

ALL CONV. FRAMING TO CONFORM WITH PART 9 OF O.B.C. (Latest Edition) ROOF RAFTERS THAT CROSS MEET OVER TRUSSES TO BE 2X4 SPF #2, 24" O.C. WITH A VERT. POST TO THE TRUSS UNDERBENT AT EACH CROSS PT. TO HAVE LATERAL BRACING SO THAT THE DIST. BETWEEN END PT. & BETWEEN ROWS OF BRACING DOES NOT EXCEED 5'

6-07-00

50-01-00

2-06-00

ALPA-BARRIE

24-00-00

H1
H2
H3

H6P
H6P
H7P

H4(13)
H8P(3)
H7P
H6P
H5P

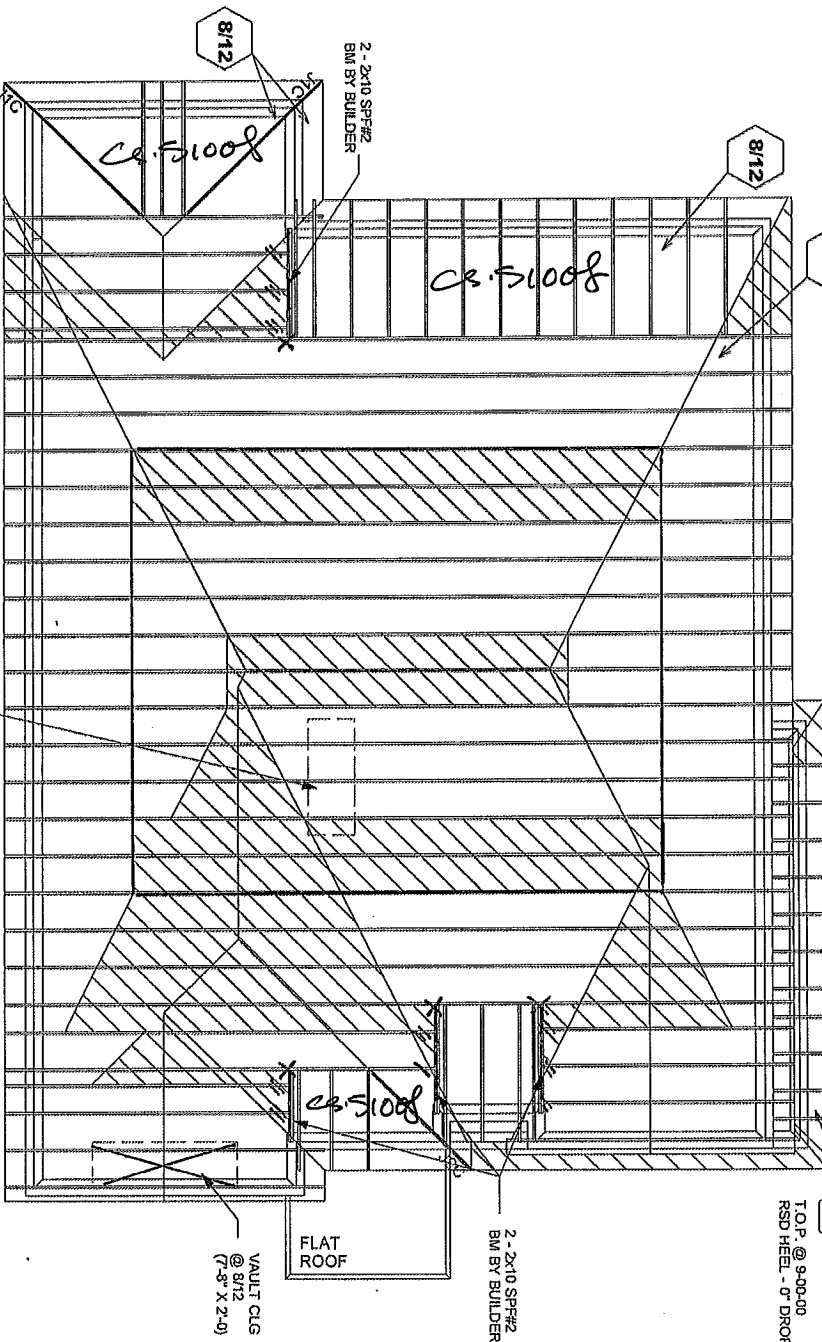
H3
H2
H1A
H22S(3)

H22G

12/12

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

39-10-00
25-00-00
28-03-06
14-10-00
J1(3)
J1(13)



J2(3)
J1(4)
22-08-00
14-10-00
7-10-00
4-02-00
13-00-00
1-10-00

HANGERS
/ LUS24
/ LUS2DS
X HHUS26-2

DRPD COFF. BELOW T.O.P.
(CONFRM) JAN16/18

H12
H11A
H21S
H21S
H21T
H21T

59-02-00

A18023873, A18023875 - A18023883
A18023906 - A18023912

CONFIRM TRUSS LAYOUT DIRECTION
P.L. 95914

CONVENTIONAL
FRAMING BY
OTHERS

CAK GROVE

Model / Elevator
5003 REV1

SHD 02 RT AND FILE (SEEN) 02 CRT
/ B LCGA (GAT)

Builder / Location
GOLD PARK HOMES / VAUGHAN

Job Track 45147
Layout ID: 292639
Plan Log: 95914

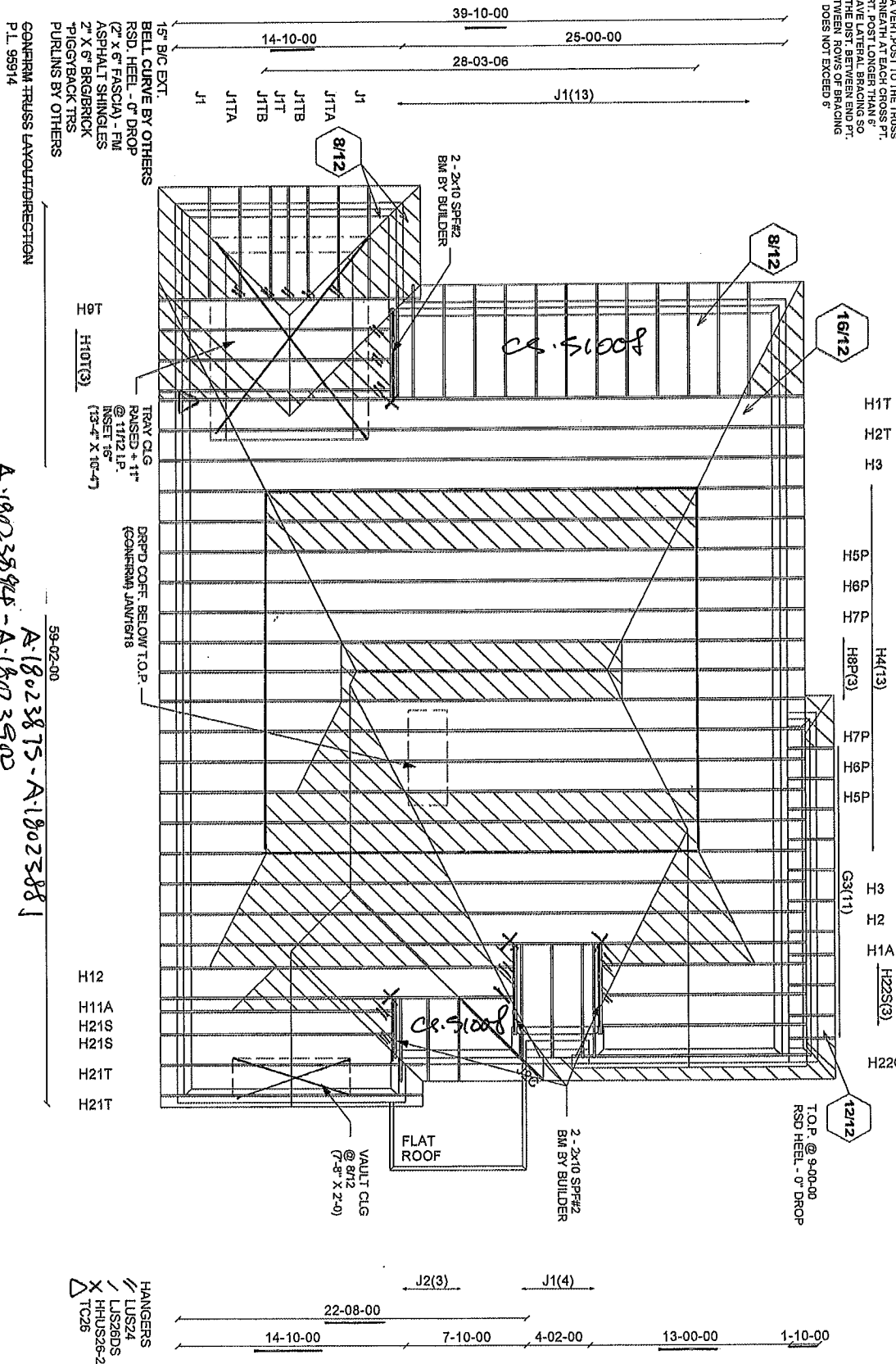
Project PINE VALLEY
Date 1/19/2018
Designer: AMPANDA

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2-06-00

ALPA-B-AP-1



CONVENTIONAL
FRAMING BY
OTHERS

CAK GROUPE

உயர் மொத்த (பேரம்)



Job Track	45147
Layout ID:	292640
Plan Log:	95914

Builder / Location:
GOLD PARK HOMES / VAUGHAN

Project: **PINE VALLEY**

Date: 1/19/2018	Designer: AMANDA
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ALL CONV. FRAMING TO CONFORM WITH PART 9 OF O.B.C. (Latest Edition) ROOF RAFTERS THAT CROSS MEET OVER TRUSSES TO BE 2x4 SPF #2, 24" O.C. WITH A VERT POST TO THE TRUSS UNDERMENT AT EACH CROSS PT. RAFTERS TO BE 2x4 SPF #2, 24" O.C. TO HAVE LATERAL BRACING SO THAT THE DIST. BETWEEN END PT. & BETWEEN ROWS OF BRACING DOES NOT EXCEED 6'

6-07-00

50-01-00

2-06-00

ALPHA-BARRIE

24-00-00

H1TA
H2TA
H3TA

H5P
H6P
H7P

H4(13)
H8P(3)

H7P
H6P
H5P

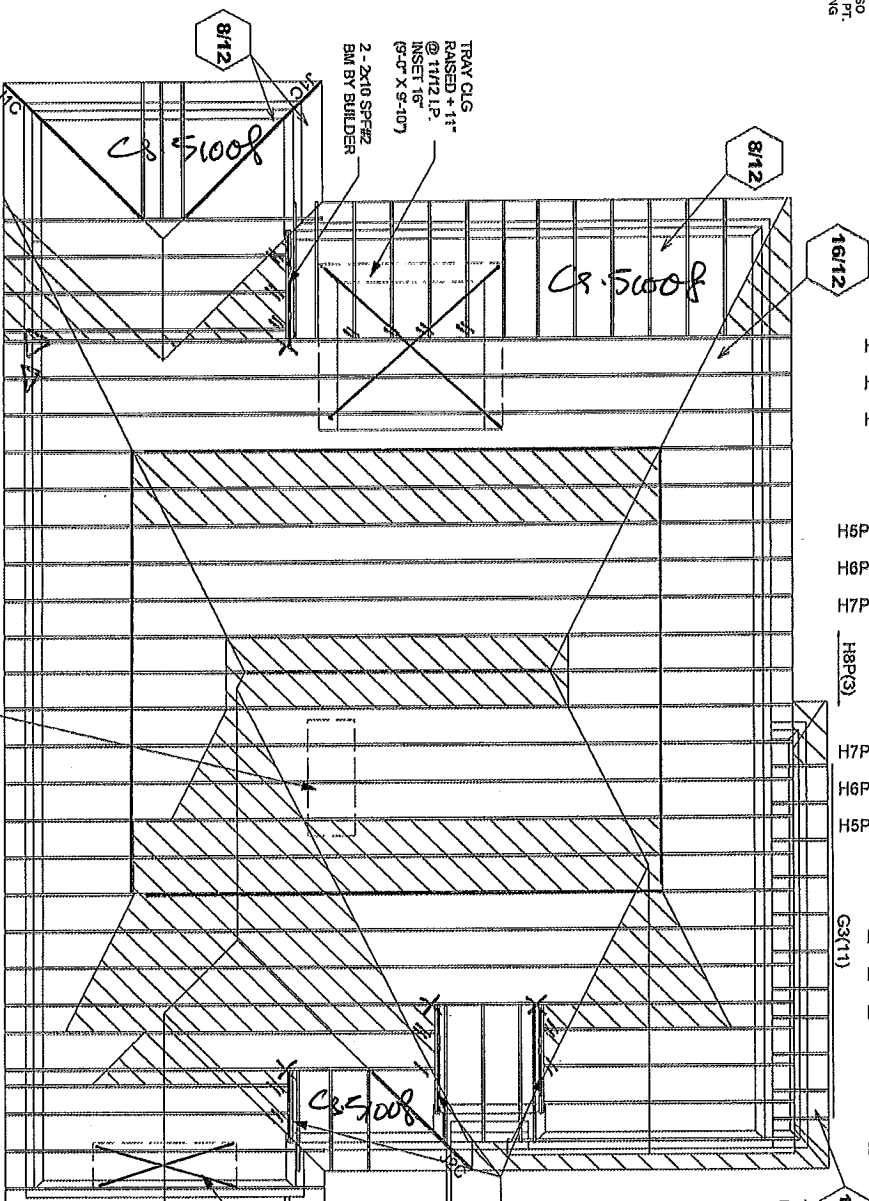
H3
H2
H1A

H22S(3)
H22G

12/12

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

39-10-00
25-00-00
28-03-06
14-10-00
J1(3)
J1
J1T(4)
J1(7)



22-08-00
14-10-00
7-10-00
4-02-00
13-00-00
1-10-00
J2(3)
J1(4)

HANGERS
/ LUS24
/ LUS2DS
X HHUS26-2
△ TC26

DRPD COFF. BELOW T.O.P.
(CONFRAM JAW16/18)

H12
H11A
H21S
H21S
H21T
H21T

59-02-00

CONFIRM TRUSS LAYOUT DIRECTION
P.L. 95914

A-18023875 - A-18023883
A-18023898, A-18023901 - A-18023903

CONVENTIONAL
FRAMING BY
OTHERS

DAKGRUVE

Model / Elevator

5003 REV1

/ B OPT TRAY SIT

02-07 LOG61A(447)



Job Track: 45147

Layout ID: 292641

Plan Log: 95914

Builder / Location:

GOLD PARK HOMES / VAUGHAN

Project: PINE VALLEY

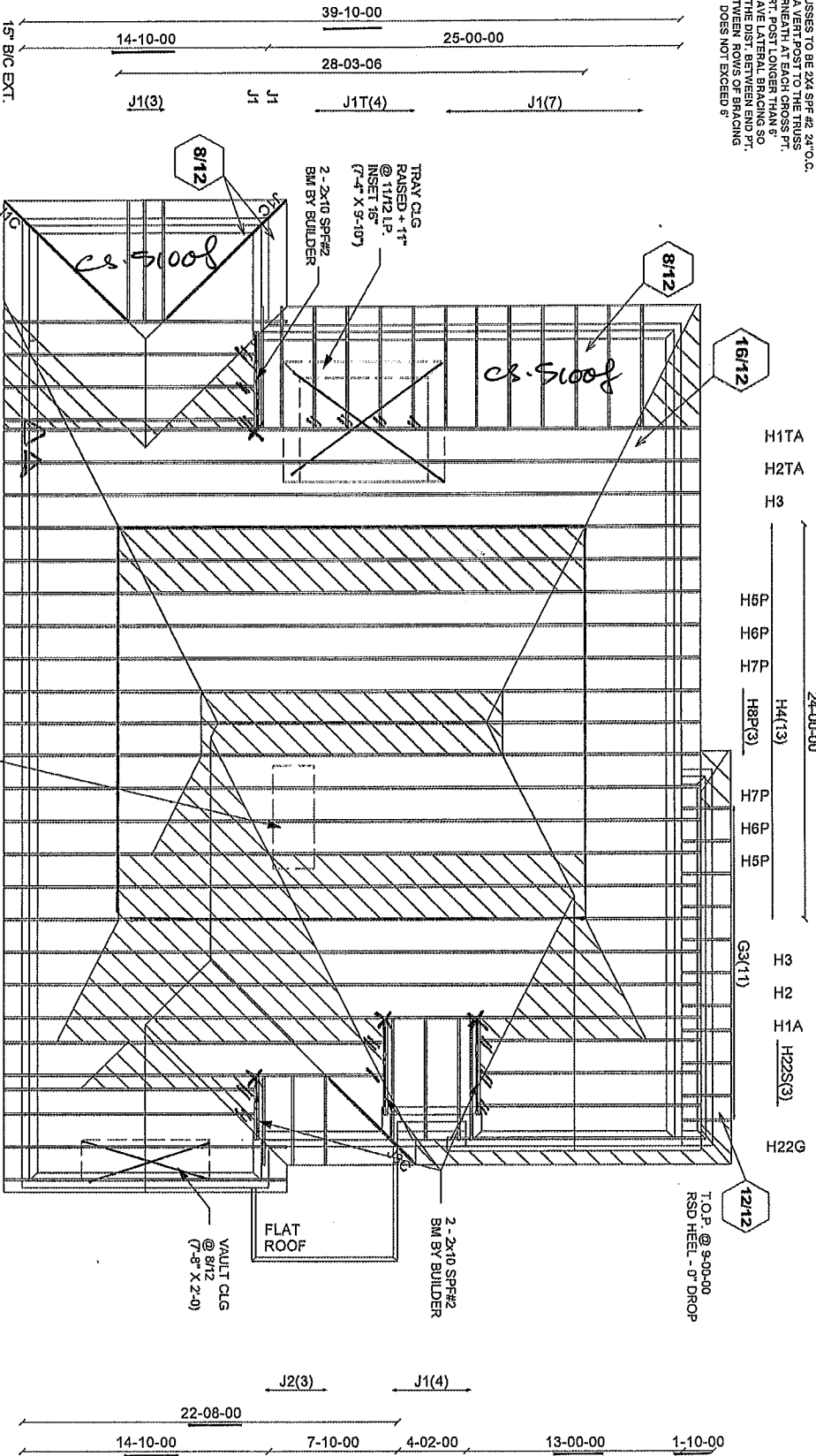
Date: 1/19/2018 Designer: AMANDA

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ALL CONV. FRAMING TO CONFORM WITH PART 9 OF O.B.C. (LATEST EDITION) OVER TRUSSES THAT CROSS MEET. TRUSSES TO BE 2X4 SPF #2 @ 24" O.C. UNDERNEATH ATTACH CROSS PT. VERT. POST LONGER THAN 6' TO HAVE LATERAL BRACING SO THAT THE DIST. BETWEEN END PT. & BETWEEN ROWS OF BRACING DOES NOT EXCEED 8'

6-07-00 50-01-00 24-00-00 2-06-00

ALPHA-BARRIE



HANGERS
 // LUS24
 // LIS26DS
 X HHLIS26-2
 Δ TC28

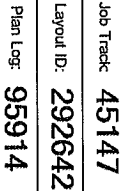
CONVENTIONAL FRAMING BY OTHERS

15' B/C EXT.
 BELL CURVE BY OTHERS
 RSD. HEEL - 0" DROP
 (2" x 6" FASCIA) - FM
 ASPHALT SHINGLES
 2" x 6" BRGBRICK
 PIGGYBACK TRS
 PURLINS BY OTHERS
 CONFIRM TRUSS LAYOUT DIRECTION
 P.L. 95914

59-02-00
 A-18023875-A-18023883
 A-18023898
 A-1803201-A-18033902



Job Track	45147	Builder / Location	GOLD PARK HOMES / VAUGHAN		Model / Elevation	5003 REV1	CR OPT LOGGIA (6.4M)
Layout ID:	292644	Project:	PINE VALLEY				/ B OPT TRAY SIT 5BD
Plan Log:	95914	Date:	7/19/2018	Designer:	AMANDA	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.	



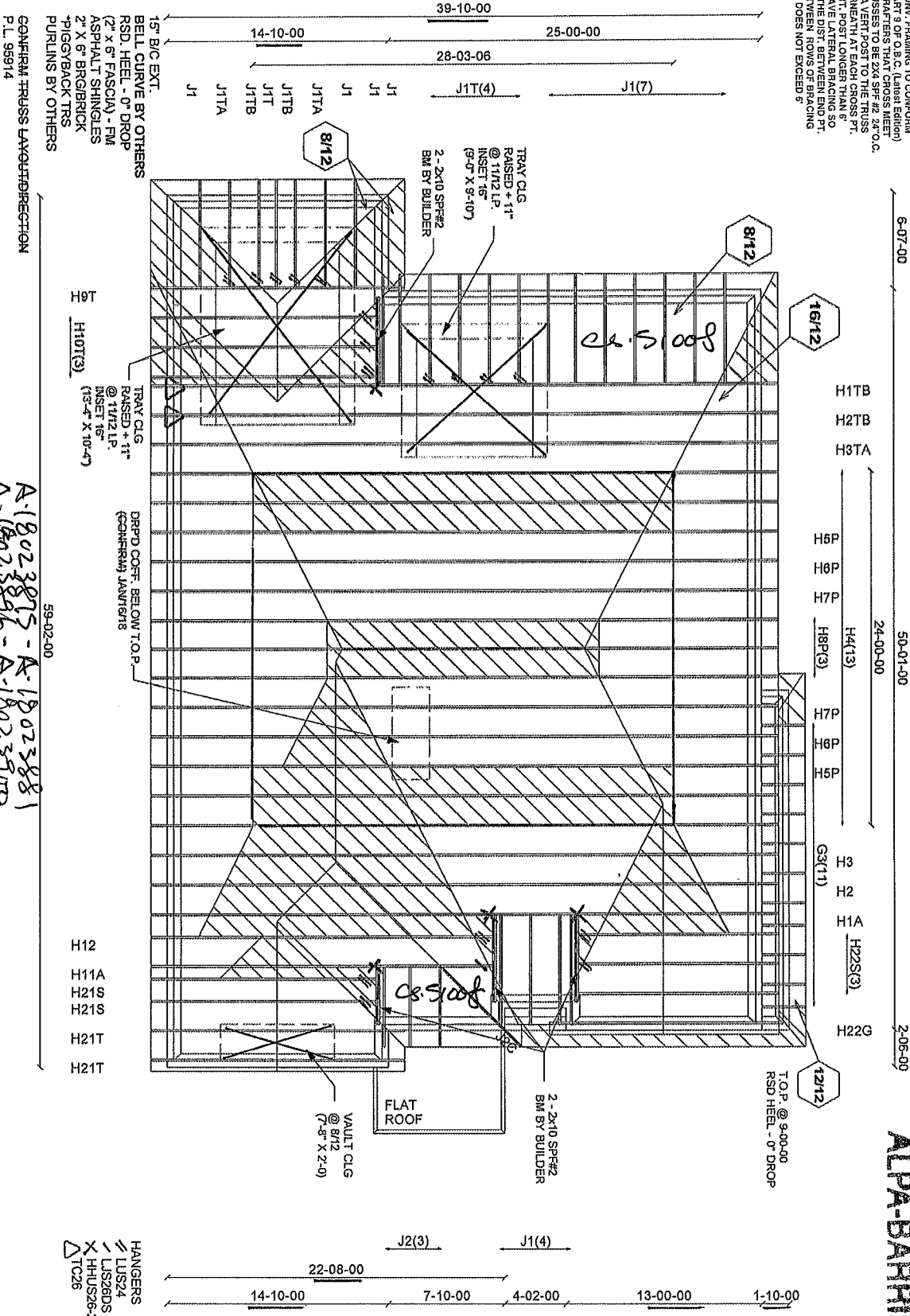
Builder / Location: GOLD PARK HOMES / VAUGHAN

Project: PINE VALLEY

Date: 1/19/2018	Designer: AMANDA
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Model / Elevation: 5003 REV1 / B OPT TRAYS (22 OPT LOGS (4 Ltr))

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



ALPHA-BRAVE

CONVENTIONAL
FRAMING BY
OTHERS

ALL CONN. FRAMING TO CONFORM WITH PART 9 OF O.B.C. (Latest Edition) ROOF RATHERS THAT CROSS MEET OVER TRUSSES TO BE EXPOSED TO O.C. UNDERNEATH AT EACH CROSS PT. VERT. POST LONGER THAN 6' TO HAVE LATERAL BRACING SO THAT THE DIST. BETWEEN END PT. & BETWEEN ROWS OF BRACING DOES NOT EXCEED 6'

6-07-00 50-01-00 2-06-00

ALPA-BARRIE

6-07-00 24-00-00

H1TB H2TB H3 H4(13) H5P H6P H7P H8P(3) H3 H2 H1A H2S(3) H22G

8/12 16/12 12/12

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

39-10-00 25-00-00 28-03-06 J1T(4) J1(7)

J2(3) J1(4) 22-08-00 14-10-00 7-10-00 4-02-00 13-00-00 1-10-00

15" B/C EXT. BELL CURVE BY OTHERS RSD HEEL - 0" DROP (2" x 6" FASCIA) - FRI ASPHALT SHINGLES 2" x 6" BRG/BRICK PIGGYBACK TRS PURLINS BY OTHERS

TRAY CLG RAISED + 1" @ 11/12 I.P. INSET 16" (7'-4" X 8'-10") 2-2x10 SPF#2 BM BY BUILDER

DRPD COFF. BELOW T.O.P. (CONFRMg JAW/16/18)

H12 H11A H21S H21S H21T H21T

FLAT ROOF VAULT CLG @ 8/12 (7'-9" X 2'-0")

HANGERS LUS24 LUS24S X HUS28-2 TC26

GENERAL TRUSS LAYOUT DIRECTION P.L. 95914

59-02-00 A-18023875 - A-18023881 A-18023896 - A-18023900 A-18023904 - A-18023912

CONVENTIONAL FRAMING BY OTHERS



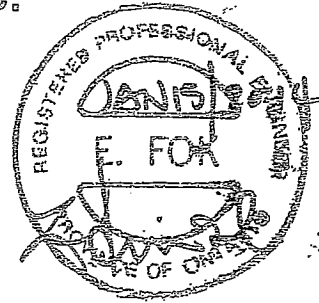
Job Track: 45147 Layout ID: 292643 Plan Log: 95914

Builder / Location: GOLD PARK HOMES / VAUGHAN Project: PINE VALLEY Date: 1/19/2018 Designer: AMANDA

Model / Elevation: 5003 REV1 / B OPT TRAYS 5BD THESE DRAWINGS CONSTITUTE THE PROPERTY OF ALPA ROOF TRUSSES INC., SHALL NOT BE REPRODUCED, PUBLISHED, OR REDISTRIBUTED IN ANY MANNER OR UTILIZED FOR ANY PURPOSE OTHER THAN THE MANUFACTURE OF TRUSSES BY ALPA ROOF TRUSSES INC AND WILL BE RETRACTED BY ALPA ROOF TRUSSES INC IF UTILIZED FOR ANY OTHER PURPOSE.

Stracon Engineering Inc.

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



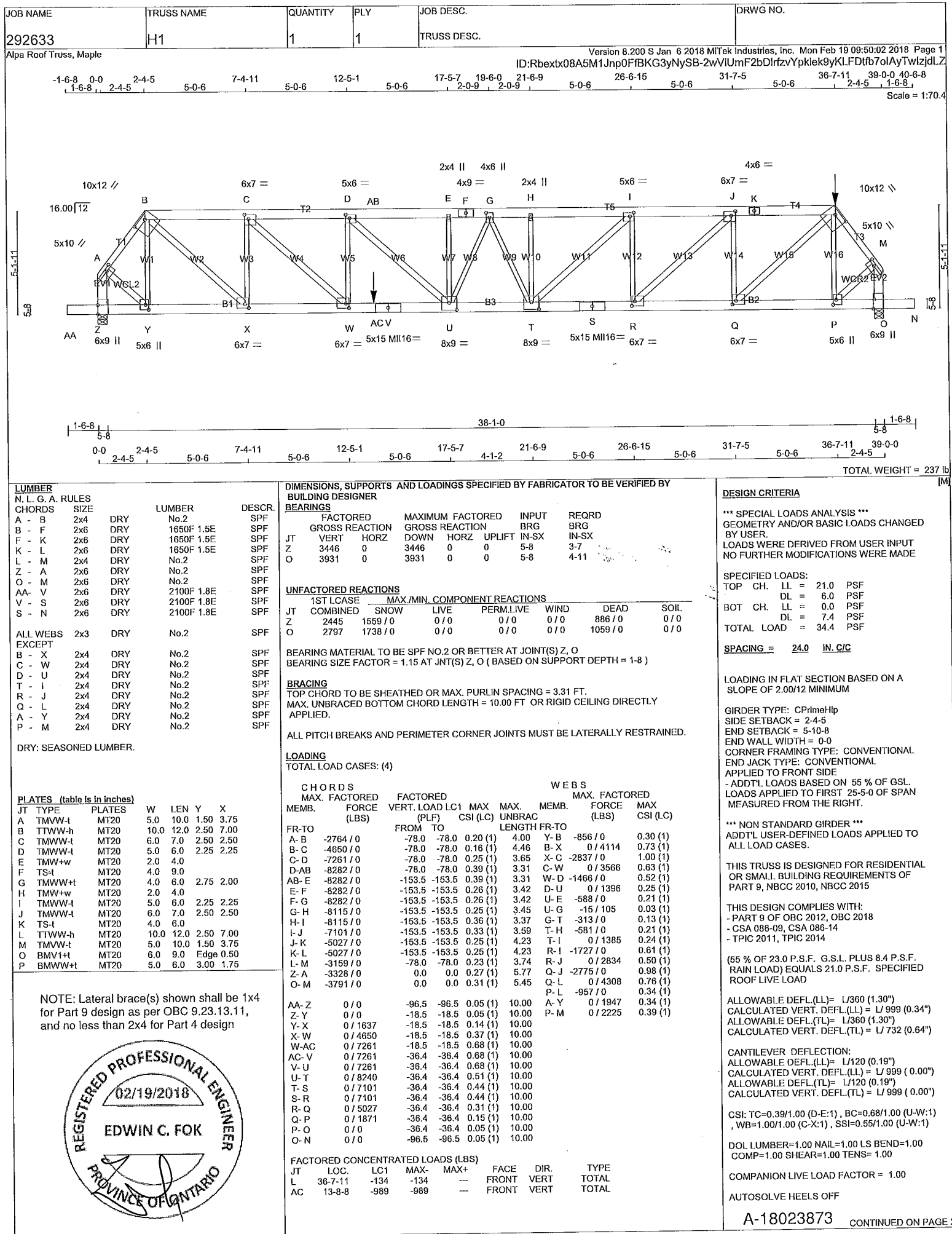
RESPONSIBILITIES

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

SPECIFICATIONS

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

January 15, 2014



JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
292633	H1	1	1	TRUSS DESC.	

PLATES (table is in inches)						
JT	TYPE	PLATES	W	LEN	Y	X
Q	BMWW-I	MT20	6.0	7.0	2.25	2.25
R	BMWW-I	MT20	6.0	7.0	2.75	1.75
S	BS-I	MII16	5.0	15.0		
T	BMWWWW-I	MT20	8.0	9.0	4.25	4.50
U	BMWWWW-I	MT20	8.0	9.0	4.25	4.50
V	BS-I	MII16	5.0	15.0		
W	BMWW-I	MT20	6.0	7.0	2.75	1.75
X	BMWW-I	MT20	6.0	7.0	2.25	2.25
Y	BMWW-I	MT20	5.0	6.0	3.00	1.75
Z	BMV1-I	MT20	6.0	9.0	Edge	

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

HANGERS NOTES
1) SPECIAL HANGER(S) OR CONNECTION(S) REQUIRED TO SUPPORT CONCENTRATED LOAD(S) 134.1 lbs FACTORED DOWN AT 36-7-11 ON TOP CHORD, AND 988.9 lbs FACTORED DOWN AT 13-8-8 ON BOTTOM 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

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

NAIL VALUES

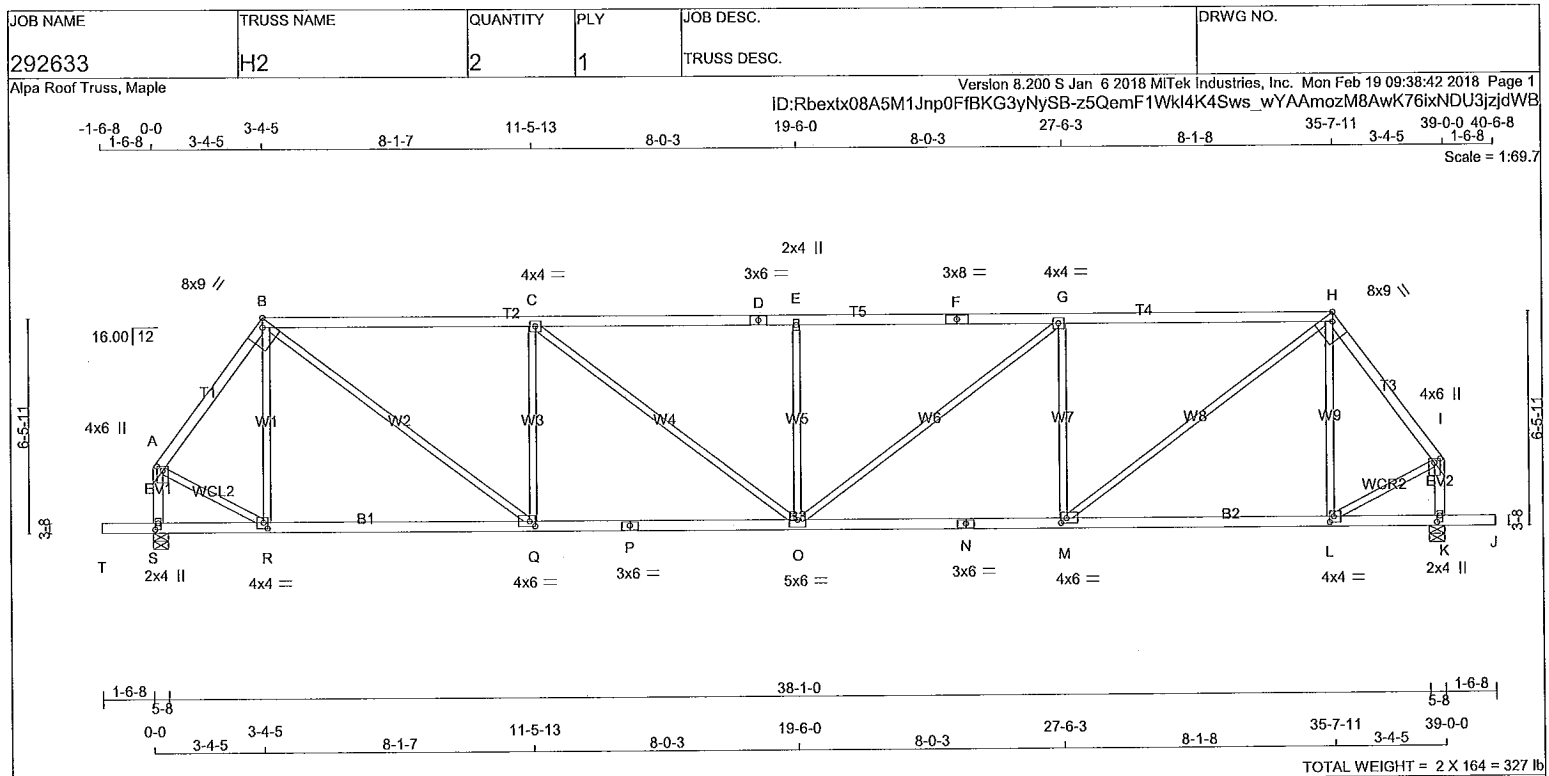
PLATE	GRIP(DRY)	SHEAR	SECTION
	(PSI)	(PLI)	(PLI)
	MAX	MIN	MAX MIN
MT20	618	354	1667 788 1987 1656
MII16	438	276	2341 1245 4283 1656

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.79 (Q) (INPUT = 0.90)
JSI METAL= 0.85 (V) (INPUT = 1.00)

A-18023873(2)



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

DRY: SEASONED LUMBER.

PLATES (table is in inches)					
JT	TYPE	PLATES	W	LEN	Y X
A	TMVW+p	MT20	4.0	6.0	1.50 2.00
B	TTWW-h	MT20	8.0	9.0	Edge 2.75
C	TMWW-t	MT20	4.0	4.0	
D	TS-t	MT20	3.0	6.0	
E	TMW+w	MT20	2.0	4.0	
F	TS-t	MT20	3.0	8.0	
G	TMWW-t	MT20	4.0	4.0	
H	TTWW-h	MT20	8.0	9.0	Edge 2.75
I	TMVW+p	MT20	4.0	6.0	1.50 2.00
K	BMV1+p	MT20	2.0	4.0	2.25 1.00
L	BMWW-t	MT20	4.0	4.0	2.00 1.50
M	BMWW-t	MT20	4.0	6.0	1.75 2.00
N	BS-t	MT20	3.0	6.0	
O	BMWW-t	MT20	5.0	6.0	
P	BS-t	MT20	3.0	6.0	
Q	BMWW-t	MT20	4.0	6.0	1.75 2.00
R	BMWW-t	MT20	4.0	4.0	2.00 1.50
S	BMV1+p	MT20	2.0	4.0	2.25 1.00

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

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

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

JT	FACTORED GROSS REACTION		MAXIMUM FACTORED GROSS REACTION		INPUT BRG	REQRD BRG
	VERT	HORZ	DOWN	HORZ	IN-SX	IN-SX
S	2030	0	2030	0	5-8	3-0
K	2030	0	2030	0	5-8	3-0

UNFACTORED REACTIONS

JT	1ST LCASE COMBINED		MAX./MIN. COMPONENT REACTIONS		WIND	DEAD	SOIL
	SNOW	LIVE	PERM.LIVE				
S	1447	883 / 0	0 / 0	0 / 0	0 / 0	564 / 0	0 / 0
K	1447	883 / 0	0 / 0	0 / 0	0 / 0	564 / 0	0 / 0

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

BRACING

TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 3.56 FT.
MAX. UNBRACED BOTTOM CHORD LENGTH = 10.00 FT. OR RIGID CEILING DIRECTLY APPLIED.

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

LOADING

TOTAL LOAD CASES: (4)

CHORDS				WEBS			
MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	MAX. FACTORED LC1 (LC)	MEMB.	MAX. FACTORED FORCE (LBS)	MAX. FACTORED LC1 (LC)	
FR-TO		FROM	TO	FR-TO			
A-B	-1614 / 0	-78.0	-78.0 0.21 (1)	5.02	R-B	-318 / 0	0.22 (1)
B-C	-2566 / 0	-78.0	-78.0 0.92 (1)	3.86	B-Q	0 / 2018	0.45 (1)
C-D	-3036 / 0	-78.0	-78.0 1.00 (1)	3.56	Q-C	-1065 / 0	0.73 (1)
D-E	-3036 / 0	-78.0	-78.0 1.00 (1)	3.56	C-O	0 / 592	0.13 (1)
E-F	-3036 / 0	-78.0	-78.0 1.00 (1)	3.56	O-E	-577 / 0	0.39 (1)
F-G	-3036 / 0	-78.0	-78.0 1.00 (1)	3.56	O-G	0 / 592	0.13 (1)
G-H	-2566 / 0	-78.0	-78.0 0.92 (1)	3.86	M-G	-1065 / 0	0.73 (1)
H-I	-1614 / 0	-78.0	-78.0 0.21 (1)	5.02	M-H	0 / 2018	0.45 (1)
S-A	-1873 / 0	0.0	0.0 0.22 (1)	6.13	L-H	-318 / 0	0.22 (1)
K-I	-1873 / 0	0.0	0.0 0.22 (1)	6.13	A-R	0 / 1060	0.24 (1)
					L-I	0 / 1060	0.24 (1)
T-S	0 / 0	-96.5	-96.5 0.16 (1)	10.00			
S-R	0 / 0	-18.5	-18.5 0.18 (4)	10.00			
R-Q	0 / 956	-18.5	-18.5 0.33 (4)	10.00			
Q-P	0 / 2567	-18.5	-18.5 0.54 (1)	10.00			
P-O	0 / 2567	-18.5	-18.5 0.54 (1)	10.00			
O-N	0 / 2567	-18.5	-18.5 0.54 (1)	10.00			
N-M	0 / 2567	-18.5	-18.5 0.54 (1)	10.00			
M-L	0 / 956	-18.5	-18.5 0.33 (4)	10.00			
L-K	0 / 0	-18.5	-18.5 0.18 (4)	10.00			
K-J	0 / 0	-96.5	-96.5 0.16 (1)	10.00			

DESIGN CRITERIA

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

SPACING = 24.0 IN. C/C

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

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

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

(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 (1.30")
CALCULATED VERT. DEFL.(LL) = L/999 (0.17")
ALLOWABLE DEFL.(TL) = L/360 (1.30")
CALCULATED VERT. DEFL.(TL) = L/999 (0.35")

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=1.00/1.00 (C-E:1), BC=0.54/1.00 (M-O:1), WB=0.73/1.00 (G-M:1), SS=0.30/1.00 (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

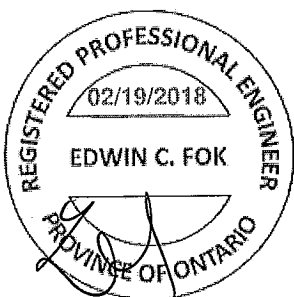
PLATE PLACEMENT TOL. = 0.250 inches

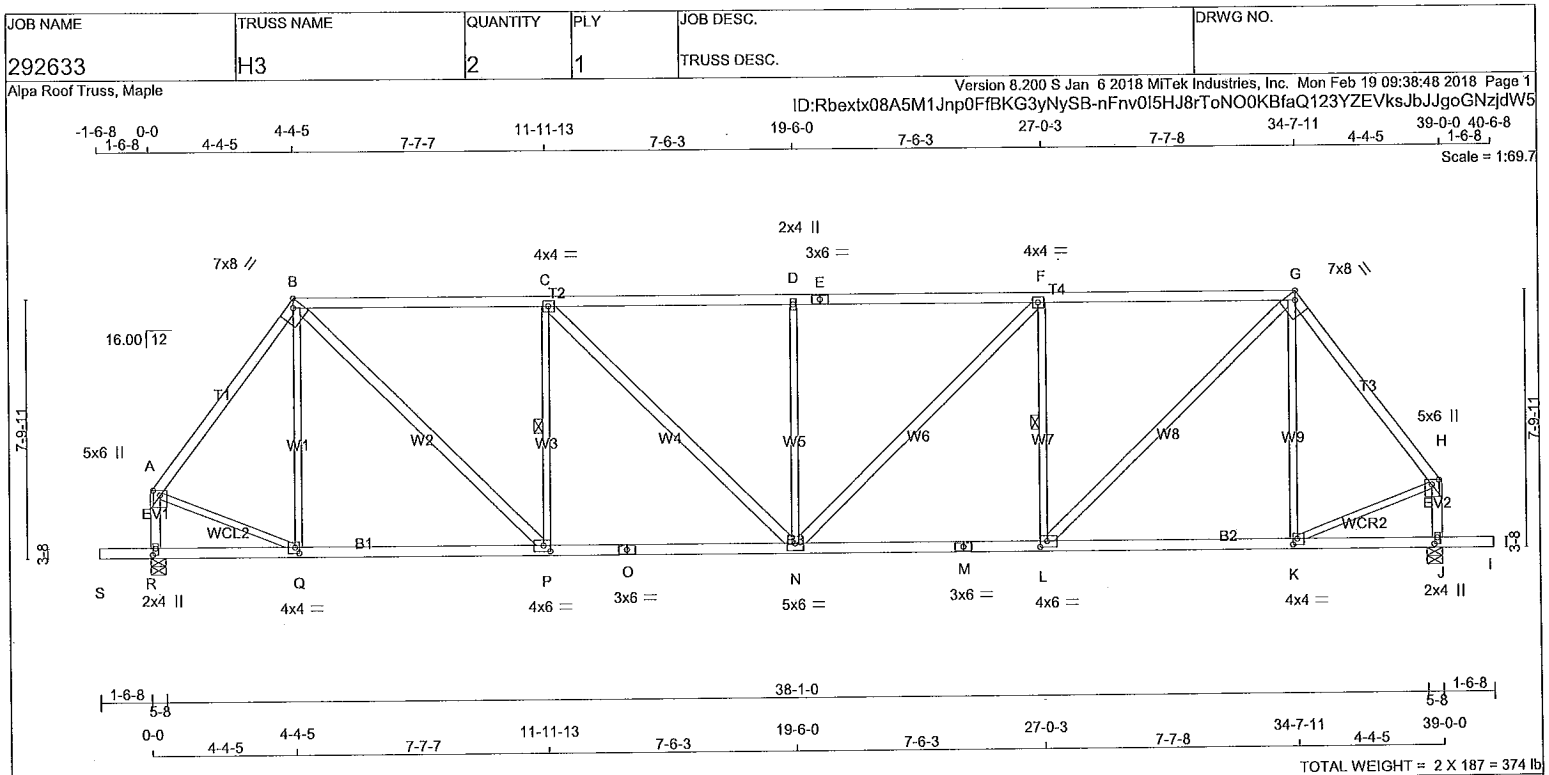
PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.89 (A) (INPUT = 0.90)
JSI METAL= 0.85 (P) (INPUT = 1.00)

A-18023875

CONTINUED ON PAGE 2





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

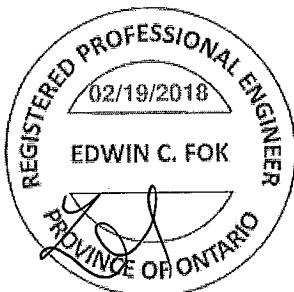
DRY: SEASONED LUMBER.

PLATES (table is in inches)

JT	TYPE	PLATES	W	LEN	Y	X
A	TMVW+p	MT20	5.0	6.0	1.75	2.50
B	TTWW-h	MT20	7.0	8.0	Edge	2.75
C	TMWW-t	MT20	4.0	4.0		
D	TMW-w	MT20	2.0	4.0		
E	TS-t	MT20	3.0	6.0		
F	TMWW-t	MT20	4.0	4.0		
G	TTWW-h	MT20	7.0	8.0	Edge	2.75
H	TMVW+p	MT20	5.0	6.0	1.75	2.50
J	BMV1+p	MT20	2.0	4.0	2.25	1.00
K	BMWW-t	MT20	4.0	4.0	2.00	1.50
L	BMWW-t	MT20	4.0	6.0	2.00	2.50
M	BS-t	MT20	3.0	6.0		
N	BMWWW-t	MT20	5.0	6.0		
O	BS-t	MT20	3.0	6.0		
P	BMWW-t	MT20	4.0	6.0	2.00	2.50
Q	BMWW-t	MT20	4.0	4.0	2.00	1.50
R	BMV1+p	MT20	2.0	4.0	2.25	1.00

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

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



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

BEARINGS		FACTORED GROSS REACTION		MAXIMUM FACTORED GROSS REACTION		INPUT BRG		REQRD BRG	
JT		VERT	HORZ	DOWN	HORZ	UPLIFT	IN-SX	IN-SX	
R	2030	0	2030	0	0	5-8	3-0		
J	2030	0	2030	0	0	5-8	3-0		

UNFACTORED REACTIONS

1ST LCASE		MAX/MIN. COMPONENT REACTIONS		WIND		DEAD		SOIL	
JT	COMBINED	SNOW	LIVE	PERM.LIVE					
R	1447	883 / 0	0 / 0	0 / 0	0 / 0	564 / 0	0 / 0		
J	1447	883 / 0	0 / 0	0 / 0	0 / 0	564 / 0	0 / 0		

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

BRACING

TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 4.09 FT.
MAX. UNBRACED BOTTOM CHORD LENGTH = 10.00 FT OR RIGID CEILING DIRECTLY APPLIED.

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

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

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

LOADING

TOTAL LOAD CASES: (4)

CHORDS				WEBS			
MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	MAX. FACTORED LC1 (LC)	MEMB.	MAX. FACTORED FORCE (LBS)	MAX. FACTORED UNBRACED LENGTH (LC)	
FR-TO		FROM	TO	FR-TO			
A-B	-1657 / 0	-78.0	-78.0 0.37 (1)	Q-B	-232 / 0	0.26 (1)	
B-C	-2152 / 0	-78.0	-78.0 0.72 (1)	B-P	0 / 1633	0.26 (1)	
C-D	-2490 / 0	-78.0	-78.0 0.76 (1)	P-C	-999 / 0	0.38 (1)	
D-E	-2490 / 0	-78.0	-78.0 0.76 (1)	C-N	0 / 478	0.08 (1)	
E-F	-2490 / 0	-78.0	-78.0 0.76 (1)	N-D	-541 / 0	0.62 (1)	
F-G	-2152 / 0	-78.0	-78.0 0.72 (1)	D-F	0 / 478	0.08 (1)	
G-H	-1657 / 0	-78.0	-78.0 0.37 (1)	L-F	-999 / 0	0.38 (1)	
R-A	-1855 / 0	0.0	0.0 0.21 (1)	L-G	0 / 1633	0.26 (1)	
J-H	-1855 / 0	0.0	0.0 0.21 (1)	K-G	-232 / 0	0.26 (1)	
				A-Q	0 / 1051	0.24 (1)	
				K-H	0 / 1051	0.24 (1)	
S-R	0 / 0	-96.5	-96.5 0.16 (1)				
R-Q	0 / 0	-18.5	-18.5 0.16 (4)				
Q-P	0 / 986	-18.5	-18.5 0.31 (4)				
P-O	0 / 2152	-18.5	-18.5 0.46 (1)				
O-N	0 / 2152	-18.5	-18.5 0.46 (1)				
N-M	0 / 2152	-18.5	-18.5 0.46 (1)				
M-L	0 / 2152	-18.5	-18.5 0.46 (1)				
L-K	0 / 986	-18.5	-18.5 0.31 (4)				
K-J	0 / 0	-18.5	-18.5 0.16 (4)				
J-I	0 / 0	-96.5	-96.5 0.16 (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 (1.30")
CALCULATED VERT. DEFL.(LL)= L/999 (0.12")
ALLOWABLE DEFL.(TL)= L/360 (1.30")
CALCULATED VERT. DEFL.(TL)= L/999 (0.25")

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=0.76/1.00 (D-F:1), BC=0.46/1.00 (L-N:1), WB=0.62/1.00 (D-N: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

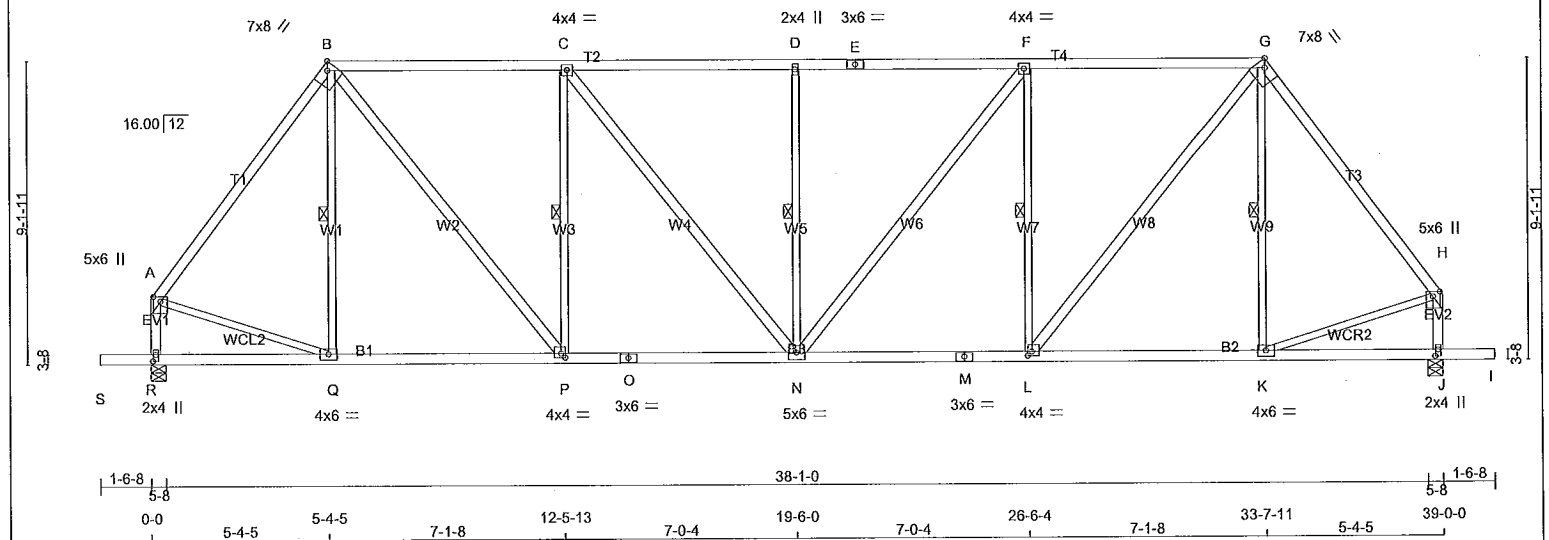
TRUSS PLATE MANUFACTURER IS NOT RESPONSIBLE FOR QUALITY CONTROL IN THE TRUSS MANUFACTURING PLANT.

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= 0.87 (L) (INPUT = 0.90)
JSI METAL= 0.69 (O) (INPUT = 1.00)



LUMBER N. L. G. A. RULES <table><thead><tr><th>CHORDS</th><th>SIZE</th><th>LUMBER</th><th>DESCR.</th></tr></thead><tbody><tr><td>A - B</td><td>2x4</td><td>DRY No.2</td><td>SPF</td></tr><tr><td>B - E</td><td>2x4</td><td>DRY No.2</td><td>SPF</td></tr><tr><td>E - G</td><td>2x4</td><td>DRY No.2</td><td>SPF</td></tr><tr><td>G - H</td><td>2x4</td><td>DRY No.2</td><td>SPF</td></tr><tr><td>R - A</td><td>2x4</td><td>DRY No.2</td><td>SPF</td></tr><tr><td>J - H</td><td>2x4</td><td>DRY No.2</td><td>SPF</td></tr><tr><td>S - O</td><td>2x4</td><td>DRY No.2</td><td>SPF</td></tr><tr><td>O - M</td><td>2x4</td><td>DRY No.2</td><td>SPF</td></tr><tr><td>M - I</td><td>2x4</td><td>DRY No.2</td><td>SPF</td></tr></tbody></table> ALL WEBS 2x3 DRY No.2 SPF EXCEPT <table><tbody><tr><td>B - P</td><td>2x4</td><td>DRY No.2</td><td>SPF</td></tr><tr><td>C - N</td><td>2x4</td><td>DRY No.2</td><td>SPF</td></tr><tr><td>N - F</td><td>2x4</td><td>DRY No.2</td><td>SPF</td></tr><tr><td>L - G</td><td>2x4</td><td>DRY No.2</td><td>SPF</td></tr></tbody></table> DRY: SEASONED LUMBER.										CHORDS	SIZE	LUMBER	DESCR.	A - B	2x4	DRY No.2	SPF	B - E	2x4	DRY No.2	SPF	E - G	2x4	DRY No.2	SPF	G - H	2x4	DRY No.2	SPF	R - A	2x4	DRY No.2	SPF	J - H	2x4	DRY No.2	SPF	S - O	2x4	DRY No.2	SPF	O - M	2x4	DRY No.2	SPF	M - I	2x4	DRY No.2	SPF	B - P	2x4	DRY No.2	SPF	C - N	2x4	DRY No.2	SPF	N - F	2x4	DRY No.2	SPF	L - G	2x4	DRY No.2	SPF	DIMENSIONS, SUPPORTS AND LOADINGS SPECIFIED BY FABRICATOR TO BE VERIFIED BY BUILDING DESIGNER BEARINGS <table><thead><tr><th></th><th>FACTORED GROSS REACTION</th><th>MAXIMUM FACTORED GROSS REACTION</th><th>INPUT BRG</th><th>REQRD BRG</th></tr><tr><th>JT</th><th>VERT</th><th>HORZ</th><th>DOWN</th><th>HORZ</th><th>UPLIFT</th><th>IN-SX</th><th>IN-SX</th></tr></thead><tbody><tr><td>R</td><td>2136</td><td>0</td><td>2136</td><td>0</td><td>0</td><td>5-8</td><td>3-4</td></tr><tr><td>J</td><td>2136</td><td>0</td><td>2136</td><td>0</td><td>0</td><td>5-8</td><td>3-4</td></tr></tbody></table> UNFACTORED REACTIONS <table><thead><tr><th>1ST LCASE</th><th colspan="6">MAX./MIN. COMPONENT REACTIONS</th></tr><tr><th>JT</th><th>COMBINED</th><th>SNOW</th><th>LIVE</th><th>PERM.LIVE</th><th>WIND</th><th>DEAD</th><th>SOIL</th></tr></thead><tbody><tr><td>R</td><td>1532</td><td>883 / 0</td><td>0 / 0</td><td>0 / 0</td><td>0 / 0</td><td>649 / 0</td><td>0 / 0</td></tr><tr><td>J</td><td>1532</td><td>883 / 0</td><td>0 / 0</td><td>0 / 0</td><td>0 / 0</td><td>649 / 0</td><td>0 / 0</td></tr></tbody></table> BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S) R, J BRACING FOR SECTION B-G, MAX. PURLIN SPACING = 2.00 FT. FOR OTHER SECTIONS, TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 4.68 FT. MAX. UNBRACED BOTTOM CHORD LENGTH = 10.00 FT OR RIGID CEILING DIRECTLY APPLIED. ALL PITCH BREAKS AND PERIMETER CORNER JOINTS MUST BE Laterally RESTRAINED. 1 LATERAL BRACE(S) AT 1/2 LENGTH OF B-Q, C-P, D-N, F-L, G-K. END VERTICAL(S) MUST BE SHEATHED OR HAVE BRACES AS INDICATED IN THE MAX. UNBRACED LENGTH COLUMN OF THE TABLE BELOW LOADING TOTAL LOAD CASES: (4) <table><thead><tr><th colspan="4">CHORDS</th><th colspan="4">WEBS</th></tr><tr><th>MEMB.</th><th>MAX. FACTORED FORCE (LBS)</th><th>FACTORED VERT. LOAD LC1 (PLF)</th><th>MAX. UNBRACED LENGTH FR-TO</th><th>MEMB.</th><th>MAX. FACTORED FORCE (LBS)</th><th>MAX. UNBRACED LENGTH FR-TO</th><th>MAX. UNBRACED LENGTH FR-TO</th></tr></thead><tbody><tr><td>A-B</td><td>-1781 / 0</td><td>-78.0 -78.0 0.43 (1)</td><td>4.68</td><td>Q-B</td><td>-185 / 6</td><td>0.10 (1)</td><td></td></tr><tr><td>B-C</td><td>-1992 / 0</td><td>-85.5 -85.5 0.61 (1)</td><td>2.00</td><td>B-P</td><td>0 / 1479</td><td>0.24 (1)</td><td></td></tr><tr><td>C-D</td><td>-2261 / 0</td><td>-85.5 -85.5 0.61 (1)</td><td>2.00</td><td>P-C</td><td>-1018 / 0</td><td>0.55 (1)</td><td></td></tr><tr><td>D-E</td><td>-2261 / 0</td><td>-85.5 -85.5 0.61 (1)</td><td>2.00</td><td>C-N</td><td>0 / 433</td><td>0.07 (1)</td><td></td></tr><tr><td>E-F</td><td>-2261 / 0</td><td>-85.5 -85.5 0.61 (1)</td><td>2.00</td><td>N-D</td><td>-553 / 0</td><td>0.30 (1)</td><td></td></tr><tr><td>F-G</td><td>-1992 / 0</td><td>-85.5 -85.5 0.61 (1)</td><td>2.00</td><td>N-F</td><td>0 / 433</td><td>0.07 (1)</td><td></td></tr><tr><td>G-H</td><td>-1781 / 0</td><td>-78.0 -78.0 0.43 (1)</td><td>4.68</td><td>L-F</td><td>-1018 / 0</td><td>0.55 (1)</td><td></td></tr><tr><td>R-A</td><td>-1950 / 0</td><td>0.0 0.0 0.22 (1)</td><td>6.03</td><td>L-G</td><td>0 / 1479</td><td>0.24 (1)</td><td></td></tr><tr><td>J-H</td><td>-1950 / 0</td><td>0.0 0.0 0.22 (1)</td><td>6.03</td><td>K-G</td><td>-185 / 6</td><td>0.10 (1)</td><td></td></tr><tr><td></td><td></td><td></td><td></td><td>A-Q</td><td>0 / 1109</td><td>0.25 (1)</td><td></td></tr><tr><td></td><td></td><td></td><td></td><td>K-H</td><td>0 / 1109</td><td>0.25 (1)</td><td></td></tr><tr><td>S-R</td><td>0 / 0</td><td>-96.5 -96.5 0.16 (1)</td><td>10.00</td><td></td><td></td><td></td><td></td></tr><tr><td>R-Q</td><td>0 / 0</td><td>-18.5 -18.5 0.17 (4)</td><td>10.00</td><td></td><td></td><td></td><td></td></tr><tr><td>Q-P</td><td>0 / 1062</td><td>-18.5 -18.5 0.29 (4)</td><td>10.00</td><td></td><td></td><td></td><td></td></tr><tr><td>P-O</td><td>0 / 1992</td><td>-18.5 -18.5 0.42 (1)</td><td>10.00</td><td></td><td></td><td></td><td></td></tr><tr><td>O-N</td><td>0 / 1992</td><td>-18.5 -18.5 0.42 (1)</td><td>10.00</td><td></td><td></td><td></td><td></td></tr><tr><td>N-M</td><td>0 / 1992</td><td>-18.5 -18.5 0.42 (1)</td><td>10.00</td><td></td><td></td><td></td><td></td></tr><tr><td>M-L</td><td>0 / 1992</td><td>-18.5 -18.5 0.42 (1)</td><td>10.00</td><td></td><td></td><td></td><td></td></tr><tr><td>L-K</td><td>0 / 1062</td><td>-18.5 -18.5 0.29 (4)</td><td>10.00</td><td></td><td></td><td></td><td></td></tr><tr><td>K-J</td><td>0 / 0</td><td>-18.5 -18.5 0.17 (4)</td><td>10.00</td><td></td><td></td><td></td><td></td></tr><tr><td>J-I</td><td>0 / 0</td><td>-96.5 -96.5 0.16 (1)</td><td>10.00</td><td></td><td></td><td></td><td></td></tr></tbody></table>											FACTORED GROSS REACTION	MAXIMUM FACTORED GROSS REACTION	INPUT BRG	REQRD BRG	JT	VERT	HORZ	DOWN	HORZ	UPLIFT	IN-SX	IN-SX	R	2136	0	2136	0	0	5-8	3-4	J	2136	0	2136	0	0	5-8	3-4	1ST LCASE	MAX./MIN. COMPONENT REACTIONS						JT	COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL	R	1532	883 / 0	0 / 0	0 / 0	0 / 0	649 / 0	0 / 0	J	1532	883 / 0	0 / 0	0 / 0	0 / 0	649 / 0	0 / 0	CHORDS				WEBS				MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD LC1 (PLF)	MAX. UNBRACED LENGTH FR-TO	MEMB.	MAX. FACTORED FORCE (LBS)	MAX. UNBRACED LENGTH FR-TO	MAX. UNBRACED LENGTH FR-TO	A-B	-1781 / 0	-78.0 -78.0 0.43 (1)	4.68	Q-B	-185 / 6	0.10 (1)		B-C	-1992 / 0	-85.5 -85.5 0.61 (1)	2.00	B-P	0 / 1479	0.24 (1)		C-D	-2261 / 0	-85.5 -85.5 0.61 (1)	2.00	P-C	-1018 / 0	0.55 (1)		D-E	-2261 / 0	-85.5 -85.5 0.61 (1)	2.00	C-N	0 / 433	0.07 (1)		E-F	-2261 / 0	-85.5 -85.5 0.61 (1)	2.00	N-D	-553 / 0	0.30 (1)		F-G	-1992 / 0	-85.5 -85.5 0.61 (1)	2.00	N-F	0 / 433	0.07 (1)		G-H	-1781 / 0	-78.0 -78.0 0.43 (1)	4.68	L-F	-1018 / 0	0.55 (1)		R-A	-1950 / 0	0.0 0.0 0.22 (1)	6.03	L-G	0 / 1479	0.24 (1)		J-H	-1950 / 0	0.0 0.0 0.22 (1)	6.03	K-G	-185 / 6	0.10 (1)						A-Q	0 / 1109	0.25 (1)						K-H	0 / 1109	0.25 (1)		S-R	0 / 0	-96.5 -96.5 0.16 (1)	10.00					R-Q	0 / 0	-18.5 -18.5 0.17 (4)	10.00					Q-P	0 / 1062	-18.5 -18.5 0.29 (4)	10.00					P-O	0 / 1992	-18.5 -18.5 0.42 (1)	10.00					O-N	0 / 1992	-18.5 -18.5 0.42 (1)	10.00					N-M	0 / 1992	-18.5 -18.5 0.42 (1)	10.00					M-L	0 / 1992	-18.5 -18.5 0.42 (1)	10.00					L-K	0 / 1062	-18.5 -18.5 0.29 (4)	10.00					K-J	0 / 0	-18.5 -18.5 0.17 (4)	10.00					J-I	0 / 0	-96.5 -96.5 0.16 (1)	10.00					DESIGN CRITERIA SPECIFIED LOADS: <table><tbody><tr><td>TOP CH.</td><td>LL</td><td>=</td><td>21.0</td><td>PSF</td></tr><tr><td></td><td>DL</td><td>=</td><td>6.0</td><td>PSF</td></tr><tr><td>BOT CH.</td><td>LL</td><td>=</td><td>0.0</td><td>PSF</td></tr><tr><td></td><td>DL</td><td>=</td><td>7.4</td><td>PSF</td></tr><tr><td>TOTAL LOAD</td><td>=</td><td>34.4</td><td>PSF</td><td></td></tr></tbody></table> 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 (1.30") CALCULATED VERT. DEFL.(LL) = L/999 (0.10") ALLOWABLE DEFL.(TL)= L/360 (1.30") CALCULATED VERT. DEFL.(TL) = L/999 (0.22") CANTILEVER DEFLECTION: ALLOWABLE DEFL.(LL)= L/120 (0.19") CALCULATED VERT. DEFL.(LL) = L/999 (0.01") ALLOWABLE DEFL.(TL)= L/120 (0.19") CALCULATED VERT. DEFL.(TL) = L/999 (0.01") CSI: TC=0.61/1.00 (B-C:1), BC=0.42/1.00 (N-P:1), WB=0.55/1.00 (F-L:1), SSI=0.29/1.00 (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 <table><thead><tr><th>PLATE</th><th>GRIP(DRY)</th><th>SHEAR</th><th>SECTION</th></tr><tr><th></th><th>(PSI)</th><th>(PLI)</th><th>(PLI)</th></tr><tr><th></th><th>MAX</th><th>MIN</th><th>MAX</th><th>MIN</th><th>MAX</th><th>MIN</th></tr></thead><tbody><tr><td>MT20</td><td>618</td><td>354</td><td>1667</td><td>788</td><td>1987</td><td>1656</td></tr></tbody></table> PLATE PLACEMENT TOL. = 0.250 inches PLATE ROTATION TOL. = 5.0 Deg. JSI GRIP= 0.89 (H) (INPUT = 0.90) JSI METAL= 0.61 (O) (INPUT = 1.00)										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		PLATE	GRIP(DRY)	SHEAR	SECTION		(PSI)	(PLI)	(PLI)		MAX	MIN	MAX	MIN	MAX	MIN	MT20	618	354	1667	788	1987	1656
CHORDS	SIZE	LUMBER	DESCR.																																																																																																																																																																																																																																																																																																																																																																																					
A - B	2x4	DRY No.2	SPF																																																																																																																																																																																																																																																																																																																																																																																					
B - E	2x4	DRY No.2	SPF																																																																																																																																																																																																																																																																																																																																																																																					
E - G	2x4	DRY No.2	SPF																																																																																																																																																																																																																																																																																																																																																																																					
G - H	2x4	DRY No.2	SPF																																																																																																																																																																																																																																																																																																																																																																																					
R - A	2x4	DRY No.2	SPF																																																																																																																																																																																																																																																																																																																																																																																					
J - H	2x4	DRY No.2	SPF																																																																																																																																																																																																																																																																																																																																																																																					
S - O	2x4	DRY No.2	SPF																																																																																																																																																																																																																																																																																																																																																																																					
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B - P	2x4	DRY No.2	SPF																																																																																																																																																																																																																																																																																																																																																																																					
C - N	2x4	DRY No.2	SPF																																																																																																																																																																																																																																																																																																																																																																																					
N - F	2x4	DRY No.2	SPF																																																																																																																																																																																																																																																																																																																																																																																					
L - G	2x4	DRY No.2	SPF																																																																																																																																																																																																																																																																																																																																																																																					
	FACTORED GROSS REACTION	MAXIMUM FACTORED GROSS REACTION	INPUT BRG	REQRD BRG																																																																																																																																																																																																																																																																																																																																																																																				
JT	VERT	HORZ	DOWN	HORZ	UPLIFT	IN-SX	IN-SX																																																																																																																																																																																																																																																																																																																																																																																	
R	2136	0	2136	0	0	5-8	3-4																																																																																																																																																																																																																																																																																																																																																																																	
J	2136	0	2136	0	0	5-8	3-4																																																																																																																																																																																																																																																																																																																																																																																	
1ST LCASE	MAX./MIN. COMPONENT REACTIONS																																																																																																																																																																																																																																																																																																																																																																																							
JT	COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL																																																																																																																																																																																																																																																																																																																																																																																	
R	1532	883 / 0	0 / 0	0 / 0	0 / 0	649 / 0	0 / 0																																																																																																																																																																																																																																																																																																																																																																																	
J	1532	883 / 0	0 / 0	0 / 0	0 / 0	649 / 0	0 / 0																																																																																																																																																																																																																																																																																																																																																																																	
CHORDS				WEBS																																																																																																																																																																																																																																																																																																																																																																																				
MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD LC1 (PLF)	MAX. UNBRACED LENGTH FR-TO	MEMB.	MAX. FACTORED FORCE (LBS)	MAX. UNBRACED LENGTH FR-TO	MAX. UNBRACED LENGTH FR-TO																																																																																																																																																																																																																																																																																																																																																																																	
A-B	-1781 / 0	-78.0 -78.0 0.43 (1)	4.68	Q-B	-185 / 6	0.10 (1)																																																																																																																																																																																																																																																																																																																																																																																		
B-C	-1992 / 0	-85.5 -85.5 0.61 (1)	2.00	B-P	0 / 1479	0.24 (1)																																																																																																																																																																																																																																																																																																																																																																																		
C-D	-2261 / 0	-85.5 -85.5 0.61 (1)	2.00	P-C	-1018 / 0	0.55 (1)																																																																																																																																																																																																																																																																																																																																																																																		
D-E	-2261 / 0	-85.5 -85.5 0.61 (1)	2.00	C-N	0 / 433	0.07 (1)																																																																																																																																																																																																																																																																																																																																																																																		
E-F	-2261 / 0	-85.5 -85.5 0.61 (1)	2.00	N-D	-553 / 0	0.30 (1)																																																																																																																																																																																																																																																																																																																																																																																		
F-G	-1992 / 0	-85.5 -85.5 0.61 (1)	2.00	N-F	0 / 433	0.07 (1)																																																																																																																																																																																																																																																																																																																																																																																		
G-H	-1781 / 0	-78.0 -78.0 0.43 (1)	4.68	L-F	-1018 / 0	0.55 (1)																																																																																																																																																																																																																																																																																																																																																																																		
R-A	-1950 / 0	0.0 0.0 0.22 (1)	6.03	L-G	0 / 1479	0.24 (1)																																																																																																																																																																																																																																																																																																																																																																																		
J-H	-1950 / 0	0.0 0.0 0.22 (1)	6.03	K-G	-185 / 6	0.10 (1)																																																																																																																																																																																																																																																																																																																																																																																		
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S-R	0 / 0	-96.5 -96.5 0.16 (1)	10.00																																																																																																																																																																																																																																																																																																																																																																																					
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P-O	0 / 1992	-18.5 -18.5 0.42 (1)	10.00																																																																																																																																																																																																																																																																																																																																																																																					
O-N	0 / 1992	-18.5 -18.5 0.42 (1)	10.00																																																																																																																																																																																																																																																																																																																																																																																					
N-M	0 / 1992	-18.5 -18.5 0.42 (1)	10.00																																																																																																																																																																																																																																																																																																																																																																																					
M-L	0 / 1992	-18.5 -18.5 0.42 (1)	10.00																																																																																																																																																																																																																																																																																																																																																																																					
L-K	0 / 1062	-18.5 -18.5 0.29 (4)	10.00																																																																																																																																																																																																																																																																																																																																																																																					
K-J	0 / 0	-18.5 -18.5 0.17 (4)	10.00																																																																																																																																																																																																																																																																																																																																																																																					
J-I	0 / 0	-96.5 -96.5 0.16 (1)	10.00																																																																																																																																																																																																																																																																																																																																																																																					
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																																																																																																																																																																																																																																																																																																																																																																																					
PLATE	GRIP(DRY)	SHEAR	SECTION																																																																																																																																																																																																																																																																																																																																																																																					
	(PSI)	(PLI)	(PLI)																																																																																																																																																																																																																																																																																																																																																																																					
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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

REGISTERED PROFESSIONAL ENGINEER

02/19/2018

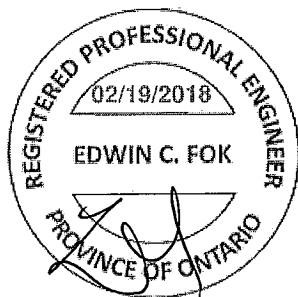
EDWIN C. FOK

PROVINCE OF ONTARIO

A-18023877

CONTINUED ON PAGE 2

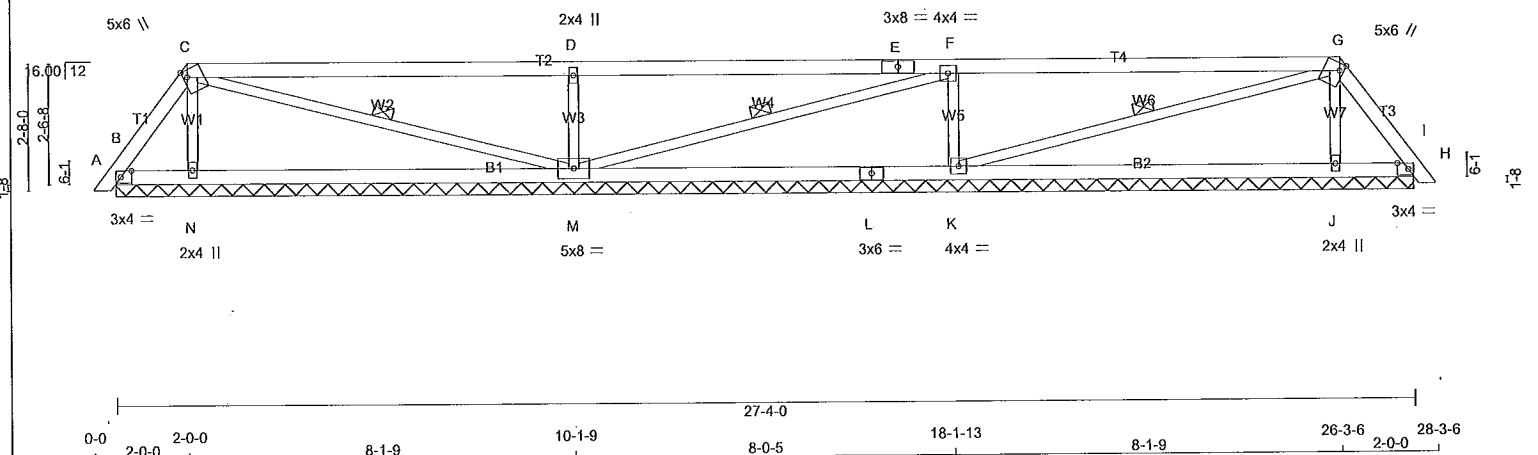
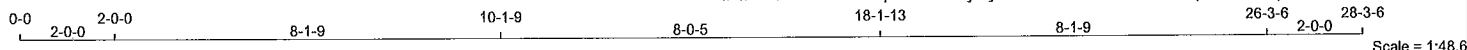
NOTE: Lateral brace(s) shown shall be 1x4 for Part 9 design as per OBC 9.23.13.11, and no less than 2x4 for Part 4 design



JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
292633	H5P	2	1	TRUSS DESC.	

Alpa Roof Truss, Maple

Version 8.200 S Jan 6 2018 MiTek Industries, Inc. Mon Feb 19 09:39:03 2018 Page 1
ID:Rbextb08A5M1Jnp0FfBKG3yNySB-r8BaAQHhnikL5h1uiqQ6WB9eqbQTImwom8p5H7zjdVs



TOTAL WEIGHT = 2 X 93 = 185 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.					

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		
B	119	0	119	0	-6	27-4-0 (11-4-8)2-15
N	374	0	374	0	0	27-4-0 (11-4-8)2-15
M	860	0	860	0	0	27-4-0 (11-4-8)2-15
K	842	0	842	0	0	27-4-0 (11-4-8)2-15
J	365	0	365	0	0	27-4-0 (11-4-8)2-15
H	132	0	132	0	-4	27-4-0 (11-4-8)2-15

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

JT	1ST LCASE	MAX./MIN. COMPONENT REACTIONS		WIND	DEAD	SOIL
		SNOW	LIVE			
B	79	83 / 0	0 / 0	0 / 0	0 / -4	0 / 0
N	273	127 / 0	0 / 0	0 / 0	0 / 0	0 / 0
M	612	382 / 0	0 / 0	0 / 0	230 / 0	0 / 0
K	599	372 / 0	0 / 0	0 / 0	227 / 0	0 / 0
J	268	123 / 0	0 / 0	0 / 0	145 / 0	0 / 0
H	87	90 / 0	0 / 0	0 / 0	0 / -3	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)	LC1 MAX (LC)	MAX. UNBRACED LENGTH	MEMB.	MAX. FACTORED FORCE (LBS)	MAX. FACTORED CSI (LC)		
FR-TO		FROM	TO		FR-TO				
A-B	0 / 10	-78.0	-78.0	0.01 (1)	10.00	N-C	-237 / 0 0.04 (1)		
B-C	-82 / 0	-78.0	-78.0	0.03 (1)	6.25	C-M	-38 / 0 0.02 (1)		
C-D	0 / 1	-78.0	-78.0	0.69 (1)	10.00	M-D	-692 / 0 0.11 (1)		
D-E	0 / 0	-78.0	-78.0	0.69 (1)	10.00	M-F	-26 / 0 0.01 (1)		
E-F	0 / 0	-78.0	-78.0	0.69 (1)	10.00	K-F	-685 / 0 0.11 (1)		
F-G	-23 / 0	-78.0	-78.0	0.69 (1)	6.25	K-G	-22 / 0 0.01 (1)		
G-H	-98 / 0	-78.0	-78.0	0.03 (1)	6.25	J-G	-228 / 0 0.04 (1)		
H-I	0 / 10	-78.0	-78.0	0.01 (1)	10.00				
B-N	0 / 47	-18.5	-18.5	0.20 (4)	10.00				
N-M	0 / 36	-18.5	-18.5	0.24 (4)	10.00				
M-L	0 / 24	-18.5	-18.5	0.24 (4)	10.00				
L-K	0 / 24	-18.5	-18.5	0.24 (4)	10.00				
K-J	0 / 45	-18.5	-18.5	0.24 (4)	10.00				
J-H	0 / 56	-18.5	-18.5	0.20 (4)	10.00				

DESIGN CRITERIA

SPECIFIED LOADS:

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

SPACING = 24.0 IN. C/C

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

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

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

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

CSI: TC=0.69/1.00 (F-G:1), BC=0.24/1.00 (J-K:4), WB=0.11/1.00 (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

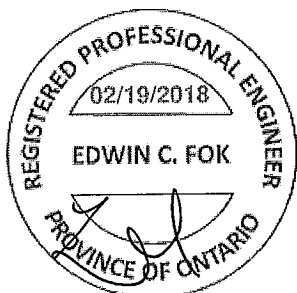
PLATE	GRIP(DRY)	SHEAR (PSI)	SECTION (PLI)
MT20	618	354	1667
	788	1987	1656

PLATE PLACEMENT TOL. = 0.250 inches

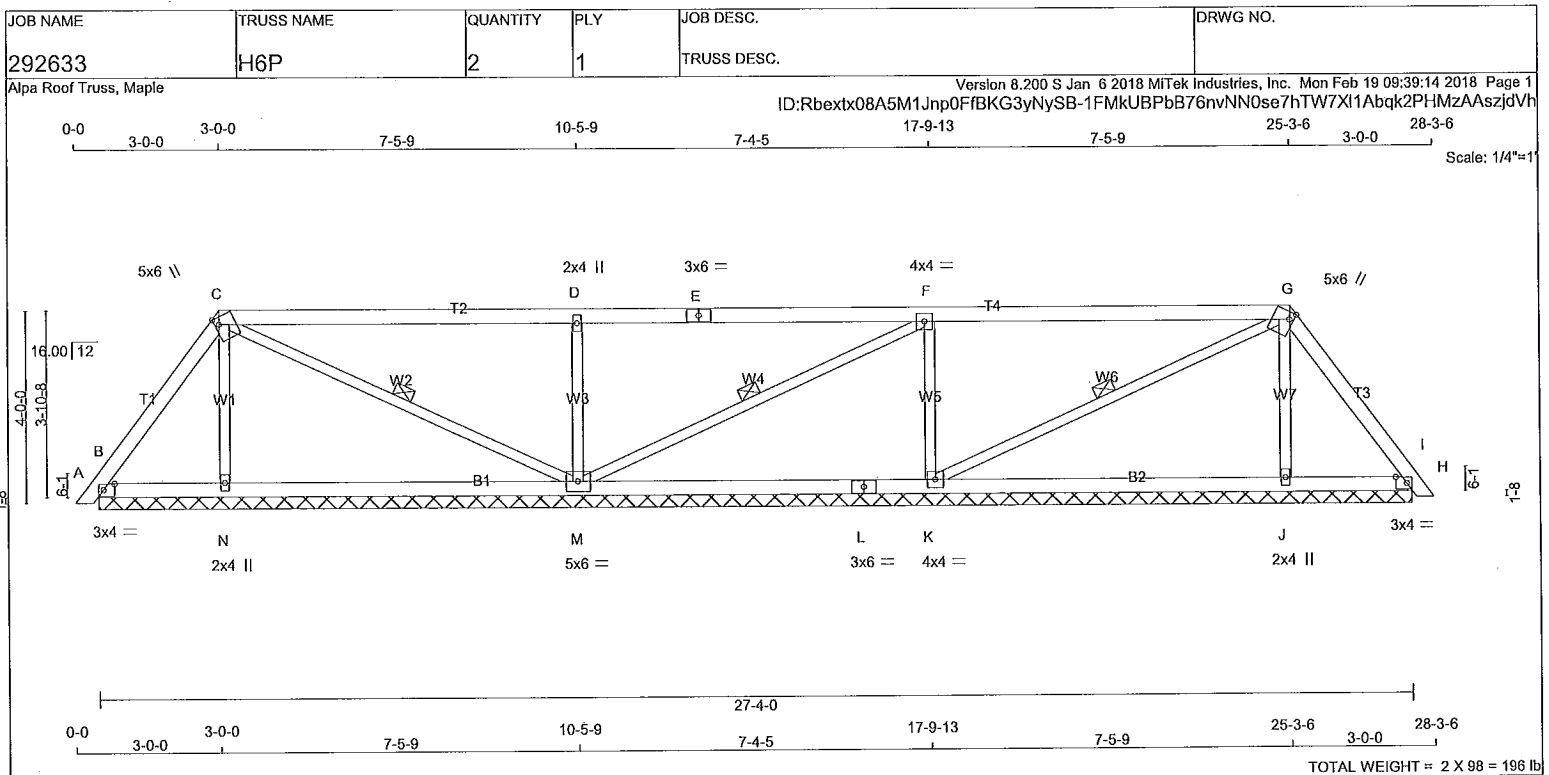
PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.79 (K) (INPUT = 0.90)
JSI METAL= 0.54 (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-18023878



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-t	MT20	3.0	6.0		
F	TMWW-t	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-t	MT20	4.0	4.0		
L	BS-t	MT20	3.0	6.0		
M	BMWW1-t	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	200	0	200	0	27-4-0 (11-4-8)0-10	IN-SX
N	341	0	341	0	27-4-0 (11-4-8)0-10	IN-SX
M	833	0	833	0	27-4-0 (11-4-8)0-10	IN-SX
K	759	0	759	0	27-4-0 (11-4-8)0-10	IN-SX
J	331	0	331	0	27-4-0 (11-4-8)0-10	IN-SX
H	227	0	227	0	27-4-0 (11-4-8)0-10	IN-SX

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	138	108 / 0	0 / 0	0 / 0	0 / 0	31 / 0	0 / 0
N	248	122 / 0	0 / 0	0 / 0	0 / 0	126 / 0	0 / 0
M	592	373 / 0	0 / 0	0 / 0	0 / 0	218 / 0	0 / 0
K	541	334 / 0	0 / 0	0 / 0	0 / 0	207 / 0	0 / 0
J	242	117 / 0	0 / 0	0 / 0	0 / 0	124 / 0	0 / 0
H	157	122 / 0	0 / 0	0 / 0	0 / 0	35 / 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)	LOADED 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 / 10	-78.0	-78.0	0.01 (1)	10.00	N-C	-227 / 0	0.05 (1)	
B-C	-91 / 0	-78.0	-78.0	0.08 (1)	6.25	C-M	-71 / 0	0.03 (1)	
C-D	0 / 19	-78.0	-78.0	0.59 (1)	10.00	M-D	-835 / 0	0.15 (1)	
D-E	0 / 18	-78.0	-78.0	0.59 (1)	10.00	M-F	-63 / 0	0.03 (1)	
E-F	0 / 18	-78.0	-78.0	0.59 (1)	10.00	K-F	-607 / 0	0.14 (1)	
F-G	-38 / 0	-78.0	-78.0	0.59 (1)	6.25	K-G	-30 / 0	0.01 (1)	
G-H	-125 / 0	-78.0	-78.0	0.09 (1)	6.25	J-G	-218 / 0	0.05 (1)	
H-I	0 / 10	-78.0	-78.0	0.01 (1)	10.00				
B-N	0 / 53	-18.5	-18.5	0.15 (4)	10.00				
N-M	0 / 46	-18.5	-18.5	0.21 (4)	10.00				
M-L	0 / 39	-18.5	-18.5	0.21 (4)	10.00				
L-K	0 / 39	-18.5	-18.5	0.21 (4)	10.00				
K-J	0 / 66	-18.5	-18.5	0.21 (4)	10.00				
J-H	0 / 73	-18.5	-18.5	0.15 (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=0.59/1.00 (D-F:1), BC=0.21/1.00 (J-K:4), WB=0.15/1.00 (D-M:1), SSI=0.27/1.00 (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

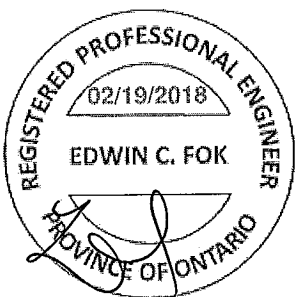
PLATE	GRIP(DRY) (PSI)	SHEAR (PLI)	SECTION (PLI)
MT20	618	354	1667
	788	788	1987
	1656		

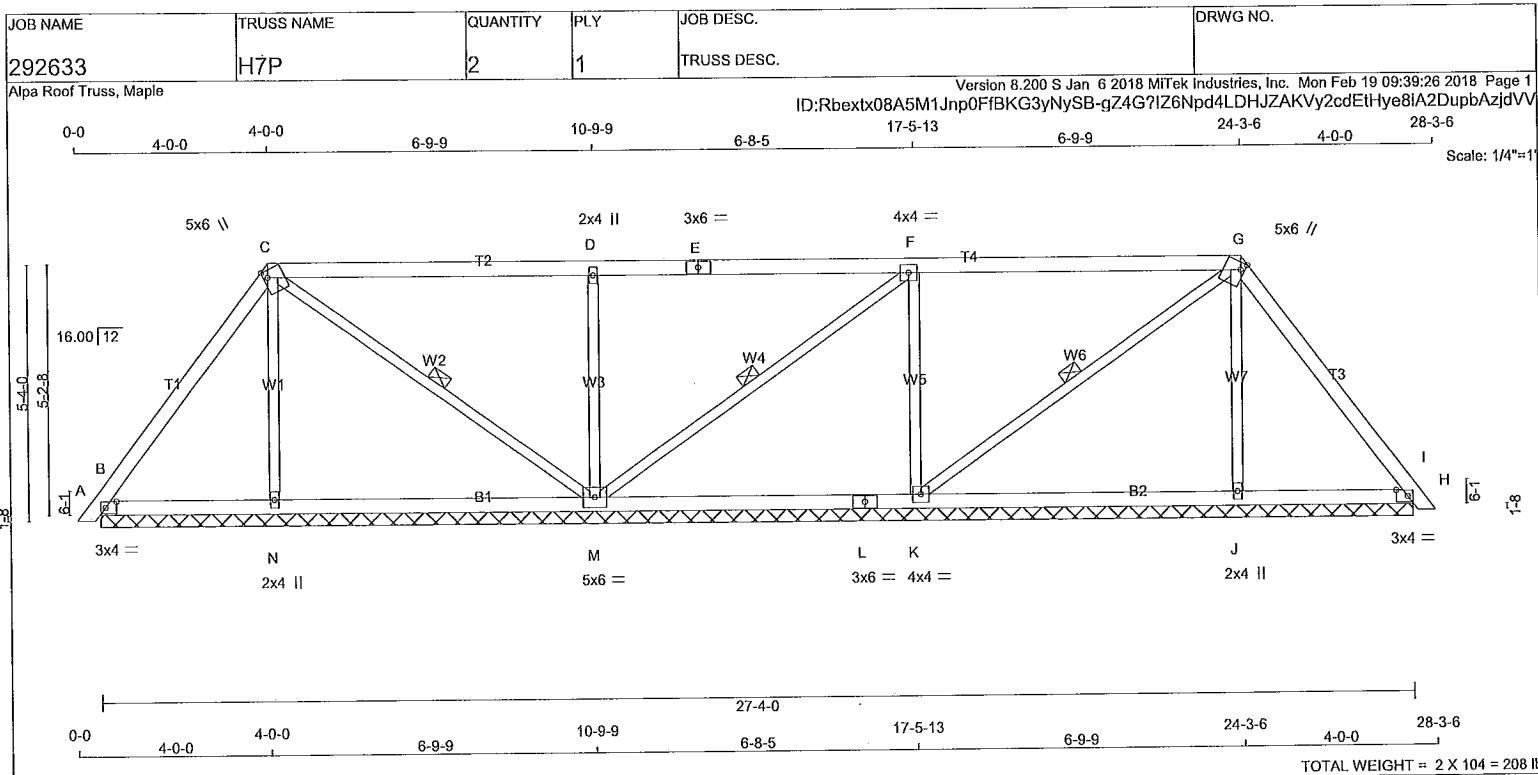
PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.76 (M) (INPUT = 0.90)
JSI METAL= 0.14 (E) (INPUT = 1.00)

A-18023879





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.				

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

BEARINGS		FACTORED		MAXIMUM FACTORED		INPUT		REQRD	
		GROSS REACTION		DOWN		BRG		BRG	
JT		VERT	HORZ	DOWN	HORZ	UP/LIFT	IN-SX	IN-SX	
B		258	0	258	0	0	27-4-0 (11-4-8)11-3		
N		321	0	321	0	0	27-4-0 (11-4-8)11-3		
M		831	0	831	0	0	27-4-0 (11-4-8)11-3		
K		665	0	665	0	0	27-4-0 (11-4-8)11-3		
J		315	0	315	0	0	27-4-0 (11-4-8)11-3		
H		303	0	303	0	0	27-4-0 (11-4-8)11-3		

VALUE IN PARENTHESIS INDICATES EFFECTIVE BEARING LENGTH

UNFACTORED REACTIONS

1ST LCASE		MAX./MIN. COMPONENT REACTIONS							
JT		COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL	
B		180	129 / 0	0 / 0	0 / 0	0 / 0	52 / 0	0 / 0	
N		234	115 / 0	0 / 0	0 / 0	0 / 0	119 / 0	0 / 0	
M		589	379 / 0	0 / 0	0 / 0	0 / 0	209 / 0	0 / 0	
K		474	290 / 0	0 / 0	0 / 0	0 / 0	184 / 0	0 / 0	
J		230	112 / 0	0 / 0	0 / 0	0 / 0	118 / 0	0 / 0	
H		211	153 / 0	0 / 0	0 / 0	0 / 0	59 / 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.

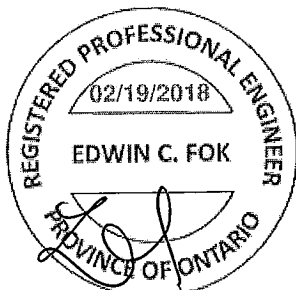
1 LATERAL BRACE(S) AT 1/2 LENGTH OF C-M, F-M, G-K.

LOADING

TOTAL LOAD CASES: (4)

CHORDS		FACTORED		MAX. FACTORED		WEBS		MAX. FACTORED	
MEMB.		FORCE (LBS)	VERT. LOAD (PLF)	MAX. CSI (LC)	MAX. UNBRAC. LENGTH	MEMB.		FORCE (LBS)	MAX. CSI (LC)
FR-TO			FROM TO			FR-TO			
A-B		0 / 10	-78.0 -78.0	0.01 (1)	10.00	N-C		-213 / 0	0.09 (1)
B-C		-92 / 0	-78.0 -78.0	0.17 (1)	6.25	C-M		-107 / 0	0.05 (1)
C-D		0 / 38	-78.0 -78.0	0.49 (1)	10.00	M-D		-578 / 0	0.23 (1)
D-E		0 / 38	-78.0 -78.0	0.49 (1)	10.00	M-F		-107 / 0	0.05 (1)
E-F		0 / 38	-78.0 -78.0	0.49 (1)	10.00	K-F		-514 / 0	0.21 (1)
F-G		-48 / 0	-78.0 -78.0	0.48 (1)	6.25	K-G		-41 / 0	0.02 (1)
G-H		-147 / 0	-78.0 -78.0	0.17 (1)	6.25	J-G		-207 / 0	0.08 (1)
H-I		0 / 10	-78.0 -78.0	0.01 (1)	10.00				
B-N		0 / 54	-18.5 -18.5	0.13 (4)	10.00				
N-M		0 / 49	-18.5 -18.5	0.17 (4)	10.00				
M-L		0 / 48	-18.5 -18.5	0.17 (4)	10.00				
L-K		0 / 48	-18.5 -18.5	0.17 (4)	10.00				
K-J		0 / 82	-18.5 -18.5	0.17 (4)	10.00				
J-H		0 / 86	-18.5 -18.5	0.13 (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=0.49/1.00 (D-F:1), BC=0.17/1.00 (J-K:4), WB=0.23/1.00 (D-M:1), SSI=0.25/1.00 (F-G:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

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

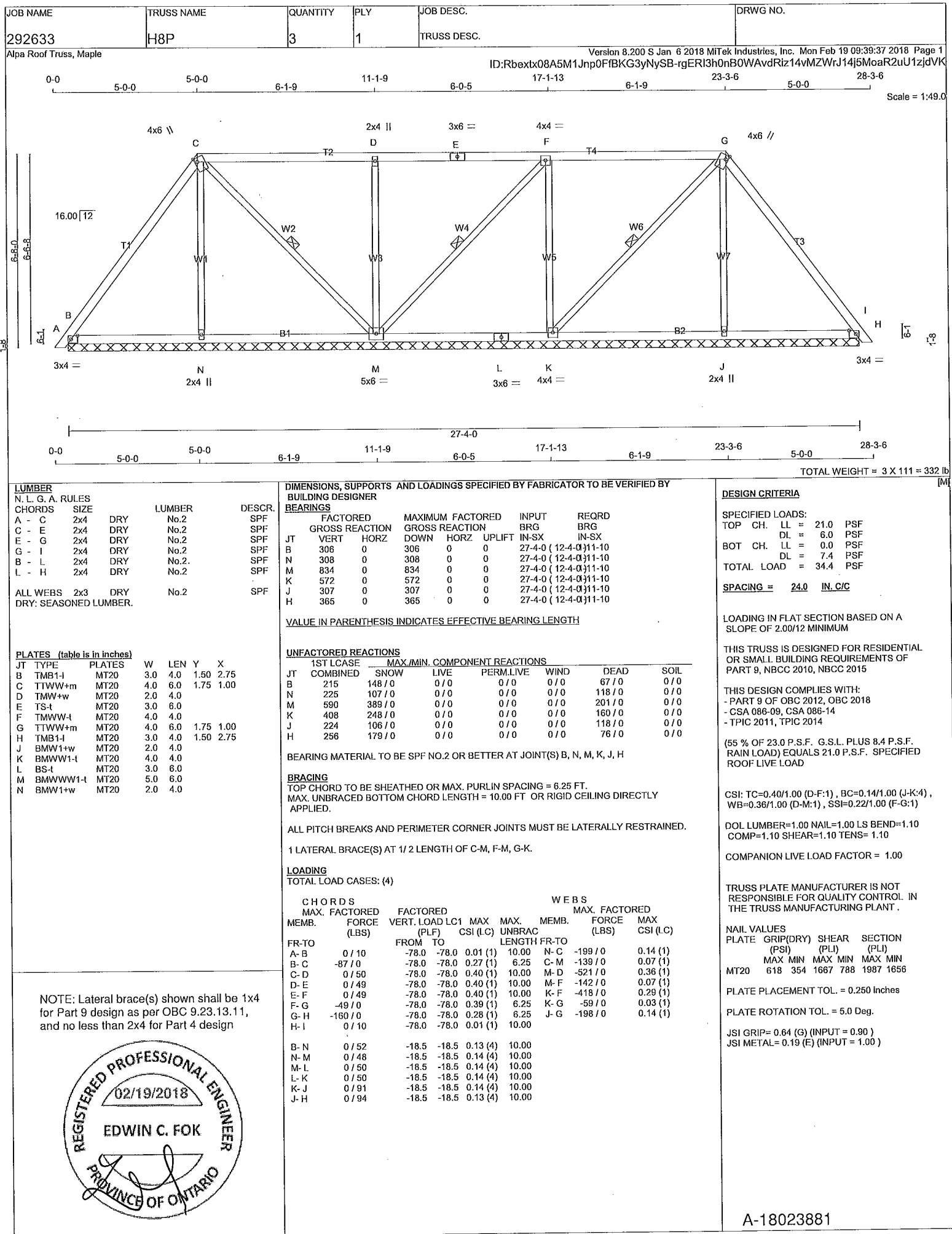
NAIL VALUES		SHEAR		SECTION	
PLATE GRIP(DRY) (PSI)		(PLI)		(PLI)	
MAX MIN		MAX MIN		MAX MIN	
MT20		618 354		1667 788	

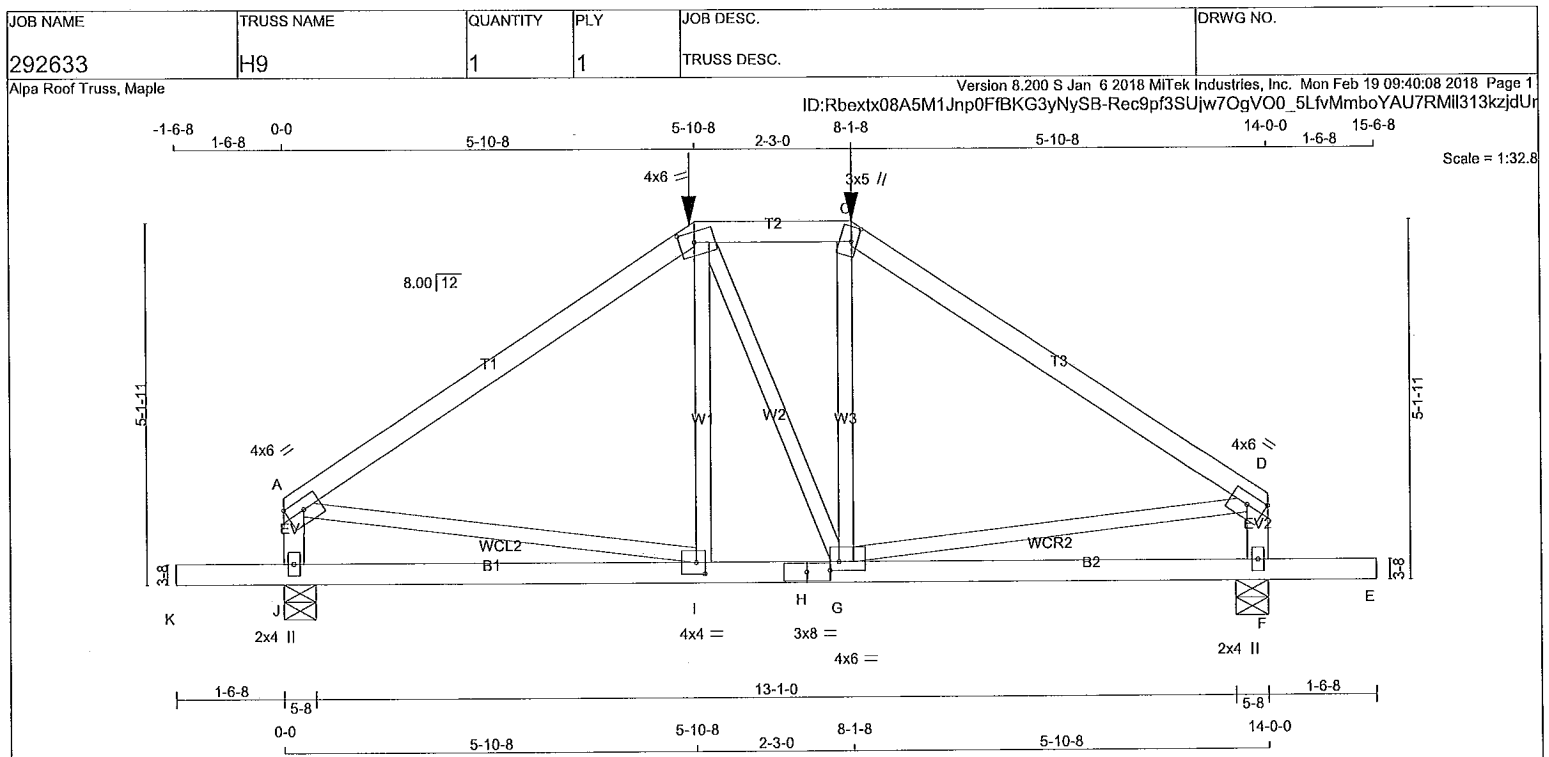
PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.64 (C) (INPUT = 0.90)
JSI METAL= 0.15 (H) (INPUT = 1.00)

A-18023880





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
J - A	2x4	DRY	No.2	SPF
F - D	2x4	DRY	No.2	SPF
K - H	2x4	DRY	No.2	SPF
H - E	2x4	DRY	No.2	SPF

ALL WEBS 2x3 DRY No.2 SPF
EXCEPT

DRY: SEASONED LUMBER.

PLATES (table is in inches)				
JT	TYPE	PLATES	W	LEN Y X
A	TMVW-I	MT20	4.0	6.0 1.75 Edge
B	TTWW-m	MT20	4.0	6.0 1.75 2.50
C	TTW+m	MT20	3.0	5.0 2.50 1.00
D	TMVW-I	MT20	4.0	6.0 1.75 Edge
F	BMV1+p	MT20	2.0	4.0
G	BMVWW-I	MT20	4.0	6.0 1.50 1.50
H	BS-I	MT20	3.0	8.0
I	BMVW-I	MT20	4.0	4.0 2.00 1.50
J	BMV1+p	MT20	2.0	4.0

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

HANGERS NOTES

- SPECIAL HANGER(S) OR CONNECTION(S) REQUIRED TO SUPPORT CONCENTRATED LOAD(S) 334.0 lbs FACTORED DOWN AT 8-1-8, AND 334.0 lbs FACTORED DOWN AT 5-10-8 ON TOP CHORD. DESIGN FOR UNSPECIFIED CONNECTION(S) IS DELEGATED TO THE BUILDING DESIGNER.

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

BEARINGS

	FACTORED		MAXIMUM FACTORED		INPUT		REQRD	
	GROSS REACTION		GROSS REACTION		BRG		BRG	
JT	VERT	HORZ	DOWN	HORZ	UPLIFT	IN-SX	IN-SX	
J	1368	0	1368	0	0	5-8	2-0	
F	1368	0	1368	0	0	5-8	2-0	

UNFACTORED REACTIONS

	1ST LCASE	MAX/MIN. COMPONENT REACTIONS					
	COMBINED	SNOW	LIVE	PERM. LIVE	WIND	DEAD	SOIL
JT	978	584 / 0	0 / 0	0 / 0	0 / 0	394 / 0	0 / 0
F	978	584 / 0	0 / 0	0 / 0	0 / 0	394 / 0	0 / 0

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

BRACING

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

LOADING

TOTAL LOAD CASES: (4)

CHORDS					WEBS				
MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	MAX. LC1 (LC)	MAX. MEMB. UNBRACED LENGTH FR-TO	MEMB.	MAX. FACTORED FORCE (LBS)	MAX. LC1 (LC)		
FR-TO		FROM TO							
A-B	-1318 / 0	-78.0 -78.0	0.62 (1)	4.77	I-B	-5 / 117	0.04 (4)		
B-C	-1097 / 0	-153.5 -153.5	0.16 (1)	5.82	B-G	0 / 4	0.00 (4)		
C-D	-1320 / 0	-78.0 -78.0	0.62 (1)	4.77	G-C	-2 / 121	0.05 (4)		
J-A	-1128 / 0	0.0 0.0	0.13 (1)	7.45	A-I	0 / 1108	0.27 (1)		
F-D	-1127 / 0	0.0 0.0	0.13 (1)	7.45	G-D	0 / 1109	0.27 (1)		
K-J	0 / 0	-96.5 -96.5	0.17 (1)	10.00					
J-I	0 / 0	-36.4 -36.4	0.29 (4)	10.00					
I-H	0 / 1096	-36.4 -36.4	0.40 (4)	10.00					
H-G	0 / 1096	-36.4 -36.4	0.40 (4)	10.00					
G-F	0 / 0	-36.4 -36.4	0.30 (4)	10.00					
F-E	0 / 0	-96.5 -96.5	0.17 (1)	10.00					

FACTORED CONCENTRATED LOADS (LBS)

JT	LOC.	LC1	MAX-	MAX+	FACE	DIR.	TYPE
B	5-10-8	-334	-334	—	FRONT	VERT	TOTAL
C	8-1-8	-334	-334	—	FRONT	VERT	TOTAL

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

DESIGN CRITERIA

SPECIFIED LOADS:

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

SPACING = 24.0 IN./C/C

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

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

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 (0.47")
CALCULATED VERT. DEFL.(LL) = L/999 (0.02")
ALLOWABLE DEFL.(TL) = L/360 (0.47")
CALCULATED VERT. DEFL.(TL) = L/999 (0.09")

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=0.62/1.00 (C-D:1), 8C=0.40/1.00 (G-I:4), WB=0.27/1.00 (D-G:1), SS=0.19/1.00 (F-G:4)

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

COMPANION LIVE LOAD FACTOR = 1.00

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

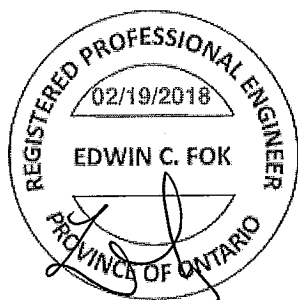
NAIL VALUES
PLATE GRIP(DRY) SHEAR SECTION
(PSI) (PLI) (PLI)
MAX MIN MAX MIN MAX MIN
MT20 618 354 1667 788 1987 1656

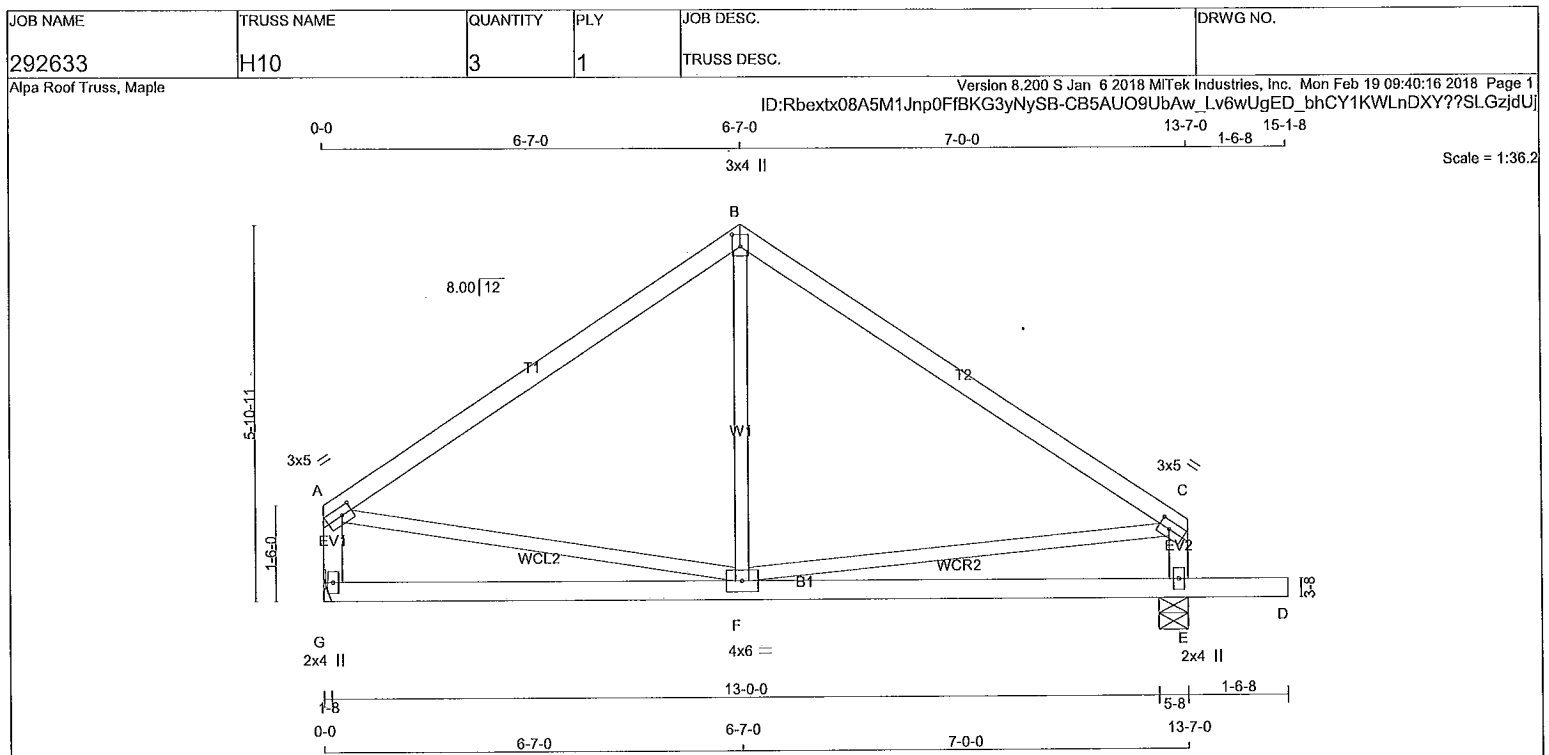
PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

A-18023882

CONTINUED ON PAGE 2





TOTAL WEIGHT = 3 X 53 = 160 lb
(M/F)

LUMBER	N. L. G. A. RULES	CHORDS	SIZE	LUMBER	DESCR.
A - B	2x4 DRY	1650F 1.5E	SPF		
B - C	2x4 DRY	2100F 1.8E	SPF		
G - A	2x4 DRY	No.2	SPF		
E - C	2x4 DRY	No.2	SPF		
G - 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-I	MT20	3.0	5.0	1.50	2.00	
B	TTW+p	MT20	3.0	4.0	2.25	1.50	
C	TMVW-I	MT20	3.0	5.0	1.50	2.00	
E	BMV1+p	MT20	2.0	4.0			
F	BMVWW-I	MT20	4.0	6.0			
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	DOWN	HORZ	UPLIFT
G	655	0	655	0
E	804	0	804	0

UNFACTORED REACTIONS

1ST LCASE	MAX/MIN. COMPONENT REACTIONS	DEAD	SOIL
JT	COMBINED	SNOW	LIVE
G	467	285 / 0	0 / 0
E	573	350 / 0	0 / 0

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

BRACING

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

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

LOADING

TOTAL LOAD CASES: (4)

CHORDS	MAX. FACTORED MEMB. FORCE (LBS)	FACTORED VERT. LOAD (PLF)	MAX. FACTORED VERT. LOAD (PLF)	MAX. FACTORED VERT. LOAD (PLF)	MAX. FACTORED VERT. LOAD (PLF)	MAX. FACTORED VERT. LOAD (PLF)	MAX. FACTORED VERT. LOAD (PLF)
FR-TO							
A-B	-502 / 0	-78.0	-78.0	0.37 (1)	6.25	F-B	0 / 121
B-C	-502 / 0	-78.0	-78.0	0.32 (1)	6.25	A-F	0 / 424
G-A	-610 / 0	0.0	0.0	0.06 (1)	7.81	F-C	0 / 421
E-C	-605 / 0	0.0	0.0	0.06 (1)	7.81		
G-F	0 / 0	-18.5	-18.5	0.25 (4)	10.00		
F-E	0 / 0	-18.5	-18.5	0.25 (4)	10.00		
E-D	0 / 0	-96.5	-96.5	0.16 (1)	10.00		

DESIGN CRITERIA

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

SPACING = 24.0 IN. C/C

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

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

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

ALLOWABLE DEFL.(LL)= 1/360 (0.45")
CALCULATED VERT. DEFL.(LL)= 1/999 (0.01")
ALLOWABLE DEFL.(TL)= 1/360 (0.45")
CALCULATED VERT. DEFL.(TL)= 1/999 (0.06")

CANTILEVER DEFLECTION:
ALLOWABLE DEFL.(LL)= 1/120 (0.19")
CALCULATED VERT. DEFL.(LL)= 1/999 (0.01")
ALLOWABLE DEFL.(TL)= 1/120 (0.19")
CALCULATED VERT. DEFL.(TL)= 1/999 (0.01")

CSI: TC=0.37/1.00 (A-B:1), BC=0.25/1.00 (F-G:4), WB=0.10/1.00 (A-F:1), SSI=0.18/1.00 (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.

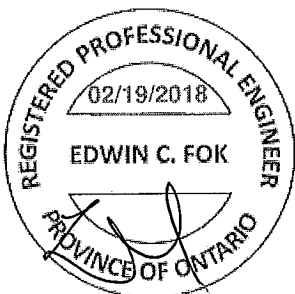
NAIL VALUES
PLATE GRIP(DRY) SHEAR SECTION (PSI) (PLI) (PLI)
MAX MIN MAX MIN MAX MIN
MT20 618 354 1667 788 1987 1656

PLATE PLACEMENT TOL. = 0.250 inches

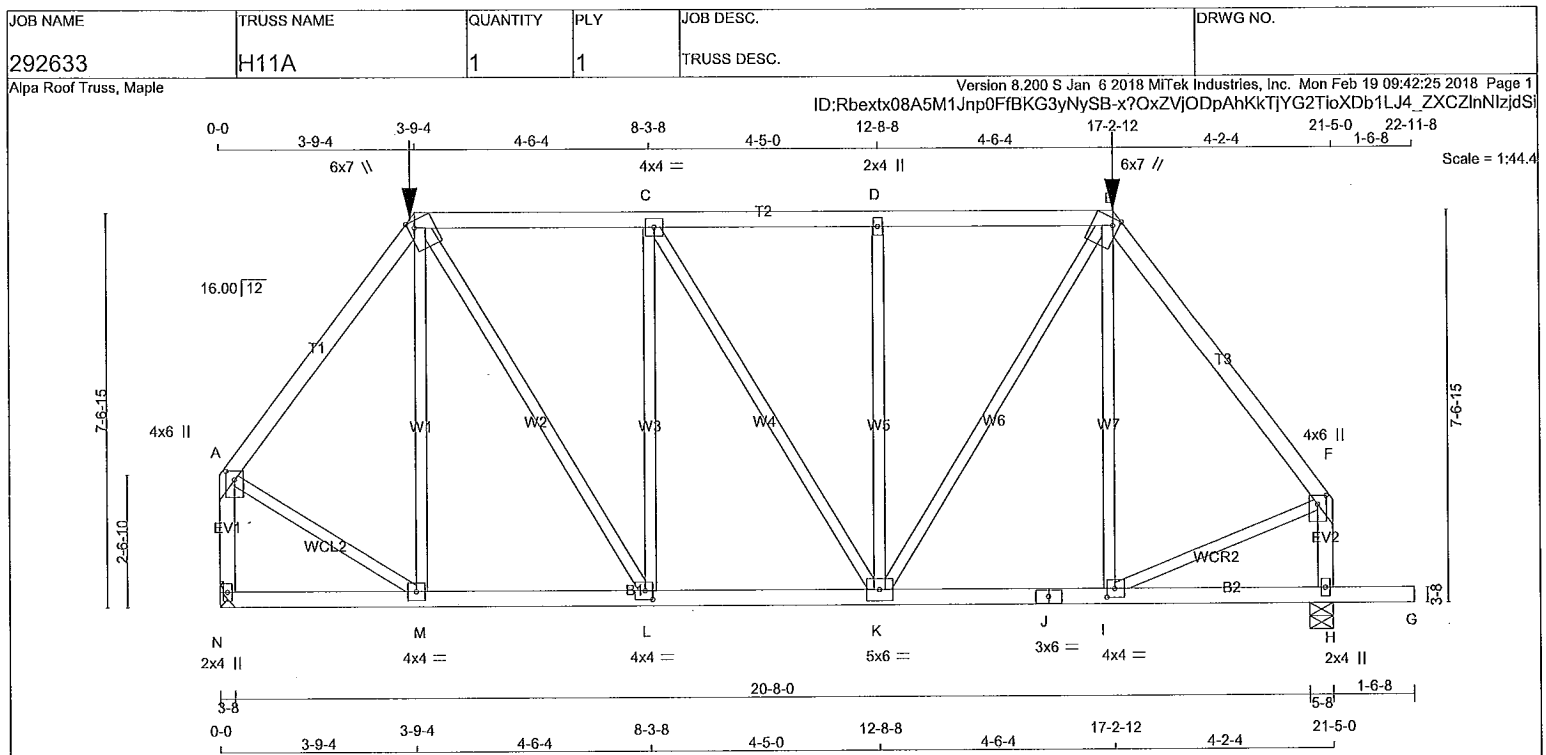
PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.58 (F) (INPUT = 0.90)
JSI METAL= 0.20 (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-18023883



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

ALL WEBS 2x3 DRY No.2 SPF
EXCEPT

DRY: SEASONED LUMBER.

PLATES (table is in inches)

JT	TYPE	PLATES	W	LEN	Y	X
A	TMVW+p	MT20	4.0	6.0	2.00	2.00
B	TTWW+m	MT20	6.0	7.0	Edge	1.50
C	TMWW-t	MT20	4.0	4.0		
D	TMW+w	MT20	2.0	4.0		
E	TTWW+m	MT20	6.0	7.0	Edge	1.50
F	TMVW+p	MT20	4.0	6.0	2.00	2.00
H	BMV1+p	MT20	2.0	4.0		
I	BMWW-t	MT20	4.0	4.0	2.00	1.75
J	BS-t	MT20	3.0	6.0		
K	BMWWW-t	MT20	5.0	6.0		
L	BMWW-t	MT20	4.0	4.0	2.00	1.75
M	BMWW-t	MT20	4.0	4.0		
N	BMV1+p	MT20	2.0	4.0		

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

HANGERS NOTES

- SPECIAL HANGER(S) OR CONNECTION(S) REQUIRED TO SUPPORT CONCENTRATED LOAD(S) 146.2 lbs FACTORED DOWN AT 17-2-12, AND 131.7 lbs FACTORED DOWN AT 3-9-4 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 9.2.3.13.11, and no less than 2x4 for Part 4 design

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

BEARINGS		FACTORED GROSS REACTION		MAXIMUM FACTORED GROSS REACTION		INPUT BRG		REQRD BRG	
JT		VERT	HORZ	DOWN	HORZ	IN-SX	IN-SX	IN-SX	IN-SX
N	1571	0	1571	0	0	HANGER BY OTHERS	MIN. SEAT SIZE: 1-11		
H	1712	0	1712	0	0	5-8	2-9		

UNFACTORED REACTIONS

1ST LCASE		MAX./MIN. COMPONENT REACTIONS					
JT	COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
N	1121	681 / 0	0 / 0	0 / 0	0 / 0	440 / 0	0 / 0
H	1222	742 / 0	0 / 0	0 / 0	0 / 0	480 / 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 = 5.25 FT.
MAX. UNBRACED BOTTOM CHORD LENGTH = 10.00 FT OR RIGID CEILING DIRECTLY APPLIED.

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

LOADING

TOTAL LOAD CASES: (4)

CHORDS		MAX. FACTORED		FACTORED		WEBS		MAX. FACTORED	
MEMB.	FORCE (LBS)	VERT.	LOAD (PLF)	LC1	MAX	MEMB.	FORCE (LBS)	MAX	CS1 (LC)
FR-TO		FROM	TO			FR-TO			
A-B	-1217 / 0	-78.0	-78.0	0.26 (1)	5.49	M-B	-271 / 0	0.29 (1)	
B-C	-1181 / 0	-120.6	-120.6	0.39 (1)	5.32	B-L	0 / 867	0.21 (1)	
C-D	-1199 / 0	-120.6	-120.6	0.39 (1)	5.29	L-C	-609 / 0	0.65 (1)	
D-E	-1198 / 0	-120.6	-120.6	0.38 (1)	5.31	C-K	0 / 34	0.01 (1)	
E-F	-1318 / 0	-78.0	-78.0	0.34 (1)	5.25	K-D	-575 / 0	0.61 (1)	
N-A	-1529 / 0	0.0	0.0	0.22 (1)	6.61	K-E	0 / 782	0.19 (1)	
H-F	-1516 / 0	0.0	0.0	0.19 (1)	6.64	I-E	-150 / 44	0.16 (1)	
						A-M	0 / 831	0.21 (1)	
						I-F	0 / 840	0.21 (1)	
N-M	0 / 0	-28.6	-28.6	0.13 (4)	10.00				
M-L	0 / 722	-28.6	-28.6	0.20 (1)	10.00				
L-K	0 / 1181	-28.6	-28.6	0.27 (1)	10.00				
K-J	0 / 785	-28.6	-28.6	0.23 (4)	10.00				
J-I	0 / 785	-28.6	-28.6	0.23 (4)	10.00				
I-H	0 / 0	-28.6	-28.6	0.14 (4)	10.00				
H-G	0 / 0	-96.5	-96.5	0.17 (1)	10.00				

FACTORED CONCENTRATED LOADS (LBS)

JT	LOC.	LC1	MAX-	MAX+	FACE	DIR.	TYPE
B	3-9-4	-132	-132	---	FRONT	VERT	TOTAL
E	17-2-12	-146	-146	---	FRONT	VERT	TOTAL

DESIGN CRITERIA

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

SPACING = 24.0 IN. C/C

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

GIRDER TYPE: CPrimeHlp
LEFT SETBACK = 3-9-4
RIGHT SETBACK = 4-2-4
END SETBACK = 4-2-4
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

(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 (0.03")
ALLOWABLE DEFL.(TL)= L/360 (0.71")
CALCULATED VERT. DEFL.(TL)= L/999 (0.07")

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

CSI: TC=0.39/1.00 (B-C:1), BC=0.27/1.00 (K-L:1), WB=0.65/1.00 (C-L:1), SSI=0.28/1.00 (B-C:1)

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

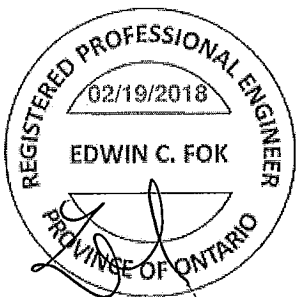
COMPANION LIVE LOAD FACTOR = 1.00

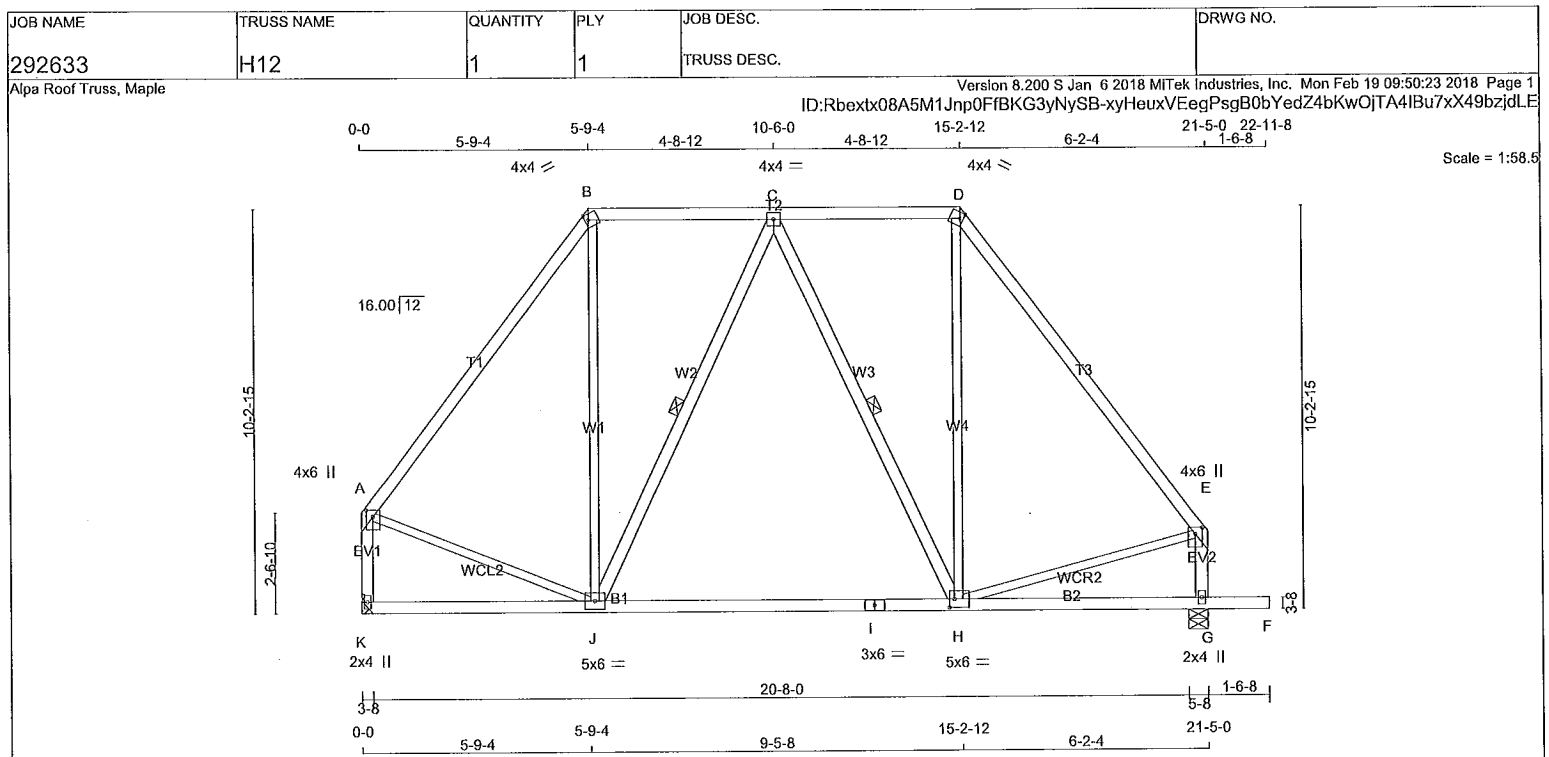
TRUSS PLATE MANUFACTURER IS NOT RESPONSIBLE FOR QUALITY CONTROL IN THE TRUSS MANUFACTURING PLANT.

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

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CONTINUED ON PAGE 2





TOTAL WEIGHT = 115 lb
(M)(F)

LUMBER			
N. L. G. A. RULES	CHORDS	SIZE	LUMBER
A - B	2x4	DRY	No.2
B - D	2x4	DRY	No.2
D - E	2x4	DRY	2100F 1.8E
K - A	2x4	DRY	No.2
G - E	2x4	DRY	No.2
K - I	2x4	DRY	No.2
I - F	2x4	DRY	No.2

ALL WEBS EXCEPT			
JT	TYPE	SIZE	DESCR.
J - C	2x4	DRY	No.2
C - H	2x4	DRY	No.2

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-m	MT20	4.0	4.0	1.75	1.00
C	MTWV-l	MT20	4.0	4.0		
D	TTW-m	MT20	4.0	4.0	1.75	1.00
E	TMVW+p	MT20	4.0	6.0	2.00	2.00
G	BMV1+p	MT20	2.0	4.0		
H	BMVWW-t	MT20	5.0	6.0	2.50	1.50
I	BS-t	MT20	3.0	6.0		
J	BMVWW-t	MT20	5.0	6.0		
K	BMV1+p	MT20	2.0	4.0		

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

BEARINGS			
JT	FACTORED GROSS REACTION	MAXIMUM FACTORED GROSS REACTION	INPUT REQD BRG
K	1033	0	0
G	1182	0	0

UNFACTORED REACTIONS

JT	1ST CASE	MAX/MIN. COMPONENT REACTIONS	WIND	DEAD	SOIL
K	737	450 / 0	0 / 0	287 / 0	0 / 0
G	843	514 / 0	0 / 0	328 / 0	0 / 0

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

BRACING

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

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

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

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

LOADING

TOTAL LOAD CASES: (4)

CHORDS			
MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	MAX. UNBRACED LENGTH (LC)
FR-TO			
A-B	-756 / 0	-78.0 -78.0	0.36 (1)
B-C	-454 / 0	-78.0 -78.0	0.22 (1)
C-D	-473 / 0	-78.0 -78.0	0.22 (1)
D-E	-788 / 0	-78.0 -78.0	0.27 (1)
K-A	-998 / 0	0.0 0.0	0.14 (1)
G-E	-994 / 0	0.0 0.0	0.11 (1)

WEBS			
MEMB.	MAX. FACTORED FORCE (LBS)	MAX. UNBRACED LENGTH (LC)	
J-B	0 / 237	6.25	0.06 (4)
J-C	-270 / 0	6.25	0.18 (1)
C-H	-224 / 0	6.25	0.15 (1)
H-D	0 / 246	6.25	0.06 (4)
A-J	0 / 482	7.81	0.11 (1)
H-E	0 / 486	7.81	0.11 (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 (0.71")
CALCULATED VERT. DEFL.(LL) = L/999 (0.01")
ALLOWABLE DEFL.(TL)= L/360 (0.71")
CALCULATED VERT. DEFL.(TL) = L/999 (0.12")

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=0.36/1.00 (A-B:1), BC=0.33/1.00 (H-J:4), WB=0.18/1.00 (C-J:1), SSI=0.18/1.00 (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.

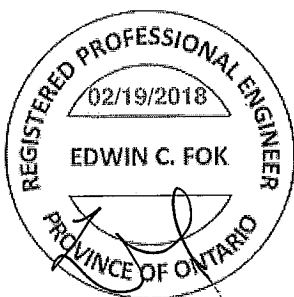
NAIL VALUES	PLATE GRIP(DRY)	SHEAR (PSI)	SECTION (PLI)
	MAX	MIN	MAX
MT20	618	354	1667

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.83 (J) (INPUT = 0.90)
JSI METAL= 0.31 (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

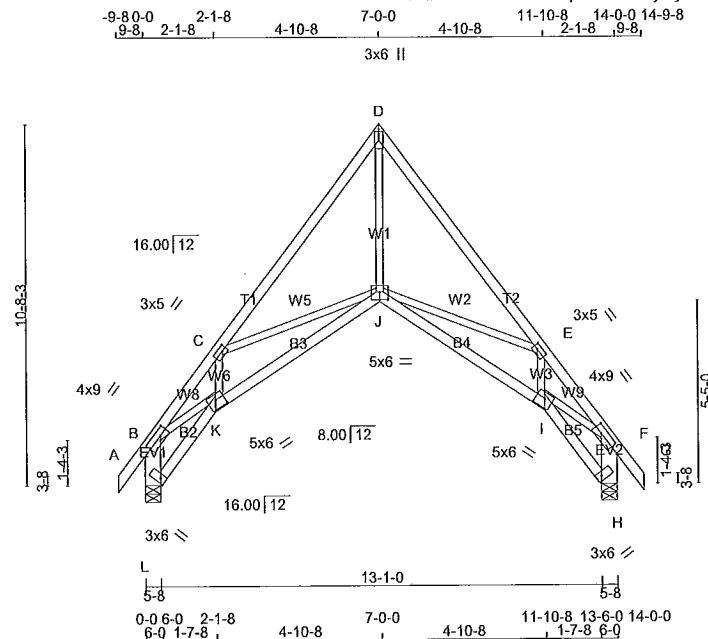


A-18023885

Alpa Roof Truss, Maple

Version 8.200 S Jan 6 2018 MiTek Industries, Inc. Mon Feb 19 09:50:34 2018 Page 1
ID:Rbextx08A5M1Jnp0FbKBG3yNySB-64RoBie722nlUtMihSJ81vHrT8FB9GBVf8i92SzdL3

Scale = 1:68.3



TOTAL WEIGHT = 2 X 74 = 149 lb

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

PLATES (table is in inches)

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

BEARINGS

UNFACTORED REACTIONS

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

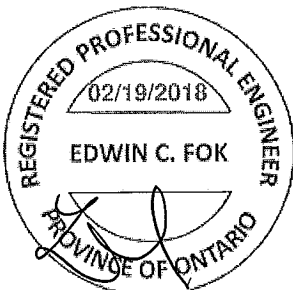
ALL PITCH BREAKS AND PERIMETER CORNER JOINTS MUST BE LATERALLY RESTRAINED.

LOADING

TOTAL LOAD CASES: (4)

CHORDS				WEBS			
MAX. FACTORED		FACTORED		MAX. FACTORED			
MEMB.	FORCE (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 / 28	-78.0	-78.0 0.05 (1)	10.00	J-D	0 / 987	0.22 (1)
B-C	-1380 / 0	-78.0	-78.0 0.17 (1)	5.37	J-E	-388 / 0	0.18 (1)
C-D	-836 / 0	-78.0	-78.0 0.24 (1)	6.25	I-E	0 / 55	0.02 (4)
D-E	-836 / 0	-78.0	-78.0 0.24 (1)	6.25	C-J	-388 / 0	0.18 (1)
E-F	-1381 / 0	-78.0	-78.0 0.17 (1)	5.37	K-C	0 / 55	0.02 (4)
F-G	0 / 28	-78.0	-78.0 0.05 (1)	10.00	B-K	0 / 1000	0.23 (1)
L-B	-726 / 0	0.0	0.0 0.05 (1)	7.81	I-F	0 / 1000	0.23 (1)
H-F	-726 / 0	0.0	0.0 0.05 (1)	7.81			
L-K	0 / 0	-18.5	-18.5 0.02 (4)	10.00			
K-J	0 / 1028	-18.5	-18.5 0.24 (1)	10.00			
J-I	0 / 1028	-18.5	-18.5 0.24 (1)	10.00			
I-H	0 / 0	-18.5	-18.5 0.02 (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



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)= 1/360 (0.47")
CALCULATED VERT. DEFL.(LL) = 1/ 999 (0.04")
ALLOWABLE DEFL.(TL)= 1/360 (0.47")
CALCULATED VERT. DEFL.(TL) = 1/ 999 (0.10")

CSI: TC=0.24/1.00 (D-E:1) , BC=0.24/1.00 (I-J:1) ,
WB=0.23/1.00 (F-I:1) , SSI=0.10/1.00 (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) (PSI)		SHEAR (PLI)		SECTION (PLI)	
	MAX	MIN	MAX	MIN	MAX	MIN
MT20	618	354	1667	788	1987	1656

PLATE PLACEMENT TOL. = 0.250 inches

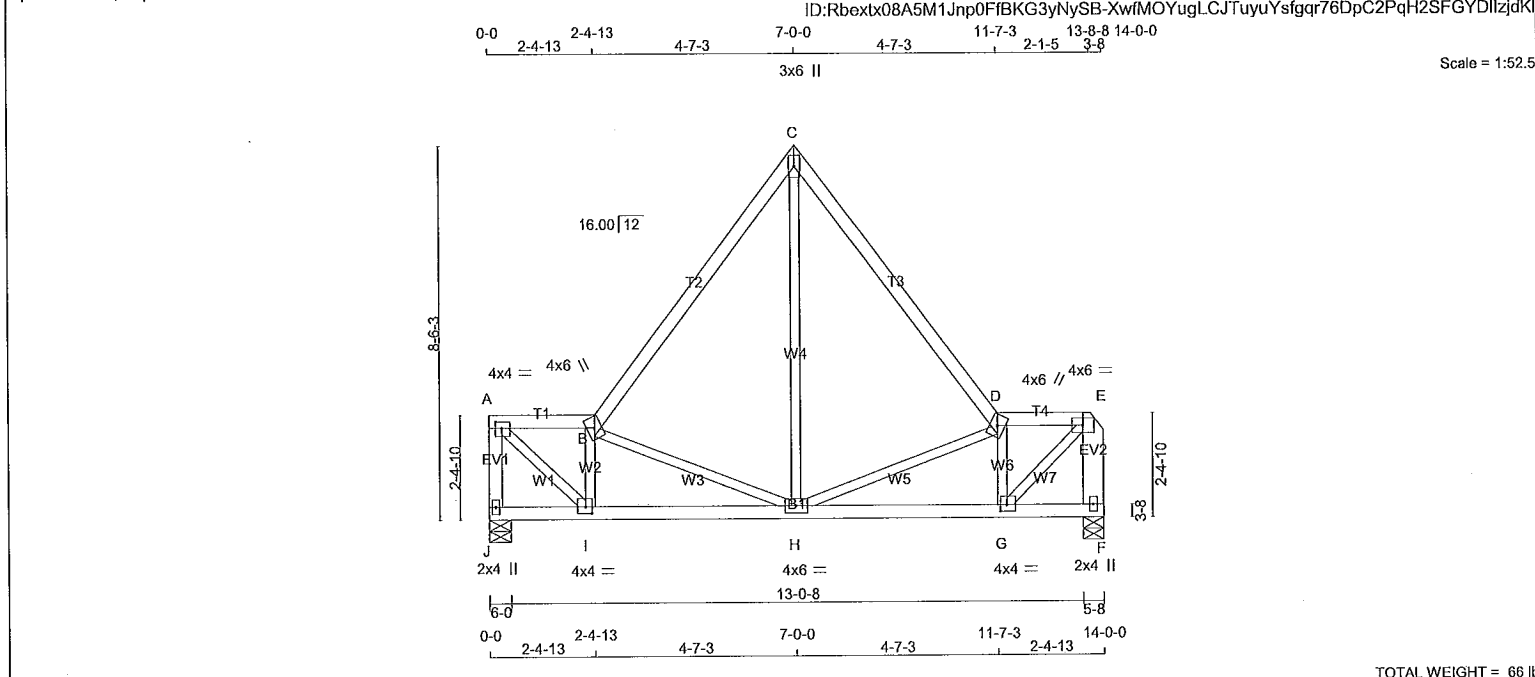
PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.74 (J) (INPUT = 0.90)
JSI METAL= 0.25 (B) (INPUT = 1.00)

A-18023886

JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
292633	H14A	1	1	TRUSS DESC.	

Alpa Roof Truss, Maple



TOTAL WEIGHT = 66 lb

LUMBER

N. L. G. A. RULES

CHORDS SIZE LUMBER DESCR.

J - A 2x4 DRY No.2 SPF

A - B 2x4 DRY No.2 SPF

B - C 2x4 DRY No.2 SPF

C - D 2x4 DRY No.2 SPF

D - E 2x4 DRY No.2 SPF

F - E 2x4 DRY No.2 SPF

J - F 2x4 DRY No.2 SPF

ALL WEBS 2x3 DRY No.2 SPF

EXCEPT

DRY: SEASONED LUMBER.

PLATES (table is in inches)

JT	TYPE	PLATES	W	LEN	Y	X
A	TTMW-I	MT20	4.0	4.0	1.75	1.75
B	TTWW+m	MT20	4.0	6.0		
C	TTW+p	MT20	3.0	6.0		
D	TTWW+m	MT20	4.0	6.0		
E	TTMW-I	MT20	4.0	6.0		
F	BMV1+p	MT20	2.0	4.0		
G	BMWW-I	MT20	4.0	4.0	1.75	1.75
H	BMWWW-I	MT20	4.0	6.0		
I	BMWW-I	MT20	4.0	4.0	1.75	1.75
J	BMV1+p	MT20	2.0	4.0		

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

BEARINGS

	FACTORED GROSS REACTION	MAXIMUM FACTORED GROSS REACTION	INPUT BRG	REQRD BRG
JT	VERT	HORZ	DOWN	HORZ
J	921	0	921	0
F	921	0	921	0

UNFACTORED REACTIONS

1ST LCASE	MAX./MIN. COMPONENT REACTIONS						
JT	COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
J	657	401 / 0	0 / 0	0 / 0	0 / 0	256 / 0	0 / 0
F	657	401 / 0	0 / 0	0 / 0	0 / 0	256 / 0	0 / 0

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

BRACING

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

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

LOADING

TOTAL LOAD CASES: (4)

CHORDS	MAX. FACTORED	FACTORED	MEMB.	FORCE	VERT. LOAD	LC1	MAX	MAX.	MEMB.	MAX. FACTORED	MEMB.	FORCE	MAX
FR-TO	(LBS)	(PLF)	CS	(LC)	UNBRAC	LENGTH	FR-TO	(LBS)	CS	(LC)	(LBS)	CS	(LC)
J-A	-880 / 0	0.0	0.0	0.12 (1)	7.81	A-I	0 / 1194	0.30 (1)					
A-B	-883 / 0	-78.0	-78.0	0.09 (1)	6.25	I-B	-612 / 0	0.10 (1)					
B-C	-682 / 0	-78.0	-78.0	0.35 (1)	6.25	B-H	-550 / 0	0.24 (1)					
C-D	-682 / 0	-78.0	-78.0	0.35 (1)	6.25	H-C	0 / 729	0.18 (1)					
D-E	-883 / 0	-78.0	-78.0	0.09 (1)	6.25	H-D	-551 / 0	0.24 (1)					
F-E	-880 / 0	0.0	0.0	0.08 (1)	7.81	G-D	-612 / 0	0.10 (1)					
						G-E	0 / 1194	0.30 (1)					
J-I	0 / 0	-53.7	-53.7	0.08 (4)	10.00								
I-H	0 / 914	-53.7	-53.7	0.33 (1)	10.00								
H-G	0 / 914	-53.7	-53.7	0.33 (1)	10.00								
G-F	0 / 0	-53.7	-53.7	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

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

GIRDER TYPE: CStdGirder
START DISTANCE = 0-0
START SPAN CARRIED = 3-5-8
END DISTANCE = 14-0-0
END SPAN CARRIED = 3-5-8
END WALL WIDTH = 0-0
APPLIED TO FRONT SIDE OF BOTTOM CHORD.
- ADDTL LOADS BASED ON 55 % OF GSL.

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

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

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

ALLOWABLE DEFL.(LL)= L/360 (0.47")
CALCULATED VERT. DEFL.(LL) = L/999 (0.03")
ALLOWABLE DEFL.(TL)= L/360 (0.47")
CALCULATED VERT. DEFL.(TL) = L/999 (0.07")

CSI: TC=0.35/1.00 (B-C:1), BC=0.33/1.00 (G-H:1)
WB=0.30/1.00 (E-G:1), SSI=0.12/1.00 (H-I:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

AUTOSOLVE LEFT HEEL ONLY

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

NAIL VALUES

PLATE	GRIP(DRY)	SHEAR	SECTION
	(PSI)	(PL)	(PL)
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 (G) (INPUT = 0.90)
JSI METAL= 0.39 (E) (INPUT = 1.00)

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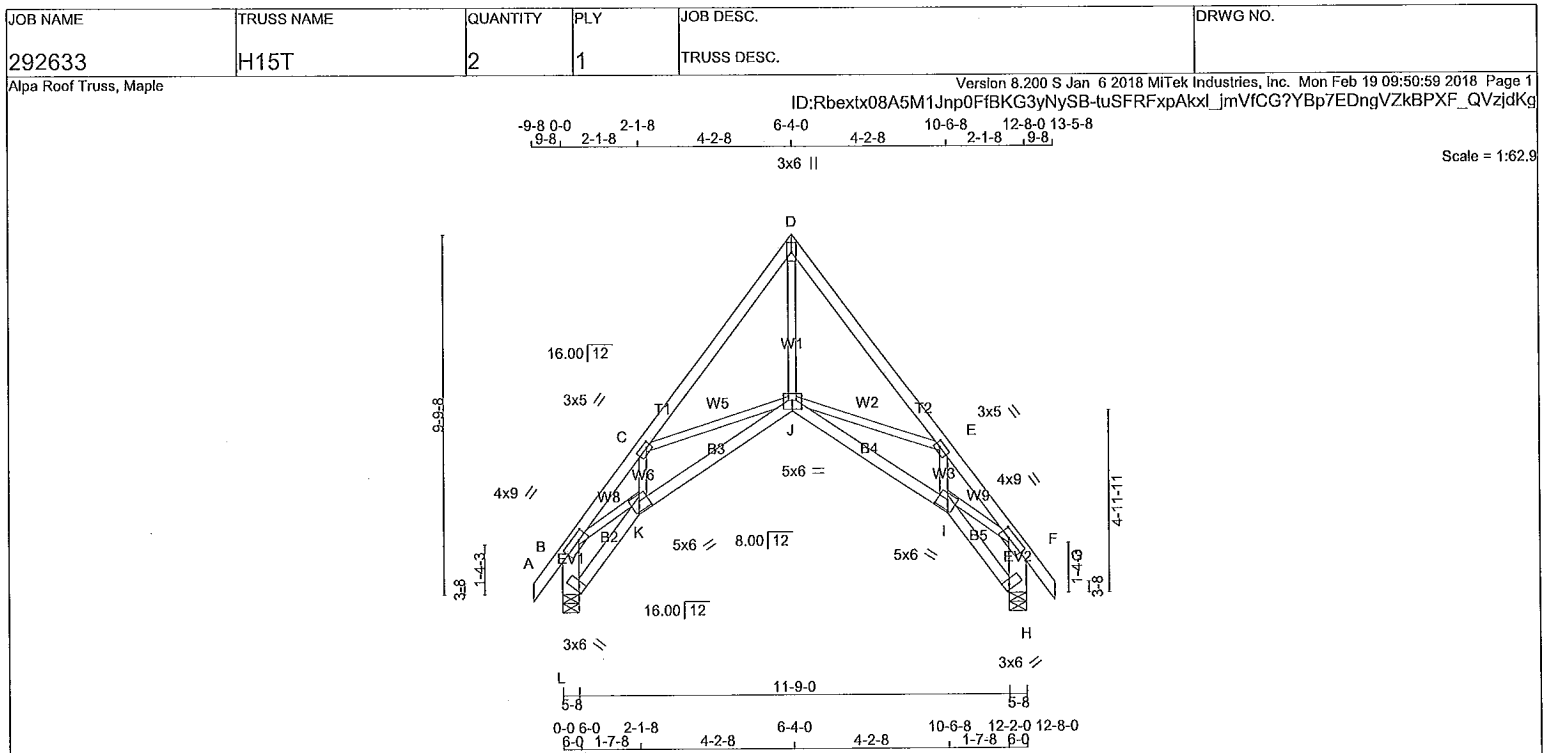
NOTE: Lateral brace(s) shown shall be 1x4 for Part 9 design as per OBC 9.23.13.11, and no less than 2x4 for Part 4 design

REGISTERED PROFESSIONAL ENGINEER

02/19/2018

EDWIN C. FOK

PROVINCE OF ONTARIO



TOTAL WEIGHT = 2 X 68 = 137 lb

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

ALL WEBS 2x3 DRY No.2 SPF
EXCEPT

DRY: SEASONED LUMBER.

PLATES (table is in inches)

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

JT	FACTORED GROSS REACTION		MAXIMUM FACTORED GROSS REACTION		INPUT BRG		REQRD BRG	
	VERT	HORZ	DOWN	HORZ	UPLIFT	IN-SX	IN-SX	
L	682	0	682	0	0	5-8	1-8	
H	682	0	682	0	0	5-8	1-8	

UNFACTORED REACTIONS

JT	1ST LCASE		MAX/MIN. COMPONENT REACTIONS		WIND	DEAD	SOIL
	COMBINED	SNOW	LIVE	PERM.LIVE			
L	485	304 / 0	0 / 0	0 / 0	0 / 0	181 / 0	0 / 0
H	485	304 / 0	0 / 0	0 / 0	0 / 0	181 / 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 = 5.71 FT.
MAX. UNBRACED BOTTOM CHORD LENGTH = 10.00 FT. OR RIGID CEILING DIRECTLY APPLIED.

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

LOADING

TOTAL LOAD CASES: (4)

MEMB.	CHORDS		FACTORED		WEBS		FACTORED	
	MAX. FACTORED	FORCE	VERT. LOAD	LC1 MAX	MAX. MEMB.	FORCE	MAX. FACTORED	CS1 (LC)
FR-TO		(LBS)	FROM TO	CS1 (LC)	LENGTH	FR-TO	(LBS)	CS1 (LC)
A-B	0 / 28		-78.0 -78.0	0.05 (1)	10.00	J-D	0 / 900	0.20 (1)
B-C	-1208 / 0		-78.0 -78.0	0.12 (1)	5.71	J-E	-316 / 0	0.10 (1)
C-D	-752 / 0		-78.0 -78.0	0.18 (1)	6.25	I-E	0 / 51	0.02 (4)
D-E	-752 / 0		-78.0 -78.0	0.18 (1)	6.25	C-J	-316 / 0	0.10 (1)
E-F	-1208 / 0		-78.0 -78.0	0.12 (1)	5.71	K-C	0 / 51	0.02 (4)
F-G	0 / 28		-78.0 -78.0	0.05 (1)	10.00	B-K	0 / 869	0.20 (1)
L-B	-662 / 0		0.0 0.0	0.05 (1)	7.81	I-F	0 / 869	0.20 (1)
H-F	-662 / 0		0.0 0.0	0.05 (1)	7.81			
L-K	0 / 0		-18.5 -18.5	0.02 (4)	10.00			
K-J	0 / 893		-18.5 -18.5	0.20 (1)	10.00			
J-I	0 / 893		-18.5 -18.5	0.20 (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 (0.42")
CALCULATED VERT. DEFL.(LL) = L/999 (0.03")
ALLOWABLE DEFL.(TL)= L/360 (0.42")
CALCULATED VERT. DEFL.(TL) = L/999 (0.07")

CSI: TC=0.18/1.00 (D-E:1), BC=0.20/1.00 (I-J:1), WB=0.20/1.00 (D-J:1), SSI=0.09/1.00 (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)
MAX MIN MAX MIN MAX MIN
MT20 618 354 1667 788 1987 1656

PLATE PLACEMENT TOL. = 0.250 inches

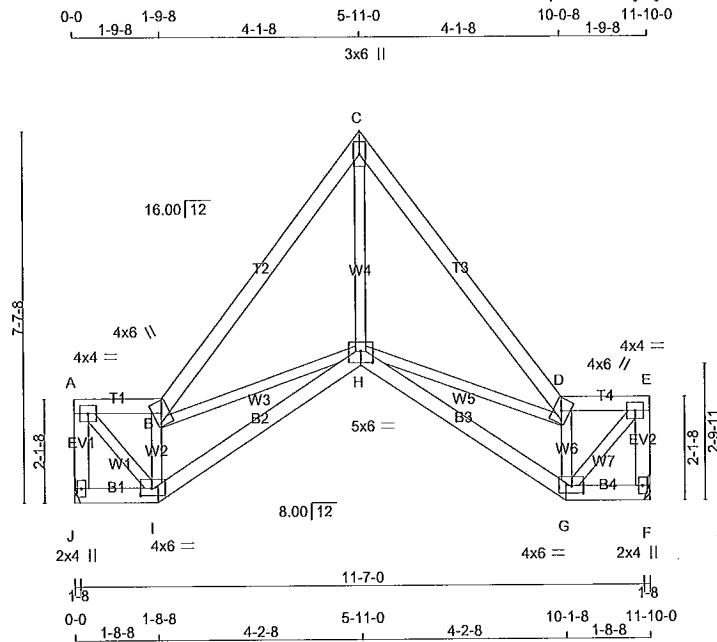
PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.67 (J) (INPUT = 0.90)
JSI METAL= 0.22 (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



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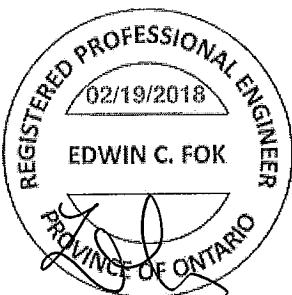


TOTAL WEIGHT = 56 lb

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

PLATES (table is in inches)					
JT	TYPE	PLATES	W	LEN	Y X
A	TMVW-i	MT20	4.0	4.0	
B	TTWW+m	MT20	4.0	6.0	
C	TTW+p	MT20	3.0	6.0	
D	TTWW+m	MT20	4.0	6.0	
E	TMVW-i	MT20	4.0	4.0	
F	BMV1+p	MT20	2.0	4.0	
G	BBWW-i	MT20	4.0	6.0	1.75 2.75
H	BBWWW-p	MT20	5.0	6.0	2.75 3.00
I	BBWW-i	MT20	4.0	6.0	1.75 2.75
J	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	REORD BRG
JT	VERT	HORZ	DOWN	HORZ	UPLIFT	IN-SX	IN-SX
J	571	0	571	0	0	HANGER BY OTHERS MIN. SEAT SIZE: 1-8	HANGER BY OTHERS MIN. SEAT SIZE: 1-8
F	571	0	571	0	0	HANGER BY OTHERS MIN. SEAT SIZE: 1-8	HANGER BY OTHERS MIN. SEAT SIZE: 1-8

UNFACTORED REACTIONS

1ST LCASE		MAX./MIN. COMPONENT REACTIONS					
JT	COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
J	407	248 / 0	0 / 0	0 / 0	0 / 0	159 / 0	0 / 0
F	407	248 / 0	0 / 0	0 / 0	0 / 0	159 / 0	0 / 0

BRACING

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

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

LOADING

LOADING
TOTAL LOAD CASES: (4)

CHORDS				WEBS			
MAX. FACTORED		FACTORED		MAX. FACTORED			
MEMB.	FORCE	VERT. LOAD	LC1	MAX	MAX.	MEMB.	FORCE
	(LBS)	(PLF)	CSI (LC)	UNBRAC	LENGTH		(LBS)
FR-TO		FROM TO				FR-TO	CSI (LC)
J-A	-555 / 0	0.0	0.0	0.06 (1)	7.81	A-I	0 / 683
A-B	-468 / 0	-78.0	-78.0	0.03 (1)	6.25	I-B	-782 / 0
B-C	-636 / 0	-78.0	-78.0	0.18 (1)	6.25	B-H	-124 / 0
C-D	-636 / 0	-78.0	-78.0	0.18 (1)	6.25	H-C	0 / 692
D-E	-468 / 0	-78.0	-78.0	0.03 (1)	6.25	H-D	-124 / 0
F-E	-555 / 0	0.0	0.0	0.06 (1)	7.81	G-D	-782 / 0
						G-E	0 / 683
J-I	0 / 0	-18.5	-18.5	0.02 (4)	10.00		
I-H	0 / 607	-18.5	-18.5	0.15 (4)	10.00		
H-G	0 / 607	-18.5	-18.5	0.15 (4)	10.00		
G-F	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 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 (0.39")
CALCULATED VERT. DEFL.(LL) = L/ 999 (0.02")
ALLOWABLE DEFL.(TL)= L/360 (0.39")
CALCULATED VERT. DEFL.(TL) = L/ 999 (0.05")

CSI: TC=0.18/1.00 (C-D:1), BC=0.15/1.00 (G-H:4)
 , WB=0.16/1.00 (C-H: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

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

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

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.71 (A) (INPUT = 0.90)
JSI METAL= 0.20 (A) (INPUT = 1.00)

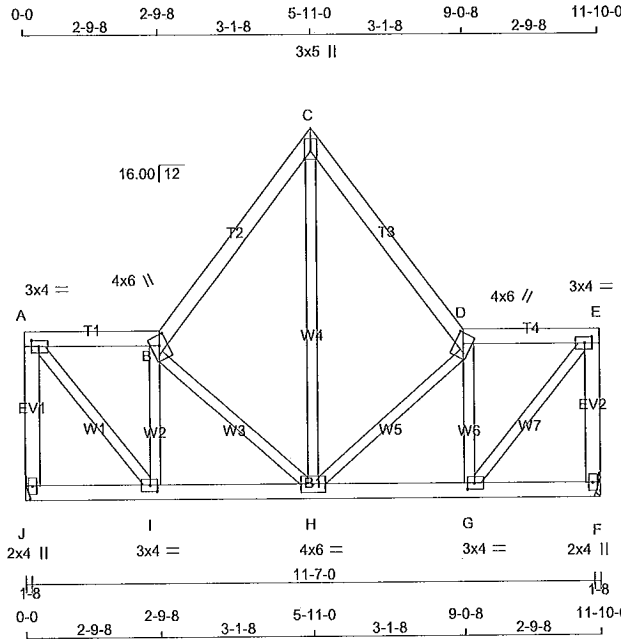
A-18023889

JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
292633	H17	2	1	TRUSS DESC.	

Alpa Roof Truss, Maple

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Scale = 1:47.4

TOTAL WEIGHT = 2 X 62 = 124 lb

(M/F)

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

PLATES (table is in inches)

JT	TYPE	PLATES	W	LEN	Y	X
A	TMVW-I	MT20	3.0	4.0	1.50	1.75
B	TTWW+m	MT20	4.0	6.0	2.50	2.00
C	TTW+p	MT20	3.0	5.0	2.00	Edge
D	TTWW+m	MT20	4.0	6.0	2.50	2.00
E	TMVW-I	MT20	3.0	4.0	1.50	1.75
F	BMV1+p	MT20	2.0	4.0		
G	BMVW-I	MT20	3.0	4.0	1.50	1.75
H	BMVW-I	MT20	3.0	4.0	1.50	1.75
I	BMVW-I	MT20	3.0	4.0	1.50	1.75
J	BMV1+p	MT20	2.0	4.0		

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

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

BEARINGS

	FACTORED GROSS REACTION	MAXIMUM FACTORED GROSS REACTION	INPUT	REQRD
	VERT	HORZ	DOWN	HORZ
JT				
J	571	0	571	0
F	571	0	571	0

HANGER BY OTHERS
MIN. SEAT SIZE: 1-8
HANGER BY OTHERS
MIN. SEAT SIZE: 1-8

UNFACTORED REACTIONS

	1ST LCASE	MAX./MIN. COMPONENT REACTIONS					
JT	COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
J	407	248 / 0	0 / 0	0 / 0	0 / 0	159 / 0	0 / 0
F	407	248 / 0	0 / 0	0 / 0	0 / 0	159 / 0	0 / 0

BRACING

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

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

LOADING

TOTAL LOAD CASES: (4)

	CHORDS	WEBS
	MAX. FACTORED	MAX. FACTORED
MEMB.	FORCE (LBS)	FORCE (LBS)
	VERT. LOAD LC1	MAX. MEMB. UNBRACED LENGTH
FR-TO	FROM TO	FR-TO
J-A	-548 / 0	0.0 0.0 0.10 (1)
A-B	-378 / 0	-78.0 -78.0 0.08 (1)
B-C	-389 / 0	-78.0 -78.0 0.10 (1)
C-D	-389 / 0	-78.0 -78.0 0.10 (1)
D-E	-378 / 0	-78.0 -78.0 0.08 (1)
F-E	-548 / 0	0.0 0.0 0.10 (1)
J-I	0 / 0	-18.5 -18.5 0.03 (4)
I-H	0 / 391	-18.5 -18.5 0.08 (1)
H-G	0 / 391	-18.5 -18.5 0.08 (1)
G-F	0 / 0	-18.5 -18.5 0.03 (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 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 (0.39")
CALCULATED VERT. DEFL.(LL) = L/999 (0.01")
ALLOWABLE DEFL.(TL)= L/360 (0.39")
CALCULATED VERT. DEFL.(TL) = L/999 (0.02")

CSI: TC=0.10/1.00 (A-J:1), BC=0.08/1.00 (G-H:1), WB=0.13/1.00 (E-G:1), SS=0.08/1.00 (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

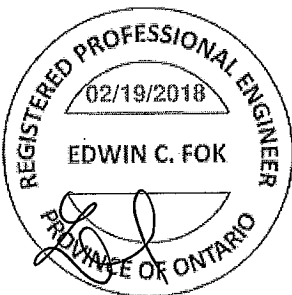
PLATE	GRIP(DRY)	SHEAR	SECTION
(PSI)	(PLI)	(PLI)	
MAX	MIN	MAX	MIN
MT20	618	354	1667

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.88 (I) (INPUT = 0.90)
JSI METAL= 0.18 (G) (INPUT = 1.00)

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

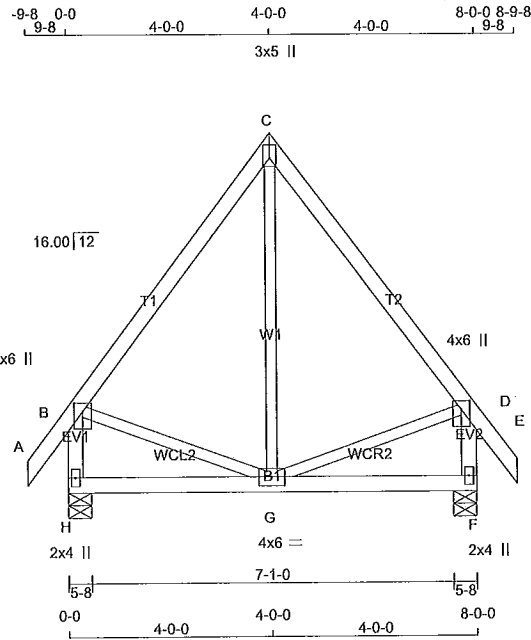


A-18023890

JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
292633	H18	2	1	TRUSS DESC.	

Alpa Roof Truss, Maple

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ID:Rbextx08A5M1Jnp0fBKG3yNySB-u9_h039T9y4LXKZn9H4?km01C4dT_JfhJtOW0zjdKP



TOTAL WEIGHT = 2 X 42 = 85 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	
H - B	2x4	DRY	No.2	SPF	
F - D	2x4	DRY	No.2	SPF	
H - F	2x4	DRY	No.2	SPF	

ALL WEBS 2x3 DRY No.2 SPF
EXCEPT

DRY: SEASONED LUMBER.

PLATES (table is in inches)	JT	TYPE	PLATES	W	LEN	Y	X
B	TMVW+p	MT20	4.0	6.0	2.00	2.00	
C	TTW+p	MT20	3.0	5.0	2.00	Edge	
D	TMVW+p	MT20	4.0	6.0	2.00	2.00	
F	BMV1+p	MT20	2.0	4.0			
G	BMVWW-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	REQRD
JT	VERT	HORZ	DOWN	UPLIFT
H	457	0	457	0
F	457	0	457	0

UNFACTORED REACTIONS

JT	1ST LCASE	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
H	324	206 / 0	0 / 0	0 / 0	0 / 0	118 / 0	0 / 0
F	324	206 / 0	0 / 0	0 / 0	0 / 0	118 / 0	0 / 0

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

BRACING

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

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

LOADING

TOTAL LOAD CASES: (4)

CHORDS	MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	LC1	MAX	CS1 (LC)	WEBS	MEMB.	MAX. FACTORED FORCE (LBS)	MAX CS1 (LC)
FR-TO							FR-TO			
A-B	0 / 28	-78.0	-78.0	0.05 (1)	10.00		G-C	0 / 69	0.02 (4)	
B-C	-203 / 0	-78.0	-78.0	0.16 (1)	6.25		B-G	0 / 128	0.03 (1)	
C-D	-203 / 0	-78.0	-78.0	0.16 (1)	6.25		G-D	0 / 128	0.03 (1)	
D-E	0 / 28	-78.0	-78.0	0.05 (1)	10.00					
H-B	-428 / 0	0.0	0.0	0.05 (1)	7.81					
F-D	-428 / 0	0.0	0.0	0.05 (1)	7.81					
H-G	0 / 0	-18.5	-18.5	0.08 (4)	10.00					
G-F	0 / 0	-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

ALLOWABLE DEFL.(LL)= L/360 (0.27")
CALCULATED VERT. DEFL.(LL) = L/999 (0.00")
ALLOWABLE DEFL.(TL)= L/360 (0.27")
CALCULATED VERT. DEFL.(TL) = L/999 (0.01")

CSI: TC=0.16/1.00 (C-D:1), BC=0.08/1.00 (F-G:4), WB=0.03/1.00 (B-G:1), SSI=0.07/1.00 (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.

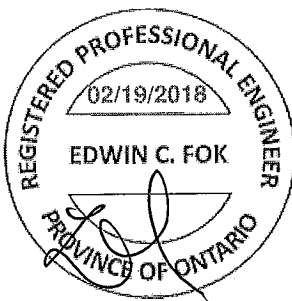
NAIL VALUES	PLATE	GRIP (DRY)	SHEAR (PLI)	SECTION (PLI)
		(PSI)	(PLI)	(PLI)
		MAX	MIN	MAX
	MT20	618	354	1667
		788	1987	1656

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.25 (D) (INPUT = 0.80)
JSI METAL= 0.12 (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-18023891

Alpa Roof Truss, Maple

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ID:Rbextx08A5M1Jnp0FBKG3yNySB-E6na3nCc_Vied6SkxqfARqkwg5LdYpQTya9CDzjdKk

Scale = 1:45.7



A-18023892

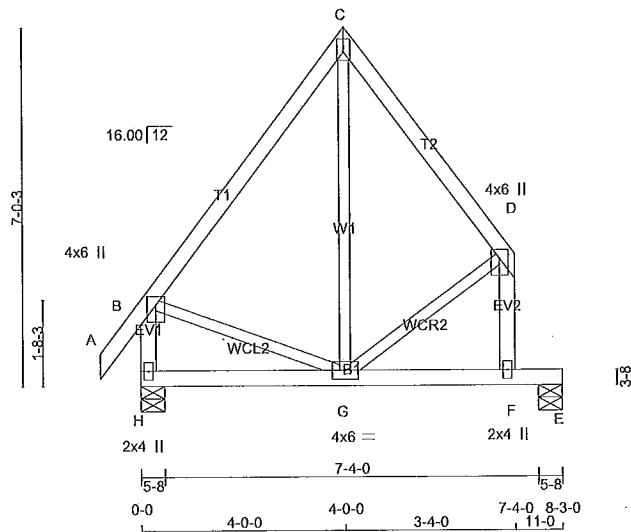
JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
292633	H18S	2	1	TRUSS DESC.	

Alpa Roof Truss, Maple

Version 8.200 S Jan 6 2018 MiTek Industries, Inc. Mon Feb 19 09:51:43 2018 Page 1

ID:Rbextx08A5M1Jnp0FIBKG3yNySB-bL6ugITPoFUWGU7zES3KKSeUzIbPWCfWNvJzyjdK

-9-8 0-0 4-0-0 4-0-0 3-4-0 7-4-0
9-8 3x5 II
Scale = 1:45.1



TOTAL WEIGHT = 2 X 41 = 82 lb [M]

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

ALL WEBS 2x3 DRY No.2 SPF
EXCEPT

DRY: SEASONED LUMBER.

PLATES (table is in inches)	JT	TYPE	PLATES	W	LEN	Y	X
B	TMW+p	MT20	4.0	6.0	2.00	2.00	
C	TTW+p	MT20	3.0	5.0	2.00	Edge	
D	TMW+p	MT20	4.0	6.0	2.00	2.00	
F	BMV+p	MT20	2.0	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		MAXIMUM FACTORED		INPUT		REQRD	
		GROSS REACTION		GROSS REACTION		BRG		BRG	
JT	VERT	HORZ	DOWN	HORZ	UPLIFT	IN-SX	IN-SX		
H	469	0	469	0	0	5-8	1-8		
E	398	0	398	0	0	5-8	1-8		

UNFACTORED REACTIONS
1ST LCASE MAX./MIN. COMPONENT REACTIONS

JT	COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
H	333	211 / 0	0 / 0	0 / 0	0 / 0	121 / 0	0 / 0
E	284	173 / 0	0 / 0	0 / 0	0 / 0	111 / 0	0 / 0

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

BRACING

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

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

LOADING

TOTAL LOAD CASES: (4)

CHORDS		FACTORED		MEMB.		WEBS		FACTORED	
MEMB.	FORCE (LBS)	VERT. LOAD (PLF)	LC1 MAX	MAX. UNBRAC	MEMB.	FORCE (LBS)	MAX. UNBRAC	MEMB.	FORCE (LBS)
FR-TO		FROM	TO	LENGTH	FR-TO			FR-TO	
A-B	0 / 28	-78.0	-78.0	0.05 (1)	10.00	G-C	0 / 92	0.03 (4)	
B-C	-232 / 0	-78.0	-78.0	0.22 (1)	6.25	B-G	0 / 146	0.03 (1)	
C-D	-232 / 0	-78.0	-78.0	0.15 (1)	6.25	G-D	0 / 166	0.04 (1)	
H-B	-457 / 0	0.0	0.0	0.05 (1)	7.81				
F-D	-406 / 0	0.0	0.0	0.06 (1)	7.81				
H-G	0 / 0	-18.5	-18.5	0.14 (1)	10.00				
G-F	0 / 0	-18.5	-18.5	0.44 (1)	10.00				
F-E	0 / 0	-96.5	-96.5	0.44 (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. G/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)= 1/360 (0.27")
CALCULATED VERT. DEFL.(LL) = 1/999 (0.05")
ALLOWABLE DEFL.(TL)= 1/360 (0.27")
CALCULATED VERT. DEFL.(TL) = 1/977 (0.10")

CSI: TC=0.22/1.00 (B-C:1), BC=0.44/1.00 (E-F:1),
WB=0.04/1.00 (D-G:1), SSI=0.31/1.00 (E-F:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

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

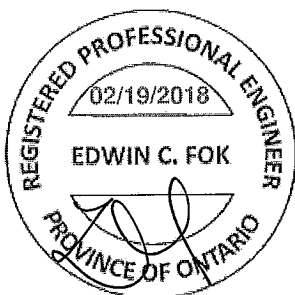
NAIL VALUES	PLATE	GRIP(DRY)	SHEAR	SECTION
	(PSI)	(PLI)	(PLI)	(PLI)
	MAX	MIN	MAX	MIN
MT20	618	354	1667	788
			1987	1656

PLATE PLACEMENT TOL. = 0.250 inches

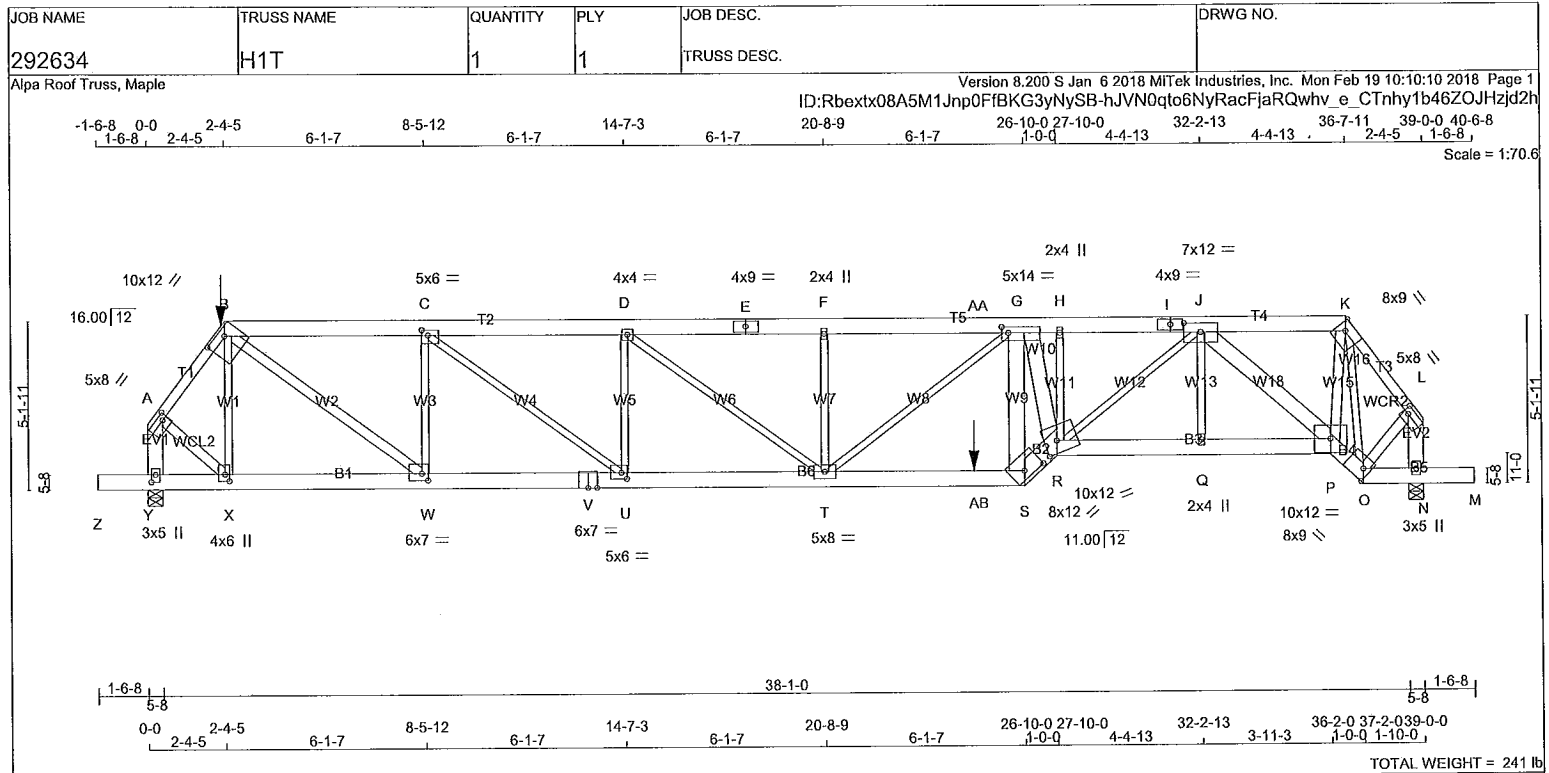
PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.27 (B) (INPUT = 0.90)
JSI METAL= 0.13 (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-18023893



LUMBER				DIMENSIONS, SUPPORTS AND LOADINGS SPECIFIED BY FABRICATOR TO BE VERIFIED BY BUILDING DESIGNER				DESIGN CRITERIA			
N. L. G. A. RULES				BEARINGS				*** SPECIAL LOADS ANALYSIS ***			
CHORDS	SIZE	LUMBER	DESCR.	FACTORED	MAXIMUM FACTORED	INPUT	REQD	GEOMETRY AND/OR BASIC LOADS CHANGED BY USER.			
A - B	2x4	DRY	No.2	GROSS REACTION	GROSS REACTION	BRG	BRG	LOADS WERE DERIVED FROM USER INPUT			
B - E	2x6	DRY	No.2	VERT	DOWN	UPLIFT	IN-SX	NO FURTHER MODIFICATIONS WERE MADE			
E - I	2x6	DRY	No.2	Y	3925	0	5-8	SPECIFIED LOADS:			
I - K	2x6	DRY	No.2	N	3443	0	5-8	TOP CH. LL = 21.0 PSF			
K - L	2x4	DRY	No.2	ALLOW FOR 0.3" OF HORIZONTAL MOVEMENT DUE TO TOTAL LOAD				DL = 6.0 PSF			
Y - A	2x6	DRY	No.2	UNFACTORED REACTIONS				BOT CH. LL = 0.0 PSF			
N - L	2x6	DRY	No.2	1ST LCASE	MAX/MIN. COMPONENT REACTIONS	WIND	DEAD	DL = 7.4 PSF			
Z - V	2x6	DRY	2100F 1.8E	JT COMBINED	SNOW	LIVE	PERM.LIVE	TOTAL LOAD = 34.4 PSF			
V - S	2x6	DRY	2100F 1.8E	Y	2793	1735 / 0	0 / 0	SPACING = 24.0 IN. C/C			
S - R	2x8	DRY	1950F 1.7E	N	2443	1557 / 0	0 / 0	LOADING IN FLAT SECTION BASED ON A SLOPE OF 2.00/12 MINIMUM			
R - P	2x6	DRY	No.2	BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S) Y, N				GIRDER TYPE: CPrimeHlp			
P - O	2x6	DRY	1650F 1.5E	BEARING SIZE FACTOR = 1.15 AT JNT(S) Y (BASED ON SUPPORT DEPTH = 1-8)				SIDE SETBACK = 2-4-5			
O - M	2x6	DRY	No.2	BRACING				END SETBACK = 5-10-8			
ALL WEBS EXCEPT				TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 2.35 FT.				END WALL WIDTH = 0-0			
B - W	2x4	DRY	No.2	MAX. UNBRACED BOTTOM CHORD LENGTH = 10.00 FT OR RIGID CEILING DIRECTLY APPLIED.				CORNER FRAMING TYPE: CONVENTIONAL			
S - G	2x6	DRY	No.2	ALL PITCH BREAKS AND PERIMETER CORNER JOINTS MUST BE Laterally RESTRAINED.				END JACK TYPE: CONVENTIONAL			
G - R	2x6	DRY	No.2	LOADING				APPLIED TO FRONT SIDE			
P - K	2x4	DRY	No.2	TOTAL LOAD CASES: (4)				- ADD'L LOADS BASED ON 55 % OF GSL.			
A - X	2x4	DRY	No.2	CHORDS				LOADS APPLIED TO FIRST 25-3-8 OF SPAN MEASURED FROM THE LEFT.			
O - L	2x4	DRY	No.2	MEMB. FORCE (LBS)				*** NON STANDARD GIRDER ***			
J - P	2x6	DRY	No.2	MAX. FACTORED				ADD'L USER-DEFINED LOADS APPLIED TO ALL LOAD CASES.			
DRY: SEASONED LUMBER.				FR-TO				THIS TRUSS IS DESIGNED FOR RESIDENTIAL OR SMALL BUILDING REQUIREMENTS OF PART 9, NBCC 2010, NBCC 2015			
PLATES (table is in inches)				FROM TO				THIS DESIGN COMPLIES WITH:			
JT TYPE	PLATES	W	LEN	Y	X	MAX. FACTORED	MAX. FACTORED	- PART 9 OF OBC 2012, OBC 2018			
A TMVW-t	MT20	5.0	8.0	2.00	2.00	FR-TO	FR-TO	- CSA 086-09, CSA 086-14			
B TMVW-h	MT20	10.0	12.0	2.50	7.00	MAX. FACTORED	MAX. FACTORED	- TPIC 2011, TPIC 201			

JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
292634	H1T	1	1	TRUSS DESC.	
Alpa Roof Truss, Maple					
Version 8.200 S Jan 6 2018 MITek Industries, Inc. Mon Feb 19 10:10:11 2018 Page 2 ID:Rbextx08A5M1Jnp0FfBKg3yNySB-9W3mD9uQth4ICmqv88x9E6Xpkcp0QPHIJmJyskzjd2g					

PLATES (table is in inches)

JT	TYPE	PLATES	W	LEN	Y	X
O	BBWW-h	MT20	8.0	9.0	4.00	2.50
P	BBWW-l	MT20	10.0	12.0		
Q	BMW+w	MT20	2.0	4.0		
R	BBWWW-m	MT20	10.0	12.0	4.50	4.50
S	BBW-h	MT20	8.0	12.0	2.75	7.00
T	BMWWW-l	MT20	5.0	8.0		
U	BMWW-l	MT20	5.0	6.0	2.25	2.00
V	BS-l	MT20	6.0	7.0		
W	BMWW-l	MT20	6.0	7.0	2.50	2.25
X	BMWW+l	MT20	4.0	6.0	2.50	1.50
Y	BMV1+p	MT20	3.0	5.0	2.75	1.50

HANGERS NOTES

- 1) SPECIAL HANGER(S) OR CONNECTION(S) REQUIRED TO SUPPORT CONCENTRATED LOAD(S) 134.1 lbs FACTORED DOWN AT 2-4-5 ON TOP CHORD, AND 988.9 lbs FACTORED DOWN AT 25-3-8 ON BOTTOM CHORD. DESIGN FOR UNSPECIFIED CONNECTION(S) IS DELEGATED TO THE BUILDING DESIGNER.

COMPANION LIVE LOAD FACTOR = 1.00

AUTOSOLVE HEELS OFF

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

NAIL VALUES

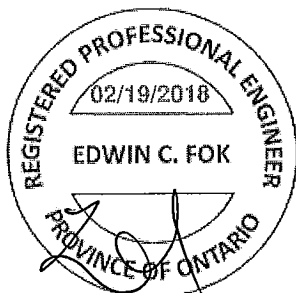
PLATE	GRIP(DRY)	SHEAR	SECTION
	(PSI)	(PLI)	(PLI)
	MAX	MIN	MAX
MT20	618	354	1667
	788	1987	1656

PLATE PLACEMENT TOL. = 0.250 inches

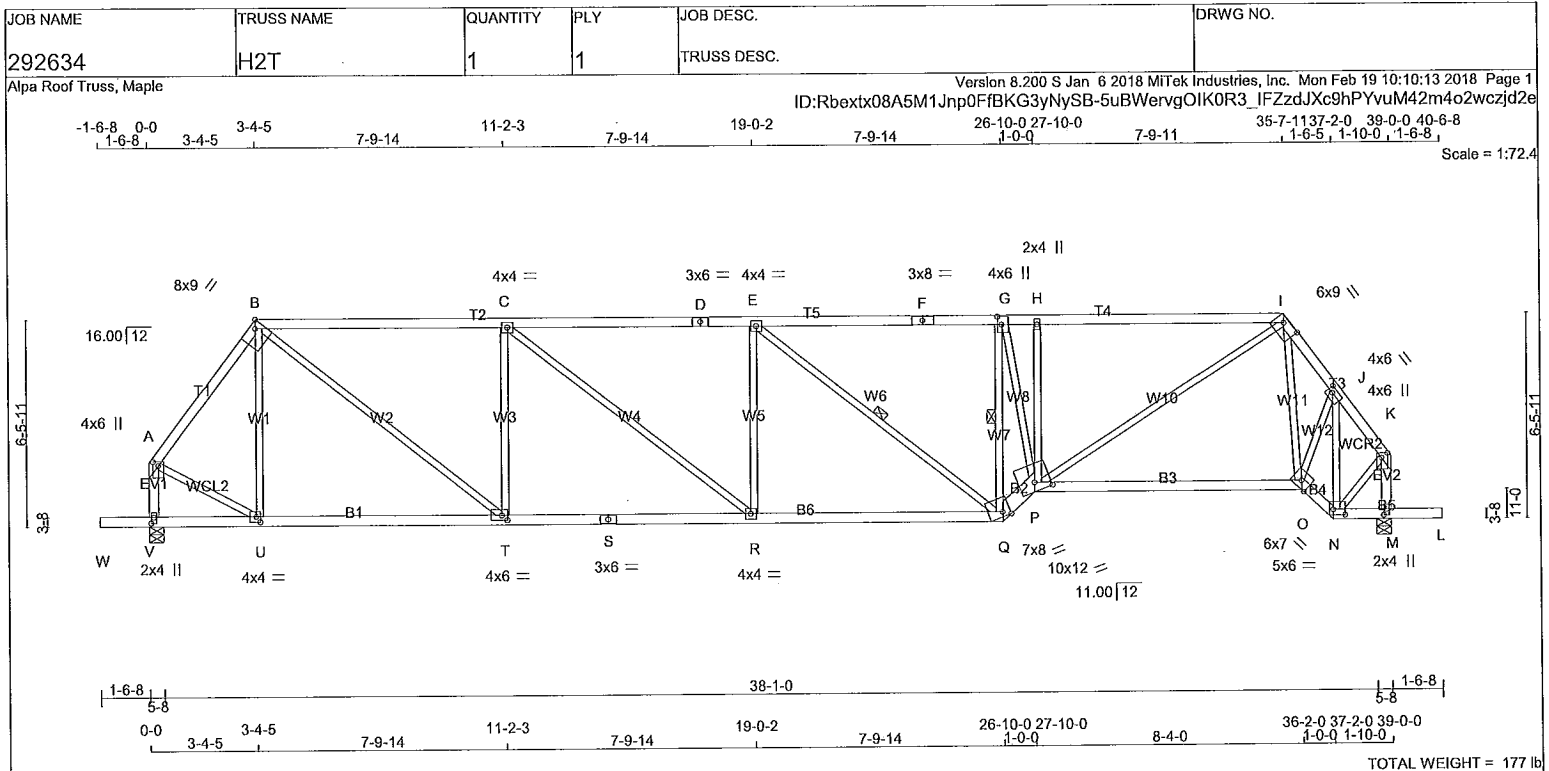
PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.90 (X) (INPUT = 0.90)
JSI METAL= 0.99 (S) (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-1802389(4)(2)



LUMBER				
N. L. G. A. RULES				
CHORDS	SIZE	LUMBER	DESCR.	
A - B	2x4	DRY	No.2	SPF
B - D	2x4	DRY	1650F 1.5E	SPF
D - F	2x4	DRY	1650F 1.5E	SPF
F - I	2x4	DRY	1650F 1.5E	SPF
I - K	2x4	DRY	No.2	SPF
V - A	2x4	DRY	No.2	SPF
M - K	2x4	DRY	No.2	SPF
W - S	2x4	DRY	No.2	SPF
S - Q	2x4	DRY	No.2	SPF
Q - P	2x6	DRY	No.2	SPF
P - O	2x4	DRY	No.2	SPF
O - N	2x4	DRY	No.2	SPF
N - L	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 1.50 2.00
B	TTVW-h	MT20	8.0	9.0 Edge 2.75
C	TMVW-t	MT20	4.0	4.0
D	TS-t	MT20	3.0	6.0
E	TMVW-t	MT20	4.0	4.0
F	TS-t	MT20	3.0	8.0
G	TMVW+t	MT20	4.0	6.0 3.00 1.50
H	TMVW-w	MT20	2.0	4.0
I	TTVW-h	MT20	6.0	9.0 1.75 6.00
J	TMVW-t	MT20	4.0	6.0 1.75 2.00
K	TMVW+p	MT20	4.0	6.0 1.75 2.25
M	BMV1+p	MT20	2.0	4.0 2.25 1.00
N	BBVW-l	MT20	5.0	6.0 2.00 4.50
O	BBVW-h	MT20	6.0	7.0 Edge
P	BBVWV-m	MT20	10.0	12.0 3.25 6.00
Q	BBVW-m	MT20	7.0	8.0 Edge 2.75
R	BMVW-t	MT20	4.0	4.0
S	BS-t	MT20	3.0	6.0
T	BMVW-t	MT20	4.0	6.0 1.75 2.00
U	BMVW-t	MT20	4.0	4.0 2.00 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		REQD	
GROSS REACTION			GROSS REACTION			BRG		BRG	
JT	VERT	HORZ	DOWN	HORZ	UPLIFT	IN-SX	IN-SX		
V	2027	0	2027	0	0	5-8	3-0		
M	2033	0	2033	0	0	5-8	3-0		

UNFACTORED REACTIONS							
1ST LCASE		MAX./MIN. COMPONENT REACTIONS					
JT	COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
V	1445	882 / 0	0 / 0	0 / 0	0 / 0	563 / 0	0 / 0
M	1449	885 / 0	0 / 0	0 / 0	0 / 0	565 / 0	0 / 0

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

BRACING
TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 3.70 FT.
MAX. UNBRACED BOTTOM CHORD LENGTH = 10.00 FT OR RIGID CEILING DIRECTLY APPLIED.

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

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

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

LOADING
TOTAL LOAD CASES: (4)

CHORDS				WEBS			
MAX. FACTORED		FACTORED		MAX. FACTORED		MAX. FACTORED	
MEMB.	FORCE (LBS)	VERT. LOAD (PLF)	MAX. CSI (LC)	MEMB.	FORCE (LBS)	MAX. CSI (LC)	
FR-TO		FROM TO		FR-TO			
A-B	-1610 / 0	-78.0 -78.0 0.21 (1)	5.02	U-B	-319 / 0	0.22 (1)	
B-C	-2513 / 0	-78.0 -78.0 0.81 (1)	4.03	B-T	0 / 1982	0.45 (1)	
C-D	-3034 / 0	-78.0 -78.0 0.90 (1)	3.70	T-C	-1082 / 0	0.74 (1)	
D-E	-3034 / 0	-78.0 -78.0 0.90 (1)	3.70	C-R	0 / 663	0.15 (1)	
E-F	-2625 / 0	-78.0 -78.0 0.67 (1)	4.22	R-E	-282 / 5	0.19 (1)	
F-G	-2625 / 0	-78.0 -78.0 0.67 (1)	4.22	E-Q	-519 / 0	0.36 (1)	
G-H	-2955 / 0	-78.0 -78.0 0.52 (1)	3.91	Q-G	-2012 / 0	0.55 (1)	
H-I	-2964 / 0	-78.0 -78.0 0.77 (1)	3.91	G-P	0 / 1741	0.39 (1)	
I-J	-1823 / 0	-78.0 -78.0 0.07 (1)	4.92	P-H	-425 / 0	0.20 (1)	
J-K	-1319 / 0	-78.0 -78.0 0.05 (1)	5.59	P-I	0 / 2248	0.51 (1)	
V-A	-1869 / 0	0.0 0.0 0.22 (1)	6.13	I-O	-93 / 22	0.04 (1)	
M-K	-1805 / 0	0.0 0.0 0.21 (1)	6.23	O-J	0 / 921	0.21 (1)	
				N-J	-1412 / 0	0.38 (1)	
W-V	0 / 0	-96.5 -96.5 0.16 (1)	10.00	A-U	0 / 1057	0.24 (1)	
V-U	0 / 0	-18.5 -18.5 0.17 (4)	10.00	N-K	0 / 1047	0.24 (1)	
U-T	0 / 954	-18.5 -18.5 0.30 (4)	10.00				
T-S	0 / 2514	-18.5 -18.5 0.55 (1)	10.00				
S-R	0 / 2514	-18.5 -18.5 0.55 (1)	10.00				
R-Q	0 / 3034	-18.5 -18.5 0.63 (1)	10.00				
Q-P	0 / 3597	-18.5 -18.5 0.43 (1)	10.00				
P-O	0 / 1086	-18.5 -18.5 0.48 (4)	10.00				
O-N	0 / 1024	-18.5 -18.5 0.17 (1)	10.00				
N-M	0 / 0	-18.5 -18.5 0.16 (1)	10.00				
M-L	0 / 0	-96.5 -96.5 0.16 (1)	10.00				

DESIGN CRITERIA

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

SPACING = 24.0 IN. C/C

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

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

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

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

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

ALLOWABLE DEFL.(LL)= L/360 (1.30")
CALCULATED VERT. DEFL.(LL) = L/999 (0.19")
ALLOWABLE DEFL.(TL)= L/360 (1.30")
CALCULATED VERT. DEFL.(TL) = L/999 (0.46")

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=0.90/1.00 (C-E:1), BC=0.63/1.00 (Q-R:1), WB=0.74/1.00 (C-T:1), SSI=0.29/1.00 (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.

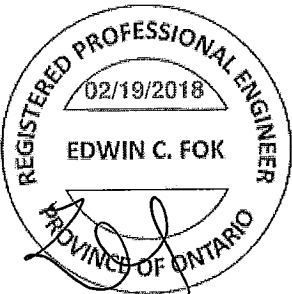
NAIL VALUES					
PLATE	GRIP(DRY)	SHEAR	SECTION		
	(PSI)	(PLI)	(PLI)		
	MAX	MIN	MAX	MIN	MAX
MT20	618	354	1667	788	1987 1656

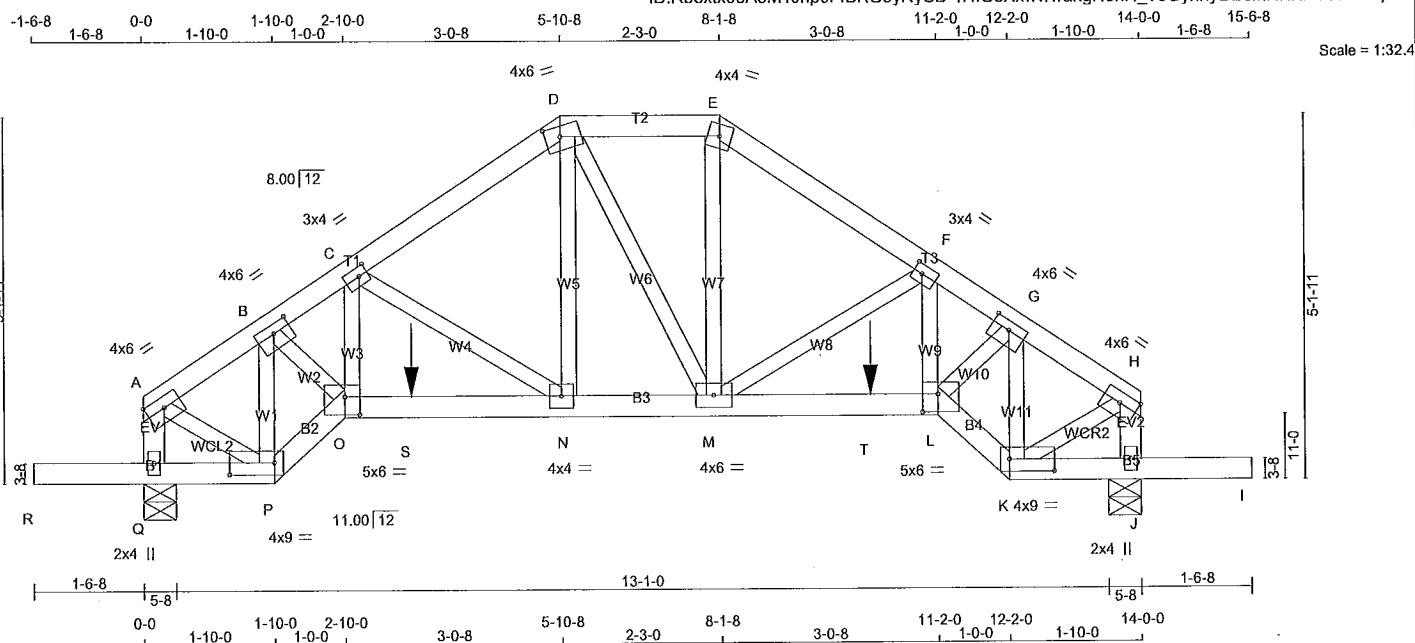
PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.89 (A) (INPUT = 0.90)
JSI METAL= 0.83 (S) (INPUT = 1.00)

A-18023895 CONTINUED ON PAGE 2





TOTAL WEIGHT = 67 lb

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

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

BEARINGS		FACTORED		MAXIMUM FACTORED		INPUT		REQRD	
JT	COMBINED	GROSS REACTION	VERT	GROSS REACTION	DOWN	BRG	IN-SX	BRG	IN-SX
Q	1097	1549	0	1549	0	5-8	2-5		
J	1097	1549	0	1549	0	5-8	2-5		

UNFACTORED REACTIONS		1ST LCASE		MAX/MIN. COMPONENT REACTIONS					
JT	COMBINED	SNOW	LIVE	PERM. LIVE	WIND	DEAD	SOIL		
Q	1097	713 / 0	0 / 0	0 / 0	0 / 0	384 / 0	0 / 0		
J	1097	713 / 0	0 / 0	0 / 0	0 / 0	384 / 0	0 / 0		

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

BRACING
TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 4.46 FT.
MAX. UNBRACED BOTTOM CHORD LENGTH = 10.00 FT OR RIGID CEILING DIRECTLY APPLIED.

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

LOADING

CHORDS		MAX. FACTORED		FACTORED		WEBS		MAX. FACTORED	
MEMB.	FORCE (LBS)	VERT. LOAD (PLF)	LC1 (PLF)	MAX. CSI (LC)	UNBRAC LENGTH	MEMB.	FORCE (LBS)	MAX. CSI (LC)	
FR-TO		FROM	TO			FR-TO			
A-B	-1307 / 0	-78.0	-78.0	0.09 (1)	5.54	P-B	-1475 / 0	0.25 (1)	
B-C	-2239 / 0	-78.0	-78.0	0.11 (1)	4.46	B-O	0 / 1250	0.31 (1)	
C-D	-1678 / 0	-78.0	-78.0	0.15 (1)	4.96	O-C	0 / 408	0.10 (1)	
D-E	-1413 / 0	-78.0	-78.0	0.10 (1)	5.36	C-N	-563 / 0	0.14 (1)	
E-F	-1684 / 0	-78.0	-78.0	0.15 (1)	4.96	N-D	0 / 731	0.18 (1)	
F-G	-2239 / 0	-78.0	-78.0	0.11 (1)	4.46	D-M	0 / 11	0.00 (1)	
G-H	-1307 / 0	-78.0	-78.0	0.09 (1)	5.54	M-E	0 / 744	0.18 (1)	
Q-A	-1321 / 0	0.0	0.0	0.15 (1)	7.00	M-F	-558 / 0	0.14 (1)	
J-H	-1321 / 0	0.0	0.0	0.15 (1)	7.00	L-F	0 / 402	0.10 (1)	
						L-G	0 / 1250	0.31 (1)	
R-Q	0 / 0	-96.5	-96.5	0.17 (1)	10.00	K-G	-1475 / 0	0.25 (1)	
Q-P	0 / 0	-18.5	-18.5	0.17 (1)	10.00	A-P	0 / 1197	0.30 (1)	
P-O	0 / 1362	-18.5	-18.5	0.24 (1)	10.00	K-H	0 / 1197	0.30 (1)	
O-S	0 / 1863	-18.5	-18.5	0.81 (1)	10.00				
S-N	0 / 1863	-112.0	-112.0	0.81 (1)	10.00				
N-M	0 / 1408	-112.0	-112.0	0.51 (1)	10.00				
M-T	0 / 1863	-112.0	-112.0	0.80 (1)	10.00				
T-L	0 / 1863	-18.5	-18.5	0.80 (1)	10.00				
L-K	0 / 1363	-18.5	-18.5	0.24 (1)	10.00				
K-J	0 / 0	-18.5	-18.5	0.17 (1)	10.00				
J-I	0 / 0	-96.5	-96.5	0.17 (1)	10.00				

FACTORED CONCENTRATED LOADS (LBS)		LOC.		MAX.		FACE		DIR.		TYPE	
JT	LOC.	LC1	MAX.	MAX+	MAX-	FRONT	VERT	FRONT	VERT	TOTAL	TOTAL
S	3-9-4	-423	-423								
T	10-2-12	-423	-423								

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: CSD Girder
START DISTANCE = 3-9-4
START SPAN CARRIED = 5-10-8
END DISTANCE = 10-2-12
END SPAN CARRIED = 5-10-8
END WALL WIDTH = 0-0
APPLIED TO FRONT SIDE OF BOTTOM CHORD.
- ADD'L LOADS BASED ON 55 % OF GSL.

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

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

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

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

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

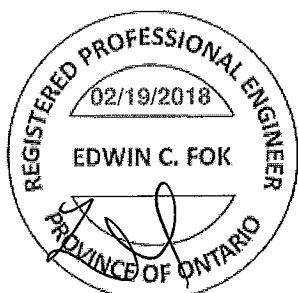
ALLOWABLE DEFL.(LL) = L/360 (0.47")
CALCULATED VERT. DEFL.(LL) = L/999 (0.06")
ALLOWABLE DEFL.(TL) = L/360 (0.47")
CALCULATED VERT. DEFL.(TL) = L/999 (0.12")

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

CSI: TC=0.15/1.00 (E-F:1), BC=0.81/1.00 (N-O:1), WB=0.31/1.00 (B-O:1), SSI=0.30/1.00 (N-O:1)

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

COMPANION LIVE LOAD FACTOR = 1.00



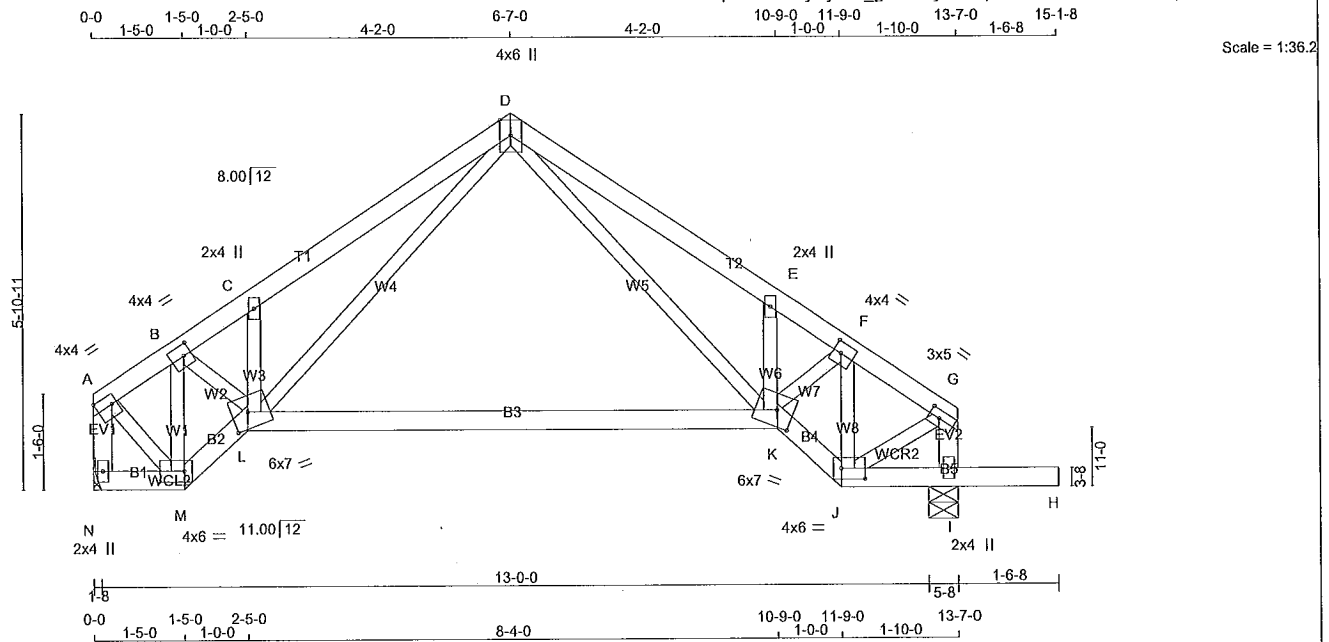
NOTE: Lateral brace(s) shown shall be 1x4 for Part 9 design as per OBC 9.23.13.11, and no less than 2x4 for Part 4 design

JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
292634	H10T	3	1	TRUSS DESC.	

Alpa Roof Truss, Maple

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TOTAL WEIGHT = 3 X 60 = 179 lb

LUMBER	CHORDS	SIZE	LUMBER	DESCR.
N. L. G. A. RULES				
A - D	2x4	DRY	No.2	SPF
D - G	2x4	DRY	No.2	SPF
N - A	2x4	DRY	No.2	SPF
I - G	2x4	DRY	No.2	SPF
N - M	2x4	DRY	No.2	SPF
M - L	2x4	DRY	No.2	SPF
L - K	2x4	DRY	No.2	SPF
K - J	2x4	DRY	No.2	SPF
J - H	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-I	MT20	4.0	4.0	1.75	Edge
B	TMVW-I	MT20	4.0	4.0	2.00	1.50
C	TMVW-w	MT20	2.0	4.0		
D	TTWW+p	MT20	4.0	6.0	Edge	
E	TMVW-w	MT20	2.0	4.0		
F	TMVW-I	MT20	4.0	4.0	2.00	1.50
G	TMVW-I	MT20	3.0	5.0	1.50	2.00
I	BMV1+p	MT20	2.0	4.0		
J	BBVW-I	MT20	4.0	6.0	2.00	4.50
K	BBVW-w-m	MT20	6.0	7.0	3.00	3.00
L	BBVW-w-m	MT20	6.0	7.0	3.00	3.00
M	BBVW-I	MT20	4.0	6.0	2.00	4.50
N	BMV1+p	MT20	2.0	4.0		

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

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

BUILDING DESIGNER

BEARINGS

	FACTORED GROSS REACTION	MAXIMUM FACTORED GROSS REACTION	INPUT BRG	REQRD BRG
JT	VERT	HORZ	DOWN	HORZ
N	647	0	647	0
I	812	0	812	0

UNFACTORED REACTIONS

JT	1ST LCASE	MAX/MIN. COMPONENT REACTIONS	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
N	461	281 / 0	0 / 0	0 / 0	0 / 0	0 / 0	180 / 0	0 / 0
I	579	354 / 0	0 / 0	0 / 0	0 / 0	0 / 0	226 / 0	0 / 0

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

BRACING

TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 6.11 FT.
MAX. UNBRACED BOTTOM CHORD LENGTH = 10.00 FT OR RIGID CEILING DIRECTLY APPLIED.

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

LOADING

TOTAL LOAD CASES: (4)

CHORDS	MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	FACTORED LC1 MAX (LC)	MAX. UNBRACED LENGTH	WEBS	MEMB.	MAX. FACTORED FORCE (LBS)	MAX. CSI (LC)
FR-TO						FR-TO			
A - B	-468 / 0	-78.0	-78.0	0.04 (1)	6.25	M - B	-610 / 0	0.09 (1)	
B - C	-836 / 0	-78.0	-78.0	0.12 (1)	6.25	B - L	0 / 565	0.13 (1)	
C - D	-919 / 0	-78.0	-78.0	0.17 (1)	6.25	L - C	-348 / 0	0.05 (1)	
D - E	-979 / 0	-78.0	-78.0	0.17 (1)	6.11	L - D	0 / 477	0.11 (1)	
E - F	-905 / 0	-78.0	-78.0	0.12 (1)	6.25	D - K	0 / 552	0.12 (1)	
F - G	-540 / 0	-78.0	-78.0	0.04 (1)	6.25	K - E	-332 / 0	0.05 (1)	
N - A	-634 / 0	0.0	0.0	0.07 (1)	7.81	K - F	0 / 546	0.12 (1)	
I - G	-584 / 0	0.0	0.0	0.06 (1)	7.81	J - F	-631 / 0	0.10 (1)	
						A - M	0 / 492	0.11 (1)	
						J - G	0 / 495	0.11 (1)	
N - M	0 / 0	-18.5	-18.5	0.01 (4)	10.00				
M - L	0 / 475	-18.5	-18.5	0.08 (1)	10.00				
L - K	0 / 434	-18.5	-18.5	0.41 (4)	10.00				
K - J	0 / 562	-18.5	-18.5	0.09 (1)	10.00				
J - I	0 / 0	-18.5	-18.5	0.12 (1)	10.00				
I - H	0 / 0	-96.5	-96.5	0.16 (1)	10.00				

DESIGN CRITERIA

SPECIFIED LOADS:

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

SPACING = 24.0 IN. C/C

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

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

DESIGN ASSUMPTIONS

- OVERHANG NOT TO BE ALTERED OR CUT OFF.

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

ALLOWABLE DEFL.(LL)= 1/360 (0.45")
CALCULATED VERT. DEFL.(LL) = 1/999 (0.02")
ALLOWABLE DEFL.(TL)= 1/360 (0.45")
CALCULATED VERT. DEFL.(TL) = 1/650 (0.25")

CANTILEVER DEFLECTION:

ALLOWABLE DEFL.(LL)= 1/120 (0.19")
CALCULATED VERT. DEFL.(LL) = 1/999 (0.01")
ALLOWABLE DEFL.(TL)= 1/120 (0.19")
CALCULATED VERT. DEFL.(TL) = 1/999 (0.01")

CSI: TC=0.17/1.00 (D-E:1), BC=0.41/1.00 (K-L:4), WB=0.13/1.00 (B-L:1), SSI=0.12/1.00 (C-D:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

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

NAIL VALUES

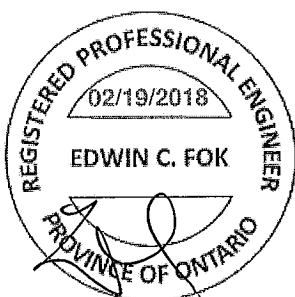
PLATE	GRIP(DRY)	SHEAR (PSI)	SECTION (PLI)
MT20	618	354	1667
	788	1987	1656

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.88 (K) (INPUT = 0.90)
JSI METAL= 0.22 (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

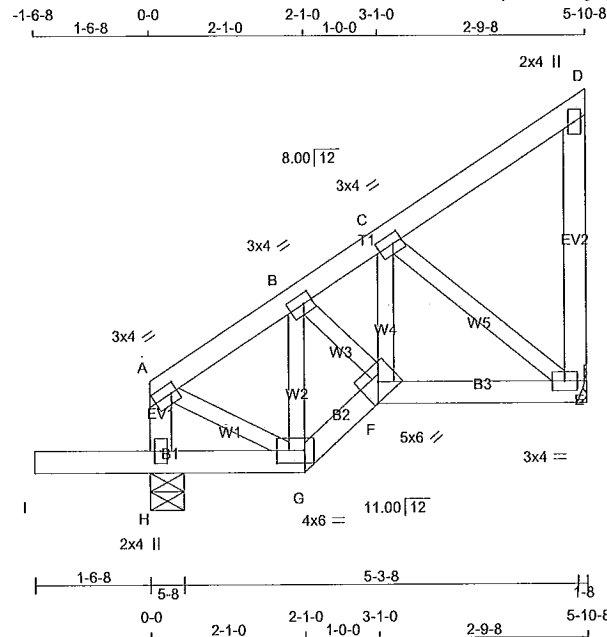


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JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
292634	J1T	1	1	TRUSS DESC.	

Alpa Roof Truss, Maple

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ID:Rbextx08A5M1Jnp0FbKG3yNySB-w2Ynvv_R_84A9_SScq41ZosNCqklFGw80FN8Gzjd2Y



Scale = 1:31.0

TOTAL WEIGHT = 30 lb

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

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

BEARINGS	FACTORED GROSS REACTION	MAXIMUM FACTORED GROSS REACTION	INPUT DOWN	REQRD BRG
JT	322	322	0	0
H	452	452	0	0
E	264	264	0	0

UNFACTORED REACTIONS

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

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

BRACING

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

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

LOADING

TOTAL LOAD CASES: (4)

CHORDS	MAX. FACTORED	FACTORED	WEBS	MAX. FACTORED
MEMB.	FORCE (LBS)	VERT. LOAD (PLF)	MEMB.	FORCE (LBS)
FR-TO		FROM TO	FR-TO	
H-A	-229 / 0	0.0 0.0 0.02 (1)	A-G	0 / 158
A-B	-171 / 0	-78.0 -78.0 0.04 (1)	G-B	-212 / 0
B-C	-223 / 0	-78.0 -78.0 0.06 (1)	B-F	0 / 96
C-D	-10 / 0	-78.0 -78.0 0.07 (1)	F-C	0 / 88
E-D	-87 / 0	0.0 0.0 0.02 (1)	C-E	-247 / 0
I-H	0 / 0	-96.5 -96.5 0.16 (1)		
H-G	0 / 0	-18.5 -18.5 0.16 (1)		
G-F	0 / 184	-18.5 -18.5 0.03 (1)		
F-E	0 / 194	-18.5 -18.5 0.06 (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

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

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

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

CANTILEVER DEFLECTION:
ALLOWABLE DEFL.(LL)= L/120 (0.19")
CALCULATED VERT. DEFL.(LL) = L/999 (0.02")
ALLOWABLE DEFL.(TL)= L/120 (0.19")
CALCULATED VERT. DEFL.(TL) = L/542 (0.03")

CSI: TC=0.07/1.00 (C-D:1), BC=0.16/1.00 (G-H:1)
WB=0.05/1.00 (C-E:1), SSI=0.12/1.00 (H-I:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

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

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

PLATE PLACEMENT TOL. = 0.250 inches

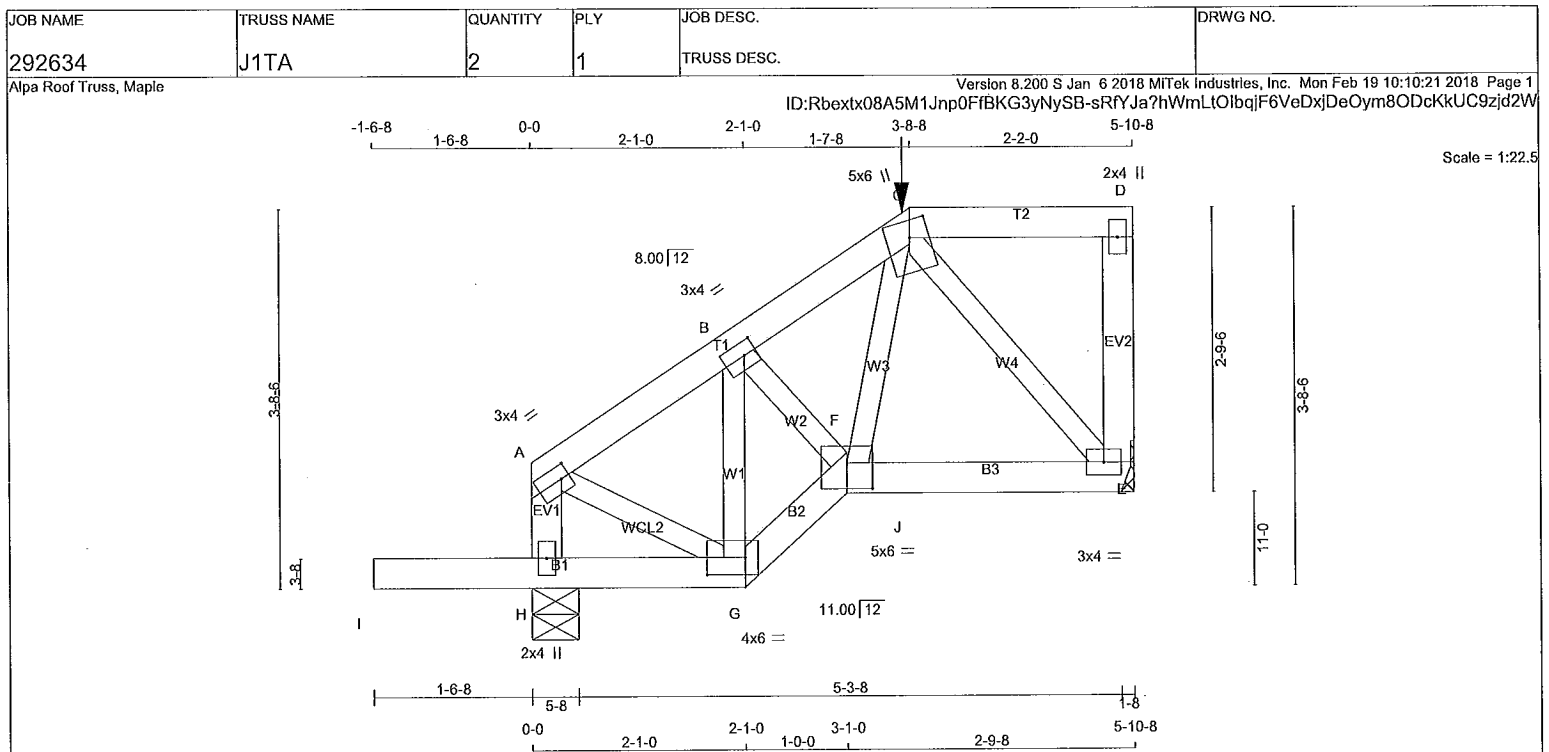
PLATE ROTATION TOL. = 5.0 Deg.

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

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-18023898



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

ALL WEBS 2x3 DRY No.2 SPF
EXCEPT

DRY: SEASONED LUMBER.

PLATES (table is in inches)				
JT	TYPE	PLATES	W	LEN Y X
A	TMVW-t	MT20	3.0	4.0 1.50 1.00
B	TMVW-t	MT20	3.0	4.0 1.50 1.50
C	TTVW+m	MT20	5.0	6.0 2.00 2.25
D	TMV+p	MT20	2.0	4.0
E	BMVW1-t	MT20	3.0	4.0
F	BBVW1	MT20	5.0	6.0 3.00 3.00
G	BBVW1	MT20	4.0	6.0 2.00 4.50
H	BMV1+p	MT20	2.0	4.0

HANGERS NOTES

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

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

BEARINGS

	FACTORED GROSS REACTION		MAXIMUM FACTORED GROSS REACTION		INPUT BRG		REQRD BRG	
	VERT	HORZ	DOWN	HORZ	IN-SX	IN-SX	HANGER BY OTHERS	MIN. SEAT SIZE: 1-8
JT	413	0	413	0	0	0	5-8	1-8
E								
H	527	0	527	0	0	0	5-8	1-8

UNFACTORED REACTIONS

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

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

BRACING

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

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

LOADING

TOTAL LOAD CASES: (4)

MEMB.	CHORDS MAX. FACTORED FORCE (LBS)		FACTORED VERT. LOAD (PLF)		MAX. CSI (LC)	WEBS MAX. FACTORED FORCE (LBS)		MAX. CSI (LC)
	FR-TO	TO	FROM	TO		FR-TO	TO	
A-B	-249 / 0	-78.0	-78.0	0.04 (1)	6.25	G-B	-287 / 0	0.05 (1)
B-C	-329 / 0	-78.0	-78.0	0.04 (1)	6.25	B-F	0 / 102	0.03 (1)
C-D	0 / 0	-111.3	-111.3	0.10 (1)	10.00	F-C	0 / 162	0.04 (1)
E-D	-121 / 0	0.0	0.0	0.02 (1)	7.81	C-E	-343 / 0	0.07 (1)
H-A	-296 / 0	0.0	0.0	0.03 (1)	7.81	A-G	0 / 231	0.06 (1)
I-H	0 / 0	-96.5	-96.5	0.17 (1)	10.00			
H-G	0 / 0	-26.4	-26.4	0.17 (1)	10.00			
G-F	0 / 270	-26.4	-26.4	0.05 (1)	10.00			
F-J	0 / 226	-26.4	-26.4	0.09 (4)	10.00			
J-E	0 / 226	-26.4	-26.4	0.09 (4)	10.00			

FACTORED CONCENTRATED LOADS (LBS)

JT	LOC.	LC1	MAX-	MAX+	FACE	DIR.	TYPE
C	3-8-8	-106	-106	---	FRONT	VERT	TOTAL

DESIGN CRITERIA

SPECIFIED LOADS:

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

SPACING = 24.0 IN. C/C

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

GIRDER TYPE: CPrimeHip

LEFT SETBACK = 3-8-8

RIGHT SETBACK = 0-0

END SETBACK = 3-8-8

END WALL WIDTH = 0-0

CORNER FRAMING TYPE: CONVENTIONAL

END JACK TYPE: CONVENTIONAL

APPLIED TO FRONT SIDE

- ADDTL LOADS BASED ON 55 % OF GSL.

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

THIS DESIGN COMPLIES WITH:

- PART 9 OF OBC 2012, OBC 2018

- CSA 086-09, CSA 086-14

- TPIC 2011, TPIC 2014

DESIGN ASSUMPTIONS

- OVERHANG NOT TO BE ALTERED OR CUT OFF.

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

ALLOWABLE DEFL.(LL)= L/360 (0.20")

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

ALLOWABLE DEFL.(TL)= L/360 (0.20")

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

CANTILEVER DEFLECTION:

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

CALCULATED VERT. DEFL.(LL)= L/999 (0.02")

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

CALCULATED VERT. DEFL.(TL)= L/571 (0.03")

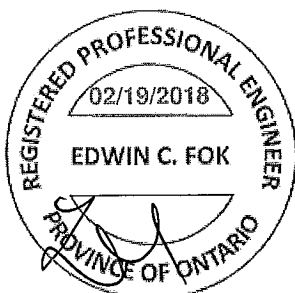
CSI: TC=0.10/1.00 (C-D:1) , BC=0.17/1.00 (G-H:1) , WB=0.07/1.00 (C-E:1) , SSI=0.13/1.00 (H-I:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

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

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



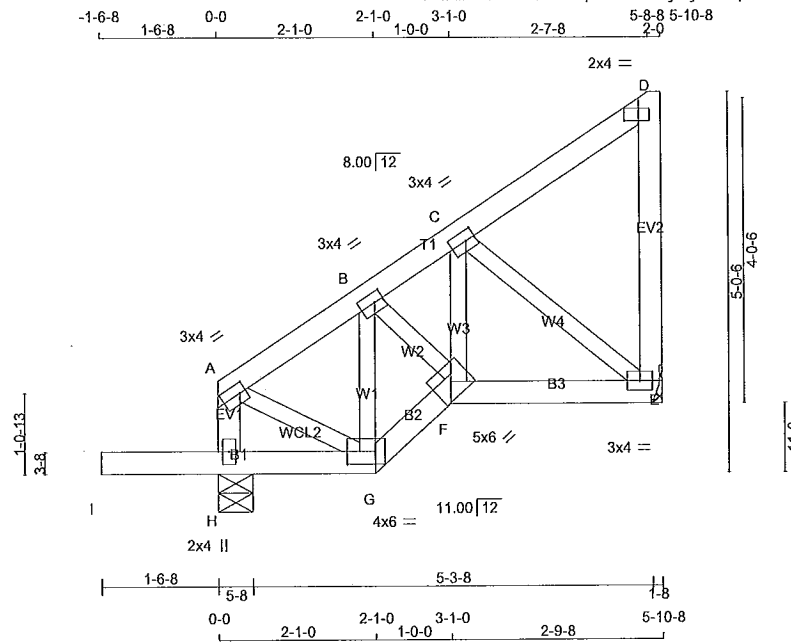
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CONTINUED ON PAGE 2

JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
292634	J1TB	2	1	TRUSS DESC.	

Alpa Roof Truss, Maple

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ID:Rbextx08A5M1Jnp0FfBKG3yNySB-opnlkG1x2NbbedDrg9zje13BR4gE2FW3dDaH1zjd2U



Scale = 1:30.5

TOTAL WEIGHT = 2 X 30 = 61 lb

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

ALL WEBS 2x3 DRY No.2 SPF
EXCEPT

DRY: SEASONED LUMBER.

PLATES (table is in inches)

JT	TYPE	PLATES	W	LEN	Y	X
A	TMVW-1	MT20	3.0	4.0	1.50	1.00
B	TMVW-1	MT20	3.0	4.0	1.50	1.50
C	TMVW-1	MT20	3.0	4.0	1.50	1.50
D	TVM-p	MT20	2.0	4.0	0.50	2.25
E	BMVW1-1	MT20	3.0	4.0		
F	BBVW-h	MT20	5.0	6.0		
G	BBVW-1	MT20	4.0	6.0	2.00	4.50
H	BMV1+p	MT20	2.0	4.0		

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

BEARINGS

	FACTORED GROSS REACTION	MAXIMUM FACTORED GROSS REACTION	INPUT BRG	REQRD BRG
	VERT	HORZ	DOWN	HORZ
JT	188	0	0	0
E	264	0	0	0
H	452	0	0	0

UNFACTORED REACTIONS

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

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

BRACING

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

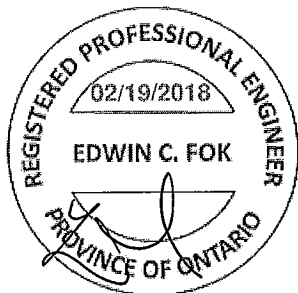
ALL PITCH BREAKS AND PERIMETER CORNER JOINTS MUST BE Laterally RESTRAINED.

LOADING

TOTAL LOAD CASES: (4)

CHORDS	MAX. FACTORED	FACTORED	WEBS	MAX. FACTORED
MEMB.	FORCE (LBS)	VERT. LOAD (PLF)	MEMB.	FORCE (LBS)
FR-TO		FROM TO	FR-TO	
A-B	-171 / 0	-78.0 -78.0 0.04 (1)	G-B	-212 / 0
B-C	-223 / 0	-78.0 -78.0 0.06 (1)	B-F	0 / 96
C-D	-10 / 0	-78.0 -78.0 0.07 (1)	F-C	0 / 88
E-D	-87 / 0	0.0 0.0 0.03 (1)	C-E	-247 / 0
H-A	-229 / 0	0.0 0.0 0.02 (1)	A-G	0 / 158
I-H	0 / 0	-96.5 -96.5 0.16 (1)		
H-G	0 / 0	-18.5 -18.5 0.16 (1)		
G-F	0 / 184	-18.5 -18.5 0.03 (1)		
F-E	0 / 194	-18.5 -18.5 0.06 (4)		

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



DESIGN CRITERIA

SPECIFIED LOADS:

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

SPACING = 24.0 IN. C/C

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

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

DESIGN ASSUMPTIONS

- OVERHANG NOT TO BE ALTERED OR CUT OFF.

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

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

CANTILEVER DEFLECTION:

ALLOWABLE DEFL.(LL)= L/120 (0.19")
CALCULATED VERT. DEFL.(LL) = L/999 (0.02")
ALLOWABLE DEFL.(TL)= L/120 (0.19")
CALCULATED VERT. DEFL.(TL) = L/542 (0.03")

CSI: TC=0.07/1.00 (C-D:1), BC=0.16/1.00 (G-H:1), WB=0.05/1.00 (C-E:1), SSI=0.12/1.00 (H-I:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

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

NAIL VALUES

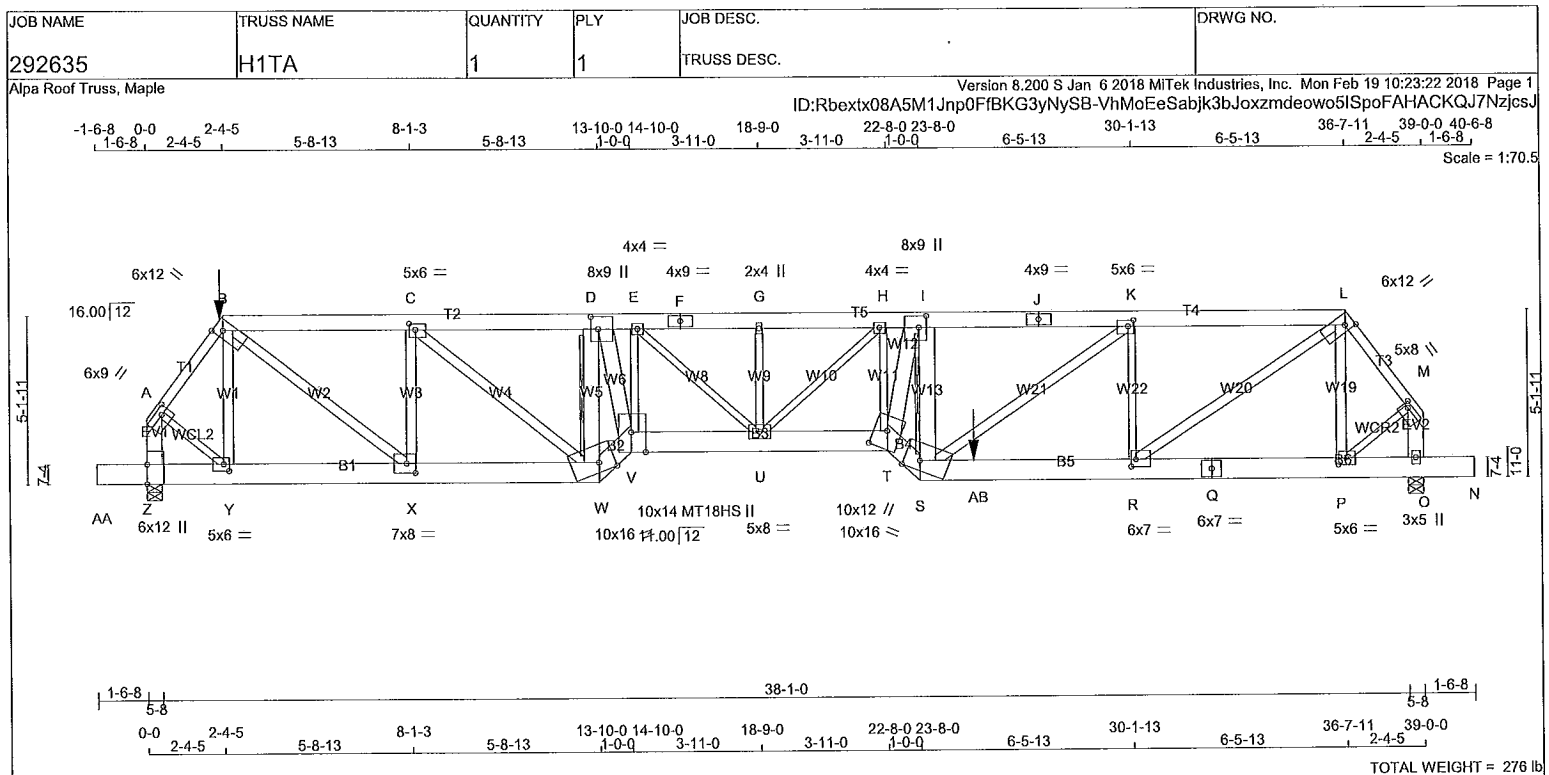
PLATE	GRIP(DRY)	SHEAR (PSI)	SECTION (PLI)
	MAX MIN	MAX MIN	MAX MIN
MT20	618 354	1667 788	1987 1656

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

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

A-18023900



LUMBER			
N. L. G. A. RULES			
CHORDS	SIZE	LUMBER	DESCR.
A - B	2x4	DRY	No.2 SPF
B - F	2x6	DRY	1650F 1.5E SPF
F - J	2x6	DRY	1650F 1.5E SPF
J - L	2x6	DRY	1650F 1.5E SPF
L - M	2x4	DRY	No.2 SPF
Z - A	2x6	DRY	No.2 SPF
O - M	2x6	DRY	No.2 SPF
AA - W	2x8	DRY	No.2 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 - Q	2x8	DRY	1950F 1.7E SPF
Q - N	2x8	DRY	1950F 1.7E SPF

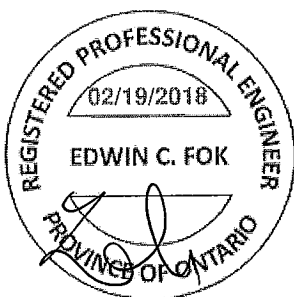
ALL WEBS EXCEPT	2x3	DRY	No.2	SPF
Y - B	2x4	DRY	No.2	SPF
B - X	2x4	DRY	No.2	SPF
X - C	2x4	DRY	No.2	SPF
C - W	2x4	DRY	No.2	SPF
W - D	2x6	DRY	No.2	SPF
D - V	2x6	DRY	1650F 1.5E	SPF
T - I	2x6	DRY	1650F 1.5E	SPF
S - I	2x6	DRY	No.2	SPF
P - L	2x4	DRY	No.2	SPF
R - L	2x4	DRY	No.2	SPF
S - K	2x4	DRY	No.2	SPF

DRY: SEASONED LUMBER.

PLATES (table is in inches)

JT	TYPE	PLATES	W	LEN	Y	X
A	TMVW-t	MT20	6.0	9.0	2.25	3.00
B	TTWW+H	MT20	6.0	12.0	3.25	2.50
C	TMVW-t	MT20	5.0	6.0	2.25	2.25
D	TMVW+H	MT20	8.0	9.0	4.50	2.75
E	TMVW-t	MT20	4.0	4.0		
F	TS-t	MT20	4.0	9.0		
G	TMW+W	MT20	2.0	4.0		
H	TMVW-t	MT20	4.0	4.0		
I	TMVW+H	MT20	8.0	9.0	4.25	2.75

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



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

BEARINGS

JT	FACTORED GROSS REACTION		MAXIMUM FACTORED GROSS REACTION		INPUT BRG		REQD BRG	
	VERT	HORZ	DOWN	HORZ	UPLIFT	IN-SX	IN-SX	
Z	3933	0	3933	0	0	5-8	5-8	
O	3443	0	3443	0	0	5-8	5-7	

ALLOW FOR 0.3" OF HORIZONTAL MOVEMENT DUE TO TOTAL LOAD

UNFACTORED REACTIONS

JT	1ST LCASE COMBINED		MAX/MIN. COMPONENT REACTIONS		WIND	DEAD	SOIL
	SNOW	LIVE	PERM. LIVE	WIND			
Z	2798	1739 / 0	0 / 0	0 / 0	0 / 0	1060 / 0	0 / 0
O	2443	1558 / 0	0 / 0	0 / 0	0 / 0	886 / 0	0 / 0

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

BRACING

TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 2.91 FT.
MAX. UNBRACED BOTTOM CHORD LENGTH = 10.00 FT. OR RIGID CEILING DIRECTLY APPLIED.

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

2x4 DRY SPF No.2 T-BRACE AT D-W, I-S

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		MAX		WEBS		MAX. FACTORED	
MEMB.	FORCE (LBS)	VERT. (PLF)	LOAD LC1	MAX	UNBRAC	MEMB.	FORCE (LBS)	MAX	CSI (LC)
FR-TO		FROM	TO	LENGTH	FR-TO				
A-B	-3241 / 0	-78.0	-78.0	0.24 (1)	3.69	Y-B	-862 / 0	0.21 (1)	
B-C	-5492 / 0	-153.5	-153.5	0.37 (1)	3.96	B-X	0 / 4587	0.81 (1)	
C-D	-7713 / 0	-153.5	-153.5	0.47 (1)	3.33	X-C	-2769 / 0	0.66 (1)	
D-E	-9825 / 0	-153.5	-153.5	0.41 (1)	3.03	C-W	0 / 2836	0.50 (1)	
E-F	-10378 / 0	-78.0	-78.0	0.47 (1)	2.91	W-D	-8278 / 0	0.87 (1)	
F-G	-10378 / 0	-78.0	-78.0	0.47 (1)	2.91	D-V	0 / 7900	0.64 (1)	
G-H	-10378 / 0	-78.0	-78.0	0.47 (1)	2.91	V-E	-363 / 0	0.09 (1)	
H-I	-10382 / 0	-78.0	-78.0	0.44 (1)	2.92	E-U	0 / 755	0.19 (1)	
I-J	-8241 / 0	-78.0	-78.0	0.41 (1)	3.33	U-G	-483 / 0	0.11 (1)	
J-K	-8241 / 0	-78.0	-78.0	0.41 (1)	3.33	U-H	0 / 88	0.03 (4)	
K-L	-5639 / 0	-78.0	-78.0	0.28 (1)	4.02	T-H	0 / 129	0.03 (1)	
L-M	-2799 / 0	-78.0	-78.0	0.20 (1)	3.97	T-I	0 / 7951	0.65 (1)	
Z-A	-3811 / 0	0.0	0.0	0.30 (1)	5.43	S-I	-8032 / 0	0.85 (1)	
O-M	-3304 / 0	0.0	0.0	0.26 (1)	5.79	P-L	-893 / 0	0.21 (1)	
						A-Y	0 / 2244	0.56 (1)	
AA-Z	0 / 0	-96.5	-96.5	0.06 (1)	10.00	P-M	0 / 1938	0.48 (1)	
Z-Y	0 / 0	-36.4	-36.4	0.09 (1)	10.00	R-L	0 / 4893	0.87 (1)	
Y-X	0 / 1915	-36.4	-36.4	0.29 (1)	10.00	S-K	0 / 3179	0.56 (1)	
X-W	0 / 5493	-36.4	-36.4	0.68 (1)	10.00	R-K	-2410 / 0	0.80 (1)	
W-V	0 / 9899	-36.4	-36.4	0.45 (1)	10.00				
V-U	0 / 9838	-112.0	-112.0	0.54 (1)	10.00				
U-T	0 / 10380	-112.0	-112.0	0.56 (1)	10.00				
T-S	0 / 10632	-112.0	-112.0	0.49 (1)	10.00				
S-AB	0 / 5642	-112.0	-112.0	0.58 (1)	10.00				
AB-R	0 / 5642	-18.5	-18.5	0.58 (1)	10.00				
R-Q	0 / 1649	-18.5	-18.5	0.15 (1)	10.00				
Q-P	0 / 1649	-18.5	-18.5	0.15 (1)	10.00				

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: CPrimeHip
SIDE SETBACK = 2-4-5
END SETBACK = 5-10-8
END WALL WIDTH = 0-0
CORNER FRAMING TYPE: CONVENTIONAL
END JACK TYPE: CONVENTIONAL
APPLIED TO FRONT SIDE
- ADD'TL LOADS BASED ON 55 % OF GSL.
LOADS APPLIED TO FIRST 14-10-0 OF SPAN
MEASURED FROM THE LEFT.

GIRDER TYPE: CStdGirder
START DISTANCE = 14-10-0
START SPAN CARRIED = 5-10-8
END DISTANCE = 25-3-8
END SPAN CARRIED = 5-10-8
END WALL WIDTH = 0-0
APPLIED TO FRONT SIDE OF BOTTOM CHORD.
- ADD'TL LOADS BASED ON 55 % OF GSL.

*** NON STANDARD GIRDER ***
ADD'TL 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 (1.30")
CALCULATED VERT. DEFL.(LL) = L/ 891 (0.53")
ALLOWABLE DEFL.(TL) = L/360 (1.30")
CALCULATED VERT. DEFL.(TL) = L/ 469 (1.00")
CANTILEVER DEFLECTION:
ALLOWABLE DEFL.(LL) = L/120 (0.19")
CALCULATED VERT. DEFL.(LL) = L/ 999 (0.00")
ALLOWABLE DEFL.(TL) = L/120 (0.19")
CALCULATED VERT. DEFL.(TL) = L/ 999 (0.00")

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CONTINUED ON PAGE 2

JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
292635	H1TA	1	1	TRUSS DESC.	

Alpa Roof Truss, Maple

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PLATES (table is in inches)

JT	TYPE	PLATES	W	LEN	Y	X
J	TS-t	MT20	4.0	9.0		
K	TMWW-t	MT20	5.0	6.0	2.25	2.00
L	TTWW+h	MT20	6.0	12.0	3.25	2.25
M	TMVW-t	MT20	5.0	8.0	1.50	2.00
O	BMV1+p	MT20	3.0	5.0		
P	BMWW-t	MT20	5.0	6.0	2.50	2.75
Q	BS-t	MT20	6.0	7.0		
R	BMWW-t	MT20	6.0	7.0	2.75	1.75
S	BBWW-m	MT20	10.0	16.0	Edge	5.75
T	BBWW+m	MT20	10.0	12.0	6.50	4.75
U	BMWWW-t	MT20	5.0	8.0		
V	BBWW+p	MT18HS	10.0	14.0	Edge	5.25
W	BBWW-m	MT20	10.0	16.0	Edge	5.75
X	BMWW-t	MT20	7.0	8.0	3.50	3.25
Y	BMWW-t	MT20	5.0	6.0	2.50	2.00
Z	BMV1+t	MT20	6.0	12.0	Edge	

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

HANGERS NOTES

- SPECIAL HANGER(S) OR CONNECTION(S) REQUIRED TO SUPPORT CONCENTRATED LOAD(S) 134.1 lbs FACTORED DOWN AT 2-4-5 ON TOP CHORD, AND 988.9 lbs FACTORED DOWN AT 25-3-8 ON BOTTOM CHORD. DESIGN FOR UNSPECIFIED CONNECTION(S) IS DELEGATED TO THE BUILDING DESIGNER.

LOADING

TOTAL LOAD CASES: (4)

CHORDS				WEBS			
MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	LC1 (LC)	MAX. UNBRAC (LBS)	MEMB.	MAX. FACTORED FORCE (LBS)	MAX. CSI (LC)
FR-TO		FROM	TO	LENGTH	FR-TO		
P-O	0/0	-18.5	-18.5	0.03 (4)	10.00		
O-N	0/0	-96.5	-96.5	0.03 (1)	10.00		

FACTORED CONCENTRATED LOADS (LBS)

JT	LOC.	LC1	MAX-	MAX+	FACE	DIR.	TYPE
B	2-4-5	-134	-134	---	FRONT	VERT	TOTAL
AB	25-3-8	-989	-989	---	FRONT	VERT	TOTAL

CSI: TC=0.47/1.00 (G-H:1), BC=0.68/1.00 (W-X:1), WB=0.87/1.00 (D-W:1), SS=0.52/1.00 (R-S:1)

DOI 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

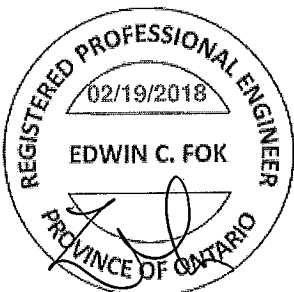
PLATE	GRIP(DRY) (PSI)	SHEAR (PLI)	SECTION (PLI)
MT20	618	354	1667
MT18HS	511	354	2455

PLATE PLACEMENT TOL. = 0.250 inches

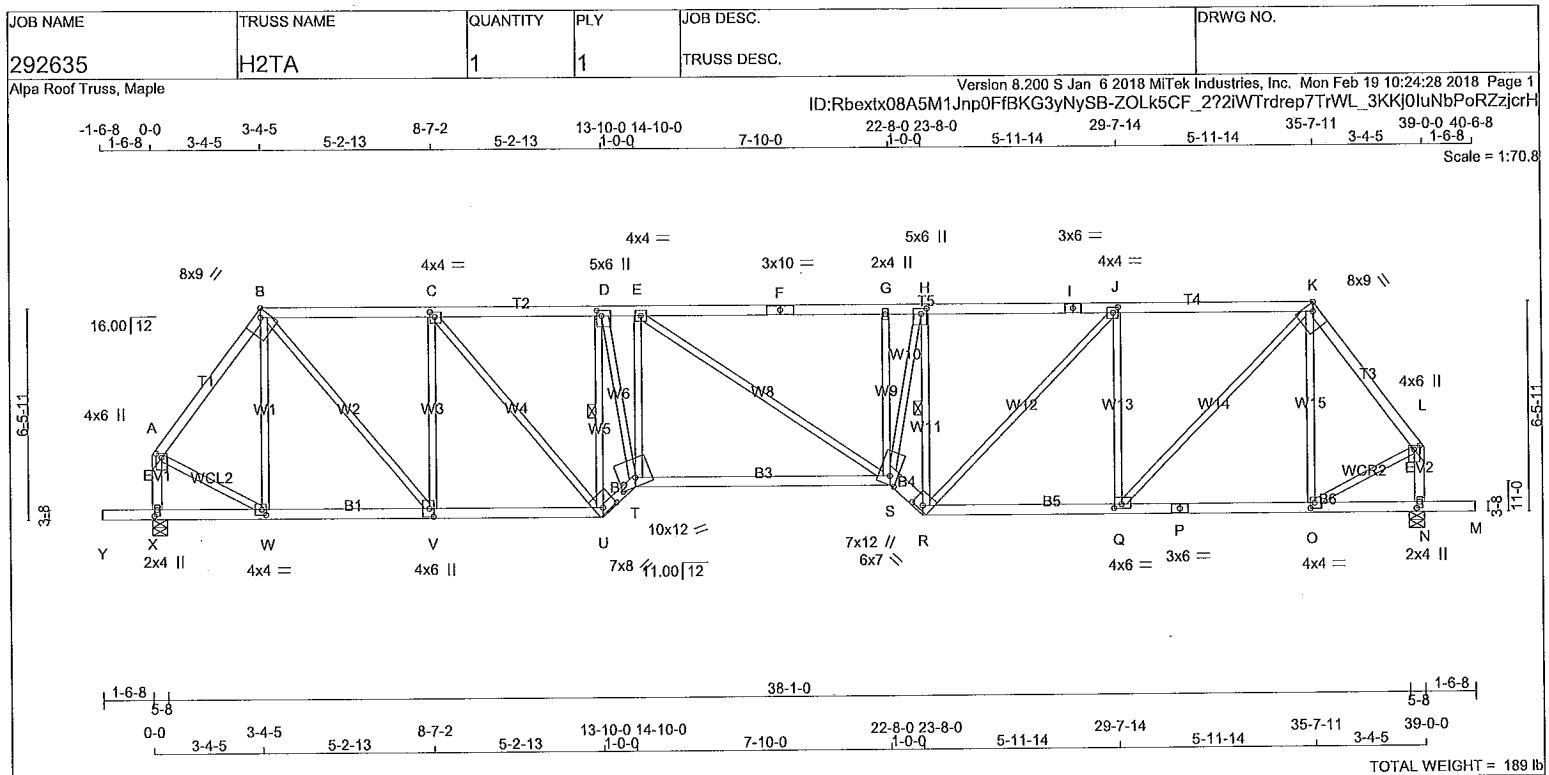
PLATE ROTATION TOL. = 5.0 Deg.

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



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

DRY: SEASONED LUMBER.

PLATES (table is in inches)

JT	TYPE	PLATES	W	LEN	Y	X
A	TMVW+p	MT20	4.0	6.0	1.50	2.00
B	TTWW-h	MT20	8.0	9.0	Edge	2.75
C	TMVW-t	MT20	4.0	4.0	1.75	1.75
D	TMVW-t	MT20	5.0	6.0	2.00	1.75
E	TMVW-t	MT20	4.0	4.0		
F	TS-t	MT20	3.0	10.0		
G	TMVW-w	MT20	2.0	4.0		
H	TMVW-h	MT20	5.0	6.0	2.00	2.00
I	TS-t	MT20	3.0	6.0		
J	TMVW-t	MT20	4.0	4.0	2.00	1.75
K	TTWW-h	MT20	8.0	9.0	Edge	2.75
L	TMVW+p	MT20	4.0	6.0	1.50	2.00
N	BMV1+p	MT20	2.0	4.0	2.25	1.00
O	BMVW-t	MT20	4.0	4.0	2.00	1.50
P	BS-t	MT20	3.0	6.0		
Q	BMVW-t	MT20	4.0	6.0	1.50	2.75
R	BBWW-h	MT20	6.0	7.0	1.75	3.75
S	BBWWW+m	MT20	7.0	12.0	3.25	2.75
T	BBWW-m	MT20	10.0	12.0	3.25	6.00
U	BBWW-h	MT20	7.0	8.0	2.00	5.00

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



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

BEARINGS

	FACTORED GROSS REACTION	MAXIMUM FACTORED GROSS REACTION	INPUT BRG	REQRD BRG
	VERT	HORZ	DOWN	UPLIFT
JT	2030	0	2030	0
X	2030	0	2030	0
N	2030	0	2030	0

ALLOW FOR 0.3" OF HORIZONTAL MOVEMENT DUE TO TOTAL LOAD

UNFACTORED REACTIONS

	1ST LCASE	MAX/MIN. COMPONENT REACTIONS					
	COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
JT	1447	883 / 0	0 / 0	0 / 0	0 / 0	564 / 0	0 / 0
X	1447	883 / 0	0 / 0	0 / 0	0 / 0	564 / 0	0 / 0
N	1447	883 / 0	0 / 0	0 / 0	0 / 0	564 / 0	0 / 0

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

BRACING

TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 3.87 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-U, H-R.

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

LOADING

TOTAL LOAD CASES: (4)

CHORDS				WEBS			
MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	MAX. FACTORED VERT. LOAD (LC1)	MEMB.	MAX. FACTORED FORCE (LBS)	MAX. FACTORED VERT. LOAD (LC1)	MAX. FACTORED VERT. LOAD (LC1)
FR-TO		FROM	TO	FR-TO		FROM	TO
A-B	-1602 / 0	-78.0	-78.0 0.21 (1)	5.04	W-B	-354 / 0	0.24 (1)
B-C	-2083 / 0	-78.0	-78.0 0.32 (1)	4.93	B-V	0 / 1748	0.39 (1)
C-D	-2749 / 0	-78.0	-78.0 0.35 (1)	4.40	V-C	-1234 / 0	0.84 (1)
D-E	-3350 / 0	-78.0	-78.0 0.38 (1)	3.96	C-U	0 / 1026	0.23 (1)
E-F	-3506 / 0	-78.0	-78.0 0.64 (1)	3.87	U-D	-3282 / 0	0.89 (1)
F-G	-3506 / 0	-78.0	-78.0 0.64 (1)	3.87	D-T	0 / 3232	0.73 (1)
G-H	-3497 / 0	-78.0	-78.0 0.39 (1)	3.87	T-E	-567 / 0	0.26 (1)
H-I	-2897 / 0	-78.0	-78.0 0.47 (1)	4.19	E-S	0 / 174	0.04 (1)
I-J	-2897 / 0	-78.0	-78.0 0.47 (1)	4.19	S-G	-459 / 0	0.21 (1)
J-K	-2220 / 0	-78.0	-78.0 0.43 (1)	4.68	S-H	0 / 3142	0.71 (1)
K-L	-1604 / 0	-78.0	-78.0 0.21 (1)	5.03	H-R	-3210 / 0	0.87 (1)
X-A	-1860 / 0	0.0	0.0 0.21 (1)	6.15	R-J	0 / 966	0.22 (1)
N-L	-1862 / 0	0.0	0.0 0.21 (1)	6.15	Q-J	-1210 / 0	0.82 (1)
Y-X	0 / 0	-96.5	-96.5 0.16 (1)	10.00	Q-K	0 / 1820	0.41 (1)
X-W	0 / 0	-18.5	-18.5 0.08 (4)	10.00	K-O	-347 / 0	0.24 (1)
W-V	0 / 948	-18.5	-18.5 0.21 (1)	10.00	A-W	0 / 1052	0.24 (1)
V-U	0 / 2084	-18.5	-18.5 0.40 (1)	10.00	O-L	0 / 1053	0.24 (1)
U-T	0 / 3788	-18.5	-18.5 0.61 (1)	10.00			
T-S	0 / 3361	-18.5	-18.5 0.73 (1)	10.00			
S-R	0 / 3856	-18.5	-18.5 0.46 (1)	10.00			
R-Q	0 / 2221	-18.5	-18.5 0.44 (1)	10.00			
Q-P	0 / 950	-18.5	-18.5 0.25 (4)	10.00			
P-O	0 / 950	-18.5	-18.5 0.25 (4)	10.00			
O-N	0 / 0	-18.5	-18.5 0.09 (4)	10.00			
N-M	0 / 0	-96.5	-96.5 0.16 (1)	10.00			

DESIGN CRITERIA

SPECIFIED LOADS:

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

SPACING = 24.0 IN. C/C

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

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

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

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

ALLOWABLE DEFL.(LL)= L/360 (1.30")
CALCULATED VERT. DEFL.(LL)= L/999 (0.30")
ALLOWABLE DEFL.(TL)= L/360 (1.30")
CALCULATED VERT. DEFL.(TL)= L/625 (0.75")

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=0.84/1.00 (E-G:1), BC=0.73/1.00 (S-T:1), WB=0.89/1.00 (D-U:1), SS=0.23/1.00 (E-G:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

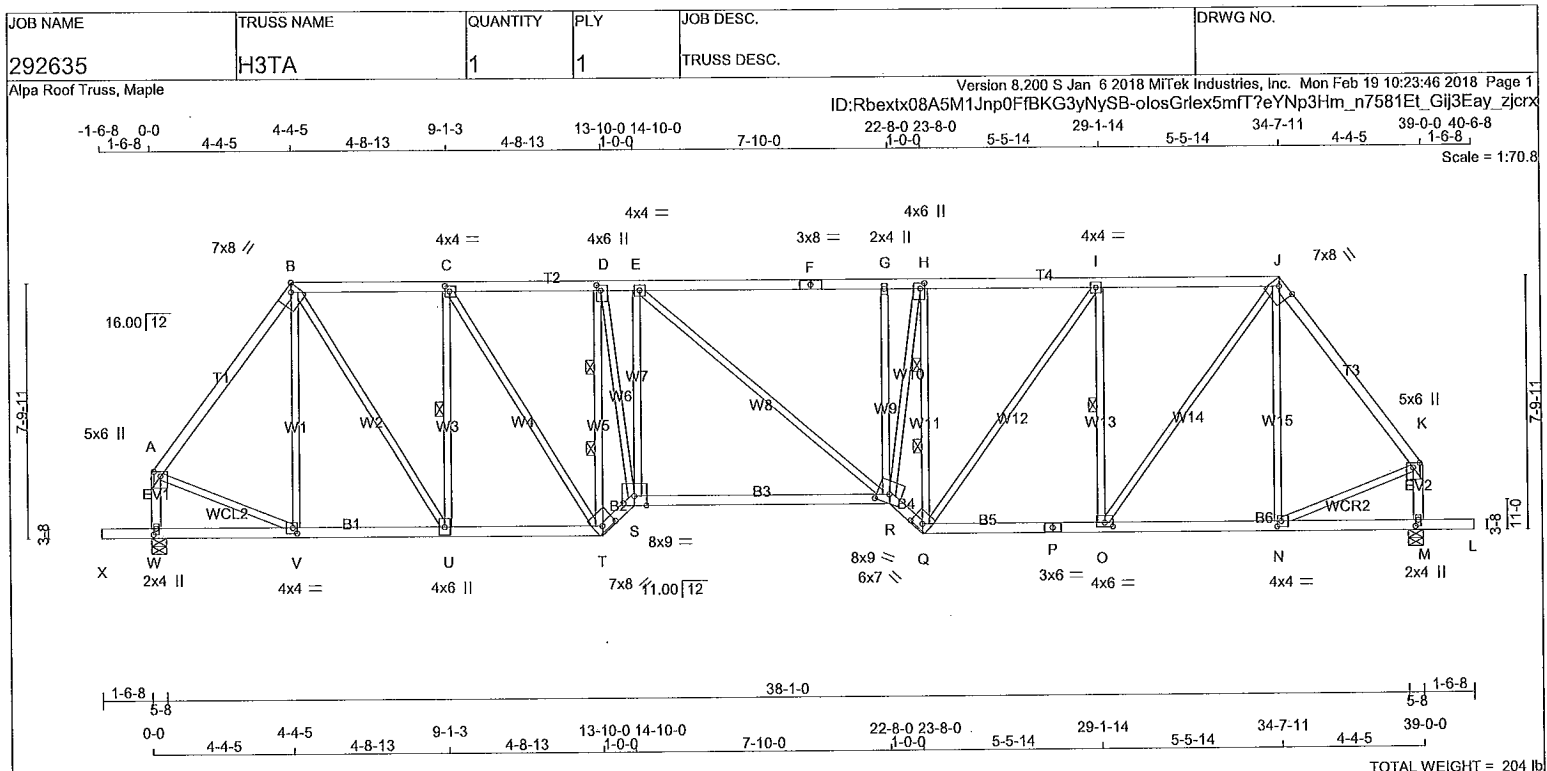
TRUSS PLATE MANUFACTURER IS NOT RESPONSIBLE FOR QUALITY CONTROL IN THE TRUSS MANUFACTURING PLANT.

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

PLATE PLACEMENT TOL. = 0.250 inches

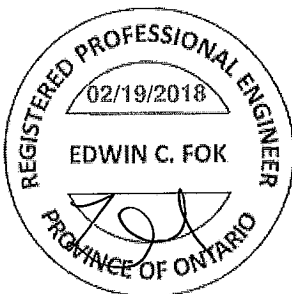
PLATE ROTATION TOL. = 5.0 Deg.

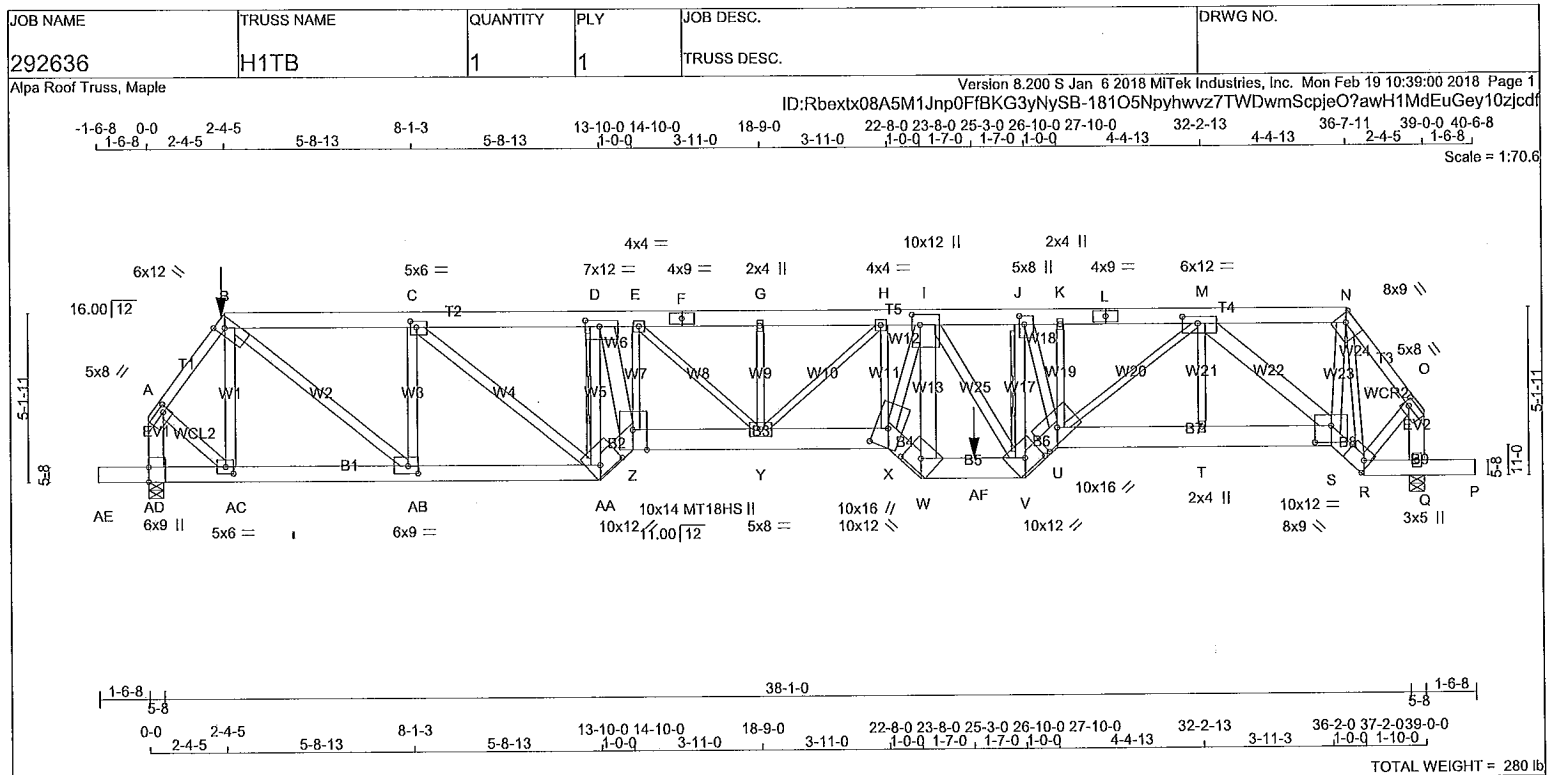
JSI GRIP= 0.90 (D) (INPUT = 0.90)
JSI METAL= 0.68 (R) (INPUT = 1.00)



LUMBER N. L. G. A. RULES CHORDS SIZE LUMBER DESCR. A - B 2x4 DRY No.2 SPF B - F 2x4 DRY No.2 SPF F - J 2x4 DRY No.2 SPF J - K 2x4 DRY No.2 SPF W - A 2x4 DRY No.2 SPF M - K 2x4 DRY No.2 SPF X - T 2x4 DRY No.2 SPF T - S 2x4 DRY No.2 SPF S - R 2x4 DRY No.2 SPF R - Q 2x4 DRY No.2 SPF Q - P 2x4 DRY No.2 SPF P - L 2x4 DRY No.2 SPF ALL WEBS 2x3 DRY No.2 SPF EXCEPT DRY: SEASONED LUMBER.				DIMENSIONS, SUPPORTS AND LOADINGS SPECIFIED BY FABRICATOR TO BE VERIFIED BY BUILDING DESIGNER BEARINGS FACTORED GROSS REACTION JT VERT 2030 0 W 2030 0 M 2030 0 MAXIMUM FACTORED GROSS REACTION DOWN 2030 0 HORZ 0 0 UPLIFT 0 0 INPUT BRG IN-SX 5-8 3-0 5-8 3-0 REQRD BRG IN-SX 3-0 3-0 UNFACTORED REACTIONS 1ST LCASE MAX./MIN. COMPONENT REACTIONS JT COMBINED SNOW LIVE PERM.LIVE WIND DEAD SOIL W 1447 883 / 0 0 / 0 0 / 0 564 / 0 0 / 0 M 1447 883 / 0 0 / 0 0 / 0 564 / 0 0 / 0 BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S) W, M BRACING TOP CHORD TO BE SHEATHED OR MAX. PURLINE SPACING = 3.60 FT. MAX. UNBRACED BOTTOM CHORD LENGTH = 10.00 FT OR RIGID CEILING DIRECTLY APPLIED. ALL PITCH BREAKS AND PERIMETER CORNER JOINTS MUST BE Laterally RESTRAINED. 1 LATERAL BRACE(S) AT 1/2 LENGTH OF C-U, I-O. 2 LATERAL BRACE(S) AT 1/3 LENGTH OF D-T, H-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 MEMB. MAX. FACTORED FORCE (LBS) FR-TO FROM TO A-B -1651 / 0 -78.0 -78.0 0.37 (1) 4.83 B-C -1775 / 0 -78.0 -78.0 0.33 (1) 4.68 C-D -2258 / 0 -78.0 -78.0 0.37 (1) 4.21 D-E -2671 / 0 -78.0 -78.0 0.48 (1) 3.68 E-F -2766 / 0 -78.0 -78.0 0.80 (1) 3.60 F-G -2766 / 0 -78.0 -78.0 0.80 (1) 3.60 G-H -2758 / 0 -78.0 -78.0 0.49 (1) 3.61 H-I -2357 / 0 -78.0 -78.0 0.49 (1) 3.99 I-J -1882 / 0 -78.0 -78.0 0.45 (1) 4.42 J-K -1652 / 0 -78.0 -78.0 0.37 (1) 4.82 W-A -1849 / 0 0.0 0.0 0.21 (1) 6.16 M-K -1850 / 0 0.0 0.0 0.21 (1) 6.16 X-W 0 / 0 -96.5 -96.5 0.16 (1) 10.00 W-V 0 / 0 -18.5 -18.5 0.09 (4) 10.00 V-U 0 / 982 -18.5 -18.5 0.21 (1) 10.00 U-T 0 / 1776 -18.5 -18.5 0.33 (1) 10.00 T-S 0 / 3107 -18.5 -18.5 0.50 (1) 10.00 S-R 0 / 2680 -18.5 -18.5 0.62 (1) 10.00 R-Q 0 / 3146 -18.5 -18.5 0.51 (1) 10.00 Q-P 0 / 1882 -18.5 -18.5 0.36 (1) 10.00 P-O 0 / 1882 -18.5 -18.5 0.36 (1) 10.00 O-N 0 / 982 -18.5 -18.5 0.22 (4) 10.00 N-M 0 / 0 -18.5 -18.5 0.10 (4) 10.00 M-L 0 / 0 -96.5 -96.5 0.16 (1) 10.00 WEBS MEMB. MAX. FACTORED FORCE (LBS) MAX. UNBRACED LENGTH FR-TO V-B -260 / 0 0.30 (1) B-U 0 / 1482 0.33 (1) U-C -1168 / 0 0.45 (1) C-T 0 / 902 0.20 (1) T-D -2807 / 0 1.00 (1) D-S 0 / 2765 0.62 (1) S-E -558 / 0 0.45 (1) E-R 0 / 113 0.03 (1) R-G -479 / 0 0.39 (1) G-H 0 / 2650 0.60 (1) H-I -2714 / 0 0.96 (1) I-L 0 / 804 0.18 (1) L-K -1125 / 0 0.43 (1) K-J 0 / 1519 0.34 (1) J-I -253 / 0 0.29 (1) I-H 0 / 1047 0.24 (1) H-G 0 / 1048 0.24 (1) 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 (D) (INPUT = 0.90) JSI METAL= 0.61 (D) (INPUT = 1.00)				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 (65% OF 23.0 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 21.0 P.S.F. SPECIFIED ROOF LIVE LOAD ALLOWABLE DEFL.(LL) = L/360 (1.30") CALCULATED VERT. DEFL.(LL) = L/999 (0.25") ALLOWABLE DEFL.(TL) = L/360 (1.30") CALCULATED VERT. DEFL.(TL) = L/721 (0.65") 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=0.80/1.00 (E-G:1), BC=0.62/1.00 (R-S:1), VB=1.00/1.00 (D-T:1), SSI=0.23/1.00 (E-G:1) DOL LUMBER=1.00 NAIL=1.00 LS BEND=1.10 COMP=1.10 SHEAR=1.10 TENS=1.10 COMPANION LIVE LOAD FACTOR = 1.00 TRUSS PLATE MANUFACTURER IS NOT RESPONSIBLE FOR QUALITY CONTROL IN THE TRUSS MANUFACTURING PLANT. NAIL VALUES PLATE GRIP(DRY) SHEAR SECTION (PSI) (PLI) (PLI) MAX MIN MAX MIN MAX MIN MT20 618 354 1667 788 1987 1656 PLATE PLACEMENT TOL. = 0.250 inches PLATE ROTATION TOL. = 5.0 Deg. JSI GRIP= 0.90 (D) (INPUT = 0.90) JSI METAL= 0.61 (D) (INPUT = 1.00)			
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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





LUMBER				
N. L. G. A. RULES				
CHORDS	SIZE	LUMBER	DESCR.	
A - B	2x4	DRY	No.2	SPF
B - F	2x6	DRY	1650F 1.5E	SPF
F - L	2x6	DRY	1650F 1.5E	SPF
L - N	2x6	DRY	1650F 1.5E	SPF
N - O	2x4	DRY	No.2	SPF
AD - A	2x6	DRY	No.2	SPF
Q - O	2x6	DRY	No.2	SPF
AE - AA	2x6	DRY	No.2	SPF
AA - Z	2x8	DRY	1950F 1.7E	SPF
Z - X	2x8	DRY	1950F 1.7E	SPF
X - W	2x8	DRY	1950F 1.7E	SPF
W - V	2x8	DRY	1950F 1.7E	SPF
V - U	2x8	DRY	1950F 1.7E	SPF
U - S	2x8	DRY	1950F 1.7E	SPF
S - R	2x6	DRY	No.2	SPF
R - P	2x6	DRY	No.2	SPF
ALL WEBS EXCEPT	2x3	DRY	No.2	SPF
AC - B	2x4	DRY	1650F 1.5E	SPF
B - AB	2x4	DRY	No.2	SPF
AB - C	2x4	DRY	1650F 1.5E	SPF
C - AA	2x4	DRY	No.2	SPF
AA - D	2x4	DRY	1650F 1.5E	SPF
D - Z	2x6	DRY	1650F 1.5E	SPF
X - I	2x4	DRY	2100F 1.8E	SPF
W - J	2x6	DRY	No.2	SPF
V - I	2x4	DRY	No.2	SPF
J - U	2x4	DRY	2100F 1.8E	SPF
M - S	2x6	DRY	No.2	SPF
S - N	2x4	DRY	No.2	SPF
A - AC	2x4	DRY	No.2	SPF
R - O	2x4	DRY	No.2	SPF
I - V	2x4	DRY	No.2	SPF

DRY: SEASONED LUMBER.

PLATES (table is in inches)

JT	TYPE	PLATES	W	LEN	Y	X
A	TMVW-t	MT20	5.0	8.0	2.00	2.00
B	TTWW-h	MT20	6.0	12.0	3.25	2.50

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



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

BEARINGS

JT	FACTORED GROSS REACTION		MAXIMUM FACTORED GROSS REACTION		INPUT BRG		REQRD BRG	
	VERT	HORZ	DOWN	HORZ	IN-SX	IN-SX	IN-SX	IN-SX
AD	3930	0	3930	0	5-8	5-8	5-8	5-8
Q	3446	0	3446	0	5-8	5-8	5-7	5-7

ALLOW FOR 0.4" OF HORIZONTAL MOVEMENT DUE TO TOTAL LOAD

UNFACTORED REACTIONS

JT	1ST LCASE		MAX./MIN. COMPONENT REACTIONS		WIND	DEAD	SOIL
	COMBINED	SNOW	LIVE	PERM.LIVE			
AD	2786	1738 / 0	0 / 0	0 / 0	0 / 0	1059 / 0	0 / 0
Q	2445	1559 / 0	0 / 0	0 / 0	0 / 0	886 / 0	0 / 0

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

BRACING

TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 2.87 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-AA, J-V

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 LC1 (PLF)	MAX. UNBRACED LENGTH FR-TO	MEMB.	MAX. FACTORED FORCE (LBS)
FR-TO				FR-TO	
A-B	-3170 / 0	-78.0 -78.0 0.23 (1)	3.73	AC-B	-944 / 0
B-C	-5429 / 0	-153.5 -153.5 0.38 (1)	3.96	B-AB	0 / 4591
C-D	-7627 / 0	-153.5 -153.5 0.48 (1)	3.33	AB-C	-2788 / 0
D-E	-9807 / 0	-153.5 -153.5 0.42 (1)	3.02	C-AA	0 / 2815
E-F	-10371 / 0	-78.0 -78.0 0.48 (1)	2.90	AA-D	-8572 / 0
F-G	-10371 / 0	-78.0 -78.0 0.51 (1)	2.90	D-Z	0 / 8163
G-H	-10371 / 0	-78.0 -78.0 0.51 (1)	2.87	Z-E	-346 / 0
H-I	-10347 / 0	-78.0 -78.0 0.48 (1)	2.87	E-Y	0 / 772
I-J	-7199 / 0	-78.0 -78.0 0.30 (1)	3.59	Y-G	-526 / 0
J-K	-8334 / 0	-78.0 -78.0 0.39 (1)	3.26	Y-H	0 / 106
K-L	-8328 / 0	-78.0 -78.0 0.42 (1)	3.26	X-H	0 / 375
L-M	-8328 / 0	-78.0 -78.0 0.42 (1)	3.26	X-I	0 / 7725
M-N	-2389 / 0	-78.0 -78.0 0.14 (1)	5.27	W-I	-6547 / 0
N-O	-2433 / 0	-78.0 -78.0 0.17 (1)	4.75	V-J	-4330 / 0
AD-A	-3784 / 0	0.0 0.0 0.31 (1)	5.46	J-U	0 / 4241
Q-O	-3218 / 0	0.0 0.0 0.26 (1)	5.86	U-K	0 / 188
				U-M	0 / 3683
AE-AD	0 / 0	-96.5 -96.5 0.08 (1)	10.00	T-M	0 / 79
AD-AC	0 / 0	-36.4 -36.4 0.10 (4)	10.00	M-S	-4252 / 0
AC-AB	0 / 1870	-36.4 -36.4 0.33 (1)	10.00	S-N	0 / 4695
AB-AA	0 / 5429	-36.4 -36.4 0.80 (1)	10.00	N-R	-2938 / 0
AA-Z	0 / 10160	-36.4 -36.4 0.47 (1)	10.00	A-AC	0 / 2222
Z-Y	0 / 9818	-112.0 -112.0 0.53 (1)	10.00	R-O	0 / 1874
Y-X	0 / 10338	-112.0 -112.0 0.56 (1)	10.00	I-V	-1854 / 0
X-W	0 / 10682	-112.0 -112.0 0.49 (1)	10.00		
W-AF	0 / 8203	-112.0 -112.0 0.59 (1)	10.00		
AF-V	0 / 8203	-18.5 -18.5 0.59 (1)	10.00		

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: CPrimeHip
SIDE SETBACK = 2-4-5
END SETBACK = 5-10-8
END WALL WIDTH = 0-0
CORNER FRAMING TYPE: CONVENTIONAL
END JACK TYPE: CONVENTIONAL
APPLIED TO FRONT SIDE
- ADDTL LOADS BASED ON 55 % OF GSL.
LOADS APPLIED TO FIRST 14-10-0 OF SPAN MEASURED FROM THE LEFT.

GIRDER TYPE: CStdGirder
START DISTANCE = 14-10-0
START SPAN CARRIED = 5-10-8
END DISTANCE = 25-3-8
END SPAN CARRIED = 5-10-8
END WALL WIDTH = 0-0
APPLIED TO FRONT SIDE OF BOTTOM CHORD.
- ADDTL LOADS BASED ON 55 % OF GSL.

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

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

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

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

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

ALLOWABLE DEFL.(LL) = L/360 (1.30")
CALCULATED VERT. DEFL.(LL) = L/824 (0.57")
ALLOWABLE DEFL.(TL) = L/360 (1.30")
CALCULATED VERT. DEFL.(TL) = L/434 (1.08")

CANTILEVER DEFLECTION:
ALLOWABLE DEFL.(LL) = L/120 (0.19")
CALCULATED VERT. DEFL.(LL) = L/299 (0.06")

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CONTINUED ON PAGE 2

PLATES (table is in inches)

JT	TYPE	PLATES	W	LEN	Y	X
C	TMWW-I	MT20	5.0	6.0	2.25	2.25
D	TMWW-I	MT20	7.0	12.0	2.25	5.25
E	TMWW-I	MT20	4.0	4.0		
F	TS-I	MT20	4.0	9.0		
G	TMW+W	MT20	2.0	4.0		
H	TMWW-I	MT20	4.0	4.0		
I	TMWWWW+I	MT20	10.0	12.0	3.75	3.00
J	TMWW+I	MT20	5.0	8.0	3.00	1.75
K	TMW+W	MT20	2.0	4.0		
L	TS-I	MT20	4.0	9.0		
M	TMWWWW-I	MT20	6.0	12.0	2.50	5.50
N	TTWW-h	MT20	8.0	9.0	3.25	3.00
O	TMVW-I	MT20	5.0	8.0	2.25	2.00
Q	BMV1+P	MT20	3.0	5.0		
R	BBWW-h	MT20	8.0	9.0	4.00	2.25
S	BBWW-I	MT20	10.0	12.0	6.00	6.00
T	BMW+W	MT20	2.0	4.0		
U	BBWWWW-h	MT20	10.0	16.0	4.50	8.00
V	BBWW-h	MT20	10.0	12.0	4.25	6.00
W	BBW-h	MT20	10.0	12.0	4.25	6.00
X	BBWW+M	MT20	10.0	16.0	6.75	4.75
Y	BMWWWW-I	MT20	5.0	8.0		
Z	BBWW+P	MT18HS	10.0	14.0	Edge	5.25
AA	BBWW-h	MT20	10.0	12.0	3.50	7.75
AB	BMWW-I	MT20	6.0	9.0	2.75	3.75
AC	BMWW-I	MT20	5.0	6.0	2.50	2.75
AD	BMV1+I	MT20	6.0	9.0	Edge	

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

HANGERS NOTES

- SPECIAL HANGER(S) OR CONNECTION(S) REQUIRED TO SUPPORT CONCENTRATED LOAD(S) 134.1 lbs FACTORED DOWN AT 2-4-5 ON TOP CHORD, AND 988.9 lbs FACTORED DOWN AT 25-3-8 ON BOTTOM CHORD. DESIGN FOR UNSPECIFIED CONNECTION(S) IS DELEGATED TO THE BUILDING DESIGNER.

LOADING

TOTAL LOAD CASES: (4)

CHORDS				WEBS			
MEMB.	FORCE (LBS)	FACTORED VERT. LOAD (PLF)	LC1 MAX	MEMB.	FORCE (LBS)	FACTORED VERT. LOAD (PLF)	LC1 MAX
FR-TO		FROM	TO	FR-TO		FROM	TO
V-U	0 / 9577	-18.5	-18.5	0.44 (1)	10.00		
U-T	0 / 5489	-18.5	-18.5	0.26 (1)	10.00		
T-S	0 / 5489	-18.5	-18.5	0.26 (1)	10.00		
S-R	0 / 2472	-18.5	-18.5	0.32 (1)	10.00		
R-Q	-1 / 0	-18.5	-18.5	0.08 (1)	10.00		
Q-P	0 / 0	-96.5	-96.5	0.08 (1)	10.00		

FACTORED CONCENTRATED LOADS (LBS)

JT	LOC.	LC1	MAX-	MAX+	FACE	DIR.	TYPE
B	2-4-5	-134	-134	---	FRONT	VERT	TOTAL
AF	25-3-8	-989	-989	---	FRONT	VERT	TOTAL

ALLOWABLE DEFL.(TL)= L/120 (0.19")
CALCULATED VERT. DEFL.(TL) = L/158 (0.12")

CSI: TC=0.51/1.00 (G-H:1), BC=0.80/1.00 (AA-AB:1), WB=0.99/1.00 (I-W:1), SSI=0.37/1.00 (V-W: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.

JSI GRIP= 0.90 (AA) (INPUT = 0.90)
JSI METAL= 0.99 (D) (INPUT = 1.00)

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



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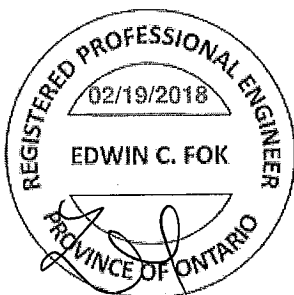
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Alpa Roof Truss, Maple					
Version 8.200 S Jan 6 2018 MiTek Industries, Inc. Mon Feb 19 10:40:13 2018 Page 2					
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PLATES (table is in inches)

JT	TYPE	PLATES	W	LEN	Y	X
S	BBWWW-m	MT20	10.0	12.0	3.25	6.00
T	BBW-h	MT20	5.0	8.0	1.50	4.50
U	BBWW-h	MT20	6.0	7.0	1.50	3.50
V	BBWWW+m	MT20	7.0	12.0	3.25	2.75
W	BBWW-m	MT20	10.0	12.0	3.25	6.00
X	BBWW-h	MT20	7.0	8.0	2.00	5.00
Y	BMWW-t	MT20	4.0	6.0	3.00	1.50
Z	BMWW-t	MT20	4.0	4.0	2.00	1.50
AA	BMV1+p	MT20	2.0	4.0	2.25	1.00

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

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

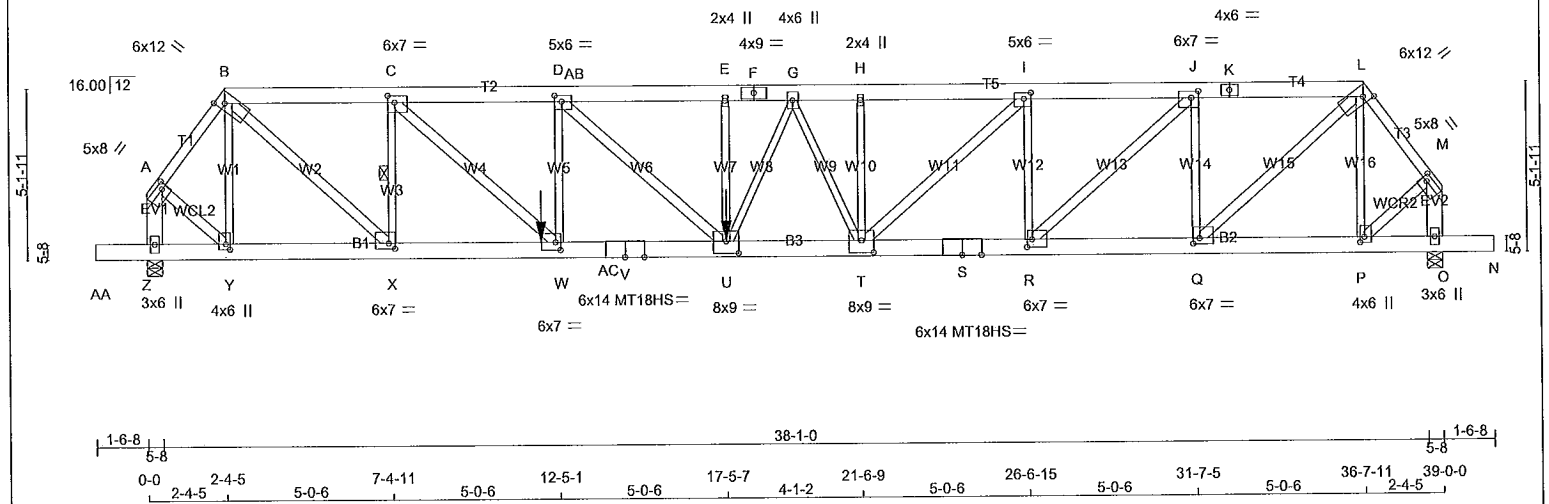


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Alpa Roof Truss, Maple

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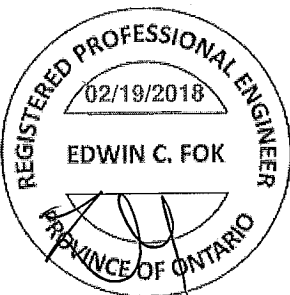
TOTAL WEIGHT = 237 lb

ALL WEBS EXCEPT	2x3	DRY	No.2	SPF
B - X	2x4	DRY	No.2	SPF
C - W	2x4	DRY	No.2	SPF
D - U	2x4	DRY	No.2	SPF
T - I	2x4	DRY	No.2	SPF
R - J	2x4	DRY	No.2	SPF
Q - L	2x4	DRY	No.2	SPF
A - Y	2x4	DRY	No.2	SPF
P - M	2x4	DRY	No.2	SPF

DRY: SEASONED LUMBER.

PLATES (table is in inches)						
JT	TYPE	PLATES	W	LEN	Y	X
A	TMWW-I	MT20	5.0	8.0	2.00	2.00
B	CTWW+h	MT20	6.0	12.0	3.25	2.25
C	TMWW-I	MT20	6.0	7.0	2.50	2.50
D	TMWW-I	MT20	5.0	6.0	2.25	2.50
E	TMWW+w	MT20	2.0	4.0		
F	TS-I	MT20	4.0	9.0		
G	CTWW+h	MT20	4.0	6.0		
H	TMWW+w	MT20	2.0	4.0		
I	TMWW-I	MT20	5.0	6.0	2.25	2.50
J	TMWW-I	MT20	6.0	7.0	2.50	2.50
K	TS-I	MT20	4.0	6.0		
L	CTWW+h	MT20	6.0	12.0	3.25	2.25
M	TMWW-I	MT20	5.0	8.0	2.00	2.00
O	BMV1+p	MT20	3.0	6.0		
P	CTWW+h	MT20	4.0	6.0	2.00	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



BEARINGS

JT	FACTORED GROSS REACTION		MAXIMUM FACTORED GROSS REACTION			INPUT BRG	REQRD IN-SX
	VERT	HORZ	DOWN	HORZ	UPLIFT	IN-SX	IN-SX
Z	4134	0	4134	0	0	5-8	5-3
O	3444	0	3444	0	0	5-8	3-7

1ST LCASE	MAX./MIN. COMPONENT REACTIONS
-----------	-------------------------------

JT	COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
Z	2915	1959 / 0	0 / 0	0 / 0	0 / 0	956 / 0	0 / 0
O	2433	1609 / 0	0 / 0	0 / 0	0 / 0	825 / 0	0 / 0

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

TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 2.86 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-X.

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

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 (LBS)	FACTORED MAX CSI (LC)
FR-TO		FROM TO		FR-TO			
A-B	-3341 / 0	-78.0	-78.0 0.25 (1)	3.63	Y-B	-1118 / 0	0.39 (1)
B-C	-5763 / 0	-78.0	-78.0 0.21 (1)	4.05	B-X	0 / 5169	0.91 (1)
C-AB	-8950 / 0	-78.0	-78.0 0.35 (1)	3.25	X-C	-3362 / 0	0.68 (1)
AB-D	-8950 / 0	-154.5	-154.5 0.35 (1)	3.25	C-W	0 / 4354	0.77 (1)
D-E	-10342 / 0	-154.5	-154.5 0.54 (1)	2.86	W-D	-1961 / 0	0.69 (1)
E-F	-10342 / 0	-78.0	-78.0 0.32 (1)	3.05	D-U	0 / 1901	0.34 (1)
F-G	-10342 / 0	-78.0	-78.0 0.32 (1)	3.05	U-E	-471 / 0	0.17 (1)
G-H	-9146 / 0	-78.0	-78.0 0.26 (1)	3.28	U-G	0 / 1441	0.36 (1)
H-I	-9146 / 0	-78.0	-78.0 0.36 (1)	3.21	G-T	-1544 / 0	0.65 (1)
I-J	-7163 / 0	-78.0	-78.0 0.24 (1)	3.67	T-H	-302 / 0	0.11 (1)
J-K	-4670 / 0	-78.0	-78.0 0.16 (1)	4.46	T-I	0 / 2709	0.48 (1)
K-L	-4670 / 0	-78.0	-78.0 0.16 (1)	4.46	R-I	-2233 / 0	0.79 (1)
L-M	-2752 / 0	-78.0	-78.0 0.20 (1)	4.00	R-J	0 / 3406	0.60 (1)
Z-A	-4004 / 0	0.0	0.0 0.32 (1)	5.31	Q-J	-2750 / 0	0.97 (1)
Q-M	-3314 / 0	0.0	0.0 0.27 (1)	5.78	Q-L	0 / 4151	0.73 (1)
					P-L	-886 / 0	0.31 (1)
AA-Z	0 / 0	-96.5	-96.5 0.05 (1)	10.00	A-Y	0 / 2353	0.42 (1)
Z-Y	0 / 0	-18.5	-18.5 0.04 (1)	10.00	P-M	0 / 1938	0.34 (1)
Y-X	0 / 1977	-18.5	-18.5 0.14 (1)	10.00			
X-AC	0 / 5763	-18.5	-18.5 0.42 (1)	10.00			
AC-W	0 / 5763	-37.3	-37.3 0.42 (1)	10.00			
W-V	0 / 8950	-37.3	-37.3 0.56 (1)	10.00			
V-U	0 / 8950	-37.3	-37.3 0.56 (1)	10.00			
U-T	0 / 9765	-18.5	-18.5 0.60 (1)	10.00			
T-S	0 / 7163	-18.5	-18.5 0.42 (1)	10.00			
S-R	0 / 7163	-18.5	-18.5 0.42 (1)	10.00			
R-Q	0 / 4670	-18.5	-18.5 0.28 (1)	10.00			
Q-P	0 / 1629	-18.5	-18.5 0.13 (1)	10.00			
P-O	0 / 0	-18.5	-18.5 0.04 (1)	10.00			
O-N	0 / 0	-96.5	-96.5 0.05 (1)	10.00			

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

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

*** 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 (1.30")
CALCULATED VERT. DEFL.(LL) = L/ 999 (0.42")
ALLOWABLE DEFL.(TL)= L/360 (1.30")
CALCULATED VERT. DEFL.(TL) = L/ 619 (0.76")

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

CSI: TC=0.54/1.00 (D-E:1), BC=0.60/1.00 (T-U:1),
WB=0.97/1.00 (J-Q:1), SSI=0.56/1.00 (W-X: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						
	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

A-18023906 CONTINUED ON PAGE 2

JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
292639	H1A	1	1	TRUSS DESC.	

Alpa Roof Truss, Maple

Version 8.200 S Jan 6 2018 MiTek Industries, Inc. Mon Feb 19 10:56:50 2018 Page 2.
ID:Rbextx08A5M1Jnp0FfBKG3yNySB-I hugEm7Igj9VvJscUfXANyEQu9kkIqkxkrYb?zjcMx

PLATES (table is in inches)

JT	TYPE	PLATES	W	LEN	Y	X
Q	BMWW-I	MT20	6.0	7.0	2.00	2.25
R	BMWW-I	MT20	6.0	7.0	2.75	1.75
S	BS-I	MT18HS	6.0	14.0		
T	BMWWWW-I	MT20	8.0	9.0	4.25	4.50
U	BMWWWW-I	MT20	8.0	9.0	4.25	4.50
V	BS-I	MT18HS	6.0	14.0		
W	BMWW-I	MT20	6.0	7.0	2.75	1.75
X	BMWW-I	MT20	6.0	7.0	2.00	2.25
Y	BMWW+I	MT20	4.0	6.0	2.00	1.50
Z	BMV1+p	MT20	3.0	6.0		

FACTORED CONCENTRATED LOADS (LBS)

JT	LOC.	LC1	MAX-	MAX+	FACE	DIR.	TYPE
U	17-5-8	-2132	-2132	---	FRONT	VERT	TOTAL
AC	11-10-8	-855	-855	---	FRONT	VERT	TOTAL

PLATE PLACEMENT TOL. = 0.250 Inches

PLATE ROTATION TOL. = 5.0 Deg.

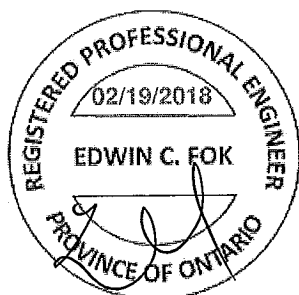
JSI GRIP= 0.90 (P) (INPUT = 0.90)

JSI METAL= 0.88 (V) (INPUT = 1.00)

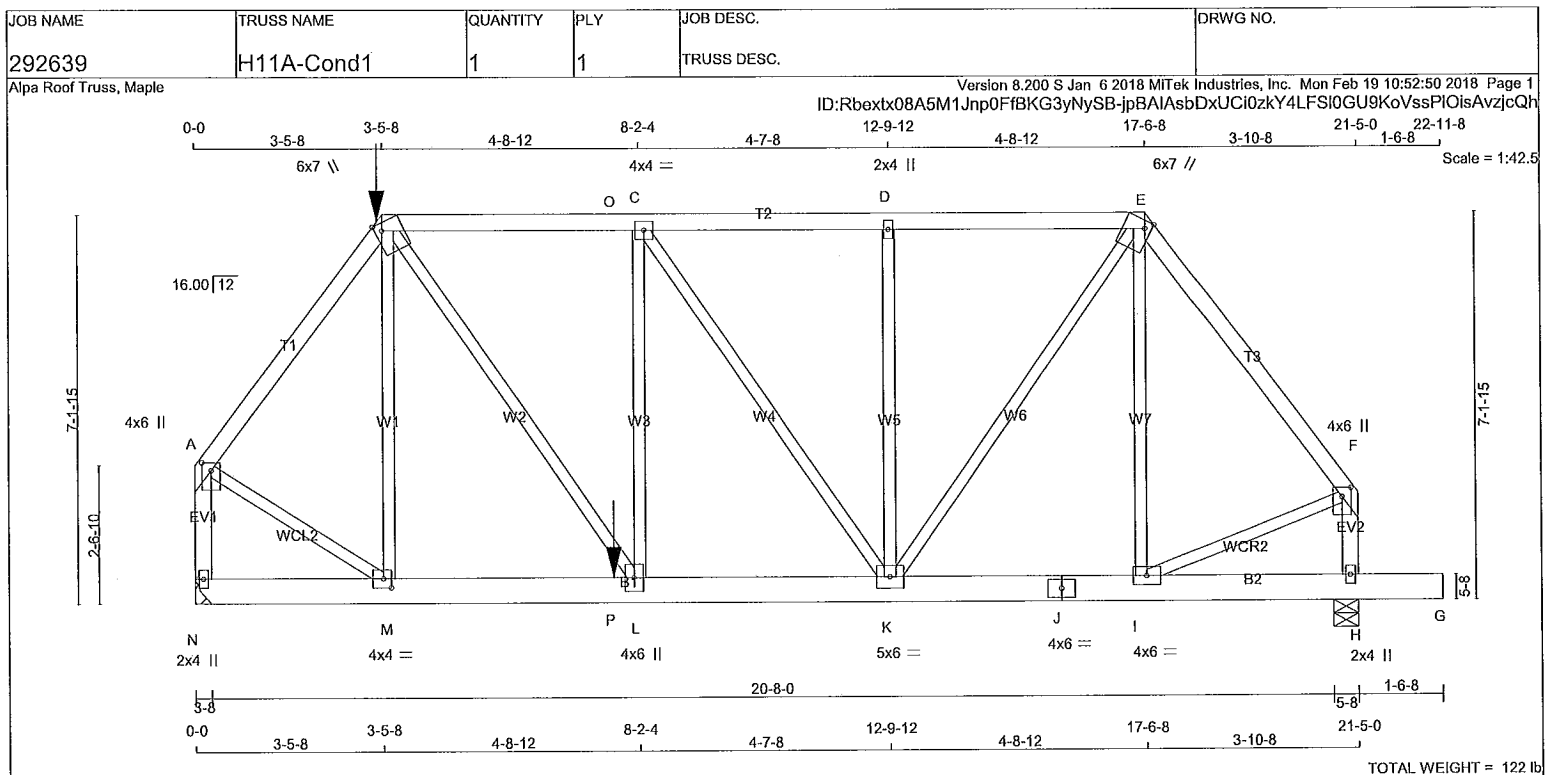
HANGERS NOTES

- 1) SPECIAL HANGER(S) OR CONNECTION(S) REQUIRED TO SUPPORT CONCENTRATED LOAD(S) 2131.9 lbs FACTORED DOWN AT 17-5-8, AND 855.1 lbs FACTORED DOWN AT 11-10-8 ON BOTTOM CHORD. DESIGN FOR UNSPECIFIED CONNECTION(S) IS DELEGATED TO THE BUILDING DESIGNER.

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



A-18023906(2)



LUMBER				
N. L. G. A. RULES				
CHORDS	SIZE	LUMBER	DESCR.	
A - B	2x4	DRY	No.2	SPF
B - E	2x4	DRY	No.2	SPF
E - F	2x4	DRY	No.2	SPF
N - A	2x4	DRY	No.2	SPF
H - F	2x4	DRY	No.2	SPF
N - J	2x6	DRY	No.2	SPF
J - G	2x6	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 1.75 2.00
B	TTWW+m	MT20	6.0	7.0 Edge 1.50
C	TMVW-l	MT20	4.0	4.0
D	TMVW+w	MT20	2.0	4.0
E	TTWW+m	MT20	6.0	7.0 Edge 1.50
F	TMVW+p	MT20	4.0	6.0 2.00 2.00
H	BMV1+p	MT20	2.0	4.0
I	BMVW-l	MT20	4.0	6.0
J	BS-l	MT20	4.0	6.0
K	BMVWW-l	MT20	5.0	6.0
L	BMVW-l	MT20	4.0	6.0
M	BMVW-l	MT20	4.0	4.0 2.00 1.75
N	BMV1+p	MT20	2.0	4.0

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

HANGERS NOTES

- SPECIAL HANGER(S) OR CONNECTION(S) REQUIRED TO SUPPORT CONCENTRATED LOAD(S) 106.7 lbs FACTORED DOWN AT 3-5-8 ON TOP CHORD, AND 652.1 lbs FACTORED DOWN AT 7-8-8 ON BOTTOM CHORD. DESIGN FOR UNSPECIFIED CONNECTION(S) IS DELEGATED TO THE BUILDING DESIGNER.

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

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

BEARINGS

JT	FACTORED GROSS REACTION		MAXIMUM FACTORED GROSS REACTION		INPUT BRG	REQRD BRG
	VERT	HORZ	DOWN	HORZ		
N	1710	0	1710	0	0	HANGER BY OTHERS
H	1486	0	1486	0	0	MIN. SEAT SIZE: 2-1

UNFACTORED REACTIONS

JT	1ST LCASE COMBINED		MAX./MIN. COMPONENT REACTIONS		PERM.LIVE	WIND	DEAD	SOIL
	SNOW	LIVE	SNOW	LIVE				
N	1212	779 / 0	0 / 0	0 / 0	0 / 0	0 / 0	432 / 0	0 / 0
H	1055	669 / 0	0 / 0	0 / 0	0 / 0	0 / 0	386 / 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 = 4.98 FT.
MAX. UNBRACED BOTTOM CHORD LENGTH = 10.00 FT OR RIGID CEILING DIRECTLY APPLIED.

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

LOADING

TOTAL LOAD CASES: (4)

CHORDS		WEBS	
MEMB.	MAX. FACTORED FORCE (LBS)	MEMB.	MAX. FACTORED FORCE (LBS)
FR-TO		FR-TO	
A-B	-1355 / 0	M-B	-260 / 0
B-O	-1412 / 0	B-L	0 / 1059
O-C	-1412 / 0	L-C	-150 / 0
C-D	-1188 / 0	C-K	-398 / 0
D-E	-1188 / 0	K-D	-370 / 0
E-F	-1128 / 0	K-E	0 / 901
N-A	-1693 / 0	I-E	-148 / 11
H-F	-1314 / 0	A-M	0 / 935
		I-F	0 / 720
N-M	0 / 0		
M-P	0 / 803		
P-L	0 / 803		
L-K	0 / 1412		
K-J	0 / 670		
J-I	0 / 670		
I-H	0 / 0		
H-G	0 / 0		

FACTORED CONCENTRATED LOADS (LBS)

JT	LOC.	LC1	MAX-	MAX+	FACE	DIR.	TYPE
B	3-5-8	-107	-107	—	FRONT	VERT	TOTAL
P	7-8-8	-652	-652	—	FRONT	VERT	TOTAL

DESIGN CRITERIA

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

SPECIFIED LOADS:

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

SPACING = 24.0 IN. C/C

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

GIRDER TYPE: CPrimeHlp
LEFT SETBACK = 3-5-8
RIGHT SETBACK = 3-10-8
END SETBACK = 3-10-8
END WALL WIDTH = 0-0
CORNER FRAMING TYPE: CONVENTIONAL
END JACK TYPE: CONVENTIONAL
APPLIED TO FRONT SIDE
- ADDTL LOADS BASED ON 55 % OF GSL.
LOADS APPLIED TO FIRST 7-8-8 OF SPAN MEASURED FROM THE LEFT.

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

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

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

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

ALLOWABLE DEFL.(LL)= 1/360 (0.71")
CALCULATED VERT. DEFL.(LL) = 1/999 (0.04")
ALLOWABLE DEFL.(TL)= 1/360 (0.71")
CALCULATED VERT. DEFL.(TL) = 1/999 (0.07")

CANTILEVER DEFLECTION:
ALLOWABLE DEFL.(LL)= 1/120 (0.19")
CALCULATED VERT. DEFL.(LL) = 1/999 (0.00")
ALLOWABLE DEFL.(TL)= 1/120 (0.19")
CALCULATED VERT. DEFL.(TL) = 1/999 (0.00")

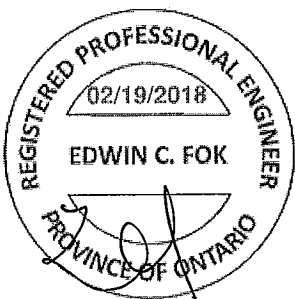
CSI: TC=0.38/1.00 (B-C:1), BC=0.27/1.00 (K-L:1), WB=0.66/1.00 (C-K:1), SSI=0.43/1.00 (L-M:1)

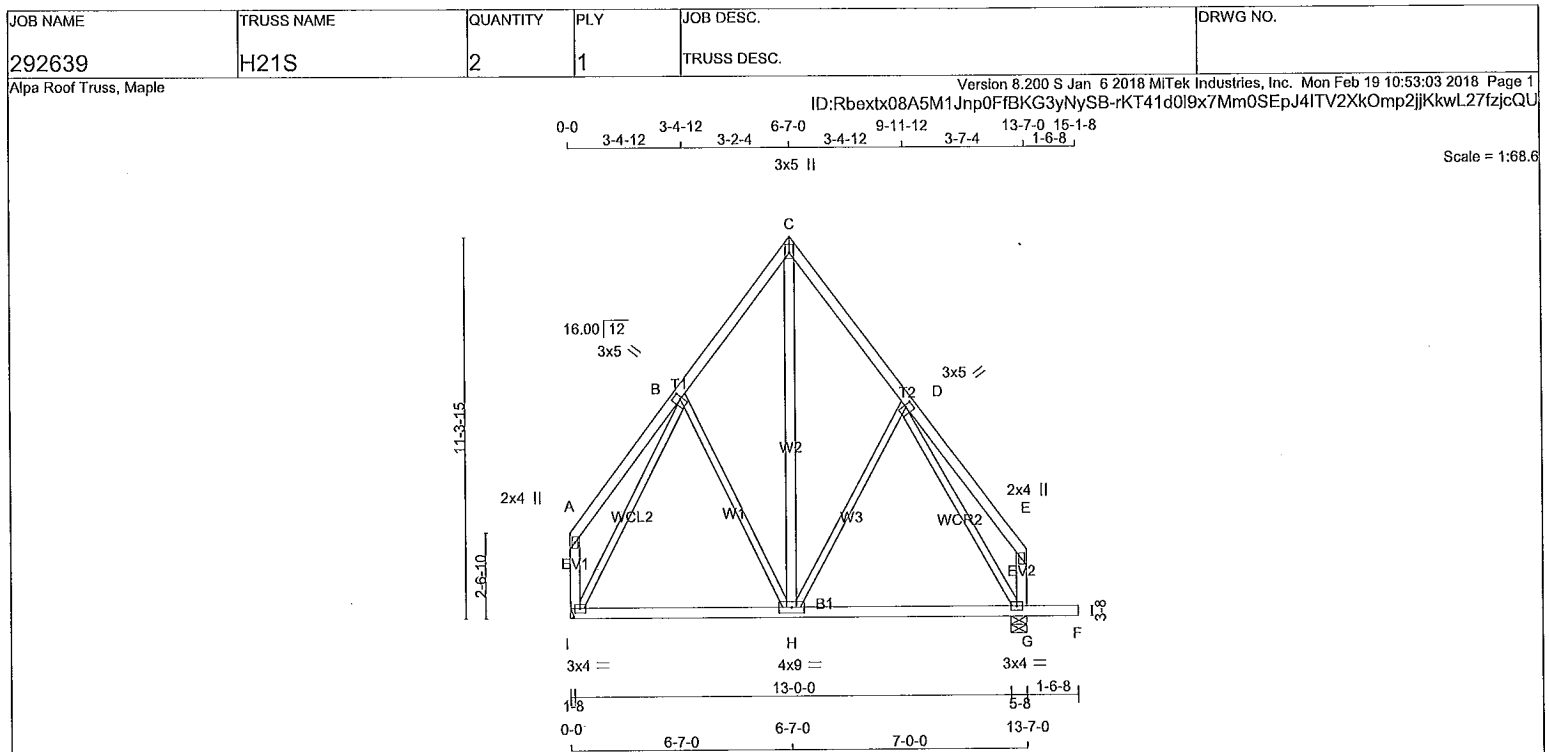
DOL LUMBER=1.00 NAIL=1.00 LS BEND=1.00
COMP=1.00 SHEAR=1.00 TENS=1.00

COMPANION LIVE LOAD FACTOR = 1.00

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CONTINUED ON PAGE 2





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

PLATES (table is in inches)

JT	TYPE	PLATES	W	LEN	Y	X
A	TMV+p	MT20	2.0	4.0		
B	TMVW+t	MT20	3.0	5.0	2.25	0.75
C	TTW+p	MT20	3.0	5.0	2.00	Edge
D	TMVW+t	MT20	3.0	5.0	2.25	0.75
E	TMV+p	MT20	2.0	4.0		
G	BMVW1-t	MT20	3.0	4.0		
H	BMVW1-t	MT20	4.0	9.0		
I	BMVW1-t	MT20	3.0	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
I	655	0	655	0	0
G	804	0	804	0	0

UNFACTORED REACTIONS

JT	1ST LCASE	MAX/MIN	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
I	467	285 / 0	0 / 0	0 / 0	0 / 0	0 / 0	182 / 0	0 / 0
G	573	350 / 0	0 / 0	0 / 0	0 / 0	0 / 0	223 / 0	0 / 0

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

BRACING

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

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

LOADING

TOTAL LOAD CASES: (4)

CHORDS		WEBS	
MEMB.	MAX. FACTORED FORCE (LBS)	MEMB.	MAX. FACTORED FORCE (LBS)
FR-TO		FR-TO	
A-B	0 / 24	B-H	-96 / 0
B-C	-377 / 0	H-C	0 / 357
C-D	-379 / 0	D-E	-135 / 0
D-E	0 / 26	E-F	-575 / 0
E-F	-95 / 0	F-G	-576 / 0
F-G	-101 / 0		
I-H	0 / 257		
H-G	0 / 280		
G-F	0 / 0		

DESIGN CRITERIA

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

SPACING = 24.0 IN./C/C

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

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

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

ALLOWABLE DEFL.(LL) = L/360 (0.45")
CALCULATED VERT. DEFL.(LL) = L/999 (0.01")
ALLOWABLE DEFL.(TL) = L/360 (0.45")
CALCULATED VERT. DEFL.(TL) = L/999 (0.06")

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=0.16/1.00 (D-E:1), BC=0.27/1.00 (G-H:4), WB=0.58/1.00 (B-I:1), SSI=0.12/1.00 (F-G:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

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

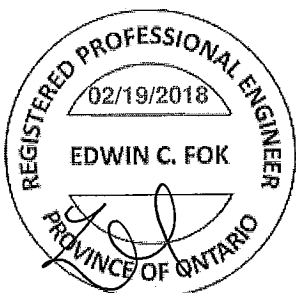
NAIL VALUES
PLATE GRIP(DRY) SHEAR SECTION
(PSI) (PLI) (PLI)
MAX MIN MAX MIN MAX MIN
MT20 618 354 1667 788 1987 1656

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.80 (B) (INPUT = 0.90)
JSI METAL = 0.37 (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

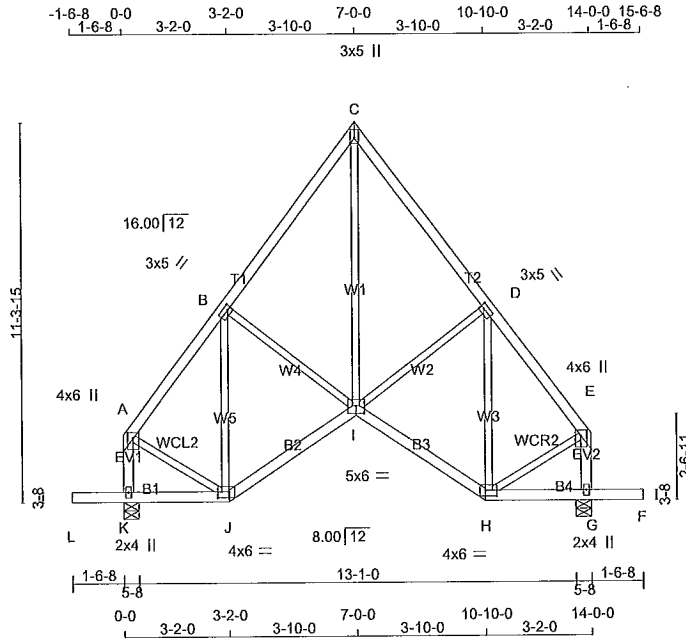


A-18023909

JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
292639	H21T	2	1	TRUSS DESC.	

Alpa Roof Truss, Maple

Version 8.200 S Jan 6 2018 MiTek Industries, Inc. Mon Feb 19 10:53:09 2018 Page 1
ID:Rbextx08A5M1Jnp0FfBKG3yNySB-gTqLHg4VIntWUxwN9aBijmIZRpr?SYIC6roMLIzjcQO



Scale = 1:69.0

TOTAL WEIGHT = 2 X 81 = 162 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	
K - A	2x4	DRY	No.2	SPF	
G - E	2x4	DRY	No.2	SPF	
L - J	2x4	DRY	No.2	SPF	
J - I	2x4	DRY	No.2	SPF	
I - H	2x4	DRY	No.2	SPF	
H - F	2x4	DRY	No.2	SPF	
ALL WEBS EXCEPT	2x3	DRY	No.2	SPF	

DRY: SEASONED LUMBER.

PLATES (table is in inches)	JT	TYPE	PLATES	W	LEN	Y	X
A	TMVW+p	MT20	4.0	6.0	2.00	2.00	
B	TMWW-t	MT20	3.0	5.0	1.50	1.50	
C	TTW+p	MT20	3.0	5.0	2.00	Edge	
D	TMWW-t	MT20	3.0	5.0	1.50	1.50	
E	TMVW+p	MT20	4.0	6.0	2.00	2.00	
G	BMV1+p	MT20	2.0	4.0			
H	BBWW-t	MT20	4.0	6.0	2.00	4.00	
I	BBWWW-p	MT20	5.0	6.0	2.75	3.00	
J	BBWW-t	MT20	4.0	6.0	2.00	4.00	
K	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
K	824	0	824	0
G	824	0	824	0

UNFACTORED REACTIONS

1ST LCASE	MAX./MIN. COMPONENT REACTIONS	1ST LCASE	MAX./MIN. COMPONENT REACTIONS
JT	COMBINED	SNOW	LIVE
K	587	359 / 0	0 / 0
G	587	359 / 0	0 / 0

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

BRACING

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

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

LOADING

TOTAL LOAD CASES: (4)

CHORDS	MAX. FACTORED MEMB.	FACTORED FORCE (LBS)	VERT. LOAD LC1	MAX. FACTORED CS1 (LC)	UNBRAC LENGTH	FR-TO	WEBS	MAX. FACTORED MEMB.	FACTORED FORCE (LBS)	MAX. FACTORED CS1 (LC)
A-B	-482 / 0	-78.0	-78.0	0.13 (1)	6.25	I-C	0 / 508	0.11 (1)		
B-C	-496 / 0	-78.0	-78.0	0.14 (1)	6.25	I-D	-25 / 0	0.01 (1)		
C-D	-496 / 0	-78.0	-78.0	0.14 (1)	6.25	H-D	-293 / 0	0.17 (1)		
D-E	-482 / 0	-78.0	-78.0	0.13 (1)	6.25	B-I	-25 / 0	0.01 (1)		
K-A	-646 / 0	0.0	0.0	0.07 (1)	7.81	J-B	-293 / 0	0.17 (1)		
G-E	-646 / 0	0.0	0.0	0.07 (1)	7.81	A-J	0 / 345	0.08 (1)		
L-K	0 / 0	-96.5	-96.5	0.16 (1)	10.00	H-E	0 / 345	0.08 (1)		
K-J	0 / 0	-18.5	-18.5	0.05 (4)	10.00					
J-I	0 / 364	-18.5	-18.5	0.11 (4)	10.00					
I-H	0 / 364	-18.5	-18.5	0.11 (4)	10.00					
H-G	0 / 0	-18.5	-18.5	0.05 (4)	10.00					
G-F	0 / 0	-96.5	-96.5	0.16 (1)	10.00					

DESIGN CRITERIA

SPECIFIED LOADS:

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

SPACING = 24.0 IN. C/C

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

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

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

ALLOWABLE DEFL.(LL) = L/360 (0.47")
CALCULATED VERT. DEFL.(LL) = L/999 (0.01")
ALLOWABLE DEFL.(TL) = L/360 (0.47")
CALCULATED VERT. DEFL.(TL) = L/999 (0.03")

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

CSI: TC=0.14/1.00 (B-C:1), BC=0.16/1.00 (F-G:1), WB=0.17/1.00 (D-H:1), SS=0.12/1.00 (K-L: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
MT20	618	354	1667

PLATE PLACEMENT TOL. = 0.250 inches

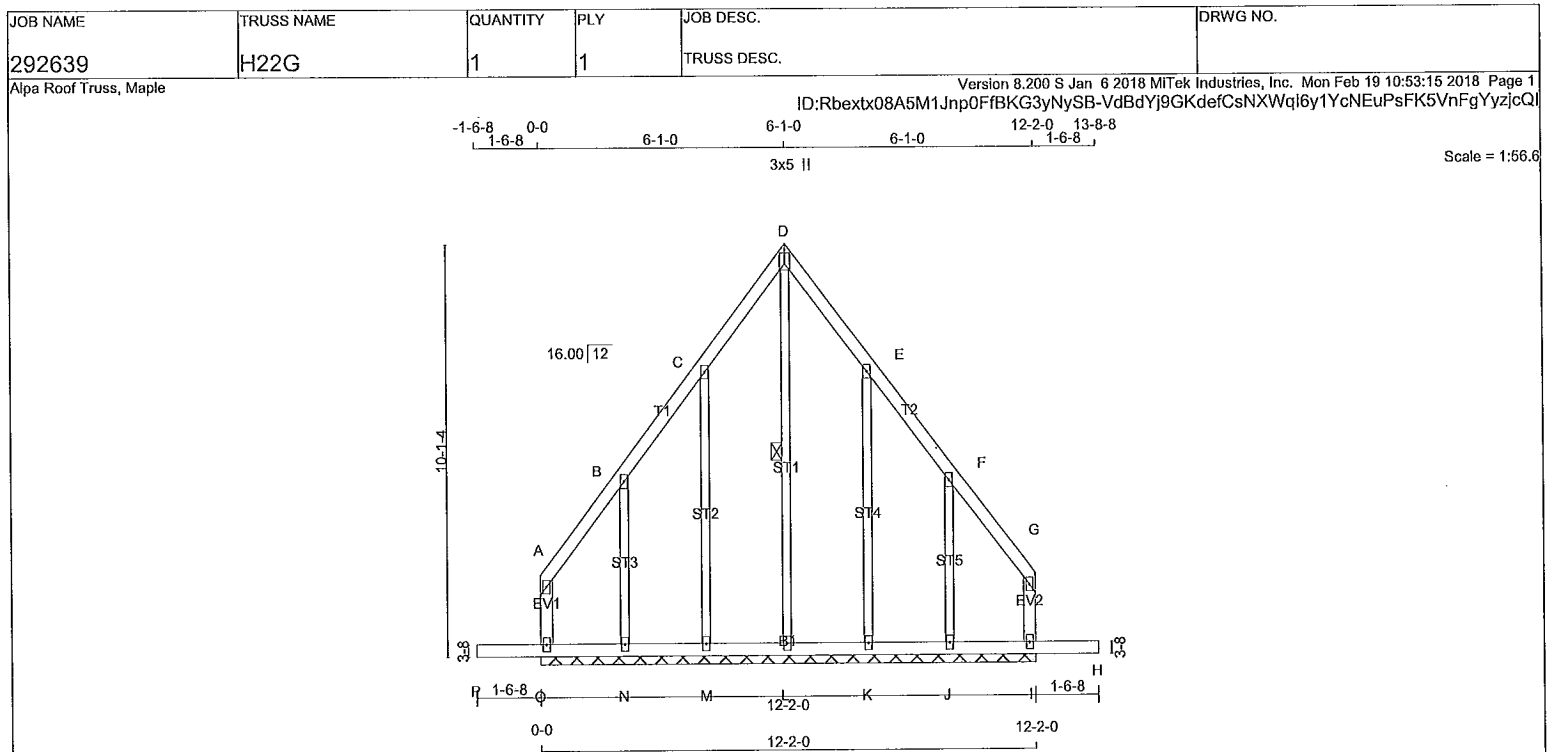
PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.78 (C) (INPUT = 0.90)
JSI METAL= 0.18 (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-18023910



TOTAL WEIGHT = 70 lb

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

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

GABLE STUDS SPACED AT 2-0-0 OC.

PLATES (table is in inches)

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

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

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

BEARINGS

THIS TRUSS DESIGNED FOR CONTINUOUS BEARINGS.

THIS TRUSS REQUIRES RIGID SHEATHING ON EXPOSED FACE.

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

BRACING

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

MAX. UNBRACED BOTTOM CHORD LENGTH = 6.25 FT OR RIGID CEILING DIRECTLY APPLIED.

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

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

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

LOADING

TOTAL LOAD CASES: (4)

CHORDS				WEBS			
MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	MAX. UNBRACED LENGTH (LC)	MEMB.	MAX. FACTORED FORCE (LBS)	MAX. UNBRACED LENGTH (LC)	
FR-TO		FROM TO		FR-TO			
O-A	-66 / 0	0.0 0.0 0.05 (1)	7.81	L-D	-200 / 0	0.13 (1)	
A-B	0 / 14	-78.0 -78.0 0.04 (1)	10.00	M-C	-161 / 0	0.16 (1)	
B-C	0 / 22	-78.0 -78.0 0.04 (1)	10.00	N-B	-147 / 0	0.05 (1)	
C-D	0 / 23	-78.0 -78.0 0.04 (1)	10.00	K-E	-161 / 0	0.16 (1)	
D-E	0 / 23	-78.0 -78.0 0.04 (1)	10.00	J-F	-147 / 0	0.05 (1)	
E-F	0 / 22	-78.0 -78.0 0.04 (1)	10.00				
F-G	0 / 14	-78.0 -78.0 0.04 (1)	10.00				
I-G	-66 / 0	0.0 0.0 0.05 (1)	7.81				
P-O	0 / 0	-96.5 -96.5 0.16 (1)	10.00				
O-N	-8 / 0	-18.5 -18.5 0.11 (1)	10.00				
N-M	-12 / 0	-18.5 -18.5 0.02 (1)	6.25				
M-L	-15 / 0	-18.5 -18.5 0.02 (4)	6.25				
L-K	-15 / 0	-18.5 -18.5 0.02 (4)	6.25				
K-J	-12 / 0	-18.5 -18.5 0.02 (1)	6.25				
J-I	-8 / 0	-18.5 -18.5 0.11 (1)	10.00				
I-H	0 / 0	-96.5 -96.5 0.16 (1)	10.00				

DESIGN CRITERIA

SPECIFIED LOADS:

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

SPACING = 24.0 IN. C/C

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

THIS DESIGN COMPLIES WITH:

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

DESIGN ASSUMPTIONS

-OVERHANG NOT TO BE ALTERED OR CUT OFF.

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

CSI: TC=0.05/1.00 (G-I:1), BC=0.16/1.00 (H-I:1), WB=0.16/1.00 (E-K:1), SSI=0.12/1.00 (O-P:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

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

NAIL VALUES

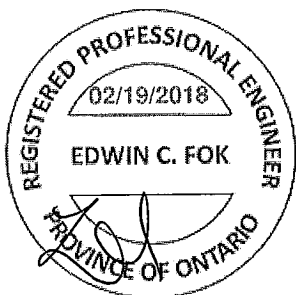
PLATE	GRIP(DRY)	SHEAR	SECTION
	(PSI)	(PLI)	(PLI)
MT20	618	354	1667
	788	1987	1656

PLATE PLACEMENT TOL. = 0.250 inches

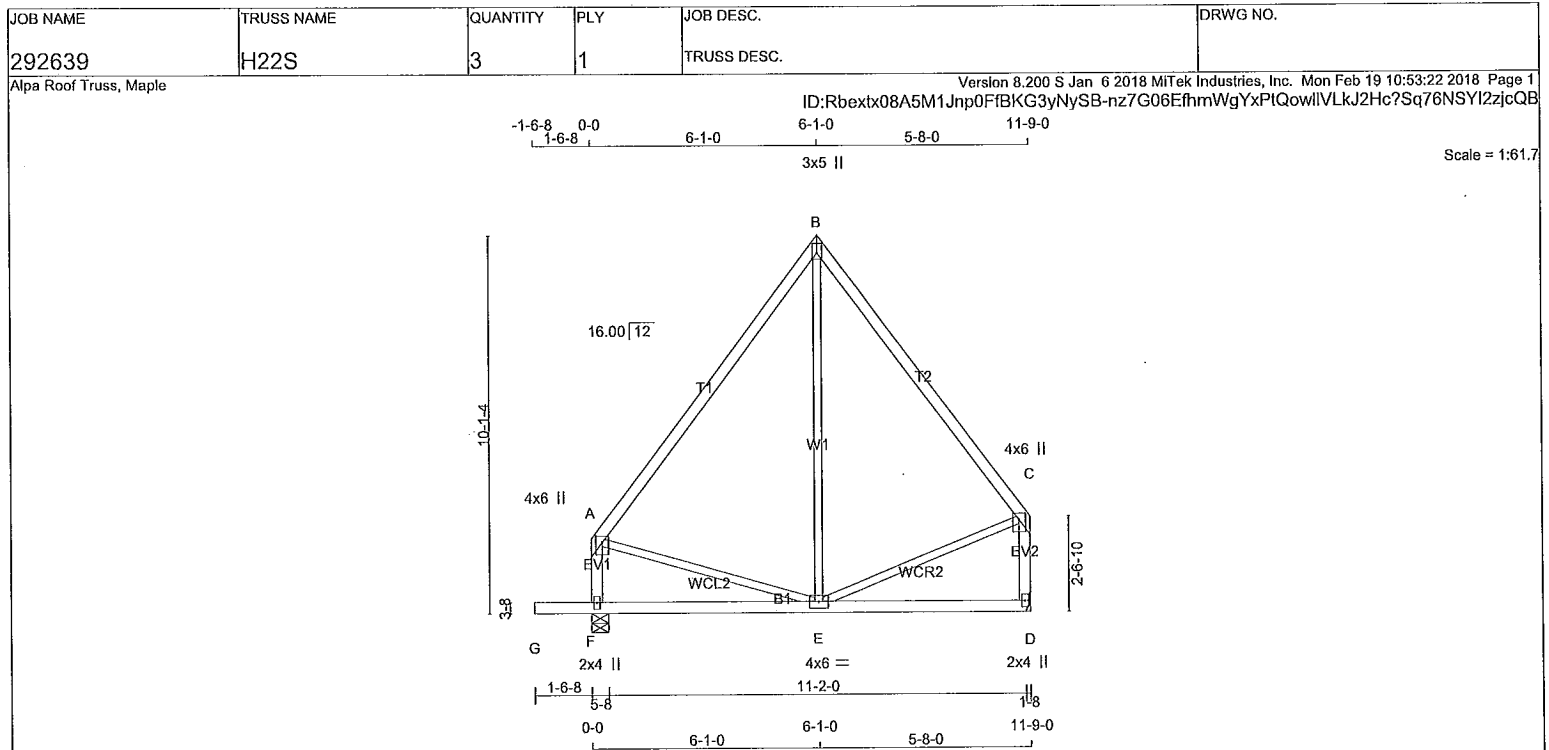
PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.20 (D) (INPUT = 0.90)
JSI METAL= 0.08 (E) (INPUT = 1.00)

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



A-18023911



TOTAL WEIGHT = 3 X 60 = 179 lb

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

DRY: SEASONED LUMBER.

PLATES (table is in inches)

JT	TYPE	PLATES	W	LEN	Y	X
A	TMVW+p	MT20	4.0	6.0	2.00	2.00
B	TTW+p	MT20	3.0	5.0	2.00	Edge
C	TMVW+p	MT20	4.0	6.0	2.00	2.00
D	BMV1+p	MT20	2.0	4.0		
E	BMVWW-l	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	567	0	567	0
F	715	0	715	0

UNFACTORED REACTIONS

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

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

BRACING

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

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

LOADING

TOTAL LOAD CASES: (4)

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

DESIGN CRITERIA

SPECIFIED LOADS:

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

SPACING = 24.0 IN. C/C

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

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

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

ALLOWABLE DEFL.(LL) = $L/360$ (0.39")
CALCULATED VERT. DEFL.(LL) = $L/999$ (0.00")
ALLOWABLE DEFL.(TL) = $L/360$ (0.39")
CALCULATED VERT. DEFL.(TL) = $L/999$ (0.03")

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

CSI: TC=0.32/1.00 (B-C:1), BC=0.18/1.00 (E-F:4), WB=0.04/1.00 (C-E:1), SSI=0.12/1.00 (F-G:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

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

NAIL VALUES

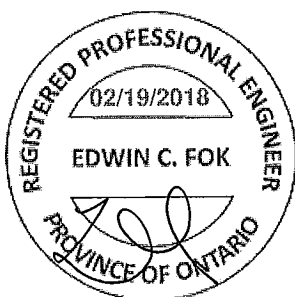
PLATE	GRIP(DRY) (PSI)	SHEAR (PLI)	SECTION (PLI)
	MAX MIN	MAX MIN	MAX MIN
MT20	618 354	1667 788	1987 1656

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

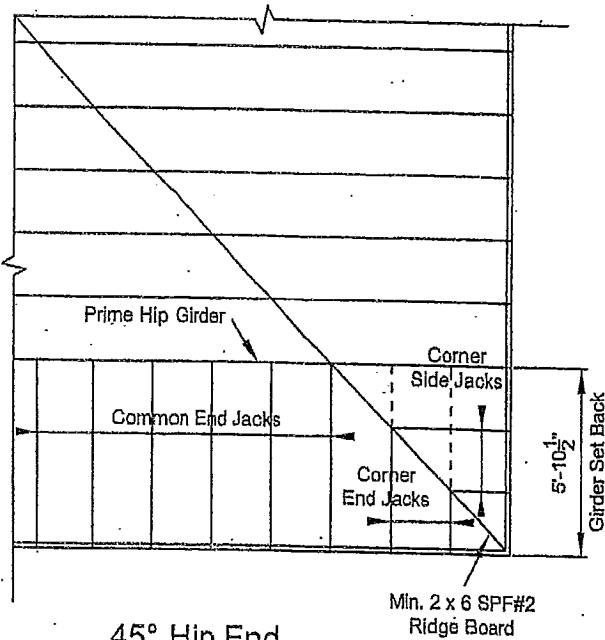
JSI GRIP= 0.32 (E) (INPUT = 0.90)
JSI METAL= 0.15 (A) (INPUT = 1.00)

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



A-18023912

STRACON ENGINEERING INC.



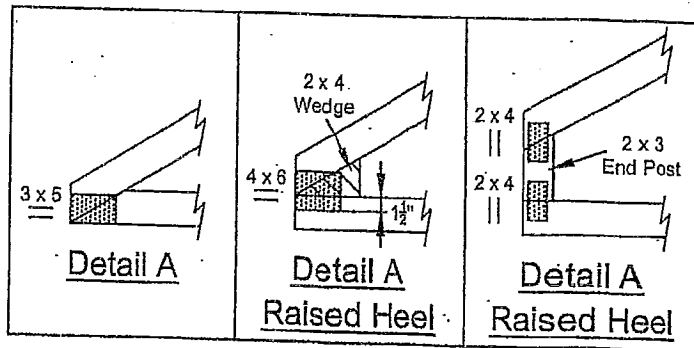
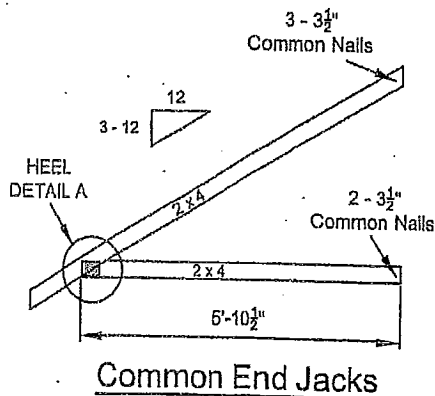
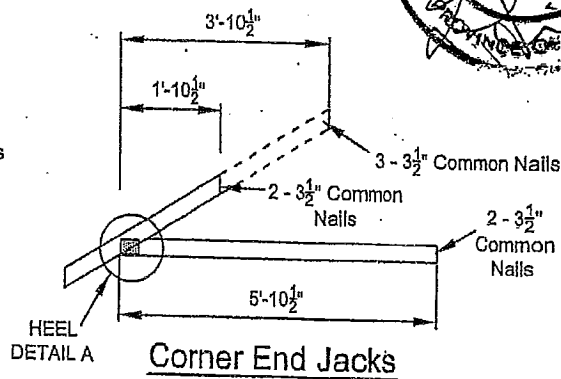
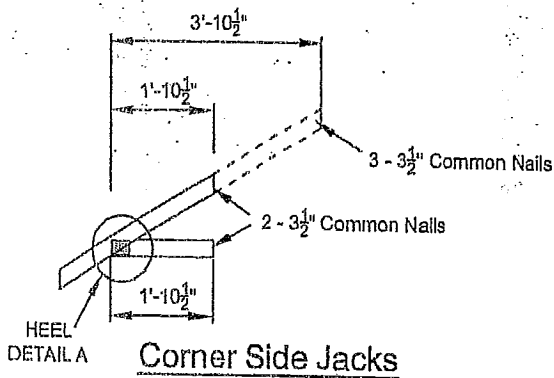
LUMBER SPECIFICATION

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

DESIGN LOAD

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

TOTAL LOAD : 50.5 P.S.F



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

CS-51008

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:

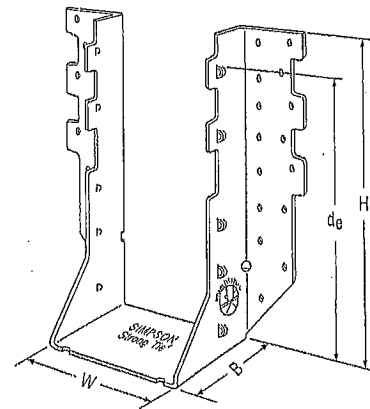
- Factored resistances are in accordance with CSA O86-14.
- Uplift resistances have been increased 15%. No further increase is permitted.
- Wood shear is not considered in the factored resistances given. The specifier must ensure that the joist and header capacities are capable of withstanding these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

Installation:

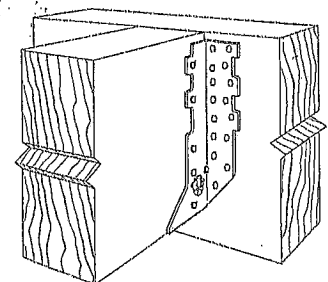
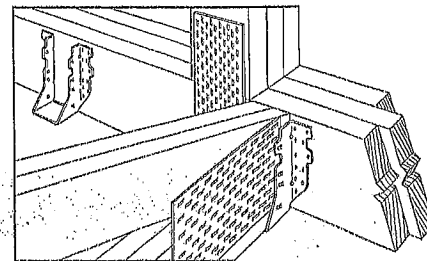
- Use all specified fasteners
- Nails: 16d = 0.162" dia. x 3 1/2" long common wire
- Double shear nails must be driven at an angle through the joist or truss into the header to achieve the table loads
- Not designed for welded or nailer applications

Options:

- See current catalogue for options



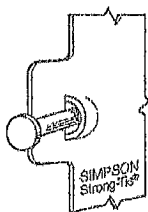
HHUS410



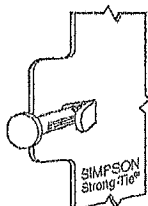
Typical HHUS Installation

Model No.	Ga.	Dimensions (in.)				Fasteners		Factored Resistance (lb.)			
		W	H	B	d _g ¹	Face	Joist	D.Fir-L		S-P-F	
								Uplift (K _u =1.15)	Normal (K _n =1.00)	Uplift (K _u =1.15)	Normal (K _n =1.00)
HHUS26-2	14	3 9/16	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 9/16	9 3/32	3	8	(30) 16d	(10) 16d	4745	9660	4310	7000
HHUS210-3	14	4 1 1/16	9	3	7 15/16	(30) 16d	(10) 16d	4745	10545	4310	7485
HHUS210-4	14	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 3/16	7 29/32	(30) 16d	(10) 16d	4745	10770	4310	7650

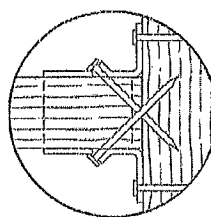
1. d_g is the distance from the seat of the hanger to the highest joist nail.



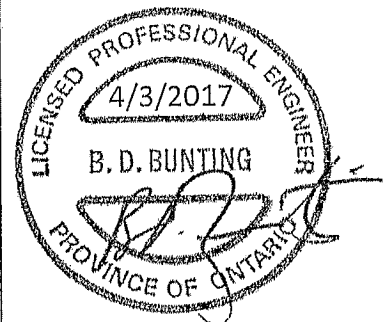
Double Double Shear Nailing prevents tabs breaking off (available on some models).
U.S. Patent 5,603,680



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

(800) 999-5099
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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:

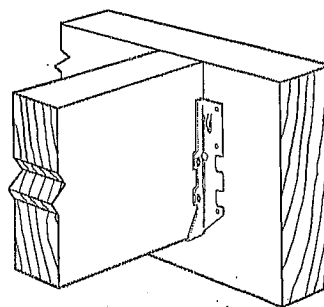
- Factored resistances are in accordance with CSA O86-14.
- Uplift resistances have been increased 15%. No further increase is permitted.
- Wood shear is not considered in the factored resistances given. The specifier must ensure that the joist and header capacities are capable of withstanding these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

Installation:

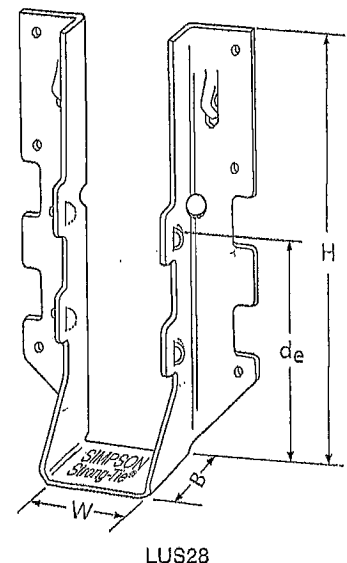
- Use all specified fasteners.
- Nails: 16d = 0.162" dia. x 3½" long common wire, 10d = 0.148" x 3" long common wire.
- Double shear nails must be driven at an angle through the joist or truss into the header to achieve the table loads.
- Not designed for welded or nailer applications.

Options:

- These hangers cannot be modified



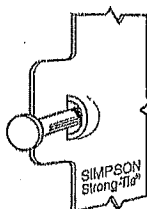
Typical LUS Installation



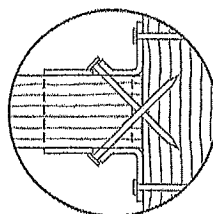
LUS28

Model No.	Ga.	Dimensions (in.)				Fasteners		Factored Resistance (lb.)			
		W	H	B	d _e 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	1¼	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	1¼	3¾	(4) 10d	(4) 10d	1420	2170	1290	1630
LUS26-2	18	3½	4¾	2	4	(4) 16d	(4) 16d	1720	2595	1545	1920
LUS26-3	18	4¾	4¾	2	3¼	(4) 16d	(4) 16d	1720	2595	1545	2340
LUS28	18	1½	6¾	1¼	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	1¼	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 11/16	2	5¼	(8) 16d	(6) 16d	2580	3345	2320	2375

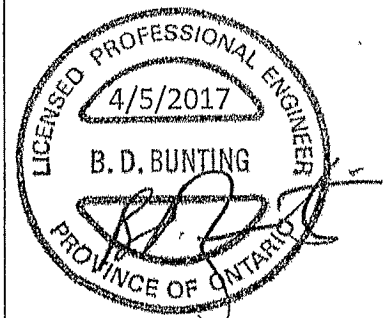
1. d_e is the distance from the seat of the hanger to the highest joist nail.



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



Double Shear Nailing Top View.



LIMIT
STATES
DESIGN

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

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TC – Truss Connectors



The TC truss connector is an ideal connector for scissor trusses and can allow horizontal movement up to 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

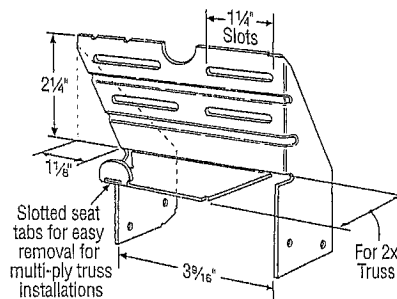
Design: Factored resistances are in accordance with CSA 086-14

Installation:

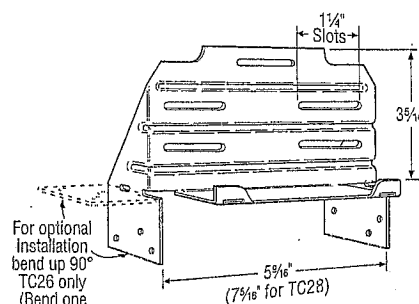
- Use all specified fasteners.
- Nails: 10d = 0.148" dia. x 3" long common wire, 10d x 1½" = 0.148" dia. x 1½" long.
- Drive 10d nails into the truss at the inside end of the slotted holes (inside end is towards the centre of the truss) and clinch on the back side. Do not seat these nails into the truss—allow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

Optional TC Installation:

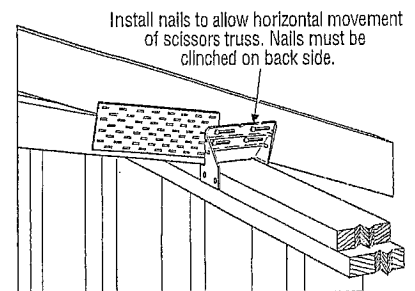
- Bend one flange up 90°. Drive specified nails into the top and face of the top plates or install Titen® screws into the top and face of masonry wall. See optional load tables and installation details.



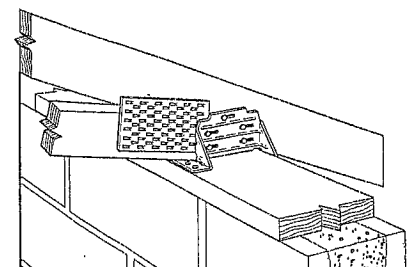
TC24
U.S. Patent 4,932,173



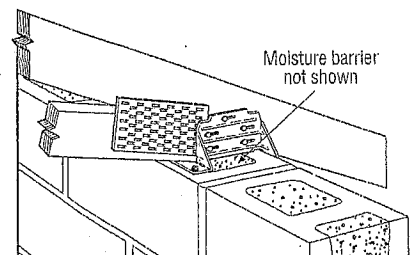
TC26
(TC28 Similar)



Typical TC24 Installation



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



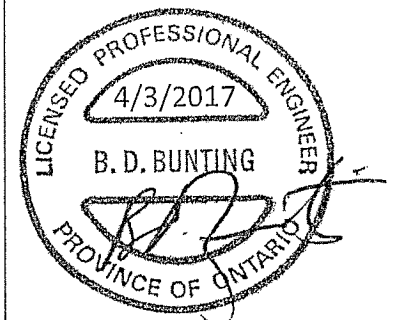
Optional TC26 Installation for Grouted Concrete Block using Titen Screws

Model No.	Fasteners		Factored Resistance	
	Truss	Wall Plates	D.Fir-L	S-P-F
			Uplift (K ₀ =1.15)	Uplift (K ₀ =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 ₀ =1.15)	Uplift (K ₀ =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) – ¾" 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:

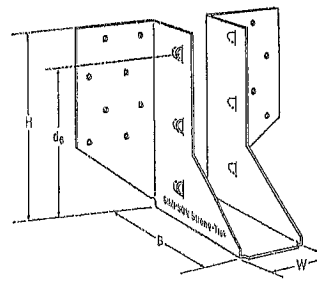
- Factored resistances are in accordance with CSA O86 -14.
- Uplift resistances have been increased 15%. No further increase is permitted.
- Wood shear is not considered in the factored resistances given. The specifier must ensure that the joist and header capacities are capable of withstanding these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

Installation:

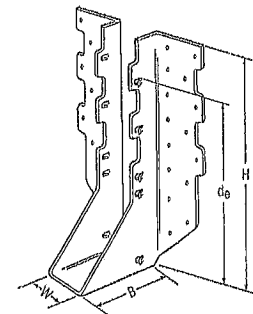
- Use all specified fasteners
- Nails: 16d = 0.162" dia. x 3½" long common wire
- Double shear nails must be driven at an angle through the joist or truss into the header to achieve the table loads
- Not designed for welded or nailer applications

Options:

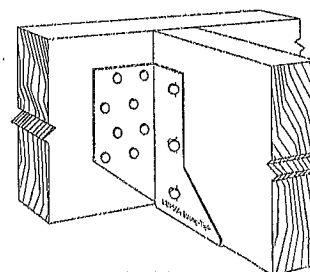
- See current catalogue for options



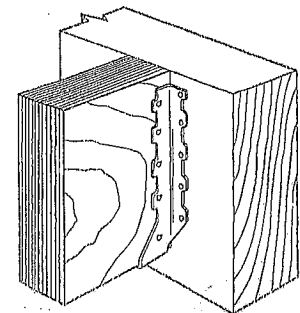
LJS26DS



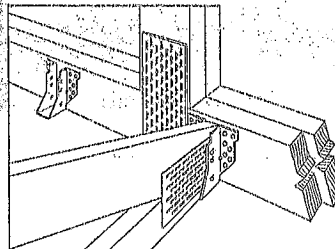
HUS210
(HUS26, HUS28, similar)



Typical LJS26DS
Installation



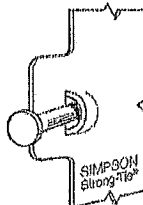
Typical HUS
Installation



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

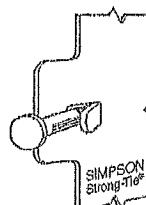
Model No.	Ga.	Dimensions (in.)				Fasteners		Factored Resistance (lb.)			
		W	H	B	d ₆ ¹	Face	Joist	D.Fir-L		S.P-F	
								Uplift (K ₀ =1.15)	Normal (K ₀ =1.00)	Uplift (K ₀ =1.15)	Normal (K ₀ =1.00)
LJS26DS	18	1 11/16	5	3 1/2	4 5/8	(16) 16d	(6) 16d	2065	4265	1460	4115
HUS26	16	1 1/4	5 3/8	3	3 11/16	(14) 16d	(6) 16d	2705	4940	2065	3875
HUS28	16	1 1/4	7 1/2	3	6 1/2	(22) 16d	(8) 16d	3605	5365	2675	4345
HUS210	16	1 1/4	9 1/2	3	7 3/32	(30) 16d	(10) 16d	4505	5795	4010	4740
HUS1.81/10	16	1 1/4	9	3	8	(30) 16d	(10) 16d	4505	6450	4010	5200

1. d₆ is the distance from the seat of the hanger to the highest joist nail.

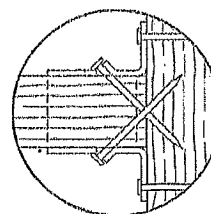


Dome Double
Shear Nailing
prevents tabs
breaking off
(available on
some models).

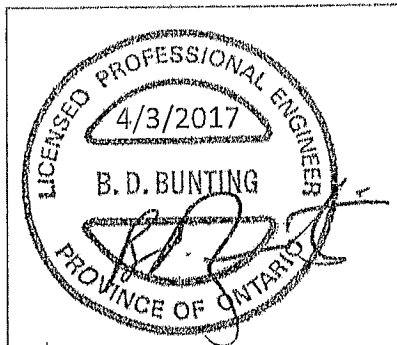
U.S. Patent
5,603,580



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



Double
Shear
Nailing
Top View.



LIMIT
STATES
DESIGN

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