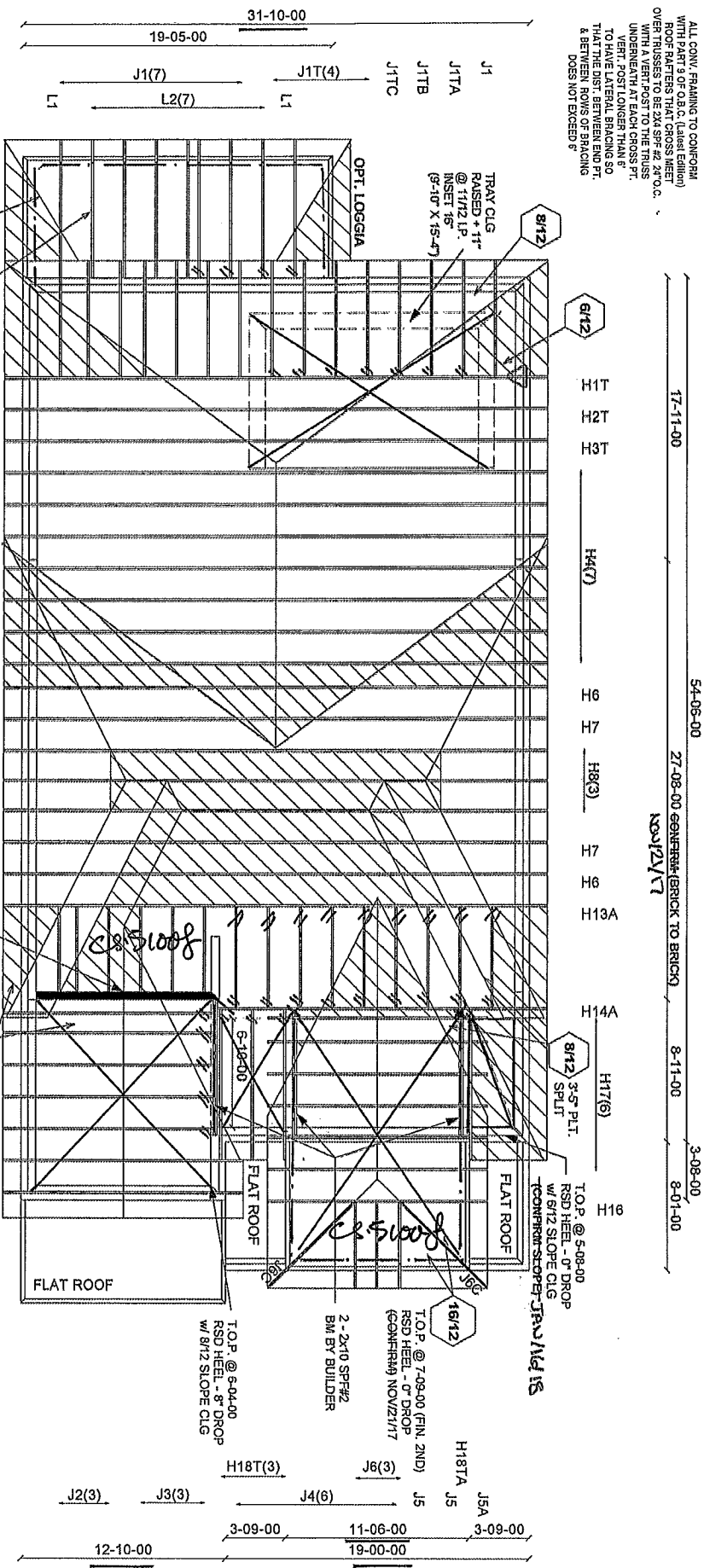


ALPHA-BARRIE

ALL CONV. FRAMING TO CONFORM WITH PART 9 OF O.B.C. (Latest Edition) ROOF TRUSSES THAT CROSS MEET WITH A BENT POST TO THE TRUSS AND A BENT POST TO THE TRUSS UNLESS OTHERWISE NOTED TO HAVE LATERAL BRACING SO THAT THE DIST. BETWEEN END PT. & BETWEEN ROWS OF BRACING DOES NOT EXCEED 6'



A-18023170 A-18023185-A-18023187
 A-18023188 - A-18023208



Job Track: 45147
 Layout ID: 292579
 Plan Log: 95914

Builder / Location: GOLD PARK HOMES / VAUGHAN
 Project: PINE VALLEY
 Date: 1/30/2018
 Designer: AMANDA

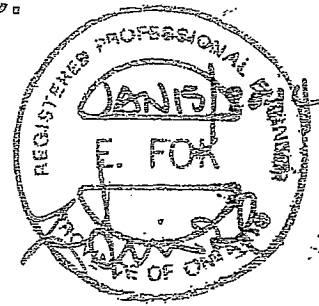
Model / Elevation: 4003 REV1 / B OPT TRAY
 THESE DRAWINGS CONSTITUTE THE PROPERTY OF ALPHA ROOF TRUSSES INC. SHALL NOT BE REPRODUCED, PUBLISHED, OR REPRODUCED IN ANY MANNER OR UTILIZED FOR ANY PURPOSE OTHER THAN THE MANUFACTURE OF TRUSSES BY ALPHA ROOF TRUSSES INC AND WILL BE RETRACTED BY ALPHA ROOF TRUSSES INC IF UTILIZED FOR ANY OTHER PURPOSE.

GLEAVARDEN



Stracon Engineering Inc.

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



RESPONSIBILITIES

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

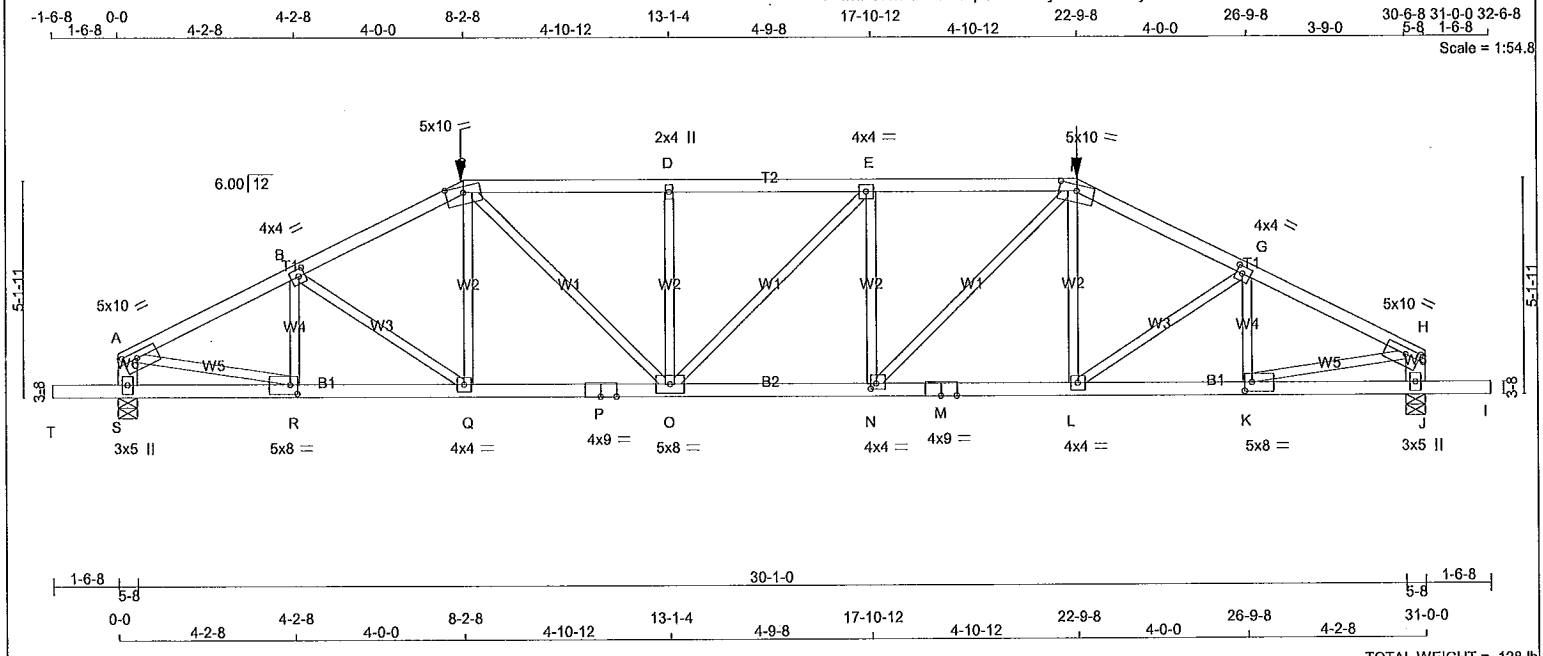
SPECIFICATIONS

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

January 15, 2014

| | | | | | |
|--------------------|------------------|---------------|----------|--------------------------|----------|
| JOB NAME 292576 | TRUSS NAME H1 | QUANTITY 1 | PLY 1 | JOB DESC. TRUSS DESC. | DRWG NO. |
|--------------------|------------------|---------------|----------|--------------------------|----------|

Alpa Roof Truss, Maple Version 8.200 S Jan 6 2018 MITek Industries, Inc. Thu Feb 15 14:05:53 2018 Page 1
 ID:MF8llriaTok7DlbpT4B71Xys4PG-7R4ySAaShCsKmbKw2M1SKY3etcfJA1fRbeFXzktz



TOTAL WEIGHT = 128 lb

LUMBER
N. L. G. A. RULES

| CHORDS | SIZE | LUMBER | DESCR. |
|-----------------|------|----------------|--------|
| A - C | 2x4 | DRY No.2 | SPF |
| C - F | 2x4 | DRY 1650F 1.5E | SPF |
| F - H | 2x4 | DRY No.2 | SPF |
| S - A | 2x6 | DRY No.2 | SPF |
| J - H | 2x6 | DRY No.2 | SPF |
| T - P | 2x4 | DRY No.2 | SPF |
| P - M | 2x4 | DRY No.2 | SPF |
| M - 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 | 5.0 | 10.0 | 1.75 | 4.00 |
| B | TMVW-t | MT20 | 4.0 | 4.0 | 2.00 | 1.75 |
| C | TTWW-m | MT20 | 5.0 | 10.0 | 1.75 | 5.00 |
| D | TMW+w | MT20 | 2.0 | 4.0 | | |
| E | TMVW-t | MT20 | 4.0 | 4.0 | | |
| F | TTWW-m | MT20 | 5.0 | 10.0 | 1.75 | 5.00 |
| G | TMVW-t | MT20 | 4.0 | 4.0 | 2.00 | 1.75 |
| H | TMVW-t | MT20 | 5.0 | 10.0 | 1.75 | 4.00 |
| J | BMV1+p | MT20 | 3.0 | 5.0 | | |
| K | BMVW-t | MT20 | 5.0 | 8.0 | 2.50 | 2.00 |
| L | BMVW-t | MT20 | 4.0 | 4.0 | | |
| M | BS-t | MT20 | 4.0 | 9.0 | | |
| N | BMVW-t | MT20 | 4.0 | 4.0 | 1.50 | 1.50 |
| O | BMVW-t | MT20 | 5.0 | 8.0 | | |
| P | BS-t | MT20 | 4.0 | 9.0 | | |
| Q | BMVW-t | MT20 | 4.0 | 4.0 | | |
| R | BMVW-t | MT20 | 5.0 | 8.0 | 2.50 | 2.00 |
| S | BMV1+p | MT20 | 3.0 | 5.0 | | |

HANGERS NOTES
1)

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 |
|----|-------------------------|---------------------------------|-----------|-----------|
| JT | VERT | HORZ | DOWN | HORZ |
| S | 2939 | 0 | 2939 | 0 |
| J | 2939 | 0 | 2939 | 0 |

UNFACTORED REACTIONS

| JT | 1ST LCASE | MAX | MIN | COMPONENT REACTIONS |
|----|-----------|------|------|---------------------|
| JT | COMBINED | SNOW | LIVE | PERM.LIVE |
| S | 2099 | 1263 | 0 | 0 |
| J | 2099 | 1263 | 0 | 0 |

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

BRACING
TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 2.94 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.

LOADING
TOTAL LOAD CASES: (4)

| CHORDS | | FACTORED | | | | WEBS | |
|--------|------------------|----------|----------------|----------------|-------------|-------|------------------|
| MEMB. | MAX. FORCE (LBS) | VERT. | LOAD LC1 (PLF) | MAX (CSI (LC)) | MAX. UNBRAC | MEMB. | MAX. FORCE (LBS) |
| FR-TO | | FROM | TO | LENGTH | FR-TO | | |
| A-B | -4273 / 0 | -78.0 | -78.0 | 0.50 (1) | 3.00 | R-B | -522 / 0 |
| B-C | -4432 / 0 | -78.0 | -78.0 | 0.50 (1) | 2.94 | B-Q | 0 / 141 |
| C-D | -4935 / 0 | -153.5 | -153.5 | 0.67 (1) | 3.04 | C-Q | 0 / 184 |
| D-E | -4935 / 0 | -153.5 | -153.5 | 0.67 (1) | 3.03 | C-O | 0 / 1384 |
| E-F | -4938 / 0 | -153.5 | -153.5 | 0.68 (1) | 3.02 | O-D | -801 / 0 |
| F-G | -4431 / 0 | -78.0 | -78.0 | 0.50 (1) | 2.94 | O-E | -3 / 0 |
| G-H | -4273 / 0 | -78.0 | -78.0 | 0.50 (1) | 3.00 | N-E | -802 / 0 |
| S-A | -2716 / 0 | 0.0 | 0.0 | 0.19 (1) | 6.29 | N-F | 0 / 1388 |
| J-H | -2716 / 0 | 0.0 | 0.0 | 0.19 (1) | 6.29 | L-F | 0 / 183 |
| | | | | | | L-G | 0 / 140 |
| | | | | | | K-G | -522 / 0 |
| T-S | 0 / 0 | -96.5 | -96.5 | 0.17 (1) | 10.00 | A-R | 0 / 3890 |
| S-R | 0 / 0 | -36.4 | -36.4 | 0.15 (4) | 10.00 | K-H | 0 / 3890 |
| R-Q | 0 / 3833 | -36.4 | -36.4 | 0.77 (1) | 10.00 | | |
| Q-P | 0 / 3951 | -36.4 | -36.4 | 0.79 (1) | 10.00 | | |
| P-O | 0 / 3951 | -36.4 | -36.4 | 0.79 (1) | 10.00 | | |
| O-N | 0 / 4938 | -36.4 | -36.4 | 0.96 (1) | 10.00 | | |
| N-M | 0 / 3951 | -36.4 | -36.4 | 0.79 (1) | 10.00 | | |
| M-L | 0 / 3951 | -36.4 | -36.4 | 0.79 (1) | 10.00 | | |
| L-K | 0 / 3833 | -36.4 | -36.4 | 0.77 (1) | 10.00 | | |
| K-J | 0 / 0 | -36.4 | -36.4 | 0.15 (4) | 10.00 | | |
| J-I | 0 / 0 | -96.5 | -96.5 | 0.17 (1) | 10.00 | | |

FACTORED CONCENTRATED LOADS (LBS)

| JT | LOC. | LC1 | MAX | MAX+ | FACE | DIR. | TYPE |
|----|--------|------|------|------|-------|------|-------|
| C | 8-2-8 | -467 | -467 | - | FRONT | VERT | TOTAL |
| F | 22-9-8 | -467 | -467 | - | FRONT | VERT | TOTAL |

DESIGN CRITERIA

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

SPACING = 24.0 IN. C/C

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

GIRDER TYPE: CPrimeHip
SIDE SETBACK = 8-2-8
END SETBACK = 5-10-8
END WALL WIDTH = 0-0
CORNER FRAMING TYPE: CONVENTIONAL
END JACK TYPE: CONVENTIONAL
APPLIED TO FRONT SIDE
- ADDTL. LOADS BASED ON 55% OF GSL.

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

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

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

ALLOWABLE DEFL.(LL) = L/360 (1.03")
CALCULATED VERT. DEFL.(LL) = L/999 (0.23")
ALLOWABLE DEFL.(TL) = L/360 (1.03")
CALCULATED VERT. DEFL.(TL) = L/817 (0.46")

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

CSI: TC=0.68/1.00 (E-F:1), 8C=0.96/1.00 (N-O:1), WB=0.96/1.00 (H-K:1), SSI=0.38/1.00 (E-F:1)

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

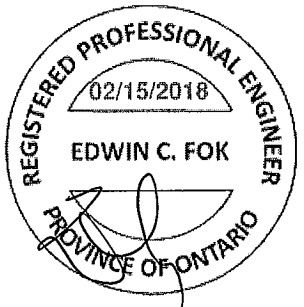
COMPANION LIVE LOAD FACTOR = 1.00

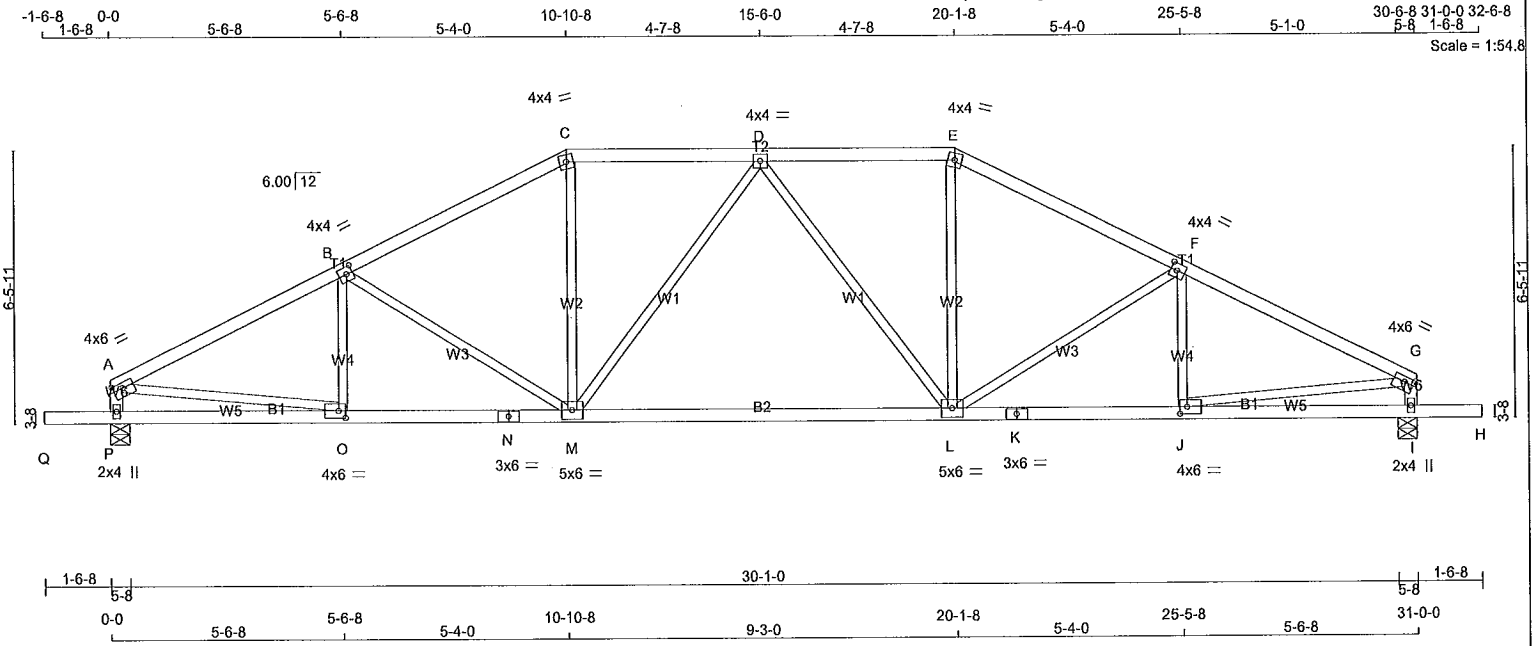
AUTOSOLVE HEELS OFF

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

NAIL VALUES

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





TOTAL WEIGHT = 124 lb

LUMBER
N. L. G. A. RULES

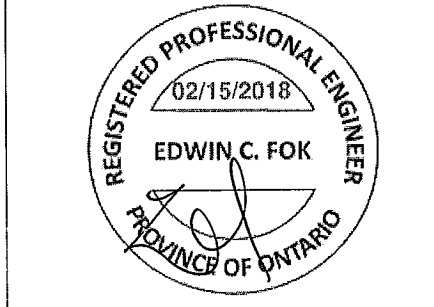
| CHORDS | SIZE | LUMBER | DESCR. |
|-----------------|------|----------|--------|
| A - C | 2x4 | DRY No.2 | SPF |
| C - E | 2x4 | DRY No.2 | SPF |
| E - G | 2x4 | DRY No.2 | SPF |
| P - A | 2x4 | DRY No.2 | SPF |
| I - G | 2x4 | DRY No.2 | SPF |
| Q - N | 2x4 | DRY No.2 | SPF |
| N - K | 2x4 | DRY No.2 | SPF |
| K - 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 |
|----|--------|--------|-----|-----|------|------|
| A | TMVW-t | MT20 | 4.0 | 6.0 | 1.50 | 2.75 |
| B | TMVW-t | MT20 | 4.0 | 4.0 | 2.00 | 1.75 |
| 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 | 2.00 | 1.75 |
| G | TMVW-t | MT20 | 4.0 | 6.0 | 1.50 | 2.75 |
| I | BMV1+p | MT20 | 2.0 | 4.0 | | |
| J | BMVW-t | MT20 | 4.0 | 6.0 | 2.00 | 2.00 |
| K | BS-t | MT20 | 3.0 | 6.0 | | |
| L | BMVW-t | MT20 | 5.0 | 6.0 | | |
| M | BMVW-t | MT20 | 5.0 | 6.0 | | |
| N | BS-t | MT20 | 3.0 | 6.0 | | |
| O | BMVW-t | MT20 | 4.0 | 6.0 | 2.00 | 2.00 |
| P | BMV1+p | MT20 | 2.0 | 4.0 | | |

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



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

BEARINGS

| JT | VERT | HORZ | MAXIMUM FACTORED GROSS REACTION | DOWN | HORZ | UPLIFT | INPUT BRG IN-SX | REQRD BRG IN-SX |
|----|------|------|---------------------------------|------|------|--------|-----------------|-----------------|
| P | 1644 | 0 | 1644 | 0 | 0 | 0 | 5-8 | 2-7 |
| I | 1644 | 0 | 1644 | 0 | 0 | 0 | 5-8 | 2-7 |

UNFACTORED REACTIONS

| JT | COMBINED | SNOW | LIVE | PERM.LIVE | WIND | DEAD | SOIL |
|----|----------|---------|-------|-----------|-------|---------|-------|
| P | 1172 | 715 / 0 | 0 / 0 | 0 / 0 | 0 / 0 | 457 / 0 | 0 / 0 |
| I | 1172 | 715 / 0 | 0 / 0 | 0 / 0 | 0 / 0 | 457 / 0 | 0 / 0 |

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

BRACING
TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 4.23 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) | FACTORED LC1 MAX (LC) | MAX. UNBRACED LENGTH | MEMB. | MAX. FACTORED FORCE (LBS) | MAX. CSi (LC) | |
| FR-TO | | | | | FR-TO | | | |
| A-B | -2244 / 0 | -78.0 | -78.0 | 0.37 (1) | 4.23 | O-B | -176 / 4 | 0.04 (1) |
| B-C | -1949 / 0 | -78.0 | -78.0 | 0.34 (1) | 4.51 | B-M | -361 / 0 | 0.27 (1) |
| C-D | -1731 / 0 | -78.0 | -78.0 | 0.24 (1) | 4.83 | M-C | 0 / 564 | 0.13 (1) |
| D-E | -1731 / 0 | -78.0 | -78.0 | 0.24 (1) | 4.83 | M-D | -271 / 0 | 0.32 (1) |
| E-F | -1949 / 0 | -78.0 | -78.0 | 0.34 (1) | 4.51 | D-L | -271 / 0 | 0.32 (1) |
| F-G | -2244 / 0 | -78.0 | -78.0 | 0.37 (1) | 4.23 | L-E | 0 / 564 | 0.13 (1) |
| P-A | -1447 / 0 | 0.0 | 0.0 | 0.15 (1) | 6.79 | L-F | -361 / 0 | 0.27 (1) |
| I-G | -1447 / 0 | 0.0 | 0.0 | 0.15 (1) | 6.79 | F-F | -176 / 4 | 0.04 (1) |
| Q-P | 0 / 0 | -96.5 | -96.5 | 0.16 (1) | 10.00 | A-O | 0 / 2043 | 0.46 (1) |
| P-O | 0 / 0 | -18.5 | -18.5 | 0.13 (4) | 10.00 | J-G | 0 / 2043 | 0.46 (1) |
| O-N | 0 / 2026 | -18.5 | -18.5 | 0.46 (1) | 10.00 | | | |
| N-M | 0 / 2026 | -18.5 | -18.5 | 0.46 (1) | 10.00 | | | |
| M-L | 0 / 1892 | -18.5 | -18.5 | 0.44 (1) | 10.00 | | | |
| L-K | 0 / 2026 | -18.5 | -18.5 | 0.46 (1) | 10.00 | | | |
| K-J | 0 / 2026 | -18.5 | -18.5 | 0.46 (1) | 10.00 | | | |
| J-I | 0 / 0 | -18.5 | -18.5 | 0.13 (4) | 10.00 | | | |
| I-H | 0 / 0 | -96.5 | -96.5 | 0.16 (1) | 10.00 | | | |

DESIGN CRITERIA

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

SPACING = 24.0 IN. C/C

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 (1.03")
CALCULATED VERT. DEFL.(L.L.) = L/999 (0.09")
ALLOWABLE DEFL.(TL)= L/360 (1.03")
CALCULATED VERT. DEFL.(TL) = L/999 (0.28")

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

CSi: TC=0.37/1.00 (F-G:1), BC=0.46/1.00 (J-L:1), WB=0.46/1.00 (G-J:1), SSI=0.18/1.00 (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.

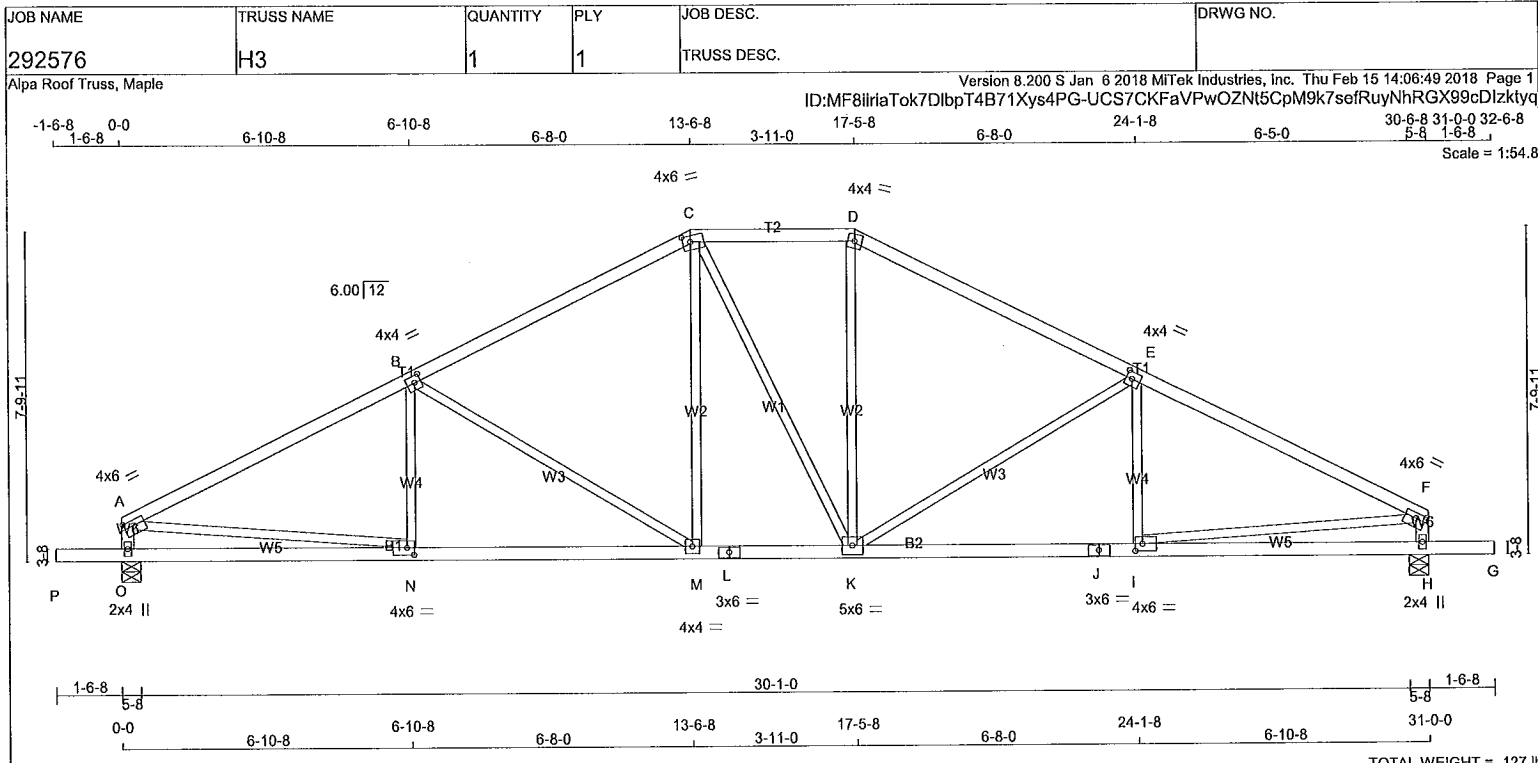
NAIL VALUES

| PLATE | GRIP(DRY) | SHEAR | SECTION |
|-------|-----------|-------|--------------------|
| (PSI) | (PLI) | (PLI) | (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 (E) (INPUT = 0.90)
JSI METAL= 0.63 (N) (INPUT = 1.00)



TOTAL WEIGHT = 127 lb

LUMBER
N. L. G. A. RULES

| CHORDS | SIZE | DRY | LUMBER | DESCR. |
|--------|------|-----|--------|--------|
| A - C | 2x4 | DRY | No.2 | SPF |
| C - D | 2x4 | DRY | No.2 | SPF |
| D - F | 2x4 | DRY | No.2 | SPF |
| O - A | 2x4 | DRY | No.2 | SPF |
| H - F | 2x4 | DRY | No.2 | SPF |
| P - L | 2x4 | DRY | No.2 | SPF |
| L - J | 2x4 | DRY | No.2 | SPF |
| J - G | 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 | 6.0 | 1.50 | 2.75 |
| B | TMVW-t | MT20 | 4.0 | 4.0 | 2.00 | 1.75 |
| C | TTW-m | MT20 | 4.0 | 6.0 | 1.75 | 2.25 |
| D | TTW-m | MT20 | 4.0 | 4.0 | | |
| E | TMVW-t | MT20 | 4.0 | 4.0 | 2.00 | 1.75 |
| F | TMVW-t | MT20 | 4.0 | 6.0 | 1.50 | 2.75 |
| H | BMV1+p | MT20 | 2.0 | 4.0 | | |
| I | BMVW-t | MT20 | 4.0 | 6.0 | 2.00 | 2.00 |
| J | BS-t | MT20 | 3.0 | 6.0 | | |
| K | BMVW-t | MT20 | 5.0 | 6.0 | | |
| L | BS-t | MT20 | 3.0 | 6.0 | | |
| M | BMVW-t | MT20 | 4.0 | 4.0 | | |
| N | BMVW-t | MT20 | 4.0 | 6.0 | 2.00 | 2.00 |
| O | BMV1+p | MT20 | 2.0 | 4.0 | | |

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

BEARINGS

| JT | VERT | HORZ | FACTORED GROSS REACTION DOWN | MAXIMUM FACTORED GROSS REACTION HORZ | INPUT BRG UPLIFT | REQD BRG IN-SX |
|----|------|------|------------------------------|--------------------------------------|------------------|----------------|
| O | 1644 | 0 | 1644 | 0 | 0 | 5-8 |
| H | 1644 | 0 | 1644 | 0 | 0 | 5-8 |

UNFACTORED REACTIONS

| JT | COMBINED | SNOW | LIVE | PERM.LIVE | WIND | DEAD | SOIL |
|----|----------|-------|------|-----------|------|-------|------|
| O | 1172 | 715/0 | 0/0 | 0/0 | 0/0 | 457/0 | 0/0 |
| H | 1172 | 715/0 | 0/0 | 0/0 | 0/0 | 457/0 | 0/0 |

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

BRACING
TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 3.96 FT.
MAX. UNBRACED BOTTOM CHORD LENGTH = 10.00 FT OR RIGID CEILING DIRECTLY APPLIED.

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

LOADING

TOTAL LOAD CASES: (4)

| CHORDS | | | WEBS | | | | |
|--------|---------------------------|---------------------------|--------------------|----------------------|-------|---------------------------|---------------------------------|
| MEMB. | MAX. FACTORED FORCE (LBS) | FACTORED VERT. LOAD (PLF) | LC1 MAX (CSI (LC)) | MAX. UNBRACED LENGTH | MEMB. | MAX. FACTORED FORCE (LBS) | MAX. UNBRACED LENGTH (CSI (LC)) |
| FR-O | | | | | FR-O | | |
| A-B | -2254/0 | -78.0 | -78.0 0.61 (1) | 3.96 | N-B | -74/80 | 0.03 (4) |
| B-C | -1728/0 | -78.0 | -78.0 0.53 (1) | 4.48 | B-M | -613/0 | 0.81 (1) |
| C-D | -1526/0 | -78.0 | -78.0 0.18 (1) | 5.15 | M-C | 0/411 | 0.09 (1) |
| D-E | -1729/0 | -78.0 | -78.0 0.53 (1) | 4.48 | C-K | 0/2 | 0.00 (1) |
| E-F | -2254/0 | -78.0 | -78.0 0.61 (1) | 3.96 | K-D | 0/413 | 0.09 (1) |
| O-A | -1443/0 | 0.0 | 0.0 0.14 (1) | 6.81 | K-E | -611/0 | 0.81 (1) |
| H-F | -1442/0 | 0.0 | 0.0 0.14 (1) | 6.81 | I-E | -75/79 | 0.03 (4) |
| | | | | | A-N | 0/2052 | 0.46 (1) |
| P-O | 0/0 | -96.5 | -96.5 0.16 (1) | 10.00 | I-F | 0/2052 | 0.46 (1) |
| O-N | 0/0 | -18.5 | -18.5 0.21 (4) | 10.00 | | | |
| N-M | 0/2041 | -18.5 | -18.5 0.43 (1) | 10.00 | | | |
| M-L | 0/1525 | -18.5 | -18.5 0.31 (1) | 10.00 | | | |
| L-K | 0/1525 | -18.5 | -18.5 0.31 (1) | 10.00 | | | |
| K-J | 0/2041 | -18.5 | -18.5 0.43 (1) | 10.00 | | | |
| J-I | 0/2041 | -18.5 | -18.5 0.43 (1) | 10.00 | | | |
| I-H | 0/0 | -18.5 | -18.5 0.21 (4) | 10.00 | | | |
| H-G | 0/0 | -96.5 | -96.5 0.16 (1) | 10.00 | | | |

DESIGN CRITERIA

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

SPACING = 24.0 IN./C/C

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

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

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

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

ALLOWABLE DEFL.(LL)= L/360 (1.03")
CALCULATED VERT. DEFL.(LL) = L/999 (0.09")
ALLOWABLE DEFL.(TL)= L/360 (1.03")
CALCULATED VERT. DEFL.(TL) = L/999 (0.21")

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

CSI: TC=0.61/1.00 (A-B:1), BC=0.43/1.00 (M-N:1), WB=0.81/1.00 (B-M:1), SSI=0.23/1.00 (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

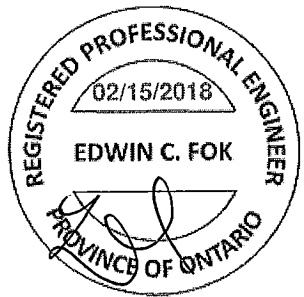
| PLATE GRIP(DRY) | SHEAR (PSI) | SECTION (PLI) |
|-----------------|----------------------------|---------------|
| MT20 | 618 354 1667 788 1987 1656 | |

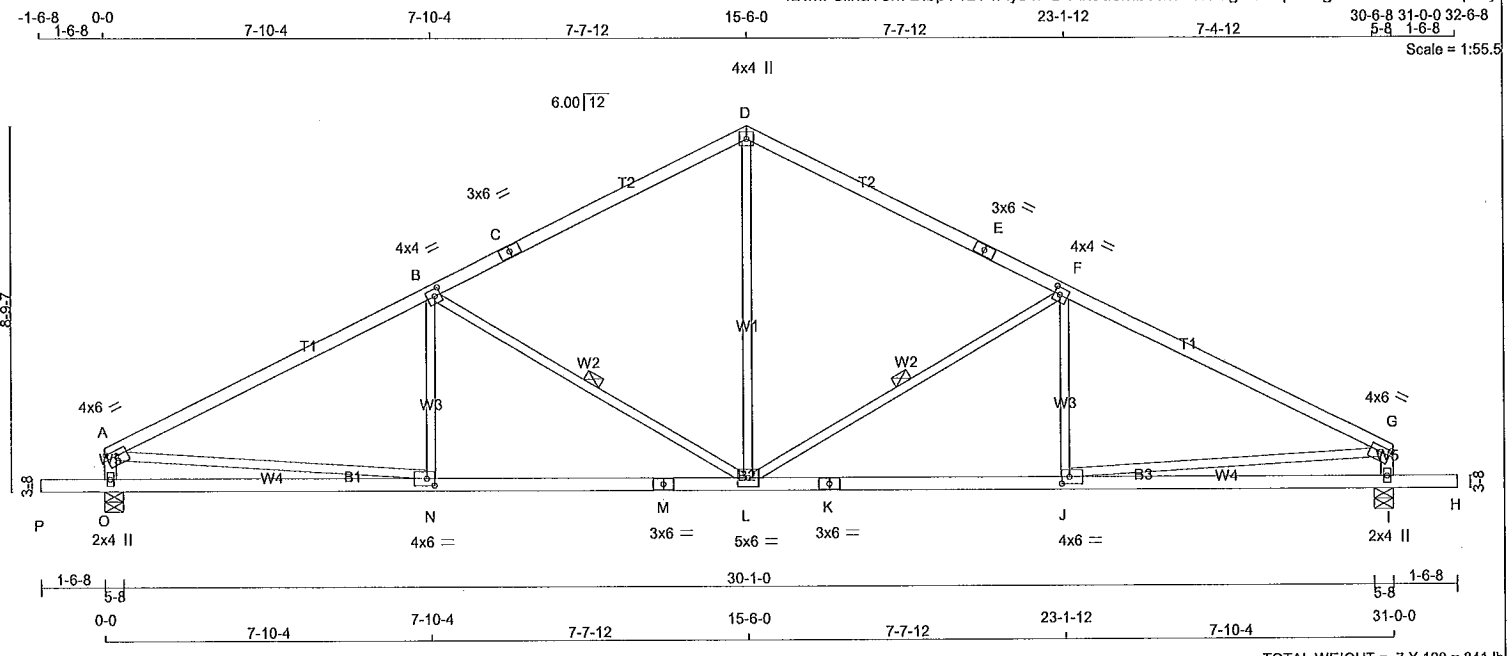
PLATE PLACEMENT TOL. = 0.250 Inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.85 (N) (INPUT = 0.90)
JSI METAL= 0.63 (J) (INPUT = 1.00)

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





LUMBER
N. L. G. A. RULES

| CHORDS | SIZE | LUMBER | DESCR. |
|-----------------|---------|--------|--------|
| A - C | 2x4 DRY | No.2 | SPF |
| C - D | 2x4 DRY | No.2 | SPF |
| D - E | 2x4 DRY | No.2 | SPF |
| E - G | 2x4 DRY | No.2 | SPF |
| O - A | 2x4 DRY | No.2 | SPF |
| I - G | 2x4 DRY | No.2 | SPF |
| P - M | 2x4 DRY | No.2 | SPF |
| M - K | 2x4 DRY | No.2 | SPF |
| K - 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 |
|----|---------|--------|-----|-----|------|------|
| A | TMVW-t | MT20 | 4.0 | 6.0 | 1.50 | 2.75 |
| B | TMVW-t | MT20 | 4.0 | 4.0 | 2.00 | 1.75 |
| C | TS-t | MT20 | 3.0 | 6.0 | | |
| D | TTW+p | MT20 | 4.0 | 4.0 | | |
| E | TS-t | MT20 | 3.0 | 6.0 | | |
| F | TMVW-t | MT20 | 4.0 | 4.0 | 2.00 | 1.75 |
| G | TMVW-t | MT20 | 4.0 | 6.0 | 1.50 | 2.75 |
| J | BMV1+p | MT20 | 2.0 | 4.0 | | |
| I | BMVW-t | MT20 | 4.0 | 6.0 | 2.00 | 2.25 |
| K | BS-t | MT20 | 3.0 | 6.0 | | |
| L | BMVWW-t | MT20 | 5.0 | 6.0 | | |
| M | BS-t | MT20 | 3.0 | 6.0 | | |
| N | BMVW-t | MT20 | 4.0 | 6.0 | 2.00 | 2.25 |
| O | BMV1+p | MT20 | 2.0 | 4.0 | | |

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

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

BEARINGS

| JT | FACTORED GROSS REACTION | MAXIMUM FACTORED GROSS REACTION | INPUT BRG | REQRD BRG |
|----|-------------------------|---------------------------------|-----------|-----------|
| O | 1644 0 | 1644 0 | 5-8 | 2-7 |
| I | 1644 0 | 1644 0 | 5-8 | 2-7 |

UNFACTORED REACTIONS

| JT | 1ST LCASE | SNOW | LIVE | PERM.LIVE | WIND | DEAD | SOIL |
|----|-----------|-------|------|-----------|------|-------|------|
| O | 1172 | 715/0 | 0/0 | 0/0 | 0/0 | 457/0 | 0/0 |
| I | 1172 | 715/0 | 0/0 | 0/0 | 0/0 | 457/0 | 0/0 |

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

BRACING
TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 3.64 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-L, B-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)

| MEMB. | CHORDS | | | UNBRAC LENGTH | WEBS | | |
|-------|---------------------------|---------------------------|--------------|---------------|------------------------|---------------------------|------------------|
| | MAX. FACTORED FORCE (LBS) | FACTORED VERT. LOAD (PLF) | LC1 MAX (LC) | | MAX. MEMB. FORCE (LBS) | MAX. FACTORED FORCE (LBS) | MAX. CSI (LC) |
| FR-TO | | FROM | TO | | FR-TO | | |
| A-B | -2233/0 | -78.0 | -78.0 | 0.83 (1) | 3.64 | L-D | 0/929 0.21 (1) |
| B-C | -1572/0 | -78.0 | -78.0 | 0.70 (1) | 4.33 | L-F | -760/0 0.42 (1) |
| C-D | -1572/0 | -78.0 | -78.0 | 0.70 (1) | 4.33 | J-F | -30/109 0.04 (4) |
| D-E | -1572/0 | -78.0 | -78.0 | 0.70 (1) | 4.33 | B-L | -760/0 0.42 (1) |
| E-F | -1572/0 | -78.0 | -78.0 | 0.70 (1) | 4.33 | N-B | -30/109 0.04 (4) |
| F-G | -2233/0 | -78.0 | -78.0 | 0.83 (1) | 3.64 | A-N | 0/2035 0.46 (1) |
| O-A | -1435/0 | 0.0 | 0.0 | 0.14 (1) | 6.82 | J-G | 0/2035 0.46 (1) |
| I-G | -1435/0 | 0.0 | 0.0 | 0.14 (1) | 6.82 | | |

| | | | | | | | |
|-----|--------|-------|-------|----------|-------|--|--|
| P-O | 0/0 | -96.5 | -96.5 | 0.16 (1) | 10.00 | | |
| O-N | 0/0 | -18.5 | -18.5 | 0.26 (4) | 10.00 | | |
| N-M | 0/2026 | -18.5 | -18.5 | 0.46 (1) | 10.00 | | |
| M-L | 0/2026 | -18.5 | -18.5 | 0.46 (1) | 10.00 | | |
| L-K | 0/2026 | -18.5 | -18.5 | 0.46 (1) | 10.00 | | |
| K-J | 0/2026 | -18.5 | -18.5 | 0.46 (1) | 10.00 | | |
| J-I | 0/0 | -18.5 | -18.5 | 0.26 (4) | 10.00 | | |
| I-H | 0/0 | -96.5 | -96.5 | 0.16 (1) | 10.00 | | |

DESIGN CRITERIA

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

SPACING = 24.0 IN./C/C

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

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

(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 (1.03")
CALCULATED VERT. DEFL.(LL)= L/999 (0.10")
ALLOWABLE DEFL.(TL)= L/360 (1.03")
CALCULATED VERT. DEFL.(TL)= L/999 (0.22")

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

CSI: TC=0.83/1.00 (F-G:1), BC=0.46/1.00 (J-L:1), WB=0.46/1.00 (G-J:1), SSI=0.26/1.00 (F-G:1)
DOL LUMBER=1.00 NAIL=1.00 LS BEND=1.10
COMP=1.10 SHEAR=1.10 TENS=1.10

COMPANION LIVE LOAD FACTOR = 1.00

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

NAIL VALUES

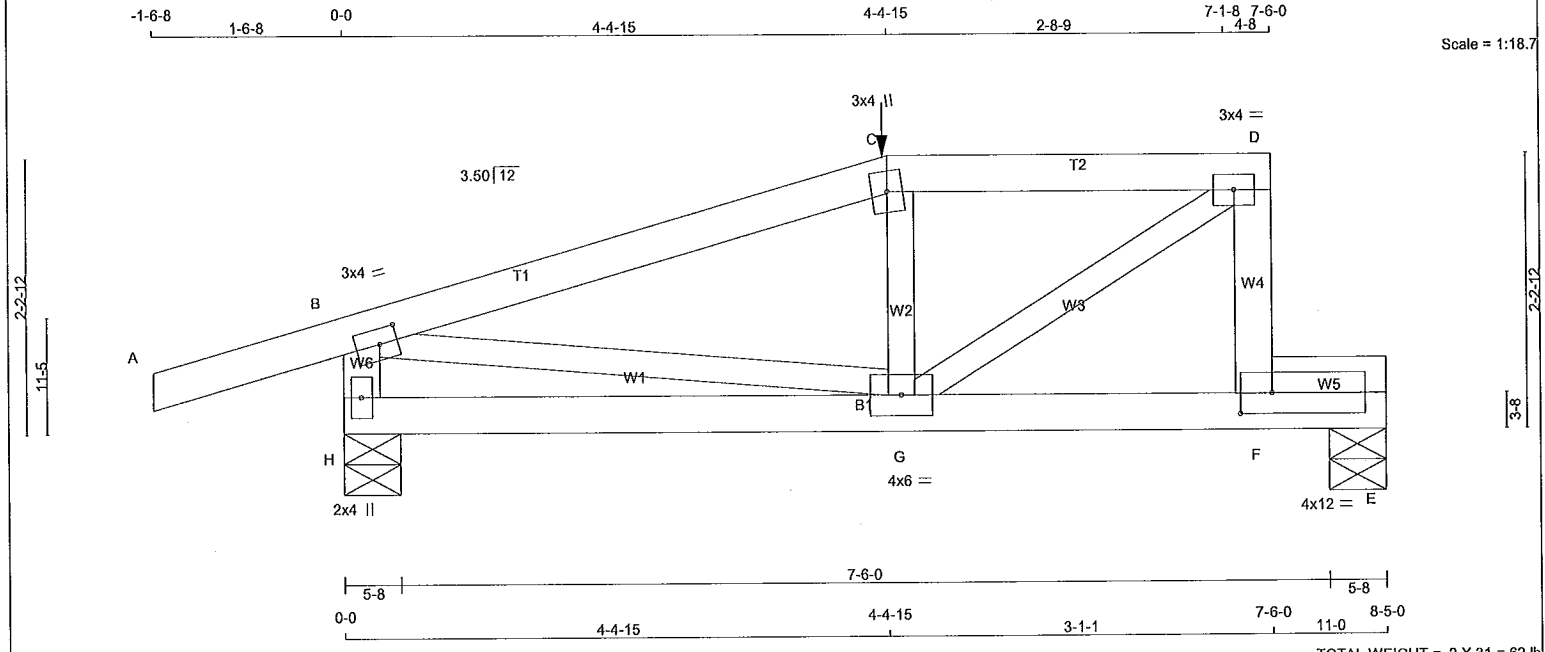
| PLATE | GRIP(DRY) | SHEAR (PSI) | SECTION (PLI) | MAX MIN | MAX MIN |
|-------|-----------|-------------|---------------|---------|-----------|
| MT20 | 618 | 354 | 1667 | 788 | 1987 1656 |

PLATE PLACEMENT TOL. = 0.250 Inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.89 (N) (INPUT = 0.90)
JSI METAL= 0.62 (M) (INPUT = 1.00)





LUMBER
N. L. G. A. RULES

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

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

PLATES (table is in inches)

| JT | TYPE | PLATES | W | LEN | Y | X |
|----|--------|--------|-----|------|------|------|
| B | TMVW-t | MT20 | 3.0 | 4.0 | 1.50 | 1.75 |
| C | TTW+m | MT20 | 3.0 | 4.0 | | |
| D | TMVW-t | MT20 | 3.0 | 4.0 | | |
| F | BMVW-t | MT20 | 4.0 | 12.0 | 2.00 | 3.00 |
| G | BMVW-t | MT20 | 4.0 | 6.0 | | |
| H | BMV1+p | MT20 | 2.0 | 4.0 | | |

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

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

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

BEARINGS

| JT | FACTORED GROSS REACTION | | MAXIMUM FACTORED GROSS REACTION | | INPUT BRG | REQRD BRG |
|----|-------------------------|------|---------------------------------|------|-----------|-----------|
| | VERT | HORZ | DOWN | HORZ | | |
| H | 539 | 0 | 539 | 0 | 5-8 | 1-8 |
| E | 353 | 0 | 353 | 0 | 5-8 | 1-8 |

UNFACTORED REACTIONS

| JT | 1ST LCASE | | MAX./MIN. COMPONENT REACTIONS | | | | |
|----|-----------|---------|-------------------------------|-----------|-------|---------|-------|
| | COMBINED | SNOW | LIVE | PERM.LIVE | WIND | DEAD | SOIL |
| H | 382 | 248 / 0 | 0 / 0 | 0 / 0 | 0 / 0 | 133 / 0 | 0 / 0 |
| E | 253 | 148 / 0 | 0 / 0 | 0 / 0 | 0 / 0 | 105 / 0 | 0 / 0 |

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

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

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

LOADING
TOTAL LOAD CASES: (4)

| MEMB. | CHORDS | | | WEBS | | |
|-------|---------------------------|---------------------------|----------------|----------------------|-------------------|--------------------|
| | MAX. FACTORED FORCE (LBS) | FACTORED VERT. LOAD (PLF) | LC1 MAX (LC) | MAX. UNBRACED LENGTH | MEMB. FORCE (LBS) | MAX. FACTORED (LC) |
| A-B | 0 / 17 | -78.0 | -78.0 0.15 (1) | 10.00 | G-C | -174 / 0 0.03 (1) |
| B-C | -528 / 0 | -78.0 | -78.0 0.29 (1) | 6.25 | G-D | 0 / 588 0.15 (1) |
| C-D | -488 / 0 | -78.0 | -78.0 0.14 (1) | 6.25 | B-G | 0 / 511 0.13 (1) |
| F-D | -448 / 0 | 0.0 | 0.0 0.06 (1) | 7.81 | | |
| H-B | -514 / 0 | 0.0 | 0.0 0.06 (1) | 7.81 | | |
| H-G | 0 / 0 | -18.5 | -18.5 0.14 (4) | 10.00 | | |
| G-F | 0 / 0 | -18.5 | -18.5 0.47 (1) | 10.00 | | |
| F-E | 0 / 0 | -18.5 | -18.5 0.20 (1) | 10.00 | | |

FACTORED CONCENTRATED LOADS (LBS)

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

DESIGN CRITERIA

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

SPACING = 24.0 IN./C/C

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

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

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

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

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

ALLOWABLE DEFL.(LL)= L/360 (0.28")
CALCULATED VERT. DEFL.(LL) = L/999 (0.04")
ALLOWABLE DEFL.(TL)= L/360 (0.28")
CALCULATED VERT. DEFL.(TL) = L/999 (0.08")

CSI: TC=0.29/1.00 (B-C:1), BC=0.47/1.00 (F-G:1), WB=0.15/1.00 (D-G:1), SSI=0.15/1.00 (E-F:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

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

NAIL VALUES

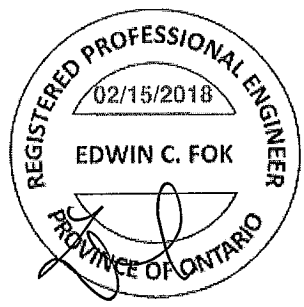
| PLATE GRIP(DRY) | SHEAR (PSI) | SECTION (PLI) | MAX MIN | MAX MIN | MAX MIN |
|-----------------|-------------|---------------|---------|---------|-----------|
| MT20 | 618 | 354 | 1667 | 788 | 1987 1656 |

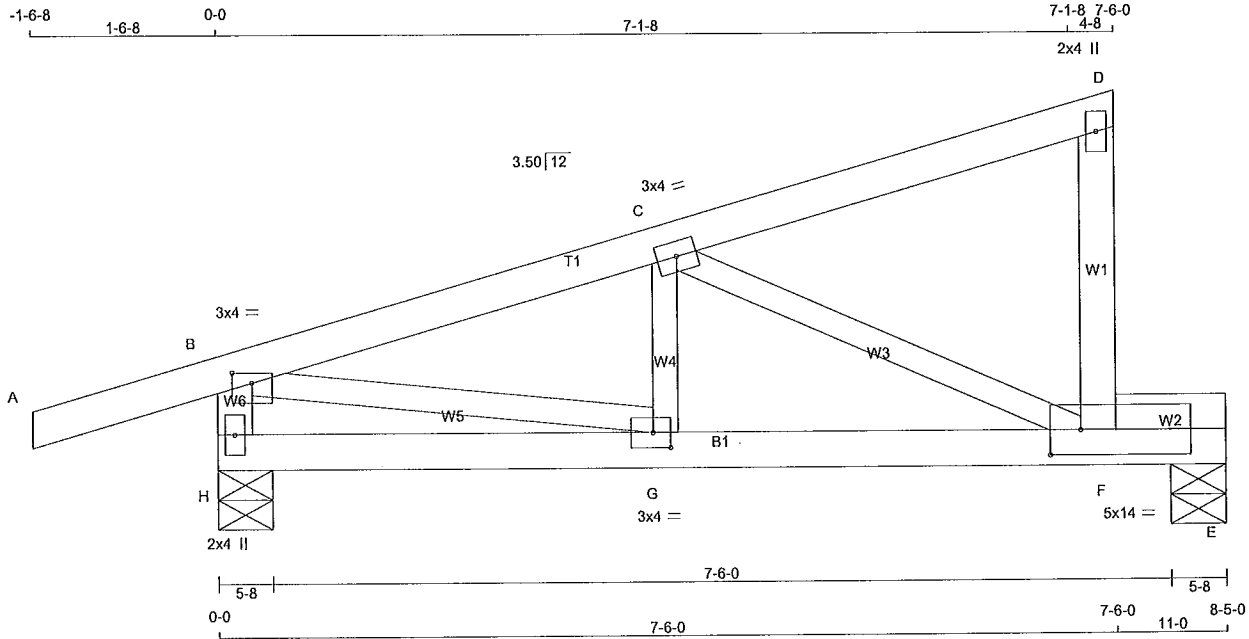
PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.87 (D) (INPUT = 0.90)
JSI METAL= 0.23 (B) (INPUT = 1.00)

A-18023185





TOTAL WEIGHT = 4 X 32 = 127 lb [M]F

LUMBER
N. L. G. A. RULES

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

DRY: SEASONED LUMBER.

PLATES (table is in inches)

| JT | TYPE | PLATES | W | LEN | Y | X |
|----|---------|--------|-----|------|------|------|
| B | TMVW-p | MT20 | 3.0 | 4.0 | 1.00 | 2.00 |
| C | TMVW-t | MT20 | 3.0 | 4.0 | | |
| D | TMV+p | MT20 | 2.0 | 4.0 | | |
| F | BMVWW-t | MT20 | 5.0 | 14.0 | 2.50 | 3.00 |
| G | BMVW-t | MT20 | 3.0 | 4.0 | 1.50 | 1.75 |
| H | BMV1+p | MT20 | 2.0 | 4.0 | | |

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

BEARINGS

| JT | FACTORED GROSS REACTION | | MAXIMUM FACTORED GROSS REACTION | | INPUT BRG | REQRD BRG |
|----|-------------------------|------|---------------------------------|------|-----------|-----------|
| | VERT | HORZ | DOWN | HORZ | | |
| H | 525 | 0 | 525 | 0 | 5-8 | 1-8 |
| E | 338 | 0 | 338 | 0 | 5-8 | 1-8 |

UNFACTORED REACTIONS

| JT | 1ST LCASE | MAX./MIN. COMPONENT REACTIONS | | | | | |
|----|-----------|-------------------------------|-------|-------|-----------|---------|-------|
| | | COMBINED | SNOW | LIVE | PERM.LIVE | WIND | DEAD |
| H | 372 | 241 / 0 | 0 / 0 | 0 / 0 | 0 / 0 | 131 / 0 | 0 / 0 |
| E | 243 | 140 / 0 | 0 / 0 | 0 / 0 | 0 / 0 | 102 / 0 | 0 / 0 |

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

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

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

LOADING
TOTAL LOAD CASES: (4)

| MEMB. | MAX. FACTORED FORCE (LBS) | CHORDS | | | | WEBS | | | |
|-------|---------------------------|------------------|---------|-------------|---------------------------|------------------------|---------------------------|------------------------|--|
| | | VERT. LOAD (PLF) | LC1 MAX | MAX. UNBRAC | MAX. FACTORED FORCE (LBS) | MAX. FACTORED CSI (LC) | MAX. FACTORED FORCE (LBS) | MAX. FACTORED CSI (LC) | |
| FR-TO | | FROM | TO | LENGTH | FR-TO | | | | |
| A-B | 0 / 17 | -78.0 | -78.0 | 0.14 (1) | 10.00 | G-C | 0 / 102 | 0.04 (4) | |
| B-C | -612 / 0 | -78.0 | -78.0 | 0.13 (1) | 6.25 | B-G | 0 / 605 | 0.14 (1) | |
| C-D | -9 / 0 | -78.0 | -78.0 | 0.12 (1) | 10.00 | C-F | -657 / 0 | 0.18 (1) | |
| F-D | -115 / 0 | 0.0 | 0.0 | 0.02 (1) | 7.81 | | | | |
| H-B | -514 / 0 | 0.0 | 0.0 | 0.05 (1) | 7.81 | | | | |
| H-G | 0 / 0 | -18.5 | -18.5 | 0.12 (4) | 10.00 | | | | |
| G-F | 0 / 596 | -18.5 | -18.5 | 0.51 (1) | 10.00 | | | | |
| F-E | 0 / 0 | -18.5 | -18.5 | 0.17 (1) | 10.00 | | | | |

DESIGN CRITERIA

SPECIFIED LOADS:
TOP CH. LL = 21.0 PSF
DL = 8.0 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 (0.28")
CALCULATED VERT. DEFL.(LL) = L/999 (0.05")
ALLOWABLE DEFL.(TL) = L/360 (0.28")
CALCULATED VERT. DEFL.(TL) = L/912 (0.11")

CSI: TC=0.14/1.00 (A-B:1), BC=0.51/1.00 (F-G:1), WB=0.18/1.00 (C-F:1), SS=0.13/1.00 (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

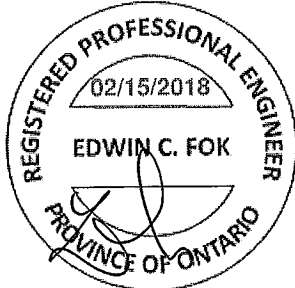
| PLATE | GRIP(DRY) (PSI) | SHEAR (PLI) | SECTION (PLI) |
|-------|-----------------|-------------|---------------|
| MT20 | 618 | 354 | 1667 |
| | 788 | 1987 | 1656 |

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.84 (G) (INPUT = 0.90)
JSI METAL= 0.23 (B) (INPUT = 1.00)

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

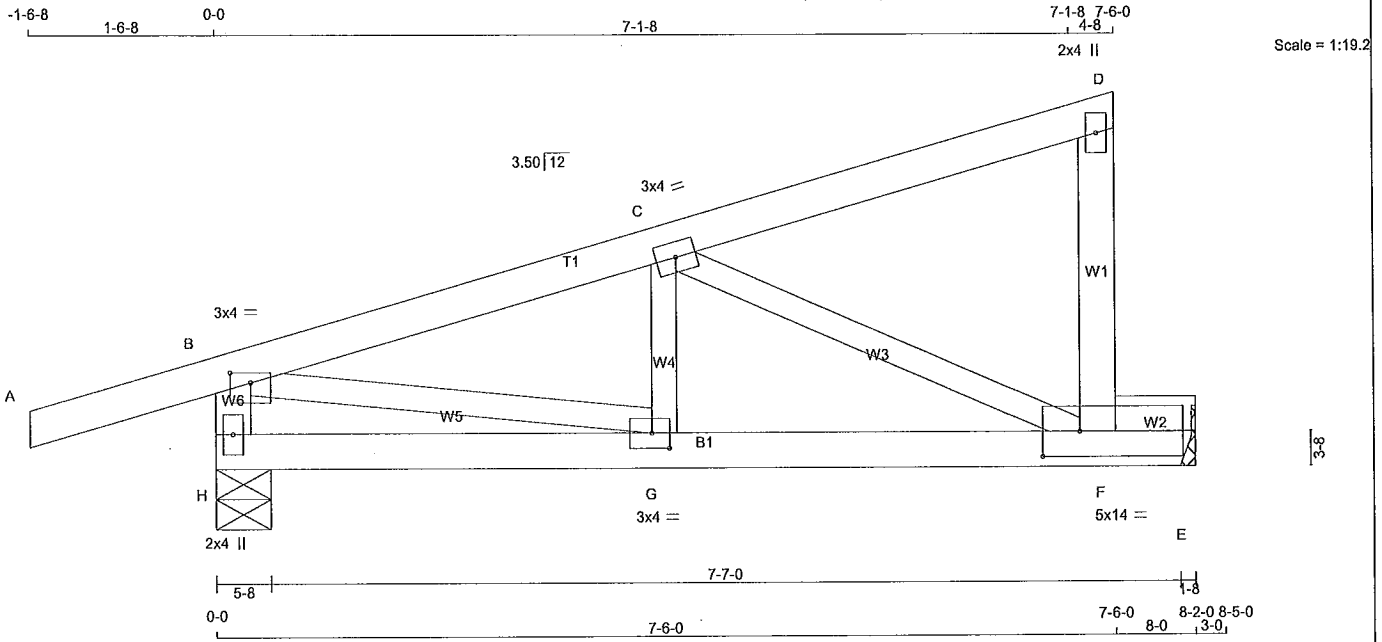


| | | | | | |
|--------------------|-------------------|---------------|----------|--------------------------|----------|
| JOB NAME 292576 | TRUSS NAME L2A | QUANTITY 4 | PLY 1 | JOB DESC. TRUSS DESC. | DRWG NO. |
|--------------------|-------------------|---------------|----------|--------------------------|----------|

Alpa Roof Truss, Maple

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ID:MF8ilriaTok7DlbpT4B71Xys4PG-vdozC_1TgAAyZlVrR6L1G08c_vep1QQHVG_8zktkv



TOTAL WEIGHT = 4 X 31 = 125 lb [M] [F]

LUMBER
N. L. G. A. RULES

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

PLATES (table is in inches)

| JT | TYPE | PLATES | W | LEN | Y | X |
|----|--------|--------|-----|------|------|------|
| B | TMVW-p | MT20 | 3.0 | 4.0 | 1.00 | 2.00 |
| C | TMVW-t | MT20 | 3.0 | 4.0 | | |
| D | TMV+p | MT20 | 2.0 | 4.0 | | |
| F | BMVW-t | MT20 | 5.0 | 14.0 | 2.50 | 3.75 |
| G | BMVW-t | MT20 | 3.0 | 4.0 | 1.50 | 1.75 |
| H | BMV1+p | MT20 | 2.0 | 4.0 | | |

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

BEARINGS

| JT | FACTORED GROSS REACTION | | MAXIMUM FACTORED GROSS REACTION | | INPUT BRG | | REQRD BRG | |
|----|-------------------------|------|---------------------------------|------|-----------|---|-----------|--|
| | VERT | HORZ | DOWN | HORZ | UPLIFT | IN-SX | IN-SX | |
| H | 515 | 0 | 515 | 0 | 0 | 5-8 | 1-8 | |
| E | 344 | 0 | 344 | 0 | 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 |
| H | 365 | 237 / 0 | 0 / 0 | 0 / 0 | 0 / 0 | 128 / 0 | 0 / 0 |
| E | 246 | 145 / 0 | 0 / 0 | 0 / 0 | 0 / 0 | 102 / 0 | 0 / 0 |

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

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

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

LOADING
TOTAL LOAD CASES: (4)

| MEMB. | MAX. FACTORED FORCE (LBS) | FACTORED VERT. LOAD (PLF) | FACTORED LC1 MAX. CSI (LC) | MAX. UNBRAC LENGTH | WEBS | | |
|-------|---------------------------|---------------------------|----------------------------|--------------------|---------------------------|------------------------|----------|
| | | | | | MAX. FACTORED FORCE (LBS) | MAX. FACTORED CSI (LC) | |
| FR-TO | | FROM | TO | FR-TO | | | |
| A-B | 0 / 17 | -78.0 | -78.0 | 0.14 (1) | 10.00 | G-C 0 / 91 | 0.03 (4) |
| B-C | -578 / 0 | -78.0 | -78.0 | 0.13 (1) | 6.25 | B-G 0 / 572 | 0.13 (1) |
| C-D | -9 / 0 | -78.0 | -78.0 | 0.13 (1) | 10.00 | C-F -621 / 0 | 0.17 (1) |
| F-D | -114 / 0 | 0.0 | 0.0 | 0.02 (1) | 7.81 | | |
| H-B | -499 / 0 | 0.0 | 0.0 | 0.05 (1) | 7.81 | | |
| H-G | 0 / 0 | -18.5 | -18.5 | 0.11 (4) | 10.00 | | |
| G-F | 0 / 564 | -18.5 | -18.5 | 0.40 (1) | 10.00 | | |
| F-E | 0 / 0 | -18.5 | -18.5 | 0.13 (1) | 10.00 | | |

DESIGN CRITERIA

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

SPACING = 24.0 IN. C/C

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

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

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

ALLOWABLE DEFL.(LL)= L/360 (0.27")
CALCULATED VERT. DEFL.(LL) = L/999 (0.04")
ALLOWABLE DEFL.(TL)= L/360 (0.27")
CALCULATED VERT. DEFL.(TL) = L/999 (0.08")

CSI: TC=0.14/1.00 (A-B:1), BC=0.40/1.00 (F-G:1), WB=0.17/1.00 (C-F:1), SSI=0.13/1.00 (E-F:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

AUTOSOLVE RIGHT HEEL ONLY

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

NAIL VALUES

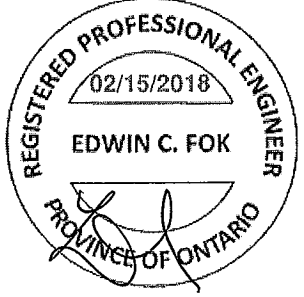
| PLATE | GRIP(DRY) | | SHEAR | | SECTION | |
|-------|-----------|-------|-------|-------|---------|-------|
| | (PSI) | (PLI) | (PLI) | (PLI) | (PLI) | (PLI) |
| MT20 | 618 | 354 | 1667 | 788 | 1987 | 1656 |

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.79 (G) (INPUT = 0.90)
JSI METAL= 0.21 (B) (INPUT = 1.00)

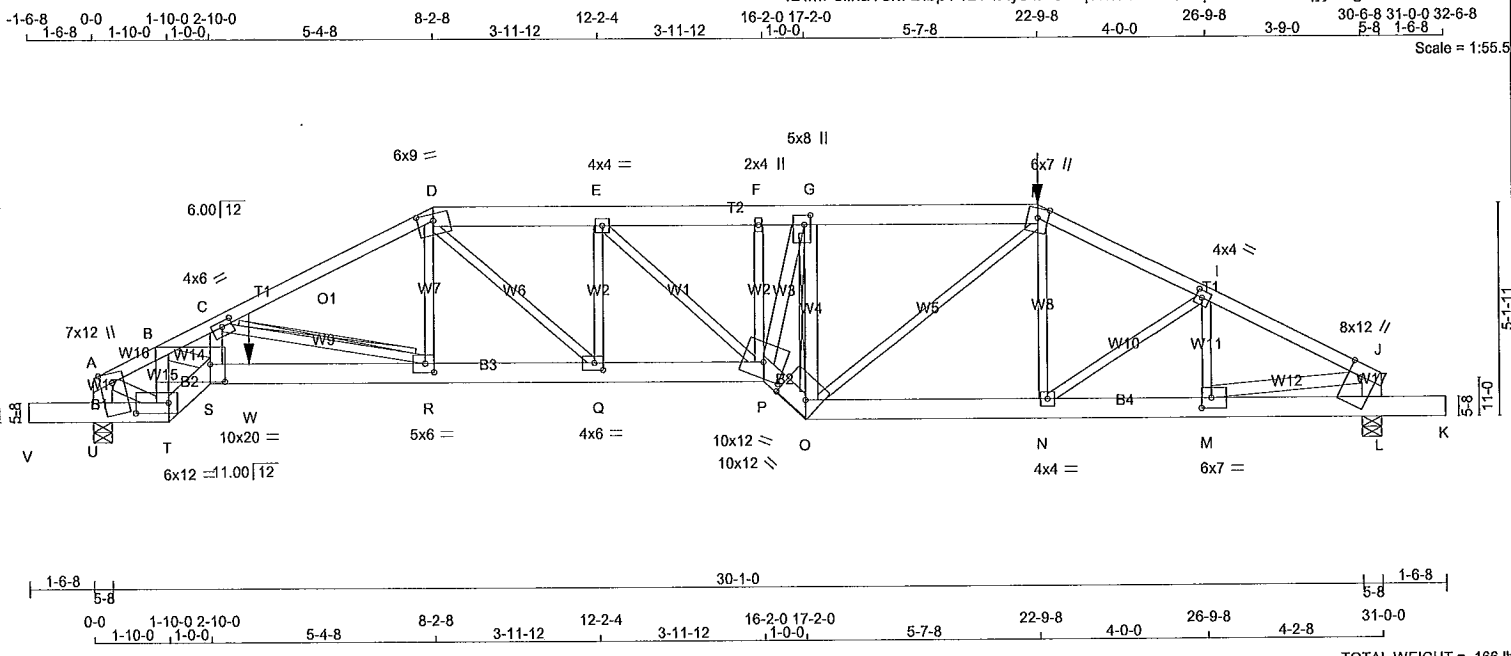
NOTE: Lateral brace(s) shown shall be 1x4 for Part 9 design as per OBC 9.23.13.11, and no less than 2x4 for Part 4 design



A-18023187

| | | | | | |
|----------|------------|----------|-----|-------------|----------|
| JOB NAME | TRUSS NAME | QUANTITY | PLY | JOB DESC. | DRWG NO. |
| 292577 | H1T | 1 | 1 | TRUSS DESC. | |

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 ID:MF8ilriaTok7DlbpT4B71Xys4PG-LqWn9f1fo3QmvpIKY2csb6WqyjCNgFkb1QUV7CzktTG



TOTAL WEIGHT = 166 lb

LUMBER
N. L. G. A. RULES

| CHORDS | SIZE | LUMBER | DESCR. |
|--------|------|----------------|--------|
| A - D | 2x4 | DRY 1650F 1.5E | SPF |
| D - H | 2x6 | DRY No.2 | SPF |
| H - J | 2x4 | DRY 1650F 1.5E | SPF |
| U - A | 2x6 | DRY No.2 | SPF |
| L - J | 2x6 | DRY No.2 | SPF |
| V - T | 2x6 | DRY No.2 | SPF |
| T - S | 2x6 | DRY No.2 | SPF |
| S - P | 2x6 | DRY 1650F 1.5E | SPF |
| P - O | 2x6 | DRY No.2 | SPF |
| O - K | 2x6 | DRY No.2 | SPF |

ALL WEBS EXCEPT

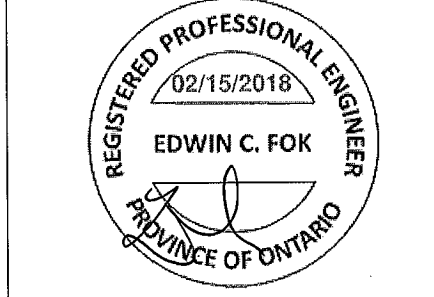
| | SIZE | LUMBER | DESCR. |
|-------|------|----------|--------|
| T - B | 2x4 | DRY No.2 | SPF |
| B - S | 2x4 | DRY No.2 | SPF |
| S - C | 2x4 | DRY No.2 | SPF |
| P - G | 2x4 | DRY No.2 | SPF |
| O - G | 2x4 | DRY No.2 | SPF |
| A - T | 2x4 | DRY No.2 | SPF |
| M - J | 2x4 | DRY No.2 | SPF |

DRY: SEASONED LUMBER.

PLATES (table is in inches)

| JT TYPE | PLATES | W | LEN | Y | X |
|------------------|---------------|------|------|------|------|
| A, B, J, L, S, U | | | | | |
| A | | | | | |
| A | TMBMW1+*MT20 | 7.0 | 12.0 | Edge | |
| C | TMWW-t | 4.0 | 6.0 | 1.50 | 3.00 |
| D | TTWW-m | 6.0 | 9.0 | 2.00 | 4.50 |
| E | TMWW-t | 4.0 | 4.0 | | |
| F | TMW+w | 2.0 | 4.0 | | |
| G | TMWW+t | 5.0 | 8.0 | 2.75 | 1.75 |
| H | TTWW+m | 6.0 | 7.0 | Edge | |
| I | TMWW-t | 4.0 | 4.0 | 2.00 | 1.75 |
| J | TMBMW1+*hMT20 | 8.0 | 12.0 | Edge | |
| M | BMWW-t | 6.0 | 7.0 | 3.00 | 2.75 |
| N | BMWW-t | 4.0 | 4.0 | | |
| O | BBWW-h | 10.0 | 12.0 | 3.75 | 8.00 |
| P | BBWWW-m | 10.0 | 12.0 | 4.50 | 6.00 |
| Q | BMWW-t | 4.0 | 6.0 | 2.00 | 2.50 |

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



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

BEARINGS

| JT | FACTORED GROSS REACTION | | MAXIMUM FACTORED GROSS REACTION | | INPUT BRG | REQRD BRG | |
|----|-------------------------|------|---------------------------------|------|-----------|-----------|-------|
| | VERT | HORZ | DOWN | HORZ | | IN-SX | IN-SX |
| U | 3168 | 0 | 3168 | 0 | 5-8 | 4-9 | |
| L | 2926 | 0 | 2926 | 0 | 5-8 | 3-12 | |

ALLOW FOR 0.3" OF HORIZONTAL MOVEMENT DUE TO TOTAL LOAD

UNFACTORED REACTIONS

| JT | 1ST LCASE | | MAX/MIN COMPONENT REACTIONS | | | | |
|----|-----------|--------|-----------------------------|-----------|------|-------|------|
| | COMBINED | SNOW | LIVE | PERM.LIVE | WIND | DEAD | SOIL |
| U | 2251 | 1416/0 | 0/0 | 0/0 | 0/0 | 835/0 | 0/0 |
| L | 2089 | 1258/0 | 0/0 | 0/0 | 0/0 | 831/0 | 0/0 |

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

BRACING
TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 2.45 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 C-R, G-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)

| MEMB. | CHORDS | | WEBS | | | |
|-------|---------------------------|---------------------------|-----------------------|---------------------------|-------------------|------------------------|
| | MAX. FACTORED FORCE (LBS) | FACTORED VERT. LOAD (PLF) | MAX. VERT. LOAD (LC1) | MAX. UNBRACED LENGTH (LC) | MEMB. FORCE (LBS) | MAX. FACTORED CSI (LC) |
| FR-TO | | | | | | |
| A-B | -3809/0 | -78.0 | -78.0 | 0.23 (1) | 3.90 | T-B -3904/0 0.44 (1) |
| B-C | -8139/0 | -78.0 | -78.0 | 0.49 (1) | 2.45 | B-S 0/4802 0.85 (1) |
| C-D | -5622/0 | -78.0 | -78.0 | 0.67 (1) | 3.00 | S-C 0/1279 0.23 (1) |
| D-E | -6086/0 | -78.0 | -78.0 | 0.30 (1) | 3.34 | C-R -2210/0 0.54 (1) |
| E-F | -6337/0 | -78.0 | -78.0 | 0.46 (1) | 3.09 | R-D 0/1181 0.29 (1) |
| F-G | -6347/0 | -153.5 | -153.5 | 0.50 (1) | 3.00 | D-Q 0/1496 0.37 (1) |
| G-H | -5195/0 | -153.5 | -153.5 | 0.49 (1) | 3.38 | Q-E -706/0 0.18 (1) |
| H-I | -4515/0 | -78.0 | -78.0 | 0.30 (1) | 3.59 | E-P 0/345 0.09 (1) |
| I-J | -4333/0 | -78.0 | -78.0 | 0.30 (1) | 3.67 | P-F 0/362 0.09 (1) |
| U-A | -2940/0 | 0.0 | 0.0 | 0.21 (1) | 6.09 | P-G 0/4499 0.80 (1) |
| L-J | -2674/0 | 0.0 | 0.0 | 0.19 (1) | 6.33 | O-G -5436/0 0.86 (1) |
| V-U | 0/0 | -96.5 | -96.5 | 0.08 (1) | 10.00 | O-H 0/1505 0.37 (1) |
| U-T | -1/0 | -18.5 | -18.5 | 0.08 (1) | 10.00 | N-H 0/217 0.08 (4) |
| T-S | 0/4050 | -18.5 | -18.5 | 0.53 (1) | 10.00 | M-I -530/0 0.10 (1) |
| S-W | 0/7186 | -18.5 | -18.5 | 0.82 (1) | 10.00 | A-T 0/3555 0.63 (1) |
| W-R | 0/7186 | -112.0 | -112.0 | 0.82 (1) | 10.00 | M-J 0/3932 0.70 (1) |
| R-Q | 0/5003 | -112.0 | -112.0 | 0.58 (1) | 10.00 | |
| Q-P | 0/6085 | -112.0 | -112.0 | 0.60 (1) | 10.00 | |
| P-O | 0/6815 | -36.4 | -36.4 | 0.89 (1) | 10.00 | |
| O-N | 0/4037 | -36.4 | -36.4 | 0.60 (1) | 10.00 | |
| N-M | 0/3887 | -36.4 | -36.4 | 0.59 (1) | 10.00 | |
| M-L | 0/0 | -36.4 | -36.4 | 0.11 (1) | 10.00 | |
| L-K | 0/0 | -96.5 | -96.5 | 0.08 (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: CStdGirder
START DISTANCE = 3-9-4
START SPAN CARRIED = 5-10-8
END DISTANCE = 16-2-0
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.

GIRDER TYPE: CPrimeHip
SIDE SETBACK = 8-2-8
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 14-10-0 OF SPAN MEASURED FROM THE RIGHT.

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

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

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

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

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

ALLOWABLE DEFL.(LL) = L/360 (1.03")
CALCULATED VERT. DEFL.(LL) = L/999 (0.31")
ALLOWABLE DEFL.(TL) = L/360 (1.03")
CALCULATED VERT. DEFL.(TL) = L/619 (0.60")

CANTILEVER DEFLECTION:
ALLOWABLE DEFL.(LL) = L/120 (0.19")
CALCULATED VERT. DEFL.(LL) = L/207 (0.09")

PLATES (table is in inches)

| JT TYPE | PLATES | W | LEN | Y | X |
|---------|----------------|------|------|------|------|
| R | BMWV-I MT20 | 5.0 | 6.0 | 2.50 | 2.50 |
| S | TMBBWWV*-IMT20 | 10.0 | 20.0 | 5.00 | 4.25 |
| T | BBWW-I MT20 | 6.0 | 12.0 | 3.00 | 9.50 |

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) 466.7 lbs FACTORED DOWN AT 22-9-8 ON TOP CHORD, AND 407.4 lbs FACTORED DOWN AT 3-9-4 ON BOTTOM CHORD. DESIGN FOR UNSPECIFIED CONNECTION(S) IS DELEGATED TO THE BUILDING DESIGNER.

FACTORED CONCENTRATED LOADS (LBS)

| JT | LOC. | LC1 | MAX- | MAX+ | FACE | DIR. | TYPE |
|----|--------|------|------|------|-------|------|-------|
| H | 22-9-8 | -467 | -467 | --- | FRONT | VERT | TOTAL |
| W | 3-9-4 | -407 | -407 | --- | FRONT | VERT | TOTAL |

ALLOWABLE DEFL.(TL)= L/120 (0.19")
CALCULATED VERT. DEFL.(TL) = L/120 (0.17")

CSI: TC=0.67/1.00 (C-D:1) , BC=0.89/1.00 (O-P:1)
, WB=0.86/1.00 (G-O:1) , SSI=0.41/1.00 (F-G:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

AUTOSOLVE HEELS OFF

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

NAIL VALUES

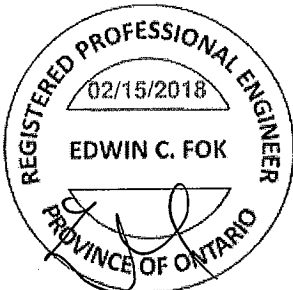
| PLATE | GRIP(DRY) | SHEAR | SECTION |
|-------|-----------|-------|--------------------|
| (PSI) | (PLI) | (PLI) | (PLI) |
| | MAX | MIN | MAX |
| MT20 | 618 | 354 | 1667 788 1987 1656 |

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.89 (M) (INPUT = 0.90)
JSI METAL= 0.97 (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

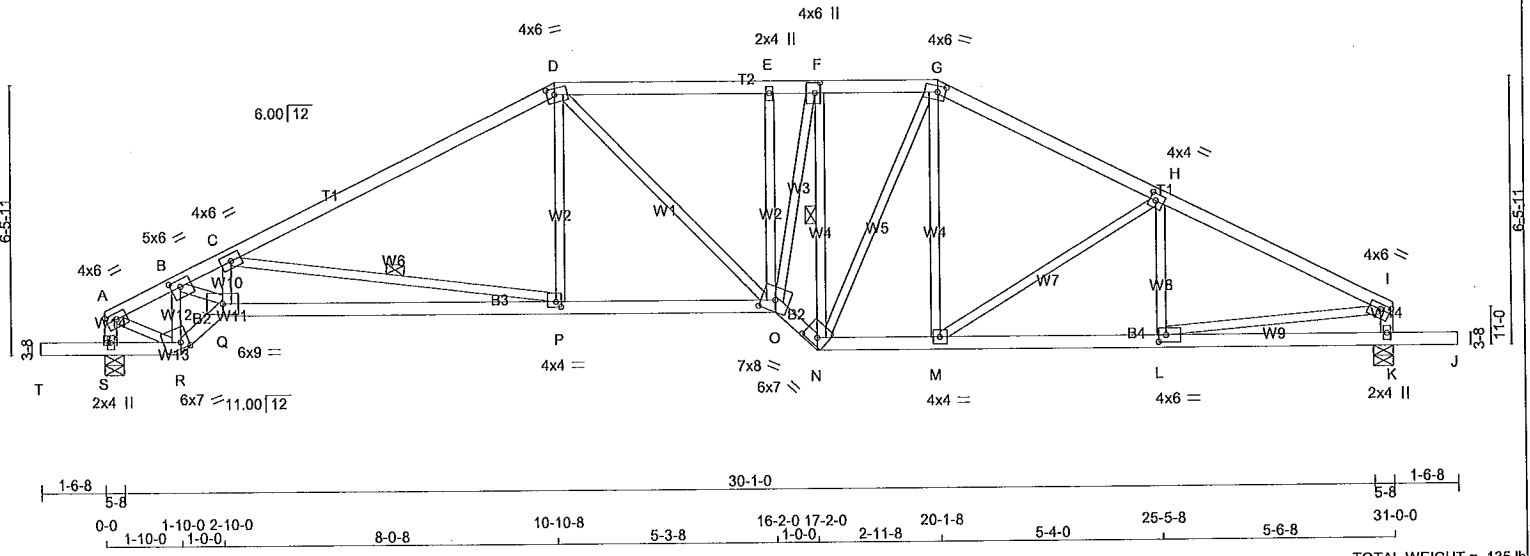
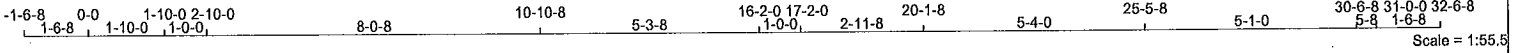


A-18023188(2)

| | | | | | |
|----------|------------|----------|-----|-------------|----------|
| JOB NAME | TRUSS NAME | QUANTITY | PLY | JOB DESC. | DRWG NO. |
| 292577 | H2T | 1 | 1 | TRUSS DESC. | |

Alpa Roof Truss, Maple

ID:MF8ilriaTok7DlbpT4B71Xys4PG-6M?ormogvWQet1ws0jlkwosAhxz5YwjntgQwPlzktT8



TOTAL WEIGHT = 135 lb [M]F

LUMBER
N. L. G. A. RULES

| CHORDS | SIZE | LUMBER | DESCR. |
|--------|------|----------|--------|
| A - D | 2x4 | DRY No.2 | SPF |
| D - G | 2x4 | DRY No.2 | SPF |
| G - I | 2x4 | DRY No.2 | SPF |
| S - A | 2x4 | DRY No.2 | SPF |
| K - I | 2x4 | DRY No.2 | SPF |
| T - R | 2x4 | DRY No.2 | SPF |
| R - Q | 2x4 | DRY No.2 | SPF |
| Q - O | 2x4 | DRY No.2 | SPF |
| O - N | 2x4 | DRY No.2 | SPF |
| N - J | 2x4 | DRY No.2 | SPF |

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

PLATES (table ts in Inches)

| JT TYPE | PLATES | W | LEN | Y | X | |
|---------|---------|------|-----|-----|------|------|
| A | TMVW-I | MT20 | 4.0 | 6.0 | 1.75 | Edge |
| B | TMWW-I | MT20 | 5.0 | 6.0 | 2.00 | 2.75 |
| C | TMWW-I | MT20 | 4.0 | 6.0 | | |
| D | TTWW-m | MT20 | 4.0 | 6.0 | 1.75 | 2.25 |
| E | TMW+w | MT20 | 2.0 | 4.0 | | |
| F | TMWW+t | MT20 | 4.0 | 6.0 | 3.00 | 1.50 |
| G | TTWW-m | MT20 | 4.0 | 6.0 | 1.75 | 2.25 |
| H | TMWW-I | MT20 | 4.0 | 4.0 | 2.00 | 1.75 |
| I | TMVW-I | MT20 | 4.0 | 6.0 | 1.50 | 2.75 |
| K | BMV1+p | MT20 | 2.0 | 4.0 | | |
| L | BMWW-I | MT20 | 4.0 | 6.0 | 2.00 | 2.00 |
| M | BMWW-I | MT20 | 4.0 | 4.0 | | |
| N | BBWW-h | MT20 | 6.0 | 7.0 | 2.00 | 4.00 |
| O | BBWWW-m | MT20 | 7.0 | 8.0 | 3.25 | 4.00 |
| P | BMWW-t | MT20 | 4.0 | 4.0 | 1.50 | 1.50 |
| Q | BBWW-I | MT20 | 6.0 | 9.0 | | |
| R | BBWW-m | MT20 | 6.0 | 7.0 | 1.75 | 2.25 |
| S | BMV1+p | MT20 | 2.0 | 4.0 | | |

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

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

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

BEARINGS

| JT | FACTORED GROSS REACTION | | MAXIMUM FACTORED GROSS REACTION | | INPUT BRG | REQRD BRG |
|----|-------------------------|------|---------------------------------|------|-----------|-----------|
| | VERT | HORZ | DOWN | HORZ | | |
| S | 1648 | 0 | 1648 | 0 | 5-8 | 2-7 |
| K | 1640 | 0 | 1640 | 0 | 5-8 | 2-7 |

UNFACTORED REACTIONS

| JT | 1ST LCASE | MAX./MIN. COMPONENT REACTIONS | | | | | | |
|----|-----------|-------------------------------|---------|-------|-----------|-------|---------|-------|
| | | COMBINED | SNOW | LIVE | PERM.LIVE | WIND | DEAD | SOIL |
| S | | 1175 | 717 / 0 | 0 / 0 | 0 / 0 | 0 / 0 | 458 / 0 | 0 / 0 |
| K | | 1169 | 714 / 0 | 0 / 0 | 0 / 0 | 0 / 0 | 456 / 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 = 3.01 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-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) | LC1 MAX CSI (LC) | MEMB. | MAX. FACTORED FORCE (LBS) | MAX. UNBRACED LENGTH | MAX. FACTORED FORCE (LBS) |
| FR-TO | | | | FR-TO | | | |
| A-B | -1651 / 0 | -78.0 | -78.0 0.18 (1) | 5.00 | R-B | -1810 / 0 | 0.26 (1) |
| B-C | -3640 / 0 | -78.0 | -78.0 0.61 (1) | 3.01 | B-Q | 0 / 2462 | 0.55 (1) |
| C-D | -2273 / 0 | -78.0 | -78.0 0.81 (1) | 3.69 | Q-C | 0 / 123 | 0.04 (4) |
| D-E | -2230 / 0 | -78.0 | -78.0 0.33 (1) | 4.28 | C-P | -1453 / 0 | 0.67 (1) |
| E-F | -2223 / 0 | -78.0 | -78.0 0.21 (1) | 4.40 | P-D | 0 / 366 | 0.08 (4) |
| F-G | -1861 / 0 | -78.0 | -78.0 0.11 (1) | 4.84 | D-O | 0 / 301 | 0.07 (1) |
| G-H | -1929 / 0 | -78.0 | -78.0 0.34 (1) | 4.53 | O-E | -364 / 0 | 0.17 (1) |
| H-I | -2243 / 0 | -78.0 | -78.0 0.37 (1) | 4.23 | O-F | 0 / 1915 | 0.43 (1) |
| S-A | -1419 / 0 | 0.0 | 0.0 0.14 (1) | 6.84 | N-F | -1953 / 0 | 0.53 (1) |
| K-I | -1447 / 0 | 0.0 | 0.0 0.15 (1) | 6.79 | N-G | 0 / 350 | 0.08 (1) |
| T-S | 0 / 0 | -96.5 | -96.5 0.16 (1) | 10.00 | M-G | 0 / 279 | 0.06 (1) |
| S-R | 0 / 0 | -18.5 | -18.5 0.12 (1) | 10.00 | M-H | -381 / 0 | 0.29 (1) |
| R-Q | 0 / 1799 | -18.5 | -18.5 0.29 (1) | 10.00 | L-H | -158 / 25 | 0.04 (1) |
| Q-P | 0 / 3444 | -18.5 | -18.5 0.71 (1) | 10.00 | A-R | 0 / 1549 | 0.35 (1) |
| P-O | 0 / 2016 | -18.5 | -18.5 0.48 (1) | 10.00 | L-I | 0 / 2042 | 0.46 (1) |
| O-N | 0 / 2480 | -18.5 | -18.5 0.40 (1) | 10.00 | | | |
| N-M | 0 / 1709 | -18.5 | -18.5 0.32 (1) | 10.00 | | | |
| M-L | 0 / 2025 | -18.5 | -18.5 0.37 (1) | 10.00 | | | |
| L-K | 0 / 0 | -18.5 | -18.5 0.12 (4) | 10.00 | | | |
| K-J | 0 / 0 | -96.5 | -96.5 0.16 (1) | 10.00 | | | |

DESIGN CRITERIA

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

SPACING = 24.0 IN./C/C

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

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

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

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

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

ALLOWABLE DEFL.(LL)= L/360 (1.03")
CALCULATED VERT. DEFL.(LL)= L/999 (0.16")
ALLOWABLE DEFL.(TL)= L/360 (1.03")
CALCULATED VERT. DEFL.(TL)= L/999 (0.37")

CANTILEVER DEFLECTION:
ALLOWABLE DEFL.(LL)= L/120 (0.19")
CALCULATED VERT. DEFL.(LL)= L/404 (0.05")
ALLOWABLE DEFL.(TL)= L/120 (0.19")
CALCULATED VERT. DEFL.(TL)= L/208 (0.09")

CSI: TC=0.81/1.00 (C-D:1), BC=0.71/1.00 (P-Q:1), WB=0.67/1.00 (C-P:1), SSI=0.37/1.00 (B-C:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

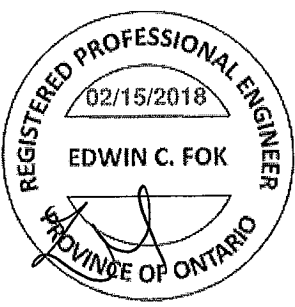
TRUSS PLATE MANUFACTURER IS NOT RESPONSIBLE FOR QUALITY CONTROL IN THE TRUSS MANUFACTURING PLANT.

NAIL VALUES

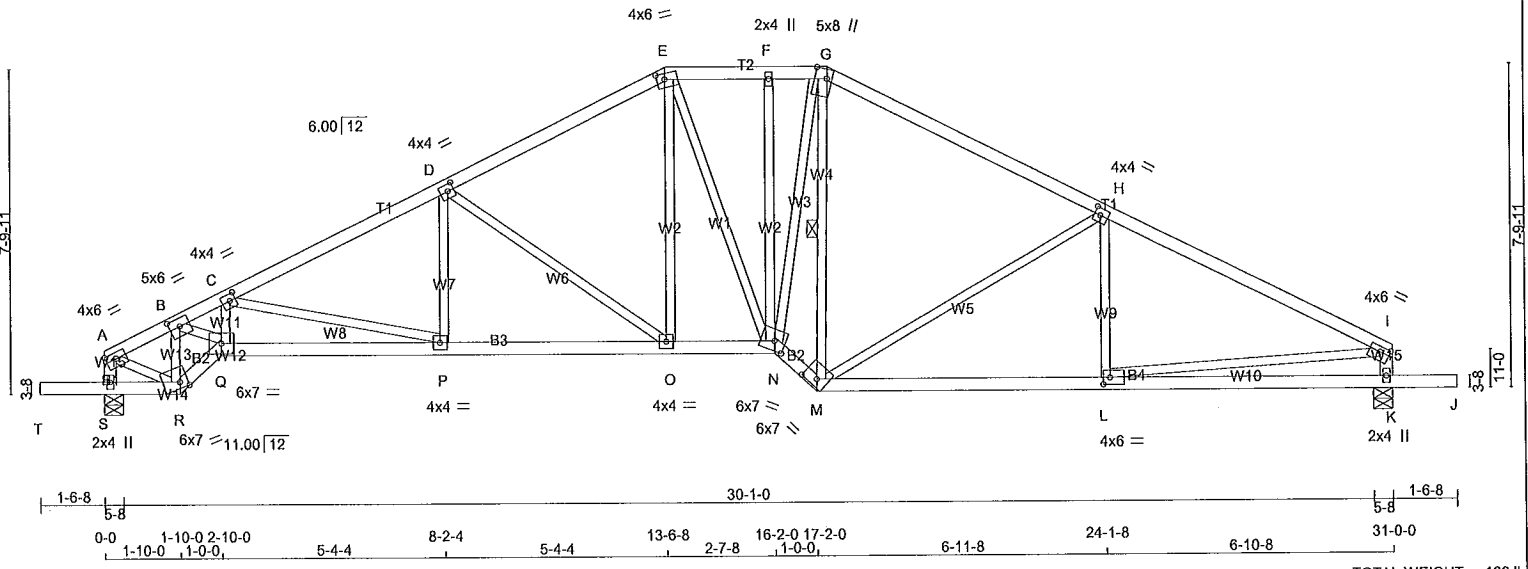
| PLATE | GRIP(DRY) | SHEAR (PSI) | SECTION (PL) |
|-------|-----------|-------------|--------------------|
| MT20 | 618 | 354 | 1667 788 1987 1656 |

PLATE PLACEMENT TOL. = 0.250 Inches
PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.90 (B) (INPUT = 0.90)
JSI METAL= 0.59 (Q) (INPUT = 1.00)



Dimensions: 1-6-8, 0-0, 1-10-0, 2-10-0, 5-4-4, 8-2-4, 5-4-4, 13-6-8, 2-7-8, 16-2-0, 17-5-8, 1-3-8, 6-8-0, 24-1-8, 6-5-0, 30-6-8, 31-0-0, 32-6-8, 5-8, 1-6-8. Scale = 1:55.8



TOTAL WEIGHT = 139 lb

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

| | | | | |
|-------|-----|-----|------|-----|
| A - E | 2x4 | DRY | No.2 | SPF |
| E - G | 2x4 | DRY | No.2 | SPF |
| G - I | 2x4 | DRY | No.2 | SPF |
| S - A | 2x4 | DRY | No.2 | SPF |
| K - I | 2x4 | DRY | No.2 | SPF |
| T - R | 2x4 | DRY | No.2 | SPF |
| R - Q | 2x4 | DRY | No.2 | SPF |
| Q - N | 2x4 | DRY | No.2 | SPF |
| N - M | 2x4 | DRY | No.2 | SPF |
| M - 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 | |
|---------|---------|------|-----|-----|------|------|
| A | TMWW-I | MT20 | 4.0 | 6.0 | 1.75 | Edge |
| B | TMWW-I | MT20 | 5.0 | 6.0 | 2.25 | 3.00 |
| C, D, H | | | | | | |
| C | TMWW-I | MT20 | 4.0 | 4.0 | 2.00 | 1.75 |
| E | TTWW-m | MT20 | 4.0 | 6.0 | 1.75 | 2.25 |
| F | TMW+w | MT20 | 2.0 | 4.0 | | |
| G | TTWW+m | MT20 | 5.0 | 8.0 | Edge | 3.50 |
| I | TMWW-I | MT20 | 4.0 | 6.0 | 1.50 | 2.75 |
| K | BMV1+p | MT20 | 2.0 | 4.0 | | |
| L | BMWW-I | MT20 | 4.0 | 6.0 | 2.00 | 2.00 |
| M | BBWW-h | MT20 | 6.0 | 7.0 | 2.00 | 4.00 |
| N | BBWWW-m | MT20 | 6.0 | 7.0 | 2.75 | 3.00 |
| O | BMWW-I | MT20 | 4.0 | 4.0 | | |
| P | BMWW-I | MT20 | 4.0 | 4.0 | | |
| Q | BBWW-I | MT20 | 6.0 | 7.0 | | |
| R | BBWW-m | MT20 | 6.0 | 7.0 | 1.75 | 2.25 |
| S | BMV1+p | MT20 | 2.0 | 4.0 | | |

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

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



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

BEARINGS

| JT | VERT | HORZ | DOWN | HORZ | UPLIFT | IN-SX | IN-SX |
|----|------|------|------|------|--------|-------|-------|
| S | 1648 | 0 | 1648 | 0 | 0 | 5-8 | 2-7 |
| K | 1640 | 0 | 1640 | 0 | 0 | 5-8 | 2-7 |

UNFACTORED REACTIONS

| JT | 1ST LCASE | MAX | MIN | PERM | LIVE | WIND | DEAD | SOIL |
|----|-----------|-------|-----|------|------|------|-------|------|
| S | 1175 | 717/0 | 0/0 | 0/0 | 0/0 | 0/0 | 458/0 | 0/0 |
| K | 1169 | 714/0 | 0/0 | 0/0 | 0/0 | 0/0 | 456/0 | 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 = 3.65 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-M.

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

LOADING
TOTAL LOAD CASES: (4)

| CHORDS | | | | WEBS | | | |
|--------|---------------------------|---------------------------|---------------------------|-------|---------------------------|-----------------------------|--------------------------|
| MEMB. | MAX. FACTORED FORCE (LBS) | FACTORED VERT. LOAD (PLF) | FACTORED LC1 MAX CSI (LC) | MEMB. | MAX. FACTORED FORCE (LBS) | MAX. FACTORED UNBRAC LENGTH | MEMB. FORCE MAX CSI (LC) |
| FR-TO | | | | FR-TO | | | |
| A-B | -1687/0 | -78.0 | -78.0 0.11 (1) | 5.03 | R-B | -1871/0 | 0.27 (1) |
| B-C | -3481/0 | -78.0 | -78.0 0.18 (1) | 3.65 | B-Q | 0/2062 | 0.46 (1) |
| C-D | -2821/0 | -78.0 | -78.0 0.37 (1) | 3.97 | Q-C | 0/279 | 0.06 (1) |
| D-E | -1941/0 | -78.0 | -78.0 0.33 (1) | 4.53 | C-P | -789/0 | 0.39 (1) |
| E-F | -1750/0 | -78.0 | -78.0 0.12 (1) | 4.95 | P-D | 0/282 | 0.07 (4) |
| F-G | -1748/0 | -78.0 | -78.0 0.07 (1) | 5.00 | D-O | -790/0 | 0.66 (1) |
| G-H | -1710/0 | -78.0 | -78.0 0.53 (1) | 4.50 | O-E | 0/525 | 0.12 (1) |
| H-I | -2251/0 | -78.0 | -78.0 0.61 (1) | 3.95 | E-N | 0/66 | 0.01 (1) |
| S-A | -1419/0 | 0.0 | 0.0 0.14 (1) | 6.84 | N-F | -113/0 | 0.09 (1) |
| K-I | -1441/0 | 0.0 | 0.0 0.14 (1) | 6.81 | N-G | 0/1461 | 0.33 (1) |
| | | | | M-G | -957/0 | 0.37 (1) | |
| T-S | 0/0 | -96.5 | -96.5 0.16 (1) | 10.00 | M-H | -623/0 | 0.84 (1) |
| S-R | 0/0 | -18.5 | -18.5 0.12 (1) | 10.00 | L-H | -70/90 | 0.03 (4) |
| R-Q | 0/1861 | -18.5 | -18.5 0.30 (1) | 10.00 | A-R | 0/1602 | 0.36 (1) |
| Q-P | 0/3126 | -18.5 | -18.5 0.57 (1) | 10.00 | L-I | 0/2050 | 0.46 (1) |
| P-O | 0/2359 | -18.5 | -18.5 0.44 (1) | 10.00 | | | |
| O-N | 0/1725 | -18.5 | -18.5 0.32 (1) | 10.00 | | | |
| N-M | 0/1988 | -18.5 | -18.5 0.32 (1) | 10.00 | | | |
| M-L | 0/2039 | -18.5 | -18.5 0.45 (1) | 10.00 | | | |
| L-K | 0/0 | -18.5 | -18.5 0.24 (4) | 10.00 | | | |
| K-J | 0/0 | -96.5 | -96.5 0.16 (1) | 10.00 | | | |

DESIGN CRITERIA

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

SPACING = 24.0 IN. C/C

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

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

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

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

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

ALLOWABLE DEFL.(LL)= L/360 (1.03")
CALCULATED VERT. DEFL.(LL)= L/999 (0.14")
ALLOWABLE DEFL.(TL)= L/360 (1.03")
CALCULATED VERT. DEFL.(TL)= L/999 (0.28")

CANTILEVER DEFLECTION:
ALLOWABLE DEFL.(LL)= L/120 (0.19")
CALCULATED VERT. DEFL.(LL)= L/611 (0.03")
ALLOWABLE DEFL.(TL)= L/120 (0.19")
CALCULATED VERT. DEFL.(TL)= L/304 (0.06")

CSI: TC=0.61/1.00 (H-I:1), BC=0.57/1.00 (P-Q:1), WB=0.84/1.00 (H-M:1), SSI=0.23/1.00 (H-I:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

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

NAIL VALUES

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

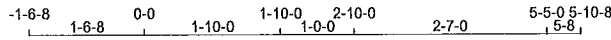
PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

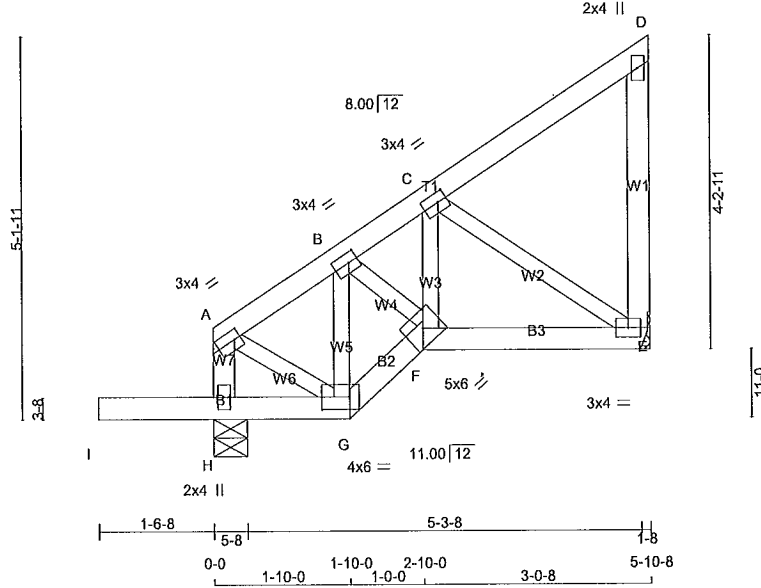
JSI GRIP= 0.89 (R) (INPUT = 0.90)
JSI METAL= 0.59 (I) (INPUT = 1.00)

| | | | | | |
|--------------------|-------------------|---------------|----------|--------------------------|----------|
| JOB NAME 292577 | TRUSS NAME J1T | QUANTITY 4 | PLY 1 | JOB DESC. TRUSS DESC. | DRWG NO. |
|--------------------|-------------------|---------------|----------|--------------------------|----------|

Alpa Roof Truss, Maple



Scale = 1:31.0



TOTAL WEIGHT = 4 X 30 = 120 lb

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

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

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 | |
| H | 452 | 0 | 452 | 0 | 5-8 | 1-8 | |
| E | 264 | 0 | 264 | 0 | 0 | 0 | HANGER BY OTHERS MIN. SEAT SIZE: 1-8 |

UNFACTORED REACTIONS

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

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

BRACING

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

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

LOADING

TOTAL LOAD CASES: (4)

| MEMB. | CHORDS | | WEBS | | | | | |
|-------|---------------------------|---------------------------|---------|----------|-------------------|---------------------------|----------|----------|
| | MAX. FACTORED FORCE (LBS) | FACTORED VERT. LOAD (PLF) | LC1 MAX | UNBRAC | MEMB. FORCE (LBS) | MAX. FACTORED FORCE (LBS) | CS1 (LC) | |
| FR-TO | | FROM | TO | LENGTH | FR-TO | | | |
| H-A | -223 / 0 | 0.0 | 0.0 | 0.02 (1) | 7.81 | A-G | 0 / 154 | 0.03 (1) |
| A-B | -165 / 0 | -78.0 | -78.0 | 0.04 (1) | 6.25 | G-B | -220 / 0 | 0.03 (1) |
| B-C | -239 / 0 | -78.0 | -78.0 | 0.08 (1) | 6.25 | B-F | 0 / 130 | 0.03 (1) |
| C-D | -11 / 0 | -78.0 | -78.0 | 0.08 (1) | 6.25 | F-C | 0 / 63 | 0.02 (4) |
| E-D | -95 / 0 | 0.0 | 0.0 | 0.03 (1) | 7.81 | C-E | -259 / 0 | 0.06 (1) |
| I-H | 0 / 0 | -96.5 | -96.5 | 0.16 (1) | 10.00 | | | |
| H-G | 0 / 0 | -18.5 | -18.5 | 0.16 (1) | 10.00 | | | |
| G-F | 0 / 173 | -18.5 | -18.5 | 0.03 (1) | 10.00 | | | |
| F-E | 0 / 216 | -18.5 | -18.5 | 0.07 (4) | 10.00 | | | |

DESIGN CRITERIA

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

SPACING = 24.0 IN. C/C

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

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

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

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

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

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

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

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

COMPANION LIVE LOAD FACTOR = 1.00

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

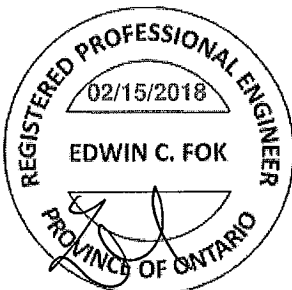
| NAIL VALUES | | | | | |
|-----------------|-------------|---------------|---------|---------|-----------|
| PLATE GRIP(DRY) | SHEAR (PSI) | SECTION (PLI) | MAX MIN | MAX MIN | MAX MIN |
| MT20 | 618 | 354 | 1667 | 788 | 1987 1656 |

PLATE PLACEMENT TOL. = 0.250 Inches

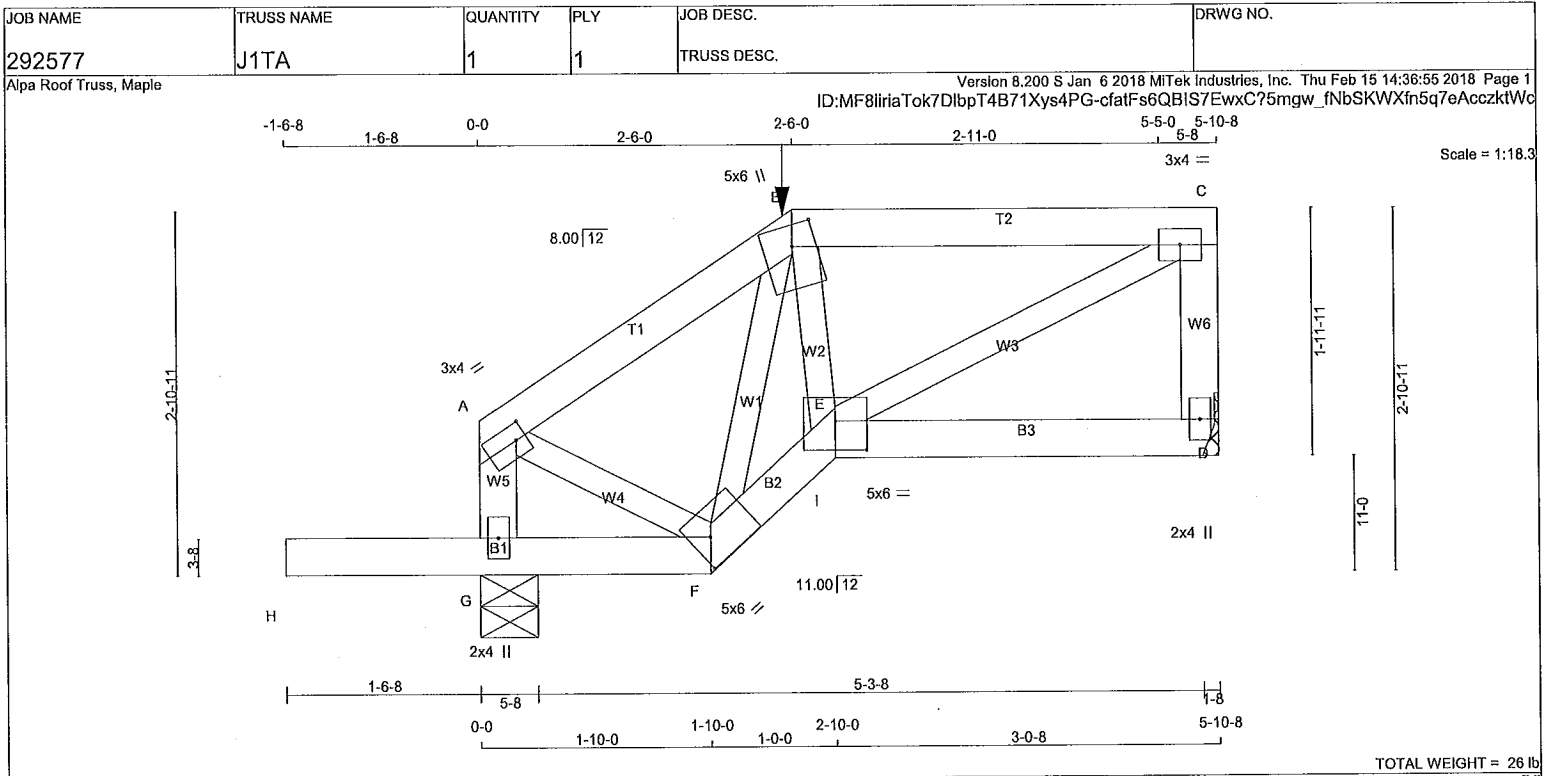
PLATE ROTATION TOL. = 5.0 Deg.

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

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



A-18023191



LUMBER
N. L. G. A. RULES

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

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

PLATES (table is in inches)

| JT | TYPE | PLATES | W | LEN | Y | X |
|----|--------|--------|-----|-----|------|------|
| A | TMVW-l | MT20 | 3.0 | 4.0 | 1.50 | 1.00 |
| B | TTWW+m | MT20 | 5.0 | 6.0 | 2.00 | 2.25 |
| C | TMVW-l | MT20 | 3.0 | 4.0 | | |
| D | BMV1+p | MT20 | 2.0 | 4.0 | | |
| E | BBWW-l | MT20 | 5.0 | 6.0 | 2.75 | 3.00 |
| F | BBWW-h | MT20 | 5.0 | 6.0 | 2.50 | 1.75 |
| G | BMV1+p | MT20 | 2.0 | 4.0 | | |

HANGERS NOTES
1) SPECIAL HANGER(S) OR CONNECTION(S) REQUIRED TO SUPPORT CONCENTRATED LOAD(S) 71.7 lbs FACTORED DOWN AT 2-6-0 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

| JT | FACTORED GROSS REACTION | | MAXIMUM FACTORED GROSS REACTION | | INPUT UPLIFT | REQRD BRG IN-SX | REQRD BRG IN-SX |
|----|-------------------------|------|---------------------------------|------|--------------|------------------|---------------------|
| | VERT | HORZ | DOWN | HORZ | | | |
| D | 398 | 0 | 398 | 0 | 0 | HANGER BY OTHERS | MIN. SEAT SIZE: 1-8 |
| G | 548 | 0 | 548 | 0 | 0 | 5-8 | 1-8 |

UNFACTORED REACTIONS

| JT | 1ST LCASE COMBINED | | MAX/MIN. LIVE | | PERM. LIVE | WIND | DEAD | SOIL |
|----|--------------------|---------|---------------|-------|------------|-------|---------|-------|
| | SNOW | SNOW | LIVE | LIVE | | | | |
| D | 283 | 174 / 0 | 0 / 0 | 0 / 0 | 0 / 0 | 0 / 0 | 109 / 0 | 0 / 0 |
| G | 391 | 236 / 0 | 0 / 0 | 0 / 0 | 0 / 0 | 0 / 0 | 155 / 0 | 0 / 0 |

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

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

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

LOADING
TOTAL LOAD CASES: (4)

| MEMB. | CHORDS MAX. FACTORED FORCE (LBS) | | | WEBS MAX. FACTORED FORCE (LBS) | | | | |
|-------|----------------------------------|-----|--------|--------------------------------|----------|--------------|----------|----------|
| | VERT. | LC1 | MAX | UNBRAC | MAX | MAX | | |
| FR-TO | | | | LENGTH | FR-TO | | | |
| A-B | -226 / 0 | | -78.0 | 0.09 (1) | 6.25 | F-B -389 / 0 | 0.07 (1) | |
| B-C | -314 / 0 | | -111.3 | 0.24 (1) | 6.25 | B-E | 0 / 147 | 0.04 (1) |
| D-C | -358 / 0 | | 0.0 | 0.04 (1) | 7.81 | E-C | 0 / 358 | 0.09 (1) |
| G-A | -313 / 0 | | 0.0 | 0.03 (1) | 7.81 | A-F | 0 / 207 | 0.05 (1) |
| H-G | 0 / 0 | | -96.5 | -96.5 | 0.17 (1) | 10.00 | | |
| G-F | 0 / 0 | | -26.4 | -26.4 | 0.17 (1) | 10.00 | | |
| F-I | 0 / 387 | | -26.4 | -26.4 | 0.07 (1) | 10.00 | | |
| I-E | 0 / 387 | | -26.4 | -26.4 | 0.07 (1) | 10.00 | | |
| E-D | 0 / 0 | | -26.4 | -26.4 | 0.08 (4) | 10.00 | | |

FACTORED CONCENTRATED LOADS (LBS)

| JT | LOC. | LC1 | MAX- | MAX+ | FACE | DIR. | TYPE |
|----|-------|-----|------|------|------|-------|------|
| B | 2-6-0 | | -72 | -72 | - | FRONT | VERT |

DESIGN CRITERIA

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

SPACING = 24.0 IN. C/C

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

GIRDER TYPE: CPrimeHip
LEFT SETBACK = 2-6-0
RIGHT SETBACK = 0-0
END SETBACK = 3-8-8
END WALL WIDTH = 0-0
CORNER FRAMING TYPE: CONVENTIONAL
END JACK TYPE: CONVENTIONAL
APPLIED TO FRONT SIDE
- ADDTL. LOADS BASED ON 55 % OF GSL.

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

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

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

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

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

CANTILEVER DEFLECTION:
ALLOWABLE DEFL.(LL)= L/120 (0.19")
CALCULATED VERT. DEFL.(LL) = L/999 (0.02")
ALLOWABLE DEFL.(TL)= L/120 (0.19")
CALCULATED VERT. DEFL.(TL) = L/624 (0.03")

CSI: TC=0.24/1.00 (B-C:1), BC=0.17/1.00 (F-G:1), WB=0.09/1.00 (C-E:1), SSI=0.16/1.00 (B-C:1)

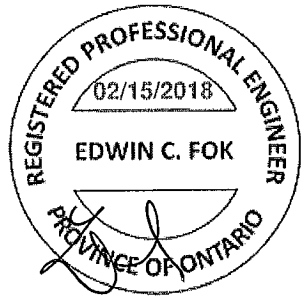
DOL LUMBER=1.00 NAIL=1.00 LS BEND=1.00 COMP=1.00 SHEAR=1.00 TENS=1.00

COMPANION LIVE LOAD FACTOR = 1.00

AUTOSOLVE RIGHT HEEL ONLY

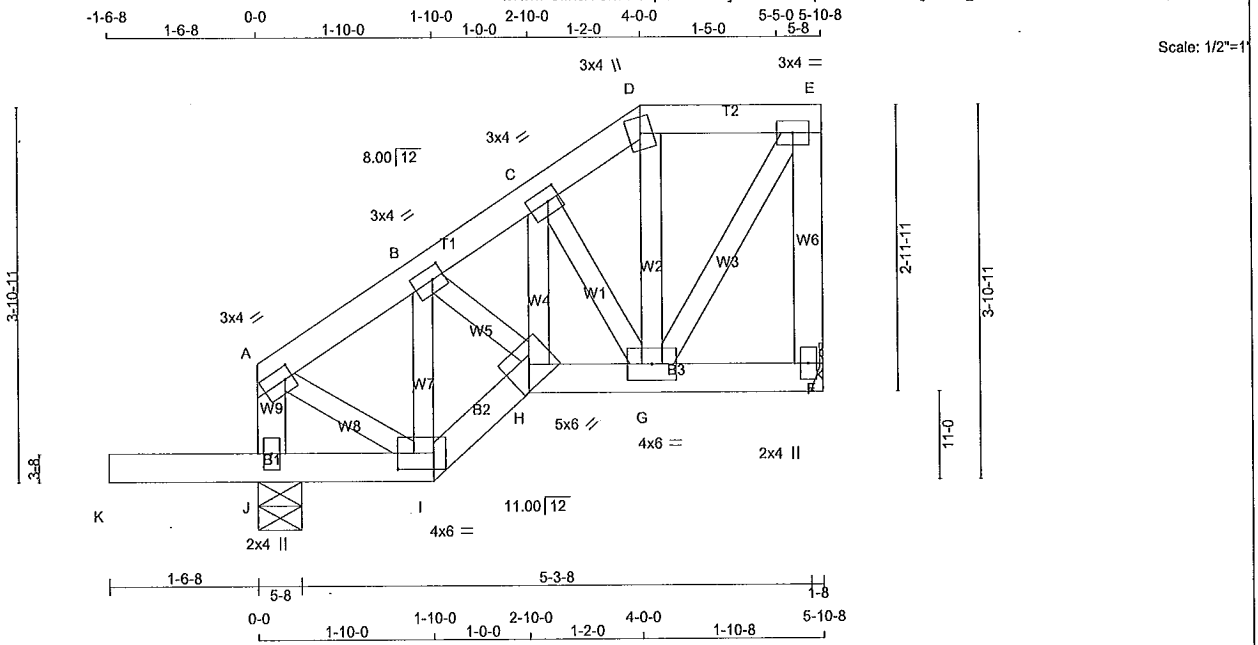
TRUSS PLATE MANUFACTURER IS NOT RESPONSIBLE FOR QUALITY CONTROL IN THE TRUSS MANUFACTURING PLANT.

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



| | | | | | |
|--------------------|--------------------|---------------|----------|--------------------------|----------|
| JOB NAME 292577 | TRUSS NAME J1TB | QUANTITY 1 | PLY 1 | JOB DESC. TRUSS DESC. | DRWG NO. |
|--------------------|--------------------|---------------|----------|--------------------------|----------|

Alpa Roof Truss, Maple ID:MF8iiriaTok7DlbpT4B71Xys4PG-10DpH9LuJL5FmysW8g3HFHD2F4TDaQXPDaQoUezkISR Version 8.200 S Jan 6 2018 MiTek Industries, Inc. Thu Feb 15 14:41:22 2018 Page 1



TOTAL WEIGHT = 32 lb

LUMBER
N. L. G. A. RULES
CHORDS SIZE LUMBER

| | | | |
|-----------------|-----|-----|------|
| A - D | 2x4 | DRY | No.2 |
| D - E | 2x4 | DRY | No.2 |
| F - E | 2x4 | DRY | No.2 |
| J - A | 2x4 | DRY | No.2 |
| K - I | 2x4 | DRY | No.2 |
| I - H | 2x4 | DRY | No.2 |
| H - F | 2x4 | DRY | No.2 |
| ALL WEBS EXCEPT | 2x3 | DRY | No.2 |

DRY: SEASONED LUMBER.

PLATES (table is in inches)

| JT TYPE | PLATES | W | LEN | Y | X | |
|---------|----------|------|-----|-----|------|------|
| A | TMVW-t | MT20 | 3.0 | 4.0 | 1.50 | 1.00 |
| B | TMVW-t | MT20 | 3.0 | 4.0 | 1.50 | 1.50 |
| C | TMVW-t | MT20 | 3.0 | 4.0 | 1.50 | 1.50 |
| D | TTW+m | MT20 | 3.0 | 4.0 | | |
| E | TMVW-t | MT20 | 3.0 | 4.0 | | |
| F | BMV1+p | MT20 | 2.0 | 4.0 | | |
| G | BMVWVW-t | MT20 | 4.0 | 6.0 | | |
| H | BBVW-h | MT20 | 5.0 | 6.0 | | |
| I | BBVW-t | MT20 | 4.0 | 6.0 | 2.00 | 4.50 |
| J | BMV1+p | MT20 | 2.0 | 4.0 | | |

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

BEARINGS

| DESCR. | FACTORED GROSS REACTION | MAXIMUM FACTORED GROSS REACTION | INPUT BRG | REQRD BRG | | | |
|--------|-------------------------|---------------------------------|-----------|-----------|--------|------------------|---------------------|
| JT | VERT | HORZ | DOWN | HORZ | UPLIFT | IN-SX | IN-SX |
| F | 264 | 0 | 264 | 0 | 0 | HANGER BY OTHERS | MIN. SEAT SIZE: 1-8 |
| J | 452 | 0 | 452 | 0 | 0 | 5-8 | 1-8 |

UNFACTORED REACTIONS

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

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

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

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

LOADING
TOTAL LOAD CASES: (4)

| CHORDS | | | | WEBS | | | |
|--------|---------------------------|---------------------------|---------------|-------|---------------------------|---------------|----------|
| MEMB. | MAX. FACTORED FORCE (LBS) | FACTORED VERT. LOAD (PLF) | MAX. CSI (LC) | MEMB. | MAX. FACTORED FORCE (LBS) | MAX. CSI (LC) | |
| FR-TO | | FROM TO | LENGTH | FR-TO | | | |
| A-B | -168 / 0 | -78.0 -78.0 | 0.03 (1) | 6.25 | I-B | -227 / 0 | 0.04 (1) |
| B-C | -237 / 0 | -78.0 -78.0 | 0.02 (1) | 6.25 | B-H | 0 / 86 | 0.02 (1) |
| C-D | -144 / 0 | -78.0 -78.0 | 0.01 (1) | 6.25 | H-C | 0 / 84 | 0.02 (1) |
| D-E | -116 / 0 | -78.0 -78.0 | 0.05 (1) | 6.25 | C-G | -138 / 0 | 0.02 (1) |
| F-E | -248 / 0 | 0.0 0.0 | 0.04 (1) | 7.81 | G-D | -32 / 7 | 0.01 (1) |
| J-A | -223 / 0 | 0.0 0.0 | 0.02 (1) | 7.81 | G-E | 0 / 211 | 0.05 (1) |
| | | | | | A-I | 0 / 159 | 0.04 (1) |
| K-J | 0 / 0 | -96.5 -96.5 | 0.16 (1) | 10.00 | | | |
| J-I | 0 / 0 | -18.5 -18.5 | 0.16 (1) | 10.00 | | | |
| I-H | 0 / 179 | -18.5 -18.5 | 0.03 (1) | 10.00 | | | |
| H-G | 0 / 188 | -18.5 -18.5 | 0.03 (1) | 10.00 | | | |
| G-F | 0 / 0 | -18.5 -18.5 | 0.01 (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 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 (0.20")
CALCULATED VERT. DEFL.(LL) = L/999 (0.00")
ALLOWABLE DEFL.(TL)= L/360 (0.20")
CALCULATED VERT. DEFL.(TL) = L/999 (0.00")

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

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

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

COMPANION LIVE LOAD FACTOR = 1.00

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

NAIL VALUES

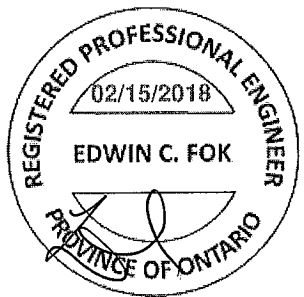
| PLATE | GRIP(DRY) | SHEAR (PSI) | SECTION (PLI) |
|-------|-----------|-------------|--------------------|
| MT20 | 618 | 354 | 1667 788 1987 1656 |

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

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

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



A-18023193

| | | | | | |
|--------------------|--------------------|---------------|----------|--------------------------|----------|
| JOB NAME 292577 | TRUSS NAME J1TC | QUANTITY 1 | PLY 1 | JOB DESC. TRUSS DESC. | DRWG NO. |
|--------------------|--------------------|---------------|----------|--------------------------|----------|

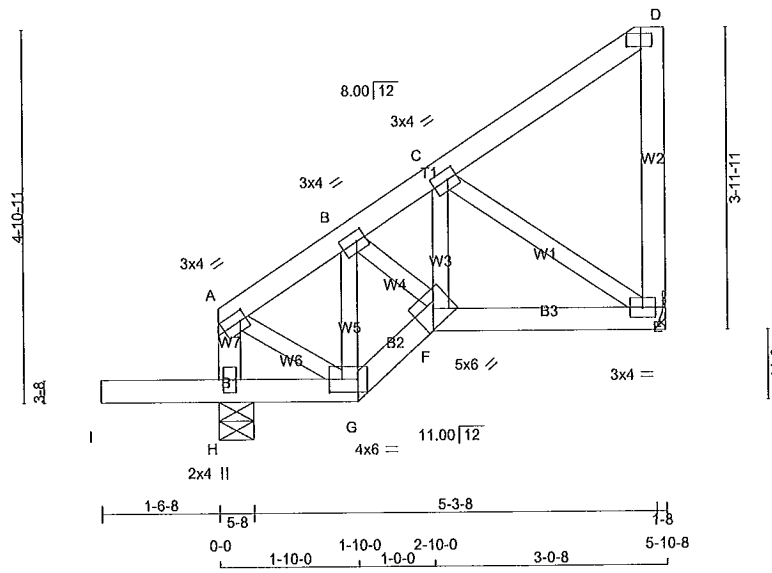
Alpa Roof Truss, Maple

Version 8.200 S Jan 6 2018 MiTek Industries, Inc. Thu Feb 15 14:41:28 2018 Page 1

ID:MF8iiriaTok7DlbpT4B71Xys4PG-6Aa4YCQfuBrOUJgVx9hUYT2DVWD_8uHb6HhHzkTSL

1-6-8 1-6-8 0-0 1-10-0 1-10-0 2-10-0 2-7-0 5-5-0 5-6-0 5-10-8
1-0-0 1-0-0

Scale = 1:30.3



TOTAL WEIGHT = 30 lb

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

ALL WEBS 2x3 DRY No.2 SPF

EXCEPT

DRY: SEASONED LUMBER.

PLATES (table is in inches)

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

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

| BEARINGS | FACTORED GROSS REACTION | | MAXIMUM FACTORED GROSS REACTION | | INPUT BRG | REQRD BRG |
|----------|-------------------------|------|---------------------------------|------|-----------|-----------|
| | VERT | HORZ | DOWN | HORZ | | |
| JT | 264 | 0 | 264 | 0 | 5-8 | 1-8 |
| E | 452 | 0 | 452 | 0 | 5-8 | 1-8 |

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

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

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

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

LOADING
TOTAL LOAD CASES: (4)

| CHORDS | | | | WEBS | | | |
|--------|---------------------------|---------------------------|--------------|-------------|-------|---------------------------|------------------------|
| MEMB. | MAX. FACTORED FORCE (LBS) | FACTORED VERT. LOAD (PLF) | LC1 MAX (LC) | MAX. UNBRAC | MEMB. | MAX. FACTORED FORCE (LBS) | MAX. FACTORED CSI (LC) |
| FR-TO | | FROM TO | | LENGTH | FR-TO | | |
| A-B | -165 / 0 | -78.0 -78.0 | 0.04 (1) | 6.25 | G-B | -220 / 0 | 0.03 (1) |
| B-C | -239 / 0 | -78.0 -78.0 | 0.08 (1) | 6.25 | F-F | 0 / 130 | 0.03 (1) |
| C-D | -11 / 0 | -78.0 -78.0 | 0.08 (1) | 6.25 | F-C | 0 / 63 | 0.02 (4) |
| E-D | -95 / 0 | 0.0 0.0 | 0.03 (1) | 7.81 | C-E | -259 / 0 | 0.06 (1) |
| H-A | -223 / 0 | 0.0 0.0 | 0.02 (1) | 7.81 | A-G | 0 / 154 | 0.03 (1) |
| I-H | 0 / 0 | -96.5 -96.5 | 0.16 (1) | 10.00 | | | |
| H-G | 0 / 0 | -18.5 -18.5 | 0.16 (1) | 10.00 | | | |
| G-F | 0 / 173 | -18.5 -18.5 | 0.03 (1) | 10.00 | | | |
| F-E | 0 / 216 | -18.5 -18.5 | 0.07 (4) | 10.00 | | | |

DESIGN CRITERIA

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

SPACING = 24.0 IN. C/C

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

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

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

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

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

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

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

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

COMPANION LIVE LOAD FACTOR = 1.00

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

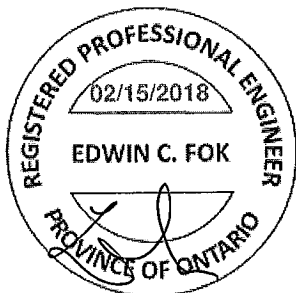
| PLATE | GRIP(DRY) | | SHEAR | | SECTION | |
|-------|-----------|-------|-------|-------|---------|------|
| | (PSI) | (PLI) | (PLI) | (PLI) | MAX | MIN |
| MT20 | 618 | 354 | 1667 | 788 | 1987 | 1656 |

PLATE PLACEMENT TOL. = 0.250 Inches

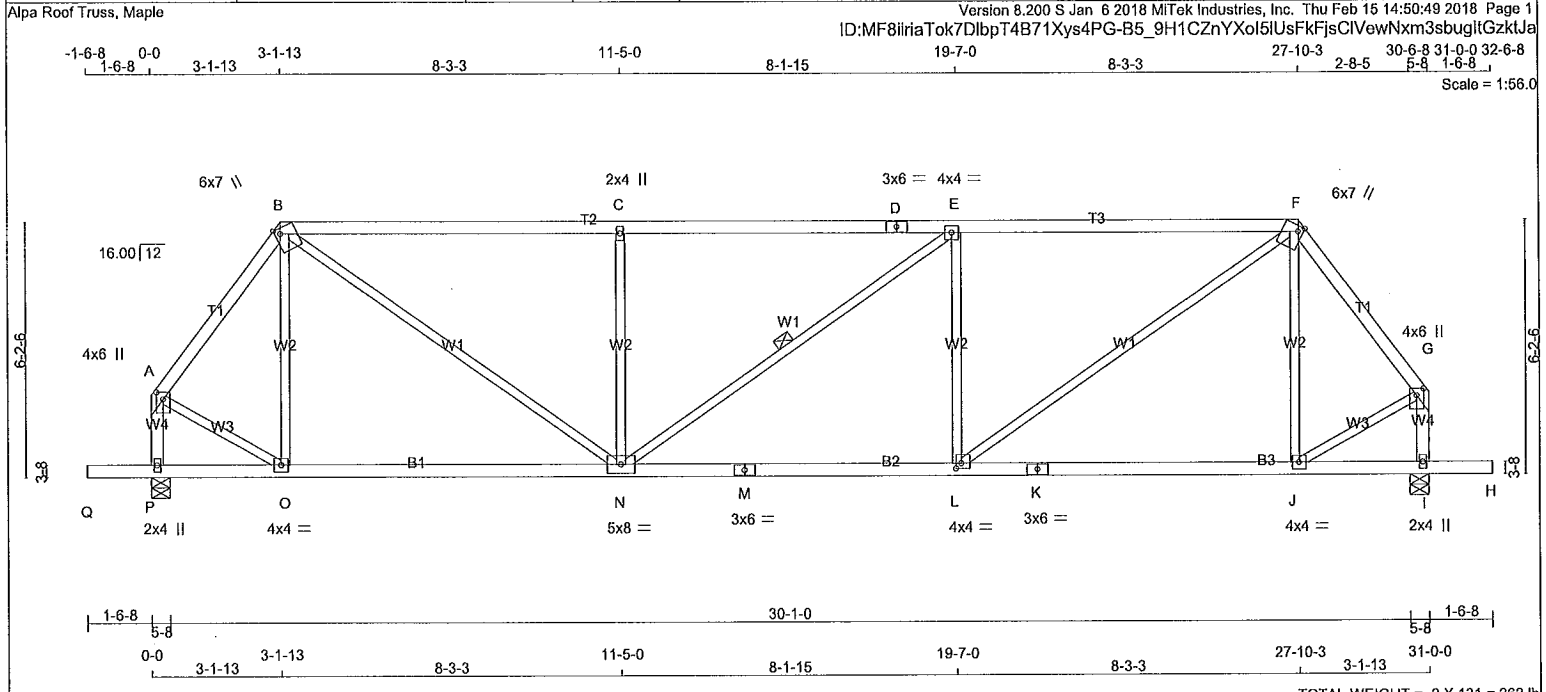
PLATE ROTATION TOL. = 5.0 Deg.

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

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



A-18023194



TOTAL WEIGHT = 2 X 131 = 262 lb

LUMBER
N. L. G. A. RULES

| CHORDS | SIZE | LUMBER | DESCR. |
|-----------------|------|----------------|--------|
| A - B | 2x4 | DRY No.2 | SPF |
| B - D | 2x4 | DRY 1650F 1.5E | SPF |
| D - F | 2x4 | DRY 1650F 1.5E | SPF |
| F - G | 2x4 | DRY No.2 | SPF |
| P - A | 2x4 | DRY No.2 | SPF |
| I - G | 2x4 | DRY No.2 | SPF |
| Q - M | 2x4 | DRY No.2 | SPF |
| M - K | 2x4 | DRY No.2 | SPF |
| K - 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 |
|----|--------|--------|-----|-----|------|------|
| A | TMVW+p | MT20 | 4.0 | 6.0 | 2.00 | 2.00 |
| B | TTWW+m | MT20 | 6.0 | 7.0 | Edge | 1.50 |
| C | TMW+w | MT20 | 2.0 | 4.0 | | |
| D | TS-t | MT20 | 3.0 | 6.0 | | |
| E | TMVW-t | MT20 | 4.0 | 4.0 | | |
| F | TTWW+m | MT20 | 6.0 | 7.0 | Edge | 1.50 |
| G | TMVW+p | MT20 | 4.0 | 6.0 | 2.00 | 2.00 |
| I | BMV1+p | MT20 | 2.0 | 4.0 | | |
| J | BMVW-t | MT20 | 4.0 | 4.0 | | |
| K | BS-t | MT20 | 3.0 | 6.0 | | |
| L | BMVW-t | MT20 | 4.0 | 4.0 | 1.50 | 1.50 |
| M | BS-t | MT20 | 3.0 | 6.0 | | |
| N | BMVW-t | MT20 | 5.0 | 8.0 | | |
| O | BMVW-t | MT20 | 4.0 | 4.0 | | |
| P | BMV1+p | MT20 | 2.0 | 4.0 | | |

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

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

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

BEARINGS

| JT | FACTORED GROSS REACTION | | MAXIMUM FACTORED GROSS REACTION | | INPUT BRG | REQRD BRG |
|----|-------------------------|------|---------------------------------|------|-----------|-----------|
| | VERT | HORZ | DOWN | HORZ | | |
| P | 1644 | 0 | 1644 | 0 | 5-8 | 2-7 |
| I | 1644 | 0 | 1644 | 0 | 5-8 | 2-7 |

UNFACTORED REACTIONS

| JT | 1ST LCASE COMBINED | | MAX./MIN. COMPONENT REACTIONS | | WIND | DEAD | SOIL |
|----|--------------------|---------|-------------------------------|-------|-------|---------|-------|
| | SNOW | LIVE | PERM.LIVE | WIND | | | |
| P | 1172 | 715 / 0 | 0 / 0 | 0 / 0 | 0 / 0 | 457 / 0 | 0 / 0 |
| I | 1172 | 715 / 0 | 0 / 0 | 0 / 0 | 0 / 0 | 457 / 0 | 0 / 0 |

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

BRACING
TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 4.44 FT.
MAX. UNBRACED BOTTOM CHORD LENGTH = 10.00 FT OR RIGID CEILING DIRECTLY APPLIED.

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

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

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

LOADING
TOTAL LOAD CASES: (4)

| MEMB. | CHORDS | | | WEBS | | | | |
|-------|------------------|---------------------------|---------------------------|--------------------|-------------------|------------------------|----------|----------|
| | MAX. FORCE (LBS) | FACTORED VERT. LOAD (PLF) | FACTORED LC1 MAX CSI (LC) | MAX. UNBRAC LENGTH | MEMB. FORCE (LBS) | MAX. FACTORED CSI (LC) | | |
| FR-TO | | FROM | TO | FR-TO | | | | |
| A-B | -1247 / 0 | -78.0 | -78.0 | 0.16 (1) | 5.58 | O-B | -236 / 0 | 0.14 (1) |
| B-C | -1929 / 0 | -78.0 | -78.0 | 0.79 (1) | 4.44 | B-N | 0 / 1460 | 0.33 (1) |
| C-D | -1930 / 0 | -78.0 | -78.0 | 0.79 (1) | 4.44 | N-C | -691 / 0 | 0.42 (1) |
| D-E | -1930 / 0 | -78.0 | -78.0 | 0.79 (1) | 4.44 | N-E | 0 / 0 | 0.00 (1) |
| E-F | -1930 / 0 | -78.0 | -78.0 | 0.79 (1) | 4.44 | L-E | -691 / 0 | 0.42 (1) |
| F-G | -1247 / 0 | -78.0 | -78.0 | 0.16 (1) | 5.58 | L-F | 0 / 1461 | 0.33 (1) |
| P-A | -1491 / 0 | 0.0 | 0.0 | 0.17 (1) | 6.71 | J-F | -237 / 0 | 0.14 (1) |
| I-G | -1491 / 0 | 0.0 | 0.0 | 0.17 (1) | 6.71 | A-O | 0 / 828 | 0.19 (1) |
| | | | | | | J-G | 0 / 828 | 0.19 (1) |
| Q-P | 0 / 0 | -96.5 | -96.5 | 0.16 (1) | 10.00 | | | |
| P-O | 0 / 0 | -18.5 | -18.5 | 0.19 (4) | 10.00 | | | |
| O-N | 0 / 739 | -18.5 | -18.5 | 0.32 (4) | 10.00 | | | |
| N-M | 0 / 1931 | -18.5 | -18.5 | 0.44 (1) | 10.00 | | | |
| M-L | 0 / 1931 | -18.5 | -18.5 | 0.44 (1) | 10.00 | | | |
| L-K | 0 / 738 | -18.5 | -18.5 | 0.32 (4) | 10.00 | | | |
| K-J | 0 / 738 | -18.5 | -18.5 | 0.32 (4) | 10.00 | | | |
| J-I | 0 / 0 | -18.5 | -18.5 | 0.19 (4) | 10.00 | | | |
| I-H | 0 / 0 | -96.5 | -96.5 | 0.16 (1) | 10.00 | | | |

DESIGN CRITERIA

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

SPACING = 24.0 IN. C/C

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 (1.03")
CALCULATED VERT. DEFL.(LL) = L/999 (0.09")
ALLOWABLE DEFL.(TL)= L/360 (1.03")
CALCULATED VERT. DEFL.(TL) = L/999 (0.20")

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

CSI: TC=0.79/1.00 (E-F:1), BC=0.44/1.00 (L-N:1), WB=0.42/1.00 (E-L:1), SS=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

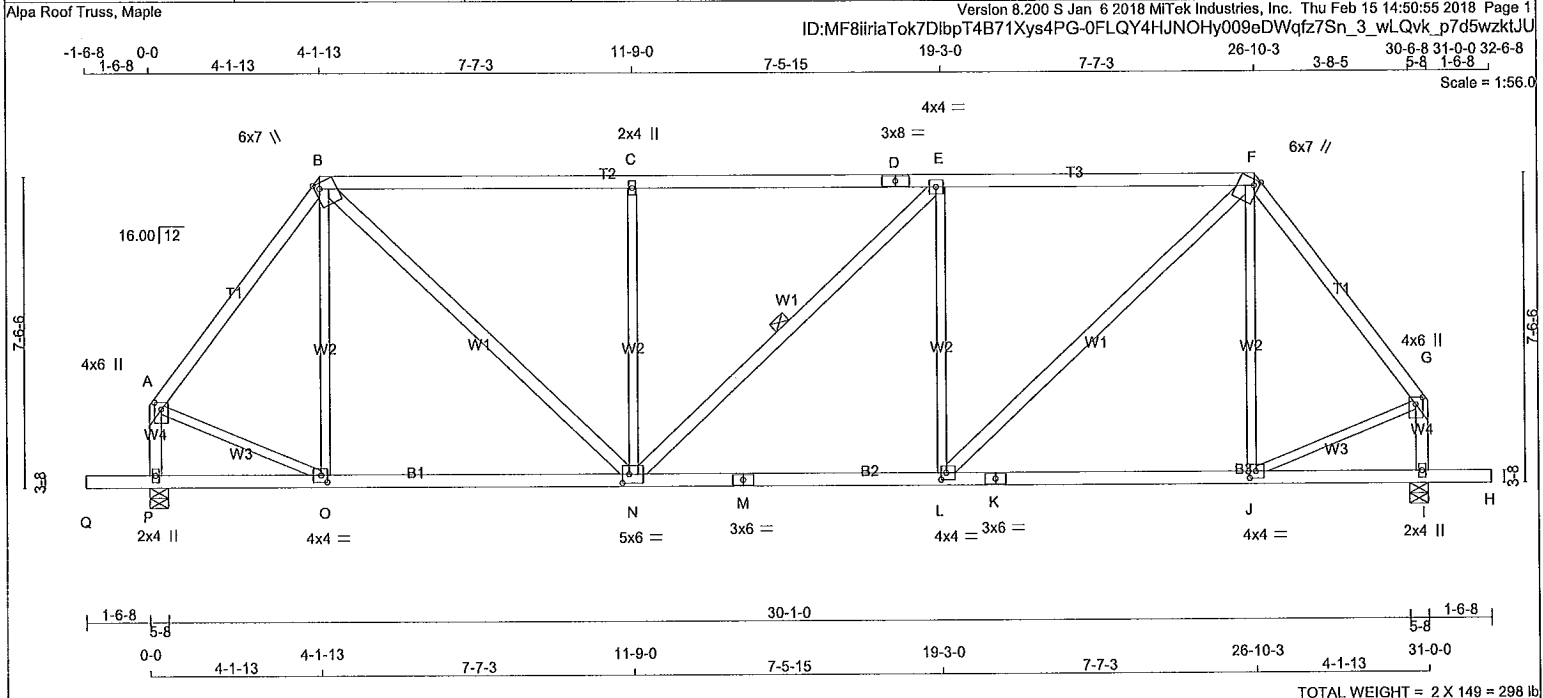
| PLATE | GRIP(DRY) | SHEAR | SECTION |
|-------|-----------|-------|--------------------|
| (PSI) | (PLI) | (PLI) | (PLI) |
| MT20 | 618 | 354 | 1667 788 1987 1656 |

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.88 (L) (INPUT = 0.90)
JSI METAL= 0.67 (M) (INPUT = 1.00)

A-18023195



TOTAL WEIGHT = 2 X 149 = 298 lb

LUMBER
N. L. G. A. RULES

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

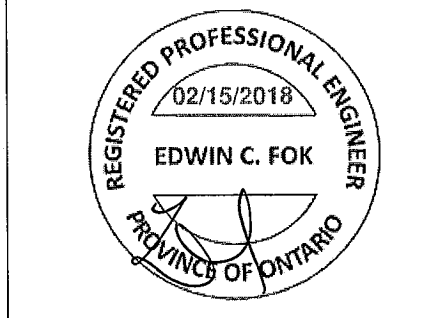
DRY: SEASONED LUMBER.

PLATES (table is in inches)

| JT TYPE | PLATES | W | LEN | Y | X |
|---------|--------|------|-----|-----|-----------|
| A | TMVW+p | MT20 | 4.0 | 6.0 | 2.00 2.00 |
| B | TTWW+m | MT20 | 6.0 | 7.0 | Edge 1.50 |
| C | TMW+w | MT20 | 2.0 | 4.0 | |
| D | TS-l | MT20 | 3.0 | 8.0 | |
| E | TMVW-l | MT20 | 4.0 | 4.0 | |
| F | TTWW+m | MT20 | 6.0 | 7.0 | Edge 1.50 |
| G | TMVW+p | MT20 | 4.0 | 6.0 | 2.00 2.00 |
| I | BMV1+p | MT20 | 2.0 | 4.0 | |
| J | BMVW-l | MT20 | 4.0 | 4.0 | 2.00 1.75 |
| K | BS-l | MT20 | 3.0 | 6.0 | |
| L | BMVW-l | MT20 | 4.0 | 4.0 | 2.00 1.50 |
| M | BS-l | MT20 | 3.0 | 6.0 | |
| N | BMVW-l | MT20 | 5.0 | 6.0 | 2.50 2.00 |
| O | BMVW-l | MT20 | 4.0 | 4.0 | 2.00 1.75 |
| P | BMV1+p | MT20 | 2.0 | 4.0 | |

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

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



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

BEARINGS

| JT | FACTORED GROSS REACTION | | MAXIMUM FACTORED GROSS REACTION | | INPUT REQD BRG | |
|----|-------------------------|------|---------------------------------|------|----------------|-------|
| | VERT | HORZ | DOWN | HORZ | IN-SX | IN-SX |
| P | 1644 | 0 | 1644 | 0 | 5-8 | 2-7 |
| I | 1644 | 0 | 1644 | 0 | 5-8 | 2-7 |

UNFACTORED REACTIONS

| JT | 1ST LCASE | | MAX/MIN COMPONENT REACTIONS | | | | |
|----|-----------|-------|-----------------------------|-----------|------|-------|------|
| | COMBINED | SNOW | LIVE | PERM.LIVE | WIND | DEAD | SOIL |
| P | 1172 | 715/0 | 0/0 | 0/0 | 0/0 | 457/0 | 0/0 |
| I | 1172 | 715/0 | 0/0 | 0/0 | 0/0 | 457/0 | 0/0 |

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

BRACING
TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 4.22 FT.
MAX. UNBRACED BOTTOM CHORD LENGTH = 10.00 FT OR RIGID CEILING DIRECTLY APPLIED.

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

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

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

LOADING
TOTAL LOAD CASES: (4)

| MEMB. | CHORDS | | MAX. MEMB. FORCE (LBS) | FACTORED VERT. LOAD (PLF) | MAX. UNBRACED LENGTH (LC) | MEMB. FORCE (LBS) | WEBS | |
|-------|---------------------------|---------------------------|------------------------|---------------------------|---------------------------|-------------------|------------------------|---------------------------|
| | MAX. FACTORED FORCE (LBS) | FACTORED VERT. LOAD (PLF) | | | | | MAX. MEMB. FORCE (LBS) | MAX. FACTORED FORCE (LBS) |
| FR-TO | | FROM TO | | | | | | |
| A-B | -1275/0 | -78.0 -78.0 | 0.29 (1) | 5.40 | O-B | -164/23 | 0.17 (1) | |
| B-C | -1579/0 | -78.0 -78.0 | 0.79 (1) | 4.24 | B-N | 0/1130 | 0.18 (1) | |
| C-D | -1579/0 | -78.0 -78.0 | 0.79 (1) | 4.22 | N-C | -635/0 | 0.65 (1) | |
| D-E | -1579/0 | -78.0 -78.0 | 0.79 (1) | 4.22 | N-E | -1/0 | 0.00 (1) | |
| E-F | -1580/0 | -78.0 -78.0 | 0.79 (1) | 4.22 | L-E | -636/0 | 0.65 (1) | |
| F-G | -1275/0 | -78.0 -78.0 | 0.29 (1) | 5.40 | L-F | 0/1131 | 0.18 (1) | |
| P-A | -1472/0 | 0.0 0.0 | 0.17 (1) | 6.74 | J-F | -165/23 | 0.17 (1) | |
| I-G | -1472/0 | 0.0 0.0 | 0.17 (1) | 6.74 | A-O | 0/813 | 0.18 (1) | |
| | | | | | J-G | 0/813 | 0.18 (1) | |

| | | | | | | | | |
|-----|--------|-------------|----------|-------|--|--|--|--|
| Q-P | 0/0 | -96.5 -96.5 | 0.16 (1) | 10.00 | | | | |
| P-O | 0/0 | -18.5 -18.5 | 0.16 (4) | 10.00 | | | | |
| O-N | 0/758 | -18.5 -18.5 | 0.28 (4) | 10.00 | | | | |
| N-M | 0/1580 | -18.5 -18.5 | 0.37 (1) | 10.00 | | | | |
| M-L | 0/1580 | -18.5 -18.5 | 0.37 (1) | 10.00 | | | | |
| L-K | 0/758 | -18.5 -18.5 | 0.28 (4) | 10.00 | | | | |
| K-J | 0/758 | -18.5 -18.5 | 0.28 (4) | 10.00 | | | | |
| J-I | 0/0 | -18.5 -18.5 | 0.16 (4) | 10.00 | | | | |
| I-H | 0/0 | -96.5 -96.5 | 0.16 (1) | 10.00 | | | | |

DESIGN CRITERIA

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

SPACING = 24.0 IN. C/C

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 2010, NBC 2015

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

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

ALLOWABLE DEFL.(LL) = L/360 (1.03")
CALCULATED VERT. DEFL.(LL) = L/999 (0.06")
ALLOWABLE DEFL.(TL) = L/360 (1.03")
CALCULATED VERT. DEFL.(TL) = L/999 (0.14")

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

CSI: TC=0.79/1.00 (E-F:1), BC=0.37/1.00 (L-N:1), WB=0.65/1.00 (E-L:1), SSI=0.28/1.00 (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.

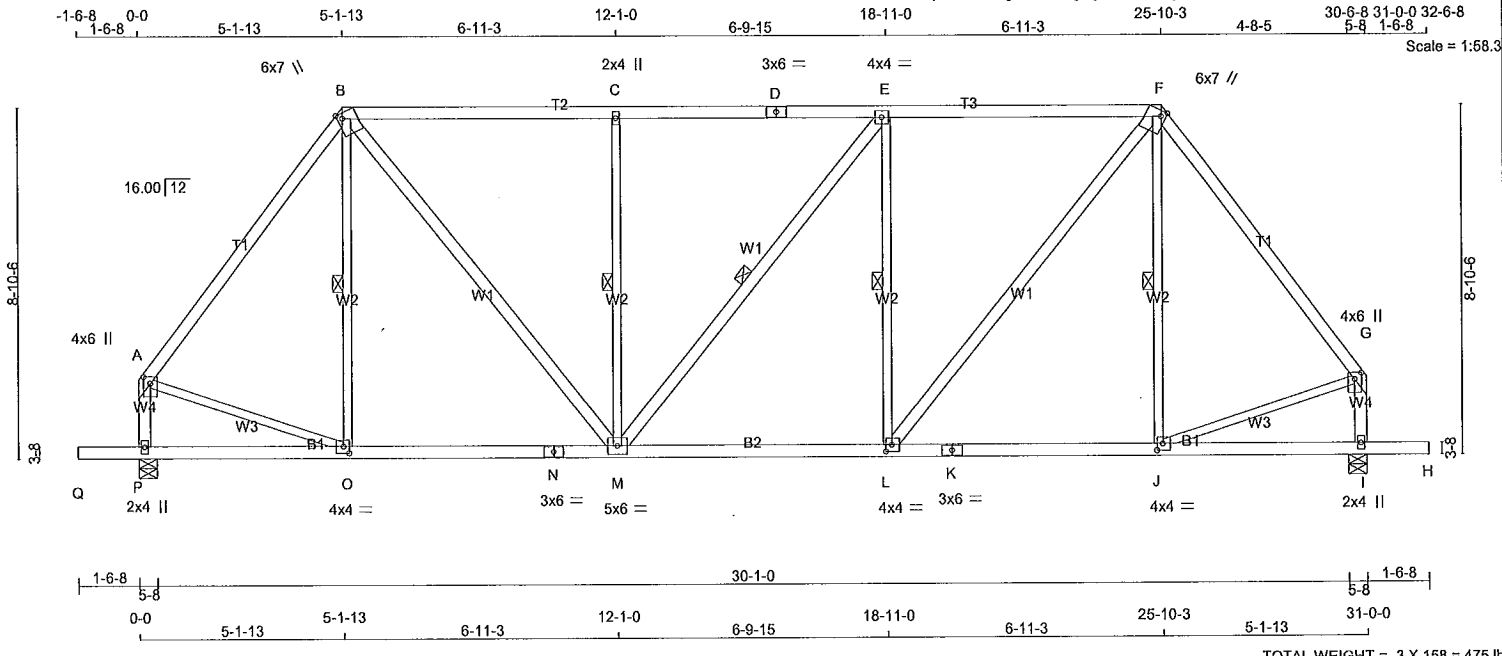
NAIL VALUES

| PLATE | GRIP(DRY) | SHEAR (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= 0.86 (A) (INPUT = 0.90)
JSI METAL= 0.54 (M) (INPUT = 1.00)



TOTAL WEIGHT = 3 X 158 = 475 lb

LUMBER
N. L. G. A. RULES

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

DRY: SEASONED LUMBER.

PLATES (table is in inches)

| JT | TYPE | PLATES | W | LEN | Y | X |
|---------|---------|--------|-----|-----|------|------|
| A | TMVW+p | MT20 | 4.0 | 6.0 | 2.00 | 2.00 |
| B | TTWW+m | MT20 | 6.0 | 7.0 | Edge | 1.50 |
| C | TMVW+w | MT20 | 2.0 | 4.0 | | |
| D | TS-t | MT20 | 3.0 | 6.0 | | |
| E | TMVW-t | MT20 | 4.0 | 4.0 | | |
| F | TTWW+m | MT20 | 6.0 | 7.0 | Edge | 1.50 |
| G | TMVW+p | MT20 | 4.0 | 6.0 | 2.00 | 2.00 |
| I | BMV1+p | MT20 | 2.0 | 4.0 | | |
| J, L, O | | | | | | |
| J | BMVW-t | MT20 | 4.0 | 4.0 | 2.00 | 1.75 |
| K | BS-t | MT20 | 3.0 | 6.0 | | |
| M | BMVWV-t | MT20 | 5.0 | 6.0 | | |
| N | BS-t | MT20 | 3.0 | 6.0 | | |
| P | BMV1+p | MT20 | 2.0 | 4.0 | | |

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

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

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

BEARINGS

| JT | FACTORED GROSS REACTION | | MAXIMUM FACTORED GROSS REACTION | | INPUT BRG UPLIFT | REQRD BRG IN-SX |
|----|-------------------------|------|---------------------------------|------|------------------|-----------------|
| | VERT | HORZ | DOWN | HORZ | | |
| P | 1644 | 0 | 1644 | 0 | 5-8 | 2-7 |
| I | 1644 | 0 | 1644 | 0 | 5-8 | 2-7 |

UNFACTORED REACTIONS

| JT | 1ST LCASE | | MAX./MIN. COMPONENT REACTIONS | | | | |
|----|-----------|-------|-------------------------------|-----------|------|-------|------|
| | COMBINED | SNOW | LIVE | PERM.LIVE | WIND | DEAD | SOIL |
| P | 1172 | 715/0 | 0/0 | 0/0 | 0/0 | 457/0 | 0/0 |
| I | 1172 | 715/0 | 0/0 | 0/0 | 0/0 | 457/0 | 0/0 |

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

BRACING
TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 4.80 FT.
MAX. UNBRACED BOTTOM CHORD LENGTH = 10.00 FT OR RIGID CEILING DIRECTLY APPLIED.

ALL PITCH BREAKS AND PERIMETER CORNER JOINTS MUST BE Laterally RESTRAINED.
1 LATERAL BRACE(S) AT 1/2 LENGTH OF B-O, C-M, E-M, E-L, F-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)

| MEMB. | CHORDS | | | WEBS | | |
|-------|---------------------------|---------------------------|----------------|--------------------------|---------------------------|------------------------|
| | MAX. FACTORED FORCE (LBS) | FACTORED VERT. LOAD (PLF) | LC1 MAX (LC) | MAX. MEMB. UNBRAC LENGTH | MAX. FACTORED FORCE (LBS) | MAX. FACTORED CSI (LC) |
| FR-TO | | | | FROM TO | | |
| A-B | -1278/0 | -78.0 | -78.0 0.49 (1) | 5.18 | O-B | -108/47 0.05 (1) |
| B-C | -1336/0 | -78.0 | -78.0 0.60 (1) | 4.81 | B-M | 0/909 0.15 (1) |
| C-D | -1336/0 | -78.0 | -78.0 0.60 (1) | 4.80 | M-C | -579/0 0.29 (1) |
| D-E | -1336/0 | -78.0 | -78.0 0.60 (1) | 4.80 | M-E | -2/0 0.00 (1) |
| E-F | -1337/0 | -78.0 | -78.0 0.61 (1) | 4.80 | L-E | -579/0 0.29 (1) |
| F-G | -1278/0 | -78.0 | -78.0 0.49 (1) | 5.18 | L-F | 0/911 0.15 (1) |
| P-A | -1459/0 | 0.0 | 0.0 0.17 (1) | 6.77 | J-F | -110/46 0.06 (1) |
| I-G | -1459/0 | 0.0 | 0.0 0.17 (1) | 6.77 | A-O | 0/798 0.18 (1) |
| | | | | | J-G | 0/798 0.18 (1) |
| Q-P | 0/0 | -96.5 | -96.5 0.16 (1) | 10.00 | | |
| P-O | 0/0 | -18.5 | -18.5 0.16 (4) | 10.00 | | |
| O-N | 0/762 | -18.5 | -18.5 0.24 (4) | 10.00 | | |
| N-M | 0/762 | -18.5 | -18.5 0.24 (4) | 10.00 | | |
| M-L | 0/1337 | -18.5 | -18.5 0.31 (1) | 10.00 | | |
| L-K | 0/762 | -18.5 | -18.5 0.24 (4) | 10.00 | | |
| K-J | 0/762 | -18.5 | -18.5 0.24 (4) | 10.00 | | |
| J-I | 0/0 | -18.5 | -18.5 0.16 (4) | 10.00 | | |
| I-H | 0/0 | -96.5 | -96.5 0.16 (1) | 10.00 | | |

DESIGN CRITERIA

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

SPACING = 24.0 IN. C/C

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

(66% 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 (1.03")
CALCULATED VERT. DEFL.(LL) = L/999 (0.05")
ALLOWABLE DEFL.(TL)= L/360 (1.03")
CALCULATED VERT. DEFL.(TL) = L/999 (0.11")

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

CSI: TC=0.61/1.00 (E-F:1), BC=0.31/1.00 (L-M:1), WB=0.29/1.00 (E-L:1), SSI=0.25/1.00 (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.

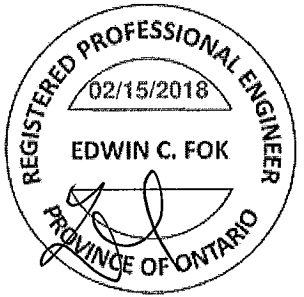
NAIL VALUES

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

PLATE PLACEMENT TOL. = 0.250 inches

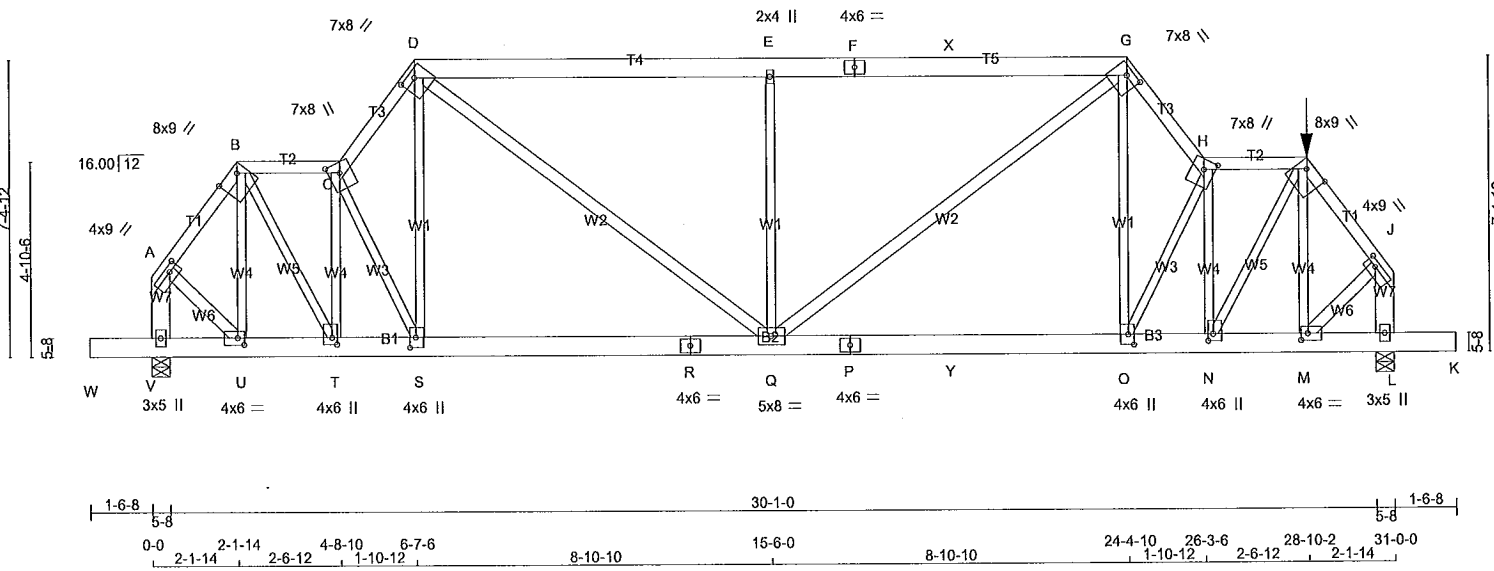
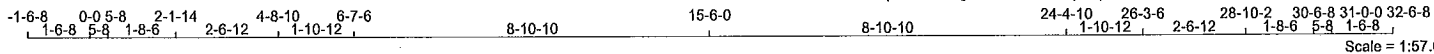
PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.85 (A) (INPUT = 0.90)
JSI METAL= 0.45 (A) (INPUT = 1.00)



| | | | | | |
|----------|------------|----------|-----|-------------|----------|
| JOB NAME | TRUSS NAME | QUANTITY | PLY | JOB DESC. | DRWG NO. |
| 292578 | H13A | 1 | 1 | TRUSS DESC. | |

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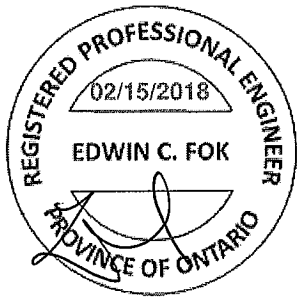
TOTAL WEIGHT = 196 lb

| LUMBER | N. L. G. A. RULES | CHORDS | SIZE | LUMBER | DESCR. |
|-----------------------|-------------------|--------|------|--------|--------|
| A - B | 2x4 | DRY | No.2 | SPF | |
| B - C | 2x4 | DRY | No.2 | SPF | |
| C - D | 2x4 | DRY | No.2 | SPF | |
| D - F | 2x6 | DRY | No.2 | SPF | |
| F - G | 2x6 | DRY | No.2 | SPF | |
| G - H | 2x4 | DRY | No.2 | SPF | |
| H - I | 2x4 | DRY | No.2 | SPF | |
| I - J | 2x4 | DRY | No.2 | SPF | |
| V - A | 2x6 | DRY | No.2 | SPF | |
| L - J | 2x6 | DRY | No.2 | SPF | |
| W - R | 2x6 | DRY | No.2 | SPF | |
| R - P | 2x6 | DRY | No.2 | SPF | |
| P - K | 2x6 | DRY | No.2 | SPF | |
| ALL WEBS EXCEPT D - Q | 2x3 | DRY | No.2 | SPF | |
| Q - G | 2x4 | DRY | No.2 | SPF | |
| A - U | 2x4 | DRY | No.2 | SPF | |
| M - J | 2x4 | DRY | No.2 | SPF | |

DRY: SEASONED LUMBER.

| PLATES (table is in inches) | JT TYPE | PLATES | W | LEN | Y | X |
|-----------------------------|---------|--------|-----|-----|------|------|
| A | TMVW-t | MT20 | 4.0 | 9.0 | 1.50 | 3.00 |
| B | TTWW-h | MT20 | 8.0 | 9.0 | 2.00 | 6.25 |
| C | TTWW+m | MT20 | 7.0 | 8.0 | 3.00 | 3.25 |
| D | TTWW-h | MT20 | 7.0 | 8.0 | 2.00 | 4.00 |
| E | TMVW+w | MT20 | 2.0 | 4.0 | | |
| F | TS-t | MT20 | 4.0 | 6.0 | | |
| G | TTWW-h | MT20 | 7.0 | 8.0 | 2.00 | 4.00 |
| H | TTWW+m | MT20 | 7.0 | 8.0 | 3.00 | 3.25 |
| I | TTWW-h | MT20 | 8.0 | 9.0 | 2.00 | 6.25 |
| J | TMVW-t | MT20 | 4.0 | 9.0 | 1.50 | 3.00 |
| L | BMV1+p | MT20 | 3.0 | 5.0 | | |
| M | BMVW-t | MT20 | 4.0 | 6.0 | 2.00 | 2.00 |
| N | BMVW+t | MT20 | 4.0 | 6.0 | 2.00 | 1.50 |
| O | BMVW+t | MT20 | 4.0 | 6.0 | 3.00 | 1.75 |
| P | BS-t | MT20 | 4.0 | 6.0 | | |
| Q | BMVWV-t | MT20 | 5.0 | 8.0 | | |

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

| JT | FACTORED GROSS REACTION | | MAXIMUM FACTORED GROSS REACTION | | INPUT BRG | REQRD BRG |
|----|-------------------------|------|---------------------------------|------|-----------|-----------|
| | VERT | HORZ | DOWN | HORZ | | |
| V | 3260 | 0 | 3260 | 0 | 5-8 | 4-13 |
| L | 3128 | 0 | 3128 | 0 | 5-8 | 4-7 |

| JT | 1ST LCASE | MAX./MIN. COMPONENT REACTIONS | | | | WIND | DEAD | SOIL |
|----|-----------|-------------------------------|-------|-----------|--------|---------|-------|------|
| | | SNOW | LIVE | PERM.LIVE | UPRIFT | | | |
| V | 2325 | 1419 / 0 | 0 / 0 | 0 / 0 | 0 / 0 | 905 / 0 | 0 / 0 | |
| L | 2231 | 1357 / 0 | 0 / 0 | 0 / 0 | 0 / 0 | 874 / 0 | 0 / 0 | |

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

BRACING
 TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 3.33 FT.
 MAX. UNBRACED BOTTOM CHORD LENGTH = 10.00 FT OR RIGID CEILING DIRECTLY APPLIED.

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

LOADING
 TOTAL LOAD CASES: (4)

| MEMB. | FR-TO | CHORDS | | FACTORED | | WEBS | |
|-------|-----------|---------------------------|------------------|--------------------------------|------------------------------------|-----------|---------------------------|
| | | MAX. FACTORED FORCE (LBS) | VERT. LOAD (PLF) | MAX. FACTORED VERT. LOAD (PLF) | MAX. FACTORED UNBRACED LENGTH (FT) | MEMB. | MAX. FACTORED FORCE (LBS) |
| A-B | -2478 / 0 | -78.0 | -78.0 0.16 (1) | 4.23 | U-B | -401 / 0 | 0.14 (1) |
| B-C | -2685 / 0 | -78.0 | -78.0 0.19 (1) | 4.03 | B-T | 0 / 2527 | 0.63 (1) |
| C-D | -3956 / 0 | -78.0 | -78.0 0.26 (1) | 3.33 | T-C | -2551 / 0 | 0.86 (1) |
| D-E | -3688 / 0 | -78.0 | -78.0 0.85 (1) | 3.39 | C-S | -844 / 0 | 0.32 (1) |
| E-F | -3688 / 0 | -78.0 | -78.0 0.85 (1) | 3.39 | S-D | 0 / 1835 | 0.45 (1) |
| F-X | -3688 / 0 | -78.0 | -78.0 0.85 (1) | 3.39 | D-Q | 0 / 1600 | 0.28 (1) |
| X-G | -3688 / 0 | -153.5 | -153.5 0.85 (1) | 3.39 | Q-E | -962 / 0 | 0.84 (1) |
| G-H | -3813 / 0 | -153.5 | -153.5 0.30 (1) | 3.34 | Q-G | 0 / 1720 | 0.30 (1) |
| H-I | -2642 / 0 | -153.5 | -153.5 0.28 (1) | 3.95 | O-G | 0 / 1327 | 0.33 (1) |
| I-J | -2434 / 0 | -78.0 | -78.0 0.15 (1) | 4.26 | O-H | -948 / 0 | 0.36 (1) |
| V-A | -3070 / 0 | 0.0 | 0.0 0.25 (1) | 5.97 | N-H | -2510 / 0 | 0.85 (1) |
| L-J | -3017 / 0 | 0.0 | 0.0 0.24 (1) | 6.02 | N-I | 0 / 2504 | 0.62 (1) |
| W-V | 0 / 0 | -96.5 | -96.5 0.08 (1) | 10.00 | M-I | -635 / 0 | 0.22 (1) |
| V-U | 0 / 0 | -124.1 | -124.1 0.16 (1) | 10.00 | A-U | 0 / 1774 | 0.31 (1) |
| U-T | 0 / 1462 | -124.1 | -124.1 0.38 (1) | 10.00 | M-J | 0 / 1743 | 0.31 (1) |
| T-S | 0 / 2745 | -124.1 | -124.1 0.80 (1) | 10.00 | | | |
| S-R | 0 / 2426 | -124.1 | -124.1 0.88 (1) | 10.00 | | | |
| R-Q | 0 / 2426 | -124.1 | -124.1 0.88 (1) | 10.00 | | | |
| Q-P | 0 / 2332 | -124.1 | -124.1 0.87 (1) | 10.00 | | | |
| P-Y | 0 / 2332 | -124.1 | -124.1 0.87 (1) | 10.00 | | | |
| Y-O | 0 / 2332 | -36.4 | -36.4 0.87 (1) | 10.00 | | | |
| O-N | 0 / 2701 | -36.4 | -36.4 0.53 (1) | 10.00 | | | |
| N-M | 0 / 1430 | -36.4 | -36.4 0.36 (1) | 10.00 | | | |
| M-L | 0 / 0 | -36.4 | -36.4 0.13 (1) | 10.00 | | | |
| L-K | 0 / 0 | -96.5 | -96.5 0.08 (1) | 10.00 | | | |

| FACTORED CONCENTRATED LOADS (LBS) | JT | LOC. | LC1 | MAX- | MAX+ | FACE | DIR. | TYPE |
|-----------------------------------|---------|------|------|------|------|-------|------|-------|
| I | 28-10-2 | -123 | -123 | | | FRONT | VERT | TOTAL |

DESIGN CRITERIA

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

SPACING = 24.0 IN. C/C

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

GIRDER TYPE: CStdGlrder
 START DISTANCE = 0-0
 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.

GIRDER TYPE: CPrimeHip
 SIDE SETBACK = 2-1-14
 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 11-0-0 OF SPAN MEASURED FROM THE RIGHT.

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

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

(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 (1.03")
 CALCULATED VERT. DEFL.(LL) = L/999 (0.19")
 ALLOWABLE DEFL.(TL) = L/360 (1.03")
 CALCULATED VERT. DEFL.(TL) = L/978 (0.38")

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

CSI: TC=0.85/1.00 (E-G:1), BC=0.88/1.00 (Q-S:1), WB=0.86/1.00 (C-T:1), SSI=0.37/1.00 (Q-S: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

| | | | | | |
|----------|------------|----------|-----|-------------|----------|
| JOB NAME | TRUSS NAME | QUANTITY | PLY | JOB DESC. | DRWG NO. |
| 292578 | H13A | 1 | 1 | TRUSS DESC. | |

Alpa Roof Truss, Maple

PLATES (table is in inches)

| JT | TYPE | PLATES | W | LEN | Y | X |
|----|--------|--------|-----|-----|------|------|
| R | BS-t | MT20 | 4.0 | 6.0 | | |
| S | BMWW+t | MT20 | 4.0 | 6.0 | 3.00 | 1.75 |
| T | BMWW+t | MT20 | 4.0 | 6.0 | 2.00 | 1.50 |
| U | BMWW-t | MT20 | 4.0 | 6.0 | 2.00 | 2.00 |
| V | BMV1+p | MT20 | 3.0 | 5.0 | | |

HANGERS NOTES

- SPECIAL HANGER(S) OR CONNECTION(S) REQUIRED TO SUPPORT CONCENTRATED LOAD(S) 122.6 lbs FACTORED DOWN AT 28-10-2 ON TOP CHORD. DESIGN FOR UNSPECIFIED CONNECTION(S) IS DELEGATED TO THE BUILDING DESIGNER.

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

NAIL VALUES

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

PLATE PLACEMENT TOL. = 0.250 Inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.89 (J) (INPUT = 0.90)
 JSI METAL= 0.96 (D) (INPUT = 1.00)

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



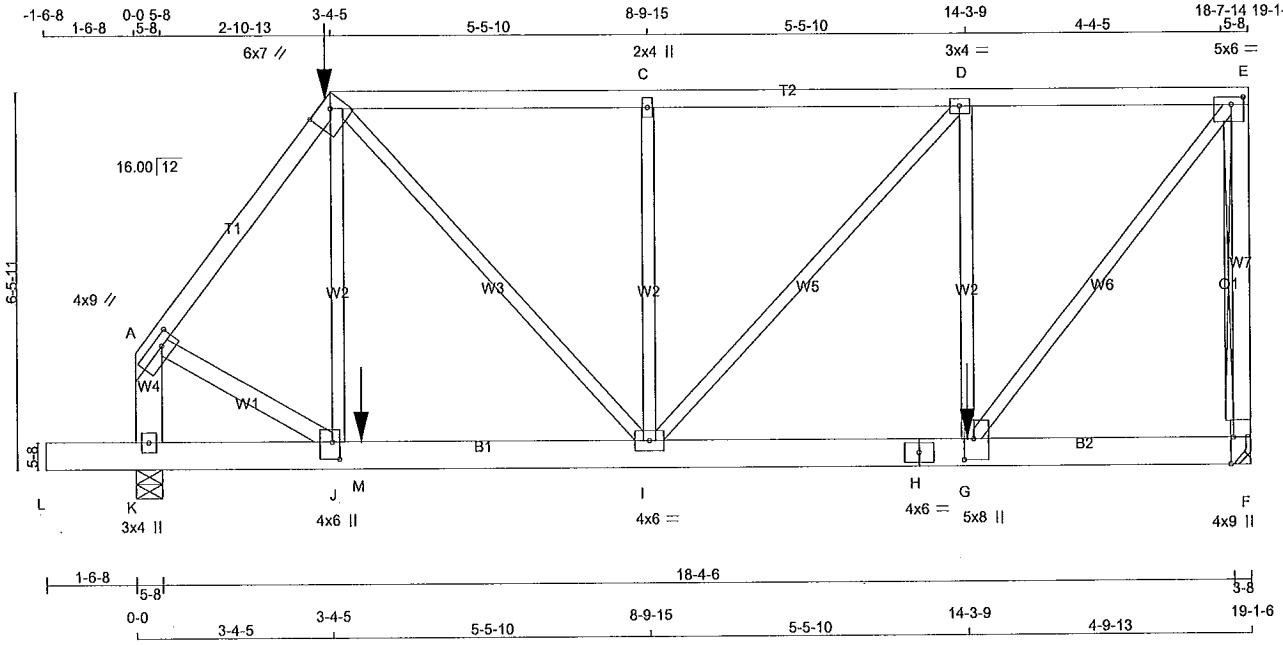
A-18023198(2)

| | | | | | |
|----------|------------|----------|-----|-------------|----------|
| JOB NAME | TRUSS NAME | QUANTITY | PLY | JOB DESC. | DRWG NO. |
| 292578 | H14A | 1 | 1 | TRUSS DESC. | |

Alpa Roof Truss, Maple

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Scale = 1:39.6



TOTAL WEIGHT = 108 lb

LUMBER
 N. L. G. A. RULES

| CHORDS | SIZE | DRY | LUMBER | DESCR. |
|----------|------|-----|--------|--------|
| A - B | 2x4 | DRY | No.2 | SPF |
| B - E | 2x4 | DRY | No.2 | SPF |
| F - E | 2x4 | DRY | No.2 | SPF |
| K - A | 2x6 | DRY | No.2 | SPF |
| L - H | 2x6 | DRY | No.2 | SPF |
| H - F | 2x6 | DRY | No.2 | SPF |
| ALL WEBS | 2x3 | DRY | No.2 | SPF |
| EXCEPT | | | | |
| A - J | 2x4 | DRY | No.2 | SPF |

DRY: SEASONED LUMBER.

PLATES (table is in inches)

| JT | TYPE | PLATES | W | LEN | Y | X |
|----|---------|--------|-----|-----|------|------|
| A | TMVW-t | MT20 | 4.0 | 9.0 | 1.75 | 3.00 |
| B | TTWW-h | MT20 | 6.0 | 7.0 | 2.00 | 4.25 |
| C | TMW+w | MT20 | 2.0 | 4.0 | | |
| D | TMVW-t | MT20 | 3.0 | 4.0 | | |
| E | TMVW-t | MT20 | 5.0 | 6.0 | 1.50 | 2.50 |
| F | BMV1+t | MT20 | 4.0 | 9.0 | Edge | 0.50 |
| G | BMVW+t | MT20 | 5.0 | 8.0 | 4.25 | 2.00 |
| H | BS-t | MT20 | 4.0 | 6.0 | | |
| I | BMVWV-t | MT20 | 4.0 | 6.0 | | |
| J | BMVW+t | MT20 | 4.0 | 6.0 | 3.50 | 1.50 |
| K | BMV1+p | MT20 | 3.0 | 4.0 | | |

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

HANGERS NOTES
 1) SPECIAL HANGER(S) OR CONNECTION(S) REQUIRED TO SUPPORT CONCENTRATED LOAD(S) 278.3 lbs FACTORED DOWN AT 3-4-5 ON TOP CHORD, AND 1008.2 lbs FACTORED DOWN AT 3-10-6, AND 1008.2 lbs FACTORED DOWN AT 14-3-8 ON BOTTOM CHORD. DESIGN FOR UNSPECIFIED CONNECTION(S) IS DELEGATED TO THE BUILDING DESIGNER.

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

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

BEARINGS

| JT | FACTORED GROSS REACTION | | MAXIMUM FACTORED GROSS REACTION | | INPUT BRG | REQRD BRG |
|----|-------------------------|------|---------------------------------|------|-----------|------------------------------|
| | VERT | HORZ | DOWN | HORZ | | |
| F | 2543 | 0 | 2543 | 0 | 0 | HANGER BY OTHERS |
| K | 2574 | 0 | 2574 | 0 | 0 | MIN. SEAT SIZE: 3-8 5-8 2-12 |

UNFACTORED REACTIONS

| JT | 1ST LCASE | MAX./MIN. COMPONENT REACTIONS | | | | | | |
|----|-----------|-------------------------------|----------|-------|-----------|-------|---------|-------|
| | | COMBINED | SNOW | LIVE | PERM.LIVE | WIND | DEAD | SOIL |
| F | JT | 1795 | 1195 / 0 | 0 / 0 | 0 / 0 | 0 / 0 | 600 / 0 | 0 / 0 |
| K | JT | 1819 | 1203 / 0 | 0 / 0 | 0 / 0 | 0 / 0 | 615 / 0 | 0 / 0 |

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

BRACING
 TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 4.39 FT.
 MAX. UNBRACED BOTTOM CHORD LENGTH = 10.00 FT OR RIGID CEILING DIRECTLY APPLIED.

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

2x4 DRY SPF No.2 T-BRACE AT E-F

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)

| MEMB. | CHORDS | | | WEBS | | | |
|-------|---------------------------|---------------------------|---------------------------|-------|---------------------------|---------------------------|----------|
| | MAX. FACTORED FORCE (LBS) | FACTORED VERT. LOAD (PLF) | MAX. UNBRACED LENGTH (LC) | MEMB. | MAX. FACTORED FORCE (LBS) | MAX. UNBRACED LENGTH (LC) | |
| FR-TO | | FROM TO | | FR-TO | | | |
| A-B | -2141 / 0 | -78.0 -78.0 | 0.27 (1) | 4.39 | J-B | 0 / 654 | 0.16 (1) |
| B-C | -1712 / 0 | -78.0 -78.0 | 0.44 (1) | 4.55 | B-I | 0 / 635 | 0.16 (1) |
| C-D | -1712 / 0 | -78.0 -78.0 | 0.44 (1) | 4.55 | I-C | -464 / 0 | 0.30 (1) |
| D-E | -1610 / 0 | -78.0 -78.0 | 0.33 (1) | 4.82 | I-D | 0 / 153 | 0.04 (1) |
| F-E | -2189 / 0 | 0.0 0.0 | 0.50 (1) | 7.81 | G-D | -542 / 0 | 0.35 (1) |
| K-A | -2411 / 0 | 0.0 0.0 | 0.19 (1) | 6.60 | G-E | 0 / 2598 | 0.84 (1) |
| | | | | | A-J | 0 / 1394 | 0.25 (1) |
| L-K | 0 / 0 | -96.5 -96.5 | 0.08 (1) | 10.00 | | | |
| K-J | 0 / 0 | -45.7 -45.7 | 0.17 (1) | 10.00 | | | |
| J-M | 0 / 1287 | -160.2 -160.2 | 0.33 (1) | 10.00 | | | |
| M-I | 0 / 1287 | -18.5 -18.5 | 0.33 (1) | 10.00 | | | |
| I-H | 0 / 1610 | -18.5 -18.5 | 0.32 (1) | 10.00 | | | |
| H-G | 0 / 1610 | -18.5 -18.5 | 0.32 (1) | 10.00 | | | |
| G-F | 0 / 0 | -160.2 -160.2 | 0.29 (1) | 10.00 | | | |

FACTORED CONCENTRATED LOADS (LBS)

| JT | LOC. | LC1 | MAX- | MAX+ | FACE | DIR. | TYPE |
|----|--------|-------|-------|------|-------|------|-------|
| B | 3-4-5 | -278 | -278 | | FRONT | VERT | TOTAL |
| G | 14-3-8 | -1006 | -1006 | | FRONT | VERT | TOTAL |
| M | 3-10-6 | -1006 | -1006 | | 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
 LEFT SETBACK = 3-4-5
 RIGHT SETBACK = 0-0
 END SETBACK = 7-10-8
 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 3-4-5 OF SPAN MEASURED FROM THE LEFT.

GIRDER TYPE: CStdGirder
 START DISTANCE = 3-4-5
 START SPAN CARRIED = 7-10-8
 END DISTANCE = 3-10-6
 END SPAN CARRIED = 7-10-8
 END WALL WIDTH = 0-0
 APPLIED TO FRONT SIDE OF BOTTOM CHORD.
 - ADDTL LOADS BASED ON 55 % OF GSL.

GIRDER TYPE: CStdGirder
 START DISTANCE = 14-3-8
 START SPAN CARRIED = 7-10-8
 END DISTANCE = 19-1-6
 END SPAN CARRIED = 7-10-8
 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.

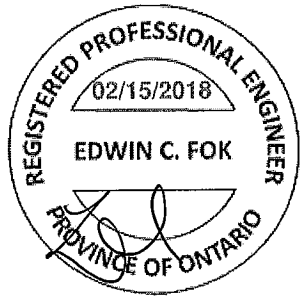
THIS TRUSS IS DESIGNED FOR RESIDENTIAL OR SMALL BUILDING REQUIREMENTS OF PART 9, NBCC 2010, NBCC 2015

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

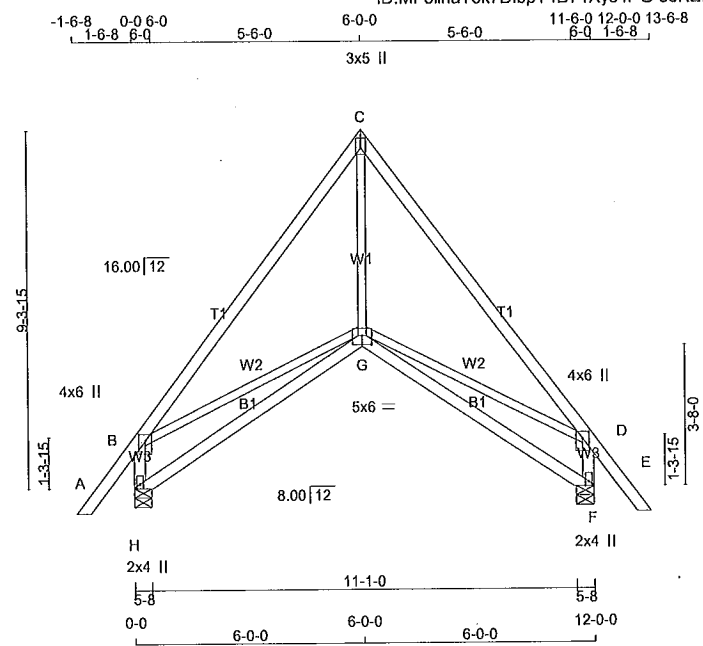
ALLOWABLE DEFL.(LL) = L/360 (0.64")
 CALCULATED VERT. DEFL.(LL) = L/999 (0.05")

A-18023199 CONTINUED ON PAGE 2



| | | | | | |
|----------|------------|----------|-----|-------------|----------|
| JOB NAME | TRUSS NAME | QUANTITY | PLY | JOB DESC. | DRWG NO. |
| 292578 | H15T | 2 | 1 | TRUSS DESC. | |

Alpa Roof Truss, Maple Version 8.200 S Jan 6 2018 MITek Industries, Inc. Thu Feb 15 15:01:32 2018 Page 1
 ID:MF8ilriaTok7DlbpT4B71Xys4PG-soKEEu_uM6YZxvM31om1HSKnprQh5fMVSQwqyVzkt9X



TOTAL WEIGHT = 2 X 62 = 124 lb (M/F)

LUMBER
 N. L. G. A. RULES

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

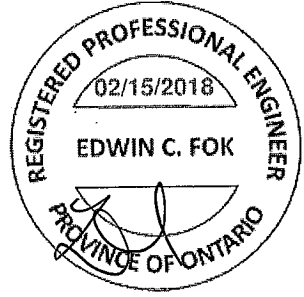
DRY: SEASONED LUMBER.

PLATES (table is in inches)

| JT TYPE | PLATES | W | LEN | Y | X | |
|---------|---------|------|-----|-----|------|------|
| B | TMVW+p | MT20 | 4.0 | 6.0 | 2.00 | 2.00 |
| C | TTW+p | MT20 | 3.0 | 5.0 | 2.00 | Edge |
| D | TMVW+p | MT20 | 4.0 | 6.0 | 2.00 | 2.00 |
| F | BMV1+p | MT20 | 2.0 | 4.0 | Edge | |
| G | BBWWW-p | MT20 | 5.0 | 6.0 | 2.75 | 3.00 |
| H | BMV1+p | MT20 | 2.0 | 4.0 | Edge | |

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

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



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

BEARINGS

| | FACTORED GROSS REACTION | MAXIMUM FACTORED GROSS REACTION | INPUT BRG | REQRD BRG |
|----|-------------------------|---------------------------------|-----------|-------------|
| JT | VERT | HORZ | DOWN | HORZ UPLIFT |
| H | 686 | 0 | 686 | 0 |
| F | 686 | 0 | 686 | 0 |

UNFACTORED REACTIONS

| JT | 1ST LCASE | SNOW | LIVE | PERM.LIVE | WIND | DEAD | SOIL |
|----|-----------|-------|------|-----------|------|-------|------|
| H | 487 | 310/0 | 0/0 | 0/0 | 0/0 | 177/0 | 0/0 |
| F | 487 | 310/0 | 0/0 | 0/0 | 0/0 | 177/0 | 0/0 |

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

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

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

LOADING
 TOTAL LOAD CASES: (4)

| MEMB. | C H O R D S | | | W E B S | | |
|-------|---------------------------|---------------------------|--------------|---------------------|---------------------------|------------------------|
| | MAX. FACTORED FORCE (LBS) | FACTORED VERT. LOAD (PLF) | LC1 MAX (LC) | MEMB. UNBRAC LENGTH | MAX. FACTORED FORCE (LBS) | MAX. FACTORED CSI (LC) |
| FR-TO | | FROM | TO | | FR-TO | |
| A-B | 0/43 | -78.0 | -78.0 | 0.07 (1) | 10.00 | G-C 0/415 0.09 (1) |
| B-C | -552/0 | -78.0 | -78.0 | 0.24 (1) | 6.25 | B-G 0/364 0.08 (1) |
| C-D | -552/0 | -78.0 | -78.0 | 0.24 (1) | 6.25 | G-D 0/364 0.08 (1) |
| D-E | 0/43 | -78.0 | -78.0 | 0.07 (1) | 10.00 | |
| H-B | -631/0 | 0.0 | 0.0 | 0.07 (1) | 7.81 | |
| F-D | -631/0 | 0.0 | 0.0 | 0.07 (1) | 7.81 | |
| H-G | 0/0 | -18.5 | -18.5 | 0.20 (4) | 10.00 | |
| G-F | 0/0 | -18.5 | -18.5 | 0.20 (4) | 10.00 | |

DESIGN CRITERIA

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

SPACING = 24.0 IN. C/C

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 (0.40")
 CALCULATED VERT. DEFL.(LL) = L/999 (0.01")
 ALLOWABLE DEFL.(TL)= L/360 (0.40")
 CALCULATED VERT. DEFL.(TL) = L/999 (0.08")

CSI: TC=0.24/1.00 (C-D:1), BC=0.20/1.00 (G-H:4), WB=0.09/1.00 (C-G:1), SSI=0.11/1.00 (C-D:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

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

NAIL VALUES

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

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

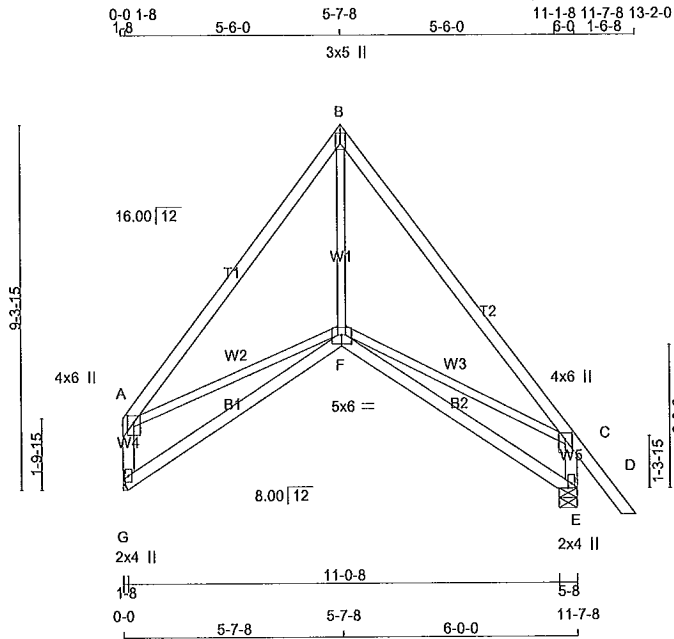
JSI GRIP= 0.81 (F) (INPUT = 0.90)
 JSI METAL= 0.31 (F) (INPUT = 1.00)

A-18023200

| | | | | | |
|----------|------------|----------|-----|-------------|----------|
| JOB NAME | TRUSS NAME | QUANTITY | PLY | JOB DESC. | DRWG NO. |
| 292578 | H15TS | 5 | 1 | TRUSS DESC. | |

Alpa Roof Truss, Maple

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 ID:MF8iiriaTok7DlbpT4B71Xys4PG-Dm77Hc21AeAs1gE1qLMC_V2bDs7smwkEclbDjzk9S



TOTAL WEIGHT = 5 X 58 = 292 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 - F | 2x4 | DRY No.2 | SPF |
| F - E | 2x4 | DRY No.2 | SPF |

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

PLATES (table is in inches)

| JT | TYPE | PLATES | W | LEN | Y | X |
|----|---------|--------|-----|-----|------|------|
| A | TMVW+p | MT20 | 4.0 | 6.0 | 2.00 | 2.00 |
| B | TTW+p | MT20 | 3.0 | 5.0 | 2.00 | Edge |
| C | TMVW+p | MT20 | 4.0 | 6.0 | 2.00 | 2.00 |
| E | BMV1+p | MT20 | 2.0 | 4.0 | Edge | |
| F | BBWWV-p | MT20 | 5.0 | 6.0 | 2.75 | 3.00 |
| G | BMV1+p | MT20 | 2.0 | 4.0 | | |

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

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

BEARINGS

| JT | FACTORED GROSS REACTION | MAXIMUM FACTORED GROSS REACTION | INPUT BRG | REQ'D BRG |
|----|-------------------------|---------------------------------|-----------|-----------|
| G | VERT 561 | DOWN 561 | 0 | 0 |
| E | VERT 668 | DOWN 668 | 0 | 0 |

UNFACTORED REACTIONS

| JT | 1ST LCASE COMBINED | MAX. MIN. SNOW | LIVE | PERM. LIVE | WIND | DEAD | SOIL |
|----|--------------------|----------------|-------|------------|-------|---------|-------|
| G | 400 | 244 / 0 | 0 / 0 | 0 / 0 | 0 / 0 | 156 / 0 | 0 / 0 |
| E | 474 | 302 / 0 | 0 / 0 | 0 / 0 | 0 / 0 | 172 / 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)

| MEMB. | MAX. FACTORED FORCE (LBS) | CHORDS | | | | WEBS | | | |
|-------|---------------------------|--------|-------|----------|-------|------|---------|------------|-----|
| | | VERT. | LOAD | LC1 | MAX | MAX. | MEMB. | MAX. FORCE | MAX |
| FR-TO | | FROM | TO | LENGTH | FR-TO | | | | |
| A-B | -517 / 0 | -78.0 | -78.0 | 0.33 (1) | 6.25 | F-B | 0 / 375 | 0.08 (1) | |
| B-C | -517 / 0 | -78.0 | -78.0 | 0.24 (1) | 6.25 | A-F | 0 / 335 | 0.08 (1) | |
| C-D | 0 / 43 | -78.0 | -78.0 | 0.07 (1) | 10.00 | F-C | 0 / 342 | 0.08 (1) | |
| G-A | -509 / 0 | 0.0 | 0.0 | 0.06 (1) | 7.81 | | | | |
| E-C | -613 / 0 | 0.0 | 0.0 | 0.07 (1) | 7.81 | | | | |
| G-F | 0 / 0 | -18.5 | -18.5 | 0.17 (4) | 10.00 | | | | |
| F-E | 0 / 0 | -18.5 | -18.5 | 0.20 (4) | 10.00 | | | | |

DESIGN CRITERIA

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

SPACING = 24.0 IN. C/C

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

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

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

ALLOWABLE DEFL.(LL) = L/360 (0.39")
 CALCULATED VERT. DEFL.(LL) = L/999 (0.01")
 ALLOWABLE DEFL.(TL) = L/360 (0.39")
 CALCULATED VERT. DEFL.(TL) = L/999 (0.08")

CSI: TC=0.33/1.00 (A-B:1), BC=0.20/1.00 (E-F:4), WB=0.08/1.00 (B-F:1), SSI=0.11/1.00 (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= 0.78 (E) (INPUT = 0.90)
 JSI METAL= 0.30 (E) (INPUT = 1.00)

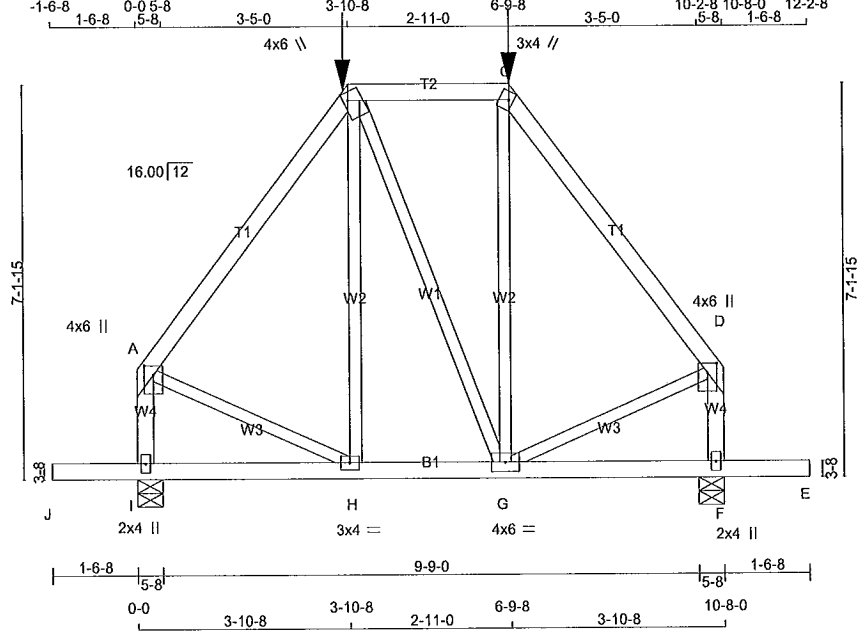
NOTE: Lateral brace(s) shown shall be 1x4 for Part 9 design as per OBC 9.23.13.11, and no less than 2x4 for Part 4 design



A-18023201

| | | | | | |
|--------------------|-------------------|---------------|----------|--------------------------|----------|
| JOB NAME 292578 | TRUSS NAME H16 | QUANTITY 1 | PLY 1 | JOB DESC. TRUSS DESC. | DRWG NO. |
|--------------------|-------------------|---------------|----------|--------------------------|----------|

Alpa Roof Truss, Maple ID:MF8iiriaTok7DlbpT4B71Xys4PG-LXxTasPr6sybdHXoaefUCqHm6yNFnUCVNVbHzzkt9 Version 8.200 S Jan 6 2018 MITek Industries, Inc. Thu Feb 15 16:02:07 2018 Page 1



TOTAL WEIGHT = 61 lb

LUMBER

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

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

PLATES (table is in inches)

| JT | TYPE | PLATES | W | LEN | Y | X |
|----|---------|--------|-----|-----|------|------|
| A | TMVW+p | MT20 | 4.0 | 6.0 | 2.00 | 2.00 |
| B | TTWW+m | MT20 | 4.0 | 6.0 | 1.75 | 1.00 |
| C | TTW+m | MT20 | 3.0 | 4.0 | 1.75 | 1.00 |
| D | TMVW+p | MT20 | 4.0 | 6.0 | 2.00 | 2.00 |
| F | BMV1+p | MT20 | 2.0 | 4.0 | | |
| G | BMWWW-t | MT20 | 4.0 | 6.0 | | |
| H | BMWW-t | MT20 | 3.0 | 4.0 | | |
| I | BMV1+p | MT20 | 2.0 | 4.0 | | |

HANGERS NOTES

1) SPECIAL HANGER(S) OR CONNECTION(S) REQUIRED TO SUPPORT CONCENTRATED LOAD(S) 119.6 lbs FACTORED DOWN AT 6-9-8, AND 119.6 lbs FACTORED DOWN AT 3-10-8 ON TOP CHORD. DESIGN FOR UNSPECIFIED CONNECTION(S) IS DELEGATED TO THE BUILDING DESIGNER.

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

BEARINGS

| JT | FACTORED GROSS REACTION | MAXIMUM FACTORED GROSS REACTION | INPUT BRG | REQRD BRG |
|----|-------------------------|---------------------------------|-----------|-----------|
| I | 882 0 | 882 0 | 5-8 | 1-8 |
| F | 882 0 | 882 0 | 5-8 | 1-8 |

UNFACTORED REACTIONS

| JT | 1ST LCASE | MAX/MIN. SNOW | LIVE | PERM.LIVE | WIND | DEAD | SOIL |
|----|-----------|---------------|------|-----------|------|-------|------|
| I | 630 | 382/0 | 0/0 | 0/0 | 0/0 | 248/0 | 0/0 |
| F | 630 | 382/0 | 0/0 | 0/0 | 0/0 | 248/0 | 0/0 |

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

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

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

LOADING

TOTAL LOAD CASES: (4)

| MEMB. | CHORDS | | | | WEBS | | | |
|-------|---------------------------|---------------------------|---------|------------|-------------------|--------------|--------|----------|
| | MAX. FACTORED FORCE (LBS) | FACTORED VERT. LOAD (PLF) | LC1 MAX | MAX UNBRAC | MEMB. FORCE (LBS) | MAX FACTORED | MAX | CS1 (LC) |
| FR-TO | | FROM TO | | LENGTH | FR-TO | | | |
| A-B | -514/0 | -78.0 | -78.0 | 0.23 (1) | 6.25 | H-B | -25/63 | 0.02 (4) |
| B-C | -306/0 | -114.5 | -114.5 | 0.18 (1) | 6.25 | B-G | 0/0 | 0.00 (1) |
| C-D | -514/0 | -78.0 | -78.0 | 0.23 (1) | 6.25 | G-C | -25/64 | 0.02 (4) |
| I-A | -687/0 | 0.0 | 0.0 | 0.09 (1) | 7.81 | A-H | 0/331 | 0.08 (1) |
| F-D | -687/0 | 0.0 | 0.0 | 0.09 (1) | 7.81 | G-D | 0/331 | 0.08 (1) |
| J-I | 0/0 | -96.5 | -96.5 | 0.17 (1) | 10.00 | | | |
| I-H | 0/0 | -27.2 | -27.2 | 0.10 (4) | 10.00 | | | |
| H-G | 0/306 | -27.2 | -27.2 | 0.12 (4) | 10.00 | | | |
| G-F | 0/0 | -27.2 | -27.2 | 0.10 (4) | 10.00 | | | |
| F-E | 0/0 | -96.5 | -96.5 | 0.17 (1) | 10.00 | | | |

FACTORED CONCENTRATED LOADS (LBS)

| JT | LOC. | LC1 | MAX- | MAX+ | FACE | DIR. | TYPE |
|----|--------|------|------|------|-------|------|-------|
| B | 3-10-8 | -120 | -120 | --- | FRONT | VERT | TOTAL |
| C | 6-9-8 | -120 | -120 | --- | FRONT | VERT | TOTAL |

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

DESIGN CRITERIA

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

SPACING = 24.0 IN./C/C

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

GIRDER TYPE: CPrimeHip
SIDE SETBACK = 3-10-8
END SETBACK = 3-10-8
END WALL WIDTH = 0-0
CORNER FRAMING TYPE: CONVENTIONAL
END JACK TYPE: CONVENTIONAL
APPLIED TO FRONT SIDE
- 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 (0.36")
CALCULATED VERT. DEFL.(LL) = L/999 (0.00")
ALLOWABLE DEFL.(TL)= L/360 (0.36")
CALCULATED VERT. DEFL.(TL) = L/999 (0.02")

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

CSI: TC=0.23/1.00 (A-B:1), BC=0.17/1.00 (E-F:1), WB=0.08/1.00 (A-H:1), SSI=0.14/1.00 (B-C:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

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

NAIL VALUES

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

PLATE PLACEMENT TOL. = 0.250 inches

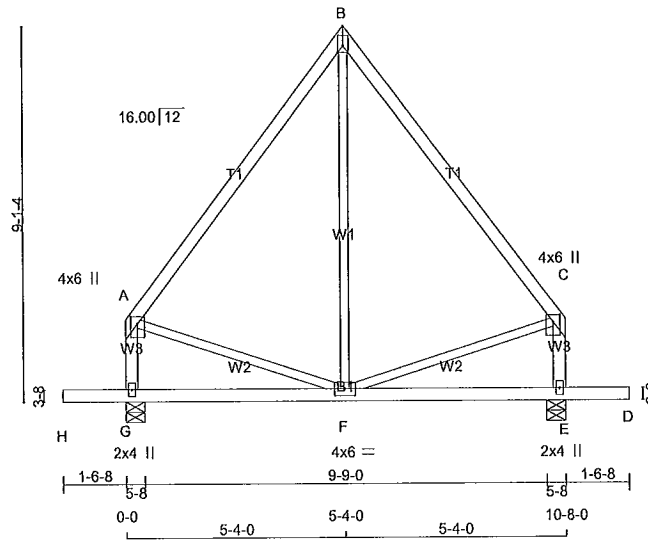
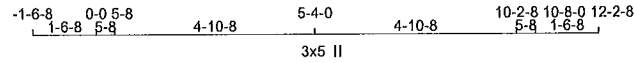
PLATE ROTATION TOL. = 6.0 Deg.
A-18023202



| | | | | | |
|--------------------|-------------------|---------------|----------|--------------------------|----------|
| JOB NAME 292578 | TRUSS NAME H17 | QUANTITY 6 | PLY 1 | JOB DESC. TRUSS DESC. | DRWG NO. |
|--------------------|-------------------|---------------|----------|--------------------------|----------|

Alpa Roof Truss, Maple

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TOTAL WEIGHT = 6 X 56 = 334 lb

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

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

| PLATES (table is in inches) | | | | | |
|-----------------------------|---------|--------|-----|-----|-----------|
| JT | TYPE | PLATES | W | LEN | Y X |
| A | TMVW+p | MT20 | 4.0 | 6.0 | 2.00 2.00 |
| B | TTW+p | MT20 | 3.0 | 5.0 | 2.00 Edge |
| C | TMVW+p | MT20 | 4.0 | 6.0 | 2.00 2.00 |
| E | BMV1+p | MT20 | 2.0 | 4.0 | |
| F | BMWWW-t | MT20 | 4.0 | 6.0 | |
| G | BMV1+p | MT20 | 2.0 | 4.0 | |

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

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

| BEARINGS | | | | | | |
|----------|-------------------------|------|---------------------------------|------|-----------|-----------|
| JT | FACTORED GROSS REACTION | | MAXIMUM FACTORED GROSS REACTION | | INPUT BRG | REQRD BRG |
| | VERT | HORZ | DOWN | HORZ | IN-SX | IN-SX |
| G | 663 | 0 | 663 | 0 | 5-8 | 1-8 |
| E | 663 | 0 | 663 | 0 | 5-8 | 1-8 |

| UNFACTORED REACTIONS | | | | | | | |
|----------------------|-----------|-------------------------------|-------|-----------|-------|---------|-------|
| JT | 1ST LCASE | MAX./MIN. COMPONENT REACTIONS | | | | | |
| | COMBINED | SNOW | LIVE | PERM.LIVE | WIND | DEAD | SOIL |
| G | 473 | 289 / 0 | 0 / 0 | 0 / 0 | 0 / 0 | 184 / 0 | 0 / 0 |
| E | 473 | 289 / 0 | 0 / 0 | 0 / 0 | 0 / 0 | 184 / 0 | 0 / 0 |

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

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

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

LOADING
TOTAL LOAD CASES: (4)

| MEMB. | MAX. FACTORED FORCE (LBS) | CHORDS | | | | WEBS | | | |
|-------|---------------------------|------------|-------|----------|-------|-------|---------------------------|----------|----|
| | | VERT. LOAD | LC1 | MAX | MAX. | MEMB. | MAX. FACTORED FORCE (LBS) | MAX | CS |
| FR-TO | | FROM | TO | LENGTH | FR-TO | | | | |
| A-B | -274 / 0 | -78.0 | -78.0 | 0.29 (1) | 6.25 | F-B | 0 / 96 | 0.03 (4) | |
| B-C | -274 / 0 | -78.0 | -78.0 | 0.29 (1) | 6.25 | A-F | 0 / 172 | 0.04 (1) | |
| G-A | -477 / 0 | 0.0 | 0.0 | 0.05 (1) | 7.81 | F-C | 0 / 172 | 0.04 (1) | |
| E-C | -477 / 0 | 0.0 | 0.0 | 0.05 (1) | 7.81 | | | | |
| H-G | 0 / 0 | -96.5 | -96.5 | 0.16 (1) | 10.00 | | | | |
| G-F | 0 / 0 | -18.5 | -18.5 | 0.15 (4) | 10.00 | | | | |
| F-E | 0 / 0 | -18.5 | -18.5 | 0.15 (4) | 10.00 | | | | |
| E-D | 0 / 0 | -96.5 | -96.5 | 0.16 (1) | 10.00 | | | | |

DESIGN CRITERIA

SPECIFIED LOADS:
TOP CH. LL = 21.0 PSF
DL = 8.0 PSF
BOT CH. LL = 0.0 PSF
DL = 7.4 PSF
TOTAL LOAD = 34.4 PSF

SPACING = 24.0 IN. C/C

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

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

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

ALLOWABLE DEFL.(LL)= L/360 (0.36")
CALCULATED VERT. DEFL.(LL) = L/999 (0.00")
ALLOWABLE DEFL.(TL)= L/360 (0.36")
CALCULATED VERT. DEFL.(TL) = L/999 (0.02")

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

CSI: TC=0.29/1.00 (A-B:1), BC=0.16/1.00 (D-E:1), WB=0.04/1.00 (C-F:1), SSI=0.12/1.00 (G-H:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

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

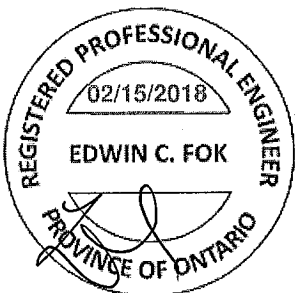
| PLATE | GRIP(DRY) | | SHEAR | | SECTION | |
|-------|-----------|-------|-------|-------|---------|-------|
| | (PSI) | (PLI) | (PSI) | (PLI) | (PLI) | (PLI) |
| MT20 | 618 | 354 | 1667 | 788 | 1987 | 1656 |

PLATE PLACEMENT TOL. = 0.250 Inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.28 (F) (INPUT = 0.90)
JSI METAL= 0.14 (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



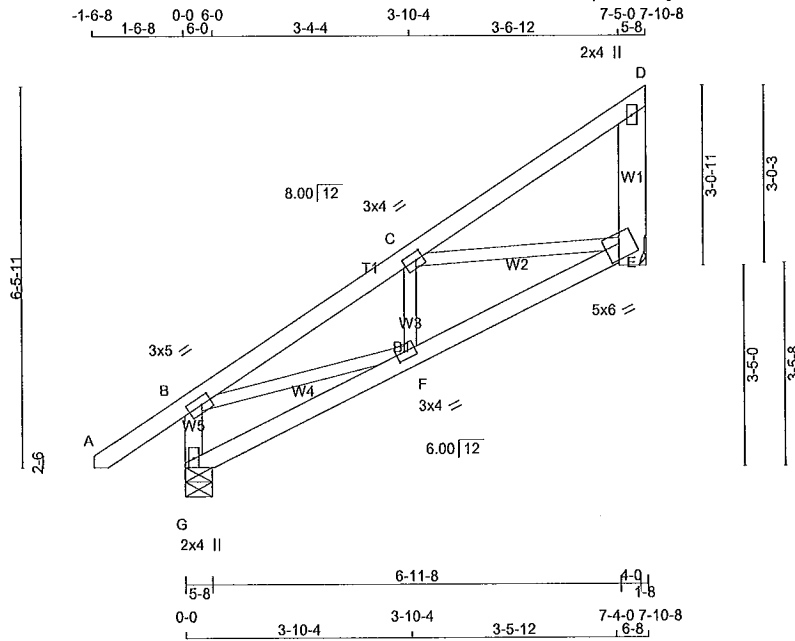
A-18023203

| | | | | | |
|--------------------|--------------------|---------------|----------|--------------------------|----------|
| JOB NAME 292578 | TRUSS NAME H18T | QUANTITY 3 | PLY 1 | JOB DESC. TRUSS DESC. | DRWG NO. |
|--------------------|--------------------|---------------|----------|--------------------------|----------|

Alpa Roof Truss, Maple

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Scale = 1:39.2

TOTAL WEIGHT = 3 X 36 = 107 lb

| LUMBER | | | | |
|-----------------------|------|--------|--------|-----|
| N. L. G. A. RULES | | | | |
| CHORDS | SIZE | LUMBER | DESIGN | SPF |
| G - B | 2x4 | DRY | No.2 | SPF |
| A - D | 2x4 | DRY | No.2 | SPF |
| E - D | 2x6 | DRY | No.2 | SPF |
| G - E | 2x4 | DRY | No.2 | SPF |
| ALL WEBS | 2x3 | DRY | No.2 | SPF |
| DRY: SEASONED LUMBER. | | | | |

| PLATES (table is in inches) | | | | | | |
|-----------------------------|---------|------|-----|-----|------|------|
| JT TYPE | PLATES | W | LEN | Y | X | |
| B | TMVW-t | MT20 | 3.0 | 5.0 | 1.50 | 2.00 |
| C | TMVW-t | MT20 | 3.0 | 4.0 | 1.50 | 1.50 |
| D | TMV+p | MT20 | 2.0 | 4.0 | | |
| E | BVMW1-t | MT20 | 5.0 | 6.0 | 3.00 | 3.00 |
| F | BMVW-t | MT20 | 3.0 | 4.0 | 1.50 | 1.75 |
| G | BMV1+p | MT20 | 2.0 | 4.0 | Edge | |

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

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

| JT | FACTORED GROSS REACTION | | MAXIMUM FACTORED GROSS REACTION | | INPUT BRG | REQRD BRG |
|----|-------------------------|------|---------------------------------|------|---|-----------|
| | VERT | HORZ | DOWN | HORZ | | |
| G | 501 | 0 | 501 | 0 | 5-8 | 1-8 |
| E | 380 | 0 | 380 | 0 | HANGER BY OTHERS MIN. SEAT SIZE: 1-8 | |

UNFACTORED REACTIONS

| JT | COMBINED | MAX./MIN. COMPONENT REACTIONS | | | | | SOIL |
|----|----------|-------------------------------|------|------|-----------|-------|------|
| | | 1ST LCASE | SNOW | LIVE | PERM.LIVE | WIND | |
| G | 355 | 230/0 | 0/0 | 0/0 | 0/0 | 124/0 | 0/0 |
| E | 271 | 165/0 | 0/0 | 0/0 | 0/0 | 106/0 | 0/0 |

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

BRACING

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

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

LOADING

TOTAL LOAD CASES: (4)

| FR-TO | CHORDS | | | | WEBS | | | |
|-------|--------|---------------------------|---------------------------|--------------------------|----------|---------------------------|--------------------------|---------------|
| | MEMB. | MAX. FACTORED FORCE (LBS) | FACTORED VERT. LOAD (PLF) | MAX. VERT. LOAD LC1 (LC) | MEMB. | MAX. FACTORED FORCE (LBS) | MAX. VERT. LOAD LC1 (LC) | UNBRAC LENGTH |
| A-B | | -470/0 | 0.0 | 0.0 | 0.05 (1) | 7.81 | | |
| B-C | | 0/34 | -78.0 | -78.0 | 0.13 (1) | 10.00 | | |
| B-C | | -592/0 | -78.0 | -78.0 | 0.15 (1) | 6.25 | | |
| C-D | | -19/0 | -78.0 | -78.0 | 0.14 (1) | 6.25 | | |
| E-D | | -123/0 | 0.0 | 0.0 | 0.01 (1) | 7.81 | | |
| G-F | | 0/4 | -18.5 | -18.5 | 0.07 (4) | 10.00 | | |
| F-E | | 0/567 | -18.5 | -18.5 | 0.13 (1) | 10.00 | | |

DESIGN CRITERIA

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

SPACING = 24.0 IN. C/C

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

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

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

ALLOWABLE DEFL.(LL) = L/360 (0.26")
CALCULATED VERT. DEFL.(LL) = L/999 (0.01")
ALLOWABLE DEFL.(TL) = L/360 (0.26")
CALCULATED VERT. DEFL.(TL) = L/999 (0.02")

CSI: TC=0.15/1.00 (B-C:1), BC=0.13/1.00 (E-F:1),
WB=0.13/1.00 (C-E:1), SSI=0.12/1.00 (C-D:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

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

| PLATE | NAIL VALUES | | SECTION | |
|-------|------------------|-------------|---------|---------------|
| | GRIP (DRY) (PSI) | SHEAR (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= 0.78 (F) (INPUT = 0.90)
JSI METAL= 0.22 (B) (INPUT = 1.00)

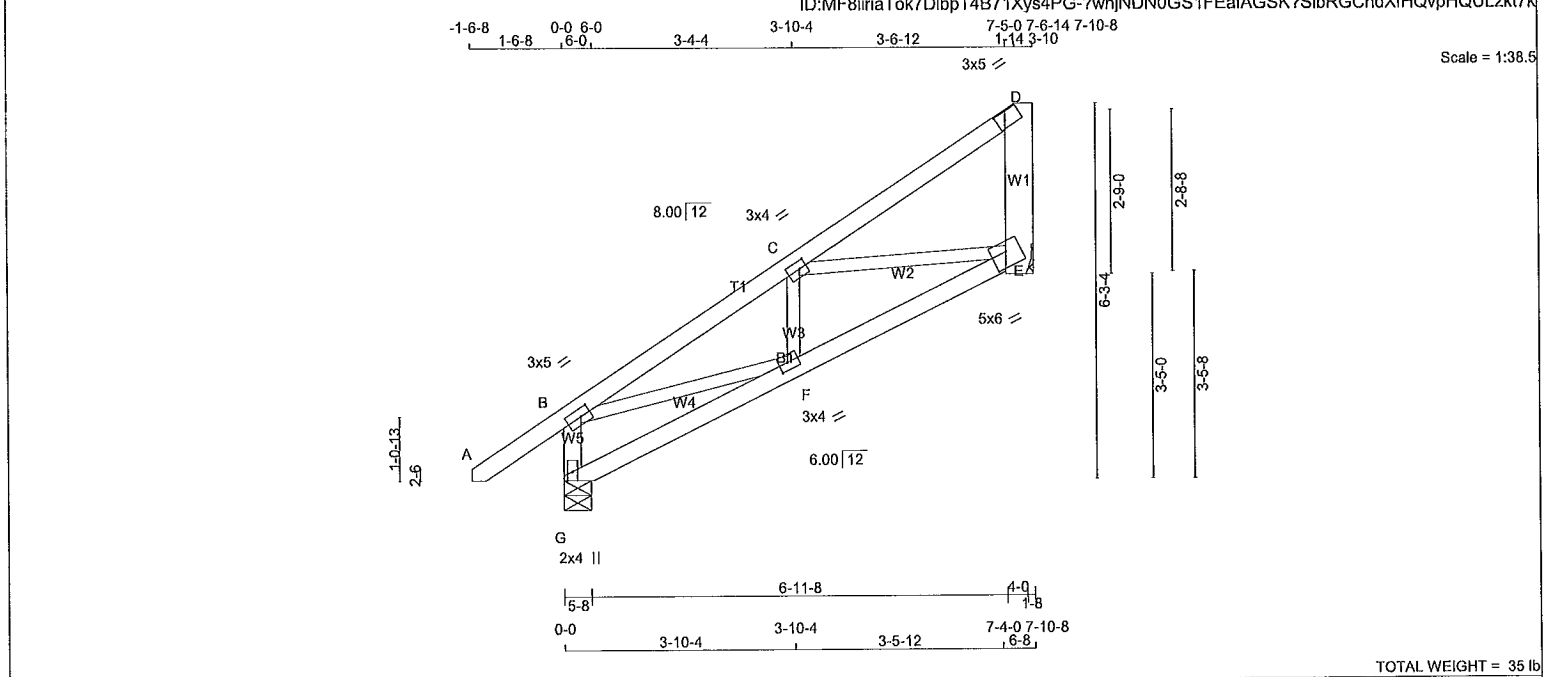
NOTE: Lateral brace(s) shown shall be 1x4 for Part 9 design as per OBC 9.23.13.11, and no less than 2x4 for Part 4 design



A-18023204

| | | | | | |
|----------|------------|----------|-----|-------------|----------|
| JOB NAME | TRUSS NAME | QUANTITY | PLY | JOB DESC. | DRWG NO. |
| 292578 | H18TA | 1 | 1 | TRUSS DESC. | |

Alpa Roof Truss, Maple Version 8.200 S Jan 6 2018 MITek Industries, Inc. Thu Feb 15 15:03:27 2018 Page 1



TOTAL WEIGHT = 35 lb

LUMBER
N. L. G. A. RULES

| CHORDS | SIZE | LUMBER | DESCR. |
|----------|------|----------|--------|
| A - D | 2x4 | DRY No.2 | SPF |
| E - D | 2x6 | DRY No.2 | SPF |
| G - B | 2x4 | DRY No.2 | SPF |
| G - E | 2x4 | DRY No.2 | SPF |
| ALL WEBS | 2x3 | DRY No.2 | SPF |

DRY: SEASONED LUMBER.

PLATES (table is in inches)

| JT | TYPE | PLATES | W | LEN | Y | X |
|----|---------|--------|-----|-----|------|------|
| B | TMVW-I | MT20 | 3.0 | 5.0 | 1.50 | 2.00 |
| C | TMVW-I | MT20 | 3.0 | 4.0 | 1.50 | 1.50 |
| D | TMV-I | MT20 | 3.0 | 5.0 | 1.50 | 1.75 |
| E | BVMW1-I | MT20 | 5.0 | 6.0 | 3.00 | 3.00 |
| F | BMW1-I | MT20 | 3.0 | 4.0 | 1.50 | 1.75 |
| G | BMV1+p | MT20 | 2.0 | 4.0 | Edge | |

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

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

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 |
| G | 501 | 0 | 501 | 0 | 0 | 5-8 | 1-8 | |
| E | 380 | 0 | 380 | 0 | 0 | HANGER BY OTHERS MIN. SEAT SIZE: 1-8 | | |

UNFACTORED REACTIONS

| JT | 1ST LCASE COMBINED | MAX./MIN. COMPONENT REACTIONS | | | | | |
|----|--------------------|-------------------------------|-------|-----------|-------|---------|-------|
| | | SNOW | LIVE | PERM.LIVE | WIND | DEAD | SOIL |
| G | 355 | 230 / 0 | 0 / 0 | 0 / 0 | 0 / 0 | 124 / 0 | 0 / 0 |
| E | 271 | 165 / 0 | 0 / 0 | 0 / 0 | 0 / 0 | 106 / 0 | 0 / 0 |

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

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

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

LOADING
TOTAL LOAD CASES: (4)

| MEMB. | CHORDS | | | | WEBS | | | |
|-------|---------------------------|---------------------------|---------|--------------|---------------------|---------------------------|--------------|----------|
| | MAX. FACTORED FORCE (LBS) | FACTORED VERT. LOAD (PLF) | MAX LC1 | MAX CSI (LC) | MEMB. UNBRAC LENGTH | MAX. FACTORED FORCE (LBS) | MAX CSI (LC) | |
| A-B | 0 / 34 | -78.0 | -78.0 | 0.13 (1) | 10.00 | F-C | -67 / 41 | 0.01 (4) |
| B-C | -592 / 0 | -78.0 | -78.0 | 0.15 (1) | 6.25 | B-F | 0 / 519 | 0.12 (1) |
| C-D | -19 / 0 | -78.0 | -78.0 | 0.14 (1) | 6.25 | C-E | -510 / 0 | 0.13 (1) |
| E-D | -123 / 0 | 0.0 | 0.0 | 0.01 (1) | 7.81 | | | |
| G-B | -470 / 0 | 0.0 | 0.0 | 0.05 (1) | 7.81 | | | |
| G-F | 0 / 4 | -18.5 | -18.5 | 0.07 (4) | 10.00 | | | |
| F-E | 0 / 567 | -18.5 | -18.5 | 0.13 (1) | 10.00 | | | |

DESIGN CRITERIA

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

SPACING = 24.0 IN. C/C

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

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

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

ALLOWABLE DEFL.(LL) = L/360 (0.26")
CALCULATED VERT. DEFL.(LL) = L/999 (0.01")
ALLOWABLE DEFL.(TL) = L/360 (0.26")
CALCULATED VERT. DEFL.(TL) = L/999 (0.02")

CSI: TC=0.15/1.00 (B-C:1), BC=0.13/1.00 (E-F:1),
WB=0.13/1.00 (C-E:1), SSI=0.12/1.00 (C-D:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

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

NAIL VALUES

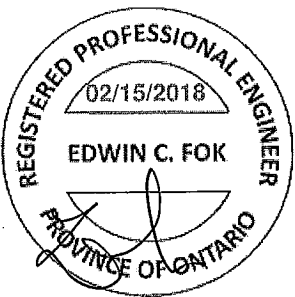
| PLATE | GRIP (DRY) (PSI) | SHEAR (PLI) | SECTION (PLI) |
|-------|------------------|-------------|--------------------|
| MT20 | 618 | 354 | 1667 788 1987 1656 |

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP = 0.78 (F) (INPUT = 0.90)
JSI METAL = 0.22 (B) (INPUT = 1.00)

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



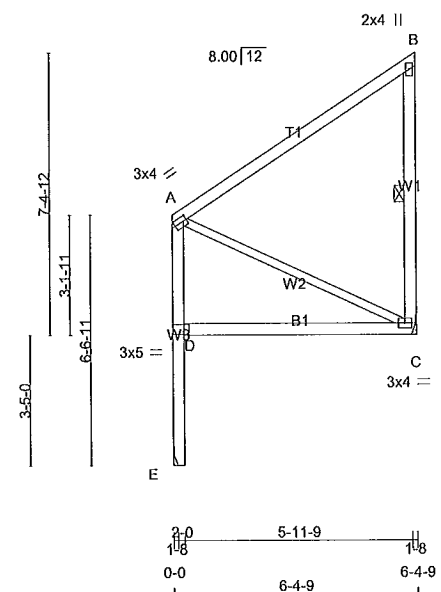
| | | | | | |
|--------------------|------------------|---------------|----------|--------------------------|----------|
| JOB NAME 292578 | TRUSS NAME J4 | QUANTITY 6 | PLY 1 | JOB DESC. TRUSS DESC. | DRWG NO. |
|--------------------|------------------|---------------|----------|--------------------------|----------|

Alpa Roof Truss, Maple

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ID:MF8IiriaTok7DlbpT4B71Xys4PG-RjjY9olretfeemU4M81GvrV17EgywkAi1og4NszkIH

0-0 5-8 5-5-9 5-11-1 6-4-9 5-8

Scale = 1:60.4



TOTAL WEIGHT = 6 X 36 = 217 lb

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

| PLATES (table is in inches) | | | | | | |
|-----------------------------|---------|--------|-----|-----|------|------|
| JT | TYPE | PLATES | W | LEN | Y | X |
| A | TMVW-t | MT20 | 3.0 | 4.0 | 1.50 | 1.00 |
| B | TMV+p | MT20 | 2.0 | 4.0 | | |
| C | BMVW1-t | MT20 | 3.0 | 4.0 | | |
| D | BVM-t | MT20 | 3.0 | 5.0 | 1.50 | 1.50 |

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

| JT | FACTORED GROSS REACTION | | MAXIMUM FACTORED GROSS REACTION | | INPUT UPLIFT | REQRD BRG IN-SX | REQRD BRG IN-SX |
|----|-------------------------|------|---------------------------------|------|--------------|------------------|---------------------|
| | VERT | HORZ | DOWN | HORZ | | | |
| E | 308 | 0 | 308 | 0 | 0 | HANGER BY OTHERS | MIN. SEAT SIZE: 1-8 |
| C | 308 | 0 | 308 | 0 | 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 |
| E | 219 | 134 / 0 | 0 / 0 | 0 / 0 | 0 / 0 | 85 / 0 | 0 / 0 |
| C | 219 | 134 / 0 | 0 / 0 | 0 / 0 | 0 / 0 | 85 / 0 | 0 / 0 |

BRACING

TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 6.25 FT.
MAX. UNBRACED BOTTOM CHORD LENGTH = 10.00 FT OR RIGID CEILING DIRECTLY APPLIED.
ALL PITCH BREAKS AND PERIMETER CORNER JOINTS MUST BE LATERALLY RESTRAINED.
1 LATERAL BRACE(S) AT 1/2 LENGTH OF B-C.
END VERTICAL(S) MUST BE SHEATHED OR HAVE BRACES AS INDICATED IN THE MAX. UNBRACED LENGTH COLUMN OF THE TABLE BELOW

LOADING

TOTAL LOAD CASES: (4)

| MEMB. | CHORDS | MAX. FACTORED FORCE (LBS) | FACTORED VERT. LOAD (LBS) | LC1 | MAX | MAX. MEMB. FORCE (LBS) | W E B S | MAX. FACTORED FORCE (LBS) | MAX |
|-------|--------|---------------------------|---------------------------|-------|----------|------------------------|---------|---------------------------|----------|
| | | | | | | | | | |
| E-D | | -308 / 0 | 0.0 | 0.0 | 0.08 (1) | 7.81 | A-C | -88 / 0 | 0.07 (1) |
| D-A | | -247 / 0 | 0.0 | 0.0 | 0.25 (1) | 7.81 | | | |
| A-B | | -46 / 0 | -78.0 | -78.0 | 0.29 (1) | 6.25 | | | |
| C-B | | -214 / 0 | 0.0 | 0.0 | 0.19 (1) | 6.25 | | | |
| D-C | | 0 / 113 | -18.5 | -18.5 | 0.15 (4) | 10.00 | | | |

DESIGN CRITERIA

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

SPACING = 24.0 IN. C/C

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

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

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

ALLOWABLE DEFL.(LL)= L/360 (0.21")
CALCULATED VERT. DEFL.(LL) = L/999 (0.02")
ALLOWABLE DEFL.(TL)= L/360 (0.21")
CALCULATED VERT. DEFL.(TL) = L/999 (0.03")

CSI: TC=0.29/1.00 (A-B:1) , BC=0.15/1.00 (C-D:4) , WB=0.07/1.00 (A-C:1) , SSI=0.17/1.00 (A-B:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

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

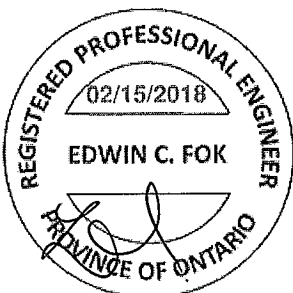
| PLATE | GRIP(DRY) | | SHEAR | | SECTION | |
|-------|-----------|------|-------|------|---------|------|
| | (PS) | (PL) | (PL) | (PL) | (PL) | (PL) |
| MT20 | 618 | 354 | 1667 | 788 | 1987 | 1656 |

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.36 (A) (INPUT = 0.90)
JSI METAL= 0.08 (B) (INPUT = 1.00)

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



A-18023206

| | | | | | |
|--------------------|------------------|---------------|----------|--------------------------|----------|
| JOB NAME 292578 | TRUSS NAME J5 | QUANTITY 2 | PLY 1 | JOB DESC. TRUSS DESC. | DRWG NO. |
|--------------------|------------------|---------------|----------|--------------------------|----------|

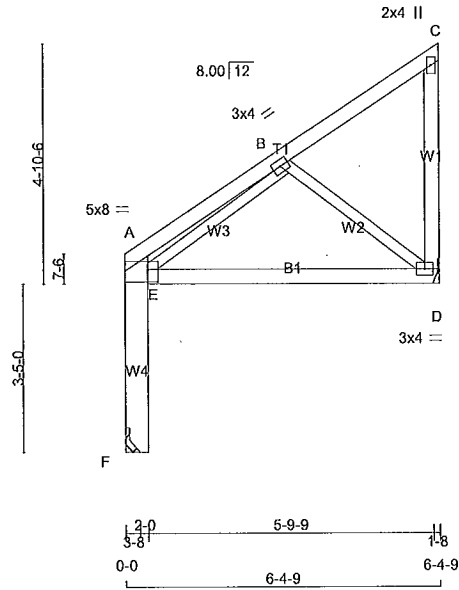
Alpa Roof Truss, Maple

Version 8.200 S Jan 6 2018 MITek Industries, Inc. Thu Feb 15 14:52:47 2018 Page 1

ID:MF8ilriaTok7DlbpT4B71Xys4PG-ko6m2Nda?p03SDJ9n1rwWk55LCFRaDIDkFFY0RzktHk

0-05-8 5-8 2-9-12 3-3-4 2-7-12 5-11-1 6-4-9 5-8

Scale = 1:46.8



TOTAL WEIGHT = 2 X 33 = 67 lb

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

DRY: SEASONED LUMBER.

PLATES (table is in inches)

| JT | TYPE | PLATES | W | LEN | Y | X |
|----|----------|--------|-----|-----|------|------|
| A | | | | | | |
| A | TMBWW1-1 | MT20 | 5.0 | 8.0 | 3.00 | 2.50 |
| B | TMWW-1 | MT20 | 3.0 | 4.0 | | |
| C | TMV+P | MT20 | 2.0 | 4.0 | | |
| D | BMWW1-1 | MT20 | 3.0 | 4.0 | | |
| E | | | | | | |

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 | IN-SX | IN-SX |
|----|-------------------------|------|---------------------------------|------|-----------|-----------|------------------|---------------------|
| | VERT | HORZ | DOWN | HORZ | | | | |
| D | 297 | 0 | 297 | 0 | | | HANGER BY OTHERS | MIN. SEAT SIZE: 1-8 |
| F | 303 | 0 | 303 | 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 |
| D | 212 | 129 / 0 | 0 / 0 | 0 / 0 | 0 / 0 | 82 / 0 | 0 / 0 |
| F | 216 | 133 / 0 | 0 / 0 | 0 / 0 | 0 / 0 | 83 / 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.

MAX. UNBRACED INTERIOR CHORD LENGTH = 7.81 FT

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

LOADING

TOTAL LOAD CASES: (4)

| MEMB. | CHORDS | | FACTORED | | | | WEBS | |
|-------|---------------------------|------------------|----------|----------|-------------|-------------------|------------------------|----------|
| | MAX. FACTORED FORCE (LBS) | VERT. LOAD (LBS) | LC1 | MAX | MAX. UNBRAC | MEMB. FORCE (LBS) | MAX. FACTORED CSI (LC) | |
| FR-TO | | | | | | FR-TO | | |
| A-B | 0 / 34 | -78.0 | -78.0 | 0.11 (1) | 10.00 | F-E | -303 / 0 | 0.04 (1) |
| B-C | -33 / 0 | -78.0 | -78.0 | 0.08 (1) | 6.25 | E-A | -82 / 0 | 0.01 (1) |
| D-C | -100 / 0 | 0.0 | 0.0 | 0.10 (4) | 7.81 | E-B | -277 / 0 | 0.07 (1) |
| | | | | | | B-D | -218 / 0 | 0.06 (1) |
| E-D | 0 / 198 | -18.5 | -18.5 | 0.16 (4) | 10.00 | | | |

DESIGN CRITERIA

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

SPACING = 24.0 IN. C/C

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

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

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

ALLOWABLE DEFL.(LL)= L/360 (0.21")
CALCULATED VERT. DEFL.(LL) = L/999 (0.00")
ALLOWABLE DEFL.(TL)= L/360 (0.21")
CALCULATED VERT. DEFL.(TL) = L/999 (0.04")

CSI: TC=0.11/1.00 (A-B:1), BC=0.16/1.00 (D-E:4), WB=0.07/1.00 (B-E: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

AUTOSOLVE RIGHT HEEL ONLY

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

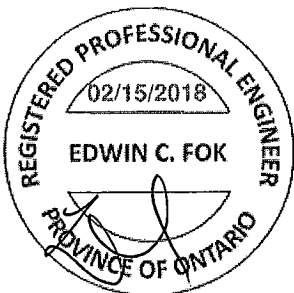
| PLATE | GRIP(DRY) (PSI) | SHEAR (PLI) | | SECTION (PLI) | |
|-------|-----------------|-------------|------|---------------|------|
| | | MIN | MAX | MIN | MAX |
| MT20 | 618 | 354 | 1067 | 788 | 1987 |

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.29 (D) (INPUT = 0.90)
JSI METAL= 0.08 (A) (INPUT = 1.00)

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



A-18023207

| | | | | | |
|--------------------|-------------------|---------------|----------|--------------------------|----------|
| JOB NAME 292578 | TRUSS NAME J5A | QUANTITY 1 | PLY 1 | JOB DESC. TRUSS DESC. | DRWG NO. |
|--------------------|-------------------|---------------|----------|--------------------------|----------|

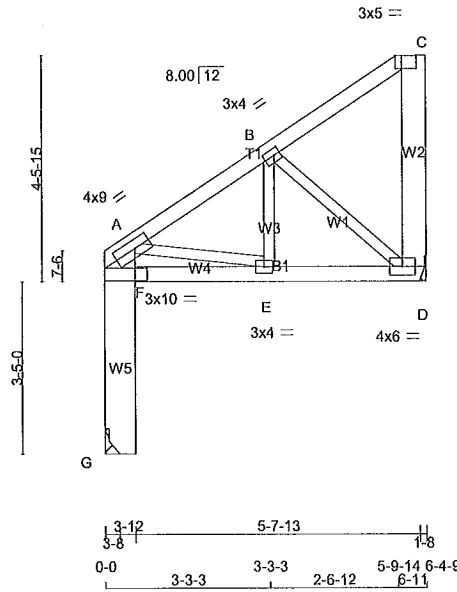
Alpa Roof Truss, Maple

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ID:MF8iiriaTok7DlbpT4B71Xys4PG-Trpg0lB_2XOWJ6Q5K52FoKxkQlFvnSM4DKPZwGzkt8

0-05-8 3-3-3 5-9-14 5-11-1 6-4-9
5-8 2-9-11 2-6-12 1-3 5,8

Scale = 1:45.8



TOTAL WEIGHT = 39 lb

LUMBER
N. L. G. A. RULES

| CHORDS | SIZE | DRY | LUMBER | DESCR. |
|-----------------------|------|-----|--------|--------|
| A - C | 2x4 | DRY | No.2 | SPF |
| D - C | 2x6 | DRY | No.2 | SPF |
| F - D | 2x4 | DRY | No.2 | SPF |
| ALL WEBS EXCEPT G - A | 2x3 | DRY | No.2 | SPF |
| | 2x8 | DRY | No.2 | SPF |

DRY: SEASONED LUMBER.

PLATES (table is in inches)

| JT TYPE | PLATES | W | LEN | Y | X |
|---------|---------|------|-----|------|-----------|
| A | TMWW-1 | MT20 | 4.0 | 9.0 | 2.00 3.75 |
| B | TMWW-1 | MT20 | 3.0 | 4.0 | 1.50 1.50 |
| C | TVM-p | MT20 | 3.0 | 5.0 | Edge 1.50 |
| D | BMVW1-t | MT20 | 4.0 | 6.0 | |
| E | BMVW-1 | MT20 | 3.0 | 4.0 | |
| F | BWM-1 | MT20 | 3.0 | 10.0 | 1.50 2.75 |

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

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

BEARINGS

| JT | FACTORED GROSS REACTION | MAXIMUM FACTORED GROSS REACTION | INPUT BRG | REQRD BRG |
|----|-------------------------|---------------------------------|-----------|-----------|
| | VERT | HORZ | DOWN | HORZ |
| D | 293 | 0 | 293 | 0 |
| G | 293 | 0 | 293 | 0 |

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

UNFACTORED REACTIONS

| JT | 1ST LCASE | MAX./MIN. SNOW | LIVE | PERM.LIVE | WIND | DEAD | SOIL |
|----|-----------|----------------|-------|-----------|-------|--------|-------|
| D | 209 | 128 / 0 | 0 / 0 | 0 / 0 | 0 / 0 | 81 / 0 | 0 / 0 |
| G | 209 | 128 / 0 | 0 / 0 | 0 / 0 | 0 / 0 | 81 / 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.

MAX. UNBRACED INTERIOR CHORD LENGTH = 7.81 FT

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

LOADING

TOTAL LOAD CASES: (4)

| MEMB. | CHORDS | | | | WEBS | | | |
|-------|---------------------------|----------------------|---------------|----------------------|-------|---------------------------|----------------------|----------|
| | MAX. FACTORED FORCE (LBS) | FACTORED VERT. (PLF) | LOAD LC1 (LC) | MAX. UNBRACED LENGTH | MEMB. | MAX. FACTORED FORCE (LBS) | MAX. UNBRACED LENGTH | FR-TO |
| A-B | -243 / 0 | -78.0 | -78.0 | 0.08 (1) | 6.25 | G-F | -293 / 0 | 0.03 (1) |
| B-C | -23 / 0 | -78.0 | -78.0 | 0.08 (1) | 6.25 | F-A | -269 / 0 | 0.01 (1) |
| D-C | -103 / 0 | 0.0 | 0.0 | 0.03 (1) | 7.81 | E-B | 0 / 56 | 0.02 (4) |
| | | | | | | B-D | -253 / 0 | 0.06 (1) |
| F-E | 0 / 0 | -18.5 | -18.5 | 0.04 (4) | 10.00 | A-E | 0 / 217 | 0.05 (1) |
| E-D | 0 / 214 | -18.5 | -18.5 | 0.06 (1) | 10.00 | | | |

DESIGN CRITERIA

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

SPACING = 24.0 IN. C/C

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

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

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

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

CSI: TC=0.08/1.00 (A-B:1), BC=0.06/1.00 (D-E:1), WB=0.06/1.00 (B-D: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

AUTOSOLVE RIGHT HEEL ONLY

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

NAIL VALUES

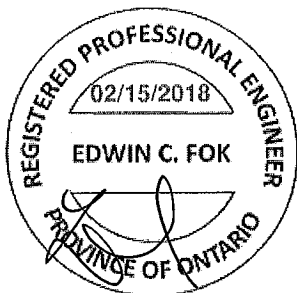
| PLATE | GRIP(DRY) (PSI) | SHEAR (PLI) | SECTION (PLI) |
|-------|-----------------|-------------|--------------------|
| MT20 | 618 | 354 | 1667 788 1987 1656 |

PLATE PLACEMENT TOL. = 0.250 Inches

PLATE ROTATION TOL. = 5.0 Deg.

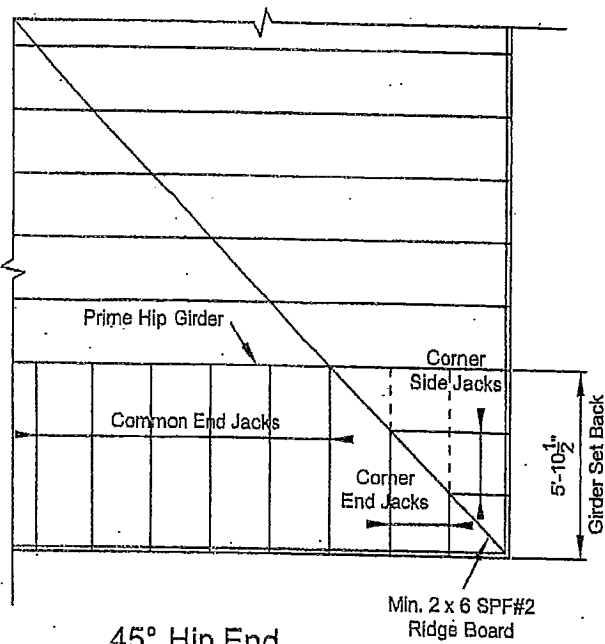
JSI GRIP= 0.36 (E) (INPUT = 0.90)
JSI METAL= 0.08 (E) (INPUT = 1.00)

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



A-18023208

STRACON ENGINEERING INC.



45° Hip End

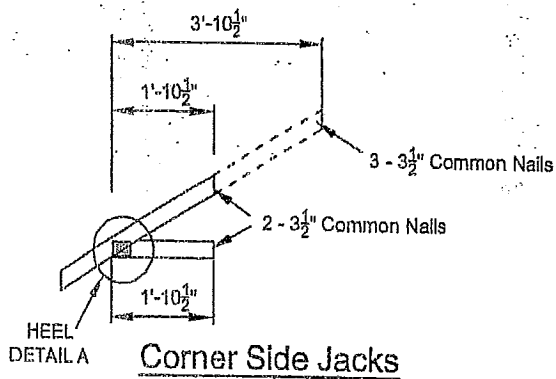
LUMBER SPECIFICATION

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

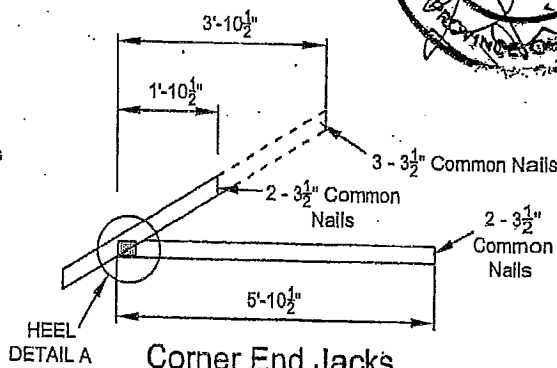
DESIGN LOAD

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

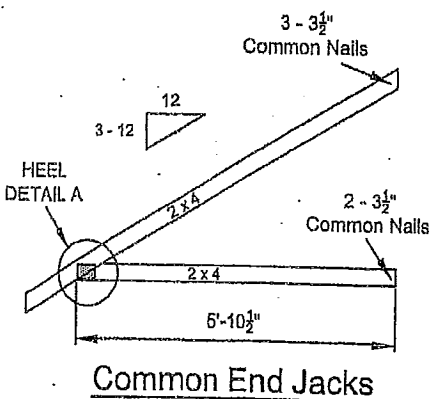
TOTAL LOAD : 50.5 P.S.F



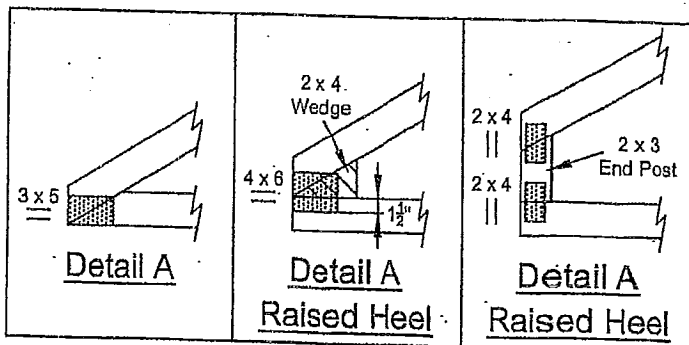
Corner Side Jacks



Corner End Jacks



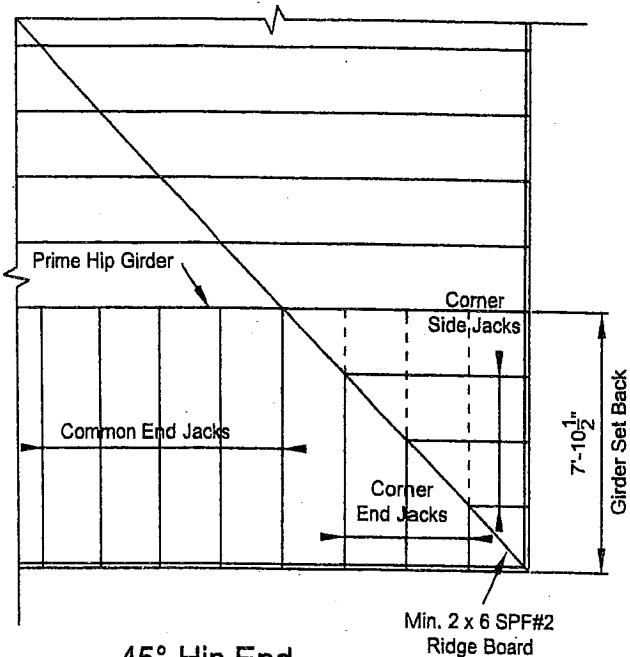
Common End Jacks



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

CS-51008

STRACON ENGINEERING INC.



LUMBER SPECIFICATION

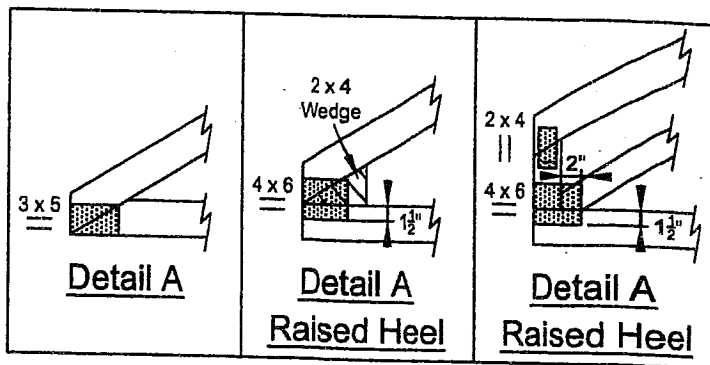
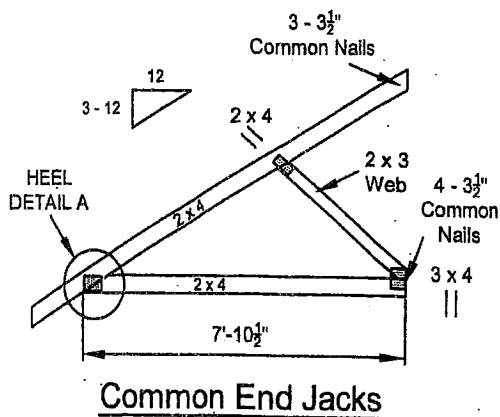
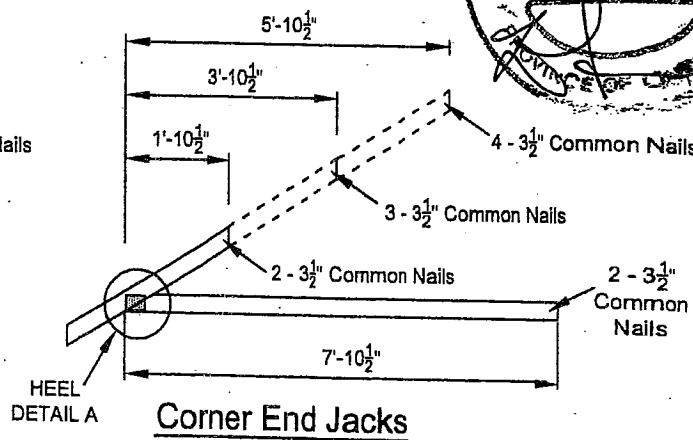
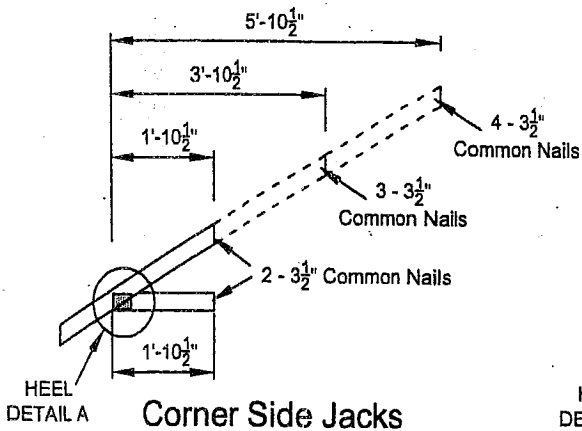
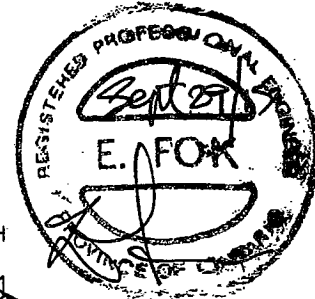
TOP CHORD : 2 x 4 SPF#2
 BOTTOM CHORD : 2 x 4 SPF#2
 WEBS : 2 x 3 SPF#2
 UNLESS OTHERWISE SHOWN

DESIGN LOAD

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

TOTAL LOAD : 44.8 P.S.F.

45° Hip End



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

CS-71008N



LUS – Double Shear Joist Hangers

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

Material: 18 gauge

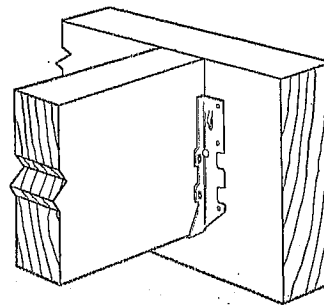
Finish: G90 galvanized

Design:

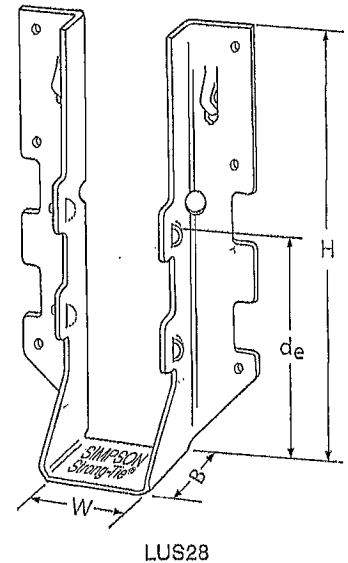
- Factored resistances are in accordance with CSA O86-14.
- Uplift resistances have been increased 15%. No further increase is permitted.
- Wood shear is not considered in the factored resistances given. The specifier must ensure that the joist and header capacities are capable of withstanding these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

Installation:

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



Typical LUS Installation



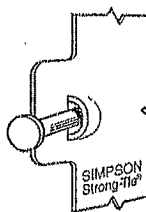
LUS28

Options:

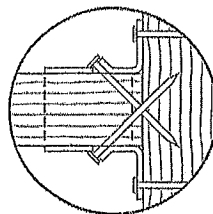
- These hangers cannot be modified

| Model No. | Ga. | Dimensions (In.) | | | | Fasteners | | Factored Resistance (lb.) | | | |
|-----------|-----|------------------|----|----|-----------------------------|-----------|---------|-------------------------------|-------------------------------|-------------------------------|-------------------------------|
| | | W | H | B | d _o ¹ | Face | Joist | D.Fir-L | | S-P-F | |
| | | | | | | | | Uplift (K _p =1.15) | Normal (K _p =1.00) | Uplift (K _p =1.15) | Normal (K _p =1.00) |
| LUS24 | 18 | 1½ | 3½ | 1¼ | 1½ | (4) 10d | (2) 10d | 710 | 1630 | 645 | 1155 |
| LUS24-2 | 18 | 3½ | 3½ | 2 | 1½ | (4) 16d | (2) 16d | 835 | 2020 | 590 | 1435 |
| LUS26 | 18 | 1½ | 4¾ | 1¼ | 3¾ | (4) 10d | (4) 10d | 1420 | 2170 | 1290 | 1630 |
| LUS26-2 | 18 | 3½ | 4¾ | 2 | 4 | (4) 16d | (4) 16d | 1720 | 2595 | 1545 | 1920 |
| LUS26-3 | 18 | 4¾ | 4¾ | 2 | 3¼ | (4) 16d | (4) 16d | 1720 | 2595 | 1545 | 2340 |
| LUS28 | 18 | 1½ | 6¾ | 1¼ | 3¾ | (6) 10d | (6) 10d | 1420 | 2520 | 1290 | 1790 |
| LUS28-2 | 18 | 3½ | 7 | 2 | 4 | (6) 16d | (4) 16d | 1720 | 3325 | 1545 | 2575 |
| LUS28-3 | 18 | 4¾ | 6¼ | 2 | 3¼ | (6) 16d | (4) 16d | 1720 | 3325 | 1545 | 2375 |
| LUS210 | 18 | 1½ | 7½ | 1¼ | 3¾ | (8) 10d | (4) 10d | 1420 | 2785 | 1290 | 2210 |
| LUS210-2 | 18 | 3½ | 9 | 2 | 6 | (8) 16d | (6) 16d | 2580 | 4500 | 2320 | 3195 |
| LUS210-3 | 18 | 4¾ | 8¾ | 2 | 5¼ | (8) 16d | (6) 16d | 2580 | 3345 | 2320 | 2375 |

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



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



Double Shear Nailing Top View.



LIMIT STATES DESIGN

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ESPEC LUS17-3/17 exp. 6/19

(800) 999-5099
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TC – Truss Connectors



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

Material: 16 gauge

Finish: G90 galvanized

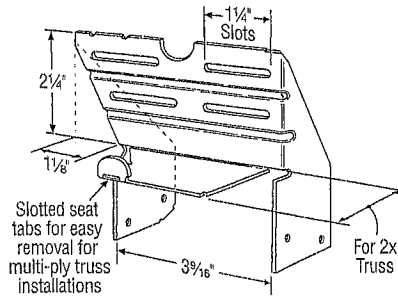
Design: Factored resistances are in accordance with CSA 086-14

Installation:

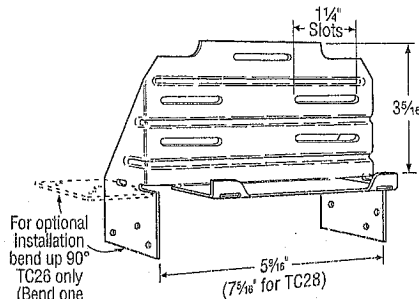
- Use all specified fasteners.
- Nails: 10d = 0.148" dia. x 3" long common wire, 10d x 1 1/2" = 0.148" dia. x 1 1/2" long.
- Drive 10d nails into the truss at the inside end of the slotted holes (inside end is towards the centre of the truss) and clinch on the back side. Do not seat these nails into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

Optional TC Installation:

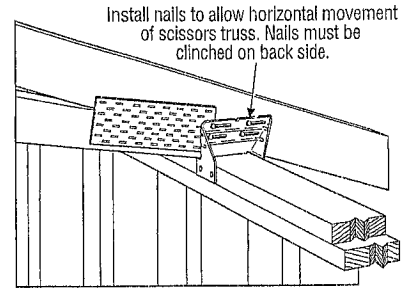
- Bend one flange up 90°. Drive specified nails into the top and face of the top plates or install Titen® screws into the top and face of masonry wall. See optional load tables and installation details.



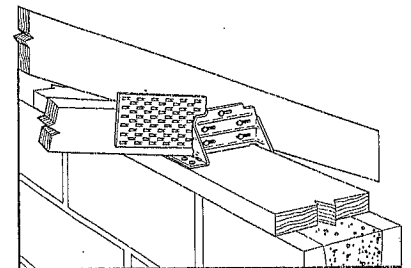
TC24
U.S. Patent 4,932,173



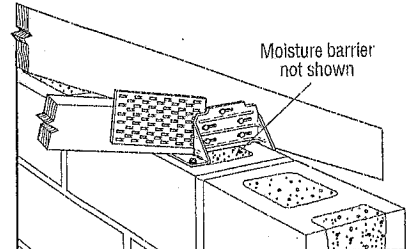
TC26
(TC28 Similar)



Typical TC24 Installation



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



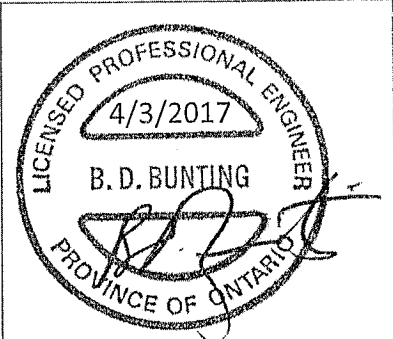
Optional TC26 Installation for Grouted Concrete Block using Titen Screws

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

Optional TC Installation Table

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

1. Factored resistances have been increased 15% for earthquake or wind loading; no further increase allowed; reduce where other loads govern.
2. Grout strength is 15 MPa minimum.
3. Optional TC26 installation with 10d nails requires minimum 3" top plate thickness.
4. TC26 fastened to grouted concrete block with (6) - 3/16" x 2 1/4" Titen screws has a factored uplift resistance of 275 lb.



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T-SPECTC17 3/17 exp. 6/19

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HHUS – Double Shear Joist Hangers

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

Material: 14 gauge

Finish: G90 galvanized

Design:

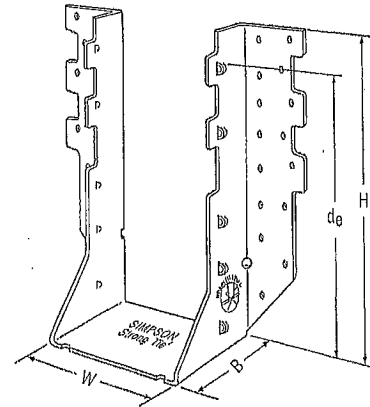
- Factored resistances are in accordance with CSA O86-14.
- Uplift resistances have been increased 15%. No further increase is permitted.
- Wood shear is not considered in the factored resistances given. The specifier must ensure that the joist and header capacities are capable of withstanding these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

Installation:

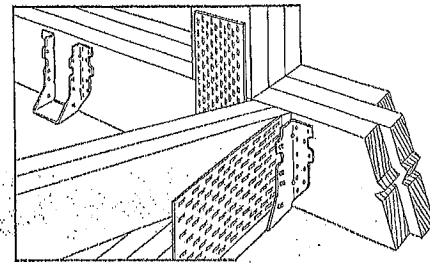
- Use all specified fasteners
- Nails: 16d = 0.162" dia. x 3 1/2" long common wire
- Double shear nails must be driven at an angle through the joist or truss into the header to achieve the table loads
- Not designed for welded or nailer applications

Options:

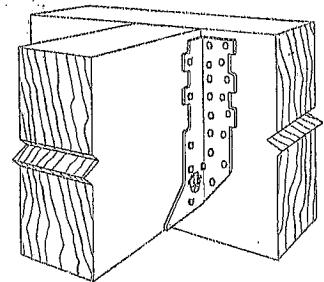
- See current catalogue for options



HHUS410



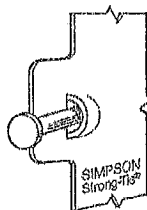
Typical HHUS Installation
(Truss Designer to provide fastener quantity for connecting multiple members together)



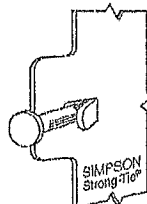
Typical HHUS Installation

| Model No. | Ga. | Dimensions (In.) | | | | Fasteners | | Factored Resistance (lb.) | | | |
|-------------|-----|------------------|---------|--------|-----------------|-----------|----------|---------------------------|--------|--------|--------|
| | | W | H | B | dg ¹ | Face | Joist | D.Fir-L | | S-P-F | |
| | | | | | | | | Uplift | Normal | Uplift | Normal |
| HHUS26-2 | 14 | 3 9/16 | 5 1/16 | 3 | 3 1/16 | (14) 16d | (6) 16d | 2850 | 7335 | 2065 | 5205 |
| HHUS28-2 | 14 | 3 9/16 | 7 1/2 | 3 | 6 3/32 | (22) 16d | (8) 16d | 3765 | 8940 | 2675 | 6345 |
| HHUS210-2 | 14 | 3 9/16 | 9 3/2 | 3 | 8 | (30) 16d | (10) 16d | 4745 | 9660 | 4310 | 7000 |
| HHUS210-3 | 14 | 4 1/16 | 9 | 3 | 7 19/16 | (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 1/32 | 3 | 3 1/16 | (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 |

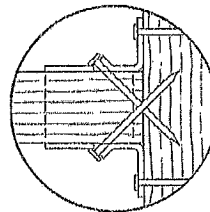
1. dg is the distance from the seat of the hanger to the highest joist nail.



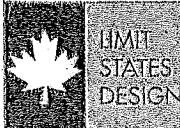
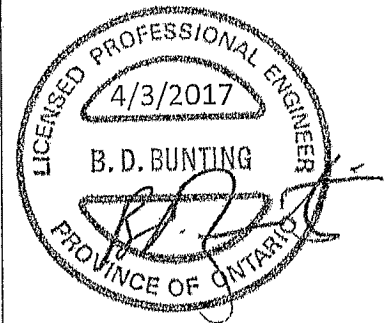
Dome Double Shear Nailing prevents tabs breaking off (available on some models).
U.S. Patent 6,603,580



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



Double Shear Nailing Top View.



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HUS/LJS – Double Shear Joist Hangers

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

Material: See table

Finish: G90 galvanized

Design:

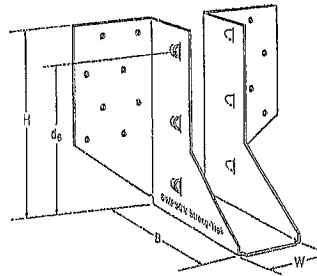
- Factored resistances are in accordance with CSA O86 -14,
- Uplift resistances have been increased 15%. No further increase is permitted.
- Wood shear is not considered in the factored resistances given. The specifier must ensure that the joist and header capacities are capable of withstanding these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

Installation:

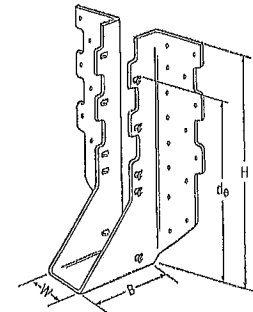
- Use all specified fasteners
- Nails: 16d = 0.162" dia. x 3½" long common wire
- Double shear nails must be driven at an angle through the joist or truss into the header to achieve the table loads
- Not designed for welded or nailer applications

Options:

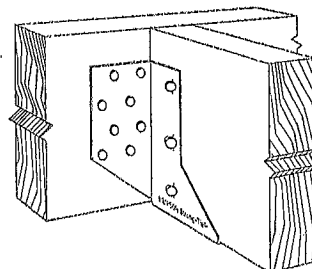
- See current catalogue for options



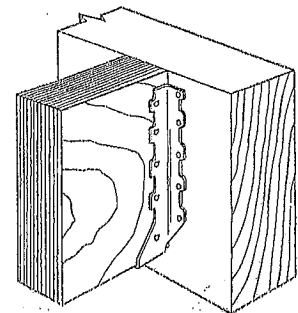
LJS26DS



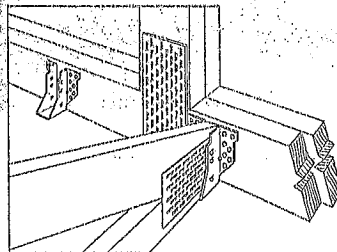
HUS210
(HUS26, HUS28, similar)



Typical LJS26DS Installation



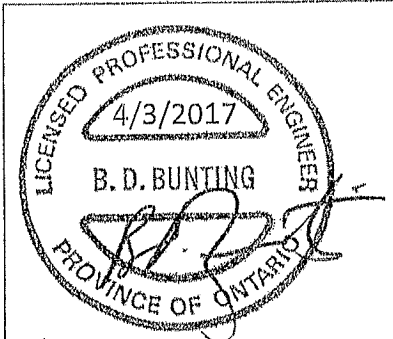
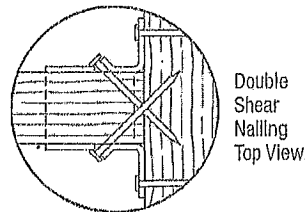
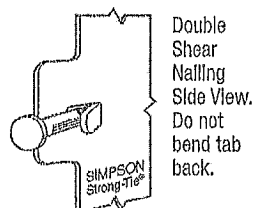
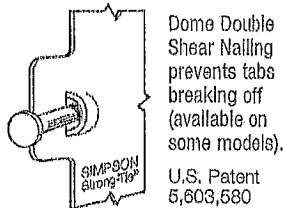
Typical HUS Installation



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

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

1. d₀ is the distance from the seat of the hanger to the highest joist nail.



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