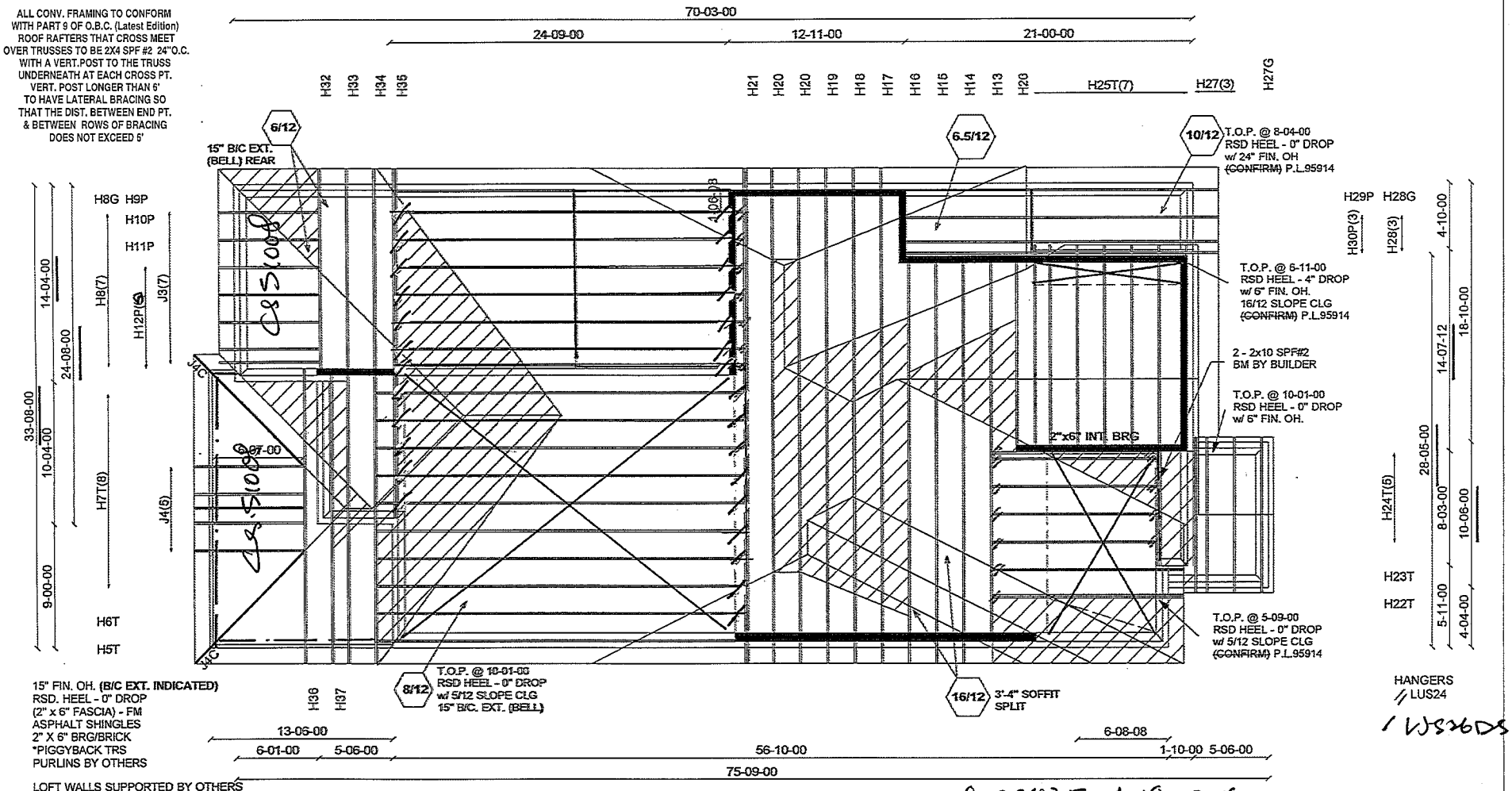
ALPA-BARRIE

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




HANGERS
// LUS24
/ LUS26DS

15" FIN. OH. (B/C EXT. INDICATED)
RSD. HEEL - 0" DROP
(2" x 6" FASCIA) - FM
ASPHALT SHINGLES
2" X 6" BRG/BRICK
*PIGGYBACK TRS
PURLINS BY OTHERS

LOFT WALLS SUPPORTED BY OTHERS

~~CONFIRM TRUSS LAYOUT/DIRECTION~~
P.L. 95914

A-18023435 - A-18023463
A-18023471 - A-18023476

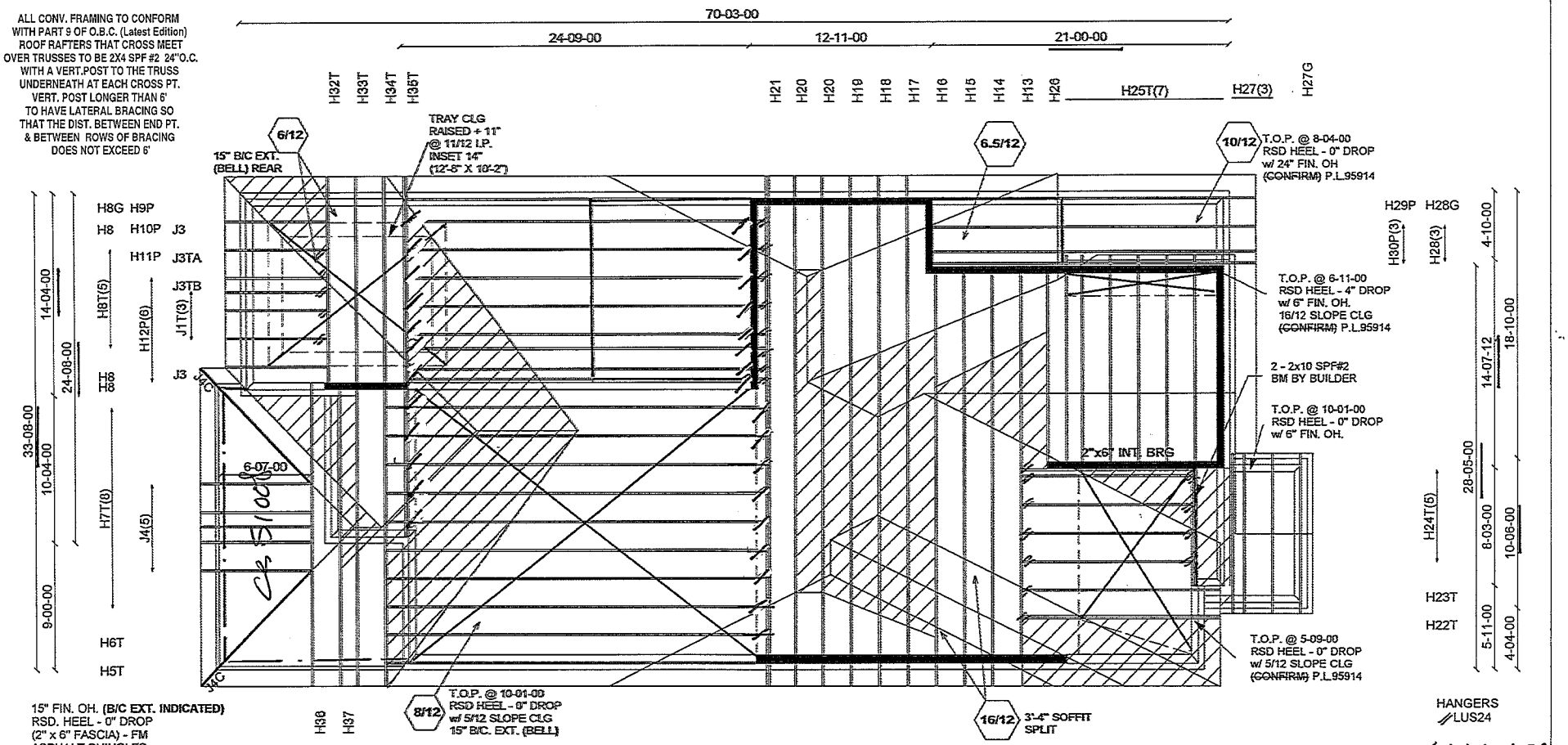
CONVENTIONAL FRAMING BY OTHERS

DEER BOURNE

| | | | |
|---|---|---|---|
| Job Track: 45147 | Builder / Location: GOLD PARK HOMES / VAUGHAN | Model / Elevation: 4201 REV1 | / A LOGGIA |
| Layout ID: 292591 | Project: PINE VALLEY | | |
| Plan Log: 95914 | Date: 1/3/2018 Designer: AMANDA | | |

ALPA-BARRIE

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




15" FIN. OH. (B/C EXT. INDICATED)
RSD. HEEL - 0" DROP
(2" x 6" FASCIA) - FM
ASPHALT SHINGLES
2" X 6" BRG/BRICK
*PIGGYBACK TRS
PURLINS BY OTHERS

LOFT WALLS SUPPORTED BY OTHERS

~~CONFIRM TRUSS LAYOUT/DIRECTION~~
P.L. 95914

A-18023435 - A-18023463
A-18023468, A-18023475 - A-18023483

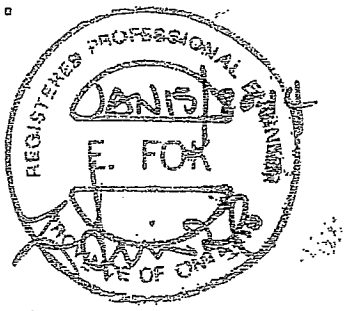
CONVENTIONAL FRAMING BY OTHERS

DEERBOURNE

| | | | |
|---|---|---|---|
| Job Track: 45147 | Builder / Location: GOLD PARK HOMES / VAUGHAN | Model / Elevation: 4201 REV1 | / A LOGGIA W/TRAY |
| Layout ID: 292592 | Project: PINE VALLEY | | |
| Plan Log: 95914 | Date: 1/3/2018 Designer: AMANDA | | |

# Stracon Engineering Inc.

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


## RESPONSIBILITIES

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

## SPECIFICATIONS

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

January 15, 2014

| JOB NAME | TRUSS NAME | QUANTITY | PLY | JOB DESC. | DRWG NO. |
|---|---|---|---|---|---|
| 292589 | H5T | 1 | 1 | TRUSS DESC. | |

Alpa Roof Truss, Maple



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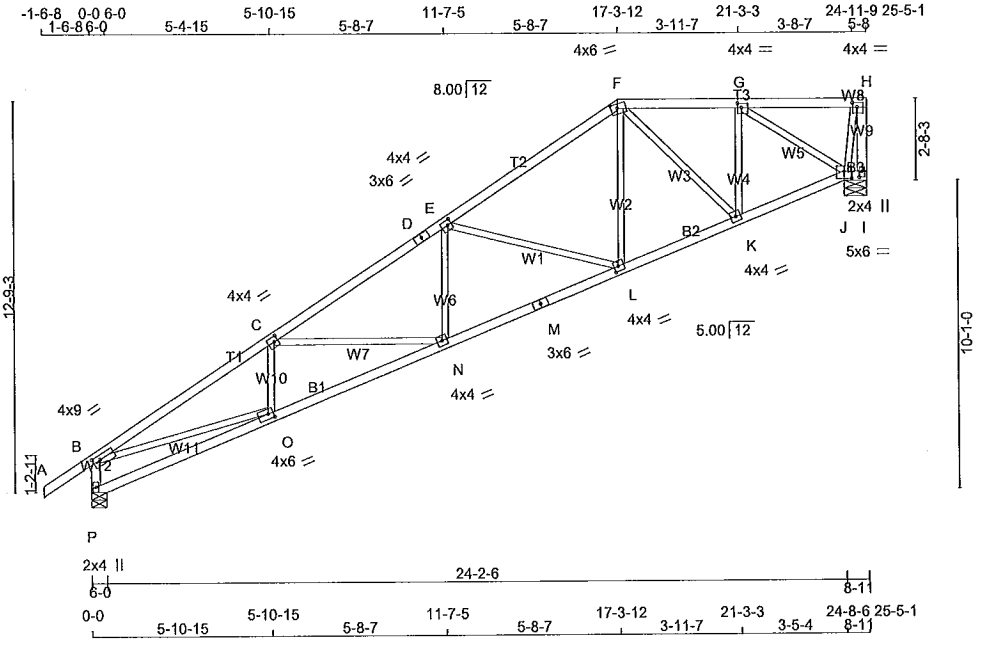



TOTAL WEIGHT = 105 lb

[M]

**LUMBER**

N. L. G. A. RULES

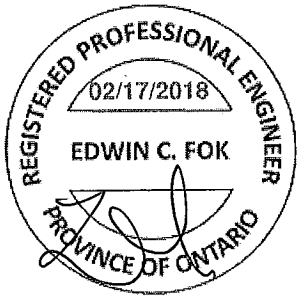
| CHORDS | SIZE | | LUMBER | DESCR. |
|---|---|---|---|---|
| A - D | 2x4 | DRY | No.2 | SPF |
| D - F | 2x4 | DRY | No.2 | SPF |
| F - H | 2x4 | DRY | No.2 | SPF |
| I - H | 2x4 | DRY | No.2 | SPF |
| P - B | 2x4 | DRY | No.2 | SPF |
| P - M | 2x4 | DRY | No.2 | SPF |
| M - J | 2x4 | DRY | No.2 | SPF |
| J - I | 2x4 | DRY | No.2 | SPF |
| ALL WEBS EXCEPT | 2x3 | DRY | No.2 | SPF |

DRY: SEASONED LUMBER.

**PLATES (table is in inches)**

| JT | TYPE | PLATES | W | LEN | Y | X |
|---|---|---|---|---|---|---|
| B | TMVW-t | MT20 | 4.0 | 9.0 | 1.75 | 3.00 |
| C | TMWW-t | MT20 | 4.0 | 4.0 | 2.00 | 1.50 |
| D | TS-t | MT20 | 3.0 | 6.0 | | |
| E | TMWW-t | MT20 | 4.0 | 4.0 | 2.00 | 1.50 |
| F | TTWW-m | MT20 | 4.0 | 6.0 | 1.75 | 2.50 |
| G | TMWW-t | MT20 | 4.0 | 4.0 | 1.75 | 1.50 |
| H | TMVW-t | MT20 | 4.0 | 4.0 | 1.75 | 1.75 |
| I | BMV1+p | MT20 | 2.0 | 4.0 | 2.25 | 1.00 |
| J | BBWW1-I | MT20 | 5.0 | 6.0 | 2.75 | 3.00 |
| K | BMWW-t | MT20 | 4.0 | 4.0 | | |
| L | BMWW-t | MT20 | 4.0 | 4.0 | 2.00 | 1.75 |
| M | BS-t | MT20 | 3.0 | 6.0 | | |
| N | BMWW-t | MT20 | 4.0 | 4.0 | | |
| O | BMWW-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 | FACTORED GROSS REACTION VERT | HORZ | MAXIMUM FACTORED GROSS REACTION DOWN | HORZ | UPLIFT | INPUT BRG IN-SX | REQRD BRG IN-SX |
|---|---|---|---|---|---|---|---|
| I | -986 | 0 | 0 | 0 | -986 | 8-11 | 7-7 |
| J | 2277 | 0 | 2277 | 0 | 0 | 8-11 | 7-7 |
| P | 1288 | 0 | 1288 | 0 | 0 | 6-0 | 1-15 |

PROVIDE ANCHORAGE AT BEARING JOINT I FOR 986 LBS FACTORED UPLIFT

NOTE: ANCHORAGE REQUIRED FOR LARGE UPLIFT FORCES, SHALL BE PROVIDED BY BUILDG. DESIGNER

**UNFACTORED REACTIONS**

| JT | 1ST LCASE COMBINED | MAX./MIN. COMPONENT REACTIONS SNOW | LIVE | PERM.LIVE | WIND | DEAD | SOIL |
|---|---|---|---|---|---|---|---|
| I | -703 | 0 / -428 | 0 / 0 | 0 / 0 | 0 / 0 | 0 / -275 | 0 / 0 |
| J | 1624 | 990 / 0 | 0 / 0 | 0 / 0 | 0 / 0 | 634 / 0 | 0 / 0 |
| P | 916 | 574 / 0 | 0 / 0 | 0 / 0 | 0 / 0 | 342 / 0 | 0 / 0 |

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

**BRACING**

TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 3.89 FT.
MAX. UNBRACED BOTTOM CHORD LENGTH = 10.00 FT OR RIGID CEILING DIRECTLY APPLIED.

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

**LOADING**

TOTAL LOAD CASES: (4)

| CHORDS MEMB. FR-TO | MAX. FACTORED FORCE (LBS) | FACTORED VERT. LOAD (PLF) FROM | TO | LC1 MAX CSI (LC) | MAX. UNBRAC LENGTH |
|---|---|---|---|---|---|
| A- B | 0 / 35 | -78.0 | -78.0 | 0.15 (1) | 10.00 |
| B- C | -2530 / 0 | -78.0 | -78.0 | 0.58 (1) | 3.89 |
| C- D | -2182 / 0 | -78.0 | -78.0 | 0.52 (1) | 4.16 |
| D- E | -2182 / 0 | -78.0 | -78.0 | 0.52 (1) | 4.16 |
| E- F | -1268 / 0 | -78.0 | -78.0 | 0.41 (1) | 5.24 |
| F- G | -803 / 0 | -78.0 | -78.0 | 0.23 (1) | 6.25 |
| G- H | 0 / 339 | -78.0 | -78.0 | 0.27 (1) | 10.00 |
| I- H | 0 / 993 | 0.0 | 0.0 | 0.16 (1) | 10.00 |
| P- B | -1238 / 0 | 0.0 | 0.0 | 0.13 (1) | 7.22 |
| P- O | 0 / 4 | -18.5 | -18.5 | 0.14 (4) | 10.00 |
| O- N | 0 / 2292 | -18.5 | -18.5 | 0.43 (1) | 10.00 |
| N- M | 0 / 1968 | -18.5 | -18.5 | 0.37 (1) | 10.00 |
| M- L | 0 / 1968 | -18.5 | -18.5 | 0.37 (1) | 10.00 |
| L- K | 0 / 1131 | -18.5 | -18.5 | 0.23 (1) | 10.00 |
| K- J | 0 / 868 | -18.5 | -18.5 | 0.17 (1) | 10.00 |
| J- I | 0 / 0 | -18.5 | -18.5 | 0.00 (4) | 10.00 |

| WEBS MEMB. FR-TO | MAX. FACTORED FORCE (LBS) | MAX CSI (LC) |
|---|---|---|
| O- C | -275 / 0 | 0.05 (1) |
| C- N | -299 / 0 | 0.17 (1) |
| N- E | 0 / 243 | 0.06 (4) |
| E- L | -811 / 0 | 0.52 (1) |
| L- F | 0 / 629 | 0.14 (1) |
| F- K | -337 / 0 | 0.16 (1) |
| K- G | 0 / 401 | 0.09 (1) |
| G- J | -1390 / 0 | 0.42 (1) |
| J- H | -1167 / 0 | 0.19 (1) |
| B- O | 0 / 2180 | 0.49 (1) |

**DESIGN CRITERIA**

SPECIFIED LOADS:

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

**SPACING = 24.0 IN. C/C**

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

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

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

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

ALLOWABLE DEFL.(LL)= L/360 (0.82")
CALCULATED VERT. DEFL.(LL) = L/ 999 (0.11")
ALLOWABLE DEFL.(TL)= L/360 (0.82")
CALCULATED VERT. DEFL.(TL) = L/ 999 (0.22")

CSI: TC=0.58/1.00 (B-C:1) , BC=0.43/1.00 (N-O:1) , WB=0.52/1.00 (E-L:1) , SSI=0.18/1.00 (B-C:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

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

NAIL VALUES

| PLATE | GRIP(DRY) (PSI) MAX | MIN | SHEAR (PLI) MAX | MIN | 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= 0.89 (I) (INPUT = 0.90 )
JSI METAL= 0.65 (M) (INPUT = 1.00 )

A-18023435

| JOB NAME | TRUSS NAME | QUANTITY | PLY | JOB DESC. | DRWG NO. |
|---|---|---|---|---|---|
| 292589 | H6T | 1 | 1 | TRUSS DESC. | |

Alpa Roof Truss, Maple

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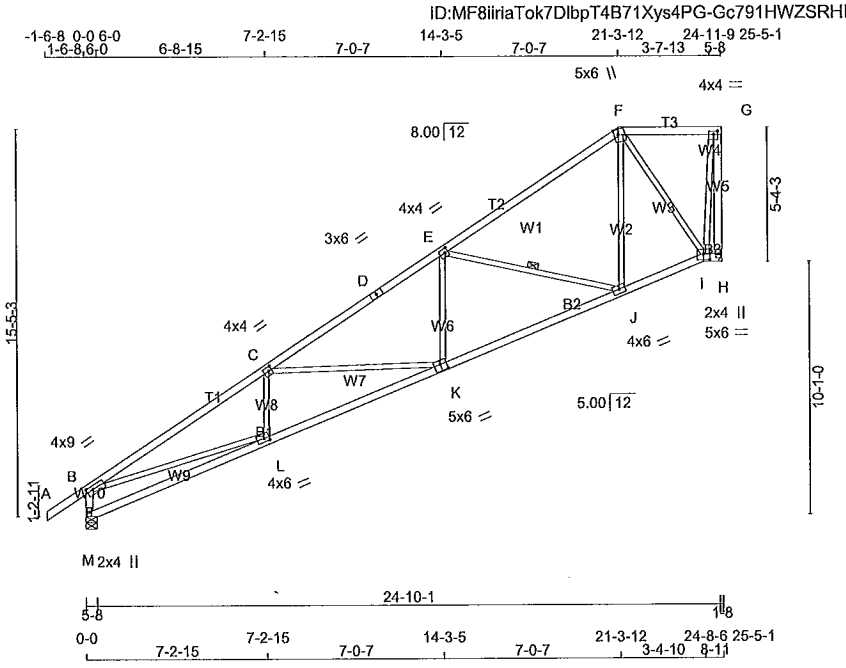



TOTAL WEIGHT = 111 lb

[M][F]

**LUMBER**

N. L. G. A. RULES

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

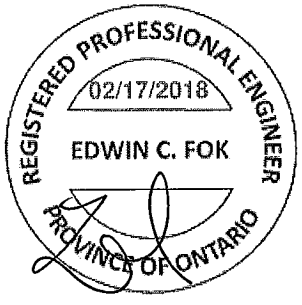
DRY: SEASONED LUMBER.

**PLATES (table is in inches)**

| JT | TYPE | PLATES | W | LEN | Y | X |
|---|---|---|---|---|---|---|
| B | TMVW-t | MT20 | 4.0 | 9.0 | 1.75 | 3.00 |
| C | TMWW-t | MT20 | 4.0 | 4.0 | 2.00 | 1.50 |
| D | TS-t | MT20 | 3.0 | 6.0 | | |
| E | TMWW-t | MT20 | 4.0 | 4.0 | 2.00 | 1.50 |
| F | TTWW+m | MT20 | 5.0 | 6.0 | Edge | 1.75 |
| G | TMVW-t | MT20 | 4.0 | 4.0 | 1.50 | 1.75 |
| H | BMV1+p | MT20 | 2.0 | 4.0 | | |
| I | BBWW-l | MT20 | 5.0 | 6.0 | 2.75 | 3.00 |
| J | BMWW-t | MT20 | 4.0 | 6.0 | | |
| K | BSWW-l | MT20 | 5.0 | 6.0 | 3.00 | 3.00 |
| L | BMWW-t | MT20 | 4.0 | 6.0 | 1.75 | 2.50 |
| M | 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 VERT | HORZ | MAXIMUM FACTORED GROSS REACTION DOWN | HORZ | UPLIFT | INPUT BRG | REQRD BRG |
|---|---|---|---|---|---|---|---|
| H | 1226 | 0 | 1226 | 0 | 0 | IN-SX | IN-SX |
| | | | | | | HANGER BY OTHERS | |
| | | | | | | MIN. SEAT SIZE: 1-8 | |
| M | 1353 | 0 | 1353 | 0 | 0 | 5-8 | 1-14 |

**UNFACTORED REACTIONS**

| JT | 1ST LCASE COMBINED | MAX./MIN. COMPONENT REACTIONS SNOW | LIVE | PERM.LIVE | WIND | DEAD | SOIL |
|---|---|---|---|---|---|---|---|
| H | 874 | 534 / 0 | 0 / 0 | 0 / 0 | 0 / 0 | 341 / 0 | 0 / 0 |
| M | 962 | 602 / 0 | 0 / 0 | 0 / 0 | 0 / 0 | 360 / 0 | 0 / 0 |

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

**BRACING**

TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 3.50 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-J.

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

**LOADING**

TOTAL LOAD CASES: (4)

| CHORDS MEMB. FR-TO | MAX. FACTORED FORCE (LBS) | FACTORED VERT. LOAD (PLF) FROM | TO | LC1 MAX CSI (LC) | MAX. UNBRAC LENGTH | WEBS MEMB. FR-TO | MAX. FACTORED FORCE (LBS) | MAX CSI (LC) |
|---|---|---|---|---|---|---|---|---|
| A- B | 0 / 35 | -78.0 | -78.0 | 0.15 (1) | 10.00 | L- C | -195 / 43 | 0.04 (1) |
| B- C | -2790 / 0 | -78.0 | -78.0 | 0.82 (1) | 3.50 | C- K | -614 / 0 | 0.61 (1) |
| C- D | -2073 / 0 | -78.0 | -78.0 | 0.57 (1) | 4.22 | K- E | 0 / 362 | 0.08 (1) |
| D- E | -2073 / 0 | -78.0 | -78.0 | 0.57 (1) | 4.22 | E- J | -1099 / 0 | 0.41 (1) |
| E- F | -819 / 0 | -78.0 | -78.0 | 0.48 (1) | 6.02 | J- F | 0 / 827 | 0.19 (1) |
| F- G | -152 / 0 | -78.0 | -78.0 | 0.17 (1) | 6.25 | F- I | -927 / 0 | 0.59 (1) |
| H- G | -1220 / 0 | 0.0 | 0.0 | 0.61 (1) | 7.26 | I- G | 0 / 1071 | 0.24 (1) |
| M- B | -1296 / 0 | 0.0 | 0.0 | 0.13 (1) | 7.09 | B- L | 0 / 2427 | 0.55 (1) |
| M- L | 0 / 6 | -18.5 | -18.5 | 0.25 (4) | 10.00 | | | |
| L- K | 0 / 2530 | -18.5 | -18.5 | 0.52 (1) | 10.00 | | | |
| K- J | 0 / 1873 | -18.5 | -18.5 | 0.41 (1) | 10.00 | | | |
| J- I | 0 / 715 | -18.5 | -18.5 | 0.27 (4) | 10.00 | | | |
| I- H | 0 / 0 | -18.5 | -18.5 | 0.00 (4) | 10.00 | | | |

**DESIGN CRITERIA**

SPECIFIED LOADS:

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

**SPACING = 24.0 IN. C/C**

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

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

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

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

ALLOWABLE DEFL.(LL)= L/360 (0.85")
CALCULATED VERT. DEFL.(LL) = L/ 999 (0.14")
ALLOWABLE DEFL.(TL)= L/360 (0.85")
CALCULATED VERT. DEFL.(TL) = L/ 961 (0.32")

CSI: TC=0.82/1.00 (B-C:1) , BC=0.52/1.00 (K-L:1) , WB=0.61/1.00 (C-K:1) , SSI=0.22/1.00 (B-C:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

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

NAIL VALUES

| PLATE | GRIP(DRY) (PSI) MAX | MIN | SHEAR (PLI) MAX | MIN | 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= 0.86 (L) (INPUT = 0.90 )
JSI METAL= 0.62 (L) (INPUT = 1.00 )

A-18023436

| JOB NAME | TRUSS NAME | QUANTITY | PLY | JOB DESC. | DRWG NO. |
|---|---|---|---|---|---|
| 292589 | H7T | 8 | 1 | TRUSS DESC. | |

Alpa Roof Truss, Maple

Version 8.200 S Jan 6 2018 MiTek Industries, Inc. Sat Feb 17 11:40:14 2018 Page 1

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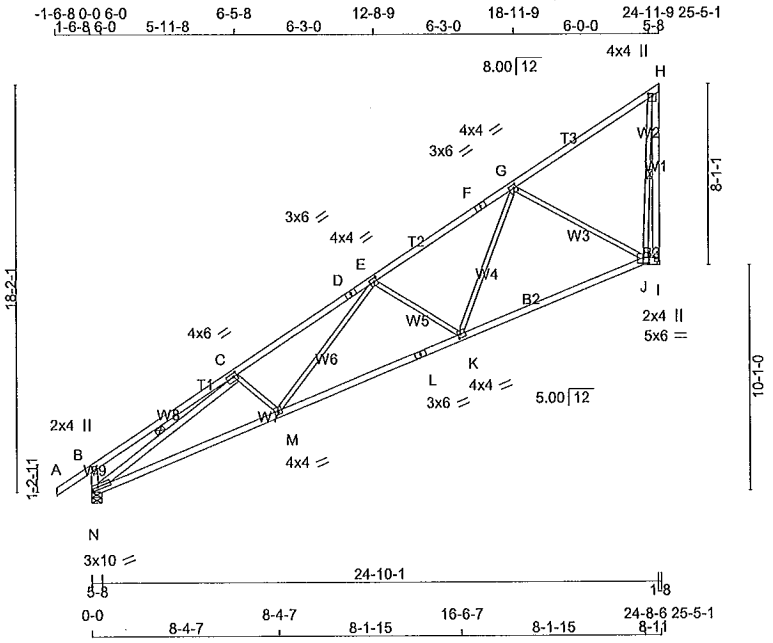



TOTAL WEIGHT = 8 X 116 = 925 lb

[M][F]

**LUMBER**

N. L. G. A. RULES

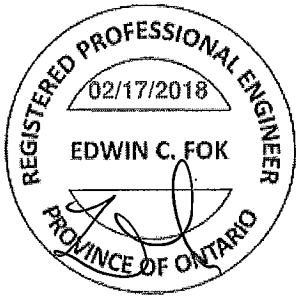
| CHORDS | SIZE | | LUMBER | DESCR. |
|---|---|---|---|---|
| N - B | 2x4 | DRY | No.2 | SPF |
| A - D | 2x4 | DRY | No.2 | SPF |
| D - F | 2x4 | DRY | No.2 | SPF |
| F - H | 2x4 | DRY | No.2 | SPF |
| I - H | 2x4 | DRY | No.2 | SPF |
| N - L | 2x4 | DRY | No.2 | SPF |
| L - J | 2x4 | DRY | No.2 | SPF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

DRY: SEASONED LUMBER.

**PLATES (table is in inches)**

| JT | TYPE | PLATES | W | LEN | Y | X |
|---|---|---|---|---|---|---|
| B | TMV+p | MT20 | 2.0 | 4.0 | | |
| C | TMWW-t | MT20 | 4.0 | 6.0 | 1.75 | 2.00 |
| D | TS-t | MT20 | 3.0 | 6.0 | | |
| E | TMWW-t | MT20 | 4.0 | 4.0 | 2.00 | 1.75 |
| F | TS-t | MT20 | 3.0 | 6.0 | | |
| G | TMWW-t | MT20 | 4.0 | 4.0 | 1.75 | 1.50 |
| H | TMVW+p | MT20 | 4.0 | 4.0 | 1.00 | 2.00 |
| I | BMV1+p | MT20 | 2.0 | 4.0 | | |
| J | BBWW-t | MT20 | 5.0 | 6.0 | 2.75 | 3.00 |
| K | BMWW-t | MT20 | 4.0 | 4.0 | 2.00 | 1.25 |
| L | BS-t | MT20 | 3.0 | 6.0 | | |
| M | BMWW-t | MT20 | 4.0 | 4.0 | | |
| N | BMVW1-t | MT20 | 3.0 | 10.0 | 1.50 | 3.00 |

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




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

**BEARINGS**

| JT | FACTORED GROSS REACTION VERT | HORZ | MAXIMUM FACTORED GROSS REACTION DOWN | HORZ | UPLIFT | INPUT BRG IN-SX | REQRD BRG IN-SX |
|---|---|---|---|---|---|---|---|
| N | 1353 | 0 | 1353 | 0 | 0 | 5-8 | 1-8 |
| I | 1226 | 0 | 1226 | 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 |
|---|---|---|---|---|---|---|---|
| N | 962 | 602 / 0 | 0 / 0 | 0 / 0 | 0 / 0 | 360 / 0 | 0 / 0 |
| I | 874 | 534 / 0 | 0 / 0 | 0 / 0 | 0 / 0 | 341 / 0 | 0 / 0 |

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

**BRACING**

TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 3.90 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 H-I, C-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 MEMB. | MAX. FACTORED FORCE (LBS) | FACTORED VERT. LOAD LC1 (PLF) FROM | TO | MAX CSI (LC) | MAX. UNBRAC LENGTH | WEBS MEMB. | MAX. FACTORED FORCE (LBS) | MAX CSI (LC) |
|---|---|---|---|---|---|---|---|---|
| FR-TO | | | | | | FR-TO | | |
| N- B | -327 / 0 | 0.0 | 0.0 | 0.03 (1) | 7.81 | N- C | -2962 / 0 | 0.96 (1) |
| A- B | 0 / 35 | -78.0 | -78.0 | 0.15 (1) | 10.00 | C- M | -139 / 26 | 0.03 (1) |
| B- C | 0 / 26 | -78.0 | -78.0 | 0.41 (1) | 10.00 | M- E | 0 / 521 | 0.12 (1) |
| C- D | -2609 / 0 | -78.0 | -78.0 | 0.53 (1) | 3.90 | E- K | -610 / 0 | 0.23 (1) |
| D- E | -2609 / 0 | -78.0 | -78.0 | 0.53 (1) | 3.90 | K- G | 0 / 906 | 0.20 (1) |
| E- F | -1628 / 0 | -78.0 | -78.0 | 0.43 (1) | 4.76 | G- J | -1120 / 0 | 0.98 (1) |
| F- G | -1628 / 0 | -78.0 | -78.0 | 0.43 (1) | 4.76 | J- H | 0 / 1092 | 0.25 (1) |
| G- H | -151 / 0 | -78.0 | -78.0 | 0.39 (1) | 6.25 | | | |
| I- H | -1220 / 0 | 0.0 | 0.0 | 0.35 (1) | 5.80 | | | |
| N- M | 0 / 2462 | -18.5 | -18.5 | 0.56 (1) | 10.00 | | | |
| M- L | 0 / 2019 | -18.5 | -18.5 | 0.49 (1) | 10.00 | | | |
| L- K | 0 / 2019 | -18.5 | -18.5 | 0.49 (1) | 10.00 | | | |
| K- J | 0 / 1144 | -18.5 | -18.5 | 0.39 (4) | 10.00 | | | |
| J- I | 0 / 0 | -18.5 | -18.5 | 0.00 (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 (0.85")
CALCULATED VERT. DEFL.(LL) = L/ 999 (0.14")
ALLOWABLE DEFL.(TL)= L/360 (0.85")
CALCULATED VERT. DEFL.(TL) = L/ 996 (0.31")

CSI: TC=0.53/1.00 (C-E:1) , BC=0.56/1.00 (M-N:1) , WB=0.98/1.00 (G-J:1) , SSI=0.20/1.00 (G-H:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

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

NAIL VALUES

| PLATE | GRIP(DRY) (PSI) MAX | MIN | SHEAR (PLI) MAX | MIN | 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= 0.89 (C) (INPUT = 0.90 )
JSI METAL= 0.73 (C) (INPUT = 1.00 )

A-18023437

| JOB NAME | TRUSS NAME | QUANTITY | PLY | JOB DESC. | DRWG NO. |
|---|---|---|---|---|---|
| 292589 | H8 | 7 | 1 | TRUSS DESC. | |

Alpa Roof Truss, Maple

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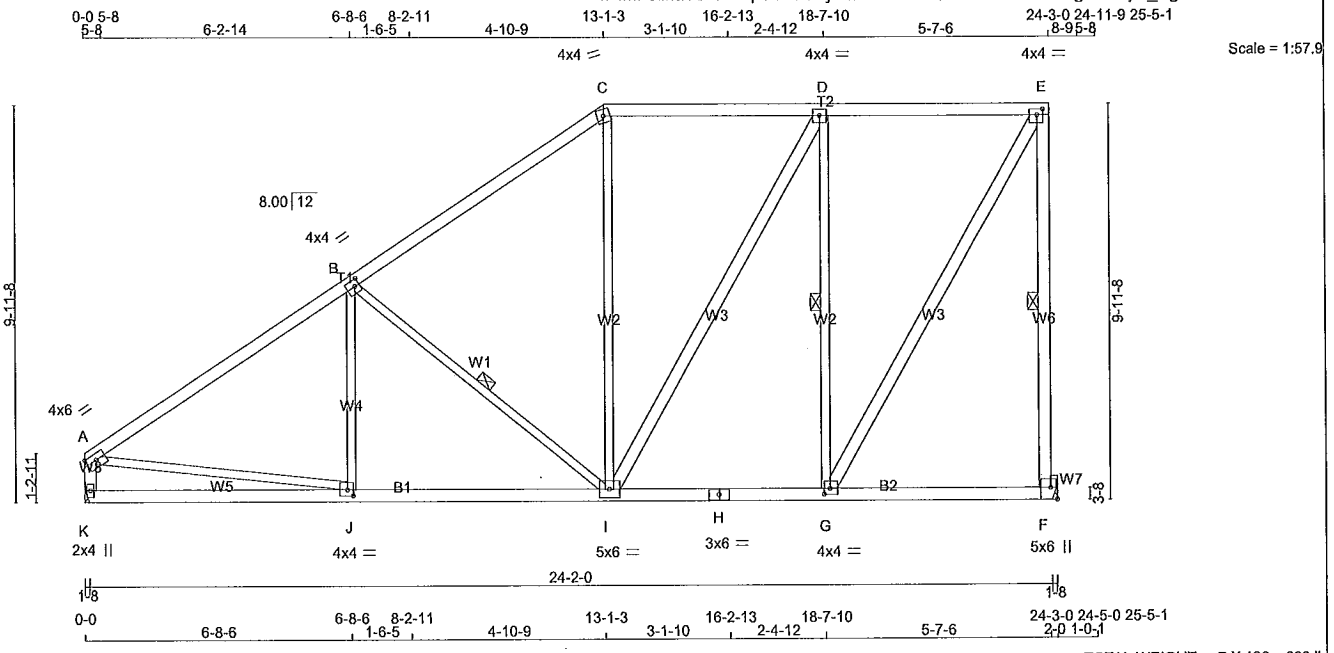



TOTAL WEIGHT = 7 X 126 = 883 lb

[M][F]

**LUMBER**

N. L. G. A. RULES

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

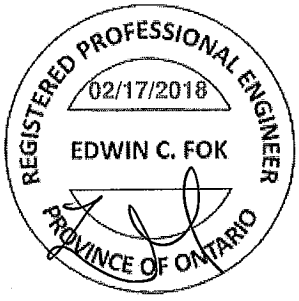
DRY: SEASONED LUMBER.

**PLATES (table is in inches)**

| JT | TYPE | PLATES | W | LEN | Y | X |
|---|---|---|---|---|---|---|
| A | TMVW-t | MT20 | 4.0 | 6.0 | 1.75 | Edge |
| B | TMWW-t | MT20 | 4.0 | 4.0 | 2.00 | 1.50 |
| C | TTW-m | MT20 | 4.0 | 4.0 | | |
| D | TMWW-t | MT20 | 4.0 | 4.0 | | |
| E | TMWW-t | MT20 | 4.0 | 4.0 | 1.75 | 1.75 |
| F | BMWW1+t | MT20 | 5.0 | 6.0 | 3.50 | Edge |
| G | BMWW-t | MT20 | 4.0 | 4.0 | 1.75 | 1.75 |
| H | BS-t | MT20 | 3.0 | 6.0 | | |
| I | BMWWW-t | MT20 | 5.0 | 6.0 | | |
| J | BMWW-t | MT20 | 4.0 | 4.0 | 1.75 | 1.75 |
| K | 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**

| | FACTORED GROSS REACTION | | MAXIMUM FACTORED GROSS REACTION | | | INPUT BRG | REQRD BRG |
|---|---|---|---|---|---|---|---|
| JT | VERT | HORZ | DOWN | HORZ | UPLIFT | IN-SX | IN-SX |
| K | 1181 | 0 | 1181 | 0 | 0 | HANGER BY OTHERS MIN. SEAT SIZE: 1-8 | |
| F | 1226 | 0 | 1226 | 0 | 0 | HANGER BY OTHERS MIN. SEAT SIZE: 1-8 | |

**UNFACTORED REACTIONS**

| | 1ST LCASE | MAX./MIN. COMPONENT REACTIONS | | | | | |
|---|---|---|---|---|---|---|---|
| JT | COMBINED | SNOW | LIVE | PERM.LIVE | WIND | DEAD | SOIL |
| K | 844 | 506 / 0 | 0 / 0 | 0 / 0 | 0 / 0 | 338 / 0 | 0 / 0 |
| F | 880 | 506 / 0 | 0 / 0 | 0 / 0 | 0 / 0 | 374 / 0 | 0 / 0 |

**BRACING**

FOR SECTION C-E, MAX. PURLIN SPACING = 2.00 FT.
FOR OTHER SECTIONS, TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 4.96 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.

1 LATERAL BRACE(S) AT 1/ 2 LENGTH OF E-F, D-G, B-I.

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

**LOADING**

TOTAL LOAD CASES: (4)

| CHORDS MEMB. FR-TO | MAX. FACTORED FORCE (LBS) | FACTORED VERT. LOAD (PLF) FROM | TO | LC1 MAX CSI (LC) | MAX. UNBRAC LENGTH |
|---|---|---|---|---|---|
| K- A | -1131 / 0 | 0.0 | 0.0 | 0.11 (1) | 7.46 |
| A- B | -1362 / 0 | -78.0 | -78.0 | 0.50 (1) | 4.96 |
| B- C | -933 / 0 | -78.0 | -78.0 | 0.45 (1) | 5.78 |
| C- D | -748 / 0 | -85.5 | -85.5 | 0.34 (1) | 2.00 |
| D- E | -571 / 0 | -85.5 | -85.5 | 0.33 (1) | 2.00 |
| K- J | 0 / 0 | -18.5 | -18.5 | 0.20 (4) | 10.00 |
| J- I | 0 / 1162 | -18.5 | -18.5 | 0.31 (4) | 10.00 |
| I- H | 0 / 571 | -18.5 | -18.5 | 0.19 (4) | 10.00 |
| H- G | 0 / 571 | -18.5 | -18.5 | 0.19 (4) | 10.00 |
| G- F | 0 / 0 | -18.5 | -18.5 | 0.13 (4) | 10.00 |

| WEBS MEMB. FR-TO | MAX. FACTORED FORCE (LBS) | MAX CSI (LC) |
|---|---|---|
| F- E | -1185 / 0 | 0.57 (1) |
| I- C | 0 / 132 | 0.04 (4) |
| I- D | 0 / 361 | 0.06 (1) |
| G- D | -897 / 0 | 0.60 (1) |
| G- E | 0 / 1159 | 0.19 (1) |
| A- J | 0 / 1172 | 0.26 (1) |
| J- B | -18 / 94 | 0.03 (4) |
| B- I | -538 / 0 | 0.26 (1) |

**DESIGN CRITERIA**

SPECIFIED LOADS:

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

**SPACING = 24.0 IN. C/C**

LOADING IN FLAT SECTION BASED ON PIGGYBACK TRUSS WITH SLOPES OF 6.00/12 AND -6.00/12 AND RESPECTIVE WALL HEIGHTS OF 0-0 AND 0-0 AND AN ADDITIONAL DEAD LOAD OF 3.0 P.S.F.

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

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

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

ALLOWABLE DEFL.(LL)= L/360 (0.80")
CALCULATED VERT. DEFL.(LL) = L/ 999 (0.04")
ALLOWABLE DEFL.(TL)= L/360 (0.80")
CALCULATED VERT. DEFL.(TL) = L/ 999 (0.09")

CSI: TC=0.50/1.00 (A-B:1) , BC=0.31/1.00 (I-J:4) , WB=0.60/1.00 (D-G:1) , SSI=0.23/1.00 (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) MAX | MIN | SHEAR (PLI) MAX | MIN | 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= 0.88 (J) (INPUT = 0.90 )
JSI METAL= 0.44 (J) (INPUT = 1.00 )

A-18023438

| JOB NAME | TRUSS NAME | QUANTITY | PLY | JOB DESC. | DRWG NO. |
|---|---|---|---|---|---|
| 292589 | H8G | 1 | 1 | TRUSS DESC. | |

Alpa Roof Truss, Maple



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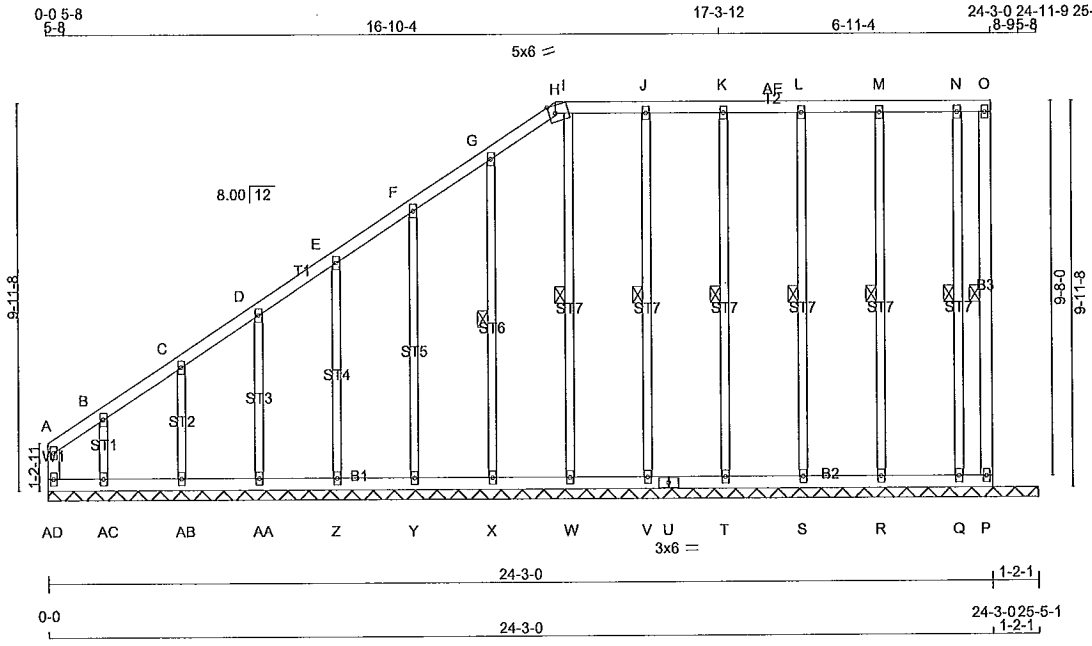



TOTAL WEIGHT = 140 lb

[M]

**LUMBER**

N. L. G. A. RULES

| CHORDS | SIZE | | LUMBER | DESCR. |
|---|---|---|---|---|
| AD- A | 2x4 | DRY | No.2 | SPF |
| A - H | 2x4 | DRY | No.2 | SPF |
| H - O | 2x4 | DRY | No.2 | SPF |
| AD- U | 2x4 | DRY | No.2 | SPF |
| U - P | 2x4 | DRY | No.2 | SPF |
| P - O | 2x4 | DRY | No.2 | SPF |
| ALL WEBS EXCEPT | 2x3 | DRY | No.2 | SPF |
| ALL GABLE WEBS | 2x3 | DRY | No.2 | SPF |

DRY: SEASONED LUMBER.

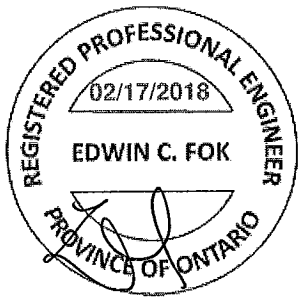
GABLE STUDS SPACED AT 2-0-0 OC.

**PLATES (table is in inches)**

| JT | TYPE | PLATES | W | LEN | Y | X |
|---|---|---|---|---|---|---|
| A | TMV+p | MT20 | 2.0 | 4.0 | | |
| B, C, D, E, F, G, J, K, L, M, N | | | | | | |
| B | TMW+w | MT20 | 2.0 | 4.0 | | |
| H | | | | | | |
| H | TTW-m | MT20 | 5.0 | 6.0 | Edge | 2.00 |
| I | | | | | | |
| O | TMV+p | MT20 | 2.0 | 4.0 | | |
| P | BMV1+p | MT20 | 2.0 | 4.0 | | |
| Q, R, S, T, V, W, X, Y, Z, AA, AB, AC | | | | | | |
| Q | BMW1+w | MT20 | 2.0 | 4.0 | | |
| U | BS-t | MT20 | 3.0 | 6.0 | | |
| AD | 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**

THIS TRUSS DESIGNED FOR CONTINUOUS BEARINGS.

THIS TRUSS REQUIRES RIGID SHEATHING ON EXPOSED FACE.

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

**BRACING**

FOR SECTION H-O, MAX. PURLIN SPACING = 2.00 FT.
FOR OTHER SECTIONS, 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 O-P, N-Q, M-R, L-S, K-T, J-V, I-W, G-X.

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

**LOADING**

TOTAL LOAD CASES: (4)

| CHORDS MEMB. | MAX. FACTORED FORCE (LBS) | FACTORED VERT. LOAD (PLF) FROM | TO | LC1 MAX CSI (LC) | MAX. UNBRAC LENGTH |
|---|---|---|---|---|---|
| FR-TO | | | | | |
| AD- A | -58 / 0 | 0.0 | 0.0 | 0.01 (1) | 7.81 |
| A- B | -19 / 0 | -78.0 | -78.0 | 0.03 (1) | 6.25 |
| B- C | -14 / 0 | -78.0 | -78.0 | 0.04 (1) | 6.25 |
| C- D | -11 / 0 | -78.0 | -78.0 | 0.04 (1) | 6.25 |
| D- E | -7 / 0 | -78.0 | -78.0 | 0.04 (1) | 10.00 |
| E- F | -5 / 0 | -78.0 | -78.0 | 0.04 (1) | 10.00 |
| F- G | -2 / 0 | -78.0 | -78.0 | 0.04 (1) | 10.00 |
| G- H | -8 / 0 | -78.0 | -78.0 | 0.04 (1) | 10.00 |
| H- I | 0 / 2 | -85.5 | -85.5 | 0.04 (1) | 2.00 |
| I- J | 0 / 0 | -85.5 | -85.5 | 0.04 (1) | 2.00 |
| J- K | 0 / 0 | -85.5 | -85.5 | 0.04 (1) | 2.00 |
| K-AE | 0 / 0 | -85.5 | -85.5 | 0.04 (1) | 2.00 |
| AE- L | 0 / 0 | -85.5 | -85.5 | 0.04 (1) | 2.00 |
| L- M | 0 / 0 | -85.5 | -85.5 | 0.04 (1) | 2.00 |
| M- N | 0 / 0 | -85.5 | -85.5 | 0.04 (1) | 2.00 |
| N- O | 0 / 0 | -85.5 | -85.5 | 0.01 (1) | 2.00 |
| AD-AC | 0 / 19 | -18.5 | -18.5 | 0.01 (4) | 10.00 |
| AC-AB | 0 / 13 | -18.5 | -18.5 | 0.02 (4) | 10.00 |
| AB-AA | 0 / 9 | -18.5 | -18.5 | 0.02 (4) | 10.00 |
| AA- Z | 0 / 6 | -18.5 | -18.5 | 0.01 (4) | 10.00 |
| Z- Y | 0 / 4 | -18.5 | -18.5 | 0.01 (4) | 10.00 |
| Y- X | 0 / 2 | -18.5 | -18.5 | 0.01 (4) | 10.00 |
| X- W | 0 / 0 | -18.5 | -18.5 | 0.01 (4) | 10.00 |
| W- V | 0 / 0 | -18.5 | -18.5 | 0.01 (4) | 10.00 |
| V- U | 0 / 0 | -18.5 | -18.5 | 0.01 (4) | 10.00 |
| U- T | 0 / 0 | -18.5 | -18.5 | 0.01 (4) | 10.00 |
| T- S | 0 / 0 | -18.5 | -18.5 | 0.01 (4) | 10.00 |
| S- R | 0 / 0 | -18.5 | -18.5 | 0.02 (4) | 10.00 |
| R- Q | 0 / 0 | -18.5 | -18.5 | 0.02 (4) | 10.00 |
| Q- P | 0 / 0 | -18.5 | -18.5 | 0.01 (4) | 10.00 |
| P- O | -22 / 0 | 0.0 | 0.0 | 0.01 (1) | 6.25 |

| WEBS MEMB. | MAX. FACTORED FORCE (LBS) | MAX CSI (LC) |
|---|---|---|
| FR-TO | | |
| Q- N | -111 / 0 | 0.07 (1) |
| R- M | -182 / 0 | 0.12 (1) |
| S- L | -170 / 0 | 0.11 (1) |
| T- K | -171 / 0 | 0.11 (1) |
| V- J | -171 / 0 | 0.11 (1) |
| W- I | -169 / 0 | 0.11 (1) |
| X- G | -158 / 0 | 0.08 (1) |
| Y- F | -154 / 0 | 0.16 (1) |
| Z- E | -155 / 0 | 0.09 (1) |
| AA- D | -153 / 0 | 0.05 (1) |
| AB- C | -158 / 0 | 0.03 (1) |
| AC- B | -130 / 0 | 0.02 (1) |

**DESIGN CRITERIA**

SPECIFIED LOADS:

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

**SPACING = 24.0 IN. C/C**

LOADING IN FLAT SECTION BASED ON PIGGYBACK TRUSS WITH SLOPES OF 6.00/12 AND -6.00/12 AND RESPECTIVE WALL HEIGHTS OF 0-0 AND 0-0 AND AN ADDITIONAL DEAD LOAD OF 3.0 P.S.F.

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

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

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

CSI: TC=0.04/1.00 (L-M:1) , BC=0.02/1.00 (AB-AC:4) , WB=0.16/1.00 (F-Y:1) , SSI=0.07/1.00 (M-N: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) MAX | MIN | SHEAR (PLI) MAX | MIN | 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= 0.40 (H) (INPUT = 0.90 )
JSI METAL= 0.08 (G) (INPUT = 1.00 )

A-18023439

| JOB NAME | TRUSS NAME | QUANTITY | PLY | JOB DESC. | DRWG NO. |
|---|---|---|---|---|---|
| 292589 | H9P | 1 | 1 | TRUSS DESC. | |

Alpa Roof Truss, Maple

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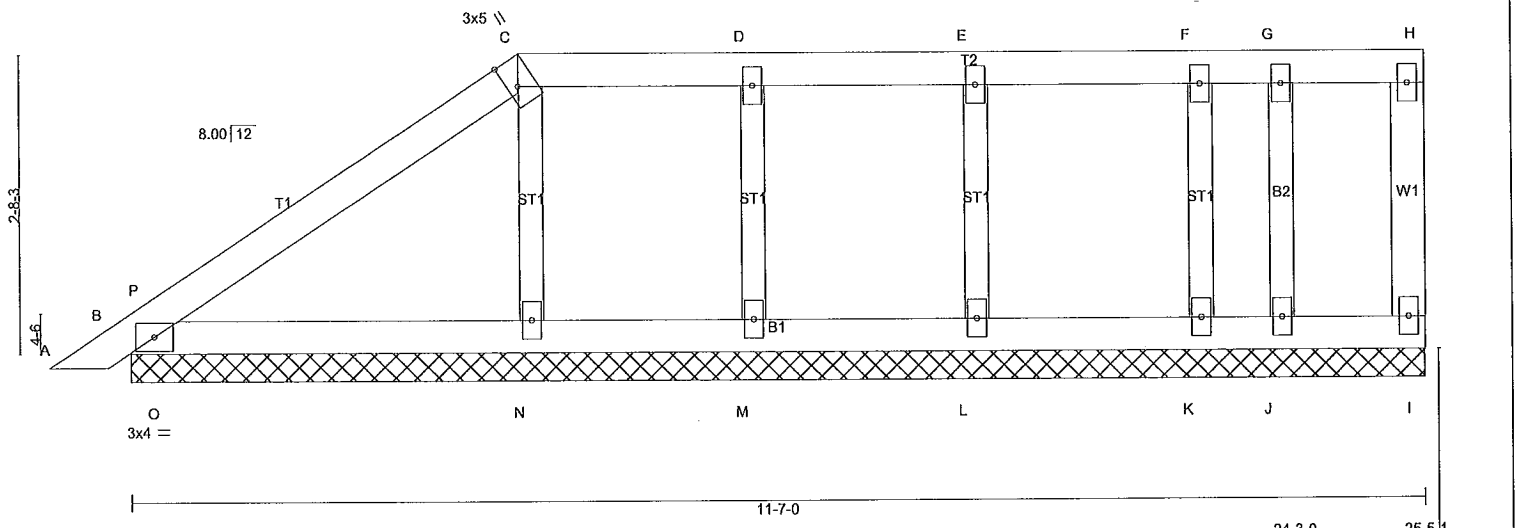
Scale = 1:20.7




TOTAL WEIGHT = 39 lb

[M]

**LUMBER**

N. L. G. A. RULES

| CHORDS | SIZE | | LUMBER | DESCR. |
|---|---|---|---|---|
| A - C | 2x4 | DRY | No.2 | SPF |
| C - H | 2x4 | DRY | No.2 | SPF |
| I - H | 2x4 | DRY | No.2 | SPF |
| J - G | 2x3 | DRY | No.2 | SPF |
| B - I | 2x4 | DRY | No.2 | SPF |
| ALL WEBS | 2x3 | DRY | No.2 | SPF |
| ALL GABLE WEBS | 2x3 | DRY | No.2 | SPF |

DRY: SEASONED LUMBER.

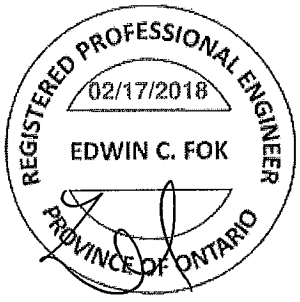
GABLE STUDS SPACED AT 2-0-0 OC.

**PLATES (table is in inches)**

| JT | TYPE | PLATES | W | LEN | Y | X |
|---|---|---|---|---|---|---|
| B | TMB1-I | MT20 | 3.0 | 4.0 | | |
| C | TTW+h | MT20 | 3.0 | 5.0 | Edge | 1.00 |
| D, E, F | | | | | | |
| D | TMW+w | MT20 | 2.0 | 4.0 | | |
| G | TMV+p | MT20 | 2.0 | 4.0 | | |
| H | TMV+p | MT20 | 2.0 | 4.0 | | |
| I | BMV1+p | MT20 | 2.0 | 4.0 | | |
| J | BMV1+p | MT20 | 2.0 | 4.0 | | |
| K, L, M, N | | | | | | |
| K | BMW1+w | 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**

THIS TRUSS DESIGNED FOR CONTINUOUS BEARINGS.

THIS TRUSS REQUIRES RIGID SHEATHING ON EXPOSED FACE.

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

**BRACING**

TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 6.25 FT.
MAX. UNBRACED BOTTOM CHORD LENGTH = 7.81 FT OR RIGID CEILING DIRECTLY APPLIED.

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

**LOADING**

TOTAL LOAD CASES: (4)

| CHORDS MEMB. FR-TO | MAX. FACTORED FORCE (LBS) | FACTORED VERT. LOAD (PLF) FROM | TO | LC | MAX CSI (LC) | MAX. UNBRAC LENGTH |
|---|---|---|---|---|---|---|
| A- B | 0 / 13 | -78.0 | -78.0 | 0.02 (1) | 10.00 | |
| B- P | -9 / 42 | -78.0 | -78.0 | 0.04 (1) | 10.00 | |
| P- C | -15 / 0 | -78.0 | -78.0 | 0.12 (1) | 6.25 | |
| C- D | 0 / 0 | -78.0 | -78.0 | 0.05 (1) | 10.00 | |
| D- E | 0 / 0 | -78.0 | -78.0 | 0.05 (1) | 10.00 | |
| E- F | 0 / 0 | -78.0 | -78.0 | 0.03 (1) | 10.00 | |
| F- G | 0 / 0 | -78.0 | -78.0 | 0.02 (1) | 10.00 | |
| G- H | 0 / 0 | -78.0 | -78.0 | 0.02 (1) | 10.00 | |
| I- H | -42 / 0 | 0.0 | 0.0 | 0.01 (1) | 7.81 | |
| J- G | -73 / 0 | 0.0 | 0.0 | 0.01 (1) | 7.81 | |
| B- O | 0 / 8 | -18.5 | -18.5 | 0.10 (1) | 10.00 | |
| O- N | 0 / 8 | -18.5 | -18.5 | 0.10 (1) | 10.00 | |
| N- M | 0 / 0 | -18.5 | -18.5 | 0.06 (1) | 10.00 | |
| M- L | 0 / 0 | -18.5 | -18.5 | 0.02 (4) | 10.00 | |
| L- K | 0 / 0 | -18.5 | -18.5 | 0.02 (4) | 10.00 | |
| K- J | 0 / 0 | -18.5 | -18.5 | 0.01 (4) | 10.00 | |
| J- I | 0 / 0 | -18.5 | -18.5 | 0.01 (4) | 10.00 | |

| WEBS MEMB. FR-TO | MAX. FACTORED FORCE (LBS) | MAX CSI (LC) |
|---|---|---|
| K- F | -115 / 0 | 0.02 (1) |
| L- E | -155 / 0 | 0.03 (1) |
| M- D | -181 / 0 | 0.03 (1) |
| N- C | -176 / 0 | 0.03 (1) |
| O- P | -227 / 0 | 0.00 (1) |

**DESIGN CRITERIA**

SPECIFIED LOADS:

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

**SPACING = 24.0 IN. C/C**

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

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

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

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

CSI: TC=0.12/1.00 (C-P:1) , BC=0.10/1.00 (B-O:1) , WB=0.03/1.00 (D-M:1) , SSI=0.18/1.00 (B-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) MAX | MIN | SHEAR (PLI) MAX | MIN | 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= 0.18 (B) (INPUT = 0.90 )
JSI METAL= 0.05 (C) (INPUT = 1.00 )

A-18023440

| JOB NAME | TRUSS NAME | QUANTITY | PLY | JOB DESC. | DRWG NO. |
|---|---|---|---|---|---|
| 292589 | H10P | 1 | 1 | TRUSS DESC. | |

Alpa Roof Truss, Maple

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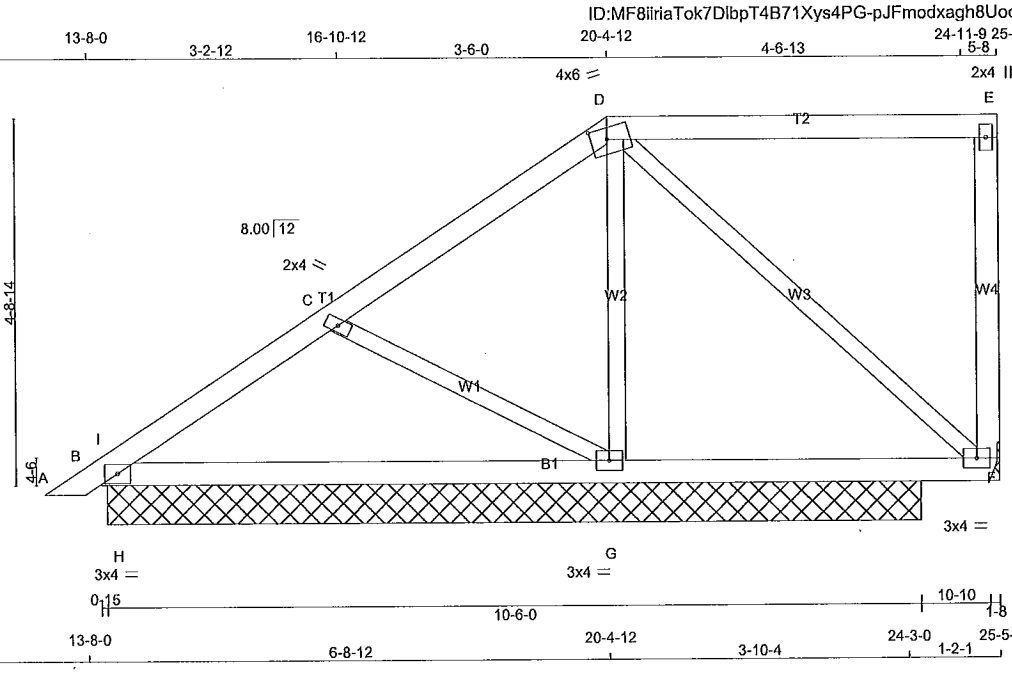



TOTAL WEIGHT = 45 lb [M]

**LUMBER**

N. L. G. A. RULES

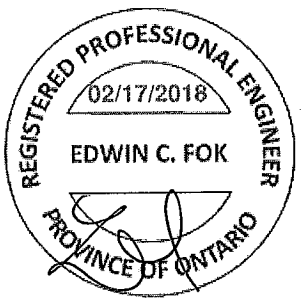
| CHORDS | SIZE | | LUMBER | DESCR. |
|---|---|---|---|---|
| A - D | 2x4 | DRY | No.2 | SPF |
| D - E | 2x4 | DRY | No.2 | SPF |
| F - E | 2x4 | DRY | No.2 | SPF |
| B - F | 2x4 | DRY | No.2 | SPF |
| ALL WEBS | 2x3 | DRY | No.2 | SPF |

DRY: SEASONED LUMBER.

**PLATES (table is in inches)**

| JT | TYPE | PLATES | W | LEN | Y | X |
|---|---|---|---|---|---|---|
| B | TMB1-I | MT20 | 3.0 | 4.0 | | |
| C | TMW+w | MT20 | 2.0 | 4.0 | | |
| D | TTWW-m | MT20 | 4.0 | 6.0 | 1.75 | 2.50 |
| E | TMV+p | MT20 | 2.0 | 4.0 | | |
| F | BMVW1-I | MT20 | 3.0 | 4.0 | | |
| G | BMWW1-I | MT20 | 3.0 | 4.0 | | |

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




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

**BEARINGS**

| JT | FACTORED GROSS REACTION VERT | HORZ | MAXIMUM FACTORED GROSS REACTION DOWN | HORZ | UPLIFT | INPUT BRG | REQRD BRG |
|---|---|---|---|---|---|---|---|
| F | 227 | 0 | 227 | 0 | 0 | IN-SX | IN-SX |
| | | | | | | HANGER BY OTHERS | |
| | | | | | | MIN. SEAT SIZE: 1-8 | |
| B | 364 | 0 | 364 | 0 | 0 | 10-6-0 | 1-1-0 |
| G | 578 | 0 | 578 | 0 | 0 | 10-6-0 | 1-1-0 |

**UNFACTORED REACTIONS**

| JT | 1ST LCASE COMBINED | MAX./MIN. COMPONENT REACTIONS SNOW | LIVE | PERM.LIVE | WIND | DEAD | SOIL |
|---|---|---|---|---|---|---|---|
| F | 160 | 105 / 0 | 0 / 0 | 0 / 0 | 0 / 0 | 55 / 0 | 0 / 0 |
| B | 258 | 169 / 0 | 0 / 0 | 0 / 0 | 0 / 0 | 89 / 0 | 0 / 0 |
| G | 414 | 240 / 0 | 0 / 0 | 0 / 0 | 0 / 0 | 174 / 0 | 0 / 0 |

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

**BRACING**

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

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

**LOADING**

TOTAL LOAD CASES: (4)

| CHORDS MEMB. FR-TO | MAX. FACTORED FORCE (LBS) | FACTORED VERT. LOAD LC1 (PLF) FROM | TO | MAX CSI (LC) | MAX. UNBRAC LENGTH | WEBS MEMB. FR-TO | MAX. FACTORED FORCE (LBS) | MAX CSI (LC) |
|---|---|---|---|---|---|---|---|---|
| A- B | 0 / 13 | -78.0 | -78.0 | 0.02 (1) | 10.00 | G- D | -301 / 0 | 0.10 (1) |
| B- I | -445 / 0 | -78.0 | -78.0 | 0.11 (4) | 6.25 | D- F | 0 / 0 | 0.00 (1) |
| I- C | -303 / 0 | -78.0 | -78.0 | 0.15 (1) | 6.25 | C- G | -310 / 0 | 0.10 (1) |
| C- D | -25 / 0 | -78.0 | -78.0 | 0.15 (1) | 6.25 | H- I | 0 / 179 | 0.00 (1) |
| D- E | 0 / 0 | -78.0 | -78.0 | 0.34 (1) | 10.00 | | | |
| F- E | -196 / 0 | 0.0 | 0.0 | 0.07 (1) | 7.81 | | | |
| B- H | 0 / 279 | -18.5 | -18.5 | 0.10 (4) | 10.00 | | | |
| H- G | 0 / 279 | -18.5 | -18.5 | 0.18 (4) | 10.00 | | | |
| G- F | 0 / 0 | -18.5 | -18.5 | 0.16 (4) | 10.00 | | | |

**DESIGN CRITERIA**

SPECIFIED LOADS:

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

**SPACING = 24.0 IN. C/C**

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

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

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

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

ALLOWABLE DEFL.(LL)= L/360 (0.22")
CALCULATED VERT. DEFL.(LL) = L/ 999 (0.00")
ALLOWABLE DEFL.(TL)= L/360 (0.22")
CALCULATED VERT. DEFL.(TL) = L/ 999 (0.03")

CSI: TC=0.34/1.00 (D-E:1) , BC=0.18/1.00 (G-H:4) , WB=0.10/1.00 (D-G:1) , SSI=0.15/1.00 (B-I:4)

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

COMPANION LIVE LOAD FACTOR = 1.00

AUTOSOLVE RIGHT HEEL ONLY

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

NAIL VALUES

| PLATE | GRIP(DRY) (PSI) MAX | MIN | SHEAR (PLI) MAX | MIN | 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= 0.42 (G) (INPUT = 0.90 )
JSI METAL= 0.13 (C) (INPUT = 1.00 )

A-18023441

| JOB NAME | TRUSS NAME | QUANTITY | PLY | JOB DESC. | DRWG NO. |
|---|---|---|---|---|---|
| 292589 | H11P | 1 | 1 | TRUSS DESC. | |

Alpa Roof Truss, Maple



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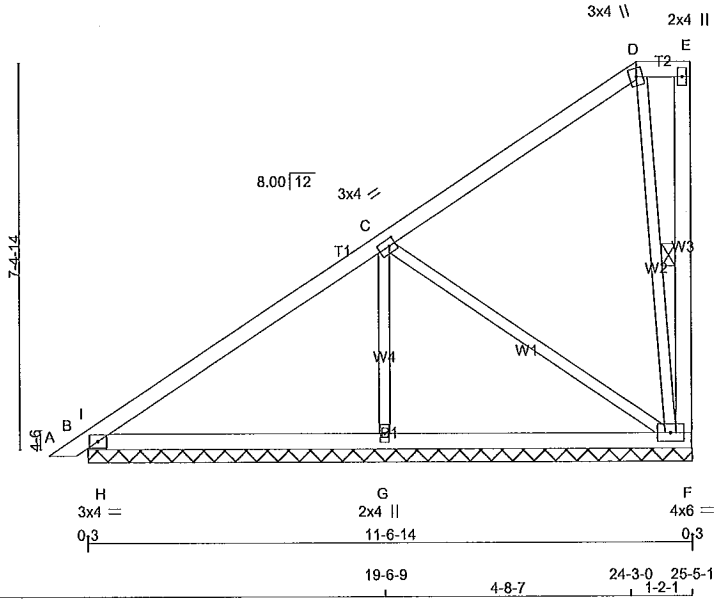



TOTAL WEIGHT = 51 lb

(M)

**LUMBER**

N. L. G. A. RULES

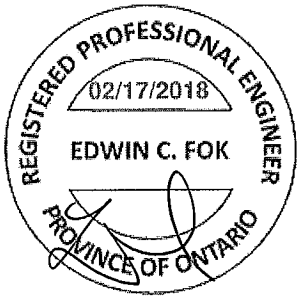
| CHORDS | SIZE | | LUMBER | DESCR. |
|---|---|---|---|---|
| A - D | 2x4 | DRY | No.2 | SPF |
| D - E | 2x4 | DRY | No.2 | SPF |
| F - E | 2x4 | DRY | No.2 | SPF |
| B - F | 2x4 | DRY | No.2 | SPF |
| ALL WEBS | 2x3 | DRY | No.2 | SPF |

DRY: SEASONED LUMBER.

**PLATES (table is in inches)**

| JT | TYPE | PLATES | W | LEN | Y | X |
|---|---|---|---|---|---|---|
| B | TMB1-I | MT20 | 3.0 | 4.0 | | |
| C | TMWW-t | MT20 | 3.0 | 4.0 | 1.50 | 1.50 |
| D | TTW+m | MT20 | 3.0 | 4.0 | | |
| E | TMV+p | MT20 | 2.0 | 4.0 | | |
| F | BMVWW1-t | MT20 | 4.0 | 6.0 | | |
| G | BMW1+w | 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 VERT | HORZ | MAXIMUM FACTORED GROSS REACTION DOWN | HORZ | UPLIFT | INPUT BRG IN-SX | REQRD BRG IN-SX |
|---|---|---|---|---|---|---|---|
| F | 305 | 0 | 305 | 0 | 0 | 11-7-1 ( 11-6-14) | 2.15 |
| B | 349 | 0 | 349 | 0 | 0 | 11-7-1 ( 11-6-14) | 2.15 |
| G | 515 | 0 | 515 | 0 | 0 | 11-7-1 ( 11-6-14) | 2.15 |

VALUE IN PARENTHESIS INDICATES EFFECTIVE BEARING LENGTH

**UNFACTORED REACTIONS**

| JT | 1ST LCASE COMBINED | MAX./MIN. COMPONENT REACTIONS SNOW | LIVE | PERM.LIVE | WIND | DEAD | SOIL |
|---|---|---|---|---|---|---|---|
| F | 216 | 140 / 0 | 0 / 0 | 0 / 0 | 0 / 0 | 76 / 0 | 0 / 0 |
| B | 246 | 164 / 0 | 0 / 0 | 0 / 0 | 0 / 0 | 82 / 0 | 0 / 0 |
| G | 370 | 209 / 0 | 0 / 0 | 0 / 0 | 0 / 0 | 161 / 0 | 0 / 0 |

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

**BRACING**

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

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

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

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

**LOADING**

TOTAL LOAD CASES: (4)

| CHORDS MEMB. FR-TO | MAX. FACTORED FORCE (LBS) | FACTORED VERT. LOAD LC1 (PLF) FROM | TO | MAX CSI (LC) | MAX. UNBRAC LENGTH | WEBS MEMB. FR-TO | MAX. FACTORED FORCE (LBS) | MAX CSI (LC) |
|---|---|---|---|---|---|---|---|---|
| A- B | 0 / 13 | -78.0 | -78.0 | 0.02 (1) | 10.00 | G- C | -355 / 0 | 0.09 (1) |
| B- I | -59 / 0 | -78.0 | -78.0 | 0.07 (1) | 6.25 | D- F | -164 / 0 | 0.16 (1) |
| I- C | -129 / 0 | -78.0 | -78.0 | 0.34 (1) | 6.25 | C- F | -120 / 0 | 0.10 (1) |
| C- D | -57 / 0 | -78.0 | -78.0 | 0.34 (1) | 6.25 | H- I | -329 / 0 | 0.00 (1) |
| D- E | 0 / 0 | -78.0 | -78.0 | 0.01 (1) | 10.00 | | | |
| F- E | -40 / 0 | 0.0 | 0.0 | 0.01 (1) | 6.25 | | | |
| B- H | 0 / 124 | -18.5 | -18.5 | 0.17 (1) | 10.00 | | | |
| H- G | 0 / 124 | -18.5 | -18.5 | 0.19 (4) | 10.00 | | | |
| G- F | 0 / 124 | -18.5 | -18.5 | 0.19 (4) | 10.00 | | | |

**DESIGN CRITERIA**

SPECIFIED LOADS:

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

**SPACING = 24.0 IN. C/C**

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

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

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

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

CSI: TC=0.34/1.00 (C-I:1) , BC=0.19/1.00 (G-H:4) , WB=0.16/1.00 (D-F:1) , SSI=0.27/1.00 (B-H:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

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

NAIL VALUES

| PLATE | GRIP(DRY) (PSI) MAX | MIN | SHEAR (PLI) MAX | MIN | 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= 0.44 (C) (INPUT = 0.90 )
JSI METAL= 0.08 (C) (INPUT = 1.00 )

A-18023442

| JOB NAME | TRUSS NAME | QUANTITY | PLY | JOB DESC. | DRWG NO. |
|---|---|---|---|---|---|
| 292589 | H12P | 5 | 1 | TRUSS DESC. | |

Alpa Roof Truss, Maple



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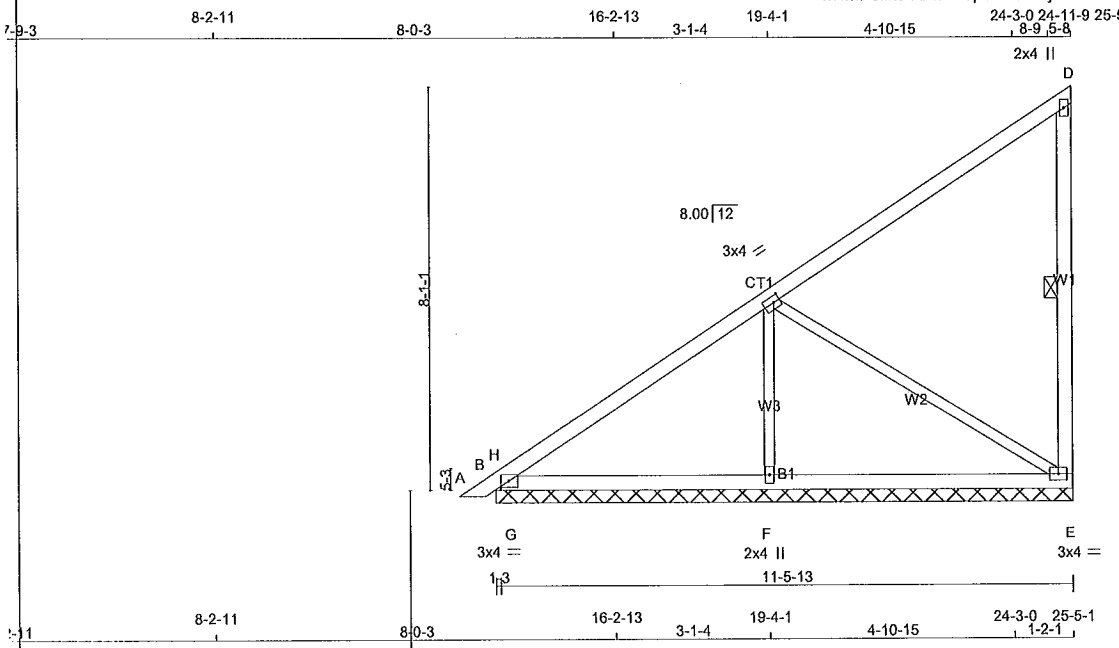



TOTAL WEIGHT = 5 X 47 = 234 lb

[M]

## LUMBER

N. L. G. A. RULES

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

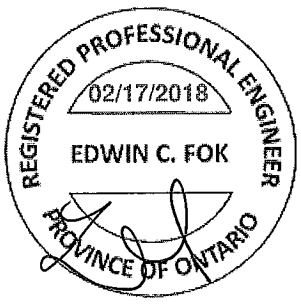
DRY: SEASONED LUMBER.

## PLATES (table is in Inches)

| JT | TYPE | PLATES | W | LEN | Y | X |
|---|---|---|---|---|---|---|
| B | TMB1-t | MT20 | 3.0 | 4.0 | | Edge |
| C | TMWW-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 | BMW1+w | 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 VERT | HORZ | MAXIMUM FACTORED GROSS REACTION DOWN | HORZ | UPLIFT | INPUT BRG IN-SX | REQRD BRG IN-SX |
|---|---|---|---|---|---|---|---|
| E | 313 | 0 | 313 | 0 | 0 | HANGER BY OTHERS MIN. SEAT SIZE: 2-6-9 | |
| B | 342 | 0 | 342 | 0 | 0 | HANGER BY OTHERS MIN. SEAT SIZE: 2-6-9 | |
| F | 512 | 0 | 512 | 0 | 0 | HANGER BY OTHERS MIN. SEAT SIZE: 2-6-9 | |

VALUE IN PARENTHESIS INDICATES EFFECTIVE BEARING LENGTH

## UNFACTORED REACTIONS

| JT | 1ST LCASE COMBINED | MAX./MIN. COMPONENT REACTIONS SNOW | LIVE | PERM.LIVE | WIND | DEAD | SOIL |
|---|---|---|---|---|---|---|---|
| E | 222 | 142 / 0 | 0 / 0 | 0 / 0 | 0 / 0 | 80 / 0 | 0 / 0 |
| B | 241 | 161 / 0 | 0 / 0 | 0 / 0 | 0 / 0 | 80 / 0 | 0 / 0 |
| F | 367 | 211 / 0 | 0 / 0 | 0 / 0 | 0 / 0 | 156 / 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 D-E.

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

## LOADING

TOTAL LOAD CASES: (4)

| CHORDS MEMB. FR-TO | MAX. FACTORED FORCE (LBS) | FACTORED VERT. LOAD (PLF) FROM | TO | LC1 MAX CSI (LC) | MAX. UNBRAC LENGTH | WEBS MEMB. FR-TO | MAX. FACTORED FORCE (LBS) | MAX CSI (LC) |
|---|---|---|---|---|---|---|---|---|
| A- B | 0 / 14 | -78.0 | -78.0 | 0.03 (1) | 10.00 | F- C | -363 / 0 | 0.09 (1) |
| B- H | -94 / 0 | -78.0 | -78.0 | 0.05 (1) | 6.25 | C- E | -163 / 0 | 0.15 (1) |
| H- C | -139 / 0 | -78.0 | -78.0 | 0.42 (1) | 6.25 | G- H | -248 / 11 | 0.00 (1) |
| C- D | -28 / 0 | -78.0 | -78.0 | 0.42 (1) | 6.25 | | | |
| E- D | -187 / 0 | 0.0 | 0.0 | 0.05 (1) | 6.25 | | | |
| B- G | 0 / 139 | -18.5 | -18.5 | 0.11 (1) | 10.00 | | | |
| G- F | 0 / 139 | -18.5 | -18.5 | 0.19 (4) | 10.00 | | | |
| F- E | 0 / 139 | -18.5 | -18.5 | 0.19 (4) | 10.00 | | | |

## DESIGN CRITERIA

SPECIFIED LOADS:

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

**SPACING = 24.0 IN. C/C**

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

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

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

CSI: TC=0.42/1.00 (C-H:1) , BC=0.19/1.00 (F-G:4) , WB=0.15/1.00 (C-E:1) , SSI=0.21/1.00 (B-G:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

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

NAIL VALUES

| PLATE | GRIP(DRY) (PSI) MAX | MIN | SHEAR (PLI) MAX | MIN | 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= 0.45 (C) (INPUT = 0.90 )
JSI METAL= 0.10 (D) (INPUT = 1.00 )

A-18023443

| JOB NAME | TRUSS NAME | QUANTITY | PLY | JOB DESC. | DRWG NO. |
|---|---|---|---|---|---|
| 292589 | H13 | 1 | 1 | TRUSS DESC. | |

Alpa Roof Truss, Maple

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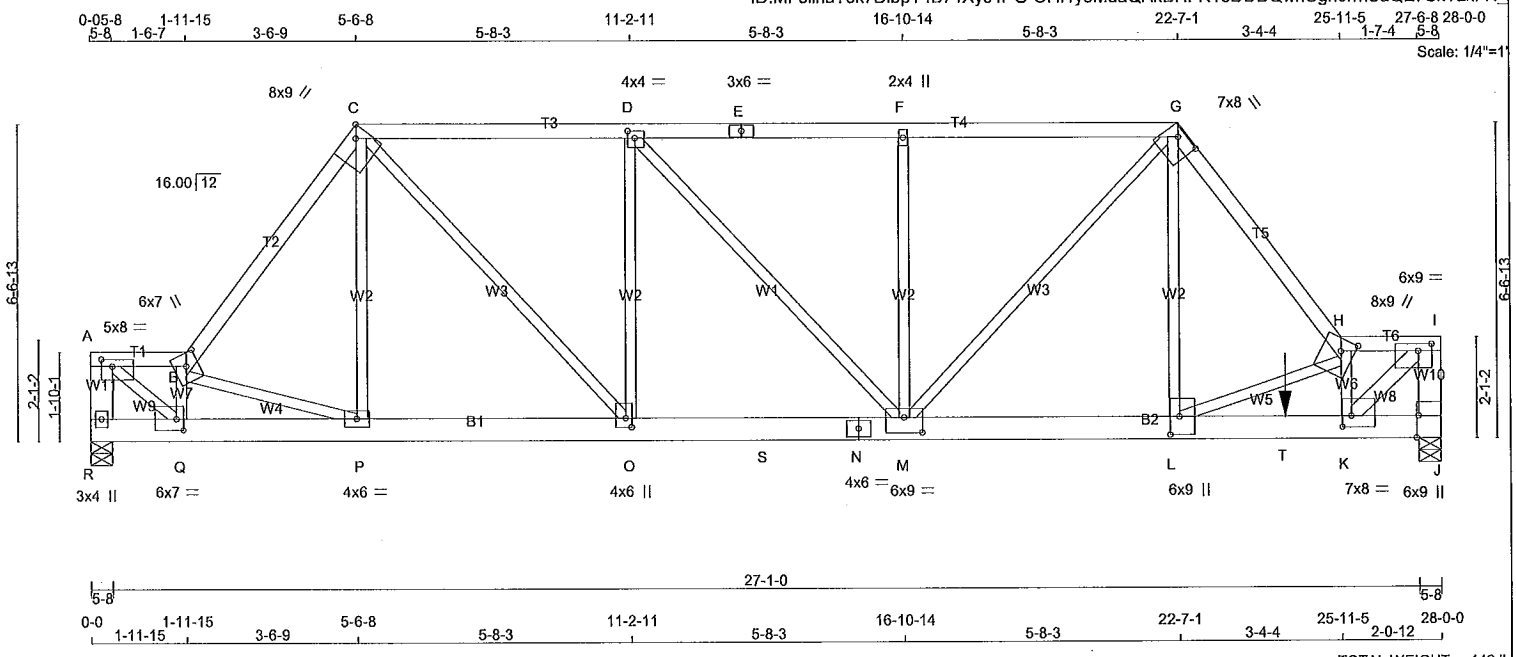






TOTAL WEIGHT = 142 lb

[M]

## LUMBER

N. L. G. A. RULES

| CHORDS | SIZE | | LUMBER | DESCR. |
|---|---|---|---|---|
| R - A | 2x6 | DRY | No.2 | SPF |
| A - B | 2x4 | DRY | No.2 | SPF |
| B - C | 2x4 | DRY | No.2 | SPF |
| C - E | 2x4 | DRY | 2100F 1.8E | SPF |
| E - G | 2x4 | DRY | 2100F 1.8E | SPF |
| G - H | 2x4 | DRY | 1650F 1.5E | SPF |
| H - I | 2x4 | DRY | No.2 | SPF |
| J - I | 2x6 | DRY | No.2 | SPF |
| R - N | 2x6 | DRY | 1650F 1.5E | SPF |
| N - J | 2x6 | DRY | 1650F 1.5E | SPF |
| ALL WEBS EXCEPT | 2x3 | DRY | No.2 | SPF |
| K - I | 2x4 | DRY | 1650F 1.5E | SPF |

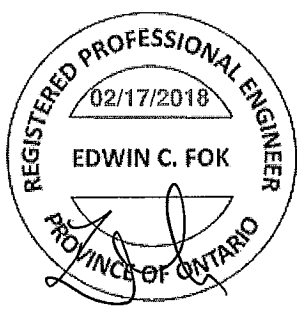
DRY: SEASONED LUMBER.

## PLATES (table Is In Inches)

| JT | TYPE | PLATES | W | LEN | Y | X |
|---|---|---|---|---|---|---|
| A | TMVW-t | MT20 | 5.0 | 8.0 | 1.75 | 2.75 |
| B | TTWW+m | MT20 | 6.0 | 7.0 | 3.25 | 3.00 |
| C | TTWW-h | MT20 | 8.0 | 9.0 | Edge | 2.75 |
| D | TMWW-t | MT20 | 4.0 | 4.0 | 1.75 | 1.75 |
| E | TS-t | MT20 | 3.0 | 6.0 | | |
| F | TMW+w | MT20 | 2.0 | 4.0 | | |
| G | TTWW-h | MT20 | 7.0 | 8.0 | 1.75 | 5.00 |
| H | TTWW+m | MT20 | 8.0 | 9.0 | 3.00 | 3.25 |
| I | TMVW-t | MT20 | 6.0 | 9.0 | 1.75 | 3.25 |
| J | BMV1+t | MT20 | 6.0 | 9.0 | Edge | 0.50 |
| K | BMWW-t | MT20 | 7.0 | 8.0 | 2.75 | 2.25 |
| L | BMWW+t | MT20 | 6.0 | 9.0 | 4.50 | 2.25 |
| M | BMWWW-t | MT20 | 6.0 | 9.0 | 3.75 | 4.50 |
| N | BS-t | MT20 | 4.0 | 6.0 | | |
| O | BMWW+t | MT20 | 4.0 | 6.0 | 2.25 | 1.50 |
| P | BMWW-t | MT20 | 4.0 | 6.0 | | |
| Q | BMWW-t | MT20 | 6.0 | 7.0 | 2.75 | 1.75 |
| R | BMV1+p | MT20 | 3.0 | 4.0 | | |

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

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




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

## BEARINGS

| | FACTORED GROSS REACTION | | MAXIMUM FACTORED GROSS REACTION | | | INPUT BRG | REQRD BRG |
|---|---|---|---|---|---|---|---|
| JT | VERT | HORZ | DOWN | HORZ | UPLIFT | IN-SX | IN-SX |
| R | 2285 | 0 | 2285 | 0 | 0 | 5-8 | 2-8 |
| J | 3974 | 0 | 3974 | 0 | 0 | 5-8 | 5-8 |

## UNFACTORED REACTIONS

| | 1ST LCASE | MAX./MIN. COMPONENT REACTIONS | | | | | |
|---|---|---|---|---|---|---|---|
| JT | COMBINED | SNOW | LIVE | PERM.LIVE | WIND | DEAD | SOIL |
| R | 1629 | 995 / 0 | 0 / 0 | 0 / 0 | 0 / 0 | 635 / 0 | 0 / 0 |
| J | 2833 | 1729 / 0 | 0 / 0 | 0 / 0 | 0 / 0 | 1104 / 0 | 0 / 0 |

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

## BRACING

TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 3.08 FT.
MAX. UNBRACED BOTTOM CHORD LENGTH = 10.00 FT OR RIGID CEILING DIRECTLY APPLIED.

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

## LOADING

TOTAL LOAD CASES: (4)

| CHORDS MEMB. FR-TO | MAX. FACTORED FORCE (LBS) | FACTORED VERT. LOAD (PLF) FROM | TO | LC1 CSI (LC) | MAX. UNBRAC LENGTH | WEBS MEMB. FR-TO | MAX. FACTORED FORCE (LBS) | MAX CSI (LC) |
|---|---|---|---|---|---|---|---|---|
| R- A | -2081 / 0 | 0.0 | 0.0 | 0.15 (1) | 7.00 | A- Q | 0 / 3374 | 0.84 (1) |
| A- B | -2667 / 0 | -78.0 | -78.0 | 0.15 (1) | 4.10 | Q- B | -2322 / 0 | 0.36 (1) |
| B- C | -3037 / 0 | -78.0 | -78.0 | 0.41 (1) | 3.68 | B- P | -1088 / 0 | 0.31 (1) |
| C- D | -3218 / 0 | -78.0 | -78.0 | 0.34 (1) | 4.42 | P- C | 0 / 586 | 0.14 (1) |
| D- E | -3970 / 0 | -78.0 | -78.0 | 0.39 (1) | 4.02 | C- O | 0 / 2041 | 0.51 (1) |
| E- F | -3970 / 0 | -78.0 | -78.0 | 0.39 (1) | 4.02 | O- D | -1281 / 0 | 0.86 (1) |
| F- G | -3970 / 0 | -78.0 | -78.0 | 0.36 (1) | 4.04 | D- M | 0 / 1112 | 0.28 (1) |
| G- H | -4928 / 0 | -78.0 | -78.0 | 0.37 (1) | 3.45 | M- F | -444 / 0 | 0.30 (1) |
| H- I | -4447 / 0 | -78.0 | -78.0 | 0.31 (1) | 3.08 | M- G | 0 / 1428 | 0.35 (1) |
| J- I | -3886 / 0 | 0.0 | 0.0 | 0.29 (1) | 5.39 | L- G | 0 / 2547 | 0.63 (1) |
| | | | | | | L- H | -1892 / 0 | 0.51 (1) |
| R- Q | 0 / 0 | -18.5 | -18.5 | 0.18 (1) | 10.00 | K- H | -3442 / 0 | 0.55 (1) |
| Q- P | 0 / 2836 | -18.5 | -18.5 | 0.41 (1) | 10.00 | K- I | 0 / 5921 | 0.76 (1) |
| P- O | 0 / 1832 | -18.5 | -18.5 | 0.21 (1) | 10.00 | | | |
| O- S | 0 / 3218 | -18.5 | -18.5 | 0.56 (1) | 10.00 | | | |
| S- N | 0 / 3218 | -271.7 | -271.7 | 0.56 (1) | 10.00 | | | |
| N- M | 0 / 3218 | -271.7 | -271.7 | 0.56 (1) | 10.00 | | | |
| M- L | 0 / 3000 | -271.7 | -271.7 | 0.59 (1) | 10.00 | | | |
| L- T | 0 / 4660 | -271.7 | -271.7 | 0.78 (1) | 10.00 | | | |
| T- K | 0 / 4660 | -18.5 | -18.5 | 0.78 (1) | 10.00 | | | |
| K- J | 0 / 0 | -18.5 | -18.5 | 0.07 (1) | 10.00 | | | |

FACTORED CONCENTRATED LOADS (LBS)

| JT | LOC. | LC1 | MAX- | MAX+ | FACE | DIR. | TYPE |
|---|---|---|---|---|---|---|---|
| T | 24-9-4 | -830 | -830 | --- | FRONT | VERT | TOTAL |

## DESIGN CRITERIA

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

SPECIFIED LOADS:

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

SPACING = 24.0 IN. C/C

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

GIRDER TYPE: CStdGirder
START DISTANCE = 14-0-0
START SPAN CARRIED = 12-6-0
END DISTANCE = 24-9-4
END SPAN CARRIED = 12-6-0
END WALL WIDTH = 0-0
APPLIED TO FRONT SIDE OF BOTTOM CHORD.
- ADDT'L LOADS BASED ON 55 % OF GSL.

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

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

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

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

ALLOWABLE DEFL.(LL)= L/360 (0.93")
CALCULATED VERT. DEFL.(LL) = L/ 999 (0.15")
ALLOWABLE DEFL.(TL)= L/360 (0.93")
CALCULATED VERT. DEFL.(TL) = L/ 999 (0.30")

CSI: TC=0.41/1.00 (B-C:1) , BC=0.78/1.00 (K-L:1) , WB=0.86/1.00 (D-O:1) , SSI=0.63/1.00 (K-L:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

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

NAIL VALUES

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

A-18023444

CONTINUED ON PAGE 2

| JOB NAME | TRUSS NAME | QUANTITY | PLY | JOB DESC. | DRWG NO. |
|---|---|---|---|---|---|
| 292589 | H14 | 1 | 1 | TRUSS DESC. | |

Alpa Roof Truss, Maple

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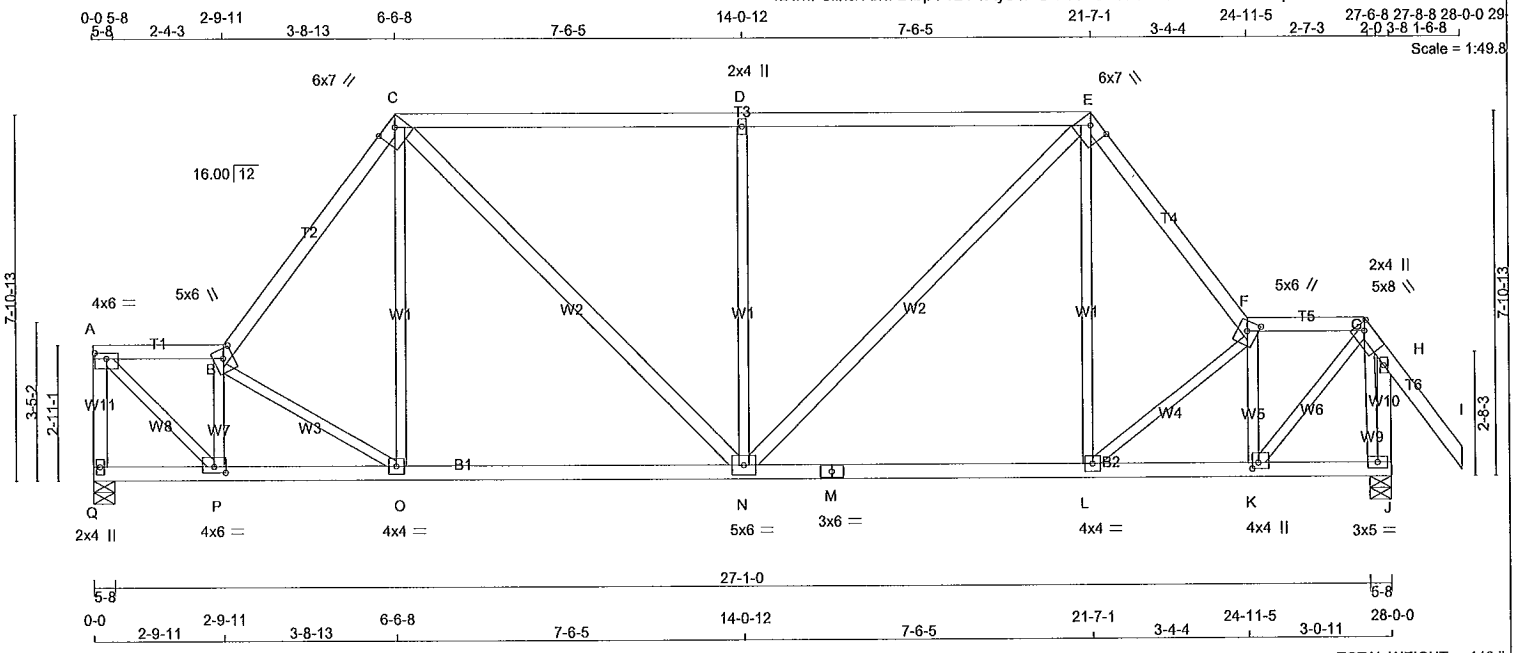



TOTAL WEIGHT = 140 lb

[M]

**LUMBER**

N. L. G. A. RULES

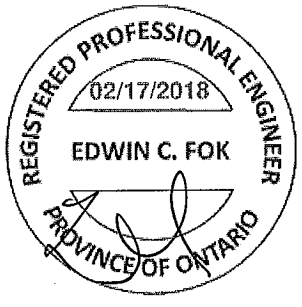
| CHORDS | SIZE | | LUMBER | DESCR. |
|---|---|---|---|---|
| Q - A | 2x4 | DRY | No.2 | SPF |
| A - B | 2x4 | DRY | No.2 | SPF |
| B - C | 2x4 | DRY | No.2 | SPF |
| C - E | 2x4 | DRY | No.2 | SPF |
| E - F | 2x4 | DRY | No.2 | SPF |
| F - G | 2x4 | DRY | No.2 | SPF |
| G - I | 2x4 | DRY | No.2 | SPF |
| J - H | 2x4 | DRY | No.2 | SPF |
| Q - M | 2x4 | DRY | No.2 | SPF |
| M - J | 2x4 | DRY | No.2 | SPF |
| ALL WEBS EXCEPT | 2x3 | DRY | No.2 | SPF |
| C - N | 2x4 | DRY | No.2 | SPF |
| N - E | 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 | 6.0 | 1.50 | 3.00 |
| B | TTWW+m | MT20 | 5.0 | 6.0 | 2.50 | 2.50 |
| C | TTWW-h | MT20 | 6.0 | 7.0 | 2.00 | 4.25 |
| D | TMW+w | MT20 | 2.0 | 4.0 | | |
| E | TTWW-h | MT20 | 6.0 | 7.0 | 2.00 | 4.25 |
| F | TTWW+m | MT20 | 5.0 | 6.0 | 2.50 | 2.50 |
| G | TTWW-h | MT20 | 5.0 | 8.0 | 2.00 | 2.00 |
| H | TMV+p | MT20 | 2.0 | 4.0 | | |
| J | BMVW1-t | MT20 | 3.0 | 5.0 | | |
| K | BMWW+t | MT20 | 4.0 | 4.0 | 1.50 | 1.50 |
| L | BMWW-t | MT20 | 4.0 | 4.0 | | |
| M | BS-t | MT20 | 3.0 | 6.0 | | |
| N | BMWWW-t | MT20 | 5.0 | 6.0 | | |
| O | BMWW-t | MT20 | 4.0 | 4.0 | | |
| P | BMWW-t | MT20 | 4.0 | 6.0 | 1.50 | 3.00 |
| Q | 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 VERT | HORZ | MAXIMUM FACTORED GROSS REACTION DOWN | HORZ | UPLIFT | INPUT BRG IN-SX | REQRD BRG IN-SX |
|---|---|---|---|---|---|---|---|
| Q | 1347 | 0 | 1347 | 0 | 0 | 5-8 | 2-0 |
| J | 1484 | 0 | 1484 | 0 | 0 | 5-8 | 1-10 |

**UNFACTORED REACTIONS**

| JT | 1ST LCASE COMBINED | MAX./MIN. COMPONENT REACTIONS SNOW | LIVE | PERM.LIVE | WIND | DEAD | SOIL |
|---|---|---|---|---|---|---|---|
| Q | 960 | 586 / 0 | 0 / 0 | 0 / 0 | 0 / 0 | 375 / 0 | 0 / 0 |
| J | 1055 | 659 / 0 | 0 / 0 | 0 / 0 | 0 / 0 | 396 / 0 | 0 / 0 |

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

**BRACING**

TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 4.10 FT.
MAX. UNBRACED BOTTOM CHORD LENGTH = 10.00 FT OR RIGID CEILING DIRECTLY APPLIED.

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

**LOADING**

TOTAL LOAD CASES: (4)

| CHORDS MEMB. FR-TO | MAX. FACTORED FORCE (LBS) | FACTORED VERT. LOAD (PLF) FROM | TO | LC1 MAX CSI (LC) | MAX. UNBRAC LENGTH |
|---|---|---|---|---|---|
| Q- A | -1313 / 0 | 0.0 | 0.0 | 0.19 (1) | 7.05 |
| A- B | -1259 / 0 | -78.0 | -78.0 | 0.12 (1) | 5.60 |
| B- C | -1493 / 0 | -78.0 | -78.0 | 0.25 (1) | 5.13 |
| C- D | -1318 / 0 | -78.0 | -78.0 | 0.90 (1) | 4.10 |
| D- E | -1318 / 0 | -78.0 | -78.0 | 0.90 (1) | 4.10 |
| E- F | -1460 / 0 | -78.0 | -78.0 | 0.20 (1) | 5.22 |
| F- G | -1117 / 0 | -78.0 | -78.0 | 0.10 (1) | 5.89 |
| G- H | -157 / 0 | -78.0 | -78.0 | 0.15 (1) | 6.25 |
| H- I | 0 / 52 | -78.0 | -78.0 | 0.15 (1) | 10.00 |
| J- H | -343 / 0 | 0.0 | 0.0 | 0.05 (1) | 7.81 |
| Q- P | 0 / 0 | -18.5 | -18.5 | 0.04 (4) | 10.00 |
| P- O | 0 / 1306 | -18.5 | -18.5 | 0.30 (1) | 10.00 |
| O- N | 0 / 901 | -18.5 | -18.5 | 0.31 (4) | 10.00 |
| N- M | 0 / 881 | -18.5 | -18.5 | 0.31 (4) | 10.00 |
| M- L | 0 / 881 | -18.5 | -18.5 | 0.31 (4) | 10.00 |
| L- K | 0 / 1156 | -18.5 | -18.5 | 0.27 (1) | 10.00 |
| K- J | 0 / 201 | -18.5 | -18.5 | 0.07 (1) | 10.00 |

| WEBS MEMB. FR-TO | MAX. FACTORED FORCE (LBS) | MAX CSI (LC) |
|---|---|---|
| A- P | 0 / 1757 | 0.40 (1) |
| P- B | -1195 / 0 | 0.21 (1) |
| B- O | -495 / 0 | 0.17 (1) |
| O- C | 0 / 400 | 0.09 (1) |
| C- N | 0 / 592 | 0.10 (1) |
| N- D | -714 / 0 | 0.84 (1) |
| N- E | 0 / 620 | 0.10 (1) |
| L- E | 0 / 368 | 0.08 (1) |
| L- F | -375 / 0 | 0.13 (1) |
| K- F | -1147 / 0 | 0.23 (1) |
| K- G | 0 / 1495 | 0.34 (1) |
| G- J | -1127 / 0 | 0.21 (1) |

**DESIGN CRITERIA**

SPECIFIED LOADS:

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

**SPACING = 24.0 IN. C/C**

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

THIS TRUSS IS DESIGNED FOR RESIDENTIAL OR SMALL BUILDING REQUIREMENTS OF PART 9, NBCC 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 (0.93")
CALCULATED VERT. DEFL.(LL) = L/ 999 (0.05")
ALLOWABLE DEFL.(TL)= L/360 (0.93")
CALCULATED VERT. DEFL.(TL) = L/ 999 (0.14")

CSI: TC=0.90/1.00 (C-D:1) , BC=0.31/1.00 (N-O:4) , WB=0.84/1.00 (D-N:1) , SSI=0.29/1.00 (C-D:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

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

NAIL VALUES

| PLATE | GRIP(DRY) (PSI) MAX | MIN | SHEAR (PLI) MAX | MIN | 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= 0.90 (G) (INPUT = 0.90 )
JSI METAL= 0.42 (K) (INPUT = 1.00 )

A-18023445

| JOB NAME | TRUSS NAME | QUANTITY | PLY | JOB DESC. | DRWG NO. |
|---|---|---|---|---|---|
| 292589 | H15 | 1 | 1 | TRUSS DESC. | |

Alpa Roof Truss, Maple

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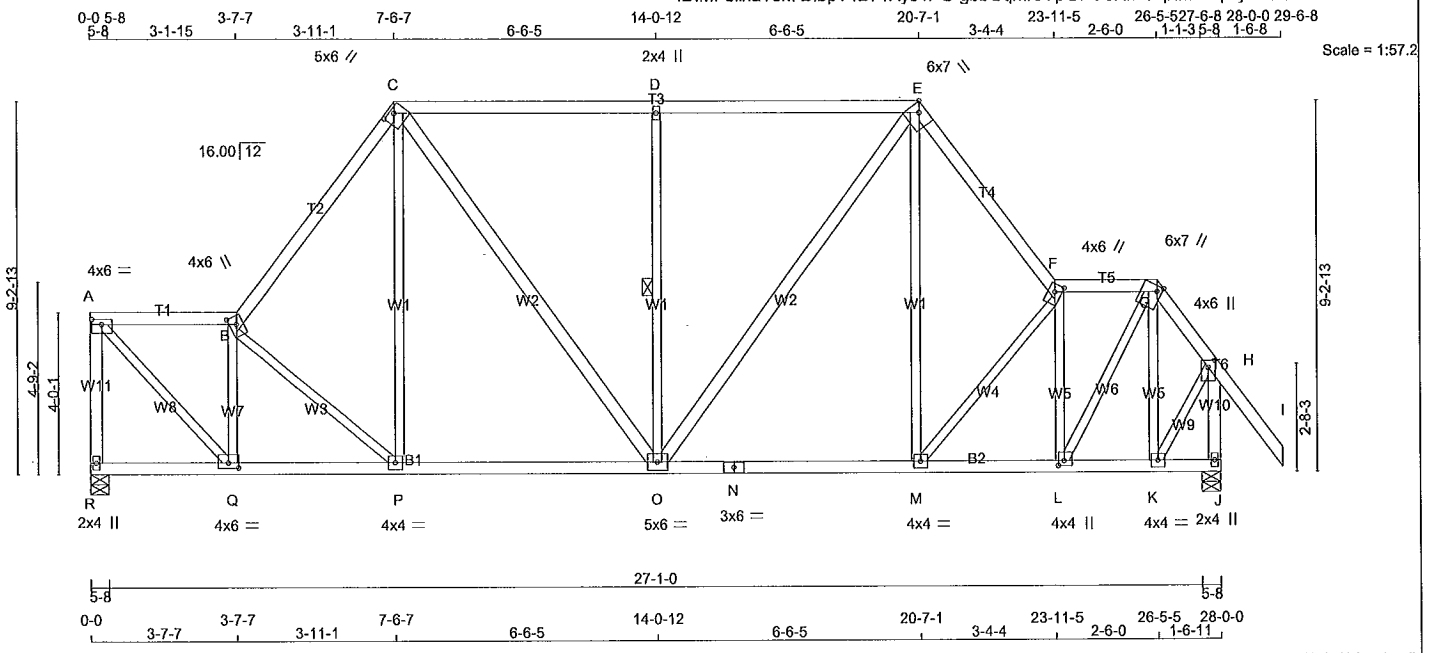


## LUMBER

N. L. G. A. RULES

| CHORDS | SIZE | | LUMBER | DESCR. |
|---|---|---|---|---|
| R - A | 2x4 | DRY | No.2 | SPF |
| A - B | 2x4 | DRY | No.2 | SPF |
| B - C | 2x4 | DRY | No.2 | SPF |
| C - E | 2x4 | DRY | No.2 | SPF |
| E - F | 2x4 | DRY | No.2 | SPF |
| F - G | 2x4 | DRY | No.2 | SPF |
| G - I | 2x4 | DRY | No.2 | SPF |
| J - H | 2x4 | DRY | No.2 | SPF |
| R - N | 2x4 | DRY | No.2 | SPF |
| N - J | 2x4 | DRY | No.2 | SPF |
| ALL WEBS EXCEPT | 2x3 | DRY | No.2 | SPF |
| C - O | 2x4 | DRY | No.2 | SPF |
| O - E | 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 | 6.0 | 1.50 | 3.00 |
| B | TTWW+m | MT20 | 4.0 | 6.0 | 2.50 | 2.00 |
| C | TTWW-h | MT20 | 5.0 | 6.0 | 1.25 | 3.00 |
| D | TMW+w | MT20 | 2.0 | 4.0 | | |
| E | TTWW-h | MT20 | 6.0 | 7.0 | Edge | 2.75 |
| F | TTWW+m | MT20 | 4.0 | 6.0 | 2.25 | 2.00 |
| G | TTWW+m | MT20 | 6.0 | 7.0 | Edge | 1.50 |
| H | TMVW+p | MT20 | 4.0 | 6.0 | 2.00 | 2.00 |
| J | BMV1+p | MT20 | 2.0 | 4.0 | | |
| K, M, P | | | | | | |
| K | BMWW-t | MT20 | 4.0 | 4.0 | | |
| L | BMWW+t | MT20 | 4.0 | 4.0 | 1.50 | 1.75 |
| N | BS-t | MT20 | 3.0 | 6.0 | | |
| O | BMWWW-t | MT20 | 5.0 | 6.0 | | |
| Q | BMWW-t | MT20 | 4.0 | 6.0 | 1.50 | 3.00 |
| R | 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

REGISTERED PROFESSIONAL ENGINEER
02/17/2018
EDWIN C. FOK
PROVINCE OF ONTARIO

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

## BEARINGS

| JT | FACTORED GROSS REACTION VERT | HORZ | MAXIMUM FACTORED GROSS REACTION DOWN | HORZ | UPLIFT | INPUT BRG | REQRD BRG |
|---|---|---|---|---|---|---|---|
| R | 1347 | 0 | 1347 | 0 | 0 | 5-8 | 2-0 |
| J | 1484 | 0 | 1484 | 0 | 0 | 5-8 | 2-3 |

## UNFACTORED REACTIONS

| JT | 1ST LCASE COMBINED | MAX./MIN. COMPONENT REACTIONS SNOW | LIVE | PERM.LIVE | WIND | DEAD | SOIL |
|---|---|---|---|---|---|---|---|
| R | 960 | 586 / 0 | 0 / 0 | 0 / 0 | 0 / 0 | 375 / 0 | 0 / 0 |
| J | 1055 | 659 / 0 | 0 / 0 | 0 / 0 | 0 / 0 | 396 / 0 | 0 / 0 |

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

## BRACING

TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 5.05 FT.
MAX. UNBRACED BOTTOM CHORD LENGTH = 10.00 FT OR RIGID CEILING DIRECTLY APPLIED.

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

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

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

## LOADING

TOTAL LOAD CASES: (4)

| CHORDS MEMB. | FR-TO | MAX. FACTORED FORCE (LBS) | FACTORED VERT. LOAD LC1 (PLF) FROM | TO | MAX CSI (LC) | MAX. UNBRAC LENGTH | WEBS MEMB. | FR-TO | MAX. FACTORED FORCE (LBS) | MAX CSI (LC) |
|---|---|---|---|---|---|---|---|---|---|---|
| R- A | | -1314 / 0 | 0.0 | 0.0 | 0.33 (1) | 7.05 | A- Q | | 0 / 1635 | 0.37 (1) |
| A- B | | -1124 / 0 | -78.0 | -78.0 | 0.19 (1) | 5.75 | Q- B | | -1129 / 0 | 0.28 (1) |
| B- C | | -1391 / 0 | -78.0 | -78.0 | 0.27 (1) | 5.25 | B- P | | -435 / 0 | 0.21 (1) |
| C- D | | -1104 / 0 | -78.0 | -78.0 | 0.63 (1) | 5.05 | P- C | | 0 / 398 | 0.09 (1) |
| D- E | | -1104 / 0 | -78.0 | -78.0 | 0.63 (1) | 5.05 | C- O | | 0 / 448 | 0.07 (1) |
| E- F | | -1367 / 0 | -78.0 | -78.0 | 0.19 (1) | 5.36 | O- D | | -616 / 0 | 0.34 (1) |
| F- G | | -1010 / 0 | -78.0 | -78.0 | 0.09 (1) | 6.12 | O- E | | 0 / 473 | 0.08 (1) |
| G- H | | -812 / 0 | -78.0 | -78.0 | 0.15 (1) | 6.25 | M- E | | 0 / 381 | 0.09 (1) |
| H- I | | 0 / 52 | -78.0 | -78.0 | 0.15 (1) | 10.00 | M- F | | -349 / 0 | 0.18 (1) |
| J- H | | -1486 / 0 | 0.0 | 0.0 | 0.21 (1) | 6.73 | L- F | | -1047 / 0 | 0.35 (1) |
| | | | | | | | L- G | | 0 / 1208 | 0.27 (1) |
| R- Q | | 0 / 0 | -18.5 | -18.5 | 0.05 (4) | 10.00 | K- G | | -542 / 0 | 0.18 (1) |
| Q- P | | 0 / 1156 | -18.5 | -18.5 | 0.25 (1) | 10.00 | K- H | | 0 / 762 | 0.17 (1) |
| P- O | | 0 / 839 | -18.5 | -18.5 | 0.25 (4) | 10.00 | | | | |
| O- N | | 0 / 825 | -18.5 | -18.5 | 0.25 (4) | 10.00 | | | | |
| N- M | | 0 / 825 | -18.5 | -18.5 | 0.25 (4) | 10.00 | | | | |
| M- L | | 0 / 1035 | -18.5 | -18.5 | 0.23 (1) | 10.00 | | | | |
| L- K | | 0 / 434 | -18.5 | -18.5 | 0.11 (1) | 10.00 | | | | |
| K- J | | 0 / 0 | -18.5 | -18.5 | 0.04 (1) | 10.00 | | | | |

[M]

## DESIGN CRITERIA

SPECIFIED LOADS:

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

SPACING = 24.0 IN. C/C

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

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

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

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 (0.93")
CALCULATED VERT. DEFL.(LL) = L/ 999 (0.05")
ALLOWABLE DEFL.(TL)= L/360 (0.93")
CALCULATED VERT. DEFL.(TL) = L/ 999 (0.11")

CSI: TC=0.63/1.00 (C-D:1) , BC=0.25/1.00 (O-P:4) , WB=0.37/1.00 (A-Q:1) , SSI=0.25/1.00 (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) MAX | MIN | SHEAR (PLI) MAX | MIN | 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= 0.89 (B) (INPUT = 0.90 )
JSI METAL= 0.35 (B) (INPUT = 1.00 )

A-18023446

CONTINUED ON PAGE 2

| JOB NAME | TRUSS NAME | QUANTITY | PLY | JOB DESC. | DRWG NO. |
|---|---|---|---|---|---|
| 292589 | H16 | 1 | 1 | TRUSS DESC. | |

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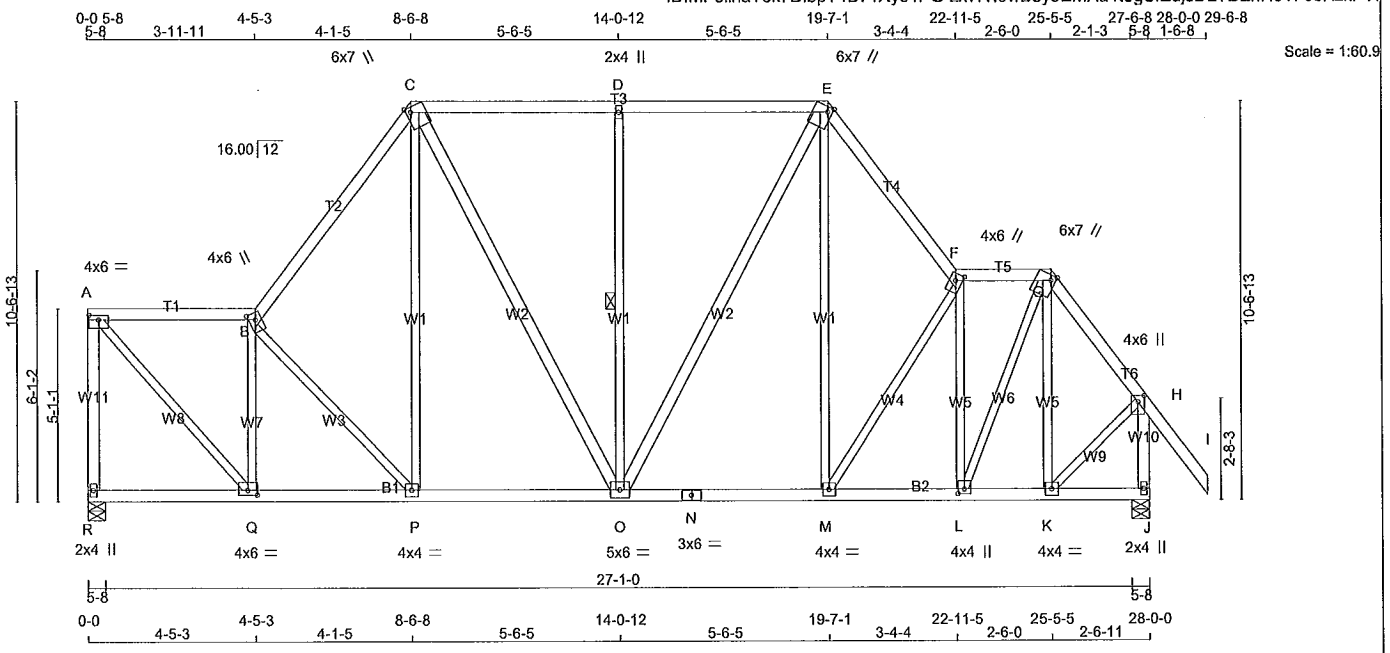



TOTAL WEIGHT = 169 lb

[M]

**LUMBER**

N. L. G. A. RULES

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

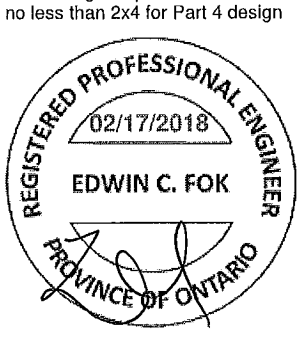
DRY: SEASONED LUMBER.

**PLATES (table is in inches)**

| JT | TYPE | PLATES | W | LEN | Y | X |
|---|---|---|---|---|---|---|
| A | TMVW-t | MT20 | 4.0 | 6.0 | 1.50 | 3.00 |
| B | TTWW+m | MT20 | 4.0 | 6.0 | 2.25 | 2.00 |
| C, E, G | | | | | | |
| C | TTWW+m | MT20 | 6.0 | 7.0 | Edge | 1.50 |
| D | TMW+w | MT20 | 2.0 | 4.0 | | |
| F | TTWW+m | MT20 | 4.0 | 6.0 | 2.25 | 2.00 |
| H | TMVW+p | MT20 | 4.0 | 6.0 | 2.00 | 2.00 |
| J | BMV1+p | MT20 | 2.0 | 4.0 | | |
| K, M, P | | | | | | |
| K | BMWW-t | MT20 | 4.0 | 4.0 | | |
| L | BMWW+t | MT20 | 4.0 | 4.0 | 1.50 | 2.00 |
| N | BS-t | MT20 | 3.0 | 6.0 | | |
| O | BMWWW-t | MT20 | 5.0 | 6.0 | | |
| Q | BMWW-t | MT20 | 4.0 | 6.0 | 1.50 | 3.00 |
| R | 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**

| | FACTORED GROSS REACTION | | MAXIMUM FACTORED GROSS REACTION | | | INPUT BRG | REQRD BRG |
|---|---|---|---|---|---|---|---|
| JT | VERT | HORZ | DOWN | HORZ | UPLIFT | IN-SX | IN-SX |
| R | 1351 | 0 | 1351 | 0 | 0 | 5-8 | 2-0 |
| J | 1480 | 0 | 1480 | 0 | 0 | 5-8 | 2-3 |

**UNFACTORED REACTIONS**

| | 1ST LCASE | MAX./MIN. COMPONENT REACTIONS | | | | | |
|---|---|---|---|---|---|---|---|
| JT | COMBINED | SNOW | LIVE | PERM.LIVE | WIND | DEAD | SOIL |
| R | 963 | 588 / 0 | 0 / 0 | 0 / 0 | 0 / 0 | 375 / 0 | 0 / 0 |
| J | 1052 | 657 / 0 | 0 / 0 | 0 / 0 | 0 / 0 | 395 / 0 | 0 / 0 |

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

**BRACING**

TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 5.35 FT.
MAX. UNBRACED BOTTOM CHORD LENGTH = 10.00 FT OR RIGID CEILING DIRECTLY APPLIED.

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

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

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

**LOADING**

TOTAL LOAD CASES: (4)

| CHORDS MEMB. FR-TO | FORCE (LBS) | FACTORED VERT. LOAD (PLF) FROM | TO | LC1 MAX CSI (LC) | MAX. UNBRAC LENGTH | WEBS MEMB. FR-TO | MAX. FACTORED FORCE (LBS) | MAX CSI (LC) |
|---|---|---|---|---|---|---|---|---|
| R- A | -1315 / 0 | 0.0 | 0.0 | 0.58 (1) | 7.05 | A- Q | 0 / 1553 | 0.35 (1) |
| A- B | -1040 / 0 | -78.0 | -78.0 | 0.28 (1) | 5.79 | Q- B | -1072 / 0 | 0.41 (1) |
| B- C | -1305 / 0 | -78.0 | -78.0 | 0.29 (1) | 5.35 | B- P | -423 / 0 | 0.30 (1) |
| C- D | -953 / 0 | -78.0 | -78.0 | 0.43 (1) | 5.74 | P- C | 0 / 405 | 0.09 (1) |
| D- E | -953 / 0 | -78.0 | -78.0 | 0.43 (1) | 5.74 | C- O | 0 / 349 | 0.06 (1) |
| E- F | -1294 / 0 | -78.0 | -78.0 | 0.19 (1) | 5.48 | O- D | -518 / 0 | 0.41 (1) |
| F- G | -953 / 0 | -78.0 | -78.0 | 0.09 (1) | 6.25 | O- E | 0 / 363 | 0.06 (1) |
| G- H | -940 / 0 | -78.0 | -78.0 | 0.10 (1) | 6.25 | M- E | 0 / 414 | 0.09 (1) |
| H- I | 0 / 52 | -78.0 | -78.0 | 0.15 (1) | 10.00 | M- F | -376 / 0 | 0.30 (1) |
| J- H | -1467 / 0 | 0.0 | 0.0 | 0.21 (1) | 6.76 | L- F | -941 / 0 | 0.55 (1) |
| | | | | | | L- G | 0 / 1044 | 0.23 (1) |
| R- Q | 0 / 0 | -18.5 | -18.5 | 0.07 (4) | 10.00 | K- G | -405 / 0 | 0.24 (1) |
| Q- P | 0 / 1063 | -18.5 | -18.5 | 0.21 (1) | 10.00 | K- H | 0 / 738 | 0.17 (1) |
| P- O | 0 / 787 | -18.5 | -18.5 | 0.20 (4) | 10.00 | | | |
| O- N | 0 / 781 | -18.5 | -18.5 | 0.20 (4) | 10.00 | | | |
| N- M | 0 / 781 | -18.5 | -18.5 | 0.20 (4) | 10.00 | | | |
| M- L | 0 / 970 | -18.5 | -18.5 | 0.20 (1) | 10.00 | | | |
| L- K | 0 / 552 | -18.5 | -18.5 | 0.13 (1) | 10.00 | | | |
| K- J | 0 / 0 | -18.5 | -18.5 | 0.04 (4) | 10.00 | | | |

**DESIGN CRITERIA**

SPECIFIED LOADS:

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

**SPACING = 24.0 IN. C/C**

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

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

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

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

ALLOWABLE DEFL.(LL)= L/360 (0.93")
CALCULATED VERT. DEFL.(LL) = L/ 999 (0.05")
ALLOWABLE DEFL.(TL)= L/360 (0.93")
CALCULATED VERT. DEFL.(TL) = L/ 999 (0.10")

CSI: TC=0.58/1.00 (A-R:1) , BC=0.21/1.00 (P-Q:1) , WB=0.55/1.00 (F-L:1) , SSI=0.21/1.00 (D-E:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

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

NAIL VALUES

| PLATE | GRIP(DRY) (PSI) MAX | MIN | SHEAR (PLI) MAX | MIN | 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= 0.86 (E) (INPUT = 0.90 )
JSI METAL= 0.35 (H) (INPUT = 1.00 )

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CONTINUED ON PAGE 2

| JOB NAME | TRUSS NAME | QUANTITY | PLY | JOB DESC. | DRWG NO. |
|---|---|---|---|---|---|
| 292589 | H17 | 1 | 1 | TRUSS DESC. | |

Alpa Roof Truss, Maple



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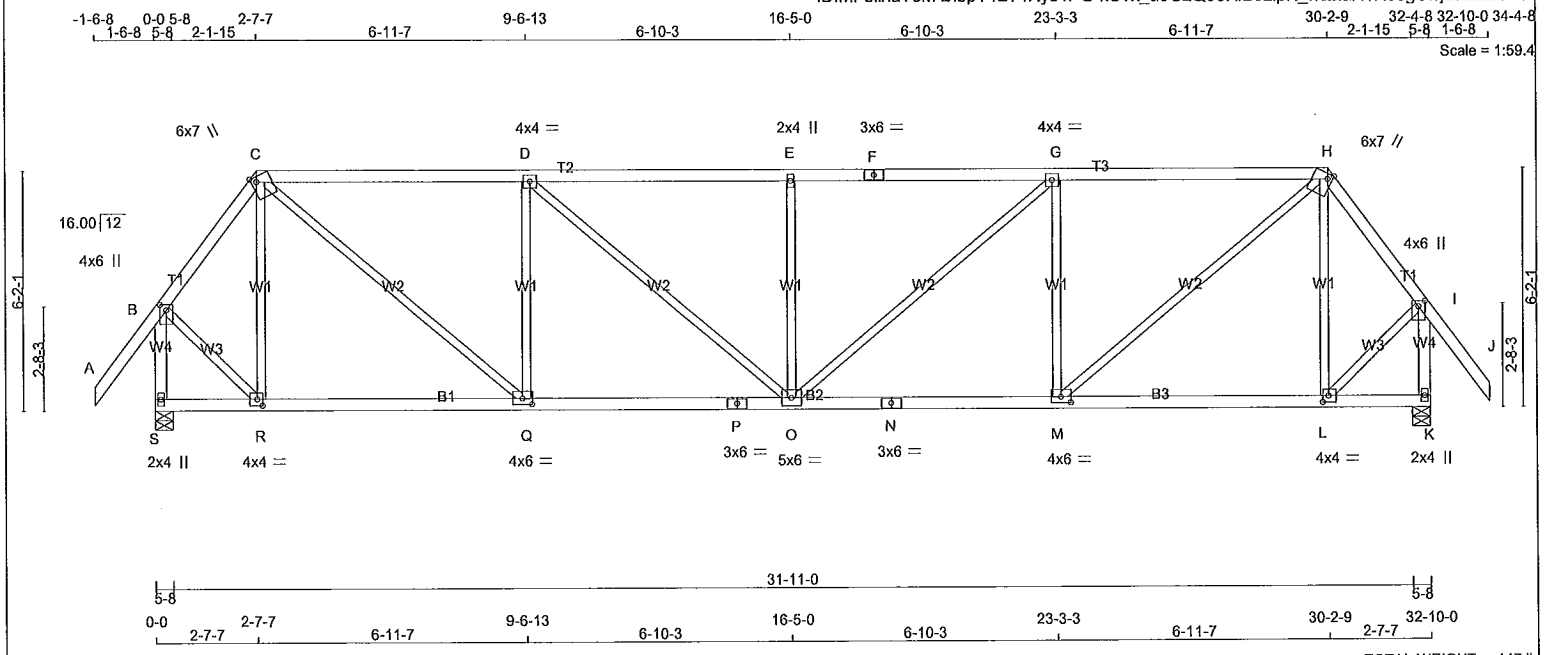



TOTAL WEIGHT = 147 lb [M]

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

| CHORDS | SIZE | | LUMBER | DESCR. |
|---|---|---|---|---|
| A - C | 2x4 | DRY | No.2 | SPF |
| C - F | 2x4 | DRY | No.2 | SPF |
| F - H | 2x4 | DRY | No.2 | SPF |
| H - J | 2x4 | DRY | No.2 | SPF |
| S - B | 2x4 | DRY | No.2 | SPF |
| K - I | 2x4 | DRY | No.2 | SPF |
| S - P | 2x4 | DRY | No.2 | SPF |
| P - N | 2x4 | DRY | No.2 | SPF |
| N - K | 2x4 | DRY | No.2 | SPF |
| ALL WEBS EXCEPT | 2x3 | DRY | No.2 | SPF |

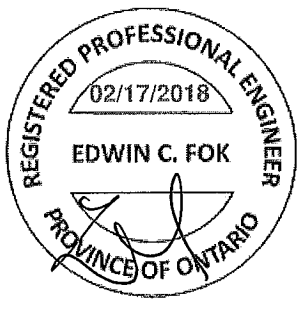
DRY: SEASONED LUMBER.

**PLATES (table Is In Inches)**

| JT | TYPE | PLATES | W | LEN | Y | X |
|---|---|---|---|---|---|---|
| B | TMVW+p | MT20 | 4.0 | 6.0 | 1.75 | 2.00 |
| C | TTWW+m | MT20 | 6.0 | 7.0 | Edge | 1.50 |
| D | TMWW-t | MT20 | 4.0 | 4.0 | | |
| E | TMW+w | MT20 | 2.0 | 4.0 | | |
| F | TS-t | MT20 | 3.0 | 6.0 | | |
| G | TMWW-t | MT20 | 4.0 | 4.0 | | |
| H | TTWW+m | MT20 | 6.0 | 7.0 | Edge | 1.50 |
| I | TMVW+p | MT20 | 4.0 | 6.0 | 1.75 | 2.00 |
| K | BMV1+p | MT20 | 2.0 | 4.0 | | |
| L | BMWW-t | MT20 | 4.0 | 4.0 | 2.00 | 1.75 |
| M | BMWW-t | MT20 | 4.0 | 6.0 | 1.75 | 3.00 |
| N | BS-t | MT20 | 3.0 | 6.0 | | |
| O | BMWWW-t | MT20 | 5.0 | 6.0 | | |
| P | BS-t | MT20 | 3.0 | 6.0 | | |
| Q | BMWW-t | MT20 | 4.0 | 6.0 | 1.75 | 3.00 |
| R | BMWW-t | MT20 | 4.0 | 4.0 | 2.00 | 1.75 |
| 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 VERT | HORZ | MAXIMUM FACTORED GROSS REACTION DOWN | HORZ | UPLIFT | INPUT BRG IN-SX | REQRD BRG IN-SX |
|---|---|---|---|---|---|---|---|
| S | 1713 | 0 | 1713 | 0 | 0 | 5-8 | 2-9 |
| K | 1713 | 0 | 1713 | 0 | 0 | 5-8 | 2-9 |

**UNFACTORED REACTIONS**

| JT | 1ST LCASE COMBINED | MAX./MIN. COMPONENT REACTIONS SNOW | LIVE | PERM.LIVE | WIND | DEAD | SOIL |
|---|---|---|---|---|---|---|---|
| S | 1219 | 759 / 0 | 0 / 0 | 0 / 0 | 0 / 0 | 460 / 0 | 0 / 0 |
| K | 1219 | 759 / 0 | 0 / 0 | 0 / 0 | 0 / 0 | 460 / 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 = 3.70 FT.
MAX. UNBRACED BOTTOM CHORD LENGTH = 10.00 FT OR RIGID CEILING DIRECTLY APPLIED.

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

**LOADING**
TOTAL LOAD CASES: (4)

| CHORDS MEMB. FR-TO | MAX. FACTORED FORCE (LBS) | FACTORED VERT. LOAD (PLF) FROM | TO | LC1 MAX CSI (LC) | MAX. UNBRAC LENGTH | WEBS MEMB. FR-TO | MAX. FACTORED FORCE (LBS) | MAX CSI (LC) |
|---|---|---|---|---|---|---|---|---|
| A- B | 0 / 52 | -78.0 | -78.0 | 0.15 (1) | 10.00 | R- C | -457 / 0 | 0.28 (1) |
| B- C | -1134 / 0 | -78.0 | -78.0 | 0.11 (1) | 5.85 | C- Q | 0 / 1615 | 0.36 (1) |
| C- D | -1903 / 0 | -78.0 | -78.0 | 0.73 (1) | 4.03 | Q- D | -910 / 0 | 0.55 (1) |
| D- E | -2262 / 0 | -78.0 | -78.0 | 0.79 (1) | 3.70 | D- O | 0 / 473 | 0.11 (1) |
| E- F | -2262 / 0 | -78.0 | -78.0 | 0.79 (1) | 3.70 | O- E | -492 / 0 | 0.30 (1) |
| F- G | -2262 / 0 | -78.0 | -78.0 | 0.79 (1) | 3.70 | O- G | 0 / 473 | 0.11 (1) |
| G- H | -1903 / 0 | -78.0 | -78.0 | 0.73 (1) | 4.03 | M- G | -910 / 0 | 0.55 (1) |
| H- I | -1134 / 0 | -78.0 | -78.0 | 0.11 (1) | 5.85 | M- H | 0 / 1615 | 0.36 (1) |
| I- J | 0 / 52 | -78.0 | -78.0 | 0.15 (1) | 10.00 | L- H | -457 / 0 | 0.28 (1) |
| S- B | -1710 / 0 | 0.0 | 0.0 | 0.25 (1) | 6.36 | B- R | 0 / 881 | 0.20 (1) |
| K- I | -1710 / 0 | 0.0 | 0.0 | 0.25 (1) | 6.36 | L- I | 0 / 881 | 0.20 (1) |
| S- R | 0 / 0 | -18.5 | -18.5 | 0.13 (4) | 10.00 | | | |
| R- Q | 0 / 666 | -18.5 | -18.5 | 0.24 (4) | 10.00 | | | |
| Q- P | 0 / 1903 | -18.5 | -18.5 | 0.40 (1) | 10.00 | | | |
| P- O | 0 / 1903 | -18.5 | -18.5 | 0.40 (1) | 10.00 | | | |
| O- N | 0 / 1903 | -18.5 | -18.5 | 0.40 (1) | 10.00 | | | |
| N- M | 0 / 1903 | -18.5 | -18.5 | 0.40 (1) | 10.00 | | | |
| M- L | 0 / 666 | -18.5 | -18.5 | 0.24 (4) | 10.00 | | | |
| L- K | 0 / 0 | -18.5 | -18.5 | 0.13 (4) | 10.00 | | | |

**DESIGN CRITERIA**

SPECIFIED LOADS:

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

**SPACING = 24.0 IN. C/C**

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

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

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

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

ALLOWABLE DEFL.(LL)= L/360 (1.09")
CALCULATED VERT. DEFL.(LL) = L/ 999 (0.11")
ALLOWABLE DEFL.(TL)= L/360 (1.09")
CALCULATED VERT. DEFL.(TL) = L/ 999 (0.22")

CSI: TC=0.79/1.00 (E-G:1) , BC=0.40/1.00 (O-Q:1) , WB=0.55/1.00 (D-Q:1) , SSI=0.26/1.00 (G-H:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

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

NAIL VALUES

| PLATE | GRIP(DRY) (PSI) MAX | MIN | SHEAR (PLI) MAX | MIN | 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= 0.90 (K) (INPUT = 0.90 )
JSI METAL= 0.64 (N) (INPUT = 1.00 )

A-18023448

CONTINUED ON PAGE 2

| JOB NAME | TRUSS NAME | QUANTITY | PLY | JOB DESC. | DRWG NO. |
|---|---|---|---|---|---|
| 292589 | H18 | 1 | 1 | TRUSS DESC. | |

Alpa Roof Truss, Maple

Version 8.200 S Jan 6 2018 MiTek Industries, Inc. Sat Feb 17 12:09:13 2018 Page 1

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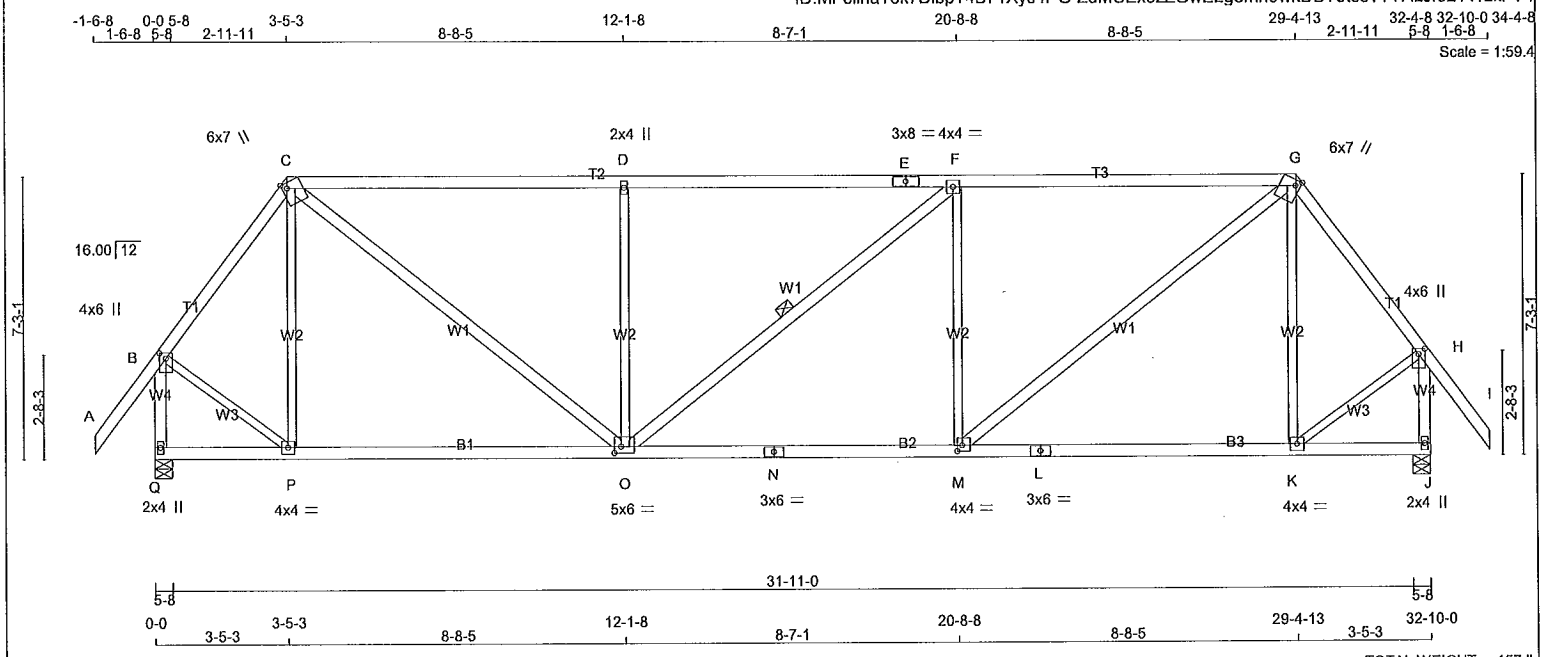



TOTAL WEIGHT = 157 lb

[M]

**LUMBER**

N. L. G. A. RULES

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

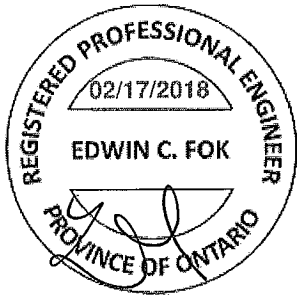
DRY: SEASONED LUMBER.

**PLATES (table is in inches)**

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

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

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




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

**BEARINGS**

| | FACTORED GROSS REACTION | | MAXIMUM FACTORED GROSS REACTION | | | INPUT BRG | REQRD BRG |
|---|---|---|---|---|---|---|---|
| JT | VERT | HORZ | DOWN | HORZ | UPLIFT | IN-SX | IN-SX |
| Q | 1713 | 0 | 1713 | 0 | 0 | 5-8 | 2-9 |
| J | 1713 | 0 | 1713 | 0 | 0 | 5-8 | 2-9 |

**UNFACTORED REACTIONS**

| | 1ST LCASE | MAX./MIN. COMPONENT REACTIONS | | | | | |
|---|---|---|---|---|---|---|---|
| JT | COMBINED | SNOW | LIVE | PERM.LIVE | WIND | DEAD | SOIL |
| Q | 1219 | 759 / 0 | 0 / 0 | 0 / 0 | 0 / 0 | 460 / 0 | 0 / 0 |
| J | 1219 | 759 / 0 | 0 / 0 | 0 / 0 | 0 / 0 | 460 / 0 | 0 / 0 |

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

**BRACING**

TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 5.05 FT.
MAX. UNBRACED BOTTOM CHORD LENGTH = 10.00 FT OR RIGID CEILING DIRECTLY APPLIED.

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

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

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

**LOADING**

TOTAL LOAD CASES: (4)

| CHORDS MEMB. | MAX. FACTORED FORCE (LBS) | FACTORED VERT. LOAD LC1 (PLF) | | MAX CSI (LC) | MAX. UNBRAC LENGTH | WEBS MEMB. | MAX. FACTORED FORCE (LBS) | MAX CSI (LC) |
|---|---|---|---|---|---|---|---|---|
| FR-TO | | FROM | TO | | | FR-TO | | |
| A- B | 0 / 52 | -78.0 | -78.0 | 0.15 (1) | 10.00 | P- C | -334 / 0 | 0.31 (1) |
| B- C | -1213 / 0 | -78.0 | -78.0 | 0.19 (1) | 5.61 | C- O | 0 / 1430 | 0.23 (1) |
| C- D | -1836 / 0 | -78.0 | -78.0 | 0.67 (1) | 5.05 | O- D | -729 / 0 | 0.68 (1) |
| D- E | -1837 / 0 | -78.0 | -78.0 | 0.66 (1) | 5.05 | O- F | 0 / 0 | 0.00 (1) |
| E- F | -1837 / 0 | -78.0 | -78.0 | 0.66 (1) | 5.05 | M- F | -729 / 0 | 0.68 (1) |
| F- G | -1837 / 0 | -78.0 | -78.0 | 0.67 (1) | 5.05 | M- G | 0 / 1431 | 0.23 (1) |
| G- H | -1212 / 0 | -78.0 | -78.0 | 0.19 (1) | 5.61 | K- G | -334 / 0 | 0.31 (1) |
| H- I | 0 / 52 | -78.0 | -78.0 | 0.15 (1) | 10.00 | B- P | 0 / 861 | 0.19 (1) |
| Q- B | -1705 / 0 | 0.0 | 0.0 | 0.25 (1) | 6.36 | K- H | 0 / 861 | 0.19 (1) |
| J- H | -1705 / 0 | 0.0 | 0.0 | 0.25 (1) | 6.36 | | | |
| Q- P | 0 / 0 | -18.5 | -18.5 | 0.20 (4) | 10.00 | | | |
| P- O | 0 / 718 | -18.5 | -18.5 | 0.34 (4) | 10.00 | | | |
| O- N | 0 / 1837 | -18.5 | -18.5 | 0.45 (4) | 10.00 | | | |
| N- M | 0 / 1837 | -18.5 | -18.5 | 0.45 (4) | 10.00 | | | |
| M- L | 0 / 717 | -18.5 | -18.5 | 0.35 (4) | 10.00 | | | |
| L- K | 0 / 717 | -18.5 | -18.5 | 0.35 (4) | 10.00 | | | |
| K- J | 0 / 0 | -18.5 | -18.5 | 0.20 (4) | 10.00 | | | |

**DESIGN CRITERIA**

SPECIFIED LOADS:

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

**SPACING = 24.0 IN. C/C**

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

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

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

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

ALLOWABLE DEFL.(LL)= L/360 (1.09")
CALCULATED VERT. DEFL.(LL) = L/ 999 (0.07")
ALLOWABLE DEFL.(TL)= L/360 (1.09")
CALCULATED VERT. DEFL.(TL) = L/ 999 (0.18")

CSI: TC=0.67/1.00 (F-G:1) , BC=0.45/1.00 (M-O:4) , WB=0.68/1.00 (F-M:1) , SSI=0.32/1.00 (F-G:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

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

NAIL VALUES

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

PLATE PLACEMENT TOL. = 0.250 Inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.90 (M) (INPUT = 0.90 )
JSI METAL= 0.67 (N) (INPUT = 1.00 )

A-18023449

CONTINUED ON PAGE 2

| JOB NAME | TRUSS NAME | QUANTITY | PLY | JOB DESC. | DRWG NO. |
|---|---|---|---|---|---|
| 292589 | H19 | 1 | 1 | TRUSS DESC. | |

Alpa Roof Truss, Maple



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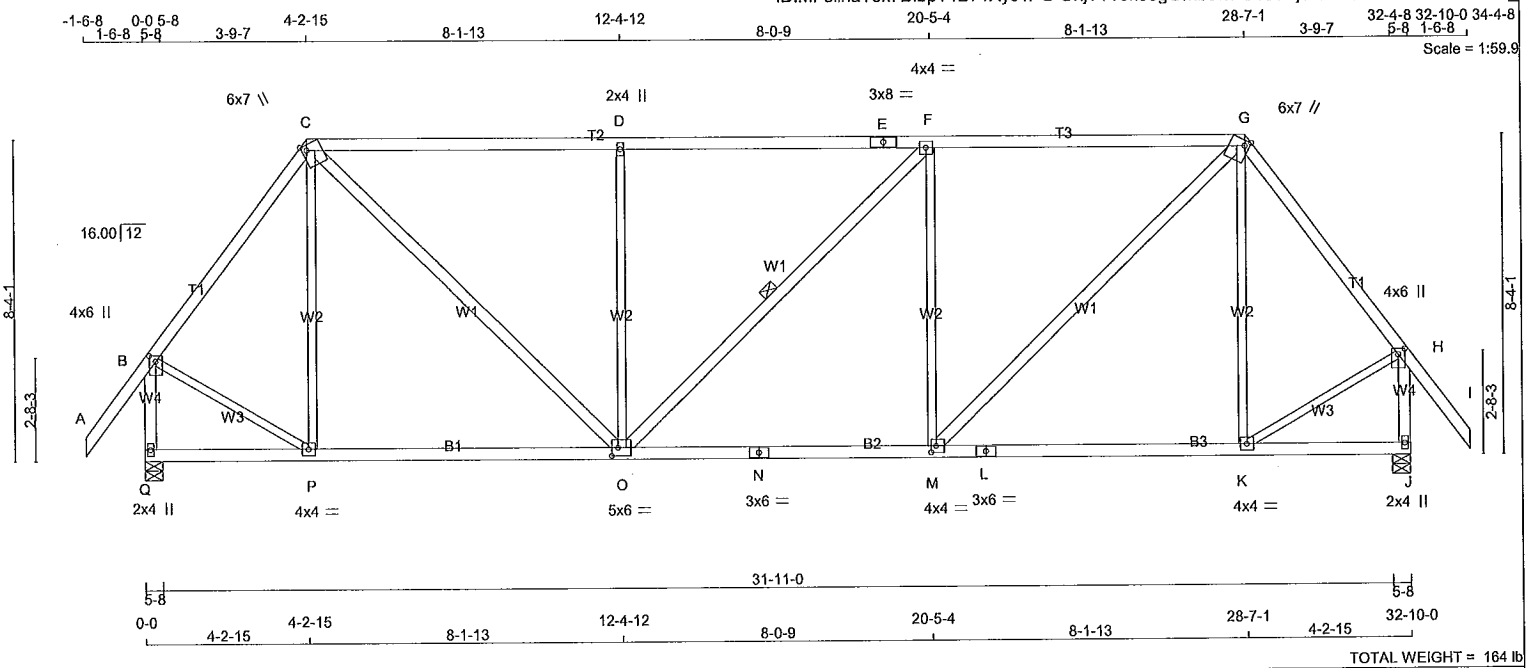



TOTAL WEIGHT = 164 lb

[M]

**LUMBER**

N. L. G. A. RULES

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

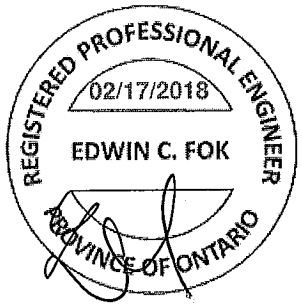
DRY: SEASONED LUMBER.

**PLATES (table is in inches)**

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

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

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




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

**BEARINGS**

| JT | FACTORED GROSS REACTION VERT | HORZ | MAXIMUM FACTORED GROSS REACTION DOWN | HORZ | UPLIFT | INPUT BRG IN-SX | REQRD BRG IN-SX |
|---|---|---|---|---|---|---|---|
| Q | 1713 | 0 | 1713 | 0 | 0 | 5-8 | 2-9 |
| J | 1713 | 0 | 1713 | 0 | 0 | 5-8 | 2-9 |

**UNFACTORED REACTIONS**

| JT | 1ST LCASE COMBINED | MAX./MIN. COMPONENT REACTIONS SNOW | LIVE | PERM.LIVE | WIND | DEAD | SOIL |
|---|---|---|---|---|---|---|---|
| Q | 1219 | 759 / 0 | 0 / 0 | 0 / 0 | 0 / 0 | 460 / 0 | 0 / 0 |
| J | 1219 | 759 / 0 | 0 / 0 | 0 / 0 | 0 / 0 | 460 / 0 | 0 / 0 |

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

**BRACING**

TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 3.92 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-O.

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

**LOADING**

TOTAL LOAD CASES: (4)

| CHORDS MEMB. | MAX. FACTORED FORCE (LBS) | FACTORED VERT. LOAD LC1 (PLF) FROM | TO | MAX CSI (LC) | MAX. UNBRAC LENGTH | WEBS MEMB. | MAX. FACTORED FORCE (LBS) | MAX CSI (LC) |
|---|---|---|---|---|---|---|---|---|
| FR-TO | | | | | | FR-TO | | |
| A- B | 0 / 52 | -78.0 | -78.0 | 0.15 (1) | 10.00 | P- C | -262 / 0 | 0.36 (1) |
| B- C | -1250 / 0 | -78.0 | -78.0 | 0.31 (1) | 5.42 | C- O | 0 / 1191 | 0.19 (1) |
| C- D | -1592 / 0 | -78.0 | -78.0 | 0.94 (1) | 3.94 | O- D | -683 / 0 | 0.94 (1) |
| D- E | -1593 / 0 | -78.0 | -78.0 | 0.94 (1) | 3.93 | O- F | -1 / 0 | 0.00 (1) |
| E- F | -1593 / 0 | -78.0 | -78.0 | 0.94 (1) | 3.93 | M- F | -684 / 0 | 0.94 (1) |
| F- G | -1593 / 0 | -78.0 | -78.0 | 0.95 (1) | 3.92 | M- G | 0 / 1193 | 0.19 (1) |
| G- H | -1250 / 0 | -78.0 | -78.0 | 0.31 (1) | 5.42 | K- G | -263 / 0 | 0.36 (1) |
| H- I | 0 / 52 | -78.0 | -78.0 | 0.15 (1) | 10.00 | B- P | 0 / 843 | 0.19 (1) |
| Q- B | -1691 / 0 | 0.0 | 0.0 | 0.24 (1) | 6.39 | K- H | 0 / 843 | 0.19 (1) |
| J- H | -1691 / 0 | 0.0 | 0.0 | 0.24 (1) | 6.39 | | | |
| Q- P | 0 / 0 | -18.5 | -18.5 | 0.18 (4) | 10.00 | | | |
| P- O | 0 / 742 | -18.5 | -18.5 | 0.31 (4) | 10.00 | | | |
| O- N | 0 / 1593 | -18.5 | -18.5 | 0.39 (4) | 10.00 | | | |
| N- M | 0 / 1593 | -18.5 | -18.5 | 0.39 (4) | 10.00 | | | |
| M- L | 0 / 742 | -18.5 | -18.5 | 0.31 (4) | 10.00 | | | |
| L- K | 0 / 742 | -18.5 | -18.5 | 0.31 (4) | 10.00 | | | |
| K- J | 0 / 0 | -18.5 | -18.5 | 0.18 (4) | 10.00 | | | |

**DESIGN CRITERIA**

SPECIFIED LOADS:

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

**SPACING = 24.0 IN. C/C**

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

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

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

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

ALLOWABLE DEFL.(LL)= L/360 (1.09")
CALCULATED VERT. DEFL.(LL) = L/ 999 (0.06")
ALLOWABLE DEFL.(TL)= L/360 (1.09")
CALCULATED VERT. DEFL.(TL) = L/ 999 (0.15")

CSI: TC=0.95/1.00 (F-G:1) , BC=0.39/1.00 (M-O:4) , WB=0.94/1.00 (F-M:1) , SSI=0.30/1.00 (F-G:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

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

NAIL VALUES

| PLATE | GRIP(DRY) (PSI) MAX | MIN | SHEAR (PLI) MAX | MIN | 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= 0.90 (M) (INPUT = 0.90 )
JSI METAL= 0.58 (N) (INPUT = 1.00 )

A-18023450

CONTINUED ON PAGE 2

| JOB NAME | TRUSS NAME | QUANTITY | PLY | JOB DESC. | DRWG NO. |
|---|---|---|---|---|---|
| 292589 | H20 | 2 | 1 | TRUSS DESC. | |

Alpa Roof Truss, Maple



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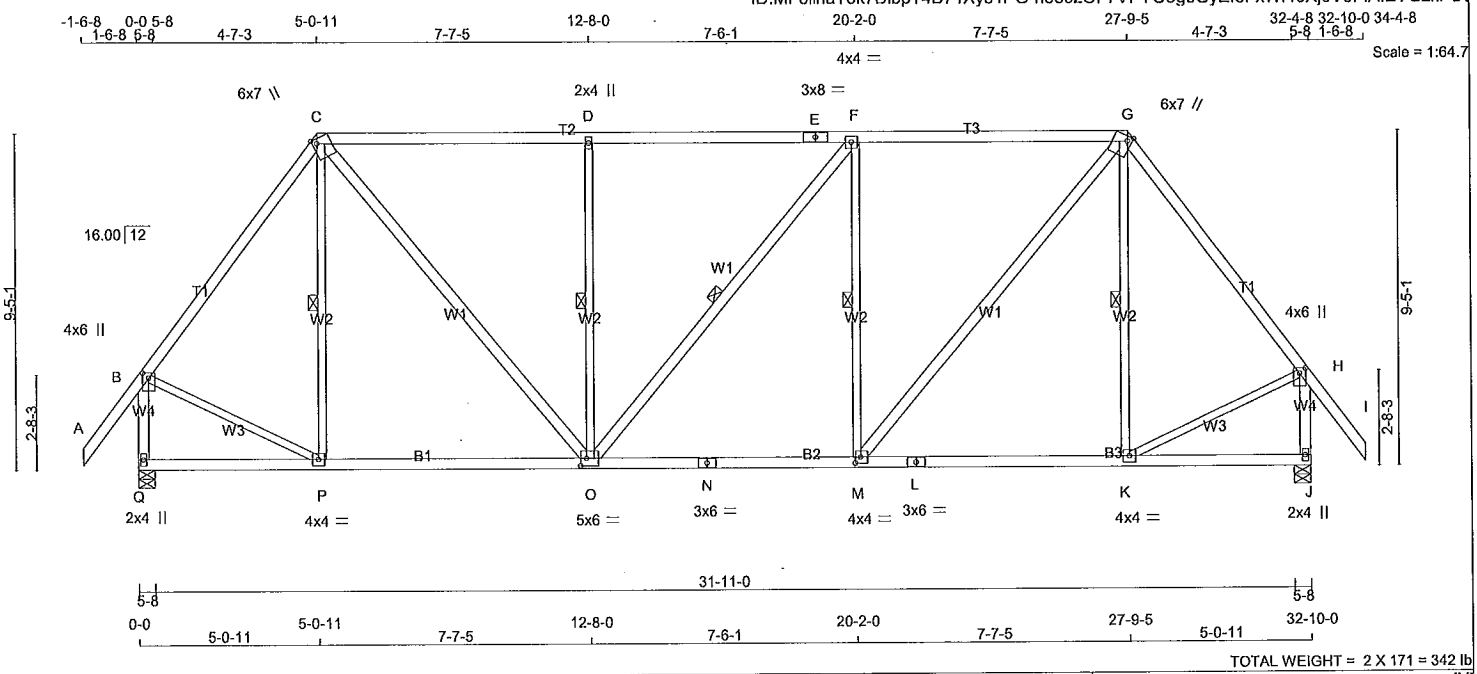



TOTAL WEIGHT = 2 X 171 = 342 lb

[M]

**LUMBER**

N. L. G. A. RULES

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

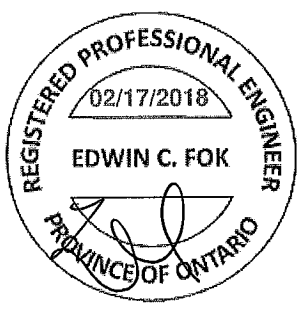
DRY: SEASONED LUMBER.

**PLATES (table is in inches)**

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

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

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




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

**BEARINGS**

| JT | FACTORED GROSS REACTION VERT | HORZ | MAXIMUM FACTORED GROSS REACTION DOWN | HORZ | UPLIFT | INPUT BRG IN-SX | REQRD BRG IN-SX |
|---|---|---|---|---|---|---|---|
| Q | 1713 | 0 | 1713 | 0 | 0 | 5-8 | 2-9 |
| J | 1713 | 0 | 1713 | 0 | 0 | 5-8 | 2-9 |

**UNFACTORED REACTIONS**

| JT | 1ST LCASE COMBINED | MAX./MIN. COMPONENT REACTIONS SNOW | LIVE | PERM.LIVE | WIND | DEAD | SOIL |
|---|---|---|---|---|---|---|---|
| Q | 1219 | 759 / 0 | 0 / 0 | 0 / 0 | 0 / 0 | 460 / 0 | 0 / 0 |
| J | 1219 | 759 / 0 | 0 / 0 | 0 / 0 | 0 / 0 | 460 / 0 | 0 / 0 |

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

**BRACING**

TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 4.44 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 C-P, D-O, F-O, F-M, G-K.

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

**LOADING**

TOTAL LOAD CASES: (4)

| CHORDS MEMB. FR-TO | MAX. FACTORED FORCE (LBS) | FACTORED VERT. LOAD (PLF) FROM | TO | LC | MAX CSI | MAX. UNBRAC LENGTH | WEBS MEMB. FR-TO | MAX. FACTORED FORCE (LBS) | MAX CSI (LC) |
|---|---|---|---|---|---|---|---|---|---|
| A- B | 0 / 52 | -78.0 | -78.0 | 0.15 (1) | 10.00 | | P- C | -205 / 12 | 0.12 (1) |
| B- C | -1268 / 0 | -78.0 | -78.0 | 0.47 (1) | 5.22 | | C- O | 0 / 1014 | 0.16 (1) |
| C- D | -1406 / 0 | -78.0 | -78.0 | 0.76 (1) | 4.46 | | O- D | -637 / 0 | 0.37 (1) |
| D- E | -1406 / 0 | -78.0 | -78.0 | 0.76 (1) | 4.44 | | O- F | -1 / 0 | 0.00 (1) |
| E- F | -1406 / 0 | -78.0 | -78.0 | 0.76 (1) | 4.44 | | M- F | -638 / 0 | 0.37 (1) |
| F- G | -1407 / 0 | -78.0 | -78.0 | 0.77 (1) | 4.44 | | M- G | 0 / 1016 | 0.16 (1) |
| G- H | -1268 / 0 | -78.0 | -78.0 | 0.47 (1) | 5.22 | | K- G | -206 / 12 | 0.12 (1) |
| H- I | 0 / 52 | -78.0 | -78.0 | 0.15 (1) | 10.00 | | B- P | 0 / 829 | 0.19 (1) |
| Q- B | -1680 / 0 | 0.0 | 0.0 | 0.24 (1) | 6.41 | | K- H | 0 / 829 | 0.19 (1) |
| J- H | -1680 / 0 | 0.0 | 0.0 | 0.24 (1) | 6.41 | | | | |
| Q- P | 0 / 0 | -18.5 | -18.5 | 0.18 (4) | 10.00 | | | | |
| P- O | 0 / 755 | -18.5 | -18.5 | 0.28 (4) | 10.00 | | | | |
| O- N | 0 / 1407 | -18.5 | -18.5 | 0.34 (1) | 10.00 | | | | |
| N- M | 0 / 1407 | -18.5 | -18.5 | 0.34 (1) | 10.00 | | | | |
| M- L | 0 / 755 | -18.5 | -18.5 | 0.28 (4) | 10.00 | | | | |
| L- K | 0 / 755 | -18.5 | -18.5 | 0.28 (4) | 10.00 | | | | |
| K- J | 0 / 0 | -18.5 | -18.5 | 0.18 (4) | 10.00 | | | | |

**DESIGN CRITERIA**

SPECIFIED LOADS:

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

**SPACING = 24.0 IN. C/C**

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

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

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

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

ALLOWABLE DEFL.(LL)= L/360 (1.09")
CALCULATED VERT. DEFL.(LL) = L/ 999 (0.05")
ALLOWABLE DEFL.(TL)= L/360 (1.09")
CALCULATED VERT. DEFL.(TL) = L/ 999 (0.13")

CSI: TC=0.77/1.00 (F-G:1) , BC=0.34/1.00 (M-O:1) , WB=0.37/1.00 (F-M:1) , SSI=0.28/1.00 (F-G:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

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

NAIL VALUES

| PLATE | GRIP(DRY) (PSI) MAX | MIN | SHEAR (PLI) MAX | MIN | 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= 0.89 (M) (INPUT = 0.90 )
JSI METAL= 0.52 (N) (INPUT = 1.00 )

A-18023451

CONTINUED ON PAGE 2

| JOB NAME | TRUSS NAME | QUANTITY | PLY | JOB DESC. | DRWG NO. |
|---|---|---|---|---|---|
| 292589 | H21 | 1 | 2 | TRUSS DESC. | |

Alpa Roof Truss, Maple

Version 8.200 S Jan 6 2018 MiTek Industries, Inc. Sat Feb 17 12:11:15 2018 Page 1
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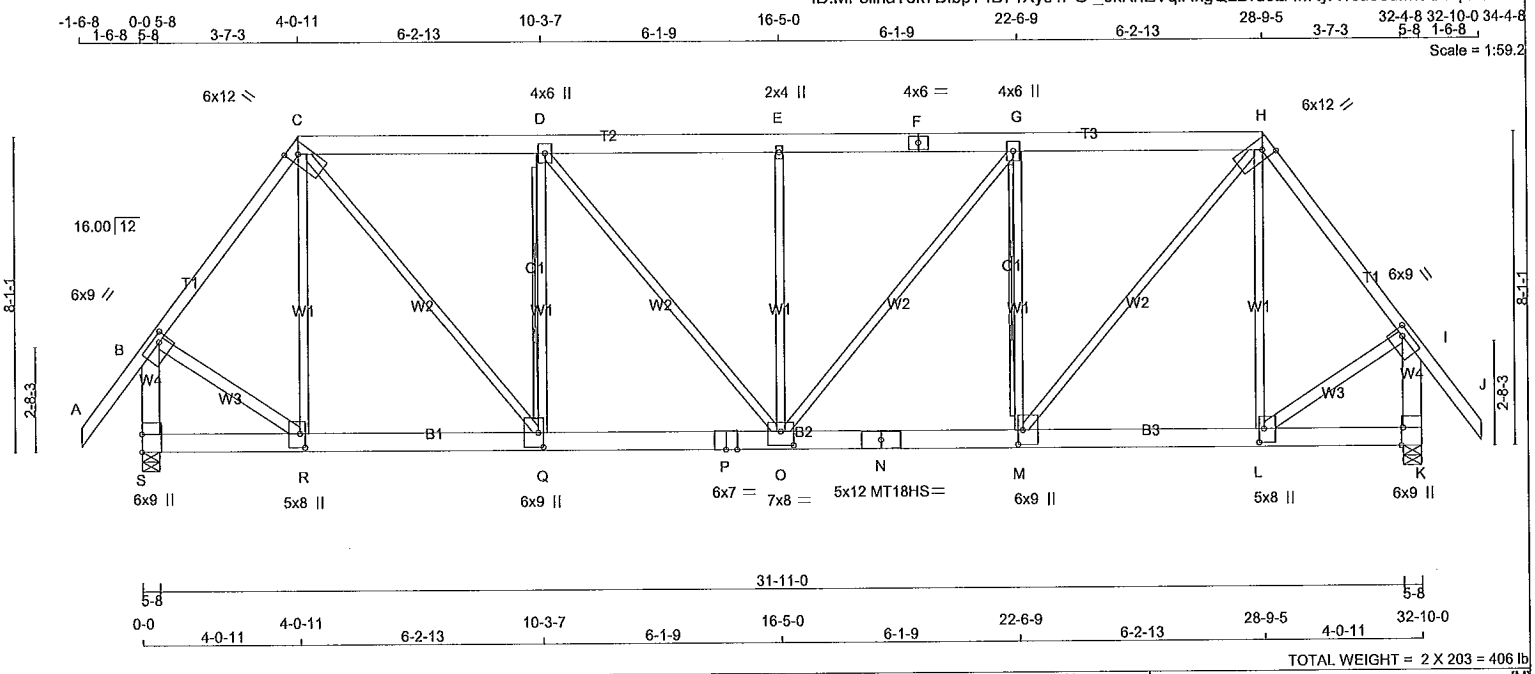


TOTAL WEIGHT = 2 X 203 = 406 lb [M]

**LUMBER**

N. L. G. A. RULES

| CHORDS | SIZE | | LUMBER | DESCR. |
|---|---|---|---|---|
| A - C | 2x4 | DRY | No.2 | SPF |
| C - F | 2x6 | DRY | No.2 | SPF |
| F - H | 2x6 | DRY | No.2 | SPF |
| H - J | 2x4 | DRY | No.2 | SPF |
| S - B | 2x6 | DRY | No.2 | SPF |
| K - I | 2x6 | DRY | No.2 | SPF |
| S - P | 2x6 | DRY | 1650F 1.5E | SPF |
| P - N | 2x6 | DRY | 1650F 1.5E | SPF |
| N - K | 2x6 | DRY | 1650F 1.5E | SPF |
| ALL WEBS EXCEPT | 2x3 | DRY | No.2 | SPF |
| B - R | 2x4 | DRY | No.2 | SPF |
| L - I | 2x4 | DRY | No.2 | SPF |

DRY: SEASONED LUMBER.

DESIGN CONSISTS OF 2 TRUSSES BUILT SEPARATELY THEN FASTENED TOGETHER AS FOLLOWS:

| CHORDS | #ROWS | SURFACE SPACING (IN) | LOAD(PLF) |
|---|---|---|---|
| TOP CHORDS : (0.122"X3") SPIRAL NAILS | | | |
| A- C | 1 | 12 | TOP |
| H- J | 1 | 12 | TOP |
| C- F | 2 | 12 | TOP |
| F- H | 2 | 12 | TOP |
| S- B | 2 | 12 | TOP |
| K- I | 2 | 12 | TOP |
| BOTTOM CHORDS : (0.122"X3") SPIRAL NAILS | | | |
| S- P | 2 | 9 | SIDE(282.4) |
| P- N | 2 | 9 | SIDE(282.4) |
| N- K | 2 | 9 | SIDE(282.4) |
| WEBS : (0.122"X3") SPIRAL NAILS | | | |
| 2x3 | 1 | 6 | |
| 2x4 | 1 | 6 | |

NAILS TO BE DRIVEN FROM ONE SIDE ONLY.

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

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

REGISTERED PROFESSIONAL ENGINEER
02/17/2018
EDWIN C. FOK
PROVINCE OF ONTARIO

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

**BEARINGS**

| JT | FACTORED GROSS REACTION VERT | HORZ | MAXIMUM FACTORED GROSS REACTION DOWN | HORZ | UPLIFT | INPUT BRG IN-SX | REQRD BRG IN-SX |
|---|---|---|---|---|---|---|---|
| S | 10986 | 0 | 10986 | 0 | 0 | 5-8 | 5-8 |
| K | 10986 | 0 | 10986 | 0 | 0 | 5-8 | 5-8 |

**UNFACTORED REACTIONS**

| JT | 1ST LCASE COMBINED | MAX./MIN. COMPONENT REACTIONS SNOW | LIVE | PERM.LIVE | WIND | DEAD | SOIL |
|---|---|---|---|---|---|---|---|
| S | 7830 | 4794 / 0 | 0 / 0 | 0 / 0 | 0 / 0 | 3036 / 0 | 0 / 0 |
| K | 7830 | 4794 / 0 | 0 / 0 | 0 / 0 | 0 / 0 | 3036 / 0 | 0 / 0 |

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

**BRACING**

TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 3.02 FT.
MAX. UNBRACED BOTTOM CHORD LENGTH = 10.00 FT OR RIGID CEILING DIRECTLY APPLIED.

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

2x4 DRY SPF No.2 T-BRACE AT D-Q, G-M

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

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

**LOADING**

TOTAL LOAD CASES: (4)

| CHORDS MEMB. FR-TO | MAX. FACTORED FORCE (LBS) | FACTORED VERT. LOAD LC1 (PLF) FROM | TO | MAX CSI (LC) | MAX. UNBRAC LENGTH | WEBS MEMB. FR-TO | MAX. FACTORED FORCE (LBS) | MAX CSI (LC) |
|---|---|---|---|---|---|---|---|---|
| A- B | 0 / 52 | -78.0 | -78.0 | 0.08 (1) | 10.00 | R- C | 0 / 541 | 0.07 (1) |
| B- C | -8820 / 0 | -78.0 | -78.0 | 0.66 (1) | 3.02 | C- Q | 0 / 7917 | 0.98 (1) |
| C- D | -10306 / 0 | -78.0 | -78.0 | 0.32 (1) | 3.64 | Q- D | -2487 / 0 | 0.69 (1) |
| D- E | -11898 / 0 | -78.0 | -78.0 | 0.36 (1) | 3.38 | D- O | 0 / 2543 | 0.31 (1) |
| E- F | -11898 / 0 | -78.0 | -78.0 | 0.36 (1) | 3.38 | O- E | -459 / 0 | 0.26 (1) |
| F- G | -11898 / 0 | -78.0 | -78.0 | 0.36 (1) | 3.38 | O- G | 0 / 2543 | 0.31 (1) |
| G- H | -10306 / 0 | -78.0 | -78.0 | 0.32 (1) | 3.64 | M- G | -2487 / 0 | 0.69 (1) |
| H- I | -8820 / 0 | -78.0 | -78.0 | 0.66 (1) | 3.02 | M- H | 0 / 7917 | 0.98 (1) |
| I- J | 0 / 52 | -78.0 | -78.0 | 0.08 (1) | 10.00 | L- H | 0 / 541 | 0.07 (1) |
| S- B | -10155 / 0 | 0.0 | 0.0 | 0.51 (1) | 4.73 | B- R | 0 / 5987 | 0.53 (1) |
| K- I | -10155 / 0 | 0.0 | 0.0 | 0.51 (1) | 4.73 | L- I | 0 / 5987 | 0.53 (1) |
| S- R | 0 / 0 | -583.4 | -583.4 | 0.40 (1) | 10.00 | | | |
| R- Q | 0 / 5295 | -583.4 | -583.4 | 0.67 (1) | 10.00 | | | |
| Q- P | 0 / 10306 | -583.4 | -583.4 | 0.88 (1) | 10.00 | | | |
| P- O | 0 / 10306 | -583.4 | -583.4 | 0.88 (1) | 10.00 | | | |
| O- N | 0 / 10306 | -583.4 | -583.4 | 0.88 (1) | 10.00 | | | |
| N- M | 0 / 10306 | -583.4 | -583.4 | 0.88 (1) | 10.00 | | | |
| M- L | 0 / 5295 | -583.4 | -583.4 | 0.67 (1) | 10.00 | | | |
| L- K | 0 / 0 | -583.4 | -583.4 | 0.40 (1) | 10.00 | | | |

**DESIGN CRITERIA**

SPECIFIED LOADS:

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

**SPACING = 24.0 IN. C/C**

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

GIRDER TYPE: CStdGirder
START DISTANCE = 0-0
START SPAN CARRIED = 25-5-1
END DISTANCE = 32-10-0
END SPAN CARRIED = 25-5-1
END WALL WIDTH = 0-0
APPLIED TO FRONT SIDE OF BOTTOM CHORD.
- ADDT'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 (1.09")
CALCULATED VERT. DEFL.(LL) = L/ 999 (0.20")
ALLOWABLE DEFL.(TL)= L/360 (1.09")
CALCULATED VERT. DEFL.(TL) = L/ 998 (0.39")

CSI: TC=0.66/1.00 (B-C:1) , BC=0.88/1.00 (O-Q:1) , WB=0.98/1.00 (C-Q:1) , SSI=0.60/1.00 (M-O:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

AUTOSOLVE HEELS OFF

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

NAIL VALUES

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

PLATE PLACEMENT TOL. = 0.250 Inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.88 (M) (INPUT = 0.90 )
JSI METAL= 0.95 (L) (INPUT = 1.00 )

A-18023452

CONTINUED ON PAGE 2

| JOB NAME | TRUSS NAME | QUANTITY | PLY | JOB DESC. | DRWG NO. |
|---|---|---|---|---|---|
| 292589 | H21 | 1 | 2 | TRUSS DESC. | |



**PLATES (table is in inches)**

| JT | TYPE | PLATES | W | LEN | Y | X |
|---|---|---|---|---|---|---|
| B | TMVW-t | MT20 | 6.0 | 9.0 | 2.00 | 2.75 |
| C | TTWW+h | MT20 | 6.0 | 12.0 | 3.25 | 2.75 |
| D | TMWW+t | MT20 | 4.0 | 6.0 | | |
| E | TMW+w | MT20 | 2.0 | 4.0 | | |
| F | TS-t | MT20 | 4.0 | 6.0 | | |
| G | TMWW+t | MT20 | 4.0 | 6.0 | | |
| H | TTWW+h | MT20 | 6.0 | 12.0 | 3.25 | 2.75 |
| I | TMVW-t | MT20 | 6.0 | 9.0 | 2.00 | 2.75 |
| K | BMV1+t | MT20 | 6.0 | 9.0 | Edge | 0.50 |
| L | BMWW+t | MT20 | 5.0 | 8.0 | 4.25 | 1.50 |
| M | BMWW+t | MT20 | 6.0 | 9.0 | 4.50 | 1.50 |
| N | BS-t | MT18HS | 5.0 | 12.0 | | |
| O | BMWWW-t | MT20 | 7.0 | 8.0 | 4.25 | 4.00 |
| P | BS-t | MT20 | 6.0 | 7.0 | | |
| Q | BMWW+t | MT20 | 6.0 | 9.0 | 4.50 | 1.50 |
| R | BMWW+t | MT20 | 5.0 | 8.0 | 4.25 | 1.50 |
| S | BMV1+t | MT20 | 6.0 | 9.0 | 5.50 | |

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

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


A:18023452(B)

| JOB NAME | TRUSS NAME | QUANTITY | PLY | JOB DESC. | DRWG NO. |
|---|---|---|---|---|---|
| 292589 | H22T | 1 | 1 | TRUSS DESC. | |

Alpa Roof Truss, Maple



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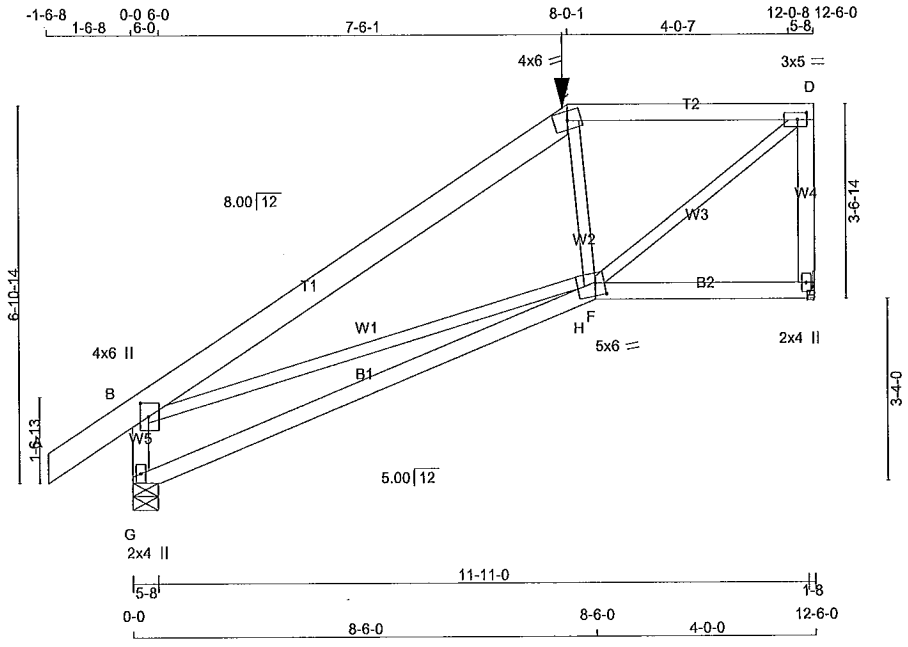



TOTAL WEIGHT = 59 lb [M]

**LUMBER**

N. L. G. A. RULES

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

DRY: SEASONED LUMBER.

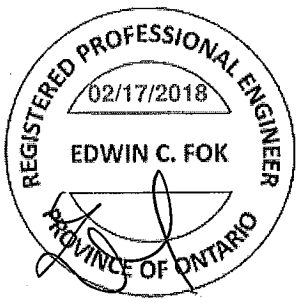
**PLATES (table is in inches)**

| JT | TYPE | PLATES | W | LEN | Y | X |
|---|---|---|---|---|---|---|
| B | TMVW+p | MT20 | 4.0 | 6.0 | 3.00 | 1.75 |
| C | TTW-m | MT20 | 4.0 | 6.0 | | |
| D | TMVW-t | MT20 | 3.0 | 5.0 | 1.50 | 2.00 |
| E | BMV1+p | MT20 | 2.0 | 4.0 | | |
| F | BBWWW-m | MT20 | 5.0 | 6.0 | 2.75 | 2.00 |
| G | BMV1+p | MT20 | 2.0 | 4.0 | | |

**HANGERS NOTES**

1) SPECIAL HANGER(S) OR CONNECTION(S) REQUIRED TO SUPPORT CONCENTRATED LOAD(S) 173.4 lbs FACTORED DOWN AT 8-0-1 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 VERT | HORZ | MAXIMUM FACTORED GROSS REACTION DOWN | HORZ | UPLIFT | INPUT BRG IN-SX | REQRD BRG IN-SX |
|---|---|---|---|---|---|---|---|
| E | 832 | 0 | 832 | 0 | 0 | HANGER BY OTHERS MIN. SEAT SIZE: 1-8 | |
| G | 847 | 0 | 847 | 0 | 0 | 5-8 | 1-8 |

**UNFACTORED REACTIONS**

| JT | 1ST LCASE COMBINED | MAX./MIN. COMPONENT REACTIONS SNOW | LIVE | PERM.LIVE | WIND | DEAD | SOIL |
|---|---|---|---|---|---|---|---|
| E | 592 | 367 / 0 | 0 / 0 | 0 / 0 | 0 / 0 | 224 / 0 | 0 / 0 |
| G | 603 | 376 / 0 | 0 / 0 | 0 / 0 | 0 / 0 | 227 / 0 | 0 / 0 |

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

**BRACING**

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

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

**LOADING**

TOTAL LOAD CASES: (4)

| CHORDS MEMB. FR-TO | MAX. FACTORED FORCE (LBS) | FACTORED VERT. LOAD (PLF) FROM | TO | LC1 MAX CSI (LC) | MAX. UNBRAC LENGTH | WEBS MEMB. FR-TO | MAX. FACTORED FORCE (LBS) | MAX CSI (LC) |
|---|---|---|---|---|---|---|---|---|
| A- B | 0 / 36 | -78.0 | -78.0 | 0.08 (1) | 10.00 | C- F | -233 / 19 | 0.05 (1) |
| B- C | -879 / 0 | -78.0 | -78.0 | 0.49 (1) | 6.25 | F- D | 0 / 896 | 0.22 (1) |
| C- D | -693 / 0 | -100.7 | -100.7 | 0.40 (1) | 6.25 | B- F | 0 / 752 | 0.19 (1) |
| E- D | -784 / 0 | 0.0 | 0.0 | 0.16 (1) | 7.81 | | | |
| G- B | -746 / 0 | 0.0 | 0.0 | 0.09 (1) | 7.81 | | | |
| G- H | 0 / 0 | -23.9 | -23.9 | 0.56 (4) | 10.00 | | | |
| H- F | 0 / 0 | -23.9 | -23.9 | 0.56 (4) | 10.00 | | | |
| F- E | 0 / 0 | -23.9 | -23.9 | 0.12 (4) | 10.00 | | | |

FACTORED CONCENTRATED LOADS (LBS)

| JT | LOC. | LC1 | MAX- | MAX+ | FACE | DIR. | TYPE |
|---|---|---|---|---|---|---|---|
| C | 8-0-1 | -173 | -173 | --- | 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 = 8-0-1
RIGHT SETBACK = 0-0
END SETBACK = 3-2-0
END WALL WIDTH = 0-0
CORNER FRAMING TYPE: CONVENTIONAL
END JACK TYPE: CONVENTIONAL
APPLIED TO FRONT SIDE
- ADDT'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 (0.42")
CALCULATED VERT. DEFL.(LL) = L/ 999 (0.02")
ALLOWABLE DEFL.(TL)= L/360 (0.42")
CALCULATED VERT. DEFL.(TL) = L/ 433 (0.35")

CSI: TC=0.49/1.00 (B-C:1) , BC=0.56/1.00 (F-G:4) , WB=0.22/1.00 (D-F:1) , SSI=0.19/1.00 (C-D:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

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

NAIL VALUES

| PLATE | GRIP(DRY) (PSI) MAX | MIN | SHEAR (PLI) MAX | MIN | 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= 0.89 (D) (INPUT = 0.90 )
JSI METAL= 0.52 (B) (INPUT = 1.00 )

A-18023453

| JOB NAME | TRUSS NAME | QUANTITY | PLY | JOB DESC. | DRWG NO. |
|---|---|---|---|---|---|
| 292589 | H23T | 1 | 1 | TRUSS DESC. | |

Alpa Roof Truss, Maple

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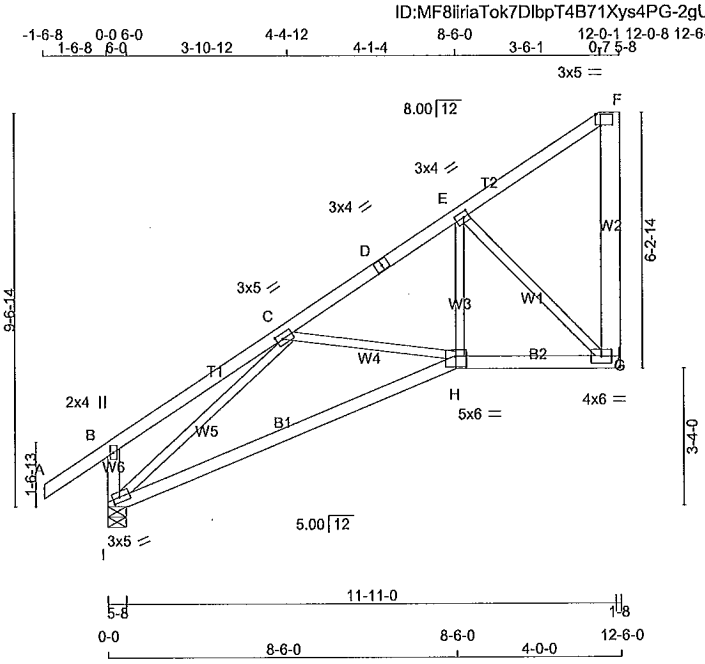



Scale = 1:56.1

TOTAL WEIGHT = 61 lb

[M][F]

**LUMBER**

N. L. G. A. RULES

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

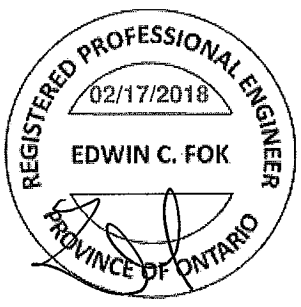
DRY: SEASONED LUMBER.

**PLATES (table is in inches)**

| JT | TYPE | PLATES | W | LEN | Y | X |
|---|---|---|---|---|---|---|
| B | TMV+p | MT20 | 2.0 | 4.0 | | |
| C | TMWW-t | MT20 | 3.0 | 5.0 | 1.50 | 1.75 |
| D | TS-t | MT20 | 3.0 | 4.0 | | |
| E | TMWW-t | MT20 | 3.0 | 4.0 | 1.50 | 1.50 |
| F | TVM-p | MT20 | 3.0 | 5.0 | Edge | 1.50 |
| G | BMVW1-t | MT20 | 4.0 | 6.0 | | |
| H | BBWW-I | MT20 | 5.0 | 6.0 | 3.00 | 3.00 |
| I | BMVW1-t | MT20 | 3.0 | 5.0 | 1.50 | 2.00 |

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

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




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

**BEARINGS**

| JT | FACTORED GROSS REACTION VERT | HORZ | MAXIMUM FACTORED GROSS REACTION DOWN | HORZ | UPLIFT | INPUT BRG | REQRD BRG |
|---|---|---|---|---|---|---|---|
| G | 603 | 0 | 603 | 0 | 0 | IN-SX | IN-SX |
| | | | | | | HANGER BY OTHERS | |
| | | | | | | MIN. SEAT SIZE: 1-8 | |
| I | 729 | 0 | 729 | 0 | 0 | 5-8 | 1-8 |

**UNFACTORED REACTIONS**

| JT | 1ST LCASE COMBINED | MAX./MIN. COMPONENT REACTIONS SNOW | LIVE | PERM.LIVE | WIND | DEAD | SOIL |
|---|---|---|---|---|---|---|---|
| G | 430 | 262 / 0 | 0 / 0 | 0 / 0 | 0 / 0 | 168 / 0 | 0 / 0 |
| I | 517 | 330 / 0 | 0 / 0 | 0 / 0 | 0 / 0 | 187 / 0 | 0 / 0 |

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

**BRACING**

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

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

**LOADING**

TOTAL LOAD CASES: (4)

| CHORDS MEMB. FR-TO | MAX. FACTORED FORCE (LBS) | FACTORED VERT. LOAD (PLF) FROM | TO | LC1 MAX CSI (LC) | MAX. UNBRAC LENGTH | WEBS MEMB. FR-TO | MAX. FACTORED FORCE (LBS) | MAX CSI (LC) |
|---|---|---|---|---|---|---|---|---|
| A- B | 0 / 35 | -78.0 | -78.0 | 0.15 (1) | 10.00 | H- E | 0 / 423 | 0.10 (1) |
| B- C | 0 / 17 | -78.0 | -78.0 | 0.18 (1) | 10.00 | E- G | -654 / 0 | 0.28 (1) |
| C- D | -589 / 0 | -78.0 | -78.0 | 0.14 (1) | 6.25 | I- C | -935 / 0 | 0.59 (1) |
| D- E | -589 / 0 | -78.0 | -78.0 | 0.14 (1) | 6.25 | C- H | -175 / 0 | 0.06 (1) |
| E- F | -18 / 0 | -78.0 | -78.0 | 0.13 (1) | 6.25 | | | |
| G- F | -120 / 0 | 0.0 | 0.0 | 0.07 (1) | 7.81 | | | |
| I- B | -264 / 0 | 0.0 | 0.0 | 0.03 (1) | 7.81 | | | |
| I- H | 0 / 716 | -18.5 | -18.5 | 0.44 (4) | 10.00 | | | |
| H- G | 0 / 477 | -18.5 | -18.5 | 0.13 (4) | 10.00 | | | |

**DESIGN CRITERIA**

SPECIFIED LOADS:

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

**SPACING = 24.0 IN. C/C**

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

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

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

ALLOWABLE DEFL.(LL)= L/360 (0.42")
CALCULATED VERT. DEFL.(LL) = L/ 999 (0.02")
ALLOWABLE DEFL.(TL)= L/360 (0.42")
CALCULATED VERT. DEFL.(TL) = L/ 555 (0.27")

CSI: TC=0.18/1.00 (B-C:1) , BC=0.44/1.00 (H-I:4) , WB=0.59/1.00 (C-I:1) , SSI=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) MAX | MIN | SHEAR (PLI) MAX | MIN | 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= 0.89 (C) (INPUT = 0.90 )
JSI METAL= 0.29 (I) (INPUT = 1.00 )

A-18023454

| JOB NAME | TRUSS NAME | QUANTITY | PLY | JOB DESC. | DRWG NO. |
|---|---|---|---|---|---|
| 292589 | H24T | 5 | 1 | TRUSS DESC. | |

Alpa Roof Truss, Maple

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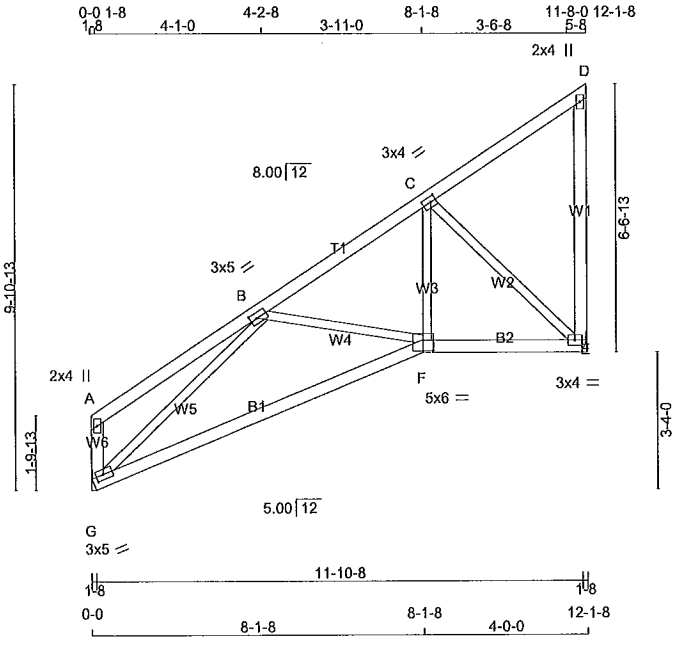



TOTAL WEIGHT = 5 X 54 = 272 lb

[M][F]

**LUMBER**

N. L. G. A. RULES

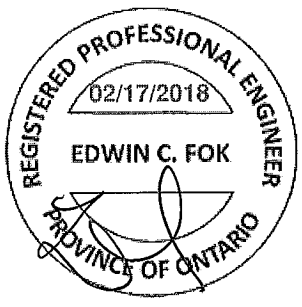
| CHORDS | SIZE | | LUMBER | DESCR. |
|---|---|---|---|---|
| G - A | 2x4 | DRY | No.2 | SPF |
| A - D | 2x4 | DRY | No.2 | SPF |
| E - D | 2x4 | DRY | No.2 | SPF |
| G - F | 2x4 | DRY | No.2 | SPF |
| F - E | 2x4 | DRY | No.2 | SPF |
| ALL WEBS | 2x3 | DRY | No.2 | SPF |

DRY: SEASONED LUMBER.

**PLATES (table is in inches)**

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

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




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

**BEARINGS**

| JT | FACTORED GROSS REACTION VERT | HORZ | MAXIMUM FACTORED GROSS REACTION DOWN | HORZ | UPLIFT | INPUT BRG IN-SX | REQRD BRG IN-SX |
|---|---|---|---|---|---|---|---|
| G | 585 | 0 | 585 | 0 | 0 | HANGER BY OTHERS MIN. SEAT SIZE: 1-8 | |
| E | 585 | 0 | 585 | 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 | 417 | 255 / 0 | 0 / 0 | 0 / 0 | 0 / 0 | 162 / 0 | 0 / 0 |
| E | 417 | 255 / 0 | 0 / 0 | 0 / 0 | 0 / 0 | 162 / 0 | 0 / 0 |

**BRACING**

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

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

**LOADING**

TOTAL LOAD CASES: (4)

| CHORDS MEMB. FR-TO | MAX. FACTORED FORCE (LBS) | FACTORED VERT. LOAD (PLF) FROM | TO | LC1 MAX CSI (LC) | MAX. UNBRAC LENGTH | WEBS MEMB. FR-TO | MAX. FACTORED FORCE (LBS) | MAX CSI (LC) |
|---|---|---|---|---|---|---|---|---|
| G- A | -132 / 0 | 0.0 | 0.0 | 0.01 (1) | 7.81 | F- C | 0 / 396 | 0.09 (1) |
| A- B | 0 / 16 | -78.0 | -78.0 | 0.16 (1) | 10.00 | C- E | -626 / 0 | 0.28 (1) |
| B- C | -562 / 0 | -78.0 | -78.0 | 0.13 (1) | 6.25 | G- B | -874 / 0 | 0.51 (1) |
| C- D | -17 / 0 | -78.0 | -78.0 | 0.13 (1) | 6.25 | B- F | -141 / 0 | 0.05 (1) |
| E- D | -121 / 0 | 0.0 | 0.0 | 0.10 (1) | 7.81 | | | |
| G- F | 0 / 656 | -18.5 | -18.5 | 0.41 (4) | 10.00 | | | |
| F- E | 0 / 457 | -18.5 | -18.5 | 0.13 (4) | 10.00 | | | |

**DESIGN CRITERIA**

SPECIFIED LOADS:

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

**SPACING = 24.0 IN. C/C**

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/ 641 (0.23")

CSI: TC=0.16/1.00 (A-B:1) , BC=0.41/1.00 (F-G:4) , WB=0.51/1.00 (B-G:1) , SSI=0.12/1.00 (A-B:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

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

NAIL VALUES

| PLATE | GRIP(DRY) (PSI) MAX | MIN | SHEAR (PLI) MAX | MIN | 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= 0.87 (G) (INPUT = 0.90 )
JSI METAL= 0.26 (G) (INPUT = 1.00 )

A-18023455

| JOB NAME | TRUSS NAME | QUANTITY | PLY | JOB DESC. | DRWG NO. |
|---|---|---|---|---|---|
| 292589 | H25T | 7 | 1 | TRUSS DESC. | |

Alpa Roof Truss, Maple

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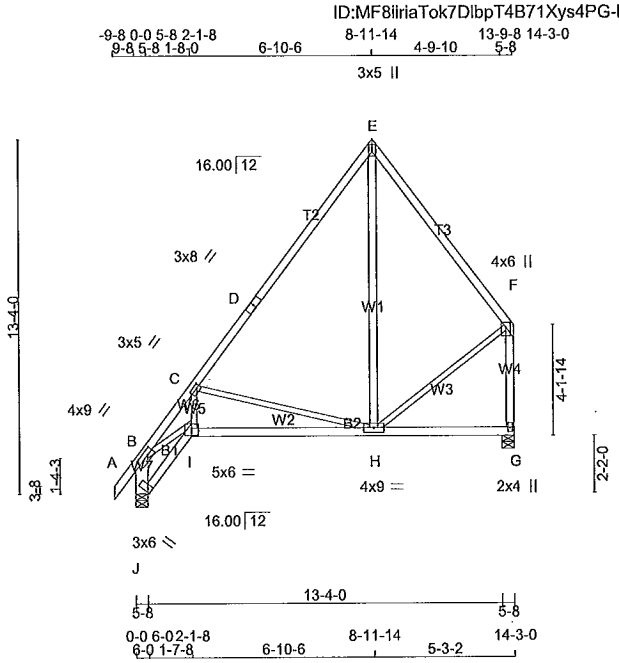



TOTAL WEIGHT = 7 X 79 = 554 lb

[M][F]

**LUMBER**

N. L. G. A. RULES

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

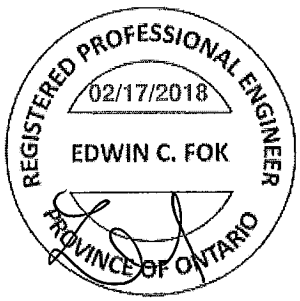
DRY: SEASONED LUMBER.

**PLATES (table is in inches)**

| JT | TYPE | PLATES | W | LEN | Y | X |
|---|---|---|---|---|---|---|
| B | TMVW-t | MT20 | 4.0 | 9.0 | 2.00 | 3.00 |
| C | TMWW-t | MT20 | 3.0 | 5.0 | 1.50 | 1.50 |
| D | TS-t | MT20 | 3.0 | 8.0 | | |
| E | TTW+p | MT20 | 3.0 | 5.0 | 2.00 | Edge |
| F | TMVW+p | MT20 | 4.0 | 6.0 | 2.00 | 2.00 |
| G | BMV1+p | MT20 | 2.0 | 4.0 | | |
| H | BMWWW-t | MT20 | 4.0 | 9.0 | | |
| I | BBWW-I | MT20 | 5.0 | 6.0 | 3.00 | 3.00 |
| J | BVM1+I | MT20 | 3.0 | 6.0 | 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**

| JT | FACTORED GROSS REACTION VERT | HORZ | MAXIMUM FACTORED GROSS REACTION DOWN | HORZ | UPLIFT | INPUT BRG IN-SX | REQRD BRG IN-SX |
|---|---|---|---|---|---|---|---|
| J | 758 | 0 | 758 | 0 | 0 | 5-8 | 1-8 |
| G | 687 | 0 | 687 | 0 | 0 | 5-8 | 1-8 |

**UNFACTORED REACTIONS**

| JT | 1ST LCASE COMBINED | MAX./MIN. COMPONENT REACTIONS SNOW | LIVE | PERM.LIVE | WIND | DEAD | SOIL |
|---|---|---|---|---|---|---|---|
| J | 539 | 337 / 0 | 0 / 0 | 0 / 0 | 0 / 0 | 202 / 0 | 0 / 0 |
| G | 490 | 299 / 0 | 0 / 0 | 0 / 0 | 0 / 0 | 191 / 0 | 0 / 0 |

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

**BRACING**

TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 4.91 FT.
MAX. UNBRACED BOTTOM CHORD LENGTH = 10.00 FT OR RIGID CEILING DIRECTLY APPLIED.

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

**LOADING**

TOTAL LOAD CASES: (4)

| CHORDS MEMB. FR-TO | MAX. FACTORED FORCE (LBS) | FACTORED VERT. LOAD (PLF) FROM | TO | LC1 MAX CSI (LC) | MAX. UNBRAC LENGTH | WEBS MEMB. FR-TO | MAX. FACTORED FORCE (LBS) | MAX CSI (LC) |
|---|---|---|---|---|---|---|---|---|
| A- B | 0 / 28 | -78.0 | -78.0 | 0.05 (1) | 10.00 | I- C | 0 / 656 | 0.15 (1) |
| B- C | -1514 / 0 | -78.0 | -78.0 | 0.37 (1) | 4.91 | C- H | -743 / 0 | 0.69 (1) |
| C- D | -404 / 0 | -78.0 | -78.0 | 0.46 (1) | 6.25 | H- E | 0 / 165 | 0.04 (4) |
| D- E | -404 / 0 | -78.0 | -78.0 | 0.46 (1) | 6.25 | H- F | 0 / 270 | 0.06 (1) |
| E- F | -366 / 0 | -78.0 | -78.0 | 0.28 (1) | 6.25 | B- I | 0 / 1136 | 0.26 (1) |
| J- B | -739 / 0 | 0.0 | 0.0 | 0.05 (1) | 7.81 | | | |
| G- F | -655 / 0 | 0.0 | 0.0 | 0.19 (1) | 7.81 | | | |
| J- I | 0 / 0 | -18.5 | -18.5 | 0.02 (4) | 10.00 | | | |
| I- H | 0 / 938 | -18.5 | -18.5 | 0.29 (4) | 10.00 | | | |
| H- G | 0 / 0 | -18.5 | -18.5 | 0.21 (4) | 10.00 | | | |

**DESIGN CRITERIA**

SPECIFIED LOADS:

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

**SPACING = 24.0 IN. C/C**

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 (0.48")
CALCULATED VERT. DEFL.(LL) = L/ 999 (0.03")
ALLOWABLE DEFL.(TL)= L/360 (0.48")
CALCULATED VERT. DEFL.(TL) = L/ 999 (0.09")

CSI: TC=0.46/1.00 (C-E:1) , BC=0.29/1.00 (H-I:4) , WB=0.69/1.00 (C-H:1) , SSI=0.15/1.00 (C-E:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

AUTOSOLVE RIGHT HEEL ONLY

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

NAIL VALUES

| PLATE | GRIP(DRY) (PSI) MAX | MIN | SHEAR (PLI) MAX | MIN | 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= 0.84 (I) (INPUT = 0.90 )
JSI METAL= 0.47 (I) (INPUT = 1.00 )

A-18023456

| JOB NAME | TRUSS NAME | QUANTITY | PLY | JOB DESC. | DRWG NO. |
|---|---|---|---|---|---|
| 292589 | H26 | 1 | 1 | TRUSS DESC. | |

Alpa Roof Truss, Maple



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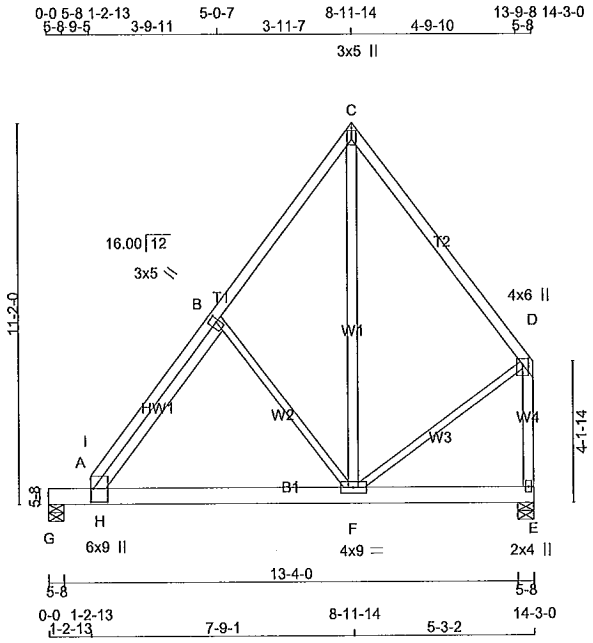


TOTAL WEIGHT = 84 lb

[M]

**LUMBER**

N. L. G. A. RULES

| CHORDS | SIZE | | LUMBER | DESCR. |
|---|---|---|---|---|
| A - C | 2x4 | DRY | No.2 | SPF |
| C - D | 2x4 | DRY | No.2 | SPF |
| E - D | 2x4 | DRY | No.2 | SPF |
| G - E | 2x6 | DRY | No.2 | SPF |
| REINFORCING MEMBERS | | | | |
| HW1 | 2x4 | DRY | No.2 | SPF |
| ALL WEBS EXCEPT | 2x4 | DRY | No.2 | SPF |
| F - D | 2x3 | DRY | No.2 | SPF |
| B - F | 2x3 | DRY | No.2 | SPF |

DRY: SEASONED LUMBER.

**PLATES (table is in inches)**

| JT | TYPE | PLATES | W | LEN | Y | X |
|---|---|---|---|---|---|---|
| A | TBMW+l | MT20 | 6.0 | 9.0 | 4.75 | 1.00 |
| B | TMWW+t | MT20 | 3.0 | 5.0 | 2.25 | 1.00 |
| C | TTW+p | MT20 | 3.0 | 5.0 | 2.00 | Edge |
| D | 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 | 9.0 | | |

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

REGISTERED PROFESSIONAL ENGINEER
02/17/2018
EDWIN C. FOK
PROVINCE OF ONTARIO

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

**BEARINGS**

| JT | FACTORED GROSS REACTION VERT | HORZ | MAXIMUM FACTORED GROSS REACTION DOWN | HORZ | UPLIFT | INPUT BRG IN-SX | REQRD BRG IN-SX |
|---|---|---|---|---|---|---|---|
| G | 687 | 0 | 687 | 0 | 0 | 5-8 | 1-8 |
| E | 687 | 0 | 687 | 0 | 0 | 5-8 | 1-8 |

**UNFACTORED REACTIONS**

| JT | 1ST LCASE COMBINED | MAX./MIN. COMPONENT REACTIONS SNOW | LIVE | PERM.LIVE | WIND | DEAD | SOIL |
|---|---|---|---|---|---|---|---|
| G | 490 | 299 / 0 | 0 / 0 | 0 / 0 | 0 / 0 | 191 / 0 | 0 / 0 |
| E | 490 | 299 / 0 | 0 / 0 | 0 / 0 | 0 / 0 | 191 / 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 = 5.35 FT.
MAX. UNBRACED BOTTOM CHORD LENGTH = 10.00 FT OR RIGID CEILING DIRECTLY APPLIED.

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

**LOADING**

TOTAL LOAD CASES: (4)

| CHORDS MEMB. FR-TO | MAX. FACTORED FORCE (LBS) | FACTORED VERT. LOAD (PLF) FROM | TO | LC | MAX CSI | MAX. UNBRAC LENGTH | WEBS MEMB. FR-TO | MAX. FACTORED FORCE (LBS) | MAX CSI (LC) |
|---|---|---|---|---|---|---|---|---|---|
| A- I | -1427 / 0 | -78.0 | -78.0 | 1 | 0.11 (1) | 5.35 | F- C | 0 / 292 | 0.05 (1) |
| I- B | -1298 / 0 | -78.0 | -78.0 | 1 | 0.26 (1) | 5.38 | F- D | 0 / 280 | 0.06 (1) |
| B- C | -414 / 0 | -78.0 | -78.0 | 1 | 0.22 (1) | 6.25 | B- F | -298 / 0 | 0.24 (1) |
| C- D | -382 / 0 | -78.0 | -78.0 | 1 | 0.39 (1) | 6.25 | H- I | 0 / 56 | 0.00 (1) |
| E- D | -672 / 0 | 0.0 | 0.0 | 1 | 0.18 (1) | 7.81 | H- B | 0 / 741 | 0.12 (1) |
| G- A | 0 / 0 | -96.5 | -96.5 | 1 | 0.41 (1) | 10.00 | | | |
| A- H | 0 / 809 | -18.5 | -18.5 | 1 | 0.51 (1) | 10.00 | | | |
| H- F | 0 / 405 | -18.5 | -18.5 | 1 | 0.24 (1) | 10.00 | | | |
| F- E | 0 / 0 | -18.5 | -18.5 | 1 | 0.13 (4) | 10.00 | | | |

**DESIGN CRITERIA**

SPECIFIED LOADS:

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

**SPACING = 24.0 IN. C/C**

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 (0.48")
CALCULATED VERT. DEFL.(LL) = L/ 999 (0.06")
ALLOWABLE DEFL.(TL)= L/360 (0.48")
CALCULATED VERT. DEFL.(TL) = L/ 999 (0.13")

CSI: TC=0.39/1.00 (C-D:1) , BC=0.51/1.00 (A-H:1) , WB=0.24/1.00 (B-F:1) , SSI=0.41/1.00 (A-G:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

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

NAIL VALUES

| PLATE | GRIP(DRY) (PSI) MAX | MIN | SHEAR (PLI) MAX | MIN | 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 (B) (INPUT = 0.90 )
JSI METAL= 0.38 (B) (INPUT = 1.00 )

A-18023457

| JOB NAME | TRUSS NAME | QUANTITY | PLY | JOB DESC. | DRWG NO. |
|---|---|---|---|---|---|
| 292589 | H27 | 3 | 1 | TRUSS DESC. | |

Alpa Roof Truss, Maple

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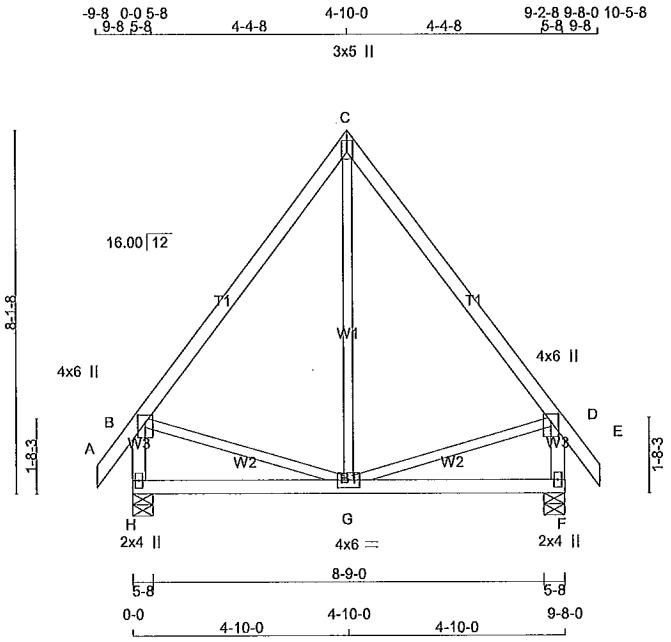



Scale = 1:51.6

TOTAL WEIGHT = 3 X 50 = 149 lb

[M][F]

**LUMBER**

N. L. G. A. RULES

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

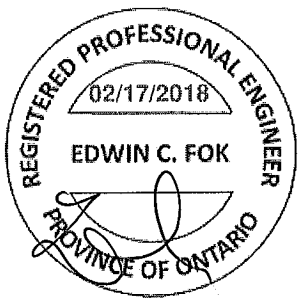
DRY: SEASONED LUMBER.

**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 | | |
| G | BMWWW-t | MT20 | 4.0 | 6.0 | | |
| H | BMV1+p | MT20 | 2.0 | 4.0 | | |

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

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 VERT | HORZ | MAXIMUM FACTORED GROSS REACTION DOWN | HORZ | UPLIFT | INPUT BRG IN-SX | REQRD BRG IN-SX |
|---|---|---|---|---|---|---|---|
| H | 537 | 0 | 537 | 0 | 0 | 5-8 | 1-8 |
| F | 537 | 0 | 537 | 0 | 0 | 5-8 | 1-8 |

**UNFACTORED REACTIONS**

| JT | 1ST LCASE COMBINED | MAX./MIN. COMPONENT REACTIONS SNOW | LIVE | PERM.LIVE | WIND | DEAD | SOIL |
|---|---|---|---|---|---|---|---|
| H | 381 | 241 / 0 | 0 / 0 | 0 / 0 | 0 / 0 | 140 / 0 | 0 / 0 |
| F | 381 | 241 / 0 | 0 / 0 | 0 / 0 | 0 / 0 | 140 / 0 | 0 / 0 |

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

**BRACING**

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

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

**LOADING**

TOTAL LOAD CASES: (4)

| CHORDS MEMB. FR-TO | MAX. FACTORED FORCE (LBS) | FACTORED VERT. LOAD (PLF) FROM | TO | LC1 MAX CSI (LC) | MAX. UNBRAC LENGTH | WEBS MEMB. FR-TO | MAX. FACTORED FORCE (LBS) | MAX CSI (LC) |
|---|---|---|---|---|---|---|---|---|
| A- B | 0 / 28 | -78.0 | -78.0 | 0.05 (1) | 10.00 | G- C | 0 / 90 | 0.03 (4) |
| B- C | -254 / 0 | -78.0 | -78.0 | 0.23 (1) | 6.25 | B- G | 0 / 158 | 0.04 (1) |
| C- D | -254 / 0 | -78.0 | -78.0 | 0.23 (1) | 6.25 | G- D | 0 / 158 | 0.04 (1) |
| D- E | 0 / 28 | -78.0 | -78.0 | 0.05 (1) | 10.00 | | | |
| H- B | -503 / 0 | 0.0 | 0.0 | 0.05 (1) | 7.81 | | | |
| F- D | -503 / 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 / 0 | -18.5 | -18.5 | 0.12 (4) | 10.00 | | | |

**DESIGN CRITERIA**

SPECIFIED LOADS:

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

**SPACING = 24.0 IN. C/C**

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 (0.32")
CALCULATED VERT. DEFL.(LL) = L/ 999 (0.00")
ALLOWABLE DEFL.(TL)= L/360 (0.32")
CALCULATED VERT. DEFL.(TL) = L/ 999 (0.01")

CSI: TC=0.23/1.00 (B-C:1) , BC=0.12/1.00 (G-H:4) , WB=0.04/1.00 (D-G:1) , SSI=0.09/1.00 (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) MAX | MIN | SHEAR (PLI) MAX | MIN | 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= 0.29 (B) (INPUT = 0.90 )
JSI METAL= 0.14 (D) (INPUT = 1.00 )

A-18023458

| JOB NAME | TRUSS NAME | QUANTITY | PLY | JOB DESC. | DRWG NO. |
|---|---|---|---|---|---|
| 292589 | H27G | 1 | 1 | TRUSS DESC. | |

Alpa Roof Truss, Maple

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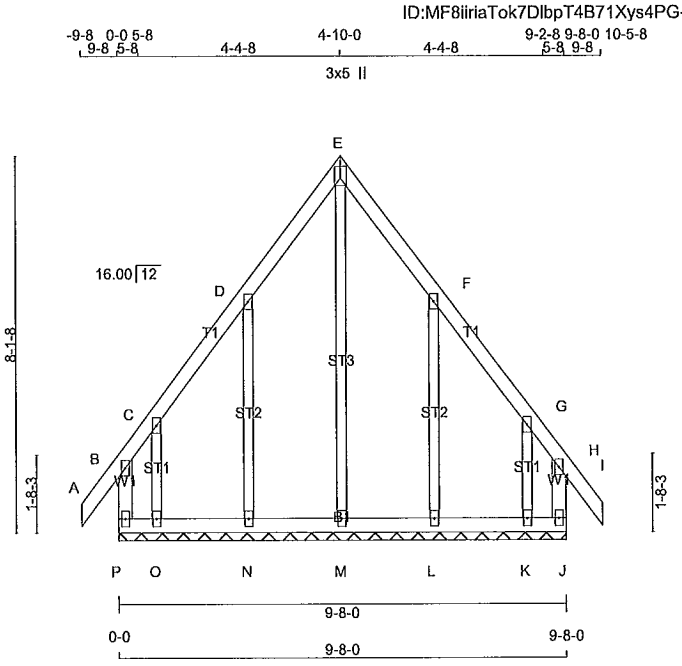



TOTAL WEIGHT = 54 lb

[M]

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

| CHORDS | SIZE | | LUMBER | DESCR. |
|---|---|---|---|---|
| P - B | 2x4 | DRY | No.2 | SPF |
| A - E | 2x4 | DRY | No.2 | SPF |
| E - I | 2x4 | DRY | No.2 | SPF |
| J - H | 2x4 | DRY | No.2 | SPF |
| P - J | 2x4 | DRY | No.2 | SPF |
| ALL WEBS | 2x3 | DRY | No.2 | SPF |
| ALL GABLE WEBS | 2x3 | DRY | No.2 | SPF |

DRY: SEASONED LUMBER.

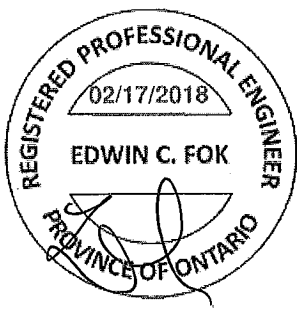
GABLE STUDS SPACED AT 2-0-0 OC.

**PLATES (table is in inches)**

| JT | TYPE | PLATES | W | LEN | Y | X |
|---|---|---|---|---|---|---|
| B | TMV+p | MT20 | 2.0 | 4.0 | | |
| C, D, F, G | | | | | | |
| C | TMW+w | MT20 | 2.0 | 4.0 | | |
| E | TTW+p | MT20 | 3.0 | 5.0 | 2.00 | Edge |
| H | TMV+p | MT20 | 2.0 | 4.0 | | |
| J | BMV1+p | MT20 | 2.0 | 4.0 | | |
| K, L, M, N, O | | | | | | |
| K | BMW1+w | MT20 | 2.0 | 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**

THIS TRUSS DESIGNED FOR CONTINUOUS BEARINGS.

THIS TRUSS REQUIRES RIGID SHEATHING ON EXPOSED FACE.

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

**BRACING**

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

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

**LOADING**

TOTAL LOAD CASES: (4)

| CHORDS MEMB. FR-TO | MAX. FACTORED FORCE (LBS) | FACTORED VERT. LOAD LC1 (PLF) FROM | TO | MAX CSI (LC) | MAX. UNBRAC LENGTH | WEBS MEMB. FR-TO | MAX. FACTORED FORCE (LBS) | MAX CSI (LC) |
|---|---|---|---|---|---|---|---|---|
| P- B | -136 / 0 | 0.0 | 0.0 | 0.02 (1) | 7.81 | M- E | -154 / 0 | 0.18 (1) |
| A- B | 0 / 28 | -78.0 | -78.0 | 0.05 (1) | 10.00 | N- D | -164 / 0 | 0.07 (1) |
| B- C | -36 / 0 | -78.0 | -78.0 | 0.04 (1) | 6.25 | O- C | -71 / 0 | 0.01 (1) |
| C- D | -6 / 0 | -78.0 | -78.0 | 0.04 (1) | 10.00 | L- F | -164 / 0 | 0.07 (1) |
| D- E | -7 / 0 | -78.0 | -78.0 | 0.04 (1) | 10.00 | K- G | -71 / 0 | 0.01 (1) |
| E- F | -7 / 0 | -78.0 | -78.0 | 0.04 (1) | 10.00 | | | |
| F- G | -6 / 0 | -78.0 | -78.0 | 0.04 (1) | 10.00 | | | |
| G- H | -36 / 0 | -78.0 | -78.0 | 0.04 (1) | 6.25 | | | |
| H- I | 0 / 28 | -78.0 | -78.0 | 0.05 (1) | 10.00 | | | |
| J- H | -136 / 0 | 0.0 | 0.0 | 0.02 (1) | 7.81 | | | |
| P- O | 0 / 11 | -18.5 | -18.5 | 0.02 (1) | 10.00 | | | |
| O- N | 0 / 7 | -18.5 | -18.5 | 0.02 (4) | 10.00 | | | |
| N- M | 0 / 3 | -18.5 | -18.5 | 0.02 (4) | 10.00 | | | |
| M- L | 0 / 3 | -18.5 | -18.5 | 0.02 (4) | 10.00 | | | |
| L- K | 0 / 7 | -18.5 | -18.5 | 0.02 (4) | 10.00 | | | |
| K- J | 0 / 11 | -18.5 | -18.5 | 0.02 (1) | 10.00 | | | |

**DESIGN CRITERIA**

SPECIFIED LOADS:

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

**SPACING = 24.0 IN. C/C**

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

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

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

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

CSI: TC=0.05/1.00 (H-I:1) , BC=0.02/1.00 (J-K:1) , WB=0.18/1.00 (E-M:1) , SSI=0.04/1.00 (F-G:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

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

NAIL VALUES

| PLATE | GRIP(DRY) (PSI) MAX | MIN | SHEAR (PLI) MAX | MIN | 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= 0.15 (E) (INPUT = 0.90 )
JSI METAL= 0.08 (F) (INPUT = 1.00 )

A-18023459

| JOB NAME | TRUSS NAME | QUANTITY | PLY | JOB DESC. | DRWG NO. |
|---|---|---|---|---|---|
| 292589 | H28 | 3 | 1 | TRUSS DESC. | |

Alpa Roof Truss, Maple

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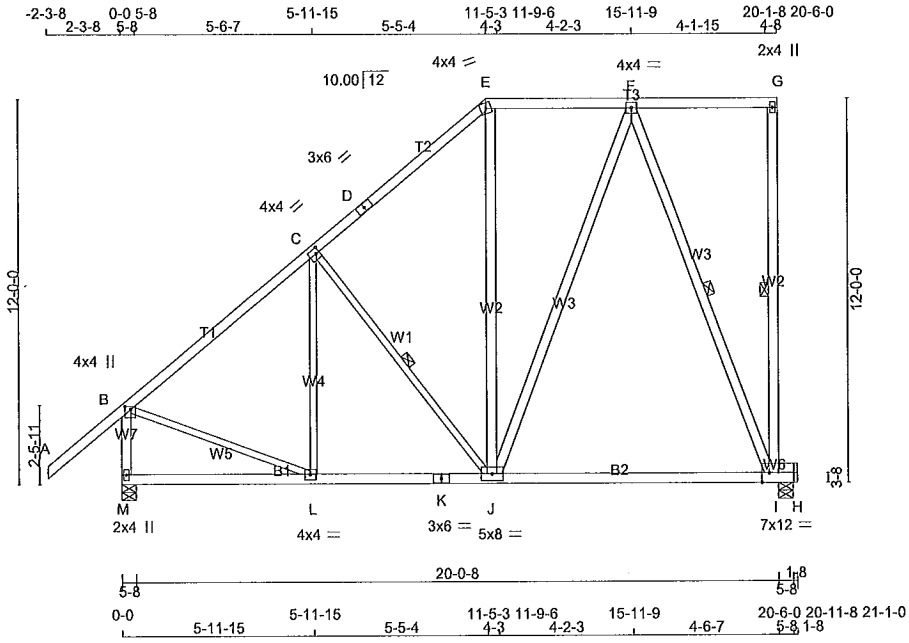



TOTAL WEIGHT = 3 X 129 = 388 lb

[M]

**LUMBER**

N. L. G. A. RULES

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

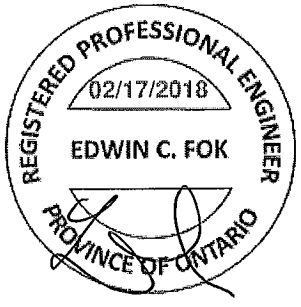
DRY: SEASONED LUMBER.

**PLATES (table is in Inches)**

| JT | TYPE | PLATES | W | LEN | Y | X |
|---|---|---|---|---|---|---|
| B | TMVW+p | MT20 | 4.0 | 4.0 | 1.00 | 2.25 |
| C | TMWW-t | MT20 | 4.0 | 4.0 | 2.00 | 1.25 |
| D | TS-t | MT20 | 3.0 | 6.0 | | |
| E | TTW-m | MT20 | 4.0 | 4.0 | | |
| F | TMWW-t | MT20 | 4.0 | 4.0 | | |
| G | TMV+p | MT20 | 2.0 | 4.0 | | |
| I | BMVWW1-t | MT20 | 7.0 | 12.0 | Edge | 2.75 |
| J | BMWWW-t | MT20 | 5.0 | 8.0 | | |
| K | BS-t | MT20 | 3.0 | 6.0 | | |
| L | BMWW-t | MT20 | 4.0 | 4.0 | | |
| M | 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 VERT | HORZ | MAXIMUM FACTORED GROSS REACTION DOWN | HORZ | UPLIFT | INPUT BRG IN-SX | REQRD BRG IN-SX |
|---|---|---|---|---|---|---|---|
| I | 1098 | 0 | 1098 | 0 | 0 | 5-8 | 1-8 |
| M | 1190 | 0 | 1190 | 0 | 0 | 5-8 | 1-12 |

**UNFACTORED REACTIONS**

| JT | 1ST LCASE COMBINED | MAX./MIN. COMPONENT REACTIONS SNOW | LIVE | PERM.LIVE | WIND | DEAD | SOIL |
|---|---|---|---|---|---|---|---|
| I | 787 | 455 / 0 | 0 / 0 | 0 / 0 | 0 / 0 | 333 / 0 | 0 / 0 |
| M | 846 | 530 / 0 | 0 / 0 | 0 / 0 | 0 / 0 | 315 / 0 | 0 / 0 |

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

**BRACING**

FOR SECTION E-G, MAX. PURLIN SPACING = 2.00 FT.
FOR OTHER SECTIONS, TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 6.01 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 G-I, C-J, F-I.

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

**LOADING**

TOTAL LOAD CASES: (4)

| CHORDS MEMB. FR-TO | MAX. FACTORED FORCE (LBS) | FACTORED VERT. LOAD LC1 (PLF) FROM | TO | MAX CSI (LC) | MAX. UNBRAC LENGTH | WEBS MEMB. FR-TO | MAX. FACTORED FORCE (LBS) | MAX CSI (LC) |
|---|---|---|---|---|---|---|---|---|
| A- B | 0 / 60 | -78.0 | -78.0 | 0.31 (1) | 10.00 | L- C | -134 / 18 | 0.13 (1) |
| B- C | -813 / 0 | -78.0 | -78.0 | 0.49 (1) | 6.01 | C- J | -326 / 0 | 0.18 (1) |
| C- D | -624 / 0 | -78.0 | -78.0 | 0.47 (1) | 6.25 | B- L | 0 / 691 | 0.16 (1) |
| D- E | -624 / 0 | -78.0 | -78.0 | 0.47 (1) | 6.25 | J- E | 0 / 85 | 0.02 (4) |
| I- G | -146 / 0 | 0.0 | 0.0 | 0.12 (1) | 6.25 | J- F | 0 / 371 | 0.06 (1) |
| M- B | -1141 / 0 | 0.0 | 0.0 | 0.15 (1) | 7.44 | F- I | -888 / 0 | 0.83 (1) |
| E- F | -450 / 0 | -85.5 | -85.5 | 0.30 (1) | 2.00 | | | |
| F- G | 0 / 0 | -85.5 | -85.5 | 0.29 (1) | 10.00 | | | |
| M- L | 0 / 0 | -18.5 | -18.5 | 0.15 (4) | 10.00 | | | |
| L- K | 0 / 651 | -18.5 | -18.5 | 0.37 (4) | 10.00 | | | |
| K- J | 0 / 651 | -18.5 | -18.5 | 0.37 (4) | 10.00 | | | |
| J- I | 0 / 321 | -18.5 | -18.5 | 0.34 (4) | 10.00 | | | |
| I- H | 0 / 0 | -96.5 | -96.5 | 0.01 (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 PIGGYBACK TRUSS WITH SLOPES OF 6.00/12 AND -6.00/12 AND RESPECTIVE WALL HEIGHTS OF 0-0 AND 0-0 AND AN ADDITIONAL DEAD LOAD OF 3.0 P.S.F.

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

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

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

ALLOWABLE DEFL.(LL)= L/360 (0.68")
CALCULATED VERT. DEFL.(LL) = L/ 999 (0.02")
ALLOWABLE DEFL.(TL)= L/360 (0.68")
CALCULATED VERT. DEFL.(TL) = L/ 999 (0.18")

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=0.49/1.00 (B-C:1) , BC=0.37/1.00 (J-L:4) , WB=0.83/1.00 (F-I:1) , SSI=0.19/1.00 (F-G:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

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

NAIL VALUES

| PLATE | GRIP(DRY) (PSI) MAX | MIN | SHEAR (PLI) MAX | MIN | 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 (B) (INPUT = 0.90 )
JSI METAL= 0.33 (K) (INPUT = 1.00 )

A-18023460

| JOB NAME | TRUSS NAME | QUANTITY | PLY | JOB DESC. | DRWG NO. |
|---|---|---|---|---|---|
| 292589 | H28G | 1 | 1 | TRUSS DESC. | |

Alpa Roof Truss, Maple

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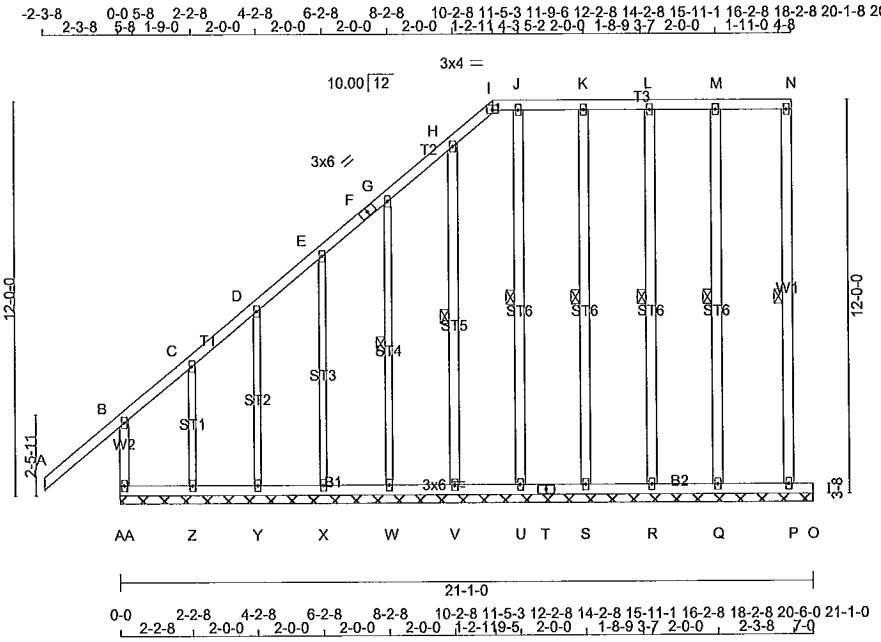



TOTAL WEIGHT = 155 lb [M]

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

| CHORDS | SIZE | | LUMBER | DESCR. |
|---|---|---|---|---|
| A - F | 2x4 | DRY | No.2 | SPF |
| F - I | 2x4 | DRY | No.2 | SPF |
| P - N | 2x4 | DRY | No.2 | SPF |
| AA- B | 2x4 | DRY | No.2 | SPF |
| I - N | 2x4 | DRY | No.2 | SPF |
| AA- T | 2x4 | DRY | No.2 | SPF |
| T - O | 2x4 | DRY | No.2 | SPF |
| ALL WEBS | 2x4 | DRY | No.2 | SPF |
| EXCEPT | | | | |
| W - G | 2x3 | DRY | No.2 | SPF |
| X - E | 2x3 | DRY | No.2 | SPF |
| Y - D | 2x3 | DRY | No.2 | SPF |
| Z - C | 2x3 | DRY | No.2 | SPF |
| ALL GABLE WEBS | 2x4 | DRY | No.2 | SPF |
| EXCEPT | | | | |
| ST6 | 2x3 | DRY | No.2 | SPF |
| ST7 | 2x3 | DRY | No.2 | SPF |
| ST8 | 2x3 | DRY | No.2 | SPF |
| ST9 | 2x3 | DRY | No.2 | SPF |

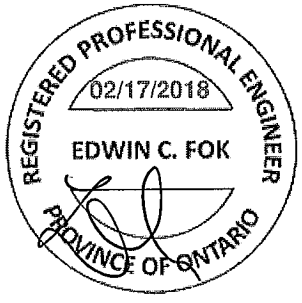
DRY: SEASONED LUMBER.

GABLE STUDS SPACED AT 2-0-0 OC.

**PLATES (table is in inches)**

| JT | TYPE | PLATES | W | LEN | Y | X |
|---|---|---|---|---|---|---|
| B | TMV+p | MT20 | 2.0 | 4.0 | | |
| C, D, E, G, H, J, K, L, M | | | | | | |
| C | TMW+w | MT20 | 2.0 | 4.0 | | |
| F | TS-t | MT20 | 3.0 | 6.0 | | |
| I | TT-I | MT20 | 3.0 | 4.0 | 1.75 | 2.00 |
| N | TMV+p | MT20 | 2.0 | 4.0 | | |
| P | BMV1+p | MT20 | 2.0 | 4.0 | | |
| Q, R, S, U, V, W, X, Y, Z | | | | | | |
| Q | BMW1+w | MT20 | 2.0 | 4.0 | | |
| T | BS-t | MT20 | 3.0 | 6.0 | | |
| AA | 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**

THIS TRUSS DESIGNED FOR CONTINUOUS BEARINGS.

THIS TRUSS REQUIRES RIGID SHEATHING ON EXPOSED FACE.

PROVIDE ANCHORAGE AT BEARING JOINT O FOR 150 LBS FACTORED UPLIFT
BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S)

**BRACING**

FOR SECTION I-N, MAX. PURLIN SPACING = 2.00 FT.
FOR OTHER SECTIONS, 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 N-P, M-Q, L-R, K-S, J-U, H-V, G-W.

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

**LOADING**

TOTAL LOAD CASES: (4)

| CHORDS MEMB. FR-TO | MAX. FACTORED FORCE (LBS) | FACTORED VERT. LOAD LC1 FROM | TO | MAX CSI (LC) | MAX. UNBRAC LENGTH |
|---|---|---|---|---|---|
| A- B | 0 / 60 | -78.0 | -78.0 | 0.31 (1) | 10.00 |
| B- C | -72 / 0 | -78.0 | -78.0 | 0.25 (1) | 6.25 |
| C- D | 0 / 4 | -78.0 | -78.0 | 0.05 (1) | 10.00 |
| D- E | -9 / 0 | -78.0 | -78.0 | 0.05 (1) | 10.00 |
| E- F | -4 / 0 | -78.0 | -78.0 | 0.03 (1) | 10.00 |
| F- G | -4 / 0 | -78.0 | -78.0 | 0.03 (1) | 10.00 |
| G- H | 0 / 0 | -78.0 | -78.0 | 0.04 (1) | 10.00 |
| H- I | -20 / 0 | -78.0 | -78.0 | 0.04 (1) | 6.25 |
| P- N | -83 / 0 | 0.0 | 0.0 | 0.01 (1) | 6.25 |
| AA- B | -370 / 0 | 0.0 | 0.0 | 0.08 (1) | 7.81 |
| I- J | 0 / 1 | -85.5 | -85.5 | 0.04 (1) | 2.00 |
| J- K | 0 / 0 | -85.5 | -85.5 | 0.04 (1) | 2.00 |
| K- L | 0 / 0 | -85.5 | -85.5 | 0.04 (1) | 2.00 |
| L- M | 0 / 0 | -85.5 | -85.5 | 0.05 (1) | 2.00 |
| M- N | 0 / 0 | -85.5 | -85.5 | 0.05 (1) | 2.00 |
| AA- Z | 0 / 9 | -18.5 | -18.5 | 0.08 (1) | 10.00 |
| Z- Y | 0 / 8 | -18.5 | -18.5 | 0.02 (4) | 10.00 |
| Y- X | 0 / 5 | -18.5 | -18.5 | 0.02 (4) | 10.00 |
| X- W | 0 / 3 | -18.5 | -18.5 | 0.01 (4) | 10.00 |
| W- V | 0 / 2 | -18.5 | -18.5 | 0.01 (4) | 10.00 |
| V- U | 0 / 0 | -18.5 | -18.5 | 0.01 (4) | 10.00 |
| U- T | 0 / 0 | -18.5 | -18.5 | 0.01 (4) | 10.00 |
| T- S | 0 / 0 | -18.5 | -18.5 | 0.01 (4) | 10.00 |
| S- R | 0 / 0 | -18.5 | -18.5 | 0.01 (4) | 10.00 |
| R- Q | 0 / 0 | -18.5 | -18.5 | 0.02 (4) | 10.00 |
| Q- P | 0 / 0 | -18.5 | -18.5 | 0.02 (4) | 10.00 |
| P- O | 0 / 0 | -18.5 | -18.5 | 0.02 (4) | 10.00 |

| WEBS MEMB. FR-TO | MAX. FACTORED FORCE (LBS) | MAX CSI (LC) |
|---|---|---|
| Q- M | -204 / 0 | 0.16 (1) |
| R- L | -165 / 0 | 0.13 (1) |
| S- K | -171 / 0 | 0.13 (1) |
| U- J | -173 / 0 | 0.14 (1) |
| V- H | -161 / 0 | 0.10 (1) |
| W- G | -152 / 0 | 0.09 (1) |
| X- E | -150 / 0 | 0.16 (1) |
| Y- D | -181 / 0 | 0.10 (1) |
| Z- C | -42 / 0 | 0.01 (1) |

**DESIGN CRITERIA**

SPECIFIED LOADS:

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

**SPACING = 24.0 IN. C/C**

LOADING IN FLAT SECTION BASED ON PIGGYBACK TRUSS WITH SLOPES OF 6.00/12 AND -6.00/12 AND RESPECTIVE WALL HEIGHTS OF 0-0 AND 0-0 AND AN ADDITIONAL DEAD LOAD OF 3.0 P.S.F.

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

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

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

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

CSI: TC=0.31/1.00 (A-B:1) , BC=0.08/1.00 (Z-AA:1) , WB=0.16/1.00 (E-X:1) , SSI=0.11/1.00 (A-B:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

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

NAIL VALUES

| PLATE | GRIP(DRY) (PSI) MAX | MIN | SHEAR (PLI) MAX | MIN | 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= 0.64 (I) (INPUT = 0.90 )
JSI METAL= 0.20 (B) (INPUT = 1.00 )

A-18023461

CONTINUED ON PAGE 2

| JOB NAME | TRUSS NAME | QUANTITY | PLY | JOB DESC. | DRWG NO. |
|---|---|---|---|---|---|
| 292589 | H29P | 1 | 1 | TRUSS DESC. | |

Alpa Roof Truss, Maple

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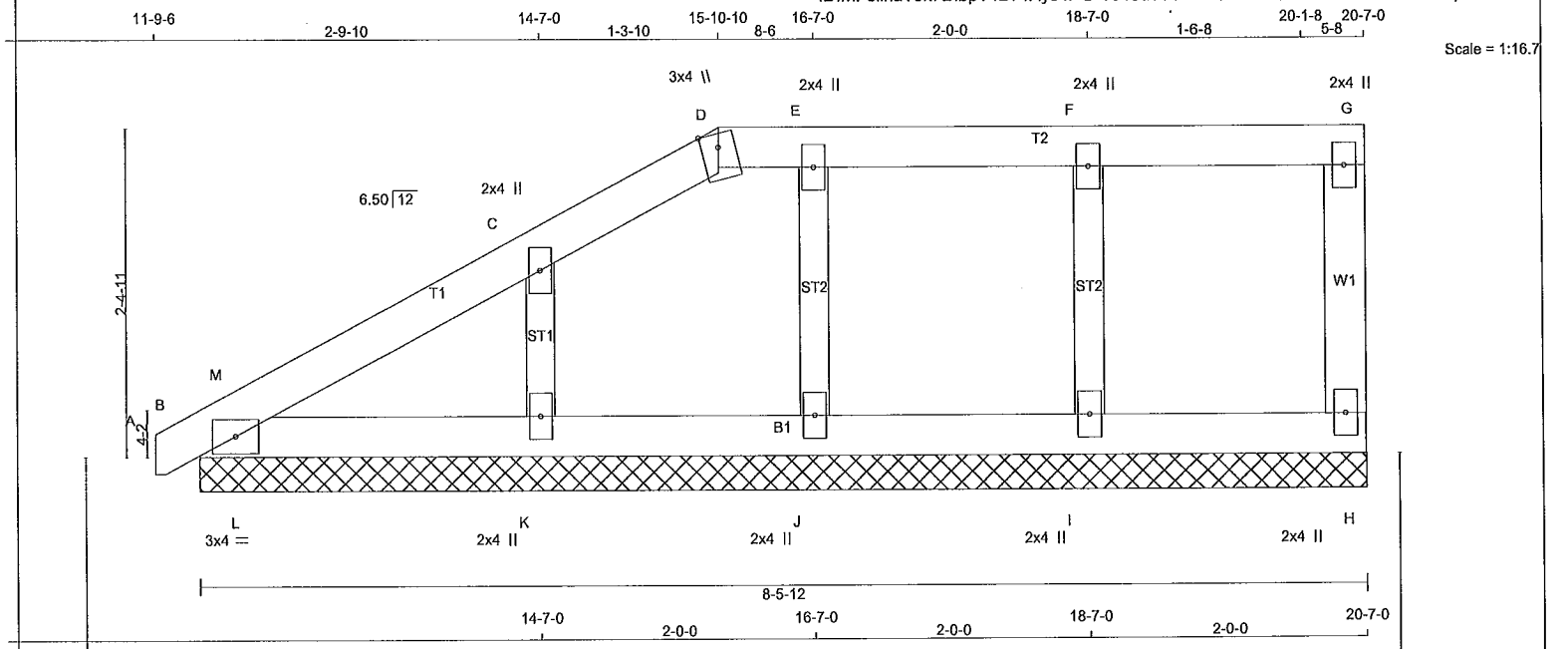



TOTAL WEIGHT = 26 lb

[M]

**LUMBER**

N. L. G. A. RULES

| CHORDS | SIZE | | LUMBER | DESCR. |
|---|---|---|---|---|
| A - D | 2x4 | DRY | No.2 | SPF |
| D - G | 2x4 | DRY | No.2 | SPF |
| H - G | 2x4 | DRY | No.2 | SPF |
| B - H | 2x4 | DRY | No.2 | SPF |
| ALL WEBS EXCEPT | 2x3 | DRY | No.2 | SPF |
| ALL GABLE WEBS | 2x3 | DRY | No.2 | SPF |

DRY: SEASONED LUMBER.

GABLE STUDS SPACED AT 2-0-0 OC.

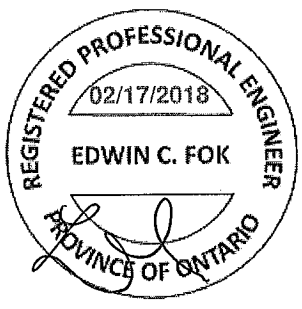
**PLATES (table is in inches)**

| JT | TYPE | PLATES | W | LEN | Y | X |
|---|---|---|---|---|---|---|
| B | TMB1-I | MT20 | 3.0 | 4.0 | | |
| C, E, F | | | | | | |
| C | TMW+w | MT20 | 2.0 | 4.0 | | |
| D | TT+m | MT20 | 3.0 | 4.0 | Edge | |
| G | TMV+p | MT20 | 2.0 | 4.0 | | |
| H | BMV1+p | MT20 | 2.0 | 4.0 | | |
| I, J, K | | | | | | |
| I | BMW1+w | MT20 | 2.0 | 4.0 | | |

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

12-1-8

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**

THIS TRUSS DESIGNED FOR CONTINUOUS BEARINGS.

THIS TRUSS REQUIRES RIGID SHEATHING ON EXPOSED FACE.

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

**BRACING**

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

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

**LOADING**

TOTAL LOAD CASES: (4)

| CHORDS MEMB. FR-TO | FACTORED FORCE (LBS) | FACTORED VERT. LOAD LC1 FROM (PLF) | TO | MAX CSI (LC) | MAX. UNBRAC LENGTH |
|---|---|---|---|---|---|
| A- B | 0 / 6 | -78.0 | -78.0 | 0.01 (1) | 10.00 |
| B- M | -18 / 0 | -78.0 | -78.0 | 0.01 (4) | 6.25 |
| M- C | 0 / 1 | -78.0 | -78.0 | 0.06 (1) | 10.00 |
| C- D | -14 / 0 | -78.0 | -78.0 | 0.06 (1) | 6.25 |
| D- E | 0 / 0 | -78.0 | -78.0 | 0.05 (1) | 10.00 |
| E- F | 0 / 0 | -78.0 | -78.0 | 0.05 (1) | 10.00 |
| F- G | 0 / 0 | -78.0 | -78.0 | 0.04 (1) | 10.00 |
| H- G | -63 / 0 | 0.0 | 0.0 | 0.01 (1) | 7.81 |
| B- L | 0 / 9 | -18.5 | -18.5 | 0.03 (1) | 10.00 |
| L- K | 0 / 9 | -18.5 | -18.5 | 0.03 (1) | 10.00 |
| K- J | 0 / 0 | -18.5 | -18.5 | 0.03 (4) | 10.00 |
| J- I | 0 / 0 | -18.5 | -18.5 | 0.02 (4) | 10.00 |
| I- H | 0 / 0 | -18.5 | -18.5 | 0.02 (4) | 10.00 |

| WEBS MEMB. FR-TO | MAX. FACTORED FORCE (LBS) | MAX CSI (LC) |
|---|---|---|
| I- F | -167 / 0 | 0.03 (1) |
| J- E | -160 / 0 | 0.02 (1) |
| K- C | -160 / 0 | 0.03 (1) |
| L- M | -58 / 3 | 0.00 (1) |

**DESIGN CRITERIA**

SPECIFIED LOADS:

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

**SPACING = 24.0 IN. C/C**

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

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

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

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

CSI: TC=0.06/1.00 (C-D:1) , BC=0.03/1.00 (B-L:1) , WB=0.03/1.00 (F-I:1) , SSI=0.07/1.00 (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

12-1-8

AUTOSOLVE RIGHT HEEL ONLY

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

NAIL VALUES

| PLATE | GRIP(DRY) (PSI) MAX | MIN | SHEAR (PLI) MAX | MIN | 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= 0.11 (C) (INPUT = 0.90 )
JSI METAL= 0.08 (C) (INPUT = 1.00 )

A-18023462

| JOB NAME | TRUSS NAME | QUANTITY | PLY | JOB DESC. | DRWG NO. |
|---|---|---|---|---|---|
| 292589 | H30P | 3 | 1 | TRUSS DESC. | |

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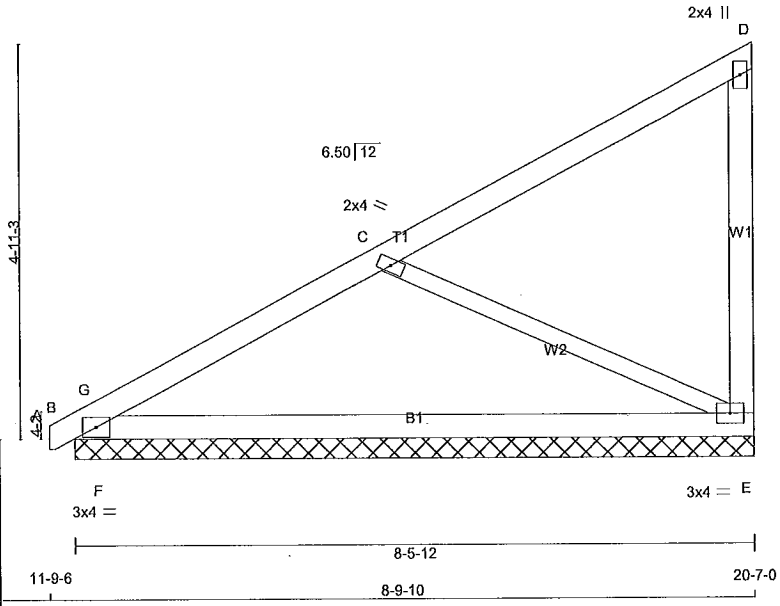



TOTAL WEIGHT = 3 X 30 = 90 lb

[M]

**LUMBER**

N. L. G. A. RULES

| CHORDS | SIZE | | LUMBER | DESCR. |
|---|---|---|---|---|
| A - D | 2x4 | DRY | No.2 | SPF |
| E - D | 2x4 | DRY | No.2 | SPF |
| B - 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 | TMB1-I | MT20 | 3.0 | 4.0 | | |
| C | TMW+w | MT20 | 2.0 | 4.0 | | |
| D | TMV+p | MT20 | 2.0 | 4.0 | | |
| E | BMVW1-t | MT20 | 3.0 | 4.0 | | |

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

**BEARINGS**

| JT | FACTORED GROSS REACTION VERT | HORZ | MAXIMUM FACTORED GROSS REACTION DOWN | HORZ | UPLIFT | INPUT BRG IN-SX | REQRD BRG IN-SX |
|---|---|---|---|---|---|---|---|
| E | 409 | 0 | 409 | 0 | 0 | 8-5-12 ( 8-5-12 ) | 3.15 |
| B | 438 | 0 | 438 | 0 | 0 | 8-5-12 ( 8-5-12 ) | 3.15 |

VALUE IN PARENTHESIS INDICATES EFFECTIVE BEARING LENGTH

**UNFACTORED REACTIONS**

| JT | 1ST LCASE COMBINED | MAX./MIN. COMPONENT REACTIONS SNOW | LIVE | PERM.LIVE | WIND | DEAD | SOIL |
|---|---|---|---|---|---|---|---|
| E | 292 | 178 / 0 | 0 / 0 | 0 / 0 | 0 / 0 | 114 / 0 | 0 / 0 |
| B | 312 | 194 / 0 | 0 / 0 | 0 / 0 | 0 / 0 | 118 / 0 | 0 / 0 |

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

**BRACING**

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

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

**LOADING**

TOTAL LOAD CASES: (4)

| CHORDS MEMB. FR-TO | MAX. FACTORED FORCE (LBS) | FACTORED VERT. LOAD (PLF) FROM | TO | LC1 MAX CSI (LC) | MAX. UNBRAC LENGTH | WEBS MEMB. FR-TO | MAX. FACTORED FORCE (LBS) | MAX CSI (LC) |
|---|---|---|---|---|---|---|---|---|
| A- B | 0 / 6 | -78.0 | -78.0 | 0.01 (1) | 10.00 | C- E | -487 / 0 | 0.20 (1) |
| B- G | -676 / 0 | -78.0 | -78.0 | 0.27 (4) | 6.25 | F- G | 0 / 359 | 0.00 (1) |
| G- C | -460 / 0 | -78.0 | -78.0 | 0.27 (4) | 6.25 | | | |
| C- D | -20 / 0 | -78.0 | -78.0 | 0.26 (1) | 6.25 | | | |
| E- D | -138 / 0 | 0.0 | 0.0 | 0.05 (1) | 7.81 | | | |
| B- F | 0 / 441 | -18.5 | -18.5 | 0.24 (4) | 10.00 | | | |
| F- E | 0 / 441 | -18.5 | -18.5 | 0.29 (4) | 10.00 | | | |

**DESIGN CRITERIA**

SPECIFIED LOADS:

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

**SPACING = 24.0 IN. C/C**

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

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

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

CSI: TC=0.27/1.00 (B-G:4) , BC=0.29/1.00 (E-F:4) , WB=0.20/1.00 (C-E:1) , SSI=0.33/1.00 (B-G:4)

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

COMPANION LIVE LOAD FACTOR = 1.00

AUTOSOLVE RIGHT HEEL ONLY

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

NAIL VALUES

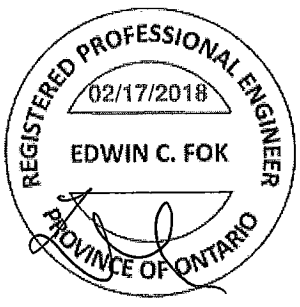
| PLATE | GRIP(DRY) (PSI) MAX | MIN | SHEAR (PLI) MAX | MIN | SECTION (PLI) MAX | MIN |
|---|---|---|---|---|---|---|
| MT20 | 618 | 354 | 1667 | 788 | 1987 | 1656 |

PLATE PLACEMENT TOL. = 0.250 Inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.67 (E) (INPUT = 0.90 )
JSI METAL= 0.24 (C) (INPUT = 1.00 )

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




A-18023463

| JOB NAME | TRUSS NAME | QUANTITY | PLY | JOB DESC. | DRWG NO. |
|---|---|---|---|---|---|
| 292590 | H8T | 5 | 1 | TRUSS DESC. | |

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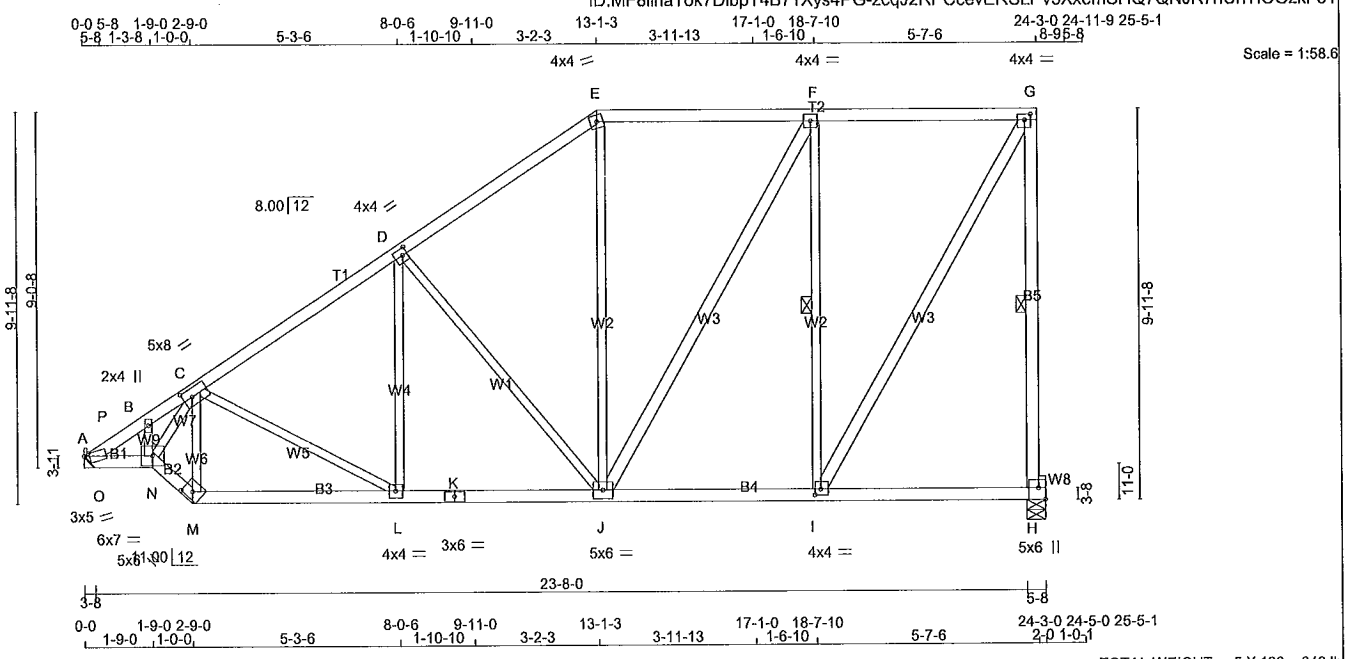


TOTAL WEIGHT = 5 X 130 = 649 lb

[M][F]

**LUMBER**

N. L. G. A. RULES

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

DRY: SEASONED LUMBER.

**PLATES (table is in inches)**

| JT | TYPE | PLATES | W | LEN | Y | X |
|---|---|---|---|---|---|---|
| A | TBM1-m | MT20 | 3.0 | 5.0 | 0.50 | 1.75 |
| B | TMW+w | MT20 | 2.0 | 4.0 | | |
| C | TMWWW-t | MT20 | 5.0 | 8.0 | 2.50 | 2.75 |
| D | TMWW-t | MT20 | 4.0 | 4.0 | 2.00 | 1.50 |
| E | TTW-m | MT20 | 4.0 | 4.0 | | |
| F | TMWW-t | MT20 | 4.0 | 4.0 | | |
| G | TMVW-t | MT20 | 4.0 | 4.0 | 1.75 | 1.75 |
| H | BMVW1+p | MT20 | 5.0 | 6.0 | 3.50 | Edge |
| I | BMWW-t | MT20 | 4.0 | 4.0 | 1.75 | 1.75 |
| J | BMWWW-t | MT20 | 5.0 | 6.0 | | |
| K | BS-t | MT20 | 3.0 | 6.0 | | |
| L | BMWW-t | MT20 | 4.0 | 4.0 | | |
| M | BBW-h | MT20 | 5.0 | 6.0 | 2.00 | 3.00 |
| N | BBWW-l | MT20 | 6.0 | 7.0 | | |

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 VERT | HORZ | MAXIMUM FACTORED GROSS REACTION DOWN | HORZ | UPLIFT | INPUT BRG | REQRD BRG |
|---|---|---|---|---|---|---|---|
| A | 1181 | 0 | 1181 | 0 | 0 | IN-SX | IN-SX |
| | | | | | | HANGER BY OTHERS | |
| | | | | | | MIN. SEAT SIZE: 1-8 | |
| H | 1226 | 0 | 1226 | 0 | 0 | 5-8 | 1-13 |

**UNFACTORED REACTIONS**

| JT | 1ST LCASE COMBINED | MAX./MIN. COMPONENT REACTIONS SNOW | LIVE | PERM.LIVE | WIND | DEAD | SOIL |
|---|---|---|---|---|---|---|---|
| A | 844 | 506 / 0 | 0 / 0 | 0 / 0 | 0 / 0 | 338 / 0 | 0 / 0 |
| H | 880 | 506 / 0 | 0 / 0 | 0 / 0 | 0 / 0 | 374 / 0 | 0 / 0 |

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

**BRACING**

FOR SECTION E-G, MAX. PURLIN SPACING = 2.00 FT.
FOR OTHER SECTIONS, TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 4.68 FT.
MAX. UNBRACED BOTTOM CHORD LENGTH = 10.00 FT OR RIGID CEILING DIRECTLY APPLIED.

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

1 LATERAL BRACE(S) AT 1/ 2 LENGTH OF G-H, F-I.

**LOADING**

TOTAL LOAD CASES: (4)

| CHORDS MEMB. FR-TO | MAX. FACTORED FORCE (LBS) | FACTORED VERT. LOAD LC1 (PLF) FROM | TO | MAX CSI (LC) | MAX. UNBRAC LENGTH | WEBS MEMB. FR-TO | MAX. FACTORED FORCE (LBS) | MAX CSI (LC) |
|---|---|---|---|---|---|---|---|---|
| A- P | -1890 / 0 | -78.0 | -78.0 | 0.04 (1) | 4.88 | N- B | 0 / 165 | 0.04 (1) |
| P- B | -1973 / 0 | -78.0 | -78.0 | 0.16 (1) | 4.68 | N- C | 0 / 1073 | 0.24 (1) |
| B- C | -1854 / 0 | -78.0 | -78.0 | 0.17 (1) | 4.79 | M- C | -936 / 0 | 0.17 (1) |
| C- D | -1266 / 0 | -78.0 | -78.0 | 0.26 (1) | 5.45 | J- E | 0 / 162 | 0.04 (4) |
| D- E | -920 / 0 | -78.0 | -78.0 | 0.25 (1) | 6.14 | C- L | -62 / 0 | 0.04 (1) |
| E- F | -746 / 0 | -85.5 | -85.5 | 0.34 (1) | 2.00 | L- D | 0 / 132 | 0.04 (4) |
| F- G | -571 / 0 | -85.5 | -85.5 | 0.33 (1) | 2.00 | D- J | -497 / 0 | 0.69 (1) |
| | | | | | | J- F | 0 / 358 | 0.06 (1) |
| A- O | 0 / 1598 | -18.5 | -18.5 | 0.34 (1) | 10.00 | I- F | -894 / 0 | 0.60 (1) |
| O- N | 0 / 1599 | -18.5 | -18.5 | 0.34 (1) | 10.00 | I- G | 0 / 1160 | 0.19 (1) |
| N- M | 0 / 1466 | -18.5 | -18.5 | 0.24 (1) | 10.00 | O- P | -211 / 0 | 0.00 (1) |
| M- L | 0 / 1116 | -18.5 | -18.5 | 0.24 (1) | 10.00 | | | |
| L- K | 0 / 1061 | -18.5 | -18.5 | 0.23 (1) | 10.00 | | | |
| K- J | 0 / 1061 | -18.5 | -18.5 | 0.23 (1) | 10.00 | | | |
| J- I | 0 / 571 | -18.5 | -18.5 | 0.19 (4) | 10.00 | | | |
| I- H | 0 / 0 | -18.5 | -18.5 | 0.14 (4) | 10.00 | | | |
| H- G | -1186 / 0 | 0.0 | 0.0 | 0.57 (1) | 5.87 | | | |

**DESIGN CRITERIA**

SPECIFIED LOADS:

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

**SPACING = 24.0 IN. C/C**

LOADING IN FLAT SECTION BASED ON PIGGYBACK TRUSS WITH SLOPES OF 6.00/12 AND -6.00/12 AND RESPECTIVE WALL HEIGHTS OF 0-0 AND 0-0 AND AN ADDITIONAL DEAD LOAD OF 3.0 P.S.F.

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

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

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

ALLOWABLE DEFL.(LL)= L/360 (0.80")
CALCULATED VERT. DEFL.(LL) = L/ 999 (0.04")
ALLOWABLE DEFL.(TL)= L/360 (0.80")
CALCULATED VERT. DEFL.(TL) = L/ 999 (0.09")

CSI: TC=0.34/1.00 (E-F:1) , BC=0.57/1.00 (G-H:1) , WB=0.69/1.00 (D-J: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) (PSI) MAX | MIN | SHEAR (PLI) MAX | MIN | 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= 0.90 (A) (INPUT = 0.90 )
JSI METAL= 0.54 (A) (INPUT = 1.00 )

A-18023468

| JOB NAME | TRUSS NAME | QUANTITY | PLY | JOB DESC. | DRWG NO. |
|---|---|---|---|---|---|
| 292591 | H32 | 1 | 1 | TRUSS DESC. | |

Alpa Roof Truss, Maple

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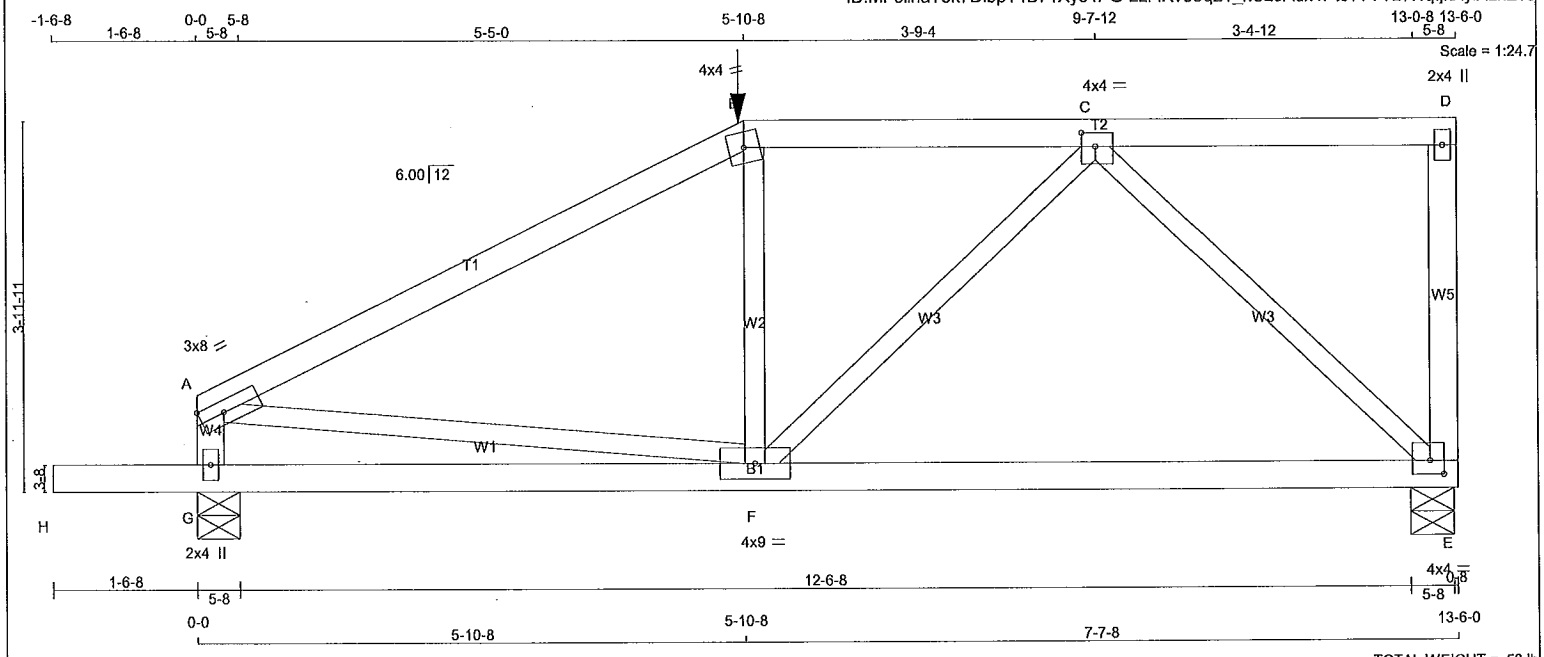



TOTAL WEIGHT = 53 lb

[M]

**LUMBER**

N. L. G. A. RULES

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

DRY: SEASONED LUMBER.

**PLATES (table is in inches)**

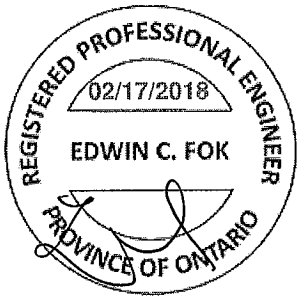
| JT | TYPE | PLATES | W | LEN | Y | X |
|---|---|---|---|---|---|---|
| A | TMVW-t | MT20 | 3.0 | 8.0 | | Edge |
| B | TTW-m | MT20 | 4.0 | 4.0 | | |
| C | TMWW-t | MT20 | 4.0 | 4.0 | 1.75 | 1.75 |
| D | TMV+p | MT20 | 2.0 | 4.0 | | |
| E | BMVW1-t | MT20 | 4.0 | 4.0 | 1.75 | 1.75 |
| F | BMWWW-t | MT20 | 4.0 | 9.0 | | |
| G | BMV1+p | MT20 | 2.0 | 4.0 | | |

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

**HANGERS NOTES**

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

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




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

**BEARINGS**

| JT | FACTORED GROSS REACTION VERT | HORZ | MAXIMUM FACTORED GROSS REACTION DOWN | HORZ | UPLIFT | INPUT BRG IN-SX | REQRD BRG IN-SX |
|---|---|---|---|---|---|---|---|
| E | 1331 | 0 | 1331 | 0 | 0 | 5-8 | 1-8 |
| G | 1272 | 0 | 1272 | 0 | 0 | 5-8 | 1-14 |

**UNFACTORED REACTIONS**

| JT | 1ST LCASE COMBINED | MAX./MIN. COMPONENT REACTIONS SNOW | LIVE | PERM.LIVE | WIND | DEAD | SOIL |
|---|---|---|---|---|---|---|---|
| E | 948 | 584 / 0 | 0 / 0 | 0 / 0 | 0 / 0 | 364 / 0 | 0 / 0 |
| G | 910 | 537 / 0 | 0 / 0 | 0 / 0 | 0 / 0 | 373 / 0 | 0 / 0 |

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

**BRACING**

TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 4.55 FT.
MAX. UNBRACED BOTTOM CHORD LENGTH = 10.00 FT OR RIGID CEILING DIRECTLY APPLIED.

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

**LOADING**

TOTAL LOAD CASES: (4)

| CHORDS MEMB. FR-TO | MAX. FACTORED FORCE (LBS) | FACTORED VERT. LOAD (PLF) FROM | TO | LC1 MAX CSI (LC) | MAX. UNBRAC LENGTH | WEBS MEMB. FR-TO | MAX. FACTORED FORCE (LBS) | MAX CSI (LC) |
|---|---|---|---|---|---|---|---|---|
| A- B | -1470 / 0 | -78.0 | -78.0 | 0.62 (1) | 4.55 | F- B | -126 / 96 | 0.04 (4) |
| B- C | -1307 / 0 | -153.5 | -153.5 | 0.44 (1) | 5.02 | A- F | 0 / 1323 | 0.33 (1) |
| C- D | 0 / 0 | -153.5 | -153.5 | 0.40 (1) | 10.00 | F- C | 0 / 382 | 0.10 (4) |
| E- D | -227 / 0 | 0.0 | 0.0 | 0.06 (1) | 7.81 | C- E | -1440 / 0 | 0.67 (1) |
| G- A | -1046 / 0 | 0.0 | 0.0 | 0.12 (1) | 7.66 | | | |
| H- G | 0 / 0 | -96.5 | -96.5 | 0.17 (1) | 10.00 | | | |
| G- F | 0 / 0 | -36.4 | -36.4 | 0.54 (4) | 10.00 | | | |
| F- E | 0 / 1041 | -36.4 | -36.4 | 0.63 (4) | 10.00 | | | |

FACTORED CONCENTRATED LOADS (LBS)

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

**DESIGN CRITERIA**

SPECIFIED LOADS:

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

**SPACING = 24.0 IN. C/C**

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

GIRDER TYPE: CPrimeHip
LEFT SETBACK = 5-10-8
RIGHT SETBACK = 0-0
END SETBACK = 5-10-8
END WALL WIDTH = 0-0
CORNER FRAMING TYPE: CONVENTIONAL
END JACK TYPE: CONVENTIONAL
APPLIED TO FRONT SIDE
- ADDT'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 (0.45")
CALCULATED VERT. DEFL.(LL) = L/ 999 (0.03")
ALLOWABLE DEFL.(TL)= L/360 (0.45")
CALCULATED VERT. DEFL.(TL) = L/ 940 (0.17")

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

CSI: TC=0.62/1.00 (A-B:1) , BC=0.63/1.00 (E-F:4) , WB=0.67/1.00 (C-E:1) , SSI=0.31/1.00 (C-D:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

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

NAIL VALUES

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

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CONTINUED ON PAGE 2

| JOB NAME | TRUSS NAME | QUANTITY | PLY | JOB DESC. | DRWG NO. |
|---|---|---|---|---|---|
| 292591 | H33 | 1 | 1 | TRUSS DESC. | |

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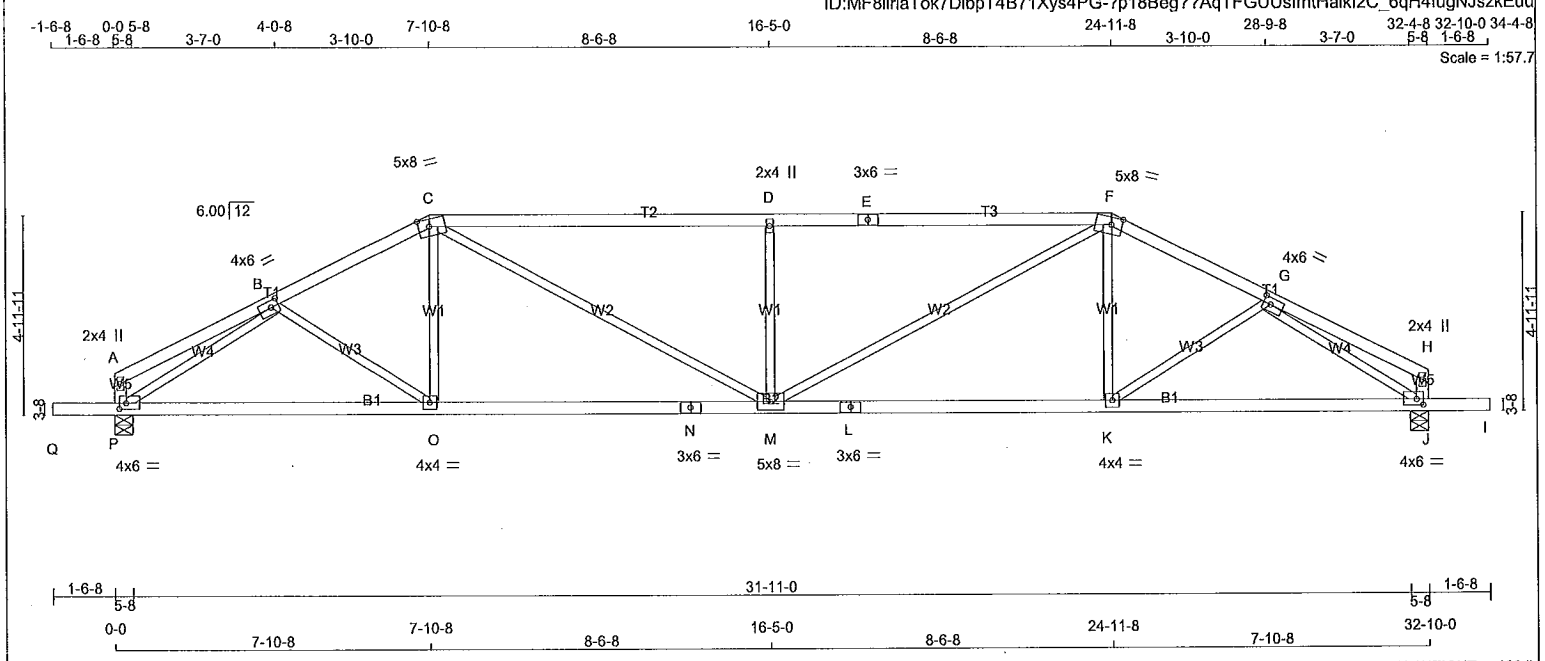



TOTAL WEIGHT = 123 lb

[M][F]

**LUMBER**

N. L. G. A. RULES

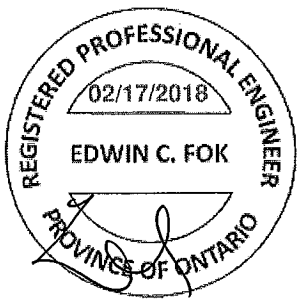
| CHORDS | SIZE | | LUMBER | DESCR. |
|---|---|---|---|---|
| A - C | 2x4 | DRY | No.2 | SPF |
| C - E | 2x4 | DRY | 1650F 1.5E | SPF |
| E - F | 2x4 | DRY | 1650F 1.5E | SPF |
| F - H | 2x4 | DRY | No.2 | SPF |
| P - A | 2x4 | DRY | No.2 | SPF |
| J - H | 2x4 | DRY | No.2 | SPF |
| Q - N | 2x4 | DRY | No.2 | SPF |
| N - L | 2x4 | DRY | No.2 | SPF |
| L - 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 | TMV+p | MT20 | 2.0 | 4.0 | | |
| B | TMWW-t | MT20 | 4.0 | 6.0 | 2.00 | 2.25 |
| C | TTWW-m | MT20 | 5.0 | 8.0 | 2.25 | 3.25 |
| D | TMW+w | MT20 | 2.0 | 4.0 | | |
| E | TS-t | MT20 | 3.0 | 6.0 | | |
| F | TTWW-m | MT20 | 5.0 | 8.0 | 2.25 | 3.25 |
| G | TMWW-t | MT20 | 4.0 | 6.0 | 2.00 | 2.25 |
| H | TMV+p | MT20 | 2.0 | 4.0 | | |
| J | BMVW1-t | MT20 | 4.0 | 6.0 | 1.75 | 2.00 |
| K | BMWW-t | MT20 | 4.0 | 4.0 | | |
| L | BS-t | MT20 | 3.0 | 6.0 | | |
| M | BMWWW-t | MT20 | 5.0 | 8.0 | | |
| N | BS-t | MT20 | 3.0 | 6.0 | | |
| O | BMWW-t | MT20 | 4.0 | 4.0 | | |
| P | BMVW1-t | MT20 | 4.0 | 6.0 | 1.75 | 2.00 |

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




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

**BEARINGS**

| JT | FACTORED GROSS REACTION VERT | HORZ | MAXIMUM FACTORED GROSS REACTION DOWN | HORZ | UPLIFT | INPUT BRG IN-SX | REQRD BRG IN-SX |
|---|---|---|---|---|---|---|---|
| P | 1732 | 0 | 1732 | 0 | 0 | 5-8 | 1-13 |
| J | 1732 | 0 | 1732 | 0 | 0 | 5-8 | 1-13 |

**UNFACTORED REACTIONS**

| JT | 1ST LCASE COMBINED | MAX./MIN. COMPONENT REACTIONS SNOW | LIVE | PERM.LIVE | WIND | DEAD | SOIL |
|---|---|---|---|---|---|---|---|
| P | 1235 | 754 / 0 | 0 / 0 | 0 / 0 | 0 / 0 | 481 / 0 | 0 / 0 |
| J | 1235 | 754 / 0 | 0 / 0 | 0 / 0 | 0 / 0 | 481 / 0 | 0 / 0 |

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

**BRACING**

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

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

**LOADING**

TOTAL LOAD CASES: (4)

| CHORDS MEMB. FR-TO | MAX. FACTORED FORCE (LBS) | FACTORED VERT. LOAD (PLF) FROM | TO | LC | MAX CSI (LC) | MAX. UNBRAC LENGTH | WEBS MEMB. FR-TO | MAX. FACTORED FORCE (LBS) | MAX CSI (LC) |
|---|---|---|---|---|---|---|---|---|---|
| A- B | 0 / 13 | -78.0 | -78.0 | 0.16 (1) | 10.00 | | B- O | 0 / 65 | 0.02 (4) |
| B- C | -2310 / 0 | -78.0 | -78.0 | 0.19 (1) | 4.36 | | O- C | 0 / 168 | 0.05 (4) |
| C- D | -2940 / 0 | -78.0 | -78.0 | 0.78 (1) | 3.72 | | C- M | 0 / 1007 | 0.23 (1) |
| D- E | -2940 / 0 | -78.0 | -78.0 | 0.78 (1) | 3.73 | | M- D | -820 / 0 | 0.30 (1) |
| E- F | -2940 / 0 | -78.0 | -78.0 | 0.78 (1) | 3.73 | | M- F | 0 / 1007 | 0.23 (1) |
| F- G | -2310 / 0 | -78.0 | -78.0 | 0.19 (1) | 4.36 | | K- F | 0 / 168 | 0.05 (4) |
| G- H | 0 / 13 | -78.0 | -78.0 | 0.16 (1) | 10.00 | | K- G | 0 / 65 | 0.02 (4) |
| P- A | -125 / 0 | 0.0 | 0.0 | 0.01 (1) | 7.81 | | P- B | -2480 / 0 | 0.93 (1) |
| J- H | -125 / 0 | 0.0 | 0.0 | 0.01 (1) | 7.81 | | G- J | -2480 / 0 | 0.93 (1) |
| Q- P | 0 / 0 | -96.5 | -96.5 | 0.16 (1) | 10.00 | | | | |
| P- O | 0 / 2047 | -18.5 | -18.5 | 0.50 (1) | 10.00 | | | | |
| O- N | 0 / 2056 | -18.5 | -18.5 | 0.50 (4) | 10.00 | | | | |
| N- M | 0 / 2056 | -18.5 | -18.5 | 0.50 (4) | 10.00 | | | | |
| M- L | 0 / 2056 | -18.5 | -18.5 | 0.50 (4) | 10.00 | | | | |
| L- K | 0 / 2056 | -18.5 | -18.5 | 0.50 (4) | 10.00 | | | | |
| K- J | 0 / 2047 | -18.5 | -18.5 | 0.50 (1) | 10.00 | | | | |
| J- I | 0 / 0 | -96.5 | -96.5 | 0.16 (1) | 10.00 | | | | |

**DESIGN CRITERIA**

SPECIFIED LOADS:

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

**SPACING = 24.0 IN. C/C**

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

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

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

(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 (1.09")
CALCULATED VERT. DEFL.(LL) = L/ 999 (0.15")
ALLOWABLE DEFL.(TL)= L/360 (1.09")
CALCULATED VERT. DEFL.(TL) = L/ 999 (0.32")

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=0.78/1.00 (C-D:1) , BC=0.50/1.00 (K-M:4) , WB=0.93/1.00 (G-J:1) , SSI=0.32/1.00 (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) MAX | MIN | SHEAR (PLI) MAX | MIN | 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= 0.88 (B) (INPUT = 0.90 )
JSI METAL= 0.65 (L) (INPUT = 1.00 )

A-18023472

| JOB NAME | TRUSS NAME | QUANTITY | PLY | JOB DESC. | DRWG NO. |
|---|---|---|---|---|---|
| 292591 | H34 | 1 | 1 | TRUSS DESC. | |

Alpa Roof Truss, Maple

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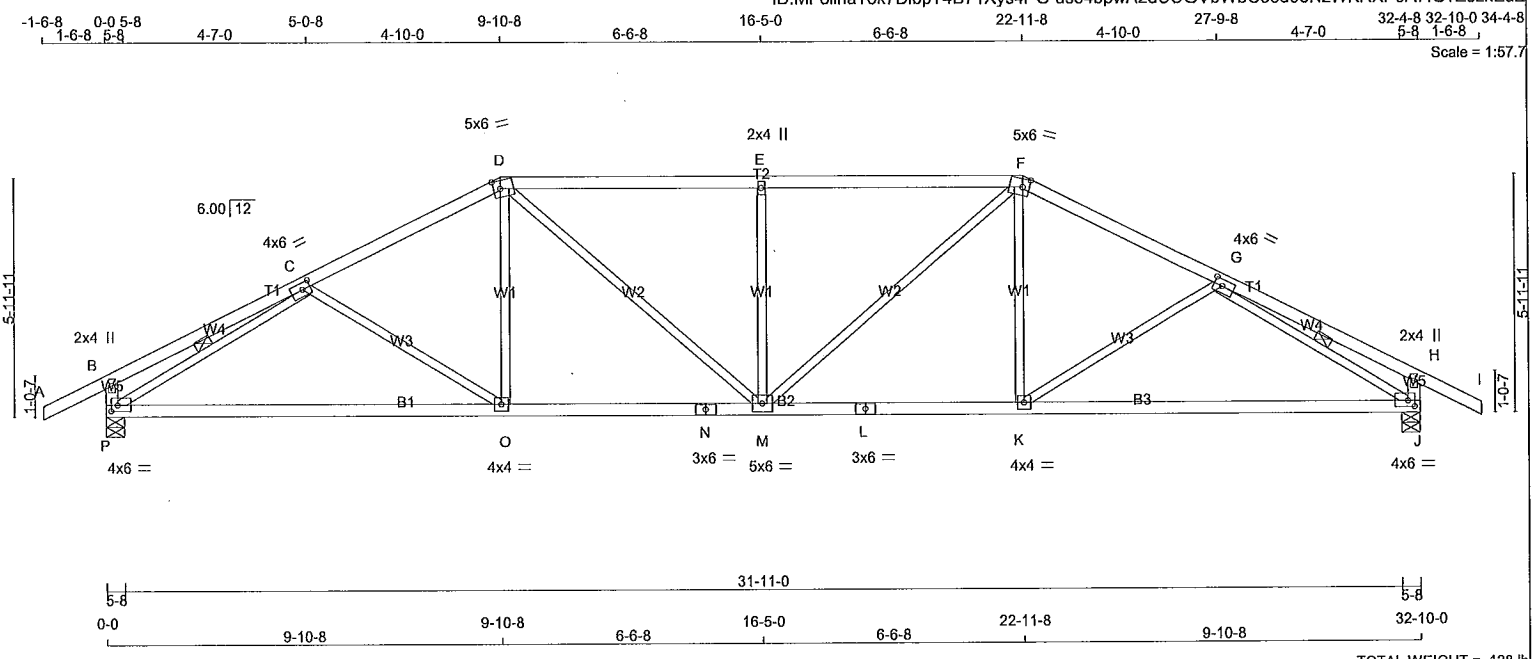



TOTAL WEIGHT = 128 lb

[M][F]

**LUMBER**

N. L. G. A. RULES

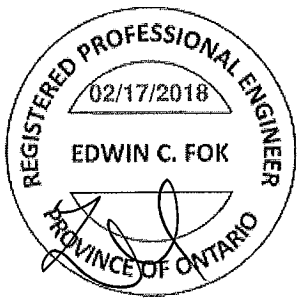
| CHORDS | SIZE | | LUMBER | DESCR. |
|---|---|---|---|---|
| A - D | 2x4 | DRY | No.2 | SPF |
| D - F | 2x4 | DRY | No.2 | SPF |
| F - I | 2x4 | DRY | No.2 | SPF |
| P - B | 2x4 | DRY | No.2 | SPF |
| J - H | 2x4 | DRY | No.2 | SPF |
| P - N | 2x4 | DRY | No.2 | SPF |
| N - L | 2x4 | DRY | No.2 | SPF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

DRY: SEASONED LUMBER.

**PLATES (table is in inches)**

| JT | TYPE | PLATES | W | LEN | Y | X |
|---|---|---|---|---|---|---|
| B | TMV+p | MT20 | 2.0 | 4.0 | | |
| C | TMWW-t | MT20 | 4.0 | 6.0 | 2.00 | 2.50 |
| D | TTWW-m | MT20 | 5.0 | 6.0 | 2.50 | 2.00 |
| E | TMW+w | MT20 | 2.0 | 4.0 | | |
| F | TTWW-m | MT20 | 5.0 | 6.0 | 2.50 | 2.00 |
| G | TMWW-t | MT20 | 4.0 | 6.0 | 2.00 | 2.50 |
| H | TMV+p | MT20 | 2.0 | 4.0 | | |
| J | BMVW1-t | MT20 | 4.0 | 6.0 | 1.75 | 2.00 |
| K | BMWW-t | MT20 | 4.0 | 4.0 | | |
| L | BS-t | MT20 | 3.0 | 6.0 | | |
| M | BMWWW-t | MT20 | 5.0 | 6.0 | | |
| N | BS-t | MT20 | 3.0 | 6.0 | | |
| O | BMWW-t | MT20 | 4.0 | 4.0 | | |
| P | BMVW1-t | MT20 | 4.0 | 6.0 | 1.75 | 2.00 |

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




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

**BEARINGS**

| JT | FACTORED GROSS REACTION VERT | HORZ | MAXIMUM FACTORED GROSS REACTION DOWN | HORZ | UPLIFT | INPUT BRG IN-SX | REQRD BRG IN-SX |
|---|---|---|---|---|---|---|---|
| P | 1709 | 0 | 1709 | 0 | 0 | 5-8 | 1-14 |
| J | 1709 | 0 | 1709 | 0 | 0 | 5-8 | 1-14 |

**UNFACTORED REACTIONS**

| JT | 1ST LCASE COMBINED | MAX./MIN. COMPONENT REACTIONS SNOW | LIVE | PERM.LIVE | WIND | DEAD | SOIL |
|---|---|---|---|---|---|---|---|
| P | 1216 | 757 / 0 | 0 / 0 | 0 / 0 | 0 / 0 | 459 / 0 | 0 / 0 |
| J | 1216 | 757 / 0 | 0 / 0 | 0 / 0 | 0 / 0 | 459 / 0 | 0 / 0 |

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

**BRACING**

TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 3.94 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.

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

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

**LOADING**

TOTAL LOAD CASES: (4)

| CHORDS MEMB. FR-TO | MAX. FACTORED FORCE (LBS) | FACTORED VERT. LOAD (PLF) FROM | TO | LC1 MAX CSI (LC) | MAX. UNBRAC LENGTH |
|---|---|---|---|---|---|
| A- B | 0 / 28 | -78.0 | -78.0 | 0.14 (1) | 10.00 |
| B- C | 0 / 19 | -78.0 | -78.0 | 0.28 (1) | 10.00 |
| C- D | -2203 / 0 | -78.0 | -78.0 | 0.29 (1) | 4.35 |
| D- E | -2358 / 0 | -78.0 | -78.0 | 0.53 (1) | 3.94 |
| E- F | -2358 / 0 | -78.0 | -78.0 | 0.53 (1) | 3.94 |
| F- G | -2203 / 0 | -78.0 | -78.0 | 0.29 (1) | 4.35 |
| G- H | 0 / 19 | -78.0 | -78.0 | 0.28 (1) | 10.00 |
| H- I | 0 / 28 | -78.0 | -78.0 | 0.14 (1) | 10.00 |
| P- B | -277 / 0 | 0.0 | 0.0 | 0.03 (1) | 7.81 |
| J- H | -277 / 0 | 0.0 | 0.0 | 0.03 (1) | 7.81 |
| P- O | 0 / 2097 | -18.5 | -18.5 | 0.59 (4) | 10.00 |
| O- N | 0 / 1958 | -18.5 | -18.5 | 0.60 (4) | 10.00 |
| N- M | 0 / 1958 | -18.5 | -18.5 | 0.60 (4) | 10.00 |
| M- L | 0 / 1958 | -18.5 | -18.5 | 0.60 (4) | 10.00 |
| L- K | 0 / 1958 | -18.5 | -18.5 | 0.60 (4) | 10.00 |
| K- J | 0 / 2097 | -18.5 | -18.5 | 0.59 (4) | 10.00 |

| WEBS MEMB. FR-TO | MAX. FACTORED FORCE (LBS) | MAX CSI (LC) |
|---|---|---|
| C- O | -171 / 13 | 0.11 (1) |
| O- D | 0 / 285 | 0.07 (4) |
| D- M | 0 / 530 | 0.12 (1) |
| M- E | -626 / 0 | 0.35 (1) |
| M- F | 0 / 530 | 0.12 (1) |
| K- F | 0 / 285 | 0.07 (4) |
| K- G | -171 / 13 | 0.11 (1) |
| P- C | -2497 / 0 | 0.63 (1) |
| G- J | -2497 / 0 | 0.63 (1) |

**DESIGN CRITERIA**

SPECIFIED LOADS:

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

**SPACING = 24.0 IN. C/C**

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

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

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

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

ALLOWABLE DEFL.(LL)= L/360 (1.09")
CALCULATED VERT. DEFL.(LL) = L/ 999 (0.12")
ALLOWABLE DEFL.(TL)= L/360 (1.09")
CALCULATED VERT. DEFL.(TL) = L/ 999 (0.36")

CSI: TC=0.53/1.00 (D-E:1) , BC=0.60/1.00 (M-O:4) , WB=0.63/1.00 (G-J: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) (PSI) MAX | MIN | SHEAR (PLI) MAX | MIN | 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= 0.90 (G) (INPUT = 0.90 )
JSI METAL= 0.63 (N) (INPUT = 1.00 )

A-18023473

| JOB NAME | TRUSS NAME | QUANTITY | PLY | JOB DESC. | DRWG NO. |
|---|---|---|---|---|---|
| 292591 | H35 | 1 | 2 | TRUSS DESC. | |

Alpa Roof Truss, Maple



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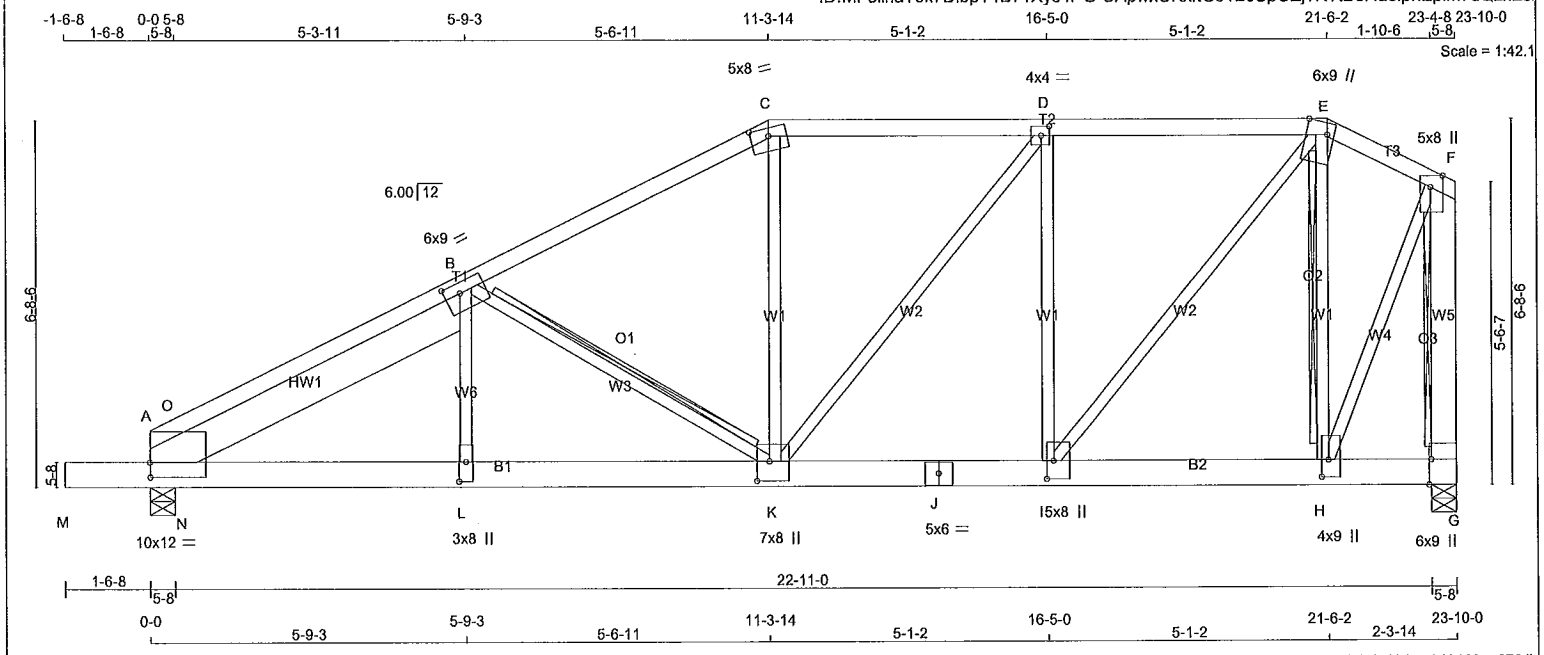



TOTAL WEIGHT = 2 X 138 = 276 lb

[M]

## LUMBER

N. L. G. A. RULES

| CHORDS | SIZE | | LUMBER | DESCR. |
|---|---|---|---|---|
| A - C | 2x4 | DRY | No.2 | SPF |
| C - E | 2x4 | DRY | No.2 | SPF |
| E - F | 2x4 | DRY | No.2 | SPF |
| G - F | 2x6 | DRY | No.2 | SPF |
| M - J | 2x6 | DRY | 1650F 1.5E | SPF |
| J - G | 2x6 | DRY | 1650F 1.5E | SPF |
| REINFORCING MEMBERS | | | | |
| HW1 | 2x8 | DRY | No.2 | SPF |
| ALL WEBS EXCEPT | 2x3 | DRY | No.2 | SPF |

DRY: SEASONED LUMBER.

DESIGN CONSISTS OF 2 TRUSSES BUILT SEPARATELY THEN FASTENED TOGETHER AS FOLLOWS:

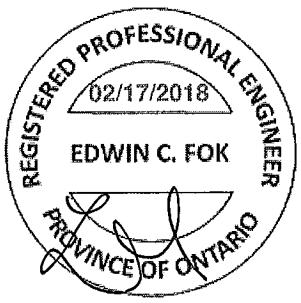
| CHORDS | #ROWS | SURFACE SPACING (IN) | LOAD(PLF) |
|---|---|---|---|
| TOP CHORDS : (0.122"X3") SPIRAL NAILS | | | |
| A- C | 1 | 12 | TOP |
| C- E | 1 | 12 | TOP |
| E- F | 1 | 12 | TOP |
| G- F | 2 | 12 | TOP |
| BOTTOM CHORDS : (0.122"X3") SPIRAL NAILS | | | |
| M- J | 2 | 9 | SIDE(282.4) |
| J- G | 2 | 9 | SIDE(282.4) |
| WEBS : (0.122"X3") SPIRAL NAILS | | | |
| 2x3 | 1 | 6 | |
| 2x8 | 2 | 6 | |

NAILS TO BE DRIVEN FROM ONE SIDE ONLY.

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

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

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




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

### BEARINGS

| JT | FACTORED GROSS REACTION VERT | HORZ | MAXIMUM FACTORED GROSS REACTION DOWN | HORZ | UPLIFT | INPUT BRG IN-SX | REQRD BRG IN-SX |
|---|---|---|---|---|---|---|---|
| A | 8030 | 0 | 8030 | 0 | 0 | 5-8 | 4-6 |
| G | 7881 | 0 | 7881 | 0 | 0 | 5-8 | 5-8 |

### UNFACTORED REACTIONS

| JT | 1ST LCASE COMBINED | MAX./MIN. COMPONENT REACTIONS SNOW | LIVE | PERM.LIVE | WIND | DEAD | SOIL |
|---|---|---|---|---|---|---|---|
| A | 5725 | 3494 / 0 | 0 / 0 | 0 / 0 | 0 / 0 | 2231 / 0 | 0 / 0 |
| G | 5619 | 3429 / 0 | 0 / 0 | 0 / 0 | 0 / 0 | 2189 / 0 | 0 / 0 |

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

### BRACING

TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 2.70 FT.
MAX. UNBRACED BOTTOM CHORD LENGTH = 10.00 FT OR RIGID CEILING DIRECTLY APPLIED.

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

2x4 DRY SPF No.2 T-BRACE AT B-K, E-H, F-G

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

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

### LOADING

TOTAL LOAD CASES: (4)

| CHORDS MEMB. FR-TO | MAX. FACTORED FORCE (LBS) | FACTORED VERT. LOAD LC1 (PLF) FROM | TO | MAX CSI (LC) | MAX. UNBRAC LENGTH | WEBS MEMB. FR-TO | MAX. FACTORED FORCE (LBS) | MAX CSI (LC) |
|---|---|---|---|---|---|---|---|---|
| A- O | -10379 / 0 | -78.0 | -78.0 | 0.42 (1) | 2.70 | L- B | 0 / 3265 | 0.40 (1) |
| O- B | -6493 / 0 | -78.0 | -78.0 | 0.36 (1) | 3.63 | B- K | -3022 / 0 | 0.65 (1) |
| B- C | -8494 / 0 | -78.0 | -78.0 | 0.61 (1) | 3.04 | K- C | 0 / 3444 | 0.43 (1) |
| C- D | -7637 / 0 | -78.0 | -78.0 | 0.42 (1) | 3.28 | K- D | 0 / 1739 | 0.22 (1) |
| D- E | -6560 / 0 | -78.0 | -78.0 | 0.35 (1) | 3.58 | I- D | -1813 / 0 | 0.64 (1) |
| E- F | -3188 / 0 | -78.0 | -78.0 | 0.07 (1) | 5.15 | I- E | 0 / 6005 | 0.74 (1) |
| G- F | -7561 / 0 | 0.0 | 0.0 | 0.63 (1) | 7.81 | H- E | -3502 / 0 | 0.67 (1) |
| | | | | | | H- F | 0 / 6674 | 0.83 (1) |
| M- A | 0 / 0 | -96.5 | -96.5 | 0.03 (1) | 10.00 | N- O | 0 / 5476 | 0.00 (1) |
| A- N | 0 / 5811 | -583.4 | -583.4 | 0.39 (1) | 10.00 | N- B | -5301 / 0 | 0.74 (1) |
| N- L | 0 / 10183 | -583.4 | -583.4 | 0.74 (1) | 10.00 | | | |
| L- K | 0 / 10132 | -583.4 | -583.4 | 0.76 (1) | 10.00 | | | |
| K- J | 0 / 6560 | -583.4 | -583.4 | 0.61 (1) | 10.00 | | | |
| J- I | 0 / 6560 | -583.4 | -583.4 | 0.61 (1) | 10.00 | | | |
| I- H | 0 / 2790 | -583.4 | -583.4 | 0.37 (1) | 10.00 | | | |
| H- G | 0 / 0 | -583.4 | -583.4 | 0.24 (1) | 10.00 | | | |

## DESIGN CRITERIA

SPECIFIED LOADS:

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

**SPACING = 24.0 IN. C/C**

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

GIRDER TYPE: CStdGIrder
START DISTANCE = 0-0
START SPAN CARRIED = 25-5-1
END DISTANCE = 23-10-0
END SPAN CARRIED = 25-5-1
END WALL WIDTH = 0-0
APPLIED TO FRONT SIDE OF BOTTOM CHORD.
- ADDT'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 (0.79")
CALCULATED VERT. DEFL.(LL) = L/ 999 (0.15")
ALLOWABLE DEFL.(TL)= L/360 (0.79")
CALCULATED VERT. DEFL.(TL) = L/ 972 (0.29")

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=0.63/1.00 (F-G:1) , BC=0.76/1.00 (K-L:1) , WB=0.83/1.00 (F-H:1) , SSI=0.55/1.00 (K-L: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) MAX | MIN | SHEAR (PLI) MAX | MIN | SECTION (PLI) MAX | MIN |
|---|---|---|---|---|---|---|
| MT20 | 618 | 354 | 1667 | 788 | 1987 | 1656 |

A-18023474

CONTINUED ON PAGE 2

| JOB NAME | TRUSS NAME | QUANTITY | PLY | JOB DESC. | DRWG NO. |
|---|---|---|---|---|---|
| 292591 | H35 | 1 | 2 | TRUSS DESC. | |



**PLATES (table is in inches)**

| JT | TYPE | PLATES | W | LEN | Y | X |
|---|---|---|---|---|---|---|
| A | TMBMW1-l | MT20 | 10.0 | 12.0 | 3.25 | |
| B | TMWWW-t | MT20 | 6.0 | 9.0 | 2.25 | 3.25 |
| C | TTW-m | MT20 | 5.0 | 8.0 | 1.75 | 4.00 |
| D | TMWW-t | MT20 | 4.0 | 4.0 | 2.00 | 1.75 |
| E | TTWW+m | MT20 | 6.0 | 9.0 | Edge | 4.50 |
| F | TMVW+p | MT20 | 5.0 | 8.0 | Edge | 2.75 |
| G | BMV1+t | MT20 | 6.0 | 9.0 | Edge | 0.50 |
| H | BMWW+t | MT20 | 4.0 | 9.0 | 3.75 | 1.50 |
| I | BMWW+t | MT20 | 5.0 | 8.0 | 4.00 | 1.50 |
| J | BS-t | MT20 | 5.0 | 6.0 | | |
| K | BMWWW+t | MT20 | 7.0 | 8.0 | 4.25 | 2.75 |
| L | BMW+w | MT20 | 3.0 | 8.0 | 4.25 | 1.50 |

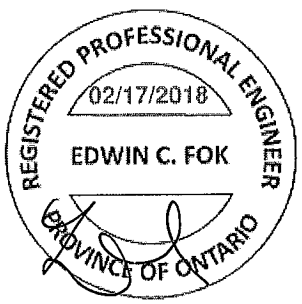
Edge - INDICATES REFERENCE CORNER OF PLATE TOUCHES EDGE OF CHORD.

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.90 (E) (INPUT = 0.90 )
JSI METAL= 0.83 (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




A-180234744(2)

| JOB NAME | TRUSS NAME | QUANTITY | PLY | JOB DESC. | DRWG NO. |
|---|---|---|---|---|---|
| 292591 | H36 | 1 | 1 | TRUSS DESC. | |

Alpa Roof Truss, Maple

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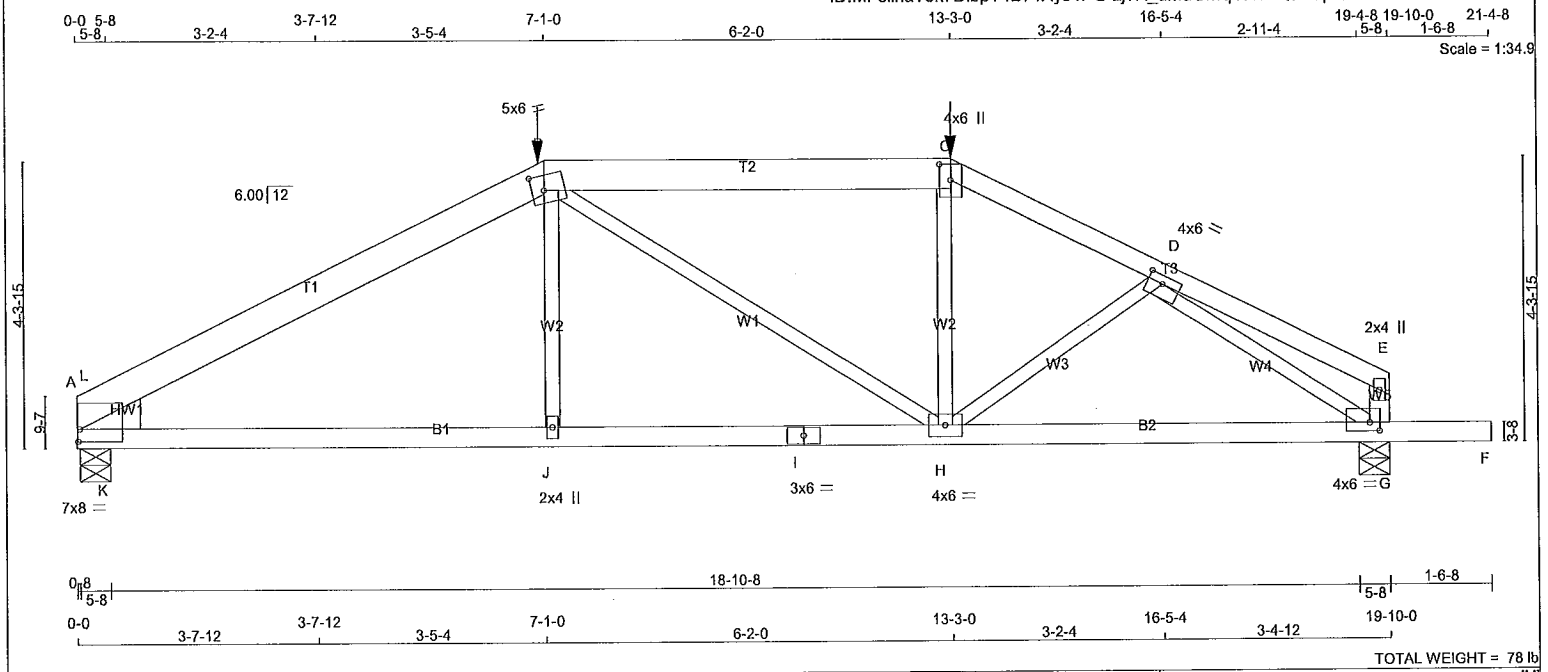



TOTAL WEIGHT = 78 lb

[M]

**LUMBER**

N. L. G. A. RULES

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

DRY: SEASONED LUMBER.

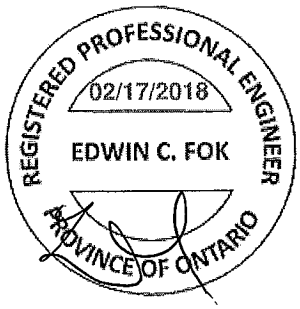
**PLATES (table is in inches)**

| JT | TYPE | PLATES | W | LEN | Y | X |
|---|---|---|---|---|---|---|
| A | TMBH1-I | MT20 | 7.0 | 8.0 | 2.25 | 0.25 |
| B | TTWW-m | MT20 | 5.0 | 6.0 | 2.75 | 2.25 |
| C | TTW+p | MT20 | 4.0 | 6.0 | 3.00 | 2.00 |
| D | TMWW-t | MT20 | 4.0 | 6.0 | 1.50 | 2.75 |
| E | TMV+p | MT20 | 2.0 | 4.0 | | |
| G | BMVW1-t | MT20 | 4.0 | 6.0 | 1.50 | 1.75 |
| H | BMWWW-t | MT20 | 4.0 | 6.0 | | |
| I | BS-t | MT20 | 3.0 | 6.0 | | |
| J | BMW+w | MT20 | 2.0 | 4.0 | | |

**HANGERS NOTES**

1) SPECIAL HANGER(S) OR CONNECTION(S) REQUIRED TO SUPPORT CONCENTRATED LOAD(S) 434.9 lbs FACTORED DOWN AT 13-3-0, AND 467.9 lbs FACTORED DOWN AT 7-1-0 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 VERT | HORZ | MAXIMUM FACTORED GROSS REACTION DOWN | HORZ | UPLIFT | INPUT BRG IN-SX | REQRD BRG IN-SX | HEEL WEDGE |
|---|---|---|---|---|---|---|---|---|
| A | 1881 | 0 | 1881 | 0 | 0 | 5-8 | 2-1 | 2x6 L |
| G | 2056 | 0 | 2056 | 0 | 0 | 5-8 | 2-3 | |

**UNFACTORED REACTIONS**

| JT | 1ST LCASE COMBINED | MAX./MIN. COMPONENT REACTIONS SNOW | LIVE | PERM.LIVE | WIND | DEAD | SOIL |
|---|---|---|---|---|---|---|---|
| A | 1344 | 801 / 0 | 0 / 0 | 0 / 0 | 0 / 0 | 544 / 0 | 0 / 0 |
| G | 1469 | 879 / 0 | 0 / 0 | 0 / 0 | 0 / 0 | 589 / 0 | 0 / 0 |

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

**BRACING**

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

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

**LOADING**

TOTAL LOAD CASES: (4)

| CHORDS MEMB. FR-TO | MAX. FACTORED FORCE (LBS) | FACTORED VERT. LOAD (PLF) FROM | TO | LC1 MAX CSI (LC) | MAX. UNBRAC LENGTH | WEBS MEMB. FR-TO | MAX. FACTORED FORCE (LBS) | MAX CSI (LC) |
|---|---|---|---|---|---|---|---|---|
| A- L | -3443 / 0 | -78.0 | -78.0 | 0.47 (1) | 4.00 | J- B | 0 / 264 | 0.10 (4) |
| L- B | -3002 / 0 | -78.0 | -78.0 | 0.51 (1) | 4.27 | B- H | -119 / 0 | 0.12 (1) |
| B- C | -2555 / 0 | -167.3 | -167.3 | 0.65 (1) | 4.23 | H- C | 0 / 257 | 0.10 (4) |
| C- D | -2847 / 0 | -78.0 | -78.0 | 0.22 (1) | 3.91 | H- D | 0 / 238 | 0.06 (1) |
| D- E | 0 / 8 | -78.0 | -78.0 | 0.13 (1) | 10.00 | D- G | -2897 / 0 | 0.88 (1) |
| G- E | -115 / 0 | 0.0 | 0.0 | 0.01 (1) | 7.81 | K- L | 0 / 625 | 0.00 (1) |
| A- K | 0 / 2649 | -39.7 | -39.7 | 0.79 (1) | 10.00 | | | |
| K- J | 0 / 2649 | -39.7 | -39.7 | 0.79 (1) | 10.00 | | | |
| J- I | 0 / 2655 | -39.7 | -39.7 | 0.71 (1) | 10.00 | | | |
| I- H | 0 / 2655 | -39.7 | -39.7 | 0.71 (1) | 10.00 | | | |
| H- G | 0 / 2359 | -39.7 | -39.7 | 0.67 (4) | 10.00 | | | |
| G- F | 0 / 0 | -96.5 | -96.5 | 0.17 (1) | 10.00 | | | |

FACTORED CONCENTRATED LOADS (LBS)

| JT | LOC. | LC1 | MAX- | MAX+ | FACE | DIR. | TYPE |
|---|---|---|---|---|---|---|---|
| B | 7-1-0 | -468 | -468 | --- | FRONT | VERT | TOTAL |
| C | 13-3-0 | -435 | -435 | --- | 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 = 7-1-0
RIGHT SETBACK = 6-7-0
END SETBACK = 6-7-0
END WALL WIDTH = 0-0
CORNER FRAMING TYPE: CONVENTIONAL
END JACK TYPE: CONVENTIONAL
APPLIED TO FRONT SIDE
- ADDT'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 (0.66")
CALCULATED VERT. DEFL.(LL) = L/ 999 (0.09")
ALLOWABLE DEFL.(TL)= L/360 (0.66")
CALCULATED VERT. DEFL.(TL) = L/ 999 (0.18")

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=0.65/1.00 (B-C:1) , BC=0.79/1.00 (A-K:1) , WB=0.88/1.00 (D-G:1) , SSI=0.51/1.00 (A-K:4)

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

COMPANION LIVE LOAD FACTOR = 1.00

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

NAIL VALUES

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

A-18023475

CONTINUED ON PAGE 2

| JOB NAME | TRUSS NAME | QUANTITY | PLY | JOB DESC. | DRWG NO. |
|---|---|---|---|---|---|
| 292591 | H37 | 1 | 1 | TRUSS DESC. | |

Alpa Roof Truss, Maple

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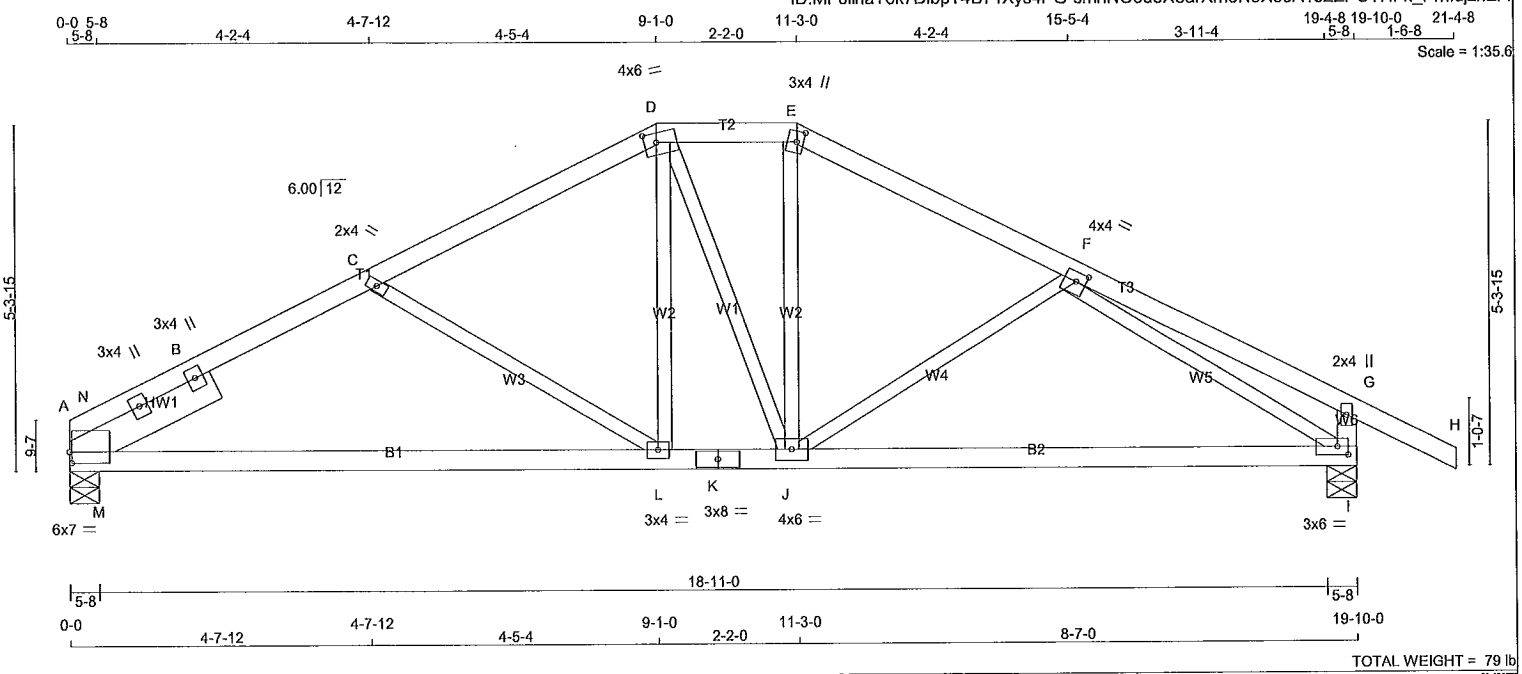



TOTAL WEIGHT = 79 lb

[M][F]

**LUMBER**

N. L. G. A. RULES

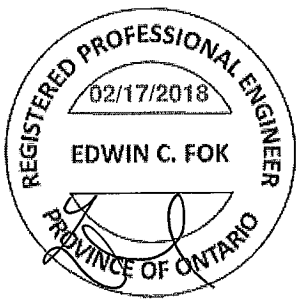
| CHORDS | SIZE | | LUMBER | DESCR. |
|---|---|---|---|---|
| A - D | 2x4 | DRY | No.2 | SPF |
| D - E | 2x4 | DRY | No.2 | SPF |
| E - H | 2x4 | DRY | No.2 | SPF |
| I - G | 2x4 | DRY | No.2 | SPF |
| A - K | 2x4 | DRY | No.2 | SPF |
| K - I | 2x4 | DRY | No.2 | SPF |
| REINFORCING MEMBERS | | | | |
| HW1 | 2x6 | 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 | TMBMR1-I | MT20 | 6.0 | 7.0 | 2.00 | 0.25 |
| A | RT+t | MT20 | 3.0 | 4.0 | | |
| A | RT+t | MT20 | 3.0 | 4.0 | | |
| C | TMW+w | MT20 | 2.0 | 4.0 | | |
| D | TTWW-m | MT20 | 4.0 | 6.0 | 1.75 | 2.25 |
| E | TTW+m | MT20 | 3.0 | 4.0 | 2.00 | 1.25 |
| F | TMWW-t | MT20 | 4.0 | 4.0 | 1.75 | 1.75 |
| G | TMV+p | MT20 | 2.0 | 4.0 | | |
| I | BMVW1-t | MT20 | 3.0 | 6.0 | 1.50 | 2.00 |
| J | BMWWW-t | MT20 | 4.0 | 6.0 | | |
| K | BS-t | MT20 | 3.0 | 8.0 | | |
| L | BMWW-t | MT20 | 3.0 | 4.0 | | |

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




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

**BEARINGS**

| JT | FACTORED GROSS REACTION VERT | HORZ | MAXIMUM FACTORED GROSS REACTION DOWN | HORZ | UPLIFT | INPUT BRG IN-SX | REQRD BRG IN-SX |
|---|---|---|---|---|---|---|---|
| A | 957 | 0 | 957 | 0 | 0 | 5-8 | 1-8 |
| I | 1082 | 0 | 1082 | 0 | 0 | 5-8 | 1-8 |

**UNFACTORED REACTIONS**

| JT | 1ST LCASE COMBINED | MAX./MIN. COMPONENT REACTIONS SNOW | LIVE | PERM.LIVE | WIND | DEAD | SOIL |
|---|---|---|---|---|---|---|---|
| A | 682 | 416 / 0 | 0 / 0 | 0 / 0 | 0 / 0 | 266 / 0 | 0 / 0 |
| I | 769 | 484 / 0 | 0 / 0 | 0 / 0 | 0 / 0 | 285 / 0 | 0 / 0 |

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

**BRACING**

TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 5.45 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.

**LOADING**

TOTAL LOAD CASES: (4)

| CHORDS MEMB. FR-TO | MAX. FACTORED FORCE (LBS) | FACTORED VERT. LOAD (PLF) FROM | TO | LC1 MAX CSI (LC) | MAX. UNBRAC LENGTH |
|---|---|---|---|---|---|
| A- N | -1419 / 0 | -78.0 | -78.0 | 0.05 (1) | 5.45 |
| N- B | -1098 / 0 | -78.0 | -78.0 | 0.15 (1) | 5.88 |
| B- C | -1098 / 0 | -78.0 | -78.0 | 0.15 (1) | 5.88 |
| C- D | -1068 / 0 | -78.0 | -78.0 | 0.20 (1) | 5.87 |
| D- E | -953 / 0 | -78.0 | -78.0 | 0.06 (1) | 6.25 |
| E- F | -1077 / 0 | -78.0 | -78.0 | 0.18 (1) | 5.88 |
| F- G | 0 / 17 | -78.0 | -78.0 | 0.22 (1) | 10.00 |
| G- H | 0 / 28 | -78.0 | -78.0 | 0.14 (1) | 10.00 |
| I- G | -256 / 0 | 0.0 | 0.0 | 0.03 (1) | 7.81 |
| A- M | 0 / 793 | -18.5 | -18.5 | 0.37 (4) | 10.00 |
| M- L | 0 / 1222 | -18.5 | -18.5 | 0.38 (4) | 10.00 |
| L- K | 0 / 950 | -18.5 | -18.5 | 0.41 (4) | 10.00 |
| K- J | 0 / 950 | -18.5 | -18.5 | 0.41 (4) | 10.00 |
| J- I | 0 / 1136 | -18.5 | -18.5 | 0.41 (4) | 10.00 |

| WEBS MEMB. FR-TO | MAX. FACTORED FORCE (LBS) | MAX CSI (LC) |
|---|---|---|
| C- L | -326 / 0 | 0.16 (1) |
| L- D | 0 / 234 | 0.05 (1) |
| D- J | 0 / 22 | 0.01 (4) |
| J- E | 0 / 262 | 0.06 (1) |
| J- F | -226 / 0 | 0.11 (1) |
| F- I | -1367 / 0 | 0.60 (1) |
| M- N | 0 / 771 | 0.00 (1) |
| M- B | -610 / 0 | 0.05 (1) |

**DESIGN CRITERIA**

SPECIFIED LOADS:

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

**SPACING = 24.0 IN. C/C**

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

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

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

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

ALLOWABLE DEFL.(LL)= L/360 (0.66")
CALCULATED VERT. DEFL.(LL) = L/ 999 (0.04")
ALLOWABLE DEFL.(TL)= L/360 (0.66")
CALCULATED VERT. DEFL.(TL) = L/ 999 (0.18")

CSI: TC=0.22/1.00 (F-G:1) , BC=0.41/1.00 (I-J:4) , WB=0.60/1.00 (F-I:1) , SSI=0.30/1.00 (A-M:4)

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

COMPANION LIVE LOAD FACTOR = 1.00

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

NAIL VALUES

| PLATE | GRIP(DRY) (PSI) MAX | MIN | SHEAR (PLI) MAX | MIN | 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= 0.88 (I) (INPUT = 0.90 )
JSI METAL= 0.60 (K) (INPUT = 1.00 )

A-18023476

| JOB NAME | TRUSS NAME | QUANTITY | PLY | JOB DESC. | DRWG NO. |
|---|---|---|---|---|---|
| 292592 | H32T | 1 | 1 | TRUSS DESC. | |

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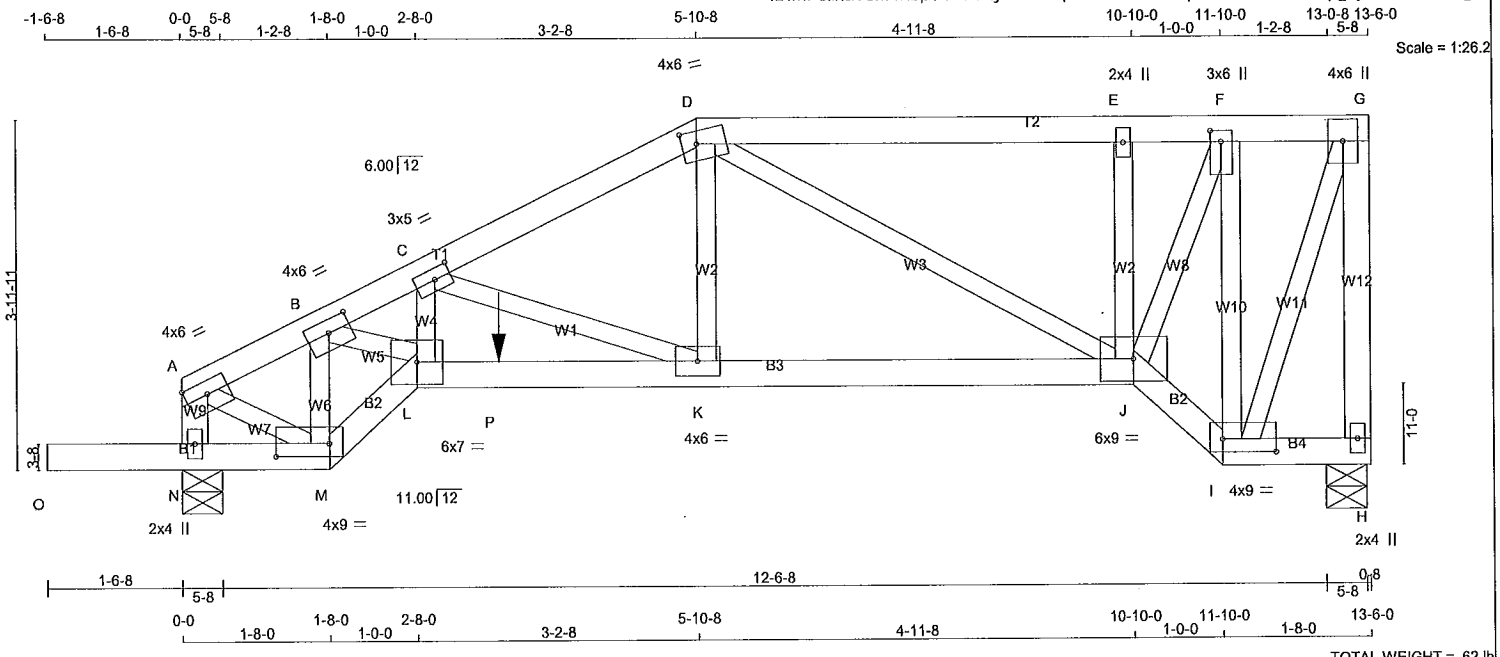



**LUMBER**

N. L. G. A. RULES

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

DRY: SEASONED LUMBER.

**PLATES (table is in inches)**

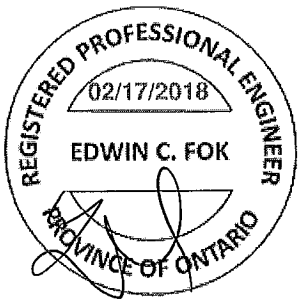
| JT | TYPE | PLATES | W | LEN | Y | X |
|---|---|---|---|---|---|---|
| A | TMVW-t | MT20 | 4.0 | 6.0 | 1.75 | Edge |
| B | TMWW-t | MT20 | 4.0 | 6.0 | 1.75 | 3.00 |
| C | TMWW-t | MT20 | 3.0 | 5.0 | 1.50 | 2.25 |
| D | TTWW-m | MT20 | 4.0 | 6.0 | 1.75 | 2.00 |
| E | TMW+w | MT20 | 2.0 | 4.0 | | |
| F | TMWW+t | MT20 | 3.0 | 6.0 | 1.50 | 1.50 |
| G | TMVW+p | MT20 | 4.0 | 6.0 | | |
| H | BMV1+p | MT20 | 2.0 | 4.0 | | |
| I | BBWW-I | MT20 | 4.0 | 9.0 | 1.75 | 7.25 |
| J | BBWWW-p | MT20 | 6.0 | 9.0 | | |
| K | BMWW-t | MT20 | 4.0 | 6.0 | | |
| L | BBWW-I | MT20 | 6.0 | 7.0 | | |
| M | BBWW-I | MT20 | 4.0 | 9.0 | 1.75 | 7.25 |
| N | BMV1+p | MT20 | 2.0 | 4.0 | | |

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

**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 VERT | HORZ | MAXIMUM FACTORED GROSS REACTION DOWN | HORZ | UPLIFT | INPUT BRG IN-SX | REQRD BRG IN-SX |
|---|---|---|---|---|---|---|---|
| H | 1344 | 0 | 1344 | 0 | 0 | 5-8 | 2-0 |
| N | 1448 | 0 | 1448 | 0 | 0 | 5-8 | 2-2 |

**UNFACTORED REACTIONS**

| JT | 1ST LCASE COMBINED | MAX./MIN. COMPONENT REACTIONS SNOW | LIVE | PERM.LIVE | WIND | DEAD | SOIL |
|---|---|---|---|---|---|---|---|
| H | 956 | 595 / 0 | 0 / 0 | 0 / 0 | 0 / 0 | 361 / 0 | 0 / 0 |
| N | 1027 | 657 / 0 | 0 / 0 | 0 / 0 | 0 / 0 | 369 / 0 | 0 / 0 |

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

**BRACING**

TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 3.87 FT.
MAX. UNBRACED BOTTOM CHORD LENGTH = 10.00 FT OR RIGID CEILING DIRECTLY APPLIED.

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

**LOADING**

TOTAL LOAD CASES: (4)

| CHORDS MEMB. FR-TO | MAX. FACTORED FORCE (LBS) | FACTORED VERT. LOAD LC1 (PLF) FROM | TO | MAX CSI (LC) | MAX. UNBRAC LENGTH | WEBS MEMB. FR-TO | MAX. FACTORED FORCE (LBS) | MAX CSI (LC) |
|---|---|---|---|---|---|---|---|---|
| A- B | -1380 / 0 | -78.0 | -78.0 | 0.10 (1) | 5.41 | M- B | -1583 / 0 | 0.25 (1) |
| B- C | -2980 / 0 | -78.0 | -78.0 | 0.17 (1) | 3.87 | B- L | 0 / 1760 | 0.44 (1) |
| C- D | -1995 / 0 | -78.0 | -78.0 | 0.20 (1) | 4.56 | L- C | 0 / 561 | 0.14 (1) |
| D- E | -1131 / 0 | -78.0 | -78.0 | 0.28 (1) | 5.59 | C- K | -903 / 0 | 0.21 (1) |
| E- F | -1112 / 0 | -153.5 | -153.5 | 0.26 (1) | 5.63 | K- D | 0 / 998 | 0.25 (1) |
| F- G | -529 / 0 | -153.5 | -153.5 | 0.12 (1) | 6.25 | D- J | -787 / 0 | 0.41 (1) |
| H- G | -1313 / 0 | 0.0 | 0.0 | 0.33 (1) | 7.02 | J- E | -493 / 0 | 0.10 (1) |
| N- A | -1215 / 0 | 0.0 | 0.0 | 0.13 (1) | 7.23 | J- F | 0 / 1677 | 0.42 (1) |
| | | | | | | I- F | -1558 / 0 | 0.40 (1) |
| O- N | 0 / 0 | -96.5 | -96.5 | 0.17 (1) | 10.00 | I- G | 0 / 1276 | 0.32 (1) |
| N- M | -1 / 0 | -18.5 | -18.5 | 0.17 (1) | 10.00 | A- M | 0 / 1327 | 0.33 (1) |
| M- L | 0 / 1509 | -18.5 | -18.5 | 0.27 (1) | 10.00 | | | |
| L- P | 0 / 2629 | -18.5 | -18.5 | 0.91 (1) | 10.00 | | | |
| P- K | 0 / 2629 | -112.0 | -112.0 | 0.91 (1) | 10.00 | | | |
| K- J | 0 / 1820 | -112.0 | -112.0 | 0.77 (1) | 10.00 | | | |
| J- I | 0 / 658 | -36.4 | -36.4 | 0.12 (1) | 10.00 | | | |
| I- H | 0 / 0 | -36.4 | -36.4 | 0.03 (4) | 10.00 | | | |

FACTORED CONCENTRATED LOADS (LBS)

| JT | LOC. | LC1 | MAX- | MAX+ | FACE | DIR. | TYPE |
|---|---|---|---|---|---|---|---|
| P | 3-7-4 | -407 | -407 | — | 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 = 5-10-8
RIGHT SETBACK = 0-0
END SETBACK = 5-10-8
END WALL WIDTH = 0-0
CORNER FRAMING TYPE: CONVENTIONAL
END JACK TYPE: CONVENTIONAL
APPLIED TO FRONT SIDE
- ADDT'L LOADS BASED ON 55 % OF GSL.
LOADS APPLIED TO FIRST 2-8-0 OF SPAN MEASURED FROM THE RIGHT.

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

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

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

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

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

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

ALLOWABLE DEFL.(LL)= L/360 (0.45")
CALCULATED VERT. DEFL.(LL) = L/ 999 (0.08")
ALLOWABLE DEFL.(TL)= L/360 (0.45")
CALCULATED VERT. DEFL.(TL) = L/ 997 (0.16")

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

A-18023477

CONTINUED ON PAGE 2

| JOB NAME | TRUSS NAME | QUANTITY | PLY | JOB DESC. | DRWG NO. |
|---|---|---|---|---|---|
| 292592 | H33T | 1 | 1 | TRUSS DESC. | |

Alpa Roof Truss, Maple

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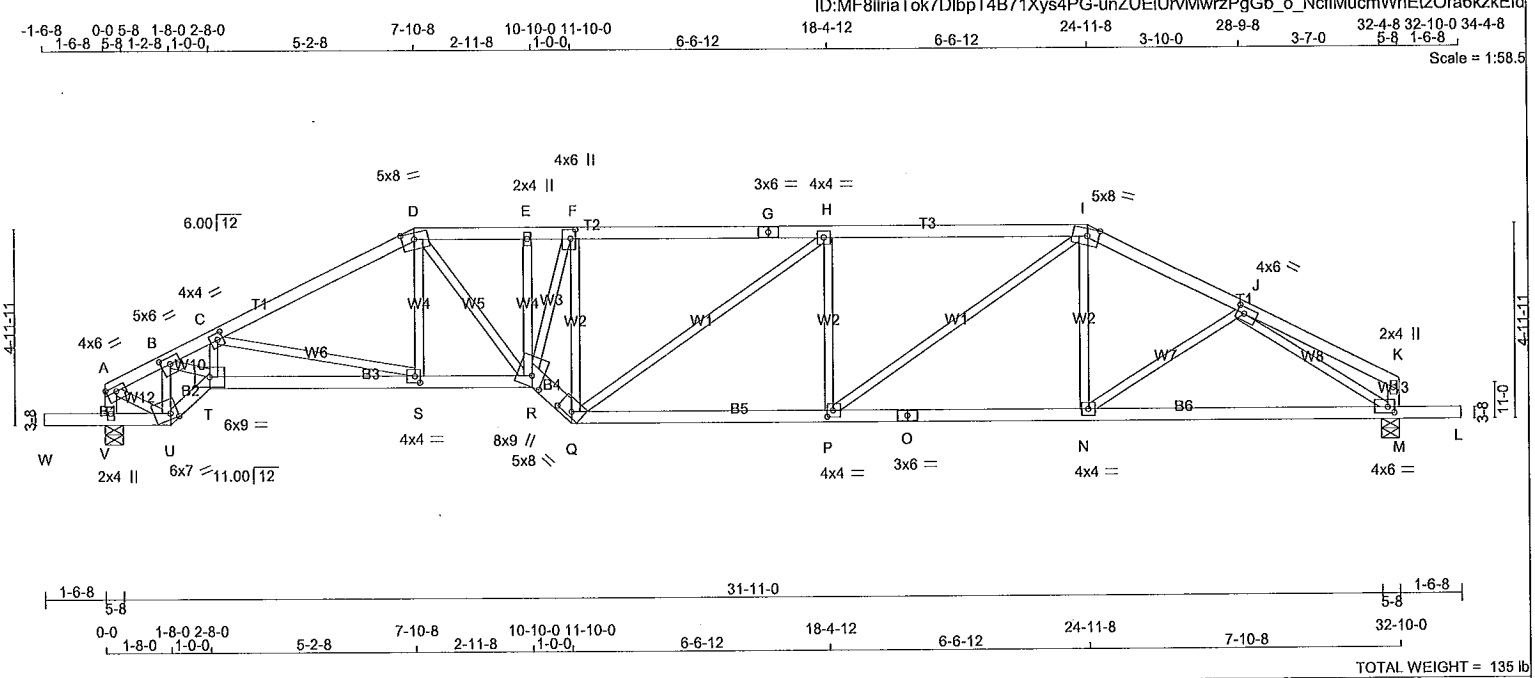



[M][F]

## LUMBER

N. L. G. A. RULES

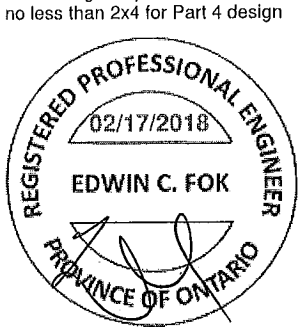
| CHORDS | SIZE | | LUMBER | DESCR. |
|---|---|---|---|---|
| A - D | 2x4 | DRY | No.2 | SPF |
| D - G | 2x4 | DRY | No.2 | SPF |
| G - I | 2x4 | DRY | No.2 | SPF |
| I - K | 2x4 | DRY | No.2 | SPF |
| V - A | 2x4 | DRY | No.2 | SPF |
| M - K | 2x4 | DRY | No.2 | SPF |
| W - U | 2x4 | DRY | No.2 | SPF |
| U - T | 2x4 | DRY | No.2 | SPF |
| T - R | 2x4 | DRY | No.2 | SPF |
| R - Q | 2x6 | DRY | No.2 | SPF |
| Q - O | 2x4 | DRY | No.2 | SPF |
| O - L | 2x4 | DRY | No.2 | SPF |
| ALL WEBS EXCEPT | 2x3 | DRY | No.2 | SPF |

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 | 3.00 |
| B | TMWW-t | MT20 | 5.0 | 6.0 | 2.00 | 2.75 |
| C | TMWW-t | MT20 | 4.0 | 4.0 | 2.00 | 1.75 |
| D | TTWW-m | MT20 | 5.0 | 8.0 | 2.00 | 3.75 |
| E | TMW+w | MT20 | 2.0 | 4.0 | | |
| F | TMWW+t | MT20 | 4.0 | 6.0 | 2.75 | 1.50 |
| G | TS-t | MT20 | 3.0 | 6.0 | | |
| H | TMWW-t | MT20 | 4.0 | 4.0 | | |
| I | TTWW-m | MT20 | 5.0 | 8.0 | 2.25 | 3.50 |
| J | TMWW-t | MT20 | 4.0 | 6.0 | 2.00 | 2.25 |
| K | TMV+p | MT20 | 2.0 | 4.0 | | |
| M | BMVW1-t | MT20 | 4.0 | 6.0 | 1.75 | 2.00 |
| N | BMWW-t | MT20 | 4.0 | 4.0 | | |
| O | BS-t | MT20 | 3.0 | 6.0 | | |
| P | BMWW-t | MT20 | 4.0 | 4.0 | 2.00 | 1.75 |
| Q | BBWW-h | MT20 | 5.0 | 8.0 | 1.50 | 4.50 |
| R | BBWWW+m | MT20 | 8.0 | 9.0 | 3.25 | 3.50 |
| S | BMWW-t | MT20 | 4.0 | 4.0 | 2.00 | 1.50 |
| T | BBWW-t | MT20 | 6.0 | 9.0 | | |
| U | BBWW-m | MT20 | 6.0 | 7.0 | 1.75 | 2.25 |
| V | 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 VERT | HORZ | MAXIMUM FACTORED GROSS REACTION DOWN | HORZ | UPLIFT | INPUT BRG IN-SX | REQRD BRG IN-SX |
|---|---|---|---|---|---|---|---|
| V | 1736 | 0 | 1736 | 0 | 0 | 5-8 | 2-9 |
| M | 1729 | 0 | 1729 | 0 | 0 | 5-8 | 1-13 |

## UNFACTORED REACTIONS

| JT | 1ST LCASE COMBINED | MAX./MIN. COMPONENT REACTIONS SNOW | LIVE | PERM.LIVE | WIND | DEAD | SOIL |
|---|---|---|---|---|---|---|---|
| V | 1238 | 755 / 0 | 0 / 0 | 0 / 0 | 0 / 0 | 482 / 0 | 0 / 0 |
| M | 1233 | 752 / 0 | 0 / 0 | 0 / 0 | 0 / 0 | 480 / 0 | 0 / 0 |

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

## BRACING

TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 3.41 FT.
MAX. UNBRACED BOTTOM CHORD LENGTH = 10.00 FT OR RIGID CEILING DIRECTLY APPLIED.

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

## LOADING

TOTAL LOAD CASES: (4)

| CHORDS MEMB. FR-TO | MAX. FACTORED FORCE (LBS) | FACTORED VERT. LOAD (PLF) FROM | TO | LC1 | MAX CSI (LC) | MAX. UNBRAC LENGTH |
|---|---|---|---|---|---|---|
| A- B | -1712 / 0 | -78.0 | -78.0 | 0.13 (1) | | 4.97 |
| B- C | -3802 / 0 | -78.0 | -78.0 | 0.28 (1) | | 3.41 |
| C- D | -2813 / 0 | -78.0 | -78.0 | 0.39 (1) | | 3.83 |
| D- E | -3092 / 0 | -78.0 | -78.0 | 0.23 (1) | | 3.80 |
| E- F | -3093 / 0 | -78.0 | -78.0 | 0.30 (1) | | 3.72 |
| F- G | -2637 / 0 | -78.0 | -78.0 | 0.51 (1) | | 3.81 |
| G- H | -2637 / 0 | -78.0 | -78.0 | 0.51 (1) | | 3.81 |
| H- I | -2812 / 0 | -78.0 | -78.0 | 0.55 (1) | | 3.65 |
| I- J | -2298 / 0 | -78.0 | -78.0 | 0.19 (1) | | 4.37 |
| J- K | 0 / 13 | -78.0 | -78.0 | 0.16 (1) | | 10.00 |
| V- A | -1503 / 0 | 0.0 | 0.0 | 0.15 (1) | | 6.70 |
| M- K | -125 / 0 | 0.0 | 0.0 | 0.01 (1) | | 7.81 |
| W- V | 0 / 0 | -96.5 | -96.5 | 0.16 (1) | | 10.00 |
| V- U | -1 / 0 | -18.5 | -18.5 | 0.12 (1) | | 10.00 |
| U- T | 0 / 1864 | -18.5 | -18.5 | 0.30 (1) | | 10.00 |
| T- S | 0 / 3446 | -18.5 | -18.5 | 0.62 (1) | | 10.00 |
| S- R | 0 / 2511 | -18.5 | -18.5 | 0.46 (1) | | 10.00 |
| R- Q | 0 / 3511 | -18.5 | -18.5 | 0.42 (1) | | 10.00 |
| Q- P | 0 / 2812 | -18.5 | -18.5 | 0.55 (1) | | 10.00 |
| P- O | 0 / 2045 | -18.5 | -18.5 | 0.46 (1) | | 10.00 |
| O- N | 0 / 2045 | -18.5 | -18.5 | 0.46 (1) | | 10.00 |
| N- M | 0 / 2037 | -18.5 | -18.5 | 0.47 (1) | | 10.00 |
| M- L | 0 / 0 | -96.5 | -96.5 | 0.16 (1) | | 10.00 |

| WEBS MEMB. FR-TO | MAX. FACTORED FORCE (LBS) | MAX CSI (LC) |
|---|---|---|
| U- B | -1945 / 0 | 0.28 (1) |
| B- T | 0 / 2353 | 0.53 (1) |
| T- C | 0 / 255 | 0.06 (1) |
| C- S | -966 / 0 | 0.47 (1) |
| S- D | 0 / 225 | 0.05 (4) |
| D- R | 0 / 927 | 0.21 (1) |
| R- E | 0 / 59 | 0.01 (1) |
| R- F | 0 / 1759 | 0.40 (1) |
| Q- F | -2154 / 0 | 0.78 (1) |
| Q- H | -214 / 0 | 0.28 (1) |
| P- H | -459 / 0 | 0.17 (1) |
| P- I | 0 / 941 | 0.21 (1) |
| N- I | 0 / 150 | 0.05 (4) |
| N- J | 0 / 63 | 0.02 (4) |
| A- U | 0 / 1639 | 0.37 (1) |
| J- M | -2469 / 0 | 0.92 (1) |

## DESIGN CRITERIA

SPECIFIED LOADS:

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

**SPACING = 24.0 IN. C/C**

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

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

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

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 (1.09")
CALCULATED VERT. DEFL.(LL) = L/ 999 (0.19")
ALLOWABLE DEFL.(TL)= L/360 (1.09")
CALCULATED VERT. DEFL.(TL) = L/ 959 (0.41")

CANTILEVER DEFLECTION:
ALLOWABLE DEFL.(LL)= L/120 (0.19")
CALCULATED VERT. DEFL.(LL) = L/ 427 ( 0.04")
ALLOWABLE DEFL.(TL)= L/120 (0.19")
CALCULATED VERT. DEFL.(TL) = L/ 216 ( 0.09")

CSI: TC=0.55/1.00 (H-I:1) , BC=0.62/1.00 (S-T:1) , WB=0.92/1.00 (J-M:1) , SSI=0.24/1.00 (H-I:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

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

NAIL VALUES

| PLATE | GRIP(DRY) (PSI) MAX | MIN | SHEAR (PLI) MAX | MIN | 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= 0.89 (Q) (INPUT = 0.90 )
JSI METAL= 0.61 (J) (INPUT = 1.00 )

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CONTINUED ON PAGE 2

| JOB NAME | TRUSS NAME | QUANTITY | PLY | JOB DESC. | DRWG NO. |
|---|---|---|---|---|---|
| 292592 | H34T | 1 | 1 | TRUSS DESC. | |

Alpa Roof Truss, Maple

Version 8.200 S Jan 6 2018 MiTek Industries, Inc. Sat Feb 17 13:07:00 2018 Page 1
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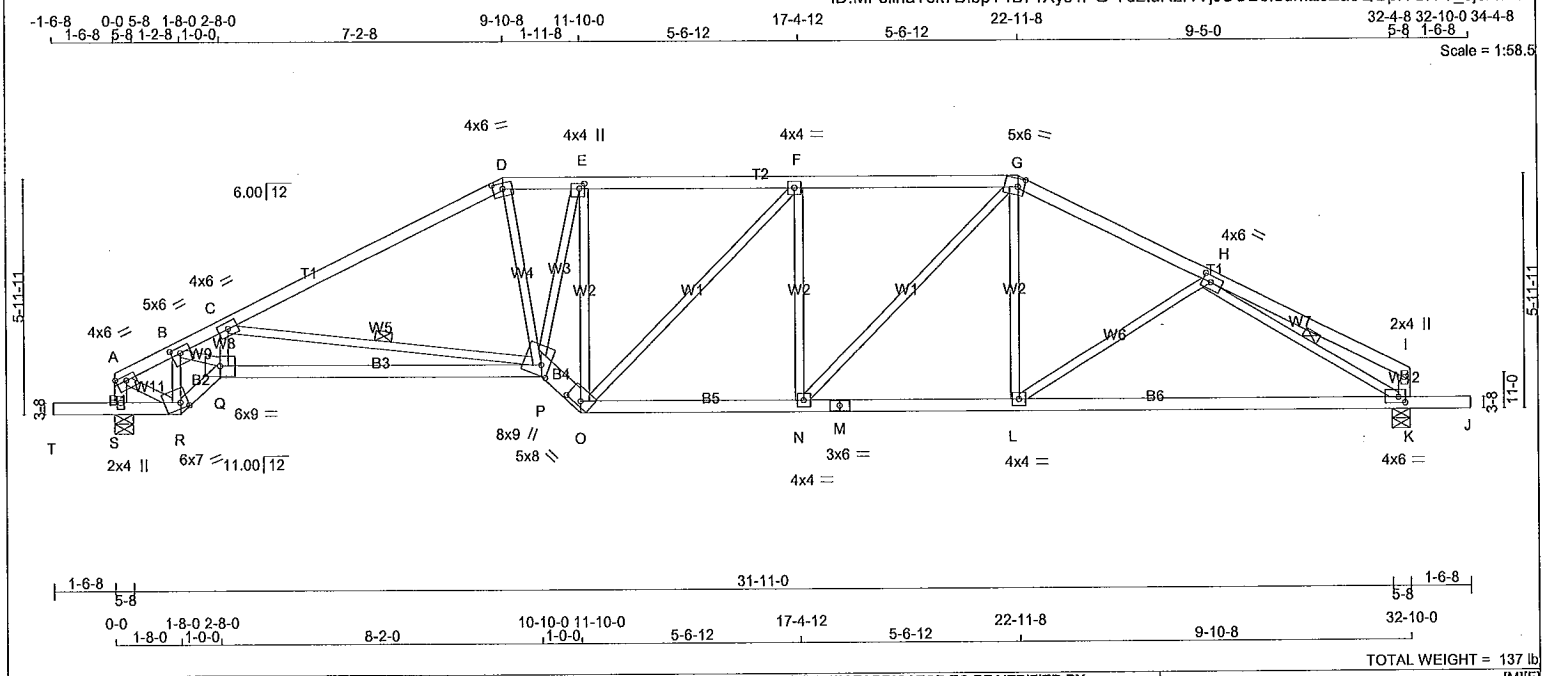



TOTAL WEIGHT = 137 lb

[M][F]

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

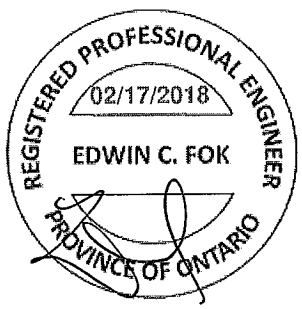
| CHORDS | SIZE | | LUMBER | DESCR. |
|---|---|---|---|---|
| A - D | 2x4 | DRY | No.2 | SPF |
| D - G | 2x4 | DRY | No.2 | SPF |
| G - I | 2x4 | DRY | No.2 | SPF |
| S - A | 2x4 | DRY | No.2 | SPF |
| K - I | 2x4 | DRY | No.2 | SPF |
| T - R | 2x4 | DRY | No.2 | SPF |
| R - Q | 2x4 | DRY | No.2 | SPF |
| Q - P | 2x4 | DRY | No.2 | SPF |
| P - O | 2x6 | DRY | No.2 | SPF |
| O - M | 2x4 | DRY | No.2 | SPF |
| M - J | 2x4 | DRY | No.2 | SPF |
| ALL WEBS EXCEPT | 2x3 | DRY | No.2 | SPF |

DRY: SEASONED LUMBER.

**PLATES (table is in inches)**

| JT | TYPE | PLATES | W | LEN | Y | X |
|---|---|---|---|---|---|---|
| A | TMVW-t | MT20 | 4.0 | 6.0 | 1.50 | 3.00 |
| B | TMWW-t | MT20 | 5.0 | 6.0 | 1.75 | 2.75 |
| C | TMWW-t | MT20 | 4.0 | 6.0 | | |
| D | TTW-m | MT20 | 4.0 | 6.0 | 1.75 | 3.00 |
| E | TMWW+t | MT20 | 4.0 | 4.0 | 1.50 | 1.50 |
| F | TMWW-t | MT20 | 4.0 | 4.0 | | |
| G | TTWW-m | MT20 | 5.0 | 6.0 | 2.50 | 2.00 |
| H | TMWW-t | MT20 | 4.0 | 6.0 | 2.00 | 2.50 |
| I | TMV+p | MT20 | 2.0 | 4.0 | | |
| K | BMVW1-t | MT20 | 4.0 | 6.0 | 1.75 | 2.00 |
| L | BMWW-t | MT20 | 4.0 | 4.0 | | |
| M | BS-t | MT20 | 3.0 | 6.0 | | |
| N | BMWW-t | MT20 | 4.0 | 4.0 | | |
| O | BBWW-h | MT20 | 5.0 | 8.0 | 1.50 | 4.50 |
| P | BMBWWW+m | MT20 | 8.0 | 9.0 | 3.25 | 2.50 |
| Q | BBWW-l | 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 | | |

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 VERT | HORZ | MAXIMUM FACTORED GROSS REACTION DOWN | HORZ | UPLIFT | INPUT BRG IN-SX | REQRD BRG IN-SX |
|---|---|---|---|---|---|---|---|
| S | 1736 | 0 | 1736 | 0 | 0 | 5-8 | 2-9 |
| K | 1729 | 0 | 1729 | 0 | 0 | 5-8 | 1-13 |

**UNFACTORED REACTIONS**

| JT | 1ST LCASE COMBINED | MAX./MIN. COMPONENT REACTIONS SNOW | LIVE | PERM.LIVE | WIND | DEAD | SOIL |
|---|---|---|---|---|---|---|---|
| S | 1238 | 755 / 0 | 0 / 0 | 0 / 0 | 0 / 0 | 482 / 0 | 0 / 0 |
| K | 1233 | 752 / 0 | 0 / 0 | 0 / 0 | 0 / 0 | 480 / 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 = 3.10 FT.
MAX. UNBRACED BOTTOM CHORD LENGTH = 10.00 FT OR RIGID CEILING DIRECTLY APPLIED.

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

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

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

**LOADING**
TOTAL LOAD CASES: (4)

CHORDS

| MEMB. FR-TO | MAX. FACTORED FORCE (LBS) | FACTORED VERT. LOAD (PLF) FROM | TO | LC | MAX CSI (LC) | MAX. UNBRAC LENGTH |
|---|---|---|---|---|---|---|
| A- B | -1692 / 0 | -78.0 | -78.0 | 0.16 (1) | | 4.97 |
| B- C | -3891 / 0 | -78.0 | -78.0 | 0.49 (1) | | 3.10 |
| C- D | -2554 / 0 | -78.0 | -78.0 | 0.69 (1) | | 3.67 |
| D- E | -2443 / 0 | -78.0 | -78.0 | 0.17 (1) | | 4.27 |
| E- F | -2150 / 0 | -78.0 | -78.0 | 0.34 (1) | | 4.32 |
| F- G | -2319 / 0 | -78.0 | -78.0 | 0.36 (1) | | 4.17 |
| G- H | -2195 / 0 | -78.0 | -78.0 | 0.29 (1) | | 4.35 |
| H- I | 0 / 18 | -78.0 | -78.0 | 0.28 (1) | | 10.00 |
| S- A | -1503 / 0 | 0.0 | 0.0 | 0.15 (1) | | 6.70 |
| K- I | -156 / 0 | 0.0 | 0.0 | 0.02 (1) | | 7.81 |
| T- S | 0 / 0 | -96.5 | -96.5 | 0.16 (1) | | 10.00 |
| S- R | -1 / 0 | -18.5 | -18.5 | 0.12 (1) | | 10.00 |
| R- Q | 0 / 1830 | -18.5 | -18.5 | 0.30 (1) | | 10.00 |
| Q- P | 0 / 3615 | -18.5 | -18.5 | 0.79 (1) | | 10.00 |
| P- O | 0 / 2875 | -18.5 | -18.5 | 0.34 (1) | | 10.00 |
| O- N | 0 / 2320 | -18.5 | -18.5 | 0.46 (1) | | 10.00 |
| N- M | 0 / 1950 | -18.5 | -18.5 | 0.58 (4) | | 10.00 |
| M- L | 0 / 1950 | -18.5 | -18.5 | 0.58 (4) | | 10.00 |
| L- K | 0 / 2092 | -18.5 | -18.5 | 0.57 (4) | | 10.00 |
| K- J | 0 / 0 | -96.5 | -96.5 | 0.16 (1) | | 10.00 |

WEBS

| MEMB. FR-TO | MAX. FACTORED FORCE (LBS) | MAX CSI (LC) |
|---|---|---|
| R- B | -1910 / 0 | 0.28 (1) |
| B- Q | 0 / 2559 | 0.58 (1) |
| Q- C | 0 / 153 | 0.05 (4) |
| C- P | -1362 / 0 | 0.61 (1) |
| D- P | 0 / 884 | 0.20 (1) |
| P- E | 0 / 1411 | 0.32 (1) |
| O- E | -1681 / 0 | 0.93 (1) |
| O- F | -240 / 0 | 0.30 (1) |
| N- F | -330 / 0 | 0.18 (1) |
| N- G | 0 / 528 | 0.12 (1) |
| L- G | 0 / 281 | 0.07 (4) |
| L- H | -177 / 10 | 0.11 (1) |
| A- R | 0 / 1609 | 0.36 (1) |
| H- K | -2489 / 0 | 0.64 (1) |

**DESIGN CRITERIA**

SPECIFIED LOADS:

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

**SPACING = 24.0 IN. C/C**

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

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

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

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 (1.09")
CALCULATED VERT. DEFL.(LL) = L/ 999 (0.17")
ALLOWABLE DEFL.(TL)= L/360 (1.09")
CALCULATED VERT. DEFL.(TL) = L/ 809 (0.49")

CANTILEVER DEFLECTION:
ALLOWABLE DEFL.(LL)= L/120 (0.19")
CALCULATED VERT. DEFL.(LL) = L/ 344 ( 0.05")
ALLOWABLE DEFL.(TL)= L/120 (0.19")
CALCULATED VERT. DEFL.(TL) = L/ 177 ( 0.10")

CSI: TC=0.69/1.00 (C-D:1) , BC=0.79/1.00 (P-Q:1) , WB=0.93/1.00 (E-O:1) , SSI=0.29/1.00 (B-C:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

AUTOSOLVE LEFT HEEL ONLY

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

NAIL VALUES

| PLATE | GRIP(DRY) (PSI) MAX | MIN | SHEAR (PLI) MAX | MIN | 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= 0.90 (H) (INPUT = 0.90 )
JSI METAL= 0.63 (Q) (INPUT = 1.00 )

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CONTINUED ON PAGE 2

| JOB NAME | TRUSS NAME | QUANTITY | PLY | JOB DESC. | DRWG NO. |
|---|---|---|---|---|---|
| 292592 | H35T | 1 | 2 | TRUSS DESC. | |

Alpa Roof Truss, Maple



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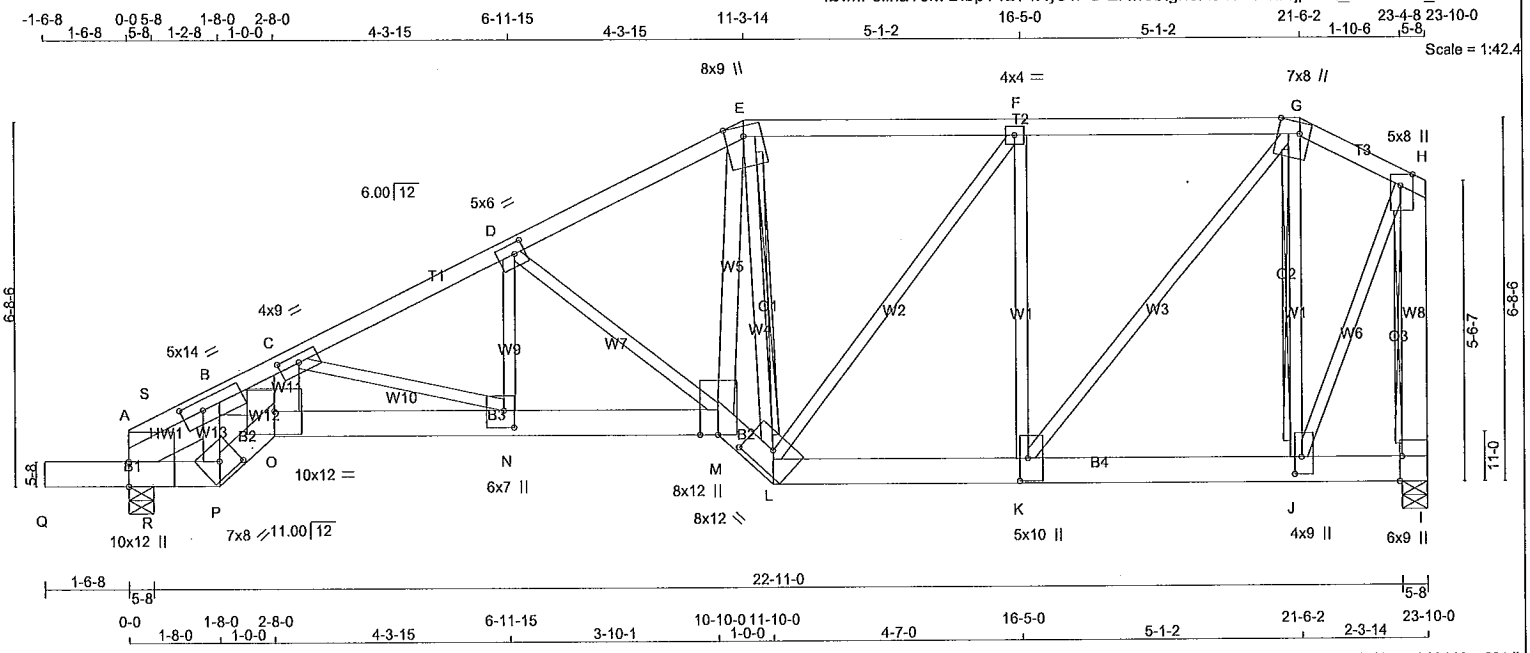



TOTAL WEIGHT = 2 X 140 = 281 lb

[M]

**LUMBER**

N. L. G. A. RULES

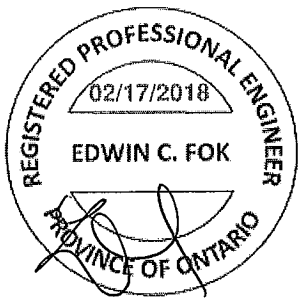
| CHORDS | SIZE | | LUMBER | DESCR. |
|---|---|---|---|---|
| A - E | 2x4 | DRY | 2100F 1.8E | SPF |
| E - G | 2x4 | DRY | 1650F 1.5E | SPF |
| G - H | 2x4 | DRY | 1650F 1.5E | SPF |
| I - H | 2x6 | DRY | No.2 | SPF |
| Q - P | 2x6 | DRY | No.2 | SPF |
| P - O | 2x6 | DRY | No.2 | SPF |
| O - M | 2x6 | DRY | 1650F 1.5E | SPF |
| M - L | 2x6 | DRY | No.2 | SPF |
| L - I | 2x6 | DRY | No.2 | SPF |
| REINFORCING MEMBERS | | | | |
| HW1 | 2x6 | DRY | No.2 | SPF |
| ALL WEBS EXCEPT | 2x3 | DRY | No.2 | SPF |
| P - B | 2x4 | DRY | No.2 | SPF |
| B - O | 2x6 | DRY | No.2 | SPF |
| O - C | 2x6 | DRY | No.2 | SPF |
| M - E | 2x4 | DRY | 1650F 1.5E | SPF |

DRY: SEASONED LUMBER.

DESIGN CONSISTS OF 2 TRUSSES BUILT SEPARATELY THEN FASTENED TOGETHER AS FOLLOWS:

| CHORDS | #ROWS | SURFACE SPACING (IN) | LOAD(PLF) |
|---|---|---|---|
| TOP CHORDS : (0.122"X3") SPIRAL NAILS | | | |
| A- E | 1 | 12 | TOP |
| E- G | 1 | 12 | TOP |
| G- H | 1 | 12 | TOP |
| I- H | 2 | 12 | TOP |
| BOTTOM CHORDS : (0.122"X3") SPIRAL NAILS | | | |
| Q- P | 2 | 9 | SIDE(282.4) |
| P- O | 2 | 12 | SIDE(208.2) |
| O- M | 2 | 9 | SIDE(282.4) |
| M- L | 2 | 12 | SIDE(208.2) |
| L- I | 2 | 9 | SIDE(282.4) |
| WEBS : (0.122"X3") SPIRAL NAILS | | | |
| 2x3 | 1 | 6 | |
| 2x4 | 1 | 6 | |
| 2x6 | 2 | 6 | |

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 VERT | HORZ | MAXIMUM FACTORED GROSS REACTION DOWN | HORZ | UPLIFT | INPUT BRG IN-SX | REQRD BRG IN-SX |
|---|---|---|---|---|---|---|---|
| A | 8035 | 0 | 8035 | 0 | 0 | 5-8 | 5-8 |
| I | 7876 | 0 | 7876 | 0 | 0 | 5-8 | 5-8 |

ALLOW FOR 0.3" OF HORIZONTAL MOVEMENT DUE TO TOTAL LOAD

**UNFACTORED REACTIONS**

| JT | 1ST LCASE COMBINED | MAX./MIN. COMPONENT REACTIONS SNOW | LIVE | PERM.LIVE | WIND | DEAD | SOIL |
|---|---|---|---|---|---|---|---|
| A | 5728 | 3496 / 0 | 0 / 0 | 0 / 0 | 0 / 0 | 2232 / 0 | 0 / 0 |
| I | 5615 | 3427 / 0 | 0 / 0 | 0 / 0 | 0 / 0 | 2188 / 0 | 0 / 0 |

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

**BRACING**

TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 2.08 FT.
MAX. UNBRACED BOTTOM CHORD LENGTH = 10.00 FT OR RIGID CEILING DIRECTLY APPLIED.

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

2x6 DRY SPF No.2 T-BRACE AT E-L
2x4 DRY SPF No.2 T-BRACE AT G-J, H-I

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

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

**LOADING**

TOTAL LOAD CASES: (4)

| CHORDS MEMB. FR-TO | MAX. FACTORED FORCE (LBS) | FACTORED VERT. LOAD (PLF) FROM | TO | LC | MAX CSI (LC) | MAX. UNBRAC LENGTH |
|---|---|---|---|---|---|---|
| A- S | -6162 / 0 | -78.0 | -78.0 | 0.41 (1) | | 4.28 |
| S- B | -4749 / 0 | -78.0 | -78.0 | 0.31 (1) | | 4.94 |
| B- C | -19858 / 0 | -78.0 | -78.0 | 0.68 (1) | | 2.08 |
| C- D | -13757 / 0 | -78.0 | -78.0 | 0.43 (1) | | 3.09 |
| D- E | -10182 / 0 | -78.0 | -78.0 | 0.22 (1) | | 3.77 |
| E- F | -7464 / 0 | -78.0 | -78.0 | 0.26 (1) | | 3.96 |
| F- G | -6593 / 0 | -78.0 | -78.0 | 0.24 (1) | | 4.19 |
| G- H | -3176 / 0 | -78.0 | -78.0 | 0.05 (1) | | 5.79 |
| I- H | -7531 / 0 | 0.0 | 0.0 | 0.63 (1) | | 7.81 |
| Q- A | 0 / 0 | -96.5 | -96.5 | 0.04 (1) | | 10.00 |
| A- R | 0 / 3911 | -583.4 | -583.4 | 0.58 (1) | | 10.00 |
| R- P | 0 / 8244 | -583.4 | -583.4 | 0.63 (1) | | 10.00 |
| P- O | 0 / 11675 | -583.4 | -583.4 | 0.78 (1) | | 10.00 |
| O- N | 0 / 17095 | -583.4 | -583.4 | 0.95 (1) | | 10.00 |
| N- M | 0 / 12343 | -583.4 | -583.4 | 0.71 (1) | | 10.00 |
| M- L | 0 / 10914 | -583.4 | -583.4 | 0.74 (1) | | 10.00 |
| L- K | 0 / 6591 | -583.4 | -583.4 | 0.88 (1) | | 10.00 |
| K- J | 0 / 2778 | -583.4 | -583.4 | 0.64 (1) | | 10.00 |
| J- I | 0 / 0 | -583.4 | -583.4 | 0.32 (1) | | 10.00 |

| WEBS MEMB. FR-TO | MAX. FACTORED FORCE (LBS) | MAX CSI (LC) |
|---|---|---|
| P- B | -6805 / 0 | 0.38 (1) |
| B- O | 0 / 10837 | 0.70 (1) |
| O- C | 0 / 3849 | 0.25 (1) |
| C- N | -4943 / 0 | 0.76 (1) |
| N- D | 0 / 3854 | 0.48 (1) |
| D- M | -4232 / 0 | 0.91 (1) |
| M- E | 0 / 11454 | 0.73 (1) |
| E- L | -7174 / 0 | 0.95 (1) |
| L- F | 0 / 1476 | 0.18 (1) |
| K- F | -1654 / 0 | 0.59 (1) |
| K- G | 0 / 6078 | 0.75 (1) |
| J- G | -3558 / 0 | 0.68 (1) |
| J- H | 0 / 6647 | 0.82 (1) |
| R- S | 0 / 2111 | 0.00 (1) |
| R- B | -6486 / 0 | 0.26 (1) |

**DESIGN CRITERIA**

SPECIFIED LOADS:

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

**SPACING = 24.0 IN. C/C**

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

GIRDER TYPE: CStdGirder
START DISTANCE = 0-0
START SPAN CARRIED = 25-5-1
END DISTANCE = 23-10-0
END SPAN CARRIED = 25-5-1
END WALL WIDTH = 0-0
APPLIED TO FRONT SIDE OF BOTTOM CHORD.
- ADDT'L LOADS BASED ON 55 % OF GSL.

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

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

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

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

ALLOWABLE DEFL.(LL)= L/360 (0.79")
CALCULATED VERT. DEFL.(LL) = L/ 999 (0.24")
ALLOWABLE DEFL.(TL)= L/360 (0.79")
CALCULATED VERT. DEFL.(TL) = L/ 596 (0.48")

CANTILEVER DEFLECTION:
ALLOWABLE DEFL.(LL)= L/120 (0.19")
CALCULATED VERT. DEFL.(LL) = L/ 203 ( 0.09")
ALLOWABLE DEFL.(TL)= L/120 (0.19")
CALCULATED VERT. DEFL.(TL) = L/ 120 ( 0.18")

CSI: TC=0.68/1.00 (B-C:1) , BC=0.95/1.00 (N-O:1) , WB=0.95/1.00 (E-L:1) , SSI=0.96/1.00 (A-R:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

AUTOSOLVE LEFT HEEL ONLY

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

A-18023480

CONTINUED ON PAGE 2

| JOB NAME | TRUSS NAME | QUANTITY | PLY | JOB DESC. | DRWG NO. |
|---|---|---|---|---|---|
| 292592 | H35T | 1 | 2 | TRUSS DESC. | |



NAILS TO BE DRIVEN FROM ONE SIDE ONLY.

PLATES (table is In Inches)

| JT | TYPE | PLATES | W | LEN | Y | X |
|---|---|---|---|---|---|---|
| A | TMBMW1+t | MT20 | 10.0 | 12.0 | Edge | |
| B | TMWWW-t | MT20 | 5.0 | 14.0 | 2.25 | 4.75 |
| C | TMWW-t | MT20 | 4.0 | 9.0 | 1.75 | 4.50 |
| D | TMWW-t | MT20 | 5.0 | 6.0 | 2.25 | 2.25 |
| E | TTWW+m | MT20 | 8.0 | 9.0 | Edge | |
| F | TMWW-t | MT20 | 4.0 | 4.0 | | |
| G | TTWW+m | MT20 | 7.0 | 8.0 | Edge | 4.75 |
| H | TMVW+p | MT20 | 5.0 | 8.0 | Edge | 2.75 |
| I | BMV1+t | MT20 | 6.0 | 9.0 | Edge | 0.50 |
| J | BMWW+t | MT20 | 4.0 | 9.0 | 3.75 | 1.50 |
| K | BMWW+t | MT20 | 5.0 | 10.0 | 5.00 | 1.75 |
| L | BBWW-h | MT20 | 8.0 | 12.0 | 4.50 | 6.00 |
| M | BBWW+p | MT20 | 8.0 | 12.0 | | |
| N | BMWW+t | MT20 | 6.0 | 7.0 | 3.75 | 2.25 |
| O | BBWW-l | MT20 | 10.0 | 12.0 | | |
| P | BBW-h | MT20 | 7.0 | 8.0 | 3.25 | 4.00 |

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

NAIL VALUES

| PLATE | GRIP(DRY) (PSI) MAX | MIN | SHEAR (PLI) MAX | MIN | 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= 0.89 (D) (INPUT = 0.90 )
JSI METAL= 0.88 (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

REGISTERED PROFESSIONAL ENGINEER
02/17/2018
EDWIN C. FOK
PROVINCE OF ONTARIO

A-180234 Sh (i)

| JOB NAME | TRUSS NAME | QUANTITY | PLY | JOB DESC. | DRWG NO. |
|---|---|---|---|---|---|
| 292592 | J3T | 3 | 1 | TRUSS DESC. | |

Alpa Roof Truss, Maple

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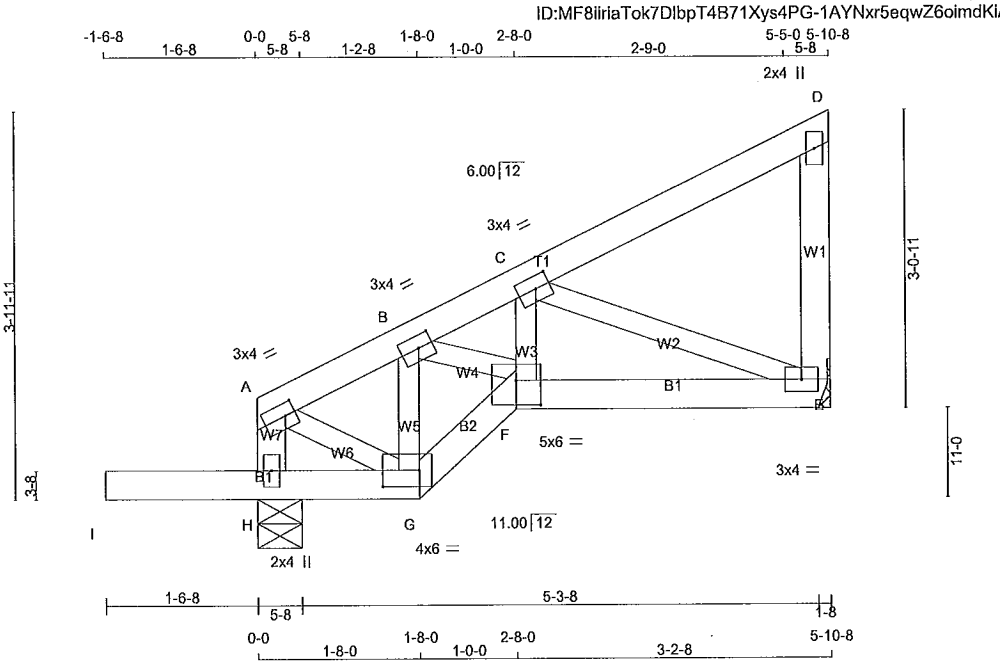



TOTAL WEIGHT = 3 X 26 = 79 lb

[M]

**LUMBER**

N. L. G. A. RULES

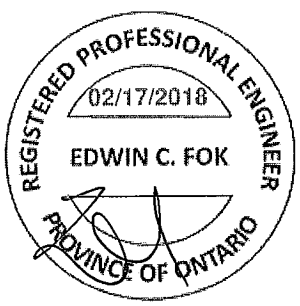
| CHORDS | SIZE | | LUMBER | DESCR. |
|---|---|---|---|---|
| H - A | 2x4 | DRY | No.2 | SPF |
| A - D | 2x4 | DRY | No.2 | SPF |
| E - D | 2x4 | DRY | No.2 | SPF |
| I - G | 2x4 | DRY | No.2 | SPF |
| G - F | 2x4 | DRY | No.2 | SPF |
| F - E | 2x4 | DRY | No.2 | SPF |
| ALL WEBS | 2x3 | DRY | No.2 |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

DRY: SEASONED LUMBER.

**PLATES (table is in inches)**

| JT | TYPE | PLATES | W | LEN | Y | X |
|---|---|---|---|---|---|---|
| A | TMVW-t | MT20 | 3.0 | 4.0 | 1.50 | 1.25 |
| B | TMWW-t | MT20 | 3.0 | 4.0 | 1.50 | 1.75 |
| C | TMWW-t | MT20 | 3.0 | 4.0 | 1.50 | 1.75 |
| D | TMV+p | MT20 | 2.0 | 4.0 | | |
| E | BMVW1-t | MT20 | 3.0 | 4.0 | | |
| F | BBWW-I | MT20 | 5.0 | 6.0 | 3.00 | 3.00 |
| G | BBWW-I | MT20 | 4.0 | 6.0 | 2.00 | 4.50 |
| H | 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 VERT | HORZ | MAXIMUM FACTORED GROSS REACTION DOWN | HORZ | UPLIFT | INPUT BRG IN-SX | REQRD BRG IN-SX |
|---|---|---|---|---|---|---|---|
| H | 452 | 0 | 452 | 0 | 0 | 5-8 | 1-8 |
| E | 264 | 0 | 264 | 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 |
|---|---|---|---|---|---|---|---|
| H | 322 | 197 / 0 | 0 / 0 | 0 / 0 | 0 / 0 | 125 / 0 | 0 / 0 |
| E | 188 | 115 / 0 | 0 / 0 | 0 / 0 | 0 / 0 | 73 / 0 | 0 / 0 |

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

**BRACING**

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

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

**LOADING**

TOTAL LOAD CASES: (4)

| CHORDS MEMB. FR-TO | MAX. FACTORED FORCE (LBS) | FACTORED VERT. LOAD (PLF) FROM | TO | LC1 MAX CSI (LC) | MAX. UNBRAC LENGTH | WEBS MEMB. FR-TO | MAX. FACTORED FORCE (LBS) | MAX CSI (LC) |
|---|---|---|---|---|---|---|---|---|
| H- A | -219 / 0 | 0.0 | 0.0 | 0.02 (1) | 7.81 | A- G | 0 / 184 | 0.04 (1) |
| A- B | -191 / 0 | -78.0 | -78.0 | 0.03 (1) | 6.25 | G- B | -256 / 0 | 0.04 (1) |
| B- C | -376 / 0 | -78.0 | -78.0 | 0.08 (1) | 6.25 | B- F | 0 / 230 | 0.05 (1) |
| C- D | -8 / 0 | -78.0 | -78.0 | 0.09 (1) | 10.00 | F- C | 0 / 76 | 0.02 (4) |
| E- D | -102 / 0 | 0.0 | 0.0 | 0.02 (1) | 7.81 | C- E | -375 / 0 | 0.08 (1) |
| I- H | 0 / 0 | -96.5 | -96.5 | 0.16 (1) | 10.00 | | | |
| H- G | -1 / 0 | -18.5 | -18.5 | 0.16 (1) | 10.00 | | | |
| G- F | 0 / 206 | -18.5 | -18.5 | 0.04 (1) | 10.00 | | | |
| F- E | 0 / 350 | -18.5 | -18.5 | 0.09 (1) | 10.00 | | | |

**DESIGN CRITERIA**

SPECIFIED LOADS:

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

**SPACING = 24.0 IN. C/C**

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

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

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

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

ALLOWABLE DEFL.(LL)= 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 ( 0.01")
ALLOWABLE DEFL.(TL)= L/120 (0.19")
CALCULATED VERT. DEFL.(TL) = L/ 681 ( 0.03")

CSI: TC=0.09/1.00 (C-D:1) , BC=0.16/1.00 (G-H:1) , WB=0.08/1.00 (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) (PSI) MAX | MIN | SHEAR (PLI) MAX | MIN | 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= 0.53 (E) (INPUT = 0.90 )
JSI METAL= 0.13 (E) (INPUT = 1.00 )

A-18023481

| JOB NAME | TRUSS NAME | QUANTITY | PLY | JOB DESC. | DRWG NO. |
|---|---|---|---|---|---|
| 292592 | J3TA | 1 | 1 | TRUSS DESC. | |

Alpa Roof Truss, Maple

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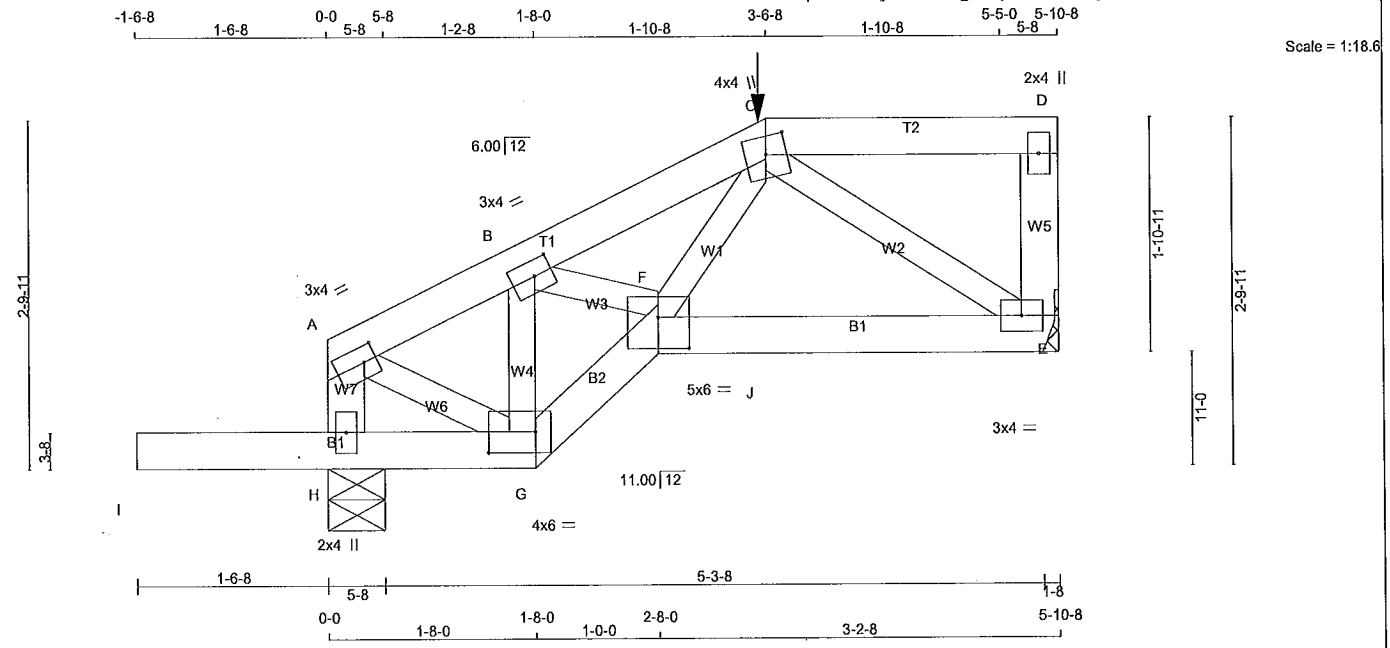



TOTAL WEIGHT = 25 lb

[M]

**LUMBER**

N. L. G. A. RULES

| CHORDS | SIZE | | LUMBER | DESCR. |
|---|---|---|---|---|
| A - C | 2x4 | DRY | No.2 | SPF |
| C - D | 2x4 | DRY | No.2 | SPF |
| 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 EXCEPT | 2x3 | DRY | No.2 | SPF |

DRY: SEASONED LUMBER.

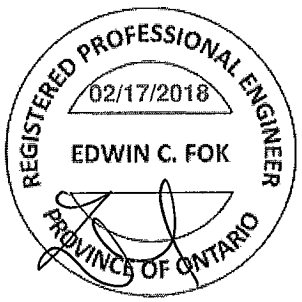
**PLATES (table is in Inches)**

| JT | TYPE | PLATES | W | LEN | Y | X |
|---|---|---|---|---|---|---|
| A | TMVW-t | MT20 | 3.0 | 4.0 | 1.50 | 1.25 |
| B | TMWW-t | MT20 | 3.0 | 4.0 | 1.50 | 1.75 |
| C | TTWW+m | MT20 | 4.0 | 4.0 | 1.75 | 2.00 |
| D | TMV+p | MT20 | 2.0 | 4.0 | | |
| E | BMVW1-t | MT20 | 3.0 | 4.0 | | |
| F | BBWW-I | MT20 | 5.0 | 6.0 | 3.00 | 3.00 |
| G | BBWW-I | MT20 | 4.0 | 6.0 | 2.00 | 4.50 |
| H | BMV1+p | MT20 | 2.0 | 4.0 | | |

**HANGERS NOTES**

1) SPECIAL HANGER(S) OR CONNECTION(S) REQUIRED TO SUPPORT CONCENTRATED LOAD(S) 94.0 lbs FACTORED DOWN AT 3-6-8 ON TOP CHORD. DESIGN FOR UNSPECIFIED CONNECTION(S) IS DELEGATED TO THE BUILDING DESIGNER.

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




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

**BEARINGS**

| JT | FACTORED GROSS REACTION VERT | HORZ | MAXIMUM FACTORED GROSS REACTION DOWN | HORZ | UPLIFT | INPUT BRG | REQRD BRG |
|---|---|---|---|---|---|---|---|
| E | 398 | 0 | 398 | 0 | 0 | IN-SX | IN-SX |
| | | | | | | HANGER BY OTHERS | |
| | | | | | | MIN. SEAT SIZE: 1-8 | |
| H | 524 | 0 | 524 | 0 | 0 | 5-8 | 1-8 |

**UNFACTORED REACTIONS**

| JT | 1ST LCASE COMBINED | MAX./MIN. COMPONENT REACTIONS SNOW | LIVE | PERM.LIVE | WIND | DEAD | SOIL |
|---|---|---|---|---|---|---|---|
| E | 283 | 176 / 0 | 0 / 0 | 0 / 0 | 0 / 0 | 107 / 0 | 0 / 0 |
| H | 374 | 224 / 0 | 0 / 0 | 0 / 0 | 0 / 0 | 150 / 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 MEMB. FR-TO | MAX. FACTORED FORCE (LBS) | FACTORED VERT. LOAD LC1 (PLF) FROM | TO | MAX CSI (LC) | MAX. UNBRAC LENGTH | WEBS MEMB. FR-TO | MAX. FACTORED FORCE (LBS) | MAX CSI (LC) |
|---|---|---|---|---|---|---|---|---|
| A- B | -280 / 0 | -78.0 | -78.0 | 0.03 (1) | 6.25 | G- B | -354 / 0 | 0.06 (1) |
| B- C | -490 / 0 | -78.0 | -78.0 | 0.05 (1) | 6.25 | B- F | 0 / 229 | 0.06 (1) |
| C- D | 0 / 0 | -108.0 | -108.0 | 0.11 (1) | 10.00 | F- C | 0 / 187 | 0.05 (1) |
| E- D | -126 / 0 | 0.0 | 0.0 | 0.01 (1) | 7.81 | C- E | -414 / 0 | 0.08 (1) |
| H- A | -285 / 0 | 0.0 | 0.0 | 0.03 (1) | 7.81 | A- G | 0 / 277 | 0.07 (1) |
| I- H | 0 / 0 | -96.5 | -96.5 | 0.17 (1) | 10.00 | | | |
| H- G | -1 / 0 | -25.6 | -25.6 | 0.17 (1) | 10.00 | | | |
| G- F | 0 / 312 | -25.6 | -25.6 | 0.06 (1) | 10.00 | | | |
| F- J | 0 / 342 | -25.6 | -25.6 | 0.12 (4) | 10.00 | | | |
| J- E | 0 / 342 | -25.6 | -25.6 | 0.12 (4) | 10.00 | | | |

FACTORED CONCENTRATED LOADS (LBS)

| JT | LOC. | LC1 | MAX- | MAX+ | FACE | DIR. | TYPE |
|---|---|---|---|---|---|---|---|
| C | 3-6-8 | -94 | -94 | — | FRONT | VERT | TOTAL |

**DESIGN CRITERIA**

SPECIFIED LOADS:

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

**SPACING = 24.0 IN. C/C**

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

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

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

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

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

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

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

CANTILEVER DEFLECTION:
ALLOWABLE DEFL.(LL)= L/120 (0.19")
CALCULATED VERT. DEFL.(LL) = L/ 999 ( 0.01")
ALLOWABLE DEFL.(TL)= L/120 (0.19")
CALCULATED VERT. DEFL.(TL) = L/ 704 ( 0.03")

CSI: TC=0.11/1.00 (C-D:1) , BC=0.17/1.00 (G-H:1) , WB=0.08/1.00 (C-E:1) , SSI=0.13/1.00 (H-I:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

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

A-18023482

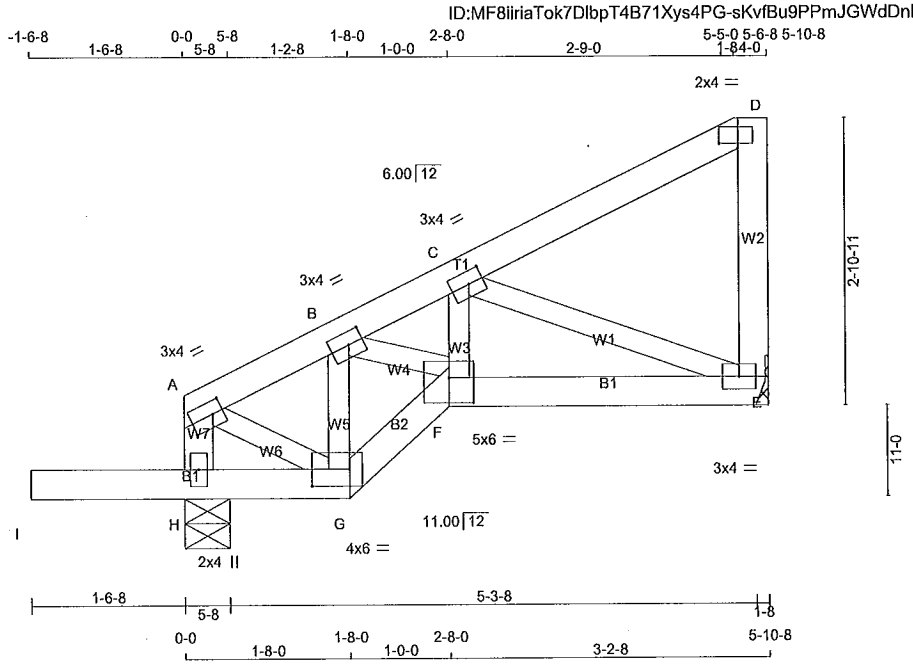
CONTINUED ON PAGE 2

| JOB NAME | TRUSS NAME | QUANTITY | PLY | JOB DESC. | DRWG NO. |
|---|---|---|---|---|---|
| 292592 | J3TB | 1 | 1 | TRUSS DESC. | |

Alpa Roof Truss, Maple

Version 8.200 S Jan 6 2018 MiTek Industries, Inc. Sat Feb 17 13:08:32 2018 Page 1

ID:MF8iiriaTok7DlbpT4B71Xys4PG-sKvfBu9PPmJGWdDnhzGLzjNSlWqFsJcBisGuzkzkEdT




TOTAL WEIGHT = 26 lb

(M)

LUMBER
N. L. G. A. RULES

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

DRY: SEASONED LUMBER.

PLATES (table is in inches)

| JT | TYPE | PLATES | W | LEN | Y | X |
|---|---|---|---|---|---|---|
| A | TMVW-t | MT20 | 3.0 | 4.0 | 1.50 | 1.25 |
| B | TMWW-t | MT20 | 3.0 | 4.0 | 1.50 | 1.75 |
| C | TMWW-t | MT20 | 3.0 | 4.0 | 1.50 | 1.75 |
| D | TVM-p | MT20 | 2.0 | 4.0 | 0.50 | 2.25 |
| E | BMVW1-t | MT20 | 3.0 | 4.0 | | |
| F | BBWW-t | MT20 | 5.0 | 6.0 | 3.00 | 3.00 |
| G | BBWW-t | MT20 | 4.0 | 6.0 | 2.00 | 4.50 |
| H | BMV1+p | MT20 | 2.0 | 4.0 | | |

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

BEARINGS

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

UNFACTORED REACTIONS

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

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

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

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

LOADING
TOTAL LOAD CASES: (4)

| CHORDS MEMB. FR-TO | MAX. FACTORED FORCE (LBS) | FACTORED VERT. LOAD LC1 (PLF) FROM | TO | MAX CSI (LC) | MAX. UNBRAC LENGTH | WEBS MEMB. FR-TO | MAX. FACTORED FORCE (LBS) | MAX CSI (LC) |
|---|---|---|---|---|---|---|---|---|
| A- B | -191 / 0 | -78.0 | -78.0 | 0.03 (1) | 6.25 | G- B | -256 / 0 | 0.04 (1) |
| B- C | -376 / 0 | -78.0 | -78.0 | 0.08 (1) | 6.25 | B- F | 0 / 230 | 0.05 (1) |
| C- D | -8 / 0 | -78.0 | -78.0 | 0.09 (1) | 10.00 | F- C | 0 / 76 | 0.02 (4) |
| E- D | -102 / 0 | 0.0 | 0.0 | 0.02 (1) | 7.81 | C- E | -375 / 0 | 0.08 (1) |
| H- A | -219 / 0 | 0.0 | 0.0 | 0.02 (1) | 7.81 | A- G | 0 / 184 | 0.04 (1) |
| I- H | 0 / 0 | -96.5 | -96.5 | 0.16 (1) | 10.00 | | | |
| H- G | -1 / 0 | -18.5 | -18.5 | 0.16 (1) | 10.00 | | | |
| G- F | 0 / 206 | -18.5 | -18.5 | 0.04 (1) | 10.00 | | | |
| F- E | 0 / 350 | -18.5 | -18.5 | 0.09 (1) | 10.00 | | | |

DESIGN CRITERIA

SPECIFIED LOADS:

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

SPACING = 24.0 IN. C/C

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

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

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

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

ALLOWABLE DEFL.(LL)= 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 ( 0.01")
ALLOWABLE DEFL.(TL)= L/120 (0.19")
CALCULATED VERT. DEFL.(TL) = L/ 681 ( 0.03")

CSI: TC=0.09/1.00 (C-D:1) , BC=0.16/1.00 (G-H:1) , WB=0.08/1.00 (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

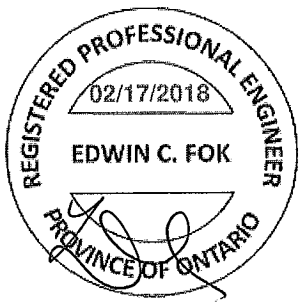
| PLATE | GRIP(DRY) (PSI) MAX | MIN | SHEAR (PLI) MAX | MIN | SECTION (PLI) MAX | MIN |
|---|---|---|---|---|---|---|
| MT20 | 618 | 354 | 1667 | 788 | 1987 | 1656 |

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

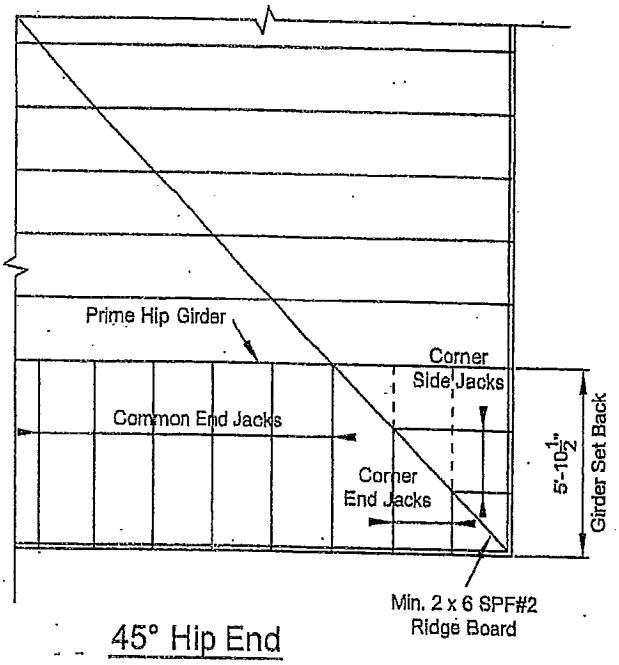
JSI GRIP= 0.53 (E) (INPUT = 0.90 )
JSI METAL= 0.13 (E) (INPUT = 1.00 )

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-18023483

# STRACON ENGINEERING INC.



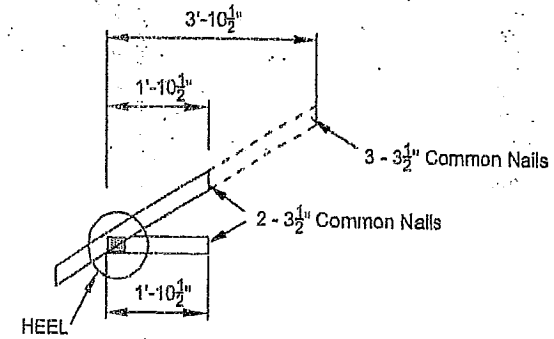

45° Hip End

## LUMBER SPECIFICATION

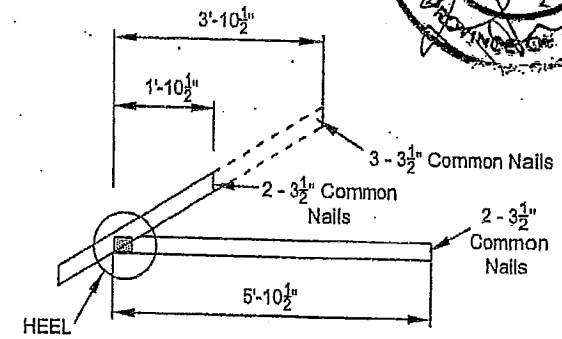
TOP CHORD : 2 x 4 SPF#2
BOTTOM CHORD : 2 x 4 SPF#2
WEBS : 2 x 3 SPF#2
UNLESS OTHERWISE SHOWN

## DESIGN LOAD

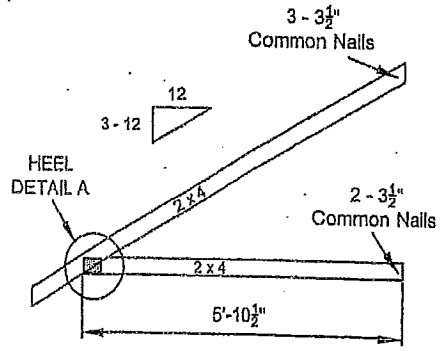
| | | |
|---|---|---|
| TOP CHORD SNOW LOAD | : | 40.5 P.S.F. |
| TOP CHORD DEAD LOAD | : | 3.0 P.S.F. |
| BOTTOM CHORD LIVE LOAD | : | 0.0 P.S.F. |
| BOTTOM CHORD DEAD LOAD | : | 7.0 P.S.F. |
| TOTAL LOAD | : | 50.5 P.S.F |

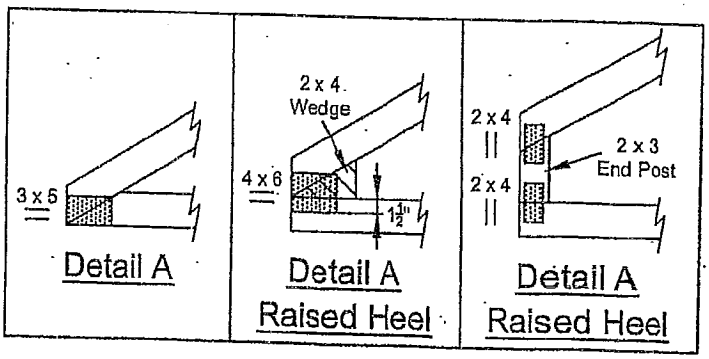

Corner Side Jacks




Corner End Jacks




Common End Jacks




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

CS-51008

# LUS – Double Shear Joist Hangers

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

**Material:** 18 gauge

**Finish:** G90 galvanized

**Design:**

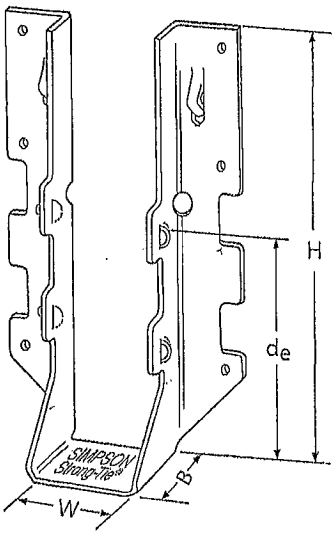
- Factored resistances are in accordance with CSA O86-14.
- Uplift resistances have been increased 15%. No further increase is permitted.
- Wood shear is not considered in the factored resistances given. The specifier must ensure that the joist and header capacities are capable of withstanding these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

**Installation:**

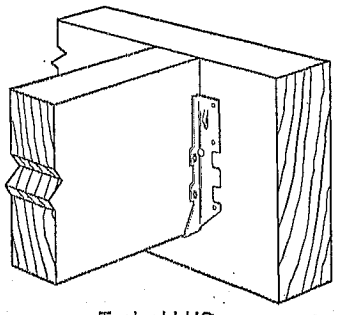
- Use all specified fasteners.
- Nails: 16d = 0.162" dia. x 3½" long common wire, 10d = 0.148" x 3" long common wire.
- Double shear nails must be driven at an angle through the joist or truss into the header to achieve the table loads.
- Not designed for welded or nailer applications.

**Options:**

- These hangers cannot be modified



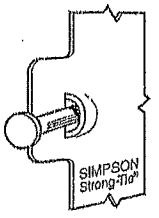

LUS28



Typical LUS Installation

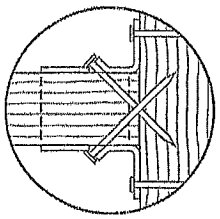
| Model No. | Ga. | Dimensions (in.) | | | | Fasteners | | Factored Resistance (lb.) | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | D.Fir-L | | S-P-F | |
| | | W | H | B | $d_e$[1] | Face | Joist | Uplift ($K_D$=1.15) | Normal ($K_D$=1.00) | Uplift ($K_D$=1.15) | Normal ($K_D$=1.00) |
| LUS24 | 18 | 1⁹⁄₁₆ | 3⅛ | 1¾ | 1 ¹⁵⁄₁₆ | (4) 10d | (2) 10d | 710 | 1630 | 645 | 1155 |
| LUS24-2 | 18 | 3⅛ | 3⅛ | 2 | 1 ¹⁵⁄₁₆ | (4) 16d | (2) 16d | 835 | 2020 | 590 | 1435 |
| LUS26 | 18 | 1⁹⁄₁₆ | 4¾ | 1¾ | 3⅝ | (4) 10d | (4) 10d | 1420 | 2170 | 1290 | 1630 |
| LUS26-2 | 18 | 3⅛ | 4⅞ | 2 | 4 | (4) 16d | (4) 16d | 1720 | 2595 | 1545 | 1920 |
| LUS26-3 | 18 | 4⅝ | 4⁹⁄₁₆ | 2 | 3¼ | (4) 16d | (4) 16d | 1720 | 2595 | 1545 | 2340 |
| LUS28 | 18 | 1⁹⁄₁₆ | 6⅝ | 1¾ | 3¾ | (6) 10d | (6) 10d | 1420 | 2520 | 1290 | 1790 |
| LUS28-2 | 18 | 3⅛ | 7 | 2 | 4 | (6) 16d | (4) 16d | 1720 | 3325 | 1545 | 2575 |
| LUS28-3 | 18 | 4⅝ | 6¼ | 2 | 3¼ | (6) 16d | (4) 16d | 1720 | 3325 | 1545 | 2375 |
| LUS210 | 18 | 1⁹⁄₁₆ | 7 ¹³⁄₁₆ | 1¾ | 3⅞ | (8) 10d | (4) 10d | 1420 | 2785 | 1290 | 2210 |
| LUS210-2 | 18 | 3⅛ | 9 | 2 | 6 | (8) 16d | (6) 16d | 2580 | 4500 | 2320 | 3195 |
| LUS210-3 | 18 | 4⅝ | 8⁹⁄₁₆ | 2 | 5¼ | (8) 16d | (6) 16d | 2580 | 3345 | 2320 | 2375 |

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

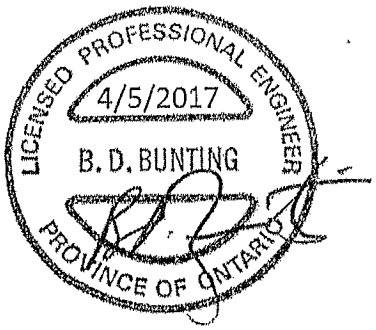



Dome Double Shear Nailing prevents tabs breaking off (available on some models).

U.S. Patent 5,603,580



Double Shear Nailing Top View.




LIMIT STATES DESIGN

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





(800) 999-5099
strongtie.com

# 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:**

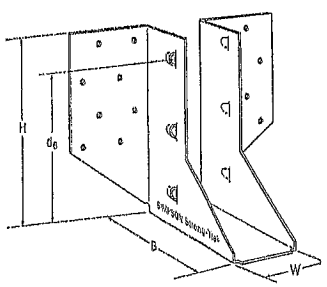
- Factored resistances are in accordance with CSA O86 -14.
- Uplift resistances have been increased 15%. No further increase is permitted.
- Wood shear is not considered in the factored resistances given. The specifier must ensure that the joist and header capacities are capable of withstanding these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

**Installation:**

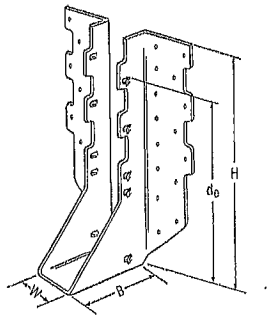
- Use all specified fasteners
- Nails: 16d = 0.162" dia. x 3½" long common wire
- Double shear nails must be driven at an angle through the joist or truss into the header to achieve the table loads
- Not designed for welded or nailer applications

**Options:**

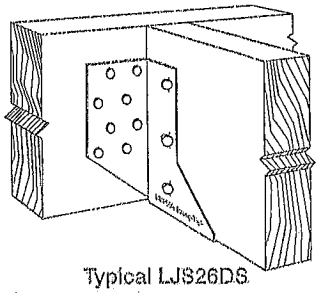
- See current catalogue for options



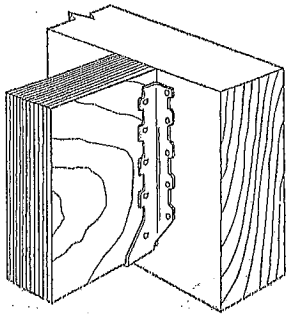

LJS26DS



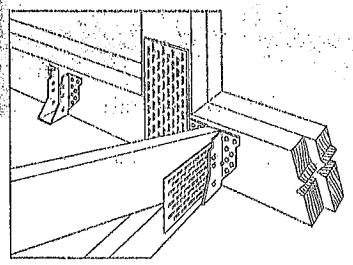

HUS210
(HUS26, HUS28, similar)



Typical LJS26DS Installation



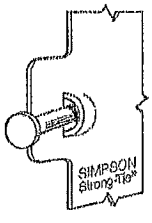
Typical HUS Installation



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

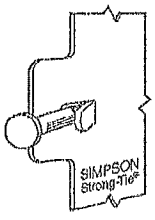
| Model No. | Ga. | Dimensions (in.) | | | | Fasteners | | Factored Resistance (lb.) | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | D.Fir-L | | S-P-F | |
| | | W | H | B | $d_e$[1] | Face | Joist | Uplift ($K_D$=1.15) | Normal ($K_D$=1.00) | Uplift ($K_D$=1.15) | Normal ($K_D$=1.00) |
| | | | | | | | | lb. | lb. | lb. | lb. |
| LJS26DS | 18 | 1 9/16 | 5 | 3½ | 4⅝ | (16) 16d | (6) 16d | 2055 | 4265 | 1460 | 4115 |
| HUS26 | 16 | 1⅝ | 5⅝ | 3 | 3 15/16 | (14) 16d | (6) 16d | 2705 | 4940 | 2065 | 3875 |
| HUS28 | 16 | 1⅝ | 7 3/32 | 3 | 6 3/32 | (22) 16d | (8) 16d | 3605 | 5365 | 2675 | 4345 |
| HUS210 | 16 | 1⅝ | 9 3/32 | 3 | 7 31/32 | (30) 16d | (10) 16d | 4505 | 5795 | 4010 | 4740 |
| HUS1.81/10 | 16 | 1 13/16 | 9 | 3 | 8 | (30) 16d | (10) 16d | 4505 | 6450 | 4010 | 5200 |

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

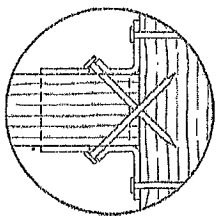



Dome Double Shear Nailing prevents tabs breaking off (available on some models).

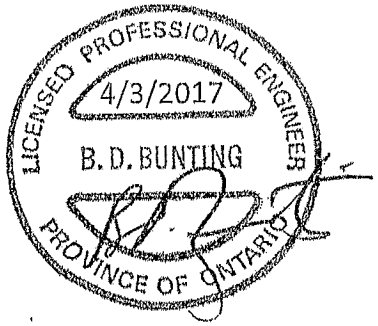
U.S. Patent 5,603,580




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



Double Shear Nailing Top View.




LIMIT STATES DESIGN

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strongtie.com