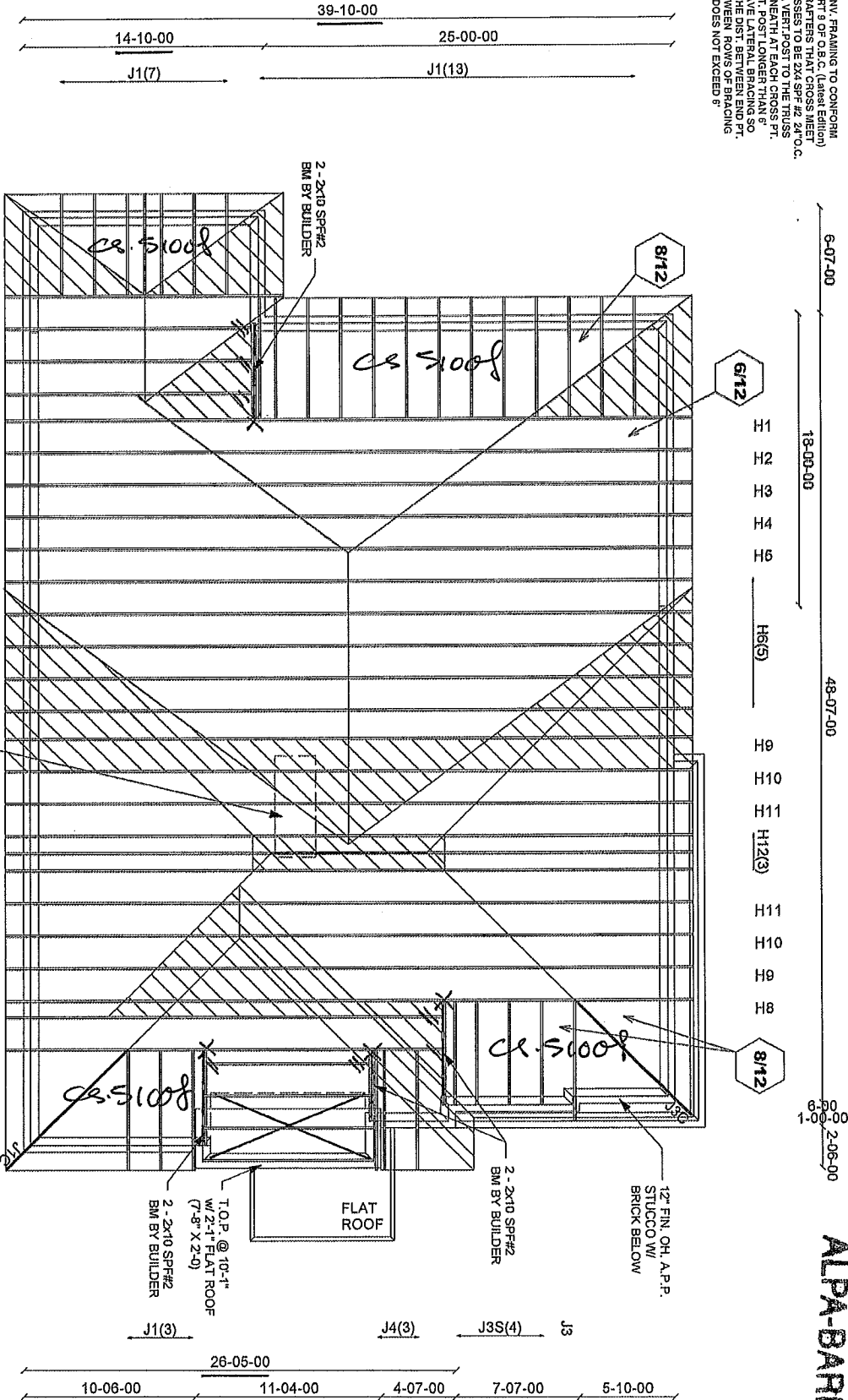


ALL CONN. FRAMING TO CONFORM WITH PART 9 OF O.B.C. (Latest Edition) ROOF RAFTERS THAT CROSS OVER TRUSSES SHALL BE 2" X 6" O.C. WITH A MIN. 1" POST TO BE TRUSS UNDERNEATH AT EACH CROSS PT. VERT. POST LONGER THAN 8' TO HAVE LATERAL BRACING SO THAT THE DIST. BETWEEN END PT. & BETWEEN ROWS OF BRACING DOES NOT EXCEED 8'



15" FIN. OH. RSD. HEEL - 0" DROP (2" x 6" FASCIA) - FM ASPHALT SHINGLES 2" x 6" BR/BRICK  
GONFRAM TRUSS LAYOUT DIRECTION  
P.L. 95914

ENGINEERED FROM  
A-19023913 TO  
A-19023930

CRACKDOVE

CONVENTIONAL  
FRAMING BY  
OTHERS



Job Track: 45147  
Layout ID: 292645  
Plan Log: 95914

Builder / Location:  
GOLD PARK HOMES / VAUGHAN  
Project: PINE VALLEY  
Date: 12/29/2017 Designer: AMANDA

Model / Elevation:  
5003 REV1

STO OR CRT 2ND FLR W/ 5 BED GR  
/ C OR LOGIA (EAT)  
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.

ALPA-BARRIE

ALL CONV. FRAMING TO CONFORM WITH PART 9 OF O.B.C. (Latest Edition) ROOF PARTERS THAT CROSS MEET WITH A VERT POST TO THE TRUSS UNLESS THE TRUSS IS 12" FIN. OH. A.P.P. TO HAVE LATERAL BRACING SO THAT THE DIST. BETWEEN END PT. & BETWEEN ROWS OF BRACING DOES NOT EXCEED 6'

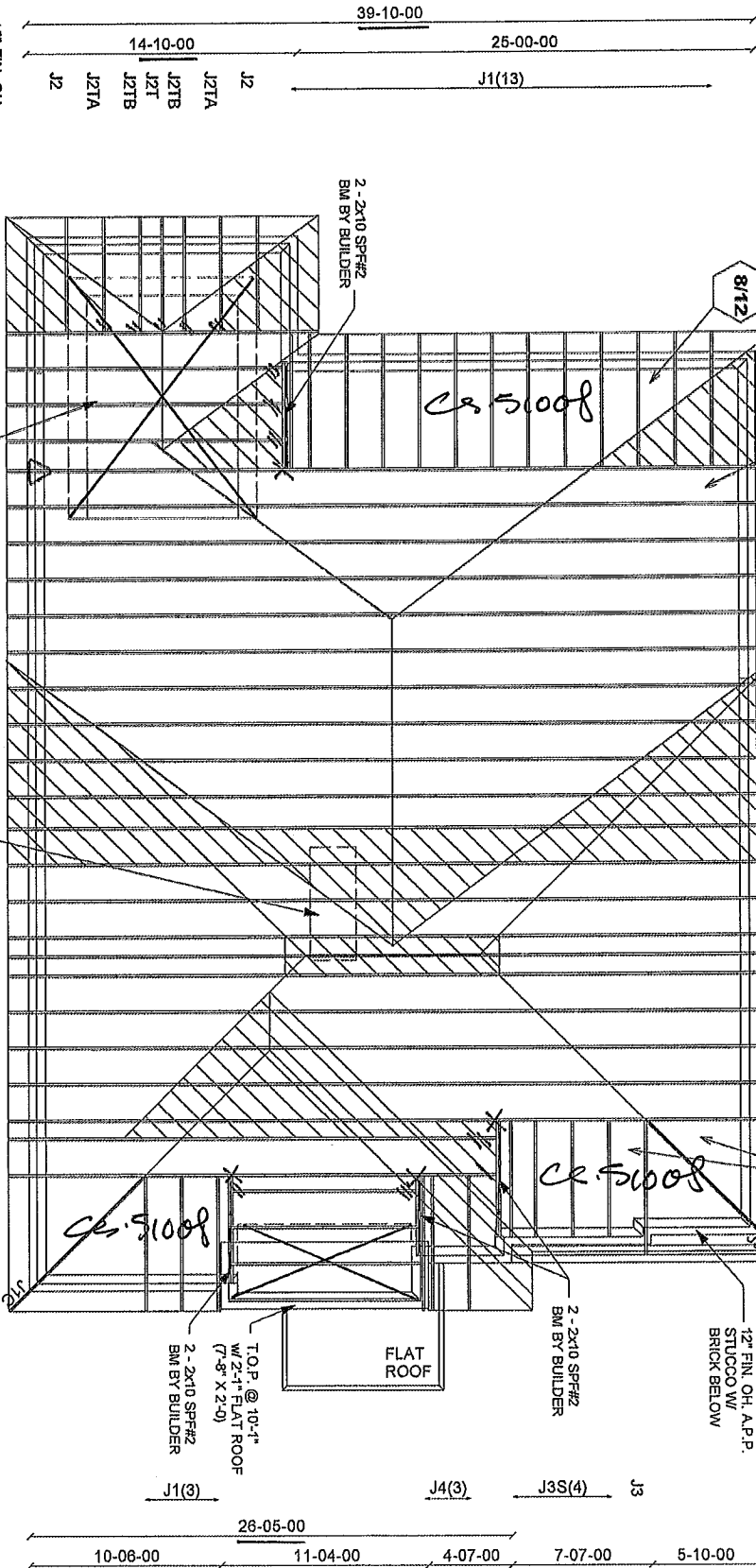
6-07-00

18-00-00

48-07-00

00-00-00  
2-06-00  
8-01

ALPHA-BARRIE



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

CONFIRM TRUSS LAYOUT DIRECTION P.L. 95914

A-18023915 - A-18023918  
A-18023921 - A-18023937

58-02-00

1-00-00

CONVENTIONAL FRAMING BY OTHERS

CHARGES

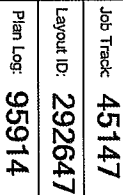
STO W/ OPT TRAY MST 80 02 OPT LOGS (MST)



Job Track 45147  
Layout ID: 292646  
Plan Log 95914

Builder / Location: GOLD PARK HOMES / VAUGHAN  
Project: PINE VALLEY  
Date: 12/29/2017  
Designer: AMANDA

Model / Elevation: 5003 REV1 / COPT TRAY MST  
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 PINE**  
Project: **PINE**  
Date: **12/29/2015**

ARK HOW  
/ALLEY  
Designer: AMM

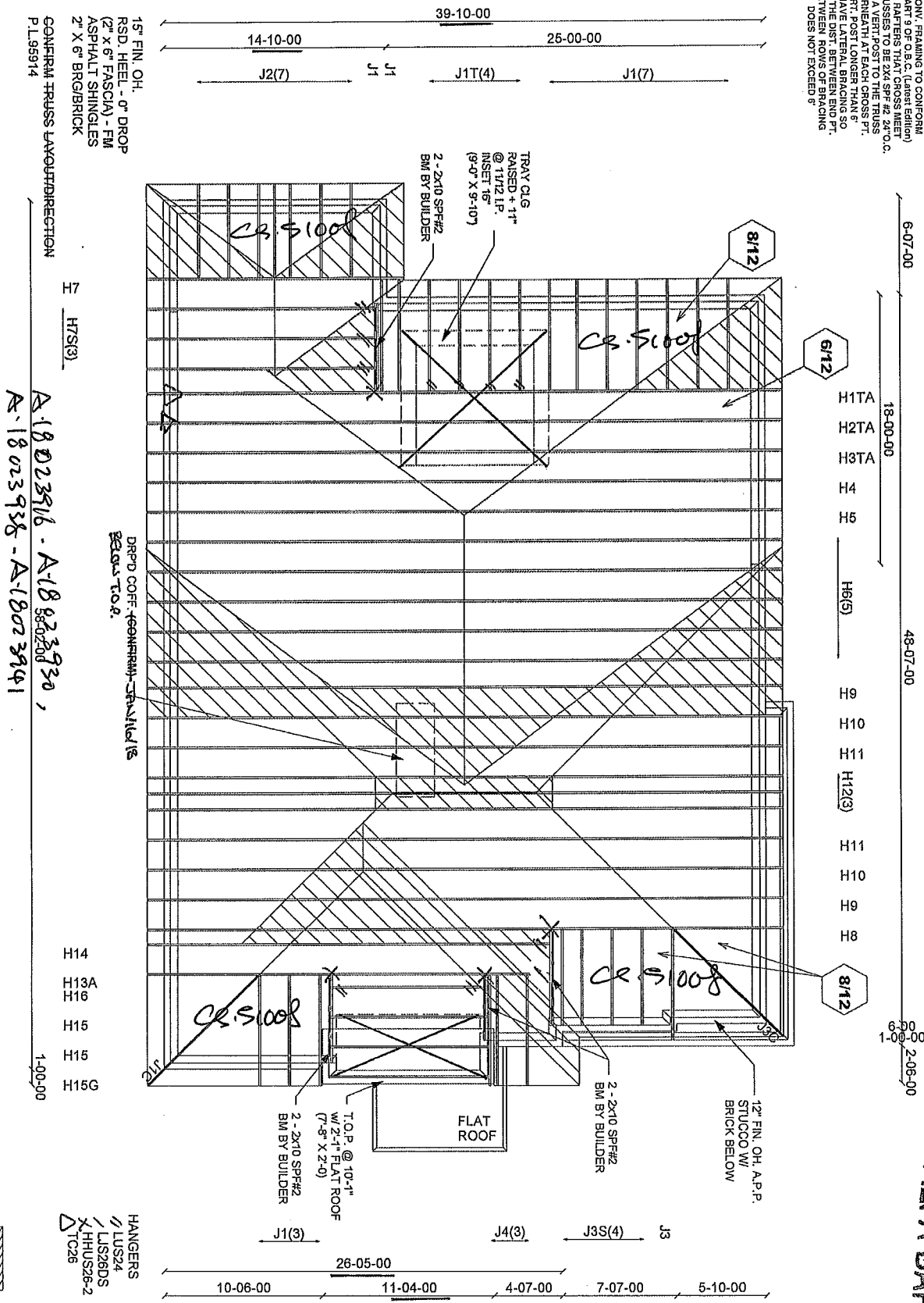
|         |  |
|---------|--|
| VAUGHAN |  |
|---------|--|

THESE DRAW  
REDISTRIBUT  
ALPHA ROOF T

Model / Elevator:  
5003 REV1

TRUSSES INC. SHALL NOT BE REPRODUCED, PUBLISHED, OR  
OTHER THAN THE MANUFACTURE OF TRUSSES BY  
OF TRUSSES INC. IF UTILIZED FOR ANY OTHER PURPOSE.  
// COPT TRAY SIT  
(F-47)

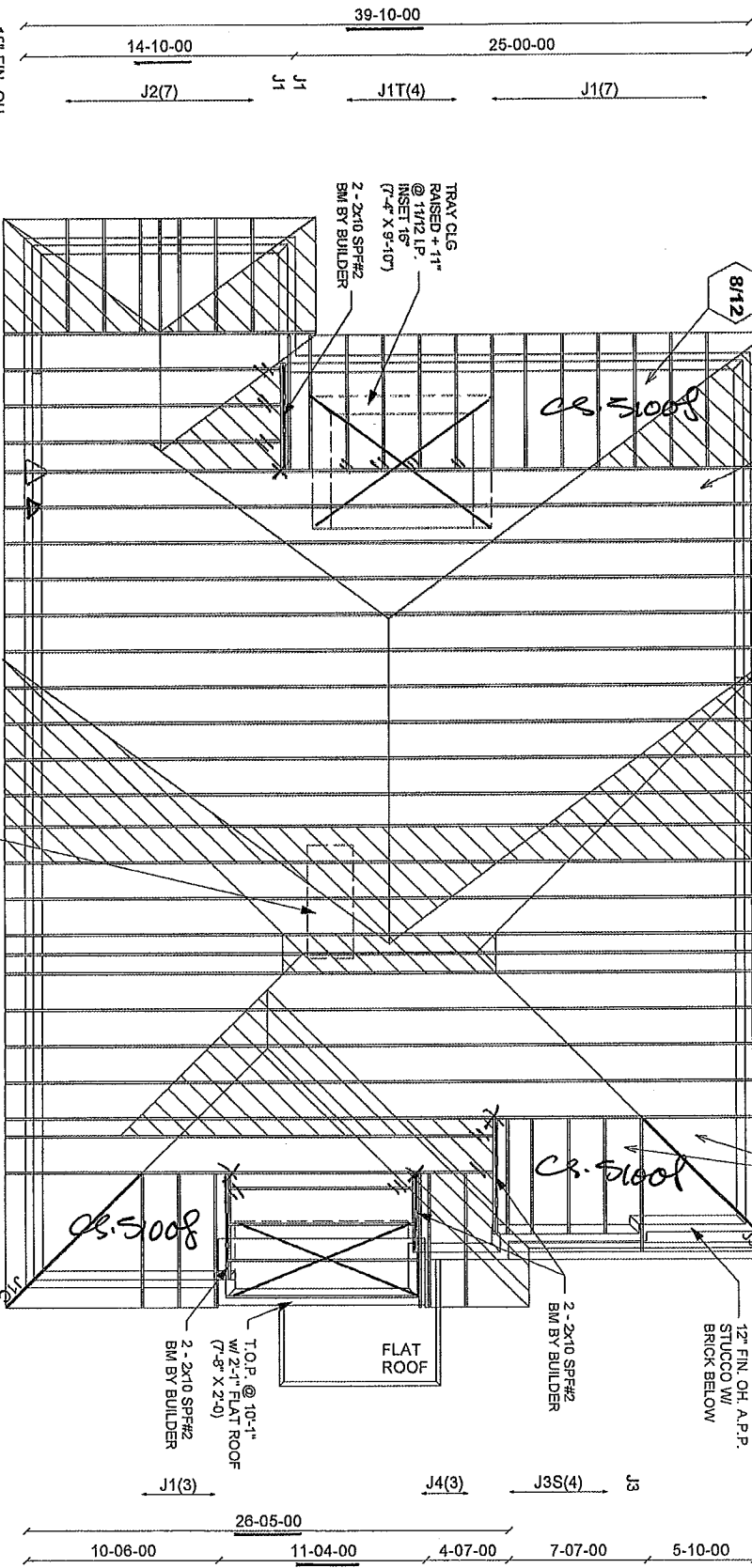
ALL CONV. FRAMING TO CONFORM WITH PART 9 OF O.B.C. (Latest Edition) ROOF RAFTERS THAT CROSS MEET OVER TRUSSES TO BE 2x4 SPT #2 24"O.C. WITH A VERT. POST TO THE TRUSS UNDERNEATH AT EACH CROSS PT. VERT. POST LONGER THAN 6' TO HAVE LATERAL BRACING SO THAT THE DIST. BETWEEN END PT. & BETWEEN ROWS OF BRACING DOES NOT EXCEED 6'



ALPA-BARRE

ALL CONV. FRAMING TO CONFORM WITH PART 9 OF O.B.C. (Latest Edition) ROOF PARTS THAT CROSS MEET OVER TRUSSES TO BE 2X4 SPF #2 24" O.C. WITH A VERT. POST TO THE TRUSS UNDER THE MEETING POINT. 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-BARRIE



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

GENERAL TRUSS LAYOUT/DIRECTION P.L.95914

H7 H7S(3)

DROP CORF. (CORNER) 25/10/15 25/10/15

55-02-00 1-00-00

A-18023915-A-18023930  
A-18023938-A-18023939  
A-18023941

CRACKING

CONVENTIONAL FRAMING BY OTHERS

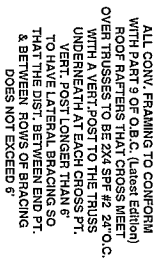
HANGERS  
/ LUS24  
/ LUS26DS  
X HHUS26-2  
TC26



Job Track: 45147  
Layout ID: 292650  
Plan Log: 95914

Builder / Location: GOLD PARK HOMES / VAUGHAN  
Project: PINE VALLEY  
Date: 12/29/2017 Designer: AMANDA

Model / Elevation: 5003 REV1 / COPT TRAY SIT 5BD OFT LUS24 (FAT)  
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.



Job Track: 45147  
Layout ID: 292648  
Plan Log: 95914

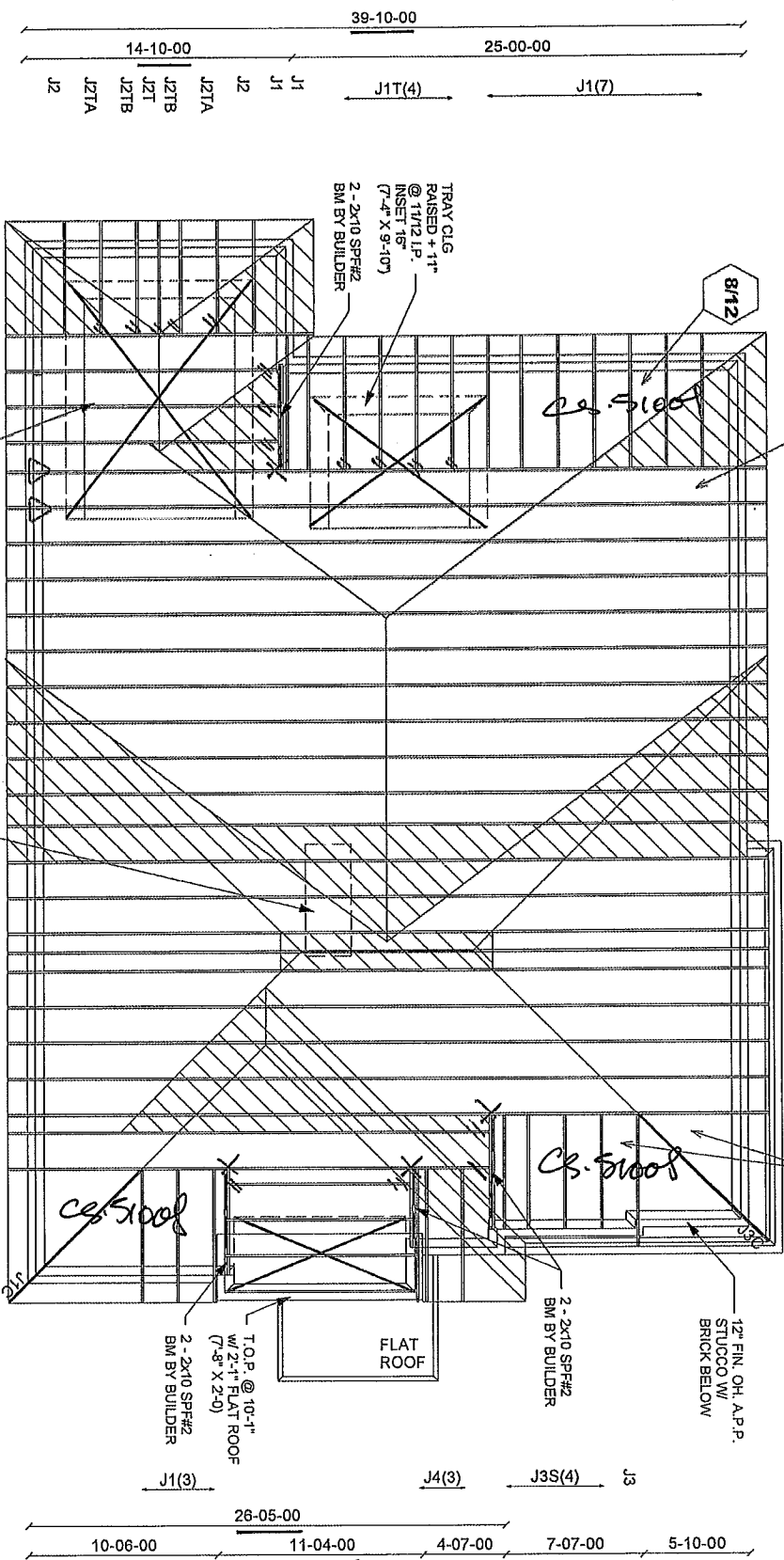
|                                                                |                         |
|----------------------------------------------------------------|-------------------------|
| <b>Builder / Location:</b><br><b>GOLD PARK HOMES / VAUGHAN</b> |                         |
| <b>Project:</b> <b>PINE VALLEY</b>                             | <b>Date:</b> 12/29/2017 |
| <b>Designer:</b> AMANDA                                        |                         |

Model / Elevation: **5003 REV1**

STD W/OUT TRAY CLGS & OPT LOGS/RAILS  
/ COPT TRAYS

ALL CONN. FRAMING TO CONFORM WITH PART 9 OF O.B.C. (Latest Edition) ROOF RAFTERS THAT CROSS MEET OVER TRUSSES TO BE 2x4 SPS #2 24" O.C. WITH A VENT POST ON THE ROOF. UNLESS OTHERWISE NOTED, ALL TRUSS 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-BARRIE



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

TRAY CLG  
RAISED + 11"  
@ 11/12 LP.  
INSET 15"  
(13'-4" X 10'-4")

DRPD COFF. (CONFORM WITH 1/8")  
RSD. HEEL - 0" DROP  
(2" x 6" FASCI) - FM  
ASPHALT SHINGLES  
2" X 6" BRG/BRICK

HANGERS  
/ LUS24  
/ LUS26DS  
X HHUS26-2  
/ TC26

CONVENTIONAL  
FRAMING BY  
OTHERS

CONFIRM TRUSS LAYOUT DIRECTION  
P.L. 95914

- A-18023915 - A-18023918
- A-18023921 - A-18023930
- A-18023933 - A-18023937
- A-18023941 - A-18023943

OK GROVE

OPT 2ND FLR W/560 OPT TRN CLG 5003 REV1 / C OPT TRAYS 5BD UGGA (GAT)



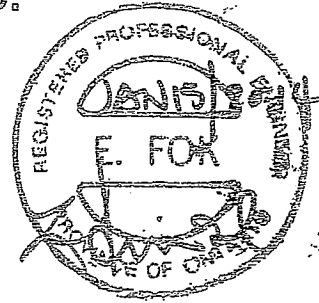
Job Track: 45147  
Layout ID: 292649  
Plan Log: 95914

Builder / Location: GOLD PARK HOMES / VAUGHAN  
Project: PINE VALLEY  
Date: 12/29/2017  
Designer: AMANDA

Model / Elevation: 5003 REV1  
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.

# Stracon Engineering Inc.

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



## RESPONSIBILITIES

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

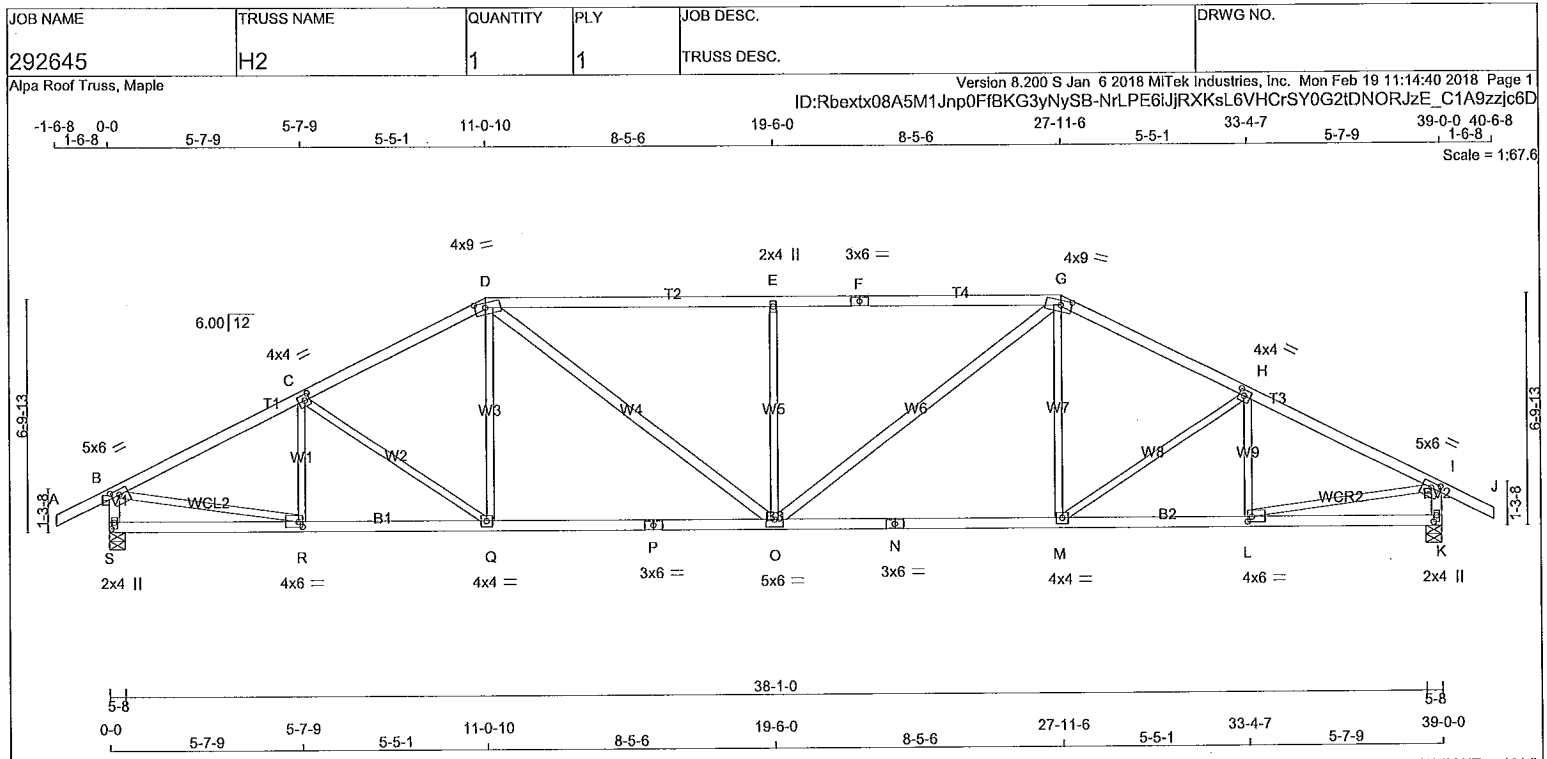
## SPECIFICATIONS

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

January 15, 2014







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

DRY: SEASONED LUMBER.

#### PLATES (table is in inches)

| JT | TYPE    | PLATES | W   | LEN | Y    | X    |
|----|---------|--------|-----|-----|------|------|
| B  | TMVW-t  | MT20   | 5.0 | 6.0 | 1.75 | 2.75 |
| C  | TMVW-t  | MT20   | 4.0 | 4.0 | 2.00 | 1.75 |
| D  | TTWW-m  | MT20   | 4.0 | 9.0 | 1.75 | 3.75 |
| E  | TMVW-t  | MT20   | 2.0 | 4.0 |      |      |
| F  | TS-t    | MT20   | 3.0 | 6.0 |      |      |
| G  | TTWW-m  | MT20   | 4.0 | 9.0 | 1.75 | 3.75 |
| H  | TMVW-t  | MT20   | 4.0 | 4.0 | 2.00 | 1.75 |
| I  | TMVW-t  | MT20   | 5.0 | 6.0 | 1.75 | 2.75 |
| K  | BMV1+p  | MT20   | 2.0 | 4.0 | 2.25 | 1.00 |
| L  | BMVW-t  | MT20   | 4.0 | 6.0 | 1.75 | 1.50 |
| M  | BMVW-t  | MT20   | 4.0 | 4.0 |      |      |
| N  | BS-t    | MT20   | 3.0 | 6.0 |      |      |
| O  | BMVWW-t | MT20   | 5.0 | 6.0 |      |      |
| P  | BS-t    | MT20   | 3.0 | 6.0 |      |      |
| Q  | BMVW-t  | MT20   | 4.0 | 4.0 |      |      |
| R  | BMVW-t  | MT20   | 4.0 | 6.0 | 1.75 | 1.50 |
| S  | BMV1+p  | MT20   | 2.0 | 4.0 | 2.25 | 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

#### 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 | UPLIFT    | IN-SX | IN-SX     |  |
| JT | 2006                    | 0    | 2006                            | 0    | 0         | 5-8   | 3-0       |  |
| S  | 2006                    | 0    | 2006                            | 0    | 0         | 5-8   | 3-0       |  |
| K  | 2006                    | 0    | 2006                            | 0    | 0         | 5-8   | 3-0       |  |

##### UNFACTORED REACTIONS

|    | 1ST LCASE |         | MAX./MIN. COMPONENT REACTIONS |           | WIND  | DEAD    | SOIL  |
|----|-----------|---------|-------------------------------|-----------|-------|---------|-------|
|    | COMBINED  | SNOW    | LIVE                          | PERM.LIVE |       |         |       |
| JT | 1428      | 886 / 0 | 0 / 0                         | 0 / 0     | 0 / 0 | 542 / 0 | 0 / 0 |
| S  | 1428      | 886 / 0 | 0 / 0                         | 0 / 0     | 0 / 0 | 542 / 0 | 0 / 0 |
| K  | 1428      | 886 / 0 | 0 / 0                         | 0 / 0     | 0 / 0 | 542 / 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 = 3.76 FT.  
MAX. UNBRACED BOTTOM CHORD LENGTH = 10.00 FT OR RIGID CEILING DIRECTLY APPLIED.

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

##### LOADING

TOTAL LOAD CASES: (4)

| CHORDS |             |            |                | WEBS  |             |            |          |
|--------|-------------|------------|----------------|-------|-------------|------------|----------|
| MEMB.  | FORCE (LBS) | FACTORED   |                | MEMB. | FORCE (LBS) | FACTORED   |          |
|        |             | VERT. LOAD | LC1 MAX        |       |             | VERT. LOAD | LC1 MAX  |
| FR-TO  |             | FROM       | TO             | FR-TO |             | FROM       | TO       |
| A-B    | 0 / 28      | -78.0      | -78.0 0.14 (1) | 10.00 | R-C         | -333 / 0   | 0.09 (1) |
| B-C    | -2733 / 0   | -78.0      | -78.0 0.43 (1) | 3.85  | C-Q         | -205 / 0   | 0.17 (1) |
| C-D    | -2591 / 0   | -78.0      | -78.0 0.40 (1) | 3.96  | Q-D         | 0 / 251    | 0.06 (4) |
| D-E    | -2931 / 0   | -78.0      | -78.0 0.77 (1) | 3.76  | D-O         | 0 / 797    | 0.13 (1) |
| E-F    | -2931 / 0   | -78.0      | -78.0 0.77 (1) | 3.76  | O-E         | -813 / 0   | 0.64 (1) |
| F-G    | -2931 / 0   | -78.0      | -78.0 0.77 (1) | 3.76  | G-G         | 0 / 797    | 0.13 (1) |
| G-H    | -2591 / 0   | -78.0      | -78.0 0.40 (1) | 3.96  | M-G         | 0 / 251    | 0.06 (4) |
| H-I    | -2733 / 0   | -78.0      | -78.0 0.43 (1) | 3.85  | M-H         | -205 / 0   | 0.17 (1) |
| I-J    | 0 / 28      | -78.0      | -78.0 0.14 (1) | 10.00 | L-H         | -333 / 0   | 0.09 (1) |
| S-B    | -1959 / 0   | 0.0        | 0.0 0.20 (1)   | 6.02  | B-R         | 0 / 2501   | 0.56 (1) |
| K-I    | -1959 / 0   | 0.0        | 0.0 0.20 (1)   | 6.02  | L-I         | 0 / 2501   | 0.56 (1) |
| S-R    | 0 / 0       | -18.5      | -18.5 0.13 (4) | 10.00 |             |            |          |
| R-Q    | 0 / 2464    | -18.5      | -18.5 0.51 (1) | 10.00 |             |            |          |
| Q-P    | 0 / 2300    | -18.5      | -18.5 0.52 (1) | 10.00 |             |            |          |
| P-O    | 0 / 2300    | -18.5      | -18.5 0.52 (1) | 10.00 |             |            |          |
| O-N    | 0 / 2300    | -18.5      | -18.5 0.52 (1) | 10.00 |             |            |          |
| N-M    | 0 / 2300    | -18.5      | -18.5 0.52 (1) | 10.00 |             |            |          |
| M-L    | 0 / 2464    | -18.5      | -18.5 0.51 (1) | 10.00 |             |            |          |
| L-K    | 0 / 0       | -18.5      | -18.5 0.13 (4) | 10.00 |             |            |          |

#### DESIGN CRITERIA

##### SPECIFIED LOADS:

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

SPACING = 24.0 IN. C/C

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

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

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

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

ALLOWABLE DEFL.(LL)= L/360 (1.30")  
CALCULATED VERT. DEFL.(LL)= L/999 (0.16")  
ALLOWABLE DEFL.(TL)= L/360 (1.30")  
CALCULATED VERT. DEFL.(TL)= L/999 (0.36")

CSI: TC=0.77/1.00 (D-E:1), BC=0.52/1.00 (O-Q:1), WB=0.64/1.00 (E-O:1), SSI=0.32/1.00 (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

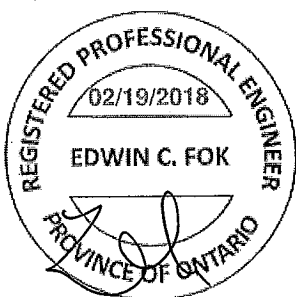
| PLATE   | GRIP(DRY) | SHEAR    | SECTION   |
|---------|-----------|----------|-----------|
| (PSI)   | (PLI)     | (PLI)    | (PLI)     |
| MAX MIN | MAX MIN   | MAX MIN  | MAX MIN   |
| MT20    | 618 354   | 1667 788 | 1987 1656 |

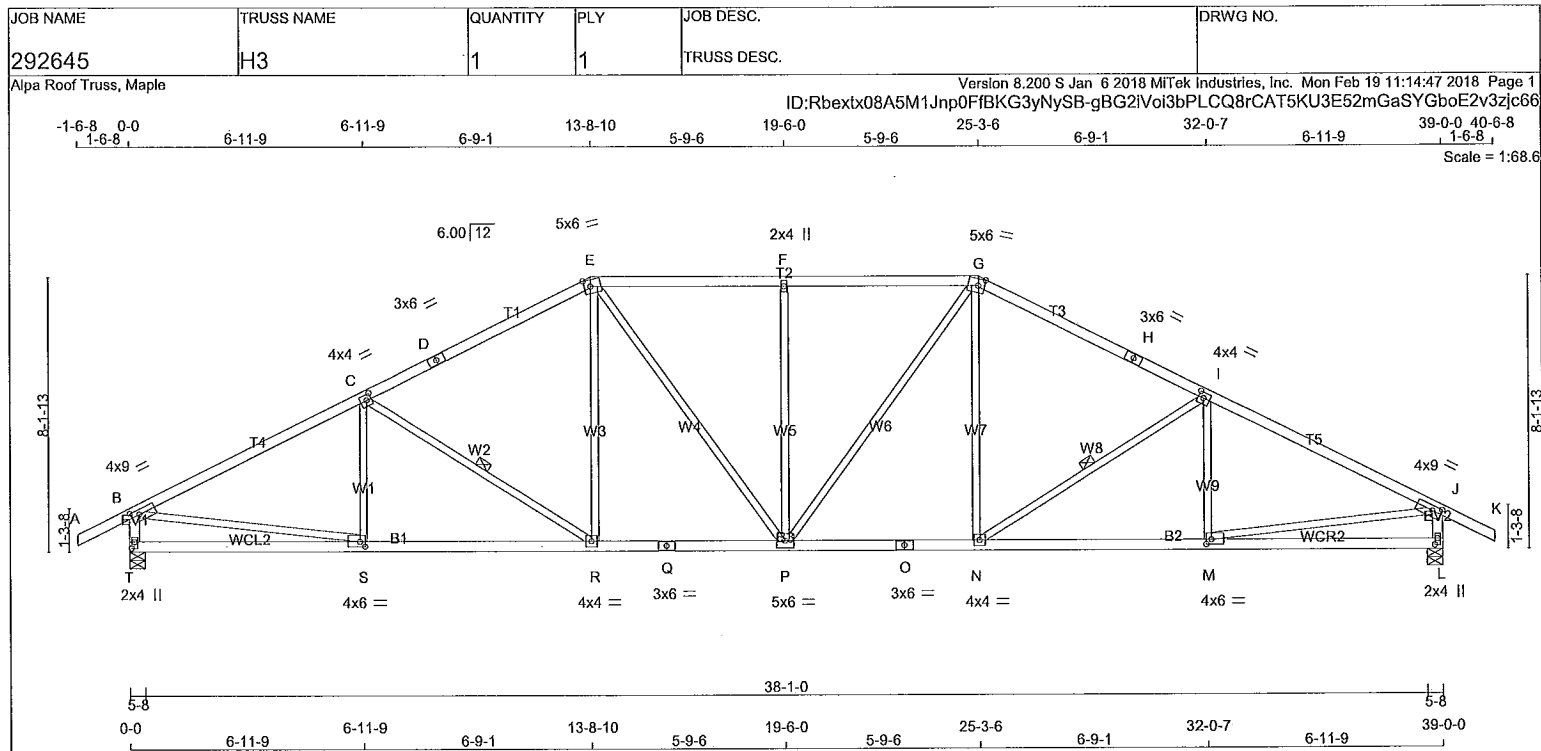
PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.90 (I) (INPUT = 0.90 )  
JSI METAL= 0.81 (N) (INPUT = 1.00 )

A-18023914





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

DRY: SEASONED LUMBER.

PLATES (table is in inches)

| JT | TYPE   | PLATES | W   | LEN | Y    | X    |
|----|--------|--------|-----|-----|------|------|
| B  | TMVW-t | MT20   | 4.0 | 9.0 | 1.75 | 3.00 |
| C  | TMVW-t | MT20   | 4.0 | 4.0 | 2.00 | 1.75 |
| D  | TS-t   | MT20   | 3.0 | 6.0 |      |      |
| E  | TTVW-m | MT20   | 5.0 | 6.0 | 2.50 | 2.25 |
| F  | TMVW-w | MT20   | 2.0 | 4.0 |      |      |
| G  | TTVW-m | MT20   | 5.0 | 6.0 | 2.50 | 2.25 |
| H  | TS-t   | MT20   | 3.0 | 6.0 |      |      |
| I  | TMVW-t | MT20   | 4.0 | 4.0 | 2.00 | 1.75 |
| J  | TMVW-t | MT20   | 4.0 | 9.0 | 1.75 | 3.00 |
| L  | BMV1+p | MT20   | 2.0 | 4.0 | 2.25 | 1.00 |
| M  | BMVW-t | MT20   | 4.0 | 6.0 | 1.75 | 1.75 |
| N  | BMVW-t | MT20   | 4.0 | 4.0 |      |      |
| O  | BS-t   | MT20   | 3.0 | 6.0 |      |      |
| P  | BMVW-t | MT20   | 5.0 | 6.0 |      |      |
| Q  | BS-t   | MT20   | 3.0 | 6.0 |      |      |
| R  | BMVW-t | MT20   | 4.0 | 4.0 |      |      |
| S  | BMVW-t | MT20   | 4.0 | 6.0 | 1.75 | 1.75 |
| T  | BMV1+p | MT20   | 2.0 | 4.0 | 2.25 | 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

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 |           |           |
| T  | 2006                    | 0    | 2006                            | 0    | 5-8       | 3-0       |
| L  | 2006                    | 0    | 2006                            | 0    | 5-8       | 3-0       |

UNFACTORED REACTIONS

| JT | 1ST LCASE COMBINED |         | MAX./MIN. COMPONENT REACTIONS |       | WIND  | DEAD    | SOIL  |
|----|--------------------|---------|-------------------------------|-------|-------|---------|-------|
|    | SNOW               | LIVE    | PERM.LIVE                     |       |       |         |       |
| T  | 1428               | 886 / 0 | 0 / 0                         | 0 / 0 | 0 / 0 | 542 / 0 | 0 / 0 |
| L  | 1428               | 886 / 0 | 0 / 0                         | 0 / 0 | 0 / 0 | 542 / 0 | 0 / 0 |

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

BRACING

TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 3.52 FT.  
MAX. UNBRACED BOTTOM CHORD LENGTH = 10.00 FT. OR RIGID CEILING DIRECTLY APPLIED.

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

1 LATERAL BRACE(S) AT 1/2 LENGTH OF C-R, I-N.

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

LOADING

TOTAL LOAD CASES: (4)

| CHORDS |                           |                           |                       | WEBS  |                           |                           |                       |
|--------|---------------------------|---------------------------|-----------------------|-------|---------------------------|---------------------------|-----------------------|
| MEMB.  | MAX. FACTORED FORCE (LBS) | FACTORED VERT. LOAD (PLF) | FACTORED LC1 MAX (LC) | MEMB. | MAX. FACTORED FORCE (LBS) | FACTORED VERT. LOAD (PLF) | FACTORED LC1 MAX (LC) |
| FR-TO  |                           |                           |                       | FR-TO |                           |                           |                       |
| A-B    | 0 / 28                    | -78.0                     | -78.0 0.14 (1)        | S-C   | -217 / 24                 | 0.07 (1)                  |                       |
| B-C    | -2794 / 0                 | -78.0                     | -78.0 0.70 (1)        | C-R   | -465 / 0                  | 0.21 (1)                  |                       |
| C-D    | -2416 / 0                 | -78.0                     | -78.0 0.62 (1)        | R-E   | 0 / 372                   | 0.08 (1)                  |                       |
| D-E    | -2416 / 0                 | -78.0                     | -78.0 0.62 (1)        | E-P   | 0 / 402                   | 0.09 (1)                  |                       |
| E-F    | -2378 / 0                 | -78.0                     | -78.0 0.42 (1)        | P-F   | -551 / 0                  | 0.71 (1)                  |                       |
| F-G    | -2378 / 0                 | -78.0                     | -78.0 0.42 (1)        | G-P   | 0 / 402                   | 0.09 (1)                  |                       |
| G-H    | -2416 / 0                 | -78.0                     | -78.0 0.62 (1)        | H-G   | 0 / 372                   | 0.08 (1)                  |                       |
| H-I    | -2416 / 0                 | -78.0                     | -78.0 0.62 (1)        | I-N   | -465 / 0                  | 0.21 (1)                  |                       |
| I-J    | -2794 / 0                 | -78.0                     | -78.0 0.70 (1)        | J-N   | -217 / 24                 | 0.07 (1)                  |                       |
| J-K    | 0 / 28                    | -78.0                     | -78.0 0.14 (1)        | N-S   | 0 / 2549                  | 0.57 (1)                  |                       |
| T-B    | -1952 / 0                 | 0.0                       | 0.0 0.20 (1)          | B-S   | 0 / 2549                  | 0.57 (1)                  |                       |
| L-J    | -1952 / 0                 | 0.0                       | 0.0 0.20 (1)          |       |                           |                           |                       |
| T-S    | 0 / 0                     | -18.5                     | -18.5 0.20 (4)        |       |                           |                           |                       |
| S-R    | 0 / 2524                  | -18.5                     | -18.5 0.50 (1)        |       |                           |                           |                       |
| R-Q    | 0 / 2139                  | -18.5                     | -18.5 0.43 (1)        |       |                           |                           |                       |
| Q-P    | 0 / 2139                  | -18.5                     | -18.5 0.43 (1)        |       |                           |                           |                       |
| P-O    | 0 / 2139                  | -18.5                     | -18.5 0.43 (1)        |       |                           |                           |                       |
| O-N    | 0 / 2139                  | -18.5                     | -18.5 0.43 (1)        |       |                           |                           |                       |
| N-M    | 0 / 2524                  | -18.5                     | -18.5 0.50 (1)        |       |                           |                           |                       |
| M-L    | 0 / 0                     | -18.5                     | -18.5 0.20 (4)        |       |                           |                           |                       |

DESIGN CRITERIA

SPECIFIED LOADS:

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

SPACING = 24.0 IN. C/C

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

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

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

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

ALLOWABLE DEFL.(LL) = L/360 (1.30")  
CALCULATED VERT. DEFL.(LL) = L/999 (0.15")  
ALLOWABLE DEFL.(TL) = L/360 (1.30")  
CALCULATED VERT. DEFL.(TL) = L/999 (0.29")

CSI: TC=0.70/1.00 (B-C:1), BC=0.50/1.00 (R-S:1), WB=0.71/1.00 (F-P:1), SSI=0.23/1.00 (B-C:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

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

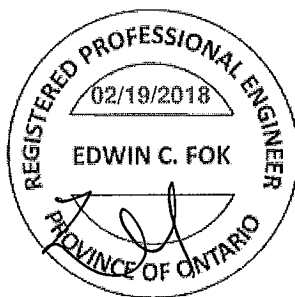
NAIL VALUES  
PLATE GRIP(DRY) SHEAR SECTION  
(PSI) (PLI) (PLI)  
MAX MIN MAX MIN MAX MIN  
MT20 618 354 1667 788 1987 1656

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.90 (B) (INPUT = 0.90)  
JSI METAL= 0.65 (O) (INPUT = 1.00)

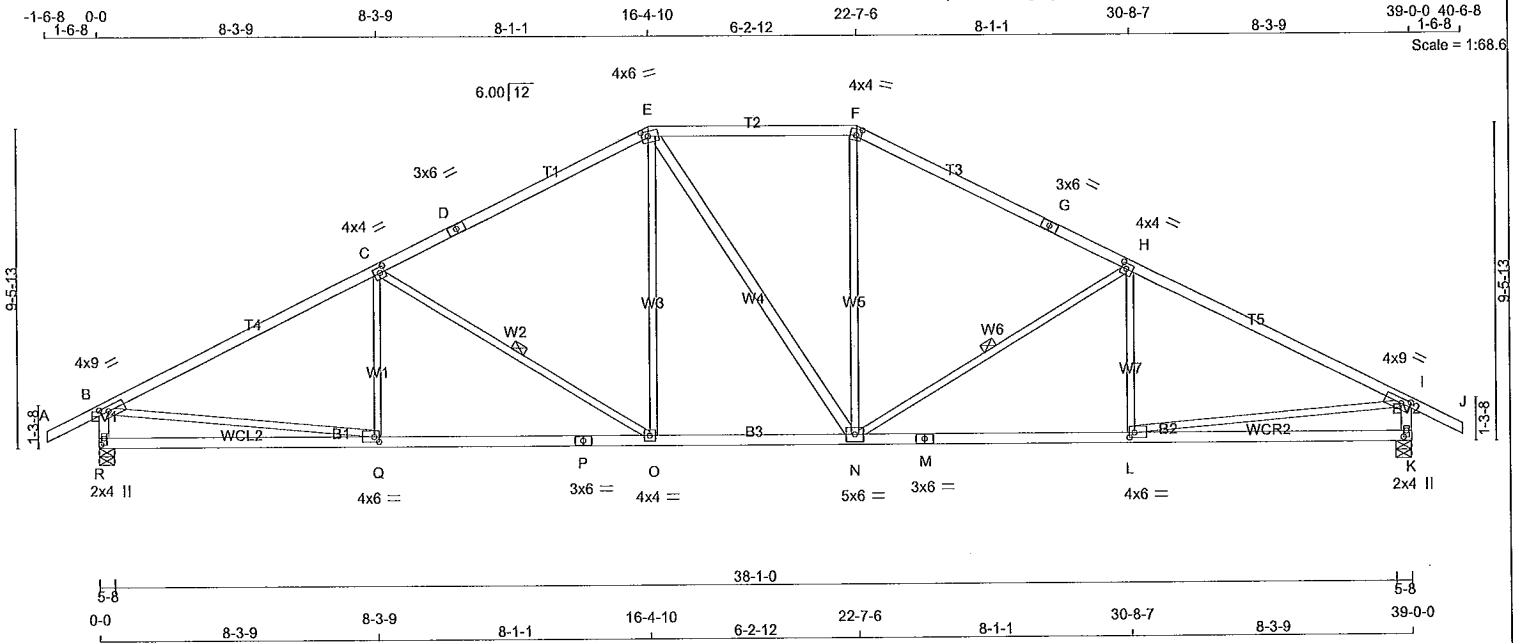
A-18023915



|          |            |          |     |             |          |
|----------|------------|----------|-----|-------------|----------|
| JOB NAME | TRUSS NAME | QUANTITY | PLY | JOB DESC.   | DRWG NO. |
| 292645   | H4         | 1        | 1   | TRUSS DESC. |          |

Alpa Roof Truss, Maple

Version 8.200 S Jan 6 2018 Mitek Industries, Inc. Mon Feb 19 11:15:06 2018 Page 1  
ID:Rbextx08A5M1Jnp0FfBKG3yNySB-crvEI70cbQpe\_L5VpgJYbULT2IEgX5L3yFKY3Tzjc5p



TOTAL WEIGHT = 162 lb  
(M)(F)

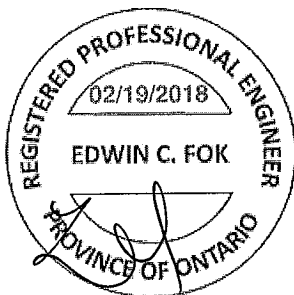
| LUMBER            | CHORDS | SIZE | DRY        | LUMBER | DESCR. |
|-------------------|--------|------|------------|--------|--------|
| N, L, G, A, RULES |        |      |            |        |        |
| A - D             | 2x4    | DRY  | 1650F 1.5E | SPF    |        |
| D - E             | 2x4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

DRY: SEASONED LUMBER.

#### PLATES (table is in inches)

| JT | TYPE   | PLATES | W   | LEN | Y    | X    |
|----|--------|--------|-----|-----|------|------|
| B  | TMVW-t | MT20   | 4.0 | 9.0 | 1.75 | 3.00 |
| C  | TMVW-t | MT20   | 4.0 | 4.0 | 2.00 | 1.75 |
| D  | TS-t   | MT20   | 3.0 | 6.0 |      |      |
| E  | TTWW-m | MT20   | 4.0 | 6.0 | 1.75 | 2.25 |
| F  | TTW-m  | MT20   | 4.0 | 4.0 | 2.25 | 1.75 |
| G  | TS-t   | MT20   | 3.0 | 6.0 |      |      |
| H  | TMVW-t | MT20   | 4.0 | 4.0 | 2.00 | 1.75 |
| I  | TMVW-t | MT20   | 4.0 | 9.0 | 1.75 | 3.00 |
| K  | BMV1+p | MT20   | 2.0 | 4.0 | 2.25 | 1.00 |
| L  | BMVW-t | MT20   | 4.0 | 6.0 | 1.75 | 1.75 |
| M  | BS-t   | MT20   | 3.0 | 6.0 |      |      |
| N  | BMVW-t | MT20   | 5.0 | 6.0 |      |      |
| O  | BMVW-t | MT20   | 4.0 | 4.0 |      |      |
| P  | BS-t   | MT20   | 3.0 | 6.0 |      |      |
| Q  | BMVW-t | MT20   | 4.0 | 6.0 | 1.75 | 1.75 |
| R  | BMV1+p | MT20   | 2.0 | 4.0 | 2.25 | 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



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

| JT | FACTORED GROSS REACTION |      | MAXIMUM FACTORED GROSS REACTION |      | INPUT BRG IN-SX | REQRD BRG IN-SX |
|----|-------------------------|------|---------------------------------|------|-----------------|-----------------|
|    | VERT                    | HORZ | DOWN                            | HORZ |                 |                 |
| R  | 2006                    | 0    | 2006                            | 0    | 5-8             | 3-0             |
| K  | 2006                    | 0    | 2006                            | 0    | 5-8             | 3-0             |

#### UNFACTORED REACTIONS

| 1ST LCASE |          | MAX./MIN. COMPONENT REACTIONS |       |           |       |         |       |
|-----------|----------|-------------------------------|-------|-----------|-------|---------|-------|
| JT        | COMBINED | SNOW                          | LIVE  | PERM.LIVE | WIND  | DEAD    | SOIL  |
| R         | 1428     | 886 / 0                       | 0 / 0 | 0 / 0     | 0 / 0 | 542 / 0 | 0 / 0 |
| K         | 1428     | 886 / 0                       | 0 / 0 | 0 / 0     | 0 / 0 | 542 / 0 | 0 / 0 |

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

#### BRACING

TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 3.88 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-O, H-N.

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

#### LOADING

TOTAL LOAD CASES: (4)

| CHORDS |                           |                           |                            | WEBS                       |       |                           |                            |
|--------|---------------------------|---------------------------|----------------------------|----------------------------|-------|---------------------------|----------------------------|
| MEMB.  | MAX. FACTORED FORCE (LBS) | FACTORED VERT. LOAD (PLF) | MAX. UNBRACED LENGTH (LC1) | MAX. UNBRACED LENGTH (LC1) | MEMB. | MAX. FACTORED FORCE (LBS) | MAX. UNBRACED LENGTH (LC1) |
| FR-TO  |                           |                           |                            |                            | FR-TO |                           |                            |
| A-B    | 0 / 28                    | -78.0                     | -78.0 0.12 (1)             | 10.00                      | Q-C   | -128 / 80                 | 0.06 (1)                   |
| B-C    | -2807 / 0                 | -78.0                     | -78.0 0.78 (1)             | 3.88                       | C-O   | -699 / 0                  | 0.47 (1)                   |
| C-D    | -2215 / 0                 | -78.0                     | -78.0 0.69 (1)             | 4.33                       | O-E   | 0 / 496                   | 0.11 (1)                   |
| D-E    | -2215 / 0                 | -78.0                     | -78.0 0.69 (1)             | 4.33                       | E-N   | 0 / 0                     | 0.00 (1)                   |
| E-F    | -1955 / 0                 | -78.0                     | -78.0 0.46 (1)             | 4.35                       | N-F   | 0 / 497                   | 0.11 (1)                   |
| F-G    | -2215 / 0                 | -78.0                     | -78.0 0.69 (1)             | 4.33                       | N-H   | -698 / 0                  | 0.47 (1)                   |
| G-H    | -2215 / 0                 | -78.0                     | -78.0 0.69 (1)             | 4.33                       | H-I   | -129 / 80                 | 0.06 (1)                   |
| H-I    | -2807 / 0                 | -78.0                     | -78.0 0.78 (1)             | 3.88                       | B-Q   | 0 / 2559                  | 0.58 (1)                   |
| I-J    | 0 / 28                    | -78.0                     | -78.0 0.12 (1)             | 10.00                      | L-I   | 0 / 2559                  | 0.58 (1)                   |
| R-B    | -1944 / 0                 | 0.0                       | 0.0 0.20 (1)               | 6.03                       |       |                           |                            |
| K-I    | -1944 / 0                 | 0.0                       | 0.0 0.20 (1)               | 6.03                       |       |                           |                            |
| R-Q    | 0 / 0                     | -18.5                     | -18.5 0.31 (4)             | 10.00                      |       |                           |                            |
| Q-P    | 0 / 2541                  | -18.5                     | -18.5 0.57 (1)             | 10.00                      |       |                           |                            |
| P-O    | 0 / 2541                  | -18.5                     | -18.5 0.57 (1)             | 10.00                      |       |                           |                            |
| O-N    | 0 / 1954                  | -18.5                     | -18.5 0.41 (1)             | 10.00                      |       |                           |                            |
| N-M    | 0 / 2541                  | -18.5                     | -18.5 0.57 (1)             | 10.00                      |       |                           |                            |
| M-L    | 0 / 2541                  | -18.5                     | -18.5 0.57 (1)             | 10.00                      |       |                           |                            |
| L-K    | 0 / 0                     | -18.5                     | -18.5 0.31 (4)             | 10.00                      |       |                           |                            |

#### DESIGN CRITERIA

##### SPECIFIED LOADS:

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

SPACING = 24.0 IN. C/C

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

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

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

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

ALLOWABLE DEFL.(LL)= L/380 (1.30")  
CALCULATED VERT. DEFL.(LL) = L/999 (0.14")  
ALLOWABLE DEFL.(TL)= L/360 (1.30")  
CALCULATED VERT. DEFL.(TL) = L/999 (0.32")

CSI: TC=0.78/1.00 (B-C:1), BC=0.57/1.00 (O-Q:1)  
WB=0.58/1.00 (B-Q:1), SSI=0.28/1.00 (B-C:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

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

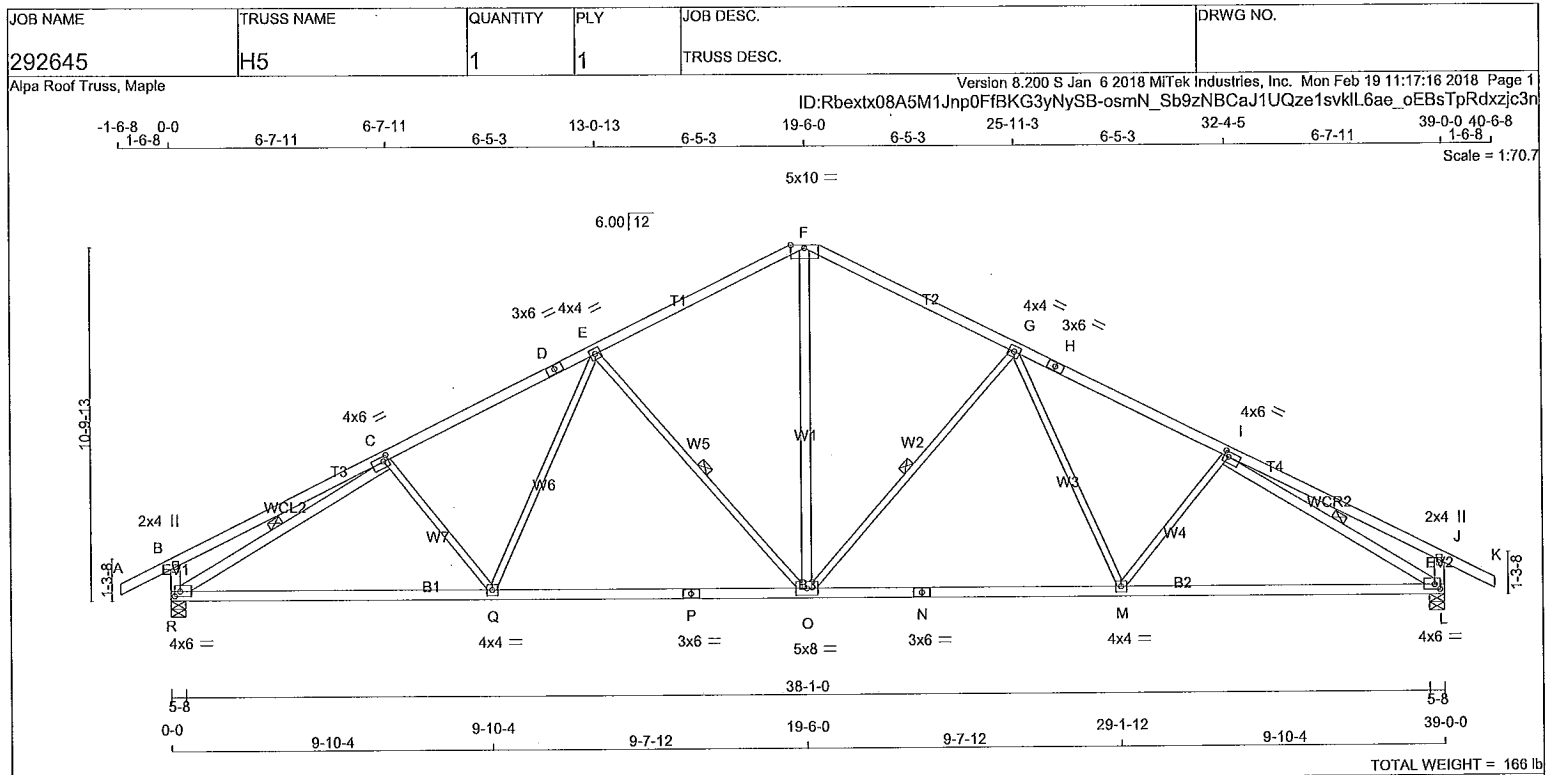
NAIL VALUES  
PLATE GRIP(DRY) SHEAR SECTION  
(PSI) (PLI) (PLI)  
MAX MIN MAX MIN MAX MIN  
MT20 618 354 1667 788 1987 1656

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.90 (B) (INPUT = 0.90)  
JSI METAL= 0.81 (P) (INPUT = 1.00)

A-18023916



TOTAL WEIGHT = 166 lb

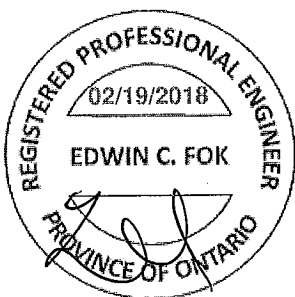
| LUMBER            |        |      |        | DESCR. |
|-------------------|--------|------|--------|--------|
| N. L. G. A. RULES | CHORDS | SIZE | LUMBER |        |
| A - D             | 2x4    | DRY  | No.2   | SPF    |
| D - F             | 2x4    | DRY  | No.2   | SPF    |
| F - H             |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

DRY: SEASONED LUMBER.

| PLATES (table is in inches) |         |        |     |      |           |
|-----------------------------|---------|--------|-----|------|-----------|
| JT                          | TYPE    | PLATES | W   | LEN  | Y X       |
| B                           | TMV+p   | MT20   | 2.0 | 4.0  |           |
| C                           | TMWW-t  | MT20   | 4.0 | 6.0  | 1.75 1.75 |
| D                           | TS-t    | MT20   | 3.0 | 6.0  |           |
| E                           | TMWW-t  | MT20   | 4.0 | 4.0  |           |
| F                           | TMTMWm  | MT20   | 5.0 | 10.0 | Edge      |
| G                           | TMWW-t  | MT20   | 4.0 | 4.0  |           |
| H                           | TS-t    | MT20   | 3.0 | 6.0  |           |
| I                           | TMWW-t  | MT20   | 4.0 | 6.0  | 1.75 1.75 |
| J                           | TMV+p   | MT20   | 2.0 | 4.0  |           |
| L                           | BMVW1-t | MT20   | 4.0 | 6.0  | 1.75 2.00 |
| M                           | BMWW-t  | MT20   | 4.0 | 4.0  |           |
| N                           | BS-t    | MT20   | 3.0 | 6.0  |           |
| O                           | BMVWW-t | MT20   | 5.0 | 8.0  |           |
| P                           | BS-t    | MT20   | 3.0 | 6.0  |           |
| Q                           | BMWW-t  | MT20   | 4.0 | 4.0  |           |
| R                           | BMVW1-t | MT20   | 4.0 | 6.0  | 1.75 2.00 |

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

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



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

##### BEARINGS

| JT | FACTORED GROSS REACTION |      | MAXIMUM FACTORED GROSS REACTION |      | INPUT BRG |       | REQRD BRG |       |
|----|-------------------------|------|---------------------------------|------|-----------|-------|-----------|-------|
|    | VERT                    | HORZ | DOWN                            | HORZ | IN-SX     | IN-SX | IN-SX     | IN-SX |
| R  | 2006                    | 0    | 2006                            | 0    | 5-8       | 2-3   | 2-3       |       |
| L  | 2006                    | 0    | 2006                            | 0    | 5-8       | 2-3   | 2-3       |       |

##### UNFACTORED REACTIONS

| JT | 1ST LCASE COMBINED |         | MAX./MIN. SNOW |       | LIVE  |       | PERM.LIVE |       | WIND    |       | DEAD    |       | SOIL  |       |
|----|--------------------|---------|----------------|-------|-------|-------|-----------|-------|---------|-------|---------|-------|-------|-------|
|    | 1428               | 886 / 0 | 0 / 0          | 0 / 0 | 0 / 0 | 0 / 0 | 0 / 0     | 0 / 0 | 542 / 0 | 0 / 0 | 542 / 0 | 0 / 0 | 0 / 0 | 0 / 0 |
| R  | 1428               | 886 / 0 | 0 / 0          | 0 / 0 | 0 / 0 | 0 / 0 | 0 / 0     | 0 / 0 | 542 / 0 | 0 / 0 | 542 / 0 | 0 / 0 | 0 / 0 | 0 / 0 |
| L  | 1428               | 886 / 0 | 0 / 0          | 0 / 0 | 0 / 0 | 0 / 0 | 0 / 0     | 0 / 0 | 542 / 0 | 0 / 0 | 542 / 0 | 0 / 0 | 0 / 0 | 0 / 0 |

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

##### BRACING

TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 3.85 FT.  
MAX. UNBRACED BOTTOM CHORD LENGTH = 10.00 FT OR RIGID CEILING DIRECTLY APPLIED.

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

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

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

##### LOADING

TOTAL LOAD CASES: (4)

| CHORDS |                           |                  |                | WEBS  |                           |                        |          |
|--------|---------------------------|------------------|----------------|-------|---------------------------|------------------------|----------|
| MEMB.  | MAX. FACTORED FORCE (LBS) | VERT. LOAD (PLF) | LC1 MAX (LC)   | MEMB. | MAX. FACTORED FORCE (LBS) | MAX. FACTORED CS1 (LC) |          |
| FR-TO  |                           | FROM             | TO             | FR-TO |                           |                        |          |
| A-B    | 0 / 28                    | -78.0            | -78.0 0.14 (1) | 10.00 | O-F                       | 0 / 1319               | 0.21 (1) |
| B-C    | 0 / 21                    | -78.0            | -78.0 0.43 (1) | 10.00 | O-G                       | -756 / 0               | 0.53 (1) |
| C-D    | -2634 / 0                 | -78.0            | -78.0 0.52 (1) | 3.85  | G-M                       | 0 / 366                | 0.08 (1) |
| D-E    | -2634 / 0                 | -78.0            | -78.0 0.52 (1) | 3.85  | M-I                       | -170 / 19              | 0.09 (1) |
| E-F    | -1946 / 0                 | -78.0            | -78.0 0.47 (1) | 4.38  | E-O                       | -756 / 0               | 0.53 (1) |
| F-G    | -1946 / 0                 | -78.0            | -78.0 0.47 (1) | 4.38  | Q-E                       | 0 / 366                | 0.08 (1) |
| G-H    | -2634 / 0                 | -78.0            | -78.0 0.52 (1) | 3.85  | C-Q                       | -170 / 19              | 0.09 (1) |
| H-I    | -2634 / 0                 | -78.0            | -78.0 0.52 (1) | 3.85  | R-C                       | -2936 / 0              | 0.85 (1) |
| I-J    | 0 / 21                    | -78.0            | -78.0 0.43 (1) | 10.00 | I-L                       | -2936 / 0              | 0.85 (1) |
| J-K    | 0 / 28                    | -78.0            | -78.0 0.14 (1) | 10.00 |                           |                        |          |
| R-B    | -332 / 0                  | 0.0              | 0.0 0.03 (1)   | 7.81  |                           |                        |          |
| L-J    | -332 / 0                  | 0.0              | 0.0 0.03 (1)   | 7.81  |                           |                        |          |
| R-Q    | 0 / 2461                  | -18.5            | -18.5 0.66 (4) | 10.00 |                           |                        |          |
| Q-P    | 0 / 2212                  | -18.5            | -18.5 0.64 (4) | 10.00 |                           |                        |          |
| P-O    | 0 / 2212                  | -18.5            | -18.5 0.64 (4) | 10.00 |                           |                        |          |
| O-N    | 0 / 2212                  | -18.5            | -18.5 0.64 (4) | 10.00 |                           |                        |          |
| N-M    | 0 / 2212                  | -18.5            | -18.5 0.64 (4) | 10.00 |                           |                        |          |
| M-L    | 0 / 2461                  | -18.5            | -18.5 0.66 (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 (1.30")  
CALCULATED VERT. DEFL.(LL) = L/999 (0.14")  
ALLOWABLE DEFL.(TL)= L/360 (1.30")  
CALCULATED VERT. DEFL.(TL) = L/999 (0.36")

CSI: TC=0.52/1.00 (C-E:1) , BC=0.66/1.00 (L-M:4) , WB=0.85/1.00 (I-L:1) , SSI=0.21/1.00 (I-J:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

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

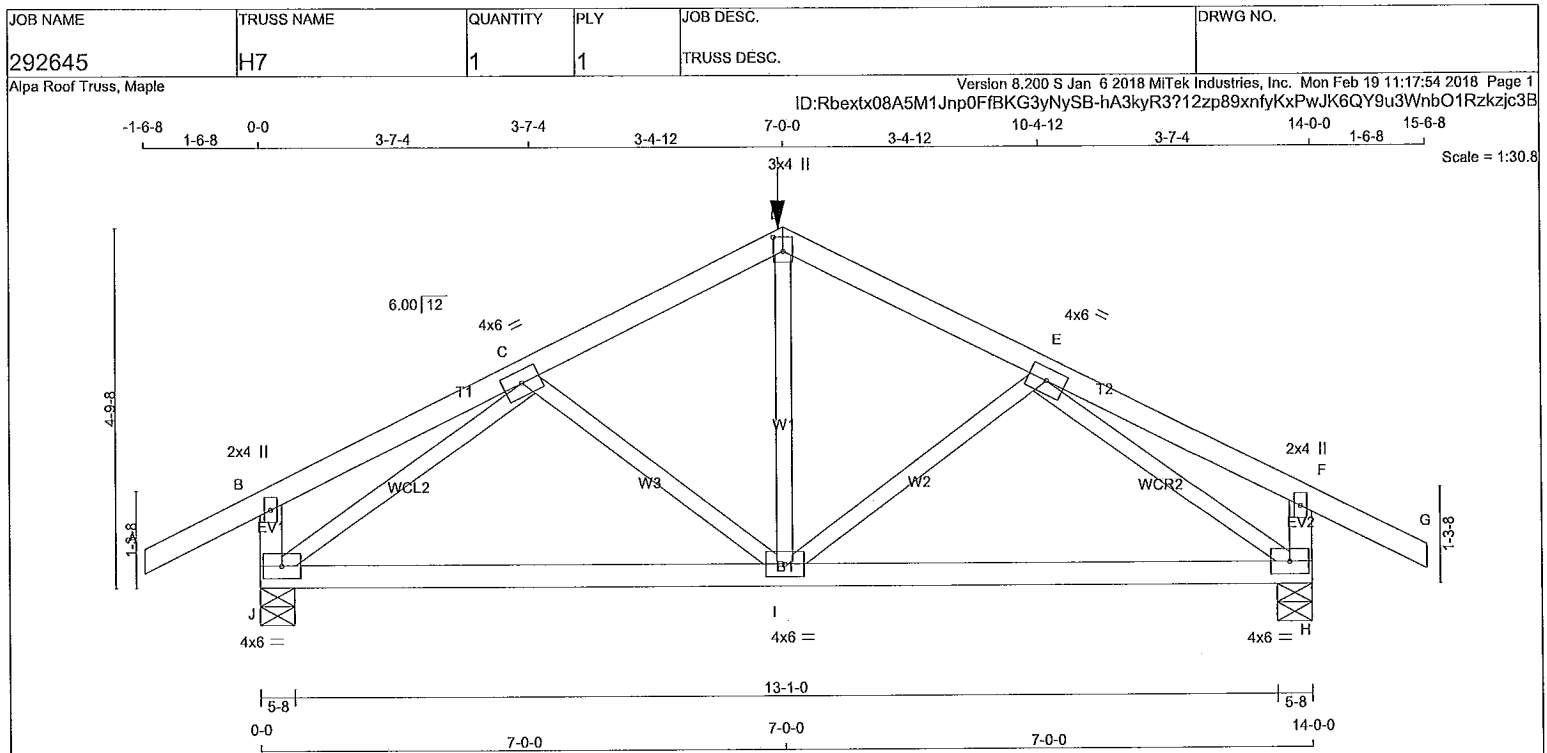
NAIL VALUES  
PLATE GRIP(DRY) SHEAR SECTION  
(PSI) (PLI) (PLI)  
MAX MIN MAX MIN MAX MIN  
MT20 618 354 1667 788 1987 1656

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.89 (L) (INPUT = 0.90 )  
JSI METAL= 0.78 (P) (INPUT = 1.00 )





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

DRY: SEASONED LUMBER.

#### PLATES (table is in inches)

| JT | TYPE    | PLATES | W   | LEN | Y    | X    |
|----|---------|--------|-----|-----|------|------|
| B  | TMV+p   | MT20   | 2.0 | 4.0 |      |      |
| C  | TMWW-t  | MT20   | 4.0 | 6.0 |      |      |
| D  | TTW+p   | MT20   | 3.0 | 4.0 | 2.25 | 1.50 |
| E  | TMWW-t  | MT20   | 4.0 | 6.0 |      |      |
| F  | TMV+p   | MT20   | 2.0 | 4.0 |      |      |
| H  | BMVW1-t | MT20   | 4.0 | 6.0 |      |      |
| I  | BMWW-t  | MT20   | 4.0 | 6.0 |      |      |
| J  | BMVW1-t | MT20   | 4.0 | 6.0 |      |      |

#### HANGERS NOTES

- SPECIAL HANGER(S) OR CONNECTION(S) REQUIRED TO SUPPORT CONCENTRATED LOAD(S) 795.9 lbs FACTORED DOWN AT 7'-0" ON TOP CHORD. DESIGN FOR UNSPECIFIED CONNECTION(S) IS DELEGATED TO THE BUILDING DESIGNER.

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

| BEARINGS |      | FACTORED GROSS REACTION | MAXIMUM FACTORED GROSS REACTION | INPUT BRG | REQD BRG |
|----------|------|-------------------------|---------------------------------|-----------|----------|
| JT       | VERT | HORZ                    | DOWN                            | HORZ      | UPLIFT   |
| J        | 1324 | 0                       | 1324                            | 0         | 5-8      |
| H        | 1324 | 0                       | 1324                            | 0         | 5-8      |

#### UNFACTORED REACTIONS

| 1ST LCASE | MAX / MIN. COMPONENT REACTIONS |         |       |            |       |         |       |
|-----------|--------------------------------|---------|-------|------------|-------|---------|-------|
| JT        | COMBINED                       | SNOW    | LIVE  | PERM. LIVE | WIND  | DEAD    | SOIL  |
| J         | 944                            | 576 / 0 | 0 / 0 | 0 / 0      | 0 / 0 | 368 / 0 | 0 / 0 |
| H         | 944                            | 576 / 0 | 0 / 0 | 0 / 0      | 0 / 0 | 368 / 0 | 0 / 0 |

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

#### BRACING

TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 5.21 FT.  
MAX. UNBRACED BOTTOM CHORD LENGTH = 10.00 FT OR RIGID CEILING DIRECTLY APPLIED.

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

#### LOADING

TOTAL LOAD CASES: (4)

| CHORDS |                           |                           |                                | WEBS  |                           |                                |    |
|--------|---------------------------|---------------------------|--------------------------------|-------|---------------------------|--------------------------------|----|
| MEMB.  | MAX. FACTORED FORCE (LBS) | FACTORED VERT. LOAD (PLF) | MAX. FACTORED VERT. LOAD (LC1) | MEMB. | MAX. FACTORED FORCE (LBS) | MAX. FACTORED VERT. LOAD (LC1) |    |
| FR-TO  |                           | FROM                      | TO                             | FR-TO |                           | FROM                           | TO |
| A-B    | 0 / 28                    | -78.0                     | -78.0 0.16 (1)                 | I-D   | 0 / 282                   | 0.11 (4)                       |    |
| B-C    | 0 / 12                    | -78.0                     | -78.0 0.14 (1)                 | I-E   | 0 / 59                    | 0.02 (4)                       |    |
| C-D    | -1457 / 0                 | -78.0                     | -78.0 0.18 (1)                 | C-I   | 0 / 59                    | 0.02 (4)                       |    |
| D-E    | -1457 / 0                 | -78.0                     | -78.0 0.18 (1)                 | J-C   | -1611 / 0                 | 0.54 (1)                       |    |
| E-F    | 0 / 12                    | -78.0                     | -78.0 0.14 (1)                 | E-H   | -1611 / 0                 | 0.54 (1)                       |    |
| F-G    | 0 / 28                    | -78.0                     | -78.0 0.16 (1)                 |       |                           |                                |    |
| J-B    | -235 / 0                  | 0.0                       | 0.0 0.03 (1)                   |       |                           |                                |    |
| H-F    | -235 / 0                  | 0.0                       | 0.0 0.03 (1)                   |       |                           |                                |    |
| J-I    | 0 / 1271                  | -36.4                     | -36.4 0.68 (4)                 |       |                           |                                |    |
| I-H    | 0 / 1271                  | -36.4                     | -36.4 0.68 (4)                 |       |                           |                                |    |

#### FACTORED CONCENTRATED LOADS (LBS)

| JT | LOC.  | LC1  | MAX- | MAX+ | FACE  | DIR. | TYPE  |
|----|-------|------|------|------|-------|------|-------|
| D  | 7'-0" | -796 | -796 | —    | 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

GIRDER TYPE: CPrimeHip  
SIDE SETBACK = 7'-0"  
END SETBACK = 5'-10"  
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 (0.03")  
ALLOWABLE DEFL.(TL)= L/360 (0.47")  
CALCULATED VERT. DEFL.(TL) = L/999 (0.12")

CSI: TC=0.18/1.00 (C-D:1), BC=0.68/1.00 (I-J:4), WB=0.54/1.00 (C-J:1), SS=0.23/1.00 (I-J:4)

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

COMPANION LIVE LOAD FACTOR = 1.00

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

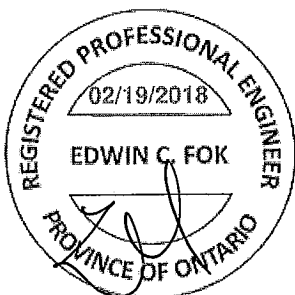
NAIL VALUES  
PLATE GRIP(DRY) SHEAR SECTION  
(PSI) (PLI) (PLI)  
MAX MIN MAX MIN MAX MIN  
MT20 618 354 1667 788 1987 1656

PLATE PLACEMENT TOL. = 0.250 inches

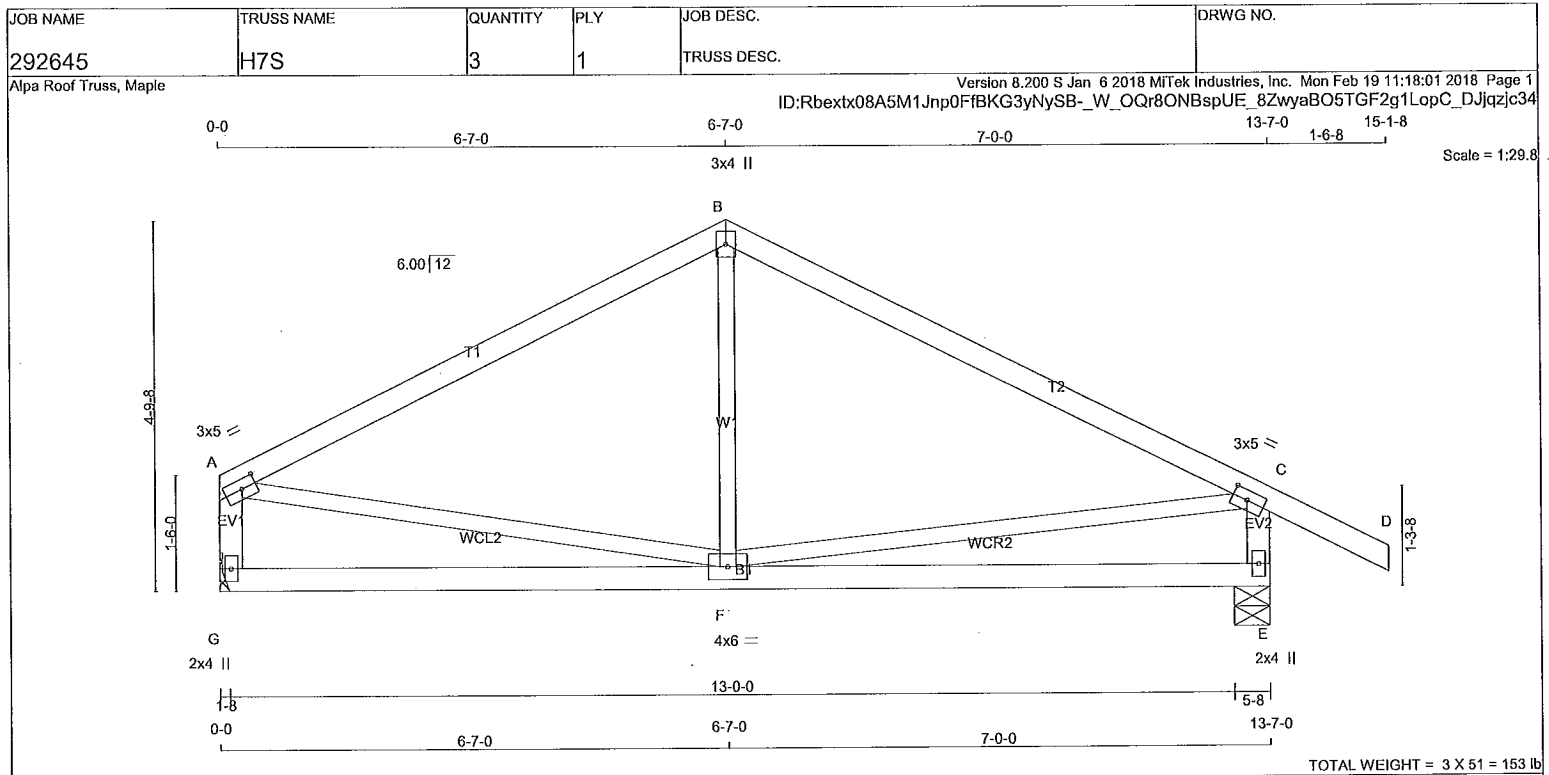
PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.85 (D) (INPUT = 0.90)  
JSI METAL= 0.40 (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-18023919



TOTAL WEIGHT = 3 X 51 = 153 lb

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

DRY: SEASONED LUMBER.

#### PLATES (table is in inches)

| JT | TYPE    | PLATES | W   | LEN | Y    | X    |
|----|---------|--------|-----|-----|------|------|
| A  | TMVW-t  | MT20   | 3.0 | 5.0 | 1.50 | 2.25 |
| B  | TTW+p   | MT20   | 3.0 | 4.0 |      |      |
| C  | TMVW-t  | MT20   | 3.0 | 5.0 | 1.50 | 2.25 |
| E  | BMV1+p  | MT20   | 2.0 | 4.0 |      |      |
| F  | BMVWW-t | 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 |      | MAXIMUM FACTORED |      | INPUT |       | REQRD            |                     |
|----------|----------------|----------|------|------------------|------|-------|-------|------------------|---------------------|
| JT       | GROSS REACTION | VERT     | HORZ | DOWN             | HORZ | BRG   | IN-SX | BRG              | IN-SX               |
| G        | 655            | 0        | 655  | 0                | 0    | 5-8   | 1-8   | HANGER BY OTHERS | MIN. SEAT SIZE: 1-8 |
| E        | 780            | 0        | 780  | 0                | 0    | 5-8   | 1-8   |                  |                     |

#### UNFACTORED REACTIONS

| JT | 1ST LCASE | MAX./MIN. | COMPONENT REACTIONS |       |       |         |       |
|----|-----------|-----------|---------------------|-------|-------|---------|-------|
| G  | 467       | 285 / 0   | 0 / 0               | 0 / 0 | 0 / 0 | 182 / 0 | 0 / 0 |
| E  | 554       | 353 / 0   | 0 / 0               | 0 / 0 | 0 / 0 | 201 / 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 |             | FACTORED         |               | WEBS  |             | FACTORED      |          |
|--------|-------------|------------------|---------------|-------|-------------|---------------|----------|
| MEMB.  | FORCE (LBS) | VERT. LOAD (PLF) | MAX. CSI (LC) | MEMB. | FORCE (LBS) | MAX. CSI (LC) |          |
| FR-TO  |             | FROM TO          | LENGTH        | FR-TO |             |               |          |
| A-B    | -579 / 0    | -78.0 -78.0      | 0.44 (1)      | 6.25  | F-B         | -11 / 105     | 0.04 (4) |
| B-C    | -579 / 0    | -78.0 -78.0      | 0.33 (1)      | 6.25  | A-F         | 0 / 527       | 0.12 (1) |
| C-D    | 0 / 28      | -78.0 -78.0      | 0.09 (1)      | 10.00 | F-C         | 0 / 523       | 0.12 (1) |
| G-A    | -609 / 0    | 0.0 0.0          | 0.06 (1)      | 7.81  |             |               |          |
| E-C    | -730 / 0    | 0.0 0.0          | 0.07 (1)      | 7.81  |             |               |          |
| G-F    | 0 / 0       | -18.5 -18.5      | 0.24 (4)      | 10.00 |             |               |          |
| F-E    | 0 / 0       | -18.5 -18.5      | 0.24 (4)      | 10.00 |             |               |          |

#### DESIGN CRITERIA

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

SPACING = 24.0 IN. C/C

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

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

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

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

CSI: TC=0.44/1.00 (A-B:1), BC=0.24/1.00 (F-G:4),  
WB=0.12/1.00 (A-F:1), SSI=0.19/1.00 (B-C:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

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

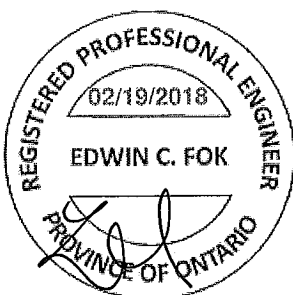
NAIL VALUES  
PLATE GRIP(DRY) SHEAR SECTION  
(PSI) (PLI) (PLI)  
MAX MIN MAX MIN MAX MIN  
MT20 618 354 1667 788 1987 1656

PLATE PLACEMENT TOL. = 0.250 inches

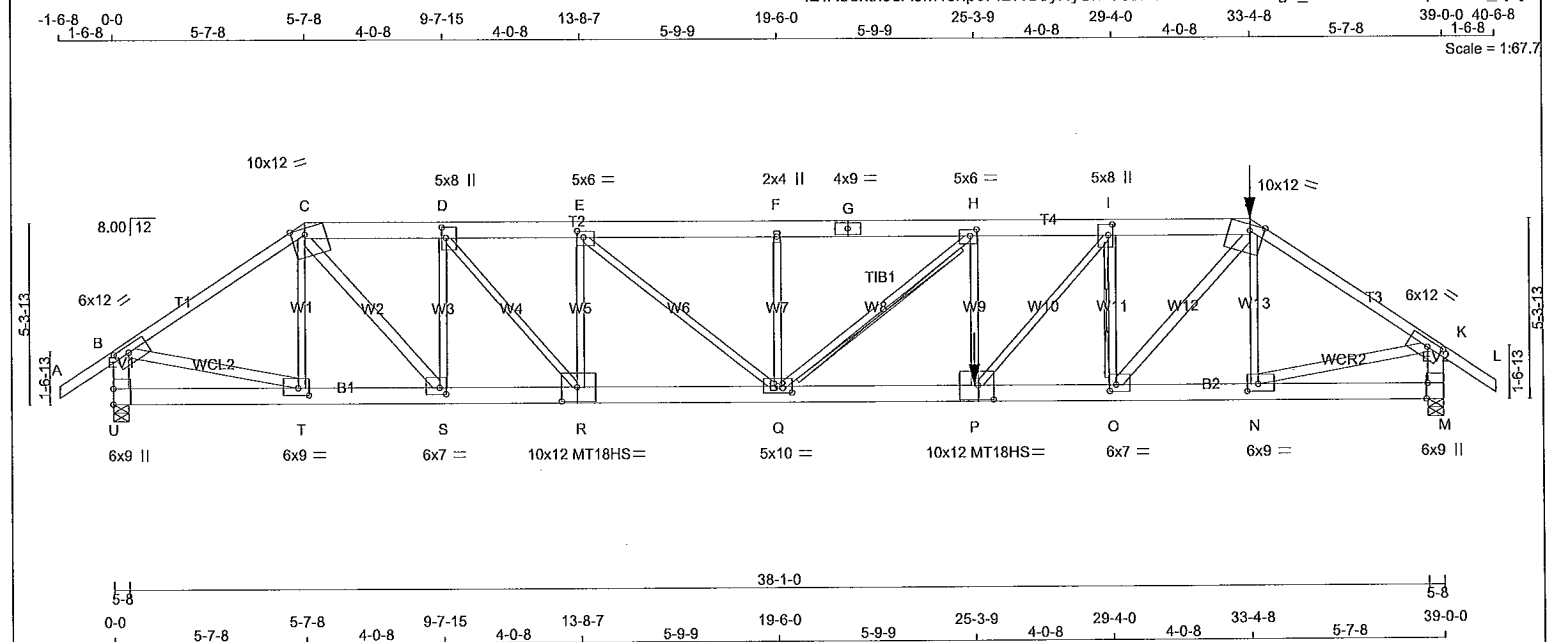
PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.71 (F) (INPUT = 0.90 )  
JSI METAL = 0.23 (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-18023920

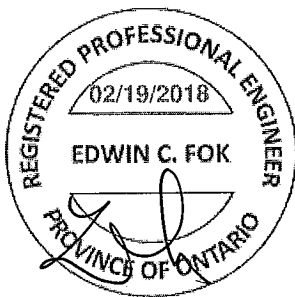


| <u>LUMBER</u>     |     |      |            |       |
|-------------------|-----|------|------------|-------|
| N. L. G. A. RULES |     |      |            |       |
| CHORDS            |     | SIZE | LUMBER     | DESCR |
| A - C             | 2x4 | DRY  | 2100F 1.8E | SPF   |
| C - G             | 2x6 | DRY  | No.2       | SPF   |
| G - J             | 2x6 | DRY  | No.2       | SPF   |
| J - L             | 2x4 | DRY  | 2100F 1.8E | SPF   |
| U - B             | 2x6 | DRY  | No.2       | SPF   |
| M - K             | 2x6 | DRY  | No.2       | SPF   |
| U - R             | 2x6 | DRY  | 1650F 1.5E | SPF   |
| R - P             | 2x6 | DRY  | 1650F 1.5E | SPF   |
| P - M             | 2x6 | DRY  | 1650F 1.5E | SPF   |
| ALL WEBS          | 2x3 | DRY  | No.2       | SPF   |
| EXCEPT            |     |      |            |       |
| C - S             | 2x4 | DRY  | No.2       | SPF   |
| O - J             | 2x4 | DRY  | No.2       | SPF   |
| B - T             | 2x4 | DRY  | No.2       | SPF   |
| N - K             | 2x4 | DRY  | No.2       | SPF   |

DRY: SEASONED LUMBER.

| PLATES (table is in inches) |          |        |      |      |      |      |
|-----------------------------|----------|--------|------|------|------|------|
| JT                          | TYPE     | PLATES | W    | LEN  | Y    | X    |
| B                           | TMWW-t   | MT20   | 6.0  | 12.0 | 2.25 | 5.00 |
| C                           | TTWWW-m  | MT20   | 10.0 | 12.0 | Edge | 4.75 |
| D                           | TMWW-t   | MT20   | 5.0  | 8.0  | 3.75 | 1.50 |
| E                           | TMWW-t   | MT20   | 5.0  | 6.0  | 2.25 | 2.25 |
| F                           | TMWW-w   | MT20   | 2.0  | 4.0  |      |      |
| G                           | TS-t     | MT20   | 4.0  | 9.0  |      |      |
| H                           | TMWW-t   | MT20   | 5.0  | 6.0  | 2.25 | 2.25 |
| I                           | TMWW-t   | MT20   | 5.0  | 8.0  | 3.75 | 1.50 |
| J                           | TTWWW-m  | MT20   | 10.0 | 12.0 | Edge | 4.75 |
| K                           | TMWW-t   | MT20   | 6.0  | 12.0 | 2.25 | 5.00 |
| M                           | BMV1-t   | MT20   | 6.0  | 9.0  | Edge | 0.50 |
| N                           | BMWW-t   | MT20   | 6.0  | 9.0  | 2.50 | 3.75 |
| O                           | BMWW-t   | MT20   | 6.0  | 7.0  | 2.25 | 2.25 |
| P                           | BSWW-t   | MT18HS | 10.0 | 12.0 | 5.00 | 5.00 |
| Q                           | BMWWWW-t | MT20   | 5.0  | 10.0 | 2.25 | 5.00 |
| R                           | BSWW-t   | MT18HS | 10.0 | 12.0 | 5.00 | 5.00 |
| S                           | BMWW-t   | MT20   | 6.0  | 7.0  | 2.25 | 2.25 |
| T                           | BMWW-t   | MT20   | 6.0  | 9.0  | 2.50 | 3.75 |
| U                           | BMV1-t   | MT20   | 6.0  | 9.0  | 5.50 |      |

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 |
| U              | 3290 | 0              | 3290 | 0                | 0      | 5-8   | 5-3   |
| M              | 4926 | 0              | 4926 | 0                | 0      | 5-8   | 5-8   |

### UNFACTORED REACTIONS

| 1ST LCASE |          | MAX./MIN. COMPONENT REACTIONS |       |           |       |          |       |
|-----------|----------|-------------------------------|-------|-----------|-------|----------|-------|
| JT        | COMBINED | SNOW                          | LIVE  | PERM.LIVE | WIND  | DEAD     | SOIL  |
| U         | 2343     | 1446 / 0                      | 0 / 0 | 0 / 0     | 0 / 0 | 896 / 0  | 0 / 0 |
| M         | 3513     | 2142 / 0                      | 0 / 0 | 0 / 0     | 0 / 0 | 1370 / 0 | 0 / 0 |

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

## BRACING

TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 2.05 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 H-Q, I-O

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

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

## LOADING

TOTAL LOAD CASES: (4)

| CHORDS |                           |                           |                  | WEBS               |       |                           |              |
|--------|---------------------------|---------------------------|------------------|--------------------|-------|---------------------------|--------------|
| MEMB.  | MAX. FACTORED FORCE (LBS) | FACTORED VERT. LOAD (PLF) | LC1 MAX CSI (LC) | MAX. UNBRAC LENGTH | MEMB. | MAX. FACTORED FORCE (LBS) | MAX CSI (LC) |
| FR-TO  |                           | FROM TO                   |                  | FR-TO              |       |                           |              |
| A-B    | 0 / 35                    | -78.0                     | -78.0 0.10 (1)   | 10.00              | T-C   | -605 / 0                  | 0.24 (1)     |
| B-C    | -3981 / 0                 | -78.0                     | -78.0 0.52 (1)   | 3.91               | C-S   | 0 / 3220                  | 0.57 (1)     |
| C-D    | -5385 / 0                 | -78.0                     | -78.0 0.29 (1)   | 3.58               | S-D   | -2403 / 0                 | 0.91 (1)     |
| D-E    | -7075 / 0                 | -78.0                     | -78.0 0.41 (1)   | 3.05               | D-R   | 0 / 2645                  | 0.65 (1)     |
| E-F    | -8943 / 0                 | -78.0                     | -78.0 0.76 (1)   | 2.42               | R-E   | -1937 / 0                 | 0.73 (1)     |
| F-G    | -8943 / 0                 | -78.0                     | -78.0 0.78 (1)   | 2.39               | E-Q   | 0 / 2437                  | 0.60 (1)     |
| G-H    | -8943 / 0                 | -78.0                     | -78.0 0.78 (1)   | 2.39               | Q-F   | -490 / 0                  | 0.19 (1)     |
| H-I    | -10122 / 0                | -163.2                    | -163.2 0.89 (1)  | 2.05               | Q-H   | -1539 / 0                 | 0.66 (1)     |
| I-J    | -8026 / 0                 | -163.2                    | -163.2 0.64 (1)  | 2.62               | P-H   | 0 / 492                   | 0.12 (1)     |
| J-K    | -6162 / 0                 | -78.0                     | -78.0 0.78 (1)   | 3.08               | P-I   | 0 / 3279                  | 0.81 (1)     |
| K-L    | 0 / 35                    | -78.0                     | -78.0 0.10 (1)   | 10.00              | O-I   | -3313 / 0                 | 0.72 (1)     |
| U-B    | -3243 / 0                 | 0.0                       | 0.0 0.24 (1)     | 5.84               | O-J   | 0 / 4502                  | 0.80 (1)     |
| M-K    | -4830 / 0                 | 0.0                       | 0.0 0.35 (1)     | 4.85               | N-J   | -878 / 0                  | 0.35 (1)     |
|        |                           |                           |                  |                    | B-T   | 0 / 3393                  | 0.60 (1)     |
|        |                           |                           |                  |                    | N-K   | 0 / 5252                  | 0.93 (1)     |
| U-T    | 0 / 0                     | -18.5                     | -18.5 0.05 (4)   | 10.00              |       |                           |              |
| T-S    | 0 / 3333                  | -18.5                     | -18.5 0.28 (1)   | 10.00              |       |                           |              |
| S-R    | 0 / 5384                  | -18.5                     | -18.5 0.45 (1)   | 10.00              |       |                           |              |
| R-Q    | 0 / 7075                  | -18.5                     | -18.5 0.63 (1)   | 10.00              |       |                           |              |
| Q-P    | 0 / 10122                 | -18.5                     | -18.5 0.88 (1)   | 10.00              |       |                           |              |
| P-O    | 0 / 8026                  | -38.7                     | -38.7 0.69 (1)   | 10.00              |       |                           |              |
| O-N    | 0 / 5157                  | -38.7                     | -38.7 0.45 (1)   | 10.00              |       |                           |              |
| N-M    | 0 / 0                     | -38.7                     | -38.7 0.09 (4)   | 10.00              |       |                           |              |

| FACTORED CONCENTRATED LOADS (LBS) |        |       |       |      |       |      |       |
|-----------------------------------|--------|-------|-------|------|-------|------|-------|
| JT                                | LOC.   | LC1   | MAX-  | MAX+ | FACE  | DIR. | TYPE  |
| J                                 | 33-4-8 | -356  | -356  | ---  | FRONT | VERT | TOTAL |
| P                                 | 25-3-8 | -2878 | -2878 | ---  | 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: CPrimeHip  
SIDE SETBACK = 5-7-8  
END SETBACK = 6-4-8  
END WALL WIDTH = 0-0  
CORNER FRAMING TYPE: CONVENTIONAL  
END JACK TYPE: CONVENTIONAL  
APPLIED TO FRONT SIDE  
- ADD'T'L LOADS BASED ON 55 % OF GSL.  
LOADS APPLIED TO FIRST 13-10-0 OF SPAN  
MEASURED FROM THE RIGHT.

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

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

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

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

ALLOWABLE DEFL.(LL)= L/360 (1.30")  
CALCULATED VERT. DEFL.(LL) = L/ 999 (0.39")  
ALLOWABLE DEFL.(TL)= L/360 (1.30")  
CALCULATED VERT. DEFL.(TL) = L/ 616 (0.76")

CSI: TC=0.89/1.00 (H-I:1), BC=0.88/1.00 (P-Q:1),  
WR=0.93/1.00 (K-N:1), SS=0.25/1.00 (L-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

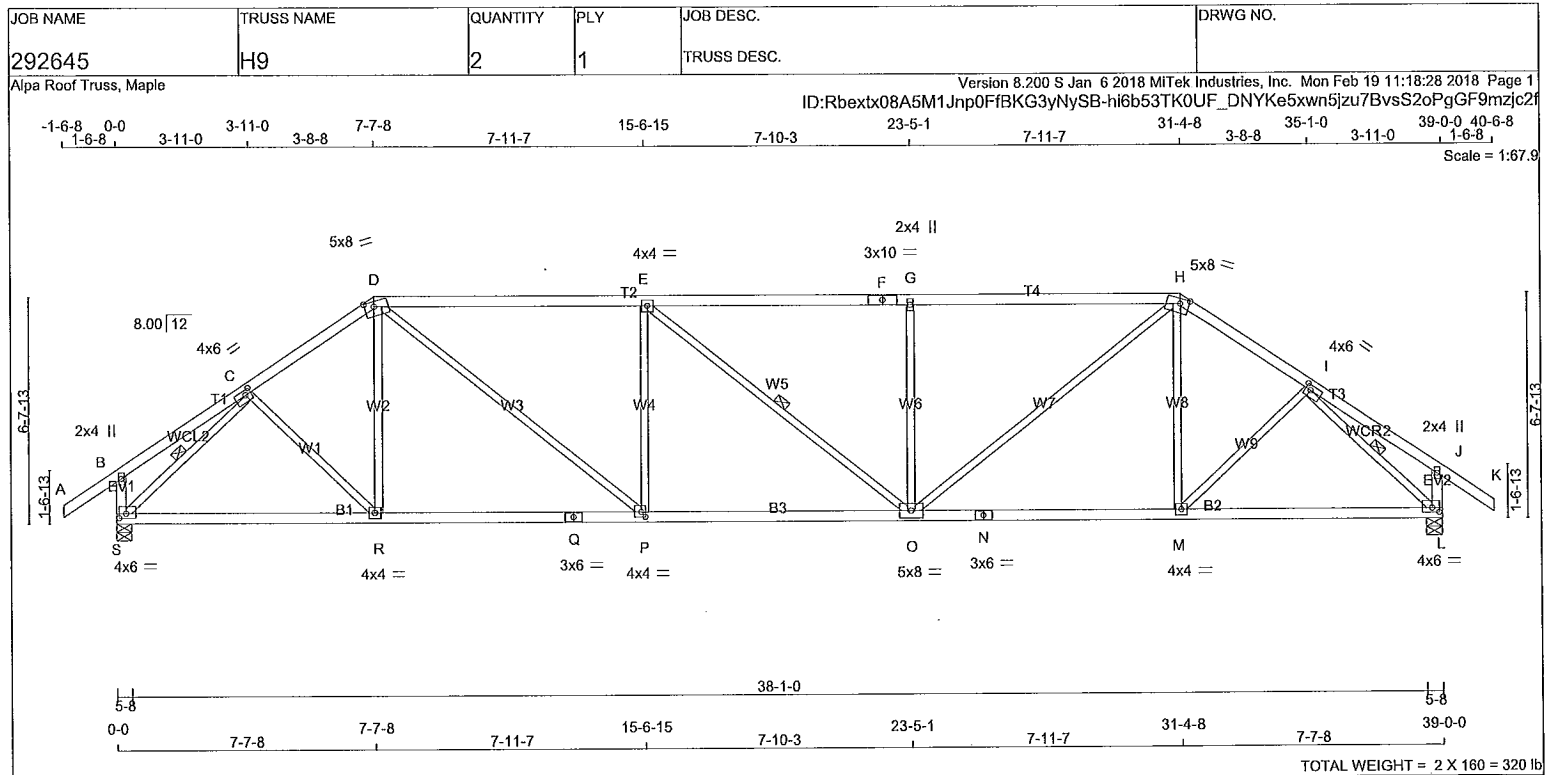
## AUTOSOLVE HEELS OFF

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

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CONTINUED ON PAGE 2

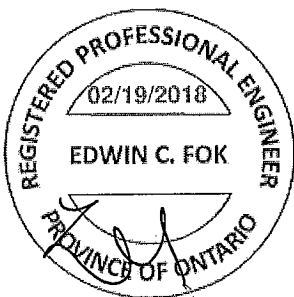




| LUMBER            |      |        |            |     |
|-------------------|------|--------|------------|-----|
| N. L. G. A. RULES |      |        |            |     |
| CHORDS            | SIZE | LUMBER | DESCR.     |     |
| A - D             | 2x4  | DRY    | No.2       | SPF |
| D - F        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

| PLATES (table is in inches) |         |        |     |      |           |
|-----------------------------|---------|--------|-----|------|-----------|
| JT                          | TYPE    | PLATES | W   | LEN  | Y X       |
| B                           | TMV+p   | MT20   | 2.0 | 4.0  |           |
| C                           | TMWW-t  | MT20   | 4.0 | 6.0  | 1.75 2.00 |
| D                           | TTWW-m  | MT20   | 5.0 | 8.0  | 1.75 3.25 |
| E                           | TMWW-t  | MT20   | 4.0 | 4.0  |           |
| F                           | TS-t    | MT20   | 3.0 | 10.0 |           |
| G                           | TMW+ w  | MT20   | 2.0 | 4.0  |           |
| H                           | TTWW-m  | MT20   | 5.0 | 8.0  | 1.75 3.25 |
| I                           | TMWW-t  | MT20   | 4.0 | 6.0  | 1.75 2.00 |
| J                           | TMV+p   | MT20   | 2.0 | 4.0  |           |
| L                           | BMVW1-t | MT20   | 4.0 | 6.0  | 1.50 2.50 |
| M                           | BMWW-t  | MT20   | 4.0 | 4.0  |           |
| N                           | BS-t    | MT20   | 3.0 | 6.0  |           |
| O                           | BMWWW-t | MT20   | 5.0 | 8.0  |           |
| P                           | BMWW-t  | MT20   | 4.0 | 4.0  | 1.75 1.50 |
| Q                           | BS-t    | MT20   | 3.0 | 6.0  |           |
| R                           | BMWW-t  | MT20   | 4.0 | 4.0  |           |
| S                           | BMVW1-t | MT20   | 4.0 | 6.0  | 1.50 2.50 |

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



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

| BEARINGS |      | FACTORED GROSS REACTION | MAXIMUM FACTORED GROSS REACTION | INPUT BRG | REQRD BRG |
|----------|------|-------------------------|---------------------------------|-----------|-----------|
| JT       | VERT | HORZ                    | DOWN                            | UP        | IN-SX     |
| S        | 2008 | 0                       | 2008                            | 0         | 5-8       |
| L        | 2008 | 0                       | 2008                            | 0         | 5-8       |

#### UNFACTORED REACTIONS

| 1ST LCASE |          | MAX./MIN. COMPONENT REACTIONS |       |           |       |         |
|-----------|----------|-------------------------------|-------|-----------|-------|---------|
| JT        | COMBINED | SNOW                          | LIVE  | PERM.LIVE | WIND  | DEAD    |
| S         | 1429     | 887 / 0                       | 0 / 0 | 0 / 0     | 0 / 0 | 542 / 0 |
| L         | 1429     | 887 / 0                       | 0 / 0 | 0 / 0     | 0 / 0 | 542 / 0 |

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

#### BRACING

TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 3.83 FT.  
MAX. UNBRACED BOTTOM CHORD LENGTH = 10.00 FT OR RIGID CEILING DIRECTLY APPLIED.

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

1 LATERAL BRACE(S) AT 1/2 LENGTH OF E-O, C-S, I-L.

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

#### LOADING

TOTAL LOAD CASES: (4)

| CHORDS |                           | WEBS  |                           |
|--------|---------------------------|-------|---------------------------|
| MEMB.  | MAX. FACTORED FORCE (LBS) | MEMB. | MAX. FACTORED FORCE (LBS) |
| FR-TO  |                           | FR-TO |                           |
| A-B    | 0 / 35                    | C-R   | 0 / 168                   |
| B-C    | 0 / 17                    | D-P   | 0 / 103                   |
| C-D    | -2228 / 0                 | E-O   | 0 / 1301                  |
| D-E    | -2855 / 0                 | F-G   | -670 / 0                  |
| E-F    | -2854 / 0                 | G-H   | 0 / 0                     |
| F-G    | -2854 / 0                 | H-I   | -670 / 0                  |
| G-H    | -2854 / 0                 | I-J   | 0 / 1300                  |
| H-I    | -2229 / 0                 | J-K   | 0 / 103                   |
| I-J    | 0 / 17                    | K-L   | 0 / 168                   |
| J-K    | 0 / 35                    | L-M   | -2420 / 0                 |
| K-L    | -244 / 0                  | M-N   | -2420 / 0                 |
| L-M    | -244 / 0                  | N-O   | 0 / 168                   |
|        |                           | O-P   | 0 / 103                   |
|        |                           | P-Q   | 0 / 1301                  |
|        |                           | Q-R   | -670 / 0                  |
|        |                           | R-S   | 0 / 0                     |
|        |                           | S-T   | -670 / 0                  |
|        |                           | T-U   | 0 / 1300                  |
|        |                           | U-V   | 0 / 103                   |
|        |                           | V-W   | 0 / 168                   |
|        |                           | W-X   | -2420 / 0                 |
|        |                           | X-Y   | -2420 / 0                 |
|        |                           | Y-Z   | 0 / 168                   |
|        |                           | Z-A   | 0 / 103                   |
|        |                           | A-B   | 0 / 1301                  |
|        |                           | B-C   | -670 / 0                  |
|        |                           | C-D   | 0 / 0                     |
|        |                           | D-E   | -670 / 0                  |
|        |                           | E-F   | 0 / 1300                  |
|        |                           | F-G   | 0 / 103                   |
|        |                           | G-H   | 0 / 168                   |
|        |                           | H-I   | -2420 / 0                 |
|        |                           | I-J   | -2420 / 0                 |
|        |                           | J-K   | 0 / 168                   |
|        |                           | K-L   | 0 / 103                   |
|        |                           | L-M   | 0 / 1301                  |
|        |                           | M-N   | -670 / 0                  |
|        |                           | N-O   | 0 / 0                     |
|        |                           | O-P   | -670 / 0                  |
|        |                           | P-Q   | 0 / 1300                  |
|        |                           | Q-R   | 0 / 103                   |
|        |                           | R-S   | 0 / 168                   |
|        |                           | S-T   | -2420 / 0                 |
|        |                           | T-U   | -2420 / 0                 |
|        |                           | U-V   | 0 / 168                   |
|        |                           | V-W   | 0 / 103                   |
|        |                           | W-X   | 0 / 1301                  |
|        |                           | X-Y   | -670 / 0                  |
|        |                           | Y-Z   | 0 / 0                     |
|        |                           | Z-A   | -670 / 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

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 (0.16")  
ALLOWABLE DEFL.(TL)= L/360 (1.30")  
CALCULATED VERT. DEFL.(TL) = L/999 (0.35")

CSI: TC=0.86/1.00 (D-E:1), BC=0.57/1.00 (O-P:1), WB=0.53/1.00 (I-L:1), SSI=0.29/1.00 (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

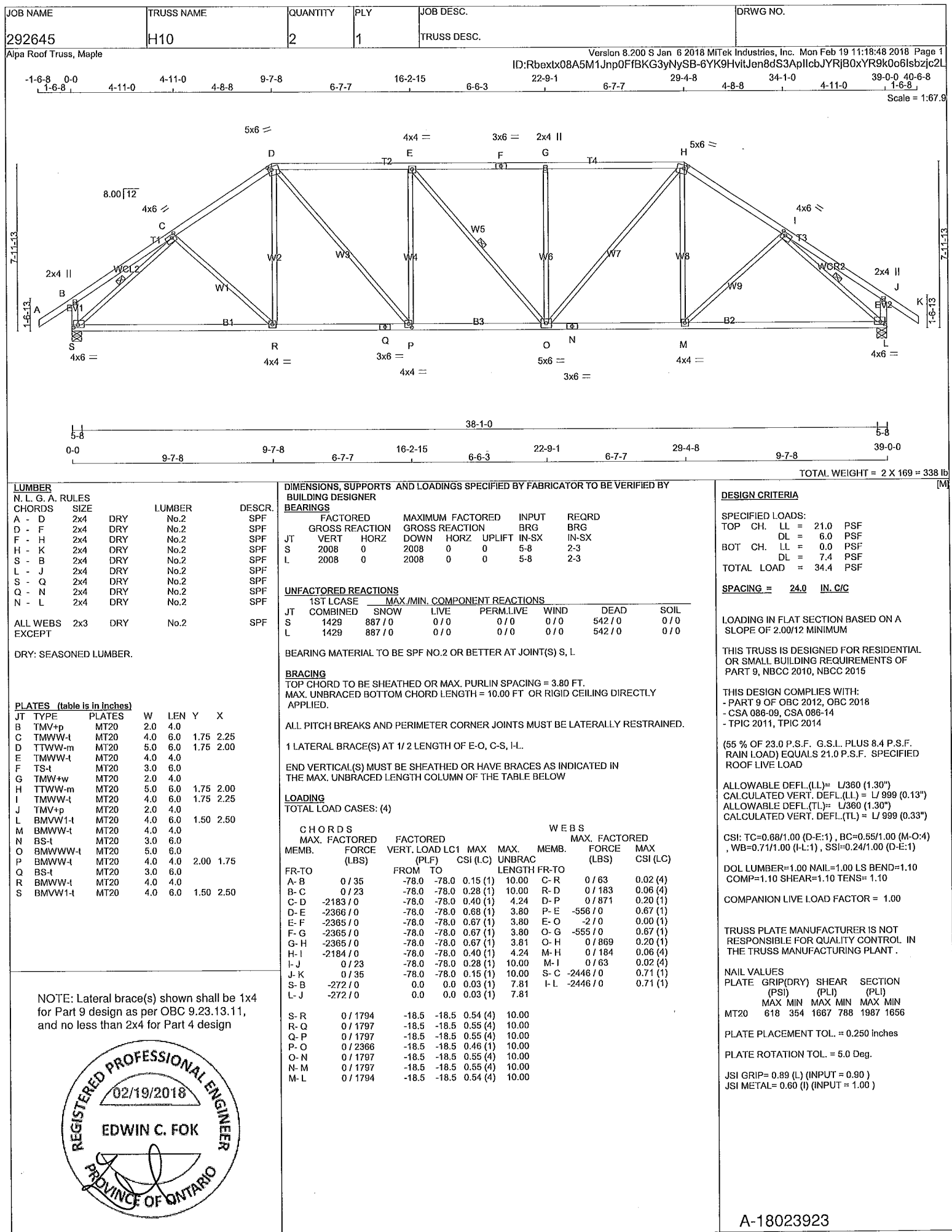
| PLATE | GRIP(DRY) | SHEAR | SECTION |
|-------|-----------|-------|---------|
|       | (PSI)     | (PLI) | (PLI)   |
| MT20  | 618       | 354   | 1667    |
|       | MAX       | MIN   | MAX     |
|       | 618       | 354   | 1667    |

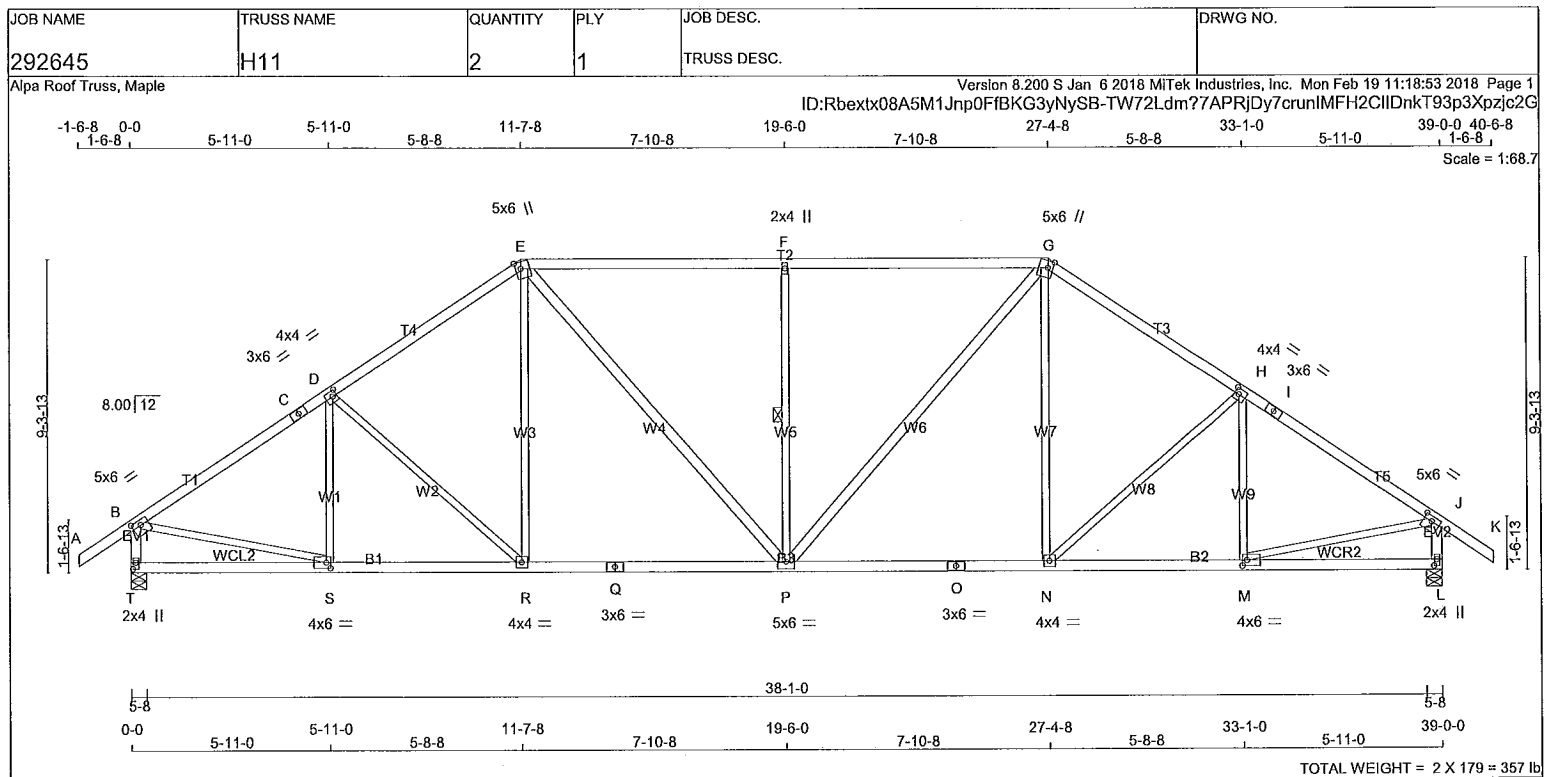
PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

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

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**LUMBER**  
N. L. G. A. RULES

| CHORDS          | SIZE | LUMBER | DESCR. |
|-----------------|------|--------|--------|
| A - C           | 2x4  | DRY    | No.2   |
| C - E           | 2x4  | DRY    | No.2   |
| E - G           | 2x4  | DRY    | No.2   |
| G - I           | 2x4  | DRY    | No.2   |
| I - K           | 2x4  | DRY    | No.2   |
| T - B           | 2x4  | DRY    | No.2   |
| L - J           | 2x4  | DRY    | No.2   |
| T - Q           | 2x4  | DRY    | No.2   |
| Q - O           | 2x4  | DRY    | No.2   |
| O - L           | 2x4  | DRY    | No.2   |
| ALL WEBS EXCEPT | 2x3  | DRY    | No.2   |
| E - P           | 2x4  | DRY    | No.2   |
| P - G           | 2x4  | DRY    | No.2   |

DRY: SEASONED LUMBER.

**PLATES (table is in inches)**

| JT | TYPE   | PLATES | W   | LEN | Y    | X    |
|----|--------|--------|-----|-----|------|------|
| B  | TMVW-t | MT20   | 5.0 | 6.0 | 1.75 | 3.00 |
| C  | TS-t   | MT20   | 3.0 | 6.0 |      |      |
| D  | TMVW-t | MT20   | 4.0 | 4.0 | 2.00 | 1.50 |
| E  | TTWW+m | MT20   | 5.0 | 6.0 | Edge | 1.75 |
| F  | TMVW-t | MT20   | 2.0 | 4.0 |      |      |
| G  | TTWW+m | MT20   | 5.0 | 6.0 | Edge | 1.75 |
| H  | TMVW-t | MT20   | 4.0 | 4.0 | 2.00 | 1.50 |
| I  | TS-t   | MT20   | 3.0 | 6.0 |      |      |
| J  | TMVW-t | MT20   | 5.0 | 6.0 | 1.75 | 3.00 |
| L  | BMV1+p | MT20   | 2.0 | 4.0 | 2.25 | 1.00 |
| M  | BMVW-t | MT20   | 4.0 | 6.0 | 2.00 | 1.50 |
| N  | BMVW-t | MT20   | 4.0 | 4.0 |      |      |
| O  | BS-t   | MT20   | 3.0 | 6.0 |      |      |
| P  | BMVW-t | MT20   | 5.0 | 6.0 |      |      |
| Q  | BS-t   | MT20   | 3.0 | 6.0 |      |      |
| R  | BMVW-t | MT20   | 4.0 | 4.0 |      |      |
| S  | BMVW-t | MT20   | 4.0 | 6.0 | 2.00 | 1.50 |
| T  | BMV1+p | MT20   | 2.0 | 4.0 | 2.25 | 1.00 |

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

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

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

**BEARINGS**

| JT | FACTORED GROSS REACTION |      | MAXIMUM FACTORED GROSS REACTION |      | INPUT BRG | REQRD BRG |
|----|-------------------------|------|---------------------------------|------|-----------|-----------|
|    | VERT                    | HORZ | DOWN                            | HORZ |           |           |
| T  | 2008                    | 0    | 2008                            | 0    | 5-8       | 3-0       |
| L  | 2008                    | 0    | 2008                            | 0    | 5-8       | 3-0       |

**UNFACTORED REACTIONS**

| 1ST LCASE |          | MAX./MIN. COMPONENT REACTIONS |       |           |       |         |       |
|-----------|----------|-------------------------------|-------|-----------|-------|---------|-------|
| JT        | COMBINED | SNOW                          | LIVE  | PERM.LIVE | WIND  | DEAD    | SOIL  |
| T         | 1429     | 887 / 0                       | 0 / 0 | 0 / 0     | 0 / 0 | 542 / 0 | 0 / 0 |
| L         | 1429     | 887 / 0                       | 0 / 0 | 0 / 0     | 0 / 0 | 542 / 0 | 0 / 0 |

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

**BRACING**

TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 3.72 FT.  
MAX. UNBRACED BOTTOM CHORD LENGTH = 10.00 FT OR RIGID CEILING DIRECTLY APPLIED.

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

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

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

**LOADING**

TOTAL LOAD CASES: (4)

| CHORDS |                           |                           |                                  | WEBS                 |       |                           |                              |
|--------|---------------------------|---------------------------|----------------------------------|----------------------|-------|---------------------------|------------------------------|
| MEMB.  | MAX. FACTORED FORCE (LBS) | FACTORED VERT. LOAD (PLF) | LC1 MAX FACTORED VERT. LOAD (LC) | MAX. UNBRACED LENGTH | MEMB. | MAX. FACTORED FORCE (LBS) | MAX FACTORED VERT. LOAD (LC) |
| FR-TO  |                           | FROM                      | TO                               |                      | FR-TO |                           |                              |
| A-B    | 0 / 35                    | -78.0                     | -78.0                            | 0.15 (1)             | 10.00 | S-D                       | -286 / 0 0.13 (1)            |
| B-C    | -2240 / 0                 | -78.0                     | -78.0                            | 0.45 (1)             | 4.16  | D-R                       | -240 / 0 0.30 (1)            |
| C-D    | -2240 / 0                 | -78.0                     | -78.0                            | 0.45 (1)             | 4.16  | R-E                       | 0 / 287 0.07 (4)             |
| D-E    | -2087 / 0                 | -78.0                     | -78.0                            | 0.42 (1)             | 4.30  | E-P                       | 0 / 602 0.10 (1)             |
| E-F    | -2108 / 0                 | -78.0                     | -78.0                            | 0.77 (1)             | 3.72  | P-F                       | -757 / 0 0.43 (1)            |
| F-G    | -2108 / 0                 | -78.0                     | -78.0                            | 0.77 (1)             | 3.72  | P-G                       | 0 / 602 0.10 (1)             |
| G-H    | -2087 / 0                 | -78.0                     | -78.0                            | 0.42 (1)             | 4.30  | N-G                       | 0 / 287 0.07 (4)             |
| H-I    | -2240 / 0                 | -78.0                     | -78.0                            | 0.45 (1)             | 4.16  | N-H                       | -240 / 0 0.30 (1)            |
| I-J    | -2240 / 0                 | -78.0                     | -78.0                            | 0.45 (1)             | 4.16  | M-H                       | -286 / 0 0.13 (1)            |
| J-K    | 0 / 35                    | -78.0                     | -78.0                            | 0.15 (1)             | 10.00 | B-S                       | 0 / 1929 0.43 (1)            |
| T-B    | -1960 / 0                 | 0.0                       | 0.0                              | 0.21 (1)             | 6.01  | M-J                       | 0 / 1929 0.43 (1)            |
| L-J    | -1960 / 0                 | 0.0                       | 0.0                              | 0.21 (1)             | 6.01  |                           |                              |
|        |                           |                           |                                  |                      |       |                           |                              |
| T-S    | 0 / 0                     | -18.5                     | -18.5                            | 0.13 (4)             | 10.00 |                           |                              |
| S-R    | 0 / 1888                  | -18.5                     | -18.5                            | 0.40 (1)             | 10.00 |                           |                              |
| R-Q    | 0 / 1712                  | -18.5                     | -18.5                            | 0.41 (1)             | 10.00 |                           |                              |
| Q-P    | 0 / 1712                  | -18.5                     | -18.5                            | 0.41 (1)             | 10.00 |                           |                              |
| P-O    | 0 / 1712                  | -18.5                     | -18.5                            | 0.41 (1)             | 10.00 |                           |                              |
| O-N    | 0 / 1712                  | -18.5                     | -18.5                            | 0.41 (1)             | 10.00 |                           |                              |
| N-M    | 0 / 1888                  | -18.5                     | -18.5                            | 0.40 (1)             | 10.00 |                           |                              |
| M-L    | 0 / 0                     | -18.5                     | -18.5                            | 0.13 (4)             | 10.00 |                           |                              |

**DESIGN CRITERIA**

**SPECIFIED LOADS:**

| TOP CH.    | LL   | DL  |
|------------|------|-----|
| LL         | 21.0 | PSF |
| DL         | 6.0  | PSF |
| BOT CH.    | LL   | DL  |
| 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 (0.10")  
ALLOWABLE DEFL.(TL) = L/360 (1.30")  
CALCULATED VERT. DEFL.(TL) = L/999 (0.23")

CSI: TC=0.77/1.00 (E-F:1), BC=0.41/1.00 (P-R:1), WB=0.43/1.00 (J-M:1), SI=0.30/1.00 (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**

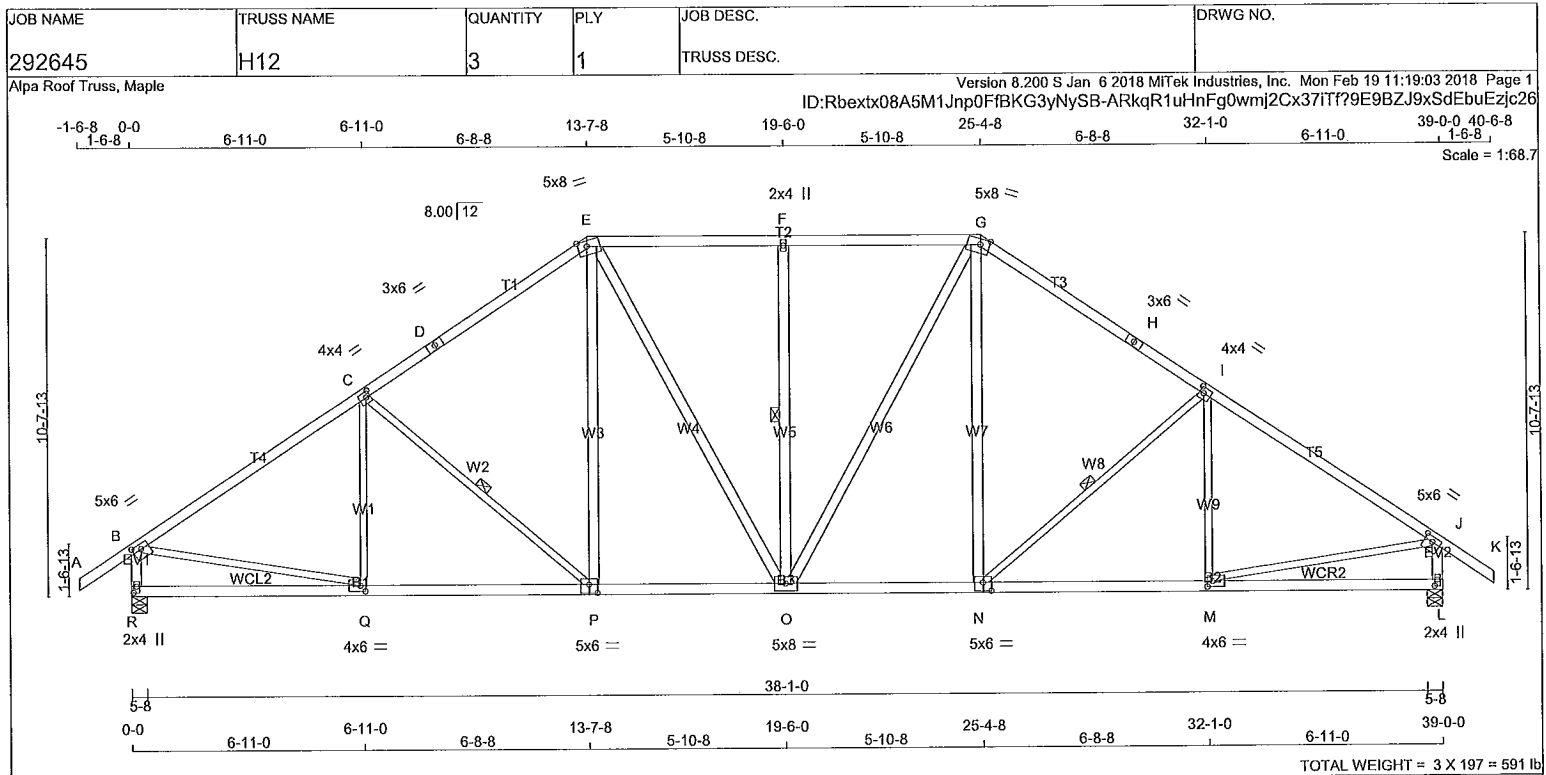
| PLATE | GRIP(DRY) | SHEAR | SECTION |
|-------|-----------|-------|---------|
| (PLI) | (PLI)     | (PLI) | (PLI)   |
| MAX   | MIN       | MAX   | MIN     |
| MT20  | 618       | 354   | 1667    |
|       | 788       | 1987  | 1656    |

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.89 (S) (INPUT = 0.90)  
JSI METAL= 0.61 (J) (INPUT = 1.00)





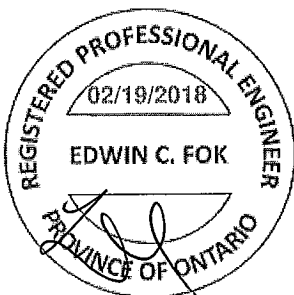
| LUMBER            |      |        |      | DESCR. |  |
|-------------------|------|--------|------|--------|--|
| N. L. G. A. RULES |      |        |      |        |  |
| CHORDS            | SIZE | LUMBER |      |        |  |
| A - D             | 2x4  | DRY    | No.2 | SPF    |  |
| D - E        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

DRY: SEASONED LUMBER.

#### PLATES (table is in inches)

| JT | TYPE   | PLATES | W   | LEN | Y    | X    |
|----|--------|--------|-----|-----|------|------|
| B  | TMVW-I | MT20   | 5.0 | 6.0 | 1.75 | 3.00 |
| C  | TMVW-I | MT20   | 4.0 | 4.0 | 2.00 | 1.50 |
| D  | TS-I   | MT20   | 3.0 | 6.0 |      |      |
| E  | TTWW-m | MT20   | 5.0 | 8.0 | 2.00 | 3.25 |
| F  | TMVW-w | MT20   | 2.0 | 4.0 |      |      |
| G  | TTWW-m | MT20   | 5.0 | 8.0 | 2.00 | 3.25 |
| H  | TS-I   | MT20   | 3.0 | 6.0 |      |      |
| I  | TMVW-I | MT20   | 4.0 | 4.0 | 2.00 | 1.50 |
| J  | TMVW-I | MT20   | 5.0 | 6.0 | 1.75 | 3.00 |
| L  | BMV1+p | MT20   | 2.0 | 4.0 | 2.25 | 1.00 |
| M  | BMVW-I | MT20   | 4.0 | 6.0 | 2.00 | 1.75 |
| N  | BSWW-I | MT20   | 5.0 | 6.0 | 3.00 | 3.00 |
| O  | BMVW-I | MT20   | 5.0 | 8.0 |      |      |
| P  | BSWW-I | MT20   | 5.0 | 6.0 | 3.00 | 3.00 |
| Q  | BMVW-I | MT20   | 4.0 | 6.0 | 2.00 | 1.75 |
| R  | BMV1+p | MT20   | 2.0 | 4.0 | 2.25 | 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



#### 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 | UPLIFT    | IN-SX | IN-SX     |  |
| JT       | 2008                    | 0    | 2008                            | 0    | 0         | 5-8   | 3-0       |  |
| R        | 2008                    | 0    | 2008                            | 0    | 0         | 5-8   | 3-0       |  |

#### UNFACTORED REACTIONS

| 1ST LCASE | MAX./MIN. COMPONENT REACTIONS |         |       |           |       |         |       |
|-----------|-------------------------------|---------|-------|-----------|-------|---------|-------|
|           | COMBINED                      | SNOW    | LIVE  | PERM.LIVE | WIND  | DEAD    | SOIL  |
| JT        | 1429                          | 887 / 0 | 0 / 0 | 0 / 0     | 0 / 0 | 542 / 0 | 0 / 0 |
| R         | 1429                          | 887 / 0 | 0 / 0 | 0 / 0     | 0 / 0 | 542 / 0 | 0 / 0 |

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

#### BRACING

TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 3.91 FT.  
MAX. UNBRACED BOTTOM CHORD LENGTH = 10.00 FT OR RIGID CEILING DIRECTLY APPLIED.

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

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

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

#### LOADING

TOTAL LOAD CASES: (4)

| CHORDS |                           |                           |                   | WEBS                 |       |                           |                   |
|--------|---------------------------|---------------------------|-------------------|----------------------|-------|---------------------------|-------------------|
| MEMB.  | MAX. FACTORED FORCE (LBS) | FACTORED VERT. LOAD (PLF) | MAX LC1 MAX (L/C) | MAX. UNBRACED LENGTH | MEMB. | MAX. FACTORED FORCE (LBS) | MAX LC1 MAX (L/C) |
| FR-TO  |                           | FROM                      | TO                |                      | FR-TO |                           |                   |
| A-B    | 0 / 35                    | -78.0                     | -78.0 0.15 (1)    | 10.00                | Q-C   | -191 / 42                 | 0.12 (1)          |
| B-C    | -2270 / 0                 | -78.0                     | -78.0 0.68 (1)    | 3.91                 | C-P   | -409 / 0                  | 0.23 (1)          |
| C-D    | -1970 / 0                 | -78.0                     | -78.0 0.60 (1)    | 4.19                 | P-E   | 0 / 356                   | 0.06 (1)          |
| D-E    | -1970 / 0                 | -78.0                     | -78.0 0.60 (1)    | 4.19                 | E-O   | 0 / 397                   | 0.06 (1)          |
| E-F    | -1809 / 0                 | -78.0                     | -78.0 0.40 (1)    | 4.57                 | O-F   | -560 / 0                  | 0.32 (1)          |
| F-G    | -1809 / 0                 | -78.0                     | -78.0 0.40 (1)    | 4.57                 | G-O   | 0 / 397                   | 0.06 (1)          |
| G-H    | -1970 / 0                 | -78.0                     | -78.0 0.60 (1)    | 4.19                 | N-G   | 0 / 356                   | 0.06 (1)          |
| H-I    | -1970 / 0                 | -78.0                     | -78.0 0.60 (1)    | 4.19                 | N-I   | -409 / 0                  | 0.23 (1)          |
| I-J    | -2270 / 0                 | -78.0                     | -78.0 0.66 (1)    | 3.91                 | M-I   | -191 / 42                 | 0.12 (1)          |
| J-K    | 0 / 35                    | -78.0                     | -78.0 0.15 (1)    | 10.00                | B-Q   | 0 / 1950                  | 0.44 (1)          |
| R-B    | -1957 / 0                 | 0.0                       | 0.0 0.21 (1)      | 6.02                 | M-J   | 0 / 1950                  | 0.44 (1)          |
| L-J    | -1957 / 0                 | 0.0                       | 0.0 0.21 (1)      | 6.02                 |       |                           |                   |
| R-Q    | 0 / 0                     | -18.5                     | -18.5 0.24 (4)    | 10.00                |       |                           |                   |
| Q-P    | 0 / 1919                  | -18.5                     | -18.5 0.44 (1)    | 10.00                |       |                           |                   |
| P-O    | 0 / 1613                  | -18.5                     | -18.5 0.36 (1)    | 10.00                |       |                           |                   |
| O-N    | 0 / 1613                  | -18.5                     | -18.5 0.36 (1)    | 10.00                |       |                           |                   |
| N-M    | 0 / 1919                  | -18.5                     | -18.5 0.44 (1)    | 10.00                |       |                           |                   |
| M-L    | 0 / 0                     | -18.5                     | -18.5 0.24 (4)    | 10.00                |       |                           |                   |

#### DESIGN CRITERIA

##### SPECIFIED LOADS:

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

SPACING = 24.0 IN. C/C

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 (0.09")  
ALLOWABLE DEFL.(TL) = L/360 (1.30")  
CALCULATED VERT. DEFL.(TL) = L/999 (0.21")

CSI: TC=0.66/1.00 (I-J:1), BC=0.44/1.00 (M-N:1), WB=0.44/1.00 (J-M:1), SSI=0.22/1.00 (E-F:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

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

#### NAIL VALUES

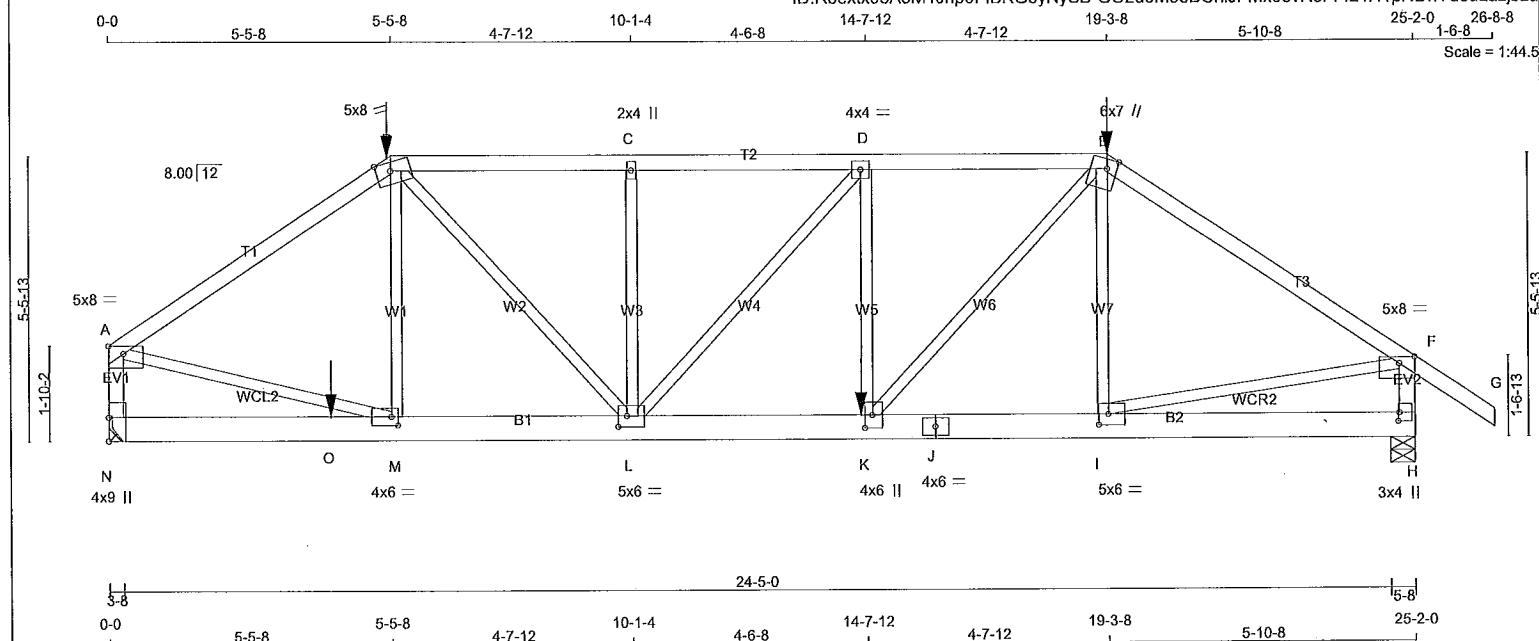
| PLATE | GRIP(DRY) | SHEAR | SECTION |
|-------|-----------|-------|---------|
|       | (PSI)     | (PLI) | (PLI)   |
|       | MAX       | MIN   | MAX     |
| MT20  | 618       | 354   | 1667    |
|       | 788       | 1987  | 1656    |

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.89 (Q) (INPUT = 0.90)  
JSI METAL= 0.62 (J) (INPUT = 1.00)

Version 8.200 S Jan 6 2018 MiTek Industries, Inc. Mon Feb 19 11:23:33 2018 Page 1  
ID: Rhexrtx08A5M1.Jnn0FfBKg3vNvSR-GQ2u6M9eBCbLJFMx0evRePr4z4H1pNDhYdeuLazjibzu



TOTAL WEIGHT = 121 lb

| 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 - G             | 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 - H             | 2x6  | DRY    | No.2 | SPF    |

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

| <b>PLATES (table is in inches)</b> |          |        |     |     |      |      |
|------------------------------------|----------|--------|-----|-----|------|------|
| JT                                 | TYPE     | PLATES | W   | LEN | Y    | X    |
| A                                  | TMVW-p   | MT20   | 5.0 | 8.0 | 1.75 | Edge |
| B                                  | TTVVW-m  | MT20   | 5.0 | 8.0 | 2.00 | 3.25 |
| C                                  | TMVW-w   | MT20   | 2.0 | 4.0 |      |      |
| D                                  | TMVW-t   | MT20   | 4.0 | 4.0 |      |      |
| E                                  | TTVVW+m  | MT20   | 6.0 | 7.0 | 2.25 | 2.25 |
| F                                  | TMVW-p   | MT20   | 5.0 | 8.0 | 1.50 | 3.50 |
| H                                  | BMV1+p   | MT20   | 3.0 | 4.0 | 2.00 | 0.25 |
| I                                  | BMVW-t   | MT20   | 5.0 | 6.0 | 2.50 | 2.25 |
| J                                  | BS-t     | MT20   | 4.0 | 6.0 |      |      |
| K                                  | BMVW+t   | MT20   | 4.0 | 6.0 | 3.00 | 1.75 |
| L                                  | BMVWWW-t | MT20   | 5.0 | 6.0 | 2.50 | 2.00 |
| M                                  | BMVW-t   | MT20   | 4.0 | 6.0 | 2.00 | 1.50 |
| N                                  | BMV1+t   | MT20   | 4.0 | 9.0 | 5.50 |      |

Edge - INDICATES REFERENCE CORNER OF PLATE  
TOUCHES EDGE OF CHORD

|      | 1990 | 1991 | 1992 | 1993 | 1994 | 1995 | 1996 | 1997 | 1998 | 1999 | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 | 2024 | 2025 | 2026 | 2027 | 2028 | 2029 | 2030 | 2031 | 2032 | 2033 | 2034 | 2035 | 2036 | 2037 | 2038 | 2039 | 2040 | 2041 | 2042 | 2043 | 2044 | 2045 | 2046 | 2047 | 2048 | 2049 | 2050 | 2051 | 2052 | 2053 | 2054 | 2055 | 2056 | 2057 | 2058 | 2059 | 2060 | 2061 | 2062 | 2063 | 2064 | 2065 | 2066 | 2067 | 2068 | 2069 | 2070 | 2071 | 2072 | 2073 | 2074 | 2075 | 2076 | 2077 | 2078 | 2079 | 2080 | 2081 | 2082 | 2083 | 2084 | 2085 | 2086 | 2087 | 2088 | 2089 | 2090 | 2091 | 2092 | 2093 | 2094 | 2095 | 2096 | 2097 | 2098 | 2099 | 2100 |
|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| 1990 | 1991 | 1992 | 1993 | 1994 | 1995 | 1996 | 1997 | 1998 | 1999 | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 | 2024 | 2025 | 2026 | 2027 | 2028 | 2029 | 2030 | 2031 | 2032 | 2033 | 2034 | 2035 | 2036 | 2037 | 2038 | 2039 | 2040 | 2041 | 2042 | 2043 | 2044 | 2045 | 2046 | 2047 | 2048 | 2049 | 2050 | 2051 | 2052 | 2053 | 2054 | 2055 | 2056 | 2057 | 2058 | 2059 | 2060 | 2061 | 2062 | 2063 | 2064 | 2065 | 2066 | 2067 | 2068 | 2069 | 2070 | 2071 | 2072 | 2073 | 2074 | 2075 | 2076 | 2077 | 2078 | 2079 | 2080 | 2081 | 2082 | 2083 | 2084 | 2085 | 2086 | 2087 | 2088 | 2089 | 2090 | 2091 | 2092 | 2093 | 2094 | 2095 | 2096 | 2097 | 2098 | 2099 | 2100 |      |

### HANGERS NOTES

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

**BEARING**

|    | FACTORED<br>GROSS REACTION |      | MAXIMUM FACTORED<br>GROSS REACTION |      | INPUT<br>BRG | REQRD<br>BRG                            |
|----|----------------------------|------|------------------------------------|------|--------------|-----------------------------------------|
| JT | VERT                       | HORZ | DOWN                               | HORZ | UPLIFT       | IN-SX<br>IN-SX                          |
| N  | 2435                       | 0    | 2435                               | 0    | 0            | HANGER BY OTHERS<br>MIN. SEAT SIZE: 3-8 |
| H  | 2562                       | 0    | 2562                               | 0    | 0            | 5-8<br>4-13                             |

### UNFACTORED REACTION:

| 1ST LCASE |          | MAX./MIN. COMPONENT REACTIONS |      |           |      |       |
|-----------|----------|-------------------------------|------|-----------|------|-------|
| JT        | COMBINED | SNOW                          | LIVE | PERM.LIVE | WIND | DEAD  |
| N         | 1737     | 1055/0                        | 0/0  | 0/0       | 0/0  | 682/0 |
| U         | 1227     | 1116/0                        | 0/0  | 0/0       | 0/0  | 711/0 |

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

\_\_\_\_\_

**BRACING**  
TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 3.05 FT.  
MAX. UNBRACED BOTTOM CHORD LENGTH = 10.00 FT OR RIGID CEILING DIRECTLY  
APPLIED.

ALL INTERFERENCE HAVE BEEN LIMITED. 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 | MAX. UNBRAC | MEMB.         | FORCE (LBS) | MAX. UNBRAC | CS1 (LC) |  |
| FR-TO         |             | FROM TO          |         | LENGTH      | FR-TO         |             |             |          |  |
| A-B           | -2682 / 0   | -78.0            | -78.0   | 0.72 (1)    | 3.52          | M-B         | 0 / 158     | 0.06 (4) |  |
| B-C           | -2950 / 0   | -78.0            | -78.0   | 0.39 (1)    | 3.67          | B-L         | 0 / 1067    | 0.26 (1) |  |
| C-D           | -2950 / 0   | -78.0            | -78.0   | 0.56 (1)    | 3.43          | L-C         | -347 / 0    | 0.15 (1) |  |
| D-E           | -3357 / 0   | -153.5           | -153.5  | 0.69 (1)    | 3.05          | L-D         | -612 / 0    | 0.52 (1) |  |
| E-F           | -2943 / 0   | -78.0            | -78.0   | 0.92 (1)    | 3.19          | K-D         | -148 / 45   | 0.06 (1) |  |
| F-G           | 0 / 35      | -78.0            | -78.0   | 0.16 (1)    | 10.00         | K-E         | 0 / 1360    | 0.34 (1) |  |
| N-A           | -2282 / 0   | 0.0              | 0.0     | 0.27 (1)    | 5.58          | I-E         | -244 / 74   | 0.11 (1) |  |
| H-F           | -2468 / 0   | 0.0              | 0.0     | 0.28 (1)    | 5.39          | A-M         | 0 / 2302    | 0.57 (1) |  |
|               |             |                  |         |             |               | I-F         | 0 / 2492    | 0.62 (1) |  |
| N-O           | 0 / 0       | -29.5            | -29.5   | 0.28 (1)    | 10.00         |             |             |          |  |
| O-M           | 0 / 0       | -29.5            | -29.5   | 0.28 (1)    | 10.00         |             |             |          |  |
| M-L           | 0 / 2231    | -18.5            | -18.5   | 0.52 (1)    | 10.00         |             |             |          |  |
| L-K           | 0 / 3357    | -18.5            | -18.5   | 0.52 (1)    | 10.00         |             |             |          |  |
| K-J           | 0 / 2441    | -36.4            | -36.4   | 0.38 (1)    | 10.00         |             |             |          |  |
| J-I           | 0 / 2441    | -36.4            | -36.4   | 0.38 (1)    | 10.00         |             |             |          |  |

## FACTORED CONCENTRATED LOADS (LBS)

| JT | LOC.   | LC1  | MAX- | MAX+ | FACE  | DIR. | TYPE  |
|----|--------|------|------|------|-------|------|-------|
| B  | 5-5-8  | -204 | -204 | —    | FRONT | VERT | TOTAL |
| E  | 19-3-8 | -334 | -334 | —    | FRONT | VERT | TOTAL |
| K  | 14-6-6 | -745 | -745 | —    | FRONT | VERT | TOTAL |
| O  | 4-3-8  | -560 | -560 | —    | 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 | =    | 24.4 | PSF |

SPACING =  $\frac{24.0}{\text{IN. C/C}}$

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

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

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

\*\*\* NON STANDARD GIRDER \*\*\*  
ADD'L USER-DEFINED LOADS APPLIED TO  
MEMBER 21252

THIS TRUSS IS DESIGNED FOR RESIDENTIAL  
OR SMALL BUILDING REQUIREMENTS OF

PART 9, NBCC 2010, NBCC 2015

THIS DESIGN COMPLIES WITH:

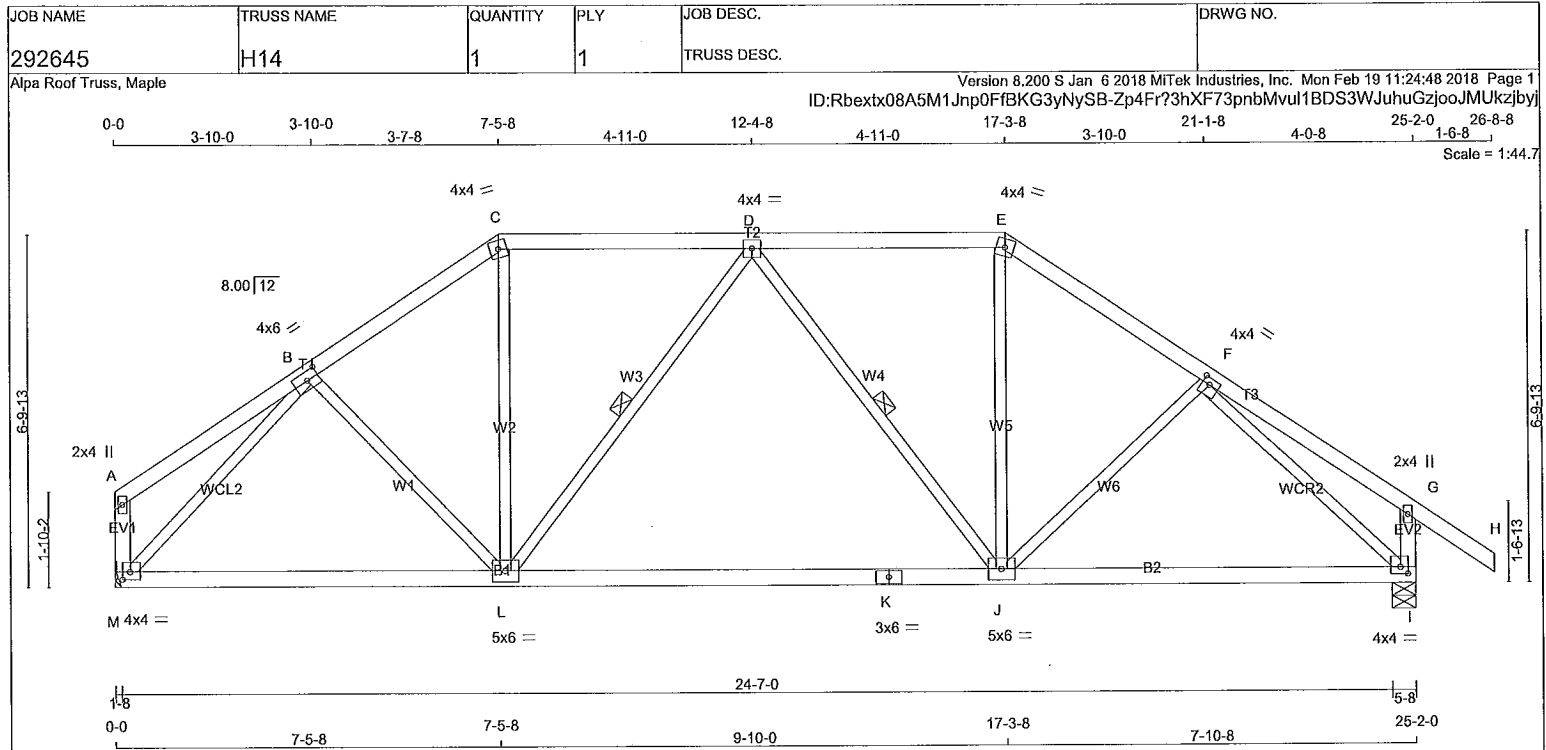
- PART 9 OF OBC 2012, OBC 2018
- CSA 086-09, CSA 086-14

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

ALLOWABLE DEFL.(LL)= L/360 (0.84")  
CALCULATED VERT. DEFL.(LL) = L/ 999 (0.10")  
ALLOWABLE DEFL.(TL)= L/360 (0.84")

CS1: TC=0.92/1.00 (E-F:1), BC=0.52/1.00 (L-M:1),  
WB=0.62/1.00 (F-I:1), SS1=0.38/1.00 (M-N:1)

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| 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 - H             | 2x4  | DRY    | No.2  | SPF |
| M - A             | 2x4  | DRY    | No.2  | SPF |
| I - G             | 2x4  | DRY    | No.2  | SPF |
| M - K             | 2x4  | DRY    | No.2  | SPF |
| K - I             | 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   | 4.0 | 6.0 | 2.00 2.75 |
| C                           | TTW-m  | MT20   | 4.0 | 4.0 |           |
| D                           | TMVW-t | MT20   | 4.0 | 4.0 |           |
| E                           | TTW-m  | MT20   | 4.0 | 4.0 |           |
| F                           | TMVW-t | MT20   | 4.0 | 4.0 | 1.50 1.75 |
| G                           | TMV+p  | MT20   | 2.0 | 4.0 |           |
| I                           | BMVW-t | MT20   | 4.0 | 4.0 | 1.50 1.75 |
| J                           | BMVW-t | MT20   | 5.0 | 6.0 |           |
| K                           | BS-t   | MT20   | 3.0 | 6.0 |           |
| L                           | BMVW-t | MT20   | 5.0 | 6.0 |           |
| M                           | BMVW-t | MT20   | 4.0 | 4.0 | 1.75 1.75 |

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 |   | FACTORED GROSS REACTION |      | MAXIMUM FACTORED GROSS REACTION |      | INPUT REQD |       |
|----------|---|-------------------------|------|---------------------------------|------|------------|-------|
| JT       | M | VERT                    | HORZ | DOWN                            | HORZ | BRG        | IN-SX |
|          |   | 1214                    | 0    | 1214                            | 0    |            |       |
|          |   | 1340                    | 0    | 1340                            | 0    |            |       |

#### UNFACTORED REACTIONS

| JT | 1ST LCASE | MAX / MIN | COMPONENT REACTIONS |       |            |         |       |
|----|-----------|-----------|---------------------|-------|------------|---------|-------|
|    |           |           | SNOW                | LIVE  | PERM. LIVE | WIND    | DEAD  |
| M  | 865       | 528 / 0   | 0 / 0               | 0 / 0 | 0 / 0      | 337 / 0 | 0 / 0 |
| I  | 953       | 596 / 0   | 0 / 0               | 0 / 0 | 0 / 0      | 357 / 0 | 0 / 0 |

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

#### BRACING

TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 5.58 FT.  
MAX. UNBRACED BOTTOM CHORD LENGTH = 10.00 FT OR RIGID CEILING DIRECTLY APPLIED.

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

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

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

#### LOADING

TOTAL LOAD CASES: (4)

| CHORDS |                           |                           |                  | WEBS  |                           |                            |                           |
|--------|---------------------------|---------------------------|------------------|-------|---------------------------|----------------------------|---------------------------|
| MEMB.  | MAX. FACTORED FORCE (LBS) | FACTORED VERT. LOAD (PLF) | LC1 MAX CSI (LC) | MEMB. | MAX. FACTORED FORCE (LBS) | MAX. UNBRACED LENGTH FR-TO | MAX. FACTORED FORCE (LBS) |
| A-B    | 0 / 18                    | -78.0                     | -78.0 0.16 (1)   | B-L   | 0 / 60                    | 10.00                      | 0.02 (4)                  |
| B-C    | -1219 / 0                 | -78.0                     | -78.0 0.14 (1)   | L-C   | 0 / 406                   | 5.66                       | 0.09 (1)                  |
| C-D    | -1004 / 0                 | -78.0                     | -78.0 0.25 (1)   | D-J   | -317 / 0                  | 5.94                       | 0.14 (1)                  |
| D-E    | -1035 / 0                 | -78.0                     | -78.0 0.25 (1)   | E-F   | -265 / 0                  | 5.87                       | 0.12 (1)                  |
| E-F    | -1257 / 0                 | -78.0                     | -78.0 0.16 (1)   | F-G   | 0 / 420                   | 5.58                       | 0.09 (1)                  |
| F-G    | 0 / 19                    | -78.0                     | -78.0 0.18 (1)   | G-H   | -37 / 37                  | 10.00                      | 0.02 (1)                  |
| G-H    | 0 / 35                    | -78.0                     | -78.0 0.15 (1)   | H-I   | -1430 / 0                 | 10.00                      | 0.69 (1)                  |
| M-A    | -114 / 0                  | 0.0                       | 0.0 0.01 (1)     | I-G   | -1480 / 0                 | 7.81                       | 0.73 (1)                  |
| I-G    | -246 / 0                  | 0.0                       | 0.0 0.03 (1)     |       |                           |                            |                           |
| M-L    | 0 / 974                   | -18.5                     | -18.5 0.41 (4)   |       |                           |                            |                           |
| L-K    | 0 / 1192                  | -18.5                     | -18.5 0.45 (4)   |       |                           |                            |                           |
| K-J    | 0 / 1192                  | -18.5                     | -18.5 0.45 (4)   |       |                           |                            |                           |
| J-I    | 0 / 1055                  | -18.5                     | -18.5 0.43 (4)   |       |                           |                            |                           |

#### DESIGN CRITERIA

##### SPECIFIED LOADS:

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

SPACING = 24.0 IN. C/C

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

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

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

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

ALLOWABLE DEFL.(LL) =  $L/360$  (0.84")  
CALCULATED VERT. DEFL.(LL) =  $L/999$  (0.04")  
ALLOWABLE DEFL.(TL) =  $L/360$  (0.84")  
CALCULATED VERT. DEFL.(TL) =  $L/999$  (0.16")

CSI: TC=0.25/1.00 (D-E:1), BC=0.45/1.00 (J-L:4), WB=0.73/1.00 (F-I:1), SSI=0.19/1.00 (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.

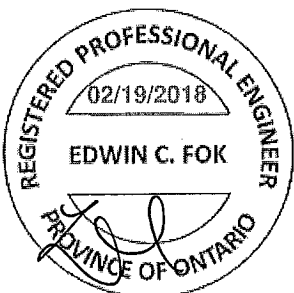
| NAIL VALUES |                 | SHEAR SECTION |       |
|-------------|-----------------|---------------|-------|
| PLATE       | GRIP(DRY) (PSI) | (PLI)         | (PLI) |
| MT20        | 618             | 354           | 1667  |

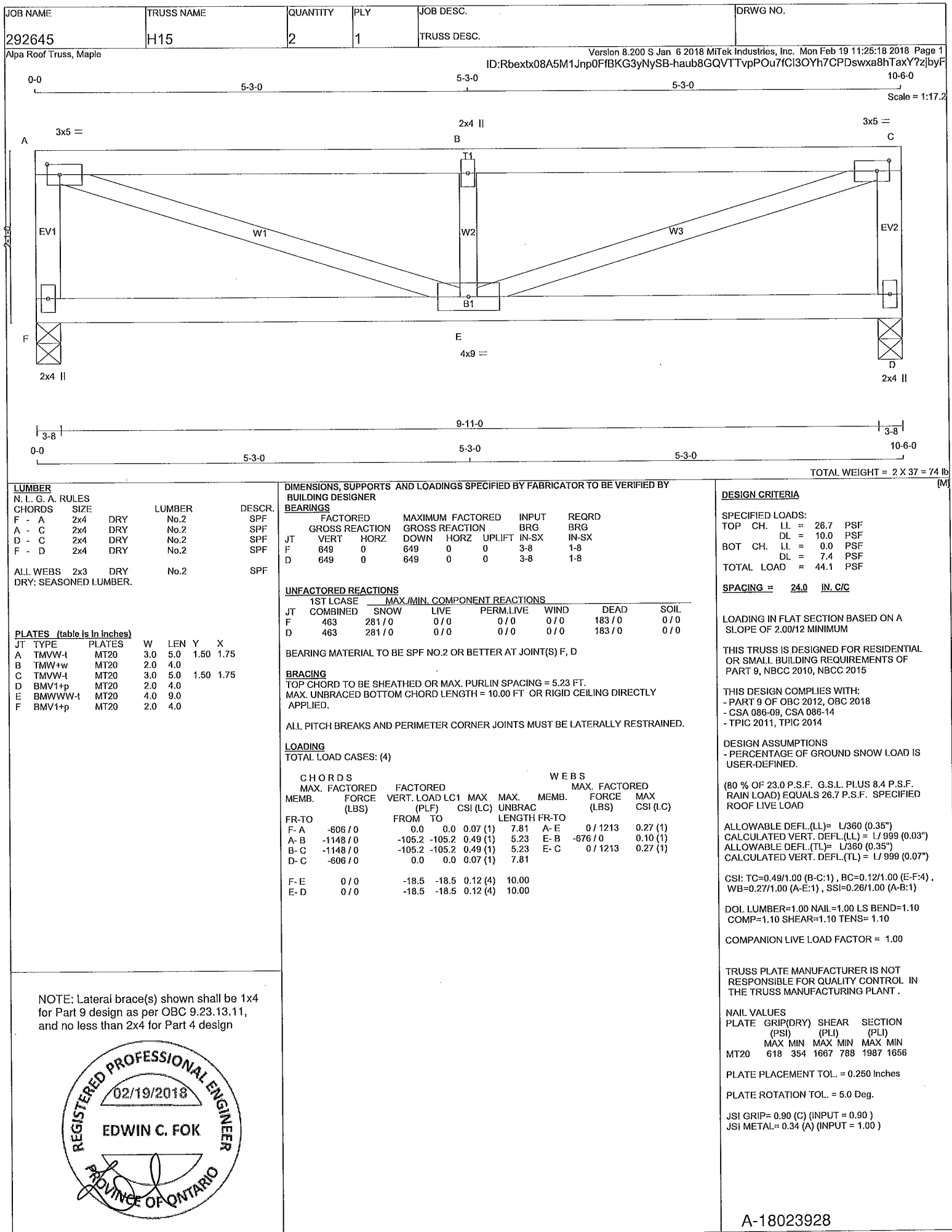
PLATE PLACEMENT TOL. = 0.250 inches

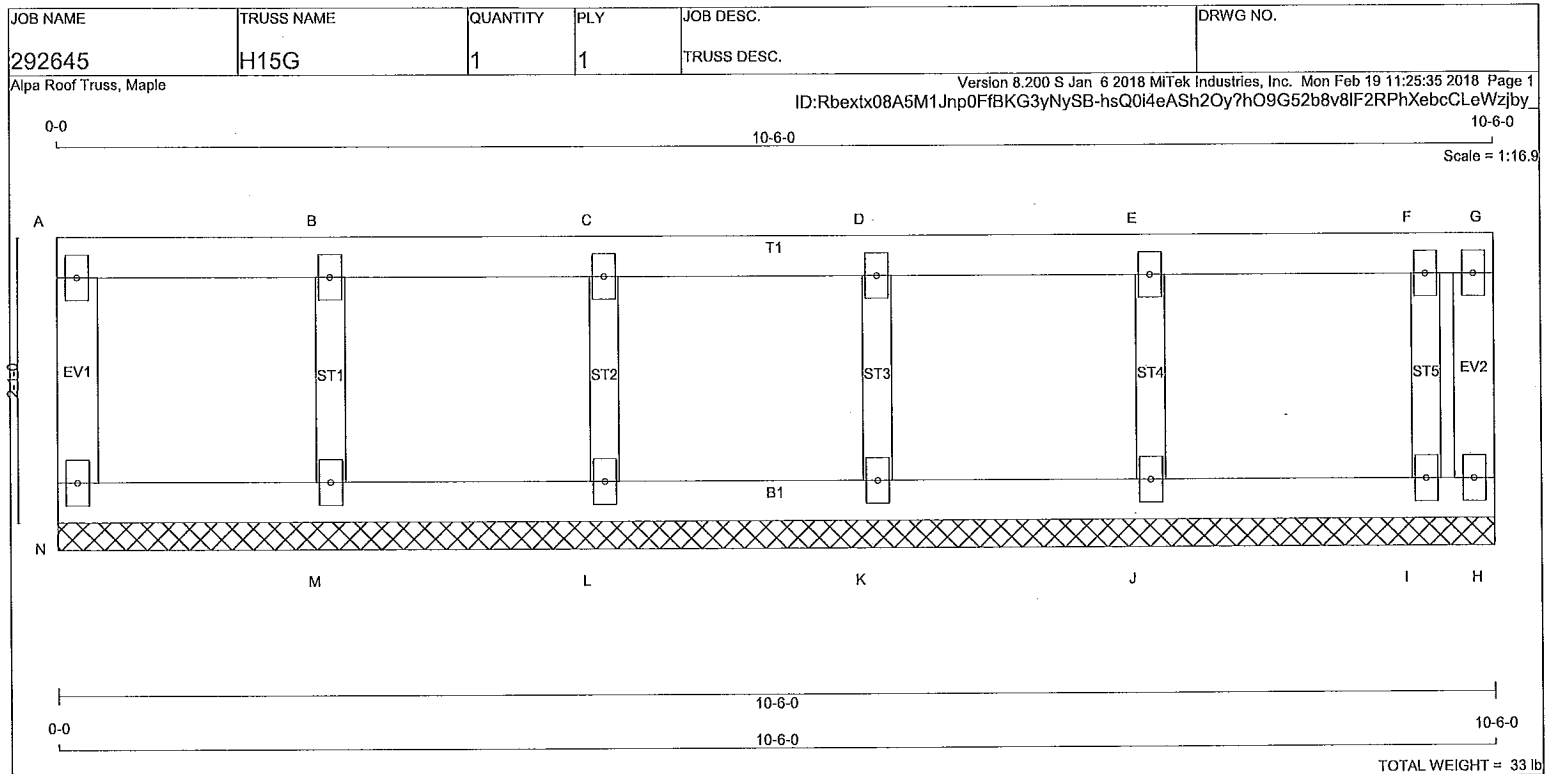
PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.85 (M) (INPUT = 0.90)  
JSI METAL= 0.54 (F) (INPUT = 1.00)

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| LUMBER            |        |      |        |        |
|-------------------|--------|------|--------|--------|
| N. L. G. A. RULES | CHORDS | SIZE | LUMBER | DESCR. |
| N - A             | 2x4    | DRY  | No.2   | SPF    |
| A - G             | 2x4    | DRY  | No.2   | SPF    |
| H - G             | 2x4    | DRY  | No.2   | SPF    |
| N - 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, D, E, F               | TMV+w  | MT20   | 2.0 | 4.0     |
| G                           | TMV+p  | MT20   | 2.0 | 4.0     |
| H                           | BMV1+p | MT20   | 2.0 | 4.0     |
| I, J, K, L, M               | BMV1+w | MT20   | 2.0 | 4.0     |
| N                           | BMV1+p | MT20   | 2.0 | 4.0     |

#### 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 = 6.25 FT.  
MAX. UNBRACED BOTTOM CHORD LENGTH = 10.00 FT OR RIGID CEILING DIRECTLY APPLIED.

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

#### LOADING

TOTAL LOAD CASES: (4)

| CHORDS |                           |                           |                  | WEBS  |                           |                      |                       |
|--------|---------------------------|---------------------------|------------------|-------|---------------------------|----------------------|-----------------------|
| MEMB.  | MAX. FACTORED FORCE (LBS) | FACTORED VERT. LOAD (PLF) | LC1 MAX CSI (LC) | MEMB. | MAX. FACTORED FORCE (LBS) | MAX. UNBRACED LENGTH | FACTORED MAX CSI (LC) |
| FR-TO  |                           | FROM TO                   |                  | FR-TO |                           |                      |                       |
| N-A    | -94 / 0                   | 0.0 0.0                   | 0.02 (1)         | 7.81  | M-B                       | -224 / 0             | 0.03 (1)              |
| A-B    | -11 / 0                   | -105.2 -105.2             | 0.05 (1)         | 6.25  | L-C                       | -208 / 0             | 0.03 (1)              |
| B-C    | -11 / 0                   | -105.2 -105.2             | 0.05 (1)         | 6.25  | K-D                       | -209 / 0             | 0.03 (1)              |
| C-D    | -11 / 0                   | -105.2 -105.2             | 0.05 (1)         | 6.25  | J-E                       | -220 / 0             | 0.03 (1)              |
| D-E    | -11 / 0                   | -105.2 -105.2             | 0.05 (1)         | 6.25  | I-F                       | -142 / 0             | 0.02 (1)              |
| E-F    | -11 / 0                   | -105.2 -105.2             | 0.05 (1)         | 6.25  |                           |                      |                       |
| F-G    | -11 / 0                   | -105.2 -105.2             | 0.03 (1)         | 6.25  |                           |                      |                       |
| H-G    | -7 / 0                    | 0.0 0.0                   | 0.02 (1)         | 10.00 |                           |                      |                       |
| N-M    | 0 / 11                    | -18.5 -18.5               | 0.02 (4)         | 10.00 |                           |                      |                       |
| M-L    | 0 / 11                    | -18.5 -18.5               | 0.02 (4)         | 10.00 |                           |                      |                       |
| L-K    | 0 / 11                    | -18.5 -18.5               | 0.02 (4)         | 10.00 |                           |                      |                       |
| K-J    | 0 / 11                    | -18.5 -18.5               | 0.02 (4)         | 10.00 |                           |                      |                       |
| J-I    | 0 / 11                    | -18.5 -18.5               | 0.02 (4)         | 10.00 |                           |                      |                       |
| I-H    | 0 / 11                    | -18.5 -18.5               | 0.01 (1)         | 10.00 |                           |                      |                       |

#### DESIGN CRITERIA

##### SPECIFIED LOADS:

|            |    |      |      |     |
|------------|----|------|------|-----|
| TOP CH.    | LL | =    | 26.7 | PSF |
|            | DL | =    | 10.0 | PSF |
| BOT CH.    | LL | =    | 0.0  | PSF |
|            | DL | =    | 7.4  | PSF |
| TOTAL LOAD | =  | 44.1 | 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

- PERCENTAGE OF GROUND SNOW LOAD IS USER-DEFINED.

(80 % OF 23.0 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 26.7 P.S.F. SPECIFIED ROOF LIVE LOAD

CSI: TC=0.05/1.00 (A-B:1), BC=0.02/1.00 (M-N:4), WB=0.03/1.00 (B-M:1), SSI=0.09/1.00 (A-B:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

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

##### NAIL VALUES

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

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

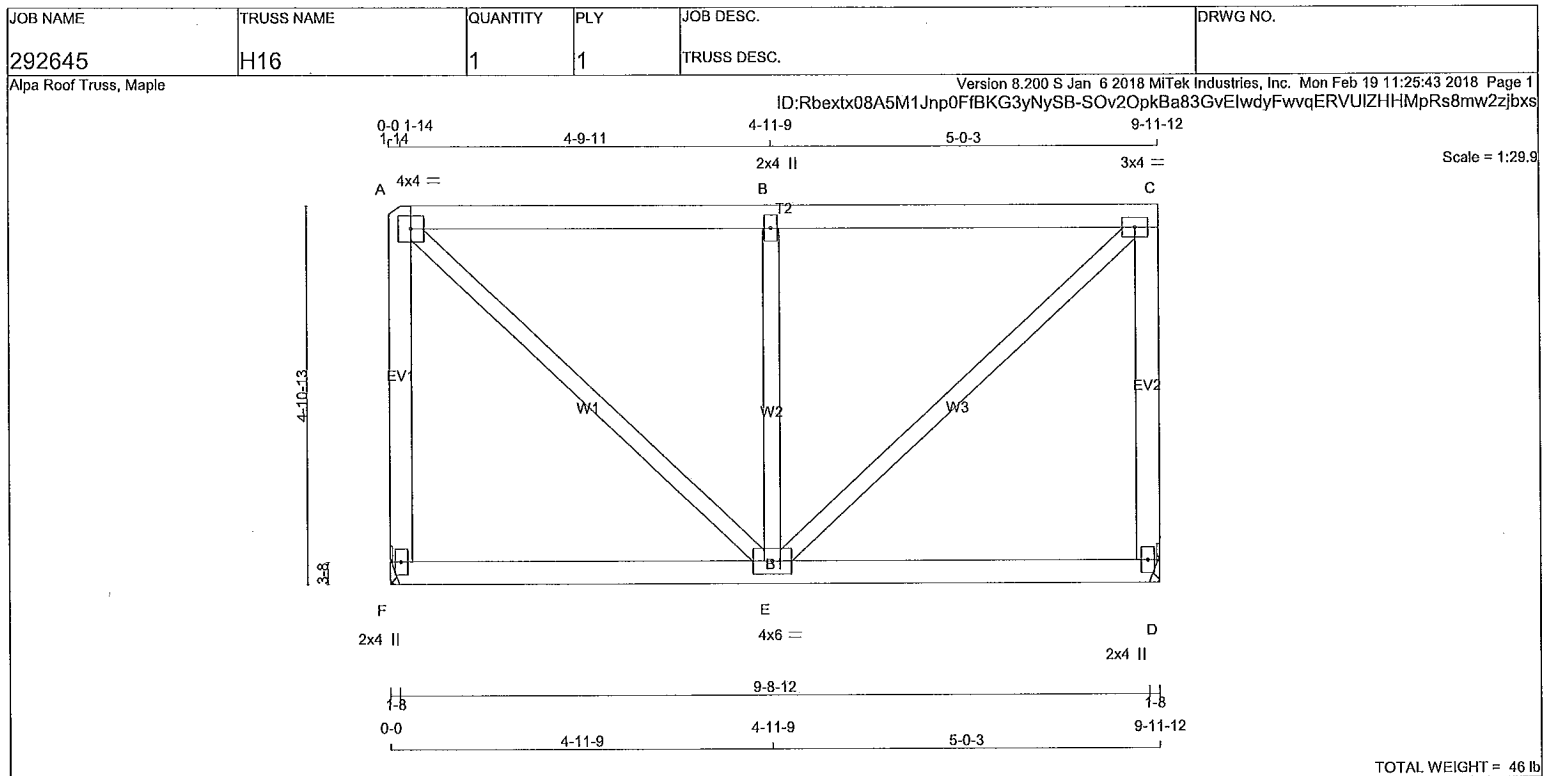
JSI GRIP= 0.12 (M) (INPUT = 0.90)  
JSI METAL= 0.05 (M) (INPUT = 1.00)

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

DRY: SEASONED LUMBER.

| PLATES (table is in inches) |         |        |     |         |
|-----------------------------|---------|--------|-----|---------|
| JT                          | TYPE    | PLATES | W   | LEN Y X |
| A                           | TMW-I   | MT20   | 4.0 | 4.0     |
| B                           | TMW-w   | MT20   | 2.0 | 4.0     |
| C                           | TMW-I   | MT20   | 3.0 | 4.0     |
| D                           | BMV1+p  | MT20   | 2.0 | 4.0     |
| E                           | BMVWW-I | MT20   | 4.0 | 6.0     |
| F                           | BMV1+p  | MT20   | 2.0 | 4.0     |

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

| BEARINGS |      | FACTORED GROSS REACTION |      | MAXIMUM FACTORED GROSS REACTION |        | INPUT REQRD      |                     |
|----------|------|-------------------------|------|---------------------------------|--------|------------------|---------------------|
| JT       | VERT | HORZ                    | DOWN | HORZ                            | UPLIFT | IN-SX            | IN-SX               |
| D        | 481  | 0                       | 481  | 0                               | 0      | HANGER BY OTHERS | MIN. SEAT SIZE: 1-8 |
| F        | 481  | 0                       | 481  | 0                               | 0      | HANGER BY OTHERS | MIN. SEAT SIZE: 1-8 |

#### UNFACTORED REACTIONS

| 1ST LCASE |          | MAX./MIN. COMPONENT REACTIONS |       |           |       |         |       |
|-----------|----------|-------------------------------|-------|-----------|-------|---------|-------|
| JT        | COMBINED | SNOW                          | LIVE  | PERM.LIVE | WIND  | DEAD    | SOIL  |
| D         | 343      | 209 / 0                       | 0 / 0 | 0 / 0     | 0 / 0 | 134 / 0 | 0 / 0 |
| F         | 343      | 209 / 0                       | 0 / 0 | 0 / 0     | 0 / 0 | 134 / 0 | 0 / 0 |

#### BRACING

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

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

#### LOADING

TOTAL LOAD CASES: (4)

| CHORDS |                           | FACTORED         |                | WEBS  |                           |
|--------|---------------------------|------------------|----------------|-------|---------------------------|
| MEMB.  | MAX. FACTORED FORCE (LBS) | VERT. LOAD (PLF) | LC1 MAX (LC)   | MEMB. | MAX. FACTORED FORCE (LBS) |
| FR-TO  |                           | FROM             | TO             | FR-TO |                           |
| A-B    | -322 / 0                  | -78.0            | -78.0 0.32 (1) | A-E   | 0 / 439                   |
| B-C    | -322 / 0                  | -78.0            | -78.0 0.32 (1) | E-B   | -483 / 0                  |
| D-C    | -445 / 0                  | 0.0              | 0.0 0.18 (1)   | E-C   | 0 / 437                   |
| F-A    | -445 / 0                  | 0.0              | 0.0 0.21 (1)   |       |                           |
| F-E    | 0 / 0                     | -18.5            | -18.5 0.13 (4) |       |                           |
| E-D    | 0 / 0                     | -18.5            | -18.5 0.13 (4) |       |                           |

#### DESIGN CRITERIA

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

SPACING = 24.0 IN. C/C

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

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

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

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

ALLOWABLE DEFL.(LL)= 1/360 (0.33")  
CALCULATED VERT. DEFL.(LL) = 1/999 (0.01")  
ALLOWABLE DEFL.(TL)= 1/360 (0.33")  
CALCULATED VERT. DEFL.(TL) = 1/999 (0.02")

CSI: TC=0.32/1.00 (B-C:1), BC=0.13/1.00 (E-F:4), WB=0.17/1.00 (B-E:1), SSI=0.19/1.00 (B-C:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

AUTOSOLVE RIGHT HEEL ONLY

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

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

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.69 (C) (INPUT = 0.90 )  
JSI METAL= 0.20 (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-18023930



| JOB NAME | TRUSS NAME | QUANTITY | PLY | JOB DESC.   | DRWG NO. |
|----------|------------|----------|-----|-------------|----------|
| 292646   | H1T        | 1        | 1   | TRUSS DESC. |          |

Alpa Roof Truss, Maple

Version 8.200 S Jan 6 2018 MITek Industries, Inc. Mon Feb 19 11:38:11 2018 Page 2  
ID:Rbextx08A5M1Jnp0FfBKG3yNySB-ZI5pNanNQzI7eBUhS2fKEZC7c?rbXODwREKLAhzbmA

**PLATES (table is in inches)**

| JT | TYPE   | PLATES | W   | LEN  | Y    | X    |
|----|--------|--------|-----|------|------|------|
| T  | BBW-m  | MT20   | 7.0 | 12.0 | Edge | 8.00 |
| U  | BMWW-t | MT20   | 5.0 | 8.0  |      |      |
| V  | BS-t   | MT18HS | 5.0 | 12.0 |      |      |
| W  | BMWW-t | MT20   | 5.0 | 6.0  | 2.25 | 1.75 |
| X  | BMWW-t | MT20   | 4.0 | 4.0  |      |      |
| Y  | BMWW-t | MT20   | 6.0 | 9.0  | 2.75 | 4.00 |
| Z  | BMV1+p | MT20   | 3.0 | 5.0  | 2.75 | 1.50 |

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

**HANGERS NOTES**

- 1) SPECIAL HANGER(S) OR CONNECTION(S)  
REQUIRED TO SUPPORT CONCENTRATED  
LOAD(S) 476.7 lbs FACTORED DOWN AT 8-4-10  
ON TOP CHORD, AND 963.6 lbs FACTORED  
DOWN AT 25-3-8 ON BOTTOM CHORD. DESIGN  
FOR UNSPECIFIED CONNECTION(S) IS  
DELEGATED TO THE BUILDING DESIGNER.

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

**NAIL VALUES**

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

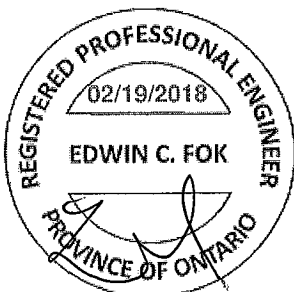
PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

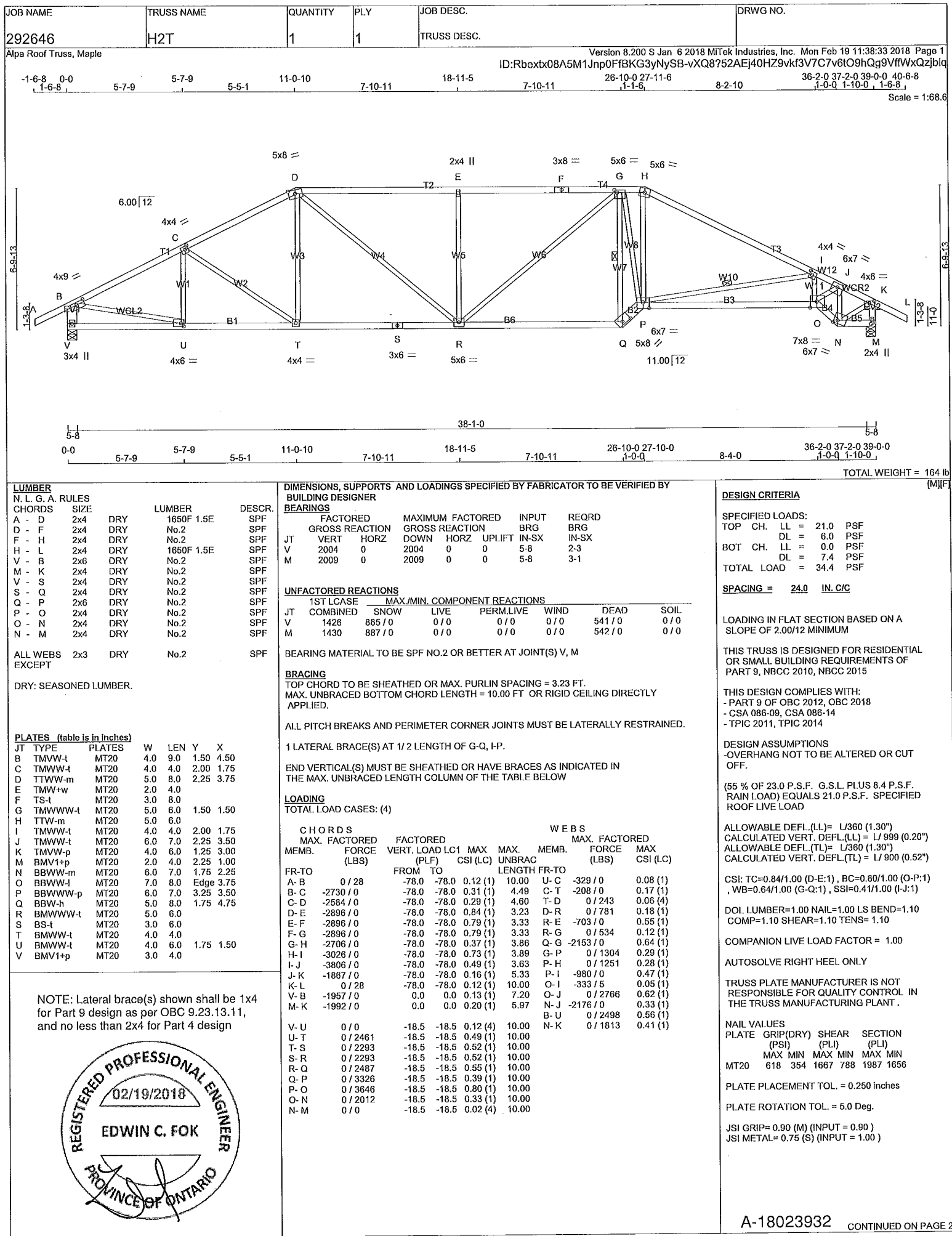
JSI GRIP = 0.90 (H) (INPUT = 0.90)

JSI METAL = 0.94 (T) (INPUT = 1.00)

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



A-18023931(2)



| JOB NAME | TRUSS NAME | QUANTITY | PLY | JOB DESC. | DRWG NO. |
|----------|------------|----------|-----|-----------|----------|
|----------|------------|----------|-----|-----------|----------|

292646

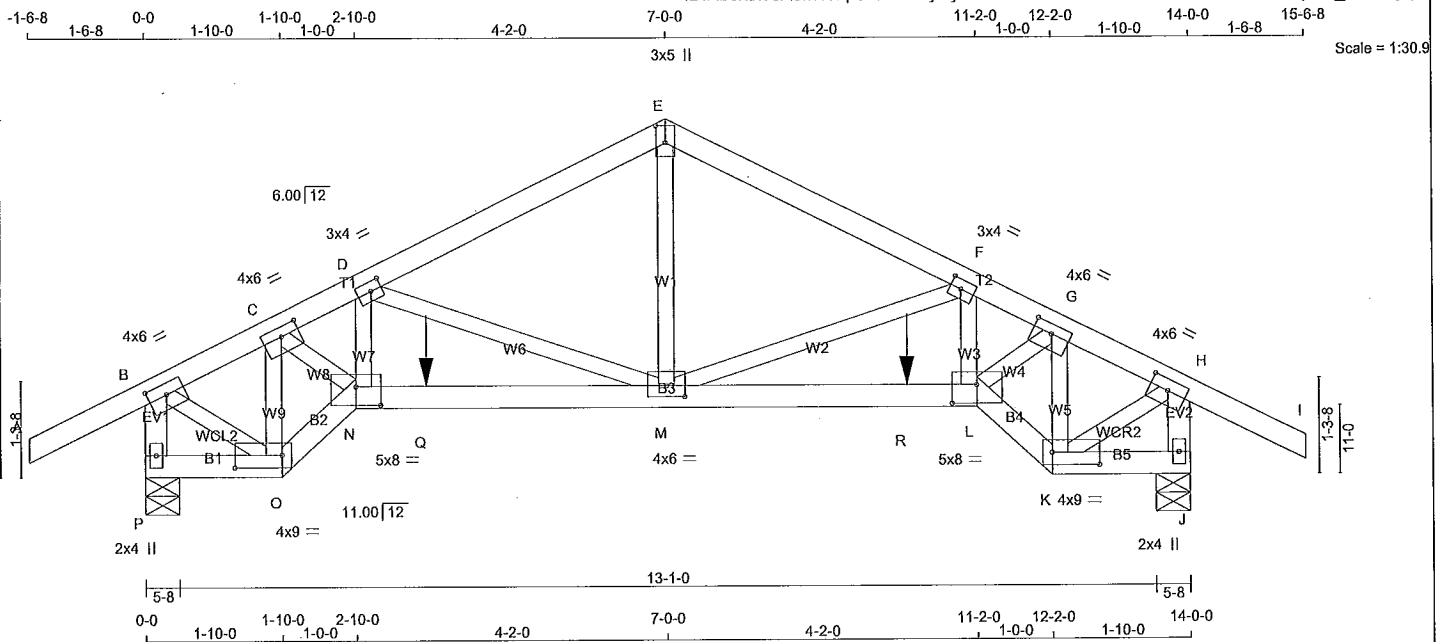
H7T

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TRUSS DESC.

Alpa Roof Truss, Maple

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ID:Rbextx08A5M1Jnp0FfBKG3yNySB-37klwWSHCco5I6YRZHfCwQAaDiJUVpFC\_nOabzjbp6

TOTAL WEIGHT = 60 lb

| LUMBER            | CHORDS | SIZE | LUMBER | DESCR. |
|-------------------|--------|------|--------|--------|
| N. L. G. A. RULES |        |      |        |        |
| A - E             | 2x4    | DRY  | No.2   | SPF    |
| E - I             | 2x4    | DRY  | No.2   | SPF    |
| P - B             | 2x4    | DRY  | No.2   | SPF    |
| J - H             | 2x4    | 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    |
| L - K             | 2x4    | DRY  | No.2   | SPF    |
| K - J             | 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 | 6.0 | 1.75 | 3.00 |
| C TMVW-I | MT20   | 4.0 | 6.0 | 1.50 | 3.00 |
| D TMVW-I | MT20   | 3.0 | 4.0 | 1.50 | 1.75 |
| E TTW+p  | MT20   | 3.0 | 5.0 | 2.75 | 1.50 |
| F TMVW-I | MT20   | 3.0 | 4.0 | 1.50 | 1.75 |
| G TMVW-I | MT20   | 4.0 | 6.0 | 1.50 | 3.00 |
| H TMVW-I | MT20   | 4.0 | 6.0 | 1.75 | 3.00 |
| J BMV1+p | MT20   | 2.0 | 4.0 |      |      |
| K BBWW-I | MT20   | 4.0 | 9.0 | 2.00 | 7.50 |
| L BBWW-I | MT20   | 5.0 | 8.0 | 3.00 | 4.00 |
| M BBWW-I | MT20   | 4.0 | 6.0 | 1.75 | 3.00 |
| N BBWW-I | MT20   | 5.0 | 8.0 | 3.00 | 4.00 |
| O BBWW-I | MT20   | 4.0 | 9.0 | 2.00 | 7.50 |
| P BMV1+p | MT20   | 2.0 | 4.0 |      |      |

## HANGERS NOTES

- 1) SPECIAL HANGER(S) OR CONNECTION(S) REQUIRED TO SUPPORT CONCENTRATED LOAD(S) 346.4 lbs FACTORED DOWN AT 3-9-4, AND 346.4 lbs FACTORED DOWN AT 10-2-12 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

|    | FACTORED GROSS REACTION | MAXIMUM FACTORED GROSS REACTION | INPUT BRG | REQRD BRG |
|----|-------------------------|---------------------------------|-----------|-----------|
| JT | VERT                    | HORZ                            | DOWN      | UPLIFT    |
| P  | 1368                    | 0                               | 1368      | 0         |
| J  | 1368                    | 0                               | 1368      | 0         |

## UNFACTORED REACTIONS

| JT | 1ST LCASE | SNOW    | LIVE  | PERM.LIVE | WIND  | DEAD    | SOIL  |
|----|-----------|---------|-------|-----------|-------|---------|-------|
| P  | 973       | 608 / 0 | 0 / 0 | 0 / 0     | 0 / 0 | 364 / 0 | 0 / 0 |
| J  | 973       | 608 / 0 | 0 / 0 | 0 / 0     | 0 / 0 | 364 / 0 | 0 / 0 |

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

## BRACING

TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 4.28 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) | MAX LC1 (LC) | MAX LC2 (LC) | MAX. UNBRACED LENGTH | WEBS      | MEMB.    | MAX. FACTORED FORCE (LBS) | MAX LC1 (LC) |
|--------|-----------|---------------------------|---------------------------|--------------|--------------|----------------------|-----------|----------|---------------------------|--------------|
| FR-TO  |           |                           |                           |              |              |                      | FR-TO     |          |                           |              |
| A-B    | 0 / 28    | -78.0                     | -78.0                     | 0.16 (1)     | 10.00        | M-E                  | 0 / 1148  | 0.28 (1) |                           |              |
| B-C    | -1203 / 0 | -78.0                     | -78.0                     | 0.17 (1)     | 5.60         | M-F                  | -732 / 0  | 0.24 (1) |                           |              |
| C-D    | -2321 / 0 | -78.0                     | -78.0                     | 0.19 (1)     | 4.28         | L-F                  | 0 / 259   | 0.06 (1) |                           |              |
| D-E    | -1601 / 0 | -78.0                     | -78.0                     | 0.23 (1)     | 4.96         | L-G                  | 0 / 1512  | 0.37 (1) |                           |              |
| E-F    | -1601 / 0 | -78.0                     | -78.0                     | 0.23 (1)     | 4.96         | K-G                  | -1395 / 0 | 0.23 (1) |                           |              |
| F-G    | -2321 / 0 | -78.0                     | -78.0                     | 0.19 (1)     | 4.28         | D-M                  | -732 / 0  | 0.24 (1) |                           |              |
| G-H    | -1203 / 0 | -78.0                     | -78.0                     | 0.17 (1)     | 5.60         | N-D                  | 0 / 259   | 0.06 (1) |                           |              |
| H-I    | 0 / 28    | -78.0                     | -78.0                     | 0.16 (1)     | 10.00        | C-N                  | 0 / 1512  | 0.37 (1) |                           |              |
| P-B    | -1351 / 0 | 0.0                       | 0.0                       | 0.15 (1)     | 6.94         | O-C                  | -1395 / 0 | 0.23 (1) |                           |              |
| J-H    | -1351 / 0 | 0.0                       | 0.0                       | 0.15 (1)     | 6.94         | B-O                  | 0 / 1170  | 0.29 (1) |                           |              |
| P-O    | 0 / 0     | -18.5                     | -18.5                     | 0.02 (4)     | 10.00        | K-H                  | 0 / 1170  | 0.29 (1) |                           |              |
| O-N    | 0 / 1299  | -18.5                     | -18.5                     | 0.23 (1)     | 10.00        |                      |           |          |                           |              |
| N-Q    | 0 / 2109  | -18.5                     | -18.5                     | 0.85 (1)     | 10.00        |                      |           |          |                           |              |
| Q-M    | 0 / 2109  | -86.8                     | -86.8                     | 0.85 (1)     | 10.00        |                      |           |          |                           |              |
| M-R    | 0 / 2109  | -86.8                     | -86.8                     | 0.85 (1)     | 10.00        |                      |           |          |                           |              |
| R-L    | 0 / 2109  | -18.5                     | -18.5                     | 0.85 (1)     | 10.00        |                      |           |          |                           |              |
| L-K    | 0 / 1299  | -18.5                     | -18.5                     | 0.23 (1)     | 10.00        |                      |           |          |                           |              |
| K-J    | 0 / 0     | -18.5                     | -18.5                     | 0.02 (4)     | 10.00        |                      |           |          |                           |              |

## FACTORED CONCENTRATED LOADS (LBS)

| JT | LOC.    | LC1  | MAX- | MAX+ | FACE  | DIR. | TYPE  |
|----|---------|------|------|------|-------|------|-------|
| Q  | 3-9-4   | -346 | -346 | ---  | FRONT | VERT | TOTAL |
| R  | 10-2-12 | -346 | -346 | ---  | 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

GIRDER TYPE: CStdGirder  
START DISTANCE = 3-9-4  
START SPAN CARRIED = 4-10-0  
END DISTANCE = 10-2-12  
END SPAN CARRIED = 4-10-0  
END WALL WIDTH = 0-0  
APPLIED TO FRONT SIDE OF BOTTOM CHORD.  
- ADD'L. LOADS BASED ON 55 % OF GSI..

## \*\*\* 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, NBC 2010, NBC 2015

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

## DESIGN ASSUMPTIONS

- OVERHANG NOT TO BE ALTERED OR CUT OFF.

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

ALLOWABLE DEFL.(LL) = L/360 (0.47")  
CALCULATED VERT. DEFL.(LL) = L/999 (0.07")  
ALLOWABLE DEFL.(TL) = L/360 (0.47")  
CALCULATED VERT. DEFL.(TL) = L/999 (0.15")

CSI: TC=0.23/1.00 (E-F:1), BC=0.85/1.00 (L-M:1), WB=0.37/1.00 (G-L:1), SSI=0.28/1.00 (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

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

NAIL VALUES  
PLATE GRIP(DRY) SHEAR SECTION  
(PSI) (PLI) (PLI)  
MAX MIN MAX MIN MAX MIN  
MT20 618 354 1667 788 1987 1656  
A-18023933

CONTINUED ON PAGE 2

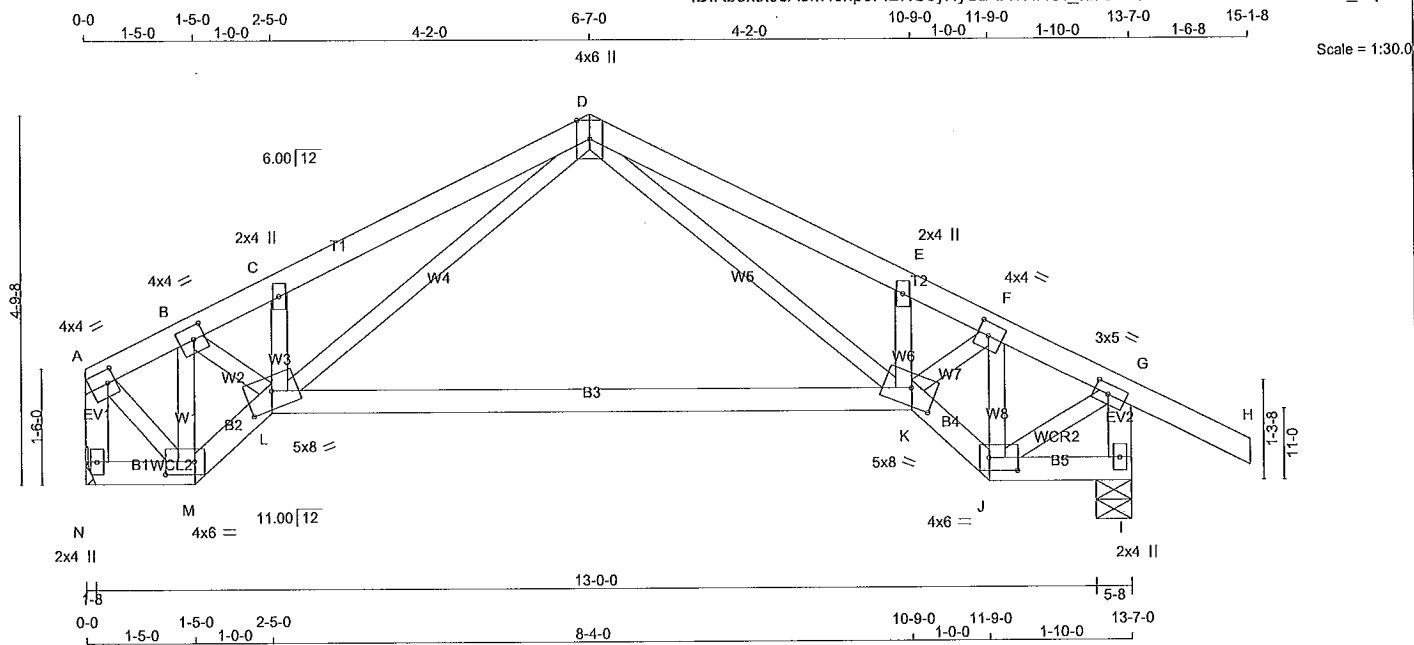


| JOB NAME | TRUSS NAME | QUANTITY | PLY | JOB DESC.   | DRWG NO. |
|----------|------------|----------|-----|-------------|----------|
| 292646   | H7TS       | 3        | 1   | TRUSS DESC. |          |

Alpa Roof Truss, Maple

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ID:Rbextx08A5M1Jnp0FfBKg3yNySB-IRTHROF\_tu76X81s84V35SwET3vnlz30zrh1\_uzjb0w



TOTAL WEIGHT = 3 X 56 = 168 lb

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

DRY: SEASONED LUMBER.

| PLATES (table is in inches) | JT TYPE | PLATES | W   | LEN | Y    | X    |
|-----------------------------|---------|--------|-----|-----|------|------|
| A                           | TMVW-t  | MT20   | 4.0 | 4.0 | 2.00 | 1.25 |
| B                           | TMVW-t  | MT20   | 4.0 | 4.0 | 2.00 | 1.75 |
| C                           | TMW+w   | MT20   | 2.0 | 4.0 |      |      |
| D                           | TTWW+p  | MT20   | 4.0 | 6.0 | Edge |      |
| E                           | TMW+w   | MT20   | 2.0 | 4.0 |      |      |
| F                           | TMVW-t  | MT20   | 4.0 | 4.0 | 2.00 | 1.75 |
| G                           | TMVW-t  | MT20   | 3.0 | 5.0 | 1.50 | 2.25 |
| I                           | BMV1+p  | MT20   | 2.0 | 4.0 |      |      |
| J                           | BBWW-t  | MT20   | 4.0 | 6.0 | 2.00 | 4.50 |
| K                           | BBWWW-m | MT20   | 5.0 | 8.0 | 2.75 | 3.75 |
| L                           | BBWWW-m | MT20   | 5.0 | 8.0 | 2.75 | 4.00 |
| M                           | BBWW-t  | 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 | UPLIFT    | IN-SX            | IN-SX               |  |
| N        |  | 648                     | 0    | 648                             | 0    | 0         | HANGER BY OTHERS | MIN. SEAT SIZE: 1-8 |  |
| I        |  | 788                     | 0    | 788                             | 0    | 0         | 5-8              | 1-8                 |  |

#### UNFACTORED REACTIONS

| 1ST CASE |          | MAX/MIN. COMPONENT REACTIONS |       |           |       |         |       |
|----------|----------|------------------------------|-------|-----------|-------|---------|-------|
| JT       | COMBINED | SNOW                         | LIVE  | PERM.LIVE | WIND  | DEAD    | SOIL  |
| N        | 462      | 281 / 0                      | 0 / 0 | 0 / 0     | 0 / 0 | 181 / 0 | 0 / 0 |
| I        | 559      | 357 / 0                      | 0 / 0 | 0 / 0     | 0 / 0 | 202 / 0 | 0 / 0 |

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

#### BRACING

TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 5.74 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) | LOAC  | MAX CSI (LC) | MAX. UNBRAC | MEMB. | MAX. FACTORED FORCE (LBS) | MAX FACTORED CSI (LC) |  |
| FR-TO  |                           | FROM                      | TO    |              | LENGTH      | FR-TO |                           |                       |  |
| A-B    | -485 / 0                  | -78.0                     | -78.0 | 0.04 (1)     | 6.25        | M-B   | -684 / 0                  | 0.10 (1)              |  |
| B-C    | -1007 / 0                 | -78.0                     | -78.0 | 0.11 (1)     | 6.12        | B-L   | 0 / 721                   | 0.16 (1)              |  |
| C-D    | -1077 / 0                 | -78.0                     | -78.0 | 0.17 (1)     | 5.90        | L-C   | -343 / 0                  | 0.05 (1)              |  |
| D-E    | -1156 / 0                 | -78.0                     | -78.0 | 0.17 (1)     | 5.74        | L-D   | 0 / 505                   | 0.11 (1)              |  |
| E-F    | -1081 / 0                 | -78.0                     | -78.0 | 0.11 (1)     | 5.96        | D-K   | 0 / 598                   | 0.13 (1)              |  |
| F-G    | -579 / 0                  | -78.0                     | -78.0 | 0.11 (1)     | 6.25        | K-E   | -354 / 0                  | 0.05 (1)              |  |
| G-H    | 0 / 28                    | -78.0                     | -78.0 | 0.14 (1)     | 10.00       | K-F   | 0 / 733                   | 0.16 (1)              |  |
| N-A    | -635 / 0                  | 0.0                       | 0.0   | 0.07 (1)     | 7.81        | J-F   | -639 / 0                  | 0.10 (1)              |  |
| I-G    | -771 / 0                  | 0.0                       | 0.0   | 0.08 (1)     | 7.81        | A-M   | 0 / 551                   | 0.12 (1)              |  |
|        |                           |                           |       |              |             | J-G   | 0 / 547                   | 0.12 (1)              |  |
| N-M    | 0 / 0                     | -18.5                     | -18.5 | 0.01 (4)     | 10.00       |       |                           |                       |  |
| M-L    | 0 / 525                   | -18.5                     | -18.5 | 0.09 (1)     | 10.00       |       |                           |                       |  |
| L-K    | 0 / 569                   | -18.5                     | -18.5 | 0.42 (4)     | 10.00       |       |                           |                       |  |
| K-J    | 0 / 609                   | -18.5                     | -18.5 | 0.10 (1)     | 10.00       |       |                           |                       |  |
| J-I    | 0 / 0                     | -18.5                     | -18.5 | 0.02 (4)     | 10.00       |       |                           |                       |  |

#### DESIGN CRITERIA

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

SPACING = 24.0 IN. C/C

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

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

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

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

ALLOWABLE DEFL.(LL)= L/360 (0.45")  
CALCULATED VERT. DEFL.(LL) = L/999 (0.02")  
ALLOWABLE DEFL.(TL)= L/360 (0.45")  
CALCULATED VERT. DEFL.(TL) = L/630 (0.26")

CSI: TC=0.17/1.00 (D-E:1), BC=0.42/1.00 (K-L:4), WB=0.16/1.00 (F-K:1), SSI=0.13/1.00 (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.

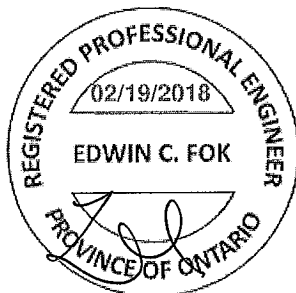
NAIL VALUES  
PLATE GRIP(DRY) SHEAR SECTION  
(PSI) (PLI) (PLI)  
MAX MIN MAX MIN MAX MIN  
MT20 618 354 1667 788 1987 1656

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.89 (L) (INPUT = 0.90 )  
JSI METAL= 0.24 (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



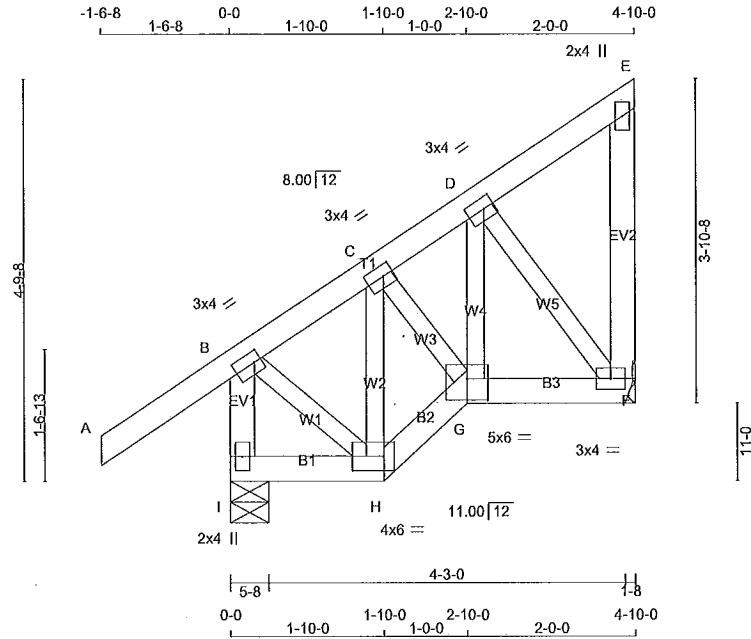
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|          |            |          |     |             |          |
|----------|------------|----------|-----|-------------|----------|
| JOB NAME | TRUSS NAME | QUANTITY | PLY | JOB DESC.   | DRWG NO. |
| 292646   | J2T        | 1        | 1   | TRUSS DESC. |          |

Alpa Roof Truss, Maple

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ID:Rbextx08A5M1Jnp0FfBKG3yNySB-Zr9gWCBfPPaJp4DRBGJckd7wig0V\_6wFWZ8Mjz|ble



Scale = 1:27.5

TOTAL WEIGHT = 28 lb

| LUMBER                |        |      |        |     | DESCR. |
|-----------------------|--------|------|--------|-----|--------|
| N. L. G. A. RULES     | CHORDS | SIZE | LUMBER |     |        |
| I - B                 | 2x4    | DRY  | No.2   | SPF |        |
| A - E                 | 2x4    | DRY  | No.2   | SPF |        |
| F - E                 | 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       |
| B                           | TMVW-I | MT20   | 3.0 | 4.0 | 1.50 1.00 |
| C                           | TMWW-I | MT20   | 3.0 | 4.0 | 1.50 1.50 |
| D                           | TMWW-I | MT20   | 3.0 | 4.0 | 1.50 1.50 |
| E                           | TMV+p  | MT20   | 2.0 | 4.0 |           |
| F                           | BMVW-I | MT20   | 3.0 | 4.0 |           |
| G                           | BBWW-I | MT20   | 5.0 | 6.0 | 3.00 3.00 |
| H                           | BBWW-I | MT20   | 4.0 | 6.0 | 2.00 4.50 |
| I                           | BMV1+p | MT20   | 2.0 | 4.0 |           |

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

| BEARINGS            |      | FACTORED GROSS REACTION |  | MAXIMUM FACTORED GROSS REACTION |      | INPUT BRG |       | REQRD BRG        |       |
|---------------------|------|-------------------------|--|---------------------------------|------|-----------|-------|------------------|-------|
| JT                  | VERT | HORZ                    |  | DOWN                            | HORZ | IN-SX     | IN-SX | IN-SX            | IN-SX |
| I                   | 381  | 0                       |  | 381                             | 0    | 5-8       | 1-8   |                  |       |
| F                   | 212  | 0                       |  | 212                             | 0    |           |       | HANGER BY OTHERS |       |
| MIN. SEAT SIZE: 1-8 |      |                         |  |                                 |      |           |       |                  |       |

UNFACTORED REACTIONS

| JT | 1ST LCASE | MAX./MIN. COMPONENT REACTIONS |       |           |       |        |       |
|----|-----------|-------------------------------|-------|-----------|-------|--------|-------|
|    | COMBINED  | SNOW                          | LIVE  | PERM.LIVE | WIND  | DEAD   | SOIL  |
| I  | 269       | 181 / 0                       | 0 / 0 | 0 / 0     | 0 / 0 | 88 / 0 | 0 / 0 |
| F  | 152       | 90 / 0                        | 0 / 0 | 0 / 0     | 0 / 0 | 61 / 0 | 0 / 0 |

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

BRACING

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

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

LOADING

TOTAL LOAD CASES: (4)

| CHORDS |                           |                           |                  | WEBS  |                           |                             |                              |
|--------|---------------------------|---------------------------|------------------|-------|---------------------------|-----------------------------|------------------------------|
| MEMB.  | MAX. FACTORED FORCE (LBS) | FACTORED VERT. LOAD (PLF) | LC1 MAX CSI (LC) | MEMB. | MAX. FACTORED FORCE (LBS) | MAX. FACTORED UNBRAC LENGTH | MEMB. MAX. FACTORED CSI (LC) |
| FR-TO  |                           | FROM                      | TO               | FR-TO |                           |                             |                              |
| I-B    | -364 / 0                  | 0.0                       | 0.0 0.04 (1)     | 7.81  | B-H                       | 0 / 91                      | 0.02 (1)                     |
| A-B    | 0 / 35                    | -78.0                     | -78.0 0.15 (1)   | 10.00 | H-C                       | -91 / 0                     | 0.02 (1)                     |
| B-C    | -129 / 0                  | -78.0                     | -78.0 0.14 (1)   | 6.25  | C-G                       | 0 / 69                      | 0.02 (1)                     |
| C-D    | -117 / 0                  | -78.0                     | -78.0 0.04 (1)   | 6.25  | G-D                       | 0 / 46                      | 0.02 (4)                     |
| D-E    | -8 / 0                    | -78.0                     | -78.0 0.04 (1)   | 10.00 | D-F                       | -175 / 0                    | 0.03 (1)                     |
| F-E    | -60 / 0                   | 0.0                       | 0.0 0.01 (1)     | 7.81  |                           |                             |                              |
| I-H    | 0 / 0                     | -18.5                     | -18.5 0.02 (4)   | 10.00 |                           |                             |                              |
| H-G    | 0 / 98                    | -18.5                     | -18.5 0.02 (1)   | 10.00 |                           |                             |                              |
| G-F    | 0 / 112                   | -18.5                     | -18.5 0.03 (4)   | 10.00 |                           |                             |                              |

DESIGN CRITERIA

SPECIFIED LOADS:

TOP CH. LL = 21.0 PSF  
DL = 6.0 PSF

BOT CH. LL = 0.0 PSF  
DL = 7.4 PSF

TOTAL LOAD = 34.4 PSF

SPACING = 24.0 IN. C/C

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

THIS DESIGN COMPLIES WITH:

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

DESIGN ASSUMPTIONS

- OVERHANG NOT TO BE ALTERED OR CUT OFF.

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

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

CSI: TC=0.15/1.00 (A-B:1), BC=0.03/1.00 (F-G:4), WB=0.03/1.00 (D-F:1), SSI=0.09/1.00 (B-C:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

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

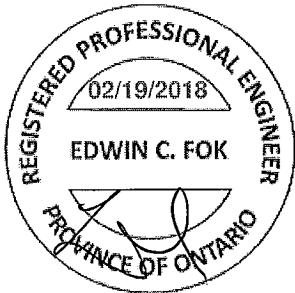
| NAIL VALUES | PLATE GRIP(DRY) | SHEAR (PSI) | SECTION (PLI)      |
|-------------|-----------------|-------------|--------------------|
|             | MAX             | MIN         | MAX MIN            |
| MT20        | 618             | 354         | 1667 788 1987 1656 |

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

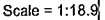
JSI GRIP= 0.33 (B) (INPUT = 0.90 )  
JSI METAL = 0.09 (B) (INPUT = 1.00 )

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

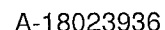


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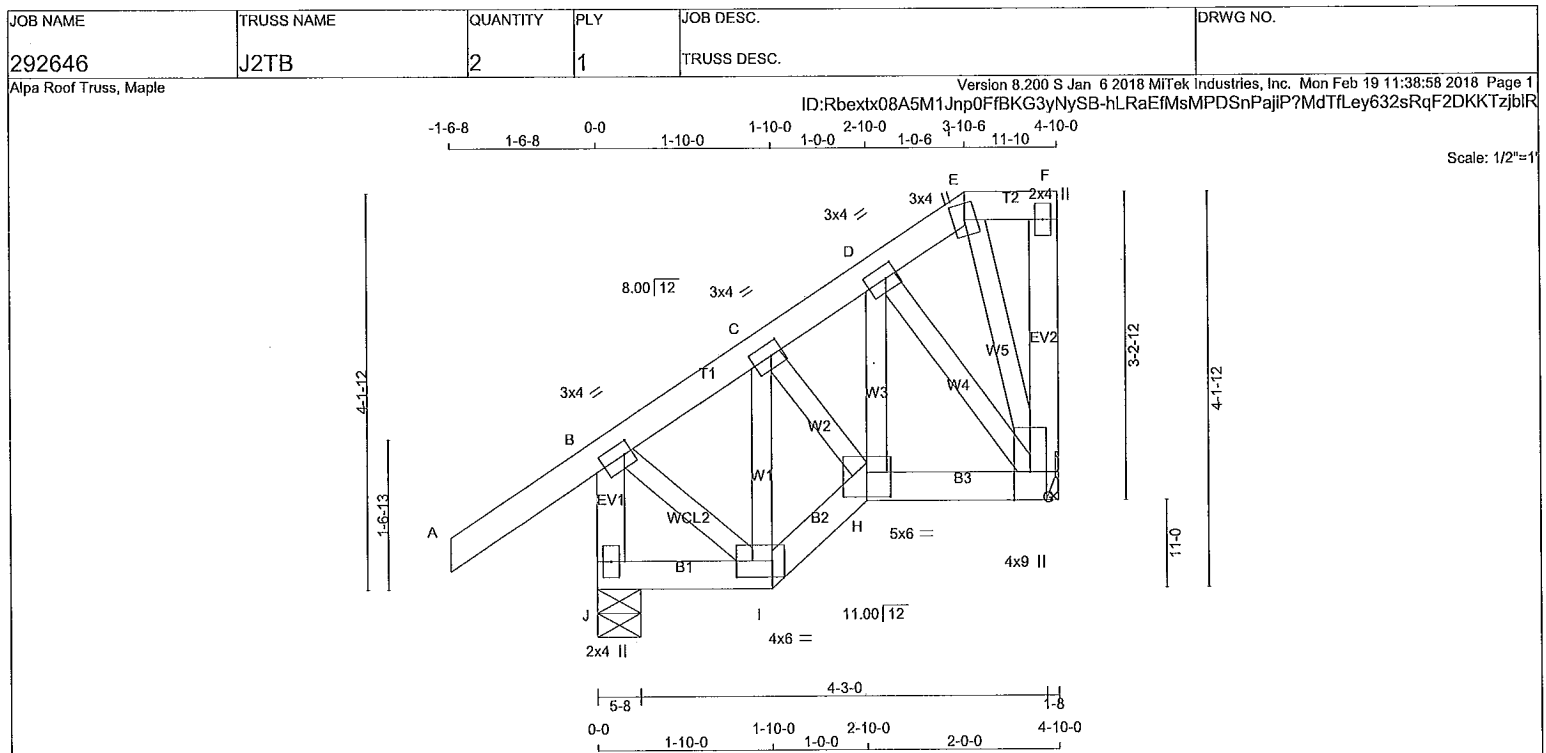
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**TOTAL WEIGHT = 2 X 25 = 49 lb**







TOTAL WEIGHT = 2 X 29 = 58 lb

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

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   | 3.0 | 4.0 | 1.50 | 1.00 |
| C                           | TMVW-I   | MT20   | 3.0 | 4.0 | 1.50 | 1.50 |
| D                           | TMVW-I   | MT20   | 3.0 | 4.0 | 1.50 | 1.50 |
| E                           | TTW+m    | MT20   | 3.0 | 4.0 |      |      |
| F                           | TMV+p    | MT20   | 2.0 | 4.0 |      |      |
| G                           | BMVWV1+p | MT20   | 4.0 | 9.0 | Edge |      |
| H                           | BBWV-I   | MT20   | 5.0 | 6.0 | 3.00 | 3.00 |
| I                           | BBWV-I   | MT20   | 4.0 | 6.0 | 2.00 | 4.50 |
| 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

| JT | FACTORED GROSS REACTION |      | MAXIMUM FACTORED GROSS REACTION |      | INPUT BRG | REQRD BRG |
|----|-------------------------|------|---------------------------------|------|-----------|-----------|
|    | VERT                    | HORZ | DOWN                            | HORZ |           |           |
| G  | 212                     | 0    | 212                             | 0    | 0         | 0         |
| J  | 381                     | 0    | 381                             | 0    | 5-8       | 1-8       |

#### UNFACTORED REACTIONS

| JT | 1ST LCASE COMBINED | MAX./MIN. COMPONENT REACTIONS |      |           |      |      |      |
|----|--------------------|-------------------------------|------|-----------|------|------|------|
|    |                    | SNOW                          | LIVE | PERM.LIVE | WIND | DEAD | SOIL |
| G  | 152                | 90/0                          | 0/0  | 0/0       | 0/0  | 61/0 | 0/0  |
| J  | 269                | 181/0                         | 0/0  | 0/0       | 0/0  | 88/0 | 0/0  |

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

#### BRACING

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

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

#### LOADING

TOTAL LOAD CASES: (4)

| MEMB. | MAX. FACTORED FORCE (LBS) | FACTORED VERT. LOAD |       | MAX. UNBRAC LENGTH | MEMB. | MAX. FACTORED FORCE (LBS) | MAX. CSI (LC) |
|-------|---------------------------|---------------------|-------|--------------------|-------|---------------------------|---------------|
|       |                           | FROM                | TO    |                    |       |                           |               |
| FR-TO |                           |                     |       |                    |       |                           |               |
| A-B   | 0/35                      | -78.0               | -78.0 | 0.15 (1)           | 10.00 | I-C                       | -93/0         |
| B-C   | -130/0                    | -78.0               | -78.0 | 0.14 (1)           | 6.25  | C-H                       | 0/56          |
| C-D   | -118/0                    | -78.0               | -78.0 | 0.02 (1)           | 6.25  | H-D                       | 0/52          |
| D-E   | -27/0                     | -78.0               | -78.0 | 0.01 (1)           | 6.25  | D-G                       | -138/0        |
| E-F   | 0/0                       | -78.0               | -78.0 | 0.01 (1)           | 10.00 | E-G                       | -54/0         |
| G-F   | -38/0                     | 0.0                 | 0.0   | 0.01 (1)           | 7.81  | B-I                       | 0/93          |
| J-B   | -364/0                    | 0.0                 | 0.0   | 0.04 (1)           | 7.81  |                           |               |
| J-I   | 0/0                       | -18.5               | -18.5 | 0.02 (4)           | 10.00 |                           |               |
| I-H   | 0/99                      | -18.5               | -18.5 | 0.02 (1)           | 10.00 |                           |               |
| H-G   | 0/105                     | -18.5               | -18.5 | 0.03 (4)           | 10.00 |                           |               |

#### DESIGN CRITERIA

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

SPACING = 24.0 IN. C/C

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

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

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

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

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

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

CSI: TC=0.15/1.00 (A-B:1), BC=0.03/1.00 (G-H:4), WB=0.03/1.00 (D-G:1), SSI=0.09/1.00 (B-C:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

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

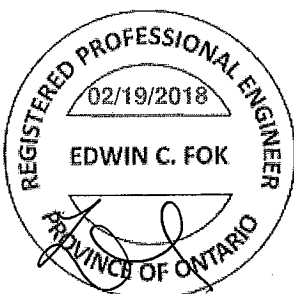
| NAIL VALUES | PLATE GRIP(DRY) (PSI) | SHEAR (PLI) | SECTION (PLI) |
|-------------|-----------------------|-------------|---------------|
| MT20        | 618                   | 354         | 1667          |
|             | 788                   | 1987        | 1656          |

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.33 (B) (INPUT = 0.90)  
JSI METAL= 0.09 (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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|                                    |         |        |      |      |      |      |                                   |                           |                           |             |                   |       |                           |                                                                                                   |                                                 |  |  |
|------------------------------------|---------|--------|------|------|------|------|-----------------------------------|---------------------------|---------------------------|-------------|-------------------|-------|---------------------------|---------------------------------------------------------------------------------------------------|-------------------------------------------------|--|--|
| <b>PLATES (table is in inches)</b> |         |        |      |      |      |      | <b>LOADING</b>                    |                           |                           |             |                   |       |                           | COMPANION LIVE LOAD FACTOR = 1.00                                                                 |                                                 |  |  |
| JT                                 | TYPE    | PLATES | W    | LEN  | Y    | X    | TOTAL LOAD CASES: (4)             |                           |                           |             |                   |       |                           | AUTOSOLVE HEELS OFF                                                                               |                                                 |  |  |
| R                                  | BMWW-t  | MT20   | 4.0  | 4.0  |      |      | <b>CHORDS</b>                     |                           |                           | <b>WEBS</b> |                   |       |                           | TRUSS PLATE MANUFACTURER IS NOT RESPONSIBLE FOR QUALITY CONTROL IN THE TRUSS MANUFACTURING PLANT. |                                                 |  |  |
| S                                  | BMWW-t  | MT20   | 5.0  | 6.0  | 3.00 | 1.75 | MEMB.                             | MAX. FACTORED FORCE (LBS) | FACTORED VERT. LOAD (PLF) | LC1 (LC)    | MAX. UNBRAC (LBS) | MEMB. | MAX. FACTORED FORCE (LBS) | MAX. CSI (LC)                                                                                     | NAIL VALUES                                     |  |  |
| T                                  | BBWW-h  | MT20   | 10.0 | 12.0 | 3.00 | 7.25 | FR-TO                             |                           | FROM TO                   |             | LENGTH            | FR-TO |                           |                                                                                                   | PLATE GRIP(DRY) SHEAR SECTION (PSI) (PLI) (PLI) |  |  |
| U                                  | BBWW-t  | MT20   | 10.0 | 12.0 | 5.00 | 5.50 | Q-P                               | 0 / 0                     | -36.4 -36.4               | 0.08 (1)    | 10.00             |       |                           | MAX MIN MAX MIN MAX MIN                                                                           |                                                 |  |  |
| V                                  | BMWWW-t | MT20   | 5.0  | 6.0  |      |      | FACTORED CONCENTRATED LOADS (LBS) |                           |                           |             |                   |       |                           | MT20 650 371 1747 788 1987 1873                                                                   |                                                 |  |  |
| W                                  | BBWW+p  | MT18HS | 10.0 | 14.0 | Edge | 4.75 | JT                                | LOC.                      | LC1                       | MAX-        | MAX+              | FACE  | DIR.                      | TYPE                                                                                              | MT18HS 586 403 2455 1382 3163 3004              |  |  |
| X                                  | BBWW+h  | MT20   | 10.0 | 16.0 | 3.25 | 5.50 | D                                 | 8-4-10                    | -477                      | -477        | ---               | FRONT | VERT                      | TOTAL                                                                                             | PLATE PLACEMENT TOL. = 0.250 inches             |  |  |
| Y                                  | BMWW-t  | MT20   | 4.0  | 4.0  |      |      | L                                 | 30-7-6                    | -477                      | -477        | ---               | FRONT | VERT                      | TOTAL                                                                                             | PLATE ROTATION TOL. = 5.0 Deg.                  |  |  |
| Z                                  | BMWW-t  | MT20   | 6.0  | 7.0  | 3.00 | 1.75 |                                   |                           |                           |             |                   |       |                           | JSI GRIP= 0.90 (U) (INPUT = 0.90 )                                                                |                                                 |  |  |
| AA                                 | BMV1-t  | MT20   | 6.0  | 9.0  | 5.50 |      |                                   |                           |                           |             |                   |       |                           | JSI METAL= 0.99 (U) (INPUT = 1.00 )                                                               |                                                 |  |  |

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) 476.7 lbs FACTORED DOWN AT 8-4-10, AND 476.7 lbs FACTORED DOWN AT 30-7-6 ON TOP CHORD. DESIGN FOR UNSPECIFIED CONNECTION(S) IS DELEGATED TO THE BUILDING DESIGNER.

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

REGISTERED PROFESSIONAL ENGINEER

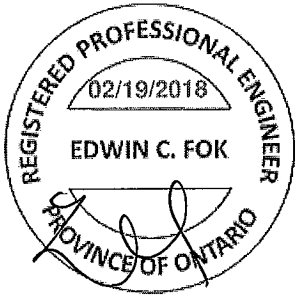
02/19/2018

EDWIN C. FOK

PROVINCE OF ONTARIO

A-18 023938(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

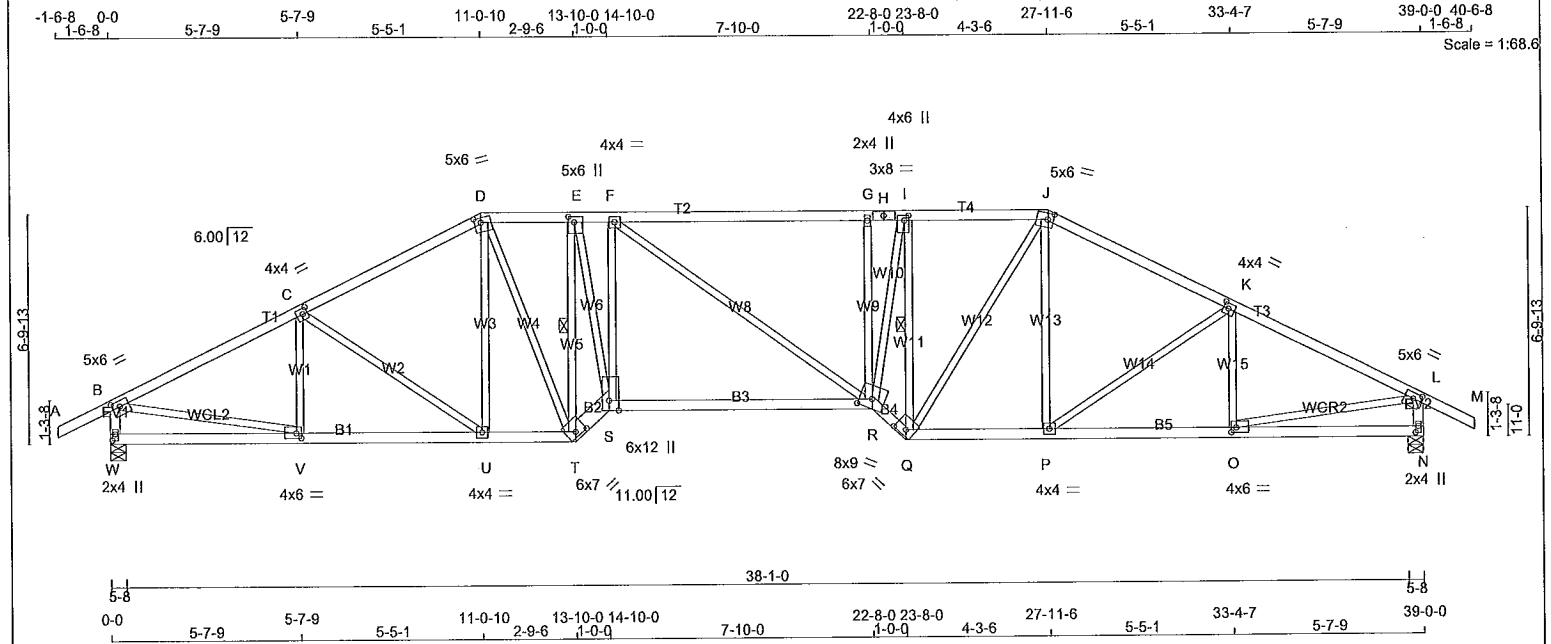


A-18 023938(2)

| JOB NAME | TRUSS NAME | QUANTITY | PLY | JOB DESC.   | DRWG NO. |
|----------|------------|----------|-----|-------------|----------|
| 292647   | H2TA       | 1        | 1   | TRUSS DESC. |          |

Alpa Roof Truss, Maple

Version 8.200 S Jan 6 2018 MiTek Industries, Inc. Mon Feb 19 11:47:29 2018 Page 1  
ID:Rbextx08A5M1Jnp0FbKG3yNySB-DepmUNX00Pcybx8w8EgBrEKYCxL5H112I2VtmLzjbdS



TOTAL WEIGHT = 182 lb

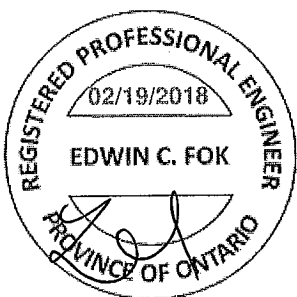
| LUMBER          | N. L. G. A. RULES | SIZE | LUMBER | DESCR. |
|-----------------|-------------------|------|--------|--------|
| CHORDS          |                   |      |        |        |
| A - D           | 2x4               | DRY  | No.2   | SPF    |
| D - H           | 2x4               | DRY  | No.2   | SPF    |
| H - J           | 2x4               | DRY  | No.2   | SPF    |
| J - M           | 2x4               | DRY  | No.2   | SPF    |
| W - B           | 2x4               | DRY  | No.2   | SPF    |
| N - L           | 2x4               | DRY  | No.2   | SPF    |
| W - T           | 2x4               | DRY  | No.2   | SPF    |
| T - S           | 2x6               | DRY  | No.2   | SPF    |
| S - R           | 2x4               | DRY  | No.2   | SPF    |
| R - Q           | 2x4               | DRY  | No.2   | SPF    |
| Q - N           | 2x4               | DRY  | No.2   | SPF    |
| ALL WEBS EXCEPT | 2x3               | DRY  | No.2   | SPF    |

DRY: SEASONED LUMBER.

#### PLATES (table is in inches)

| JT TYPE  | PLATES | W   | LEN  | Y         | X    |
|----------|--------|-----|------|-----------|------|
| B TMVW-t | MT20   | 5.0 | 6.0  | 2.00      | 2.75 |
| C TMWW-t | MT20   | 4.0 | 4.0  | 2.00      | 1.75 |
| D TTWW-m | MT20   | 5.0 | 6.0  | 1.75      | 2.25 |
| E TMVW-t | MT20   | 5.0 | 6.0  | 2.00      | 2.00 |
| F TMVW-t | MT20   | 4.0 | 4.0  |           |      |
| G TMVW-w | MT20   | 2.0 | 4.0  |           |      |
| H TS-t   | MT20   | 3.0 | 8.0  |           |      |
| I TMVW-t | MT20   | 4.0 | 6.0  | 1.75      | 1.50 |
| J TTWW-m | MT20   | 5.0 | 6.0  | 2.25      | 2.00 |
| K TMVW-t | MT20   | 4.0 | 4.0  | 2.00      | 1.75 |
| L TMVW-t | MT20   | 5.0 | 6.0  | 2.00      | 2.75 |
| N BMV1+p | MT20   | 2.0 | 4.0  | 2.25      | 1.00 |
| O BMVW-t | MT20   | 4.0 | 6.0  | 1.75      | 1.75 |
| P BMVW-t | MT20   | 4.0 | 4.0  |           |      |
| Q BBVW-h | MT20   | 6.0 | 7.0  | 2.00      | 4.00 |
| R BBVW-m | MT20   | 8.0 | 9.0  | 3.25      | 4.50 |
| S BBVW+p | MT20   | 6.0 | 12.0 | Edge 3.50 |      |
| T BBVW-h | MT20   | 6.0 | 7.0  | 1.75      | 3.75 |
| U BMVW-t | MT20   | 4.0 | 4.0  |           |      |
| V BMVW-t | MT20   | 4.0 | 6.0  | 1.75      | 1.75 |
| W BMV1+p | MT20   | 2.0 | 4.0  | 2.25      | 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



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

| BEARINGS | FACTORED       |      | MAXIMUM FACTORED |      | INPUT BRG | REQRD BRG |
|----------|----------------|------|------------------|------|-----------|-----------|
|          | GROSS REACTION | DOWN | GROSS REACTION   | UP   |           |           |
| JT       | VERT           | HORZ | DOWN             | HORZ | IN-SX     | IN-SX     |
| W        | 2006           | 0    | 2006             | 0    | 5-8       | 3-0       |
| N        | 2006           | 0    | 2006             | 0    | 5-8       | 3-0       |

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

#### UNFACTORED REACTIONS

| 1ST LC CASE |          | MAX./MIN. COMPONENT REACTIONS |       |           |       |         |       |
|-------------|----------|-------------------------------|-------|-----------|-------|---------|-------|
| JT          | COMBINED | SNOW                          | LIVE  | PERM.LIVE | WIND  | DEAD    | SOIL  |
| W           | 1428     | 886 / 0                       | 0 / 0 | 0 / 0     | 0 / 0 | 542 / 0 | 0 / 0 |
| N           | 1428     | 886 / 0                       | 0 / 0 | 0 / 0     | 0 / 0 | 542 / 0 | 0 / 0 |

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

#### BRACING

TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 3.38 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-T, I-Q.

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

#### LOADING

TOTAL LOAD CASES: (4)

| CHORDS        |             |                  |         |          | WEBS                 |               |             |               |  |
|---------------|-------------|------------------|---------|----------|----------------------|---------------|-------------|---------------|--|
| MAX. FACTORED |             | FACTORED         |         |          | MAX. UNBRACED LENGTH | MAX. FACTORED |             | MAX. CSI (LC) |  |
| MEMB.         | FORCE (LBS) | VERT. LOAD (PLF) | LC1 MAX | LC2 MAX  |                      | MEMB.         | FORCE (LBS) |               |  |
| FR-TO         |             | FROM             | TO      | CSI (LC) |                      | FR-TO         |             |               |  |
| A-B           | 0 / 28      | -78.0            | -78.0   | 0.14 (1) | 10.00                | V-C           | -322 / 0    | 0.08 (1)      |  |
| B-C           | -2737 / 0   | -78.0            | -78.0   | 0.43 (1) | 3.84                 | C-U           | -216 / 0    | 0.18 (1)      |  |
| C-D           | -2584 / 0   | -78.0            | -78.0   | 0.40 (1) | 3.96                 | U-D           | 0 / 143     | 0.04 (4)      |  |
| D-E           | -2614 / 0   | -78.0            | -78.0   | 0.14 (1) | 4.19                 | D-T           | 0 / 814     | 0.18 (1)      |  |
| E-F           | -3176 / 0   | -78.0            | -78.0   | 0.41 (1) | 3.55                 | T-E           | -3090 / 0   | 0.92 (1)      |  |
| F-G           | -3256 / 0   | -78.0            | -78.0   | 0.69 (1) | 3.38                 | E-S           | 0 / 3186    | 0.72 (1)      |  |
| G-H           | -3247 / 0   | -78.0            | -78.0   | 0.41 (1) | 3.50                 | S-F           | -606 / 0    | 0.33 (1)      |  |
| H-I           | -3247 / 0   | -78.0            | -78.0   | 0.41 (1) | 3.50                 | F-R           | 0 / 85      | 0.02 (1)      |  |
| I-J           | -2714 / 0   | -78.0            | -78.0   | 0.24 (1) | 4.03                 | R-G           | -485 / 0    | 0.26 (1)      |  |
| J-K           | -2584 / 0   | -78.0            | -78.0   | 0.40 (1) | 3.96                 | R-I           | 0 / 2994    | 0.67 (1)      |  |
| K-L           | -2736 / 0   | -78.0            | -78.0   | 0.43 (1) | 3.84                 | Q-I           | -3031 / 0   | 0.90 (1)      |  |
| L-M           | 0 / 28      | -78.0            | -78.0   | 0.14 (1) | 10.00                | Q-J           | 0 / 765     | 0.17 (1)      |  |
| W-B           | -1961 / 0   | 0.0              | 0.0     | 0.20 (1) | 6.01                 | P-J           | 0 / 209     | 0.05 (4)      |  |
| N-L           | -1960 / 0   | 0.0              | 0.0     | 0.20 (1) | 6.01                 | P-K           | -215 / 0    | 0.18 (1)      |  |
|               |             |                  |         |          |                      | K-O           | -323 / 0    | 0.08 (1)      |  |
| W-V           | 0 / 0       | -18.5            | -18.5   | 0.13 (4) | 10.00                | B-V           | 0 / 2504    | 0.56 (1)      |  |
| V-U           | 0 / 2467    | -18.5            | -18.5   | 0.45 (1) | 10.00                | O-L           | 0 / 2504    | 0.56 (1)      |  |
| U-T           | 0 / 2292    | -18.5            | -18.5   | 0.42 (1) | 10.00                |               |             |               |  |
| T-S           | 0 / 3600    | -18.5            | -18.5   | 0.43 (1) | 10.00                |               |             |               |  |
| S-R           | 0 / 3187    | -18.5            | -18.5   | 0.71 (1) | 10.00                |               |             |               |  |
| R-Q           | 0 / 3616    | -18.5            | -18.5   | 0.58 (1) | 10.00                |               |             |               |  |
| Q-P           | 0 / 2293    | -18.5            | -18.5   | 0.43 (1) | 10.00                |               |             |               |  |
| P-O           | 0 / 2467    | -18.5            | -18.5   | 0.45 (1) | 10.00                |               |             |               |  |
| O-N           | 0 / 0       | -18.5            | -18.5   | 0.12 (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, NBC 2015

THIS DESIGN COMPLIES WITH:  
- PART 9 OF OBC 2018  
- CSA 086-14  
- 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")

CSI: TC=0.69/1.00 (F-G:1), BC=0.71/1.00 (R-S:1), WB=0.92/1.00 (E-T:1), SSI=0.23/1.00 (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

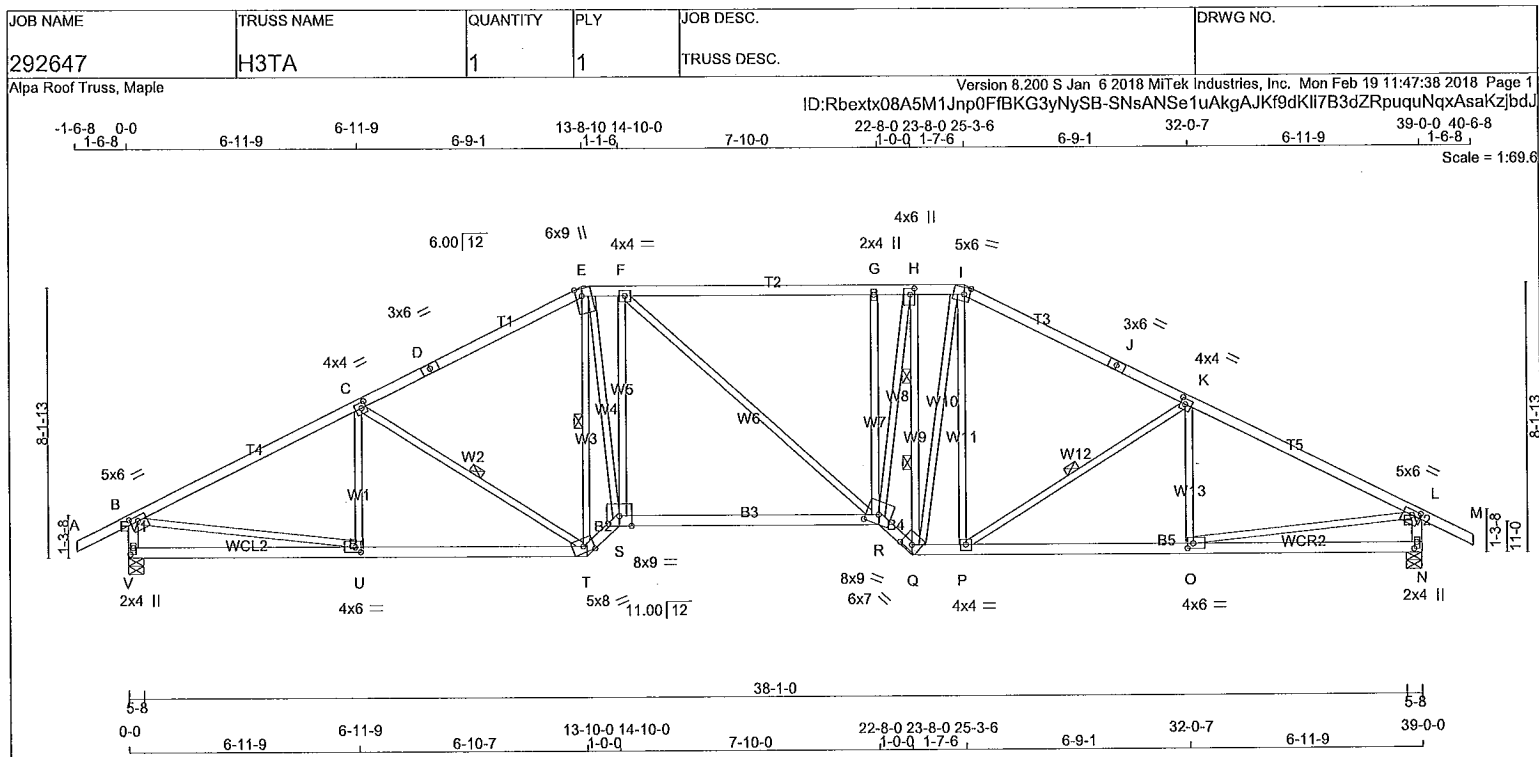
TRUSS PLATE MANUFACTURER IS NOT RESPONSIBLE FOR QUALITY CONTROL IN THE TRUSS MANUFACTURING PLANT.

NAIL VALUES  
PLATE GRIP(DRY) SHEAR SECTION  
(PSI) (PLI) (PLI)  
MAX MIN MAX MIN MAX MIN  
MT20 650 371 1747 788 1987 1873

PLATE ROTATION TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP=0.90 (Q) (INPUT = 0.90)  
JSI METAL=0.66 (I) (INPUT = 1.00)



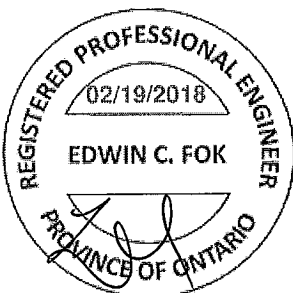
| LUMBER          |      |        |        | N. L. G. A. RULES |  |
|-----------------|------|--------|--------|-------------------|--|
| CHORDS          | SIZE | LUMBER | DESCR. |                   |  |
| A - D           | 2x4  | DRY    | No.2   | SPF               |  |
| D - E           | 2x4  | DRY    | No.2   | SPF               |  |
| E - I           | 2x4  | DRY    | No.2   | SPF               |  |
| I - J           | 2x4  | DRY    | No.2   | SPF               |  |
| J - M           | 2x4  | DRY    | No.2   | SPF               |  |
| N - B           | 2x4  | DRY    | No.2   | SPF               |  |
| N - L           | 2x4  | DRY    | No.2   | SPF               |  |
| V - 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 - N           | 2x4  | DRY    | No.2   | SPF               |  |
| ALL WEBS EXCEPT | 2x3  | DRY    | No.2   | SPF               |  |

DRY: SEASONED LUMBER.

PLATES (table is in inches)

| JT | TYPE    | PLATES | W   | LEN | Y    | X    |
|----|---------|--------|-----|-----|------|------|
| B  | TMVW-I  | MT20   | 5.0 | 6.0 | 1.75 | 2.75 |
| C  | TMVW-I  | MT20   | 4.0 | 4.0 | 2.00 | 1.75 |
| D  | TS-I    | MT20   | 3.0 | 6.0 |      |      |
| E  | TTWW+m  | MT20   | 6.0 | 9.0 | Edge | 2.25 |
| F  | TMVW-I  | MT20   | 4.0 | 4.0 |      |      |
| G  | TMVW+m  | MT20   | 2.0 | 4.0 |      |      |
| H  | TMVW+m  | MT20   | 4.0 | 6.0 | 2.25 | 1.50 |
| I  | TTWW-m  | MT20   | 5.0 | 6.0 | 2.50 | 2.00 |
| J  | TS-I    | MT20   | 3.0 | 6.0 |      |      |
| K  | TMVW-I  | MT20   | 4.0 | 4.0 | 2.00 | 1.75 |
| L  | TMVW-I  | MT20   | 5.0 | 6.0 | 1.75 | 2.75 |
| N  | BMV1+p  | MT20   | 2.0 | 4.0 | 2.25 | 1.00 |
| O  | BMVW-I  | MT20   | 4.0 | 6.0 | 1.75 | 2.00 |
| P  | BMVW-I  | MT20   | 4.0 | 4.0 |      |      |
| Q  | BBVW-h  | MT20   | 6.0 | 7.0 | 2.00 | 4.00 |
| R  | BBVWW-m | MT20   | 8.0 | 9.0 | 3.25 | 4.50 |
| S  | BBVW-I  | MT20   | 8.0 | 9.0 | Edge |      |
| T  | BBVW-m  | MT20   | 5.0 | 8.0 | Edge |      |
| U  | BMVW-I  | MT20   | 4.0 | 6.0 | 1.75 | 2.00 |
| V  | BMV1+p  | MT20   | 2.0 | 4.0 | 2.25 | 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



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 |           |  |
| V  | 2006                    | 0    | 2006                            | 0    | 5-8       | 3-0   |           |  |
| N  | 2006                    | 0    | 2006                            | 0    | 5-8       | 3-0   |           |  |

UNFACTORED REACTIONS

| JT | 1ST CASE COMBINED |         | MAX/MIN. SNOW |       | LIVE  |       | PERM. LIVE |       | WIND    |       | DEAD    |       | SOIL  |       |
|----|-------------------|---------|---------------|-------|-------|-------|------------|-------|---------|-------|---------|-------|-------|-------|
|    |                   |         |               |       |       |       |            |       |         |       |         |       |       |       |
| V  | 1428              | 886 / 0 | 0 / 0         | 0 / 0 | 0 / 0 | 0 / 0 | 0 / 0      | 0 / 0 | 542 / 0 | 0 / 0 | 542 / 0 | 0 / 0 | 0 / 0 | 0 / 0 |
| N  | 1428              | 886 / 0 | 0 / 0         | 0 / 0 | 0 / 0 | 0 / 0 | 0 / 0      | 0 / 0 | 542 / 0 | 0 / 0 | 542 / 0 | 0 / 0 | 0 / 0 | 0 / 0 |

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

BRACING

TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 3.52 FT.  
MAX. UNBRACED BOTTOM CHORD LENGTH = 10.00 FT OR RIGID CEILING DIRECTLY APPLIED.

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

- 1 LATERAL BRACE(S) AT 1/2 LENGTH OF C-T, E-T, K-P.  
2 LATERAL BRACE(S) AT 1/3 LENGTH OF 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 |                           |                           |                | WEBS                 |       |                           |              |
|--------|---------------------------|---------------------------|----------------|----------------------|-------|---------------------------|--------------|
| MEMB.  | MAX. FACTORED FORCE (LBS) | FACTORED VERT. LOAD (PLF) | MAX LC1 (LC)   | MAX. UNBRACED LENGTH | MEMB. | MAX. FACTORED FORCE (LBS) | MAX CS1 (LC) |
| FR-TO  |                           |                           |                |                      | FR-TO |                           |              |
| A-B    | 0 / 28                    | -78.0                     | -78.0 0.14 (1) | 10.00                | U-C   | -214 / 34                 | 0.07 (1)     |
| B-C    | -2798 / 0                 | -78.0                     | -78.0 0.71 (1) | 3.52                 | C-T   | -470 / 0                  | 0.21 (1)     |
| C-D    | -2416 / 0                 | -78.0                     | -78.0 0.63 (1) | 3.81                 | T-E   | -1609 / 0                 | 0.88 (1)     |
| D-E    | -2416 / 0                 | -78.0                     | -78.0 0.63 (1) | 3.81                 | E-S   | 0 / 2691                  | 0.61 (1)     |
| E-F    | -2537 / 0                 | -78.0                     | -78.0 0.37 (1) | 3.96                 | S-F   | -641 / 0                  | 0.59 (1)     |
| F-G    | -2628 / 0                 | -78.0                     | -78.0 0.57 (1) | 3.79                 | F-R   | 0 / 108                   | 0.02 (1)     |
| G-H    | -2619 / 0                 | -78.0                     | -78.0 0.37 (1) | 3.91                 | R-G   | -631 / 0                  | 0.58 (1)     |
| H-I    | -2228 / 0                 | -78.0                     | -78.0 0.12 (1) | 4.49                 | R-H   | 0 / 2686                  | 0.60 (1)     |
| I-J    | -2416 / 0                 | -78.0                     | -78.0 0.62 (1) | 3.81                 | Q-H   | -2423 / 0                 | 0.94 (1)     |
| J-K    | -2416 / 0                 | -78.0                     | -78.0 0.62 (1) | 3.81                 | Q-I   | 0 / 442                   | 0.10 (1)     |
| K-L    | -2794 / 0                 | -78.0                     | -78.0 0.70 (1) | 3.52                 | P-I   | 0 / 330                   | 0.07 (1)     |
| L-M    | 0 / 28                    | -78.0                     | -78.0 0.14 (1) | 10.00                | P-K   | -466 / 0                  | 0.21 (1)     |
| V-B    | -1954 / 0                 | 0.0                       | 0.0 0.20 (1)   | 6.03                 | O-K   | -216 / 25                 | 0.07 (1)     |
| N-L    | -1952 / 0                 | 0.0                       | 0.0 0.20 (1)   | 6.03                 | B-U   | 0 / 2553                  | 0.57 (1)     |
|        |                           |                           |                |                      | O-L   | 0 / 2549                  | 0.57 (1)     |
| V-U    | 0 / 0                     | -18.5                     | -18.5 0.24 (4) | 10.00                |       |                           |              |
| U-T    | 0 / 2528                  | -18.5                     | -18.5 0.52 (1) | 10.00                |       |                           |              |
| T-S    | 0 / 2862                  | -18.5                     | -18.5 0.46 (1) | 10.00                |       |                           |              |
| S-R    | 0 / 2548                  | -18.5                     | -18.5 0.60 (1) | 10.00                |       |                           |              |
| R-Q    | 0 / 2978                  | -18.5                     | -18.5 0.48 (1) | 10.00                |       |                           |              |
| Q-P    | 0 / 2138                  | -18.5                     | -18.5 0.42 (1) | 10.00                |       |                           |              |
| P-O    | 0 / 2524                  | -18.5                     | -18.5 0.50 (1) | 10.00                |       |                           |              |
| O-N    | 0 / 0                     | -18.5                     | -18.5 0.21 (4) | 10.00                |       |                           |              |

DESIGN CRITERIA

SPECIFIED LOADS:

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

SPACING = 24.0 IN. C/C

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, NBC 2015

THIS DESIGN COMPLIES WITH:  
- PART 9 OF OBC 2018  
- CSA 086-14  
- 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 (0.25")  
ALLOWABLE DEFL.(TL) = L/360 (1.30")  
CALCULATED VERT. DEFL.(TL) = L/726 (0.65")

CSI: TC=0.71/1.00 (B-C:1), BC=0.60/1.00 (R-S:1), WB=0.94/1.00 (H-Q:1), SSI=0.26/1.00 (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

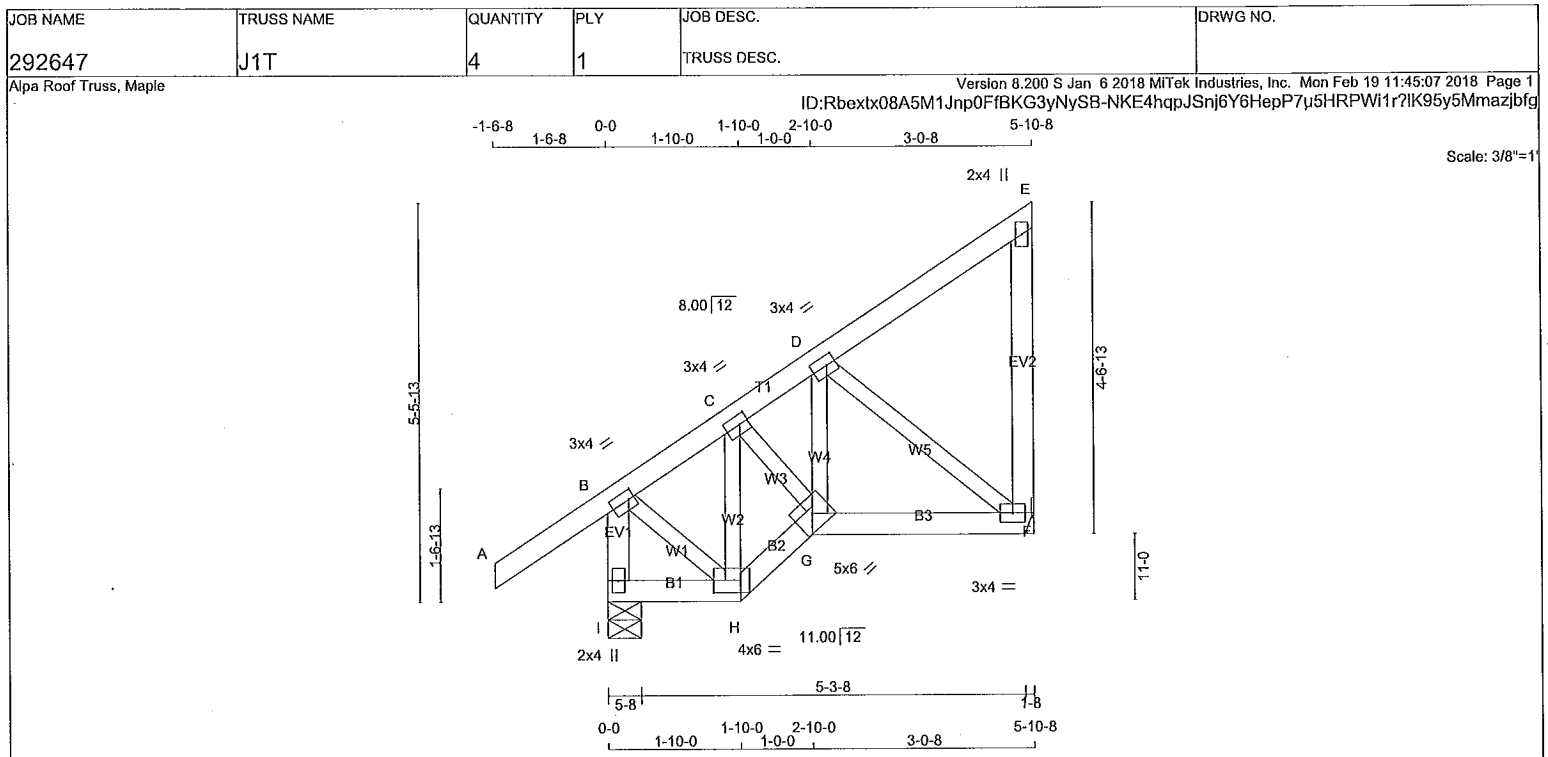
TRUSS PLATE MANUFACTURER IS NOT RESPONSIBLE FOR QUALITY CONTROL IN THE TRUSS MANUFACTURING PLANT.

NAIL VALUES  
PLATE GRIP(DRY) SHEAR SECTION (PSI) (PLI) (PLI)  
MAX MIN MAX MIN MAX MIN  
MT20 650 371 1747 788 1987 1873

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.90 (U) (INPUT = 0.90)  
JSI METAL= 0.72 (E) (INPUT = 1.00)



TOTAL WEIGHT = 4 X 32 = 129 lb

| LUMBER                |      |        |        |     |
|-----------------------|------|--------|--------|-----|
| N. L. G. A. RULES     |      |        |        |     |
| CHORDS                | SIZE | LUMBER | DESCR. |     |
| I - B                 | 2x4  | DRY    | No.2   | SPF |
| A - E                 | 2x4  | DRY    | No.2   | SPF |
| F - E                 | 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 | X         |
| B                           | TMVW-t | MT20   | 3.0 | 4.0 | 1.50 1.00 |
| C                           | TMVW-t | MT20   | 3.0 | 4.0 | 1.50 1.50 |
| D                           | TMVW-t | MT20   | 3.0 | 4.0 | 1.50 1.50 |
| E                           | TMV+p  | MT20   | 2.0 | 4.0 |           |
| F                           | BMVW-t | MT20   | 3.0 | 4.0 |           |
| G                           | BBVW-t | MT20   | 5.0 | 6.0 |           |
| H                           | BBVW-t | MT20   | 4.0 | 6.0 | 2.00 4.50 |
| I                           | BMV1+p | MT20   | 2.0 | 4.0 |           |

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

| BEARINGS            |      | FACTORED       | MAXIMUM FACTORED | INPUT | REQRD  |
|---------------------|------|----------------|------------------|-------|--------|
|                     |      | GROSS REACTION | GROSS REACTION   | BRG   | BRG    |
| JT                  | VERT | HORZ           | DOWN             | HORZ  | UPLIFT |
| I                   | 427  | 0              | 427              | 0     | 0      |
| F                   | 266  | 0              | 266              | 0     | 0      |
| HANGER BY OTHERS    |      |                |                  |       |        |
| MIN. SEAT SIZE: 1-8 |      |                |                  |       |        |

#### UNFACTORED REACTIONS

| 1ST LCASE |          | MAX./MIN. COMPONENT REACTIONS |       |           |       |         |       |
|-----------|----------|-------------------------------|-------|-----------|-------|---------|-------|
| JT        | COMBINED | SNOW                          | LIVE  | PERM.LIVE | WIND  | DEAD    | SOIL  |
| I         | 302      | 201 / 0                       | 0 / 0 | 0 / 0     | 0 / 0 | 101 / 0 | 0 / 0 |
| F         | 190      | 114 / 0                       | 0 / 0 | 0 / 0     | 0 / 0 | 76 / 0  | 0 / 0 |

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

#### BRACING

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

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

#### LOADING

TOTAL LOAD CASES: (4)

| CHORDS        |             |                  |                  | WEBS               |       |             |              |          |
|---------------|-------------|------------------|------------------|--------------------|-------|-------------|--------------|----------|
| MAX. FACTORED |             | FACTORED         |                  | MAX. FACTORED      |       |             |              |          |
| MEMB.         | FORCE (LBS) | VERT. LOAD (PLF) | LC1 MAX CSI (LC) | MAX. UNBRAC LENGTH | MEMB. | FORCE (LBS) | MAX CSI (LC) |          |
| FR-TO         |             | FROM TO          |                  |                    | FR-TO |             |              |          |
| I-B           | -410 / 0    | 0.0              | 0.0              | 0.04 (1)           | 7.81  | B-H         | 0 / 129      | 0.03 (1) |
| A-B           | 0 / 35      | -78.0            | -78.0            | 0.15 (1)           | 10.00 | H-C         | -138 / 0     | 0.02 (1) |
| B-C           | -170 / 0    | -78.0            | -78.0            | 0.14 (1)           | 6.25  | C-G         | 0 / 144      | 0.03 (1) |
| C-D           | -187 / 0    | -78.0            | -78.0            | 0.09 (1)           | 6.25  | G-D         | 0 / 49       | 0.02 (4) |
| D-E           | -12 / 0     | -78.0            | -78.0            | 0.09 (1)           | 6.25  | D-F         | -238 / 0     | 0.06 (1) |
| F-E           | -93 / 0     | 0.0              | 0.0              | 0.03 (1)           | 7.81  |             |              |          |
|               |             |                  |                  |                    |       |             |              |          |
| I-H           | 0 / 0       | -18.5            | -18.5            | 0.02 (4)           | 10.00 |             |              |          |
| H-G           | 0 / 138     | -18.5            | -18.5            | 0.03 (1)           | 10.00 |             |              |          |
| G-F           | 0 / 188     | -18.5            | -18.5            | 0.07 (4)           | 10.00 |             |              |          |

#### DESIGN CRITERIA

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

SPACING = 24.0 IN. C/C

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

THIS DESIGN COMPLIES WITH:  
- PART 9 OF OBC 2018  
- CSA 086-14  
- TPC 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")

CS1: TC=0.15/1.00 (A-B:1), BC=0.07/1.00 (F-G:4), WB=0.06/1.00 (D-F:1), SS1=0.09/1.00 (B-C:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

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

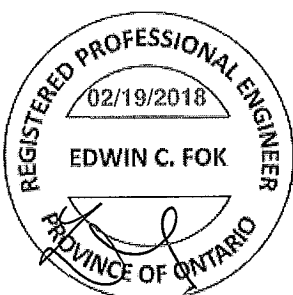
NAIL VALUES  
PLATE GRIP(DRY) SHEAR SECTION  
(PSI) (PLI) (PLI)  
MAX MIN MAX MIN MAX MIN  
MT20 650 371 1747 788 1987 1873

PLATE PLACEMENT TOL. = 0.250 inches

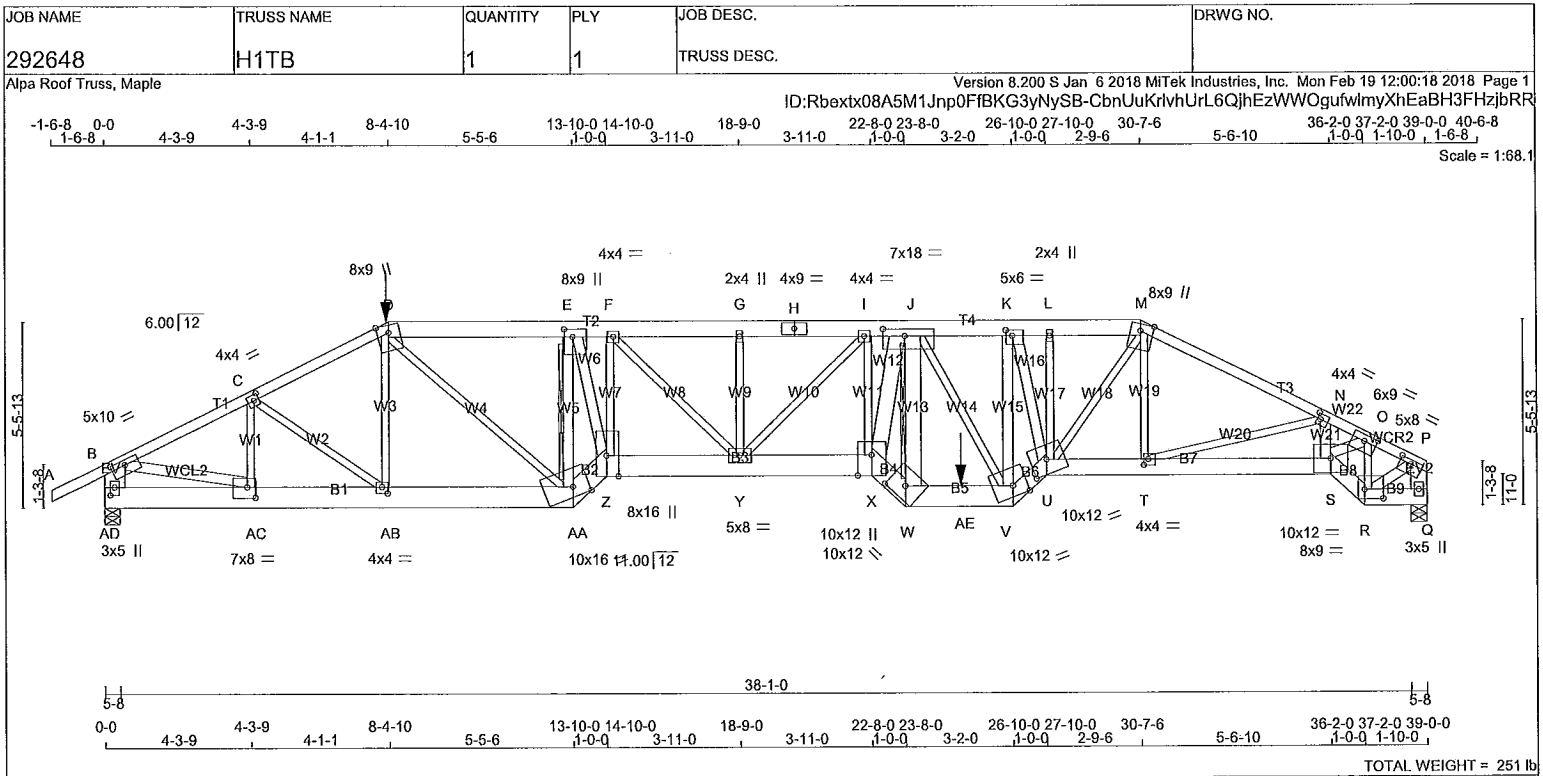
PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.39 (B) (INPUT = 0.90 )  
JSI METAL= 0.09 (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-18023941



TOTAL WEIGHT = 251 lb (M)

| LUMBER  |      |        |            | N. L. G. A. RULES |      |        |        |
|---------|------|--------|------------|-------------------|------|--------|--------|
| CHORDS  | SIZE | LUMBER | DESCR.     | CHORDS            | SIZE | LUMBER | DESCR. |
| A - D   | 2x4  | DRY    | No.2       | SPF               |      |        |        |
| D - H   | 2x6  | DRY    | No.2       | SPF               |      |        |        |
| H - M   | 2x6  | DRY    | No.2       | SPF               |      |        |        |
| M - P   | 2x4  | DRY    | 1650F 1.5E | SPF               |      |        |        |
| AD - B  | 2x8  | DRY    | No.2       | SPF               |      |        |        |
| Q - P   | 2x6  | DRY    | No.2       | SPF               |      |        |        |
| AD - AA | 2x8  | 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   | 2x6  | DRY    | 1650F 1.5E | SPF               |      |        |        |
| U - S   | 2x6  | DRY    | No.2       | SPF               |      |        |        |
| S - R   | 2x6  | DRY    | 1650F 1.5E | SPF               |      |        |        |
| R - Q   | 2x6  | DRY    | No.2       | SPF               |      |        |        |

ALL WEBS EXCEPT

|        |     |     |            |     |
|--------|-----|-----|------------|-----|
| AA - E | 2x4 | DRY | 1650F 1.5E | SPF |
| E - Z  | 2x4 | DRY | 1650F 1.5E | SPF |
| X - J  | 2x6 | DRY | No.2       | SPF |
| W - J  | 2x6 | DRY | No.2       | SPF |
| V - K  | 2x4 | DRY | No.2       | SPF |
| K - U  | 2x4 | DRY | 1650F 1.5E | SPF |
| S - N  | 2x4 | DRY | No.2       | SPF |
| S - O  | 2x4 | DRY | No.2       | SPF |
| B - AC | 2x4 | DRY | No.2       | SPF |
| R - P  | 2x4 | DRY | No.2       | SPF |

DRY: SEASONED LUMBER.

PLATES (table is in inches)

| JT | TYPE   | PLATES | W   | LEN  | Y    | X    |
|----|--------|--------|-----|------|------|------|
| B  | TMWW-t | MT20   | 5.0 | 10.0 | 1.75 | 5.00 |
| C  | TMWW-t | MT20   | 4.0 | 4.0  | 2.00 | 1.75 |
| D  | TTWW+m | MT20   | 8.0 | 9.0  | Edge |      |
| E  | TMWW-t | MT20   | 8.0 | 9.0  | 2.75 | 3.00 |
| F  | TMWW-t | MT20   | 4.0 | 4.0  |      |      |
| G  | TMWW-w | MT20   | 2.0 | 4.0  |      |      |
| H  | TS-t   | MT20   | 4.0 | 9.0  |      |      |
| I  | TMWW-t | MT20   | 4.0 | 4.0  |      |      |

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



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

| BEARINGS |      | FACTORED       |   | MAXIMUM FACTORED |   | INPUT |      | REQRD |  |
|----------|------|----------------|---|------------------|---|-------|------|-------|--|
|          |      | GROSS REACTION |   | DOWN             |   | BRG   |      | BRG   |  |
| JT       | VERT | 3756           | 0 | 3756             | 0 | 5-8   | 4-15 |       |  |
| AD       | HORZ | 3310           | 0 | 3310             | 0 | 5-8   | 5-4  |       |  |

ALLOW FOR 0.5" OF HORIZONTAL MOVEMENT DUE TO TOTAL LOAD.

UNFACTORED REACTIONS

| 1ST LCASE |          | MAX./MIN. COMPONENT REACTIONS |          |       |       |           |          |       |  |
|-----------|----------|-------------------------------|----------|-------|-------|-----------|----------|-------|--|
|           |          | SNOW                          |          | LIVE  |       | PERM.LIVE |          | WIND  |  |
| JT        | COMBINED | 2679                          | 1628 / 0 | 0 / 0 | 0 / 0 | 0 / 0     | 1051 / 0 | 0 / 0 |  |
| AD        |          | 2359                          | 1444 / 0 | 0 / 0 | 0 / 0 | 0 / 0     | 915 / 0  | 0 / 0 |  |

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

BRACING

TOP CHORD TO BE SHEATHED OR MAX. PURLINE SPACING = 1.94 FT. MAX. UNBRACED BOTTOM CHORD LENGTH = 10.00 FT OR RIGID CEILING DIRECTLY APPLIED.

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

2x4 DRY SPF No.2 T-BRACE AT E-AA, J-W

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

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

LOADING

TOTAL LOAD CASES: (4)

| CHORDS |           | MAX. FACTORED |                 | WEBS                 |      | MAX. FACTORED        |          |
|--------|-----------|---------------|-----------------|----------------------|------|----------------------|----------|
|        |           | FORCE (LBS)   |                 |                      |      | FORCE (LBS)          |          |
|        |           | VERT. LOAD    |                 | MAX. UNBRACED LENGTH |      | MAX. UNBRACED LENGTH |          |
|        |           | FROM TO       |                 | FR-TO                |      | FR-TO                |          |
| A-B    | 0 / 28    | -78.0         | -78.0 0.16 (1)  | 10.00                | AC-C | -969 / 0             | 0.19 (1) |
| B-C    | -5375 / 0 | -78.0         | -78.0 0.71 (1)  | 2.47                 | C-AB | 0 / 624              | 0.15 (1) |
| C-D    | -5942 / 0 | -78.0         | -78.0 0.79 (1)  | 2.22                 | AB-D | -116 / 126           | 0.05 (4) |
| D-E    | -7347 / 0 | -153.5        | -153.5 0.68 (1) | 2.68                 | D-AA | 0 / 2731             | 0.68 (1) |
| E-F    | -9111 / 0 | -153.5        | -153.5 0.81 (1) | 2.11                 | AA-E | -8197 / 0            | 0.94 (1) |
| F-G    | -9633 / 0 | -78.0         | -78.0 0.91 (1)  | 1.94                 | E-Z  | 0 / 7264             | 0.93 (1) |
| G-H    | -9633 / 0 | -78.0         | -78.0 0.82 (1)  | 2.12                 | Z-F  | -57 / 0              | 0.02 (4) |
| H-I    | -9633 / 0 | -78.0         | -78.0 0.82 (1)  | 2.12                 | F-Y  | 0 / 759              | 0.19 (1) |
| I-J    | -9566 / 0 | -78.0         | -78.0 0.77 (1)  | 2.16                 | Y-G  | -546 / 0             | 0.15 (1) |
| J-K    | -6789 / 0 | -78.0         | -78.0 0.41 (1)  | 3.08                 | G-I  | 0 / 103              | 0.03 (1) |
| K-L    | -7519 / 0 | -78.0         | -78.0 0.64 (1)  | 2.62                 | X-I  | 0 / 151              | 0.04 (1) |
| L-M    | -7512 / 0 | -78.0         | -78.0 0.65 (1)  | 2.62                 | X-J  | 0 / 7403             | 0.96 (1) |
| M-N    | -6582 / 0 | -78.0         | -78.0 0.80 (1)  | 2.72                 | W-J  | -6007 / 0            | 0.69 (1) |
| N-O    | -7385 / 0 | -78.0         | -78.0 0.46 (1)  | 2.62                 | J-V  | -1813 / 0            | 0.89 (1) |
| O-P    | -3668 / 0 | -78.0         | -78.0 0.24 (1)  | 3.95                 | V-K  | -2939 / 0            | 0.80 (1) |
| AD-B   | -3599 / 0 | 0.0           | 0.0 0.19 (1)    | 6.27                 | K-U  | 0 / 2558             | 0.33 (1) |
| Q-P    | -3293 / 0 | 0.0           | 0.0 0.23 (1)    | 5.80                 | U-L  | 0 / 253              | 0.06 (1) |
|        |           |               |                 |                      | U-M  | 0 / 2897             | 0.72 (1) |
| AD-AC  | 0 / 0     | -36.4         | -36.4 0.17 (1)  | 10.00                | T-M  | 0 / 172              | 0.05 (4) |
| AC-AB  | 0 / 4819  | -36.4         | -36.4 0.68 (1)  | 10.00                | T-N  | -820 / 0             | 0.43 (1) |
| AB-AA  | 0 / 5322  | -36.4         | -36.4 0.63 (1)  | 10.00                | S-N  | 0 / 145              | 0.03 (4) |
| AA-Z   | 0 / 9635  | -36.4         | -36.4 0.44 (1)  | 10.00                | S-O  | 0 / 4586             | 0.81 (1) |
| Z-Y    | 0 / 9114  | -112.0        | -112.0 0.50 (1) | 10.00                | R-O  | -4246 / 0            | 0.69 (1) |
| Y-X    | 0 / 9564  | -112.0        | -112.0 0.52 (1) | 10.00                | B-AC | 0 / 4907             | 0.87 (1) |
| X-W    | 0 / 10016 | -112.0        | -112.0 0.46 (1) | 10.00                | R-P  | 0 / 3587             | 0.63 (1) |
| W-AE   | 0 / 7665  | -112.0        | -112.0 0.54 (1) | 10.00                |      |                      |          |
| AE-V   | 0 / 7665  | -18.5         | -18.5 0.54 (1)  | 10.00                |      |                      |          |
| V-U    | 0 / 8460  | -18.5         | -18.5 0.69 (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 = 8-4-10  
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: CStdGlrder  
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

(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/859 (0.54")  
ALLOWABLE DEFL.(TL) = L/360 (1.30")  
CALCULATED VERT. DEFL.(TL) = L/439 (1.07")

CSI: TC=0.91/1.00 (F-G:1), BC=0.91/1.00 (S-T:1), WB=0.96/1.00 (J-X:1), SSI=0.46/1.00 (E-F:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

A-18023942

CONTINUED ON PAGE 2

**PLATES (table is in inches)**

| JT | TYPE     | PLATES | W    | LEN  | Y    | X    |
|----|----------|--------|------|------|------|------|
| J  | TMVWW-t  | MT20   | 7.0  | 18.0 | 2.50 | 7.75 |
| K  | TMVWW-t  | MT20   | 5.0  | 6.0  | 2.00 | 2.25 |
| L  | TMVW+w   | MT20   | 2.0  | 4.0  |      |      |
| M  | TTWW+m   | MT20   | 8.0  | 9.0  | Edge | 4.50 |
| N  | TMVWW-t  | MT20   | 4.0  | 4.0  | 2.00 | 1.25 |
| O  | TMVWW-t  | MT20   | 6.0  | 9.0  | 2.25 | 4.50 |
| P  | TMVW-t   | MT20   | 5.0  | 8.0  | 1.50 | 4.00 |
| Q  | BMV1+p   | MT20   | 3.0  | 5.0  |      |      |
| R  | BBWW-t   | MT20   | 8.0  | 9.0  | 3.25 | 6.75 |
| S  | BBWW-t   | MT20   | 10.0 | 12.0 |      |      |
| T  | BMVW-t   | MT20   | 4.0  | 4.0  | 2.00 | 1.50 |
| U  | BBWWWW-m | MT20   | 10.0 | 12.0 | 5.00 | 5.75 |
| V  | BBWW-m   | MT20   | 10.0 | 12.0 | Edge | 5.00 |
| W  | BBW-h    | MT20   | 10.0 | 12.0 | 4.25 | 6.00 |
| X  | BBWW+p   | MT20   | 10.0 | 12.0 | Edge | 5.00 |
| Y  | BMVWWW-t | MT20   | 5.0  | 8.0  |      |      |
| Z  | BBWW+p   | MT20   | 8.0  | 16.0 | Edge | 4.25 |
| AA | BBWW-m   | MT20   | 10.0 | 16.0 | Edge | 5.75 |
| AB | BMVW-t   | MT20   | 4.0  | 4.0  | 2.25 | 2.00 |
| AC | BMVW-t   | MT20   | 7.0  | 8.0  | 3.75 | 3.00 |
| AD | BMV1+p   | MT20   | 3.0  | 5.0  | 2.75 | 1.50 |

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

**HANGERS NOTES**

- 1) SPECIAL HANGER(S) OR CONNECTION(S) REQUIRED TO SUPPORT CONCENTRATED LOAD(S) 476.7 lbs FACTORED DOWN AT 8-4-10 ON TOP CHORD, AND 963.6 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 (LC) | MEMB. | MAX. FACTORED FORCE (LBS) | MAX. CSI (LC) |
| FR-TO  |                           | FROM                      | TO       | LENGTH           | FR-TO |                           |               |
| U-T    | 0/5887                    | -18.5                     | -18.5    | 0.78 (1)         | 10.00 |                           |               |
| T-S    | 0/6682                    | -18.5                     | -18.5    | 0.91 (1)         | 10.00 |                           |               |
| S-R    | 0/4060                    | -18.5                     | -18.5    | 0.33 (1)         | 10.00 |                           |               |
| R-Q    | 0/0                       | -18.5                     | -18.5    | 0.01 (4)         | 10.00 |                           |               |

**FACTORED CONCENTRATED LOADS (LBS)**

| JT | LOC.   | LC1  | MAX- | MAX+ | FACE  | DIR. | TYPE  |
|----|--------|------|------|------|-------|------|-------|
| D  | 8-4-10 | -477 | -477 | ---  | FRONT | VERT | TOTAL |
| AE | 25-3-8 | -964 | -964 | ---  | FRONT | VERT | TOTAL |

**AUTOSOLVE HEELS OFF**

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

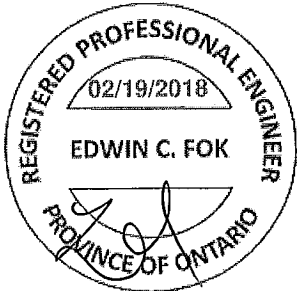
| NAIL VALUES | PLATE GRIP(DRY) | SHEAR    | SECTION   |
|-------------|-----------------|----------|-----------|
|             | (PSI)           | (PLI)    | (PLI)     |
|             | MAX MIN         | MAX MIN  | MAX MIN   |
| MT20        | 618 354         | 1667 788 | 1987 1656 |

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

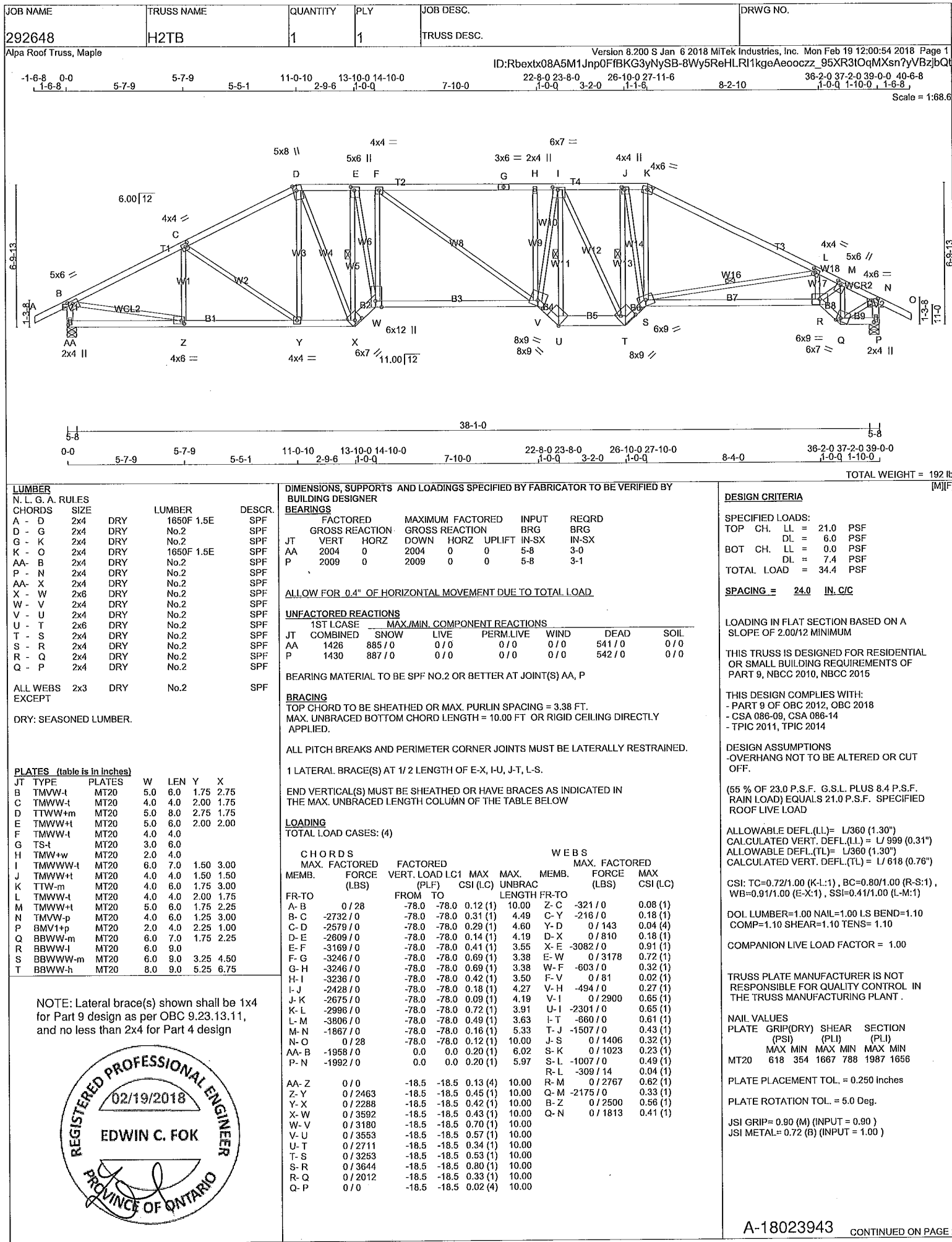
JSI GRIP= 0.90 (J) (INPUT = 0.90 )  
JSI METAL= 1.00 (X) (INPUT = 1.00 )

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-18023942(2)





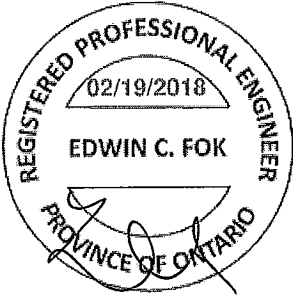
|                                                                                   |            |          |     |             |          |
|-----------------------------------------------------------------------------------|------------|----------|-----|-------------|----------|
| JOB NAME                                                                          | TRUSS NAME | QUANTITY | PLY | JOB DESC.   | DRWG NO. |
| 292648                                                                            | H2TB       | 1        | 1   | TRUSS DESC. |          |
| Alpa Roof Truss, Maple                                                            |            |          |     |             |          |
| Version 8.200 S Jan 6 2018 MITek Industries, Inc. Mon Feb 19 12:00:55 2018 Page 2 |            |          |     |             |          |
| ID:Rbextx08A5M1Jnp0FfBKG3yNySB-diWTf lzC39bHolqMV8CWCiGHrP67Hch5RkW2dzjbQs        |            |          |     |             |          |

PLATES (table is in inches)

| JT | TYPE    | PLATES | W   | LEN  | Y    | X    |
|----|---------|--------|-----|------|------|------|
| U  | BBW-h   | MT20   | 8.0 | 9.0  |      |      |
| V  | BBWWW-m | MT20   | 8.0 | 9.0  | 3.00 | 4.50 |
| W  | BBWW+p  | MT20   | 6.0 | 12.0 | Edge | 3.50 |
| X  | BBWW-h  | MT20   | 6.0 | 7.0  | 1.75 | 3.75 |
| Y  | BMWW-t  | MT20   | 4.0 | 4.0  |      |      |
| Z  | BMWW-t  | MT20   | 4.0 | 6.0  | 1.75 | 1.50 |
| AA | BMV1+p  | MT20   | 2.0 | 4.0  | 2.25 | 1.00 |

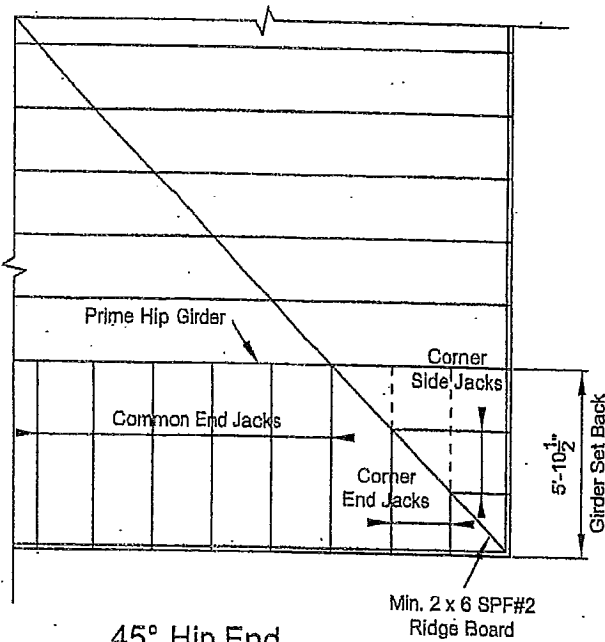
Edge - INDICATES REFERENCE CORNER OF PLATE  
TOUCHES EDGE OF CHORD.

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



A-18023943(2)

# STRACON ENGINEERING INC.

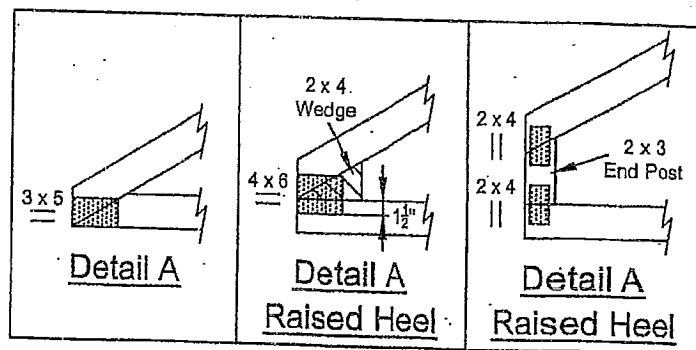
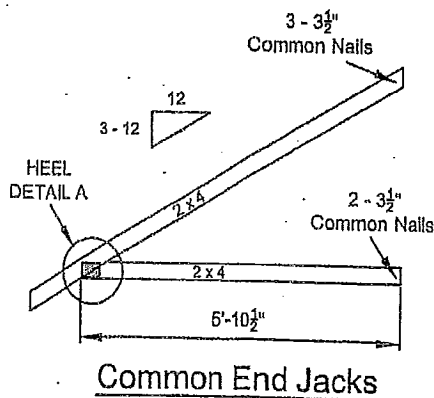
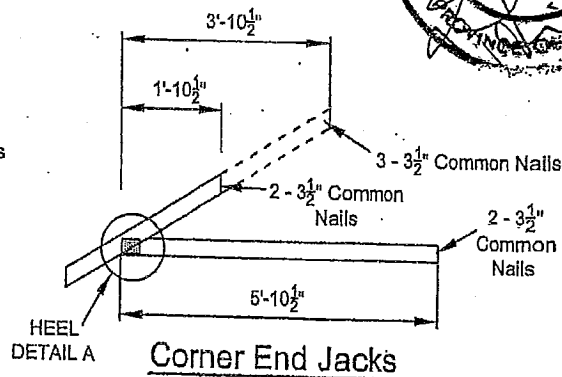
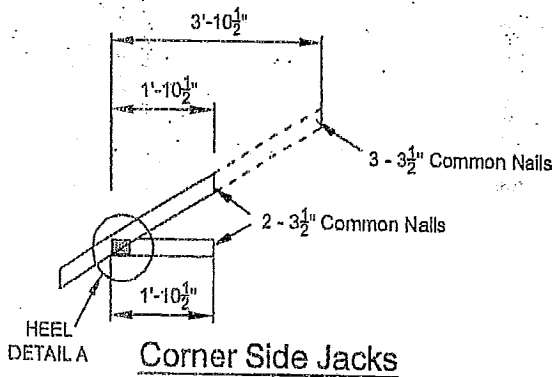


## LUMBER SPECIFICATION

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:**

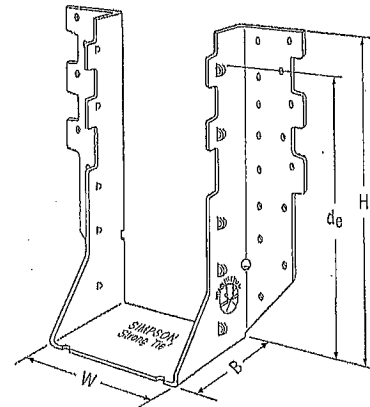
- Factored resistances are in accordance with CSA O86-14.
- Uplift resistances have been increased 15%. No further increase is permitted.
- Wood shear is not considered in the factored resistances given. The specifier must ensure that the joist and header capacities are capable of withstanding these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

**Installation:**

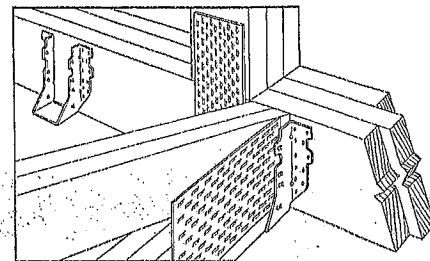
- Use all specified fasteners
- Nails: 16d = 0.162" dia. x 3 1/2" long common wire
- Double shear nails must be driven at an angle through the joist or truss into the header to achieve the table loads
- Not designed for welded or nailer applications

**Options:**

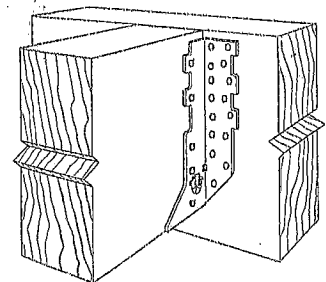
- See current catalogue for options



HHUS410



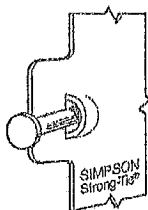
Typical HHUS Installation  
(Truss Designer to provide fastener quantity for connecting multiple members together)



Typical HHUS Installation

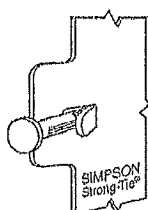
| Model No.   | Ga. | Dimensions (in.) |         |        |                             | Fasteners |          | Factored Resistance (lb.)        |                                  |                                  |                                  |
|-------------|-----|------------------|---------|--------|-----------------------------|-----------|----------|----------------------------------|----------------------------------|----------------------------------|----------------------------------|
|             |     | W                | H       | B      | d <sub>e</sub> <sup>1</sup> | Face      | Joist    | D.Fir-L                          |                                  | S-P-F                            |                                  |
|             |     |                  |         |        |                             |           |          | Uplift<br>(K <sub>o</sub> =1.15) | Normal<br>(K <sub>o</sub> =1.00) | Uplift<br>(K <sub>o</sub> =1.15) | Normal<br>(K <sub>o</sub> =1.00) |
| HHUS26-2    | 14  | 3 1/16           | 5 13/16 | 3      | 3 15/16                     | (14) 16d  | (6) 16d  | 2850                             | 7335                             | 2065                             | 5205                             |
| HHUS28-2    | 14  | 3 3/16           | 7 1/2   | 3      | 6 3/32                      | (22) 16d  | (8) 16d  | 3765                             | 8940                             | 2675                             | 6345                             |
| HHUS210-2   | 14  | 3 5/16           | 9 3/2   | 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 5/8            | 9       | 3      | 8                           | (30) 16d  | (10) 16d | 4745                             | 9855                             | 4310                             | 7000                             |
| HHUS5.50/10 | 14  | 5 1/2            | 9       | 3      | 8                           | (30) 16d  | (10) 16d | 4745                             | 10545                            | 4310                             | 7485                             |
| HHUS7.25/10 | 14  | 7 1/4            | 9       | 3 5/16 | 7 29/32                     | (30) 16d  | (10) 16d | 4745                             | 10770                            | 4310                             | 7650                             |

1. d<sub>e</sub> is the distance from the seat of the hanger to the highest joist nail.

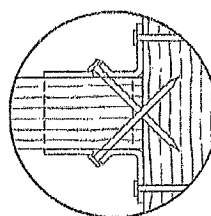


Double Shear Nailing prevents tabs breaking off (available on some models).

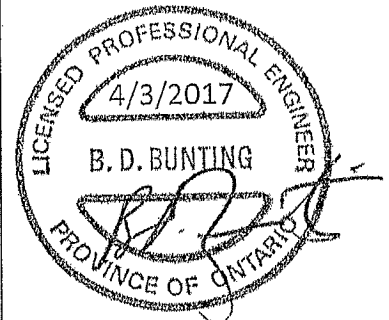
U.S. Patent  
5,603,680



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



Double Shear Nailing Top View.



LIMIT  
STATES  
DESIGN

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

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T-SPECHHUS17-3/17 exp. 6/19

(800) 999-5099  
strongtie.com

# LUS – Double Shear Joist Hangers



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

**Material:** 18 gauge

**Finish:** G90 galvanized

## Design:

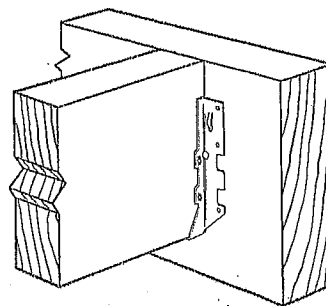
- Factored resistances are in accordance with CSA O86-14.
- Uplift resistances have been increased 15%. No further increase is permitted.
- Wood shear is not considered in the factored resistances given. The specifier must ensure that the joist and header capacities are capable of withstanding these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

## Installation:

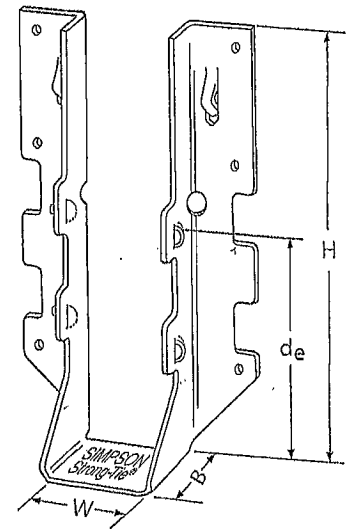
- Use all specified fasteners.
- Nails: 16d = 0.162" dia. x 3 1/2" long common wire, 10d = 0.148" x 3" long common wire.
- Double shear nails must be driven at an angle through the joist or truss into the header to achieve the table loads.
- Not designed for welded or nailer applications.

## Options:

- These hangers cannot be modified



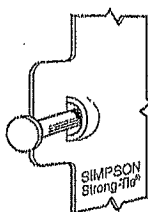
Typical LUS Installation



LUS28

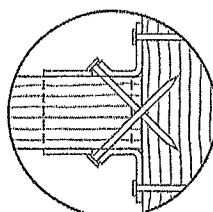
| Model No. | Ga. | Dimensions (in.) |       |       |                             |         | Fasteners |  | Factored Resistance (lb.)        |                                  |                                  |                                  |
|-----------|-----|------------------|-------|-------|-----------------------------|---------|-----------|--|----------------------------------|----------------------------------|----------------------------------|----------------------------------|
|           |     | W                | H     | B     | d <sub>g</sub> <sup>1</sup> | Face    | Joist     |  | D.Fir-L                          |                                  | S-P-F                            |                                  |
|           |     |                  |       |       |                             |         |           |  | Uplift<br>(K <sub>p</sub> =1.15) | Normal<br>(K <sub>p</sub> =1.00) | Uplift<br>(K <sub>p</sub> =1.15) | Normal<br>(K <sub>p</sub> =1.00) |
| LUS24     | 18  | 1 1/8            | 3 1/8 | 1 3/4 | 1 1/8                       | (4) 10d | (2) 10d   |  | 710                              | 1630                             | 645                              | 1155                             |
| LUS24-2   | 18  | 3 1/8            | 3 1/8 | 2     | 1 1/8                       | (4) 16d | (2) 16d   |  | 835                              | 2020                             | 590                              | 1435                             |
| LUS26     | 18  | 1 1/8            | 4 1/8 | 1 3/4 | 3/8                         | (4) 10d | (4) 10d   |  | 1420                             | 2170                             | 1290                             | 1630                             |
| LUS26-2   | 18  | 3 1/8            | 4 1/8 | 2     | 4                           | (4) 16d | (4) 16d   |  | 1720                             | 2595                             | 1545                             | 1920                             |
| LUS26-3   | 18  | 4 1/8            | 4 1/8 | 2     | 3/4                         | (4) 16d | (4) 16d   |  | 1720                             | 2595                             | 1545                             | 2340                             |
| LUS28     | 18  | 1 1/8            | 6 1/8 | 1 3/4 | 3/4                         | (6) 10d | (6) 10d   |  | 1420                             | 2520                             | 1290                             | 1790                             |
| LUS28-2   | 18  | 3 1/8            | 7     | 2     | 4                           | (6) 16d | (4) 16d   |  | 1720                             | 3325                             | 1545                             | 2575                             |
| LUS28-3   | 18  | 4 1/8            | 6 1/4 | 2     | 3/4                         | (6) 16d | (4) 16d   |  | 1720                             | 3325                             | 1545                             | 2375                             |
| LUS210    | 18  | 1 1/8            | 7 1/8 | 1 3/4 | 3/8                         | (8) 10d | (4) 10d   |  | 1420                             | 2785                             | 1290                             | 2210                             |
| LUS210-2  | 18  | 3 1/8            | 9     | 2     | 6                           | (8) 16d | (6) 16d   |  | 2580                             | 4500                             | 2320                             | 3195                             |
| LUS210-3  | 18  | 4 1/8            | 8 1/8 | 2     | 5/4                         | (8) 16d | (6) 16d   |  | 2580                             | 3345                             | 2320                             | 2375                             |

1. d<sub>g</sub> is the distance from the seat of the hanger to the highest joist nail.

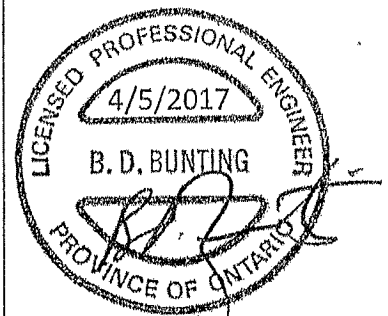


Dome Double Shear Nailing prevents tabs breaking off (available on some models).

U.S. Patent 5,603,580



Double Shear Nailing Top View.



LIMIT  
STATES  
DESIGN

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

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T-SPEC/LUS17\_3/17 exp. 6/19

(800) 999-5099  
[strongtie.com](http://strongtie.com)

# 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

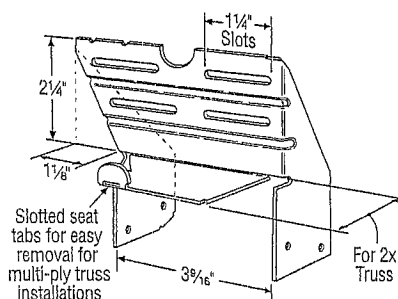
**Design:** Factored resistances are in accordance with CSA 086-14

## Installation:

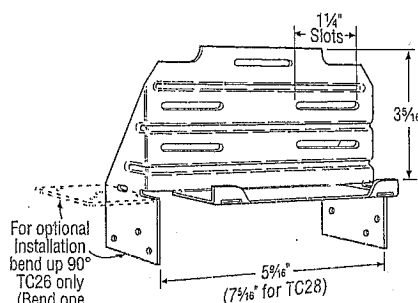
- Use all specified fasteners.
- Nails: 10d = 0.148" dia. x 3" long common wire, 10d x 1½" = 0.148" dia. x 1½" long.
- Drive 10d nails into the truss at the inside end of the slotted holes (inside end is towards the centre of the truss) and clinch on the back side. Do not seat these nails into the truss—allow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

## Optional TC Installation:

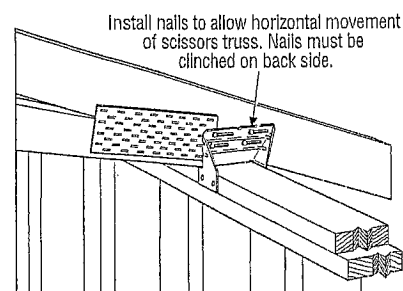
- Bend one flange up 90°. Drive specified nails into the top and face of the top plates or install Titen® screws into the top and face of masonry wall. See optional load tables and installation details.



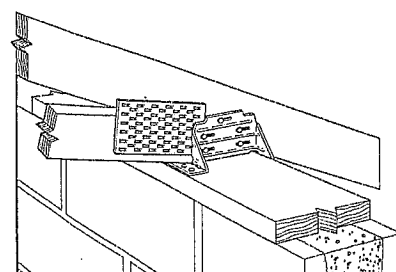
TC24  
U.S. Patent 4,932,173



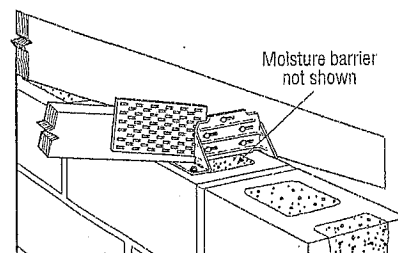
TC26  
(TC28 Similar)



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 <sub>0</sub> =1.15) | Uplift (K <sub>0</sub> =1.15) |
| TC24      | (4) 10d   | (4) 10d     | lb.                           | lb.                           |
| TC26      | (5) 10d   | (6) 10d     | 605                           | 430                           |
| 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 <sub>0</sub> =1.15) | Uplift (K <sub>0</sub> =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

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

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T-SPECTC17 3/17 exp. 6/19

(800) 999-5099  
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# HUS/LJS – Double Shear Joist Hangers



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

**Material:** See table

**Finish:** G90 galvanized

**Design:**

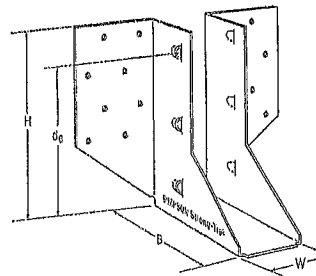
- Factored resistances are in accordance with CSA O86 -14.
- Uplift resistances have been increased 15%. No further increase is permitted.
- Wood shear is not considered in the factored resistances given. The specifier must ensure that the joist and header capacities are capable of withstanding these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

**Installation:**

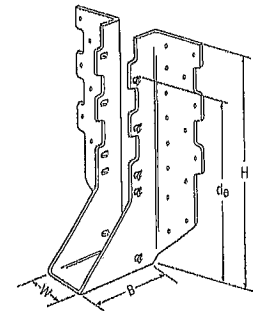
- Use all specified fasteners
- Nails: 16d = 0.162" dia. x 3 1/2" long common wire
- Double shear nails must be driven at an angle through the joist or truss into the header to achieve the table loads
- Not designed for welded or nailer applications

**Options:**

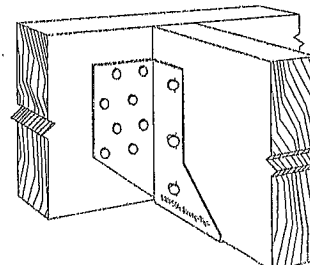
- See current catalogue for options



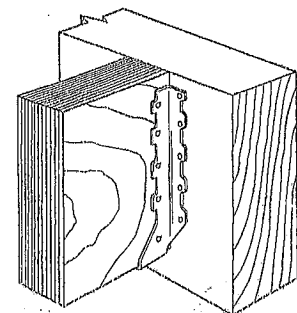
LJS26DS



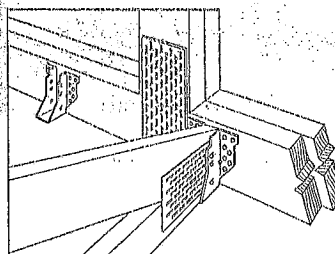
HUS210  
(HUS26, HUS28, similar)



Typical LJS26DS  
Installation



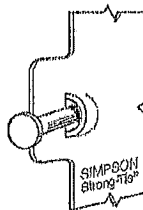
Typical HUS  
Installation



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

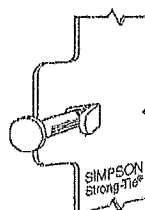
| Model No.  | Ga. | Dimensions (in.) |       |       |                             |          | Fasteners |  | Factored Resistance (lb.)        |                                  |                                  |                                  |
|------------|-----|------------------|-------|-------|-----------------------------|----------|-----------|--|----------------------------------|----------------------------------|----------------------------------|----------------------------------|
|            |     | W                | H     | B     | d <sub>0</sub> <sup>1</sup> | Face     | Joist     |  | D.Fir-L                          |                                  | S-P-F                            |                                  |
|            |     |                  |       |       |                             |          |           |  | Uplift<br>(K <sub>0</sub> =1.15) | Normal<br>(K <sub>0</sub> =1.00) | Uplift<br>(K <sub>0</sub> =1.15) | Normal<br>(K <sub>0</sub> =1.00) |
| LJS26DS    | 18  | 1 1/16           | 5     | 3 1/2 | 4 5/8                       | (16) 16d | (6) 16d   |  | 2055                             | 4265                             | 1460                             | 4115                             |
| HUS26      | 16  | 1 1/8            | 5 3/8 | 3     | 3 15/16                     | (14) 16d | (8) 16d   |  | 2705                             | 4940                             | 2065                             | 3875                             |
| HUS28      | 16  | 1 1/8            | 7 3/8 | 3     | 6 3/32                      | (22) 16d | (8) 16d   |  | 3605                             | 5365                             | 2675                             | 4345                             |
| HUS210     | 16  | 1 1/8            | 9 3/8 | 3     | 7 31/32                     | (30) 16d | (10) 16d  |  | 4505                             | 5795                             | 4010                             | 4740                             |
| HUS1.81/10 | 16  | 1 1/8            | 9     | 3     | 8                           | (30) 16d | (10) 16d  |  | 4505                             | 6450                             | 4010                             | 5200                             |

1. d<sub>0</sub> is the distance from the seat of the hanger to the highest joist nail.

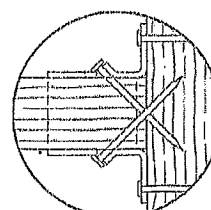


Dome Double Shear Nailing prevents tabs breaking off (available on some models).

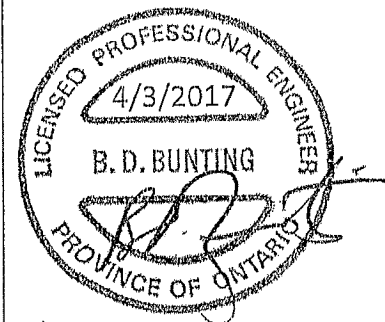
U.S. Patent  
5,603,580



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



Double Shear Nailing Top View.



LIMIT  
STATES  
DESIGN

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

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