

ALL CONV. FRAMING TO CONFORM WITH PART 9 OF O.B.C. (latest Edition) ROOF TRUSSES TO BE 2X4 SP#2, 24" O.C. UNLESS OTHERWISE NOTED. TRUSSES TO HAVE LATERAL BRACING SO THAT THE DIST. BETWEEN END PT. & BETWEEN ROWS OF BRACING DOES NOT EXCEED 6'

18-06-00

50-02-00

1-06-00
1-10-00
1-04-00

H13T(10)

H1
H2
H3

H4(14)

8/12
16/12

H5P
H6P
H7P
H8P
H9P
H8P
H7P
H6P
H5P

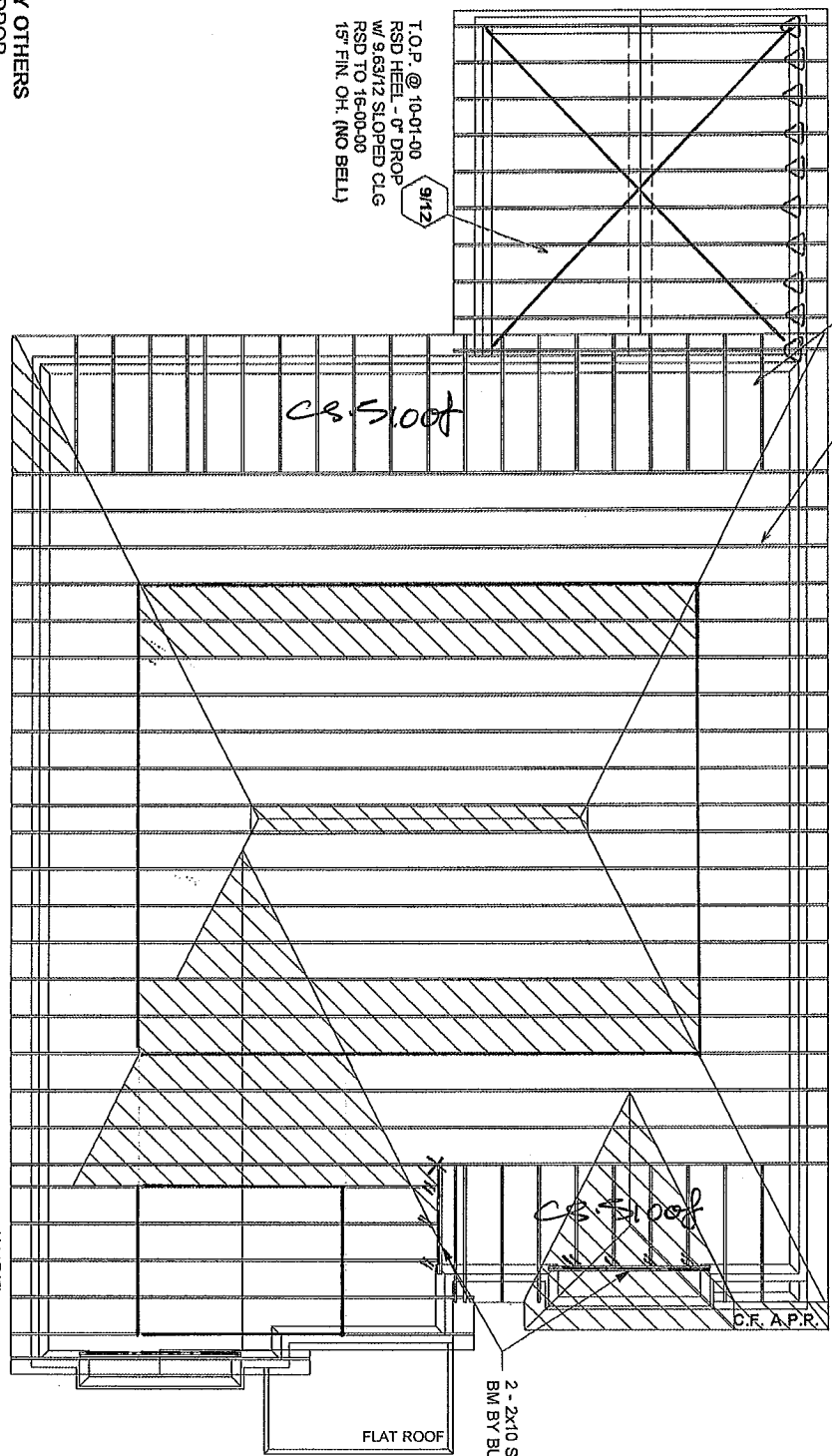
H3
H2
H1

ALPHA-BARRIE

30-01-06
41-08-00
17-10-00
J1(20)

T.O.P. @ 10-01-00
RSD HEEL - 0" DROP
w/ 9.63/12 SLOPED CLG
RSD TO 16-00-00
15" FIN. OH. (NO BELL)

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



A-18023697-A-18023704
A-18023710-A-18023777

25-07-00
54-10-00

H11P(5)
H10SG
H10
H12G

HANGERS
// LUS24
X HHUS26-2
TC26

11-01-06
22-08-00
13-10-00
8-10-00
5-00-00
9-00-00
5-00-00
J1
J1S(4)
J1(4)

CONVENTIONAL
FRAMING BY
OTHERS

PL 95914

BEADPOUNT

CR OPT LOGGA (GAT)



Job Track 45147
Layout ID: 291821
Plan Log: 95233

Builder / Location:
GOLD PARK HOMES / VAUGHAN
Project: **PINE VALLEY**
Date: 12/6/2017 Designer: AMANDA

Model / Elevation: 5004 / B OR OPT 5 BDRM
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.

ALL CON. FRAMING TO CONFORM WITH ALPA (2018 EDITION) ROOF TRUSSES THAT CROSS MEET OVER TRUSSES TO BE 2x4 SP#2 24" O.C. WITH A VERT. POST TO THE TRUSS UNDERNEATH AT EACH CROSS PT. TO HAVE LATERAL BRACING SO THAT THE TRUSS DOES NOT EXCEED 8' BETWEEN ROWS OF BRACING.

18-06-00

50-02-00

H13T(10)

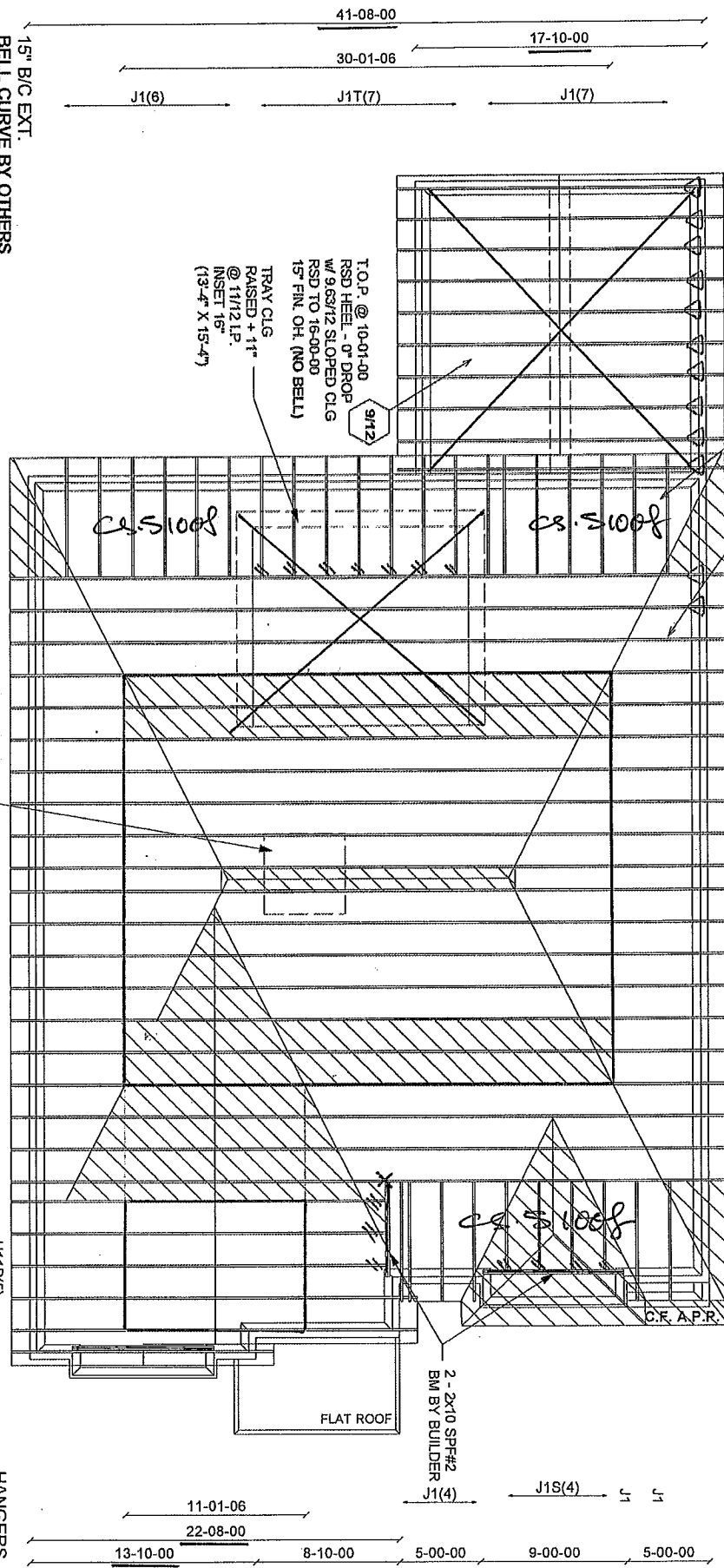
H1T
H2T
H3T
H4T
H4T

H5P
H6P
H7P
H8P
H9P
H9P
H8P
H7P
H6P
H5P

H3
H2
H1

1-06-00
1-10-00
1-04-00

ALPA-BARRIE



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

T.O.P. @ 10-01-00
RSD HEEL - 0" DROP
W/ 9/63/12 SLOPED CLG
RSD TO 16-00-00
15" FIN. OH. (NO BELL)
TRAY CLG
RAISED + 11"
@ 11/12 L.P.
INSET 16"
(13'-4" X 15'-4")

DRPD COFF. (CONTRIM) JAW Nails
BELOW TO P.

A-18023697-A-18023704
A-18023721
A-18023771-A-18023781

BEAUMONT

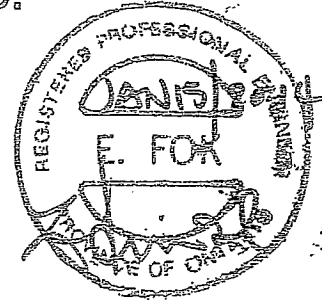
CONVENTIONAL
FRAMING BY
OTHERS

HANGERS
// LUS24
X HHUS26-2
△ TC26

	Job Track: 45147	Builder / Location: GOLD PARK HOMES / VAUGHAN	Model / Elevation: 5004 REV1	THESE DRAWINGS CONSTITUTE THE PROPERTY OF ALPA ROOF TRUSSES INC. SHALL NOT BE REPRODUCED, PUBLISHED, OR REDISTRIBUTED IN ANY MANNER OR UTILIZED FOR ANY PURPOSE OTHER THAN THE MANUFACTURE OF TRUSSES BY ALPA ROOF TRUSSES INC AND WILL BE RETRACTED BY ALPA ROOF TRUSSES INC IF UTILIZED FOR ANY OTHER PURPOSE.
	Layout ID: 292653	Project: PINE VALLEY	/ B OPT TRAY 22 OPT LUGS (CLAY)	
Plan Log: 95914	Date: 1/22/2018	Designer: AMANDA		

Stracon Engineering Inc.

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



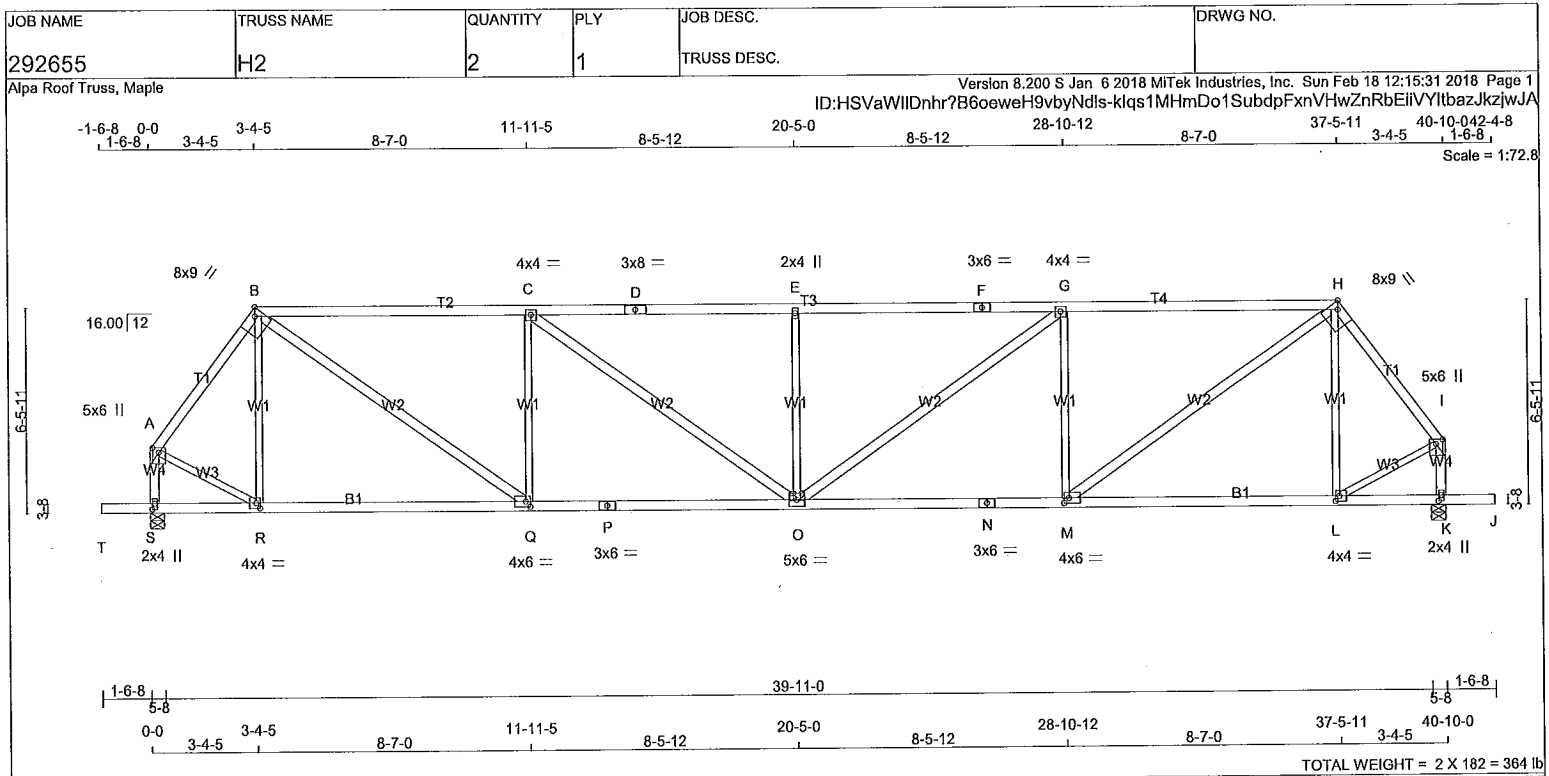
RESPONSIBILITIES

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



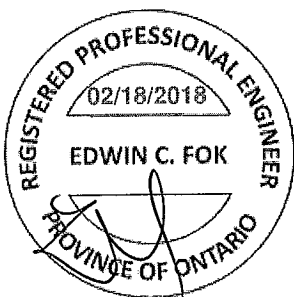
LUMBER				DESCR.	
N. L. G. A. RULES	SIZE	LUMBER		SPF	
CHORDS					
A - B	2x4 DRY	No.2	SPF		
B - D	2x4 DRY	2100F 1.8E	SPF		
D - F	2x4 DRY	2100F 1.8E	SPF		
F - H	2x4 DRY	2100F 1.8E	SPF		
H - I	2x4 DRY	No.2	SPF		
S - A	2x4 DRY	No.2	SPF		
K - I	2x4 DRY	No.2	SPF		
T - P	2x4 DRY	No.2	SPF		
P - N	2x4 DRY	No.2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

DRY: SEASONED LUMBER.

PLATES (table is in inches)

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

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



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

BEARINGS

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

UNFACTORED REACTIONS

JT	1ST LCASE COMBINED		MAX./MIN. COMPONENT REACTIONS		WIND	DEAD	SOIL
	SNOW	LIVE	PERM.LIVE	BRG			
S	1510	922 / 0	0 / 0	0 / 0	588 / 0	0 / 0	0 / 0
K	1510	922 / 0	0 / 0	0 / 0	588 / 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 = 3.86 FT.
MAX. UNBRACED BOTTOM CHORD LENGTH = 10.00 FT. OR RIGID CEILING DIRECTLY APPLIED.

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

LOADING

TOTAL LOAD CASES: (4)

CHORDS				WEBS			
MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	MAX. FACTORED L.C1 (LC)	MAX. FACTORED UNBRAC LENGTH	MEMB.	MAX. FACTORED FORCE (LBS)	MAX. FACTORED L.C1 (LC)
FR-TO		FROM TO			FR-TO		
A-B	-1697 / 0	-78.0 -78.0	0.21 (1)	4.92	R-B	-336 / 0	0.23 (1)
B-C	-2805 / 0	-78.0 -78.0	0.83 (1)	4.19	B-Q	0 / 2213	0.36 (1)
C-D	-3330 / 0	-78.0 -78.0	0.91 (1)	3.86	Q-C	-1126 / 0	0.77 (1)
D-E	-3330 / 0	-78.0 -78.0	0.91 (1)	3.86	C-O	0 / 649	0.10 (1)
E-F	-3330 / 0	-78.0 -78.0	0.91 (1)	3.86	O-E	-611 / 0	0.42 (1)
F-G	-3330 / 0	-78.0 -78.0	0.91 (1)	3.86	G-O	0 / 649	0.10 (1)
G-H	-2805 / 0	-78.0 -78.0	0.83 (1)	4.19	M-G	-1126 / 0	0.77 (1)
H-I	-1697 / 0	-78.0 -78.0	0.21 (1)	4.92	M-H	0 / 2213	0.36 (1)
S-A	-1963 / 0	0.0 0.0	0.23 (1)	6.01	L-H	-336 / 0	0.23 (1)
K-I	-1963 / 0	0.0 0.0	0.23 (1)	6.01	A-R	0 / 1115	0.25 (1)
					L-I	0 / 1115	0.25 (1)
T-S	0 / 0	-96.5 -96.5	0.16 (1)	10.00			
S-R	0 / 0	-18.5 -18.5	0.20 (4)	10.00			
R-Q	0 / 1005	-18.5 -18.5	0.37 (4)	10.00			
Q-P	0 / 2806	-18.5 -18.5	0.60 (1)	10.00			
P-O	0 / 2806	-18.5 -18.5	0.60 (1)	10.00			
O-N	0 / 2806	-18.5 -18.5	0.60 (1)	10.00			
N-M	0 / 2806	-18.5 -18.5	0.60 (1)	10.00			
M-L	0 / 1005	-18.5 -18.5	0.37 (4)	10.00			
L-K	0 / 0	-18.5 -18.5	0.20 (4)	10.00			
K-J	0 / 0	-96.5 -96.5	0.16 (1)	10.00			

DESIGN CRITERIA

SPECIFIED LOADS:

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

SPACING = 24.0 IN. C/C

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

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

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

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

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

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

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

COMPANION LIVE LOAD FACTOR = 1.00

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

NAIL VALUES		PLATE GRIP(DRY) SHEAR		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= 0.90 (A) (INPUT = 0.90)
JSI METAL= 0.68 (N) (INPUT = 1.00)

A-18023697

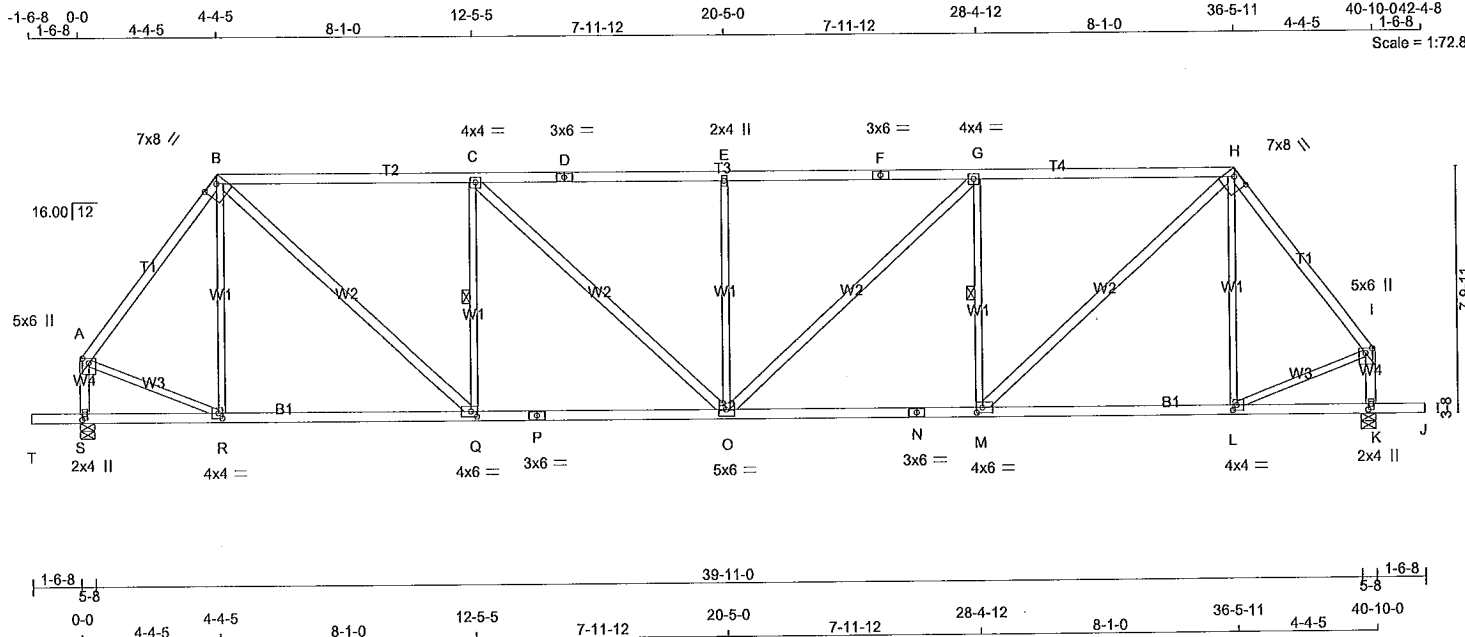
CONTINUE ON PAGE 2

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

Alpa Roof Truss, Maple

Version 8.200 S Jan 6 2018 MiTek Industries, Inc. Sun Feb 18 12:15:51 2018 Page 1

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LUMBER	N. L. G. A. RULES	CHORDS	SIZE	LUMBER	DESCR.
A - B	2x4	DRY	No.2	SPF	
B - D	2x4	DRY	1650F 1.5E	SPF	
D - F	2x4	DRY	1650F 1.5E	SPF	
F - H	2x4	DRY	1650F 1.5E	SPF	
H - I	2x4	DRY	No.2	SPF	
S - A	2x4	DRY	No.2	SPF	
K - I	2x4	DRY	No.2	SPF	
T - P	2x4	DRY	No.2	SPF	
P - N	2x4	DRY	No.2	SPF	
N - J	2x4	DRY	No.2	SPF	

ALL WEBS	EXCEPT	SIZE	LUMBER	DESCR.
B - Q	2x4	DRY	No.2	SPF
C - O	2x4	DRY	No.2	SPF
O - G	2x4	DRY	No.2	SPF
M - H	2x4	DRY	No.2	SPF

DRY: SEASONED LUMBER.

PLATES (table is in inches)

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

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

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

BUILDING DESIGNER

BEARINGS

	FACTORED GROSS REACTION	MAXIMUM FACTORED GROSS REACTION	INPUT	REQD
JT	VERT	HORZ	DOWN	HORZ
S	2118	0	2118	0
K	2118	0	2118	0

UNFACTORED REACTIONS

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

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

BRACING

TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 3.76 FT.
MAX. UNBRACED BOTTOM CHORD LENGTH = 10.00 FT OR RIGID CEILING DIRECTLY APPLIED.

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

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

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

LOADING

TOTAL LOAD CASES: (4)

CHORDS	MAX. FACTORED	FACTORED	VERT. LOAD	LC1	MAX	CS1	LC	MAX	MEMB.	FORCE	MAX	CS1	LC
MEMB.	FORCE	(LBS)	(PLF)										
FR-TO													
A-B	-1746 / 0	-78.0	-78.0	0.38	(1)	4.71			R-B	-245 / 0	0.28	(1)	
B-C	-2350 / 0	-78.0	-78.0	0.87	(1)	4.03			B-Q	0 / 1787	0.29	(1)	
C-D	-2732 / 0	-78.0	-78.0	0.93	(1)	3.76			Q-C	-1061 / 0	0.41	(1)	
D-E	-2732 / 0	-78.0	-78.0	0.93	(1)	3.76			C-O	0 / 524	0.08	(1)	
E-F	-2732 / 0	-78.0	-78.0	0.93	(1)	3.76			O-E	-574 / 0	0.65	(1)	
F-G	-2732 / 0	-78.0	-78.0	0.93	(1)	3.76			G-O	0 / 524	0.08	(1)	
G-H	-2350 / 0	-78.0	-78.0	0.87	(1)	4.03			M-G	-1061 / 0	0.41	(1)	
H-I	-1746 / 0	-78.0	-78.0	0.38	(1)	4.71			M-H	0 / 1787	0.29	(1)	
S-A	-1946 / 0	0.0	0.0	0.22	(1)	6.03			L-H	-245 / 0	0.28	(1)	
K-I	-1946 / 0	0.0	0.0	0.22	(1)	6.03			A-R	0 / 1107	0.25	(1)	
									L-I	0 / 1107	0.25	(1)	
T-S	0 / 0	-96.5	-96.5	0.16	(1)	10.00							
S-R	0 / 0	-18.5	-18.5	0.18	(4)	10.00							
R-Q	0 / 1038	-18.5	-18.5	0.34	(4)	10.00							
Q-P	0 / 2351	-18.5	-18.5	0.51	(1)	10.00							
P-O	0 / 2351	-18.5	-18.5	0.51	(1)	10.00							
O-N	0 / 2351	-18.5	-18.5	0.51	(1)	10.00							
N-M	0 / 2351	-18.5	-18.5	0.51	(1)	10.00							
M-L	0 / 1038	-18.5	-18.5	0.34	(4)	10.00							
L-K	0 / 0	-18.5	-18.5	0.18	(4)	10.00							
K-J	0 / 0	-96.5	-96.5	0.16	(1)	10.00							

DESIGN CRITERIA

SPECIFIED LOADS:

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

SPACING = 24.0 IN. C/C

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

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

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

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

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

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

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

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

COMPANION LIVE LOAD FACTOR = 1.00

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

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

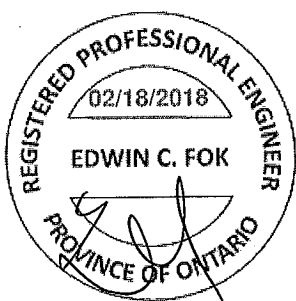
PLATE PLACEMENT TOL. = 0.250 inches

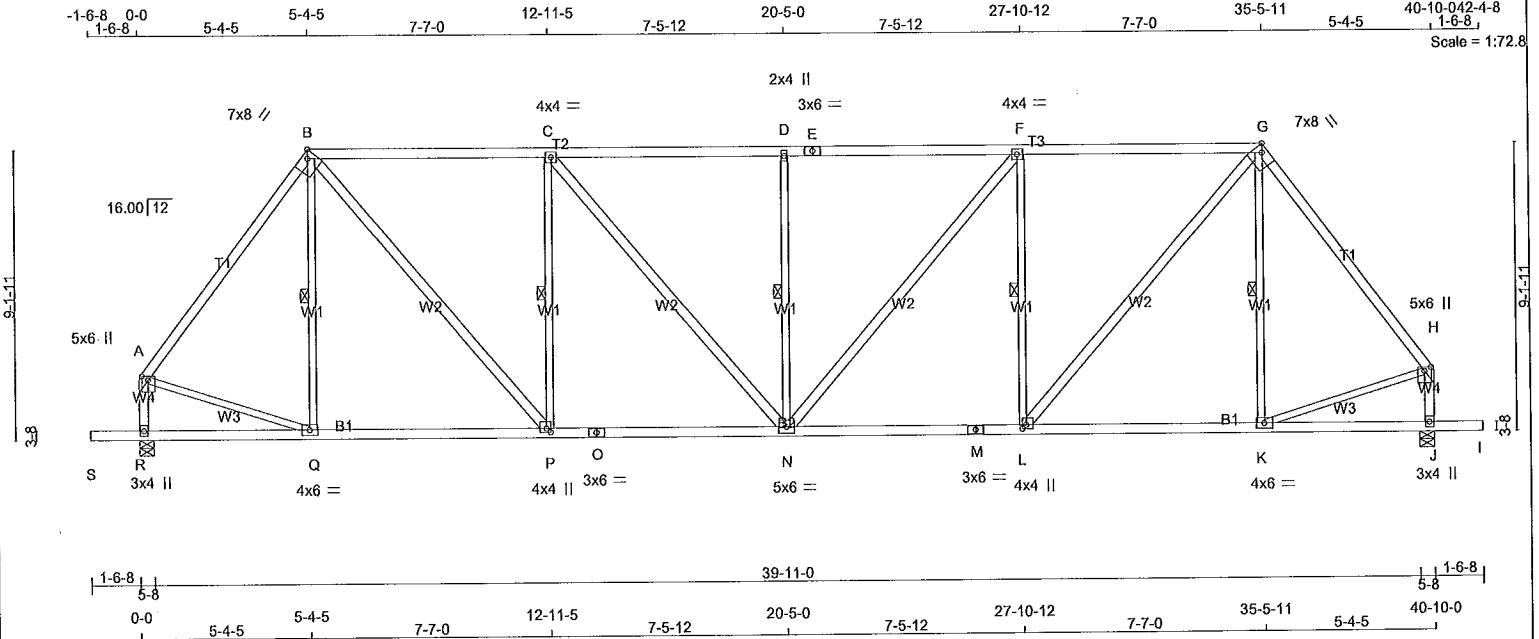
PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.89 (A) (INPUT = 0.90)
JSI METAL= 0.70 (N) (INPUT = 1.00)

A-18023698

CONTINUED ON PAGE 2





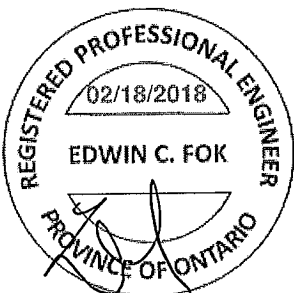
LUMBER				DESCR.	
N. L. G. A. RULES	CHORDS	SIZE	LUMBER		
A - B	2x4	DRY	No.2	SPF	
B - E	2x4	DRY	No.2	SPF	
E - G	2x4	DRY	No.2	SPF	
G - H	2x4	DRY	No.2	SPF	
R - A	2x4	DRY	No.2	SPF	
J - H	2x4	DRY	No.2	SPF	
S - O	2x4	DRY	No.2	SPF	
O - M	2x4	DRY	No.2	SPF	
M - I	2x4	DRY	No.2	SPF	
ALL WEBS	2x3	DRY	No.2	SPF	
EXCEPT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

DRY: SEASONED LUMBER.

PLATES (table is in inches)				W	LEN	Y	X
JT	TYPE	PLATES					
A	TMVW+p	MT20	5.0	6.0	1.50	2.50	
B	TTWW-h	MT20	7.0	8.0	Edge	2.75	
C	CTMW-w	MT20	4.0	4.0			
D	TMVW+p	MT20	2.0	4.0			
E	TS-t	MT20	3.0	6.0			
F	TMVW-t	MT20	4.0	4.0			
G	TTWW-h	MT20	7.0	8.0	Edge	2.75	
H	TMVW+p	MT20	5.0	6.0	1.50	2.50	
J	BMV1+p	MT20	3.0	4.0			
K	BMVW-t	MT20	4.0	4.0			
L	BMVW-t	MT20	4.0	4.0	1.50	1.50	
M	BS-t	MT20	3.0	6.0			
N	BMVW-t	MT20	5.0	6.0			
O	BS-t	MT20	3.0	6.0			
P	BMVW-t	MT20	4.0	4.0	1.50	1.50	
Q	BMVW-t	MT20	4.0	4.0			
R	BMV1+p	MT20	3.0	4.0			

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

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



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

BEARINGS		FACTORED GROSS REACTION	MAXIMUM FACTORED GROSS REACTION	INPUT BRG	REQRD BRG
JT	VERT	HORZ	DOWN	HORZ	UPLIFT
R	2231	0	2231	0	5-8
J	2231	0	2231	0	5-8

UNFACTORED REACTIONS

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

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

BRACING

FOR SECTION B-G, MAX. PURLIN SPACING = 2.00 FT.
 FOR OTHER SECTIONS, TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 4.57 FT.
 MAX. UNBRACED BOTTOM CHORD LENGTH = 10.00 FT OR RIGID CEILING DIRECTLY APPLIED.

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

1 LATERAL BRACE(S) AT 1/2 LENGTH OF B-Q, C-P, D-N, F-L, G-K.

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

LOADING

TOTAL LOAD CASES: (4)

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

DESIGN CRITERIA

SPECIFIED LOADS:

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

SPACING = 24.0 IN. C/C

LOADING IN FLAT SECTION BASED ON PIGGYBACK TRUSS WITH SLOPES OF 6.00/12 AND -6.00/12 AND RESPECTIVE WALL HEIGHTS OF 0-0 AND 0-0 AND AN ADDITIONAL DEAD LOAD OF 3.0 P.S.F.

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

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

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

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

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

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

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

COMPANION LIVE LOAD FACTOR = 1.00

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

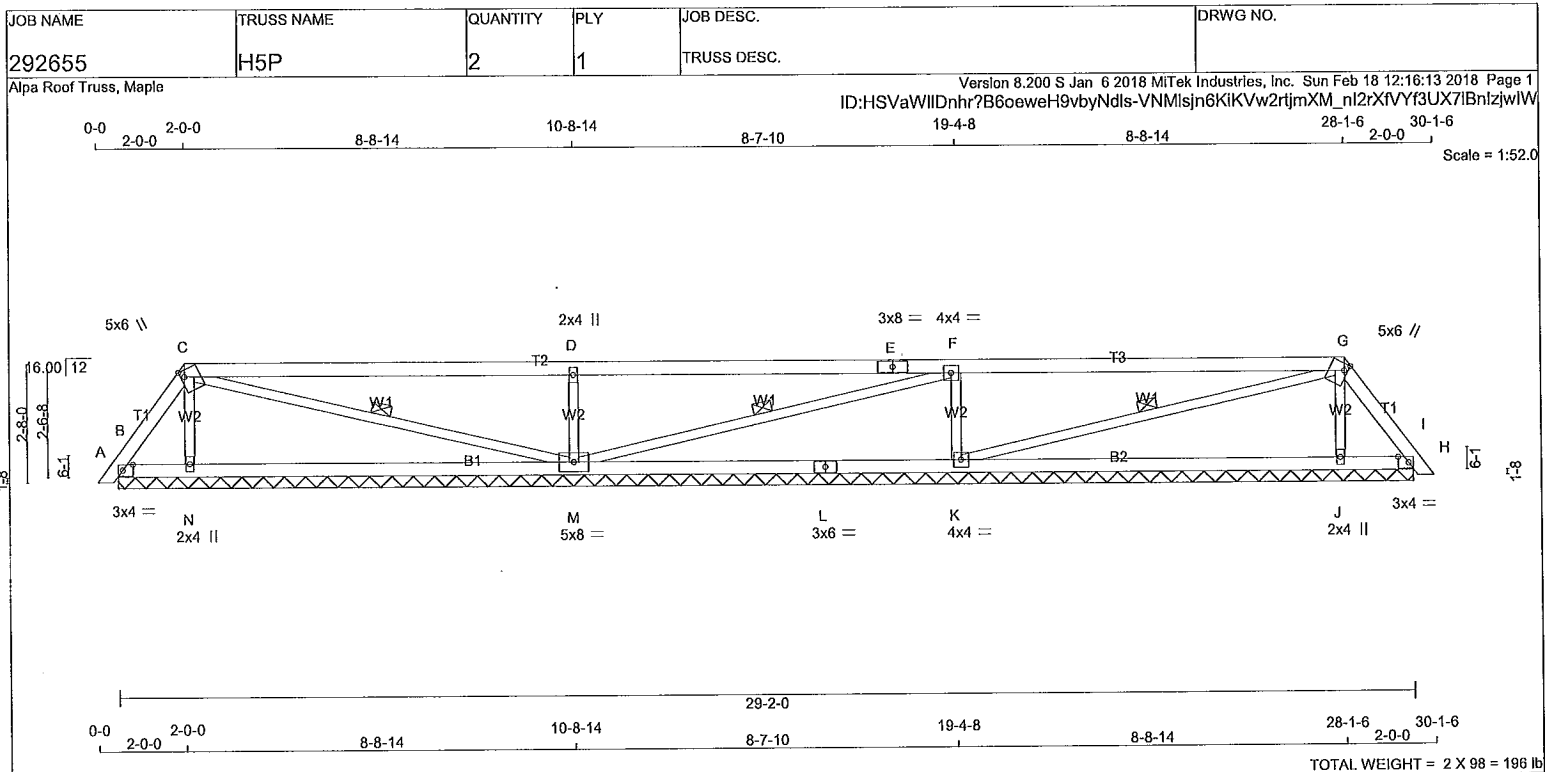
NAIL VALUES

PLATE	GRIP(DRY)	SHEAR	SECTION
(PSI)	(PLI)	(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 (P) (INPUT = 0.90)
 JSI METAL= 0.62 (H) (INPUT = 1.00)



LUMBER	CHORDS	SIZE	DRY	LUMBER	DESCR.
N. L. G. A. RULES					
A - C	2x4	DRY	No.2	SPF	
C - E	2x4	DRY	2100F 1.8E	SPF	
E - G	2x4	DRY	2100F 1.8E	SPF	
G - I	2x4	DRY	No.2	SPF	
B - L	2x4	DRY	No.2	SPF	
L - H	2x4	DRY	No.2	SPF	
ALL WEBS	2x3	DRY	No.2	SPF	
DRY: SEASONED LUMBER.					

PLATES (table is in inches)	W	LEN	Y	X
JT TYPE PLATES				
B TMB1-I	MT20	3.0	4.0	1.50 2.75
C 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	8.0	
F TMWW-t	MT20	4.0	4.0	
G TTVW+m	MT20	5.0	6.0	1.75 1.00
H TMB1-I	MT20	3.0	4.0	1.50 2.75
J BMW1+w	MT20	2.0	4.0	
K BMWW1-t	MT20	4.0	4.0	
L BS-t	MT20	3.0	6.0	
M BMWW1-t	MT20	5.0	8.0	
N BMW1+w	MT20	2.0	4.0	

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

BEARINGS		FACTORED GROSS REACTION		MAXIMUM FACTORED GROSS REACTION		INPUT BRG	REQRD BRG
JT	VERT	HORZ	DOWN	HORZ	UPLIFT	IN-SX	IN-SX
B	113	0	113	0	-15	29-2-0	(13-2-8)5-3
N	405	0	405	0	0	29-2-0	(13-2-8)5-3
M	922	0	922	0	0	29-2-0	(13-2-8)5-3
K	906	0	906	0	0	29-2-0	(13-2-8)5-3
J	396	0	396	0	0	29-2-0	(13-2-8)5-3
H	126	0	126	0	-13	29-2-0	(13-2-8)5-3

VALUE IN PARENTHESIS INDICATES EFFECTIVE BEARING LENGTH

PROVIDE ANCHORAGE AT BEARING JOINT B FOR 150 LBS. FACTORED UPLIFT
PROVIDE ANCHORAGE AT BEARING JOINT H FOR 150 LBS. FACTORED UPLIFT

UNFACTORED REACTIONS

JT	1ST LCASE	MAX./MIN. COMPONENT REACTIONS	PERM. LIVE	WIND	DEAD	SOIL
B	74	85/0	0/0	0/0	0/-11	0/0
N	296	136/0	0/0	0/0	160/0	0/0
M	656	409/0	0/0	0/0	247/0	0/0
K	645	400/0	0/0	0/0	244/0	0/0
J	290	132/0	0/0	0/0	159/0	0/0
H	83	91/0	0/0	0/0	0/-9	0/0

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

BRACING

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

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

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

LOADING

TOTAL LOAD CASES: (4)

CHORDS	MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	LC1 MAX	CS1 (LC)	UNBRAC LENGTH	FR-TO	WEBS	MEMB.	MAX. FACTORED FORCE (LBS)	MAX CS1 (LC)
A-B	0/10	-78.0	-78.0	0.01 (1)	10.00	N-C	-254/0	0.04 (1)			
B-C	-86/0	-78.0	-78.0	0.03 (1)	6.25	C-M	-37/0	0.02 (1)			
C-D	0/0	-78.0	-78.0	0.53 (1)	10.00	M-D	-745/0	0.12 (1)			
D-E	-1/0	-78.0	-78.0	0.53 (1)	10.00	M-F	-25/0	0.01 (1)			
E-F	-1/0	-78.0	-78.0	0.53 (1)	10.00	K-F	-738/0	0.12 (1)			
F-G	-25/0	-78.0	-78.0	0.53 (1)	6.25	K-G	-21/0	0.01 (1)			
G-H	-101/0	-78.0	-78.0	0.03 (1)	6.25	J-G	-245/0	0.04 (1)			
H-I	0/10	-78.0	-78.0	0.01 (1)	10.00						
B-N	0/49	-18.5	-18.5	0.23 (4)	10.00						
N-M	0/37	-18.5	-18.5	0.28 (4)	10.00						
M-L	0/25	-18.5	-18.5	0.28 (4)	10.00						
L-K	0/25	-18.5	-18.5	0.28 (4)	10.00						
K-J	0/46	-18.5	-18.5	0.28 (4)	10.00						
J-H	0/58	-18.5	-18.5	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/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=0.53/1.00 (F-G:1), BC=0.28/1.00 (J-K:4), WB=0.12/1.00 (D-M:1), SSI=0.32/1.00 (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

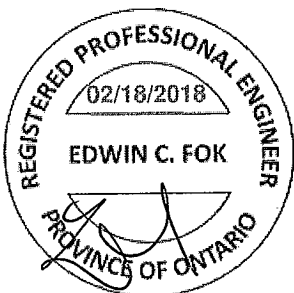
PLATE	GRIP(DRY)	SHEAR	SECTION
(PSI)	(PLI)	(PLI)	(PLI)
MT20	618	354	1667 788 1987 1656

PLATE PLACEMENT TOL. = 0.250 inches

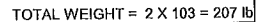
PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.81 (K) (INPUT = 0.90)
JSI METAL= 0.51 (E) (INPUT = 1.00)

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



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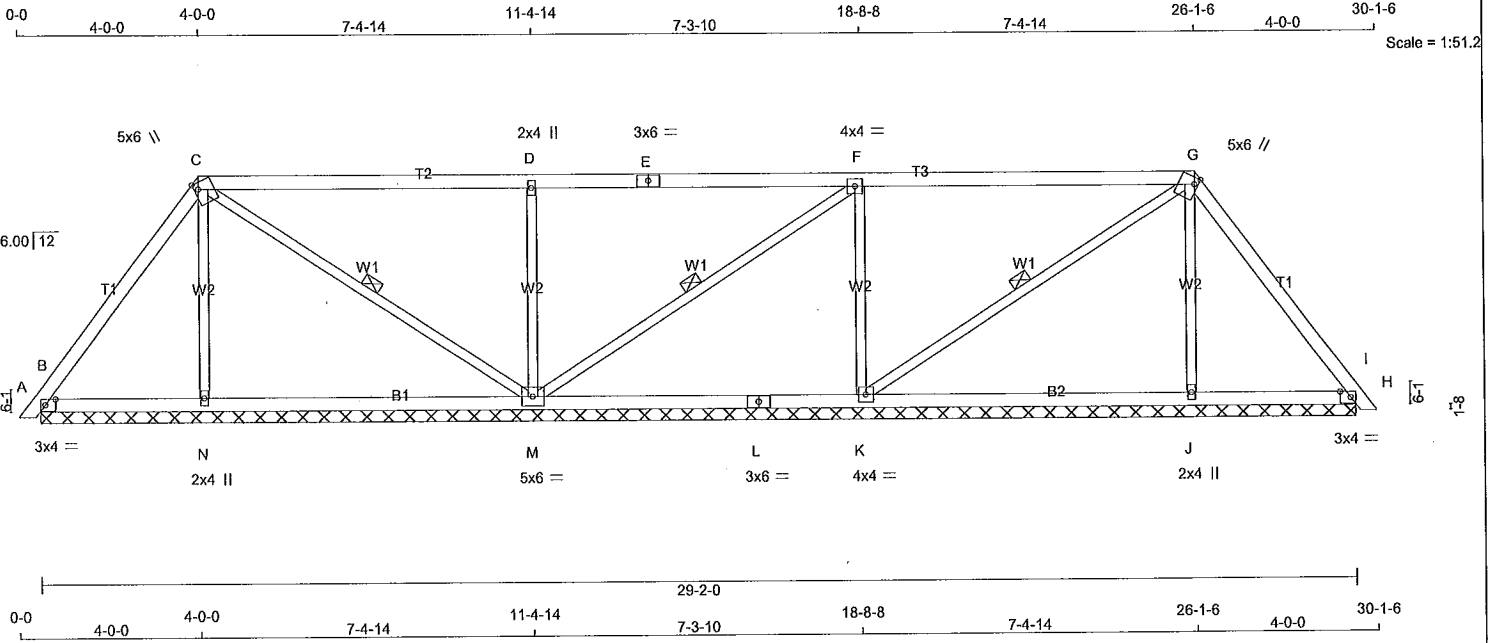


CHORDS					WEBS				
MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	FACTORED LO. CS1 (LBS)	MAX. UNBRAC. CS1 (LBS)	MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED CS1 (LBS)		
FR-TO		FROM	TO	LENGTH	FR-TO				
A-B	0 / 10	-78.0	-78.0	0.01 (1)	10.00	N-C	-245 / 0	0.06 (1)	
B-C	-96 / 0	-78.0	-78.0	0.09 (1)	6.25	C-M	-70 / 0	0.04 (1)	
C-D	0 / 16	-78.0	-78.0	0.69 (1)	10.00	M-D	-688 / 0	0.16 (1)	
D-E	0 / 16	-78.0	-78.0	0.69 (1)	10.00	M-F	-60 / 0	0.03 (1)	
E-F	0 / 16	-78.0	-78.0	0.69 (1)	10.00	K-F	-663 / 0	0.16 (1)	
F-G	-39 / 0	-78.0	-78.0	0.69 (1)	6.25	K-G	-31 / 0	0.02 (1)	
G-H	-128 / 0	-78.0	-78.0	0.09 (1)	6.25	J-G	-235 / 0	0.05 (1)	
H-I	0 / 10	-78.0	-78.0	0.01 (1)	10.00				
B-N	0 / 56	-18.5	-18.5	0.18 (4)	10.00				
N-M	0 / 48	-18.5	-18.5	0.24 (4)	10.00				
M-L	0 / 39	-18.5	-18.5	0.24 (4)	10.00				
L-K	0 / 39	-18.5	-18.5	0.24 (4)	10.00				
K-J	0 / 68	-18.5	-18.5	0.24 (4)	10.00				
J-H	0 / 74	-18.5	-18.5	0.18 (4)	10.00				

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

Alpa Roof Truss, Maple

Version 8.200 S Jan 6 2018 MiTek Industries, Inc. Sun Feb 18 12:16:32 2018 Page 1
ID:HSVAVIIdnhr?B6oeWeH9vbyNdls-S10wrD01sYjoizoxKFnpFnaHF896VDfHvshyzjwID



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

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

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

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

BEARINGS		FACTORED GROSS REACTION		MAXIMUM FACTORED GROSS REACTION		INPUT BRG		REQRD BRG	
JT	VERT	HORZ	DOWN	HORZ	UPLIFT	IN-SX	IN-SX	IN-SX	IN-SX
B	260	0	260	0	0	29-2-0 (13-2-8)1-1			
N	347	0	347	0	0	29-2-0 (13-2-8)1-1			
M	885	0	885	0	0	29-2-0 (13-2-8)1-1			
K	733	0	733	0	0	29-2-0 (13-2-8)1-1			
J	340	0	340	0	0	29-2-0 (13-2-8)1-1			
H	304	0	304	0	0	29-2-0 (13-2-8)1-1			

VALUE IN PARENTHESIS INDICATES EFFECTIVE BEARING LENGTH

UNFACTORED REACTIONS

JT	1ST LCASE	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
B	182	132 / 0	0 / 0	0 / 0	0 / 0	50 / 0	0 / 0
N	253	125 / 0	0 / 0	0 / 0	0 / 0	128 / 0	0 / 0
M	628	402 / 0	0 / 0	0 / 0	0 / 0	225 / 0	0 / 0
K	522	320 / 0	0 / 0	0 / 0	0 / 0	202 / 0	0 / 0
J	248	121 / 0	0 / 0	0 / 0	0 / 0	127 / 0	0 / 0
H	212	155 / 0	0 / 0	0 / 0	0 / 0	57 / 0	0 / 0

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

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

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

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

LOADING

TOTAL LOAD CASES: (4)

CHORDS		FACTORED		WEBS		FACTORED	
MEMB.	FORCE (LBS)	VERT. LOAD (PLF)	LC1 MAX (LC)	MEMB.	FORCE (LBS)	MAX (LC)	CS1 (LC)
FR-TO		FROM	TO	FR-TO			
A-B	0 / 10	-78.0	-78.0 0.01 (1)	10.00	N-C	-231 / 0	0.09 (1)
B-C	-98 / 0	-78.0	-78.0 0.17 (1)	6.25	C-M	-106 / 0	0.06 (1)
C-D	0 / 37	-78.0	-78.0 0.58 (1)	10.00	M-D	-631 / 0	0.25 (1)
D-E	0 / 36	-78.0	-78.0 0.58 (1)	10.00	M-F	-104 / 0	0.06 (1)
E-F	0 / 36	-78.0	-78.0 0.58 (1)	10.00	K-F	-572 / 0	0.23 (1)
F-G	-50 / 0	-78.0	-78.0 0.58 (1)	6.25	K-G	-41 / 0	0.02 (1)
G-H	-152 / 0	-78.0	-78.0 0.17 (1)	6.25	J-G	-224 / 0	0.09 (1)
H-I	0 / 10	-78.0	-78.0 0.01 (1)	10.00			

B-N	0 / 57	-18.5	-18.5 0.15 (4)	10.00
N-M	0 / 53	-18.5	-18.5 0.20 (4)	10.00
M-L	0 / 50	-18.5	-18.5 0.20 (4)	10.00
L-K	0 / 50	-18.5	-18.5 0.20 (4)	10.00
K-J	0 / 84	-18.5	-18.5 0.21 (4)	10.00
J-H	0 / 89	-18.5	-18.5 0.15 (4)	10.00

DESIGN CRITERIA

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

SPACING = 24.0 IN. C/C

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

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

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

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

CSI: TC=0.58/1.00 (D-F:1), BC=0.21/1.00 (J-K:4), WB=0.25/1.00 (D-M:1), SSI=0.27/1.00 (F-G:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

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

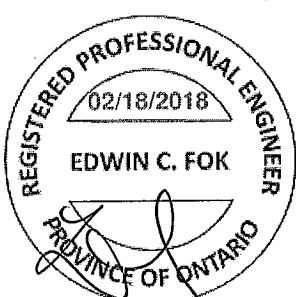
NAIL VALUES	PLATE	GRIP(DRY)	SHEAR	SECTION
		(PSI)	(PLI)	(PLI)
		MAX MIN	MAX MIN	MAX MIN
MT20	618	354	1667	788 1987 1656

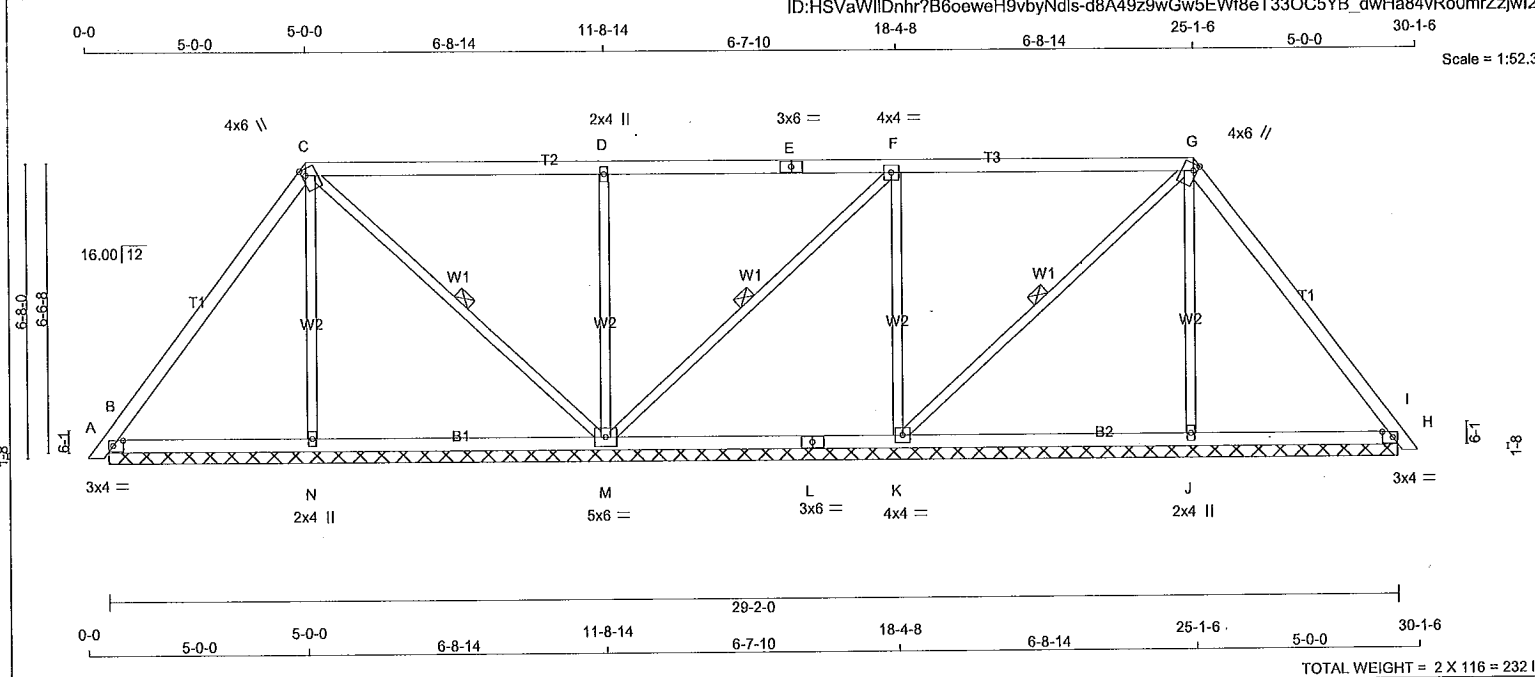
PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.64 (G) (INPUT = 0.90)
JSI METAL= 0.16 (E) (INPUT = 1.00)

A-18023702





LUMBER					DIMENSIONS, SUPPORTS AND LOADINGS SPECIFIED BY FABRICATOR TO BE VERIFIED BY BUILDING DESIGNER					DESIGN CRITERIA				
N. L. G. A. RULES					BEARINGS					SPECIFIED LOADS:				
CHORDS	SIZE		LUMBER	DESCR.										
A - C	2x4	DRY	No.2	SPF						TOP CH. LL = 21.0 PSF				
C - E	2x4	DRY	No.2	SPF						DL = 6.0 PSF				
E - G	2x4	DRY	No.2	SPF						BOT CH. LL = 0.0 PSF				
G - I	2x4	DRY	No.2	SPF						DL = 7.4 PSF				
B - L	2x4	DRY	No.2	SPF						TOTAL LOAD = 34.4 PSF				
L - H	2x4	DRY	No.2	SPF										
ALL WEBS	2x3	DRY	No.2	SPF						SPACING = 24.0 IN. C/C				
DRY: SEASONED LUMBER.										LOADING IN FLAT SECTION BASED ON A SLOPE OF 2.00/12 MINIMUM				

PLATES (table is in inches)						UNFACTORED REACTIONS							
JT	TYPE	PLATES	W	LEN	Y	X	1ST LCASE	MAX./MIN. COMPONENT REACTIONS					
B	TMB1-I	MT20	3.0	4.0	1.50	2.75	COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
C	TTWW+m	MT20	4.0	6.0	1.75	1.00	B	218	151 / 0	0 / 0	0 / 0	67 / 0	0 / 0
D	TMW+w	MT20	2.0	4.0			N	242	117 / 0	0 / 0	0 / 0	126 / 0	0 / 0
E	TS-t	MT20	3.0	6.0			M	629	412 / 0	0 / 0	0 / 0	217 / 0	0 / 0
F	TMWW-t	MT20	4.0	4.0			K	455	277 / 0	0 / 0	0 / 0	178 / 0	0 / 0
G	TTWW+m	MT20	4.0	6.0	1.75	1.00	J	241	115 / 0	0 / 0	0 / 0	125 / 0	0 / 0
H	TMB1-I	MT20	3.0	4.0	1.50	2.75	H	259	183 / 0	0 / 0	0 / 0	76 / 0	0 / 0
J	BMW1+w	MT20	2.0	4.0									
K	BMWW1-t	MT20	4.0	4.0									
L	BS-t	MT20	3.0	6.0									
M	BMWW1-t	MT20	5.0	6.0									
N	BMW1+w	MT20	2.0	4.0									

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

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

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

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

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

LOADING
TOTAL LOAD CASES: (4)

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

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

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

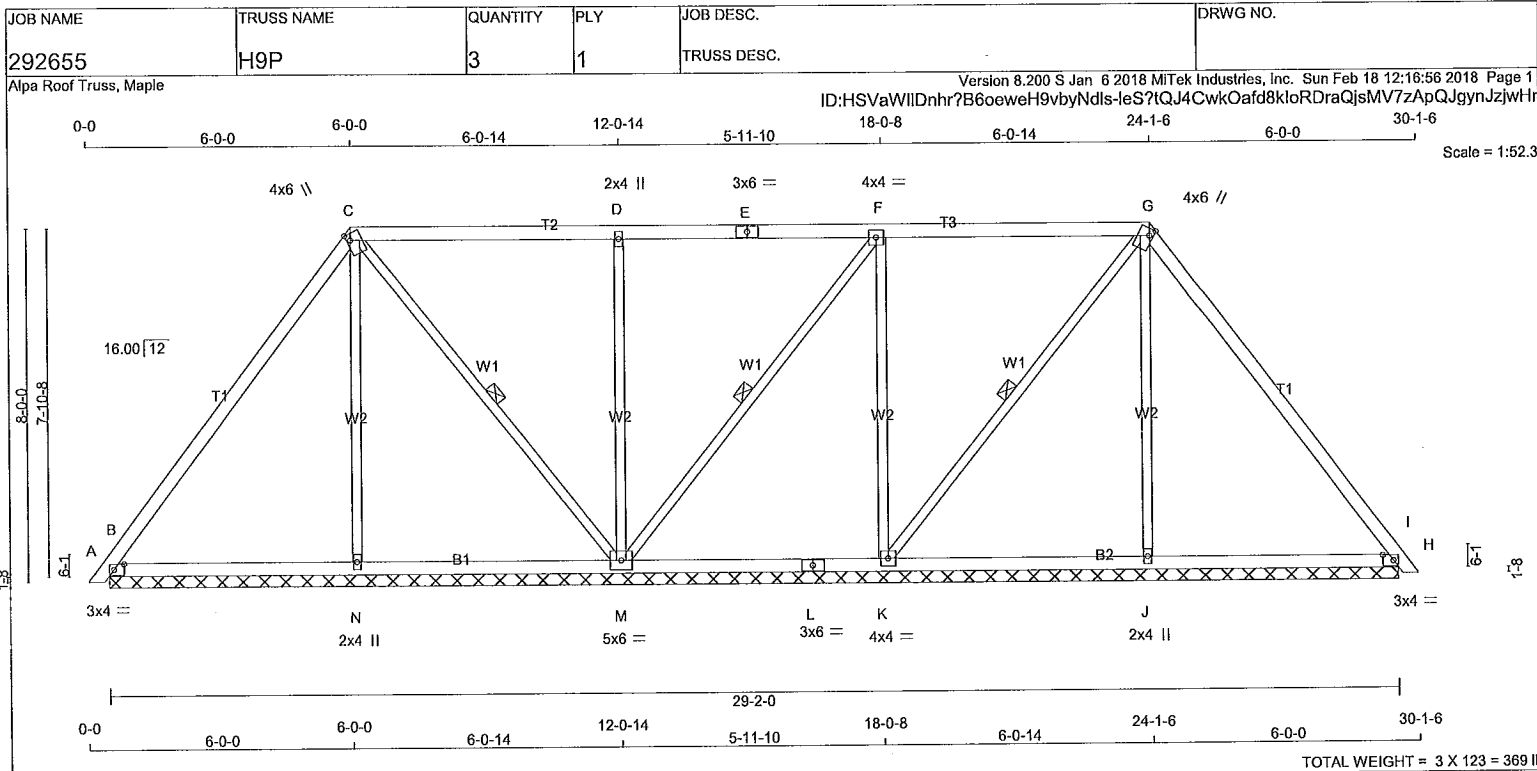
PLATE	GRIP(DRY)	SHEAR (PSI)	SECTION (PLI)
MT20	618	354	1667 788 1987 1656

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

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

A-18023703



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

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

BEARINGS		FACTORED GROSS REACTION		MAXIMUM FACTORED GROSS REACTION		INPUT BRG		REQD BRG	
JT		VERT	HORZ	DOWN	HORZ	IN-SX	IN-SX		
B	356	0	356	0	0	29-2-0 (13-2-8)4-1			
N	325	0	325	0	0	29-2-0 (13-2-8)4-1			
M	883	0	883	0	0	29-2-0 (13-2-8)4-1			
K	555	0	555	0	0	29-2-0 (13-2-8)4-1			
J	325	0	325	0	0	29-2-0 (13-2-8)4-1			
H	424	0	424	0	0	29-2-0 (13-2-8)4-1			

VALUE IN PARENTHESIS INDICATES EFFECTIVE BEARING LENGTH

UNFACTORED REACTIONS

JT	1ST LCASE	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
B	251	170/0	0/0	0/0	0/0	81/0	0/0
N	238	110/0	0/0	0/0	0/0	128/0	0/0
M	623	417/0	0/0	0/0	0/0	206/0	0/0
K	396	241/0	0/0	0/0	0/0	156/0	0/0
J	238	110/0	0/0	0/0	0/0	128/0	0/0
H	298	206/0	0/0	0/0	0/0	91/0	0/0

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

BRACING

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

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

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

LOADING

TOTAL LOAD CASES: (4)

CHORDS		FACTORED		WEBS		FACTORED	
MEMB.	MAX. FORCE (LBS)	VERT. LOAD (PLF)	MAX. CSI (LC)	MEMB.	MAX. FORCE (LBS)	MAX. CSI (LC)	
FR-TO		FROM	TO				
A-B	0/10	-78.0	-78.0 0.01 (1)	10.00	N-C	-205/0	0.24 (1)
B-C	-80/0	-78.0	-78.0 0.41 (1)	6.25	C-M	-165/0	0.11 (1)
C-D	0/53	-78.0	-78.0 0.39 (1)	10.00	M-D	-516/0	0.60 (1)
D-E	0/53	-78.0	-78.0 0.39 (1)	10.00	M-F	-166/0	0.11 (1)
E-F	0/53	-78.0	-78.0 0.39 (1)	10.00	K-F	-385/0	0.45 (1)
F-G	-50/0	-78.0	-78.0 0.39 (1)	6.25	K-G	-79/0	0.05 (1)
G-H	-174/0	-78.0	-78.0 0.42 (1)	6.25	J-G	-204/0	0.24 (1)
H-I	0/10	-78.0	-78.0 0.01 (1)	10.00			
B-N	0/53	-18.5	-18.5 0.15 (4)	10.00			
N-M	0/50	-18.5	-18.5 0.15 (4)	10.00			
M-L	0/50	-18.5	-18.5 0.13 (4)	10.00			
L-K	0/50	-18.5	-18.5 0.13 (4)	10.00			
K-J	0/100	-18.5	-18.5 0.16 (4)	10.00			
J-H	0/103	-18.5	-18.5 0.16 (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=0.42/1.00 (G-H:1), BC=0.16/1.00 (H-J:4), WB=0.60/1.00 (D-M:1), SSI=0.22/1.00 (F-G:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

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

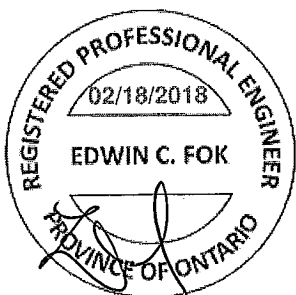
NAIL VALUES	GRIP(DRY)	SHEAR	SECTION
PLATE	(PSI)	(PLI)	(PLI)
	MAX MIN	MAX MIN	MAX MIN
MT20	618 354	1667 788	1987 1656

PLATE PLACEMENT TOL. = 0.250 inches

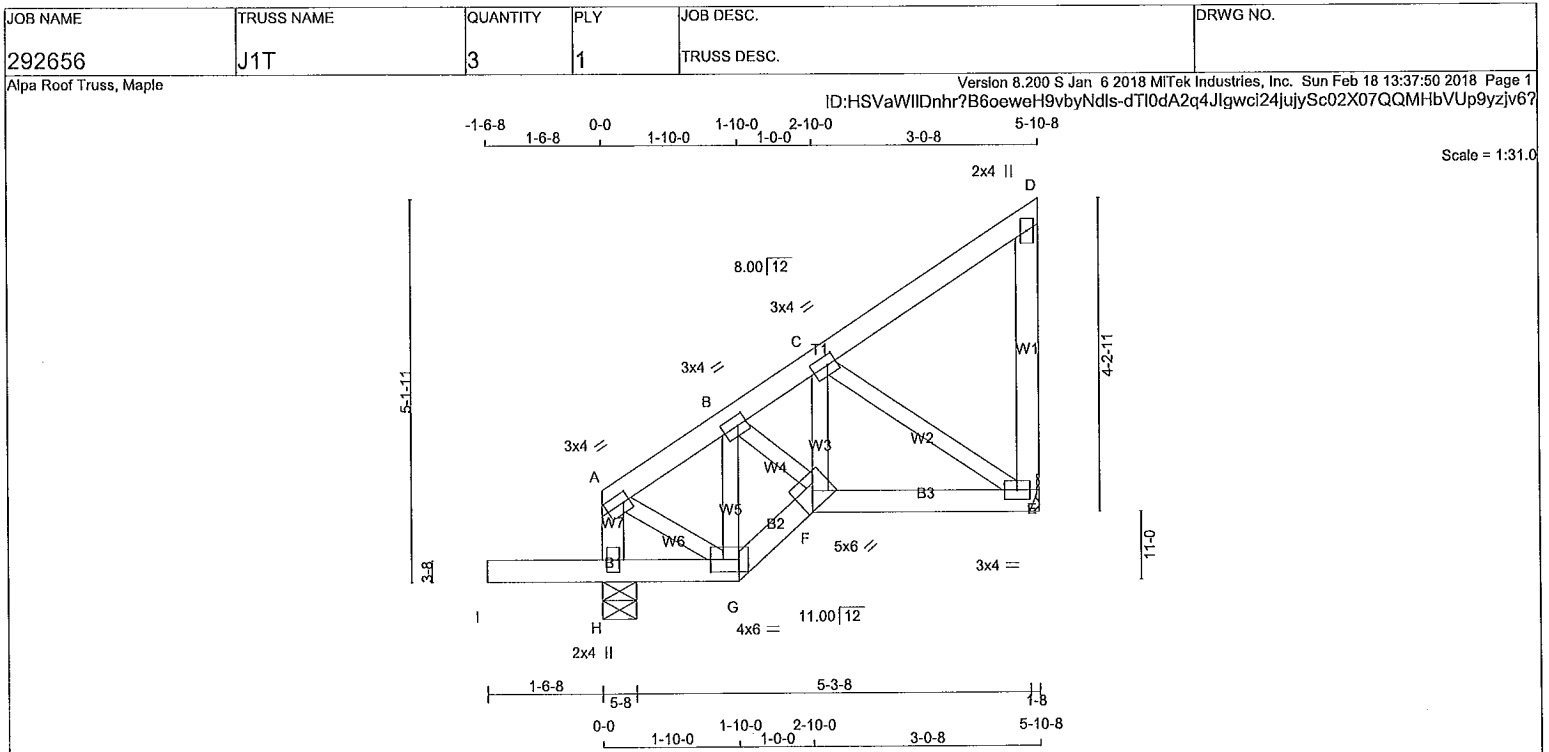
PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.64 (G) (INPUT = 0.90)
JSI METAL= 0.19 (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-18023704



TOTAL WEIGHT = 3 X 30 = 90 lb

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

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

PLATES (table is in inches)

JT	TYPE	PLATES	W	LEN	Y	X
A	TMVW-I	MT20	3.0	4.0	1.50	1.00
B	TMVW-I	MT20	3.0	4.0	1.50	1.50
C	TMVW-I	MT20	3.0	4.0	1.50	1.50
D	TMV+p	MT20	2.0	4.0		
E	BMVW-I	MT20	3.0	4.0		
F	BBVW-h	MT20	5.0	6.0		
G	BBVW-I	MT20	4.0	6.0	2.00	4.50
H	BMV1+p	MT20	2.0	4.0		

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

JT	FACTORED GROSS REACTION		MAXIMUM FACTORED GROSS REACTION		INPUT BRG		REQRD BRG	
	VERT	HORZ	DOWN	HORZ	IN-SX	IN-SX	IN-SX	IN-SX
H	452	0	452	0	5-8	1-8		
E	264	0	264	0			HANGER BY OTHERS	MIN. SEAT SIZE: 1-8

UNFACTORED REACTIONS

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

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

BRACING

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

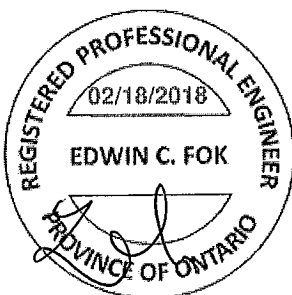
ALL PITCH BREAKS AND PERIMETER CORNER JOINTS MUST BE Laterally RESTRAINED.

LOADING

TOTAL LOAD CASES: (4)

CHORDS				WEBS			
MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	FACTORED LC1 MAX CSI (LC)	MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED UNBRAC LENGTH FR-TO	MAX. FACTORED MAX CSI (LC)
FR-TO				FR-TO			
H-A	-223 / 0	0.0	0.0 0.02 (1)	A-G	0 / 154	7.81	0.03 (1)
A-B	-165 / 0	-78.0	-78.0 0.04 (1)	G-B	-220 / 0	6.25	0.03 (1)
B-C	-239 / 0	-78.0	-78.0 0.08 (1)	B-F	0 / 130	6.25	0.03 (1)
C-D	-11 / 0	-78.0	-78.0 0.08 (1)	F-C	0 / 63	6.25	0.02 (4)
E-D	-95 / 0	0.0	0.0 0.03 (1)	C-E	-259 / 0	7.81	0.06 (1)
I-H	0 / 0	-96.5	-96.5 0.16 (1)			10.00	
H-G	0 / 0	-18.5	-18.5 0.16 (1)			10.00	
G-F	0 / 173	-18.5	-18.5 0.03 (1)			10.00	
F-E	0 / 216	-18.5	-18.5 0.07 (4)			10.00	

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



DESIGN CRITERIA

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

SPACING = 24.0 IN. C/C

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

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

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

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

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

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

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

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

COMPANION LIVE LOAD FACTOR = 1.00

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

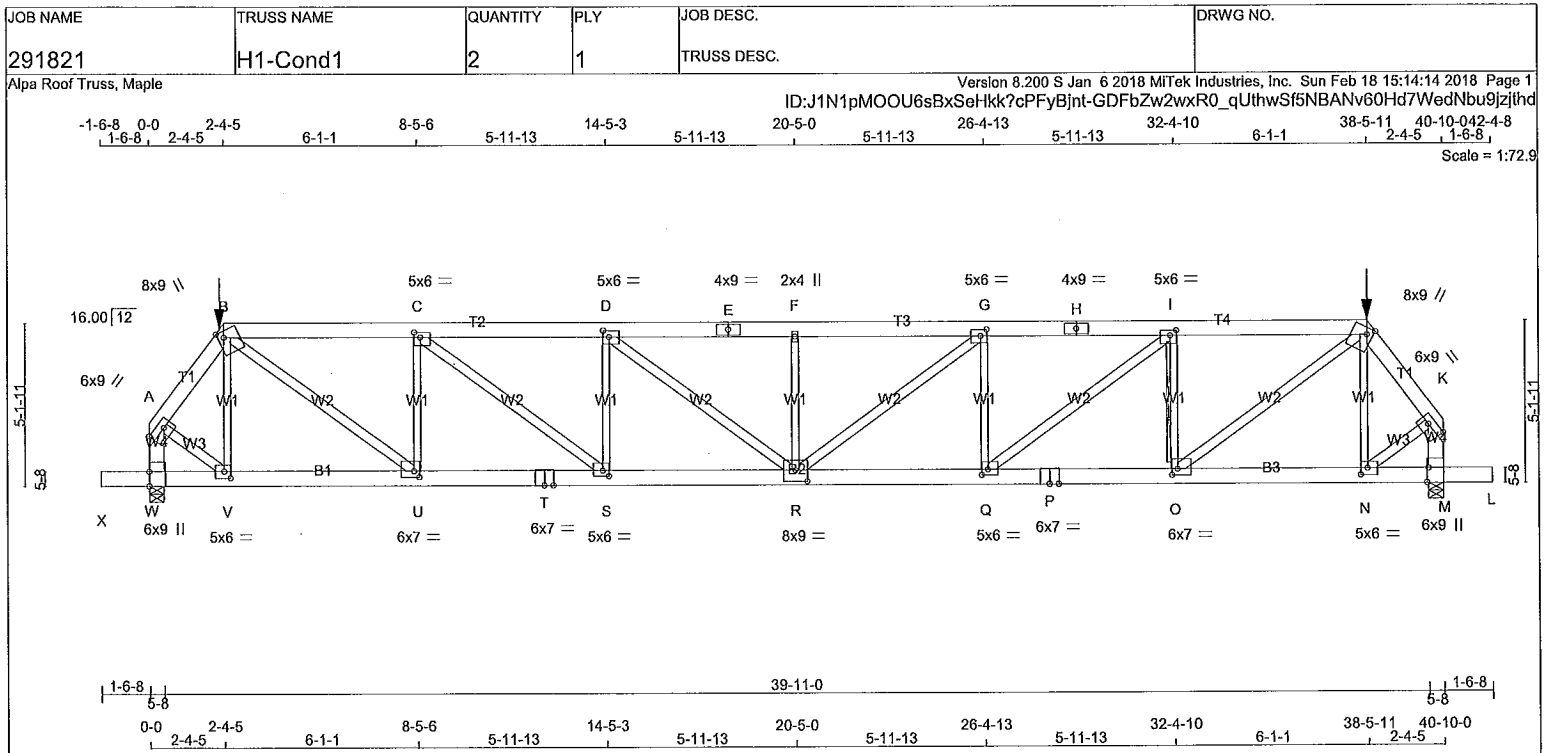
NAIL VALUES
PLATE GRIP(DRY) SHEAR SECTION
(PSI) (PLI) (PLI)
MAX MIN MAX MIN MAX MIN
MT20 618 354 1667 788 1987 1656

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

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

A-18023721

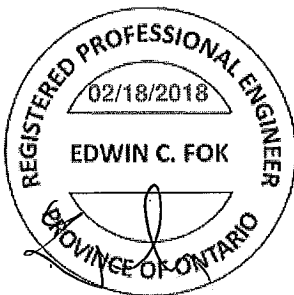


LUMBER				N. L. G. A. RULES			
CHORDS	SIZE	LUMBER	DESCR.	SPF	FACTORED	MAXIMUM FACTORED	INPUT
A - B	2x6	DRY	No.2	SPF	FACTORED	MAXIMUM FACTORED	INPUT
B - E	2x6	DRY	1650F 1.5E	SPF	GROSS REACTION	GROSS REACTION	BRG
E - H	2x6	DRY	1650F 1.5E	SPF	VERT	HORZ	DOWN
H - J	2x6	DRY	1650F 1.5E	SPF	0	3982	0
J - K	2x6	DRY	No.2	SPF	0	3982	0
W - A	2x6	DRY	No.2	SPF	0	3982	0
M - K	2x6	DRY	No.2	SPF	0	3982	0
X - T	2x6	DRY	2100F 1.8E	SPF	0	3982	0
T - P	2x6	DRY	2100F 1.8E	SPF	0	3982	0
P - L	2x6	DRY	2100F 1.8E	SPF	0	3982	0

DRY: SEASONED LUMBER.

PLATES (table is in inches)				W			
JT	TYPE	PLATES	W	LEN	Y	X	
A	TMVW-t	MT20	6.0	9.0	Edge	5.75	
B	TTWW+m	MT20	8.0	9.0	2.50	2.25	
C	TMVW-t	MT20	5.0	6.0	2.00	2.25	
D	TMVW-t	MT20	5.0	6.0	2.50	2.25	
E	TS-t	MT20	4.0	9.0			
F	TMVW+m	MT20	2.0	4.0			
G	TMVW-t	MT20	5.0	6.0	2.50	2.25	
H	TS-t	MT20	4.0	9.0			
I	TMVW-t	MT20	5.0	6.0	2.00	2.25	
J	TTWW+m	MT20	8.0	9.0	2.50	2.25	
K	TMVW-t	MT20	6.0	9.0	Edge	5.75	
M	BMV-t	MT20	6.0	9.0	Edge	0.50	
N	BMVW-t	MT20	5.0	6.0	2.50	2.50	
O	BMVW-t	MT20	6.0	7.0	2.25	2.00	
P	BS-t	MT20	6.0	7.0			
Q	BMVW-t	MT20	5.0	6.0	2.00	2.25	

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			
JT	VERT	HORZ	DOWN	UP	IN-SX	IN-SX	
M	3982	0	3982	0	5-8	4-13	

UNFACTORED REACTIONS

1ST LCASE				MAX/MIN. COMPONENT REACTIONS			
JT	COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
W	2840	1728 / 0	0 / 0	0 / 0	0 / 0	1112 / 0	0 / 0
M	2840	1728 / 0	0 / 0	0 / 0	0 / 0	1112 / 0	0 / 0

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

BRACING

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

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

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

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

LOADING

TOTAL LOAD CASES: (4)

CHORDS				WEBS			
MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	MAX. UNBRACED LENGTH (FT)	MEMB.	MAX. FACTORED FORCE (LBS)	MAX. UNBRACED LENGTH (FT)	
FR-TO		FROM TO		FR-TO			
A-B	-3312 / 0	-78.0 -78.0	0.10 (1)	4.58	V-B	-844 / 0	0.30 (1)
B-C	-5685 / 0	-153.5 -153.5	0.39 (1)	3.88	N-J	-844 / 0	0.30 (1)
C-D	-7830 / 0	-153.5 -153.5	0.49 (1)	3.30	A-V	0 / 2244	0.40 (1)
D-E	-8550 / 0	-153.5 -153.5	0.45 (1)	3.22	N-K	0 / 2244	0.40 (1)
E-F	-8550 / 0	-153.5 -153.5	0.45 (1)	3.22	O-J	0 / 4700	0.83 (1)
F-G	-8550 / 0	-153.5 -153.5	0.45 (1)	3.22	B-U	0 / 4700	0.83 (1)
G-H	-7830 / 0	-153.5 -153.5	0.49 (1)	3.30	O-I	-2645 / 0	0.56 (1)
H-I	-7830 / 0	-153.5 -153.5	0.49 (1)	3.30	U-C	-2645 / 0	0.93 (1)
I-J	-5685 / 0	-153.5 -153.5	0.39 (1)	3.88	Q-I	0 / 2723	0.48 (1)
J-K	-3312 / 0	-78.0 -78.0	0.10 (1)	4.58	C-S	0 / 2723	0.48 (1)
W-A	-3863 / 0	0.0 0.0	0.29 (1)	5.40	Q-G	-1452 / 0	0.51 (1)
M-K	-3863 / 0	0.0 0.0	0.29 (1)	5.40	S-D	-1452 / 0	0.51 (1)
X-W	0 / 0	-96.5 -96.5	0.05 (1)	10.00	R-G	0 / 914	0.16 (1)
W-V	0 / 0	-36.4 -36.4	0.08 (4)	10.00	D-R	0 / 914	0.16 (1)
V-U	0 / 1937	-36.4 -36.4	0.17 (1)	10.00	R-F	-925 / 0	0.33 (1)
U-T	0 / 5686	-36.4 -36.4	0.35 (1)	10.00			
T-S	0 / 5686	-36.4 -36.4	0.35 (1)	10.00			
S-R	0 / 7830	-36.4 -36.4	0.48 (1)	10.00			
R-Q	0 / 7830	-36.4 -36.4	0.48 (1)	10.00			
Q-P	0 / 5686	-36.4 -36.4	0.35 (1)	10.00			
P-O	0 / 5686	-36.4 -36.4	0.35 (1)	10.00			
O-N	0 / 1937	-36.4 -36.4	0.17 (1)	10.00			
N-M	0 / 0	-36.4 -36.4	0.08 (4)	10.00			
M-L	0 / 0	-96.5 -96.5	0.05 (1)	10.00			

DESIGN CRITERIA

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

SPECIFIED LOADS:

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

SPACING = 24.0 IN. C/C

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

GIRDER TYPE: CPrimeHip
SIDE SETBACK = 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, NBC 2010, NBC 2015

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

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

ALLOWABLE DEFL.(LL)= L/360 (1.36")
CALCULATED VERT. DEFL.(LL)= L/999 (0.36")
ALLOWABLE DEFL.(TL)= L/360 (1.36")
CALCULATED VERT. DEFL.(TL)= L/687 (0.71")

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

CSI: TC=0.49/1.00 (G-I:1), BC=0.48/1.00 (R-S:1),
WB=0.93/1.00 (C-U:1), SSI=0.37/1.00 (I-J:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

AUTOSOLVE HEELS OFF

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

A.18023770

JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
291821	H1-Cond1	2	1	TRUSS DESC.	

Alpa Roof Truss, Maple

Version 8.200 S Jan 6 2018 MTek Industries, Inc. Sun Feb 18 15:14:14 2018 Page 2
ID:J1N1pMOOU6sBxSeHkk?cPFyBjnt-GDFbZw2wxR0_qUthwSf5NBANv60Hd7WedNbu9jzjthd

PLATES (table is in inches)

JT	TYPE	PLATES	W	LEN	Y	X
R	BMWWW-1	MT20	8.0	9.0	4.25	4.50
S	BMWW-1	MT20	5.0	6.0	2.00	2.25
T	BS-1	MT20	6.0	7.0		
U	BMWW-1	MT20	6.0	7.0	2.25	2.00
V	BMWW-1	MT20	5.0	6.0	2.50	2.50
W	BMV1+1	MT20	6.0	9.0	Edge	

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

HANGERS NOTES

- 1) SPECIAL HANGER(S) OR CONNECTION(S)
REQUIRED TO SUPPORT CONCENTRATED
LOAD(S) 134.1 lbs FACTORED DOWN AT
38-5-11, AND 134.1 lbs FACTORED DOWN AT
2-4-5 ON TOP CHORD. DESIGN FOR
UNSPECIFIED CONNECTION(S) IS DELEGATED
TO THE BUILDING DESIGNER.

FACTORED CONCENTRATED LOADS (LBS)

JT	LOC.	LC1	MAX-	MAX+	FACE	DIR.	TYPE
B	2-4-5	-134	-134	---	FRONT	VERT	TOTAL
J	38-5-11	-134	-134	---	FRONT	VERT	TOTAL

NAIL VALUES

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

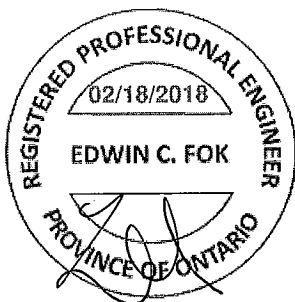
PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

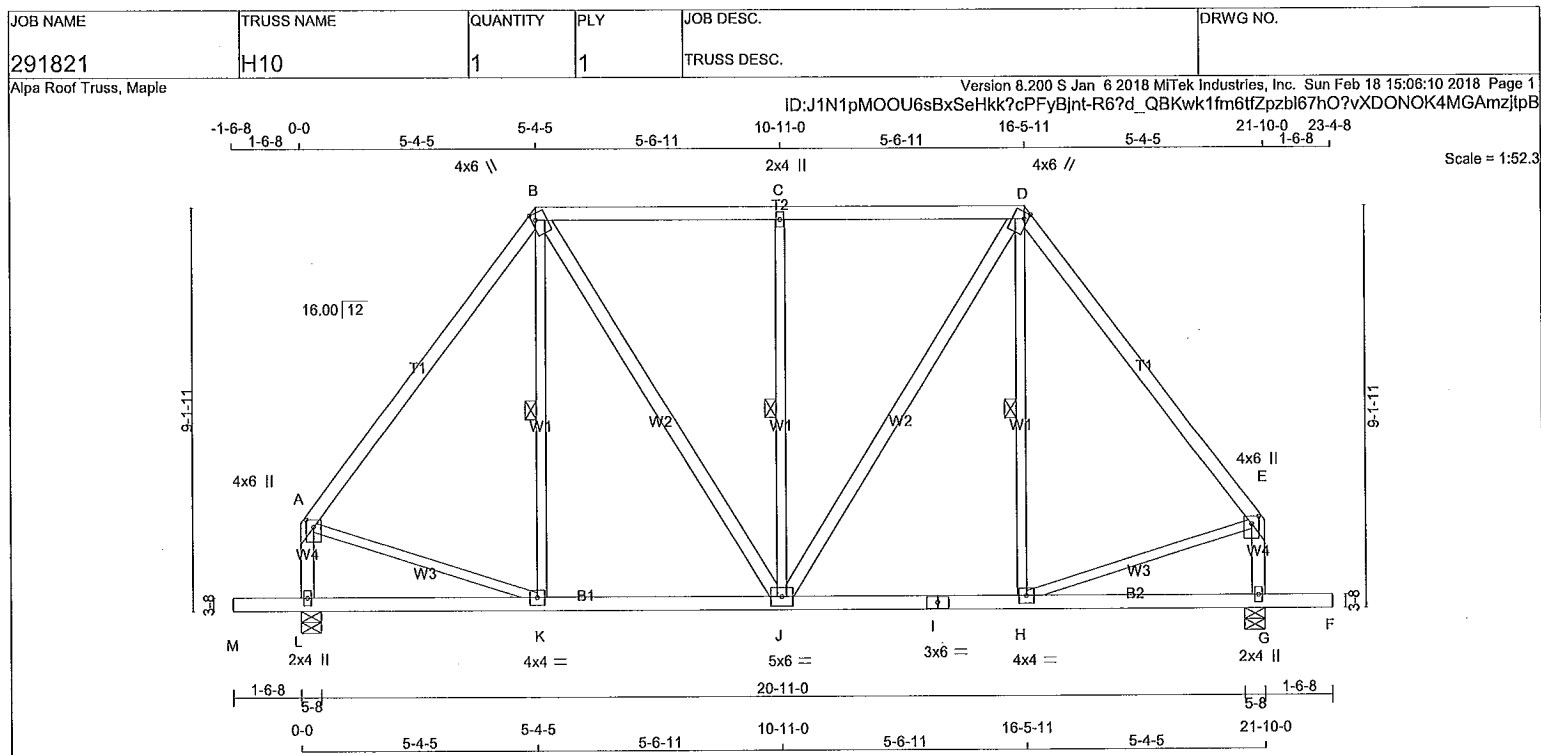
JSI GRIP= 0.80 (U) (INPUT = 0.90)

JSI METAL= 0.89 (P) (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-18023770 (2)



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

DRY: SEASONED LUMBER.

PLATES (table is in inches)

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

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

BEARINGS

	FACTORED GROSS REACTION	MAXIMUM FACTORED GROSS REACTION	INPUT BRG	REQRD BRG
JT	VERT	HORZ	DOWN	UPLIFT
L	1244	0	1244	0
G	1244	0	1244	0

UNFACTORED REACTIONS

JT	1ST LCASE	MAX/MIN. COMPONENT REACTIONS	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
L	COMBINED		890	523 / 0	0 / 0	0 / 0	367 / 0	0 / 0
G			890	523 / 0	0 / 0	0 / 0	367 / 0	0 / 0

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

BRACING

FOR SECTION B-D, MAX. PURLIN SPACING = 2.00 FT.
FOR OTHER SECTIONS, TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 6.20 FT.
MAX. UNBRACED BOTTOM CHORD LENGTH = 10.00 FT OR RIGID CEILING DIRECTLY APPLIED.

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

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

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

LOADING

TOTAL LOAD CASES: (4)

CHORDS				WEBS			
MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	FACTORED LC1 (LC)	MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	FACTORED LC1 (LC)
FR-TO		FROM	TO	FR-TO		FROM	TO
A-B	-865 / 0	-78.0	-78.0 0.32 (1)	6.20	K-B	-36 / 63	0.02 (4)
B-C	-728 / 0	-85.5	-85.5 0.34 (1)	2.00	B-J	0 / 396	0.06 (1)
C-D	-728 / 0	-85.5	-85.5 0.34 (1)	2.00	J-C	-577 / 0	0.31 (1)
D-E	-865 / 0	-78.0	-78.0 0.32 (1)	6.20	J-D	0 / 396	0.06 (1)
L-A	-1055 / 0	0.0	0.0 0.12 (1)	7.66	H-D	-36 / 63	0.02 (4)
G-E	-1055 / 0	0.0	0.0 0.12 (1)	7.66	A-K	0 / 539	0.12 (1)
					H-E	0 / 539	0.12 (1)
M-L	0 / 0	-96.5	-96.5 0.16 (1)	10.00			
L-K	0 / 0	-18.5	-18.5 0.13 (4)	10.00			
K-J	0 / 516	-18.5	-18.5 0.19 (4)	10.00			
J-I	0 / 516	-18.5	-18.5 0.19 (4)	10.00			
I-H	0 / 516	-18.5	-18.5 0.19 (4)	10.00			
H-G	0 / 0	-18.5	-18.5 0.13 (4)	10.00			
G-F	0 / 0	-96.5	-96.5 0.16 (1)	10.00			

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

DESIGN CRITERIA

SPECIFIED LOADS:

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

SPACING = 24.0 IN. C/C

LOADING IN FLAT SECTION BASED ON PIGGYBACK TRUSS WITH SLOPES OF 6.00/12 AND -6.00/12 AND RESPECTIVE WALL HEIGHTS OF 0-0 AND 0-0 AND AN ADDITIONAL DEAD LOAD OF 3.0 P.S.F.

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

THIS DESIGN COMPLIES WITH:

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

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

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

CANTILEVER DEFLECTION:

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

CSI: TC=0.34/1.00 (B-C:1), BC=0.19/1.00 (J-K:4), WB=0.31/1.00 (C-J:1), SSI=0.23/1.00 (C-D:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

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

NAIL VALUES

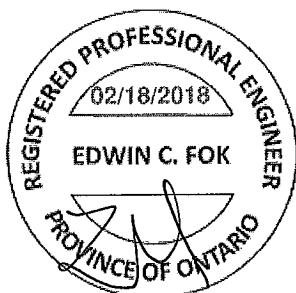
PLATE	GRIP(DRY)	SHEAR	SECTION
	(PSI)	(PLI)	(PLI)
MT20	618	354	1667

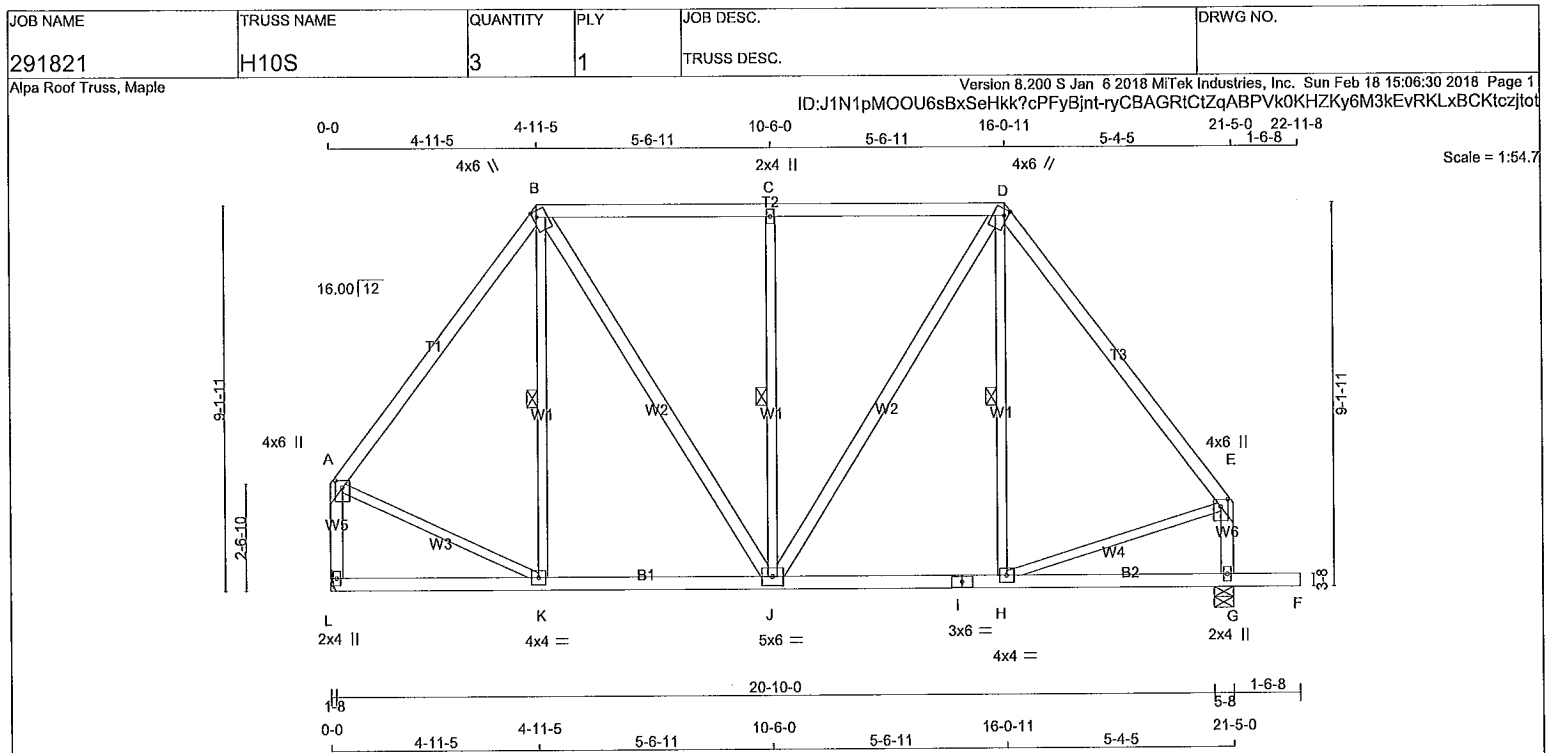
PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.84 (B) (INPUT = 0.90)
JSI METAL= 0.32 (E) (INPUT = 1.00)

A-18023771





TOTAL WEIGHT = 3 X 116 = 348 lb

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

DRY: SEASONED LUMBER.

PLATES (table is in inches)

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

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

BEARINGS		FACTORED GROSS REACTION		MAXIMUM FACTORED GROSS REACTION		INPUT BRG		REQRD BRG	
JT	VERT	HORZ	DOWN	HORZ	UPLIFT	IN-SX	IN-SX	HANGER BY OTHERS	MIN. SEAT SIZE: 1-8
L	1076	0	1076	0	0	5-8	1-13		
G	1223	0	1223	0	0	5-8	1-13		

UNFACTORED REACTIONS

JT	COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
L	771	450 / 0	0 / 0	0 / 0	0 / 0	321 / 0	0 / 0
G	875	514 / 0	0 / 0	0 / 0	0 / 0	361 / 0	0 / 0

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

BRACING

FOR SECTION B-D, MAX. PURLIN SPACING = 2.00 FT.
FOR OTHER SECTIONS, TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 6.25 FT.
MAX. UNBRACED BOTTOM CHORD LENGTH = 10.00 FT OR RIGID CEILING DIRECTLY APPLIED.

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

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

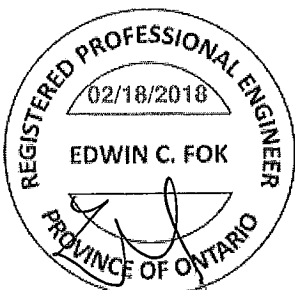
END VERTICAL(S) MUST BE SHEATHED OR HAVE BRACES AS INDICATED IN THE MAX. UNBRACED LENGTH COLUMN OF THE TABLE BELOW

LOADING

TOTAL LOAD CASES: (4)

CHORDS				WEBS			
MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	MAX. CS (LC) UNBRACED LENGTH	MEMB.	MAX. FACTORED FORCE (LBS)	MAX. CS (LC)	
FR-TO		FROM TO		FR-TO			
A-B	-800 / 0	-78.0 -78.0	0.27 (1)	6.25	K-B	-94 / 34	0.05 (1)
B-C	-702 / 0	-85.5 -85.5	0.34 (1)	2.00	B-J	0 / 422	0.07 (1)
C-D	-702 / 0	-85.5 -85.5	0.34 (1)	2.00	J-C	-578 / 0	0.31 (1)
D-E	-844 / 0	-78.0 -78.0	0.32 (1)	6.25	J-D	0 / 372	0.06 (1)
L-A	-1039 / 0	0.0 0.0	0.14 (1)	7.71	H-D	-33 / 64	0.02 (4)
G-E	-1034 / 0	0.0 0.0	0.12 (1)	7.72	A-K	0 / 520	0.12 (1)
					H-E	0 / 525	0.12 (1)
L-K	0 / 0	-18.5 -18.5	0.12 (4)	10.00			
K-J	0 / 477	-18.5 -18.5	0.17 (4)	10.00			
J-I	0 / 504	-18.5 -18.5	0.19 (4)	10.00			
I-H	0 / 504	-18.5 -18.5	0.19 (4)	10.00			
H-G	0 / 0	-18.5 -18.5	0.13 (4)	10.00			
G-F	0 / 0	-96.5 -96.5	0.16 (1)	10.00			

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



DESIGN CRITERIA

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

SPACING = 24.0 IN. C/C

LOADING IN FLAT SECTION BASED ON PIGGYBACK TRUSS WITH SLOPES OF 6.00/12 AND -6.00/12 AND RESPECTIVE WALL HEIGHTS OF 0-0 AND 0-0 AND AN ADDITIONAL DEAD LOAD OF 3.0 P.S.F.

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

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

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

ALLOWABLE DEFL.(LL) = $L/360$ (0.71")
CALCULATED VERT. DEFL.(LL) = $L/999$ (0.02")
ALLOWABLE DEFL.(TL) = $L/360$ (0.71")
CALCULATED VERT. DEFL.(TL) = $L/999$ (0.04")

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

CSI: TC=0.34/1.00 (B-C:1), BC=0.19/1.00 (H-J:4), WB=0.31/1.00 (C-J:1), SSI=0.23/1.00 (B-C:1)

DOL LUMBER=1.00 NAIL=1.00 L.S 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.

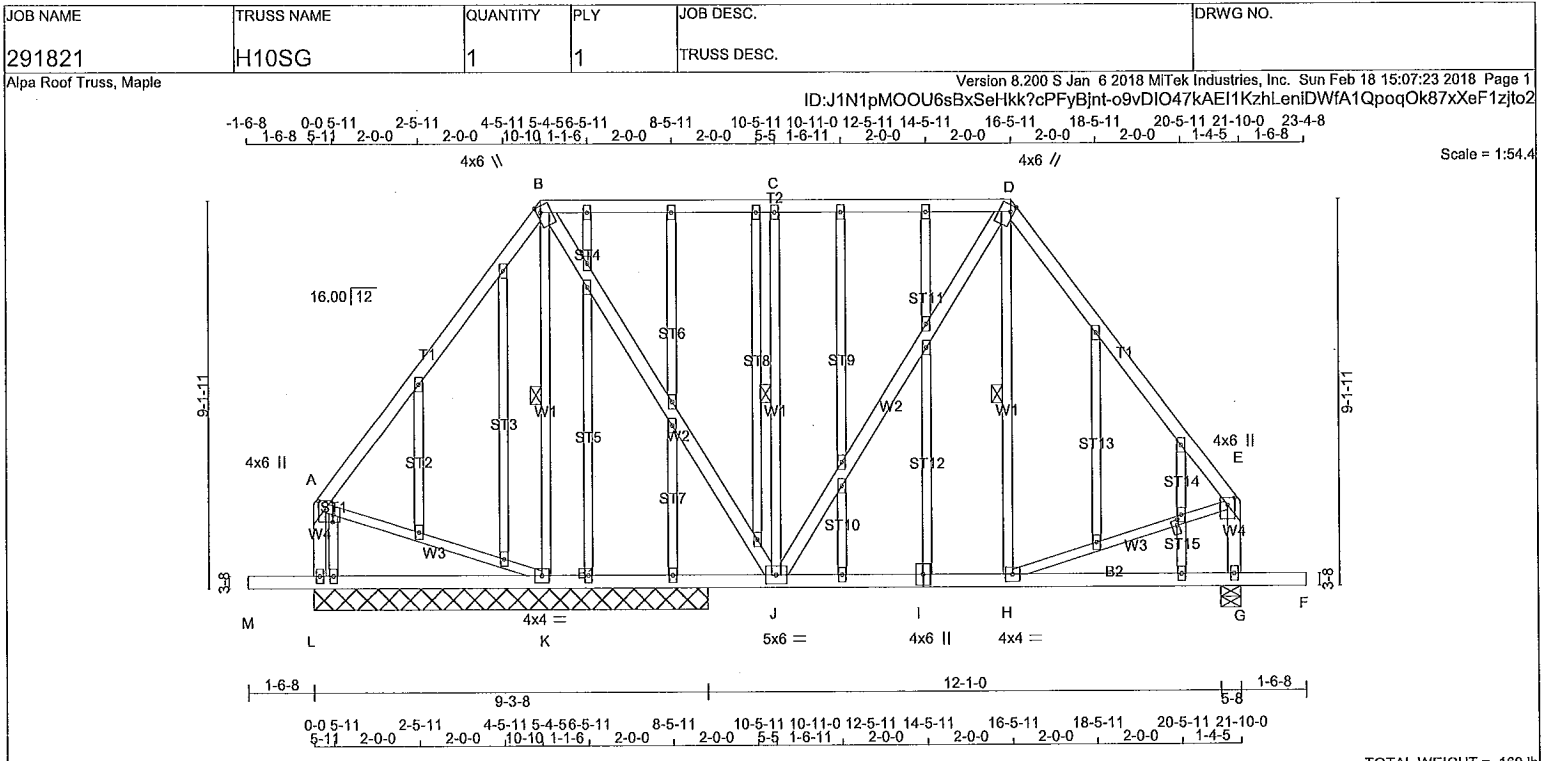
NAIL VALUES
PLATE GRIP(DRY) SHEAR SECTION
(PSI) (PLI) (PLI)
MAX MIN MAX MIN MAX MIN
MT20 618 354 1667 788 1987 1656

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.81 (D) (INPUT = 0.90)
JSI METAL= 0.32 (E) (INPUT = 1.00)

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LUMBER

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

GABLE STUDS SPACED AT 2-0-0 OC.

PLATES (table is in inches)

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

N, O, P, Q, R, S, T, U, V, W, X, Y, Z, AA, AB, AC, AD, AE, AF, AG, AH, AI, AK, AL, AM, AN, AO

N	NP+w	MT20	2.0	4.0	
AJ	NP+w	MT20	2.0	4.0	2.00 0.25
AO	NP+t	MT20	2.0	4.0	1.50 0.50

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
K	727	0	0	9-3-8
L	698	0	0	9-3-8
G	1061	0	0	5-8

UNFACTORED REACTIONS

JT	COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
K	526	278 / 0	0 / 0	0 / 0	0 / 0	248 / 0	0 / 0
L	496	314 / 0	0 / 0	0 / 0	0 / 0	181 / 0	0 / 0
G	759	453 / 0	0 / 0	0 / 0	0 / 0	305 / 0	0 / 0

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

BRACING

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

FOR OTHER SECTIONS, TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 6.25 FT.

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

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

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

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

LOADING

TOTAL LOAD CASES: (4)

CHORDS				WEBS			
MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	FACTORED HORZ. LOAD (LC)	MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	FACTORED HORZ. LOAD (LC)
FR-TO		FROM	TO	FR-TO		FROM	TO
A-B	-309 / 0	-78.0	-78.0 0.29 (1)	6.25	K-B	-662 / 0	0.36 (1)
B-C	-502 / 0	-85.5	-85.5 0.34 (1)	2.00	B-J	0 / 611	0.10 (1)
C-D	-502 / 0	-85.5	-85.5 0.34 (1)	2.00	J-C	-582 / 0	0.32 (1)
D-E	-679 / 0	-78.0	-78.0 0.31 (1)	6.25	J-D	0 / 182	0.03 (1)
L-A	-511 / 0	0.0	0.0 0.06 (1)	7.81	H-D	-2 / 79	0.03 (4)
G-E	-873 / 0	0.0	0.0 0.10 (1)	7.81	A-K	0 / 193	0.04 (1)
					H-E	0 / 423	0.10 (1)
M-L	0 / 0	-96.5	-96.5 0.16 (1)	10.00			
L-K	0 / 0	-18.5	-18.5 0.15 (4)	10.00			
K-J	0 / 177	-18.5	-18.5 0.16 (4)	10.00			
J-I	0 / 406	-18.5	-18.5 0.18 (4)	10.00			
I-H	0 / 406	-18.5	-18.5 0.18 (4)	10.00			
H-G	0 / 0	-18.5	-18.5 0.14 (4)	10.00			
G-F	0 / 0	-96.5	-96.5 0.16 (1)	10.00			

DESIGN CRITERIA

SPECIFIED LOADS:

TOP CH. LL = 21.0 PSF
DL = 6.0 PSF

BOT CH. LL = 0.0 PSF
DL = 7.4 PSF

TOTAL LOAD = 34.4 PSF

SPACING = 24.0 IN. C/C

LOADING IN FLAT SECTION BASED ON PIGGYBACK TRUSS WITH SLOPES OF 6.00/12 AND -6.00/12 AND RESPECTIVE WALL HEIGHTS OF 0-0 AND 0-0 AND AN ADDITIONAL DEAD LOAD OF 3.0 P.S.F.

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

THIS DESIGN COMPLIES WITH:

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

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

ALLOWABLE DEFL.(LL)= 1/360 (0.55")
CALCULATED VERT. DEFL.(LL) = 1/999 (0.01")
ALLOWABLE DEFL.(TL)= 1/360 (0.55")
CALCULATED VERT. DEFL.(TL) = 1/999 (0.03")

CANTILEVER DEFLECTION:

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

CSI: TC=0.34/1.00 (B-C:1), BC=0.18/1.00 (H-J:4), WB=0.36/1.00 (B-K:1), SSI=0.23/1.00 (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.

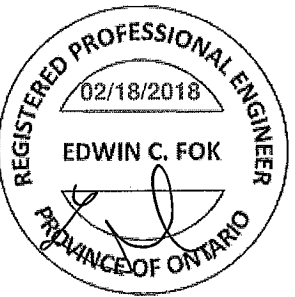
NAIL VALUES

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

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.82 (AO) (INPUT = 0.90)
JSI METAL= 0.26 (E) (INPUT = 1.00)



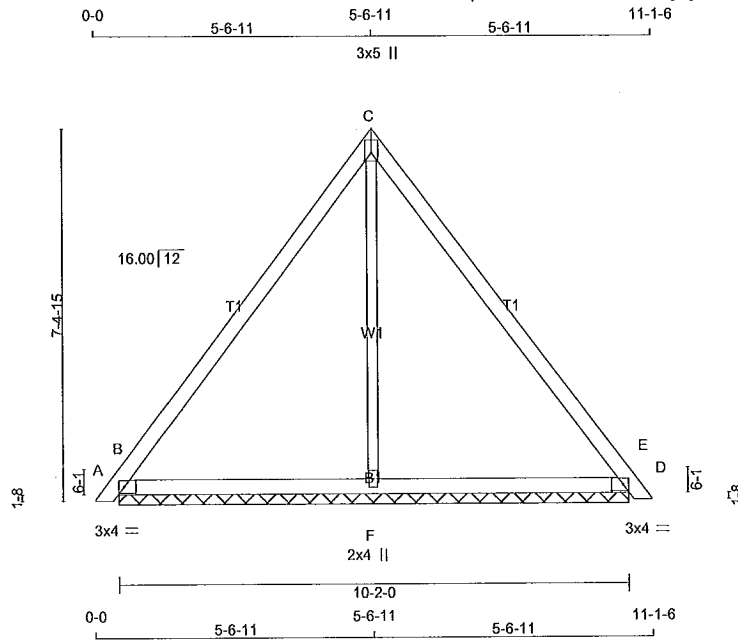
NOTE: Lateral brace(s) shown shall be 1x4 for Part 9 design as per OBC 9.23.13.11, and no less than 2x4 for Part 4 design

JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
291821	H11P	5	1	TRUSS DESC.	

Alpa Roof Truss, Maple

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Scale = 1:46.0

TOTAL WEIGHT = 5 X 38 = 190 lb

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

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	TTW+p	MT20	3.0	5.0	2.00 Edge
D	TMB1-I	MT20	3.0	4.0	1.50 2.75
F	BMW1+w	MT20	2.0	4.0	

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

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		IN-SX	IN-SX
B	369	0	369	0	0	10-2-0	1-1-11
D	369	0	369	0	0	10-2-0	1-1-11
F	297	0	297	0	0	10-2-0	1-1-11

UNFACTORED REACTIONS

JT	1ST LCASE COMBINED		MAX /MIN. COMPONENT REACTIONS		WIND	DEAD	SOIL
	SNOW	LIVE	PERM. LIVE				
B	259	180 / 0	0 / 0	0 / 0	0 / 0	80 / 0	0 / 0
D	259	180 / 0	0 / 0	0 / 0	0 / 0	80 / 0	0 / 0
F	218	97 / 0	0 / 0	0 / 0	0 / 0	122 / 0	0 / 0

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

BRACING

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

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

LOADING

TOTAL LOAD CASES: (4)

MEMB.	CHORDS MAX. FACTORED FORCE (LBS)		FACTORED VERT. LOAD (PLF)		MAX. UNBRACED LENGTH	WEBS MAX. FACTORED FORCE (LBS)	
	FR-TO	FROM TO	LC1	MAX		FR-TO	FROM TO
A-B	0 / 10	-78.0	-78.0	0.01 (1)	10.00	F-C	-180 / 0
B-C	-135 / 0	-78.0	-78.0	0.35 (1)	6.25		
C-D	-135 / 0	-78.0	-78.0	0.35 (1)	6.25		
D-E	0 / 10	-78.0	-78.0	0.01 (1)	10.00		
B-F	0 / 80	-18.5	-18.5	0.14 (4)	10.00		
F-D	0 / 80	-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

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=0.35/1.00 (C-D:1), BC=0.14/1.00 (B-F:4), WB=0.16/1.00 (C-F: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

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.

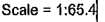
JSI GRIP= 0.44 (B) (INPUT = 0.90)
JSI METAL= 0.17 (D) (INPUT = 1.00)

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



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TOTAL WEIGHT = 79 lb

PLATES (table ts in inches)		W	LEN	Y	X
JT	TYPE	PLATES			
A	TMV+p	MT20	2.0	4.0	
B	C, D, F, G, H				
B	TMW+ww	MT20	2.0	4.0	
E	TTW+p	MT20	3.0	5.0	2.00 Edge
I	TMV+p	MT20	2.0	4.0	
K	BMV1+p	MT20	2.0	4.0	
L, M, N, P, Q, R, S					
L	BMV1+ww	MT20	2.0	4.0	
O	BS-t	MT20	3.0	4.0	
T	BMV1+p	MT20	2.0	4.0	

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

U-T	0/0	-98.5	-96.5	0.16 (1)	10.00
T-S	0/13	-18.5	-18.5	0.16 (1)	10.00
S-R	0/9	-18.5	-18.5	0.02 (4)	10.00
R-Q	-1/5	-18.5	-18.5	0.02 (4)	10.00
Q-P	-2/2	-18.5	-18.5	0.01 (4)	10.00
P-O	-2/2	-18.5	-18.5	0.01 (4)	10.00
O-N	-2/2	-18.5	-18.5	0.01 (4)	10.00
N-M	-1/5	-18.5	-18.5	0.02 (4)	10.00
M-L	0/9	-18.5	-18.5	0.02 (4)	10.00
L-K	0/13	-18.5	-18.5	0.16 (1)	10.00
K-J	0/0	-96.5	-96.5	0.16 (1)	10.00

JSI GRIP= 0.16 (E) (INPUT = 0.90)
JSI METAL= 0.08 (D) (INPUT = 1.00)

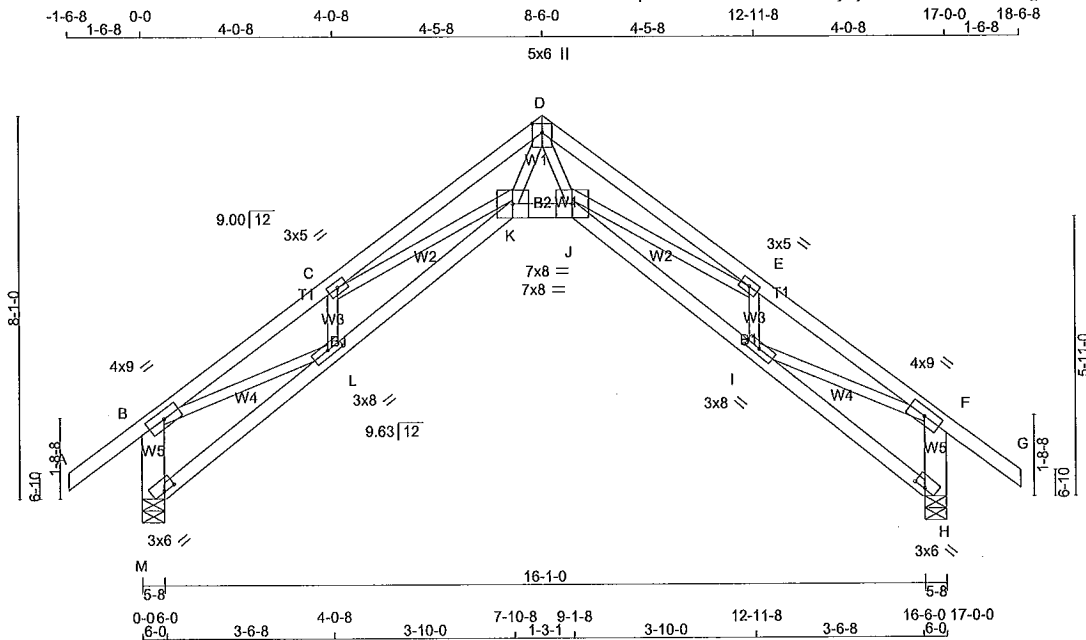
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JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
291821	H13T	10	1	TRUSS DESC.	

Alpa Roof Truss, Maple

Version 8.200 S Jan 6 2018 MITek Industries, Inc. Sun Feb 18 15:07:52 2018 Page 1

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TOTAL WEIGHT = 10 X 77 = 770 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
M - B	2x6	DRY	No.2	SPF
H - F	2x6	DRY	No.2	SPF
M - K	2x4	DRY	No.2	SPF
K - J	2x4	DRY	No.2	SPF
J - H	2x4	DRY	No.2	SPF
ALL WEBS EXCEPT	2x3	DRY	No.2	SPF

DRY: SEASONED LUMBER.

PLATES (table is in inches)

JT	TYPE	PLATES	W	LEN	Y	X
B	TMVW-t	MT20	4.0	9.0		
C	TMVW-t	MT20	3.0	5.0		
D	TTWW+p	MT20	5.0	6.0	2.25	2.50
E	TMVW-t	MT20	3.0	5.0		
F	TMVW-t	MT20	4.0	9.0		
H	BVM1-t	MT20	3.0	6.0	0.25	3.00
I	BMVW-t	MT20	3.0	8.0	1.50	3.75
J	BBVW-t	MT20	7.0	8.0		
K	BBVW-t	MT20	7.0	8.0		
L	BMVW-t	MT20	3.0	8.0	1.50	3.75
M	BVM1-t	MT20	3.0	6.0	0.25	3.00

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
M	947	0	947	0	5-8	1-8
H	947	0	947	0	5-8	1-8

ALLOW FOR 0.7" OF HORIZONTAL MOVEMENT DUE TO TOTAL LOAD.

UNFACTORED REACTIONS

1ST LCASE		MAX./MIN. COMPONENT REACTIONS					
JT	COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
M	673	425 / 0	0 / 0	0 / 0	0 / 0	247 / 0	0 / 0
H	673	425 / 0	0 / 0	0 / 0	0 / 0	247 / 0	0 / 0

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

BRACING

TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 3.69 FT.
MAX. UNBRACED BOTTOM CHORD LENGTH = 10.00 FT OR RIGID CEILING DIRECTLY APPLIED.

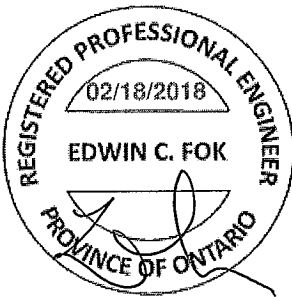
ALL PITCH BREAKS AND PERIMETER CORNER JOINTS MUST BE Laterally RESTRAINED.

LOADING

TOTAL LOAD CASES: (4)

CHORDS				WEBS			
MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	LC1 MAX (LC)	MEMB.	MAX. FACTORED FORCE (LBS)	MAX (LC)	
FR-TO		FROM	TO	FR-TO			
A-B	0 / 38	-78.0	-78.0 0.15 (1)	10.00	D-J	0 / 1834	0.41 (1)
B-C	-2160 / 0	-78.0	-78.0 0.20 (1)	4.49	J-E	0 / 883	0.20 (1)
C-D	-3158 / 0	-78.0	-78.0 0.36 (1)	3.69	I-E	-636 / 0	0.09 (1)
D-E	-3158 / 0	-78.0	-78.0 0.36 (1)	3.69	K-D	0 / 1834	0.41 (1)
E-F	-2160 / 0	-78.0	-78.0 0.20 (1)	4.49	C-K	0 / 883	0.20 (1)
F-G	0 / 38	-78.0	-78.0 0.15 (1)	10.00	L-C	-636 / 0	0.09 (1)
M-B	-908 / 0	0.0	0.0 0.07 (1)	7.81	I-F	0 / 1859	0.42 (1)
H-F	-908 / 0	0.0	0.0 0.07 (1)	7.81	B-L	0 / 1859	0.42 (1)
M-L	0 / 4	-18.5	-18.5 0.07 (4)	10.00			
L-K	0 / 2170	-18.5	-18.5 0.40 (1)	10.00			
K-J	0 / 1915	-18.5	-18.5 0.31 (1)	10.00			
J-I	0 / 2170	-18.5	-18.5 0.40 (1)	10.00			
I-H	0 / 4	-18.5	-18.5 0.07 (4)	10.00			

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



DESIGN CRITERIA

SPECIFIED LOADS:

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

SPACING = 24.0 IN. C/C

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 (0.57")
CALCULATED VERT. DEFL.(LL)= L/999 (0.20")
ALLOWABLE DEFL.(TL)= L/360 (0.57")
CALCULATED VERT. DEFL.(TL)= L/508 (0.40")

CSI: TC=0.36/1.00 (D-E:1), BC=0.40/1.00 (I-J:1), WB=0.42/1.00 (F-I:1), SSI=0.13/1.00 (C-D:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

AUTOSOLVE HEELS OFF

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

NAIL VALUES

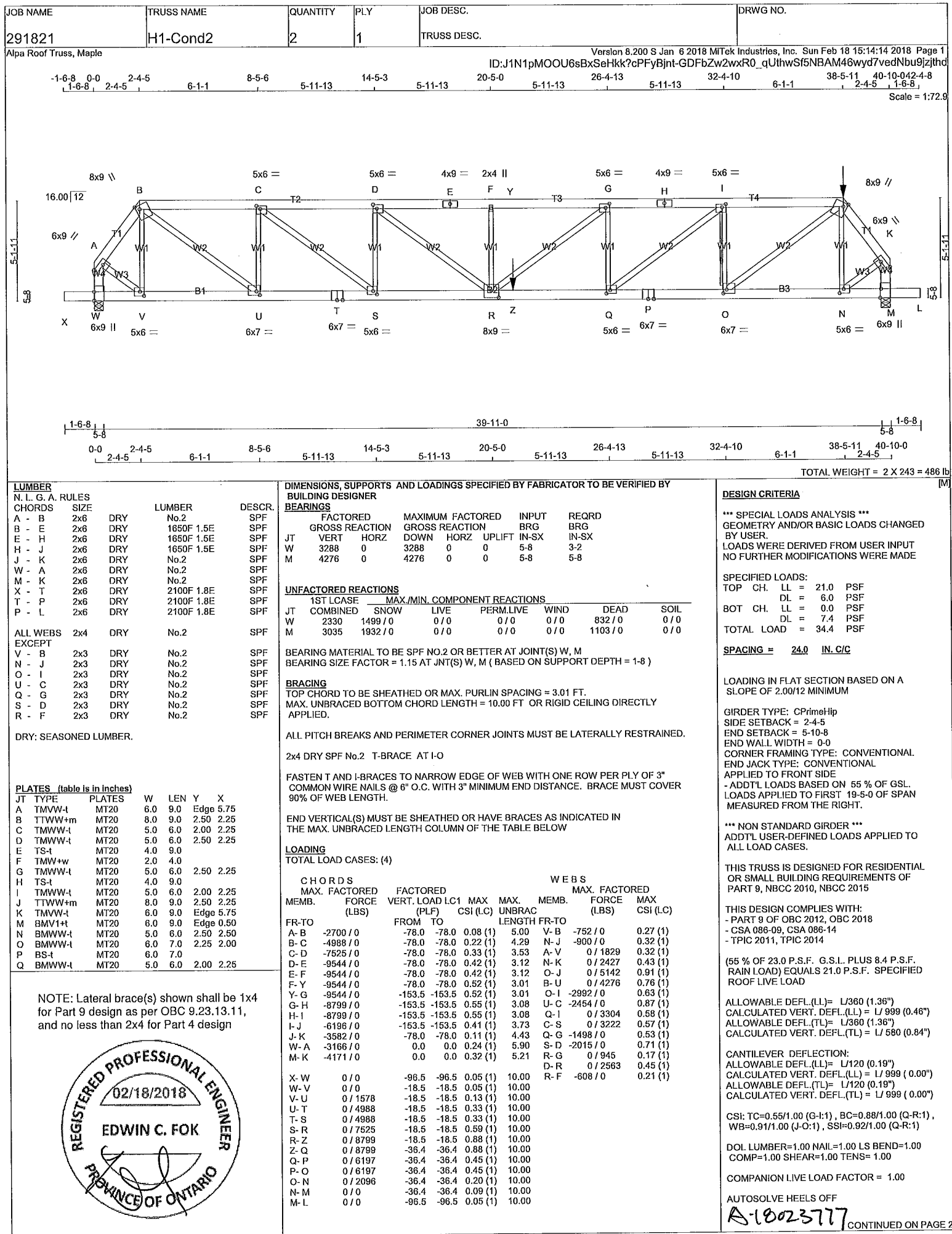
PLATE	GRIP(DRY)	SHEAR (PSI)	SECTION (PLI)
MT20	618	354	1667
	788	1987	1656

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.90 (I) (INPUT = 0.90)
JSI METAL= 0.43 (K) (INPUT = 1.00)

A-18023776



JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
291821	H1-Cond2	2	1	TRUSS DESC.	

Alpa Roof Truss, Maple

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ID:J1N1pMOOU6sBxSeHkk7cPFyBjnt-GDFbZw2wxR0 qUthwSf5NBAM46wyd7vedNbu9jzjthd

PLATES (table is in inches)

JT	TYPE	PLATES	W	LEN	Y	X
R	BMWWW-I	MT20	8.0	9.0	4.25	4.50
S	BMWWW-I	MT20	5.0	6.0	2.00	2.25
T	BS-I	MT20	6.0	7.0		
U	BMWWW-I	MT20	6.0	7.0	2.25	2.00
V	BMWWW-I	MT20	5.0	6.0	2.50	2.50
W	BMV1-I	MT20	6.0	9.0	Edge	

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

HANGERS NOTES

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

FACTORED CONCENTRATED LOADS (LBS)

JT	LOC.	LC1	MAX-	MAX+	FACE	DIR.	TYPE
J	38-5-11	-134	-134	---	FRONT	VERT	TOTAL
Z	21-6-8	-1559	-1559	---	FRONT	VERT	TOTAL

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

NAIL VALUES

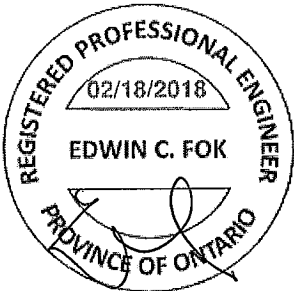
PLATE	GRIP(DRY)	SHEAR	SECTION
	(PSI)	(PLI)	(PLI)
	MAX	MIN	MAX
MT20	618	354	1667

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.89 (C) (INPUT = 0.90)
JSI METAL= 0.90 (T) (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-18023777(2)

JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
292653	H1T	1	1	TRUSS DESC.	
Alpa Roof Truss, Maple					
Version 8.200 S Jan 6 2018 MITek Industries, Inc. Sun Feb 18 15:24:28 2018 Page 2					
ID:J1N1pMOOU6sBxSeHkk?cPFyBjnt-HLLjQIU3L5NsVrphuPg4GfclncY9UqM0pvKMJ7zITy1					

PLATES (table is in inches)

JT	TYPE	PLATES	W	LEN	Y	X
H	TMWW-I	MT20	4.0	4.0		
I	TS-I	MT20	4.0	9.0		
J	TMWW-I	MT20	4.0	6.0		
K	TMWW-I	MT20	7.0	12.0	2.00	5.00
L	TMWW-I	MT20	5.0	6.0	2.00	2.50
M	TTWW+h	MT20	6.0	12.0	3.25	2.50
N	TMWW-I	MT20	5.0	6.0	2.00	2.00
P	BMV1-I	MT20	6.0	9.0	Edge	0.50
Q	BMVWW-I	MT20	5.0	6.0	2.50	2.75
R	BMVWW-I	MT20	6.0	7.0	2.50	2.25
S	BBWW-h	MT20	10.0	12.0	3.25	7.50
T	BBWW+p	MT20	10.0	12.0	Edge	4.75
U	BMVWW-I	MT20	4.0	6.0	2.25	2.50
V	BMVWW-I	MT20	5.0	8.0		
W	BBWW+p	MT18HS	10.0	14.0	Edge	5.25
X	BBWW-h	MT20	10.0	12.0	3.25	7.50
Y	BMVWW-I	MT20	6.0	7.0	2.50	2.25
Z	BMVWW-I	MT20	5.0	6.0	2.50	2.75
AA	BMV1-I	MT20	6.0	9.0	Edge	

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

HANGERS NOTES

- SPECIAL HANGER(S) OR CONNECTION(S) REQUIRED TO SUPPORT CONCENTRATED LOAD(S) 134.1 lbs FACTORED DOWN AT 2-4-5, AND 134.1 lbs FACTORED DOWN AT 38-5-11 ON TOP CHORD. DESIGN FOR UNSPECIFIED CONNECTION(S) IS DELEGATED TO THE BUILDING DESIGNER.

LOADING

TOTAL LOAD CASES: (4)

CHORDS				WEBS			
MAX. FACTORED		FACTORED		MAX. FACTORED		FACTORED	
MEMB.	FORCE	VERT. LOAD	LC1	MAX.	MAX.	MEMB.	FORCE
	(LBS)	(PLF)	CSI (LC)	UNBRAC			(LBS)
FR-TO		FROM	TO	LENGTH	FR-TO		
Q-P	0/0	-36.4	-36.4	0.06 (4)	10.00		
P-O	0/0	-96.5	-96.5	0.06 (1)	10.00		

FACTORED CONCENTRATED LOADS (LBS)

JT	LOC.	LC1	MAX-	MAX+	FACE	DIR.	TYPE
B	2-4-5	-134	-134	---	FRONT	VERT	TOTAL
M	38-5-11	-134	-134	---	FRONT	VERT	TOTAL

CSI: TC=0.50/1.00 (E-G:1) , BC=0.59/1.00 (U-V:1) , WB=0.94/1.00 (D-X:1) , SSI=0.33/1.00 (B-C:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

AUTOSOLVE HEELS OFF

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

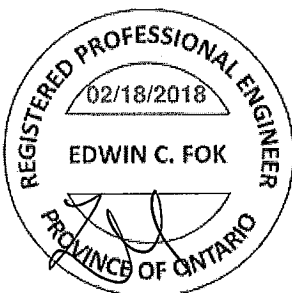
NAIL VALUES
PLATE GRIP(DRY) SHEAR SECTION
(PSI) (PLI) (PLI)
MAX MIN MAX MIN MAX MIN
MT20 618 354 1667 788 1987 1656
MT18HS 511 354 2455 1382 3004 2010

PLATE PLACEMENT TOL. = 0.250 inches

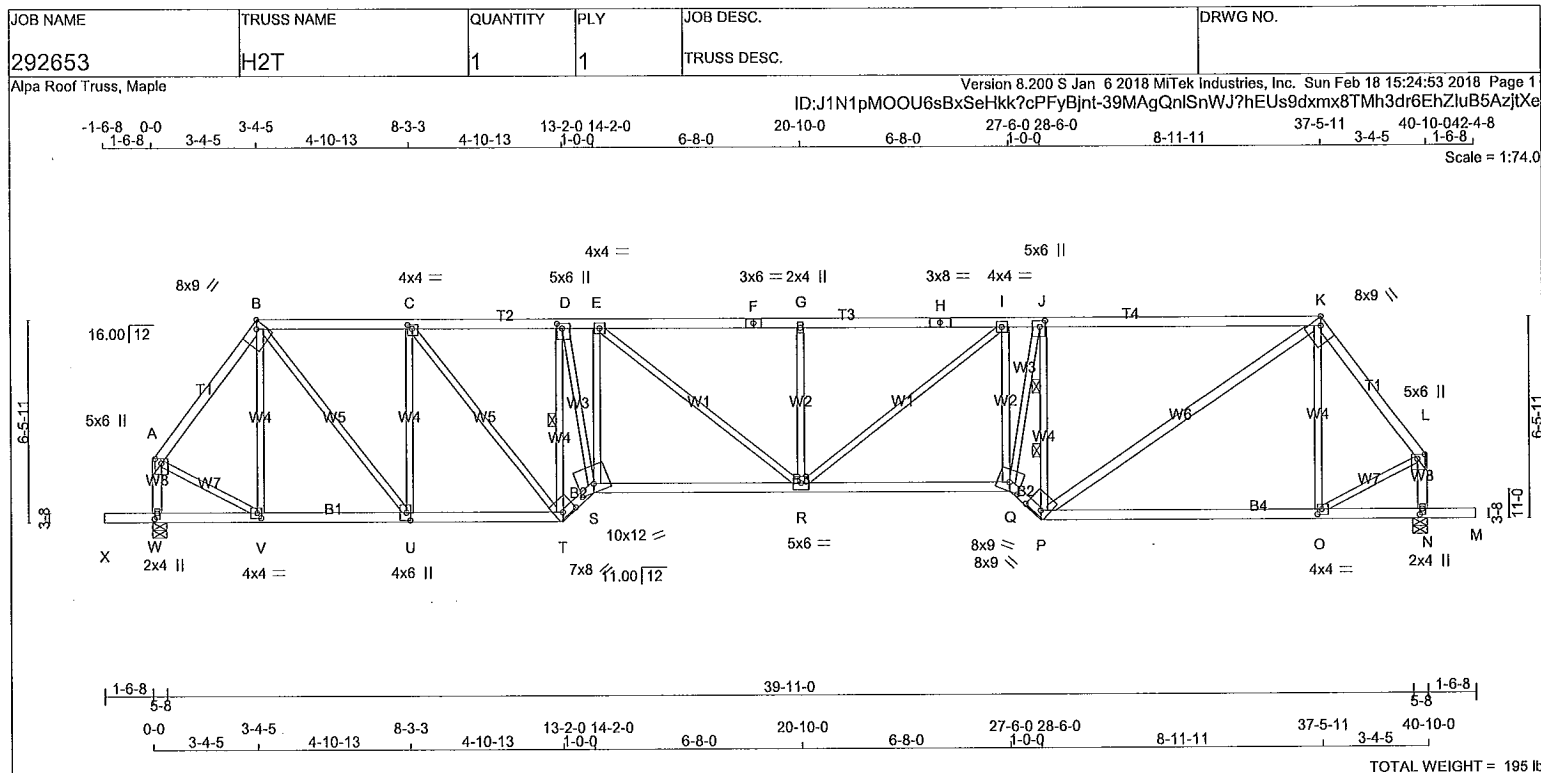
PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.90 (T) (INPUT = 0.90)
JSI METAL= 1.00 (T) (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-1802377867



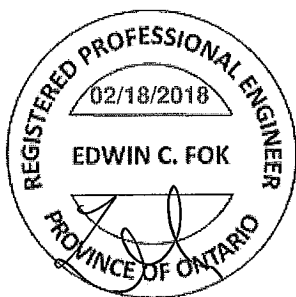
LUMBER				N. L. G. A. RULES	
CHORDS	SIZE	LUMBER	DESCR.		
A - B	2x4	DRY	No.2	SPF	
B - F	2x4	DRY	2100F 1.8E	SPF	
F - H	2x4	DRY	2100F 1.8E	SPF	
H - K	2x4	DRY	2100F 1.8E	SPF	
K - L	2x4	DRY	No.2	SPF	
W - A	2x4	DRY	No.2	SPF	
N - L	2x4	DRY	No.2	SPF	
X - T	2x4	DRY	No.2	SPF	
T - S	2x4	DRY	No.2	SPF	
S - Q	2x4	DRY	No.2	SPF	
Q - P	2x4	DRY	No.2	SPF	
P - M	2x4	DRY	No.2	SPF	
ALL WEBS EXCEPT P - K	2x4	DRY	No.2	SPF	

DRY: SEASONED LUMBER.

PLATES (table is in inches)

JT	TYPE	PLATES	W	LEN	Y	X
A	TMVW+p	MT20	5.0	6.0	1.75	2.50
B	TTWW-h	MT20	8.0	9.0	Edge	2.75
C	TMVW-t	MT20	4.0	4.0	1.50	1.75
D	TMVW-h	MT20	5.0	6.0	1.75	2.00
E	TMVW-t	MT20	4.0	4.0		
F	TS-t	MT20	3.0	6.0		
G	TMVW-w	MT20	2.0	4.0		
H	TS-t	MT20	3.0	8.0		
I	TMVW-t	MT20	4.0	4.0		
J	TMVW-t	MT20	5.0	6.0	2.25	2.00
K	TTWW-h	MT20	8.0	9.0	Edge	2.75
L	TMVW-p	MT20	5.0	6.0	1.75	2.75
N	BMV1+p	MT20	2.0	4.0	2.25	1.00
O	BMVW-t	MT20	4.0	4.0	2.00	1.50
P	BBVW-h	MT20	8.0	9.0	2.00	6.00
Q	BBVW-m	MT20	8.0	9.0	3.25	4.50
R	BMVW-t	MT20	5.0	6.0		
S	BBVW-m	MT20	10.0	12.0	3.25	6.00
T	BBVW-h	MT20	7.0	8.0	2.00	5.00
U	BMVW-t	MT20	4.0	6.0	3.00	1.50

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



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

JT	FACTORED GROSS REACTION		MAXIMUM FACTORED GROSS REACTION		INPUT BRG		REQRD BRG	
	VERT	HORZ	DOWN	HORZ	IN-SX	IN-SX		
W	2118	0	2118	0	5-8	3-3		
N	2118	0	2118	0	5-8	3-3		

ALLOW FOR 0.3" OF HORIZONTAL MOVEMENT DUE TO TOTAL LOAD

UNFACTORED REACTIONS

JT	COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
W	1510	922 / 0	0 / 0	0 / 0	0 / 0	588 / 0	0 / 0
N	1510	922 / 0	0 / 0	0 / 0	0 / 0	588 / 0	0 / 0

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

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 D-T.
- 2 LATERAL BRACE(S) AT 1 / 3 LENGTH OF J-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				WEBS			
MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	MAX. FACTORED CS1 (LC)	MEMB.	MAX. FACTORED FORCE (LBS)	MAX. FACTORED CS1 (LC)	
FR-TO		FROM	TO	FR-TO			
A-B	-1683 / 0	-78.0	-78.0 0.21 (1)	4.93	V-B	-379 / 0	0.26 (1)
B-C	-2138 / 0	-78.0	-78.0 0.22 (1)	5.35	B-U	0 / 1828	0.41 (1)
C-D	-2876 / 0	-78.0	-78.0 0.24 (1)	4.75	U-C	-1341 / 0	0.91 (1)
D-E	-3495 / 0	-78.0	-78.0 0.18 (1)	4.44	C-T	0 / 1184	0.27 (1)
E-F	-3900 / 0	-78.0	-78.0 0.52 (1)	3.98	T-D	-3547 / 0	0.96 (1)
F-G	-3900 / 0	-78.0	-78.0 0.52 (1)	3.98	D-S	0 / 3316	0.75 (1)
G-H	-3900 / 0	-78.0	-78.0 0.52 (1)	3.98	S-E	-515 / 0	0.24 (1)
H-I	-3900 / 0	-78.0	-78.0 0.52 (1)	3.98	E-R	0 / 506	0.11 (1)
I-J	-3399 / 0	-78.0	-78.0 0.65 (1)	3.67	R-G	-594 / 0	0.28 (1)
J-K	-2869 / 0	-78.0	-78.0 0.96 (1)	3.98	R-I	0 / 637	0.14 (1)
K-L	-1711 / 0	-78.0	-78.0 0.21 (1)	4.90	Q-I	-173 / 0	0.08 (1)
W-A	-1948 / 0	0.0	0.0 0.22 (1)	6.03	Q-J	0 / 2878	0.65 (1)
N-L	-1977 / 0	0.0	0.0 0.23 (1)	6.00	P-J	-3757 / 0	0.96 (1)
X-W	0 / 0	-96.5	-96.5 0.16 (1)	10.00	P-K	0 / 2244	0.36 (1)
W-V	0 / 0	-18.5	-18.5 0.07 (4)	10.00	O-K	-306 / 0	0.21 (1)
V-U	0 / 996	-18.5	-18.5 0.21 (1)	10.00	A-V	0 / 1105	0.25 (1)
U-T	0 / 2138	-18.5	-18.5 0.40 (1)	10.00	O-L	0 / 1124	0.25 (1)
T-S	0 / 3965	-18.5	-18.5 0.64 (1)	10.00			
S-R	0 / 3505	-18.5	-18.5 0.68 (1)	10.00			
R-Q	0 / 3403	-18.5	-18.5 0.66 (1)	10.00			
Q-P	0 / 3806	-18.5	-18.5 0.61 (1)	10.00			
P-O	0 / 1014	-18.5	-18.5 0.42 (4)	10.00			
O-N	0 / 0	-18.5	-18.5 0.32 (4)	10.00			
N-M	0 / 0	-96.5	-96.5 0.16 (1)	10.00			

DESIGN CRITERIA

SPECIFIED LOADS:

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

SPACING = 24.0 IN. C/C

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

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

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

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

ALLOWABLE DEFL.(LL)= L/360 (1.36")
CALCULATED VERT. DEFL.(LL)= L/999 (0.32")
ALLOWABLE DEFL.(TL)= L/360 (1.36")
CALCULATED VERT. DEFL.(TL)= L/748 (0.66")

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=0.96/1.00 (J-K:1), BC=0.68/1.00 (R-S:1), WB=0.96/1.00 (D-T:1), SSI=0.42/1.00 (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

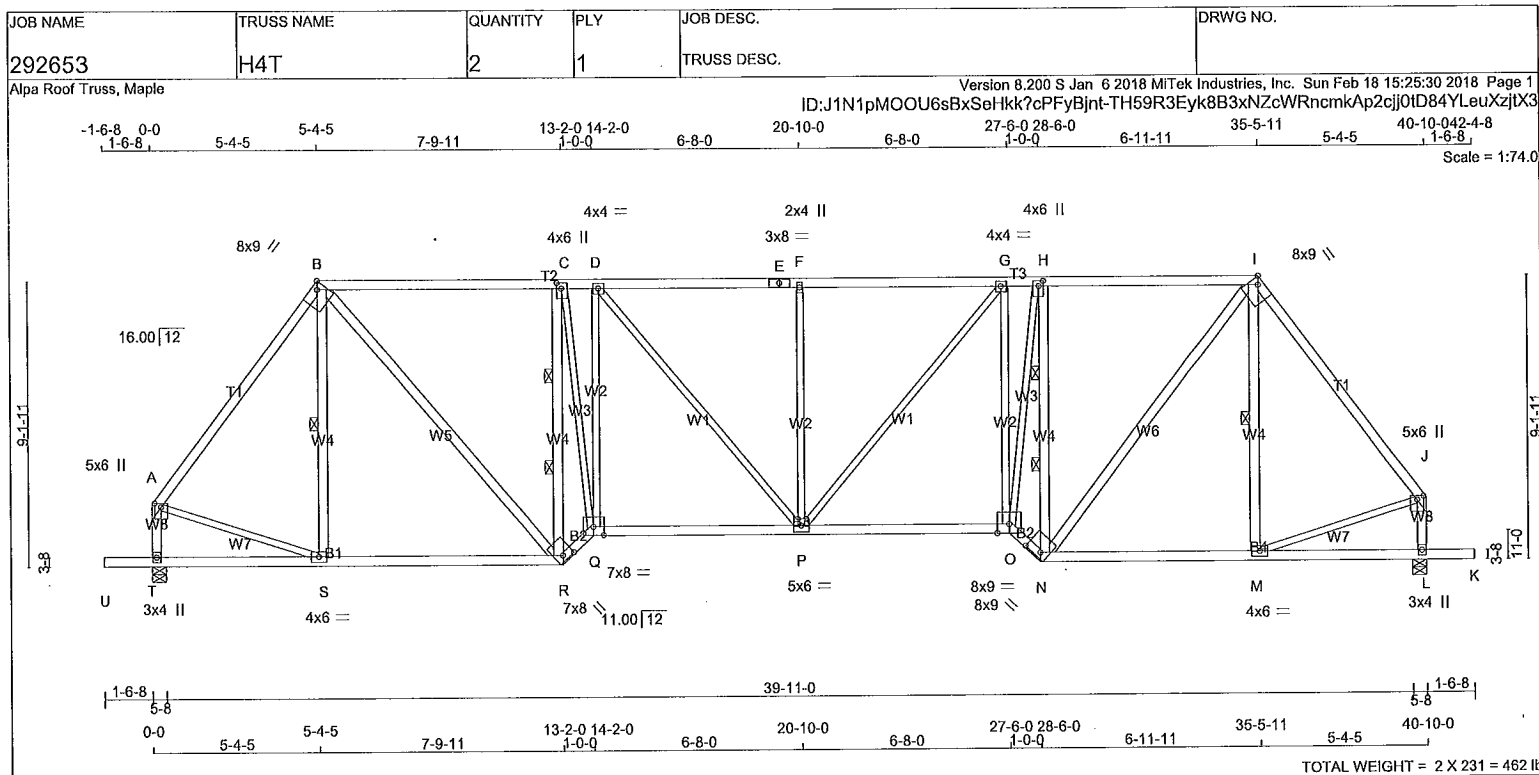
TRUSS PLATE MANUFACTURER IS NOT RESPONSIBLE FOR QUALITY CONTROL IN THE TRUSS MANUFACTURING PLANT.

NAIL VALUES
PLATE GRIP(DRY) SHEAR SECTION (PSI) (PLI) (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 (Q) (INPUT = 0.90)
JSI METAL= 0.64 (P) (INPUT = 1.00)



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

DRY: SEASONED LUMBER.

PLATES (table is in inches)	JT	TYPE	PLATES	W	LEN	Y	X
A - TMVW+p	MT20	5.0	6.0	1.50	2.50		
B - TTWW-h	MT20	8.0	9.0	Edge	2.75		
C - TMVW+h	MT20	4.0	6.0	2.25	1.75		
D - TMVW-t	MT20	4.0	4.0				
E - TS-t	MT20	3.0	8.0				
F - TMVW+w	MT20	2.0	4.0				
G - TMVW-t	MT20	4.0	4.0				
H - TMVW+h	MT20	4.0	6.0	2.00	1.75		
I - TTWW-h	MT20	8.0	9.0	Edge	2.75		
J - TMVW+p	MT20	5.0	6.0	1.50	2.50		
L - BMV1+p	MT20	3.0	4.0				
M - BMVW-t	MT20	4.0	6.0				
N - BBWW-h	MT20	8.0	9.0	2.00	6.00		
O - BBWW-t	MT20	8.0	9.0	Edge			
P - BMVW+h	MT20	5.0	6.0				
Q - BBWW-t	MT20	7.0	8.0	3.25	4.00		

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



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

BEARINGS	FACTORED GROSS REACTION	MAXIMUM FACTORED GROSS REACTION	INPUT BRG	REQRD BRG
JT	VERT	HORZ	DOWN	HORZ
T	2231	0	2231	0
L	2231	0	2231	0

UNFACTORED REACTIONS

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

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

BRACING

FOR SECTION B-I, MAX. PURLIN SPACING = 2.00 FT.
FOR OTHER SECTIONS, TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 4.56 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-S, I-M.
- 2 LATERAL BRACE(S) AT 1/3 LENGTH OF C-R, H-N.

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

LOADING

TOTAL LOAD CASES: (4)

CHORDS	MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	MAX. UNBRACED LENGTH (LC)	W E B S	MEMB.	MAX. FACTORED FORCE (LBS)	MAX. UNBRACED LENGTH (LC)
FR-TO					FR-TO			
A-B	-1887 / 0	-78.0	-78.0	0.44 (1)	4.56	S-B	-178 / 27	0.07 (1)
B-C	-2199 / 0	-85.5	-85.5	0.83 (1)	2.00	B-R	0 / 1618	0.26 (1)
C-D	-2491 / 0	-85.5	-85.5	0.72 (1)	2.00	R-C	-3184 / 0	0.62 (1)
D-E	-2777 / 0	-85.5	-85.5	0.58 (1)	2.00	C-Q	0 / 2266	0.51 (1)
E-F	-2777 / 0	-85.5	-85.5	0.58 (1)	2.00	Q-D	-139 / 0	0.18 (1)
F-G	-2777 / 0	-85.5	-85.5	0.58 (1)	2.00	D-P	0 / 445	0.10 (1)
G-H	-2415 / 0	-85.5	-85.5	0.54 (1)	2.00	P-F	-642 / 0	0.85 (1)
H-I	-2114 / 0	-85.5	-85.5	0.59 (1)	2.00	P-G	0 / 557	0.13 (1)
I-J	-1883 / 0	-78.0	-78.0	0.44 (1)	4.57	O-G	-466 / 0	0.62 (1)
T-A	-2051 / 0	0.0	0.0	0.24 (1)	5.91	O-H	0 / 2450	0.55 (1)
L-J	-2048 / 0	0.0	0.0	0.24 (1)	5.91	N-H	-3078 / 0	0.60 (1)
U-T	0 / 0	-96.5	-96.5	0.16 (1)	10.00	N-I	0 / 1596	0.26 (1)
T-S	0 / 0	-18.5	-18.5	0.25 (4)	10.00	M-I	-190 / 14	0.07 (1)
S-R	0 / 1124	-18.5	-18.5	0.37 (4)	10.00	A-S	0 / 1174	0.26 (1)
R-Q	0 / 3028	-18.5	-18.5	0.49 (1)	10.00	M-J	0 / 1172	0.26 (1)
Q-P	0 / 2493	-18.5	-18.5	0.52 (1)	10.00			
P-O	0 / 2421	-18.5	-18.5	0.51 (1)	10.00			
O-N	0 / 2800	-18.5	-18.5	0.45 (1)	10.00			
N-M	0 / 1122	-18.5	-18.5	0.33 (4)	10.00			
M-L	0 / 0	-18.5	-18.5	0.21 (4)	10.00			
L-K	0 / 0	-96.5	-96.5	0.16 (1)	10.00			

DESIGN CRITERIA

SPECIFIED LOADS:

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

SPACING = 24.0 IN. C/C

LOADING IN FLAT SECTION BASED ON PIGGYBACK TRUSS WITH SLOPES OF 6.00/12 AND -6.00/12 AND RESPECTIVE WALL HEIGHTS OF 0-0 AND 0-0 AND AN ADDITIONAL DEAD LOAD OF 3.0 P.S.F.

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

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

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

ALLOWABLE DEFL.(LL) = $L/360$ (1.36")
CALCULATED VERT. DEFL.(LL) = $L/999$ (0.21")
ALLOWABLE DEFL.(TL) = $L/360$ (1.36")
CALCULATED VERT. DEFL.(TL) = $L/999$ (0.46")

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=0.83/1.00 (B-C:1), BC=0.52/1.00 (P-Q:1), WB=0.85/1.00 (F-P:1), SSI=0.41/1.00 (C-D:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

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

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

PLATE PLACEMENT TOL. = 0.250 inches

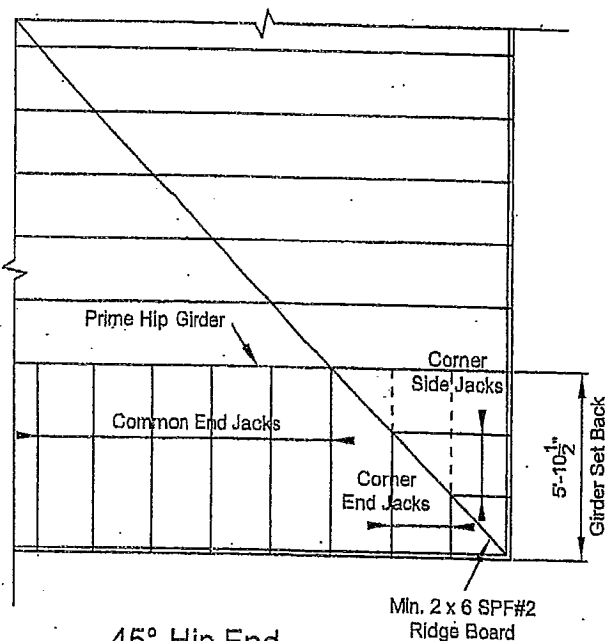
PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.90 (H) (INPUT = 0.90)
JSI METAL= 0.64 (R) (INPUT = 1.00)

A-18023781

CONTINUED ON PAGE 2

STRACON ENGINEERING INC.



45° Hip End

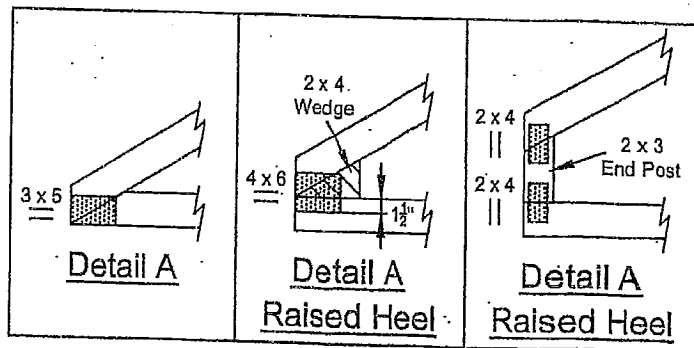
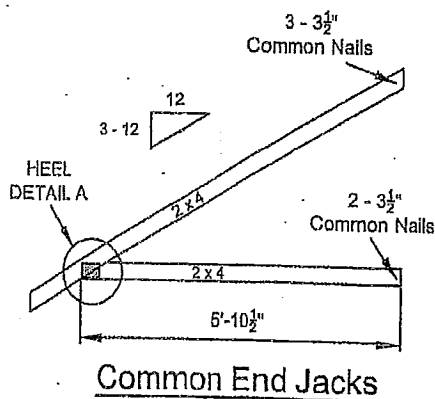
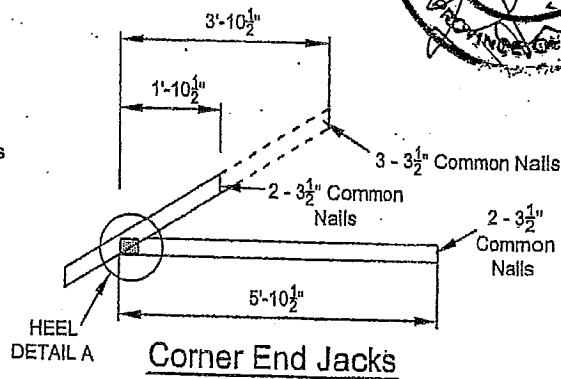
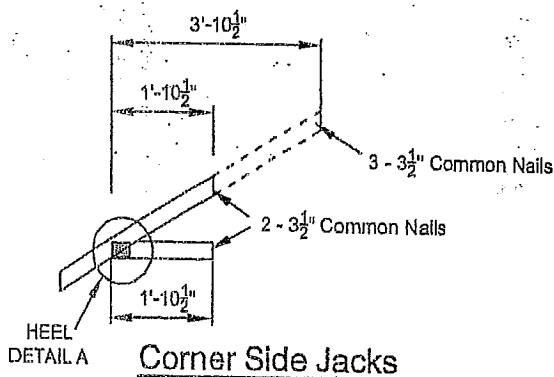
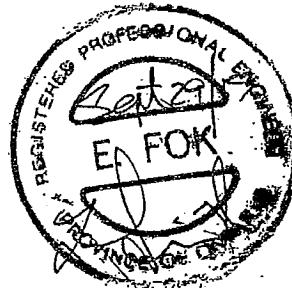
LUMBER SPECIFICATION

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

DESIGN LOAD

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

TOTAL LOAD : 50.5 P.S.F



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

CS-51008

LUS – Double Shear Joist Hangers

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

Material: 18 gauge

Finish: G90 galvanized

Design:

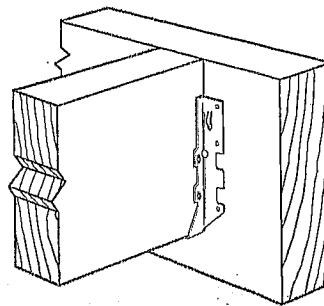
- Factored resistances are in accordance with CSA O86-14.
- Uplift resistances have been increased 15%. No further increase is permitted.
- Wood shear is not considered in the factored resistances given. The specifier must ensure that the joist and header capacities are capable of withstanding these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

Installation:

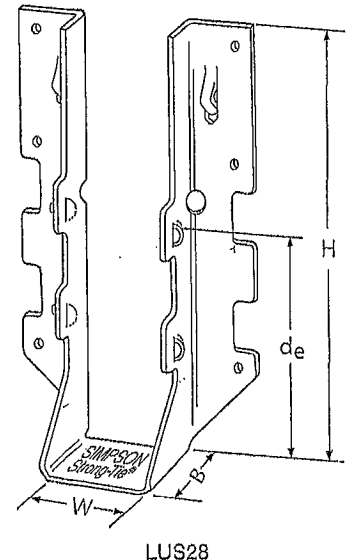
- Use all specified fasteners.
- Nails: 16d = 0.162" dia. x 3 1/2" long common wire,
10d = 0.148" x 3" long common wire.
- Double shear nails must be driven at an angle through the joist or truss into the header to achieve the table loads.
- Not designed for welded or nailer applications.

Options:

- These hangers cannot be modified



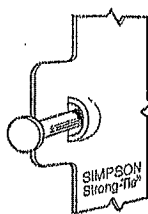
Typical LUS
Installation



LUS28

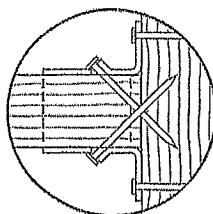
Model No.	Ga.	Dimensions (in.)				Fasteners		Factored Resistance (lb.)			
		W	H	B	d ₁	Face	Joist	D.Fir-L		S-P-F	
								Uplift (K _p =1.15)	Normal (K _p =1.00)	Uplift (K _p =1.15)	Normal (K _p =1.00)
LUS24	18	1 1/8	3 1/8	1 1/4	1 1/4	(4) 10d	(2) 10d	710	1630	645	1155
LUS24-2	18	3 1/8	3 1/8	2	1 1/4	(4) 16d	(2) 16d	835	2020	590	1435
LUS26	18	1 1/8	4 1/4	1 1/4	3/8	(4) 10d	(4) 10d	1420	2170	1290	1630
LUS26-2	18	3 1/8	4 1/8	2	4	(4) 16d	(4) 16d	1720	2595	1545	1920
LUS26-3	18	4 1/8	4 1/8	2	3/4	(4) 16d	(4) 16d	1720	2595	1545	2340
LUS28	18	1 1/8	6 1/8	1 1/4	3/4	(6) 10d	(6) 10d	1420	2520	1290	1790
LUS28-2	18	3 1/8	7	2	4	(6) 16d	(4) 16d	1720	3325	1545	2575
LUS28-3	18	4 1/8	6 1/4	2	3/4	(6) 16d	(4) 16d	1720	3325	1545	2375
LUS210	18	1 1/8	7 1/8	1 1/4	3/8	(8) 10d	(4) 10d	1420	2785	1290	2210
LUS210-2	18	3 1/8	9	2	6	(8) 16d	(6) 16d	2580	4500	2320	3195
LUS210-3	18	4 1/8	8 1/8	2	5/4	(8) 16d	(6) 16d	2580	3345	2320	2375

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

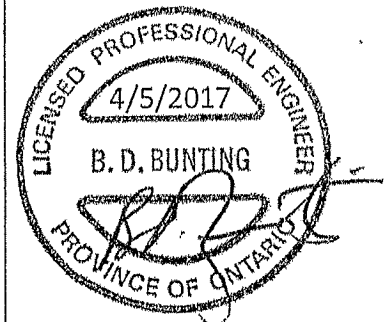


Double Shear Nailing prevents tabs breaking off (available on some models).

U.S. Patent
5,603,580



Double
Shear
Nailing
Top View.



LIMIT
STATES
DESIGN

This technical bulletin is effective until June 30, 2019, and reflects information available as of March 31, 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 of the Strong-Tie Company.

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LSPECULUS17-3/17 exp. 6/19

(800) 999-5099
strongtie.com

HHUS – Double Shear Joist Hangers



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

Material: 14 gauge

Finish: G90 galvanized

Design:

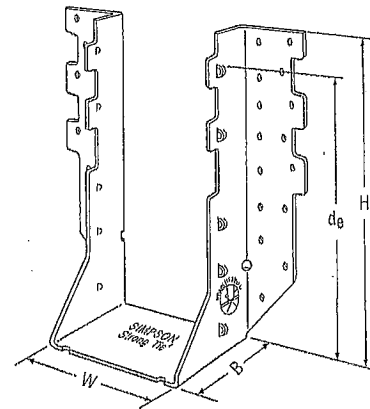
- Factored resistances are in accordance with CSA O86-14.
- Uplift resistances have been increased 15%. No further increase is permitted.
- Wood shear is not considered in the factored resistances given. The specifier must ensure that the joist and header capacities are capable of withstanding these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

Installation:

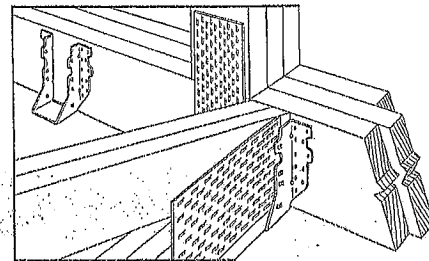
- Use all specified fasteners
- Nails: 16d = 0.162" dia. x 3 1/2" long common wire
- Double shear nails must be driven at an angle through the joist or truss into the header to achieve the table loads
- Not designed for welded or nailer applications

Options:

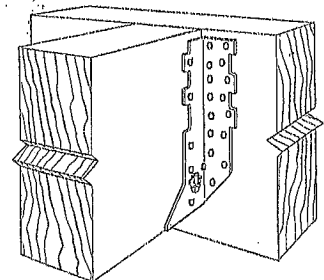
- See current catalogue for options



HHUS410



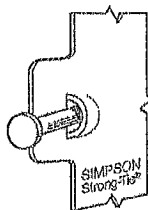
Typical HHUS Installation
(Truss Designer to provide fastener quantity for connecting multiple members together)



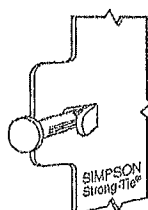
Typical HHUS Installation

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

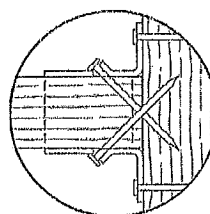
1. d_g is the distance from the seat of the hanger to the highest joist nail.



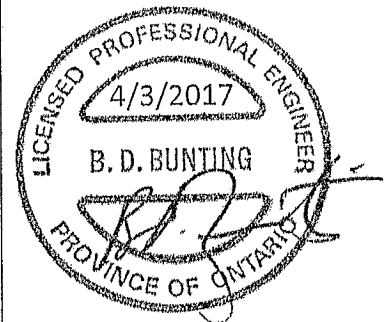
Double Double Shear Nailing prevents tabs breaking off (available on some models).
U.S. Patent 5,603,680



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



Double Shear Nailing Top View.



LIMIT
STATES
DESIGN

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T-SPECHHUS-7-3/17 exp. 6/19

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TC – Truss Connectors



The TC truss connector is an ideal connector for scissor trusses and can allow horizontal movement up to 1¼". The TC also attaches plated trusses to top plates or sill plates to resist uplift forces. Typically used on one or both ends of truss as determined by the building designer.

Material: 16 gauge

Finish: G90 galvanized

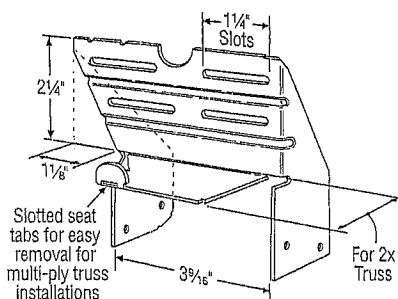
Design: Factored resistances are in accordance with CSA 086-14

Installation:

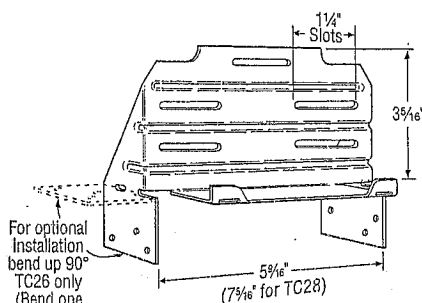
- Use all specified fasteners.
- Nails: 10d = 0.148" dia. x 3" long common wire, 10d x 1½ = 0.148" dia. x 1½" long.
- Drive 10d nails into the truss at the inside end of the slotted holes (inside end is towards the centre of the truss) and clinch on the back side. Do not seat these nails into the truss—allow room under the nail head for movement of the truss with respect to the wall.

Optional TC Installation:

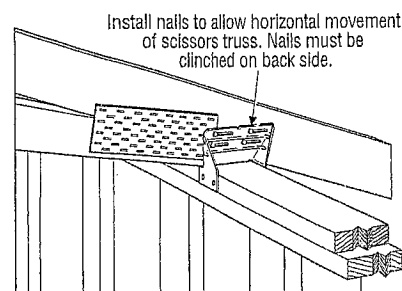
- Bend one flange up 90°. Drive specified nails into the top and face of the top plates or install Titen® screws into the top and face of masonry wall. See optional load tables and installation details.



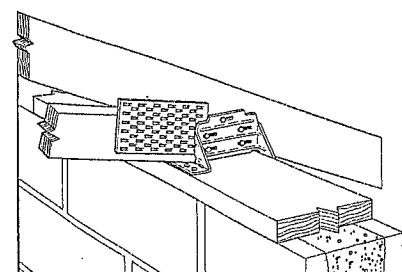
TC24
U.S. Patent 4,932,173



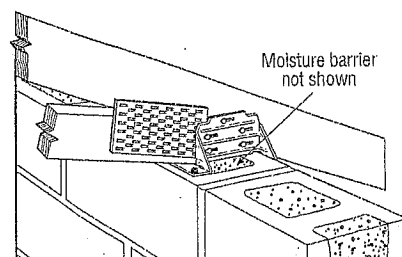
TC26
(TC28 Similar)



Typical TC24 Installation



Optional TC26 Installation for Grouted Concrete Block using a Wood Nailer (8", 10", 12" Wall Installation Similar)



Optional TC26 Installation for Grouted Concrete Block using Titen Screws

Model No.	Fasteners		Factored Resistance	
	Truss	Wall Plates	D.Fir-L	S-P-F
			Uplift (K ₀ =1.15)	Uplift (K ₀ =1.15)
TC24	(4) 10d	(4) 10d	lb.	lb.
TC26	(5) 10d	(6) 10d	605	430
TC28	(5) 10d	(6) 10d	1015	720
			1015	720

Optional TC Installation Table

Model No.	Fasteners		Factored Resistance	
	Truss	Wall Plates	D.Fir-L	S-P-F
			Uplift (K ₀ =1.15)	Uplift (K ₀ =1.15)
TC26	(5) 10d	(6) 10d x 1½"	810	660
	(5) 10d	(6) 10d	930	660

1. Factored resistances have been increased 15% for earthquake or wind loading; no further increase allowed; reduce where other loads govern.
2. Grout strength is 15 MPa minimum.
3. Optional TC26 installation with 10d nails requires minimum 3" top plate thickness.
4. TC26 fastened to grouted concrete block with (6) – ¾" x 2¼" Titen screws has a factored uplift resistance of 275 lb.



LIMIT
STATES
DESIGN

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T-SPECTC17 3/17 exp. 6/19

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