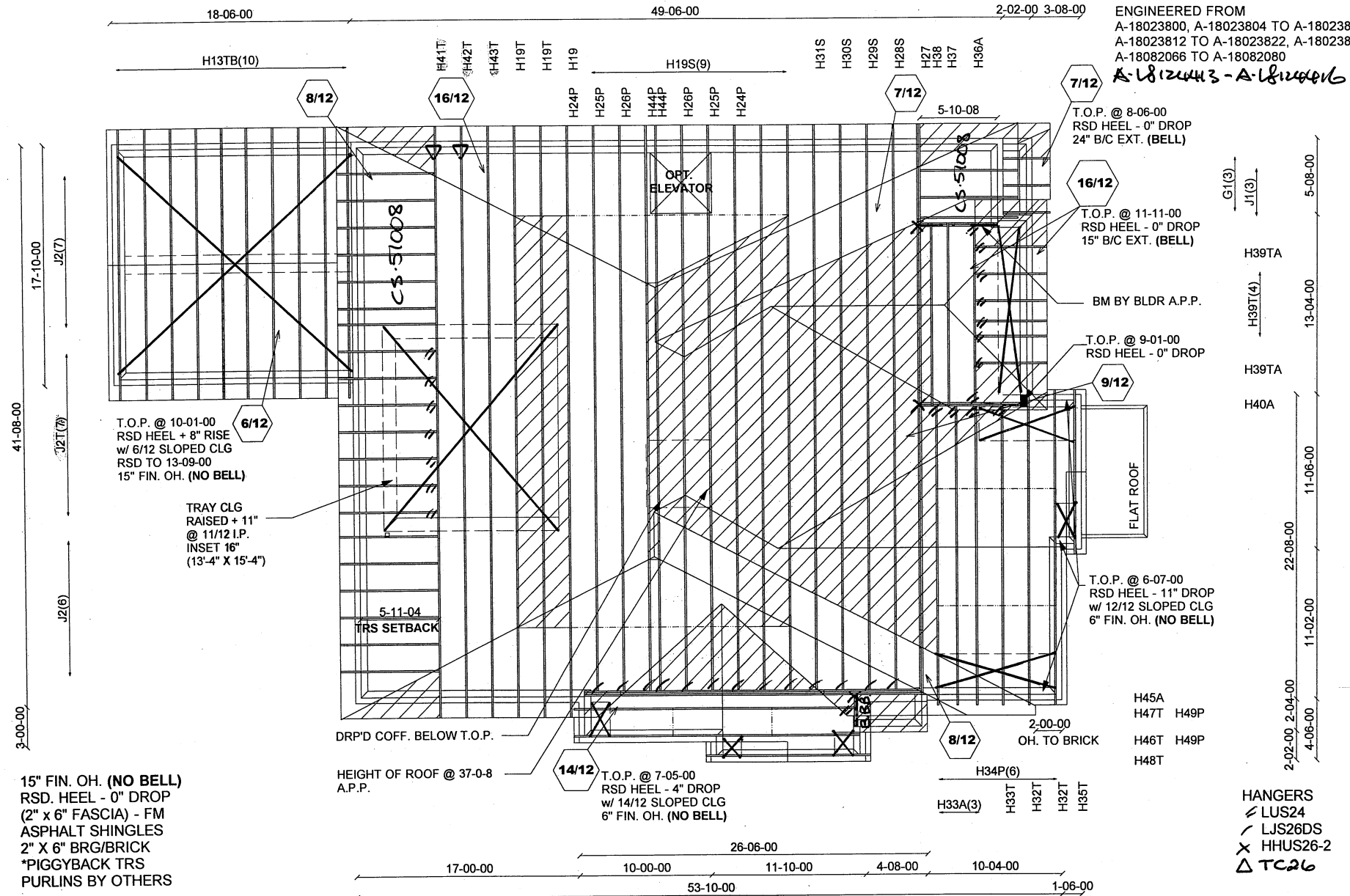




ENGINEERED FROM
 A-18023800, A-18023804 TO A-18023807,
 A-18023812 TO A-18023822, A-18023827,
 A-18082066 TO A-18082080

A-1812443-A-1812446

7/12
 T.O.P. @ 8-06-00
 RSD HEEL - 0" DROP
 24" B/C EXT. (BELL)

16/12
 T.O.P. @ 11-11-00
 RSD HEEL - 0" DROP
 15" B/C EXT. (BELL)

9/12
 T.O.P. @ 9-01-00
 RSD HEEL - 0" DROP

8/12
 T.O.P. @ 6-07-00
 RSD HEEL - 11" DROP
 w/ 12/12 SLOPED CLG
 6" FIN. OH. (NO BELL)

H45A
 H47T H49P
 H46T H49P
 H48T

HANGERS
 ✓ LUS24
 ✓ LJS26DS
 X HHUS26-2
 Δ TC26

ALL CONVENTIONAL FRAMING TO CONFORM WITH PART 9 O.B.C. LATEST EDITION. ROOF RAFTERS THAT CROSS OVER TRUSSES TO BE 2X4 SPF #2 @ 24" O.C WITH A VERT. POST TO THE TRUSS UNDERNEATH AT EACH CROSS POINT. VERT. POSTS LONGER THAN 6' TO HAVE LATERAL BRACING SO THAT THE DISTANCE BETWEEN END POINTS & BETWEEN ROWS OF BRACING DOES NOT EXCEED 6'

Mitek V. 8.2.0

CONVENTIONAL FRAMING BY OTHERS

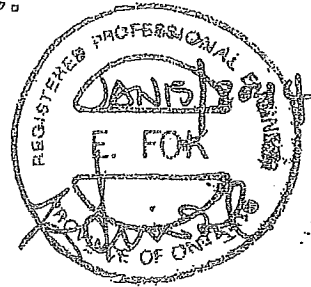
PL-101745-105728



Job Track: 45147	Builder / Location: GOLD PARK HOMES / VAUGHAN	Model / Elevation: 5004	W/ I A CRN TRAY
Layout ID: 304890	Project: PINE VALLEY	THESE DRAWINGS CONSTITUTE THE PROPERTY OF ALPHA ROOF TRUSSES INC., SHALL NOT BE REPRODUCED, PUBLISHED, OR REDISTRIBUTED IN ANY MANNER OR UTILIZED FOR ANY PURPOSE OTHER THAN THE MANUFACTURE OF TRUSSES BY ALPHA ROOF TRUSSES INC AND WILL BE RETRACTED BY ALPHA ROOF TRUSSES INC IF UTILIZED FOR ANY OTHER PURPOSE.	
Plan Log: 100885	Date: 11/28/2018	Designer: MARIKA	BEAUMONT

Stracon Engineering Inc.

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



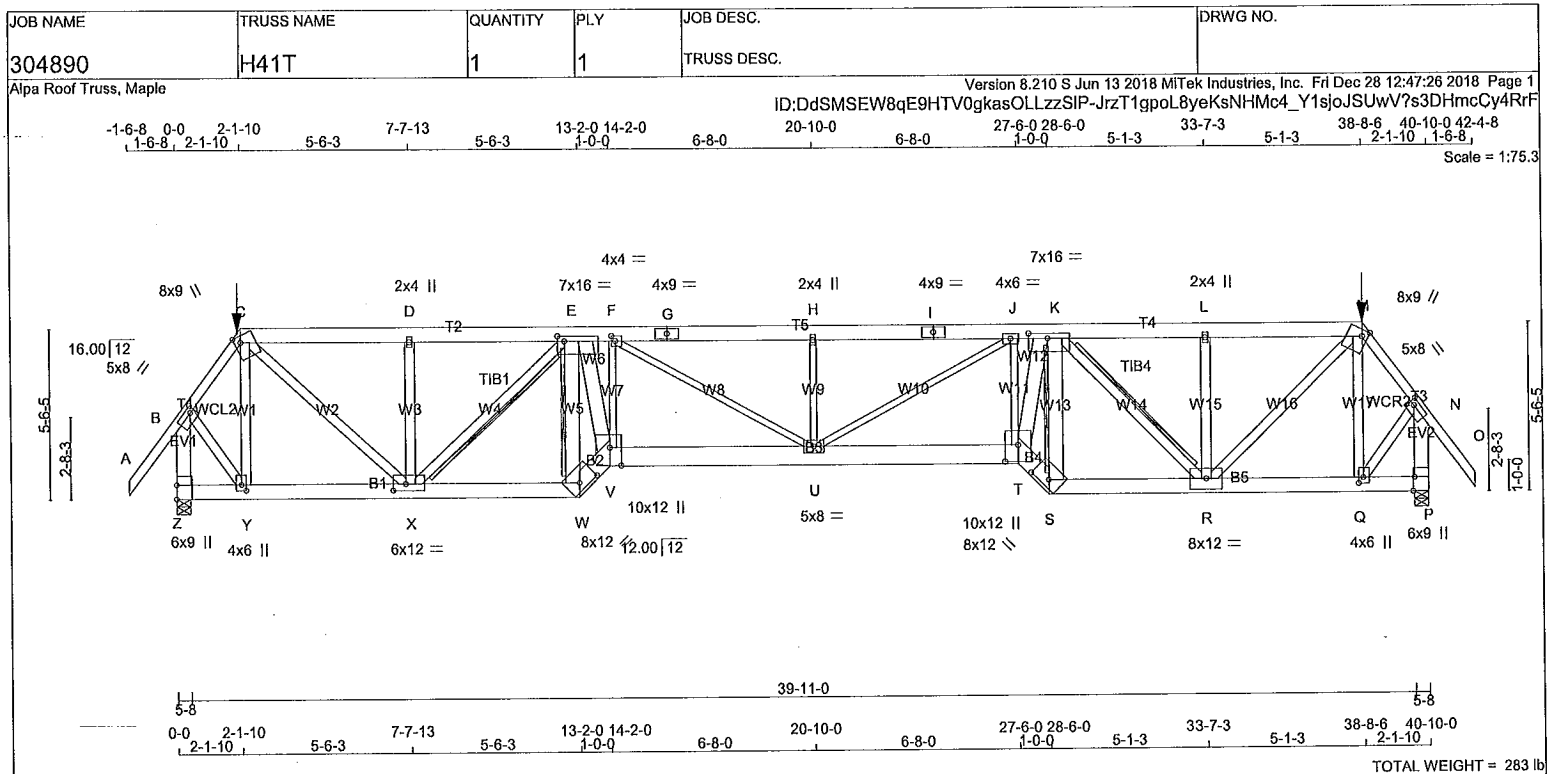
RESPONSIBILITIES

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

SPECIFICATIONS

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

January 15, 2014



LUMBER				DESCR.	
N. L. G. A. RULES					
CHORDS	SIZE	LUMBER			
A - C	2x4	DRY	No.2	SPF	
C - G	2x6	DRY	1650F 1.5E	SPF	
G - I	2x6	DRY	1650F 1.5E	SPF	
I - M	2x6	DRY	1650F 1.5E	SPF	
M - O	2x4	DRY	No.2	SPF	
Z - B	2x6	DRY	No.2	SPF	
P - N	2x6	DRY	No.2	SPF	
Z - W	2x6	DRY	1650F 1.5E	SPF	
W - V	2x8	DRY	1950F 1.7E	SPF	
V - T	2x8	DRY	1950F 1.7E	SPF	
T - S	2x8	DRY	1950F 1.7E	SPF	
S - P	2x6	DRY	No.2	SPF	
ALL WEBS EXCEPT					
Y - C	2x4	DRY	1650F 1.5E	SPF	
X - D	2x4	DRY	1650F 1.5E	SPF	
W - E	2x6	DRY	No.2	SPF	
E - V	2x6	DRY	1650F 1.5E	SPF	
V - F	2x3	DRY	No.2	SPF	
F - U	2x3	DRY	No.2	SPF	
U - H	2x3	DRY	No.2	SPF	
U - J	2x3	DRY	No.2	SPF	
T - J	2x3	DRY	No.2	SPF	
T - K	2x6	DRY	1650F 1.5E	SPF	
S - K	2x6	DRY	No.2	SPF	
R - L	2x4	DRY	1650F 1.5E	SPF	
Q - M	2x4	DRY	1650F 1.5E	SPF	

DRY: SEASONED LUMBER.

PLATES (table is in inches)					
JT	TYPE	PLATES	W	LEN	Y X
B	TMVW-t	MT20	5.0	8.0	2.00 2.00
C	TTWW+m	MT20	8.0	9.0	2.50 2.25
D, H, L					
D	TMW+w	MT20	2.0	4.0	
E	TMWWW-t	MT20	7.0	16.0	2.00 2.75
F	TMWW-t	MT20	4.0	4.0	2.00 1.50
G	TS-t	MT20	4.0	9.0	
I	TS-t	MT20	4.0	9.0	

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

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	UPLIFT	IN-SX	IN-SX	
Z	4058	0	0	4058	0	0	5-8	5-8	
P	4061	0	0	4061	0	0	5-8	5-8	

ALLOW FOR 0.4" OF HORIZONTAL MOVEMENT DUE TO TOTAL LOAD

UNFACTORED REACTIONS									
1ST LCASE		MAX/MIN. COMPONENT REACTIONS							
JT	COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL		
Z	2889	1788 / 0	0 / 0	0 / 0	0 / 0	1101 / 0	0 / 0		
P	2891	1790 / 0	0 / 0	0 / 0	0 / 0	1101 / 0	0 / 0		

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

BRACING
TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 2.89 FT.
MAX. UNBRACED BOTTOM CHORD LENGTH = 10.00 FT OR RIGID CEILING DIRECTLY APPLIED.

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

2x4 DRY SPF No.2 T-BRACE AT E-X, E-W, K-S, K-R

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

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

LOADING									
TOTAL LOAD CASES: (4)									
CHORDS		FACTORED				W E B S			
MEMB.	MAX. FACTORED FORCE (LBS)	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 / 52	-78.0	-78.0	0.17 (1)	10.00	Y-C	-1368 / 0	0.29 (1)	
B-C	-2804 / 0	-78.0	-78.0	0.28 (1)	3.87	C-X	0 / 4536	0.80 (1)	
C-D	-4959 / 0	-154.7	-154.7	0.30 (1)	4.21	X-D	-933 / 0	0.20 (1)	
D-E	-4859 / 0	-154.7	-154.7	0.30 (1)	4.21	X-E	-3033 / 0	0.93 (1)	
E-F	-9407 / 0	-154.7	-154.7	0.39 (1)	3.11	W-E	-6838 / 0	0.83 (1)	
F-G	-10340 / 0	-78.0	-78.0	0.57 (1)	2.89	E-V	0 / 8622	0.70 (1)	
G-H	-10340 / 0	-78.0	-78.0	0.57 (1)	2.89	V-F	-660 / 0	0.17 (1)	
H-I	-10340 / 0	-78.0	-78.0	0.56 (1)	2.89	F-U	0 / 1072	0.27 (1)	
I-J	-10340 / 0	-78.0	-78.0	0.56 (1)	2.89	U-H	-591 / 0	0.16 (1)	
J-K	-9133 / 0	-154.7	-154.7	0.36 (1)	3.18	U-J	0 / 1386	0.34 (1)	
K-L	-4737 / 0	-154.7	-154.7	0.25 (1)	4.33	T-J	-852 / 0	0.22 (1)	
L-M	-4737 / 0	-154.7	-154.7	0.26 (1)	4.33	T-K	0 / 8548	0.70 (1)	
M-N	-2801 / 0	-78.0	-78.0	0.28 (1)	3.87	S-K	-6578 / 0	0.80 (1)	
N-O	0 / 52	-78.0	-78.0	0.17 (1)	10.00	K-R	-3101 / 0	0.87 (1)	
Z-B	-4082 / 0	0.0	0.0	0.41 (1)	5.26	R-L	-853 / 0	0.18 (1)	
P-N	-4078 / 0	0.0	0.0	0.41 (1)	5.26	R-M	0 / 4400	0.78 (1)	
						Q-M	-1380 / 0	0.29 (1)	
Z-Y	0 / 0	-36.7	-36.7	0.08 (1)	10.00	B-Y	0 / 2307	0.41 (1)	
Y-X	0 / 1616	-36.7	-36.7	0.21 (1)	10.00	Q-N	0 / 2304	0.41 (1)	
X-W	0 / 7151	-36.7	-36.7	0.66 (1)	10.00				
W-V	0 / 9843	-36.7	-36.7	0.45 (1)	10.00				
V-U	0 / 9424	-121.6	-121.6	0.58 (1)	10.00				
U-T	0 / 9156	-121.6	-121.6	0.57 (1)	10.00				
T-S	0 / 9481	-36.7	-36.7	0.43 (1)	10.00				
S-R	0 / 6888	-36.7	-36.7	0.99 (1)	10.00				
R-Q	0 / 1614	-36.7	-36.7	0.31 (1)	10.00				
Q-P	0 / 0	-36.7	-36.7	0.10 (1)	10.00				

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

SPACING = 24.0 IN. C/C

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

GIRDER TYPE: CPrimeHip
SIDE SETBACK = 2-1-10
END SETBACK = 5-11-4
END WALL WIDTH = 0-0
CORNER FRAMING TYPE: CONVENTIONAL
END JACK TYPE: CONVENTIONAL
APPLIED TO FRONT SIDE
- ADDTL LOADS BASED ON 55 % OF GSL.
LOADS APPLIED TO FIRST 14-2-0 OF SPAN MEASURED FROM THE LEFT.

GIRDER TYPE: CStdGirder
START DISTANCE = 14-2-0
START SPAN CARRIED = 5-11-4
END DISTANCE = 27-6-0
END SPAN CARRIED = 5-11-4
END WALL WIDTH = 0-0
APPLIED TO FRONT SIDE OF BOTTOM CHORD.
- ADDTL LOADS BASED ON 67 % OF GSL. (DEFINED BY USER)

GIRDER TYPE: CPrimeHip
SIDE SETBACK = 2-1-10
END SETBACK = 5-11-4
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 13-4-0 OF SPAN MEASURED FROM THE RIGHT.

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/ 964 (0.51")
ALLOWABLE DEFL.(TL)= L/360 (1.36")
CALCULATED VERT. DEFL.(TL)= L/ 495 (0.99")

A-18124413 CONTINUED ON PAGE 2

JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
304890	H41T	1	1	TRUSS DESC.	
Alpa Roof Truss, Maple					
Version 8.210 S Jun 13 2018 MiTek Industries, Inc. Fri Dec 28 12:47:27 2018 Page 2 ID:DdSMSEW8qE9HTV0gkasOLLzzSIP-n2WFrE0pQ6S4Vx0yTwKbD4FPuXjoJfyF0I1K8fy4RrE					

PLATES (table is in inches)

JT	TYPE	PLATES	W	LEN	Y	X
J	TMVW-t	MT20	4.0	6.0		
K	TMVWW-t	MT20	7.0	16.0	2.00	7.50
M	TTWW+m	MT20	8.0	9.0	2.50	2.25
N	TMVW-t	MT20	5.0	8.0	2.00	2.00
P	BMV1+t	MT20	6.0	9.0	Edge	0.50
Q	BMVW-t	MT20	4.0	6.0	2.25	1.75
R	BMVWW-t	MT20	8.0	12.0		
S	BBW-h	MT20	8.0	12.0	2.75	7.00
T	BBWW+p	MT20	10.0	12.0	6.50	5.00
U	BMVWW-t	MT20	5.0	8.0		
V	BBWW+p	MT20	10.0	12.0	7.00	4.50
W	BBW-h	MT20	8.0	12.0	2.75	7.00
X	BMVWW-t	MT20	6.0	12.0	2.50	5.00
Y	BMVW-t	MT20	4.0	6.0	2.25	1.75
Z	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) 123.1 lbs FACTORED DOWN AT 2-1-10, AND 123.1 lbs FACTORED DOWN AT 38-8-6 ON TOP CHORD. DESIGN FOR UNSPECIFIED CONNECTION(S) IS DELEGATED TO THE BUILDING DESIGNER.

FACTORED CONCENTRATED LOADS (LBS)

JT	LOC.	LC1	MAX-	MAX+	FACE	DIR.	TYPE
C	2-1-10	-123	-123	---	FRONT	VERT	TOTAL
M	38-8-6	-123	-123	---	FRONT	VERT	TOTAL

CSI: TC=0.57/1.00 (F-H:1) , BC=0.99/1.00 (R-S:1) , WB=0.93/1.00 (E-X:1) , SSI=0.33/1.00 (C-D:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

AUTOSOLVE HEELS OFF

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

NAIL VALUES

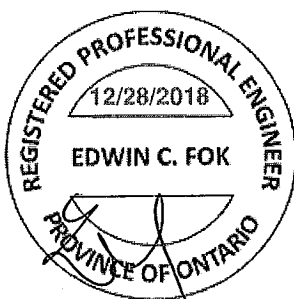
PLATE	GRIP(DRY)	SHEAR	SECTION
(PSI)	(PLI)	(PLI)	(PLI)
MAX	MIN	MAX	MIN
MT20	618	354	1667 788 1987 1656

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.90 (E) (INPUT = 0.90)
JSI METAL= 0.99 (V) (INPUT = 1.00)

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



A-18124413(2)

Alpa Roof Truss, Maple

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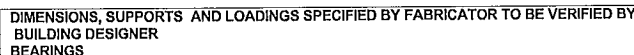
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Scale = 1:75.5



DRY: SEASONED LUMBER.

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



ALLOW FOR 0.3" OF HORIZONTAL MOVEMENT DUE TO TOTAL LOAD

UNFACTORED REACTIONS

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

BRACING

TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 2.93 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-W, J-R, L-Q.
2 LATERAL BRACE(S) AT 1/3 LENGTH OF E-V.

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)

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 (0.33")
ALLOWABLE DEFL.(TL)= L/360 (1.36")
CALCULATED VERT. DEFL.(TL)= L/ 731 (0.67")

CSI: TC=0.97/1.00 (F-H:1) , BC=0.65/1.00 (T-U:1) ,
WB=0.98/1.00 (J-R:1) , SSI=0.23/1.00 (F-H:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

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

NAIL VALUES

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

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.89 (L) (INPUT = 0.90)
JSI METAL= 0.60 (U) (INPUT = 1.00)

A-18124414

CONTINUED ON PAGE 2

JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
304890	H42T	1	1	TRUSS DESC.	

Alpa Roof Truss, Maple

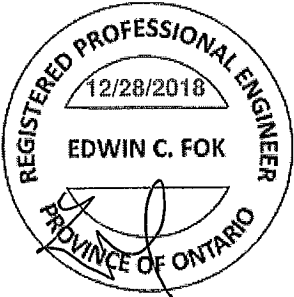
Version 8.210 S Jun 13 2018 MiTek Industries, Inc. Fri Dec 28 12:47:45 2018 Page 2
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PLATES (table is in inches)

JT	TYPE	PLATES	W	LEN	Y	X
X	BMWW-I	MT20	4.0	4.0	2.00	1.50
Y	BMV1+p	MT20	3.0	4.0		

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

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



A-18124414(3)

Scale = 1:75.5A-18124415 CONTINUED ON PAGE 2

JOB NAME 304890	TRUSS NAME H43T	QUANTITY 1	PLY 1	JOB DESC. TRUSS DESC.	DRWG NO.
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Alpa Roof Truss, Maple

Version 8.210 S Jun 13 2018 MiTek Industries, Inc. Fri Dec 28 12:48:23 2018 Page 2
ID:DdSMSEW8gE9HTV0gkasOLLzzSIP-8pv0 9VYwf8YfdEEC5bLL3JL7I0enG9FAabH5Py4RqM

PLATES (table is in inches)

JT	TYPE	PLATES	W	LEN	Y	X
R	BMVWW-I	MT20	5.0	6.0		
S	BBWW-I	MT20	10.0	12.0	3.25	6.00
T	BBWW-h	MT20	10.0	12.0	Edge	4.00
U	BMVWW-I	MT20	4.0	6.0		
V	BMV1+p	MT20	3.0	4.0		

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

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

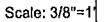


A-18124415(3)

Alpa Roof Truss, Maple

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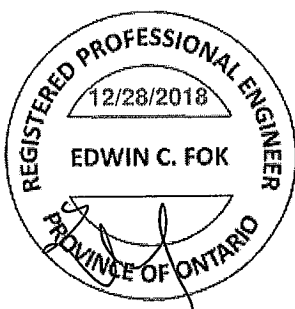
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TOTAL WEIGHT = 7 X 32 = 226 lb

PLATES (table is in inches)					
JT	TYPE	PLATES	W	LEN	Y X
B	TMVV-t	MT20	3.0	4.0	1.50 1.00
C	TMVV-t	MT20	3.0	4.0	1.50 1.50
D	TMVV-t	MT20	3.0	4.0	1.50 1.50
E	TMV+p	MT20	2.0	4.0	
F	BMVV-t	MT20	3.0	4.0	
G	BBVVW-h	MT20	5.0	6.0	2.25 3.00
H	BBVV-t	MT20	4.0	6.0	2.00 4.50
I	BMV1+p	MT20	2.0	4.0	

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



BEARINGS

A SUITABLE HANGER/MECHANICAL CONNECTION IS REQUIRED AT JOINT F. MINIMUM BEARING LENGTH AT JOINT F = 1-8.

UNFACTORED REACTIONS

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			
MAX. FACTORED		FACTORED		MAX. FACTORED			
MEMB.	FORCE	VERT. LOAD	LC1 MAX	MAX.	MEMB.	FORCE	MAX
	(LBS)	(PLF)	CSI (LC)	UNBRAC		(LBS)	CSI (LC)
FR-TO		FROM TO		LENGTH	FR-TO		
I-B	-413 / 0	0.0	0.0	0.04 (1)	7.81	B-H	0 / 131
A-B	0 / 35	-78.0	-78.0	0.15 (1)	10.00	H-C	-149 / 0
B-C	-172 / 0	-78.0	-78.0	0.14 (1)	6.25	C-G	0 / 157
C-D	-200 / 0	-78.0	-78.0	0.09 (1)	6.25	G-D	0 / 51
D-E	-12 / 0	-78.0	-78.0	0.09 (1)	6.25	D-F	-249 / 0
F-E	-95 / 0	0.0	0.0	0.03 (1)	7.81		
I-H	0 / 0	-18.5	-18.5	0.02 (4)	10.00		
H-G	0 / 145	-18.5	-18.5	0.03 (1)	10.00		
G-F	0 / 200	-18.5	-18.5	0.07 (4)	10.00		

DESIGN CRITERIA

SPECIFIED LOADS:

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

SPACING = 24.0 IN. C/C

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

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

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

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

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

CSI: TC=0.15/1.00 (A-B:1), BC=0.07/1.00 (F-G:4), WB=0.06/1.00 (D-F:1), SSI=0.09/1.00 (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= 0.42 (B) (INPUT = 0.90)
JSI METAL= 0.10 (B) (INPUT = 1.00)

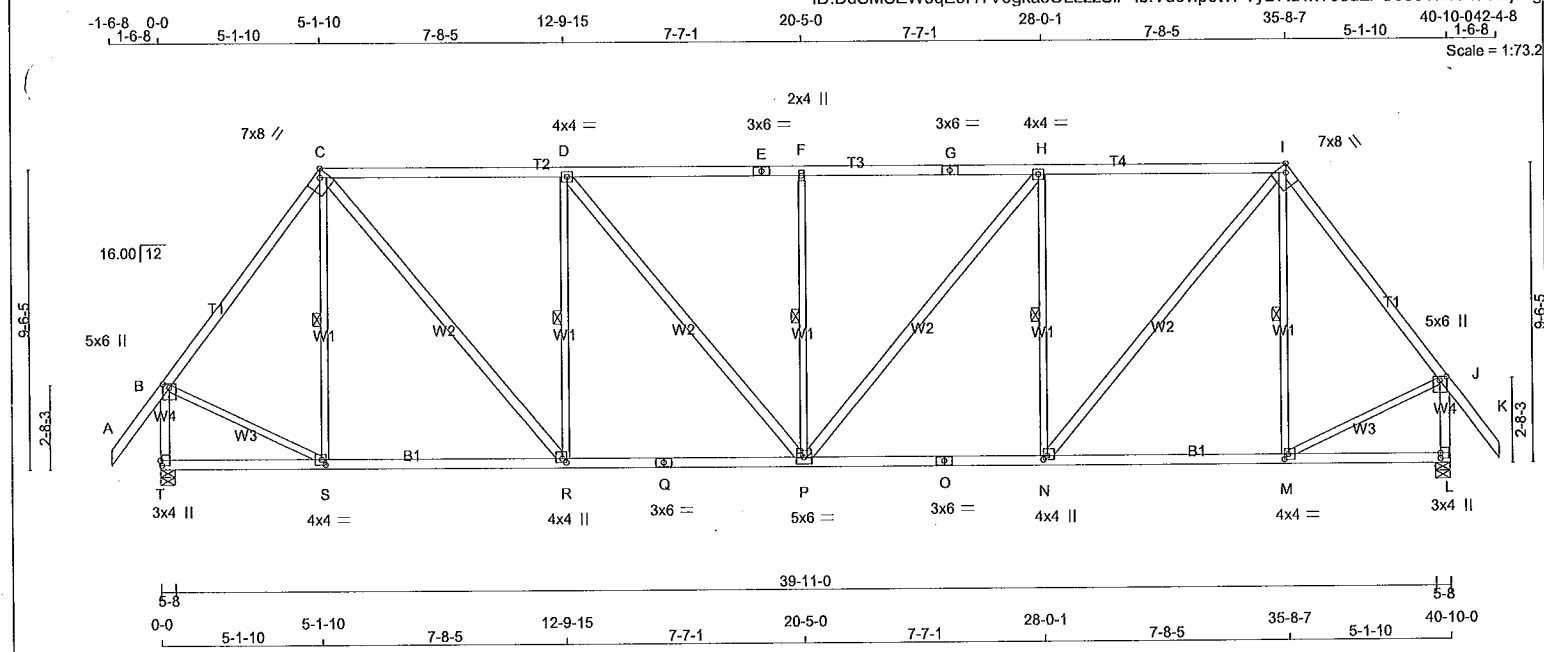
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JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
292651	H19	11	1	TRUSS DESC.	

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TOTAL WEIGHT = 11 X 211 = 2320 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	
A - EBS	2x3	DRY	No.2	SPF	
EXCEPT					
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	6.0		
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	2.00	
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	BMVWW-t	MT20	5.0	6.0		
Q	BS-t	MT20	3.0	6.0		
R	BMVWW+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	2.00	0.50

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

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

BEARINGS

	FACTORED GROSS REACTION	MAXIMUM FACTORED GROSS REACTION	INPUT BRG	REQRD BRG
JT	VERT	HORZ	DOWN	HORZ
T	2214	0	2214	0
L	2214	0	2214	0

UNFACTORED REACTIONS

	1ST LCASE	MAX./MIN. COMPONENT REACTIONS	DEAD	SOIL
JT	COMBINED	SNOW	LIVE	PERM.LIVE
T	1585	927 / 0	0 / 0	0 / 0
L	1585	927 / 0	0 / 0	0 / 0

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

BRACING

FOR SECTION C-I, MAX. PURLIN SPACING = 2.00 FT.
FOR OTHER SECTIONS, TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 4.75 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

LOADING

TOTAL LOAD CASES: (4)

CHORDS				WEBS			
MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	MAX. FACTORED CSI (LC)	MEMB.	MAX. FACTORED FORCE (LBS)	MAX. FACTORED CSI (LC)	
FR-TO		FROM TO		FR-TO			
A-B	0 / 52	-78.0	-78.0 0.15 (1)	10.00	S-C	-323 / 0	0.19 (1)
B-C	-1740 / 0	-78.0	-78.0 0.38 (1)	4.75	C-R	0 / 1625	0.26 (1)
C-D	-2078 / 0	-85.5	-85.5 0.57 (1)	2.00	R-D	-1102 / 0	0.66 (1)
D-E	-2381 / 0	-85.5	-85.5 0.55 (1)	2.00	D-P	0 / 476	0.08 (1)
E-F	-2381 / 0	-85.5	-85.5 0.55 (1)	2.00	P-F	-598 / 0	0.36 (1)
F-G	-2381 / 0	-85.5	-85.5 0.55 (1)	2.00	P-H	0 / 476	0.08 (1)
G-H	-2381 / 0	-85.5	-85.5 0.55 (1)	2.00	H-N	-1102 / 0	0.66 (1)
H-I	-2078 / 0	-85.5	-85.5 0.57 (1)	2.00	N-I	0 / 1625	0.26 (1)
I-J	-1740 / 0	-78.0	-78.0 0.38 (1)	4.75	M-I	-323 / 0	0.19 (1)
J-K	0 / 52	-78.0	-78.0 0.15 (1)	10.00	B-S	0 / 1134	0.26 (1)
T-B	-2180 / 0	0.0	0.0 0.31 (1)	5.75	M-J	0 / 1134	0.26 (1)
L-J	-2180 / 0	0.0	0.0 0.31 (1)	5.75			
T-S	0 / 0	-18.5	-18.5 0.18 (4)	10.00			
S-R	0 / 1035	-18.5	-18.5 0.33 (4)	10.00			
R-Q	0 / 2079	-18.5	-18.5 0.46 (1)	10.00			
Q-P	0 / 2079	-18.5	-18.5 0.46 (1)	10.00			
P-O	0 / 2079	-18.5	-18.5 0.46 (1)	10.00			
O-N	0 / 2079	-18.5	-18.5 0.46 (1)	10.00			
N-M	0 / 1035	-18.5	-18.5 0.33 (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 PIGGYBACK TRUSS WITH SLOPES OF 6.00/12 AND -6.00/12 AND RESPECTIVE WALL HEIGHTS OF 0-0 AND 0-0 AND AN ADDITIONAL DEAD LOAD OF 3.0 P.S.F.

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

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

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

ALLOWABLE DEFL.(LL) = L/360 (1.36")
CALCULATED VERT. DEFL.(LL) = L/999 (0.11")
ALLOWABLE DEFL.(TL) = L/360 (1.36")
CALCULATED VERT. DEFL.(TL) = L/999 (0.24")

CSI: TC=0.57/1.00 (H-I:1), BC=0.46/1.00 (P-R:1), WB=0.66/1.00 (D-R:1), SS=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

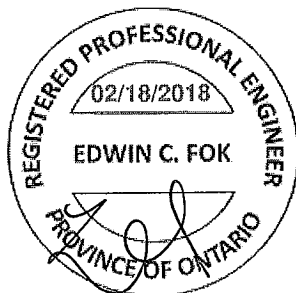
TRUSS PLATE MANUFACTURER IS NOT RESPONSIBLE FOR QUALITY CONTROL IN THE TRUSS MANUFACTURING PLANT.

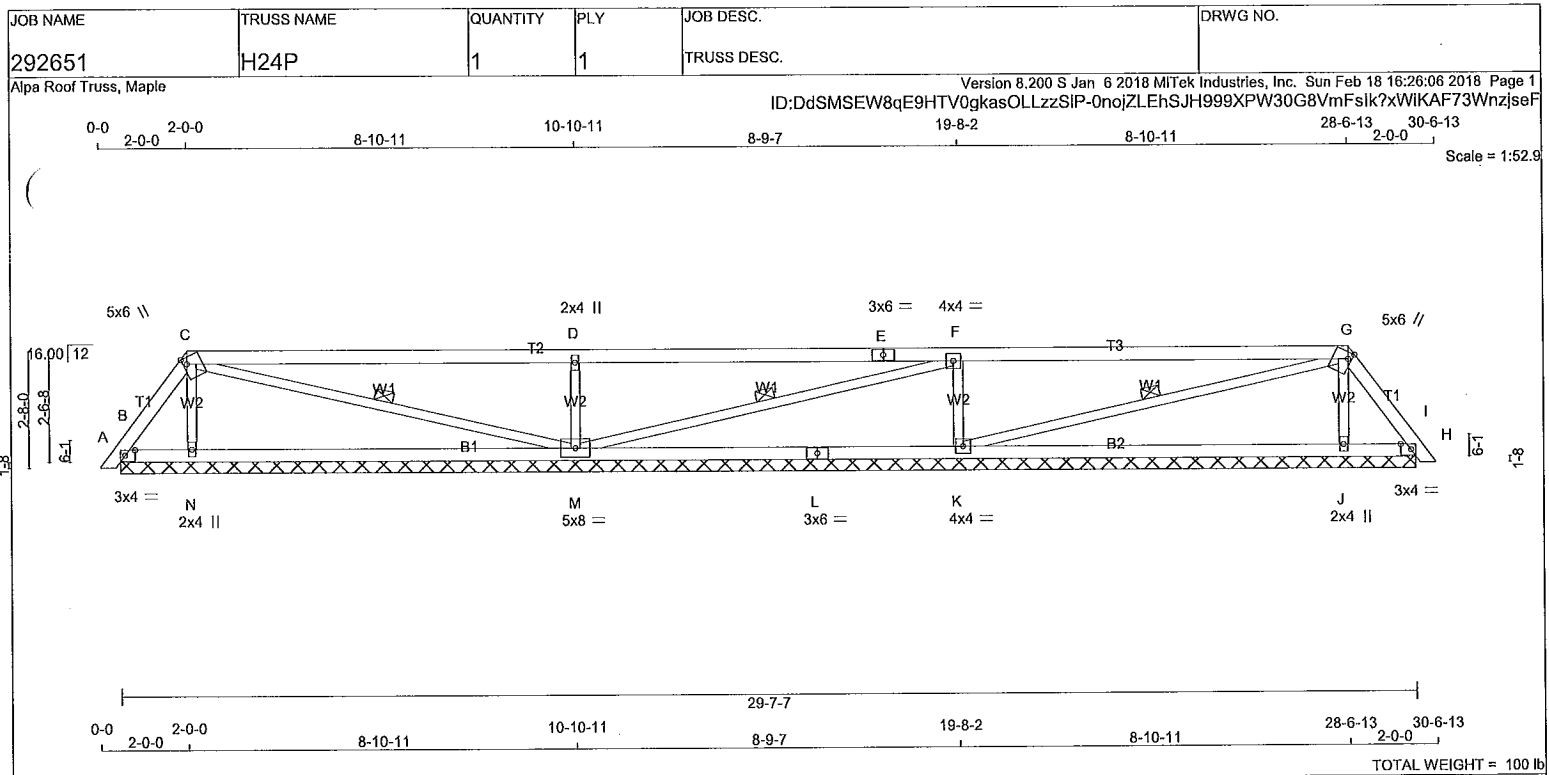
NAIL VALUES
PLATE GRIP(DRY) SHEAR SECTION (PSI) (PLI) (PLI)
MAX MIN MAX MIN MAX MIN
MT20 618 354 1667 788 1987 1656

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.89 (N) (INPUT = 0.90)
JSI METAL= 0.71 (O) (INPUT = 1.00)





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

PLATES (table is in inches)				
JT TYPE	PLATES	W	LEN	Y X
B TMB1-I	MT20	3.0	4.0	1.50 2.75
C TTVW+m	MT20	5.0	6.0	1.75 1.00
D TMW+w	MT20	2.0	4.0	
E TS-t	MT20	3.0	6.0	
F TMWW-t	MT20	4.0	4.0	
G TTVW+m	MT20	5.0	6.0	1.75 1.00
H TMB1-I	MT20	3.0	4.0	1.50 2.75
J BMW1+w	MT20	2.0	4.0	
K BMWW1-t	MT20	4.0	4.0	
L BS-t	MT20	3.0	6.0	
M BMWWW1-t	MT20	5.0	8.0	
N BMW1+w	MT20	2.0	4.0	

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

BEARINGS		FACTORED		MAXIMUM FACTORED		INPUT		REQRD	
JT	VERT	GROSS REACTION	HORZ	GROSS REACTION	HORZ	BRG	IN-SX	BRG	IN-SX
B	112	0	112	0	-18	29-7-7 (13-7-159-12			
N	413	0	413	0	0	29-7-7 (13-7-159-12			
M	938	0	938	0	0	29-7-7 (13-7-159-12			
K	922	0	922	0	0	29-7-7 (13-7-159-12			
J	404	0	404	0	0	29-7-7 (13-7-159-12			
H	124	0	124	0	-15	29-7-7 (13-7-159-12			

VALUE IN PARENTHESIS INDICATES EFFECTIVE BEARING LENGTH

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

UNFACTORED REACTIONS

1ST CASE		MAX/MIN. COMPONENT REACTIONS		WIND		DEAD		SOIL	
JT	COMBINED	SNOW	LIVE	PERM. LIVE	WIND	DEAD	SOIL	COMB.	SOIL
B	73	85/0	0/0	0/0	0/0	0/13	0/0		
N	302	139/0	0/0	0/0	0/0	164/0	0/0		
M	667	416/0	0/0	0/0	0/0	251/0	0/0		
K	656	407/0	0/0	0/0	0/0	249/0	0/0		
J	296	134/0	0/0	0/0	0/0	162/0	0/0		
H	81	92/0	0/0	0/0	0/0	0/-11	0/0		

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

BRACING

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

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

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

LOADING

TOTAL LOAD CASES: (4)

CHORDS		FACTORED		WEBS		MAX. FACTORED	
MEMB.	FORCE (LBS)	VERT. LOAD (PLF)	MAX. (LC)	MEMB.	FORCE (LBS)	MAX. (LC)	MAX. (LC)
FR-TO		FROM	TO	FR-TO			
A-B	0/10	-78.0	-78.0 0.01 (1)	10.00	N-C	-258/0	0.04 (1)
B-C	-87/0	-78.0	-78.0 0.03 (1)	6.25	C-M	-37/0	0.02 (1)
C-D	-1/0	-78.0	-78.0 0.55 (1)	10.00	M-D	-758/0	0.12 (1)
D-E	-2/0	-78.0	-78.0 0.55 (1)	10.00	M-F	-25/0	0.01 (1)
E-F	-2/0	-78.0	-78.0 0.55 (1)	10.00	K-F	-751/0	0.12 (1)
F-G	-25/0	-78.0	-78.0 0.55 (1)	6.25	K-G	-21/0	0.01 (1)
G-H	-102/0	-78.0	-78.0 0.03 (1)	6.25	J-G	-249/0	0.04 (1)
H-I	0/10	-78.0	-78.0 0.01 (1)	10.00			
B-N	0/49	-18.5	-18.5 0.24 (4)	10.00			
N-M	0/37	-18.5	-18.5 0.29 (4)	10.00			
M-L	0/25	-18.5	-18.5 0.29 (4)	10.00			
L-K	0/25	-18.5	-18.5 0.29 (4)	10.00			
K-J	0/46	-18.5	-18.5 0.29 (4)	10.00			
J-H	0/58	-18.5	-18.5 0.24 (4)	10.00			

DESIGN CRITERIA

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

SPACING = 24.0 IN. C/C

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

(56 % OF 23.0 P.S.F. G.S.I. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 21.0 P.S.F. SPECIFIED ROOF LIVE LOAD

CSI: TC=0.55/1.00 (F-G:1), BC=0.29/1.00 (J-K:4), WB=0.12/1.00 (D-M:1), SSI=0.32/1.00 (F-G:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

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

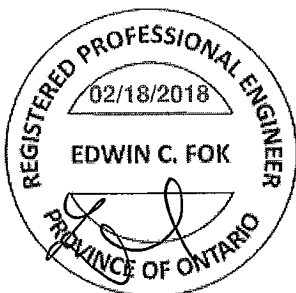
NAIL VALUES
PLATE GRIP(DRY) SHEAR SECTION
(PSI) (PLI) (PLI)
MAX MIN MAX MIN MAX MIN
MT20 618 354 1667 788 1987 1656

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.81 (K) (INPUT = 0.90)
JSI METAL= 0.37 (E) (INPUT = 1.00)

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

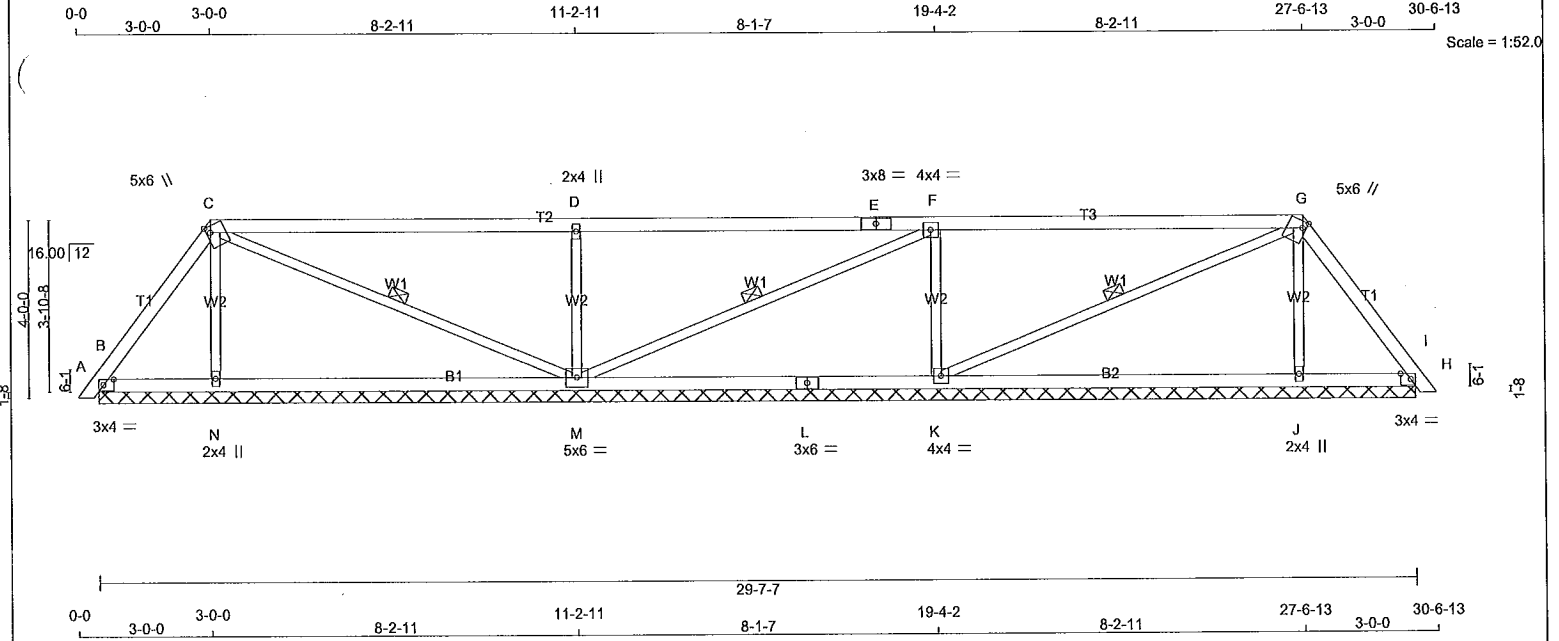


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JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
292651	H25P	1	1	TRUSS DESC.	

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TOTAL WEIGHT = 105 lb

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

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

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

JT	FACTORED GROSS REACTION		MAXIMUM FACTORED GROSS REACTION		INPUT BRG IN-SX	REQRD BRG IN-SX
	VERT	HORZ	DOWN	HORZ		
B	199	0	199	0	29-7-7 (13-7-13)2	
N	376	0	376	0	29-7-7 (13-7-13)2	
M	906	0	906	0	29-7-7 (13-7-13)2	
K	842	0	842	0	29-7-7 (13-7-13)2	
J	365	0	365	0	29-7-7 (13-7-13)2	
H	225	0	225	0	29-7-7 (13-7-13)2	

VALUE IN PARENTHESIS INDICATES EFFECTIVE BEARING LENGTH

UNFACTORED REACTIONS

JT	1ST LCASE	MAX./MIN. COMPONENT REACTIONS					
	COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
B	137	110 / 0	0 / 0	0 / 0	0 / 0	27 / 0	0 / 0
N	274	134 / 0	0 / 0	0 / 0	0 / 0	139 / 0	0 / 0
M	643	405 / 0	0 / 0	0 / 0	0 / 0	239 / 0	0 / 0
K	600	371 / 0	0 / 0	0 / 0	0 / 0	229 / 0	0 / 0
J	266	129 / 0	0 / 0	0 / 0	0 / 0	138 / 0	0 / 0
H	155	124 / 0	0 / 0	0 / 0	0 / 0	31 / 0	0 / 0

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

BRACING

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

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

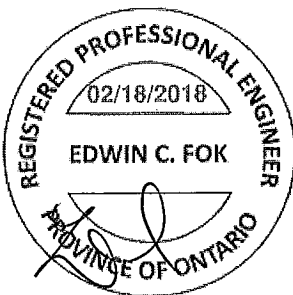
1 LATERAL BRACE(S) AT 1/2 LENGTH OF C-M, F-M, G-K.

LOADING

TOTAL LOAD CASES: (4)

CHORDS				WEBS			
MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	MAX. FACTORED CSI (LC)	MEMB.	MAX. FACTORED FORCE (LBS)	MAX. FACTORED CSI (LC)	
FR-TO		FROM TO					
A-B	0/10	-78.0	-78.0 0.01 (1)	10.00	N-C	-250/0	0.06 (1)
B-C	-97/0	-78.0	-78.0 0.09 (1)	6.25	C-M	-70/0	0.04 (1)
C-D	0/16	-78.0	-78.0 0.71 (1)	10.00	M-D	-701/0	0.16 (1)
D-E	0/15	-78.0	-78.0 0.71 (1)	10.00	M-F	-59/0	0.03 (1)
E-F	0/15	-78.0	-78.0 0.71 (1)	10.00	K-F	-676/0	0.16 (1)
F-G	-39/0	-78.0	-78.0 0.71 (1)	6.25	K-G	-31/0	0.02 (1)
G-H	-129/0	-78.0	-78.0 0.09 (1)	6.25	J-G	-239/0	0.06 (1)
H-I	0/10	-78.0	-78.0 0.01 (1)	10.00			
B-N	0/56	-18.5	-18.5 0.19 (4)	10.00			
N-M	0/49	-18.5	-18.5 0.25 (4)	10.00			
M-L	0/39	-18.5	-18.5 0.25 (4)	10.00			
L-K	0/39	-18.5	-18.5 0.25 (4)	10.00			
K-J	0/68	-18.5	-18.5 0.25 (4)	10.00			
J-H	0/75	-18.5	-18.5 0.19 (4)	10.00			

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



DESIGN CRITERIA

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

SPACING = 24.0 IN. C/C

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

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

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

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

CSI: TC=0.71/1.00 (F-G:1), BC=0.25/1.00 (J-K:4), WB=0.16/1.00 (D-M:1), SSI=0.30/1.00 (F-G:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

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

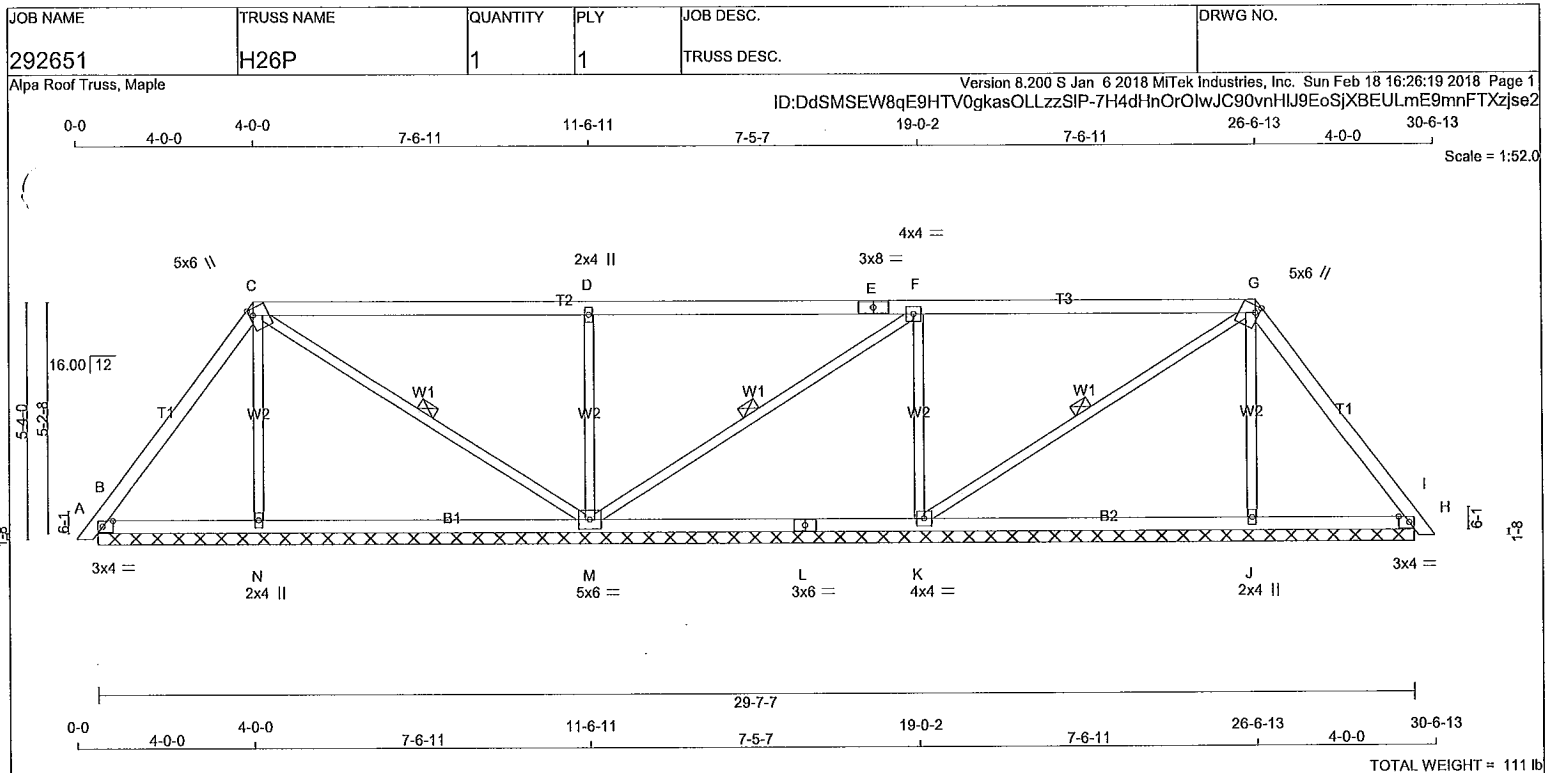
NAIL VALUES
PLATE GRIP(DRY) SHEAR SECTION (PSI) (PLI) (PLI)
MAX MIN MAX MIN MAX MIN
MT20 618 354 1667 788 1987 1656

PLATE PLACEMENT TOL = 0.250 inches

PLATE ROTATION TOL = 5.0 Deg.

JSI GRIP= 0.81 (M) (INPUT = 0.90)
JSI METAL= 0.45 (E) (INPUT = 1.00)

A-18023805



LUMBER
N. L. G. A. RULES

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

PLATES (table is in inches)

JT	TYPE	PLATES	W	LEN	Y	X
B	TMB1-I	MT20	3.0	4.0	1.50	2.75
C	TTWVW+m	MT20	5.0	6.0	1.75	1.00
D	TMW+w	MT20	2.0	4.0		
E	TS-I	MT20	3.0	8.0		
F	TMWVW-I	MT20	4.0	4.0		
G	TTWVW+m	MT20	5.0	6.0	1.75	1.00
H	TMB1-I	MT20	3.0	4.0	1.50	2.75
J	BMW1+w	MT20	2.0	4.0		
K	BMWVW1-I	MT20	4.0	4.0		
L	BS-I	MT20	3.0	6.0		
M	BMWVW1-I	MT20	5.0	6.0		
N	BMW1+w	MT20	2.0	4.0		

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

BEARINGS

JT	FACTORED GROSS REACTION		MAXIMUM FACTORED GROSS REACTION		INPUT BRG	REQRD BRG
	VERT	HORZ	DOWN	HORZ		
B	261	0	261	0	29-7-7 (13-7-18)	8
N	353	0	353	0	29-7-7 (13-7-18)	8
M	899	0	899	0	29-7-7 (13-7-18)	8
K	750	0	750	0	29-7-7 (13-7-18)	8
J	346	0	346	0	29-7-7 (13-7-18)	8
H	304	0	304	0	29-7-7 (13-7-18)	8

VALUE IN PARENTHESIS INDICATES EFFECTIVE BEARING LENGTH

UNFACTORED REACTIONS

JT	1ST LCASE	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
B	182	132 / 0	0 / 0	0 / 0	0 / 0	60 / 0	0 / 0
N	257	127 / 0	0 / 0	0 / 0	0 / 0	130 / 0	0 / 0
M	637	408 / 0	0 / 0	0 / 0	0 / 0	229 / 0	0 / 0
K	534	328 / 0	0 / 0	0 / 0	0 / 0	206 / 0	0 / 0
J	252	123 / 0	0 / 0	0 / 0	0 / 0	129 / 0	0 / 0
H	212	155 / 0	0 / 0	0 / 0	0 / 0	57 / 0	0 / 0

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

BRACING

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

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

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

LOADING

TOTAL LOAD CASES: (4)

CHORDS				WEBS				
MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	MAX. FACTORED CS1 (LC)	MAX. UNBRACED LENGTH	MEMB.	MAX. FACTORED FORCE (LBS)	MAX. FACTORED CS1 (LC)	
FR-TO		FROM	TO		FR-TO			
A-B	0 / 10	-78.0	-78.0	0.01 (1)	10.00	N-C	-236 / 0	0.09 (1)
B-C	-100 / 0	-78.0	-78.0	0.17 (1)	6.25	C-M	-106 / 0	0.06 (1)
C-D	0 / 36	-78.0	-78.0	0.60 (1)	10.00	M-D	-643 / 0	0.26 (1)
D-E	0 / 36	-78.0	-78.0	0.60 (1)	10.00	M-F	-103 / 0	0.06 (1)
E-F	0 / 36	-78.0	-78.0	0.60 (1)	10.00	K-F	-586 / 0	0.24 (1)
F-G	-50 / 0	-78.0	-78.0	0.60 (1)	6.25	K-G	-41 / 0	0.02 (1)
G-H	-153 / 0	-78.0	-78.0	0.17 (1)	6.25	J-G	-228 / 0	0.09 (1)
H-I	0 / 10	-78.0	-78.0	0.01 (1)	10.00			
B-N	0 / 58	-18.5	-18.5	0.16 (4)	10.00			
N-M	0 / 53	-18.5	-18.5	0.21 (4)	10.00			
M-L	0 / 50	-18.5	-18.5	0.21 (4)	10.00			
L-K	0 / 50	-18.5	-18.5	0.21 (4)	10.00			
K-J	0 / 85	-18.5	-18.5	0.21 (4)	10.00			
J-H	0 / 90	-18.5	-18.5	0.16 (4)	10.00			

DESIGN CRITERIA

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

SPACING = 24.0 IN. C/C

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

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

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

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

CSI: TC=0.60/1.00 (D-F:1), BC=0.21/1.00 (J-K:4), WB=0.26/1.00 (D-M:1), SSI=0.28/1.00 (F-G:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

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

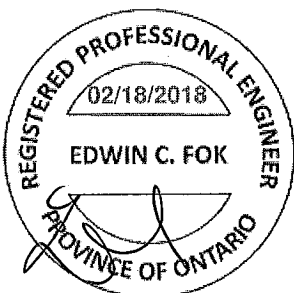
NAIL VALUES
PLATE GRIP(DRY) SHEAR SECTION
(PSI) (PLI) (PLI)
MAX MIN MAX MIN MAX MIN
MT20 618 354 1667 788 1987 1656

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.65 (E) (INPUT = 0.90)
JSI METAL= 0.51 (E) (INPUT = 1.00)

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



A-18023806

		A-18023807	CONTINUED ON PAGE
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JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
292651	H27	1	2	TRUSS DESC.	
Alpa Roof Truss, Maple					
Version 8.200 S Jan 6 2018 MITek Industries, Inc. Sun Feb 18 16:34:06 2018 Page 2					
ID:DdSMSEW8qE9HTV0gkasOLLzzSIP-y7oAIT2nQnI3kwDgesdqbjehFnSLORzYwPRLyzJsW					

TO BE DRIVEN FROM ONE SIDE ONLY.

FOR 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	TMVW-t	MT20	5.0	8.0	2.00	2.00
C	TTWW+m	MT20	6.0	9.0	3.00	1.25
D	TMWW+t	MT20	4.0	6.0	2.25	1.50
E	TMWW+t	MT20	4.0	6.0	3.00	1.50
F	TS-t	MT20	4.0	6.0		
G	TMWW+t	MT20	4.0	6.0	3.00	1.50
H	TTWM+t	MT18HS	8.0	16.0		Edge
I	TMWW-t	MT20	4.0	4.0		
J	TMWW-t	MT20	4.0	6.0	2.00	2.75
K	TS-t	MT20	4.0	6.0		
L	TMWW-t	MT20	5.0	6.0	2.50	2.50
M	TTWW-h	MT20	10.0	12.0	Edge	4.50
N	TTWW+m	MT20	6.0	7.0	3.00	2.75
O	TMVW-t	MT20	5.0	8.0	2.00	4.75
P	BMV1+p	MT20	3.0	4.0		
Q	BMWW-t	MT20	5.0	8.0	2.00	3.25
R	BMWW+t	MT20	4.0	4.0	2.00	1.75
S	BMWW-t	MT20	5.0	6.0	2.25	2.00
T	BS-t	MT20	4.0	6.0		
U	BMWW-t	MT20	5.0	6.0	2.50	2.50
V	BMWW+t	MT20	5.0	8.0	4.25	2.25
W	BMWWW-t	MT20	5.0	14.0	2.25	7.00
X	BS-t	MT20	6.0	7.0		
Y	BMWW+t	MT20	4.0	6.0	3.00	1.50
Z	BMWW-t	MT20	4.0	6.0	2.25	1.50
AA	BMWW-t	MT20	6.0	7.0	2.50	2.25
AB	BMWW+t	MT20	4.0	6.0	3.00	1.75
AC	BMV1+p	MT20	3.0	5.0		

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

HANGERS NOTES

- SPECIAL HANGER(S) OR CONNECTION(S) REQUIRED TO SUPPORT CONCENTRATED LOAD(S) 93.0 lbs FACTORED DOWN AT 1-7-10 ON TOP CHORD, AND 3659.3 lbs FACTORED DOWN AT 19-3-8, AND 1206.2 lbs FACTORED DOWN AT 5-11-6 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

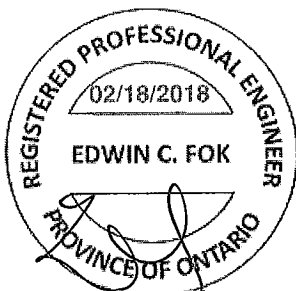
PLATE	GRIP(DRY)	SHEAR	SECTION
	(PSI)	(PLI)	(PLI)
	MAX	MIN	MAX
MT20	618	354	1667
MT18HS	511	354	2455

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.90 (S) (INPUT = 0.90)
JSI METAL= 0.92 (T) (INPUT = 1.00)

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

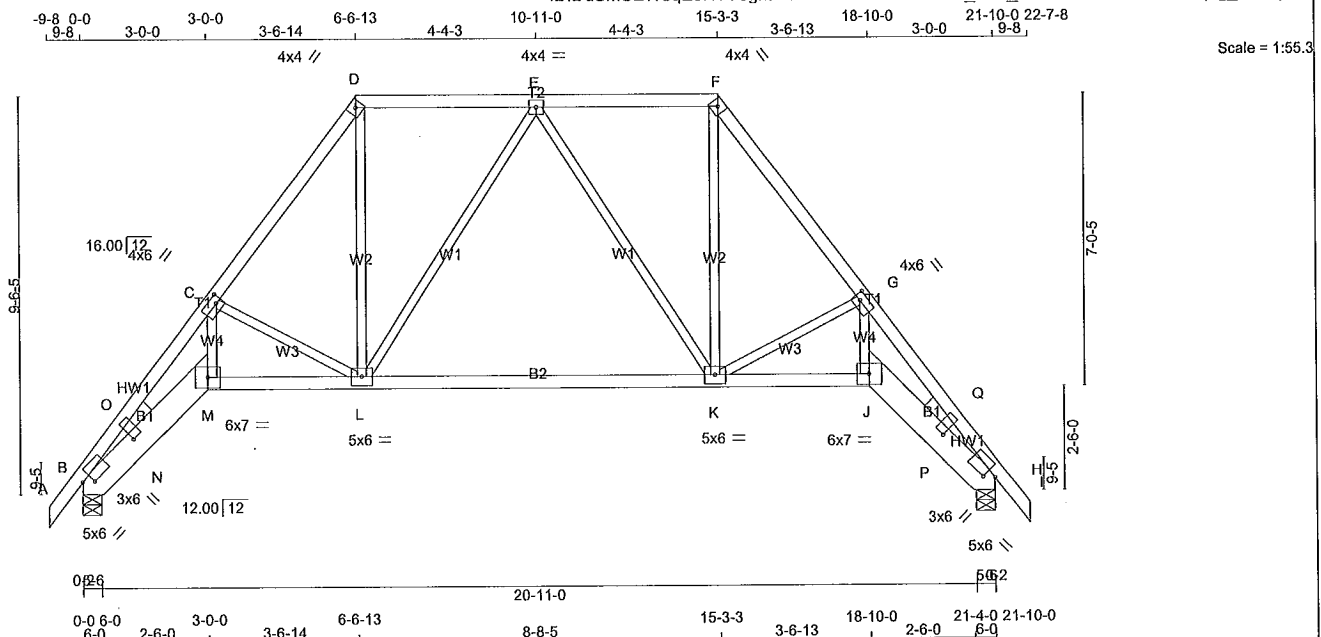


A-18023807(2)

JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
292651	H32T	2	1	TRUSS DESC.	

Alpa Roof Truss, Maple

Version 8.200 S Jan 6 2018 MiTek Industries, Inc. Sun Feb 18 16:26:57 2018 Page 1
ID:DdSMSEW8qE9HTV0gkasOLLzzSIP-0bN?GnrR_lwm_wD0GQDIFN3fs6GNXlqug_FoKzjsdS



TOTAL WEIGHT = 2 X 115 = 229 lb

LUMBER	N. L. G. A. RULES	CHORDS	SIZE	LUMBER	DESCR.
A - D	2x4	DRY	No.2	SPF	
D - F	2x4	DRY	No.2	SPF	
F - I	2x4	DRY	No.2	SPF	
B - M	2x8	DRY	No.2	SPF	
M - J	2x4	DRY	No.2	SPF	
J - H	2x8	DRY	No.2	SPF	
ALL WEBS	2x3	DRY	No.2	SPF	
DRY: SEASONED LUMBER.					

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

BEARINGS	FACTORED GROSS REACTION	MAXIMUM FACTORED GROSS REACTION	INPUT BRG	REQRD BRG	HEEL WEDGE
JT	VERT	HORZ	DOWN	HORZ	UPLIFT
B	1124	0	1124	0	0
H	1124	0	1124	0	0

VALUE IN PARENTHESIS INDICATES EFFECTIVE BEARING LENGTH

BEVELED PLATE OR SHIM REQUIRED TO PROVIDE FULL BEARING SURFACE WITH TRUSS CHORD AT JT(S): B, H

ALLOW FOR 0.3" OF HORIZONTAL MOVEMENT DUE TO TOTAL LOAD.

UNFACTORED REACTIONS

1ST LCASE	MAX./MIN. COMPONENT REACTIONS						
JT	COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
B	800	496 / 0	0 / 0	0 / 0	0 / 0	303 / 0	0 / 0
H	800	496 / 0	0 / 0	0 / 0	0 / 0	303 / 0	0 / 0

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

BRACING

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

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

LOADING

TOTAL LOAD CASES: (4)

CHORDS	MAX. FACTORED	FACTORED	W E B S	MAX. FACTORED
MEMB.	FORCE (LBS)	VERT. LOAD (PLF)	MEMB.	FORCE (LBS)
FR-TO		FROM TO	FR-TO	
A-B	0 / 20	-78.0 -78.0 0.05 (1)	M-C	0 / 1347
B-O	-3287 / 0	-78.0 -78.0 0.17 (1)	C-L	-873 / 0
O-C	-2628 / 0	-78.0 -78.0 0.14 (1)	L-D	0 / 710
C-D	-1224 / 0	-78.0 -78.0 0.18 (1)	K-F	0 / 710
D-E	-739 / 0	-78.0 -78.0 0.19 (1)	K-G	-873 / 0
E-F	-739 / 0	-78.0 -78.0 0.19 (1)	J-G	0 / 1347
F-G	-1224 / 0	-78.0 -78.0 0.18 (1)	L-E	-237 / 0
G-Q	-2628 / 0	-78.0 -78.0 0.14 (1)	E-K	-237 / 0
Q-H	-3287 / 0	-78.0 -78.0 0.17 (1)	N-O	0 / 659
H-I	0 / 20	-78.0 -78.0 0.05 (1)	P-Q	0 / 659
B-N	0 / 2444	-18.5 -18.5 0.40 (1)		
N-M	0 / 2004	-18.5 -18.5 0.35 (1)		
M-L	0 / 1489	-18.5 -18.5 0.36 (1)		
L-K	0 / 866	-18.5 -18.5 0.30 (4)		
K-J	0 / 1489	-18.5 -18.5 0.36 (1)		
J-P	0 / 2004	-18.5 -18.5 0.35 (1)		
P-H	0 / 2444	-18.5 -18.5 0.40 (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 086-09, CSA 086-14
- TPIC 2011, TPIC 2014

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

ALLOWABLE DEFL.(LL)= L/360 (0.73")
CALCULATED VERT. DEFL.(LL) = L/999 (0.08")
ALLOWABLE DEFL.(TL)= L/360 (0.73")
CALCULATED VERT. DEFL.(TL) = L/999 (0.24")

CSI: TC=0.19/1.00 (D-E:1), BC=0.40/1.00 (B-N:1), WB=0.31/1.00 (E-L:1), SSI=0.16/1.00 (D-E:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

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

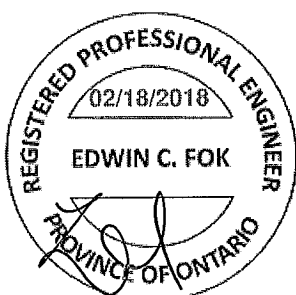
NAIL VALUES
PLATE GRIP(DRY) SHEAR SECTION
(PSI) (PLI) (PLI)
MAX MIN MAX MIN MAX MIN
MT20 618 354 1667 788 1987 1656

PLATE PLACEMENT TOL. = 0.250 Inches

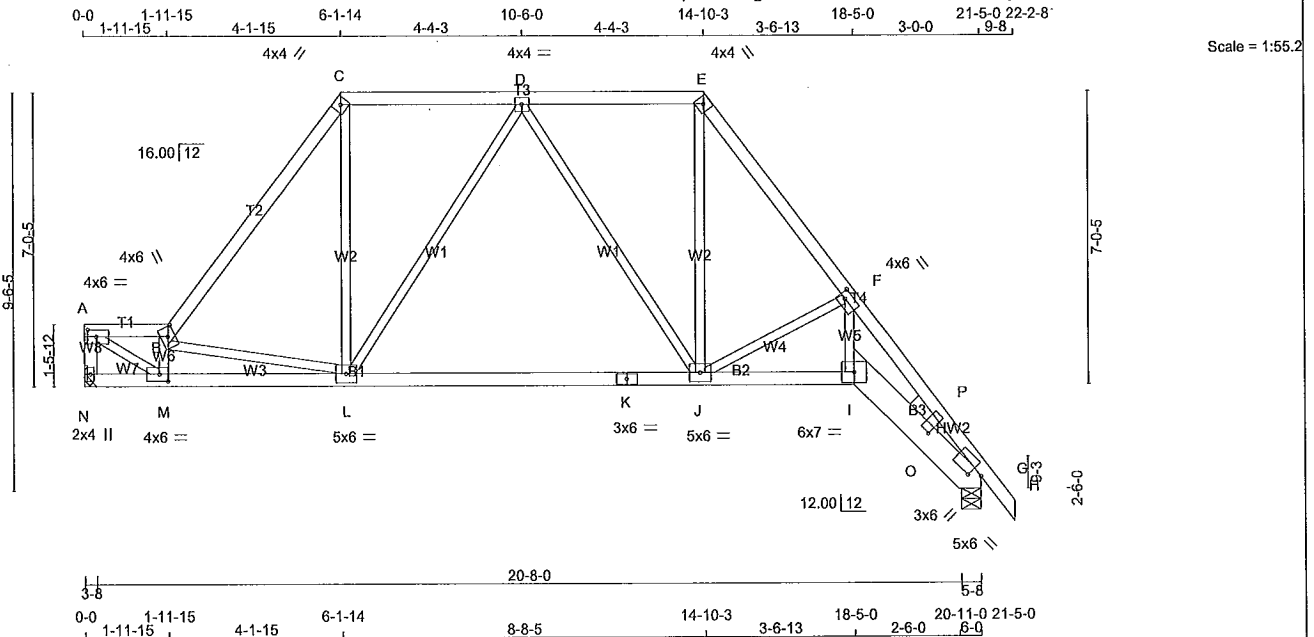
PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.88 (K) (INPUT = 0.90)
JSI METAL= 0.67 (H) (INPUT = 1.00)

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



A-18023812



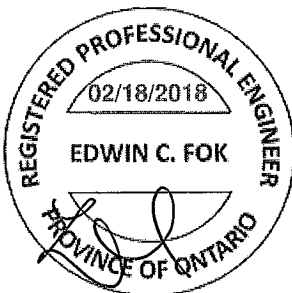
TOTAL WEIGHT = 3 X 103 = 309 lb

LUMBER			
N. L. G. A. RULES			
CHORDS	SIZE	LUMBER	DESCR.
N - A	2x4	DRY	No.2
A - B	2x4	DRY	No.2
B - C	2x4	DRY	No.2
C - E	2x4	DRY	No.2
E - H	2x4	DRY	No.2
N - K	2x4	DRY	No.2
K - I	2x4	DRY	No.2
I - G	2x8	DRY	No.2

1' EBS 2x3 DRY
SEASONED LUMBER.

PLATES (table is in inches)					
JT	TYPE	PLATES	W	LEN	Y X
A	TMWV-t	MT20	4.0	6.0	2.00 2.50
B	TTWW+m	MT20	4.0	6.0	2.75 2.00
C	TTW-h	MT20	4.0	4.0	
D	TMWV-t	MT20	4.0	4.0	
E	TTW-h	MT20	4.0	4.0	
F	TMWV-t	MT20	4.0	6.0	2.00 1.75
G	TMB1-l	MT20	5.0	6.0	2.25 3.00
G	WP-h	MT20	3.0	6.0	1.50 19.25
I	BBW-l	MT20	6.0	7.0	
J	BMVWWW-t	MT20	5.0	6.0	
K	BS-t	MT20	3.0	6.0	
L	BMVWWW-l	MT20	5.0	6.0	
M	BMVWWW-t	MT20	4.0	6.0	2.00 2.50
N	BMV1+p	MT20	2.0	4.0	

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



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

BEARINGS

	FACTORED GROSS REACTION		MAXIMUM FACTORED GROSS REACTION		INPUT BRG	REQRD BRG	HEEL	
JT	VERT	HORZ	DOWN	HORZ	UPLIFT	IN-SX	IN-SX	WEDGE
N	1033	0	1033	0	0	HANGER BY OTHERS MIN. SEAT SIZE: 1-8		
G	1104	0	1104	0	0	5-8	1-8	2x4 R

UNFACTORED REACTIONS

1ST LCASE		MAX./MIN. COMPONENT REACTIONS					
JT	COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
N	737	450 / 0	0 / 0	0 / 0	0 / 0	287 / 0	0 / 0
G	786	488 / 0	0 / 0	0 / 0	0 / 0	298 / 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 = 3.77 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 LOCAL CSI (LC)	MAX. UNBRAC LENGTH	MEMB.	MAX. FACTORED FORCE (LBS)	MAX. FACTORED CSI (LC)	
FR-TO		FROM TO			FR-TO			
N-A	-980 / 0	0.0	0.0	0.10 (1)	7.81	A-M	0 / 1763	0.40 (1)
A-B	-1493 / 0	-78.0	-78.0	0.08 (1)	5.30	M-B	-958 / 0	0.14 (1)
B-C	-1142 / 0	-78.0	-78.0	0.28 (1)	5.63	B-L	-925 / 0	0.31 (1)
C-D	-700 / 0	-78.0	-78.0	0.24 (1)	6.25	L-C	0 / 613	0.14 (1)
D-E	-720 / 0	-78.0	-78.0	0.25 (1)	6.25	L-D	-257 / 0	0.34 (1)
E-F	-1192 / 0	-78.0	-78.0	0.19 (1)	5.65	D-J	-217 / 0	0.29 (1)
F-P	-2579 / 0	-78.0	-78.0	0.15 (1)	4.19	J-E	0 / 685	0.15 (1)
P-G	-3220 / 0	-78.0	-78.0	0.19 (1)	3.77	J-F	-864 / 0	0.25 (1)
G-H	0 / 20	-78.0	-78.0	0.05 (1)	10.00	I-F	0 / 1328	0.30 (1)
						O-P	0 / 637	0.00 (1)
N-M	0 / 0	-18.5	-18.5	0.09 (1)	10.00			
M-L	0 / 1579	-18.5	-18.5	0.39 (1)	10.00			
L-K	0 / 836	-18.5	-18.5	0.30 (4)	10.00			
K-J	0 / 836	-18.5	-18.5	0.30 (4)	10.00			
J-I	0 / 1462	-18.5	-18.5	0.35 (1)	10.00			
I-O	0 / 1970	-18.5	-18.5	0.35 (1)	10.00			
O-G	0 / 2394	-18.5	-18.5	0.39 (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 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, NBCC 2010, NBCC 2015

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

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

ALLOWABLE DEFL.(LL)= L/360 (0.71")
CALCULATED VERT. DEFL.(LL) = L/ 999 (0.07")
ALLOWABLE DEFL.(TL)= L/360 (0.71")
CALCULATED VERT. DEFL.(TL) = L/ 999 (0.20")

CSI: TC=0.28/1.00 (B-C:1), BC=0.39/1.00 (L-M:1),
WB=0.40/1.00 (A-M:1), SSI=0.16/1.00 (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

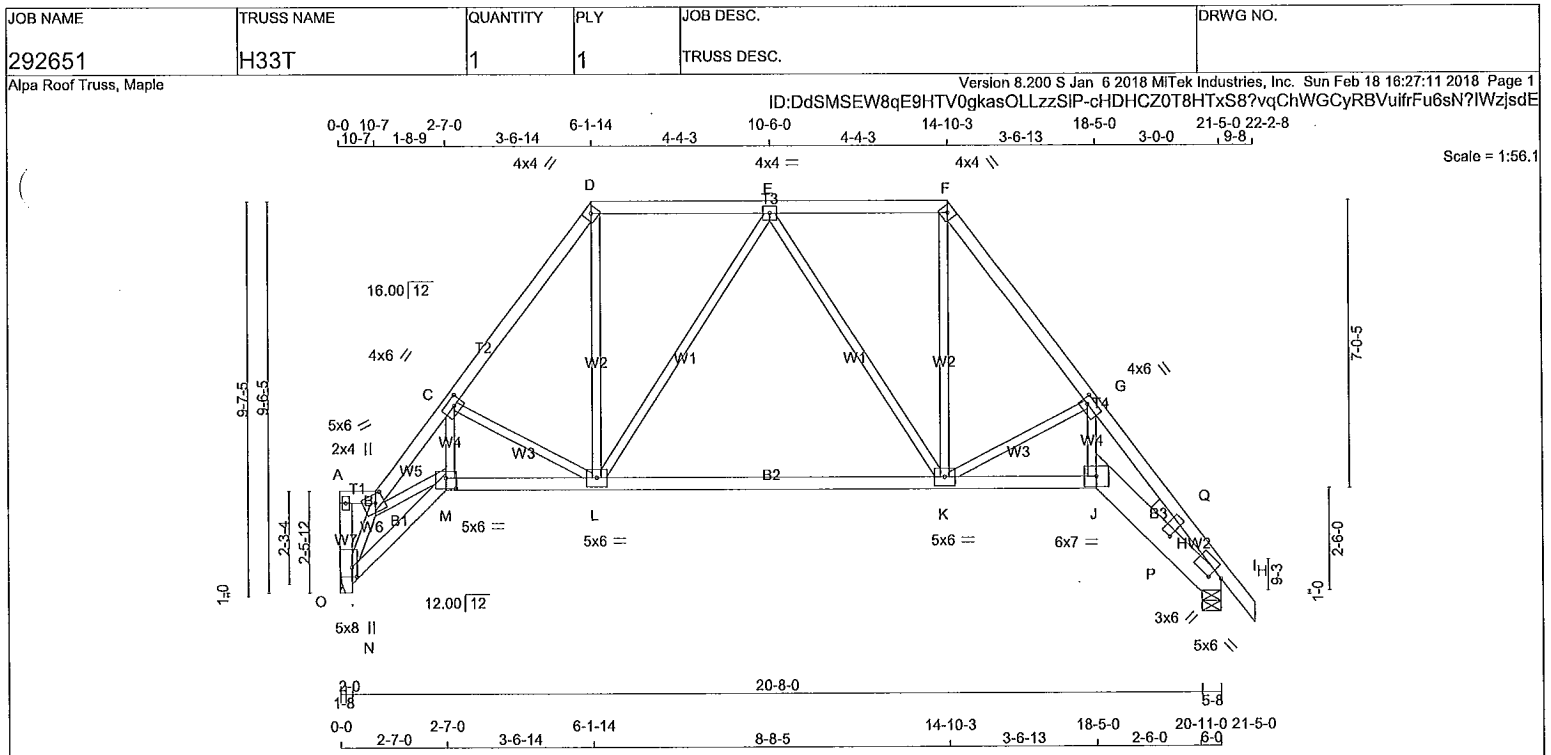
PLATE	GRIP(DRY) (PSI)		SHEAR (PLI)		SECTION (PLI)	
	MAX	MIN	MAX	MIN	MAX	MIN
MT20	618	354	1667	788	1987	1656

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

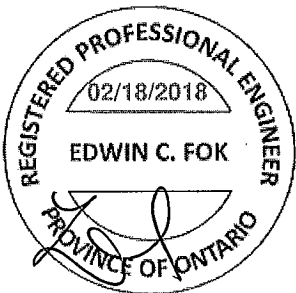
JSI GRIP= 0.88 (J) (INPUT = 0.90)
JSI METAL= 0.66 (G) (INPUT = 1.00)

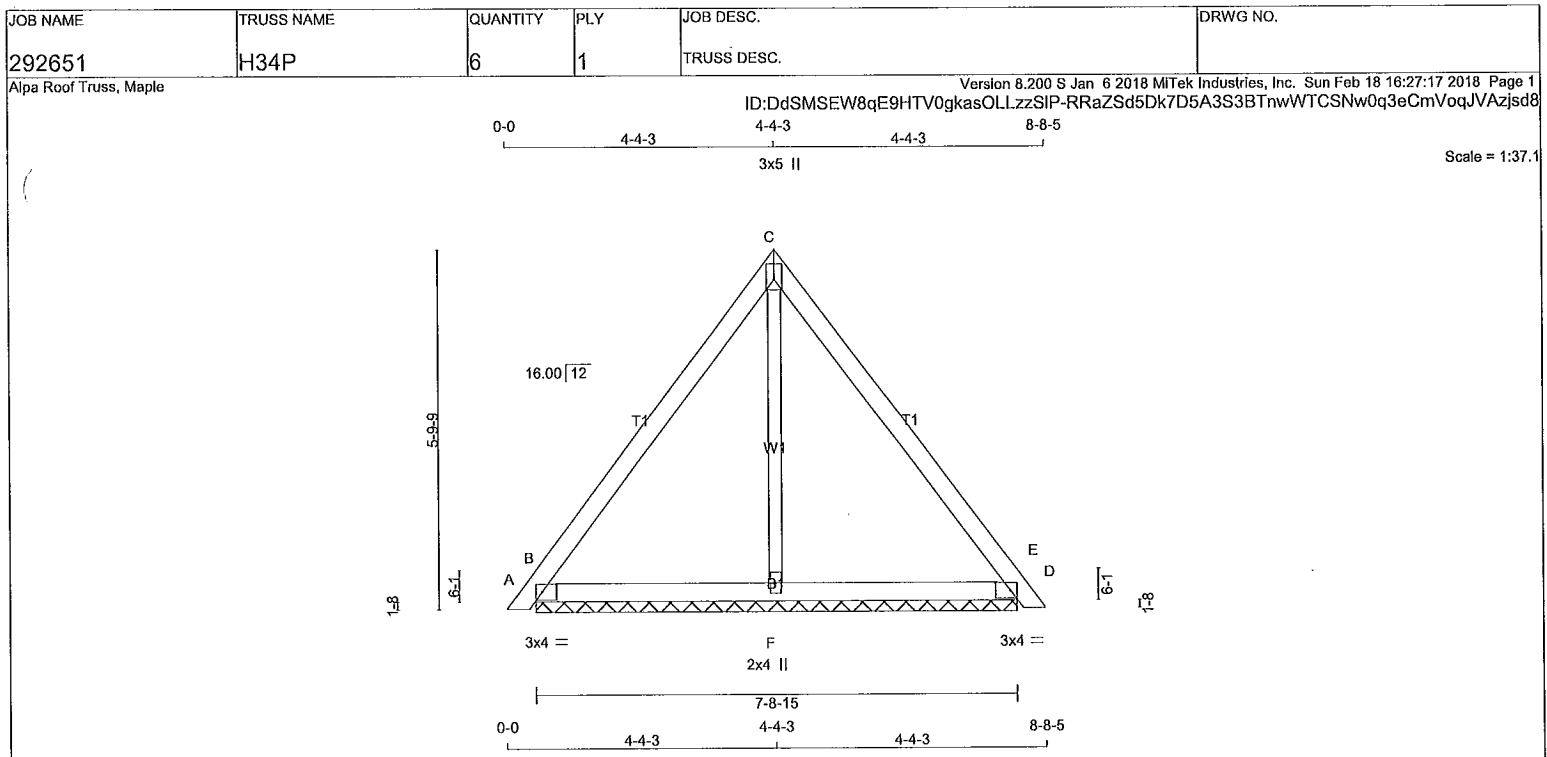
A-18023813



LUMBER N. L. G. A. RULES CHORDS SIZE LUMBER DESCR. O - A 2x4 DRY No.2 SPF A - B 2x4 DRY No.2 SPF B - D 2x4 DRY No.2 SPF D - F 2x4 DRY No.2 SPF F - I 2x4 DRY No.2 SPF N - M 2x4 DRY No.2 SPF M - J 2x4 DRY No.2 SPF J - H 2x8 DRY No.2 SPF EBS 2x3 DRY No.2 SPF EASONED 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 HEEL O 1033 0 1033 0 0 HANGER BY OTHERS WEDGE H 1104 0 1104 0 0 5-8 1-8 2x4 R ALLOW FOR 0.3" OF HORIZONTAL MOVEMENT DUE TO TOTAL LOAD UNFACTORED REACTIONS 1ST LCASE MAX/MIN. COMPONENT REACTIONS JT COMBINED SNOW LIVE PERM LIVE WIND DEAD SOIL O 737 450 / 0 0 / 0 0 / 0 0 / 0 287 / 0 0 / 0 H 786 488 / 0 0 / 0 0 / 0 0 / 0 298 / 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 = 3.77 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) C H O R D S W E B S MAX. FACTORED MAX. FACTORED MAX. FACTORED MEMB. FORCE VERT. LOAD LC1 MAX MAX. MEMB. MAX. FORCE MAX (LBS) (PLF) CSI (LC) LENGTH FR-TO (LBS) CSI (LC) FR-TO FROM TO O - N -1033 / 0 0.0 0.0 0.10 (1) 7.72 N - B -1744 / 0 0.27 (1) N - A -34 / 0 0.0 0.0 0.00 (1) 7.81 B - M 0 / 662 0.15 (1) A - B 0 / 0 -78.0 -78.0 0.01 (1) 10.00 M - C 0 / 835 0.19 (1) B - C -2106 / 0 -78.0 -78.0 0.13 (1) 4.57 C - L -851 / 0 0.19 (1) C - D -1164 / 0 -78.0 -78.0 0.15 (1) 5.75 L - D 0 / 668 0.15 (1) D - E -695 / 0 -78.0 -78.0 0.24 (1) 6.25 K - F 0 / 686 0.15 (1) E - F -721 / 0 -78.0 -78.0 0.25 (1) 6.25 K - G -863 / 0 0.25 (1) F - G -1194 / 0 -78.0 -78.0 0.19 (1) 5.65 J - G 0 / 1326 0.30 (1) G - Q -2579 / 0 -78.0 -78.0 0.15 (1) 4.19 L - E -261 / 0 0.35 (1) Q - H -3220 / 0 -78.0 -78.0 0.19 (1) 3.77 E - K -213 / 0 0.28 (1) H - I 0 / 20 -78.0 -78.0 0.05 (1) 10.00 P - Q 0 / 637 0.00 (1) N - M 0 / 914 -18.5 -18.5 0.17 (1) 10.00 M - L 0 / 1252 -18.5 -18.5 0.33 (4) 10.00 L - K 0 / 835 -18.5 -18.5 0.29 (4) 10.00 K - J 0 / 1462 -18.5 -18.5 0.36 (1) 10.00 J - P 0 / 1970 -18.5 -18.5 0.35 (1) 10.00 P - H 0 / 2394 -18.5 -18.5 0.39 (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 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, NBCC 2010, NBCC 2015 THIS DESIGN COMPLIES WITH: - PART 9 OF OBC 2012, OBC 2018 - CSA 086-09, CSA 086-14 - TPIC 2011, TPIC 2014 (55% OF 23.0 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 21.0 P.S.F. SPECIFIED ROOF LIVE LOAD ALLOWABLE DEFL.(LL)= L/360 (0.71") CALCULATED VERT. DEFL.(LL) = L/999 (0.07") ALLOWABLE DEFL.(TL)= L/360 (0.71") CALCULATED VERT. DEFL.(TL) = L/999 (0.21") CSI: TC=0.25/1.00 (E-F:1), BC=0.39/1.00 (H-P:1), WB=0.35/1.00 (E-L:1), SSI=0.16/1.00 (D-E:1) DOL LUMBER=1.00 NAIL=1.00 LS BEND=1.10 COMP=1.10 SHEAR=1.10 TENS=1.10 COMPANION LIVE LOAD FACTOR = 1.00 TRUSS PLATE MANUFACTURER IS NOT RESPONSIBLE FOR QUALITY CONTROL IN THE TRUSS MANUFACTURING PLANT. NAIL VALUES PLATE GRIP(DRY) SHEAR SECTION (PSI) (PLI) (PLI) MAX MIN MAX MIN MAX MIN MT20 618 354 1657 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= 0.66 (H) (INPUT = 1.00) A-18023814			
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NOTE: Lateral brace(s) shown shall be 1x4 for Part 9 design as per OBC 9.23.13.11, and no less than 2x4 for Part 4 design





TOTAL WEIGHT = 6 X 29 = 176 lb

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

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

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

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

BEARINGS		FACTORED GROSS REACTION	MAXIMUM FACTORED GROSS REACTION	INPUT BRG	REQRD BRG
JT	VERT	HORZ	DOWN	HORZ	UPLIFT
B	288	0	288	0	0
D	288	0	288	0	0
F	226	0	226	0	0

UNFACTORED REACTIONS

JT	1ST CASE	MAX / MIN	SNOW	LIVE	PERM. LIVE	WIND	DEAD	SOIL
B	202	141 / 0	0 / 0	0 / 0	0 / 0	0 / 0	62 / 0	0 / 0
D	202	141 / 0	0 / 0	0 / 0	0 / 0	0 / 0	62 / 0	0 / 0
F	166	73 / 0	0 / 0	0 / 0	0 / 0	0 / 0	93 / 0	0 / 0

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

BRACING

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

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

LOADING

TOTAL LOAD CASES: (4)

CHORDS		WEBS	
MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD LC1 (PLF)	MAX. MEMB. FORCE (LBS)
FR-TO		FROM TO	FR-TO
A-B	0 / 10	-78.0 -78.0 0.01 (1)	10.00
B-C	-103 / 0	-78.0 -78.0 0.20 (1)	6.25
C-D	-103 / 0	-78.0 -78.0 0.20 (1)	6.25
D-E	0 / 10	-78.0 -78.0 0.01 (1)	10.00
B-F	0 / 61	-18.5 -18.5 0.08 (4)	10.00
F-D	0 / 61	-18.5 -18.5 0.08 (4)	10.00

DESIGN CRITERIA

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

SPACING = 24.0 IN. C/C

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

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

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

CSI: TC=0.20/1.00 (B-C:1), BC=0.08/1.00 (D-F:4), WB=0.06/1.00 (C-F:1), SSI=0.07/1.00 (B-C:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

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

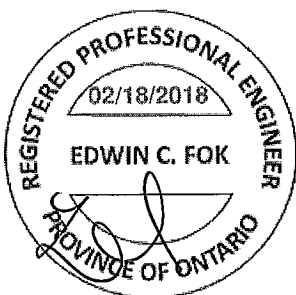
NAIL VALUES
PLATE GRIP(DRY) SHEAR SECTION (PSI) (PLI) (PLI)
MAX MIN MAX MIN MAX MIN
MT20 618 354 1667 788 1987 1656

PLATE PLACEMENT TOL. = 0.250 inches

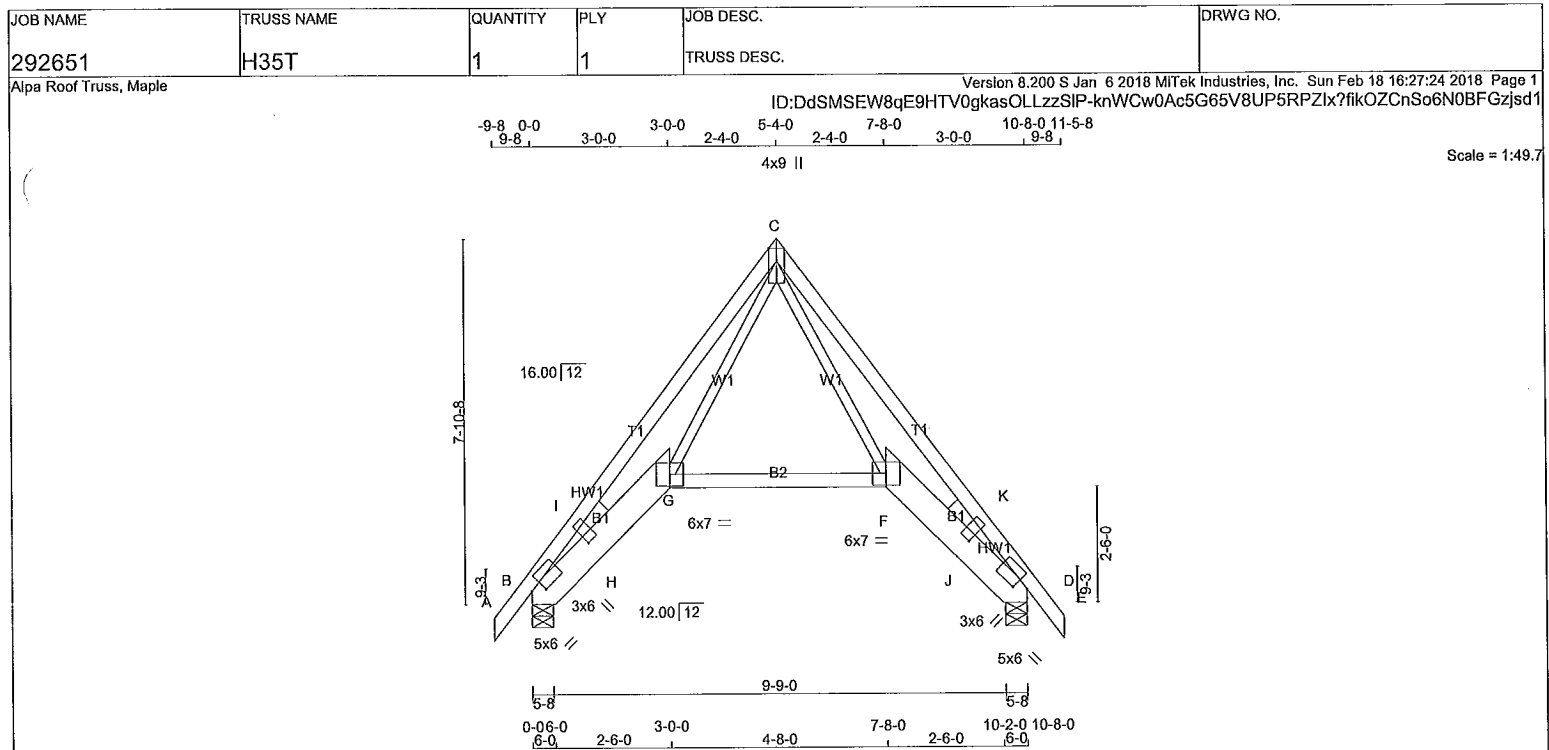
PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.34 (B) (INPUT = 0.90)
JSI METAL= 0.13 (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-18023815



TOTAL WEIGHT = 64 lb [M][F]

LUMBER
N. L. G. A. RULES

CHORDS	SIZE	DRY	LUMBER	DESCR.
A - C	2x4	DRY	No.2	SPF
C - E	2x4	DRY	No.2	SPF
B - G	2x8	DRY	No.2	SPF
G - F	2x4	DRY	No.2	SPF
F - D	2x8	DRY	No.2	SPF

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

PLATES (table is in inches)

JT	TYPE	PLATES	W	LEN	Y	X
B	TMB1-I	MT20	5.0	6.0	2.25	3.00
B	WP-H	MT20	3.0	6.0	1.50	19.25
C	TTWW+P	MT20	4.0	9.0	3.25	Edge
D	TMB1-I	MT20	5.0	6.0	2.25	3.00
D	WP-H	MT20	3.0	6.0	1.50	19.25
F	BBW-I	MT20	6.0	7.0		
G	BBW-I	MT20	6.0	7.0		

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	HEEL WEDGE
	VERT	HORZ	DOWN	HORZ			
B	585	0	585	0	5-8	1-8	2x4 L
D	585	0	585	0	5-8	1-8	2x4 R

UNFACTORED REACTIONS

JT	1ST LCASE		MAX./MIN. COMPONENT REACTIONS				
	COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
B	416	262 / 0	0 / 0	0 / 0	0 / 0	154 / 0	0 / 0
D	416	262 / 0	0 / 0	0 / 0	0 / 0	154 / 0	0 / 0

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

BRACING
TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 5.83 FT.
MAX. UNBRACED BOTTOM CHORD LENGTH = 10.00 FT OR RIGID CEILING DIRECTLY APPLIED.

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

LOADING
TOTAL LOAD CASES: (4)

CHORDS				WEBS			
MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	MAX. FACTORED CSI (LC)	MAX. UNBRACED LENGTH	MEMB.	MAX. FACTORED FORCE (LBS)	MAX. FACTORED CSI (LC)
FR-TO		FROM TO			FR-TO		
A-B	0 / 20	-78.0 -78.0	0.05 (1)	10.00	G-C	0 / 696	0.16 (1)
B-I	-1132 / 0	-78.0 -78.0	0.13 (1)	5.83	C-F	0 / 696	0.16 (1)
I-C	-979 / 0	-78.0 -78.0	0.19 (1)	6.09	H-I	-24 / 59	0.00 (1)
C-K	-979 / 0	-78.0 -78.0	0.19 (1)	6.09	J-K	-24 / 59	0.00 (1)
K-D	-1132 / 0	-78.0 -78.0	0.13 (1)	5.83			
D-E	0 / 20	-78.0 -78.0	0.05 (1)	10.00			
B-H	0 / 770	-18.5 -18.5	0.10 (1)	10.00			
H-G	0 / 806	-18.5 -18.5	0.11 (1)	10.00			
G-F	0 / 273	-18.5 -18.5	0.14 (4)	10.00			
F-J	0 / 806	-18.5 -18.5	0.11 (1)	10.00			
J-D	0 / 770	-18.5 -18.5	0.10 (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 (0.36")
CALCULATED VERT. DEFL.(LL) = L/999 (0.03")
ALLOWABLE DEFL.(TL) = L/360 (0.36")
CALCULATED VERT. DEFL.(TL) = L/999 (0.09")

CSI: TC=0.19/1.00 (C-I:1), BC=0.14/1.00 (F-G:4), WB=0.16/1.00 (C-G:1), SSI=0.09/1.00 (C-K:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

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

NAIL VALUES

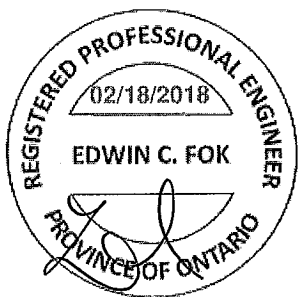
PLATE	GRIP(DRY)	SHEAR (PSI)	SECTION (PLI)
MT20	618	354	1667 788 1987 1656

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.36 (G) (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

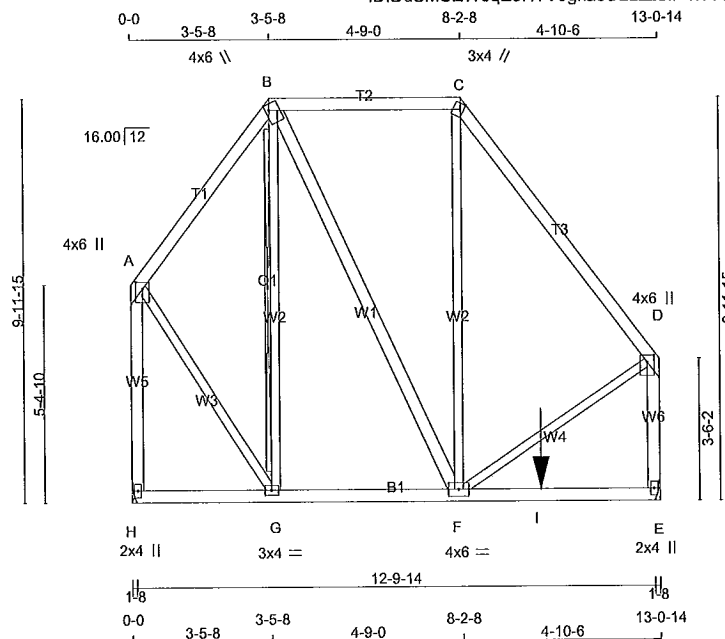


A-18023816

JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
292651	H36A	1	1	TRUSS DESC.	

Alpa Roof Truss, Maple

Version 8.200 S Jan 6 2018 MiTek Industries, Inc. Sun Feb 18 16:32:24 2018 Page 1
ID:DdSMSEW8qE9HTV0gkasOLLzzSIP-xVecubpoRSvXVEQ3gRovSCQsGgJVVTNy52h2ntzjsYL



TOTAL WEIGHT = 83 lb

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

SEASONED LUMBER.

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

BEARINGS	FACTORED GROSS REACTION	MAXIMUM FACTORED GROSS REACTION	INPUT BRG	REQRD BRG
JT	VERT	DOWN	IN-SX	IN-SX
H	969 0	969 0	0	0
E	1008 0	1008 0	0	0

UNFACTORED REACTIONS

1ST LCASE	MAX/MIN. COMPONENT REACTIONS	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
JT COMBINED							
H	691	422 / 0	0 / 0	0 / 0	0 / 0	269 / 0	0 / 0
E	719	439 / 0	0 / 0	0 / 0	0 / 0	280 / 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.

2x4 DRY SPF No.2 T-BRACE AT B-G

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

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

LOADING

TOTAL LOAD CASES: (4)

CHORDS	MAX. FACTORED MEMB. FORCE (LBS)	FACTORED VERT. LOAD (PLF)	MAX. FACTORED VERT. LOAD (LC1)	MAX. FACTORED VERT. LOAD (LC)	MAX. FACTORED VERT. LOAD (UNBRACED LENGTH)	WEBS	MAX. FACTORED MEMB. FORCE (LBS)	MAX. FACTORED VERT. LOAD (LC)
FR-TO		FROM	TO			FR-TO		
A-B	-451 / 0	-78.0	-78.0	0.18 (1)	6.25	G-B	-140 / 0	0.11 (1)
B-C	-355 / 0	-78.0	-78.0	0.34 (1)	6.25	B-F	0 / 202	0.04 (1)
C-D	-592 / 0	-78.0	-78.0	0.39 (1)	6.25	F-C	0 / 108	0.04 (4)
H-A	-873 / 0	0.0	0.0	0.50 (1)	7.81	A-G	0 / 463	0.11 (1)
E-D	-887 / 0	0.0	0.0	0.20 (1)	7.81	F-D	0 / 418	0.10 (1)
H-G	0 / 0	-63.7	-63.7	0.11 (1)	10.00			
G-F	0 / 267	-63.7	-63.7	0.41 (1)	10.00			
F-I	0 / 0	-63.7	-63.7	0.41 (1)	10.00			
I-E	0 / 0	-18.5	-18.5	0.41 (1)	10.00			

FACTORED CONCENTRATED LOADS (LBS)

JT	LOC.	LC1	MAX-	MAX+	FACE	DIR.	TYPE
I	10-1-12	-257	-257	—	FRONT	VERT	TOTAL

DESIGN CRITERIA

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

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

SPACING = 24.0 IN. C/C

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

GIRDER TYPE: CStdGirder
START DISTANCE = 0-0
START SPAN CARRIED = 3-10-8
END DISTANCE = 10-1-12
END SPAN CARRIED = 3-10-8
END WALL WIDTH = 0-0
APPLIED TO FRONT SIDE OF BOTTOM CHORD.
- ADDTL. LOADS BASED ON 55 % OF GSL.

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

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

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

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

ALLOWABLE DEFL.(LL) = L/360 (0.44")
CALCULATED VERT. DEFL.(LL) = L/999 (0.05")
ALLOWABLE DEFL.(TL) = L/360 (0.44")
CALCULATED VERT. DEFL.(TL) = L/999 (0.11")

CSI: TC=0.50/1.00 (A-H:1), BC=0.41/1.00 (F-G:1), WB=0.11/1.00 (A-G:1), SSF=0.27/1.00 (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

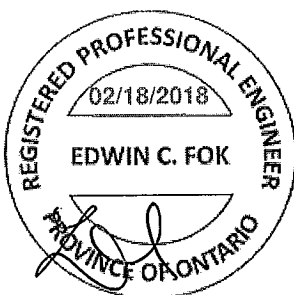
TRUSS PLATE MANUFACTURER IS NOT RESPONSIBLE FOR QUALITY CONTROL IN THE TRUSS MANUFACTURING PLANT.

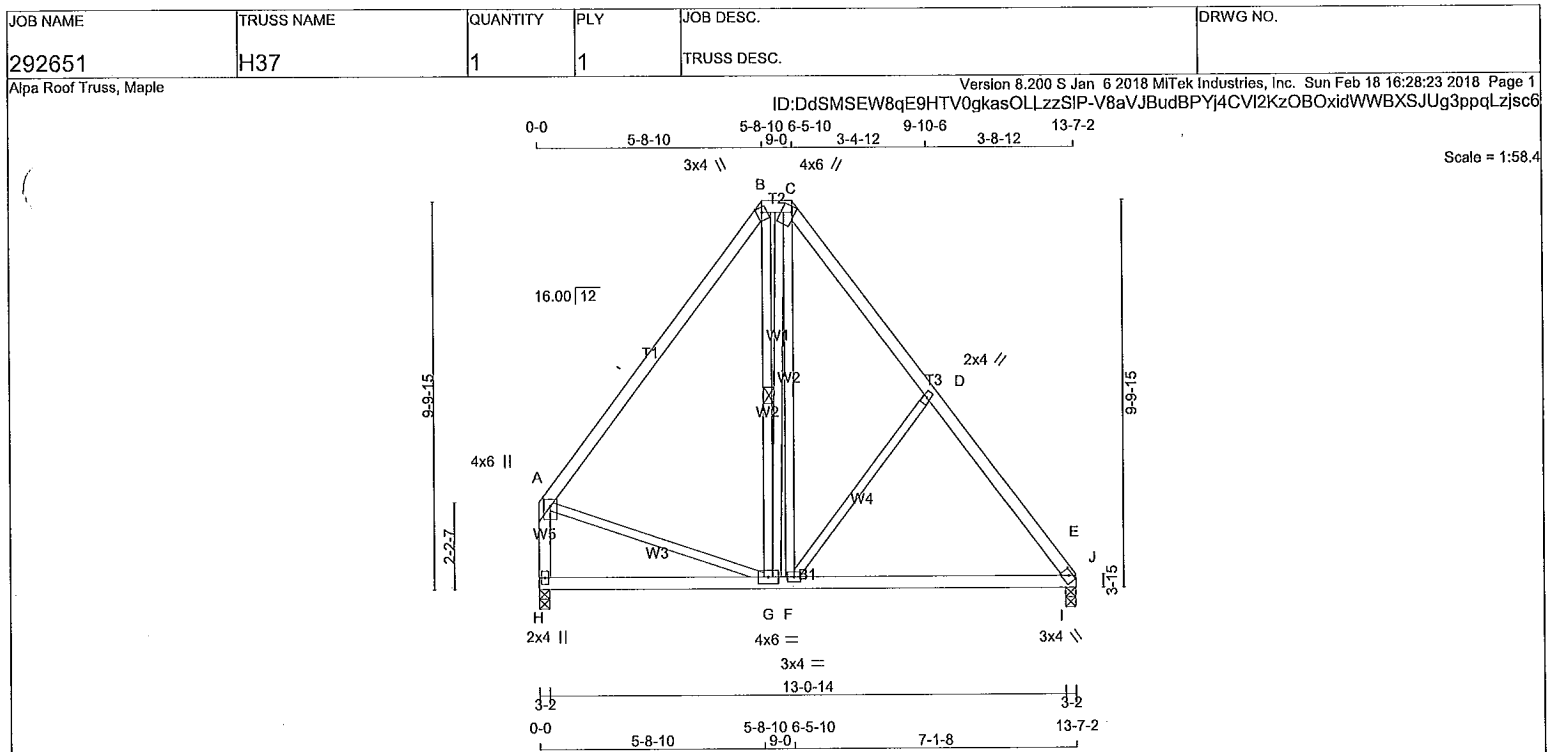
NAIL VALUES
PLATE GRIP(DRY) SHEAR SECTION
(PSI) (PLI) (PLI)
MAX MIN MAX MIN MAX MIN
MT20 618 354 1667 788 1987 1656

A-18023817

CONTINUED ON PAGE 2

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





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

SEASONED LUMBER.

PLATES (table is in inches)

JT	TYPE	PLATES	W	LEN	Y	X
A	TMVW+p	MT20	4.0	6.0	2.00	2.00
B	TTW+m	MT20	3.0	4.0	Edge	
C	TTWW+m	MT20	4.0	6.0	1.75	1.00
D	TMW+w	MT20	2.0	4.0		
E	TBM1-h	MT20	3.0	4.0	1.00	2.00
F	BMWW-t	MT20	3.0	4.0		
G	BMWWW-t	MT20	4.0	6.0		
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

BEARINGS		FACTORED GROSS REACTION	MAXIMUM FACTORED GROSS REACTION	INPUT BRG	REQRD BRG
JT	VERT	HORZ	DOWN	HORZ	UPLIFT
E	656	0	656	0	0
H	656	0	656	0	0

UNFACTORED REACTIONS

1ST LCASE	MAX/MIN	COMPONENT REACTIONS					
JT	COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
E	467	285 / 0	0 / 0	0 / 0	0 / 0	182 / 0	0 / 0
H	467	285 / 0	0 / 0	0 / 0	0 / 0	182 / 0	0 / 0

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

BRACING

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

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

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

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

LOADING

TOTAL LOAD CASES: (4)

CHORDS		MEMB.		W E B S	
MAX. FACTORED	FORCE	MAX. FACTORED	FORCE	MAX. FACTORED	FORCE
MEMB.	(LBS)	VERT. LOAD	LC1 MAX	UNBRAC	MEMB.
FR-TO		FROM	TO	CS1 (LC)	LENGTH FR-TO
A-B	-399 / 0	-78.0	-78.0	0.33 (1)	6.25
B-C	-239 / 0	-78.0	-78.0	0.01 (1)	6.25
C-D	-431 / 0	-78.0	-78.0	0.13 (1)	6.25
D-J	-584 / 0	-78.0	-78.0	0.14 (1)	6.25
J-E	-699 / 0	-78.0	-78.0	0.09 (4)	6.25
H-A	-617 / 0	0.0	0.0	0.08 (1)	7.81
H-G	0 / 0	-18.5	-18.5	0.18 (4)	10.00
G-F	0 / 243	-18.5	-18.5	0.21 (4)	10.00
F-I	0 / 375	-18.5	-18.5	0.22 (4)	10.00
I-E	0 / 375	-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

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

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

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

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

ALLOWABLE DEFL.(LL)= L/360 (0.45")
CALCULATED VERT. DEFL.(LL) = L/999 (0.02")
ALLOWABLE DEFL.(TL)= L/360 (0.45")
CALCULATED VERT. DEFL.(TL) = L/999 (0.08")

CSI: TC=0.33/1.00 (A-B:1), BC=0.22/1.00 (F-I:4), WB=0.14/1.00 (D-F:1), SSI=0.18/1.00 (E-J:4)

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

COMPANION LIVE LOAD FACTOR = 1.00

AUTOSOLVE RIGHT HEEL ONLY

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

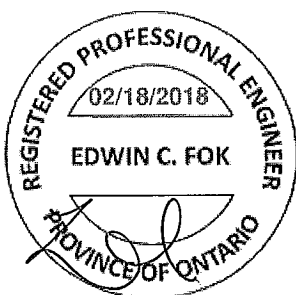
NAIL VALUES
PLATE GRIP(DRY) SHEAR SECTION
(PSI) (PLI) (PLI)
MAX MIN MAX MIN MAX MIN
MT20 618 354 1667 788 1987 1656

PLATE PLACEMENT TOL. = 0.250 inches

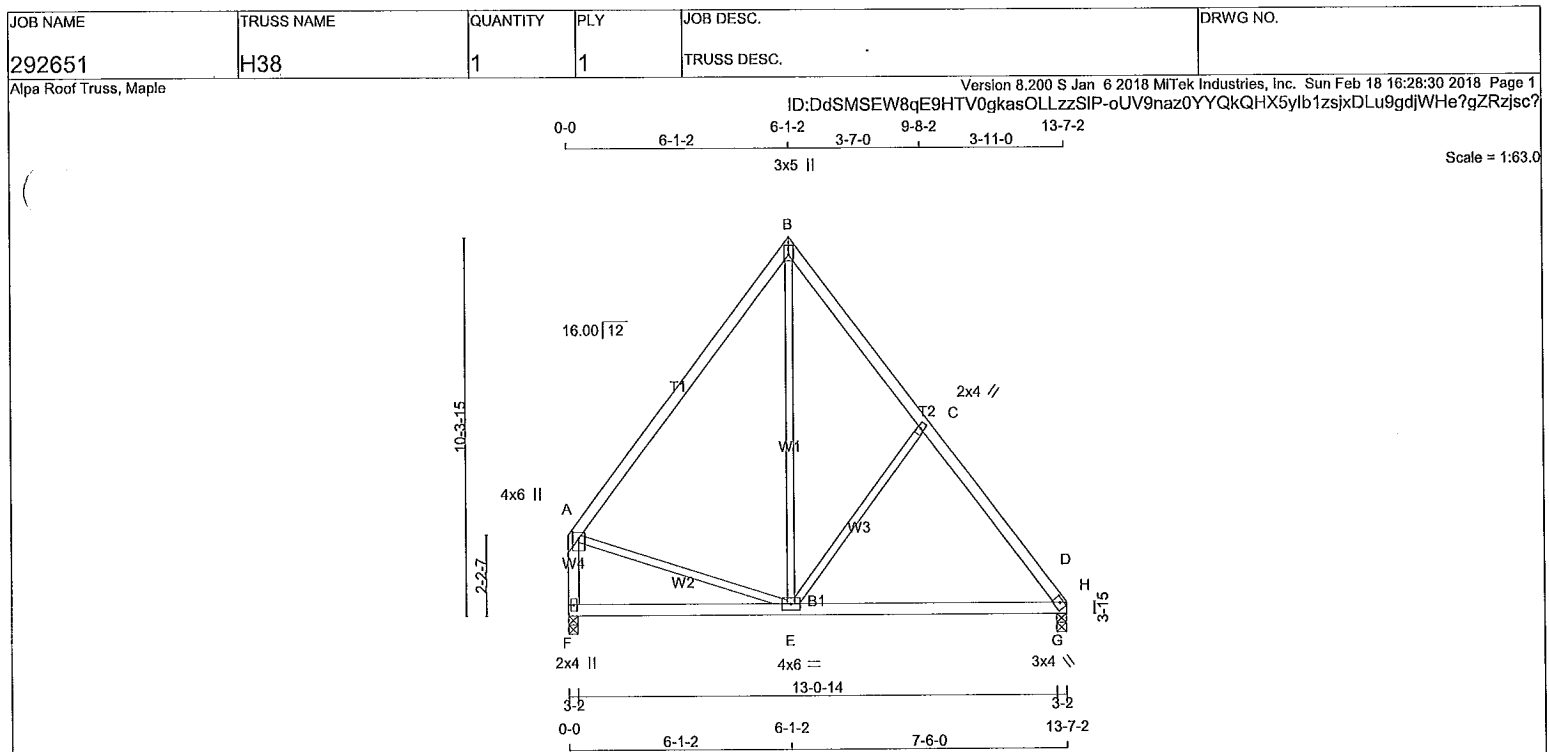
PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.56 (E) (INPUT = 0.90)
JSI METAL= 0.20 (E) (INPUT = 1.00)

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



A-18023818



LUMBER					
N. L. G. A. RULES					
CHORDS	SIZE	LUMBER	DESCR.		
A - B	2x4	DRY	2100F 1.8E	SPF	
B - D	2x4	DRY	No.2	SPF	
F - A	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	TMW+w	MT20	2.0	4.0		
D	TBM1-h	MT20	3.0	4.0	1.00	2.00
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

	FACTORED GROSS REACTION	MAXIMUM FACTORED GROSS REACTION	INPUT BRG	REQRD BRG
	VERT	HORZ	DOWN	HORZ
JT				
D	656	0	656	0
F	656	0	656	0

UNFACTORED REACTIONS

	1ST LCASE	MAX / MIN	COMPONENT REACTIONS				
	COMBINED	SNOW	LIVE	PERM. LIVE	WIND	DEAD	SOIL
JT							
D	467	285 / 0	0 / 0	0 / 0	0 / 0	182 / 0	0 / 0
F	467	285 / 0	0 / 0	0 / 0	0 / 0	182 / 0	0 / 0

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

BRACING

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

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

LOADING

TOTAL LOAD CASES: (4)

CHORDS				WEBS			
MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	MAX. FACTORED CSI (LC)	MEMB.	MAX. FACTORED FORCE (LBS)	MAX. FACTORED CSI (LC)	
FR-TO		FROM TO		FR-TO			
A-B	-387 / 0	-78.0 -78.0	0.25 (1)	E-B	0 / 275	0.06 (4)	
B-C	-417 / 0	-78.0 -78.0	0.15 (1)	E-C	-232 / 0	0.16 (1)	
C-H	-576 / 0	-78.0 -78.0	0.15 (1)	A-E	0 / 242	0.05 (1)	
H-D	-679 / 0	-78.0 -78.0	0.09 (4)	G-H	-9 / 177	0.00 (1)	
F-A	-617 / 0	0.0 0.0	0.08 (1)				
F-E	0 / 0	-18.5 -18.5	0.23 (4)				
E-G	0 / 370	-18.5 -18.5	0.26 (4)				
G-D	0 / 370	-18.5 -18.5	0.09 (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 (0.45")
CALCULATED VERT. DEFL.(LL) = L/999 (0.02")
ALLOWABLE DEFL.(TL) = L/360 (0.45")
CALCULATED VERT. DEFL.(TL) = L/999 (0.09")

CSI: TC=0.25/1.00 (A-B:1), BC=0.26/1.00 (E-G:4), WB=0.16/1.00 (C-E:1), SSI=0.18/1.00 (D-H:4)

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

COMPANION LIVE LOAD FACTOR = 1.00

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

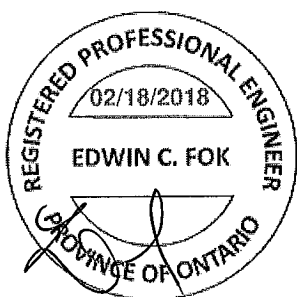
PLATE	GRIP(DRY)	SHEAR	SECTION
	(PSI)	(PLI)	(PLI)
	MAX MIN	MAX MIN	MAX MIN
MT20	618 354	1667 788	1987 1656

PLATE PLACEMENT TOL. = 0.250 inches

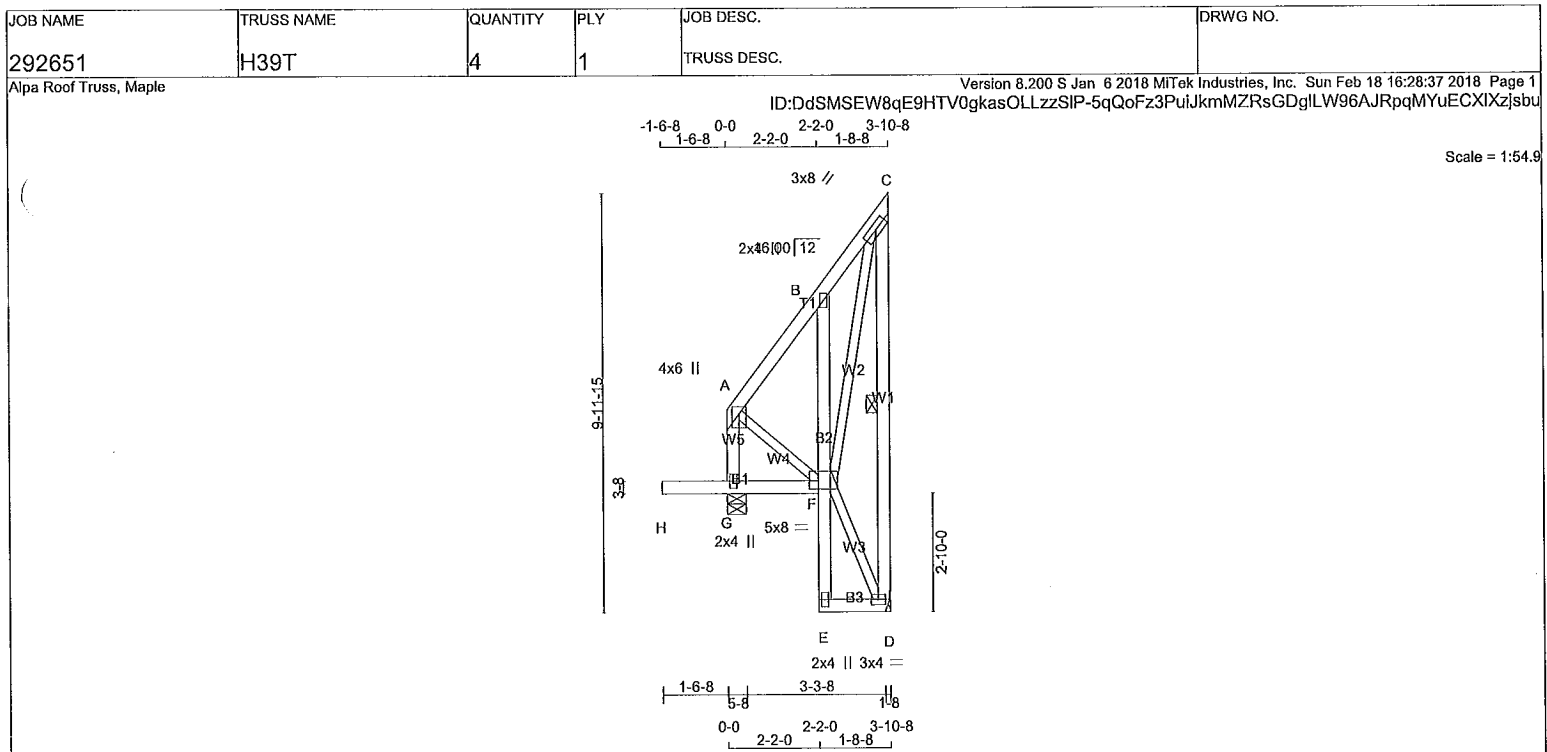
PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.56 (D) (INPUT = 0.90)
JSI METAL= 0.20 (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-18023819



TOTAL WEIGHT = 4 X 44 = 178 lb

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

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

PLATES (table is in inches)					
JT	TYPE	PLATES	W	LEN	Y X
A	TMVW+p	MT20	4.0	6.0	2.00 2.00
B	TMV+p	MT20	2.0	4.0	
C	TMVW-l	MT20	3.0	8.0	1.50 3.75
D	BMVW1-l	MT20	3.0	4.0	
E	BMV+p	MT20	2.0	4.0	
F	BMVWW-l	MT20	5.0	8.0	2.25 2.50
G	BMV1+p	MT20	2.0	4.0	

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

BEARINGS		FACTORED GROSS REACTION	MAXIMUM FACTORED GROSS REACTION	INPUT BRG	REQRD BRG
JT	VERT	HORZ	DOWN	UP	IN-SX
G	336	0	336	0	5-8
D	187	0	187	0	1-8

HANGER BY OTHERS
 MIN. SEAT SIZE: 1-8

UNFACTORED REACTIONS

JT	1ST LCASE	MAX./MIN. SNOW	MIN. LIVE	PERM. LIVE	WIND	DEAD	SOIL
G	239	146 / 0	0 / 0	0 / 0	0 / 0	93 / 0	0 / 0
D	133	81 / 0	0 / 0	0 / 0	0 / 0	52 / 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 = 7.81 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-D.

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: (5)

CHORDS		WEBS	
MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD LC1 (PLF)	MAX. MEMB. FORCE (LBS)
FR-TO		FROM TO	UNBRAC LENGTH FR-TO
G-A	-166 / 0	0.0 0.0 0.02 (1)	7.81 A-F
A-B	-86 / 0	-78.0 -78.0 0.05 (1)	6.25 F-D
B-C	-81 / 0	-78.0 -78.0 0.04 (1)	6.25 F-C
D-C	-167 / 0	0.0 0.0 0.08 (1)	6.25
H-G	0 / 0	-96.5 -96.5 0.16 (1)	10.00
G-F	0 / 0	-18.5 -18.5 0.03 (4)	10.00
E-F	0 / 16	0.0 0.0 0.01 (1)	10.00
F-B	-174 / 0	0.0 0.0 0.02 (1)	7.81
E-D	0 / 3	-18.5 -18.5 0.01 (4)	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.I. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 21.0 P.S.F. SPECIFIED ROOF LIVE LOAD

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

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=0.08/1.00 (C-D:1), BC=0.16/1.00 (G-H:1), WB=0.04/1.00 (C-F:1), SSI=0.12/1.00 (G-H:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

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

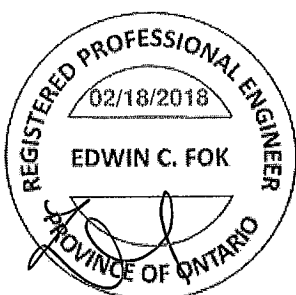
NAIL VALUES
 PLATE GRIP(DRY) SHEAR SECTION
 (PSI) (PLI) (PLI)
 MAX MIN MAX MIN MAX MIN
 MT20 618 354 1667 788 1987 1656

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.25 (F) (INPUT = 0.90)
 JSI METAL= 0.08 (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

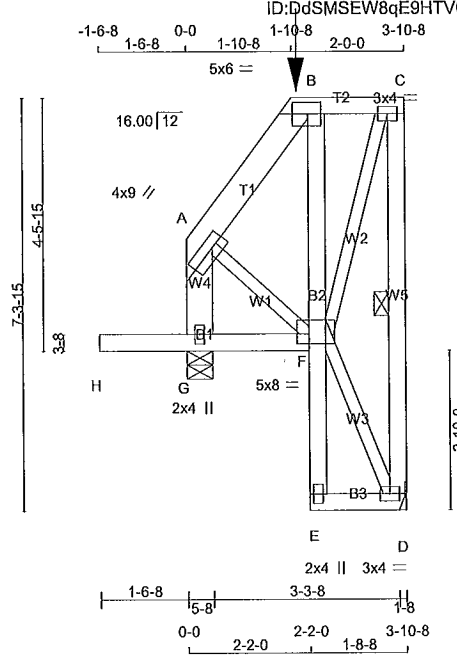


A-18023820

JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
292651	H39TA	2	1	TRUSS DESC.	

Alpa Roof Truss, Maple

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TOTAL WEIGHT = 2 X 41 = 83 lb

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

PLATES (table is in inches)	JT	TYPE	PLATES	W	LEN	Y	X
A	TMVW-1	MT20	4.0	9.0	2.00	3.00	
B	TMTV-1	MT20	5.0	6.0	2.50	2.75	
C	TMVW-1	MT20	3.0	4.0			
D	BMVW-1	MT20	3.0	4.0			
E	BMV+p	MT20	2.0	4.0			
F	BVMWVW-1	MT20	5.0	8.0	2.00	2.50	
G	BMV1+p	MT20	2.0	4.0			

HANGERS NOTES
1) SPECIAL HANGER(S) OR CONNECTION(S) REQUIRED TO SUPPORT CONCENTRATED LOAD(S) 51.3 lbs FACTORED DOWN AT 2-3-12 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

JT	FACTORED GROSS REACTION		MAXIMUM FACTORED GROSS REACTION		INPUT BRG	REQRD BRG
	VERT	HORZ	DOWN	HORZ		
D	258	0	258	0	0	0
G	375	0	375	0	0	0

UNFACTORED REACTIONS

1ST LCASE		MAX./MIN. COMPONENT REACTIONS					
JT	COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
D	183	114 / 0	0 / 0	0 / 0	0 / 0	70 / 0	0 / 0
G	267	161 / 0	0 / 0	0 / 0	0 / 0	106 / 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 = 7.81 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-D.

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: (5)

MEMB.	CHORDS		FACTORED		MAX. UNBRAC	MEMB.	WEBS	
	MAX. FACTORED FORCE (LBS)	VERT. LOAD (PLF)	LC1 (LC)	MAX. UNBRAC			MAX. FACTORED FORCE (LBS)	MAX. UNBRAC
FR-TO		FROM TO				FR-TO		
A-B	-92 / 0	-78.0 -78.0	0.04 (1)	6.25	F-D	-4 / 0	0.00 (1)	
B-C	-58 / 0	-101.5 -101.5	0.05 (1)	6.25	F-C	0 / 167	0.04 (1)	
D-C	-235 / 0	0.0 0.0	0.06 (1)	6.25	A-F	0 / 70	0.02 (1)	
G-A	-198 / 0	0.0 0.0	0.02 (1)	7.81				
H-G	0 / 0	-96.5 -96.5	0.17 (1)	10.00				
G-F	0 / 0	-24.1 -24.1	0.04 (4)	10.00				
E-F	0 / 21	0.0 0.0	0.01 (1)	10.00				
F-B	-151 / 0	0.0 0.0	0.01 (1)	7.81				
E-D	0 / 2	-24.1 -24.1	0.02 (4)	10.00				

FACTORED CONCENTRATED LOADS (LBS)

JT	LOC.	LC1	MAX-	MAX+	FACE	DIR.	TYPE
B	2-3-12	-51	-51	-	FRONT	VERT	TOTAL

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

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

GIRDER TYPE: CPrimeHip
LEFT SETBACK = 2-3-12
RIGHT SETBACK = 0-0
END SETBACK = 3-2-8
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 (0.19")
CALCULATED VERT. DEFL.(LL) = L/999 (0.00")
ALLOWABLE DEFL.(TL) = L/360 (0.19")
CALCULATED VERT. DEFL.(TL) = L/999 (0.00")

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=0.06/1.00 (C-D:1), BC=0.17/1.00 (G-H:1), WB=0.04/1.00 (C-F:1), SI=0.13/1.00 (G-H:1)

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

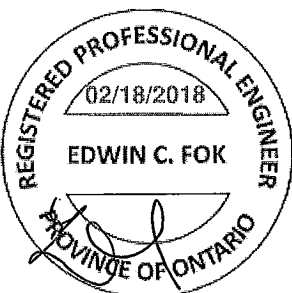
COMPANION LIVE LOAD FACTOR = 1.00

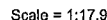
AUTOSOLVE RIGHT HEEL ONLY

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

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

A-18023821 CONTINUED ON PAGE 2





TOTAL WEIGHT = $2 \times 37 = 74$ lb

DESIGN CONSISTS OF 2 TRUSSES BUILT
SEPARATELY THEN FASTENED TOGETHER AS
SHOWN ON DRAWINGS.

NAILS TO BE DRIVEN FROM ONE SIDE ONLY.

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

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

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

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

UNFACTORED REACTIONS

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

BRACING

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

ALL PITCH BREAKS AND PERIMETER CORNER JOINTS MUST BE Laterally RESTRAINED

LOADING

LOADING
TOTAL LOAD CASES: (4)

FACTORED CONCENTRATED LOADS (LBS)

JT	LOC.	LC1	MAX-	MAX+	FACE	DIR.	TYPE
E	3-11-4	-1008	-1008	—	FRONT	VERT	TOTAL



DESIGN CRITERIA

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

SPECIFIED LOADS:

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

SPACING = 24.0 IN. C/C

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

GIRDER TYPE: CStdGirder
START DISTANCE = 3-11-3
START SPAN CARRIED = 13-7-2
END DISTANCE = 8-0-8
END SPAN CARRIED = 13-7-2
END WALL WIDTH = 0-0
APPLIED TO FRONT SIDE OF TOP CHORD.
- ADD'L LOADS BASED ON 55 % OF GSL.

GIRDER TYPE: CStdGirder
START DISTANCE = 0-0
START SPAN CARRIED = 3-2-8
END DISTANCE = 3-11-4
END SPAN CARRIED = 3-2-8
END WALL WIDTH = 0-0
APPLIED TO FRONT SIDE OF BOTTOM CHORD.
- ADJUST'L LOADS BASED ON 55 % OF GSL.

GIRDER TYPE: CStdGirder
START DISTANCE = 0-0
START SPAN CARRIED = 21-5-0
END DISTANCE = 8-0-8
END SPAN CARRIED = 21-5-0
END WALL WIDTH = 0-0
APPLIED TO FRONT SIDE OF BOTTOM CHORD.
- ADJUST'L LOADS BASED ON 55 % OF GSL.

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

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

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

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

ALLOWABLE DEFL.(LL)= L/360 (0.27")
CALCULATED VERT. DEFL.(LL) = L/999 (0.03")
ALLOWABLE DEFL.(TL)= L/360 (0.27")
CALCULATED VERT. DEFL.(TL) = L/999 (0.06")

A-18023822 CONTINUED ON PAGE 2

JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
292651	H40A	1	2	TRUSS DESC.	
Alpa Roof Truss, Maple					
Version 8.200 S Jan 6 2018 MiTek Industries, Inc. Sun Feb 18 16:33:40 2018 Page 2					
ID:DdSMSEW8qE9HTV0gkasOLLzzSIP-j7ELrajTXoUlcwEg6P9kXEZrAJhLiku8ZI53STzsX9					

PLATES (table is in inches)

	DE	PLATES	W	LEN	Y	X
J	W-t	MT20	4.0	6.0	1.75	2.25
D	.v1+p	MT20	2.0	4.0		
E	BMWW-t	MT20	8.0	9.0	4.25	4.50
F	BMV1+p	MT20	2.0	4.0		

HANGERS NOTES

- 1) SPECIAL HANGER(S) OR CONNECTION(S) REQUIRED TO SUPPORT CONCENTRATED LOAD(S) 1008.5 lbs FACTORED DOWN AT 3-11-4 ON BOTTOM CHORD. DESIGN FOR UNSPECIFIED CONNECTION(S) IS DELEGATED TO THE BUILDING DESIGNER.

CSI: TC=0.49/1.00 (B-C:1) , BC=0.28/1.00 (E-F:1) ,
WB=0.52/1.00 (A-E:1) , SSI=0.39/1.00 (E-F:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

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

NAIL VALUES

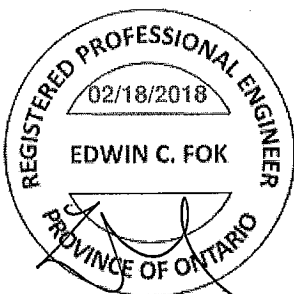
PLATE	GRIP(DRY)	SHEAR	SECTION
	(PSI)	(PLI)	(PLI)
	MAX	MIN	MAX
	MIN	MAX	MIN
MT20	618	354	1667
			788
			1987
			1656

PLATE PLACEMENT TOL. = 0.250 inches

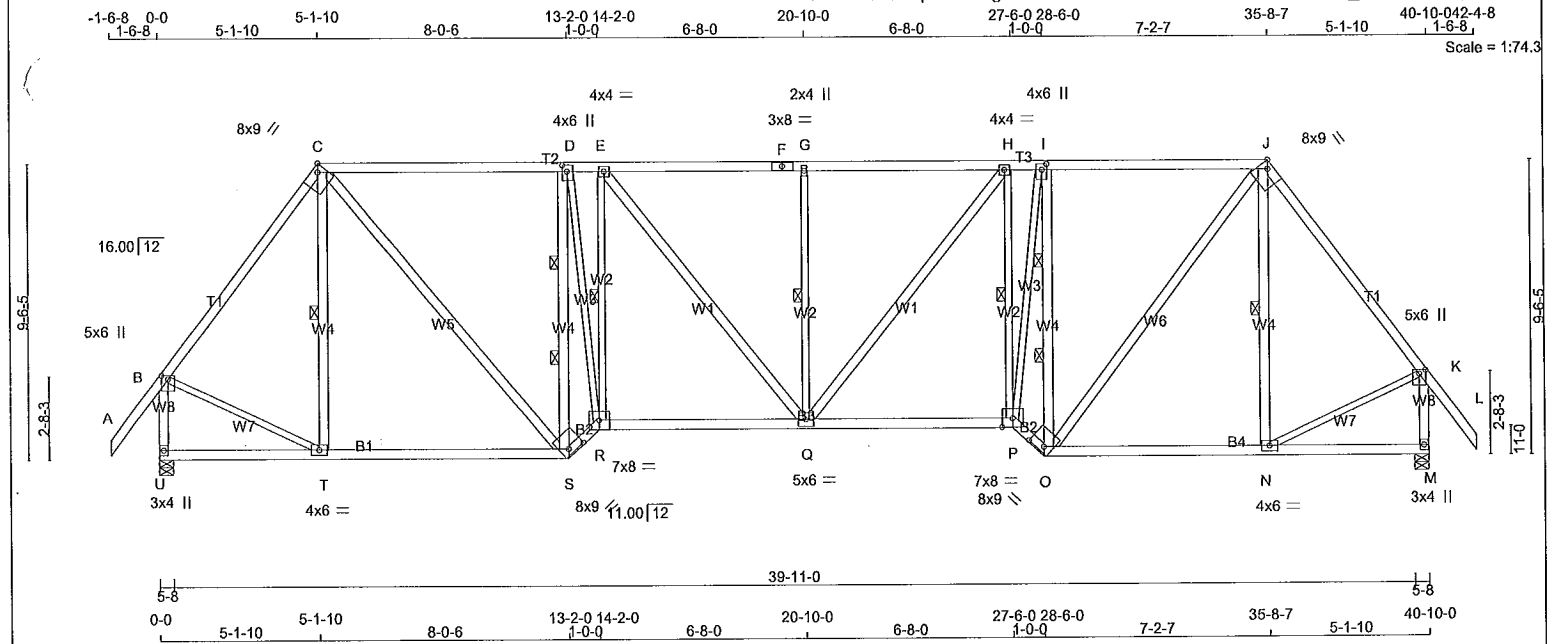
PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.85 (A) (INPUT = 0.90)
JSI METAL= 0.45 (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-18023822(2)



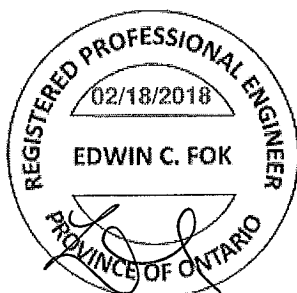
TOTAL WEIGHT = 246 lb

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

DRY: SEASONED LUMBER.

PLATES (table is in inches)						
JT	TYPE	PLATES	W	LEN	Y	X
B	TMWW+p	MT20	5.0	6.0	1.50	2.50
C	TTVVW-t	MT20	8.0	9.0	Edge	2.75
D	TMWW+H	MT20	4.0	6.0	2.50	1.75
E	TMWW-t	MT20	4.0	4.0		
F	TS-t	MT20	3.0	8.0		
G	TMW+w	MT20	2.0	4.0		
H	TMWW-t	MT20	4.0	4.0		
I	TMWW-t	MT20	4.0	6.0	2.25	1.75
J	TMWW-h	MT20	8.0	9.0	Edge	2.75
K	TMWW+p	MT20	5.0	6.0	1.50	2.50
M	BMV1+p	MT20	3.0	4.0		
N	BMWW-t	MT20	4.0	6.0		
O	BBWW-h	MT20	8.0	9.0	2.00	6.00
P	BBWW-t	MT20	7.0	8.0	3.25	4.00
Q	BMWWWW-t	MT20	5.0	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			MAXIMUM FACTORED			INPUT	REQRD
GROSS REACTION			GROSS REACTION			BRG	BRG
JT	VERT	HORZ	DOWN	HORZ	UPLIFT	IN-SX	IN-SX
U	2099	0	2099	0	0	5-8	3-5
M	2099	0	2099	0	0	5-8	3-5

UNFACTORED REACTIONS

1ST CASE		MAX./MIN. COMPONENT REACTIONS					
JT	COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
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 = 3.93 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-T, E-R, G-Q, H-P, J-N.

2 LATERAL BRACE(S) AT 1/3 LENGTH OF D-S, I-O.

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

LOADING

TOTAL LOAD CASES: (4)

CHORDS					WEBS				
MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	LC1 MAX CSI (LC)	MAX. UNBRAC LENGTH	MEMB.	MAX. FACTORED FORCE (LBS)	MAX FACTORED CSI (LC)		
FR-TO		FROM TO			FR-TO				
A-B	0 / 52	-78.0	-78.0 0.15 (1)	10.00	T-C	-273 / 5	0.12 (1)		
B-C	-1640 / 0	-78.0	-78.0 0.55 (1)	4.68	C-S	0 / 1507	0.24 (1)		
C-D	-1969 / 0	-78.0	-78.0 0.90 (1)	4.14	S-D	-2892 / 0	0.61 (1)		
D-E	-2215 / 0	-78.0	-78.0 0.71 (1)	3.93	D-R	0 / 1995	0.45 (1)		
E-F	-2470 / 0	-78.0	-78.0 0.55 (1)	4.37	R-E	-87 / 0	0.04 (1)		
F-G	-2470 / 0	-78.0	-78.0 0.55 (1)	4.37	E-Q	0 / 411	0.07 (1)		
G-H	-2470 / 0	-78.0	-78.0 0.55 (1)	4.37	Q-G	-591 / 0	0.28 (1)		
H-I	-2148 / 0	-78.0	-78.0 0.52 (1)	4.46	Q-H	0 / 513	0.08 (1)		
I-J	-1893 / 0	-78.0	-78.0 0.62 (1)	4.69	P-H	-397 / 0	0.19 (1)		
J-K	-1637 / 0	-78.0	-78.0 0.55 (1)	4.69	P-I	0 / 2179	0.49 (1)		
K-L	0 / 52	-78.0	-78.0 0.15 (1)	10.00	O-I	-2801 / 0	0.59 (1)		
U-B	-2071 / 0	0.0	0.0 0.30 (1)	5.88	O-J	0 / 1489	0.24 (1)		
M-K	-2067 / 0	0.0	0.0 0.30 (1)	5.88	N-J	-284 / 0	0.12 (1)		
					B-T	0 / 1068	0.24 (1)		
					N-K	0 / 1066	0.24 (1)		
U-T	0 / 0	-18.5	-18.5 0.26 (4)	10.00					
T-S	0 / 975	-18.5	-18.5 0.36 (4)	10.00					
S-R	0 / 2710	-18.5	-18.5 0.44 (1)	10.00					
R-Q	0 / 2216	-18.5	-18.5 0.48 (1)	10.00					
Q-P	0 / 2153	-18.5	-18.5 0.47 (1)	10.00					
P-O	0 / 2509	-18.5	-18.5 0.41 (1)	10.00					
O-N	0 / 973	-18.5	-18.5 0.31 (4)	10.00					
N-M	0 / 0	-18.5	-18.5 0.22 (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 (0.19")
ALLOWABLE DEFL.(TL)= L/360 (1.36")
CALCULATED VERT. DEFL.(TL) = L/ 999 (0.41")

CSI: TC=0.90/1.00 (C-D:1), BC=0.48/1.00 (Q-R:1)
WB=0.61/1.00 (D-S:1), SSI=0.41/1.00 (D-E:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

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

NAIL VALUES

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

PLATE PLACEMENT TOL. = 0.250 Inches

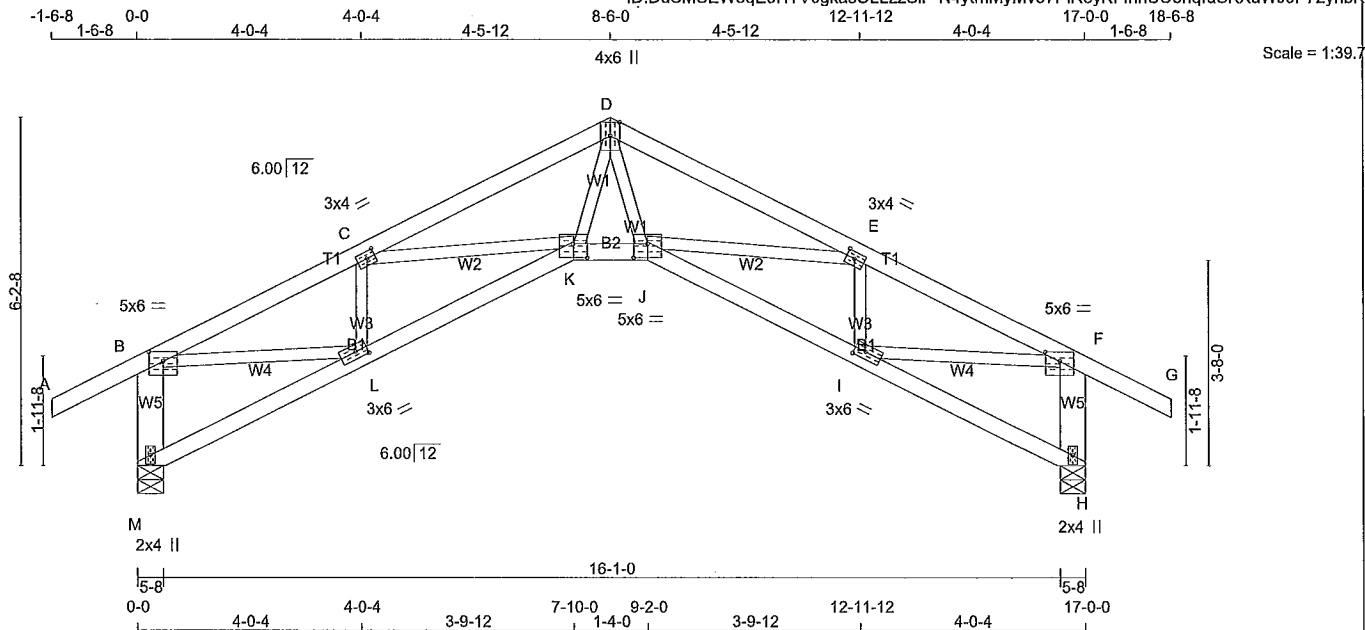
PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.89 (S) (INPUT = 0.90)
JSI METAL= 0.58 (B) (INPUT = 1.00)

JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
300969	H13TB	10	1	TRUSS DESC.	JT# 45147

Alpa Roof Truss, Maple

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ID:DdSMSEW8qE9HTV0gkasOLLzzSIP-N4ytmMyMv37PIReyKFInhUUenqfuSKXuWJ9P72ynbKb



TOTAL WEIGHT = 10 X 72 = 717 lb
[MJF]

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

PLATES (table is in inches)

JT	TYPE	PLATES	W	LEN	Y	X
B	TMVW-p	MT20	5.0	6.0	2.00	3.00
C	TMWW-t	MT20	3.0	4.0	1.50	1.75
D	TTWW+p	MT20	4.0	6.0	Edge	
E	TMWW-t	MT20	3.0	4.0	1.50	1.75
F	TMVW-p	MT20	5.0	6.0	2.00	3.00
H	BMV1+p	MT20	2.0	4.0		
I	BMWW-l	MT20	3.0	6.0	1.50	2.50
J	BBWW-l	MT20	5.0	6.0	3.00	3.00
K	BBWW-l	MT20	5.0	6.0	3.00	3.00
L	BMWW-l	MT20	3.0	6.0	1.50	2.50
M	BMV1+p	MT20	2.0	4.0		

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

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

BEARINGS		FACTORED GROSS REACTION		MAXIMUM FACTORED GROSS REACTION		INPUT BRG		REQRD BRG	
JT	VERT	HORZ	DOWN	HORZ	UPLIFT	IN-SX	IN-SX	IN-SX	IN-SX
M	945	0	945	0	0	5-8	1-8		
H	945	0	945	0	0	5-8	1-8		

UNFACTORED REACTIONS

JT	1ST LCASE	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
M	671	424 / 0	0 / 0	0 / 0	0 / 0	247 / 0	0 / 0
H	671	424 / 0	0 / 0	0 / 0	0 / 0	247 / 0	0 / 0

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

BRACING

TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 4.58 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.

LOADING

TOTAL LOAD CASES: (4)

CHORDS				WEBS			
MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	MAX. UNBRACED LENGTH (LC1)	MEMB.	MAX. FACTORED FORCE (LBS)	MAX. UNBRACED LENGTH (LC1)	
FR-TO		FROM TO		FR-TO			
M-B	-911 / 0	0.0	0.0 (0.07 (1))	7.81	D-J	0 / 787	0.18 (1)
A-B	0 / 28	-78.0	-78.0 (0.14 (1))	10.00	J-E	0 / 370	0.08 (1)
B-C	-1572 / 0	-78.0	-78.0 (0.19 (1))	5.09	I-E	-584 / 0	0.09 (1)
C-D	-2017 / 0	-78.0	-78.0 (0.23 (1))	4.58	I-F	0 / 1421	0.32 (1)
D-E	-2017 / 0	-78.0	-78.0 (0.23 (1))	4.58	K-D	0 / 787	0.18 (1)
E-F	-1572 / 0	-78.0	-78.0 (0.19 (1))	5.09	C-K	0 / 370	0.08 (1)
F-G	0 / 28	-78.0	-78.0 (0.14 (1))	10.00	L-C	-584 / 0	0.09 (1)
H-F	-911 / 0	0.0	0.0 (0.07 (1))	7.81	B-L	0 / 1421	0.32 (1)
M-L	0 / 3	-18.5	-18.5 (0.06 (4))	10.00			
L-K	0 / 1586	-18.5	-18.5 (0.29 (1))	10.00			
K-J	0 / 1586	-18.5	-18.5 (0.26 (1))	10.00			
J-I	0 / 1586	-18.5	-18.5 (0.29 (1))	10.00			
I-H	0 / 3	-18.5	-18.5 (0.06 (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 (0.57")
CALCULATED VERT. DEFL.(LL)= L/999 (0.08")
ALLOWABLE DEFL.(TL)= L/360 (0.57")
CALCULATED VERT. DEFL.(TL)= L/999 (0.16")

CSI: TC=0.23/1.00 (D-E:1), BC=0.29/1.00 (I-J:1), WB=0.32/1.00 (F-I:1), SS=0.14/1.00 (D-E:1)

DOI: LUMBER=1.00 NAIL=1.00 LS BEND=1.10 COMP=1.10 SHEAR=1.10 TENS=1.10

COMPANION LIVE LOAD FACTOR = 1.00

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

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

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.89 (I) (INPUT = 0.90)
JSI METAL= 0.39 (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.



A18082066

Alpa Roof Truss, Maple

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ID:DdSMSEW8qE9HTV0gkasOLLzSLIP-JT4dB1zcRgO7_loLSgLFmVzSkelwW8RBzdeWBxynbKZ

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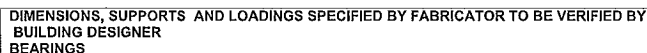
1-6-8 5-1-10 7-8-5 7-7-1 7-7-1 7-8-5 4-8-10

Scale = 1:7.1



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.



A SUITABLE HANGER/MECHANICAL CONNECTION IS REQUIRED AT JOINT K. MINIMUM BEARING LENGTH AT JOINT K = 3-3.

UNFACTORED REACTIONS

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

BRACING

FOR SECTION C-I, MAX. PURLIN SPACING = 2.00 FT.
FOR OTHER SECTIONS, TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 4.77 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, F-O, H-M, I-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				
MAX. FACTORED		FACTORED		MAX. FACTORED		FACTORED		
MEMB.	FORCE (LBS)	VERT. LOAD (PLF)	LC1 MAX (LBS)	LC2 MAX (LBS)	MEMB.	FORCE (LBS)	MAX CSI (LC)	
FR-TO		FROM TO		LENGTH	FR-TO			
A-B	0 / 52	-78.0	-78.0	0.15 (1)	10.00	R-C	-318 / 0	0.19 (1)
B-C	-1720 / 0	-78.0	-78.0	0.38 (1)	4.77	C-Q	0 / 1597	0.28 (1)
C-D	-2049 / 0	-85.5	-85.5	0.74 (1)	2.00	Q-D	-1087 / 0	0.65 (1)
D-E	-2334 / 0	-85.5	-85.5	0.72 (1)	2.00	D-O	0 / 448	0.07 (1)
E-F	-2334 / 0	-85.5	-85.5	0.72 (1)	2.00	O-F	-598 / 0	0.36 (1)
F-G	-2334 / 0	-85.5	-85.5	0.72 (1)	2.00	O-H	0 / 503	0.08 (1)
G-H	-2334 / 0	-85.5	-85.5	0.72 (1)	2.00	M-H	-1123 / 0	0.68 (1)
H-I	-2014 / 0	-85.5	-85.5	0.73 (1)	2.00	M-I	0 / 1654	0.27 (1)
I-J	-1604 / 0	-78.0	-78.0	0.30 (1)	4.97	L-I	-438 / 0	0.26 (1)
S-B	-2158 / 0	0.0	0.0	0.31 (1)	5.78	B-R	0 / 1121	0.25 (1)
K-J	-2036 / 0	0.0	0.0	0.38 (1)	5.92	L-J	0 / 1112	0.25 (1)
S-R	0 / 0	-18.5	-18.5	0.18 (4)	10.00			
R-Q	0 / 1024	-18.5	-18.5	0.32 (4)	10.00			
Q-P	0 / 2049	-18.5	-18.5	0.45 (1)	10.00			
P-O	0 / 2049	-18.5	-18.5	0.45 (1)	10.00			
O-N	0 / 2014	-18.5	-18.5	0.45 (1)	10.00			
N-M	0 / 2014	-18.5	-18.5	0.45 (1)	10.00			
M-L	0 / 952	-18.5	-18.5	0.32 (4)	10.00			
L-K	0 / 0	-18.5	-18.5	0.17 (4)	10.00			

DESIGN CRITERIA

SPECIFIED LOADS:

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

SPACING = 24.0 IN. C/C

LOADING IN FLAT SECTION BASED ON
PIGGYBACK TRUSS WITH SLOPES OF 16.00/12
AND -16.00/12 AND RESPECTIVE WALL
HEIGHTS OF 0-0 AND 0-0 AND AN ADDITIONAL
DEAD LOAD OF 3.0 P.S.F.

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

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

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

ALLOWABLE DEFL.(LL)= L/360 (1.35")
CALCULATED VERT. DEFL.(LL) = L/ 999 (0.11")
ALLOWABLE DEFL.(TL)= L/360 (1.35")
CALCULATED VERT. DEFL.(TL) = L/ 999 (0.24")

CSI: TC=0.74/1.00 (C-D:1), BC=0.45/1.00 (O-Q:1),
WB=0.68/1.00 (H-M:1), SS=0.31/1.00 (C-D:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

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

NAIL VALUES

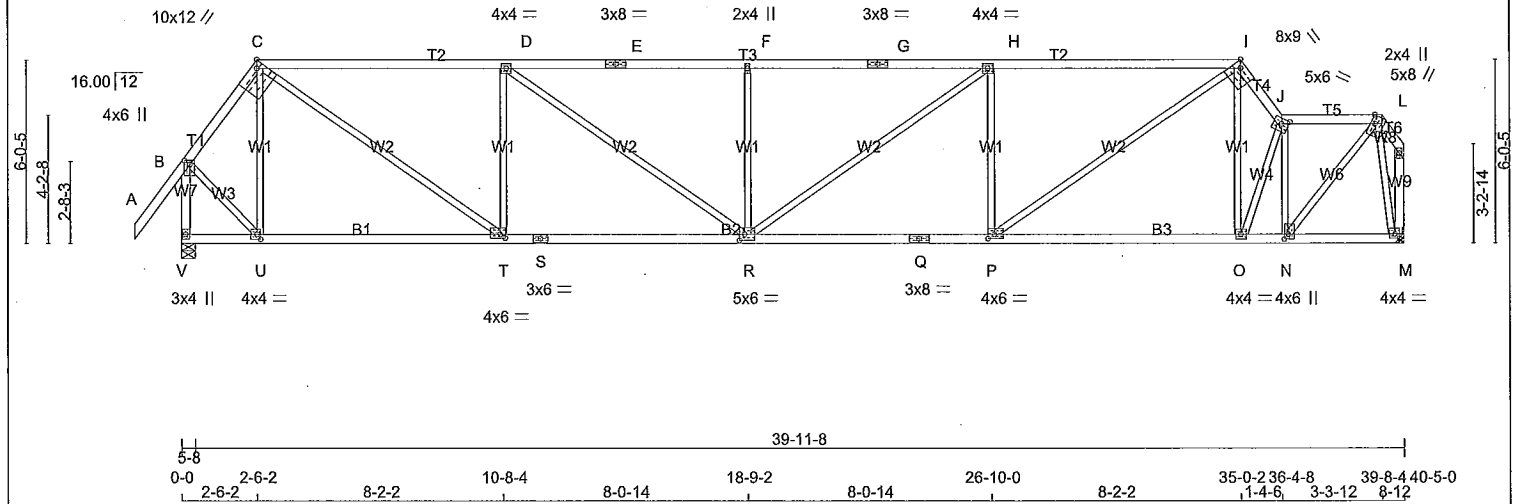
PLATE	GRIP(DRY)		SHEAR		SECTION	
	(PSI)		(PLI)		(PLI)	
	MAX	MIN	MAX	MIN	MAX	MIN
MT20	618	354	1667	788	1987	1656

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.90 (Q) (INPUT = 0.90)
JSI METAL= 0.63 (P) (INPUT = 1.00)

CONTINUED ON PAGE 2



Alpa Roof Truss, Maple

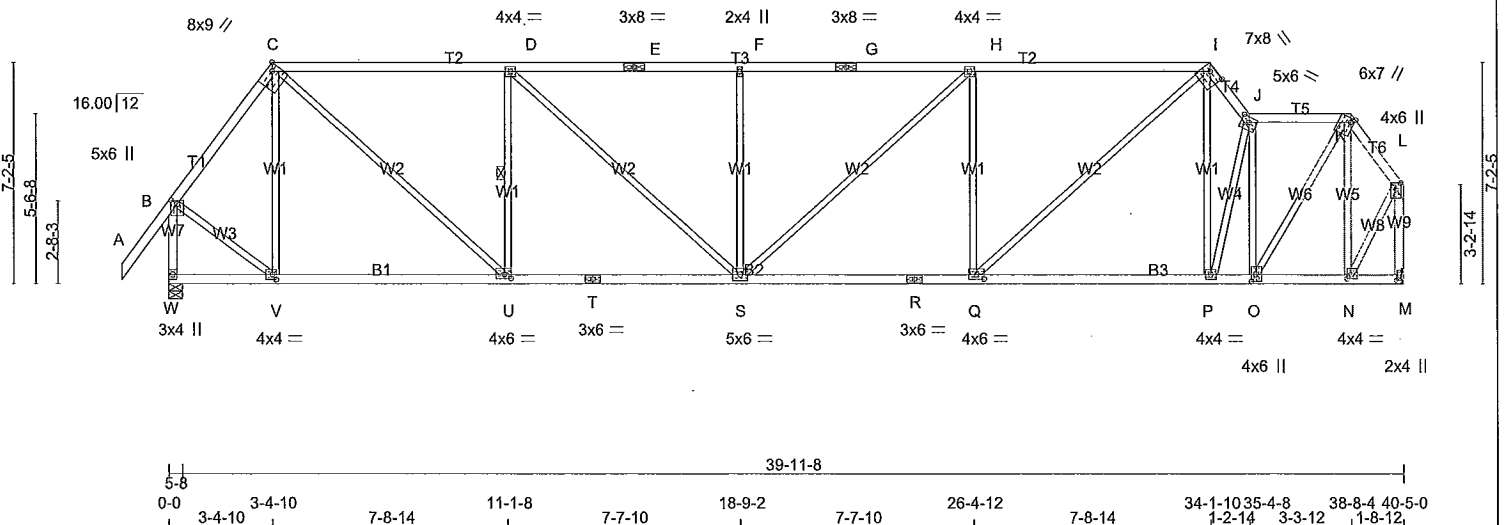
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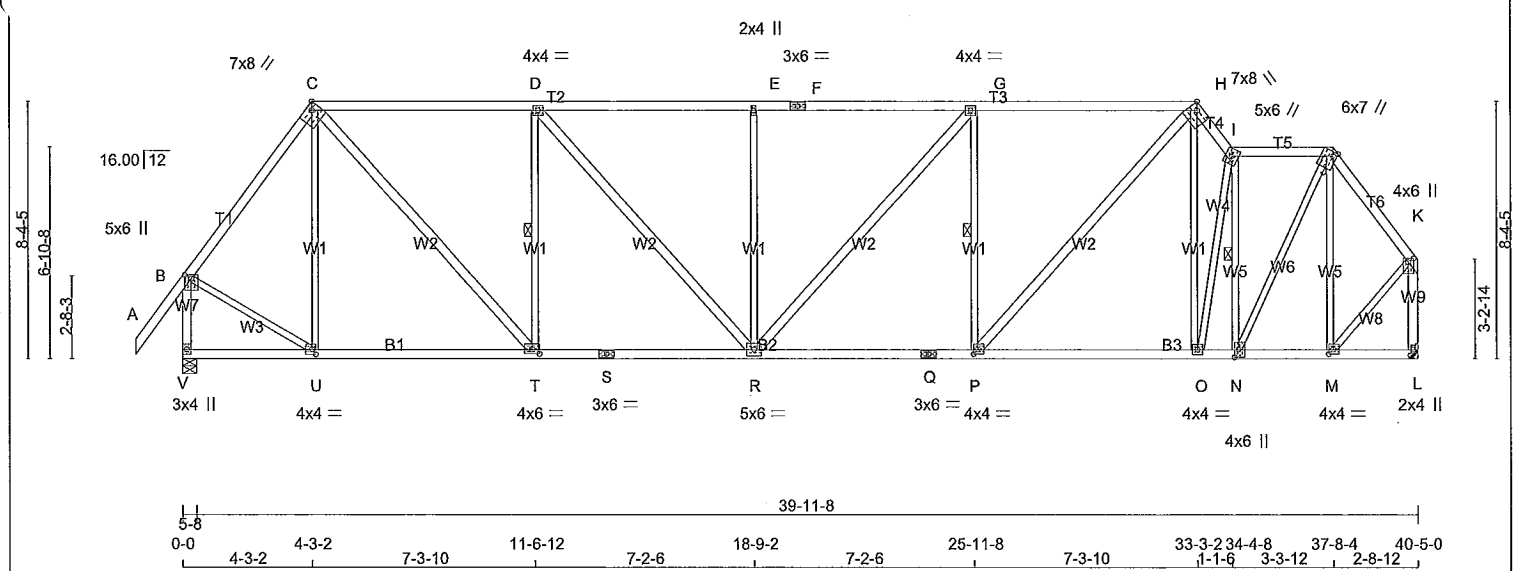
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Scale = 1:72.4



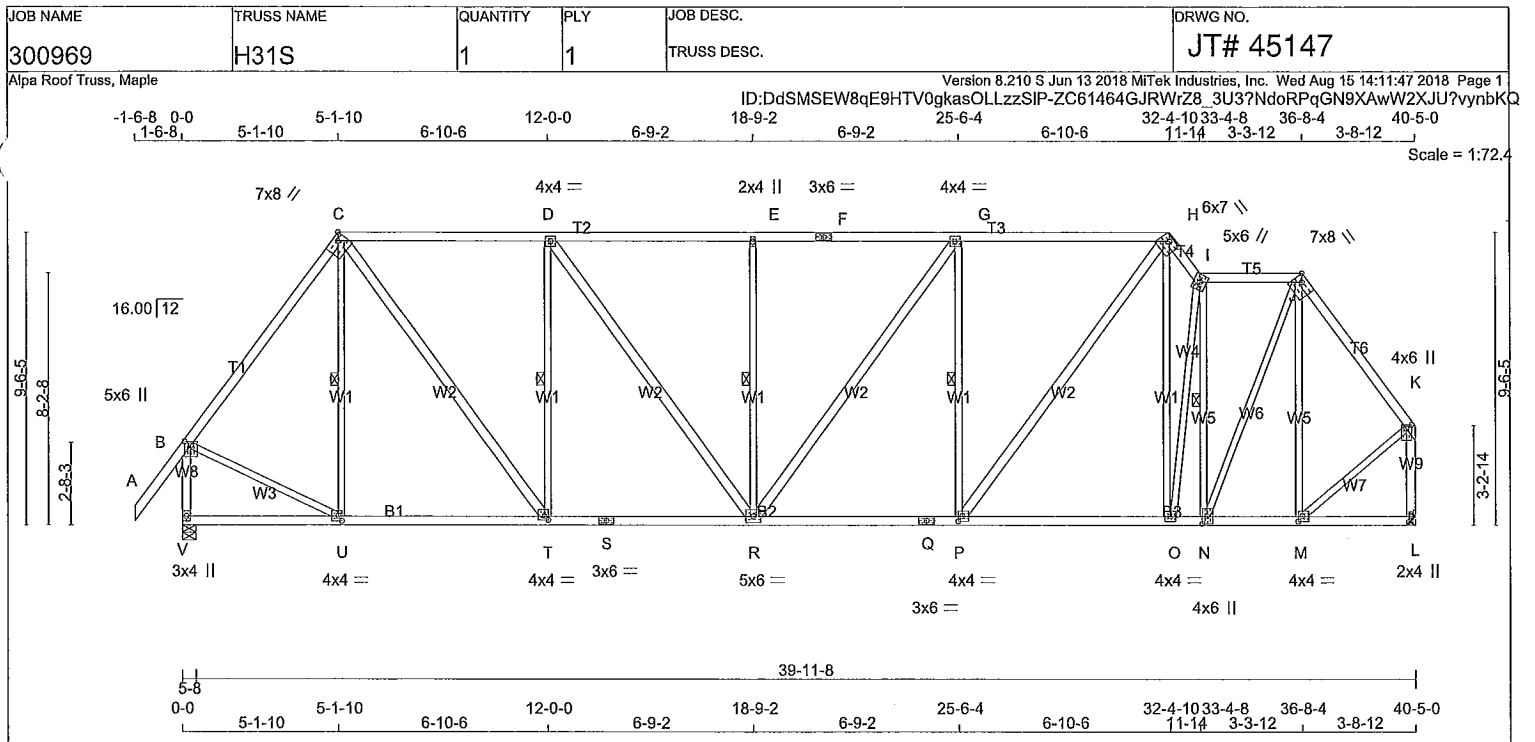
AT0002009 CONTINUED ON PAGE 2

A circular professional seal for a Licensed Professional Engineer in the Province of Ontario. The seal contains the following text: "LICENSED PROFESSIONAL ENGINEER" around the top arc, "D. O'CONNOR" in the center, "100009580" below the name, "08/15/2018" in a semi-circular section at the bottom, and "PROVINCE OF ONTARIO" around the bottom arc. A signature is written across the center of the seal.



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 - I 2x4 DRY No.2 SPF I - J 2x4 DRY No.2 SPF J - K 2x4 DRY No.2 SPF V - B 2x4 DRY No.2 SPF L - K 2x4 DRY No.2 SPF V - S 2x4 DRY No.2 SPF Q 2x4 DRY No.2 SPF L 2x4 DRY No.2 SPF ALL WEBS 2x3 DRY No.2 SPF EXCEPT C - T 2x4 DRY No.2 SPF D - R 2x4 DRY No.2 SPF R - G 2x4 DRY No.2 SPF P - H 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 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 TTWW+m MT20 5.0 6.0 J TTWW+m MT20 6.0 7.0 Edge 1.50 K TMVW+p MT20 4.0 6.0 1.50 2.00 L BMV1+p MT20 2.0 4.0 2.25 1.00 M BMWW-t MT20 4.0 4.0 1.75 1.75 N BMWW-t MT20 4.0 6.0 3.00 1.50 O BMWW-t MT20 4.0 4.0 P BMWW-t MT20 4.0 4.0 1.75 1.50 Q BS-t MT20 3.0 6.0 R BMWW-t MT20 5.0 6.0 S BS-t MT20 3.0 6.0 T BMWW-t MT20 4.0 6.0 1.75 3.00 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.			LOADING TOTAL LOAD CASES: (4) CHORDS MEMB. MAX. FACTORED FORCE (LBS) FACTORED VERT. LOAD (PLF) FACTORED LC1 MAX. (PLF) MAX. UNBRAC LENGTH FR-TO A-B 0/52 -78.0 -78.0 0.15 (1) 10.00 B-C -1575/0 -78.0 -78.0 0.34 (1) 4.94 C-D -2058/0 -78.0 -78.0 0.86 (1) 3.74 D-E -2471/0 -78.0 -78.0 0.94 (1) 3.39 E-F -2471/0 -78.0 -78.0 0.94 (1) 3.39 F-G -2471/0 -78.0 -78.0 0.94 (1) 3.39 G-H -2308/0 -78.0 -78.0 0.91 (1) 3.52 H-I -2406/0 -78.0 -78.0 0.08 (1) 4.39 I-J -1507/0 -78.0 -78.0 0.18 (1) 5.16 J-K -1305/0 -78.0 -78.0 0.13 (1) 5.53 V-B -2053/0 0.0 0.0 0.30 (1) 5.91 L-K -1937/0 0.0 0.0 0.36 (1) 6.04 WEBS MEMB. MAX. FACTORED FORCE (LBS) MAX. UNBRAC LENGTH FR-TO U-C -375/0 0.52 (1) C-T 0/1668 0.27 (1) T-D -1096/0 0.49 (1) D-R 0/620 0.10 (1) R-E -518/0 0.72 (1) R-G 0/244 0.04 (1) P-G -813/0 0.36 (1) P-H 0/1296 0.21 (1) O-H 0/682 0.15 (1) O-I -568/0 0.47 (1) N-I -1537/0 0.46 (1) N-J 0/1683 0.38 (1) M-J -697/0 0.56 (1) B-U 0/1062 0.24 (1) M-K 0/1102 0.25 (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, 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 (1.35") CALCULATED VERT. DEFL.(LL) = L/999 (0.13") ALLOWABLE DEFL.(TL)= L/360 (1.35") CALCULATED VERT. DEFL.(TL) = L/999 (0.28") CSI: TC=0.94/1.00 (D-E:1), BC=0.49/1.00 (P-R:1), WB=0.72/1.00 (E-R: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) SHEAR SECTION (PSI) (PLI) (PLI) MAX MIN MAX MIN MAX MIN MT20 618 354 1667 788 1987 1656 PLATE PLACEMENT TOL. = 0.250 inches PLATE ROTATION TOL. = 5.0 Deg. JSI GRIP= 0.90 (K) (INPUT = 0.90) JSI METAL= 0.66 (Q) (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	2x4	DRY	No.2
F - H	2x4	DRY	No.2
H - I	2x4	DRY	No.2
I - J	2x4	DRY	No.2
J - K	2x4	DRY	No.2
V - B	2x4	DRY	No.2
L - K	2x4	DRY	No.2
V - S	2x4	DRY	No.2
Q	2x4	DRY	No.2
L	2x4	DRY	No.2

ALL WEBS			
EXCEPT	SIZE	LUMBER	DESCR.
C - T	2x4	DRY	No.2
D - R	2x4	DRY	No.2
R - G	2x4	DRY	No.2
P - H	2x4	DRY	No.2

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 TMVW-w	MT20	2.0	4.0		
G TMVW-t	MT20	3.0	6.0		
H TTWW-h	MT20	6.0	7.0	1.50	3.75
I TTWW-h	MT20	5.0	6.0		
J TTWW-h	MT20	7.0	8.0	Edge	2.75
K TMVW+p	MT20	4.0	6.0	1.50	2.00
L BMV1+p	MT20	2.0	4.0	2.25	1.00
M, P, U					
N BMVW-t	MT20	4.0	4.0	2.00	1.50
M BMVW-t	MT20	4.0	6.0	3.00	1.75
O BMVW-t	MT20	4.0	4.0		
Q BS-t	MT20	3.0	6.0		
R BMVW-t	MT20	5.0	6.0		
S BS-t	MT20	3.0	6.0		
T BMVW-t	MT20	4.0	4.0	1.50	1.50

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



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

BEARINGS			
	FACTORED	MAXIMUM FACTORED	INPUT
	GROSS REACTION	GROSS REACTION	BRG
JT	VERT	HORZ	DOWN
V	2079	0	0
L	1949	0	0

A SUITABLE HANGER/MECHANICAL CONNECTION IS REQUIRED AT JOINT L. MINIMUM BEARING LENGTH AT JOINT L = 2-13.

UNFACTORED REACTIONS

1ST LCASE		MAX/MIN. COMPONENT REACTIONS					
JT	COMBINED	SNOW	LIVE	PERM. LIVE	WIND	DEAD	SOIL
V	1479	918 / 0	0 / 0	0 / 0	0 / 0	561 / 0	0 / 0
L	1390	848 / 0	0 / 0	0 / 0	0 / 0	542 / 0	0 / 0

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

BRACING

TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 3.82 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-U, D-T, E-R, G-P, I-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.	FORCE	FACTORED	MAX	MEMB.	FORCE	FACTORED	MAX
	(LBS)	(PLF)	CSI (LC)		(LBS)	(PLF)	CSI (LC)
FR-TO		FROM TO		FR-TO		FROM TO	
A-B	0 / 52	-78.0	-78.0 0.15 (1)	U-C	-299 / 0	0.18 (1)	
B-C	-1611 / 0	-78.0	-78.0 0.55 (1)	C-T	0 / 1455	0.23 (1)	
C-D	-1830 / 0	-78.0	-78.0 0.70 (1)	D-R	-1038 / 0	0.62 (1)	
D-E	-2154 / 0	-78.0	-78.0 0.75 (1)	E-R	0 / 549	0.09 (1)	
E-F	-2154 / 0	-78.0	-78.0 0.75 (1)	F-G	-486 / 0	0.29 (1)	
F-G	-2154 / 0	-78.0	-78.0 0.75 (1)	G-P	0 / 200	0.03 (1)	
G-H	-2036 / 0	-78.0	-78.0 0.74 (1)	H-I	-755 / 0	0.45 (1)	
H-I	-2291 / 0	-78.0	-78.0 0.07 (1)	I-J	0 / 1116	0.18 (1)	
I-J	-1422 / 0	-78.0	-78.0 0.17 (1)	J-K	0 / 674	0.15 (1)	
J-K	-1428 / 0	-78.0	-78.0 0.24 (1)	K-L	-582 / 0	0.79 (1)	
K-L	-2043 / 0	0.0	0.0 0.29 (1)	L-M	-1423 / 0	0.61 (1)	
L-M	-1925 / 0	0.0	0.0 0.36 (1)	M-N	0 / 1529	0.34 (1)	
M-N				N-O	-544 / 0	0.71 (1)	
N-O				O-P	0 / 1050	0.24 (1)	
O-P				P-Q	0 / 1061	0.24 (1)	
P-Q				Q-R			
Q-R				R-S			
R-S				S-T			
S-T				T-U			
T-U				U-V			
U-V				V-W			
V-W				W-X			
W-X				X-Y			
X-Y				Y-Z			
Y-Z				Z-A			

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, 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 (1.35")
CALCULATED VERT. DEFL.(LL) = L/999 (0.11")
ALLOWABLE DEFL.(TL) = L/360 (1.35")
CALCULATED VERT. DEFL.(TL) = L/999 (0.23")

CSI: TC=0.75/1.00 (E-G:1), BC=0.44/1.00 (P-R:1),
WB=0.79/1.00 (I-O:1), SS=0.25/1.00 (G-H:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

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

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

PLATE PLACEMENT TOL. = 0.250 inches

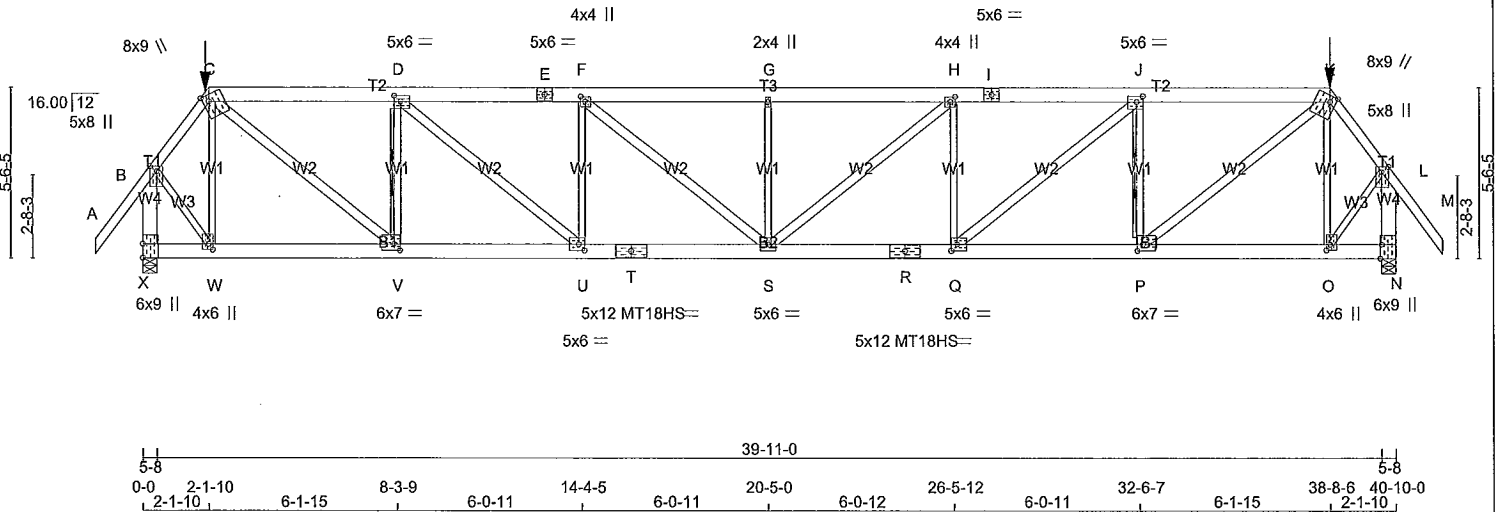
PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.89 (K) (INPUT = 0.90)
JSI METAL= 0.64 (Q) (INPUT = 1.00)

A18082071

CONTINUED ON PAGE 2

JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
300969	H41	1	1	TRUSS DESC.	JT# 45147
Alpa Roof Truss, Maple					
Version 8.210 S Jun 13 2018 Mitek Industries, Inc. Wed Aug 15 14:11:49 2018 Page 1					
ID:DdSMSEW8qE9HTV0gkasOLLzSIP-VaEnUo6Wr2mZoR7SbT1riDWjK37874opVrob4oynbKO					
-1-6-8 0-0 2-1-10 6-1-15 8-3-9 6-0-11 14-4-5 6-0-11 20-5-0 6-0-12 26-5-12 6-0-11 32-6-7 6-1-15 38-8-6 40-10-0 42-4-8					
1-6-8 2-1-10 6-1-15 8-3-9 6-0-11 14-4-5 6-0-11 20-5-0 6-0-12 26-5-12 6-0-11 32-6-7 6-1-15 38-8-6 40-10-0 42-4-8					
Scale = 1:72					



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

DRY: SEASONED LUMBER.

PLATES (table is in inches)

JT	TYPE	PLATES	W	LEN	Y	X
B	TMVW+p	MT20	5.0	8.0	2.00	2.75
C	TTWW+m	MT20	8.0	9.0	2.50	2.25
D	TMWW-t	MT20	5.0	6.0	2.25	2.50
E	TS-t	MT20	5.0	6.0		
F	TMWW-H	MT20	4.0	4.0	2.00	1.75
G	TMW+w	MT20	2.0	4.0		
H	TMWW-H	MT20	4.0	4.0	2.00	1.75
I	TS-t	MT20	5.0	6.0		
J	TMWW-t	MT20	5.0	6.0	2.25	2.50
K	TTWW+m	MT20	8.0	9.0	2.50	2.25
L	TMVW+p	MT20	5.0	8.0	2.00	2.75
N	BMV1-t	MT20	6.0	9.0	Edge	0.50
O	BMWW-H	MT20	4.0	6.0	2.25	1.50
P	BMWW-t	MT20	6.0	7.0	2.50	2.25
Q	BMWW-t	MT20	5.0	6.0	2.50	2.25
R	BS-t	MT18HS	5.0	12.0		
S	BMWW-H	MT20	5.0	6.0		
T	BS-t	MT18HS	5.0	12.0		

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		MAXIMUM FACTORED		INPUT		REQD	
	GROSS REACTION		GROSS REACTION		BRG		BRG	
	VERT	HORZ	DOWN	HORZ	UPLIFT	IN-SX	IN-SX	
X	3997	0	3997	0	0	5-8	5-8	
N	3997	0	3997	0	0	5-8	5-8	

UNFACTORED REACTIONS

JT	1ST LCASE		MAX/MIN		COMPONENT REACTIONS		WIND	DEAD	SOIL
	COMBINED	SNOW	LIVE	PERM.LIVE					
X	2848	1749 / 0	0 / 0	0 / 0	0 / 0	1099 / 0	0 / 0		
N	2848	1749 / 0	0 / 0	0 / 0	0 / 0	1099 / 0	0 / 0		

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

BRACING

TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 2.47 FT.
MAX. UNBRACED BOTTOM CHORD LENGTH = 10.00 FT OR RIGID CEILING DIRECTLY APPLIED.

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

2x4 DRY SPF No.2 T-BRACE AT D-V, J-P

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

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

LOADING

TOTAL LOAD CASES: (4)

CHORDS				WEBS			
MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	MAX. CSI (LC)	MEMB.	MAX. FACTORED FORCE (LBS)	MAX. UNBRACED LENGTH FR-TO	MAX. FACTORED CSI (LC)
FR-TO		FROM TO		FR-TO			
A-B	0 / 52	-78.0 -78.0 0.17 (1)	10.00	W-C	-1357 / 0	0.56 (1)	
B-C	-2744 / 0	-78.0 -78.0 0.27 (1)	3.91	C-V	0 / 4682	0.83 (1)	
C-D	-5210 / 0	-154.7 -154.7 0.66 (1)	3.21	V-D	-2767 / 0	0.63 (1)	
D-E	-7257 / 0	-154.7 -154.7 0.88 (1)	2.49	D-U	0 / 2669	0.47 (1)	
E-F	-7257 / 0	-154.7 -154.7 0.88 (1)	2.49	U-F	-1484 / 0	0.61 (1)	
F-G	-7950 / 0	-154.7 -154.7 0.85 (1)	2.47	F-S	0 / 902	0.16 (1)	
G-H	-7950 / 0	-154.7 -154.7 0.85 (1)	2.47	S-G	-947 / 0	0.39 (1)	
H-I	-7257 / 0	-154.7 -154.7 0.88 (1)	2.49	S-H	0 / 902	0.16 (1)	
I-J	-7257 / 0	-154.7 -154.7 0.88 (1)	2.49	Q-H	-1484 / 0	0.61 (1)	
J-K	-5210 / 0	-154.7 -154.7 0.66 (1)	3.21	Q-J	0 / 2669	0.47 (1)	
K-L	-2744 / 0	-78.0 -78.0 0.27 (1)	3.91	P-J	-2767 / 0	0.63 (1)	
L-M	0 / 52	-78.0 -78.0 0.17 (1)	10.00	P-K	0 / 4682	0.83 (1)	
X-B	-4027 / 0	0.0 0.0 0.40 (1)	5.29	Q-K	-1357 / 0	0.56 (1)	
N-L	-4027 / 0	0.0 0.0 0.40 (1)	5.29	B-W	0 / 2277	0.56 (1)	
				O-L	0 / 2277	0.56 (1)	
X-W	0 / 0	-36.7 -36.7 0.09 (4)	10.00				
W-V	0 / 1592	-36.7 -36.7 0.21 (1)	10.00				
V-U	0 / 5210	-36.7 -36.7 0.49 (1)	10.00				
U-T	0 / 7257	-36.7 -36.7 0.67 (1)	10.00				
T-S	0 / 7257	-36.7 -36.7 0.67 (1)	10.00				
S-R	0 / 7257	-36.7 -36.7 0.67 (1)	10.00				
R-Q	0 / 7257	-36.7 -36.7 0.67 (1)	10.00				
Q-P	0 / 5210	-36.7 -36.7 0.49 (1)	10.00				
P-O	0 / 1592	-36.7 -36.7 0.21 (1)	10.00				
O-N	0 / 0	-36.7 -36.7 0.09 (4)	10.00				

FACTORED CONCENTRATED LOADS (LBS)

JT	LOC.	LC1	MAX-	MAX+	FACE	DIR.	TYPE
C	2-1-10	-123	-123	---	FRONT	VERT	TOTAL
K	38-8-6	-123	-123	---	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: CPrimeHp
SIDE SETBACK = 2-1-10
END SETBACK = 5-11-4
END WALL WIDTH = 0-0
CORNER FRAMING TYPE: CONVENTIONAL
END JACK TYPE: CONVENTIONAL
APPLIED TO FRONT SIDE
- ADDTL LOADS BASED ON 55 % OF GSL.

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

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

DESIGN ASSUMPTIONS

- OVERHANG NOT TO BE ALTERED OR CUT OFF.

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

ALLOWABLE DEFL.(LL) = L/360 (1.36")
CALCULATED VERT. DEFL.(LL) = L/999 (0.36")
ALLOWABLE DEFL.(TL) = L/360 (1.36")
CALCULATED VERT. DEFL.(TL) = L/691 (0.71")

CSI: TC=0.88/1.00 (D-F:1), BC=0.67/1.00 (Q-S:1),
WB=0.83/1.00 (C-V:1), SS=0.37/1.00 (C-D:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

AUTOSOLVE HEELS OFF

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

NAIL VALUES

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

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

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CONTINUED ON PAGE 2



JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
300969	H41	1	1	TRUSS DESC.	

Alpa Roof Truss, Maple

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ID:DdSMSEW8qE9HTV0gkasOLLzzSIP-VaEnUo6Wr2mZoR7SbT1riDWjK378?4opVrob4oynbKO

TES (table is in inches)

TYPE	PLATES	W	LEN	Y	X
U BMWW-I	MT20	5.0	6.0	2.50	2.25
V BMWW-I	MT20	6.0	7.0	2.50	2.25
W BMWW-I	MT20	4.0	6.0	2.25	1.50
X BMV1-I	MT20	6.0	9.0	5.50	

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

HANGERS NOTES

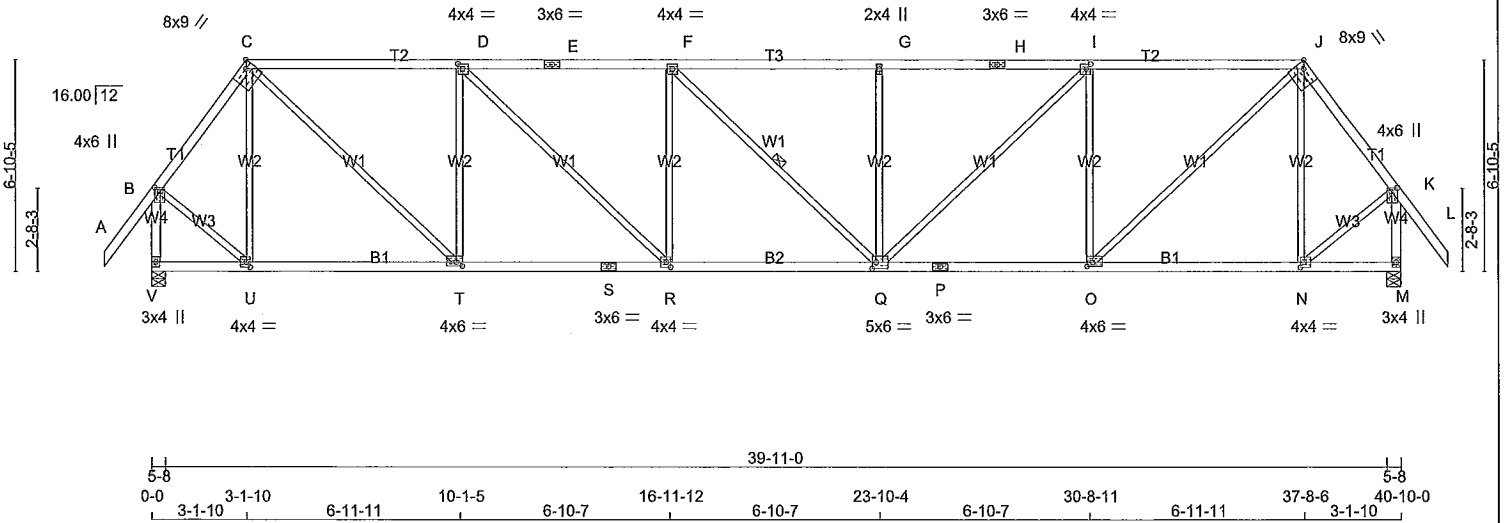
1) SPECIAL HANGER(S) OR CONNECTION(S) REQUIRED TO SUPPORT CONCENTRATED LOAD(S) 123.1 lbs FACTORED DOWN AT 38-8-6, AND 123.1 lbs FACTORED DOWN AT 2-1-10 ON TOP CHORD. DESIGN FOR UNSPECIFIED CONNECTION(S) IS DELEGATED TO THE BUILDING DESIGNER.

JSI GRIP= 0.90 (U) (INPUT = 0.90)
JSI METAL= 0.88 (T) (INPUT = 1.00)

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



A18082072(2)



LUMBER				DIMENSIONS, SUPPORTS AND LOADINGS SPECIFIED BY FABRICATOR TO BE VERIFIED BY BUILDING DESIGNER				DESIGN CRITERIA			
N.L.G.A. RULES	SIZE	LUMBER	DESCR.	BEARINGS				SPECIFIED LOADS:			
A - C	2x4	DRY	No.2	FACTORED	MAXIMUM FACTORED	INPUT	REQRD	TOP CH. LL	=	21.0	PSF
C - E	2x4	DRY	No.2	GROSS REACTION	GROSS REACTION	BRG	BRG	DL	=	6.0	PSF
E - H	2x4	DRY	No.2	JT VERT	DOWN	UPLIFT	IN-SX	BOT CH. LL	=	0.0	PSF
H - J	2x4	DRY	No.2	V	2099	0	5-8	DL	=	7.4	PSF
J - L	2x4	DRY	No.2	M	2099	0	5-8	TOTAL LOAD	=	34.4	PSF
V - B	2x4	DRY	No.2	UNFACTORED REACTIONS				SPACING = 24.0 IN. C/C			
M - K	2x4	DRY	No.2	1ST LCASE	MAX./MIN. COMPONENT REACTIONS			LOADING IN FLAT SECTION BASED ON A SLOPE OF 2.00/12 MINIMUM			
V - S	2x4	DRY	No.2	JT COMBINED	SNOW	LIVE	PERM.LIVE	THIS TRUSS IS DESIGNED FOR RESIDENTIAL OR SMALL BUILDING REQUIREMENTS OF PART 9, NBCC 2010, NBCC 2015			
V - P	2x4	DRY	No.2	M	1494	927 / 0	0 / 0	THIS DESIGN COMPLIES WITH:			
M	2x4	DRY	No.2		1494	927 / 0	0 / 0	- PART 9 OF OBC 2012, OBC 2018			
ALL WEBS EXCEPT	2x3	DRY	No.2					- 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 (0.19")			
								ALLOWABLE DEFL.(TL) = L/360 (1.36")			
								CALCULATED VERT. DEFL.(TL) = L/999 (0.38")			
								CSI: TC=0.95/1.00 (G-I:1), BC=0.57/1.00 (Q-R:1), WB=0.99/1.00 (D-T:1), SSI=0.26/1.00 (I-J:1)			
								DOL LUMBER=1.00 NAIL=1.00 LS BEND=1.10 COMP=1.10 SHEAR=1.10 TENS=1.10			
								COMPANION LIVE LOAD FACTOR = 1.00			
								TRUSS PLATE MANUFACTURER IS NOT RESPONSIBLE FOR QUALITY CONTROL IN THE TRUSS MANUFACTURING PLANT.			
								NAIL VALUES			
								PLATE GRIP(DRY) SHEAR SECTION (PSI) (PLI) (PLI)			
								MAX MIN MAX MIN MAX MIN			
								MT20 618 354 1657 788 1987 1656			
								PLATE PLACEMENT TOL. = 0.250 inches			
								PLATE ROTATION TOL. = 5.0 Deg.			
								JSI GRIP= 0.90 (B) (INPUT = 0.90)			
								JSI METAL= 0.74 (P) (INPUT = 1.00)			

DRY: SEASONED LUMBER.

PLATES (table is in inches)

JT	TYPE	PLATES	W	LEN	Y	X
B	TMVW+p	MT20	4.0	6.0	1.50	2.25
C	TTWW-h	MT20	8.0	9.0	Edge	2.75
D	TMWW-t	MT20	4.0	4.0	2.00	1.75
E	TS-l	MT20	3.0	6.0		
F	TMWW-t	MT20	4.0	4.0		
G	TMW+w	MT20	2.0	4.0		
H	TS-l	MT20	3.0	6.0		
I	TMWW-t	MT20	4.0	4.0	2.00	1.75
J	TTWW-h	MT20	8.0	9.0	Edge	2.75
K	TMVW+p	MT20	4.0	6.0	1.50	2.25
M	BMV1+p	MT20	3.0	4.0		
N	BMWW-t	MT20	4.0	4.0	2.00	1.50
O	BMWW-t	MT20	4.0	6.0	1.50	2.25
P	BS-l	MT20	3.0	6.0		
Q	BMWWW-t	MT20	5.0	6.0	2.50	1.50
R	BMWW-t	MT20	4.0	4.0	2.00	1.75
S	BS-l	MT20	3.0	6.0		
T	BMWW-t	MT20	4.0	6.0	1.50	2.25
U	BMWW-t	MT20	4.0	4.0	2.00	1.50
V	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.



BRACING

TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 3.17 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 F-Q.

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

LOADING

TOTAL LOAD CASES: (4)

CHORDS				WEBS			
MEMB.	FORCE (LBS)	VERT. LOAD (PLF)	MAX. CS (LC)	MEMB.	FORCE (LBS)	MAX. CS (LC)	
FR-TO		FROM TO		FR-TO			
A-B	0 / 52	-78.0 -78.0	0.15 (1)	U-C	-520 / 0	0.41 (1)	
B-C	-1499 / 0	-78.0 -78.0	0.17 (1)	C-T	0 / 2005	0.45 (1)	
C-D	-2349 / 0	-78.0 -78.0	0.81 (1)	T-D	-1241 / 0	0.99 (1)	
D-E	-3027 / 0	-78.0 -78.0	0.95 (1)	D-R	0 / 937	0.21 (1)	
E-F	-3027 / 0	-78.0 -78.0	0.95 (1)	R-F	-520 / 0	0.41 (1)	
F-G	-3026 / 0	-78.0 -78.0	0.76 (1)	F-Q	-1 / 0	0.00 (1)	
G-H	-3026 / 0	-78.0 -78.0	0.95 (1)	Q-G	-520 / 0	0.41 (1)	
H-I	-3026 / 0	-78.0 -78.0	0.95 (1)	Q-I	0 / 935	0.21 (1)	
I-J	-2350 / 0	-78.0 -78.0	0.81 (1)	O-I	-1240 / 0	0.99 (1)	
J-K	-1499 / 0	-78.0 -78.0	0.17 (1)	O-J	0 / 2006	0.45 (1)	
K-L	0 / 52	-78.0 -78.0	0.15 (1)	N-J	-520 / 0	0.41 (1)	
V-B	-2088 / 0	0.0 0.0	0.30 (1)	B-U	0 / 1094	0.25 (1)	
M-K	-2088 / 0	0.0 0.0	0.30 (1)	N-K	0 / 1094	0.25 (1)	
V-U	0 / 0	-18.5 -18.5	0.14 (4)				
U-T	0 / 885	-18.5 -18.5	0.26 (4)				
T-S	0 / 2350	-18.5 -18.5	0.47 (1)				
S-R	0 / 2350	-18.5 -18.5	0.47 (1)				
R-Q	0 / 3027	-18.5 -18.5	0.57 (1)				
Q-P	0 / 2350	-18.5 -18.5	0.47 (1)				
P-O	0 / 2350	-18.5 -18.5	0.47 (1)				
O-N	0 / 885	-18.5 -18.5	0.26 (4)				
N-M	0 / 0	-18.5 -18.5	0.14 (4)				

Alpa Roof Truss, Maple

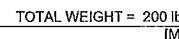
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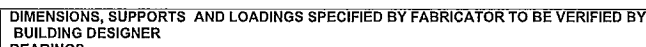
1-6-8 4-1-10 8-2-5 8-1-1 8-2-5 1-6-8

Scale = 1:72.3



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.



UNFACTORED REACTIONS

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

BRACING

TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 3.80 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

LOADING
TOTAL LOAD CASES: (4)

CHORDS				WEBS			
MAX. FACTORED		FACTORED		MAX. FACTORED			
MEMB.	FORCE (LBS)	VERT. LOAD (PLF)	LC1 MAX. CSI (LC)	MAX. UNBRAC	MEMB.	FORCE (LBS)	MAX. CSI (LC)
FR-TO		FROM TO		LENGTH	FR-TO		
A-B	0/52	-78.0	-78.0	0.15 (1)	10.00	S-C	-383/0 0.50 (1)
B-C	-1589/0	-78.0	-78.0	0.32 (1)	4.94	C-R	0/1779 0.29 (1)
C-D	-2227/0	-78.0	-78.0	0.88 (1)	4.08	R-D	-1077/0 0.46 (1)
D-E	-2600/0	-78.0	-78.0	0.94 (1)	3.80	D-P	0/521 0.08 (1)
E-F	-2600/0	-78.0	-78.0	0.94 (1)	3.80	P-F	-582/0 0.76 (1)
F-G	-2600/0	-78.0	-78.0	0.94 (1)	3.80	P-H	0/521 0.08 (1)
G-H	-2600/0	-78.0	-78.0	0.94 (1)	3.80	N-H	-1077/0 0.46 (1)
H-I	-2227/0	-78.0	-78.0	0.88 (1)	4.08	N-I	0/1779 0.29 (1)
I-J	-1589/0	-78.0	-78.0	0.32 (1)	4.94	M-I	-383/0 0.50 (1)
J-K	0/52	-78.0	-78.0	0.15 (1)	10.00	B-S	0/1078 0.24 (1)
T-B	-2078/0	0.0	0.0	0.30 (1)	5.87	M-J	0/1078 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	0/943	-18.5	-18.5	0.34 (4)	10.00		
R-Q	0/2227	-18.5	-18.5	0.50 (1)	10.00		
Q-P	0/2227	-18.5	-18.5	0.50 (1)	10.00		
P-O	0/2227	-18.5	-18.5	0.50 (1)	10.00		
O-N	0/2227	-18.5	-18.5	0.50 (1)	10.00		
N-M	0/943	-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 (0.28")

CSI: TC=0.94/1.00 (F-H:1), BC=0.50/1.00 (P-R:1),
WB=0.76/1.00 (F-P:1), SSI=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) (PSI)		SHEAR (PLI)		SECTION (PLI)	
	MAX	MIN	MAX	MIN	MAX	MIN
MT20	618	354	1667	788	1987	1656

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg

JSI GRIP= 0.90 (N) (INPUT = 0.90)
JSI METAL= 0.64 (O) (INPUT = 1.00)

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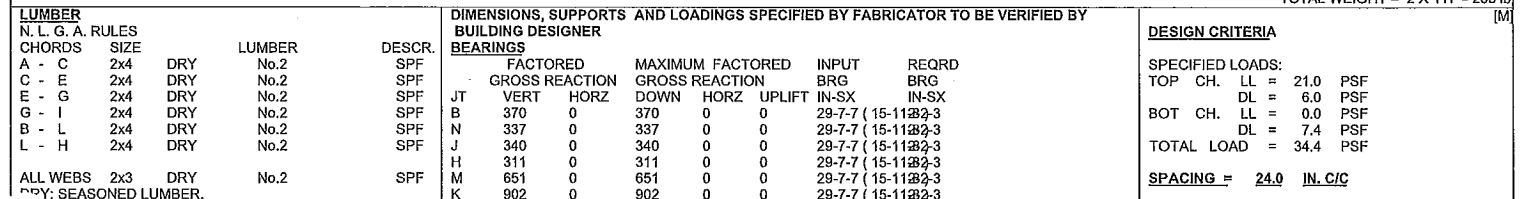
Alpa Roof Truss, Maple

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0-0 5-0-0 5-0-0 11-11-2 6-8-10 18-7-11 6-11-2 25-6-13 5-0-0 30-6-13

Scale = 1:52.6



DIMENSIONS, SUPPORTS AND LOADINGS SPECIFIED BY FABRICATOR TO BE VERIFIED BY BUILDING DESIGNER							
<u>BEARINGS</u>							
	FACTORED GROSS REACTION		MAXIMUM FACTORED GROSS REACTION			INPUT BRG	REQRD BRG
	VERT	HORZ	DOWN	HORZ	UPLIFT	IN-SX	IN-SX
JT	B	370	0	370	0	0	29-7-7 (15-11) 32-3
N	B	337	0	337	0	0	29-7-7 (15-11) 32-3
J	B	340	0	340	0	0	29-7-7 (15-11) 32-3
H	B	311	0	311	0	0	29-7-7 (15-11) 32-3
M	B	651	0	651	0	0	29-7-7 (15-11) 32-3
K	B	902	0	902	0	0	29-7-7 (15-11) 32-3

UNFAVORABLE REACTIONS							
1ST LCASE		MAX./MIN. COMPONENT REACTIONS					
JB	COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
T	260	184 / 0	0 / 0	0 / 0	0 / 0	76 / 0	0 / 0
N	246	118 / 0	0 / 0	0 / 0	0 / 0	128 / 0	0 / 0
H	248	120 / 0	0 / 0	0 / 0	0 / 0	129 / 0	0 / 0
J	219	152 / 0	0 / 0	0 / 0	67 / 0	0 / 0	0 / 0
M	464	282 / 0	0 / 0	0 / 0	0 / 0	182 / 0	0 / 0
K	638	417 / 0	0 / 0	0 / 0	0 / 0	221 / 0	0 / 0

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

ALL PITCH BREAKS AND PERIMETER CORNER JOINTS MUST BE LATERALLY RESTRAINED
1 LATERAL BRACE(S) AT 1/2 LENGTH OF C-M, D-K, G-K.

LOADING
TOTAL LOAD CASES: (4)

C H O R D S				W E B S				
MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	LC1 MAX. CSI (LC)	MAX. UNBRAC	MEMB.	MAX. FACTORED FORCE (LBS)	MAX FACTORED CSI (LC)	
FR-TO		FROM TO		LENGTH	FR-TO			
A-B	0/10	-78.0	-78.0	0.01 (1)	10.00	N-C	-219/0	0.15 (1)
B-C	-170/0	-78.0	-78.0	0.28 (1)	6.25	J-G	-222/0	0.18 (1)
C-D	-54/0	-78.0	-78.0	0.50 (1)	6.25	C-M	-56/0	0.03 (1)
D-E	0/51	-78.0	-78.0	0.50 (1)	10.00	M-D	-486/0	0.34 (1)
E-F	0/51	-78.0	-78.0	0.50 (1)	10.00	D-K	-143/0	0.08 (1)
F-G	0/51	-78.0	-78.0	0.50 (1)	10.00	K-F	-585/0	0.41 (1)
G-H	-97/0	-78.0	-78.0	0.27 (1)	6.25	K-G	-140/0	0.08 (1)
H-I	0/10	-78.0	-78.0	0.01 (1)	10.00			
B-N	0/100	-18.5	-18.5	0.15 (4)	10.00			
N-M	0/96	-18.5	-18.5	0.17 (4)	10.00			
M-L	0/54	-18.5	-18.5	0.17 (4)	10.00			
L-K	0/54	-18.5	-18.5	0.17 (4)	10.00			
K-J	0/53	-18.5	-18.5	0.17 (4)	10.00			
J-H	0/57	-18.5	-18.5	0.15 (4)	10.00			

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

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

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

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

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

CSI: TC=0.50/1.00 (D-F:1), BC=0.17/1.00 (M-N:4),
WB=0.41/1.00 (F-K:1), SSI=0.25/1.00 (C-D:1)

DOILUMBER=1.00 NAIL=1.00 LS BEND=1.10
COMP=1.10 SHEAR=1.10 TENS= 1.10

COMPANION LIVE LOAD FACTOR = 1.00

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

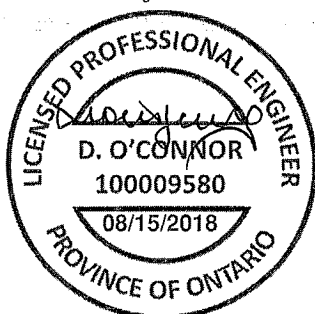
NAIL VALUES					
PLATE	GRIP(DRY)		SHEAR		SECTION
	(PSI)		(PLI)		(PLI)
	MAX	MIN	MAX	MIN	MAX MIN
MT20	618	354	1667	788	1987 1656

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.64 (G) (INPUT = 0.90)
JSI METAL= 0.18 (B) (INPUT = 1.00)

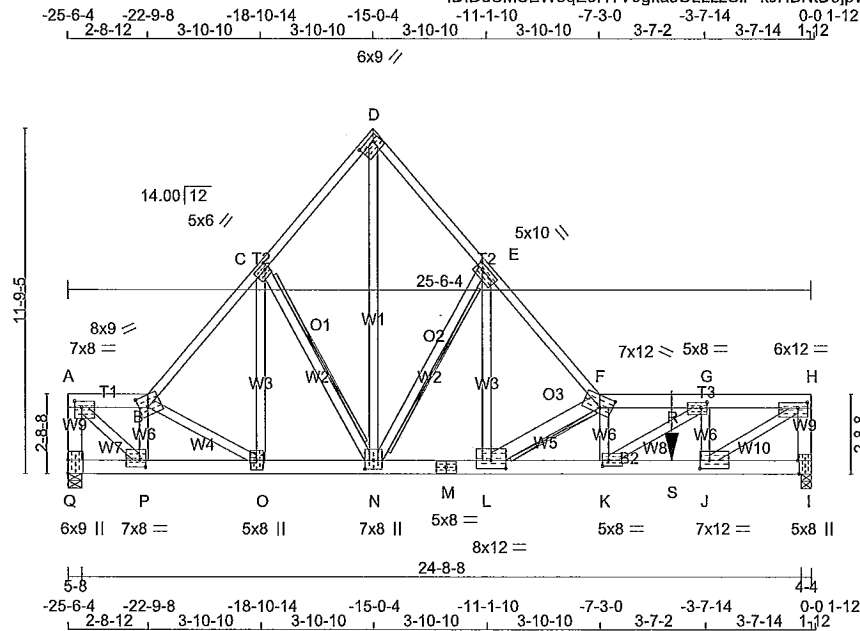
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Alpa Roof Truss, Maple

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Scale = 1:75.9



TOTAL WEIGHT = 3 X 172 = 516 lb

DRY: SEASONED LUMBER.

DESIGN CONSISTS OF 3 TRUSSES BUILT
SEPARATELY THEN FASTENED TOGETHER AS
FOLLOWS:

STAGGER NAILS BY HALF THE SURFACE SPACING IN ADJACENT PLIES.

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

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

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

BUILDING BEARINGS

UNFACTORED REACTIONS

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

BRACING

TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 2.33 FT.
MAX. UNBRACED BOTTOM CHORD LENGTH = 10.00 FT OR RIGID CEILING DIRECTLY APPLIED.

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

2x6 DRY SPF No.2 T-BRACE AT C-N, E-N, F-L

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

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

LOADING

TOTAL LOAD CASES: (4)

CHORDS					WEBS				
MAX. FACTORED		FACTORED			MAX. FACTORED				
MEMB.	FORCE	VERT. LOAD	LC1	MAX	MAX.	MEMB.	FORCE	MAX	
	(LBS)	(PLF)		CSI (I.C)	UNBRAC		(LBS)	CSI (LC)	
FR-TO		FROM	TO		LENGTH	FR-TO			
Q-A	-11869 / 0	0.0	0.0	0.30 (1)	5.40	A-P	0 / 17883	0.96 (1)	
A-B	-13481 / 0	-78.0	-78.0	0.10 (1)	4.06	P-B	-8811 / 0	0.33 (1)	
B-C	-14688 / 0	-78.0	-78.0	0.51 (1)	2.98	B-O	-5192 / 0	0.41 (1)	
C-D	-11225 / 0	-78.0	-78.0	0.32 (1)	3.50	O-C	0 / 6268	0.34 (1)	
D-E	-11224 / 0	-78.0	-78.0	0.33 (1)	3.50	C-N	-4543 / 0	0.35 (1)	
E-F	-18856 / 0	-78.0	-78.0	0.79 (1)	2.45	N-D	0 / 16745	0.90 (1)	
F-R	-30353 / 0	-78.0	-78.0	0.55 (1)	2.33	N-E	-10001 / 0	0.76 (1)	
R-G	-30353 / 0	-87.7	-87.7	0.55 (1)	2.33	L-E	0 / 14172	0.76 (1)	
G-H	-19114 / 0	-87.7	-87.7	0.29 (1)	3.30	L-F	-21212 / 0	0.59 (1)	
H-I	-12067 / 0	0.0	0.0	0.31 (1)	5.36	K-F	-4091 / 0	0.15 (1)	
						K-G	0 / 13424	0.72 (1)	
Q-P	0 / 0	-934.0	-934.0	0.09 (1)	10.00	J-G	-7399 / 0	0.27 (1)	
P-O	0 / 14049	-934.0	-934.0	0.41 (1)	10.00	J-H	0 / 22448	0.87 (1)	
O-N	0 / 9559	-934.0	-934.0	0.33 (1)	10.00				
N-M	0 / 12269	-934.0	-934.0	0.37 (1)	10.00				
M-L	0 / 12269	-934.0	-934.0	0.37 (1)	10.00				
L-K	0 / 30617	-934.0	-934.0	0.71 (1)	10.00				
K-S	0 / 19114	-934.0	-934.0	0.47 (1)	10.00				
S-J	0 / 19114	-936.3	-936.3	0.47 (1)	10.00				
J-I	0 / 0	-936.3	-936.3	0.14 (1)	10.00				

FACTORED CONCENTRATED LOADS (LBS)

JT	LOC.	LC1	MAX-	MAX+	FACE	DIR.	TYPE
S	20-8-9	-677	-677	---	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 ALL FLAT SECTIONS BASED ON A
SLOPE OF 2.00/12 MINIMUM

GIRDER TYPE: CStdGirder

START DISTANCE = 0-0
START SPAN CARRIED = 40-5-0
END DISTANCE = 25-8-0
END SPAN CARRIED = 40-5-0
END WALL WIDTH = 5-8
APPLIED TO BACK SIDE OF BOTTOM CHORD.
- ADD'L LOADS BASED ON 55 % OF GSL.

GIRDER TYPE: CPrimeHlp

SIDE SETBACK = 0-0
END SETBACK = 2-6-0
END WALL WIDTH = 0-0
CORNER FRAMING TYPE: CONVENTIONAL
END JACK TYPE: CONVENTIONAL
APPLIED TO FRONT SIDE
- ADD'T'L LOADS BASED ON 55 % OF GSL.
LOADS APPLIED TO FIRST 4-9-12 OF SPAN
MEASURED FROM THE RIGHT.

*** NON STANDARD GIRDER ***

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

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

THIS DESIGN COMPLIES WITH:

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

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

ALLOWABLE DEFL.(LL)= L/360 (0.85")
CALCULATED VERT. DEFL.(LL)= L/910 (0.34")
ALLOWABLE DEFL.(TL)= L/360 (0.85")
CALCULATED VERT. DEFL.(TL)= L/481 (0.66")

CSI: TC=0.79/1.00 (E-F:1), BC=0.71/1.00 (K-L:1),
WB=0.96/1.00 (A-P:1), SS=0.48/1.00 (J-K:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

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CONTINUED ON PAGE 2

JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
300969	H45A	1	3	TRUSS DESC.	

Alpa Roof Truss, Maple

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PLATES (table is in inches)

JT	TYPE	PLATES	W	LEN	Y	X
A	TMVW-t	MT20	7.0	8.0	2.50	2.75
B	TTWW-m	MT20	8.0	9.0	4.75	3.50
C	TMWW-t	MT20	5.0	6.0	2.25	1.50
D	TTW-h	MT20	6.0	9.0	2.00	6.25
E	TMWW-t	MT20	5.0	10.0	2.00	2.75
F	TTWW-m	MT20	7.0	12.0	4.75	4.75
G	TMWW-t	MT20	5.0	8.0	2.25	2.50
H	TMVW-t	MT20	6.0	12.0	2.25	4.00
I	BMV1-t	MT20	5.0	8.0	Edge	0.50
J	BMWW-t	MT20	7.0	12.0	3.25	4.00
K	BMWW-t	MT20	5.0	8.0	2.25	2.50
L	BMWW-t	MT20	8.0	12.0	3.25	6.00
M	BS-t	MT20	5.0	8.0		
N	BMWWH-t	MT20	7.0	8.0	3.50	3.50
O	BMWWH-t	MT20	5.0	8.0		
P	BMWW-t	MT20	7.0	8.0	2.75	2.50
Q	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) 677.4 lbs FACTORED DOWN AT 20-8-9 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

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.90 (H) (INPUT = 0.90)
 JSI METAL= 0.97 (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.



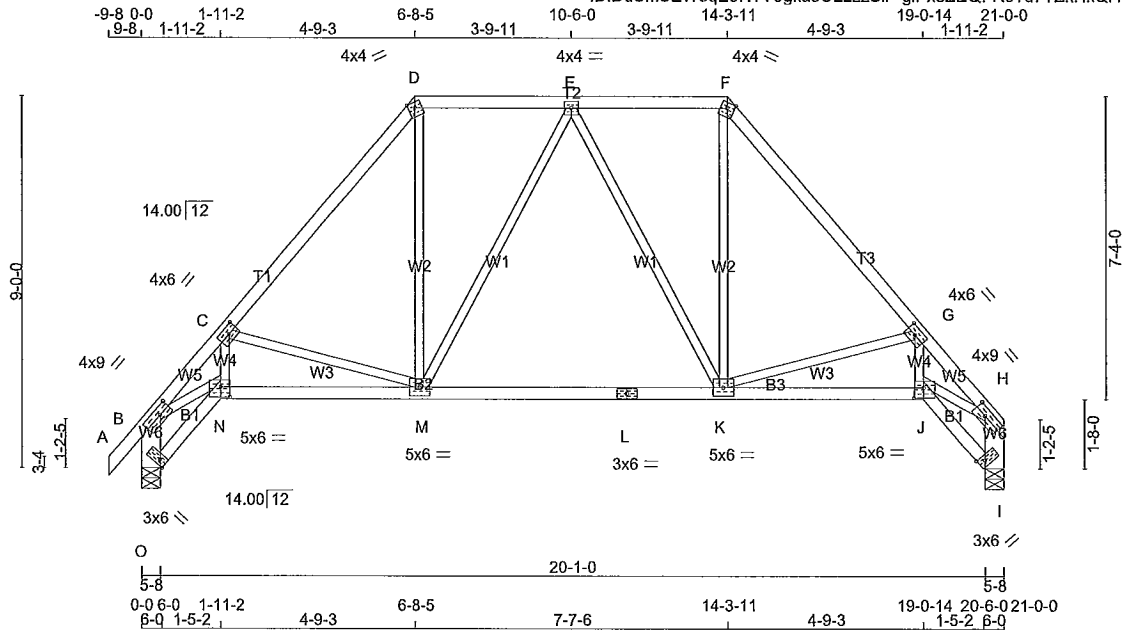
A18082076(2)

JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
300969	H46T	1	1	TRUSS DESC.	JT# 45147

Alpa Roof Truss, Maple

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ID:DdSMSEW8qE9HTV0gkasOLLzzSIP-giPxoZEQFR97d7TZkHkQFYTRVrB49_Q12zgzybnKD



Scale = 1:53.8

TOTAL WEIGHT = 100 lb

LUMBER	N. L. G. A. RULES	CHORDS	SIZE	LUMBER	DESCR.
A - D	2x4	DRY	No.2	SPF	
D - F	2x4	DRY	No.2	SPF	
F - H	2x4	DRY	No.2	SPF	
O - B	2x6	DRY	No.2	SPF	
I - H	2x6	DRY	No.2	SPF	
O - N	2x4	DRY	No.2	SPF	
N - L	2x4	DRY	No.2	SPF	
L - J	2x4	DRY	No.2	SPF	
J - I	2x4	DRY	No.2	SPF	
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	4.0	9.0	2.00	3.50
C	TMVW-I	MT20	4.0	6.0	2.00	2.75
D	TTW-m	MT20	4.0	4.0	Edge	
E	TMVW-I	MT20	4.0	4.0		
F	TTW-m	MT20	4.0	4.0	Edge	
G	TMVW-I	MT20	4.0	6.0	2.00	2.75
H	TMVW-I	MT20	4.0	9.0	2.00	3.50
I	BVM1-I	MT20	3.0	6.0	Edge	
J	BBWW-I	MT20	5.0	6.0	3.00	2.75
K	BMVWW-I	MT20	5.0	6.0		
L	BS-I	MT20	3.0	6.0		
M	BMVWW-I	MT20	5.0	6.0		
N	BBWW-I	MT20	5.0	6.0	3.00	2.75
O	BVM1-I	MT20	3.0	6.0	2.00	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	REQD BRG
	VERT	HORZ	DOWN	UP/LIFT
JT	1112	0	1112	0
O	1041	0	1041	0
I	1041	0	1041	0

UNFACTORED REACTIONS

	1ST LCASE	MAX/MIN.	COMPONENT REACTIONS					
	COMBINED	SNOW	LIVE	PERMLIVE	WIND	DEAD	SOIL	
JT	794	479 / 0	0 / 0	0 / 0	0 / 0	315 / 0	0 / 0	
O	745	441 / 0	0 / 0	0 / 0	0 / 0	304 / 0	0 / 0	

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

BRACING

FOR SECTION D-F, MAX. PURLIN SPACING = 2.00 FT.
FOR OTHER SECTIONS, TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 4.52 FT.
MAX. UNBRACED BOTTOM CHORD LENGTH = 10.00 FT OR RIGID CEILING DIRECTLY APPLIED.

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

LOADING

TOTAL LOAD CASES: (4)

CHORDS	MAX. FACTORED	FACTORED	MAX	MAX	WEBS	MAX. FACTORED	FACTORED	MAX	MAX
MEMB.	FORCE (LBS)	VERT. LOAD (PLF)	LC1 (LC)	UNBRAC	MEMB.	FORCE (LBS)	VERT. LOAD (PLF)	LC1 (LC)	UNBRAC
FR-TO					FR-TO				
A-B	0 / 27	-78.0	-78.0	0.05 (1)	10.00	N-C	0 / 710	0.16 (1)	
B-C	-2131 / 0	-78.0	-78.0	0.18 (1)	4.52	C-M	-709 / 0	0.30 (1)	
C-D	-1086 / 0	-78.0	-78.0	0.24 (1)	5.80	M-D	0 / 523	0.12 (1)	
D-E	-703 / 0	-85.5	-85.5	0.15 (1)	2.00	M-E	-217 / 0	0.29 (1)	
E-F	-703 / 0	-85.5	-85.5	0.15 (1)	2.00	K-F	0 / 523	0.12 (1)	
F-G	-1086 / 0	-78.0	-78.0	0.24 (1)	5.80	K-G	-709 / 0	0.30 (1)	
G-H	-2131 / 0	-78.0	-78.0	0.18 (1)	4.52	J-G	0 / 710	0.16 (1)	
O-B	-1094 / 0	0.0	0.0	0.07 (1)	7.81	J-H	0 / 1557	0.35 (1)	
I-H	-1024 / 0	0.0	0.0	0.07 (1)	7.81	B-N	0 / 1557	0.35 (1)	
						E-K	-217 / 0	0.29 (1)	
O-N	0 / 0	-18.5	-18.5	0.02 (4)	10.00				
N-M	0 / 1366	-18.5	-18.5	0.32 (1)	10.00				
M-L	0 / 803	-18.5	-18.5	0.25 (4)	10.00				
L-K	0 / 803	-18.5	-18.5	0.25 (4)	10.00				
K-J	0 / 1366	-18.5	-18.5	0.32 (1)	10.00				
J-I	0 / 0	-18.5	-18.5	0.02 (4)	10.00				

DESIGN CRITERIA

SPECIFIED LOADS:

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

SPACING = 24.0 IN. C/C

LOADING IN FLAT SECTION BASED ON PIGGYBACK TRUSS WITH SLOPES OF 14.00/12 AND -14.00/12 AND RESPECTIVE WALL HEIGHTS OF 0-0 AND 0-0 AND AN ADDITIONAL DEAD LOAD OF 3.0 P.S.F.

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

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

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

ALLOWABLE DEFL.(LL) = L/360 (0.70")
CALCULATED VERT. DEFL.(LL) = L/999 (0.04")
ALLOWABLE DEFL.(TL) = L/360 (0.70")
CALCULATED VERT. DEFL.(TL) = L/999 (0.12")

CSI: TC=0.24/1.00 (F-G:1), BC=0.32/1.00 (J-K:1), WB=0.35/1.00 (I-J:1), SSI=0.16/1.00 (D-E:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

AUTOSOLVE HEELS OFF

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

NAIL VALUES

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

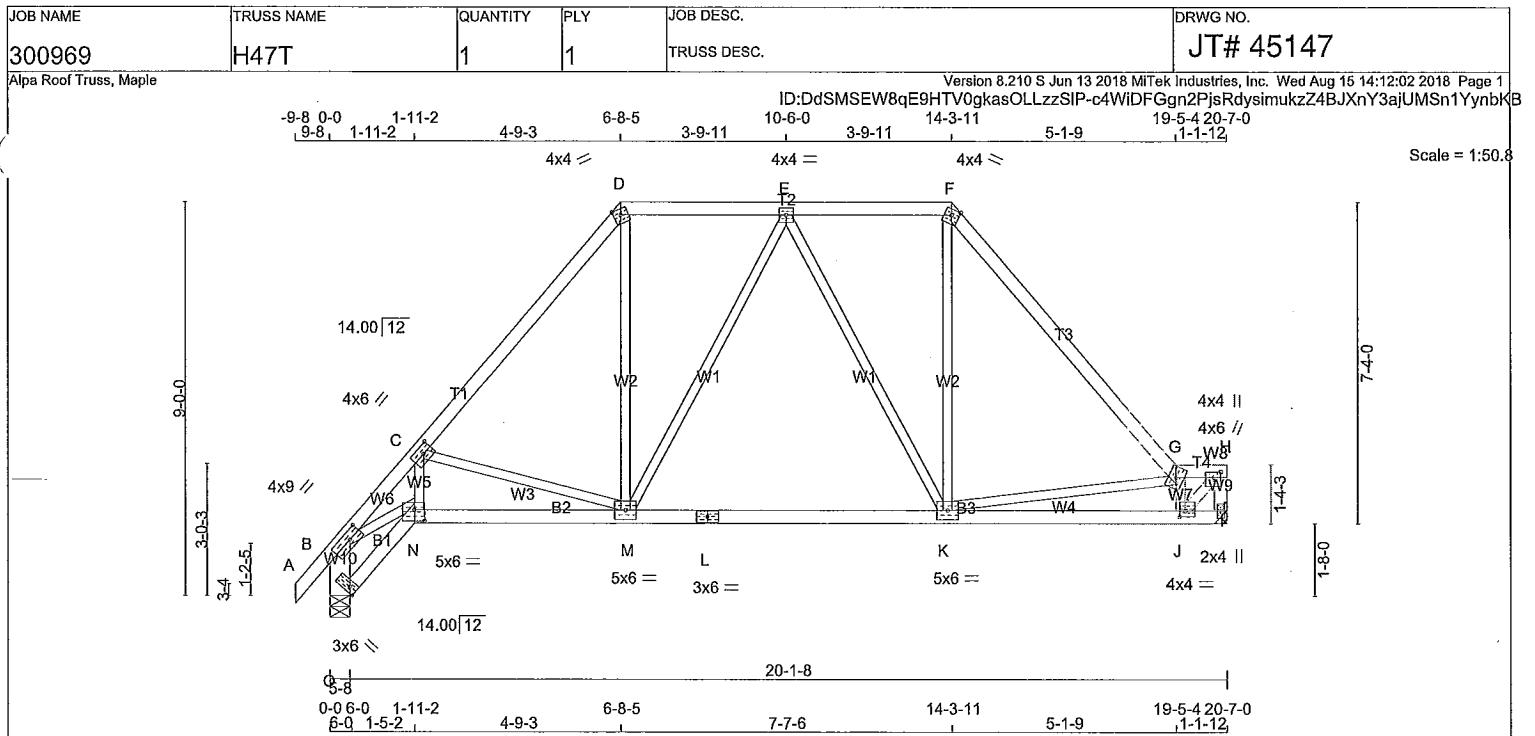
PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.83 (N) (INPUT = 0.90)
JSI METAL= 0.57 (N) (INPUT = 1.00)

A18082077





JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
300969	H48T	1	1	TRUSS DESC.	JT# 45147

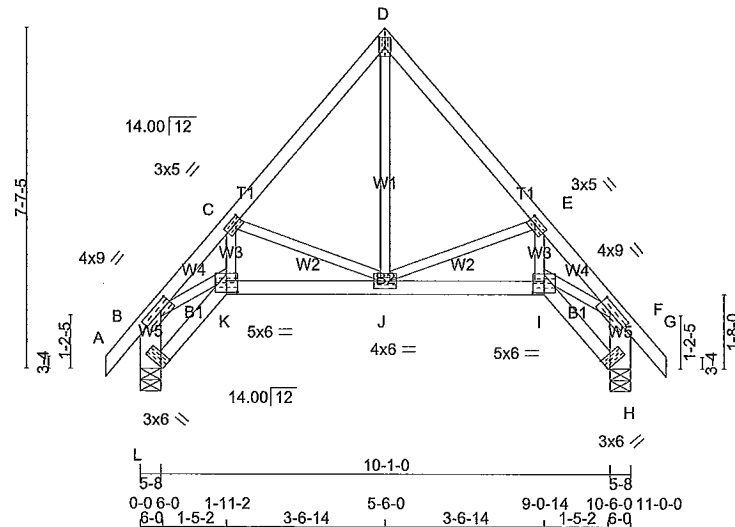
Alpa Roof Truss, Maple

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ID:DdSMSEW8qE9HTV0gkasOLLzzSIP-ZTseSewHwJfR5lnLz7oMpOeTR6Fw00v0ygxu6Qynbk9

-9-8 0-0 1-11-2 5-6-0 9-0-14 11-0-0 11-9-8
 9-8, 1-11-2, 3-6-14 3-6-14 1-11-2 9-8,
 3x5 ||

Scale = 1:49.6



TOTAL WEIGHT = 56 lb

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

ALL WEBS	2x3	DRY	No.2	SPF
DEPT				

KEY: SEASONED LUMBER.

PLATES (table is in inches)

JT	TYPE	PLATES	W	LEN	Y	X
B	TMVW-I	MT20	4.0	9.0	2.00	3.50
C	TMVW-I	MT20	3.0	5.0	1.50	1.75
D	TTW+p	MT20	3.0	5.0	2.75	1.50
E	TMVW-I	MT20	3.0	5.0	1.50	1.75
F	TMVW-I	MT20	4.0	9.0	2.00	3.50
H	BVM1-I	MT20	3.0	6.0	Edge	
I	BBVW-I	MT20	5.0	6.0	3.00	3.00
J	BMVWVW-I	MT20	4.0	6.0		
K	BBVW-I	MT20	5.0	6.0	3.00	3.00
L	BVM1-I	MT20	3.0	6.0	Edge	

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

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

BEARINGS	FACTORED	MAXIMUM FACTORED	INPUT	REQD
GROSS REACTION	GROSS REACTION	DOWN	BRG	BRG
JT	VERT	HORZ	DOWN	UP
L	601	0	601	0
H	601	0	601	0

UNFACTORED REACTIONS

1ST LCASE		MAX./MIN. COMPONENT REACTIONS						
JT	COMBINED	SNOW	LIVE	PERM.	LIVE	WIND	DEAD	SOIL
L	427	269 / 0	0 / 0	0 / 0	0 / 0	0 / 0	158 / 0	0 / 0
H	427	269 / 0	0 / 0	0 / 0	0 / 0	0 / 0	158 / 0	0 / 0

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

BRACING

TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 6.20 FT.
 MAX. UNBRACED BOTTOM CHORD LENGTH = 10.00 FT OR RIGID CEILING DIRECTLY APPLIED.

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

LOADING

TOTAL LOAD CASES: (4)

CHORDS			WEBS					
MAX. FACTORED		FACTORED		MAX. FACTORED				
MEMB.	FORCE	VERT. LOAD	LC1	MAX.	MEMB.	FORCE	MAX	
	(LBS)	(PLF)		UNBRAC		(LBS)	CSI (LC)	
FR-TO		FROM	TO	LENGTH	FR-TO			
A-B	-986 / 0	-78.0	-78.0	0.05 (1)	10.00	J-E	-401 / 0	0.10 (1)
B-C	-986 / 0	-78.0	-78.0	0.08 (1)	6.20	I-E	0 / 353	0.08 (1)
C-D	-424 / 0	-78.0	-78.0	0.12 (1)	6.25	C-J	-401 / 0	0.10 (1)
D-E	-424 / 0	-78.0	-78.0	0.12 (1)	6.25	K-C	0 / 353	0.08 (1)
E-F	-986 / 0	-78.0	-78.0	0.08 (1)	6.20	B-K	0 / 724	0.16 (1)
F-G	0 / 27	-78.0	-78.0	0.05 (1)	10.00	I-F	0 / 724	0.16 (1)
L-B	-583 / 0	0.0	0.0	0.04 (1)	7.81	J-D	0 / 390	0.09 (1)
H-F	-583 / 0	0.0	0.0	0.04 (1)	7.81			
L-K	0 / 0	-18.5	-18.5	0.02 (4)	10.00			
K-J	0 / 634	-18.5	-18.5	0.14 (1)	10.00			
J-I	0 / 634	-18.5	-18.5	0.14 (1)	10.00			
I-H	0 / 0	-18.5	-18.5	0.02 (4)	10.00			

DESIGN CRITERIA

SPECIFIED LOADS:

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

SPACING = 24.0 IN. C/C

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

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

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

ALLOWABLE DEFL.(LL)= L/360 (0.37")
 CALCULATED VERT. DEFL.(LL) = L/999 (0.02")
 ALLOWABLE DEFL.(TL)= L/360 (0.37")
 CALCULATED VERT. DEFL.(TL) = L/999 (0.03")

CSI: TC=0.12/1.00 (C-D:1), BC=0.14/1.00 (J-K:1), WB=0.16/1.00 (B-K:1), SSI=0.08/1.00 (C-D:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

AUTOSOLVE HEELS OFF

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

NAIL VALUES

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

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.46 (K) (INPUT = 0.90)
 JSI METAL= 0.29 (K) (INPUT = 1.00)

A18082079

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



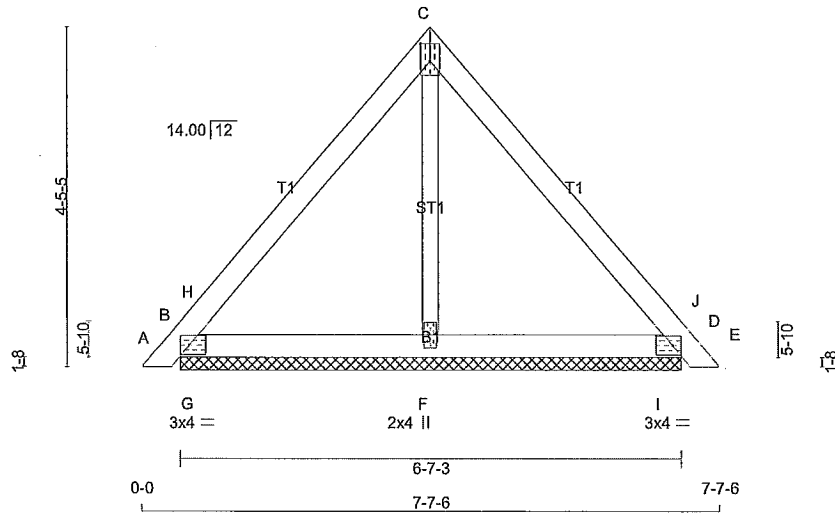
JOB NAME 300969	TRUSS NAME H49P	QUANTITY 2	PLY 1	JOB DESC. TRUSS DESC.	DRWG NO. JT# 45147
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Alpa Roof Truss, Maple

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ID:HSVaWIIIDnhr?B6oeweH9vbyNdls-1fCqrGIY4znIjvMXXqKbMbBeRWbkIVYABKhRetynbK8

0-0 3-9-11 3-9-11 3-9-11 7-7-6
3x5 II

Scale = 1:29.



TOTAL WEIGHT = 2 X 24 = 48 lb [M]

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

TIES (table is in inches)					
TYPE	PLATES	W	LEN	Y	X
B	TMB1-I	MT20	3.0	4.0	1.50 2.50
C	TTW+p	MT20	3.0	5.0	2.75 1.50
D	TMB1-I	MT20	3.0	4.0	1.50 2.50
F	BMW1+w	MT20	2.0	4.0	

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

BEARINGS		FACTORED		MAXIMUM FACTORED		INPUT		REQRD	
JT	GROSS REACTION	VERT	HORZ	GROSS REACTION	DOWN	HORZ	UPLIFT	IN-SX	BRG
B	263	0	263	0	0	0	6-7-3	5-2	IN-SX
D	263	0	263	0	0	0	6-7-3	5-2	
F	171	0	171	0	0	0	6-7-3	5-2	

UNFACTORED REACTIONS

1ST LCASE		MAX/MIN. COMPONENT REACTIONS		PERM. LIVE		WIND		DEAD		SOIL	
JT	COMBINED	SNOW	LIVE	DOWN	HORZ	UPLIFT	IN-SX	BRG	IN-SX		
B	185	126 / 0	0 / 0	0 / 0	0 / 0	0 / 0	59 / 0	0 / 0	59 / 0	0 / 0	0 / 0
D	185	126 / 0	0 / 0	0 / 0	0 / 0	0 / 0	59 / 0	0 / 0	59 / 0	0 / 0	0 / 0
F	126	58 / 0	0 / 0	0 / 0	0 / 0	0 / 0	68 / 0	0 / 0	68 / 0	0 / 0	0 / 0

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

BRACING

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

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

LOADING

TOTAL LOAD CASES: (4)

CHORDS				WEBS			
MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	MAX. UNBRACED LENGTH (LC)	MEMB.	MAX. FACTORED FORCE (LBS)	MAX. UNBRACED LENGTH (LC)	MAX. UNBRACED LENGTH (LC)
FR-TO				FR-TO			
A-B	0 / 10	-78.0	-78.0 0.01 (1)	10.00	F-C	-36 / 0	0.01 (1)
B-H	-14 / 86	-78.0	-78.0 0.08 (1)	6.25	G-H	-375 / 0	0.00 (1)
H-C	-128 / 0	-78.0	-78.0 0.10 (1)	6.25	I-J	-375 / 0	0.00 (1)
C-J	-128 / 0	-78.0	-78.0 0.10 (1)	6.25			
J-D	-14 / 86	-78.0	-78.0 0.08 (1)	6.25			
D-E	0 / 10	-78.0	-78.0 0.01 (1)	10.00			
B-G	0 / 76	-18.5	-18.5 0.10 (1)	10.00			
G-F	0 / 76	-18.5	-18.5 0.10 (1)	10.00			
F-I	0 / 76	-18.5	-18.5 0.10 (1)	10.00			
I-D	0 / 76	-18.5	-18.5 0.10 (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

CSI: TC=0.10/1.00 (C-H:1), BC=0.10/1.00 (B-G:1), WB=0.01/1.00 (C-F:1), SSI=0.29/1.00 (D-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
MT20	618	354	1667	788
			1987	1656

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

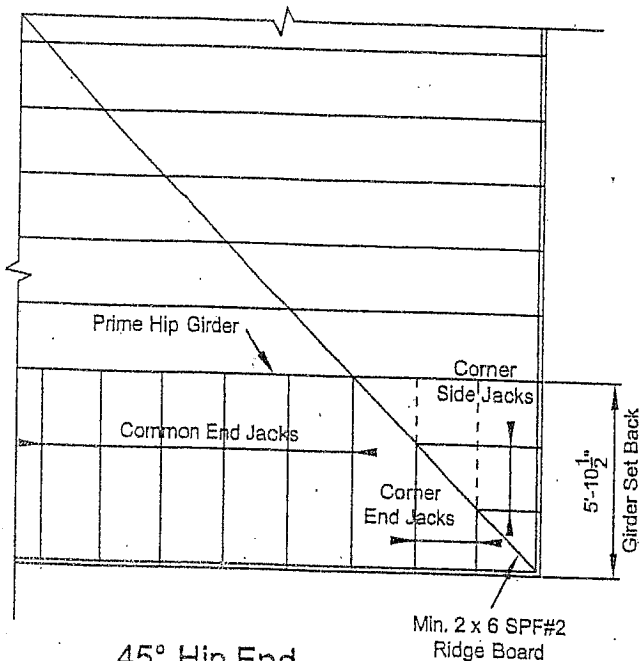
JSI GRIP= 0.33 (B) (INPUT = 0.90)
JSI METAL= 0.07 (D) (INPUT = 1.00)

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.



A18082080

STRACON ENGINEERING INC.



45° Hip End

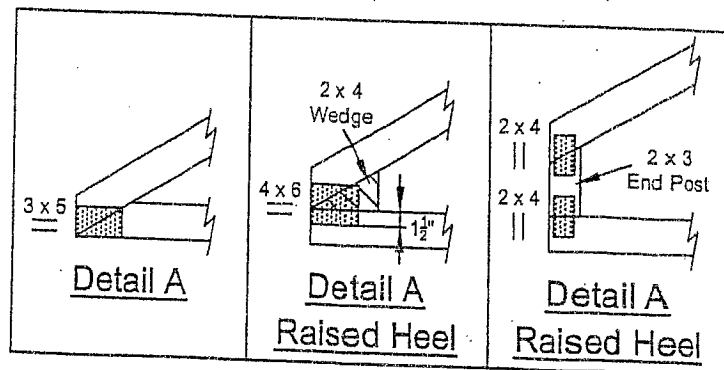
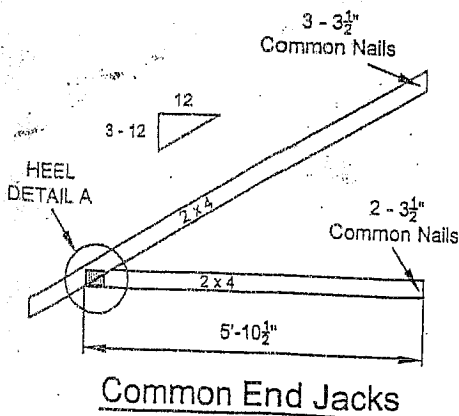
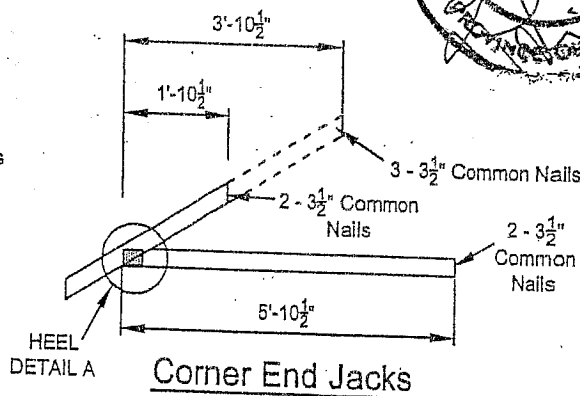
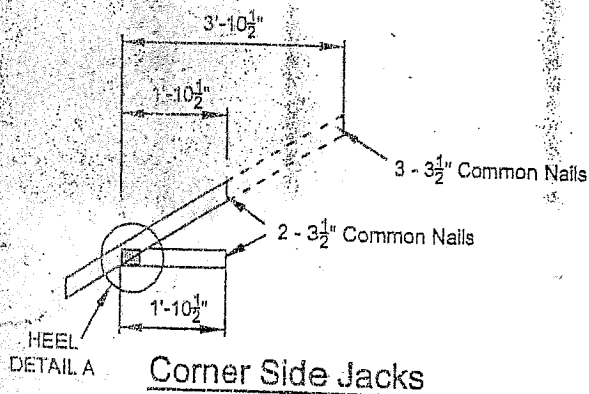
LUMBER SPECIFICATION

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

TC – Truss Connectors



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

Material: 16 gauge

Finish: G90 galvanized

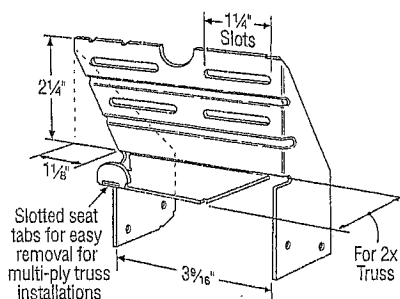
Design: Factored resistances are in accordance with CSA 086-14

Installation:

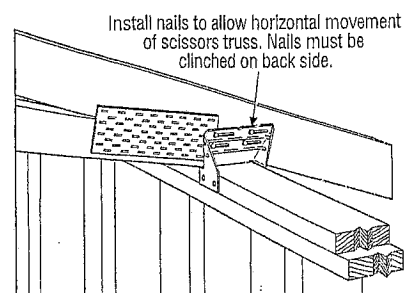
- Use all specified fasteners.
- Nails: 10d = 0.148" dia. x 3" long common wire, 10d x 1½" = 0.148" dia. x 1½" long.
- Drive 10d nails into the truss at the inside end of the slotted holes (inside end is towards the centre of the truss) and clinch on the back side. Do not seat these nails into the truss—allow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

Optional TC Installation:

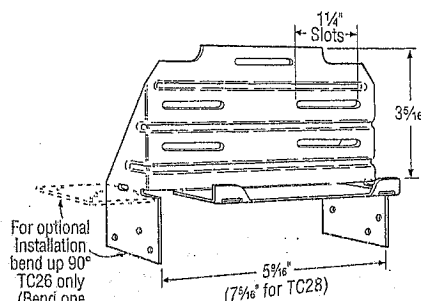
- Bend one flange up 90°. Drive specified nails into the top and face of the top plates or install Titen® screws into the top and face of masonry wall. See optional load tables and installation details.



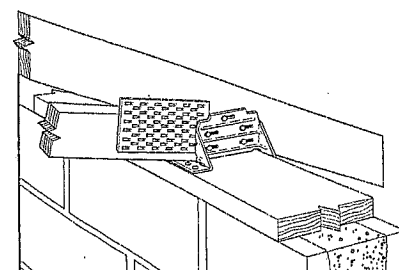
TC24
U.S. Patent 4,932,173



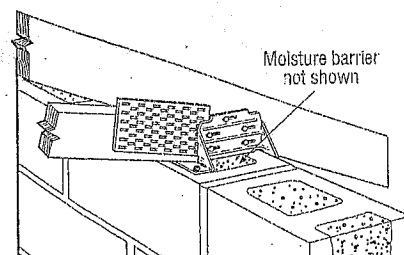
Typical TC24 Installation



TC26
(TC28 Similar)



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



Optional TC26 Installation for Grouted Concrete Block using Titen Screws

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

Optional TC Installation Table

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

1. Factored resistances have been increased 15% for earthquake or wind loading; no further increase allowed; reduce where other loads govern.
2. Grout strength is 15 MPa minimum.
3. Optional TC26 installation with 10d nails requires minimum 3" top plate thickness.
4. TC26 fastened to grouted concrete block with (6) - ½" x 2¼" Titen screws has a factored uplift resistance of 275 lb.



LIMIT
STATES
DESIGN

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T-SPECTC17 3/17 exp. 6/19

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HUS/LJS – Double Shear Joist Hangers



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

Material: See table

Finish: G90 galvanized

Design:

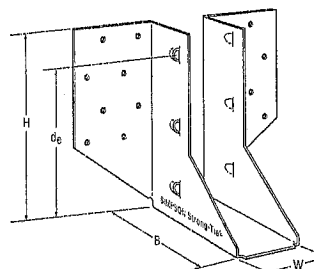
- Factored resistances are in accordance with CSA O86-14.
- Uplift resistances have been increased 15%. No further increase is permitted.
- Wood shear is not considered in the factored resistances given. The specifier must ensure that the joist and header capacities are capable of withstanding these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

Installation:

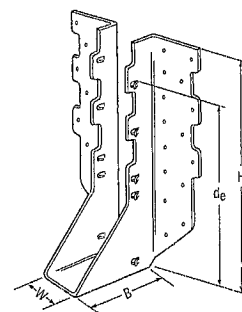
- Use all specified fasteners
- Nails: 16d = 0.162" dia. x 3½" long common wire
- Double shear nails must be driven at an angle through the joist or truss into the header to achieve the table loads
- Not designed for welded or nailer applications

Options:

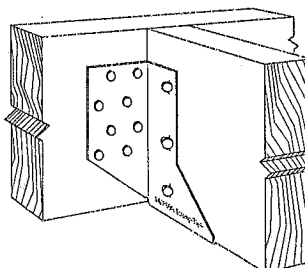
- See current catalogue for options



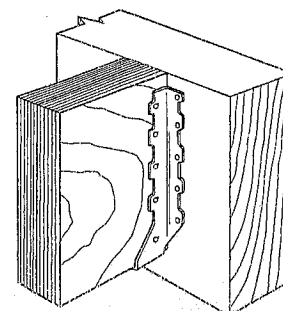
LJS26DS



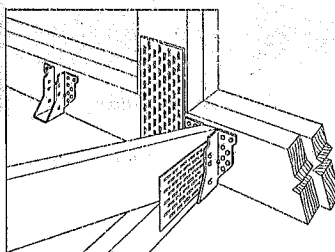
HUS210
(HUS26, HUS28, similar)



Typical LJS26DS
Installation



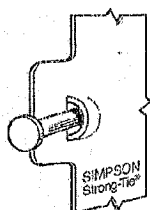
Typical HUS
Installation



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

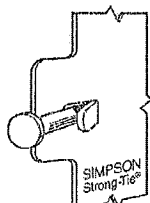
Model No.	Ga.	Dimensions (in.)				Fasteners		Factored Resistance (lb.)			
		W	H	B	d _e ¹	Face	Joist	D.Fir-L		S-P-F	
								Uplift (K ₀ =1.15)	Normal (K ₀ =1.00)	Uplift (K ₀ =1.15)	Normal (K ₀ =1.00)
LJS26DS	18	1⅞	5	3½	4⅝	(16) 16d	(6) 16d	2055	4265	1460	4115
HUS26	16	1⅝	5⅝	3	3⅞	(14) 16d	(6) 16d	2705	4940	2065	3875
HUS28	16	1⅝	7⅝	3	6⅝	(22) 16d	(8) 16d	3605	5365	2675	4345
HUS210	16	1⅝	9⅝	3	7⅝	(30) 16d	(10) 16d	4505	5795	4010	4740
HUS1.81/10	16	1⅞	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.

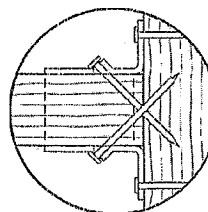


Dome Double Shear Nailing prevents tabs breaking off (available on some models).

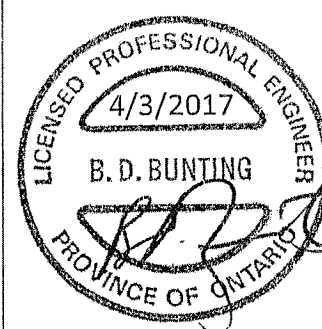
U.S. Patent
5,603,580



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



Double Shear Nailing Top View.



LIMIT
STATES
DESIGN

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T-SPECHUS17 3/17 exp. 6/19

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HHUS – Double Shear Joist Hangers

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

Material: 14 gauge

Finish: G90 galvanized

Design:

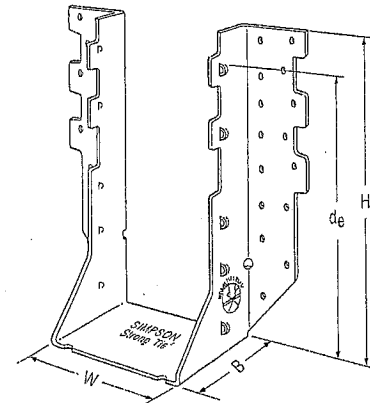
- Factored resistances are in accordance with CSA O86-14.
- Uplift resistances have been increased 15%. No further increase is permitted.
- Wood shear is not considered in the factored resistances given. The specifier must ensure that the joist and header capacities are capable of withstanding these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

Installation:

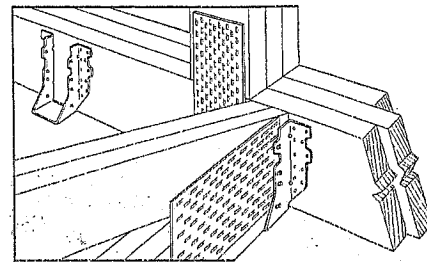
- Use all specified fasteners
- Nails: 16d = 0.162" dia. x 3 1/2" long common wire
- Double shear nails must be driven at an angle through the joist or truss into the header to achieve the table loads
- Not designed for welded or nailer applications

Options:

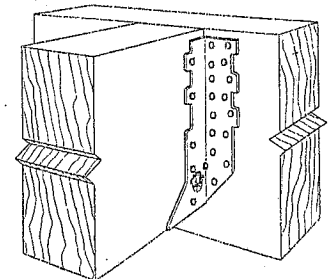
- See current catalogue for options



HHUS410



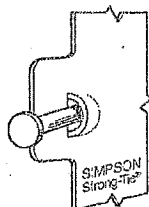
Typical HHUS Installation
(Truss Designer to provide fastener quantity for connecting multiple members together)



Typical HHUS Installation

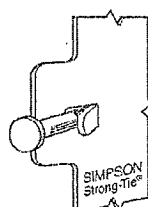
Model No.	Ga.	Dimensions (in.)				Fasteners		Factored Resistance (lb.)			
		W	H	B	d _e ¹	Face	Joist	D.Fir-L		S-P-F	
								Uplift (K ₀ =1.15)	Normal (K ₀ =1.00)	Uplift (K ₀ =1.15)	Normal (K ₀ =1.00)
HHUS26-2	14	3 5/16	5 1/16	3	3 15/16	(14) 16d	(6) 16d	2850	7335	2065	5205
HHUS28-2	14	3 5/16	7 1/32	3	6 5/32	(22) 16d	(8) 16d	3765	8940	2675	6345
HHUS210-2	14	3 5/16	9 3/32	3	8	(30) 16d	(10) 16d	4745	9660	4310	7000
HHUS210-3	14	4 11/16	9	3	7 15/16	(30) 16d	(10) 16d	4745	10545	4310	7485
HHUS210-4	14	6 1/8	8 29/32	3	7 27/32	(30) 16d	(10) 16d	4745	10545	4310	7485
HHUS46	14	3 3/8	5 13/32	3	3 15/16	(14) 16d	(6) 16d	2540	7335	2065	5205
HHUS48	14	3 3/8	7 1/8	3	6 1/8	(22) 16d	(8) 16d	3765	8945	2267	6345
HHUS410	14	3 3/8	9	3	8	(30) 16d	(10) 16d	4745	9855	4310	7000
HHUS5.50/10	14	5 1/2	9	3	8	(30) 16d	(10) 16d	4745	10545	4310	7485
HHUS7.25/10	14	7 1/4	9	3 5/16	7 29/32	(30) 16d	(10) 16d	4745	10770	4310	7650

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

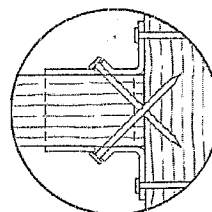


Dome Double Shear Nailing prevents tabs breaking off (available on some models).

U.S. Patent 5,603,580



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



Double Shear Nailing Top View.



LIMIT
STATES
DESIGN

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T-SPECHHUS17 3/17 exp. 6/19

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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:

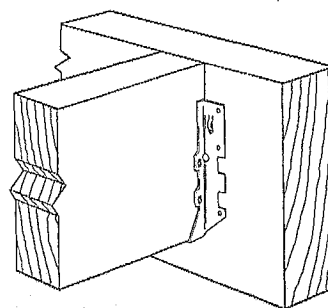
- Factored resistances are in accordance with CSA O86-14.
- Uplift resistances have been increased 15%. No further increase is permitted.
- Wood shear is not considered in the factored resistances given. The specifier must ensure that the joist and header capacities are capable of withstanding these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

Installation:

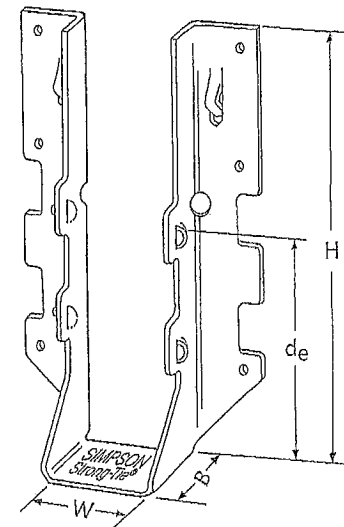
- Use all specified fasteners.
- Nails: 16d = 0.162" dia. x 3½" long common wire, 10d = 0.148" x 3" long common wire.
- Double shear nails must be driven at an angle through the joist or truss into the header to achieve the table loads.
- Not designed for welded or nailer applications.

Options:

- These hangers cannot be modified



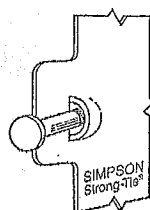
Typical LUS Installation



LUS28

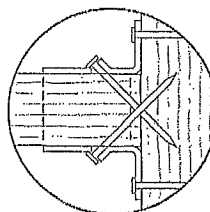
Model No.	Ga.	Dimensions (in.)				Fasteners		Factored Resistance (lb.)			
		W	H	B	d _o ¹	Face	Joist	D.Fir-L		S-P-F	
								Uplift (K _p =1.15)	Normal (K _p =1.00)	Uplift (K _p =1.15)	Normal (K _p =1.00)
LUS24	18	1½	3½	1¾	1 11/16	(4) 10d	(2) 10d	710	1630	645	1155
LUS24-2	18	3½	3½	2	1 11/16	(4) 16d	(2) 16d	835	2020	590	1435
LUS26	18	1½	4¾	1¾	3½	(4) 10d	(4) 10d	1420	2170	1290	1630
LUS26-2	18	3½	4¾	2	4	(4) 16d	(4) 16d	1720	2595	1545	1920
LUS26-3	18	4¾	4¾	2	3¼	(4) 16d	(4) 16d	1720	2595	1545	2340
LUS28	18	1½	6½	1¾	3¾	(6) 10d	(6) 10d	1420	2520	1290	1790
LUS28-2	18	3½	7	2	4	(6) 16d	(4) 16d	1720	3325	1545	2575
LUS28-3	18	4¾	6¼	2	3¼	(6) 16d	(4) 16d	1720	3325	1545	2375
LUS210	18	1½	7 11/16	1¾	3¾	(8) 10d	(4) 10d	1420	2785	1290	2210
LUS210-2	18	3½	9	2	6	(8) 16d	(6) 16d	2580	4500	2320	3195
LUS210-3	18	4¾	8 1/8	2	5¼	(8) 16d	(6) 16d	2580	3345	2320	2375

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

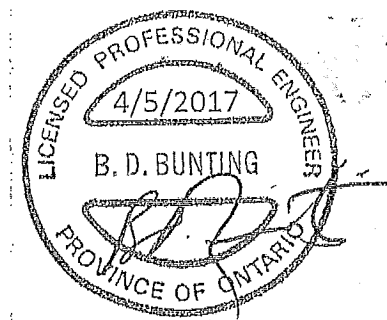


Dome Double Shear Nailing prevents tabs breaking off (available on some models).

U.S. Patent 5,603,580



Double Shear Nailing Top View.



LIMIT STATES DESIGN

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