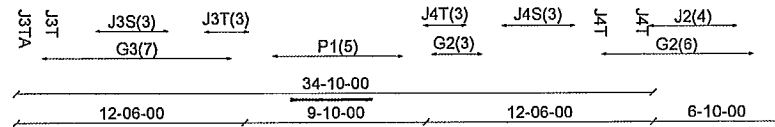


ALPHA-BARRE



6/12

CONVENTIONAL
FRAMING BY
OTHERS

5001 REV1 / B

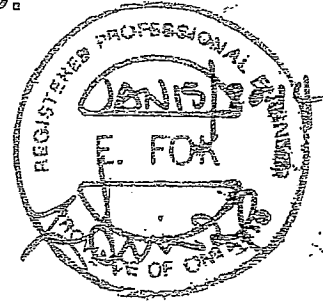
ALPA-BARE



OR OT LOGS 1A

Stracon Engineering Inc.

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



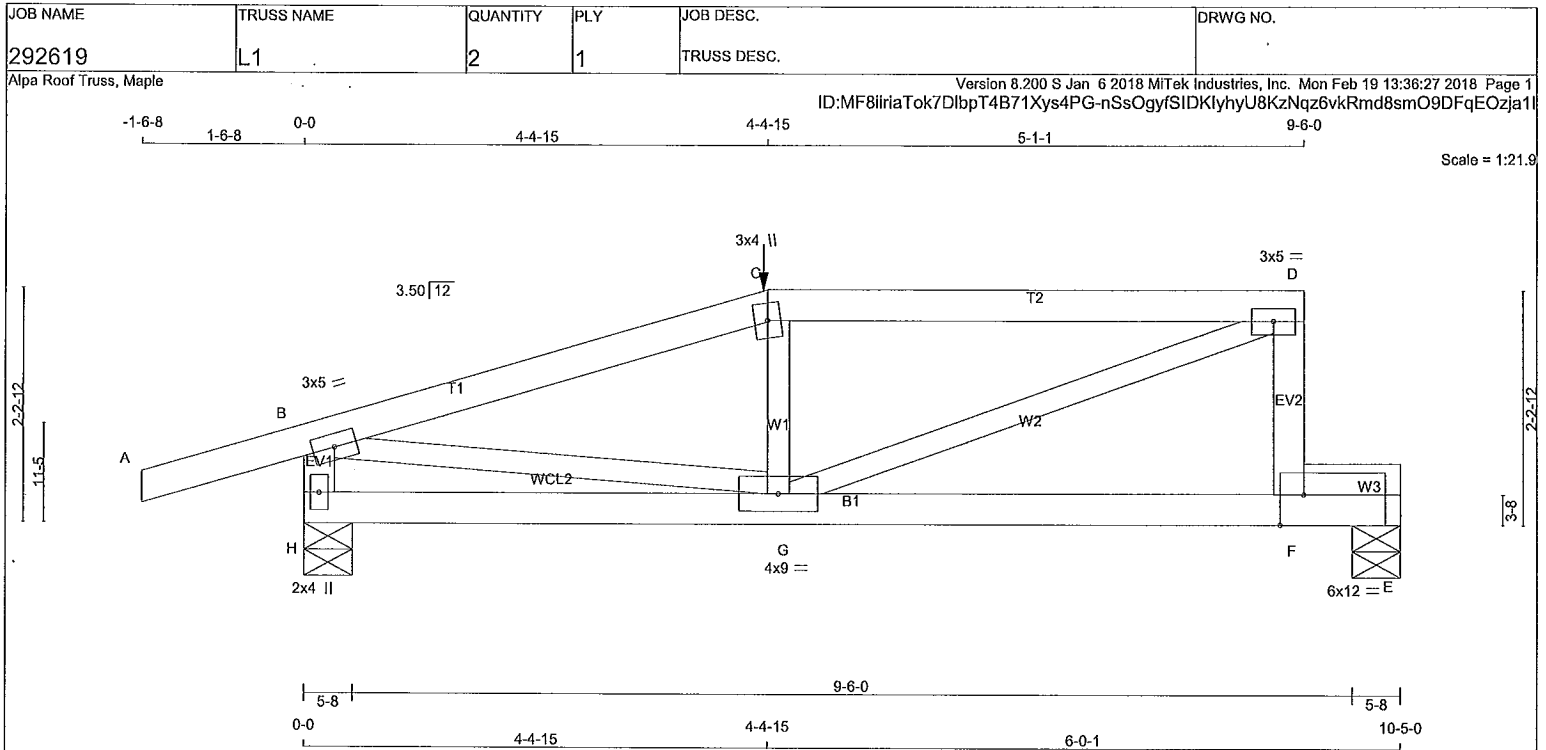
RESPONSIBILITIES

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

SPECIFICATIONS

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

January 15, 2014



LUMBER
N. L. G. A. RULES

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

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

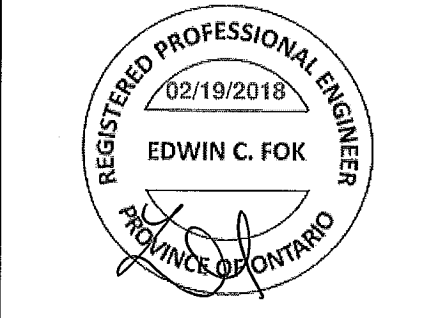
PLATES (table is in inches)

JT	TYPE	PLATES	W	LEN	Y	X
B	TMVW-t	MT20	3.0	5.0		
C	TTW+m	MT20	3.0	4.0		
D	TMVW-t	MT20	3.0	5.0		
F	BMVW-t	MT20	6.0	12.0	Edge	2.75
G	BMVWW-t	MT20	4.0	9.0		
H	BMV1+p	MT20	2.0	4.0		

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

HANGERS NOTES
1) SPECIAL HANGER(S) OR CONNECTION(S) REQUIRED TO SUPPORT CONCENTRATED LOAD(S) 28.7 lbs FACTORED DOWN AT 4-4-15 ON TOP CHORD. DESIGN FOR UNSPECIFIED CONNECTION(S) IS DELEGATED TO THE BUILDING DESIGNER.

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



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

BEARINGS

JT	FACTORED GROSS REACTION		MAXIMUM FACTORED GROSS REACTION		INPUT BRG	REQRD BRG
	VERT	HORZ	DOWN	HORZ		
H	642	0	642	0	5-8	1-8
E	515	0	515	0	5-8	1-8

UNFACTORED REACTIONS

JT	1ST LCASE		MAX./MIN. COMPONENT REACTIONS		WIND	DEAD	SOIL
	COMBINED	SNOW	LIVE	PERM.LIVE			
H	455	294 / 0	0 / 0	0 / 0	0 / 0	161 / 0	0 / 0
E	367	225 / 0	0 / 0	0 / 0	0 / 0	141 / 0	0 / 0

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

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

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

LOADING
TOTAL LOAD CASES: (4)

CHORDS				WEBS			
MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	MAX. FACTORED VERT. LOAD LC1 (LC)	MAX. FACTORED VERT. LOAD LC1 (LC)	MEMB.	MAX. FACTORED FORCE (LBS)	MAX. FACTORED VERT. LOAD LC1 (LC)
FR-TO		FROM	TO	LENGTH	FR-TO		
A-B	0 / 17	-78.0	-78.0	0.15 (1)	10.00	G-C	-174 / 4
B-C	-808 / 0	-78.0	-78.0	0.30 (1)	6.25	G-D	0 / 810
C-D	-752 / 0	-78.0	-78.0	0.40 (1)	6.25	B-G	0 / 783
F-D	-500 / 0	0.0	0.0	0.06 (1)	7.81		
H-B	-629 / 0	0.0	0.0	0.07 (1)	7.81		
H-G	0 / 0	-18.5	-18.5	0.21 (4)	10.00		
G-F	0 / 0	-18.5	-18.5	0.65 (1)	10.00		
F-E	0 / 0	-96.5	-96.5	0.27 (1)	10.00		

FACTORED CONCENTRATED LOADS (LBS)

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

DESIGN CRITERIA

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

SPACING = 24.0 IN. C/C

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

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

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

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

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

ALLOWABLE DEFL.(LL) = L/360 (0.35")
CALCULATED VERT. DEFL.(LL) = L/999 (0.11")
ALLOWABLE DEFL.(TL) = L/360 (0.35")
CALCULATED VERT. DEFL.(TL) = L/547 (0.23")

CSI: TC=0.40/1.00 (C-D:1), BC=0.65/1.00 (F-G:1), WB=0.20/1.00 (D-G:1), SS=0.22/1.00 (E-F:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

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

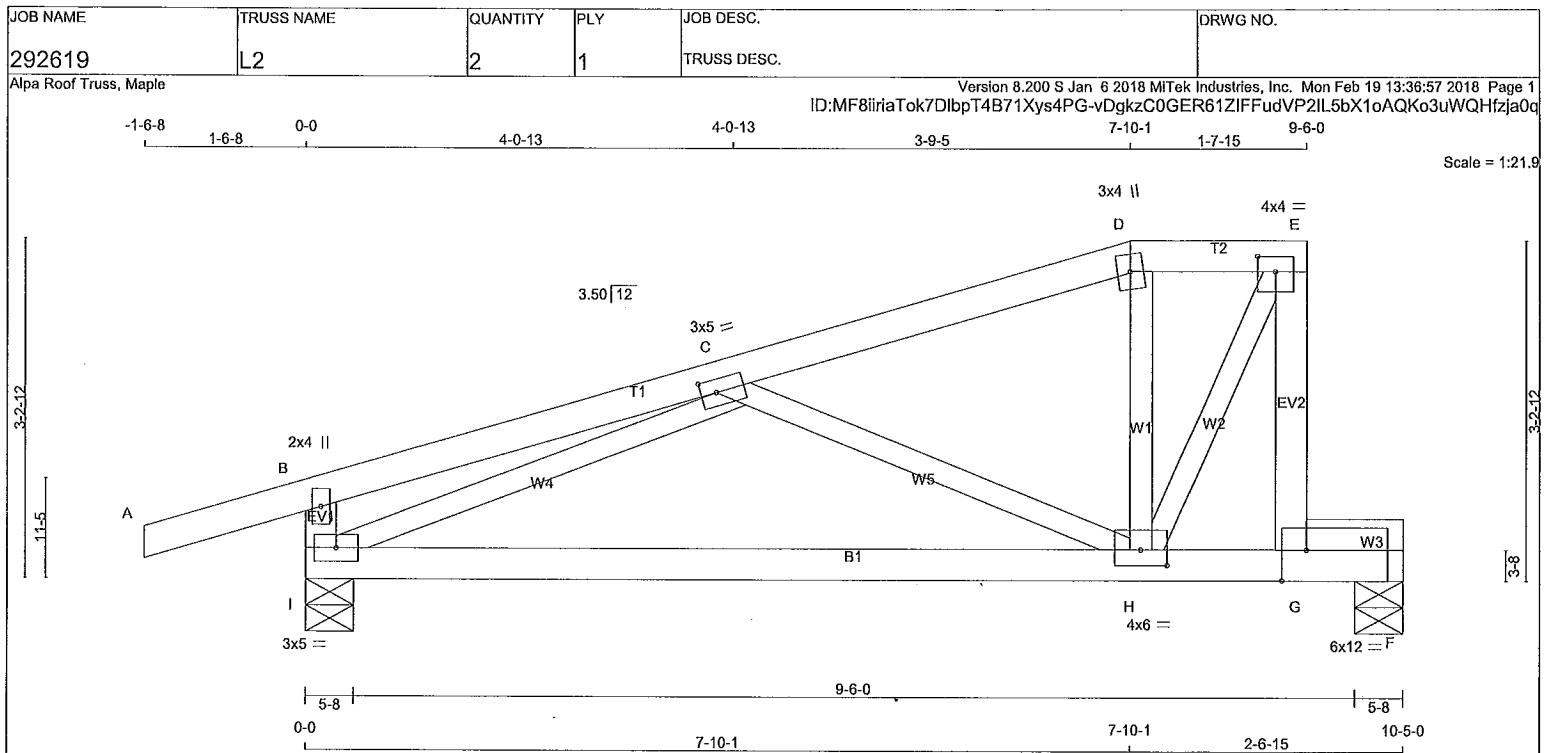
NAIL VALUES

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

PLATE PLACEMENT TOL. = 0.260 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.88 (C) (INPUT = 0.90)
JSI METAL= 0.27 (B) (INPUT = 1.00)



TOTAL WEIGHT = 2 X 41 = 82 lb

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

ALL WEBS 2x3 DRY No.2 SPF

EXCEPT

DRY: SEASONED LUMBER.

PLATES (table is in inches)

JT	TYPE	PLATES	W	LEN	Y	X
B	TMV+p	MT20	2.0	4.0		
C	TMVW-t	MT20	3.0	5.0	1.50	1.75
D	TTW+m	MT20	3.0	4.0		
E	TMVW-t	MT20	4.0	4.0	1.75	2.00
G	BMVW-t	MT20	6.0	12.0	Edge	2.75
H	BMVW-t	MT20	4.0	6.0	1.75	3.00
I	BMVW-t	MT20	3.0	5.0		

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
F		502	0	502	0
I		626	0	626	0

UNFACTORED REACTIONS

JT	1ST LCASE	MAX./MIN. COMPONENT REACTIONS	WIND	DEAD	SOIL
F	COMBINED	219 / 0	0 / 0	140 / 0	0 / 0
I	COMBINED	285 / 0	0 / 0	159 / 0	0 / 0

BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S) F, 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				WEBS			
MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	MAX. FACTORED HORIZ. LOAD (LC)	MEMB.	MAX. FACTORED FORCE (LBS)	MAX. FACTORED HORIZ. LOAD (LC)	
FR-TO		FROM	TO	FR-TO			
A-B	0 / 17	-78.0	-78.0 0.14 (1)	H-D	-72 / 11	0.01 (1)	
B-C	0 / 9	-78.0	-78.0 0.18 (1)	H-E	0 / 787	0.18 (1)	
C-D	-396 / 0	-78.0	-78.0 0.18 (1)	I-C	-783 / 0	0.26 (1)	
D-E	-368 / 0	-78.0	-78.0 0.04 (1)	C-H	-377 / 0	0.13 (1)	
G-E	-759 / 0	0.0	0.0 0.13 (1)				
I-B	-247 / 0	0.0	0.0 0.02 (1)				
I-H	0 / 713	-18.5	-18.5 0.36 (4)				
H-G	0 / 0	-18.5	-18.5 0.57 (1)				
G-F	0 / 0	-96.5	-96.5 0.24 (1)				

DESIGN CRITERIA

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

SPACING = 24.0 IN. C/C

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

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

THIS DESIGN COMPLIES WITH:
- PART 9 OF OBC 2012, OBC 2018
- CSA 088-09, 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 (0.35")
CALCULATED VERT. DEFL.(LL)= L/999 (0.03")
ALLOWABLE DEFL.(TL)= L/360 (0.35")
CALCULATED VERT. DEFL.(TL)= L/999 (0.10")

CSI: TC=0.18/1.00 (C-D:1), BC=0.57/1.00 (G-H:1), WB=0.26/1.00 (C-I:1), SSI=0.29/1.00 (G-H:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

AUTOSOLVE RIGHT HEEL ONLY

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

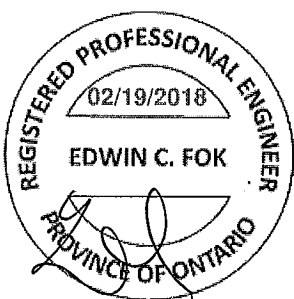
NAIL VALUES
PLATE GRIP(DRY) SHEAR SECTION (PSI) (PLI) (PLI)
MAX MIN MAX MIN MAX MIN
MT20 618 354 1667 788 1987 1656

PLATE PLACEMENT TOL. = 0.250 inches

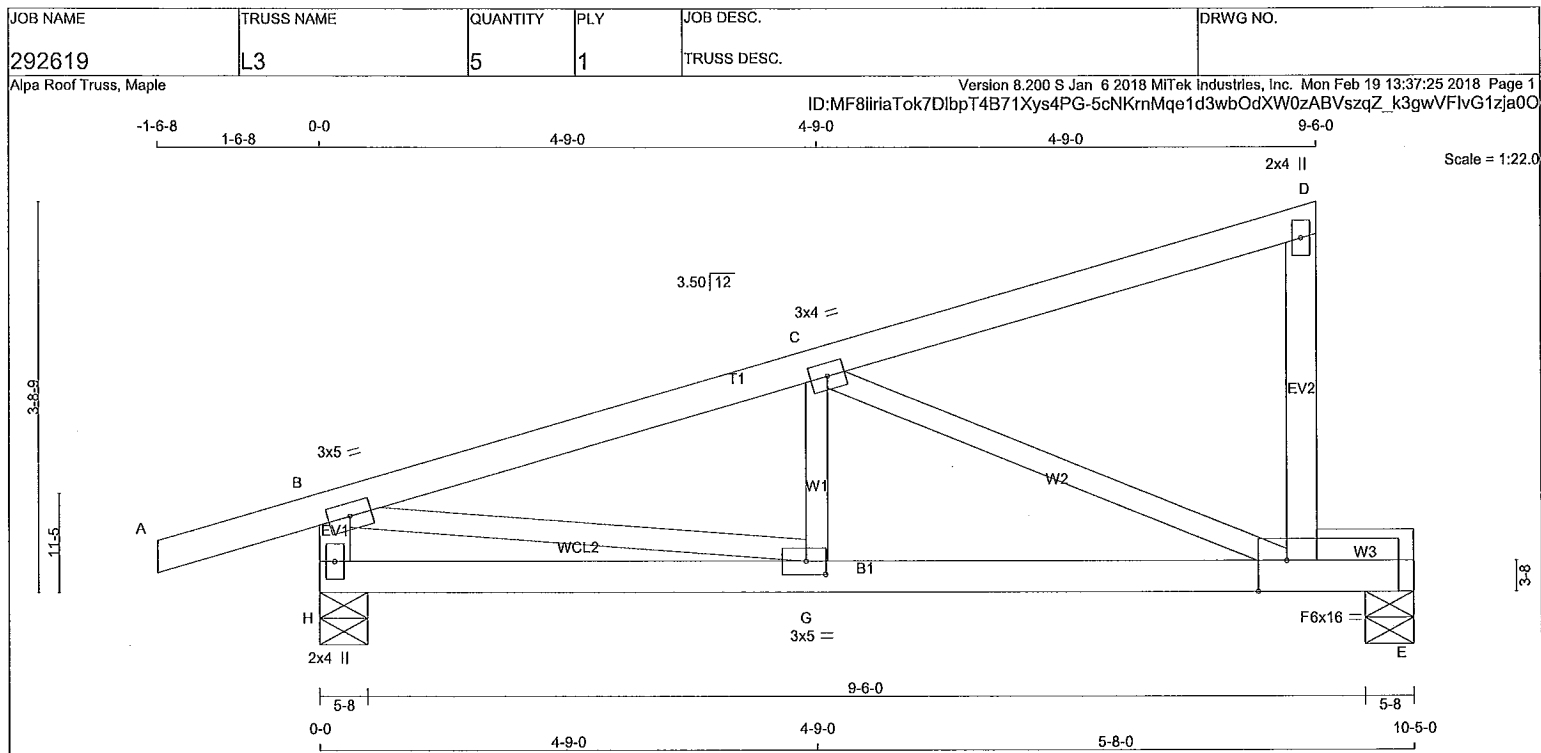
PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.88 (H) (INPUT = 0.90)
JSI METAL= 0.24 (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-18024028



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

DRY: SEASONED LUMBER.

PLATES (table is in inches)

JT TYPE	PLATES	W	LEN	Y	X
B TMVW-t	MT20	3.0	5.0		
C TMVW-t	MT20	3.0	4.0		
D TMV+p	MT20	2.0	4.0		
F BMVWW-t	MT20	6.0	16.0	Edge	3.25
G BMVW-t	MT20	3.0	5.0	1.50	2.25
H 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

JT	FACTORED GROSS REACTION		MAXIMUM FACTORED GROSS REACTION		INPUT BRG	REQD BRG
	VERT	HORZ	DOWN	HORZ	IN-SX	IN-SX
H	623	0	623	0	5-8	1-8
E	434	0	434	0	5-8	1-8

UNFACTORED REACTIONS

1ST LCASE	COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
JT	441	283 / 0	0 / 0	0 / 0	0 / 0	158 / 0	0 / 0
E	311	182 / 0	0 / 0	0 / 0	0 / 0	129 / 0	0 / 0

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

BRACING

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

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

LOADING

TOTAL LOAD CASES: (4)

CHORDS				WEBS			
MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	LC1 MAX CSI (LC)	MEMB.	MAX. FACTORED FORCE (LBS)	MAX. FACTORED CSI (LC)	
FR-TO		FROM TO		FR-TO			
A-B	0 / 17	-78.0 -78.0	0.14 (1)	10.00	G-C	0 / 127	0.04 (4)
B-C	-814 / 0	-78.0 -78.0	0.22 (1)	6.25	C-F	-862 / 0	0.36 (1)
C-D	-12 / 0	-78.0 -78.0	0.21 (1)	6.25	B-G	0 / 800	0.18 (1)
F-D	-143 / 0	0.0 0.0	0.03 (1)	7.81			
H-B	-605 / 0	0.0 0.0	0.06 (1)	7.81			
H-G	0 / 0	-18.5 -18.5	0.19 (4)	10.00			
G-F	0 / 793	-18.5 -18.5	0.66 (1)	10.00			
F-E	0 / 0	-18.5 -18.5	0.22 (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) = $L/360$ (0.35")
CALCULATED VERT. DEFL.(LL) = $L/999$ (0.10")
ALLOWABLE DEFL.(TL) = $L/360$ (0.35")
CALCULATED VERT. DEFL.(TL) = $L/608$ (0.21")

CSI: TC=0.22/1.00 (B-C:1), BC=0.66/1.00 (F-G:1), WB=0.36/1.00 (C-F:1), SSI=0.17/1.00 (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.

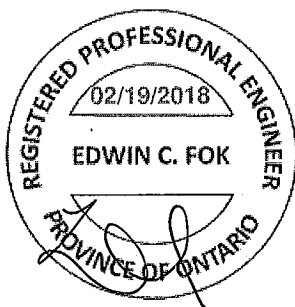
PLATE	GRIP(DRY) (PSI)	SHEAR (PLI)	SECTION (PLI)
MT20	618	354	1667
	788	1987	1656

PLATE PLACEMENT TOL. = 0.250 inches

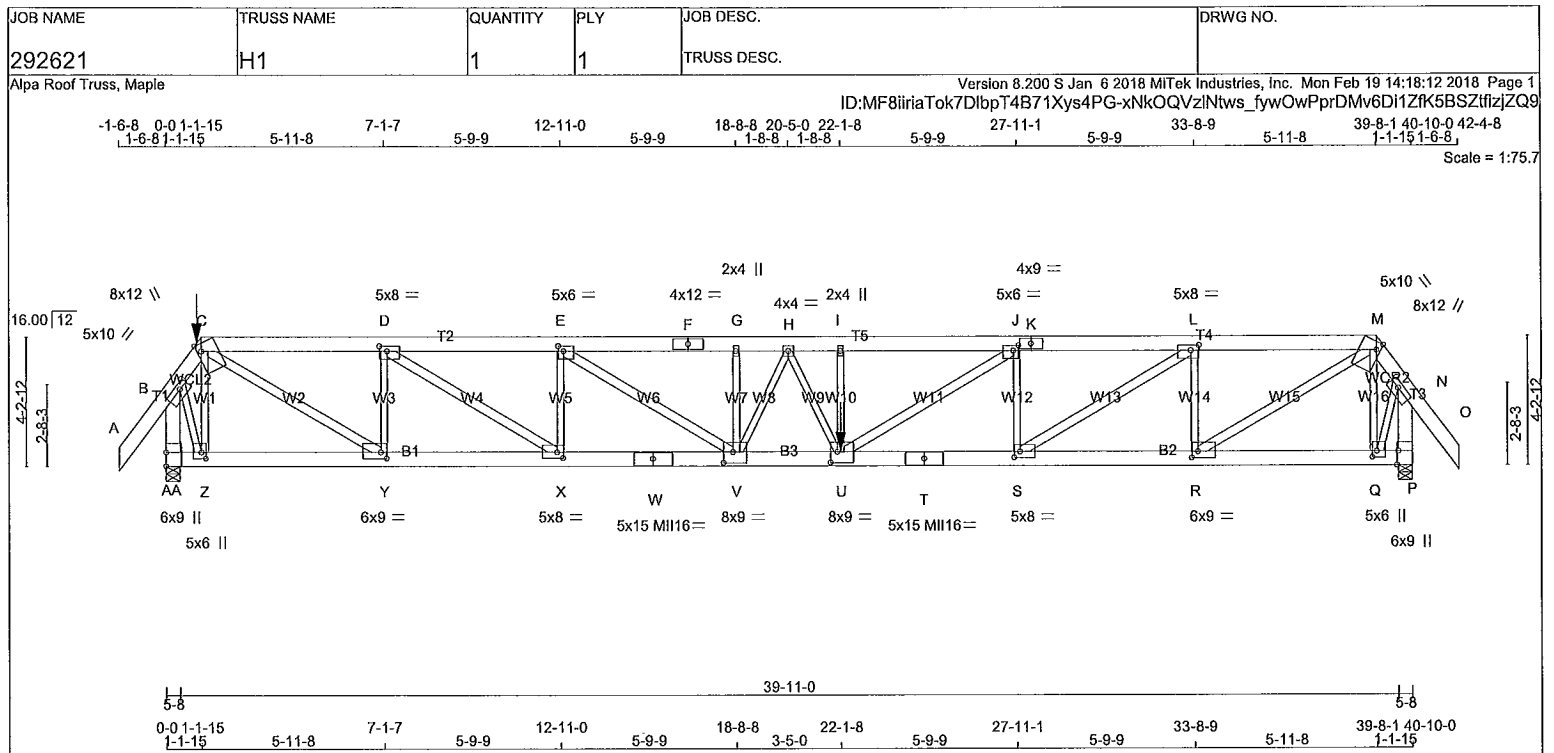
PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.85 (C) (INPUT = 0.90)
JSI METAL= 0.27 (B) (INPUT = 1.00)

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



A-18024029

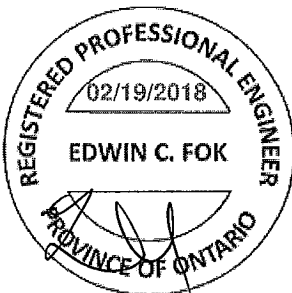


TOTAL WEIGHT = 244 lb

LUMBER					N. L. G. A. RULES				
CHORDS	SIZE	LUMBER	DESCR.		CHORDS	SIZE	LUMBER	DESCR.	
A - C	2x6	DRY	No.2	SPF	A - C	2x6	DRY	No.2	SPF
C - F	2x6	DRY	1650F 1.5E	SPF	C - F	2x6	DRY	1650F 1.5E	SPF
F - K	2x6	DRY	1650F 1.5E	SPF	F - K	2x6	DRY	1650F 1.5E	SPF
K - M	2x6	DRY	1650F 1.5E	SPF	K - M	2x6	DRY	1650F 1.5E	SPF
M - O	2x6	DRY	No.2	SPF	M - O	2x6	DRY	No.2	SPF
AA - B	2x6	DRY	No.2	SPF	AA - B	2x6	DRY	No.2	SPF
P - N	2x6	DRY	No.2	SPF	P - N	2x6	DRY	No.2	SPF
AA - W	2x6	DRY	2100F 1.8E	SPF	AA - W	2x6	DRY	2100F 1.8E	SPF
W - T	2x6	DRY	2100F 1.8E	SPF	W - T	2x6	DRY	2100F 1.8E	SPF
T - P	2x6	DRY	2100F 1.8E	SPF	T - P	2x6	DRY	2100F 1.8E	SPF
ALL WEBS EXCEPT					ALL WEBS EXCEPT				
C - Y	2x4	DRY	2100F 1.8E	SPF	C - Y	2x4	DRY	2100F 1.8E	SPF
D - X	2x4	DRY	No.2	SPF	D - X	2x4	DRY	No.2	SPF
E - V	2x4	DRY	No.2	SPF	E - V	2x4	DRY	No.2	SPF
U - J	2x4	DRY	No.2	SPF	U - J	2x4	DRY	No.2	SPF
S - L	2x4	DRY	No.2	SPF	S - L	2x4	DRY	No.2	SPF
R - M	2x4	DRY	2100F 1.8E	SPF	R - M	2x4	DRY	2100F 1.8E	SPF
DRY: SEASONED LUMBER.					DRY: SEASONED LUMBER.				

PLATES (table is in inches)				
JT	TYPE	PLATES	W	LEN Y X
B	TMVW-t	MT20	5.0	10.0 2.00 3.75
C	TTWW+m	MT20	8.0	12.0 Edge 1.50
D	TMVW-t	MT20	5.0	8.0 2.00 3.00
E	TMVW-t	MT20	5.0	6.0 2.00 2.00
F	TS-t	MT20	4.0	12.0
G	TMVW+w	MT20	2.0	4.0
H	TMVW-t	MT20	4.0	4.0
I	TMVW+w	MT20	2.0	4.0
J	TMVW-t	MT20	5.0	6.0 2.00 2.00
K	TS-t	MT20	4.0	9.0
L	TMVW-t	MT20	5.0	8.0 2.00 3.00
M	TTWW+m	MT20	8.0	12.0 Edge 1.50
N	TMVW-t	MT20	5.0	10.0 2.00 3.75
P	BMV1+t	MT20	6.0	9.0 Edge 0.50
Q	BMVW-t	MT20	5.0	6.0 2.50 1.75
R	BMVW-t	MT20	8.0	9.0 2.50 2.25
S	BMVW-t	MT20	5.0	8.0 2.25 2.25

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



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

BEARINGS		FACTORED		MAXIMUM FACTORED		INPUT		REQD	
JT	VERT	GROSS REACTION	HORZ	DOWN	HORZ	BRG	IN-SX	BRG	IN-SX
AA	4375	0	4375	0	0	5-8	5-8	5-8	5-8
P	3594	0	3594	0	0	5-8	5-8	4-0	4-0

UNFACTORED REACTIONS

1ST LCASE		MAX./MIN. COMPONENT REACTIONS							
JT	COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL		
AA	3117	1916 / 0	0 / 0	0 / 0	0 / 0	1202 / 0	0 / 0		
P	2560	1578 / 0	0 / 0	0 / 0	0 / 0	982 / 0	0 / 0		

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

BRACING

TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 2.48 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		MAX. FACTORED		W E B S		MAX. FACTORED	
MEMB.	FORCE (LBS)	VERT. LOAD LC1 (PLF)	MAX	MAX	MAX	MEMB.	FORCE (LBS)	MAX	MAX
FR-TO		FROM TO	LENGTH	FR-TO		FR-TO		LENGTH	FR-TO
A-B	0 / 54	-78.0	-78.0 0.09 (1)	10.00	Z-C	-1957 / 0	0.49 (1)		
B-C	-2480 / 0	-78.0	-78.0 0.12 (1)	5.12	C-Y	0 / 6513	0.54 (1)		
C-D	-6874 / 0	-153.5	-153.5 0.43 (1)	3.56	Y-D	-3249 / 0	0.81 (1)		
D-E	-10446 / 0	-153.5	-153.5 0.64 (1)	2.77	D-X	0 / 4261	0.75 (1)		
E-F	-12324 / 0	-153.5	-153.5 0.75 (1)	2.48	X-E	-2108 / 0	0.53 (1)		
F-G	-12324 / 0	-153.5	-153.5 0.75 (1)	2.48	E-V	0 / 2240	0.40 (1)		
G-H	-12324 / 0	-153.5	-153.5 0.52 (1)	2.65	V-G	-666 / 0	0.17 (1)		
H-I	-12578 / 0	-153.5	-153.5 0.52 (1)	2.63	V-H	-395 / 0	0.11 (1)		
I-J	-12578 / 0	-78.0	-78.0 0.71 (1)	2.51	H-U	0 / 221	0.05 (1)		
J-K	-9710 / 0	-78.0	-78.0 0.44 (1)	3.07	U-I	-310 / 0	0.08 (1)		
K-L	-9710 / 0	-78.0	-78.0 0.44 (1)	3.07	U-J	0 / 3421	0.60 (1)		
L-M	-5907 / 0	-78.0	-78.0 0.25 (1)	3.98	S-J	-2335 / 0	0.58 (1)		
M-N	-2019 / 0	-78.0	-78.0 0.11 (1)	5.56	S-L	0 / 4538	0.80 (1)		
N-O	0 / 54	-78.0	-78.0 0.09 (1)	10.00	R-L	-2914 / 0	0.73 (1)		
AA-B	-4515 / 0	0.0	0.0 0.41 (1)	5.02	R-M	0 / 5678	0.47 (1)		
P-N	-3702 / 0	0.0	0.0 0.34 (1)	5.51	Q-M	-1630 / 0	0.41 (1)		
					B-Z	0 / 2676	0.66 (1)		
					Q-N	0 / 2163	0.54 (1)		
AA-Z	0 / 0	-36.4	-36.4 0.08 (4)	10.00					
Z-Y	0 / 1339	-36.4	-36.4 0.15 (1)	10.00					
Y-X	0 / 6875	-36.4	-36.4 0.43 (1)	10.00					
X-W	0 / 10446	-36.4	-36.4 0.64 (1)	10.00					
W-V	0 / 10446	-36.4	-36.4 0.64 (1)	10.00					
V-U	0 / 12486	-36.4	-36.4 0.75 (1)	10.00					
U-T	0 / 9710	-18.5	-18.5 0.61 (1)	10.00					
T-S	0 / 9710	-18.5	-18.5 0.61 (1)	10.00					
S-R	0 / 5907	-18.5	-18.5 0.35 (1)	10.00					
R-Q	0 / 1081	-18.5	-18.5 0.12 (1)	10.00					
Q-P	0 / 0	-18.5	-18.5 0.06 (1)	10.00					

FACTORED CONCENTRATED LOADS (LBS)

JT	LOC.	LC1	MAX	FACE	DIR.	TYPE
C	1-1-15	-66	-66	FRONT	VERT	TOTAL
U	22-1-8	-1715	-1715	FRONT	VERT	TOTAL

DESIGN CRITERIA

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

SPECIFIED LOADS:

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

SPACING = 24.0 IN. C/C

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

GIRDER TYPE: CPrimeHlp
SIDE SETBACK = 1-1-15
END SETBACK = 5-10-8
END WALL WIDTH = 0-0
CORNER FRAMING TYPE: CONVENTIONAL
END JACK TYPE: CONVENTIONAL
APPLIED TO FRONT SIDE
- ADDTL LOADS BASED ON 55 % OF GSL.
LOADS APPLIED TO FIRST 22-1-8 OF SPAN MEASURED FROM THE LEFT.

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

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

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

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

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

ALLOWABLE DEFL.(LL) = L/360 (1.36")
CALCULATED VERT. DEFL.(LL) = L/824 (0.59")
ALLOWABLE DEFL.(TL) = L/360 (1.36")
CALCULATED VERT. DEFL.(TL) = L/419 (1.17")

CSI: TC=0.75/1.00 (E-G:1), BC=0.75/1.00 (U-V:1)
, WB=0.81/1.00 (D-Y:1), SSI=0.36/1.00 (C-D:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

AUTOSOLVE HEELS OFF

A-18024039

CONTINUED ON PAGE 2

JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
292621	H1	1	1	TRUSS DESC.	

Alpa Roof Truss, Maple

Version 8.200 S Jan 6 2018 MITek Industries, Inc. Mon Feb 19 14:18:12 2018 Page 2
ID:MF8iiriaTok7DlbpT4B71Xys4PG-xNkOQVzINtws fywOwPprDMv6Di1ZfK5BSZtfizjZQ9

PLATES (table is in inches)

JT	TYPE	PLATES	W	LEN	Y	X
T	BS-t	MII16	5.0	15.0		
U	BMWWW-t	MT20	8.0	9.0	4.25	2.75
V	BMWWW-t	MT20	8.0	9.0	4.25	3.75
W	BS-t	MII16	5.0	15.0		
X	BMWW-t	MT20	5.0	8.0	2.25	2.25
Y	BMWW-t	MT20	6.0	9.0	2.50	2.25
Z	BMWW-t	MT20	5.0	6.0	2.50	1.75
AA	BMV1-t	MT20	6.0	9.0	5.50	

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

HANGERS NOTES

- SPECIAL HANGER(S) OR CONNECTION(S) REQUIRED TO SUPPORT CONCENTRATED LOAD(S) 66.0 lbs FACTORED DOWN AT 1-1-15 ON TOP CHORD, AND 1715.4 lbs FACTORED DOWN AT 22-1-8 ON BOTTOM 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) (PSI)	SHEAR (PLI)	SECTION (PLI)
	MAX	MIN	MAX MIN
MT20	618	354	1667 788
MII16	438	276	2341 1245

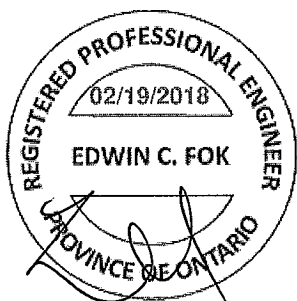
PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

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

JSI METAL= 0.92 (W) (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-18024039(6)

JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB NO.	DRWG NO.																																																																																																																																																																																																							
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1-6-8 0-0-1-1-15 1-6-8-1-1-15 5-11-8 7-1-7 5-9-9 12-11-0 5-9-9 18-8-8 20-5-0 22-1-8 1-8-8 1-8-8 5-9-9 27-11-1 5-9-9 33-8-9 5-11-8 39-8-1 40-10-0 42-4-8 1-1-15 1-6-8 Scale = 1:75.9																																																																																																																																																																																																												
TOTAL WEIGHT = 244 lb																																																																																																																																																																																																												
LUMBER N. L. G. A. RULES CHORDS SIZE LUMBER DESCR. A - C 2x6 DRY No.2 SPF C - F 2x6 DRY 1650F 1.5E SPF F - K 2x6 DRY 1650F 1.5E SPF K - M 2x6 DRY 1650F 1.5E SPF M - O 2x6 DRY No.2 SPF AA- B 2x6 DRY No.2 SPF P - N 2x6 DRY No.2 SPF AA- W 2x6 DRY 2100F 1.8E SPF W - T 2x6 DRY 2100F 1.8E SPF T - P 2x6 DRY 2100F 1.8E SPF ALL WEBS 2x3 DRY No.2 SPF EXCEPT C - Y 2x4 DRY 2100F 1.8E SPF D - X 2x4 DRY No.2 SPF E - V 2x4 DRY No.2 SPF U - J 2x4 DRY No.2 SPF S - L 2x4 DRY No.2 SPF R - M 2x4 DRY 2100F 1.8E SPF DRY: SEASONED LUMBER.			DIMENSIONS, SUPPORTS AND LOADINGS SPECIFIED BY FABRICATOR TO BE VERIFIED BY BUILDING DESIGNER BEARINGS <table> <tr> <th></th><th>FACTORED</th><th>MAXIMUM FACTORED</th><th>INPUT</th><th>REQRD</th></tr> <tr> <th></th><th>GROSS REACTION</th><th>GROSS REACTION</th><th>BRG</th><th>BRG</th></tr> <tr> <td>JT</td><td>VERT</td><td>DOWN</td><td>UPLIFT</td><td>IN-SX</td></tr> <tr> <td>AA</td><td>2721</td><td>0</td><td>2721</td><td>0</td></tr> <tr> <td>P</td><td>5332</td><td>0</td><td>5332</td><td>0</td></tr> </table> UNFACTORED REACTIONS <table> <tr> <th></th><th>1ST LCASE</th><th>MAX/MIN</th><th>COMPONENT REACTIONS</th></tr> <tr> <th></th><th>COMBINED</th><th>SNOW</th><th>LIVE</th></tr> <tr> <td>JT</td><td>1937</td><td>1198 / 0</td><td>0 / 0</td></tr> <tr> <td>AA</td><td>3799</td><td>2332 / 0</td><td>0 / 0</td></tr> </table> BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S) AA, P BEARING SIZE FACTOR = 1.15 AT JNT(S) AA, P (BASED ON SUPPORT DEPTH = 1-8) BRACING TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 3.10 FT. MAX. UNBRACED BOTTOM CHORD LENGTH = 10.00 FT. OR RIGID CEILING DIRECTLY APPLIED. ALL PITCH BREAKS AND PERIMETER CORNER JOINTS MUST BE Laterally RESTRAINED.				FACTORED	MAXIMUM FACTORED	INPUT	REQRD		GROSS REACTION	GROSS REACTION	BRG	BRG	JT	VERT	DOWN	UPLIFT	IN-SX	AA	2721	0	2721	0	P	5332	0	5332	0		1ST LCASE	MAX/MIN	COMPONENT REACTIONS		COMBINED	SNOW	LIVE	JT	1937	1198 / 0	0 / 0	AA	3799	2332 / 0	0 / 0																																																																																																																																																														
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JT	TYPE	PLATES	W	LEN	Y	X																																																																																																																																																																																																						
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E	TMVW-I	MT20	4.0	6.0	2.00	2.50																																																																																																																																																																																																						
F	TS-I	MT20	4.0	9.0																																																																																																																																																																																																								
G	TMVW+I	MT20	2.0	4.0																																																																																																																																																																																																								
H	TMVW-I	MT20	4.0	4.0																																																																																																																																																																																																								
I	TMVW+I	MT20	2.0	4.0																																																																																																																																																																																																								
J	TMVW-I	MT20	4.0	6.0	2.00	2.50																																																																																																																																																																																																						
K	TS-I	MT20	4.0	9.0																																																																																																																																																																																																								
L	TMVW-I	MT20	5.0	6.0	2.50	2.00																																																																																																																																																																																																						
M	TTWW-I	MT20	10.0	20.0	2.75	18.00																																																																																																																																																																																																						
N	TMVW-I	MT20	6.0	9.0	2.00	2.50																																																																																																																																																																																																						
P	BMV1+I	MT20	6.0	9.0	Edge	0.50																																																																																																																																																																																																						
Q	BMVW+I	MT20	4.0	9.0	2.50	1.50																																																																																																																																																																																																						
R	BMVW-I	MT20	10.0	12.0	5.00	5.25																																																																																																																																																																																																						
S	BMVW-I	MT20	5.0	6.0	2.50	2.00																																																																																																																																																																																																						
CHORDS	FACTORED	FACTORED	FACTORED	FACTORED																																																																																																																																																																																																								
MEMB.	FORCE (LBS)	VERT. LOAD (PLF)	MAX. (LC)	MAX. (LC)																																																																																																																																																																																																								
FR-TO																																																																																																																																																																																																												
A-B	0 / 54	-78.0	-78.0	0.09 (1)																																																																																																																																																																																																								
B-C	-1510 / 0	-78.0	-78.0	0.10 (1)																																																																																																																																																																																																								
C-D	-4266 / 0	-78.0	-78.0	0.19 (1)																																																																																																																																																																																																								
D-E	-6723 / 0	-78.0	-78.0	0.28 (1)																																																																																																																																																																																																								
E-F	-8316 / 0	-78.0	-78.0	0.36 (1)																																																																																																																																																																																																								
F-G	-8316 / 0	-78.0	-78.0	0.36 (1)																																																																																																																																																																																																								
G-H	-8316 / 0	-78.0	-78.0	0.23 (1)																																																																																																																																																																																																								
H-I	-8876 / 0	-78.0	-78.0	0.26 (1)																																																																																																																																																																																																								
I-J	-8876 / 0	-78.0	-78.0	0.40 (1)																																																																																																																																																																																																								
J-K	-9172 / 0	-78.0	-78.0	0.43 (1)																																																																																																																																																																																																								
K-L	-9172 / 0	-78.0	-78.0	0.43 (1)																																																																																																																																																																																																								
L-M	-8570 / 0	-153.5	-153.5	0.56 (1)																																																																																																																																																																																																								

JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
292621	H1A	1	1	TRUSS DESC.	

Alpa Roof Truss, Maple

Version 8.200 S Jan 6 2018 MiTek Industries, Inc. Mon Feb 19 14:18:48 2018 Page 2
ID:MF8IiriaTok7DlbpT4B71Xys4PG-ulv?zoPKuxTIJBirVU3FJpr6 k1I?x2PT3HnwcziZPb

PLATES (table is in inches)

JT	TYPE	PLATES	W	LEN	Y	X
T	BS-t	MT18HS	6.0	14.0		
U	BMWWW-t	MT20	5.0	8.0		
V	BMWWW-t	MT20	5.0	8.0		
W	BS-t	MT18HS	6.0	14.0		
X	BMWW-t	MT20	5.0	6.0	2.50	2.00
Y	BMWW-t	MT20	10.0	12.0	5.00	5.25
Z	BMWW-t	MT20	4.0	9.0	2.50	1.50
AA	BMV1-t	MT20	6.0	9.0	5.50	

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) 66.0 lbs FACTORED DOWN AT 38-8-1 ON TOP CHORD, AND 3200.7 lbs FACTORED DOWN AT 33-8-8 ON BOTTOM 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
MT18HS	511 354	2455 1382	3004 2010

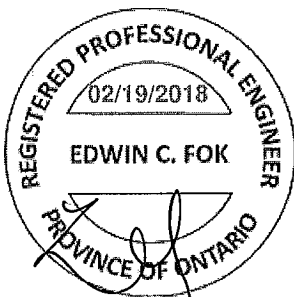
PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

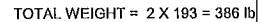
JSI GRIP= 0.90 (V) (INPUT = 0.90)

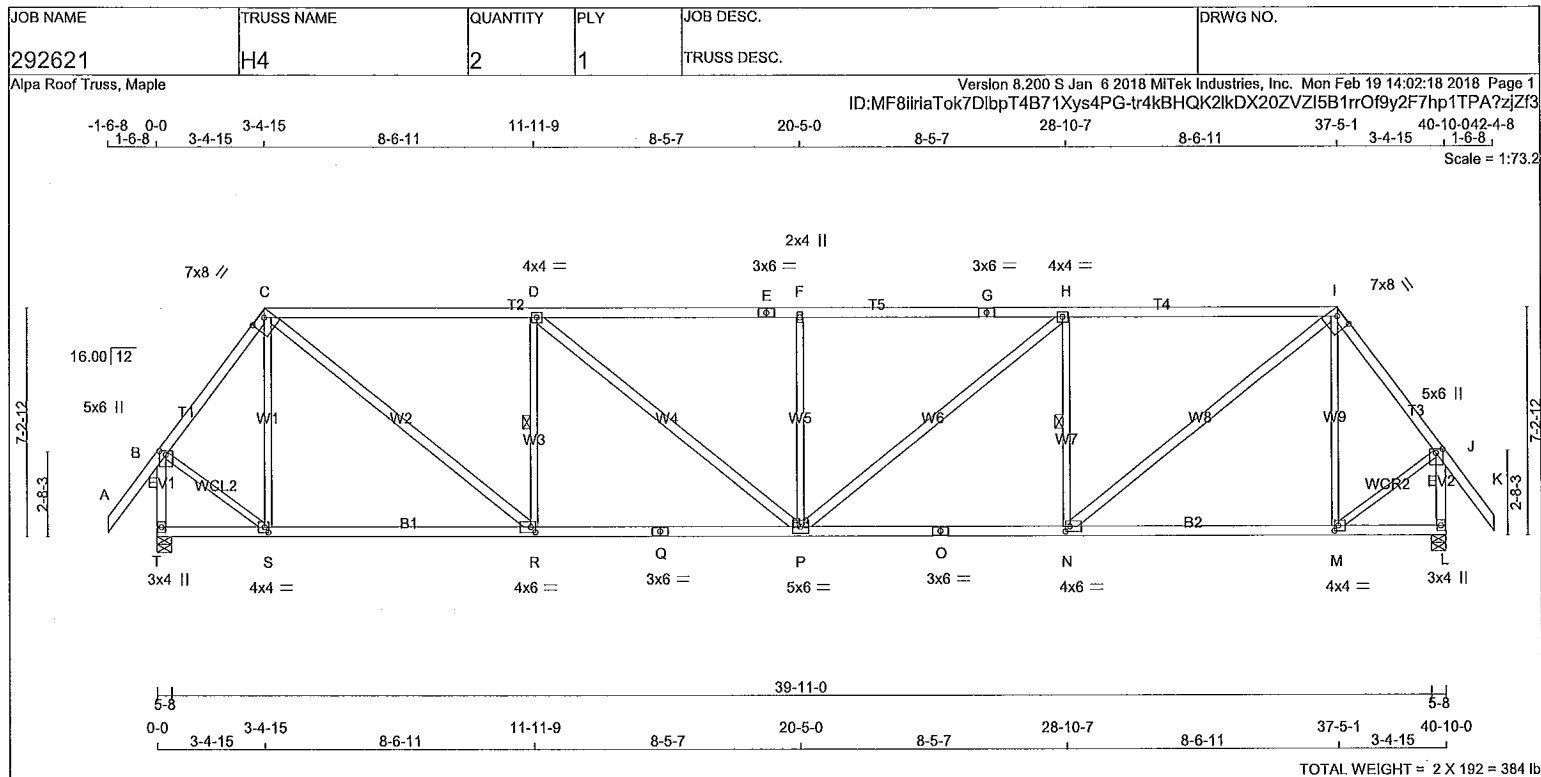
JSI METAL= 1.00 (M) (INPUT = 1.00)

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



A-18024040(v)

A-18024041 CONTINUED ON PAGE 2



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

DRY: SEASONED LUMBER.

PLATES (table is in inches)

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

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

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

BEARINGS		FACTORED		MAXIMUM FACTORED		INPUT		REQRD	
JT	GROSS REACTION	VERT	HORZ	GROSS REACTION	DOWN	HORZ	UPLIFT	BRG	IN-SX
T	2099	0	0	2099	0	0	5-8	3-5	3-5
L	2099	0	0	2099	0	0	5-8	3-5	3-5

UNFACTORED REACTIONS

JT	1ST LCASE	MAX/MIN. COMPONENT REACTIONS	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
T	1494	927 / 0	0 / 0	0 / 0	0 / 0	0 / 0	567 / 0	0 / 0
L	1494	927 / 0	0 / 0	0 / 0	0 / 0	0 / 0	567 / 0	0 / 0

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

BRACING

TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 4.08 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-R, H-N.

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

LOADING

TOTAL LOAD CASES: (4)

CHORDS		FACTORED		W E B S		MAX. FACTORED	
MEMB.	FORCE (LBS)	VERT. LOAD (PLF)	LC1 MAX	MEMB.	FORCE (LBS)	MAX	CSI (LC)
FR-TO		FROM	TO	FR-TO			
A-B	0 / 52	-78.0	-78.0 0.15 (1)	10.00	S-C	-464 / 0	0.43 (1)
B-C	-1534 / 0	-78.0	-78.0 0.21 (1)	5.11	C-R	0 / 2049	0.33 (1)
C-D	-2503 / 0	-78.0	-78.0 0.78 (1)	4.40	R-D	-1124 / 0	0.37 (1)
D-E	-2967 / 0	-78.0	-78.0 0.84 (1)	4.08	D-P	0 / 601	0.10 (1)
E-F	-2967 / 0	-78.0	-78.0 0.84 (1)	4.08	P-F	-609 / 0	0.56 (1)
F-G	-2967 / 0	-78.0	-78.0 0.84 (1)	4.08	P-H	0 / 601	0.10 (1)
G-H	-2967 / 0	-78.0	-78.0 0.84 (1)	4.08	N-H	-1124 / 0	0.37 (1)
H-I	-2503 / 0	-78.0	-78.0 0.78 (1)	4.40	N-I	0 / 2049	0.33 (1)
I-J	-1534 / 0	-78.0	-78.0 0.21 (1)	5.11	M-I	-464 / 0	0.43 (1)
J-K	0 / 52	-78.0	-78.0 0.15 (1)	10.00	B-S	0 / 1092	0.25 (1)
T-B	-2091 / 0	0.0	0.0 0.30 (1)	5.86	M-J	0 / 1092	0.25 (1)
L-J	-2091 / 0	0.0	0.0 0.30 (1)	5.86			

T-S	0 / 0	-18.5	-18.5 0.20 (4)	10.00
S-R	0 / 907	-18.5	-18.5 0.36 (4)	10.00
R-Q	0 / 2503	-18.5	-18.5 0.55 (1)	10.00
Q-P	0 / 2503	-18.5	-18.5 0.55 (1)	10.00
P-O	0 / 2503	-18.5	-18.5 0.55 (1)	10.00
O-N	0 / 2503	-18.5	-18.5 0.55 (1)	10.00
N-M	0 / 907	-18.5	-18.5 0.36 (4)	10.00
M-L	0 / 0	-18.5	-18.5 0.20 (4)	10.00

DESIGN CRITERIA

SPECIFIED LOADS:

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

SPACING = 24.0 IN. C/C

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

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

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

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

ALLOWABLE DEFL.(LL) = L/360 (1.36")
CALCULATED VERT. DEFL.(LL) = L/999 (0.15")
ALLOWABLE DEFL.(TL) = L/360 (1.36")
CALCULATED VERT. DEFL.(TL) = L/999 (0.31")

CSI: TC=0.84/1.00 (D-F:1), BC=0.55/1.00 (N-P:1), WB=0.56/1.00 (F-P:1), SSI=0.31/1.00 (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.

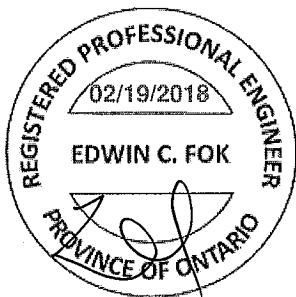
NAIL VALUES

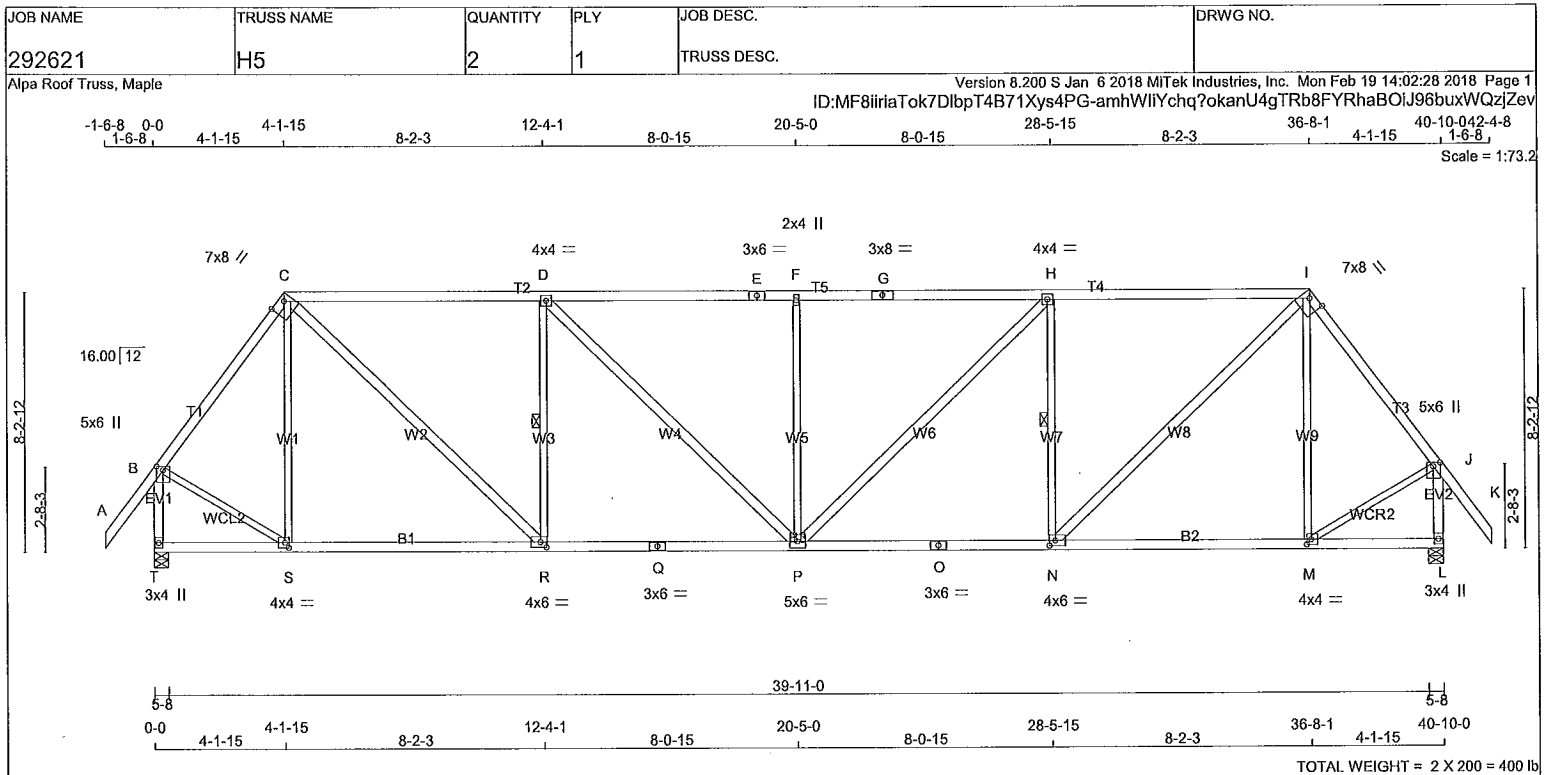
PLATE	GRIP(DRY)	SHEAR	SECTION
(PSI)	(PLI)	(PLI)	(PLI)
MAX	MIN	MAX	MIN
MT20	618	354	1667
	788	1987	1656

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.90 (I) (INPUT = 0.90)
JSI METAL= 0.87 (O) (INPUT = 1.00)





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

DRY: SEASONED LUMBER.

PLATES (table is in inches)

JT	TYPE	PLATES	W	LEN	Y	X
B	TMVW+p	MT20	5.0	6.0	1.50	2.50
C	TTWW-h	MT20	7.0	8.0	2.00	5.25
D	TMVW-t	MT20	4.0	4.0		
E	TS-t	MT20	3.0	6.0		
F	TMVW+w	MT20	2.0	4.0		
G	TS-t	MT20	3.0	8.0		
H	TMVW-t	MT20	4.0	4.0		
I	TTWW-h	MT20	7.0	8.0	2.00	5.25
J	TMVW+p	MT20	5.0	6.0	1.50	2.50
L	BMV1+p	MT20	3.0	4.0		
M	BMVW-t	MT20	4.0	4.0	2.00	1.50
N	BMVW-t	MT20	4.0	6.0	2.00	2.25
O	BS-t	MT20	3.0	6.0		
P	BMVWW-t	MT20	5.0	6.0		
Q	BS-t	MT20	3.0	6.0		
R	BMVW-t	MT20	4.0	6.0	2.00	2.25
S	BMVW-t	MT20	4.0	4.0	2.00	1.50
T	BMV1+p	MT20	3.0	4.0		

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

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

BEARINGS

JT	FACTORED GROSS REACTION		MAXIMUM FACTORED GROSS REACTION		INPUT BRG		REQRD BRG	
	VERT	HORZ	DOWN	HORZ	UPLIFT	IN-SX	IN-SX	
T	2099	0	2099	0	0	5-8	3-5	
L	2099	0	2099	0	0	5-8	3-5	

UNFACTORED REACTIONS

JT	1ST LCASE COMBINED		MAX./MIN. SNOW		LIVE		PERM.LIVE		WIND		DEAD		SOIL	
	T	L	1494	927 / 0	0 / 0	0 / 0	0 / 0	0 / 0	567 / 0	0 / 0	567 / 0	0 / 0	0 / 0	0 / 0

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

BRACING

TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 3.81 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-R, H-N.

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

LOADING

TOTAL LOAD CASES: (4)

CHORDS		FACTORED		WEBS		FACTORED	
MEMB.	FORCE (LBS)	VERT. LOAD (PLF)	LC1 MAX (PLF)	MEMB.	FORCE (LBS)	MAX. FACTORED (LBS)	MAX. UNBRACED LENGTH (FT)
FR-TO				FR-TO			
A-B	0 / 52	-78.0	-78.0 0.15 (1)	10.00	S-C	-380 / 0	0.50 (1)
B-C	-1590 / 0	-78.0	-78.0 0.32 (1)	4.94	C-R	0 / 1771	0.28 (1)
C-D	-2218 / 0	-78.0	-78.0 0.88 (1)	4.09	R-D	-1075 / 0	0.46 (1)
D-E	-2588 / 0	-78.0	-78.0 0.94 (1)	3.81	D-P	0 / 519	0.08 (1)
E-F	-2588 / 0	-78.0	-78.0 0.94 (1)	3.81	P-F	-581 / 0	0.77 (1)
F-G	-2588 / 0	-78.0	-78.0 0.94 (1)	3.81	P-H	0 / 519	0.08 (1)
G-H	-2588 / 0	-78.0	-78.0 0.94 (1)	3.81	N-H	-1075 / 0	0.46 (1)
H-I	-2218 / 0	-78.0	-78.0 0.88 (1)	4.09	N-I	0 / 1771	0.28 (1)
I-J	-1590 / 0	-78.0	-78.0 0.32 (1)	4.94	M-I	-380 / 0	0.50 (1)
J-K	0 / 52	-78.0	-78.0 0.15 (1)	10.00	B-S	0 / 1077	0.24 (1)
T-B	-2078 / 0	0.0	0.0 0.30 (1)	5.87	M-J	0 / 1077	0.24 (1)
L-J	-2078 / 0	0.0	0.0 0.30 (1)	5.87			

T-S	0 / 0	-18.5	-18.5 0.18 (4)	10.00
S-R	0 / 944	-18.5	-18.5 0.34 (4)	10.00
R-Q	0 / 2218	-18.5	-18.5 0.49 (1)	10.00
Q-P	0 / 2218	-18.5	-18.5 0.49 (1)	10.00
P-O	0 / 2218	-18.5	-18.5 0.49 (1)	10.00
O-N	0 / 2218	-18.5	-18.5 0.49 (1)	10.00
N-M	0 / 944	-18.5	-18.5 0.34 (4)	10.00
M-L	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.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 21.0 P.S.F. SPECIFIED ROOF LIVE LOAD

ALLOWABLE DEFL.(LL)= L/360 (1.36")
CALCULATED VERT. DEFL.(LL) = L/999 (0.13")
ALLOWABLE DEFL.(TL)= L/360 (1.36")
CALCULATED VERT. DEFL.(TL) = L/999 (0.27")

CSI: TC=0.94/1.00 (F-H:1), BC=0.49/1.00 (N-P:1), WB=0.77/1.00 (F-P:1), SS=0.30/1.00 (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.

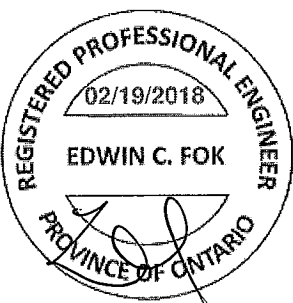
NAIL VALUES

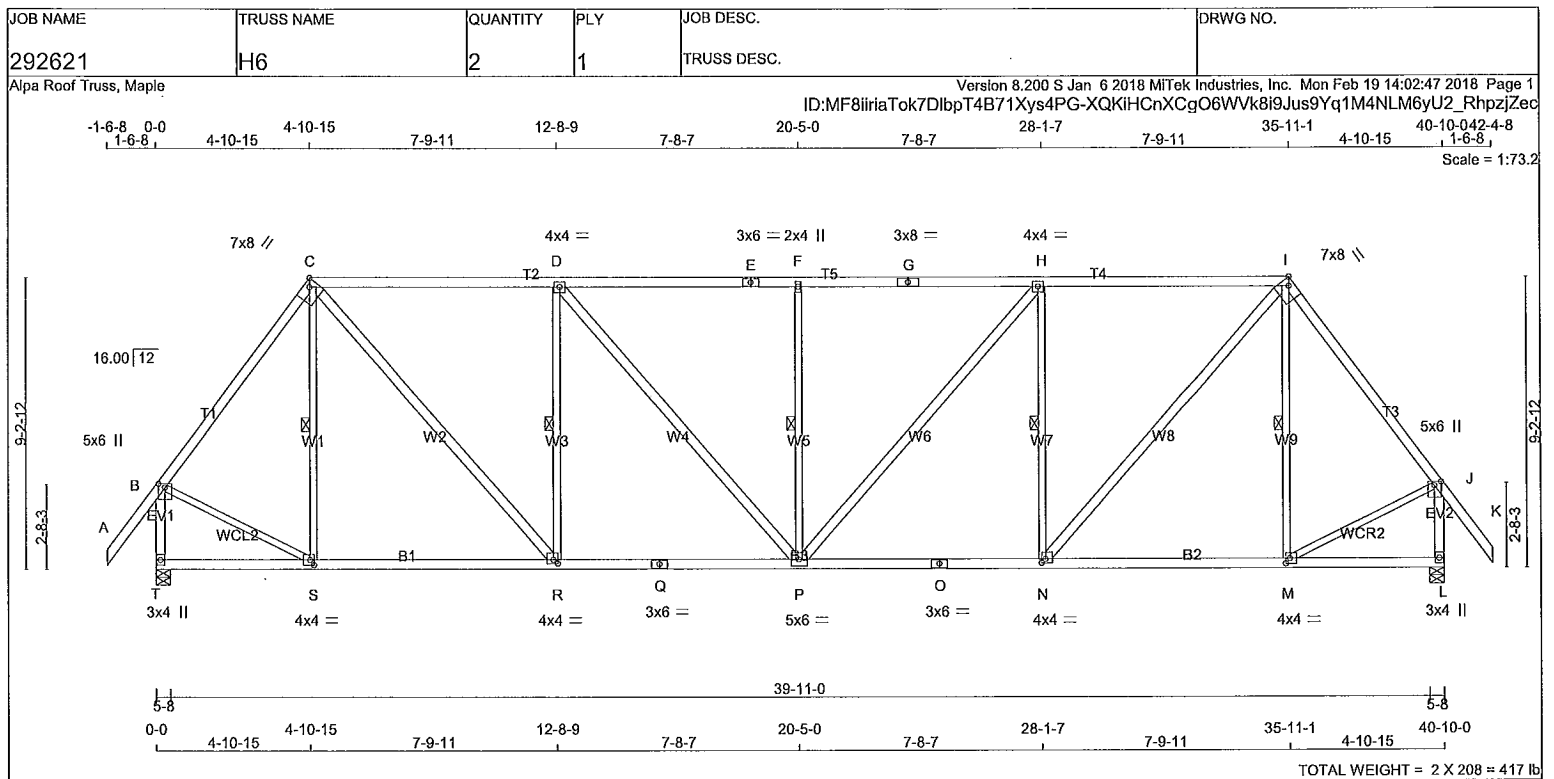
PLATE	GRIP(DRY)	SHEAR	SECTION
(PSI)	(PLI)	(PLI)	(PLI)
MT20	618	354	1667

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.90 (N) (INPUT = 0.90)
JSI METAL= 0.77 (O) (INPUT = 1.00)





TOTAL WEIGHT = 2 X 208 = 417 lb

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

DRY: SEASONED LUMBER.

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

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



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

BEARINGS					
FACTORED		MAXIMUM FACTORED		INPUT	
GROSS REACTION		GROSS REACTION		BRG	REQRD
JT	VERT	JT	HORZ	BRG	IN-SX
T	2099	0	2099	0	5-8
L	2099	0	2099	0	5-8

UNFACTORED REACTIONS						
1ST LCASE	MAX/MIN	COMPONENT	REACTIONS			
JT	COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD
T	1494	927 / 0	0 / 0	0 / 0	0 / 0	567 / 0
L	1494	927 / 0	0 / 0	0 / 0	0 / 0	567 / 0

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

BRACING
TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 4.17 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-S, D-R, F-P, H-N, I-M.

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)	FACTORED VERT. LOAD (PLF)	MAX. FACTORED VERT. LOAD (LC1)	MEMB.	MAX. FACTORED FORCE (LBS)	MAX. FACTORED VERT. LOAD (LC1)	
FR-TO		FROM TO	CS (LC)	FR-TO		FROM TO	CS (LC)
A-B	0 / 52	-78.0	-78.0 0.15 (1)	S-C	-313 / 0	0.17 (1)	
B-C	-1625 / 0	-78.0	-78.0 0.49 (1)	C-R	0 / 1559	0.25 (1)	
C-D	-1995 / 0	-78.0	-78.0 0.75 (1)	R-D	-1026 / 0	0.57 (1)	
D-E	-2294 / 0	-78.0	-78.0 0.78 (1)	D-P	0 / 457	0.07 (1)	
E-F	-2294 / 0	-78.0	-78.0 0.78 (1)	P-F	-554 / 0	0.31 (1)	
F-G	-2294 / 0	-78.0	-78.0 0.78 (1)	P-H	0 / 457	0.07 (1)	
G-H	-2294 / 0	-78.0	-78.0 0.78 (1)	N-H	-1026 / 0	0.57 (1)	
H-I	-1995 / 0	-78.0	-78.0 0.75 (1)	N-I	0 / 1559	0.25 (1)	
I-J	-1625 / 0	-78.0	-78.0 0.49 (1)	M-I	-313 / 0	0.17 (1)	
J-K	0 / 52	-78.0	-78.0 0.15 (1)	B-S	0 / 1067	0.24 (1)	
T-B	-2068 / 0	0.0	0.0 0.30 (1)	M-J	0 / 1067	0.24 (1)	
L-J	-2068 / 0	0.0	0.0 0.30 (1)				
T-S	0 / 0	-18.5	-18.5 0.18 (4)				
S-R	0 / 967	-18.5	-18.5 0.32 (4)				
R-Q	0 / 1996	-18.5	-18.5 0.45 (1)				
Q-P	0 / 1996	-18.5	-18.5 0.45 (1)				
P-O	0 / 1996	-18.5	-18.5 0.45 (1)				
O-N	0 / 1996	-18.5	-18.5 0.45 (1)				
N-M	0 / 967	-18.5	-18.5 0.32 (4)				
M-L	0 / 0	-18.5	-18.5 0.18 (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 (1.36")
CALCULATED VERT. DEFL.(LL) = L/999 (0.11")
ALLOWABLE DEFL.(TL) = L/360 (1.36")
CALCULATED VERT. DEFL.(TL) = L/999 (0.23")

CSI: TC=0.78/1.00 (D-F:1), BC=0.45/1.00 (N-P:1), WB=0.57/1.00 (D-R: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

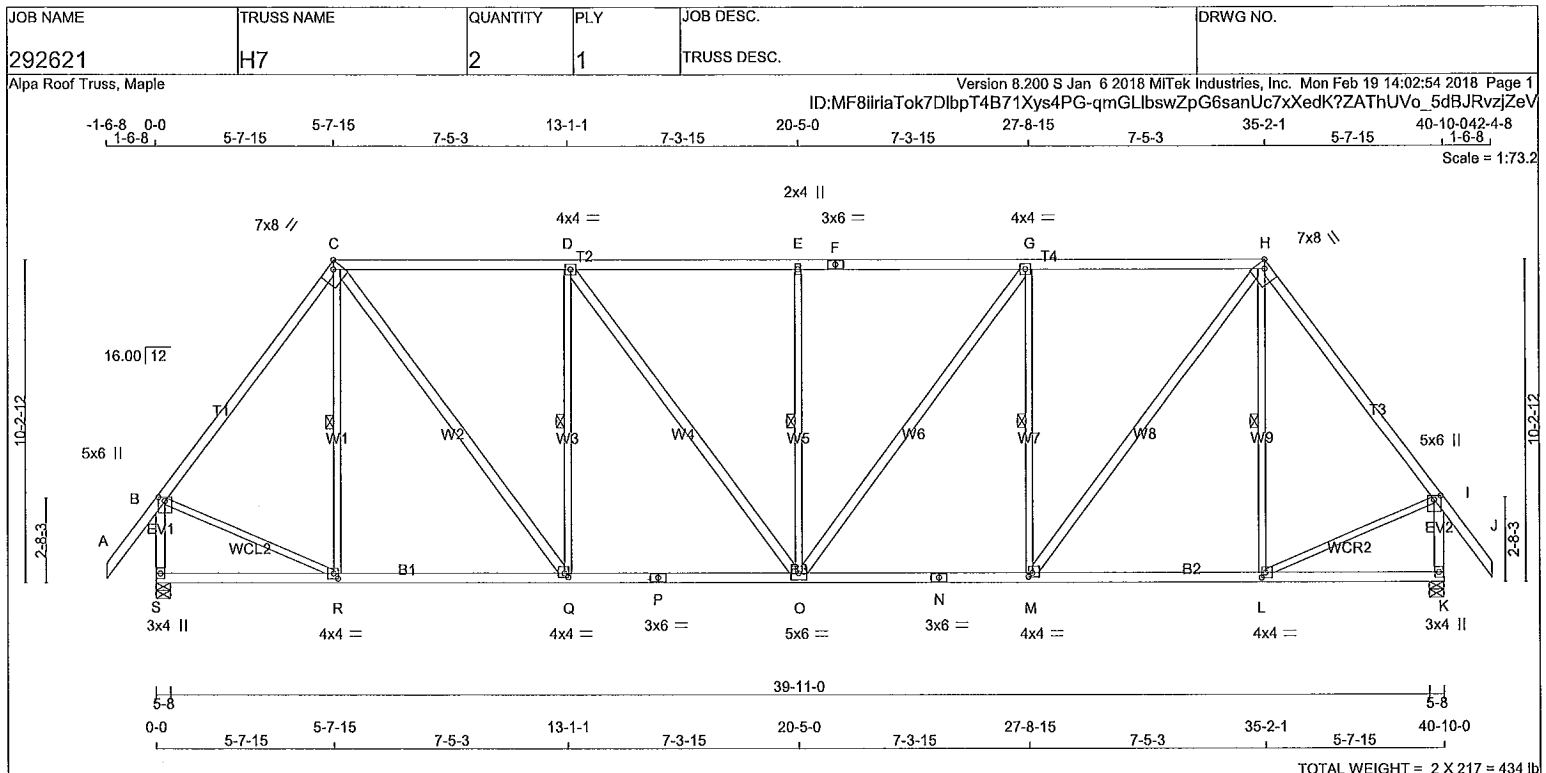
TRUSS PLATE MANUFACTURER IS NOT RESPONSIBLE FOR QUALITY CONTROL IN THE TRUSS MANUFACTURING PLANT.

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

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.87 (R) (INPUT = 0.90)
JSI METAL= 0.69 (O) (INPUT = 1.00)



TOTAL WEIGHT = 2 X 217 = 434 lb [M]

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

DRY: SEASONED LUMBER.

PLATES (table ts in inches)					
JT	TYPE	PLATES	W	LEN	Y X
B	TMVW+p	MT20	5.0	6.0	1.50 2.50
C	TTWW-h	MT20	7.0	8.0	Edge 2.75
D	TMWW-t	MT20	4.0	4.0	
E	TMW+w	MT20	2.0	4.0	
F	TS-t	MT20	3.0	6.0	
G	TMWW-t	MT20	4.0	4.0	
H	TTWW-h	MT20	7.0	8.0	Edge 2.75
I	TMVW+p	MT20	5.0	6.0	1.50 2.50
K	BMV1+p	MT20	3.0	4.0	
L	BMWW-t	MT20	4.0	4.0	2.00 1.50
N	BMWW-t	MT20	4.0	4.0	1.50 1.50
O	BS-t	MT20	3.0	6.0	
P	BMWW-t	MT20	5.0	6.0	
Q	BS-t	MT20	3.0	6.0	
R	BMWW-t	MT20	4.0	4.0	1.50 1.50
S	BMV1+p	MT20	4.0	4.0	2.00 1.50
S	BMV1+p	MT20	3.0	4.0	

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

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

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

BEARINGS

	FACTORED GROSS REACTION	MAXIMUM FACTORED GROSS REACTION	INPUT BRG	REQRD BRG
JT	VERT	HORZ	UPLIFT	IN-SX
S	2099	0	0	5-8
K	2099	0	0	5-8

UNFACTORED REACTIONS

JT	1ST LCASE COMBINED	MAX/MIN. SNOW	MAX/MIN. LIVE	MAX/MIN. PERM.LIVE	WIND	DEAD	SOIL
S	1494	927 / 0	0 / 0	0 / 0	0 / 0	567 / 0	0 / 0
K	1494	927 / 0	0 / 0	0 / 0	0 / 0	567 / 0	0 / 0

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

BRACING

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

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

1 LATERAL BRACE(S) AT 1/2 LENGTH OF C-R, D-Q, E-O, G-M, H-L.

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

LOADING

TOTAL LOAD CASES: (4)

CHORDS				WEBS			
MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	MAX LC1 (L/C)	MEMB.	MAX. FACTORED FORCE (LBS)	MAX UNBRACED LENGTH	MAX LC1 (L/C)
FR-TO		FROM	TO	FR-TO			
A-B	0 / 52	-78.0	-78.0 0.15 (1)	10.00	R-C	-257 / 0	0.18 (1)
B-C	-1644 / 0	-78.0	-78.0 0.73 (1)	4.54	C-Q	0 / 1393	0.22 (1)
C-D	-1816 / 0	-78.0	-78.0 0.85 (1)	3.91	Q-D	-976 / 0	0.70 (1)
D-E	-2059 / 0	-78.0	-78.0 0.89 (1)	3.67	D-O	0 / 409	0.07 (1)
E-F	-2059 / 0	-78.0	-78.0 0.89 (1)	3.67	O-E	-527 / 0	0.38 (1)
F-G	-2059 / 0	-78.0	-78.0 0.89 (1)	3.67	O-G	0 / 409	0.07 (1)
G-H	-1816 / 0	-78.0	-78.0 0.85 (1)	3.91	M-G	-976 / 0	0.70 (1)
H-I	-1644 / 0	-78.0	-78.0 0.73 (1)	4.54	M-H	0 / 1393	0.22 (1)
I-J	0 / 52	-78.0	-78.0 0.15 (1)	10.00	L-H	-257 / 0	0.18 (1)
S-B	-2059 / 0	0.0	0.0 0.30 (1)	5.89	B-R	0 / 1057	0.24 (1)
K-I	-2059 / 0	0.0	0.0 0.30 (1)	5.89	L-I	0 / 1057	0.24 (1)
S-R	0 / 0	-18.5	-18.5 0.18 (4)	10.00			
R-Q	0 / 980	-18.5	-18.5 0.29 (4)	10.00			
Q-P	0 / 1816	-18.5	-18.5 0.40 (1)	10.00			
P-O	0 / 1816	-18.5	-18.5 0.40 (1)	10.00			
O-N	0 / 1816	-18.5	-18.5 0.40 (1)	10.00			
N-M	0 / 1816	-18.5	-18.5 0.40 (1)	10.00			
M-L	0 / 980	-18.5	-18.5 0.29 (4)	10.00			
L-K	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.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 21.0 P.S.F. SPECIFIED ROOF LIVE LOAD

ALLOWABLE DEFL.(LL)= L/360 (1.36")
CALCULATED VERT. DEFL.(LL) = L/999 (0.10")
ALLOWABLE DEFL.(TL)= L/360 (1.36")
CALCULATED VERT. DEFL.(TL) = L/999 (0.21")

CSI: TC=0.89/1.00 (E-G:1), BC=0.40/1.00 (O-Q:1), WB=0.70/1.00 (D-Q:1), SSI=0.27/1.00 (C-D:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

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

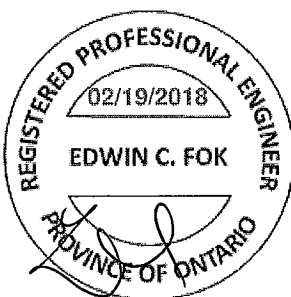
NAIL VALUES

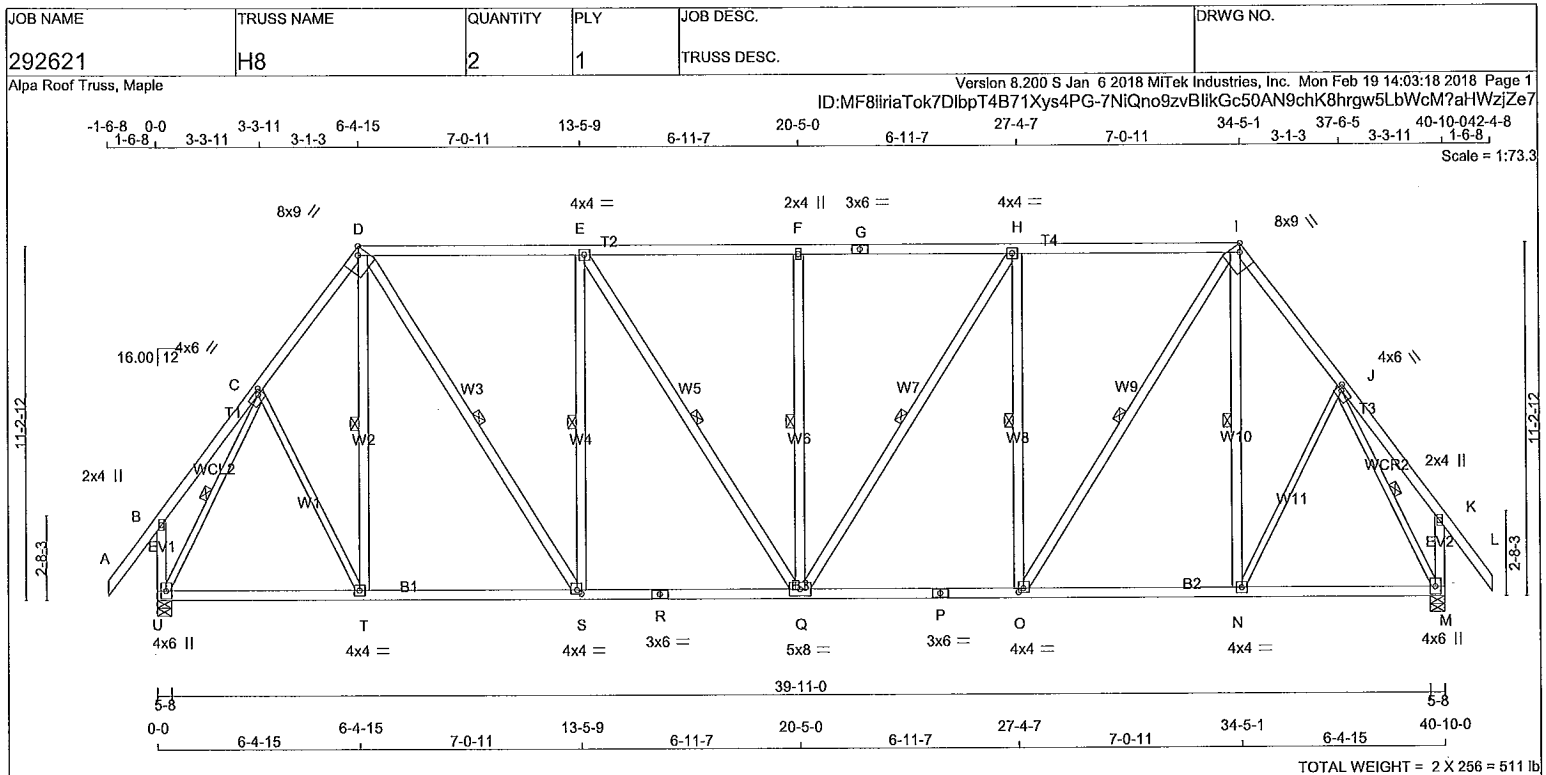
PLATE	GRIP(DRY) (PSI)	SHEAR (PLI)	SECTION (PLI)
MT20	618	354	1687

PLATE PLACEMENT TOL. = 0.250 Inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.86 (K) (INPUT = 0.90)
JSI METAL= 0.62 (N) (INPUT = 1.00)





LUMBER
N. L. G. A. RULES

CHORDS	SIZE	LUMBER	DESCR.
A - D	2x4	DRY	No.2
D - G	2x4	DRY	No.2
G - I	2x4	DRY	No.2
I - L	2x4	DRY	No.2
U - B	2x4	DRY	No.2
M - K	2x4	DRY	No.2
U - R	2x4	DRY	No.2
R - P	2x4	DRY	No.2
P - M	2x4	DRY	No.2
ALL WEBS EXCEPT	2x4	DRY	No.2
C - T	2x3	DRY	No.2
N - J	2x3	DRY	No.2
U - C	2x3	DRY	No.2
J - M	2x3	DRY	No.2

DRY: SEASONED LUMBER.

PLATES (table is in inches)

JT	TYPE	PLATES	W	LEN	Y	X
B	TMV+p	MT20	2.0	4.0		
C	TMVW-t	MT20	4.0	6.0	1.50	1.75
D	TTWW-h	MT20	8.0	9.0	Edge	2.75
E	TMVW-t	MT20	4.0	4.0		
F	TMVW-w	MT20	2.0	4.0		
G	TS-t	MT20	3.0	6.0		
H	TMVW-t	MT20	4.0	4.0		
I	TTWW-h	MT20	8.0	9.0	Edge	2.75
J	TMVW-t	MT20	4.0	6.0	1.50	1.75
K	TMV+p	MT20	2.0	4.0		
M	BMVW1+p	MT20	4.0	6.0		
N	BMVW-t	MT20	4.0	4.0		
O	BMVW-t	MT20	4.0	4.0	1.50	1.75
P	BS-t	MT20	3.0	6.0		
Q	BMVW-t	MT20	5.0	8.0		
R	BS-t	MT20	3.0	6.0		
S	BMVW-t	MT20	4.0	4.0	1.50	1.75
T	BMVW-t	MT20	4.0	4.0		
U	BMVW1+p	MT20	4.0	6.0		

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

JT	FACTORED GROSS REACTION		MAXIMUM FACTORED GROSS REACTION		INPUT BRG	REQRD BRG
	VERT	HORZ	DOWN	HORZ		
U	2099	0	2099	0	5-8	2-4
M	2099	0	2099	0	5-8	2-4

UNFACTORED REACTIONS

JT	1ST LCASE COMBINED		MAX/MIN. COMPONENT REACTIONS		WIND	DEAD	SOIL
	SNOW	LIVE	PERM. LIVE	WIND			
U	1494	927 / 0	0 / 0	0 / 0	0 / 0	567 / 0	0 / 0
M	1494	927 / 0	0 / 0	0 / 0	0 / 0	567 / 0	0 / 0

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

BRACING

TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 4.02 FT.
MAX. UNBRACED BOTTOM CHORD LENGTH = 10.00 FT. OR RIGID CEILING DIRECTLY APPLIED.

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

1 LATERAL BRACE(S) AT 1/2 LENGTH OF D-T, D-S, E-S, E-Q, F-Q, H-Q, H-O, I-O, I-N, C-U, J-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					WEBS				
MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	LC1	MAX. CSI (I/C)	MAX. UNBRACED LENGTH	MEMB.	MAX. FACTORED FORCE (LBS)	MAX. CSI (I/C)	
FR-TO		FROM	TO			FR-TO			
A-B	0 / 52	-78.0	-78.0	0.15 (1)	10.00	C-T	0 / 220	0.05 (1)	
B-C	0 / 21	-78.0	-78.0	0.11 (1)	10.00	T-D	-55 / 53	0.04 (1)	
C-D	-1676 / 0	-78.0	-78.0	0.17 (1)	4.99	D-S	0 / 1256	0.20 (1)	
D-E	-1668 / 0	-78.0	-78.0	0.73 (1)	4.23	S-E	-927 / 0	0.61 (1)	
E-F	-1868 / 0	-78.0	-78.0	0.75 (1)	4.02	E-Q	0 / 372	0.06 (1)	
F-G	-1868 / 0	-78.0	-78.0	0.75 (1)	4.02	Q-F	-499 / 0	0.33 (1)	
G-H	-1868 / 0	-78.0	-78.0	0.75 (1)	4.02	Q-H	0 / 372	0.06 (1)	
H-I	-1668 / 0	-78.0	-78.0	0.73 (1)	4.23	O-H	-927 / 0	0.61 (1)	
I-J	-1676 / 0	-78.0	-78.0	0.17 (1)	4.99	O-I	0 / 1256	0.20 (1)	
J-K	0 / 21	-78.0	-78.0	0.11 (1)	10.00	N-I	-55 / 53	0.04 (1)	
K-L	0 / 52	-78.0	-78.0	0.15 (1)	10.00	N-J	0 / 220	0.05 (1)	
U-B	-225 / 0	0.0	0.0	0.03 (1)	7.81	U-C	-2028 / 0	0.71 (1)	
M-K	-225 / 0	0.0	0.0	0.03 (1)	7.81	J-M	-2028 / 0	0.71 (1)	
U-T	0 / 884	-18.5	-18.5	0.28 (4)	10.00				
T-S	0 / 986	-18.5	-18.5	0.30 (4)	10.00				
S-R	0 / 1669	-18.5	-18.5	0.36 (1)	10.00				
R-Q	0 / 1669	-18.5	-18.5	0.36 (1)	10.00				
Q-P	0 / 1669	-18.5	-18.5	0.36 (1)	10.00				
P-O	0 / 1669	-18.5	-18.5	0.36 (1)	10.00				
O-N	0 / 986	-18.5	-18.5	0.30 (4)	10.00				
N-M	0 / 884	-18.5	-18.5	0.28 (4)	10.00				

DESIGN CRITERIA

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

SPACING = 24.0 IN. C/C

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

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

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

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

ALLOWABLE DEFL.(LL) = L/360 (1.36")
CALCULATED VERT. DEFL.(LL) = L/999 (0.09")
ALLOWABLE DEFL.(TL) = L/360 (1.36")
CALCULATED VERT. DEFL.(TL) = L/999 (0.19")

CSI: TC=0.75/1.00 (F-H:1), BC=0.36/1.00 (O-Q:1), WB=0.71/1.00 (J-M:1), SSI=0.26/1.00 (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

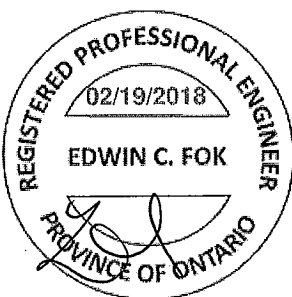
TRUSS PLATE MANUFACTURER IS NOT RESPONSIBLE FOR QUALITY CONTROL IN THE TRUSS MANUFACTURING PLANT.

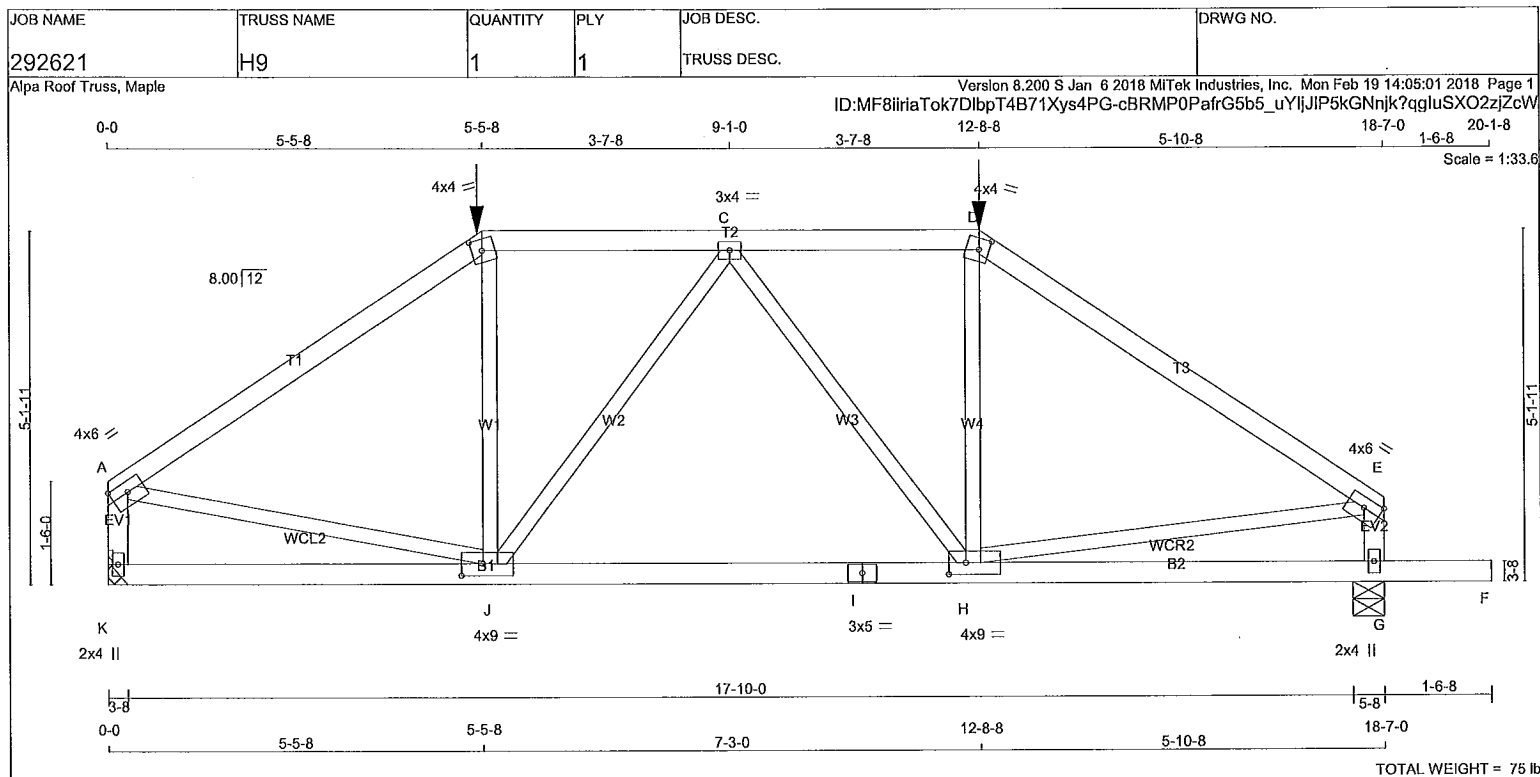
NAIL VALUES
PLATE GRIP(DRY) SHEAR SECTION
(PSI) (PLI) (PLI)
MAX MIN MAX MIN MAX MIN
MT20 618 354 1667 788 1987 1656

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

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





LUMBER
N. L. G. A. RULES

CHORDS	SIZE	LUMBER	DESCR.
A - B	2x4	DRY	No.2
B - D	2x4	DRY	No.2
D - E	2x4	DRY	No.2
K - A	2x4	DRY	No.2
G - E	2x4	DRY	No.2
K - I	2x4	DRY	No.2
I - F	2x4	DRY	No.2

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

PLATES (table is in inches)						
JT	TYPE	PLATES	W	LEN	Y	X
A	TMVW-t	MT20	4.0	6.0	1.75	Edge
B	TTW-m	MT20	4.0	4.0	2.00	1.75
C	TMVW-t	MT20	3.0	4.0		
D	TTW-m	MT20	4.0	4.0	2.00	1.75
E	TMVW-t	MT20	4.0	6.0	1.75	Edge
G	BMV1+p	MT20	2.0	4.0		
H	BMWWW-t	MT20	4.0	9.0	2.00	3.00
I	BS-t	MT20	3.0	5.0		
J	BMWWW-t	MT20	4.0	9.0	2.00	3.75
K	BMV1+p	MT20	2.0	4.0		

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

HANGERS NOTES

- SPECIAL HANGER(S) OR CONNECTION(S) REQUIRED TO SUPPORT CONCENTRATED LOAD(S) 334.0 lbs FACTORED DOWN AT 12-8-8, AND 310.3 lbs FACTORED DOWN AT 5-5-8 ON TOP CHORD. DESIGN FOR UNSPECIFIED CONNECTION(S) IS DELEGATED TO THE BUILDING DESIGNER.

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

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

BEARINGS

JT	FACTORED GROSS REACTION		MAXIMUM FACTORED GROSS REACTION		INPUT BRG	REQD BRG
	VERT	HORZ	DOWN	HORZ		
K	1668	0	1668	0	0	5-8
G	1799	0	1799	0	0	2-11

UNFACTORED REACTIONS

JT	1ST LCASE COMBINED		MAX/MIN. LIVE		PERM. LIVE	WIND	DEAD	SOIL
	SNOW	REACT	REACT	REACT				
K	1191	716 / 0	0 / 0	0 / 0	0 / 0	0 / 0	475 / 0	0 / 0
G	1285	771 / 0	0 / 0	0 / 0	0 / 0	0 / 0	514 / 0	0 / 0

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

BRACING

TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 3.98 FT.
MAX. UNBRACED BOTTOM CHORD LENGTH = 10.00 FT. OR RIGID CEILING DIRECTLY APPLIED.

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

LOADING

TOTAL LOAD CASES: (4)

CHORDS				WEBS			
MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	MAX. FACTORED LC1 MAX. CSI (LC)	MAX. UNBRACED LENGTH	MEMB.	MAX. FACTORED FORCE (LBS)	MAX. FACTORED LC1 MAX. CSI (LC)
FR-TO		FROM TO			FR-TO		
A-B	-1883 / 0	-78.0 -78.0	0.59 (1)	4.21	J-B	0 / 304	0.09 (4)
B-C	-1575 / 0	-153.5 -153.5	0.40 (1)	4.72	J-C	-470 / 0	0.30 (1)
C-D	-1641 / 0	-153.5 -153.5	0.40 (1)	4.64	C-H	-358 / 0	0.23 (1)
D-E	-1962 / 0	-78.0 -78.0	0.72 (1)	3.98	H-D	0 / 308	0.10 (4)
K-A	-1588 / 0	0.0 0.0	0.18 (1)	6.51	A-J	0 / 1599	0.40 (1)
G-E	-1564 / 0	0.0 0.0	0.17 (1)	6.55	H-E	0 / 1649	0.41 (1)
K-J	0 / 0	-36.4 -36.4	0.36 (4)	10.00			
J-I	0 / 1848	-36.4 -36.4	0.57 (4)	10.00			
I-H	0 / 1848	-36.4 -36.4	0.57 (4)	10.00			
H-G	0 / 0	-36.4 -36.4	0.39 (4)	10.00			
G-F	0 / 0	-96.5 -96.5	0.17 (1)	10.00			

FACTORED CONCENTRATED LOADS (LBS)

JT	LOC.	LC1	MAX-	MAX+	FACE	DIR.	TYPE
B	5-5-8	-310	-310	---	FRONT	VERT	TOTAL
D	12-8-8	-334	-334	---	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 = 5-5-8
RIGHT SETBACK = 5-10-8
END SETBACK = 5-10-8
END WALL WIDTH = 0-0
CORNER FRAMING TYPE: CONVENTIONAL
END JACK TYPE: CONVENTIONAL
APPLIED TO FRONT SIDE
- ADDTL LOADS BASED ON 55 % OF GSL.

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

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

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

ALLOWABLE DEFL.(LL)= L/360 (0.62")
CALCULATED VERT. DEFL.(LL)= L/999 (0.04")
ALLOWABLE DEFL.(TL)= L/360 (0.62")
CALCULATED VERT. DEFL.(TL)= L/999 (0.13")

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")

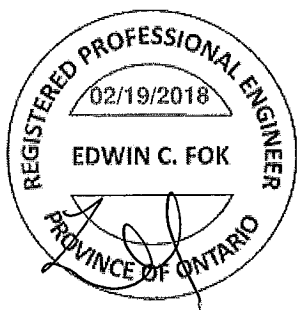
CSI: TC=0.72/1.00 (D-E:1), BC=0.57/1.00 (H-J:4), WB=0.41/1.00 (E-H:1), SSI=0.29/1.00 (B-C:1)

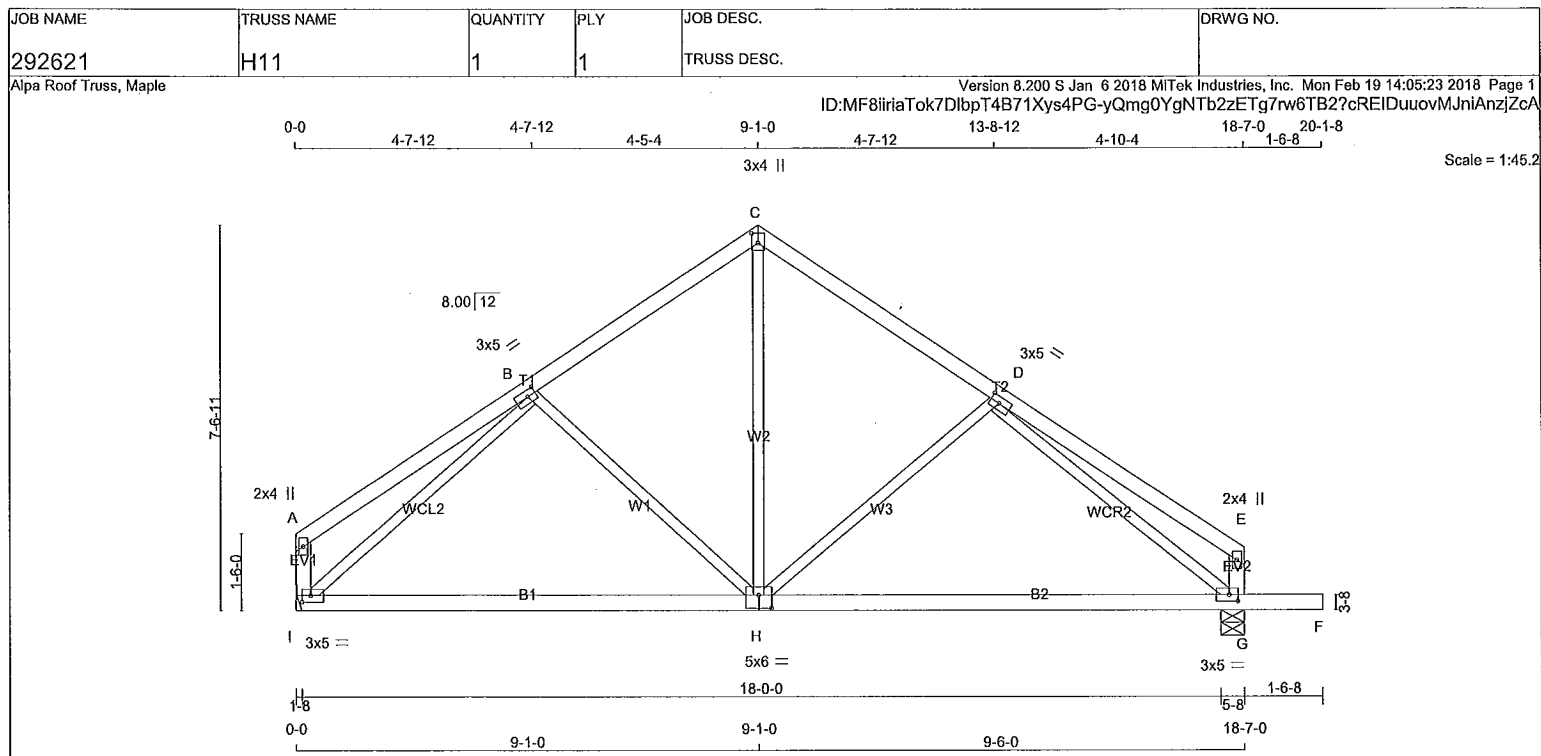
DOL LUMBER=1.00 NAIL=1.00 LS BEND=1.00
COMP=1.00 SHEAR=1.00 TENS= 1.00

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 1687 788 1987 1656





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

ALL WEBS 2x3 DRY No.2 SPF
EXCEPT

DRY: SEASONED LUMBER.

PLATES (table is in inches)

JT	TYPE	PLATES	W	LEN	Y	X
A	TMV+p	MT20	2.0	4.0		
B	TMWW-t	MT20	3.0	5.0	1.50	2.00
C	TTW+p	MT20	3.0	4.0	2.25	1.50
D	TMWW-t	MT20	3.0	5.0	1.50	2.25
E	TMV+p	MT20	2.0	4.0		
G	BMVW1-t	MT20	3.0	5.0	1.50	2.00
H	BSWWW-t	MT20	5.0	6.0	3.00	3.00
I	BMVW1-t	MT20	3.0	5.0	1.50	2.00

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

BEARINGS

JT	FACTORED GROSS REACTION		MAXIMUM FACTORED GROSS REACTION		INPUT BRG	REQRD BRG
	VERT	HORZ	DOWN	HORZ		
I	896	0	896	0	0	0
G	1045	0	1045	0	5-8	1-8

UNFACTORED REACTIONS

JT	1ST CASE		MAX/MIN. COMPONENT REACTIONS		LIVE	PERM. LIVE	WIND	DEAD	SOIL
	COMBINED	SNOW	DOWN	HORZ					
I	639	390 / 0	0 / 0	0 / 0	0 / 0	0 / 0	249 / 0	0 / 0	0 / 0
G	745	455 / 0	0 / 0	0 / 0	0 / 0	0 / 0	290 / 0	0 / 0	0 / 0

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

BRACING

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

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

LOADING

TOTAL LOAD CASES: (4)

CHORDS				WEBS			
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	0 / 23	-78.0	-78.0 0.26 (1)	10.00	B-H	-211 / 0	0.14 (1)
B-C	-714 / 0	-78.0	-78.0 0.20 (1)	6.25	H-C	0 / 489	0.11 (1)
C-D	-715 / 0	-78.0	-78.0 0.22 (1)	6.25	H-D	-267 / 0	0.19 (1)
D-E	0 / 24	-78.0	-78.0 0.29 (1)	10.00	I-B	-996 / 0	0.65 (1)
I-A	-135 / 0	0.0	0.0 0.01 (1)	7.81	D-G	-1025 / 0	0.70 (1)
G-E	-141 / 0	0.0	0.0 0.01 (1)	7.81			
I-H	0 / 730	-18.5	-18.5 0.51 (4)	10.00			
H-G	0 / 779	-18.5	-18.5 0.55 (4)	10.00			
G-F	0 / 0	-96.5	-96.5 0.16 (1)	10.00			

DESIGN CRITERIA

SPECIFIED LOADS:

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

SPACING = 24.0 IN. C/C

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 (0.62")
CALCULATED VERT. DEFL.(LL)= L/999 (0.02")
ALLOWABLE DEFL.(TL)= L/360 (0.62")
CALCULATED VERT. DEFL.(TL)= L/572 (0.39")

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=0.29/1.00 (D-E:1), BC=0.55/1.00 (G-H:4), WB=0.70/1.00 (D-G:1), SSI=0.15/1.00 (C-D:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

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

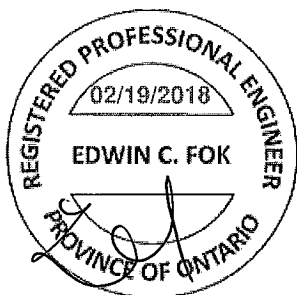
NAIL VALUES
PLATE GRIP(DRY) SHEAR SECTION (PSI) (PLI) (PLI)
MAX MIN MAX MIN MAX MIN
MT20 618 354 1667 788 1987 1656

PLATE PLACEMENT TOL. = 0.250 inches

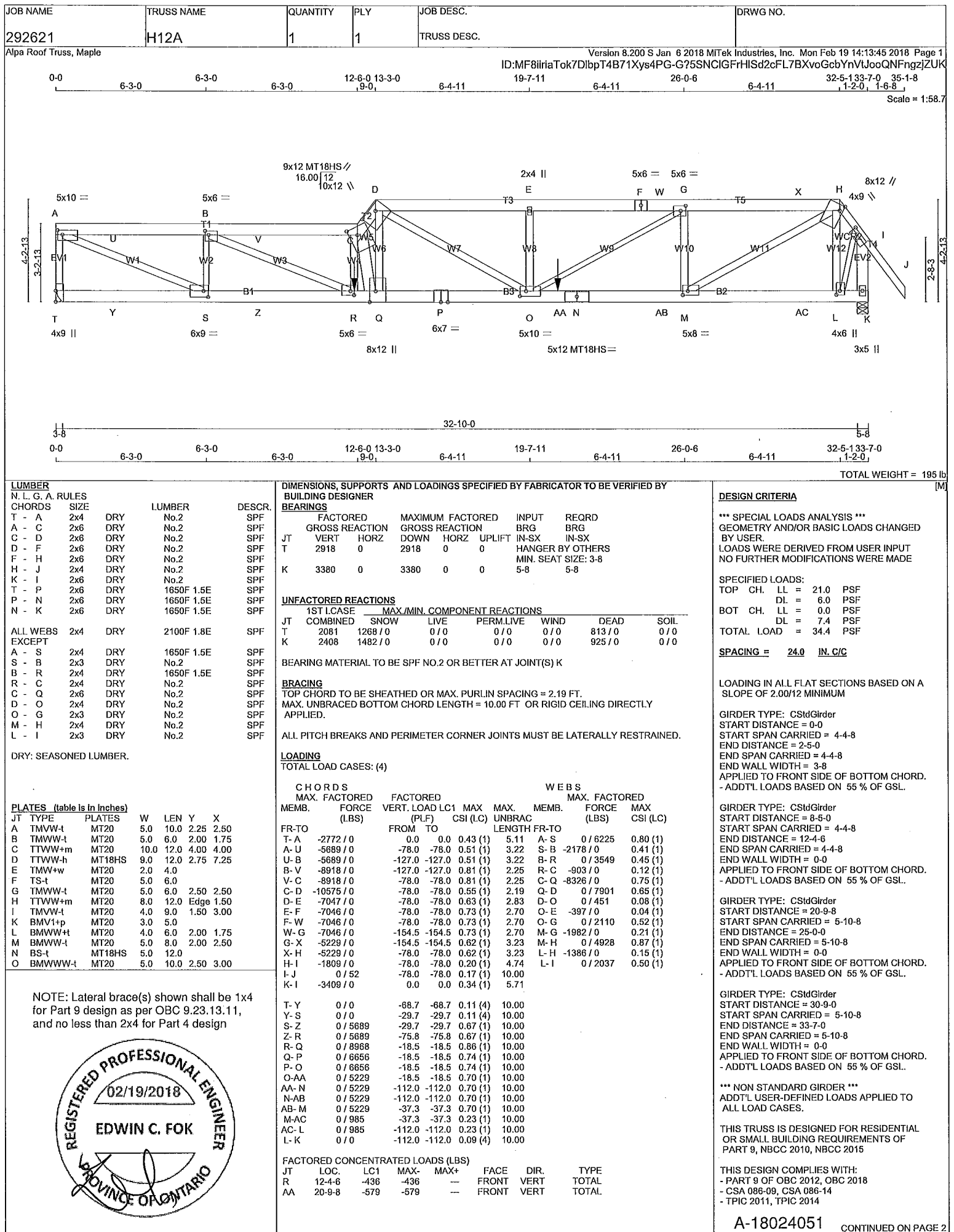
PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.88 (I) (INPUT = 0.90)
JSI METAL= 0.28 (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-18024050



JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
292621	H12A	1	1	TRUSS DESC.	

Alpa Roof Truss, Maple
Version 8.200 S Jan 6 2018 MITek Industries, Inc. Mon Feb 19 14:13:45 2018 Page 2

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PLATES (table is in inches)

JT	TYPE	PLATES	W	LEN	Y	X
P	BS-t	MT20	6.0	7.0		
Q	BMWW+H	MT20	8.0	12.0	Edge	3.00
R	BMWW-t	MT20	5.0	6.0	2.00	1.75
S	BMWW-t	MT20	6.0	9.0	3.00	2.25
T	BMV1-t	MT20	4.0	9.0	5.50	

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) 436.2 lbs FACTORED DOWN AT 12-4-6, AND 579.3 lbs FACTORED DOWN AT 20-9-8 ON BOTTOM CHORD. DESIGN FOR UNSPECIFIED CONNECTION(S) IS DELEGATED TO THE BUILDING DESIGNER.

DESIGN ASSUMPTIONS

-OVERHANG NOT TO BE ALTERED OR CUT OFF.

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

ALLOWABLE DEFL.(LL)= L/360 (1.12")
CALCULATED VERT. DEFL.(LL) = L/ 887 (0.45")
ALLOWABLE DEFL.(TL)= L/360 (1.12")
CALCULATED VERT. DEFL.(TL) = L/ 449 (0.90")

CSI: TC=0.81/1.00 (B-C:1) , BC=0.86/1.00 (Q-R:1) , WB=0.87/1.00 (H-M:1) , SSI=0.49/1.00 (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

AUTOSOLVE LEFT HEEL ONLY

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

NAIL VALUES

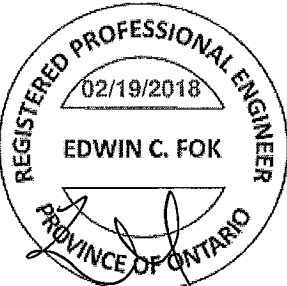
PLATE	GRIP(DRY)		SHEAR		SECTION	
	(PSI)	(PLI)	(PSI)	(PLI)	(PSI)	(PLI)
	MAX	MIN	MAX	MIN	MAX	MIN
MT20	618	354	1667	788	1987	1656
MT18HS	511	354	2455	1382	3004	2010

PLATE PLACEMENT TOL. = 0.250 Inches

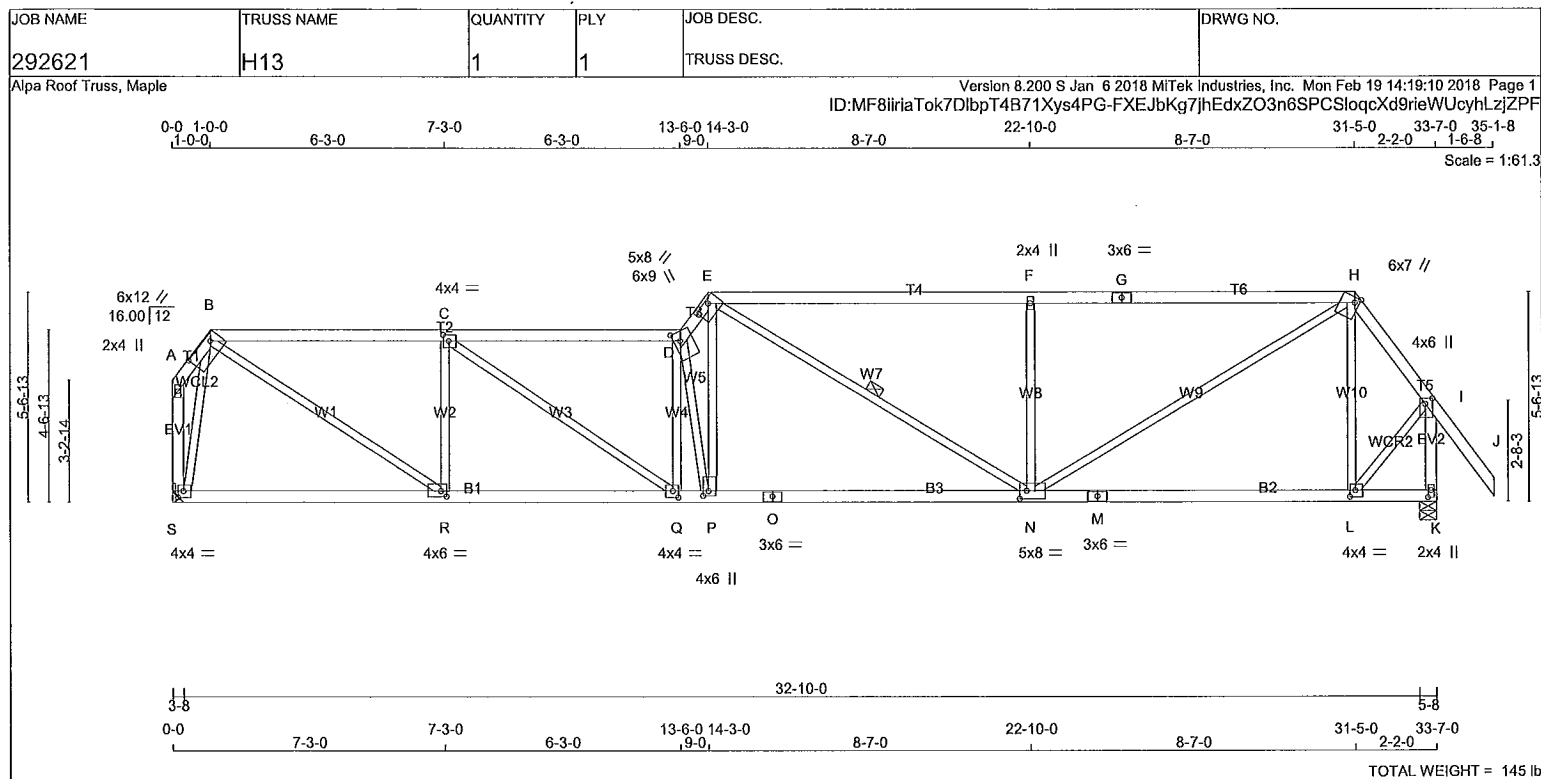
PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.90 (D) (INPUT = 0.90)
JSI METAL= 0.99 (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-18024051(2)



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

DRY: SEASONED LUMBER.

PLATES (table is in inches)

JT	TYPE	PLATES	W	LEN	Y	X
A	TMV+p	MT20	2.0	4.0		
B	TTWW-h	MT20	6.0	12.0	1.75	9.00
C	TMWW-l	MT20	4.0	4.0	2.00	1.75
D	TTWW+m	MT20	6.0	9.0	3.00	2.00
E	TTWW-h	MT20	5.0	8.0	1.25	4.75
F	TMW+w	MT20	2.0	4.0		
G	TS-t	MT20	3.0	6.0		
H	TTWW+m	MT20	6.0	7.0	Edge	1.50
I	TMVW+p	MT20	4.0	6.0	1.75	2.25
K	BMV1+p	MT20	2.0	4.0	2.25	1.00
L	BMWW-l	MT20	4.0	4.0	2.00	1.75
M	BS-t	MT20	3.0	6.0		
N	BMWWW-l	MT20	5.0	8.0	2.50	2.25
O	BS-t	MT20	3.0	6.0		
P	BMWW+l	MT20	4.0	6.0	1.50	1.75
Q	BMWW-l	MT20	4.0	4.0	2.00	1.75
R	BMWW-l	MT20	4.0	6.0	1.75	1.75
S	BMVW-l	MT20	4.0	4.0	2.00	1.75

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 DOWN	REQRD BRG UPLIFT
	VERT	HORZ	DOWN	HORZ		
S	1617	0	1617	0	0	0
K	1752	0	1752	0	0	0

UNFACTORED REACTIONS

JT	1ST LCASE		MAX./MIN. COMPONENT REACTIONS		WIND	DEAD	SOIL
	COMBINED	SNOW	LIVE	PERM.LIVE			
S	1153	703 / 0	0 / 0	0 / 0	0 / 0	450 / 0	0 / 0
K	1247	776 / 0	0 / 0	0 / 0	0 / 0	470 / 0	0 / 0

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

BRACING

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

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

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

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

LOADING

TOTAL LOAD CASES: (4)

CHORDS		WEBS	
MEMB.	MAX. FACTORED FORCE (LBS)	MAX. FACTORED FORCE (LBS)	MAX. FACTORED FORCE (LBS)
FR-TO		FROM	TO
A-B	0 / 0	-78.0	-78.0 0.01 (1)
B-C	-2255 / 0	-78.0	-78.0 0.68 (1)
C-D	-3059 / 0	-78.0	-78.0 0.81 (1)
D-E	-4151 / 0	-78.0	-78.0 0.18 (1)
E-F	-2380 / 0	-78.0	-78.0 0.86 (1)
F-G	-2381 / 0	-78.0	-78.0 0.86 (1)
G-H	-2381 / 0	-78.0	-78.0 0.86 (1)
H-I	-1115 / 0	-78.0	-78.0 0.16 (1)
I-J	0 / 52	-78.0	-78.0 0.15 (1)
S-A	-39 / 0	0.0	0.0 0.01 (1)
K-I	-1774 / 0	0.0	0.0 0.26 (1)
S-R	0 / 360	-18.5	-18.5 0.27 (4)
R-Q	0 / 2256	-18.5	-18.5 0.50 (1)
Q-P	0 / 3076	-18.5	-18.5 0.62 (1)
P-O	0 / 2553	-18.5	-18.5 0.56 (1)
O-N	0 / 2553	-18.5	-18.5 0.56 (1)
N-M	0 / 628	-18.5	-18.5 0.34 (4)
M-L	0 / 628	-18.5	-18.5 0.34 (4)
L-K	0 / 0	-18.5	-18.5 0.21 (4)
B-R	0 / 2289	0.52 (1)	
R-C	-1121 / 0	0.34 (1)	
C-Q	0 / 979	0.22 (1)	
Q-D	-663 / 0	0.20 (1)	
D-P	-2955 / 0	0.94 (1)	
P-E	0 / 3128	0.70 (1)	
E-N	-202 / 0	0.15 (1)	
N-F	-802 / 0	0.37 (1)	
N-H	0 / 2051	0.46 (1)	
L-H	-505 / 0	0.24 (1)	
S-B	-1567 / 0	0.46 (1)	
L-I	0 / 908	0.20 (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 ALL FLAT SECTIONS BASED ON A SLOPE OF 2.00/12 MINIMUM

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

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

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

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

ALLOWABLE DEFL.(LL) = L/360 (1.12")
CALCULATED VERT. DEFL.(LL) = L/999 (0.22")
ALLOWABLE DEFL.(TL) = L/360 (1.12")
CALCULATED VERT. DEFL.(TL) = L/910 (0.44")

CSI: TC=0.86/1.00 (F-H:1), BC=0.62/1.00 (P-Q:1), WB=0.94/1.00 (D-P:1), SSI=0.32/1.00 (E-F:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

AUTOSOLVE RIGHT HEEL ONLY

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

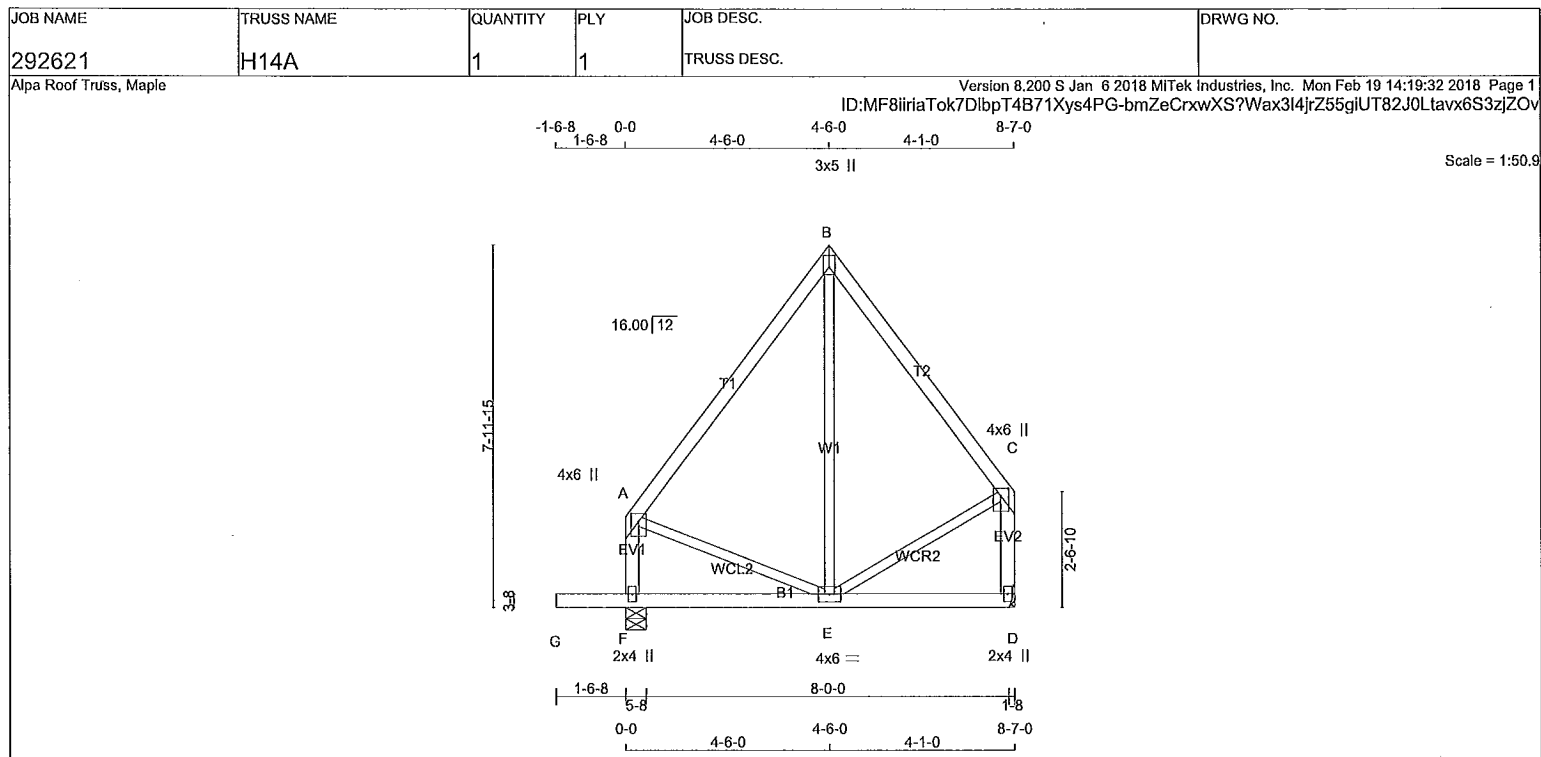
NAIL VALUES
PLATE GRIP(DRY) SHEAR SECTION (PSI) (PLI) (PLI)
MAX MIN MAX MIN MAX MIN
MT20 618 354 1667 788 1987 1656

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.89 (N) (INPUT = 0.90)
JSI METAL= 0.91 (E) (INPUT = 1.00)





TOTAL WEIGHT = 46 lb
(M)

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

DRY: SEASONED LUMBER.

PLATES (table is in inches)

JT	TYPE	PLATES	W	LEN	Y	X
A	TMVW+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
D	BMV1+p	MT20	2.0	4.0		
E	BMVWW-t	MT20	4.0	6.0		
F	BMV1+p	MT20	2.0	4.0		

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

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

BEARINGS

JT	FACTORED GROSS REACTION		MAXIMUM FACTORED GROSS REACTION		INPUT BRG	REQRD BRG
	VERT	HORZ	DOWN	HORZ		
D	414	0	414	0	0	0
F	563	0	563	0	5-8	1-8

UNFACTORED REACTIONS

JT	1ST LCASE COMBINED		MAX/MIN. COMPONENT REACTIONS		WIND	DEAD	SOIL
	SNOW	LIVE	PERM.LIVE	WIND			
D	295	180 / 0	0 / 0	0 / 0	0 / 0	115 / 0	0 / 0
F	401	245 / 0	0 / 0	0 / 0	0 / 0	156 / 0	0 / 0

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

BRACING

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

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

LOADING

TOTAL LOAD CASES: (4)

CHORDS		FACTORED		WEBS	
MEMB.	MAX. FACTORED FORCE (LBS)	VERT. LOAD (PLF)	LC1 MAX CSI (LC)	MEMB.	MAX. FACTORED FORCE (LBS)
FR-TO		FROM TO		FR-TO	
A-B	-203 / 0	-78.0 -78.0	0.20 (1)	E-B	-10 / 65
B-C	-203 / 0	-78.0 -78.0	0.17 (1)	A-E	0 / 129
F-A	-381 / 0	0.0 0.0	0.04 (1)	E-C	0 / 138
D-C	-386 / 0	0.0 0.0	0.05 (1)		
G-F	0 / 0	-96.5 -96.5	0.16 (1)		
F-E	0 / 0	-18.5 -18.5	0.10 (4)		
E-D	0 / 0	-18.5 -18.5	0.10 (4)		

DESIGN CRITERIA

SPECIFIED LOADS:

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

SPACING = 24.0 IN. C/C

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

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

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

ALLOWABLE DEFL.(LL)= L/360 (0.29")
CALCULATED VERT. DEFL.(LL) = L/999 (0.00")
ALLOWABLE DEFL.(TL)= L/360 (0.29")
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=0.20/1.00 (A-B:1), BC=0.16/1.00 (F-G:1), WB=0.03/1.00 (C-E:1), SSI=0.12/1.00 (F-G:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

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

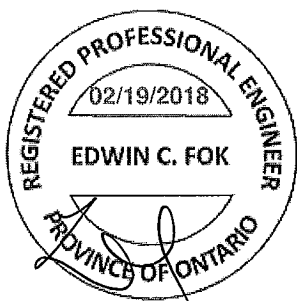
NAIL VALUES		PLATE GRIP(DRY) SHEAR		SECTION	
(PSI)	(PLI)	(PSI)	(PLI)	MAX	MIN
MT20	618	354	1667	788	1987

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.23 (C) (INPUT = 0.80)
JSI METAL= 0.11 (A) (INPUT = 1.00)

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

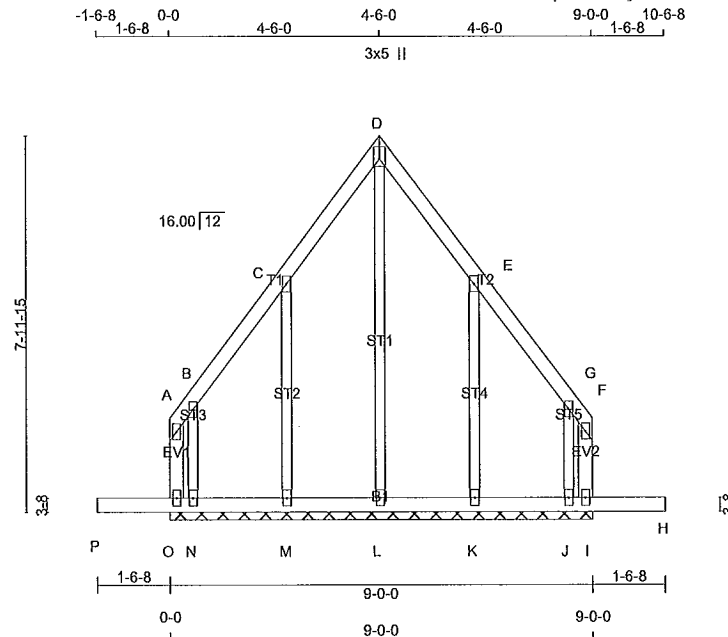


A-18024053

JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
292621	H14G	1	1	TRUSS DESC.	

Alpa Roof Truss, Maple

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Scale = 1:49.1

TOTAL WEIGHT = 52 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
DRY: SEASONED LUMBER.				

GABLE 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
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 = 6.25 FT.
MAX. UNBRACED BOTTOM CHORD LENGTH = 10.00 FT OR RIGID CEILING DIRECTLY APPLIED.
ALL PITCH BREAKS AND PERIMETER CORNER JOINTS MUST BE Laterally RESTRAINED.

LOADING									
TOTAL LOAD CASES: (4)									
CHORDS					WEBS				
MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	LC1	MAX. CSI (LC)	MAX. UNBRACED LENGTH	MEMB.	MAX. FACTORED FORCE (LBS)	MAX CSI (LC)	
FR-TO		FROM	TO			FR-TO			
O-A	-25 / 0	0.0	0.0	0.02 (1)	7.81	L-D	-165 / 0	0.19 (1)	
A-B	-12 / 1	-78.0	-78.0	0.02 (1)	6.25	M-C	-163 / 0	0.07 (1)	
B-C	0 / 5	-78.0	-78.0	0.04 (1)	10.00	N-B	-80 / 0	0.01 (1)	
C-D	0 / 4	-78.0	-78.0	0.04 (1)	10.00	K-E	-163 / 0	0.07 (1)	
D-E	0 / 4	-78.0	-78.0	0.04 (1)	10.00	J-F	-80 / 0	0.01 (1)	
E-F	0 / 5	-78.0	-78.0	0.04 (1)	10.00				
F-G	-12 / 1	-78.0	-78.0	0.02 (1)	6.25				
I-G	-25 / 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	-1 / 7	-18.5	-18.5	0.15 (1)	10.00				
N-M	-2 / 3	-18.5	-18.5	0.02 (4)	10.00				
M-L	-3 / 0	-18.5	-18.5	0.02 (4)	10.00				
L-K	-3 / 0	-18.5	-18.5	0.02 (4)	10.00				
K-J	-2 / 3	-18.5	-18.5	0.02 (4)	10.00				
J-I	-1 / 7	-18.5	-18.5	0.15 (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 (C-D:1), BC=0.16/1.00 (H-I:1), WB=0.19/1.00 (D-L:1), SS=0.19/1.00 (J-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
MT20	618	354	1667	788

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

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

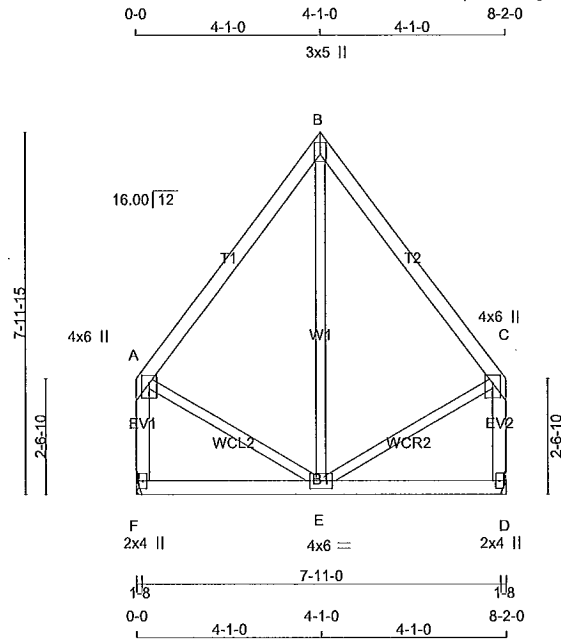


A-18024054

JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
292621	H14S	2	1	TRUSS DESC.	

Alpa Roof Truss, Maple

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Scale = 1:50.9

TOTAL WEIGHT = 2 X 43 = 87 lb

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

DRY: SEASONED LUMBER.

PLATES (table is in inches)

JT	TYPE	PLATES	W	LEN	Y	X
A	TMVW+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
D	BMV1+p	MT20	2.0	4.0		
E	BMWW-t	MT20	4.0	6.0		
F	BMV1+p	MT20	2.0	4.0		

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

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

BEARINGS		FACTORED GROSS REACTION		MAXIMUM FACTORED GROSS REACTION		INPUT REGRD	
JT	VERT	HORZ	DOWN	HORZ	UPLIFT	IN-SX	IN-SX
F	394	0	394	0	0	HANGER BY OTHERS	
D	394	0	394	0	0	HANGER BY OTHERS	

UNFACTORED REACTIONS

JT	1ST LCASE	MAX./MIN. COMPONENT REACTIONS	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
F	281	171 / 0	0 / 0	0 / 0	0 / 0	0 / 0	109 / 0	0 / 0
D	281	171 / 0	0 / 0	0 / 0	0 / 0	0 / 0	109 / 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.

LOADING

TOTAL LOAD CASES: (4)

CHORDS		FACTORED		W E B S	
MEMB.	MAX. FACTORED FORCE (LBS)	VERT. LOAD (PLF)	LC1 MAX	MAX. MEMB. FORCE (LBS)	MAX. FACTORED CS1 (LC)
FR-TO		FROM TO		LENGTH FR-TO	
A-B	-184 / 0	-78.0	-78.0 0.17 (1)	6.25	E-B -24 / 56 0.03 (1)
B-C	-184 / 0	-78.0	-78.0 0.17 (1)	6.25	A-E 0 / 125 0.03 (1)
F-A	-365 / 0	0.0	0.0 0.05 (1)	7.81	E-C 0 / 125 0.03 (1)
D-C	-365 / 0	0.0	0.0 0.05 (1)	7.81	
F-E	0 / 0	-18.5	-18.5 0.09 (4)	10.00	
E-D	0 / 0	-18.5	-18.5 0.09 (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 (0.27")
CALCULATED VERT. DEFL.(LL) = L/999 (0.00")
ALLOWABLE DEFL.(TL) = L/360 (0.27")
CALCULATED VERT. DEFL.(TL) = L/999 (0.01")

CSI: TC=0.177/1.00 (B-C:1), BC=0.09/1.00 (E-F:4), WB=0.03/1.00 (A-E: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.

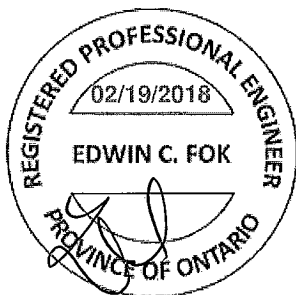
NAIL VALUES
PLATE GRIP(DRY) SHEAR SECTION
(PSI) (PLI) (PLI)
MAX MIN MAX MIN MAX MIN
MT20 618 354 1667 788 1987 1656

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.21 (C) (INPUT = 0.80)
JSI METAL= 0.10 (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

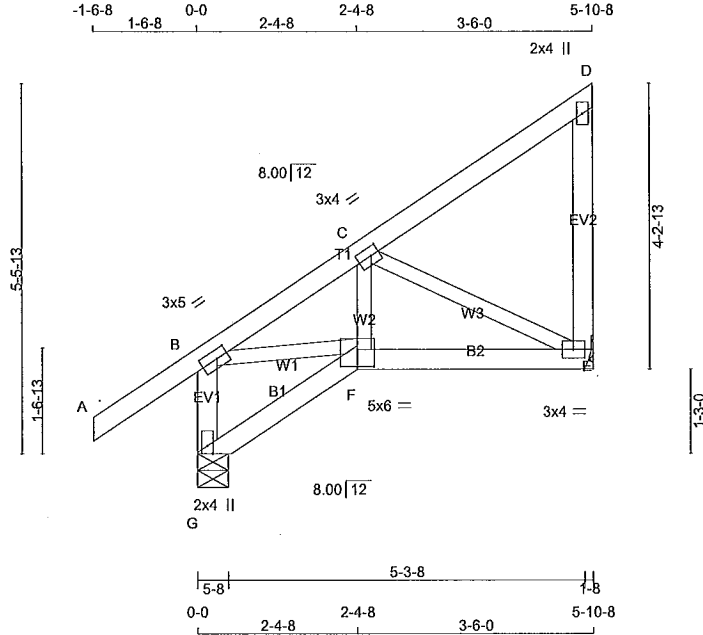


A-18024055

JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
292621	J3T	4	1	TRUSS DESC.	

Alpa Roof Truss, Maple

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Scale = 1:34.2

TOTAL WEIGHT = 4 X 29 = 116 lb [M]

LUMBER				DESCR.	
CHORDS	SIZE	LUMBER			
G - B	2x4	DRY	No.2	SPF	
A - D	2x4	DRY	No.2	SPF	
E - D	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
B	TMVW-t	MT20	3.0	5.0	1.50 2.00
C	TMVW-t	MT20	3.0	4.0	1.50 1.50
D	TMV+p	MT20	2.0	4.0	
E	BMVW-t	MT20	3.0	4.0	
F	BBWW-t	MT20	5.0	6.0	3.00 3.00
G	BMV1+p	MT20	2.0	4.0	Edge

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

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

FACTORED GROSS REACTION		MAXIMUM FACTORED GROSS REACTION		INPUT BRG		REQRD BRG	
JT	VERT	JT	HORZ	JT	IN-SX	JT	IN-SX
G	410	0	410	0	5-8	1-8	
E	283	0	283	0	HANGER BY OTHERS MIN. SEAT SIZE: 1-8		

UNFACTORED REACTIONS		MAX/MIN. COMPONENT REACTIONS		WIND		DEAD		SOIL	
JT	1ST LCASE	JT	SNOW	JT	LIVE	JT	PERM.LIVE	JT	DEAD
G	290	191 / 0	0 / 0	0 / 0	0 / 0	98 / 0	0 / 0	0 / 0	0 / 0
E	202	123 / 0	0 / 0	0 / 0	0 / 0	79 / 0	0 / 0	0 / 0	0 / 0

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

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

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

LOADING
TOTAL LOAD CASES: (4)

CHORDS		FACTORED		W E B S		MAX. FACTORED	
MEMB.	FORCE (LBS)	VERT. LOAD	LC1 MAX	MEMB.	FORCE (LBS)	MAX	CSI (LC)
FR-TO		FROM	TO	FR-TO			
G-B	-388 / 0	0.0	0.0 0.04 (1)	7.81	B-F	0 / 300	0.07 (1)
A-B	0 / 35	-78.0	-78.0 0.15 (1)	10.00	F-C	0 / 62	0.02 (4)
B-C	-342 / 0	-78.0	-78.0 0.11 (1)	6.25	C-E	-329 / 0	0.08 (1)
C-D	-13 / 0	-78.0	-78.0 0.11 (1)	6.25			
E-D	-108 / 0	0.0	0.0 0.03 (1)	7.81			
G-F	0 / 0	-18.5	-18.5 0.03 (4)	10.00			
F-E	0 / 296	-18.5	-18.5 0.09 (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 (0.20")
CALCULATED VERT. DEFL.(LL) = L/ 999 (0.00")
ALLOWABLE DEFL.(TL)= L/360 (0.20")
CALCULATED VERT. DEFL.(TL) = L/ 999 (0.01")

CSI: TC=0.15/1.00 (A-B:1) , BC=0.09/1.00 (E-F:4) , WB=0.08/1.00 (C-E:1) , SSI=0.10/1.00 (C-D:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

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

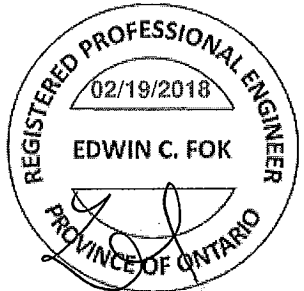
NAIL VALUES					
PLATE	GRIP(DRY)	SHEAR	SECTION		
(PSI)	(PLI)	(PLI)			
MT20	618	354	1667	788	1987 1656

PLATE PLACEMENT TOL. = 0.250 inches

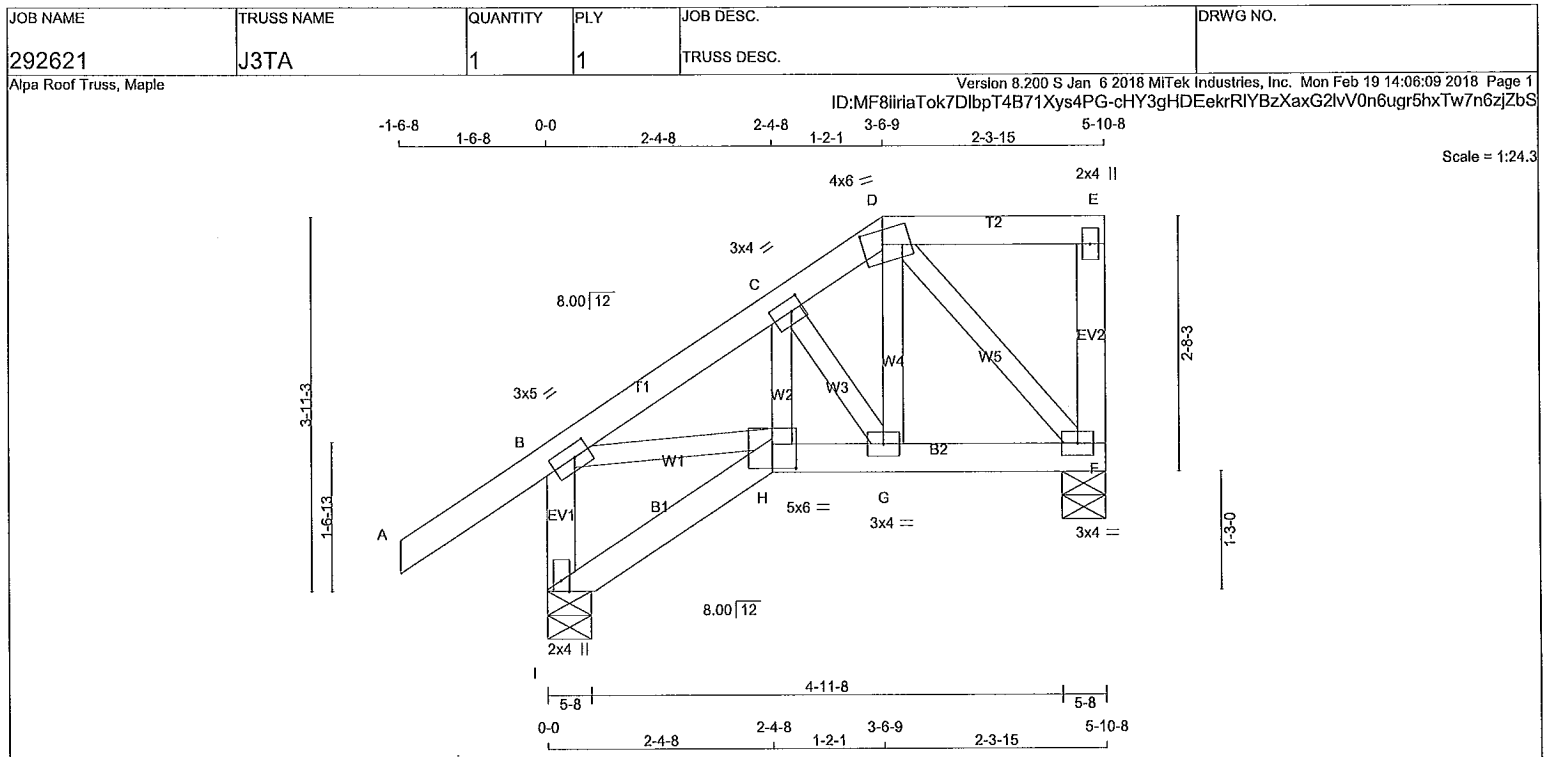
PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.50 (G) (INPUT = 0.90)
JSI METAL= 0.19 (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-18024056



TOTAL WEIGHT = 29 lb [M]

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

PLATES (table is in inches)					
JT	TYPE	PLATES	W	LEN	Y X
B	TMVW-I	MT20	3.0	5.0	1.50 2.00
C	TMVW-I	MT20	3.0	4.0	1.50 1.50
D	TTVW-m	MT20	4.0	6.0	1.75 2.50
E	TMV+p	MT20	2.0	4.0	
F	BMVW1-I	MT20	3.0	4.0	
G	BMVW-I	MT20	3.0	4.0	
H	BBVW-I	MT20	5.0	6.0	3.00 3.00
I	BMV1+p	MT20	2.0	4.0	Edge

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

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

BEARINGS		FACTORED GROSS REACTION	MAXIMUM FACTORED GROSS REACTION	INPUT BRG	REQRD BRG
JT	VERT	HORZ	DOWN	HORZ	UPLIFT
I	410	0	410	0	5-8
F	283	0	283	0	5-8

UNFACTORED REACTIONS

1ST CASE	MAX/MIN	COMPONENT REACTIONS					
JT	COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
I	290	191 / 0	0 / 0	0 / 0	0 / 0	98 / 0	0 / 0
F	202	123 / 0	0 / 0	0 / 0	0 / 0	79 / 0	0 / 0

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

BRACING

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

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

LOADING

TOTAL LOAD CASES: (4)

CHORDS		WEBS	
MEMB.	MAX. FACTORED FORCE (LBS)	MAX. FACTORED VERT. LOAD (PLF)	MAX. FACTORED VERT. LOAD (LBS)
FR-TO		FROM TO	LENGTH FR-TO
I-B	-388 / 0	0.0 0.0 0.04 (1)	7.81
A-B	0 / 35	-78.0 -78.0 0.15 (1)	10.00
B-C	-317 / 0	-78.0 -78.0 0.06 (1)	6.25
C-D	-213 / 0	-78.0 -78.0 0.04 (1)	6.25
D-E	0 / 0	-78.0 -78.0 0.07 (1)	10.00
F-E	-91 / 0	0.0 0.0 0.01 (1)	7.81
I-H	0 / 0	-18.5 -18.5 0.03 (4)	10.00
H-G	0 / 268	-18.5 -18.5 0.05 (1)	10.00
G-F	0 / 170	-18.5 -18.5 0.04 (1)	10.00

DESIGN CRITERIA

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

SPACING = 24.0 IN. C/C

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

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

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

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

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

CSI: TC=0.15/1.00 (A-B:1), BC=0.05/1.00 (G-H:1), WB=0.06/1.00 (B-H:1), SSI=0.08/1.00 (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.

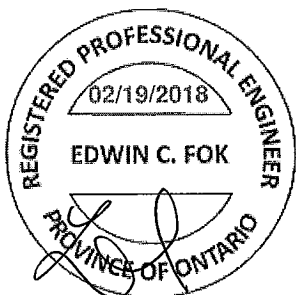
NAIL VALUES
 PLATE GRIP(DRY) SHEAR SECTION
 (PSI) (PLI) (PLI)
 MAX MIN MAX MIN MAX MIN
 MT20 618 354 1667 788 1987 1656

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.50 (I) (INPUT = 0.90)
 JSI METAL= 0.19 (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

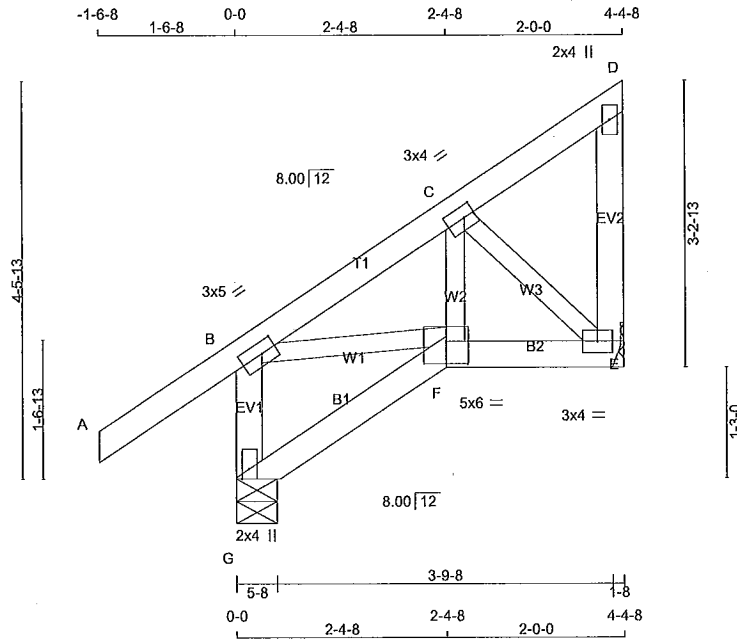


A-18024057

JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
292621	J4T	5	1	TRUSS DESC.	

Alpa Roof Truss, Maple

Version 8.200 S Jan 6 2018 MiTek Industries, Inc. Mon Feb 19 14:06:28 2018 Page 1
ID:MF8ilriaTok7DlbpT4B71Xys4PG-ZxBFfmS9AZEIXS8d84njJmCiDRbSdR9Ulw0dyVzjZb9



TOTAL WEIGHT = 5 X 23 = 115 lb

LUMBER					DESCR.
N. L. G. A. RULES	CHORDS	SIZE	DRY	LUMBER	
G - B	2x4	DRY	No.2	SPF	
A - D	2x4	DRY	No.2	SPF	
E - D	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
B	TMVW-1	MT20	3.0	5.0	1.50	2.00
C	TMVW-1	MT20	3.0	4.0	1.50	1.50
D	TMV+p	MT20	2.0	4.0		
E	BMVW1-1	MT20	3.0	4.0		
F	BMVW-1	MT20	5.0	6.0	3.00	3.00
G	BMV1+p	MT20	2.0	4.0	Edge	

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

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

JT	FACTORED GROSS REACTION		MAXIMUM FACTORED GROSS REACTION		INPUT BRG		REQRD BRG	
	VERT	HORZ	DOWN	HORZ	IN-SX	IN-SX	IN-SX	IN-SX
G	338	0	338	0	5-8	1-8		
E	211	0	211	0	HANGER BY OTHERS MIN. SEAT SIZE: 1-8			

UNFACTORED REACTIONS

JT	1ST LCASE	MAX/MIN. SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
G	238	160 / 0	0 / 0	0 / 0	0 / 0	78 / 0	0 / 0
E	150	92 / 0	0 / 0	0 / 0	0 / 0	59 / 0	0 / 0

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

BRACING

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

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

LOADING

TOTAL LOAD CASES: (5)

CHORDS				WEBS			
MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	MAX. FACTORED CS (LC)	MEMB.	MAX. FACTORED FORCE (LBS)	MAX. FACTORED CS (LC)	
FR-TO		FROM TO		FR-TO			
G-B	-316 / 0	0.0 0.0 0.03 (1)	7.81	B-F	0 / 167	0.04 (1)	
A-B	0 / 35	-78.0 -78.0 0.15 (1)	10.00	F-C	0 / 46	0.02 (4)	
B-C	-191 / 0	-78.0 -78.0 0.06 (1)	6.25	C-E	-218 / 0	0.04 (1)	
C-D	-13 / 0	-78.0 -78.0 0.06 (1)	6.25				
E-D	-51 / 0	0.0 0.0 0.01 (1)	7.81				
G-F	0 / 0	-18.5 -18.5 0.03 (4)	10.00				
F-E	0 / 164	-18.5 -18.5 0.04 (1)	10.00				

CANTILEVER ANALYSIS HAS BEEN CONSIDERED IN THIS DESIGN

DESIGN CRITERIA

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

SPACING = 24.0 IN. C/C

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

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

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

ALLOWABLE DEFL.(LL) = L/360 (0.19")
CALCULATED VERT. DEFL.(LL) = L/999 (0.00")
ALLOWABLE DEFL.(TL) = L/360 (0.19")
CALCULATED VERT. DEFL.(TL) = L/999 (0.00")

CSI: TC=0.15/1.00 (A-B:1), BC=0.04/1.00 (E-F:1), WB=0.04/1.00 (B-F:1), SSI=0.08/1.00 (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.

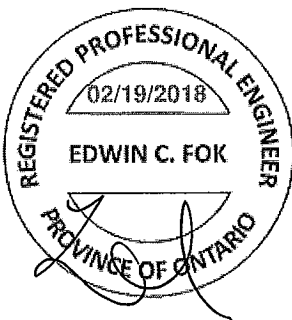
NAIL VALUES
PLATE GRIP(DRY) SHEAR SECTION
(PSI) (PLI) (PLI)
MAX MIN MAX MIN MAX MIN
MT20 618 354 1667 788 1987 1656

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.40 (G) (INPUT = 0.90)
JSI METAL= 0.15 (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-18024058

JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
292622	H1T	1	2	TRUSS DESC.	
Alpa Roof Truss, Maple					
Version 8.200 S Jan 6 2018 MiTek Industries, Inc. Mon Feb 19 14:35:53 2018 Page 2					
ID:MF8IriaTok7DlbpT4B7iXys4PG-NULV5HphIVscJniZr2FxcLyoG6wmeFVBG914XOizjZ9a					

2x4 1 6

NAILS TO BE DRIVEN FROM ONE SIDE ONLY.

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

PLATES (table is in inches)

JT	TYPE	PLATES	W	LEN	Y	X
B	TMWW-I	MT20	4.0	9.0	2.00	3.00
C	TTWW+m	MT20	6.0	9.0	Edge	1.50
D	TMWW-I	MT20	4.0	6.0	1.75	2.00
E	TMWW-I	MT20	4.0	4.0	1.75	1.50
F	TS-I	MT20	3.0	8.0		
G	TMWW-I	MT20	4.0	4.0		
H	TMWW-I	MT20	4.0	4.0		
I	TMWW+H	MT20	4.0	9.0	3.25	1.50
J	TMW+W	MT20	2.0	4.0		
K	TMWW-I	MT20	4.0	6.0	1.75	2.25
L	TS-I	MT20	3.0	8.0		
M	TMWW-I	MT20	4.0	6.0	1.75	1.75
N	TMWW-I	MT20	4.0	6.0	1.50	1.75
O	TTWW+m	MT20	6.0	7.0	Edge	1.50
P	TMWW-I	MT20	4.0	9.0	1.75	3.00
R	BMV1+p	MT20	3.0	4.0		
S	BMWW+H	MT20	4.0	6.0	1.50	1.50
T	BMWW-I	MT20	10.0	12.0	Edge	
U	BMWW-I	MT20	4.0	6.0	1.50	1.75
V	BMWW-I	MT20	4.0	6.0	1.75	1.75
W	BMWW-p	MT20	10.0	12.0	3.00	6.25
X	BMWW-h	MT20	8.0	12.0	3.00	7.25
Y	BMWW-I	MT20	4.0	4.0		
Z	BMWW-I	MT20	4.0	6.0		
AA	BS-I	MT20	5.0	6.0		
AB	BMWW-I	MT20	5.0	6.0	2.50	2.50
AC	BMWW-I	MT20	5.0	6.0	2.00	1.75
AD	BMWW+H	MT20	4.0	6.0	3.00	1.75
AE	BMV1+p	MT20	3.0	4.0		

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

HANGERS NOTES

- SPECIAL HANGER(S) OR CONNECTION(S) REQUIRED TO SUPPORT CONCENTRATED LOAD(S) 66.0 lbs FACTORED DOWN AT 1-1-15 ON TOP CHORD, AND 1763.1 lbs FACTORED DOWN AT 22-1-8 ON BOTTOM CHORD. DESIGN FOR UNSPECIFIED CONNECTION(S) IS DELEGATED TO THE BUILDING DESIGNER.

LOADING

TOTAL LOAD CASES: (4)

CHORDS				WEBS			
MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	LC1 MAX (LC)	MAX. UNBRAC	MEMB.	MAX. FACTORED FORCE (LBS)	MAX. CSI (LC)
FR-TO		FROM	TO	LENGTH	FR-TO		
V-U	0 / 7542	-18.5	-18.5	0.52 (1)	10.00		
U-T	0 / 3329	-18.5	-18.5	0.24 (1)	10.00		
T-S	0 / 1190	-18.5	-18.5	0.05 (1)	10.00		
S-R	0 / 0	-18.5	-18.5	0.01 (4)	10.00		

FACTORED CONCENTRATED LOADS (LBS)

JT	LOC.	LC1	MAX-	MAX+	FACE	DIR.	TYPE
C	1-1-15	-66	-66	—	FRONT	VERT	TOTAL
Y	22-1-8	-1763	-1763	—	FRONT	VERT	TOTAL

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

NAIL VALUES

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

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

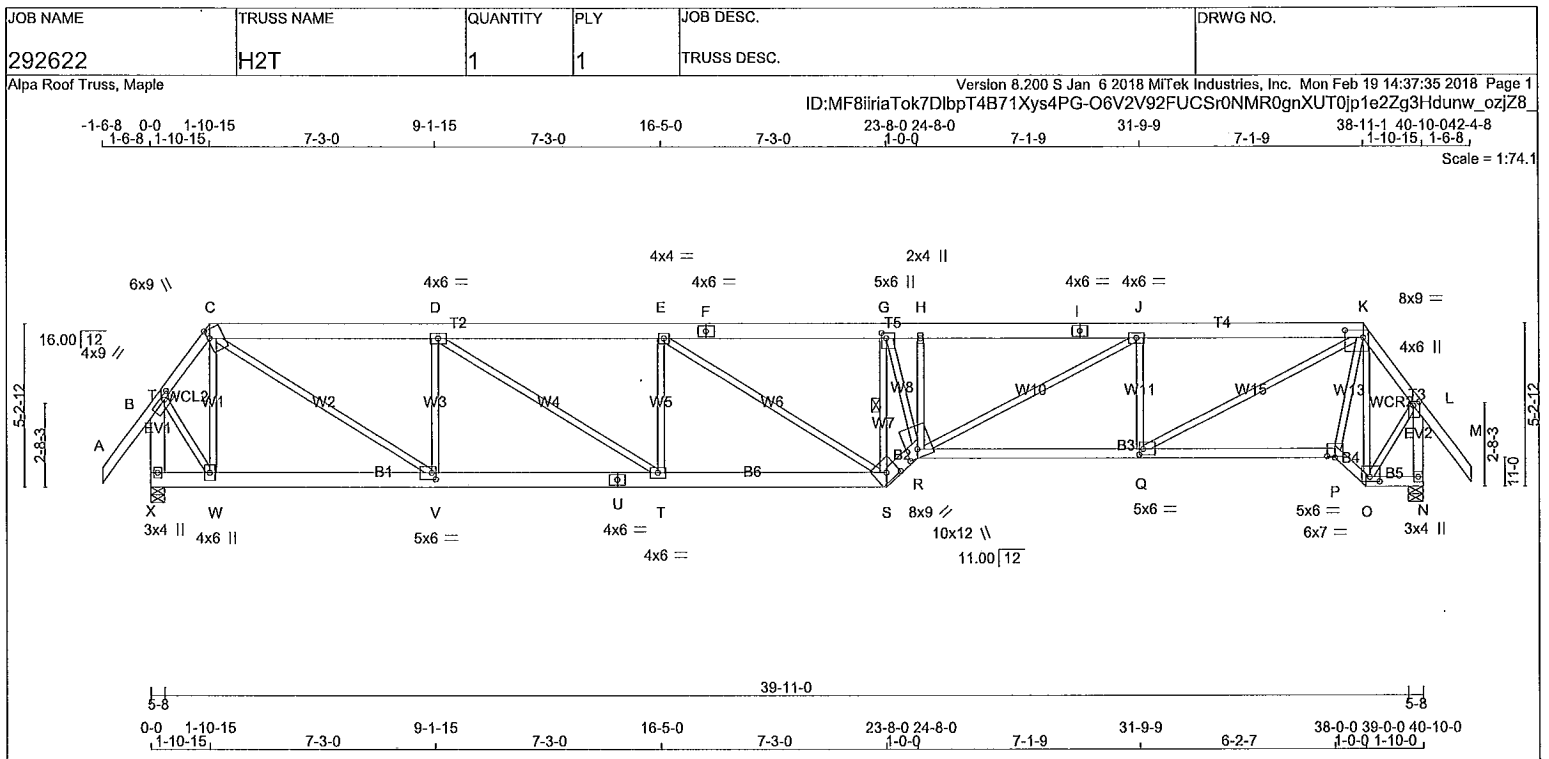
JSI GRIP= 0.89 (AC) (INPUT = 0.90)

JSI METAL= 0.87 (W) (INPUT = 1.00)

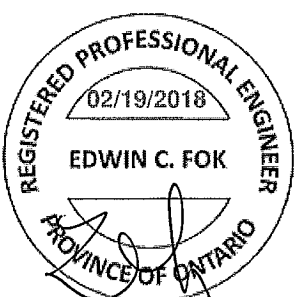
NOTE: Lateral brace(s) shown shall be 1x4 for Part 9 design as per OBC 9.23.13.11, and no less than 2x4 for Part 4 design

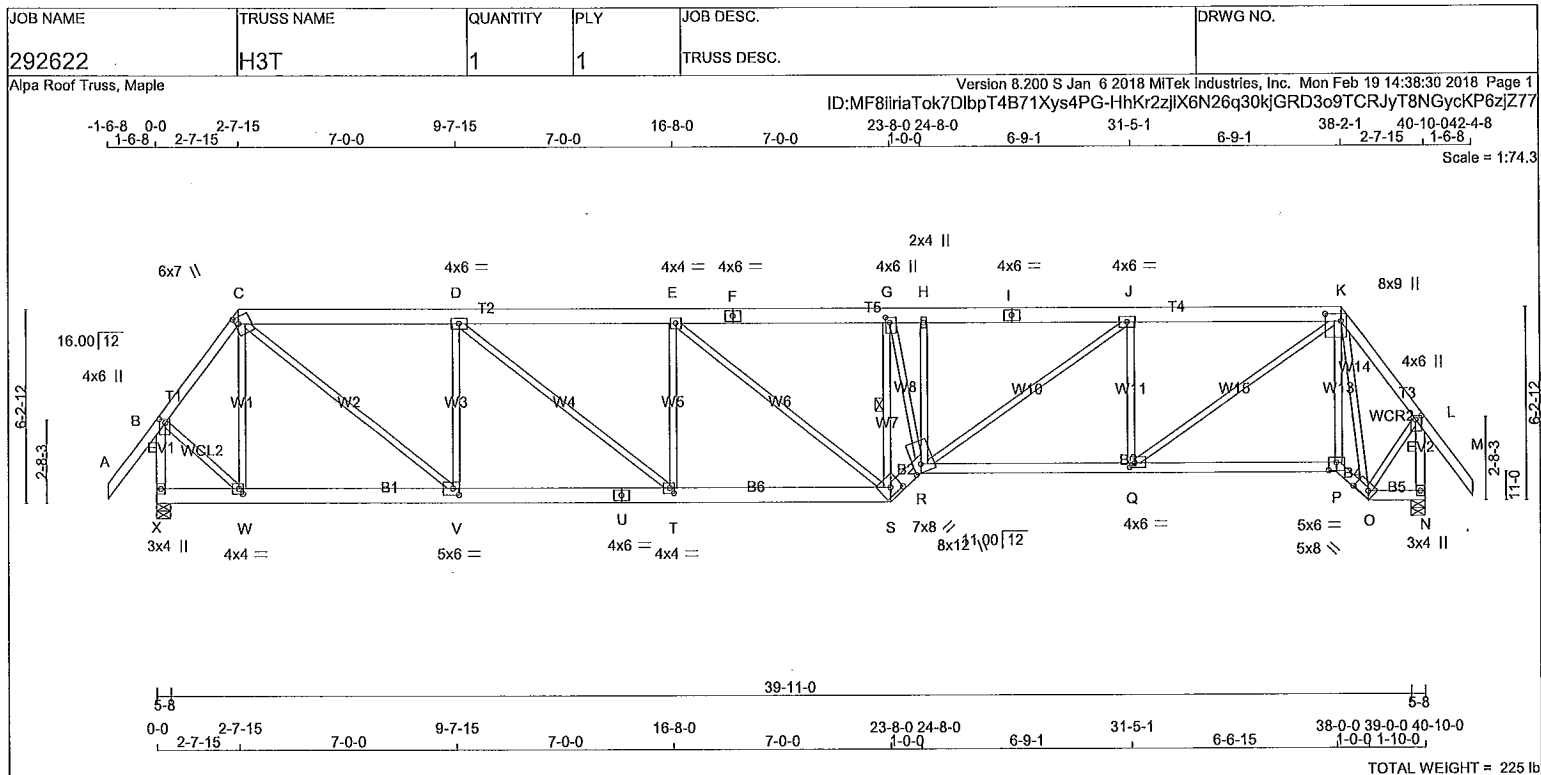


A-18024059(2)



LUMBER N. L. G. A. RULES CHORDS SIZE LUMBER DESCR. A - C 2x4 DRY No.2 SPF C - F 2x6 DRY No.2 SPF F - I 2x6 DRY No.2 SPF I - K 2x6 DRY No.2 SPF K - M 2x4 DRY No.2 SPF X - B 2x6 DRY No.2 SPF N - L 2x4 DRY No.2 SPF X - U 2x6 DRY No.2 SPF U - S 2x6 DRY No.2 SPF S - R 2x6 DRY No.2 SPF R - P 2x4 DRY No.2 SPF P - O 2x4 DRY No.2 SPF O - N 2x4 DRY No.2 SPF ALL WEBS 2x3 DRY No.2 SPF EXCEPT DRY: SEASONED LUMBER.				DIMENSIONS, SUPPORTS AND LOADINGS SPECIFIED BY FABRICATOR TO BE VERIFIED BY BUILDING DESIGNER BEARINGS FACTORED MAXIMUM FACTORED INPUT REQD GROSS REACTION GROSS REACTION BRG BRG JT VERT HORZ DOWN HORZ UPLIFT IN-SX IN-SX X 2099 0 2099 0 0 5-8 2-4 N 2099 0 2099 0 0 5-8 3-5 UNFACTORED REACTIONS 1ST LCASE MAX/MIN. COMPONENT REACTIONS JT COMBINED SNOW LIVE PERM.LIVE WIND DEAD SOIL X 1494 927 / 0 0 / 0 0 / 0 567 / 0 0 / 0 N 1494 927 / 0 0 / 0 0 / 0 567 / 0 0 / 0 BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S) X, N BRACING TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 3.58 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-S. 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 FACTORED WEBS MEMB. FORCE VERT. LOAD LC1 MAX MAX. MEMB. MAX. FORCE MAX. (LBS) (PLF) CSI (LC) UNBRAC (LBS) CSI (LC) FR-TO FROM TO LENGTH FR-TO A-B 0 / 52 -78.0 -78.0 0.15 (1) 10.00 W-C -685 / 0 0.24 (1) B-C -1338 / 0 -78.0 -78.0 0.17 (1) 5.41 C-V 0 / 2675 0.60 (1) C-D -2996 / 0 -78.0 -78.0 0.34 (1) 4.57 V-D -1354 / 0 0.48 (1) D-E -4100 / 0 -78.0 -78.0 0.41 (1) 3.96 D-T 0 / 1322 0.30 (1) E-F -4188 / 0 -78.0 -78.0 0.34 (1) 4.00 T-E -806 / 0 0.21 (1) F-G -4188 / 0 -78.0 -78.0 0.34 (1) 4.00 E-S 0 / 105 0.02 (1) G-H -4956 / 0 -78.0 -78.0 0.34 (1) 3.68 S-G -3561 / 0 0.68 (1) H-I -4955 / 0 -78.0 -78.0 0.48 (1) 3.58 G-R 0 / 3074 0.69 (1) I-J -4955 / 0 -78.0 -78.0 0.48 (1) 3.58 R-H 0 / 47 0.02 (4) J-K -3615 / 0 -78.0 -78.0 0.39 (1) 4.18 R-J 0 / 1524 0.34 (1) K-L -1227 / 0 -78.0 -78.0 0.17 (1) 5.60 Q-J -1393 / 0 0.36 (1) L-M 0 / 52 -78.0 -78.0 0.15 (1) 10.00 P-K 0 / 749 0.17 (1) X-B -2145 / 0 0.0 0.0 0.20 (1) 6.95 O-K -1521 / 0 0.57 (1) N-L -2082 / 0 0.0 0.0 0.30 (1) 5.87 B-W 0 / 1150 0.26 (1) O-L 0 / 1126 0.25 (1) Q-K 0 / 3096 0.70 (1) X-W 0 / 0 -18.5 -18.5 0.10 (4) 10.00 W-V 0 / 760 -18.5 -18.5 0.18 (1) 10.00 V-U 0 / 2996 -18.5 -18.5 0.41 (1) 10.00 U-T 0 / 2996 -18.5 -18.5 0.41 (1) 10.00 T-S 0 / 4100 -18.5 -18.5 0.55 (1) 10.00 S-R 0 / 5461 -18.5 -18.5 0.65 (1) 10.00 R-Q 0 / 3615 -18.5 -18.5 0.69 (1) 10.00 Q-P 0 / 904 -18.5 -18.5 0.31 (4) 10.00 P-O 0 / 993 -18.5 -18.5 0.16 (1) 10.00 O-N 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 DESIGN ASSUMPTIONS - OVERHANG NOT TO BE ALTERED OR CUT OFF. (55 % OF 23.0 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 21.0 P.S.F. SPECIFIED ROOF LIVE LOAD ALLOWABLE DEFL.(LL)= L/360 (1.36") CALCULATED VERT. DEFL.(LL)= L/ 999 (0.34") ALLOWABLE DEFL.(TL)= L/360 (1.36") CALCULATED VERT. DEFL.(TL)= L/ 735 (0.67") CSI: TC=0.48/1.00 (H-J:1), BC=0.69/1.00 (Q-R:1), WB=0.70/1.00 (K-Q:1), SSI=0.20/1.00 (H-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 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= 0.89 (Q) (INPUT = 0.90) JSI METAL= 0.79 (K) (INPUT = 1.00)			
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LUMBER
N. L. G. A. RULES

CHORDS	SIZE	LUMBER	DESCR.
A - C	2x4	DRY	No.2
C - F	2x6	DRY	No.2
F - I	2x6	DRY	No.2
I - K	2x6	DRY	No.2
K - M	2x4	DRY	No.2
X - B	2x4	DRY	No.2
N - L	2x4	DRY	No.2
X - U	2x6	DRY	No.2
U - S	2x6	DRY	No.2
S - R	2x6	DRY	No.2
R - P	2x4	DRY	No.2
P - O	2x4	DRY	No.2
O - N	2x4	DRY	No.2
ALL WEBS EXCEPT	2x3	DRY	No.2

SPF

PLATES (table is in inches)						
JT	TYPE	PLATES	W	LEN	Y	X
B	TMVW+p	MT20	4.0	6.0	1.50	2.25
C	TTWW+m	MT20	6.0	7.0	2.50	1.25
D	TMVW-t	MT20	4.0	6.0		
E	TMVW-t	MT20	4.0	4.0		
F	TS-t	MT20	4.0	6.0		
G	TMVW+H	MT20	4.0	6.0	2.00	1.50
H	TMVW+w	MT20	2.0	4.0		
I	TS-t	MT20	4.0	6.0		
J	TMVW-t	MT20	4.0	6.0		
K	TTWWVW+p	MT20	8.0	9.0	2.75	6.00
L	TMVW+p	MT20	4.0	6.0	1.50	2.25
N	BMVt+p	MT20	3.0	4.0		
O	BBVW-h	MT20	5.0	8.0	2.25	5.50
P	BBW-t	MT20	5.0	6.0	3.00	3.00
Q	BMVW-t	MT20	4.0	6.0	1.50	1.75
R	BBVWVW+m	MT20	8.0	12.0	3.25	3.00
S	BBVW-h	MT20	7.0	8.0	3.00	4.00
T	BMVW-t	MT20	4.0	4.0	2.00	1.50
U	BS-t	MT20	4.0	6.0		
V	BMVW-t	MT20	5.0	6.0	2.50	2.25

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

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

BEARINGS

JT	FACTORED GROSS REACTION		MAXIMUM FACTORED GROSS REACTION		INPUT BRG	REQRD BRG
	VERT	HORZ	DOWN	HORZ		
X	2099	0	2099	0	5-8	3-5
N	2099	0	2099	0	5-8	3-5

UNFACTORED REACTIONS							
JT	1ST LCASE		MAX./MIN. COMPONENT REACTIONS				
	COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
X	1494	927 / 0	0 / 0	0 / 0	0 / 0	567 / 0	0 / 0
N	1494	927 / 0	0 / 0	0 / 0	0 / 0	567 / 0	0 / 0

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

BRACING
TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 4.03 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.

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

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		FACTORED		MAX. UNBRACED LENGTH	MEMB.	WEBS	
	MAX. FORCE (LBS)	VERT. LOAD (PLF)	MAX. FORCE (LBS)	MAX. FORCE (LBS)			MAX. FORCE (LBS)	MAX. FORCE (LBS)
FR-TO						FR-TO		
A-B	0 / 52	-78.0	-78.0	0.15 (1)	10.00	W-C	-570 / 0	0.31 (1)
B-C	-1465 / 0	-78.0	-78.0	0.13 (1)	5.29	C-V	0 / 2226	0.50 (1)
C-D	-2586 / 0	-78.0	-78.0	0.30 (1)	4.87	V-D	-1297 / 0	0.70 (1)
D-E	-3423 / 0	-78.0	-78.0	0.35 (1)	4.32	D-T	0 / 1084	0.24 (1)
E-F	-3476 / 0	-78.0	-78.0	0.30 (1)	4.36	T-E	-571 / 0	0.31 (1)
F-G	-3476 / 0	-78.0	-78.0	0.30 (1)	4.36	E-S	0 / 68	0.02 (1)
G-H	-3958 / 0	-78.0	-78.0	0.29 (1)	4.11	S-G	-2951 / 0	0.70 (1)
H-I	-3957 / 0	-78.0	-78.0	0.38 (1)	4.03	G-R	0 / 2417	0.54 (1)
I-J	-3957 / 0	-78.0	-78.0	0.38 (1)	4.03	R-H	0 / 47	0.02 (4)
J-K	-2984 / 0	-78.0	-78.0	0.33 (1)	4.58	R-J	0 / 1199	0.27 (1)
K-L	-1199 / 0	-78.0	-78.0	0.12 (1)	5.72	Q-J	-1338 / 0	0.52 (1)
L-M	0 / 52	-78.0	-78.0	0.15 (1)	10.00	P-K	0 / 948	0.21 (1)
X-B	-2107 / 0	0.0	0.0	0.29 (1)	5.84	K-O	-1767 / 0	0.99 (1)
N-L	-2082 / 0	0.0	0.0	0.30 (1)	5.87	B-W	0 / 1124	0.25 (1)
						O-L	0 / 1143	0.26 (1)
X-W	0 / 0	-18.5	-18.5	0.08 (4)	10.00	Q-K	0 / 2456	0.55 (1)
W-V	0 / 867	-18.5	-18.5	0.17 (1)	10.00			
V-U	0 / 2586	-18.5	-18.5	0.35 (1)	10.00			
U-T	0 / 2586	-18.5	-18.5	0.35 (1)	10.00			
T-S	0 / 3423	-18.5	-18.5	0.46 (1)	10.00			
S-R	0 / 4547	-18.5	-18.5	0.54 (1)	10.00			
R-Q	0 / 2984	-18.5	-18.5	0.80 (1)	10.00			
Q-P	0 / 1000	-18.5	-18.5	0.33 (4)	10.00			
P-O	0 / 1312	-18.5	-18.5	0.21 (1)	10.00			
O-N	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

ALLOWABLE DEFL.(LL) = L/360 (1.36")
CALCULATED VERT. DEFL.(LL) = L/999 (0.25")
ALLOWABLE DEFL.(TL) = L/360 (1.36")
CALCULATED VERT. DEFL.(TL) = L/995 (0.49")

CSI: TC=0.38/1.00 (H-J:1), BC=0.60/1.00 (Q-R:1), WB=0.99/1.00 (K-O:1), SSI=0.20/1.00 (C-D:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

AUTOSOLVE LEFT HEEL ONLY

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

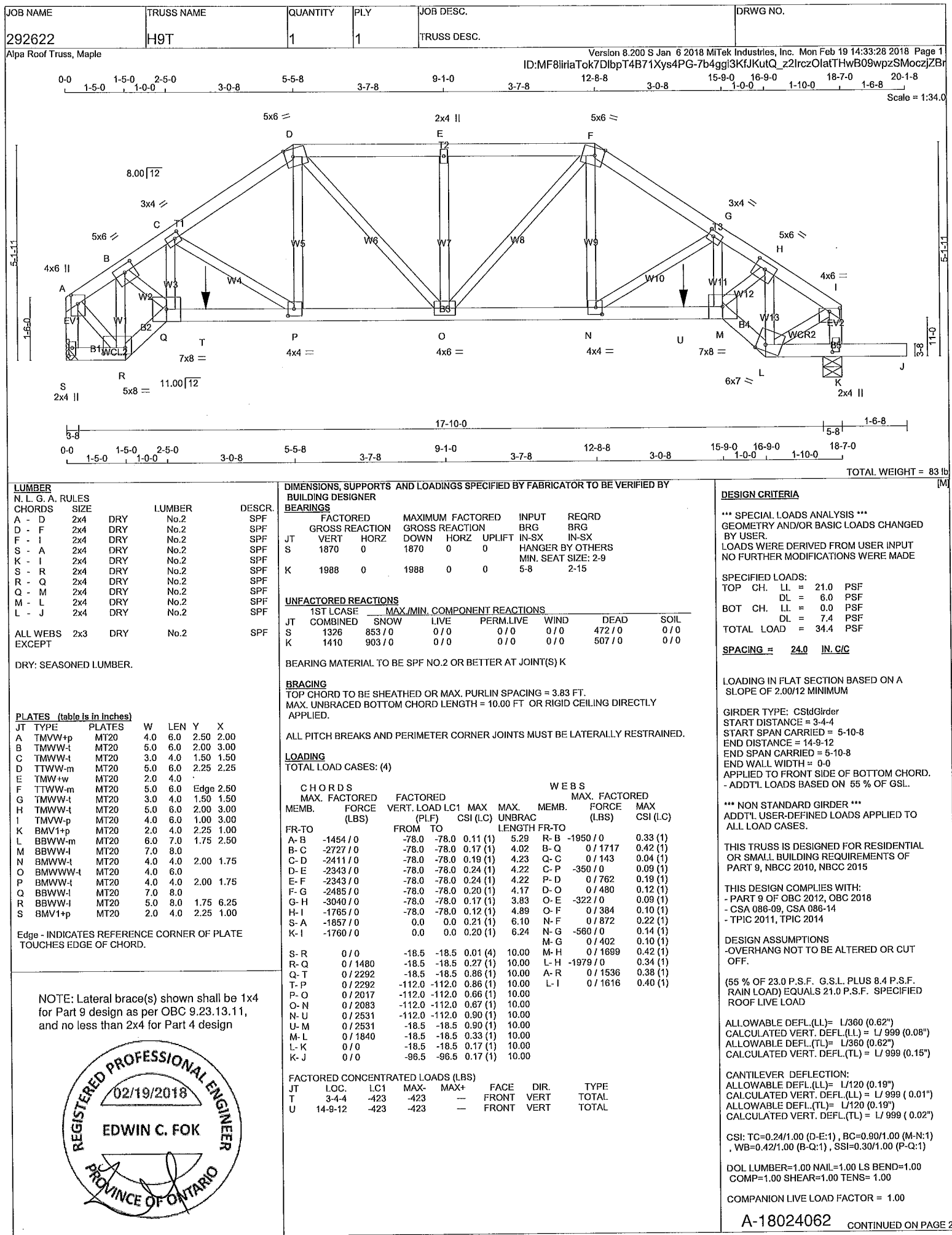
NAIL VALUES
PLATE GRIP(DRY) SHEAR SECTION (PSI) (PLI) (PLI)
MAX MIN MAX MIN MAX MIN
MT20 618 354 1667 788 1987 1656

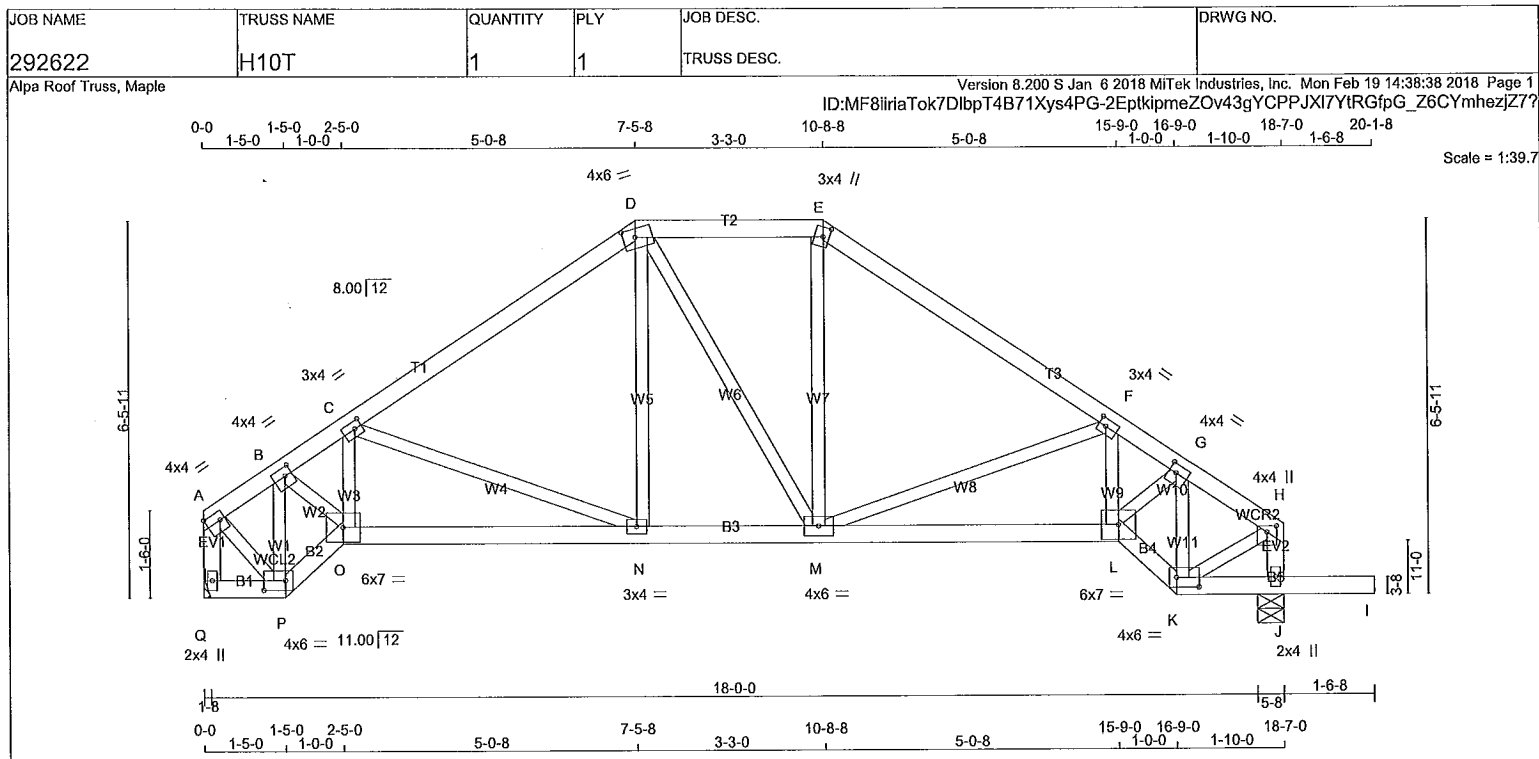
PLATE PLACEMENT TOL. = 0.250 Inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.90 (V) (INPUT = 0.90)
JSI METAL= 0.73 (S) (INPUT = 1.00)







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

DRY: SEASONED LUMBER.

PLATES (table is in inches)

JT	TYPE	PLATES	W	LEN	Y	X
A	TMVW-t	MT20	4.0	4.0	1.75	Edge
B	TMWW-t	MT20	4.0	4.0	1.75	1.50
C	TMWW-t	MT20	3.0	4.0	1.50	1.50
D	TTWW-m	MT20	4.0	6.0	1.75	2.50
E	TTW+m	MT20	3.0	4.0	2.00	1.25
F	TMWW-t	MT20	3.0	4.0	1.50	1.50
G	TMWW-t	MT20	4.0	4.0	1.75	1.50
H	TMVW+p	MT20	4.0	4.0	1.25	2.00
J	BMV1+p	MT20	2.0	4.0		
K	BBW1+p	MT20	4.0	6.0	2.00	4.50
L	BBWW-t	MT20	6.0	7.0		
M	BMVWW-t	MT20	4.0	6.0		
N	BMWW-t	MT20	3.0	4.0		
O	BBWW-t	MT20	6.0	7.0		
P	BBWW-t	MT20	4.0	6.0	2.00	4.50
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		
Q	890	0	890	0	0	0
J	1051	0	1051	0	5-8	1-9

UNFACTORED REACTIONS

JT	1ST CASE COMBINED	MAX. SNOW	MIN. LIVE	PERM. LIVE	WIND	DEAD	SOIL
Q	635	387 / 0	0 / 0	0 / 0	0 / 0	247 / 0	0 / 0
J	750	457 / 0	0 / 0	0 / 0	0 / 0	292 / 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 = 5.39 FT.
MAX. UNBRACED BOTTOM CHORD LENGTH = 10.00 FT OR RIGID CEILING DIRECTLY APPLIED.

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

LOADING

TOTAL LOAD CASES: (4)

CHORDS				WEBS			
MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	LC1 MAX CSI (LC)	MAX. UNBRACED LENGTH	MEMB.	MAX. FACTORED FORCE (LBS)	MAX. CSI (LC)
FR-TO		FROM TO			FR-TO		
A-B	-660 / 0	-78.0	-78.0 0.07 (1)	6.25	P-B	-858 / 0	0.13 (1)
B-C	-1210 / 0	-78.0	-78.0 0.20 (1)	5.60	B-O	0 / 863	0.19 (1)
C-D	-930 / 0	-78.0	-78.0 0.23 (1)	6.15	Q-C	-111 / 14	0.02 (1)
D-E	-770 / 0	-78.0	-78.0 0.11 (1)	6.25	C-N	-369 / 0	0.18 (1)
E-F	-940 / 0	-78.0	-78.0 0.23 (1)	6.12	N-D	0 / 208	0.05 (1)
F-G	-1338 / 0	-78.0	-78.0 0.20 (1)	5.39	D-M	0 / 18	0.00 (1)
G-H	-783 / 0	-78.0	-78.0 0.07 (1)	6.25	M-E	0 / 229	0.05 (1)
Q-A	-877 / 0	0.0	0.0 0.09 (1)	7.81	M-F	-460 / 0	0.23 (1)
J-H	-823 / 0	0.0	0.0 0.08 (1)	7.81	L-F	-1 / 54	0.02 (4)
					L-G	0 / 849	0.19 (1)
Q-P	0 / 0	-18.5	-18.5 0.01 (4)	10.00	K-G	-891 / 0	0.14 (1)
P-O	0 / 660	-18.5	-18.5 0.11 (1)	10.00	A-P	0 / 685	0.15 (1)
O-N	0 / 1100	-18.5	-18.5 0.24 (1)	10.00	K-H	0 / 711	0.16 (1)
N-M	0 / 761	-18.5	-18.5 0.17 (1)	10.00			
M-L	0 / 1194	-18.5	-18.5 0.25 (1)	10.00			
L-K	0 / 808	-18.5	-18.5 0.13 (1)	10.00			
K-J	0 / 0	-18.5	-18.5 0.12 (1)	10.00			
J-I	0 / 0	-96.5	-96.5 0.16 (1)	10.00			

DESIGN CRITERIA

SPECIFIED LOADS:

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

SPACING = 24.0 IN. C/C

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

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

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

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) = $L/360$ (0.62")
CALCULATED VERT. DEFL.(LL) = $L/999$ (0.03")
ALLOWABLE DEFL.(TL) = $L/360$ (0.62")
CALCULATED VERT. DEFL.(TL) = $L/999$ (0.07")

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=0.23/1.00 (E-F:1), BC=0.25/1.00 (L-M:1), WB=0.23/1.00 (F-M:1), SSI=0.15/1.00 (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

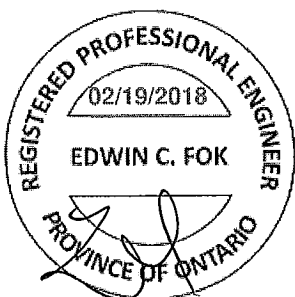
TRUSS PLATE MANUFACTURER IS NOT RESPONSIBLE FOR QUALITY CONTROL IN THE TRUSS MANUFACTURING PLANT.

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.

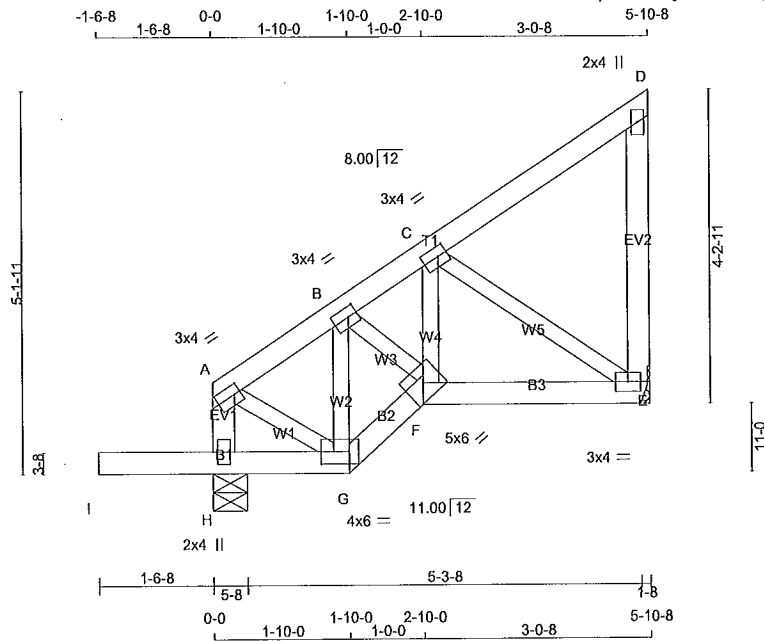
JSI GRIP= 0.89 (E) (INPUT = 0.90)
JSI METAL= 0.30 (P) (INPUT = 1.00)



JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
292622	J5T	3	1	TRUSS DESC.	

Alpa Roof Truss, Maple

Version 8.200 S Jan 6 2018 MITek Industries, Inc. Mon Feb 19 14:38:56 2018 Page 1
ID:MF8IiriaTok7DlbpT4B71Xys4PG-WiugVs13P5fLEq3?GBkXGYtfhQN1S7CF?vjJbzjZ6j



Scale = 1:31.0

TOTAL WEIGHT = 3 X 30 = 90 lb

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

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

PLATES (table is in inches)

JT	TYPE	PLATES	W	LEN	Y	X
A	TMVW-t	MT20	3.0	4.0	1.50	1.00
B	TMVW-t	MT20	3.0	4.0	1.50	1.50
C	TMVW-t	MT20	3.0	4.0	1.50	1.50
D	TMV+p	MT20	2.0	4.0		
E	BMVW-t	MT20	3.0	4.0		
F	BBVW-h	MT20	5.0	6.0		
G	BBVW-t	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	REQRD
JT	VERT	HORZ	DOWN	HORZ	UPLIFT
H	452	0	452	0	0
E	264	0	264	0	0

HANGER BY OTHERS
MIN. SEAT SIZE: 1-8

UNFACTORED REACTIONS

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

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

BRACING

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

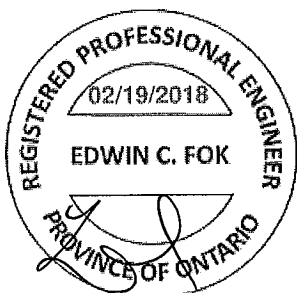
ALL PITCH BREAKS AND PERIMETER CORNER JOINTS MUST BE Laterally RESTRAINED.

LOADING

TOTAL LOAD CASES: (4)

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

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

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) = 1/999 (0.00")
ALLOWABLE DEFL.(TL)= L/360 (0.20")
CALCULATED VERT. DEFL.(TL) = 1/999 (0.01")

CANTILEVER DEFLECTION:
ALLOWABLE DEFL.(LL)= L/120 (0.19")
CALCULATED VERT. DEFL.(LL) = 1/999 (0.02")
ALLOWABLE DEFL.(TL)= L/120 (0.19")
CALCULATED VERT. DEFL.(TL) = 1/588 (0.03")

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

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

COMPANION LIVE LOAD FACTOR = 1.00

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

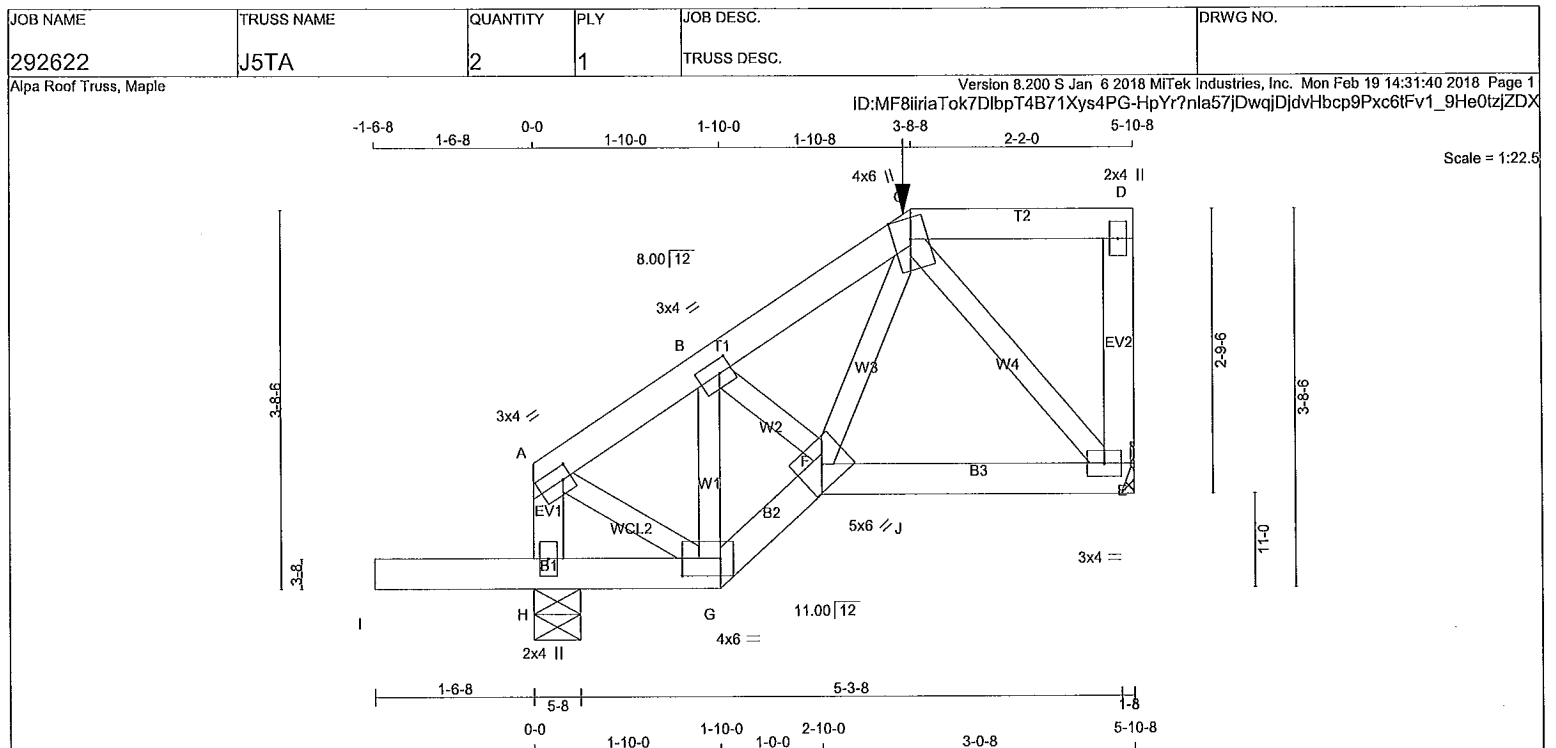
NAIL VALUES
PLATE GRIP(DRY) SHEAR SECTION
(PSI) (PLI) (PLI)
MAX MIN MAX MIN MAX MIN
MT20 618 354 1667 788 1987 1656

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

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

A-18024065



LUMBER

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

ALL WEBS 2x3 DRY No.2 SPF
EXCEPT

DRY: SEASONED LUMBER.

PLATES (table is in inches)

JT TYPE	PLATES	W	LEN	Y	X
A - TMVW-t	MT20	3.0	4.0	1.50	1.00
B - TMWW-t	MT20	3.0	4.0	1.50	1.50
C - TTWW+m	MT20	4.0	6.0	Edge	
D - TMV+p	MT20	2.0	4.0		
E - BMVW1-t	MT20	3.0	4.0		
F - BBWW-h	MT20	5.0	6.0		
G - BBWW-l	MT20	4.0	6.0	2.00	4.50
H - BMV1+p	MT20	2.0	4.0		

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

HANGERS NOTES

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

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

BEARINGS

	FACTORED GROSS REACTION	MAXIMUM FACTORED GROSS REACTION	INPUT BRG	REQD BRG
JT	VERT	HORZ	DOWN	HORZ
E	413	0	413	0
H	527	0	527	0

UNFACTORED REACTIONS

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

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

BRACING

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

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

LOADING

TOTAL LOAD CASES: (4)

CHORDS	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	MAX. FACTORED LC1 MAX. (LC)	MAX. UNBRACED LENGTH	WEBS	MAX. FACTORED FORCE (LBS)	MAX. FACTORED LC1 MAX. (LC)
MEMB.					MEMB.		
FR-TO		FROM TO			FR-TO		
A-B	-243 / 0	-78.0 -78.0	0.04 (1)	6.25	G-B	-302 / 0	0.05 (1)
B-C	-339 / 0	-78.0 -78.0	0.04 (1)	6.25	B-F	0 / 118	0.03 (1)
C-D	0 / 0	-111.3 -111.3	0.10 (1)	10.00	F-C	0 / 157	0.04 (1)
E-D	-121 / 0	0.0 0.0	0.02 (1)	7.81	C-E	-338 / 0	0.07 (1)
H-A	-292 / 0	0.0 0.0	0.03 (1)	7.81	A-G	0 / 231	0.06 (1)
I-H	0 / 0	-96.5 -96.5	0.17 (1)	10.00			
H-G	0 / 0	-26.4 -26.4	0.17 (1)	10.00			
G-F	0 / 261	-26.4 -26.4	0.05 (1)	10.00			
F-J	0 / 223	-26.4 -26.4	0.10 (4)	10.00			
J-E	0 / 223	-26.4 -26.4	0.10 (4)	10.00			

FACTORED CONCENTRATED LOADS (LBS)

JT	LOC.	LC1	MAX-	MAX+	FACE	DIR.	TYPE
C	3-8-8	-106	-106	---	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 = 3-8-8
RIGHT SETBACK = 0-0
END SETBACK = 3-8-8
END WALL WIDTH = 0-0
CORNER FRAMING TYPE: CONVENTIONAL
END JACK TYPE: CONVENTIONAL
APPLIED TO FRONT SIDE
- ADD'L LOADS BASED ON 55 % OF GSL.

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

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

DESIGN ASSUMPTIONS

- OVERHANG NOT TO BE ALTERED OR CUT OFF.

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

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

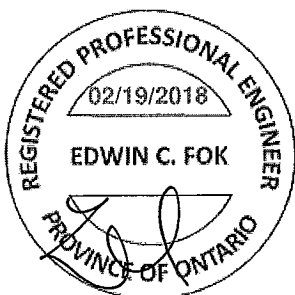
CANTILEVER DEFLECTION:
ALLOWABLE DEFL.(LL) = $L/120$ (0.19")
CALCULATED VERT. DEFL.(LL) = $L/999$ (0.02")
ALLOWABLE DEFL.(TL) = $L/120$ (0.19")
CALCULATED VERT. DEFL.(TL) = $L/617$ (0.03")

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

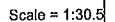
DOL LUMBER=1.00 NAIL=1.00 LS BEND=1.00
COMP=1.00 SHEAR=1.00 TENS= 1.00

COMPANION LIVE LOAD FACTOR = 1.00

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



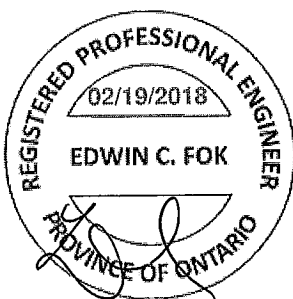
Alpa Roof Truss, Maple



TOTAL WEIGHT = 2 X 30 = 60 lb

DRY; SEASONED LUMBER.

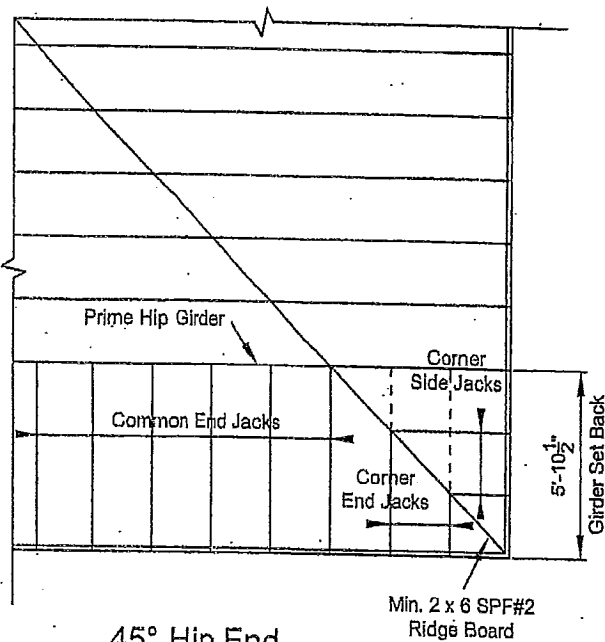
NOTE: Lateral brace(s) shown shall be 1x4
for Part 9 design as per OBC 9.23.13.11,
and no less than 2x4 for Part 4 design



CHORDS				WEBS				
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	-165 / 0	-78.0	-78.0	0.04 (1)	6.25	G-B	-220 / 0	0.03 (1)
B-C	-239 / 0	-78.0	-78.0	0.08 (1)	6.25	B-F	0 / 130	0.03 (1)
C-D	-11 / 0	-78.0	-78.0	0.08 (1)	6.25	F-C	0 / 63	0.02 (4)
E-D	-95 / 0	0.0	0.0	0.03 (1)	7.81	C-E	-259 / 0	0.06 (1)
H-A	-223 / 0	0.0	0.0	0.02 (1)	7.81	A-G	0 / 154	0.03 (1)
I-H	0 / 0	-96.5	-96.5	0.16 (1)	10.00			
H-G	0 / 0	-18.5	-18.5	0.16 (1)	10.00			
G-F	0 / 173	-18.5	-18.5	0.03 (1)	10.00			
F-E	0 / 216	-18.5	-18.5	0.07 (4)	10.00			

A-18024067

STRACON ENGINEERING INC.



45° Hip End

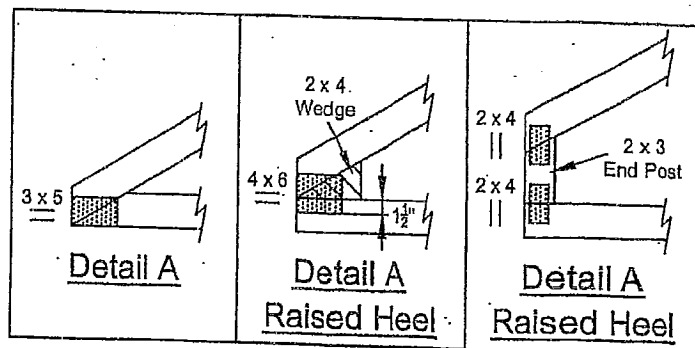
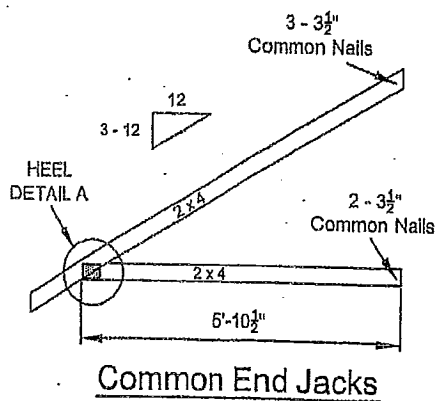
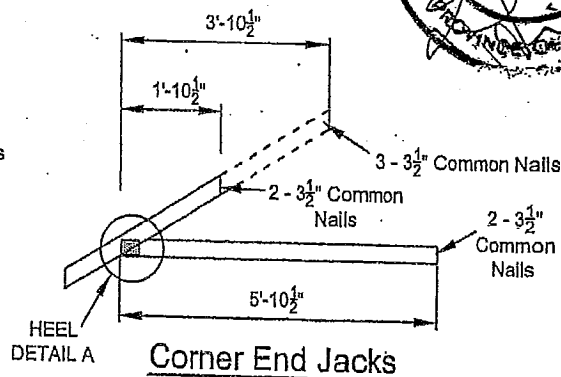
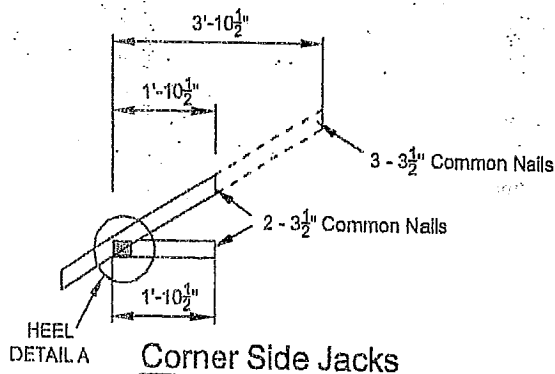
LUMBER SPECIFICATION

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

HHUS – Double Shear Joist Hangers



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

Material: 14 gauge

Finish: G90 galvanized

Design:

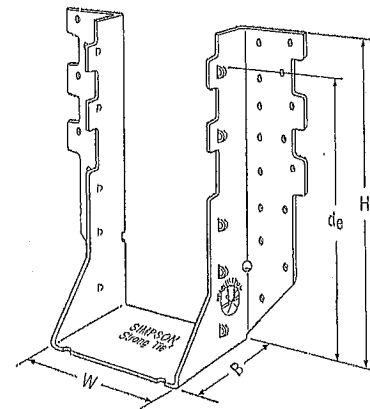
- Factored resistances are in accordance with CSA O86-14.
- Uplift resistances have been increased 15%. No further increase is permitted.
- Wood shear is not considered in the factored resistances given. The specifier must ensure that the joist and header capacities are capable of withstanding these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

Installation:

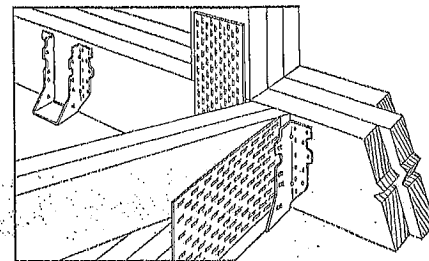
- Use all specified fasteners
- Nails: 16d = 0.162" dia. x 3 1/2" long common wire
- Double shear nails must be driven at an angle through the joist or truss into the header to achieve the table loads
- Not designed for welded or nailer applications

Options:

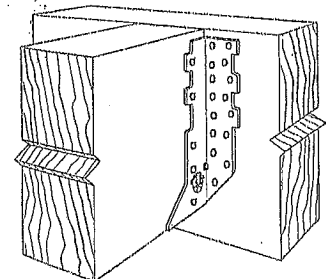
- See current catalogue for options



HHUS410



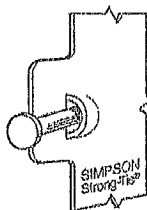
Typical HHUS Installation
(Truss Designer to provide fastener quantity for connecting multiple members together)



Typical HHUS Installation

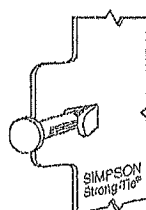
Model No.	Ga.	Dimensions (in.)				Fasteners		Factored Resistance (lb.)			
		W	H	B	dg ¹	Face	Joist	D.Fir-L		S-P-F	
								Uplift (K _o =1.15)	Normal (K _o =1.00)	Uplift (K _o =1.15)	Normal (K _o =1.00)
HHUS28-2	14	3 9/16	5 13/16	3	3 19/16	(14) 16d	(6) 16d	2850	7335	2065	5205
HHUS28-2	14	3 9/16	7 1/2	3	6 5/32	(22) 16d	(8) 16d	3765	8940	2675	6345
HHUS210-2	14	3 9/16	9 3/2	3	8	(30) 16d	(10) 16d	4745	9660	4310	7000
HHUS210-3	14	4 1 1/16	9	3	7 19/16	(30) 16d	(10) 16d	4745	10545	4310	7485
HHUS210-4	14	4 6 1/16	8 29/32	3	7 27/32	(30) 16d	(10) 16d	4745	10545	4310	7485
HHUS46	14	3 3/8	5 1 1/2	3	3 19/16	(14) 16d	(6) 16d	2540	7335	2065	5205
HHUS48	14	3 3/8	7 1/8	3	6 1/8	(22) 16d	(8) 16d	3765	8945	2267	6345
HHUS410	14	3 3/8	9	3	8	(30) 16d	(10) 16d	4745	9855	4310	7000
HHUS5.50/10	14	5 1/2	9	3	8	(30) 16d	(10) 16d	4745	10545	4310	7485
HHUS7.25/10	14	7 1/4	9	3 3/16	7 29/32	(30) 16d	(10) 16d	4745	10770	4310	7650

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

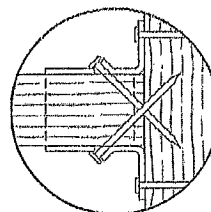


Double Shear Nailing prevents tabs breaking off (available on some models).

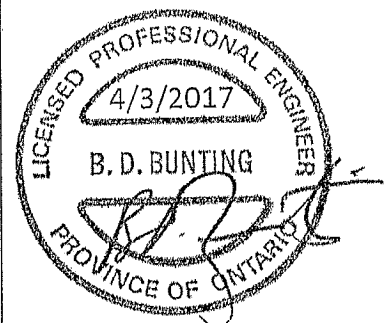
U.S. Patent
5,603,580



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



Double Shear Nailing Top View.



LIMIT
STATES
DESIGN

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

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T-SPECHHUS17_3/17_exp_6/19

(800) 999-5099
strongtie.com

LUS – Double Shear Joist Hangers



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

Material: 18 gauge

Finish: G90 galvanized

Design:

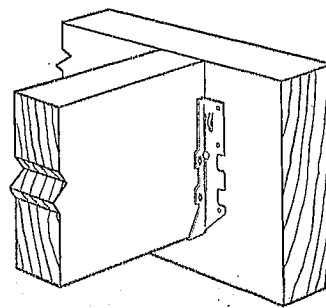
- Factored resistances are in accordance with CSA O86-14.
- Uplift resistances have been increased 15%. No further increase is permitted.
- Wood shear is not considered in the factored resistances given. The specifier must ensure that the joist and header capacities are capable of withstanding these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

Installation:

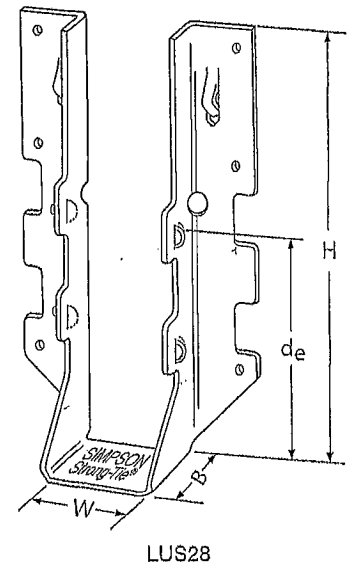
- Use all specified fasteners.
- Nails: 16d = 0.162" dia. x 3½" long common wire, 10d = 0.148" x 3" long common wire.
- Double shear nails must be driven at an angle through the joist or truss into the header to achieve the table loads.
- Not designed for welded or nailer applications.

Options:

- These hangers cannot be modified



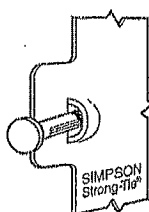
Typical LUS Installation



LUS28

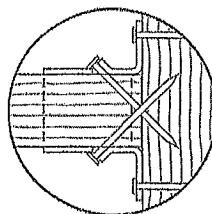
Model No.	Ga.	Dimensions (in.)				Fasteners		Factored Resistance (lb.)			
		W	H	B	d ₁	Face	Joist	D.Fir-L		S-P-F	
								Uplift (K _p =1.15)	Normal (K _p =1.00)	Uplift (K _p =1.15)	Normal (K _p =1.00)
LUS24	18	1⅞	3⅞	1¼	1⅞	(4) 10d	(2) 10d	710	1630	645	1155
LUS24-2	18	3⅞	3⅞	2	1⅞	(4) 16d	(2) 16d	835	2020	590	1435
LUS26	18	1⅞	4⅞	1¼	3⅞	(4) 10d	(4) 10d	1420	2170	1290	1630
LUS26-2	18	3⅞	4⅞	2	4	(4) 16d	(4) 16d	1720	2595	1545	1920
LUS26-3	18	4⅞	4⅞	2	3¼	(4) 16d	(4) 16d	1720	2595	1545	2340
LUS28	18	1⅞	6⅞	1¼	3⅞	(6) 10d	(6) 10d	1420	2520	1290	1790
LUS28-2	18	3⅞	7	2	4	(6) 16d	(4) 16d	1720	3325	1545	2575
LUS28-3	18	4⅞	6¼	2	3¼	(6) 16d	(4) 16d	1720	3325	1545	2375
LUS210	18	1⅞	7⅞	1¼	3⅞	(8) 10d	(4) 10d	1420	2785	1290	2210
LUS210-2	18	3⅞	9	2	6	(8) 16d	(6) 16d	2580	4500	2320	3195
LUS210-3	18	4⅞	8⅞	2	5¼	(8) 16d	(6) 16d	2580	3345	2320	2375

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

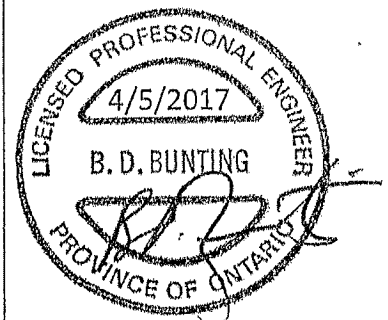


Double Shear Nailing prevents tabs breaking off (available on some models).

U.S. Patent 5,603,580



Double Shear Nailing Top View.



LIMIT
STATES
DESIGN

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

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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:

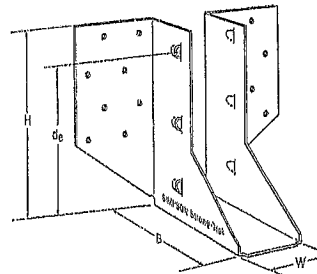
- Factored resistances are in accordance with CSA O86 -14.
- Uplift resistances have been increased 15%. No further increase is permitted.
- Wood shear is not considered in the factored resistances given. The specifier must ensure that the joist and header capacities are capable of withstanding these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

Installation:

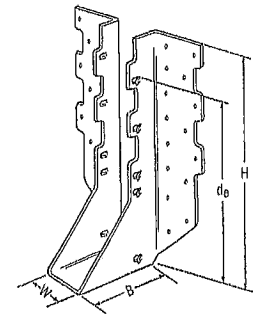
- Use all specified fasteners
- Nails: $16d = 0.162"$ dia. x $3\frac{1}{2}"$ long common wire
- Double shear nails must be driven at an angle through the joist or truss into the header to achieve the table loads
- Not designed for welded or nailer applications

Options:

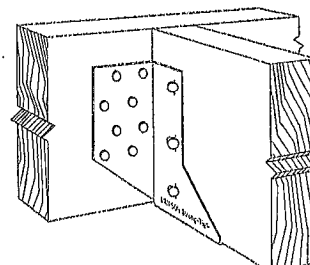
- See current catalogue for options



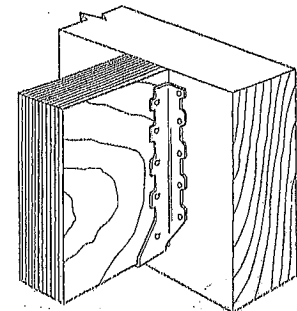
LJS26DS



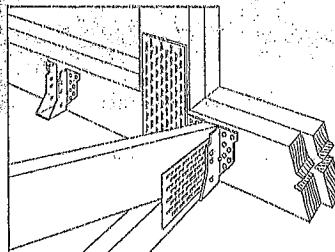
HUS210
(HUS26, HUS28, similar)



Typical LJS26DS
Installation



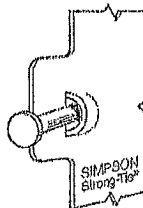
Typical HUS
Installation



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

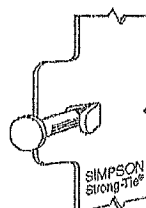
Model No.	Ga.	Dimensions (In.)					Fasteners		Factored Resistance (lb.)			
		W	H	B	d_e^1	Face	Joist		D.Fir-L		S-P-F	
									Uplift ($K_D=1.15$)	Normal ($K_D=1.00$)	Uplift ($K_D=1.15$)	Normal ($K_D=1.00$)
LJS26DS	18	$1\frac{1}{16}$	5	$3\frac{1}{2}$	$\frac{4}{16}$	(16) 16d	(6) 16d		2055	4265	1460	4115
HUS26	16	$1\frac{1}{8}$	$5\frac{1}{8}$	3	$3\frac{1}{16}$	(14) 16d	(6) 16d		2705	4940	2065	3875
HUS28	16	$1\frac{1}{8}$	$7\frac{1}{2}$	3	$6\frac{1}{32}$	(22) 16d	(8) 16d		3605	5365	2675	4345
HUS210	16	$1\frac{1}{8}$	$9\frac{1}{2}$	3	$7\frac{1}{32}$	(30) 16d	(10) 16d		4505	5795	4010	4740
HUS1.81/10	16	$1\frac{1}{16}$	9	3	8	(30) 16d	(10) 16d		4505	6450	4010	5200

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

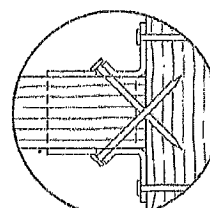


Dome Double Shear Nailing prevents tabs breaking off (available on some models).

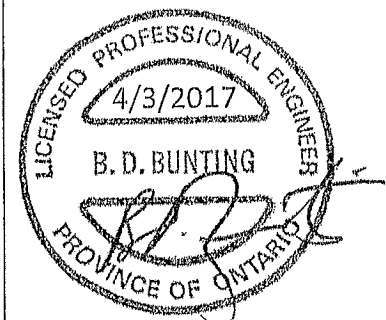
U.S. Patent
5,603,580



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



Double Shear Nailing Top View.



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STATES
DESIGN

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T-SPEC-HUS17 3/17 exp. 6/19

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TC – Truss Connectors



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

Material: 16 gauge

Finish: G90 galvanized

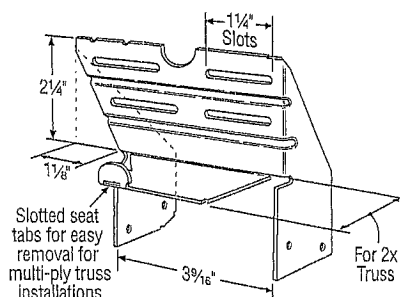
Design: Factored resistances are in accordance with CSA 086-14

Installation:

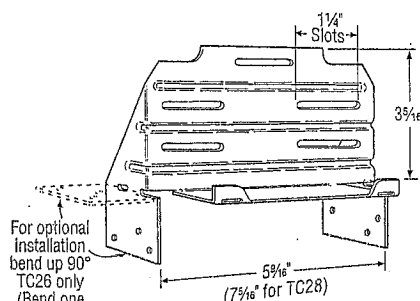
- Use all specified fasteners.
- Nails: 10d = 0.148" dia. x 3" long common wire, 10d x 1 1/2 = 0.148" dia. x 1 1/2" long.
- Drive 10d nails into the truss at the inside end of the slotted holes (inside end is towards the centre of the truss) and clinch on the back side. Do not seat these nails into the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

Optional TC Installation:

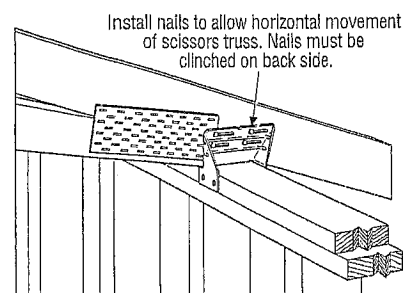
- Bend one flange up 90°. Drive specified nails into the top and face of the top plates or install Titen® screws into the top and face of masonry wall. See optional load tables and installation details.



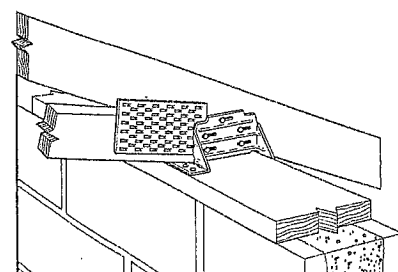
TC24
U.S. Patent 4,932,173



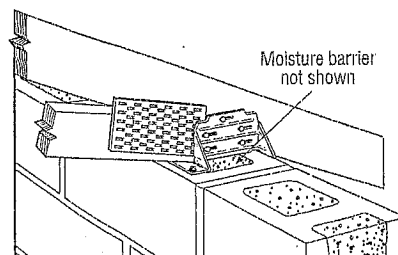
TC26
(TC28 Similar)



Typical TC24 Installation



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



Optional TC26 Installation for Grouted Concrete Block using Titen Screws

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

Optional TC Installation Table

Model No.	Fasteners		Factored Resistance	
	Truss	Wall Plates	D.Fir-L	S-P-F
			Uplift (K ₀ =1.15)	Uplift (K ₀ =1.15)
			lb.	lb.
TC26	(5) 10d	(6) 10d x 1 1/2"	810	660
	(5) 10d	(6) 10d	930	660

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



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