

ENGINEERING
 A. 18023433 - A. 18023433
 A. 18023484 - A. 18023520
 A. 18082082



Job Track: 45147
 Layout ID: 301036
 Plan Log: 99352

Builder / Location:
GOLD PARK HOMES / VAUGHAN

Project: **PINE VALLEY**
 Date: 8/13/2018 Designer: AMANDA

Model / Elevation:
4201 REV2 / B

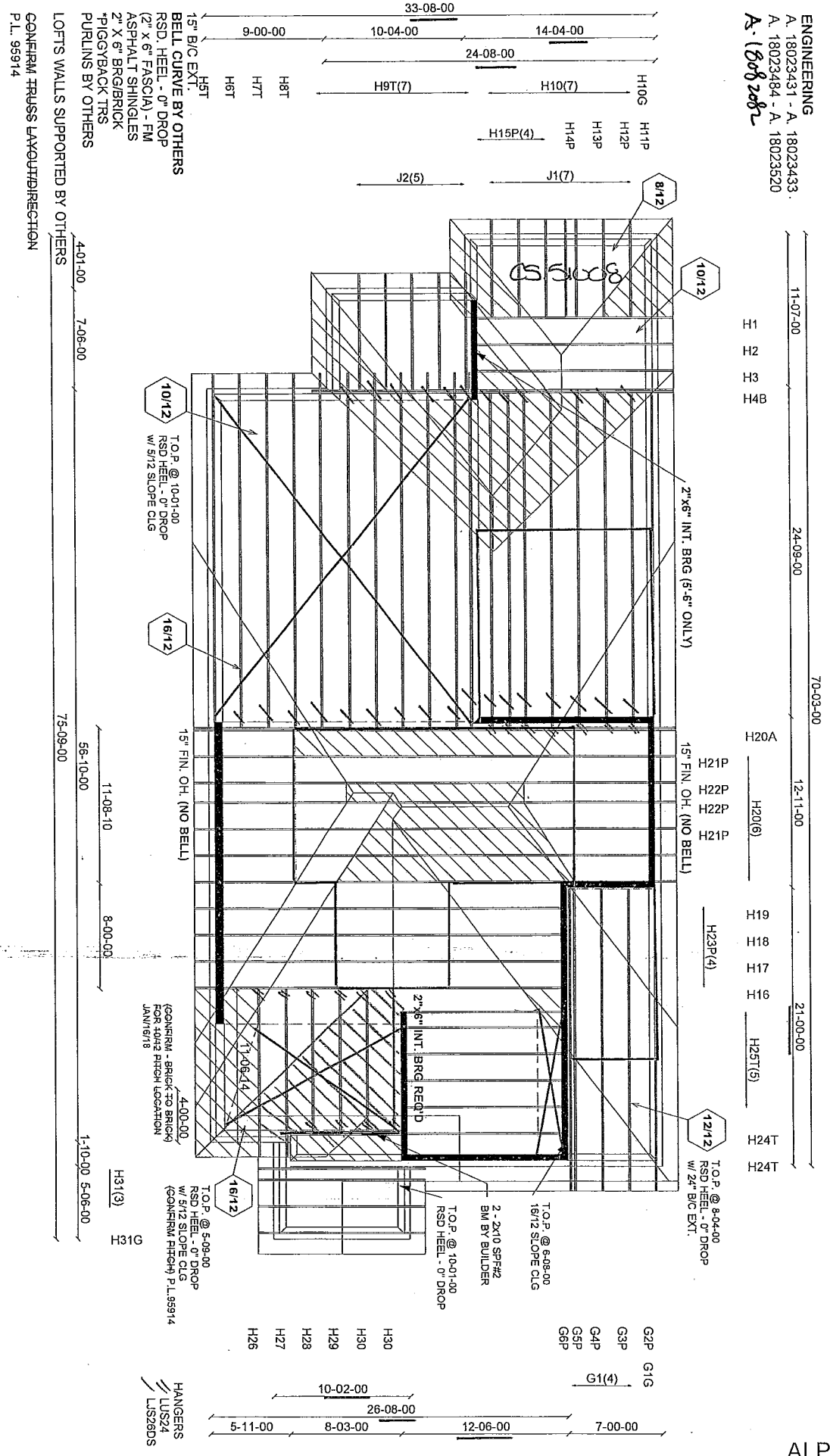
THESE DRAWINGS CONSTITUTE THE PROPERTY OF ALPA ROOF TRUSSES INC. SHALL NOT BE REPRODUCED, PUBLISHED, OR REDISTRIBUTED IN ANY MANNER OR UTILIZED FOR ANY PURPOSE OTHER THAN THE MANUFACTURE OF TRUSSES BY ALPA ROOF TRUSSES INC. AND WILL BE RETRACTED BY ALPA ROOF TRUSSES INC IF UTILIZED FOR ANY OTHER PURPOSE.

ALL CONVENTIONAL FRAMING TO CONFORM WITH PART 9.0.B.C. LATEST EDITION ROOF RAFTERS THAT CROSS OVER TRUSSES TO BE 2X4 SPF #2 @ 24" O.C WITH A VERT. POST TO THE TRUSS UNDERNEATH AT EACH CROSS POINT. VERT. POSTS LONGER THAN 6' TO HAVE LATERAL BRACING SO THAT THE DISTANCE BETWEEN END POINTS & BETWEEN ROWS OF BRACING DOES NOT EXCEED 6'

CONVENTIONAL FRAMING BY OTHERS

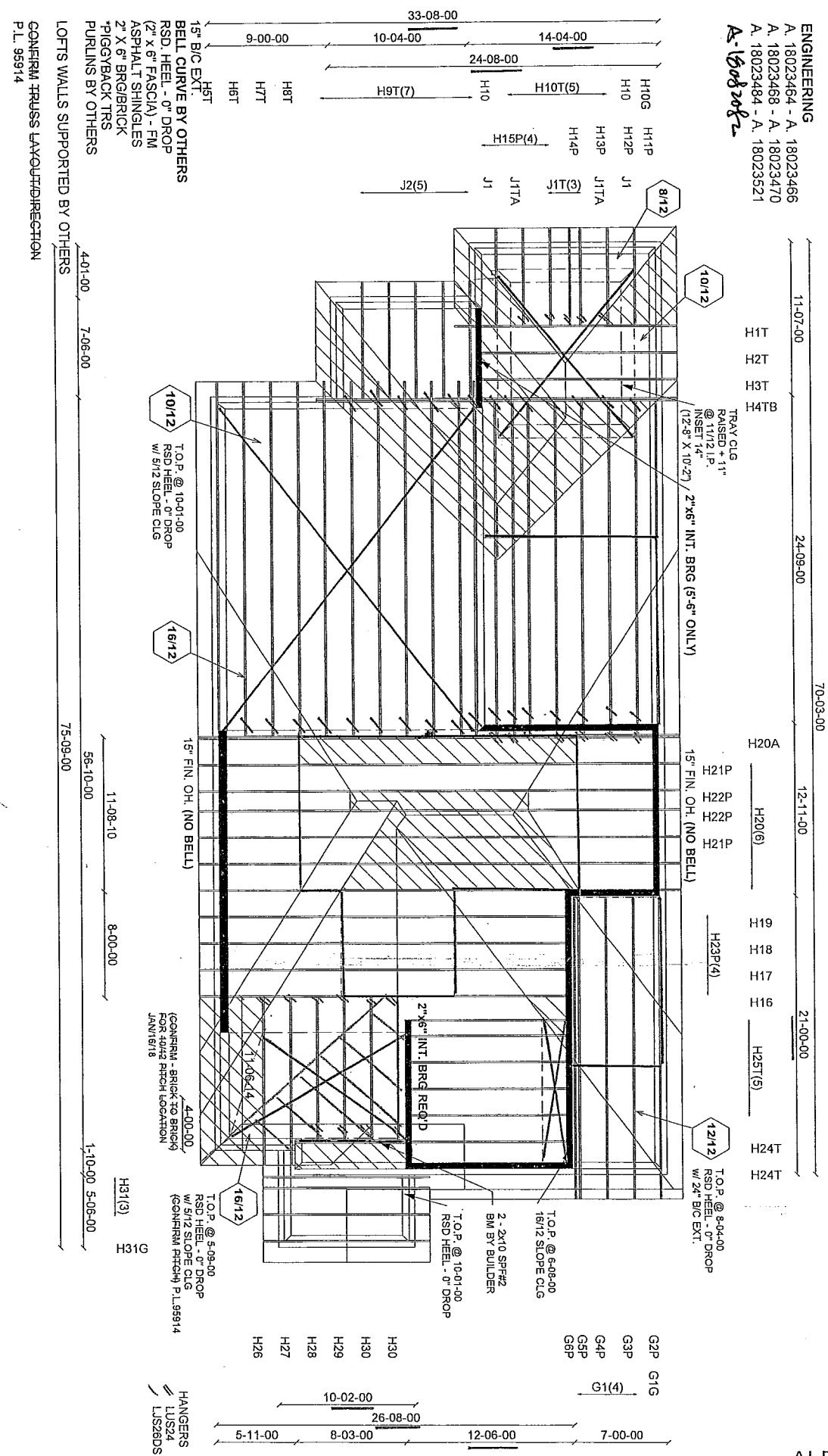
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Mike V. 8.2.0



ENGINEERING
 A. 18023464 - A. 18023466
 A. 18023468 - A. 18023470
 A. 18023484 - A. 18023521

A-16082082

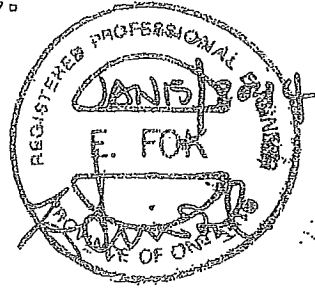


	Job Track: 45147	Builder / Location: GOLD PARK HOMES / VAUGHAN	Model / Elevation: 4201 REV2 / B OPT TRAY
	Layout ID: 301037	Project: PINE VALLEY	
	Plan Log: 99352	Date: 8/13/2018	Designer: AMANDA

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.

Stracon Engineering Inc.

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L4B 3W7
(905) 832-2250 Fax (905) 832-0286



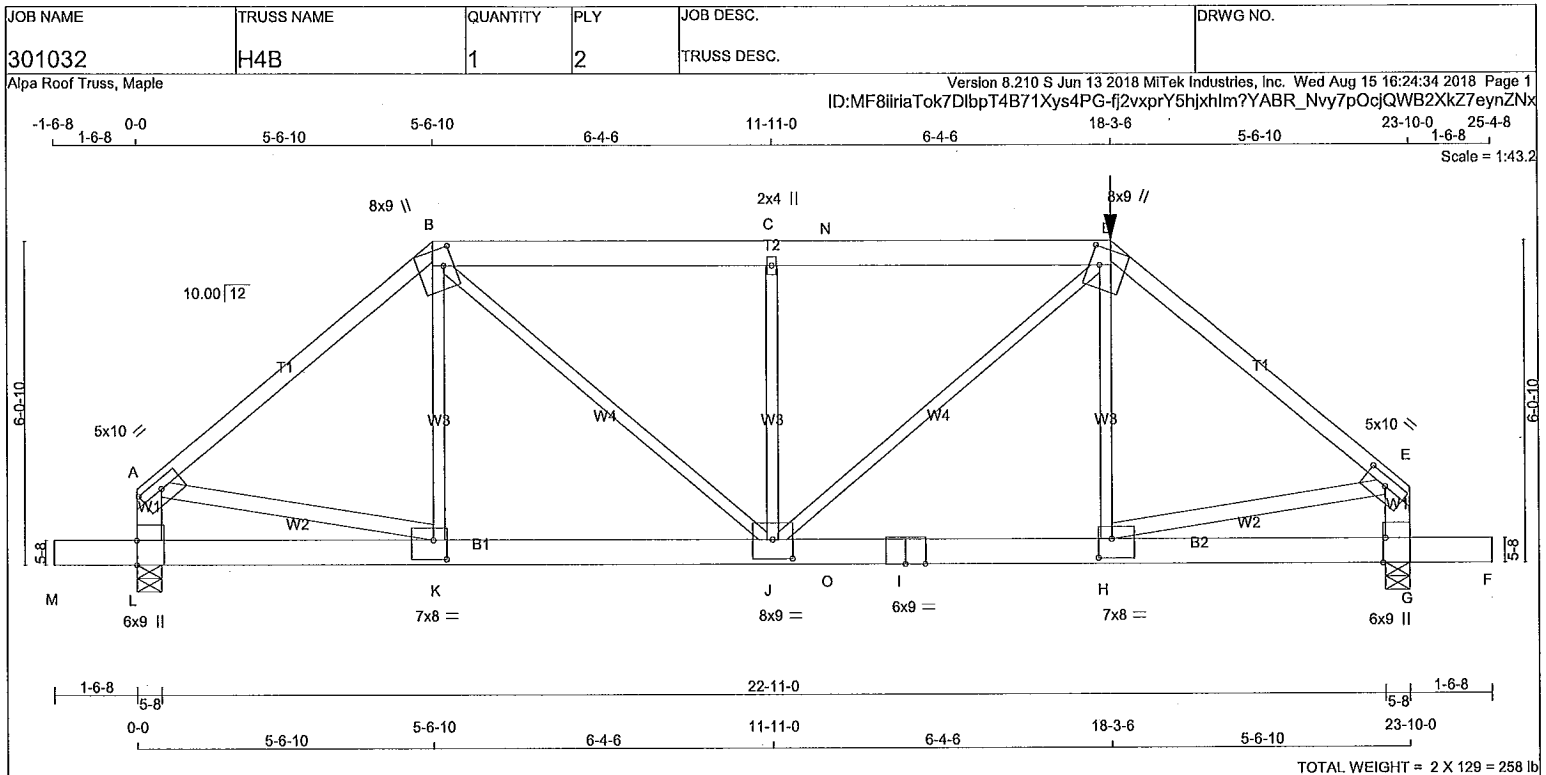
RESPONSIBILITIES

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

SPECIFICATIONS

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

January 15, 2014



LUMBER				
N. L. G. A. RULES				
CHORDS	SIZE	DRY	LUMBER	DESCR.
A - B	2x4	DRY	1650F 1.5E	SPF
B - D	2x4	DRY	No.2	SPF
D - E	2x4	DRY	1650F 1.5E	SPF
L - A	2x6	DRY	No.2	SPF
G - E	2x6	DRY	No.2	SPF
M - I	2x6	DRY	1650F 1.5E	SPF
I - F	2x6	DRY	1650F 1.5E	SPF

ALL WEBS				
EXCEPT	SIZE	DRY	LUMBER	DESCR.
A - K	2x4	DRY	No.2	SPF
H - E	2x4	DRY	No.2	SPF

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	12	TOP SIDE(59.7)
D - E	12	TOP SIDE(49.5)
B - D	12	TOP
L - A	12	TOP
G - E	12	TOP
BOTTOM CHORDS: (0.122"x3") SPIRAL NAILS		
M - I	2	SIDE(329.8)
I - F	2	SIDE(329.8)
WEBS: (0.122"x3") SPIRAL NAILS		
H - D	6	SIDE(94.0)
2x3	6	
2x4	6	

NAILS TO BE DRIVEN FROM ONE SIDE ONLY.

GIRDER NAILING ASSUMES NAIL 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.

Note: Lateral brace(s) shown shall be 2x4 SPF#2.

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

FACTORED GROSS REACTION		MAXIMUM FACTORED GROSS REACTION		INPUT BRG		REQRD BRG	
JT	VERT	JT	VERT	JT	VERT	JT	VERT
L	8370	0	8370	0	0	5-8	5-8
G	8898	0	8898	0	0	5-8	5-8

UNFACTORED REACTIONS

1ST LCASE		MAX/MIN. COMPONENT REACTIONS		WIND		DEAD		SOIL	
JT	COMBINED	JT	COMBINED	JT	COMBINED	JT	COMBINED	JT	COMBINED
L	5967	3645 / 0	0 / 0	0 / 0	0 / 0	2322 / 0	0 / 0	0 / 0	0 / 0
G	6348	3853 / 0	0 / 0	0 / 0	0 / 0	2495 / 0	0 / 0	0 / 0	0 / 0

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

BRACING

TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 3.50 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	FROM TO	FR-TO	FROM TO
A-B	-8648 / 0	K-B	0 / 2666
B-C	-9493 / 0	B-J	0 / 3718
C-N	-9493 / 0	J-C	-700 / 0
N-D	-9493 / 0	J-D	0 / 3044
D-E	-9296 / 0	H-D	0 / 3015
L-A	-6918 / 0	A-K	0 / 6759
G-E	-7421 / 0	H-E	0 / 7266
M-L	0 / 0		
L-K	0 / 0		
K-J	0 / 6704		
J-O	0 / 7210		
O-I	0 / 7210		
I-H	0 / 7210		
H-G	0 / 0		
G-F	0 / 0		

FACTORED CONCENTRATED LOADS (LBS)

JT	LOC.	LC1	MAX-	MAX+	FACE	DIR.	TYPE
D	18-3-6	-414	-414	---	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 = 0-0
END SETBACK = 7-2-14
END WALL WIDTH = 0-0
CORNER FRAMING TYPE: CONVENTIONAL
END JACK TYPE: PARTIAL
APPLIED TO FRONT SIDE
- ADDTL. LOADS BASED ON 55% OF GSL.
LOADS APPLIED TO FIRST 10-10-0 OF SPAN MEASURED FROM THE RIGHT.

GIRDER TYPE: CStdGirder
START DISTANCE = 0-0
START SPAN CARRIED = 25-5-1
END DISTANCE = 23-10-0
END SPAN CARRIED = 25-5-1
END WALL WIDTH = 0-0
APPLIED TO FRONT SIDE OF BOTTOM CHORD.
- 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 (0.79")
CALCULATED VERT. DEFL.(LL) = L/999 (0.13")
ALLOWABLE DEFL.(TL) = L/360 (0.79")
CALCULATED VERT. DEFL.(TL) = L/999 (0.26")

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

CSI: TC=0.57/1.00 (D-E:1), BC=0.86/1.00 (H-J:1), WB=0.64/1.00 (E-H:1), SSI=0.72/1.00 (H-J:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

AUTOSOLVE HEELS OFF

A-18082082

CONTINUED ON PAGE 2



JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
301032	H4B	1	2	TRUSS DESC.	
Alpa Roof Truss, Maple					
Version 8.210 S Jun 13 2018 MiTek Industries, Inc. Wed Aug 15 16:24:34 2018 Page 2 ID:MF8llriaTok7DlbpT4B71Xys4PG-fj2vxprY5hixhlm?YABR_Nvy7pOcQWB2XkZ7eynZNx					

PLATES (table is in inches)

JT	TYPE	PLATES	W	LEN	Y	X
A	TMVW-t	MT20	5.0	10.0	2.00	5.00
B	TTWW+m	MT20	8.0	9.0	4.00	2.25
C	TMW+w	MT20	2.0	4.0		
D	TTWW+m	MT20	8.0	9.0	4.00	2.25
E	TMVW-t	MT20	5.0	10.0	2.00	5.00
G	BMV1+t	MT20	6.0	9.0	Edge	0.50
H	BMWW-t	MT20	7.0	8.0	4.25	3.00
I	BS-t	MT20	6.0	9.0		
J	BMWWW-t	MT20	8.0	9.0	4.25	4.50
K	BMWW-t	MT20	7.0	8.0	4.25	3.00
L	BMV1+t	MT20	6.0	9.0	Edge	

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

HANGERS NOTES

- 1) SPECIAL HANGER(S) OR CONNECTION(S) REQUIRED TO SUPPORT CONCENTRATED LOAD(S) 414.1 lbs FACTORED DOWN AT 18-3-6 ON TOP CHORD. DESIGN FOR UNSPECIFIED CONNECTION(S) IS DELEGATED TO THE BUILDING DESIGNER.

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

NAIL VALUES

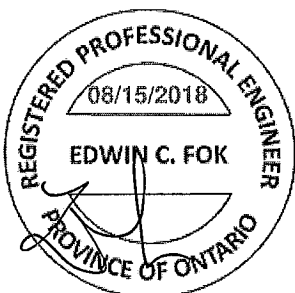
PLATE	GRIP(DRY)	SHEAR	SECTION
	(PSI)	(PLI)	(PLI)
	MAX MIN	MAX MIN	MAX MIN
MT20	618 354	1667 788	1987 1656

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.88 (A) (INPUT = 0.90)
JSI METAL= 0.94 (D) (INPUT = 1.00)

Note: Lateral brace(s) shown shall be 2x4 SPF#2.

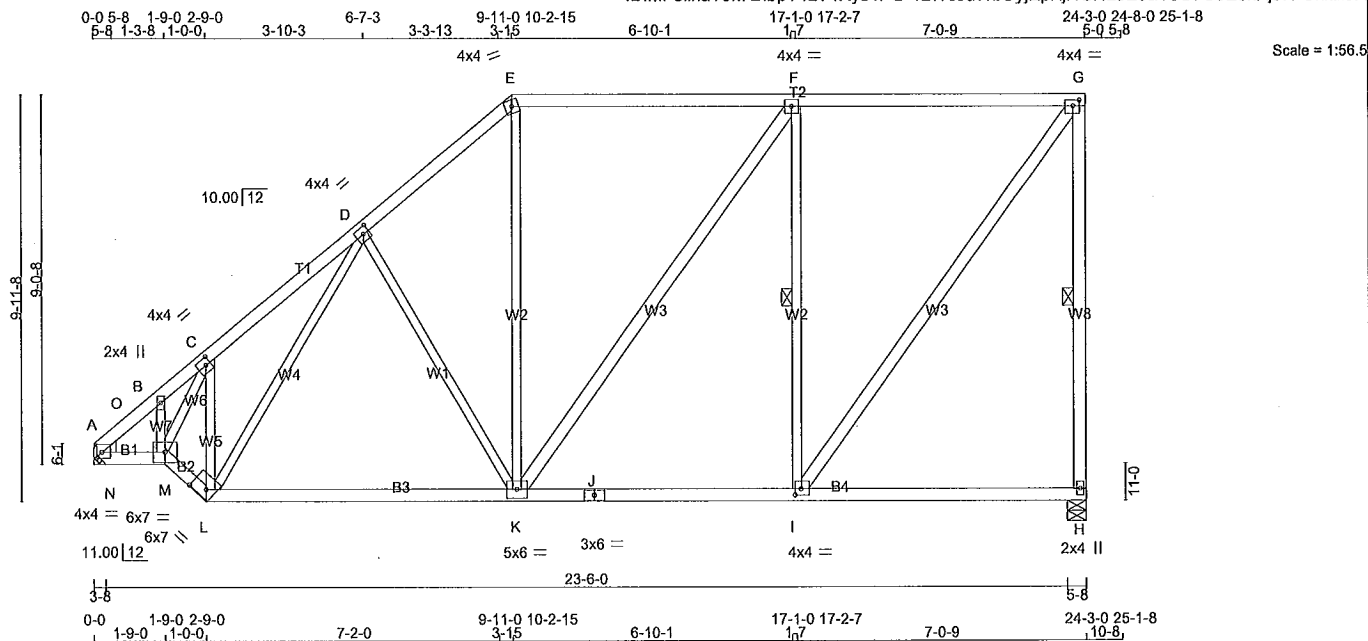


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JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
292594	H10T	5	1	TRUSS DESC.	

Alpa Roof Truss, Maple

Version 8.200 S Jan 6 2018 MiTek Industries, Inc. Sat Feb 17 13:44:50 2018 Page 1
ID:MF8ilriaTok7DlbpT4B71Xys4PG-4LW0JdWbUyJEpKjNGNL5E0aY3U7C9E5nXjs7PUzkE5R



LUMBER	N. L. G. A. RULES	CHORDS	SIZE	LUMBER	DESCR.
A - E	2x4	DRY	No.2	SPF	
E - G	2x4	DRY	No.2	SPF	
A - M	2x4	DRY	No.2	SPF	
M - L	2x4	DRY	No.2	SPF	
L - J	2x4	DRY	No.2	SPF	
J - H	2x4	DRY	No.2	SPF	
ALL WEBS EXCEPT	2x3	DRY	No.2	SPF	
G	2x4	DRY	No.2	SPF	
3	2x4	DRY	No.2	SPF	

DRY: SEASONED LUMBER.

PLATES (table is in inches)	JT	TYPE	PLATES	W	LEN	Y	X
A - TMBH1-I	MT20	4.0	4.0	1.75	1.50		
B - TMW1-w	MT20	2.0	4.0				
C - TMWW-I	MT20	4.0	4.0	2.00	1.50		
D - TMWW-I	MT20	4.0	4.0	2.00	1.75		
E - TTW-m	MT20	4.0	4.0				
F - TMWW-I	MT20	4.0	4.0				
G - TMWW-I	MT20	4.0	4.0	1.75	1.75		
H - BMW1-w	MT20	2.0	4.0				
I - BMWW-I	MT20	4.0	4.0	1.75	1.75		
J - BS-I	MT20	3.0	6.0				
K - BMWW-I	MT20	5.0	6.0				
L - BBWW-h	MT20	6.0	7.0	2.25	4.50		
M - BBWW-I	MT20	6.0	7.0				

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

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

BEARINGS	FACTORED GROSS REACTION	MAXIMUM FACTORED GROSS REACTION	INPUT BRG	REQRD BRG	HEEL WEDGE
JT	VERT	HORZ	DOWN	HORZ	UPLIFT
H	1237	0	1237	0	0
A	1193	0	1193	0	0

HANGER BY OTHERS 2x4 L
MIN. SEAT SIZE: 1-8

UNFACTORED REACTIONS

1ST LCASE	MAX/MIN. COMPONENT REACTIONS	SNOW	LIVE	PERM. LIVE	WIND	DEAD	SOIL
JT	COMBINED						
H	888	506 / 0	0 / 0	0 / 0	0 / 0	382 / 0	0 / 0
A	853	506 / 0	0 / 0	0 / 0	0 / 0	347 / 0	0 / 0

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

BRACING

FOR SECTION E-G, MAX. PURLIN SPACING = 2.00 FT.
FOR OTHER SECTIONS, TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 5.04 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-H, F-I.

LOADING

TOTAL LOAD CASES: (4)

CHORDS	MAX. FACTORED	VERT. LOAD	FACTORED	MAX. FACTORED	WEBS	MAX. FACTORED
MEMB.	FORCE (LBS)	FROM TO	VERT. LOAD (PLF)	MAX. FACTORED (LBS)	MEMB.	FORCE (LBS)
FR-TO					FR-TO	
A-O	-1682 / 0	-78.0 -78.0	0.11 (1)	5.04	M-B	0 / 149
O-B	-1581 / 0	-78.0 -78.0	0.12 (1)	5.15	M-C	0 / 734
B-C	-1441 / 0	-78.0 -78.0	0.12 (1)	5.34	L-C	-743 / 0
C-D	-1151 / 0	-78.0 -78.0	0.14 (1)	5.79	H-G	-1185 / 0
D-E	-997 / 0	-78.0 -78.0	0.13 (1)	6.12	K-E	0 / 290
E-F	-751 / 0	-85.5 -85.5	0.54 (1)	2.00	K-F	0 / 111
F-G	-687 / 0	-85.5 -85.5	0.54 (1)	2.00	I-F	-827 / 0
					I-G	0 / 1183
					L-D	0 / 18
A-N	0 / 1143	-18.5 -18.5	0.22 (1)	10.00	D-K	-271 / 0
N-M	0 / 1143	-18.5 -18.5	0.22 (1)	10.00	N-O	0 / 82
M-L	0 / 1179	-18.5 -18.5	0.19 (1)	10.00		
L-K	0 / 882	-18.5 -18.5	0.32 (4)	10.00		
K-J	0 / 687	-18.5 -18.5	0.31 (4)	10.00		
J-I	0 / 687	-18.5 -18.5	0.31 (4)	10.00		
I-H	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 PIGGYBACK TRUSS WITH SLOPES OF 6.00/12 AND -6.00/12 AND RESPECTIVE WALL HEIGHTS OF 0-0 AND 0-0 AND AN ADDITIONAL DEAD LOAD OF 3.0 P.S.F.

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

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

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

ALLOWABLE DEFL.(LL)= L/360 (0.80")
CALCULATED VERT. DEFL.(LL) = L/999 (0.03")
ALLOWABLE DEFL.(TL)= L/360 (0.80")
CALCULATED VERT. DEFL.(TL) = L/999 (0.14")

CSI: TC=0.54/1.00 (E-F:1), BC=0.32/1.00 (K-L:4), WB=0.57/1.00 (G-H:1), SSI=0.29/1.00 (E-F:1)

OOL 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

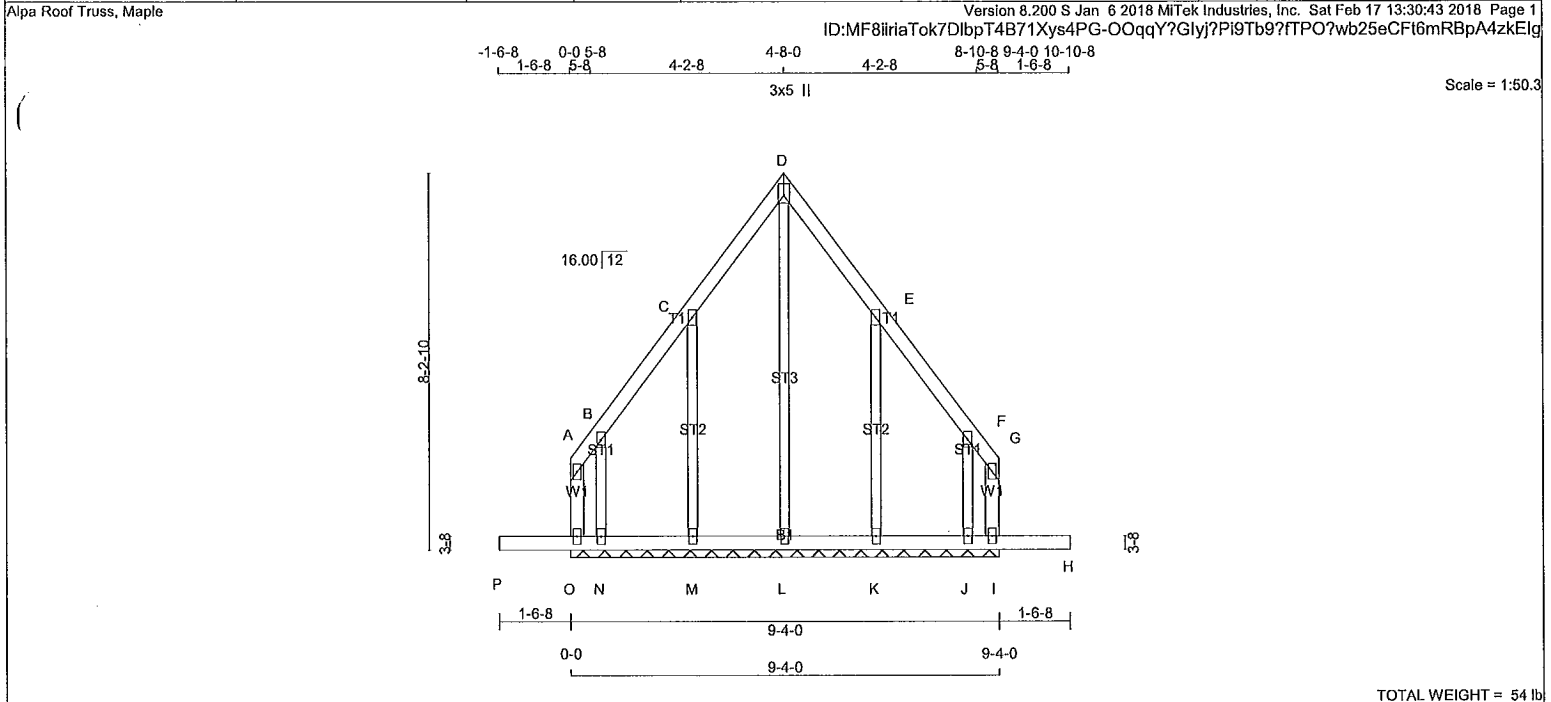
PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.90 (A) (INPUT = 0.90)
JSI METAL= 0.39 (A) (INPUT = 1.00)

A-18023521



JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
292593	H31G	1	1	TRUSS DESC.	



TOTAL WEIGHT = 54 lb

LUMBER

N. L. G. A. RULES	CHORDS	SIZE	LUMBER	DESCR.
O - A	2x4	DRY	No.2	SPF
A - D	2x4	DRY	No.2	SPF
D - G	2x4	DRY	No.2	SPF
I - G	2x4	DRY	No.2	SPF
P - H	2x4	DRY	No.2	SPF
ALL WEBS	2x3	DRY	No.2	SPF
ALL GABLE WEBS	2x3	DRY	No.2	SPF
SEASONED LUMBER.				
STUDS SPACED AT	2-0-0	OC.		

PLATES (table is in inches)

JT	TYPE	PLATES	W	LEN	Y	X
A	TMV+p	MT20	2.0	4.0		
B, C, E, F						
B	TMW+w	MT20	2.0	4.0		
D	TTW+p	MT20	3.0	5.0	2.00	Edge
G	TMV+p	MT20	2.0	4.0		
I	BMV1+p	MT20	2.0	4.0		
J, K, L, M, N						
J	BMW1+w	MT20	2.0	4.0		
O	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

THIS TRUSS DESIGNED FOR CONTINUOUS BEARINGS.

THIS TRUSS REQUIRES RIGID SHEATHING ON EXPOSED FACE.

PROVIDE ANCHORAGE AT BEARING JOINT N FOR 150 LBS. FACTORED UPLIFT

PROVIDE ANCHORAGE AT BEARING JOINT J FOR 150 LBS. FACTORED UPLIFT

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

BRACING

TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 10.00 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.

LOADING

TOTAL LOAD CASES: (4)

CHORDS				WEBS			
MEMB.	MAX. FACTORED FORCE (LBS)	VERT. LOAD (PLF)	LC1 MAX (LC)	MAX. UNBRACED LENGTH	MEMB.	MAX. FACTORED FORCE (LBS)	MAX. FACTORED CSI (LC)
FR-TO		FROM TO			FR-TO		
O-A	-20 / 0	0.0 0.0	0.02 (1)	7.81	L-D	-178 / 0	0.22 (1)
A-B	0 / 5	-78.0 -78.0	0.02 (1)	10.00	M-C	-165 / 0	0.07 (1)
B-C	0 / 10	-78.0 -78.0	0.04 (1)	10.00	N-B	-90 / 0	0.02 (1)
C-D	0 / 9	-78.0 -78.0	0.04 (1)	10.00	K-E	-165 / 0	0.07 (1)
D-E	0 / 9	-78.0 -78.0	0.04 (1)	10.00	J-F	-90 / 0	0.02 (1)
E-F	0 / 10	-78.0 -78.0	0.04 (1)	10.00			
F-G	0 / 5	-78.0 -78.0	0.02 (1)	10.00			
I-G	-20 / 0	0.0 0.0	0.02 (1)	7.81			
P-O	0 / 0	-96.5 -96.5	0.16 (1)	10.00			
O-N	-3 / 2	-18.5 -18.5	0.14 (1)	10.00			
N-M	-4 / 0	-18.5 -18.5	0.02 (4)	10.00			
M-L	-6 / 0	-18.5 -18.5	0.02 (4)	10.00			
L-K	-6 / 0	-18.5 -18.5	0.02 (4)	10.00			
K-J	-4 / 0	-18.5 -18.5	0.02 (4)	10.00			
J-I	-3 / 2	-18.5 -18.5	0.14 (1)	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

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

CSI: TC=0.04/1.00 (B-C:1), BC=0.16/1.00 (H-I:1), WB=0.22/1.00 (D-L:1), SSI=0.14/1.00 (I-J:1)

DOL LUMBER=1.00 NAIL=1.00 LS BEND=1.10

COMP=1.10 SHEAR=1.10 TENS= 1.10

COMPANION LIVE LOAD FACTOR = 1.00

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

NAIL VALUES

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

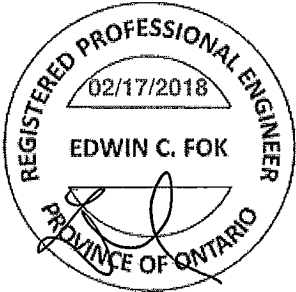
PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.17 (D) (INPUT = 0.90)

JSI METAL= 0.08 (E) (INPUT = 1.00)

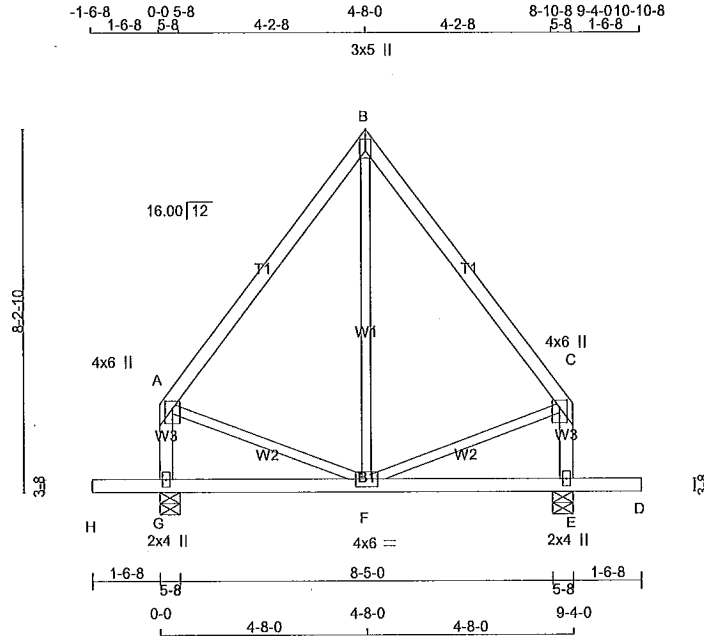
NOTE: Lateral brace(s) shown shall be 1x4 for Part 9 design as per OBC 9.23.13.11, and no less than 2x4 for Part 4 design



JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
292593	H31	3	1	TRUSS DESC.	

Alpa Roof Truss, Maple

Version 8.200 S Jan 6 2018 MiTek Industries, Inc. Sat Feb 17 13:30:36 2018 Page 1
ID:MF8IriaTok7DlbpT4B71Xys4PG-52vA4cBvcZ7PM5RFF11qdwDgdDI037149r?xQ_zkElm



TOTAL WEIGHT = 3 X 50 = 150 lb
(M)F

LUMBER

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

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		
F	BMVWW-t	MT20	4.0	6.0		
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 BRG	REQRD BRG
JT	VERT	HORZ	DOWN	UP/LIFT
G	599	0	599	0
E	599	0	599	0

UNFACTORED REACTIONS

JT	1ST LCASE	MAX/MIN. COMPONENT REACTIONS	SNOW	LIVE	PERM. LIVE	WIND	DEAD	SOIL
G	427	261 / 0	0 / 0	0 / 0	0 / 0	0 / 0	166 / 0	0 / 0
E	427	261 / 0	0 / 0	0 / 0	0 / 0	0 / 0	166 / 0	0 / 0

BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S) G, 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 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	-234 / 0	-78.0	-78.0	0.22 (1)	6.25	F-B	0 / 79	0.03 (4)				
B-C	-234 / 0	-78.0	-78.0	0.22 (1)	6.25	A-F	0 / 148	0.03 (1)				
G-A	-417 / 0	0.0	0.0	0.05 (1)	7.81	F-C	0 / 148	0.03 (1)				
E-C	-417 / 0	0.0	0.0	0.05 (1)	7.81							
H-G	0 / 0	-96.5	-96.5	0.16 (1)	10.00							
G-F	0 / 0	-18.5	-18.5	0.11 (4)	10.00							
F-E	0 / 0	-18.5	-18.5	0.11 (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

(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) = $L/360$ (0.31")
CALCULATED VERT. DEFL.(LL) = $L/999$ (0.00")
ALLOWABLE DEFL.(TL) = $L/360$ (0.31")
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=0.22/1.00 (B-C:1), BC=0.16/1.00 (D-E:1), WB=0.03/1.00 (C-F:1), SSI=0.12/1.00 (G-H:1)

DOL LUMBER=1.00 NAIL=1.00 I.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

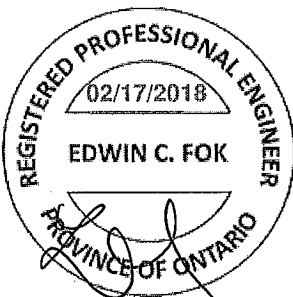
PLATE	GRIP(DRY)	SHEAR	SECTION
(PSI)	(PLI)	(PLI)	(PLI)
MAX	MIN	MAX	MIN
MT20	618	354	1667
	788	1987	1656

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.24 (A) (INPUT = 0.90)
JSI METAL= 0.12 (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



A-18023519

JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
292593	H30	2	1	TRUSS DESC.	

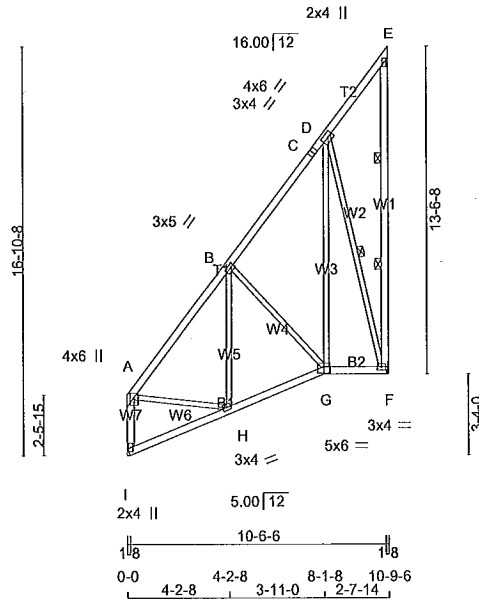
Alpa Roof Truss, Maple

Version 8.200 S Jan 6 2018 MiTek Industries, Inc. Sat Feb 17 13:30:29 2018 Page 1

ID:MF8ilriaTok7DlbpT4B71Xys4PG-oh_XcD5WFPEO00PuK3PBrrQVFPK4wtf2YGo3guzkElu

0-0 1-8 4-2-8 8-1-8 10-3-14 10-9-6
1-8 4-1-0 3-11-0 2-2-6 5-8

Scale: 1/8"=1'



TOTAL WEIGHT = 2 X 79 = 159 lb
(M)(F)

LUMBER				
N. L. G. A. RULES	CHORDS	SIZE	LUMBER	DESCR.
I - A	2x4	DRY	No.2	SPF
A - C	2x4	DRY	No.2	SPF
C - 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
A	TMVW+p	MT20	4.0	6.0	2.00 2.00
B	TMVW-t	MT20	3.0	5.0	1.50 1.50
C	TS-t	MT20	3.0	4.0	
D	TMVW-t	MT20	4.0	6.0	2.00 2.50
E	TMV+p	MT20	2.0	4.0	
F	BMVW1-t	MT20	3.0	4.0	
G	BBWW-I	MT20	5.0	6.0	3.00 3.00
H	BMVW-t	MT20	3.0	4.0	
I	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		
I	520	0	520	0	0	HANGER BY OTHERS	HANGER BY OTHERS		
F	520	0	520	0	0	MIN. SEAT SIZE: 1-8	MIN. SEAT SIZE: 1-8		

UNFACTORED REACTIONS

1ST CASE	MAX/MIN. COMPONENT REACTIONS						
JT	COMBINED	SNOW	LIVE	PERM. LIVE	WIND	DEAD	SOIL
I	371	226 / 0	0 / 0	0 / 0	0 / 0	144 / 0	0 / 0
F	371	226 / 0	0 / 0	0 / 0	0 / 0	144 / 0	0 / 0

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.

2 LATERAL BRACE(S) AT 1/3 LENGTH OF E-F.
1 LATERAL BRACE(S) AT 1/2 LENGTH OF D-F.

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

LOADING

TOTAL LOAD CASES: (4)

CHORDS				WEBS			
MAX. FACTORED		FACTORED		MAX. FACTORED		MAX. FACTORED	
MEMB.	FORCE (LBS)	VERT. LOAD (PLF)	MAX. CSI (LC)	MEMB.	FORCE (LBS)	MAX. CSI (LC)	
FR-TO		FROM TO		UNBRAC LENGTH	FR-TO		
I-A	-489 / 0	0.0	0.0	0.07 (1)	7.81	G-D	0 / 310
A-B	-393 / 0	-78.0	-78.0	0.16 (1)	6.25	D-F	-440 / 0
B-C	-205 / 0	-78.0	-78.0	0.15 (1)	6.25	A-H	0 / 253
C-D	-205 / 0	-78.0	-78.0	0.15 (1)	6.25	H-B	-36 / 54
D-E	-23 / 0	-78.0	-78.0	0.08 (1)	6.25	B-G	-206 / 0
F-E	-70 / 0	0.0	0.0	0.03 (1)	6.25		
I-H	0 / 4	-18.5	-18.5	0.09 (4)	10.00		
H-G	0 / 269	-18.5	-18.5	0.11 (4)	10.00		
G-F	0 / 111	-18.5	-18.5	0.05 (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 (0.36")
CALCULATED VERT. DEFL.(LL) = L/ 999 (0.01")
ALLOWABLE DEFL.(TL)= L/360 (0.36")
CALCULATED VERT. DEFL.(TL) = L/ 999 (0.02")

CSI: TC=0.16/1.00 (A-B:1) , BC=0.11/1.00 (G-H:4) , WB=0.33/1.00 (D-F:1) , SSI=0.09/1.00 (A-B:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

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

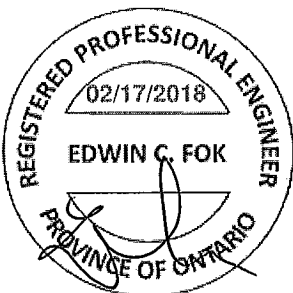
NAIL VALUES
PLATE GRIP(DRY) SHEAR SECTION
(PSI) (PLI) (PLI)
MAX MIN MAX MIN MAX MIN
MT20 618 354 1667 788 1987 1656

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.68 (F) (INPUT = 0.90)
JSI METAL= 0.18 (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

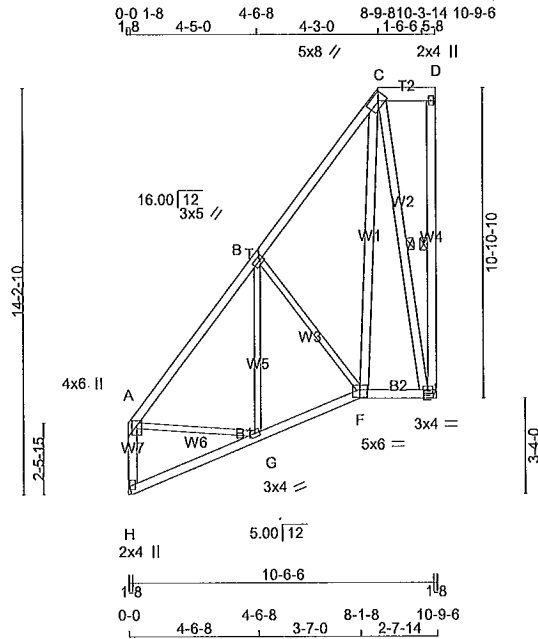


A-18023518

JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
292593	H29	1	1	TRUSS DESC.	

Alpa Roof Truss, Maple

Version 8.200 S Jan 6 2018 MiTek Industries, Inc. Sat Feb 17 13:30:18 2018 Page 1
ID:MF8ilriaTok7DlbpT4B71Xys4PG-capNISzor1syCK3nBFicu7TbOzaSsx6Q02e_p1zkEJ3



Scale = 1:80.7

TOTAL WEIGHT = 84 lb

LUMBER				
N. L. G. A. RULES				
CHORDS	SIZE	LUMBER	DESCR.	
A - C	2x4	DRY	No.2	SPF
C - D	2x6	DRY	No.2	SPF
E - D	2x4	DRY	No.2	SPF
H - A	2x4	DRY	No.2	SPF
H - F	2x4	DRY	No.2	SPF
F - E	2x4	DRY	No.2	SPF
ALL WEBS	2x3	DRY	No.2	SPF
EXCEPT	2x4	DRY	No.2	SPF
	2x4	DRY	No.2	SPF

DRY: SEASONED LUMBER.

PLATES (table is in inches)					
JT	TYPE	PLATES	W	LEN	Y X
A	TMVW+p	MT20	4.0	6.0	2.00 2.00
B	TMWW-l	MT20	3.0	5.0	1.50 1.50
C	TTWW-h	MT20	5.0	8.0	2.50 3.25
D	TMV+p	MT20	2.0	4.0	
E	BMVW1-l	MT20	3.0	4.0	
F	BBWW-l	MT20	5.0	6.0	3.00 3.00
G	BMWW-l	MT20	3.0	4.0	
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		
E	520	0	520	0	0	HANGER BY OTHERS	HANGER BY OTHERS		
H	520	0	520	0	0	MIN. SEAT SIZE: 1-8	MIN. SEAT SIZE: 1-8		

UNFACTORED REACTIONS

1ST LCASE		MAX./MIN. COMPONENT REACTIONS							
JT	COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL		
E	371	226 / 0	0 / 0	0 / 0	0 / 0	144 / 0	0 / 0		
H	371	226 / 0	0 / 0	0 / 0	0 / 0	144 / 0	0 / 0		

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 D-E, C-E.

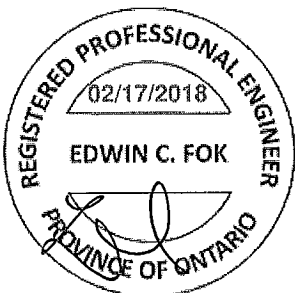
END VERTICAL(S) MUST BE SHEATHED OR HAVE BRACES AS INDICATED IN THE MAX. UNBRACED LENGTH COLUMN OF THE TABLE BELOW

LOADING

TOTAL LOAD CASES: (4)

CHORDS		FACTORED		WEBS		FACTORED	
MEMB.	MAX. FORCE (LBS)	VERT. LOAD (PLF)	MAX. CSI (LC)	MEMB.	MAX. FORCE (LBS)	MAX. CSI (LC)	
FR-TO		FROM TO	LENGTH	FR-TO			
A-B	-387 / 0	-78.0 -78.0	0.20 (1)	6.25	A-G	0 / 252	0.08 (1)
B-C	-205 / 0	-78.0 -78.0	0.19 (1)	6.25	G-B	-26 / 59	0.02 (4)
C-D	0 / 0	-78.0 -78.0	0.03 (1)	10.00	B-F	-251 / 0	0.16 (1)
E-D	-78 / 0	0.0 0.0	0.05 (1)	6.25	F-C	0 / 355	0.06 (1)
H-A	-486 / 0	0.0 0.0	0.07 (1)	7.81	C-E	-426 / 0	0.26 (1)
H-G	0 / 4	-18.5 -18.5	0.09 (4)	10.00			
G-F	0 / 269	-18.5 -18.5	0.11 (4)	10.00			
F-E	0 / 79	-18.5 -18.5	0.05 (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

ALLOWABLE DEFL.(LL)= L/360 (0.36")
CALCULATED VERT. DEFL.(LL) = L/ 999 (0.01")
ALLOWABLE DEFL.(TL)= L/360 (0.36")
CALCULATED VERT. DEFL.(TL) = L/ 999 (0.02")

CSI: TC=0.20/1.00 (A-B:1), BC=0.11/1.00 (F-G:4), WB=0.26/1.00 (C-E:1), SSI=0.10/1.00 (A-B:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

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

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

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.46 (E) (INPUT = 0.90)
JSI METAL= 0.17 (H) (INPUT = 1.00)

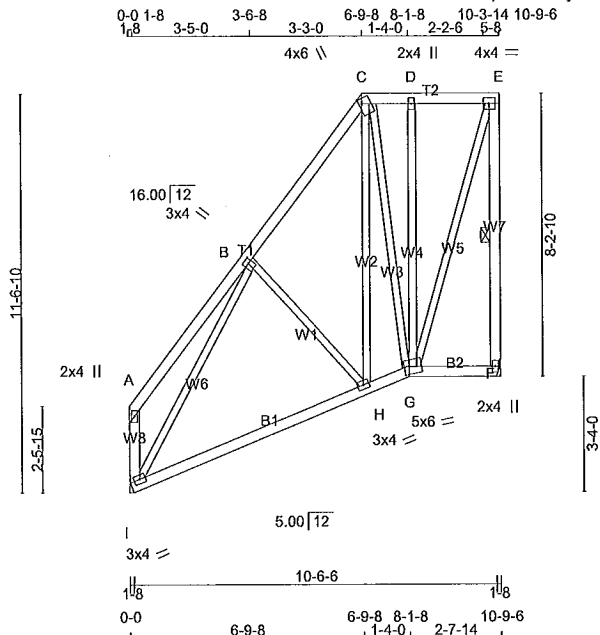
A-18023517

JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
292593	H28	1	1	TRUSS DESC.	

Alpa Roof Truss, Maple

Version 8.200 S Jan 6 2018 MITek Industries, Inc. Sat Feb 17 13:30:06 2018 Page 1

ID:MF8iiriaTok7DlbpT4B71Xys4PG-zG5qnMq5gLLfmU8UUJUnPbzZF7Sw2RWfFBjLnkzkEJf



TOTAL WEIGHT = 78 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	
F - E	2x4	DRY	No.2	SPF	
I - A	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	
EXCEPT					

SEASONED LUMBER.

PLATES (table is in inches)					
JT	TYPE	PLATES	W	LEN	Y X
A	TMV+p	MT20	2.0	4.0	
B	TMVW+t	MT20	3.0	4.0	1.50 1.25
C	TTVW+m	MT20	4.0	6.0	1.75 1.00
D	TMVW+w	MT20	2.0	4.0	
E	TMVW-t	MT20	4.0	4.0	
F	BMV1+p	MT20	2.0	4.0	
G	BBVWVW-m	MT20	5.0	6.0	2.75 1.75
H	BMVW-t	MT20	3.0	4.0	
I	BMVW1-t	MT20	3.0	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 REQD BRG
	VERT	HORZ	DOWN	UPLIFT	
F	520	0	520	0	HANGER BY OTHERS
I	520	0	520	0	MIN. SEAT SIZE: 1-8

UNFACTORED REACTIONS						
JT	1ST LCASE COMBINED	MAX./MIN. COMPONENT REACTIONS			WIND	DEAD
		SNOW	LIVE	PERM.LIVE		
F	371	226 / 0	0 / 0	0 / 0	0 / 0	144 / 0
I	371	226 / 0	0 / 0	0 / 0	0 / 0	144 / 0

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

LOADING					
TOTAL LOAD CASES: (4)					
CHORDS			WEBS		
MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	MEMB.	MAX. FACTORED FORCE (LBS)	
FR-TO		FROM TO	FR-TO		
A-B	0 / 25	-78.0 -78.0 0.15 (1)	H-C	0 / 261	0.07 (4)
B-C	-297 / 0	-78.0 -78.0 0.11 (1)	C-G	-185 / 0	0.25 (1)
C-D	-134 / 0	-78.0 -78.0 0.03 (1)	G-D	-186 / 0	0.25 (1)
D-E	-137 / 0	-78.0 -78.0 0.06 (1)	G-E	0 / 431	0.10 (1)
E-F	-496 / 0	0.0 0.0 0.15 (1)	I-B	-522 / 0	0.55 (1)
I-A	-101 / 0	0.0 0.0 0.01 (1)	B-H	-109 / 0	0.05 (1)
I-H	0 / 261	-18.5 -18.5 0.22 (4)			
H-G	0 / 155	-18.5 -18.5 0.21 (4)			
G-F	0 / 0	-18.5 -18.5 0.04 (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

(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 (0.36")
CALCULATED VERT. DEFL.(LL) = L/999 (0.01")
ALLOWABLE DEFL.(TL)= L/360 (0.36")
CALCULATED VERT. DEFL.(TL) = L/999 (0.07")

CSI: TC=0.15/1.00 (E-F:1) , BC=0.22/1.00 (H-I:4) , WB=0.55/1.00 (B-I:1) , SSI=0.10/1.00 (G-H:4)

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

COMPANION LIVE LOAD FACTOR = 1.00

AUTOSOLVE RIGHT HEEL ONLY

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

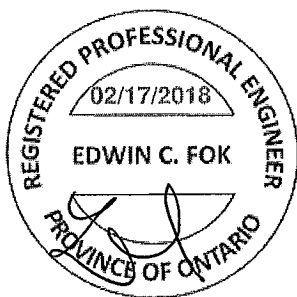
NAIL VALUES
PLATE GRIP(DRY) SHEAR SECTION (PSI) (PLI) (PLI)
MAX MIN MAX MIN MAX MIN
MT20 618 354 1667 788 1987 1656

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.82 (B) (INPUT = 0.90)
JSI METAL= 0.32 (B) (INPUT = 1.00)

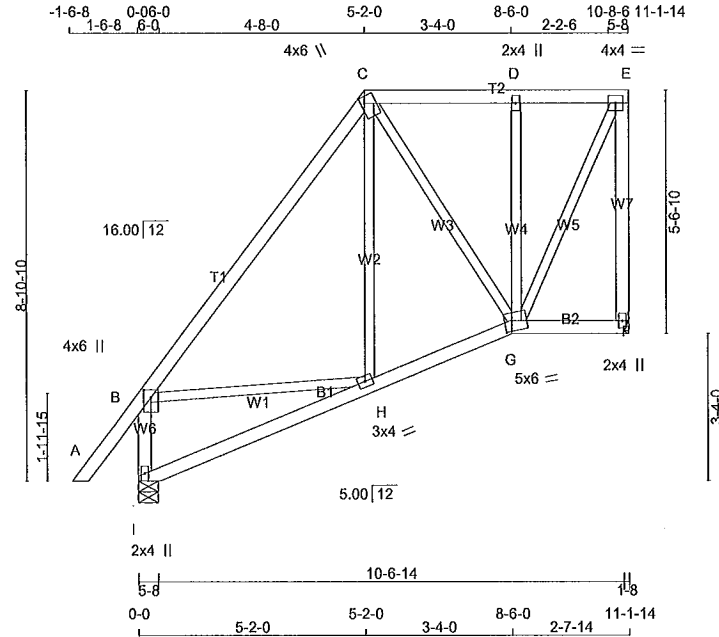
NOTE: Lateral brace(s) shown shall be 1x4 for Part 9 design as per OBC 9.23.13.11, and no less than 2x4 for Part 4 design



JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
292593	H27	1	1	TRUSS DESC.	

Alpa Roof Truss, Maple

Version 8.200 S Jan 6 2018 MiTek Industries, Inc. Sat Feb 17 13:29:56 2018 Page 1
ID:MF8ilriaTok7DlbpT4B71Xys4PG-GLU2gxip1G44ZxNZvdJR7Uzpc52_1?bBydlq1JzkeJP



Scale = 1:52.5

TOTAL WEIGHT = 63 lb

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

EASONED 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	TTWW+m	MT20	4.0	6.0	1.75	1.00
D	TMVW+w	MT20	2.0	4.0		
E	TMVW-t	MT20	4.0	4.0		
F	BMV1+p	MT20	2.0	4.0		
G	BBWWW-m	MT20	5.0	6.0	2.75	2.00
H	BMVW-t	MT20	3.0	4.0		
I	BMV1+p	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	UP-LIFT	IN-SX
F	538	0	0	HANGER BY OTHERS
I	646	0	0	MIN. SEAT SIZE: 1-8

UNFACTORED REACTIONS

JT	1ST LCASE	MAX/MIN. COMPONENT REACTIONS	WIND	DEAD	SOIL
	COMBINED	SNOW	LIVE	PERM.LIVE	
F	384	234 / 0	0 / 0	0 / 0	150 / 0
I	458	292 / 0	0 / 0	0 / 0	166 / 0

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

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. UNBRACED LENGTH
FR-TO						FR-TO			
A-B	0 / 43	-78.0	-78.0	0.11 (1)	10.00	H-C	0 / 81	0.03 (4)	
B-C	-392 / 0	-78.0	-78.0	0.38 (1)	6.25	C-G	-27 / 0	0.02 (4)	
C-D	-220 / 0	-78.0	-78.0	0.11 (1)	6.25	G-D	-286 / 0	0.13 (1)	
D-E	-226 / 0	-78.0	-78.0	0.11 (1)	6.25	G-E	0 / 500	0.11 (1)	
F-E	-514 / 0	0.0	0.0	0.28 (1)	7.81	B-H	0 / 235	0.05 (1)	
I-B	-606 / 0	0.0	0.0	0.07 (1)	7.81				
I-H	0 / 4	-18.5	-18.5	0.11 (4)	10.00				
H-G	0 / 248	-18.5	-18.5	0.13 (4)	10.00				
G-F	0 / 0	-18.5	-18.5	0.04 (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 (0.37")
CALCULATED VERT. DEFL.(LL) = L/999 (0.01")
ALLOWABLE DEFL.(TL)= L/360 (0.37")
CALCULATED VERT. DEFL.(TL) = L/999 (0.03")

CSI: TC=0.38/1.00 (B-C:1), BC=0.13/1.00 (G-H:4), WB=0.13/1.00 (D-G:1), SSI=0.12/1.00 (C-D:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

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

NAIL VALUES

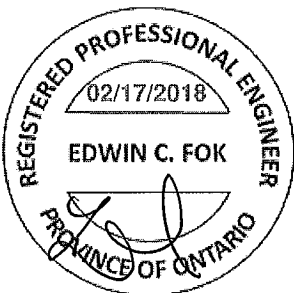
PLATE	GRIP(DRY)	SHEAR	SECTION
	(PSI)	(PLI)	(PLI)
	MAX	MIN	MAX
MT20	618	354	1667

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.62 (E) (INPUT = 0.90)
JSI METAL= 0.22 (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

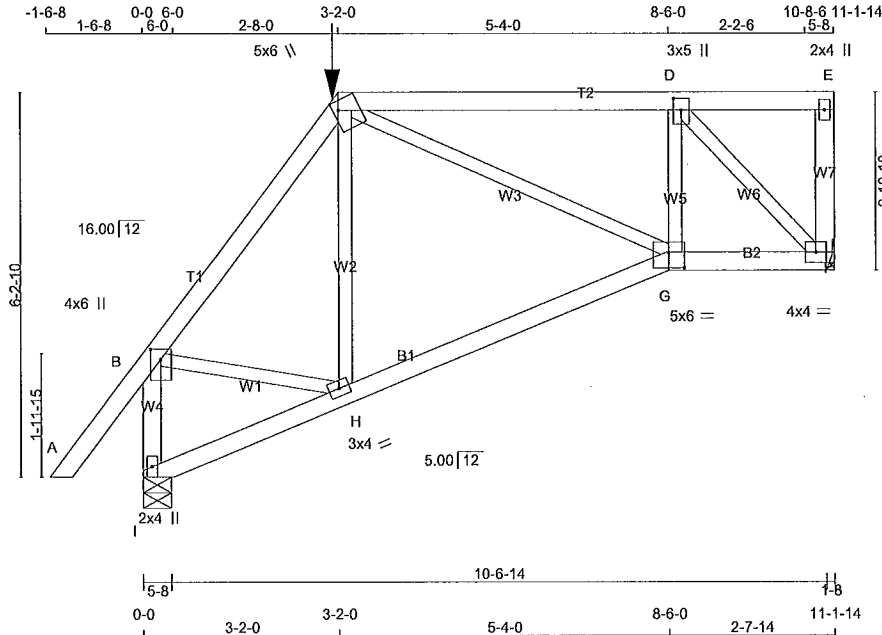


A-18023515

JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
292593	H26	1	1	TRUSS DESC.	

Alpa Roof Truss, Maple

Version 8.200 S Jan 6 2018 MiTek Industries, Inc. Sat Feb 17 13:26:44 2018 Page 1
ID:MF8llriaTok7DlbpT4B71Xys4PG-IPuTNHNNFHUJXRifflsQD?c_3IV2j9mwolofIRzkEMP



Scale = 1:37.3

TOTAL WEIGHT = 51 lb

LUMBER

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

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	TTWW+m	MT20	5.0	6.0	1.75	1.00
D	TMWW+H	MT20	3.0	5.0	2.25	1.50
E	TMV+p	MT20	2.0	4.0		
F	BMVW+I	MT20	4.0	4.0		
G	BBWW-I	MT20	5.0	6.0	3.00	3.00
H	BMWW-I	MT20	3.0	4.0		
I	BMV+P	MT20	2.0	4.0		

HANGERS NOTES

- SPECIAL HANGER(S) OR CONNECTION(S) REQUIRED TO SUPPORT CONCENTRATED LOAD(S) 68.6 lbs FACTORED DOWN AT 3-2-0 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	UP
F	704	0	704	0
I	790	0	790	0

UNFACTORED REACTIONS

JT	1ST CASE	MAX/MIN	COMPONENT REACTIONS	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
F	502	307 / 0	0 / 0	0 / 0	0 / 0	0 / 0	0 / 0	195 / 0	0 / 0
I	561	354 / 0	0 / 0	0 / 0	0 / 0	0 / 0	0 / 0	208 / 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 = 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	WEBS	MAX. FACTORED
MEMB.	FORCE (LBS)	VERT. (PLF)	CS1 (LC)	UNBRAC	MEMB.	FORCE (LBS)	MAX (LC)
FR-TO		FROM	TO	LENGTH	FR-TO		
A-B	0 / 43	-78.0	-78.0	0.12 (1)	10.00	H-C	-68 / 66
B-C	-609 / 0	-78.0	-78.0	0.16 (1)	6.25	C-G	0 / 312
C-D	-642 / 0	-100.7	-100.7	0.42 (1)	6.25	G-D	0 / 115
D-E	0 / 0	-100.7	-100.7	0.40 (1)	10.00	D-F	-911 / 0
F-E	-25 / 0	0.0	0.0	0.00 (1)	7.81	B-H	0 / 366
I-B	-769 / 0	0.0	0.0	0.10 (1)	7.81		
I-H	0 / 8	-23.9	-23.9	0.16 (4)	10.00		
H-G	0 / 387	-23.9	-23.9	0.20 (4)	10.00		
G-F	0 / 639	-23.9	-23.9	0.14 (1)	10.00		

FACTORED CONCENTRATED LOADS (LBS)

JT	LOC.	LC1	MAX-	MAX+	FACE	DIR.	TYPE
C	3-2-0	-69	-69	—	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 = 3-2-0
RIGHT SETBACK = 0-0
END SETBACK = 3-2-0
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

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

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 (0.04")

CSI: TC=0.42/1.00 (C-D:1), BC=0.20/1.00 (G-H:4), WB=0.22/1.00 (D-F:1), SSI=0.28/1.00 (C-D:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

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

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

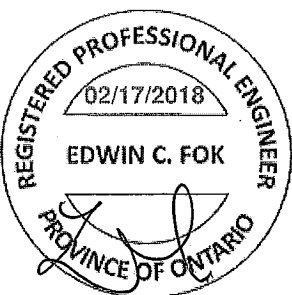
PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

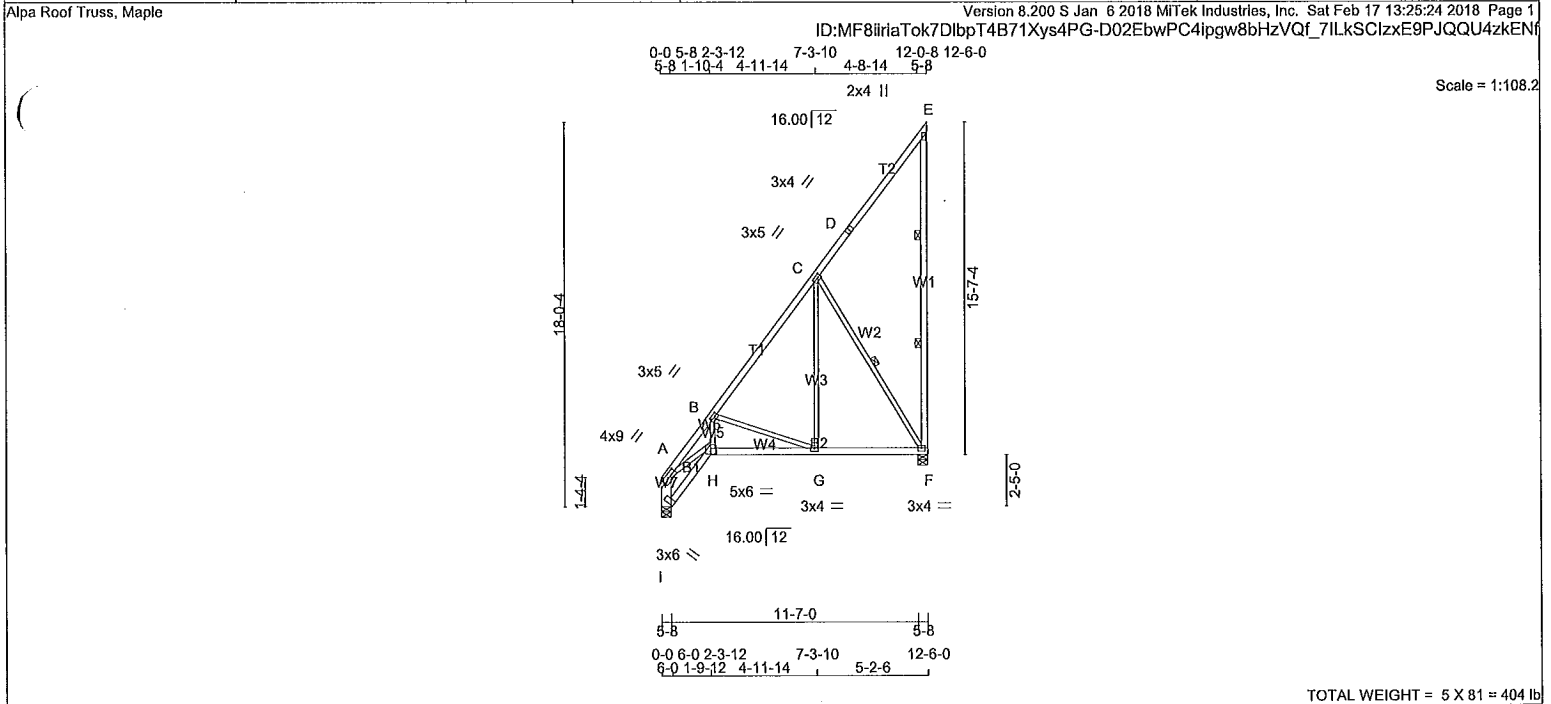
JSI GRIP= 0.89 (D) (INPUT = 0.90)
JSI METAL= 0.38 (D) (INPUT = 1.00)

A-18023514

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.
292593	H25T	5	1	TRUSS DESC.	



TOTAL WEIGHT = 5 X 81 = 404 lb

LUMBER				
N. L. G. A. RULES				
CHORDS	SIZE	LUMBER	DESCR.	
A - D	2x4	DRY	No.2	SPF
D - E	2x4	DRY	No.2	SPF
F - E	2x4	DRY	No.2	SPF
I - A	2x6	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				
EASONED LUMBER.				

PLATES (table is in inches)					
JT	TYPE	PLATES	W	LEN	Y X
A	TMVW-t	MT20	4.0	9.0	2.00 3.00
B	TMWW-t	MT20	3.0	5.0	1.50 1.50
C	TMWW-t	MT20	3.0	5.0	1.50 1.50
D	TS-t	MT20	3.0	4.0	
E	TMV+p	MT20	2.0	4.0	
F	BMVW-t	MT20	3.0	4.0	
G	BMWW-t	MT20	3.0	4.0	
H	BBWW-t	MT20	5.0	6.0	3.00 3.00
I	BVM1-t	MT20	3.0	6.0	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
JT	GROSS REACTION		GROSS REACTION			BRG	BRG
	VERT	HORZ	DOWN	HORZ	UPLIFT	IN-SX	IN-SX
F	603	0	603	0	0	5-8	1-8
I	603	0	603	0	0	5-8	1-8

UNFACTORED REACTIONS		MAX/MIN. COMPONENT REACTIONS						
JT	1ST LCASE	COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
F	430	262 / 0	0 / 0	0 / 0	0 / 0	0 / 0	168 / 0	0 / 0
I	430	262 / 0	0 / 0	0 / 0	0 / 0	0 / 0	168 / 0	0 / 0

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

BRACING
TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 5.68 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.

2 LATERAL BRACE(S) AT 1/3 LENGTH OF E-F.
1 LATERAL BRACE(S) AT 1/2 LENGTH OF C-F.

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

LOADING
TOTAL LOAD CASES: (4)

CHORDS					WEBS			
MAX. FACTORED		FACTORED			MAX. FACTORED			
MEMB.	FORCE	VERT. LOAD	LC1	MAX	MEMB.	FORCE	MAX	
	(LBS)	(PLF)	CSI (LC)	UNBRAC		(LBS)	CSI (LC)	
FR-TO		FROM	TO	LENGTH	FR-TO			
A-B	-1237 / 0	-78.0	-78.0	0.10 (1)	5.68	H-B	0 / 556	0.13 (1)
B-C	-400 / 0	-78.0	-78.0	0.25 (1)	6.25	B-G	-499 / 0	0.23 (1)
C-D	-35 / 0	-78.0	-78.0	0.26 (1)	6.25	G-C	0 / 279	0.07 (4)
D-E	-35 / 0	-78.0	-78.0	0.26 (1)	6.25	C-F	-480 / 0	0.33 (1)
F-E	-159 / 0	0.0	0.0	0.09 (1)	6.25	A-H	0 / 903	0.20 (1)
I-A	-582 / 0	0.0	0.0	0.04 (1)	7.81			
I-H	0 / 0	-18.5	-18.5	0.03 (4)	10.00			
H-G	0 / 724	-18.5	-18.5	0.20 (4)	10.00			
G-F	0 / 255	-18.5	-18.5	0.16 (4)	10.00			

DESIGN CRITERIA

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

SPACING = 24.0 IN./C/C

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 (0.42")
CALCULATED VERT. DEFL.(LL) = L/ 999 (0.02")
ALLOWABLE DEFL.(TL)= L/360 (0.42")
CALCULATED VERT. DEFL.(TL) = L/ 999 (0.05")

CSI: TC=0.26/1.00 (C-E:1) , BC=0.20/1.00 (G-H:4) , WB=0.33/1.00 (C-F:1) , SSI=0.12/1.00 (C-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

AUTOSOLVE RIGHT HEEL ONLY

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

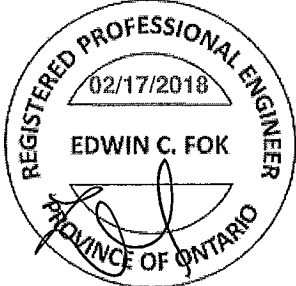
NAIL VALUES			
PLATE	GRIP(DRY)	SHEAR	SECTION
(PSI)	(PLI)	(PLI)	(PLI)
MAX MIN	MAX MIN	MAX MIN	MAX MIN
MT20	618	354	1667 788 1987 1656

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.71 (G) (INPUT = 0.90)
JSI METAL= 0.38 (H) (INPUT = 1.00)

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

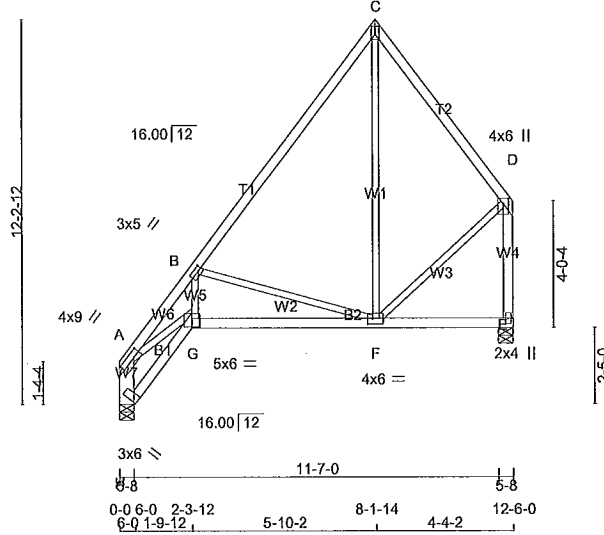


JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
292593	H24T	2	1	TRUSS DESC.	

Alpa Roof Truss, Maple

Version 8.200 S Jan 6 2018 MiTek Industries, Inc. Sat Feb 17 13:25:15 2018 Page 1
ID:MF8IiriaTok7DlbpT4B71Xys4PG-_H0qirYCXgyLIPYx6mY7DQnzq7xMsdqLPkSf5zkENo

0-0 5-8 2-3-12 5-8 1-10-4 5-10-2 8-1-14 3-10-10 12-0-8 12-6-0 5-8
3x5 II
Scale = 1:73.3



TOTAL WEIGHT = 2 X 67 = 133 lb [M][F]

LUMBER				
N. L. G. A. RULES	CHORDS	SIZE	LUMBER	DESCR.
A - C	2x4	DRY	No.2	SPF
C - D	2x4	DRY	No.2	SPF
H - A	2x6	DRY	No.2	SPF
E - D	2x4	DRY	No.2	SPF
H - G	2x4	DRY	No.2	SPF
G - E	2x4	DRY	No.2	SPF

ALL WEBS 2x3 DRY No.2 SPF
EXCEPT
EASONED LUMBER.

PLATES (table is in inches)					
JT	TYPE	PLATES	W	LEN	Y X
A	TMVW-t	MT20	4.0	9.0	2.00 3.00
B	TMVW-t	MT20	3.0	5.0	1.50 1.50
C	TTW+p	MT20	3.0	5.0	2.00 Edge
D	TMVW+p	MT20	4.0	6.0	2.00 2.00
E	BMV1+p	MT20	2.0	4.0	
F	BMVWW-t	MT20	4.0	6.0	2.00 2.00
G	BBWW-t	MT20	5.0	6.0	3.00 3.00
H	BVM1-t	MT20	3.0	6.0	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	
JT	GROSS REACTION	GROSS REACTION	DOWN	HORZ	UPLIFT	BRG	IN-SX	BRG	IN-SX
H	603	0	603	0	0	5-8	1-8		
E	603	0	603	0	0	5-8	1-8		

UNFACTORED REACTIONS							
JT	1ST LCASE	MAX./MIN.	COMPONENT REACTIONS				
H	COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
H	430	262 / 0	0 / 0	0 / 0	0 / 0	167 / 0	0 / 0
E	430	262 / 0	0 / 0	0 / 0	0 / 0	168 / 0	0 / 0

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

BRACING
TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 5.33 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)	VERT. LOAD (PLF)	MAX. FACTORED (LC1) MAX. UNBRACED LENGTH	MEMB.	MAX. FACTORED FORCE (LBS)	MAX. FACTORED (LC1) MAX. UNBRACED LENGTH	
FR-TO		FROM TO		FR-TO			
A-B	-1334 / 0	-78.0 -78.0	0.25 (1) 5.33	G-B	0 / 620	0.14 (1)	
B-C	-344 / 0	-78.0 -78.0	0.33 (1) 6.25	B-F	-648 / 0	0.41 (1)	
C-D	-313 / 0	-78.0 -78.0	0.19 (1) 6.25	F-C	0 / 146	0.05 (4)	
H-A	-582 / 0	0.0 0.0	0.04 (1) 7.81	F-D	0 / 245	0.06 (1)	
E-D	-577 / 0	0.0 0.0	0.16 (1) 7.81	A-G	0 / 1008	0.23 (1)	
H-G	0 / 0	-18.5 -18.5	0.03 (4) 10.00				
G-F	0 / 807	-18.5 -18.5	0.22 (4) 10.00				
F-E	0 / 0	-18.5 -18.5	0.15 (4) 10.00				

DESIGN CRITERIA

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

SPACING = 24.0 IN. C/C

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 (0.42")
CALCULATED VERT. DEFL.(LL) = L/ 999 (0.02")
ALLOWABLE DEFL.(TL)= L/360 (0.42")
CALCULATED VERT. DEFL.(TL) = L/ 999 (0.07")

CSI: TC=0.33/1.00 (B-C:1), BC=0.22/1.00 (F-G:4), WB=0.41/1.00 (B-F:1), SSI=0.12/1.00 (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.

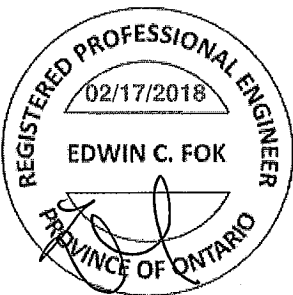
NAIL VALUES					
PLATE	GRIP(DRY)	SHEAR	SECTION		
(PSI)	(PLI)	(PLI)			
MAX MIN	MAX MIN	MAX MIN			
MT20	618 354	1667 788	1987	1656	

PLATE PLACEMENT TOL. = 0.250 Inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.84 (F) (INPUT = 0.90)
JSI METAL= 0.42 (G) (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

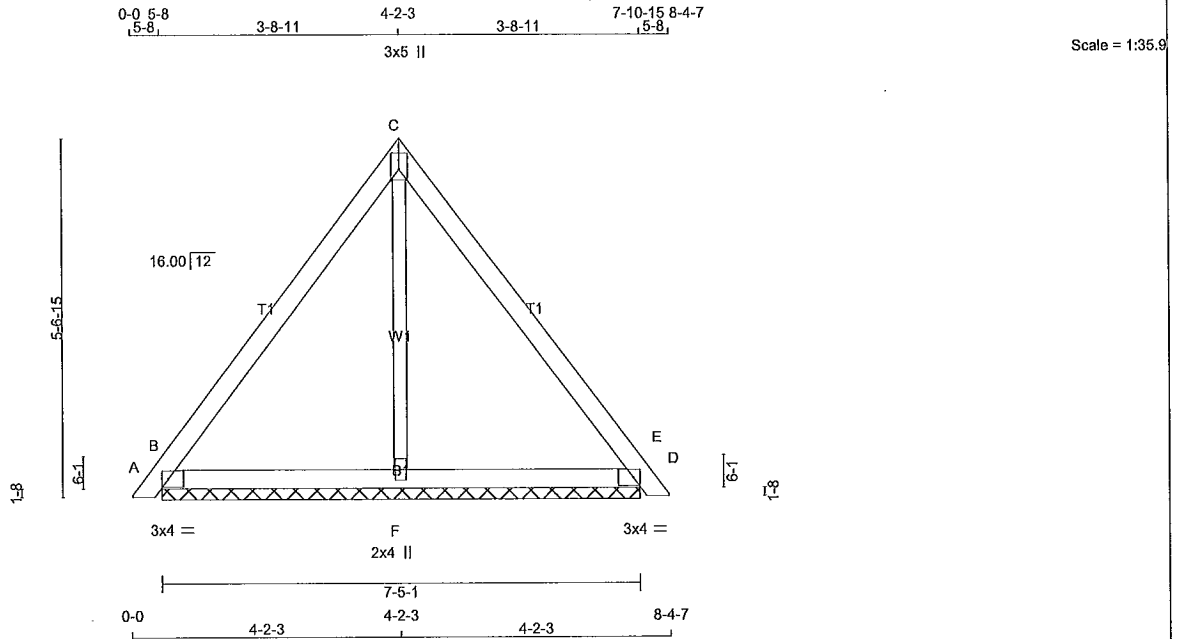


A-18023512

JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
292593	H23P	4	1	TRUSS DESC.	

Alpa Roof Truss, Maple

Version 8.200 S Jan 6 2018 MITek Industries, Inc. Sat Feb 17 13:24:47 2018 Page 1
ID:MF8IriaTok7DibpT4B71Xys4PG-pvJEqHy_oK9w_SGAIEG_KG2EYcaoHKiv2yzhjkEOE



TOTAL WEIGHT = 4 X 28 = 113 lb

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

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

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

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

BEARINGS	FACTORED GROSS REACTION	MAXIMUM FACTORED GROSS REACTION	INPUT BRG	REQRD BRG
JT	VERT	HORZ	DOWN	UPLIFT
B	277	0	277	0
D	277	0	277	0
F	216	0	216	0

UNFACTORED REACTIONS

1ST LCASE	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
JT	COMBINED					
B	195	135 / 0	0 / 0	0 / 0	59 / 0	0 / 0
D	195	135 / 0	0 / 0	0 / 0	59 / 0	0 / 0
F	159	70 / 0	0 / 0	0 / 0	89 / 0	0 / 0

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

BRACING

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

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

LOADING

TOTAL LOAD CASES: (4)

CHORDS	MAX. FACTORED	FACTORED	VERT. LOAD	LC1	MAX	MEMB.	MAX. FACTORED	WEBS	MAX. FACTORED
MEMB.	FORCE (LBS)	VERT. LOAD (PLF)	CSF (LC)	UNBRAC	LENGTH	FR-TO	FORCE (LBS)	CSF (LC)	MEMB.
FR-TO		FROM TO							
A-B	0 / 10	-78.0	-78.0	0.01 (1)	10.00	F-C	-130 / 0	0.05 (1)	
B-C	-98 / 0	-78.0	-78.0	0.18 (1)	6.25				
C-D	-98 / 0	-78.0	-78.0	0.18 (1)	6.25				
D-E	0 / 10	-78.0	-78.0	0.01 (1)	10.00				
B-F	0 / 58	-18.5	-18.5	0.08 (4)	10.00				
F-D	0 / 58	-18.5	-18.5	0.08 (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

CSI: TC=0.18/1.00 (B-C:1), BC=0.08/1.00 (B-F:4), WB=0.05/1.00 (C-F:1), SSI=0.07/1.00 (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.

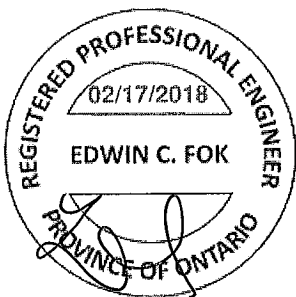
NAIL VALUES	PLATE GRIP(DRY)	SHEAR	SECTION
(PSI)	(PLI)	(PLI)	
MAX	MIN	MAX	MIN
MT20	618	354	1667
	788	1987	1656

PLATE PLACEMENT TOL. = 0.250 inches

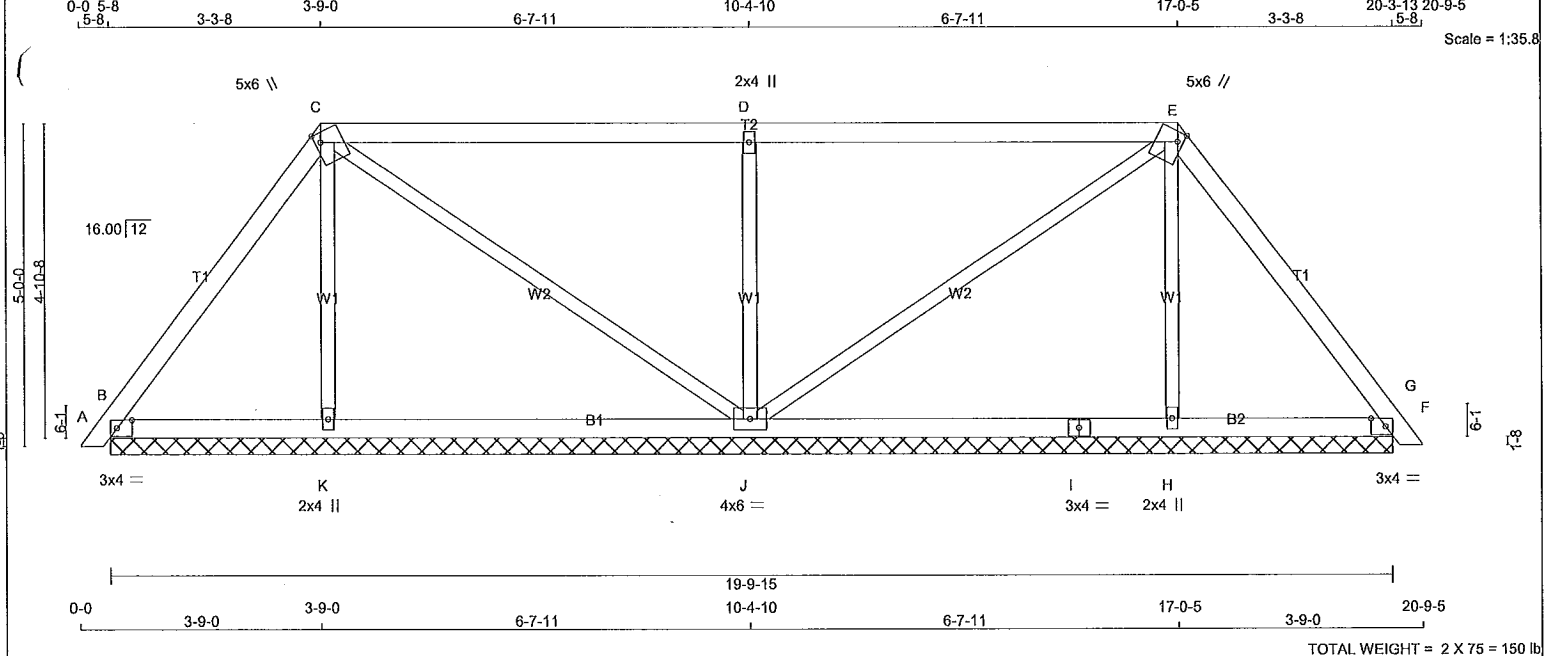
PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.33 (D) (INPUT = 0.90)
JSI METAL= 0.12 (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-18023511



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		MAXIMUM FACTORED		INPUT		REQRD		TOP CH.		LL	=	21.0	PSF
A - C	2x4	DRY	No.2	SPF	GROSS REACTION		GROSS REACTION		BRG		BRG		DL		=	6.0	PSF	
C - E	2x4	DRY	No.2	SPF	JT	VERT	HORZ	DOWN	HORZ	UPLIFT	IN-SX	IN-SX	BOT CH.		LL	=	0.0	PSF
E - G	2x4	DRY	No.2	SPF	B	262	0	262	0	0	19-9-15	(4-9-15)	DL		=	7.4	PSF	
B - I	2x4	DRY	No.2	SPF	K	299	0	299	0	0	19-9-15	(4-9-15)	TOTAL LOAD		=	34.4	PSF	
I - F	2x4	DRY	No.2	SPF	J	847	0	847	0	0	19-9-15	(4-9-15)	SPACING		=	24.0	IN. C/C	
ALL WEBS 2x3 DRY:			No.2	SPF	H	299	0	299	0	0	19-9-15	(4-9-15)						
SEASONED LUMBER.					F	262	0	262	0	0	19-9-15	(4-9-15)						

PLATES (table is in inches)				UNFACTORED REACTIONS				LOADING			
JT	TYPE	PLATES	W	LEN	Y	X	1ST LCASE	MAX. MIN. COMPONENT REACTIONS	TOP CHORD	MAX. UNBRACED BOTTOM CHORD LENGTH	APPLIED.
B	TMB1-I	MT20	3.0	4.0	1.50	2.75	COMBINED	SNOW LIVE PERM.LIVE WIND DEAD SOIL			
C	TTWW+m	MT20	5.0	6.0	1.75	1.00	B	183 132 / 0 0 / 0 0 / 0 51 / 0 0 / 0			
D	TTWW+w	MT20	2.0	4.0			K	218 105 / 0 0 / 0 0 / 0 112 / 0 0 / 0			
E	TTWW+m	MT20	5.0	6.0	1.75	1.00	J	600 387 / 0 0 / 0 0 / 0 213 / 0 0 / 0			
F	TMB1-I	MT20	3.0	4.0	1.50	2.75	H	218 105 / 0 0 / 0 0 / 0 112 / 0 0 / 0			
H	BMW1+w	MT20	2.0	4.0			F	183 132 / 0 0 / 0 0 / 0 51 / 0 0 / 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							

CHORDS				WEBS			
MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	LC1 MAX 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)	10.00	K-C	-196 / 0	0.07 (1)
B-C	-111 / 0	-78.0 -78.0	0.14 (1)	6.25	C-J	-64 / 0	0.08 (1)
C-D	-7 / 0	-78.0 -78.0	0.58 (1)	10.00	J-D	-646 / 0	0.23 (1)
D-E	-7 / 0	-78.0 -78.0	0.58 (1)	10.00	J-E	-64 / 0	0.08 (1)
E-F	-111 / 0	-78.0 -78.0	0.14 (1)	6.25	H-E	-196 / 0	0.07 (1)
F-G	0 / 10	-78.0 -78.0	0.01 (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

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)

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= 0.65 (J) (INPUT = 0.90)

JSI METAL= 0.14 (D) (INPUT = 1.00)

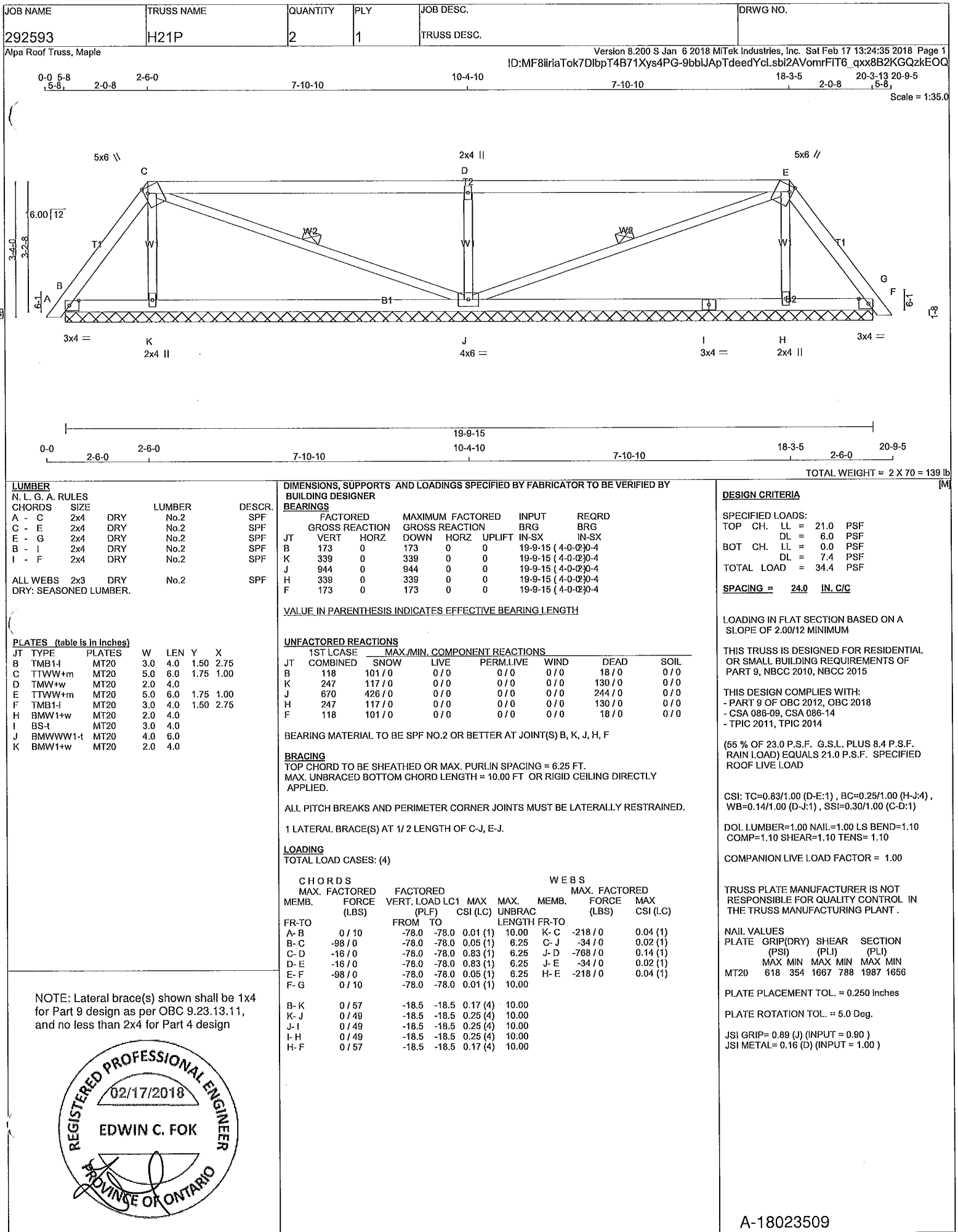
REGISTERED PROFESSIONAL ENGINEER

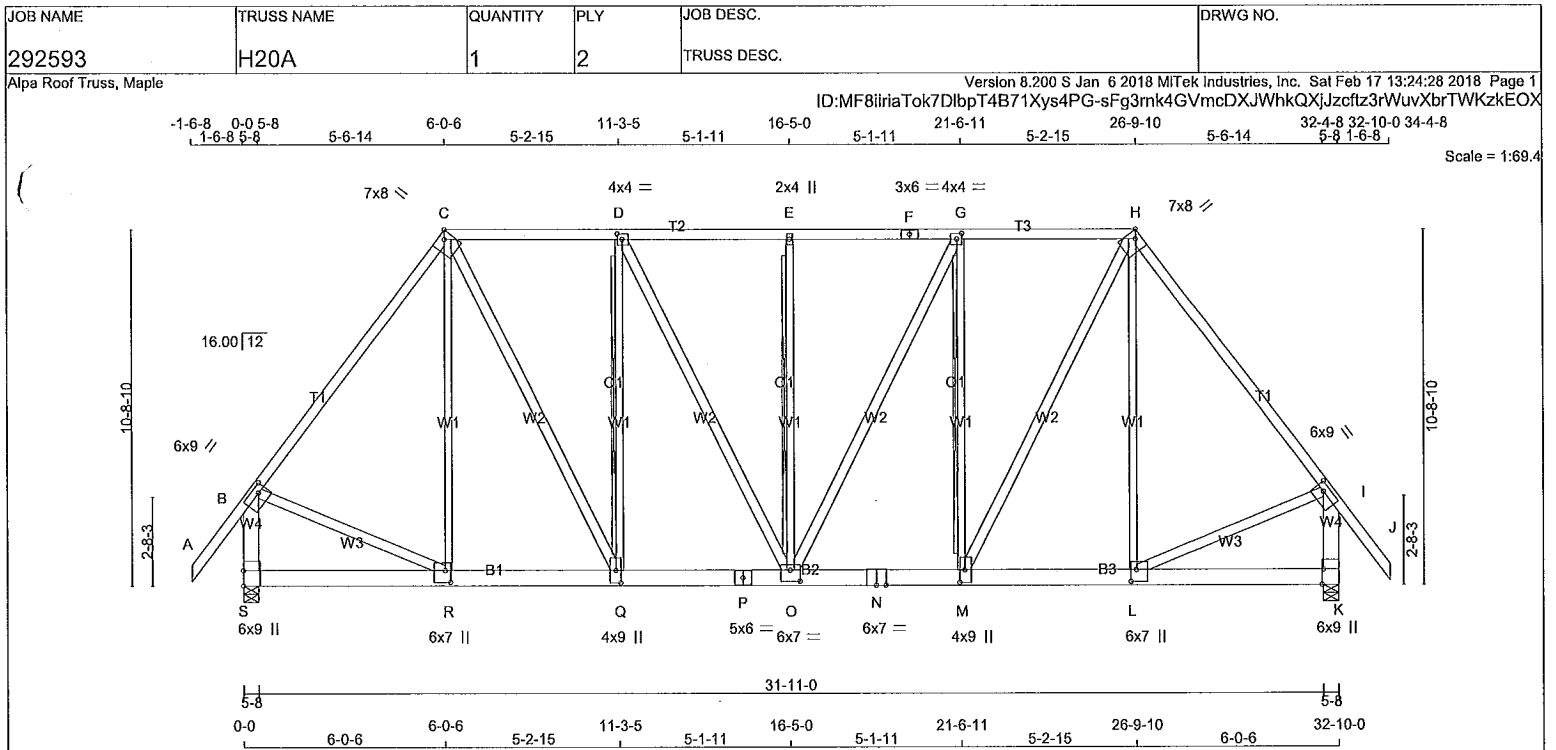
02/17/2018

EDWIN C. FOK

PROVINCE OF ONTARIO

A-18023510





TOTAL WEIGHT = 2 X 226 = 451 lb [M]

LUMBER				N. L. G. A. RULES			
CHORDS	SIZE	LUMBER	DESCR.	CHORDS	SIZE	LUMBER	DESCR.
A - C	2x4	DRY	2100F 1.8E	A - C	2x4	DRY	2100F 1.8E
C - F	2x4	DRY	No.2	C - F	2x4	DRY	No.2
F - H	2x4	DRY	No.2	F - H	2x4	DRY	No.2
H - J	2x4	DRY	2100F 1.8E	H - J	2x4	DRY	2100F 1.8E
S - B	2x6	DRY	No.2	S - B	2x6	DRY	No.2
K - I	2x6	DRY	No.2	K - I	2x6	DRY	No.2
S - P	2x6	DRY	1650F 1.5E	S - P	2x6	DRY	1650F 1.5E
P - N	2x6	DRY	1650F 1.5E	P - N	2x6	DRY	1650F 1.5E
N - K	2x6	DRY	1650F 1.5E	N - K	2x6	DRY	1650F 1.5E
R - C	2x3	DRY	No.2	R - C	2x3	DRY	No.2
Q - D	2x3	DRY	No.2	Q - D	2x3	DRY	No.2
O - E	2x3	DRY	No.2	O - E	2x3	DRY	No.2
M - G	2x3	DRY	No.2	M - G	2x3	DRY	No.2
L - H	2x3	DRY	No.2	L - H	2x3	DRY	No.2

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 - C	12	TOP
C - F	12	TOP
F - H	12	TOP
H - J	12	TOP
S - B	12	TOP
K - I	12	TOP
BOTTOM CHORDS : (0.122"x3") SPIRAL NAILS		
S - P	9	SIDE(278.9)
P - N	9	SIDE(278.9)
N - K	9	SIDE(278.9)
WEBS : (0.122"x3") SPIRAL NAILS		
2x3	6	
2x4	6	

NAILS TO BE DRIVEN FROM ONE SIDE ONLY.

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

FACTORED GROSS REACTION		MAXIMUM FACTORED GROSS REACTION		INPUT BRG		REQD BRG	
JT	VERT	JT	VERT	JT	VERT	JT	VERT
S	10869	0	10869	0	0	5-8	5-8
K	10869	0	10869	0	0	5-8	5-8

UNFACTORED REACTIONS

1ST LCASE	MAX/MIN	COMPONENT REACTIONS
JT	COMBINED	SNOW LIVE PERM.LIVE WIND DEAD SOIL
S	7746	4743 / 0 0 / 0 0 / 0 3003 / 0 0 / 0
K	7746	4743 / 0 0 / 0 0 / 0 3003 / 0 0 / 0

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

BRACING

TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 3.03 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.

2x6 DRY SPF No.2 T-BRACE AT D-Q, G-M
2x4 DRY SPF No.2 T-BRACE AT E-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. CS1 (LC)	MEMB.	FORCE (LBS)	MAX. CS1 (LC)	
FR-TO		FROM TO		FR-TO			
A-B	0 / 52	-78.0 -78.0	0.06 (1)	10.00	R-C	0 / 1827	0.23 (1)
B-C	-8909 / 0	-78.0 -78.0	0.91 (1)	3.88	C-Q	0 / 5433	0.48 (1)
C-D	-7810 / 0	-78.0 -78.0	0.47 (1)	3.23	Q-D	-2052 / 0	0.74 (1)
D-E	-8639 / 0	-78.0 -78.0	0.53 (1)	3.03	D-O	0 / 1863	0.16 (1)
E-F	-8639 / 0	-78.0 -78.0	0.53 (1)	3.03	O-E	-372 / 0	0.23 (1)
F-G	-8639 / 0	-78.0 -78.0	0.53 (1)	3.03	O-G	0 / 1863	0.16 (1)
G-H	-7810 / 0	-78.0 -78.0	0.47 (1)	3.23	M-H	-2052 / 0	0.74 (1)
H-I	-8909 / 0	-78.0 -78.0	0.91 (1)	3.88	M-H	0 / 5433	0.48 (1)
I-J	0 / 52	-78.0 -78.0	0.06 (1)	10.00	L-H	0 / 1827	0.23 (1)
S-B	-9426 / 0	0.0 0.0	0.47 (1)	4.91	B-R	0 / 5660	0.50 (1)
K-I	-9426 / 0	0.0 0.0	0.47 (1)	4.91	L-I	0 / 5660	0.50 (1)
S-R	0 / 0	-576.2 -576.2	0.51 (1)	10.00			
R-Q	0 / 5343	-576.2 -576.2	0.72 (1)	10.00			
Q-P	0 / 7810	-576.2 -576.2	0.60 (1)	10.00			
P-O	0 / 7810	-576.2 -576.2	0.60 (1)	10.00			
O-N	0 / 7810	-576.2 -576.2	0.60 (1)	10.00			
N-M	0 / 7810	-576.2 -576.2	0.60 (1)	10.00			
M-L	0 / 5343	-576.2 -576.2	0.72 (1)	10.00			
L-K	0 / 0	-576.2 -576.2	0.51 (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

GIRDER TYPE: CStdGirder
START DISTANCE = 0-0
START SPAN CARRIED = 25-1-8
END DISTANCE = 32-10-0
END SPAN CARRIED = 25-1-8
END WALL WIDTH = 0-0
APPLIED TO FRONT SIDE OF BOTTOM CHORD.
- ADD'L LOADS BASED ON 55 % OF GSL.

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

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

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

ALLOWABLE DEFL.(LL) = L/360 (1.09")
CALCULATED VERT. DEFL.(LL) = L/999 (0.14")
ALLOWABLE DEFL.(TL) = L/360 (1.09")
CALCULATED VERT. DEFL.(TL) = L/999 (0.28")

CSI: TC=0.91/1.00 (H-I:1), BC=0.72/1.00 (L-M:1), WB=0.74/1.00 (D-Q:1), SSI=0.69/1.00 (K-L:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

AUTOSOLVE HEELS OFF

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

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

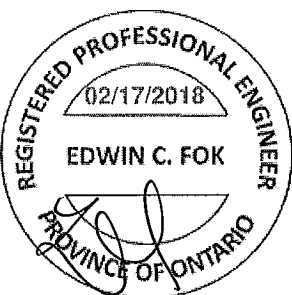
PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.89 (B) (INPUT = 0.90)
JSI METAL= 0.86 (P) (INPUT = 1.00)

A-18023508

CONTINUED ON PAGE 2



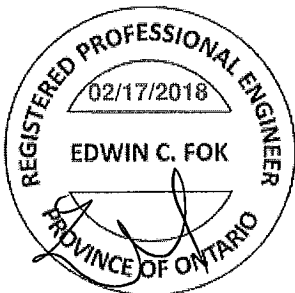
JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
292593	H20A	1	2	TRUSS DESC.	
Alpa Roof Truss, Maple					
Version 8.200 S Jan 6 2018 MITok Industries, Inc. Sat Feb 17 13:24:29 2018 Page 2					
ID:MF8ilriaTok7DlbpT4B71Xys4PG-KRER27l1ouTghtiFSxmFXWnPHIHaz83mFb02mzkEOW					

(table is in inches)

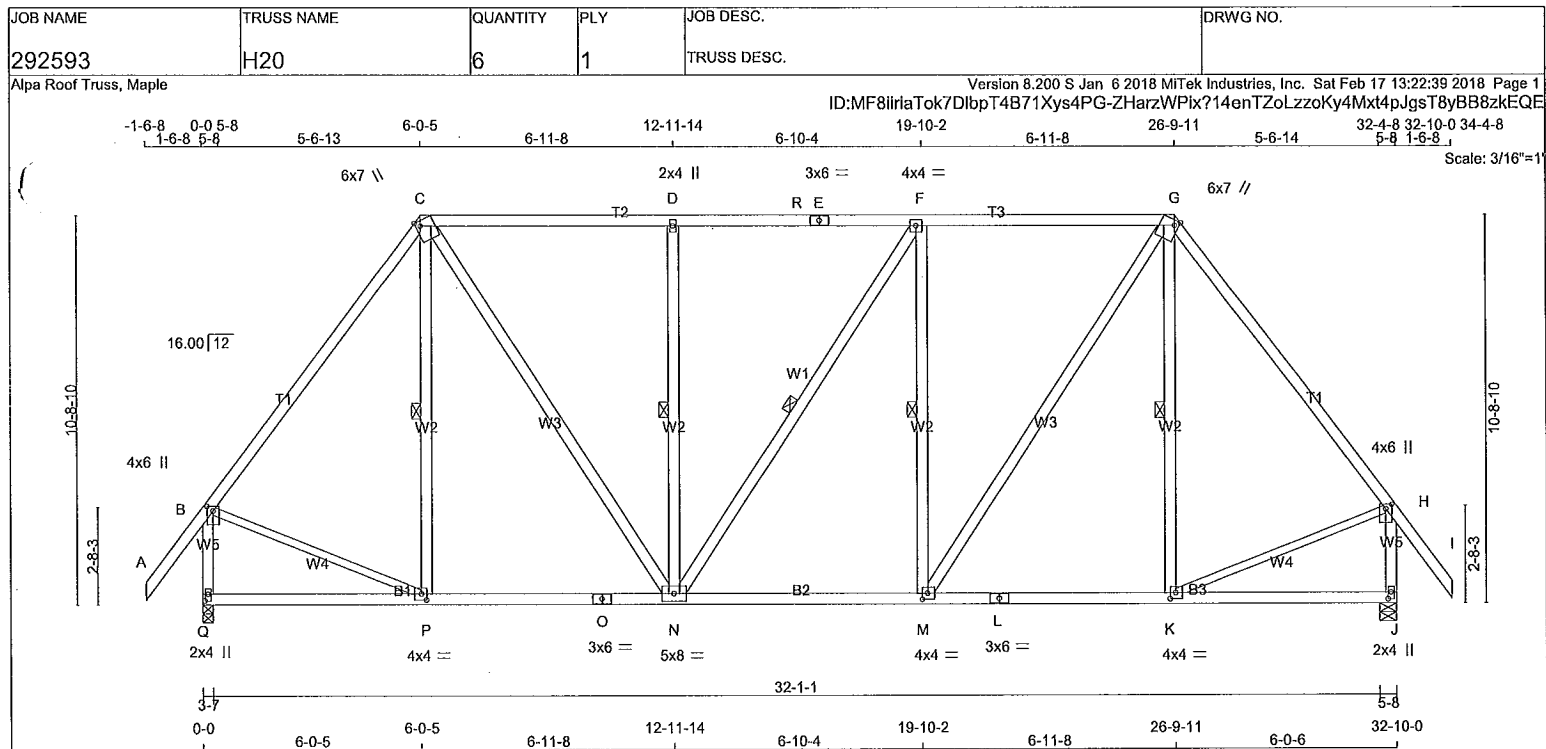
J	PE	PLATES	W	LEN	Y	X
B	TMVW-t	MT20	6.0	9.0	2.25	3.00
C	TTWW+h	MT20	7.0	8.0	Edge	2.75
D	TMWW-t	MT20	4.0	4.0	2.00	1.75
E	TMW+w	MT20	2.0	4.0		
F	TS-t	MT20	3.0	6.0		
G	TMWW-t	MT20	4.0	4.0	2.00	1.75
H	TTWW+h	MT20	7.0	8.0	Edge	2.75
I	TMVW-t	MT20	6.0	9.0	2.25	3.00
K	BMV1+t	MT20	6.0	9.0	Edge	0.50
L	BMWW+t	MT20	6.0	7.0	4.25	2.00
M	BMWW+t	MT20	4.0	9.0	4.50	1.75
N	BS-t	MT20	6.0	7.0		
O	BMWWW-t	MT20	6.0	7.0	4.00	3.50
P	BS-t	MT20	5.0	6.0		
Q	BMWW+t	MT20	4.0	9.0	4.50	1.75
R	BMWW+t	MT20	6.0	7.0	4.25	2.00
S	BMV1+t	MT20	6.0	9.0	5.50	

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



A:180235086



LUMBER				N. L. G. A. RULES			
CHORDS	SIZE	LUMBER	DESCR.	CHORDS	SIZE	LUMBER	DESCR.
A - C	2x4	DRY	2100F 1.8E	C - E	2x4	DRY	No.2
E - G	2x4	DRY	No.2	G - I	2x4	DRY	2100F 1.8E
Q - B	2x4	DRY	No.2	J - H	2x4	DRY	No.2
O - L	2x4	DRY	No.2	L - J	2x4	DRY	No.2
B - P	2x3	DRY	No.2				
K - H	2x3	DRY	No.2				

DRY: SEASONED LUMBER.

PLATES (table is in inches)

JT	TYPE	PLATES	W	LEN	Y	X
B	TMVW+p	MT20	4.0	6.0	1.50	2.00
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	1.50	2.00
J	BMV1+p	MT20	2.0	4.0	2.25	1.00
K, M, P						
L	BS-t	MT20	4.0	4.0	2.00	1.75
N	BS-t	MT20	3.0	6.0		
O	BS-t	MT20	5.0	8.0		
Q	BS-t	MT20	3.0	6.0		
R	BMV1+p	MT20	2.0	4.0	2.25	1.00

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	REQD BRG
	VERT	HORZ	DOWN	HORZ	IN-SX	IN-SX
Q	1791	0	1791	0	3-7	2-5
J	1791	0	1791	0	5-8	2-10

UNFACTORED REACTIONS

1ST LCASE		MAX./MIN. COMPONENT REACTIONS					
JT	COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
Q	1281	759 / 0	0 / 0	0 / 0	0 / 0	522 / 0	0 / 0
J	1281	759 / 0	0 / 0	0 / 0	0 / 0	522 / 0	0 / 0

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

BRACING

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

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

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

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

LOADING

TOTAL LOAD CASES: (4)

CHORDS		W E B S	
MEMB.	MAX. FACTORED FORCE (LBS)	MAX. FACTORED FORCE (LBS)	MAX. FACTORED FORCE (LBS)
FR-TO	FROM	TO	FR-TO
A-B	0 / 52	-78.0 -78.0 0.10 (1)	10.00
B-C	-1350 / 0	-78.0 -78.0 0.28 (1)	6.25
C-D	-1316 / 0	-85.5 -85.5 0.52 (1)	2.00
D-E	-1316 / 0	-85.5 -85.5 0.46 (1)	2.00
E-F	-1316 / 0	-85.5 -85.5 0.46 (1)	2.00
F-G	-1317 / 0	-85.5 -85.5 0.52 (1)	2.00
G-H	-1350 / 0	-78.0 -78.0 0.28 (1)	6.25
H-I	0 / 52	-78.0 -78.0 0.10 (1)	10.00
Q-B	-1747 / 0	0.0 0.0 0.25 (1)	6.30
J-H	-1747 / 0	0.0 0.0 0.25 (1)	6.30
Q-P	0 / 0	-18.5 -18.5 0.19 (4)	10.00
P-O	0 / 805	-18.5 -18.5 0.27 (4)	10.00
O-N	0 / 805	-18.5 -18.5 0.27 (4)	10.00
N-M	0 / 1317	-18.5 -18.5 0.30 (4)	10.00
M-L	0 / 805	-18.5 -18.5 0.27 (4)	10.00
L-K	0 / 805	-18.5 -18.5 0.27 (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 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 (1.09")
CALCULATED VERT. DEFL.(LL) = L/999 (0.04")
ALLOWABLE DEFL.(TL) = L/360 (1.09")
CALCULATED VERT. DEFL.(TL) = L/999 (0.11")

CSI: TC=0.52/1.00 (F-G:1), BC=0.30/1.00 (M-N:4), WB=0.37/1.00 (F-M:1), SSI=0.28/1.00 (F-G:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

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

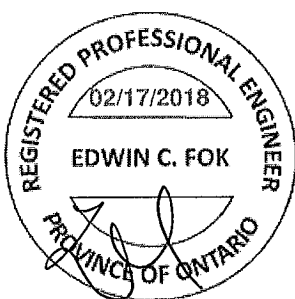
NAIL VALUES
PLATE GRIP(DRY) SHEAR SECTION
(PSI) (PLI) (PLI)
MAX MIN MAX MIN MAX MIN
MT20 618 354 1667 788 1987 1656

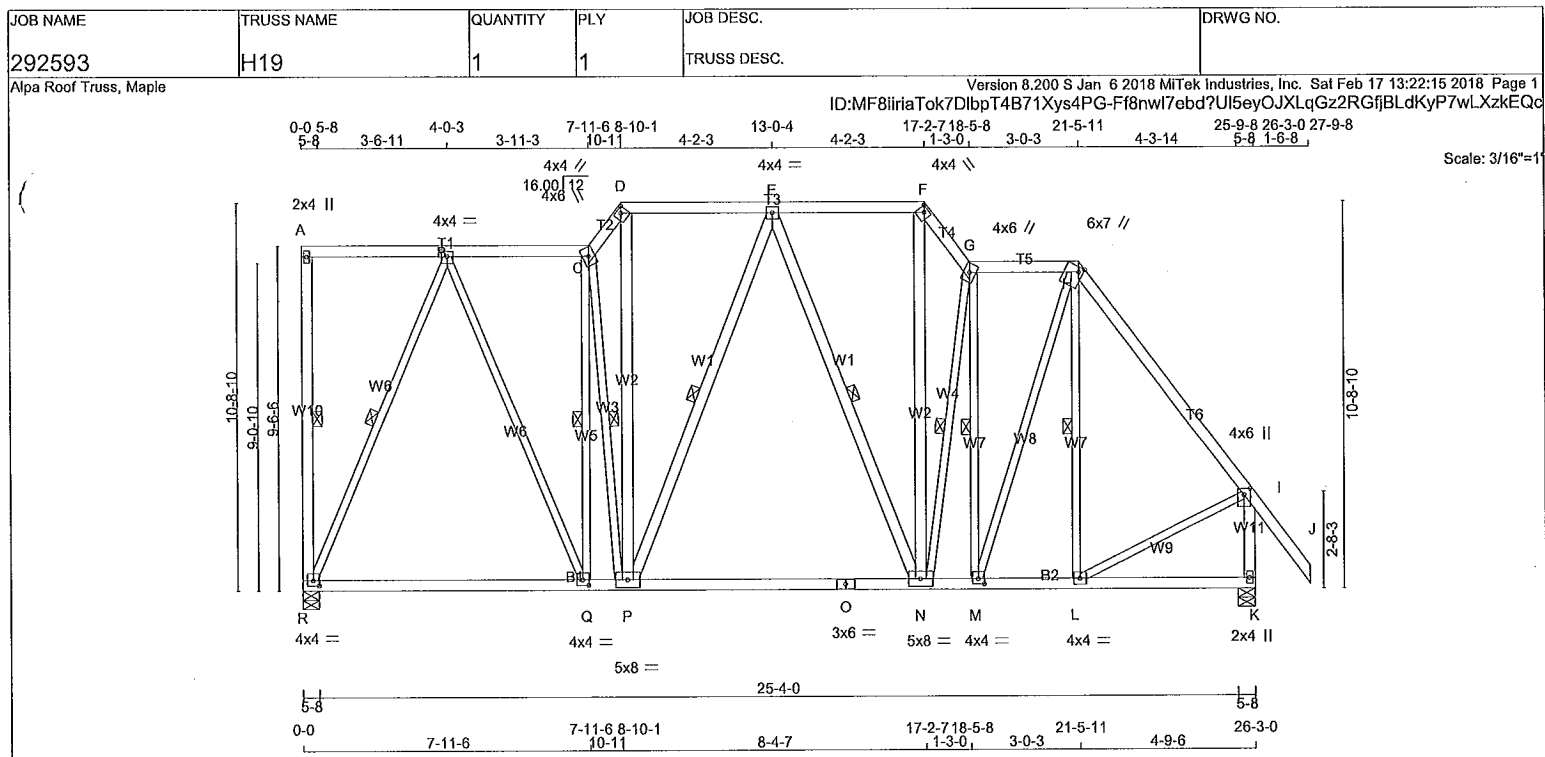
PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.85 (B) (INPUT = 0.90)
JSI METAL= 0.57 (B) (INPUT = 1.00)

A-18023507





TOTAL WEIGHT = 193 lb
[M]F

LUMBER		N. L. G. A. RULES		CHORDS		SIZE		LUMBER		DESCR.	
R - A	2x4	DRY	No.2	SPF							
A - C	2x4	DRY	No.2	SPF							
C - D	2x4	DRY	No.2	SPF							
D - F	2x4	DRY	No.2	SPF							
F - G	2x4	DRY	No.2	SPF							
G - H	2x4	DRY	No.2	SPF							
H - J	2x4	DRY	No.2	SPF							
K - I	2x4	DRY	No.2	SPF							
R - O	2x4	DRY	No.2	SPF							
O - K	2x4	DRY	No.2	SPF							
EBS	2x3	DRY	No.2	SPF							
EAULT											
P - D	2x4	DRY	No.2	SPF							
P - E	2x4	DRY	No.2	SPF							
E - N	2x4	DRY	No.2	SPF							
N - F	2x4	DRY	No.2	SPF							

DRY: SEASONED LUMBER.

PLATES (table is in inches)

JT	TYPE	PLATES	W	LEN	Y	X
A	TMV+p	MT20	2.0	4.0		
B	TMWW-t	MT20	4.0	4.0	1.75	2.00
C	TTWW+m	MT20	4.0	6.0		
D	TTW-h	MT20	4.0	4.0	Edge	
E	TMWW-t	MT20	4.0	4.0		
F	TTW-h	MT20	4.0	4.0	Edge	
G	TTWW+m	MT20	4.0	6.0		
H	TTWW+m	MT20	6.0	7.0	Edge	1.50
I	TMV+p	MT20	4.0	6.0	2.00	2.00
K	BMV1+p	MT20	2.0	4.0		
L	BMWW-t	MT20	4.0	4.0		
M	BMWW-t	MT20	4.0	4.0	1.75	2.00
N	BMWW-t	MT20	5.0	8.0		
O	BS-t	MT20	3.0	6.0		
P	BMWW-t	MT20	5.0	8.0		
Q	BMWW-t	MT20	4.0	4.0	1.75	2.00
R	BMVW1-t	MT20	4.0	4.0	1.75	2.00

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



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

BEARINGS

JT	FACTORED GROSS REACTION		MAXIMUM FACTORED GROSS REACTION		INPUT BRG		REQRD BRG	
	VERT	HORZ	DOWN	HORZ	UPLIFT	IN-SX	IN-SX	
R	1298	0	1298	0	0	5-8	1-8	
K	1427	0	1427	0	0	5-8	2-2	

UNFACTORED REACTIONS

JT	1ST CASE COMBINED		MAX/MIN. SNOW		LIVE		PERM. LIVE		WIND		DEAD		SOIL	
	R	K	R	K	R	K	R	K	R	K	R	K	R	K
R	928	1017	551 / 0	621 / 0	0 / 0	0 / 0	0 / 0	0 / 0	0 / 0	0 / 0	377 / 0	397 / 0	0 / 0	0 / 0

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

BRACING

FOR SECTION D-F, MAX. PURLIN SPACING = 2.00 FT.
FOR OTHER SECTIONS, TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 5.73 FT.
MAX. UNBRACED BOTTOM CHORD LENGTH = 10.00 FT OR RIGID CEILING DIRECTLY APPLIED.

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

1 LATERAL BRACE(S) AT 1/2 LENGTH OF A-R, C-Q, C-P, E-P, E-N, G-N, G-M, H-L, B-R.

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

LOADING

TOTAL LOAD CASES: (4)

CHORDS		MAX. FACTORED		FACTORED		W E B S		MAX. FACTORED	
MEMB.	FORCE (LBS)	VERT. LOAD (PLF)	LC1 (LC)	MAX	MAX. UNBRACED LENGTH	MEMB.	FORCE (LBS)	MAX	MAX. UNBRACED LENGTH
FR-TO		FROM	TO			FR-TO			
R-A	-118 / 0	0.0	0.0	0.05 (1)	6.25	Q-C	-619 / 0	0.37 (1)	
A-B	0 / 0	-78.0	-78.0	0.21 (1)	10.00	C-P	-532 / 0	0.33 (1)	
B-C	-795 / 0	-78.0	-78.0	0.17 (1)	6.25	P-D	0 / 809	0.13 (1)	
C-D	-1237 / 0	-78.0	-78.0	0.02 (1)	5.76	P-E	-238 / 0	0.16 (1)	
D-E	-753 / 0	-85.5	-85.5	0.19 (1)	2.00	E-N	-215 / 0	0.15 (1)	
E-F	-762 / 0	-85.5	-85.5	0.19 (1)	2.00	N-F	0 / 806	0.13 (1)	
F-G	-1252 / 0	-78.0	-78.0	0.03 (1)	5.73	N-G	-446 / 0	0.24 (1)	
G-H	-813 / 0	-78.0	-78.0	0.10 (1)	6.25	M-G	-728 / 0	0.39 (1)	
H-I	-994 / 0	-78.0	-78.0	0.26 (1)	5.98	M-H	0 / 698	0.16 (1)	
I-J	0 / 52	-78.0	-78.0	0.15 (1)	10.00	L-H	-169 / 0	0.09 (1)	
K-L	-1392 / 0	0.0	0.0	0.20 (1)	6.90	L-I	0 / 656	0.15 (1)	
R-Q	0 / 487	-18.5	-18.5	0.32 (4)	10.00	R-B	-1223 / 0	0.89 (1)	
Q-P	0 / 802	-18.5	-18.5	0.35 (4)	10.00	B-Q	0 / 805	0.18 (1)	
P-O	0 / 840	-18.5	-18.5	0.29 (4)	10.00				
O-N	0 / 840	-18.5	-18.5	0.29 (4)	10.00				
N-M	0 / 822	-18.5	-18.5	0.29 (4)	10.00				
M-L	0 / 592	-18.5	-18.5	0.17 (4)	10.00				
L-K	0 / 0	-18.5	-18.5	0.11 (4)	10.00				

DESIGN CRITERIA

SPECIFIED LOADS:

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

SPACING = 24.0 IN. C/C

LOADING IN HIGHEST 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.

LOADING IN OTHER FLAT SECTIONS BASED ON A SLOPE OF 6.00/12 AND 6.00/12

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

THIS DESIGN COMPLIES WITH:

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

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

ALLOWABLE DEFL.(LL)= L/360 (0.88")
CALCULATED VERT. DEFL.(LL)= L/999 (0.05")
ALLOWABLE DEFL.(TL)= L/360 (0.88")
CALCULATED VERT. DEFL.(TL)= L/999 (0.15")

CSI: TC=0.26/1.00 (H-I:1), BC=0.35/1.00 (P-Q:4), WB=0.89/1.00 (B-R:1), SSI=0.17/1.00 (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

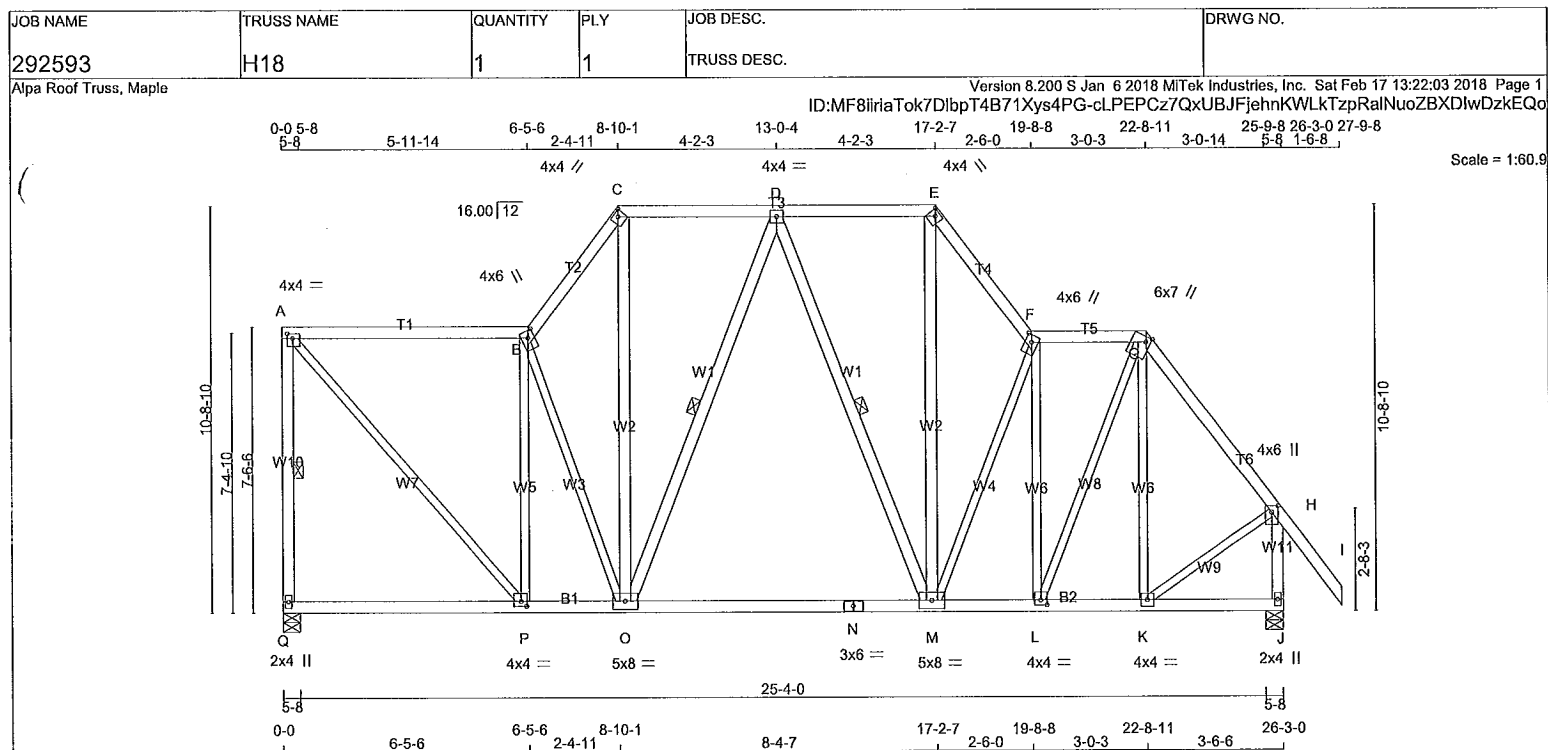
TRUSS PLATE MANUFACTURER IS NOT RESPONSIBLE FOR QUALITY CONTROL IN THE TRUSS MANUFACTURING PLANT.

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= 0.83 (M) (INPUT = 0.90)
JSI METAL= 0.41 (D) (INPUT = 1.00)



LUMBER

N. L. G. A. RULES

CHORDS	SIZE	LUMBER	DESCR.
Q - A	2x4	DRY	No.2 SPF
A - B	2x4	DRY	No.2 SPF
B - C	2x4	DRY	No.2 SPF
C - E	2x4	DRY	No.2 SPF
E - F	2x4	DRY	No.2 SPF
F - G	2x4	DRY	No.2 SPF
G - I	2x4	DRY	No.2 SPF
J - H	2x4	DRY	No.2 SPF
Q - N	2x4	DRY	No.2 SPF
J	2x4	DRY	No.2 SPF
WEBS	2x3	DRY	No.2 SPF
EXCEPT			
O - C	2x4	DRY	No.2 SPF
O - D	2x4	DRY	No.2 SPF
D - M	2x4	DRY	No.2 SPF
M - E	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	4.0	1.50	1.75
B	TTWW+m	MT20	4.0	6.0	2.25	2.00
C	TTW-h	MT20	4.0	4.0	Edge	
D	TMVW-t	MT20	4.0	4.0		
E	TTW-h	MT20	4.0	4.0	Edge	
F	TTWW+m	MT20	4.0	6.0	2.25	2.00
G	TTWW+m	MT20	6.0	7.0	Edge	1.50
H	TMVW+p	MT20	4.0	6.0	2.00	2.00
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	2.00
M	BMVWW-t	MT20	5.0	8.0		
N	BS-t	MT20	3.0	6.0		
O	BMVWW-t	MT20	5.0	8.0		
P	BMVW-t	MT20	4.0	4.0	1.50	1.75
Q	BMV1+p	MT20	2.0	4.0		

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

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

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

BEARINGS

	FACTORED GROSS REACTION	MAXIMUM FACTORED GROSS REACTION	INPUT BRG	REQRD BRG
JT	VERT	HORZ	DOWN	HORZ
Q	1298	0	1298	0
J	1427	0	1427	0

UNFACTORED REACTIONS

JT	1ST LCASE COMBINED	MAX/MIN. SNOW	MAX/MIN. LIVE	MAX/MIN. PERM. LIVE	WIND	DEAD	SOIL
Q	928	551 / 0	0 / 0	0 / 0	0 / 0	377 / 0	0 / 0
J	1017	621 / 0	0 / 0	0 / 0	0 / 0	397 / 0	0 / 0

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

BRACING

FOR SECTION C-E, MAX. PURLIN SPACING = 2.00 FT.
FOR OTHER SECTIONS, TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 5.68 FT.
MAX. UNBRACED BOTTOM CHORD LENGTH = 10.00 FT OR RIGID CEILING DIRECTLY APPLIED.

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

1 LATERAL BRACE(S) AT 1/2 LENGTH OF A-Q, D-O, D-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)

MEMB.	CHORDS MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	LC1 MAX. CSI (LC)	MAX. UNBRAC LENGTH	MEMB.	WEBS MAX. FACTORED FORCE (LBS)	MAX. CSI (LC)
FR-TO		FROM TO			FR-TO		
Q-A	-1247 / 0	0.0	0.0	0.32 (1)	A-P	0 / 1332	0.30 (1)
A-B	-878 / 0	-78.0	-78.0	0.43 (1)	P-B	-920 / 0	0.95 (1)
B-C	-1237 / 0	-78.0	-78.0	0.08 (1)	B-O	-447 / 0	0.51 (1)
C-D	-752 / 0	-85.5	-85.5	0.19 (1)	O-C	0 / 750	0.12 (1)
D-E	-762 / 0	-85.5	-85.5	0.19 (1)	O-D	-240 / 0	0.17 (1)
E-F	-1253 / 0	-78.0	-78.0	0.08 (1)	D-M	-213 / 0	0.15 (1)
F-G	-896 / 0	-78.0	-78.0	0.10 (1)	M-E	0 / 759	0.12 (1)
G-H	-964 / 0	-78.0	-78.0	0.14 (1)	M-F	-444 / 0	0.49 (1)
H-I	0 / 52	-78.0	-78.0	0.15 (1)	L-F	-802 / 0	0.78 (1)
J-H	-1403 / 0	0.0	0.0	0.20 (1)	L-G	0 / 852	0.19 (1)
					K-G	-269 / 0	0.26 (1)
					K-H	0 / 679	0.15 (1)
Q-P	0 / 0	-18.5	-18.5	0.16 (4)			
P-O	0 / 891	-18.5	-18.5	0.27 (4)			
O-N	0 / 839	-18.5	-18.5	0.29 (4)			
N-M	0 / 839	-18.5	-18.5	0.29 (4)			
M-L	0 / 908	-18.5	-18.5	0.30 (4)			
L-K	0 / 570	-18.5	-18.5	0.14 (1)			
K-J	0 / 0	-18.5	-18.5	0.07 (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 HIGHEST 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.

LOADING IN OTHER FLAT SECTIONS BASED ON A SLOPE OF 6.00/12 AND 6.00/12

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

THIS DESIGN COMPLIES WITH:

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

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

ALLOWABLE DEFL.(LL)= L/360 (0.88")
CALCULATED VERT. DEFL.(LL)= L/999 (0.05")
ALLOWABLE DEFL.(TL)= L/360 (0.88")
CALCULATED VERT. DEFL.(TL)= L/999 (0.17")

CSI: TC=0.43/1.00 (A-B:1), BC=0.30/1.00 (L-M:4), WB=0.95/1.00 (B-P:1), SSI=0.20/1.00 (A-B:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

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

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

PLATE PLACEMENT TOL. = 0.250 inches

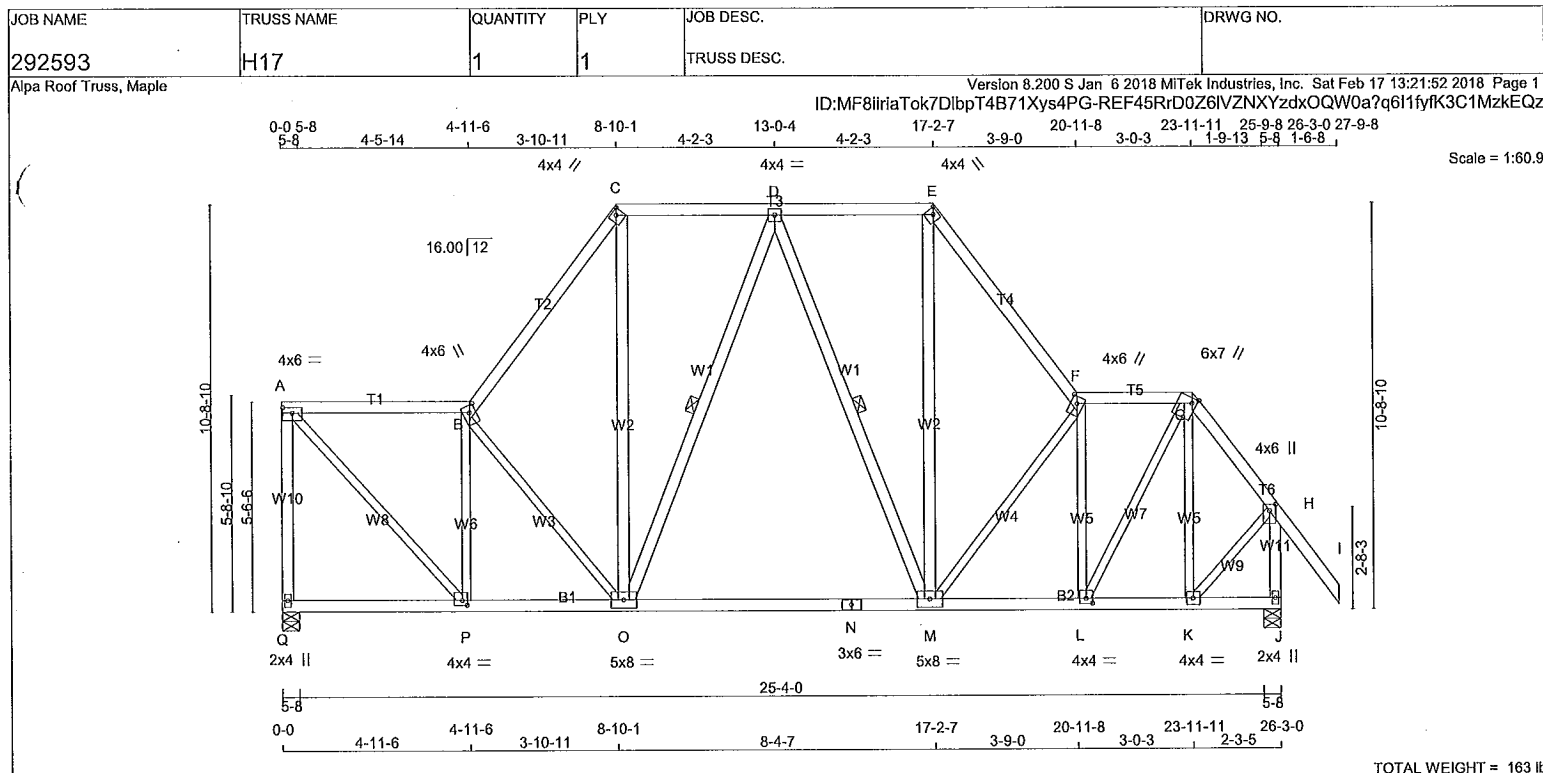
PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.89 (A) (INPUT = 0.90)
JSI METAL= 0.39 (E) (INPUT = 1.00)

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TOTAL WEIGHT = 163 lb
[M][F]

LUMBER				N. L. G. A. RULES	
CHORDS	SIZE	LUMBER	DESCR.	CHORDS	SIZE
Q - A	2x4	DRY	No.2	Q - A	2x4
A - B	2x4	DRY	No.2	A - B	2x4
B - C	2x4	DRY	No.2	B - C	2x4
C - E	2x4	DRY	No.2	C - E	2x4
E - F	2x4	DRY	No.2	E - F	2x4
F - G	2x4	DRY	No.2	F - G	2x4
G - I	2x4	DRY	No.2	G - I	2x4
I - H	2x4	DRY	No.2	I - H	2x4
H - N	2x4	DRY	No.2	H - N	2x4
N - J	2x4	DRY	No.2	N - J	2x4
J - K	2x4	DRY	No.2	J - K	2x4
K - L	2x4	DRY	No.2	K - L	2x4
L - M	2x4	DRY	No.2	L - M	2x4
M - E	2x4	DRY	No.2	M - E	2x4
VEBS	2x3	DRY	No.2	VEBS	2x3
EXCEPT				EXCEPT	
O - C	2x4	DRY	No.2	O - C	2x4
O - D	2x4	DRY	No.2	O - D	2x4
D - M	2x4	DRY	No.2	D - M	2x4
M - E	2x4	DRY	No.2	M - E	2x4

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	3.00
B	TTWW+m	MT20	4.0	6.0	2.25	2.00
C	TTW-h	MT20	4.0	4.0	Edge	
D	TMVW-t	MT20	4.0	4.0		
E	TTW-h	MT20	4.0	4.0	Edge	
F	TTWW+m	MT20	4.0	6.0	2.25	2.00
G	TTWW+m	MT20	6.0	7.0	Edge	1.50
H	TMVW+p	MT20	4.0	6.0	2.00	2.00
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	2.00
M	BMVW-t	MT20	5.0	8.0		
N	BS-t	MT20	3.0	6.0		
O	BMVW-t	MT20	5.0	8.0		
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		REQRD BRG	
	VERT	HORZ	DOWN	HORZ	IN-SX	IN-SX	IN-SX	IN-SX
Q	1294	0	1294	0	0	5-8	1-15	
J	1431	0	1431	0	0	5-8	2-2	

UNFACTORED REACTIONS

JT	1ST LCASE		MAX/MIN. COMPONENT REACTIONS		WIND	DEAD	SOIL
	COMBINED	SNOW	LIVE	PERM. LIVE			
Q	925	549 / 0	0 / 0	0 / 0	0 / 0	376 / 0	0 / 0
J	1020	623 / 0	0 / 0	0 / 0	0 / 0	397 / 0	0 / 0

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

BRACING

FOR SECTION C-E, MAX. PURLIN SPACING = 2.00 FT.
FOR OTHER SECTIONS, TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 5.60 FT.
MAX. UNBRACED BOTTOM CHORD LENGTH = 10.00 FT. OR RIGID CEILING DIRECTLY APPLIED.

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

1 LATERAL BRACE(S) AT 1/2 LENGTH OF D-O, D-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					W E B S				
MEMB.	MAX. FACTORED	FACTORED			MAX. FACTORED				
	FORCE (LBS)	VERT. (PLF)	LOAD LC1	MAX CSI (LC)	MAX. UNBRAC	MEMB. FORCE (LBS)	MAX CSI (LC)		
FR-TO		FROM	TO		LENGTH	FR-TO			
Q-A	-1252 / 0	0.0	0.0	0.69 (1)	7.19	A-P	0 / 1455		
A-B	-987 / 0	-78.0	-78.0	0.26 (1)	5.97	P-B	-998 / 0		
B-C	-1234 / 0	-78.0	-78.0	0.18 (1)	5.60	B-O	-435 / 0		
C-D	-749 / 0	-85.5	-85.5	0.19 (1)	2.00	O-C	0 / 689		
D-E	-755 / 0	-85.5	-85.5	0.19 (1)	2.00	O-D	-235 / 0		
E-F	-1243 / 0	-78.0	-78.0	0.17 (1)	5.60	D-M	-219 / 0		
F-G	-988 / 0	-78.0	-78.0	0.10 (1)	6.17	M-E	0 / 702		
G-H	-878 / 0	-78.0	-78.0	0.12 (1)	6.25	M-F	-443 / 0		
H-I	0 / 52	-78.0	-78.0	0.15 (1)	10.00	L-F	-899 / 0		
J-H	-1421 / 0	0.0	0.0	0.21 (1)	6.84	L-G	0 / 1045		
						K-G	-403 / 0		
						K-H	0 / 692		
Q-P	0 / 0	-18.5	-18.5	0.10 (4)	10.00				
P-O	0 / 1007	-18.5	-18.5	0.29 (4)	10.00				
O-N	0 / 835	-18.5	-18.5	0.28 (4)	10.00				
N-M	0 / 835	-18.5	-18.5	0.28 (4)	10.00				
M-L	0 / 1006	-18.5	-18.5	0.30 (4)	10.00				
L-K	0 / 491	-18.5	-18.5	0.12 (1)	10.00				
K-J	0 / 0	-18.5	-18.5	0.05 (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 HIGHEST 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.

LOADING IN OTHER FLAT SECTIONS BASED ON A SLOPE OF 6.00/12 AND 6.00/12

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

THIS DESIGN COMPLIES WITH:

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

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 (0.87")
CALCULATED VERT. DEFL.(LL) = L/999 (0.05")
ALLOWABLE DEFL.(TL) = L/360 (0.87")
CALCULATED VERT. DEFL.(TL) = L/999 (0.16")

CSI: TC=0.69/1.00 (A-Q:1), BC=0.30/1.00 (L-M:4), WB=0.46/1.00 (B-P:1), SSI=0.17/1.00 (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= 0.89 (A) (INPUT = 0.90)
JSI METAL= 0.38 (P) (INPUT = 1.00)

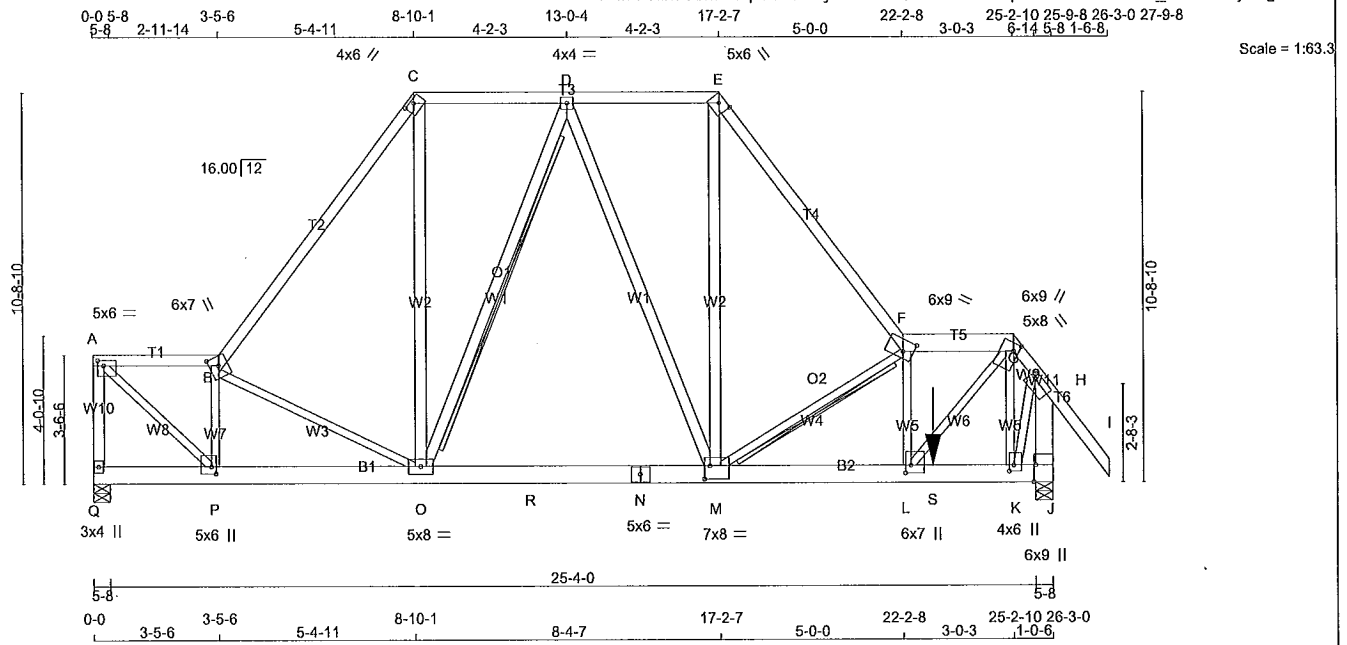
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JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
292593	H16	1	1	TRUSS DESC.	

Alpa Roof Truss, Maple



TOTAL WEIGHT = 172 lb [M]

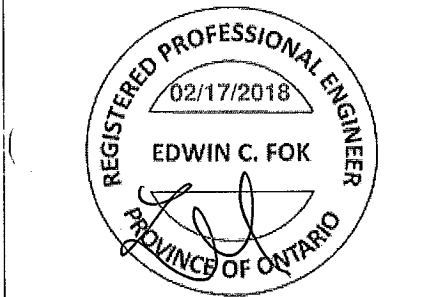
LUMBER				N. L. G. A. RULES			
CHORDS	SIZE	LUMBER	DESCR.	Q	A	2x4	DRY
A - B	2x4	DRY	No.2	SPF			
B - C	2x4	DRY	No.2	SPF			
C - E	2x4	DRY	1650F 1.5E	SPF			
E - F	2x4	DRY	No.2	SPF			
F - G	2x6	DRY	1650F 1.5E	SPF			
G - I	2x4	DRY	No.2	SPF			
J - H	2x6	DRY	No.2	SPF			
Q - N	2x6	DRY	1650F 1.5E	SPF			
N - I	2x6	DRY	1650F 1.5E	SPF			
EXCEPT							
O - C	2x4	DRY	No.2	SPF			
O - D	2x4	DRY	No.2	SPF			
D - M	2x4	DRY	No.2	SPF			
M - E	2x4	DRY	No.2	SPF			

DRY: SEASONED LUMBER.

PLATES (table is in inches)					
JT	TYPE	PLATES	W	LEN	X
A	TMVW-t	MT20	5.0	6.0	1.75 2.00
B	TTWW+m	MT20	6.0	7.0	3.25 3.00
C	TTW-h	MT20	4.0	6.0	1.25 3.00
D	MTWW-t	MT20	4.0	4.0	
E	TTW-h	MT20	5.0	6.0	2.00 3.25
F	TTWW-m	MT20	6.0	9.0	3.75 3.25
G	TTWW+m	MT20	6.0	9.0	2.50 1.75
H	TMVW-t	MT20	5.0	8.0	2.00 2.00
J	BMV1+I	MT20	6.0	9.0	Edge 0.50
K	BMWW+H	MT20	4.0	6.0	2.00 1.50
L	BMWW+H	MT20	6.0	7.0	2.50 1.75
M	BMWWW-t	MT20	7.0	8.0	4.25 1.75
N	BS-t	MT20	5.0	6.0	
O	BMWWW-t	MT20	5.0	8.0	
P	BMWW+I	MT20	5.0	6.0	2.25 1.50
Q	BMV1+p	MT20	3.0	4.0	

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

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



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

BEARINGS		FACTORED		MAXIMUM FACTORED		INPUT		REQD	
JT	VERT	HORZ	DOWN	HORZ	UPLIFT	IN-SX	BRG	IN-SX	BRG
Q	2191	0	2191	0	0	5-8	3-10	5-8	3-10
J	3672	0	3672	0	0	5-8	3-10	5-8	3-10

UNFACTORED REACTIONS		1ST LCASE		MAX./MIN. COMPONENT REACTIONS	
JT	COMBINED	SNOW	LIVE	PERM.LIVE	WIND
Q	1565	939 / 0	0 / 0	0 / 0	0 / 0
J	2618	1598 / 0	0 / 0	0 / 0	0 / 0

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

BRACING
FOR SECTION C-E, MAX. PURLIN SPACING = 2.00 FT.
FOR OTHER SECTIONS, TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 3.91 FT.
MAX. UNBRACED BOTTOM CHORD LENGTH = 10.00 FT OR RIGID CEILING DIRECTLY APPLIED.

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

2x4 DRY SPF No.2 T-BRACE AT D-O, F-M

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

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

LOADING
TOTAL LOAD CASES: (4)

CHORDS		MEMB.		WEBS	
MAX. FACTORED	FACTORED	MAX. FACTORED	FACTORED	MAX. FACTORED	FACTORED
FORCE (LBS)	VERT. LOAD LC1 (PLF)	FORCE (LBS)	VERT. LOAD LC1 (PLF)	FORCE (LBS)	VERT. LOAD LC1 (PLF)
FR-TO	FROM	FR-TO	FROM	FR-TO	FROM
Q-A	-2082 / 0	0.0	0.0	0.39 (1)	5.81
A-B	-2092 / 0	-78.0	-78.0	0.24 (1)	4.43
B-C	-2594 / 0	-78.0	-78.0	0.67 (1)	4.33
C-D	-1580 / 0	-85.5	-85.5	0.28 (1)	2.00
D-E	-2060 / 0	-85.5	-85.5	0.31 (1)	2.00
E-F	-3392 / 0	-78.0	-78.0	0.68 (1)	3.91
F-G	-3510 / 0	-78.0	-78.0	0.13 (1)	4.44
G-H	-1768 / 0	-78.0	-78.0	0.20 (1)	4.79
H-I	0 / 52	-78.0	-78.0	0.17 (1)	10.00
J-H	-3943 / 0	0.0	0.0	0.40 (1)	5.36
Q-P	0 / 0	-18.5	-18.5	0.13 (1)	10.00
P-O	0 / 2163	-18.5	-18.5	0.44 (1)	10.00
O-R	0 / 1897	-18.5	-18.5	0.66 (1)	10.00
R-N	0 / 1897	-239.3	-239.3	0.66 (1)	10.00
N-M	0 / 1897	-239.3	-239.3	0.66 (1)	10.00
M-L	0 / 3567	-239.3	-239.3	0.79 (1)	10.00
L-S	0 / 1040	-239.3	-239.3	0.25 (1)	10.00
S-K	0 / 1040	-18.5	-18.5	0.25 (1)	10.00
K-J	0 / 0	-18.5	-18.5	0.14 (1)	10.00

FACTORED CONCENTRATED LOADS (LBS)		LOC.		MAX-		MAX+		FACE		DIR.		TYPE	
JT	LOC.	LC1	MAX-	MAX+	FRONT	VERT	TOTAL						
S	23-0-4	-704	-704	-									

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 HIGHEST 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.

LOADING IN OTHER FLAT SECTIONS BASED ON A SLOPE OF 6.00/12 AND 6.00/12

GIRDER TYPE: CSdGirder
START DISTANCE = 12-0-0
START SPAN CARRIED = 11-1-14
END DISTANCE = 23-0-4
END SPAN CARRIED = 11-1-14
END WALL WIDTH = 0-0
APPLIED TO FRONT SIDE OF BOTTOM CHORD.
- ADDTL LOADS BASED ON 55 % OF GSL.

*** 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) = 1/360 (0.87")
CALCULATED VERT. DEFL.(LL) = 1/999 (0.18")
ALLOWABLE DEFL.(TL) = 1/360 (0.87")
CALCULATED VERT. DEFL.(TL) = 1/869 (0.37")

CSI: TC=0.68/1.00 (E-F:1), BC=0.79/1.00 (L-M:1), WB=0.97/1.00 (G-L:1), SS=0.60/1.00 (M-O: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

Scale = 1:70.0

TOTAL WEIGHT = 4 X 63 = 254 lb

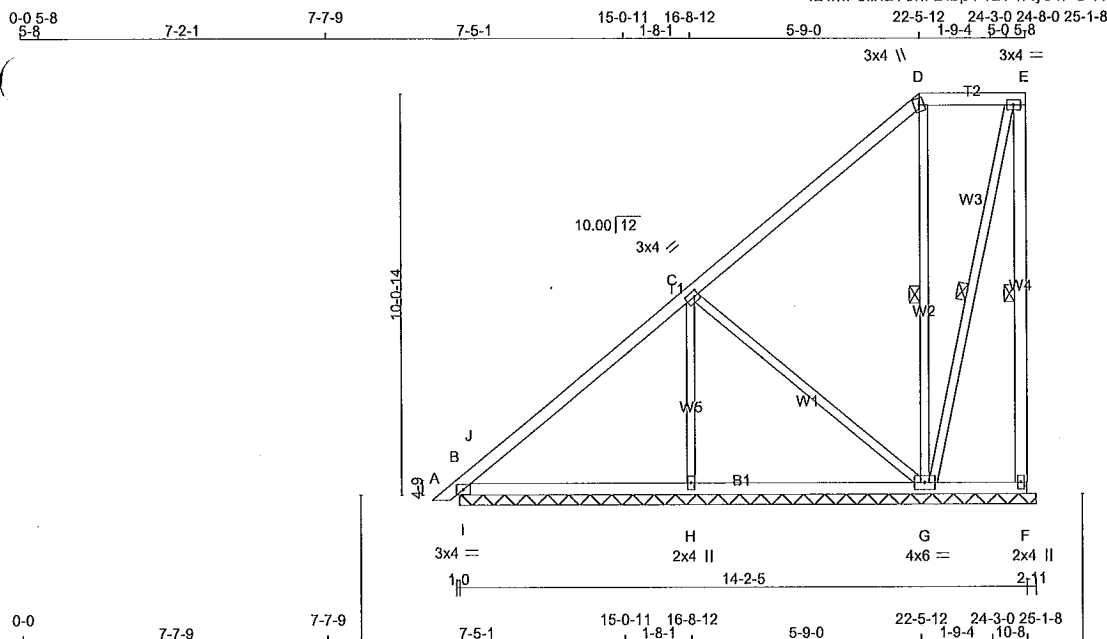
JSI GRIP= 0.80 (D) (INPUT = 0.90)
JSI METAL= 0.36 (D) (INPUT = 1.00)

A-18023502

JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
292593	H14P	1	1	TRUSS DESC.	

Alpa Roof Truss, Maple

Version 8.200 S Jan 6 2018 MiTek Industries, Inc. Sat Feb 17 13:21:20 2018 Page 1
ID:MF8ilriaTok7DlbpT4B71Xys4PG-N4J_NVS8Yk4lfexOgF2R5gBcp5xfodiEILJWwDzkERT



TOTAL WEIGHT = 74 lb

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

S (table is in inches)					
JT	TYPE	PLATES	W	LEN	Y X
B	TMB1-I	MT20	3.0	4.0	
C	TMVW-I	MT20	3.0	4.0	1.50 1.25
D	TTW+m	MT20	3.0	4.0	
E	TMVW-I	MT20	3.0	4.0	
F	BMV1+p	MT20	2.0	4.0	
G	BMVWW1-I	MT20	4.0	6.0	
H	BMV1+w	MT20	2.0	4.0	

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

BEARINGS		FACTORED GROSS REACTION		MAXIMUM FACTORED GROSS REACTION		INPUT BRG		REQRD BRG	
JT	VERT	HORZ	DOWN	HORZ	UPLIFT	IN-SX	IN-SX		
F	92	0	92	0	0	14-5-0 (14-2-2)36-9			
B	362	0	362	0	0	14-5-0 (14-2-2)36-9			
G	488	0	488	0	0	14-5-0 (14-2-2)36-9			
H	476	0	476	0	0	14-5-0 (14-2-2)36-9			

VALUE IN PARENTHESIS INDICATES EFFECTIVE BEARING LENGTH

UNFACTORED REACTIONS

JT	1ST LCASE	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
F	64	44 / 0	0 / 0	0 / 0	0 / 0	21 / 0	0 / 0
B	256	169 / 0	0 / 0	0 / 0	0 / 0	86 / 0	0 / 0
G	347	214 / 0	0 / 0	0 / 0	0 / 0	133 / 0	0 / 0
H	342	194 / 0	0 / 0	0 / 0	0 / 0	148 / 0	0 / 0

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

BRACING

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

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

1 LATERAL BRACE(S) AT 1/2 LENGTH OF E-F, D-G, E-G.

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

LOADING

TOTAL LOAD CASES: (4)

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	LENGTH	FR-TO			
A-B	0 / 12	-78.0 -78.0	0.02 (1)	10.00	G-D	-277 / 0	0.19 (1)
B-J	-71 / 0	-78.0 -78.0	0.07 (1)	6.25	H-C	-322 / 0	0.13 (1)
J-C	-136 / 0	-78.0 -78.0	0.42 (1)	6.25	C-G	-170 / 0	0.20 (1)
C-D	-29 / 0	-78.0 -78.0	0.42 (1)	6.25	G-E	-26 / 0	0.02 (1)
D-E	0 / 6	-78.0 -78.0	0.09 (1)	10.00	I-J	-364 / 6	0.00 (1)
F-E	-78 / 0	0.0 0.0	0.04 (1)	6.25			
B-I	0 / 127	-18.5 -18.5	0.16 (1)	10.00			
I-H	0 / 127	-18.5 -18.5	0.17 (4)	10.00			
H-G	0 / 127	-18.5 -18.5	0.17 (4)	10.00			
G-F	0 / 0	-18.5 -18.5	0.08 (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

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

CSI: TC=0.42/1.00 (C-J:1), BC=0.17/1.00 (H-I:4), WB=0.20/1.00 (C-G:1), SSI=0.30/1.00 (B-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

AUTOSOLVE RIGHT HEEL ONLY

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

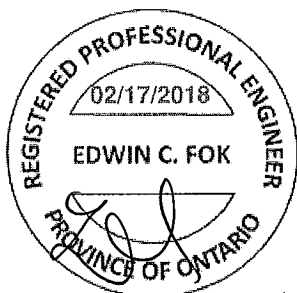
NAIL VALUES
PLATE GRIP(DRY) SHEAR SECTION (PSI) (PLI) (PLI)
MAX MIN MAX MIN MAX MIN
MT20 618 354 1667 788 1987 1656

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.38 (C) (INPUT = 0.90)
JSI METAL= 0.10 (D) (INPUT = 1.00)

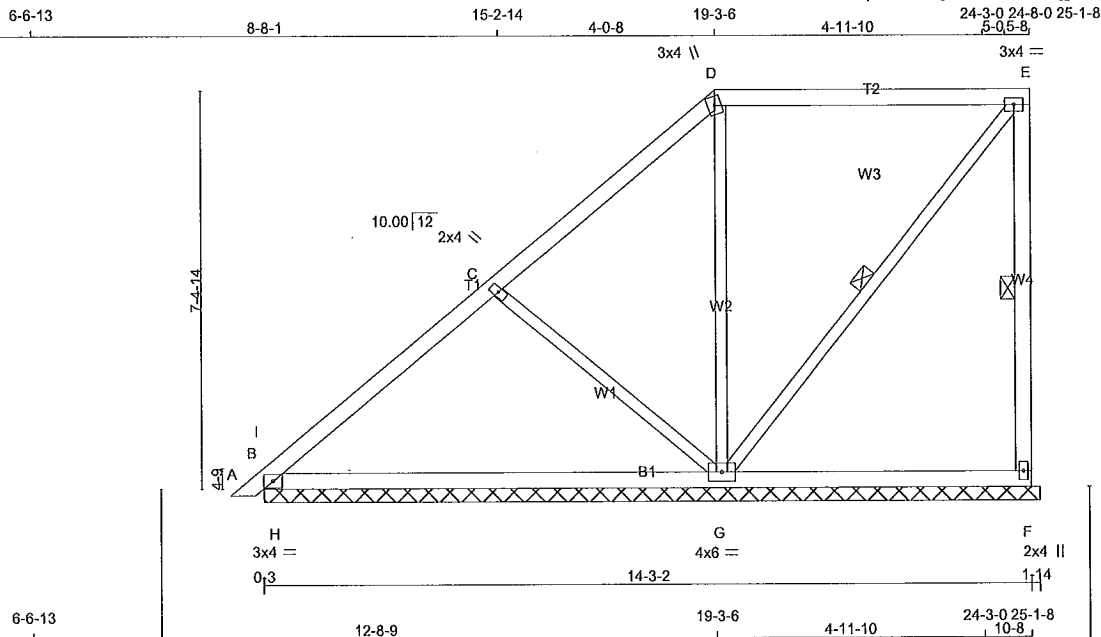
A-18023501



JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
292593	H13P	1	1	TRUSS DESC.	

Alpa Roof Truss, Maple

Version 8.200 S Jan 6 2018 MiTek Industries, Inc. Sat Feb 17 13:21:07 2018 Page 1
ID:MF8ilriaTok7DlbpT4B71Xys4PG-Fa14f2l_ckR8beRuP1JO3w9NVsT0FI4KJqfKyTzkERg



TOTAL WEIGHT = 61 lb

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

3 (table is in inches)					
JT	TYPE	PLATES	W	LEN	Y X
B	TMB1-I	MT20	3.0	4.0	
C	TMW+w	MT20	2.0	4.0	
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	BMVWW1-t	MT20	4.0	6.0	

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

BEARINGS		FACTORED		MAXIMUM FACTORED		INPUT		REQRD	
JT	VERT	GROSS REACTION	DOWN	GROSS REACTION	DOWN	HORZ	UPLIFT	BRG	IN-SX
F	222	0	222	0	0	14-5-0	(14-3-2)	8-13	
B	415	0	415	0	0	14-5-0	(14-3-2)	8-13	
G	780	0	780	0	0	14-5-0	(14-3-2)	8-13	

VALUE IN PARENTHESIS INDICATES EFFECTIVE BEARING LENGTH

UNFACTORED REACTIONS

JT	1ST LCASE	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
F	158	98 / 0	0 / 0	0 / 0	0 / 0	60 / 0	0 / 0
B	295	186 / 0	0 / 0	0 / 0	0 / 0	109 / 0	0 / 0
G	557	336 / 0	0 / 0	0 / 0	0 / 0	220 / 0	0 / 0

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

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

LOADING

TOTAL LOAD CASES: (4)

CHORDS		FACTORED		W E B S		FACTORED	
MEMB.	MAX. FORCE (LBS)	VERT. LOAD (PLF)	MAX. CSI (LC)	MEMB.	MAX. FORCE (LBS)	MAX. CSI (LC)	UNBRAC LENGTH (LC)
FR-TO		FROM	TO	FR-TO			
A-B	0 / 12	-78.0	-78.0 0.02 (1)	10.00	G-D	-367 / 0	0.36 (1)
B-I	-458 / 0	-78.0	-78.0 0.16 (4)	6.25	C-G	-326 / 0	0.17 (1)
I-C	-253 / 0	-78.0	-78.0 0.25 (1)	6.25	G-E	-48 / 0	0.03 (1)
C-D	-6 / 5	-78.0	-78.0 0.24 (1)	10.00	H-I	0 / 300	0.00 (1)
D-E	0 / 30	-78.0	-78.0 0.46 (1)	10.00			
E-F	-190 / 0	0.0	0.0 0.05 (1)	6.25			
B-H	0 / 223	-18.5	-18.5 0.14 (4)	10.00			
H-G	0 / 223	-18.5	-18.5 0.28 (4)	10.00			
G-F	0 / 0	-18.5	-18.5 0.26 (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=0.46/1.00 (D-E:1), BC=0.28/1.00 (G-H:4), WB=0.36/1.00 (D-G:1), SSI=0.27/1.00 (B-H:4)

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

COMPANION LIVE LOAD FACTOR = 1.00

AUTOSOLVE RIGHT HEEL ONLY

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

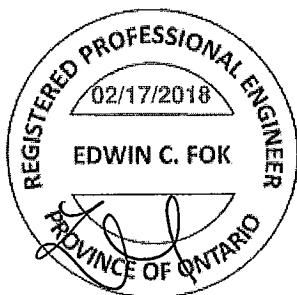
NAIL VALUES
PLATE GRIP(DRY) SHEAR SECTION
(PSI) (PLI) (PLI)
MAX MIN MAX MIN MAX MIN
MT20 618 354 1667 788 1987 1656

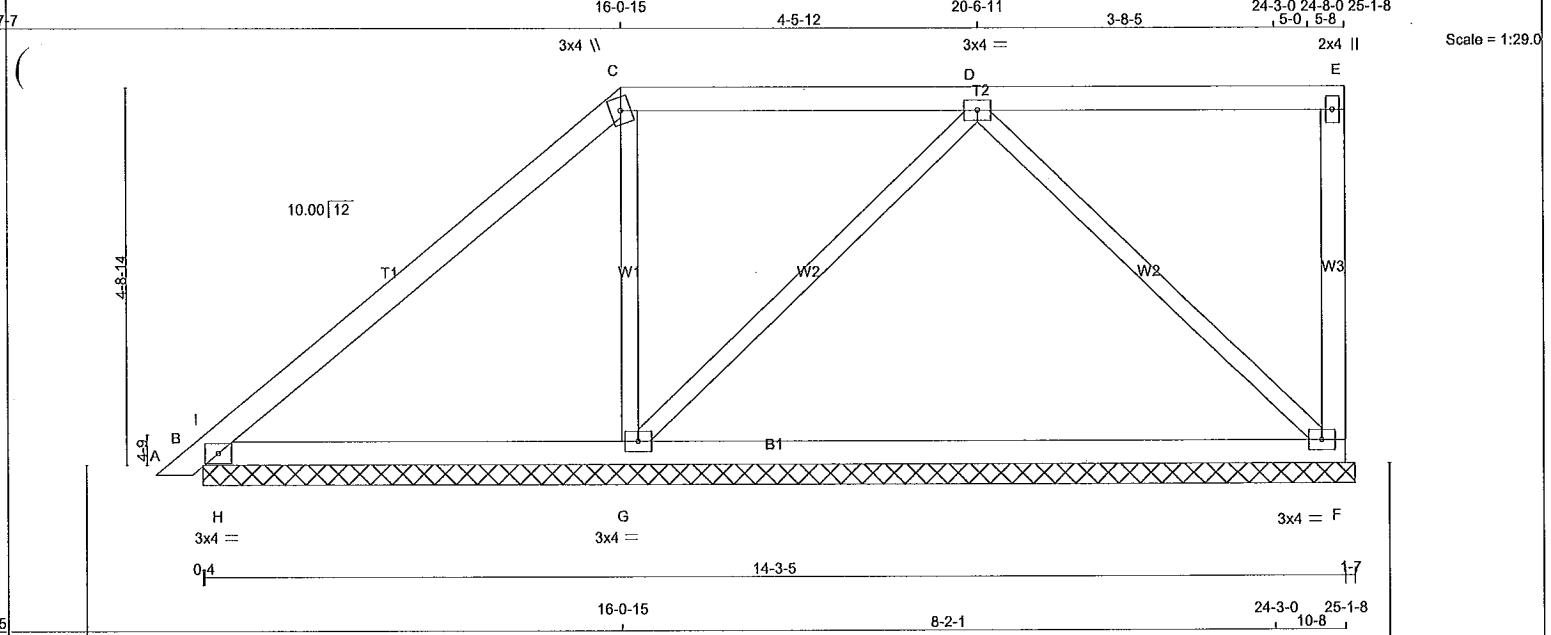
PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.47 (D) (INPUT = 0.90)
JSI METAL= 0.11 (D) (INPUT = 1.00)

A-18023500



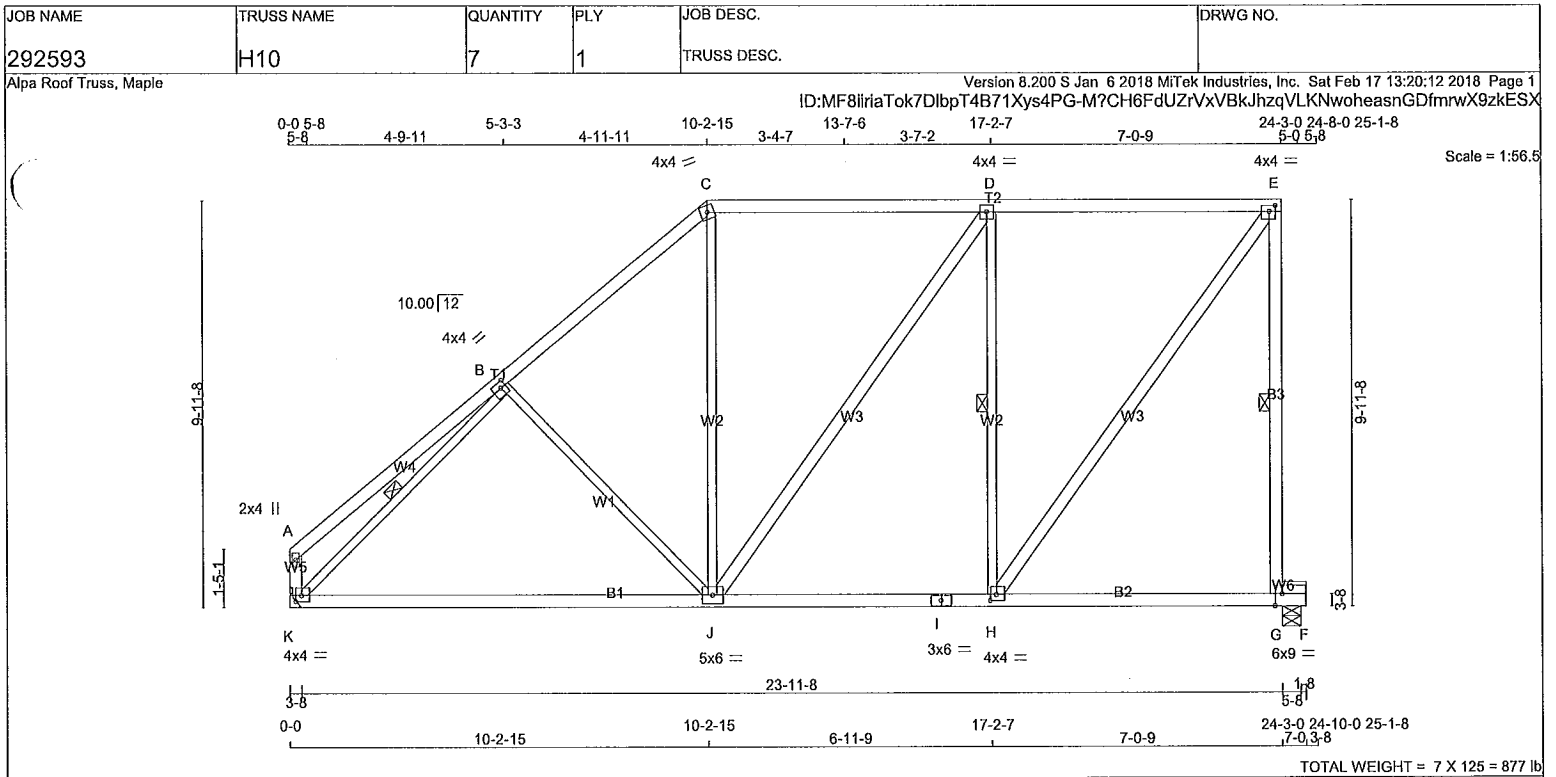


LUMBER					DIMENSIONS, SUPPORTS AND LOADINGS SPECIFIED BY FABRICATOR TO BE VERIFIED BY BUILDING DESIGNER										DESIGN CRITERIA					TOTAL WEIGHT = 53 lb (M)	
N. L. G. A					BEARINGS										SPECIFIED LOADS:						
CHORDS					FACTORED										TOP CH. LL = 21.0 PSF						
SIZE					GROSS REACTION										DL = 6.0 PSF						
LUMBER					MAXIMUM FACTORED										BOT CH. LL = 0.0 PSF						
DESCR.					INPUT										DL = 7.4 PSF						
A - C					BRG										TOTAL LOAD = 34.4 PSF						
C - E					BRG																
F - E					IN-SX																
B - F					IN-SX																
2x4 DRY No.2 SPF					14-5-0 (14-3-8)1-2																
2x4 DRY No.2 SPF					14-5-0 (14-3-8)1-2																
2x4 DRY No.2 SPF					14-5-0 (14-3-8)1-2																
ALL WEBS 2x3 DRY No.2 SPF																					
DRY: SEASONED LUMBER.																					
VALUE IN PARENTHESIS INDICATES EFFECTIVE BEARING LENGTH																					
UNFACTORED REACTIONS																					
1ST LCASE MAX./MIN. COMPONENT REACTIONS																					
JT COMBINED SNOW LIVE PERM.LIVE WIND DEAD SOIL																					
F 311 200 / 0 0 / 0 0 / 0 111 / 0 0 / 0																					
B 217 155 / 0 0 / 0 0 / 0 62 / 0 0 / 0																					
G 482 266 / 0 0 / 0 0 / 0 216 / 0 0 / 0																					
BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S) F, B, 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																					
MAX. FACTORED																					
MEMB. FORCE VERT. LOAD LC1 MAX. MAX. MEMB. MAX. FACTORED																					
(LBS) (PLF) CSI (LC) UNBRAC LENGTH FR-TO																					
FR-TO FROM TO																					
A-B 0 / 12 -78.0 -78.0 0.02 (1) 10.00 G-C -254 / 0 0.08 (1)																					
B-I 0 / 229 -78.0 -78.0 0.19 (1) 10.00 G-D -279 / 0 0.20 (1)																					
I-C -89 / 0 -78.0 -78.0 0.26 (1) 6.25 D-F -344 / 0 0.24 (1)																					
C-D -51 / 0 -78.0 -78.0 0.27 (1) 6.25 H-I -655 / 0 0.00 (1)																					
D-E 0 / 0 -78.0 -78.0 0.27 (1) 10.00																					
F-E -135 / 0 0.0 0.0 0.05 (1) 7.81																					
B-H 0 / 57 -18.5 -18.5 0.24 (1) 10.00																					
H-G 0 / 57 -18.5 -18.5 0.35 (4) 10.00																					
G-F 0 / 246 -18.5 -18.5 0.36 (4) 10.00																					
WEBS																					
MAX. FACTORED																					
MEMB. FORCE MAX. MEMB. MAX. FACTORED																					
(LBS) (LBS) CSI (LC)																					
FR-TO FROM TO																					
A-B 0 / 12 -78.0 -78.0 0.02 (1) 10.00 G-C -254 / 0 0.08 (1)																					
B-I 0 / 229 -78.0 -78.0 0.19 (1) 10.00 G-D -279 / 0 0.20 (1)																					
I-C -89 / 0 -78.0 -78.0 0.26 (1) 6.25 D-F -344 / 0 0.24 (1)																					
C-D -51 / 0 -78.0 -78.0 0.27 (1) 6.25 H-I -655 / 0 0.00 (1)																					
D-E 0 / 0 -78.0 -78.0 0.27 (1) 10.00																					
F-E -135 / 0 0.0 0.0 0.05 (1) 7.81																					
B-H 0 / 57 -18.5 -18.5 0.24 (1) 10.00																					
H-G 0 / 57 -18.5 -18.5 0.35 (4) 10.00																					
G-F 0 / 246 -18.5 -18.5 0.36 (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=0.27/1.00 (C-D:1) , BC=0.36/1.00 (F-G:4) , WB=0.24/1.00 (D-F:1) , SSI=0.50/1.00 (B-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																					
AUTOSOLVE RIGHT HEEL ONLY																					
TRUSS PLATE MANUFACTURER IS NOT RESPONSIBLE FOR QUALITY CONTROL IN THE TRUSS MANUFACTURING PLANT .																					
NAIL VALUES																					
PLATE GRIP(DRY) SHEAR SECTION (PSI) (PLI) (PLI)																					
MAX MIN MAX MIN MAX MIN																					
MT20 618 354 1667 788 1987 1656																					
PLATE PLACEMENT TOL. = 0.250 inches																					
PLATE ROTATION TOL. = 5.0 Deg.																					
JSI GRIP= 0.44 (F) (INPUT = 0.90)																					
JSI METAL= 0.09 (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-18023499

	A-18023498
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LUMBER
N. L. G. A. RULES
CHORDS SIZE LUMBER DESCR. SPF

K - A	2x4	DRY	No.2	SPF
A - C	2x4	DRY	No.2	SPF
C - E	2x4	DRY	No.2	SPF
K - I	2x4	DRY	No.2	SPF
I - F	2x4	DRY	No.2	SPF
G - F	2x4	DRY	No.2	SPF
G - E	2x4	DRY	No.2	SPF

ALL WEBS 2x3 DRY No.2 SPF

DT	2x4	DRY	No.2	SPF
E	2x4	DRY	No.2	SPF

DRY: SEASONED LUMBER.

PLATES (table is in inches)

JT	TYPE	PLATES	W	LEN	Y	X
A	TMV+p	MT20	2.0	4.0		
B	TMWW-t	MT20	4.0	4.0	1.75	1.50
C	TTW-m	MT20	4.0	4.0		
D	TMWW-t	MT20	4.0	4.0		
E	TMVV-t	MT20	4.0	4.0	1.75	1.75
G	BMVW1-t	MT20	6.0	9.0	Edge	2.00
H	BMWW-t	MT20	4.0	4.0	1.75	1.75
I	BS-t	MT20	3.0	6.0		
J	BMVWW-t	MT20	5.0	6.0		
K	BMVW1-t	MT20	4.0	4.0	1.75	1.75

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

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
K	1193	1193	0	0
G	1307	1307	0	0

UNFACTORED REACTIONS

JT	1ST LCASE	MAX/MIN. COMPONENT REACTIONS	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
K	853	506 / 0	0 / 0	0 / 0	0 / 0	0 / 0	347 / 0	0 / 0
G	938	537 / 0	0 / 0	0 / 0	0 / 0	0 / 0	402 / 0	0 / 0

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

BRACING
FOR SECTION C-E, MAX. PURLIN SPACING = 2.00 FT.
FOR OTHER SECTIONS, TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 5.71 FT.
MAX. UNBRACED BOTTOM CHORD LENGTH = 5.87 FT OR RIGID CEILING DIRECTLY APPLIED.

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

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

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

LOADING
TOTAL LOAD CASES: (4)

CHORDS				WEBS			
MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	MAX. UNBRACED LENGTH FR-TO	MEMB.	MAX. FACTORED FORCE (LBS)	MAX. UNBRACED LENGTH FR-TO	CSF (LC)
K-A	-153 / 0	0.0	0.02 (1)	J-C	0 / 255	0.06 (4)	
A-B	0 / 30	-78.0	-78.0 0.34 (1)	K-B	-1330 / 0	0.49 (1)	
B-C	-1018 / 0	-78.0	-78.0 0.38 (1)	B-J	-234 / 0	0.26 (1)	
C-D	-759 / 0	-85.5	-85.5 0.75 (1)	J-D	0 / 128	0.02 (1)	
D-E	-685 / 0	-85.5	-85.5 0.74 (1)	H-D	-840 / 0	0.56 (1)	
				H-E	0 / 1180	0.19 (1)	
K-J	0 / 919	-18.5	-18.5 0.50 (4)				
J-I	0 / 685	-18.5	-18.5 0.49 (4)				
I-H	0 / 685	-18.5	-18.5 0.49 (4)				
H-G	0 / 0	-18.5	-18.5 0.19 (4)				
G-F	0 / 0	-96.5	-96.5 0.01 (1)				
G-E	-1182 / 0	0.0	0.0 0.57 (1)				

DESIGN CRITERIA

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

SPACING = 24.0 IN. C/C

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

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

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

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

ALLOWABLE DEFL.(LL)= L/360 (0.80")
CALCULATED VERT. DEFL.(LL) = L/999 (0.03")
ALLOWABLE DEFL.(TL)= L/360 (0.80")
CALCULATED VERT. DEFL.(TL) = L/860 (0.34")

CANTILEVER DEFLECTION:
ALLOWABLE DEFL.(LL)= L/0 (0.19")
CALCULATED VERT. DEFL.(LL) = L/0 (0.00")
ALLOWABLE DEFL.(TL)= L/0 (0.19")
CALCULATED VERT. DEFL.(TL) = L/0 (0.00")

CSI: TC=0.75/1.00 (C-D:1), BC=0.57/1.00 (E-G:1), WB=0.56/1.00 (D-H:1), SSI=0.29/1.00 (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

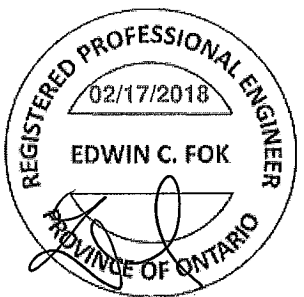
TRUSS PLATE MANUFACTURER IS NOT RESPONSIBLE FOR QUALITY CONTROL IN THE TRUSS MANUFACTURING PLANT.

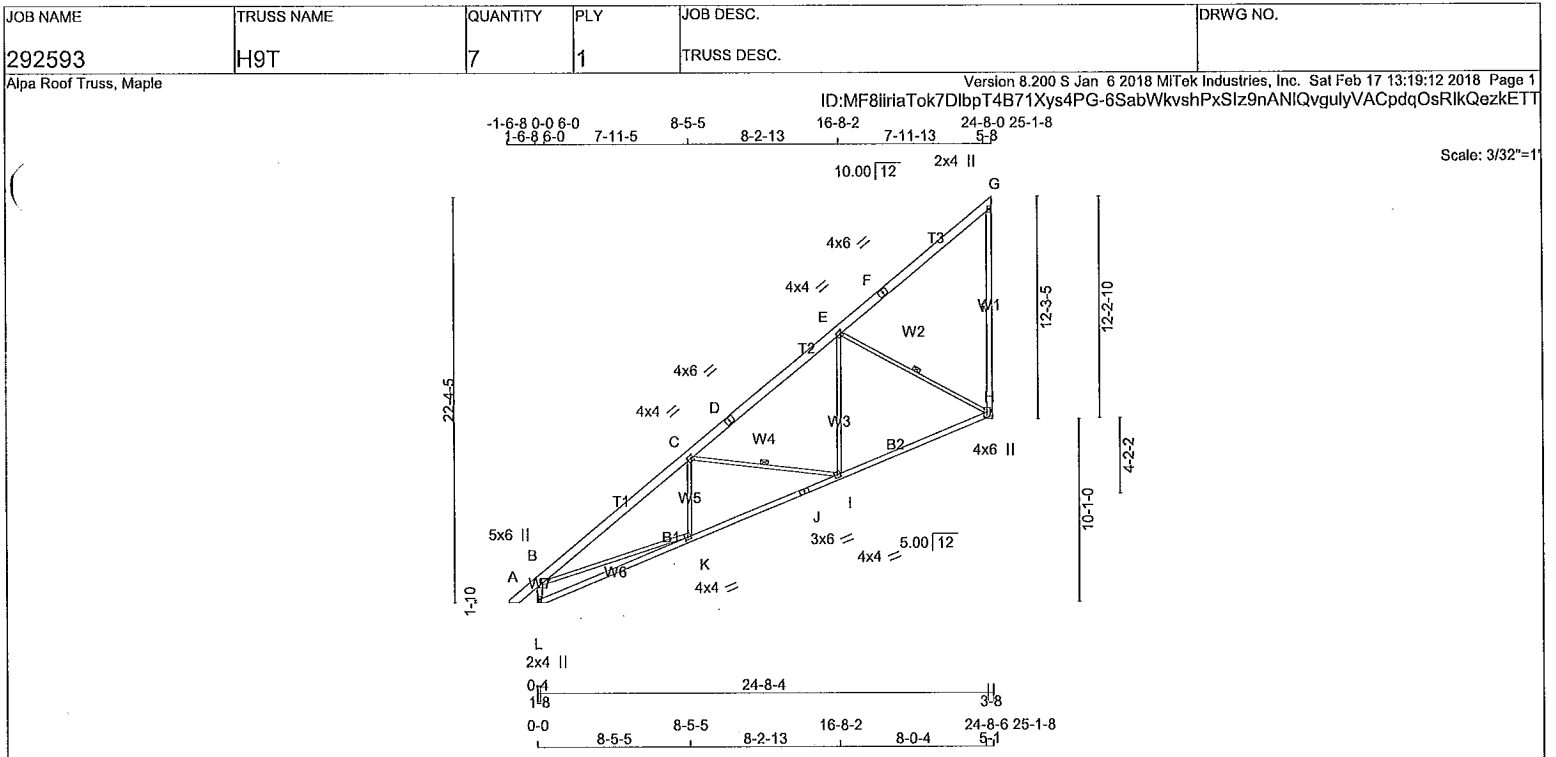
NAIL VALUES

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= 0.88 (E) (INPUT = 0.90)
JSI METAL= 0.49 (B) (INPUT = 1.00)

A-18023496





TOTAL WEIGHT = 7 X 138 = 969 lb [M][F]

LUMBER				N. L. G. A. RULES	
CHORDS	SIZE	LUMBER	DESCR.		
L - B	2x4	DRY	No.2	SPF	
A - D	2x6	DRY	No.2	SPF	
D - F	2x6	DRY	No.2	SPF	
F - G	2x6	DRY	No.2	SPF	
H - G	2x4	DRY	No.2	SPF	
L - J	2x4	DRY	No.2	SPF	
J - H	2x4	DRY	No.2	SPF	
ALL WEBS	2x3	DRY	No.2	SPF	
SEASONED LUMBER.					

PLATES (table is in inches)					
JT	TYPE	PLATES	W	LEN	Y X
B	TMVW+p	MT20	5.0	6.0	Edge 3.25
C	TMWW-t	MT20	4.0	4.0	2.00 1.25
D	TS-t	MT20	4.0	6.0	
E	TMWW-t	MT20	4.0	4.0	2.00 1.25
F	TS-t	MT20	4.0	6.0	
G	TMVW+p	MT20	2.0	4.0	
H	BMVW1+p	MT20	4.0	6.0	3.25 2.00
I	BMWW-t	MT20	4.0	4.0	
J	BS-t	MT20	3.0	6.0	
K	BMWW-t	MT20	4.0	4.0	1.50 2.00
L	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		MAXIMUM FACTORED		INPUT		REQRD	
JT	GROSS REACTION	VERT	HORZ	DOWN	UPLIFT	BRG	IN-SX	BRG	IN-SX
H	1212	0		1212	0	0	HANGER BY OTHERS		
L	1326	0		1326	0	0	HANGER BY OTHERS		

UNFACTORED REACTIONS							
JT	1ST CASE	MAX/MIN	COMPONENT REACTIONS				
H	COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
L	864	527 / 0	0 / 0	0 / 0	0 / 0	337 / 0	0 / 0
L	943	589 / 0	0 / 0	0 / 0	0 / 0	354 / 0	0 / 0

BRACING
TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 5.29 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-H, C-I, E-H.

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

LOADING
TOTAL LOAD CASES: (4)

CHORDS				WEBS			
MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	MAX. UNBRACED LENGTH (LC)	MEMB.	MAX. FACTORED FORCE (LBS)	MAX. UNBRACED LENGTH (LC)	
FR-TO		FROM TO		FR-TO			
L-B	-1260 / 0	0.0	0.0 0.13 (1)	B-K	0 / 1639	0.37 (1)	
A-B	0 / 36	-78.0	-78.0 0.06 (1)	K-C	-51 / 104	0.04 (4)	
B-C	-2018 / 0	-78.0	-78.0 0.37 (1)	C-I	-666 / 0	0.32 (1)	
C-D	-1192 / 0	-78.0	-78.0 0.30 (1)	I-E	0 / 545	0.12 (1)	
D-E	-1192 / 0	-78.0	-78.0 0.30 (1)	E-H	-1047 / 0	0.67 (1)	
E-F	-42 / 0	-78.0	-78.0 0.31 (1)				
F-G	-42 / 0	-78.0	-78.0 0.31 (1)				
H-G	-264 / 0	0.0	0.0 0.22 (1)				
L-K	0 / 6	-18.5	-18.5 0.29 (4)				
K-J	0 / 1710	-18.5	-18.5 0.46 (4)				
J-I	0 / 1710	-18.5	-18.5 0.46 (4)				
I-H	0 / 990	-18.5	-18.5 0.39 (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

(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 (0.84")
CALCULATED VERT. DEFL.(LL) = L/ 999 (0.07")
ALLOWABLE DEFL.(TL)= L/360 (0.84")
CALCULATED VERT. DEFL.(TL) = L/ 999 (0.22")

CSI: TC=0.37/1.00 (B-C:1), BC=0.46/1.00 (I-K:4), WB=0.67/1.00 (E-H:1), SSI=0.18/1.00 (E-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.

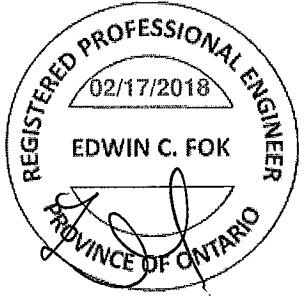
NAIL VALUES
PLATE GRIP(DRY) SHEAR SECTION (PSI) (PLI) (PLI)
MAX MIN MAX MIN MAX MIN
MT20 618 354 1667 788 1987 1656

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.88 (K) (INPUT = 0.90)
JSI METAL= 0.62 (K) (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

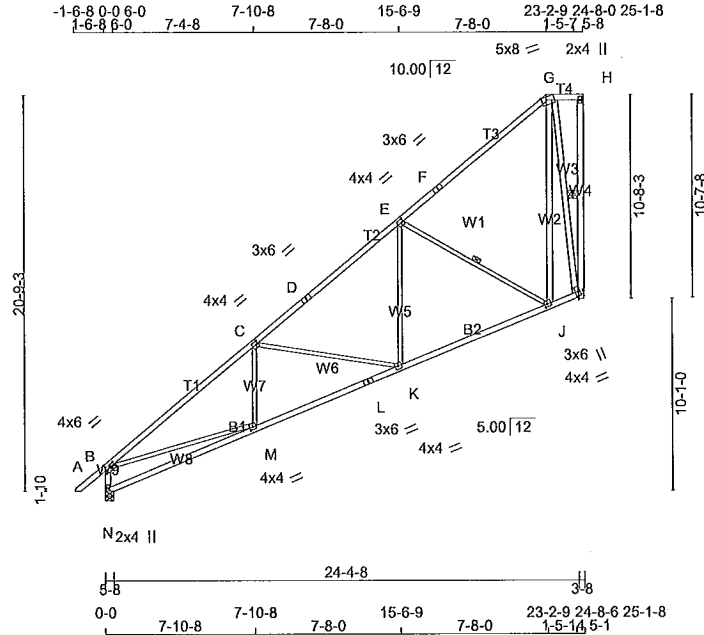


JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
292593	H8T	1	1	TRUSS DESC.	

Alpa Roof Truss, Maple

Version 8.200 S Jan 6 2018 MiTek Industries, Inc. Sat Feb 17 13:18:52 2018 Page 1

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Scale = 1:120.9

TOTAL WEIGHT = 136 lb

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

DRY: SEASONED LUMBER.

PLATES (table is in inches)				
JT	TYPE	PLATES	W	LEN Y X
B	TMVW-t	MT20	4.0	6.0 1.50 2.75
C	TMVW-t	MT20	4.0	4.0 2.00 1.25
D	TS-t	MT20	3.0	6.0
E	TMVW-t	MT20	4.0	4.0 2.00 1.25
F	TS-t	MT20	3.0	6.0
G	TTVW-m	MT20	5.0	8.0 Edge 3.00
H	TMV+p	MT20	2.0	4.0
I	BMVW1+I	MT20	3.0	6.0 3.00 1.75
J	BMVW-t	MT20	4.0	4.0 1.75 1.50
K	BMVW-t	MT20	4.0	4.0
L	BS-t	MT20	3.0	6.0
M	BMVW-t	MT20	4.0	4.0 1.50 2.00
N	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		MAXIMUM FACTORED		INPUT		REQRD	
JT	VERT	GROSS REACTION	HORZ	GROSS REACTION	HORZ	BRG	IN-SX	BRG	IN-SX
I	1212	0		1212	0		HANGER BY OTHERS		
N	1330	0		1330	0	5-8	MIN. SEAT SIZE: 1-8	1-13	

UNFACTORED REACTIONS		1ST LCASE		MAX/MIN. COMPONENT REACTIONS		WIND		DEAD		SOIL	
JT	COMBINED	SNOW	LIVE	PERM. LIVE							
I	864	527 / 0	0 / 0	0 / 0	0 / 0	0 / 0		337 / 0		0 / 0	
N	946	591 / 0	0 / 0	0 / 0	0 / 0	0 / 0		355 / 0		0 / 0	

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

BRACING
TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 4.96 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.

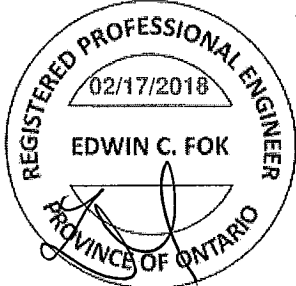
1 LATERAL BRACE(S) AT 1/2 LENGTH OF H-I, E-J, G-I.

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.	FORCE (LBS)	MEMB.	FORCE (LBS)
FR-TO	FROM	FR-TO	FROM
A-B	0 / 38	M-C	-93 / 82
B-C	-1996 / 0	C-K	-573 / 0
C-D	-1297 / 0	K-E	0 / 481
D-E	-1297 / 0	E-J	-932 / 0
E-F	-284 / 0	J-G	0 / 913
F-G	-284 / 0	G-I	-1088 / 0
G-H	0 / 0	B-M	0 / 1612
H-I	-74 / 0		
I-H	0 / 0		
N-B	-1269 / 0		
N-M	0 / 6		
M-L	0 / 1690		
L-K	0 / 1690		
K-J	0 / 1077		
J-I	0 / 205		

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



DESIGN CRITERIA

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

SPACING = 24.0 IN./C/C

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

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

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

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

ALLOWABLE DEFL.(LL)= L/360 (0.84")
CALCULATED VERT. DEFL.(LL) = L/999 (0.07")
ALLOWABLE DEFL.(TL)= L/360 (0.84")
CALCULATED VERT. DEFL.(TL) = L/999 (0.18")

CSI: TC=0.61/1.00 (C-E:1), BC=0.43/1.00 (K-M:4), WB=0.73/1.00 (C-K:1), SSI=0.22/1.00 (B-C:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

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

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

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

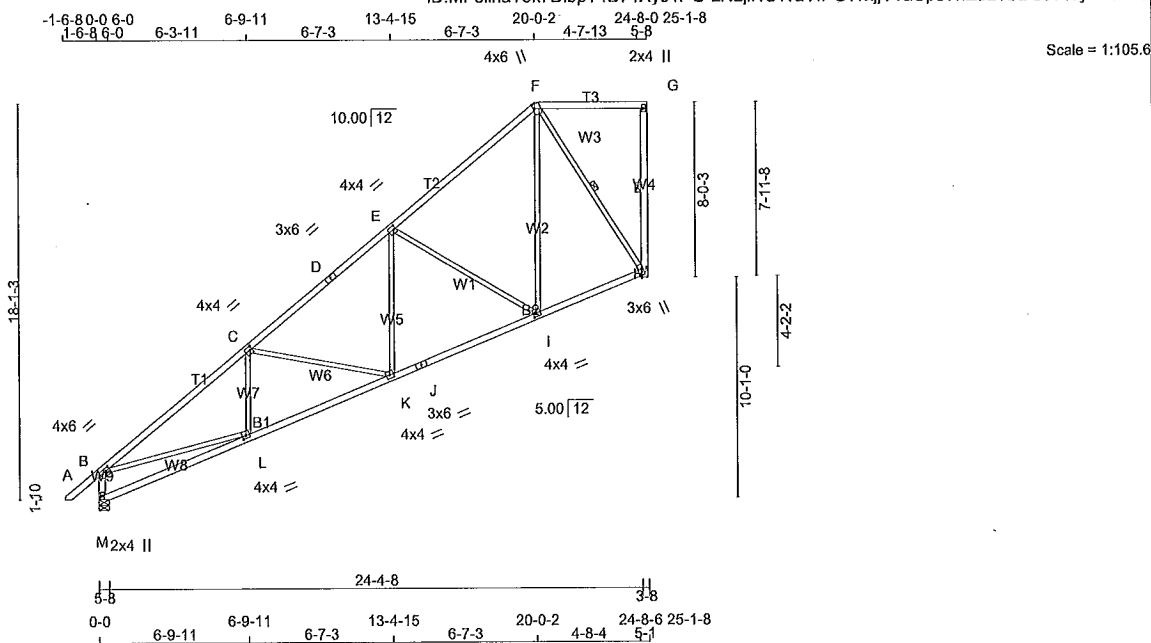
JSI GRIP= 0.90 (B) (INPUT = 0.90)
JSI METAL= 0.61 (M) (INPUT = 1.00)

A-18023494

JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
292593	H7T	1	1	TRUSS DESC.	

Alpa Roof Truss, Maple

Version 8.200 S Jan 6 2018 MiTek Industries, Inc. Sat Feb 17 13:18:30 2018 Page 1
ID:MF8ilriaTok7DibpT4B71Xys4PG-LN2jINOWaVfPGWxjY?acp8WiztrZybDCu7Wy4zkEU7



TOTAL WEIGHT = 119 lb

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

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

PLATES (table is in inches)	W	LEN	Y	X
JT TYPE				
B TMVW-t	MT20	4.0	6.0	1.50 2.75
C TMWW-t	MT20	4.0	4.0	2.00 1.25
D TS-t	MT20	3.0	6.0	
E TMWW-t	MT20	4.0	4.0	2.00 1.25
F TTWW+m	MT20	4.0	6.0	2.50 0.75
G TMV+p	MT20	2.0	4.0	
H BMVW1+i	MT20	3.0	6.0	Edge 2.00
I BMWW-t	MT20	4.0	4.0	2.00 1.50
J BS-t	MT20	3.0	6.0	
K BMWW-t	MT20	4.0	4.0	
L BMWW-t	MT20	4.0	4.0	1.50 2.00
M 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
JT	VERT	HORZ	DOWN	UP
H	1212	0	1212	0
M	1330	0	1330	0

UNFACTORED REACTIONS

1ST LCASE	MAX/MIN. COMPONENT REACTIONS	WIND	DEAD	SOIL
JT COMBINED	SNOW	LIVE	PERM.LIVE	
H	864	527 / 0	0 / 0	0 / 0
M	946	591 / 0	0 / 0	0 / 0

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

BRACING

TOP CHORD TO BE SHEATHED OR MAX. PURLIN 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-H, F-H.

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

LOADING

TOTAL LOAD CASES: (4)

CHORDS	MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	MAX. FACTORED CS (LC)	W E B S	MEMB.	MAX. FACTORED FORCE (LBS)	MAX. FACTORED CS (LC)
FR-TO								
A-B	0 / 38	-78.0	-78.0	0.13 (1)	10.00	L-C	-154 / 42	0.05 (1)
B-C	-2004 / 0	-78.0	-78.0	0.61 (1)	4.22	C-K	-409 / 0	0.35 (1)
C-D	-1511 / 0	-78.0	-78.0	0.45 (1)	4.90	K-E	0 / 371	0.08 (1)
D-E	-1511 / 0	-78.0	-78.0	0.45 (1)	4.90	E-I	-761 / 0	0.98 (1)
E-F	-697 / 0	-78.0	-78.0	0.42 (1)	6.25	I-F	0 / 783	0.18 (1)
F-G	0 / 0	-78.0	-78.0	0.35 (1)	10.00	F-H	-922 / 0	0.52 (1)
H-G	-199 / 0	0.0	0.0	0.06 (1)	6.25	B-L	0 / 1605	0.36 (1)
M-B	-1277 / 0	0.0	0.0	0.14 (1)	7.13			

M-L	0 / 5	-18.5	-18.5	0.19 (4)	10.00
L-K	0 / 1690	-18.5	-18.5	0.37 (1)	10.00
K-J	0 / 1257	-18.5	-18.5	0.28 (1)	10.00
J-I	0 / 1257	-18.5	-18.5	0.28 (1)	10.00
I-H	0 / 557	-18.5	-18.5	0.20 (4)	10.00

DESIGN CRITERIA

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

SPACING = 24.0 IN. C/C

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

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

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

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

ALLOWABLE DEFL.(LL)= L/360 (0.84")
CALCULATED VERT. DEFL.(LL) = L/ 999 (0.07")
ALLOWABLE DEFL.(TL)= L/360 (0.84")
CALCULATED VERT. DEFL.(TL) = L/ 999 (0.15")

CSI: TC=0.61/1.00 (B-C:1), BC=0.37/1.00 (K-L:1), WB=0.98/1.00 (E-I:1), SS=0.19/1.00 (B-C:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

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

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

PLATE PLACEMENT TOL. = 0.250 Inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.89 (L) (INPUT = 0.90)
JSI METAL= 0.61 (L) (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

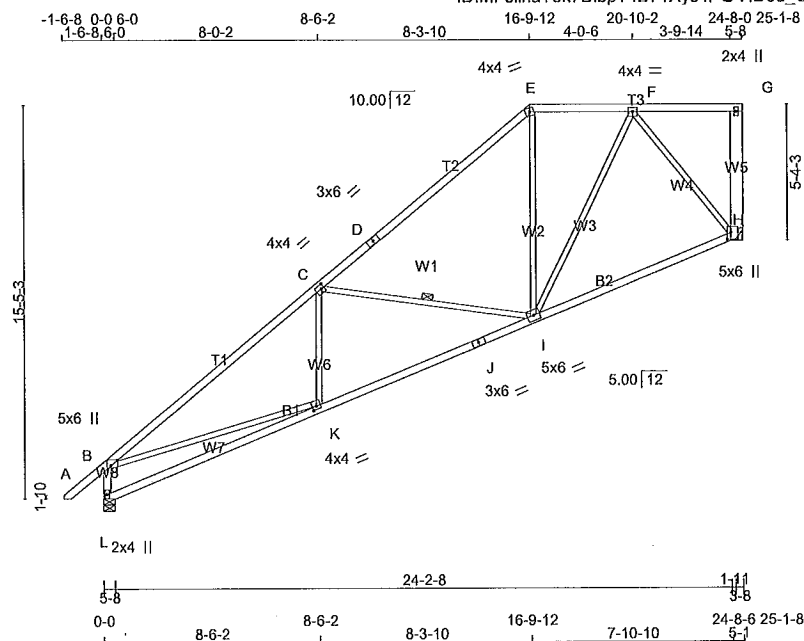


A-18023493

JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
292593	H6T	1	1	TRUSS DESC.	

Alpa Roof Truss, Maple

Version 8.200 S Jan 6 2018 MiTek Industries, Inc. Sat Feb 17 13:17:58 2018 Page 1
ID:MF8ilriaTok7DlbpT4B71Xys4PG-HD6d_Q0R6gdyQbUzrqQ3v4q19gwpT8NVrwNqgwzkEUd



TOTAL WEIGHT = 114 lb

LUMBER	CHORDS	SIZE	LUMBER	DESCR.
N. L. G. A. RULES				
A - D	2x4	DRY	2100F 1.8E	SPF
D - E	2x4	DRY	2100F 1.8E	SPF
E - G	2x4	DRY	No.2	SPF
H - G	2x6	DRY	No.2	SPF
L - B	2x4	DRY	No.2	SPF
L - J	2x4	DRY	No.2	SPF
J - H	2x4	DRY	No.2	SPF

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

PLATES (table is in inches)	JT TYPE	PLATES	W	LEN	Y	X
B	TMVW+p	MT20	5.0	6.0	Edge	3.25
C	TMWW-t	MT20	4.0	4.0	2.00	1.25
D	TS-t	MT20	3.0	6.0		
E	TTW-m	MT20	4.0	4.0		
F	TMWW-t	MT20	4.0	4.0		
G	TMV+p	MT20	2.0	4.0		
H	BMVW1+p	MT20	5.0	6.0	3.25	1.75
I	BMWW1-t	MT20	5.0	6.0		
J	BS-t	MT20	3.0	6.0		
K	BMWW-t	MT20	4.0	4.0	1.50	2.00
L	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
JT	VERT	HORZ	DOWN	UPLIFT
L	1330	0	1330	0
H	1212	0	1212	0

UNFACTORED REACTIONS

1ST LCASE	MAX/MIN	COMPONENT REACTIONS	PERM.LIVE	WIND	DEAD	SOIL
JT	COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD
L	946	591 / 0	0 / 0	0 / 0	355 / 0	0 / 0
H	864	527 / 0	0 / 0	0 / 0	337 / 0	0 / 0

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

BRACING

TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 5.00 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 C-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	MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	MAX. FACTORED VERT. LOAD LC1 (LC)	MAX. FACTORED VERT. LOAD LC2 (LC)	MAX. FACTORED VERT. LOAD LC3 (LC)	MAX. FACTORED VERT. LOAD LC4 (LC)	MAX. FACTORED VERT. LOAD LC5 (LC)	MAX. FACTORED VERT. LOAD LC6 (LC)	MAX. FACTORED VERT. LOAD LC7 (LC)	MAX. FACTORED VERT. LOAD LC8 (LC)	MAX. FACTORED VERT. LOAD LC9 (LC)	MAX. FACTORED VERT. LOAD LC10 (LC)
FR-TO													
A-B	0 / 38	-78.0	-78.0	0.08 (1)	10.00	K-C	-65 / 101	0.04 (4)					
B-C	-2005 / 0	-78.0	-78.0	0.85 (1)	5.00	C-I	-768 / 0	0.39 (1)					
C-D	-1120 / 0	-78.0	-78.0	0.54 (1)	6.25	I-E	0 / 321	0.07 (1)					
D-E	-1120 / 0	-78.0	-78.0	0.54 (1)	6.25	B-K	0 / 1634	0.37 (1)					
E-F	-823 / 0	-78.0	-78.0	0.18 (1)	6.25	I-F	0 / 387	0.09 (1)					
F-G	0 / 0	-78.0	-78.0	0.22 (1)	10.00	F-H	-996 / 0	0.74 (1)					
H-G	-129 / 0	0.0	0.0	0.05 (1)	7.81								
L-B	-1264 / 0	0.0	0.0	0.13 (1)	7.16								
L-K	0 / 6	-18.5	-18.5	0.31 (4)	10.00								
K-J	0 / 1709	-18.5	-18.5	0.47 (4)	10.00								
J-I	0 / 1709	-18.5	-18.5	0.47 (4)	10.00								
I-H	0 / 707	-18.5	-18.5	0.35 (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.I. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 21.0 P.S.F. SPECIFIED ROOF LIVE LOAD

ALLOWABLE DEFL.(LL) = L/360 (0.84")
CALCULATED VERT. DEFL.(LL) = L/999 (0.07")
ALLOWABLE DEFL.(TL) = L/360 (0.84")
CALCULATED VERT. DEFL.(TL) = L/999 (0.22")

CSI: TC=0.65/1.00 (B-C:1), BC=0.47/1.00 (I-K:4), WB=0.74/1.00 (F-H:1), SSI=0.25/1.00 (B-C:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

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

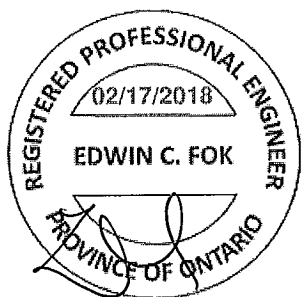
NAIL VALUES
PLATE GRIP(DRY) SHEAR SECTION (PSI) (PLI) (PLI)
MAX MIN MAX MIN MAX MIN
MT20 618 354 1667 788 1987 1656

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.89 (K) (INPUT = 0.90)
JSI METAL= 0.62 (K) (INPUT = 1.00)

A-18023492

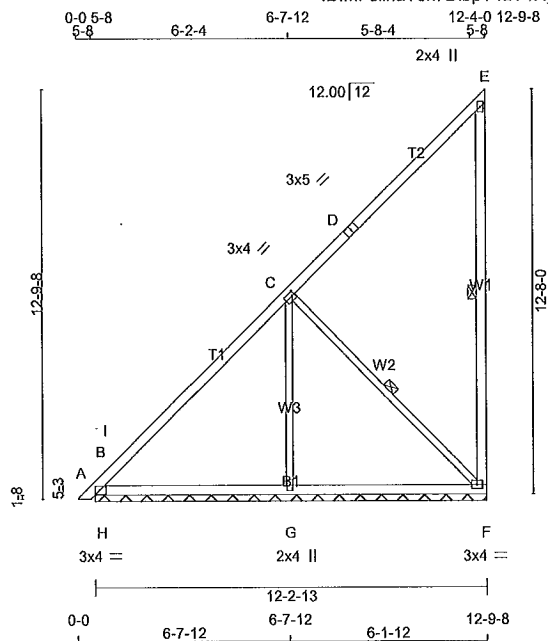


JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
292593	G6P	1	1	TRUSS DESC.	

Alpa Roof Truss, Maple

Version 8.200 S Jan 6 2018 MiTek Industries, Inc. Sat Feb 17 13:16:41 2018 Page 1

ID:MF8iiriaTok7DlbpT4B71Xys4PG-1PyWq548F?whtm6mq9Y0Hq7wQdilwSyA8RDFduzkEVq



Scale = 1:72.2

TOTAL WEIGHT = 60 lb

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

JT	TYPE	PLATES	W	LEN	Y	X
B	TMB1-t	MT20	3.0	4.0	1.50	2.25
C	TMWW-t	MT20	3.0	4.0	1.50	1.00
D	TS-t	MT20	3.0	5.0		
E	TMV+P	MT20	2.0	4.0		
F	BMVW1-t	MT20	3.0	4.0		
G	BMV1+w	MT20	2.0	4.0		

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

BEARINGS	FACTORED	MAXIMUM FACTORED	INPUT	REQD
GROSS REACTION	GROSS REACTION	GROSS REACTION	BRG	BRG
JT	VERT	HORZ	DOWN	HORZ
F	373	0	373	0
B	406	0	406	0
G	436	0	436	0

UNFACTORED REACTIONS

JT	1ST LCASE	MAX/MIN. COMPONENT REACTIONS	SNOW	LIVE	PERM. LIVE	WIND	DEAD	SOIL
F	264	174 / 0	0 / 0	0 / 0	0 / 0	0 / 0	90 / 0	0 / 0
B	286	192 / 0	0 / 0	0 / 0	0 / 0	0 / 0	94 / 0	0 / 0
G	315	166 / 0	0 / 0	0 / 0	0 / 0	0 / 0	149 / 0	0 / 0

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

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

LOADING

TOTAL LOAD CASES: (4)

MEMB.	CHORDS	MAX. FACTORED	FACTORED	VERT. LOAD	LC1	MAX	MAX	MEMB.	WEBS	MAX. FACTORED	MAX
		(LBS)	(PLF)	(PLF)	(LC)	(LC)	(LC)			(LBS)	(LC)
FR-TO											
A-B	0 / 11	-78.0	-78.0	0.01 (1)	10.00			G-C	-270 / 0	0.19 (1)	
B-I	-77 / 31	-78.0	-78.0	0.10 (1)	6.25			C-F	-211 / 0	0.11 (1)	
I-C	-179 / 0	-78.0	-78.0	0.47 (1)	6.25			H-I	-487 / 0	0.00 (1)	
C-D	-39 / 0	-78.0	-78.0	0.46 (1)	6.25						
D-E	-39 / 0	-78.0	-78.0	0.46 (1)	6.25						
F-E	-185 / 0	0.0	0.0	0.16 (1)	6.25						

B-H	0 / 149	-18.5	-18.5	0.16 (1)	10.00
H-G	0 / 149	-18.5	-18.5	0.21 (4)	10.00
G-F	0 / 149	-18.5	-18.5	0.21 (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

CSI: TC=0.47/1.00 (C-I:1), BC=0.21/1.00 (G-H:4), WB=0.19/1.00 (C-G:1), SSI=0.40/1.00 (B-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 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= 0.65 (D) (INPUT = 0.90)
JSI METAL= 0.21 (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

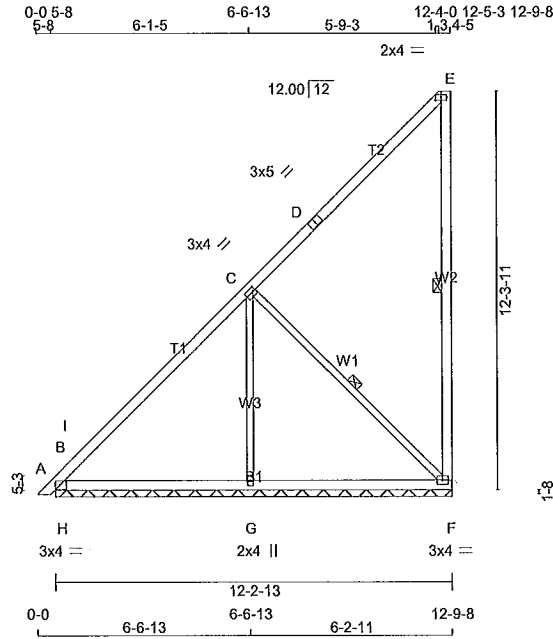


A-18023490

JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
292593	G5P	1	1	TRUSS DESC.	

Alpa Roof Truss, Maple

Version 8.200 S Jan 6 2018 MITek Industries, Inc. Sat Feb 17 13:16:35 2018 Page 1
ID:MF8ilriaTok7DlbpT4B71Xys4PG-DFbFZ2?NfAAkzrecUvRc2ZuuvDfLWkTHmVmxPEzEVW



Scale = 1:71.2

TOTAL WEIGHT = 59 lb

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

JT	TYPE	PLATES	W	LEN	Y	X
B	TMB1-I	MT20	3.0	4.0	1.50	2.25
C	TMWW-I	MT20	3.0	4.0	1.50	1.00
D	TS-I	MT20	3.0	5.0		
E	TVM-p	MT20	2.0	4.0	0.75	2.00
F	BMVW1-I	MT20	3.0	4.0		
G	BMW1+w	MT20	2.0	4.0		

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

JT	FACTORED GROSS REACTION		MAXIMUM FACTORED GROSS REACTION		INPUT BRG	REQRD BRG
	VERT	HORZ	DOWN	HORZ		
F	373	0	373	0	12-2-13	2-0-7
B	400	0	400	0	12-2-13	2-0-7
G	442	0	442	0	12-2-13	2-0-7

UNFACTORED REACTIONS

JT	1ST LCASE COMBINED		MAX/MIN. COMPONENT REACTIONS		WIND	DEAD	SOIL
	SNOW	LIVE	PERM.LIVE				
F	264	174 / 0	0 / 0	0 / 0	0 / 0	90 / 0	0 / 0
B	282	189 / 0	0 / 0	0 / 0	0 / 0	93 / 0	0 / 0
G	319	169 / 0	0 / 0	0 / 0	0 / 0	150 / 0	0 / 0

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

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

LOADING

TOTAL LOAD CASES: (4)

CHORDS				WEBS				
MAX. FACTORED		FACTORED		MAX. FACTORED				
MEMB.	FORCE (LBS)	VERT. LOAD (PLF)	LC1 MAX CSI (LC)	MEMB.	FORCE (LBS)	MAX CSI (LC)		
FR-TO		FROM	TO	UNBRAC LENGTH	FR-TO			
A-B	0 / 11	-78.0	-78.0	0.01 (1)	10.00	G-C	-277 / 0	0.19 (1)
B-I	-76 / 15	-78.0	-78.0	0.09 (1)	6.25	C-F	-207 / 0	0.10 (1)
I-C	-176 / 0	-78.0	-78.0	0.47 (1)	6.25	H-I	-460 / 0	0.00 (1)
C-D	-38 / 0	-78.0	-78.0	0.46 (1)	6.25			
D-E	-38 / 0	-78.0	-78.0	0.46 (1)	6.25			
F-E	-188 / 0	0.0	0.0	0.17 (1)	6.25			
B-H	0 / 148	-18.5	-18.5	0.16 (1)	10.00			
H-G	0 / 148	-18.5	-18.5	0.21 (4)	10.00			
G-F	0 / 148	-18.5	-18.5	0.21 (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

CSI: TC=0.47/1.00 (C-I:1), BC=0.21/1.00 (G-H:4), WB=0.19/1.00 (C-G:1), SSI=0.38/1.00 (B-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

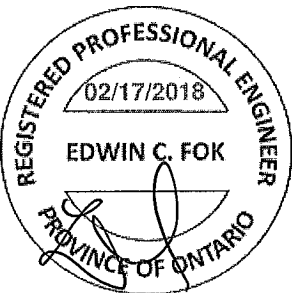
PLATE	GRIP(DRY)	SHEAR (PSI)	SECTION (PLI)
MAX MIN	MAX MIN	MAX MIN	MAX MIN
MT20	618 354	1667 788	1987 1656

PLATE PLACEMENT TOL. = 0.250 inches

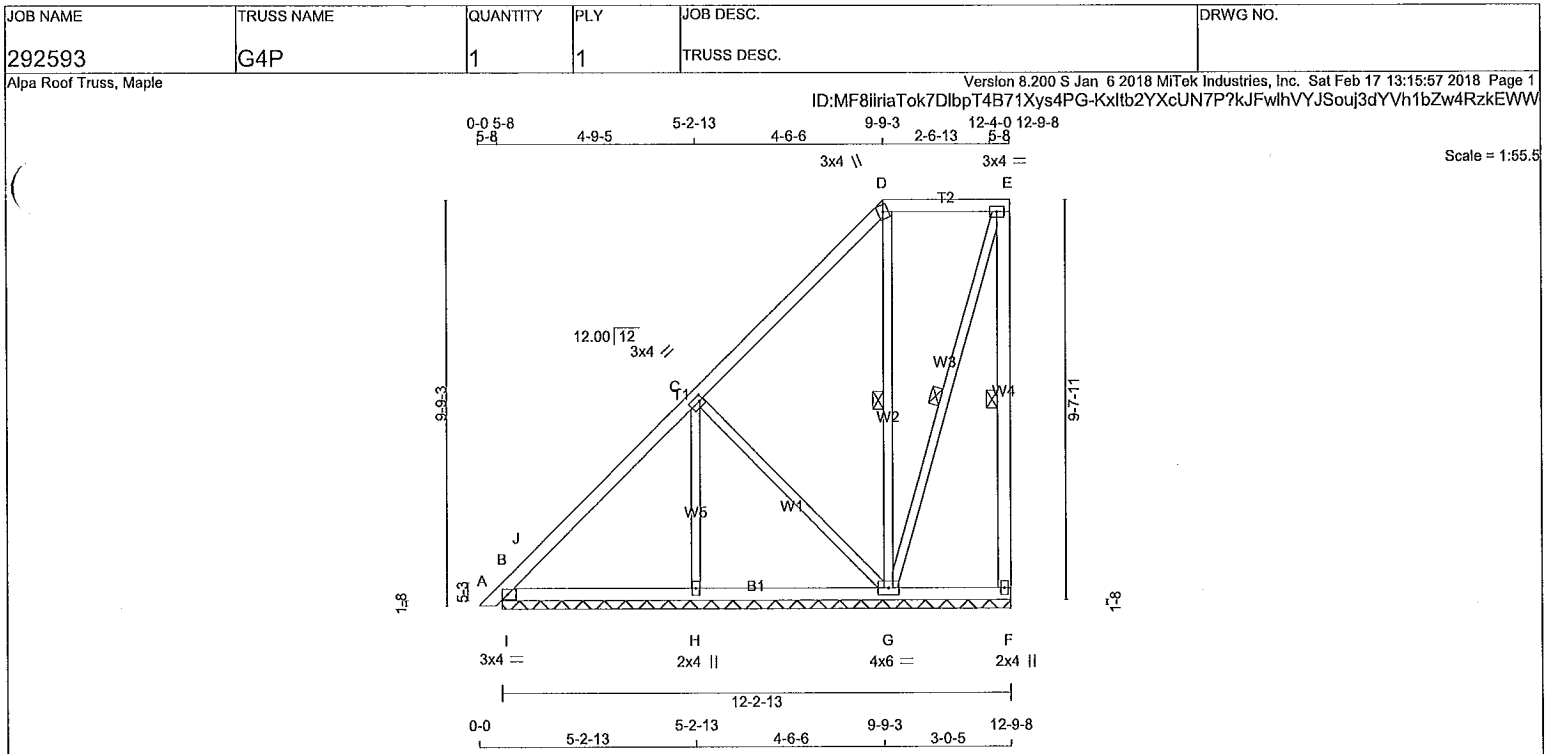
PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.75 (D) (INPUT = 0.90)
JSI METAL= 0.25 (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-18023489



TOTAL WEIGHT = 67 lb (M)

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

S (table is in inches)							
JT	TYPE	PLATES	W	LEN	Y	X	
B	TMB1-I	MT20	3.0	4.0	1.50	2.25	
C	TMWW-t	MT20	3.0	4.0	1.50	1.00	
D	TTW+m	MT20	3.0	4.0			
E	TMVW-I	MT20	3.0	4.0			
F	BMV1+p	MT20	2.0	4.0			
G	BMWWV1-I	MT20	4.0	6.0			
H	BMV1+w	MT20	2.0	4.0			

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

FACTORED GROSS REACTION		MAXIMUM FACTORED GROSS REACTION		INPUT BRG		REQD BRG	
JT	VERT	HORZ	DOWN	HORZ	UPLIFT	IN-SX	IN-SX
F	123	0	123	0	0	12-2-13	1-6-3
B	315	0	315	0	0	12-2-13	1-6-3
H	329	0	329	0	0	12-2-13	1-6-3
G	449	0	449	0	0	12-2-13	1-6-3

UNFACTORED REACTIONS

1ST LCASE		MAX./MIN. COMPONENT REACTIONS					
JT	COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
F	87	55 / 0	0 / 0	0 / 0	0 / 0	32 / 0	0 / 0
B	222	148 / 0	0 / 0	0 / 0	0 / 0	74 / 0	0 / 0
H	237	129 / 0	0 / 0	0 / 0	0 / 0	108 / 0	0 / 0
G	319	200 / 0	0 / 0	0 / 0	0 / 0	119 / 0	0 / 0

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

BRACING

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

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

1 LATERAL BRACE(S) AT 1/2 LENGTH OF E-F, D-G, E-G.

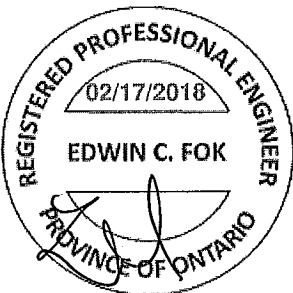
END VERTICAL(S) MUST BE SHEATHED OR HAVE BRACES AS INDICATED IN THE MAX. UNBRACED LENGTH COLUMN OF THE TABLE BELOW

LOADING

TOTAL LOAD CASES: (4)

CHORDS		FACTORED		W E B S		MAX. FACTORED	
MEMB.	FORCE (LBS)	VERT. LOAD (PLF)	MAX. UNBRACED LENGTH (LC)	MEMB.	FORCE (LBS)	MAX. UNBRACED LENGTH (LC)	
FR-TO		FROM	TO	FR-TO			
A-B	0 / 11	-78.0	-78.0 0.01 (1)	10.00	H-C	-208 / 0	0.08 (1)
B-J	-63 / 0	-78.0	-78.0 0.05 (1)	6.25	C-G	-155 / 0	0.13 (1)
J-C	-126 / 0	-78.0	-78.0 0.26 (1)	6.25	G-D	-255 / 0	0.16 (1)
C-D	-27 / 0	-78.0	-78.0 0.26 (1)	6.25	G-E	-16 / 0	0.01 (1)
D-E	0 / 5	-78.0	-78.0 0.12 (1)	10.00	I-J	-298 / 1	0.00 (1)
F-E	-102 / 0	0.0	0.0 0.05 (1)	6.25			
B-I	0 / 106	-18.5	-18.5 0.10 (1)	10.00			
I-H	0 / 106	-18.5	-18.5 0.11 (1)	10.00			
H-G	0 / 106	-18.5	-18.5 0.11 (4)	10.00			
G-F	0 / 0	-18.5	-18.5 0.06 (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=0.26/1.00 (C-J:1), BC=0.11/1.00 (H-I:1), WB=0.16/1.00 (D-G:1), SSI=0.25/1.00 (B-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.

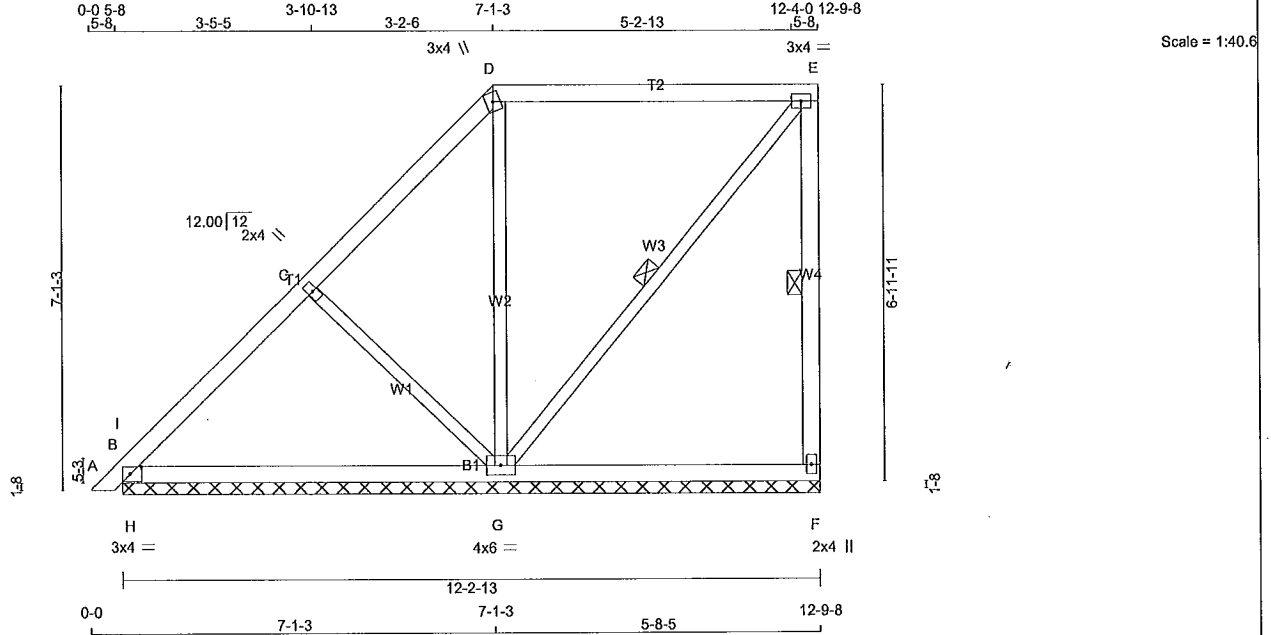
NAIL VALUES	GRIP(DRY)	SHEAR (PSI)	SECTION (PLI)
MT20	618	354	1667
			788
			1987
			1656

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.30 (B) (INPUT = 0.90)
JSI METAL= 0.08 (D) (INPUT = 1.00)

A-18023488



TOTAL WEIGHT = 55 lb

LUMBER
N. L. G. A. RULES

CHORDS	SIZE	LUMBER	DESCR.
A - D	2x4	DRY	No.2
D - E	2x4	DRY	No.2
F - E	2x4	DRY	No.2
B - F	2x4	DRY	No.2
ALL WEBS	2x3	DRY	No.2

SPF
SPF
SPF
SPF
SPF

DRY: SEASONED LUMBER.

CS (table is in inches)

JT	TYPE	PLATES	W	LEN	Y	X
B	TMB1-I	MT20	3.0	4.0	1.50	2.25
C	TMW+w	MT20	2.0	4.0		
D	TTW+m	MT20	3.0	4.0		
E	TMVW-I	MT20	3.0	4.0		
F	BMV1+p	MT20	2.0	4.0		
G	BMVWW1-I	MT20	4.0	6.0		

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		
F	249	0	249	0	12-2-13	1-2-11
B	338	0	338	0	12-2-13	1-2-11
G	628	0	628	0	12-2-13	1-2-11

UNFACTORED REACTIONS								
JT	1ST LCASE	MAX./MIN. COMPONENT REACTIONS				WIND	DEAD	SOIL
	COMBINED	SNOW	LIVE	PERM.LIVE				
F	177	111 / 0	0 / 0	0 / 0	0 / 0	66 / 0	0 / 0	
B	240	153 / 0	0 / 0	0 / 0	0 / 0	87 / 0	0 / 0	
G	448	268 / 0	0 / 0	0 / 0	0 / 0	180 / 0	0 / 0	

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

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

LOADING									
TOTAL LOAD CASES: (4)									
CHORDS					WEBS				
MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	LC1 MAX	MAX. UNBRACED LENGTH	MEMB.	MAX. FACTORED FORCE (LBS)	MAX. UNBRACED LENGTH	FR-TO	
FR-TO		FROM	TO		FR-TO				
A- B	0 / 11	-78.0	-78.0	0.01 (1)	10.00	C- G	-228 / 0		0.08 (1)
B- I	-372 / 0	-78.0	-78.0	0.08 (4)	6.25	G- D	-321 / 0		0.27 (1)
I- C	-196 / 0	-78.0	-78.0	0.15 (1)	6.25	G- E	-13 / 3		0.01 (1)
C- D	-19 / 0	-78.0	-78.0	0.14 (1)	6.25	H- I	0 / 211		0.00 (1)
D- E	-2 / 8	-78.0	-78.0	0.43 (1)	10.00				
F- E	-212 / 0	0.0	0.0	0.05 (1)	6.25				
B- H	0 / 160	-18.5	-18.5	0.08 (4)	10.00				
H- G	0 / 160	-18.5	-18.5	0.19 (4)	10.00				
G- F	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

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

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

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

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

CSI: TC=0.43/1.00 (D-E:1) , BC=0.19/1.00 (G-H:4) , WB=0.27/1.00 (D-G:1) , SSI=0.18/1.00 (B-H:4)

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

COMPANION LIVE LOAD FACTOR = 1.00

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

NAIL VALUES

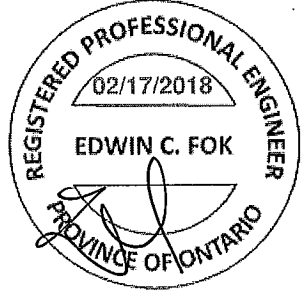
PLATE GRIP(DRY)	SHEAR (PSI)	SECTION (PLI)
MAX MIN	MAX MIN	MAX MIN
618 354	1667 788	1987 1656

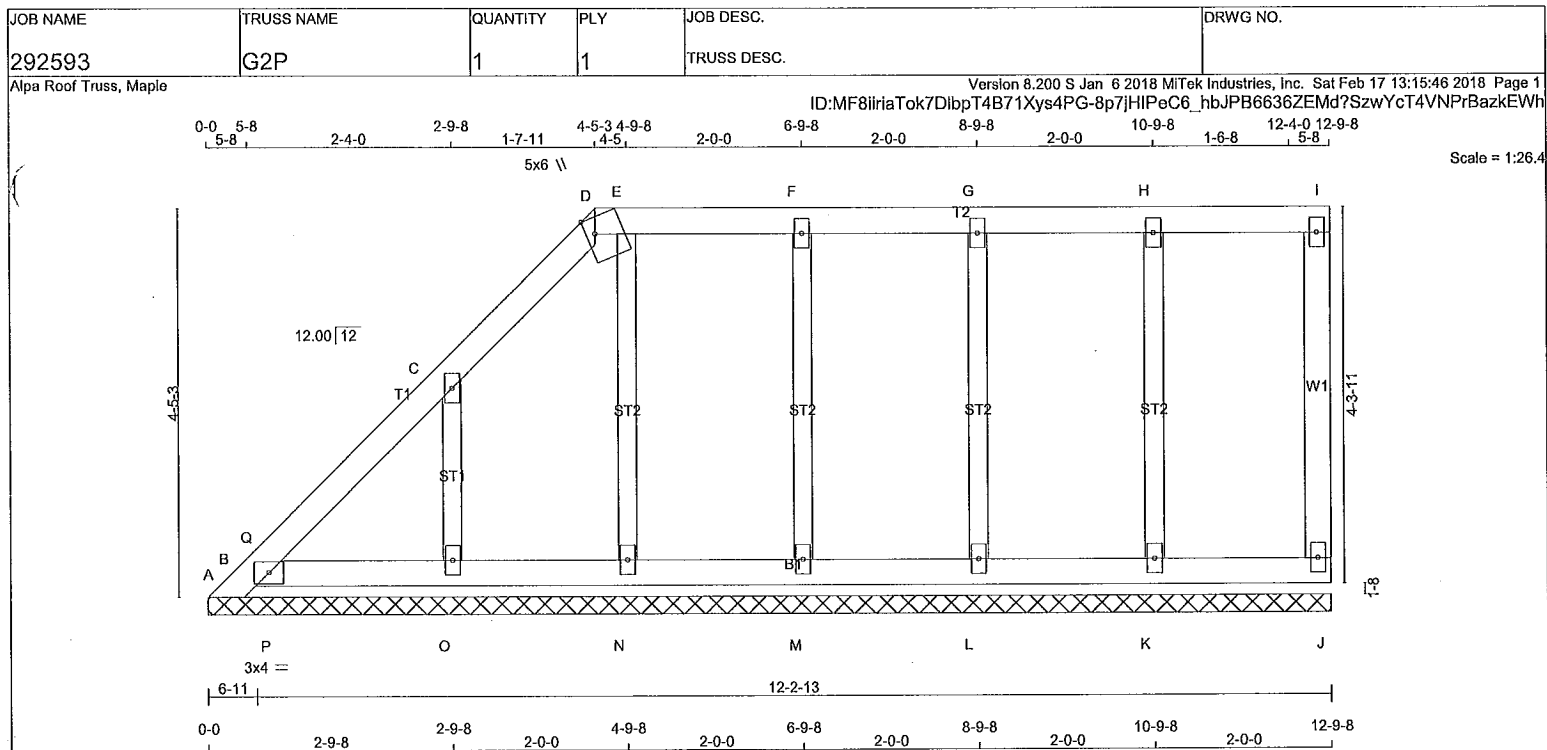
PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.50 (D) (INPUT = 0.90)
JSI METAL= 0.11 (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





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

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

STUDS SPACED AT 2-0-0 OC.

PLATES (table is in inches)					
JT	TYPE	PLATES	W	LEN	Y X
B	TMB1-I	MT20	3.0	4.0	
C, F, G, H					
C	TMW+w	MT20	2.0	4.0	
D					
D	TTW+m	MT20	5.0	6.0	Edge 1.25
E					
I	TMV+p	MT20	2.0	4.0	
J	BMV1+p	MT20	2.0	4.0	
K, L, M, N, O					
K	BMW1+w	MT20	2.0	4.0	

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

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

BEARINGS
THIS TRUSS DESIGNED FOR CONTINUOUS BEARINGS.
THIS TRUSS REQUIRES RIGID SHEATHING ON EXPOSED FACE.

BEVELED PLATE OR SHIM REQUIRED TO PROVIDE FULL BEARING SURFACE WITH TRUSS CHORD AT JT(S): J, K, L, M, N, O

PROVIDE ANCHORAGE AT BEARING JOINT A FOR 150 LBS FACTORED UPLIFT BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S).

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)	VERT. LOAD (PLF)	MAX LC1 (LC)	MAX. UNBRACED LENGTH	MEMB.	MAX. FACTORED FORCE (LBS)	MAX LC1 (LC)
FR-TO					FR-TO		
A-B	0 / 31	-96.5	-96.5 0.03 (1)	10.00	K-H	-174 / 0	0.05 (1)
B-Q	-53 / 0	-78.0	-78.0 0.03 (1)	6.25	L-G	-152 / 0	0.04 (1)
Q-C	-4 / 0	-78.0	-78.0 0.04 (1)	10.00	M-F	-159 / 0	0.04 (1)
C-D	-12 / 0	-78.0	-78.0 0.04 (1)	6.25	N-E	-155 / 0	0.04 (1)
D-E	0 / 5	-78.0	-78.0 0.03 (1)	10.00	O-C	-163 / 0	0.03 (1)
E-F	0 / 0	-78.0	-78.0 0.04 (1)	10.00	P-Q	-21 / 24	0.00 (1)
F-G	0 / 0	-78.0	-78.0 0.04 (1)	10.00			
G-H	0 / 0	-78.0	-78.0 0.04 (1)	10.00			
H-I	0 / 0	-78.0	-78.0 0.04 (1)	10.00			
J-I	-63 / 0	0.0	0.0 0.02 (1)	7.81			
B-P	0 / 8	-18.5	-18.5 0.01 (1)	10.00			
P-O	0 / 8	-18.5	-18.5 0.02 (4)	10.00			
O-N	0 / 0	-18.5	-18.5 0.02 (4)	10.00			
N-M	0 / 0	-18.5	-18.5 0.02 (4)	10.00			
M-L	0 / 0	-18.5	-18.5 0.02 (4)	10.00			
L-K	0 / 0	-18.5	-18.5 0.02 (4)	10.00			
K-J	0 / 0	-18.5	-18.5 0.02 (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=0.04/1.00 (C-D:1), BC=0.02/1.00 (O-P:4), WB=0.05/1.00 (H-K:1), SSI=0.07/1.00 (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= 0.13 (C) (INPUT = 0.90)
JSI METAL= 0.09 (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

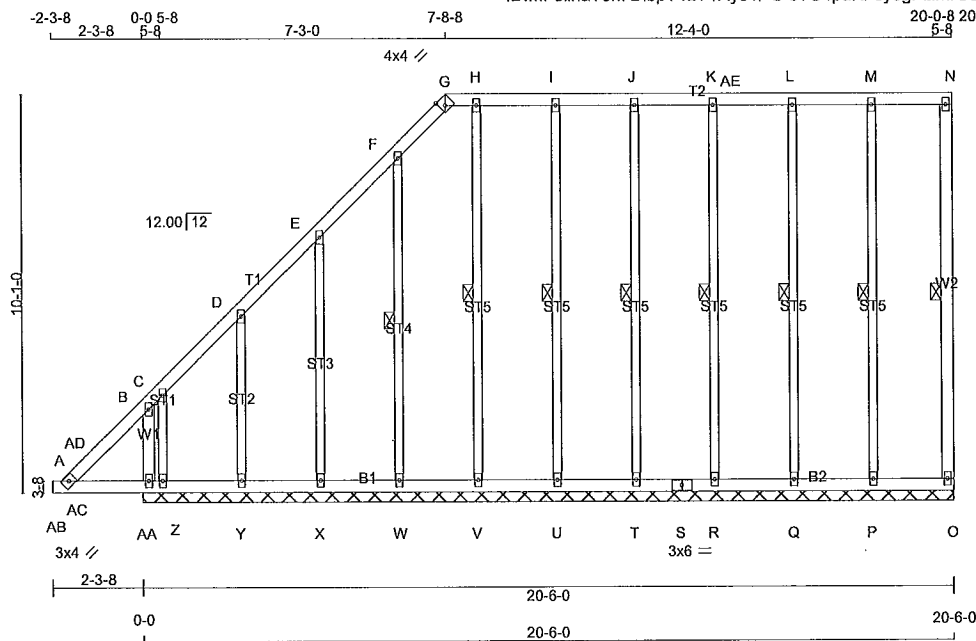


A-18023486

JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
292593	G1G	1	1	TRUSS DESC.	

Alpa Roof Truss, Maple

Version 8.200 S Jan 6 2018 MiTek Industries, Inc. Sat Feb 17 13:15:39 2018 Page 1
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Scale = 1:58.5

TOTAL WEIGHT = 133 lb

LUMBER				
N. L. G. A. RULES				
CHORDS	SIZE	LUMBER	DESCR.	
AA- B	2x4	DRY	No.2	SPF
A - G	2x4	DRY	No.2	SPF
G - N	2x4	DRY	No.2	SPF
O - N	2x4	DRY	No.2	SPF
AB- S	2x4	DRY	No.2	SPF
S - O	2x4	DRY	No.2	SPF
ALL WEBS	2x3	DRY	No.2	SPF
ALL GABLE WEBS	2x3	DRY	No.2	SPF
EASONED LUMBER.				
GABLE STUDS SPACED AT 2'-0" OC.				

PLATES (table is in inches)				
JT	TYPE	PLATES	W	LEN Y X
A	TBM-h	MT20	3.0	4.0
B	TMV+p	MT20	2.0	4.0
C, D, E, F, H, I, J, K, L, M	TMW+w	MT20	2.0	4.0
G	TT-h	MT20	4.0	4.0
N	TMV+p	MT20	2.0	4.0
O	BMV1+p	MT20	2.0	4.0
P, Q, R, T, U, V, W, X, Y, Z	BMW1+w	MT20	2.0	4.0
S	BS-t	MT20	3.0	6.0
AA	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
THIS TRUSS DESIGNED FOR CONTINUOUS BEARINGS.
THIS TRUSS REQUIRES RIGID SHEATHING ON EXPOSED FACE.

PROVIDE ANCHORAGE AT BEARING JOINT Z FOR 382 LBS FACTORED UPLIFT BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S).

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

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

1 LATERAL BRACE(S) AT 1/2 LENGTH OF N-O, M-P, L-Q, K-R, J-T, I-U, H-V, F-W.

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 (FR-TO)	MEMB.	MAX. FACTORED FORCE (LBS)	MAX. UNBRACED LENGTH (FR-TO)
FR-TO		FROM TO			FR-TO		
AA-B	-347 / 0	0.0	0.0 0.04 (1)	7.81	P-M	-187 / 0	0.13 (1)
A-AD	0 / 26	-78.0	-78.0 0.02 (1)	10.00	Q-L	-170 / 0	0.12 (1)
AD-B	0 / 31	-78.0	-78.0 0.14 (1)	10.00	R-K	-171 / 0	0.12 (1)
B-C	-155 / 0	-78.0	-78.0 0.14 (1)	6.25	T-J	-173 / 0	0.12 (1)
C-D	-8 / 0	-78.0	-78.0 0.04 (1)	10.00	U-I	-158 / 0	0.11 (1)
D-E	-7 / 0	-78.0	-78.0 0.04 (1)	10.00	V-H	-190 / 0	0.13 (1)
E-F	0 / 0	-78.0	-78.0 0.04 (1)	10.00	W-F	-156 / 0	0.08 (1)
F-G	-18 / 0	-78.0	-78.0 0.04 (1)	6.25	X-E	-148 / 0	0.12 (1)
G-H	0 / 2	-85.5	-85.5 0.07 (1)	2.00	Y-D	-159 / 0	0.06 (1)
H-I	0 / 0	-85.5	-85.5 0.06 (1)	10.00	Z-C	0 / 121	0.03 (1)
I-J	0 / 0	-85.5	-85.5 0.04 (1)	10.00	AC-AD	-80 / 0	0.00 (1)
J-AE	0 / 0	-85.5	-85.5 0.04 (1)	10.00			
AE-K	0 / 0	-85.5	-85.5 0.04 (1)	10.00			
K-L	0 / 0	-85.5	-85.5 0.04 (1)	10.00			
L-M	0 / 0	-85.5	-85.5 0.04 (1)	10.00			
M-N	0 / 0	-85.5	-85.5 0.04 (1)	10.00			
O-N	-70 / 0	0.0	0.0 0.03 (1)	6.25			
AB-A	0 / 0	-33.5	-33.5 0.00 (4)	10.00			
A-AC	-1 / 3	-18.5	-18.5 0.01 (1)	10.00			
AC-AA	-1 / 3	-18.5	-18.5 0.17 (1)	10.00			
AA-Z	-1 / 3	-18.5	-18.5 0.17 (1)	10.00			
Z-Y	0 / 8	-18.5	-18.5 0.02 (4)	10.00			
Y-X	0 / 4	-18.5	-18.5 0.02 (4)	10.00			
X-W	0 / 2	-18.5	-18.5 0.01 (4)	10.00			
W-V	0 / 0	-18.5	-18.5 0.01 (4)	10.00			
V-U	0 / 0	-18.5	-18.5 0.01 (4)	10.00			
U-T	0 / 0	-18.5	-18.5 0.01 (4)	10.00			
T-S	0 / 0	-18.5	-18.5 0.01 (4)	10.00			
S-R	0 / 0	-18.5	-18.5 0.01 (4)	10.00			
R-Q	0 / 0	-18.5	-18.5 0.01 (4)	10.00			
Q-P	0 / 0	-18.5	-18.5 0.02 (4)	10.00			
P-O	0 / 0	-18.5	-18.5 0.02 (4)	10.00			

DESIGN CRITERIA

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

SPACING = 24.0 IN. C/C

LOADING IN FLAT SECTION BASED ON PIGGYBACK TRUSS WITH SLOPES OF 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

CSI: TC=0.14/1.00 (B-AD:1), BC=0.17/1.00 (AA-AC:1), WB=0.13/1.00 (H-V:1), SSI=0.22/1.00 (Z-AA: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

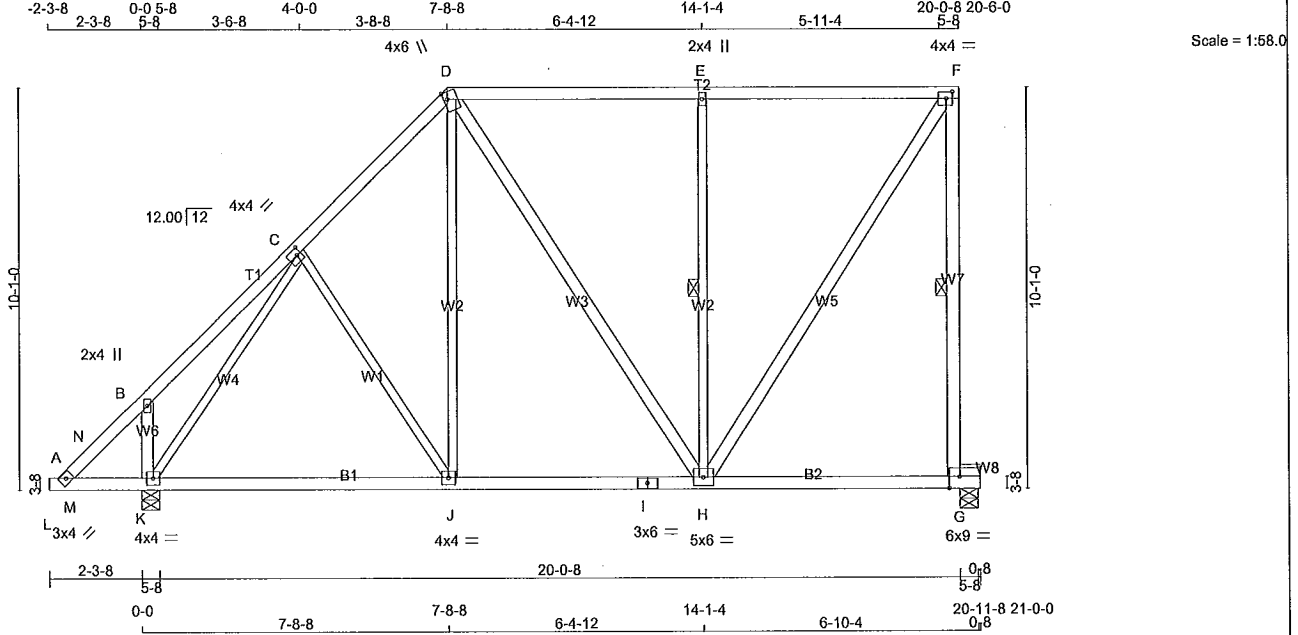
PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.42 (G) (INPUT = 0.90)
JSI METAL= 0.18 (B) (INPUT = 1.00)

A-18023485





TOTAL WEIGHT = 4 X 123 = 491 lb
[M][F]

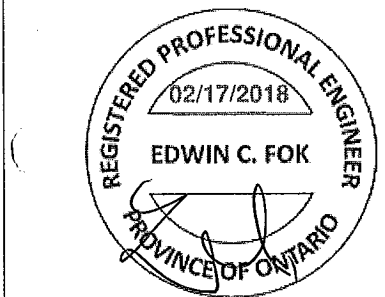
LUMBER					DESCR.
N. L. G. A. RULES	CHORDS	SIZE	LUMBER		
A - D	2x4	DRY	No.2	SPF	
D - F	2x4	DRY	No.2	SPF	
G - F	2x4	DRY	No.2	SPF	
K - B	2x4	DRY	No.2	SPF	
L - I	2x4	DRY	No.2	SPF	
I - G	2x4	DRY	No.2	SPF	
ALL WEBS EXCEPT	2x3	DRY	No.2	SPF	
H	2x4	DRY	No.2	SPF	
	2x4	DRY	No.2	SPF	

DRY: SEASONED LUMBER.

PLATES (table is in inches)					
JT	TYPE	PLATES	W	LEN	Y X
A	TBM-h	MT20	3.0	4.0	
B	TMV+p	MT20	2.0	4.0	
C	TMWW-t	MT20	4.0	4.0	2.00 1.25
D	TTWW+m	MT20	4.0	6.0	Edge 1.00
E	TMW+w	MT20	2.0	4.0	
F	TMVW-t	MT20	4.0	4.0	2.00 1.75
G	BMVW1-t	MT20	6.0	9.0	Edge 3.00
H	BMVWW-t	MT20	5.0	6.0	
I	BS-t	MT20	3.0	6.0	
J	BMVW-t	MT20	4.0	4.0	
K	BMVW1-t	MT20	4.0	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

FACTORED GROSS REACTION		MAXIMUM FACTORED GROSS REACTION		INPUT BRG		REQRD BRG	
JT	VERT	HORZ	DOWN	HORZ	UPLIFT	IN-SX	IN-SX
G	1044	0	1044	0	0	5-8	1-9
K	1238	0	1238	0	0	5-8	1-8

UNFACTORED REACTIONS		MAX./MIN. COMPONENT REACTIONS					
JT	COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
G	750	426 / 0	0 / 0	0 / 0	0 / 0	324 / 0	0 / 0
K	886	522 / 0	0 / 0	0 / 0	0 / 0	363 / 0	0 / 0

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

BRACING
FOR SECTION D-F, MAX. PURLIN SPACING = 2.00 FT.
FOR OTHER SECTIONS, TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 6.25 FT.
MAX. UNBRACED BOTTOM CHORD LENGTH = 6.25 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-G, E-H.

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

CHORDS				WEBS			
MEMB.	MAX. FACTORED FORCE (LBS)	VERT. LOAD (PLF)	MAX LC1 MAX (CSI (LC))	MEMB.	MAX. FACTORED FORCE (LBS)	MAX UNBRACED LENGTH (LC)	MAX (LC)
FR-TO		FROM TO		FR-TO			
A-N	0 / 42	-78.0	-78.0 0.04 (4)	J-D	0 / 160	10.00	0.04 (4)
N-B	-15 / 53	-78.0	-78.0 0.13 (1)	D-H	0 / 20	6.25	0.00 (1)
B-C	-16 / 25	-78.0	-78.0 0.16 (1)	H-E	-678 / 0	6.25	0.47 (1)
C-D	-734 / 0	-78.0	-78.0 0.14 (1)	H-F	0 / 942	6.25	0.15 (1)
D-E	-515 / 0	-85.5	-85.5 0.45 (1)	K-C	-985 / 0	2.00	0.91 (1)
E-F	-515 / 0	-85.5	-85.5 0.45 (1)	C-J	-40 / 21	2.00	0.04 (1)
G-F	-996 / 0	0.0	0.0 0.49 (1)	M-N	-69 / 0	6.25	0.00 (1)
K-B	-258 / 0	0.0	0.0 0.03 (1)			7.81	
L-A	0 / 0	-33.5	-33.5 0.00 (4)			10.00	
A-M	-15 / 12	-18.5	-18.5 0.02 (4)			6.25	
M-K	-15 / 12	-18.5	-18.5 0.21 (4)			6.25	
K-J	0 / 525	-18.5	-18.5 0.26 (4)			10.00	
J-I	0 / 504	-18.5	-18.5 0.23 (4)			10.00	
I-H	0 / 504	-18.5	-18.5 0.23 (4)			10.00	
H-G	0 / 0	-18.5	-18.5 0.17 (4)			10.00	

DESIGN CRITERIA

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

SPACING = 24.0 IN. C/C

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

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

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

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

ALLOWABLE DEFL.(LL)= L/360 (0.68")
CALCULATED VERT. DEFL.(LL) = L/999 (0.02")
ALLOWABLE DEFL.(TL)= L/360 (0.68")
CALCULATED VERT. DEFL.(TL) = L/999 (0.06")

CANTILEVER DEFLECTION:
ALLOWABLE DEFL.(LL)= L/1319 (0.19")
CALCULATED VERT. DEFL.(LL) = L/999 (0.01")
ALLOWABLE DEFL.(TL)= L/1319 (0.19")
CALCULATED VERT. DEFL.(TL) = L/999 (0.01")

CSI: TC=0.49/1.00 (F-G:1), BC=0.26/1.00 (J-K:4), WB=0.91/1.00 (C-K: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

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)	(PSI)	(PLI)	(PLI)
	MAX	MIN	MAX	MIN	MAX
MT20	618	354	1667	788	1987

PLATE PLACEMENT TOL. = 0.250 Inches

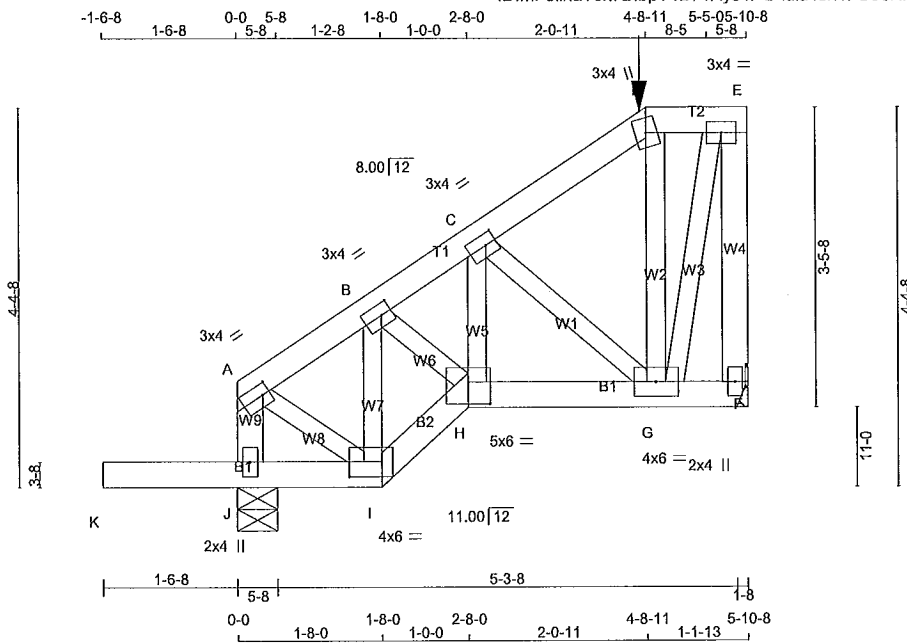
PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.86 (H) (INPUT = 0.90)
JSI METAL= 0.36 (C) (INPUT = 1.00)

JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
292590	J1TA	2	1	TRUSS DESC.	

Alpa Roof Truss, Maple

Version 8.200 S Jan 6 2018 MITok Industries, Inc. Sat Feb 17 12:33:35 2018 Page 1
ID:MF8iiriaTok7DlbpT4B71Xys4PG-lulu4sn1FS6oRMPIL29aUV149C7P0vIXV6oQsnzkF8E



Scale = 1:26.6

TOTAL WEIGHT = 2 X 33 = 66 lb

LUMBER	CHORDS	SIZE	LUMBER	DESCR.
N. L. G. A. RULES				
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
REASONED 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	TTW+m	MT20	3.0	4.0			
E	TMVW-I	MT20	3.0	4.0			
F	BMV1+p	MT20	2.0	4.0			
G	BMVW-I	MT20	4.0	6.0			
H	BBWW-I	MT20	5.0	6.0	3.00	3.00	
I	BBWW-I	MT20	4.0	6.0	2.00	4.50	
J	BMV1+p	MT20	2.0	4.0			

HANGERS NOTES
1) SPECIAL HANGER(S) OR CONNECTION(S) REQUIRED TO SUPPORT CONCENTRATED LOAD(S) 125.3 lbs FACTORED DOWN AT 4-8-11 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
F	417	0	417	0
J	501	0	501	0

UNFACTORED REACTIONS

JT	1ST LCASE	MAX/MIN. COMPONENT REACTIONS	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
F	296	186 / 0	0 / 0	0 / 0	0 / 0	0 / 0	110 / 0	0 / 0
J	358	212 / 0	0 / 0	0 / 0	0 / 0	0 / 0	147 / 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	MAX. FACTORED	FACTORED	VERT. LOAD	LC1	MAX	MAX.	MEMB.	MAX. FACTORED
MEMB.	FORCE (LBS)	VERT. (PLF)	LOAD	CS1 (LC)	UNBRAC	MEMB.	FORCE (LBS)	MAX CS1 (LC)
FR-TO		FROM	TO		LENGTH	FR-TO		
A-B	-204 / 0	-78.0	-78.0	0.03 (1)	6.25	I-B	-269 / 0	0.04 (1)
B-C	-319 / 0	-78.0	-78.0	0.04 (1)	6.25	B-H	0 / 155	0.04 (1)
C-D	-148 / 0	-78.0	-78.0	0.04 (1)	6.25	H-C	0 / 86	0.02 (4)
D-E	-112 / 0	-108.0	-108.0	0.03 (1)	6.25	C-G	-200 / 0	0.04 (1)
F-E	-398 / 0	0.0	0.0	0.08 (1)	7.81	G-D	-174 / 0	0.04 (1)
J-A	-262 / 0	0.0	0.0	0.03 (1)	7.81	G-E	0 / 355	0.09 (1)
K-J	0 / 0	-96.5	-96.5	0.17 (1)	10.00	A-I	0 / 194	0.05 (1)
J-I	-1 / 0	-25.6	-25.6	0.17 (1)	10.00			
I-H	0 / 213	-25.6	-25.6	0.04 (1)	10.00			
H-G	0 / 267	-25.6	-25.6	0.07 (1)	10.00			
G-F	0 / 0	-25.6	-25.6	0.01 (4)	10.00			

FACTORED CONCENTRATED LOADS (LBS)

JT	LOC.	LC1	MAX-	MAX+	FACE	DIR.	TYPE
D	4-8-11	-125	-125	--	FRONT	VERT	TOTAL

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

GIRDER TYPE: CPrimeHip
LEFT SETBACK = 4-8-11
RIGHT SETBACK = 0-0
END SETBACK = 3-6-8
END WALL WIDTH = 0-0
CORNER FRAMING TYPE: CONVENTIONAL
END JACK TYPE: CONVENTIONAL
APPLIED TO FRONT SIDE
- ADDTL LOADS BASED ON 55 % OF GSL.

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

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

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

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

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

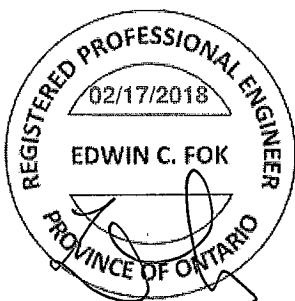
CANTILEVER DEFLECTION:
ALLOWABLE DEFL.(LL) = L/120 (0.19")
CALCULATED VERT. DEFL.(LL) = L/999 (0.02")
ALLOWABLE DEFL.(TL) = L/120 (0.19")
CALCULATED VERT. DEFL.(TL) = L/656 (0.03")

CSI: TC=0.08/1.00 (E-F:1), BC=0.17/1.00 (I-J:1), WB=0.09/1.00 (E-G:1), SSI=0.13/1.00 (J-K: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.

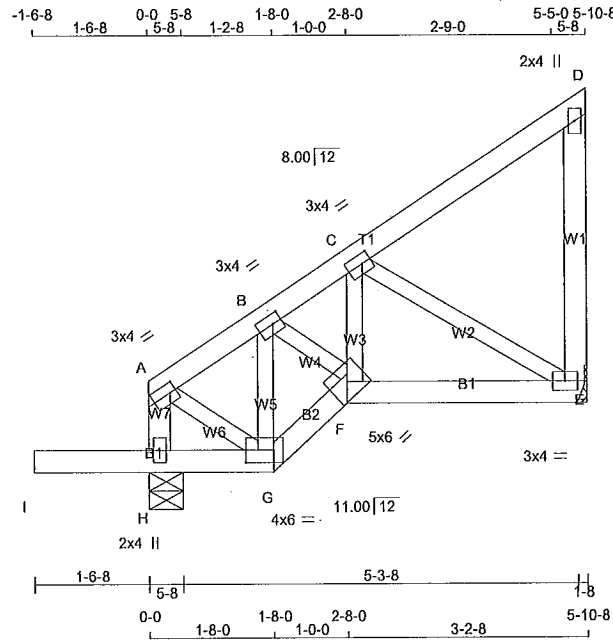


JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
292590	J1T	3	1	TRUSS DESC.	

Alpa Roof Truss, Maple

Version 8.200 S Jan 6 2018 MiTek Industries, Inc. Sat Feb 17 12:38:42 2018 Page 1

ID:MF8ilriaTok7DlbpT4B71Xys4PG-GylyWqVbynoEmXNlq19aQEFYVyuUSmkj5Ng98UzkF3R



TOTAL WEIGHT = 3 X 30 = 89 lb

LUMBER	CHORDS	SIZE	DRY	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	BBWW-I	MT20	5.0	6.0		
G	BBWW-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 GROSS REACTION	MAXIMUM FACTORED GROSS REACTION	INPUT BRG	REQRD BRG
JT	VERT	HORZ	DOWN	HORZ
H	452	0	452	0
E	264	0	264	0

UPLIFT IN-SX 1-8
 HANGER BY OTHERS
 MIN. SEAT SIZE: 1-8

UNFACTORED REACTIONS

JT	1ST LCASE	MAX/MIN	COMPONENT REACTIONS	WIND	DEAD	SOIL
H	322	197 / 0	0 / 0	0 / 0	125 / 0	0 / 0
E	188	115 / 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 (LBS)	FACTORED VERT. LOAD (PLF)	LC1 MAX	MAX. UNBRACED LENGTH	WEBS	MEMB.	MAX. FACTORED FORCE (LBS)	MAX. UNBRACED LENGTH
H-A	-219 / 0	0.0	0.0	0.02 (1)	7.81	A-G	0 / 149	0.03 (1)	
A-B	-159 / 0	-78.0	-78.0	0.03 (1)	6.25	G-B	-223 / 0	0.03 (1)	
B-C	-250 / 0	-78.0	-78.0	0.09 (1)	6.25	B-F	0 / 154	0.03 (1)	
C-D	-12 / 0	-78.0	-78.0	0.09 (1)	6.25	F-C	0 / 52	0.02 (4)	
E-D	-100 / 0	0.0	0.0	0.03 (1)	7.81	C-E	-268 / 0	0.06 (1)	
I-H	0 / 0	-96.5	-96.5	0.16 (1)	10.00				
H-G	-1 / 0	-18.5	-18.5	0.16 (1)	10.00				
G-F	0 / 162	-18.5	-18.5	0.03 (1)	10.00				
F-E	0 / 231	-18.5	-18.5	0.08 (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) = $L/626$ (0.03")

CSI: TC=0.09/1.00 (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 I.S BEND=1.10 COMP=1.10 SHEAR=1.10 TENS= 1.10

COMPANION LIVE LOAD FACTOR = 1.00

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

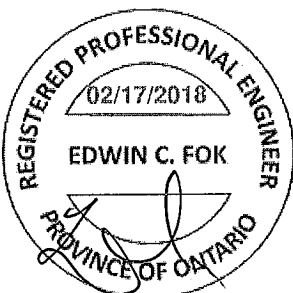
NAIL VALUES
 PLATE GRIP(DRY) SHEAR SECTION
 (PSI) (PLI) (PLI)
 MAX MIN MAX MIN MAX MIN
 MT20 618 354 1667 788 1987 1656

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

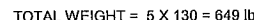
JSI GRIP= 0.49 (A) (INPUT = 0.90)
 JSI METAL= 0.09 (E) (INPUT = 1.00)

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-18023469

Scale = 1:58.6

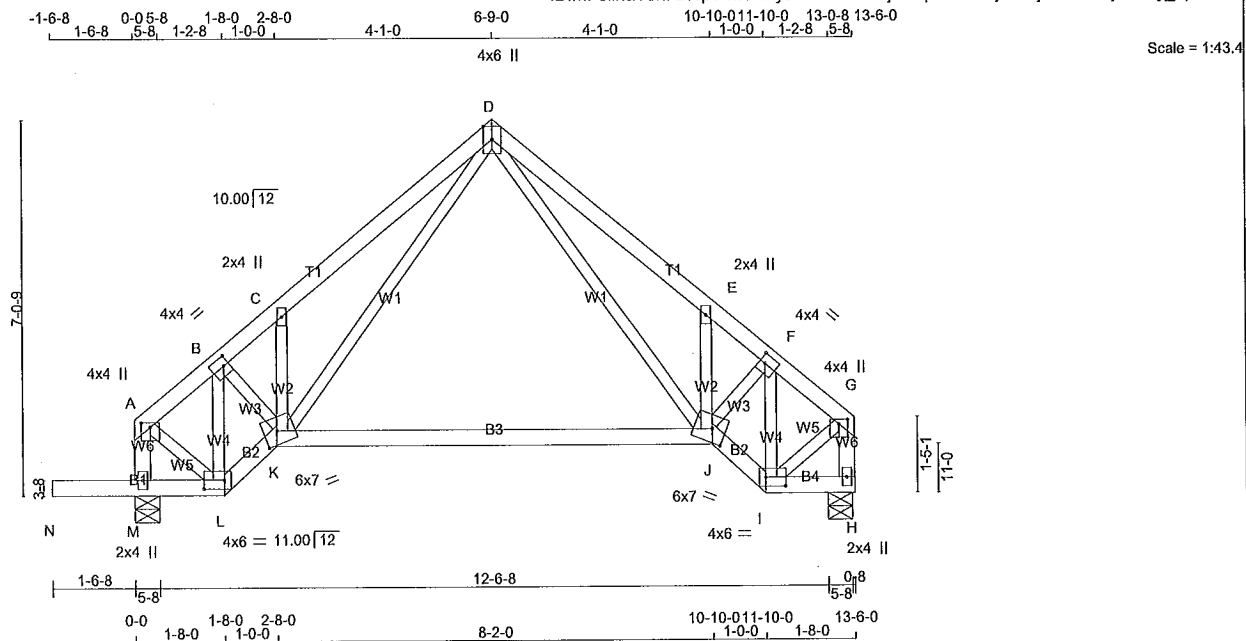


A-18023468

JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
292590	H3T	1	1	TRUSS DESC.	

Alpa Roof Truss, Maple

Version 8.200 S Jan 6 2018 MITek Industries, Inc. Sat Feb 17 12:34:52 2018 Page 1
ID:MF8llriaTok7DlbpT4B71Xys4PG-?lr?EBJk77ptABoYLj1e5kjDREK0Zj1sCby_3pzKF71



Scale = 1:43.4

TOTAL WEIGHT = 64 lb

LUMBER	N. L. G. A. RULES	CHORDS	SIZE	LUMBER	DESCR.
A - D	2x4	DRY	No.2	SPF	
D - G	2x4	DRY	No.2	SPF	
M - A	2x4	DRY	No.2	SPF	
H - G	2x4	DRY	No.2	SPF	
N - L	2x4	DRY	No.2	SPF	
L - K	2x4	DRY	No.2	SPF	
K - J	2x4	DRY	No.2	SPF	
J - I	2x4	DRY	No.2	SPF	
I - H	2x4	DRY	No.2	SPF	
BS	2x3	DRY	No.2	SPF	
PT					

DRY: SEASONED LUMBER.

PLATES (table is in inches)

JT	TYPE	PLATES	W	LEN	Y	X
A	TMVW+p	MT20	4.0	4.0	1.00	2.00
B	TMVW-l	MT20	4.0	4.0	2.00	1.25
C	TMVW+w	MT20	2.0	4.0		
D	TTVW+p	MT20	4.0	6.0	Edge	
E	TMVW+w	MT20	2.0	4.0		
F	TMVW-l	MT20	4.0	4.0	2.00	1.25
G	TMVW+p	MT20	4.0	4.0	1.00	2.00
H	BMV1+p	MT20	2.0	4.0		
I	BBVW-l	MT20	4.0	6.0	2.00	4.50
J	BBVW-w	MT20	6.0	7.0	3.00	3.00
K	BBVW-w	MT20	6.0	7.0	3.00	3.00
L	BBVW-l	MT20	4.0	6.0	2.00	4.50
M	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

JT	FACTORED GROSS REACTION		MAXIMUM FACTORED GROSS REACTION		INPUT BRG	REQRD BRG
	VERT	HORZ	DOWN	HORZ		
H	643	0	643	0	5-8	1-8
M	808	0	808	0	5-8	1-8

UNFACTORED REACTIONS

JT	1ST CASE		MAX./MIN. COMPONENT REACTIONS				
	COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
H	458	280 / 0	0 / 0	0 / 0	0 / 0	179 / 0	0 / 0
M	576	352 / 0	0 / 0	0 / 0	0 / 0	225 / 0	0 / 0

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

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					W E B S				
MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	LC1	MAX CSI (LC)	MAX. UNBRAC LENGTH	MEMB.	MAX. FACTORED FORCE (LBS)	MAX CSI (LC)	
FR-TO		FROM TO				FR-TO			
A-B	-454 / 0	-78.0	-78.0	0.03 (1)	6.25	D-J	0 / 484	0.11 (1)	
B-C	-707 / 0	-78.0	-78.0	0.11 (1)	6.25	J-E	-331 / 0	0.06 (1)	
C-D	-791 / 0	-78.0	-78.0	0.16 (1)	6.25	J-F	0 / 437	0.10 (1)	
D-E	-829 / 0	-78.0	-78.0	0.16 (1)	6.25	I-F	-545 / 0	0.09 (1)	
E-F	-745 / 0	-78.0	-78.0	0.11 (1)	6.25	K-D	0 / 434	0.10 (1)	
F-G	-500 / 0	-78.0	-78.0	0.04 (1)	6.25	K-C	-332 / 0	0.06 (1)	
M-A	-575 / 0	0.0	0.0	0.06 (1)	7.81	B-K	0 / 449	0.10 (1)	
H-G	-627 / 0	0.0	0.0	0.06 (1)	7.81	L-B	-559 / 0	0.09 (1)	
						A-L	0 / 410	0.09 (1)	
						I-G	0 / 452	0.10 (1)	
N-M	0 / 0	-96.5	-96.5	0.16 (1)	10.00				
M-L	-1 / 0	-18.5	-18.5	0.12 (1)	10.00				
L-K	0 / 436	-18.5	-18.5	0.07 (1)	10.00				
K-J	0 / 344	-18.5	-18.5	0.39 (4)	10.00				
J-I	0 / 484	-18.5	-18.5	0.08 (1)	10.00				
I-H	0 / 0	-18.5	-18.5	0.02 (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 (0.45")
CALCULATED VERT. DEFL.(LL) = L/999 (0.01")
ALLOWABLE DEFL.(TL) = L/360 (0.45")
CALCULATED VERT. DEFL.(TL) = L/709 (0.23")

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 (0.02")

CSI: TC=0.16/1.00 (D-E:1), BC=0.39/1.00 (J-K:4), WB=0.11/1.00 (D-J:1), SSI=0.12/1.00 (M-N: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

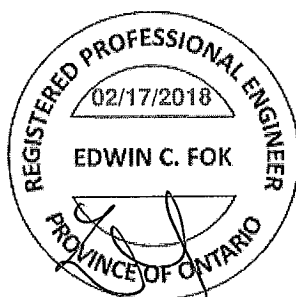
PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

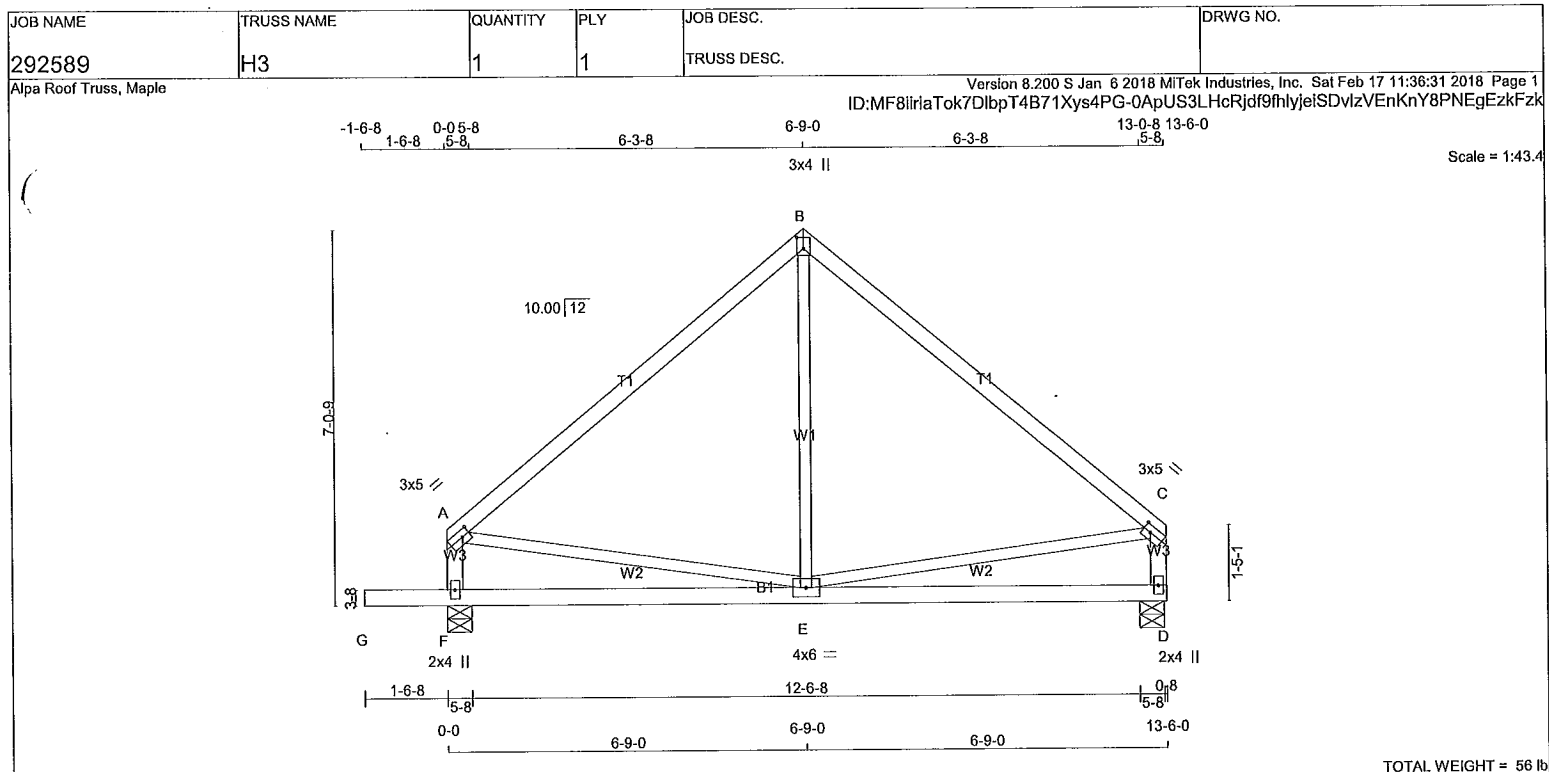
JSI GRIP= 0.69 (K) (INPUT = 0.90)
JSI METAL= 0.18 (E) (INPUT = 1.00)

A-18023466

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-18023465



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

SEASONED LUMBER.

PLATES (table is in inches)

JT	TYPE	PLATES	W	LEN	Y	X
A	TMVW-t	MT20	3.0	5.0	1.50	1.75
B	TTW+p	MT20	3.0	4.0	2.50	1.50
C	TMVW-t	MT20	3.0	5.0	1.50	1.75
D	BMV1+p	MT20	2.0	4.0		
E	BMVWW-t	MT20	4.0	6.0		
F	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	UPLIFT	IN-SX
D		651	0	0	5-8
F		800	0	0	5-8

UNFACTORED REACTIONS

1ST LCASE	MAX/MIN. COMPONENT REACTIONS						
JT	COMBINED	SNOW	LIVE	PERM. LIVE	WIND	DEAD	SOIL
D	464	283 / 0	0 / 0	0 / 0	0 / 0	181 / 0	0 / 0
F	570	348 / 0	0 / 0	0 / 0	0 / 0	222 / 0	0 / 0

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

BRACING

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

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

LOADING

TOTAL LOAD CASES: (4)

CHORDS		FACTORED				WEBS		FACTORED			
MEMB.		MAX. FORCE (LBS)	VERT. LOAD (PLF)	LC1 MAX (LC)	UNBRAC LENGTH	MEMB.		MAX. FORCE (LBS)	VERT. LOAD (PLF)	LC1 MAX (LC)	UNBRAC LENGTH
FR-TO			FROM	TO		FR-TO			FROM	TO	
A-B		-446 / 0	-78.0	-78.0	0.30 (1)	6.25	E-B	0 / 128	0.04 (4)		
B-C		-446 / 0	-78.0	-78.0	0.30 (1)	6.25	A-E	0 / 347	0.08 (1)		
F-A		-604 / 0	0.0	0.0	0.06 (1)	7.81	E-C	0 / 347	0.08 (1)		
D-C		-604 / 0	0.0	0.0	0.06 (1)	7.81					
G-F		0 / 0	-96.5	-96.5	0.16 (1)	10.00					
F-E		0 / 0	-18.5	-18.5	0.24 (4)	10.00					
E-D		0 / 0	-18.5	-18.5	0.24 (4)	10.00					

DESIGN CRITERIA

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

SPACING = 24.0 IN. C/C

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

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

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

ALLOWABLE DEFL.(LL)= L/360 (0.45")
CALCULATED VERT. DEFL.(LL) = L/999 (0.00")
ALLOWABLE DEFL.(TL)= L/360 (0.45")
CALCULATED VERT. DEFL.(TL) = L/999 (0.05")

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=0.30/1.00 (A-B:1), BC=0.24/1.00 (E-F:4), WB=0.08/1.00 (C-E:1), SSI=0.16/1.00 (B-C:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

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

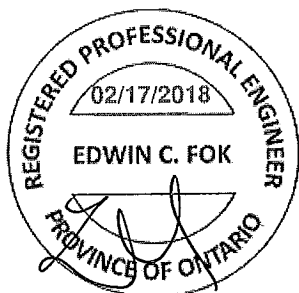
NAIL VALUES
PLATE GRIP(DRY) SHEAR SECTION
(PSI) (PLI) (PLI)
MAX MIN MAX MIN MAX MIN
MT20 618 354 1667 788 1987 1656

PLATE PLACEMENT TOL. = 0.250 inches

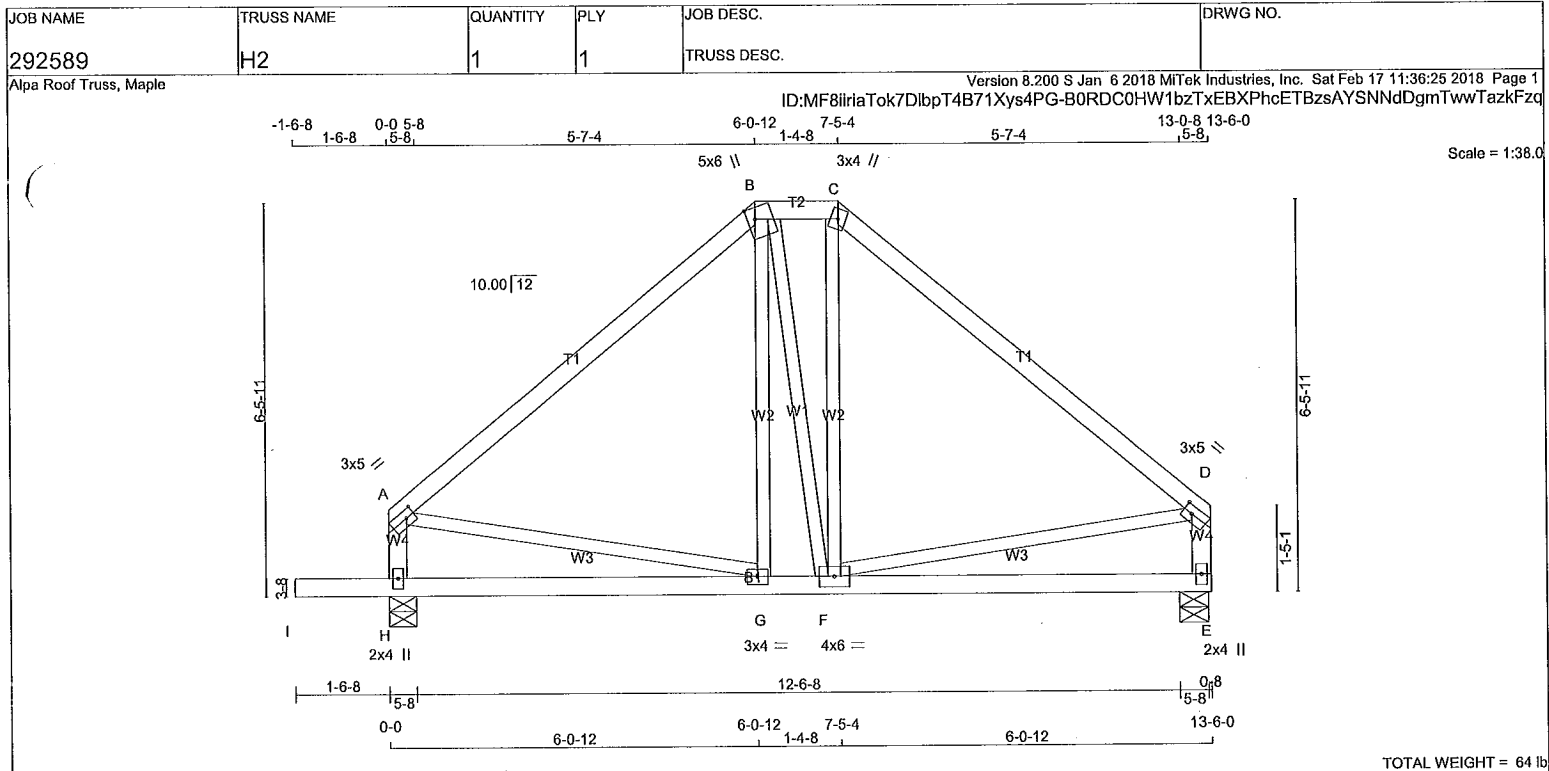
PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.54 (A) (INPUT = 0.90)
JSI METAL= 0.18 (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



A-18023433



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

ALL WEBS	EXCEPT	2x3	DRY	No.2	SPF
ASONED LUMBER.					

PLATES (table is in inches)					
JT	TYPE	PLATES	W	LEN	Y X
A	TMVW-t	MT20	3.0	5.0	1.50 1.75
B	TTWW+m	MT20	5.0	6.0	2.25 1.50
C	TTW+m	MT20	3.0	4.0	
D	TMVW-t	MT20	3.0	5.0	1.50 1.75
E	BMV1+p	MT20	2.0	4.0	
F	BMWWW-t	MT20	4.0	6.0	
G	BMWW-t	MT20	3.0	4.0	
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
E	651	0	651	0	0
H	800	0	800	0	0

UNFACTORED REACTIONS

1ST LCASE	MAX./MIN. COMPONENT REACTIONS	1ST LCASE	MAX./MIN. COMPONENT REACTIONS
JT	COMBINED	SNOW	LIVE
E	464	283 / 0	0 / 0
H	570	348 / 0	0 / 0

BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S) E, 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		MAX. FACTORED	FACTORED	MAX. FACTORED	WEBS	MAX. FACTORED
MEMB.	FORCE (LBS)	VERT. LOAD	LC1 MAX	MAX. UNBRAC	MEMB.	FORCE (LBS)
FR-TO		FROM TO	CS1 (LC)	LENGTH	FR-TO	
A-B	-474 / 0	-78.0 -78.0	0.37 (1)	6.25	G-B	0 / 55
B-C	-365 / 0	-78.0 -78.0	0.02 (1)	6.25	B-F	0 / 7
C-D	-475 / 0	-78.0 -78.0	0.37 (1)	6.25	F-C	0 / 62
H-A	-605 / 0	0.0 0.0	0.06 (1)	7.81	A-G	0 / 369
E-D	-604 / 0	0.0 0.0	0.06 (1)	7.81	F-D	0 / 370
I-H	0 / 0	-96.5 -96.5	0.16 (1)	10.00		
H-G	0 / 0	-18.5 -18.5	0.16 (4)	10.00		
G-F	0 / 364	-18.5 -18.5	0.21 (4)	10.00		
F-E	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 (0.45")
CALCULATED VERT. DEFL.(LL) = L/999 (0.01")
ALLOWABLE DEFL.(TL)= L/360 (0.45")
CALCULATED VERT. DEFL.(TL) = L/999 (0.04")

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

CSI: TC=0.37/1.00 (C-D:1), BC=0.21/1.00 (F-G:4), WB=0.08/1.00 (D-F:1), SSI=0.14/1.00 (C-D:1)

DOI 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.

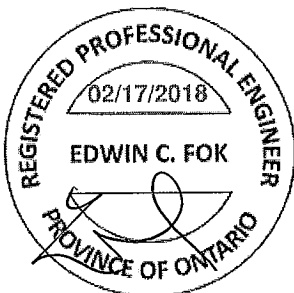
NAIL VALUES
PLATE GRIP(DRY) SHEAR SECTION
(PSI) (PLI) (PLI)
MAX MIN MAX MIN MAX MIN
MT20 618 354 1667 788 1987 1656

PLATE PLACEMENT TOL. = 0.250 inches

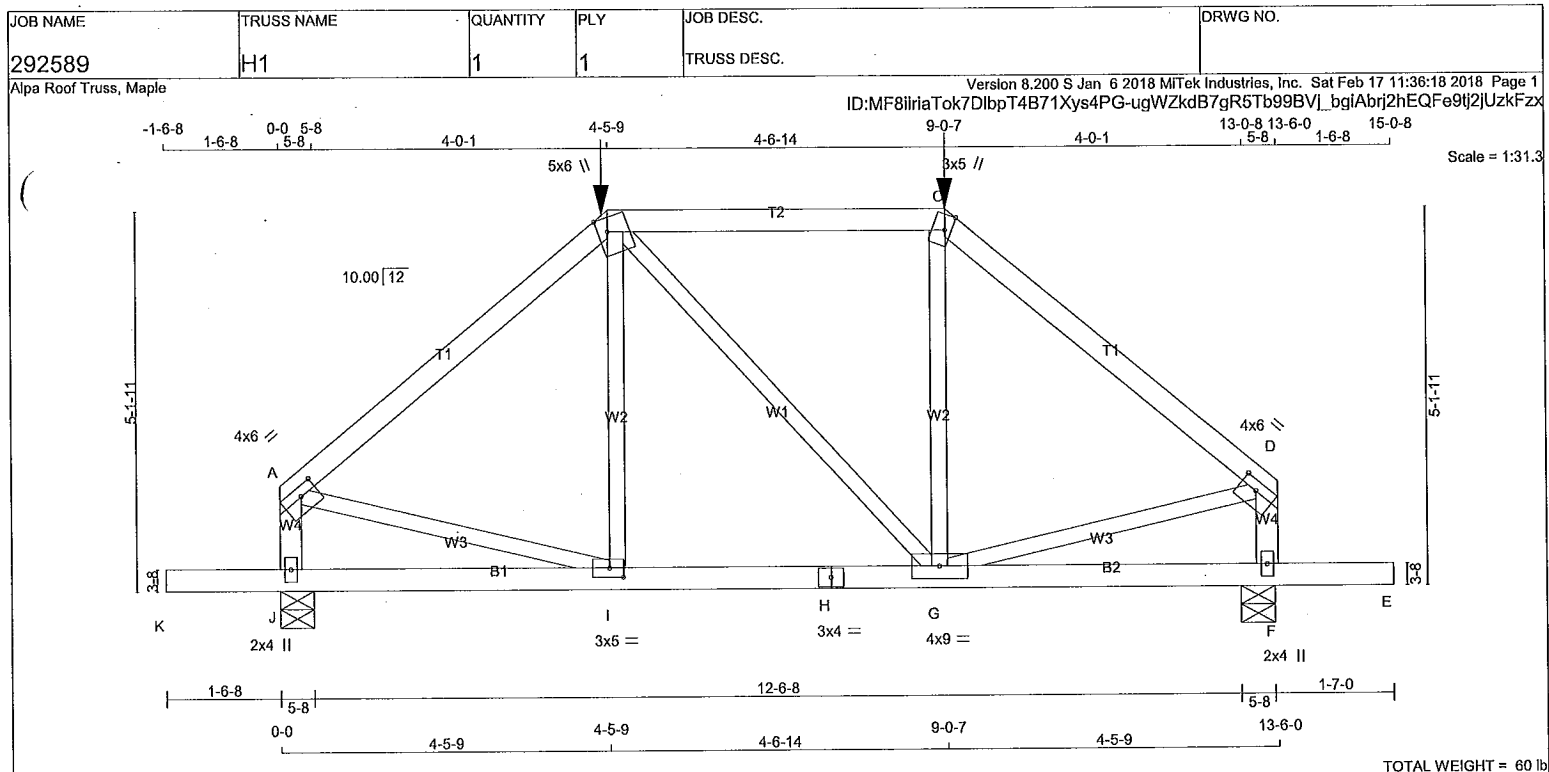
PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.65 (G) (INPUT = 0.90)
JSI METAL = 0.19 (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-18023432



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

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

BEARINGS

JT	FACTORED		MAXIMUM FACTORED		INPUT		REQRD	
	GROSS REACTION		GROSS REACTION		BRG		BRG	
J	VERT	HORZ	DOWN	HORZ	UPLIFT	IN-SX	IN-SX	
J	1347	0	1347	0	0	5-8	2-0	
F	1347	0	1347	0	0	5-8	2-0	

UNFACTORED REACTIONS

JT	1ST LCASE		MAX/MIN. COMPONENT REACTIONS		WIND	DEAD	SOIL
	COMBINED	SNOW	LIVE	PERM.LIVE			
J	962	578 / 0	0 / 0	0 / 0	0 / 0	385 / 0	0 / 0
F	962	578 / 0	0 / 0	0 / 0	0 / 0	385 / 0	0 / 0

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

BRACING

TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 5.35 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)

FR-TO	CHORDS		FACTORED		W E B S		FACTORED	
	MEMB.	FORCE (LBS)	VERT. LOAD	LC1 MAX	MAX. MEMB.	FORCE (LBS)	VERT. LOAD	LC1 MAX
A-B	-1159 / 0	-78.0	-78.0	0.34 (1)	5.47	I-B	-34 / 118	0.04 (4)
B-C	-887 / 0	-153.5	-153.5	0.63 (1)	5.35	B-G	0 / 0	0.00 (1)
C-D	-1159 / 0	-78.0	-78.0	0.34 (1)	5.47	G-C	-34 / 118	0.05 (4)
J-A	-1130 / 0	0.0	0.0	0.13 (1)	7.43	A-I	0 / 913	0.23 (1)
F-D	-1130 / 0	0.0	0.0	0.13 (1)	7.43	G-D	0 / 913	0.23 (1)
K-J	0 / 0	-96.5	-96.5	0.17 (1)	10.00			
J-I	0 / 0	-36.4	-36.4	0.18 (4)	10.00			
I-H	0 / 888	-36.4	-36.4	0.28 (4)	10.00			
H-G	0 / 888	-36.4	-36.4	0.28 (4)	10.00			
G-F	0 / 0	-36.4	-36.4	0.18 (4)	10.00			
F-E	0 / 0	-96.5	-96.5	0.17 (1)	10.00			

FACTORED CONCENTRATED LOADS (LBS)

JT	LOC.	LC1	MAX-	MAX+	FACE	DIR.	TYPE
B	4-5-9	-254	-254	---	FRONT	VERT	TOTAL
C	9-0-7	-254	-254	---	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
SIDE SETBACK = 4-5-9
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) = $L/360$ (0.45")
CALCULATED VERT. DEFL.(LL) = $L/999$ (0.01")
ALLOWABLE DEFL.(TL) = $L/360$ (0.45")
CALCULATED VERT. DEFL.(TL) = $L/999$ (0.04")

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

CSI: TC=0.63/1.00 (B-C:1), BC=0.28/1.00 (G-I:4), WB=0.23/1.00 (A-I:1), SS=0.30/1.00 (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

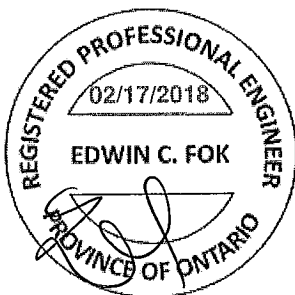
PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

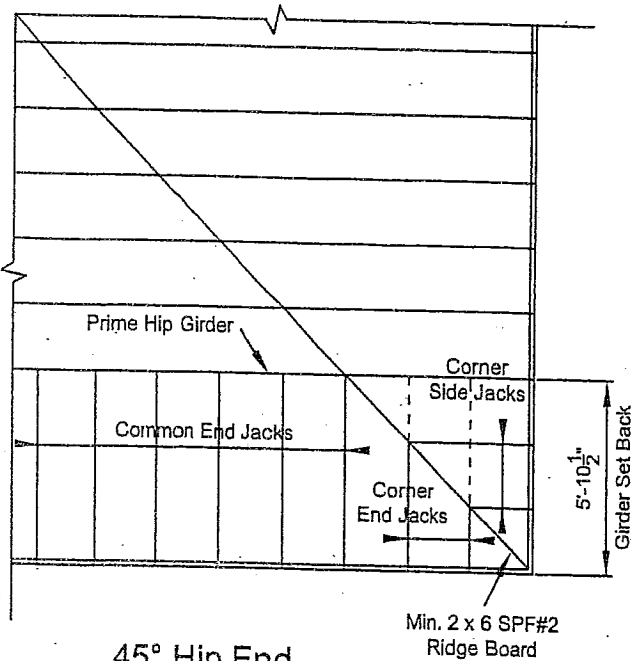
A-18023431

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



STRACON ENGINEERING INC.



45° Hip End

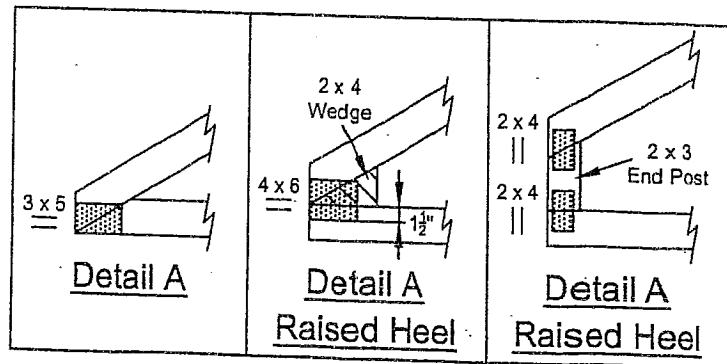
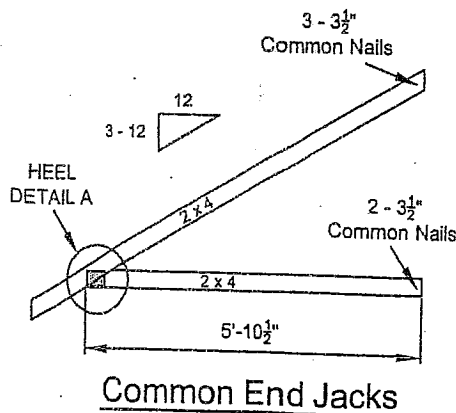
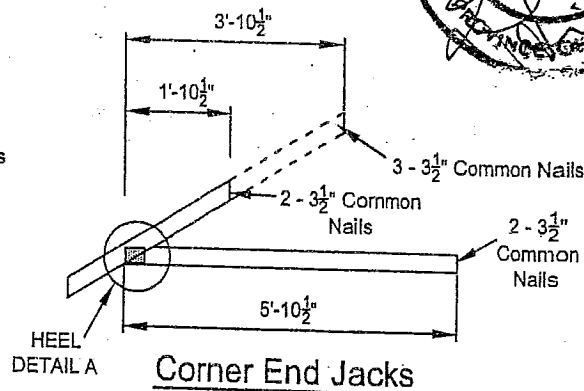
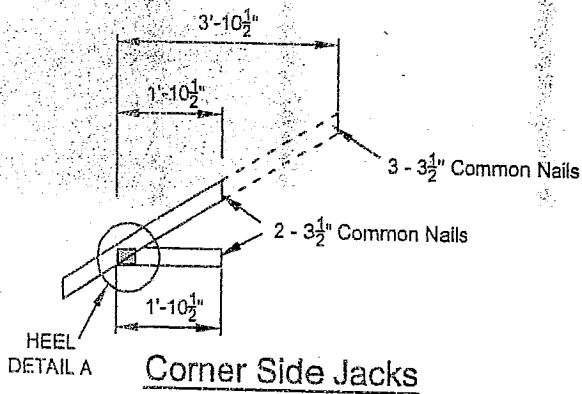
LUMBER SPECIFICATION

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.

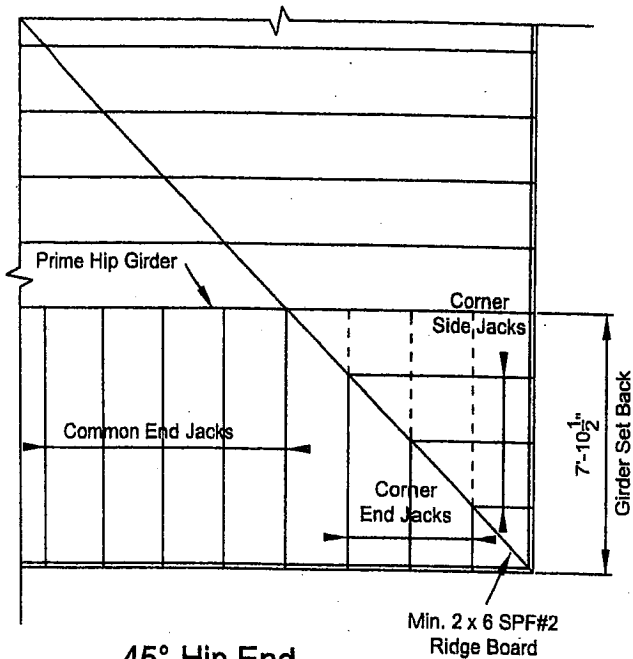
TOTAL LOAD : 50.5 P.S.F.



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

CS-51008

STRACON ENGINEERING INC.



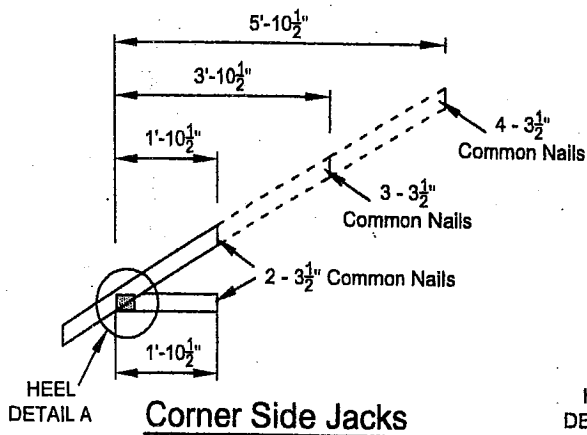
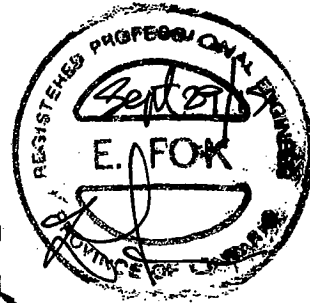
45° Hip End

LUMBER SPECIFICATION

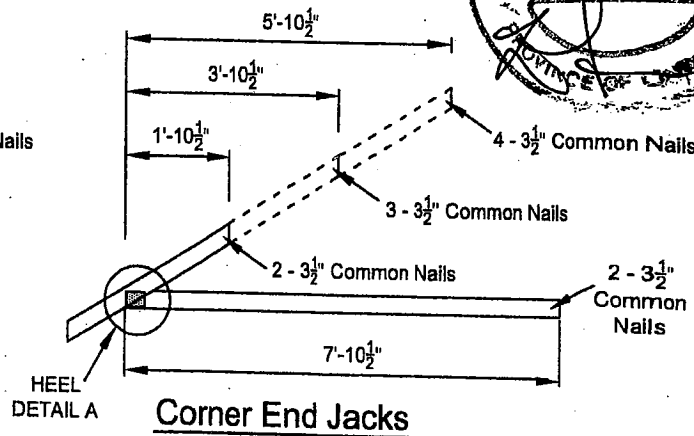
TOP CHORD : 2 x 4 SPF#2
 BOTTOM CHORD : 2 x 4 SPF#2
 WEBS : 2 x 3 SPF#2
 UNLESS OTHERWISE SHOWN

DESIGN LOAD

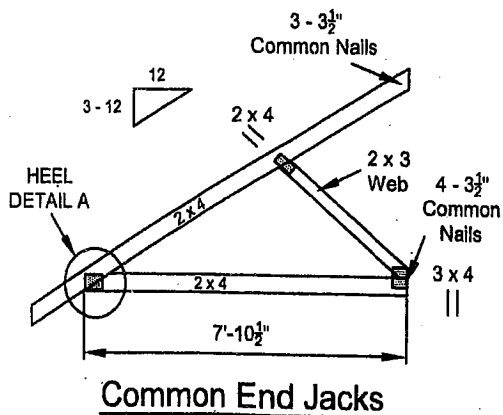
TOP CHORD SNOW LOAD : 34.8 P.S.F.
 TOP CHORD DEAD LOAD : 3.0 P.S.F.
 BOTTOM CHORD LIVE LOAD : 0.0 P.S.F.
 BOTTOM CHORD DEAD LOAD : 7.0 P.S.F.
TOTAL LOAD : 44.8 P.S.F



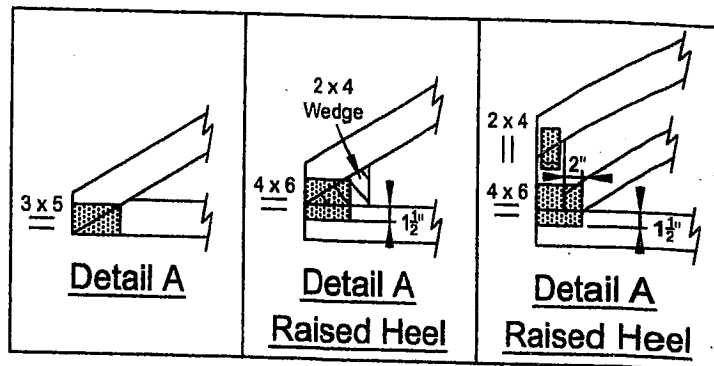
Corner Side Jacks



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

SIMPSON
Strong-Tie®

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:

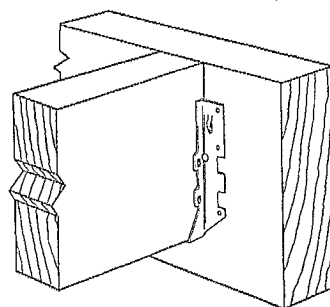
- Factored resistances are in accordance with CSA O86-14.
- Uplift resistances have been increased 15%. No further increase is permitted.
- Wood shear is not considered in the factored resistances given. The specifier must ensure that the joist and header capacities are capable of withstanding these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

Installation:

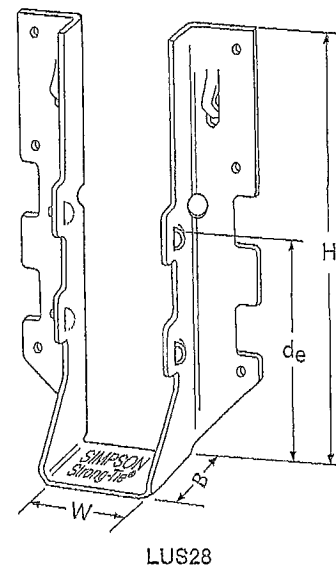
- Use all specified fasteners.
- Nails: 16d = 0.162" dia. x 3½" long common wire,
10d = 0.148" x 3" long common wire.
- Double shear nails must be driven at an angle through the joist or truss into the header to achieve the table loads.
- Not designed for welded or nailer applications.

Options:

- These hangers cannot be modified



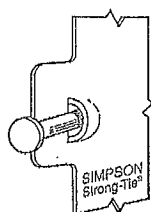
Typical LUS
Installation



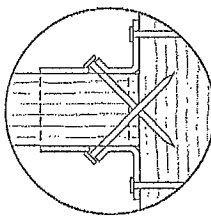
LUS28

Model No.	Ga.	Dimensions (in.)				Fasteners		Factored Resistance (lb.)			
		W	H	B	d _e ¹	Face	Joist	D.Fir-L		S-P-F	
								Uplift (K _o =1.15)	Normal (K _o =1.00)	Uplift (K _o =1.15)	Normal (K _o =1.00)
LUS24	18	1½	3½	1¾	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	3½	(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	6¾	1¾	3¾	(6) 10d	(6) 10d	1420	2520	1290	1790
LUS28-2	18	3½	7	2	4	(6) 16d	(4) 16d	1720	3325	1545	2575
LUS28-3	18	4¾	6¼	2	3¼	(6) 16d	(4) 16d	1720	3325	1545	2375
LUS210	18	1½	7½	1¾	3¾	(8) 10d	(4) 10d	1420	2785	1290	2210
LUS210-2	18	3½	9	2	6	(8) 16d	(6) 16d	2580	4500	2320	3195
LUS210-3	18	4¾	8¾	2	5¼	(8) 16d	(6) 16d	2580	3345	2320	2375

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



Double
Shear
Nailing
prevents tabs
breaking off
(available on
some models).
U.S. Patent
5,603,580



Double
Shear
Nailing
Top View.



LIMIT
STATES
DESIGN

This technical bulletin is effective until June 30, 2019, and reflects information available as of March 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-SPEC/LUS17-3/17 exp. 6/19

(800) 999-5099
strongtie.com

HUS/LJS – Double Shear Joist Hangers



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

Material: See table

Finish: G90 galvanized

Design:

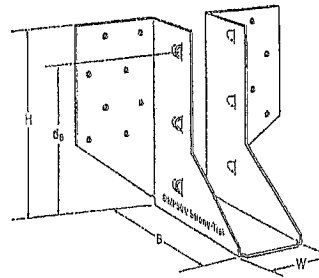
- Factored resistances are in accordance with CSA O86 -14.
- Uplift resistances have been increased 15%. No further increase is permitted.
- Wood shear is not considered in the factored resistances given. The specifier must ensure that the joist and header capacities are capable of withstanding these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

Installation:

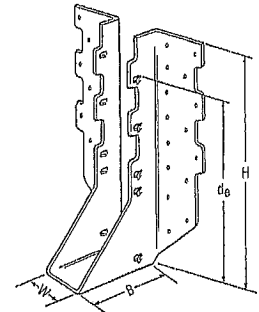
- Use all specified fasteners
- Nails: 16d = 0.162" dia. x 3½" long common wire
- Double-shear nails must be driven at an angle through the joist or truss into the header to achieve the table loads
- Not designed for welded or nailer applications

Options:

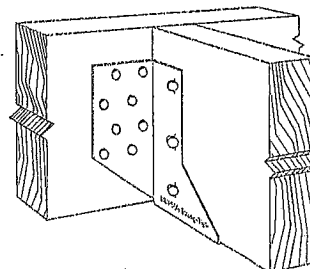
- See current catalogue for options



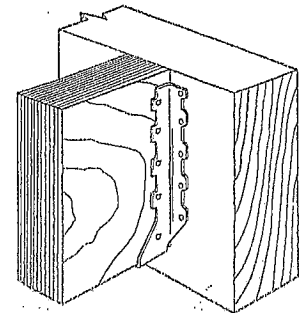
LJS26DS



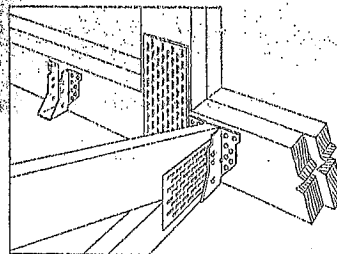
HUS210
(HUS26, HUS28, similar)



Typical LJS26DS
Installation



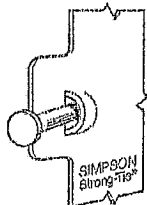
Typical HUS
Installation



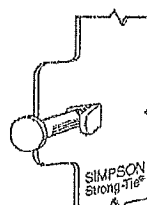
Typical HUS Installation
(Truss Designer to provide fastener quantity for connecting multiple members together)

Model No.	Ga.	Dimensions (in.)				Fasteners		Factored Resistance (lb.)			
		W	H	B	d _g	Face	Joist	D.Fir-L		S-P-F	
								Uplift (K _o =1.15)	Normal (K _o =1.00)	Uplift (K _o =1.15)	Normal (K _o =1.00)
LJS26DS	18	1⅞	5	3½	4⅞	(16) 16d	(6) 16d	2055	4265	1460	4115
HUS26	16	1⅞	5⅞	3	3⅞⅞	(14) 16d	(6) 16d	2705	4940	2065	3875
HUS28	16	1⅞	7⅞⅞	3	6⅞⅞	(22) 16d	(8) 16d	3605	5365	2675	4345
HUS210	16	1⅞	9⅞⅞	3	7⅞⅞⅞	(30) 16d	(10) 16d	4505	5795	4010	4740
HUS1.81/10	16	1⅞⅞	9	3	8	(30) 16d	(10) 16d	4505	6450	4010	5200

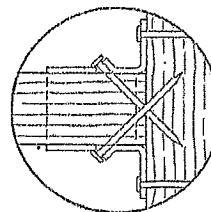
1. d_g is the distance from the seat of the hanger to the highest joist nail.



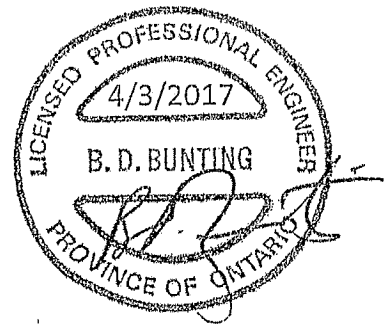
Dome Double Shear Nailing prevents tabs breaking off (available on some models).
U.S. Patent 5,603,580



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



Double Shear Nailing Top View.



LIMITED 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-SPECHUS17 3/17 exp. 6/19

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strongtie.com