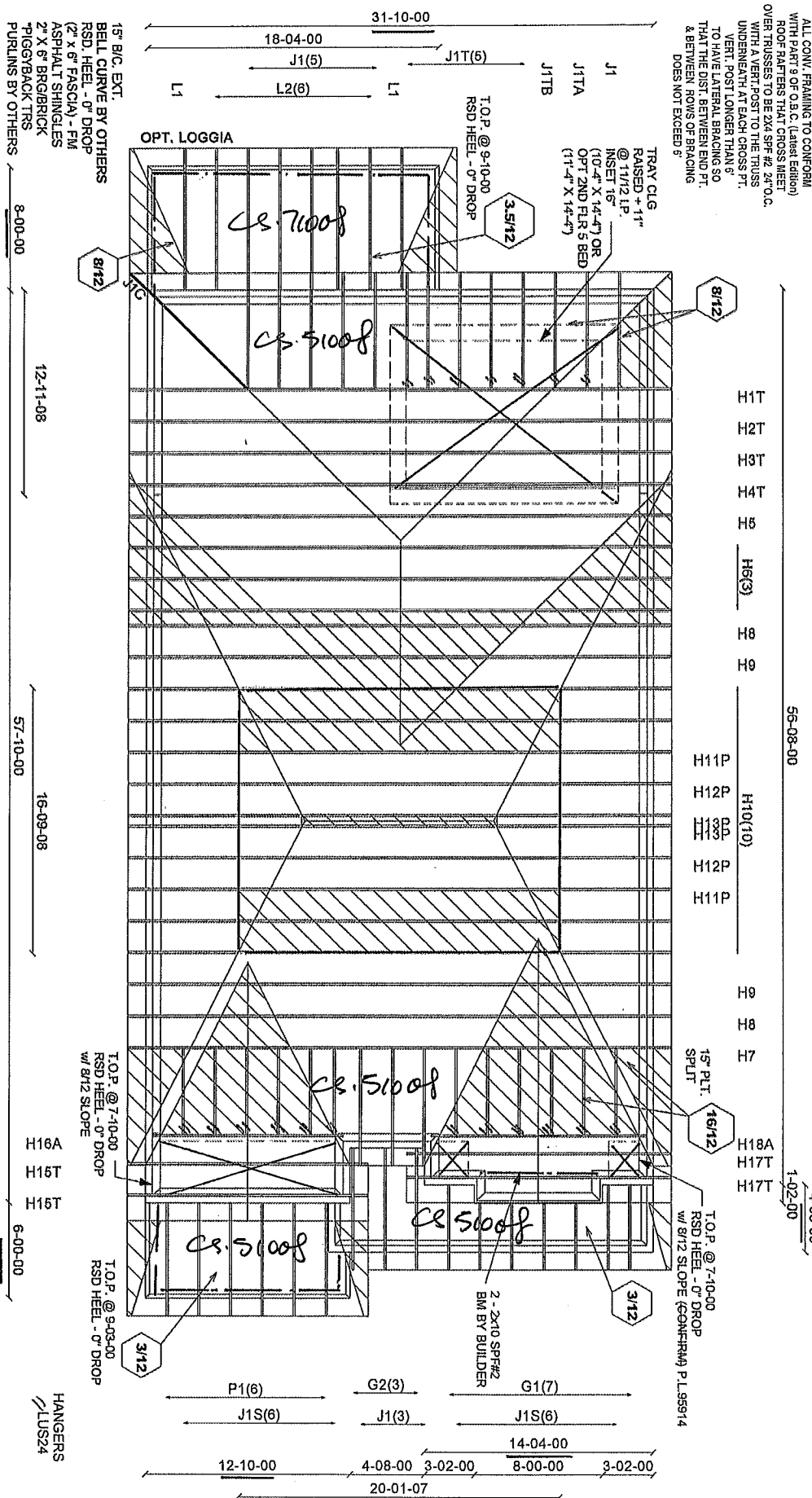


ALPHA-BARRIE

ALL CONV. FRAMING TO CONFORM WITH PART 2 OF O.B.C. (Latest Edition) ROOF TRUSSES THAT CROSS MEET WITH A VERT. POST TO THE TRUSS UNDERNEATH AT EACH CROSS PT. VERT. POST LONGER THAN 6" TO HAVE LATERAL BRACING SO THAT THE DIST. BETWEEN END PT. & BETWEEN ROWS OF BRACING DOES NOT EXCEED 5'



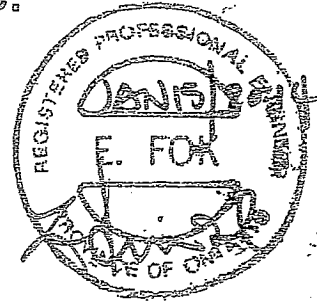
- A-18023087-A-18023093
- A-18023103-A-18023105
- A-18023106-A-18023107
- A-18023133-A-18023140



Job Track	45147	Builder / Location	GOLD PARK HOMES / VAUGHAN	Model / Elevation	4004 / A OPT TRAY LOGGIA
Layout ID	292581	Project	PINE VALLEY	These drawings constitute the property of Alpha Roof Trusses Inc. shall not be reproduced, published, or redistributed in any manner or utilized for any purpose other than the manufacture of trusses by Alpha Roof Trusses Inc and will be retracted by Alpha Roof Trusses Inc if utilized for any other purpose.	
Plan Log	95914	Date	1/16/2018	Designer	AMANDA

Stracon Engineering Inc.

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



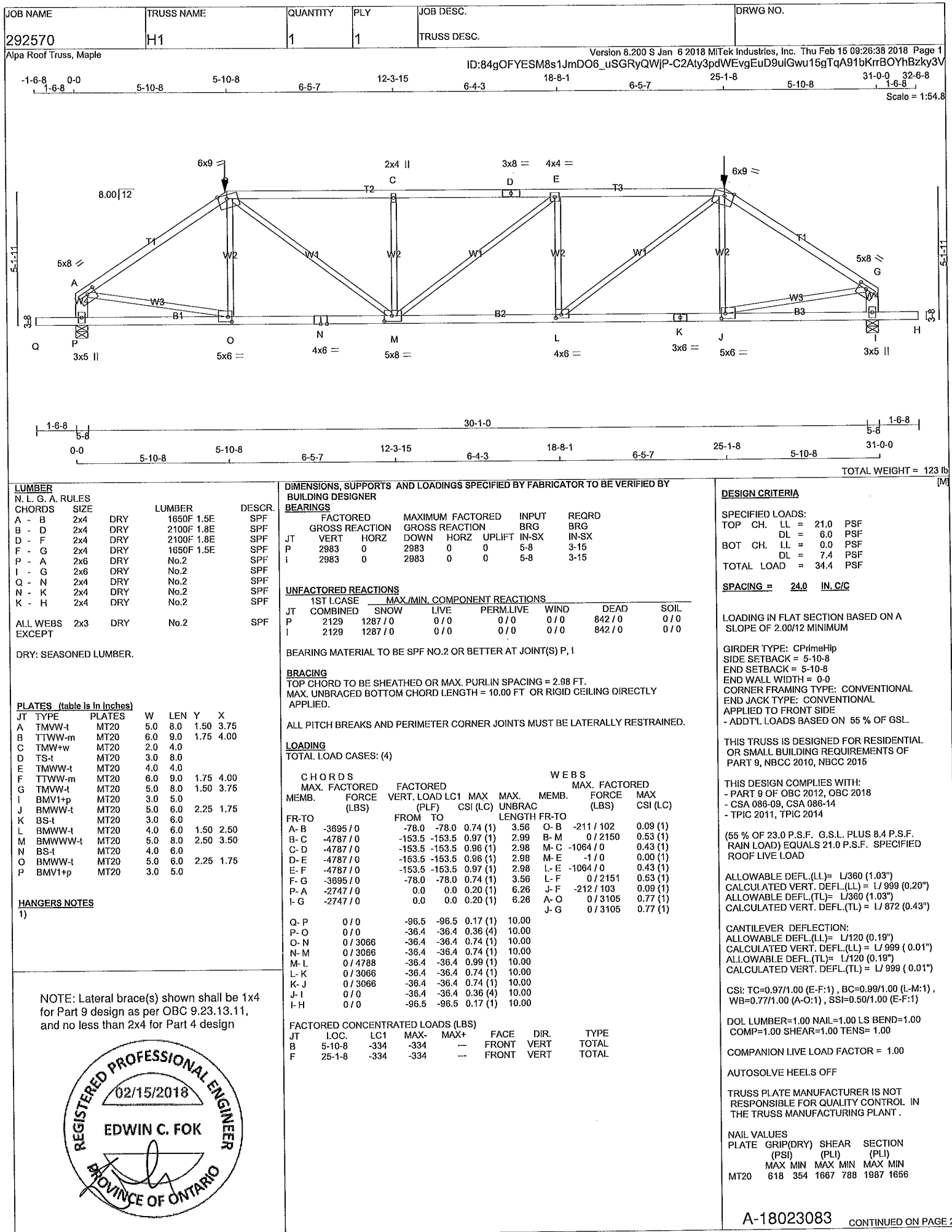
RESPONSIBILITIES

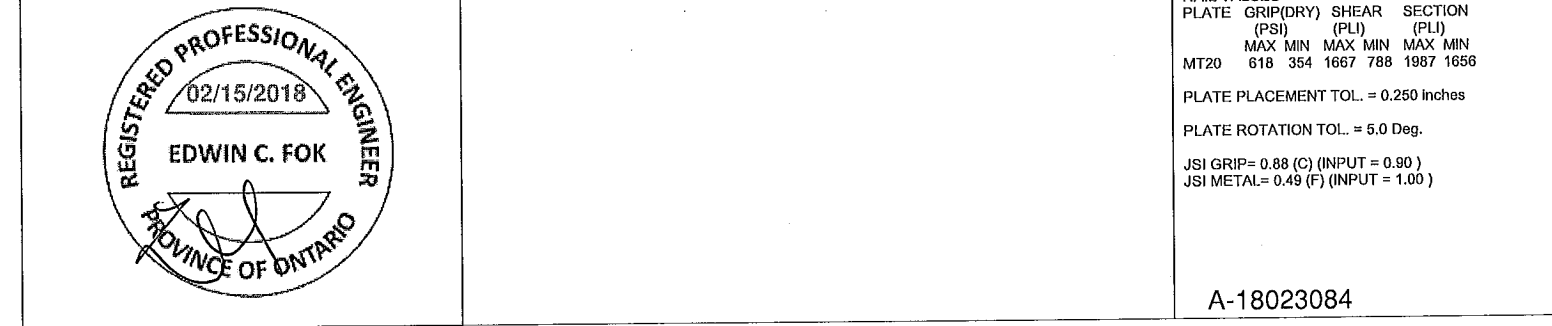
1. Stracon Engineering Inc. is responsible for the design of trusses as individual components.
2. It is the responsibility of others to ascertain that the design loads utilized on this drawing meet or exceed the actual dead load imposed by the structure and the live load imposed by the local building 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.

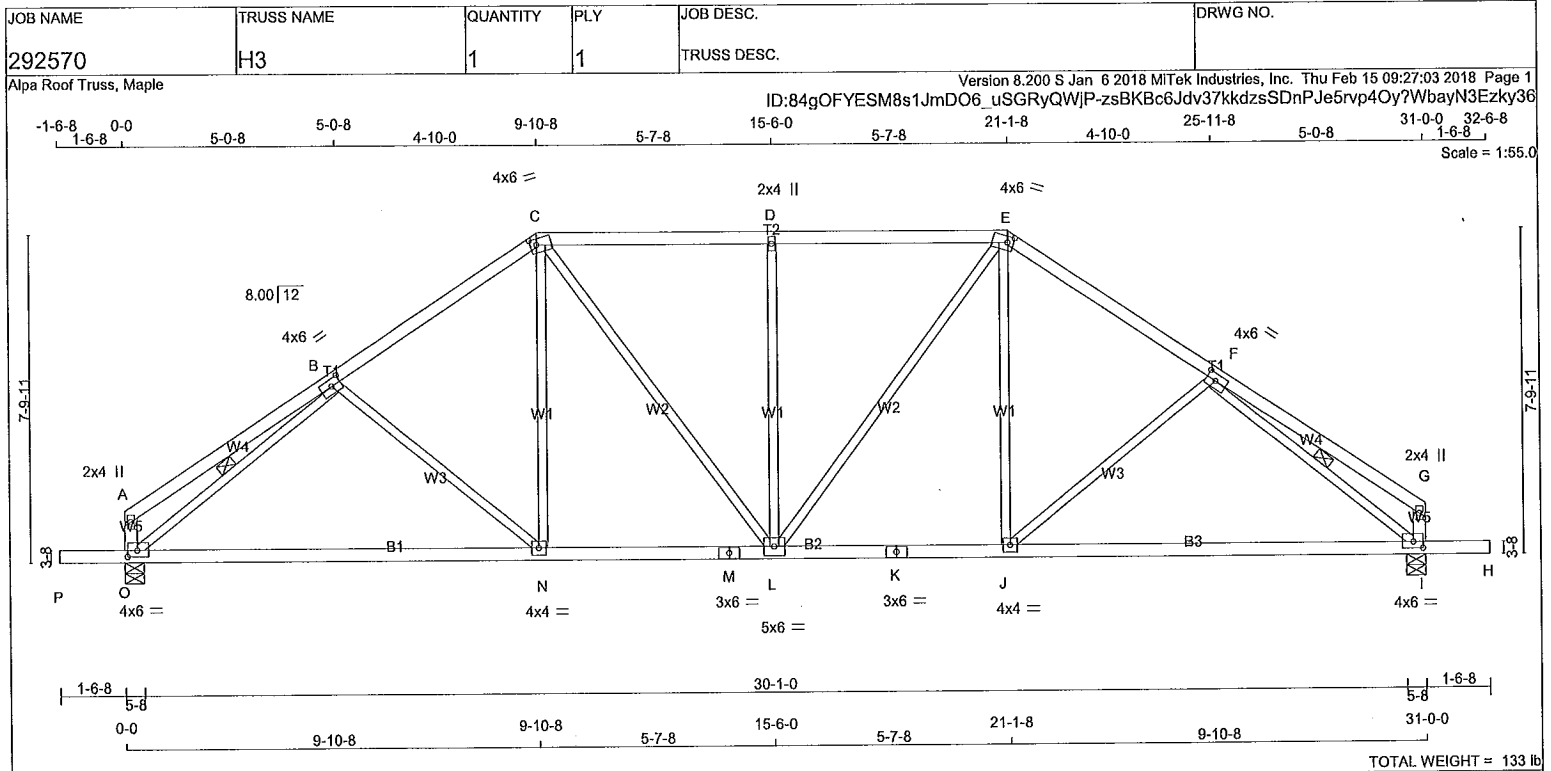
SPECIFICATIONS

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.
A - C	2x4	DRY No.2	SPF
C - E	2x4	DRY No.2	SPF
E - G	2x4	DRY No.2	SPF
O - A	2x4	DRY No.2	SPF
I - G	2x4	DRY No.2	SPF
P - M	2x4	DRY No.2	SPF
M - K	2x4	DRY No.2	SPF
K - H	2x4	DRY No.2	SPF

ALL WEBS 2x3 DRY No.2 SPF

EXCEPT

DRY: SEASONED LUMBER.

PLATES (table is in inches)

JT	TYPE	PLATES	W	LEN	Y	X
A	TMV+p	MT20	2.0	4.0		
B	TMWW-t	MT20	4.0	6.0	2.00	2.75
C	TTWW-m	MT20	4.0	6.0	1.75	1.75
D	TMW+w	MT20	2.0	4.0		
E	TTWW-m	MT20	4.0	6.0	1.75	1.75
F	TMWW-t	MT20	4.0	6.0	2.00	2.75
G	TMV+p	MT20	2.0	4.0		
I	BMVW-t	MT20	4.0	6.0	1.75	2.75
J	BMWW-t	MT20	4.0	4.0		
K	BS-t	MT20	3.0	6.0		
L	BMVWW-t	MT20	5.0	6.0		
M	BS-t	MT20	3.0	6.0		
N	BMWW-t	MT20	4.0	4.0		
O	BMVW-t	MT20	4.0	6.0	1.75	2.75

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

BEARINGS

JT	FACTORED GROSS REACTION		MAXIMUM FACTORED GROSS REACTION		INPUT BRG IN-SX	REQD BRG IN-SX
	VERT	HORZ	DOWN	HORZ		
O	1644	0	1644	0	5-8	1-12
I	1644	0	1644	0	5-8	1-12

UNFACTORED REACTIONS

JT	1ST LCASE		MAX/MIN. COMPONENT REACTIONS		WIND	DEAD	SOIL
	COMBINED	SNOW	LIVE	PERM.LIVE			
O	1172	715/0	0/0	0/0	0/0	457/0	0/0
I	1172	715/0	0/0	0/0	0/0	457/0	0/0

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

BRACING

TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 4.88 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-O, F-I.

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. UNBRACED LENGTH (LC)	MEMB.	MAX. FACTORED FORCE (LBS)	MAX. UNBRACED LENGTH (LC)	
FR-TO				FR-TO			
A-B	0/24	-78.0	-78.0 0.30 (1)	B-N	-176/0	0.14 (1)	
B-C	-1662/0	-78.0	-78.0 0.27 (1)	N-C	0/307	0.08 (4)	
C-D	-1579/0	-78.0	-78.0 0.35 (1)	C-L	0/356	0.08 (1)	
D-E	-1579/0	-78.0	-78.0 0.35 (1)	L-D	-536/0	0.61 (1)	
E-F	-1662/0	-78.0	-78.0 0.27 (1)	L-E	0/356	0.08 (1)	
F-G	0/24	-78.0	-78.0 0.30 (1)	J-E	0/307	0.08 (4)	
O-A	-148/0	0.0	0.0 0.02 (1)	J-F	-176/0	0.14 (1)	
I-G	-148/0	0.0	0.0 0.02 (1)	O-B	-1964/0	0.56 (1)	
				F-I	-1964/0	0.56 (1)	
P-O	0/0	-96.5	-96.5 0.16 (1)				
O-N	0/1496	-18.5	-18.5 0.54 (4)				
N-M	0/1365	-18.5	-18.5 0.54 (4)				
M-L	0/1365	-18.5	-18.5 0.54 (4)				
L-K	0/1365	-18.5	-18.5 0.54 (4)				
K-J	0/1365	-18.5	-18.5 0.54 (4)				
J-I	0/1496	-18.5	-18.5 0.54 (4)				
I-H	0/0	-96.5	-96.5 0.16 (1)				

DESIGN CRITERIA

SPECIFIED LOADS:

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

SPACING = 24.0 IN. C/C

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

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

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

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

ALLOWABLE DEFL.(LL) = L/360 (1.03")
CALCULATED VERT. DEFL.(LL) = L/999 (0.07")
ALLOWABLE DEFL.(TL) = L/360 (1.03")
CALCULATED VERT. DEFL.(TL) = L/999 (0.31")

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=0.35/1.00 (C-D:1), BC=0.54/1.00 (J-L:4), WB=0.61/1.00 (D-L: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

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	1687	788	1987	1656

PLATE PLACEMENT TOL. = 0.250 inches

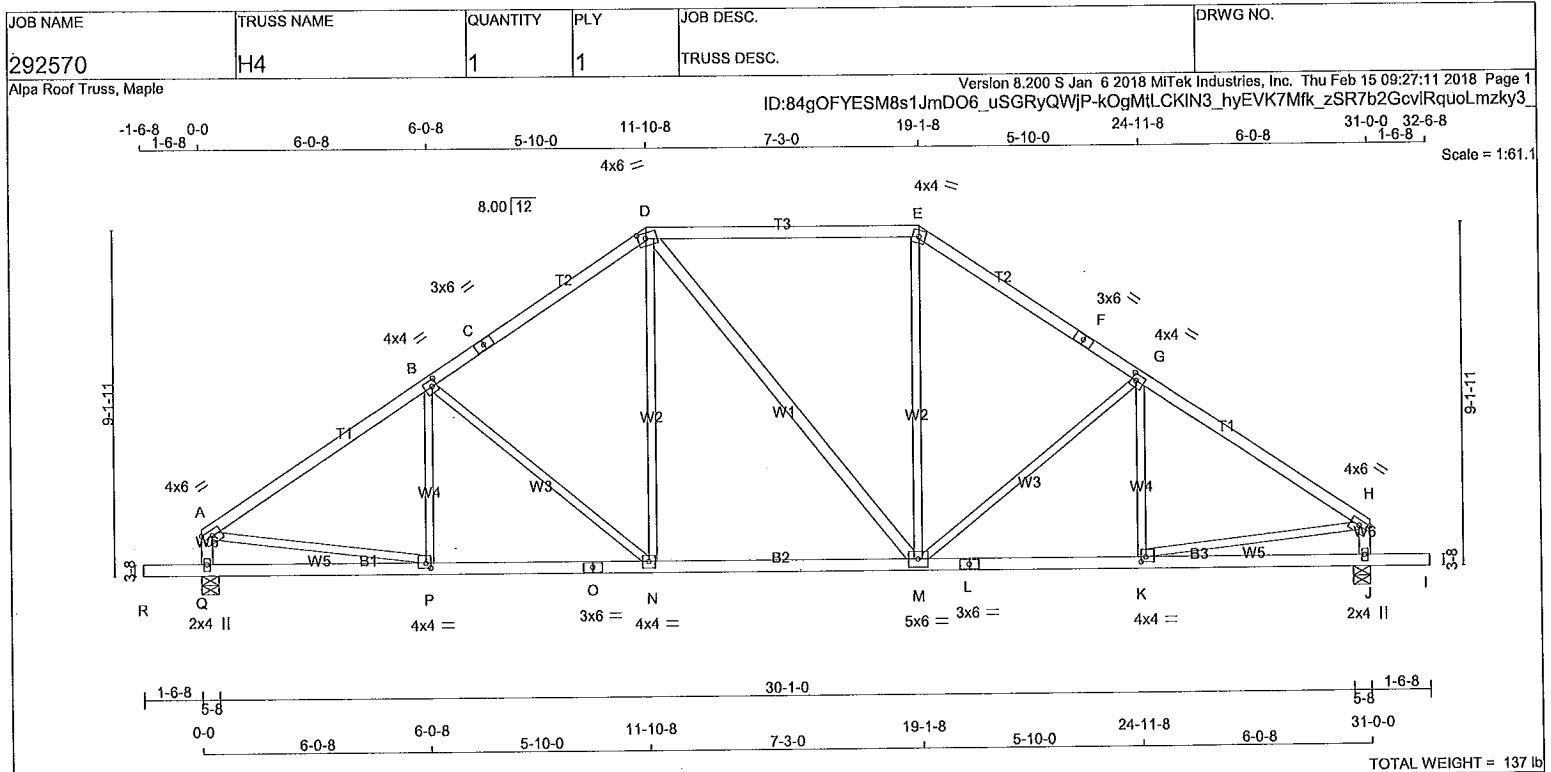
PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.89 (B) (INPUT = 0.90)
JSI METAL= 0.47 (F) (INPUT = 1.00)

A-18023085



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



LUMBER				N. L. G. A. RULES	
CHORDS	SIZE	LUMBER	DESCR.	CHORDS	SIZE
A - C	2x4	DRY	No.2	SPF	
C - D	2x4	DRY	No.2	SPF	
D - E	2x4	DRY	2100F 1.8E	SPF	
E - F	2x4	DRY	No.2	SPF	
F - H	2x4	DRY	No.2	SPF	
Q - A	2x4	DRY	No.2	SPF	
J - H	2x4	DRY	No.2	SPF	
R - O	2x4	DRY	No.2	SPF	
O - L	2x4	DRY	No.2	SPF	
L - I	2x4	DRY	No.2	SPF	
ALL WEBS	2x3	DRY	No.2	SPF	
EXCEPT					
D - M	2x4	DRY	No.2	SPF	

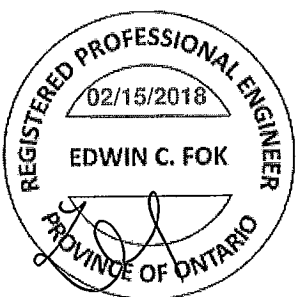
DRY: SEASONED LUMBER.

PLATES (table is in inches)

JT	TYPE	PLATES	W	LEN	Y	X
A	TMVW-t	MT20	4.0	6.0	1.75	Edge
B	TMVW-t	MT20	4.0	4.0	2.00	1.50
C	TS-t	MT20	3.0	6.0		
D	TTWW-m	MT20	4.0	6.0	1.75	2.50
E	TTW-m	MT20	4.0	4.0		
F	TS-t	MT20	3.0	6.0		
G	TMVW-t	MT20	4.0	4.0	2.00	1.50
H	TMVW-t	MT20	4.0	6.0	1.75	Edge
J	BMV1+p	MT20	2.0	4.0		
K	BMVW-t	MT20	4.0	4.0	1.50	1.50
L	BS-t	MT20	3.0	6.0		
M	BMVW-t	MT20	5.0	6.0		
N	BMVW-t	MT20	4.0	4.0		
O	BS-t	MT20	3.0	6.0		
P	BMVW-t	MT20	4.0	4.0	1.50	1.50
Q	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		REQRD	
JT	VERT	GROSS REACTION	HORZ	DOWN	HORZ	BRG	IN-SX	BRG	IN-SX
Q	1644	0	1644	0	0	5-8	2-7	5-8	2-7
J	1644	0	1644	0	0	5-8	2-7	5-8	2-7

UNFACTORED REACTIONS

1ST LCASE		MAX/MIN. COMPONENT REACTIONS		WIND		DEAD		SOIL	
JT	COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL	COMBINED	SOIL
Q	1172	715/0	0/0	0/0	0/0	457/0	0/0	1172	0/0
J	1172	715/0	0/0	0/0	0/0	457/0	0/0	1172	0/0

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

BRACING

TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 4.52 FT.
MAX. UNBRACED BOTTOM CHORD LENGTH = 10.00 FT. OR RIGID CEILING DIRECTLY APPLIED.

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

LOADING

TOTAL LOAD CASES: (4)

CHORDS		FACTORED		W E B S		MAX. FACTORED	
MEMB.	FORCE (LBS)	VERT. LOAD (PLF)	LC1 MAX (LC)	MEMB.	FORCE (LBS)	VERT. LOAD (PLF)	LC1 MAX (LC)
FR-TO		FROM	TO	FR-TO		FROM	TO
A-B	-1836/0	-78.0	-78.0 0.44 (1)	P-B	-115/45	0.05 (1)	
B-C	-1528/0	-78.0	-78.0 0.40 (1)	B-N	-402/0	0.49 (1)	
C-D	-1528/0	-78.0	-78.0 0.40 (1)	N-D	0/379	0.09 (1)	
D-E	-1249/0	-78.0	-78.0 0.36 (1)	D-M	0/0	0.00 (1)	
E-F	-1528/0	-78.0	-78.0 0.40 (1)	M-E	0/379	0.09 (1)	
F-G	-1528/0	-78.0	-78.0 0.40 (1)	M-G	-401/0	0.49 (1)	
G-H	-1835/0	-78.0	-78.0 0.44 (1)	K-G	-116/44	0.05 (1)	
Q-A	-1448/0	0.0	0.0 0.15 (1)	A-P	0/1570	0.35 (1)	
J-H	-1448/0	0.0	0.0 0.15 (1)	K-H	0/1570	0.35 (1)	
R-Q	0/0	-96.5	-96.5 0.16 (1)				
Q-P	0/0	-18.5	-18.5 0.14 (4)				
P-O	0/1553	-18.5	-18.5 0.34 (1)				
O-N	0/1553	-18.5	-18.5 0.34 (1)				
N-M	0/1248	-18.5	-18.5 0.29 (1)				
M-L	0/1553	-18.5	-18.5 0.34 (1)				
L-K	0/1553	-18.5	-18.5 0.34 (1)				
K-J	0/0	-18.5	-18.5 0.14 (4)				
J-I	0/0	-96.5	-96.5 0.16 (1)				

DESIGN CRITERIA

SPECIFIED LOADS:

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

SPACING = 24.0 IN. C/C

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

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

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

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

ALLOWABLE DEFL.(LL)= L/360 (1.03")
CALCULATED VERT. DEFL.(LL)= L/999 (0.06")
ALLOWABLE DEFL.(TL)= L/360 (1.03")
CALCULATED VERT. DEFL.(TL)= L/999 (0.15")

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=0.44/1.00 (A-B:1), BC=0.34/1.00 (K-M:1), WB=0.49/1.00 (B-N:1), SSI=0.22/1.00 (D-E:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

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

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

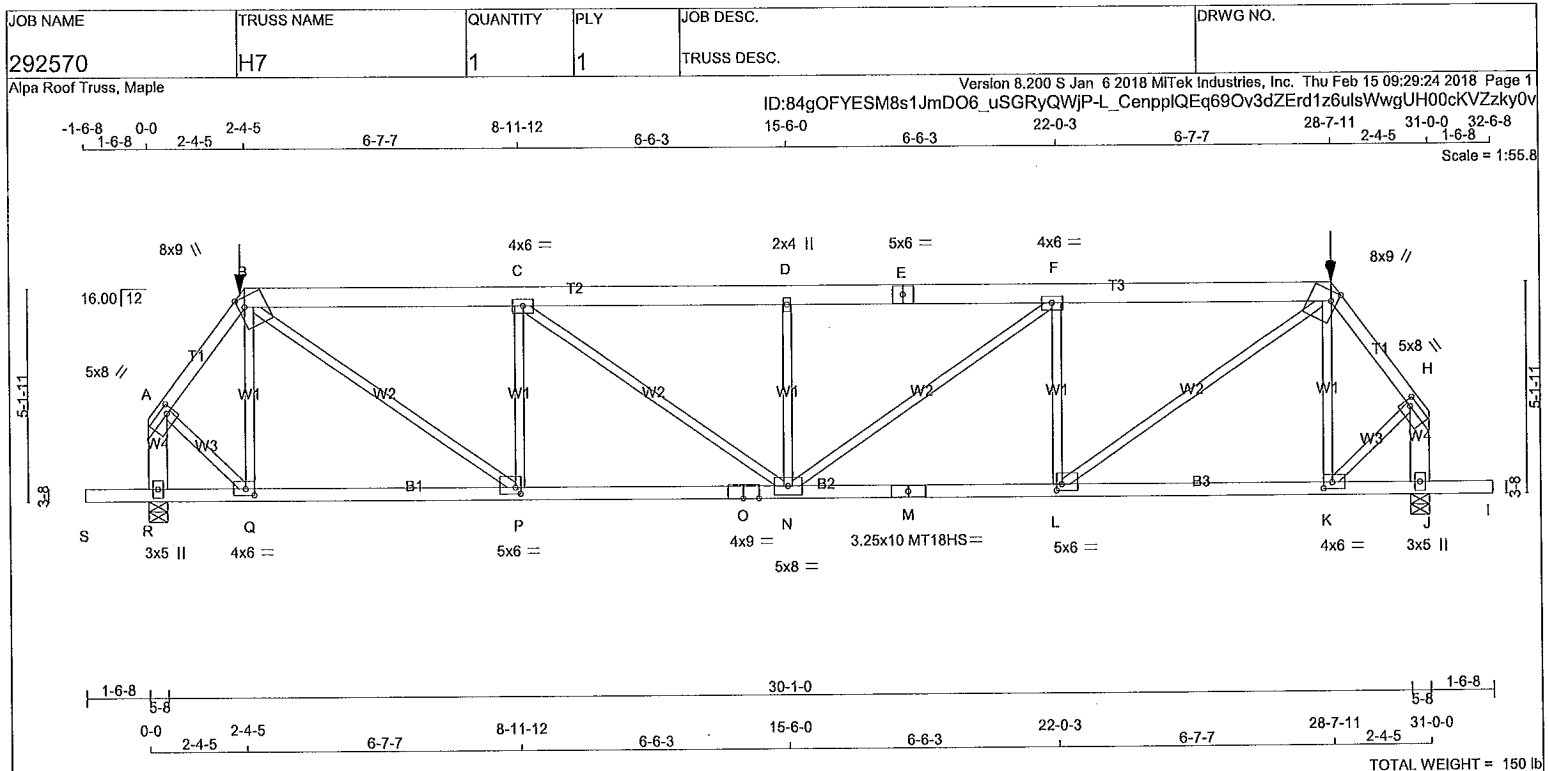
PLATE PLACEMENT TOL. = 0.250 Inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.89 (P) (INPUT = 0.90)
JSI METAL= 0.58 (P) (INPUT = 1.00)

A-18023086

CONTINUED ON PAGE 2



LUMBER	SIZE	DESCR.
N. L. G. A. RULES		
CHORDS		
A - B	2x4 DRY No.2	SPF
B - E	2x6 DRY No.2	SPF
E - G	2x4 DRY No.2	SPF
G - H	2x4 DRY No.2	SPF
R - A	2x6 DRY No.2	SPF
J - H	2x6 DRY No.2	SPF
S - O	2x4 DRY No.2	SPF
O - M	2x4 DRY No.2	SPF
M - I	2x4 DRY No.2	SPF
ALL WEBS EXCEPT	2x3 DRY No.2	SPF

DRY: SEASONED LUMBER.

PLATES (table is in inches)

JT	TYPE	PLATES	W	LEN	Y	X
A	TMVW-t	MT20	5.0	8.0	2.00	2.00
B	TTWW+m	MT20	8.0	9.0	2.75	1.75
C	CTWW-t	MT20	4.0	6.0		
D	TMW+w	MT20	2.0	4.0		
E	TS-t	MT20	5.0	6.0		
F	TMVW-t	MT20	4.0	6.0		
G	TTWW+m	MT20	8.0	9.0	2.75	1.75
H	TMVW-t	MT20	5.0	8.0	2.00	2.00
J	BMV1+p	MT20	3.0	5.0		
K	BMVW-t	MT20	4.0	6.0	1.75	2.50
L	BMVW-t	MT20	5.0	6.0	1.75	1.50
M	BS-t	MT18HS	3.25	10.0		
N	BMVWW-t	MT20	5.0	8.0		
O	BS-t	MT20	4.0	9.0		
P	BMVW-t	MT20	5.0	6.0	1.75	1.50
Q	BMVW-t	MT20	4.0	6.0	1.75	2.50
R	BMV1+p	MT20	3.0	5.0		

HANGERS NOTES

1)

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

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

BEARINGS

	FACTORED GROSS REACTION	MAXIMUM FACTORED GROSS REACTION	INPUT BRG	REQRD BRG
JT	VERT	HORZ	DOWN	UP
R	3048	0	3048	0
J	3048	0	3048	0

UNFACTORED REACTIONS

JT	1ST LCASE	MAX/MIN. COMPONENT REACTIONS	DEAD	SOIL
JT	COMBINED	SNOW	LIVE	PERM.LIVE
R	2174	1322/0	0/0	0/0
J	2174	1322/0	0/0	0/0

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

BRACING

TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 3.22 FT.
MAX. UNBRACED BOTTOM CHORD LENGTH = 10.00 FT. OR RIGID CEILING DIRECTLY APPLIED.

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

LOADING

TOTAL LOAD CASES: (4)

CHORDS	MAX. FACTORED MEMB. FORCE (LBS)	FACTORED VERT. LOAD (PLF)	LC1 MAX. (CSI (LC))	MAX. UNBRACED LENGTH (FR-TO)	WEBS	MAX. FACTORED MEMB. FORCE (LBS)	MAX. (CSI (LC))
A-B	-2359/0	-78.0	-78.0 0.17 (1)	4.31	Q-B	-710/0	0.27 (1)
B-C	-4117/0	-153.5	-153.5 0.63 (1)	3.57	B-P	0/3348	0.83 (1)
C-D	-4916/0	-153.5	-153.5 0.69 (1)	3.22	P-C	-1717/0	0.65 (1)
D-E	-4916/0	-153.5	-153.5 0.69 (1)	3.22	C-N	0/990	0.25 (1)
E-F	-4916/0	-153.5	-153.5 0.69 (1)	3.22	N-D	-933/0	0.35 (1)
F-G	-4117/0	-153.5	-153.5 0.63 (1)	3.57	N-F	0/990	0.25 (1)
G-H	-2359/0	-78.0	-78.0 0.17 (1)	4.31	L-F	-1717/0	0.65 (1)
R-A	-2902/0	0.0	0.0 0.24 (1)	6.12	L-G	0/3348	0.83 (1)
J-H	-2902/0	0.0	0.0 0.24 (1)	6.12	K-G	-710/0	0.27 (1)
S-R	0/0	-96.5	-96.5 0.17 (1)	10.00	A-Q	0/1687	0.42 (1)
R-Q	0/0	-36.4	-36.4 0.27 (4)	10.00	K-H	0/1687	0.42 (1)
Q-P	0/1398	-36.4	-36.4 0.48 (4)	10.00			
P-O	0/4117	-36.4	-36.4 0.90 (1)	10.00			
O-N	0/4117	-36.4	-36.4 0.90 (1)	10.00			
N-M	0/4117	-36.4	-36.4 0.90 (1)	10.00			
M-L	0/4117	-36.4	-36.4 0.90 (1)	10.00			
L-K	0/1398	-36.4	-36.4 0.48 (4)	10.00			
K-J	0/0	-36.4	-36.4 0.27 (4)	10.00			
J-I	0/0	-96.5	-96.5 0.17 (1)	10.00			

FACTORED CONCENTRATED LOADS (LBS)

JT	LOC.	LC1	MAX.	FACE	DIR.	TYPE
B	2-4-5	-134	-134	---	FRONT	VERT
G	28-7-11	-134	-134	---	FRONT	VERT

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
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
- 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 (1.03")
CALCULATED VERT. DEFL.(LL)= L/999 (0.19")
ALLOWABLE DEFL.(TL)= L/360 (1.03")
CALCULATED VERT. DEFL.(TL)= L/941 (0.40")

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=0.69/1.00 (C-D:1), BC=0.90/1.00 (L-N:1), WB=0.83/1.00 (G-L:1), SSI=0.40/1.00 (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

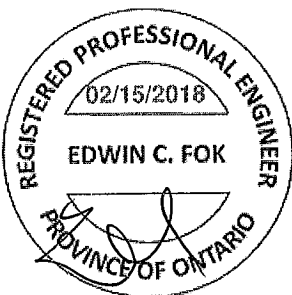
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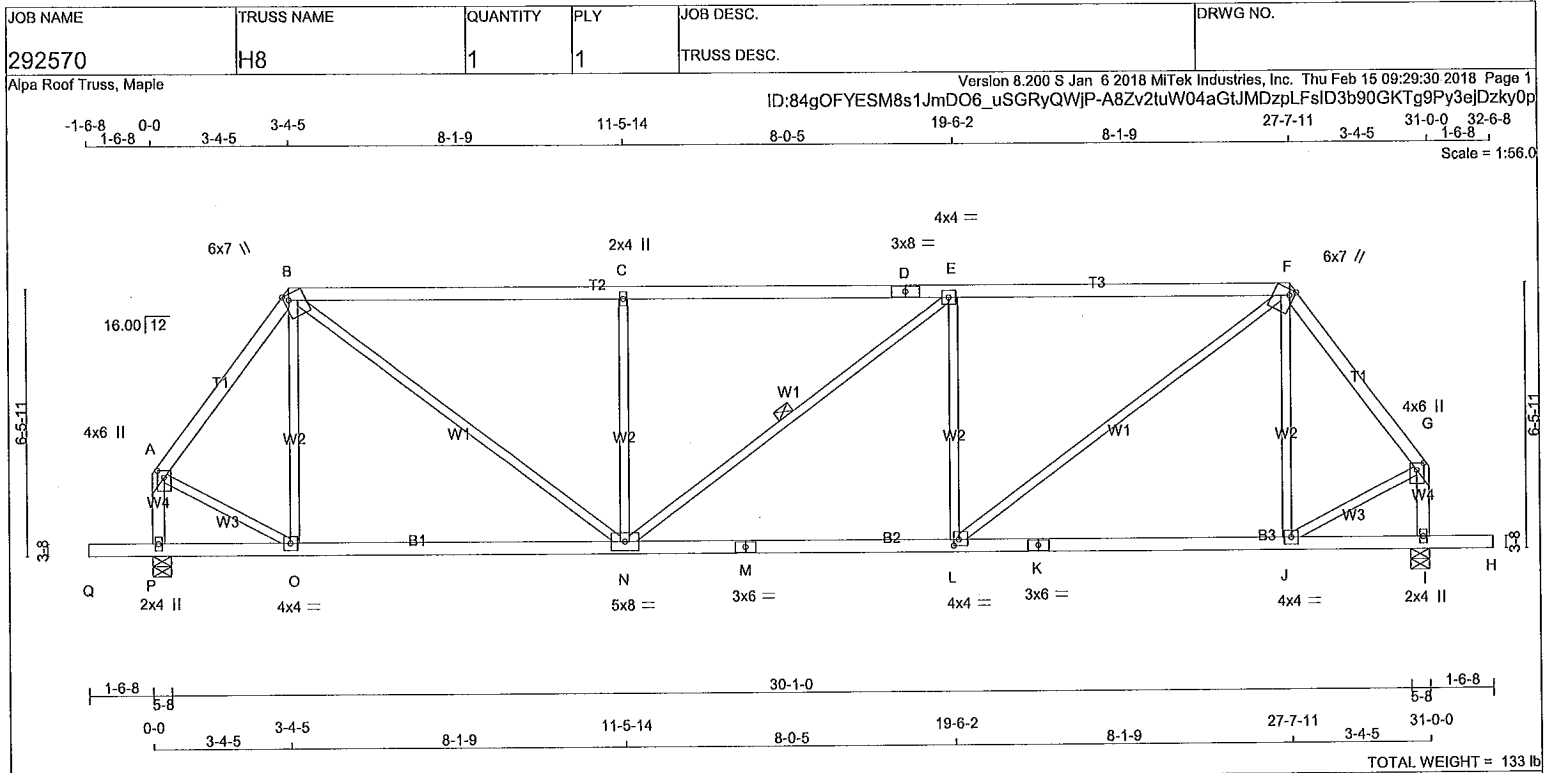
TRUSS PLATE MANUFACTURER IS NOT RESPONSIBLE FOR QUALITY CONTROL IN THE TRUSS MANUFACTURING PLANT.

NAIL VALUES
PLATE GRIP(DRY) SHEAR SECTION
(PSI) (PLI) (PLI)
MAX MIN MAX MIN MAX MIN
MT20 618 354 1667 788 1987 1656
MT18HS 511 354 2455 1382 3004 2010

A-18023087

CONTINUED ON PAGE 2





LUMBER
N. L. G. A. RULES

CHORDS	SIZE	LUMBER	DESCR.
A - B	2x4	DRY	No.2
B - D	2x4	DRY	No.2
D - F	2x4	DRY	No.2
F - G	2x4	DRY	No.2
P - A	2x4	DRY	No.2
I - G	2x4	DRY	No.2
Q - M	2x4	DRY	No.2
M - K	2x4	DRY	No.2
K - H	2x4	DRY	No.2
ALL WEBS EXCEPT	2x3	DRY	No.2

SPF

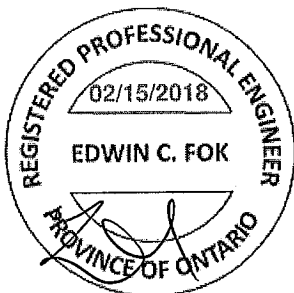
DRY: SEASONED LUMBER.

PLATES (table is in inches)

JT	TYPE	PLATES	W	LEN	Y	X
A	TMVW+p	MT20	4.0	6.0	2.00	2.00
B	TTWW+m	MT20	6.0	7.0	Edge	1.50
C	TMW+w	MT20	2.0	4.0		
D	TS-t	MT20	3.0	8.0		
E	TMWW-t	MT20	4.0	4.0		
F	TTWW+m	MT20	6.0	7.0	Edge	1.50
G	TMVW+p	MT20	4.0	6.0	2.00	2.00
I	BMV1+p	MT20	2.0	4.0		
J	BMWW-t	MT20	4.0	4.0		
K	BS-t	MT20	3.0	6.0		
L	BMWW-t	MT20	4.0	4.0	1.75	1.50
M	BS-t	MT20	3.0	6.0		
N	BMWW-t	MT20	5.0	8.0		
O	BMWW-t	MT20	4.0	4.0		
P	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

JT	FACTORED GROSS REACTION		MAXIMUM FACTORED GROSS REACTION		INPUT BRG IN-SX	REQRD BRG IN-SX
	VERT	HORZ	DOWN	HORZ		
P	1644	0	1644	0	5-8	2-7
I	1644	0	1644	0	5-8	2-7

UNFACTORED REACTIONS

JT	1ST LCASE COMBINED		MAX/MIN. COMPONENT REACTIONS		WIND	DEAD	SOIL
	SNOW	LIVE	PERM.LIVE	WIND			
P	1172	715 / 0	0 / 0	0 / 0	0 / 0	457 / 0	0 / 0
I	1172	715 / 0	0 / 0	0 / 0	0 / 0	457 / 0	0 / 0

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

BRACING

TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 3.67 FT.
MAX. UNBRACED BOTTOM CHORD LENGTH = 10.00 FT OR RIGID CEILING DIRECTLY APPLIED.

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

1 LATERAL BRACE(S) AT 1/2 LENGTH OF E-N.

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

LOADING

TOTAL LOAD CASES: (4)

CHORDS				WEBS			
MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	MAX. UNBRACED LENGTH (LC1)	MAX. UNBRACED LENGTH (LC1)	MEMB.	MAX. FACTORED FORCE (LBS)	MAX. UNBRACED LENGTH (LC1)
FR-TO					FR-TO		
A-B	-1256 / 0	-78.0	-78.0 0.19 (1)	5.54	O-B	-219 / 2	0.15 (1)
B-C	-1844 / 0	-78.0	-78.0 0.99 (1)	3.69	B-N	0 / 1378	0.31 (1)
C-D	-1844 / 0	-78.0	-78.0 0.99 (1)	3.67	N-C	-680 / 0	0.46 (1)
D-E	-1844 / 0	-78.0	-78.0 0.99 (1)	3.67	N-E	-1 / 0	0.00 (1)
E-F	-1845 / 0	-78.0	-78.0 1.00 (1)	3.67	L-E	-680 / 0	0.46 (1)
F-G	-1256 / 0	-78.0	-78.0 0.19 (1)	5.54	L-F	0 / 1379	0.31 (1)
P-A	-1487 / 0	0.0	0.0 0.17 (1)	6.72	J-F	-219 / 2	0.15 (1)
I-G	-1486 / 0	0.0	0.0 0.17 (1)	6.72	A-O	0 / 825	0.19 (1)
					J-G	0 / 825	0.19 (1)

Q-P	0 / 0	-96.5	-96.5 0.16 (1)	10.00
P-O	0 / 0	-18.5	-18.5 0.18 (4)	10.00
O-N	0 / 745	-18.5	-18.5 0.31 (4)	10.00
N-M	0 / 1845	-18.5	-18.5 0.43 (1)	10.00
M-L	0 / 1845	-18.5	-18.5 0.43 (1)	10.00
L-K	0 / 744	-18.5	-18.5 0.31 (4)	10.00
K-J	0 / 744	-18.5	-18.5 0.31 (4)	10.00
J-I	0 / 0	-18.5	-18.5 0.18 (4)	10.00
I-H	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) = 1/360 (1.03")
CALCULATED VERT. DEFL.(LL) = 1/999 (0.08")
ALLOWABLE DEFL.(TL) = 1/360 (1.03")
CALCULATED VERT. DEFL.(TL) = 1/999 (0.19")

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=1.00/1.00 (E-F:1), BC=0.43/1.00 (L-N:1), WB=0.46/1.00 (E-L:1), SSI=0.30/1.00 (E-F:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

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

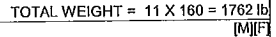
NAIL VALUES
PLATE GRIP(DRY) SHEAR SECTION (PSI) (PLI) (PLI)
MAX MIN MAX MIN MAX MIN
MT20 618 354 1667 788 1987 1656

PLATE PLACEMENT TOL. = 0.250 inches

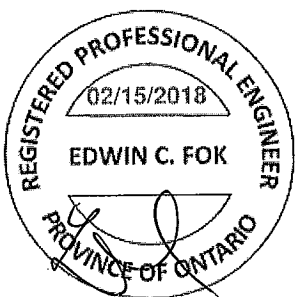
PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.90 (L) (INPUT = 0.90)
JSI METAL= 0.64 (M) (INPUT = 1.00)

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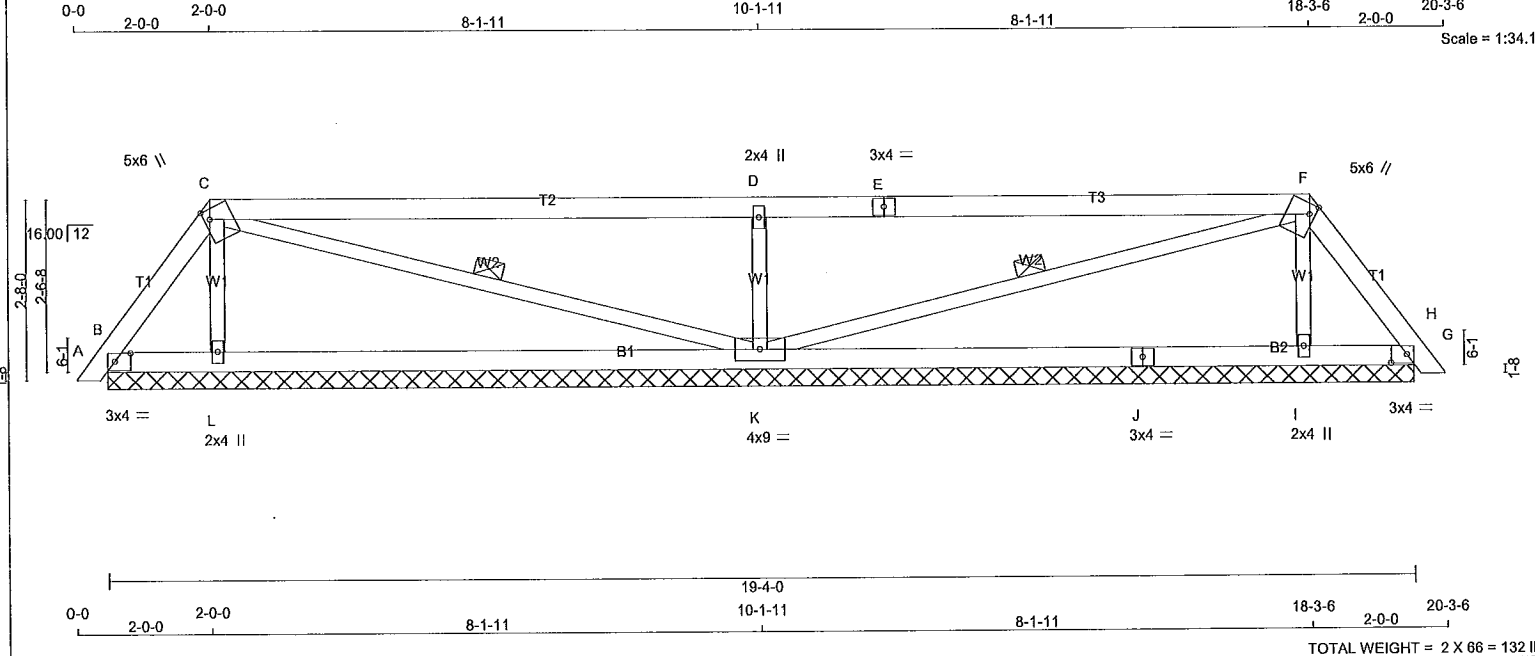
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JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
292570	H11P	2	1	TRUSS DESC.	

Alpa Roof Truss, Maple Version 8.200 S Jan 6 2018 MITek Industries, Inc. Thu Feb 15 09:30:16 2018 Page 1

ID:84gOFYESM8s1JmDO6_uSGRyQWjP-q_LlibSNBCNkOOT3gUA2[77yolld6MKw_6C4LYzky05



TOTAL WEIGHT = 2 X 66 = 132 lb

LUMBER

N. L. G. A. RULES

CHORDS	SIZE	LUMBER	DESCR.
A - C	2x4	DRY	No.2
C - E	2x4	DRY	No.2
E - F	2x4	DRY	No.2
F - H	2x4	DRY	No.2
B - J	2x4	DRY	No.2
J - G	2x4	DRY	No.2

ALL WEBS 2x3 DRY No.2

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	TTVW+m	MT20	5.0	6.0	1.75	1.00
D	TMW+w	MT20	2.0	4.0		
E	TS-t	MT20	3.0	4.0		
F	TTVW+m	MT20	5.0	6.0	1.75	1.00
G	TMB1-I	MT20	3.0	4.0	1.50	2.75
I	BMW1+w	MT20	2.0	4.0		
J	BS-t	MT20	3.0	4.0		
K	BMWW1-I	MT20	4.0	9.0		
L	BMW1+w	MT20	2.0	4.0		

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

BEARINGS

JT	FACTORED GROSS REACTION		MAXIMUM FACTORED GROSS REACTION		INPUT BRG	REQD BRG
	VERT	HORZ	DOWN	HORZ		
B	139	0	139	0	19-4-0 (4-0-0)-11-14	
L	344	0	344	0	19-4-0 (4-0-0)-11-14	
K	953	0	953	0	19-4-0 (4-0-0)-11-14	
I	344	0	344	0	19-4-0 (4-0-0)-11-14	
G	139	0	139	0	19-4-0 (4-0-0)-11-14	

VALUE IN PARENTHESIS INDICATES EFFECTIVE BEARING LENGTH

UNFACTORED REACTIONS		MAX./MIN. COMPONENT REACTIONS					
JT	1ST LCASE COMBINED	SNOW	LIVE	PERM. LIVE	WIND	DEAD	SOIL
B	93	93/0	0/0	0/0	0/0	0/-0	0/0
L	253	113/0	0/0	0/0	0/0	140/0	0/0
K	677	429/0	0/0	0/0	0/0	248/0	0/0
I	253	113/0	0/0	0/0	0/0	140/0	0/0
G	93	93/0	0/0	0/0	0/0	0/-0	0/0

BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S) B, L, K, I, 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-K, F-K.

LOADING
TOTAL LOAD CASES: (4)

MEMB.	CHORDS		WEBS		MEMB.	WEBS	
	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD LC1 (PLF)	MAX. CS1 (LC)	MAX. UNBRAC LENGTH FR-TO		MAX. FACTORED FORCE (LBS)	MAX. CS1 (LC)
FR-TO		FROM TO					
A-B	0/10	-78.0 -78.0	0.01 (1)	10.00	L-C	-210/0	0.03 (1)
B-C	-104/0	-78.0 -78.0	0.03 (1)	6.25	C-K	-8/0	0.00 (1)
C-D	-41/0	-78.0 -78.0	0.88 (1)	6.25	K-D	-793/0	0.13 (1)
D-E	-43/0	-78.0 -78.0	0.88 (1)	6.25	K-F	-8/0	0.00 (1)
E-F	-43/0	-78.0 -78.0	0.88 (1)	6.25	I-F	-210/0	0.03 (1)
F-G	-104/0	-78.0 -78.0	0.03 (1)	6.25			
G-H	0/10	-78.0 -78.0	0.01 (1)	10.00			
B-L	0/60	-18.5 -18.5	0.19 (4)	10.00			
L-K	0/50	-18.5 -18.5	0.26 (4)	10.00			
K-J	0/50	-18.5 -18.5	0.26 (4)	10.00			
J-I	0/50	-18.5 -18.5	0.26 (4)	10.00			
I-G	0/60	-18.5 -18.5	0.19 (4)	10.00			

DESIGN CRITERIA

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

SPACING = 24.0 IN. C/C

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

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

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

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

CSI: TC=0.88/1.00 (D-F:1), BC=0.26/1.00 (K-L:4), WB=0.13/1.00 (D-K:1), SSI=0.31/1.00 (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 (PSI)	SECTION (PLI)
MT20	618	354	1687
	788	1987	1656

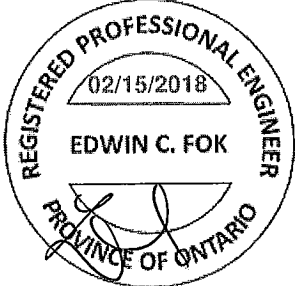
PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

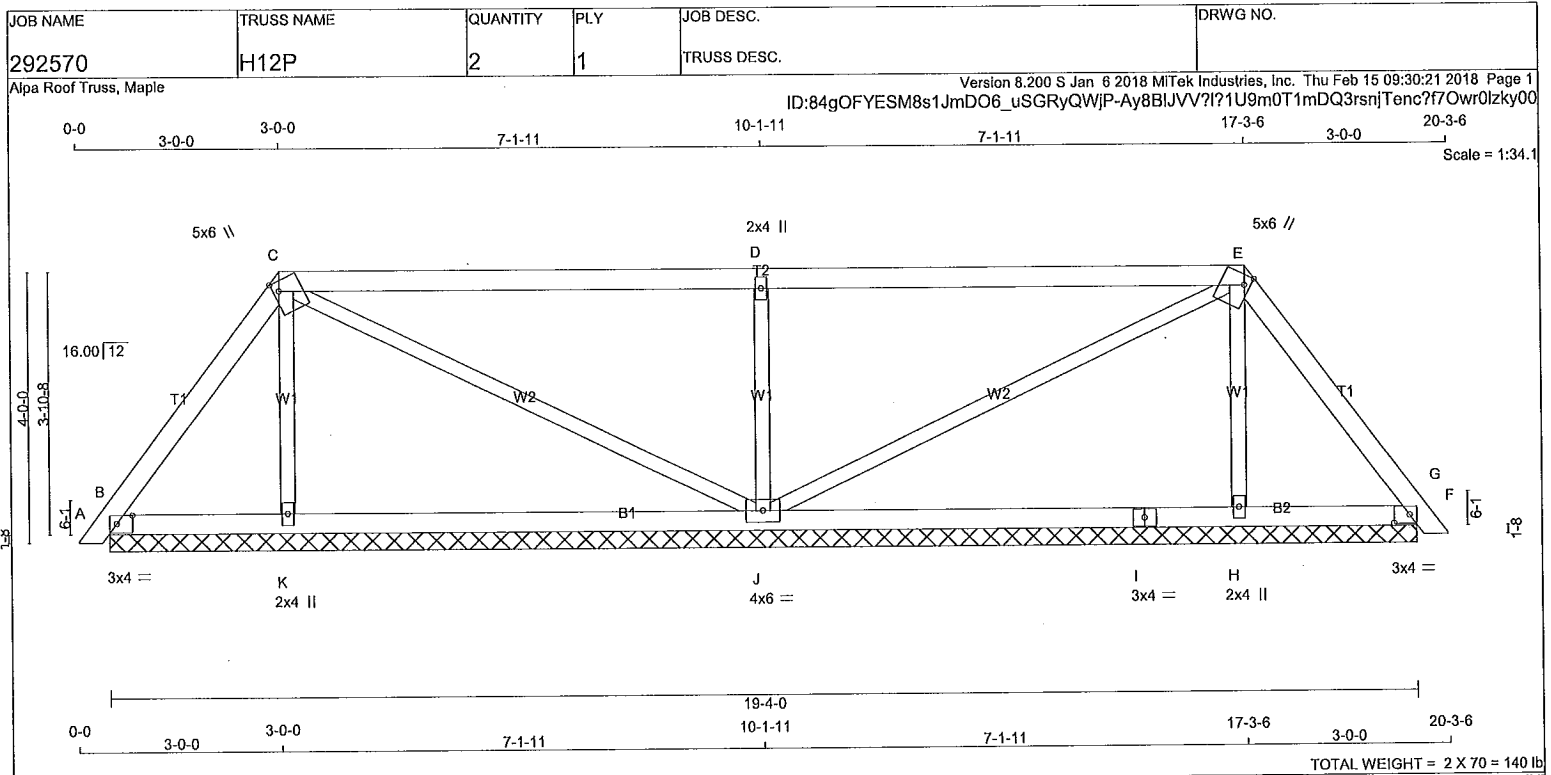
JSI GRIP= 0.64 (C) (INPUT = 0.90)

JSI METAL= 0.26 (E) (INPUT = 1.00)

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



A-18023091



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	
B - I	2x4	DRY	No.2	SPF	
I - F	2x4	DRY	No.2	SPF	
ALL WEBS		2x3	DRY	No.2	SPF
DRY: SEASONED LUMBER.					

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

JT	FACTORED GROSS REACTION		MAXIMUM FACTORED GROSS REACTION		INPUT BRG	REQRD BRG
	VERT	HORZ	DOWN	HORZ		
B	213	0	213	0	19-4-0 (4-0-0) J-9-7	
K	310	0	310	0	19-4-0 (4-0-0) J-9-7	
J	875	0	875	0	19-4-0 (4-0-0) J-9-7	
H	310	0	310	0	19-4-0 (4-0-0) J-9-7	
F	213	0	213	0	19-4-0 (4-0-0) J-9-7	

VALUE IN PARENTHESIS INDICATES EFFECTIVE BEARING LENGTH

UNFACTORED REACTIONS

JT	1ST LC CASE		MAX./MIN. COMPONENT REACTIONS		WIND	DEAD	SOIL
	COMBINED	SNOW	LIVE	PERM.LIVE			
B	148	113 / 0	0 / 0	0 / 0	0 / 0	35 / 0	0 / 0
K	226	109 / 0	0 / 0	0 / 0	0 / 0	116 / 0	0 / 0
J	620	396 / 0	0 / 0	0 / 0	0 / 0	224 / 0	0 / 0
H	226	109 / 0	0 / 0	0 / 0	0 / 0	116 / 0	0 / 0
F	148	113 / 0	0 / 0	0 / 0	0 / 0	35 / 0	0 / 0

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

BRACING

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

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

LOADING

TOTAL LOAD CASES: (4)

MEMB.	CHORDS		WEBS		MEMB.	MAX. FACTORED	
	MAX. FACTORED	FACTORED	VERT. LOAD LC1	MAX		FORCE	MAX
FR-TO	FORCE (LBS)	VERT. LOAD LC1 (PLF)	CS1 (LC)	UNBRAC LENGTH	FR-TO	FORCE (LBS)	MAX CS1 (LC)
A-B	0 / 10	-78.0	-78.0 0.01 (1)	10.00	K-C	-203 / 0	0.05 (1)
B-C	-104 / 0	-78.0	-78.0 0.09 (1)	6.25	C-J	-46 / 0	0.06 (1)
C-D	-13 / 0	-78.0	-78.0 0.68 (1)	6.25	J-D	-695 / 0	0.16 (1)
D-E	-13 / 0	-78.0	-78.0 0.68 (1)	6.25	J-E	-46 / 0	0.06 (1)
E-F	-104 / 0	-78.0	-78.0 0.09 (1)	6.25	H-E	-203 / 0	0.05 (1)
F-G	0 / 10	-78.0	-78.0 0.01 (1)	10.00			

B-K	0 / 60	-18.5	-18.5 0.14 (4)	10.00
K-J	0 / 54	-18.5	-18.5 0.21 (4)	10.00
J-I	0 / 54	-18.5	-18.5 0.21 (4)	10.00
I-H	0 / 54	-18.5	-18.5 0.21 (4)	10.00
H-F	0 / 60	-18.5	-18.5 0.14 (4)	10.00

DESIGN CRITERIA

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

SPACING = 24.0 IN. C/C

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

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

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

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

CSI: TC=0.68/1.00 (C-D:1), BC=0.21/1.00 (H-J:4), WB=0.16/1.00 (D-J:1), SSI=0.27/1.00 (D-E:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

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

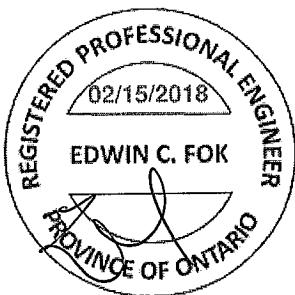
NAIL VALUES
PLATE GRIP(DRY) SHEAR SECTION
(PSI) (PLI) (PLI)
MAX MIN MAX MIN MAX MIN
MT20 618 354 1667 788 1987 1656

PLATE PLACEMENT TOL. = 0.250 inches

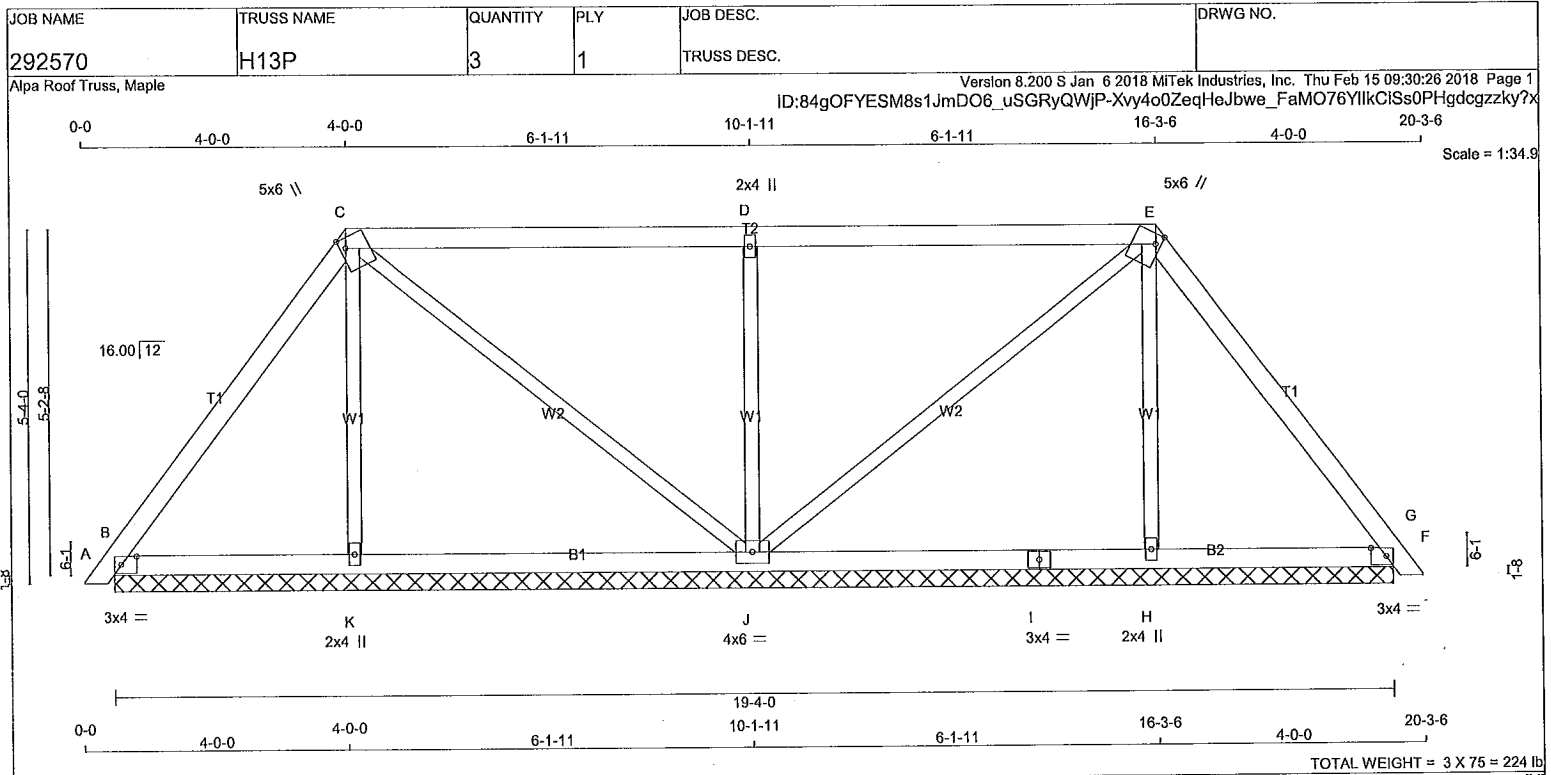
PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.74 (J) (INPUT = 0.90)
JSI METAL= 0.15 (D) (INPUT = 1.00)

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



A-18023092



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
B - I	2x4	DRY	No.2	SPF
I - F	2x4	DRY	No.2	SPF
ALL WEBS	2x3	DRY	No.2	SPF
DRY: SEASONED LUMBER.				

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

BEARINGS		FACTORED		MAXIMUM FACTORED		INPUT		REQRD	
		GROSS REACTION		DOWN		BRG		BRG	
JT		VERT	HORZ	DOWN	HORZ	UPLIFT	IN-SX	IN-SX	
B	275	0	275	0	0	19-4-0 (5-4-0)-7-8			
K	283	0	283	0	0	19-4-0 (5-4-0)-7-8			
J	803	0	803	0	0	19-4-0 (5-4-0)-7-8			
H	283	0	283	0	0	19-4-0 (5-4-0)-7-8			
F	275	0	275	0	0	19-4-0 (5-4-0)-7-8			

VALUE IN PARENTHESIS INDICATES EFFECTIVE BEARING LENGTH

UNFACTORED REACTIONS

1ST LC CASE		MAX./MIN. COMPONENT REACTIONS		WIND		DEAD		SOIL	
JT	COMBINED	SNOW	LIVE	PERM. LIVE					
B	193	137 / 0	0 / 0	0 / 0	0 / 0	56 / 0	0 / 0		
K	207	99 / 0	0 / 0	0 / 0	0 / 0	107 / 0	0 / 0		
J	569	369 / 0	0 / 0	0 / 0	0 / 0	199 / 0	0 / 0		
H	207	99 / 0	0 / 0	0 / 0	0 / 0	107 / 0	0 / 0		
F	193	137 / 0	0 / 0	0 / 0	0 / 0	56 / 0	0 / 0		

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

BRACING

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

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

LOADING

TOTAL LOAD CASES: (4)

CHORDS		WEBS	
MAX. FACTORED		MAX. FACTORED	
MEMB.	FORCE (LBS)	VERT. LOAD LC1 (PLF)	MAX. MEMB. UNBRACED LENGTH FR-TO
FR-TO			
A-B	0 / 10	-78.0 -78.0 0.01 (1)	10.00
B-C	-110 / 0	-78.0 -78.0 0.17 (1)	6.25
C-D	-4 / 0	-78.0 -78.0 0.50 (1)	10.00
D-E	-4 / 0	-78.0 -78.0 0.50 (1)	10.00
E-F	-110 / 0	-78.0 -78.0 0.17 (1)	6.25
F-G	0 / 10	-78.0 -78.0 0.01 (1)	10.00
B-K	0 / 64	-18.5 -18.5 0.11 (4)	10.00
K-J	0 / 60	-18.5 -18.5 0.15 (4)	10.00
J-I	0 / 60	-18.5 -18.5 0.15 (4)	10.00
I-H	0 / 60	-18.5 -18.5 0.15 (4)	10.00
H-F	0 / 64	-18.5 -18.5 0.11 (4)	10.00

DESIGN CRITERIA

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

SPACING = 24.0 IN. C/C

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

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

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

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

CSI: TC=0.50/1.00 (C-D:1), BC=0.15/1.00 (J-K:4), WB=0.24/1.00 (D-J:1), SSI=0.23/1.00 (D-E:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

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

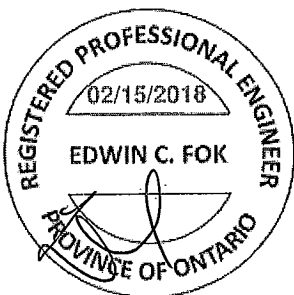
NAIL VALUES
PLATE GRIP(DRY) SHEAR SECTION
(PSI) (PLI) (PLI)
MAX MIN MAX MIN MAX MIN
MT20 618 354 1667 788 1987 1656

PLATE PLACEMENT TOL. = 0.250 Inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.64 (C) (INPUT = 0.80)
JSI METAL= 0.13 (B) (INPUT = 1.00)

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

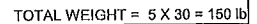


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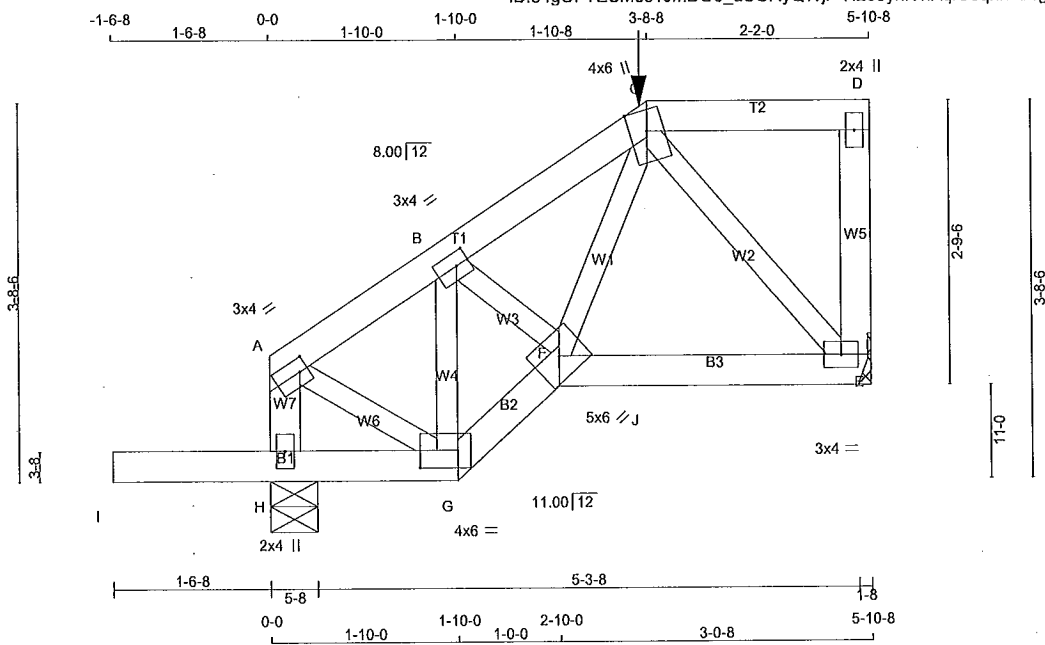
Alpa Roof Truss, Maple

Version 8.200 S Jan 6 2018 MiTek Industries, Inc. Thu Feb 15 10:07:09 2018 Page 1

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A-18023103



TOTAL WEIGHT = 28 lb

LUMBER					DESCR.
CHORDS	SIZE	LUMBER	DRY	No.2	
A - C	2x4	DRY	No.2	SPF	
C - D	2x4	DRY	No.2	SPF	
E - D	2x4	DRY	No.2	SPF	
H - A	2x4	DRY	No.2	SPF	
I - G	2x4	DRY	No.2	SPF	
G - F	2x4	DRY	No.2	SPF	
F - E	2x4	DRY	No.2	SPF	
ALL WEBS EXCEPT	2x3	DRY	No.2	SPF	

DRY: SEASONED LUMBER.

PLATES (table is in inches)					
JT	TYPE	PLATES	W	LEN	Y X
A	TMVW-t	MT20	3.0	4.0	1.50 1.00
B	TMVW-t	MT20	3.0	4.0	1.50 1.50
C	TTVW+m	MT20	4.0	6.0	Edge
D	TMV+p	MT20	2.0	4.0	
E	BMVW-t	MT20	3.0	4.0	
F	BBVW-h	MT20	5.0	6.0	
G	BBVW-h	MT20	4.0	6.0	2.00 4.50
H	BMV+p	MT20	2.0	4.0	

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

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

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

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

BEARINGS		FACTORED		MAXIMUM FACTORED		INPUT		REQRD	
JT	VERT	GROSS REACTION	DOWN	GROSS REACTION	DOWN	BRG	IN-SX	BRG	IN-SX
E	413	0	413	0	0	5-8	1-8		
H	527	0	527	0	0	5-8	1-8		

UNFACTORED REACTIONS		1ST LCASE		MAX/MIN COMPONENT REACTIONS		WIND		DEAD		SOIL	
JT	COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL	JT	COMBINED	SNOW	LIVE
E	294	183 / 0	0 / 0	0 / 0	0 / 0	111 / 0	0 / 0				
H	377	225 / 0	0 / 0	0 / 0	0 / 0	152 / 0	0 / 0				

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

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

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

LOADING
TOTAL LOAD CASES: (4)

CHORDS				WEBS			
MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	MAX. FACTORED CSI (LC)	MEMB.	MAX. FACTORED FORCE (LBS)	MAX. FACTORED CSI (LC)	
FR-TO		FROM TO	LENGTH	FR-TO			
A-B	-243 / 0	-78.0 -78.0	0.04 (1)	6.25	G-B	-302 / 0	0.05 (1)
B-C	-339 / 0	-78.0 -78.0	0.04 (1)	6.25	B-F	0 / 118	0.03 (1)
C-D	0 / 0	-111.3 -111.3	0.10 (1)	10.00	F-C	0 / 157	0.04 (1)
E-D	-121 / 0	0.0 0.0	0.02 (1)	7.81	C-E	-338 / 0	0.07 (1)
H-A	-292 / 0	0.0 0.0	0.03 (1)	7.81	A-G	0 / 231	0.06 (1)
I-H	0 / 0	-96.5 -96.5	0.17 (1)	10.00			
H-G	0 / 0	-26.4 -26.4	0.17 (1)	10.00			
G-F	0 / 261	-26.4 -26.4	0.05 (1)	10.00			
F-J	0 / 223	-26.4 -26.4	0.10 (4)	10.00			
J-E	0 / 223	-26.4 -26.4	0.10 (4)	10.00			

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

DESIGN CRITERIA

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

SPACING = 24.0 IN. C/C

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

GIRDER TYPE: CPrimeHip
LEFT SETBACK = 3-8-8
RIGHT SETBACK = 0-0
END SETBACK = 3-8-8
END WALL WIDTH = 0-0
CORNER FRAMING TYPE: CONVENTIONAL
END JACK TYPE: CONVENTIONAL
APPLIED TO FRONT SIDE
- 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

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

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

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

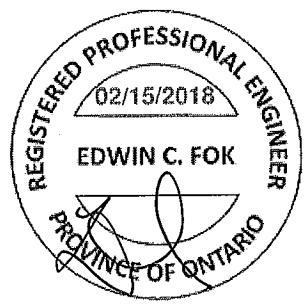
CANTILEVER DEFLECTION:
ALLOWABLE DEFL.(LL)= L/120 (0.19")
CALCULATED VERT. DEFL.(LL)= L/999 (0.02")
ALLOWABLE DEFL.(TL)= L/120 (0.19")
CALCULATED VERT. DEFL.(TL)= L/617 (0.03")

CSI: TC=0.10/1.00 (C-D:1), BC=0.17/1.00 (G-H:1), WB=0.07/1.00 (C-E:1), SSI=0.13/1.00 (H-I: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

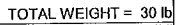
TRUSS PLATE MANUFACTURER IS NOT RESPONSIBLE FOR QUALITY CONTROL IN THE TRUSS MANUFACTURING PLANT.



Alpa Roof Truss, Maple

Version 8.200 S Jan 6 2018 MITek Industries, Inc. Thu Feb 15 10:07:16 2018 Page 1

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A-18023105

JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
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292572

H5

1

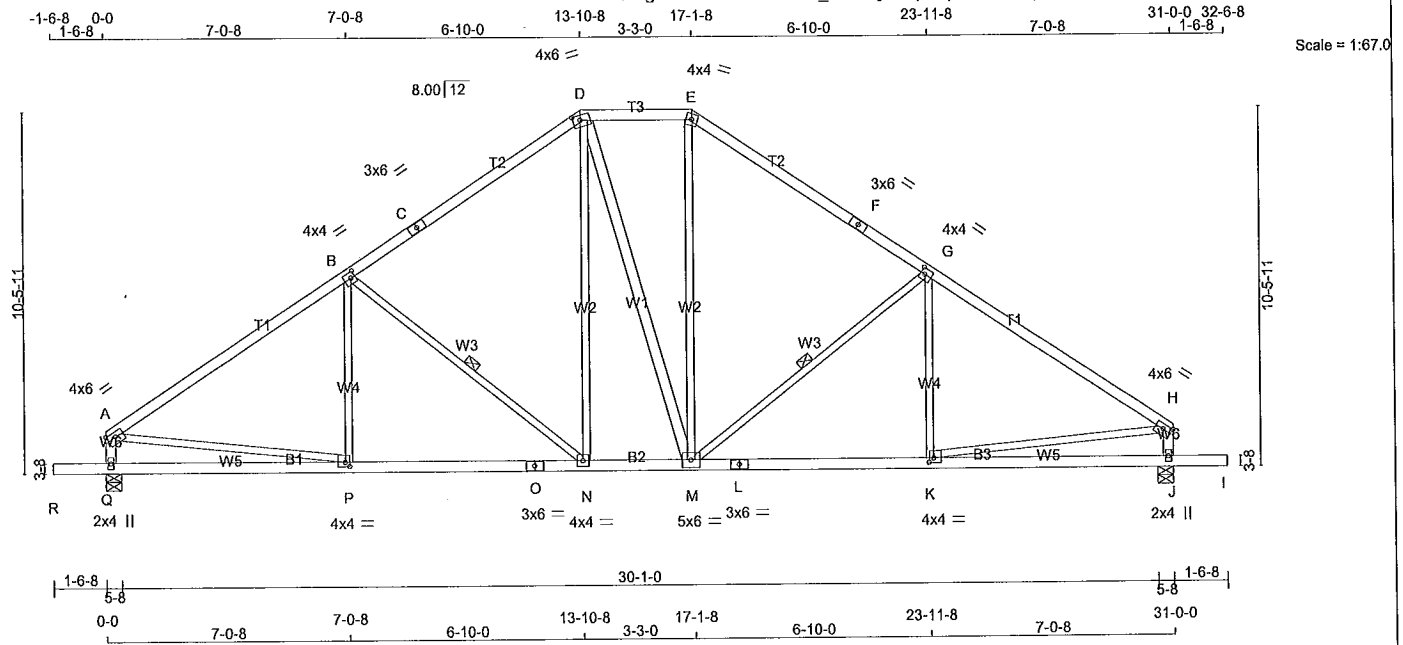
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TRUSS DESC.

Alpa Roof Truss, Maple

Version 8.200 S Jan 6 2018 MiTek Industries, Inc. Thu Feb 15 10:22:29 2018 Page 1

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TOTAL WEIGHT = 144 lb

(M/F)

LUMBER**N. L. G. A. RULES**

CHORDS	SIZE	LUMBER	DESCR.
A - C	2x4	DRY No.2	SPF
C - D	2x4	DRY No.2	SPF
D - E	2x4	DRY No.2	SPF
E - F	2x4	DRY No.2	SPF
F - H	2x4	DRY No.2	SPF
H - A	2x4	DRY No.2	SPF
A - H	2x4	DRY No.2	SPF
R - O	2x4	DRY No.2	SPF
O - L	2x4	DRY No.2	SPF
L - I	2x4	DRY No.2	SPF
ALL WEBS EXCEPT D - M	2x3	DRY No.2	SPF
	2x4	DRY No.2	SPF

DRY: SEASONED LUMBER.

PLATES (table is in inches)

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

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

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

	FACTORED GROSS REACTION	MAXIMUM FACTORED GROSS REACTION	INPUT BRG	REQRD BRG
	VERT	HORZ	DOWN	UP
JT	1644	0	1644	0
Q	1644	0	1644	0
J	1644	0	1644	0

UNFACTORED REACTIONS

	1ST LCASE	MAX/MIN. COMPONENT REACTIONS					
	COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
JT	1172	715 / 0	0 / 0	0 / 0	0 / 0	457 / 0	0 / 0
Q	1172	715 / 0	0 / 0	0 / 0	0 / 0	457 / 0	0 / 0
J	1172	715 / 0	0 / 0	0 / 0	0 / 0	457 / 0	0 / 0

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

BRACINGTOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 4.28 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, G-M.

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

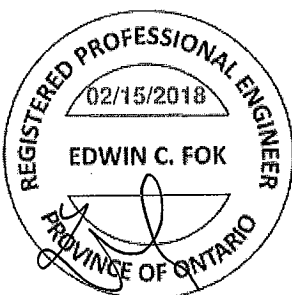
LOADING

TOTAL LOAD CASES: (4)

	CHORDS	MAX. FACTORED	FACTORED	W E B S	MAX. FACTORED
	MEMB.	FORCE (LBS)	VERT. LOAD LC1 (PLF)	MEMB.	FORCE (LBS)
FR-TO			FROM TO		
A-B	-1829 / 0	-78.0	-78.0 0.62 (1)	P-B	-50 / 92
B-C	-1393 / 0	-78.0	-78.0 0.56 (1)	B-N	-546 / 0
C-D	-1393 / 0	-78.0	-78.0 0.56 (1)	N-D	0 / 424
D-E	-1132 / 0	-78.0	-78.0 0.12 (1)	D-M	0 / 4
E-F	-1394 / 0	-78.0	-78.0 0.56 (1)	M-E	0 / 428
F-G	-1394 / 0	-78.0	-78.0 0.56 (1)	M-G	-544 / 0
G-H	-1828 / 0	-78.0	-78.0 0.62 (1)	K-G	-52 / 91
Q-A	-1443 / 0	0.0	0.0 0.15 (1)	A-P	0 / 1564
J-H	-1442 / 0	0.0	0.0 0.15 (1)	K-H	0 / 1564

R-Q	0 / 0	-96.5	-96.5 0.16 (1)	10.00
Q-P	0 / 0	-18.5	-18.5 0.23 (4)	10.00
P-O	0 / 1552	-18.5	-18.5 0.38 (4)	10.00
O-N	0 / 1552	-18.5	-18.5 0.38 (4)	10.00
N-M	0 / 1131	-18.5	-18.5 0.25 (1)	10.00
M-L	0 / 1551	-18.5	-18.5 0.37 (4)	10.00
L-K	0 / 1551	-18.5	-18.5 0.37 (4)	10.00
K-J	0 / 0	-18.5	-18.5 0.23 (4)	10.00
J-I	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 (1.03")
CALCULATED VERT. DEFL.(LL)= L/999 (0.07")
ALLOWABLE DEFL.(TL)= L/360 (1.03")
CALCULATED VERT. DEFL.(TL)= L/999 (0.15")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=0.62/1.00 (A-B:1), BC=0.38/1.00 (N-P:4), WB=0.35/1.00 (A-P:1), SS=0.22/1.00 (A-B:1)

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

COMPANION LIVE LOAD FACTOR = 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= 0.87 (P) (INPUT = 0.90)
JSI METAL= 0.58 (P) (INPUT = 1.00)

A-18023106

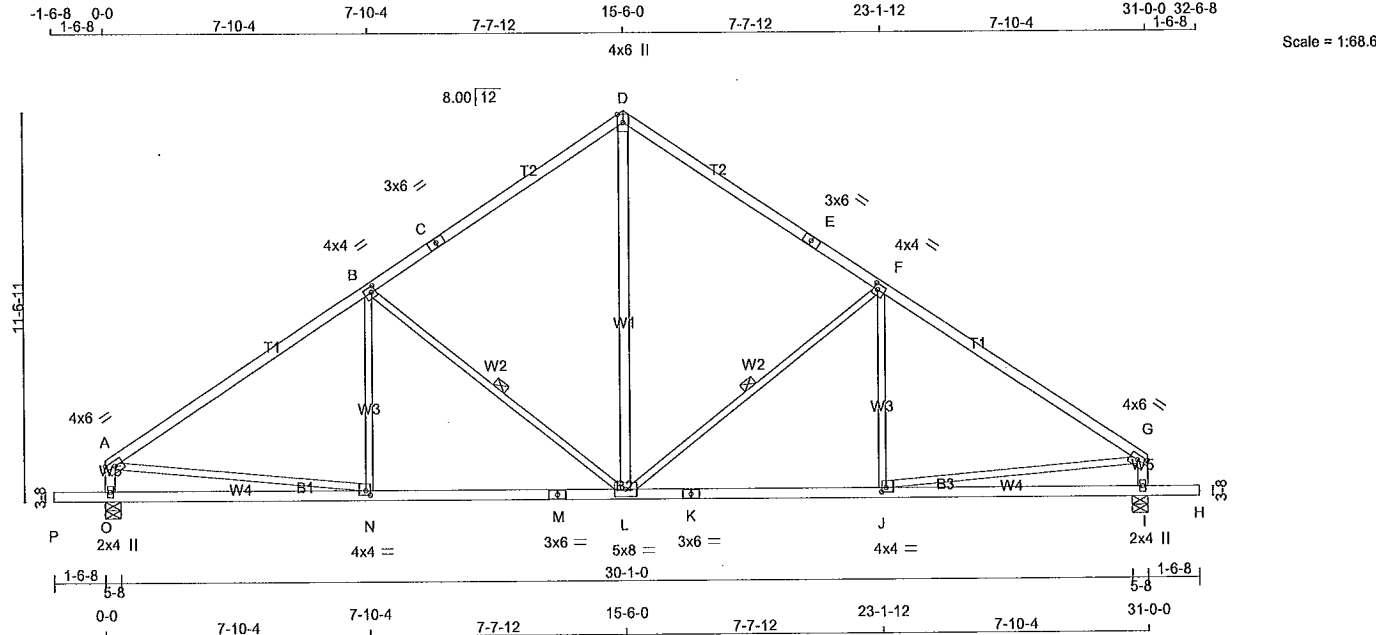
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JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
292572	H6	2	1	TRUSS DESC.	

Alpa Roof Truss, Maple

Version 8.200 S Jan 6 2018 MiTek Industries, Inc. Thu Feb 15 10:22:36 2018 Page 1

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LUMBER

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

DRY: SEASONED LUMBER.

PLATES (table is in inches)

JT	TYPE	PLATES	W	LEN	Y	X
A	TMVW-t	MT20	4.0	6.0	1.75	Edge
B	TMVW-t	MT20	4.0	4.0	2.00	1.50
C	TS-t	MT20	3.0	6.0		
D	TTW+p	MT20	4.0	6.0		Edge
E	TS-t	MT20	3.0	6.0		
F	TMVW-t	MT20	4.0	4.0	2.00	1.50
G	TMVW-t	MT20	4.0	6.0	1.75	Edge
I	BMV1+p	MT20	2.0	4.0		
J	BMVW-t	MT20	4.0	4.0	1.50	1.50
K	BS-t	MT20	3.0	6.0		
L	BMVW-t	MT20	5.0	8.0		
M	BS-t	MT20	3.0	6.0		
N	BMVW-t	MT20	4.0	4.0	1.50	1.50
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 GROSS REACTION	MAXIMUM FACTORED GROSS REACTION	INPUT BRG	REQRD BRG
JT	VERT	HORZ	DOWN	UPLIFT
O	1644	0	1644	0
I	1644	0	1644	0

UNFACTORED REACTIONS

	1ST LCASE	MAX/MIN. COMPONENT REACTIONS	PERM. LIVE	WIND	DEAD	SOIL
JT	COMBINED	SNOW	LIVE	PERM. LIVE	WIND	DEAD
O	1172	715 / 0	0 / 0	0 / 0	457 / 0	0 / 0
I	1172	715 / 0	0 / 0	0 / 0	457 / 0	0 / 0

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

BRACING

TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 4.00 FT.
MAX. UNBRACED BOTTOM CHORD LENGTH = 10.00 FT OR RIGID CEILING DIRECTLY APPLIED.

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

1 LATERAL BRACE(S) AT 1/2 LENGTH OF F-L, B-L.

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

LOADING

TOTAL LOAD CASES: (4)

CHORDS				WEBS			
MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	MAX. FACTORED LC1 MAX. UNBRACED LENGTH (LC)	MEMB.	MAX. FACTORED FORCE (LBS)	MAX. FACTORED LC1 MAX. UNBRACED LENGTH (LC)	MEMB.
FR-TO		FROM TO		FR-TO		FROM TO	
A-B	-1809 / 0	-78.0 -78.0	0.81 (1)	4.00	L-D	0 / 938	0.15 (1)
B-C	-1290 / 0	-78.0 -78.0	0.70 (1)	4.69	L-F	-642 / 0	0.44 (1)
C-D	-1290 / 0	-78.0 -78.0	0.70 (1)	4.69	J-F	-17 / 114	0.04 (4)
D-E	-1290 / 0	-78.0 -78.0	0.70 (1)	4.69	B-L	-642 / 0	0.44 (1)
E-F	-1290 / 0	-78.0 -78.0	0.70 (1)	4.69	N-B	-17 / 114	0.04 (4)
F-G	-1809 / 0	-78.0 -78.0	0.81 (1)	4.00	A-N	0 / 1549	0.35 (1)
O-A	-1436 / 0	0.0 0.0	0.15 (1)	6.81	J-G	0 / 1549	0.35 (1)
I-G	-1436 / 0	0.0 0.0	0.15 (1)	6.81			
P-O	0 / 0	-96.5 -96.5	0.16 (1)	10.00			
O-N	0 / 0	-18.5 -18.5	0.27 (4)	10.00			
N-M	0 / 1539	-18.5 -18.5	0.42 (4)	10.00			
M-L	0 / 1539	-18.5 -18.5	0.42 (4)	10.00			
L-K	0 / 1539	-18.5 -18.5	0.42 (4)	10.00			
K-J	0 / 1539	-18.5 -18.5	0.42 (4)	10.00			
J-I	0 / 0	-18.5 -18.5	0.27 (4)	10.00			
I-H	0 / 0	-96.5 -96.5	0.16 (1)	10.00			

DESIGN CRITERIA

SPECIFIED LOADS:

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

SPACING = 24.0 IN. C/C

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

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

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

ALLOWABLE DEFL.(LL)= L/360 (1.03")
CALCULATED VERT. DEFL.(LL) = L/999 (0.07")
ALLOWABLE DEFL.(TL)= L/360 (1.03")
CALCULATED VERT. DEFL.(TL) = L/999 (0.16")

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=0.81/1.00 (A-B:1), BC=0.42/1.00 (J-L:4), WB=0.44/1.00 (B-L:1), SSI=0.25/1.00 (F-G:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

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

NAIL VALUES

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

PLATE PLACEMENT TOL. = 0.250 Inches

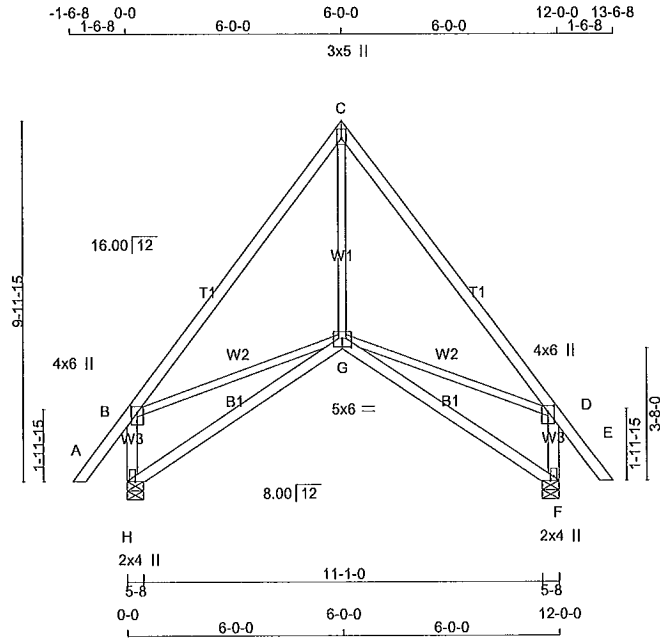
PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.86 (J) (INPUT = 0.90)
JSI METAL= 0.58 (J) (INPUT = 1.00)

JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
292580	H15T	2	1	TRUSS DESC.	

Alpa Roof Truss, Maple

Version 8.200 S Jan 6 2018 MiTek Industries, Inc. Thu Feb 15 11:53:35 2018 Page 1
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Scale: 3/16"=1'

TOTAL WEIGHT = 2 X 64 = 127 lb

LUMBER	CHORDS	SIZE	DRY	LUMBER	DESCR.
N. L. G. A. RULES					
A - C	2x4	DRY	2100F 1.8E	SPF	
C - E	2x4	DRY	2100F 1.8E	SPF	
H - B	2x4	DRY	No.2	SPF	
F - D	2x4	DRY	No.2	SPF	
H - G	2x4	DRY	No.2	SPF	
G - F	2x4	DRY	No.2	SPF	

ALL WEBS 2x3 DRY No.2 SPF
EXCEPT

DRY: SEASONED LUMBER.

PLATES (table is in inches)

JT	TYPE	PLATES	W	LEN	Y	X
B	TMVW+p	MT20	4.0	6.0	2.00	2.00
C	TTW+p	MT20	3.0	5.0	2.00	Edge
D	TMVW+p	MT20	4.0	6.0	2.00	2.00
F	BMV1+p	MT20	2.0	4.0	Edge	
G	BBWWV+p	MT20	5.0	6.0	2.75	3.00
H	BMV1+p	MT20	2.0	4.0	Edge	

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

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

JT	FACTORED GROSS REACTION		MAXIMUM FACTORED GROSS REACTION		INPUT BRG	REQD IN-SX
	VERT	HORZ	DOWN	HORZ		
H	686	0	686	0	5-8	1-8
F	686	0	686	0	5-8	1-8

UNFACTORED REACTIONS

JT	1ST LCASE		MAX./MIN. COMPONENT REACTIONS		WIND	DEAD	SOIL
	COMBINED	SNOW	LIVE	PERM.LIVE			
H	487	310 / 0	0 / 0	0 / 0	0 / 0	177 / 0	0 / 0
F	487	310 / 0	0 / 0	0 / 0	0 / 0	177 / 0	0 / 0

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

BRACING

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

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

LOADING

TOTAL LOAD CASES: (4)

CHORDS					WEBS			
MAX. FACTORED		FACTORED			MAX. FACTORED			
MEMB.	FORCE	VERT. LOAD	LC1	MAX	MAX.	MEMB.	FORCE	MAX
	(LBS)	(PLF)		CSI (LC)	UNBRAC		(LBS)	CSI (LC)
FR-TO		FROM	TO		LENGTH	FR-TO		
A - B	0 / 43	-78.0	-78.0	0.07 (1)	10.00	G - C	0 / 316	0.07 (1)
B - C	-490 / 0	-78.0	-78.0	0.24 (1)	6.25	B - G	0 / 311	0.07 (1)
C - D	-490 / 0	-78.0	-78.0	0.24 (1)	6.25	G - D	0 / 311	0.07 (1)
D - E	0 / 43	-78.0	-78.0	0.07 (1)	10.00			
H - B	-631 / 0	0.0	0.0	0.08 (1)	7.81			
F - D	-631 / 0	0.0	0.0	0.08 (1)	7.81			
H - G	0 / 0	-18.5	-18.5	0.20 (4)	10.00			
G - F	0 / 0	-18.5	-18.5	0.20 (4)	10.00			

DESIGN CRITERIA

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

SPACING = 24.0 IN. C/C

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

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

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

ALLOWABLE DEFL.(LL)= 1/360 (0.40")
CALCULATED VERT. DEFL.(LL) = 1/999 (0.01")
ALLOWABLE DEFL.(TL)= 1/360 (0.40")
CALCULATED VERT. DEFL.(TL) = 1/999 (0.08")

CSI: TC=0.24/1.00 (B-C:1), BC=0.20/1.00 (G-H:4)
WB=0.07/1.00 (C-G:1), SSI=0.11/1.00 (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.

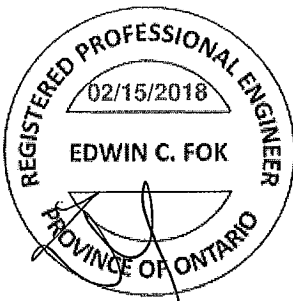
NAIL VALUES
PLATE GRIP(DRY) SHEAR SECTION
(PSI) (PLI) (PLI)
MAX MIN MAX MIN MAX MIN
MT20 618 354 1667 788 1987 1656

PLATE PLACEMENT TOL. = 0.250 inches

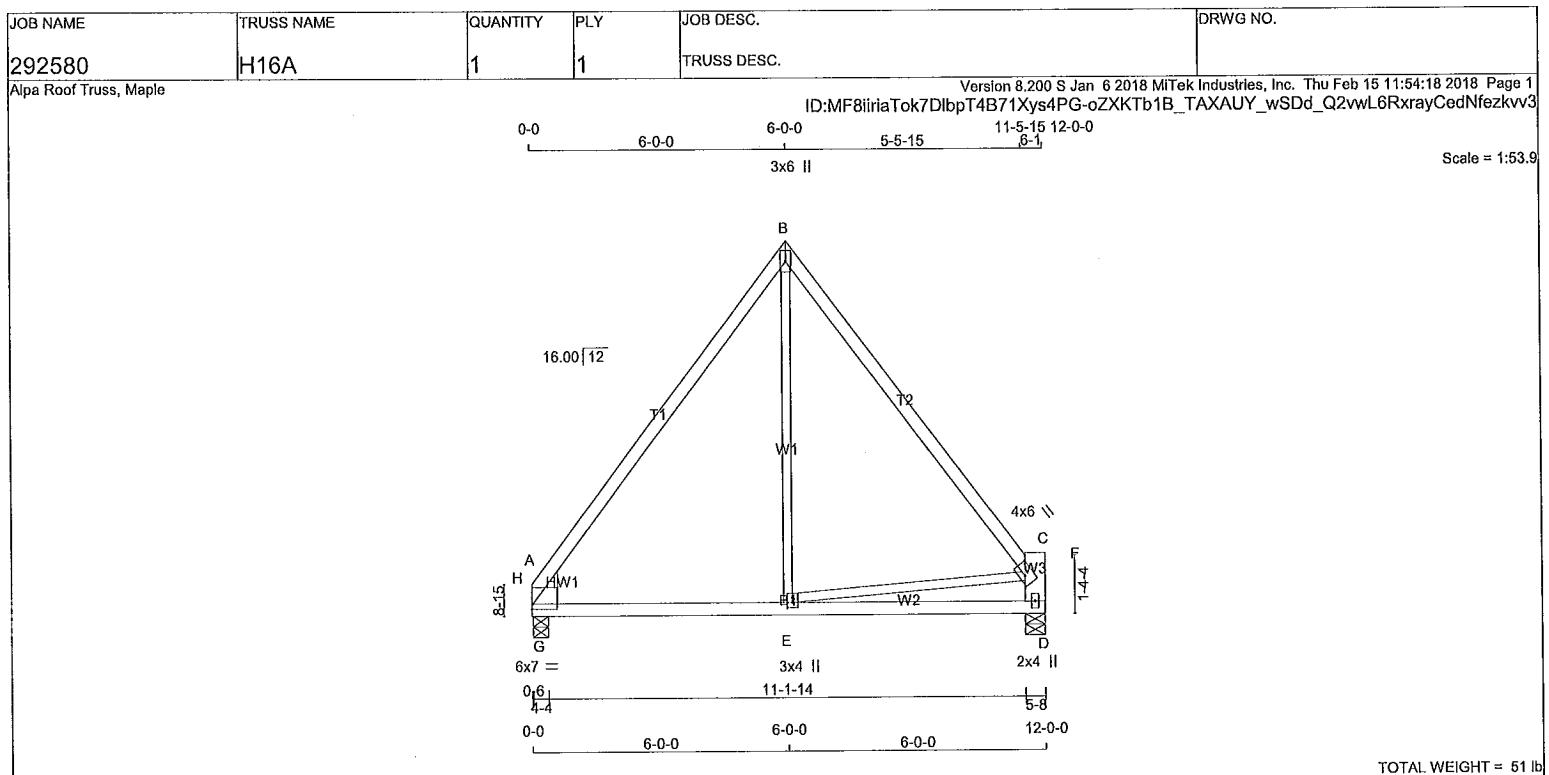
PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.81 (F) (INPUT = 0.90)
JSI METAL= 0.31 (F) (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-18023133



LUMBER				
N. L. G. A. RULES				
CHORDS	SIZE	LUMBER	DESCR.	
A - B	2x4	DRY	No.2	SPF
B - C	2x4	DRY	2100F 1.8E	SPF
D - F	2x6	DRY	No.2	SPF
A - 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	TMBH1-I	MT20	6.0	7.0 1.50 0.25
B	TTW+p	MT20	3.0	6.0
C	TVMW-I	MT20	4.0	6.0 2.50 3.50
D	BMV1+p	MT20	2.0	4.0
E	BMW+H	MT20	3.0	4.0 1.50 1.50

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

BEARINGS		FACTORED GROSS REACTION	MAXIMUM FACTORED GROSS REACTION	INPUT 8RG	REQRD 8RG	HEEL WEDGE
JT	VERT	HORZ	DOWN	HORZ	UPLIFT	IN-SX
D	1140	0	1140	0	0	5-8
A	1140	0	1140	0	0	4-4

UNFACTORED REACTIONS

1ST CASE	MAX./MIN. COMPONENT REACTIONS						
JT	COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
D	812	496 / 0	0 / 0	0 / 0	0 / 0	317 / 0	0 / 0
A	812	496 / 0	0 / 0	0 / 0	0 / 0	317 / 0	0 / 0

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

BRACING

TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 6.10 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)	MAX. FACTORED VERT. LOAD (PLF)	MAX. FACTORED VERT. LOAD (LC1)
FR-TO		FROM	TO
A-H	-854 / 0	-78.0	-78.0 0.23 (1)
H-B	-802 / 0	-78.0	-78.0 0.50 (1)
B-C	-782 / 0	-78.0	-78.0 0.40 (1)
D-C	-888 / 0	0.0	0.0 0.08 (1)
C-F	0 / 0	0.0	0.0 0.00 (1)
A-G	0 / 469	-112.0	-112.0 0.18 (1)
G-E	0 / 469	-112.0	-112.0 0.84 (1)
E-D	0 / 0	-112.0	-112.0 0.75 (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

GIRDER TYPE: CStd Girder
START DISTANCE = 0-0
START SPAN CARRIED = 5-10-8
END DISTANCE = 12-0-0
END SPAN CARRIED = 5-10-8
END WALL WIDTH = 0-0
APPLIED TO FRONT SIDE OF BOTTOM CHORD.
- ADD'L LOADS BASED ON 55 % OF GSL.

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

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

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

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

ALLOWABLE DEFL.(LL) = L/360 (0.40")
CALCULATED VERT. DEFL.(LL) = L/999 (0.09")
ALLOWABLE DEFL.(TL) = L/360 (0.40")
CALCULATED VERT. DEFL.(TL) = L/820 (0.18")

CSI: TC=0.50/1.00 (B-H:1), BC=0.84/1.00 (E-G:1), WB=0.20/1.00 (B-E:1), SSI=0.36/1.00 (E-G:1)

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

COMPANION LIVE LOAD FACTOR = 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

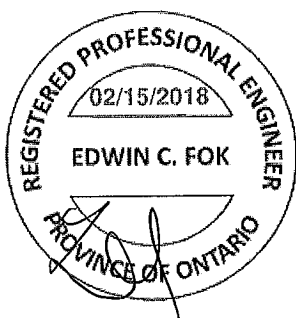
PLATE PLACEMENT TOL. = 0.250 inches

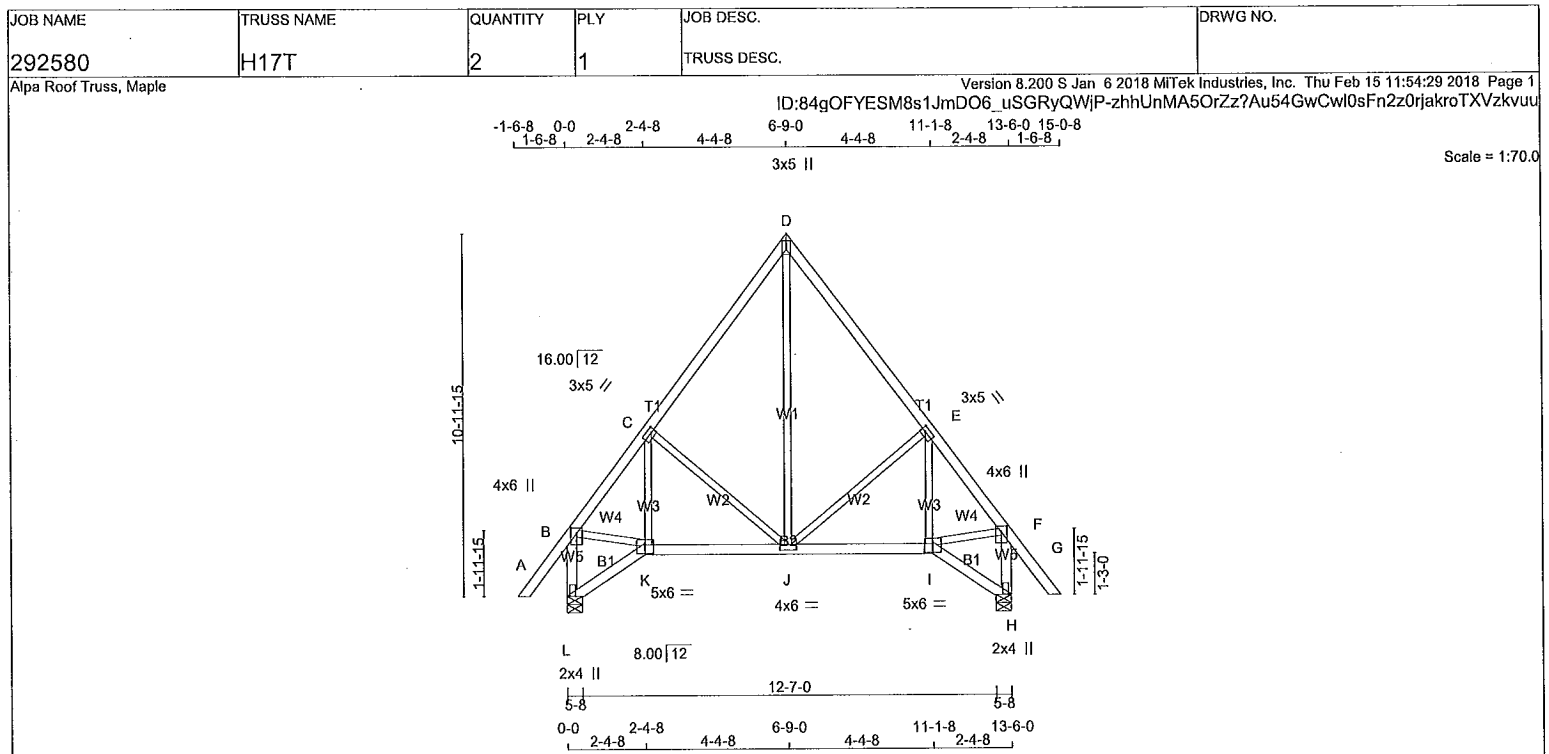
PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.90 (E) (INPUT = 0.90)
JSI METAL= 0.32 (A) (INPUT = 1.00)

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





TOTAL WEIGHT = 2 X 77 = 154 lb

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

ALL WEBS	2x3	DRY	No.2	SPF
EXCEPT				

DRY: SEASONED LUMBER.

PLATES (table is in inches)					
JT	TYPE	PLATES	W	LEN	Y X
B	TMVW+p	MT20	4.0	6.0	2.00 2.00
C	TMWW-t	MT20	3.0	5.0	1.50 1.50
D	TTW+p	MT20	3.0	5.0	2.00 Edge
E	TMWW-t	MT20	3.0	5.0	1.50 1.50
F	TMVW+p	MT20	4.0	6.0	2.00 2.00
H	BMV1+p	MT20	2.0	4.0	1.00
I	BBWW-t	MT20	5.0	6.0	3.00 3.00
J	BMWW-t	MT20	4.0	6.0	
K	BBWW-t	MT20	5.0	6.0	3.00 3.00
L	BMV1+p	MT20	2.0	4.0	1.00

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		MAXIMUM FACTORED		INPUT		REQRD	
	GROSS REACTION		GROSS REACTION		BRG		BRG	
JT	VERT	HORZ	DOWN	HORZ	UPLIFT	IN-SX	IN-SX	
L	759	0	759	0	0	5-8	1-8	
H	759	0	759	0	0	5-8	1-8	

UNFACTORED REACTIONS

	1ST LCASE	MAX/MIN. COMPONENT REACTIONS					
	COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
JT	539	341 / 0	0 / 0	0 / 0	0 / 0	197 / 0	0 / 0
L	539	341 / 0	0 / 0	0 / 0	0 / 0*	197 / 0	0 / 0
H	539	341 / 0	0 / 0	0 / 0	0 / 0*	197 / 0	0 / 0

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

BRACING

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

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

LOADING

TOTAL LOAD CASES: (4)

CHORDS				WEBS			
MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	MAX. FACTORED LC1 CSI (LC)	MEMB.	MAX. FACTORED FORCE (LBS)	MAX. FACTORED LC1 CSI (LC)	
FR-TO		FROM	TO	FR-TO			
A-B	0 / 43	-78.0	-78.0 0.11 (1)	10.00	J-D	0 / 365	0.08 (1)
B-C	-618 / 0	-78.0	-78.0 0.14 (1)	6.25	J-E	-206 / 0	0.11 (1)
C-D	-422 / 0	-78.0	-78.0 0.17 (1)	6.25	I-E	-2 / 38	0.01 (4)
D-E	-422 / 0	-78.0	-78.0 0.17 (1)	6.25	C-J	-206 / 0	0.11 (1)
E-F	-618 / 0	-78.0	-78.0 0.14 (1)	6.25	K-C	-2 / 38	0.01 (4)
F-G	0 / 43	-78.0	-78.0 0.11 (1)	10.00	B-K	0 / 400	0.09 (1)
L-B	-737 / 0	0.0	0.0 0.09 (1)	7.81	I-F	0 / 400	0.09 (1)
H-F	-737 / 0	0.0	0.0 0.09 (1)	7.81			
L-K	0 / 0	-18.5	-18.5 0.03 (4)	10.00			
K-J	0 / 396	-18.5	-18.5 0.14 (4)	10.00			
J-I	0 / 396	-18.5	-18.5 0.14 (4)	10.00			
I-H	0 / 0	-18.5	-18.5 0.03 (4)	10.00			

DESIGN CRITERIA

SPECIFIED LOADS:

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

SPACING = 24.0 IN. C/C

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

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

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

ALLOWABLE DEFL.(LL) = $L/360$ (0.45")
CALCULATED VERT. DEFL.(LL) = $L/999$ (0.01")
ALLOWABLE DEFL.(TL) = $L/360$ (0.45")
CALCULATED VERT. DEFL.(TL) = $L/999$ (0.03")

CSI: TC=0.17/1.00 (C-D:1), BC=0.14/1.00 (J-K:4), WB=0.11/1.00 (E-J:1), SSI=0.09/1.00 (C-D:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

AUTOSOLVE HEELS OFF

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

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

PLATE PLACEMENT TOL. = 0.250 inches

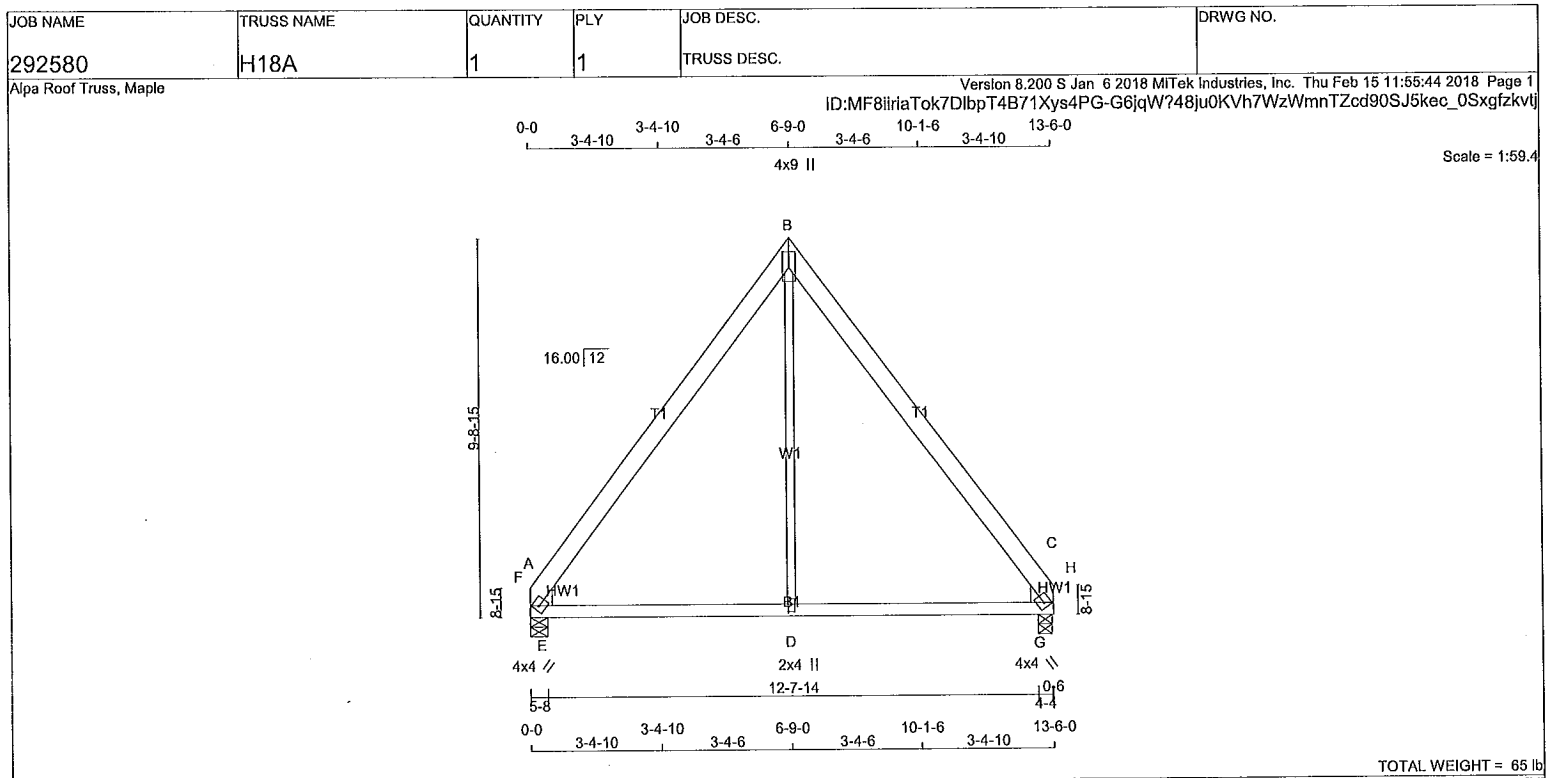
PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.87 (L) (INPUT = 0.90)
JSI METAL= 0.38 (H) (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-18023135



LUMBER				N. L. G. A. RULES	
CHORDS	SIZE	LUMBER	DESCR.	CHORDS	SIZE
A - B	2x6	DRY	No.2	SPF	
B - C	2x6	DRY	No.2	SPF	
A - C	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	TBMH1-h	MT20	4.0	4.0	Edge
B	TTW+p	MT20	4.0	9.0	4.75 2.00
C	TBMH1-h	MT20	4.0	4.0	Edge
D	BMW+w	MT20	2.0	4.0	2.25 1.00

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		MAXIMUM FACTORED		INPUT		REQRD		HEEL	
JT	VERT	GROSS REACTION	HORZ	DOWN	HORZ	BRG	IN-SX	BRG	IN-SX	WEDGE	
A	1282	0	1282	0	0	5-8	2-6	2x6 L			
C	1282	0	1282	0	0	4-4	1-13	2x6 R			

UNFACTORED REACTIONS

1ST CASE		MAX./MIN. COMPONENT REACTIONS		PERM. LIVE		WIND		DEAD		SOIL	
JT	COMBINED	SNOW	LIVE	PERM. LIVE	WIND	DEAD	SOIL	COMBINED	SNOW	LIVE	PERM. LIVE
A	914	558 / 0	0 / 0	0 / 0	0 / 0	356 / 0	0 / 0				
C	914	558 / 0	0 / 0	0 / 0	0 / 0	356 / 0	0 / 0				

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

BRACING

TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 6.19 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 LC1 (PLF)	MAX. MEMB. FORCE (LBS)
FR-TO		FROM TO	LENGTH FR-TO
A-F	-1519 / 0	-78.0 -78.0 0.12 (4)	6.19 D-B
F-B	-865 / 0	-78.0 -78.0 0.37 (1)	6.25 E-F
B-H	-865 / 0	-78.0 -78.0 0.37 (1)	6.25 G-H
H-C	-1519 / 0	-78.0 -78.0 0.12 (4)	6.19
A-E	0 / 529	-112.0 -112.0 0.23 (4)	10.00
E-D	0 / 529	-112.0 -112.0 0.92 (1)	10.00
D-G	0 / 529	-112.0 -112.0 0.92 (1)	10.00
G-C	0 / 529	-112.0 -112.0 0.23 (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

GIRDER TYPE: Cstd Girder
START DISTANCE = 0-0
START SPAN CARRIED = 5-10-8
END DISTANCE = 13-6-0
END SPAN CARRIED = 5-10-8
END WALL WIDTH = 0-0
APPLIED TO FRONT SIDE OF BOTTOM CHORD.
- ADD'L LOADS BASED ON 55 % OF GSL.

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

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

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

ALLOWABLE DEFL.(LL)= L/360 (0.45")
CALCULATED VERT. DEFL.(LL) = L/999 (0.10")
ALLOWABLE DEFL.(TL)= L/360 (0.45")
CALCULATED VERT. DEFL.(TL) = L/773 (0.21")

CSI: TC=0.37/1.00 (B-F:1) , BC=0.92/1.00 (D-G:1) , WB=0.22/1.00 (B-D:1) , SSI=0.37/1.00 (D-E: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

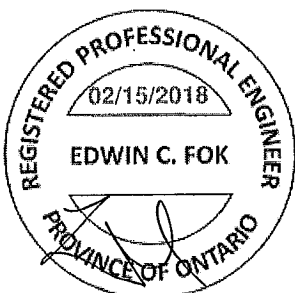
PLATE PLACEMENT TOL. = 0.250 inches

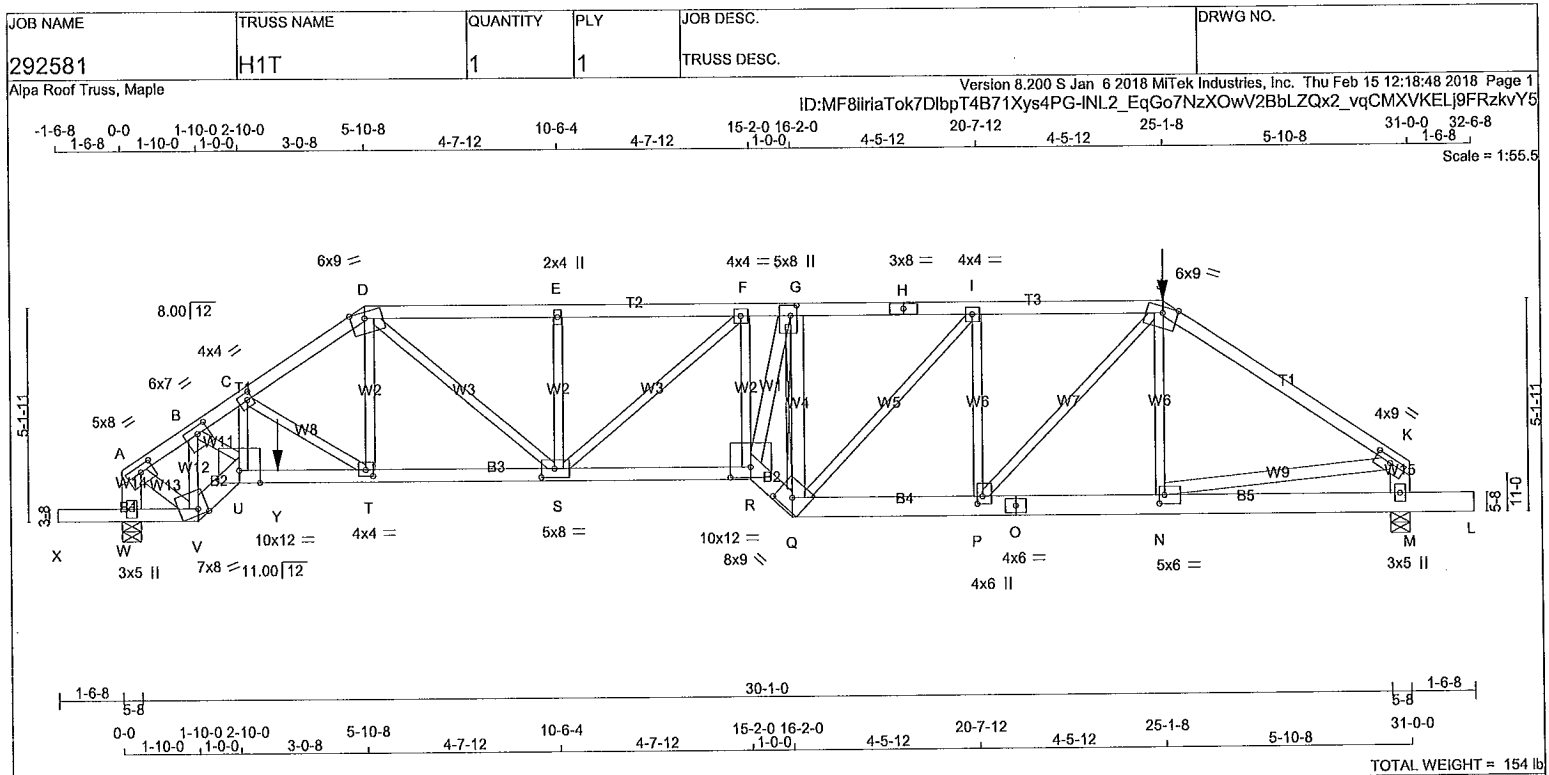
PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.89 (D) (INPUT = 0.90)
JSI METAL= 0.37 (D) (INPUT = 1.00)

A-18023136

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





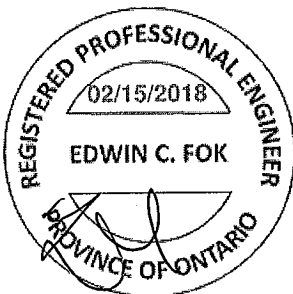
LUMBER				
N. L. G. A. RULES				
CHORDS	SIZE	LUMBER	DESCR.	
A - D	2x4	DRY	1650F 1.5E	SPF
D - H	2x4	DRY	1650F 1.5E	SPF
H - J	2x4	DRY	1650F 1.5E	SPF
J - K	2x4	DRY	1650F 1.5E	SPF
W - A	2x6	DRY	No.2	SPF
M - K	2x6	DRY	No.2	SPF
X - V	2x4	DRY	No.2	SPF
V - U	2x6	DRY	No.2	SPF
U - R	2x4	DRY	2100F 1.8E	SPF
R - Q	2x6	DRY	No.2	SPF
Q - O	2x6	DRY	No.2	SPF
O - L	2x6	DRY	No.2	SPF
ALL WEBS	2x3	DRY	No.2	SPF
EXCEPT				
R - G	2x4	DRY	No.2	SPF
Q - G	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	3.75
B	TMVW-t	MT20	6.0	7.0	2.00	3.25
C	TMVW-t	MT20	4.0	4.0	2.00	1.50
D	TTWW-m	MT20	6.0	9.0	1.75	4.00
E	TMVW-w	MT20	2.0	4.0		
F	TMVW-t	MT20	4.0	4.0		
G	TMVW-t	MT20	5.0	8.0	3.00	1.75
H	TS-t	MT20	3.0	8.0		
I	TMVW-t	MT20	4.0	4.0		
J	TTWW-m	MT20	6.0	9.0	Edge	4.25
K	TMVW-t	MT20	4.0	9.0	1.50	4.50
M	BMV1+p	MT20	3.0	5.0		
N	BMVW-t	MT20	5.0	6.0	2.50	1.50
O	BS-t	MT20	4.0	6.0		
P	BMVW-t	MT20	4.0	6.0	2.25	1.50
Q	BBWW-h	MT20	8.0	9.0	3.25	4.50
R	BBWW-t	MT20	10.0	12.0	3.00	6.00

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		REQRD	
JT	VERT	GROSS REACTION	HORZ	GROSS REACTION	DOWN	HORZ	UPLIFT	BRG	IN-SX
W	3162	0	3162	0	0	0	5-8	4-8	
M	2992	0	2992	0	0	0	5-8	4-0	

UNFACTORED REACTIONS		1ST LCASE		MAX./MIN. COMPONENT REACTIONS		DEAD		SOIL	
JT	COMBINED	SNOW	LIVE	PERM.LIVE	WIND				
W	2247	1413 / 0	0 / 0	0 / 0	0 / 0	835 / 0	0 / 0		
M	2135	1293 / 0	0 / 0	0 / 0	0 / 0	841 / 0	0 / 0		

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

BRACING

TOP CHORD TO BE SHEATHED OR MAX. PURLINE SPACING = 3.02 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 G-Q

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		MAX. FACTORED		FACTORED		WEBS		MAX. FACTORED	
MEMB.	FORCE (LBS)	VERT.	LC1	MAX	UNBRAC	MEMB.	FORCE (LBS)	MAX	UNBRAC
FR-TO		FROM	TO		LENGTH	FR-TO			
A-B	-3071 / 0	-78.0	-78.0	0.14 (1)	4.38	V-B	-3341 / 0	0.57 (1)	
B-C	-5349 / 0	-78.0	-78.0	0.23 (1)	3.36	B-U	0 / 2925	0.72 (1)	
C-D	-4608 / 0	-78.0	-78.0	0.24 (1)	3.61	U-C	0 / 595	0.15 (1)	
D-E	-5500 / 0	-78.0	-78.0	0.46 (1)	3.16	C-T	-730 / 0	0.18 (1)	
E-F	-5500 / 0	-78.0	-78.0	0.46 (1)	3.16	T-D	0 / 899	0.22 (1)	
F-G	-5024 / 0	-153.5	-153.5	0.36 (1)	3.02	D-S	0 / 2158	0.53 (1)	
G-H	-5024 / 0	-153.5	-153.5	0.64 (1)	3.02	S-E	-413 / 0	0.12 (1)	
H-I	-5024 / 0	-153.5	-153.5	0.64 (1)	3.02	S-F	-820 / 0	0.52 (1)	
I-J	-4483 / 0	-153.5	-153.5	0.61 (1)	3.23	R-F	0 / 406	0.10 (1)	
J-K	-3760 / 0	-78.0	-78.0	0.75 (1)	3.53	R-G	0 / 4390	0.78 (1)	
W-A	-2934 / 0	0.0	0.0	0.21 (1)	6.09	Q-G	-4698 / 0	0.77 (1)	
M-K	-2748 / 0	0.0	0.0	0.19 (1)	6.26	Q-I	0 / 785	0.19 (1)	
						P-I	-1349 / 0	0.51 (1)	
X-W	0 / 0	-96.5	-96.5	0.17 (1)	10.00	P-J	0 / 1987	0.49 (1)	
W-V	-3 / 0	-18.5	-18.5	0.17 (1)	10.00	N-J	-204 / 83	0.08 (1)	
V-U	0 / 3203	-18.5	-18.5	0.42 (1)	10.00	A-V	0 / 2780	0.49 (1)	
U-Y	0 / 4442	-18.5	-18.5	0.66 (1)	10.00	N-K	0 / 3154	0.56 (1)	
Y-T	0 / 4442	-112.0	-112.0	0.66 (1)	10.00				
T-S	0 / 3850	-112.0	-112.0	0.54 (1)	10.00				
S-R	0 / 6120	-112.0	-112.0	0.71 (1)	10.00				
R-Q	0 / 6483	-36.4	-36.4	0.85 (1)	10.00				
Q-P	0 / 4484	-36.4	-36.4	0.65 (1)	10.00				
P-O	0 / 3120	-36.4	-36.4	0.47 (1)	10.00				
O-N	0 / 3120	-36.4	-36.4	0.47 (1)	10.00				
N-M	0 / 0	-36.4	-36.4	0.15 (4)	10.00				
M-L	0 / 0	-96.5	-96.5	0.08 (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: CStdGirder
START DISTANCE = 3-9-4
START SPAN CARRIED = 5-10-8
END DISTANCE = 15-2-0
END SPAN CARRIED = 5-10-8
END WALL WIDTH = 0-0
APPLIED TO FRONT SIDE OF BOTTOM CHORD.
- ADDTL LOADS BASED ON 55 % OF GSL.

GIRDER TYPE: CPrimeHip
SIDE SETBACK = 5-10-8
END SETBACK = 5-10-8
END WALL WIDTH = 0-0
CORNER FRAMING TYPE: CONVENTIONAL
END JACK TYPE: CONVENTIONAL
APPLIED TO FRONT SIDE
- ADDTL LOADS BASED ON 55 % OF GSL.
LOADS APPLIED TO FIRST 15-10-0 OF SPAN MEASURED FROM THE RIGHT.

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

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

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

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

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

ALLOWABLE DEFL.(LL)= L/360 (1.03")
CALCULATED VERT. DEFL.(LL)= L/ 999 (0.31")
ALLOWABLE DEFL.(TL)= L/360 (1.03")
CALCULATED VERT. DEFL.(TL)= L/ 609 (0.61")

CANTILEVER DEFLECTION:
ALLOWABLE DEFL.(LL)= L/120 (0.19")
CALCULATED VERT. DEFL.(LL)= L/ 443 (0.04")

A-18023137 CONTINUED ON PAGE 2

JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
292581	H1T	1	1	TRUSS DESC.	
Alpa Roof Truss, Maple					
Version 8.200 S Jan 6 2018 MITek Industries, Inc. Thu Feb 15 12:18:48 2018 Page 2					
ID:MF8iiriaTok7DlbpT4B71Xys4PG-INL2 EqGo7NzXOwV2BbLZQx2_vqCMXVKEL9FRzkvY5					

PLATES (table is in inches)

JT	TYPE	PLATES	W	LEN	Y	X
S	BMWWW-I	MT20	5.0	8.0	2.50	3.75
T	BMWW-I	MT20	4.0	4.0	1.75	2.00
U	BBWW-I	MT20	10.0	12.0	Edge	
V	BBWW-m	MT20	7.0	8.0	Edge	2.75
W	BMV1+p	MT20	3.0	5.0		

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

HANGERS NOTES

- SPECIAL HANGER(S) OR CONNECTION(S) REQUIRED TO SUPPORT CONCENTRATED LOAD(S) 334.0 lbs FACTORED DOWN AT 25-1-8 ON TOP CHORD, AND 423.2 lbs FACTORED DOWN AT 3-9-4 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	25-1-8	-334	-334	—	FRONT	VERT	TOTAL
Y	3-9-4	-423	-423	—	FRONT	VERT	TOTAL

ALLOWABLE DEFL.(TL)= L/120 (0.19")
CALCULATED VERT. DEFL.(TL) = L/228 (0.08")

CSI: TC=0.75/1.00 (J-K:1), BC=0.85/1.00 (Q-R:1),
WB=0.78/1.00 (G-R:1), SSI=0.36/1.00 (I-J: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.

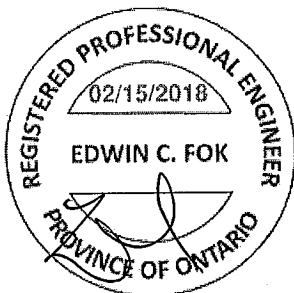
NAIL VALUES
PLATE GRIP(DRY) SHEAR SECTION
(PSI) (PLI) (PLI)
MAX MIN MAX MIN MAX MIN
MT20 618 354 1667 788 1987 1656

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.90 (T) (INPUT = 0.90)
JSI METAL= 0.96 (R) (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

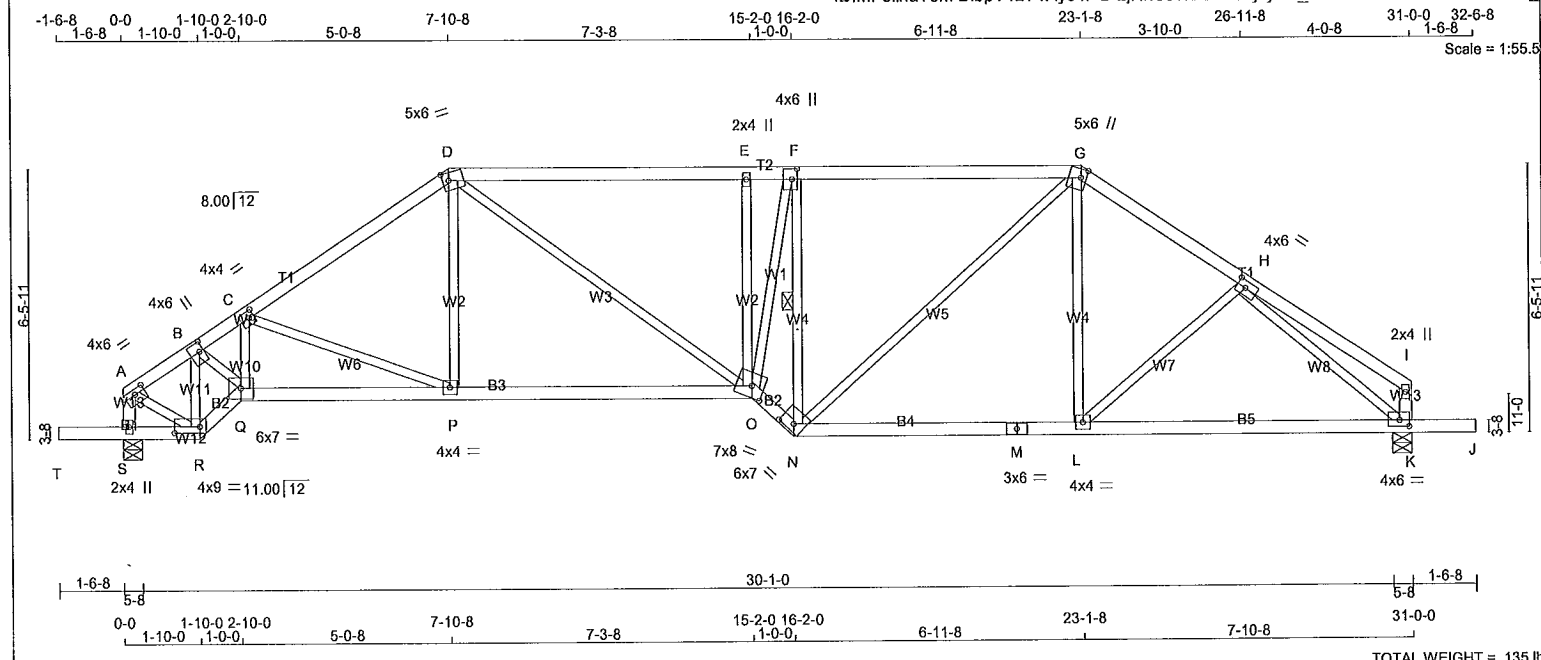


A-18023137(2)

JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
292581	H2T	1	1	TRUSS DESC.	

Alpa Roof Truss, Maple

Version 8.200 S Jan 6 2018 MiTok Industries, Inc. Thu Feb 15 12:18:55 2018 Page 1
ID:MF8ilriaTok7DlbpT4B71Xys4PG-2jHhSev8GGztSry9D_LukHdkJsVhTmrwv1?XzkvY



TOTAL WEIGHT = 135 lb

LUMBER	SIZE	DESCR.
N. L. G. A. RULES		
CHORDS		
A - D	2x4	SPF
D - G	2x4	SPF
G - I	2x4	SPF
S - A	2x4	SPF
K - I	2x4	SPF
T - R	2x4	SPF
R - Q	2x4	SPF
Q - O	2x4	SPF
O - N	2x4	SPF
N - M	2x4	SPF
M - J	2x4	SPF

ALL WEBS 2x3 DRY No.2 SPF
EXCEPT

DRY: SEASONED LUMBER.

PLATES (table is in inches)

JT	TYPE	PLATES	W	LEN	Y	X
A	TMVW-t	MT20	4.0	6.0	1.50	3.00
B	TMVW-t	MT20	4.0	6.0	2.75	1.25
C	TMVW-t	MT20	4.0	4.0	2.00	1.50
D	TTVW-m	MT20	5.0	6.0	2.25	1.75
E	TMVW-t	MT20	2.0	4.0		
F	TMVW-t	MT20	4.0	6.0	3.00	1.50
G	TTVW-m	MT20	5.0	6.0	2.50	1.50
H	TMVW-t	MT20	4.0	6.0	2.00	2.50
I	TMV-p	MT20	2.0	4.0		
K	BMVW-1	MT20	4.0	6.0	1.75	2.75
L	BMVW-t	MT20	4.0	4.0		
M	BS-t	MT20	3.0	6.0		
N	BBVW-h	MT20	6.0	7.0	2.00	4.00
O	BBVW-m	MT20	7.0	8.0	3.25	3.50
P	BMVW-t	MT20	4.0	4.0		
Q	BBVW-l	MT20	6.0	7.0		
R	BBVW-l	MT20	4.0	9.0	1.75	7.25
S	BMV1+p	MT20	2.0	4.0		

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

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

BEARINGS	FACTORED		MAXIMUM FACTORED		INPUT		REQRD	
	GROSS REACTION	DOWN	GROSS REACTION	DOWN	BRG	IN-SX	BRG	IN-SX
JT	1648	0	1648	0	5-8	2-7		
S	1648	0	1648	0	5-8	1-12		
K	1640	0	1640	0	5-8			

UNFACTORED REACTIONS

JT	1ST LCASE		MAX / MIN. COMPONENT REACTIONS		WIND	DEAD	SOIL
	COMBINED	SNOW	LIVE	PERM.LIVE			
S	1175	717 / 0	0 / 0	0 / 0	0 / 0	458 / 0	0 / 0
K	1169	714 / 0	0 / 0	0 / 0	0 / 0	456 / 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 = 3.92 FT.
MAX. UNBRACED BOTTOM CHORD LENGTH = 10.00 FT OR RIGID CEILING DIRECTLY APPLIED.

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

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

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

LOADING

TOTAL LOAD CASES: (4)

CHORDS					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	-1404 / 0	-78.0	-78.0 0.10 (1)	5.41	R-B	-1574 / 0	0.24 (1)		
B-C	-2426 / 0	-78.0	-78.0 0.23 (1)	4.22	B-Q	0 / 1460	0.33 (1)		
C-D	-2028 / 0	-78.0	-78.0 0.29 (1)	4.50	Q-C	-3 / 46	0.02 (4)		
D-E	-2274 / 0	-78.0	-78.0 0.60 (1)	3.92	C-P	-464 / 0	0.23 (1)		
E-F	-2267 / 0	-78.0	-78.0 0.48 (1)	3.99	P-D	0 / 294	0.07 (4)		
F-G	-1935 / 0	-78.0	-78.0 0.50 (1)	4.31	D-O	0 / 737	0.17 (1)		
G-H	-1748 / 0	-78.0	-78.0 0.17 (1)	4.90	O-E	-363 / 0	0.17 (1)		
H-I	0 / 18	-78.0	-78.0 0.18 (1)	10.00	O-F	0 / 1782	0.40 (1)		
S-A	-1419 / 0	0.0	0.0 0.14 (1)	6.84	N-F	-2118 / 0	0.58 (1)		
K-I	-121 / 0	0.0	0.0 0.01 (1)	7.81	N-G	0 / 661	0.15 (1)		
					L-G	0 / 187	0.06 (4)		
T-S	0 / 0	-96.5	-96.5 0.16 (1)	10.00	L-H	-35 / 39	0.02 (1)		
S-R	0 / 0	-18.5	-18.5 0.12 (1)	10.00	A-R	0 / 1279	0.29 (1)		
R-Q	0 / 1456	-18.5	-18.5 0.24 (1)	10.00	H-K	-1965 / 0	0.89 (1)		
Q-P	0 / 2102	-18.5	-18.5 0.46 (1)	10.00					
P-O	0 / 1675	-18.5	-18.5 0.39 (1)	10.00					
O-N	0 / 2577	-18.5	-18.5 0.42 (1)	10.00					
N-M	0 / 1440	-18.5	-18.5 0.44 (4)	10.00					
M-L	0 / 1440	-18.5	-18.5 0.44 (4)	10.00					
L-K	0 / 1463	-18.5	-18.5 0.43 (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

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

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

ALLOWABLE DEFL.(LL)= L/360 (1.03")
CALCULATED VERT. DEFL.(LL) = L/999 (0.14")
ALLOWABLE DEFL.(TL)= L/360 (1.03")
CALCULATED VERT. DEFL.(TL) = L/999 (0.30")

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/761 (0.02")

CSI: TC=0.60/1.00 (D-E:1), BC=0.46/1.00 (P-Q:1)
WB=0.89/1.00 (H-K:1), SSI=0.26/1.00 (D-E:1)

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

COMPANION LIVE LOAD FACTOR = 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

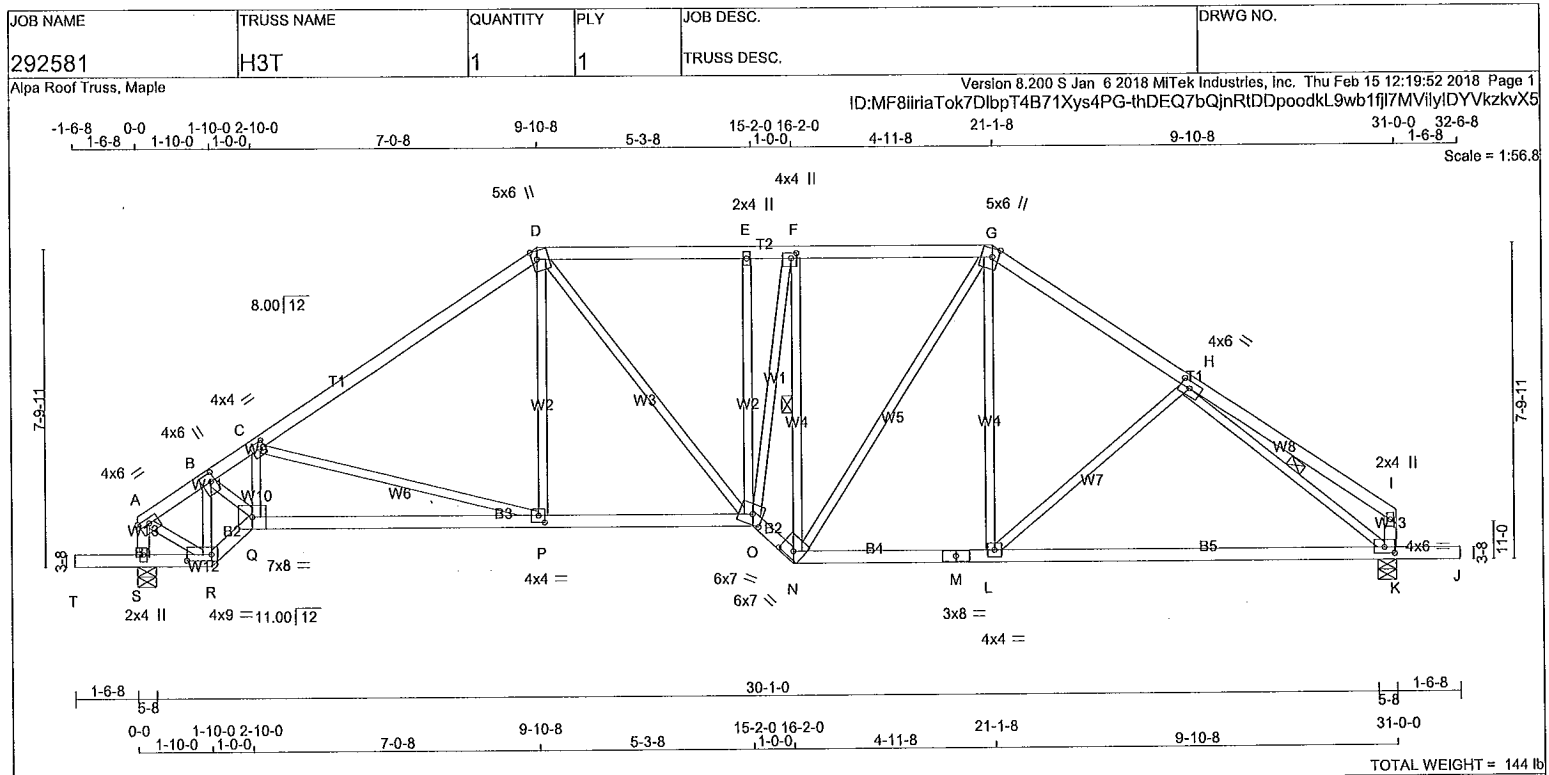
PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.87 (H) (INPUT = 0.90)
JSI METAL= 0.48 (H) (INPUT = 1.00)

A-18023138 CONTINUE ON PAGE 2





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

DRY: SEASONED LUMBER.

PLATES (table is in inches)

JT	TYPE	PLATES	W	LEN	Y	X
A	TMVW-t	MT20	4.0	6.0	1.50	3.00
B	TMVW-t	MT20	4.0	6.0	2.50	1.25
C	TMVW-t	MT20	4.0	4.0	2.00	1.50
D	TTVW+m	MT20	5.0	6.0	2.50	1.50
E	TMVW-w	MT20	2.0	4.0		
F	TMVW-t	MT20	4.0	4.0	1.50	1.50
G	TTVW+m	MT20	5.0	6.0	Edge	1.75
H	TMVW-t	MT20	4.0	6.0	2.00	2.75
I	TMV+p	MT20	2.0	4.0		
K	BMVW1-t	MT20	4.0	6.0	1.75	3.00
L	BMVW-t	MT20	4.0	4.0		
M	BS-t	MT20	3.0	8.0		
N	BBVW-h	MT20	6.0	7.0	2.00	4.00
O	BBVW-m	MT20	6.0	7.0	3.00	3.00
P	BMVW-t	MT20	4.0	4.0	2.00	1.75
Q	BBVW-t	MT20	7.0	8.0		
R	BBVW-t	MT20	4.0	9.0	1.75	7.25
S	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

JT	FACTORED GROSS REACTION		MAXIMUM FACTORED GROSS REACTION		INPUT BRG		REQRD BRG	
	VERT	HORZ	DOWN	HORZ	IN-SX	IN-SX	IN-SX	IN-SX
S	1648	0	1648	0	5-8	2-7		
K	1640	0	1640	0	5-8	1-12		

UNFACTORED REACTIONS

JT	1ST LCASE COMBINED		MAX./MIN. SNOW		LIVE		PERM.LIVE		WIND		DEAD		SOIL	
	SNOW	LIVE	SNOW	LIVE	SNOW	LIVE	SNOW	LIVE	SNOW	LIVE	SNOW	LIVE	SNOW	LIVE
S	1175	717 / 0	0 / 0	0 / 0	0 / 0	0 / 0	0 / 0	0 / 0	0 / 0	0 / 0	458 / 0	0 / 0	0 / 0	0 / 0
K	1169	714 / 0	0 / 0	0 / 0	0 / 0	0 / 0	0 / 0	0 / 0	0 / 0	0 / 0	456 / 0	0 / 0	0 / 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 = 3.92 FT.
MAX. UNBRACED BOTTOM CHORD LENGTH = 10.00 FT OR RIGID CEILING DIRECTLY APPLIED.

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

1 LATERAL BRACE(S) AT 1/2 LENGTH OF F-N, H-K.

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)

FR-TO	CHORDS MAX. FACTORED MEMB. FORCE (LBS)		FACTORED VERT. LOAD (PLF)		MAX. CS (LC)		MAX. UNBRACED LENGTH		WEBS MAX. FACTORED MEMB. FORCE (LBS)		MAX. CS (LC)	
	FR-TO	MEMB. FORCE (LBS)	FR-TO	MEMB. FORCE (LBS)	FR-TO	MEMB. FORCE (LBS)	FR-TO	MEMB. FORCE (LBS)	FR-TO	MEMB. FORCE (LBS)	FR-TO	MEMB. FORCE (LBS)
A-B	-1393 / 0		-78.0	-78.0	0.14 (1)	5.38	R-B	-1548 / 0		0.24 (1)		
B-C	-2434 / 0		-78.0	-78.0	0.45 (1)	3.92	B-Q	0 / 1629		0.37 (1)		
C-D	-1865 / 0		-78.0	-78.0	0.57 (1)	4.34	Q-C	-119 / 41		0.02 (1)		
D-E	-1779 / 0		-78.0	-78.0	0.30 (1)	4.71	C-P	-709 / 0		0.75 (1)		
E-F	-1775 / 0		-78.0	-78.0	0.23 (1)	4.79	P-D	0 / 317		0.07 (4)		
F-G	-1564 / 0		-78.0	-78.0	0.23 (1)	5.05	D-O	0 / 395		0.09 (1)		
G-H	-1656 / 0		-78.0	-78.0	0.27 (1)	4.90	O-E	-241 / 0		0.19 (1)		
H-I	0 / 24		-78.0	-78.0	0.30 (1)	10.00	O-F	0 / 1413		0.32 (1)		
S-A	-1419 / 0		0.0	0.0	0.14 (1)	6.84	N-F	-1694 / 0		0.65 (1)		
K-I	-153 / 0		0.0	0.0	0.02 (1)	7.81	N-G	0 / 372		0.08 (1)		
							L-G	0 / 297		0.07 (4)		
T-S	0 / 0		-96.5	-96.5	0.16 (1)	10.00	L-H	-181 / 0		0.14 (1)		
S-R	0 / 0		-18.5	-18.5	0.12 (1)	10.00	A-R	0 / 1257		0.28 (1)		
R-Q	0 / 1431		-18.5	-18.5	0.23 (1)	10.00	H-K	-1955 / 0		0.58 (1)		
Q-P	0 / 2209		-18.5	-18.5	0.48 (1)	10.00						
P-O	0 / 1531		-18.5	-18.5	0.37 (1)	10.00						
O-N	0 / 2090		-18.5	-18.5	0.34 (1)	10.00						
N-M	0 / 1359		-18.5	-18.5	0.53 (4)	10.00						
M-L	0 / 1359		-18.5	-18.5	0.53 (4)	10.00						
L-K	0 / 1492		-18.5	-18.5	0.53 (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

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

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

ALLOWABLE DEFL.(LL)= L/360 (1.03")
CALCULATED VERT. DEFL.(LL) = L/999 (0.11")
ALLOWABLE DEFL.(TL)= L/360 (1.03")
CALCULATED VERT. DEFL.(TL) = L/999 (0.34")

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/697 (0.03")

CSI: TC=0.57/1.00 (C-D:1), BC=0.53/1.00 (L-N:4), WB=0.75/1.00 (C-P:1), SSI=0.28/1.00 (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 LEFT HEEL ONLY

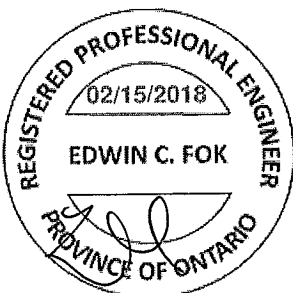
TRUSS PLATE MANUFACTURER IS NOT RESPONSIBLE FOR QUALITY CONTROL IN THE TRUSS MANUFACTURING PLANT.

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

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.90 (K) (INPUT = 0.90)
JSI METAL= 0.74 (M) (INPUT = 1.00)

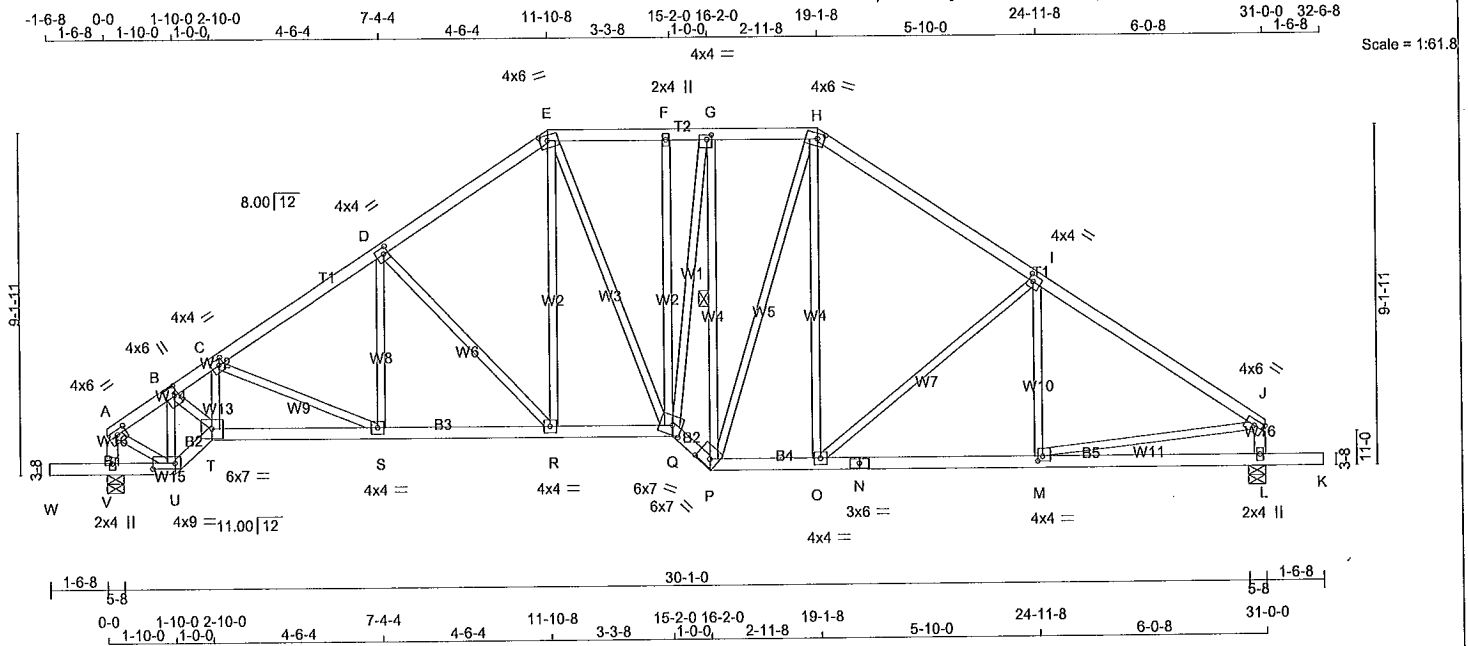


JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
292581	H4T	1	1	TRUSS DESC.	

Alpa Roof Truss, Maple

Version 8.200 S Jan 6 2018 MiTek Industries, Inc. Thu Feb 15 12:20:00 2018 Page 1

ID:MF8iiriaTok7DibpT4B71Xys4PG-eDiG5shRqFSIASQLGIIDTcwRixWoe6lwnY9zmGzkvWVz



TOTAL WEIGHT = 162 lb
(M)(F)

LUMBER	N. L. G. A. RULES	CHORDS	SIZE	LUMBER	DESCR.
A - E	2x4	DRY	No.2	SPF	
E - H	2x4	DRY	No.2	SPF	
H - J	2x4	DRY	No.2	SPF	
V - A	2x4	DRY	No.2	SPF	
L - J	2x4	DRY	No.2	SPF	
W - U	2x4	DRY	No.2	SPF	
U - T	2x4	DRY	No.2	SPF	
T - Q	2x4	DRY	No.2	SPF	
Q - P	2x4	DRY	No.2	SPF	
P - N	2x4	DRY	No.2	SPF	
N - K	2x4	DRY	No.2	SPF	
ALL WEBS EXCEPT	2x3	DRY	No.2	SPF	

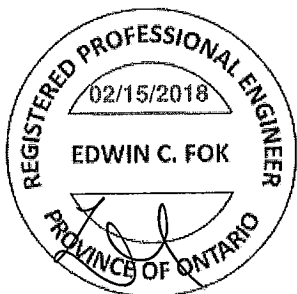
DRY: SEASONED LUMBER.

PLATES (table is in inches)

JT	TYPE	PLATES	W	LEN	Y	X
A	TMWW-t	MT20	4.0	6.0	1.50	3.00
B	TMWW-t	MT20	4.0	6.0	3.00	1.25
C, D, I						
C	TMWW-t	MT20	4.0	4.0	2.00	1.50
E	TTWW-m	MT20	4.0	6.0	1.75	2.50
F	TMWW-w	MT20	2.0	4.0		
G	TMWW-t	MT20	4.0	4.0	1.50	1.50
H	TTWW-m	MT20	4.0	6.0	1.75	2.25
J	TMWW-t	MT20	4.0	6.0	1.75	Edge
L	BMV1+p	MT20	2.0	4.0		
M	BMWW-t	MT20	4.0	4.0	1.50	1.50
N	BS-t	MT20	3.0	6.0		
O, R, S						
O	BMWW-t	MT20	4.0	4.0		
P	BBWW-h	MT20	6.0	7.0	2.25	4.50
Q	BBWW-m	MT20	6.0	7.0	3.00	3.00
T	BBWW-t	MT20	6.0	7.0		
U	BBWW-t	MT20	4.0	9.0	1.75	7.25
V	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 GROSS REACTION	MAXIMUM FACTORED GROSS REACTION	INPUT BRG	REQRD BRG
JT	VERT	HORZ	DOWN	HORZ
V	1648	0	1648	0
L	1640	0	1640	0

UNFACTORED REACTIONS

	1ST CASE	MAX/MIN	COMPONENT REACTIONS				
JT	COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
V	1175	717 / 0	0 / 0	0 / 0	0 / 0	458 / 0	0 / 0
L	1169	714 / 0	0 / 0	0 / 0	0 / 0	458 / 0	0 / 0

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

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.

1 LATERAL BRACE(S) AT 1/2 LENGTH OF G-P.

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	MAX. FACTORED	FACTORED	W E B S	MAX. FACTORED
MEMB.	FORCE (LBS)	VERT. LOAD (PLF)	MEMB.	FORCE (LBS)
FR-TO		FROM TO	FR-TO	
A-B	-1410 / 0	-78.0 -78.0 0.08 (1)	U-B	-1588 / 0
B-C	-2422 / 0	-78.0 -78.0 0.12 (1)	B-T	0 / 1373
C-D	-2075 / 0	-78.0 -78.0 0.24 (1)	T-C	0 / 74
D-E	-1672 / 0	-78.0 -78.0 0.22 (1)	C-S	-336 / 0
E-F	-1458 / 0	-78.0 -78.0 0.14 (1)	S-D	0 / 215
F-G	-1458 / 0	-78.0 -78.0 0.09 (1)	D-R	-532 / 0
G-H	-1314 / 0	-78.0 -78.0 0.09 (1)	R-E	0 / 455
H-I	-1518 / 0	-78.0 -78.0 0.40 (1)	E-Q	0 / 210
I-J	-1832 / 0	-78.0 -78.0 0.44 (1)	Q-F	-111 / 0
V-A	-1419 / 0	0.0 0.0 0.14 (1)	G-Q	0 / 1159
L-J	-1445 / 0	0.0 0.0 0.15 (1)	P-G	-1376 / 0
W-V	0 / 0	-96.5 -96.5 0.16 (1)	P-H	0 / 233
V-U	0 / 0	-18.5 -18.5 0.12 (1)	H-O	0 / 340
U-T	0 / 1469	-18.5 -18.5 0.24 (1)	O-I	-408 / 0
T-S	0 / 2046	-18.5 -18.5 0.38 (1)	M-I	-108 / 53
S-R	0 / 1738	-18.5 -18.5 0.32 (1)	A-U	0 / 1290
R-Q	0 / 1378	-18.5 -18.5 0.26 (1)	M-J	0 / 1566
Q-P	0 / 1760	-18.5 -18.5 0.29 (1)		
P-O	0 / 1239	-18.5 -18.5 0.25 (1)		
O-N	0 / 1549	-18.5 -18.5 0.33 (1)		
N-M	0 / 1549	-18.5 -18.5 0.33 (1)		
M-L	0 / 0	-18.5 -18.5 0.16 (4)		
L-K	0 / 0	-96.5 -96.5 0.16 (1)		

DESIGN CRITERIA

SPECIFIED LOADS:

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

SPACING = 24.0 IN. C/C

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

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

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

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

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

ALLOWABLE DEFL.(LL) = L/360 (1.03")
CALCULATED VERT. DEFL.(LL) = L/999 (0.10")
ALLOWABLE DEFL.(TL) = L/360 (1.03")
CALCULATED VERT. DEFL.(TL) = L/999 (0.19")

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/958 (0.02")

CSI: TC=0.44/1.00 (I-J:1), BC=0.38/1.00 (S-T:1), WB=0.75/1.00 (G-P:1), SSI=0.19/1.00 (I-J:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

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

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

PLATE PLACEMENT TOL. = 0.250 inches

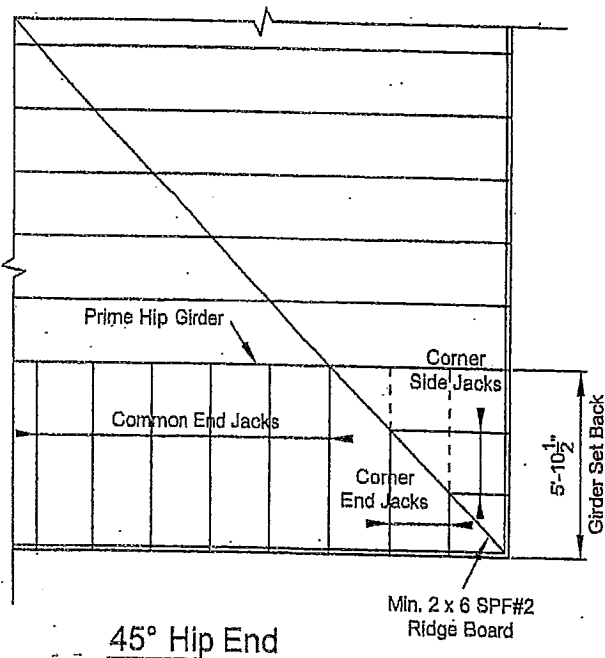
PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.89 (M) (INPUT = 0.90)
JSI METAL= 0.58 (M) (INPUT = 1.00)

A-18023140

CONTINUED ON PAGE 2

STRACON ENGINEERING INC.



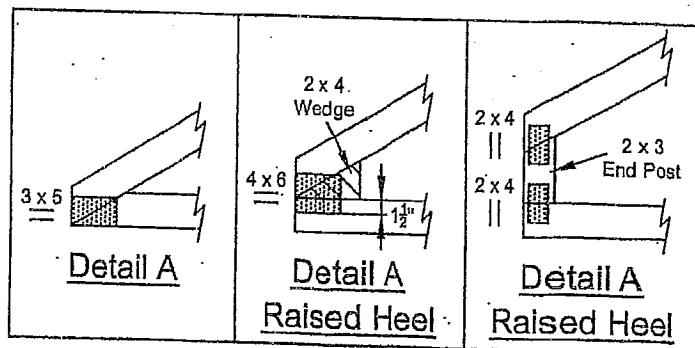
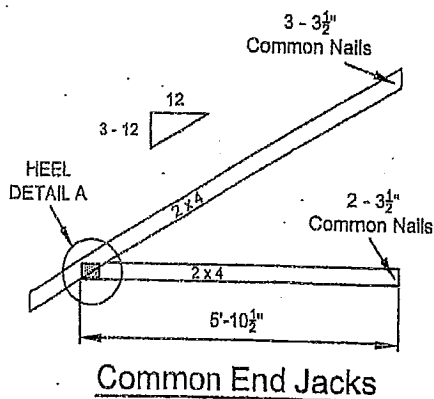
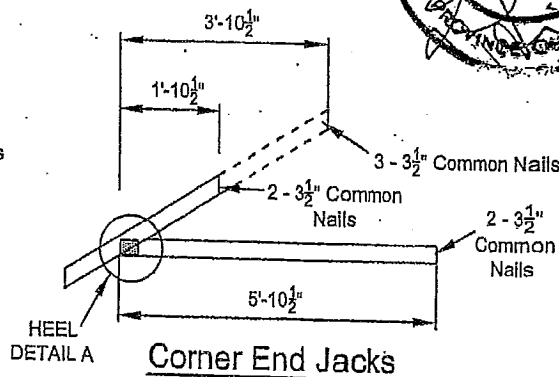
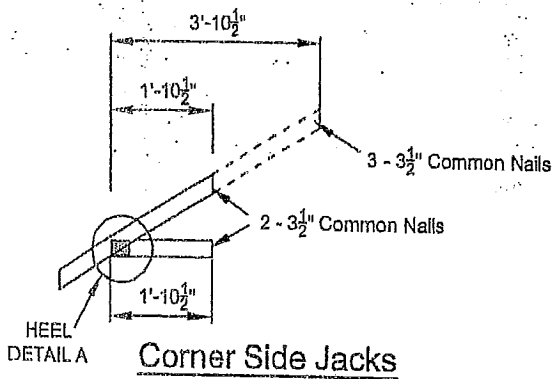
LUMBER SPECIFICATION

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.

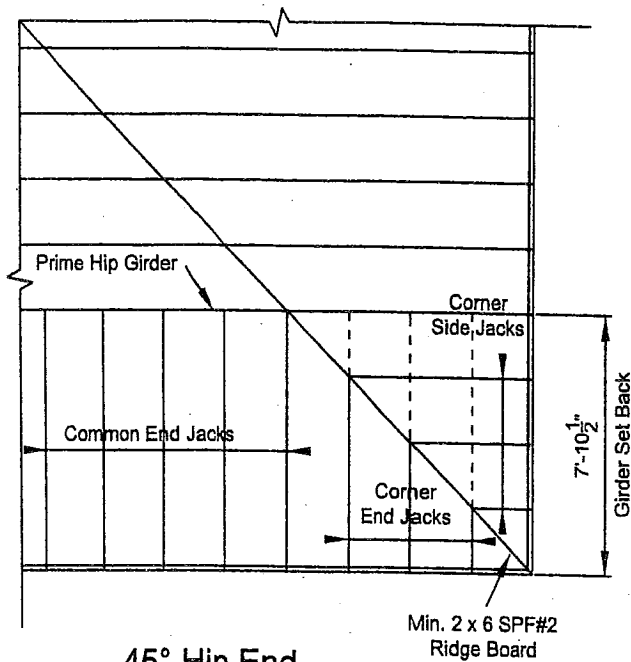
TOTAL LOAD : 50.5 P.S.F



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

CS-51008

STRACON ENGINEERING INC.



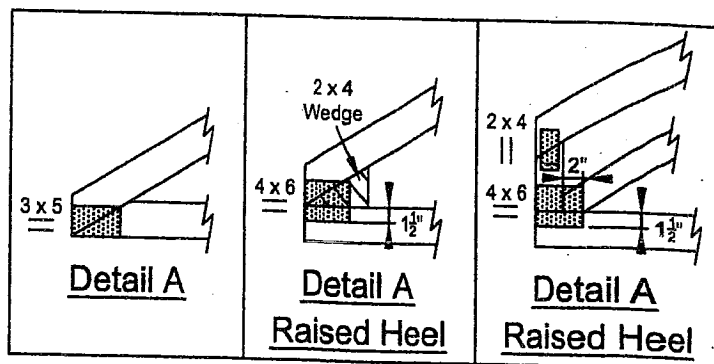
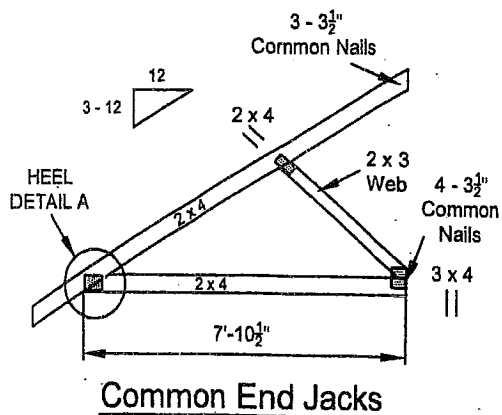
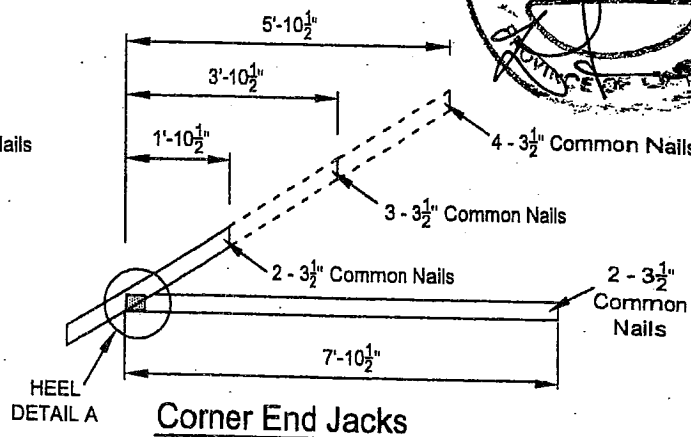
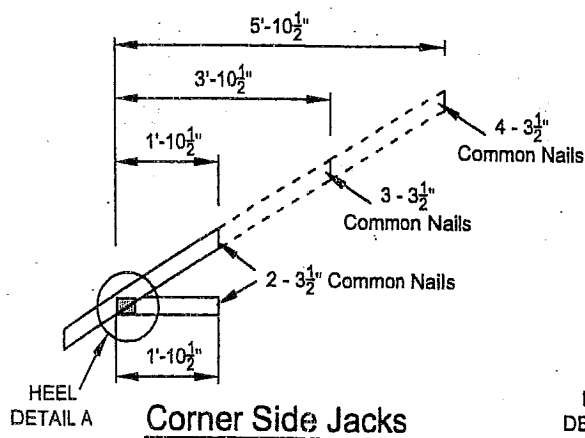
LUMBER SPECIFICATION

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

TOTAL LOAD : 44.8 P.S.F



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

CS-71008N

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:

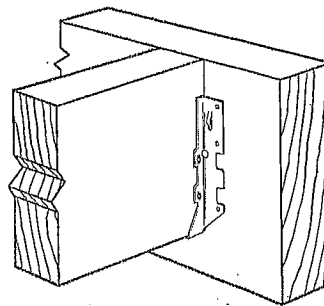
- Factored resistances are in accordance with CSA O86-14.
- Uplift resistances have been increased 15%. No further increase is permitted.
- Wood shear is not considered in the factored resistances given. The specifier must ensure that the joist and header capacities are capable of withstanding these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

Installation:

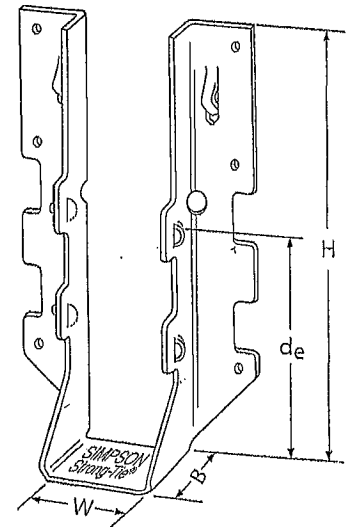
- Use all specified fasteners.
- Nails: 16d = 0.162" dia. x 3½" long common wire, 10d = 0.148" x 3" long common wire.
- Double shear nails must be driven at an angle through the joist or truss into the header to achieve the table loads.
- Not designed for welded or nailer applications.

Options:

- These hangers cannot be modified



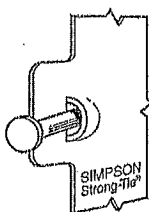
Typical LUS Installation



LUS28

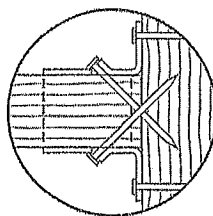
Model No.	Ga.	Dimensions (in.)				Fasteners		Factored Resistance (lb.)			
		W	H	B	d ₁	Face	Joist	D.Fir-L		S-P-F	
								Uplift (K _p =1.15)	Normal (K _p =1.00)	Uplift (K _p =1.15)	Normal (K _p =1.00)
LUS24	18	1½	3½	1½	1½	(4) 10d	(2) 10d	710	1630	645	1155
LUS24-2	18	3½	3½	2	1½	(4) 16d	(2) 16d	835	2020	590	1435
LUS26	18	1½	4¾	1¾	3¾	(4) 10d	(4) 10d	1420	2170	1290	1630
LUS26-2	18	3½	4¾	2	4	(4) 16d	(4) 16d	1720	2595	1545	1920
LUS26-3	18	4¾	4¾	2	3¼	(4) 16d	(4) 16d	1720	2595	1545	2340
LUS28	18	1½	6½	1¾	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	4¾	6¼	2	3¼	(6) 16d	(4) 16d	1720	3325	1545	2375
LUS210	18	1½	7½	1¾	3¾	(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	4¾	8¾	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.

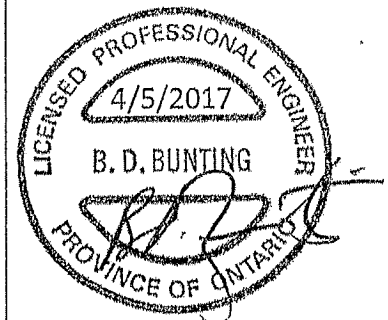


Dome Double Shear Nailing prevents tabs breaking off (available on some models).

U.S. Patent 5,803,580



Double Shear Nailing Top View.



LIMIT
STATES
DESIGN

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

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17-SPEC/LUS17-3/17 exp: 6/19

(800) 999-5099
strongtie.com