89	-18.5	-18.5 0.15 (4)				

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



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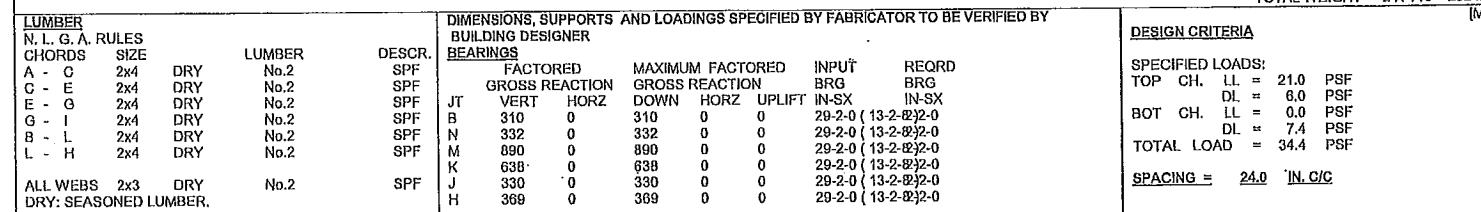
Alpa Roof Truss, Maple

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ID:HSVaWlIDnhr?B6oewH9vbyNdlS-d8A49z9wGw5EWf8eT33OC5YB_dwl-ha84vRo0mrZzjwI2

0-0 5-0-0 6-8-14 11-8-14 6-7-10 10-4-8 6-8-14 25-1-6 5-0-0 30-1-6

Scale = 1:52.3



MAX. UNBRACED BOTTOM CHORD LENGTH = 10.00 FT. ON TRUSS CEILING SUPPORTS APPLIED.										WB=0.40/1.00 (D-M:1), SSI=0.25/1.00 (F-G:1)						
ALL PITCH BREAKS AND PERIMETER CORNER JOINTS MUST BE Laterally RESTRAINED.										DOL LUMBER=1.00 NAIL=1.00 I.S BEND=1.10						
1 LATERAL BRACE(S) AT 1/2 LENGTH OF C-M, F-M, G-K.										COMP=1.10 SHEAR=1.10 TENS= 1.10						
<u>LOADING</u>										COMPANION LIVE LOAD FACTOR = 1.00						
TOTAL LOAD CASES: (4)										TRUSS PLATE MANUFACTURER IS NOT RESPONSIBLE FOR QUALITY CONTROL IN THE TRUSS MANUFACTURING PLANT.						
CHORDS										WEBS						
MEMB.		MAX. FACTORED FORCE (LBS)	VERT. LOAD (PLF)	FACTORED LC1	MAX CS1 (LC)	MAX. UNBRACED LENGTH	MEMB.	MAX. FACTORED FORCE (LBS)	MAX CS1 (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)	8.25	C-M		-139/0	0.08 (1)						
D		-9/6'	-78.0	-78.0	0.48 (1)	10.00	M-D		-573/0	0.40 (1)						
NAIL VALUES										PLATE GRIP(DRY) (PSI)			SHEAR (PLI)		SECTION (PLI)	
										MAX MIN			MAX MIN		MAX MIN	
MT20										618 354			1667 788		1987 1666	

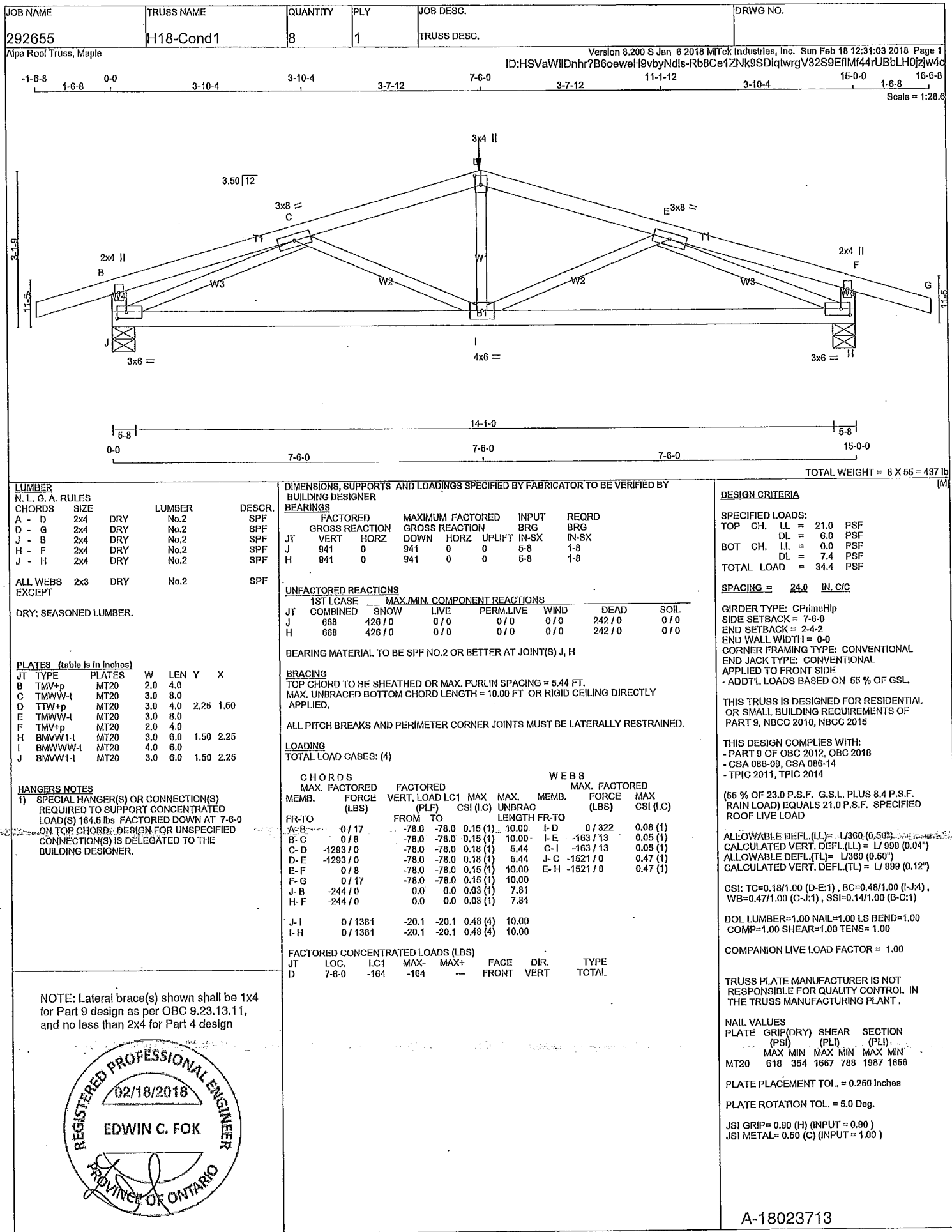


02/18/2018

B-N	0/66	-18.5	-18.5	0.14 (4)	10.00
N-M	0/62	-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

JSI METAL = 0.17 (H) (INPUT = 1.00)



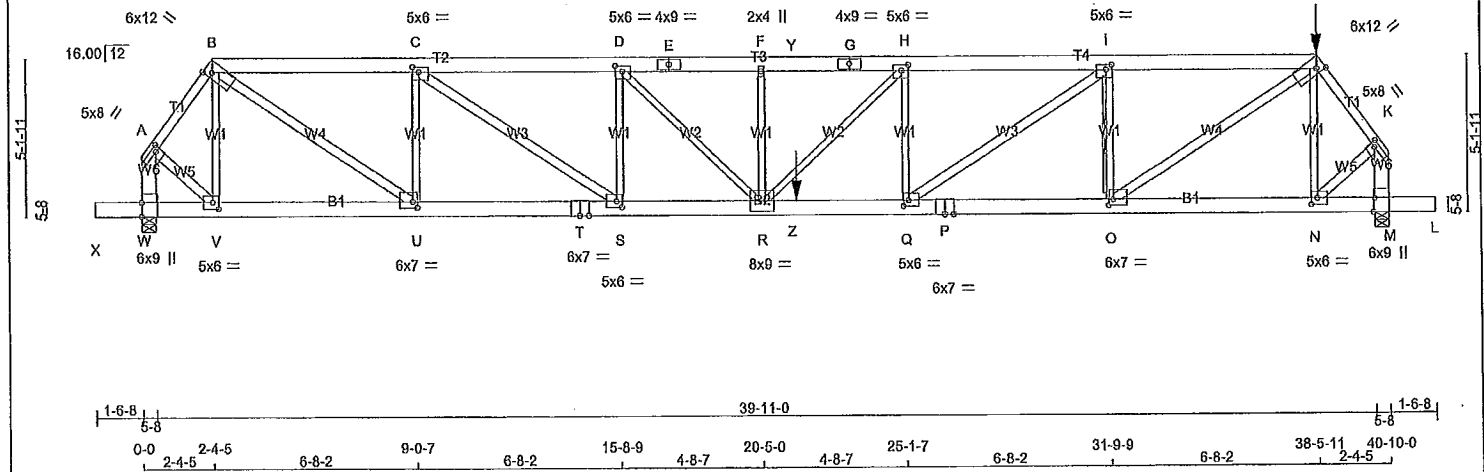


JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
292657	H1A	1	1	TRUSS DESC.	

Alpa Roof Truss, Maple

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ID:HSVaWIDNh7B6oewH9vbyNdis-GNhEclsJ0n7dGxCoryl3fAspYttKQ5vS668qXGzJuh7

-1-6-8 0-0 2-4-5 6-8-2 9-0-7 6-8-2 15-8-9 4-8-7 20-5-0 4-8-7 25-1-7 6-8-2 31-9-9 6-8-2 38-5-11 40-10-0 42-4-8
1-6-8 2-4-5 6-8-2 9-0-7 6-8-2 15-8-9 4-8-7 20-5-0 4-8-7 25-1-7 6-8-2 31-9-9 6-8-2 38-5-11 40-10-0 42-4-8
Scale = 1:72.6



TOTAL WEIGHT = 234 lb

LUMBER

N. L. G. A. RULES

CHORDS

SIZE

LUMBER

DESCR.

A - B

2x4

DRY

No.2

SPF

B - E

2x6

DRY

1650F 1.5E

SPF

E - G

2x6

DRY

1650F 1.5E

SPF

G - J

2x6

DRY

1650F 1.5E

SPF

J - K

2x4

DRY

No.2

SPF

W - A

2x6

DRY

No.2

SPF

M - K

2x6

DRY

No.2

SPF

X - T

2x6

DRY

2100F 1.8E

SPF

T - P

2x6

DRY

2100F 1.8E

SPF

P - L

2x6

DRY

2100F 1.8E

SPF

ALL WEBS

2x3

DRY

No.2

SPF

EXCEPT

B - U

2x4

DRY

No.2

SPF

C - S

2x4

DRY

No.2

SPF

Q - I

2x4

DRY

No.2

SPF

O - J

2x4

DRY

No.2

SPF

A - V

2x4

DRY

No.2

SPF

N - K

2x4

DRY

No.2

SPF

DRY: SEASONED LUMBER.

PLATES (table is in inches)

JT

TYPE

PLATES

W

LEN

Y

X

A

TMVW-t

MT20

5.0

8.0

1.75

2.00

B

TTWW-h

MT20

6.0

12.0

3.25

2.00

C

TMVW-t

MT20

5.0

6.0

2.00

2.25

D

TMVW-t

MT20

5.0

6.0

2.25

2.75

E

TS-t

MT20

4.0

9.0

F

TMVW-w

MT20

2.0

4.0

G

TS-t

MT20

4.0

9.0

H

TMVW-t

MT20

5.0

6.0

2.25

2.75

I

TMVW-t

MT20

5.0

6.0

2.00

2.25

J

TTWW-h

MT20

6.0

12.0

3.25

2.00

K

TMVW-t

MT20

5.0

8.0

1.75

2.00

M

BMV-t

MT20

6.0

9.0

Edge

0.50

N

BMVW-t

MT20

5.0

6.0

2.50

2.25

O

BMVW-t

MT20

6.0

7.0

2.25

1.75

P

BS-t

MT20

6.0

7.0

Q

BMVW-t

MT20

5.0

6.0

2.25

2.00

R

BMVW-t

MT20

8.0

9.0

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

REGISTERED PROFESSIONAL ENGINEER

02/18/2018

EDWIN C. FOK

PROVINCE OF ONTARIO

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

BEARINGS

FACTORED

MAXIMUM FACTORED

INPUT

REQRD

GROSS REACTION

GROSS REACTION

BRG

BRG

JT

VERT

HORZ

DOWN

HORZ

UPLIFT

IN-SX

IN-SX

W

3294

0

3294

0

0

5-8

3-2

M

4272

0

4272

0

0

5-8

5-8

UNFACTORED REACTIONS

1ST LCASE

MAX/MIN. COMPONENT REACTIONS

JT

COMBINED

SNOW

LIVE

PERM.LIVE

WIND

DEAD

SOIL

W

2335

1501 / 0

0 / 0

0 / 0

0 / 0

833 / 0

0 / 0

M

3032

1929 / 0

0 / 0

0 / 0

0 / 0

1103 / 0

0 / 0

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

BEARING SIZE FACTOR = 1.15 AT JNT(S) W, M (BASED ON SUPPORT DEPTH = 1-8)

BRACING

TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 2.91 FT.

MAX. UNBRACED BOTTOM CHORD LENGTH = 10.00 FT OR RIGID CEILING DIRECTLY APPLIED.

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

2x4 DRY SPF No.2 T-BRACE AT I-O

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

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

LOADING

TOTAL LOAD CASES: (4)

CHORDS

MEMB.

MAX. FACTORED

FORCE

FACTORED

VERT. LOAD LC1

MAX

MAX.

MEMB.

MAX. FACTORED

FORCE

WEBS

MEMB.

MAX. FACTORED

FORCE

(LBS)

(LBS)

(PLF)

CS1 (LC)

UNBRAC

LENGTH

FR-TO

(LBS)

CS1 (LC)

FR-TO

FROM

TO

FR-TO

FR-TO

A-B

-2632 / 0

-78.0

-78.0

0.19 (1)

4.09

V-B

-823 / 0

0.29 (1)

B-C

-5301 / 0

-78.0

-78.0

0.28 (1)

4.13

B-U

0 / 4569

0.81 (1)

C-D

-8020 / 0

-78.0

-78.0

0.41 (1)

3.38

U-C

-2496 / 0

0.88 (1)

D-E

-9489 / 0

-78.0

-78.0

0.36 (1)

3.16

C-S

0 / 3320

0.59 (1)

E-F

-9489 / 0

-78.0

-78.0

0.36 (1)

3.16

S-D

-1911 / 0

0.68 (1)

F-Y

-9489 / 0

-78.0

-78.0

0.46 (1)

3.05

D-R

0 / 2073

0.51 (1)

Y-G

-9489 / 0

-153.5

-153.5

0.46 (1)

3.05

R-F

-375 / 0

0.13 (1)

G-H

-9489 / 0

-153.5

-153.5

0.46 (1)

3.05

H-H

0 / 517

0.13 (1)

H-I

-9122 / 0

-153.5

-153.5

0.68 (1)

2.91

Q-H

-1253 / 0

0.44 (1)

I-J

-6547 / 0

-153.5

-153.5

0.53 (1)

3.52

Q-I

0 / 3145

0.56 (1)

J-K

-3481 / 0

-78.0

-78.0

0.26 (1)

3.55

O-I

-2972 / 0

0.63 (1)

W-A

-3174 / 0

0.0

0.0

0.28 (1)

6.89

O-J

0 / 5474

0.97 (1)

M-K

-4168 / 0

0.0

0.0

0.34 (1)

5.22

N-J

-1000 / 0

0.35 (1)

X-W

0 / 0

-96.5

-96.5

0.05 (1)

10.00

N-K

0 / 2452

0.43 (1)

W-V

0 / 0

-18.5

-18.5

0.05 (1)

10.00

A-V

0 / 1854

0.33 (1)

V-U

0 / 1559

-18.5

-18.5

0.13 (1)

10.00

N-K

0 / 2452

0.43 (1)

U-T

0 / 5301

-18.5

-18.5

0.34 (1)

10.00

X-W

0 / 0

-96.5

-96.5

0.05 (1)

10.00

T-S

0 / 5301

-18.5

-18.5

0.34 (1)

10.00

W-V

0 / 0

-18.5

-18.5

0.05 (1)

10.00

S-R

0 / 8020

-18.5

-18.5

0.55 (1)

10.00

V-U

0 / 1559

-18.5

-18.5

0.13 (1)

10.00

R-Z

0 / 9122

-18.5

-18.5

0.87 (1)

10.00

U-T

0 / 5301

-18.5

-18.5

0.34 (1)

10.00

Z-Q

0 / 9122

-36.4

-36.4

0.87 (1)

10.00

T-S

0 / 5301

-18.5

-18.5

0.34 (1)

10.00

Q-P

0 / 6547

-36.4

-36.4

0.44 (1)

10.00

S-R

0 / 8020

-18.5

-18.5

0.55 (1)

10.00

P-O

0 / 6547

-36.4

-36.4

0.44 (1)

10.00

R-Z

0 / 9122

-18.5

-18.5

0.87 (1)

10.00

O-N

0 / 2063

-36.4

-36.4

0.20 (1)

10.00

Z-Q

0 / 9122

-36.4

-36.4

0.87 (1)

10.00

N-M

0 / 0

-36.4

-36.4

0.09 (4)

10.00

Q-P

0 / 6547

-36.4

-36.4

0.44 (1)

10.00

M-L

0 / 0

-96.5

-96.5

0.05 (1)

10.00

P-O

0 / 6547

-36.4

-36.4

0.44 (1)

10.00

DESIGN CRITERIA

*** SPECIAL LOADS ANALYSIS ***

GEOMETRY AND/OR BASIC LOADS CHANGED BY USER.

LOADS WERE DERIVED FROM USER INPUT

NO FURTHER MODIFICATIONS WERE MADE

SPECIFIED LOADS:

TOP CH. LL = 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

SIDE SETBACK = 2-4-5

END SETBACK = 5-10-8

END WALL WIDTH = 0-0

CORNER FRAMING TYPE: CONVENTIONAL

END JACK TYPE: CONVENTIONAL

APPLIED TO FRONT SIDE

- ADPT'L LOADS BASED ON 55 % OF GSL

LOADS APPLIED TO FIRST 18-5-0 OF SPAN MEASURED FROM THE RIGHT.

*** NON STANDARD GIRDER ***

ADDT'L 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 (1.36")

CALCULATED VERT. DEFL.(LL)= L/ 999 (0.46")

ALLOWABLE DEFL.(TL)= L/360 (1.36")

CALCULATED VERT. DEFL.(TL)= L/ 683 (0.84")

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")

CS1: TC=0.68/1.00 (H-I:1), BC=0.87/1.00 (Q-R:1), WB=0.97/1.00 (J-O:1), SSI=0.87/1.00 (Q-R: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

AUTOSOLVEHEELS OFF

A-18023726

CONTINUED ON PAGE

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

Alpa Roof Truss, Maple

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ID:HSVavWIIIDnhr?B8oewelH9vbyNdis-GNhEclsJOn?dGxCeryl3fAspYtIKQ5vS668qXGzjuh7

PLATES (table is in inches)

JT	TYPE	PLATES	W	LEN	Y	X
S	BMWW-I	MT20	5.0	6.0	2.25	2.00
T	BS-I	MT20	6.0	7.0		
U	BMWW-I	MT20	6.0	7.0	2.25	1.75
V	BMWW-I	MT20	5.0	6.0	2.60	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 38-5-11 ON TOP CHORD, AND 1569.0 lbs FACTORED DOWN AT 21-6-8 ON BOTTOM CHORD. DESIGN FOR UNSPECIFIED CONNECTION(S) IS DELEGATED TO THE BUILDING DESIGNER.

FACTORED CONCENTRATED LOADS (LBS)

JT	LOC.	LC1	MAX-	MAX+	FACE	DIR.	TYPE
J	38-5-11	-134	-134	—	FRONT	VERT	TOTAL
Z	21-6-8	-1569	-1569	—	FRONT	VERT	TOTAL

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

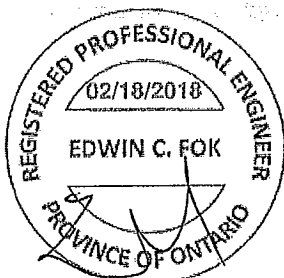
PLATE PLACEMENT TOL. = 0.250 Inches

PLATE ROTATION TOL. = 5.0 Deg.

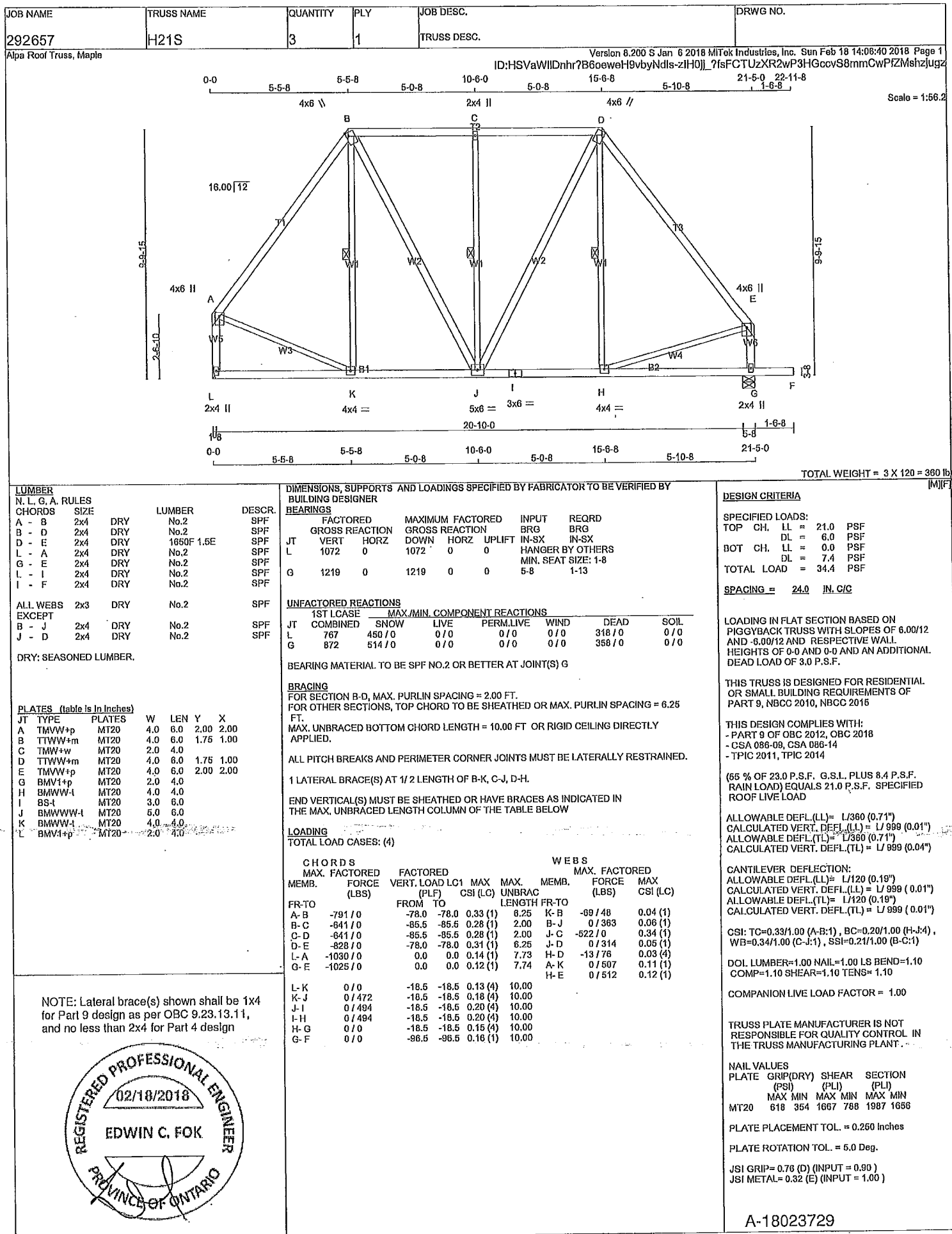
JSI GRIP= 0.90 (S) (INPUT = 0.90)

JSI METAL= 0.96 (U) (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-18023726(2)

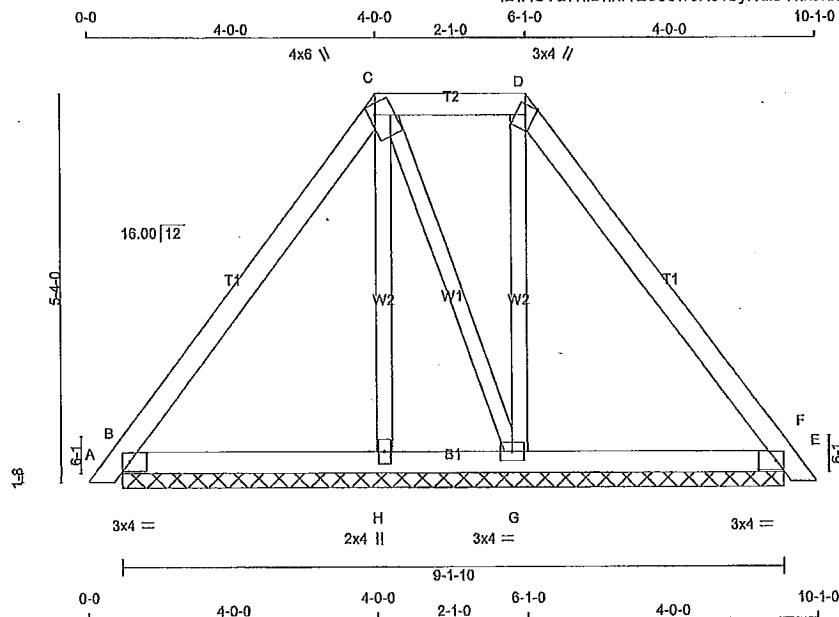


JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
292657	H22P	1	1	TRUSS DESC.	

Alpha Roof Truss, Maple

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ID:HSVaWIIInhr?B8oeWelH9vbyNdlS-Ntz9LI0tyndnKxh66AT6hvu9L7W9zBEM5dn1T0zJugw



Scale = 1:30.6

TOTAL WEIGHT = 40 lb

LUMBER				DIMENSIONS, SUPPORTS AND LOADINGS SPECIFIED BY FABRICATOR TO BE VERIFIED BY, BUILDING DESIGNER				DESIGN CRITERIA			
N. L. G. A. RULES	CHORDS	SIZE	LUMBER	DESCR.	BEARINGS	FACTORED	MAXIMUM FACTORED	INPUT	REQD	SPECIFIED LOADS:	
A - C	2x4	DRY	No.2	SPF	GROSS REACTION	DOWN	DOWN	BRG	BRG	TOP CH. LL = 21.0 PSF	
C - D	2x4	DRY	No.2	SPF	VERT	276	276	0	7-2	DL = 6.0 PSF	
D - F	2x4	DRY	No.2	SPF	HORZ	251	251	0	7-2	BOT CH. LL = 0.0 PSF	
B - E	2x4	DRY	No.2	SPF	DOWN	145	145	0	7-2	DL = 7.4 PSF	
ALL WEBS	2x3	DRY	No.2	SPF	HORZ	264	264	0	7-2	TOTAL LOAD = 34.4 PSF	
DRY: SEASONED LUMBER.										SPACING = 24.0 IN. C/C	

PLATES (table is in inches)	JT	TYPE	PLATES	W	LEN	Y	X
B	TMB1-I	MT20	3.0	4.0	1.50	2.75	
C	TTWW+m	MT20	4.0	6.0	1.75	1.00	
D	TTWW+m	MT20	3.0	4.0	Edge		
E	TMB1-I	MT20	3.0	4.0	1.50	2.75	
G	BMW1-I	MT20	3.0	4.0			
H	BMW1-w	MT20	2.0	4.0			

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

UNFACTORED REACTIONS							
JT	1ST LCASE	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
B	194	133 / 0	0 / 0	0 / 0	0 / 0	61 / 0	0 / 0
E	177	120 / 0	0 / 0	0 / 0	0 / 0	57 / 0	0 / 0
H	107	48 / 0	0 / 0	0 / 0	0 / 0	59 / 0	0 / 0
G	188	112 / 0	0 / 0	0 / 0	0 / 0	77 / 0	0 / 0

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

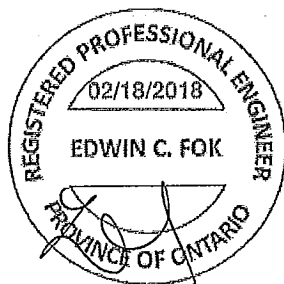
BRACING
TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 6.25 FT.
MAX. UNBRACED BOTTOM CHORD LENGTH = 10.00 FT OR RIGID CEILING DIRECTLY APPLIED.

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

LOADING
TOTAL LOAD CASES: (4)

CHORDS				WEBS			
MEMB.	MAX. FACTORED	VERT. LOAD	MAX. FACTORED	MEMB.	MAX. FACTORED	VERT. LOAD	MAX. FACTORED
FR-TO	FORCE (LBS)	LC1	LC1	FR-TO	FORCE (LBS)	LC1	LC1
A-B	0 / 10	-78.0	-78.0 0.01 (1)	H-C	-89 / 0	0.04 (1)	0.04 (1)
B-C	-102 / 0	-78.0	-78.0 0.17 (1)	C-G	-51 / 0	0.02 (1)	0.02 (1)
C-D	-39 / 0	-78.0	-78.0 0.06 (1)	G-D	-100 / 0	0.06 (1)	0.06 (1)
D-E	-72 / 0	-78.0	-78.0 0.17 (1)				
E-F	0 / 10	-78.0	-78.0 0.01 (1)				
B-H	0 / 60	-18.5	-18.5 0.05 (4)				
H-G	0 / 58	-18.5	-18.5 0.05 (4)				
G-E	0 / 42	-18.5	-18.5 0.05 (4)				

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



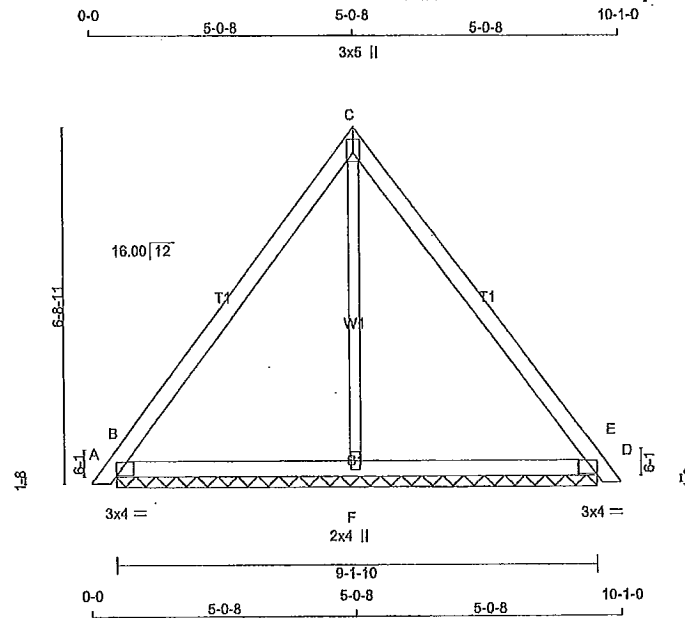
A-18023730

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 14:06:46 2018 Page 1

ID:HSVaWlIDnhr?B6oeweh9vbyNdls-oSflzm3fI0LBpQhnJ1pJYWeoKXtAYKoob0h4Lzjugt



Scale = 1:42.0

TOTAL WEIGHT = 2 X 34 = 69 lb

LUMBER					DIMENSIONS, SUPPORTS AND LOADINGS SPECIFIED BY FABRICATOR TO BE VERIFIED BY BUILDING DESIGNER					DESIGN CRITERIA				
N. L. G. A. RULES	CHORDS	SIZE	LUMBER	DESCR.	BEARINGS					SPECIFIED LOADS:				
A - C	2x4	DRY	No.2	SPF	FACTORED	MAXIMUM FACTORED	INPUT	REQRD		TOP CH. LL =	21.0	PSF		
C - E	2x4	DRY	No.2	SPF	GROSS REACTION	GROSS REACTION	BRG	BRG		DL =	6.0	PSF		
B - D	2x4	DRY	No.2	SPF	VERT	HORZ	DOWN	HORZ	UPLIFT	IN-SX	IN-SX			
ALL WEBS	2x3	DRY	No.2	SPF	JT	B	D	F		BOT CH. LL =	0.0	PSF		
DRY: SEASONED LUMBER.										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				
										(65 % 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)				
										A-18023731				

PLATES (table is in inches)	W	LEN	Y	X
JT TYPE PLATES				
B TMB1-I MT20	3.0	4.0	1.50	2.75
C TTW1-p MT20	3.0	5.0	2.00	Edge
D TMB1-I MT20	3.0	4.0	1.50	2.75
F BMW1-w MT20	2.0	4.0		

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

UNFACTORED REACTIONS

1ST CASE	MAX	MIN	COMPONENT REACTIONS					
JT	COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL	
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.

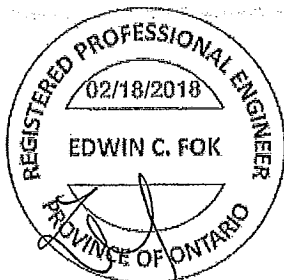
ALL PITCH BREAKS AND PERIMETER CORNER JOINTS MUST BE Laterally RESTRAINED.

LOADING

TOTAL LOAD CASES: (4)

CHORDS				WEBS			
MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	MAX. FACTORED LC1 MAX. (PLF)	MEMB.	MAX. FACTORED FORCE (LBS)	MAX. FACTORED LC1 MAX. (PLF)	
FR-TO		FROM	TO	FR-TO		FROM	TO
A-B	0 / 10	-78.0	-78.0 0.01 (1)	10.00	F-C	-161 / 0	0.11 (1)
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			

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

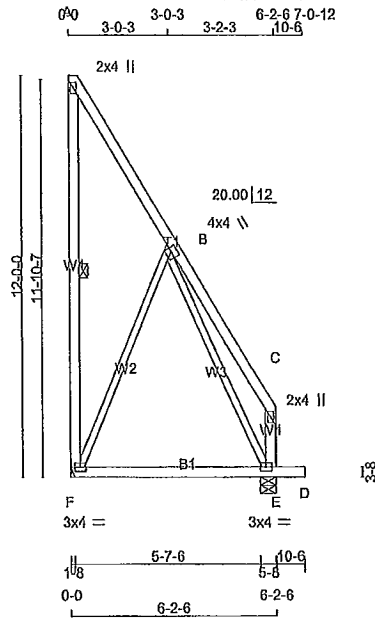


JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
292657	J7	1	1	TRUSS DESC.	

Alpa Roof Truss, Maple

Version 8.200 S Jan 6 2018 MiTek Industries, Inc. Sun Feb 18 14:06:59 2018 Page 1

ID:HSVaWIIIDnhr?B6ooweH9vbyNdis-vyxCIDdvBheVfowB2XmsLHYutXzQjPOjn6gt14zJugg



Scale = 1:66.5

TOTAL WEIGHT = 49 lb (M/F)

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	TMVtp	MT20	2.0	4.0			
B	TMVWV-l	MT20	4.0	4.0	2.00	1.50	
C	TMVtp	MT20	2.0	4.0			
E	BMVW1-l	MT20	3.0	4.0			
F	BMVW1-l	MT20	3.0	4.0			

DIMENSIONS, SUPPORTS AND LOADINGS SPECIFIED BY FABRICATOR TO BE VERIFIED BY BUILDING DESIGNER									
BEARINGS									
JT	FACTORED GROSS REACTION	VERT	HORZ	MAXIMUM FACTORED GROSS REACTION	DOWN	HORZ	INPUT UPLIFT	REQD BRG	REQD IN-SX
F	299	0	0	299	0	0	0	5-8	1-8
E	382	0	0	382	0	0	0	5-8	1-8

UNFACTORED REACTIONS							
JT	1ST LCASE COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
F	213	130 / 0	0 / 0	0 / 0	0 / 0	83 / 0	0 / 0
E	273	166 / 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 (PLF)	MAX. FACTORED CSI (LC)	MEMB.	MAX. FACTORED FORCE (LBS)	MAX. FACTORED CSI (LC)	
F-A	-96 / 0	0.0	0.08 (1)	F-B	-162 / 0	0.18 (1)	
A-B	-25 / 0	-78.0	-78.0 0.10 (1)	B-E	-170 / 0	0.18 (1)	
B-C	0 / 26	-78.0	-78.0 0.13 (1)				
E-C	-86 / 0	0.0	0.0 0.01 (1)				
F-E	0 / 70	-18.5	-18.5 0.21 (4)				
E-D	0 / 0	-96.5	-96.5 0.05 (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

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

(65 % 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), SS=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

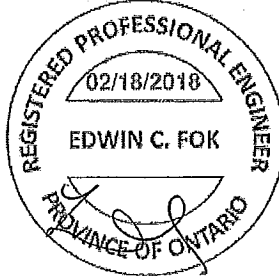
TRUSS PLATE MANUFACTURER IS NOT RESPONSIBLE FOR QUALITY CONTROL IN THE TRUSS MANUFACTURING PLANT.

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

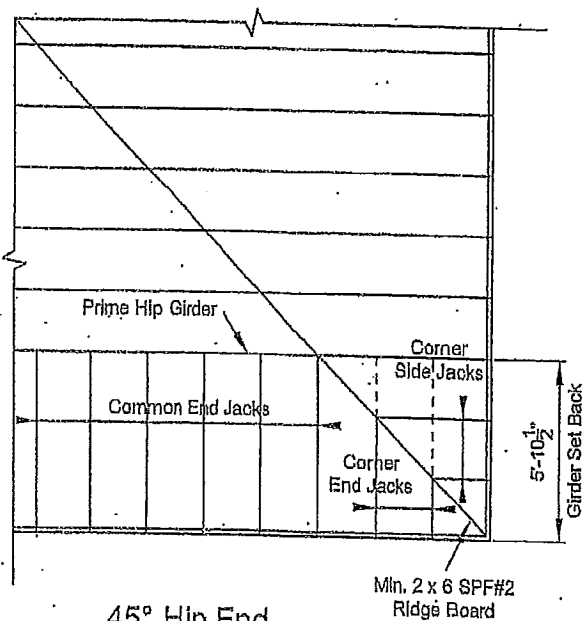
PLATE PLACEMENT TOL. = 0.260 inches
 PLATE ROTATION TOL. = 6.0 Deg.

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



STRACON ENGINEERING INC.



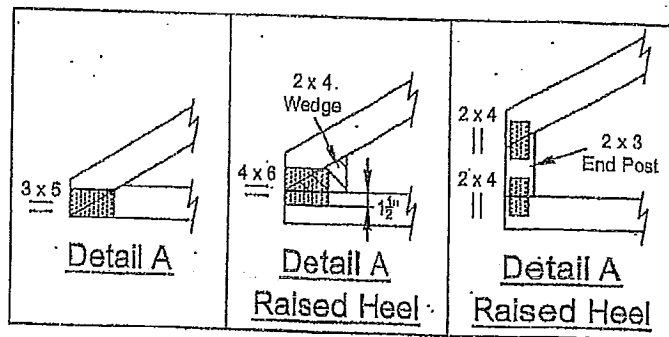
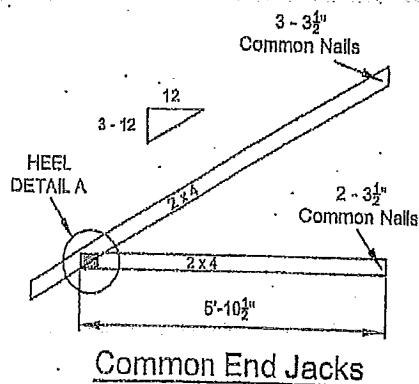
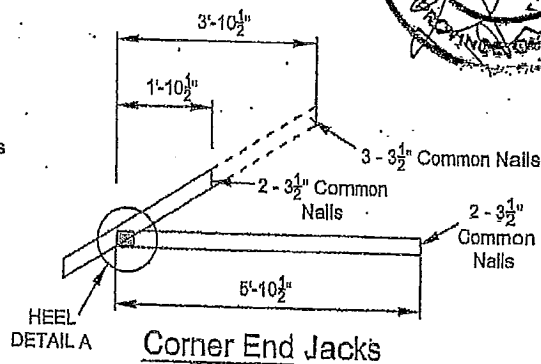
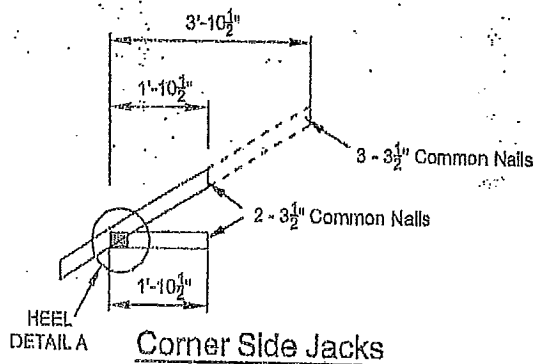
LUMBER SPECIFICATION

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:

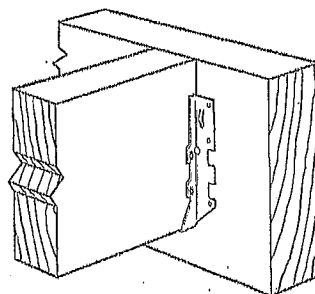
- Factored resistances are in accordance with CSA O86-14.
- Uplift resistances have been increased 15%. No further increase is permitted.
- Wood shear is not considered in the factored resistances given. The specifier must ensure that the joist and header capacities are capable of withstanding these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

Installation:

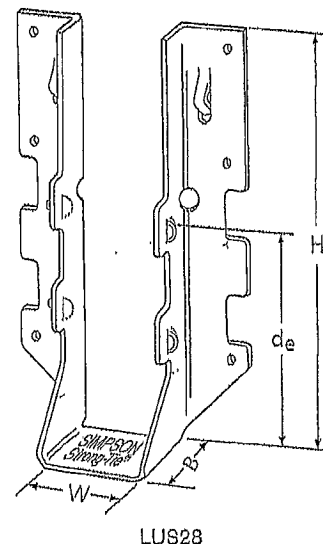
- Use all specified fasteners.
- Nails: 16d = 0.162" dia. x 3½" long common wire, 10d = 0.148" x 3" long common wire.
- Double shear nails must be driven at an angle through the joist or truss into the header to achieve the table loads.
- Not designed for welded or nailer applications.

Options:

- These hangers cannot be modified



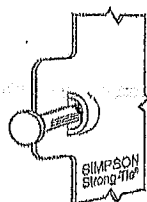
Typical LUS Installation



LUS28

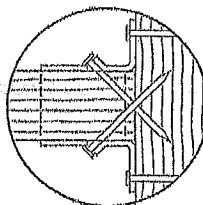
Model No.	Ga.	Dimensions (in.)					Fasteners		Factored Resistance (lb.)			
		W	H	B	d ₁	Face	Joist		D.Fir-L		S-P-F	
									Uplift (K ₁ =1.15)	Normal (K ₂ =1.00)	Uplift (K ₁ =1.15)	Normal (K ₂ =1.00)
LUS24	18	1½	3½	1½	1 11/16	(4) 10d	(2) 10d		710	1030	645	1155
LUS24-2	18	3½	3½	2	1 11/16	(4) 16d	(2) 16d		835	2020	690	1435
LUS26	18	1½	4½	1½	3%	(4) 10d	(4) 10d		1420	2170	1290	1630
LUS26-2	18	3½	4½	2	4	(4) 16d	(4) 16d		1720	2595	1545	1920
LUS26-3	18	4½	4½	2	3¼	(4) 16d	(4) 16d		1720	2595	1545	2340
LUS28	18	1½	6½	1½	3¾	(6) 10d	(6) 10d		1420	2520	1290	1790
LUS28-2	18	3½	7	2	4	(6) 16d	(4) 16d		1720	3325	1545	2575
LUS28-3	18	4½	6½	2	3¼	(6) 16d	(4) 16d		1720	3325	1545	2375
LUS210	18	1½	7 11/16	1½	3%	(8) 10d	(4) 10d		1420	2785	1290	2210
LUS210-2	18	3½	9	2	6	(8) 16d	(6) 16d		2580	4500	2320	3195
LUS210-3	18	4½	8 11/16	2	5¼	(8) 16d	(6) 16d		2580	3345	2320	2375

1. d₁ is the distance from the seat of the hanger to the highest joist nail.

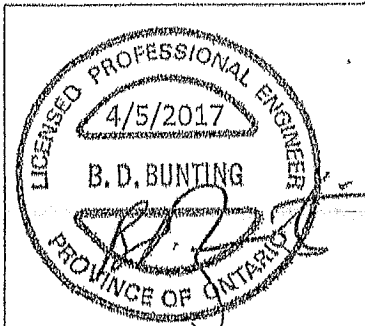


Dome Double Shear Nailing prevents tabs breaking off (available on some models).

U.S. Patent
6,603,580



Double Shear Nailing Top View.



LIMIT
STATES
DESIGN

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(800) 999-5099
strongtie.com

HUS/LJS – Double Shear Joist Hangers



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

Material: See table

Finish: G90 galvanized

Design:

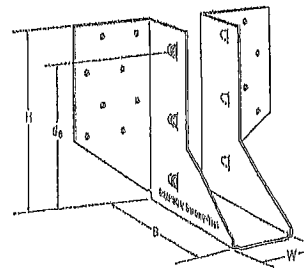
- Factored resistances are in accordance with CSA O86 -14,
- Uplift resistances have been increased 15%. No further increase is permitted.
- Wood shear is not considered in the factored resistances given. The specifier must ensure that the joist and header capacities are capable of withstanding these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

Installation:

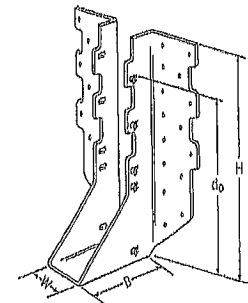
- Use all specified fasteners
- Nails: 16d = 0.162" dia. x 3 1/2" long common wire
- Double shear nails must be driven at an angle through the joist or truss into the header to achieve the table loads
- Not designed for welded or nailer applications

Options:

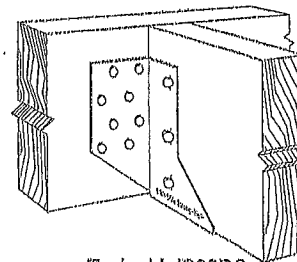
- See current catalogue for options



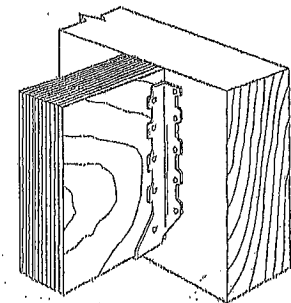
LJS26DS



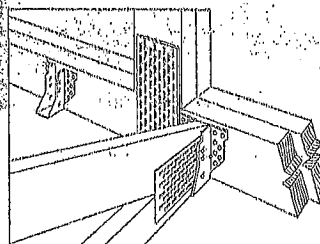
HUS210
(HUS26, HUS28, similar)



Typical LJS26DS
Installation



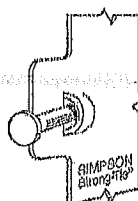
Typical HUS
Installation



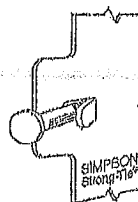
Typical HUS Installation
(Truss Designer to provide fastener quantity for connecting multiple members together)

Model No.	Ga.	Dimensions (in.)				Fasteners		Factored Resistance (lb.)			
		W	H	B	d ₁	Face	Joist	D.Fir-L		S-P-F	
								Uplift (K _u =1.15)	Normal (K _p =1.00)	Uplift (K _u =1.15)	Normal (K _p =1.00)
LJS26DS	18	1 1/16	5	3 1/2	4 1/8	(16) 16d	(6) 16d	2065	4265	1460	4115
HUS26	16	1 1/8	5 1/8	3	3 1/4	(14) 16d	(6) 16d	2705	4940	2065	3875
HUS28	16	1 1/8	7 1/8	3	6 1/8	(22) 16d	(8) 16d	3605	6365	2675	4345
HUS210	16	1 1/8	9 1/8	3	7 1/8	(30) 16d	(10) 16d	4605	5795	4010	4740
HUS1,81/10	16	1 1/8	9	3	8	(30) 16d	(10) 16d	4505	6450	4010	5200

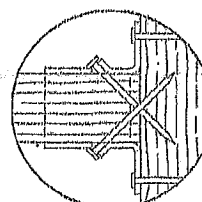
1. d₁ is the distance from the seat of the hanger to the highest joist nail.



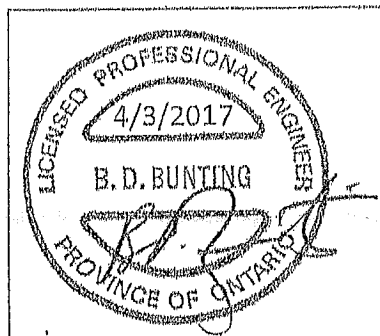
Double Shear Nailing prevents tabs breaking off (available on some models).
U.S. Patent 5,603,680



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



Double Shear Nailing Top View.



DMB
STATES
DESIGN

This technical bulletin is effective as of June 30, 2017 and replaces any previous versions of this bulletin. The information is updated periodically and may be revised without notice. June 30, 2018
Contact Simpson Strong-Tie for more information and literature. Visit us at [strongtie.com](http://www.strongtie.com)

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T-SPEC-HUS17-01/17 exp. 6/19

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strongtie.com

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:

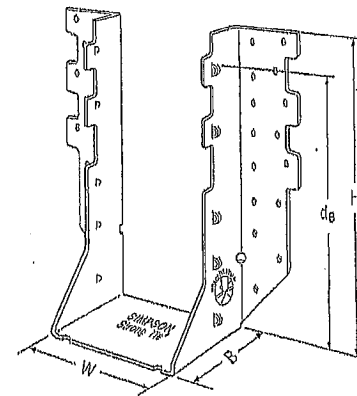
- Factored resistances are in accordance with CSA C86-14.
- Uplift resistances have been increased 15%. No further increase is permitted.
- Wood shear is not considered in the factored resistances given. The specifier must ensure that the joist and header capacities are capable of withstanding these loads.

Installation:

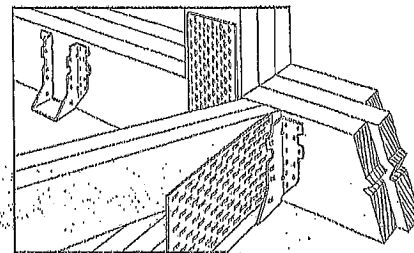
- Use all specified fasteners
- Nails: 16d = 0.162" dia. x 3 1/2" long common wire
- Double shear nails must be driven at an angle through the joist or truss into the header to achieve the table loads
- Not designed for welded or nailer applications

Options:

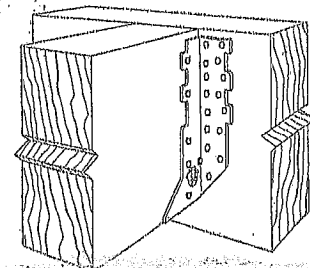
- See current catalogue for options



HHUS410



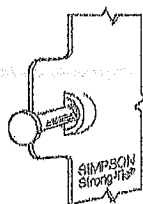
Typical HHUS Installation
(Truss Designer to provide
fastener quantity for connecting
multiple members together)



Typical HHUS
Installation

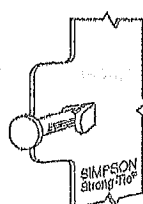
Model No.	Ga.	Dimensions (in.)				Fasteners		Factored Resistance (lb.)			
		W	H	B	d ₁	Face	Joist	D, Flt-L		S-P-F	
								Uplift	Normal	Uplift	Normal
								(K _p =1.15)	(K _p =1.00)	(K _p =1.15)	(K _p =1.00)
HHUS26-2	14	3 1/8	5 1/8	3	3 1/8	(14) 16d	(6) 16d	2850	7335	2065	5205
HHUS28-2	14	3 3/8	7 1/8	3	6 1/8	(22) 16d	(8) 16d	3765	8940	2675	6345
HHUS210-2	14	3 1/8	9 1/8	3	8	(30) 16d	(10) 16d	4745	9660	4310	7000
HHUS210-3	14	4 1/8	9	3	7 1/8	(30) 16d	(10) 16d	4745	10545	4310	7485
HHUS210-4	14	5 1/8	8 3/8	3	7 1/8	(30) 16d	(10) 16d	4745	10545	4310	7485
HHUS46	14	3 3/8	5 1/8	3	3 1/8	(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 1/8	9	3	8	(30) 16d	(10) 16d	4745	10545	4310	7485
HHUS7.25/10	14	7 1/8	9	3 1/8	7 3/8	(30) 16d	(10) 16d	4745	10770	4310	7650

1. d₁ is the distance from the seat of the hanger to the highest joist nail.

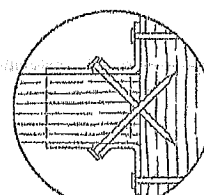


Double Shear Nailing prevents tabs breaking off (available on some models).

U.S. Patent
5,603,580



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



Double Shear Nailing Top View.

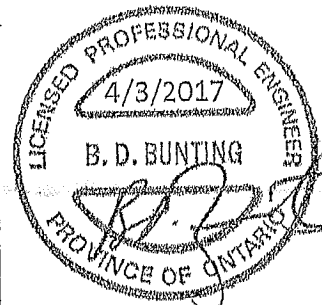


AMERICAN
STATES
DESIGN

This technical bulletin is effective until June 30, 2019, and contains information available as of March 14, 2017. This information is intended for informational purposes only and should not be relied upon for design. Contact Simpson Strong-Tie for current information and industry safety notices.

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1. SPEC HHUS17-3/17 exp. 6/19



(800) 999-5099
strongtie.com