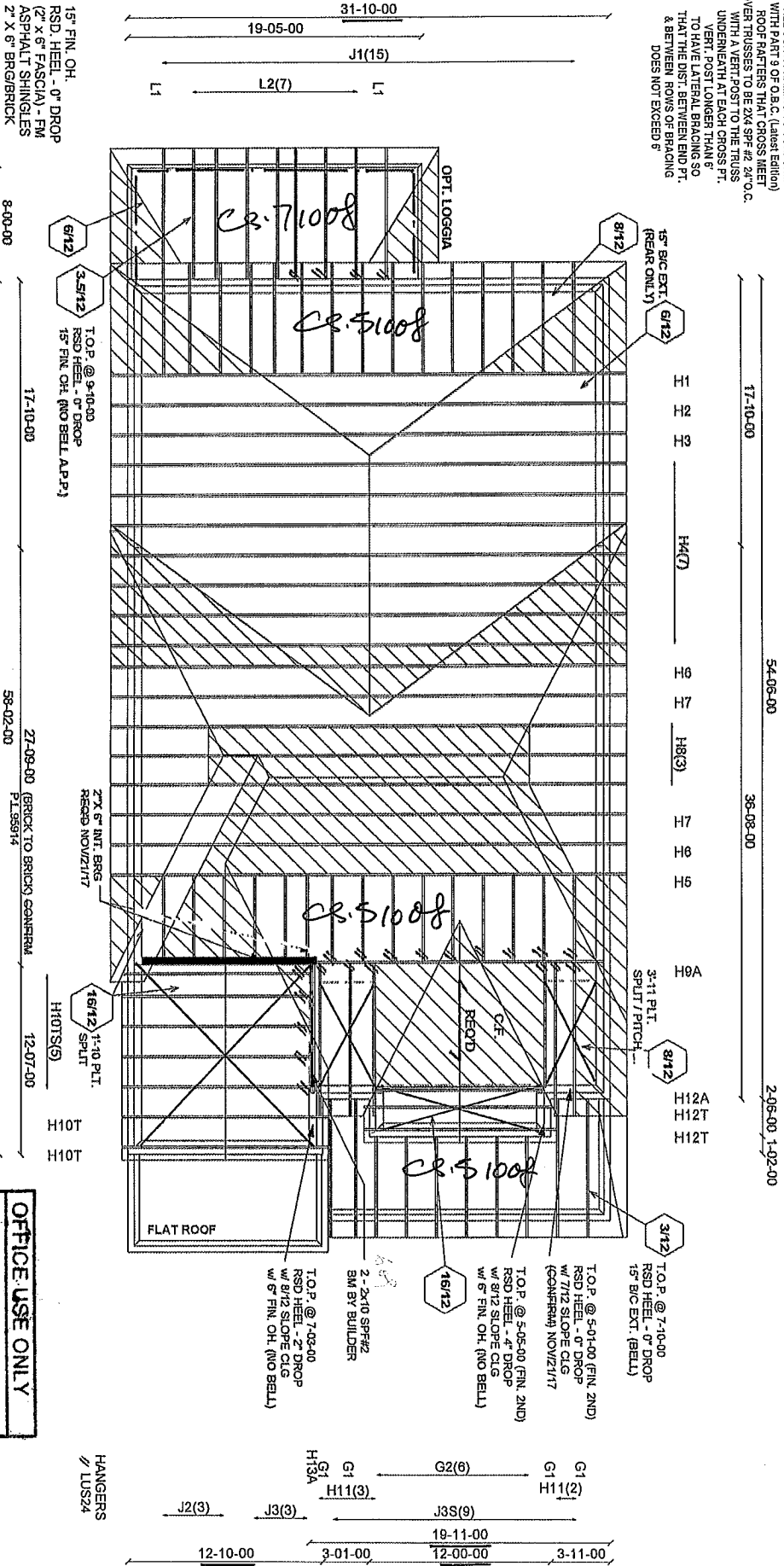


ALPA-BARRIE

ALL CONV. FRAMING TO CONFORM WITH PART 9 OF O.B.C. (Latest Edition) ROOF RAFTERS THAT CROSS MEET OVER TRUSSES TO BE 2X4 SPT #2 24" O.C. WITH A VERT. POST TO THE TRUSS UNDERNEATH AT EACH CROSS PT. VERT. POST LONGER THAN 8' TO HAVE LATERAL BRACING SO THAT THE DIST. BETWEEN END PT. & BETWEEN ROWS OF BRACING DOES NOT EXCEED 8'

15' FIN. OH.
RSD. HEEL - 0" DROP
(2" x 6" FASCI) - FM
ASPHALT SHINGLES
2" x 6" BRG/BRICK
CONFORM TRUSS LAYOUT/DIRECTION
P.L. 95914



OFFICE USE ONLY
ENGINEERED FROM
A- 18023171 TO
A- 18023187

CONVENTIONAL
FRAMING BY
OTHERS



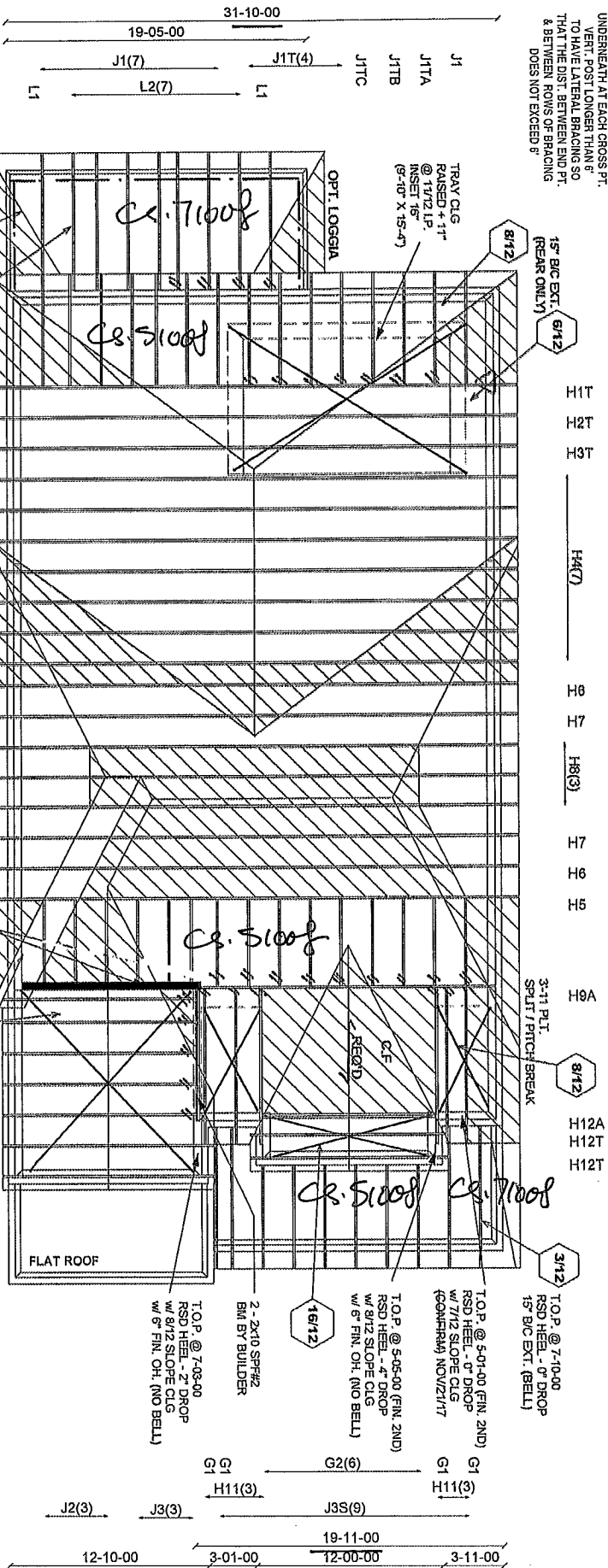
Job Track: 45147
Layout ID: 292576
Plan Log: 95914

Builder / Location: GOLD PARK HOMES / VAUGHAN
Project: PINE VALLEY
Date: 1/16/2018 Designer: AMANDA

Model / Elevation: CLEVERDEN
4003 REV1 / A
SID & OPT LOGE IN

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.

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



OFFICE USE ONLY
ENGINEERED FROM
A-18023174 TO
A-18023194



CONVENTIONAL
FRAMING BY
OTHERS

15" FIN. OH.
RSD. HEEL - 0" DROP
(2" x 6" FASCIA) - FM
ASPHALT SHINGLES
2" X 6" BRG/BRICK

8-10-00	17-10-00	27-09-00 (BACK TO BRICK) GSEHRM	12-07-00
		PL95974	
		56-02-00	

Job Track:	45147
Layout ID:	292577
Plan Log:	95914

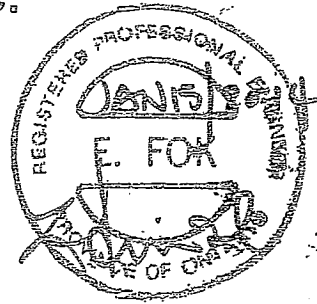
Builder / Location:	GOLD PARK HOMES / VAUGHAN	
Project:	PINE VALLEY	
Date:	7/16/2018	Designer: AMANDA

Model / Elevation: 4003 REV1 / A OPT TRAY QR OPT LOGG RA

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

Stracon Engineering Inc.

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



RESPONSIBILITIES

1. Stracon Engineering Inc. is responsible for the design of trusses as individual components.
2. It is the responsibility of others to ascertain that the design loads utilized on this drawing meet or exceed the actual dead load imposed by the structure and the live load imposed by the local building code or the authorities with jurisdictions.
3. All dimensions are to be verified by owner contractor, architect or other authority before manufacture.
4. Stracon Engineering Inc. bears no responsibility for the erection of the trusses. Persons erecting trusses are cautioned to seek professional advice regarding temporary and permanent bracing system. Bracing shown on Stracon Engineering Inc. drawings is specified for the truss as a component only and forms an integral part of the truss design.
5. It is the truss manufacture's responsibility to ensure that trusses are manufactured in conformance with Stracon Engineering Inc. specifications outlined below.

SPECIFICATIONS

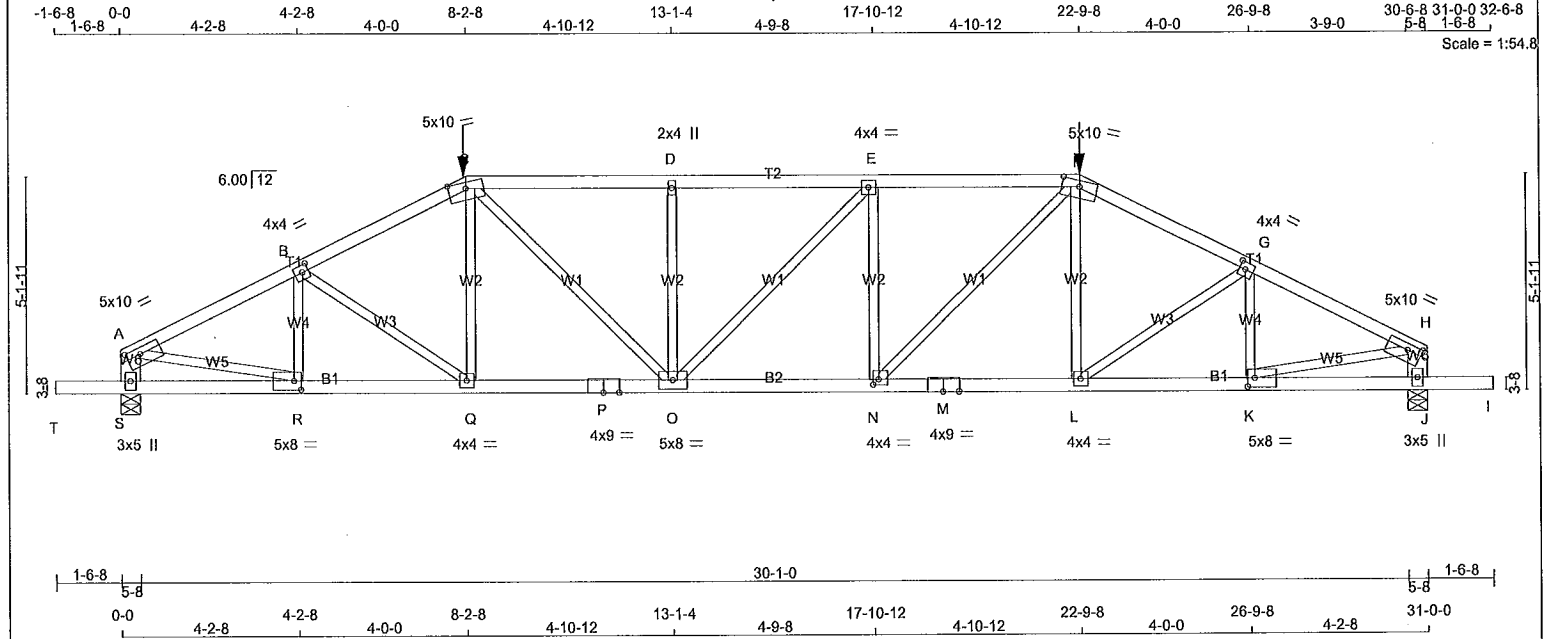
1. Trusses designed by Stracon Engineering Inc. conforms to the relevant section of the Ontario Building Code of Canada (Part 9 or Part 4) or to the Canadian code for farm buildings, whichever applies to the building type indicated on the drawings as well as to the procedures established by the truss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

January 15, 2014

JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
292576	H1	1	1	TRUSS DESC.	

Alpa Roof Truss, Maple

Version 8.200 S Jan 6 2018 MiTek Industries, Inc. Thu Feb 15 14:05:53 2018 Page 1
ID:MF8ilriaTok7DlbpT4B71Xys4PG-7R4ySaShCsKrbKw2M1SKY3etfcFJA1fRbeFXzktzi



LUMBER	N. L. G. A. RULES	CHORDS	SIZE	LUMBER	DESCR.
A - C	2x4	DRY	No.2	SPF	
C - F	2x4	DRY	1650F 1.5E	SPF	
F - H	2x4	DRY	No.2	SPF	
S - A	2x6	DRY	No.2	SPF	
J - H	2x6	DRY	No.2	SPF	
T - P	2x4	DRY	No.2	SPF	
P - M	2x4	DRY	No.2	SPF	
M - I	2x4	DRY	No.2	SPF	

ALL WEBS EXCEPT	2x3	DRY	No.2	SPF
-----------------	-----	-----	------	-----

DRY: SEASONED LUMBER.

PLATES (table is in inches)

JT	TYPE	PLATES	W	LEN	Y	X
A	TMVW-t	MT20	5.0	10.0	1.75	4.00
B	TMVW-t	MT20	4.0	4.0	2.00	1.75
C	TTVW-m	MT20	5.0	10.0	1.75	5.00
D	TMVW-t	MT20	2.0	4.0		
E	TMVW-t	MT20	4.0	4.0		
F	TTVW-m	MT20	5.0	10.0	1.75	5.00
G	TMVW-t	MT20	4.0	4.0	2.00	1.75
H	TMVW-t	MT20	5.0	10.0	1.75	4.00
J	BMV1+p	MT20	3.0	5.0		
K	BMVW-t	MT20	5.0	8.0	2.50	2.00
L	BMVW-t	MT20	4.0	4.0		
M	BS-t	MT20	4.0	9.0		
N	BMVW-t	MT20	4.0	4.0	1.50	1.50
O	BMVW-t	MT20	5.0	8.0		
P	BS-t	MT20	4.0	9.0		
Q	BMVW-t	MT20	4.0	4.0		
R	BMVW-t	MT20	5.0	8.0	2.50	2.00
S	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	
JT	VERT	HORZ	DOWN	HORZ	UPLIFT	IN-SX	IN-SX		
S	2939	0	2939	0	0	5-8	3-13		
J	2939	0	2939	0	0	5-8	3-13		

UNFACTORED REACTIONS

1ST LCASE	MAX / MIN. COMPONENT REACTIONS								
JT	COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL		
S	2099	1263 / 0	0 / 0	0 / 0	0 / 0	836 / 0	0 / 0		
J	2099	1263 / 0	0 / 0	0 / 0	0 / 0	836 / 0	0 / 0		

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

BRACING

TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 2.94 FT.
MAX. UNBRACED BOTTOM CHORD LENGTH = 10.00 FT OR RIGID CEILING DIRECTLY APPLIED.

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

LOADING

TOTAL LOAD CASES: (4)

CHORDS		FACTORED		WEBS		FACTORED	
MEMB.	FORCE (LBS)	VERT. LOAD (PLF)	LC1 MAX	MAX. UNBRACED LENGTH	MEMB.	FORCE (LBS)	MAX. CSI (LC)
FR-TO		FROM TO			FR-TO		
A-B	-4273 / 0	-78.0 -78.0	0.50 (1)	3.00	R-B	-522 / 0	0.10 (1)
B-C	-4432 / 0	-78.0 -78.0	0.50 (1)	2.94	B-Q	0 / 141	0.03 (1)
C-D	-4935 / 0	-153.5 -153.5	0.67 (1)	3.04	Q-C	0 / 184	0.07 (4)
D-E	-4935 / 0	-153.5 -153.5	0.67 (1)	3.03	C-O	0 / 1384	0.34 (1)
E-F	-4938 / 0	-153.5 -153.5	0.68 (1)	3.02	O-D	-801 / 0	0.32 (1)
F-G	-4431 / 0	-78.0 -78.0	0.50 (1)	2.94	O-E	-3 / 0	0.00 (1)
G-H	-4273 / 0	-78.0 -78.0	0.50 (1)	3.00	N-E	-802 / 0	0.32 (1)
S-A	-2716 / 0	0.0 0.0	0.19 (1)	6.29	N-F	0 / 1388	0.34 (1)
J-H	-2716 / 0	0.0 0.0	0.19 (1)	6.29	L-F	0 / 183	0.07 (4)
					L-G	0 / 140	0.03 (1)
T-S	0 / 0	-96.5 -96.5	0.17 (1)	10.00	K-G	-522 / 0	0.10 (1)
S-R	0 / 0	-36.4 -36.4	0.15 (4)	10.00	A-R	0 / 3890	0.96 (1)
R-Q	0 / 3833	-36.4 -36.4	0.77 (1)	10.00	K-H	0 / 3890	0.96 (1)
Q-P	0 / 3951	-36.4 -36.4	0.79 (1)	10.00			
P-O	0 / 3951	-36.4 -36.4	0.79 (1)	10.00			
O-N	0 / 4938	-36.4 -36.4	0.96 (1)	10.00			
N-M	0 / 3951	-36.4 -36.4	0.79 (1)	10.00			
M-L	0 / 3951	-36.4 -36.4	0.79 (1)	10.00			
L-K	0 / 3833	-36.4 -36.4	0.77 (1)	10.00			
K-J	0 / 0	-36.4 -36.4	0.15 (4)	10.00			
J-I	0 / 0	-96.5 -96.5	0.17 (1)	10.00			

FACTORED CONCENTRATED LOADS (LBS)

JT	LOC.	LC1	MAX-	MAX+	FACE	DIR.	TYPE
C	8-2-8	-467	-467	-	FRONT	VERT	TOTAL
F	22-9-8	-467	-467	-	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 = 8-2-8
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 (0.23")
ALLOWABLE DEFL.(TL)= L/360 (1.03")
CALCULATED VERT. DEFL.(TL)= L/817 (0.46")

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

CSI: TC=0.68/1.00 (E-F:1), BC=0.96/1.00 (N-O:1), WB=0.96/1.00 (H-K:1), SS=0.38/1.00 (E-F:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

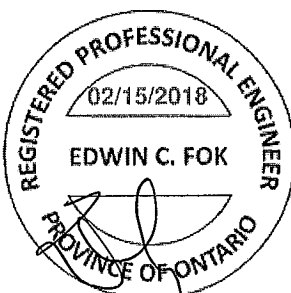
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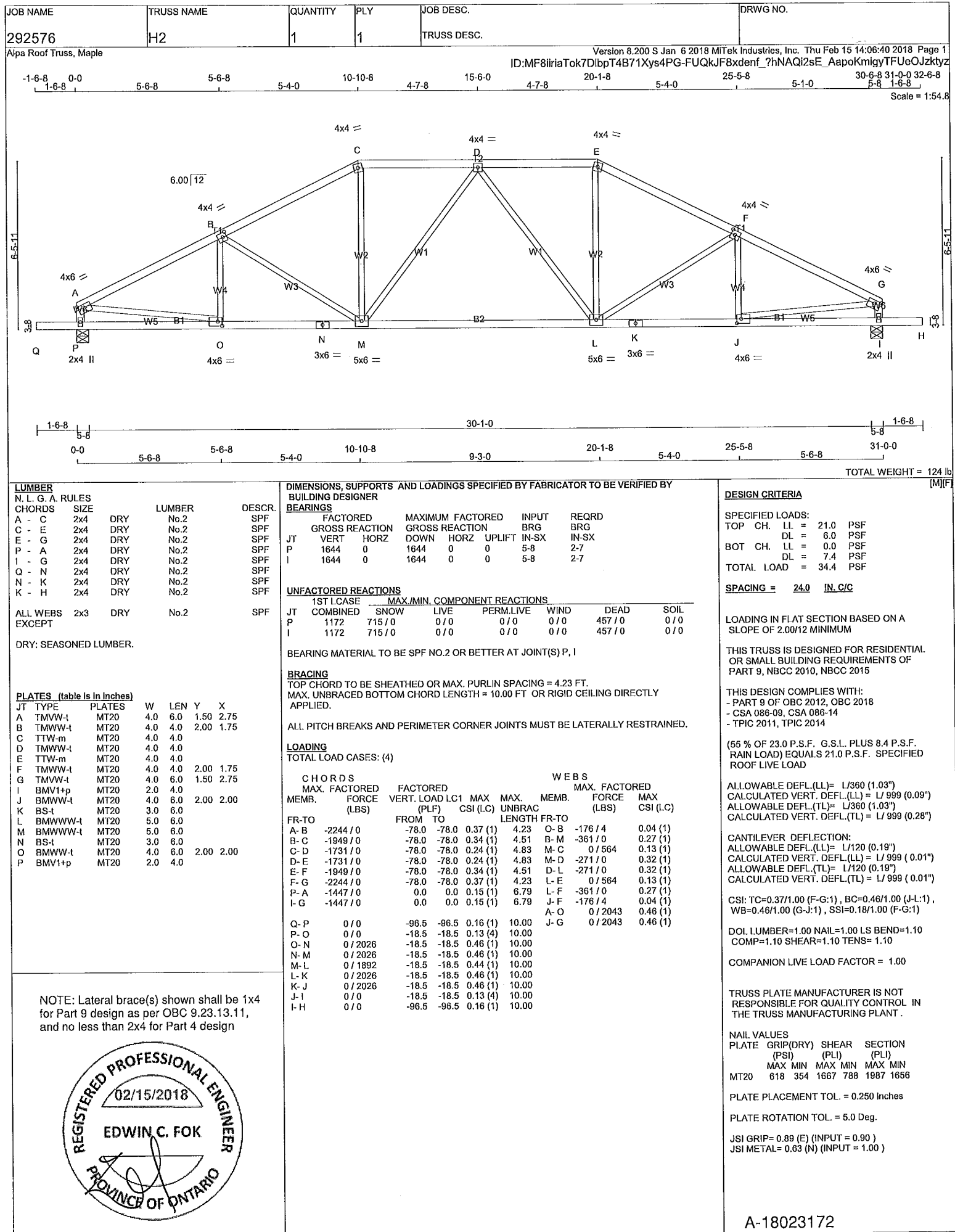
TRUSS PLATE MANUFACTURER IS NOT RESPONSIBLE FOR QUALITY CONTROL IN THE TRUSS MANUFACTURING PLANT.

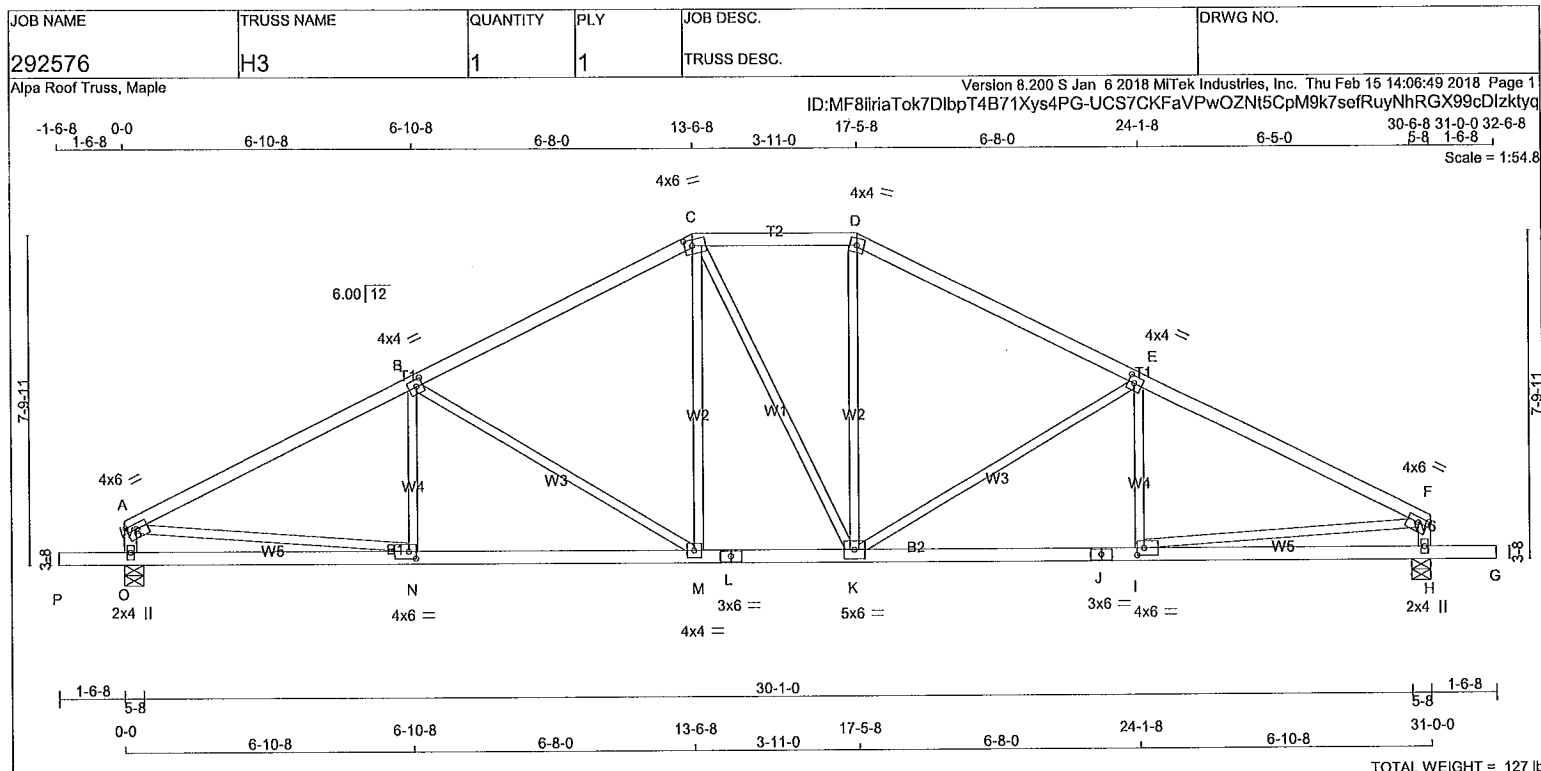
NAIL VALUES	PLATE	GRIP(DRY)	SHEAR	SECTION
	(PSI)	(PLI)		
	MAX	MIN	MAX	MIN
MT20	618	354	1667	788 1987 1656

A-18023171

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	MAXIMUM FACTORED	INPUT	REQRD	SPECIFIED LOADS:			
C - D	2x4	DRY	No.2	SPF	GROSS REACTION	GROSS REACTION	BRG	BRG	TOP CH. LL = 21.0 PSF			
D - F	2x4	DRY	No.2	SPF	JT VERT HORZ	DOWN HORZ UPLIFT	IN-SX	IN-SX	DL = 6.0 PSF			
O - A	2x4	DRY	No.2	SPF	O 1644 0	1644 0 0	5-8	2-7	BOT CH. LL = 0.0 PSF			
H - F	2x4	DRY	No.2	SPF	H 1644 0	1644 0 0	5-8	2-7	DL = 7.4 PSF			
P - L	2x4	DRY	No.2	SPF					TOTAL LOAD = 34.4 PSF			
L - J	2x4	DRY	No.2	SPF					SPACING = 24.0 IN./C/C			
J - G	2x4	DRY	No.2	SPF								
ALL WEBS 2x3 DRY No.2 EXCEPT				SPF					LOADING IN FLAT SECTION BASED ON A SLOPE OF 2.00/12 MINIMUM			
DRY: SEASONED LUMBER.								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 (0.09") ALLOWABLE DEFL.(TL)= L/360 (1.03") CALCULATED VERT. DEFL.(TL)= L/999 (0.21")				
								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=0.61/1.00 (A-B:1), BC=0.43/1.00 (M-N:1), WB=0.81/1.00 (B-M:1), SSI=0.23/1.00 (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= 0.85 (N) (INPUT = 0.90) JSI METAL= 0.63 (J) (INPUT = 1.00)				
								A-18023173				

PLATES (table is in inches)						
JT	TYPE	PLATES	W	LEN	Y	X
A	TMVW-t	MT20	4.0	6.0	1.50	2.75
B	TMWW-t	MT20	4.0	4.0	2.00	1.75
C	TTWW-m	MT20	4.0	6.0	1.75	2.25
D	TTW-m	MT20	4.0	4.0		
E	TMWW-t	MT20	4.0	4.0	2.00	1.75
F	TMVW-t	MT20	4.0	6.0	1.50	2.75
H	BMV1+p	MT20	2.0	4.0		
I	BMWW-t	MT20	4.0	6.0	2.00	2.00
J	BS-t	MT20	3.0	6.0		
K	BMWWW-t	MT20	5.0	6.0		
L	BS-t	MT20	3.0	6.0		
M	BMWW-t	MT20	4.0	4.0		
N	BMWW-t	MT20	4.0	6.0	2.00	2.00
O	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

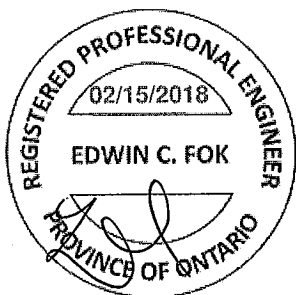
02/15/2018

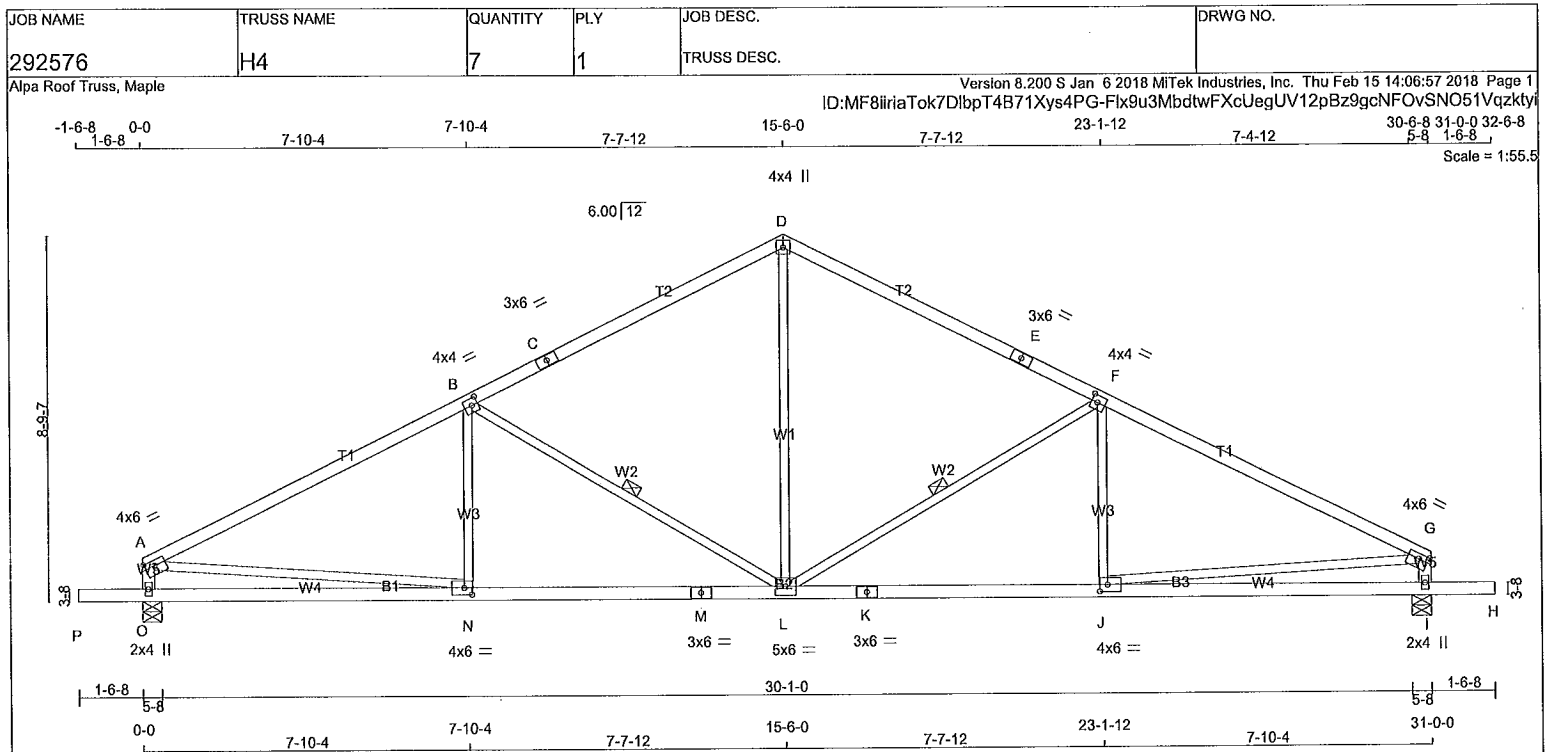
REGISTERED PROFESSIONAL ENGINEER

EDWIN C. FOK

PROVINCE OF ONTARIO

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





LUMBER

N. L. G. A. RULES

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

SPF

DRY: SEASONED LUMBER.

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		
O	1644	0	1644	0	5-8	2-7
I	1644	0	1644	0	5-8	2-7

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 = 3.64 FT.
MAX. UNBRACED BOTTOM CHORD LENGTH = 10.00 FT OR RIGID CEILING DIRECTLY APPLIED.

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

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

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

LOADING

TOTAL LOAD CASES: (4)

CHORDS					WEBS				
MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	LC1 MAX. CSI (LC)	MAX. UNBRACED LENGTH	MEMB.	MAX. FACTORED FORCE (LBS)	MAX. CSI (LC)		
FR-TO		FROM	TO		FR-TO				
A-B	-2233 / 0	-78.0	-78.0	0.83 (1)	3.64	L-D	0 / 929	0.21 (1)	
B-C	-1572 / 0	-78.0	-78.0	0.70 (1)	4.33	L-F	-760 / 0	0.42 (1)	
C-D	-1572 / 0	-78.0	-78.0	0.70 (1)	4.33	J-F	-30 / 109	0.04 (4)	
D-E	-1572 / 0	-78.0	-78.0	0.70 (1)	4.33	B-L	-760 / 0	0.42 (1)	
E-F	-1572 / 0	-78.0	-78.0	0.70 (1)	4.33	N-B	-30 / 109	0.04 (4)	
F-G	-2233 / 0	-78.0	-78.0	0.83 (1)	3.64	A-N	0 / 2035	0.46 (1)	
O-A	-1435 / 0	0.0	0.0	0.14 (1)	6.82	J-G	0 / 2035	0.46 (1)	
I-G	-1435 / 0	0.0	0.0	0.14 (1)	6.82				
P-O	0 / 0	-96.5	-96.5	0.16 (1)	10.00				
O-N	0 / 0	-18.5	-18.5	0.26 (4)	10.00				
N-M	0 / 2026	-18.5	-18.5	0.46 (1)	10.00				
M-L	0 / 2026	-18.5	-18.5	0.46 (1)	10.00				
L-K	0 / 2026	-18.5	-18.5	0.46 (1)	10.00				
K-J	0 / 2026	-18.5	-18.5	0.46 (1)	10.00				
J-I	0 / 0	-18.5	-18.5	0.26 (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 (0.10")
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/999 (0.01")

CSI: TC=0.83/1.00 (F-G:1), BC=0.46/1.00 (J-L:1), WB=0.46/1.00 (G-J:1), SS=0.26/1.00 (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

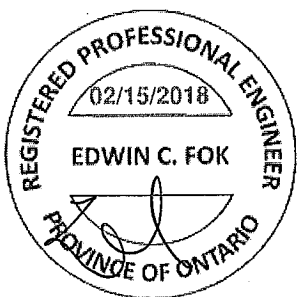
PLATE GRIP(DRY) SHEAR SECTION (PLI)
MAX MIN MAX MIN MAX MIN
MT20 618 354 1667 788 1987 1656

PLATE PLACEMENT TOL. = 0.250 inches

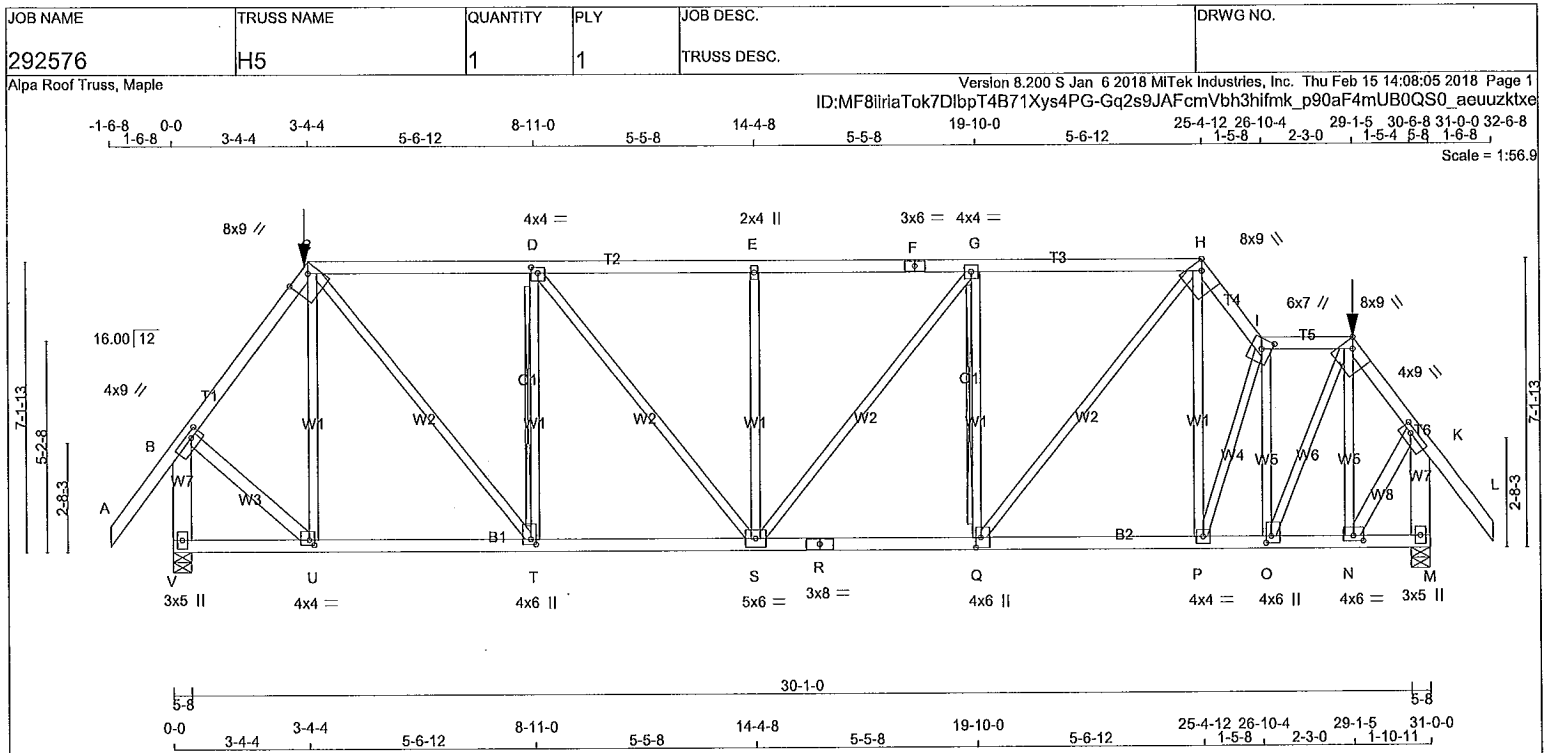
PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.89 (N) (INPUT = 0.90)
JSI METAL= 0.62 (M) (INPUT = 1.00)

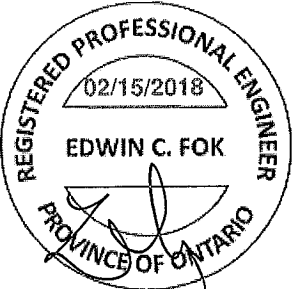
NOTE: Lateral brace(s) shown shall be 1x4 for Part 9 design as per OBC 9.23.13.11, and no less than 2x4 for Part 4 design



A-18023174



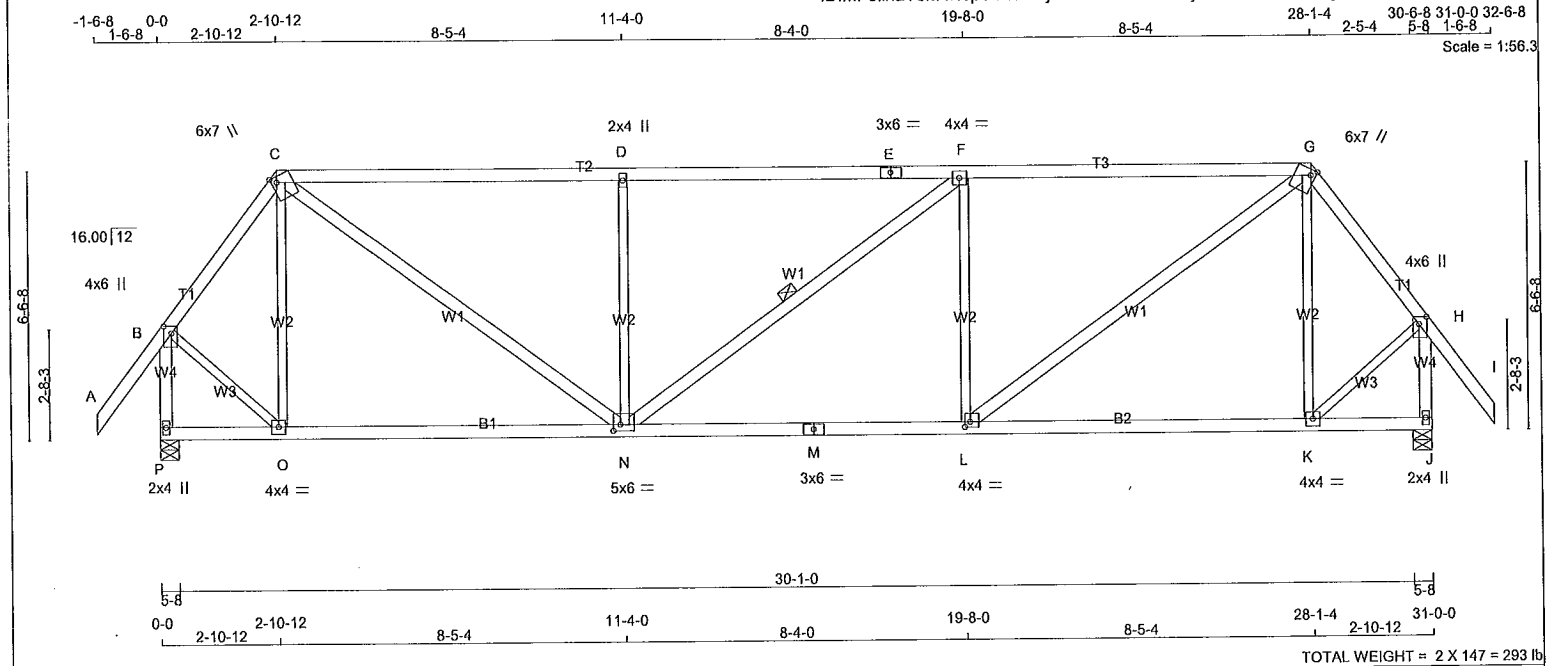
LUMBER										DIMENSIONS, SUPPORTS AND LOADINGS SPECIFIED BY FABRICATOR TO BE VERIFIED BY BUILDING DESIGNER										DESIGN CRITERIA									
N. L. G. A. RULES										BEARINGS										SPECIFIED LOADS:									
CHORDS SIZE																				TOP CH. LL = 21.0 PSF									
LUMBER																				DL = 6.0 PSF									
DESCR.																				BOT CH. LL = 0.0 PSF									
A - C 2x4 DRY No.2 SPF										FACTORED										DL = 7.4 PSF									
C - F 2x4 DRY 1650F 1.5E SPF										GROSS REACTION										TOTAL LOAD = 34.4 PSF									
F - H 2x4 DRY 1650F 1.5E SPF										DOWN HORZ UPLIFT IN-SX																			
H - I 2x4 DRY No.2 SPF										JT VERT 3002 0 3002 0 0 5-8 4-4																			
I - J 2x4 DRY No.2 SPF										M 3046 0 3046 0 0 5-8 4-6																			
J - L 2x4 DRY No.2 SPF																													
V - B 2x6 DRY No.2 SPF																													
M - K 2x6 DRY No.2 SPF																													
V - R 2x4 DRY No.2 SPF																													
R - M 2x4 DRY No.2 SPF																													
ALL WEBS 2x3 DRY No.2 SPF																													
EXCEPT																													
B - U 2x4 DRY No.2 SPF																													
N - K 2x4 DRY No.2 SPF																													
DRY: SEASONED LUMBER.																													



JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
292576	H6	2	1	TRUSS DESC.	

Alpa Roof Truss, Maple

Version 8.200 S Jan 6 2018 MiTek Industries, Inc. Thu Feb 15 14:08:13 2018 Page 1
ID:MF8ilriaTok7DlbpT4B71Xys4PG-1NXur2GGJdVTeHIF7Sts7rLy6JZW3l8erDW3AQzktbW



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

DRY: SEASONED LUMBER.

PLATES (table is in inches)

JT	TYPE	PLATES	W	LEN	Y	X
B	TMVW+p	MT20	4.0	6.0	2.00	2.25
C	TTWW+m	MT20	6.0	7.0	Edge	1.50
D	TMVW+w	MT20	2.0	4.0		
E	TS-t	MT20	3.0	6.0		
F	TMVW-t	MT20	4.0	4.0		
G	TTWW+m	MT20	6.0	7.0	Edge	1.50
H	TMVW+p	MT20	4.0	6.0	2.00	2.25
J	BMV1+p	MT20	2.0	4.0		
K	BMVW-t	MT20	4.0	4.0		
L	BMVW-t	MT20	4.0	4.0	1.50	1.50
M	BS-t	MT20	3.0	6.0		
N	BMVW-t	MT20	5.0	6.0	1.75	2.00
O	BMVW-t	MT20	4.0	4.0		
P	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	IN-SX	IN-SX	IN-SX	IN-SX
JT	1625	0	1625	0	0	5-8	2-6	2-6
P	1625	0	1625	0	0	5-8	2-6	2-6

UNFACTORED REACTIONS

JT	1ST LCASE		MAX/MIN. COMPONENT REACTIONS		WIND	DEAD	SOIL
	COMBINED	SNOW	LIVE	PERM.LIVE			
JT	1156	720 / 0	0 / 0	0 / 0	0 / 0	435 / 0	0 / 0
P	1156	720 / 0	0 / 0	0 / 0	0 / 0	435 / 0	0 / 0

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

BRACING

TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 4.47 FT.
MAX. UNBRACED BOTTOM CHORD LENGTH = 10.00 FT OR RIGID CEILING DIRECTLY APPLIED.

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

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

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

LOADING

TOTAL LOAD CASES: (4)

CHORDS					W E B S				
MAX. FACTORED		FACTORED			MAX. FACTORED				
MEMB.	FORCE (LBS)	VERT. LOAD (PLF)	LC1 MAX	CS1 (LC)	MAX. UNBRAC	MEMB.	FORCE (LBS)	MAX CS1 (LC)	
FR-TO		FROM	TO		LENGTH	FR-TO			
A-B	0 / 52	-78.0	-78.0	0.15 (1)	10.00	O-C	-369 / 0	0.26 (1)	
B-C	-1099 / 0	-78.0	-78.0	0.13 (1)	5.89	C-N	0 / 1458	0.23 (1)	
C-D	-1823 / 0	-78.0	-78.0	0.82 (1)	4.48	N-D	-707 / 0	0.49 (1)	
D-E	-1823 / 0	-78.0	-78.0	0.81 (1)	4.47	N-F	0 / 0	0.00 (1)	
E-F	-1823 / 0	-78.0	-78.0	0.81 (1)	4.47	L-F	-707 / 0	0.49 (1)	
F-G	-1824 / 0	-78.0	-78.0	0.82 (1)	4.47	L-G	0 / 1460	0.23 (1)	
G-H	-1099 / 0	-78.0	-78.0	0.13 (1)	5.89	K-G	-370 / 0	0.26 (1)	
H-I	0 / 52	-78.0	-78.0	0.15 (1)	10.00	B-O	0 / 823	0.19 (1)	
P-B	-1625 / 0	0.0	0.0	0.23 (1)	6.49	K-H	0 / 823	0.19 (1)	
J-H	-1625 / 0	0.0	0.0	0.23 (1)	6.49				
P-O	0 / 0	-18.5	-18.5	0.19 (4)	10.00				
O-N	0 / 648	-18.5	-18.5	0.32 (4)	10.00				
N-M	0 / 1824	-18.5	-18.5	0.44 (1)	10.00				
M-L	0 / 1824	-18.5	-18.5	0.44 (1)	10.00				
L-K	0 / 648	-18.5	-18.5	0.32 (4)	10.00				
K-J	0 / 0	-18.5	-18.5	0.19 (4)	10.00				

DESIGN CRITERIA

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

SPACING = 24.0 IN./C/C

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

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

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

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

ALLOWABLE DEFL.(LL)= L/360 (1.03")
CALCULATED VERT. DEFL.(LL)= L/999 (0.08")
ALLOWABLE DEFL.(TL)= L/360 (1.03")
CALCULATED VERT. DEFL.(TL)= L/999 (0.18")

CSI: TC=0.82/1.00 (F-G:1), BC=0.44/1.00 (L-N:1), WB=0.49/1.00 (F-L:1), SSI=0.31/1.00 (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.

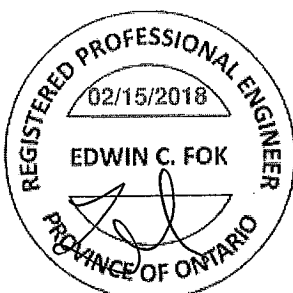
NAIL VALUES
PLATE GRIP(DRY) SHEAR SECTION
(PSI) (PLI) (PLI)
MAX MIN MAX MIN MAX MIN
MT20 618 354 1667 788 1987 1656

PLATE PLACEMENT TOL. = 0.250 inches

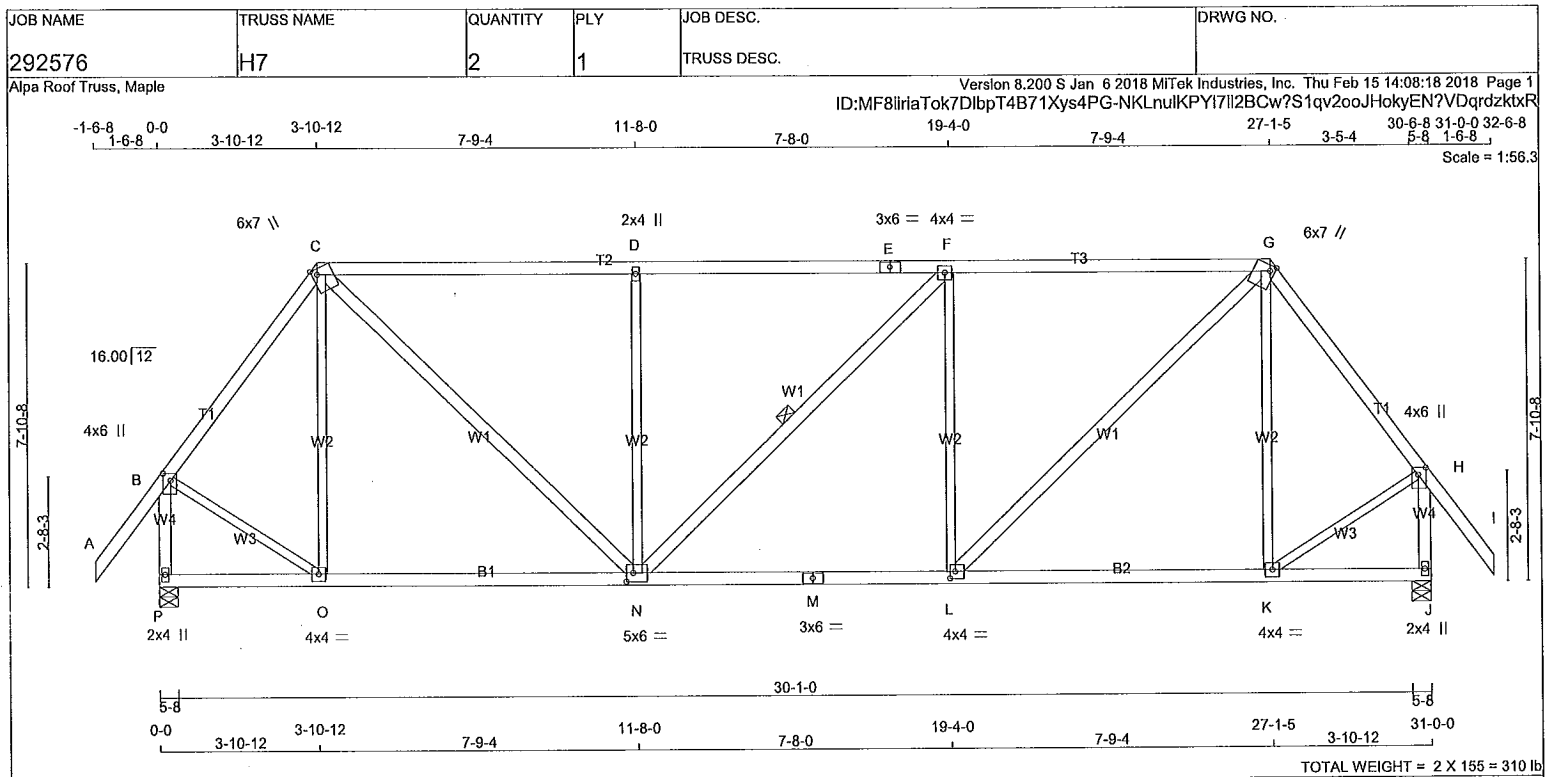
PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.90 (N) (INPUT = 0.90)
JSI METAL= 0.65 (M) (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-18023176



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

DRY: SEASONED LUMBER.

PLATES (table is in inches)

JT	TYPE	PLATES	W	LEN	Y	X
B	TMVW+p	MT20	4.0	6.0	2.00	2.25
C	TTWW+m	MT20	6.0	7.0	Edge	1.50
D	TMW+w	MT20	2.0	4.0		
E	TS-t	MT20	3.0	6.0		
F	TMWW-t	MT20	4.0	4.0		
G	TTWW+m	MT20	6.0	7.0	Edge	1.50
H	TMVW+p	MT20	4.0	6.0	2.00	2.25
J	BMV1+p	MT20	2.0	4.0		
K	BMWW-t	MT20	4.0	4.0		
L	BMWW-t	MT20	4.0	4.0	2.00	1.50
M	BS-t	MT20	3.0	6.0		
N	BMWW-t	MT20	5.0	6.0	2.50	2.00
O	BMWW-t	MT20	4.0	4.0		
P	BMV1+p	MT20	2.0	4.0		

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

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

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

BEARINGS

JT	FACTORED GROSS REACTION		MAXIMUM FACTORED GROSS REACTION		INPUT BRG		REQRD BRG	
	VERT	HORZ	DOWN	HORZ	UPLIFT	IN-SX	IN-SX	
P	1625	0	1625	0	0	5-8	2-6	
J	1625	0	1625	0	0	5-8	2-6	

UNFACTORED REACTIONS

JT	1ST LCASE COMBINED		MAX./MIN. SNOW		LIVE		PERM.LIVE		WIND		DEAD		SOIL	
	VERT	HORZ	DOWN	HORZ	DOWN	HORZ	DOWN	HORZ	DOWN	HORZ	DOWN	HORZ	DOWN	HORZ
P	1156	720	0	0	0	0	0	0	0	0	435	0	0	0
J	1156	720	0	0	0	0	0	0	0	0	435	0	0	0

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

BRACING

TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 4.24 FT.
MAX. UNBRACED BOTTOM CHORD LENGTH = 10.00 FT OR RIGID CEILING DIRECTLY APPLIED.

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

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

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

LOADING

TOTAL LOAD CASES: (4)

MEMB.	CHORDS MAX. FACTORED FORCE (LBS)		FACTORED VERT. LOAD (PLF)		MAX. CSI (LC)		WEBS MAX. FACTORED FORCE (LBS)		MAX. CSI (LC)	
	FR-TO	FROM TO	FR-TO	FROM TO	FR-TO	FROM TO	FR-TO	FROM TO	FR-TO	FROM TO
A-B	0/52	-78.0	-78.0	0.15 (1)	10.00	0-C	-272/0	0.32 (1)		
B-C	-1157/0	-78.0	-78.0	0.25 (1)	5.65	C-N	0/1142	0.18 (1)		
C-D	-1506/0	-78.0	-78.0	0.82 (1)	4.25	N-D	-651/0	0.76 (1)		
D-E	-1507/0	-78.0	-78.0	0.82 (1)	4.24	N-F	-1/0	0.00 (1)		
E-F	-1507/0	-78.0	-78.0	0.82 (1)	4.24	L-F	-651/0	0.76 (1)		
F-G	-1507/0	-78.0	-78.0	0.82 (1)	4.24	L-G	0/1144	0.18 (1)		
G-H	-1157/0	-78.0	-78.0	0.25 (1)	5.65	K-G	-273/0	0.32 (1)		
H-I	0/52	-78.0	-78.0	0.15 (1)	10.00	B-O	0/796	0.18 (1)		
P-B	-1606/0	0.0	0.0	0.23 (1)	6.52	K-H	0/795	0.18 (1)		
J-H	-1605/0	0.0	0.0	0.23 (1)	6.52					
P-O	0/0	-18.5	-18.5	0.17 (4)	10.00					
O-N	0/686	-18.5	-18.5	0.28 (4)	10.00					
N-M	0/1508	-18.5	-18.5	0.36 (1)	10.00					
M-L	0/1508	-18.5	-18.5	0.36 (1)	10.00					
L-K	0/686	-18.5	-18.5	0.29 (4)	10.00					
K-J	0/0	-18.5	-18.5	0.17 (4)	10.00					

DESIGN CRITERIA

SPECIFIED LOADS:

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

SPACING = 24.0 IN. C/C

LOADING IN FLAT SECTION BASED ON 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 (0.14")

CSI: TC=0.82/1.00 (F-G:1), BC=0.36/1.00 (L-N:1), WB=0.78/1.00 (F-L:1), SSI=0.28/1.00 (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

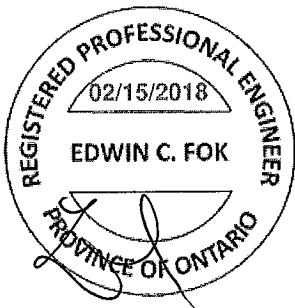
PLATE	GRIP(DRY)	SHEAR	SECTION
	(PSI)	(PLI)	(PLI)
MT20	618	354	1687
	1687	788	1987

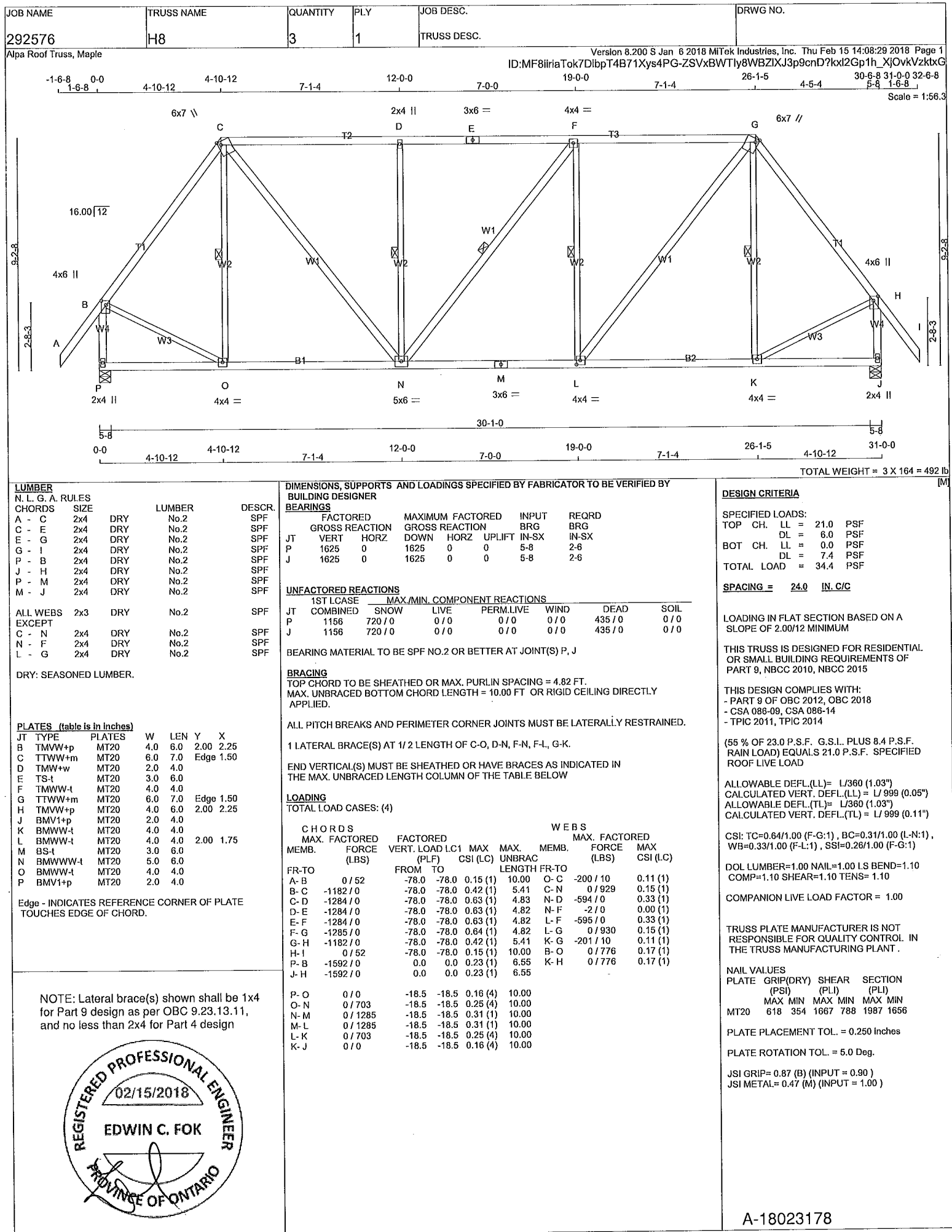
PLATE PLACEMENT TOL. = 0.250 Inches

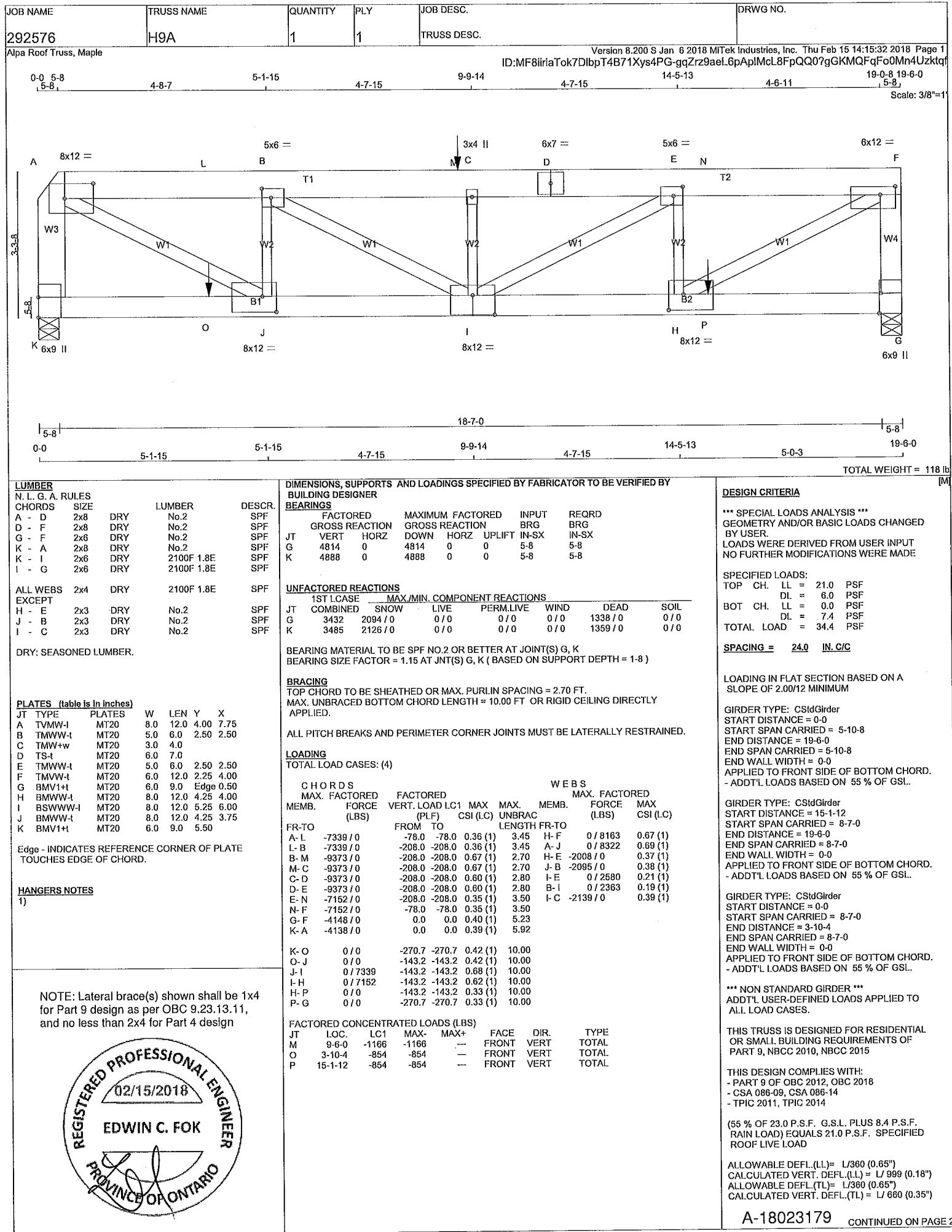
PLATE ROTATION TOL. = 5.0 Deg.

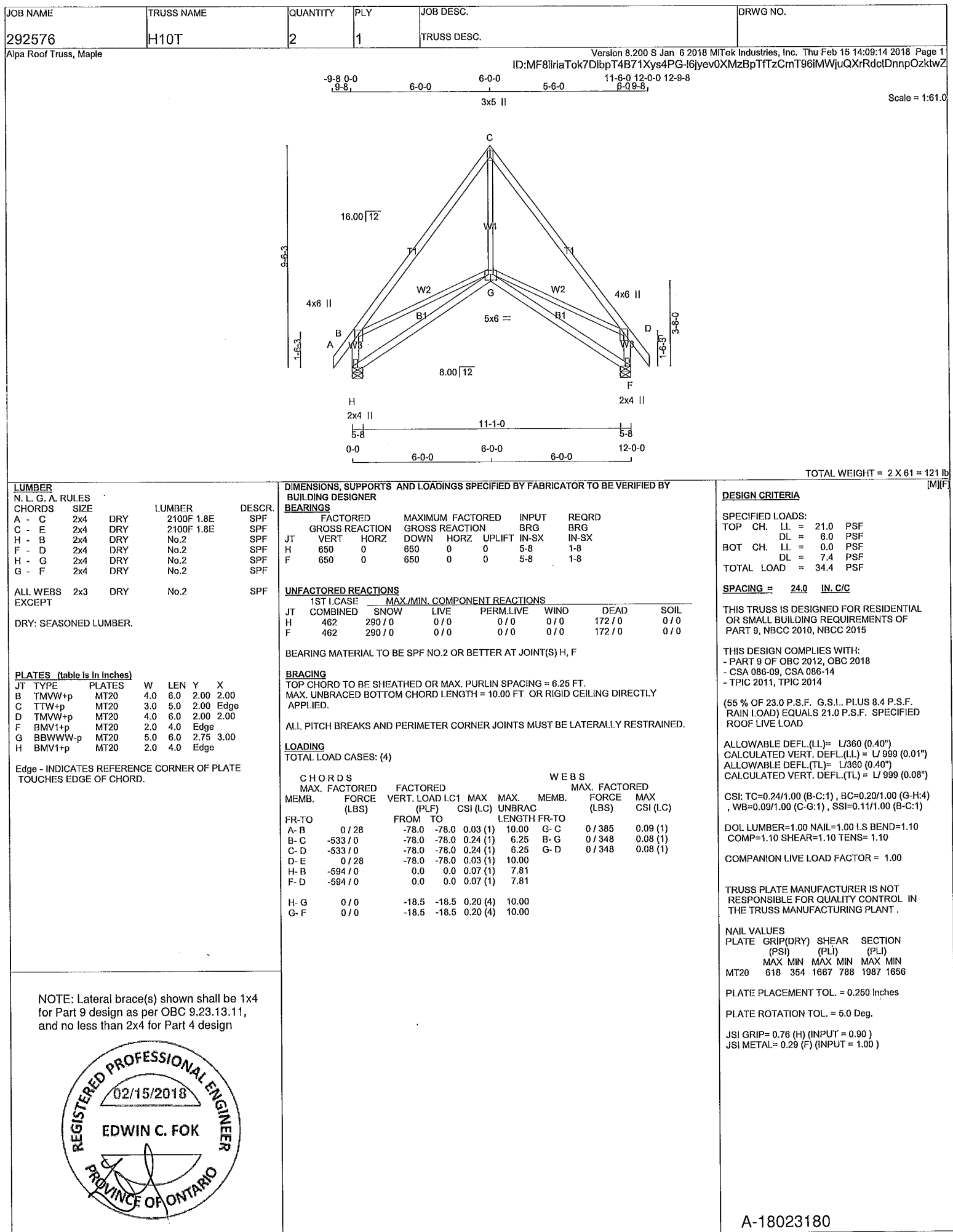
JSI GRIP= 0.88 (B) (INPUT = 0.80)
JSI METAL= 0.55 (M) (INPUT = 1.00)

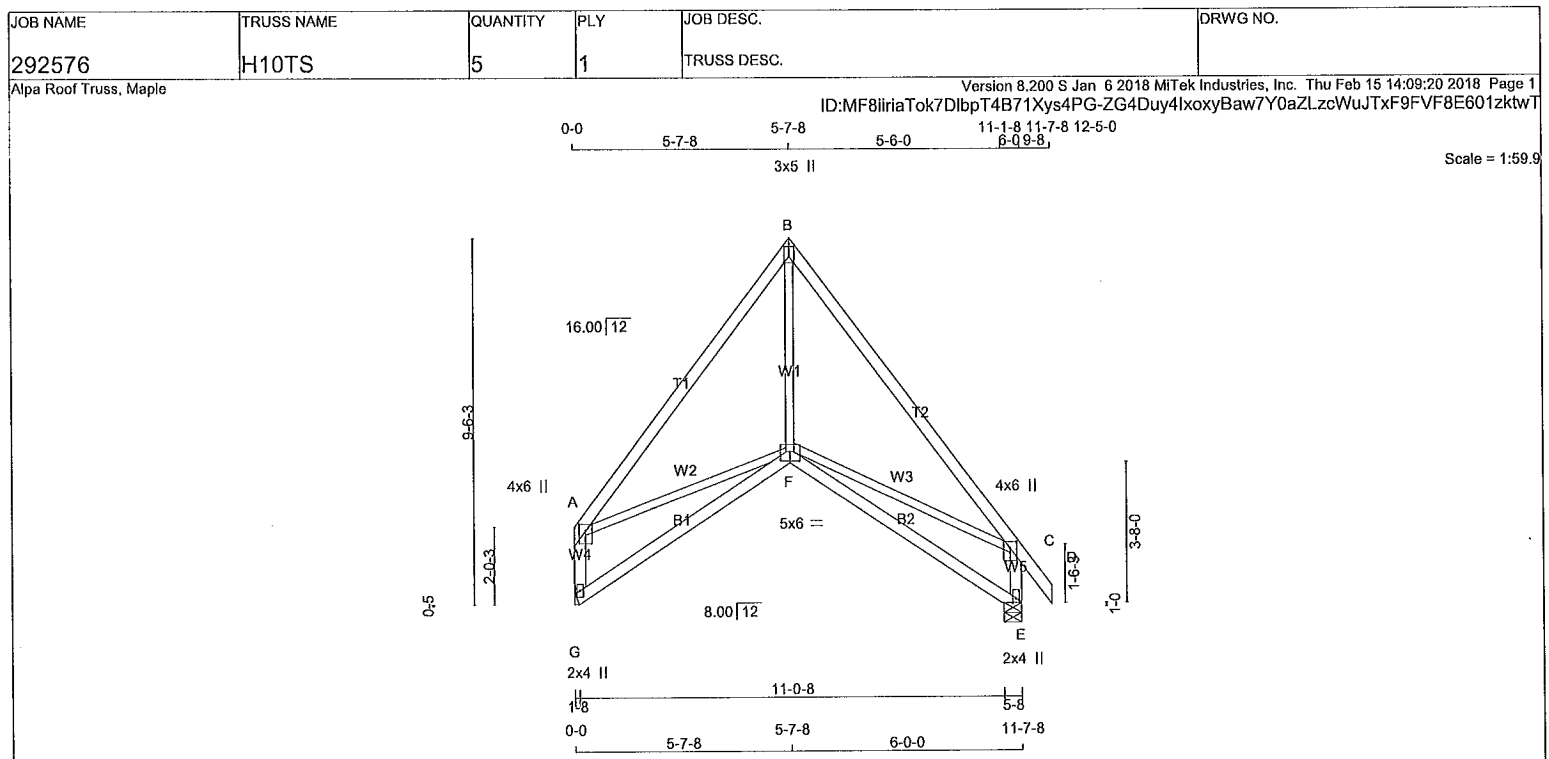
A-18023177











TOTAL WEIGHT = 5 X 58 = 289 lb

LUMBER				
N. L. G. A. RULES	CHORDS	SIZE	LUMBER	DESCR.
A - B	2x4	DRY	No.2	SPF
B - D	2x4	DRY	2100F 1.8E	SPF
G - A	2x4	DRY	No.2	SPF
E - C	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	TMVW+p	MT20	4.0	6.0	2.00	2.00
B	TTW+p	MT20	3.0	5.0	2.00	Edge
C	TMVW+p	MT20	4.0	6.0	2.00	2.00
E	BMV1+p	MT20	2.0	4.0	Edge	
F	BBWW+p	MT20	5.0	6.0	2.75	3.00
G	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		REQRD	
	VERT	HORZ	DOWN	HORZ	BRG	IN-SX	BRG	IN-SX
JT								
G	561	0	561	0	0	HANGER BY OTHERS		
E	632	0	632	0	0	MIN. SEAT SIZE: 1-8	1-8	

UNFACTORED REACTIONS

1ST LCASE	MAX/MIN	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
JT	COMBINED						
G	400	244 / 0	0 / 0	0 / 0	0 / 0	156 / 0	0 / 0
E	449	282 / 0	0 / 0	0 / 0	0 / 0	167 / 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		WEBS	
MEMB.	MAX. FACTORED FORCE (LBS)	MEMB.	MAX. FACTORED FORCE (LBS)
FR-TO		FR-TO	
A-B	-500 / 0	F-B	0 / 346
B-C	-500 / 0	A-F	0 / 319
C-D	0 / 28	F-C	0 / 326
G-A	-509 / 0		
E-C	-576 / 0		
G-F	0 / 0		
F-E	0 / 0		

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 (0.01")
ALLOWABLE DEFL.(TL)= L/360 (0.39")
CALCULATED VERT. DEFL.(TL) = L/999 (0.08")

CSI: TC=0.33/1.00 (A-B:1), BC=0.20/1.00 (E-F:4), WB=0.08/1.00 (B-F:1), SSI=0.11/1.00 (B-C:1)

DOL LUMBER=1.00 NAIL=1.00 L.S BEND=1.10
COMP=1.10 SHEAR=1.10 TENS=1.10

COMPANION LIVE LOAD FACTOR = 1.00

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

NAIL VALUES

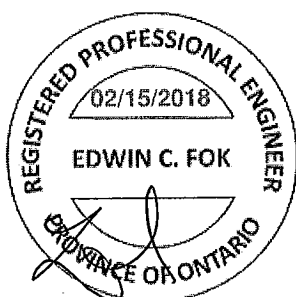
PLATE	GRIP(DRY)	SHEAR	SECTION
(PSI)	(PLI)	(PLI)	(PLI)
MAX MIN	MAX MIN	MAX MIN	MAX MIN
MT20	618 354	1667 788	1987 1656

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.74 (E) (INPUT = 0.90)
JSI METAL= 0.28 (E) (INPUT = 1.00)

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

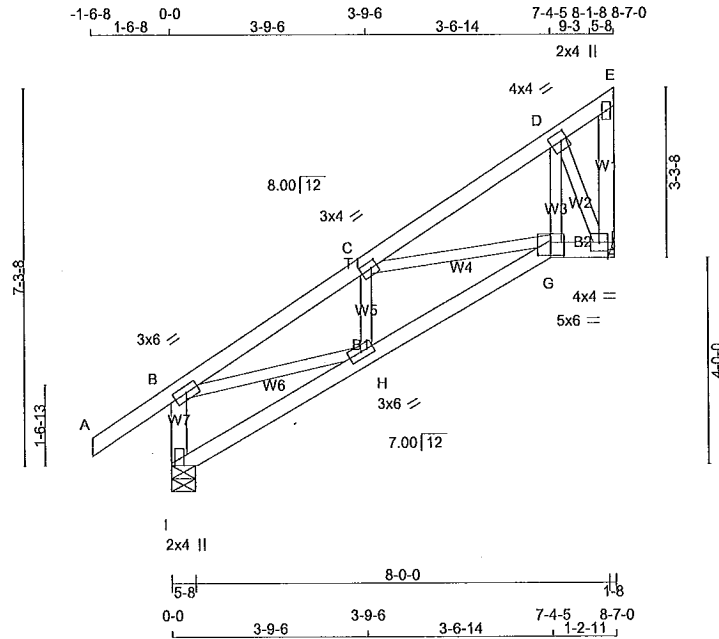


A-18023181

JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
292576	H11	5	1	TRUSS DESC.	

Alpa Roof Truss, Maple

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ID:MF8IiriaTok7DlbpT4B71Xys4PG-EwRuF7F85c9BKUrmkupJnR74hQZ3Uz1nZkEkwwzktuy



Scale = 1:44.6

TOTAL WEIGHT = 5 X 40 = 201 lb

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

PLATES (table is in inches)	JT	TYPE	PLATES	W	LEN	Y	X
B	TMVW-1	MT20	3.0	6.0			
C	TMVW-1	MT20	3.0	4.0	1.50	1.50	
D	TMVW-1	MT20	4.0	4.0	2.00	1.50	
E	TMV+p	MT20	2.0	4.0			
F	BMVW-1	MT20	4.0	4.0			
G	BMVW-1	MT20	5.0	6.0	3.00	3.00	
H	BMVW-1	MT20	3.0	6.0			
I	BMV1+p	MT20	2.0	4.0			Edge

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

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

BEARINGS	FACTORED	MAXIMUM FACTORED	INPUT	REQRD
	GROSS REACTION	GROSS REACTION	BRG	BRG
JT	VERT	DOWN	IN-SX	IN-SX
I	980	0	5-8	1-8
F	854	0	0	0

UNFACTORED REACTIONS

1ST LCASE	MAX/MIN	COMPONENT REACTIONS	DEAD	SOIL
JT	COMBINED	SNOW	LIVE	PERM.LIVE
I	696	440 / 0	0 / 0	0 / 0
F	609	372 / 0	0 / 0	0 / 0

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

BRACING

TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 5.12 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	VERT. LOAD	LC1	MAX	MAX.	MEMB.	MAX. FACTORED	FORCE	MAX
			(LBS)	(PLF)	CS1 (LC)	UNBRAC	LENGTH			(LBS)	CS1 (LC)
FR-TO				FROM	TO			FR-TO			
I-B	-917 / 0	0.0	0.0	0.11 (1)	7.81	B-H	0 / 1145	0.28 (1)			
A-B	0 / 35	-78.0	-78.0	0.16 (1)	10.00	H-C	-288 / 15	0.05 (1)			
B-C	-1321 / 0	-160.8	-160.8	0.37 (1)	5.12	C-G	-666 / 0	0.18 (1)			
C-D	-571 / 0	-160.8	-160.8	0.34 (1)	6.25	G-D	0 / 695	0.17 (1)			
D-E	-58 / 0	-160.8	-160.8	0.18 (1)	6.25	D-F	-952 / 0	0.17 (1)			
F-E	0 / 15	0.0	0.0	0.00 (1)	10.00						
I-H	0 / 8	-38.2	-38.2	0.14 (4)	10.00						
H-G	0 / 1297	-38.2	-38.2	0.30 (1)	10.00						
G-F	0 / 429	-38.2	-38.2	0.09 (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

GIRDER TYPE: CPrimeHip
SIDE SETBACK = 0-0
END SETBACK = 6-3-0
END WALL WIDTH = 0-0
CORNER FRAMING TYPE: CONVENTIONAL
END JACK TYPE: CONVENTIONAL
APPLIED TO FRONT SIDE
- ADDT'L LOADS BASED ON 55 % OF GSL.

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

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

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

ALLOWABLE DEFL.(LL)= L/360 (0.29")
CALCULATED VERT. DEFL.(LL)= L/999 (0.02")
ALLOWABLE DEFL.(TL)= L/360 (0.29")
CALCULATED VERT. DEFL.(TL)= L/999 (0.04")

CSI: TC=0.37/1.00 (B-C:1), BC=0.30/1.00 (G-H:1), WB=0.28/1.00 (B-H:1), SSI=0.26/1.00 (B-C:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

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

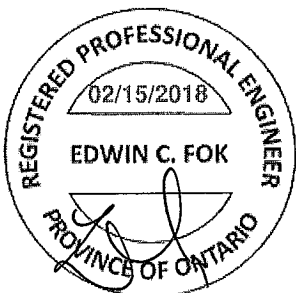
NAIL VALUES
PLATE GRIP(DRY) SHEAR SECTION
(PSI) (PLI) (PLI)
MAX MIN MAX MIN MAX MIN
MT20 618 354 1667 788 1987 1656

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.87 (D) (INPUT = 0.90)
JSI METAL = 0.43 (I) (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

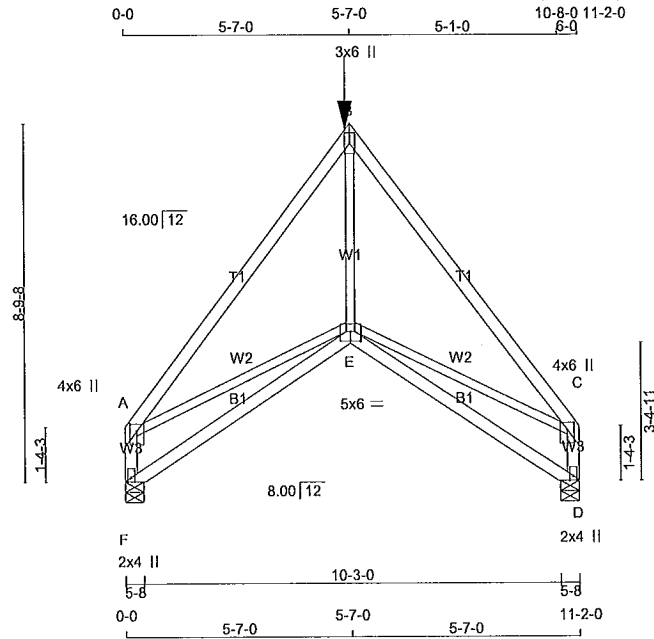


A-18023182

JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
292576	H12A	1	2	TRUSS DESC.	

Alpa Roof Truss, Maple

Version 8.200 S Jan 6 2018 MITek Industries, Inc. Thu Feb 15 14:17:15 2018 Page 1
ID:MF8ilriaTok7DlbpT4B71Xys4PG-9eHnbNqF4InZgakPIHby58niNnbD2zjQUYokC7zkt2



TOTAL WEIGHT = 2 X 54 = 107 lb

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

ALL WEBS 2x3 DRY No.2 SPF
EXCEPT

DRY: SEASONED LUMBER.

DESIGN CONSISTS OF 2 TRUSSES BUILT SEPARATELY THEN FASTENED TOGETHER AS FOLLOWS:

CHORDS #ROWS	SURFACE SPACING (IN)	LOAD(PLF)
TOP CHORDS : (0.122"x3") SPIRAL NAILS		
A - B 1 12	SIDE(61.0)	
B - C 1 12	SIDE(61.0)	
F - A 1 12	TOP	
D - C 1 12	TOP	
BOTTOM CHORDS : (0.122"x3") SPIRAL NAILS		
F - E 1 12	SIDE(14.6)	
E - D 1 12	SIDE(14.6)	
WEBS : (0.122"x3") SPIRAL NAILS		
E - B 1 6	SIDE(179.9)	
2x3 1 6		

NAILS TO BE DRIVEN FROM ONE SIDE ONLY.

GIRDER NAILING ASSUMES NAILED HANGERS ARE FASTENED WITH MIN. 3-0 INCH NAILS.

TOP - COMPONENTS ARE LOADED FROM THE TOP AND MUST BE PLACED ON TOP EDGE OF ALL PLIES FOR THE LOAD TO BE TRANSFERRED TO EACH PLY.

SIDE - PLF SHOWN IS THE EQUIVALENT UDL APPLIED TO ONE SIDE THAT THE CORRESPONDING NAILING PATTERN SHALL BE CAPABLE OF TRANSFERING. REMAINING PLF MUST BE APPLIED ON THE OPPOSITE SIDE OR ON THE TOP.

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						
F	1292	0	1292	0	5-8	1-8
D	1292	0	1292	0	5-8	1-8

UNFACTORED REACTIONS

1ST LCASE	MAX./MIN. COMPONENT REACTIONS					
	COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD
JT						
F	936	486 / 0	0 / 0	0 / 0	0 / 0	460 / 0
D	936	486 / 0	0 / 0	0 / 0	0 / 0	460 / 0

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

BRACING

TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 6.21 FT.
MAX. UNBRACED BOTTOM CHORD LENGTH = 10.00 FT OR RIGID CEILING DIRECTLY APPLIED.

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

LOADING

TOTAL LOAD CASES: (4)

CHORDS					WEBS			
MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	LC1 (LC)	MAX CSI (LC)	MAX. UNBRACED LENGTH	MEMB.	MAX. FACTORED FORCE (LBS)	MAX CSI (LC)
FR-TO		FROM	TO			FR-TO		
A-B	-1745 / 0	-78.0	-78.0	0.31 (1)	6.21	E-B	0 / 1200	0.15 (1)
B-C	-1745 / 0	-78.0	-78.0	0.31 (1)	6.21	A-E	0 / 1144	0.14 (1)
F-A	-1153 / 0	0.0	0.0	0.07 (1)	7.81	E-C	0 / 1144	0.14 (1)
D-C	-1153 / 0	0.0	0.0	0.07 (1)	7.81			
F-E	0 / 0	-49.7	-49.7	0.25 (4)	10.00			
E-D	0 / 0	-49.7	-49.7	0.25 (4)	10.00			

FACTORED CONCENTRATED LOADS (LBS)

JT	LOC.	LC1	MAX-	MAX+	FACE	DIR.	TYPE
B	5-7-0	-1157	-1157	—	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

*** NON STANDARD GIRDER ***

ADDT'L USER-DEFINED LOADS APPLIED TO ALL LOAD CASES.

THIS TRUSS IS DESIGNED FOR RESIDENTIAL OR SMALL BUILDING REQUIREMENTS OF PART 9, 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 (0.37")
CALCULATED VERT. DEFL.(LL) = L/999 (0.02")
ALLOWABLE DEFL.(TL) = L/360 (0.37")
CALCULATED VERT. DEFL.(TL) = L/999 (0.09")

CSI: TC=0.31/1.00 (A-B:1), BC=0.25/1.00 (E-F:4), WB=0.15/1.00 (B-E:1), SSI=0.09/1.00 (E-F:4)

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

COMPANION LIVE LOAD FACTOR = 1.00

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

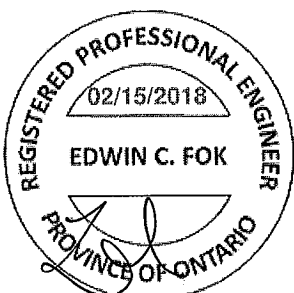
NAIL VALUES
PLATE GRIP(DRY) SHEAR SECTION
(PSI) (PLI) (PLI)
MAX MIN MAX MIN MAX MIN
MT20 618 354 1667 788 1987 1656

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.74 (D) (INPUT = 0.90)
JSI METAL= 0.30 (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



JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
292576	H12A	1	2	TRUSS DESC.	
Alpa Roof Truss, Maple					
Version 8.200 S Jan 6 2018 MiTek Industries, Inc. Thu Feb 15 14:17:15 2018 Page 2 ID:MF8liiraTok7DlbpT4B71Xys4PG-9eHnbNqF4lnZgakPIHby58niNnbD2zQUYokC?zktb2					

PLATES (table is in inches)

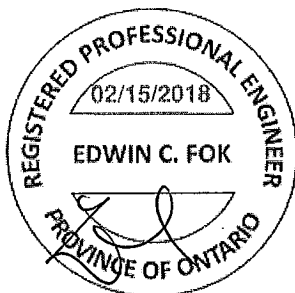
JT	TYPE	PLATES	W	LEN	Y	X
A	TMVW+p	MT20	4.0	6.0	2.00	2.00
B	TTW+p	MT20	3.0	6.0		
C	TMVW+p	MT20	4.0	6.0	2.00	2.00
D	BMV1+p	MT20	2.0	4.0	Edge	
E	BBWW-p	MT20	5.0	6.0	2.75	3.00
F	BMV1+p	MT20	2.0	4.0	Edge	

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

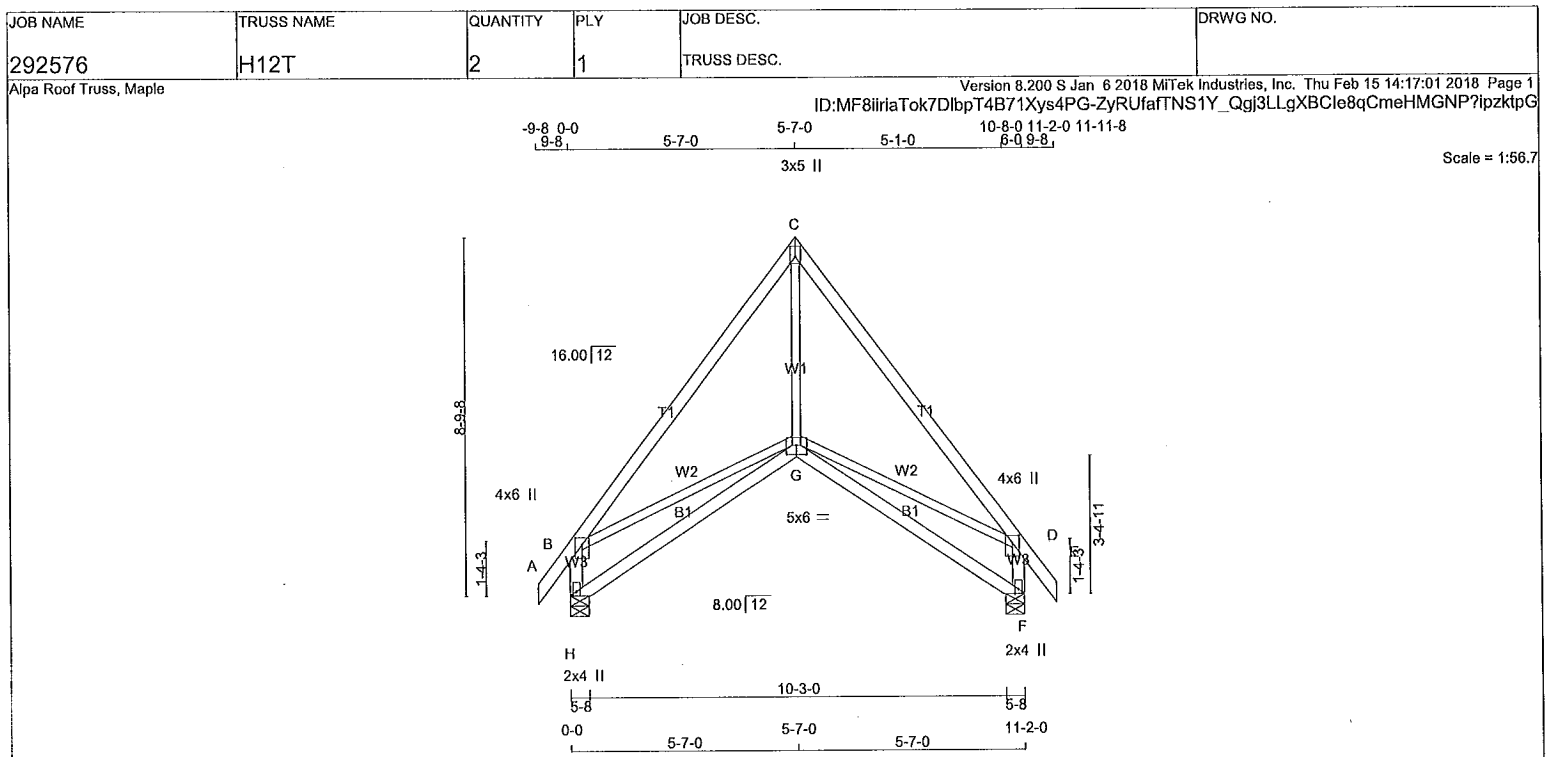
HANGERS NOTES

- 1) SPECIAL HANGER(S) OR CONNECTION(S)
REQUIRED TO SUPPORT CONCENTRATED
LOAD(S) 1157.1 lbs FACTORED DOWN AT 5-7-0
ON TOP CHORD. DESIGN FOR UNSPECIFIED
CONNECTION(S) IS DELEGATED TO THE
BUILDING DESIGNER.

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



A-1802318361



TOTAL WEIGHT = 2 X 57 = 113 lb
(M/F)

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

ALL WEBS	2x3	DRY	No.2	SPF
EXCEPT				

DRY: SEASONED LUMBER.

PLATES (table is in inches)					
JT	TYPE	PLATES	W	LEN	Y X
B	TMVW+p	MT20	4.0	6.0	2.00 2.00
C	TTW+p	MT20	3.0	5.0	2.00 Edge
D	TMVW+p	MT20	4.0	6.0	2.00 2.00
F	BMV1+p	MT20	2.0	4.0	Edge
G	BBWW+p	MT20	5.0	6.0	2.75 3.00
H	BMV1+p	MT20	2.0	4.0	Edge

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

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

BEARINGS

	FACTORED GROSS REACTION	MAXIMUM FACTORED GROSS REACTION	INPUT BRG	REQRD BRG
JT	VERT	HORZ	DOWN	HORZ
H	609	0	0	5-8
F	609	0	0	5-8

UNFACTORED REACTIONS

JT	1ST LCASE	MAX. MIN. COMPONENT REACTIONS	WIND	DEAD	SOIL
H	433	273 / 0	0 / 0	161 / 0	0 / 0
F	433	273 / 0	0 / 0	161 / 0	0 / 0

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

BRACING

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

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

LOADING

TOTAL LOAD CASES: (4)

CHORDS				WEBS			
MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	MAX. CSI (LC)	MEMB.	MAX. FACTORED FORCE (LBS)	MAX. CSI (LC)	
FR-TO		FROM TO		FR-TO			
A-B	0 / 28	-78.0 -78.0	0.05 (1)	G-C	0 / 369	0.08 (1)	
B-C	-503 / 0	-78.0 -78.0	0.32 (1)	B-G	0 / 329	0.07 (1)	
C-D	-503 / 0	-78.0 -78.0	0.32 (1)	G-D	0 / 330	0.07 (1)	
D-E	0 / 28	-78.0 -78.0	0.05 (1)				
H-B	-558 / 0	0.0 0.0	0.06 (1)				
F-D	-558 / 0	0.0 0.0	0.06 (1)				
H-G	0 / 0	-18.5 -18.5	0.17 (4)				
G-F	0 / 0	-18.5 -18.5	0.17 (4)				

DESIGN CRITERIA

SPECIFIED LOADS:

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

SPACING = 24.0 IN. C/C

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

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

(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 (0.37")
CALCULATED VERT. DEFL.(LL) = L/999 (0.01")
ALLOWABLE DEFL.(TL)= L/360 (0.37")
CALCULATED VERT. DEFL.(TL) = L/999 (0.07")

CSI: TC=0.32/1.00 (B-C:1), BC=0.17/1.00 (G-H:4), WB=0.08/1.00 (C-G:1), SSI=0.10/1.00 (B-C:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

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

NAIL VALUES

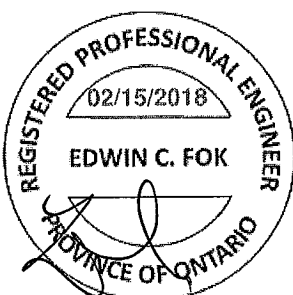
PLATE	GRIP(DRY)	SHEAR	SECTION
	(PSI)	(PLI)	(PLI)
	MAX MIN	MAX MIN	MAX MIN
MT20	618 354	1667 788	1987 1656

PLATE PLACEMENT TOL. = 0.250 inches

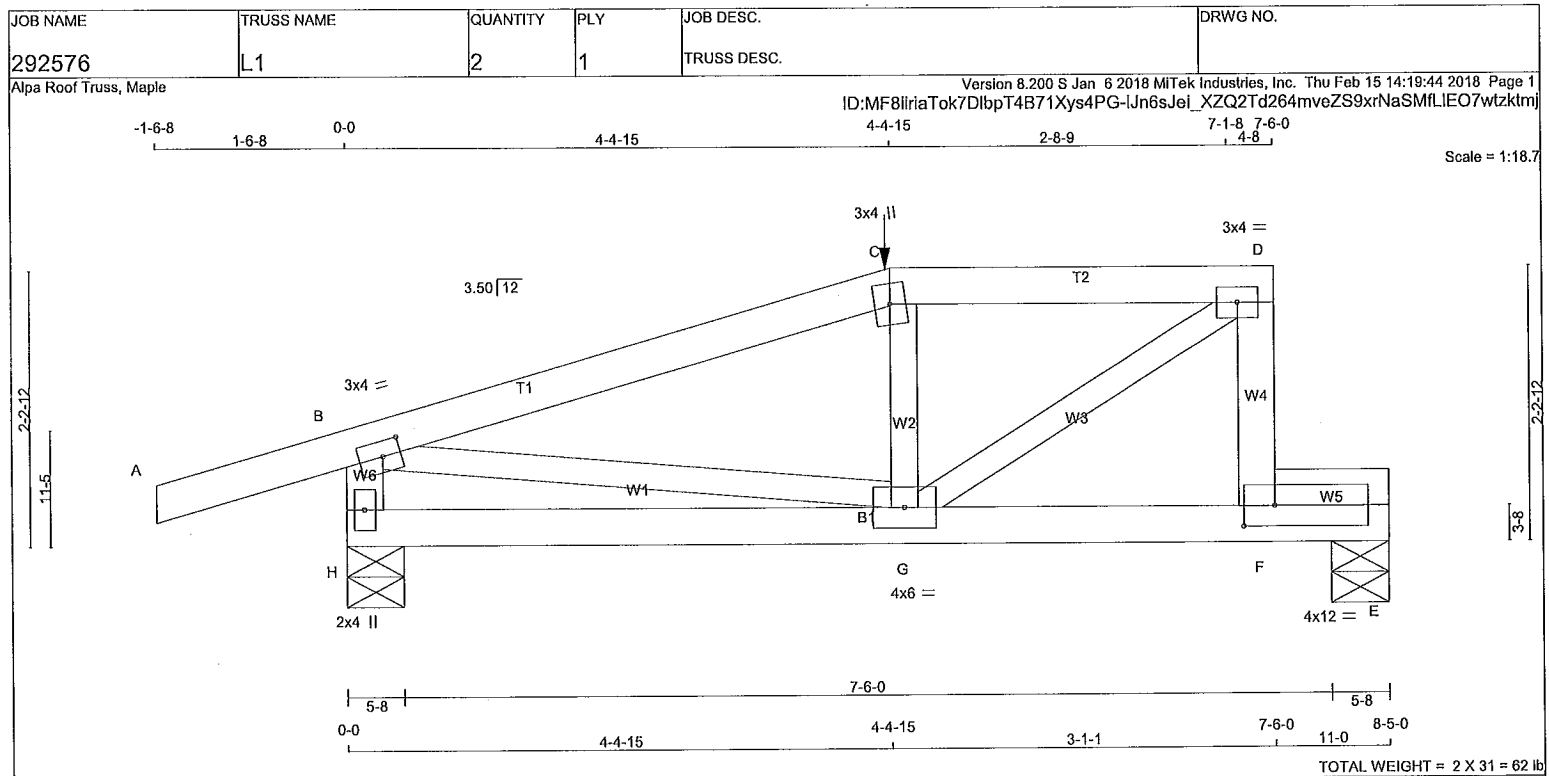
PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.71 (F) (INPUT = 0.90)
JSI METAL= 0.27 (F) (INPUT = 1.00)

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



A-18023184



LUMBER	CHORDS	SIZE	DRY	LUMBER	DESCR.
N. L. G. A. RULES					
A - C	2x4	DRY	No.2	SPF	
C - D	2x4	DRY	No.2	SPF	
F - D	2x4	DRY	No.2	SPF	
H - B	2x4	DRY	No.2	SPF	
H - E	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
B	TMVW-t	MT20	3.0	4.0	1.50	1.75
C	TTW+m	MT20	3.0	4.0		
D	TMVW-t	MT20	3.0	4.0		
F	BMVW-t	MT20	4.0	12.0	2.00	3.00
G	BMVW-t	MT20	4.0	6.0		
H	BMV1+p	MT20	2.0	4.0		

HANGERS NOTES

- SPECIAL HANGER(S) OR CONNECTION(S) REQUIRED TO SUPPORT CONCENTRATED LOAD(S) 28.7 lbs FACTORED DOWN AT 4-4-15 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

JT	FACTORED GROSS REACTION		MAXIMUM FACTORED GROSS REACTION		INPUT BRG IN-SX	REQRD BRG IN-SX
	VERT	HORZ	DOWN	HORZ		
H	539	0	539	0	5-8	1-8
E	353	0	353	0	5-8	1-8

UNFACTORED REACTIONS

JT	1ST LCASE		MAX./MIN. COMPONENT REACTIONS		WIND	DEAD	SOIL
	COMBINED	SNOW	LIVE	PERM.LIVE			
H	382	248 / 0	0 / 0	0 / 0	0 / 0	133 / 0	0 / 0
E	253	148 / 0	0 / 0	0 / 0	0 / 0	105 / 0	0 / 0

BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S) H, 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				WEBS			
MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	MAX. LC1 (LC)	MAX. UNBRAC LENGTH	MEMB.	MAX. FACTORED FORCE (LBS)	MAX. LC1 (LC)
FR-TO		FROM TO			FR-TO		
A-B	0 / 17	-78.0 -78.0	0.15 (1)	10.00	G-C	-174 / 0	0.03 (1)
B-C	-528 / 0	-78.0 -78.0	0.29 (1)	6.25	G-D	0 / 588	0.15 (1)
C-D	-488 / 0	-78.0 -78.0	0.14 (1)	6.25	B-G	0 / 511	0.13 (1)
C-D	-448 / 0	0.0 0.0	0.06 (1)	7.81			
H-B	-514 / 0	0.0 0.0	0.06 (1)	7.81			
H-G	0 / 0	-18.5 -18.5	0.14 (4)	10.00			
G-F	0 / 0	-18.5 -18.5	0.47 (1)	10.00			
F-E	0 / 0	-18.5 -18.5	0.20 (1)	10.00			

FACTORED CONCENTRATED LOADS (LBS)

JT	LOC.	LC1	MAX-	MAX+	FACE	DIR.	TYPE
C	4-4-15	-29	-29	—	FRONT	VERT	TOTAL

DESIGN CRITERIA

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

SPACING = 24.0 IN. C/C

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

GIRDER TYPE: CPrimeHip
LEFT SETBACK = 4-4-15
RIGHT SETBACK = 0-0
END SETBACK = 2-0-0
END WALL WIDTH = 0-0
CORNER FRAMING TYPE: CONVENTIONAL
END JACK TYPE: CONVENTIONAL
APPLIED TO FRONT SIDE
- ADDTL LOADS BASED ON 55 % OF GSL.

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 (0.28")
CALCULATED VERT. DEFL.(LL) = L/999 (0.04")
ALLOWABLE DEFL.(TL)= L/360 (0.28")
CALCULATED VERT. DEFL.(TL) = L/999 (0.08")

CSI: TC=0.29/1.00 (B-C:1), BC=0.47/1.00 (F-G:1), WB=0.15/1.00 (D-G:1), SSI=0.15/1.00 (E-F:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

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

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

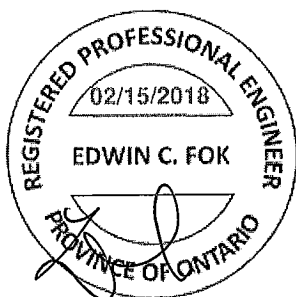
PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.87 (D) (INPUT = 0.90)
JSI METAL= 0.23 (B) (INPUT = 1.00)

A-18023185

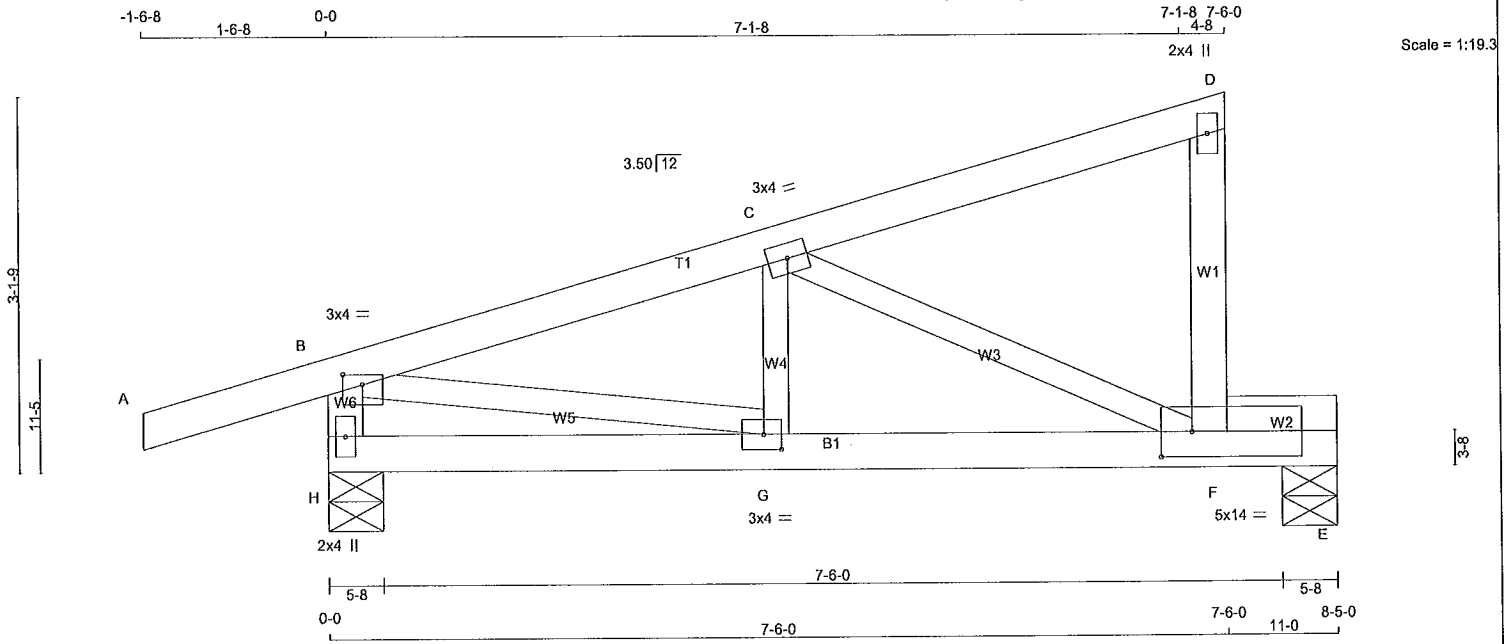
NOTE: Lateral brace(s) shown shall be 1x4 for Part 9 design as per OBC 9.23.13.11, and no less than 2x4 for Part 4 design



JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
292576	L2	4	1	TRUSS DESC.	

Alpa Roof Truss, Maple

Version 8.200 S Jan 6 2018 MiTek Industries, Inc. Thu Feb 15 14:23:02 2018 Page 1
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LUMBER				
N. L. G. A. RULES	SIZE	LUMBER	DESCR.	
CHORDS				
A - D	2x4	DRY	No.2	SPF
F - D	2x4	DRY	No.2	SPF
H - B	2x4	DRY	No.2	SPF
H - E	2x4	DRY	No.2	SPF
F - E	2x4	DRY	No.2	SPF
ALL WEBS	2x3	DRY	No.2	SPF
DRY: SEASONED LUMBER.				

PLATES (table is in inches)					
JT	TYPE	PLATES	W	LEN	Y X
B	TMVW-p	MT20	3.0	4.0	1.00 2.00
C	TMVW-t	MT20	3.0	4.0	
D	TMV+p	MT20	2.0	4.0	
F	BMVWW-t	MT20	5.0	14.0	2.50 3.00
G	BMVWW-t	MT20	3.0	4.0	1.50 1.75
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	HORZ	DOWN	HORZ	UPLIFT	IN-SX	IN-SX		
H	525	0	525	0	0	5-8	1-8		
E	338	0	338	0	0	5-8	1-8		

UNFACTORED REACTIONS							
JT	1ST LCASE	MAX	MIN	COMPONENT REACTIONS			
H	372	241 / 0	0 / 0	PERM.LIVE	WIND	DEAD	SOIL
E	243	140 / 0	0 / 0	0 / 0	0 / 0	102 / 0	0 / 0

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

CHORDS				WEBS			
MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	MAX. CSI (LC)	MEMB.	MAX. FACTORED FORCE (LBS)	MAX. CSI (LC)	
FR-TO		FROM TO		FR-TO			
A-B	0 / 17	-78.0 -78.0	0.14 (1)	10.00	G-C	0 / 102	0.04 (4)
B-C	-612 / 0	-78.0 -78.0	0.13 (1)	6.25	B-G	0 / 605	0.14 (1)
C-D	-9 / 0	-78.0 -78.0	0.12 (1)	10.00	C-F	-657 / 0	0.18 (1)
F-D	-115 / 0	0.0 0.0	0.02 (1)	7.81			
H-B	-514 / 0	0.0 0.0	0.05 (1)	7.81			
H-G	0 / 0	-18.5 -18.5	0.12 (4)	10.00			
G-F	0 / 596	-18.5 -18.5	0.51 (1)	10.00			
F-E	0 / 0	-18.5 -18.5	0.17 (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
- TPIIC 2011, TPIIC 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 (0.28")
CALCULATED VERT. DEFL.(LL) = 1/999 (0.05")
ALLOWABLE DEFL.(TL)= L/360 (0.28")
CALCULATED VERT. DEFL.(TL) = 1/912 (0.11")

CSI: TC=0.14/1.00 (A-B:1), BC=0.51/1.00 (F-G:1), WB=0.18/1.00 (C-F:1), SI=0.13/1.00 (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 RIGHT HEEL ONLY

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

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

PLATE PLACEMENT TOL. = 0.250 Inches

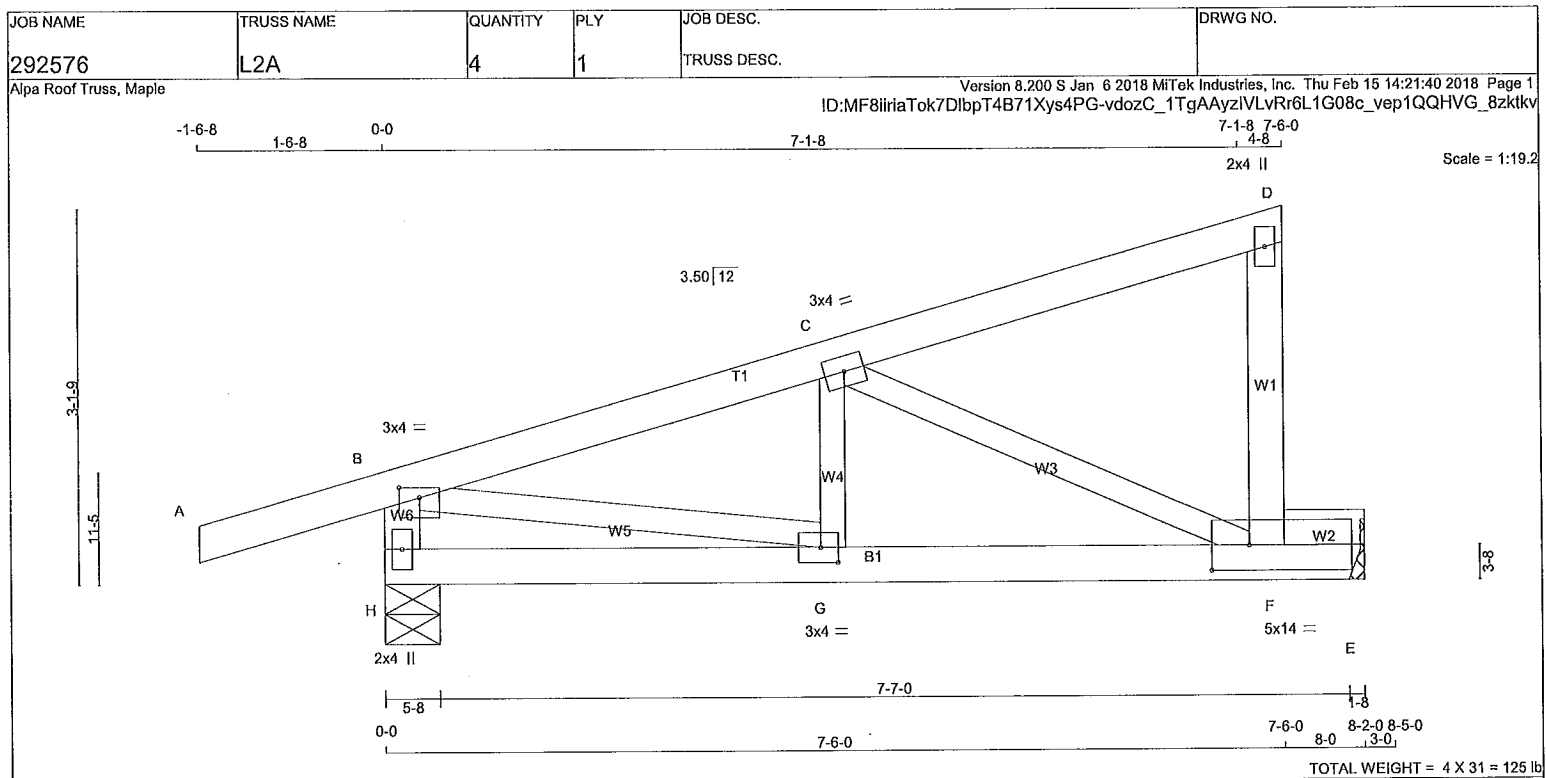
PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.84 (G) (INPUT = 0.90)
JSI METAL= 0.23 (B) (INPUT = 1.00)

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



A-18023186



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

PLATES (table is in inches)					
JT	TYPE	PLATES	W	LEN	Y X
B	TMVW-p	MT20	3.0	4.0	1.00 2.00
C	TMWW-t	MT20	3.0	4.0	
D	TMV+p	MT20	2.0	4.0	
F	BMVWW-t	MT20	5.0	14.0	2.50 3.75
G	BMWW-t	MT20	3.0	4.0	1.50 1.75
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	
JT	GROSS REACTION	VERT	HORZ	GROSS REACTION	DOWN	HORZ	UPLIFT	BRG	IN-SX
H	515	0	0	515	0	0	5-8	1-8	
E	344	0	0	344	0	0			

HANGER BY OTHERS
MIN. SEAT SIZE: 1-8

UNFACTORED REACTIONS

1ST LCASE	MAX./MIN. COMPONENT REACTIONS					
JT	COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD
H	365	237 / 0	0 / 0	0 / 0	0 / 0	128 / 0
E	246	145 / 0	0 / 0	0 / 0	0 / 0	102 / 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		FACTORED		W E B S	
MEMB.	MAX. FACTORED	VERT. LOAD	LC1 MAX	MEMB.	MAX. FACTORED
	(LBS)	(PLF)	CSI (LC)		(LBS)
FR-TO		FROM	TO	FR-TO	
A-B	0 / 17	-78.0	-78.0 0.14 (1)	G-C	0 / 91
B-C	-578 / 0	-78.0	-78.0 0.13 (1)	B-G	0 / 572
C-D	-9 / 0	-78.0	-78.0 0.13 (1)	C-F	-621 / 0
F-D	-114 / 0	0.0	0.0 0.02 (1)		
H-B	-499 / 0	0.0	0.0 0.05 (1)		
H-G	0 / 0	-18.5	-18.5 0.11 (4)		
G-F	0 / 564	-18.5	-18.5 0.40 (1)		
F-E	0 / 0	-18.5	-18.5 0.13 (1)		

DESIGN CRITERIA

SPECIFIED LOADS:

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

SPACING = 24.0 IN. C/C

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

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

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

ALLOWABLE DEFL.(LL)= L/360 (0.27")
CALCULATED VERT. DEFL.(LL) = L/999 (0.04")
ALLOWABLE DEFL.(TL)= L/360 (0.27")
CALCULATED VERT. DEFL.(TL) = L/999 (0.08")

CSI: TC=0.14/1.00 (A-B:1), BC=0.40/1.00 (F-G:1), WB=0.17/1.00 (C-F:1), SSI=0.13/1.00 (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

AUTOSOLVE RIGHT HEEL ONLY

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

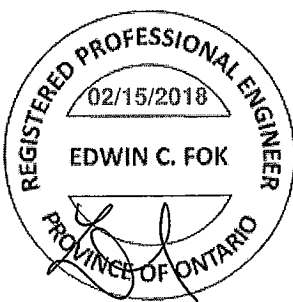
NAIL VALUES		PLATE GRIP(DRY)		SHEAR		SECTION	
	(PSI)	(PLI)	(PLI)				
MAX MIN	MAX MIN	MAX MIN	MAX MIN				
MT20	618	354	1667	788	1987	1656	

PLATE PLACEMENT TOL. = 0.250 inches

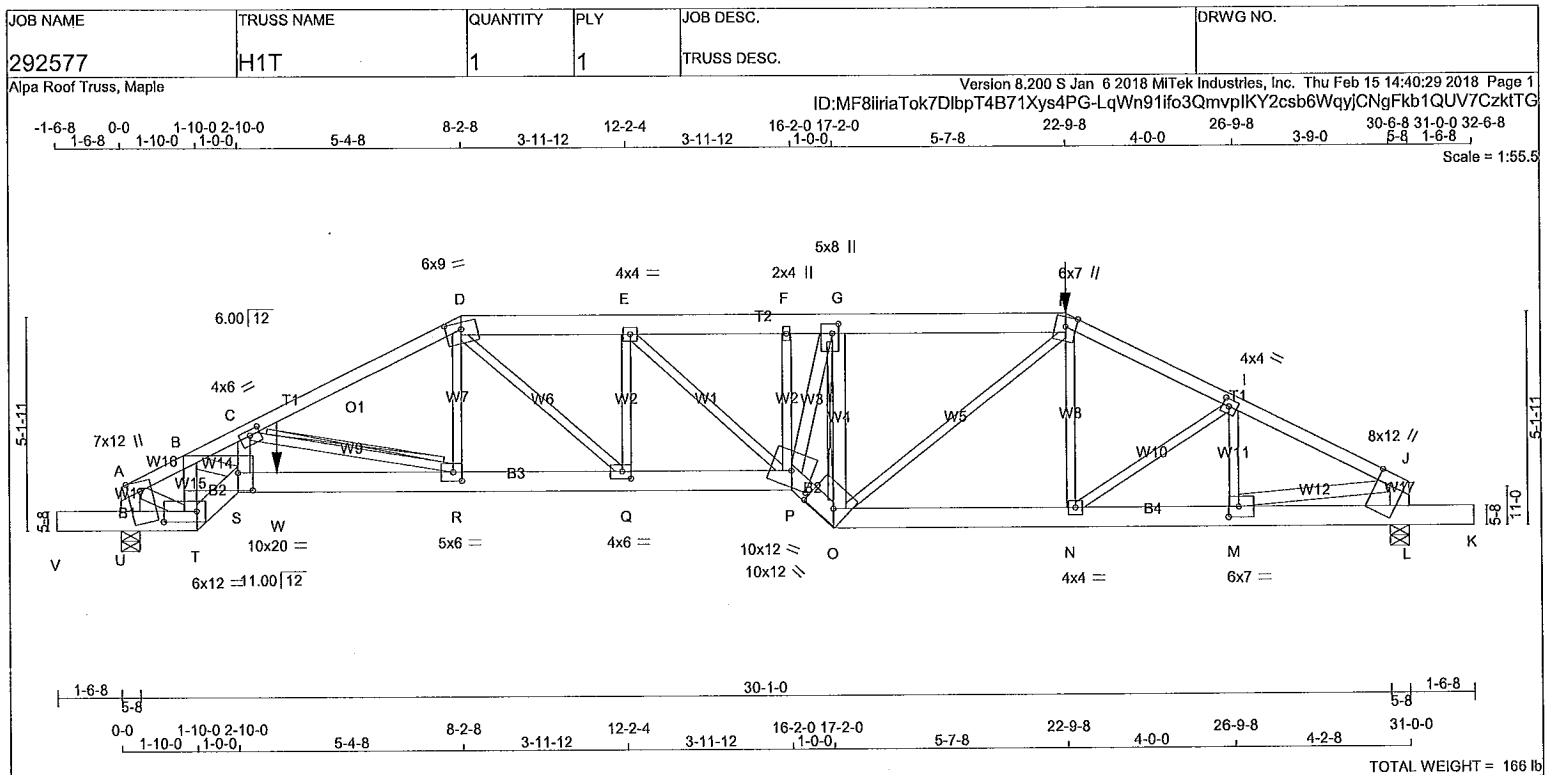
PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.79 (G) (INPUT = 0.90)
JSI METAL= 0.21 (B) (INPUT = 1.00)

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



A-18023187



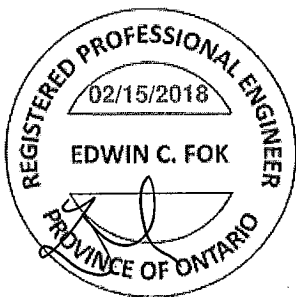
LUMBER				
N. L. G. A. RULES				
CHORDS	SIZE	LUMBER	DESCR.	
A - D	2x4	DRY	1650F 1.5E	SPF
D - H	2x6	DRY	No.2	SPF
H - J	2x4	DRY	1650F 1.5E	SPF
U - A	2x6	DRY	No.2	SPF
L - J	2x6	DRY	No.2	SPF
V - T	2x6	DRY	No.2	SPF
T - S	2x6	DRY	No.2	SPF
S - P	2x6	DRY	1650F 1.5E	SPF
P - O	2x6	DRY	No.2	SPF
O - K	2x6	DRY	No.2	SPF
ALL WEBS EXCEPT	2x3	DRY	No.2	SPF
T - B	2x4	DRY	No.2	SPF
B - S	2x4	DRY	No.2	SPF
S - C	2x4	DRY	No.2	SPF
P - G	2x4	DRY	No.2	SPF
O - G	2x4	DRY	No.2	SPF
A - T	2x4	DRY	No.2	SPF
M - J	2x4	DRY	No.2	SPF

DRY: SEASONED LUMBER.

PLATES (table is in inches)

JT TYPE	PLATES	W	LEN	Y	X
A, B, J, L, S, U					
A					
A	TMBMWV1+mt	7.0	12.0	Edge	
C	TMWW-t	4.0	6.0	1.50	3.00
D	TTWW-m	6.0	9.0	2.00	4.50
E	TMWW-t	4.0	4.0		
F	TMW+w	2.0	4.0		
G	TMWW-t	5.0	8.0	2.75	1.75
H	TTWW+m	6.0	7.0	Edge	
I	TMWW-t	4.0	4.0	2.00	1.75
J	TMBMWV1+ht	8.0	12.0	Edge	
M	BMWW-t	6.0	7.0	3.00	2.75
N	BMWW-t	4.0	4.0		
O	BBWW-h	10.0	12.0	3.75	8.00
P	BBWW-m	10.0	12.0	4.50	6.00
Q	BMWW-t	4.0	6.0	2.00	2.50

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



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

BEARINGS		FACTORED GROSS REACTION	MAXIMUM FACTORED GROSS REACTION	INPUT BRG	REQRD BRG
JT	VERT	HORZ	DOWN	HORZ	IN-SX
U	3168	0	3168	0	5-8
L	2926	0	2926	0	5-8

ALLOW FOR 0.3" OF HORIZONTAL MOVEMENT DUE TO TOTAL LOAD

UNFACTORED REACTIONS

1ST LCASE		MAX./MIN. COMPONENT REACTIONS					
JT	COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
U	2251	1416 / 0	0 / 0	0 / 0	0 / 0	835 / 0	0 / 0
L	2089	1258 / 0	0 / 0	0 / 0	0 / 0	831 / 0	0 / 0

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

BRACING

TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 2.45 FT. MAX. UNBRACED BOTTOM CHORD LENGTH = 10.00 FT OR RIGID CEILING DIRECTLY APPLIED.

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

2x4 DRY SPF No.2 T-BRACE AT C-R, G-O

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

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

LOADING

TOTAL LOAD CASES: (4)

CHORDS		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	-3809 / 0	-78.0 -78.0	0.23 (1)	T-B	-3904 / 0	0.44 (1)	
B-C	-8139 / 0	-78.0 -78.0	0.49 (1)	B-S	0 / 4802	0.85 (1)	
C-D	-5822 / 0	-78.0 -78.0	0.67 (1)	S-C	0 / 1279	0.23 (1)	
D-E	-6086 / 0	-78.0 -78.0	0.30 (1)	C-R	-2210 / 0	0.54 (1)	
E-F	-6337 / 0	-78.0 -78.0	0.46 (1)	R-D	0 / 1181	0.29 (1)	
F-G	-6347 / 0	-153.5 -153.5	0.50 (1)	D-Q	0 / 1498	0.37 (1)	
G-H	-5195 / 0	-153.5 -153.5	0.49 (1)	Q-E	-706 / 0	0.18 (1)	
H-I	-4515 / 0	-78.0 -78.0	0.30 (1)	E-P	0 / 345	0.09 (1)	
I-J	-4333 / 0	-78.0 -78.0	0.30 (1)	P-F	0 / 362	0.09 (1)	
U-A	-2940 / 0	0.0 0.0	0.21 (1)	F-G	0 / 4499	0.80 (1)	
L-J	-2674 / 0	0.0 0.0	0.19 (1)	G-O	-5436 / 0	0.86 (1)	
V-U	0 / 0	-96.5 -96.5	0.08 (1)	O-H	0 / 1505	0.37 (1)	
U-T	-1 / 0	-18.5 -18.5	0.08 (1)	H-N	0 / 217	0.08 (4)	
T-S	0 / 4050	-18.5 -18.5	0.53 (1)	N-I	0 / 187	0.05 (1)	
S-W	0 / 7186	-18.5 -18.5	0.82 (1)	I-M	-530 / 0	0.10 (1)	
W-R	0 / 7186	-112.0 -112.0	0.82 (1)	A-T	0 / 3555	0.63 (1)	
R-Q	0 / 5003	-112.0 -112.0	0.58 (1)	M-J	0 / 3932	0.70 (1)	
Q-P	0 / 6085	-112.0 -112.0	0.60 (1)				
P-O	0 / 6815	-36.4 -36.4	0.89 (1)				
O-N	0 / 4037	-36.4 -36.4	0.60 (1)				
N-M	0 / 3887	-36.4 -36.4	0.59 (1)				
M-L	0 / 0	-36.4 -36.4	0.11 (1)				
L-K	0 / 0	-96.5 -96.5	0.08 (1)				

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 = 16-2-0
END SPAN CARRIED = 5-10-8
END WALL WIDTH = 0-0
APPLIED TO FRONT SIDE OF BOTTOM CHORD.
- ADDTL LOADS BASED ON 55 % OF GSL.

GIRDER TYPE: CPrimeHip
SIDE SETBACK = 8-2-8
END SETBACK = 5-10-8
END WALL WIDTH = 0-0
CORNER FRAMING TYPE: CONVENTIONAL
END JACK TYPE: CONVENTIONAL
APPLIED TO FRONT SIDE
- ADDTL LOADS BASED ON 55 % OF GSL.
LOADS APPLIED TO FIRST 14-10-0 OF SPAN MEASURED FROM THE RIGHT.

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

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

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

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

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

ALLOWABLE DEFL.(LL) = L/360 (1.03")
CALCULATED VERT. DEFL.(LL) = L/999 (0.31")
ALLOWABLE DEFL.(TL) = L/360 (1.03")
CALCULATED VERT. DEFL.(TL) = L/619 (0.60")

CANTILEVER DEFLECTION:
ALLOWABLE DEFL.(LL) = L/120 (0.19")
CALCULATED VERT. DEFL.(LL) = L/207 (0.09")

A-18023188

CONTINUED ON PAGE 2

JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
292577	H1T	1	1	TRUSS DESC.	
Alpa Roof Truss, Maple					
Version 8.200 S Jan 6 2018 MITek Industries, Inc. Thu Feb 15 14:40:29 2018 Page 2					
ID:MF8IriaTok7DlbpT4B71Xys4PG-LqWn91lfo3QmvpIKY2csb6WgyjCNgFkb1QUV7CzkTG					

PLATES (table is in inches)

JT	TYPE	PLATES	W	LEN	Y	X
R	BMWW-I	MT20	5.0	6.0	2.50	2.50
S	TMBBWWW*-JMT20		10.0	20.0	5.00	4.25
T	BBWW-I	MT20	6.0	12.0	3.00	9.50

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

HANGERS NOTES

- SPECIAL HANGER(S) OR CONNECTION(S) REQUIRED TO SUPPORT CONCENTRATED LOAD(S) 466.7 lbs FACTORED DOWN AT 22-9-8 ON TOP CHORD, AND 407.4 lbs FACTORED DOWN AT 3-9-4 ON BOTTOM CHORD. DESIGN FOR UNSPECIFIED CONNECTION(S) IS DELEGATED TO THE BUILDING DESIGNER.

FACTORED CONCENTRATED LOADS (LBS)

JT	LOC.	LC1	MAX-	MAX+	FACE	DIR.	TYPE
H	22-9-8	-467	-467	---	FRONT	VERT	TOTAL
W	3-9-4	-407	-407	---	FRONT	VERT	TOTAL

ALLOWABLE DEFL.(TL)= $L/120$ (0.19")
CALCULATED VERT. DEFL.(TL) = $L/120$ (0.17")

CSI: TC=0.67/1.00 (C-D:1), BC=0.89/1.00 (O-P:1), WB=0.86/1.00 (G-O:1), SSI=0.41/1.00 (F-G:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

AUTOSOLVE HEELS OFF

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

NAIL VALUES

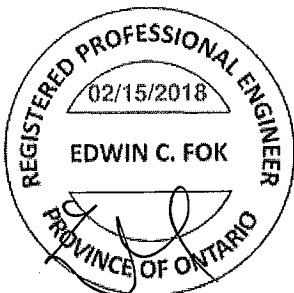
PLATE	GRIP(DRY)	SHEAR	SECTION
	(PSI)	(PLI)	(PLI)
	MAX	MIN	MAX
MT20	618	354	1667
	788	1987	1656

PLATE PLACEMENT TOL. = 0.250 Inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.89 (M) (INPUT = 0.90)
JSI METAL= 0.97 (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

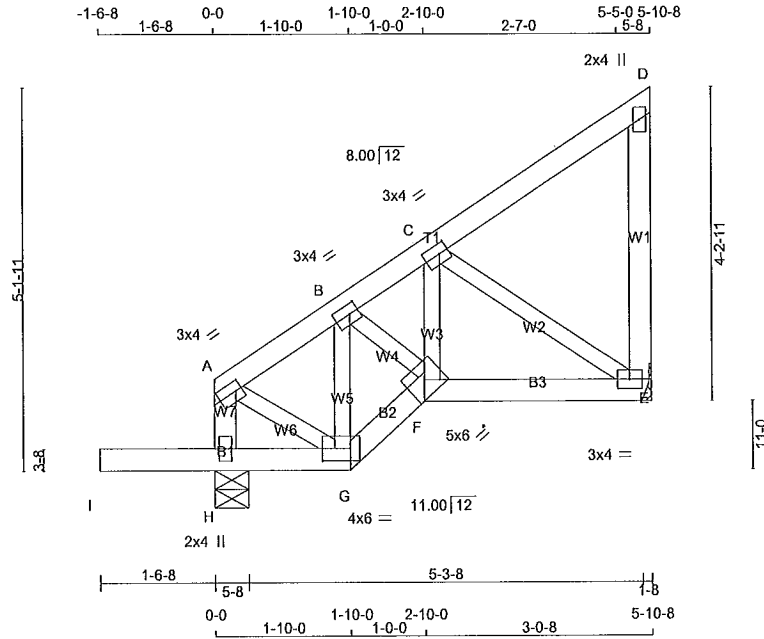


A-18023188(2)

JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
292577	J1T	4	1	TRUSS DESC.	

Alpa Roof Truss, Maple

Version 8.200 S Jan 6 2018 MITek Industries, Inc. Thu Feb 15 14:42:07 2018 Page 1
ID:MF8liriaTok7DlbpT4B71Xys4PG-TgRqkXu7JAmgs9HdMrZnajNDqldhY1ZgDgYXzktRk



Scale = 1:31.0

TOTAL WEIGHT = 4 X 30 = 120 lb

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

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

PLATES (table is in inches)

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

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

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

HANGER BY OTHERS
MIN. SEAT SIZE: 1-8

UNFACTORED REACTIONS

JT	1ST LCASE	MAX/MIN	COMPONENT REACTIONS				
H	322	197 / 0	0 / 0	0 / 0	0 / 0	125 / 0	0 / 0
E	188	115 / 0	0 / 0	0 / 0	0 / 0	73 / 0	0 / 0

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

BRACING

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

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

LOADING

TOTAL LOAD CASES: (4)

CHORDS	MEMB.	MAX. FACTORED	FORCE	VERT. LOAD	LC1	MAX	MAX.	MEMB.	MAX. FACTORED	FORCE	MAX
			(LBS)	(PLF)	CSI (LC)	UNBRAC	LENGTH			(LBS)	CSI (LC)
FR-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						

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/380 (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.

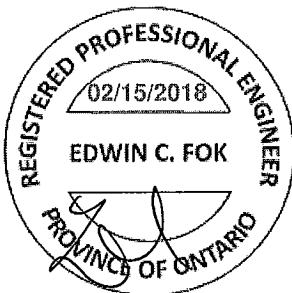
NAIL VALUES
PLATE GRIP(DRY) SHEAR SECTION
(PSI) (PLI) (PLI)
MAX MIN MAX MIN MAX MIN
MT20 618 354 1667 788 1987 1656

PLATE PLACEMENT TOL. = 0.250 inches

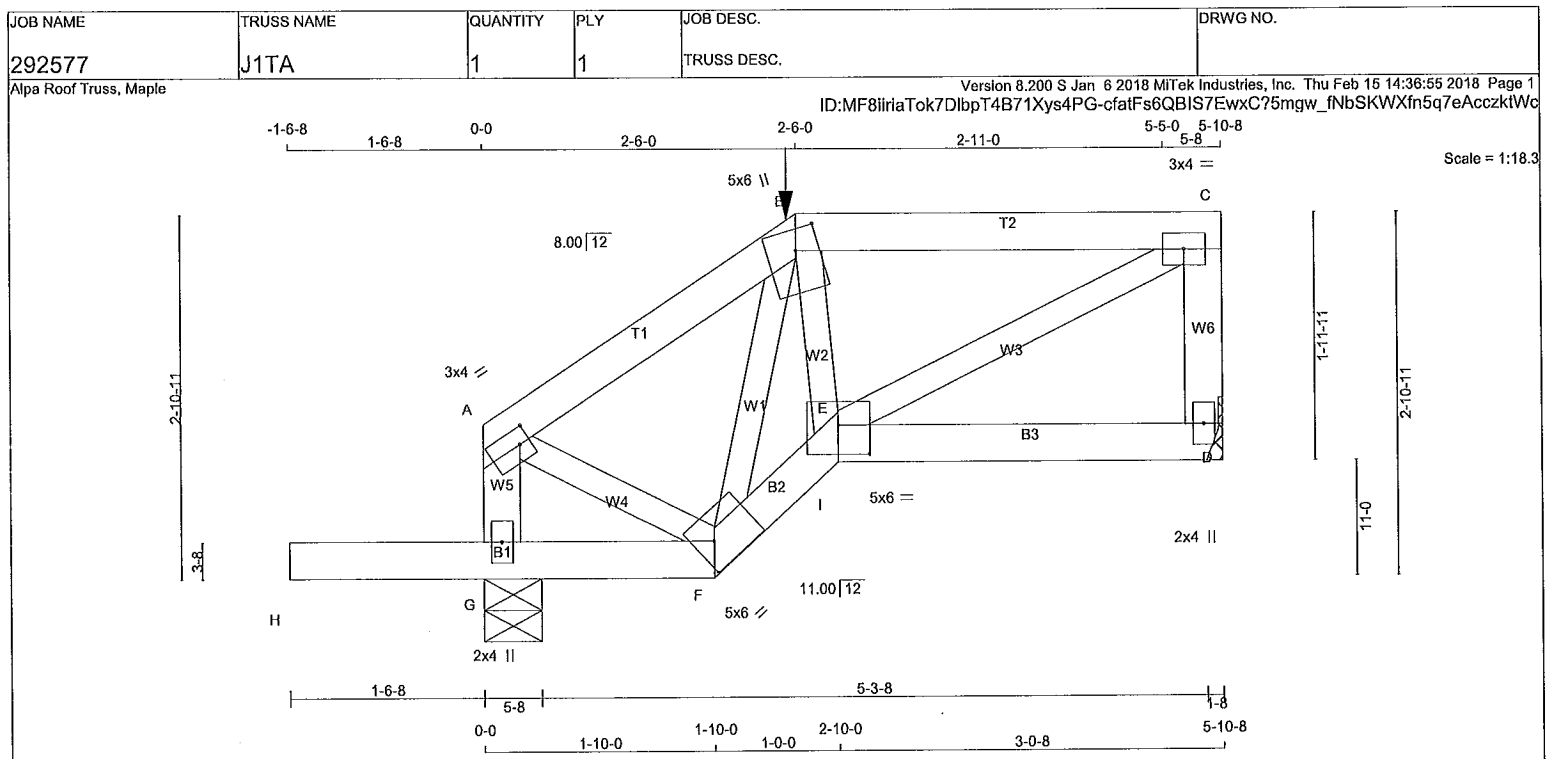
PLATE ROTATION TOL. = 5.0 Deg.

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

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-18023191



LUMBER				N. L. G. A. RULES	
CHORDS	SIZE	LUMBER	DESCR.		
A - B	2x4	DRY	No.2	SPF	
B - C	2x4	DRY	No.2	SPF	
D - C	2x4	DRY	No.2	SPF	
G - A	2x4	DRY	No.2	SPF	
H - F	2x4	DRY	No.2	SPF	
F - E	2x4	DRY	No.2	SPF	
E - D	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-1	MT20	3.0	4.0	1.50 1.00
B	TTWW+m	MT20	5.0	6.0	2.00 2.25
C	TMVW-1	MT20	3.0	4.0	
D	BMV1+p	MT20	2.0	4.0	
E	BBWW-1	MT20	5.0	6.0	2.75 3.00
F	BBWW-h	MT20	5.0	6.0	2.50 1.75
G	BMV1+p	MT20	2.0	4.0	

HANGERS NOTES
1) SPECIAL HANGER(S) OR CONNECTION(S) REQUIRED TO SUPPORT CONCENTRATED LOAD(S) 71.7 lbs FACTORED DOWN AT 2-6-0 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 GROSS REACTION		MAXIMUM FACTORED GROSS REACTION		INPUT BRG		REQRD BRG	
JT		VERT	HORZ	DOWN	HORZ	IN-SX	IN-SX		
D		398	0	398	0	0	0	HANGER BY OTHERS	
G		548	0	548	0	0	0	MIN. SEAT SIZE: 1-8	1-8

UNFACTORED REACTIONS

JT	1ST LCASE	MAX./MIN. SNOW	LIVE	PERM. LIVE	WIND	DEAD	SOIL
D	283	174 / 0	0 / 0	0 / 0	0 / 0	109 / 0	0 / 0
G	391	236 / 0	0 / 0	0 / 0	0 / 0	155 / 0	0 / 0

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

BRACING

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

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

LOADING

TOTAL LOAD CASES: (4)

CHORDS		FACTORED		WEBS		FACTORED	
MEMB.	FORCE (LBS)	VERT. (PLF)	LC1 MAX. (LC)	MAX. UNBRACED LENGTH	MEMB.	FORCE (LBS)	MAX. (LC)
FR-TO		FROM	TO		FR-TO		
A-B	-226 / 0	-78.0	-78.0	0.09 (1)	6.25	F-B	-389 / 0
B-C	-314 / 0	-111.3	-111.3	0.24 (1)	6.25	B-E	0 / 147
D-C	-358 / 0	0.0	0.0	0.04 (1)	7.81	E-C	0 / 358
G-A	-313 / 0	0.0	0.0	0.03 (1)	7.81	A-F	0 / 207
H-G	0 / 0	-96.5	-96.5	0.17 (1)	10.00		
G-F	0 / 0	-26.4	-26.4	0.17 (1)	10.00		
F-I	0 / 387	-26.4	-26.4	0.07 (1)	10.00		
I-E	0 / 387	-26.4	-26.4	0.07 (1)	10.00		
E-D	0 / 0	-26.4	-26.4	0.08 (4)	10.00		

FACTORED CONCENTRATED LOADS (LBS)

JT	LOC.	LC1	MAX-	MAX+	FACE	DIR.	TYPE
B	2-6-0	-72	-72	—	FRONT	VERT	TOTAL

DESIGN CRITERIA

SPECIFIED LOADS:

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

SPACING = 24.0 IN. C/C

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

GIRDER TYPE: CPrimeHlp
LEFT SETBACK = 2-6-0
RIGHT SETBACK = 0-0
END SETBACK = 3-8-8
END WALL WIDTH = 0-0
CORNER FRAMING TYPE: CONVENTIONAL
END JACK TYPE: CONVENTIONAL
APPLIED TO FRONT SIDE
- ADD'L LOADS BASED ON 55 % OF GSL.

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

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

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/624 (0.03")

CSI: TC=0.24/1.00 (B-C:1), BC=0.17/1.00 (F-G:1), WB=0.09/1.00 (C-E:1), SSI=0.16/1.00 (B-C:1)

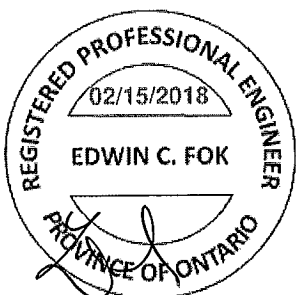
DOL LUMBER=1.00 NAIL=1.00 LS BEND=1.00 COMP=1.00 SHEAR=1.00 TENS= 1.00

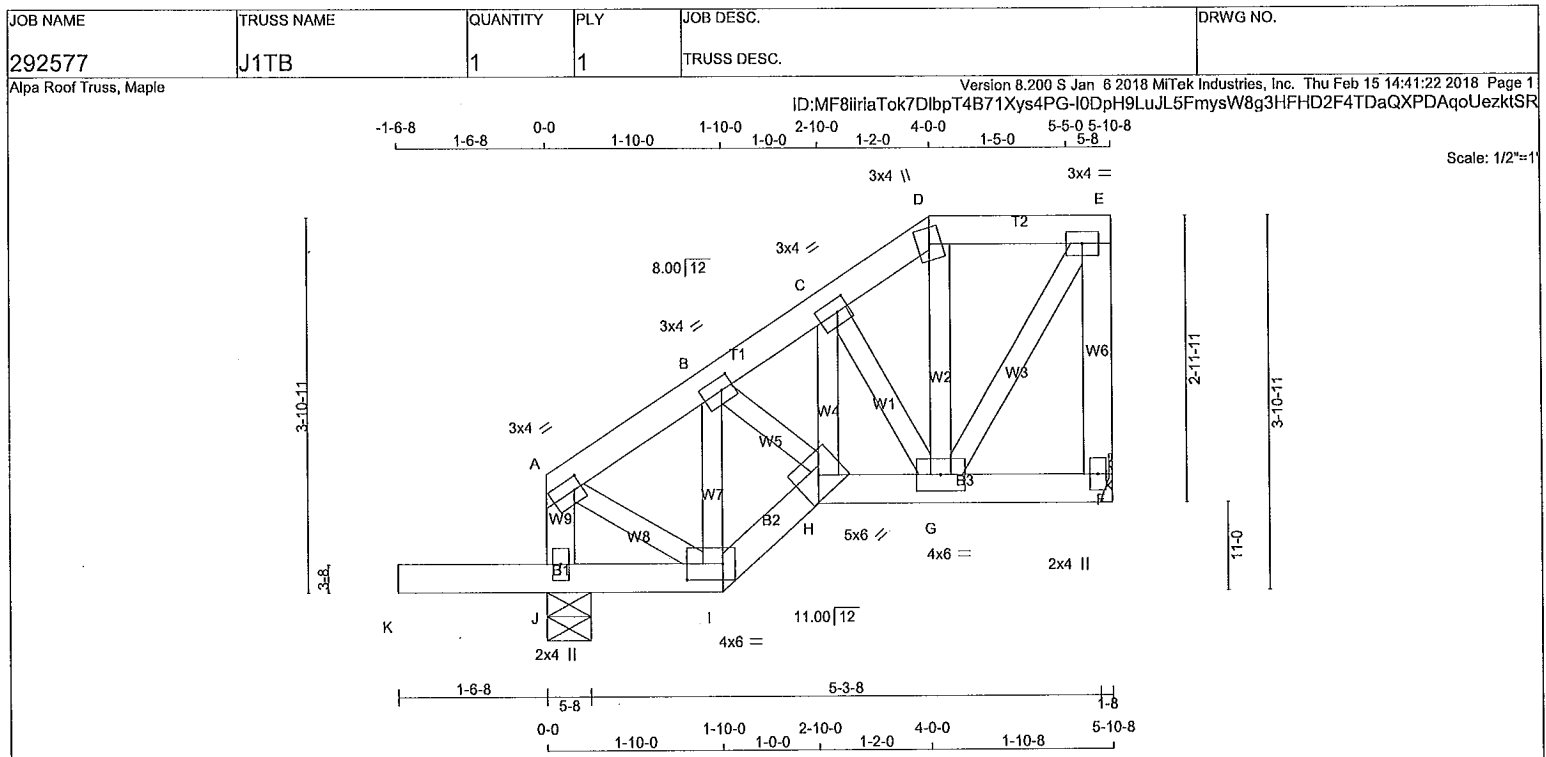
COMPANION LIVE LOAD FACTOR = 1.00

AUTOSOLVE RIGHT HEEL ONLY

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

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





TOTAL WEIGHT = 32 lb

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

PLATES (table is in inches)					
JT	TYPE	PLATES	W	LEN	Y X
A	TMVW-t	MT20	3.0	4.0	1.50 1.00
B	TMVW-t	MT20	3.0	4.0	1.50 1.50
C	TMVW-t	MT20	3.0	4.0	1.50 1.50
D	TTW+m	MT20	3.0	4.0	
E	TMVW-t	MT20	3.0	4.0	
F	BMV1+p	MT20	2.0	4.0	
G	BMVWW-t	MT20	4.0	6.0	
H	BBWW-h	MT20	5.0	6.0	
I	BBWW-h	MT20	4.0	6.0	2.00 4.50
J	BMV1+p	MT20	2.0	4.0	

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

BEARINGS		FACTORED		MAXIMUM FACTORED		INPUT		REQRD	
JT	DESCR.	GROSS REACTION	VERT	GROSS REACTION	DOWN	BRG	IN-SX	BRG	IN-SX
F		264	0	264	0	0	HANGER BY OTHERS		
J		452	0	452	0	0	MIN. SEAT SIZE: 1-8	1-8	

UNFACTORED REACTIONS

JT	1ST CASE	MAX/MIN.	COMPONENT REACTIONS						
JT	COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL		
F	188	115 / 0	0 / 0	0 / 0	0 / 0	73 / 0	0 / 0		
J	322	197 / 0	0 / 0	0 / 0	0 / 0	125 / 0	0 / 0		

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

BRACING

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

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

LOADING

TOTAL LOAD CASES: (4)

CHORDS		FACTORED		W E B S		MAX. FACTORED	
MEMB.	FORCE (LBS)	VERT. LOAD (PLF)	LC1 MAX (CSI (LC))	MEMB.	FORCE (LBS)	MAX. FACTORED (CSI (LC))	
FR-TO		FROM	TO	FR-TO			
A-B	-168 / 0	-78.0	-78.0 0.03 (1)	I-B	-227 / 0	0.04 (1)	
B-C	-237 / 0	-78.0	-78.0 0.02 (1)	B-H	0 / 86	0.02 (1)	
C-D	-144 / 0	-78.0	-78.0 0.01 (1)	H-C	0 / 84	0.02 (1)	
D-E	-116 / 0	-78.0	-78.0 0.05 (1)	C-G	-138 / 0	0.02 (1)	
F-E	-248 / 0	0.0	0.0 0.04 (1)	G-D	-32 / 7	0.01 (1)	
J-A	-223 / 0	0.0	0.0 0.02 (1)	G-E	0 / 211	0.05 (1)	
				A-I	0 / 159	0.04 (1)	
K-J	0 / 0	-96.5	-96.5 0.16 (1)				
J-I	0 / 0	-18.5	-18.5 0.16 (1)				
I-H	0 / 179	-18.5	-18.5 0.03 (1)				
H-G	0 / 188	-18.5	-18.5 0.03 (1)				
G-F	0 / 0	-18.5	-18.5 0.01 (4)				

DESIGN CRITERIA

SPECIFIED LOADS:

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

SPACING = 24.0 IN./C/C

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

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

THIS DESIGN COMPLIES WITH:

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

DESIGN ASSUMPTIONS

- OVERHANG NOT TO BE ALTERED OR CUT OFF.

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

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

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=0.05/1.00 (D-E:1), BC=0.16/1.00 (I-J:1), WB=0.05/1.00 (E-G:1), SSI=0.12/1.00 (J-K: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

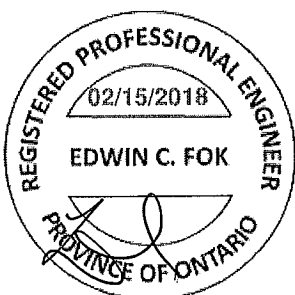
PLATE PLACEMENT TOL. = 0.250 inches

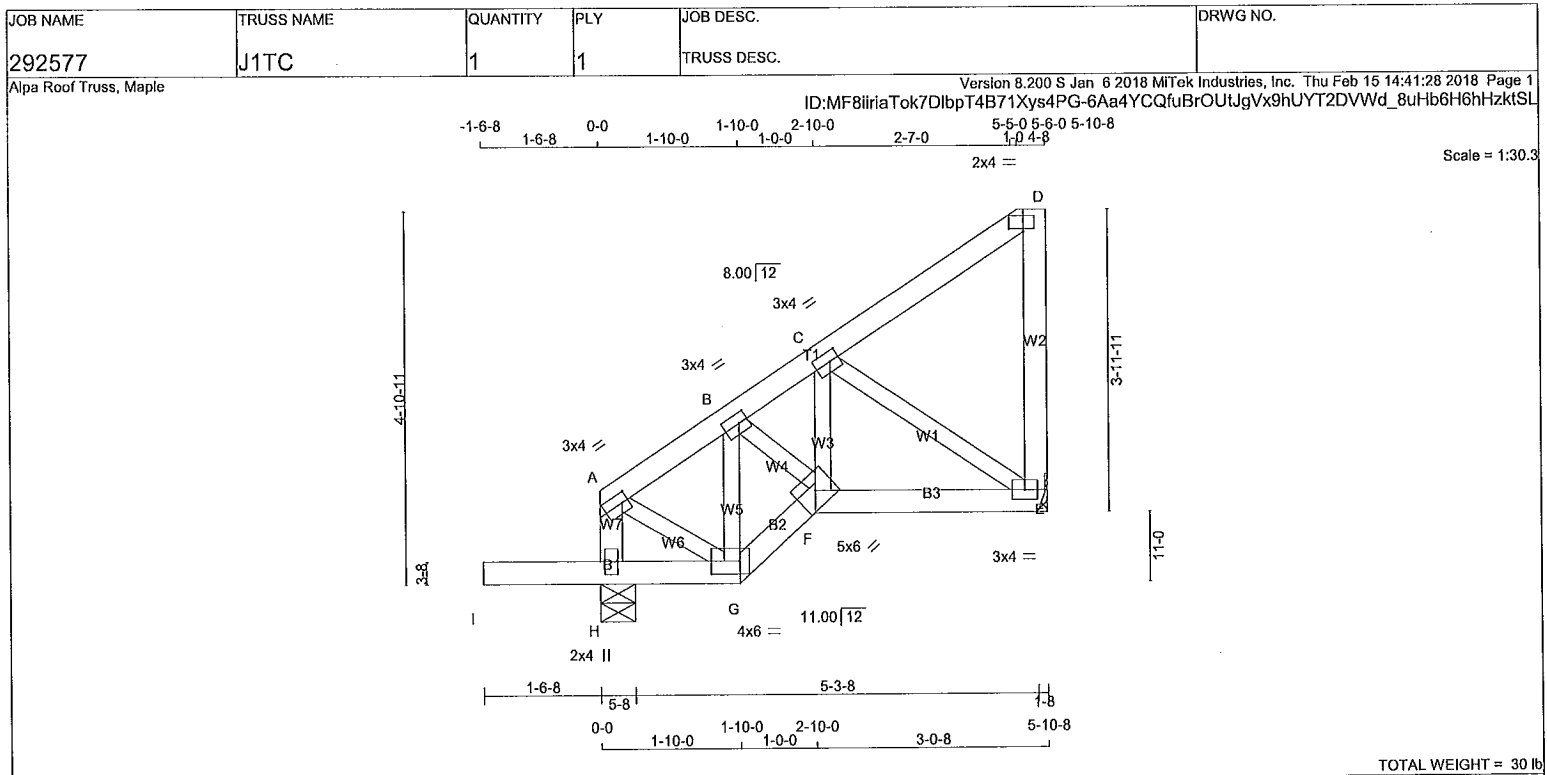
PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.52 (A) (INPUT = 0.90)
JSI METAL= 0.08 (A) (INPUT = 1.00)

A-18023193

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





LUMBER	CHORDS	SIZE	LUMBER	DESCR.
N. L. G. A. RULES				
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 EXCEPT	2x3	DRY	No.2	SPF

DRY: SEASONED LUMBER.

PLATES (table is in inches)

JT	TYPE	PLATES	W	LEN	Y	X
A	TMVW-t	MT20	3.0	4.0	1.50	1.00
B	TMWW-t	MT20	3.0	4.0	1.50	1.50
C	TMWW-t	MT20	3.0	4.0	1.50	1.50
D	TVM-p	MT20	2.0	4.0	0.50	2.25
E	BMVW1-t	MT20	3.0	4.0		
F	BBWW-h	MT20	5.0	6.0		
G	BBWW-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	HORZ	DOWN	HORZ
E	264	0	264	0
H	452	0	452	0

UNFACTORED REACTIONS

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

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

BRACING

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

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

LOADING

TOTAL LOAD CASES: (4)

CHORDS	MEMB.	MAX. FACTORED FORCE (LBS)	VERT. LOAD (PLF)	LC1 MAX (PLF)	MAX. UNBRACED LENGTH (FT)	WEBS	MEMB.	MAX. FACTORED FORCE (LBS)	MAX. UNBRACED LENGTH (FT)
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.

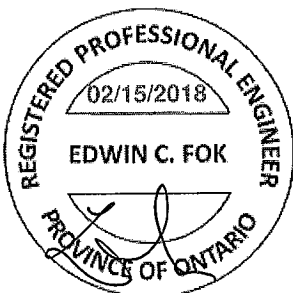
NAIL VALUES
PLATE GRIP(DRY) SHEAR SECTION
(PSI) (PLI) (PLI)
MAX MIN MAX MIN MAX MIN
MT20 618 354 1667 788 1987 1656

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

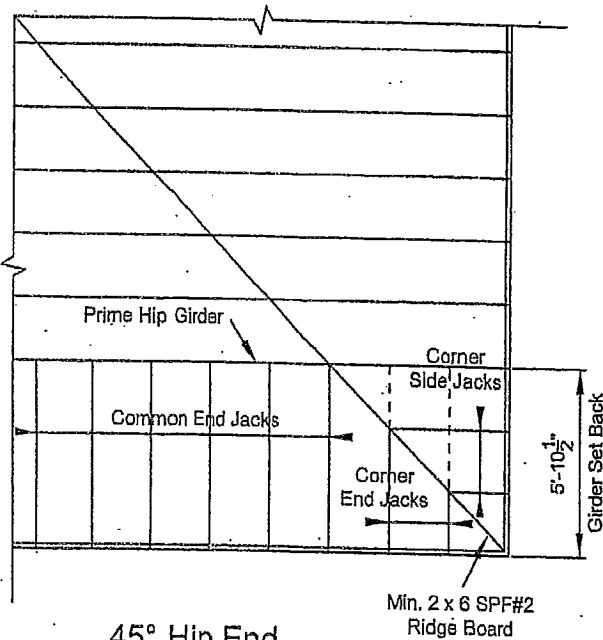
JSI GRIP= 0.50 (A) (INPUT = 0.90)
JSI METAL= 0.08 (D) (INPUT = 1.00)

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



A-18023194

STRACON ENGINEERING INC.



45° Hip End

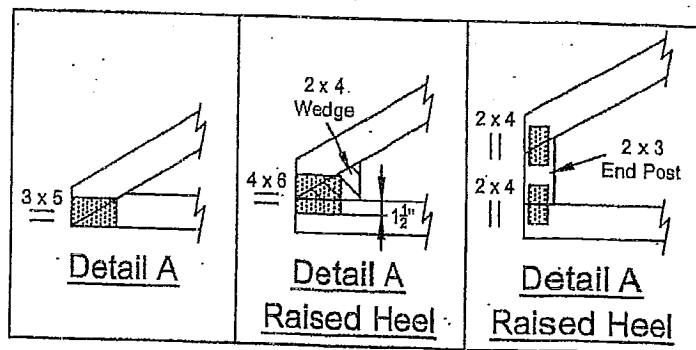
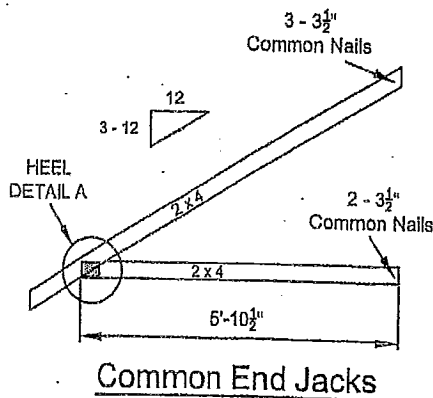
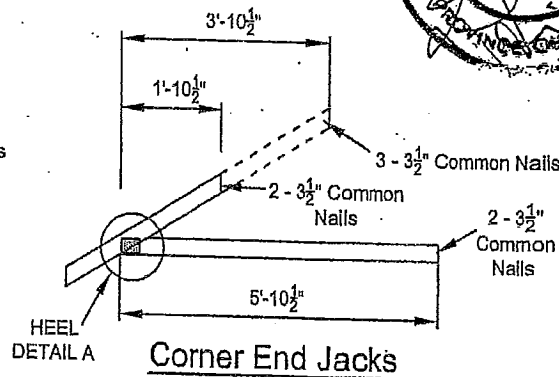
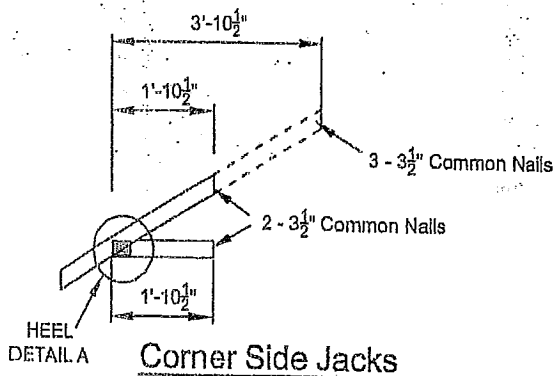
LUMBER SPECIFICATION

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

DESIGN LOAD

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

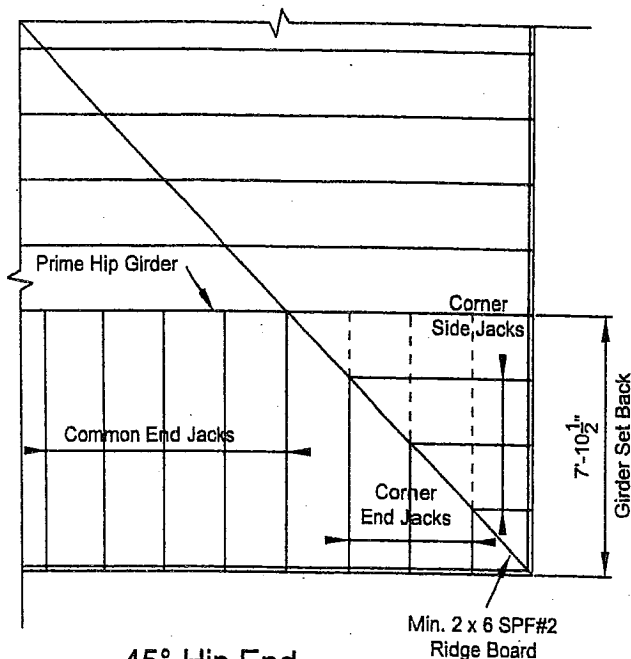
TOTAL LOAD : 50.5 P.S.F



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

CS-51008

STRACON ENGINEERING INC.



45° Hip End

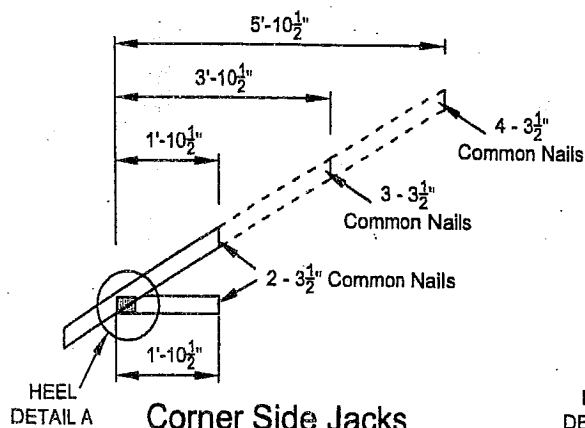
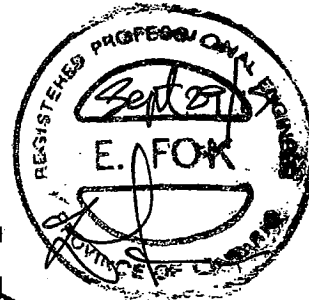
LUMBER SPECIFICATION

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

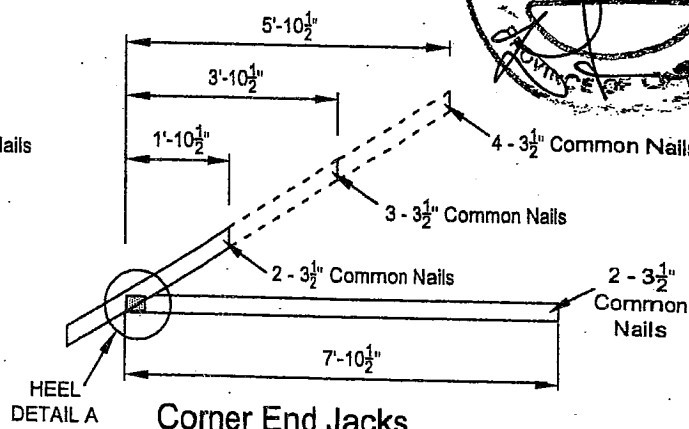
DESIGN LOAD

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.

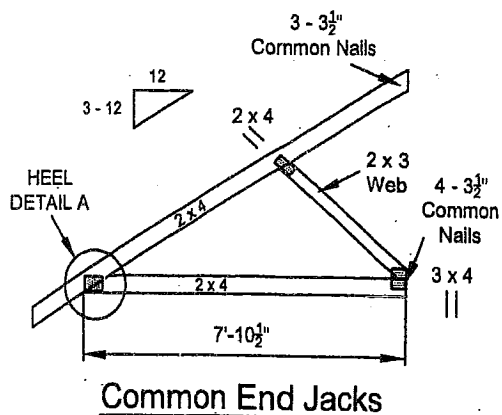
TOTAL LOAD : 44.8 P.S.F



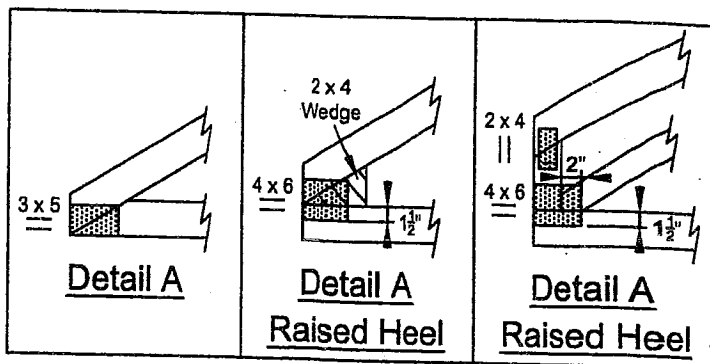
Corner Side Jacks



Corner End Jacks



Common End Jacks



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:

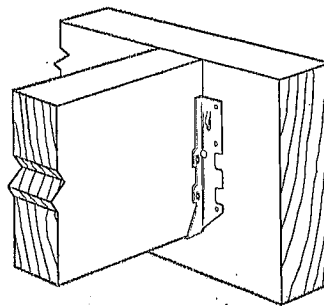
- Factored resistances are in accordance with CSA O86-14.
- Uplift resistances have been increased 15%. No further increase is permitted.
- Wood shear is not considered in the factored resistances given. The specifier must ensure that the joist and header capacities are capable of withstanding these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

Installation:

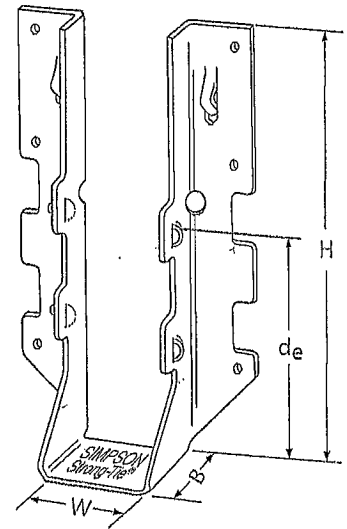
- Use all specified fasteners.
- Nails: 16d = 0.162" dia. x 3½" long common wire, 10d = 0.148" x 3" long common wire.
- Double shear nails must be driven at an angle through the joist or truss into the header to achieve the table loads.
- Not designed for welded or nailer applications.

Options:

- These hangers cannot be modified



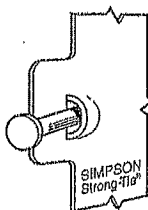
Typical LUS Installation



LUS28

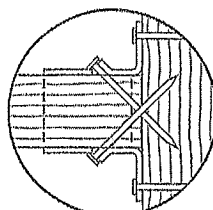
Model No.	Ga.	Dimensions (in.)				Fasteners		Factored Resistance (lb.)			
		W	H	B	d ₁ ¹	Face	Joist	D.Fir-L		S-P-F	
								Uplift (K _p =1.15)	Normal (K _p =1.00)	Uplift (K _p =1.15)	Normal (K _p =1.00)
LUS24	18	1½	3½	1¾	1 11/16	(4) 10d	(2) 10d	710	1630	645	1155
LUS24-2	18	3½	3½	2	1 11/16	(4) 16d	(2) 16d	835	2020	590	1435
LUS26	18	1½	4¾	1¾	3%	(4) 10d	(4) 10d	1420	2170	1290	1630
LUS26-2	18	3½	4¾	2	4	(4) 16d	(4) 16d	1720	2595	1545	1920
LUS26-3	18	4¾	4¾	2	3¼	(4) 16d	(4) 16d	1720	2595	1545	2340
LUS28	18	1½	6%	1¾	3¾	(6) 10d	(6) 10d	1420	2520	1290	1790
LUS28-2	18	3½	7	2	4	(6) 16d	(4) 16d	1720	3325	1545	2575
LUS28-3	18	4¾	6¼	2	3¼	(6) 16d	(4) 16d	1720	3325	1545	2375
LUS210	18	1½	7 11/16	1¾	3%	(8) 10d	(4) 10d	1420	2785	1290	2210
LUS210-2	18	3½	9	2	6	(8) 16d	(6) 16d	2580	4500	2320	3195
LUS210-3	18	4¾	8 11/16	2	5¼	(8) 16d	(6) 16d	2580	3345	2320	2375

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

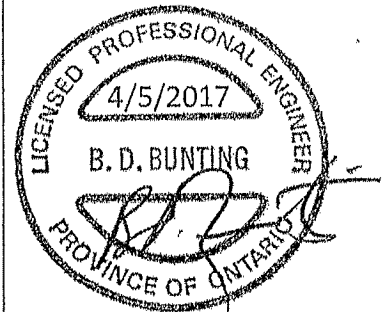


Double Double Shear Nailing prevents tabs breaking off (available on some models).

U.S. Patent 5,603,580



Double Shear Nailing Top View.



LIMIT
STATES
DESIGN

This technical bulletin is effective until June 30, 2019, and reflects information available as of March 1, 2017.

This information is updated periodically and should not be relied upon after June 30, 2019. Contact Simpson Strong-Tie for current information and limited warranty at [strongtie.com](http://www.strongtie.com).

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

(800) 999-5099
strongtie.com

TC – Truss Connectors



The TC truss connector is an ideal connector for scissor trusses and can allow horizontal movement up to 1 1/4". The TC also attaches plated trusses to top plates or sill plates to resist uplift forces. Typically used on one or both ends of truss as determined by the building designer.

Material: 16 gauge

Finish: G90 galvanized

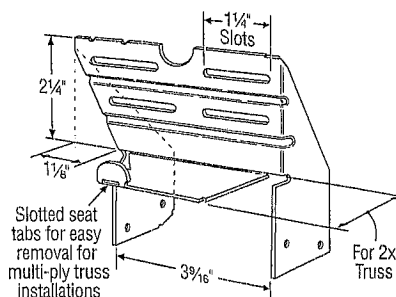
Design: Factored resistances are in accordance with CSA 086-14

Installation:

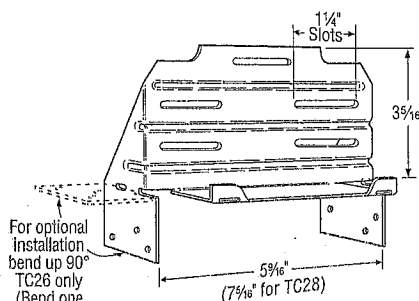
- Use all specified fasteners.
- Nails: 10d = 0.148" dia. x 3" long common wire, 10d x 1 1/2" = 0.148" dia. x 1 1/2" long.
- Drive 10d nails into the truss at the inside end of the slotted holes (inside end is towards the centre of the truss) and clinch on the back side. Do not seat these nails into the truss—allow room under the nail head for movement of the truss with respect to the wall.

Optional TC Installation:

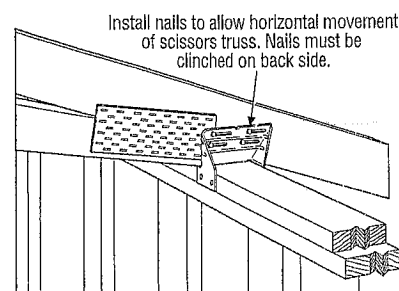
- Bend one flange up 90°. Drive specified nails into the top and face of the top plates or install Titen® screws into the top and face of masonry wall. See optional load tables and installation details.



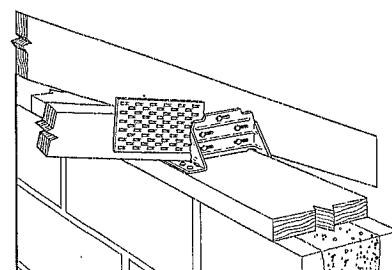
TC24
U.S. Patent 4,932,173



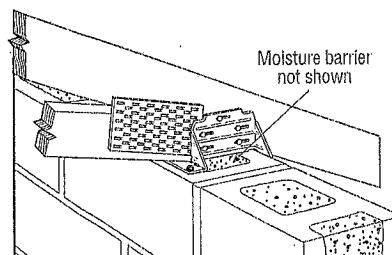
TC26
(TC28 Similar)



Typical TC24 Installation



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



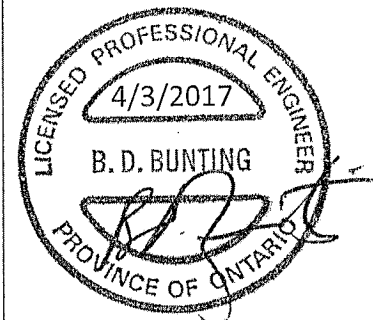
Optional TC26 Installation for Grouted Concrete Block using Titen Screws

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

Optional TC Installation Table

Model No.	Fasteners		Factored Resistance	
	Truss	Wall Plates	D.Fir-L	S-P-F
			Uplift ($K_b=1.15$)	Uplift ($K_b=1.15$)
			lb.	lb.
TC26	(5) 10d	(6) 10d x 1 1/2"	810	660
	(5) 10d	(6) 10d	930	660

1. Factored resistances have been increased 15% for earthquake or wind loading; no further increase allowed; reduce where other loads govern.
2. Grout strength is 15 MPa minimum.
3. Optional TC26 installation with 10d nails requires minimum 3" top plate thickness.
4. TC26 fastened to grouted concrete block with (6) – 3/8" x 2 1/4" Titen screws has a factored uplift resistance of 275 lb.



**LIMIT
STATES
DESIGN**

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T-SPECTC17 3/17 exp. 6/19

(800) 999-5099
strongtie.com