

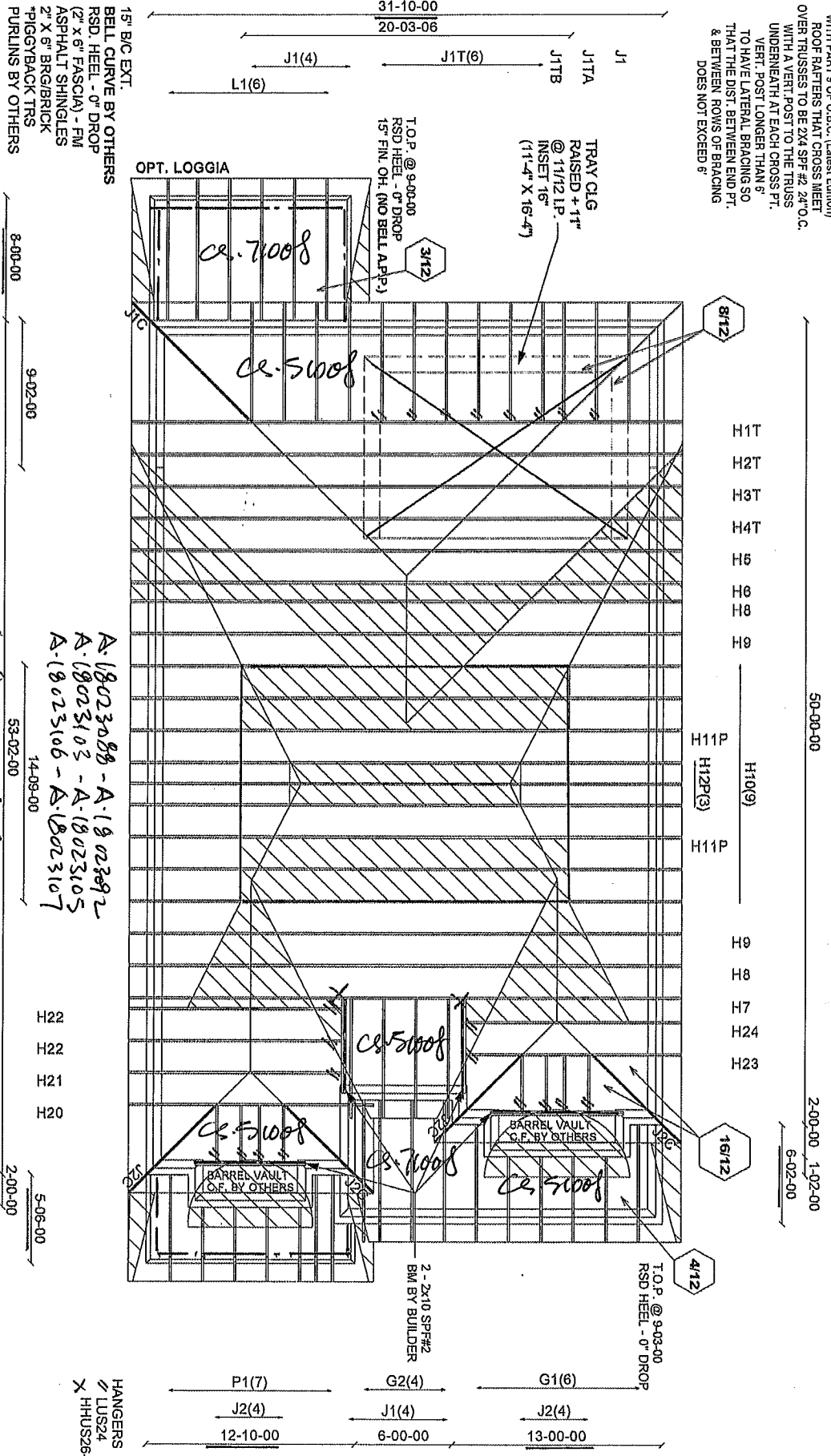
VERT. POST LONGER THAN 6'
TO HAVE LATERAL BRACING SO
THAT THE DIST. BETWEEN END PT.
& BETWEEN ROWS OF BRACING
DOES NOT EXCEED 6'



Model / Elevation: 4002 / B STD 22 RT LOGGA

ALPA-BARRIE

ALL CONV. FRAMING TO CONFORM WITH PART 9 OF O.B.C. (Latest Edition) ROOF RASTERS THAT CROSS MEET OVER TRUSSES TO BE 2X4 SPF #2 24" O.C. WITH A VERT. POST TO THE TRUSS UNDERNEATH AT EACH CROSS PT. VERT. POST LONGER THAN 6' TO HAVE LATERAL BRACING SO THAT THE DIST. BETWEEN END PT. & BETWEEN ROWS OF BRACING DOES NOT EXCEED 6'

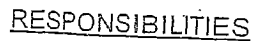


CONVENTIONAL
FRAMING BY
OTHERS

VALLEYVIEW

	Job Track: 45147	Builder / Location: GOLD PARK HOMES / VAUGHAN	Model / Elevation: 4002 REV1	/B OPT TRAY	CE OPT LOGGIA
	Layout ID: 292575	Project: PINE VALLEY	Design: AMANDA		
	Plan Log: 95914	Date: 1/16/2018	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.		

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



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.

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

January 15, 2014

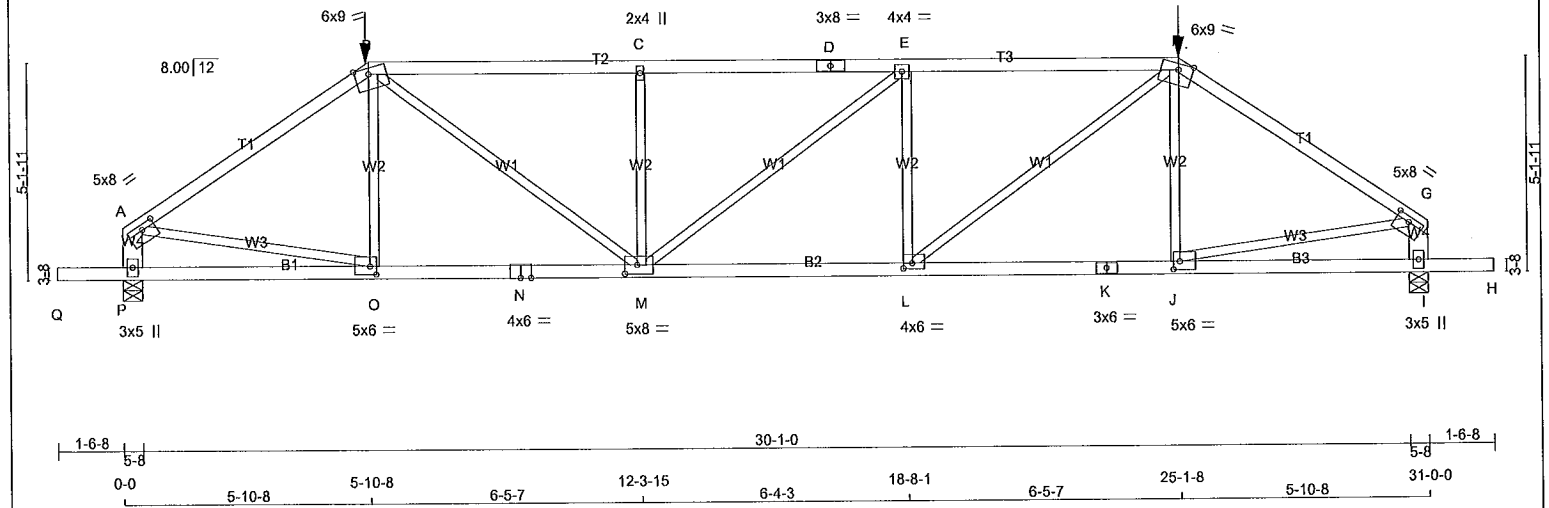
JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
292570	H1	1	1	TRUSS DESC.	

Alpa Roof Truss, Maple

Version 8.200 S Jan 6 2018 MiTek Industries, Inc. Thu Feb 15 09:26:38 2018 Page 1
ID:84gOFYESM8s1JmDO6_uSGRyQWJP-C2Aty3pdWEvgEuD9uiGwu15gTqA91bKrrBOYhBzky3V

-1-6-8 0-0 5-10-8 5-10-8 6-5-7 12-3-15 6-4-3 18-8-1 6-5-7 25-1-8 5-10-8 31-0-0 32-6-8 1-6-8

Scale = 1:54.8



LUMBER				
N. L. G. A. RULES	SIZE	LUMBER	DESCR.	
CHORDS				
A - B	2x4	DRY	1650F 1.5E	SPF
B - D	2x4	DRY	2100F 1.8E	SPF
D - F	2x4	DRY	2100F 1.8E	SPF
F - G	2x4	DRY	1650F 1.5E	SPF
P - A	2x6	DRY	No.2	SPF
I - G	2x6	DRY	No.2	SPF
Q - N	2x4	DRY	No.2	SPF
N - K	2x4	DRY	No.2	SPF
K - H	2x4	DRY	No.2	SPF
ALL WEBS EXCEPT	2x3	DRY	No.2	SPF

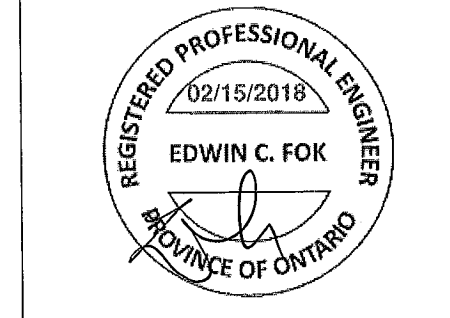
DRY: SEASONED LUMBER.

PLATES (table is in inches)				
JT	TYPE	PLATES	W	LEN Y X
A	TMVW-t	MT20	5.0	8.0 1.50 3.75
B	TTWW-m	MT20	6.0	9.0 1.75 4.00
C	TMW+w	MT20	2.0	4.0
D	TS-t	MT20	3.0	8.0
E	TMWw-t	MT20	4.0	4.0
F	TTWW-m	MT20	6.0	9.0 1.75 4.00
G	TMVW-t	MT20	5.0	8.0 1.50 3.75
I	BMV1+p	MT20	3.0	5.0
J	BMWw-t	MT20	5.0	6.0 2.25 1.75
K	BS-t	MT20	3.0	6.0
L	BMWw-t	MT20	4.0	6.0 1.50 2.50
M	BMWwW-t	MT20	5.0	8.0 2.50 3.50
N	BS-t	MT20	4.0	6.0
O	BMWw-t	MT20	5.0	6.0 2.25 1.75
P	BMV1+p	MT20	3.0	5.0

HANGERS NOTES

1)

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



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

BEARINGS		FACTORED GROSS REACTION	MAXIMUM FACTORED GROSS REACTION	INPUT BRG	REQRD BRG
JT	VERT	HORZ	DOWN	HORZ	UPLIFT
P	2983	0	2983	0	5-8
I	2983	0	2983	0	5-8

UNFACTORED REACTIONS

1ST LCASE		MAX./MIN. COMPONENT REACTIONS				
JT	COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD
P	2129	1287 / 0	0 / 0	0 / 0	0 / 0	842 / 0
I	2129	1287 / 0	0 / 0	0 / 0	0 / 0	842 / 0

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

BRACING

TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 2.98 FT.
MAX. UNBRACED BOTTOM CHORD LENGTH = 10.00 FT. OR RIGID CEILING DIRECTLY APPLIED.

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

LOADING

TOTAL LOAD CASES: (4)

CHORDS		WEBS	
MEMB.	MAX. FACTORED FORCE (LBS)	MEMB.	MAX. FACTORED FORCE (LBS)
FR-TO		FR-TO	
A-B	-3695 / 0	O-B	-211 / 102
B-C	-4787 / 0	B-M	0 / 2150
C-D	-4787 / 0	M-C	-1064 / 0
D-E	-4787 / 0	E-M	-1 / 0
E-F	-4787 / 0	L-E	-1064 / 0
F-G	-3695 / 0	L-F	0 / 2151
P-A	-2747 / 0	J-F	-212 / 103
I-G	-2747 / 0	A-O	0 / 3105
		J-G	0 / 3105
Q-P	0 / 0		
P-O	0 / 0		
O-N	0 / 3066		
N-M	0 / 3066		
M-L	0 / 4788		
L-K	0 / 3066		
K-J	0 / 3066		
J-I	0 / 0		
I-H	0 / 0		

FACTORED CONCENTRATED LOADS (LBS)		FACE	DIR.	TYPE
JT	LOC.	LC1	MAX-	MAX+
B	5-10-8	-334	-334	---
F	25-1-8	-334	-334	---

DESIGN CRITERIA

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

SPACING = 24.0 IN. C/C

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

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

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

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

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

ALLOWABLE DEFL.(LL)= L/360 (1.03")
CALCULATED VERT. DEFL.(LL)= L/999 (0.20")
ALLOWABLE DEFL.(TL)= L/360 (1.03")
CALCULATED VERT. DEFL.(TL)= L/872 (0.43")

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=0.97/1.00 (E-F:1), BC=0.99/1.00 (L-M:1), WB=0.77/1.00 (A-O:1), SSI=0.50/1.00 (E-F:1)

OOL 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

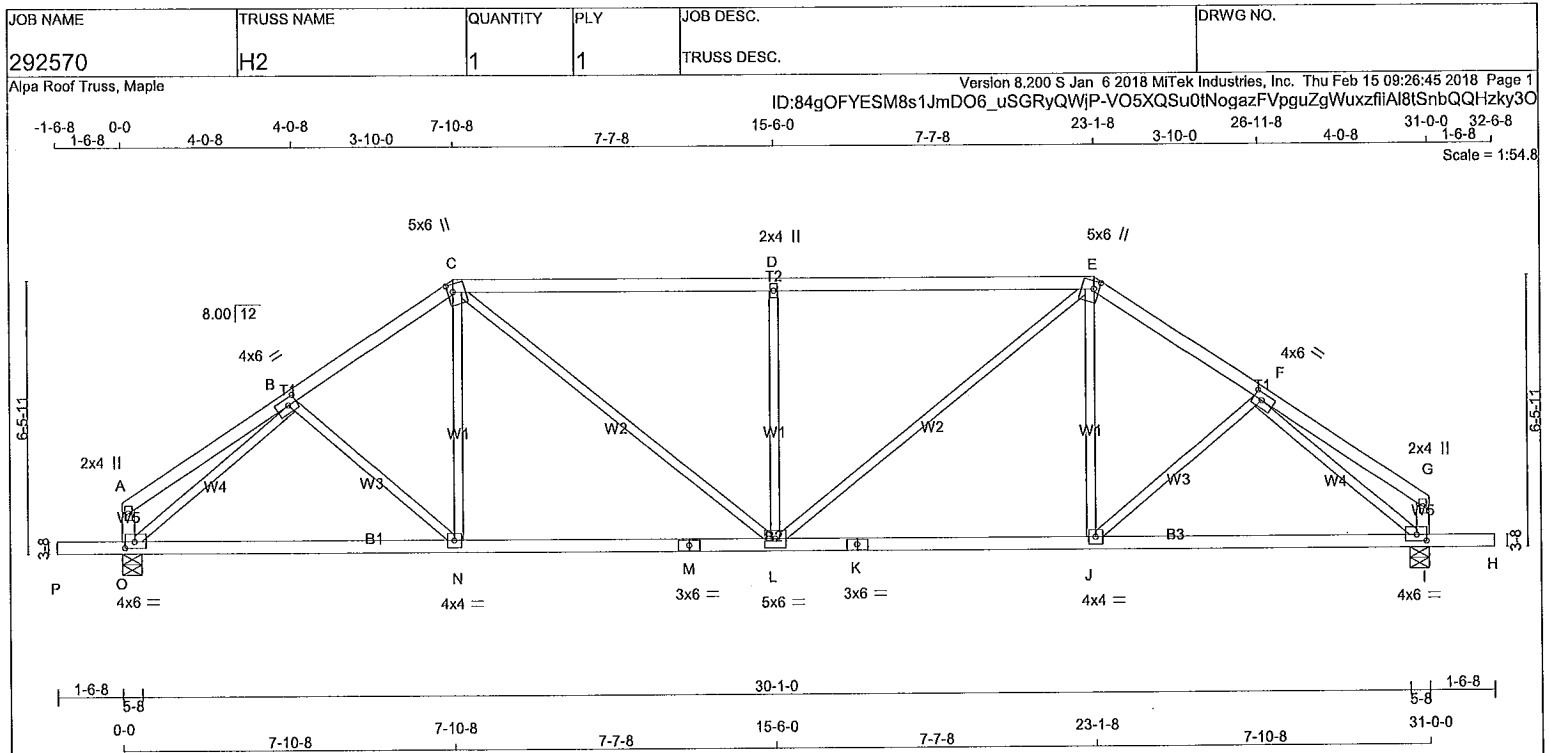
AUTOSOLVE HEELS OFF

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

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

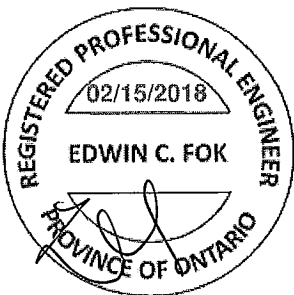
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CONTINUED ON PAGE 2



LUMBER N. L. G. A. RULES CHORDS SIZE LUMBER DESCR.					DIMENSIONS, SUPPORTS AND LOADINGS SPECIFIED BY FABRICATOR TO BE VERIFIED BY BUILDING DESIGNER BEARINGS					DESIGN CRITERIA				
A - C	2x4	DRY	No.2	SPF	FACTORED GROSS REACTION	MAXIMUM FACTORED GROSS REACTION	INPUT BRG	REQD BRG	SPECIFIED LOADS:	TOP CH.	LL	21.0 PSF		
C - E	2x4	DRY	No.2	SPF	VERT	HORZ	DOWN	HORZ	DL	=	6.0 PSF			
E - G	2x4	DRY	No.2	SPF	O	1644	0	1644	0	0	5-8	1-12		
O - A	2x4	DRY	No.2	SPF	I	1644	0	1644	0	0	5-8	1-12		
I - G	2x4	DRY	No.2	SPF										
P - M	2x4	DRY	No.2	SPF										
M - K	2x4	DRY	No.2	SPF										
K - H	2x4	DRY	No.2	SPF										
ALL WEBS 2x3 DRY No.2 SPF					UNFACTORED REACTIONS					SPACING = 24.0 IN. C/C				
EXCEPT					1ST LCASE MAX/MIN. COMPONENT REACTIONS					LOADING IN FLAT SECTION BASED ON A SLOPE OF 2.00/12 MINIMUM				
DRY: SEASONED LUMBER.					JT COMBINED SNOW LIVE PERM.LIVE WIND DEAD SOIL					THIS TRUSS IS DESIGNED FOR RESIDENTIAL OR SMALL BUILDING REQUIREMENTS OF PART 9, NBCC 2010, NBCC 2015				
					O 1172 715 / 0 0 / 0 0 / 0 0 / 0 457 / 0 0 / 0					THIS DESIGN COMPLIES WITH:				
					I 1172 715 / 0 0 / 0 0 / 0 0 / 0 457 / 0 0 / 0					- PART 9 OF OBC 2012, OBC 2018				
					BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S) O, I					- CSA 086-09, CSA 086-14				
					BRACING					- TPIC 2011, TPIC 2014				
					TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 3.96 FT.					(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				
					MAX. UNBRACED BOTTOM CHORD LENGTH = 10.00 FT OR RIGID CEILING DIRECTLY APPLIED.									
					ALL PITCH BREAKS AND PERIMETER CORNER JOINTS MUST BE Laterally RESTRAINED.									
					LOADING									
					TOTAL LOAD CASES: (4)									
					CHORDS									
					MEMB. MAX. FACTORED FORCE (LBS)									
					VERT. LOAD (PLF)									
					MAX. UNBRACED CSI (LC)									
					LENGTH FR-TO									
					MEMB. MAX. FACTORED FORCE (LBS)									
					MAX. UNBRACED CSI (LC)									
					FR-TO									
					A- B 0 / 18									
					B- C -1753 / 0									
					C- D -1973 / 0									
					D- E -1973 / 0									
					E- F -1753 / 0									
					F- G 0 / 18									
					O- A -121 / 0									
					I- G -121 / 0									
					P- O 0 / 0									
					O- N 0 / 1467									
					N- M 0 / 1444									
					M- L 0 / 1444									
					L- K 0 / 1444									
					K- J 0 / 1444									
					J- I 0 / 1467									
					I- H 0 / 0									

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



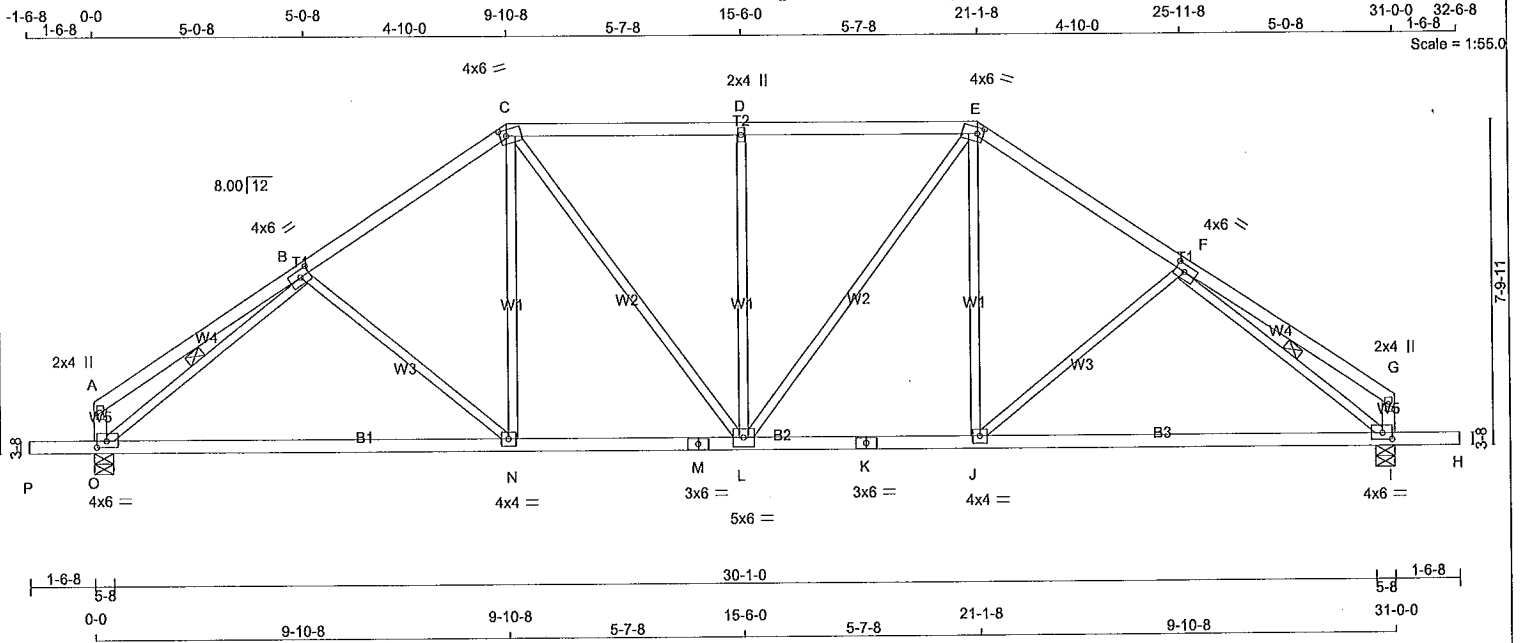
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JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
292570	H3	1	1	TRUSS DESC.	

Alpa Roof Truss, Maple

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TOTAL WEIGHT = 133 lb

[M/J/F]

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

ALL WEBS	2x3	DRY	No.2	SPF
EXCEPT				

DRY: SEASONED LUMBER.

PLATES (table is in inches)	W	LEN	Y	X
JT TYPE PLATES				
A TMV+p MT20	2.0	4.0		
B TMWW-t MT20	4.0	6.0	2.00	2.75
C TTWW-m MT20	4.0	6.0	1.75	1.75
D TMW+w MT20	2.0	4.0		
E TTWW-m MT20	4.0	6.0	1.75	1.75
F TMWW-t MT20	4.0	6.0	2.00	2.75
G TMV+p MT20	2.0	4.0		
I BMVV1-t MT20	4.0	6.0	1.75	2.75
J BMWW-t MT20	4.0	4.0		
K BS-t MT20	3.0	6.0		
L BMWW-t MT20	5.0	6.0		
M BS-t MT20	3.0	6.0		
N BMWW-t MT20	4.0	4.0		
O BMVV1-t MT20	4.0	6.0	1.75	2.75

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
O	1644	0	1644	0	0	5-8	1-12	1-12	1-12
I	1644	0	1644	0	0	5-8	1-12	1-12	1-12

UNFACTORED REACTIONS

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

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

BRACING

TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 4.88 FT.
MAX. UNBRACED BOTTOM CHORD LENGTH = 10.00 FT OR RIGID CEILING DIRECTLY APPLIED.

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

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

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

LOADING

TOTAL LOAD CASES: (4)

CHORDS				WEBS			
MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	MAX. UNBRACED LENGTH (LC)	MEMB.	MAX. FACTORED FORCE (LBS)	MAX. UNBRACED LENGTH (LC)	
FR-TO				FR-TO			
A-B	0/24	-78.0	-78.0 0.30 (1)	10.00	B-N	-176/0	0.14 (1)
B-C	-1662/0	-78.0	-78.0 0.27 (1)	4.88	N-C	0/307	0.08 (4)
C-D	-1579/0	-78.0	-78.0 0.35 (1)	4.88	C-L	0/356	0.08 (1)
D-E	-1579/0	-78.0	-78.0 0.35 (1)	4.88	L-D	-536/0	0.61 (1)
E-F	-1662/0	-78.0	-78.0 0.27 (1)	4.88	L-E	0/356	0.08 (1)
F-G	0/24	-78.0	-78.0 0.30 (1)	10.00	J-E	0/307	0.08 (4)
O-A	-148/0	0.0	0.0 0.02 (1)	7.81	J-F	-176/0	0.14 (1)
I-G	-148/0	0.0	0.0 0.02 (1)	7.81	O-B	-1964/0	0.56 (1)
					F-I	-1964/0	0.56 (1)
P-O	0/0	-96.5	-96.5 0.16 (1)	10.00			
O-N	0/1498	-18.5	-18.5 0.54 (4)	10.00			
N-M	0/1365	-18.5	-18.5 0.54 (4)	10.00			
M-L	0/1365	-18.5	-18.5 0.54 (4)	10.00			
L-K	0/1365	-18.5	-18.5 0.54 (4)	10.00			
K-J	0/1365	-18.5	-18.5 0.54 (4)	10.00			
J-I	0/1498	-18.5	-18.5 0.54 (4)	10.00			
I-H	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. G/C

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

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

THIS DESIGN COMPLIES WITH:

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

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

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

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

CSI: TC=0.35/1.00 (C-D:1), BC=0.54/1.00 (J-L:4), WB=0.61/1.00 (D-L:1), SSI=0.21/1.00 (C-D:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

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

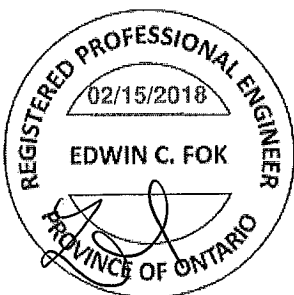
NAIL VALUES	PLATE GRIP(DRY)	(PSI)	(PLI)	(PLI)
	MAX MIN	MAX MIN	MAX MIN	MAX MIN
MT20	618	354	1667	788 1987 1656

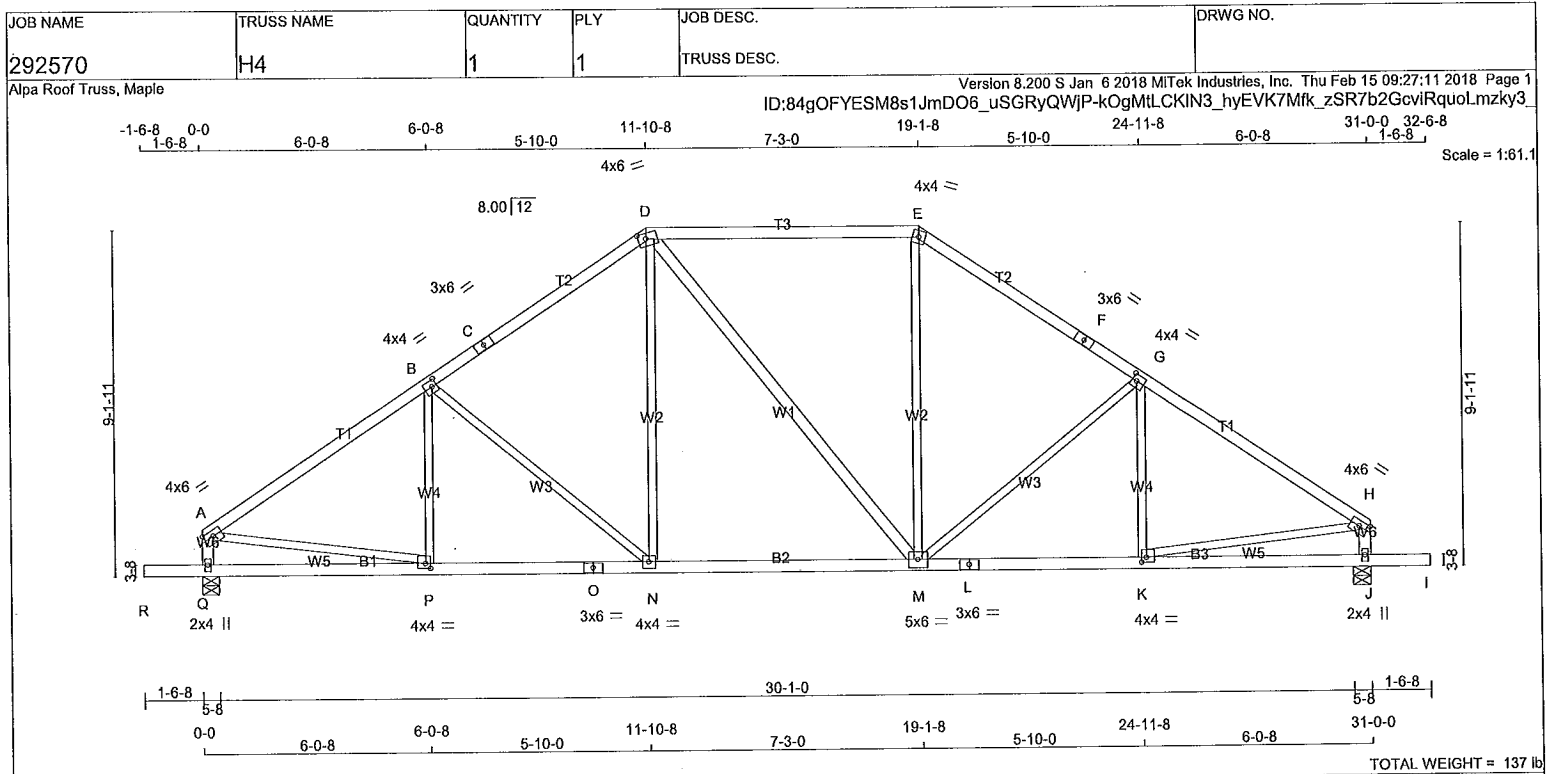
PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

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

A-18023085





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

DRY: SEASONED LUMBER.

PLATES (table is in inches)

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

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

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

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

BEARINGS

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

UNFACTORED REACTIONS

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

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

BRACING

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

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

LOADING

TOTAL LOAD CASES: (4)

MEMB.	CHORDS		FACTORED		WEBS		FACTORED	
	MAX. FACTORED	FORCE	VERT. LOAD	LC1	MAX. UNBRAC	MEMB.	MAX. FACTORED	FORCE
FR-TO		(LBS)	FROM	TO	LENGTH	FR-TO		(LBS)
A-B	-1836/0		-78.0	-78.0	0.44 (1)	4.52	P-B	-115/45
B-C	-1528/0		-78.0	-78.0	0.40 (1)	4.89	B-N	-402/0
C-D	-1528/0		-78.0	-78.0	0.40 (1)	4.89	N-D	0/379
D-E	-1249/0		-78.0	-78.0	0.36 (1)	6.25	D-M	0/0
E-F	-1528/0		-78.0	-78.0	0.40 (1)	4.89	M-E	0/379
F-G	-1528/0		-78.0	-78.0	0.40 (1)	4.89	M-G	-401/0
G-H	-1835/0		-78.0	-78.0	0.44 (1)	4.52	K-G	-116/44
Q-A	-1448/0		0.0	0.0	0.15 (1)	6.79	A-P	0/1570
J-H	-1448/0		0.0	0.0	0.15 (1)	6.79	K-H	0/1570
R-Q	0/0		-96.5	-96.5	0.16 (1)	10.00		
Q-P	0/0		-18.5	-18.5	0.14 (4)	10.00		
P-O	0/1553		-18.5	-18.5	0.34 (1)	10.00		
O-N	0/1553		-18.5	-18.5	0.34 (1)	10.00		
N-M	0/1248		-18.5	-18.5	0.29 (1)	10.00		
M-L	0/1553		-18.5	-18.5	0.34 (1)	10.00		
L-K	0/1553		-18.5	-18.5	0.34 (1)	10.00		
K-J	0/0		-18.5	-18.5	0.14 (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 A SLOPE OF 2.00/12 MINIMUM

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

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

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

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

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

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

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

COMPANION LIVE LOAD FACTOR = 1.00

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

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

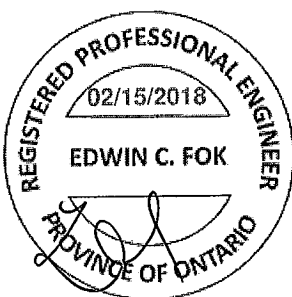
PLATE PLACEMENT TOL. = 0.250 Inches

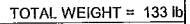
PLATE ROTATION TOL. = 5.0 Deg.

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

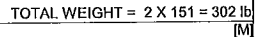
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A-18023088



	DESCR
	SPF
	SPF
	SPF
	SPF
	SPF
	SPF
	SPF
	SPF
	SPF
	SPF
	SPF
	SPF

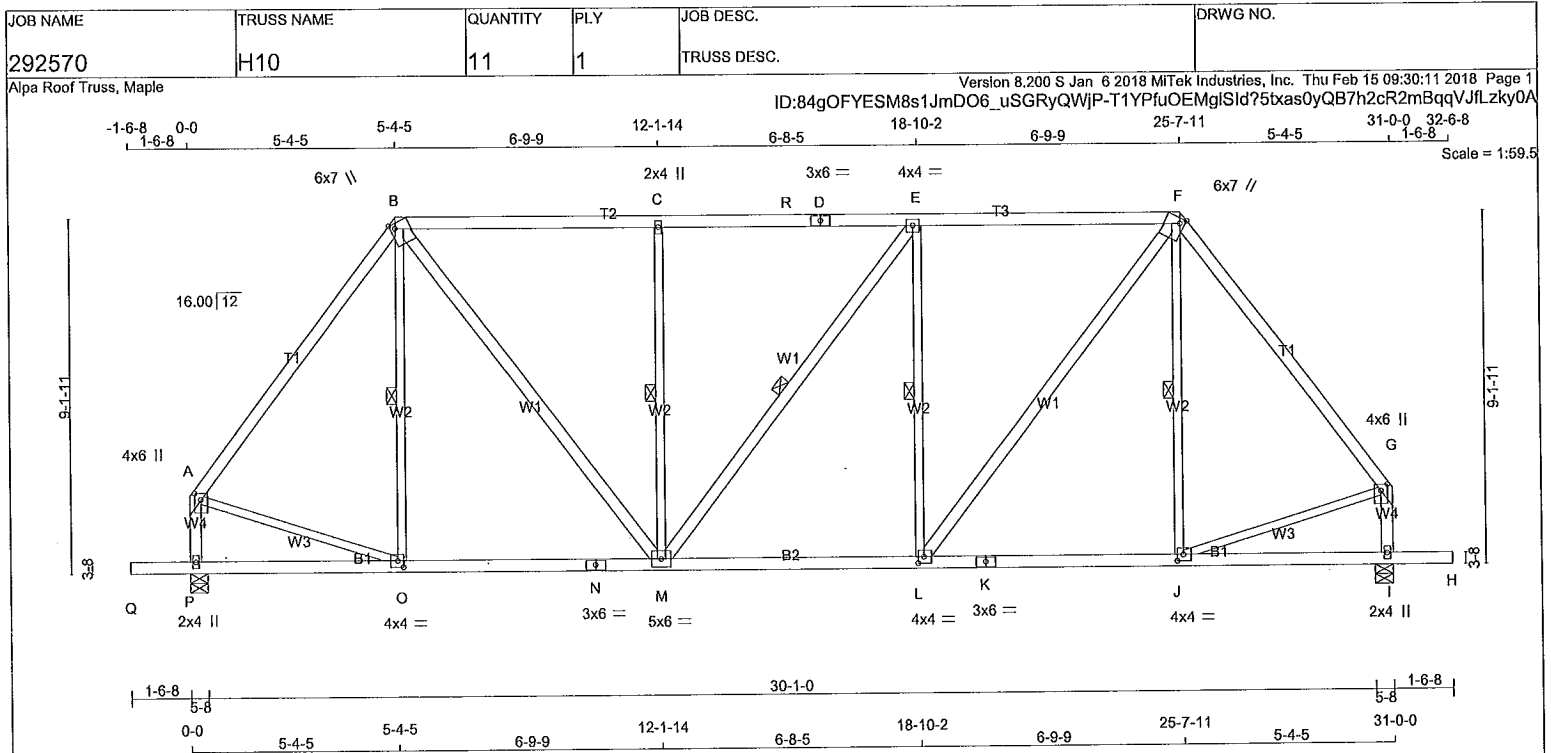
PLATES (table is in inches)

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

TOTAL LOAD CASES: (4)

Q-P	0/0	-96.5	-96.5	0.16 (1)	10.00
P-O	0/0	-18.5	-18.5	0.16 (4)	10.00
O-N	0/760	-18.5	-18.5	0.27 (4)	10.00
N-M	0/760	-18.5	-18.5	0.27 (4)	10.00
M-L	0/1522	-18.5	-18.5	0.36 (1)	10.00
L-K	0/760	-18.5	-18.5	0.27 (4)	10.00
K-J	0/760	-18.5	-18.5	0.27 (4)	10.00
J-I	0/0	-18.5	-18.5	0.16 (4)	10.00
I-H	0/0	-96.5	-96.5	0.16 (1)	10.00

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

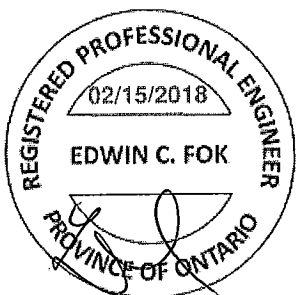
DRY: SEASONED LUMBER.

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	6.0	7.0	Edge	1.50
C	TMW+w	MT20	2.0	4.0		
D	TS-t	MT20	3.0	6.0		
E	TMWW-t	MT20	4.0	4.0		
F	TTWW+m	MT20	6.0	7.0	Edge	1.50
G	TMVW+p	MT20	4.0	6.0	2.00	2.00
I	BMV1+p	MT20	2.0	4.0		
J, L, O						
J	BMWW-t	MT20	4.0	4.0	2.00	1.75
K	BS-t	MT20	3.0	6.0		
M	BMWW-t	MT20	5.0	6.0		
N	BS-t	MT20	3.0	6.0		
P	BMV1+p	MT20	2.0	4.0		

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

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



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

BEARINGS		FACTORED GROSS REACTION	MAXIMUM FACTORED GROSS REACTION	INPUT BRG	REQRD BRG
JT	VERT	HORZ	DOWN	HORZ	UPLIFT
P	1720	0	1720	0	5-8
I	1720	0	1720	0	5-8

UNFACTORED REACTIONS

JT	COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
P	1233	715 / 0	0 / 0	0 / 0	0 / 0	518 / 0	0 / 0
I	1233	715 / 0	0 / 0	0 / 0	0 / 0	518 / 0	0 / 0

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

BRACING

FOR SECTION B-F, MAX. PURLIN SPACING = 2.00 FT.
FOR OTHER SECTIONS, TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 5.22 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.

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

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

LOADING

TOTAL LOAD CASES: (4)

CHORDS		WEBS	
MEMB.	MAX. FACTORED FORCE (LBS)	MEMB.	MAX. FACTORED FORCE (LBS)
FR-TO		FR-TO	
A-B	-1355 / 0	O-B	-112 / 36
B-C	-1383 / 0	B-M	0 / 941
C-R	-1383 / 0	M-C	-622 / 0
R-D	-1383 / 0	M-E	-2 / 0
D-E	-1383 / 0	L-E	-622 / 0
E-F	-1384 / 0	L-F	0 / 944
F-G	-1354 / 0	J-F	-113 / 36
P-A	-1533 / 0	A-O	0 / 844
I-G	-1533 / 0	J-G	0 / 843

Q-P	0 / 0	-96.5	-96.5	0.16 (1)	10.00
P-O	0 / 0	-18.5	-18.5	0.16 (4)	10.00
O-N	0 / 808	-18.5	-18.5	0.25 (4)	10.00
N-M	0 / 808	-18.5	-18.5	0.25 (4)	10.00
M-L	0 / 1385	-18.5	-18.5	0.31 (1)	10.00
L-K	0 / 808	-18.5	-18.5	0.25 (4)	10.00
K-J	0 / 808	-18.5	-18.5	0.25 (4)	10.00
J-I	0 / 0	-18.5	-18.5	0.16 (4)	10.00
I-H	0 / 0	-96.5	-96.5	0.16 (1)	10.00

DESIGN CRITERIA

SPECIFIED LOADS:

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

SPACING = 24.0 IN. C/C

LOADING IN FLAT SECTION BASED ON 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 (1.03")
CALCULATED VERT. DEFL.(LL) = L/999 (0.05")
ALLOWABLE DEFL.(TL) = L/360 (1.03")
CALCULATED VERT. DEFL.(TL) = L/999 (0.11")

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=0.49/1.00 (E-F:1), BC=0.31/1.00 (L-M:1), WB=0.34/1.00 (E-L:1), SSI=0.27/1.00 (E-F:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

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

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

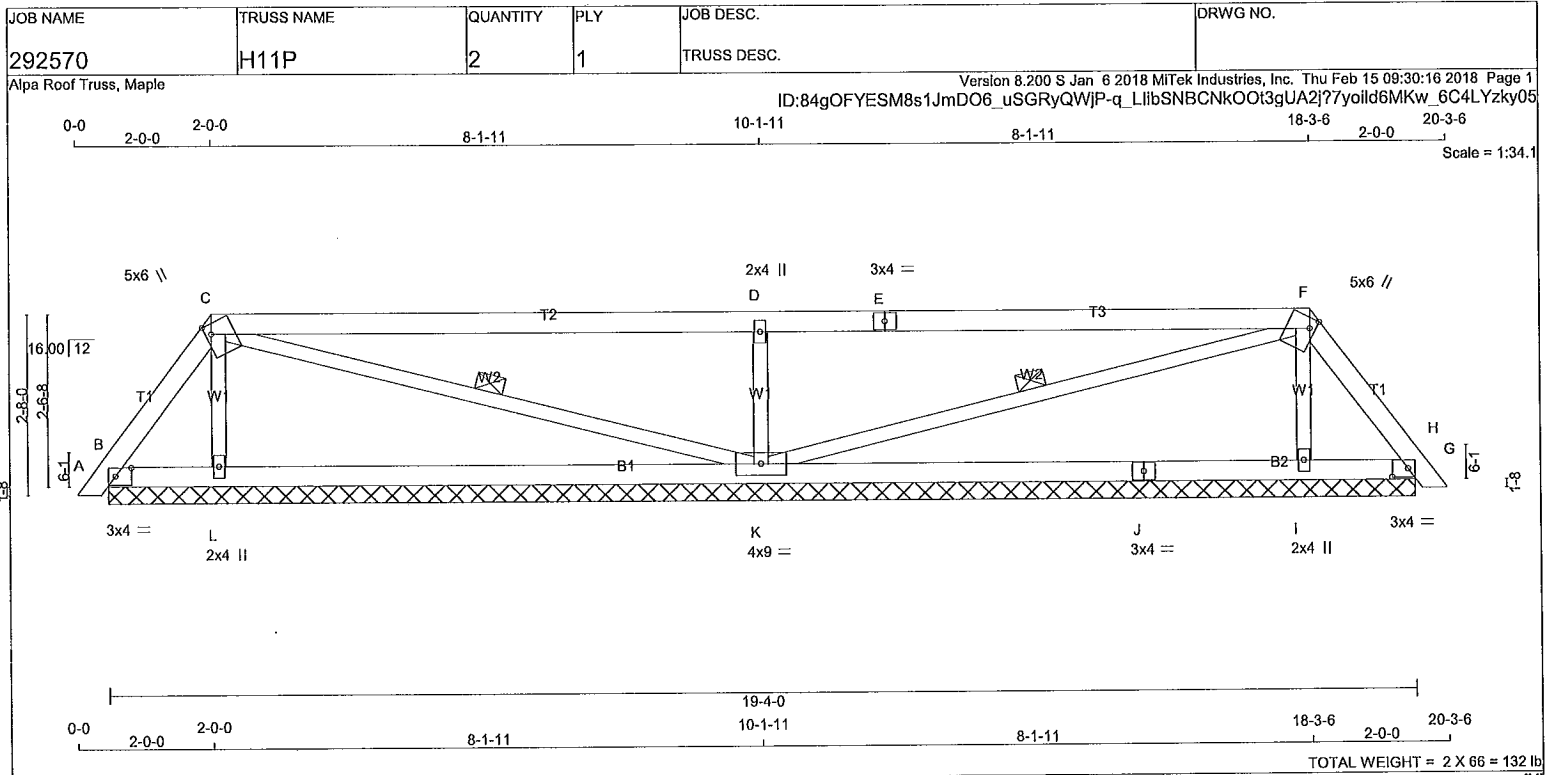
PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.89 (A) (INPUT = 0.90)
JSI METAL= 0.47 (A) (INPUT = 1.00)

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LUMBER
N. L. G. A. RULES

CHORDS	SIZE	LUMBER	DESCR.
A - C	2x4	DRY	No.2 SPF
C - E	2x4	DRY	No.2 SPF
E - F	2x4	DRY	No.2 SPF
F - H	2x4	DRY	No.2 SPF
B - J	2x4	DRY	No.2 SPF
J - G	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	4.0		
F TTWW+m	MT20	5.0	6.0	1.75	1.00
G TMB1-I	MT20	3.0	4.0	1.50	2.75
I BMW1+w	MT20	2.0	4.0		
J BS-I	MT20	3.0	4.0		
K BMWW1-I	MT20	4.0	9.0		
L BMW1+w	MT20	2.0	4.0		

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

BEARINGS

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

VALUE IN PARENTHESIS INDICATES EFFECTIVE BEARING LENGTH

UNFACTORED REACTIONS

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

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

BRACING

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

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

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

LOADING

TOTAL LOAD CASES: (4)

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

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

DESIGN CRITERIA

SPECIFIED LOADS:

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

SPACING = 24.0 IN. C/C

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

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

THIS DESIGN COMPLIES WITH:

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

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

CSI: TC=0.88/1.00 (D-F:1), BC=0.26/1.00 (K-L:4), WB=0.13/1.00 (D-K:1), SSI=0.31/1.00 (C-D:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

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

NAIL VALUES

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

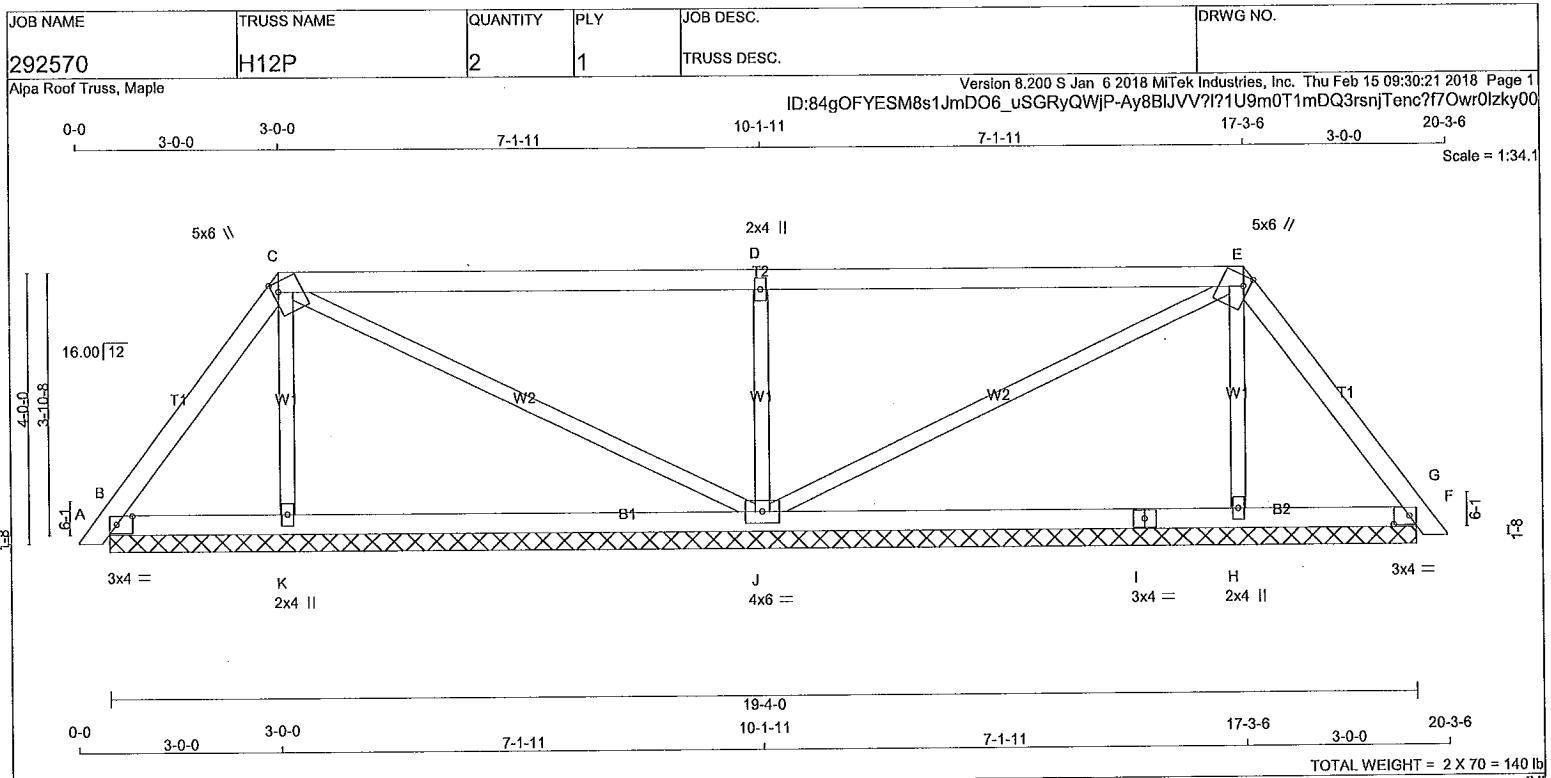
PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.64 (C) (INPUT = 0.90)
JSI METAL = 0.26 (E) (INPUT = 1.00)

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LUMBER

N. L. G. A. RULES

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

DRY: SEASONED LUMBER.

PLATES (table is in inches)

JT	TYPE	PLATES	W	LEN	Y	X
B	TMB1-I	MT20	3.0	4.0	1.50	2.75
C	TTVW+m	MT20	5.0	6.0	1.75	1.00
D	TMW+w	MT20	2.0	4.0		
E	TTVW+m	MT20	5.0	6.0	1.75	1.00
F	TMB1-I	MT20	3.0	4.0	1.50	2.75
H	BMW1+w	MT20	2.0	4.0		
I	BS-I	MT20	3.0	4.0		
J	BMW1+w	MT20	4.0	6.0		
K	BMW1+w	MT20	2.0	4.0		

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

BEARINGS

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

VALUE IN PARENTHESIS INDICATES EFFECTIVE BEARING LENGTH

UNFACTORED REACTIONS

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

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

BRACING

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

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

LOADING

TOTAL LOAD CASES: (4)

CHORDS				WEBS			
MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	MAX. FACTORED CSI (LC)	MEMB.	MAX. FACTORED FORCE (LBS)	MAX. FACTORED CSI (LC)	
FR-TO		FROM TO		FR-TO			
A-B	0 / 10	-78.0 -78.0	0.01 (1)	K-C	-203 / 0	0.05 (1)	
B-C	-104 / 0	-78.0 -78.0	0.09 (1)	C-J	-46 / 0	0.06 (1)	
C-D	-13 / 0	-78.0 -78.0	0.68 (1)	J-D	-695 / 0	0.16 (1)	
D-E	-13 / 0	-78.0 -78.0	0.68 (1)	J-E	-46 / 0	0.06 (1)	
E-F	-104 / 0	-78.0 -78.0	0.09 (1)	H-E	-203 / 0	0.05 (1)	
F-G	0 / 10	-78.0 -78.0	0.01 (1)				
B-K	0 / 60	-18.5 -18.5	0.14 (4)	10.00			
K-J	0 / 54	-18.5 -18.5	0.21 (4)	10.00			
J-I	0 / 54	-18.5 -18.5	0.21 (4)	10.00			
I-H	0 / 54	-18.5 -18.5	0.21 (4)	10.00			
H-F	0 / 60	-18.5 -18.5	0.14 (4)	10.00			

DESIGN CRITERIA

SPECIFIED LOADS:

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

SPACING = 24.0 IN. C/C

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

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

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

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

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

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

COMPANION LIVE LOAD FACTOR = 1.00

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

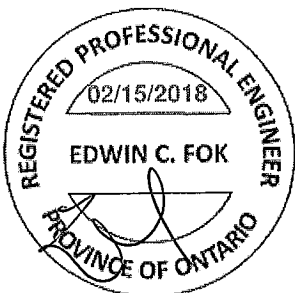
NAIL VALUES
PLATE GRIP(DRY) SHEAR SECTION
(PSI) (PLI) (PLI)
MAX MIN MAX MIN MAX MIN
MT20 618 354 1667 788 1987 1656

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

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

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



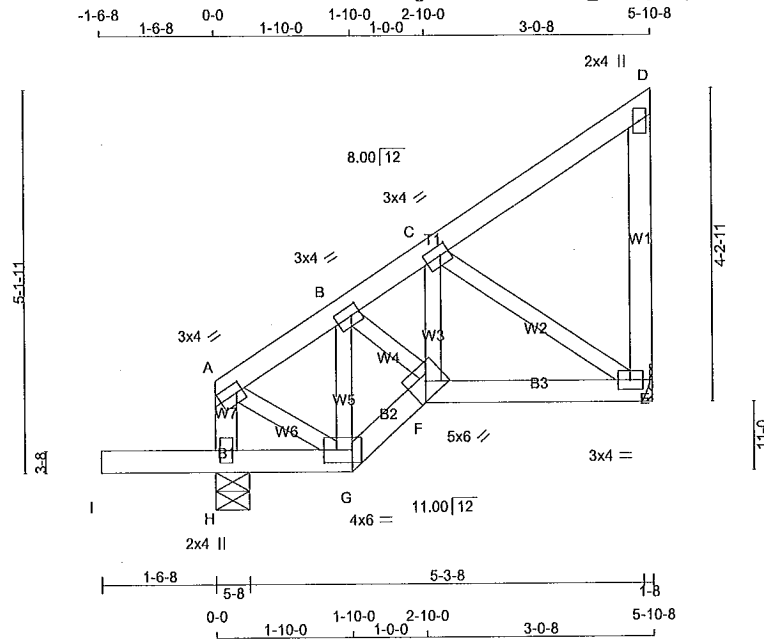
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JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
292571	J1T	5	1	TRUSS DESC.	

Alpa Roof Truss, Maple

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Scale = 1:31.0

TOTAL WEIGHT = 5 X 30 = 150 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	BMVW1-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

BEARINGS	FACTORED	MAXIMUM FACTORED	INPUT	REQRD
	GROSS REACTION	GROSS REACTION	BRG	BRG
JT	VERT	DOWN	HORZ	UPLIFT
H	452	0	452	0
E	264	0	264	0

MIN. SEAT SIZE: 1-8

UNFACTORED REACTIONS

1ST LCASE	MAX/MIN	COMPONENT REACTIONS	WIND	DEAD	SOIL
JT	COMBINED	SNOW	LIVE	PERM.LIVE	
H	322	197 / 0	0 / 0	0 / 0	125 / 0
E	188	115 / 0	0 / 0	0 / 0	73 / 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					
MAX. FACTORED		FACTORED		MAX. FACTORED		MAX. FACTORED		MAX. FACTORED			
MEMB.	FORCE	VERT. LOAD	LC1	MAX	MAX.	MEMB.	FORCE	MAX	MAX		
	(LBS)	(PLF)	CSI (LC)	UNBRAC	LENGTH		(LBS)	CSI (LC)			
FR-TO		FROM	TO			FR-TO					
H-A	-223 / 0	0.0	0.0	0.02 (1)	7.81	A- G	0 / 154	0.03 (1)			
A- B	-165 / 0	-78.0	-78.0	0.04 (1)	6.25	G- B	-220 / 0	0.03 (1)			
B- C	-239 / 0	-78.0	-78.0	0.08 (1)	6.25	B- F	0 / 130	0.03 (1)			
C- D	-11 / 0	-78.0	-78.0	0.08 (1)	6.25	F- C	0 / 63	0.02 (4)			
E- D	-95 / 0	0.0	0.0	0.03 (1)	7.81	C- E	-259 / 0	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

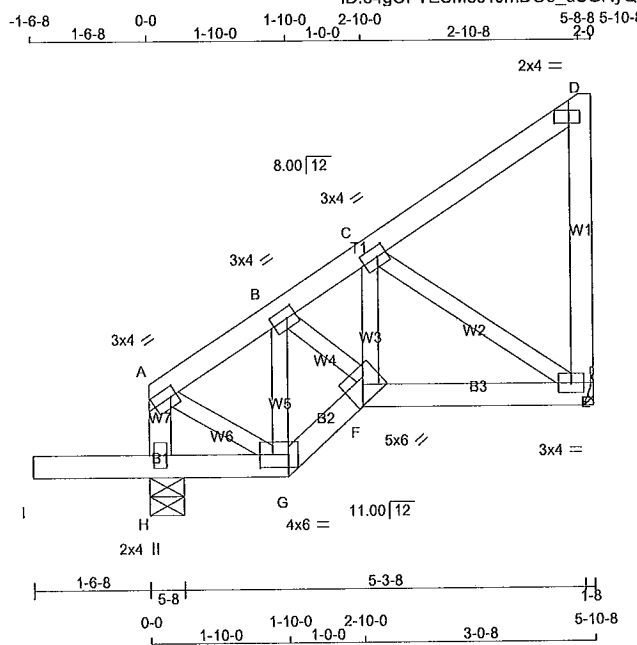
PLATE ROTATION TOL. = 5.0 Deg.

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

A-18023103

JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
292571	J1TB	1	1	TRUSS DESC.	

Alpa Roof Truss, Maple



Scale = 1:30.5

TOTAL WEIGHT = 30 lb

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

PLATES (table is in inches)	JT	TYPE	PLATES	W	LEN	Y	X
A - TMWV-t	MT20	3.0	4.0	1.50	1.00		
B - TMWV-t	MT20	3.0	4.0	1.50	1.50		
C - TMWV-t	MT20	3.0	4.0	1.50	1.50		
D - TWM-p	MT20	2.0	4.0	0.50	2.25		
E - BMWV1-t	MT20	3.0	4.0				
F - BBWV-h	MT20	5.0	6.0				
G - BBWV-l	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

BEARINGS	FACTORED GROSS REACTION	MAXIMUM FACTORED GROSS REACTION	INPUT BRG	REQRD BRG
JT	VERT	DOWN	IN-SX	IN-SX
E	264	0	264	0
H	452	0	452	0

UNFACTORED REACTIONS	1ST LCASE	MAX./MIN. COMPONENT REACTIONS	WIND	DEAD	SOIL
JT	COMBINED	SNOW	LIVE	PERM.LIVE	
E	188	115 / 0	0 / 0	0 / 0	73 / 0
H	322	197 / 0	0 / 0	0 / 0	125 / 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	MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	LC1	MAX	CS1 (LC)	UNBRAC LENGTH	WEBS	MEMB.	MAX. FACTORED FORCE (LBS)	MAX	CS1 (LC)
FR-TO								FR-TO				
A-B	-165 / 0	-78.0	-78.0	0.04 (1)	6.25	G-B	-220 / 0	0.03 (1)				
B-C	-239 / 0	-78.0	-78.0	0.08 (1)	6.25	B-F	0 / 130	0.03 (1)				
C-D	-11 / 0	-78.0	-78.0	0.08 (1)	6.25	F-C	0 / 63	0.02 (4)				
E-D	-95 / 0	0.0	0.0	0.03 (1)	7.81	C-E	-259 / 0	0.06 (1)				
H-A	-223 / 0	0.0	0.0	0.02 (1)	7.81	A-G	0 / 154	0.03 (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							

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.

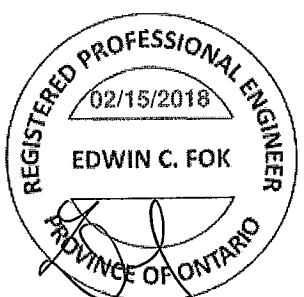
NAIL VALUES
PLATE GRIP(DRY) SHEAR SECTION (PSI) (PLI) (PLI)
MAX MIN MAX MIN MAX MIN
MT20 618 354 1667 788 1987 1656

PLATE PLACEMENT TOL. = 0.250 inches

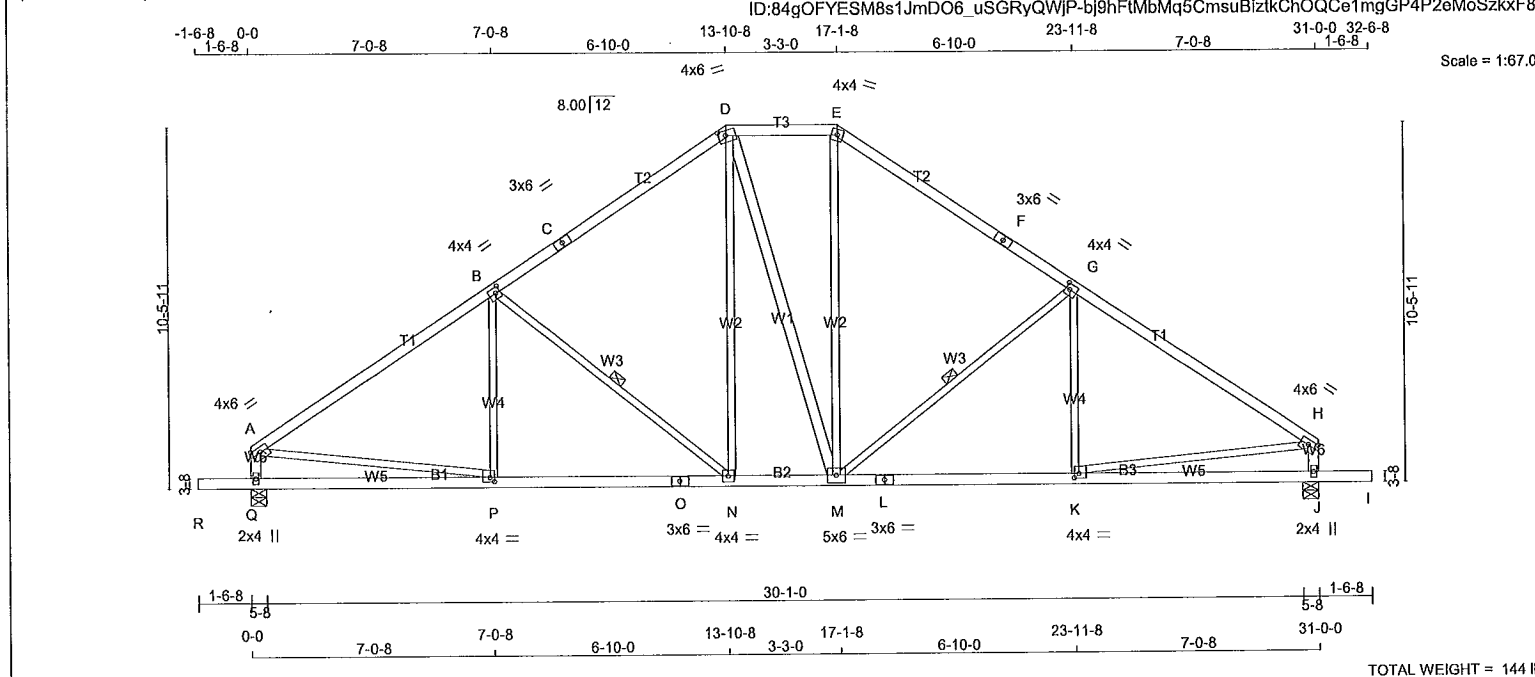
PLATE ROTATION TOL. = 5.0 Deg.

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

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



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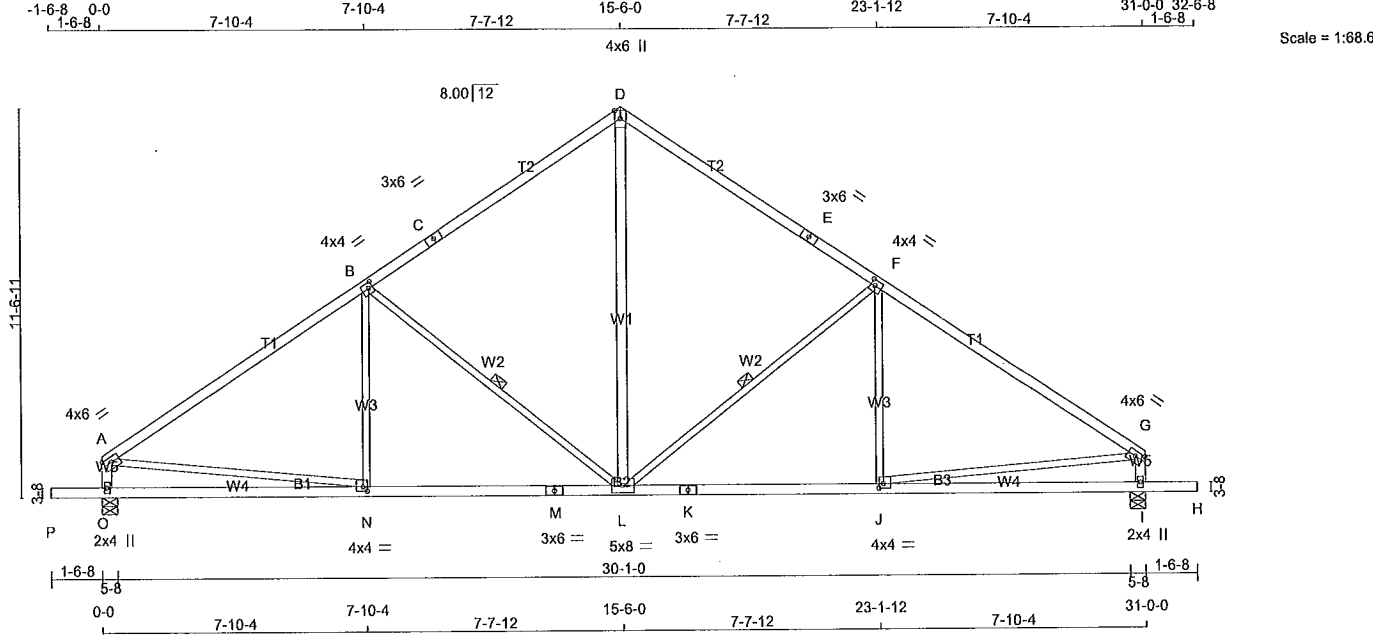


LUMBER					DIMENSIONS, SUPPORTS AND LOADINGS SPECIFIED BY FABRICATOR TO BE VERIFIED BY BUILDING DESIGNER										DESIGN CRITERIA					
N. L. G. A. RULES					BEARINGS										SPECIFIED LOADS:					
CHORDS	SIZE	LUMBER	DESCR.		FACTORED GROSS REACTION		MAXIMUM FACTORED GROSS REACTION		INPUT BRG	REQRD BRG		TOP CH.	LL = 21.0 PSF	DL = 6.0 PSF						
A - C	2x4	DRY	No.2	SPF	JT	VERT	HORZ	DOWN	HORZ	UPLIFT	IN-SX	IN-SX	BOT CH.	LL = 0.0 PSF	DL = 7.4 PSF					
C - D	2x4	DRY	No.2	SPF	Q	1644	0	1644	0	0	5-8	2-7	TOTAL LOAD	= 34.4 PSF						
D - E	2x4	DRY	No.2	SPF	J	1644	0	1644	0	0	5-8	2-7								
E - F	2x4	DRY	No.2	SPF	UNFACTORED REACTIONS										SPACING = 24.0 IN. C/C					
F - H	2x4	DRY	No.2	SPF	1ST LCASE		MAX./MIN. COMPONENT REACTIONS								LOADING IN FLAT SECTION BASED ON A SLOPE OF 2.00/12 MINIMUM					
Q - A	2x4	DRY	No.2	SPF	JT	COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL	THIS TRUSS IS DESIGNED FOR RESIDENTIAL OR SMALL BUILDING REQUIREMENTS OF PART 9, NBCC 2010, NBCC 2015							
J - H	2x4	DRY	No.2	SPF	Q	1172	715 / 0	0 / 0	0 / 0	0 / 0	457 / 0	0 / 0	THIS DESIGN COMPLIES WITH:							
R - O	2x4	DRY	No.2	SPF	J	1172	715 / 0	0 / 0	0 / 0	0 / 0	457 / 0	0 / 0	- PART 9 OF OBC 2012, OBC 2018							
O - L	2x4	DRY	No.2	SPF	BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S) Q, J										- CSA 086-09, CSA 086-14					
L - I	2x4	DRY	No.2	SPF	BRACING										- TPIC 2011, TPIC 2014					
ALL WEBS EXCEPT D - M					2x3	DRY	No.2	SPF	TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 4.28 FT.										ALLOWABLE DEFL.(LL)= L/360 (1.03")	
DRY: SEASONED LUMBER.					MAX. UNBRACED BOTTOM CHORD LENGTH = 10.00 FT. OR RIGID CEILING DIRECTLY APPLIED.										CALCULATED VERT. DEFL.(LL)= L/ 999 (0.07")					

PLATES (table is in inches)					CHORDS					WEBS				
JT	TYPE	PLATES	W	LEN	Y	X	MEMB.	MAX. FACTORED FORCE (LBS)	VERT. LOAD LC1 (PLF)	MAX. FACTORED UNBRACED LENGTH (LC)	MEMB.	MAX. FACTORED FORCE (LBS)	MAX. FACTORED UNBRACED LENGTH (LC)	
A	TMVW-t	MT20	4.0	6.0	1.75	Edge	FR-TO	-1829 / 0	-78.0	-78.0 0.62 (1)	P-B	-50 / 92	0.03 (4)	
B	TMVW-t	MT20	4.0	4.0	2.00	1.50	B-C	-1393 / 0	-78.0	-78.0 0.56 (1)	B-N	-546 / 0	0.30 (1)	
C	TS-t	MT20	3.0	6.0			C-D	-1393 / 0	-78.0	-78.0 0.56 (1)	N-D	0 / 424	0.10 (1)	
D	TTWW-m	MT20	4.0	6.0	1.75	2.50	D-E	-1132 / 0	-78.0	-78.0 0.12 (1)	D-M	0 / 4	0.00 (1)	
E	TTW-m	MT20	4.0	4.0			E-F	-1394 / 0	-78.0	-78.0 0.56 (1)	M-E	0 / 428	0.10 (1)	
F	TS-t	MT20	3.0	6.0			F-G	-1394 / 0	-78.0	-78.0 0.56 (1)	M-G	-544 / 0	0.30 (1)	
G	TMVW-t	MT20	4.0	4.0	2.00	1.50	G-H	-1828 / 0	-78.0	-78.0 0.62 (1)	K-G	-52 / 91	0.03 (4)	
H	TMVW-t	MT20	4.0	6.0	1.75	Edge	Q-A	-1443 / 0	0.0	0.0 0.15 (1)	A-P	0 / 1584	0.35 (1)	
J	BMV1+p	MT20	2.0	4.0			J-H	-1442 / 0	0.0	0.0 0.15 (1)	K-H	0 / 1584	0.35 (1)	
K	BMVW-t	MT20	4.0	4.0	1.50	1.50								
L	BS-t	MT20	3.0	6.0										
M	BMVW-t	MT20	5.0	6.0										
N	BMVW-t	MT20	4.0	4.0										
O	BS-t	MT20	3.0	6.0										
P	BMVW-t	MT20	4.0	4.0	1.50	1.50								
Q	BMV1+p	MT20	2.0	4.0										

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-18023106



TOTAL WEIGHT = 2 X 133 = 266 lb
[M][F]

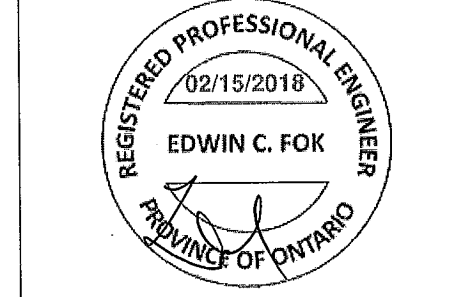
LUMBER				DESCR.	
N. L. G. A. RULES	CHORDS	SIZE	DRY	No.2	SPF
A - C	2x4	DRY	No.2	SPF	
C - D	2x4	DRY	No.2	SPF	
D - E	2x4	DRY	No.2	SPF	
E - G	2x4	DRY	No.2	SPF	
O - A	2x4	DRY	No.2	SPF	
I - G	2x4	DRY	No.2	SPF	
P - M	2x4	DRY	No.2	SPF	
M - K	2x4	DRY	No.2	SPF	
K - H	2x4	DRY	No.2	SPF	
ALL WEBS	2x3	DRY	No.2	SPF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

DRY: SEASONED LUMBER.

PLATES (table is in inches)				
JT	TYPE	PLATES	W	LEN Y X
A	TMVW-t	MT20	4.0	6.0 1.75 Edge
B	TMVW-t	MT20	4.0	4.0 2.00 1.50
C	TS-t	MT20	3.0	6.0
D	TTW+p	MT20	4.0	6.0 Edge
E	TS-t	MT20	3.0	6.0
F	TMVW-t	MT20	4.0	4.0 2.00 1.50
G	TMVW-t	MT20	4.0	6.0 1.75 Edge
I	BMV1+p	MT20	2.0	4.0
J	BMVW-t	MT20	4.0	4.0 1.50 1.50
K	BS-t	MT20	3.0	6.0
L	BMVW-t	MT20	5.0	8.0
M	BS-t	MT20	3.0	6.0
N	BMVW-t	MT20	4.0	4.0 1.50 1.50
O	BMV1+p	MT20	2.0	4.0

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

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



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

BEARINGS		FACTORED GROSS REACTION	MAXIMUM FACTORED GROSS REACTION	INPUT BRG	REQRD BRG
JT		VERT	HORZ	DOWN	HORZ
O	1644	0	1644	0	0
I	1644	0	1644	0	0

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

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

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

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

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

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

LOADING
TOTAL LOAD CASES: (4)

CHORDS		WEBS	
MEMB.	MAX. FACTORED FORCE (LBS)	MEMB.	MAX. FACTORED FORCE (LBS)
FR-TO		FR-TO	
A-B	-1809 / 0	L-D	0 / 938
B-C	-1290 / 0	L-F	-642 / 0
C-D	-1290 / 0	J-F	-17 / 114
D-E	-1290 / 0	B-L	-642 / 0
E-F	-1290 / 0	N-B	-17 / 114
F-G	-1809 / 0	A-N	0 / 1549
O-A	-1436 / 0	J-G	0 / 1549
I-G	-1436 / 0		

P-O	0 / 0	-96.5	-96.5	0.16 (1)	10.00
O-N	0 / 0	-18.5	-18.5	0.27 (4)	10.00
N-M	0 / 1539	-18.5	-18.5	0.42 (4)	10.00
M-L	0 / 1539	-18.5	-18.5	0.42 (4)	10.00
L-K	0 / 1539	-18.5	-18.5	0.42 (4)	10.00
K-J	0 / 1539	-18.5	-18.5	0.42 (4)	10.00
J-I	0 / 0	-18.5	-18.5	0.27 (4)	10.00
I-H	0 / 0	-96.5	-96.5	0.16 (1)	10.00

DESIGN CRITERIA

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

SPACING = 24.0 IN. C/C

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

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

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

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

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

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

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

COMPANION LIVE LOAD FACTOR = 1.00

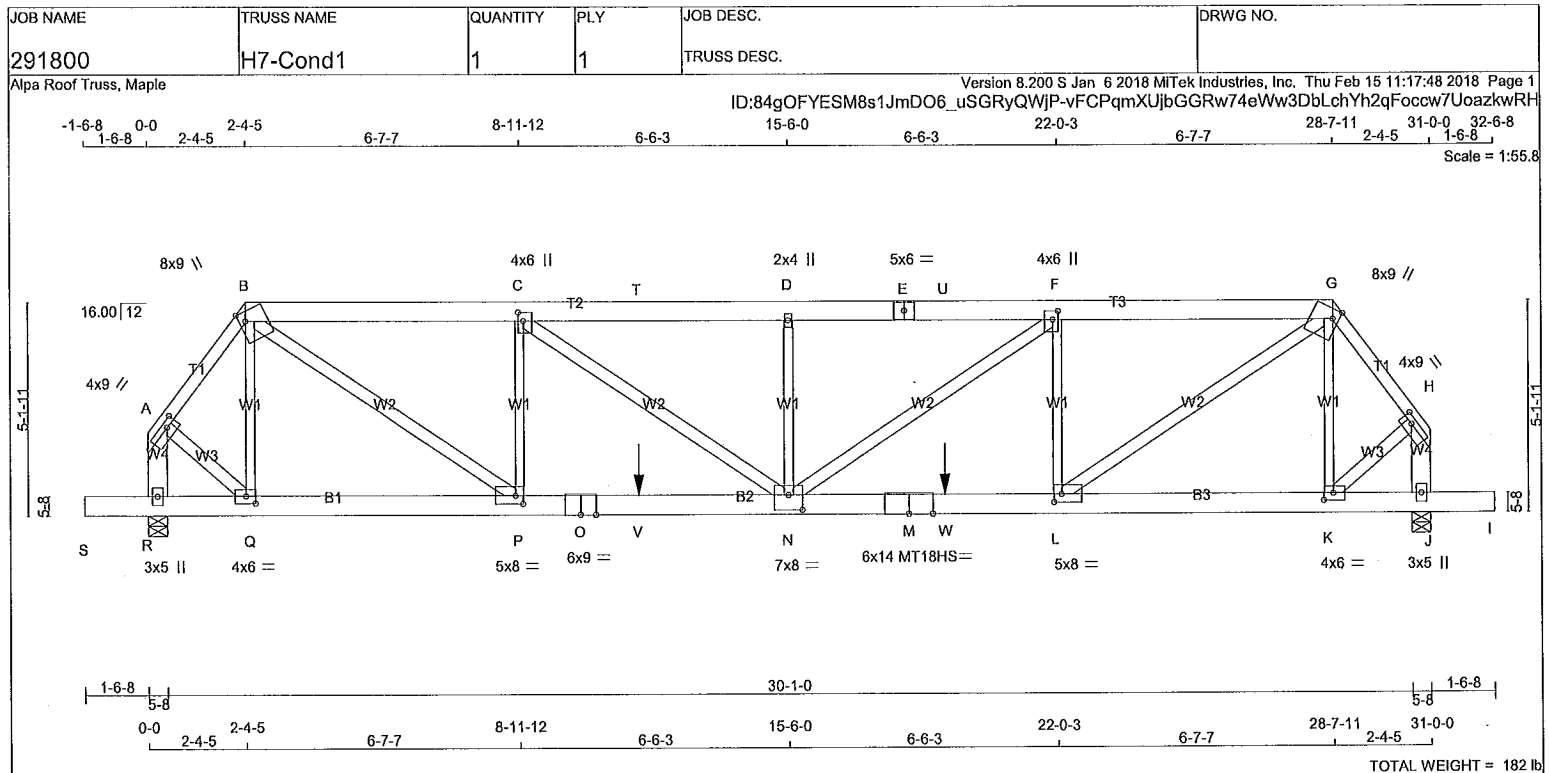
TRUSS PLATE MANUFACTURER IS NOT RESPONSIBLE FOR QUALITY CONTROL IN THE TRUSS MANUFACTURING PLANT.

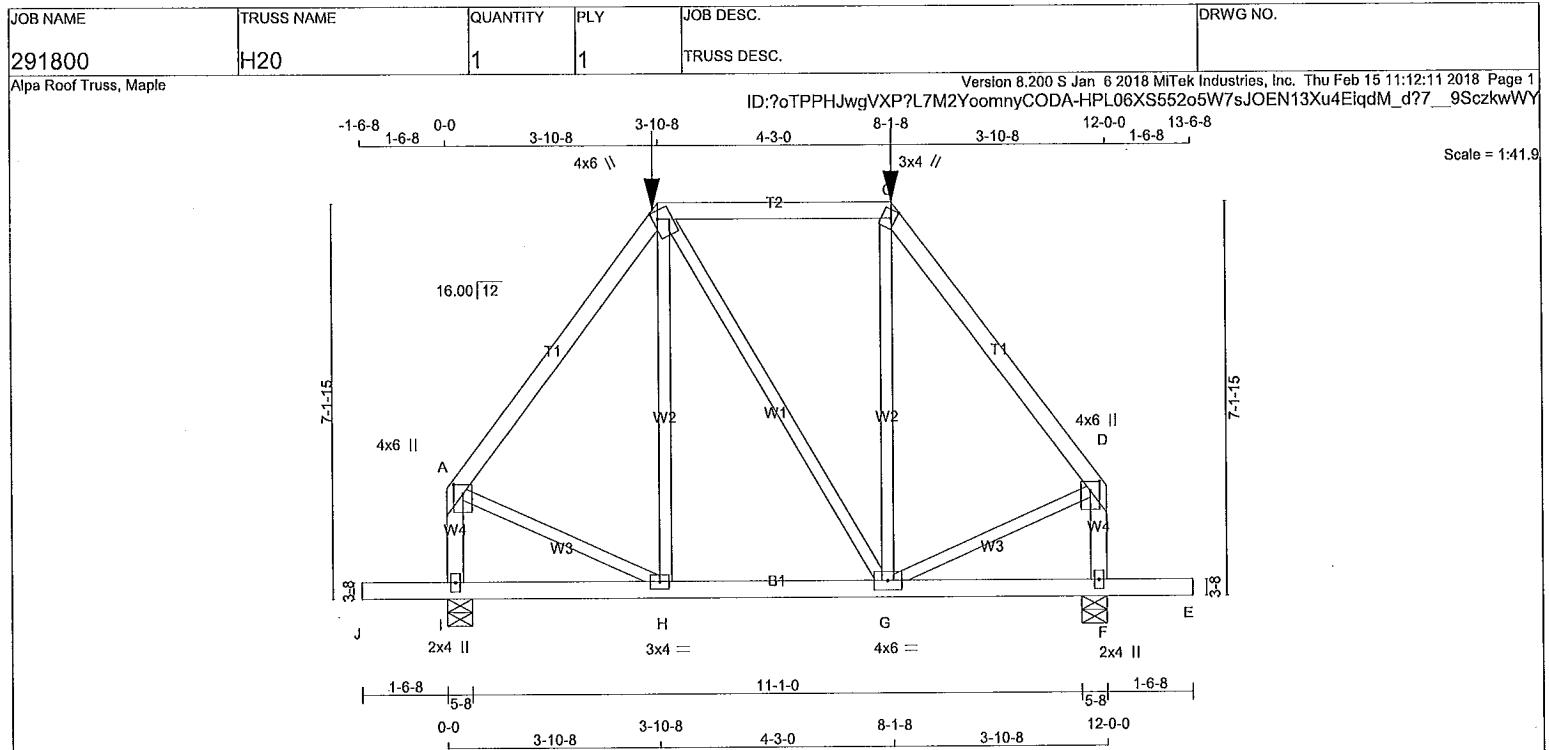
NAIL VALUES
PLATE GRIP(DRY) SHEAR SECTION (PSI) (PLI) (PLI)
MAX MIN MAX MIN MAX MIN
MT20 618 354 1667 788 1987 1656

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.86 (J) (INPUT = 0.90)
JSI METAL= 0.56 (J) (INPUT = 1.00)





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

ALL WEBS 2x3 DRY No.2 SPF

EXCEPT

DRY: SEASONED LUMBER.

PLATES (table is in inches)

JT	TYPE	PLATES	W	LEN	Y	X
A	TMVW+p	MT20	4.0	6.0	2.00	2.00
B	TTWW+m	MT20	4.0	6.0	1.75	1.00
C	TTWW+m	MT20	3.0	4.0	1.75	1.00
D	TMVW+p	MT20	4.0	6.0	2.00	2.00
F	BMV1+p	MT20	2.0	4.0		
G	BMVWW-t	MT20	4.0	6.0		
H	BMVWW-t	MT20	3.0	4.0		
I	BMV1+p	MT20	2.0	4.0		

HANGERS NOTES

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

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

BEARINGS

	FACTORED	MAXIMUM FACTORED	INPUT	REQRD
	GROSS REACTION	GROSS REACTION	BRG	BRG
JT	VERT	HORZ	UPLIFT	IN-SX
I	977	0	977	0
F	977	0	977	0

UNFACTORED REACTIONS

	1ST LCASE	MAX./MIN.	COMPONENT REACTIONS				
JT	COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
I	697	423 / 0	0 / 0	0 / 0	0 / 0	274 / 0	0 / 0
F	697	423 / 0	0 / 0	0 / 0	0 / 0	274 / 0	0 / 0

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

BRACING

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

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

LOADING

TOTAL LOAD CASES: (4)

	CHORDS	WEBS
	MAX. FACTORED	MAX. FACTORED
MEMB.	FORCE	FORCE
	(LBS)	(LBS)
	VERT. LOAD	VERT. LOAD
	LC1	LC1
	MAX	MAX
	CS1 (LC)	CS1 (LC)
FR-TO	FROM	TO
A-B	-607 / 0	-78.0 -78.0 0.24 (1)
B-C	-361 / 0	-114.5 -114.5 0.39 (1)
C-D	-607 / 0	-78.0 -78.0 0.24 (1)
I-A	-784 / 0	0.0 0.0 0.10 (1)
F-D	-784 / 0	0.0 0.0 0.10 (1)
J-I	0 / 0	-96.5 -96.5 0.17 (1)
I-H	0 / 0	-27.2 -27.2 0.11 (4)
H-G	0 / 361	-27.2 -27.2 0.15 (4)
G-F	0 / 0	-27.2 -27.2 0.11 (4)
F-E	0 / 0	-96.5 -96.5 0.17 (1)

FACTORED CONCENTRATED LOADS (LBS)

JT	LOC.	LC1	MAX-	MAX+	FACE	DIR.	TYPE
B	3-10-8	-120	-120	---	FRONT	VERT	TOTAL
C	8-1-8	-120	-120	---	FRONT	VERT	TOTAL

DESIGN CRITERIA

SPECIFIED LOADS:

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

SPACING = 24.0 IN. C/C

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

GIRDER TYPE: CPrimeHip
SIDE SETBACK = 3-10-8
END SETBACK = 3-10-8
END WALL WIDTH = 0-0
CORNER FRAMING TYPE: CONVENTIONAL
END JACK TYPE: CONVENTIONAL
APPLIED TO FRONT SIDE
- ADDTL. LOADS BASED ON 55 % OF GSL.

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

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=0.39/1.00 (B-C:1), BC=0.17/1.00 (E-F:1), WB=0.10/1.00 (A-H:1), SSI=0.21/1.00 (B-C:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

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

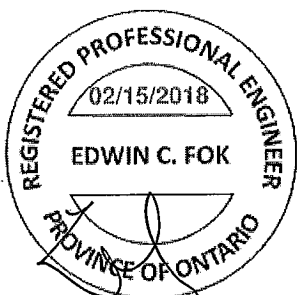
NAIL VALUES
PLATE GRIP(DRY) SHEAR SECTION
(PSI) (PLI) (PLI)
MAX MIN MAX MIN MAX MIN
MT20 618 354 1667 788 1987 1656

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

A-18023124 CONTINUED ON PAGE 2

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



JOB NAME

291800

TRUSS NAME

H21

QUANTITY

1

PLY

1

JOB DESC.

TRUSS DESC.

DRWG NO.

Alpa Roof Truss, Maple

Version 8.200 S Jan 6 2018 MiTek Industries, Inc. Thu Feb 15 11:12:29 2018 Page 1

ID: ?oTPPHJwgVXP?L7M2YoomnyCODA-ltQpthgOra3XguEmS0IFoKeBxyza8wfGnM65ZzkWVG

0-0

5-5-8

5-5-8 5-7-0 5-8-8

1-8 1-8

5-10-8

11-7-0 13-1-8

1-6-8

3x4 II

Scale = 1:60.9

16.00 12

9.9-15

4x6 II

A

W1

W2

W3

W5

W6

W7

W8

W9

W10

W11

W12

W13

W14

W15

W16

W17

W18

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W90

W91

W92

W93

W94

W95

W96

W97

W98

W99

W100

2x4 II

4x9 =

2x4 II

1-6-8

11-0-0

5-8

5-5-8

1-8 1-8

5-10-8

11-7-0

LUMBER

N. L. G. A. RULES

CHORDS

SIZE

LUMBER

DESCR.

SPF

2x4

DRY

No.2

2100F 1.8E

SPF

2x4

DRY

No.2

SPF

2x4

DRY

No.2

SPF

2x4

DRY

No.2

SPF

2x3

DRY

No.2

SPF

2x4

DRY

No.2

SPF

ALL WEBS

EXCEPT

F - B

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

TTW+p

MT20

3.0

4.0

C

TMVW+p

MT20

4.0

6.0

2.00

2.00

E

BMV1+p

MT20

2.0

4.0

F

BMWWW-t

MT20

4.0

9.0

G

BMV1+p

MT20

2.0

4.0

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

BEARINGS

FACTORED

MAXIMUM FACTORED

INPUT

REQRD

GROSS REACTION

GROSS REACTION

BRG

BRG

DOWN

HORZ

UPLIFT

IN-SX

IN-SX

HANGER BY OTHERS

MIN. SEAT SIZE: 1-8

JT

559

0

559

0

0

5-8

1-8

E

707

0

707

0

0

5-8

1-8

UNFACTORED REACTIONS

1ST CASE

MAX/MIN

COMPONENT REACTIONS

COMBINED

SNOW

LIVE

PERM.LIVE

WIND

DEAD

SOIL

JT

398

243 / 0

0 / 0

0 / 0

0 / 0

155 / 0

0 / 0

E

504

308 / 0

0 / 0

0 / 0

0 / 0

197 / 0

0 / 0

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

BRACING

TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 6.25 FT.

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

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

LOADING

TOTAL LOAD CASES: (4)

CHORDS

MAX. FACTORED

FACTORED

VERT. LOAD

LC1

MAX

MAX.

MEMB.

FORCE

MAX

W E B S

MAX. FACTORED

MEMB.

FORCE

MAX

FR-TO

A-B

-293 / 0

-78.0

-78.0

0.31 (1)

6.25

A-F

0 / 189

0.04 (1)

B-C

-293 / 0

-78.0

-78.0

0.24 (1)

6.25

F-C

0 / 182

0.04 (1)

G-A

-520 / 0

0.0

0.0

0.07 (1)

7.81

F-B

0 / 101

0.02 (4)

E-C

-516 / 0

0.0

0.0

0.06 (1)

7.81

G-F

0 / 0

-18.5

-18.5

0.18 (4)

10.00

F-E

0 / 0

-18.5

-18.5

0.18 (4)

10.00

E-D

0 / 0

-96.5

-96.5

0.16 (1)

10.00

DESIGN CRITERIA

SPECIFIED LOADS:

TOP CH. LL = 21.0 PSF

DL = 6.0 PSF

BOT CH. LL = 0.0 PSF

DL = 7.4 PSF

TOTAL LOAD = 34.4 PSF

SPACING = 24.0 IN./C/C

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

THIS DESIGN COMPLIES WITH:

- PART 9 OF OBC 2012, OBC 2018

- CSA 086-09, CSA 086-14

- TPIC 2011, TPIC 2014

(65 % OF 23.0 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 21.0 P.S.F. SPECIFIED ROOF LIVE LOAD

ALLOWABLE DEFL.(LL)= L/360 (0.39")

CALCULATED VERT. DEFL.(LL)= L/999 (0.00")

ALLOWABLE DEFL.(TL)= L/360 (0.39")

CALCULATED VERT. DEFL.(TL)= L/999 (0.03")

CANTILEVER DEFLECTION:

ALLOWABLE DEFL.(LL)= L/120 (0.19")

CALCULATED VERT. DEFL.(LL)= L/999 (0.01")

ALLOWABLE DEFL.(TL)= L/120 (0.19")

CALCULATED VERT. DEFL.(TL)= L/999 (0.01")

CSI: TC=0.31/1.00 (A-B:1), BC=0.18/1.00 (F-G:4), WB=0.04/1.00 (A-F:1), SSI=0.12/1.00 (D-E:1)

DOL LUMBER=1.00 NAIL=1.00 LS BEND=1.10

COMP=1.10 SHEAR=1.10 TENS= 1.10

COMPANION LIVE LOAD FACTOR = 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= 0.30 (A) (INPUT = 0.90)

JSI METAL= 0.15 (C) (INPUT = 1.00)

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

REGISTERED PROFESSIONAL ENGINEER

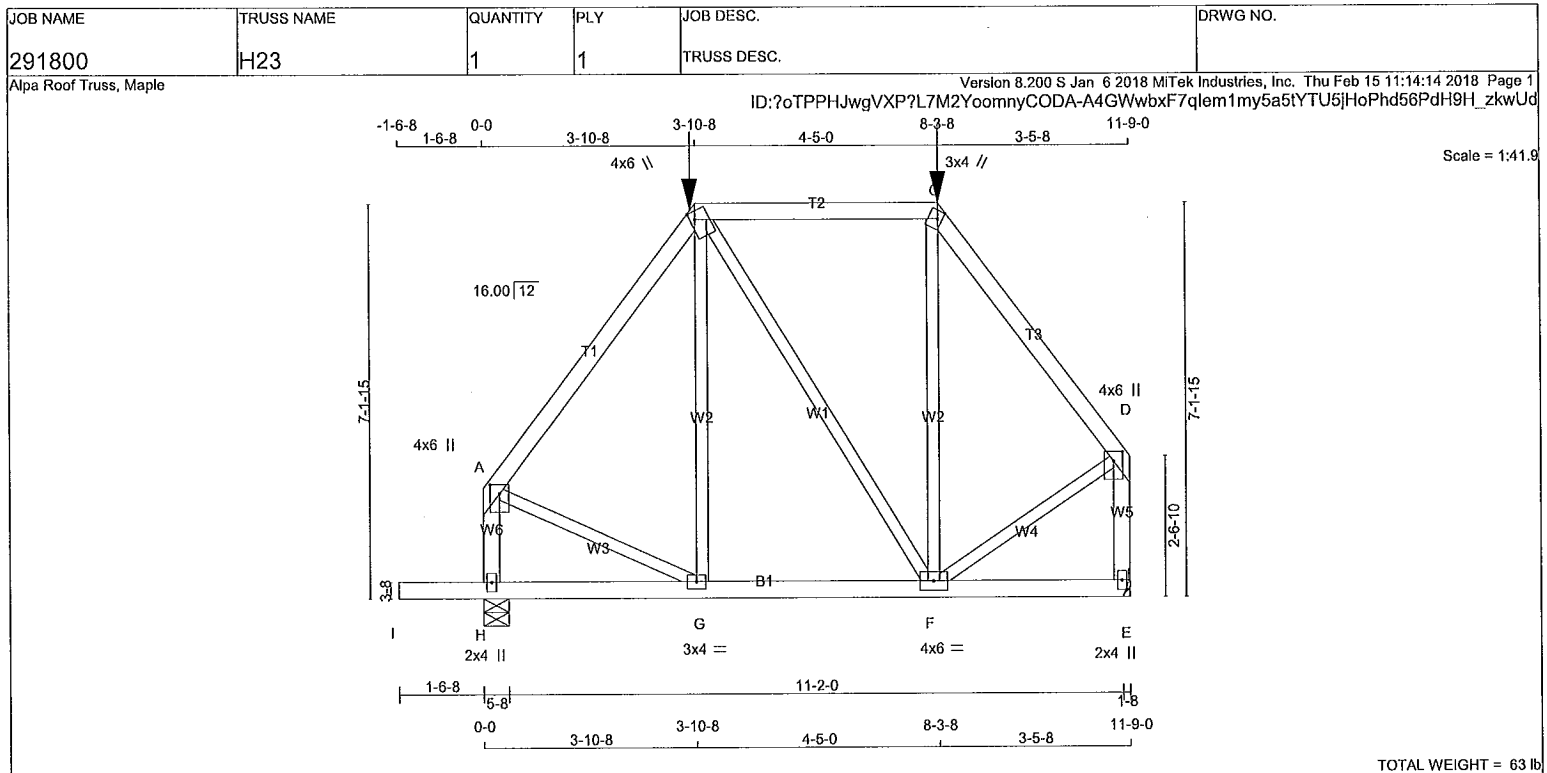
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PROVINCE OF ONTARIO

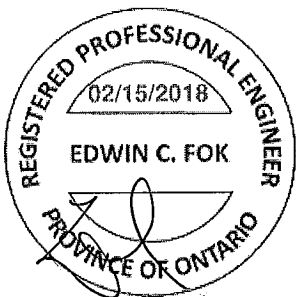
A-18023125

A-18023126



LUMBER N. L. G. A. RULES CHORDS SIZE LUMBER DESCR.				DIMENSIONS, SUPPORTS AND LOADINGS SPECIFIED BY FABRICATOR TO BE VERIFIED BY BUILDING DESIGNER BEARINGS				DESIGN CRITERIA			
A - B	2x4	DRY	No.2	SPF	FACTORED	MAXIMUM FACTORED	INPUT	REQRD	SPECIFIED LOADS:	TOP CH.	LL = 21.0 PSF
B - C	2x4	DRY	No.2	SPF	GROSS REACTION	GROSS REACTION	BRG	BRG	DL = 6.0 PSF	BOT CH.	LL = 0.0 PSF
C - D	2x4	DRY	No.2	SPF	JT VERT	DOWN	HORZ	UPLIFT	DL = 7.4 PSF	TOTAL LOAD	= 34.4 PSF
H - A	2x4	DRY	No.2	SPF	E 816	0	816	0	HANGER BY OTHERS		
E - D	2x4	DRY	No.2	SPF	H 956	0	956	0	MIN. SEAT SIZE: 1-8		
I - E	2x4	DRY	No.2	SPF					1-8		
ALL WEBS	2x3	DRY	No.2	SPF	UNFACTORED REACTIONS				SPACING = 24.0 IN. C/C		
EXCEPT					1ST LCASE	MAX./MIN. COMPONENT REACTIONS			LOADING IN FLAT SECTION BASED ON A SLOPE OF 2.00/12 MINIMUM		
DRY: SEASONED LUMBER.					JT COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
					E 582	353 / 0	0 / 0	0 / 0	0 / 0	229 / 0	0 / 0
					H 682	413 / 0	0 / 0	0 / 0	0 / 0	269 / 0	0 / 0
					BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S) H				GIRDER TYPE: CPrimeHlp		
					BRACING				LEFT SETBACK = 3-10-8		
					TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 6.25 FT.				RIGHT SETBACK = 3-5-8		
					MAX. UNBRACED BOTTOM CHORD LENGTH = 10.00 FT OR RIGID CEILING DIRECTLY APPLIED.				END SETBACK = 3-10-8		
					ALL PITCH BREAKS AND PERIMETER CORNER JOINTS MUST BE Laterally RESTRAINED.				END WALL WIDTH = 0-0		
					LOADING				CORNER FRAMING TYPE: CONVENTIONAL		
					TOTAL LOAD CASES: (4)				END JACK TYPE: CONVENTIONAL		
					CHORDS				APPLIED TO FRONT SIDE		
					MEMB. MAX. FACTORED FORCE (LBS)				- ADD'L LOADS BASED ON 55 % OF GSL.		
					VERT. LOAD LC1 MAX. (PLF)				THIS TRUSS IS DESIGNED FOR RESIDENTIAL OR SMALL BUILDING REQUIREMENTS OF PART 9, NBCC 2010, NBCC 2015		
					CSI (LC)				THIS DESIGN COMPLIES WITH:		
					MAX. FACTORED UNBRACED LENGTH FR-TO				- PART 9 OF OBC 2012, OBC 2018		
					FR-TO				- CSA 086-09, CSA 086-14		
					FROM TO				- TPIC 2011, TPIC 2014		
					FR-TO				(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		
					FR-TO				ALLOWABLE DEFL.(LL)= L/360 (0.39")		
					FR-TO				CALCULATED VERT. DEFL.(LL) = L/999 (0.00")		
					FR-TO				ALLOWABLE DEFL.(TL)= L/360 (0.39")		
					FR-TO				CALCULATED VERT. DEFL.(TL) = L/999 (0.01")		
					FR-TO				CANTILEVER DEFLECTION:		
					FR-TO				ALLOWABLE DEFL.(LL)= L/120 (0.19")		
					FR-TO				CALCULATED VERT. DEFL.(LL) = L/999 (0.01")		
					FR-TO				ALLOWABLE DEFL.(TL)= L/120 (0.19")		
					FR-TO				CALCULATED VERT. DEFL.(TL) = L/999 (0.01")		
					FR-TO				CSI: TC=0.42/1.00 (B-C:1), BC=0.17/1.00 (H-I:1), WB=0.10/1.00 (D-F:1), SSI=0.22/1.00 (B-C:1)		
					FR-TO				DOL LUMBER=1.00 NAIL=1.00 LS BEND=1.00		
					FR-TO				COMP=1.00 SHEAR=1.00 TENS= 1.00		
					FR-TO				COMPANION LIVE LOAD FACTOR = 1.00		
					FR-TO				TRUSS PLATE MANUFACTURER IS NOT RESPONSIBLE FOR QUALITY CONTROL IN THE TRUSS MANUFACTURING PLANT.		
					FR-TO				NAIL VALUES		
					FR-TO				PLATE GRIP(DRY) SHEAR SECTION		
					FR-TO				(PSI) (PLI) (PLI)		
					FR-TO				MAX MIN MAX MIN MAX MIN		
					FR-TO				MT20 618 354 1667 788 1987 1656		
					FR-TO				A-18023127		
					FR-TO				CONTINUED ON PAGE 2		

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



JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
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291800

H24

1

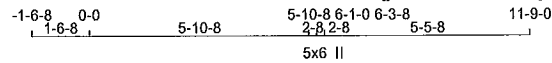
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TRUSS DESC.

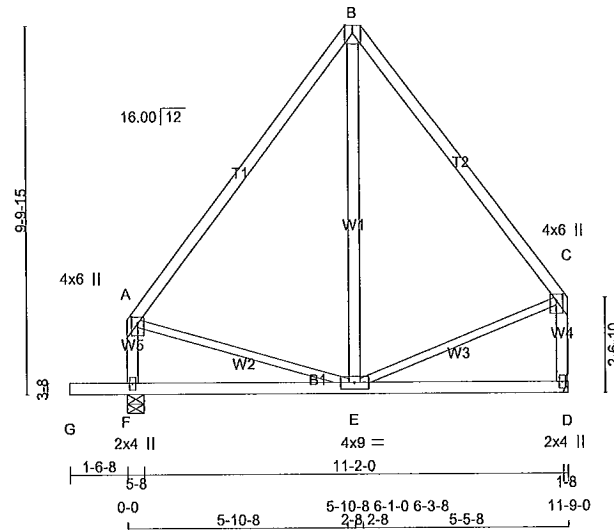
Alpa Roof Truss, Maple

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Scale = 1:61.4



TOTAL WEIGHT = 62 lb

LUMBER

N. L. G. A. RULES

CHORDS	SIZE	LUMBER	DESCR.
A - B	2x4	DRY	SPF
B - C	2x4	DRY	No.2
F - A	2x4	DRY	No.2
D - C	2x4	DRY	No.2
G - D	2x4	DRY	No.2

ALL WEBS	2x3	DRY	No.2	SPF
EXCEPT				
E - B	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	TMTMW+p	MT20	5.0	6.0	2.50	Edge
C	TMVW+p	MT20	4.0	6.0	2.00	2.00
D	BMV1+p	MT20	2.0	4.0		
E	BMVWW-t	MT20	4.0	9.0		
F	BMV1+p	MT20	2.0	4.0		

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

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

BEARINGS

	FACTORED GROSS REACTION	MAXIMUM FACTORED GROSS REACTION	INPUT BRG	REQRD BRG
	VERT	HORZ	DOWN	HORZ
JT				
D	567	0	567	0
F	715	0	715	0

UNFACTORED REACTIONS

	1ST LCASE	MAX./MIN. SNOW	MIN. COMPONENT LIVE	PERM. LIVE	WIND	DEAD	SOIL
JT	COMBINED						
D	404	247 / 0	0 / 0	0 / 0	0 / 0	157 / 0	0 / 0
F	510	311 / 0	0 / 0	0 / 0	0 / 0	199 / 0	0 / 0

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

BRACING

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

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

LOADING

TOTAL LOAD CASES: (4)

CHORDS	MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	LC1 MAX	MAX. UNBRACED LENGTH	WEBS	MEMB.	MAX. FACTORED FORCE (LBS)	MAX. CSI (L.C)
FR-TO						FR-TO			
A-B	-298 / 0	-78.0	-78.0	0.25 (1)	6.25	A-E	0 / 185	0.04 (1)	
B-C	-298 / 0	-78.0	-78.0	0.32 (1)	6.25	E-C	0 / 192	0.04 (1)	
F-A	-523 / 0	0.0	0.0	0.06 (1)	7.81	E-B	0 / 103	0.03 (4)	
D-C	-528 / 0	0.0	0.0	0.07 (1)	7.81				
G-F	0 / 0	-96.5	-96.5	0.16 (1)	10.00				
F-E	0 / 0	-18.5	-18.5	0.18 (4)	10.00				
E-D	0 / 0	-18.5	-18.5	0.18 (4)	10.00				

DESIGN CRITERIA

SPECIFIED LOADS:

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

SPACING = 24.0 IN. C/C

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

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

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

ALLOWABLE DEFL.(LL)= L/360 (0.39")
CALCULATED VERT. DEFL.(LL)= L/999 (0.00")
ALLOWABLE DEFL.(TL)= L/360 (0.39")
CALCULATED VERT. DEFL.(TL)= L/999 (0.03")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=0.32/1.00 (B-C:1), BC=0.18/1.00 (D-E:4), WB=0.04/1.00 (C-E:1), SSI=0.12/1.00 (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

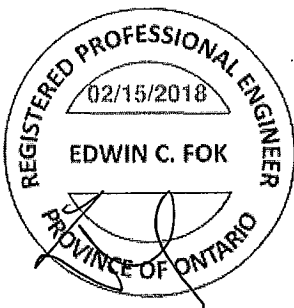
PLATE	GRIP(DRY)	SHEAR	SECTION
(PSI)	(PLI)	(PLI)	(PLI)
MAX	MIN	MAX	MIN
MT20	618	354	1667
			788
			1987
			1656

PLATE PLACEMENT TOL. = 0.250 inches

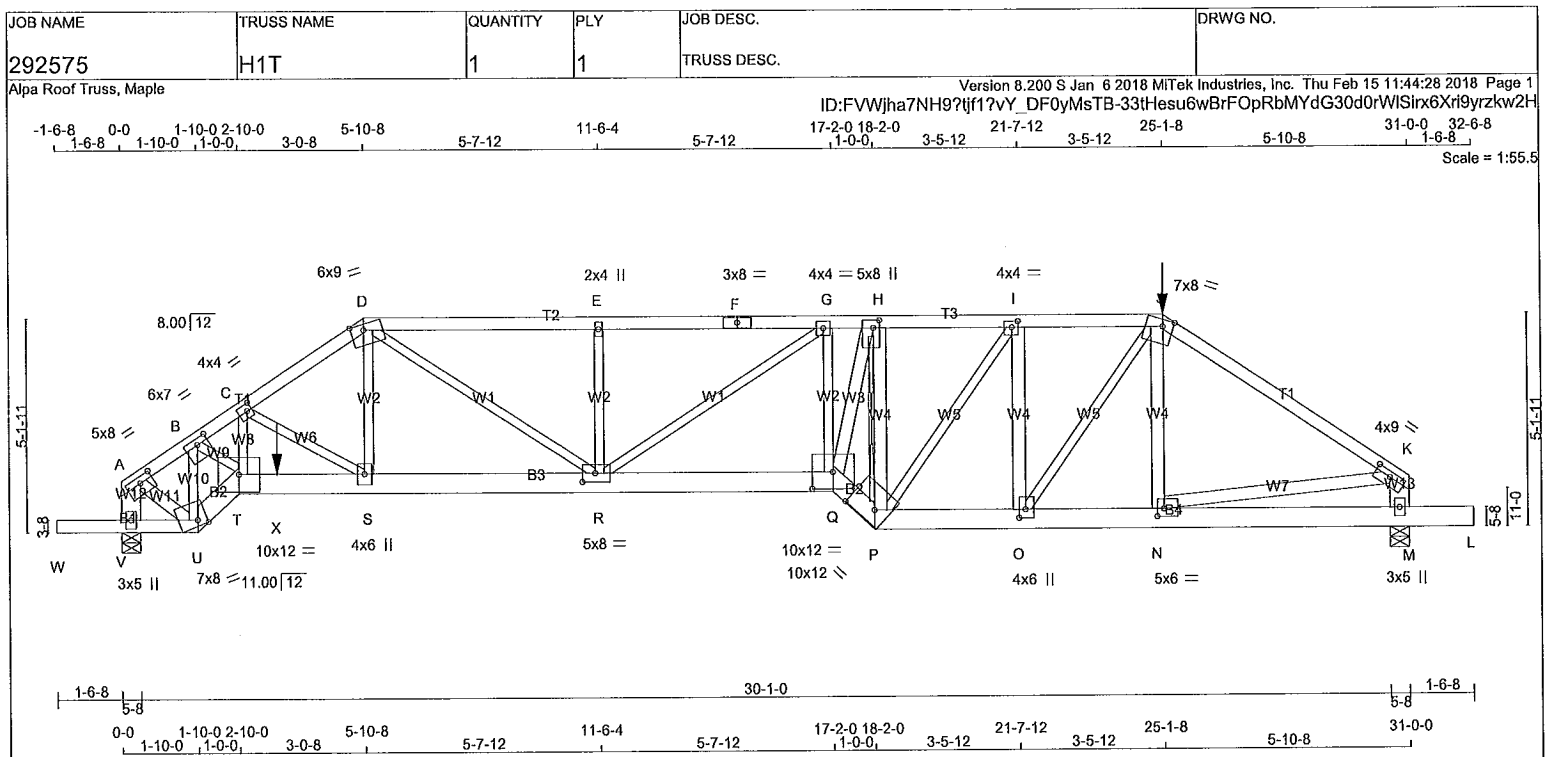
PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.31 (C) (INPUT = 0.90)
JSI METAL= 0.15 (A) (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-18023128



LUMBER				
N. L. G. A. RULES				
CHORDS	SIZE	LUMBER	DESCR.	
A - D	2x4	DRY	1650F 1.5E	SPF
D - F	2x4	DRY	1650F 1.5E	SPF
F - J	2x4	DRY	1650F 1.5E	SPF
J - K	2x4	DRY	1650F 1.5E	SPF
V - A	2x6	DRY	No.2	SPF
M - K	2x6	DRY	No.2	SPF
W - U	2x6	DRY	No.2	SPF
U - T	2x6	DRY	No.2	SPF
T - Q	2x6	DRY	1650F 1.5E	SPF
Q - P	2x6	DRY	No.2	SPF
P - L	2x6	DRY	1650F 1.5E	SPF

ALL WEBS EXCEPT				
CHORDS	SIZE	LUMBER	DESCR.	
Q - H	2x4	DRY	No.2	SPF
P - H	2x4	DRY	No.2	SPF
O - I	2x4	DRY	No.2	SPF
N - J	2x4	DRY	No.2	SPF
A - U	2x4	DRY	No.2	SPF
N - K	2x4	DRY	No.2	SPF

DRY: SEASONED LUMBER.

PLATES (table is in inches)				
JT	TYPE	PLATES	W	LEN Y X
A	TMVW-I	MT20	5.0	8.0 1.75 3.75
B	TMVW-I	MT20	6.0	7.0 1.75 3.25
C	TMVW-I	MT20	4.0	4.0 2.00 1.50
D	TTVW-m	MT20	6.0	9.0 1.75 3.75
E	TMVW-w	MT20	2.0	4.0
F	TS-t	MT20	3.0	8.0
G	TMVW-I	MT20	4.0	4.0
H	TMVW-I	MT20	5.0	8.0 2.25 1.75
I	TMVW-I	MT20	4.0	4.0 1.75 1.75
J	TTVW-m	MT20	7.0	8.0 2.00 3.00
K	TMVW-I	MT20	4.0	9.0 1.50 4.50
M	BMV1+p	MT20	3.0	5.0
N	BMVW-I	MT20	5.0	6.0 2.25 2.00
O	BMVW-I	MT20	4.0	6.0 2.50 1.75
P	BBVW-h	MT20	10.0	12.0 3.75 8.00
Q	BBVW-I	MT20	10.0	12.0 4.75 6.00

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

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

BEARINGS		FACTORED	MAXIMUM FACTORED	INPUT	REQRD
		GROSS REACTION	GROSS REACTION	BRG	BRG
JT	VERT	HORZ	DOWN	HORZ	UPLIFT
V	3162	0	3162	0	0
M	2992	0	2992	0	0

UNFACTORED REACTIONS

1ST LCASE		MAX/MIN. COMPONENT REACTIONS					
JT	COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
V	2247	1412 / 0	0 / 0	0 / 0	0 / 0	835 / 0	0 / 0
M	2135	1294 / 0	0 / 0	0 / 0	0 / 0	841 / 0	0 / 0

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

BRACING

TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 2.90 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 H-P

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		FACTORED		WEBS		FACTORED	
MEMB.	FORCE (LBS)	VERT. LOAD (PLF)	MAX. CSI (LC)	MEMB.	FORCE (LBS)	MAX. CSI (LC)	
FR-TO		FROM TO		FR-TO			
A-B	-3070 / 0	-78.0 -78.0 0.15 (1)	4.38	U-B	-3431 / 0	0.58 (1)	
B-C	-5474 / 0	-78.0 -78.0 0.24 (1)	3.31	B-T	0 / 3026	0.75 (1)	
C-D	-4729 / 0	-78.0 -78.0 0.24 (1)	3.56	T-C	0 / 580	0.14 (1)	
D-E	-5858 / 0	-78.0 -78.0 0.72 (1)	2.90	C-S	-730 / 0	0.18 (1)	
E-F	-5859 / 0	-78.0 -78.0 0.70 (1)	2.90	S-D	0 / 1037	0.26 (1)	
F-G	-5859 / 0	-78.0 -78.0 0.70 (1)	2.90	D-R	0 / 2302	0.57 (1)	
G-H	-6143 / 0	-153.5 -153.5 0.28 (1)	3.11	R-E	-496 / 0	0.13 (1)	
H-I	-4867 / 0	-153.5 -153.5 0.42 (1)	3.31	E-G	-349 / 0	0.29 (1)	
I-J	-4227 / 0	-153.5 -153.5 0.39 (1)	3.58	Q-G	-95 / 17	0.03 (1)	
J-K	-3762 / 0	-78.0 -78.0 0.75 (1)	3.53	Q-H	0 / 4969	0.88 (1)	
V-A	-2934 / 0	0.0 0.0 0.21 (1)	6.09	P-H	-5048 / 0	0.83 (1)	
M-K	-2747 / 0	0.0 0.0 0.19 (1)	6.26	P-I	0 / 1080	0.27 (1)	
W-V	0 / 0	-96.5 -96.5 0.17 (1)	10.00	O-I	-1482 / 0	0.40 (1)	
V-U	-3 / 0	-18.5 -18.5 0.17 (1)	10.00	O-J	0 / 1873	0.46 (1)	
U-T	0 / 3260	-18.5 -18.5 0.43 (1)	10.00	N-J	-207 / 78	0.06 (1)	
T-X	0 / 4548	-18.5 -18.5 0.42 (1)	10.00	A-U	0 / 2777	0.49 (1)	
X-S	0 / 4548	-112.0 -112.0 0.52 (1)	10.00	N-K	0 / 3156	0.56 (1)	
S-R	0 / 3954	-112.0 -112.0 0.48 (1)	10.00				
R-Q	0 / 6145	-112.0 -112.0 0.68 (1)	10.00				
Q-P	0 / 6391	-36.4 -36.4 0.83 (1)	10.00				
P-O	0 / 4227	-36.4 -36.4 0.38 (1)	10.00				
O-N	0 / 3120	-36.4 -36.4 0.29 (1)	10.00				
N-M	0 / 0	-36.4 -36.4 0.10 (4)	10.00				
M-L	0 / 0	-96.5 -96.5 0.06 (1)	10.00				

FACTORED CONCENTRATED LOADS (LBS)

JT	LOC.	LC1	MAX-	MAX+	FACE	DIR.	TYPE
J	25-1-8	-334	-334	---	FRONT	VERT	TOTAL
X	3-9-4	-423	-423	---	FRONT	VERT	TOTAL

DESIGN CRITERIA

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

SPECIFIED LOADS:

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

SPACING = 24.0 IN. C/C

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

GIRDER TYPE: CStdGirder
START DISTANCE = 3-9-4
START SPAN CARRIED = 5-10-8
END DISTANCE = 17-2-0
END SPAN CARRIED = 5-10-8
END WALL WIDTH = 0-0
APPLIED TO FRONT SIDE OF BOTTOM CHORD.
- ADD'L LOADS BASED ON 55 % OF GSL.

GIRDER TYPE: CPrimeHip
SIDE SETBACK = 5-10-8
END SETBACK = 5-10-8
END WALL WIDTH = 0-0
CORNER FRAMING TYPE: CONVENTIONAL
END JACK TYPE: CONVENTIONAL
APPLIED TO FRONT SIDE
- ADD'L LOADS BASED ON 55 % OF GSL.
LOADS APPLIED TO FIRST 13-10-0 OF SPAN MEASURED FROM THE RIGHT.

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

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

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

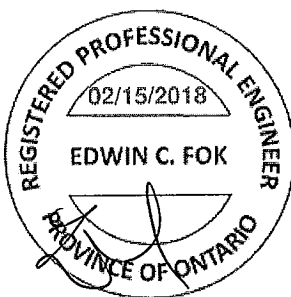
DESIGN ASSUMPTIONS
- OVERHANG NOT TO BE ALTERED OR CUT OFF.

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

ALLOWABLE DEFL.(LL) = L/360 (1.03")
CALCULATED VERT. DEFL.(LL) = L/999 (0.31")
ALLOWABLE DEFL.(TL) = L/360 (1.03")
CALCULATED VERT. DEFL.(TL) = L/607 (0.61")

CANTILEVER DEFLECTION:
ALLOWABLE DEFL.(LL) = L/120 (0.19")
CALCULATED VERT. DEFL.(LL) = L/452 (0.04")

A-18023129 CONTINUED ON PAGE 2



JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
292575	H1T	1	1	TRUSS DESC.	
Alpa Roof Truss, Maple					
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ID:FVWjha7NH9?tf1?yY DF0yMsTB-33tHesu6wBrFOpRbMYdG30d0rWISirx6Xri9yrzkw2H					

PLATES (table is in inches)

JT	TYPE	PLATES	W	LEN	Y	X
R	BMWW-t	MT20	5.0	8.0	2.50	3.75
S	BMWW-t	MT20	4.0	6.0		
T	BBWW-l	MT20	10.0	12.0		
U	BBWW-m	MT20	7.0	8.0	Edge	2.75
V	BMV1+p	MT20	3.0	5.0		

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

HANGERS NOTES

- SPECIAL HANGER(S) OR CONNECTION(S) REQUIRED TO SUPPORT CONCENTRATED LOAD(S) 334.0 lbs FACTORED DOWN AT 25-1-8 ON TOP CHORD, AND 423.2 lbs FACTORED DOWN AT 3-9-4 ON BOTTOM CHORD. DESIGN FOR UNSPECIFIED CONNECTION(S) IS DELEGATED TO THE BUILDING DESIGNER.

ALLOWABLE DEFL.(TL)= L/120 (0.19")
CALCULATED VERT. DEFL.(TL) = L/233 (0.08")

CSI: TC=0.75/1.00 (J-K:1) , BC=0.83/1.00 (P-Q:1) ,
WB=0.88/1.00 (H-Q:1) , SSI=0.28/1.00 (I-J:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

AUTOSOLVE HEELS OFF

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

NAIL VALUES

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

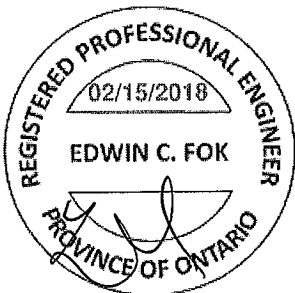
PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

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

JSI METAL= 0.95 (D) (INPUT = 1.00)

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

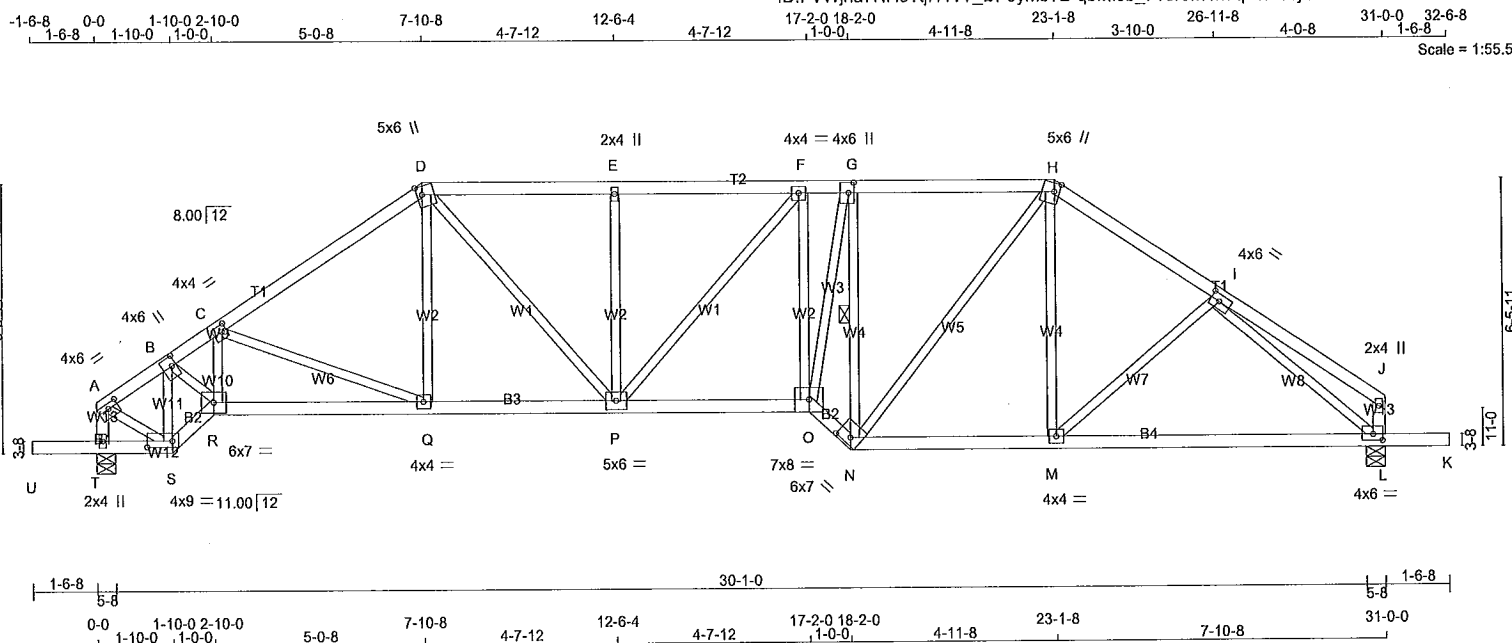


A-18023129(2)

JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
292575	H2T	1	1	TRUSS DESC.	

Alpa Roof Truss, Maple

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TOTAL WEIGHT = 142 lb

LUMBER	N. L. G. A. RULES	CHORDS	SIZE	LUMBER	DESCR.
A - D	2x4	DRY	No.2	SPF	
D - H	2x4	DRY	No.2	SPF	
H - J	2x4	DRY	No.2	SPF	
T - A	2x4	DRY	No.2	SPF	
L - J	2x4	DRY	No.2	SPF	
U - S	2x4	DRY	No.2	SPF	
S - R	2x4	DRY	No.2	SPF	
R - 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	

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	UPLIFT	IN-SX
T	1648	0	1648	0
L	1640	0	1640	0

UNFACTORED REACTIONS

1ST LCASE	MAX./MIN. COMPONENT REACTIONS	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
JT	COMBINED	1175	717 / 0	0 / 0	0 / 0	458 / 0	0 / 0
L	1169	714 / 0	0 / 0	0 / 0	0 / 0	456 / 0	0 / 0

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

BRACING

TOP CHORD TO BE SHEATHED OR MAX. PURLINE SPACING = 4.22 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.

1 LATERAL BRACE(S) AT 1/2 LENGTH OF G-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	MAX. FACTORED MEMB. FORCE (LBS)	FACTORED VERT. LOAD (PLF)	MAX. FACTORED VERT. LOAD (LC1)	MAX. FACTORED VERT. LOAD (LC2)	MAX. FACTORED VERT. LOAD (LC3)	MAX. FACTORED VERT. LOAD (LC4)	MAX. FACTORED VERT. LOAD (LC5)	MAX. FACTORED VERT. LOAD (LC6)	MAX. FACTORED VERT. LOAD (LC7)	MAX. FACTORED VERT. LOAD (LC8)	MAX. FACTORED VERT. LOAD (LC9)	MAX. FACTORED VERT. LOAD (LC10)
FR-TO												
A-B	-1404 / 0	-78.0	-78.0	0.10 (1)	5.41	S-B	-1574 / 0	0.24 (1)				
B-C	-2426 / 0	-78.0	-78.0	0.23 (1)	4.22	B-R	0 / 1460	0.33 (1)				
C-D	-2017 / 0	-78.0	-78.0	0.29 (1)	4.52	R-C	0 / 56	0.02 (4)				
D-E	-2146 / 0	-78.0	-78.0	0.25 (1)	4.43	C-Q	-472 / 0	0.23 (1)				
E-F	-2146 / 0	-78.0	-78.0	0.25 (1)	4.43	Q-D	0 / 262	0.06 (1)				
F-G	-2182 / 0	-78.0	-78.0	0.24 (1)	4.40	D-P	0 / 725	0.16 (1)				
G-H	-1852 / 0	-78.0	-78.0	0.25 (1)	4.71	P-E	-427 / 0	0.20 (1)				
H-I	-1745 / 0	-78.0	-78.0	0.17 (1)	4.90	E-F	-55 / 0	0.05 (1)				
I-J	0 / 18	-78.0	-78.0	0.18 (1)	10.00	O-F	-15 / 11	0.01 (1)				
T-A	-1419 / 0	0.0	0.0	0.14 (1)	6.84	O-G	0 / 1777	0.40 (1)				
L-J	-121 / 0	0.0	0.0	0.01 (1)	7.81	N-G	-2138 / 0	0.58 (1)				
						N-H	0 / 660	0.15 (1)				
U-T	0 / 0	-96.5	-96.5	0.16 (1)	10.00	M-H	0 / 169	0.05 (4)				
T-S	0 / 0	-18.5	-18.5	0.12 (1)	10.00	M-I	-36 / 38	0.02 (1)				
S-R	0 / 1456	-18.5	-18.5	0.24 (1)	10.00	A-S	0 / 1279	0.29 (1)				
R-Q	0 / 2101	-18.5	-18.5	0.40 (1)	10.00	I-L	-1963 / 0	0.89 (1)				
Q-P	0 / 1666	-18.5	-18.5	0.33 (1)	10.00							
P-O	0 / 2182	-18.5	-18.5	0.40 (1)	10.00							
O-N	0 / 2463	-18.5	-18.5	0.40 (1)	10.00							
N-M	0 / 1437	-18.5	-18.5	0.40 (4)	10.00							
M-L	0 / 1461	-18.5	-18.5	0.39 (4)	10.00							
L-K	0 / 0	-96.5	-96.5	0.16 (1)	10.00							

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



DESIGN CRITERIA

SPECIFIED LOADS:

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

SPACING = 24.0 IN. C/C

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

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

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

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

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

ALLOWABLE DEFL.(LL)= L/360 (1.03")
CALCULATED VERT. DEFL.(LL)= L/999 (0.13")
ALLOWABLE DEFL.(TL)= L/360 (1.03")
CALCULATED VERT. DEFL.(TL)= L/999 (0.26")

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/762 (0.02")

CSI: TC=0.29/1.00 (C-D:1), BC=0.40/1.00 (O-P:1), WB=0.89/1.00 (I-L:1), SSI=0.18/1.00 (G-H: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

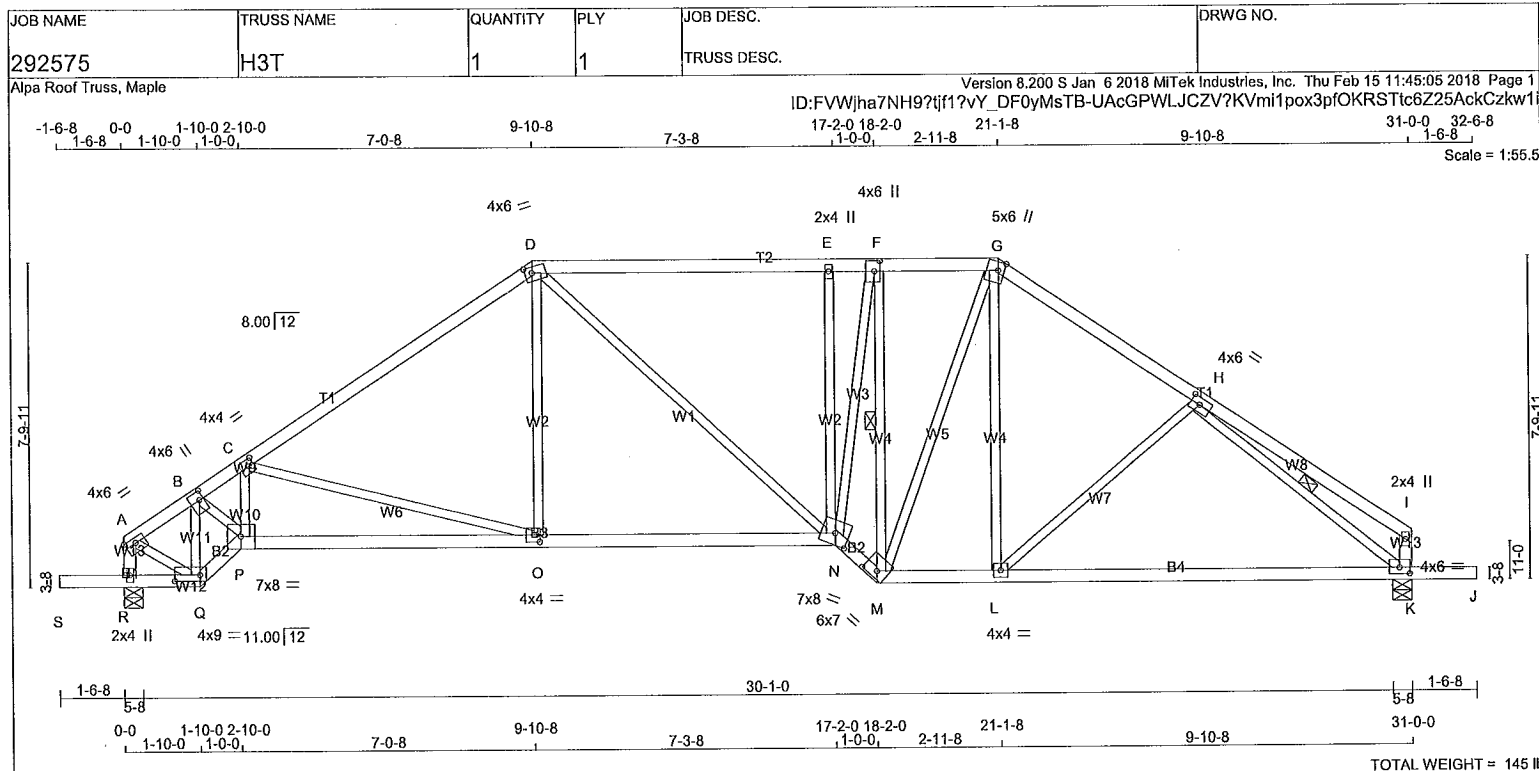
PLATE	GRIP(DRY)	SHEAR (PSI)	SECTION (PLI)
MT20	618	354	1667
	788	1987	1656

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.88 (D) (INPUT = 0.90)
JSI METAL= 0.48 (I) (INPUT = 1.00)

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LUMBER

N. L. G. A. RULES

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

DRY: SEASONED LUMBER.

PLATES (table is in inches)

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

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

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

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

BEARINGS

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

UNFACTORED REACTIONS

JT	1ST LCASE		MAX./MIN. COMPONENT REACTIONS				
	COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
R	1175	717 / 0	0 / 0	0 / 0	0 / 0	458 / 0	0 / 0
K	1169	714 / 0	0 / 0	0 / 0	0 / 0	456 / 0	0 / 0

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

BRACING

TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 3.92 FT.
MAX. UNBRACED BOTTOM CHORD LENGTH = 10.00 FT OR RIGID CEILING DIRECTLY APPLIED.

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

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

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

LOADING

TOTAL LOAD CASES: (4)

CHORDS				WEBS			
MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	FACTORED LC1 MAX (LC)	MAX. UNBRACED LENGTH	MEMB.	MAX. FACTORED FORCE (LBS)	MAX. FACTORED CSI (LC)
FR-TO		FROM	TO		FR-TO		
A-B	-1393 / 0	-78.0	-78.0 0.14 (1)	5.38	Q-B	-1548 / 0	0.24 (1)
B-C	-2434 / 0	-78.0	-78.0 0.45 (1)	3.92	B-P	0 / 1629	0.37 (1)
C-D	-1870 / 0	-78.0	-78.0 0.57 (1)	4.33	P-C	-122 / 38	0.02 (1)
D-E	-1796 / 0	-78.0	-78.0 0.54 (1)	4.38	C-O	-705 / 0	0.75 (1)
E-F	-1786 / 0	-78.0	-78.0 0.42 (1)	4.52	O-D	0 / 338	0.08 (4)
F-G	-1502 / 0	-78.0	-78.0 0.10 (1)	5.28	D-N	0 / 352	0.08 (1)
G-H	-1658 / 0	-78.0	-78.0 0.27 (1)	4.90	N-E	-651 / 0	0.52 (1)
H-I	0 / 24	-78.0	-78.0 0.30 (1)	10.00	N-F	0 / 1861	0.42 (1)
R-A	-1419 / 0	0.0	0.0 0.14 (1)	6.84	M-F	-1724 / 0	0.66 (1)
K-I	-153 / 0	0.0	0.0 0.02 (1)	7.81	M-G	0 / 383	0.09 (1)
					L-G	0 / 302	0.08 (4)
S-R	0 / 0	-96.5	-96.5 0.16 (1)	10.00	L-H	-181 / 0	0.14 (1)
R-Q	0 / 0	-18.5	-18.5 0.12 (1)	10.00	A-Q	0 / 1257	0.28 (1)
Q-P	0 / 1431	-18.5	-18.5 0.23 (1)	10.00	H-K	-1956 / 0	0.58 (1)
P-O	0 / 2209	-18.5	-18.5 0.51 (1)	10.00			
O-N	0 / 1535	-18.5	-18.5 0.42 (4)	10.00			
N-M	0 / 2005	-18.5	-18.5 0.33 (1)	10.00			
M-L	0 / 1360	-18.5	-18.5 0.55 (4)	10.00			
L-K	0 / 1494	-18.5	-18.5 0.55 (4)	10.00			
K-J	0 / 0	-96.5	-96.5 0.16 (1)	10.00			

DESIGN CRITERIA

SPECIFIED LOADS:

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

SPACING = 24.0 IN. C/C

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

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

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

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

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

ALLOWABLE DEFL.(LL) = L/360 (1.03")
CALCULATED VERT. DEFL.(LL) = L/999 (0.12")
ALLOWABLE DEFL.(TL) = L/360 (1.03")
CALCULATED VERT. DEFL.(TL) = L/999 (0.33")

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/690 (0.03")

CSI: TC=0.57/1.00 (C-D:1), BC=0.55/1.00 (K-L:4), WB=0.75/1.00 (C-O:1), SSI=0.28/1.00 (B-C:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

AUTOSOLVE LEFT HEEL ONLY

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

NAIL VALUES
PLATE GRIP(DRY) SHEAR SECTION (PSI) (PLI) (PLI)
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 (K) (INPUT = 0.90)
JSI METAL= 0.50 (B) (INPUT = 1.00)

A-18023131

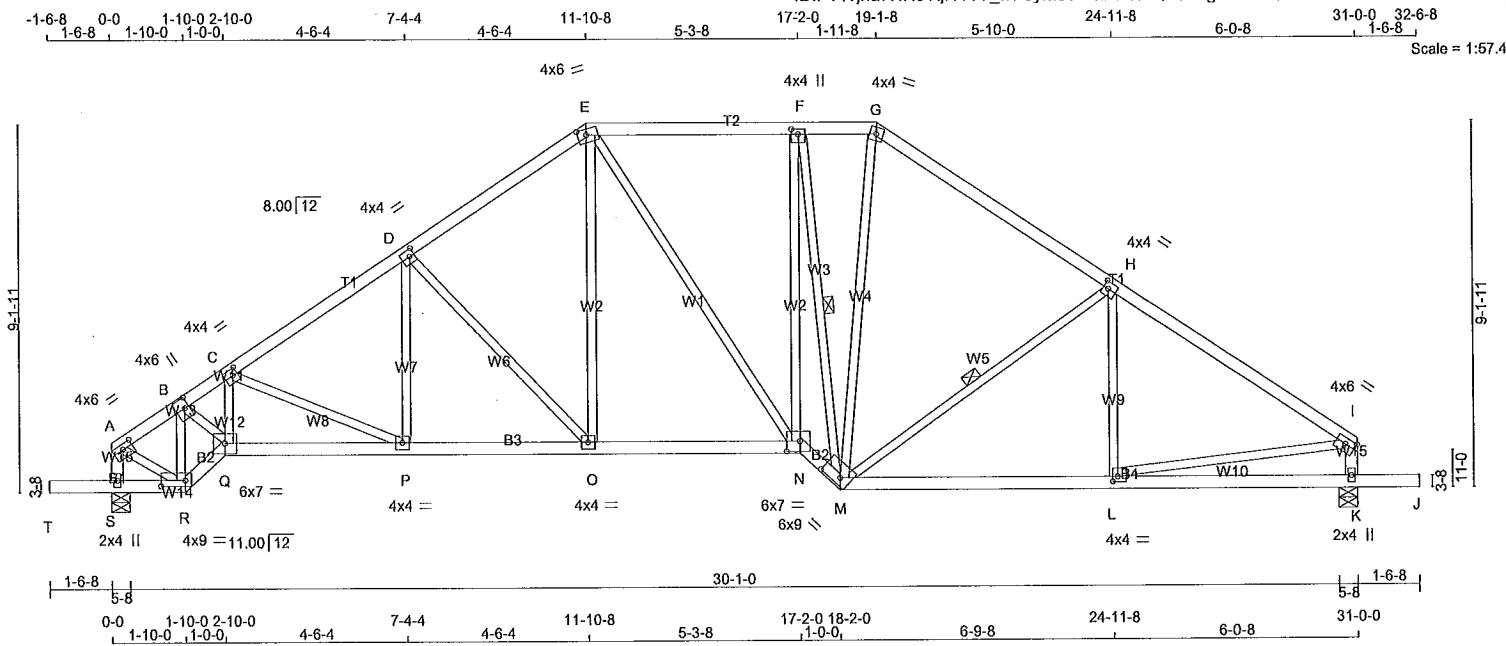
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JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
292575	H4T	1	1	TRUSS DESC.	

Alpa Roof Truss, Maple

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TOTAL WEIGHT = 150 lb
(M/F)

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

DRY: SEASONED LUMBER.

PLATES (table is in inches)

JT	TYPE	PLATES	W	LEN	Y	X
A	TMWV-t	MT20	4.0	6.0	1.50	3.00
B	TMWW-t	MT20	4.0	6.0	3.00	1.25
C, D, H						
C	TMWW-t	MT20	4.0	4.0	2.00	1.50
E	TTWW-m	MT20	4.0	6.0	1.75	2.50
F	TMWW-t	MT20	4.0	4.0	1.50	2.00
G	TTW-m	MT20	4.0	4.0		
I	TMWW-t	MT20	4.0	6.0	1.75	Edge
K	BMV1+p	MT20	2.0	4.0		
L	BMWW-t	MT20	4.0	4.0	1.50	1.50
M	BBWWV-h	MT20	6.0	9.0	2.00	6.00
N	BBWW-t	MT20	6.0	7.0	3.00	4.00
O	BMWW-t	MT20	4.0	4.0		
P	BMWW-t	MT20	4.0	4.0		
Q	BBWW-t	MT20	6.0	7.0		
R	BBWW-t	MT20	4.0	9.0	1.75	7.25
S	BMV1+p	MT20	2.0	4.0		

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

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

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

BEARINGS

	FACTORED GROSS REACTION	MAXIMUM FACTORED GROSS REACTION	INPUT	REQRD
	VERT	HORZ	DOWN	UP
JT	1648	0	1648	0
S	1648	0	1648	0
K	1640	0	1640	0

UNFACTORED REACTIONS

	1ST LCASE	SNOW	LIVE	PERM LIVE	WIND	DEAD	SOIL
JT	COMBINED						
S	1175	717 / 0	0 / 0	0 / 0	0 / 0	458 / 0	0 / 0
K	1169	714 / 0	0 / 0	0 / 0	0 / 0	456 / 0	0 / 0

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

BRACING

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

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

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

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

LOADING

TOTAL LOAD CASES: (4)

	CHORDS	FACTORED	WEBS	FACTORED
	MEMB.	FORCE (LBS)	MEMB.	FORCE (LBS)
FR-TO		VERT. LOAD (PLF)	UNBRACED LENGTH (FT)	CS (LC)
A-B	-1410 / 0	-78.0	5.43	0.25 (1)
B-C	-2422 / 0	-78.0	4.34	0.31 (1)
C-D	-2074 / 0	-78.0	4.51	0.02 (4)
D-E	-1676 / 0	-78.0	4.93	0.13 (1)
E-F	-1460 / 0	-78.0	5.09	0.05 (4)
F-G	-1275 / 0	-78.0	5.51	0.44 (1)
G-H	-1483 / 0	-78.0	4.96	0.11 (1)
H-I	-1837 / 0	-78.0	4.52	0.03 (1)
S-A	-1419 / 0	0.0	6.84	0.28 (1)
K-I	-1449 / 0	0.0	6.79	0.89 (1)
T-S	0 / 0	-96.5	10.00	0.20 (1)
S-R	0 / 0	-18.5	10.00	0.04 (1)
R-Q	0 / 1469	-18.5	10.00	0.29 (1)
Q-P	0 / 2046	-18.5	10.00	0.35 (1)
P-O	0 / 1737	-18.5	10.00	
O-N	0 / 1381	-18.5	10.00	
N-M	0 / 1961	-18.5	10.00	
M-L	0 / 1554	-18.5	10.00	
L-K	0 / 0	-18.5	10.00	
K-J	0 / 0	-96.5	10.00	

DESIGN CRITERIA

SPECIFIED LOADS:

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

SPACING = 24.0 IN. C/C

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

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

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

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

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

ALLOWABLE DEFL.(LL)= L/360 (1.03")
CALCULATED VERT. DEFL.(LL)= L/999 (0.11")
ALLOWABLE DEFL.(TL)= L/360 (1.03")
CALCULATED VERT. DEFL.(TL)= L/999 (0.22")

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/889 (0.02")

CSI: TC=0.44/1.00 (H-I), BC=0.38/1.00 (P-Q), WB=0.89/1.00 (F-M), SSI=0.19/1.00 (H-I)

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

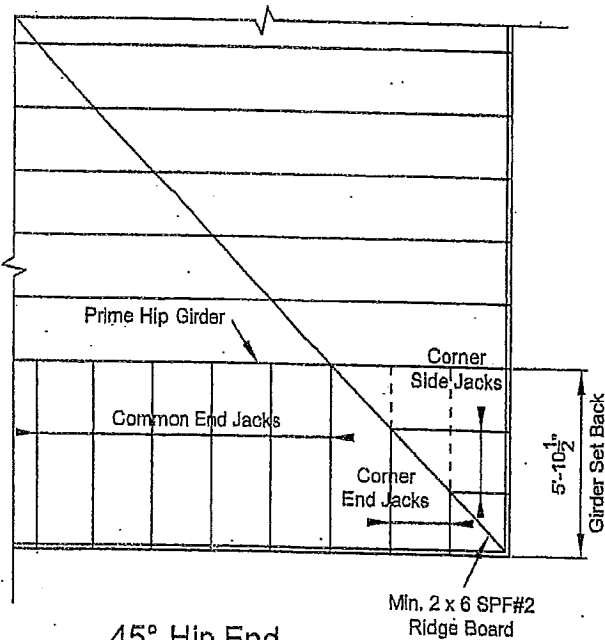
PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

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



STRACON ENGINEERING INC.



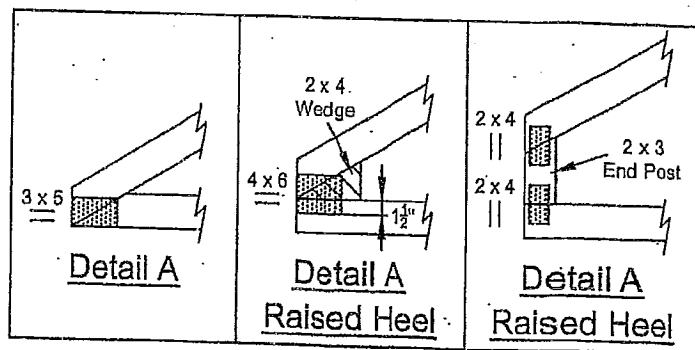
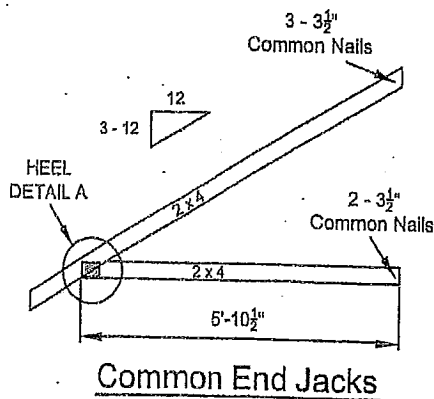
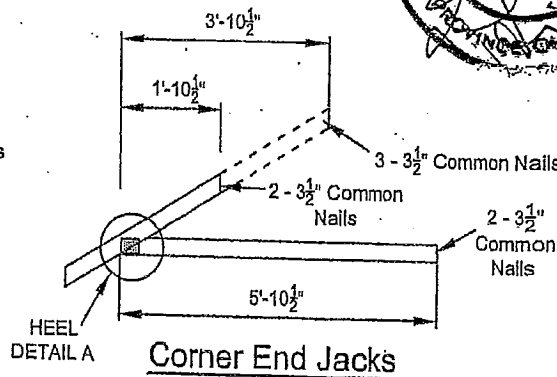
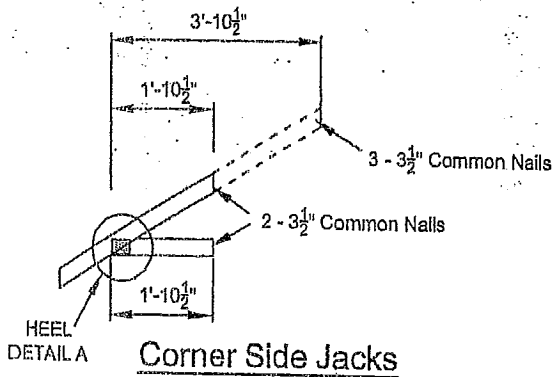
LUMBER SPECIFICATION

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

DESIGN LOAD

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

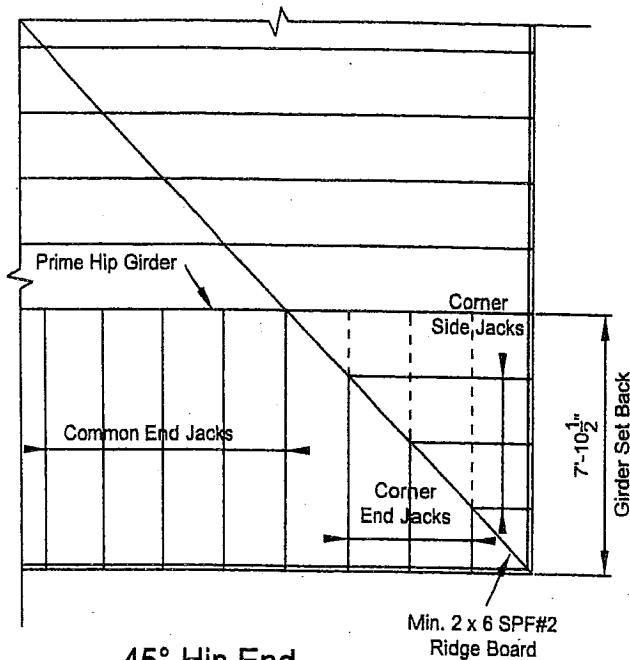
TOTAL LOAD : 50.5 P.S.F



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

CS-51008

STRACON ENGINEERING INC.



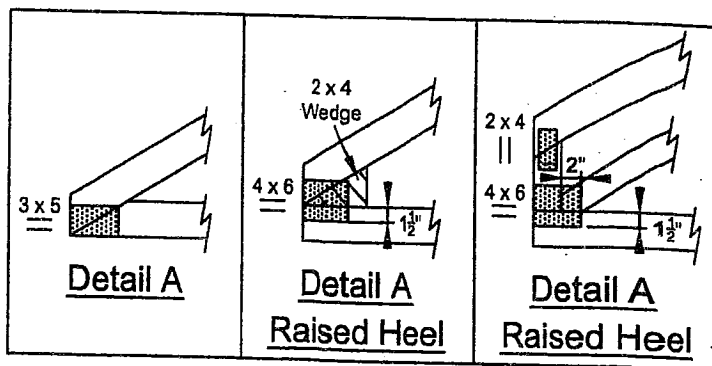
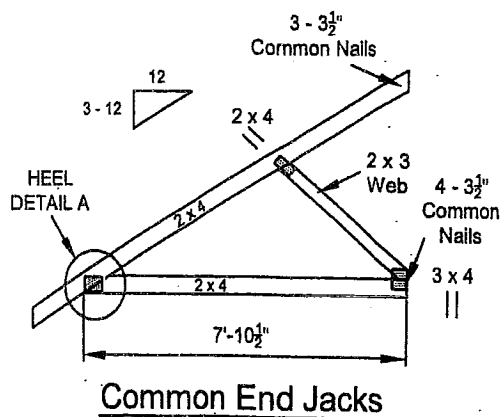
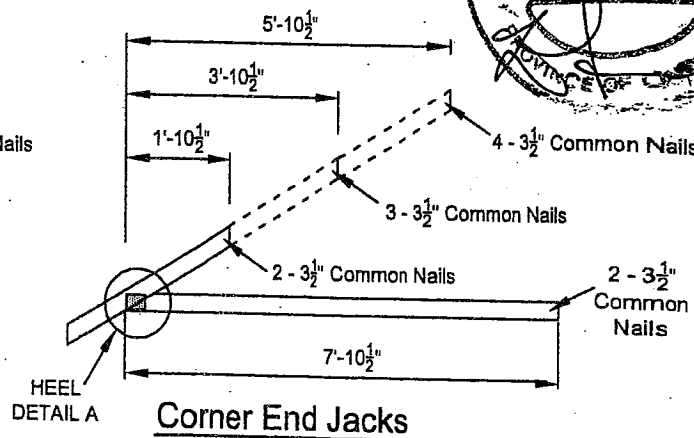
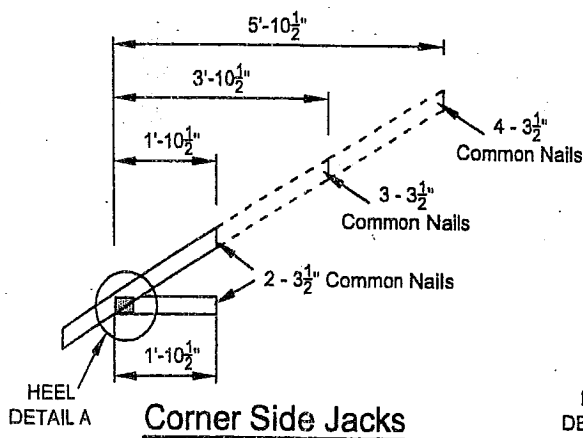
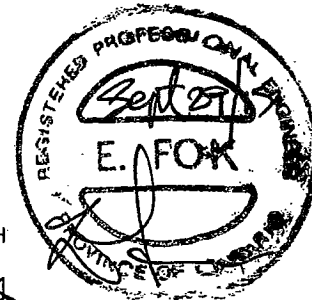
45° Hip End

LUMBER SPECIFICATION

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

DESIGN LOAD

TOP CHORD SNOW LOAD : 34.8 P.S.F.
 TOP CHORD DEAD LOAD : 3.0 P.S.F.
 BOTTOM CHORD LIVE LOAD : 0.0 P.S.F.
 BOTTOM CHORD DEAD LOAD : 7.0 P.S.F.
TOTAL LOAD : 44.8 P.S.F



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

CS-71008N

LUS – Double Shear Joist Hangers



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

Material: 18 gauge

Finish: G90 galvanized

Design:

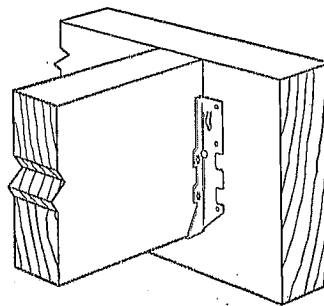
- Factored resistances are in accordance with CSA O86-14.
- Uplift resistances have been increased 15%. No further increase is permitted.
- Wood shear is not considered in the factored resistances given. The specifier must ensure that the joist and header capacities are capable of withstanding these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

Installation:

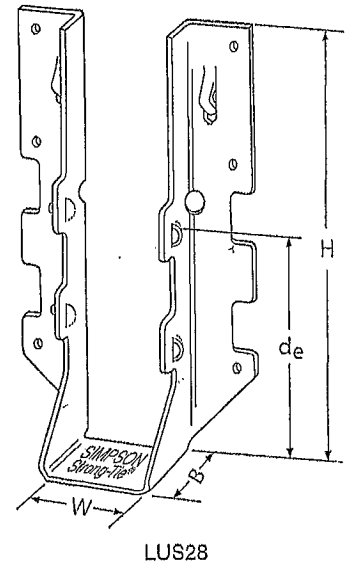
- Use all specified fasteners.
- Nails: 16d = 0.162" dia. x 3½" long common wire, 10d = 0.148" x 3" long common wire.
- Double shear nails must be driven at an angle through the joist or truss into the header to achieve the table loads.
- Not designed for welded or nailer applications.

Options:

- These hangers cannot be modified



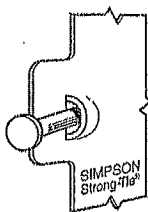
Typical LUS Installation



LUS28

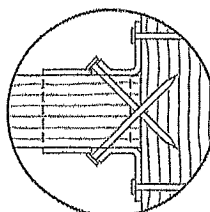
Model No.	Ga.	Dimensions (in.)				Fasteners		Factored Resistance (lb.)			
		W	H	B	d ₁ ¹	Face	Joist	D-Fir-L		S-P-F	
								Uplift (K _p =1.15)	Normal (K _p =1.00)	Uplift (K _p =1.15)	Normal (K _p =1.00)
LUS24	18	1½	3½	1½	1½	(4) 10d	(2) 10d	710	1630	645	1155
LUS24-2	18	3½	3½	2	1½	(4) 16d	(2) 16d	835	2020	590	1435
LUS26	18	1½	4¾	1¾	3¾	(4) 10d	(4) 10d	1420	2170	1290	1630
LUS26-2	18	3½	4¾	2	4	(4) 16d	(4) 16d	1720	2595	1545	1920
LUS26-3	18	4½	4¾	2	3¼	(4) 16d	(4) 16d	1720	2595	1545	2340
LUS28	18	1½	6½	1¾	3¾	(6) 10d	(6) 10d	1420	2520	1290	1790
LUS28-2	18	3½	7	2	4	(6) 16d	(4) 16d	1720	3325	1545	2575
LUS28-3	18	4½	6¼	2	3¼	(6) 16d	(4) 16d	1720	3325	1545	2375
LUS210	18	1½	7 1½	1¾	3¾	(8) 10d	(4) 10d	1420	2785	1290	2210
LUS210-2	18	3½	9	2	6	(8) 16d	(6) 16d	2580	4500	2320	3195
LUS210-3	18	4½	8¾	2	5¼	(8) 16d	(6) 16d	2580	3345	2320	2375

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

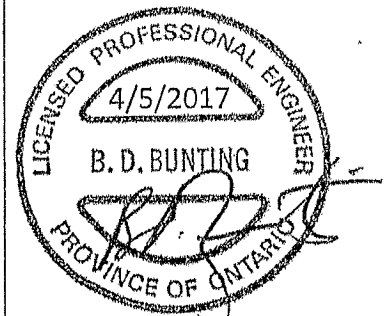


Dome Double Shear Nailing prevents tabs breaking off (available on some models).

U.S. Patent 5,603,580



Double Shear Nailing Top View.



LIMIT
STATES
DESIGN

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

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T-SPEC LUS17 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:

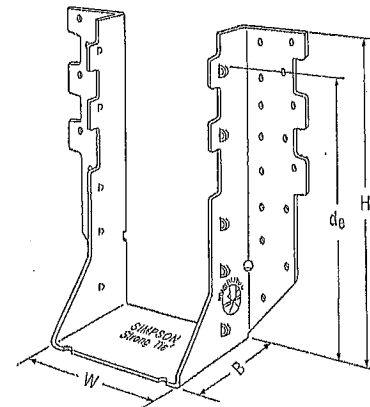
- Factored resistances are in accordance with CSA O86-14.
- Uplift resistances have been increased 15%. No further increase is permitted.
- Wood shear is not considered in the factored resistances given. The specifier must ensure that the joist and header capacities are capable of withstanding these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

Installation:

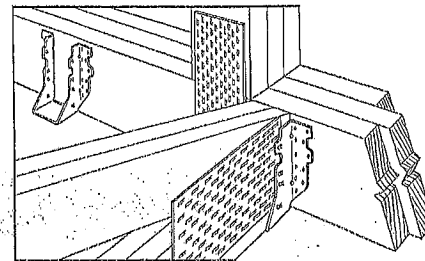
- Use all specified fasteners
- Nails: 16d = 0.162" dia. x 3 1/2" long common wire
- Double shear nails must be driven at an angle through the joist or truss into the header to achieve the table loads
- Not designed for welded or nailer applications

Options:

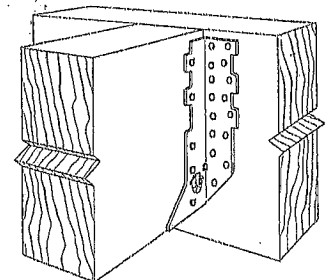
- See current catalogue for options



HHUS410



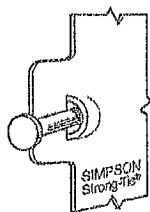
Typical HHUS Installation
(Truss Designer to provide fastener quantity for connecting multiple members together)



Typical HHUS Installation

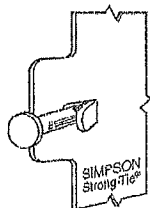
Model No.	Ga.	Dimensions (in.)				Fasteners		Factored Resistance (lb.)			
		W	H	B	d ₀ ¹	Face	Joist	D.Fir-L		S-P-F	
								Uplift	Normal	Uplift	Normal
								(K _p =1.15)	(K _p =1.00)	(K _p =1.15)	(K _p =1.00)
HHUS26-2	14	3 5/16	5 15/16	3	3 15/16	(14) 16d	(6) 16d	2850	7335	2065	5205
HHUS28-2	14	3 5/16	7 7/32	3	6 5/32	(22) 16d	(8) 16d	3765	8940	2675	6345
HHUS210-2	14	3 5/16	9 9/32	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	4 6 1/16	8 29/32	3	7 27/32	(30) 16d	(10) 16d	4745	10545	4310	7485
HHUS46	14	3 3/8	5 15/32	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. d₀ is the distance from the seat of the hanger to the highest joist nail.

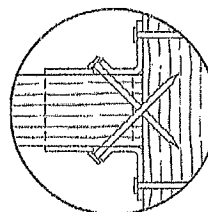


Double Double Shear Nailing prevents tabs breaking off (available on some models).

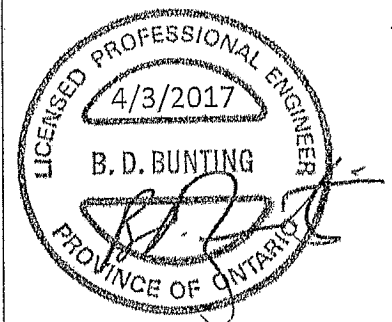
U.S. Patent 5,603,690



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



Double Shear Nailing Top View.



LIMIT
STATES
DESIGN

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

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T-SPECHHUS17-3/17 exp. 6/19

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