



TOWN OF MILTON  
PLANNING AND DEVELOPMENT  
BUILDING PERMIT: 17-4990

BUILDING: REVIEWED  
SCOTT SHERRIFFS APR 19, 2017  
PLANS EXAMINER DATE

Neither the issuance of a permit nor carrying out of inspections by the Town of Milton relieves the owner from full responsibility for compliance with the provisions of the Ontario Building Code Act and the Ontario Building Code, both as amended, as well as other applicable statutes and regulations of the Province on Ontario, By-laws of the Region of Halton and Town of Milton

RECEIVED  
TOWN OF MILTON  
MAR 29, 2017  
17-4990  
BUILDING DIVISION



TOP OF ALL PORCH BEAMS  
AT 8' 7 1/4 A.F.F.

UNDERSIDE OF SOFFIT  
FOR PORCHES AT  
8' 6" A.F.F.

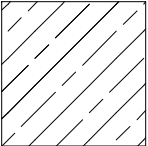
GARAGE WALL PLATES  
AT 9' 1 2/16" A.F.F.

PARTY WALLS TO BE  
FRAMED ON SITE A.P.P.

### HANGER LEGEND:

▼ LUS24      ■ LJS26DS  
● HGUS26      × HGUS26-2

ALL LOWER ROOFS BOTTOM OF  
FASCIA LEVEL WITH TOP OF BEAM/PLATE

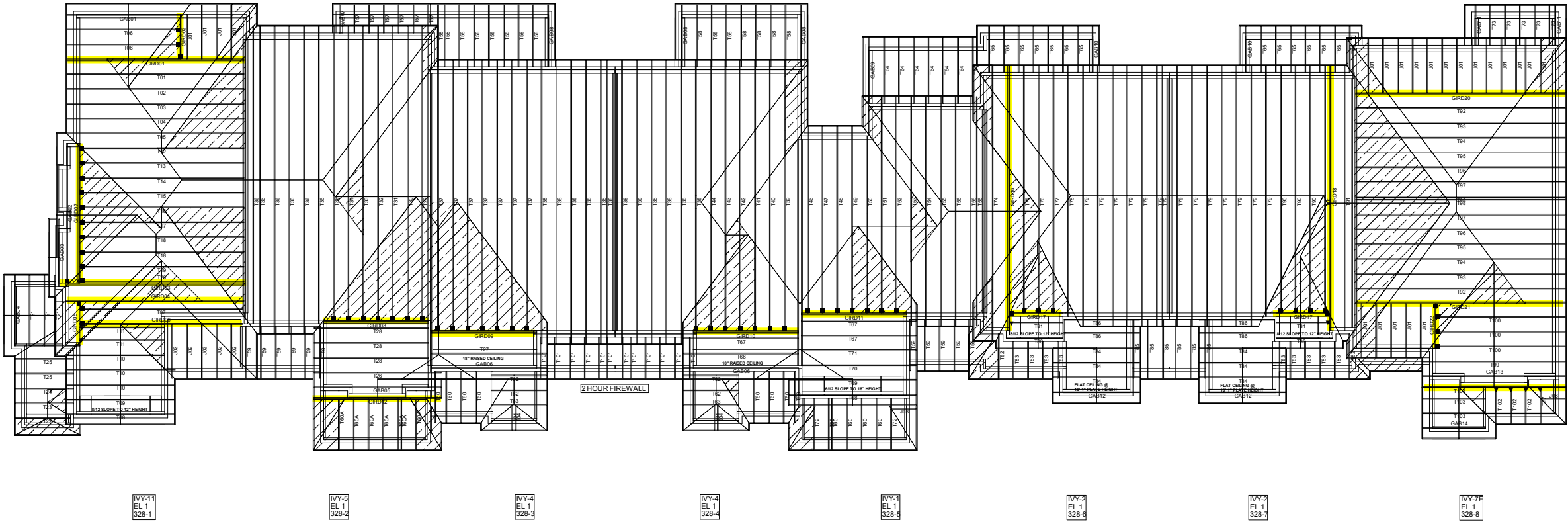


### CONVENTIONAL FRAMING BY OTHERS

SIZE AND LOCATION OF CONVENTIONAL FRAMING  
IS APPROXIMATE. ALL AREAS MAY NOT BE SHOWN.  
REFER TO ARCHITECTURAL PLANS FOR DETAILS.

ALL CONVENTIONAL FRAMING TO CONFORM WITH  
PART 9 OF THE O.B.C  
ROOF RAFTERS THAT CROSS MEET OVER TRUSSES  
TO BE 2x4 S.P.F. @ 24"O/C WITH A 2x4 VERTICAL  
POST TO THE TRUSS UNDERNEATH EACH CROSS  
POINT. VERTICAL POST LONGER THAN 6' TO HAVE  
LATERAL BRACING SO THAT THE DISTANCE BETWEEN  
END POINT AND BETWEEN ROWS OF BRACING  
DOES NOT EXCEED 6'.

Model: **BLOCK 328**  
Customer: GREENPARK  
Project: LECCO RIDGE  
Location: MILTON  
Date: 3/10/2017      Drawn by: BB



**ENGINEERING NOTE PAGE (ENP-1)**  
**PLEASE READ PRIOR TO INSTALLATION**

**RESPONSIBILITIES**

THIS DESIGN IS FOR AN INDIVIDUAL BUILDING COMPONENT AND HAS BEEN BASED ON INFORMATION PROVIDED BY THE DESIGN OFFICE OF KOTT LUMBER. THE UNDERSIGNED ENGINEER DISCLAIMS ANY RESPONSIBILITY FOR DAMAGES AS A RESULT OF FAULTY OR INCORRECT INFORMATION, SPECIFICATION AND/OR DESIGNS FURNISHED TO THE ENGINEER. THE UNDERSIGNED ENGINEER IS ONLY RESPONSIBLE FOR THE STRUCTURAL INTEGRITY OF THIS BUILDING COMPONENT FOR THE CONDITIONS AND LOADS SHOWN ON THIS DRAWING. THE STRUCTURAL INTEGRITY OF THE BUILDING AND THE VERIFICATION OF THE DIMENSIONS AND THE DESIGN LOADS USED ARE THE RESPONSIBILITY OF THE BUILDING DESIGNER.

TRUSSES ARE DESIGNED IN CONFORMANCE WITH THE RELEVANT SECTIONS OF THE NATIONAL BUILDING CODE OF CANADA OR THE CANADIAN CODE FOR FARM BUILDINGS, WHICHEVER APPLIES TO THE BUILDING TYPE INDICATED ON THE DRAWING

IT IS THE RESPONSIBILITY OF KOTT LUMBER TO ENSURE THAT TRUSSES ARE MANUFACTURED IN CONFORMANCE WITH THESE DESIGNS AND WITH THE SPECIFICATIONS OUTLINED BELOW. THE UNDERSIGNED ENGINEER IS NOT RESPONSIBLE FOR QUALITY CONTROL IN THE TRUSS MANUFACTURING PLANT.

**USE AND OCCUPANCY**

- The building is of the type indicated on the drawing

**LOADING**

- The truss loading intensity and distribution as well as load transfer mechanism is that indicated on the drawing
- No buildings, trees, parapets or other projections higher than the roof for which the trusses are used are located within a distance less than ten (10) times the difference in height, or five metres (16 ft) whichever is greater, unless the drawing indicates that the snow drifting has been taken into account

**HANDLING, INSTALLATION AND BRACING**

- The trusses must be handled and installed by a qualified professional as per the supplied document titled *Information for Truss Installers* and the BCSI-B1 and BCSI-B3 Summary Sheets
- The compression chords are laterally braced by continuous rigid diaphragm sheathing or as specified on the drawing
- Temporary and permanent bracing must be installed as indicated on the truss drawing and according to the BCSI-B1 and BCSI-B3 Summary Sheets. Bracing for the lateral stability of the truss is to be provided by the building designer
- **It is recommended that a Professional Engineer's advice be obtained for the bracing of trusses spanning more than 12.37m (40'-7")**

**SUPPORTS**

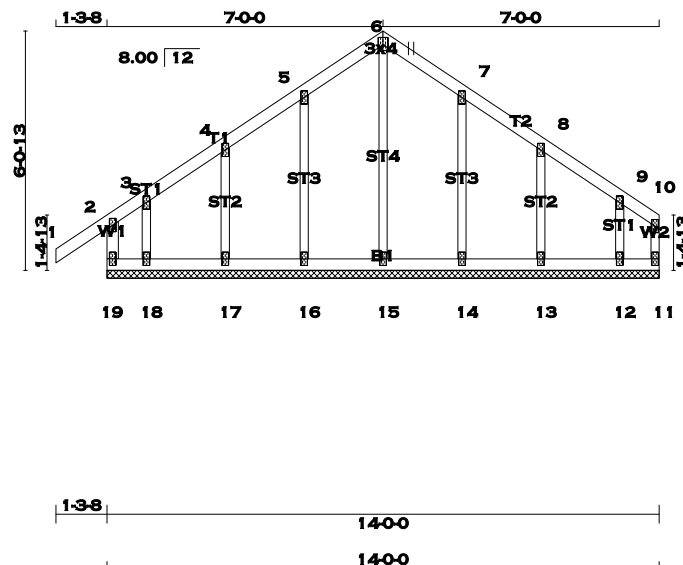
- The trusses are to be supported at the bearing points indicated and anchored to the supports where considered necessary by the designer of the overall structure
- Bearing sizes shown are the minimum required to prevent crushing of the truss members and do not necessarily take into account stability of the overall building structure
- Elevation of bearings must be carefully checked and shimmed to alignment for solid bearings
- Adequate wood truss bearing is the responsibility of the building designer.

**DIMENSIONS**

- Geometry of the truss and dimensions indicated on the drawing are identical to those of the installed truss.



01/29/2013



SCALE = 1:58.4

TOTAL WEIGHT = 57 lb [M]

| LUMBER                           |        |      |        |  | DESCR. |
|----------------------------------|--------|------|--------|--|--------|
| N. L. G. A. RULES                | CHORDS | SIZE | LUMBER |  |        |
| 19 - 2                           | 2x4    | DRY  | No.2   |  | SPF    |
| 1 - 6                            | 2x4    | DRY  | No.2   |  | SPF    |
| 6 - 10                           | 2x4    | DRY  | No.2   |  | SPF    |
| 11 - 10                          | 2x3    | DRY  | No.2   |  | SPF    |
| 19 - 11                          | 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       |
| 2                           | TMV+p  | MT20   | 2.0 | 4.0 |           |
| 3, 4, 5, 7, 8, 9            |        |        |     |     |           |
| 3                           | TMW+w  | MT20   | 2.0 | 4.0 |           |
| 6                           | TTW+p  | MT20   | 3.0 | 4.0 | 2.25 1.50 |
| 10                          | TMV+p  | MT20   | 2.0 | 4.0 |           |
| 11                          | BMV1+p | MT20   | 2.0 | 4.0 |           |
| 12, 13, 14, 15, 16, 17, 18  |        |        |     |     |           |
| 12                          | BMW1+w | MT20   | 2.0 | 4.0 |           |
| 19                          | BMV1+p | MT20   | 2.0 | 4.0 |           |

A SIZE FOR SIZE SUBSTITUTION OF MITEK MII20 WITH TEE-LOK TL20 PLATES IS ALLOWED.

#### 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 = 6.25 FT. OR RIGID CEILING DIRECTLY APPLIED.  
ALL PITCH BREAKS AND PERIMETER CORNER JOINTS MUST BE LATERALLY RESTRAINED.

#### LOADING

| CHORDS |                           |                           |                | WEBS               |       |                           |             |
|--------|---------------------------|---------------------------|----------------|--------------------|-------|---------------------------|-------------|
| MEMB.  | MAX. FACTORED FORCE (LBS) | FACTORED VERT. LOAD (PLF) | MAX LC1 (LC)   | MAX. UNBRAC LENGTH | MEMB. | MAX. FACTORED FORCE (LBS) | MAX LC (LC) |
| FR-TO  |                           | FROM TO                   |                |                    | FR-TO |                           |             |
| 19-2   | -191 / 0                  | 0.0                       | 0.0 0.02 (1)   | 7.81               | 15-6  | -174 / 0                  | 0.10 (1)    |
| 1-2    | 0 / 29                    | -77.3                     | -77.3 0.10 (1) | 10.00              | 16-5  | -155 / 0                  | 0.05 (1)    |
| 2-3    | -27 / 0                   | -77.3                     | -77.3 0.08 (1) | 6.25               | 17-4  | -161 / 0                  | 0.03 (1)    |
| 3-4    | 0 / 8                     | -77.3                     | -77.3 0.04 (1) | 10.00              | 18-3  | -53 / 0                   | 0.01 (1)    |
| 4-5    | 0 / 9                     | -77.3                     | -77.3 0.04 (1) | 10.00              | 14-7  | -156 / 0                  | 0.05 (1)    |
| 5-6    | 0 / 12                    | -77.3                     | -77.3 0.04 (1) | 10.00              | 13-8  | -156 / 0                  | 0.03 (1)    |
| 6-7    | 0 / 12                    | -77.3                     | -77.3 0.04 (1) | 10.00              | 12-9  | -124 / 0                  | 0.02 (1)    |
| 7-8    | 0 / 9                     | -77.3                     | -77.3 0.04 (1) | 10.00              |       |                           |             |
| 8-9    | 0 / 6                     | -77.3                     | -77.3 0.04 (1) | 10.00              |       |                           |             |
| 9-10   | 0 / 7                     | -77.3                     | -77.3 0.03 (1) | 10.00              |       |                           |             |
| 11-10  | -19 / 0                   | 0.0                       | 0.0 0.00 (1)   | 7.81               |       |                           |             |
| 19-18  | 0 / 0                     | -17.5                     | -17.5 0.02 (1) | 10.00              |       |                           |             |
| 18-17  | -3 / 0                    | -17.5                     | -17.5 0.01 (3) | 10.00              |       |                           |             |
| 17-16  | -8 / 0                    | -17.5                     | -17.5 0.01 (3) | 10.00              |       |                           |             |
| 16-15  | -10 / 0                   | -17.5                     | -17.5 0.01 (3) | 6.25               |       |                           |             |
| 15-14  | -10 / 0                   | -17.5                     | -17.5 0.01 (3) | 6.25               |       |                           |             |
| 14-13  | -8 / 0                    | -17.5                     | -17.5 0.01 (3) | 10.00              |       |                           |             |
| 13-12  | -3 / 0                    | -17.5                     | -17.5 0.01 (3) | 10.00              |       |                           |             |
| 12-11  | 0 / 3                     | -17.5                     | -17.5 0.01 (3) | 10.00              |       |                           |             |

#### DESIGN CRITERIA

SPECIFIED LOADS:  
TOP CH. LL = 23.3 PSF  
DL = 3.0 PSF  
BOT CH. LL = 0.0 PSF  
DL = 7.0 PSF  
TOTAL LOAD = 33.3 PSF

#### SPACING = 24.0 IN./C

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

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

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

(55 % OF 27.2 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 23.3 P.S.F. SPECIFIED ROOF LIVE LOAD

CSI: TC=0.10 (1-2:1) , BC=0.02 (18-19:1) , WB=0.10 (6-15:1) , SSI=0.07 (1-2:1)

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

COMPANION LIVE LOAD FACTOR = 0.50

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

NAIL VALUES  
PLATE GRIP(DRY) SHEAR SECTION  
(PSI) (PLI) (PLI)  
MAX MIN MAX MIN MAX MIN  
MT20 618 354 1667 822 2284 1656

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.12 (2) (INPUT = 0.90 )  
JSI METAL= 0.06 (6) (INPUT = 1.00 )



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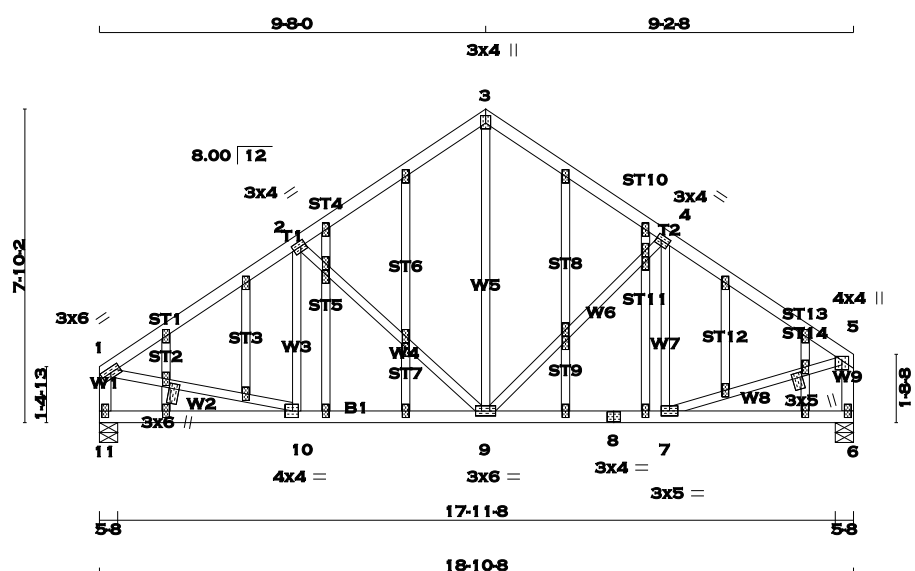
READ ALL NOTES ON THIS PAGE AND ON THE ENGINEERING NOTE PAGE ENP-1. THE NOTE PAGE IS AN INTEGRAL PART OF THIS DRAWING AS IT CONTAINS SPECIFICATIONS AND CRITERIA USED IN THE DESIGN OF THIS COMPONENT.



Kott Lumber Uxbridge, Stouffville, ON, CGC

Version 8.100 S Feb 9 2017 MiTek Industries, Inc. Mon Mar 13 09:56:44 2017 Page 1

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TOTAL WEIGHT = 105 lb  
[M][F]

| LUMBER            |      |        |        |
|-------------------|------|--------|--------|
| N. L. G. A. RULES |      |        |        |
| CHORDS            | SIZE | LUMBER | DESCR. |
| 1 - 3             | 2x4  | DRY    | No.2   |
| 3 - 5             | 2x4  | DRY    | No.2   |
| 11 - 1            | 2x4  | DRY    | No.2   |
| 6 - 5             | 2x4  | DRY    | No.2   |
| 11 - 8            | 2x4  | DRY    | No.2   |
| 8 - 6             | 2x4  | DRY    | No.2   |

|                       |     |     |      |     |
|-----------------------|-----|-----|------|-----|
| ALL WEBS              | 2x3 | DRY | No.2 | SPF |
| EXCEPT                |     |     |      |     |
| 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       |
| 1                                                                                      | TMVW-t  | MT20   | 3.0 | 6.0 |           |
| 2                                                                                      | TMVW-t  | MT20   | 3.0 | 4.0 | 1.50 1.50 |
| 3                                                                                      | TTW+p   | MT20   | 3.0 | 4.0 | 2.25 1.50 |
| 4                                                                                      | TMVW-t  | MT20   | 3.0 | 4.0 | 1.50 1.50 |
| 5                                                                                      | TMVW+p  | MT20   | 4.0 | 4.0 | 1.25 2.00 |
| 6                                                                                      | BMV1+p  | MT20   | 2.0 | 4.0 |           |
| 7                                                                                      | BMVW-t  | MT20   | 3.0 | 5.0 |           |
| 8                                                                                      | BS-t    | MT20   | 3.0 | 4.0 |           |
| 9                                                                                      | BMVWV-t | MT20   | 3.0 | 6.0 |           |
| 10                                                                                     | BMVW-t  | MT20   | 4.0 | 4.0 | 2.00 1.75 |
| 11                                                                                     | BMV1+p  | MT20   | 2.0 | 4.0 |           |
| 12, 15, 25, 28                                                                         |         |        |     |     |           |
| 12                                                                                     | NP+w    | MT20   | 2.0 | 4.0 | 1.50 1.00 |
| 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33 |         |        |     |     |           |
| 12                                                                                     | NP+w    | MT20   | 2.0 | 4.0 |           |
| 20                                                                                     | NP+t    | MT20   | 3.0 | 6.0 | 1.50 0.25 |
| 33                                                                                     | NP+t    | MT20   | 3.0 | 5.0 | 1.50 0.25 |

A SIZE FOR SIZE SUBSTITUTION OF MITEK MII20 WITH TEE-LOK TL20 PLATES IS ALLOWED.

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

| BEARINGS |      |                |      |                  |        |       |       |
|----------|------|----------------|------|------------------|--------|-------|-------|
|          |      | FACTORED       |      | MAXIMUM FACTORED |        | INPUT |       |
|          |      | GROSS REACTION |      | GROSS REACTION   |        | BRG   |       |
| JT       | VERT | HORZ           | DOWN | HORZ             | UPLIFT | IN-SX | IN-SX |
| 11       | 895  | 0              | 895  | 0                | 0      | 5-8   | 5-8   |
| 6        | 895  | 0              | 895  | 0                | 0      | 5-8   | 5-8   |

| UNFACTORED REACTIONS |          |           |       |                               |       |         |       |
|----------------------|----------|-----------|-------|-------------------------------|-------|---------|-------|
|                      |          | 1ST LCASE |       | MAX./MIN. COMPONENT REACTIONS |       |         |       |
| JT                   | COMBINED | SNOW      | LIVE  | PERM.LIVE                     | WIND  | DEAD    | SOIL  |
| 11                   | 628      | 439 / 0   | 0 / 0 | 0 / 0                         | 0 / 0 | 189 / 0 | 0 / 0 |
| 6                    | 628      | 439 / 0   | 0 / 0 | 0 / 0                         | 0 / 0 | 189 / 0 | 0 / 0 |

BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S) 11, 6

**BRACING**  
TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 6.10 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: (3) |          |               |       |               |       |               |           |
| CHORDS                |          |               |       | WEBS          |       |               |           |
|                       |          | MAX. FACTORED |       | MAX. FACTORED |       | MAX. FACTORED |           |
|                       |          | FORCE         |       | FORCE         |       | FORCE         |           |
|                       |          | (LBS)         |       | (PLF)         |       | (LBS)         |           |
|                       |          |               |       | CSI (LC)      |       |               |           |
|                       |          |               |       | UNBRAC        |       |               |           |
|                       |          |               |       | LENGTH        |       |               |           |
|                       |          |               |       | FR-TO         |       |               |           |
| 1-2                   | -942 / 0 | -77.3         | -77.3 | 0.24 (1)      | 6.10  | 10-2          | -83 / 56  |
| 2-3                   | -704 / 0 | -77.3         | -77.3 | 0.23 (1)      | 6.25  | 2-9           | -326 / 0  |
| 3-4                   | -703 / 0 | -77.3         | -77.3 | 0.21 (1)      | 6.25  | 9-3           | 0 / 485   |
| 4-5                   | -877 / 0 | -77.3         | -77.3 | 0.22 (1)      | 6.25  | 9-4           | -262 / 0  |
| 11-1                  | -859 / 0 | 0.0           | 0.0   | 0.09 (1)      | 7.81  | 7-4           | -133 / 37 |
| 6-5                   | -860 / 0 | 0.0           | 0.0   | 0.09 (1)      | 7.81  | 1-10          | 0 / 823   |
|                       |          |               |       |               |       | 7-5           | 0 / 781   |
| 11-10                 | 0 / 0    | -17.5         | -17.5 | 0.10 (3)      | 10.00 |               |           |
| 10-9                  | 0 / 804  | -17.5         | -17.5 | 0.18 (1)      | 10.00 |               |           |
| 9-8                   | 0 / 749  | -17.5         | -17.5 | 0.16 (1)      | 10.00 |               |           |
| 8-7                   | 0 / 749  | -17.5         | -17.5 | 0.16 (1)      | 10.00 |               |           |
| 7-6                   | 0 / 0    | -17.5         | -17.5 | 0.09 (3)      | 10.00 |               |           |

DESIGN CRITERIA

SPECIFIED LOADS:  
TOP CH. LL = 23.3 PSF  
DL = 3.0 PSF  
BOT CH. LL = 0.0 PSF  
DL = 7.0 PSF  
TOTAL LOAD = 33.3 PSF

SPACING = 24.0 IN./C

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

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

(55 % OF 27.2 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 23.3 P.S.F. SPECIFIED ROOF LIVE LOAD

ALLOWABLE DEFL.(LL)= L/360 (0.63")  
CALCULATED VERT. DEFL.(LL) = L/ 999 (0.02")  
ALLOWABLE DEFL.(TL)= L/360 (0.63")  
CALCULATED VERT. DEFL.(TL) = L/ 999 (0.04")

CSI: TC=0.24 (1-2:1), BC=0.18 (9-10:1), WB=0.24 (2-9:1), SSI=0.15 (1-2:1)

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

COMPANION LIVE LOAD FACTOR = 0.50

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

| NAIL VALUES     |     |         |      |         |           |
|-----------------|-----|---------|------|---------|-----------|
| PLATE GRIP(DRY) |     | SHEAR   |      | SECTION |           |
| (PSI)           |     | (PLI)   |      | (PLI)   |           |
|                 |     | MAX MIN |      | MAX MIN |           |
| MT20            | 618 | 354     | 1667 | 822     | 2284 1656 |

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

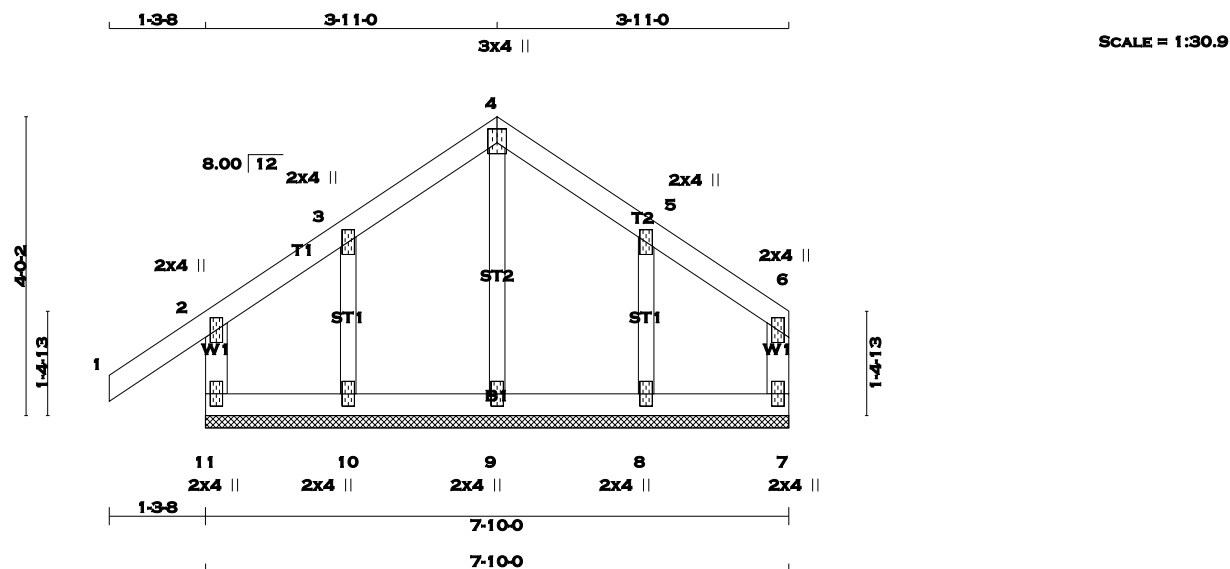
JSI GRIP= 0.88 (9) (INPUT = 0.90 )  
JSI METAL= 0.30 (10) (INPUT = 1.00 )



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READ ALL NOTES ON THIS PAGE AND ON THE  
ENGINEERING NOTE PAGE ENP-1. THE NOTE PAGE  
IS AN INTEGRAL PART OF THIS DRAWING AS IT  
CONTAINS SPECIFICATIONS AND CRITERIA USED  
IN THE DESIGN OF THIS COMPONENT.





| LUMBER                          |        |      |        | DESCR. |
|---------------------------------|--------|------|--------|--------|
| N. L. G. A. RULES               | CHORDS | SIZE | LUMBER |        |
| 11 - 2                          | 2x4    | DRY  | No.2   | SPF    |
| 1 - 4                           | 2x4    | DRY  | No.2   | SPF    |
| 4 - 6                           | 2x4    | DRY  | No.2   | SPF    |
| 7 - 6                           | 2x4    | DRY  | No.2   | SPF    |
| 11 - 7                          | 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       |
| 2                           | TMV+p  | MT20   | 2.0 | 4.0 |           |
| 3                           | TMW+w  | MT20   | 2.0 | 4.0 |           |
| 4                           | TTW+p  | MT20   | 3.0 | 4.0 | 2.25 1.50 |
| 5                           | TMW+w  | MT20   | 2.0 | 4.0 |           |
| 6                           | TMV+p  | MT20   | 2.0 | 4.0 |           |
| 7                           | BMV1+p | MT20   | 2.0 | 4.0 |           |
| 8, 9, 10                    |        |        |     |     |           |
| 8                           | BMW1+w | MT20   | 2.0 | 4.0 |           |
| 11                          | BMV1+p | MT20   | 2.0 | 4.0 |           |

A SIZE FOR SIZE SUBSTITUTION OF MITEK MII20 WITH TEE-LOK TL20 PLATES IS ALLOWED.

#### 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

| CHORDS |                           |                           |                        | WEBS               |       |                           |                        |
|--------|---------------------------|---------------------------|------------------------|--------------------|-------|---------------------------|------------------------|
| MEMB.  | MAX. FACTORED FORCE (LBS) | FACTORED VERT. LOAD (PLF) | MAX. FACTORED LC1 (LC) | MAX. UNBRAC LENGTH | MEMB. | MAX. FACTORED FORCE (LBS) | MAX. FACTORED LC1 (LC) |
| FR-TO  |                           | FROM TO                   |                        |                    | FR-TO |                           |                        |
| 11-2   | -199 / 0                  | 0.0                       | 0.0 0.02 (1)           | 7.81               | 9-4   | -172 / 0                  | 0.04 (1)               |
| 1-2    | 0 / 29                    | -77.3                     | -77.3 0.10 (1)         | 10.00              | 10-3  | -121 / 0                  | 0.02 (1)               |
| 2-3    | -12 / 0                   | -77.3                     | -77.3 0.08 (1)         | 6.25               | 8-5   | -160 / 0                  | 0.03 (1)               |
| 3-4    | -3 / 8                    | -77.3                     | -77.3 0.04 (1)         | 10.00              |       |                           |                        |
| 4-5    | -3 / 5                    | -77.3                     | -77.3 0.04 (1)         | 10.00              |       |                           |                        |
| 5-6    | -3 / 5                    | -77.3                     | -77.3 0.04 (1)         | 10.00              |       |                           |                        |
| 7-6    | -60 / 0                   | 0.0                       | 0.0 0.01 (1)           | 7.81               |       |                           |                        |
| 11-10  | 0 / 3                     | -17.5                     | -17.5 0.02 (1)         | 10.00              |       |                           |                        |
| 10-9   | -4 / 2                    | -17.5                     | -17.5 0.01 (3)         | 10.00              |       |                           |                        |
| 9-8    | -4 / 2                    | -17.5                     | -17.5 0.02 (3)         | 10.00              |       |                           |                        |
| 8-7    | 0 / 3                     | -17.5                     | -17.5 0.02 (3)         | 10.00              |       |                           |                        |

#### DESIGN CRITERIA

**SPECIFIED LOADS:**  
TOP CH. LL = 23.3 PSF  
DL = 3.0 PSF  
BOT CH. LL = 0.0 PSF  
DL = 7.0 PSF  
TOTAL LOAD = 33.3 PSF

#### SPACING = 24.0 IN. C/C

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

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

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

(55 % OF 27.2 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 23.3 P.S.F. SPECIFIED ROOF LIVE LOAD

CSI: TC=0.10 (1-2:1), BC=0.02 (10-11:1), WB=0.04 (4-9:1), SSI=0.07 (1-2:1)

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

COMPANION LIVE LOAD FACTOR = 0.50

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

**NAIL VALUES**  
PLATE GRIP(DRY) SHEAR SECTION  
(PSI) (PLI) (PLI)  
MAX MIN MAX MIN MAX MIN  
MT20 618 354 1667 822 2284 1656

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

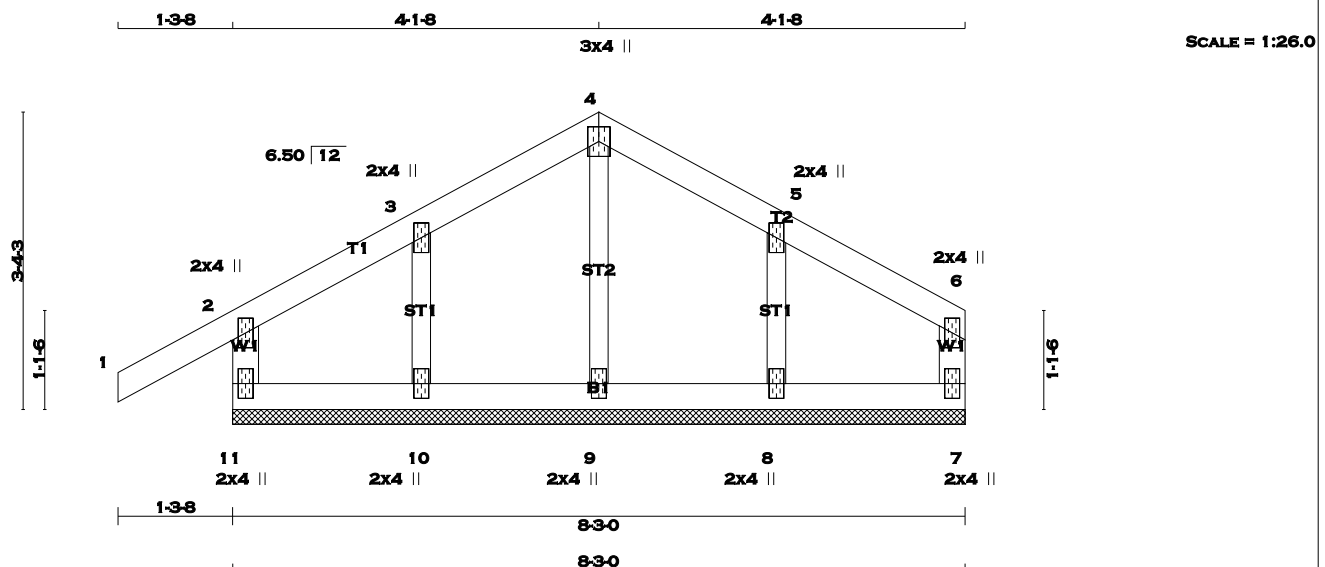
JSI GRIP= 0.13 (2) (INPUT = 0.90)  
JSI METAL= 0.07 (4) (INPUT = 1.00)



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TOTAL WEIGHT = 29 lb [M]

| LUMBER                          |   |      |        |      |       |
|---------------------------------|---|------|--------|------|-------|
| N. L. G. A. RULES               |   |      |        |      |       |
| CHORDS                          |   | SIZE | LUMBER |      | DESCR |
| 11 -                            | 2 | 2x4  | DRY    | No.2 | SPF   |
| 1 -                             | 4 | 2x4  | DRY    | No.2 | SPF   |
| 4 -                             | 6 | 2x4  | DRY    | No.2 | SPF   |
| 7 -                             | 6 | 2x4  | DRY    | No.2 | SPF   |
| 11 -                            | 7 | 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 |
| 2                           | TMV+p  | MT20   | 2.0 | 4.0 |     |
| 3                           | TMW+w  | MT20   | 2.0 | 4.0 |     |
| 4                           | TTW+p  | MT20   | 3.0 | 4.0 |     |
| 5                           | TMW+w  | MT20   | 2.0 | 4.0 |     |
| 6                           | TMV+p  | MT20   | 2.0 | 4.0 |     |
| 7                           | BMV1+p | MT20   | 2.0 | 4.0 |     |
| 8, 9, 10                    |        |        |     |     |     |
| 8                           | BMW1+w | MT20   | 2.0 | 4.0 |     |
| 11                          | BMV1+p | MT20   | 2.0 | 4.0 |     |

A SIZE FOR SIZE SUBSTITUTION OF MITEK MII20 WITH TEE-LOK TL20 PLATES IS ALLOWED.

**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: (3)

| CHORDS        |             |                  |                | WEBS          |             |                           |               |
|---------------|-------------|------------------|----------------|---------------|-------------|---------------------------|---------------|
| MAX. FACTORED |             | FACTORED         |                | MAX. FACTORED |             | FACTORED                  |               |
| MEMB.         | FORCE (LBS) | VERT. LOAD (PLF) | LC1 MAX (LC)   | MEMB.         | FORCE (LBS) | MAX. UNBRACED LENGTH (LC) | FACTORED (LC) |
| FR-TO         |             | FROM TO          |                | FR-TO         |             |                           |               |
| 11-2          | -201 / 0    | 0.0              | 0.0 0.02 (1)   | 7.81          | 9-4         | -134 / 0                  | 0.03 (1)      |
| 1-2           | 0 / 25      | -77.3            | -77.3 0.10 (1) | 10.00         | 10-3        | -156 / 0                  | 0.02 (1)      |
| 2-3           | -33 / 0     | -77.3            | -77.3 0.04 (1) | 6.25          | 8-5         | -163 / 0                  | 0.02 (1)      |
| 3-4           | -26 / 0     | -77.3            | -77.3 0.04 (1) | 6.25          |             |                           |               |
| 4-5           | -27 / 0     | -77.3            | -77.3 0.04 (1) | 6.25          |             |                           |               |
| 5-6           | -30 / 0     | -77.3            | -77.3 0.04 (1) | 6.25          |             |                           |               |
| 7-6           | -90 / 0     | 0.0              | 0.0 0.03 (1)   | 7.81          |             |                           |               |
| 11-10         | 0 / 29      | -17.5            | -17.5 0.02 (3) | 10.00         |             |                           |               |
| 10-9          | 0 / 23      | -17.5            | -17.5 0.02 (3) | 10.00         |             |                           |               |
| 9-8           | 0 / 23      | -17.5            | -17.5 0.02 (3) | 10.00         |             |                           |               |
| 8-7           | 0 / 29      | -17.5            | -17.5 0.02 (3) | 10.00         |             |                           |               |

**DESIGN CRITERIA**

**SPECIFIED LOADS:**

TOP CH. LL = 23.3 PSF  
DL = 3.0 PSF

BOT CH. LL = 0.0 PSF  
DL = 7.0 PSF

TOTAL LOAD = 33.3 PSF

**SPACING = 24.0 IN./C**

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

THIS DESIGN COMPLIES WITH:

- PART 9 OF OBC 2012, BCBC 2012, ABC 2014
- CSA 086-09
- TPIC 2011

**DESIGN ASSUMPTIONS**

-OVERHANG NOT TO BE ALTERED OR CUT OFF.

(55 % OF 27.2 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 23.3 P.S.F. SPECIFIED ROOF LIVE LOAD

CSI: TC=0.10 (1-2:1), BC=0.02 (7-8:3), WB=0.03 (4-9:1), SSI=0.07 (1-2:1)

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

COMPANION LIVE LOAD FACTOR = 0.50

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

**NAIL VALUES**

| PLATE | GRIP(DRY) | SHEAR (PSI) | SECTION (PLI) |
|-------|-----------|-------------|---------------|
|       |           |             |               |
| MT20  | 618       | 354         | 1667          |
|       | 822       | 2284        | 1656          |

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

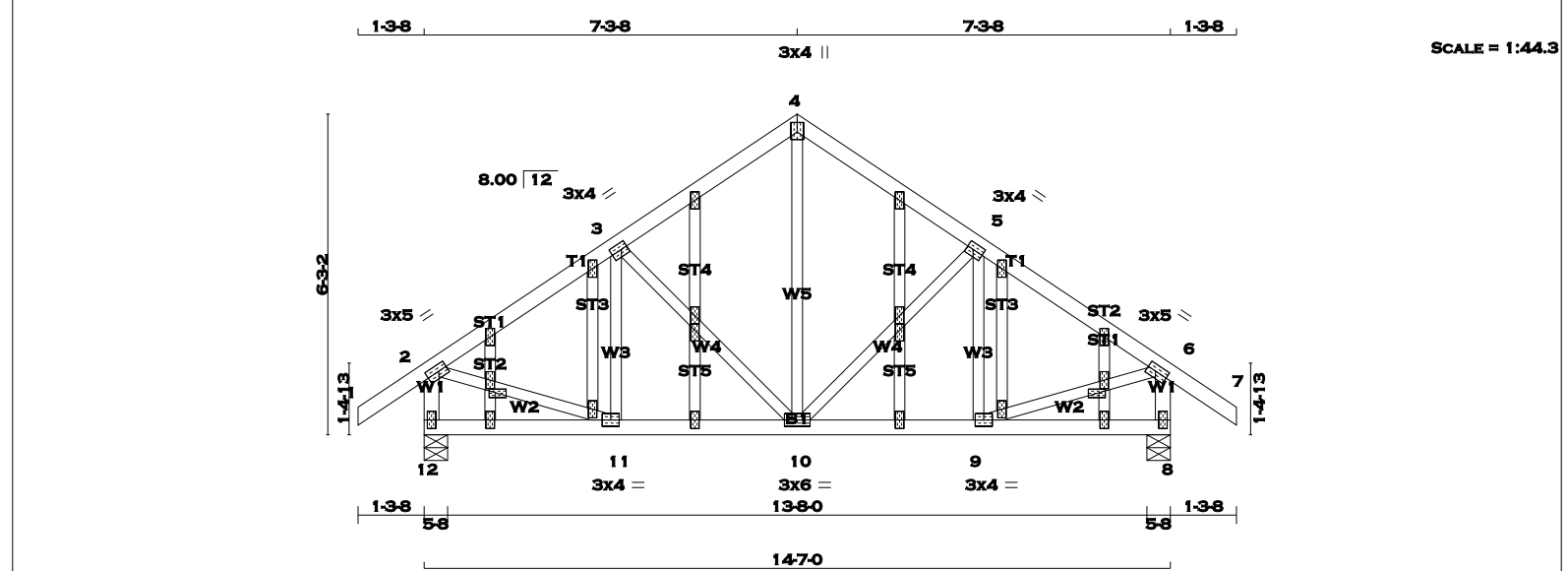
JSI GRIP= 0.14 (6) (INPUT = 0.90 )  
JSI METAL= 0.06 (6) (INPUT = 1.00 )



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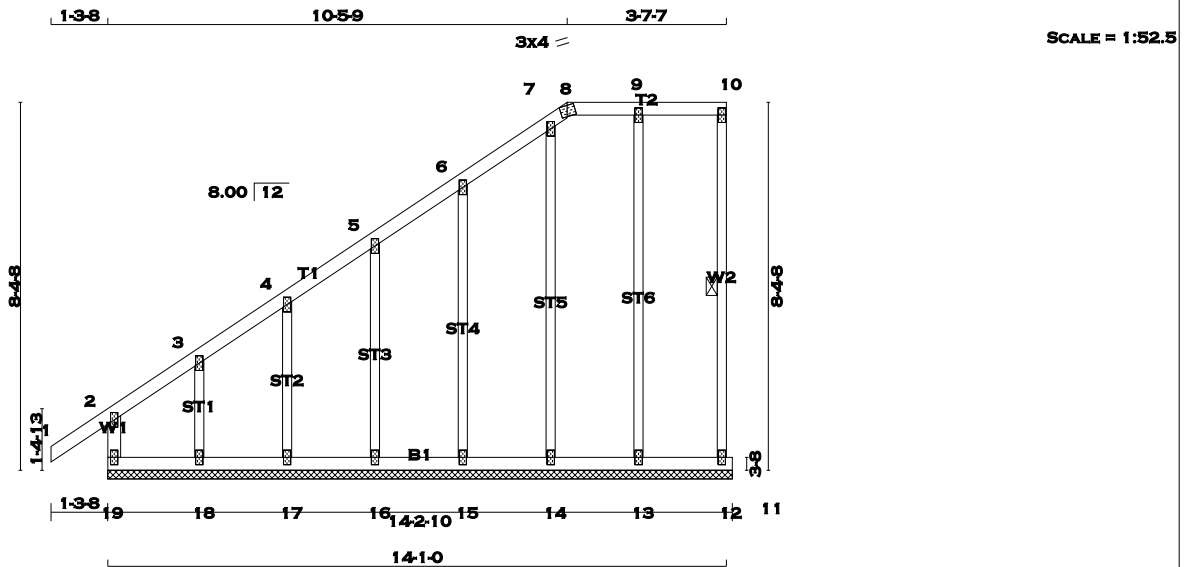




Kott Lumber Uxbridge, Stouffville, ON, CGC

Version 8.100 S Feb 9 2017 MiTek Industries, Inc. Mon Mar 13 09:56:45 2017 Page 1

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TOTAL WEIGHT = 2 X 70 = 141 lb [M]

| LUMBER                          |        |      |        | DESCR. |
|---------------------------------|--------|------|--------|--------|
| N. L. G. A. RULES               | CHORDS | SIZE | LUMBER |        |
| 19 - 2                          | 2x4    | DRY  | No.2   | SPF    |
| 1 - 8                           | 2x4    | DRY  | No.2   | SPF    |
| 8 - 10                          | 2x4    | DRY  | No.2   | SPF    |
| 12 - 10                         | 2x3    | DRY  | No.2   | SPF    |
| 19 - 11                         | 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  |  |
| 2                                                                                | TMV+p  | MT20   | 2.0 | 4.0 | Edge |  |
| 3, 4, 5, 6, 7, 9                                                                 |        |        |     |     |      |  |
| 3                                                                                | TMW+w  | MT20   | 2.0 | 4.0 |      |  |
| 8                                                                                | TT-m   | MT20   | 3.0 | 4.0 |      |  |
| 10                                                                               | TMV+p  | MT20   | 2.0 | 4.0 |      |  |
| 12                                                                               | BMV1+p | MT20   | 2.0 | 4.0 |      |  |
| 13, 14, 15, 16, 17, 18                                                           |        |        |     |     |      |  |
| 13                                                                               | BMW1+w | MT20   | 2.0 | 4.0 |      |  |
| 19                                                                               | BMV1+p | MT20   | 2.0 | 4.0 |      |  |
| Edge - INDICATES REFERENCE CORNER OF PLATE TOUCHES EDGE OF CHORD.                |        |        |     |     |      |  |
| A SIZE FOR SIZE SUBSTITUTION OF MITEK MII20 WITH TEE-LOK TL20 PLATES IS ALLOWED. |        |        |     |     |      |  |

#### 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.

1 - 2x3 SPF No.2 LATERAL BRACE(S) AT 1/2 LENGTH OF 10-12. DBS = 20-0-0 . CBF = 8 LBS.

DBS = DIAGONAL BRACE SPACING (MAX). CBF = CUMULATIVE BRACING FORCE. FASTEN LATERAL BRACE(S) USING (0.122"x3") SPIRAL NAILS : 1 NAIL FOR 2x3 BRACE(S), 2 FOR 1x4, 2x4, 2x5, 3 FOR 2x6, 4 FOR 2x8, 5 FOR 2x10, AND 6 FOR 2x12.

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: (3)

| CHORDS |                           |                  |                           | WEBS  |                           |                           |          |
|--------|---------------------------|------------------|---------------------------|-------|---------------------------|---------------------------|----------|
| MEMB.  | MAX. FACTORED FORCE (LBS) | VERT. LOAD (PLF) | MAX. UNBRACED LENGTH (LC) | MEMB. | MAX. FACTORED FORCE (LBS) | MAX. UNBRACED LENGTH (LC) |          |
| FR-TO  |                           | FROM TO          |                           | FR-TO |                           |                           |          |
| 19-2   | -195 / 0                  | 0.0              | 0.0 0.01 (1)              | 7.81  | 13-9                      | -172 / 0                  | 0.24 (1) |
| 1-2    | 0 / 29                    | -77.3            | -77.3 0.10 (1)            | 10.00 | 14-7                      | -155 / 0                  | 0.20 (1) |
| 2-3    | -19 / 0                   | -77.3            | -77.3 0.04 (1)            | 6.25  | 15-6                      | -154 / 0                  | 0.12 (1) |
| 3-4    | -12 / 0                   | -77.3            | -77.3 0.04 (1)            | 6.25  | 16-5                      | -153 / 0                  | 0.07 (1) |
| 4-5    | -8 / 0                    | -77.3            | -77.3 0.04 (1)            | 10.00 | 17-4                      | -153 / 0                  | 0.04 (1) |
| 5-6    | -5 / 0                    | -77.3            | -77.3 0.04 (1)            | 10.00 | 18-3                      | -150 / 0                  | 0.03 (1) |
| 6-7    | -3 / 0                    | -77.3            | -77.3 0.04 (1)            | 10.00 |                           |                           |          |
| 7-8    | -36 / 0                   | -77.3            | -77.3 0.03 (1)            | 6.25  |                           |                           |          |
| 8-9    | 0 / 0                     | -77.3            | -77.3 0.04 (1)            | 10.00 |                           |                           |          |
| 9-10   | 0 / 0                     | -77.3            | -77.3 0.04 (1)            | 10.00 |                           |                           |          |
| 12-10  | -65 / 0                   | 0.0              | 0.0 0.01 (1)              | 6.25  |                           |                           |          |
| 19-18  | 0 / 15                    | -17.5            | -17.5 0.02 (3)            | 10.00 |                           |                           |          |
| 18-17  | 0 / 10                    | -17.5            | -17.5 0.02 (3)            | 10.00 |                           |                           |          |
| 17-16  | 0 / 7                     | -17.5            | -17.5 0.01 (3)            | 10.00 |                           |                           |          |
| 16-15  | 0 / 4                     | -17.5            | -17.5 0.01 (3)            | 10.00 |                           |                           |          |
| 15-14  | 0 / 2                     | -17.5            | -17.5 0.01 (3)            | 10.00 |                           |                           |          |
| 14-13  | 0 / 0                     | -17.5            | -17.5 0.01 (3)            | 10.00 |                           |                           |          |
| 13-12  | 0 / 0                     | -17.5            | -17.5 0.01 (3)            | 10.00 |                           |                           |          |
| 12-11  | 0 / 0                     | -25.0            | -25.0 0.00 (3)            | 10.00 |                           |                           |          |

#### DESIGN CRITERIA

SPECIFIED LOADS:  
TOP CH. LL = 23.3 PSF  
DL = 3.0 PSF  
BOT CH. LL = 0.0 PSF  
DL = 7.0 PSF  
TOTAL LOAD = 33.3 PSF

SPACING = 24.0 IN./C

LOADING IN FLAT SECTION BASED ON A SLOPE OF 6.00/12

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

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

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

(55 % OF 27.2 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 23.3 P.S.F. SPECIFIED ROOF LIVE LOAD

CSI: TC=0.10 (1-2:1), BC=0.02 (18-19:3), WB=0.24 (9-13:1), SSI=0.07 (9-10:1)

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

COMPANION LIVE LOAD FACTOR = 0.50

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

NAIL VALUES  
PLATE GRIP(DRY) SHEAR SECTION (PSI) (PLI) (PLI)  
MAX MIN MAX MIN MAX MIN  
MT20 618 354 1667 822 2284 1656

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.14 (2) (INPUT = 0.90 )  
JSI METAL= 0.05 (2) (INPUT = 1.00 )



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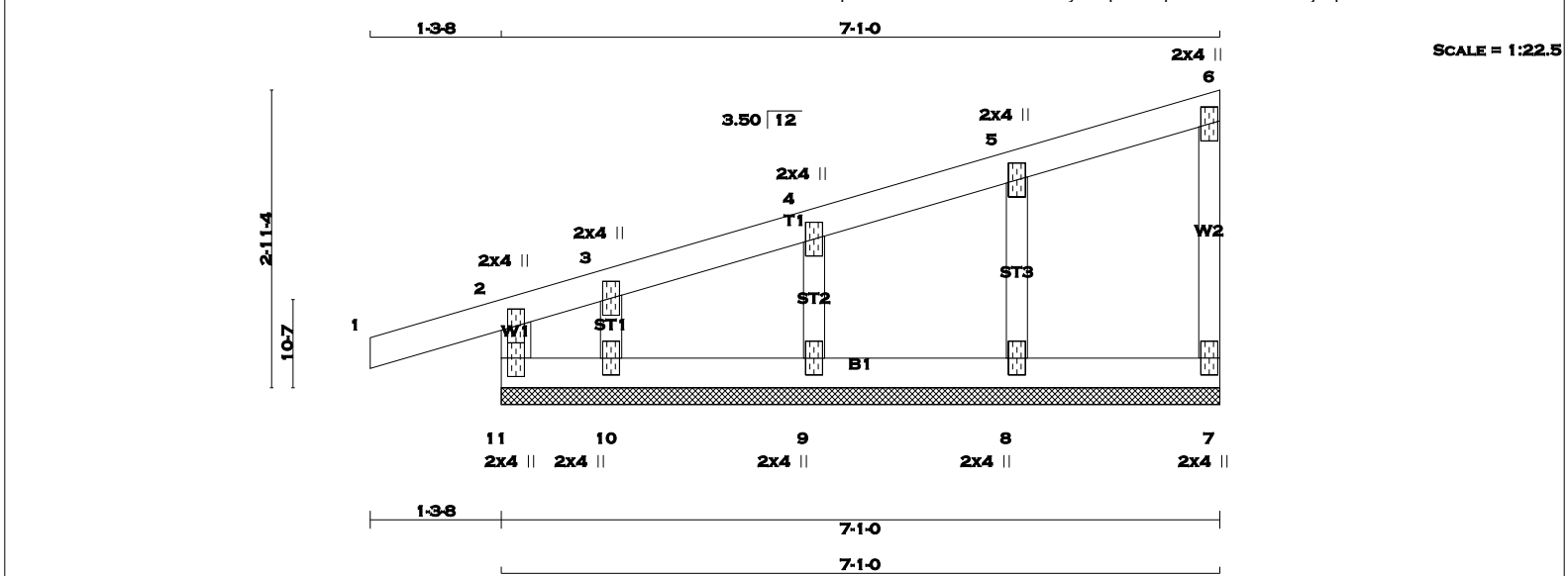




A SIZE FOR SIZE SUBSTITUTION OF MITEK MII20 WITH TEE-LOK TL20 PLATES IS ALLOWED.

| C H O R D S |                           |                           |                  | W E B S            |             |                           |              |
|-------------|---------------------------|---------------------------|------------------|--------------------|-------------|---------------------------|--------------|
| MEMB.       | MAX. FACTORED FORCE (LBS) | FACTORED VERT. LOAD (PLF) | LC1 MAX CSI (LC) | MAX. UNBRAC LENGTH | MEMB. FR-TO | MAX. FACTORED FORCE (LBS) | MAX CSI (LC) |
| 7-2         | -220 / 0                  | 0.0                       | 0.0              | 0.02 (4)           | 7.81        | 6-3                       | -27 / 105    |
| 1-2         | 0 / 23                    | -77.3                     | -77.3            | 0.10 (1)           | 10.00       |                           |              |
| 2-3         | -44 / 0                   | -77.3                     | -77.3            | 0.08 (1)           | 6.25        |                           |              |
| 3-4         | -10 / 0                   | -77.3                     | -77.3            | 0.04 (1)           | 10.00       |                           |              |
| 5-4         | -68 / 0                   | 0.0                       | 0.0              | 0.02 (1)           | 7.81        |                           |              |
| 7-6         | -7 / 7                    | -17.5                     | -17.5            | 0.02 (1)           | 10.00       |                           |              |
| 6-5         | 0 / 5                     | -17.5                     | -17.5            | 0.02 (3)           | 10.00       |                           |              |

CANTILEVER ANALYSIS HAS BEEN CONSIDERED IN THIS DESIGN



TOTAL WEIGHT = 3 X 23 = 70 lb [M]

| LUMBER                          |        |      |        |        |
|---------------------------------|--------|------|--------|--------|
| N. L. G. A. RULES               | CHORDS | SIZE | LUMBER | DESCR. |
| 11 - 2                          | 2x4    | DRY  | No.2   | SPF    |
| 1 - 6                           | 2x4    | DRY  | No.2   | SPF    |
| 7 - 6                           | 2x3    | DRY  | No.2   | SPF    |
| 11 - 7                          | 2x4    | DRY  | No.2   | SPF    |
| ALL WEBS 2x3 DRY No.2 SPF       |        |      |        |        |
| ALL GABLE WEBS 2x3 DRY No.2 SPF |        |      |        |        |
| GABLE STUDS SPACED AT 2-0-0 OC. |        |      |        |        |

| PLATES (table is in inches)                                                      |        |        |     |     |      |      |
|----------------------------------------------------------------------------------|--------|--------|-----|-----|------|------|
| JT                                                                               | TYPE   | PLATES | W   | LEN | Y    | X    |
| 2                                                                                | TMV+p  | MT20   | 2.0 | 4.0 |      |      |
| 3, 4, 5                                                                          |        |        |     |     |      |      |
| 3                                                                                | TMW+w  | MT20   | 2.0 | 4.0 |      |      |
| 6                                                                                | TMV+p  | MT20   | 2.0 | 4.0 |      |      |
| 7                                                                                | BMV1+p | MT20   | 2.0 | 4.0 |      |      |
| 8, 9, 10                                                                         |        |        |     |     |      |      |
| 8                                                                                | BMW1+w | MT20   | 2.0 | 4.0 |      |      |
| 11                                                                               | BMV1+p | MT20   | 2.0 | 4.0 | 2.25 | 1.00 |
| A SIZE FOR SIZE SUBSTITUTION OF MITEK MII20 WITH TEE-LOK TL20 PLATES IS ALLOWED. |        |        |     |     |      |      |

**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: (3) |                           |                  |              |               |         |                           |          |          |  |
| C H O R D S           |                           |                  |              |               | W E B S |                           |          |          |  |
| MEMB.                 | MAX. FACTORED FORCE (LBS) | VERT. LOAD (PLF) | LC1 MAX (LC) | UNBRAC LENGTH | MEMB.   | MAX. FACTORED FORCE (LBS) | MAX (LC) |          |  |
| FR-TO                 |                           | FROM TO          |              |               | FR-TO   |                           |          |          |  |
| 11-2                  | -189 / 0                  | 0.0              | 0.0          | 0.03 (1)      | 7.81    | 8-5                       | -168 / 0 | 0.03 (1) |  |
| 1-2                   | 0 / 14                    | -77.3            | -77.3        | 0.10 (1)      | 10.00   | 9-4                       | -161 / 0 | 0.02 (1) |  |
| 2-3                   | -26 / 0                   | -77.3            | -77.3        | 0.07 (1)      | 6.25    | 10-3                      | -67 / 0  | 0.01 (1) |  |
| 3-4                   | -9 / 0                    | -77.3            | -77.3        | 0.04 (1)      | 10.00   |                           |          |          |  |
| 4-5                   | -7 / 0                    | -77.3            | -77.3        | 0.04 (1)      | 10.00   |                           |          |          |  |
| 5-6                   | -7 / 0                    | -77.3            | -77.3        | 0.04 (1)      | 10.00   |                           |          |          |  |
| 7-6                   | -66 / 0                   | 0.0              | 0.0          | 0.02 (1)      | 7.81    |                           |          |          |  |
| 11-10                 | 0 / 14                    | -17.5            | -17.5        | 0.03 (1)      | 10.00   |                           |          |          |  |
| 10-9                  | 0 / 11                    | -17.5            | -17.5        | 0.01 (3)      | 10.00   |                           |          |          |  |
| 9-8                   | 0 / 7                     | -17.5            | -17.5        | 0.02 (3)      | 10.00   |                           |          |          |  |
| 8-7                   | 0 / 3                     | -17.5            | -17.5        | 0.02 (3)      | 10.00   |                           |          |          |  |

**DESIGN CRITERIA**

SPECIFIED LOADS:

TOP CH. LL = 23.3 PSF

DL = 3.0 PSF

BOT CH. LL = 0.0 PSF

DL = 7.0 PSF

TOTAL LOAD = 33.3 PSF

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

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

THIS DESIGN COMPLIES WITH:

- PART 9 OF OBC 2012 , BCBC 2012 , ABC 2014
- CSA 086-09
- TPIC 2011

DESIGN ASSUMPTIONS

- OVERHANG NOT TO BE ALTERED OR CUT OFF.

(55 % OF 27.2 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 23.3 P.S.F. SPECIFIED ROOF LIVE LOAD

CSI: TC=0.10 (1-2:1) , BC=0.03 (10-11:1) , WB=0.03 (5-8:1) , SSI=0.08 (1-2:1)

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

COMPANION LIVE LOAD FACTOR = 0.50

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

NAIL VALUES

| PLATE | GRIP(DRY) | SHEAR | SECTION            |
|-------|-----------|-------|--------------------|
|       | (PSI)     | (PLI) | (PLI)              |
|       | MAX       | MIN   | MAX MIN            |
| MT20  | 618       | 354   | 1667 822 2284 1656 |

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.10 (2) (INPUT = 0.90 )

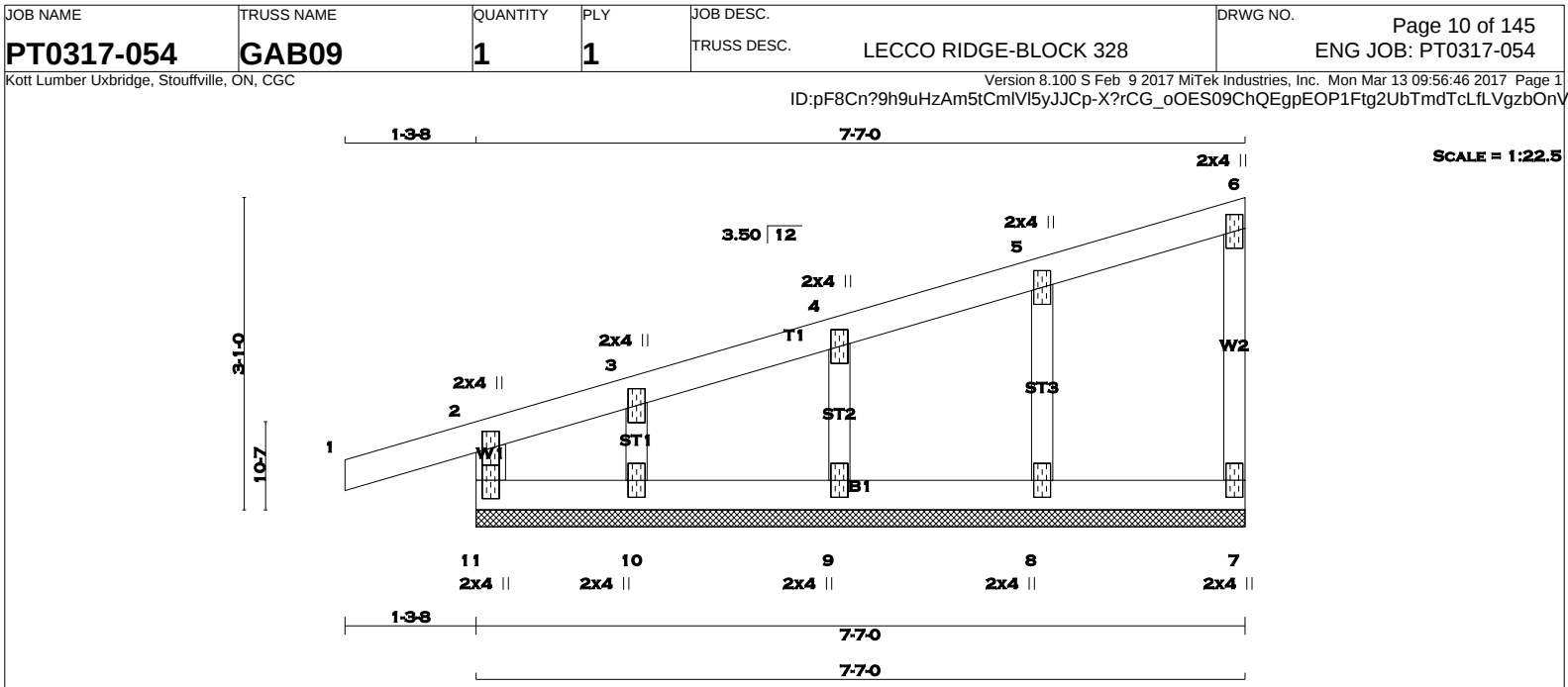
JSI METAL= 0.04 (2) (INPUT = 1.00 )



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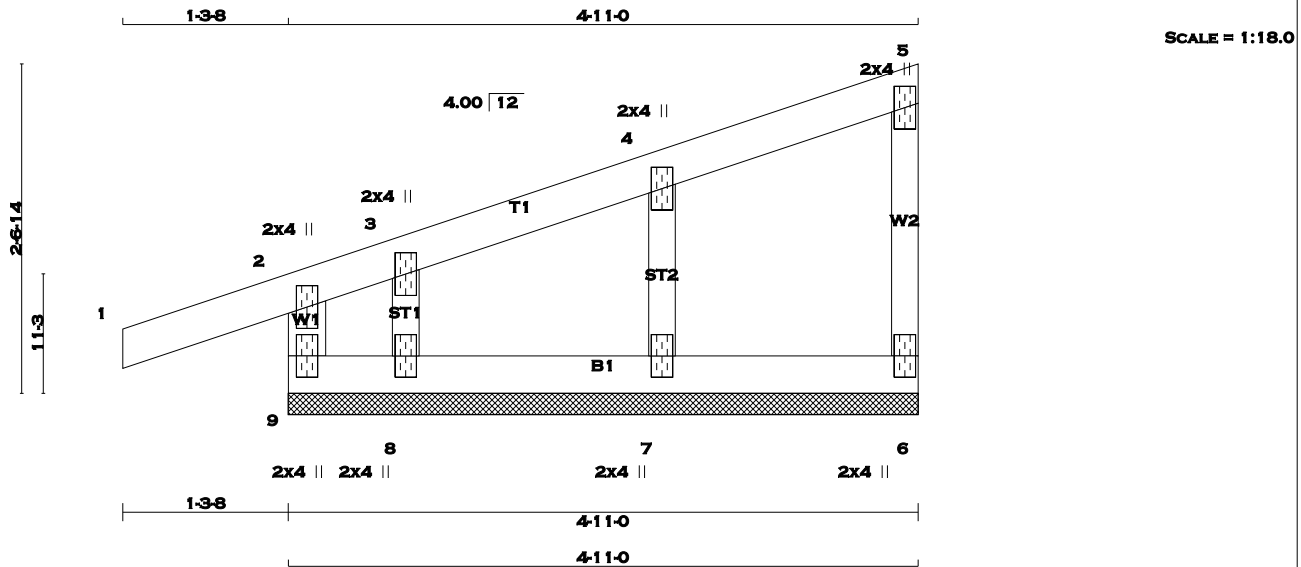
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |  |  |  |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |  |  |  |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |  |  |  |  |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|--|--|--|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|--|--|--|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|--|--|--|
| TOTAL WEIGHT = 25 lb                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |  |  |  |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |  |  |  |  | [M]                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |  |  |  |  |
| <b>LUMBER</b><br>N. L. G. A. RULES<br>CHORDS      SIZE                      LUMBER                      DESCR.<br>11 - 2      2x4      DRY                      No.2                      SPF<br>1 - 6      2x4      DRY                      No.2                      SPF<br>7 - 6      2x3      DRY                      No.2                      SPF<br>11 - 7      2x4      DRY                      No.2                      SPF<br><br>ALL WEBS      2x3      DRY                      No.2                      SPF<br>ALL GABLE WEBS                      2x3      DRY                      No.2                      SPF<br>DRY: SEASONED LUMBER.<br><br>GABLE STUDS SPACED AT    2-0-0 OC.                                                                                                                                                 |  |  |  |  | <b>DIMENSIONS, SUPPORTS    AND LOADINGS SPECIFIED BY FABRICATOR TO BE VERIFIED BY BUILDING DESIGNER</b><br><b>BEARINGS</b><br><br>THIS TRUSS DESIGNED FOR CONTINUOUS BEARINGS.<br><br>THIS TRUSS REQUIRES RIGID SHEATHING ON EXPOSED FACE.<br><br>BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S)<br><br><b>BRACING</b><br>TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 6.25 FT.<br>MAX. UNBRACED BOTTOM CHORD LENGTH = 10.00 FT.    OR RIGID CEILING DIRECTLY APPLIED.<br><br>ALL PITCH BREAKS AND PERIMETER CORNER JOINTS MUST BE LATERALLY RESTRAINED. |  |  |  |  | <b>DESIGN CRITERIA</b><br><br>SPECIFIED LOADS:<br>TOP    CH.    LL    =    23.3    PSF<br>DL    =    3.0    PSF<br>BOT    CH.    LL    =    0.0    PSF<br>DL    =    7.0    PSF<br>TOTAL    LOAD    =    33.3    PSF<br><br><b>SPACING =    24.0    IN. C/C</b><br><br>THIS TRUSS IS DESIGNED FOR RESIDENTIAL OR SMALL BUILDING REQUIREMENTS OF PART 9, NBCC 2010<br><br>THIS DESIGN COMPLIES WITH:<br>- PART 9 OF OBC 2012 , BCBC 2012 , ABC 2014<br>- CSA 086-09<br>- TPIC 2011<br><br>DESIGN ASSUMPTIONS<br>-OVERHANG NOT TO BE ALTERED OR CUT OFF.<br><br>(55 % OF 27.2 P.S.F.    G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 23.3 P.S.F. SPECIFIED ROOF LIVE LOAD<br><br>CSI: TC=0.10 (1-2:1) , BC=0.03 (10-11:1) , WB=0.03 (5-8:1) , SSI=0.08 (1-2:1)<br><br>DOL LUMBER=1.00 NAIL=1.00 LS BEND=1.10 COMP=1.10 SHEAR=1.10 TENS= 1.10<br><br>COMPANION LIVE LOAD FACTOR = 0.50<br><br>TRUSS PLATE MANUFACTURER IS NOT RESPONSIBLE FOR QUALITY CONTROL IN THE TRUSS MANUFACTURING PLANT .<br><br>NAIL VALUES<br>PLATE GRIP(DRY) SHEAR    SECTION<br>(PSI)                      (PLI)                      (PLI)<br>MAX MIN    MAX MIN    MAX MIN<br>MT20    618    354    1667    822    2284    1656<br><br>PLATE PLACEMENT TOL. = 0.250 inches<br><br>PLATE ROTATION TOL. = 5.0 Deg.<br><br>JSI GRIP= 0.10 (2) (INPUT = 0.90 )<br>JSI METAL= 0.04 (2) (INPUT = 1.00 ) |  |  |  |  |
| <b>PLATES (table is in inches)</b><br>JT    TYPE                      PLATES                      W                      LEN    Y                      X<br>2    TMV+p                      MT20                      2.0                      4.0<br>3, 4, 5<br>3    TMW+w                      MT20                      2.0                      4.0<br>6    TMV+p                      MT20                      2.0                      4.0<br>7    BMV1+p                      MT20                      2.0                      4.0<br>8, 9, 10<br>8    BMW1+w                      MT20                      2.0                      4.0<br>11    BMV1+p                      MT20                      2.0                      4.0    2.25    1.00<br><br>A SIZE FOR SIZE SUBSTITUTION OF MITEK MII20 WITH TEE-LOK TL20 PLATES IS ALLOWED. |  |  |  |  | <b>LOADING</b><br>TOTAL LOAD CASES: (3)<br><br>C H O R D S<br>MAX. FACTORED                      FACTORED                      W E B S<br>MEMB.                      FORCE                      VERT. LOAD LC1    MAX                      MAX.                      MEMB.                      FORCE                      MAX<br>                                                                                                                                                                                                                                   |  |  |  |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |  |  |  |  |



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IN THE DESIGN OF THIS COMPONENT.





TOTAL WEIGHT = 2 X 17 = 34 lb [M]

| LUMBER                          |        |      |        |  | DESCR. |
|---------------------------------|--------|------|--------|--|--------|
| N. L. G. A. RULES               | CHORDS | SIZE | LUMBER |  |        |
| 9 - 2                           | 2x4    | DRY  | No.2   |  | SPF    |
| 1 - 5                           | 2x4    | DRY  | No.2   |  | SPF    |
| 6 - 5                           | 2x3    | DRY  | No.2   |  | SPF    |
| 9 - 6                           | 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 |
| 2                           | TMV+p  | MT20   | 2.0 | 4.0 |   |   |
| 3                           | TMW+w  | MT20   | 2.0 | 4.0 |   |   |
| 4                           | TMW+w  | MT20   | 2.0 | 4.0 |   |   |
| 5                           | TMV+p  | MT20   | 2.0 | 4.0 |   |   |
| 6                           | BMV1+p | MT20   | 2.0 | 4.0 |   |   |
| 7                           | BMV1+w | MT20   | 2.0 | 4.0 |   |   |
| 8                           | BMV1+w | MT20   | 2.0 | 4.0 |   |   |
| 9                           | BMV1+p | MT20   | 2.0 | 4.0 |   |   |

A SIZE FOR SIZE SUBSTITUTION OF MITEK MII20 WITH TEE-LOK TL20 PLATES IS ALLOWED.

#### 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: (3)

| C H O R D S |                           |                           |                        | W E B S |                           |                                  |  |
|-------------|---------------------------|---------------------------|------------------------|---------|---------------------------|----------------------------------|--|
| MEMB.       | MAX. FACTORED FORCE (LBS) | FACTORED VERT. LOAD (PLF) | MAX. FACTORED LC1 (LC) | MEMB.   | MAX. FACTORED FORCE (LBS) | MAX. FACTORED UNBRAC LENGTH (LC) |  |
| FR-TO       |                           | FROM TO                   |                        | FR-TO   |                           |                                  |  |
| 9-2         | -193 / 0                  | 0.0                       | 0.0 0.03 (1)           | 7-8     | -181 / 0                  | 0.03 (1)                         |  |
| 1-2         | 0 / 16                    | -77.3                     | -77.3 0.10 (1)         | 8-3     | -46 / 0                   | 0.01 (1)                         |  |
| 2-3         | -28 / 0                   | -77.3                     | -77.3 0.08 (1)         |         |                           |                                  |  |
| 3-4         | -5 / 0                    | -77.3                     | -77.3 0.05 (1)         |         |                           |                                  |  |
| 4-5         | -8 / 0                    | -77.3                     | -77.3 0.05 (1)         |         |                           |                                  |  |
| 6-5         | -64 / 0                   | 0.0                       | 0.0 0.02 (1)           |         |                           |                                  |  |
| 9-8         | 0 / 11                    | -17.5                     | -17.5 0.03 (1)         |         |                           |                                  |  |
| 8-7         | 0 / 9                     | -17.5                     | -17.5 0.02 (3)         |         |                           |                                  |  |
| 7-6         | 0 / 4                     | -17.5                     | -17.5 0.02 (3)         |         |                           |                                  |  |

#### DESIGN CRITERIA

##### SPECIFIED LOADS:

|            |      |          |
|------------|------|----------|
| TOP CH.    | LL = | 23.3 PSF |
|            | DL = | 3.0 PSF  |
| BOT CH.    | LL = | 0.0 PSF  |
|            | DL = | 7.0 PSF  |
| TOTAL LOAD | =    | 33.3 PSF |

##### SPACING = 24.0 IN. C/C

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

THIS DESIGN COMPLIES WITH:

- PART 9 OF OBC 2012, BCBC 2012, ABC 2014
- CSA 086-09
- TPIC 2011

DESIGN ASSUMPTIONS

- OVERHANG NOT TO BE ALTERED OR CUT OFF.

(55 % OF 27.2 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 23.3 P.S.F. SPECIFIED ROOF LIVE LOAD

CSI: TC=0.10 (1-2:1), BC=0.03 (8-9:1), WB=0.03 (4-7:1), SSI=0.08 (1-2:1)

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

COMPANION LIVE LOAD FACTOR = 0.50

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

| NAIL VALUES |           |       |         |     |      |
|-------------|-----------|-------|---------|-----|------|
| PLATE       | GRIP(DRY) | SHEAR | SECTION |     |      |
|             | (PSI)     | (PLI) | (PLI)   |     |      |
|             | MAX       | MIN   | MAX     | MIN | MAX  |
| MT20        | 618       | 354   | 1667    | 822 | 2284 |

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

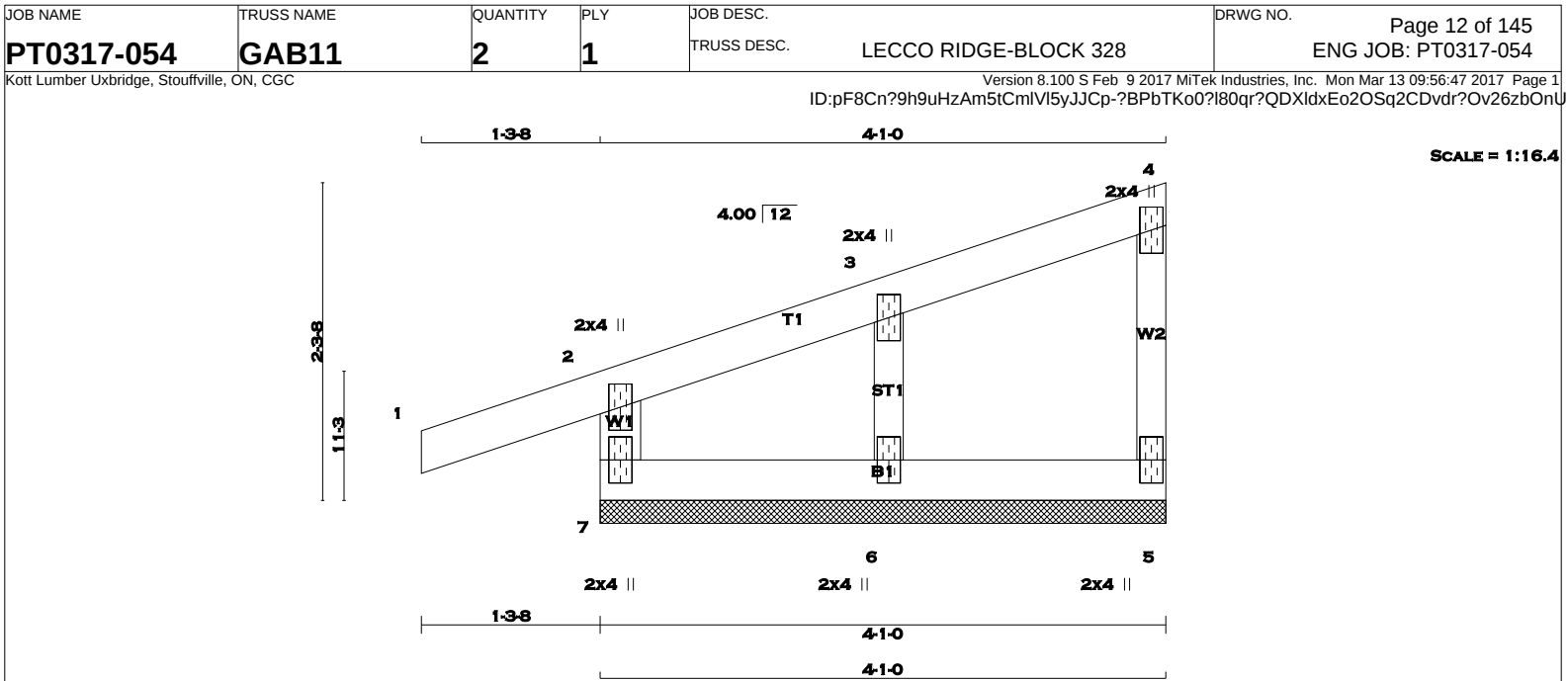
JSI GRIP= 0.11 (2) (INPUT = 0.90 )  
JSI METAL= 0.04 (2) (INPUT = 1.00 )



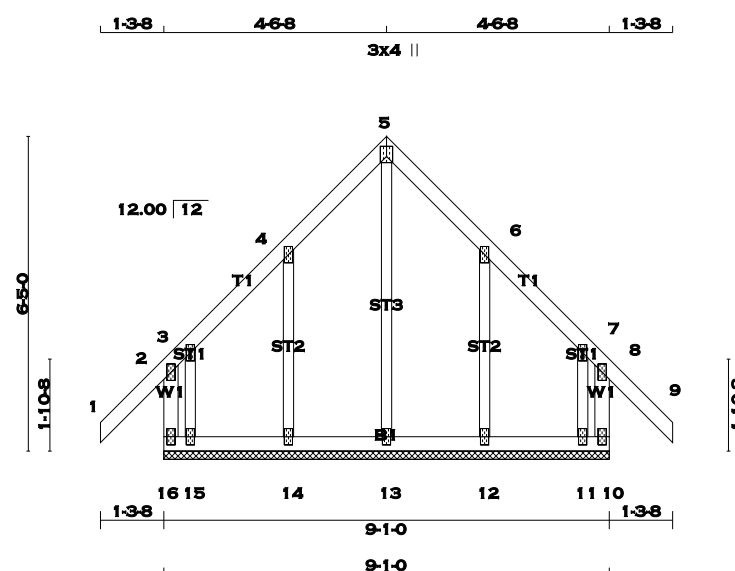
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|                                                                                                                                                                                                                                                                                                             |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |  |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|
| <b>LUMBER</b><br>N. L. G. A. RULES<br>CHORDS SIZE LUMBER DESCR.<br>7 - 2 2x4 DRY No.2 SPF<br>1 - 4 2x4 DRY No.2 SPF<br>5 - 4 2x3 DRY No.2 SPF<br>7 - 5 2x4 DRY No.2 SPF<br><br>ALL WEBS 2x3 DRY No.2 SPF<br>ALL GABLE WEBS 2x3 DRY No.2 SPF<br>DRY: SEASONED LUMBER.<br><br>GABLE STUDS SPACED AT 2-0-0 OC. |  | <b>DIMENSIONS, SUPPORTS AND LOADINGS SPECIFIED BY FABRICATOR TO BE VERIFIED BY BUILDING DESIGNER</b><br><b>BEARINGS</b><br><br>THIS TRUSS DESIGNED FOR CONTINUOUS BEARINGS.<br><br>THIS TRUSS REQUIRES RIGID SHEATHING ON EXPOSED FACE.<br><br>BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S)<br><br><b>BRACING</b><br>TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 6.25 FT.<br>MAX. UNBRACED BOTTOM CHORD LENGTH = 10.00 FT. OR RIGID CEILING DIRECTLY APPLIED.<br><br>ALL PITCH BREAKS AND PERIMETER CORNER JOINTS MUST BE Laterally RESTRAINED. |  | <b>DESIGN CRITERIA</b><br><br>SPECIFIED LOADS:<br>TOP CH. LL = 23.3 PSF<br>DL = 3.0 PSF<br>BOT CH. LL = 0.0 PSF<br>DL = 7.0 PSF<br>TOTAL LOAD = 33.3 PSF<br><br><b>SPACING = 24.0 IN./C</b><br><br>THIS TRUSS IS DESIGNED FOR RESIDENTIAL OR SMALL BUILDING REQUIREMENTS OF PART 9, NBCC 2010<br><br>THIS DESIGN COMPLIES WITH:<br>- PART 9 OF OBC 2012, BCBC 2012, ABC 2014<br>- CSA 086-09<br>- TPIC 2011<br><br>DESIGN ASSUMPTIONS<br>- OVERHANG NOT TO BE ALTERED OR CUT OFF.<br><br>(55 % OF 27.2 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 23.3 P.S.F. SPECIFIED ROOF LIVE LOAD<br><br>CSI: TC=0.10 (1-2:1), BC=0.02 (6-7:3), WB=0.02 (3-6:1), SSI=0.08 (1-2:1)<br><br>DOL LUMBER=1.00 NAIL=1.00 LS BEND=1.10 COMP=1.10 SHEAR=1.10 TENS= 1.10<br><br>COMPANION LIVE LOAD FACTOR = 0.50<br><br>TRUSS PLATE MANUFACTURER IS NOT RESPONSIBLE FOR QUALITY CONTROL IN THE TRUSS MANUFACTURING PLANT .<br><br>NAIL VALUES<br>PLATE GRIP(DRY) SHEAR SECTION<br>(PSI) (PLI) (PLI)<br>MAX MIN MAX MIN MAX MIN<br>MT20 618 354 1667 822 2284 1656<br><br>PLATE PLACEMENT TOL. = 0.250 inches<br><br>PLATE ROTATION TOL. = 5.0 Deg.<br><br>JSI GRIP= 0.10 (2) (INPUT = 0.90 )<br>JSI METAL= 0.04 (2) (INPUT = 1.00 ) |  |
| <b>PLATES (table in inches)</b><br>JT TYPE PLATES W LEN Y X<br>2 TMV+p MT20 2.0 4.0<br>3 TMW+w MT20 2.0 4.0<br>4 TMV+p MT20 2.0 4.0<br>5 BMV1+p MT20 2.0 4.0<br>6 BMW1+w MT20 2.0 4.0<br>7 BMV1+p MT20 2.0 4.0<br><br>A SIZE FOR SIZE SUBSTITUTION OF MITEK MII20 WITH TEE-LOK TL20 PLATES IS ALLOWED.      |  | <b>LOADING</b><br>TOTAL LOAD CASES: (3)<br><br>C H O R D S<br>MEMB. MAX. FACTORED FORCE VERT. LOAD LC1 MAX MAX. MEMB. MAX. FACTORED FORCE MAX<br>(LBS) (PLF) CSI (LC) UNBRAC LENGTH FR-TO (LBS) CSI (LC)<br>FR-TO FROM TO<br>7-2 -184 / 0 0.0 0.0 0.01 (3) 7.81 6-3 -170 / 0 0.02 (1)<br>1-2 0 / 16 -77.3 -77.3 0.10 (1) 10.00<br>2-3 -12 / 0 -77.3 -77.3 0.04 (1) 6.25<br>3-4 -10 / 0 -77.3 -77.3 0.04 (1) 6.25<br>5-4 -66 / 0 0.0 0.0 0.02 (1) 7.81<br><br>7-6 0 / 13 -17.5 -17.5 0.02 (3) 10.00<br>6-5 0 / 7 -17.5 -17.5 0.02 (3) 10.00                     |  | <div>RECEIVED<br/>TOWN OF MILTON<br/>MAR 29, 2017<br/>17-4990<br/>BUILDING DIVISION</div> <div>READ ALL NOTES ON THIS PAGE AND ON THE<br/>ENGINEERING NOTE PAGE ENP-1. THE NOTE PAGE<br/>IS AN INTEGRAL PART OF THIS DRAWING AS IT<br/>CONTAINS SPECIFICATIONS AND CRITERIA USED<br/>IN THE DESIGN OF THIS COMPONENT.</div>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |  |



TOTAL WEIGHT = 2 X 47 = 94 lb [M]

| LUMBER                          |        |      |        | DESCR. |
|---------------------------------|--------|------|--------|--------|
| N. L. G. A. RULES               | CHORDS | SIZE | LUMBER |        |
| 16 - 2                          | 2x4    | DRY  | No.2   | SPF    |
| 1 - 5                           | 2x4    | DRY  | No.2   | SPF    |
| 5 - 9                           | 2x4    | DRY  | No.2   | SPF    |
| 10 - 8                          | 2x4    | DRY  | No.2   | SPF    |
| 16 - 10                         | 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. |        |      |        |        |

**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 = 6.25 FT. OR RIGID CEILING DIRECTLY APPLIED.  
ALL PITCH BREAKS AND PERIMETER CORNER JOINTS MUST BE LATERALLY RESTRAINED.

**LOADING**  
TOTAL LOAD CASES: (3)

| CHORDS |                           |                           |                           | WEBS  |                           |                      |                           |
|--------|---------------------------|---------------------------|---------------------------|-------|---------------------------|----------------------|---------------------------|
| MEMB.  | MAX. FACTORED FORCE (LBS) | FACTORED VERT. LOAD (PLF) | MAX. FACTORED LENGTH (LC) | MEMB. | MAX. FACTORED FORCE (LBS) | FACTORED LENGTH (LC) | MAX. FACTORED LENGTH (LC) |
| FR-TO  |                           | FROM TO                   |                           | FR-TO |                           |                      |                           |
| 16-2   | -197 / 0                  | 0.0                       | 0.0 0.03 (1)              | 7.81  | 13-5                      | -189 / 0             | 0.12 (1)                  |
| 1-2    | 0 / 38                    | -77.3                     | -77.3 0.11 (1)            | 10.00 | 14-4                      | -160 / 0             | 0.05 (1)                  |
| 2-3    | -44 / 0                   | -77.3                     | -77.3 0.08 (1)            | 6.25  | 15-3                      | -7 / 0               | 0.00 (1)                  |
| 3-4    | 0 / 18                    | -77.3                     | -77.3 0.04 (1)            | 10.00 | 12-6                      | -160 / 0             | 0.05 (1)                  |
| 4-5    | 0 / 20                    | -77.3                     | -77.3 0.04 (1)            | 10.00 | 11-7                      | -7 / 0               | 0.00 (1)                  |
| 5-6    | 0 / 20                    | -77.3                     | -77.3 0.04 (1)            | 10.00 |                           |                      |                           |
| 6-7    | 0 / 18                    | -77.3                     | -77.3 0.04 (1)            | 10.00 |                           |                      |                           |
| 7-8    | -44 / 0                   | -77.3                     | -77.3 0.08 (1)            | 6.25  |                           |                      |                           |
| 8-9    | 0 / 38                    | -77.3                     | -77.3 0.11 (1)            | 10.00 |                           |                      |                           |
| 10-8   | -197 / 0                  | 0.0                       | 0.0 0.03 (1)              | 7.81  |                           |                      |                           |
| 16-15  | -10 / 0                   | -17.5                     | -17.5 0.01 (3)            | 6.25  |                           |                      |                           |
| 15-14  | -11 / 0                   | -17.5                     | -17.5 0.01 (3)            | 6.25  |                           |                      |                           |
| 14-13  | -15 / 0                   | -17.5                     | -17.5 0.01 (3)            | 6.25  |                           |                      |                           |
| 13-12  | -15 / 0                   | -17.5                     | -17.5 0.01 (3)            | 6.25  |                           |                      |                           |
| 12-11  | -11 / 0                   | -17.5                     | -17.5 0.01 (3)            | 6.25  |                           |                      |                           |
| 11-10  | -10 / 0                   | -17.5                     | -17.5 0.01 (3)            | 6.25  |                           |                      |                           |

**DESIGN CRITERIA**

**SPECIFIED LOADS:**  
TOP CH. LL = 23.3 PSF  
DL = 3.0 PSF  
BOT CH. LL = 0.0 PSF  
DL = 7.0 PSF  
TOTAL LOAD = 33.3 PSF

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

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

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

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

(55 % OF 27.2 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 23.3 P.S.F. SPECIFIED ROOF LIVE LOAD

CSI: TC=0.11 (8-9:1), BC=0.01 (13-14:3), WB=0.12 (5-13:1), SSI=0.06 (8-9:1)

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

COMPANION LIVE LOAD FACTOR = 0.50

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

| NAIL VALUES |           |       |         |     |      |
|-------------|-----------|-------|---------|-----|------|
| PLATE       | GRIP(DRY) | SHEAR | SECTION |     |      |
|             | (PSI)     | (PLI) | (PLI)   |     |      |
|             | MAX       | MIN   | MAX     | MIN | MAX  |
| MT20        | 618       | 354   | 1667    | 822 | 2284 |

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.30 (5) (INPUT = 0.90)  
JSI METAL= 0.06 (5) (INPUT = 1.00)

**PLATES (table is in inches)**

| JT                 | TYPE   | PLATES | W   | LEN | Y | X |
|--------------------|--------|--------|-----|-----|---|---|
| 2                  | TMV+p  | MT20   | 2.0 | 4.0 |   |   |
| 3, 4, 6, 7         |        |        |     |     |   |   |
| 3                  | TMW+w  | MT20   | 2.0 | 4.0 |   |   |
| 5                  | TTW+p  | MT20   | 3.0 | 4.0 |   |   |
| 8                  | TMV+p  | MT20   | 2.0 | 4.0 |   |   |
| 10                 | BMV1+p | MT20   | 2.0 | 4.0 |   |   |
| 11, 12, 13, 14, 15 |        |        |     |     |   |   |
| 11                 | BMW1+w | MT20   | 2.0 | 4.0 |   |   |
| 16                 | BMV1+p | MT20   | 2.0 | 4.0 |   |   |

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

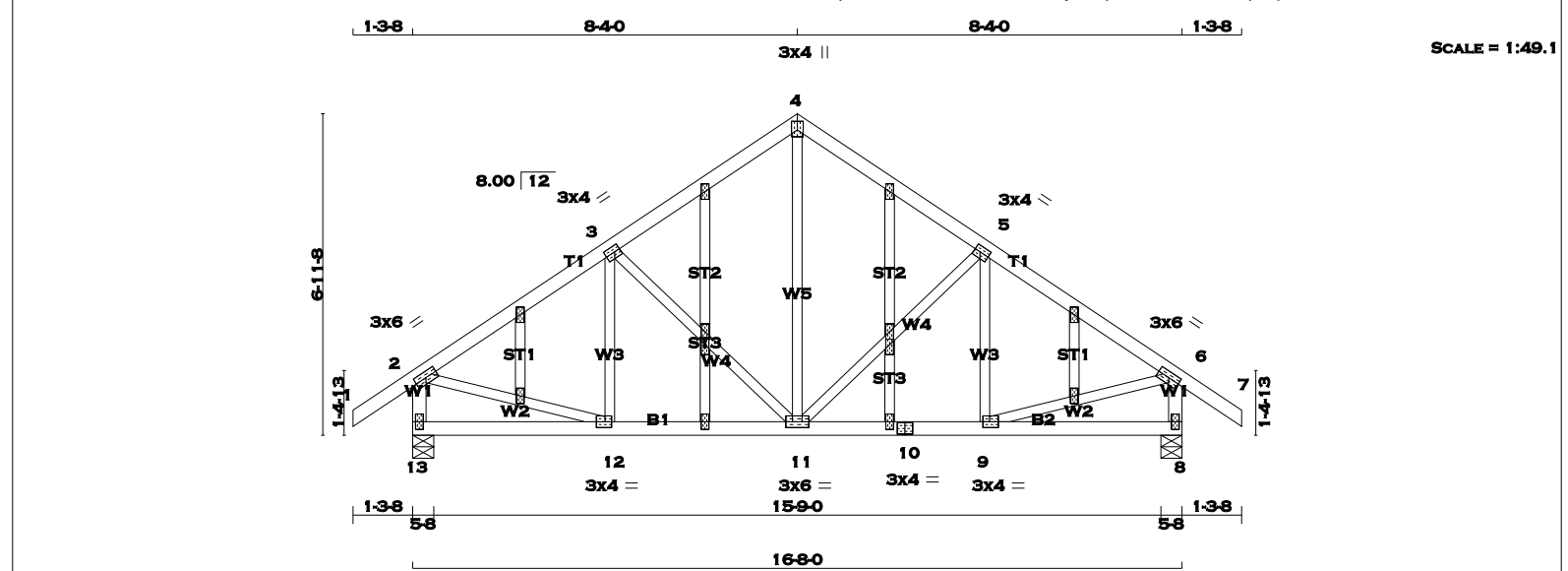
A SIZE FOR SIZE SUBSTITUTION OF MITEK MII20 WITH TEE-LOK TL20 PLATES IS ALLOWED.



**RECEIVED**  
**TOWN OF MILTON**  
 MAR 29, 2017  
 17-4990  
**BUILDING DIVISION**

READ ALL NOTES ON THIS PAGE AND ON THE  
 ENGINEERING NOTE PAGE ENP-1. THE NOTE PAGE  
 IS AN INTEGRAL PART OF THIS DRAWING AS IT  
 CONTAINS SPECIFICATIONS AND CRITERIA USED  
 IN THE DESIGN OF THIS COMPONENT.





**LUMBER**

| N. L. G. A. RULES     | CHORDS | SIZE | LUMBER | DESCR. |
|-----------------------|--------|------|--------|--------|
| 1 - 4                 | 2x4    | DRY  | No.2   | SPF    |
| 4 - 7                 | 2x4    | DRY  | No.2   | SPF    |
| 13 - 2                | 2x4    | DRY  | No.2   | SPF    |
| 8 - 6                 | 2x4    | DRY  | No.2   | SPF    |
| 13 - 10               | 2x4    | DRY  | No.2   | SPF    |
| 10 - 8                | 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.  |        |        |

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

**BEARINGS**

| JT | FACTORED GROSS REACTION |      | MAXIMUM FACTORED GROSS REACTION |      | INPUT BRG |       | REQRD BRG |  |
|----|-------------------------|------|---------------------------------|------|-----------|-------|-----------|--|
|    | VERT                    | HORZ | DOWN                            | HORZ | UPLIFT    | IN-SX | IN-SX     |  |
| 13 | 897                     | 0    | 897                             | 0    | 0         | 5-8   | 5-8       |  |
| 8  | 897                     | 0    | 897                             | 0    | 0         | 5-8   | 5-8       |  |

**UNFACTORED REACTIONS**

| JT | 1ST LCASE COMBINED |         | MAX./MIN. SNOW |       | LIVE   |       | PERM. LIVE |        | WIND  |         | DEAD  |         | SOIL  |  |
|----|--------------------|---------|----------------|-------|--------|-------|------------|--------|-------|---------|-------|---------|-------|--|
|    | VERT               | HORZ    | DOWN           | HORZ  | UPLIFT | IN-SX | IN-SX      | UPLIFT | IN-SX | UPLIFT  | IN-SX | UPLIFT  | IN-SX |  |
| 13 | 627                | 452 / 0 | 0 / 0          | 0 / 0 | 0 / 0  | 0 / 0 | 0 / 0      | 0 / 0  | 0 / 0 | 175 / 0 | 0 / 0 | 175 / 0 | 0 / 0 |  |
| 8  | 627                | 452 / 0 | 0 / 0          | 0 / 0 | 0 / 0  | 0 / 0 | 0 / 0      | 0 / 0  | 0 / 0 | 175 / 0 | 0 / 0 | 175 / 0 | 0 / 0 |  |

BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S) 13, 8

**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: (3)

| MEMB. | CHORDS                    |                           | WEBS                      |                           |
|-------|---------------------------|---------------------------|---------------------------|---------------------------|
|       | MAX. FACTORED FORCE (LBS) | FACTORED VERT. LOAD (PLF) | MAX. FACTORED FORCE (LBS) | FACTORED VERT. LOAD (PLF) |
| 1-2   | 0 / 29                    | -77.3                     | 0 / 430                   | 0.10 (1)                  |
| 2-3   | -803 / 0                  | -77.3                     | -259 / 0                  | 0.14 (1)                  |
| 3-4   | -622 / 0                  | -77.3                     | -95 / 41                  | 0.03 (1)                  |
| 4-5   | -622 / 0                  | -77.3                     | -259 / 0                  | 0.14 (1)                  |
| 5-6   | -803 / 0                  | -77.3                     | -95 / 41                  | 0.03 (1)                  |
| 6-7   | 0 / 29                    | -77.3                     | 0 / 707                   | 0.16 (1)                  |
| 13-2  | -865 / 0                  | 0.0                       | 0 / 707                   | 0.16 (1)                  |
| 8-6   | -865 / 0                  | 0.0                       |                           |                           |
| 13-12 | 0 / 0                     | -17.5                     |                           |                           |
| 12-11 | 0 / 685                   | -17.5                     |                           |                           |
| 11-10 | 0 / 685                   | -17.5                     |                           |                           |
| 10-9  | 0 / 685                   | -17.5                     |                           |                           |
| 9-8   | 0 / 0                     | -17.5                     |                           |                           |

**DESIGN CRITERIA**

**SPECIFIED LOADS:**

| TOP CH.    | LL   | PSF |     |
|------------|------|-----|-----|
| DL         | 23.3 | PSF |     |
| DL         | 3.0  | PSF |     |
| BOT CH.    | LL   | 0.0 | PSF |
| DL         | 7.0  | PSF |     |
| TOTAL LOAD | 33.3 | PSF |     |

**SPACING = 24.0 IN./C**

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

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

(55 % OF 27.2 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 23.3 P.S.F. SPECIFIED ROOF LIVE LOAD

ALLOWABLE DEFL.(LL)= L/360 (0.56")  
CALCULATED VERT. DEFL.(LL) = L/ 999 (0.02")  
ALLOWABLE DEFL.(TL)= L/360 (0.56")  
CALCULATED VERT. DEFL.(TL) = L/ 999 (0.03")

CSI: TC=0.17 (2-3:1), BC=0.14 (11-12:1), WB=0.16 (2-12:1), SSI=0.13 (2-3:1)

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

COMPANION LIVE LOAD FACTOR = 0.50

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

**NAIL VALUES**

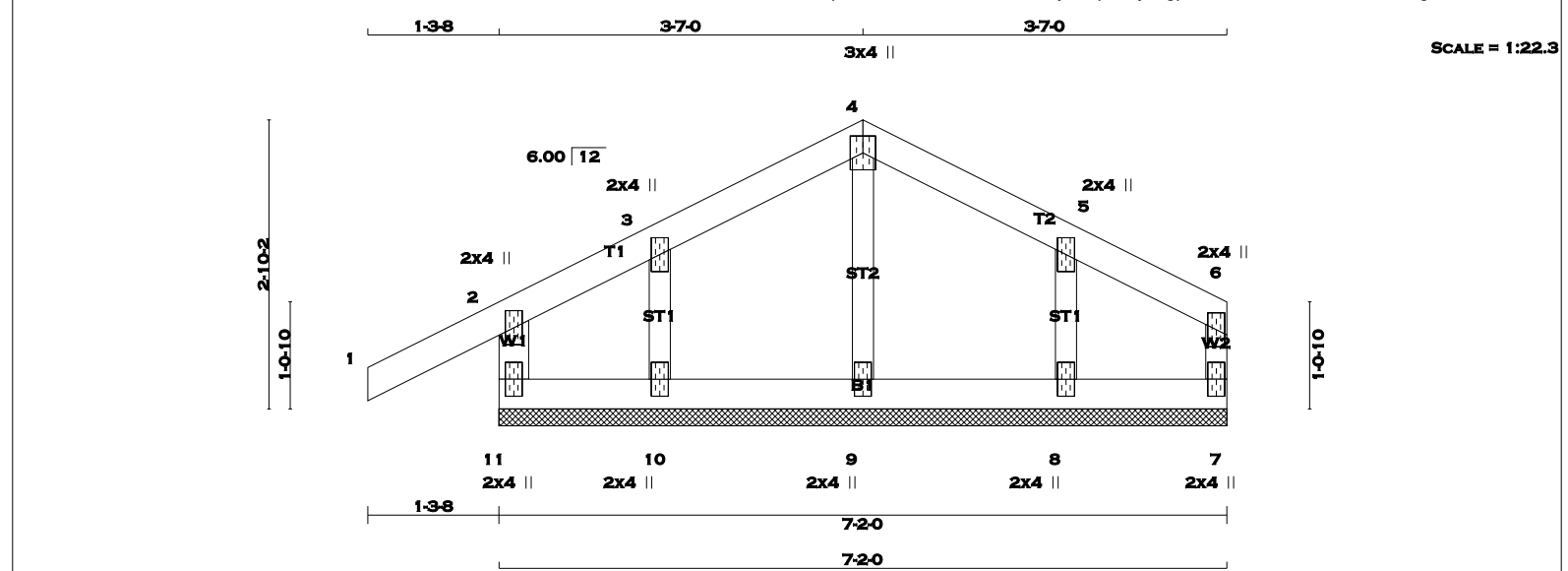
| PLATE | GRIP(DRY) | SHEAR (PSI) | SECTION (PLI) |
|-------|-----------|-------------|---------------|
| MT20  | 618       | 354         | 1667          |
| MT20  | 822       | 2284        | 1656          |

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.90 (9) (INPUT = 0.90 )  
JSI METAL= 0.26 (12) (INPUT = 1.00 )

|                                                                                  |  |  |  |  |  |  |                                                                                  |  |  |  |  |  |  |                                                                                                    |  |  |  |  |  |  |
|----------------------------------------------------------------------------------|--|--|--|--|--|--|----------------------------------------------------------------------------------|--|--|--|--|--|--|----------------------------------------------------------------------------------------------------|--|--|--|--|--|--|
| N. L. G. A. RULES                                                                |  |  |  |  |  |  | BUILDING DESIGNER                                                                |  |  |  |  |  |  | DESIGN CRITERIA                                                                                    |  |  |  |  |  |  |
| CHORDS                                                                           |  |  |  |  |  |  | BEARINGS                                                                         |  |  |  |  |  |  | SPECIFIED LOADS:                                                                                   |  |  |  |  |  |  |
| 1 - 4 2x4 DRY LUMBER No.2 SPF                                                    |  |  |  |  |  |  | FACTORED MAXIMUM FACTORED INPUT REQRD                                            |  |  |  |  |  |  | TOP CH. LL = 23.3 PSF                                                                              |  |  |  |  |  |  |
| 4 - 7 2x4 DRY No.2 SPF                                                           |  |  |  |  |  |  | GROSS REACTION GROSS REACTION BRG BRG                                            |  |  |  |  |  |  | DL = 3.0 PSF                                                                                       |  |  |  |  |  |  |
| 13- 2 2x4 DRY No.2 SPF                                                           |  |  |  |  |  |  | JT VERT HORZ DOWN HORZ UPLIFT IN-SX IN-SX                                        |  |  |  |  |  |  | BOT CH. LL = 0.0 PSF                                                                               |  |  |  |  |  |  |
| 8 - 6 2x4 DRY No.2 SPF                                                           |  |  |  |  |  |  | 13 897 0 897 0 0 5-8 5-8                                                         |  |  |  |  |  |  | DL = 7.0 PSF                                                                                       |  |  |  |  |  |  |
| 13- 10 2x4 DRY No.2 SPF                                                          |  |  |  |  |  |  | 8 897 0 897 0 0 5-8 5-8                                                          |  |  |  |  |  |  | TOTAL LOAD = 33.3 PSF                                                                              |  |  |  |  |  |  |
| 10- 8 2x4 DRY No.2 SPF                                                           |  |  |  |  |  |  |                                                                                  |  |  |  |  |  |  |                                                                                                    |  |  |  |  |  |  |
| ALL WEBS 2x3 DRY No.2 SPF                                                        |  |  |  |  |  |  | UNFACTORED REACTIONS                                                             |  |  |  |  |  |  | SPACING = 24.0 IN. C/C                                                                             |  |  |  |  |  |  |
| EXCEPT                                                                           |  |  |  |  |  |  | 1ST LCASE MAX./MIN. COMPONENT REACTIONS                                          |  |  |  |  |  |  | THIS TRUSS IS DESIGNED FOR RESIDENTIAL                                                             |  |  |  |  |  |  |
| ALL GABLE WEBS                                                                   |  |  |  |  |  |  | JT COMBINED SNOW LIVE PERM.LIVE WIND DEAD SOIL                                   |  |  |  |  |  |  | OR SMALL BUILDING REQUIREMENTS OF                                                                  |  |  |  |  |  |  |
| 2x3 DRY No.2 SPF                                                                 |  |  |  |  |  |  | 13 627 452 / 0 0 / 0 0 / 0 0 / 0 175 / 0 0 / 0                                   |  |  |  |  |  |  | PART 9, NBCC 2010                                                                                  |  |  |  |  |  |  |
| DRY: SEASONED LUMBER.                                                            |  |  |  |  |  |  | 8 627 452 / 0 0 / 0 0 / 0 0 / 0 175 / 0 0 / 0                                    |  |  |  |  |  |  |                                                                                                    |  |  |  |  |  |  |
| GABLE STUDS SPACED AT 2-0-0 OC.                                                  |  |  |  |  |  |  | BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S) 13, 8                      |  |  |  |  |  |  | THIS DESIGN COMPLIES WITH:                                                                         |  |  |  |  |  |  |
|                                                                                  |  |  |  |  |  |  | BRACING                                                                          |  |  |  |  |  |  | - PART 9 OF OBC 2012, BCBC 2012, ABC 2014                                                          |  |  |  |  |  |  |
|                                                                                  |  |  |  |  |  |  | TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 6.25 FT.                       |  |  |  |  |  |  | - CSA 086-09                                                                                       |  |  |  |  |  |  |
|                                                                                  |  |  |  |  |  |  | MAX. UNBRACED BOTTOM CHORD LENGTH = 10.00 FT. OR RIGID CEILING DIRECTLY APPLIED. |  |  |  |  |  |  | - TPIC 2011                                                                                        |  |  |  |  |  |  |
|                                                                                  |  |  |  |  |  |  | ALL PITCH BREAKS AND PERIMETER CORNER JOINTS MUST BE Laterally RESTRAINED.       |  |  |  |  |  |  | (55 % OF 27.2 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 23.3 P.S.F. SPECIFIED ROOF LIVE LOAD |  |  |  |  |  |  |
| PLATES (table is in inches)                                                      |  |  |  |  |  |  | LOADING                                                                          |  |  |  |  |  |  | ALLOWABLE DEFL.(LL)= L/360 (0.56")                                                                 |  |  |  |  |  |  |
| JT TYPE PLATES W LEN Y X                                                         |  |  |  |  |  |  | TOTAL LOAD CASES: (3)                                                            |  |  |  |  |  |  | CALCULATED VERT. DEFL.(LL) = L/ 999 (0.02")                                                        |  |  |  |  |  |  |
| 2 TMVW-t MT20 3.0 6.0                                                            |  |  |  |  |  |  | CHORDS                                                                           |  |  |  |  |  |  | ALLOWABLE DEFL.(TL)= L/360 (0.56")                                                                 |  |  |  |  |  |  |
| 3 TMWW-t MT20 3.0 4.0 1.50 1.50                                                  |  |  |  |  |  |  | MAX. FACTORED FACTORED                                                           |  |  |  |  |  |  | CALCULATED VERT. DEFL.(TL) = L/ 999 (0.03")                                                        |  |  |  |  |  |  |
| 4 TTW+p MT20 3.0 4.0 2.25 1.50                                                   |  |  |  |  |  |  | MEMB. FORCE VERT. LOAD LC1 MAX. MAX. FACTORED                                    |  |  |  |  |  |  |                                                                                                    |  |  |  |  |  |  |
| 5 TMWW-t MT20 3.0 4.0 1.50 1.50                                                  |  |  |  |  |  |  | (LBS) (PLF) CSI (LC) UNBRAC MEMB. FORCE MAX                                      |  |  |  |  |  |  |                                                                                                    |  |  |  |  |  |  |
| 6 TMVW-t MT20 3.0 6.0                                                            |  |  |  |  |  |  | FR-TO FROM TO LENGTH FR-TO                                                       |  |  |  |  |  |  |                                                                                                    |  |  |  |  |  |  |
| 8 BMV1+p MT20 2.0 4.0                                                            |  |  |  |  |  |  | 1-2 0 / 29 -77.3 -77.3 0.10 (1) 10.00 11- 4 0 / 430 0.10 (1)                     |  |  |  |  |  |  |                                                                                                    |  |  |  |  |  |  |
| 9 BMWW-t MT20 3.0 4.0 1.50 1.75                                                  |  |  |  |  |  |  | 2-3 -803 / 0 -77.3 -77.3 0.17 (1) 6.25 11- 5 -259 / 0 0.14 (1)                   |  |  |  |  |  |  |                                                                                                    |  |  |  |  |  |  |
| 10 BS-t MT20 3.0 4.0                                                             |  |  |  |  |  |  | 3-4 -622 / 0 -77.3 -77.3 0.17 (1) 6.25 9- 5 -95 / 41 0.03 (1)                    |  |  |  |  |  |  |                                                                                                    |  |  |  |  |  |  |
| 11 BMWWW-t MT20 3.0 6.0                                                          |  |  |  |  |  |  | 4- 5 -622 / 0 -77.3 -77.3 0.17 (1) 6.25 3-11 -259 / 0 0.14 (1)                   |  |  |  |  |  |  |                                                                                                    |  |  |  |  |  |  |
| 12 BMWW-t MT20 3.0 4.0 1.50 1.75                                                 |  |  |  |  |  |  | 5- 6 -803 / 0 -77.3 -77.3 0.17 (1) 6.25 12- 3 -95 / 41 0.03 (1)                  |  |  |  |  |  |  |                                                                                                    |  |  |  |  |  |  |
| 13 BMV1+p MT20 2.0 4.0                                                           |  |  |  |  |  |  | 6- 7 0 / 29 -77.3 -77.3 0.10 (1) 10.00 2-12 0 / 707 0.16 (1)                     |  |  |  |  |  |  |                                                                                                    |  |  |  |  |  |  |
| 14 NP+w MT20 2.0 4.0 1.50 1.00                                                   |  |  |  |  |  |  | 13- 2 -865 / 0 0.0 0.0 0.09 (1) 7.81 9- 6 0 / 707 0.16 (1)                       |  |  |  |  |  |  |                                                                                                    |  |  |  |  |  |  |
| 14, 15, 16, 17, 18, 19, 20, 21, 22, 23                                           |  |  |  |  |  |  | 8- 6 -865 / 0 0.0 0.0 0.09 (1) 7.81                                              |  |  |  |  |  |  |                                                                                                    |  |  |  |  |  |  |
| 14 NP+w MT20 2.0 4.0                                                             |  |  |  |  |  |  |                                                                                  |  |  |  |  |  |  |                                                                                                    |  |  |  |  |  |  |
| 21 NP+w MT20 2.0 4.0 1.50 1.00                                                   |  |  |  |  |  |  |                                                                                  |  |  |  |  |  |  |                                                                                                    |  |  |  |  |  |  |
| A SIZE FOR SIZE SUBSTITUTION OF MITEK MII20 WITH TEE-LOK TL20 PLATES IS ALLOWED. |  |  |  |  |  |  |                                                                                  |  |  |  |  |  |  | DOL LUMBER=1.00 NAIL=1.00 LS BEND=1.10 COMP=1.10 SHEAR=1.10 TENS= 1.10                             |  |  |  |  |  |  |
|                                                                                  |  |  |  |  |  |  |                                                                                  |  |  |  |  |  |  | COMPANION LIVE LOAD FACTOR = 0.50                                                                  |  |  |  |  |  |  |
|                                                                                  |  |  |  |  |  |  |                                                                                  |  |  |  |  |  |  | TRUSS PLATE MANUFACTURER IS NOT RESPONSIBLE FOR QUALITY CONTROL IN THE TRUSS MANUFACTURING PLANT . |  |  |  |  |  |  |
|                                                                                  |  |  |  |  |  |  |                                                                                  |  |  |  |  |  |  | NAIL VALUES                                                                                        |  |  |  |  |  |  |
|                                                                                  |  |  |  |  |  |  |                                                                                  |  |  |  |  |  |  | PLATE GRIP(DRY) SHEAR SECTION (PSI) (PLI) (PLI)                                                    |  |  |  |  |  |  |
|                                                                                  |  |  |  |  |  |  |                                                                                  |  |  |  |  |  |  | MAX MIN MAX MIN MAX MIN                                                                            |  |  |  |  |  |  |
|                                                                                  |  |  |  |  |  |  |                                                                                  |  |  |  |  |  |  | MT20 618 354 1667 822 2284 1656                                                                    |  |  |  |  |  |  |
|                                                                                  |  |  |  |  |  |  |                                                                                  |  |  |  |  |  |  | PLATE PLACEMENT TOL. = 0.250 inches                                                                |  |  |  |  |  |  |
|                                                                                  |  |  |  |  |  |  |                                                                                  |  |  |  |  |  |  | PLATE ROTATION TOL. = 5.0 Deg.                                                                     |  |  |  |  |  |  |
|                                                                                  |  |  |  |  |  |  |                                                                                  |  |  |  |  |  |  | JSI GRIP= 0.90 (9) (INPUT = 0.90 )                                                                 |  |  |  |  |  |  |
|                                                                                  |  |  |  |  |  |  |                                                                                  |  |  |  |  |  |  | JSI METAL= 0.26 (12) (INPUT = 1.00 )                                                               |  |  |  |  |  |  |



LUMBER

N. L. G. A. RULES

CHORDS

SIZE

LUMBER

DESCR.

SPF

THIS TRUSS DESIGNED FOR CONTINUOUS BEARINGS.

THIS TRUSS REQUIRES RIGID SHEATHING ON EXPOSED FACE.

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

BRACING

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

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

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

LOADING

TOTAL LOAD CASES: (3)

CHORDS

MAX. FACTORED

FACTORED

WEBS

MAX. FACTORED

MEMB.

FORCE

VERT. LOAD

LC1

MAX

MAX.

MEMB.

FORCE

MAX

FR-TO

FROM

TO

LENGTH

FR-TO

11-2

-184 / 0

0.0

0.0

0.03 (1)

7.81

9-4

-181 / 0

0.03 (1)

1-2

0 / 23

-77.3

-77.3

0.10 (1)

10.00

10-3

-105 / 0

0.02 (1)

2-3

-3 / 0

-77.3

-77.3

0.07 (1)

10.00

8-5

-149 / 0

0.02 (1)

3-4

0 / 16

-77.3

-77.3

0.04 (1)

10.00

4-5

0 / 14

-77.3

-77.3

0.04 (1)

10.00

5-6

0 / 13

-77.3

-77.3

0.04 (1)

10.00

7-6

-40 / 0

0.0

0.0

0.01 (1)

7.81

11-10

-7 / 1

-17.5

-17.5

0.02 (1)

10.00

10-9

-11 / 0

-17.5

-17.5

0.01 (3)

6.25

9-8

-11 / 0

-17.5

-17.5

0.01 (3)

6.25

8-7

-5 / 1

-17.5

-17.5

0.01 (3)

10.00

|                                 |      |     |        |        |                                                                                                      |  |                                        |  |
|---------------------------------|------|-----|--------|--------|------------------------------------------------------------------------------------------------------|--|----------------------------------------|--|
| <b>LUMBER</b>                   |      |     |        |        | <b>DIMENSIONS, SUPPORTS AND LOADINGS SPECIFIED BY FABRICATOR TO BE VERIFIED BY BUILDING DESIGNER</b> |  | <b>DESIGN CRITERIA</b>                 |  |
| N. L. G. A. RULES               |      |     |        |        |                                                                                                      |  |                                        |  |
| CHORDS                          | SIZE |     | LUMBER | DESCR. | <b>BEARINGS</b>                                                                                      |  |                                        |  |
| 11- 2                           | 2x4  | DRY | No.2   | SPF    |                                                                                                      |  | SPECIFIED LOADS:                       |  |
| 1 - 4                           | 2x4  | DRY | No.2   | SPF    | THIS TRUSS DESIGNED FOR CONTINUOUS BEARINGS.                                                         |  | TOP CH. LL = 23.3 PSF                  |  |
| 4 - 6                           | 2x4  | DRY | No.2   | SPF    |                                                                                                      |  | DL = 3.0 PSF                           |  |
| 7 - 6                           | 2x3  | DRY | No.2   | SPF    | THIS TRUSS REQUIRES RIGID SHEATHING ON EXPOSED FACE.                                                 |  | BOT CH. LL = 0.0 PSF                   |  |
| 11- 7                           | 2x4  | DRY | No.2   | SPF    |                                                                                                      |  | DL = 7.0 PSF                           |  |
|                                 |      |     |        |        | BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S)                                                |  | TOTAL LOAD = 33.3 PSF                  |  |
| ALL WEBS                        | 2x3  | DRY | No.2   | SPF    | <b>BRACING</b>                                                                                       |  | <b>SPACING = 24.0 IN. C/C</b>          |  |
| ALL GABLE WEBS                  |      |     |        |        | TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 10.00 FT.                                          |  | THIS TRUSS IS DESIGNED FOR RESIDENTIAL |  |
|                                 | 2x3  | DRY | No.2   | SPF    | MAX. UNBRACED BOTTOM CHORD LENGTH = 6.25 FT. OR RIGID CEILING DIRECTLY APPLIED.                      |  | OR SMALL BUILDING REQUIREMENTS OF      |  |
| DRY: SEASONED LUMBER.           |      |     |        |        |                                                                                                      |  | PART 9, NBCC 2010                      |  |
| GABLE STUDS SPACED AT 2-0-0 OC. |      |     |        |        |                                                                                                      |  |                                        |  |

DESIGN CRITERIA

SPECIFIED LOADS:

TOP CH. LL = 23.3 PSF

DL = 3.0 PSF

BOT CH. LL = 0.0 PSF

DL = 7.0 PSF

TOTAL LOAD = 33.3 PSF

SPACING = 24.0 IN. C/C

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

THIS DESIGN COMPLIES WITH:

- PART 9 OF OBC 2012, BCBC 2012, ABC 2014

- CSA 086-09

- TPIC 2011

DESIGN ASSUMPTIONS

- OVERHANG NOT TO BE ALTERED OR CUT OFF.

(55 % OF 27.2 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 23.3 P.S.F. SPECIFIED ROOF LIVE LOAD

CSI: TC=0.10 (1-2:1), BC=0.02 (10-11:1), WB=0.03 (4-9:1), SSI=0.07 (1-2:1)

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

COMPANION LIVE LOAD FACTOR = 0.50

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

NAIL VALUES

PLATE GRIP(DRY) SHEAR SECTION

(PSI) (PLI) (PLI)

MAX MIN MAX MIN MAX MIN

MT20 618 354 1667 822 2284 1656

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.11 (2) (INPUT = 0.90)

JSI METAL= 0.07 (4) (INPUT = 1.00)

PLATES (table is in inches)

JT TYPE PLATES W LEN Y X

2 TMV+p MT20 2.0 4.0

3 TMW+w MT20 2.0 4.0

4 TTW+p MT20 3.0 4.0

5 TMW+w MT20 2.0 4.0

6 TMV+p MT20 2.0 4.0

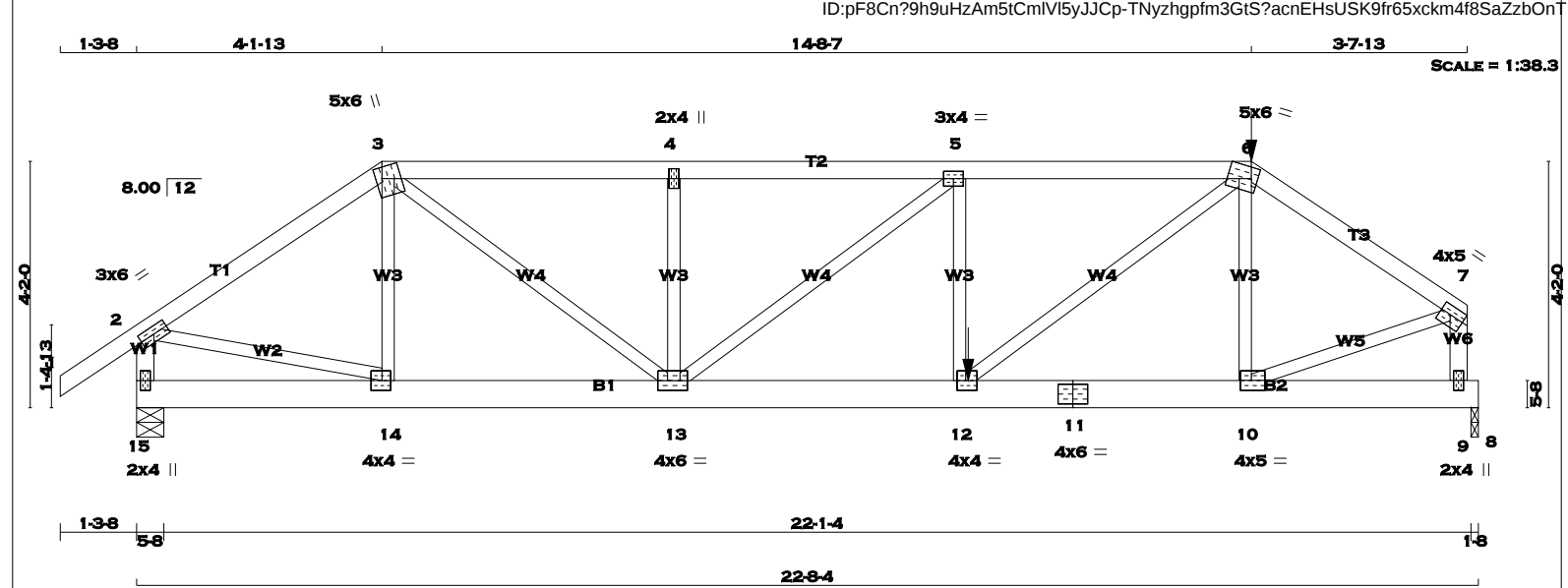
7 BMV1+p MT20 2.0 4.0

8, 9, 10

8 BMV1+w MT20 2.0 4.0

11 BMV1+p MT20 2.0 4.0

A SIZE FOR SIZE SUBSTITUTION OF MITEK MII20 WITH TEE-LOK TL20 PLATES IS ALLOWED.



TOTAL WEIGHT = 2 X 104 = 208 lb [M]

| LUMBER            |      |        |          |
|-------------------|------|--------|----------|
| N. L. G. A. RULES |      |        |          |
| CHORDS            | SIZE | LUMBER | DESCR.   |
| 1 - 3             | 2x4  | DRY    | No.2 SPF |
| 3 - 6             | 2x4  | DRY    | No.2 SPF |
| 6 - 7             | 2x4  | DRY    | No.2 SPF |
| 15 - 2            | 2x4  | DRY    | No.2 SPF |
| 9 - 7             | 2x4  | DRY    | No.2 SPF |
| 15 - 11           | 2x6  | DRY    | No.2 SPF |
| 11 - 8            | 2x6  | DRY    | No.2 SPF |

ALL WEBS 2x3 DRY No.2 SPF EXCEPT

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    |                      |           |
| 1-3                                      | 12                   | TOP       |
| 3-6                                      | 12                   | TOP       |
| 6-7                                      | 12                   | TOP       |
| 15-2                                     | 12                   | TOP       |
| 9-7                                      | 12                   | TOP       |
| BOTTOM CHORDS : (0.122"x3") SPIRAL NAILS |                      |           |
| 15-11                                    | 12                   | SIDE(8.7) |
| 11-8                                     | 12                   | SIDE(8.7) |
| WEBS : (0.122"x3") SPIRAL NAILS          |                      |           |
| 2x3                                      | 6                    |           |

NAILS TO BE DRIVEN FROM ONE SIDE ONLY.

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

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

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

| PLATES (table is in inches) |        |        |     |     |           |
|-----------------------------|--------|--------|-----|-----|-----------|
| JT                          | TYPE   | PLATES | W   | LEN | Y X       |
| 2                           | TMW-t  | MT20   | 3.0 | 6.0 |           |
| 3                           | TTWW+m | MT20   | 5.0 | 6.0 | 2.25 1.25 |
| 4                           | TMW+w  | MT20   | 2.0 | 4.0 |           |

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

| BEARINGS |      | FACTORED GROSS REACTION | MAXIMUM FACTORED GROSS REACTION | INPUT BRG | REQRD BRG |
|----------|------|-------------------------|---------------------------------|-----------|-----------|
| JT       | VERT | HORZ                    | DOWN                            | HORZ      | UPLIFT    |
| 15       | 1767 | 0                       | 1767                            | 0         | 5-8       |
| 8        | 2276 | 0                       | 2276                            | 0         | 1-8       |

| UNFACTORED REACTIONS |           |           |           |           |       |         |       |
|----------------------|-----------|-----------|-----------|-----------|-------|---------|-------|
| JT                   | 1ST LCASE | MAX./MIN. | COMPONENT | REACTIONS |       |         |       |
| 15                   | 1237      | 881 / 0   | LIVE      | PERM.LIVE | WIND  | DEAD    | SOIL  |
| 8                    | 1599      | 1109 / 0  | 0 / 0     | 0 / 0     | 0 / 0 | 356 / 0 | 0 / 0 |

BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S) 15, 8

BRACING  
TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 4.57 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: (3) |             |          |             |
|---------|-------------|-------|-------------|-----------------------|-------------|----------|-------------|
| CHORDS  |             | WEBS  |             | FACTORED              |             | FACTORED |             |
| MEMB.   | FORCE (LBS) | MEMB. | FORCE (LBS) | MEMB.                 | FORCE (LBS) | MEMB.    | FORCE (LBS) |
| FR-TO   |             | FR-TO |             | FR-TO                 |             | FR-TO    |             |
| 1-2     | 0 / 29      | 1-2   | -77.3       | 1-2                   | -77.3       | 1-2      | 0.06 (1)    |
| 2-3     | -1958 / 0   | 2-3   | -77.3       | 2-3                   | -77.3       | 2-3      | 0.15 (1)    |
| 3-4     | -2979 / 0   | 3-4   | -77.3       | 3-4                   | -77.3       | 3-4      | 0.17 (1)    |
| 4-5     | -2979 / 0   | 4-5   | -77.3       | 4-5                   | -77.3       | 4-5      | 0.25 (1)    |
| 5-6     | -3715 / 0   | 5-6   | -145.8      | 5-6                   | -145.8      | 5-6      | 0.32 (1)    |
| 6-7     | -2615 / 0   | 6-7   | -77.3       | 6-7                   | -77.3       | 6-7      | 0.13 (1)    |
| 15-2    | -1738 / 0   | 15-2  | 0.0         | 15-2                  | 0.0         | 15-2     | 0.10 (1)    |
| 9-7     | -2367 / 0   | 9-7   | 0.0         | 9-7                   | 0.0         | 9-7      | 0.14 (1)    |
| 15-14   | 0 / 0       | 15-14 | -17.5       | 15-14                 | -17.5       | 15-14    | 0.02 (3)    |
| 14-13   | 0 / 1618    | 14-13 | -17.5       | 14-13                 | -17.5       | 14-13    | 0.12 (1)    |
| 13-12   | 0 / 3715    | 13-12 | -17.5       | 13-12                 | -17.5       | 13-12    | 0.29 (1)    |
| 12-11   | 0 / 2160    | 12-11 | -33.0       | 12-11                 | -33.0       | 12-11    | 0.20 (1)    |
| 11-10   | 0 / 2160    | 11-10 | -33.0       | 11-10                 | -33.0       | 11-10    | 0.20 (1)    |
| 10-9    | 0 / 0       | 10-9  | -33.0       | 10-9                  | -33.0       | 10-9     | 0.16 (1)    |
| 9-8     | 0 / 0       | 9-8   | -33.0       | 9-8                   | -33.0       | 9-8      | 0.16 (1)    |

| FACTORED CONCENTRATED LOADS (LBS) |         |       |       |      |       |      |       |
|-----------------------------------|---------|-------|-------|------|-------|------|-------|
| JT                                | LOC.    | LC1   | MAX-  | MAX+ | FACE  | DIR. | TYPE  |
| 6                                 | 18-10-3 | -220  | -220  | ---  | FRONT | VERT | TOTAL |
| 12                                | 14-0-12 | -1106 | -1106 | ---  | 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 | = | 23.3 PSF |
|                       | DL | = | 3.0 PSF  |
| BOT CH.               | LL | = | 0.0 PSF  |
|                       | DL | = | 7.0 PSF  |
| TOTAL LOAD = 33.3 PSF |    |   |          |

SPACING = 24.0 IN. C/C

LOADING IN FLAT SECTION BASED ON A SLOPE OF 6.00/12

GIRDER TYPE: CPrimeHip  
LEFT SETBACK = 4-1-13  
RIGHT SETBACK = 3-9-7  
END SETBACK = 6-0-0  
END WALL WIDTH = 5-8  
CORNER FRAMING TYPE: CONVENTIONAL  
END JACK TYPE: CONVENTIONAL  
APPLIED TO FRONT SIDE  
- ADDTL LOADS BASED ON 55 % OF GSL.  
LOADS APPLIED TO FIRST 8-6-14 OF SPAN MEASURED FROM THE RIGHT.

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

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

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

(55 % OF 27.2 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 23.3 P.S.F. SPECIFIED ROOF LIVE LOAD

ALLOWABLE DEFL.(LL)= L/360 (0.76")  
CALCULATED VERT. DEFL.(LL) = L/999 (0.06")  
ALLOWABLE DEFL.(TL)= L/360 (0.76")  
CALCULATED VERT. DEFL.(TL) = L/999 (0.10")

CSI: TC=0.32 (5-6:1), BC=0.29 (12-13:1), WB=0.31 (5-13:1), SSI=0.75 (8-9:1)

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

COMPANION LIVE LOAD FACTOR = 0.50

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

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

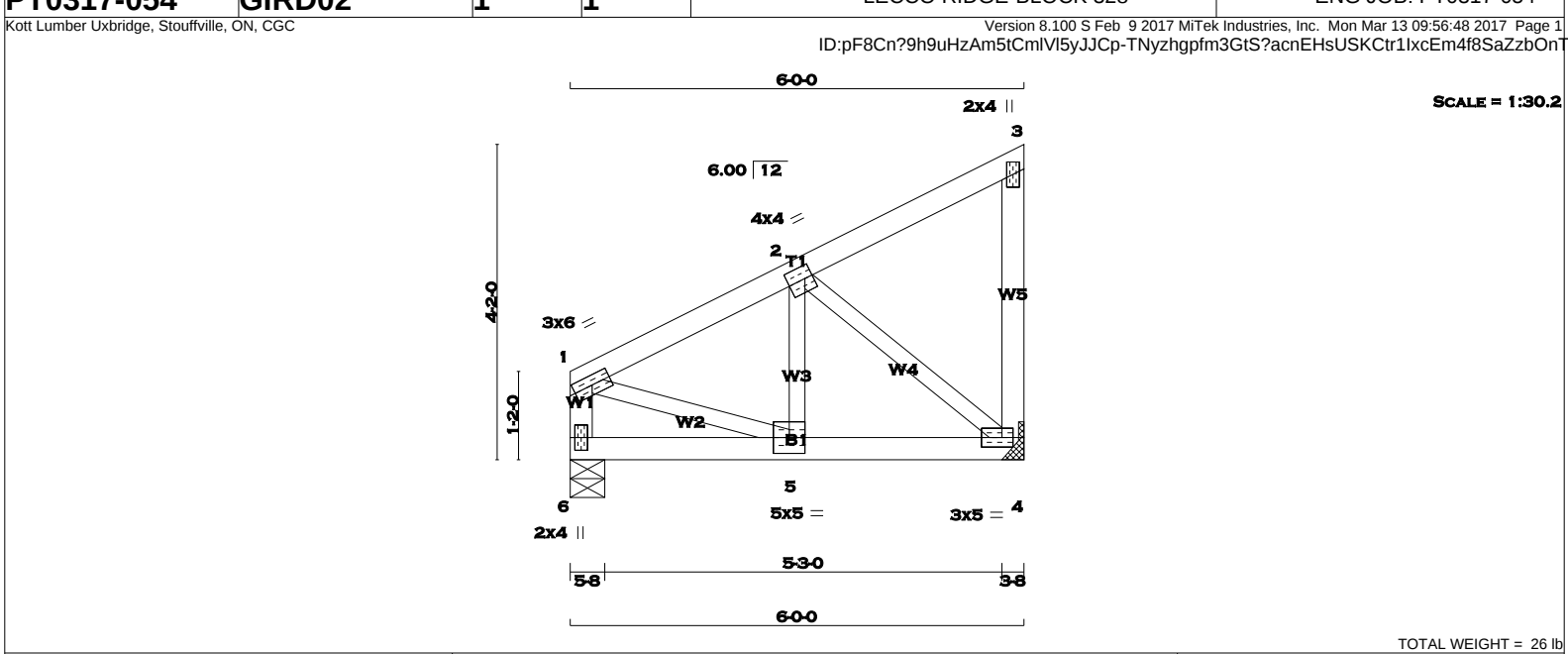
PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 0.50 degrees  
KOTT  
CONTINUED ON PAGE 2



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MAR 29, 2017  
17-4990  
BUILDING DIVISION

READ ALL NOTES ON THIS PAGE AND ON THE  
ENGINEERING NOTE PAGE ENP-1. THE NOTE PAGE  
IS AN INTEGRAL PART OF THIS DRAWING AS IT  
CONTAINS SPECIFICATIONS AND CRITERIA USED  
IN THE DESIGN OF THIS COMPONENT.



|                                                                 |     |     |                                                                                                                         |     |  |                                                  |      |     |
|-----------------------------------------------------------------|-----|-----|-------------------------------------------------------------------------------------------------------------------------|-----|--|--------------------------------------------------|------|-----|
| <b>LUMBER</b><br>N. L. G. A. RULES<br>CHORDS SIZE LUMBER DESCR. |     |     | <b>DIMENSIONS, SUPPORTS AND LOADINGS SPECIFIED BY FABRICATOR TO BE VERIFIED BY BUILDING DESIGNER</b><br><b>BEARINGS</b> |     |  | <b>DESIGN CRITERIA</b>                           |      |     |
| 1 - 3                                                           | 2x4 | DRY | No.2                                                                                                                    | SPF |  | SPECIFIED LOADS:                                 |      |     |
| 4 - 3                                                           | 2x4 | DRY | No.2                                                                                                                    | SPF |  | TOP CH. LL =                                     | 23.3 | PSF |
| 6 - 1                                                           | 2x4 | DRY | No.2                                                                                                                    | SPF |  | DL =                                             | 3.0  | PSF |
| 6 - 4                                                           | 2x4 | DRY | No.2                                                                                                                    | SPF |  | BOT CH. LL =                                     | 0.0  | PSF |
|                                                                 |     |     |                                                                                                                         |     |  | DL =                                             | 7.0  | PSF |
|                                                                 |     |     |                                                                                                                         |     |  | TOTAL LOAD =                                     | 33.3 | PSF |
| ALL WEBS                                                        | 2x3 | DRY | No.2                                                                                                                    | SPF |  | <b>SPACING = 24.0 IN. C/C</b>                    |      |     |
| EXCEPT                                                          |     |     |                                                                                                                         |     |  | GIRDER TYPE: CStdGirder                          |      |     |
| DRY: SEASONED LUMBER.                                           |     |     |                                                                                                                         |     |  | START DISTANCE = 0-0                             |      |     |
|                                                                 |     |     |                                                                                                                         |     |  | START SPAN CARRIED = 14-0-0                      |      |     |
|                                                                 |     |     |                                                                                                                         |     |  | END DISTANCE = 6-0-0                             |      |     |
|                                                                 |     |     |                                                                                                                         |     |  | END SPAN CARRIED = 14-0-0                        |      |     |
|                                                                 |     |     |                                                                                                                         |     |  | END WALL WIDTH = 5-8                             |      |     |
|                                                                 |     |     |                                                                                                                         |     |  | APPLIED TO FRONT SIDE OF BOTTOM CHORD.           |      |     |
|                                                                 |     |     |                                                                                                                         |     |  | - ADDTL LOADS BASED ON 55 % OF GSL.              |      |     |
|                                                                 |     |     |                                                                                                                         |     |  | THIS TRUSS IS DESIGNED FOR RESIDENTIAL           |      |     |
|                                                                 |     |     |                                                                                                                         |     |  | OR SMALL BUILDING REQUIREMENTS OF                |      |     |
|                                                                 |     |     |                                                                                                                         |     |  | PART 9, NBCC 2010                                |      |     |
|                                                                 |     |     |                                                                                                                         |     |  | THIS DESIGN COMPLIES WITH:                       |      |     |
|                                                                 |     |     |                                                                                                                         |     |  | - PART 9 OF OBC 2012 , BCBC 2012 , ABC 2014      |      |     |
|                                                                 |     |     |                                                                                                                         |     |  | - CSA 086-09                                     |      |     |
|                                                                 |     |     |                                                                                                                         |     |  | - TPIC 2011                                      |      |     |
|                                                                 |     |     |                                                                                                                         |     |  | (55 % OF 27.2 P.S.F. G.S.L. PLUS 8.4 P.S.F.      |      |     |
|                                                                 |     |     |                                                                                                                         |     |  | RAIN LOAD) EQUALS 23.3 P.S.F. SPECIFIED          |      |     |
|                                                                 |     |     |                                                                                                                         |     |  | ROOF LIVE LOAD                                   |      |     |
|                                                                 |     |     |                                                                                                                         |     |  | ALLOWABLE DEFL.(LL)= L/360 (0.20")               |      |     |
|                                                                 |     |     |                                                                                                                         |     |  | CALCULATED VERT. DEFL.(LL) = L/ 999 (0.02")      |      |     |
|                                                                 |     |     |                                                                                                                         |     |  | ALLOWABLE DEFL.(TL)= L/360 (0.20")               |      |     |
|                                                                 |     |     |                                                                                                                         |     |  | CALCULATED VERT. DEFL.(TL) = L/ 999 (0.04")      |      |     |
|                                                                 |     |     |                                                                                                                         |     |  | CSI: TC=0.11 (1-2:1) , BC=0.59 (4-5:1) , WB=0.28 |      |     |
|                                                                 |     |     |                                                                                                                         |     |  | (2-4:1) , SSI=0.46 (5-6:1)                       |      |     |
|                                                                 |     |     |                                                                                                                         |     |  | DOL LUMBER=1.00 NAIL=1.00 LS BEND=1.00           |      |     |
|                                                                 |     |     |                                                                                                                         |     |  | COMP=1.00 SHEAR=1.00 TENS=1.00                   |      |     |
|                                                                 |     |     |                                                                                                                         |     |  | COMPANION LIVE LOAD FACTOR = 0.50                |      |     |
|                                                                 |     |     |                                                                                                                         |     |  | TRUSS PLATE MANUFACTURER IS NOT                  |      |     |
|                                                                 |     |     |                                                                                                                         |     |  | RESPONSIBLE FOR QUALITY CONTROL IN THE           |      |     |
|                                                                 |     |     |                                                                                                                         |     |  | TRUSS MANUFACTURING PLANT .                      |      |     |
|                                                                 |     |     |                                                                                                                         |     |  | NAIL VALUES                                      |      |     |
|                                                                 |     |     |                                                                                                                         |     |  | PLATE GRIP(DRY) SHEAR SECTION                    |      |     |
|                                                                 |     |     |                                                                                                                         |     |  | (PSI) (PLI) (PLI)                                |      |     |
|                                                                 |     |     |                                                                                                                         |     |  | MAX MIN MAX MIN MAX MIN                          |      |     |
|                                                                 |     |     |                                                                                                                         |     |  | MT20 618 354 1667 822 2284 1656                  |      |     |
|                                                                 |     |     |                                                                                                                         |     |  | PLATE PLACEMENT TOL. = 0.250 inches              |      |     |
|                                                                 |     |     |                                                                                                                         |     |  | PLATE ROTATION TOL. = 5.0 Deg.                   |      |     |
|                                                                 |     |     |                                                                                                                         |     |  | JSI GRIP= 0.90 (4) (INPUT = 0.90 )               |      |     |
|                                                                 |     |     |                                                                                                                         |     |  | JSI METAL= 0.31 (2) (INPUT = 1.00 )              |      |     |

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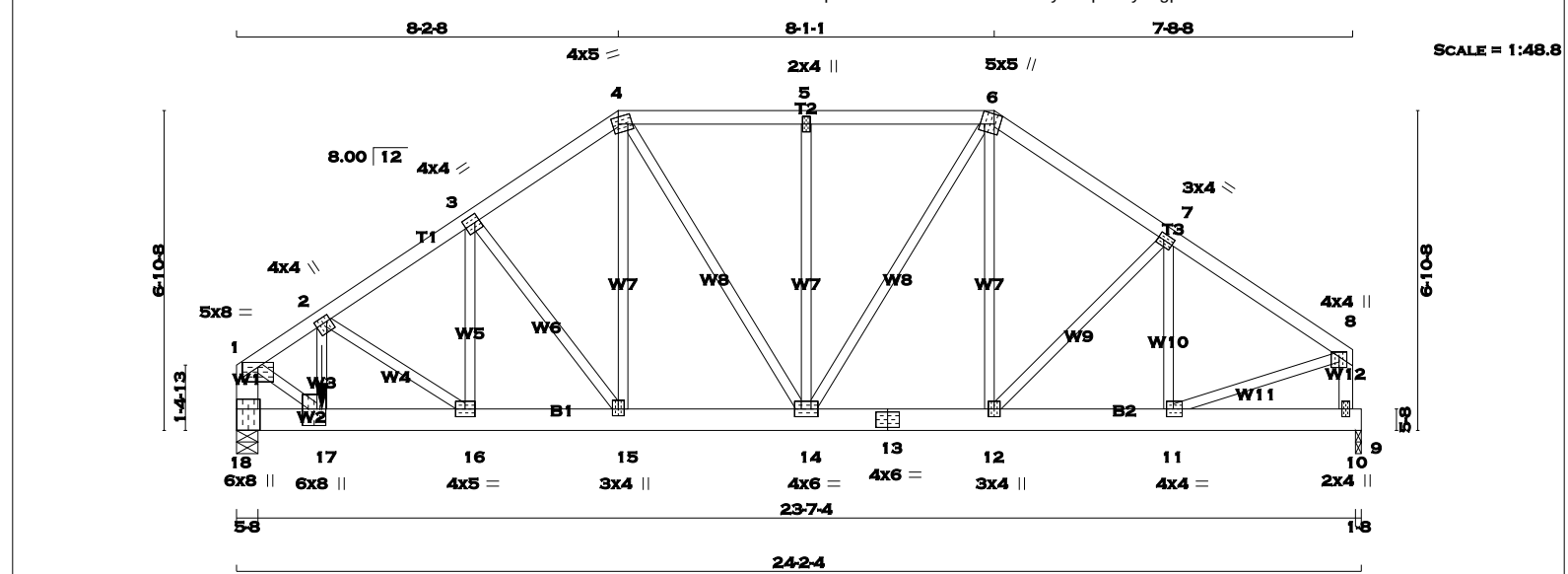
READ ALL NOTES ON THIS PAGE AND ON THE

ENGINEERING NOTE PAGE ENP-1. THE NOTE PAGE

IS AN INTEGRAL PART OF THIS DRAWING AS IT

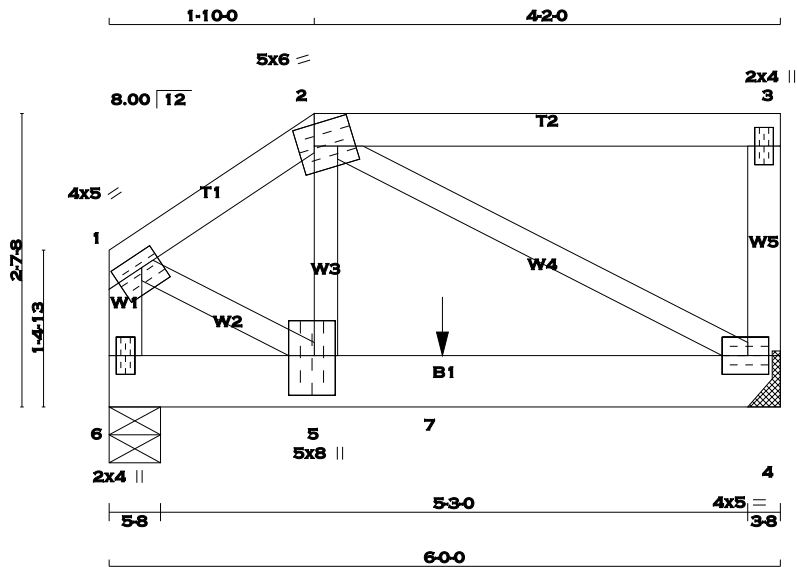
CONTAINS SPECIFICATIONS AND CRITERIA USED

IN THE DESIGN OF THIS COMPONENT.



|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |  |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |  |  |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|--|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|--|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|--|
| <b>LUMBER</b><br>N. L. G. A. RULES<br>CHORDS SIZE LUMBER DESCR.<br>1 - 4 2x4 DRY No.2 SPF<br>4 - 6 2x4 DRY No.2 SPF<br>6 - 8 2x4 DRY No.2 SPF<br>18 - 1 2x6 DRY No.2 SPF<br>10 - 8 2x4 DRY No.2 SPF<br>18 - 13 2x6 DRY No.2 SPF<br>13 - 9 2x6 DRY No.2 SPF<br><br>ALL WEBS 2x3 DRY No.2 SPF<br>EXCEPT<br><br>DRY: SEASONED LUMBER.<br><br>DESIGN CONSISTS OF <b>2</b> TRUSSES BUILT SEPARATELY THEN FASTENED TOGETHER AS FOLLOWS:<br><br>CHORDS #ROWS SURFACE SPACING (IN) LOAD(PLF)<br>TOP CHORDS : (0.122"x3") SPIRAL NAILS<br>1-4 1 12 TOP<br>4-6 1 12 TOP<br>6-8 1 12 TOP<br>10-8 1 12 TOP<br>18-1 2 12 TOP<br>BOTTOM CHORDS : (0.122"x3") SPIRAL NAILS<br>18-13 2 12 SIDE(194.6)<br>13-9 2 12 TOP<br>WEBS : (0.122"x3") SPIRAL NAILS<br>2x3 1 6<br><br>NAILS TO BE DRIVEN FROM ONE SIDE ONLY.<br><br>GIRDER NAILING ASSUMES NAILED HANGERS ARE FASTENED WITH MIN. 3-0 INCH NAILS.<br><br>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.<br><br>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.<br><br><b>PLATES (table is in inches)</b><br>JT TYPE PLATES W LEN Y X<br>1 TMWW-p MT20 5.0 8.0 1.25 4.00<br>2 TMWW+t MT20 4.0 4.0 1.50 1.00<br>3 TMWW-t MT20 4.0 4.0 2.00 1.25 |  |  | <b>DIMENSIONS, SUPPORTS AND LOADINGS SPECIFIED BY FABRICATOR TO BE VERIFIED BY BUILDING DESIGNER</b><br><b>BEARINGS</b><br>FACTORED GROSS REACTION INPUT REQRD<br>JT VERT HORZ DOWN HORZ UPLIFT IN-SX IN-SX<br>18 6807 0 6807 0 0 5-8 5-8<br>9 1568 0 1568 0 0 1-8 1-8<br><br><b>UNFACTORED REACTIONS</b><br>1ST LCASE MAX/MIN. COMPONENT REACTIONS<br>JT COMBINED SNOW LIVE PERM.LIVE WIND DEAD SOIL<br>18 4778 3342 / 0 0 / 0 0 / 0 1435 / 0 0 / 0<br>9 1100 768 / 0 0 / 0 0 / 0 332 / 0 0 / 0<br><br>BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S) 18, 9<br><br><b>BRACING</b><br>TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 3.87 FT.<br>MAX. UNBRACED BOTTOM CHORD LENGTH = 10.00 FT. OR RIGID CEILING DIRECTLY APPLIED.<br><br>ALL PITCH BREAKS AND PERIMETER CORNER JOINTS MUST BE LATERALLY RESTRAINED.<br><br><b>LOADING</b><br>TOTAL LOAD CASES: (3)<br><br>CHORDS MAX. FACTORED VERT. LOAD LC1 MAX. MEMB. FORCE (LBS) (PLF) CSI (LC) UNBRAC LENGTH FR-TO<br>1-2 -6032 / 0 -77.3 -77.3 0.16 (1) 3.87 17-2 0 / 2611 0.32 (1)<br>2-3 -3582 / 0 -77.3 -77.3 0.12 (1) 4.88 2-16 -2445 / 0 0.33 (1)<br>3-4 -2436 / 0 -77.3 -77.3 0.09 (1) 5.69 16-3 0 / 1641 0.20 (1)<br>4-5 -1892 / 0 -77.3 -77.3 0.12 (1) 6.21 3-15 -1641 / 0 0.41 (1)<br>5-6 -1892 / 0 -77.3 -77.3 0.12 (1) 6.21 15-4 0 / 1349 0.17 (1)<br>6-7 -1791 / 0 -77.3 -77.3 0.11 (1) 6.25 4-14 -263 / 0 0.15 (1)<br>7-8 -1772 / 0 -77.3 -77.3 0.11 (1) 6.25 14-5 -370 / 0 0.14 (1)<br>18-1 -6157 / 0 0.0 0.0 0.22 (1) 5.97 14-6 0 / 792 0.10 (1)<br>10-8 -1615 / 0 0.0 0.0 0.09 (1) 7.81 12-6 0 / 77 0.01 (3)<br>12-7 -26 / 0 0.01 (1)<br>11-7 -340 / 0 0.05 (1)<br>11-17 0 / 5699 0.71 (1)<br>11-8 0 / 1572 0.19 (1)<br><br>18-17 0 / 0 -406.8 -406.8 0.19 (1) 10.00<br>17-16 0 / 5007 -17.5 -17.5 0.51 (1) 10.00<br>16-15 0 / 3000 -17.5 -17.5 0.21 (1) 10.00<br>15-14 0 / 2031 -17.5 -17.5 0.14 (1) 10.00<br>14-13 0 / 1473 -17.5 -17.5 0.10 (1) 10.00<br>13-12 0 / 1473 -17.5 -17.5 0.10 (1) 10.00<br>12-11 0 / 1490 -17.5 -17.5 0.11 (1) 10.00<br>11-10 0 / 0 -17.5 -17.5 0.11 (1) 10.00<br>10-9 0 / 0 -17.5 -17.5 0.11 (1) 10.00<br><br>FACTORED CONCENTRATED LOADS (LBS)<br>JT LOC. LC1 MAX- MAX+ FACE DIR. TYPE<br>17 1-10-0 -5382 -5382 --- FRONT VERT TOTAL |  |  | <b>DESIGN CRITERIA</b><br><br>*** SPECIAL LOADS ANALYSIS ***<br>GEOMETRY AND/OR BASIC LOADS CHANGED BY USER.<br>LOADS WERE DERIVED FROM USER INPUT NO FURTHER MODIFICATIONS WERE MADE<br><br>SPECIFIED LOADS:<br>TOP CH. LL = 23.3 PSF<br>DL = 3.0 PSF<br>BOT CH. LL = 0.0 PSF<br>DL = 7.0 PSF<br>TOTAL LOAD = 33.3 PSF<br><br><b>SPACING = 24.0 IN. C/C</b><br><br>LOADING IN FLAT SECTION BASED ON A SLOPE OF 6.00/12<br><br>GIRDER TYPE: CStdGirder<br>START DISTANCE = 0-0<br>START SPAN CARRIED = 18-10-8<br>END DISTANCE = 1-10-0<br>END SPAN CARRIED = 18-10-8<br>END WALL WIDTH = 5-8<br>APPLIED TO FRONT SIDE OF BOTTOM CHORD.<br>- ADDTL LOADS BASED ON 55 % OF GSL.<br><br>*** NON STANDARD GIRDER ***<br>ADDTL USER-DEFINED LOADS APPLIED TO ALL LOAD CASES.<br><br>THIS TRUSS IS DESIGNED FOR RESIDENTIAL OR SMALL BUILDING REQUIREMENTS OF PART 9, NBCC 2010<br><br>THIS DESIGN COMPLIES WITH:<br>- PART 9 OF OBC 2012 , BCBC 2012 , ABC 2014<br>- CSA 086-09<br>- TPIC 2011<br><br>(55 % OF 27.2 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 23.3 P.S.F. SPECIFIED ROOF LIVE LOAD<br><br>ALLOWABLE DEFL.(LL)= L/360 (0.81")<br>CALCULATED VERT. DEFL.(LL) = L/ 999 (0.04")<br>ALLOWABLE DEFL.(TL)= L/360 (0.81")<br>CALCULATED VERT. DEFL.(TL) = L/ 999 (0.07")<br><br>CSI: TC=0.22 (1-18:1) , BC=0.51 (16-17:1) , WB=0.71 (1-17:1) , SSI=0.52 (9-10:1)<br><br>DOL LUMBER=1.00 NAIL=1.00 LS BEND=1.00 COMP=1.00 SHEAR=1.00 TENS=1.00<br><br>COMPANION LIVE LOAD FACTOR = 0.50<br><br>TRUSS PLATE MANUFACTURER IS NOT RESPONSIBLE FOR QUALITY CONTROL IN THE TRUSS MANUFACTURING PLANT .<br><br>NAIL VALUES<br>PLATE GRIP(DRY) SHEAR SECTION (PSI) (PLI) (PLI)<br>MAX MIN MAX MIN MAX MIN<br>MT20 618 354 1667 822 2284 1656<br><br>PLATE PLACEMENT TOL. = 0.250 inches<br><br>PLATE ROTATION TOL. = 5.0 Deg.<br><br>JSI GRIP= 0.90 (IN) / (IN) = 90%<br>JSI METAL= 0.94 (IN) / (IN) = 94%<br><br>KOTT<br>CONTINUED ON PAGE 2 |  |  |
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SCALE = 1:20.6

TOTAL WEIGHT = 28 lb [M]

| LUMBER                |        |      |        |     | DESCR. |
|-----------------------|--------|------|--------|-----|--------|
| N. L. G. A. RULES     | CHORDS | SIZE | LUMBER |     |        |
| 1 - 2                 | 2x4    | DRY  | No.2   | SPF |        |
| 2 - 3                 | 2x4    | DRY  | No.2   | SPF |        |
| 4 - 3                 | 2x4    | DRY  | No.2   | SPF |        |
| 6 - 1                 | 2x4    | DRY  | No.2   | SPF |        |
| 6 - 4                 | 2x6    | DRY  | No.2   | SPF |        |
| ALL WEBS 2x3 DRY No.2 |        |      |        |     | SPF    |
| EXCEPT                |        |      |        |     |        |
| DRY: SEASONED LUMBER. |        |      |        |     |        |

**PLATES (table is in inches)**

| JT | TYPE    | PLATES | W   | LEN | Y    | X    |
|----|---------|--------|-----|-----|------|------|
| 1  | TMVW-t  | MT20   | 4.0 | 5.0 | 1.50 | 2.00 |
| 2  | TTWW-m  | MT20   | 5.0 | 6.0 | 2.25 | 1.75 |
| 3  | TMV+p   | MT20   | 2.0 | 4.0 |      |      |
| 4  | BMVW1-t | MT20   | 4.0 | 5.0 | 2.00 | 2.25 |
| 5  | BMVW+t  | MT20   | 5.0 | 8.0 | 4.25 | 2.25 |
| 6  | BMV1+p  | MT20   | 2.0 | 4.0 |      |      |

A SIZE FOR SIZE SUBSTITUTION OF MITEK MII20 WITH TEE-LOK TL20 PLATES IS ALLOWED.

**HANGERS NOTES**

- SPECIAL HANGER(S) OR CONNECTION(S) REQUIRED TO SUPPORT CONCENTRATED LOAD(S) 495.9 lbs FACTORED DOWN AT 2-11-12 ON BOTTOM CHORD. DESIGN FOR UNSPECIFIED CONNECTION(S) IS DELEGATED TO THE BUILDING DESIGNER.

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

| BEARINGS |  | FACTORED GROSS REACTION |      | MAXIMUM FACTORED GROSS REACTION |      | INPUT BRG |       | REQRD BRG           |       |
|----------|--|-------------------------|------|---------------------------------|------|-----------|-------|---------------------|-------|
| JT       |  | VERT                    | HORZ | DOWN                            | HORZ | IN-SX     | IN-SX | IN-SX               | IN-SX |
| 4        |  | 1752                    | 0    | 1752                            | 0    | 0         |       | HANGER BY OTHERS    |       |
| 6        |  | 1370                    | 0    | 1370                            | 0    | 0         | 5-8   | MIN. SEAT SIZE: 3-8 | 5-8   |

**UNFACTORED REACTIONS**

| 1ST LCASE |          | MAX./MIN. COMPONENT REACTIONS |       | PERM.LIVE |       | WIND  |       | DEAD    |       | SOIL  |       |
|-----------|----------|-------------------------------|-------|-----------|-------|-------|-------|---------|-------|-------|-------|
| JT        | COMBINED | SNOW                          | LIVE  |           |       |       |       |         |       |       |       |
| 4         | 1229     | 860 / 0                       | 0 / 0 | 0 / 0     | 0 / 0 | 0 / 0 | 0 / 0 | 369 / 0 | 0 / 0 | 0 / 0 | 0 / 0 |
| 6         | 961      | 672 / 0                       | 0 / 0 | 0 / 0     | 0 / 0 | 0 / 0 | 0 / 0 | 289 / 0 | 0 / 0 | 0 / 0 | 0 / 0 |

BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S) 6

**BRACING**

TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 5.33 FT. MAX. UNBRACED BOTTOM CHORD LENGTH = 10.00 FT. OR RIGID CEILING DIRECTLY APPLIED.

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

**LOADING**

TOTAL LOAD CASES: (3)

| CHORDS |             | FACTORED         |                 | W E B S |             | FACTORED      |          |
|--------|-------------|------------------|-----------------|---------|-------------|---------------|----------|
| MEMB.  | FORCE (LBS) | VERT. LOAD (PLF) | MAX. CSI (LC)   | MEMB.   | FORCE (LBS) | MAX. CSI (LC) |          |
| FR-TO  |             | FROM             | TO              | FR-TO   |             |               |          |
| 1-2    | -1453 / 0   | -77.3            | -77.3 0.08 (1)  | 5.33    | 5-2         | 0 / 1259      | 0.31 (1) |
| 2-3    | 0 / 0       | -77.3            | -77.3 0.25 (1)  | 10.00   | 2-4         | -1433 / 0     | 0.49 (1) |
| 4-3    | -161 / 0    | 0.0              | 0.0 0.02 (1)    | 7.81    | 1-5         | 0 / 1355      | 0.34 (1) |
| 6-1    | -1503 / 0   | 0.0              | 0.0 0.17 (1)    | 6.65    |             |               |          |
| 6-5    | 0 / 0       | -230.9           | -230.9 0.51 (1) | 10.00   |             |               |          |
| 5-7    | 0 / 1263    | -230.9           | -230.9 0.79 (1) | 10.00   |             |               |          |
| 7-4    | 0 / 1263    | -487.8           | -487.8 0.79 (1) | 10.00   |             |               |          |

**FACTORED CONCENTRATED LOADS (LBS)**

| JT | LOC.    | LC1  | MAX- | MAX+ | FACE  | DIR. | TYPE  |
|----|---------|------|------|------|-------|------|-------|
| 7  | 2-11-12 | -496 | -496 | ---  | 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 = | 23.3 | PSF |
|                       | DL = | 3.0  | PSF |
| BOT CH.               | LL = | 0.0  | PSF |
|                       | DL = | 7.0  | PSF |
| TOTAL LOAD = 33.3 PSF |      |      |     |

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

LOADING IN FLAT SECTION BASED ON A SLOPE OF 6.00/12

GIRDER TYPE: CStdGirder  
START DISTANCE = 0-0  
START SPAN CARRIED = 11-5-8  
END DISTANCE = 2-11-12  
END SPAN CARRIED = 11-5-8  
END WALL WIDTH = 5-8  
APPLIED TO FRONT SIDE OF BOTTOM CHORD.  
- ADDT'L LOADS BASED ON 55 % OF GSL.

GIRDER TYPE: CStdGirder  
START DISTANCE = 2-11-12  
START SPAN CARRIED = 21-11-8  
END DISTANCE = 6-0-0  
END SPAN CARRIED = 21-11-8  
END WALL WIDTH = 1-8  
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

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

(55 % OF 27.2 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 23.3 P.S.F. SPECIFIED ROOF LIVE LOAD

ALLOWABLE DEFL.(LL)= L/360 (0.20")  
CALCULATED VERT. DEFL.(LL) = L/ 999 (0.05")  
ALLOWABLE DEFL.(TL)= L/360 (0.20")  
CALCULATED VERT. DEFL.(TL) = L/ 863 (0.08")

CSI: TC=0.25 (2-3:1), BC=0.79 (4-5:1), WB=0.49 (2-4:1), SSI=0.86 (4-5:1)

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

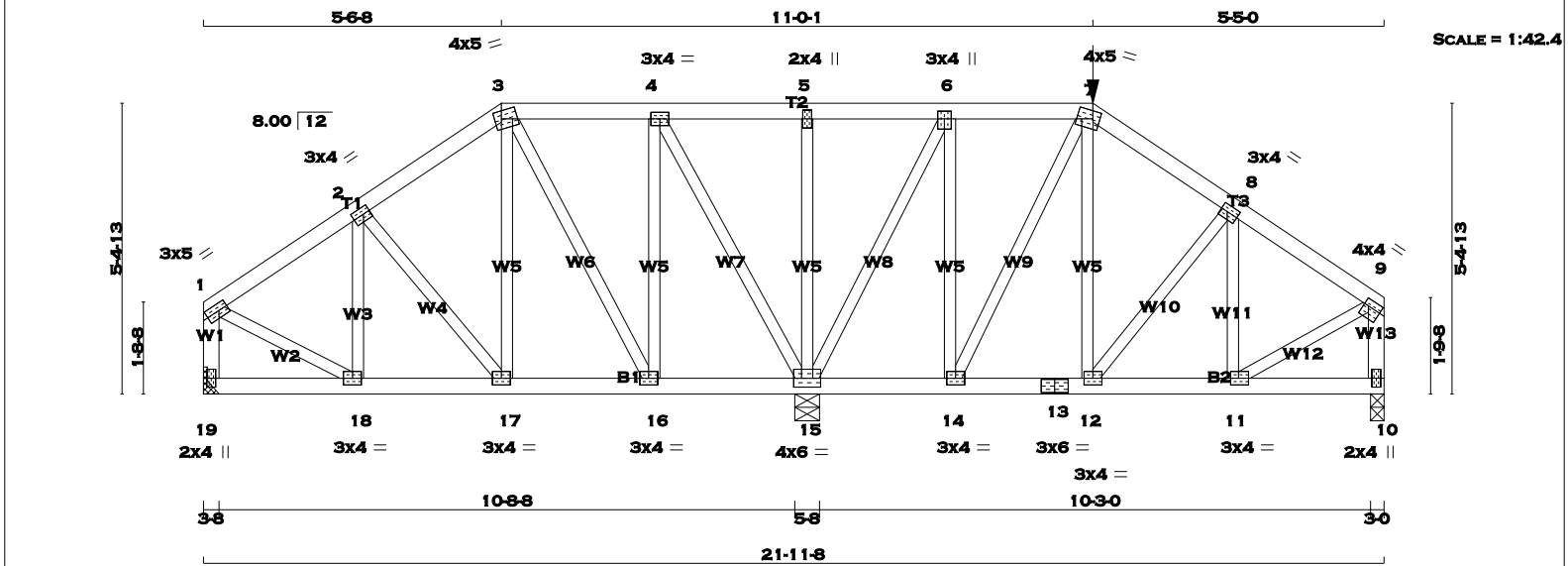
COMPANION LIVE LOAD FACTOR = 0.50

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



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READ ALL NOTES ON THIS PAGE AND ON THE  
ENGINEERING NOTE PAGE ENP-1. THE NOTE PAGE  
IS AN INTEGRAL PART OF THIS DRAWING AS IT  
CONTAINS SPECIFICATIONS AND CRITERIA USED  
IN THE DESIGN OF THIS COMPONENT.



| LUMBER                |      |        |        |     |
|-----------------------|------|--------|--------|-----|
| N. L. G. A. RULES     |      |        |        |     |
| CHORDS                | SIZE | LUMBER | DESCR. |     |
| 1 - 3                 | 2x4  | DRY    | No.2   | SPF |
| 3 - 7                 | 2x4  | DRY    | No.2   | SPF |
| 7 - 9                 | 2x4  | DRY    | No.2   | SPF |
| 19 - 1                | 2x4  | DRY    | No.2   | SPF |
| 10 - 9                | 2x4  | DRY    | No.2   | SPF |
| 19 - 13               | 2x4  | DRY    | No.2   | SPF |
| 13 - 10               | 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    |
| 1                           | TMVW-t | MT20   | 3.0 | 5.0 | 1.50 | 2.00 |
| 2                           | TMVW-t | MT20   | 3.0 | 4.0 | 1.50 | 1.50 |
| 3                           | TTWW-m | MT20   | 4.0 | 5.0 | 1.75 | 1.50 |
| 4                           | TMVW-t | MT20   | 3.0 | 4.0 |      |      |
| 5                           | TMVW-w | MT20   | 2.0 | 4.0 |      |      |
| 6                           | TMVW-t | MT20   | 3.0 | 4.0 | 1.75 | 1.50 |
| 7                           | TTWW-m | MT20   | 4.0 | 5.0 | 1.75 | 1.50 |
| 8                           | TMVW-t | MT20   | 3.0 | 4.0 | 1.50 | 1.50 |
| 9                           | TMVW-t | MT20   | 4.0 | 4.0 | 1.50 | 1.00 |
| 10                          | BMV1+p | MT20   | 2.0 | 4.0 |      |      |
| 11                          | BMVW-t | MT20   | 3.0 | 4.0 | 1.50 | 1.75 |
| 12, 14, 16, 17, 18          |        |        |     |     |      |      |
| 12                          | BMVW-t | MT20   | 3.0 | 4.0 |      |      |
| 13                          | BS-t   | MT20   | 3.0 | 6.0 |      |      |
| 15                          | BMVW-t | MT20   | 4.0 | 6.0 |      |      |
| 19                          | BMV1+p | MT20   | 2.0 | 4.0 |      |      |

A SIZE FOR SIZE SUBSTITUTION OF MITEK MII20 WITH TEE-LONG TL20 PLATES IS ALLOWED.

**HANGERS NOTES**  
1) SPECIAL HANGER(S) OR CONNECTION(S) REQUIRED TO SUPPORT CONCENTRATED LOAD(S) 314.2 lbs FACTORED DOWN AT 16-6-9 ON TOP CHORD. DESIGN FOR UNSPECIFIED CONNECTION(S) IS DELEGATED TO THE BUILDING DESIGNER.



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

| BEARINGS |      | FACTORED GROSS REACTION |      | MAXIMUM FACTORED GROSS REACTION |      | INPUT BRG |                  | REQRD BRG |  |
|----------|------|-------------------------|------|---------------------------------|------|-----------|------------------|-----------|--|
| JT       |      | VERT                    | HORZ | DOWN                            | HORZ | UPLIFT    | IN-SX            | IN-SX     |  |
| 19       | 494  | 0                       |      | 494                             | 0    | 0         | HANGER BY OTHERS |           |  |
| 15       | 1657 | 0                       |      | 1657                            | 0    | 0         | 5-8              | 5-8       |  |
| 10       | 808  | 0                       |      | 808                             | 0    | 0         | 3-0              | 3-0       |  |

| UNFACTORED REACTIONS |          |         |       |           |       |         |       |
|----------------------|----------|---------|-------|-----------|-------|---------|-------|
| JT                   | COMBINED | SNOW    | LIVE  | PERM.LIVE | WIND  | DEAD    | SOIL  |
| 19                   | 348      | 238 / 0 | 0 / 0 | 0 / 0     | 0 / 0 | 110 / 0 | 0 / 0 |
| 15                   | 1159     | 830 / 0 | 0 / 0 | 0 / 0     | 0 / 0 | 329 / 0 | 0 / 0 |
| 10                   | 571      | 376 / 0 | 0 / 0 | 0 / 0     | 0 / 0 | 195 / 0 | 0 / 0 |

BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S) 10

**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: (3)

| CHORDS |                           |                           |                                   | WEBS  |                           |                                   |          |
|--------|---------------------------|---------------------------|-----------------------------------|-------|---------------------------|-----------------------------------|----------|
| MEMB.  | MAX. FACTORED FORCE (LBS) | FACTORED VERT. LOAD (PLF) | MAX. FACTORED LC1 MAX. (CSI (LC)) | MEMB. | MAX. FACTORED FORCE (LBS) | MAX. FACTORED LC1 MAX. (CSI (LC)) |          |
| FR-TO  |                           | FROM TO                   |                                   | FR-TO |                           |                                   |          |
| 1-2    | -389 / 0                  | -77.3 -77.3               | 0.10 (1)                          | 6-25  | 18-2                      | -109 / 11                         | 0.02 (1) |
| 2-3    | -316 / 0                  | -77.3 -77.3               | 0.10 (1)                          | 6-25  | 2-17                      | -130 / 0                          | 0.04 (1) |
| 3-4    | -169 / 0                  | -77.3 -77.3               | 0.09 (1)                          | 6-25  | 17-3                      | 0 / 152                           | 0.04 (1) |
| 4-5    | -1 / 60                   | -77.3 -77.3               | 0.12 (1)                          | 10.00 | 3-16                      | -173 / 0                          | 0.10 (1) |
| 5-6    | -1 / 60                   | -149.9 -149.9             | 0.18 (1)                          | 10.00 | 16-4                      | 0 / 178                           | 0.04 (1) |
| 6-7    | -375 / 0                  | -149.9 -149.9             | 0.17 (1)                          | 6-25  | 4-15                      | -473 / 0                          | 0.28 (1) |
| 7-8    | -663 / 0                  | -77.3 -77.3               | 0.10 (1)                          | 6-25  | 15-5                      | -301 / 0                          | 0.14 (1) |
| 8-9    | -675 / 0                  | -77.3 -77.3               | 0.10 (1)                          | 6-25  | 15-6                      | -944 / 0                          | 0.54 (1) |
| 19-1   | -472 / 0                  | 0.0 0.0                   | 0.06 (1)                          | 7.81  | 14-6                      | 0 / 386                           | 0.10 (1) |
| 10-9   | -767 / 0                  | 0.0 0.0                   | 0.09 (1)                          | 7.81  | 14-7                      | -360 / 0                          | 0.20 (1) |
| 19-18  | 0 / 0                     | -17.5 -17.5               | 0.03 (3)                          | 10.00 | 12-7                      | 0 / 132                           | 0.05 (3) |
| 18-17  | 0 / 335                   | -17.5 -17.5               | 0.07 (1)                          | 10.00 | 12-8                      | -52 / 0                           | 0.02 (1) |
| 17-16  | 0 / 254                   | -17.5 -17.5               | 0.06 (1)                          | 10.00 | 11-8                      | -196 / 22                         | 0.05 (1) |
| 16-15  | 0 / 169                   | -17.5 -17.5               | 0.10 (1)                          | 10.00 | 11-9                      | 0 / 372                           | 0.09 (1) |
| 15-14  | 0 / 375                   | -33.9 -33.9               | 0.14 (1)                          | 10.00 |                           | 0 / 646                           | 0.16 (1) |
| 14-13  | 0 / 542                   | -33.9 -33.9               | 0.13 (1)                          | 10.00 |                           |                                   |          |
| 13-12  | 0 / 542                   | -33.9 -33.9               | 0.13 (1)                          | 10.00 |                           |                                   |          |
| 12-11  | 0 / 572                   | -33.9 -33.9               | 0.13 (1)                          | 10.00 |                           |                                   |          |
| 11-10  | 0 / 0                     | -33.9 -33.9               | 0.06 (3)                          | 10.00 |                           |                                   |          |

| FACTORED CONCENTRATED LOADS (LBS) |        |      |           | FACE  | DIR. | TYPE  |
|-----------------------------------|--------|------|-----------|-------|------|-------|
| JT                                | LOC.   | LC1  | MAX- MAX+ | FRONT | VERT | TOTAL |
| 7                                 | 16-6-9 | -314 | -314      | ---   |      |       |

**DESIGN CRITERIA**

**SPECIFIED LOADS:**  
TOP CH. LL = 23.3 PSF  
DL = 3.0 PSF  
BOT CH. LL = 0.0 PSF  
DL = 7.0 PSF  
TOTAL LOAD = 33.3 PSF

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

**LOADING IN FLAT SECTION BASED ON A SLOPE OF 6.00/12**

GIRDER TYPE: CPrimeHip  
LEFT SETBACK = 5-6-8  
RIGHT SETBACK = 5-5-0  
END SETBACK = 6-0-0  
END WALL WIDTH = 3-0  
CORNER FRAMING TYPE: CONVENTIONAL  
END JACK TYPE: CONVENTIONAL  
APPLIED TO FRONT SIDE  
- ADDTL LOADS BASED ON 55 % OF GSL.  
LOADS APPLIED TO FIRST 10-6-0 OF SPAN MEASURED FROM THE RIGHT.

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

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

(55 % OF 27.2 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 23.3 P.S.F. SPECIFIED ROOF LIVE LOAD

ALLOWABLE DEFL.(LL)= L/360 (0.36")  
CALCULATED VERT. DEFL.(LL) = L/ 999 (0.01")  
ALLOWABLE DEFL.(TL)= L/360 (0.36")  
CALCULATED VERT. DEFL.(TL) = L/ 999 (0.02")

CSI: TC=0.18 (5-6-1), BC=0.14 (14-15-1), WB=0.54 (6-15-1), SS=0.21 (6-7-1)

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

COMPANION LIVE LOAD FACTOR = 0.50

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

| NAIL VALUES |           |       |                    |
|-------------|-----------|-------|--------------------|
| PLATE       | GRIP(DRY) | SHEAR | SECTION            |
| (PSI)       | (PLI)     | (PLI) |                    |
| MT20        | 618       | 354   | 1667 822 2284 1656 |

PLATE PLACEMENT TOL. = 0.250 inches

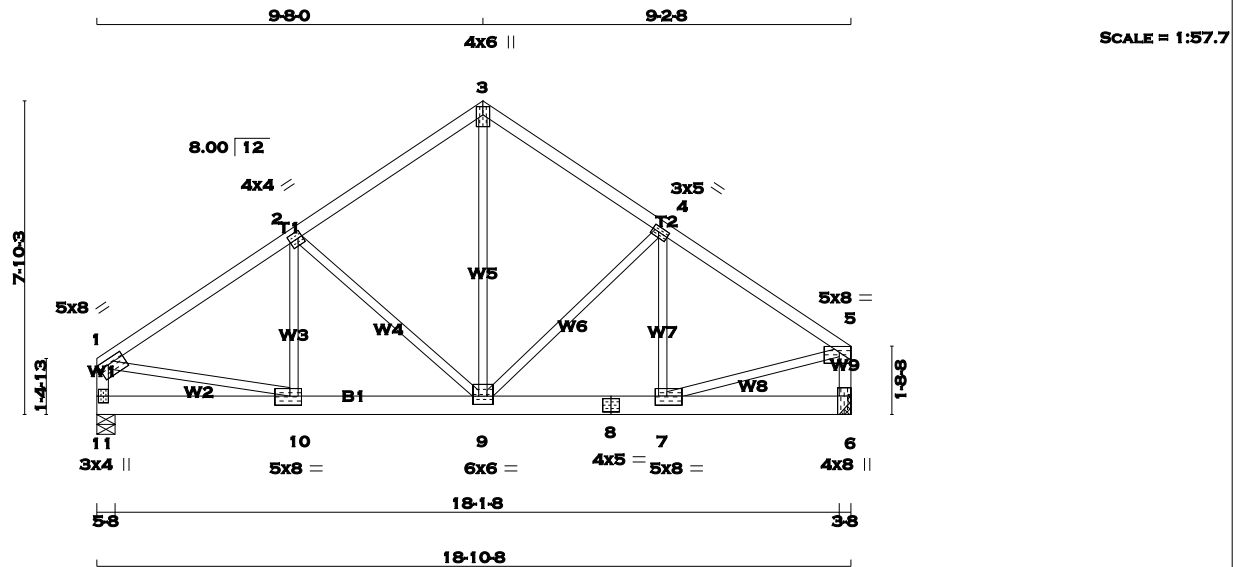
PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.90 (11) (INPUT = 0.90 )  
JSI METAL= 0.28 (9) (INPUT = 1.00 )

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READ ALL NOTES ON THIS PAGE AND ON THE  
ENGINEERING NOTE PAGE ENP-1. THE NOTE PAGE  
IS AN INTEGRAL PART OF THIS DRAWING AS IT  
CONTAINS SPECIFICATIONS AND CRITERIA USED  
IN THE DESIGN OF THIS COMPONENT.





TOTAL WEIGHT = 2 X 92 = 183 lb [M]

| LUMBER            |        |      |        |
|-------------------|--------|------|--------|
| N. L. G. A. RULES | CHORDS | SIZE | LUMBER |
| 1 - 3             | 2x4    | DRY  | No.2   |
| 3 - 5             | 2x4    | DRY  | No.2   |
| 11- 1             | 2x4    | DRY  | No.2   |
| 6 - 5             | 2x4    | DRY  | No.2   |
| 11- 8             | 2x6    | DRY  | No.2   |
| 8 - 6             | 2x6    | DRY  | No.2   |
| ALL WEBS          | 2x3    | DRY  | No.2   |
| EXCEPT            |        |      |        |

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    |                      |             |
| 1- 3                                     | 12                   | TOP         |
| 3- 5                                     | 12                   | TOP         |
| 11- 1                                    | 12                   | TOP         |
| 6- 5                                     | 12                   | TOP         |
| BOTTOM CHORDS : (0.122"x3") SPIRAL NAILS |                      |             |
| 11- 8                                    | 9                    | SIDE(237.7) |
| 8- 6                                     | 9                    | SIDE(237.7) |
| WEBS : (0.122"x3") SPIRAL NAILS          |                      |             |
| 2x3                                      | 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.

| PLATES (table is in inches) |        |        |     |     |           |
|-----------------------------|--------|--------|-----|-----|-----------|
| JT                          | TYPE   | PLATES | W   | LEN | Y X       |
| 1                           | TMVW-t | MT20   | 5.0 | 8.0 | 1.50 3.00 |
| 2                           | TMWW-t | MT20   | 4.0 | 4.0 | 2.00 1.25 |
| 3                           | TTW+p  | MT20   | 4.0 | 6.0 | 2.50 2.00 |
| 4                           | TMWW-t | MT20   | 3.0 | 5.0 | 1.50 2.00 |
| 5                           | TMVW-p | MT20   | 5.0 | 8.0 | 1.75 Edge |
| 6                           | BMV1+t | MT20   | 4.0 | 8.0 | Edge 0.50 |
| 7                           | BMWW-t | MT20   | 5.0 | 8.0 | 2.75 3.50 |
| 8                           | BS-t   | MT20   | 4.0 | 5.0 |           |

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

| BEARINGS |                         |                                 |                 |
|----------|-------------------------|---------------------------------|-----------------|
|          | FACTORED GROSS REACTION | MAXIMUM FACTORED GROSS REACTION | INPUT REQRD BRG |
| JT       | VERT                    | HORZ                            | DOWN            |
| 11       | 5382                    | 0                               | 5382            |
| 6        | 5382                    | 0                               | 5382            |

| UNFACTORED REACTIONS |           |           |       |       |           |       |          |
|----------------------|-----------|-----------|-------|-------|-----------|-------|----------|
| JT                   | 1ST LCASE | MAX./MIN. | SNOW  | LIVE  | PERM.LIVE | WIND  | DEAD     |
| 11                   | 3777      | 2642 / 0  | 0 / 0 | 0 / 0 | 0 / 0     | 0 / 0 | 1135 / 0 |
| 6                    | 3777      | 2642 / 0  | 0 / 0 | 0 / 0 | 0 / 0     | 0 / 0 | 1135 / 0 |

BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S) 11

**BRACING**

TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 3.85 FT.

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

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

| LOADING               |                           |                           |                      |
|-----------------------|---------------------------|---------------------------|----------------------|
| TOTAL LOAD CASES: (3) |                           |                           |                      |
| CHORDS                |                           |                           |                      |
| MEMB.                 | MAX. FACTORED FORCE (LBS) | FACTORED VERT. LOAD (PLF) | MAX. UNBRACED LENGTH |
| FR-TO                 |                           | FROM TO                   | FR-TO                |
| 1-2                   | -5803 / 0                 | -77.3 -77.3               | 3.85 10-2            |
| 2-3                   | -4246 / 0                 | -77.3 -77.3               | 4.47 2-9             |
| 3-4                   | -4244 / 0                 | -77.3 -77.3               | 4.49 9-3             |
| 4-5                   | -5405 / 0                 | -77.3 -77.3               | 4.00 9-4             |
| 11-1                  | -4365 / 0                 | 0.0 0.0                   | 5.70 7-4             |
| 6-5                   | -4408 / 0                 | 0.0 0.0                   | 5.68 1-10            |
| 11-10                 | 0 / 0                     | -493.0 -493.0             | 10.00 7-5            |
| 10-9                  | 0 / 4844                  | -493.0 -493.0             | 10.00                |
| 9-8                   | 0 / 4511                  | -493.0 -493.0             | 10.00                |
| 8-7                   | 0 / 4511                  | -493.0 -493.0             | 10.00                |
| 7-6                   | 0 / 0                     | -493.0 -493.0             | 10.00                |

**DESIGN CRITERIA**

SPECIFIED LOADS:

TOP CH. LL = 23.3 PSF

DL = 3.0 PSF

BOT CH. LL = 0.0 PSF

DL = 7.0 PSF

TOTAL LOAD = 33.3 PSF

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

GIRDER TYPE: CStdGirder

START DISTANCE = 0-0

START SPAN CARRIED = 22-2-2

END DISTANCE = 18-10-8

END SPAN CARRIED = 22-2-2

END WALL WIDTH = 1-8

APPLIED TO FRONT SIDE OF BOTTOM CHORD.

- ADDTL LOADS BASED ON 55 % OF GSL.

THIS TRUSS IS DESIGNED FOR RESIDENTIAL OR SMALL BUILDING REQUIREMENTS OF PART 9, NBC2010

THIS DESIGN COMPLIES WITH:

- PART 9 OF OBC 2012 , BCBC 2012 , ABC 2014
- CSA 086-09
- TPIC 2011

(55 % OF 27.2 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 23.3 P.S.F. SPECIFIED ROOF LIVE LOAD

ALLOWABLE DEFL.(LL)= L/360 (0.63")

CALCULATED VERT. DEFL.(LL) = L/ 999 (0.08")

ALLOWABLE DEFL.(TL)= L/360 (0.63")

CALCULATED VERT. DEFL.(TL) = L/ 999 (0.14")

CSI: TC=0.32 (1-2:1) , BC=0.68 (9-10:1) , WB=0.65 (2-9:1) , SSI=0.47 (10-11:1)

DOL LUMBER=1.00 NAIL=1.00 LS BEND=1.00

COMP=1.00 SHEAR=1.00 TENS= 1.00

COMPANION LIVE LOAD FACTOR = 0.50

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

NAIL VALUES

| PLATE | GRIP(DRY) | SHEAR | SECTION |
|-------|-----------|-------|---------|
| (PSI) | (PLI)     | (PLI) |         |
| MAX   | MIN       | MAX   | MIN     |
| MT20  | 618       | 354   | 1667    |
|       | 822       | 2284  | 1656    |

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.90 (1) (INPUT = 0.90 )

JSI METAL= 0.57 (1) (INPUT = 1.00 )



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READ ALL NOTES ON THIS PAGE AND ON THE ENGINEERING NOTE PAGE ENP-1. THE NOTE PAGE IS AN INTEGRAL PART OF THIS DRAWING AS IT CONTAINS SPECIFICATIONS AND CRITERIA USED IN THE DESIGN OF THIS COMPONENT.



TOTAL WEIGHT =  $3 \times 78 = 235 \text{ lb}$

| JT | TYPE   | PLATES | W   | LEN | Y    | X    |
|----|--------|--------|-----|-----|------|------|
| 1  | TMVW-t | MT20   | 4.0 | 6.0 | 1.50 | 3.00 |
| 2  | TMWW-t | MT20   | 4.0 | 4.0 | 1.75 | 1.00 |
| 3  | TS-t   | MT20   | 3.0 | 4.0 |      |      |
| 4  | TMWW-t | MT20   | 5.0 | 5.0 | 1.75 | 1.25 |

|      |          |        |        |          |       |
|------|----------|--------|--------|----------|-------|
| 9- 8 | 0 / 0    | -869.2 | -869.2 | 0.21 (1) | 10.00 |
| 8- 7 | 0 / 5366 | -869.2 | -869.2 | 0.27 (1) | 10.00 |
| 7- 6 | 0 / 3090 | -869.2 | -869.2 | 0.25 (1) | 10.00 |

JSI GRIP= 0.88 (8) (INPUT = 0.90 )  
JSI METAL= 0.54 (1) (INPUT = 1.00 )

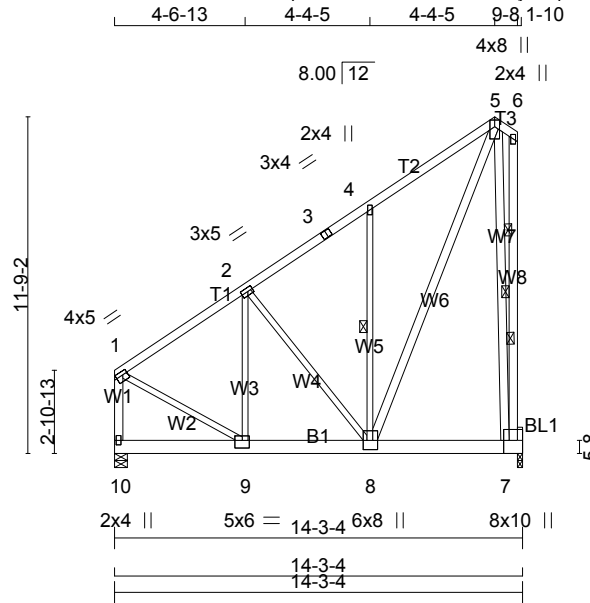


|            |            |          |     |             |                       |          |                     |
|------------|------------|----------|-----|-------------|-----------------------|----------|---------------------|
| JOB NAME   | TRUSS NAME | QUANTITY | PLY | JOB DESC.   | LECCO RIDGE-BLOCK 328 | DRWG NO. | ENG JOB: PT0317-054 |
| T-BLOCK328 | GIRD09     | 1        | 3   | TRUSS DESC. |                       |          |                     |

KOTT, Stouffville, ON, Alan Attwater

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Scale = 1:80.5

TOTAL WEIGHT = 3 X 106 = 319 lb

| LUMBER            |      |        |            |     |
|-------------------|------|--------|------------|-----|
| N. L. G. A. RULES |      |        |            |     |
| CHORDS            | SIZE | LUMBER | DESCR.     |     |
| 1 - 3             | 2x4  | DRY    | No.2       | SPF |
| 3 - 5             | 2x4  | DRY    | No.2       | SPF |
| 5 - 6             | 2x4  | DRY    | No.2       | SPF |
| 10 - 1            | 2x4  | DRY    | No.2       | SPF |
| 7 - 6             | 2x4  | DRY    | No.2       | SPF |
| 10 - 7            | 2x6  | DRY    | 2100F 1.8E | SPF |

| BEARING BLOCKS  |     |     |      |     |
|-----------------|-----|-----|------|-----|
| BL1             | 2x6 | DRY | No.2 | SPF |
| ALL WEBS EXCEPT |     |     |      |     |
| 8 - 5           | 2x4 | DRY | No.2 | SPF |
| 5 - 7           | 2x4 | DRY | No.2 | SPF |

DRY: SEASONED LUMBER.

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

| CHORDS #ROWS                             | SURFACE SPACING (IN) | LOAD (PLF)  |
|------------------------------------------|----------------------|-------------|
| TOP CHORDS : (0.122"x3") SPIRAL NAILS    |                      |             |
| 1-3                                      | 12                   | TOP         |
| 3-5                                      | 12                   | TOP         |
| 5-6                                      | 12                   | TOP         |
| 10-1                                     | 12                   | TOP         |
| 7-6                                      | 12                   | TOP         |
| BOTTOM CHORDS : (0.122"x3") SPIRAL NAILS |                      |             |
| 10-7                                     | 5                    | SIDE(517.7) |
| WEBS : (0.122"x3") SPIRAL NAILS          |                      |             |
| 2x3                                      | 6                    |             |
| 2x4                                      | 6                    |             |

STAGGER NAILS BY HALF THE SURFACE SPACING IN ADJACENT PLIES.

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.

PLATES (table is in inches)

| JT | TYPE   | PLATES | W   | LEN | Y    | X    |
|----|--------|--------|-----|-----|------|------|
| 1  | TMVW-t | MT20   | 4.0 | 5.0 | 1.50 | 2.00 |
| 2  | TMVW-t | MT20   | 3.0 | 5.0 | 1.50 | 2.00 |



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

| BEARINGS                |      |                                 |      |
|-------------------------|------|---------------------------------|------|
| FACTORED GROSS REACTION |      | MAXIMUM FACTORED GROSS REACTION |      |
| JT                      | VERT | HORZ                            | DOWN |
| 10                      | 5947 | 0                               | 5947 |
| 7                       | 5982 | 0                               | 5982 |

| UNFACTORED REACTIONS |           |          |           |           |       |          |       |
|----------------------|-----------|----------|-----------|-----------|-------|----------|-------|
| JT                   | 1ST LCASE | MAX/MIN  | COMPONENT | REACTIONS | DEAD  | SOIL     |       |
| 10                   | 4174      | 2920 / 0 | 0 / 0     | 0 / 0     | 0 / 0 | 1254 / 0 | 0 / 0 |
| 7                    | 4197      | 2940 / 0 | 0 / 0     | 0 / 0     | 0 / 0 | 1257 / 0 | 0 / 0 |

BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S) 10, 7

BRACING

TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 5.41 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.

- 1 - 1x4 LATERAL BRACE(S) AT 1/2 LENGTH OF 4-8, 6-7. DBS = 20-0-0. CBF = 43 LBS.
- 2 - 1x4 LATERAL BRACE(S) AT 1/3 LENGTH OF 5-7. DBS = 6-0-0. CBF = 164 LBS.

DBS = DIAGONAL BRACE SPACING (MAX). CBF = CUMULATIVE BRACING FORCE. FASTEN LATERAL BRACE(S) TO EACH PLY USING (0.122"x3") SPIRAL NAILS : 1 NAIL FOR 2x3 BRACE(S), 2 FOR 1x4, 2x4, 2x5, 3 FOR 2x6, 4 FOR 2x8, 5 FOR 2x10, AND 6 FOR 2x12.

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

LOADING

TOTAL LOAD CASES: (4)

| CHORDS |                           |                           |               | WEBS  |                           |               |          |
|--------|---------------------------|---------------------------|---------------|-------|---------------------------|---------------|----------|
| MEMB.  | MAX. FACTORED FORCE (LBS) | FACTORED VERT. LOAD (PLF) | MAX. CSI (LC) | MEMB. | MAX. FACTORED FORCE (LBS) | MAX. CSI (LC) |          |
| FR-TO  |                           | FROM TO                   |               | FR-TO |                           |               |          |
| 1-2    | -4224 / 0                 | -77.3 -77.3               | 0.10 (1)      | 5.41  | 9-2                       | 0 / 1906      | 0.14 (1) |
| 2-3    | -2827 / 0                 | -77.3 -77.3               | 0.08 (1)      | 6.25  | 2-8                       | -1910 / 0     | 0.59 (1) |
| 3-4    | -2827 / 0                 | -77.3 -77.3               | 0.08 (1)      | 6.25  | 8-4                       | -347 / 0      | 0.06 (1) |
| 4-5    | -2829 / 0                 | -77.3 -77.3               | 0.08 (1)      | 6.25  | 8-5                       | 0 / 6157      | 0.33 (1) |
| 5-6    | 0 / 1                     | -77.3 -77.3               | 0.00 (1)      | 10.00 | 1-9                       | 0 / 4020      | 0.30 (1) |
| 10-1   | -4426 / 0                 | 0.0 0.0                   | 0.21 (1)      | 6.74  | 5-7                       | -4369 / 0     | 0.43 (1) |
| 7-6    | -30 / 0                   | 0.0 0.0                   | 0.01 (1)      | 6.25  |                           |               |          |
| 10-9   | 0 / 0                     | -794.1 -794.1             | 0.18 (1)      | 10.00 |                           |               |          |
| 9-8    | 0 / 3528                  | -794.1 -794.1             | 0.22 (1)      | 10.00 |                           |               |          |
| 8-7    | 0 / 137                   | -794.1 -794.1             | 0.19 (1)      | 10.00 |                           |               |          |

DESIGN CRITERIA

SPECIFIED LOADS:  
TOP CH. LL = 23.3 PSF  
DL = 3.0 PSF  
BOT CH. LL = 0.0 PSF  
DL = 7.0 PSF  
TOTAL LOAD = 33.3 PSF

SPACING = 24.0 IN. C/C

GIRDER TYPE: CStd Girder  
START DISTANCE = 0-0  
START SPAN CARRIED = 35-2-8  
END DISTANCE = 14-3-4  
END SPAN CARRIED = 35-2-8  
END WALL WIDTH = 5-8  
APPLIED TO FRONT SIDE OF BOTTOM CHORD.  
- ADDTL LOADS BASED ON 55 % OF GSL.

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

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

(55 % OF 27.2 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 23.3 P.S.F. SPECIFIED ROOF LIVE LOAD

ALLOWABLE DEFL.(LL)= L/360 (0.46")  
CALCULATED VERT. DEFL.(LL)= L/999 (0.04")  
ALLOWABLE DEFL.(TL)= L/360 (0.46")  
CALCULATED VERT. DEFL.(TL)= L/999 (0.08")

CSI: TC=0.21 (1-10:1), BC=0.22 (8-9:1),  
WB=0.59 (2-8:1), SSI=0.43 (7-8:1)

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

COMPANION LIVE LOAD FACTOR = 0.50

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

NAIL VALUES  
PLATE GRIP(DRY) SHEAR SECTION  
(PSI) (PLI) (PLI)  
MAX MIN MAX MIN MAX MIN  
MT20 618 354 1667 822 2284 1656

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

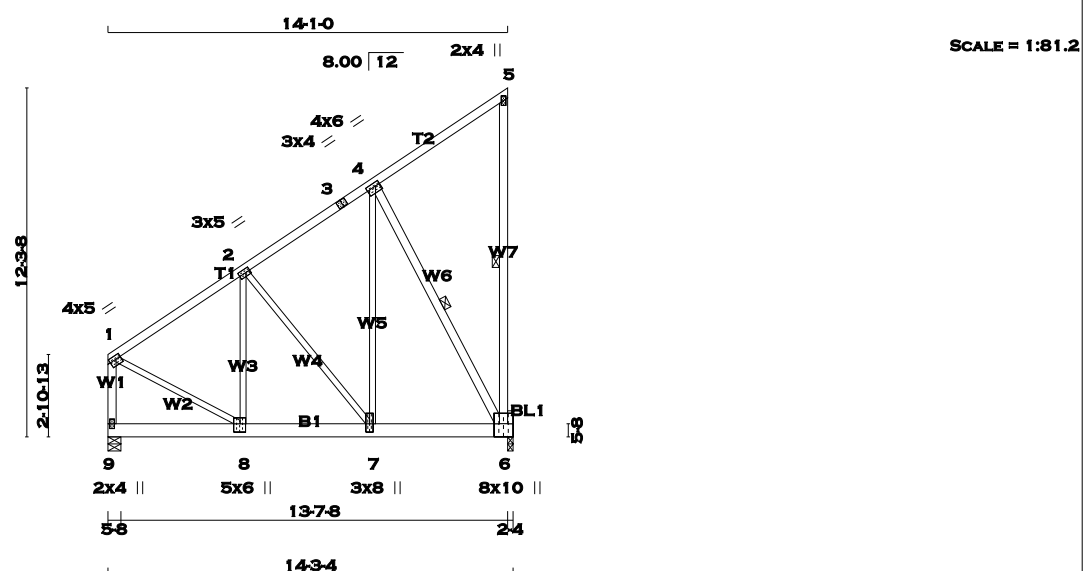
JSI GRIP= 0.90 (9) (INPUT = 0.90 )  
JSI METAL= 0.43 (1) (INPUT = 1.00 )

CONTINUED ON PAGE 2

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IS AN INTEGRAL PART OF THIS DRAWING AS IT  
CONTAINS SPECIFICATIONS AND CRITERIA USED  
IN THE DESIGN OF THIS COMPONENT.





TOTAL WEIGHT = 3 X 93 = 278 lb [M]

| LUMBER            |      |        |            |     |
|-------------------|------|--------|------------|-----|
| N. L. G. A. RULES |      |        |            |     |
| CHORDS            | SIZE | LUMBER | DESCR.     |     |
| 1 - 3             | 2x4  | DRY    | No.2       | SPF |
| 3 - 5             | 2x4  | DRY    | No.2       | SPF |
| 6 - 5             | 2x4  | DRY    | No.2       | SPF |
| 9 - 1             | 2x4  | DRY    | No.2       | SPF |
| 9 - 6             | 2x6  | DRY    | 2100F 1.8E | SPF |

| BEARING BLOCKS  |     |     |      |     |
|-----------------|-----|-----|------|-----|
| BL1             | 2x6 | DRY | No.2 | SPF |
| ALL WEBS EXCEPT |     |     |      |     |
| 4 - 6           | 2x4 | DRY | No.2 | SPF |

DRY: SEASONED LUMBER.

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

| CHORDS #ROWS                             | SURFACE SPACING (IN) | LOAD(PLF)   |
|------------------------------------------|----------------------|-------------|
| TOP CHORDS : (0.122"x3") SPIRAL NAILS    |                      |             |
| 1-3                                      | 12                   | TOP         |
| 3-5                                      | 12                   | TOP         |
| 5-6                                      | 12                   | TOP         |
| 9-1                                      | 12                   | TOP         |
| BOTTOM CHORDS : (0.122"x3") SPIRAL NAILS |                      |             |
| 9-6                                      | 5                    | SIDE(517.7) |
| WEBS : (0.122"x3") SPIRAL NAILS          |                      |             |
| 2x3                                      | 6                    |             |
| 2x4                                      | 6                    |             |

STAGGER NAILS BY HALF THE SURFACE SPACING IN ADJACENT PLIES.

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.

| PLATES (table is in inches) |        |        |     |     |      |      |
|-----------------------------|--------|--------|-----|-----|------|------|
| JT                          | TYPE   | PLATES | W   | LEN | Y    | X    |
| 1                           | TMVW-t | MT20   | 4.0 | 5.0 | 1.50 | 2.00 |
| 2                           | TMVW-t | MT20   | 3.0 | 5.0 | 1.50 | 1.75 |
| 3                           | TS-t   | MT20   | 3.0 | 4.0 |      |      |
| 4                           | TMVW-t | MT20   | 4.0 | 6.0 | 1.50 | 2.00 |

### 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      | IN-SX     |
| 6        |  | 6084                    | 0                               | 6084      | 0         |
| 9        |  | 6073                    | 0                               | 6073      | 0         |

| UNFACTORED REACTIONS |          |           |           |           |       |          |
|----------------------|----------|-----------|-----------|-----------|-------|----------|
| 1ST LCASE            | MAX/MIN. | COMPONENT | REACTIONS |           |       |          |
| JT                   | COMBINED | SNOW      | LIVE      | PERM.LIVE | WIND  | DEAD     |
| 6                    | 4270     | 2988 / 0  | 0 / 0     | 0 / 0     | 0 / 0 | 1281 / 0 |
| 9                    | 4262     | 2981 / 0  | 0 / 0     | 0 / 0     | 0 / 0 | 1281 / 0 |

BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S) 6, 9

**BRACING**  
TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 5.33 FT.  
MAX. UNBRACED BOTTOM CHORD LENGTH = 10.00 FT. OR RIGID CEILING DIRECTLY APPLIED.

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

1 - 2x3 SPF No.2 LATERAL BRACE(S) AT 1/2 LENGTH OF 5-6. DBS = 20-0-0 . CBF = 18 LBS.  
1 - 2x4 SPF No.2 LATERAL BRACE(S) AT 1/2 LENGTH OF 4-6. DBS = 6-0-0 . CBF = 187 LBS.

DBS = DIAGONAL BRACE SPACING (MAX). CBF = CUMULATIVE BRACING FORCE. FASTEN LATERAL BRACE(S) TO EACH PLY USING (0.122"x3") SPIRAL NAILS : 1 NAIL FOR 2x3 BRACE(S), 2 FOR 1x4, 2x4, 2x5, 3 FOR 2x6, 4 FOR 2x8, 5 FOR 2x10, AND 6 FOR 2x12.

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: (3)

| CHORDS |                           |                           |                  | WEBS               |       |                           |              |
|--------|---------------------------|---------------------------|------------------|--------------------|-------|---------------------------|--------------|
| MEMB.  | MAX. FACTORED FORCE (LBS) | FACTORED VERT. LOAD (PLF) | MAX LC1 CSI (LC) | MAX. UNBRAC LENGTH | MEMB. | MAX. FACTORED FORCE (LBS) | MAX CSI (LC) |
| FR-TO  |                           | FROM TO                   |                  |                    | FR-TO |                           |              |
| 1-2    | -4363 / 0                 | -77.3 -77.3               | 0.12 (1)         | 5.33               | 8-2   | 0 / 2132                  | 0.16 (1)     |
| 2-3    | -2796 / 0                 | -77.3 -77.3               | 0.10 (1)         | 6.25               | 2-7   | -2085 / 0                 | 0.70 (1)     |
| 3-4    | -2796 / 0                 | -77.3 -77.3               | 0.10 (1)         | 6.25               | 7-4   | 0 / 5547                  | 0.42 (1)     |
| 4-5    | -20 / 0                   | -77.3 -77.3               | 0.08 (1)         | 6.25               | 4-6   | -4988 / 0                 | 0.82 (1)     |
| 6-5    | -146 / 0                  | 0.0 0.0                   | 0.04 (1)         | 6.25               | 1-8   | 0 / 4110                  | 0.31 (1)     |
| 9-1    | -4497 / 0                 | 0.0 0.0                   | 0.22 (1)         | 6.70               |       |                           |              |
| 9-8    | 0 / 0                     | -794.1 -794.1             | 0.19 (1)         | 10.00              |       |                           |              |
| 8-7    | 0 / 3641                  | -794.1 -794.1             | 0.24 (1)         | 10.00              |       |                           |              |
| 7-6    | 0 / 2335                  | -794.1 -794.1             | 0.22 (1)         | 10.00              |       |                           |              |

### DESIGN CRITERIA

SPECIFIED LOADS:  
TOP CH. LL = 23.3 PSF  
DL = 3.0 PSF  
BOT CH. LL = 0.0 PSF  
DL = 7.0 PSF  
TOTAL LOAD = 33.3 PSF

SPACING = 24.0 IN./C

GIRDER TYPE: CStdGirder  
START DISTANCE = 0-0  
START SPAN CARRIED = 35-2-8  
END DISTANCE = 14-3-4  
END SPAN CARRIED = 35-2-8  
END WALL WIDTH = 5-8  
APPLIED TO FRONT SIDE OF BOTTOM CHORD.  
- ADDTL LOADS BASED ON 55 % OF GSL.

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

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

(55 % OF 27.2 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 23.3 P.S.F. SPECIFIED ROOF LIVE LOAD

ALLOWABLE DEFL.(LL)= L/360 (0.46")  
CALCULATED VERT. DEFL.(LL) = L/ 999 (0.04")  
ALLOWABLE DEFL.(TL)= L/360 (0.46")  
CALCULATED VERT. DEFL.(TL) = L/ 999 (0.07")

CSI: TC=0.22 (1-9:1) , BC=0.24 (7-8:1) , WB=0.82 (4-6:1) , SSI=0.44 (8-9:1)

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

COMPANION LIVE LOAD FACTOR = 0.50

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

| NAIL VALUES |           |         |                    |
|-------------|-----------|---------|--------------------|
| PLATE       | GRIP(DRY) | SHEAR   | SECTION            |
| (PSI)       | (PLI)     | (PLI)   |                    |
| MAX MIN     | MAX MIN   | MAX MIN |                    |
| MT20        | 618       | 354     | 1667 822 2284 1656 |

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.89 (4) (INPUT = 0.90 )  
JSI METAL= 0.45 (1) (INPUT = 1.00 )



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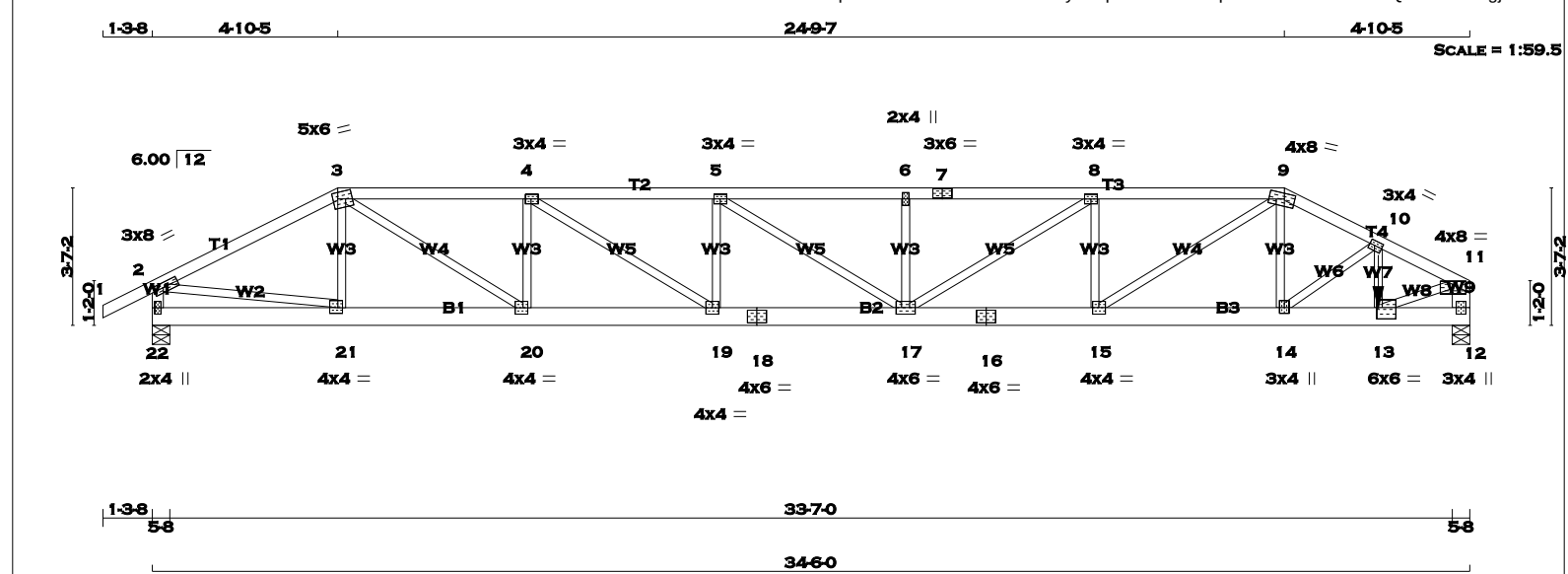
1) SPECIAL HANGER(S) OR CONNECTION(S) REQUIRED TO SUPPORT CONCENTRATED LOAD(S) 113.7 lbs FACTORED DOWN AT 11-9-4, AND 143.5 lbs FACTORED DOWN AT 2-9-12 ON TOP CHORD. DESIGN FOR UNSPECIFIED CONNECTION(S) IS DELEGATED TO THE BUILDING DESIGNER.

| C H O R D S |                           |                           |                  |                    | W E B S |                           |              |  |  |
|-------------|---------------------------|---------------------------|------------------|--------------------|---------|---------------------------|--------------|--|--|
| MEMB.       | MAX. FACTORED FORCE (LBS) | FACTORED VERT. LOAD (PLF) | LC1 MAX CSI (LC) | MAX. UNBRAC LENGTH | MEMB.   | MAX. FACTORED FORCE (LBS) | MAX CSI (LC) |  |  |
| FR-TO       |                           | FROM TO                   |                  |                    | FR-TO   |                           |              |  |  |
| 1-2         | 0 / 25                    | -77.3                     | -77.3 0.11 (1)   | 10.00              | 10-3    | -239 / 33                 | 0.04 (1)     |  |  |
| 2-3         | -1353 / 0                 | -77.3                     | -77.3 0.14 (1)   | 5.40               | 3-9     | 0 / 809                   | 0.20 (1)     |  |  |
| 3-4         | -1888 / 0                 | -139.4                    | -139.4 0.56 (1)  | 4.13               | 9-4     | -757 / 0                  | 0.14 (1)     |  |  |
| 4-5         | -1888 / 0                 | -139.4                    | -139.4 0.56 (1)  | 4.13               | 9-5     | 0 / 1033                  | 0.26 (1)     |  |  |
| 5-6         | -1138 / 0                 | -77.3                     | -77.3 0.09 (1)   | 5.84               | 8-5     | -396 / 0                  | 0.07 (1)     |  |  |
| 11-2        | -1235 / 0                 | 0.0                       | 0.0 0.14 (1)     | 7.19               | 2-10    | 0 / 1245                  | 0.31 (1)     |  |  |
| 7-6         | -1159 / 0                 | 0.0                       | 0.0 0.13 (1)     | 7.37               | 8-6     | 0 / 1129                  | 0.28 (1)     |  |  |
| 11-10       | 0 / 0                     | -31.5                     | -31.5 0.11 (3)   | 10.00              |         |                           |              |  |  |
| 10-9        | 0 / 1178                  | -31.5                     | -31.5 0.27 (1)   | 10.00              |         |                           |              |  |  |
| 9-8         | 0 / 982                   | -31.5                     | -31.5 0.24 (1)   | 10.00              |         |                           |              |  |  |
| 8-7         | 0 / 0                     | -31.5                     | -31.5 0.10 (3)   | 10.00              |         |                           |              |  |  |

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IN THE DESIGN OF THIS COMPONENT.**

JSI GRIP= 0.89 (3) (INPUT = 0.90 )  
JSI METAL= 0.44 (2) (INPUT = 1.00 )



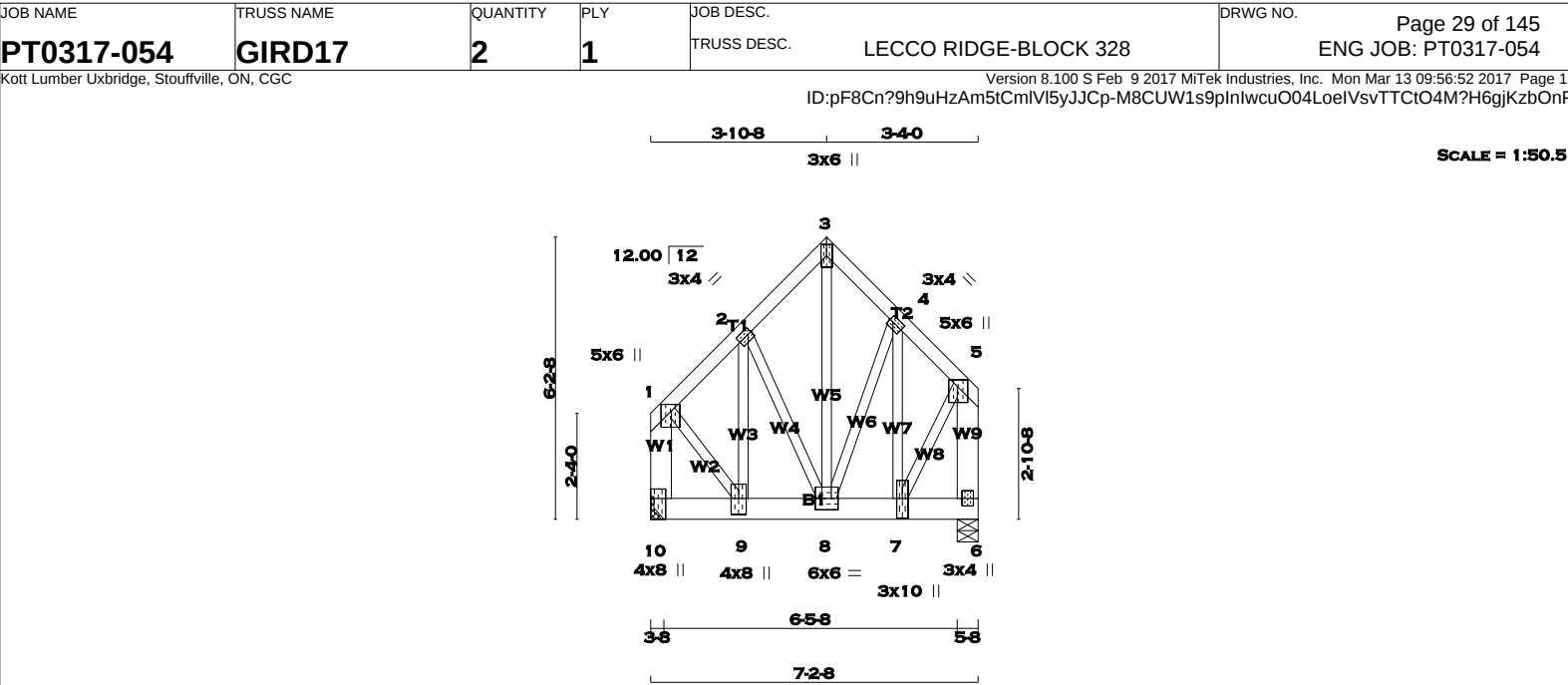


|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |  |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |  |  |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|--|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|--|
| <b>LUMBER</b><br>N. L. G. A. RULES<br>CHORDS SIZE LUMBER DESCR.<br>1 - 3 2x4 DRY No.2 SPF<br>3 - 7 2x4 DRY No.2 SPF<br>7 - 9 2x4 DRY No.2 SPF<br>9 - 11 2x4 DRY No.2 SPF<br>22 - 2 2x4 DRY No.2 SPF<br>12 - 11 2x6 DRY No.2 SPF<br>22 - 18 2x6 DRY No.2 SPF<br>18 - 16 2x6 DRY No.2 SPF<br>16 - 12 2x6 DRY No.2 SPF<br><br>ALL WEBS 2x3 DRY No.2 SPF<br>EXCEPT<br><br>DRY: SEASONED LUMBER.<br><br>DESIGN CONSISTS OF <u>2</u> TRUSSES BUILT SEPARATELY THEN FASTENED TOGETHER AS FOLLOWS:<br><br>CHORDS #ROWS SURFACE SPACING (IN) LOAD(PLF)<br>TOP CHORDS : (0.122"x3") SPIRAL NAILS<br>1-3 1 12 TOP<br>3-7 1 12 TOP<br>7-9 1 12 TOP<br>9-11 1 12 TOP<br>22-2 1 12 TOP<br>12-11 2 12 TOP<br>BOTTOM CHORDS : (0.122"x3") SPIRAL NAILS<br>22-18 2 12 TOP<br>18-16 2 12 TOP<br>16-12 2 12 SIDE(56.3)<br>WEBS : (0.122"x3") SPIRAL NAILS<br>2x3 1 6<br><br>NAILS TO BE DRIVEN FROM ONE SIDE ONLY.<br><br>GIRDER NAILING ASSUMES NAILED HANGERS ARE FASTENED WITH MIN. 3-0 INCH NAILS.<br><br>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.<br><br>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. |  |  | <b>DIMENSIONS, SUPPORTS AND LOADINGS SPECIFIED BY FABRICATOR TO BE VERIFIED BY BUILDING DESIGNER</b><br><b>BEARINGS</b><br>FACTORED GROSS REACTION MAXIMUM FACTORED GROSS REACTION INPUT REQRD<br>JT VERT HORZ DOWN HORZ UPLIFT IN-SX IN-SX<br>22 1950 0 1950 0 0 5-8 5-8<br>12 4567 0 4567 0 0 5-8 5-8<br><br><b>UNFACTORED REACTIONS</b><br>1ST LCASE MAX/MIN. COMPONENT REACTIONS<br>JT COMBINED SNOW LIVE PERM.LIVE WIND DEAD SOIL<br>22 1366 969 / 0 0 / 0 0 / 0 397 / 0 0 / 0<br>12 3205 2242 / 0 0 / 0 0 / 0 0 / 0 963 / 0 0 / 0<br><br>BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S) 22, 12<br><br><b>BRACING</b><br>TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 3.92 FT.<br>MAX. UNBRACED BOTTOM CHORD LENGTH = 10.00 FT. OR RIGID CEILING DIRECTLY APPLIED.<br><br>ALL PITCH BREAKS AND PERIMETER CORNER JOINTS MUST BE LATERALLY RESTRAINED.<br><br><b>LOADING</b><br>TOTAL LOAD CASES: (3)<br><br>CHORDS MAX. FACTORED FORCE (LBS) FACTORED VERT. LOAD (PLF) LC1 MAX. UNBRAC LENGTH FR-TO TO<br>1-2 0 / 23 -77.3 -77.3 0.06 (1) 10.00 21-3 -283 / 0 0.03 (1)<br>2-3 -2749 / 0 -77.3 -77.3 0.22 (1) 5.29 3-20 0 / 2141 0.26 (1)<br>3-4 -4244 / 0 -77.3 -77.3 0.23 (1) 4.46 20-4 -1090 / 0 0.12 (1)<br>4-5 -5274 / 0 -77.3 -77.3 0.28 (1) 4.03 4-19 0 / 1228 0.15 (1)<br>5-6 -5579 / 0 -77.3 -77.3 0.26 (1) 3.96 19-5 -575 / 0 0.06 (1)<br>6-7 -5579 / 0 -77.3 -77.3 0.29 (1) 3.92 5-17 0 / 364 0.05 (1)<br>7-8 -5579 / 0 -77.3 -77.3 0.29 (1) 3.92 17-6 -370 / 0 0.04 (1)<br>8-9 -5199 / 0 -77.3 -77.3 0.27 (1) 4.06 17-8 0 / 453 0.06 (1)<br>9-10 -4531 / 0 -77.3 -77.3 0.13 (1) 4.41 15-8 -667 / 0 0.07 (1)<br>10-11 -5591 / 0 -77.3 -77.3 0.16 (1) 4.00 15-9 0 / 1323 0.16 (1)<br>22-2 -1909 / 0 0.0 0.0 0.11 (1) 7.81 14-9 0 / 1043 0.13 (1)<br>12-11 -4223 / 0 0.0 0.0 0.15 (1) 6.96 13-10 -1182 / 0 0.13 (1)<br>22-21 0 / 0 -17.5 -17.5 0.02 (3) 10.00 13-11 0 / 1027 0.13 (1)<br>21-20 0 / 2447 -17.5 -17.5 0.19 (1) 10.00 2-21 0 / 2486 0.31 (1)<br>20-19 0 / 4244 -17.5 -17.5 0.31 (1) 10.00 13-11 0 / 5247 0.65 (1)<br>19-18 0 / 5274 -17.5 -17.5 0.39 (1) 10.00<br>18-17 0 / 5274 -17.5 -17.5 0.39 (1) 10.00<br>17-16 0 / 5199 -17.5 -17.5 0.39 (1) 10.00<br>16-15 0 / 5199 -17.5 -17.5 0.39 (1) 10.00<br>15-14 0 / 4089 -17.5 -17.5 0.31 (1) 10.00<br>14-13 0 / 4993 -17.5 -17.5 0.49 (1) 10.00<br>13-12 0 / 0 -130.1 -130.1 0.17 (1) 10.00<br><br>FACTORED CONCENTRATED LOADS (LBS)<br>JT LOC. LC1 MAX- MAX+ FACE DIR. TYPE<br>13 32-1-4 -2870 -2870 --- FRONT VERT TOTAL<br><br><b>DESIGN CRITERIA</b><br><br>*** SPECIAL LOADS ANALYSIS ***<br>GEOMETRY AND/OR BASIC LOADS CHANGED BY USER.<br>LOADS WERE DERIVED FROM USER INPUT<br>NO FURTHER MODIFICATIONS WERE MADE<br><br>SPECIFIED LOADS:<br>TOP CH. LL = 23.3 PSF<br>DL = 3.0 PSF<br>BOT CH. LL = 0.0 PSF<br>DL = 7.0 PSF<br>TOTAL LOAD = 33.3 PSF<br><br><b>SPACING = 24.0 IN. C/C</b><br><br>LOADING IN FLAT SECTION BASED ON A SLOPE OF 6.00/12<br><br>GIRDER TYPE: CStdGirder<br>START DISTANCE = 32-1-4<br>START SPAN CARRIED = 7-2-8<br>END DISTANCE = 34-6-0<br>END SPAN CARRIED = 7-2-8<br>END WALL WIDTH = 5-8<br>APPLIED TO FRONT SIDE OF BOTTOM CHORD.<br>- ADDT'L LOADS BASED ON 55 % OF GSL.<br><br>*** NON STANDARD GIRDER ***<br>ADDT'L USER-DEFINED LOADS APPLIED TO ALL LOAD CASES.<br><br>THIS TRUSS IS DESIGNED FOR RESIDENTIAL OR SMALL BUILDING REQUIREMENTS OF PART 9, NBCC 2010<br><br>THIS DESIGN COMPLIES WITH:<br>- PART 9 OF OBC 2012, BCBC 2012, ABC 2014<br>- CSA 086-09<br>- TPIC 2011<br><br>(55 % OF 27.2 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 23.3 P.S.F. SPECIFIED ROOF LIVE LOAD<br><br>ALLOWABLE DEFL.(LL)= L/360 (1.15")<br>CALCULATED VERT. DEFL.(LL) = L/999 (0.19")<br>ALLOWABLE DEFL.(TL)= L/360 (1.15")<br>CALCULATED VERT. DEFL.(TL) = L/999 (0.34")<br><br>CSI: TC=0.29 (6-8:1), BC=0.49 (13-14:1), WB=0.65 (11-13:1), SSI=0.11 (12-13:1)<br><br>DOL LUMBER=1.00 NAIL=1.00 LS BEND=1.00 COMP=1.00 SHEAR=1.00 TENS=1.00<br><br>COMPANION LIVE LOAD FACTOR = 0.50<br><br>TRUSS PLATE MANUFACTURER IS NOT RESPONSIBLE FOR QUALITY CONTROL IN THE TRUSS MANUFACTURING PLANT .<br><br>NAIL VALUES<br>PLATE GRIP(DRY) SHEAR SECTION (PSI) (PLI) (PLI)<br>MAX MIN MAX MIN MAX MIN<br>MT20 618 354 1667 822 2284 1656<br><br>PLATE PLACEMENT TOL. = 0.250 inches<br><br>PLATE ROTATION TOL. = 5.0 Deg.<br><br>JSI GRIP= 0.90 (PSI) / (PLI) = 90 (PSI) / (PLI)<br>JSI METAL= 0.02 (IN) / (IN) = 1.00 (IN) / (IN)<br><br>KOTT<br>CONTINUED ON PAGE 2 |  |  |
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**LUMBER**  
N. L. G. A. RULES  
CHORDS SIZE LUMBER DESCR.

|        |     |     |      |     |
|--------|-----|-----|------|-----|
| 1 - 3  | 2x4 | DRY | No.2 | SPF |
| 3 - 5  | 2x4 | DRY | No.2 | SPF |
| 10 - 1 | 2x6 | DRY | No.2 | SPF |
| 6 - 5  | 2x6 | DRY | No.2 | SPF |
| 10 - 6 | 2x6 | DRY | No.2 | SPF |

ALL WEBS 2x3 DRY No.2 SPF  
EXCEPT

DRY: SEASONED LUMBER.

**PLATES (table is in inches)**

| JT | TYPE   | PLATES | W   | LEN  | Y    | X    |
|----|--------|--------|-----|------|------|------|
| 1  | TMVW+p | MT20   | 5.0 | 6.0  | 1.75 | 2.75 |
| 2  | TMVW-t | MT20   | 3.0 | 4.0  | 1.50 | 1.00 |
| 3  | TTW+p  | MT20   | 3.0 | 6.0  |      |      |
| 4  | TMVW-t | MT20   | 3.0 | 4.0  | 1.50 | 1.00 |
| 5  | TMVW+p | MT20   | 5.0 | 6.0  | 1.75 | 2.75 |
| 6  | BMV1+p | MT20   | 3.0 | 4.0  |      |      |
| 7  | BMVW+t | MT20   | 3.0 | 10.0 | 5.25 | 1.50 |
| 8  | BMVW-t | MT20   | 6.0 | 6.0  |      |      |
| 9  | BMVW+t | MT20   | 4.0 | 8.0  | 4.25 | 2.00 |
| 10 | BMV1+t | MT20   | 4.0 | 8.0  | 5.50 |      |

A SIZE FOR SIZE SUBSTITUTION OF MITEK MII20 WITH TEE-LOK TL20 PLATES IS ALLOWED.



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

**BEARINGS**

| JT | FACTORED GROSS REACTION | MAXIMUM FACTORED GROSS REACTION | INPUT BRG | REQRD BRG |
|----|-------------------------|---------------------------------|-----------|-----------|
|    | VERT                    | HORZ                            | DOWN      | UP        |
| 10 | 2870                    | 0                               | 2870      | 0         |
| 6  | 2870                    | 0                               | 2870      | 0         |

**UNFACTORED REACTIONS**

| JT | 1ST LCASE | MAX./MIN. SNOW | LIVE  | PERM.LIVE | WIND  | DEAD    | SOIL  |
|----|-----------|----------------|-------|-----------|-------|---------|-------|
| 10 | 2014      | 1409 / 0       | 0 / 0 | 0 / 0     | 0 / 0 | 605 / 0 | 0 / 0 |
| 6  | 2014      | 1409 / 0       | 0 / 0 | 0 / 0     | 0 / 0 | 605 / 0 | 0 / 0 |

BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S) 6

**BRACING**  
TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 5.17 FT.  
MAX. UNBRACED BOTTOM CHORD LENGTH = 10.00 FT. OR RIGID CEILING DIRECTLY APPLIED.

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

**LOADING**  
TOTAL LOAD CASES: (3)

| MEMB. | CHORDS MAX. FACTORED FORCE (LBS) | FACTORED VERT. LOAD (PLF) | MAX. LC1 (LC) | MAX. UNBRACED LENGTH | MEMB. | CHORDS MAX. FACTORED FORCE (LBS) | MAX. LC1 (LC) |
|-------|----------------------------------|---------------------------|---------------|----------------------|-------|----------------------------------|---------------|
|-------|----------------------------------|---------------------------|---------------|----------------------|-------|----------------------------------|---------------|

| CHORDS |                           |                           |                   |                      | WEBS  |                           |                   |  |
|--------|---------------------------|---------------------------|-------------------|----------------------|-------|---------------------------|-------------------|--|
| MEMB.  | MAX. FACTORED FORCE (LBS) | FACTORED VERT. LOAD (PLF) | LC1 MAX. CSI (LC) | MAX. UNBRACED LENGTH | MEMB. | MAX. FACTORED FORCE (LBS) | MAX. CSI (LC)     |  |
| FR-TO  |                           | FROM TO                   |                   |                      | FR-TO |                           |                   |  |
| 1-2    | -1553 / 0                 | -77.3                     | -77.3             | 0.10 (1)             | 5.17  | 9-2                       | 0 / 440 0.11 (1)  |  |
| 2-3    | -1285 / 0                 | -77.3                     | -77.3             | 0.08 (1)             | 5.59  | 2-8                       | -436 / 0 0.14 (1) |  |
| 3-4    | -1275 / 0                 | -77.3                     | -77.3             | 0.08 (1)             | 5.60  | 8-3                       | 0 / 1666 0.41 (1) |  |
| 4-5    | -1316 / 0                 | -77.3                     | -77.3             | 0.09 (1)             | 5.52  | 8-4                       | -31 / 0 0.01 (1)  |  |
| 10-1   | -2197 / 0                 | 0.0                       | 0.0               | 0.19 (1)             | 6.85  | 7-4                       | -52 / 8 0.02 (1)  |  |
| 6-5    | -2278 / 0                 | 0.0                       | 0.0               | 0.24 (1)             | 6.75  | 1-9                       | 0 / 1495 0.37 (1) |  |
|        |                           |                           |                   |                      |       | 7-5                       | 0 / 1570 0.39 (1) |  |
| 10-9   | 0 / 0                     | -719.0                    | -719.0            | 0.23 (1)             | 10.00 |                           |                   |  |
| 9-8    | 0 / 1095                  | -719.0                    | -719.0            | 0.28 (1)             | 10.00 |                           |                   |  |
| 8-7    | 0 / 922                   | -719.0                    | -719.0            | 0.21 (1)             | 10.00 |                           |                   |  |
| 7-6    | 0 / 0                     | -719.0                    | -719.0            | 0.18 (1)             | 10.00 |                           |                   |  |

**DESIGN CRITERIA**

SPECIFIED LOADS:

|            |    |   |      |     |
|------------|----|---|------|-----|
| TOP CH.    | LL | = | 23.3 | PSF |
|            | DL | = | 3.0  | PSF |
| BOT CH.    | LL | = | 0.0  | PSF |
|            | DL | = | 7.0  | PSF |
| TOTAL LOAD |    | = | 33.3 | PSF |

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

GIRDER TYPE: CStdGirder  
START DISTANCE = 0-0  
START SPAN CARRIED = 32-0-8  
END DISTANCE = 7-2-8  
END SPAN CARRIED = 32-0-8  
END WALL WIDTH = 5-8  
APPLIED TO FRONT SIDE OF BOTTOM CHORD.  
- ADDTL LOADS BASED ON 55 % OF GSL.

THIS TRUSS IS DESIGNED FOR RESIDENTIAL OR SMALL BUILDING REQUIREMENTS OF PART 9, NBC2010

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

(55 % OF 27.2 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 23.3 P.S.F. SPECIFIED ROOF LIVE LOAD

ALLOWABLE DEFL.(LL)= L/360 (0.24")  
CALCULATED VERT. DEFL.(LL) = L/999 (0.02")  
ALLOWABLE DEFL.(TL)= L/360 (0.24")  
CALCULATED VERT. DEFL.(TL) = L/999 (0.03")

CSI: TC=0.24 (5-6:1), BC=0.28 (8-9:1), WB=0.41 (3-8:1), SSI=0.53 (9-10:1)

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

COMPANION LIVE LOAD FACTOR = 0.50

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

**NAIL VALUES**

| PLATE | GRIP(DRY) | SHEAR | SECTION |
|-------|-----------|-------|---------|
|       | (PSI)     | (PLI) | (PLI)   |
|       | MAX       | MIN   | MAX     |
| MT20  | 618       | 354   | 1667    |
|       | 822       | 2284  | 1656    |

PLATE PLACEMENT TOL. = 0.250 inches

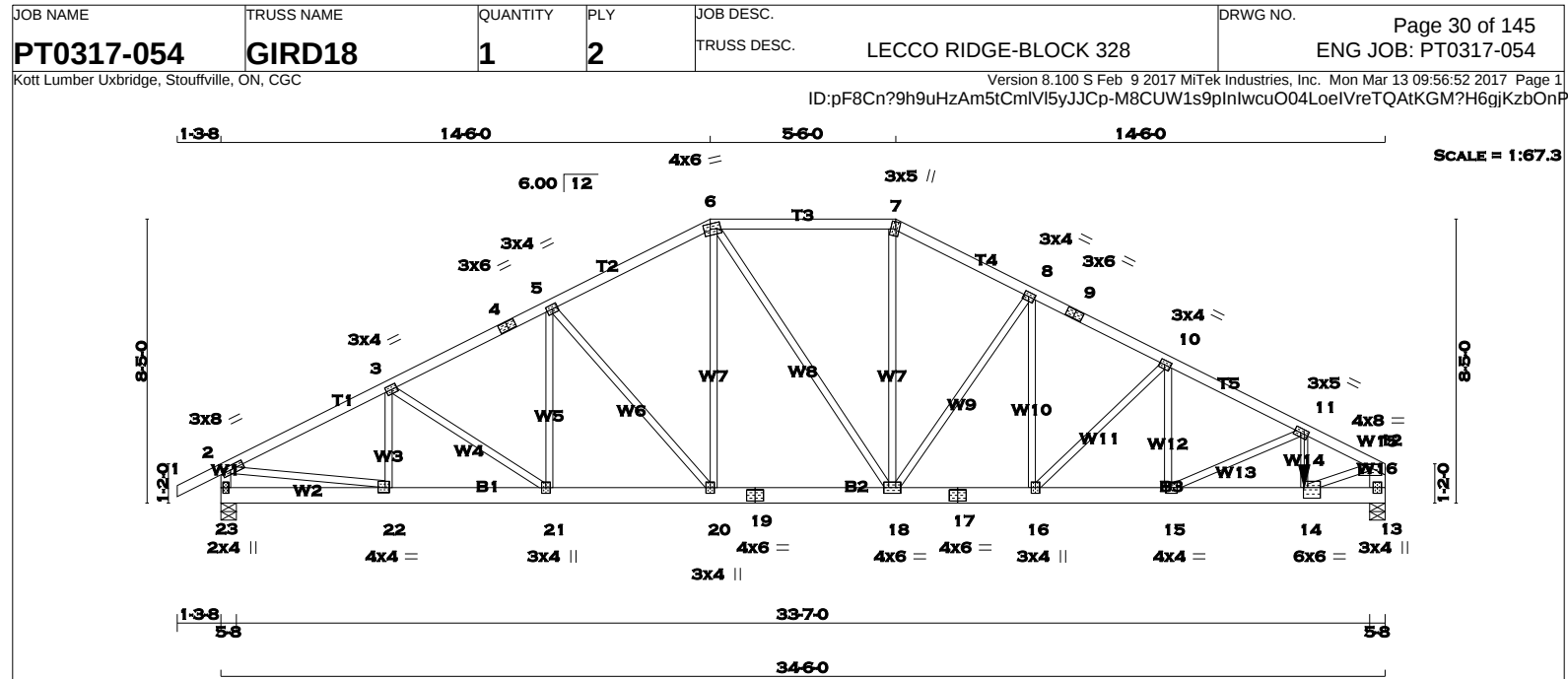
PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.90 (7) (INPUT = 0.90 )  
JSI METAL= 0.41 (8) (INPUT = 1.00 )

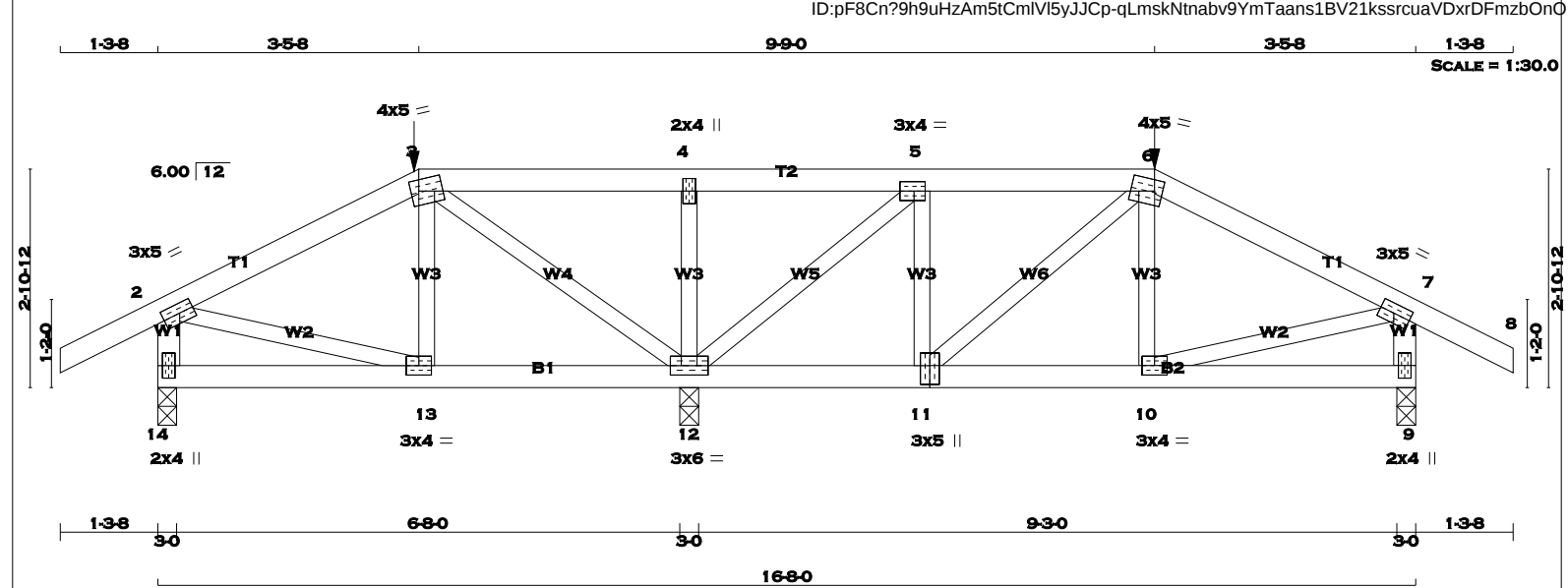
RECEIVED  
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MAR 29, 2017  
17-4990  
BUILDING DIVISION

READ ALL NOTES ON THIS PAGE AND ON THE ENGINEERING NOTE PAGE ENP-1. THE NOTE PAGE IS AN INTEGRAL PART OF THIS DRAWING AS IT CONTAINS SPECIFICATIONS AND CRITERIA USED IN THE DESIGN OF THIS COMPONENT.





|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        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| <b>LUMBER</b><br>N. L. G. A. RULES<br>CHORDS SIZE LUMBER DESCR.<br>1 - 4 2x4 DRY No.2 SPF<br>4 - 6 2x4 DRY No.2 SPF<br>6 - 7 2x4 DRY No.2 SPF<br>7 - 9 2x4 DRY No.2 SPF<br>9 - 12 2x4 DRY No.2 SPF<br>23 - 2 2x4 DRY No.2 SPF<br>13 - 12 2x6 DRY No.2 SPF<br>23 - 19 2x6 DRY No.2 SPF<br>19 - 17 2x6 DRY No.2 SPF<br>17 - 13 2x6 DRY No.2 SPF<br><br>ALL WEBS 2x3 DRY No.2 SPF<br>EXCEPT<br><br>DRY: SEASONED LUMBER.<br><br>DESIGN CONSISTS OF 2 TRUSSES BUILT SEPARATELY THEN FASTENED TOGETHER AS FOLLOWS:<br><br>CHORDS #ROWS SURFACE SPACING (IN) LOAD(PLF)<br>TOP CHORDS : (0.122"x3") SPIRAL NAILS<br>1-4 1 12 TOP<br>4-6 1 12 TOP<br>6-7 1 12 TOP<br>7-9 1 12 TOP<br>9-12 1 12 TOP<br>23-2 1 12 TOP<br>13-12 2 12 TOP<br>BOTTOM CHORDS : (0.122"x3") SPIRAL NAILS<br>23-19 2 12 TOP<br>19-17 2 12 TOP<br>17-13 2 12 SIDE(56.3)<br>WEBS : (0.122"x3") SPIRAL NAILS<br>2x3 1 6<br><br>NAILS TO BE DRIVEN FROM ONE SIDE ONLY.<br><br>GIRDER NAILING ASSUMES NAILED HANGERS ARE FASTENED WITH MIN. 3-0 INCH NAILS.<br><br>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.<br><br>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. |  |  | <b>DIMENSIONS, SUPPORTS AND LOADINGS SPECIFIED BY FABRICATOR TO BE VERIFIED BY BUILDING DESIGNER</b><br><b>BEARINGS</b><br>FACTORED GROSS REACTION MAXIMUM FACTORED GROSS REACTION INPUT REQRD<br>JT VERT HORZ DOWN HORZ UPLIFT IN-SX IN-SX<br>23 1950 0 1950 0 0 5-8 5-8<br>13 4567 0 4567 0 0 5-8 5-8<br><br><b>UNFACTORED REACTIONS</b><br>1ST LCASE MAX./MIN. COMPONENT REACTIONS<br>JT COMBINED SNOW LIVE PERM.LIVE WIND DEAD SOIL<br>23 1366 969 / 0 0 / 0 0 / 0 397 / 0 0 / 0<br>13 3205 2242 / 0 0 / 0 0 / 0 963 / 0 0 / 0<br><br>BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S) 23, 13<br><br><b>BRACING</b><br>TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 4.00 FT.<br>MAX. UNBRACED BOTTOM CHORD LENGTH = 10.00 FT. OR RIGID CEILING DIRECTLY APPLIED.<br><br>ALL PITCH BREAKS AND PERIMETER CORNER JOINTS MUST BE Laterally RESTRAINED.<br><br><b>LOADING</b><br>TOTAL LOAD CASES: (3)<br><br>CHORDS MAX. FACTORED FORCE (LBS) FACTORED VERT. LOAD LC1 MAX. (PLF) WEB S MAX. FACTORED FORCE (LBS) MAX. (PLF)<br>FR-TO FROM TO LENGTH FR-TO<br>1-2 0 / 23 -77.3 -77.3 0.06 (1) 10.00 22-3 -328 / 0 0.04 (1)<br>2-3 -2763 / 0 -77.3 -77.3 0.17 (1) 5.35 3-21 -82 / 0 0.02 (1)<br>3-4 -2702 / 0 -77.3 -77.3 0.17 (1) 5.39 21-5 0 / 141 0.02 (3)<br>4-5 -2702 / 0 -77.3 -77.3 0.17 (1) 5.39 5-20 -507 / 0 0.28 (1)<br>5-6 -2350 / 0 -77.3 -77.3 0.16 (1) 5.69 20-6 0 / 469 0.06 (1)<br>6-7 -2237 / 0 -77.3 -77.3 0.26 (1) 5.66 6-18 0 / 260 0.03 (1)<br>7-8 -2505 / 0 -77.3 -77.3 0.12 (1) 5.60 18-7 0 / 779 0.10 (1)<br>8-9 -3165 / 0 -77.3 -77.3 0.13 (1) 5.11 18-8 -1065 / 0 0.54 (1)<br>9-10 -3165 / 0 -77.3 -77.3 0.13 (1) 5.11 16-8 0 / 832 0.10 (1)<br>10-11 -4072 / 0 -77.3 -77.3 0.16 (1) 4.60 16-10 -1157 / 0 0.32 (1)<br>11-12 -5645 / 0 -77.3 -77.3 0.15 (1) 4.00 15-10 0 / 886 0.11 (1)<br>23-2 -1894 / 0 0.0 0.0 0.10 (1) 7.81 15-11 -1552 / 0 0.27 (1)<br>13-12 -4251 / 0 0.0 0.0 0.15 (1) 6.94 14-11 0 / 1161 0.14 (1)<br>2-22 0 / 0 -17.5 -17.5 0.03 (1) 10.00 2-22 0 / 2515 0.31 (1)<br>22-21 0 / 2485 -17.5 -17.5 0.19 (1) 10.00 14-12 0 / 5306 0.66 (1)<br>21-20 0 / 2417 -17.5 -17.5 0.17 (1) 10.00<br>20-19 0 / 2092 -17.5 -17.5 0.16 (1) 10.00<br>19-18 0 / 2092 -17.5 -17.5 0.16 (1) 10.00<br>18-17 0 / 2831 -17.5 -17.5 0.21 (1) 10.00<br>17-16 0 / 2831 -17.5 -17.5 0.21 (1) 10.00<br>16-15 0 / 3654 -17.5 -17.5 0.26 (1) 10.00<br>15-14 0 / 5048 -17.5 -17.5 0.47 (1) 10.00<br>14-13 0 / 0 -130.1 -130.1 0.14 (1) 10.00<br><br>FACTORED CONCENTRATED LOADS (LBS)<br>JT LOC. LC1 MAX- MAX+ FACE DIR. TYPE<br>14 32-1-4 -2870 -2870 --- FRONT VERT TOTAL<br><br><b>DESIGN CRITERIA</b><br><br>*** SPECIAL LOADS ANALYSIS ***<br>GEOMETRY AND/OR BASIC LOADS CHANGED BY USER.<br>LOADS WERE DERIVED FROM USER INPUT NO FURTHER MODIFICATIONS WERE MADE<br><br>SPECIFIED LOADS:<br>TOP CH. LL = 23.3 PSF<br>DL = 3.0 PSF<br>BOT CH. LL = 0.0 PSF<br>DL = 7.0 PSF<br>TOTAL LOAD = 33.3 PSF<br><br><b>SPACING = 24.0 IN. C/C</b><br><br>LOADING IN FLAT SECTION BASED ON A SLOPE OF 6.00/12<br><br>GIRDER TYPE: CStdGirder<br>START DISTANCE = 32-1-4<br>START SPAN CARRIED = 7-2-8<br>END DISTANCE = 34-6-0<br>END SPAN CARRIED = 7-2-8<br>END WALL WIDTH = 5-8<br>APPLIED TO FRONT SIDE OF BOTTOM CHORD.<br>- ADDTL LOADS BASED ON 55 % OF GSL.<br><br>*** NON STANDARD GIRDER ***<br>ADDTL USER-DEFINED LOADS APPLIED TO ALL LOAD CASES.<br><br>THIS TRUSS IS DESIGNED FOR RESIDENTIAL OR SMALL BUILDING REQUIREMENTS OF PART 9, NBCC 2010<br><br>THIS DESIGN COMPLIES WITH:<br>- PART 9 OF OBC 2012, BCBC 2012, ABC 2014<br>- CSA 086-09<br>- TPIC 2011<br><br>(55 % OF 27.2 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 23.3 P.S.F. SPECIFIED ROOF LIVE LOAD<br><br>ALLOWABLE DEFL.(LL)= L/360 (1.15")<br>CALCULATED VERT. DEFL.(LL) = L/999 (0.07")<br>ALLOWABLE DEFL.(TL)= L/360 (1.15")<br>CALCULATED VERT. DEFL.(TL) = L/999 (0.13")<br><br>CSI: TC=0.26 (6-7:1), BC=0.47 (14-15:1), WB=0.66 (12-14:1), SSI=0.10 (13-14:1)<br><br>DOL LUMBER=1.00 NAIL=1.00 LS BEND=1.00 COMP=1.00 SHEAR=1.00 TENS=1.00<br><br>COMPANION LIVE LOAD FACTOR = 0.50<br><br>TRUSS PLATE MANUFACTURER IS NOT RESPONSIBLE FOR QUALITY CONTROL IN THE TRUSS MANUFACTURING PLANT .<br><br>NAIL VALUES<br>PLATE GRIP(DRY) SHEAR SECTION (PSI) (PLI) (PLI)<br>MAX MIN MAX MIN MAX MIN<br>MT20 618 354 1667 822 2284 1656<br><br>PLATE PLACEMENT TOL. = 0.250 inches<br><br>PLATE ROTATION TOL. = 5.0 Deg.<br><br>JSI GRIP= 0.85 (2) (IN) JSI METAL= 0.73 (2) (IN)<br><br>KOTT |  |  |
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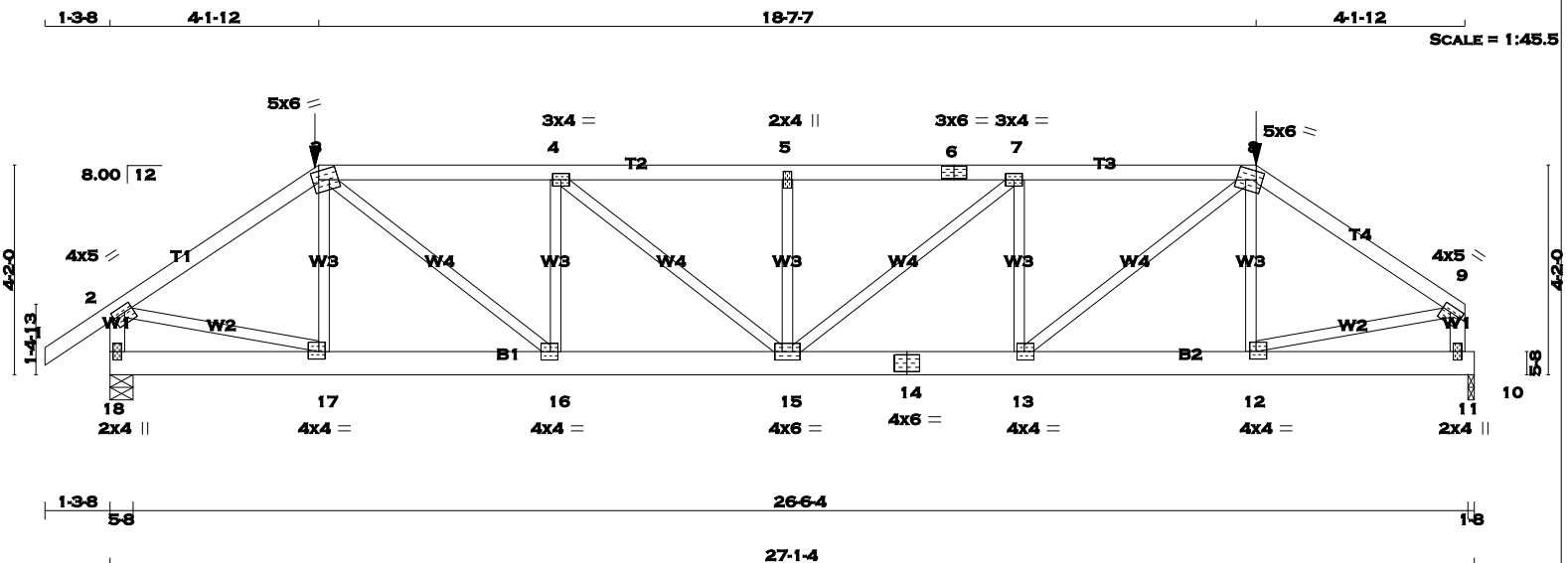
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |  |  |  |  |  |  |  |  |  |     |
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| TOTAL WEIGHT = 66 lb                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |  |  |  |  |  |  |  |  |  | [M] |
| <b>LUMBER</b><br>N. L. G. A. RULES<br>CHORDS SIZE LUMBER DESCR. SPF<br>1 - 3 2x4 DRY No.2 SPF<br>3 - 6 2x4 DRY No.2 SPF<br>6 - 8 2x4 DRY No.2 SPF<br>14 - 2 2x4 DRY No.2 SPF<br>9 - 7 2x4 DRY No.2 SPF<br>14 - 11 2x4 DRY No.2 SPF<br>11 - 9 2x4 DRY No.2 SPF<br><br>ALL WEBS 2x3 DRY No.2 SPF<br>EXCEPT<br><br>DRY: SEASONED LUMBER.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |  |  |  |  |  |  |  |  |  |     |
| <b>DIMENSIONS, SUPPORTS AND LOADINGS SPECIFIED BY FABRICATOR TO BE VERIFIED BY BUILDING DESIGNER</b><br><b>BEARINGS</b><br>FACTORED GROSS REACTION<br>JT VERT HORZ<br>14 427 0<br>12 1235 0<br>9 619 0<br><br>MAXIMUM FACTORED GROSS REACTION<br>DOWN HORZ<br>427 0<br>1235 0<br>619 0<br><br>INPUT BRG UPLIFT IN-SX<br>3-0 3-0 3-0 3-0<br><br>REQRD BRG IN-SX<br>3-0 3-0 3-0 3-0                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |  |  |  |  |  |  |  |  |  |     |
| <b>DESIGN CRITERIA</b><br><br>SPECIFIED LOADS:<br>TOP CH. LL = 23.3 PSF<br>DL = 3.0 PSF<br>BOT CH. LL = 0.0 PSF<br>DL = 7.0 PSF<br>TOTAL LOAD = 33.3 PSF<br><br><b>SPACING = 24.0 IN./C/C</b><br><br>LOADING IN FLAT SECTION BASED ON A SLOPE OF 6.00/12<br><br>GIRDER TYPE: CPrimeHip<br>SIDE SETBACK = 3-5-8<br>END SETBACK = 3-5-8<br>END WALL WIDTH = 3-0<br>CORNER FRAMING TYPE: CONVENTIONAL<br>END JACK TYPE: CONVENTIONAL<br>APPLIED TO FRONT SIDE<br>- ADDT'L LOADS BASED ON 55 % OF GSL.<br><br>THIS TRUSS IS DESIGNED FOR RESIDENTIAL OR SMALL BUILDING REQUIREMENTS OF PART 9, NBCC 2010<br><br>THIS DESIGN COMPLIES WITH:<br>- PART 9 OF OBC 2012 , BCBC 2012 , ABC 2014<br>- CSA 086-09<br>- TPIC 2011<br><br>(55 % OF 27.2 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 23.3 P.S.F. SPECIFIED ROOF LIVE LOAD<br><br>ALLOWABLE DEFL.(LL)= L/360 (0.32")<br>CALCULATED VERT. DEFL.(LL) = L/ 999 (0.01")<br>ALLOWABLE DEFL.(TL)= L/360 (0.32")<br>CALCULATED VERT. DEFL.(TL) = L/ 999 (0.02")<br><br>CSI: TC=0.23 (3-4:1) , BC=0.12 (11-12:1) , WB=0.20 (5-12:1) , SSI=0.19 (3-4:1)<br><br>DOL LUMBER=1.00 NAIL=1.00 LS BEND=1.00<br>COMP=1.00 SHEAR=1.00 TENS= 1.00<br><br>COMPANION LIVE LOAD FACTOR = 0.50<br><br>TRUSS PLATE MANUFACTURER IS NOT RESPONSIBLE FOR QUALITY CONTROL IN THE TRUSS MANUFACTURING PLANT .                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |  |  |  |  |  |  |  |  |  |     |
| <b>PLATES (table is in inches)</b><br>JT TYPE PLATES W LEN Y X<br>2 TMVW-t MT20 3.0 5.0 1.50 2.25<br>3 TTWW-m MT20 4.0 5.0 1.75 1.25<br>4 TMW+w MT20 2.0 4.0<br>5 TMWW-t MT20 3.0 4.0 1.50 1.75<br>6 TTWW-m MT20 4.0 5.0 1.75 1.25<br>7 TMVW-t MT20 3.0 5.0 1.50 2.25<br>9 BMV1+p MT20 2.0 4.0<br>10 BMWW-t MT20 3.0 4.0<br>11 BSWW+H MT20 3.0 5.0 3.00 1.50<br>12 BMWWW1-t MT20 3.0 6.0<br>13 BMWW-t MT20 3.0 4.0<br>14 BMV1+p MT20 2.0 4.0<br><br>A SIZE FOR SIZE SUBSTITUTION OF MITEK MII20 WITH TEE-LOK TL20 PLATES IS ALLOWED.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |  |  |  |  |  |  |  |  |  |     |
| <b>UNFACTORED REACTIONS</b><br>1ST LCASE MAX./MIN. COMPONENT REACTIONS<br>JT COMBINED SNOW LIVE PERM.LIVE WIND DEAD SOIL<br>14 298 217 / 0 0 / 0 0 / 0 0 / 0 81 / 0 0 / 0<br>12 865 615 / 0 0 / 0 0 / 0 0 / 0 250 / 0 0 / 0<br>9 432 313 / 0 0 / 0 0 / 0 0 / 0 120 / 0 0 / 0<br><br>BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S) 14, 12, 9<br><br><b>BRACING</b><br>TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 6.25 FT.<br>MAX. UNBRACED BOTTOM CHORD LENGTH = 10.00 FT. OR RIGID CEILING DIRECTLY APPLIED.<br><br>ALL PITCH BREAKS AND PERIMETER CORNER JOINTS MUST BE Laterally RESTRAINED.<br><br><b>LOADING</b><br>TOTAL LOAD CASES: (3)<br><br>CHORDS MAX. FACTORED FORCE VERT. LOAD LC1 MAX. FACTORED FORCE VERT. LOAD LC1 MAX. FACTORED FORCE VERT. LOAD LC1<br>MEMB. (LBS) (PLF) CSI (LC) UNBRAC LENGTH FR-TO MEMB. MAX. FACTORED FORCE VERT. LOAD LC1 MAX. FACTORED FORCE VERT. LOAD LC1<br>(LBS) (LBS) (LBS) (LC) (LBS) (LC)<br>FR-TO 0 / 23 FROM TO 10.00 13-3 0 / 82 0.03 (3)<br>1-2 -230 / 0 -77.3 -77.3 0.11 (1) 6.25 3-12 -493 / 0 0.16 (1)<br>2-3 0 / 193 -100.7 -100.7 0.23 (1) 10.00 12-4 -391 / 0 0.07 (1)<br>3-4 0 / 193 -100.7 -100.7 0.23 (1) 10.00 12-5 -715 / 0 0.20 (1)<br>4-5 -353 / 0 -100.7 -100.7 0.13 (1) 6.25 11-5 0 / 143 0.04 (3)<br>5-6 -520 / 0 -77.3 -77.3 0.18 (1) 6.25 11-6 -145 / 0 0.04 (1)<br>6-7 0 / 23 -77.3 -77.3 0.11 (1) 10.00 10-6 -25 / 63 0.02 (3)<br>7-8 -392 / 0 0.0 0.0 0.04 (1) 7.81 2-13 0 / 212 0.05 (1)<br>8-9 -584 / 0 0.0 0.0 0.06 (1) 7.81 10-7 0 / 478 0.12 (1)<br><br>14-13 0 / 0 -22.8 -22.8 0.07 (3) 10.00<br>13-12 0 / 207 -22.8 -22.8 0.10 (1) 10.00<br>12-11 0 / 353 -22.8 -22.8 0.12 (1) 10.00<br>11-10 0 / 464 -22.8 -22.8 0.11 (1) 10.00<br>10-9 0 / 0 -22.8 -22.8 0.07 (3) 10.00<br><br>FACTORED CONCENTRATED LOADS (LBS)<br>JT LOC. LC1 MAX- MAX+ FACE DIR. TYPE<br>3 3-5-8 -87 -87 --- FRONT VERT TOTAL<br>6 13-2-8 -87 -87 --- FRONT VERT TOTAL |  |  |  |  |  |  |  |  |  |     |



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IS AN INTEGRAL PART OF THIS DRAWING AS IT  
CONTAINS SPECIFICATIONS AND CRITERIA USED  
IN THE DESIGN OF THIS COMPONENT.





TOTAL WEIGHT = 2 X 124 = 247 lb  
[M]

| LUMBER            |      |        |        |
|-------------------|------|--------|--------|
| N. L. G. A. RULES |      |        |        |
| CHORDS            | SIZE | LUMBER | DESCR. |
| 1 - 3             | 2x4  | DRY    | No.2   |
| 3 - 6             | 2x4  | DRY    | No.2   |
| 6 - 8             | 2x4  | DRY    | No.2   |
| 8 - 9             | 2x4  | DRY    | No.2   |
| 18 - 2            | 2x4  | DRY    | No.2   |
| 11 - 9            | 2x4  | DRY    | No.2   |
| 18 - 14           | 2x6  | DRY    | No.2   |
| 14 - 10           | 2x6  | DRY    | No.2   |

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

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    |                      |            |
| 1-3                                      | 12                   | SIDE(0.0)  |
| 3-6                                      | 12                   | SIDE(34.2) |
| 6-8                                      | 12                   | SIDE(34.2) |
| 8-9                                      | 12                   | SIDE(0.0)  |
| 18-2                                     | 12                   | TOP        |
| 11-9                                     | 12                   | TOP        |
| BOTTOM CHORDS : (0.122"x3") SPIRAL NAILS |                      |            |
| 18-14                                    | 12                   | SIDE(8.7)  |
| 14-10                                    | 12                   | SIDE(8.7)  |
| WEBS : (0.122"x3") SPIRAL NAILS          |                      |            |
| 2x3                                      | 6                    |            |

NAILS TO BE DRIVEN FROM ONE SIDE ONLY.

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

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

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

PLATES (table is in inches)

| JT | TYPE   | PLATES | W   | LEN | Y    | X    |
|----|--------|--------|-----|-----|------|------|
| 2  | TMVW-t | MT20   | 4.0 | 5.0 | 1.50 | 2.00 |

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    |
| 18       | 2487 | 0                       | 2487                            | 0         | 5-8       |
| 10       | 2362 | 0                       | 2362                            | 0         | 1-8       |

UNFACTORED REACTIONS

| 1ST LCASE |          | MAX/MIN. COMPONENT REACTIONS |       |
|-----------|----------|------------------------------|-------|
| JT        | COMBINED | SNOW                         | LIVE  |
| 18        | 1744     | 1228 / 0                     | 0 / 0 |
| 10        | 1659     | 1153 / 0                     | 0 / 0 |

BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S) 18, 10

BRACING

TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 4.20 FT. MAX. UNBRACED BOTTOM CHORD LENGTH = 10.00 FT. OR RIGID CEILING DIRECTLY APPLIED.

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

LOADING

TOTAL LOAD CASES: (3)

| CHORDS |                           |                           |              | WEBS  |                           |              |               |
|--------|---------------------------|---------------------------|--------------|-------|---------------------------|--------------|---------------|
| MEMB.  | MAX. FACTORED FORCE (LBS) | FACTORED VERT. LOAD (PLF) | MAX LC1 (LC) | MEMB. | MAX. FACTORED FORCE (LBS) | MAX LC1 (LC) | UNBRAC LENGTH |
| FR-TO  |                           | FROM                      | TO           | FR-TO |                           |              |               |
| 1-2    | 0 / 29                    | -77.3                     | -77.3        | 10.00 | 17-3                      | -390 / 21    | 0.05 (1)      |
| 2-3    | -2877 / 0                 | -77.3                     | -77.3        | 5.26  | 3-16                      | 0 / 2081     | 0.26 (1)      |
| 3-4    | -4002 / 0                 | -145.8                    | -145.8       | 4.42  | 16-4                      | -1156 / 0    | 0.15 (1)      |
| 4-5    | -4480 / 0                 | -145.8                    | -145.8       | 4.20  | 4-15                      | 0 / 619      | 0.08 (1)      |
| 5-6    | -4480 / 0                 | -145.8                    | -145.8       | 4.20  | 15-5                      | -616 / 0     | 0.08 (1)      |
| 6-7    | -4480 / 0                 | -145.8                    | -145.8       | 4.20  | 15-7                      | 0 / 571      | 0.07 (1)      |
| 7-8    | -4039 / 0                 | -145.8                    | -145.8       | 4.40  | 13-7                      | -1124 / 0    | 0.15 (1)      |
| 8-9    | -3013 / 0                 | -77.3                     | -77.3        | 5.16  | 13-8                      | 0 / 1979     | 0.24 (1)      |
| 18-2   | -2428 / 0                 | 0.0                       | 0.0          | 7.23  | 12-8                      | -261 / 59    | 0.03 (1)      |
| 11-9   | -2425 / 0                 | 0.0                       | 0.0          | 7.23  | 2-17                      | 0 / 2455     | 0.30 (1)      |
|        |                           |                           |              |       | 12-9                      | 0 / 2571     | 0.32 (1)      |
| 18-17  | 0 / 0                     | -33.0                     | -33.0        | 10.00 |                           |              |               |
| 17-16  | 0 / 2379                  | -33.0                     | -33.0        | 10.00 |                           |              |               |
| 16-15  | 0 / 4002                  | -33.0                     | -33.0        | 10.00 |                           |              |               |
| 15-14  | 0 / 4039                  | -33.0                     | -33.0        | 10.00 |                           |              |               |
| 14-13  | 0 / 4039                  | -33.0                     | -33.0        | 10.00 |                           |              |               |
| 13-12  | 0 / 2496                  | -33.0                     | -33.0        | 10.00 |                           |              |               |
| 12-11  | 0 / 0                     | -33.0                     | -33.0        | 10.00 |                           |              |               |
| 11-10  | 0 / 0                     | -33.0                     | -33.0        | 10.00 |                           |              |               |

FACTORED CONCENTRATED LOADS (LBS)

| JT | LOC.   | LC1  | MAX- | MAX+ | FACE  | DIR. | TYPE  |
|----|--------|------|------|------|-------|------|-------|
| 3  | 4-1-12 | -241 | -241 | ---  | FRONT | VERT | TOTAL |
| 8  | 22-9-4 | -251 | -251 | ---  | FRONT | VERT | TOTAL |

DESIGN CRITERIA

SPECIFIED LOADS:

|            |    |      |      |     |
|------------|----|------|------|-----|
| TOP CH.    | LL | =    | 23.3 | PSF |
|            | DL | =    | 3.0  | PSF |
| BOT CH.    | LL | =    | 0.0  | PSF |
|            | DL | =    | 7.0  | PSF |
| TOTAL LOAD | =  | 33.3 | PSF  |     |

SPACING = 24.0 IN. C/C

LOADING IN FLAT SECTION BASED ON A SLOPE OF 6.00/12

GIRDER TYPE: CPrimeHip  
LEFT SETBACK = 4-1-12  
RIGHT SETBACK = 4-4-0  
END SETBACK = 6-0-0  
END WALL WIDTH = 5-8  
CORNER FRAMING TYPE: CONVENTIONAL  
END JACK TYPE: CONVENTIONAL  
APPLIED TO FRONT SIDE  
- ADDTL LOADS BASED ON 55 % OF GSL.

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

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

(55 % OF 27.2 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 23.3 P.S.F. SPECIFIED ROOF LIVE LOAD

ALLOWABLE DEFL.(LL)= L/360 (0.90")  
CALCULATED VERT. DEFL.(LL) = L/999 (0.10")  
ALLOWABLE DEFL.(TL)= L/360 (0.90")  
CALCULATED VERT. DEFL.(TL) = L/999 (0.17")

CSI: TC=0.34 (5-7:1), BC=0.31 (13-15:1), WB=0.32 (9-12:1), SSI=0.78 (10-11:1)

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

COMPANION LIVE LOAD FACTOR = 0.50

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

NAIL VALUES  
PLATE GRIP(DRY) SHEAR SECTION  
(PSI) (PLI) (PLI)  
MAX MIN MAX MIN MAX MIN  
MT20 618 354 1667 822 2284 1656

PLATE PLACEMENT TOL. = 0.250 inches

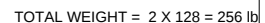
PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.89 (12) (INPUT = 0.90)  
JSI METAL= 0.47 (12) (INPUT = 1.00)



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| JT | TYPE   | PLATES | W   | LEN | Y    | X    |
|----|--------|--------|-----|-----|------|------|
| 2  | TMVW-t | MT20   | 4.0 | 5.0 | 1.75 | 2.00 |

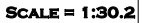
| C H O R D S |               |            |          |          | W E B S |       |               |          |          |
|-------------|---------------|------------|----------|----------|---------|-------|---------------|----------|----------|
| MEMB.       | MAX. FACTORED | FACTORED   |          | MAX.     | UNBRAC  | MEMB. | MAX. FACTORED | MAX      |          |
|             | FORCE         | VERT. LOAD | LC1      |          |         |       | FORCE         |          | CSI (LC) |
|             | (LBS)         | (PLF)      | CSI (LC) |          |         |       | (LBS)         | CSI (LC) |          |
| FR-TO       |               | FROM       | TO       |          | LENGTH  | FR-TO |               |          |          |
| 1-2         | 0 / 29        | -77.3      | -77.3    | 0.06 (1) | 10.00   | 19-3  | -374 / 0      | 0.05 (1) |          |
| 2-3         | -2390 / 0     | -77.3      | -77.3    | 0.16 (1) | 5.66    | 3-18  | 0 / 2055      | 0.25 (1) |          |
| 3-4         | -3476 / 0     | -77.3      | -77.3    | 0.14 (1) | 4.91    | 18-4  | -1352 / 0     | 0.18 (1) |          |
| 4-5         | -4559 / 0     | -77.3      | -77.3    | 0.17 (1) | 4.37    | 4-17  | 0 / 1485      | 0.18 (1) |          |
| 5-6         | -5190 / 0     | -77.3      | -77.3    | 0.17 (1) | 4.14    | 17-5  | -902 / 0      | 0.12 (1) |          |
| 6-7         | -5190 / 0     | -145.8     | -145.8   | 0.21 (1) | 4.09    | 5-15  | 0 / 866       | 0.11 (1) |          |
| 7-8         | -5190 / 0     | -145.8     | -145.8   | 0.21 (1) | 4.09    | 15-6  | -366 / 0      | 0.05 (1) |          |
| 8-9         | -4297 / 0     | -145.8     | -145.8   | 0.18 (1) | 4.46    | 5-8   | 0 / 1373      | 0.17 (1) |          |
| 9-10        | -3473 / 0     | -77.3      | -77.3    | 0.18 (1) | 4.86    | 14-8  | -1562 / 0     | 0.20 (1) |          |
| 20-2        | -2062 / 0     | 0.0        | 0.0      | 0.12 (1) | 7.70    | 14-9  | 0 / 2179      | 0.27 (1) |          |
| 12-10       | -2771 / 0     | 0.0        | 0.0      | 0.15 (1) | 6.87    | 13-9  | -340 / 20     | 0.04 (1) |          |
|             |               |            |          |          |         | 2-19  | 0 / 2039      | 0.25 (1) |          |
| 20-19       | 0 / 0         | -17.5      | -17.5    | 0.02 (3) | 10.00   | 13-10 | 0 / 2963      | 0.37 (1) |          |
| 19-18       | 0 / 1975      | -17.5      | -17.5    | 0.14 (1) | 10.00   |       |               |          |          |
| 18-17       | 0 / 3476      | -17.5      | -17.5    | 0.25 (1) | 10.00   |       |               |          |          |
| 17-16       | 0 / 4559      | -17.5      | -17.5    | 0.36 (1) | 10.00   |       |               |          |          |
| 16-15       | 0 / 4559      | -17.5      | -17.5    | 0.36 (1) | 10.00   |       |               |          |          |
| 15-14       | 0 / 4297      | -33.0      | -33.0    | 0.34 (1) | 10.00   |       |               |          |          |
| 14-13       | 0 / 2876      | -33.0      | -33.0    | 0.24 (1) | 10.00   |       |               |          |          |
| 13-12       | 0 / 0         | -33.0      | -33.0    | 0.19 (1) | 10.00   |       |               |          |          |
| 12-11       | 0 / 0         | -33.0      | -33.0    | 0.19 (1) | 10.00   |       |               |          |          |

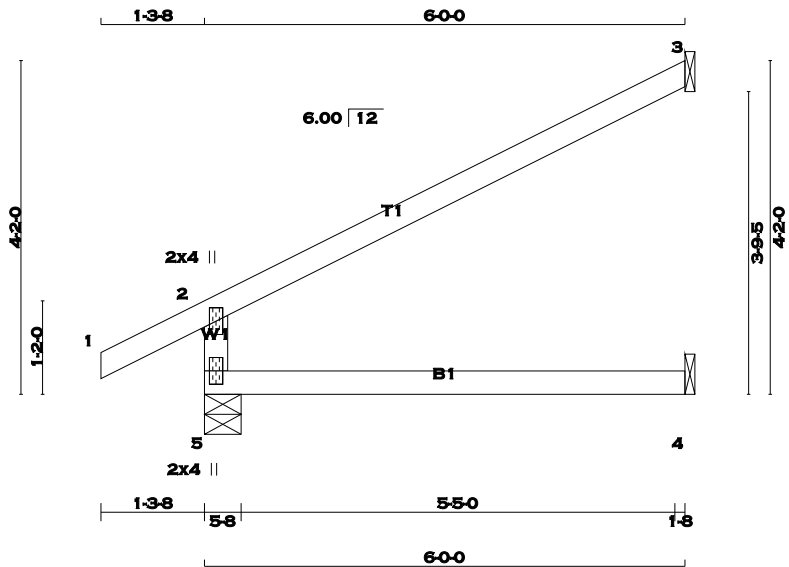
| FACTORED CONCENTRATED LOADS (LBS) |        |       |       |      |       |      |       |
|-----------------------------------|--------|-------|-------|------|-------|------|-------|
| JT                                | LOC.   | LC1   | MAX-  | MAX+ | FACE  | DIR. | TYPE  |
| 9                                 | 22-9-4 | -248  | -248  | ---  | FRONT | VERT | TOTAL |
| 15                                | 16-3-8 | -1262 | -1262 | ---  | FRONT | VERT | TOTAL |

PLATE ROTATION L. : De



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IN THE DESIGN OF THIS COMPONENT.**





SCALE = 1:28.8

TOTAL WEIGHT = 22 X 17 = 376 lb [M]

| LUMBER            |        |      |        |  | DESCR. |
|-------------------|--------|------|--------|--|--------|
| N. L. G. A. RULES | CHORDS | SIZE | LUMBER |  |        |
| 5 - 2             | 2x4    | DRY  | No.2   |  | SPF    |
| 1 - 3             | 2x4    | DRY  | No.2   |  | SPF    |
| 5 - 4             | 2x4    | DRY  | No.2   |  | SPF    |

DRY: SEASONED LUMBER.

#### PLATES (table is in inches)

| JT | TYPE   | PLATES | W   | LEN | Y | X |
|----|--------|--------|-----|-----|---|---|
| 2  | TMV+p  | MT20   | 2.0 | 4.0 |   |   |
| 5  | BMV1+p | MT20   | 2.0 | 4.0 |   |   |

A SIZE FOR SIZE SUBSTITUTION OF MITEK MII20 WITH TEE-LOK TL20 PLATES IS ALLOWED.

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

| JT | FACTORED GROSS REACTION |      | MAXIMUM FACTORED GROSS REACTION |      | INPUT BRG |       | REQRD BRG |  |
|----|-------------------------|------|---------------------------------|------|-----------|-------|-----------|--|
|    | VERT                    | HORZ | DOWN                            | HORZ | UPLIFT    | IN-SX | IN-SX     |  |
| 5  | 457                     | 0    | 457                             | 0    | 0         | 5-8   | 5-8       |  |
| 3  | 174                     | 0    | 174                             | 0    | 0         | 1-8   | 1-8       |  |
| 4  | 43                      | 0    | 49                              | 0    | 0         | 1-8   | 1-8       |  |

SEE MITEK STANDARD DETAIL B37579H FOR CONNECTION TO JOINT(S) 3 , 4

#### UNFACTORED REACTIONS

| JT | 1ST LCASE COMBINED |         | MAX./MIN. SNOW |       | LIVE  |       | PERM.LIVE |       | WIND  |       | DEAD   |       | SOIL  |       |
|----|--------------------|---------|----------------|-------|-------|-------|-----------|-------|-------|-------|--------|-------|-------|-------|
|    | SNOW               | LIVE    | SNOW           | LIVE  | SNOW  | LIVE  | SNOW      | LIVE  | SNOW  | LIVE  | SNOW   | LIVE  | SNOW  | LIVE  |
| 5  | 318                | 238 / 0 | 0 / 0          | 0 / 0 | 0 / 0 | 0 / 0 | 0 / 0     | 0 / 0 | 0 / 0 | 0 / 0 | 80 / 0 | 0 / 0 | 0 / 0 | 0 / 0 |
| 3  | 118                | 105 / 0 | 0 / 0          | 0 / 0 | 0 / 0 | 0 / 0 | 0 / 0     | 0 / 0 | 0 / 0 | 0 / 0 | 14 / 0 | 0 / 0 | 0 / 0 | 0 / 0 |
| 4  | 35                 | 0 / 0   | 0 / 0          | 0 / 0 | 0 / 0 | 0 / 0 | 0 / 0     | 0 / 0 | 0 / 0 | 0 / 0 | 35 / 0 | 0 / 0 | 0 / 0 | 0 / 0 |

BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S) 5

#### 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: (3)

| MEMB. | CHORDS      |                  | FACTORED |             | MAX. FACTORED |                  | WEB S    |             | FACTORED    |                  |
|-------|-------------|------------------|----------|-------------|---------------|------------------|----------|-------------|-------------|------------------|
|       | FORCE (LBS) | VERT. LOAD (PLF) | LC1 (LC) | MAX. UNBRAC | FORCE (LBS)   | VERT. LOAD (PLF) | LC1 (LC) | MAX. UNBRAC | FORCE (LBS) | VERT. LOAD (PLF) |
| FR-TO |             |                  |          |             |               |                  |          |             |             |                  |
| 5-2   | -395 / 0    | 0.0              | 0.0      | 0.13 (3)    | 7.81          |                  |          |             |             |                  |
| 1-2   | 0 / 23      | -77.3            | -77.3    | 0.10 (1)    | 10.00         |                  |          |             |             |                  |
| 2-3   | -26 / 0     | -77.3            | -77.3    | 0.47 (1)    | 6.25          |                  |          |             |             |                  |
| 5-4   | 0 / 0       | -17.5            | -17.5    | 0.13 (3)    | 10.00         |                  |          |             |             |                  |

#### DESIGN CRITERIA

SPECIFIED LOADS:

|            |      |      |     |
|------------|------|------|-----|
| TOP CH.    | LL = | 23.3 | PSF |
|            | DL = | 3.0  | PSF |
| BOT CH.    | LL = | 0.0  | PSF |
|            | DL = | 7.0  | PSF |
| TOTAL LOAD | =    | 33.3 | PSF |

SPACING = 24.0 IN. C/C

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

THIS DESIGN COMPLIES WITH:

- PART 9 OF OBC 2012 , BCBC 2012 , ABC 2014  
- CSA 086-09  
- TPIC 2011

DESIGN ASSUMPTIONS

-OVERHANG NOT TO BE ALTERED OR CUT OFF.

(55 % OF 27.2 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 23.3 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 (0.03")

CSI: TC=0.47 (2-3:1) , BC=0.13 (4-5:3) , WB=0.00 (n/a:0) , SSI=0.20 (2-3:1)

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

COMPANION LIVE LOAD FACTOR = 0.50

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

NAIL VALUES

| PLATE | GRIP(DRY) | SHEAR | SECTION |
|-------|-----------|-------|---------|
| (PSI) | (PLI)     | (PLI) | (PLI)   |
| MAX   | MIN       | MAX   | MIN     |
| MT20  | 618       | 354   | 1667    |
|       |           | 822   | 2284    |
|       |           |       | 1656    |

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

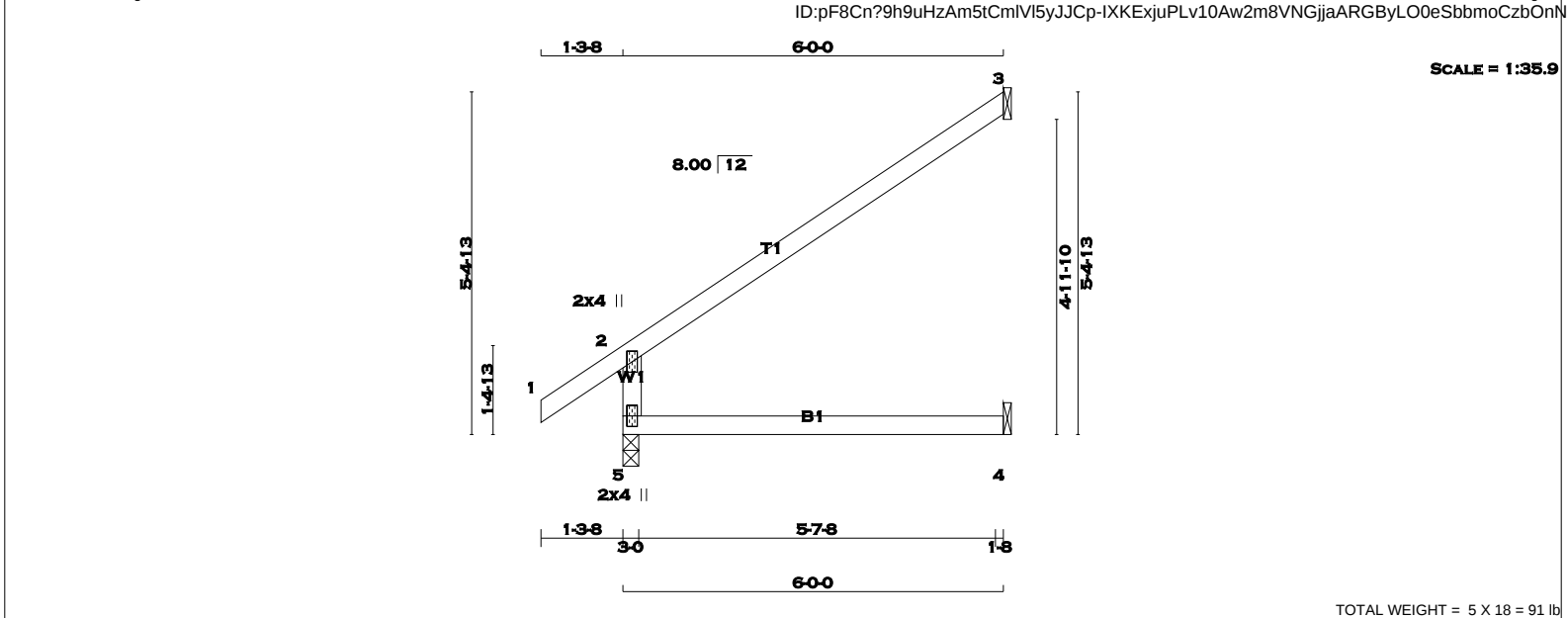
JSI GRIP= 0.23 (2) (INPUT = 0.90 )  
JSI METAL= 0.09 (2) (INPUT = 1.00 )



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READ ALL NOTES ON THIS PAGE AND ON THE  
 ENGINEERING NOTE PAGE ENP-1. THE NOTE PAGE  
 IS AN INTEGRAL PART OF THIS DRAWING AS IT  
 CONTAINS SPECIFICATIONS AND CRITERIA USED  
 IN THE DESIGN OF THIS COMPONENT.





| <b>LUMBER</b><br>N. L. G. A. RULES<br>CHORDS    SIZE                      LUMBER                      DESCR.<br>5 - 2       2x4                      DRY                      No.2                      SPF<br>1 - 3       2x4                      DRY                      No.2                      SPF<br>5 - 4       2x4                      DRY                      No.2                      SPF<br><br>DRY: SEASONED LUMBER. |                           |                               |                                 |           |                           | <b>DIMENSIONS, SUPPORTS AND LOADINGS SPECIFIED BY FABRICATOR TO BE VERIFIED BY BUILDING DESIGNER</b><br><b>BEARINGS</b> <table><tr><th></th><th colspan="2">FACTORED GROSS REACTION</th><th colspan="2">MAXIMUM FACTORED GROSS REACTION</th><th>INPUT BRG</th><th>REQRD BRG</th></tr><tr><th>JT</th><th>VERT</th><th>HORZ</th><th>DOWN</th><th>HORZ</th><th>UPLIFT</th><th>IN-SX</th></tr><tr><td>5</td><td>457</td><td>0</td><td>457</td><td>0</td><td>0</td><td>3-0</td></tr><tr><td>3</td><td>174</td><td>0</td><td>174</td><td>0</td><td>0</td><td>1-8</td></tr><tr><td>4</td><td>44</td><td>0</td><td>49</td><td>0</td><td>0</td><td>1-8</td></tr></table><br><br>SEE MITEK STANDARD DETAIL B37579H FOR CONNECTION TO JOINT(S) 3 , 4<br><br><b>UNFACTORED REACTIONS</b> <table><tr><th>JT</th><th>1ST LCASE</th><th colspan="6">MAX./MIN. COMPONENT REACTIONS</th></tr><tr><th>JT</th><th>COMBINED</th><th>SNOW</th><th>LIVE</th><th>PERM.LIVE</th><th>WIND</th><th>DEAD</th><th>SOIL</th></tr><tr><td>5</td><td>318</td><td>239 / 0</td><td>0 / 0</td><td>0 / 0</td><td>0 / 0</td><td>80 / 0</td><td>0 / 0</td></tr><tr><td>3</td><td>118</td><td>105 / 0</td><td>0 / 0</td><td>0 / 0</td><td>0 / 0</td><td>14 / 0</td><td>0 / 0</td></tr><tr><td>4</td><td>35</td><td>0 / 0</td><td>0 / 0</td><td>0 / 0</td><td>0 / 0</td><td>35 / 0</td><td>0 / 0</td></tr></table><br><br>BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S) 5<br><br><b>BRACING</b><br>TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 6.25 FT.<br>MAX. UNBRACED BOTTOM CHORD LENGTH = 10.00 FT. OR RIGID CEILING DIRECTLY APPLIED.<br><br>ALL PITCH BREAKS AND PERIMETER CORNER JOINTS MUST BE Laterally RESTRAINED.<br><br><b>LOADING</b><br>TOTAL LOAD CASES: (3) <table><tr><th colspan="4">CHORDS</th><th colspan="4">WEBS</th></tr><tr><th>MEMB.</th><th>MAX. FACTORED FORCE (LBS)</th><th>FACTORED VERT. LOAD (PLF)</th><th>MAX. LC1 (LC)</th><th>MEMB.</th><th>MAX. FACTORED FORCE (LBS)</th><th>MAX. UNBRACED LENGTH FR-TO</th><th>MEMB. FR-TO</th></tr><tr><td>5- 2</td><td>-396 / 0</td><td>0.0</td><td>0.0 0.10 (3)</td><td>7.81</td><td></td><td></td><td></td></tr><tr><td>1- 2</td><td>0 / 29</td><td>-77.3</td><td>-77.3 0.10 (1)</td><td>10.00</td><td></td><td></td><td></td></tr><tr><td>2- 3</td><td>-32 / 0</td><td>-77.3</td><td>-77.3 0.36 (1)</td><td>6.25</td><td></td><td></td><td></td></tr><tr><td>5- 4</td><td>0 / 0</td><td>-17.5</td><td>-17.5 0.13 (3)</td><td>10.00</td><td></td><td></td><td></td></tr></table> |             |        |   |     |   |   |   |       |      |     | FACTORED GROSS REACTION |  | MAXIMUM FACTORED GROSS REACTION |   | INPUT BRG | REQRD BRG | JT  | VERT | HORZ | DOWN | HORZ                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | UPLIFT | IN-SX | 5 | 457 | 0 | 457 | 0 | 0 | 3-0 | 3 | 174 | 0 | 174 | 0 | 0 | 1-8 | 4 | 44 | 0 | 49 | 0 | 0 | 1-8 | JT | 1ST LCASE | MAX./MIN. COMPONENT REACTIONS |  |  |  |  |  | JT | COMBINED | SNOW | LIVE | PERM.LIVE | WIND | DEAD | SOIL | 5 | 318 | 239 / 0 | 0 / 0 | 0 / 0 | 0 / 0 | 80 / 0 | 0 / 0 | 3 | 118 | 105 / 0 | 0 / 0 | 0 / 0 | 0 / 0 | 14 / 0 | 0 / 0 | 4 | 35 | 0 / 0 | 0 / 0 | 0 / 0 | 0 / 0 | 35 / 0 | 0 / 0 | CHORDS |  |  |  | WEBS |  |  |  | MEMB. | MAX. FACTORED FORCE (LBS) | FACTORED VERT. LOAD (PLF) | MAX. LC1 (LC) | MEMB. | MAX. FACTORED FORCE (LBS) | MAX. UNBRACED LENGTH FR-TO | MEMB. FR-TO | 5- 2 | -396 / 0 | 0.0 | 0.0 0.10 (3) | 7.81 |  |  |  | 1- 2 | 0 / 29 | -77.3 | -77.3 0.10 (1) | 10.00 |  |  |  | 2- 3 | -32 / 0 | -77.3 | -77.3 0.36 (1) | 6.25 |  |  |  | 5- 4 | 0 / 0 | -17.5 | -17.5 0.13 (3) | 10.00 |  |  |  |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------|-------------------------------|---------------------------------|-----------|---------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|--------|---|-----|---|---|---|-------|------|-----|-------------------------|--|---------------------------------|---|-----------|-----------|-----|------|------|------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------|-------|---|-----|---|-----|---|---|-----|---|-----|---|-----|---|---|-----|---|----|---|----|---|---|-----|----|-----------|-------------------------------|--|--|--|--|--|----|----------|------|------|-----------|------|------|------|---|-----|---------|-------|-------|-------|--------|-------|---|-----|---------|-------|-------|-------|--------|-------|---|----|-------|-------|-------|-------|--------|-------|--------|--|--|--|------|--|--|--|-------|---------------------------|---------------------------|---------------|-------|---------------------------|----------------------------|-------------|------|----------|-----|--------------|------|--|--|--|------|--------|-------|----------------|-------|--|--|--|------|---------|-------|----------------|------|--|--|--|------|-------|-------|----------------|-------|--|--|--|
|                                                                                                                                                                                                                                                                                                                                                                                                                                        | FACTORED GROSS REACTION   |                               | MAXIMUM FACTORED GROSS REACTION |           | INPUT BRG                 | REQRD BRG                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        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| JT                                                                                                                                                                                                                                                                                                                                                                                                                                     | VERT                      | HORZ                          | DOWN                            | HORZ      | UPLIFT                    | IN-SX                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            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| 5                                                                                                                                                                                                                                                                                                                                                                                                                                      | 457                       | 0                             | 457                             | 0         | 0                         | 3-0                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              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| 3                                                                                                                                                                                                                                                                                                                                                                                                                                      | 174                       | 0                             | 174                             | 0         | 0                         | 1-8                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              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| 4                                                                                                                                                                                                                                                                                                                                                                                                                                      | 44                        | 0                             | 49                              | 0         | 0                         | 1-8                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              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| JT                                                                                                                                                                                                                                                                                                                                                                                                                                     | 1ST LCASE                 | MAX./MIN. COMPONENT REACTIONS |                                 |           |                           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |             |        |   |     |   |   |   |       |      |     |                         |  |                                 |   |           |           |     |      |      |      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |        |       |   |     |   |     |   |   |     |   |     |   |     |   |   |     |   |    |   |    |   |   |     |    |           |                               |  |  |  |  |  |    |          |      |      |           |      |      |      |   |     |         |       |       |       |        |       |   |     |         |       |       |       |        |       |   |    |       |       |       |       |        |       |        |  |  |  |      |  |  |  |       |                           |                           |               |       |                           |                            |             |      |          |     |              |      |  |  |  |      |        |       |                |       |  |  |  |      |         |       |                |      |  |  |  |      |       |       |                |       |  |  |  |
| JT                                                                                                                                                                                                                                                                                                                                                                                                                                     | COMBINED                  | SNOW                          | LIVE                            | PERM.LIVE | WIND                      | DEAD                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             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     |        |   |     |   |   |   |       |      |     |                         |  |                                 |   |           |           |     |      |      |      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         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| 5                                                                                                                                                                                                                                                                                                                                                                                                                                      | 318                       | 239 / 0                       | 0 / 0                           | 0 / 0     | 0 / 0                     | 80 / 0                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           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     |        |   |     |   |   |   |       |      |     |                         |  |                                 |   |           |           |     |      |      |      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         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| 3                                                                                                                                                                                                                                                                                                                                                                                                                                      | 118                       | 105 / 0                       | 0 / 0                           | 0 / 0     | 0 / 0                     | 14 / 0                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           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     |        |   |     |   |   |   |       |      |     |                         |  |                                 |   |           |           |     |      |      |      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         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                     |                            |             |      |          |     |              |      |  |  |  |      |        |       |                |       |  |  |  |      |         |       |                |      |  |  |  |      |       |       |                |       |  |  |  |
| 4                                                                                                                                                                                                                                                                                                                                                                                                                                      | 35                        | 0 / 0                         | 0 / 0                           | 0 / 0     | 0 / 0                     | 35 / 0                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | 0 / 0       |        |   |     |   |   |   |       |      |     |                         |  |                                 |   |           |           |     |      |      |      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         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                     |                            |             |      |          |     |              |      |  |  |  |      |        |       |                |       |  |  |  |      |         |       |                |      |  |  |  |      |       |       |                |       |  |  |  |
| CHORDS                                                                                                                                                                                                                                                                                                                                                                                                                                 |                           |                               |                                 | WEBS      |                           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  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     |        |   |     |   |   |   |       |      |     |                         |  |                                 |   |           |           |     |      |      |      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         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                     |                            |             |      |          |     |              |      |  |  |  |      |        |       |                |       |  |  |  |      |         |       |                |      |  |  |  |      |       |       |                |       |  |  |  |
| MEMB.                                                                                                                                                                                                                                                                                                                                                                                                                                  | MAX. FACTORED FORCE (LBS) | FACTORED VERT. LOAD (PLF)     | MAX. LC1 (LC)                   | MEMB.     | MAX. FACTORED FORCE (LBS) | MAX. UNBRACED LENGTH FR-TO                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | MEMB. FR-TO |        |   |     |   |   |   |       |      |     |                         |  |                                 |   |           |           |     |      |      |      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |        |       |   |     |   |     |   |   |     |   |     |   |     |   |   |     |   |    |   |    |   |   |     |    |           |                               |  |  |  |  |  |    |          |      |      |           |      |      |      |   |     |         |       |       |       |        |       |   |     |         |       |       |       |        |       |   |    |       |       |       |       |        |       |        |  |  |  |      |  |  |  |       |                           |                           |               |       |                           |                            |             |      |          |     |              |      |  |  |  |      |        |       |                |       |  |  |  |      |         |       |                |      |  |  |  |      |       |       |                |       |  |  |  |
| 5- 2                                                                                                                                                                                                                                                                                                                                                                                                                                   | -396 / 0                  | 0.0                           | 0.0 0.10 (3)                    | 7.81      |                           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  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                     |                            |             |      |          |     |              |      |  |  |  |      |        |       |                |       |  |  |  |      |         |       |                |      |  |  |  |      |       |       |                |       |  |  |  |
| 1- 2                                                                                                                                                                                                                                                                                                                                                                                                                                   | 0 / 29                    | -77.3                         | -77.3 0.10 (1)                  | 10.00     |                           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  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     |        |   |     |   |   |   |       |      |     |                         |  |                                 |   |           |           |     |      |      |      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         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                     |                            |             |      |          |     |              |      |  |  |  |      |        |       |                |       |  |  |  |      |         |       |                |      |  |  |  |      |       |       |                |       |  |  |  |
| 2- 3                                                                                                                                                                                                                                                                                                                                                                                                                                   | -32 / 0                   | -77.3                         | -77.3 0.36 (1)                  | 6.25      |                           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  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                     |                            |             |      |          |     |              |      |  |  |  |      |        |       |                |       |  |  |  |      |         |       |                |      |  |  |  |      |       |       |                |       |  |  |  |
| 5- 4                                                                                                                                                                                                                                                                                                                                                                                                                                   | 0 / 0                     | -17.5                         | -17.5 0.13 (3)                  | 10.00     |                           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  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                     |                            |             |      |          |     |              |      |  |  |  |      |        |       |                |       |  |  |  |      |         |       |                |      |  |  |  |      |       |       |                |       |  |  |  |
| <b>PLATES (table is in inches)</b> <table><tr><th>JT</th><th>TYPE</th><th>PLATES</th><th>W</th><th>LEN</th><th>Y</th><th>X</th></tr><tr><td>2</td><td>TMV+p</td><td>MT20</td><td>2.0</td><td>4.0</td><td></td><td></td></tr><tr><td>5</td><td>BMV1+p</td><td>MT20</td><td>2.0</td><td>4.0</td><td></td><td></td></tr></table><br>A SIZE FOR SIZE SUBSTITUTION OF MITEK MII20 WITH TEE-LOK TL20 PLATES IS ALLOWED.                      |                           |                               |                                 |           |                           | JT                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | TYPE        | PLATES | W | LEN | Y | X | 2 | TMV+p | MT20 | 2.0 | 4.0                     |  |                                 | 5 | BMV1+p    | MT20      | 2.0 | 4.0  |      |      | <b>DESIGN CRITERIA</b><br><br>SPECIFIED LOADS:<br>TOP CH. LL = 23.3 PSF<br>DL = 3.0 PSF<br>BOT CH. LL = 0.0 PSF<br>DL = 7.0 PSF<br>TOTAL LOAD = 33.3 PSF<br><br><b>SPACING = 24.0 IN. C/C</b><br><br>THIS TRUSS IS DESIGNED FOR RESIDENTIAL OR SMALL BUILDING REQUIREMENTS OF PART 9, NBCC 2010<br><br>THIS DESIGN COMPLIES WITH:<br>- PART 9 OF OBC 2012 , BCBC 2012 , ABC 2014<br>- CSA 086-09<br>- TPIC 2011<br><br>DESIGN ASSUMPTIONS<br>-OVERHANG NOT TO BE ALTERED OR CUT OFF.<br><br>(55 % OF 27.2 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 23.3 P.S.F. SPECIFIED ROOF LIVE LOAD<br><br>ALLOWABLE DEFL.(TL)= L/360 (0.20")<br>CALCULATED VERT. DEFL.(TL) = L/ 999 (0.03")<br><br>CSI: TC=0.36 (2-3:1) , BC=0.13 (4-5:3) , WB=0.00 (n/a:0) , SSI=0.19 (2-3:1)<br><br>DOL LUMBER=1.00 NAIL=1.00 LS BEND=1.10<br>COMP=1.10 SHEAR=1.10 TENS= 1.10<br><br>COMPANION LIVE LOAD FACTOR = 0.50<br><br>TRUSS PLATE MANUFACTURER IS NOT RESPONSIBLE FOR QUALITY CONTROL IN THE TRUSS MANUFACTURING PLANT .<br><br>NAIL VALUES<br>PLATE GRIP(DRY) SHEAR SECTION<br>(PSI) (PLI) (PLI)<br>MAX MIN MAX MIN MAX MIN<br>MT20 618 354 1667 822 2284 1656<br><br>PLATE PLACEMENT TOL. = 0.250 inches<br><br>PLATE ROTATION TOL. = 5.0 Deg.<br><br>JSI GRIP= 0.25 (2) (INPUT = 0.90 )<br>JSI METAL= 0.10 (2) (INPUT = 1.00 ) |        |       |   |     |   |     |   |   |     |   |     |   |     |   |   |     |   |    |   |    |   |   |     |    |           |                               |  |  |  |  |  |    |          |      |      |           |      |      |      |   |     |         |       |       |       |        |       |   |     |         |       |       |       |        |       |   |    |       |       |       |       |        |       |        |  |  |  |      |  |  |  |       |                           |                           |               |       |                           |                            |             |      |          |     |              |      |  |  |  |      |        |       |                |       |  |  |  |      |         |       |                |      |  |  |  |      |       |       |                |       |  |  |  |
| JT                                                                                                                                                                                                                                                                                                                                                                                                                                     | TYPE                      | PLATES                        | W                               | LEN       | Y                         | X                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                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                     |                            |             |      |          |     |              |      |  |  |  |      |        |       |                |       |  |  |  |      |         |       |                |      |  |  |  |      |       |       |                |       |  |  |  |
| 2                                                                                                                                                                                                                                                                                                                                                                                                                                      | TMV+p                     | MT20                          | 2.0                             | 4.0       |                           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  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                     |                            |             |      |          |     |              |      |  |  |  |      |        |       |                |       |  |  |  |      |         |       |                |      |  |  |  |      |       |       |                |       |  |  |  |
| 5                                                                                                                                                                                                                                                                                                                                                                                                                                      | BMV1+p                    | MT20                          | 2.0                             | 4.0       |                           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  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                     |                            |             |      |          |     |              |      |  |  |  |      |        |       |                |       |  |  |  |      |         |       |                |      |  |  |  |      |       |       |                |       |  |  |  |

RECEIVED

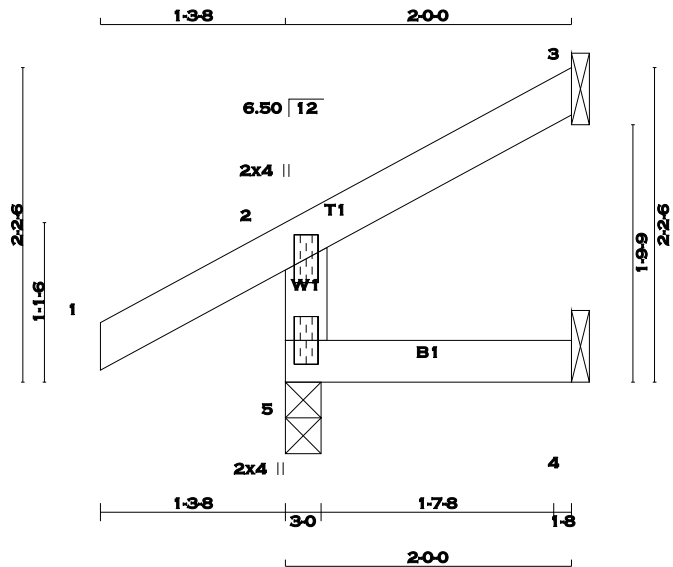
TOWN OF MILTON

MAR 29, 2017

17-4990

BUILDING DIVISION

READ ALL NOTES ON THIS PAGE AND ON THE ENGINEERING NOTE PAGE ENP-1. THE NOTE PAGE IS AN INTEGRAL PART OF THIS DRAWING AS IT CONTAINS SPECIFICATIONS AND CRITERIA USED IN THE DESIGN OF THIS COMPONENT.



SCALE: 3/4"=1'

TOTAL WEIGHT = 7 lb [M]

| LUMBER |      |        |      | DESCR. |
|--------|------|--------|------|--------|
| CHORDS | SIZE | LUMBER |      |        |
| 5 - 2  | 2x4  | DRY    | No.2 | SPF    |
| 1 - 3  | 2x4  | DRY    | No.2 | SPF    |
| 5 - 4  | 2x4  | DRY    | No.2 | SPF    |

DRY: SEASONED LUMBER.

| PLATES (table is in inches) |        |        |     |     |     |
|-----------------------------|--------|--------|-----|-----|-----|
| JT                          | TYPE   | PLATES | W   | LEN | Y X |
| 2                           | TMV+p  | MT20   | 2.0 | 4.0 |     |
| 5                           | BMV1+p | MT20   | 2.0 | 4.0 |     |

A SIZE FOR SIZE SUBSTITUTION OF MITEK MII20 WITH TEE-LOK TL20 PLATES IS ALLOWED.

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

| JT | FACTORED GROSS REACTION |      | MAXIMUM FACTORED GROSS REACTION |      | INPUT BRG | REQRD BRG |
|----|-------------------------|------|---------------------------------|------|-----------|-----------|
|    | VERT                    | HORZ | DOWN                            | HORZ |           |           |
| 5  | 221                     | 0    | 221                             | 0    | 3-0       | 3-0       |
| 3  | 58                      | 0    | 58                              | 0    | 1-8       | 1-8       |
| 4  | 16                      | 0    | 17                              | 0    | 1-8       | 1-8       |

SEE MITEK STANDARD DETAIL B37579H FOR CONNECTION TO JOINT(S) 3 , 4

#### UNFACTORED REACTIONS

| JT | 1ST LCASE |         | MAX./MIN. COMPONENT REACTIONS |           | WIND  | DEAD   | SOIL  |
|----|-----------|---------|-------------------------------|-----------|-------|--------|-------|
|    | COMBINED  | SNOW    | LIVE                          | PERM.LIVE |       |        |       |
| 5  | 153       | 121 / 0 | 0 / 0                         | 0 / 0     | 0 / 0 | 31 / 0 | 0 / 0 |
| 3  | 40        | 35 / 0  | 0 / 0                         | 0 / 0     | 0 / 0 | 5 / 0  | 0 / 0 |
| 4  | 12        | 0 / 0   | 0 / 0                         | 0 / 0     | 0 / 0 | 12 / 0 | 0 / 0 |

BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S) 5

#### BRACING

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

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

#### LOADING

TOTAL LOAD CASES: (4)

| MEMB. | CHORDS           |                  | FACTORED |               | MAX. UNBRAC | WEBS              |               | MAX. FACTORED |
|-------|------------------|------------------|----------|---------------|-------------|-------------------|---------------|---------------|
|       | MAX. FORCE (LBS) | VERT. LOAD (PLF) | LC1      | MAX. CSI (LC) |             | MEMB. FORCE (LBS) | MAX. CSI (LC) |               |
| FR-TO |                  | FROM TO          |          |               | LENGTH      | FR-TO             |               |               |
| 5-2   | -202 / 0         | 0.0              | 0.0      | 0.01 (3)      | 7.81        |                   |               |               |
| 1-2   | 0 / 25           | -77.3            | -77.3    | 0.10 (1)      | 10.00       |                   |               |               |
| 2-3   | -9 / 0           | -77.3            | -77.3    | 0.05 (1)      | 10.00       |                   |               |               |
| 5-4   | 0 / 0            | -17.5            | -17.5    | 0.02 (3)      | 10.00       |                   |               |               |

CANTILEVER ANALYSIS HAS BEEN CONSIDERED IN THIS DESIGN

#### DESIGN CRITERIA

SPECIFIED LOADS:  
TOP CH. LL = 23.3 PSF  
DL = 3.0 PSF  
BOT CH. LL = 0.0 PSF  
DL = 7.0 PSF  
TOTAL LOAD = 33.3 PSF

SPACING = 24.0 IN. C/C

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

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

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

(55 % OF 27.2 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 23.3 P.S.F. SPECIFIED ROOF LIVE LOAD

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

CSI: TC=0.10 (1-2:1) , BC=0.02 (4-5:3) , WB=0.00 (n/a:0) , SSI=0.07 (1-2:1)

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

COMPANION LIVE LOAD FACTOR = 0.50

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

NAIL VALUES  
PLATE GRIP(DRY) SHEAR SECTION  
(PSI) (PLI) (PLI)  
MAX MIN MAX MIN MAX MIN  
MT20 618 354 1667 822 2284 1656

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.12 (2) (INPUT = 0.90 )  
JSI METAL= 0.05 (2) (INPUT = 1.00 )



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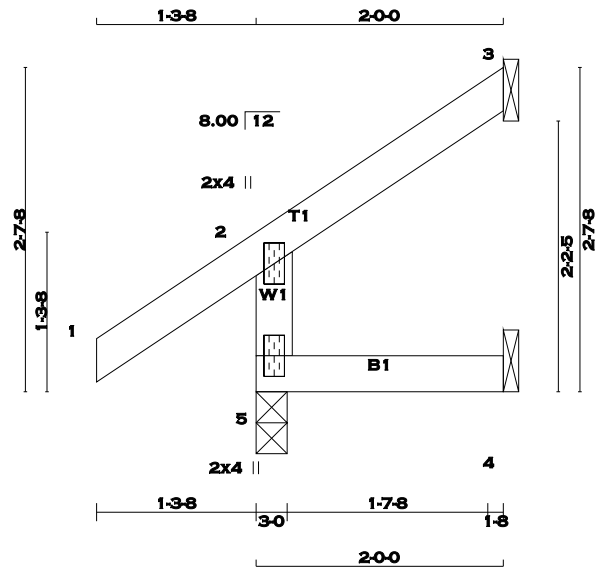
READ ALL NOTES ON THIS PAGE AND ON THE ENGINEERING NOTE PAGE ENP-1. THE NOTE PAGE IS AN INTEGRAL PART OF THIS DRAWING AS IT CONTAINS SPECIFICATIONS AND CRITERIA USED IN THE DESIGN OF THIS COMPONENT.



Kott Lumber Uxbridge, Stouffville, ON, CGC

Version 8.100 S Feb 9 2017 MiTek Industries, Inc. Mon Mar 13 09:56:55 2017 Page 1

ID:pF8Cn?9h9uHzAm5tCmIV5yJJcp-mjuc93v26D9to4cyhCvVGw7PGgZy4rGohEKKKfzbOnM



SCALE = 1:18.6

TOTAL WEIGHT = 4 X 8 = 32 lb [M]

| LUMBER |      | N. L. G. A. RULES |      | LUMBER |  | DESCR. |     |
|--------|------|-------------------|------|--------|--|--------|-----|
| CHORDS | SIZE |                   |      |        |  | SPF    | SPF |
| 5 - 2  | 2x4  | DRY               | No.2 |        |  |        |     |
| 1 - 3  | 2x4  | DRY               | No.2 |        |  |        |     |
| 5 - 4  | 2x4  | DRY               | No.2 |        |  |        |     |

DRY: SEASONED LUMBER.

| PLATES (table is in inches) |        |        |     |     |   |   |
|-----------------------------|--------|--------|-----|-----|---|---|
| JT                          | TYPE   | PLATES | W   | LEN | Y | X |
| 2                           | TMV+p  | MT20   | 2.0 | 4.0 |   |   |
| 5                           | BMV1+p | MT20   | 2.0 | 4.0 |   |   |

A SIZE FOR SIZE SUBSTITUTION OF MITEK MII20 WITH TEE-LOK TL20 PLATES IS ALLOWED.

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

|    |  | FACTORED GROSS REACTION |      | MAXIMUM FACTORED GROSS REACTION |      | INPUT BRG |       | REQRD BRG |  |
|----|--|-------------------------|------|---------------------------------|------|-----------|-------|-----------|--|
| JT |  | VERT                    | HORZ | DOWN                            | HORZ | UPLIFT    | IN-SX | IN-SX     |  |
| 5  |  | 222                     | 0    | 222                             | 0    | 0         | 3-0   | 3-0       |  |
| 3  |  | 58                      | 0    | 58                              | 0    | 0         | 1-8   | 1-8       |  |
| 4  |  | 16                      | 0    | 18                              | 0    | 0         | 1-8   | 1-8       |  |

SEE MITEK STANDARD DETAIL B37579H FOR CONNECTION TO JOINT(S) 3 , 4

#### UNFACTORED REACTIONS

|    |  | 1ST LCASE |         | MAX./MIN. COMPONENT REACTIONS |           |       |        |       |  |
|----|--|-----------|---------|-------------------------------|-----------|-------|--------|-------|--|
| JT |  | COMBINED  | SNOW    | LIVE                          | PERM.LIVE | WIND  | DEAD   | SOIL  |  |
| 5  |  | 153       | 122 / 0 | 0 / 0                         | 0 / 0     | 0 / 0 | 31 / 0 | 0 / 0 |  |
| 3  |  | 40        | 35 / 0  | 0 / 0                         | 0 / 0     | 0 / 0 | 5 / 0  | 0 / 0 |  |
| 4  |  | 13        | 0 / 0   | 0 / 0                         | 0 / 0     | 0 / 0 | 13 / 0 | 0 / 0 |  |

BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S) 5

#### BRACING

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

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

#### LOADING

TOTAL LOAD CASES: (4)

|       |  | CHORDS           |                  | FACTORED |               | WEBS  |  | FACTORED         |               |
|-------|--|------------------|------------------|----------|---------------|-------|--|------------------|---------------|
| MEMB. |  | MAX. FORCE (LBS) | VERT. LOAD (PLF) | LC1      | MAX. CSI (LC) | MEMB. |  | MAX. FORCE (LBS) | MAX. CSI (LC) |
| FR-TO |  |                  |                  |          |               | FR-TO |  |                  |               |
| 5-2   |  | -202 / 0         | 0.0              | 0.0      | 0.01 (3)      | 7.81  |  |                  |               |
| 1-2   |  | 0 / 29           | -77.3            | -77.3    | 0.10 (1)      | 10.00 |  |                  |               |
| 2-3   |  | -10 / 0          | -77.3            | -77.3    | 0.05 (1)      | 6.25  |  |                  |               |
| 5-4   |  | 0 / 0            | -17.5            | -17.5    | 0.02 (3)      | 10.00 |  |                  |               |

CANTILEVER ANALYSIS HAS BEEN CONSIDERED IN THIS DESIGN

#### DESIGN CRITERIA

SPECIFIED LOADS:  
TOP CH. LL = 23.3 PSF  
DL = 3.0 PSF  
BOT CH. LL = 0.0 PSF  
DL = 7.0 PSF  
TOTAL LOAD = 33.3 PSF

SPACING = 24.0 IN. C/C

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

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

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

(55 % OF 27.2 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 23.3 P.S.F. SPECIFIED ROOF LIVE LOAD

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

CSI: TC=0.10 (1-2:1) , BC=0.02 (4-5:3) , WB=0.00 (n/a:0) , SSI=0.07 (1-2:1)

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

COMPANION LIVE LOAD FACTOR = 0.50

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

NAIL VALUES  
PLATE GRIP(DRY) SHEAR SECTION  
(PSI) (PLI) (PLI)  
MAX MIN MAX MIN MAX MIN  
MT20 618 354 1667 822 2284 1656

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

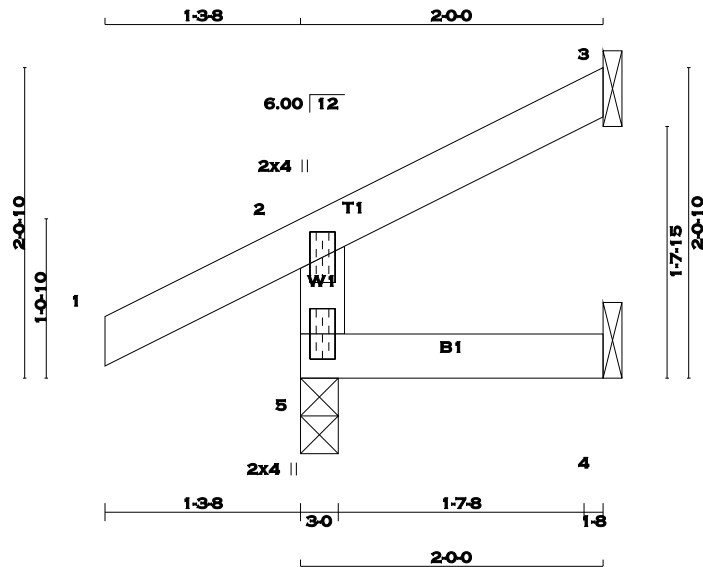
JSI GRIP= 0.13 (2) (INPUT = 0.90 )  
JSI METAL= 0.05 (2) (INPUT = 1.00 )



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IN THE DESIGN OF THIS COMPONENT.





SCALE = 1:15.2

TOTAL WEIGHT = 7 lb [M]

| LUMBER            |        |      |        | DESCR. |     |
|-------------------|--------|------|--------|--------|-----|
| N. L. G. A. RULES | CHORDS | SIZE | LUMBER | SPF    | SPF |
| 5 - 2             | 2x4    | DRY  | No.2   | SPF    | SPF |
| 1 - 3             | 2x4    | DRY  | No.2   | SPF    | SPF |
| 5 - 4             | 2x4    | DRY  | No.2   | SPF    | SPF |

DRY: SEASONED LUMBER.

| PLATES (table is in inches) |        |        |     |     |     |
|-----------------------------|--------|--------|-----|-----|-----|
| JT                          | TYPE   | PLATES | W   | LEN | Y X |
| 2                           | TMV+p  | MT20   | 2.0 | 4.0 |     |
| 5                           | BMV1+p | MT20   | 2.0 | 4.0 |     |

A SIZE FOR SIZE SUBSTITUTION OF MITEK MII20 WITH TEE-LOK TL20 PLATES IS ALLOWED.

#### 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     |  |
| 5        |  | 221                     | 0    | 221                             | 0    | 0         | 3-0   | 3-0       |  |
| 3        |  | 58                      | 0    | 58                              | 0    | 0         | 1-8   | 1-8       |  |
| 4        |  | 15                      | 0    | 17                              | 0    | 0         | 1-8   | 1-8       |  |

SEE MITEK STANDARD DETAIL B37579H FOR CONNECTION TO JOINT(S) 3 , 4

#### UNFACTORED REACTIONS

| 1ST LCASE |          | MAX./MIN. COMPONENT REACTIONS |       | LIVE  |       | PERM.LIVE |       | WIND   |       | DEAD   |       | SOIL  |       |
|-----------|----------|-------------------------------|-------|-------|-------|-----------|-------|--------|-------|--------|-------|-------|-------|
| JT        | COMBINED | SNOW                          |       |       |       |           |       |        |       |        |       |       |       |
| 5         | 152      | 121 / 0                       | 0 / 0 | 0 / 0 | 0 / 0 | 0 / 0     | 0 / 0 | 31 / 0 | 0 / 0 | 31 / 0 | 0 / 0 | 0 / 0 | 0 / 0 |
| 3         | 40       | 35 / 0                        | 0 / 0 | 0 / 0 | 0 / 0 | 0 / 0     | 0 / 0 | 5 / 0  | 0 / 0 | 5 / 0  | 0 / 0 | 0 / 0 | 0 / 0 |
| 4         | 12       | 0 / 0                         | 0 / 0 | 0 / 0 | 0 / 0 | 0 / 0     | 0 / 0 | 12 / 0 | 0 / 0 | 12 / 0 | 0 / 0 | 0 / 0 | 0 / 0 |

BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S) 5

#### BRACING

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

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

#### LOADING

TOTAL LOAD CASES: (4)

| CHORDS |             | FACTORED         |                | WEB S        |       | FACTORED    |               |
|--------|-------------|------------------|----------------|--------------|-------|-------------|---------------|
| MEMB.  | FORCE (LBS) | VERT. LOAD (PLF) | LC1 MAX (LC)   | MAX. UNBRAC  | MEMB. | FORCE (LBS) | MAX. CSI (LC) |
| FR-TO  |             | FROM TO          |                | LENGTH FR-TO |       |             |               |
| 5-2    | -201 / 0    | 0.0              | 0.0 0.01 (3)   | 7.81         |       |             |               |
| 1-2    | 0 / 23      | -77.3            | -77.3 0.10 (1) | 10.00        |       |             |               |
| 2-3    | -8 / 0      | -77.3            | -77.3 0.05 (1) | 10.00        |       |             |               |
| 5-4    | 0 / 0       | -17.5            | -17.5 0.02 (3) | 10.00        |       |             |               |

CANTILEVER ANALYSIS HAS BEEN CONSIDERED IN THIS DESIGN

#### DESIGN CRITERIA

SPECIFIED LOADS:  
TOP CH. LL = 23.3 PSF  
DL = 3.0 PSF  
BOT CH. LL = 0.0 PSF  
DL = 7.0 PSF  
TOTAL LOAD = 33.3 PSF

SPACING = 24.0 IN. C/C

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

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

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

(55 % OF 27.2 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 23.3 P.S.F. SPECIFIED ROOF LIVE LOAD

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

CSI: TC=0.10 (1-2:1) , BC=0.02 (4-5:3) , WB=0.00 (n/a:0) , SSI=0.07 (1-2:1)

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

COMPANION LIVE LOAD FACTOR = 0.50

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

NAIL VALUES  
PLATE GRIP(DRY) SHEAR SECTION  
(PSI) (PLI) (PLI)  
MAX MIN MAX MIN MAX MIN  
MT20 618 354 1667 822 2284 1656

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

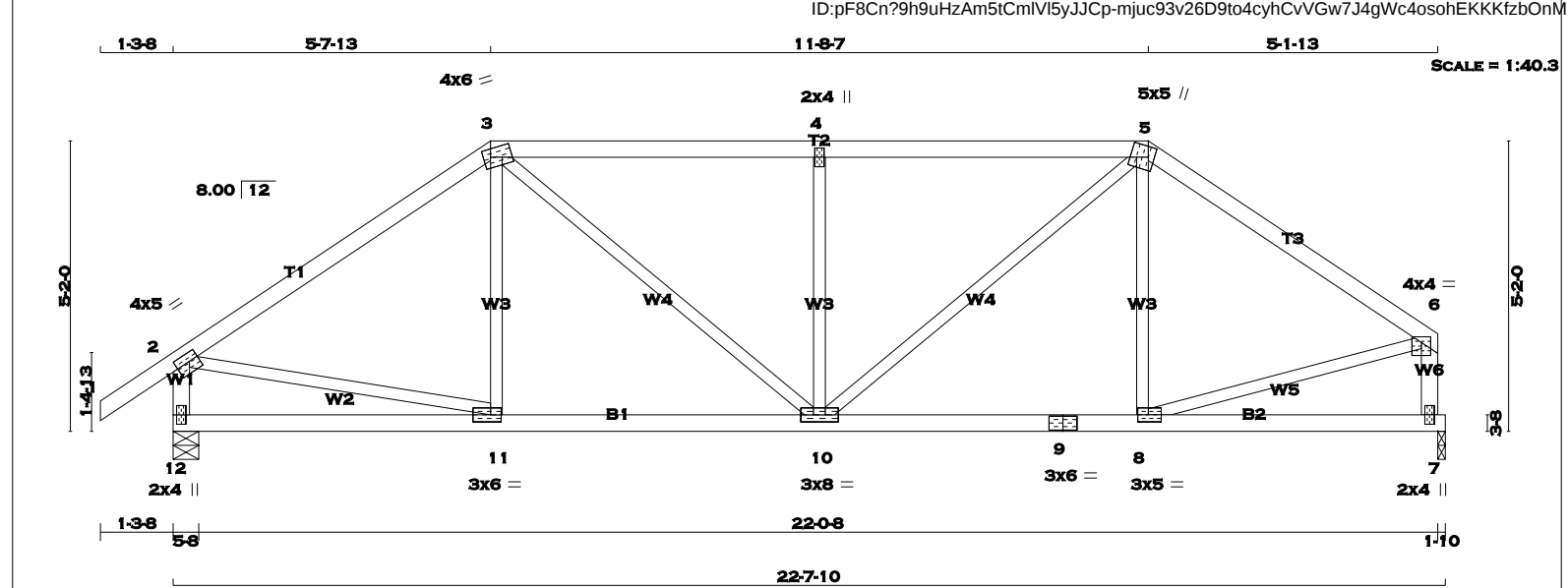
JSI GRIP= 0.12 (2) (INPUT = 0.90 )  
JSI METAL= 0.04 (2) (INPUT = 1.00 )



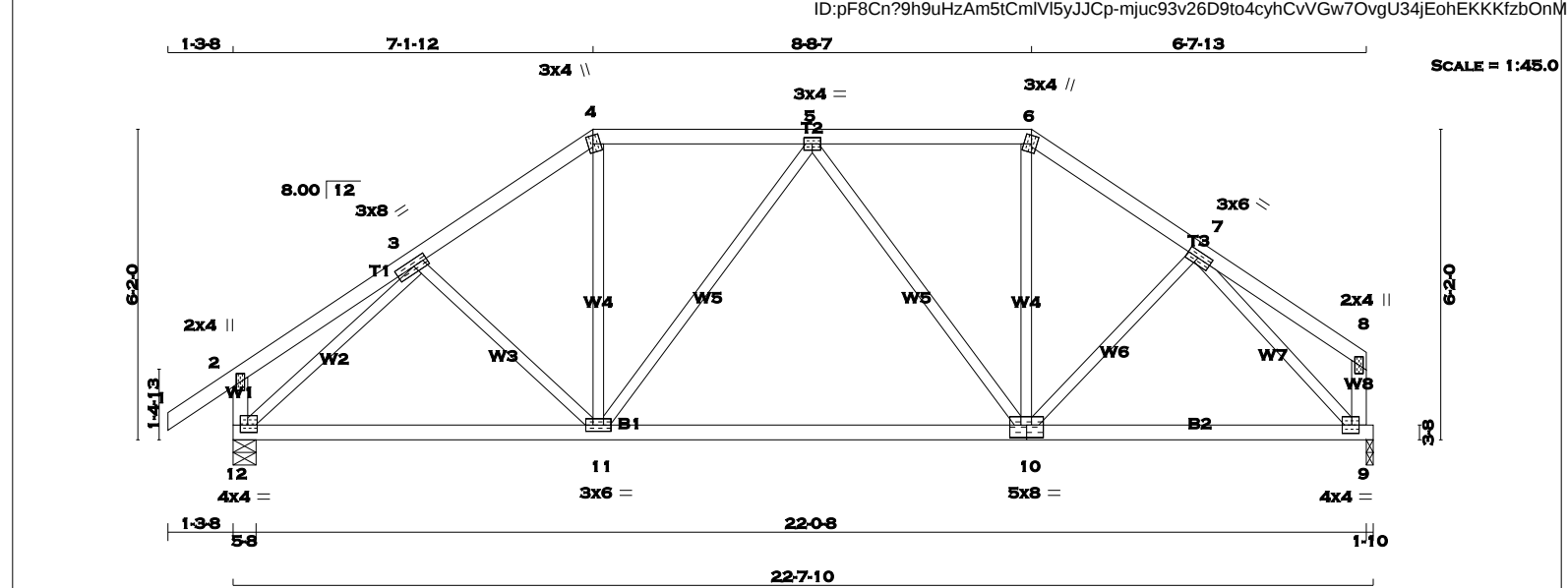
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|                                                                     |     |     |                                                                                                      |                                                                                  |  |  |  |  |  |  |  |  |                        |                                                                                                        |  |
|---------------------------------------------------------------------|-----|-----|------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------|--|--|--|--|--|--|--|--|------------------------|--------------------------------------------------------------------------------------------------------|--|
| <b>LUMBER</b><br>N. L. G. A. RULES<br>CHORDS SIZE LUMBER DESCR. SPF |     |     | <b>DIMENSIONS, SUPPORTS AND LOADINGS SPECIFIED BY FABRICATOR TO BE VERIFIED BY BUILDING DESIGNER</b> |                                                                                  |  |  |  |  |  |  |  |  | <b>DESIGN CRITERIA</b> |                                                                                                        |  |
| 1 - 3                                                               | 2x4 | DRY | No.2                                                                                                 | <b>BEARINGS</b>                                                                  |  |  |  |  |  |  |  |  |                        | SPECIFIED LOADS:                                                                                       |  |
| 3 - 5                                                               | 2x4 | DRY | No.2                                                                                                 | FACTORED MAXIMUM FACTORED INPUT REQ'D                                            |  |  |  |  |  |  |  |  |                        | TOP CH. LL = 23.3 PSF                                                                                  |  |
| 5 - 6                                                               | 2x4 | DRY | No.2                                                                                                 | GROSS REACTION GROSS REACTION BRG BRG                                            |  |  |  |  |  |  |  |  |                        | DL = 3.0 PSF                                                                                           |  |
| 12 - 2                                                              | 2x4 | DRY | No.2                                                                                                 | JT VERT HORZ DOWN HORZ UPLIFT IN-SX IN-SX                                        |  |  |  |  |  |  |  |  |                        | BOT CH. LL = 0.0 PSF                                                                                   |  |
| 7 - 6                                                               | 2x4 | DRY | No.2                                                                                                 | 12 1173 0 1173 0 0 5-8 5-8                                                       |  |  |  |  |  |  |  |  |                        | DL = 7.0 PSF                                                                                           |  |
| 12 - 9                                                              | 2x4 | DRY | No.2                                                                                                 | 7 1067 0 1067 0 0 1-10 1-10                                                      |  |  |  |  |  |  |  |  |                        | TOTAL LOAD = 33.3 PSF                                                                                  |  |
| 9 - 7                                                               | 2x4 | DRY | No.2                                                                                                 | <b>UNFACTORED REACTIONS</b>                                                      |  |  |  |  |  |  |  |  |                        | <b>SPACING = 24.0 IN. C/C</b>                                                                          |  |
| ALL WEBS EXCEPT                                                     | 2x3 | DRY | No.2                                                                                                 | 1ST LCASE MAX/MIN. COMPONENT REACTIONS                                           |  |  |  |  |  |  |  |  |                        | LOADING IN FLAT SECTION BASED ON A SLOPE OF 6.00/12                                                    |  |
| DRY: SEASONED LUMBER.                                               |     |     |                                                                                                      | JT COMBINED SNOW LIVE PERM.LIVE WIND DEAD SOIL                                   |  |  |  |  |  |  |  |  |                        | THIS TRUSS IS DESIGNED FOR RESIDENTIAL OR SMALL BUILDING REQUIREMENTS OF PART 9, NBCC 2010             |  |
|                                                                     |     |     |                                                                                                      | 7 749 524 / 0 0 / 0 0 / 0 0 / 0 225 / 0 0 / 0                                    |  |  |  |  |  |  |  |  |                        | THIS DESIGN COMPLIES WITH:<br>- PART 9 OF OBC 2012, BCBC 2012, ABC 2014<br>- CSA 086-09<br>- TPIC 2011 |  |
|                                                                     |     |     |                                                                                                      | <b>BRACING</b>                                                                   |  |  |  |  |  |  |  |  |                        | (55 % OF 27.2 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 23.3 P.S.F. SPECIFIED ROOF LIVE LOAD     |  |
|                                                                     |     |     |                                                                                                      | TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 4.99 FT.                       |  |  |  |  |  |  |  |  |                        | ALLOWABLE DEFL.(LL)= L/360 (0.75")                                                                     |  |
|                                                                     |     |     |                                                                                                      | MAX. UNBRACED BOTTOM CHORD LENGTH = 10.00 FT. OR RIGID CEILING DIRECTLY APPLIED. |  |  |  |  |  |  |  |  |                        | CALCULATED VERT. DEFL.(LL) = L/ 999 (0.04")                                                            |  |
|                                                                     |     |     |                                                                                                      | <b>LOADING</b>                                                                   |  |  |  |  |  |  |  |  |                        | ALLOWABLE DEFL.(TL)= L/360 (0.75")                                                                     |  |
|                                                                     |     |     |                                                                                                      | TOTAL LOAD CASES: (3)                                                            |  |  |  |  |  |  |  |  |                        | CALCULATED VERT. DEFL.(TL) = L/ 999 (0.08")                                                            |  |
|                                                                     |     |     |                                                                                                      | CHORDS WEBS                                                                      |  |  |  |  |  |  |  |  |                        | CSI: TC=0.50 (4-5:1), BC=0.23 (10-11:1), WB=0.22 (4-10:1), SSI=0.22 (3-4:1)                            |  |
|                                                                     |     |     |                                                                                                      | MEMB. FORCE VERT. LOAD LC1 MAX MAX. MEMB. FORCE MAX                              |  |  |  |  |  |  |  |  |                        | DOL LUMBER=1.00 NAIL=1.00 LS BEND=1.10                                                                 |  |
|                                                                     |     |     |                                                                                                      | (LBS) (PLF) CSI (LC) UNBRAC LENGTH FR-TO (LBS) CSI (LC)                          |  |  |  |  |  |  |  |  |                        | COMP=1.10 SHEAR=1.10 TENS=1.10                                                                         |  |
|                                                                     |     |     |                                                                                                      | FR-TO FROM TO                                                                    |  |  |  |  |  |  |  |  |                        | COMPANION LIVE LOAD FACTOR = 0.50                                                                      |  |
|                                                                     |     |     |                                                                                                      | 1-2 0 / 29 -77.3 -77.3 0.10 (1) 10.00 11-3 -62 / 74 0.03 (3)                     |  |  |  |  |  |  |  |  |                        | TRUSS PLATE MANUFACTURER IS NOT RESPONSIBLE FOR QUALITY CONTROL IN THE TRUSS MANUFACTURING PLANT .     |  |
|                                                                     |     |     |                                                                                                      | 2-3 -1135 / 0 -77.3 -77.3 0.49 (1) 5.30 3-10 0 / 469 0.11 (1)                    |  |  |  |  |  |  |  |  |                        | NAIL VALUES                                                                                            |  |
|                                                                     |     |     |                                                                                                      | 3-4 -1302 / 0 -77.3 -77.3 0.50 (1) 4.99 10-4 -555 / 0 0.22 (1)                   |  |  |  |  |  |  |  |  |                        | PLATE GRIP(DRY) SHEAR SECTION                                                                          |  |
|                                                                     |     |     |                                                                                                      | 4-5 -1302 / 0 -77.3 -77.3 0.50 (1) 4.99 10-5 0 / 544 0.12 (1)                    |  |  |  |  |  |  |  |  |                        | (PSI) (PLI) (PLI)                                                                                      |  |
|                                                                     |     |     |                                                                                                      | 5-6 -1067 / 0 -77.3 -77.3 0.40 (1) 5.57 8-5 -129 / 49 0.05 (1)                   |  |  |  |  |  |  |  |  |                        | MAX MIN MAX MIN MAX MIN                                                                                |  |
|                                                                     |     |     |                                                                                                      | 12-2 -1133 / 0 0 0 0.12 (1) 7.46 2-11 0 / 960 0.22 (1)                           |  |  |  |  |  |  |  |  |                        | MT20 618 354 1667 822 2284 1656                                                                        |  |
|                                                                     |     |     |                                                                                                      | 7-6 -1031 / 0 0 0 0.11 (1) 7.73 8-6 0 / 918 0.21 (1)                             |  |  |  |  |  |  |  |  |                        | PLATE PLACEMENT TOL. = 0.250 inches                                                                    |  |
|                                                                     |     |     |                                                                                                      | 12-11 0 / 0 -17.5 -17.5 0.14 (3) 10.00                                           |  |  |  |  |  |  |  |  |                        | PLATE ROTATION TOL. = 5.0 Deg.                                                                         |  |
|                                                                     |     |     |                                                                                                      | 11-10 0 / 942 -17.5 -17.5 0.23 (1) 10.00                                         |  |  |  |  |  |  |  |  |                        | JSI GRIP= 0.89 (6) (INPUT = 0.90 )                                                                     |  |
|                                                                     |     |     |                                                                                                      | 10-9 0 / 884 -17.5 -17.5 0.21 (1) 10.00                                          |  |  |  |  |  |  |  |  |                        | JSI METAL= 0.39 (2) (INPUT = 1.00 )                                                                    |  |
|                                                                     |     |     |                                                                                                      | 9-8 0 / 884 -17.5 -17.5 0.21 (1) 10.00                                           |  |  |  |  |  |  |  |  |                        |                                                                                                        |  |
|                                                                     |     |     |                                                                                                      | 8-7 0 / 0 -17.5 -17.5 0.13 (3) 10.00                                             |  |  |  |  |  |  |  |  |                        |                                                                                                        |  |



LUMBER

N. L. G. A. RULES

CHORDS

SIZE

LUMBER

DESCR.

1 - 4

2x4

DRY

No.2

SPF

4 - 6

2x4

DRY

No.2

SPF

6 - 8

2x4

DRY

No.2

SPF

12 - 2

2x4

DRY

No.2

SPF

9 - 8

2x4

DRY

No.2

SPF

12 - 10

2x4

DRY

No.2

SPF

10 - 9

2x4

DRY

No.2

SPF

ALL WEBS

2x3

DRY

No.2

SPF

EXCEPT

DRY: SEASONED LUMBER.

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

BEARINGS

FACTORED

MAXIMUM FACTORED

INPUT

REQRD

GROSS REACTION

GROSS REACTION

BRG

BRG

JT

VERT

HORZ

DOWN

HORZ

UPLIFT

IN-SX

IN-SX

12

1173

0

1173

0

0

5-8

5-8

9

1067

0

1067

0

0

1-10

1-10

UNFACTORED REACTIONS

1ST LCASE

MAX/MIN. COMPONENT REACTIONS

JT

COMBINED

SNOW

LIVE

PERM.LIVE

WIND

DEAD

SOIL

12

821

588 / 0

0 / 0

0 / 0

0 / 0

233 / 0

0 / 0

9

749

524 / 0

0 / 0

0 / 0

0 / 0

225 / 0

0 / 0

BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S) 12, 9

BRACING

TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 5.90 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.

LOADING

TOTAL LOAD CASES: (3)

CHORDS

MAX. FACTORED

FACTORED

VERT. LOAD LC1

MAX

MAX.

MEMB.

FORCE

VERT. LOAD LC1

MAX

MAX.

MEMB.

FORCE

MAX

FR-TO

FROM

TO

LENGTH

FR-TO

FROM

TO

LENGTH

1-2

0 / 29

-77.3

-77.3

0.10 (1)

10.00

3-11

-47 / 36

0.02 (1)

2-3

0 / 16

-77.3

-77.3

0.15 (1)

10.00

11-4

0 / 366

0.08 (1)

3-4

-1105 / 0

-77.3

-77.3

0.13 (1)

5.90

11-5

-222 / 0

0.23 (1)

4-5

-910 / 0

-77.3

-77.3

0.19 (1)

6.24

5-10

-284 / 0

0.29 (1)

5-6

-874 / 0

-77.3

-77.3

0.19 (1)

6.25

10-6

0 / 350

0.08 (1)

6-7

-1061 / 0

-77.3

-77.3

0.11 (1)

6.01

10-7

0 / 55

0.02 (3)

7-8

0 / 15

-77.3

-77.3

0.12 (1)

10.00

12-3

-1307 / 0

0.51 (1)

12-2

-214 / 0

0.0

0.0

0.02 (1)

7.81

7-9

-1248 / 0

0.48 (1)

9-8

-102 / 0

0.0

0.0

0.01 (1)

7.81

12-11

0 / 938

-17.5

-17.5

0.32 (3)

10.00

11-10

0 / 1041

-17.5

-17.5

0.33 (3)

10.00

10-9

0 / 843

-17.5

-17.5

0.29 (3)

10.00

DESIGN CRITERIA

SPECIFIED LOADS:

TOP CH.

LL =

23.3

PSF

DL =

3.0

PSF

BOT CH.

LL =

0.0

PSF

DL =

7.0

PSF

TOTAL LOAD =

33.3

PSF

SPACING =

24.0

IN. C/C

LOADING IN FLAT SECTION BASED ON A SLOPE OF 6.00/12

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

THIS DESIGN COMPLIES WITH:

- PART 9 OF OBC 2012, BCBC 2012, ABC 2014

- CSA 086-09

- TPIC 2011

(55 % OF 27.2 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 23.3 P.S.F. SPECIFIED ROOF LIVE LOAD

ALLOWABLE DEFL.(LL)=

L/360 (0.75")

CALCULATED VERT. DEFL.(LL) =

L/999 (0.04")

ALLOWABLE DEFL.(TL)=

L/360 (0.75")

CALCULATED VERT. DEFL.(TL) =

L/999 (0.11")

CSI: TC=0.19 (4-5:1), BC=0.33 (10-11:3), WB=0.51 (3-12:1), SSI=0.16 (4-5:1)

DOL LUMBER=1.00 NAIL=1.00 LS BEND=1.10

COMP=1.10 SHEAR=1.10 TENS= 1.10

COMPANION LIVE LOAD FACTOR = 0.50

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

NAIL VALUES

PLATE GRIP(DRY) SHEAR SECTION

(PSI) (PLI) (PLI)

MAX MIN MAX MIN MAX MIN

MT20 618 354 1667 822 2284 1656

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.90 (3) (INPUT = 0.90 )

JSI METAL= 0.35 (12) (INPUT = 1.00 )

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BUILDING DIVISION

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PLATE GRIP(DRY) SHEAR SECTION

(PSI) (PLI) (PLI)

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(PSI) (PLI) (PLI)

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PLATE GRIP(DRY) SHEAR SECTION

(PSI) (PLI) (PLI)

MAX MIN MAX MIN MAX MIN

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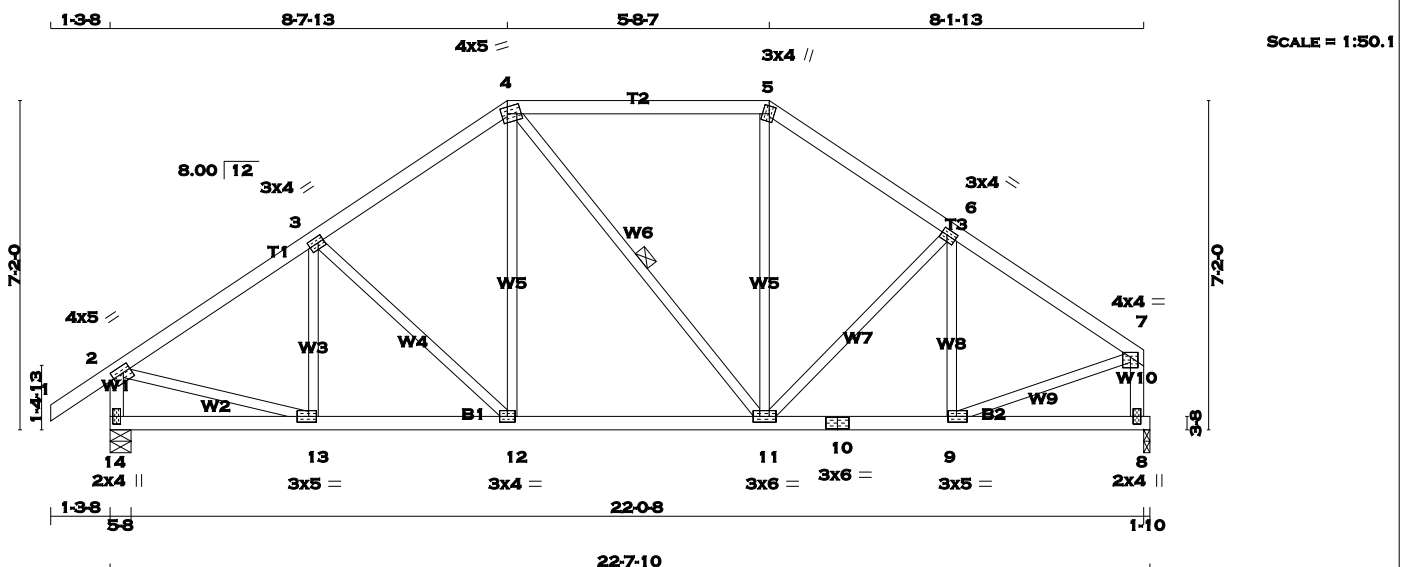
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TOTAL WEIGHT = 100 lb  
 [M][F]

| LUMBER          |      | N. L. G. A. RULES |      | LUMBER |  | DESCR. |  |
|-----------------|------|-------------------|------|--------|--|--------|--|
| CHORDS          | SIZE |                   |      |        |  |        |  |
| 1 - 4           | 2x4  | DRY               | No.2 | SPF    |  |        |  |
| 4 - 5           | 2x4  | DRY               | No.2 | SPF    |  |        |  |
| 5 - 7           | 2x4  | DRY               | No.2 | SPF    |  |        |  |
| 14 - 2          | 2x4  | DRY               | No.2 | SPF    |  |        |  |
| 8 - 7           | 2x4  | DRY               | No.2 | SPF    |  |        |  |
| 14 - 10         | 2x4  | DRY               | No.2 | SPF    |  |        |  |
| 10 - 8          | 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    |
| 2                           | TMVW-t | MT20   | 4.0 | 5.0 | 1.75 | 2.00 |
| 3                           | TMVW-t | MT20   | 3.0 | 4.0 | 1.50 | 1.50 |
| 4                           | TTWW-m | MT20   | 4.0 | 5.0 | 1.75 | 1.50 |
| 5                           | TTWW-m | MT20   | 3.0 | 4.0 | 2.00 | 1.25 |
| 6                           | TMVW-t | MT20   | 3.0 | 4.0 | 1.50 | 1.50 |
| 7                           | TMVW-p | MT20   | 4.0 | 4.0 | 1.25 | 2.00 |
| 8                           | BMV1+p | MT20   | 2.0 | 4.0 |      |      |
| 9                           | BMVW-t | MT20   | 3.0 | 5.0 | 1.50 | 2.25 |
| 10                          | BS-t   | MT20   | 3.0 | 6.0 |      |      |
| 11                          | BMVW-t | MT20   | 3.0 | 6.0 |      |      |
| 12                          | BMVW-t | MT20   | 3.0 | 4.0 |      |      |
| 13                          | BMVW-t | MT20   | 3.0 | 5.0 | 1.50 | 2.00 |
| 14                          | BMV1+p | MT20   | 2.0 | 4.0 |      |      |

A SIZE FOR SIZE SUBSTITUTION OF MITEK MII20 WITH TEE-LOK TL20 PLATES IS ALLOWED.

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

| BEARINGS |                | FACTORED |      | MAXIMUM FACTORED |      | INPUT  |       | REQRD |       |
|----------|----------------|----------|------|------------------|------|--------|-------|-------|-------|
| JT       | GROSS REACTION | DOWN     | HORZ | DOWN             | HORZ | UPLIFT | IN-SX | BRG   | IN-SX |
| 14       | 1173           | 0        | 1173 | 0                | 0    | 5-8    | 5-8   |       |       |
| 8        | 1067           | 0        | 1067 | 0                | 0    | 1-10   | 1-10  |       |       |

| UNFACTORED REACTIONS |          | 1ST LCASE |       | MAX/MIN. COMPONENT REACTIONS |       |         |       |  |  |
|----------------------|----------|-----------|-------|------------------------------|-------|---------|-------|--|--|
| JT                   | COMBINED | SNOW      | LIVE  | PERM. LIVE                   | WIND  | DEAD    | SOIL  |  |  |
| 14                   | 821      | 588 / 0   | 0 / 0 | 0 / 0                        | 0 / 0 | 233 / 0 | 0 / 0 |  |  |
| 8                    | 749      | 524 / 0   | 0 / 0 | 0 / 0                        | 0 / 0 | 225 / 0 | 0 / 0 |  |  |

BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S) 14, 8

**BRACING**  
 TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 5.69 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 - 2x3 SPF No.2 LATERAL BRACE(S) AT 1/2 LENGTH OF 4-11. DBS = 20-0-0, CBF = 4 LBS.

DBS = DIAGONAL BRACE SPACING (MAX). CBF = CUMULATIVE BRACING FORCE. FASTEN LATERAL BRACE(S) USING (0.122"x3") SPIRAL NAILS: 1 NAIL FOR 2x3 BRACE(S), 2 FOR 1x4, 2x4, 2x5, 3 FOR 2x6, 4 FOR 2x8, 5 FOR 2x10, AND 6 FOR 2x12.

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: (3) |          |             |       |             |             |               |             |
|---------|-------------|-----------------------|----------|-------------|-------|-------------|-------------|---------------|-------------|
| CHORDS  |             | MAX. FACTORED         |          | FACTORED    |       | WEBS        |             | MAX. FACTORED |             |
| MEMB.   | FORCE (LBS) | VERT. LOAD            | LC1 MAX  | MAX. UNBRAC | MEMB. | FORCE (LBS) | MAX. UNBRAC | MEMB.         | FORCE (LBS) |
| FR-TO   |             | FROM TO               | CSI (LC) | LENGTH      | FR-TO |             | LENGTH      | FR-TO         |             |
| 1-2     | 0 / 29      | -77.3                 | -77.3    | 0.10 (1)    | 10.00 | 13-3        | -163 / 21   | 0.05 (1)      |             |
| 2-3     | -1167 / 0   | -77.3                 | -77.3    | 0.20 (1)    | 5.69  | 3-12        | -216 / 0    | 0.13 (1)      |             |
| 3-4     | -1022 / 0   | -77.3                 | -77.3    | 0.19 (1)    | 5.98  | 12-4        | 0 / 236     | 0.05 (1)      |             |
| 4-5     | -815 / 0    | -77.3                 | -77.3    | 0.33 (1)    | 6.25  | 4-11        | -30 / 0     | 0.02 (1)      |             |
| 5-6     | -998 / 0    | -77.3                 | -77.3    | 0.17 (1)    | 6.06  | 11-5        | 0 / 208     | 0.05 (1)      |             |
| 6-7     | -1067 / 0   | -77.3                 | -77.3    | 0.17 (1)    | 5.91  | 11-6        | -134 / 0    | 0.08 (1)      |             |
| 14-2    | -1139 / 0   | 0.0                   | 0.0      | 0.12 (1)    | 7.45  | 9-6         | -234 / 0    | 0.07 (1)      |             |
| 8-7     | -1035 / 0   | 0.0                   | 0.0      | 0.11 (1)    | 7.72  | 2-13        | 0 / 1017    | 0.23 (1)      |             |
|         |             |                       |          |             |       | 9-7         | 0 / 955     | 0.21 (1)      |             |
| 14-13   | 0 / 0       | -17.5                 | -17.5    | 0.07 (3)    | 10.00 |             |             |               |             |
| 13-12   | 0 / 988     | -17.5                 | -17.5    | 0.21 (1)    | 10.00 |             |             |               |             |
| 12-11   | 0 / 834     | -17.5                 | -17.5    | 0.18 (1)    | 10.00 |             |             |               |             |
| 11-10   | 0 / 905     | -17.5                 | -17.5    | 0.20 (1)    | 10.00 |             |             |               |             |
| 10-9    | 0 / 905     | -17.5                 | -17.5    | 0.20 (1)    | 10.00 |             |             |               |             |
| 9-8     | 0 / 0       | -17.5                 | -17.5    | 0.06 (3)    | 10.00 |             |             |               |             |

#### DESIGN CRITERIA

SPECIFIED LOADS:  
 TOP CH. LL = 23.3 PSF  
 DL = 3.0 PSF  
 BOT CH. LL = 0.0 PSF  
 DL = 7.0 PSF  
 TOTAL LOAD = 33.3 PSF

SPACING = 24.0 IN./C

LOADING IN FLAT SECTION BASED ON A SLOPE OF 6.00/12

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

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

(55 % OF 27.2 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 23.3 P.S.F. SPECIFIED ROOF LIVE LOAD

ALLOWABLE DEFL.(LL)= L/360 (0.75")  
 CALCULATED VERT. DEFL.(LL) = L/999 (0.03")  
 ALLOWABLE DEFL.(TL)= L/360 (0.75")  
 CALCULATED VERT. DEFL.(TL) = L/999 (0.06")

CSI: TC=0.33 (4-5:1), BC=0.21 (12-13:1), WB=0.23 (2-13:1), SSI=0.17 (4-5:1)

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

COMPANION LIVE LOAD FACTOR = 0.50

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

NAIL VALUES  
 PLATE GRIP(DRY) SHEAR SECTION  
 (PSI) (PLI) (PLI)  
 MAX MIN MAX MIN MAX MIN  
 MT20 618 354 1667 822 2284 1656

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

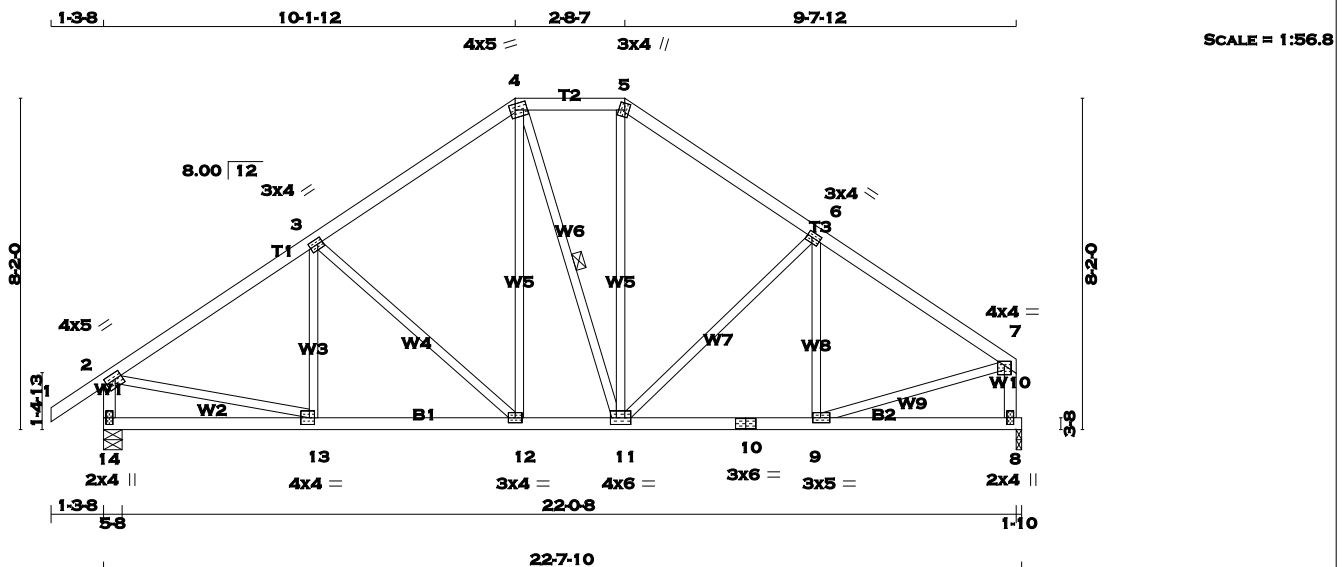
JSI GRIP= 0.88 (9) (INPUT = 0.90)  
 JSI METAL= 0.40 (2) (INPUT = 1.00)



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TOTAL WEIGHT = 105 lb  
[M][F]

| LUMBER                |      |        |        | N. L. G. A. RULES     |      |        |        |
|-----------------------|------|--------|--------|-----------------------|------|--------|--------|
| CHORDS                | SIZE | LUMBER | DESCR. | CHORDS                | SIZE | LUMBER | DESCR. |
| 1 - 4                 | 2x4  | DRY    | No.2   | 1 - 4                 | 2x4  | DRY    | No.2   |
| 4 - 5                 | 2x4  | DRY    | No.2   | 4 - 5                 | 2x4  | DRY    | No.2   |
| 5 - 7                 | 2x4  | DRY    | No.2   | 5 - 7                 | 2x4  | DRY    | No.2   |
| 14 - 2                | 2x4  | DRY    | No.2   | 14 - 2                | 2x4  | DRY    | No.2   |
| 8 - 7                 | 2x4  | DRY    | No.2   | 8 - 7                 | 2x4  | DRY    | No.2   |
| 14 - 10               | 2x4  | DRY    | No.2   | 14 - 10               | 2x4  | DRY    | No.2   |
| 10 - 8                | 2x4  | DRY    | No.2   | 10 - 8                | 2x4  | DRY    | No.2   |
| ALL WEBS EXCEPT       | 2x3  | DRY    | No.2   | ALL WEBS EXCEPT       | 2x3  | DRY    | No.2   |
| DRY: SEASONED LUMBER. |      |        |        | DRY: SEASONED LUMBER. |      |        |        |

| PLATES (table is in inches) |        |        |     |     |      |      |
|-----------------------------|--------|--------|-----|-----|------|------|
| JT                          | TYPE   | PLATES | W   | LEN | Y    | X    |
| 2                           | TMVW-t | MT20   | 4.0 | 5.0 | 1.75 | 2.00 |
| 3                           | TMVW-t | MT20   | 3.0 | 4.0 | 1.50 | 1.50 |
| 4                           | TTWW-m | MT20   | 4.0 | 5.0 | 1.75 | 1.50 |
| 5                           | TTWW-m | MT20   | 3.0 | 4.0 | 2.00 | 1.25 |
| 6                           | TMVW-t | MT20   | 3.0 | 4.0 | 1.50 | 1.50 |
| 7                           | TMVW-p | MT20   | 4.0 | 4.0 | 1.25 | 2.00 |
| 8                           | BMV1+p | MT20   | 2.0 | 4.0 |      |      |
| 9                           | BMVW-t | MT20   | 3.0 | 5.0 | 1.50 | 2.25 |
| 10                          | BS-t   | MT20   | 3.0 | 6.0 |      |      |
| 11                          | BMVW-t | MT20   | 4.0 | 6.0 |      |      |
| 12                          | BMVW-t | MT20   | 3.0 | 4.0 |      |      |
| 13                          | BMVW-t | MT20   | 4.0 | 4.0 | 2.00 | 1.50 |
| 14                          | BMV1+p | MT20   | 2.0 | 4.0 |      |      |

A SIZE FOR SIZE SUBSTITUTION OF MITEK MII20 WITH TEE-LOK TL20 PLATES IS ALLOWED.

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

| BEARINGS |      |   |  | FACTORED       |   |  |  | MAXIMUM FACTORED |   |  |  | INPUT |  |  |  | REQRD |  |  |  |
|----------|------|---|--|----------------|---|--|--|------------------|---|--|--|-------|--|--|--|-------|--|--|--|
|          |      |   |  | GROSS REACTION |   |  |  | GROSS REACTION   |   |  |  | BRG   |  |  |  | BRG   |  |  |  |
|          |      |   |  | JT             |   |  |  | DOWN             |   |  |  | IN-SX |  |  |  | IN-SX |  |  |  |
| 14       | 1173 | 0 |  | 1173           | 0 |  |  | 1173             | 0 |  |  | 5-8   |  |  |  | 5-8   |  |  |  |
| 8        | 1067 | 0 |  | 1067           | 0 |  |  | 1067             | 0 |  |  | 1-10  |  |  |  | 1-10  |  |  |  |

| UNFACTORED REACTIONS         |     |         |  |       |  |       |  |
|------------------------------|-----|---------|--|-------|--|-------|--|
| 1ST LCASE                    |     |         |  |       |  |       |  |
| MAX/MIN. COMPONENT REACTIONS |     |         |  |       |  |       |  |
| JT                           |     |         |  |       |  |       |  |
| COMBINED                     |     |         |  |       |  |       |  |
| 14                           | 821 | 588 / 0 |  | 0 / 0 |  | 0 / 0 |  |
| 8                            | 749 | 524 / 0 |  | 0 / 0 |  | 0 / 0 |  |

BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S) 14, 8

#### BRACING

TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 5.57 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 - 2x3 SPF No.2 LATERAL BRACE(S) AT 1/2 LENGTH OF 4-11. DBS = 20-0-0. CBF = 3 LBS.

DBS = DIAGONAL BRACE SPACING (MAX). CBF = CUMULATIVE BRACING FORCE. FASTEN LATERAL BRACE(S) USING (0.122"x3") SPIRAL NAILS: 1 NAIL FOR 2x3 BRACE(S), 2 FOR 1x4, 2x4, 2x5, 3 FOR 2x6, 4 FOR 2x8, 5 FOR 2x10, AND 6 FOR 2x12.

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: (3)

| CHORDS        |           |       |                | WEBS          |      |           |          |
|---------------|-----------|-------|----------------|---------------|------|-----------|----------|
| MAX. FACTORED |           |       |                | MAX. FACTORED |      |           |          |
| MEMB.         |           |       |                | MEMB.         |      |           |          |
| FORCE         |           |       |                | FORCE         |      |           |          |
| (LBS)         |           |       |                | (LBS)         |      |           |          |
| VERT. LOAD    |           |       |                | VERT. LOAD    |      |           |          |
| LC1 MAX       |           |       |                | LC1 MAX       |      |           |          |
| FROM TO       |           |       |                | FROM TO       |      |           |          |
| FR-TO         |           |       |                | FR-TO         |      |           |          |
| 1-2           | 0 / 29    | -77.3 | -77.3 0.10 (1) | 10.00         | 13-3 | -106 / 56 | 0.04 (1) |
| 2-3           | -1177 / 0 | -77.3 | -77.3 0.28 (1) | 5.57          | 3-12 | -329 / 0  | 0.28 (1) |
| 3-4           | -936 / 0  | -77.3 | -77.3 0.26 (1) | 6.08          | 12-4 | 0 / 278   | 0.06 (1) |
| 4-5           | -752 / 0  | -77.3 | -77.3 0.08 (1) | 6.25          | 4-11 | -22 / 0   | 0.01 (1) |
| 5-6           | -926 / 0  | -77.3 | -77.3 0.24 (1) | 6.14          | 11-5 | 0 / 260   | 0.06 (1) |
| 6-7           | -1090 / 0 | -77.3 | -77.3 0.25 (1) | 5.77          | 11-6 | -250 / 0  | 0.21 (1) |
| 14-2          | -1136 / 0 | 0.0   | 0.0 0.12 (1)   | 7.45          | 9-6  | -171 / 32 | 0.06 (1) |
| 8-7           | -1031 / 0 | 0.0   | 0.0 0.11 (1)   | 7.73          | 2-13 | 0 / 1022  | 0.23 (1) |
|               |           |       |                |               | 9-7  | 0 / 965   | 0.22 (1) |
| 14-13         | 0 / 0     | -17.5 | -17.5 0.12 (3) | 10.00         |      |           |          |
| 13-12         | 0 / 1000  | -17.5 | -17.5 0.22 (1) | 10.00         |      |           |          |
| 12-11         | 0 / 759   | -17.5 | -17.5 0.15 (1) | 10.00         |      |           |          |
| 11-10         | 0 / 927   | -17.5 | -17.5 0.20 (1) | 10.00         |      |           |          |
| 10-9          | 0 / 927   | -17.5 | -17.5 0.20 (1) | 10.00         |      |           |          |
| 9-8           | 0 / 0     | -17.5 | -17.5 0.10 (3) | 10.00         |      |           |          |

#### DESIGN CRITERIA

##### SPECIFIED LOADS:

|            |     |    |   |      |          |
|------------|-----|----|---|------|----------|
| TOP        | CH. | LL | = | 23.3 | PSF      |
|            |     | DL | = | 3.0  | PSF      |
| BOT        | CH. | LL | = | 0.0  | PSF      |
|            |     | DL | = | 7.0  | PSF      |
| TOTAL LOAD |     |    |   | =    | 33.3 PSF |

SPACING = 24.0 IN./C/C

LOADING IN FLAT SECTION BASED ON A SLOPE OF 6.00/12

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

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

(55 % OF 27.2 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 23.3 P.S.F. SPECIFIED ROOF LIVE LOAD

ALLOWABLE DEFL.(LL)= L/360 (0.75")  
CALCULATED VERT. DEFL.(LL) = L/999 (0.03")  
ALLOWABLE DEFL.(TL)= L/360 (0.75")  
CALCULATED VERT. DEFL.(TL) = L/999 (0.06")

CSI: TC=0.28 (2-3:1), BC=0.22 (12-13:1), WB=0.28 (3-12:1), SSI=0.16 (2-3:1)

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

COMPANION LIVE LOAD FACTOR = 0.50

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

NAIL VALUES  
PLATE GRIP(DRY) SHEAR SECTION  
(PSI) (PLI) (PLI)  
MAX MIN MAX MIN MAX MIN  
MT20 618 354 1667 822 2284 1656

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

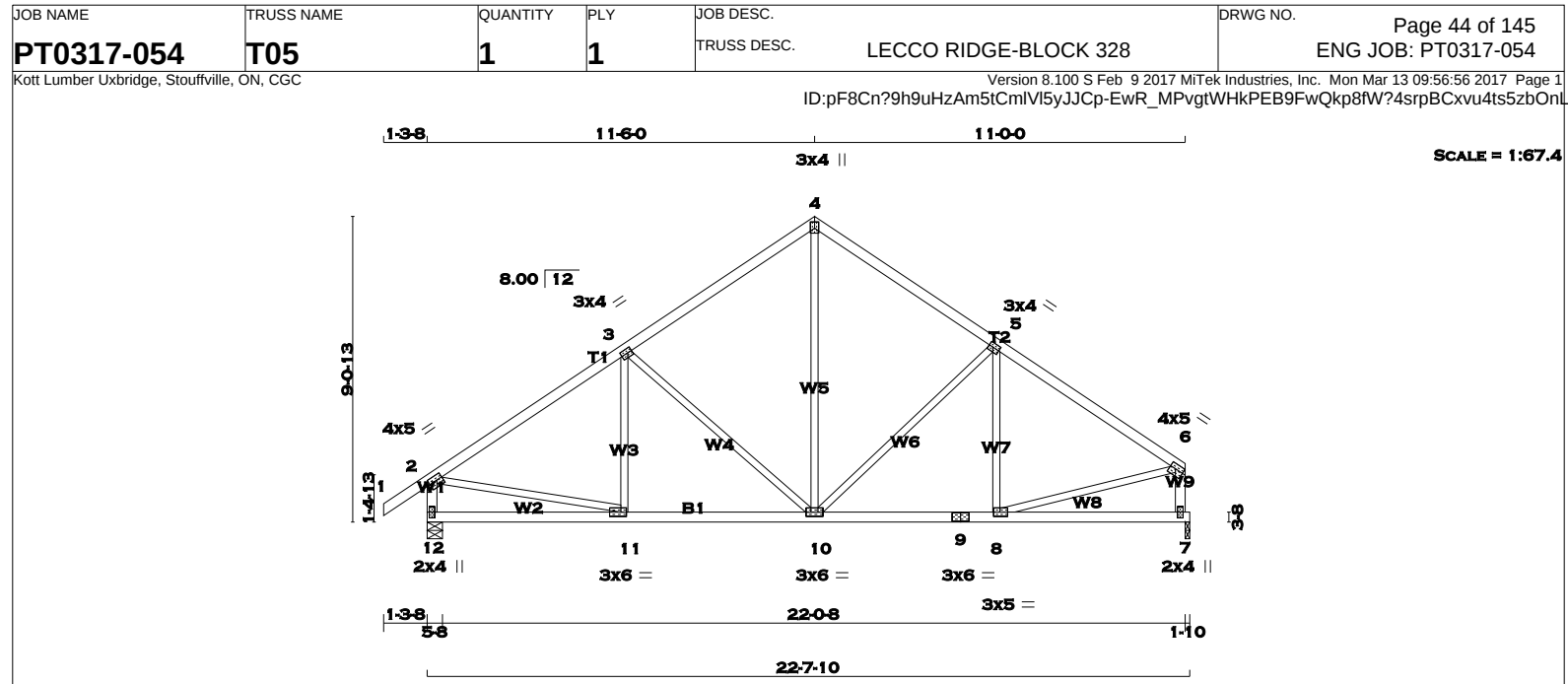
JSI GRIP= 0.90 (7) (INPUT = 0.90)  
JSI METAL= 0.40 (2) (INPUT = 1.00)



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**LUMBER**

N. L. G. A. RULES

| CHORDS | SIZE | LUMBER | DESCR. |
|--------|------|--------|--------|
| 1 - 4  | 2x4  | DRY    | No.2   |
| 4 - 6  | 2x4  | DRY    | No.2   |
| 12 - 2 | 2x4  | DRY    | No.2   |
| 7 - 6  | 2x4  | DRY    | No.2   |
| 12 - 9 | 2x4  | DRY    | No.2   |
| 9 - 7  | 2x4  | DRY    | No.2   |

ALL WEBS 2x3 DRY No.2

EXCEPT

SPF

DRY: SEASONED LUMBER.

**PLATES (table is in inches)**

| JT | TYPE   | PLATES | W   | LEN | Y    | X    |
|----|--------|--------|-----|-----|------|------|
| 2  | TMVW-t | MT20   | 4.0 | 5.0 | 1.75 | 2.00 |
| 3  | TMVW-t | MT20   | 3.0 | 4.0 | 1.50 | 1.50 |
| 4  | TTW+p  | MT20   | 3.0 | 4.0 | 2.25 | 1.50 |
| 5  | TMVW-t | MT20   | 3.0 | 4.0 | 1.50 | 1.50 |
| 6  | TMVW-t | MT20   | 4.0 | 5.0 | 1.75 | Edge |
| 7  | BMV1+p | MT20   | 2.0 | 4.0 |      |      |
| 8  | BMVW-t | MT20   | 3.0 | 5.0 | 1.50 | 2.25 |
| 9  | BS-t   | MT20   | 3.0 | 6.0 |      |      |
| 10 | BMVW-t | MT20   | 3.0 | 6.0 |      |      |
| 11 | BMVW-t | MT20   | 3.0 | 6.0 | 1.50 | 2.00 |
| 12 | BMV1+p | MT20   | 2.0 | 4.0 |      |      |

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

A SIZE FOR SIZE SUBSTITUTION OF MITEK MII20 WITH TEE-LOK TL20 PLATES IS ALLOWED.



**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      |
| 12 | 1173                    | 0                               | 1173      | 0         |
| 7  | 1067                    | 0                               | 1067      | 0         |

**UNFACTORED REACTIONS**

|    | 1ST LCASE COMBINED | MAX/MIN. SNOW | MAX/MIN. LIVE | MAX/MIN. PERM. LIVE | MAX/MIN. WIND | MAX/MIN. DEAD | MAX/MIN. SOIL |
|----|--------------------|---------------|---------------|---------------------|---------------|---------------|---------------|
| JT |                    |               |               |                     |               |               |               |
| 12 | 821                | 588 / 0       | 0 / 0         | 0 / 0               | 0 / 0         | 233 / 0       | 0 / 0         |
| 7  | 749                | 524 / 0       | 0 / 0         | 0 / 0               | 0 / 0         | 225 / 0       | 0 / 0         |

BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S) 12, 7

**BRACING**

TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 5.46 FT.

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

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

**LOADING**

TOTAL LOAD CASES: (3)

|       | CHORDS                          | WEBS                            |
|-------|---------------------------------|---------------------------------|
|       | MAX. FACTORED MEMB. FORCE (LBS) | MAX. FACTORED MEMB. FORCE (LBS) |
| FR-TO |                                 |                                 |
| 1-2   | 0 / 29                          | -77.3 / -77.3                   |
| 2-3   | -1172 / 0                       | -77.3 / -77.3                   |
| 3-4   | -860 / 0                        | -77.3 / -77.3                   |
| 4-5   | -859 / 0                        | -77.3 / -77.3                   |
| 5-6   | -1097 / 0                       | -77.3 / -77.3                   |
| 12-2  | -1131 / 0                       | 0.0 / 0.0                       |
| 7-6   | -1026 / 0                       | 0.0 / 0.0                       |
| 12-11 | 0 / 0                           | -17.5 / -17.5                   |
| 11-10 | 0 / 1000                        | -17.5 / -17.5                   |
| 10-9  | 0 / 936                         | -17.5 / -17.5                   |
| 9-8   | 0 / 936                         | -17.5 / -17.5                   |
| 8-7   | 0 / 0                           | -17.5 / -17.5                   |

**DESIGN CRITERIA**

**SPECIFIED LOADS:**

TOP CH. LL = 23.3 PSF

DL = 3.0 PSF

BOT CH. LL = 0.0 PSF

DL = 7.0 PSF

TOTAL LOAD = 33.3 PSF

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

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

THIS DESIGN COMPLIES WITH:

- PART 9 OF OBC 2012, BCBC 2012, ABC 2014
- CSA 086-09
- TPIC 2011

(55 % OF 27.2 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 23.3 P.S.F. SPECIFIED ROOF LIVE LOAD

ALLOWABLE DEFL.(LL)= L/360 (0.75")

CALCULATED VERT. DEFL.(LL) = L/999 (0.03")

ALLOWABLE DEFL.(TL)= L/360 (0.75")

CALCULATED VERT. DEFL.(TL) = L/999 (0.07")

CSI: TC=0.36 (2-3:1), BC=0.23 (10-11:1), WB=0.47 (3-10:1), SSI=0.18 (2-3:1)

DOL LUMBER=1.00 NAIL=1.00 LS BEND=1.10

COMP=1.10 SHEAR=1.10 TENS= 1.10

COMPANION LIVE LOAD FACTOR = 0.50

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

**NAIL VALUES**

PLATE GRIP(DRY) SHEAR SECTION

(PSI) (PLI) (PLI)

MAX MIN MAX MIN MAX MIN

MT20 618 354 1667 822 2284 1656

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

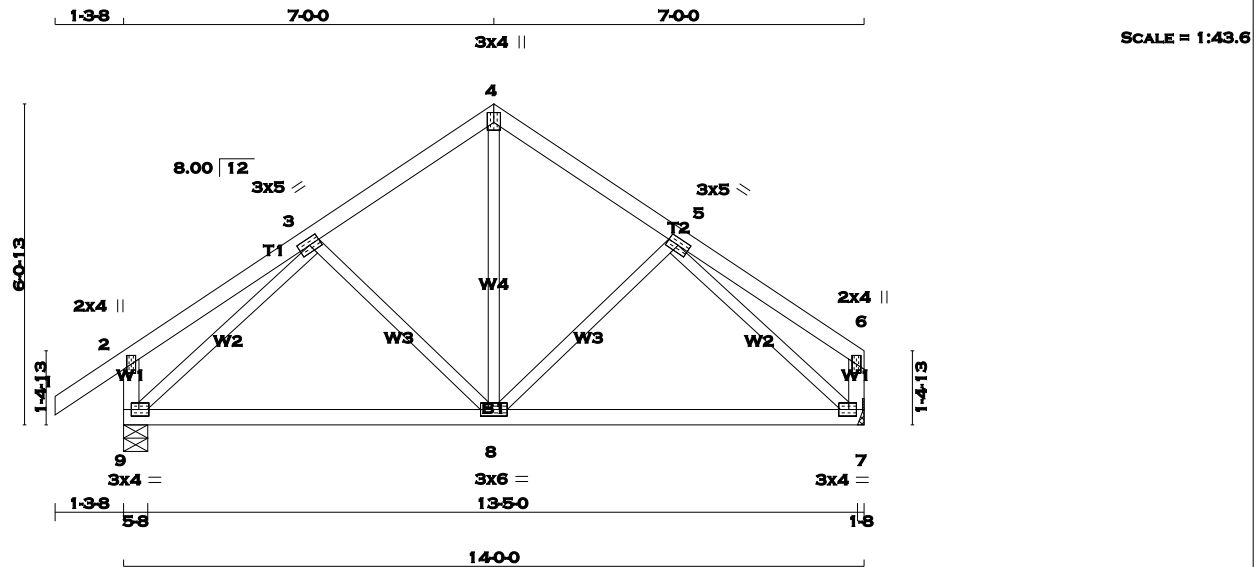
JSI GRIP= 0.90 (8) (INPUT = 0.90)

JSI METAL= 0.41 (2) (INPUT = 1.00)

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TOTAL WEIGHT = 2 X 59 = 117 lb  
[M][F]

| LUMBER                |      |        |      | DESCR. |  |
|-----------------------|------|--------|------|--------|--|
| N. L. G. A. RULES     |      |        |      |        |  |
| CHORDS                | SIZE | LUMBER |      |        |  |
| 1 - 4                 | 2x4  | DRY    | No.2 | SPF    |  |
| 4 - 6                 | 2x4  | DRY    | No.2 | SPF    |  |
| 9 - 2                 | 2x4  | DRY    | No.2 | SPF    |  |
| 7 - 6                 | 2x4  | DRY    | No.2 | SPF    |  |
| 9 - 7                 | 2x4  | DRY    | No.2 | SPF    |  |
| ALL WEBS              | 2x3  | DRY    | No.2 | SPF    |  |
| EXCEPT                |      |        |      |        |  |
| DRY: SEASONED LUMBER. |      |        |      |        |  |

| PLATES (table is in inches) |         |        |     |     |      |      |
|-----------------------------|---------|--------|-----|-----|------|------|
| JT                          | TYPE    | PLATES | W   | LEN | Y    | X    |
| 2                           | TMV+p   | MT20   | 2.0 | 4.0 |      |      |
| 3                           | TMWW-t  | MT20   | 3.0 | 5.0 |      |      |
| 4                           | TTW+p   | MT20   | 3.0 | 4.0 | 2.25 | 1.50 |
| 5                           | TMWW-t  | MT20   | 3.0 | 5.0 |      |      |
| 6                           | TMV+p   | MT20   | 2.0 | 4.0 |      |      |
| 7                           | BMVW1-t | MT20   | 3.0 | 4.0 | 1.50 | 1.75 |
| 8                           | BMWW-t  | MT20   | 3.0 | 6.0 |      |      |
| 9                           | BMVW1-t | MT20   | 3.0 | 4.0 | 1.50 | 1.75 |

A SIZE FOR SIZE SUBSTITUTION OF MITEK MII20 WITH TEE-LOK TL20 PLATES IS ALLOWED.

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

| BEARINGS            |      | FACTORED       | MAXIMUM FACTORED | INPUT | REQRD  |
|---------------------|------|----------------|------------------|-------|--------|
| GROSS REACTION      |      | GROSS REACTION | GROSS REACTION   | BRG   | BRG    |
| JT                  | VERT | HORZ           | DOWN             | HORZ  | UPLIFT |
| 9                   | 770  | 0              | 770              | 0     | 0      |
| 7                   | 664  | 0              | 664              | 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  |
| 9         | 538      | 390 / 0                       | 0 / 0 | 0 / 0     | 0 / 0 | 148 / 0 | 0 / 0 |
| 7         | 466      | 326 / 0                       | 0 / 0 | 0 / 0     | 0 / 0 | 140 / 0 | 0 / 0 |

BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S) 9

#### 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: (3)

| CHORDS |                           |                           |                | WEBS  |                           |               |          |
|--------|---------------------------|---------------------------|----------------|-------|---------------------------|---------------|----------|
| MEMB.  | MAX. FACTORED FORCE (LBS) | FACTORED VERT. LOAD (PLF) | MAX. LC1 (LC)  | MEMB. | MAX. FACTORED FORCE (LBS) | MAX. LC1 (LC) |          |
| FR-TO  |                           | FROM                      | TO             | FR-TO |                           | FROM          | TO       |
| 1-2    | 0 / 29                    | -77.3                     | -77.3 0.10 (1) | 10.00 | 8-4                       | 0 / 352       | 0.08 (1) |
| 2-3    | 0 / 17                    | -77.3                     | -77.3 0.15 (1) | 10.00 | 8-5                       | -144 / 6      | 0.06 (1) |
| 3-4    | -524 / 0                  | -77.3                     | -77.3 0.12 (1) | 6.25  | 3-8                       | -144 / 6      | 0.06 (1) |
| 4-5    | -524 / 0                  | -77.3                     | -77.3 0.11 (1) | 6.25  | 9-3                       | -734 / 0      | 0.28 (1) |
| 5-6    | 0 / 17                    | -77.3                     | -77.3 0.15 (1) | 10.00 | 5-7                       | -734 / 0      | 0.28 (1) |
| 9-2    | -211 / 0                  | 0.0                       | 0.0 0.02 (1)   | 7.81  |                           |               |          |
| 7-6    | -104 / 0                  | 0.0                       | 0.0 0.01 (1)   | 7.81  |                           |               |          |
| 9-8    | 0 / 525                   | -17.5                     | -17.5 0.28 (3) | 10.00 |                           |               |          |
| 8-7    | 0 / 525                   | -17.5                     | -17.5 0.28 (3) | 10.00 |                           |               |          |

#### DESIGN CRITERIA

##### SPECIFIED LOADS:

| TOP CH.    | LL | =        | 23.3 PSF |
|------------|----|----------|----------|
| BOT CH.    | LL | =        | 0.0 PSF  |
|            | DL | =        | 7.0 PSF  |
| TOTAL LOAD | =  | 33.3 PSF |          |

##### SPACING = 24.0 IN./C/C

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

THIS DESIGN COMPLIES WITH:

- PART 9 OF OBC 2012, BCBC 2012, ABC 2014
- CSA 086-09
- TPIC 2011

(55 % OF 27.2 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 23.3 P.S.F. SPECIFIED ROOF LIVE LOAD

ALLOWABLE DEFL.(LL)= L/360 (0.47")  
CALCULATED VERT. DEFL.(LL) = L/ 999 (0.01")  
ALLOWABLE DEFL.(TL)= L/360 (0.47")  
CALCULATED VERT. DEFL.(TL) = L/ 999 (0.06")

CSI: TC=0.15 (2-3:1), BC=0.28 (8-9:3), WB=0.28 (3-9:1), SSI=0.11 (3-4:1)

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

COMPANION LIVE LOAD FACTOR = 0.50

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

##### NAIL VALUES

| PLATE | GRIP(DRY) | SHEAR | SECTION            |
|-------|-----------|-------|--------------------|
| (PSI) | (PLI)     | (PLI) |                    |
| MAX   | MIN       | MAX   | MIN                |
| MT20  | 618       | 354   | 1667 822 2284 1656 |

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

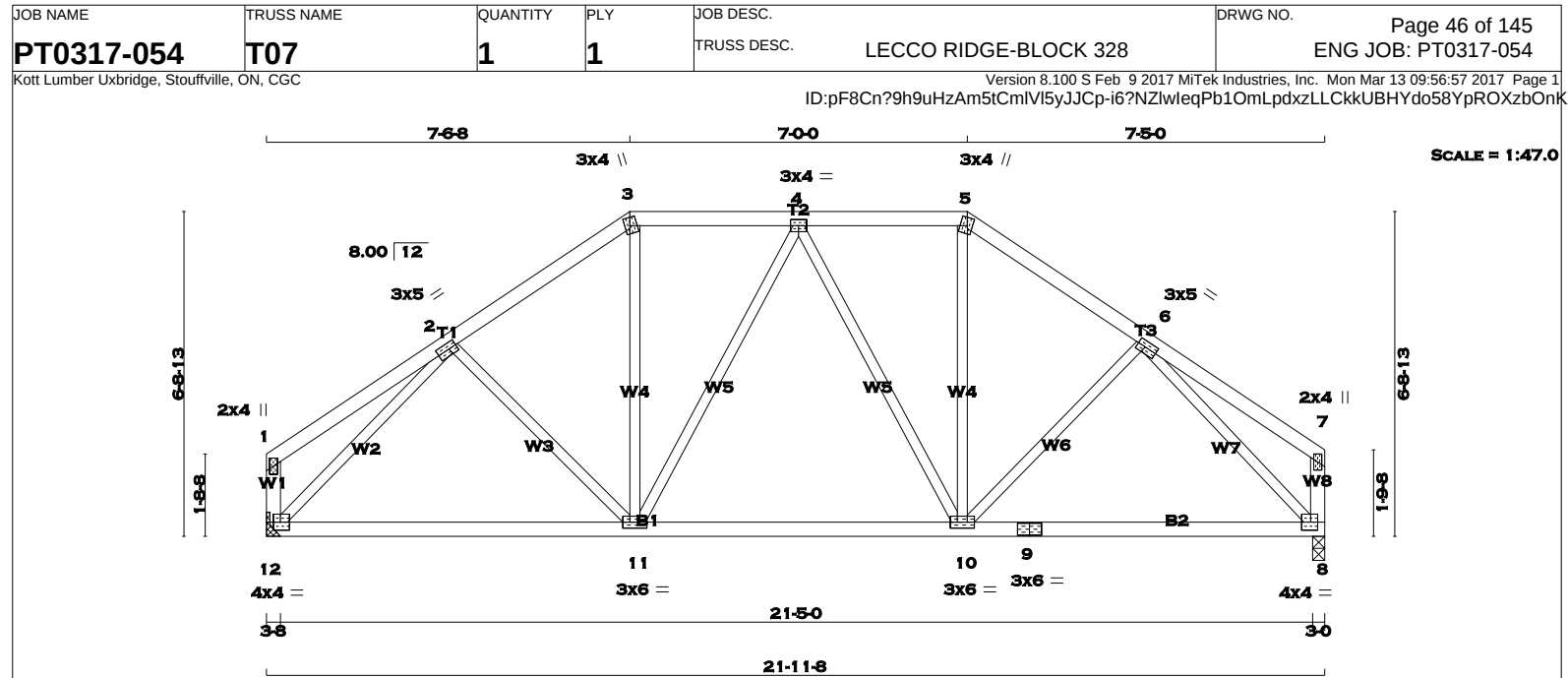
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JSI METAL= 0.21 (5) (INPUT = 1.00 )



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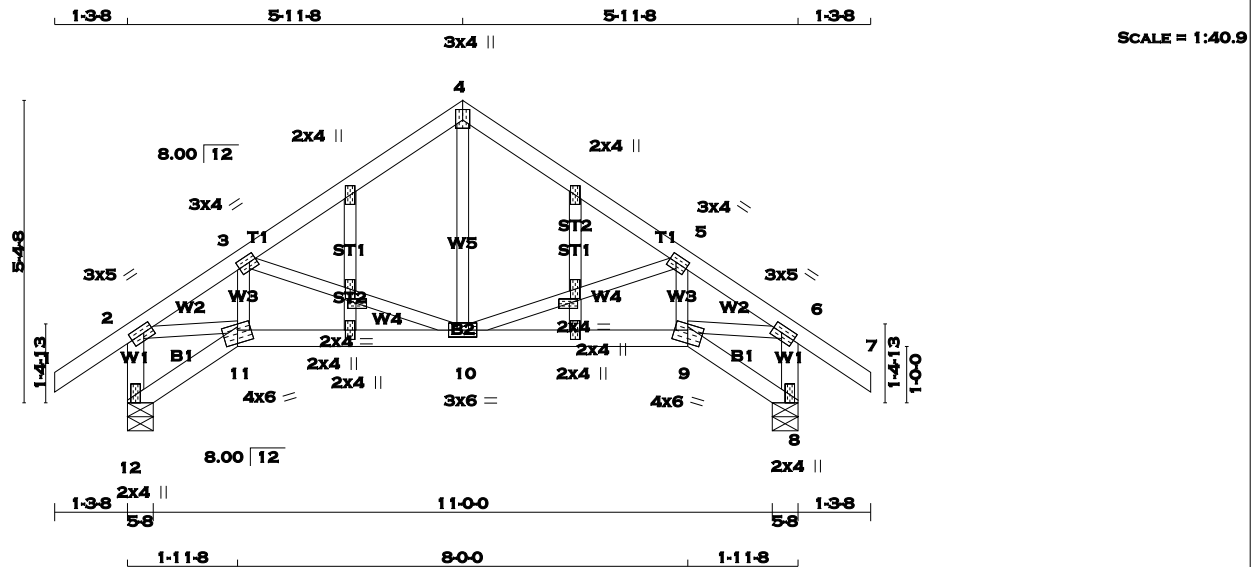
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |  |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |  |  |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|--|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|--|
| <b>LUMBER</b><br>N. L. G. A. RULES<br>CHORDS SIZE<br>1 - 3 2x4 DRY No.2<br>3 - 5 2x4 DRY No.2<br>5 - 7 2x4 DRY No.2<br>12 - 1 2x4 DRY No.2<br>8 - 7 2x4 DRY No.2<br>12 - 9 2x4 DRY No.2<br>9 - 8 2x4 DRY No.2<br><br>ALL WEBS 2x3 DRY No.2<br>EXCEPT<br><br>DRY: SEASONED LUMBER.                                                                                                                                                                                                                                               |  |  | <b>DESCR.</b><br>SPF<br>SPF<br>SPF<br>SPF<br>SPF<br>SPF<br>SPF<br>SPF<br><br>SPF                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |  |  |
| <b>PLATES (table is in inches)</b><br>JT TYPE PLATES W LEN Y X<br>1 TMV+p MT20 2.0 4.0<br>2 TMWW-t MT20 3.0 5.0 1.50 2.00<br>3 TTW+m MT20 3.0 4.0 2.00 1.25<br>4 TMWW-t MT20 3.0 4.0<br>5 TTW+m MT20 3.0 4.0 2.00 1.25<br>6 TMWW-t MT20 3.0 5.0 1.50 2.00<br>7 TMV+p MT20 2.0 4.0<br>8 BMVW1-t MT20 4.0 4.0 2.00 1.75<br>9 BS-t MT20 3.0 6.0<br>10 BMWWW-t MT20 3.0 6.0<br>11 BMWWW-t MT20 3.0 6.0<br>12 BMVW1-t MT20 4.0 4.0 2.00 1.75<br><br>A SIZE FOR SIZE SUBSTITUTION OF MITEK MII20 WITH TEE-LOK TL20 PLATES IS ALLOWED. |  |  | <b>DIMENSIONS, SUPPORTS AND LOADINGS SPECIFIED BY FABRICATOR TO BE VERIFIED BY BUILDING DESIGNER</b><br><b>BEARINGS</b><br>FACTORED MAXIMUM FACTORED INPUT REQD<br>GROSS REACTION GROSS REACTION BRG BRG<br>JT VERT HORZ DOWN HORZ UPLIFT IN-SX IN-SX<br>12 1041 0 1041 0 0 HANGER BY OTHERS<br>MIN. SEAT SIZE: 3-8<br>8 1041 0 1041 0 0 3-0 3-0<br><br><b>UNFACTORED REACTIONS</b><br>1ST LCASE MAX./MIN. COMPONENT REACTIONS<br>JT COMBINED SNOW LIVE PERM.LIVE WIND DEAD SOIL<br>12 731 511 / 0 0 / 0 0 / 0 0 / 0 220 / 0 0 / 0<br>8 731 511 / 0 0 / 0 0 / 0 0 / 0 220 / 0 0 / 0<br><br>BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S) 8<br><br><b>BRACING</b><br>TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 6.10 FT.<br>MAX. UNBRACED BOTTOM CHORD LENGTH = 10.00 FT. OR RIGID CEILING DIRECTLY APPLIED.<br><br>ALL PITCH BREAKS AND PERIMETER CORNER JOINTS MUST BE Laterally RESTRAINED.<br><br><b>LOADING</b><br>TOTAL LOAD CASES: (3)<br><br>CHORDS WEBS<br>MEMB. MAX. FACTORED FORCE (LBS) VERT. LOAD LC1 MAX. MAX. MEMB. MAX. FACTORED FORCE (LBS) MAX. FACTORED (PLF) CSI (LC) UNBRAC LENGTH FR-TO<br>FR-TO 1-2 0 / 18 -77.3 -77.3 0.17 (1) 10.00 2-11 -42 / 38 0.02 (1)<br>2-3 -998 / 0 -77.3 -77.3 0.14 (1) 6.10 11-3 0 / 324 0.07 (1)<br>3-4 -819 / 0 -77.3 -77.3 0.12 (1) 6.25 11-4 -176 / 0 0.18 (1)<br>4-5 -812 / 0 -77.3 -77.3 0.12 (1) 6.25 4-10 -191 / 0 0.20 (1)<br>5-6 -990 / 0 -77.3 -77.3 0.14 (1) 6.13 10-5 0 / 322 0.07 (1)<br>6-7 0 / 18 -77.3 -77.3 0.16 (1) 10.00 10-6 -23 / 42 0.01 (3)<br>12-1 -113 / 0 0.0 0.0 0.01 (1) 7.81 12-2 -1214 / 0 0.57 (1)<br>8-7 -112 / 0 0.0 0.0 0.01 (1) 7.81 6-8 -1202 / 0 0.56 (1)<br><br>12-11 0 / 844 -17.5 -17.5 0.27 (3) 10.00<br>11-10 0 / 902 -17.5 -17.5 0.28 (3) 10.00<br>10-9 0 / 823 -17.5 -17.5 0.26 (3) 10.00<br>9-8 0 / 823 -17.5 -17.5 0.26 (3) 10.00 |  |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |  |  | <b>DESIGN CRITERIA</b><br><br>SPECIFIED LOADS:<br>TOP CH. LL = 23.3 PSF<br>DL = 3.0 PSF<br>BOT CH. LL = 0.0 PSF<br>DL = 7.0 PSF<br>TOTAL LOAD = 33.3 PSF<br><br><b>SPACING = 24.0 IN./C</b><br><br>LOADING IN FLAT SECTION BASED ON A SLOPE OF 6.00/12<br><br>THIS TRUSS IS DESIGNED FOR RESIDENTIAL OR SMALL BUILDING REQUIREMENTS OF PART 9, NBCC 2010<br><br>THIS DESIGN COMPLIES WITH:<br>- PART 9 OF OBC 2012, BCBC 2012, ABC 2014<br>- CSA 086-09<br>- TPIC 2011<br><br>(55 % OF 27.2 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 23.3 P.S.F. SPECIFIED ROOF LIVE LOAD<br><br>ALLOWABLE DEFL.(LL)= L/360 (0.73")<br>CALCULATED VERT. DEFL.(LL) = L/999 (0.03")<br>ALLOWABLE DEFL.(TL)= L/360 (0.73")<br>CALCULATED VERT. DEFL.(TL) = L/999 (0.11")<br><br>CSI: TC=0.17 (1-2:1), BC=0.28 (10-11:3), WB=0.57 (2-12:1), SSI=0.13 (3-4:1)<br><br>DOL LUMBER=1.00 NAIL=1.00 LS BEND=1.10<br>COMP=1.10 SHEAR=1.10 TENS= 1.10<br><br>COMPANION LIVE LOAD FACTOR = 0.50<br><br>TRUSS PLATE MANUFACTURER IS NOT RESPONSIBLE FOR QUALITY CONTROL IN THE TRUSS MANUFACTURING PLANT .<br><br>NAIL VALUES<br>PLATE GRIP(DRY) SHEAR SECTION (PSI) (PLI) (PLI)<br>MAX MIN MAX MIN MAX MIN<br>MT20 618 354 1667 822 2284 1656<br><br>PLATE PLACEMENT TOL. = 0.250 inches<br><br>PLATE ROTATION TOL. = 5.0 Deg.<br><br>JSI GRIP= 0.90 (2) (INPUT = 0.90 )<br>JSI METAL= 0.35 (2) (INPUT = 1.00 )                                                                                                                                                                                                                                                                                                                                                                                                                                                        |  |  |



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ENGINEERING NOTE PAGE ENP-1. THE NOTE PAGE  
IS AN INTEGRAL PART OF THIS DRAWING AS IT  
CONTAINS SPECIFICATIONS AND CRITERIA USED  
IN THE DESIGN OF THIS COMPONENT.





| LUMBER                          |      |        |        |     |
|---------------------------------|------|--------|--------|-----|
| N. L. G. A. RULES               |      |        |        |     |
| CHORDS                          | SIZE | LUMBER | DESCR. |     |
| 12 - 2                          | 2x4  | DRY    | No.2   | SPF |
| 1 - 4                           | 2x4  | DRY    | No.2   | SPF |
| 4 - 7                           | 2x4  | DRY    | No.2   | SPF |
| 8 - 6                           | 2x4  | DRY    | No.2   | SPF |
| 12 - 11                         | 2x4  | DRY    | No.2   | SPF |
| 11 - 9                          | 2x4  | DRY    | No.2   | SPF |
| 9 - 8                           | 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    |
| 2                                                                                | TMVW-t | MT20   | 3.0 | 5.0 | 1.50 | 2.00 |
| 3                                                                                | TMVW-t | MT20   | 3.0 | 4.0 | 1.50 | 1.50 |
| 4                                                                                | TTW+p  | MT20   | 3.0 | 4.0 | 2.25 | 1.50 |
| 5                                                                                | TMVW-t | MT20   | 3.0 | 4.0 | 1.50 | 1.50 |
| 6                                                                                | TMVW-t | MT20   | 3.0 | 5.0 | 1.50 | 2.00 |
| 8                                                                                | BMV1+p | MT20   | 2.0 | 4.0 | Edge |      |
| 9                                                                                | BBVW-m | MT20   | 4.0 | 6.0 | 2.75 | 2.75 |
| 10                                                                               | BMVW-t | MT20   | 3.0 | 6.0 |      |      |
| 11                                                                               | BBVW-m | MT20   | 4.0 | 6.0 | 2.75 | 2.75 |
| 12                                                                               | BMV1+p | MT20   | 2.0 | 4.0 | Edge |      |
| 13                                                                               | NP-p   | MT20   | 2.0 | 4.0 | 1.00 | 1.75 |
| 13, 14, 15, 16, 17, 18                                                           |        |        |     |     |      |      |
| 13                                                                               | NP+w   | MT20   | 2.0 | 4.0 |      |      |
| 18                                                                               | NP-p   | MT20   | 2.0 | 4.0 | 1.00 | 1.75 |
| Edge - INDICATES REFERENCE CORNER OF PLATE TOUCHES EDGE OF CHORD.                |        |        |     |     |      |      |
| A SIZE FOR SIZE SUBSTITUTION OF MITEK MII20 WITH TEE-LOK TL20 PLATES IS ALLOWED. |        |        |     |     |      |      |

| 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     |          |
| 12                                                                                            |  | 671                     | 0                | 671                             | 0                 | 0                      | 5-8     | 5-8       |          |
| 8                                                                                             |  | 671                     | 0                | 671                             | 0                 | 0                      | 5-8     | 5-8       |          |
| UNFACTORED REACTIONS                                                                          |  |                         |                  |                                 |                   |                        |         |           |          |
|                                                                                               |  | 1ST LCASE               |                  | MAX./MIN. COMPONENT REACTIONS   |                   |                        |         |           |          |
| JT                                                                                            |  | COMBINED                | SNOW             | LIVE                            | PERM.LIVE         | WIND                   | DEAD    | SOIL      |          |
| 12                                                                                            |  | 469                     | 341 / 0          | 0 / 0                           | 0 / 0             | 0 / 0                  | 127 / 0 | 0 / 0     |          |
| 8                                                                                             |  | 469                     | 341 / 0          | 0 / 0                           | 0 / 0             | 0 / 0                  | 127 / 0 | 0 / 0     |          |
| BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S) 12, 8                                   |  |                         |                  |                                 |                   |                        |         |           |          |
| 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: (3)                                                                         |  |                         |                  |                                 |                   |                        |         |           |          |
|                                                                                               |  | CHORDS                  |                  |                                 | WEBS              |                        |         |           |          |
|                                                                                               |  | MAX. FACTORED           | FACTORED         |                                 | MAX. FACTORED     | MAX. FACTORED          |         |           |          |
| MEMB.                                                                                         |  | FORCE (LBS)             | VERT. LOAD (PLF) | LC1 MAX CSI (LC)                | MEMB. FORCE (LBS) | MAX. FACTORED CSI (LC) |         |           |          |
| FR-TO                                                                                         |  | FROM TO                 |                  |                                 | LENGTH FR-TO      |                        |         |           |          |
| 12-2                                                                                          |  | -654 / 0                | 0.0              | 0.0                             | 0.07 (1)          | 7.81                   | 10-4    | 0 / 309   | 0.07 (1) |
| 1-2                                                                                           |  | 0 / 29                  | -77.3            | -77.3                           | 0.10 (1)          | 10.00                  | 10-5    | -327 / 0  | 0.10 (1) |
| 2-3                                                                                           |  | -855 / 0                | -77.3            | -77.3                           | 0.10 (1)          | 6.25                   | 9-5     | 0 / 43    | 0.01 (3) |
| 3-4                                                                                           |  | -522 / 0                | -77.3            | -77.3                           | 0.14 (1)          | 6.25                   | 9-6     | 0 / 732   | 0.16 (1) |
| 4-5                                                                                           |  | -522 / 0                | -77.3            | -77.3                           | 0.14 (1)          | 6.25                   | 3-10    | -327 / 0  | 0.10 (1) |
| 5-6                                                                                           |  | -855 / 0                | -77.3            | -77.3                           | 0.10 (1)          | 6.25                   | 11-3    | 0 / 43    | 0.01 (3) |
| 6-7                                                                                           |  | 0 / 29                  | -77.3            | -77.3                           | 0.10 (1)          | 10.00                  | 2-11    | 0 / 732   | 0.16 (1) |
| 8-6                                                                                           |  | -654 / 0                | 0.0              | 0.0                             | 0.07 (1)          | 7.81                   |         |           |          |
| 12-11                                                                                         |  | 0 / 0                   | -17.5            | -17.5                           | 0.02 (3)          | 10.00                  |         |           |          |
| 11-10                                                                                         |  | 0 / 730                 | -17.5            | -17.5                           | 0.16 (1)          | 10.00                  |         |           |          |
| 10-9                                                                                          |  | 0 / 730                 | -17.5            | -17.5                           | 0.16 (1)          | 10.00                  |         |           |          |
| 9-8                                                                                           |  | 0 / 0                   | -17.5            | -17.5                           | 0.02 (3)          | 10.00                  |         |           |          |

**DESIGN CRITERIA**

SPECIFIED LOADS:

TOP CH. LL = 23.3 PSF  
DL = 3.0 PSF

BOT CH. LL = 0.0 PSF  
DL = 7.0 PSF

TOTAL LOAD = 33.3 PSF

**SPACING = 24.0 IN./C**

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

THIS DESIGN COMPLIES WITH:

- PART 9 OF OBC 2012, BCBC 2012, ABC 2014
- CSA 086-09
- TPIC 2011

(55 % OF 27.2 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 23.3 P.S.F. SPECIFIED ROOF LIVE LOAD

ALLOWABLE DEFL.(LL)= L/360 (0.40")  
CALCULATED VERT. DEFL.(LL) = L/999 (0.01")  
ALLOWABLE DEFL.(TL)= L/360 (0.40")  
CALCULATED VERT. DEFL.(TL) = L/999 (0.03")

CSI: TC=0.14 (4-5:1), BC=0.16 (10-11:1), WB=0.16 (6-9:1), SSI=0.11 (4-5:1)

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

COMPANION LIVE LOAD FACTOR = 0.50

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

NAIL VALUES

| PLATE | GRIP(DRY) | SHEAR (PSI) | SECTION (PLI) |
|-------|-----------|-------------|---------------|
| MT20  | 618       | 354         | 1667          |
|       | 822       | 2284        | 1656          |

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

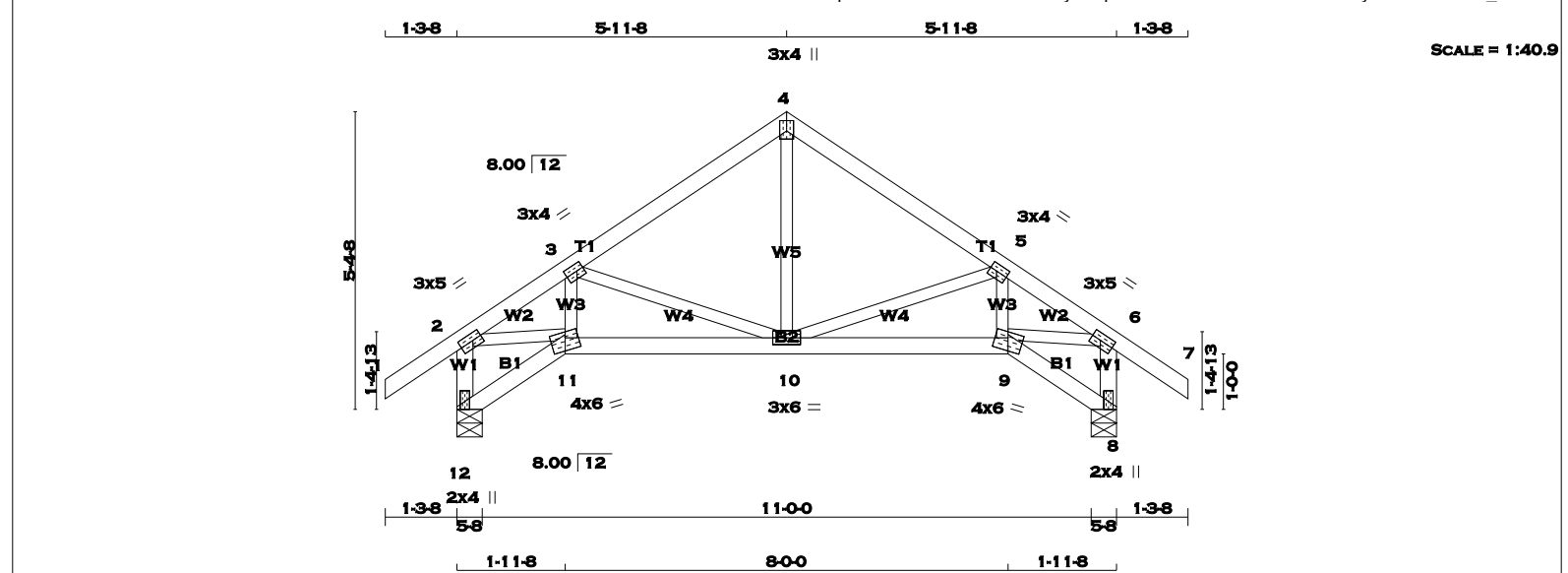
JSI GRIP= 0.89 (11) (INPUT = 0.90 )  
JSI METAL= 0.29 (6) (INPUT = 1.00 )



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READ ALL NOTES ON THIS PAGE AND ON THE ENGINEERING NOTE PAGE ENP-1. THE NOTE PAGE IS AN INTEGRAL PART OF THIS DRAWING AS IT CONTAINS SPECIFICATIONS AND CRITERIA USED IN THE DESIGN OF THIS COMPONENT.





**LUMBER**  
N. L. G. A. RULES  
CHORDS SIZE  
12 - 2 2x4 DRY No.2  
1 - 4 2x4 DRY No.2  
4 - 7 2x4 DRY No.2  
8 - 6 2x4 DRY No.2  
12 - 11 2x4 DRY No.2  
11 - 9 2x4 DRY No.2  
9 - 8 2x4 DRY No.2  
  
ALL WEBS 2x3 DRY No.2  
DRY: SEASONED LUMBER.

**DESCR.**  
SPF  
SPF  
SPF  
SPF  
SPF  
SPF  
SPF  
SPF

**DIMENSIONS, SUPPORTS AND LOADINGS SPECIFIED BY FABRICATOR TO BE VERIFIED BY BUILDING DESIGNER**  
**BEARINGS**  
FACTORED MAXIMUM FACTORED INPUT REQD  
GROSS REACTION GROSS REACTION BRG BRG  
JT VERT HORZ DOWN HORZ UPLIFT IN-SX IN-SX  
12 671 0 671 0 0 5-8 5-8  
8 671 0 671 0 0 5-8 5-8  
  
**UNFACTORED REACTIONS**  
1ST LCASE MAX/MIN. COMPONENT REACTIONS  
JT COMBINED SNOW LIVE PERM.LIVE WIND DEAD SOIL  
12 469 341 / 0 0 / 0 0 / 0 127 / 0 0 / 0  
8 469 341 / 0 0 / 0 0 / 0 127 / 0 0 / 0  
  
BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S) 12, 8  
  
**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: (3)  
  
CHORDS WEBS  
MEMB. MAX. FACTORED FORCE (LBS) FACTORED VERT. LOAD LC1 MAX. (PLF) CSI (LC) UNBRAC LENGTH FR-TO MEMB. MAX. FACTORED FORCE (LBS) MAX. (PLI) CSI (LC)  
FR-TO FROM TO  
12-2 -654 / 0 0.0 0.0 0.07 (1) 7.81 10-4 0 / 309 0.07 (1)  
1-2 0 / 29 -77.3 -77.3 0.10 (1) 10.00 10-5 -327 / 0 0.10 (1)  
2-3 -855 / 0 -77.3 -77.3 0.10 (1) 6.25 9-5 0 / 43 0.01 (3)  
3-4 -522 / 0 -77.3 -77.3 0.14 (1) 6.25 9-6 0 / 732 0.16 (1)  
4-5 -522 / 0 -77.3 -77.3 0.14 (1) 6.25 3-10 -327 / 0 0.10 (1)  
5-6 -855 / 0 -77.3 -77.3 0.10 (1) 6.25 11-3 0 / 43 0.01 (3)  
6-7 0 / 29 -77.3 -77.3 0.10 (1) 10.00 2-11 0 / 732 0.16 (1)  
8-6 -654 / 0 0.0 0.0 0.07 (1) 7.81  
  
12-11 0 / 0 -17.5 -17.5 0.02 (3) 10.00  
11-10 0 / 730 -17.5 -17.5 0.16 (1) 10.00  
10-9 0 / 730 -17.5 -17.5 0.16 (1) 10.00  
9-8 0 / 0 -17.5 -17.5 0.02 (3) 10.00

**DESIGN CRITERIA**  
  
SPECIFIED LOADS:  
TOP CH. LL = 23.3 PSF  
DL = 3.0 PSF  
BOT CH. LL = 0.0 PSF  
DL = 7.0 PSF  
TOTAL LOAD = 33.3 PSF  
  
**SPACING = 24.0 IN. C/C**  
  
THIS TRUSS IS DESIGNED FOR RESIDENTIAL OR SMALL BUILDING REQUIREMENTS OF PART 9, NBCC 2010  
  
THIS DESIGN COMPLIES WITH:  
- PART 9 OF OBC 2012 , BCBC 2012 , ABC 2014  
- CSA 086-09  
- TPIC 2011  
  
(55 % OF 27.2 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 23.3 P.S.F. SPECIFIED ROOF LIVE LOAD  
  
ALLOWABLE DEFL.(LL)= L/360 (0.40")  
CALCULATED VERT. DEFL.(LL) = L/ 999 (0.01")  
ALLOWABLE DEFL.(TL)= L/360 (0.40")  
CALCULATED VERT. DEFL.(TL) = L/ 999 (0.03")  
  
CSI: TC=0.14 (4-5:1) , BC=0.16 (10-11:1) , WB=0.16 (6-9:1) , SSI=0.11 (4-5:1)  
  
DOL LUMBER=1.00 NAIL=1.00 LS BEND=1.10  
COMP=1.10 SHEAR=1.10 TENS= 1.10  
  
COMPANION LIVE LOAD FACTOR = 0.50  
  
TRUSS PLATE MANUFACTURER IS NOT RESPONSIBLE FOR QUALITY CONTROL IN THE TRUSS MANUFACTURING PLANT .  
  
NAIL VALUES  
PLATE GRIP(DRY) SHEAR SECTION  
(PSI) (PLI) (PLI)  
MAX MIN MAX MIN MAX MIN  
MT20 618 354 1667 822 2284 1656  
  
PLATE PLACEMENT TOL. = 0.250 inches  
  
PLATE POSITIONING TOL. = 5.0 Deg.  
  
JSI GRIP= 0.89 (11) (INPUT = 0.90 )  
JSI METAL= 0.29 (2) (INPUT = 1.00 )

|                                    |        |        |     |     |      |      |
|------------------------------------|--------|--------|-----|-----|------|------|
| <b>PLATES (table is in inches)</b> |        | W      |     | LEN | Y    | X    |
| JT                                 | TYPE   | PLATES |     |     |      |      |
| 2                                  | TMVW-t | MT20   | 3.0 | 5.0 | 1.50 | 2.00 |
| 3                                  | TMVW-t | MT20   | 3.0 | 4.0 | 1.50 | 1.50 |
| 4                                  | TTW+p  | MT20   | 3.0 | 4.0 | 2.25 | 1.50 |
| 5                                  | TMVW-t | MT20   | 3.0 | 4.0 | 1.50 | 1.50 |
| 6                                  | TMVW-t | MT20   | 3.0 | 5.0 | 1.50 | 2.00 |
| 8                                  | BMV1+p | MT20   | 2.0 | 4.0 | Edge |      |
| 9                                  | BBVW-m | MT20   | 4.0 | 6.0 | 2.75 | 2.75 |
| 10                                 | BMVW-t | MT20   | 3.0 | 6.0 |      |      |
| 11                                 | BBVW-m | MT20   | 4.0 | 6.0 | 2.75 | 2.75 |
| 12                                 | BMV1+p | MT20   | 2.0 | 4.0 | Edge |      |

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

A SIZE FOR SIZE SUBSTITUTION OF MITEK MII20 WITH TEE-LOK TL20 PLATES IS ALLOWED.

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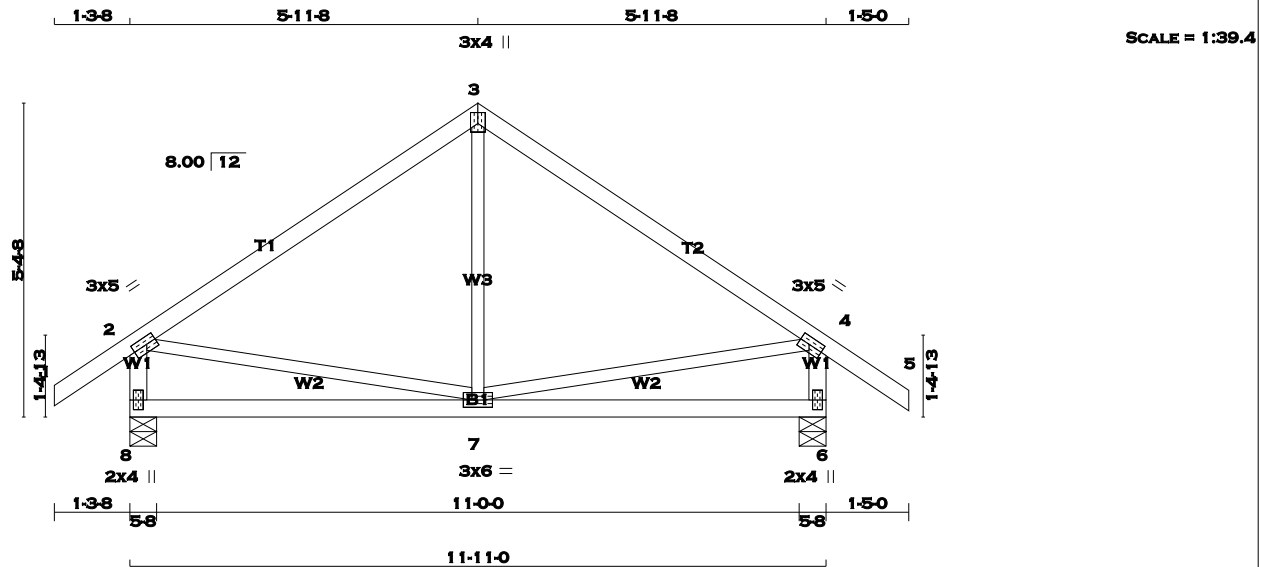
TOWN OF MILTON

MAR 29, 2017

17-4990

BUILDING DIVISION

READ ALL NOTES ON THIS PAGE AND ON THE ENGINEERING NOTE PAGE ENP-1. THE NOTE PAGE IS AN INTEGRAL PART OF THIS DRAWING AS IT CONTAINS SPECIFICATIONS AND CRITERIA USED IN THE DESIGN OF THIS COMPONENT.



TOTAL WEIGHT = 3 X 49 = 148 lb [M][F]

| LUMBER            |        |      |        |  | DESCR. |
|-------------------|--------|------|--------|--|--------|
| N. L. G. A. RULES | CHORDS | SIZE | LUMBER |  |        |
| 1 - 3             | 2x4    | DRY  | No.2   |  | SPF    |
| 3 - 5             | 2x4    | DRY  | No.2   |  | SPF    |
| 8 - 2             | 2x4    | DRY  | No.2   |  | SPF    |
| 6 - 4             | 2x4    | DRY  | No.2   |  | SPF    |
| 8 - 6             | 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    |
| 2                           | TMVW-t  | MT20   | 3.0 | 5.0 | 1.50 | 2.00 |
| 3                           | TTW+p   | MT20   | 3.0 | 4.0 | 2.25 | 1.50 |
| 4                           | TMVW-t  | MT20   | 3.0 | 5.0 | 1.50 | 2.00 |
| 6                           | BMV1+p  | MT20   | 2.0 | 4.0 |      |      |
| 7                           | BMVWW-t | MT20   | 3.0 | 6.0 |      |      |
| 8                           | BMV1+p  | MT20   | 2.0 | 4.0 |      |      |

A SIZE FOR SIZE SUBSTITUTION OF MITEK MII20 WITH TEE-LOK TL20 PLATES IS ALLOWED.

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

| BEARINGS |                | FACTORED |      | MAXIMUM FACTORED |      | INPUT  |       | REQRD |       |
|----------|----------------|----------|------|------------------|------|--------|-------|-------|-------|
| JT       | GROSS REACTION | VERT     | HORZ | DOWN             | HORZ | UPLIFT | IN-SX | BRG   | IN-SX |
| 8        | 671            | 0        | 671  | 0                | 0    | 5-8    | 5-8   | 5-8   | 5-8   |
| 6        | 681            | 0        | 681  | 0                | 0    | 5-8    | 5-8   | 5-8   | 5-8   |

| UNFACTORED REACTIONS |          | 1ST LCASE |       | MAX./MIN. COMPONENT REACTIONS |       |         |       |  |  |
|----------------------|----------|-----------|-------|-------------------------------|-------|---------|-------|--|--|
| JT                   | COMBINED | SNOW      | LIVE  | PERM.LIVE                     | WIND  | DEAD    | SOIL  |  |  |
| 8                    | 469      | 341 / 0   | 0 / 0 | 0 / 0                         | 0 / 0 | 127 / 0 | 0 / 0 |  |  |
| 6                    | 475      | 347 / 0   | 0 / 0 | 0 / 0                         | 0 / 0 | 128 / 0 | 0 / 0 |  |  |

BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S) 8, 6

**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: (3) |         |             |        |       |             |               |        |
|---------|-------------|-----------------------|---------|-------------|--------|-------|-------------|---------------|--------|
| CHORDS  |             | MAX. FACTORED         |         | FACTORED    |        | WEBS  |             | MAX. FACTORED |        |
| MEMB.   | FORCE (LBS) | VERT. LOAD (PLF)      | LC1 MAX | MAX. UNBRAC | LENGTH | MEMB. | FORCE (LBS) | MAX. UNBRAC   | LENGTH |
| FR-TO   |             | FROM                  | TO      | CS1 (LC)    |        | FR-TO |             | CS1 (LC)      |        |
| 1-2     | 0 / 29      | -77.3                 | -77.3   | 0.10 (1)    | 10.00  | 7-3   | 0 / 104     | 0.04 (3)      |        |
| 2-3     | -418 / 0    | -77.3                 | -77.3   | 0.35 (1)    | 6.25   | 2-7   | 0 / 353     | 0.08 (1)      |        |
| 3-4     | -418 / 0    | -77.3                 | -77.3   | 0.35 (1)    | 6.25   | 7-4   | 0 / 353     | 0.08 (1)      |        |
| 4-5     | 0 / 32      | -77.3                 | -77.3   | 0.12 (1)    | 10.00  |       |             |               |        |
| 8-2     | -631 / 0    | 0.0                   | 0.0     | 0.07 (1)    | 7.81   |       |             |               |        |
| 6-4     | -641 / 0    | 0.0                   | 0.0     | 0.07 (1)    | 7.81   |       |             |               |        |
| 8-7     | 0 / 0       | -17.5                 | -17.5   | 0.18 (3)    | 10.00  |       |             |               |        |
| 7-6     | 0 / 0       | -17.5                 | -17.5   | 0.18 (3)    | 10.00  |       |             |               |        |

#### DESIGN CRITERIA

SPECIFIED LOADS:  
TOP CH. LL = 23.3 PSF  
DL = 3.0 PSF  
BOT CH. LL = 0.0 PSF  
DL = 7.0 PSF  
TOTAL LOAD = 33.3 PSF

SPACING = 24.0 IN./C/C

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

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

(55 % OF 27.2 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 23.3 P.S.F. SPECIFIED ROOF LIVE LOAD

ALLOWABLE DEFL.(LL)= L/360 (0.40")  
CALCULATED VERT. DEFL.(LL) = L/ 999 (0.01")  
ALLOWABLE DEFL.(TL)= L/360 (0.40")  
CALCULATED VERT. DEFL.(TL) = L/ 999 (0.03")

CSI: TC=0.35 (3-4:1) , BC=0.18 (6-7:3) , WB=0.08 (2-7:1) , SSI=0.15 (3-4:1)

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

COMPANION LIVE LOAD FACTOR = 0.50

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

NAIL VALUES  
PLATE GRIP(DRY) SHEAR SECTION  
(PSI) (PLI) (PLI)  
MAX MIN MAX MIN MAX MIN  
MT20 618 354 1667 822 2284 1656

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.76 (7) (INPUT = 0.90 )  
JSI METAL= 0.18 (4) (INPUT = 1.00 )



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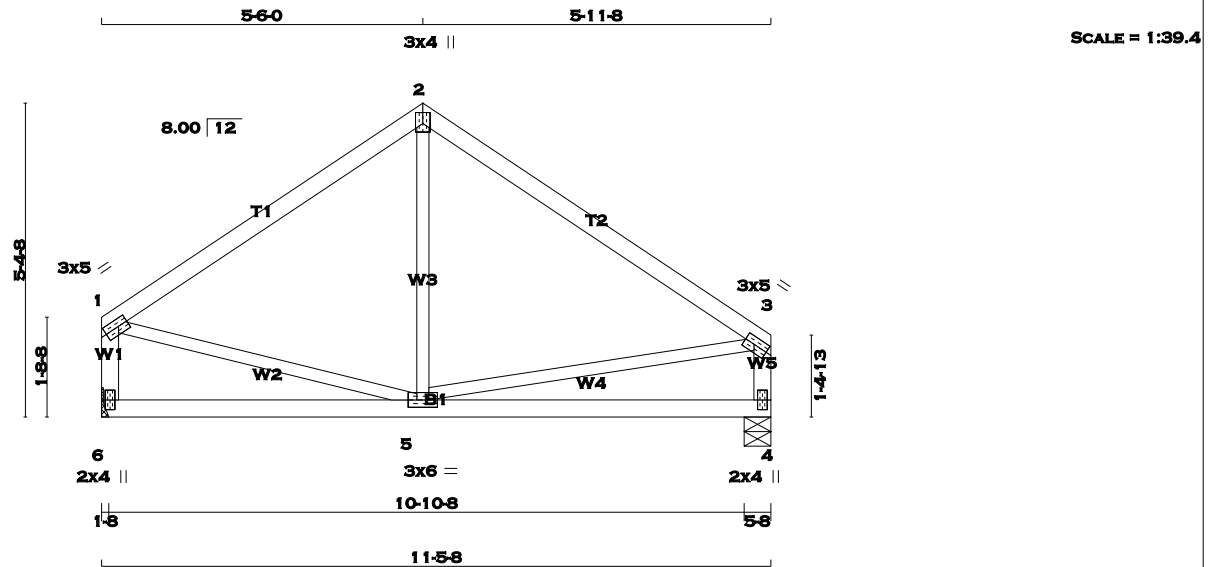
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Version 8.100 S Feb 9 2017 MiTek Industries, Inc. Mon Mar 13 09:56:58 2017 Page 1

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TOTAL WEIGHT = 2 X 44 = 89 lb  
[M][F]

| LUMBER            |        |      |        |  | DESCR. |
|-------------------|--------|------|--------|--|--------|
| N. L. G. A. RULES | CHORDS | SIZE | LUMBER |  |        |
| 1 - 2             | 2x4    | DRY  | No.2   |  | SPF    |
| 2 - 3             | 2x4    | DRY  | No.2   |  | SPF    |
| 6 - 1             | 2x4    | DRY  | No.2   |  | SPF    |
| 4 - 3             | 2x4    | DRY  | No.2   |  | SPF    |
| 6 - 4             | 2x4    | DRY  | No.2   |  | SPF    |
| ALL WEBS          | 2x3    | DRY  | No.2   |  | SPF    |
| EXCEPT            |        |      |        |  |        |

DRY: SEASONED LUMBER.

#### PLATES (table is in inches)

| JT | TYPE    | PLATES | W   | LEN | Y    | X    |
|----|---------|--------|-----|-----|------|------|
| 1  | TMVW-t  | MT20   | 3.0 | 5.0 | 1.50 | 2.00 |
| 2  | TTW+p   | MT20   | 3.0 | 4.0 | 2.25 | 1.50 |
| 3  | TMVW-t  | MT20   | 3.0 | 5.0 | 1.50 | 2.00 |
| 4  | BMV1+p  | MT20   | 2.0 | 4.0 |      |      |
| 5  | BMVWW-t | MT20   | 3.0 | 6.0 |      |      |
| 6  | BMV1+p  | MT20   | 2.0 | 4.0 |      |      |

A SIZE FOR SIZE SUBSTITUTION OF MITEK MII20 WITH TEE-LOK TL20 PLATES IS ALLOWED.

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

| BEARINGS |                | FACTORED |      | MAXIMUM FACTORED |      | INPUT |                     | REQRD |       |
|----------|----------------|----------|------|------------------|------|-------|---------------------|-------|-------|
| JT       | GROSS REACTION | VERT     | HORZ | DOWN             | HORZ | BRG   | IN-SX               | BRG   | IN-SX |
| 6        | 543            | 0        | 543  | 0                | 0    | 5-8   | HANGER BY OTHERS    | 5-8   |       |
| 4        | 543            | 0        | 543  | 0                | 0    | 5-8   | MIN. SEAT SIZE: 1-8 | 5-8   |       |

#### UNFACTORED REACTIONS

| JT | 1ST LCASE | MAX./MIN. | SNOW  | LIVE  | PERM.LIVE | WIND  | DEAD    | SOIL  |
|----|-----------|-----------|-------|-------|-----------|-------|---------|-------|
| 6  | 381       | 267 / 0   | 0 / 0 | 0 / 0 | 0 / 0     | 0 / 0 | 115 / 0 | 0 / 0 |
| 4  | 381       | 267 / 0   | 0 / 0 | 0 / 0 | 0 / 0     | 0 / 0 | 115 / 0 | 0 / 0 |

BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S) 4

#### 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: (3)

| CHORDS |                           |                           |                | WEBS  |                           |               |          |
|--------|---------------------------|---------------------------|----------------|-------|---------------------------|---------------|----------|
| MEMB.  | MAX. FACTORED FORCE (LBS) | FACTORED VERT. LOAD (PLF) | MAX. LC1 (LC)  | MEMB. | MAX. FACTORED FORCE (LBS) | MAX. LC1 (LC) |          |
| FR-TO  |                           | FROM                      | TO             | FR-TO |                           | FROM          | TO       |
| 1-2    | -385 / 0                  | -77.3                     | -77.3 0.30 (1) | 6-25  | 5-2                       | -16 / 94      | 0.03 (3) |
| 2-3    | -386 / 0                  | -77.3                     | -77.3 0.35 (1) | 6-25  | 1-5                       | 0 / 331       | 0.07 (1) |
| 6-1    | -510 / 0                  | 0.0                       | 0.0 0.05 (1)   | 7.81  | 5-3                       | 0 / 326       | 0.07 (1) |
| 4-3    | -500 / 0                  | 0.0                       | 0.0 0.05 (1)   | 7.81  |                           |               |          |
| 6-5    | 0 / 0                     | -17.5                     | -17.5 0.17 (3) | 10.00 |                           |               |          |
| 5-4    | 0 / 0                     | -17.5                     | -17.5 0.17 (3) | 10.00 |                           |               |          |

#### DESIGN CRITERIA

SPECIFIED LOADS:  
TOP CH. LL = 23.3 PSF  
DL = 3.0 PSF  
BOT CH. LL = 0.0 PSF  
DL = 7.0 PSF  
TOTAL LOAD = 33.3 PSF

#### SPACING = 24.0 IN./C

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

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

(55 % OF 27.2 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 23.3 P.S.F. SPECIFIED ROOF LIVE LOAD

ALLOWABLE DEFL.(LL)= L/360 (0.38")  
CALCULATED VERT. DEFL.(LL) = L/ 999 (0.01")  
ALLOWABLE DEFL.(TL)= L/360 (0.38")  
CALCULATED VERT. DEFL.(TL) = L/ 999 (0.04")

CSI: TC=0.35 (2-3:1), BC=0.17 (5-6:3), WB=0.07 (1-5:1), SSI=0.15 (2-3:1)

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

COMPANION LIVE LOAD FACTOR = 0.50

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

NAIL VALUES  
PLATE GRIP(DRY) SHEAR SECTION  
(PSI) (PLI) (PLI)  
MAX MIN MAX MIN MAX MIN  
MT20 618 354 1667 822 2284 1656

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

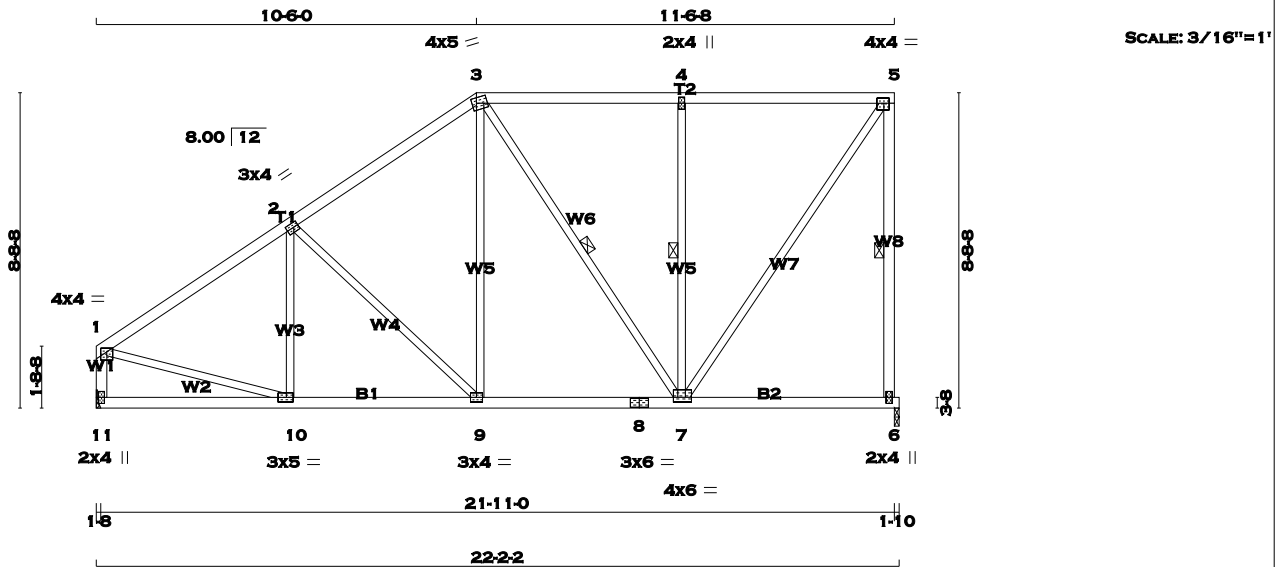
JSI GRIP= 0.70 (5) (INPUT = 0.90 )  
JSI METAL= 0.15 (3) (INPUT = 1.00 )



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CONTAINS SPECIFICATIONS AND CRITERIA USED  
IN THE DESIGN OF THIS COMPONENT.





TOTAL WEIGHT = 107 lb [M]

| LUMBER                |        |      |        | DESCR. |
|-----------------------|--------|------|--------|--------|
| N. L. G. A. RULES     | CHORDS | SIZE | LUMBER |        |
| 1 - 3                 | 2x4    | DRY  | No.2   | SPF    |
| 3 - 5                 | 2x4    | DRY  | No.2   | SPF    |
| 6 - 5                 | 2x4    | DRY  | No.2   | SPF    |
| 11 - 1                | 2x4    | DRY  | No.2   | SPF    |
| 11 - 8                | 2x4    | DRY  | No.2   | SPF    |
| 8 - 6                 | 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    |
| 1                           | TMVW-p  | MT20   | 4.0 | 4.0 | 1.25 | 2.00 |
| 2                           | TMVW-t  | MT20   | 3.0 | 4.0 | 1.50 | 1.50 |
| 3                           | TTWW-m  | MT20   | 4.0 | 5.0 | 1.75 | 1.50 |
| 4                           | TMVW-w  | MT20   | 2.0 | 4.0 |      |      |
| 5                           | TMVW-t  | MT20   | 4.0 | 4.0 | 1.75 | 1.75 |
| 6                           | BMV1+p  | MT20   | 2.0 | 4.0 |      |      |
| 7                           | BMVWW-t | MT20   | 4.0 | 6.0 | 1.50 | 1.50 |
| 8                           | BS-t    | MT20   | 3.0 | 6.0 |      |      |
| 9                           | BMVWW-t | MT20   | 3.0 | 4.0 |      |      |
| 10                          | BMVWW-t | MT20   | 3.0 | 5.0 | 1.50 | 2.25 |
| 11                          | BMV1+p  | MT20   | 2.0 | 4.0 |      |      |

A SIZE FOR SIZE SUBSTITUTION OF MITEK MII20 WITH TEE-LOK TL20 PLATES IS ALLOWED.

| DIMENSIONS, SUPPORTS AND LOADINGS SPECIFIED BY FABRICATOR TO BE VERIFIED BY BUILDING DESIGNER |                         |      |                                 |      |        |                  |           |                     |  |
|-----------------------------------------------------------------------------------------------|-------------------------|------|---------------------------------|------|--------|------------------|-----------|---------------------|--|
| <u>BEARINGS</u>                                                                               |                         |      |                                 |      |        |                  |           |                     |  |
| JT                                                                                            | FACTORED GROSS REACTION |      | MAXIMUM FACTORED GROSS REACTION |      |        | INPUT BRG        | REQRD BRG |                     |  |
|                                                                                               | VERT                    | HORZ | DOWN                            | HORZ | UPLIFT | IN-SX            | IN-SX     |                     |  |
| 6                                                                                             | 1045                    | 0    | 1045                            | 0    | 0      | 1-10             | 1-10      |                     |  |
| 11                                                                                            | 1045                    | 0    | 1045                            | 0    | 0      | HANGER BY OTHERS |           |                     |  |
|                                                                                               |                         |      |                                 |      |        |                  |           | MIN. SEAT SIZE: 1-8 |  |

| UNFACTORED REACTIONS |           |           |           |           |       |         |       |
|----------------------|-----------|-----------|-----------|-----------|-------|---------|-------|
| JT                   | 1ST LCASE | MAX./MIN. | COMPONENT | REACTIONS |       |         |       |
| 6                    | 734       | 513 / 0   | 0 / 0     | PERM.LIVE | WIND  | DEAD    | SOIL  |
| 11                   | 734       | 513 / 0   | 0 / 0     | 0 / 0     | 0 / 0 | 220 / 0 | 0 / 0 |

BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S) 6

**BRACING**  
TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 5.55 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.

1 - 2x3 SPF No.2 LATERAL BRACE(S) AT 1/2 LENGTH OF 5-6. DBS = 14-0-0 . CBF = 88 LBS.  
1 - 2x3 SPF No.2 LATERAL BRACE(S) AT 1/2 LENGTH OF 3-7, 4-7. DBS = 20-0-0 . CBF = 69 LBS.

DBS = DIAGONAL BRACE SPACING (MAX). CBF = CUMULATIVE BRACING FORCE. FASTEN LATERAL BRACE(S) USING (0.122"x3") SPIRAL NAILS : 1 NAIL FOR 2x3 BRACE(S), 2 FOR 1x4, 2x4, 2x5, 3 FOR 2x6, 4 FOR 2x8, 5 FOR 2x10, AND 6 FOR 2x12.

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: (3) |                           |                        |               |  |
|-------------|---------------------------|---------------------------|----------|---------------|-----------------------|---------------------------|------------------------|---------------|--|
| C H O R D S |                           |                           |          |               | W E B S               |                           |                        |               |  |
| MEMB.       | MAX. FACTORED FORCE (LBS) | FACTORED VERT. LOAD (PLF) | LC1 MAX  | UNBRAC LENGTH | MEMB.                 | MAX. FACTORED FORCE (LBS) | MAX. FACTORED CSI (LC) | UNBRAC LENGTH |  |
|             |                           |                           |          |               |                       |                           |                        |               |  |
| FR-TO       |                           | FROM TO                   |          |               | FR-TO                 |                           |                        |               |  |
| 1-2         | -1074 / 0                 | -77.3 -77.3               | 0.40 (1) | 5.55          | 10-2                  | -134 / 48                 | 0.06 (1)               |               |  |
| 2-3         | -852 / 0                  | -77.3 -77.3               | 0.39 (1) | 6.07          | 2-9                   | -317 / 0                  | 0.32 (1)               |               |  |
| 3-4         | -579 / 0                  | -77.3 -77.3               | 0.45 (1) | 6.25          | 9-3                   | 0 / 307                   | 0.07 (1)               |               |  |
| 4-5         | -579 / 0                  | -77.3 -77.3               | 0.45 (1) | 6.25          | 3-7                   | -197 / 0                  | 0.14 (1)               |               |  |
| 6-5         | -1003 / 0                 | 0.0 0.0                   | 0.35 (1) | 6.24          | 7-4                   | -553 / 0                  | 0.27 (1)               |               |  |
| 11-1        | -1006 / 0                 | 0.0 0.0                   | 0.11 (1) | 7.80          | 7-5                   | 0 / 1011                  | 0.23 (1)               |               |  |
|             |                           |                           |          |               | 1-10                  | 0 / 946                   | 0.21 (1)               |               |  |
| 11-10       | 0 / 0                     | -17.5 -17.5               | 0.12 (3) | 10.00         |                       |                           |                        |               |  |
| 10-9        | 0 / 916                   | -17.5 -17.5               | 0.21 (1) | 10.00         |                       |                           |                        |               |  |
| 9-8         | 0 / 689                   | -17.5 -17.5               | 0.20 (3) | 10.00         |                       |                           |                        |               |  |
| 8-7         | 0 / 689                   | -17.5 -17.5               | 0.20 (3) | 10.00         |                       |                           |                        |               |  |
| 7-6         | 0 / 0                     | -17.5 -17.5               | 0.14 (3) | 10.00         |                       |                           |                        |               |  |

**DESIGN CRITERIA**

SPECIFIED LOADS:  
TOP CH. LL = 23.3 PSF  
DL = 3.0 PSF  
BOT CH. LL = 0.0 PSF  
DL = 7.0 PSF  
TOTAL LOAD = 33.3 PSF

SPACING = 24.0 IN./C/C

LOADING IN FLAT SECTION BASED ON A SLOPE OF 6.00/12

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

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

(55 % OF 27.2 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 23.3 P.S.F. SPECIFIED ROOF LIVE LOAD

ALLOWABLE DEFL.(LL)= L/360 (0.73")  
CALCULATED VERT. DEFL.(LL) = L/ 999 (0.03")  
ALLOWABLE DEFL.(TL)= L/360 (0.73")  
CALCULATED VERT. DEFL.(TL) = L/ 999 (0.06")

CSI: TC=0.45 (4-5:1) , BC=0.21 (9-10:1) , WB=0.32 (2-9:1) , SSI=0.22 (4-5:1)

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

COMPANION LIVE LOAD FACTOR = 0.50

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

NAIL VALUES  
PLATE GRIP(DRY) SHEAR SECTION (PSI) (PLI) (PLI)  
MAX MIN MAX MIN MAX MIN  
MT20 618 354 1667 822 2284 1656

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.89 (1) (INPUT = 0.90 )  
JSI METAL= 0.32 (1) (INPUT = 1.00 )



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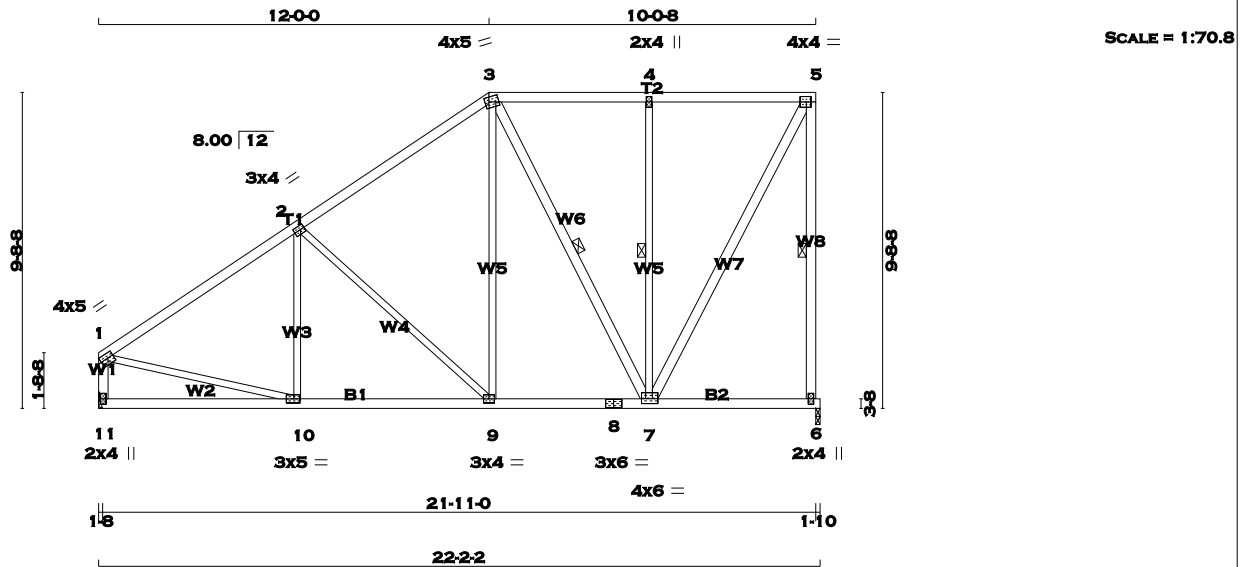
READ ALL NOTES ON THIS PAGE AND ON THE ENGINEERING NOTE PAGE ENP-1. THE NOTE PAGE IS AN INTEGRAL PART OF THIS DRAWING AS IT CONTAINS SPECIFICATIONS AND CRITERIA USED IN THE DESIGN OF THIS COMPONENT.



Kott Lumber Uxbridge, Stouffville, ON, CGC

Version 8.100 S Feb 9 2017 MiTek Industries, Inc. Mon Mar 13 09:56:59 2017 Page 1

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TOTAL WEIGHT = 119 lb  
[M][F]

| LUMBER                |         |        |        |  |
|-----------------------|---------|--------|--------|--|
| N. L. G. A. RULES     |         |        |        |  |
| CHORDS                | SIZE    | LUMBER | DESCR. |  |
| 1 - 3                 | 2x4 DRY | No.2   | SPF    |  |
| 3 - 5                 | 2x4 DRY | No.2   | SPF    |  |
| 6 - 5                 | 2x4 DRY | No.2   | SPF    |  |
| 11 - 1                | 2x4 DRY | No.2   | SPF    |  |
| 11 - 8                | 2x4 DRY | No.2   | SPF    |  |
| 8 - 6                 | 2x4 DRY | No.2   | SPF    |  |
| ALL WEBS              | 2x3 DRY | No.2   | SPF    |  |
| EXCEPT                |         |        |        |  |
| 3 - 7                 | 2x4 DRY | No.2   | SPF    |  |
| 7 - 5                 | 2x4 DRY | No.2   | SPF    |  |
| DRY: SEASONED LUMBER. |         |        |        |  |

| PLATES (table is in inches) |         |        |     |     |           |
|-----------------------------|---------|--------|-----|-----|-----------|
| JT                          | TYPE    | PLATES | W   | LEN | X         |
| 1                           | TMVW-t  | MT20   | 4.0 | 5.0 | 1.75 Edge |
| 2                           | TMVW-t  | MT20   | 3.0 | 4.0 | 1.50 1.50 |
| 3                           | TTWW-m  | MT20   | 4.0 | 5.0 | 1.75 1.50 |
| 4                           | TMW+w   | MT20   | 2.0 | 4.0 |           |
| 5                           | TMVW-t  | MT20   | 4.0 | 4.0 | 2.00 1.75 |
| 6                           | BMV1+p  | MT20   | 2.0 | 4.0 |           |
| 7                           | BMVWV-t | MT20   | 4.0 | 6.0 | 1.75 1.50 |
| 8                           | BS-t    | MT20   | 3.0 | 6.0 |           |
| 9                           | BMVW-t  | MT20   | 3.0 | 4.0 |           |
| 10                          | BMVW-t  | MT20   | 3.0 | 5.0 | 1.50 2.25 |
| 11                          | BMV1+p  | MT20   | 2.0 | 4.0 |           |

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

A SIZE FOR SIZE SUBSTITUTION OF MITEK MII20 WITH TEE-LOK TL20 PLATES IS ALLOWED.

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

| BEARINGS |      | FACTORED       |      | MAXIMUM FACTORED |      | INPUT            |       | REQRD               |       |
|----------|------|----------------|------|------------------|------|------------------|-------|---------------------|-------|
|          |      | GROSS REACTION |      | GROSS REACTION   |      | BRG              |       | BRG                 |       |
| JT       |      | VERT           | HORZ | DOWN             | HORZ | IN-SX            | IN-SX | IN-SX               | IN-SX |
| 6        | 1045 | 0              | 1045 | 0                | 0    | 1-10             | 1-10  |                     |       |
| 11       | 1045 | 0              | 1045 | 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  |
| 6                    | 734      | 513 / 0                       | 0 / 0 | 0 / 0     | 0 / 0 | 220 / 0 | 0 / 0 |
| 11                   | 734      | 513 / 0                       | 0 / 0 | 0 / 0     | 0 / 0 | 220 / 0 | 0 / 0 |

BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S) 6

**BRACING**  
TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 5.60 FT.  
MAX. UNBRACED BOTTOM CHORD LENGTH = 10.00 FT. OR RIGID CEILING DIRECTLY APPLIED.

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

1 - 2x3 SPF No.2 LATERAL BRACE(S) AT 1/2 LENGTH OF 5-6. DBS = 14-0-0 . CBF = 88 LBS.  
1 - 2x3 SPF No.2 LATERAL BRACE(S) AT 1/2 LENGTH OF 3-7, 4-7. DBS = 20-0-0 . CBF = 60 LBS.

DBS = DIAGONAL BRACE SPACING (MAX). CBF = CUMULATIVE BRACING FORCE. FASTEN LATERAL BRACE(S) USING (0.122"x3") SPIRAL NAILS : 1 NAIL FOR 2x3 BRACE(S), 2 FOR 1x4, 2x4, 2x5, 3 FOR 2x6, 4 FOR 2x8, 5 FOR 2x10, AND 6 FOR 2x12.

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: (3)

| C H O R D S |           |               |                  | W E B S |          |               |                |
|-------------|-----------|---------------|------------------|---------|----------|---------------|----------------|
| MEMB.       |           | MAX. FACTORED |                  | MEMB.   |          | MAX. FACTORED |                |
|             |           | FORCE (LBS)   | VERT. LOAD (PLF) |         |          | FORCE (LBS)   | MAX (CSI (LC)) |
| FR-TO       |           | FROM TO       |                  | FR-TO   |          | LENGTH        |                |
| 1-2         | -1074 / 0 | -77.3         | -77.3            | 10-2    | -88 / 76 | 0.05          | (1)            |
| 2-3         | -763 / 0  | -77.3         | -77.3            | 2-9     | -421 / 0 | 0.59          | (1)            |
| 3-4         | -465 / 0  | -77.3         | -77.3            | 9-3     | 0 / 372  | 0.08          | (1)            |
| 4-5         | -466 / 0  | -77.3         | -77.3            | 3-7     | -316 / 0 | 0.19          | (1)            |
| 6-5         | -1008 / 0 | 0.0           | 0.0              | 7-4     | -480 / 0 | 0.30          | (1)            |
| 11-1        | -1002 / 0 | 0.0           | 0.0              | 7-5     | 0 / 974  | 0.16          | (1)            |
|             |           |               |                  | 1-10    | 0 / 943  | 0.21          | (1)            |
| 11-10       | 0 / 0     | -17.5         | -17.5            |         |          |               |                |
| 10-9        | 0 / 919   | -17.5         | -17.5            |         |          |               |                |
| 9-8         | 0 / 612   | -17.5         | -17.5            |         |          |               |                |
| 8-7         | 0 / 612   | -17.5         | -17.5            |         |          |               |                |
| 7-6         | 0 / 0     | -17.5         | -17.5            |         |          |               |                |

DESIGN CRITERIA

SPECIFIED LOADS:  
TOP CH. LL = 23.3 PSF  
DL = 3.0 PSF  
BOT CH. LL = 0.0 PSF  
DL = 7.0 PSF  
TOTAL LOAD = 33.3 PSF

SPACING = 24.0 IN./C

LOADING IN FLAT SECTION BASED ON A SLOPE OF 6.00/12

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

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

(55 % OF 27.2 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 23.3 P.S.F. SPECIFIED ROOF LIVE LOAD

ALLOWABLE DEFL.(LL)= L/360 (0.73")  
CALCULATED VERT. DEFL.(LL) = L/ 999 (0.03")  
ALLOWABLE DEFL.(TL)= L/360 (0.73")  
CALCULATED VERT. DEFL.(TL) = L/ 999 (0.07")

CSI: TC=0.45 (5-6:1) , BC=0.23 (9-10:1) , WB=0.59 (2-9:1) , SSI=0.19 (4-5:1)

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

COMPANION LIVE LOAD FACTOR = 0.50

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

NAIL VALUES  
PLATE GRIP(DRY) SHEAR SECTION  
(PSI) (PLI) (PLI)  
MAX MIN MAX MIN MAX MIN  
MT20 618 354 1667 822 2284 1656

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.89 (5) (INPUT = 0.90 )  
JSI METAL= 0.36 (1) (INPUT = 1.00 )

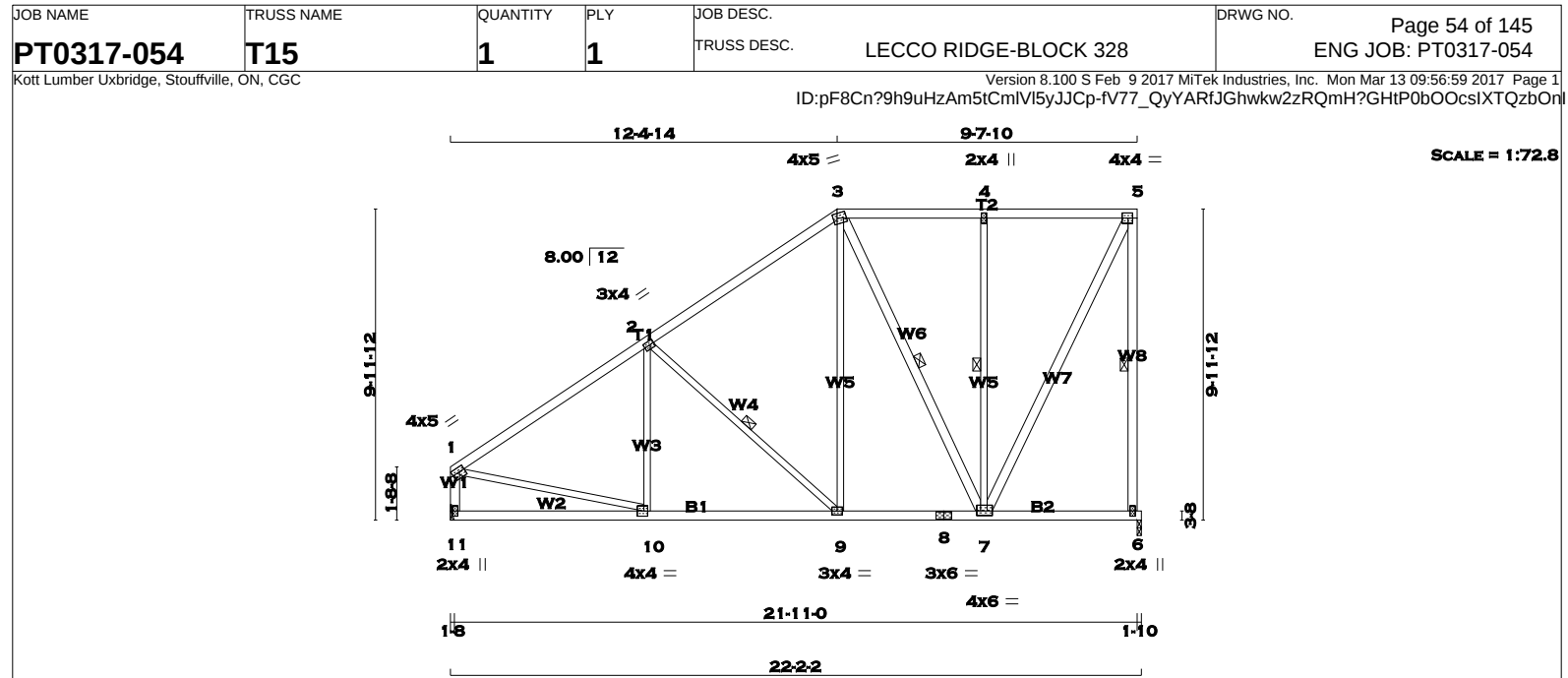


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READ ALL NOTES ON THIS PAGE AND ON THE ENGINEERING NOTE PAGE ENP-1. THE NOTE PAGE IS AN INTEGRAL PART OF THIS DRAWING AS IT CONTAINS SPECIFICATIONS AND CRITERIA USED IN THE DESIGN OF THIS COMPONENT.







|                                                                     |  |  |  |  |                                                                                                      |  |  |  |  |  |  |  |  |  |                                                 |  |  |  |  |  |  |  |  |  |
|---------------------------------------------------------------------|--|--|--|--|------------------------------------------------------------------------------------------------------|--|--|--|--|--|--|--|--|--|-------------------------------------------------|--|--|--|--|--|--|--|--|--|
| <b>LUMBER</b><br>N. L. G. A. RULES<br>CHORDS SIZE LUMBER DESCR. SPF |  |  |  |  | <b>DIMENSIONS, SUPPORTS AND LOADINGS SPECIFIED BY FABRICATOR TO BE VERIFIED BY BUILDING DESIGNER</b> |  |  |  |  |  |  |  |  |  | <b>DESIGN CRITERIA</b>                          |  |  |  |  |  |  |  |  |  |
| 1 - 3 2x4 DRY No.2 SPF                                              |  |  |  |  | <b>BEARINGS</b>                                                                                      |  |  |  |  |  |  |  |  |  | SPECIFIED LOADS:                                |  |  |  |  |  |  |  |  |  |
| 3 - 5 2x4 DRY No.2 SPF                                              |  |  |  |  | FACTORED MAXIMUM FACTORED INPUT REQD                                                                 |  |  |  |  |  |  |  |  |  | TOP CH. LL = 23.3 PSF                           |  |  |  |  |  |  |  |  |  |
| 6 - 5 2x4 DRY No.2 SPF                                              |  |  |  |  | GROSS REACTION GROSS REACTION BRG BRG                                                                |  |  |  |  |  |  |  |  |  | DL = 3.0 PSF                                    |  |  |  |  |  |  |  |  |  |
| 11- 1 2x4 DRY No.2 SPF                                              |  |  |  |  | JT VERT HORZ DOWN HORZ UPLIFT IN-SX IN-SX                                                            |  |  |  |  |  |  |  |  |  | BOT CH. LL = 0.0 PSF                            |  |  |  |  |  |  |  |  |  |
| 11- 8 2x4 DRY No.2 SPF                                              |  |  |  |  | 6 1045 0 1045 0 0 1-10 1-10                                                                          |  |  |  |  |  |  |  |  |  | DL = 7.0 PSF                                    |  |  |  |  |  |  |  |  |  |
| 8 - 6 2x4 DRY No.2 SPF                                              |  |  |  |  | 11 1045 0 1045 0 0 HANGER BY OTHERS                                                                  |  |  |  |  |  |  |  |  |  | TOTAL LOAD = 33.3 PSF                           |  |  |  |  |  |  |  |  |  |
|                                                                     |  |  |  |  | MIN. SEAT SIZE: 1-8                                                                                  |  |  |  |  |  |  |  |  |  |                                                 |  |  |  |  |  |  |  |  |  |
| ALL WEBS 2x3 DRY No.2 SPF                                           |  |  |  |  | <b>UNFACTORED REACTIONS</b>                                                                          |  |  |  |  |  |  |  |  |  | <b>SPACING = 24.0 IN./C</b>                     |  |  |  |  |  |  |  |  |  |
| EXCEPT                                                              |  |  |  |  | 1ST LCASE MAX./MIN. COMPONENT REACTIONS                                                              |  |  |  |  |  |  |  |  |  | LOADING IN FLAT SECTION BASED ON A SLOPE        |  |  |  |  |  |  |  |  |  |
| 3 - 7 2x4 DRY No.2 SPF                                              |  |  |  |  | JT COMBINED SNOW LIVE PERM.LIVE WIND DEAD SOIL                                                       |  |  |  |  |  |  |  |  |  | OF 6.00/12                                      |  |  |  |  |  |  |  |  |  |
| 7 - 5 2x4 DRY No.2 SPF                                              |  |  |  |  | 6 734 513 / 0 0 / 0 0 / 0 0 / 0 220 / 0 0 / 0                                                        |  |  |  |  |  |  |  |  |  | THIS TRUSS IS DESIGNED FOR RESIDENTIAL          |  |  |  |  |  |  |  |  |  |
| DRY: SEASONED LUMBER.                                               |  |  |  |  | 11 734 513 / 0 0 / 0 0 / 0 0 / 0 220 / 0 0 / 0                                                       |  |  |  |  |  |  |  |  |  | OR SMALL BUILDING REQUIREMENTS OF               |  |  |  |  |  |  |  |  |  |
|                                                                     |  |  |  |  | BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S) 6                                              |  |  |  |  |  |  |  |  |  | PART 9, NBCC 2010                               |  |  |  |  |  |  |  |  |  |
|                                                                     |  |  |  |  | <b>BRACING</b>                                                                                       |  |  |  |  |  |  |  |  |  | THIS DESIGN COMPLIES WITH:                      |  |  |  |  |  |  |  |  |  |
|                                                                     |  |  |  |  | TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 5.55 FT.                                           |  |  |  |  |  |  |  |  |  | - PART 9 OF OBC 2012, BCBC 2012, ABC 2014       |  |  |  |  |  |  |  |  |  |
|                                                                     |  |  |  |  | MAX. UNBRACED BOTTOM CHORD LENGTH = 10.00 FT. OR RIGID CEILING DIRECTLY                              |  |  |  |  |  |  |  |  |  | - CSA 086-09                                    |  |  |  |  |  |  |  |  |  |
|                                                                     |  |  |  |  | APPLIED.                                                                                             |  |  |  |  |  |  |  |  |  | - TPIC 2011                                     |  |  |  |  |  |  |  |  |  |
|                                                                     |  |  |  |  | ALL PITCH BREAKS AND PERIMETER CORNER JOINTS MUST BE Laterally RESTRAINED.                           |  |  |  |  |  |  |  |  |  | (55 % OF 27.2 P.S.F. G.S.L. PLUS 8.4 P.S.F.     |  |  |  |  |  |  |  |  |  |
|                                                                     |  |  |  |  | 1 - 2x3 SPF No.2 LATERAL BRACE(S) AT 1/2 LENGTH OF 5-6. DBS = 14-0-0 . CBF = 88 LBS.                 |  |  |  |  |  |  |  |  |  | RAIN LOAD) EQUALS 23.3 P.S.F. SPECIFIED         |  |  |  |  |  |  |  |  |  |
|                                                                     |  |  |  |  | 1 - 2x3 SPF No.2 LATERAL BRACE(S) AT 1/2 LENGTH OF 2-9, 3-7, 4-7. DBS = 20-0-0 . CBF = 58            |  |  |  |  |  |  |  |  |  | ROOF LIVE LOAD                                  |  |  |  |  |  |  |  |  |  |
|                                                                     |  |  |  |  | LBS.                                                                                                 |  |  |  |  |  |  |  |  |  | ALLOWABLE DEFL.(LL)= L/360 (0.73")              |  |  |  |  |  |  |  |  |  |
|                                                                     |  |  |  |  | DBS = DIAGONAL BRACE SPACING (MAX). CBF = CUMULATIVE BRACING FORCE. FASTEN                           |  |  |  |  |  |  |  |  |  | CALCULATED VERT. DEFL.(LL) = L/ 999 (0.03")     |  |  |  |  |  |  |  |  |  |
|                                                                     |  |  |  |  | LATERAL BRACE(S) USING (0.122"x3") SPIRAL NAILS : 1 NAIL FOR 2x3 BRACE(S), 2 FOR 1x4,                |  |  |  |  |  |  |  |  |  | ALLOWABLE DEFL.(TL)= L/360 (0.73")              |  |  |  |  |  |  |  |  |  |
|                                                                     |  |  |  |  | 2x4, 2x5, 3 FOR 2x6, 4 FOR 2x8, 5 FOR 2x10, AND 6 FOR 2x12.                                          |  |  |  |  |  |  |  |  |  | CALCULATED VERT. DEFL.(TL) = L/ 999 (0.07")     |  |  |  |  |  |  |  |  |  |
|                                                                     |  |  |  |  | END VERTICAL(S) MUST BE SHEATHED OR HAVE BRACES AS INDICATED IN                                      |  |  |  |  |  |  |  |  |  | CSI: TC=0.49 (5-6:1), BC=0.24 (9-10:3), WB=0.31 |  |  |  |  |  |  |  |  |  |
|                                                                     |  |  |  |  | THE MAX. UNBRACED LENGTH COLUMN OF THE TABLE BELOW                                                   |  |  |  |  |  |  |  |  |  | (4-7:1), SSI=0.20 (1-2:1)                       |  |  |  |  |  |  |  |  |  |
|                                                                     |  |  |  |  | <b>LOADING</b>                                                                                       |  |  |  |  |  |  |  |  |  | DOL LUMBER=1.00 NAIL=1.00 LS BEND=1.10          |  |  |  |  |  |  |  |  |  |
|                                                                     |  |  |  |  | TOTAL LOAD CASES: (3)                                                                                |  |  |  |  |  |  |  |  |  | COMP=1.10 SHEAR=1.10 TENS= 1.10                 |  |  |  |  |  |  |  |  |  |
|                                                                     |  |  |  |  | CHORDS                                                                                               |  |  |  |  |  |  |  |  |  | COMPANION LIVE LOAD FACTOR = 0.50               |  |  |  |  |  |  |  |  |  |
|                                                                     |  |  |  |  | MEMB. MAX. FACTORED FORCE (LBS)                                                                      |  |  |  |  |  |  |  |  |  | TRUSS PLATE MANUFACTURER IS NOT                 |  |  |  |  |  |  |  |  |  |
|                                                                     |  |  |  |  | FACTORED VERT. LOAD LC1 MAX UNBRAC LENGTH                                                            |  |  |  |  |  |  |  |  |  | RESPONSIBLE FOR QUALITY CONTROL IN THE          |  |  |  |  |  |  |  |  |  |
|                                                                     |  |  |  |  | FR-TO FROM TO                                                                                        |  |  |  |  |  |  |  |  |  | TRUSS MANUFACTURING PLANT .                     |  |  |  |  |  |  |  |  |  |
|                                                                     |  |  |  |  | 1- 2 -1072 / 0 -77.3 -77.3 0.42 (1) 5.55 10- 2 -77 / 83 0.04 (1)                                     |  |  |  |  |  |  |  |  |  | NAIL VALUES                                     |  |  |  |  |  |  |  |  |  |
|                                                                     |  |  |  |  | 2- 3 -738 / 0 -77.3 -77.3 0.39 (1) 6.25 2- 9 -448 / 0 0.21 (1)                                       |  |  |  |  |  |  |  |  |  | PLATE GRIP(DRY) SHEAR SECTION                   |  |  |  |  |  |  |  |  |  |
|                                                                     |  |  |  |  | 3- 4 -438 / 0 -77.3 -77.3 0.23 (1) 6.25 9- 3 0 / 390 0.09 (1)                                        |  |  |  |  |  |  |  |  |  | (PSI) (PLI) (PLI)                               |  |  |  |  |  |  |  |  |  |
|                                                                     |  |  |  |  | 4- 5 -438 / 0 -77.3 -77.3 0.23 (1) 6.25 3- 7 -347 / 0 0.21 (1)                                       |  |  |  |  |  |  |  |  |  | MAX MIN MAX MIN MAX MIN                         |  |  |  |  |  |  |  |  |  |
|                                                                     |  |  |  |  | 6- 5 -1009 / 0 0.0 0.0 0.49 (1) 6.23 7- 4 -460 / 0 0.31 (1)                                          |  |  |  |  |  |  |  |  |  | MT20 618 354 1667 822 2284 1656                 |  |  |  |  |  |  |  |  |  |
|                                                                     |  |  |  |  | 11- 1 -1001 / 0 0.0 0.0 0.11 (1) 7.81 7- 5 0 / 968 0.16 (1)                                          |  |  |  |  |  |  |  |  |  | PLATE PLACEMENT TOL. = 0.250 inches             |  |  |  |  |  |  |  |  |  |
|                                                                     |  |  |  |  | 11-10 0 / 0 -17.5 -17.5 0.17 (3) 10.00 1-10 0 / 941 0.21 (1)                                         |  |  |  |  |  |  |  |  |  | PLATE ROTATION TOL. = 5.0 Deg.                  |  |  |  |  |  |  |  |  |  |
|                                                                     |  |  |  |  | 10- 9 0 / 919 -17.5 -17.5 0.24 (3) 10.00                                                             |  |  |  |  |  |  |  |  |  | JSI GRIP= 0.90 (5) (INPUT = 0.90 )              |  |  |  |  |  |  |  |  |  |
|                                                                     |  |  |  |  | 9- 8 0 / 590 -17.5 -17.5 0.14 (1) 10.00                                                              |  |  |  |  |  |  |  |  |  | JSI METAL= 0.36 (1) (INPUT = 1.00 )             |  |  |  |  |  |  |  |  |  |
|                                                                     |  |  |  |  | 8- 7 0 / 590 -17.5 -17.5 0.14 (1) 10.00                                                              |  |  |  |  |  |  |  |  |  |                                                 |  |  |  |  |  |  |  |  |  |
|                                                                     |  |  |  |  | 7- 6 0 / 0 -17.5 -17.5 0.09 (3) 10.00                                                                |  |  |  |  |  |  |  |  |  |                                                 |  |  |  |  |  |  |  |  |  |

LICENSED PROFESSIONAL ENGINEER

P. M. TREVISAN

100136551

March 13th, 2017

PROVINCE OF ONTARIO

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MAR 29, 2017

17-4990

BUILDING DIVISION

READ ALL NOTES ON THIS PAGE AND ON THE

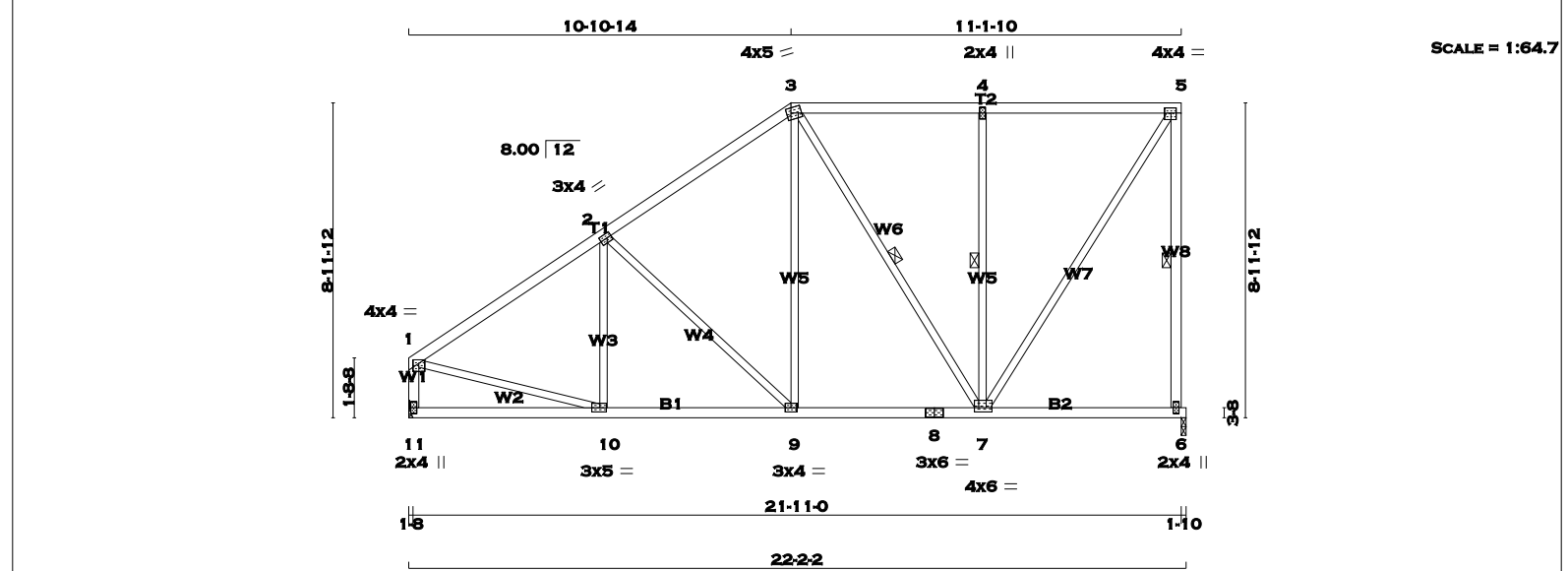
ENGINEERING NOTE PAGE ENP-1. THE NOTE PAGE

IS AN INTEGRAL PART OF THIS DRAWING AS IT

CONTAINS SPECIFICATIONS AND CRITERIA USED

IN THE DESIGN OF THIS COMPONENT.

KOTT



TOTAL WEIGHT = 108 lb [M]

| LUMBER                |      |        |        | N. L. G. A. RULES     |      |        |        |
|-----------------------|------|--------|--------|-----------------------|------|--------|--------|
| CHORDS                | SIZE | LUMBER | DESCR. | CHORDS                | SIZE | LUMBER | DESCR. |
| 1 - 3                 | 2x4  | DRY    | No.2   | 1 - 3                 | 2x4  | DRY    | No.2   |
| 3 - 5                 | 2x4  | DRY    | No.2   | 3 - 5                 | 2x4  | DRY    | No.2   |
| 6 - 5                 | 2x4  | DRY    | No.2   | 6 - 5                 | 2x4  | DRY    | No.2   |
| 11 - 1                | 2x4  | DRY    | No.2   | 11 - 1                | 2x4  | DRY    | No.2   |
| 11 - 8                | 2x4  | DRY    | No.2   | 11 - 8                | 2x4  | DRY    | No.2   |
| 8 - 6                 | 2x4  | DRY    | No.2   | 8 - 6                 | 2x4  | DRY    | No.2   |
| ALL WEBS EXCEPT       | 2x3  | DRY    | No.2   | ALL WEBS EXCEPT       | 2x3  | DRY    | No.2   |
| DRY: SEASONED LUMBER. |      |        |        | DRY: SEASONED LUMBER. |      |        |        |

| PLATES (table is in inches)                                                      |         |        |     |     |      |      |  |
|----------------------------------------------------------------------------------|---------|--------|-----|-----|------|------|--|
| JT                                                                               | TYPE    | PLATES | W   | LEN | Y    | X    |  |
| 1                                                                                | TMVW-p  | MT20   | 4.0 | 4.0 | 1.25 | 2.00 |  |
| 2                                                                                | TMVW-t  | MT20   | 3.0 | 4.0 | 1.50 | 1.50 |  |
| 3                                                                                | TTWW-m  | MT20   | 4.0 | 5.0 | 1.75 | 1.50 |  |
| 4                                                                                | TMVW-w  | MT20   | 2.0 | 4.0 |      |      |  |
| 5                                                                                | TMVW-t  | MT20   | 4.0 | 4.0 | 1.75 | 1.75 |  |
| 6                                                                                | BMV1+p  | MT20   | 2.0 | 4.0 |      |      |  |
| 7                                                                                | BMVWW-t | MT20   | 4.0 | 6.0 | 1.50 | 1.50 |  |
| 8                                                                                | BS-t    | MT20   | 3.0 | 6.0 |      |      |  |
| 9                                                                                | BMVWW-t | MT20   | 3.0 | 4.0 |      |      |  |
| 10                                                                               | BMVWW-t | MT20   | 3.0 | 5.0 | 1.50 | 2.25 |  |
| 11                                                                               | BMV1+p  | MT20   | 2.0 | 4.0 |      |      |  |
| A SIZE FOR SIZE SUBSTITUTION OF MITEK MII20 WITH TEE-LOK TL20 PLATES IS ALLOWED. |         |        |     |     |      |      |  |



| 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 |  |  |
| 6                                                                                             | 1045                    | 0    | 1045                            | 0    | 0         | 1-10             | 1-10  |  |  |
| 11                                                                                            | 1045                    | 0    | 1045                            | 0    | 0         | HANGER BY OTHERS |       |  |  |
| MIN. SEAT SIZE: 1-8                                                                           |                         |      |                                 |      |           |                  |       |  |  |

| UNFACTORED REACTIONS |           |           |           |           |       |         |       |
|----------------------|-----------|-----------|-----------|-----------|-------|---------|-------|
| JT                   | 1ST LCASE | MAX./MIN. | COMPONENT | REACTIONS |       |         |       |
| 6                    | 734       | 513 / 0   | 0 / 0     | 0 / 0     | 0 / 0 | 220 / 0 | 0 / 0 |
| 11                   | 734       | 513 / 0   | 0 / 0     | 0 / 0     | 0 / 0 | 220 / 0 | 0 / 0 |

BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S) 6

**BRACING**  
TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 5.50 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 - 2x3 SPF No.2 LATERAL BRACE(S) AT 1/2 LENGTH OF 5-6. DBS = 14-0-0 . CBF = 88 LBS.  
1 - 2x3 SPF No.2 LATERAL BRACE(S) AT 1/2 LENGTH OF 3-7, 4-7. DBS = 20-0-0 . CBF = 67 LBS.

DBS = DIAGONAL BRACE SPACING (MAX). CBF = CUMULATIVE BRACING FORCE. FASTEN LATERAL BRACE(S) USING (0.122"x3") SPIRAL NAILS : 1 NAIL FOR 2x3 BRACE(S), 2 FOR 1x4, 2x4, 2x5, 3 FOR 2x6, 4 FOR 2x8, 5 FOR 2x10, AND 6 FOR 2x12.

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: (3) |                           |                           |               |                    |       |                           |               |  |  |
| CHORDS                |                           |                           |               |                    | WEBS  |                           |               |  |  |
| MEMB.                 | MAX. FACTORED FORCE (LBS) | FACTORED VERT. LOAD (PLF) | MAX. CSI (LC) | MAX. UNBRAC LENGTH | MEMB. | MAX. FACTORED FORCE (LBS) | MAX. CSI (LC) |  |  |
| FR-TO                 |                           | FROM TO                   |               |                    | FR-TO |                           |               |  |  |
| 1-2                   | -1075 / 0                 | -77.3 -77.3               | 0.44 (1)      | 5.50               | 10-2  | -121 / 56                 | 0.05 (1)      |  |  |
| 2-3                   | -829 / 0                  | -77.3 -77.3               | 0.42 (1)      | 6.07               | 2-9   | -346 / 0                  | 0.38 (1)      |  |  |
| 3-4                   | -546 / 0                  | -77.3 -77.3               | 0.41 (1)      | 6.25               | 9-3   | 0 / 325                   | 0.07 (1)      |  |  |
| 4-5                   | -546 / 0                  | -77.3 -77.3               | 0.41 (1)      | 6.25               | 3-7   | -230 / 0                  | 0.17 (1)      |  |  |
| 6-5                   | -1005 / 0                 | 0.0 0.0                   | 0.37 (1)      | 6.24               | 7-4   | -533 / 0                  | 0.28 (1)      |  |  |
| 11-1                  | -1005 / 0                 | 0.0 0.0                   | 0.11 (1)      | 7.80               | 7-5   | 0 / 999                   | 0.22 (1)      |  |  |
|                       |                           |                           |               |                    | 1-10  | 0 / 946                   | 0.21 (1)      |  |  |
| 11-10                 | 0 / 0                     | -17.5 -17.5               | 0.13 (3)      | 10.00              |       |                           |               |  |  |
| 10-9                  | 0 / 918                   | -17.5 -17.5               | 0.21 (1)      | 10.00              |       |                           |               |  |  |
| 9-8                   | 0 / 669                   | -17.5 -17.5               | 0.18 (3)      | 10.00              |       |                           |               |  |  |
| 8-7                   | 0 / 669                   | -17.5 -17.5               | 0.18 (3)      | 10.00              |       |                           |               |  |  |
| 7-6                   | 0 / 0                     | -17.5 -17.5               | 0.13 (3)      | 10.00              |       |                           |               |  |  |

**DESIGN CRITERIA**

SPECIFIED LOADS:  
TOP CH. LL = 23.3 PSF  
DL = 3.0 PSF  
BOT CH. LL = 0.0 PSF  
DL = 7.0 PSF  
TOTAL LOAD = 33.3 PSF

**SPACING = 24.0 IN./C**

LOADING IN FLAT SECTION BASED ON A SLOPE OF 6.00/12

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

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

(55 % OF 27.2 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 23.3 P.S.F. SPECIFIED ROOF LIVE LOAD

ALLOWABLE DEFL.(LL)= L/360 (0.73")  
CALCULATED VERT. DEFL.(LL) = L/ 999 (0.03")  
ALLOWABLE DEFL.(TL)= L/360 (0.73")  
CALCULATED VERT. DEFL.(TL) = L/ 999 (0.06")

CSI: TC=0.44 (1-2:1) , BC=0.21 (9-10:1) , WB=0.38 (2-9:1) , SSI=0.21 (4-5:1)

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

COMPANION LIVE LOAD FACTOR = 0.50

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

NAIL VALUES  
PLATE GRIP(DRY) SHEAR SECTION (PSI) (PLI) (PLI)  
MAX MIN MAX MIN MAX MIN  
MT20 618 354 1667 822 2284 1656

PLATE PLACEMENT TOL. = 0.250 inches

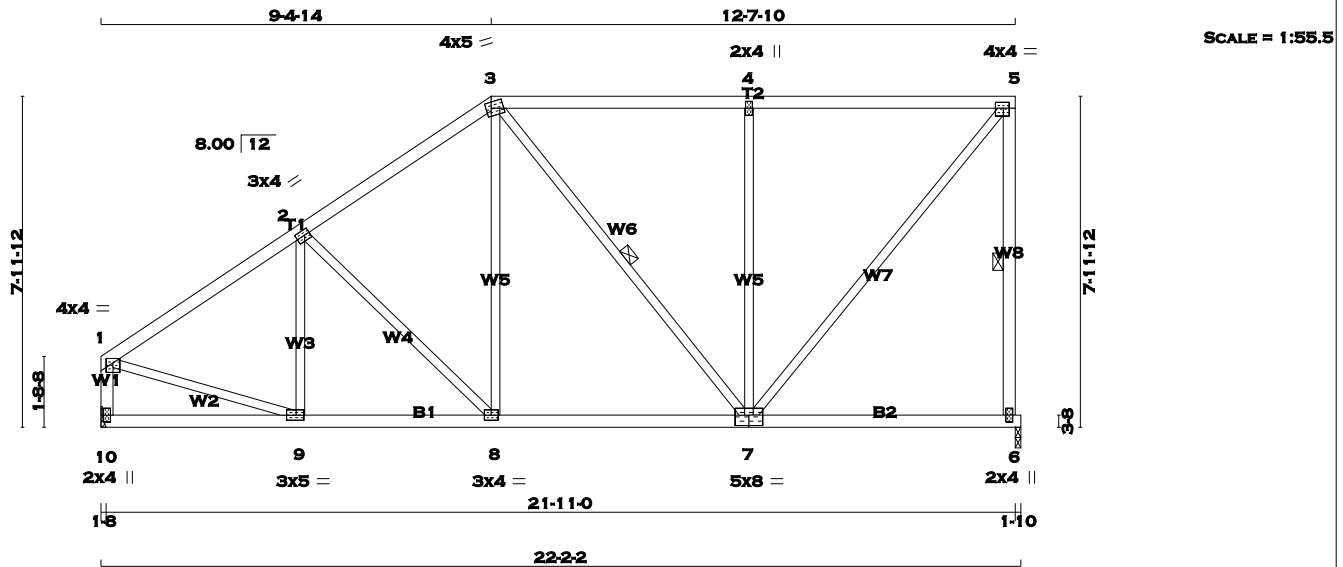
PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.90 (1) (INPUT = 0.90 )  
JSI METAL= 0.32 (1) (INPUT = 1.00 )

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READ ALL NOTES ON THIS PAGE AND ON THE  
ENGINEERING NOTE PAGE ENP-1. THE NOTE PAGE  
IS AN INTEGRAL PART OF THIS DRAWING AS IT  
CONTAINS SPECIFICATIONS AND CRITERIA USED  
IN THE DESIGN OF THIS COMPONENT.





TOTAL WEIGHT = 103 lb [M]

| LUMBER                |        |      |        | DESCR. |  |
|-----------------------|--------|------|--------|--------|--|
| N. L. G. A. RULES     | CHORDS | SIZE | LUMBER | DESCR. |  |
| 1 - 3                 | 2x4    | DRY  | No.2   | SPF    |  |
| 3 - 5                 | 2x4    | DRY  | No.2   | SPF    |  |
| 6 - 5                 | 2x4    | DRY  | No.2   | SPF    |  |
| 10 - 1                | 2x4    | DRY  | No.2   | SPF    |  |
| 10 - 7                | 2x4    | DRY  | No.2   | SPF    |  |
| 7 - 6                 | 2x4    | DRY  | No.2   | SPF    |  |
| ALL WEBS              | 2x3    | DRY  | No.2   | SPF    |  |
| EXCEPT                |        |      |        |        |  |
| DRY: SEASONED LUMBER. |        |      |        |        |  |

| PLATES (table is in inches)                                                      |         |        |     |     |      |      |
|----------------------------------------------------------------------------------|---------|--------|-----|-----|------|------|
| JT                                                                               | TYPE    | PLATES | W   | LEN | Y    | X    |
| 1                                                                                | TMVW-p  | MT20   | 4.0 | 4.0 | 1.25 | 2.00 |
| 2                                                                                | TMVW-t  | MT20   | 3.0 | 4.0 | 1.50 | 1.50 |
| 3                                                                                | TTWW-m  | MT20   | 4.0 | 5.0 | 1.75 | 1.50 |
| 4                                                                                | TMVW-w  | MT20   | 2.0 | 4.0 |      |      |
| 5                                                                                | TMVW-t  | MT20   | 4.0 | 4.0 | 1.75 | 1.75 |
| 6                                                                                | BMV1+p  | MT20   | 2.0 | 4.0 |      |      |
| 7                                                                                | BSWWW-l | MT20   | 5.0 | 8.0 | 3.00 | 4.00 |
| 8                                                                                | BMVW-t  | MT20   | 3.0 | 4.0 |      |      |
| 9                                                                                | BMVW-t  | MT20   | 3.0 | 5.0 | 1.50 | 2.25 |
| 10                                                                               | BMV1+p  | MT20   | 2.0 | 4.0 |      |      |
| A SIZE FOR SIZE SUBSTITUTION OF MITEK MII20 WITH TEE-LOK TL20 PLATES IS ALLOWED. |         |        |     |     |      |      |

| DIMENSIONS, SUPPORTS AND LOADINGS SPECIFIED BY FABRICATOR TO BE VERIFIED BY BUILDING DESIGNER |                         |      |                                 |      |        |                  |                     |  |  |
|-----------------------------------------------------------------------------------------------|-------------------------|------|---------------------------------|------|--------|------------------|---------------------|--|--|
| <u>BEARINGS</u>                                                                               |                         |      |                                 |      |        |                  |                     |  |  |
| JT                                                                                            | FACTORED GROSS REACTION |      | MAXIMUM FACTORED GROSS REACTION |      |        | INPUT BRG        | REQRD BRG           |  |  |
|                                                                                               | VERT                    | HORZ | DOWN                            | HORZ | UPLIFT | IN-SX            | IN-SX               |  |  |
| 6                                                                                             | 1045                    | 0    | 1045                            | 0    | 0      | 1-10             | 1-10                |  |  |
| 10                                                                                            | 1045                    | 0    | 1045                            | 0    | 0      | HANGER BY OTHERS |                     |  |  |
|                                                                                               |                         |      |                                 |      |        |                  | MIN. SEAT SIZE: 1-8 |  |  |

| UNFACTORED REACTIONS |           |         |                               |           |       |         |       |
|----------------------|-----------|---------|-------------------------------|-----------|-------|---------|-------|
| JT                   | 1ST LCASE |         | MAX./MIN. COMPONENT REACTIONS |           |       |         |       |
|                      | COMBINED  | SNOW    | LIVE                          | PERM.LIVE | WIND  | DEAD    | SOIL  |
| 6                    | 734       | 513 / 0 | 0 / 0                         | 0 / 0     | 0 / 0 | 220 / 0 | 0 / 0 |
| 10                   | 734       | 513 / 0 | 0 / 0                         | 0 / 0     | 0 / 0 | 220 / 0 | 0 / 0 |

BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S) 6

**BRACING**  
TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 5.70 FT.  
MAX. UNBRACED BOTTOM CHORD LENGTH = 10.00 FT. OR RIGID CEILING DIRECTLY APPLIED.

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

1 - 2x3 SPF No.2 LATERAL BRACE(S) AT 1/2 LENGTH OF 5-6. DBS = 14-0-0 . CBF = 87 LBS.  
1 - 2x3 SPF No.2 LATERAL BRACE(S) AT 1/2 LENGTH OF 3-7. DBS = 20-0-0 . CBF = 13 LBS.

DBS = DIAGONAL BRACE SPACING (MAX). CBF = CUMULATIVE BRACING FORCE. FASTEN LATERAL BRACE(S) USING (0.122"x3") SPIRAL NAILS : 1 NAIL FOR 2x3 BRACE(S), 2 FOR 1x4, 2x4, 2x5, 3 FOR 2x6, 4 FOR 2x8, 5 FOR 2x10, AND 6 FOR 2x12.

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: (3)

| CHORDS |                           |                     |                | WEBS  |                           |           |          |
|--------|---------------------------|---------------------|----------------|-------|---------------------------|-----------|----------|
| MEMB.  | MAX. FACTORED FORCE (LBS) | FACTORED VERT. LOAD |                | MEMB. | MAX. FACTORED FORCE (LBS) | FACTORED  |          |
|        |                           | FROM                | TO             |       |                           | FROM      | TO       |
| FR-TO  |                           |                     |                | FR-TO |                           |           |          |
| 1-2    | -1067 / 0                 | -77.3               | -77.3 0.32 (1) | 5.70  | 9-2                       | -173 / 26 | 0.06 (1) |
| 2-3    | -911 / 0                  | -77.3               | -77.3 0.31 (1) | 6.05  | 2-8                       | -238 / 0  | 0.19 (1) |
| 3-4    | -677 / 0                  | -77.3               | -77.3 0.55 (1) | 6.24  | 8-3                       | 0 / 257   | 0.06 (1) |
| 4-5    | -677 / 0                  | -77.3               | -77.3 0.55 (1) | 6.24  | 3-7                       | -101 / 0  | 0.07 (1) |
| 6-5    | -1000 / 0                 | 0.0                 | 0.0 0.29 (1)   | 6.25  | 7-4                       | -606 / 0  | 0.73 (1) |
| 10-1   | -1009 / 0                 | 0.0                 | 0.0 0.11 (1)   | 7.79  | 7-5                       | 0 / 1056  | 0.24 (1) |
|        |                           |                     |                |       | 1-9                       | 0 / 944   | 0.21 (1) |
| 10-9   | 0 / 0                     | -17.5               | -17.5 0.09 (3) | 10.00 |                           |           |          |
| 9-8    | 0 / 907                   | -17.5               | -17.5 0.20 (1) | 10.00 |                           |           |          |
| 8-7    | 0 / 740                   | -17.5               | -17.5 0.23 (3) | 10.00 |                           |           |          |
| 7-6    | 0 / 0                     | -17.5               | -17.5 0.18 (3) | 10.00 |                           |           |          |

**DESIGN CRITERIA**

SPECIFIED LOADS:  
TOP CH. LL = 23.3 PSF  
DL = 3.0 PSF  
BOT CH. LL = 0.0 PSF  
DL = 7.0 PSF  
TOTAL LOAD = 33.3 PSF

**SPACING = 24.0 IN./C**

LOADING IN FLAT SECTION BASED ON A SLOPE OF 6.00/12

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

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

(55 % OF 27.2 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 23.3 P.S.F. SPECIFIED ROOF LIVE LOAD

ALLOWABLE DEFL.(LL)= L/360 (0.73")  
CALCULATED VERT. DEFL.(LL) = L/ 999 (0.03")  
ALLOWABLE DEFL.(TL)= L/360 (0.73")  
CALCULATED VERT. DEFL.(TL) = L/ 999 (0.06")

CSI: TC=0.55 (4-5:1) , BC=0.23 (7-8:3) , WB=0.73 (4-7:1) , SSI=0.24 (4-5:1)

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

COMPANION LIVE LOAD FACTOR = 0.50

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

NAIL VALUES  
PLATE GRIP(DRY) SHEAR SECTION  
(PSI) (PLI) (PLI)  
MAX MIN MAX MIN MAX MIN  
MT20 618 354 1667 822 2284 1656

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

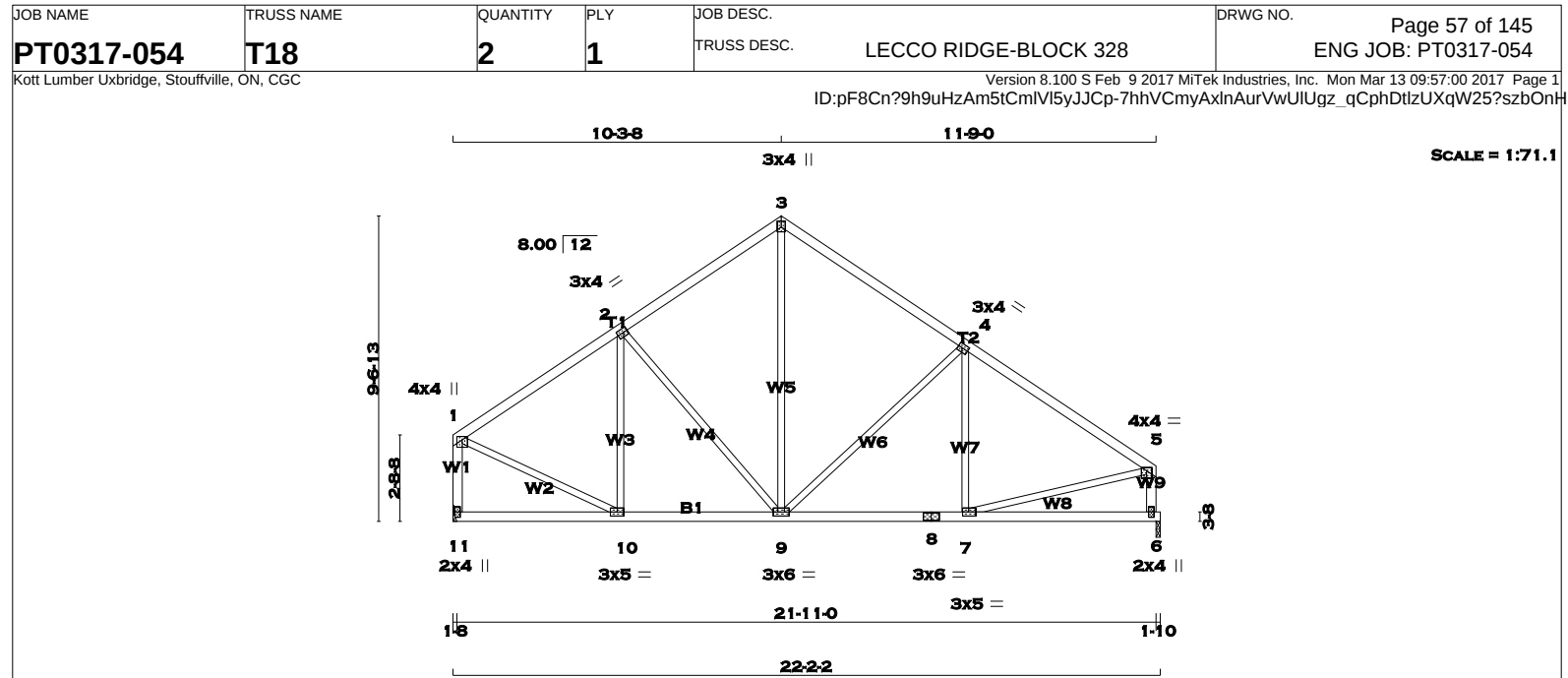
JSI GRIP= 0.88 (1) (INPUT = 0.90 )  
JSI METAL= 0.31 (1) (INPUT = 1.00 )



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READ ALL NOTES ON THIS PAGE AND ON THE ENGINEERING NOTE PAGE ENP-1. THE NOTE PAGE IS AN INTEGRAL PART OF THIS DRAWING AS IT CONTAINS SPECIFICATIONS AND CRITERIA USED IN THE DESIGN OF THIS COMPONENT.





TOTAL WEIGHT = 2 X 97 = 195 lb [M][F]

| LUMBER          |      |        |        |     | N. L. G. A. RULES |  |
|-----------------|------|--------|--------|-----|-------------------|--|
| CHORDS          | SIZE | LUMBER | DESCR. |     |                   |  |
| 1 - 3           | 2x4  | DRY    | No.2   | SPF |                   |  |
| 3 - 5           | 2x4  | DRY    | No.2   | SPF |                   |  |
| 11 - 1          | 2x4  | DRY    | No.2   | SPF |                   |  |
| 6 - 5           | 2x4  | DRY    | No.2   | SPF |                   |  |
| 11 - 8          | 2x4  | DRY    | No.2   | SPF |                   |  |
| 8 - 6           | 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    |
| 1                           | TMVW+p | MT20   | 4.0 | 4.0 | 1.25 | 2.00 |
| 2                           | TMVW-t | MT20   | 3.0 | 4.0 | 1.50 | 1.50 |
| 3                           | TTW+p  | MT20   | 3.0 | 4.0 | 2.25 | 1.50 |
| 4                           | TMVW-t | MT20   | 3.0 | 4.0 | 1.50 | 1.50 |
| 5                           | TMVW-p | MT20   | 4.0 | 4.0 | 1.25 | 2.00 |
| 6                           | BMV1+p | MT20   | 2.0 | 4.0 |      |      |
| 7                           | BMVW-t | MT20   | 3.0 | 5.0 | 1.50 | 2.25 |
| 8                           | BS-t   | MT20   | 3.0 | 6.0 |      |      |
| 9                           | BMVW-t | MT20   | 3.0 | 6.0 |      |      |
| 10                          | BMVW-t | MT20   | 3.0 | 5.0 |      |      |
| 11                          | BMV1+p | MT20   | 2.0 | 4.0 |      |      |

A SIZE FOR SIZE SUBSTITUTION OF MITEK MII20 WITH TEE-LOK TL20 PLATES IS ALLOWED.

#### 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    |
| 11       | 1045 | 0                       | 1045                            | 0         | 0         |
| 6        | 1045 | 0                       | 1045                            | 0         | 0         |

| UNFACTORED REACTIONS |          | 1ST LCASE | MAX./MIN. | COMPONENT REACTIONS |       |       |         |       |
|----------------------|----------|-----------|-----------|---------------------|-------|-------|---------|-------|
| JT                   | COMBINED | SNOW      | LIVE      | PERM.               | LIVE  | WIND  | DEAD    | SOIL  |
| 11                   | 734      | 513 / 0   | 0 / 0     | 0 / 0               | 0 / 0 | 0 / 0 | 220 / 0 | 0 / 0 |
| 6                    | 734      | 513 / 0   | 0 / 0     | 0 / 0               | 0 / 0 | 0 / 0 | 220 / 0 | 0 / 0 |

BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S) 6

**BRACING**  
TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 5.64 FT.  
MAX. UNBRACED BOTTOM CHORD LENGTH = 10.00 FT. OR RIGID CEILING DIRECTLY APPLIED.

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

| LOADING |             | TOTAL LOAD CASES: (3) |                | CHORDS               |       | WEBS        |                        |
|---------|-------------|-----------------------|----------------|----------------------|-------|-------------|------------------------|
| MEMB.   | FORCE (LBS) | VERT. LOAD (PLF)      | LC1 MAX. (LC)  | MAX. UNBRACED LENGTH | MEMB. | FORCE (LBS) | MAX. FACTORED CSI (LC) |
| FR-TO   |             | FROM                  | TO             |                      | FR-TO |             |                        |
| 1-2     | -887 / 0    | -77.3                 | -77.3 0.27 (1) | 6.19                 | 10-2  | -246 / 12   | 0.15 (1)               |
| 2-3     | -777 / 0    | -77.3                 | -77.3 0.27 (1) | 6.25                 | 2-9   | -208 / 0    | 0.25 (1)               |
| 3-4     | -781 / 0    | -77.3                 | -77.3 0.35 (1) | 6.25                 | 9-3   | 0 / 519     | 0.12 (1)               |
| 4-5     | -1068 / 0   | -77.3                 | -77.3 0.37 (1) | 5.64                 | 9-4   | -397 / 0    | 0.51 (1)               |
| 11-1    | -1007 / 0   | 0.0                   | 0.0 0.14 (1)   | 7.80                 | 7-4   | -100 / 69   | 0.05 (1)               |
| 6-5     | -1003 / 0   | 0.0                   | 0.0 0.11 (1)   | 7.81                 | 1-10  | 0 / 834     | 0.19 (1)               |
|         |             |                       |                |                      | 7-5   | 0 / 939     | 0.21 (1)               |
| 11-10   | 0 / 0       | -17.5                 | -17.5 0.11 (3) | 10.00                |       |             |                        |
| 10-9    | 0 / 760     | -17.5                 | -17.5 0.18 (1) | 10.00                |       |             |                        |
| 9-8     | 0 / 914     | -17.5                 | -17.5 0.22 (1) | 10.00                |       |             |                        |
| 8-7     | 0 / 914     | -17.5                 | -17.5 0.22 (1) | 10.00                |       |             |                        |
| 7-6     | 0 / 0       | -17.5                 | -17.5 0.15 (3) | 10.00                |       |             |                        |

#### DESIGN CRITERIA

SPECIFIED LOADS:  
TOP CH. LL = 23.3 PSF  
DL = 3.0 PSF  
BOT CH. LL = 0.0 PSF  
DL = 7.0 PSF  
TOTAL LOAD = 33.3 PSF

#### SPACING = 24.0 IN./C

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

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

(55 % OF 27.2 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 23.3 P.S.F. SPECIFIED ROOF LIVE LOAD

ALLOWABLE DEFL.(LL)= L/360 (0.73")  
CALCULATED VERT. DEFL.(LL) = L/999 (0.03")  
ALLOWABLE DEFL.(TL)= L/360 (0.73")  
CALCULATED VERT. DEFL.(TL) = L/999 (0.06")

CSI: TC=0.37 (4-5:1), BC=0.22 (7-9:1), WB=0.51 (4-9:1), SSI=0.19 (4-5:1)

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

COMPANION LIVE LOAD FACTOR = 0.50

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

NAIL VALUES  
PLATE GRIP(DRY) SHEAR SECTION  
(PSI) (PLI) (PLI)  
MAX MIN MAX MIN MAX MIN  
MT20 618 354 1667 822 2284 1656

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.90 (5) (INPUT = 0.90)  
JSI METAL= 0.32 (5) (INPUT = 1.00)

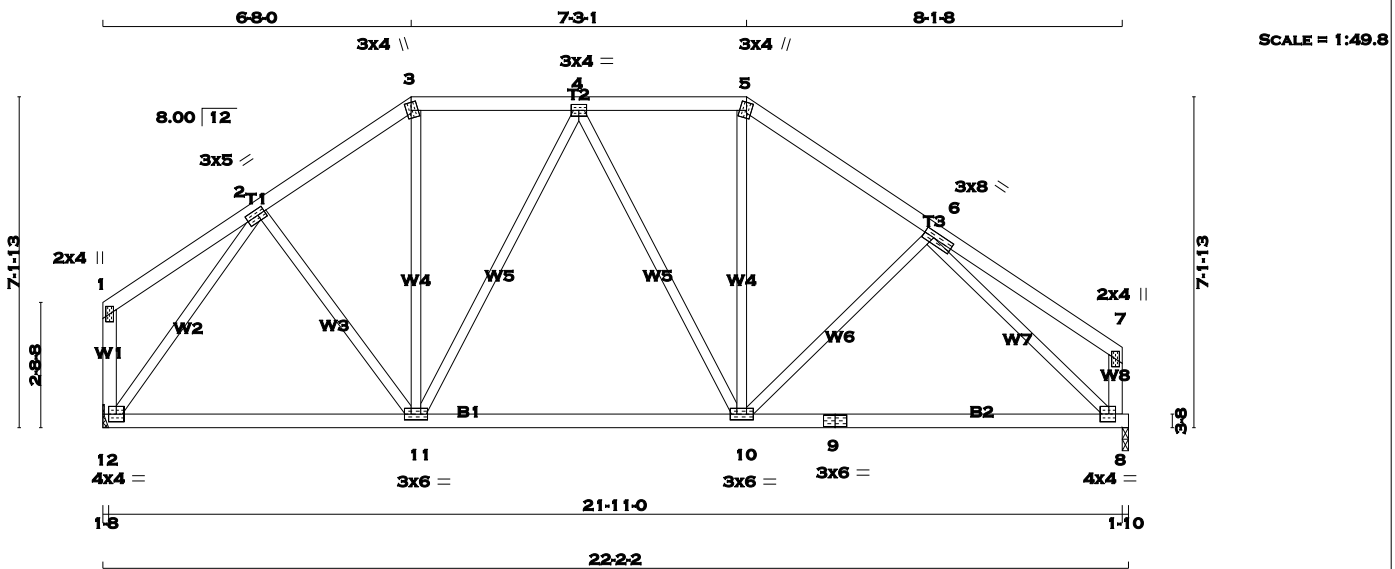


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TOTAL WEIGHT = 99 lb

| LUMBER                |      |        |        |
|-----------------------|------|--------|--------|
| N. L. G. A. RULES     |      |        |        |
| CHORDS                | SIZE | LUMBER | DESCR. |
| 1 - 3                 | 2x4  | DRY    | No.2   |
| 3 - 5                 | 2x4  | DRY    | No.2   |
| 5 - 7                 | 2x4  | DRY    | No.2   |
| 12 - 1                | 2x4  | DRY    | No.2   |
| 8 - 7                 | 2x4  | DRY    | No.2   |
| 12 - 9                | 2x4  | DRY    | No.2   |
| 9 - 8                 | 2x4  | DRY    | No.2   |
| ALL WEBS EXCEPT       | 2x3  | DRY    | No.2   |
| SPF                   |      |        |        |
| DRY: SEASONED LUMBER. |      |        |        |

| PLATES (table is in inches)                                                      |         |        |     |     |      |      |
|----------------------------------------------------------------------------------|---------|--------|-----|-----|------|------|
| JT                                                                               | TYPE    | PLATES | W   | LEN | Y    | X    |
| 1                                                                                | TMV+p   | MT20   | 2.0 | 4.0 |      |      |
| 2                                                                                | TMWW-t  | MT20   | 3.0 | 5.0 | 1.50 | 2.00 |
| 3                                                                                | TTW+m   | MT20   | 3.0 | 4.0 | 2.00 | 1.25 |
| 4                                                                                | TMWW-t  | MT20   | 3.0 | 4.0 |      |      |
| 5                                                                                | TTW+m   | MT20   | 3.0 | 4.0 | 2.00 | 1.25 |
| 6                                                                                | TMWW-t  | MT20   | 3.0 | 8.0 | 1.50 | 2.75 |
| 7                                                                                | TMV+p   | MT20   | 2.0 | 4.0 |      |      |
| 8                                                                                | BMVW1-t | MT20   | 4.0 | 4.0 | 2.00 | 1.75 |
| 9                                                                                | BS-t    | MT20   | 3.0 | 6.0 |      |      |
| 10                                                                               | BMWWW-t | MT20   | 3.0 | 6.0 |      |      |
| 11                                                                               | BMWWW-t | MT20   | 3.0 | 6.0 |      |      |
| 12                                                                               | BMVW1-t | MT20   | 4.0 | 4.0 |      |      |
| A SIZE FOR SIZE SUBSTITUTION OF MITEK MII20 WITH TEE-LOK TL20 PLATES IS ALLOWED. |         |        |     |     |      |      |

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

| BEARINGS                |      |                                 |      |
|-------------------------|------|---------------------------------|------|
| FACTORED GROSS REACTION |      | MAXIMUM FACTORED GROSS REACTION |      |
| JT                      | VERT | DOWN                            | HORZ |
| 12                      | 1045 | 0                               | 0    |
| 8                       | 1045 | 0                               | 0    |

| UNFACTORED REACTIONS |           |           |       |           |       |         |       |
|----------------------|-----------|-----------|-------|-----------|-------|---------|-------|
| JT                   | 1ST LCASE | MAX./MIN. | LIVE  | PERM.LIVE | WIND  | DEAD    | SOIL  |
| 12                   | 734       | 513 / 0   | 0 / 0 | 0 / 0     | 0 / 0 | 220 / 0 | 0 / 0 |
| 8                    | 734       | 513 / 0   | 0 / 0 | 0 / 0     | 0 / 0 | 220 / 0 | 0 / 0 |

BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S) 8

**BRACING**

TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 6.12 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: (3) |                           |                           |                           |
| CHORDS                |                           |                           |                           |
| MEMB.                 | MAX. FACTORED FORCE (LBS) | FACTORED VERT. LOAD (PLF) | MAX. UNBRACED LENGTH (LC) |
| FR-TO                 |                           |                           |                           |
| 1-2                   | 0 / 16                    | -77.3                     | -77.3 0.13 (1)            |
| 2-3                   | -884 / 0                  | -77.3                     | -77.3 0.11 (1)            |
| 3-4                   | -725 / 0                  | -77.3                     | -77.3 0.13 (1)            |
| 4-5                   | -801 / 0                  | -77.3                     | -77.3 0.13 (1)            |
| 5-6                   | -979 / 0                  | -77.3                     | -77.3 0.16 (1)            |
| 6-7                   | 0 / 20                    | -77.3                     | -77.3 0.20 (1)            |
| 12-1                  | -102 / 0                  | 0.0                       | 0.0 0.01 (1)              |
| 8-7                   | -121 / 0                  | 0.0                       | 0.0 0.01 (1)              |
| 12-11                 | 0 / 649                   | -17.5                     | -17.5 0.22 (3)            |
| 11-10                 | 0 / 850                   | -17.5                     | -17.5 0.32 (3)            |
| 10-9                  | 0 / 852                   | -17.5                     | -17.5 0.32 (3)            |
| 9-8                   | 0 / 852                   | -17.5                     | -17.5 0.32 (3)            |

DESIGN CRITERIA

| SPECIFIED LOADS:      |    |   |          |
|-----------------------|----|---|----------|
| TOP CH.               | LL | = | 23.3 PSF |
|                       | DL | = | 3.0 PSF  |
| BOT CH.               | LL | = | 0.0 PSF  |
|                       | DL | = | 7.0 PSF  |
| TOTAL LOAD = 33.3 PSF |    |   |          |

SPACING = 24.0 IN./C

LOADING IN FLAT SECTION BASED ON A SLOPE OF 6.00/12

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

THIS DESIGN COMPLIES WITH:

- PART 9 OF OBC 2012, BCBC 2012, ABC 2014
- CSA 086-09
- TPIC 2011

(55 % OF 27.2 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 23.3 P.S.F. SPECIFIED ROOF LIVE LOAD

ALLOWABLE DEFL.(LL)= L/360 (0.73")

CALCULATED VERT. DEFL.(LL) = L/999 (0.03")

ALLOWABLE DEFL.(TL)= L/360 (0.73")

CALCULATED VERT. DEFL.(TL) = L/999 (0.14")

CSI: TC=0.20 (6-7:1), BC=0.32 (10-11:3), WB=0.67 (6-8:1), SSI=0.13 (3-4:1)

DOL LUMBER=1.00 NAIL=1.00 LS BEND=1.10

COMP=1.10 SHEAR=1.10 TENS= 1.10

COMPANION LIVE LOAD FACTOR = 0.50

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

| NAIL VALUES |           |       |         |     |      |
|-------------|-----------|-------|---------|-----|------|
| PLATE       | GRIP(DRY) | SHEAR | SECTION |     |      |
|             | (PSI)     | (PLI) | (PLI)   |     |      |
|             | MAX       | MIN   | MAX     | MIN | MAX  |
| MT20        | 618       | 354   | 1667    | 822 | 2284 |

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.89 (6) (INPUT = 0.90 )

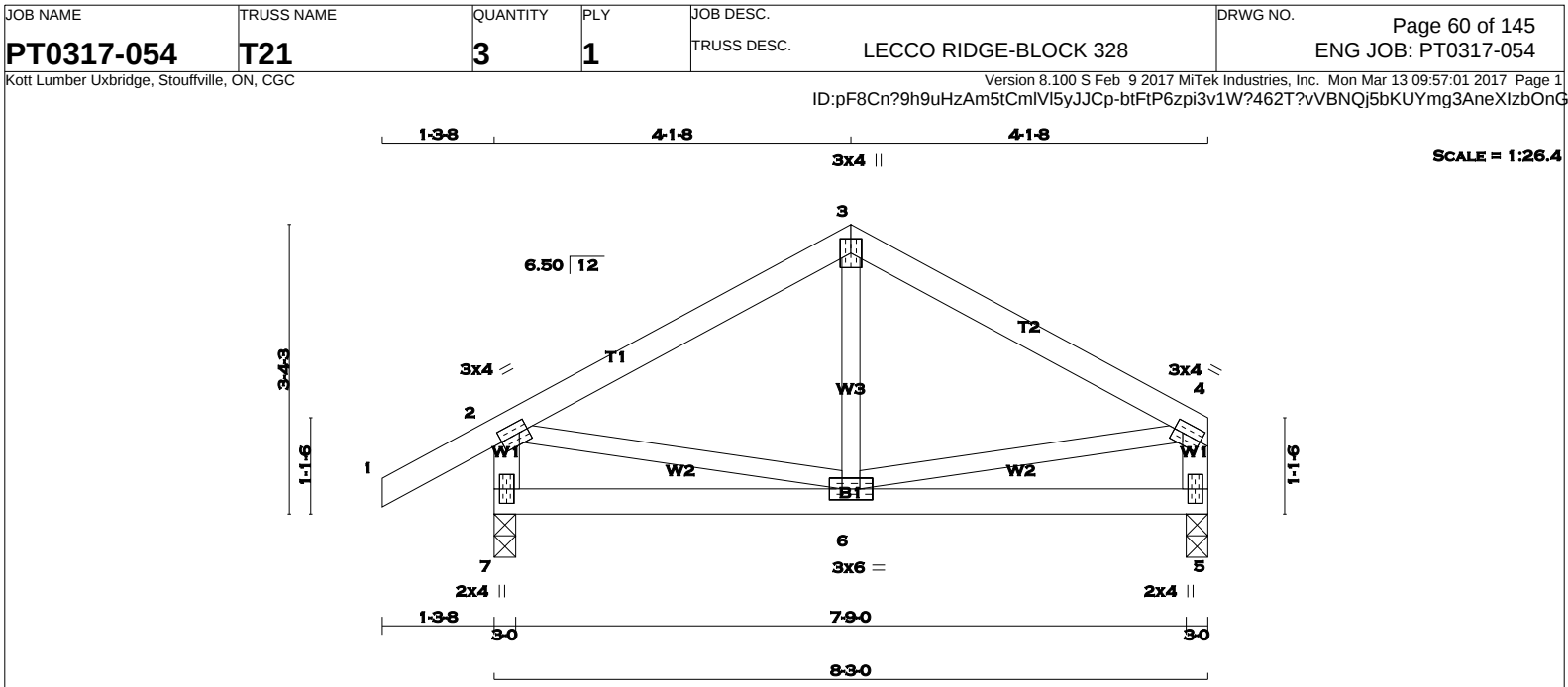
JSI METAL= 0.32 (8) (INPUT = 1.00 )



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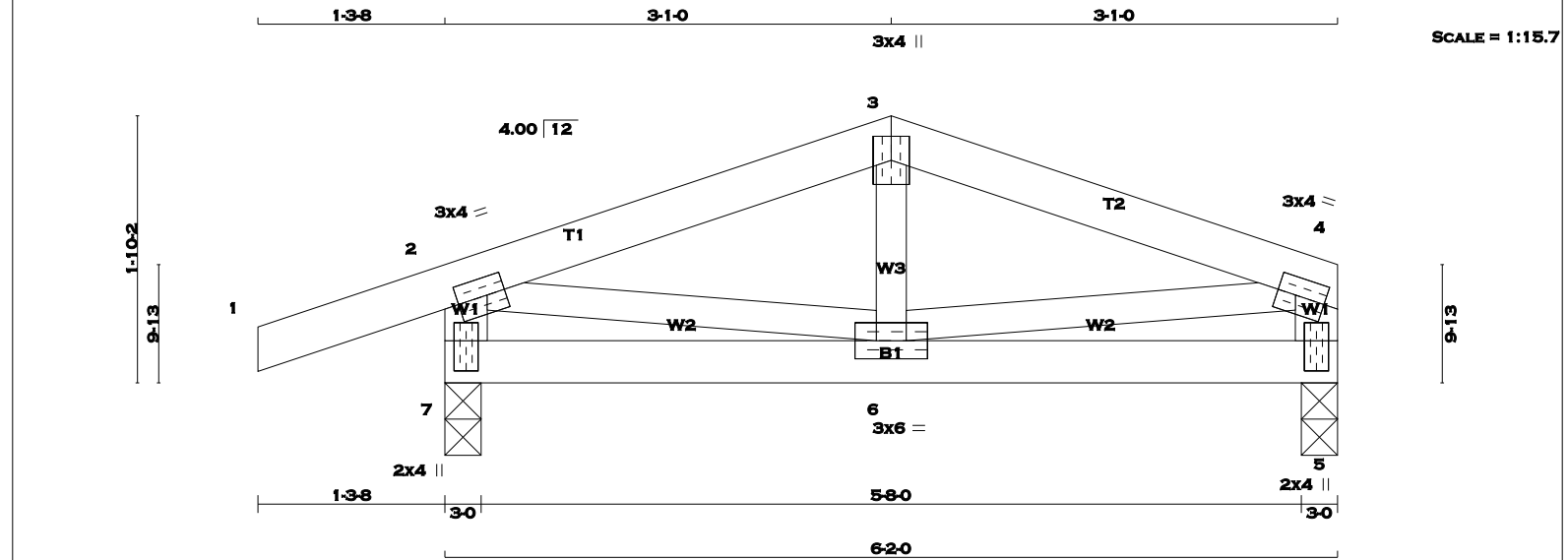
|                                                                                                                                                                                                                                                                                                                                     |  |  |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |  |  |  |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|--|--|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|--|--|
| <b>LUMBER</b><br>N. L. G. A. RULES<br>CHORDS SIZE<br>1 - 3 2x4 DRY No.2<br>3 - 4 2x4 DRY No.2<br>7 - 2 2x4 DRY No.2<br>5 - 4 2x4 DRY No.2<br>7 - 5 2x4 DRY No.2<br><br>ALL WEBS 2x3 DRY No.2<br>EXCEPT<br><br>DRY: SEASONED LUMBER.                                                                                                 |  |  |  | <b>DESCR.</b><br>SPF<br>SPF<br>SPF<br>SPF<br>SPF<br><br>SPF                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |  |  |  |
| <b>PLATES (table is in inches)</b><br>JT TYPE PLATES W LEN Y X<br>2 TMVW-t MT20 3.0 4.0 1.50 1.25<br>3 TTW+p MT20 3.0 4.0<br>4 TMVW-t MT20 3.0 4.0 1.50 1.25<br>5 BMV1+p MT20 2.0 4.0<br>6 BMVWW-t MT20 3.0 6.0<br>7 BMV1+p MT20 2.0 4.0<br><br>A SIZE FOR SIZE SUBSTITUTION OF MITEK MII20 WITH<br>TEE-LOK TL20 PLATES IS ALLOWED. |  |  |  | <b>DESIGN CRITERIA</b><br><br>SPECIFIED LOADS:<br>TOP CH. LL = 23.3 PSF<br>DL = 3.0 PSF<br>BOT CH. LL = 0.0 PSF<br>DL = 7.0 PSF<br>TOTAL LOAD = 33.3 PSF<br><br>SPACING = 24.0 IN./C/C<br><br>THIS TRUSS IS DESIGNED FOR RESIDENTIAL<br>OR SMALL BUILDING REQUIREMENTS OF<br>PART 9, NBCC 2010<br><br>THIS DESIGN COMPLIES WITH:<br>- PART 9 OF OBC 2012 , BCBC 2012 , ABC 2014<br>- CSA 086-09<br>- TPIC 2011<br><br>(55 % OF 27.2 P.S.F. G.S.L. PLUS 8.4 P.S.F.<br>RAIN LOAD) EQUALS 23.3 P.S.F. SPECIFIED<br>ROOF LIVE LOAD<br><br>ALLOWABLE DEFL.(LL)= L/360 (0.28")<br>CALCULATED VERT. DEFL.(LL) = L/ 999 (0.00")<br>ALLOWABLE DEFL.(TL)= L/360 (0.28")<br>CALCULATED VERT. DEFL.(TL) = L/ 999 (0.01")<br><br>CSI: TC=0.17 (3-4:1) , BC=0.08 (6-7:3) , WB=0.06<br>(2-6:1) , SSI=0.11 (3-4:1)<br><br>DOL LUMBER=1.00 NAIL=1.00 LS BEND=1.10<br>COMP=1.10 SHEAR=1.10 TENS= 1.10<br><br>COMPANION LIVE LOAD FACTOR = 0.50<br><br>TRUSS PLATE MANUFACTURER IS NOT<br>RESPONSIBLE FOR QUALITY CONTROL IN THE<br>TRUSS MANUFACTURING PLANT .<br><br>NAIL VALUES<br>PLATE GRIP(DRY) SHEAR SECTION<br>(PSI) (PLI) (PLI)<br>MAX MIN MAX MIN MAX MIN<br>MT20 618 354 1667 822 2284 1656<br><br>PLATE PLACEMENT TOL. = 0.250 inches<br><br>PLATE ROTATION TOL. = 5.0 Deg.<br><br>JSI GRIP= 0.68 (2) (INPUT = 0.90 )<br>JSI METAL= 0.16 (2) (INPUT = 1.00 ) |  |  |  |



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IN THE DESIGN OF THIS COMPONENT.





| LUMBER                    |        |      |        |        |
|---------------------------|--------|------|--------|--------|
| N. L. G. A. RULES         | CHORDS | SIZE | LUMBER | DESCR. |
| 1 - 3                     | 2x4    | DRY  | No.2   | SPF    |
| 3 - 4                     | 2x4    | DRY  | No.2   | SPF    |
| 7 - 2                     | 2x4    | DRY  | No.2   | SPF    |
| 5 - 4                     | 2x4    | DRY  | No.2   | SPF    |
| 7 - 5                     | 2x4    | DRY  | No.2   | SPF    |
| ALL WEBS 2x3 DRY No.2 SPF |        |      |        |        |
| EXCEPT                    |        |      |        |        |
| DRY: SEASONED LUMBER.     |        |      |        |        |

| PLATES (table is in inches) |         |        |     |     |      |      |
|-----------------------------|---------|--------|-----|-----|------|------|
| JT                          | TYPE    | PLATES | W   | LEN | Y    | X    |
| 2                           | TMVW-t  | MT20   | 3.0 | 4.0 | 1.50 | 1.50 |
| 3                           | TTW+p   | MT20   | 3.0 | 4.0 |      |      |
| 4                           | TMVW-t  | MT20   | 3.0 | 4.0 | 1.50 | 1.50 |
| 5                           | BMV1+p  | MT20   | 2.0 | 4.0 | 2.50 | 1.00 |
| 6                           | BMVWW-t | MT20   | 3.0 | 6.0 |      |      |
| 7                           | BMV1+p  | MT20   | 2.0 | 4.0 | 2.50 | 1.00 |

A SIZE FOR SIZE SUBSTITUTION OF MITEK MII20 WITH TEE-LOK TL20 PLATES IS ALLOWED.



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

| BEARINGS       |      | FACTORED       |      | MAXIMUM FACTORED |        | INPUT |       | REQRD |       |
|----------------|------|----------------|------|------------------|--------|-------|-------|-------|-------|
| GROSS REACTION |      | GROSS REACTION |      | DOWN             |        | BRG   |       | BRG   |       |
| JT             | VERT | HORZ           | DOWN | HORZ             | UPLIFT | IN-SX | IN-SX | IN-SX | IN-SX |
| 7              | 396  | 0              | 396  | 0                | 0      | 3-0   | 3-0   | 3-0   | 3-0   |
| 5              | 292  | 0              | 292  | 0                | 0      | 3-0   | 3-0   | 3-0   | 3-0   |

| UNFACTORED REACTIONS |           |          |           |           |       |        |       |
|----------------------|-----------|----------|-----------|-----------|-------|--------|-------|
| JT                   | 1ST LCASE | MAX/MIN. | COMPONENT | REACTIONS |       |        |       |
| 7                    | COMBINED  | SNOW     | LIVE      | PERM.LIVE | WIND  | DEAD   | SOIL  |
| 7                    | 276       | 206 / 0  | 0 / 0     | 0 / 0     | 0 / 0 | 70 / 0 | 0 / 0 |
| 5                    | 205       | 144 / 0  | 0 / 0     | 0 / 0     | 0 / 0 | 62 / 0 | 0 / 0 |

BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S) 7, 5

**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

| CHORDS |                  |                           |              |               | WEBS  |                  |                   |  |  |
|--------|------------------|---------------------------|--------------|---------------|-------|------------------|-------------------|--|--|
| MEMB.  | MAX. FORCE (LBS) | FACTORED VERT. LOAD (PLF) | LC1 MAX (LC) | UNBRAC LENGTH | MEMB. | MAX. FORCE (LBS) | FACTORED MAX (LC) |  |  |
| FR-TO  |                  | FROM TO                   |              |               | FR-TO |                  |                   |  |  |
| 1-2    | 0 / 16           | -77.3 -77.3               | 0.10 (1)     | 10.00         | 6-3   | -40 / 40         | 0.01 (3)          |  |  |
| 2-3    | -314 / 0         | -77.3 -77.3               | 0.09 (1)     | 6.25          | 2-6   | 0 / 302          | 0.07 (1)          |  |  |
| 3-4    | -314 / 0         | -77.3 -77.3               | 0.09 (1)     | 6.25          | 6-4   | 0 / 302          | 0.07 (1)          |  |  |
| 7-2    | -372 / 0         | 0.0 0.0                   | 0.04 (1)     | 7.81          |       |                  |                   |  |  |
| 5-4    | -269 / 0         | 0.0 0.0                   | 0.03 (1)     | 7.81          |       |                  |                   |  |  |
| 7-6    | 0 / 0            | -17.5 -17.5               | 0.04 (3)     | 10.00         |       |                  |                   |  |  |
| 6-5    | 0 / 0            | -17.5 -17.5               | 0.04 (3)     | 10.00         |       |                  |                   |  |  |

#### DESIGN CRITERIA

**SPECIFIED LOADS:**  
TOP CH. LL = 23.3 PSF  
DL = 3.0 PSF  
BOT CH. LL = 0.0 PSF  
DL = 7.0 PSF  
TOTAL LOAD = 33.3 PSF

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

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

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

(55 % OF 27.2 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 23.3 P.S.F. SPECIFIED ROOF LIVE LOAD

ALLOWABLE DEFL.(LL)= L/360 (0.21")  
CALCULATED VERT. DEFL.(LL) = L/ 999 (0.00")  
ALLOWABLE DEFL.(TL)= L/360 (0.21")  
CALCULATED VERT. DEFL.(TL) = L/ 999 (0.01")

CSI: TC=0.10 (1-2:1) , BC=0.04 (6-7:3) , WB=0.07 (4-6:1) , SSI=0.09 (2-3:1)

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

COMPANION LIVE LOAD FACTOR = 0.50

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

**NAIL VALUES**  
PLATE GRIP(DRY) SHEAR SECTION  
(Psi) (PLI) (PLI)  
MAX MIN MAX MIN MAX MIN  
MT20 618 354 1667 822 2284 1656

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.60 (2) (INPUT = 0.90 )  
JSI METAL= 0.14 (2) (INPUT = 1.00 )

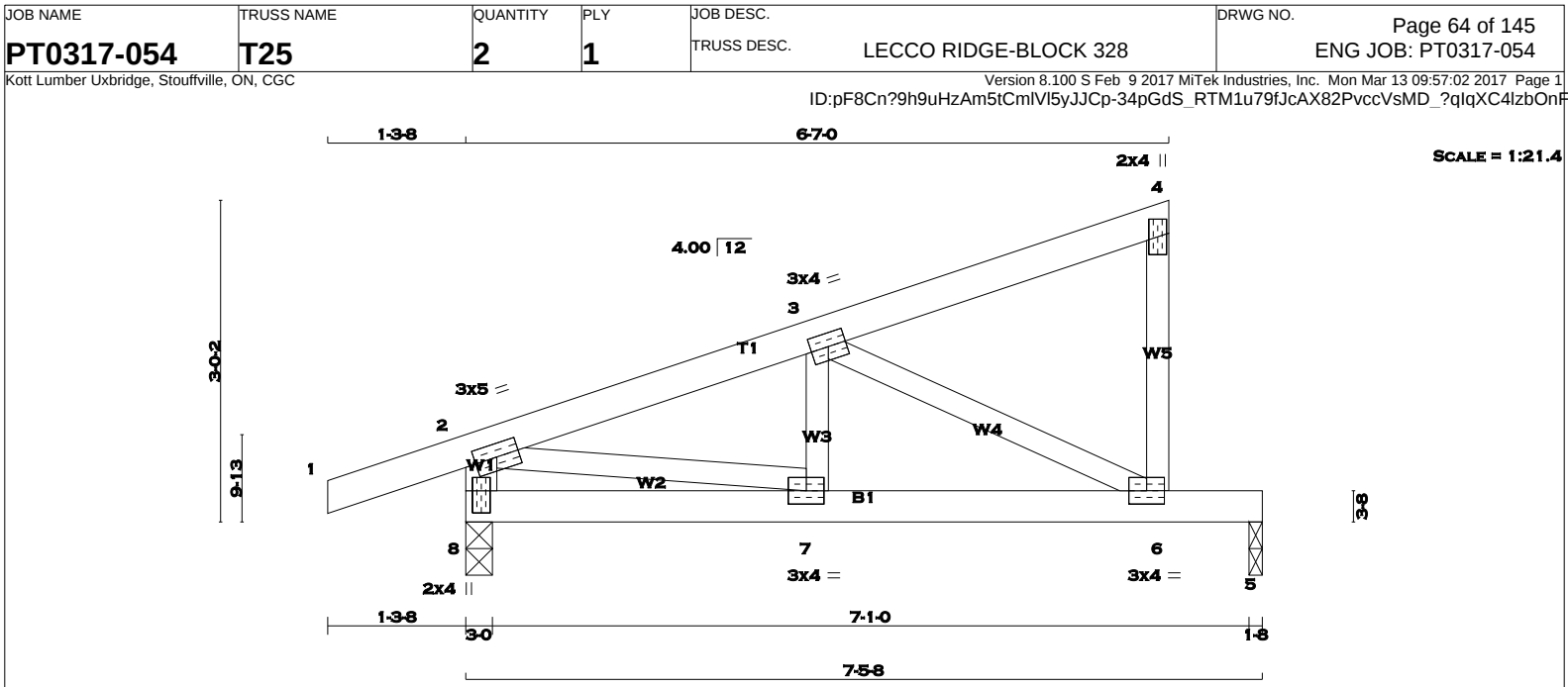
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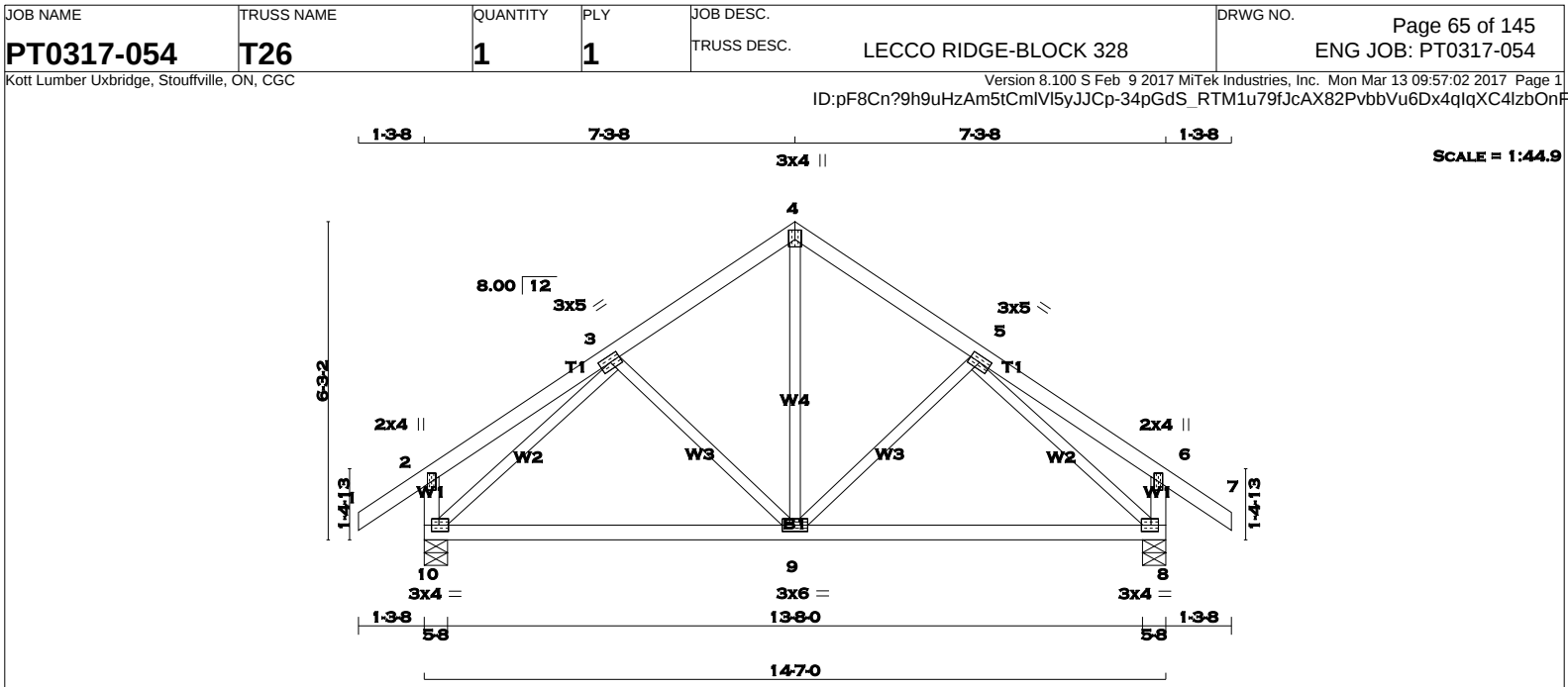
| <b>LUMBER</b><br>N. L. G. A. RULES<br>CHORDS      SIZE      LUMBER      DESCR.      SPF<br>1 - 4      2x4      DRY      No.2      SPF<br>6 - 4      2x3      DRY      No.2      SPF<br>8 - 2      2x4      DRY      No.2      SPF<br>8 - 5      2x4      DRY      No.2      SPF<br><br>ALL WEBS      2x3      DRY      No.2      SPF<br>EXCEPT<br><br>DRY: SEASONED LUMBER.                                                                                                                                                                                                                                                                                                                                                                                                                   |                         |                  |                                 |          |           |                  | <b>DIMENSIONS, SUPPORTS AND LOADINGS SPECIFIED BY FABRICATOR TO BE VERIFIED BY BUILDING DESIGNER</b><br><b>BEARINGS</b> <table><tr><th rowspan="2">JT</th><th colspan="2">FACTORED GROSS REACTION</th><th colspan="2">MAXIMUM FACTORED GROSS REACTION</th><th colspan="2">INPUT BRG</th><th colspan="2">REQRD BRG</th></tr><tr><th>VERT</th><th>HORZ</th><th>DOWN</th><th>HORZ</th><th>UPLIFT</th><th>IN-SX</th><th>IN-SX</th></tr><tr><td>8</td><td>453</td><td>0</td><td>453</td><td>0</td><td>0</td><td>3-0</td><td>3-0</td></tr><tr><td>5</td><td>290</td><td>0</td><td>290</td><td>0</td><td>0</td><td>1-8</td><td>1-8</td></tr></table><br><b>UNFACTORED REACTIONS</b> <table><tr><th rowspan="2">JT</th><th colspan="2">1ST LCASE COMBINED</th><th colspan="2">MAX/MIN. SNOW</th><th colspan="2">LIVE</th><th colspan="2">PERM. LIVE</th><th colspan="2">WIND</th><th colspan="2">DEAD</th><th colspan="2">SOIL</th></tr><tr><th>VERT</th><th>HORZ</th><th>DOWN</th><th>HORZ</th><th>DOWN</th><th>HORZ</th><th>DOWN</th><th>HORZ</th><th>DOWN</th><th>HORZ</th><th>DOWN</th><th>HORZ</th><th>DOWN</th></tr><tr><td>8</td><td>316</td><td></td><td>234 / 0</td><td></td><td>0 / 0</td><td></td><td>0 / 0</td><td></td><td>0 / 0</td><td></td><td>82 / 0</td><td></td><td>0 / 0</td></tr><tr><td>5</td><td>205</td><td></td><td>135 / 0</td><td></td><td>0 / 0</td><td></td><td>0 / 0</td><td></td><td>0 / 0</td><td></td><td>70 / 0</td><td></td><td>0 / 0</td></tr></table><br>BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S) 8, 5<br><br><b>BRACING</b><br>TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 6.25 FT.<br>MAX. UNBRACED BOTTOM CHORD LENGTH = 10.00 FT. OR RIGID CEILING DIRECTLY APPLIED.<br><br>ALL PITCH BREAKS AND PERIMETER CORNER JOINTS MUST BE Laterally RESTRAINED. |       |        |                  |               |      |       |   |        |      |     |     |  |  | JT | FACTORED GROSS REACTION |      | MAXIMUM FACTORED GROSS REACTION |     | INPUT BRG |  | REQRD BRG |       | VERT | HORZ | DOWN | HORZ | UPLIFT | IN-SX | IN-SX  | 8    | 453 | 0   | 453 | 0 | 0 | 3-0    | 3-0  | 5   | 290 | 0 | 290 | 0 | 0      | 1-8  | 1-8 | JT  | 1ST LCASE COMBINED |      | MAX/MIN. SNOW                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |  | LIVE |  | PERM. LIVE |  | WIND |  | DEAD |  | SOIL |  | VERT | HORZ | DOWN   | HORZ | DOWN     | HORZ | DOWN     | HORZ | DOWN     | HORZ | DOWN | HORZ | DOWN     | 8 | 316   |       | 234 / 0          |                  | 0 / 0 |     | 0 / 0            |               | 0 / 0 |       | 82 / 0           |               | 0 / 0 | 5   | 205      |       | 135 / 0 |          | 0 / 0 |      | 0 / 0 |     | 0 / 0    |          | 70 / 0 |     | 0 / 0  | <b>DESIGN CRITERIA</b><br>SPECIFIED LOADS:<br>TOP CH. LL = 23.3 PSF<br>DL = 3.0 PSF<br>BOT CH. LL = 0.0 PSF<br>DL = 7.0 PSF<br>TOTAL LOAD = 33.3 PSF<br><br>SPACING = 24.0 IN. C/C<br><br>THIS TRUSS IS DESIGNED FOR RESIDENTIAL OR SMALL BUILDING REQUIREMENTS OF PART 9, NBCC 2010<br><br>THIS DESIGN COMPLIES WITH:<br>- PART 9 OF OBC 2012, BCBC 2012, ABC 2014<br>- CSA 086-09<br>- TPIC 2011<br><br>(55 % OF 27.2 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 23.3 P.S.F. SPECIFIED ROOF LIVE LOAD<br><br>ALLOWABLE DEFL.(LL)= L/360 (0.25")<br>CALCULATED VERT. DEFL.(LL) = L/ 999 (0.04")<br>ALLOWABLE DEFL.(TL)= L/360 (0.25")<br>CALCULATED VERT. DEFL.(TL) = L/ 999 (0.08")<br><br>CSI: TC=0.10 (1-2:1) , BC=0.42 (6-7:1) , WB=0.13 (3-6:1) , SSI=0.23 (5-6:1)<br><br>DOL LUMBER=1.00 NAIL=1.00 LS BEND=1.10<br>COMP=1.10 SHEAR=1.10 TENS= 1.10<br><br>COMPANION LIVE LOAD FACTOR = 0.50<br><br>TRUSS PLATE MANUFACTURER IS NOT RESPONSIBLE FOR QUALITY CONTROL IN THE TRUSS MANUFACTURING PLANT .<br><br>NAIL VALUES<br>PLATE GRIP(DRY) SHEAR SECTION (PSI) (PLI) (PLI)<br>MAX MIN MAX MIN MAX MIN<br>MT20 618 354 1667 822 2284 1656<br><br>PLATE PLACEMENT TOL. = 0.250 inches<br><br>PLATE ROTATION TOL. = 5.0 Deg.<br><br>JSI GRIP= 0.79 (7) (INPUT = 0.90 )<br>JSI METAL= 0.18 (6) (INPUT = 1.00 ) |       |          |       |      |     |     |         |          |     |     |       |       |       |          |       |       |     |       |         |          |     |       |       |       |          |       |       |       |       |       |       |       |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------|------------------|---------------------------------|----------|-----------|------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------|--------|------------------|---------------|------|-------|---|--------|------|-----|-----|--|--|----|-------------------------|------|---------------------------------|-----|-----------|--|-----------|-------|------|------|------|------|--------|-------|--------|------|-----|-----|-----|---|---|--------|------|-----|-----|---|-----|---|--------|------|-----|-----|--------------------|------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|------|--|------------|--|------|--|------|--|------|--|------|------|--------|------|----------|------|----------|------|----------|------|------|------|----------|---|-------|-------|------------------|------------------|-------|-----|------------------|---------------|-------|-------|------------------|---------------|-------|-----|----------|-------|---------|----------|-------|------|-------|-----|----------|----------|--------|-----|--------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------|----------|-------|------|-----|-----|---------|----------|-----|-----|-------|-------|-------|----------|-------|-------|-----|-------|---------|----------|-----|-------|-------|-------|----------|-------|-------|-------|-------|-------|-------|-------|
| JT                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | FACTORED GROSS REACTION |                  | MAXIMUM FACTORED GROSS REACTION |          | INPUT BRG |                  | REQRD BRG                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              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|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | VERT                    | HORZ             | DOWN                            | HORZ     | UPLIFT    | IN-SX            | IN-SX                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  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| 8                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | 453                     | 0                | 453                             | 0        | 0         | 3-0              | 3-0                                                                                                           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| 5                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | 290                     | 0                | 290                             | 0        | 0         | 1-8              | 1-8                                                                                                           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| JT                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | 1ST LCASE COMBINED      |                  | MAX/MIN. SNOW                   |          | LIVE      |                  | PERM. LIVE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |       | WIND   |                  | DEAD          |      | SOIL  |   |        |      |     |     |  |  |    |                         |      |                                 |     |           |  |           |       |      |      |      |      |        |       |        |      |     |     |     |   |   |        |      |     |     |   |     |   |        |      |     |     |                    |      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  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 |          |       |       |       |       |       |       |       |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | VERT                    | HORZ             | DOWN                            | HORZ     | DOWN      | HORZ             | DOWN                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | HORZ  | DOWN   | HORZ             | DOWN          | HORZ | DOWN  |   |        |      |     |     |  |  |    |                         |      |                                 |     |           |  |           |       |      |      |      |      |        |       |        |      |     |     |     |   |   |        |      |     |     |   |     |   |        |      |     |   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| 8                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | 316                     |                  | 234 / 0                         |          | 0 / 0     |                  | 0 / 0                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |       | 0 / 0  |                  | 82 / 0        |      | 0 / 0 |   |        |      |     |     |  |  |    |                         |      |                                 |     |           |  |           |       |      |      |      |      |        |       |        |      |     |     |     |   |   |        |      |     |     |   |     |   |        |      |     |   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| 5                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | 205                     |                  | 135 / 0                         |          | 0 / 0     |                  | 0 / 0                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |       | 0 / 0  |                  | 70 / 0        |      | 0 / 0 |   |        |      |     |     |  |  |    |                         |      |                                 |     |           |  |           |       |      |      |      |      |        |       |        |      |     |     |     |   |   |        |      |     |     |   |     |   |        |      |     |   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| <b>PLATES (table is in inches)</b> <table><tr><th>JT</th><th>TYPE</th><th>PLATES</th><th>W</th><th>LEN</th><th>Y</th><th>X</th></tr><tr><td>2</td><td>TMVW-t</td><td>MT20</td><td>3.0</td><td>5.0</td><td></td><td></td></tr><tr><td>3</td><td>TMVW-t</td><td>MT20</td><td>3.0</td><td>4.0</td><td></td><td></td></tr><tr><td>4</td><td>TMV+p</td><td>MT20</td><td>2.0</td><td>4.0</td><td></td><td></td></tr><tr><td>6</td><td>BMVW-t</td><td>MT20</td><td>3.0</td><td>4.0</td><td></td><td></td></tr><tr><td>7</td><td>BMVW-t</td><td>MT20</td><td>3.0</td><td>4.0</td><td></td><td></td></tr><tr><td>8</td><td>BMV1+p</td><td>MT20</td><td>2.0</td><td>4.0</td><td>2.50</td><td>1.00</td></tr></table><br>A SIZE FOR SIZE SUBSTITUTION OF MITEK MII20 WITH TEE-LOK TL20 PLATES IS ALLOWED. |                         |                  |                                 |          |           |                  | JT                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | TYPE  | PLATES | W                | LEN           | Y    | X     | 2 | TMVW-t | MT20 | 3.0 | 5.0 |  |  | 3  | TMVW-t                  | MT20 | 3.0                             | 4.0 |           |  | 4         | TMV+p | MT20 | 2.0  | 4.0  |      |        | 6     | BMVW-t | MT20 | 3.0 | 4.0 |     |   | 7 | BMVW-t | MT20 | 3.0 | 4.0 |   |     | 8 | BMV1+p | MT20 | 2.0 | 4.0 | 2.50               | 1.00 | <b>LOADING</b><br>TOTAL LOAD CASES: (3) <table><tr><th colspan="2">CHORDS</th><th colspan="2">FACTORED</th><th colspan="2">FACTORED</th><th colspan="2">FACTORED</th><th colspan="2">WEBS</th><th colspan="2">FACTORED</th></tr><tr><th rowspan="2">MEMB.</th><th rowspan="2">FR-TO</th><th rowspan="2">MAX. FORCE (LBS)</th><th rowspan="2">VERT. LOAD (PLF)</th><th rowspan="2">LC1</th><th rowspan="2">MAX</th><th rowspan="2">MAX. FORCE (LBS)</th><th rowspan="2">UNBRAC LENGTH</th><th rowspan="2">MEMB.</th><th rowspan="2">FR-TO</th><th rowspan="2">MAX. FORCE (LBS)</th><th rowspan="2">MAX. CSI (LC)</th></tr><tr></tr><tr><td rowspan="2">1-2</td><td rowspan="2">2-3</td><td rowspan="2">-509 / 0</td><td rowspan="2">-77.3</td><td rowspan="2">-77.3</td><td rowspan="2">0.10 (1)</td><td rowspan="2">10.00</td><td rowspan="2">6.25</td><td rowspan="2">7-3</td><td rowspan="2">3-6</td><td rowspan="2">-547 / 0</td><td rowspan="2">0.03 (3)</td></tr><tr></tr><tr><td rowspan="2">3-4</td><td rowspan="2">6-4</td><td rowspan="2">-9 / 0</td><td rowspan="2">-77.3</td><td rowspan="2">-77.3</td><td rowspan="2">0.09 (1)</td><td rowspan="2">10.00</td><td rowspan="2">7.81</td><td rowspan="2">2-7</td><td rowspan="2">8-2</td><td rowspan="2">0 / 497</td><td rowspan="2">0.11 (1)</td></tr><tr></tr><tr><td rowspan="2">8-7</td><td rowspan="2">7-6</td><td rowspan="2">0 / 0</td><td rowspan="2">-17.5</td><td rowspan="2">-17.5</td><td rowspan="2">0.09 (1)</td><td rowspan="2">10.00</td><td rowspan="2">10.00</td><td rowspan="2">6-5</td><td rowspan="2">0 / 0</td><td rowspan="2">0 / 491</td><td rowspan="2">0.13 (1)</td></tr><tr></tr><tr><td rowspan="2">6-5</td><td rowspan="2">0 / 0</td><td rowspan="2">-17.5</td><td rowspan="2">-17.5</td><td rowspan="2">0.34 (1)</td><td rowspan="2">10.00</td><td rowspan="2">10.00</td><td rowspan="2">10.00</td><td rowspan="2">10.00</td><td rowspan="2">10.00</td><td rowspan="2">10.00</td><td rowspan="2">10.00</td></tr><tr></tr></table> |  |      |  |            |  |      |  |      |  |      |  |      |      | CHORDS |      | FACTORED |      | FACTORED |      | FACTORED |      | WEBS |      | FACTORED |   | MEMB. | FR-TO | MAX. FORCE (LBS) | VERT. LOAD (PLF) | LC1   | MAX | MAX. FORCE (LBS) | UNBRAC LENGTH | MEMB. | FR-TO | MAX. FORCE (LBS) | MAX. CSI (LC) | 1-2   | 2-3 | -509 / 0 | -77.3 | -77.3   | 0.10 (1) | 10.00 | 6.25 | 7-3   | 3-6 | -547 / 0 | 0.03 (3) | 3-4    | 6-4 | -9 / 0 | -77.3                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | -77.3 | 0.09 (1) | 10.00 | 7.81 | 2-7 | 8-2 | 0 / 497 | 0.11 (1) | 8-7 | 7-6 | 0 / 0 | -17.5 | -17.5 | 0.09 (1) | 10.00 | 10.00 | 6-5 | 0 / 0 | 0 / 491 | 0.13 (1) | 6-5 | 0 / 0 | -17.5 | -17.5 | 0.34 (1) | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 |
| JT                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | TYPE                    | PLATES           | W                               | LEN      | Y         | X                |                                                                                                               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| 2                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | TMVW-t                  | MT20             | 3.0                             | 5.0      |           |                  |                                                                                                               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| 3                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | TMVW-t                  | MT20             | 3.0                             | 4.0      |           |                  |                                                                                                               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| 4                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | TMV+p                   | MT20             | 2.0                             | 4.0      |           |                  |                                                                                                               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| 6                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | BMVW-t                  | MT20             | 3.0                             | 4.0      |           |                  |                                                                                                               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| 7                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | BMVW-t                  | MT20             | 3.0                             | 4.0      |           |                  |                                                                                                               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| 8                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | BMV1+p                  | MT20             | 2.0                             | 4.0      | 2.50      | 1.00             |                                                                                                               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| CHORDS                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                         | FACTORED         |                                 | FACTORED |           | FACTORED         |                                                                                                               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| MEMB.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | FR-TO                   | MAX. FORCE (LBS) | VERT. LOAD (PLF)                | LC1      | MAX       | MAX. FORCE (LBS) | UNBRAC LENGTH                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | MEMB. | FR-TO  | MAX. FORCE (LBS) | MAX. CSI (LC) |      |       |   |        |      |     |     |  |  |    |                         |      |                                 |     |           |  |           |       |      |      |      |      |        |       |        |      |     |     |     |   |   |        |      |     |     |   |     |   |        |      |     |     |                    |      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |  |      |  |            |  |      |  |      |  |      |  |      |      |        |      |          |      |          |      |          |      |      |      |          |   |       |       |                  |                  |       |     |                  |               |       |       |                  |               |       |     |          |       |         |          |       |      |       |     |          |          |        |     |        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |       |          |       |      |     |     |         |          |     |     |       |       |       |          |       |       |     |       |         |          |     |       |       |       |          |       |       |       |       |       |       |       |
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| 1-2                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | 2-3                     | -509 / 0         | -77.3                           | -77.3    | 0.10 (1)  | 10.00            | 6.25                                                                                                          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| 3-4                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | 6-4                     | -9 / 0           | -77.3                           | -77.3    | 0.09 (1)  | 10.00            | 7.81                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | 2-7   | 8-2    | 0 / 497          | 0.11 (1)      |      |       |   |        |      |     |     |  |  |    |                         |      |                                 |     |           |  |           |       |      |      |      |      |        |       |        |      |     |     |     |   |   |        |      |     |     |   |     |   |        |      |     |   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|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                         |                  |                                 |          |           |                  |                                                                                                               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| 8-7                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | 7-6                     | 0 / 0            | -17.5                           | -17.5    | 0.09 (1)  | 10.00            | 10.00                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | 6-5   | 0 / 0  | 0 / 491          | 0.13 (1)      |      |       |   |        |      |     |     |  |  |    |                         |      |                                 |     |           |  |           |       |      |      |      |      |        |       |        |      |     |     |     |   |   |        |      |     |     |   |     |   |        |      |     |   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|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                         |                  |                                 |          |           |                  |                                                                                                               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| 6-5                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | 0 / 0                   | -17.5            | -17.5                           | 0.34 (1) | 10.00     | 10.00            | 10.00                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | 10.00 | 10.00  | 10.00            | 10.00         |      |       |   |        |      |     |     |  |  |    |                         |      |                                 |     |           |  |           |       |      |      |      |      |        |       |        |      |     |     |     |   |   |        |      |     |     |   |     |   |        |      |     |   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|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                         |                  |                                 |          |           |                  |                                                                                                               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ENGINEERING NOTE PAGE ENP-1. THE NOTE PAGE  
IS AN INTEGRAL PART OF THIS DRAWING AS IT  
CONTAINS SPECIFICATIONS AND CRITERIA USED  
IN THE DESIGN OF THIS COMPONENT.





| LUMBER                |        |      |        | DESCR. |
|-----------------------|--------|------|--------|--------|
| N. L. G. A. RULES     | CHORDS | SIZE | LUMBER |        |
| 1 - 4                 | 2x4    | DRY  | No.2   | SPF    |
| 4 - 7                 | 2x4    | DRY  | No.2   | SPF    |
| 10 - 2                | 2x4    | DRY  | No.2   | SPF    |
| 8 - 6                 | 2x4    | DRY  | No.2   | SPF    |
| 10 - 8                | 2x4    | DRY  | No.2   | SPF    |
| ALL WEBS              | 2x3    | DRY  | No.2   | SPF    |
| EXCEPT                |        |      |        |        |
| DRY: SEASONED LUMBER. |        |      |        |        |

| PLATES (table is in inches) |         |        |     |     |           |
|-----------------------------|---------|--------|-----|-----|-----------|
| JT                          | TYPE    | PLATES | W   | LEN | Y X       |
| 2                           | TMV+p   | MT20   | 2.0 | 4.0 |           |
| 3                           | TMWW-t  | MT20   | 3.0 | 5.0 |           |
| 4                           | TTW+p   | MT20   | 3.0 | 4.0 | 2.25 1.50 |
| 5                           | TMWW-t  | MT20   | 3.0 | 5.0 |           |
| 6                           | TMV+p   | MT20   | 2.0 | 4.0 |           |
| 8                           | BMVW1-t | MT20   | 3.0 | 4.0 | 1.50 1.75 |
| 9                           | BMWWV-t | MT20   | 3.0 | 6.0 |           |
| 10                          | BMVW1-t | MT20   | 3.0 | 4.0 | 1.50 1.75 |

A SIZE FOR SIZE SUBSTITUTION OF MITEK MII20 WITH TEE-LOK TL20 PLATES IS ALLOWED.

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

| BEARINGS |                | FACTORED |      | MAXIMUM FACTORED |      | INPUT  |       | REQRD |       |
|----------|----------------|----------|------|------------------|------|--------|-------|-------|-------|
| JT       | GROSS REACTION | VERT     | HORZ | DOWN             | HORZ | UPLIFT | IN-SX | BRG   | IN-SX |
| 10       | 798            | 0        | 798  | 0                | 0    | 5-8    | 5-8   | 5-8   | 5-8   |
| 8        | 798            | 0        | 798  | 0                | 0    | 5-8    | 5-8   | 5-8   | 5-8   |

| UNFACTORED REACTIONS |           |          |           |           |       |         |       |
|----------------------|-----------|----------|-----------|-----------|-------|---------|-------|
| JT                   | 1ST LCASE | MAX/MIN. | COMPONENT | REACTIONS |       |         |       |
| 10                   | COMBINED  | SNOW     | LIVE      | PERM.LIVE | WIND  | DEAD    | SOIL  |
| 8                    | 558       | 403 / 0  | 0 / 0     | 0 / 0     | 0 / 0 | 154 / 0 | 0 / 0 |
| 8                    | 558       | 403 / 0  | 0 / 0     | 0 / 0     | 0 / 0 | 154 / 0 | 0 / 0 |

BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S) 10, 8

**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: (3)

| CHORDS |                           |                           |              | WEBS  |                           |              |          |
|--------|---------------------------|---------------------------|--------------|-------|---------------------------|--------------|----------|
| MEMB.  | MAX. FACTORED FORCE (LBS) | FACTORED VERT. LOAD (PLF) | MAX LC1 (LC) | MEMB. | MAX. FACTORED FORCE (LBS) | MAX LC1 (LC) |          |
| FR-TO  |                           | FROM TO                   |              | FR-TO |                           |              |          |
| 1-2    | 0 / 29                    | -77.3 -77.3               | 0.10 (1)     | 10.00 | 9-4                       | 0 / 371      | 0.08 (1) |
| 2-3    | 0 / 18                    | -77.3 -77.3               | 0.16 (1)     | 10.00 | 9-5                       | -155 / 5     | 0.07 (1) |
| 3-4    | -550 / 0                  | -77.3 -77.3               | 0.13 (1)     | 6.25  | 3-9                       | -155 / 5     | 0.07 (1) |
| 4-5    | -550 / 0                  | -77.3 -77.3               | 0.13 (1)     | 6.25  | 10-3                      | -770 / 0     | 0.31 (1) |
| 5-6    | 0 / 18                    | -77.3 -77.3               | 0.16 (1)     | 10.00 | 5-8                       | -770 / 0     | 0.31 (1) |
| 6-7    | 0 / 29                    | -77.3 -77.3               | 0.10 (1)     | 10.00 |                           |              |          |
| 10-2   | -215 / 0                  | 0.0 0.0                   | 0.02 (1)     | 7.81  |                           |              |          |
| 8-6    | -215 / 0                  | 0.0 0.0                   | 0.02 (1)     | 7.81  |                           |              |          |
| 10-9   | 0 / 554                   | -17.5 -17.5               | 0.30 (3)     | 10.00 |                           |              |          |
| 9-8    | 0 / 554                   | -17.5 -17.5               | 0.30 (3)     | 10.00 |                           |              |          |

#### DESIGN CRITERIA

SPECIFIED LOADS:  
TOP CH. LL = 23.3 PSF  
DL = 3.0 PSF  
BOT CH. LL = 0.0 PSF  
DL = 7.0 PSF  
TOTAL LOAD = 33.3 PSF

SPACING = 24.0 IN./C

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

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

(55 % OF 27.2 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 23.3 P.S.F. SPECIFIED ROOF LIVE LOAD

ALLOWABLE DEFL.(LL)= L/360 (0.49")  
CALCULATED VERT. DEFL.(LL) = L/ 999 (0.01")  
ALLOWABLE DEFL.(TL)= L/360 (0.49")  
CALCULATED VERT. DEFL.(TL) = L/ 999 (0.07")

CSI: TC=0.16 (5-6:1), BC=0.30 (9-10:3), WB=0.31 (3-10:1), SSI=0.11 (4-5:1)

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

COMPANION LIVE LOAD FACTOR = 0.50

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

NAIL VALUES  
PLATE GRIP(DRY) SHEAR SECTION  
(PSI) (PLI) (PLI)  
MAX MIN MAX MIN MAX MIN  
MT20 618 354 1667 822 2284 1656

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.85 (8) (INPUT = 0.90 )  
JSI METAL= 0.22 (3) (INPUT = 1.00 )



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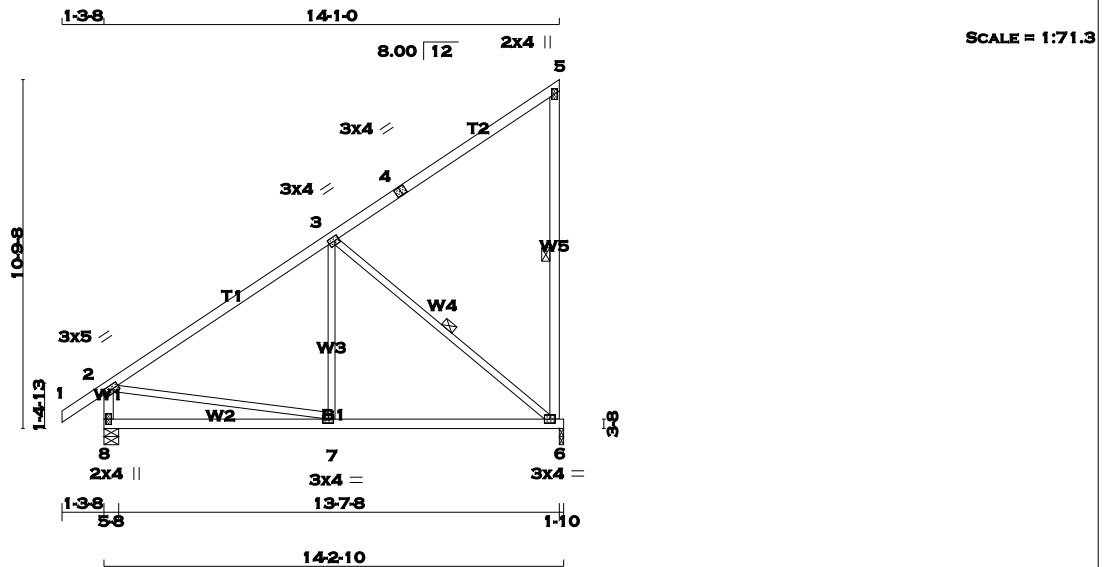


[M][F

DRY: SEASONED LUMBER.

TOTAL LOAD CASES: (3)





TOTAL WEIGHT = 3 X 67 = 202 lb  
[M][F]

| LUMBER                       |        |      |        |  | DESCR. |
|------------------------------|--------|------|--------|--|--------|
| N. L. G. A. RULES            | CHORDS | SIZE | LUMBER |  |        |
| 1 - 4                        | 2x4    | DRY  | No.2   |  | SPF    |
| 4 - 5                        | 2x4    | DRY  | No.2   |  | SPF    |
| 6 - 5                        | 2x4    | DRY  | No.2   |  | SPF    |
| 8 - 2                        | 2x4    | DRY  | No.2   |  | SPF    |
| 8 - 6                        | 2x4    | DRY  | No.2   |  | SPF    |
| ALL WEBS 2x3 DRY No.2 EXCEPT |        |      |        |  | SPF    |
| DRY: SEASONED LUMBER.        |        |      |        |  |        |

| PLATES (table is in inches) |         |        |     |     |      |      |
|-----------------------------|---------|--------|-----|-----|------|------|
| JT                          | TYPE    | PLATES | W   | LEN | Y    | X    |
| 2                           | TMVW-t  | MT20   | 3.0 | 5.0 | 1.50 | 2.00 |
| 3                           | TMVW-t  | MT20   | 3.0 | 4.0 | 1.50 | 1.50 |
| 4                           | TS-t    | MT20   | 3.0 | 4.0 |      |      |
| 5                           | TMV+p   | MT20   | 2.0 | 4.0 |      |      |
| 6                           | BMVW1-t | MT20   | 3.0 | 4.0 |      |      |
| 7                           | BMVW-t  | MT20   | 3.0 | 4.0 |      |      |
| 8                           | BMV1+p  | MT20   | 2.0 | 4.0 |      |      |

A SIZE FOR SIZE SUBSTITUTION OF MITEK MII20 WITH TEE-LOK TL20 PLATES IS ALLOWED.

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

| BEARINGS |  | FACTORED       |      | MAXIMUM FACTORED |      | INPUT  |       | REQRD |  |
|----------|--|----------------|------|------------------|------|--------|-------|-------|--|
| JT       |  | GROSS REACTION |      | GROSS REACTION   |      | BRG    |       | BRG   |  |
|          |  | VERT           | HORZ | DOWN             | HORZ | UPLIFT | IN-SX | IN-SX |  |
| 6        |  | 668            | 0    | 668              | 0    | 0      | 1-10  | 1-10  |  |
| 8        |  | 774            | 0    | 774              | 0    | 0      | 5-8   | 5-8   |  |

| UNFACTORED REACTIONS |           |          |           |           |       |         |       |
|----------------------|-----------|----------|-----------|-----------|-------|---------|-------|
| JT                   | 1ST LCASE | MAX/MIN. | COMPONENT | REACTIONS |       |         |       |
|                      | COMBINED  | SNOW     | LIVE      | PERM.LIVE | WIND  | DEAD    | SOIL  |
| 6                    | 469       | 328 / 0  | 0 / 0     | 0 / 0     | 0 / 0 | 141 / 0 | 0 / 0 |
| 8                    | 541       | 392 / 0  | 0 / 0     | 0 / 0     | 0 / 0 | 149 / 0 | 0 / 0 |

BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S) 6, 8

**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 - 2x3 SPF No.2 LATERAL BRACE(S) AT 1/2 LENGTH OF 5-6, 3-6. DBS = 20-0-0 . CBF = 82 LBS.

DBS = DIAGONAL BRACE SPACING (MAX). CBF = CUMULATIVE BRACING FORCE. FASTEN LATERAL BRACE(S) USING (0.122"x3") SPIRAL NAILS : 1 NAIL FOR 2x3 BRACE(S), 2 FOR 1x4, 2x4, 2x5, 3 FOR 2x6, 4 FOR 2x8, 5 FOR 2x10, AND 6 FOR 2x12.

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: (3)

| C H O R D S |                           |                           |                           | W E B S  |                           |                           |          |
|-------------|---------------------------|---------------------------|---------------------------|----------|---------------------------|---------------------------|----------|
| MEMB.       | MAX. FACTORED FORCE (LBS) | FACTORED VERT. LOAD (PLF) | MAX. UNBRACED LENGTH (LC) | MEMB.    | MAX. FACTORED FORCE (LBS) | MAX. UNBRACED LENGTH (LC) |          |
| FR-TO       |                           | FROM TO                   |                           | FR-TO    |                           |                           |          |
| 1-2         | 0 / 29                    | -77.3 -77.3               | 0.10 (1)                  | 10.00    | 7-3                       | 0 / 149                   | 0.05 (3) |
| 2-3         | -572 / 0                  | -77.3 -77.3               | 0.52 (1)                  | 6.25     | 3-6                       | -656 / 0                  | 0.37 (1) |
| 3-4         | -37 / 0                   | -77.3 -77.3               | 0.51 (1)                  | 6.25     | 2-7                       | 0 / 513                   | 0.12 (1) |
| 4-5         | -37 / 0                   | -77.3 -77.3               | 0.51 (1)                  | 6.25     |                           |                           |          |
| 6-5         | -205 / 0                  | 0.0                       | 0.0                       | 12 (1)   | 6.25                      |                           |          |
| 8-2         | -727 / 0                  | 0.0                       | 0.0                       | 0.07 (1) | 7.81                      |                           |          |
| 8-7         | 0 / 0                     | -17.5 -17.5               | 0.25 (3)                  | 10.00    |                           |                           |          |
| 7-6         | 0 / 507                   | -17.5 -17.5               | 0.29 (3)                  | 10.00    |                           |                           |          |

**DESIGN CRITERIA**

SPECIFIED LOADS:  
TOP CH. LL = 23.3 PSF  
DL = 3.0 PSF  
BOT CH. LL = 0.0 PSF  
DL = 7.0 PSF  
TOTAL LOAD = 33.3 PSF

SPACING = 24.0 IN./C/C

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

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

(55 % OF 27.2 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 23.3 P.S.F. SPECIFIED ROOF LIVE LOAD

ALLOWABLE DEFL.(LL)= L/360 (0.47")  
CALCULATED VERT. DEFL.(LL) = L/ 999 (0.01")  
ALLOWABLE DEFL.(TL)= L/360 (0.47")  
CALCULATED VERT. DEFL.(TL) = L/ 999 (0.06")

CSI: TC=0.52 (2-3:1) , BC=0.29 (6-7:3) , WB=0.37 (3-6:1) , SSI=0.22 (3-5:1)

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

COMPANION LIVE LOAD FACTOR = 0.50

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

| NAIL VALUES |           |       |         |     |      |
|-------------|-----------|-------|---------|-----|------|
| PLATE       | GRIP(DRY) | SHEAR | SECTION |     |      |
|             | (PSI)     | (PLI) | (PLI)   |     |      |
|             | MAX       | MIN   | MAX     | MIN | MAX  |
| MT20        | 618       | 354   | 1667    | 822 | 2284 |

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

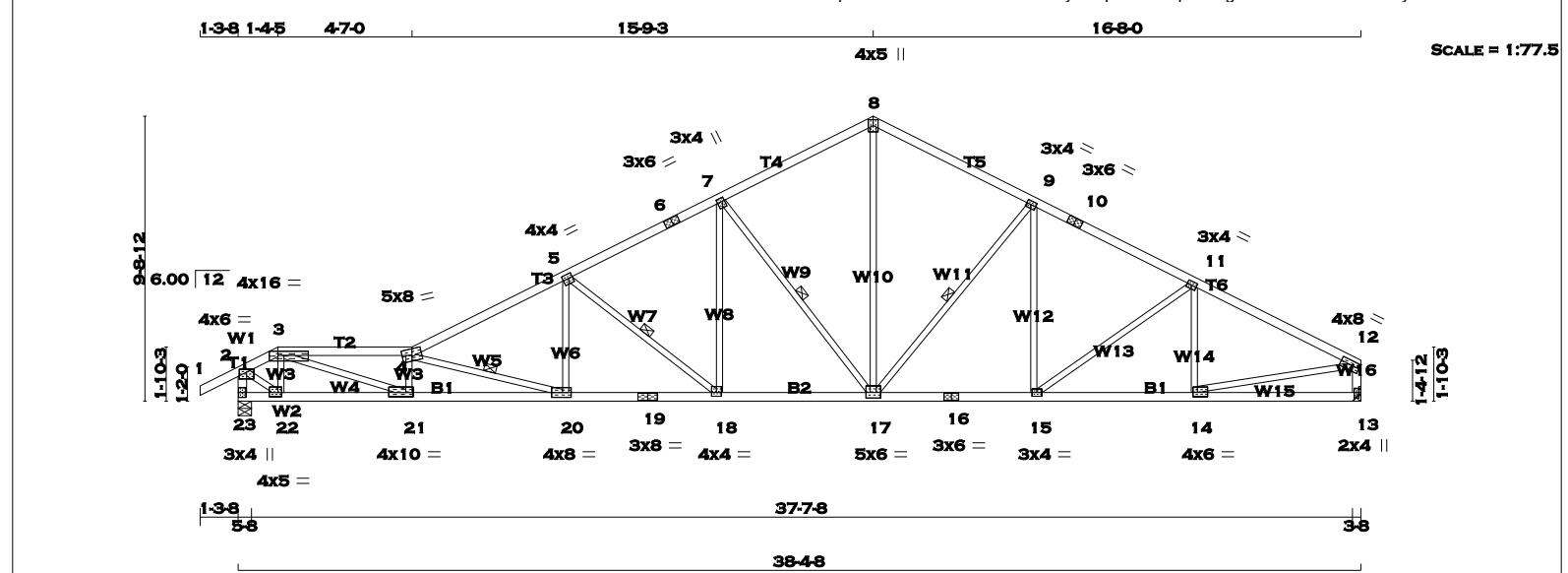
JSI GRIP= 0.87 (7) (INPUT = 0.90 )  
JSI METAL= 0.23 (2) (INPUT = 1.00 )



RECEIVED  
TOWN OF MILTON  
MAR 29, 2017  
17-4990  
BUILDING DIVISION

READ ALL NOTES ON THIS PAGE AND ON THE ENGINEERING NOTE PAGE ENP-1. THE NOTE PAGE IS AN INTEGRAL PART OF THIS DRAWING AS IT CONTAINS SPECIFICATIONS AND CRITERIA USED IN THE DESIGN OF THIS COMPONENT.





| TOTAL WEIGHT = 1591 LBS                                                                                                                                                                                                                                                                                                                                                                                                                                             |                           |                           |               |              |                           |               |          |  |  | [M][F] |  |                                                                                                                                                                                                                                                                                                                                                                                                  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   |          |     |           |             |          |      |      |          |          |     |           |             |          |      |      |           |          |     |           |             |          |      |      |           |          |     |           |             |          |      |      |         |          |     |           |             |          |      |      |           |          |     |           |             |          |      |      |         |          |     |           |             |          |      |      |           |          |      |           |             |          |      |      |          |          |       |           |             |          |      |      |          |          |       |           |             |          |      |      |         |          |      |           |     |              |      |       |          |          |       |           |     |              |      |       |          |          |  |  |  |  |  |      |          |  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| <b>LUMBER</b><br>N. L. G. A. RULES<br>CHORDS SIZE LUMBER DESCR.<br>1 - 3 2x4 DRY No.2 SPF<br>3 - 4 2x4 DRY No.2 SPF<br>4 - 6 2x4 DRY No.2 SPF<br>6 - 8 2x4 DRY No.2 SPF<br>8 - 10 2x4 DRY No.2 SPF<br>10 - 12 2x4 DRY No.2 SPF<br>23 - 2 2x4 DRY No.2 SPF<br>13 - 12 2x4 DRY No.2 SPF<br>23 - 19 2x4 DRY 1650F 1.5E SPF<br>19 - 16 2x4 DRY 1650F 1.5E SPF<br>16 - 13 2x4 DRY 1650F 1.5E SPF<br><br>ALL WEBS 2x3 DRY No.2 SPF<br>EXCEPT<br><br>DRY: SEASONED LUMBER. |                           |                           |               |              |                           |               |          |  |  |        |  | <b>DIMENSIONS, SUPPORTS AND LOADINGS SPECIFIED BY FABRICATOR TO BE VERIFIED BY BUILDING DESIGNER</b><br><b>BEARINGS</b><br>FACTORED MAXIMUM FACTORED INPUT REQD<br>GROSS REACTION GROSS REACTION BRG BRG<br>JT VERT HORZ DOWN HORZ UPLIFT IN-SX IN-SX<br>23 1927 0 1927 0 0 5-8 5-8<br>13 1818 0 1818 0 0 HANGER BY OTHERS<br>MIN. SEAT SIZE: 3-8<br><br><b>UNFACTORED REACTIONS</b><br>1ST LCASE MAX./MIN. COMPONENT REACTIONS<br>JT COMBINED SNOW LIVE PERM.LIVE WIND DEAD SOIL<br>23 1350 958 / 0 0 / 0 0 / 0 0 / 0 392 / 0 0 / 0<br>13 1276 892 / 0 0 / 0 0 / 0 0 / 0 384 / 0 0 / 0<br><br>BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S) 23<br><br><b>BRACING</b><br>TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 2.50 FT.<br>MAX. UNBRACED BOTTOM CHORD LENGTH = 10.00 FT. OR RIGID CEILING DIRECTLY APPLIED.<br><br>ALL PITCH BREAKS AND PERIMETER CORNER JOINTS MUST BE Laterally RESTRAINED.<br><br>1 - 2x3 SPF No.2 LATERAL BRACE(S) AT 1/2 LENGTH OF 4-20. DBS = 6-0-0 . CBF = 88 LBS.<br>1 - 2x3 SPF No.2 LATERAL BRACE(S) AT 1/2 LENGTH OF 5-18, 7-17. DBS = 12-0-0 . CBF = 93 LBS.<br>1 - 2x3 SPF No.2 LATERAL BRACE(S) AT 1/2 LENGTH OF 9-17. DBS = 20-0-0 . CBF = 73 LBS.<br><br>DBS = DIAGONAL BRACE SPACING (MAX). CBF = CUMULATIVE BRACING FORCE. FASTEN LATERAL BRACE(S) USING (0.122"x3") SPIRAL NAILS: 1 NAIL FOR 2x3 BRACE(S), 2 FOR 1x4, 2x4, 2x5, 3 FOR 2x6, 4 FOR 2x8, 5 FOR 2x10, AND 6 FOR 2x12.<br><br>END VERTICAL(S) MUST BE SHEATHED OR HAVE BRACES AS INDICATED IN THE MAX. UNBRACED LENGTH COLUMN OF THE TABLE BELOW<br><br><b>LOADING</b><br>TOTAL LOAD CASES: (3)<br><table><tr><th colspan="4">CHORDS</th><th colspan="4">WEBS</th></tr><tr><th>MEMB.</th><th>MAX. FACTORED FORCE (LBS)</th><th>FACTORED VERT. LOAD (PLF)</th><th>MAX. CSI (LC)</th><th>MEMB.</th><th>MAX. FACTORED FORCE (LBS)</th><th>MAX. CSI (LC)</th><th></th></tr><tr><td>FR-TO</td><td></td><td>FROM TO</td><td></td><td>LENGTH FR-TO</td><td></td><td></td><td></td></tr><tr><td>1-2</td><td>0 / 23</td><td>-77.3 -77.3</td><td>0.10 (1)</td><td>10.00</td><td>22-3</td><td>-758 / 0</td><td>0.11 (1)</td></tr><tr><td>2-3</td><td>-1865 / 0</td><td>-77.3 -77.3</td><td>0.11 (1)</td><td>4.83</td><td>3-21</td><td>0 / 4321</td><td>0.97 (1)</td></tr><tr><td>3-4</td><td>-5675 / 0</td><td>-77.3 -77.3</td><td>0.63 (1)</td><td>2.50</td><td>21-4</td><td>-1435 / 0</td><td>0.21 (1)</td></tr><tr><td>4-5</td><td>-3913 / 0</td><td>-77.3 -77.3</td><td>0.51 (1)</td><td>3.23</td><td>4-20</td><td>-2350 / 0</td><td>0.55 (1)</td></tr><tr><td>5-6</td><td>-2844 / 0</td><td>-77.3 -77.3</td><td>0.36 (1)</td><td>3.86</td><td>20-5</td><td>0 / 809</td><td>0.18 (1)</td></tr><tr><td>6-7</td><td>-2844 / 0</td><td>-77.3 -77.3</td><td>0.36 (1)</td><td>3.86</td><td>5-18</td><td>-1242 / 0</td><td>0.38 (1)</td></tr><tr><td>7-8</td><td>-2056 / 0</td><td>-77.3 -77.3</td><td>0.31 (1)</td><td>4.46</td><td>18-7</td><td>0 / 845</td><td>0.19 (1)</td></tr><tr><td>8-9</td><td>-2057 / 0</td><td>-77.3 -77.3</td><td>0.34 (1)</td><td>4.43</td><td>7-17</td><td>-1177 / 0</td><td>0.59 (1)</td></tr><tr><td>9-10</td><td>-2453 / 0</td><td>-77.3 -77.3</td><td>0.35 (1)</td><td>4.12</td><td>17-8</td><td>0 / 1487</td><td>0.33 (1)</td></tr><tr><td>10-11</td><td>-2453 / 0</td><td>-77.3 -77.3</td><td>0.35 (1)</td><td>4.12</td><td>17-9</td><td>-583 / 0</td><td>0.30 (1)</td></tr><tr><td>11-12</td><td>-2561 / 0</td><td>-77.3 -77.3</td><td>0.42 (1)</td><td>3.97</td><td>15-9</td><td>0 / 172</td><td>0.04 (3)</td></tr><tr><td>23-2</td><td>-2003 / 0</td><td>0.0</td><td>0.0 0.20 (1)</td><td>5.97</td><td>15-11</td><td>-139 / 0</td><td>0.12 (1)</td></tr><tr><td>13-12</td><td>-1774 / 0</td><td>0.0</td><td>0.0 0.18 (1)</td><td>6.26</td><td>14-11</td><td>-336 / 0</td><td>0.09 (1)</td></tr><tr><td></td><td></td><td></td><td></td><td></td><td>2-22</td><td>0 / 1903</td><td>0.43 (1)</td></tr><tr><td></td><td></td><td></td><td></td><td></td><td>14-12</td><td>0 / 2349</td><td>0.53 (1)</td></tr><tr><td>23-22</td><td>0 / 0</td><td>-17.5 -17.5</td><td>0.15 (1)</td><td>10.00</td><td></td><td></td><td></td></tr><tr><td>22-21</td><td>0 / 1591</td><td>-17.5 -17.5</td><td>0.36 (1)</td><td>10.00</td><td></td><td></td><td></td></tr><tr><td>21-20</td><td>0 / 5772</td><td>-17.5 -17.5</td><td>0.85 (1)</td><td>10.00</td><td></td><td></td><td></td></tr><tr><td>20-19</td><td>0 / 3517</td><td>-17.5 -17.5</td><td>0.49 (1)</td><td>10.00</td><td></td><td></td><td></td></tr><tr><td>19-18</td><td>0 / 3517</td><td>-17.5 -17.5</td><td>0.49 (1)</td><td>10.00</td><td></td><td></td><td></td></tr><tr><td>18-17</td><td>0 / 2544</td><td>-17.5 -17.5</td><td>0.36 (1)</td><td>10.00</td><td></td><td></td><td></td></tr><tr><td>17-16</td><td>0 / 2194</td><td>-17.5 -17.5</td><td>0.32 (1)</td><td>10.00</td><td></td><td></td><td></td></tr><tr><td>16-15</td><td>0 / 2194</td><td>-17.5 -17.5</td><td>0.32 (1)</td><td>10.00</td><td></td><td></td><td></td></tr><tr><td>15-14</td><td>0 / 2307</td><td>-17.5 -17.5</td><td>0.31 (1)</td><td>10.00</td><td></td><td></td><td></td></tr><tr><td>14-13</td><td>0 / 0</td><td>-17.5 -17.5</td><td>0.10 (3)</td><td>10.00</td><td></td><td></td><td></td></tr></table> |  |  |  |  |  |  |  |  |  |  |  | CHORDS |  |  |  | WEBS |  |  |  | MEMB. | MAX. FACTORED FORCE (LBS) | FACTORED VERT. LOAD (PLF) | MAX. CSI (LC) | MEMB. | MAX. FACTORED FORCE (LBS) | MAX. CSI (LC) |  | FR-TO |  | FROM TO |  | LENGTH FR-TO |  |  |  | 1-2 | 0 / 23 | -77.3 -77.3 | 0.10 (1) | 10.00 | 22-3 | -758 / 0 | 0.11 (1) | 2-3 | -1865 / 0 | -77.3 -77.3 | 0.11 (1) | 4.83 | 3-21 | 0 / 4321 | 0.97 (1) | 3-4 | -5675 / 0 | -77.3 -77.3 | 0.63 (1) | 2.50 | 21-4 | -1435 / 0 | 0.21 (1) | 4-5 | -3913 / 0 | -77.3 -77.3 | 0.51 (1) | 3.23 | 4-20 | -2350 / 0 | 0.55 (1) | 5-6 | -2844 / 0 | -77.3 -77.3 | 0.36 (1) | 3.86 | 20-5 | 0 / 809 | 0.18 (1) | 6-7 | -2844 / 0 | -77.3 -77.3 | 0.36 (1) | 3.86 | 5-18 | -1242 / 0 | 0.38 (1) | 7-8 | -2056 / 0 | -77.3 -77.3 | 0.31 (1) | 4.46 | 18-7 | 0 / 845 | 0.19 (1) | 8-9 | -2057 / 0 | -77.3 -77.3 | 0.34 (1) | 4.43 | 7-17 | -1177 / 0 | 0.59 (1) | 9-10 | -2453 / 0 | -77.3 -77.3 | 0.35 (1) | 4.12 | 17-8 | 0 / 1487 | 0.33 (1) | 10-11 | -2453 / 0 | -77.3 -77.3 | 0.35 (1) | 4.12 | 17-9 | -583 / 0 | 0.30 (1) | 11-12 | -2561 / 0 | -77.3 -77.3 | 0.42 (1) | 3.97 | 15-9 | 0 / 172 | 0.04 (3) | 23-2 | -2003 / 0 | 0.0 | 0.0 0.20 (1) | 5.97 | 15-11 | -139 / 0 | 0.12 (1) | 13-12 | -1774 / 0 | 0.0 | 0.0 0.18 (1) | 6.26 | 14-11 | -336 / 0 | 0.09 (1) |  |  |  |  |  | 2-22 | 0 / 1903 | 0.43 (1) |  |  |  |  |  | 14-12 | 0 / 2349 | 0.53 (1) | 23-22 | 0 / 0 | -17.5 -17.5 | 0.15 (1) | 10.00 |  |  |  | 22-21 | 0 / 1591 | -17.5 -17.5 | 0.36 (1) | 10.00 |  |  |  | 21-20 | 0 / 5772 | -17.5 -17.5 | 0.85 (1) | 10.00 |  |  |  | 20-19 | 0 / 3517 | -17.5 -17.5 | 0.49 (1) | 10.00 |  |  |  | 19-18 | 0 / 3517 | -17.5 -17.5 | 0.49 (1) | 10.00 |  |  |  | 18-17 | 0 / 2544 | -17.5 -17.5 | 0.36 (1) | 10.00 |  |  |  | 17-16 | 0 / 2194 | -17.5 -17.5 | 0.32 (1) | 10.00 |  |  |  | 16-15 | 0 / 2194 | -17.5 -17.5 | 0.32 (1) | 10.00 |  |  |  | 15-14 | 0 / 2307 | -17.5 -17.5 | 0.31 (1) | 10.00 |  |  |  | 14-13 | 0 / 0 | -17.5 -17.5 | 0.10 (3) | 10.00 |  |  |  | <b>DESIGN CRITERIA</b><br><br>SPECIFIED LOADS:<br>TOP CH. LL = 23.3 PSF<br>DL = 3.0 PSF<br>BOT CH. LL = 0.0 PSF<br>DL = 7.0 PSF<br>TOTAL LOAD = 33.3 PSF<br><br><b>SPACING = 24.0 IN./C</b><br><br>LOADING IN ALL FLAT SECTIONS BASED ON A SLOPE OF 6.00/12<br><br>THIS TRUSS IS DESIGNED FOR RESIDENTIAL OR SMALL BUILDING REQUIREMENTS OF PART 9, NBCC 2010<br><br>THIS DESIGN COMPLIES WITH:<br>- PART 9 OF OBC 2012, BCBC 2012, ABC 2014<br>- CSA 086-09<br>- TPIC 2011<br><br>DESIGN ASSUMPTIONS<br>- OVERHANG NOT TO BE ALTERED OR CUT OFF.<br><br>(55 % OF 27.2 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 23.3 P.S.F. SPECIFIED ROOF LIVE LOAD<br><br>ALLOWABLE DEFL.(LL)= L/360 (1.28")<br>CALCULATED VERT. DEFL. (LL) = L/999 (0.38")<br>ALLOWABLE DEFL.(TL)= L/360 (1.28")<br>CALCULATED VERT. DEFL.(TL) = L/682 (0.67")<br><br>CSI: TC=0.63 (3-4:1), BC=0.85 (20-21:1), WB=0.97 (3-21:1), SSI=0.18 (11-12:1)<br><br>DOL LUMBER=1.00 NAIL=1.00 LS BEND=1.10 COMP=1.10 SHEAR=1.10 TENS= 1.10<br><br>COMPANION LIVE LOAD FACTOR = 0.50<br><br>TRUSS PLATE MANUFACTURER IS NOT RESPONSIBLE FOR QUALITY CONTROL IN THE TRUSS MANUFACTURING PLANT .<br><br>NAIL VALUES<br>PLATE GRIP(DRY) SHEAR SECTION (PSI) (PLI) (PLI)<br>MAX MIN MAX MIN MAX MIN<br>MT20 618 354 1667 822 2284 1656<br><br>PLATE PLACEMENT TOL. = 0.250 inches<br><br>PLATE ROTATION TOL. = 5.0 Deg.<br><br>JSI GRIP= 0.90 (21) (INPUT = 0.90)<br>JSI METAL= 0.91 (19) (INPUT = 1.00) |  |  |  |  |  |  |  |  |  |  |  |
| CHORDS                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                           |                           |               | WEBS         |                           |               |          |  |  |        |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           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   |          |     |           |             |          |      |      |          |          |     |           |             |          |      |      |           |          |     |           |             |          |      |      |           |          |     |           |             |          |      |      |         |          |     |           |             |          |      |      |           |          |     |           |             |          |      |      |         |          |     |           |             |          |      |      |           |          |      |           |             |          |      |      |          |          |       |           |             |          |      |      |          |          |       |           |             |          |      |      |         |          |      |           |     |              |      |       |          |          |       |           |     |              |      |       |          |          |  |  |  |  |  |      |          |          |  |  |  |  |  |       |          |          |       |       |             |          |       |  |  |  |       |          |             |          |       |  |  |  |       |          |             |          |       |  |  |  |       |          |             |          |       |  |  |  |       |          |             |          |       |  |  |  |       |          |             |          |       |  |  |  |       |          |             |          |       |  |  |  |       |          |             |          |       |  |  |  |       |          |             |          |       |  |  |  |       |       |             |          |       |  |  |  |                                                                                                                                                                                                                                                                                                                                                       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| MEMB.                                                                                                                                                                                                                                                                                                                                                                                                                                                               | MAX. FACTORED FORCE (LBS) | FACTORED VERT. LOAD (PLF) | MAX. CSI (LC) | MEMB.        | MAX. FACTORED FORCE (LBS) | MAX. CSI (LC) |          |  |  |        |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  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|           |             |          |      |      |          |          |       |           |             |          |      |      |          |          |       |           |             |          |      |      |         |          |      |           |     |              |      |       |          |          |       |           |     |              |      |       |          |          |  |  |  |  |  |      |          |          |  |  |  |  |  |       |          |          |       |       |             |          |       |  |  |  |       |          |             |          |       |  |  |  |       |          |             |          |       |  |  |  |       |          |             |          |       |  |  |  |       |          |             |          |       |  |  |  |       |          |             |          |       |  |  |  |       |          |             |          |       |  |  |  |       |          |             |          |       |  |  |  |       |          |             |    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| FR-TO                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                           | FROM TO                   |               | LENGTH FR-TO |                           |               |          |  |  |        |  |                                                                                                                                                                                                                                                                                                                                                                                                  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| 1-2                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | 0 / 23                    | -77.3 -77.3               | 0.10 (1)      | 10.00        | 22-3                      | -758 / 0      | 0.11 (1) |  |  |        |  |                                                                                                                                                                                                                                                                                                                                                                                                  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| 2-3                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | -1865 / 0                 | -77.3 -77.3               | 0.11 (1)      | 4.83         | 3-21                      | 0 / 4321      | 0.97 (1) |  |  |        |  |                                                                                                                                                                                                                                                                                                                                                                                                  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| 3-4                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | -5675 / 0                 | -77.3 -77.3               | 0.63 (1)      | 2.50         | 21-4                      | -1435 / 0     | 0.21 (1) |  |  |        |  |                                                                                                                                                                                                                                                                                                                                                                                                  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| 4-5                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | -3913 / 0                 | -77.3 -77.3               | 0.51 (1)      | 3.23         | 4-20                      | -2350 / 0     | 0.55 (1) |  |  |        |  |                                                                                                                                                                                                                                                                                                                                                                                                  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| 5-6                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | -2844 / 0                 | -77.3 -77.3               | 0.36 (1)      | 3.86         | 20-5                      | 0 / 809       | 0.18 (1) |  |  |        |  |                                                                                                                                                                                                                                                                                                                                                                                                  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                                                                      |  |  |  |  |  |  |  |  |  |  |  |
| 6-7                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | -2844 / 0                 | -77.3 -77.3               | 0.36 (1)      | 3.86         | 5-18                      | -1242 / 0     | 0.38 (1) |  |  |        |  |                                                                                                                                                                                                                                                                                                                                                                                                  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| 7-8                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | -2056 / 0                 | -77.3 -77.3               | 0.31 (1)      | 4.46         | 18-7                      | 0 / 845       | 0.19 (1) |  |  |        |  |                                                                                                                                                                                                                                                                                                                                                                                                  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| 8-9                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | -2057 / 0                 | -77.3 -77.3               | 0.34 (1)      | 4.43         | 7-17                      | -1177 / 0     | 0.59 (1) |  |  |        |  |                                                                                                                                                                                                                                                                                                                                                                                                  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                                                                      |  |  |  |  |  |  |  |  |  |  |  |
| 9-10                                                                                                                                                                                                                                                                                                                                                                                                                                                                | -2453 / 0                 | -77.3 -77.3               | 0.35 (1)      | 4.12         | 17-8                      | 0 / 1487      | 0.33 (1) |  |  |        |  |                                                                                                                                                                                                                                                                                                                                                                                                  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   |          |     |           |             |          |      |      |          |          |     |           |             |          |      |      |           |          |     |           |             |          |      |      |           |          |     |           |             |          |      |      |         |          |     |           |             |          |      |      |           |          |     |           |             |          |      |      |         |          |     |           |             |          |      |      |           |          |      |           |             |          |      |      |          |          |       |           |             |          |      |      |          |          |       |           |             |          |      |      |         |          |      |           |     |              |      |       |          |          |       |           |     |              |      |       |          |          |  |  |  |  |  |      |          |  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                                                                      |  |  |  |  |  |  |  |  |  |  |  |
| 10-11                                                                                                                                                                                                                                                                                                                                                                                                                                                               | -2453 / 0                 | -77.3 -77.3               | 0.35 (1)      | 4.12         | 17-9                      | -583 / 0      | 0.30 (1) |  |  |        |  |                                                                                                                                                                                                                                                                                                                                                                                                  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                                                                      |  |  |  |  |  |  |  |  |  |  |  |
| 11-12                                                                                                                                                                                                                                                                                                                                                                                                                                                               | -2561 / 0                 | -77.3 -77.3               | 0.42 (1)      | 3.97         | 15-9                      | 0 / 172       | 0.04 (3) |  |  |        |  |                                                                                                                                                                                                                                                                                                                                                                                                  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                                                                      |  |  |  |  |  |  |  |  |  |  |  |
| 23-2                                                                                                                                                                                                                                                                                                                                                                                                                                                                | -2003 / 0                 | 0.0                       | 0.0 0.20 (1)  | 5.97         | 15-11                     | -139 / 0      | 0.12 (1) |  |  |        |  |                                                                                                                                                                                                                                                                                                                                                                                                  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                                                                      |  |  |  |  |  |  |  |  |  |  |  |
| 13-12                                                                                                                                                                                                                                                                                                                                                                                                                                                               | -1774 / 0                 | 0.0                       | 0.0 0.18 (1)  | 6.26         | 14-11                     | -336 / 0      | 0.09 (1) |  |  |        |  |                                                                                                                                                                                                                                                                                                                                                                                                  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|                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                           |                           |               |              | 2-22                      | 0 / 1903      | 0.43 (1) |  |  |        |  |                                                                                                                                                                                                                                                                                                                                                                                                  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|                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                           |                           |               |              | 14-12                     | 0 / 2349      | 0.53 (1) |  |  |        |  |                                                                                                                                                                                                                                                                                                                                                                                                  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   |          |     |           |             |          |      |      |          |          |     |           |             |          |      |      |           |          |     |           |             |          |      |      |           |          |     |           |             |          |      |      |         |          |     |           |             |          |      |      |           |          |     |           |             |          |      |      |         |          |     |           |             |          |      |      |           |          |      |           |             |          |      |      |          |          |       |           |             |          |      |      |          |          |       |           |             |          |      |      |         |          |      |           |     |              |      |       |          |          |       |           |     |              |      |       |          |          |  |  |  |  |  |      |          |  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| 23-22                                                                                                                                                                                                                                                                                                                                                                                                                                                               | 0 / 0                     | -17.5 -17.5               | 0.15 (1)      | 10.00        |                           |               |          |  |  |        |  |                                                                                                                                                                                                                                                                                                                                                                                                  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| 22-21                                                                                                                                                                                                                                                                                                                                                                                                                                                               | 0 / 1591                  | -17.5 -17.5               | 0.36 (1)      | 10.00        |                           |               |          |  |  |        |  |                                                                                                                                                                                                                                                                                                                                                                                                  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                                                                      |  |  |  |  |  |  |  |  |  |  |  |
| 21-20                                                                                                                                                                                                                                                                                                                                                                                                                                                               | 0 / 5772                  | -17.5 -17.5               | 0.85 (1)      | 10.00        |                           |               |          |  |  |        |  |                                                                                                                                                                                                                                                                                                                                                                                                  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   |          |     |           |             |          |      |      |          |          |     |           |             |          |      |      |           |          |     |           |             |          |      |      |           |          |     |           |             |          |      |      |         |          |     |           |             |          |      |      |           |          |     |           |             |          |      |      |         |          |     |           |             |          |      |      |           |          |      |           |             |          |      |      |          |          |       |           |             |          |      |      |          |          |       |           |             |          |      |      |         |          |      |           |     |              |      |       |          |          |       |           |     |              |      |       |          |          |  |  |  |  |  |      |          |          |  |  |  |  |  |       |          |          |       |       |             |          |       |  |  |  |       |          |             |          |       |  |  |  |       |          |             |          |       |  |  |  |       |          |             |          |       |  |  |  |       |          |             |          |       |  |  |  |       |          |             |          |       |  |  |  |       |          |             |          |       |  |  |  |       |          |             |          |       |  |  |  |       |          |             |          |       |  |  |  |       |       |             |          |       |  |  |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |  |  |  |  |  |  |  |  |  |  |  |
| 20-19                                                                                                                                                                                                                                                                                                                                                                                                                                                               | 0 / 3517                  | -17.5 -17.5               | 0.49 (1)      | 10.00        |                           |               |          |  |  |        |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           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   |          |     |           |             |          |      |      |          |          |     |           |             |          |      |      |           |          |     |           |             |          |      |      |           |          |     |           |             |          |      |      |         |          |     |           |             |          |      |      |           |          |     |           |             |          |      |      |         |          |     |           |             |          |      |      |           |          |      |           |             |          |      |      |          |          |       |           |             |          |      |      |          |          |       |           |             |          |      |      |         |          |      |           |     |              |      |       |          |          |       |           |     |              |      |       |          |          |  |  |  |  |  |      |          |  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| 19-18                                                                                                                                                                                                                                                                                                                                                                                                                                                               | 0 / 3517                  | -17.5 -17.5               | 0.49 (1)      | 10.00        |                           |               |          |  |  |        |  |                                                                                                                                                                                                                                                                                                                                                                                                  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| 18-17                                                                                                                                                                                                                                                                                                                                                                                                                                                               | 0 / 2544                  | -17.5 -17.5               | 0.36 (1)      | 10.00        |                           |               |          |  |  |        |  |                                                                                                                                                                                                                                                                                                                                                                                                  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   |          |     |           |             |          |      |      |          |          |     |           |             |          |      |      |           |          |     |           |             |          |      |      |           |          |     |           |             |          |      |      |         |          |     |           |             |          |      |      |           |          |     |           |             |          |      |      |         |          |     |           |             |          |      |      |           |          |      |           |             |          |      |      |          |          |       |           |             |          |      |      |          |          |       |           |             |          |      |      |         |          |      |           |     |              |      |       |          |          |       |           |     |              |      |       |          |          |  |  |  |  |  |      |          |  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                                                                      |  |  |  |  |  |  |  |  |  |  |  |
| 17-16                                                                                                                                                                                                                                                                                                                                                                                                                                                               | 0 / 2194                  | -17.5 -17.5               | 0.32 (1)      | 10.00        |                           |               |          |  |  |        |  |                                                                                                                                                                                                                                                                                                                                                                                                  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   |          |     |           |             |          |      |      |          |          |     |           |             |          |      |      |           |          |     |           |             |          |      |      |           |          |     |           |             |          |      |      |         |          |     |           |             |          |      |      |           |          |     |           |             |          |      |      |         |          |     |           |             |          |      |      |           |          |      |           |             |          |      |      |          |          |       |           |             |          |      |      |          |          |       |           |             |          |      |      |         |          |      |           |     |              |      |       |          |          |       |           |     |              |      |       |          |          |  |  |  |  |  |      |          |  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                                                                      |  |  |  |  |  |  |  |  |  |  |  |
| 16-15                                                                                                                                                                                                                                                                                                                                                                                                                                                               | 0 / 2194                  | -17.5 -17.5               | 0.32 (1)      | 10.00        |                           |               |          |  |  |        |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           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                                                                      |  |  |  |  |  |  |  |  |  |  |  |
| 15-14                                                                                                                                                                                                                                                                                                                                                                                                                                                               | 0 / 2307                  | -17.5 -17.5               | 0.31 (1)      | 10.00        |                           |               |          |  |  |        |  |                                                                                                                                                                                                                                                                                                                                                                                                  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   |          |     |           |             |          |      |      |          |          |     |           |             |          |      |      |           |          |     |           |             |          |      |      |           |          |     |           |             |          |      |      |         |          |     |           |             |          |      |      |           |          |     |           |             |          |      |      |         |          |     |           |             |          |      |      |           |          |      |           |             |          |      |      |          |          |       |           |             |          |      |      |          |          |       |           |             |          |      |      |         |          |      |           |     |              |      |       |          |          |       |           |     |              |      |       |          |          |  |  |  |  |  |      |          |  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| 14-13                                                                                                                                                                                                                                                                                                                                                                                                                                                               | 0 / 0                     | -17.5 -17.5               | 0.10 (3)      | 10.00        |                           |               |          |  |  |        |  |                                                                                                                                                                                                                                                                                                                                                                                                  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LICENSED PROFESSIONAL ENGINEER

P. M. TREVISAN

100136551

March 13th, 2017

PROVINCE OF ONTARIO

RECEIVED

TOWN OF MILTON

MAR 29, 2017

17-4990

BUILDING DIVISION

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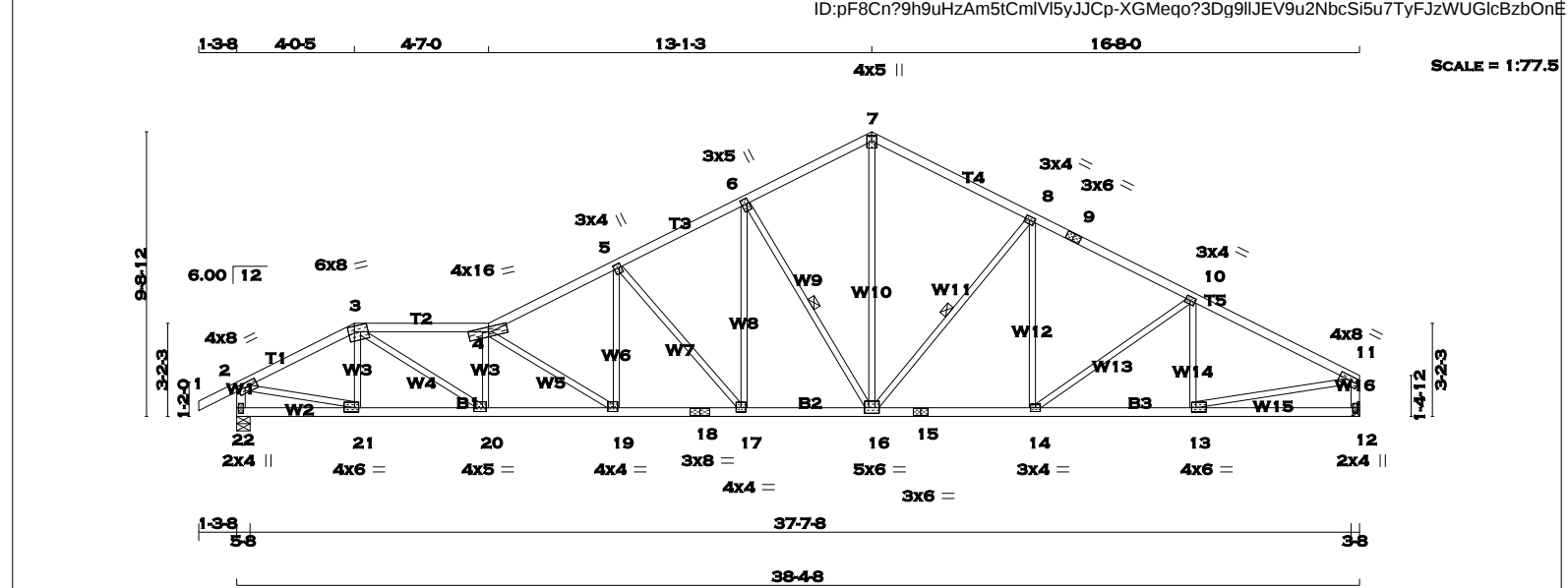
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CONTRACTORS



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|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |  |
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| <b>LUMBER</b><br>N. L. G. A. RULES<br>CHORDS SIZE<br>1 - 3 2x4 DRY No.2<br>3 - 4 2x4 DRY No.2<br>4 - 7 2x4 DRY No.2<br>7 - 9 2x4 DRY No.2<br>9 - 11 2x4 DRY No.2<br>22 - 2 2x4 DRY No.2<br>12 - 11 2x4 DRY No.2<br>22 - 18 2x4 DRY No.2<br>18 - 15 2x4 DRY No.2<br>15 - 12 2x4 DRY No.2<br><br>ALL WEBS 2x3 DRY No.2<br>EXCEPT<br><br>DRY: SEASONED LUMBER.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |  | <b>DESCR.</b><br>SPF<br>SPF<br>SPF<br>SPF<br>SPF<br>SPF<br>SPF<br>SPF<br>SPF<br>SPF<br>SPF<br>SPF                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |  |
| <b>PLATES (table is in inches)</b><br>JT TYPE PLATES W LEN Y X<br>2 TMVW-t MT20 4.0 8.0 1.75 3.00<br>3 TTWW-m MT20 6.0 8.0 2.25 2.50<br>4 TTWW-m MT20 4.0 16.0 2.00 7.75<br>5 TMWW+t MT20 3.0 4.0 1.75 0.75<br>6 TMWW+t MT20 3.0 5.0 2.25 0.75<br>7 TTW+p MT20 4.0 5.0 2.25 2.00<br>8 TMWW-t MT20 3.0 4.0 1.50 1.75<br>9 TS-t MT20 3.0 6.0<br>10 TMWW-t MT20 3.0 4.0 1.50 1.75<br>11 TMVW-t MT20 4.0 8.0 1.75 Edge<br>12 BMV1+p MT20 2.0 4.0 2.25 1.00<br>13 BMWW-t MT20 4.0 6.0 1.75 1.75<br>14 BMWW-t MT20 3.0 4.0<br>15 BS-t MT20 3.0 6.0<br>16 BMWW+t MT20 5.0 6.0 2.25 3.00<br>17 BMWW-t MT20 4.0 4.0 1.75 2.00<br>18 BS-t MT20 3.0 8.0<br>19 BMWW-t MT20 4.0 4.0 1.50 1.75<br>20 BMWW-t MT20 4.0 5.0 1.50 1.50<br>21 BMWW-t MT20 4.0 6.0 1.75 1.75<br>22 BMV1+p MT20 2.0 4.0 2.25 1.00<br><br>Edge - INDICATES REFERENCE CORNER OF PLATE TOUCHES EDGE OF CHORD.<br><br>A SIZE FOR SIZE SUBSTITUTION OF MITEK MII20 WITH TEE-LOK TL20 PLATES IS ALLOWED.                                                                                                                                                                                                                                                                                                                                                                                                                             |  | <b>DIMENSIONS, SUPPORTS AND LOADINGS SPECIFIED BY FABRICATOR TO BE VERIFIED BY BUILDING DESIGNER</b><br><b>BEARINGS</b><br>FACTORED GROSS REACTION<br>JT VERT HORZ<br>22 1925 0<br>12 1820 0<br><br>MAXIMUM FACTORED GROSS REACTION<br>DOWN HORZ<br>1925 0<br>1820 0<br><br>INPUT BRG IN-SX<br>5-8 5-8<br>HANGER BY OTHERS<br>MIN. SEAT SIZE: 3-8<br><br><b>UNFACTORED REACTIONS</b><br>1ST LCASE MAX./MIN. COMPONENT REACTIONS<br>JT COMBINED SNOW LIVE PERM.LIVE WIND DEAD SOIL<br>22 1349 957 / 0 0 / 0 0 / 0 392 / 0 0 / 0<br>12 1277 893 / 0 0 / 0 0 / 0 384 / 0 0 / 0<br><br>BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S) 22<br><br><b>BRACING</b><br>TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 3.14 FT.<br>MAX. UNBRACED BOTTOM CHORD LENGTH = 10.00 FT. OR RIGID CEILING DIRECTLY APPLIED.<br><br>ALL PITCH BREAKS AND PERIMETER CORNER JOINTS MUST BE Laterally RESTRAINED.<br><br>1 - 2x3 SPF No.2 LATERAL BRACE(S) AT 1/2 LENGTH OF 6-16. DBS = 12-0-0. CBF = 85 LBS.<br>1 - 2x3 SPF No.2 LATERAL BRACE(S) AT 1/2 LENGTH OF 8-16. DBS = 20-0-0. CBF = 73 LBS.<br><br>DBS = DIAGONAL BRACE SPACING (MAX). CBF = CUMULATIVE BRACING FORCE. FASTEN LATERAL BRACE(S) USING (0.122"x3") SPIRAL NAILS: 1 NAIL FOR 2x3 BRACE(S), 2 FOR 1x4, 2x4, 2x5, 3 FOR 2x6, 4 FOR 2x8, 5 FOR 2x10, AND 6 FOR 2x12.<br><br>END VERTICAL(S) MUST BE SHEATHED OR HAVE BRACES AS INDICATED IN THE MAX. UNBRACED LENGTH COLUMN OF THE TABLE BELOW<br><br><b>LOADING</b><br>TOTAL LOAD CASES: (3)<br><br>CHORDS<br>MEMB. MAX. FACTORED FORCE (LBS) FACTORED VERT. LOAD (PLF) MAX. LC1 (LC) UNBRAC LENGTH FR-TO<br>FR-TO<br>1-2 0 / 23 -77.3 -77.3 0.10 (1) 10.00 21-3 -383 / 0 0.07 (1)<br>2-3 -2579 / 0 -77.3 -77.3 0.25 (1) 4.11 3-20 0 / 2232 0.50 (1)<br>3-4 -4168 / 0 -77.3 -77.3 0.43 (1) 3.14 20-4 -1155 / 0 0.21 (1)<br>4-5 -3475 / 0 -77.3 -77.3 0.33 (1) 3.55 4-19 -1302 / 0 0.61 (1)<br>5-6 -2694 / 0 -77.3 -77.3 0.24 (1) 4.05 19-5 0 / 808 0.18 (1)<br>6-7 -2056 / 0 -77.3 -77.3 0.22 (1) 4.55 5-17 -1091 / 0 0.89 (1)<br>7-8 -2060 / 0 -77.3 -77.3 0.34 (1) 4.42 17-6 0 / 890 0.20 (1)<br>8-9 -2457 / 0 -77.3 -77.3 0.35 (1) 4.11 6-16 -1130 / 0 0.55 (1)<br>9-10 -2457 / 0 -77.3 -77.3 0.35 (1) 4.11 16-7 0 / 1516 0.34 (1)<br>10-11 -2565 / 0 -77.3 -77.3 0.42 (1) 3.97 16-8 -584 / 0 0.30 (1)<br>22-2 -1897 / 0 0.0 0.0 0.19 (1) 6.10 14-8 0 / 173 0.04 (3)<br>12-11 -1776 / 0 0.0 0.0 0.18 (1) 6.26 14-10 -139 / 0 0.12 (1)<br>13-10 -336 / 0 0.0 0.0 0.18 (1) 6.26 13-10 -336 / 0 0.09 (1)<br><br>WEBS<br>MEMB. MAX. FACTORED FORCE (LBS) MAX. LC1 (LC) UNBRAC LENGTH FR-TO<br>FR-TO<br>22-21 0 / 0 -17.5 -17.5 0.08 (3) 10.00 2-21 0 / 2354 0.53 (1)<br>21-20 0 / 2291 -17.5 -17.5 0.43 (1) 10.00 13-11 0 / 2351 0.53 (1)<br>20-19 0 / 4210 -17.5 -17.5 0.74 (1) 10.00<br>19-18 0 / 3123 -17.5 -17.5 0.54 (1) 10.00<br>18-17 0 / 3123 -17.5 -17.5 0.54 (1) 10.00<br>17-16 0 / 2410 -17.5 -17.5 0.45 (1) 10.00<br>16-15 0 / 2197 -17.5 -17.5 0.42 (1) 10.00<br>15-14 0 / 2197 -17.5 -17.5 0.42 (1) 10.00<br>14-13 0 / 2310 -17.5 -17.5 0.42 (1) 10.00<br>13-12 0 / 0 -17.5 -17.5 0.12 (3) 10.00 |  |
| <b>DESIGN CRITERIA</b><br>SPECIFIED LOADS:<br>TOP CH. LL = 23.3 PSF<br>DL = 3.0 PSF<br>BOT CH. LL = 0.0 PSF<br>DL = 7.3 PSF<br>TOTAL LOAD = 33.3 PSF<br><br>SPACING = 24.0 IN. C/C<br><br>LOADING IN ALL FLAT SECTIONS BASED ON A SLOPE OF 6.00/12<br><br>THIS TRUSS IS DESIGNED FOR RESIDENTIAL OR SMALL BUILDING REQUIREMENTS OF PART 9, NBCC 2010<br><br>THIS DESIGN COMPLIES WITH:<br>- PART 9 OF OBC 2012, BCBC 2012, ABC 2014<br>- CSA 086-09<br>- TPC 2011<br><br>(55 % OF 27.2 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 23.3 P.S.F. SPECIFIED ROOF LIVE LOAD<br><br>ALLOWABLE DEFL.(LL)= L/360 (1.28")<br>CALCULATED VERT. DEFL.(LL) = L/ 999 (0.26")<br>ALLOWABLE DEFL.(TL)= L/360 (1.28")<br>CALCULATED VERT. DEFL.(TL) = L/ 995 (0.46")<br><br>CSI: TC=0.43 (3-4:1), BC=0.74 (19-20:1), WB=0.89 (5-17:1), SSI=0.18 (10-11:1)<br><br>DOL LUMBER=1.00 NAIL=1.00 LS BEND=1.10<br>COMP=1.10 SHEAR=1.10 TENS= 1.10<br><br>COMPANION LIVE LOAD FACTOR = 0.50<br><br>TRUSS PLATE MANUFACTURER IS NOT RESPONSIBLE FOR QUALITY CONTROL IN THE TRUSS MANUFACTURING PLANT .<br><br>NAIL VALUES<br>PLATE GRIP(DRY) SHEAR SECTION (PSI) (PLI) (PLI)<br>MAX MIN MAX MIN MAX MIN<br>MT20 618 354 1667 822 2284 1656<br><br>PLATE PLACEMENT TOL. = 0.250 inches<br><br>PLATE ROTATION TOL. = 5.0 Deg.<br><br>JSI GRIP= 0.90 (2) (INPUT = 0.90 )<br>JSI METAL= 0.82 (18) (INPUT = 1.00 ) |  | <div>RECEIVED<br/>TOWN OF MILTON<br/>MAR 29, 2017<br/>17-4990<br/>BUILDING DIVISION</div> <div>READ ALL NOTES ON THIS PAGE AND ON THE ENGINEERING NOTE PAGE ENP-1. THE NOTE PAGE IS AN INTEGRAL PART OF THIS DRAWING AS IT CONTAINS SPECIFICATIONS AND CRITERIA USED IN THE DESIGN OF THIS COMPONENT.</div>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |  |

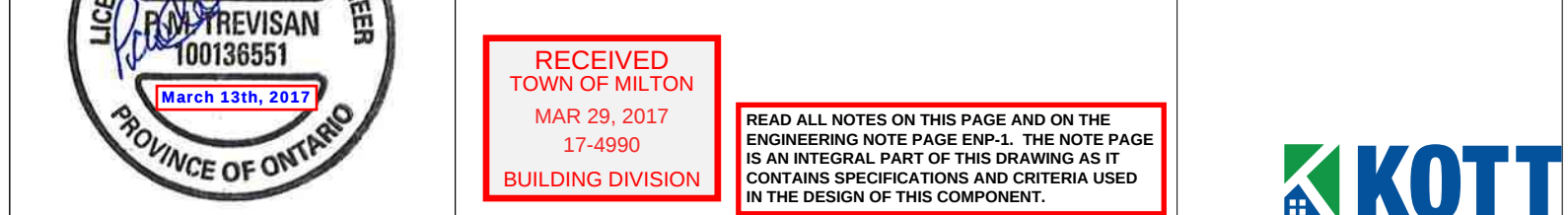


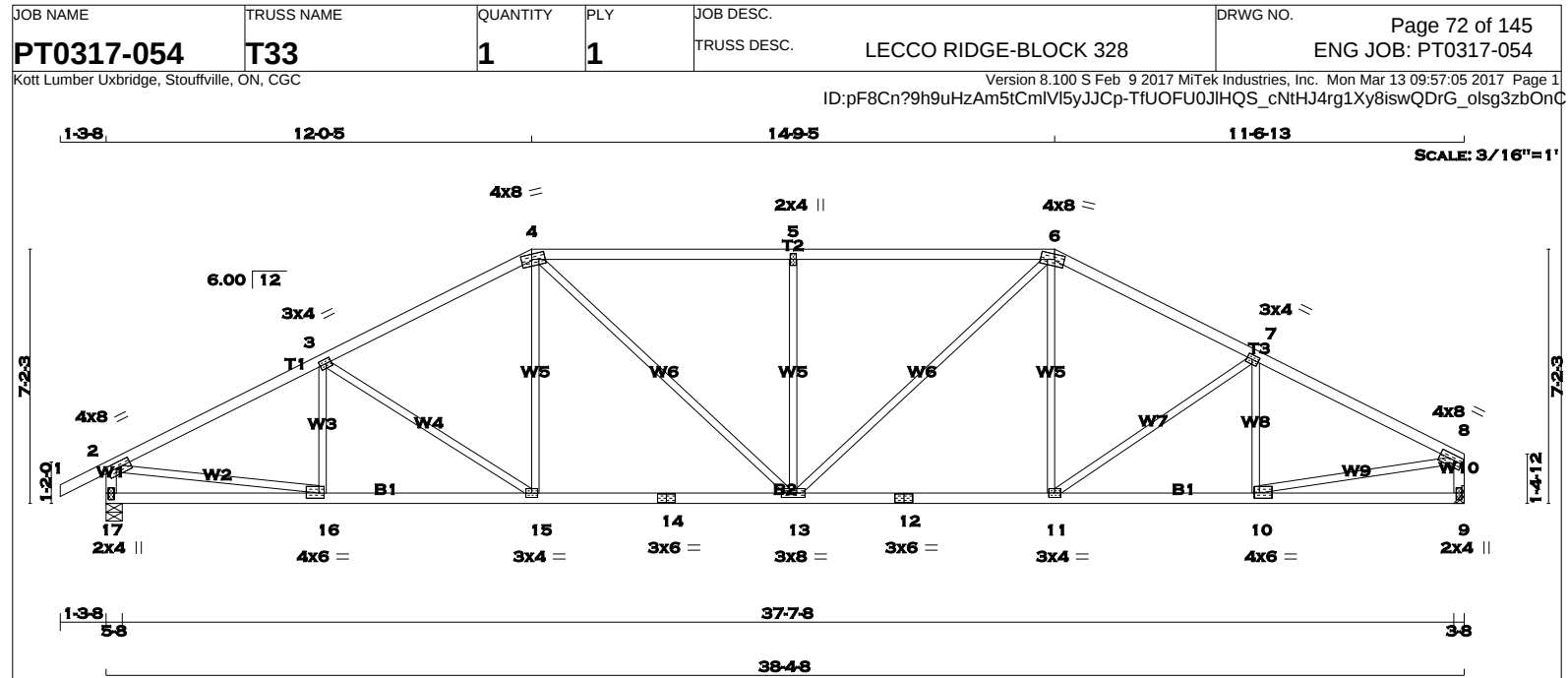
JSI GRIP= 0.90 (7) (INPUT = 0.90 )  
JSI METAL= 0.91 (18) (INPUT = 1.00 )

Professional Engineer Seal for P. M. Trevisan, License No. 100136551, Province of Ontario, dated March 13th, 2017.

**READ ALL NOTES ON THIS PAGE AND ON THE  
ENGINEERING NOTE PAGE ENP-1. THE NOTE PAGE  
IS AN INTEGRAL PART OF THIS DRAWING AS IT  
CONTAINS SPECIFICATIONS AND CRITERIA USED  
IN THE DESIGN OF THIS COMPONENT.**







|                                                                                                                                                                                                                    |  |  |  |  |                                                                                                                                                                                                                               |  |  |  |  |  |  |  |  |  |                                                                                                                            |  |  |  |  |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|--|--|--|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|--|--|--|--|--|--|--|--|----------------------------------------------------------------------------------------------------------------------------|--|--|--|--|
| <b>LUMBER</b><br>N. L. G. A. RULES<br>CHORDS SIZE LUMBER DESCR.                                                                                                                                                    |  |  |  |  | <b>DIMENSIONS, SUPPORTS AND LOADINGS SPECIFIED BY FABRICATOR TO BE VERIFIED BY BUILDING DESIGNER</b><br><b>BEARINGS</b>                                                                                                       |  |  |  |  |  |  |  |  |  | <b>DESIGN CRITERIA</b>                                                                                                     |  |  |  |  |
| 1 - 4 2x4 DRY No.2 SPF<br>4 - 6 2x4 DRY No.2 SPF<br>6 - 8 2x4 DRY No.2 SPF<br>17 - 2 2x4 DRY No.2 SPF<br>9 - 8 2x4 DRY No.2 SPF<br>17 - 14 2x4 DRY No.2 SPF<br>14 - 12 2x4 DRY No.2 SPF<br>12 - 9 2x4 DRY No.2 SPF |  |  |  |  | FACTORED MAXIMUM FACTORED INPUT REQ'D<br>GROSS REACTION GROSS REACTION BRG BRG<br>JT VERT HORZ DOWN HORZ UPLIFT IN-SX IN-SX<br>17 1925 0 1925 0 0 5-8 5-8<br>9 1820 0 1820 0 0 HANGER BY OTHERS<br>MIN. SEAT SIZE: 3-8        |  |  |  |  |  |  |  |  |  | SPECIFIED LOADS:<br>TOP CH. LL = 23.3 PSF<br>DL = 3.0 PSF<br>BOT CH. LL = 0.0 PSF<br>DL = 7.0 PSF<br>TOTAL LOAD = 33.3 PSF |  |  |  |  |
| ALL WEBS 2x3 DRY No.2 SPF<br>EXCEPT                                                                                                                                                                                |  |  |  |  | <b>UNFACTORED REACTIONS</b><br>1ST LCASE MAX./MIN. COMPONENT REACTIONS<br>JT COMBINED SNOW LIVE PERM.LIVE WIND DEAD SOIL<br>17 1349 957 / 0 0 / 0 0 / 0 0 / 0 392 / 0 0 / 0<br>9 1277 893 / 0 0 / 0 0 / 0 0 / 0 384 / 0 0 / 0 |  |  |  |  |  |  |  |  |  | <b>SPACING = 24.0 IN. C/C</b>                                                                                              |  |  |  |  |
| DRY: SEASONED LUMBER.                                                                                                                                                                                              |  |  |  |  | BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S) 17                                                                                                                                                                      |  |  |  |  |  |  |  |  |  | LOADING IN FLAT SECTION BASED ON A SLOPE OF 6.00/12                                                                        |  |  |  |  |
| <b>PLATES (table is in inches)</b>                                                                                                                                                                                 |  |  |  |  | <b>BRACING</b><br>TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 3.52 FT.<br>MAX. UNBRACED BOTTOM CHORD LENGTH = 10.00 FT. OR RIGID CEILING DIRECTLY APPLIED.                                                              |  |  |  |  |  |  |  |  |  | THIS TRUSS IS DESIGNED FOR RESIDENTIAL OR SMALL BUILDING REQUIREMENTS OF PART 9, NBCC 2010                                 |  |  |  |  |
| JT TYPE PLATES W LEN Y X                                                                                                                                                                                           |  |  |  |  | ALL PITCH BREAKS AND PERIMETER CORNER JOINTS MUST BE Laterally RESTRAINED.                                                                                                                                                    |  |  |  |  |  |  |  |  |  | THIS DESIGN COMPLIES WITH:<br>- PART 9 OF OBC 2012, BCBC 2012, ABC 2014<br>- CSA 086-09<br>- TPIC 2011                     |  |  |  |  |
| 2 TMVW-t MT20 4.0 8.0 1.75 3.00                                                                                                                                                                                    |  |  |  |  | <b>LOADING</b><br>TOTAL LOAD CASES: (3)                                                                                                                                                                                       |  |  |  |  |  |  |  |  |  | (55 % OF 27.2 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 23.3 P.S.F. SPECIFIED ROOF LIVE LOAD                         |  |  |  |  |
| 3 TMVW-t MT20 3.0 4.0 1.50 1.75                                                                                                                                                                                    |  |  |  |  | CHORDS WEBS                                                                                                                                                                                                                   |  |  |  |  |  |  |  |  |  | ALLOWABLE DEFL.(LL)= L/360 (1.28")                                                                                         |  |  |  |  |
| 4 TTWW-m MT20 4.0 8.0 1.75 3.50                                                                                                                                                                                    |  |  |  |  | MEMB. MAX. FACTORED FORCE (LBS) VERT. LOAD (PLF) MAX. FACTORED UNBRACED LENGTH (LC) MEMB. MAX. FACTORED FORCE (LBS) MAX. FACTORED UNBRACED LENGTH (LC)                                                                        |  |  |  |  |  |  |  |  |  | CALCULATED VERT. DEFL.(LL) = L/ 999 (0.17")                                                                                |  |  |  |  |
| 5 TMW+w MT20 2.0 4.0                                                                                                                                                                                               |  |  |  |  | FR-TO FROM TO FR-TO FROM TO                                                                                                                                                                                                   |  |  |  |  |  |  |  |  |  | ALLOWABLE DEFL.(TL)= L/360 (1.28")                                                                                         |  |  |  |  |
| 6 TTWW-m MT20 4.0 8.0 1.75 3.25                                                                                                                                                                                    |  |  |  |  | 1-2 0 / 23 -77.3 -77.3 0.10 (1) 10.00 16-3 -241 / 26 0.06 (1)                                                                                                                                                                 |  |  |  |  |  |  |  |  |  | CALCULATED VERT. DEFL.(TL) = L/ 999 (0.32")                                                                                |  |  |  |  |
| 7 TMVW-t MT20 3.0 4.0 1.50 1.75                                                                                                                                                                                    |  |  |  |  | 2-3 -2751 / 0 -77.3 -77.3 0.51 (1) 3.75 3-15 -348 / 0 0.35 (1)                                                                                                                                                                |  |  |  |  |  |  |  |  |  | CSI: TC=0.72 (4-5:1), BC=0.49 (15-16:1), WB=0.63 (5-13:1), SSI=0.28 (4-5:1)                                                |  |  |  |  |
| 8 TMVW-t MT20 4.0 8.0 1.75 Edge                                                                                                                                                                                    |  |  |  |  | 3-4 -2475 / 0 -77.3 -77.3 0.46 (1) 3.97 15-4 0 / 310 0.07 (1)                                                                                                                                                                 |  |  |  |  |  |  |  |  |  | DOL LUMBER=1.00 NAIL=1.00 LS BEND=1.10                                                                                     |  |  |  |  |
| 9 BMV1+p MT20 2.0 4.0 2.25 1.00                                                                                                                                                                                    |  |  |  |  | 4-5 -2619 / 0 -77.3 -77.3 0.72 (1) 3.52 4-13 0 / 579 0.13 (1)                                                                                                                                                                 |  |  |  |  |  |  |  |  |  | COMP=1.10 SHEAR=1.10 TENS= 1.10                                                                                            |  |  |  |  |
| 10 BMVW-t MT20 4.0 6.0 1.75 1.75                                                                                                                                                                                   |  |  |  |  | 5-6 -2619 / 0 -77.3 -77.3 0.72 (1) 3.52 13-5 -704 / 0 0.63 (1)                                                                                                                                                                |  |  |  |  |  |  |  |  |  | COMPANION LIVE LOAD FACTOR = 0.50                                                                                          |  |  |  |  |
| 11 BMVW-t MT20 3.0 4.0                                                                                                                                                                                             |  |  |  |  | 6-7 -2422 / 0 -77.3 -77.3 0.43 (1) 4.04 13-6 0 / 643 0.14 (1)                                                                                                                                                                 |  |  |  |  |  |  |  |  |  | TRUSS PLATE MANUFACTURER IS NOT RESPONSIBLE FOR QUALITY CONTROL IN THE TRUSS MANUFACTURING PLANT .                         |  |  |  |  |
| 12 BS-t MT20 3.0 6.0                                                                                                                                                                                               |  |  |  |  | 7-8 -2586 / 0 -77.3 -77.3 0.46 (1) 3.91 11-6 0 / 251 0.06 (1)                                                                                                                                                                 |  |  |  |  |  |  |  |  |  | NAIL VALUES                                                                                                                |  |  |  |  |
| 13 BMVW-t MT20 3.0 8.0                                                                                                                                                                                             |  |  |  |  | 17-2 -1877 / 0 0.0 0.0 0.19 (1) 6.13 11-7 -231 / 0 0.22 (1)                                                                                                                                                                   |  |  |  |  |  |  |  |  |  | PLATE GRIP(DRY) SHEAR SECTION (PSI) (PLI) (PLI)                                                                            |  |  |  |  |
| 14 BS-t MT20 3.0 6.0                                                                                                                                                                                               |  |  |  |  | 9-8 -1774 / 0 0.0 0.0 0.18 (1) 6.27 10-7 -328 / 0 0.09 (1)                                                                                                                                                                    |  |  |  |  |  |  |  |  |  | MAX MIN MAX MIN MAX MIN                                                                                                    |  |  |  |  |
| 15 BMVW-t MT20 3.0 4.0                                                                                                                                                                                             |  |  |  |  | 17-16 0 / 0 -17.5 -17.5 0.14 (3) 10.00 10-8 0 / 2506 0.56 (1)                                                                                                                                                                 |  |  |  |  |  |  |  |  |  | MT20 618 354 1667 822 2284 1656                                                                                            |  |  |  |  |
| 16 BMVW-t MT20 4.0 6.0 1.75 1.75                                                                                                                                                                                   |  |  |  |  | 16-15 0 / 2482 -17.5 -17.5 0.49 (1) 10.00                                                                                                                                                                                     |  |  |  |  |  |  |  |  |  | PLATE PLACEMENT TOL. = 0.250 inches                                                                                        |  |  |  |  |
| 17 BMV1+p MT20 2.0 4.0 2.25 1.00                                                                                                                                                                                   |  |  |  |  | 15-14 0 / 2195 -17.5 -17.5 0.45 (1) 10.00                                                                                                                                                                                     |  |  |  |  |  |  |  |  |  | PLATE ROTATION TOL. = 5.0 Deg.                                                                                             |  |  |  |  |
| Edge - INDICATES REFERENCE CORNER OF PLATE TOUCHES EDGE OF CHORD.                                                                                                                                                  |  |  |  |  | 14-13 0 / 2195 -17.5 -17.5 0.45 (1) 10.00                                                                                                                                                                                     |  |  |  |  |  |  |  |  |  | JSI GRIP= 0.90 (6) (INPUT = 0.90 )                                                                                         |  |  |  |  |
| A SIZE FOR SIZE SUBSTITUTION OF MITEK MII20 WITH TEE-LOK TL20 PLATES IS ALLOWED.                                                                                                                                   |  |  |  |  | 13-12 0 / 2148 -17.5 -17.5 0.44 (1) 10.00                                                                                                                                                                                     |  |  |  |  |  |  |  |  |  | JSI METAL= 0.65 (14) (INPUT = 1.00 )                                                                                       |  |  |  |  |
|                                                                                                                                                                                                                    |  |  |  |  | 12-11 0 / 2148 -17.5 -17.5 0.44 (1) 10.00                                                                                                                                                                                     |  |  |  |  |  |  |  |  |  |                                                                                                                            |  |  |  |  |
|                                                                                                                                                                                                                    |  |  |  |  | 11-10 0 / 2333 -17.5 -17.5 0.46 (1) 10.00                                                                                                                                                                                     |  |  |  |  |  |  |  |  |  |                                                                                                                            |  |  |  |  |
|                                                                                                                                                                                                                    |  |  |  |  | 10-9 0 / 0 -17.5 -17.5 0.12 (3) 10.00                                                                                                                                                                                         |  |  |  |  |  |  |  |  |  |                                                                                                                            |  |  |  |  |

LICENSED PROFESSIONAL ENGINEER

P. TREVISAN

100136551

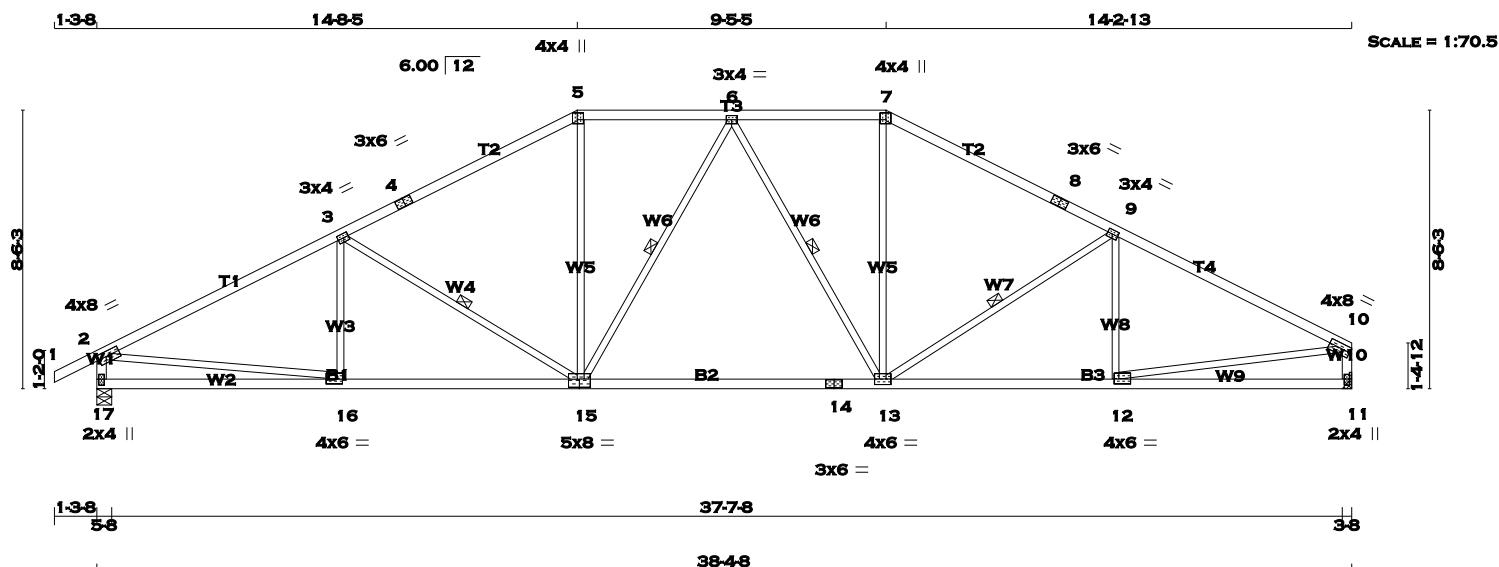
March 13th, 2017

PROVINCE OF ONTARIO

RECEIVED  
TOWN OF MILTON  
MAR 29, 2017  
17-4990  
BUILDING DIVISION

READ ALL NOTES ON THIS PAGE AND ON THE  
ENGINEERING NOTE PAGE ENP-1. THE NOTE PAGE  
IS AN INTEGRAL PART OF THIS DRAWING AS IT  
CONTAINS SPECIFICATIONS AND CRITERIA USED  
IN THE DESIGN OF THIS COMPONENT.

KOTT



TOTAL WEIGHT = 155 lb

| LUMBER            |      |        |        |
|-------------------|------|--------|--------|
| N. L. G. A. RULES |      |        |        |
| CHORDS            | SIZE | LUMBER | DESCR. |
| 1 - 4             | 2x4  | No.2   | SPF    |
| 4 - 5             | 2x4  | DRY    | No.2   |
| 5 - 7             | 2x4  | DRY    | No.2   |
| 7 - 8             | 2x4  | DRY    | No.2   |
| 8 - 10            | 2x4  | DRY    | No.2   |
| 17 - 2            | 2x4  | DRY    | No.2   |
| 11 - 10           | 2x4  | DRY    | No.2   |
| 17 - 15           | 2x4  | DRY    | No.2   |
| 15 - 14           | 2x4  | DRY    | No.2   |
| 14 - 11           | 2x4  | DRY    | No.2   |

DRY: SEASONED LUMBER.

| PLATES (table is in inches) |          |        |     |     |           |
|-----------------------------|----------|--------|-----|-----|-----------|
| JT                          | TYPE     | PLATES | W   | LEN | Y X       |
| 3                           | TMVW-t   | MT20   | 4.0 | 8.0 | 1.75 3.00 |
| 3                           | TMVW-t   | MT20   | 3.0 | 4.0 | 1.50 1.75 |
| 4                           | TS-t     | MT20   | 3.0 | 6.0 |           |
| 5                           | TTW+p    | MT20   | 4.0 | 4.0 | 2.50 2.25 |
| 6                           | TMVW-t   | MT20   | 3.0 | 4.0 |           |
| 7                           | TTW+p    | MT20   | 4.0 | 4.0 | 2.50 2.25 |
| 8                           | TS-t     | MT20   | 3.0 | 6.0 |           |
| 9                           | TMVW-t   | MT20   | 3.0 | 4.0 | 1.50 1.75 |
| 10                          | TMVW-t   | MT20   | 4.0 | 8.0 | 1.75 Edge |
| 11                          | BMV1+p   | MT20   | 2.0 | 4.0 | 2.25 1.00 |
| 12                          | BMVW-t   | MT20   | 4.0 | 6.0 | 1.75 1.75 |
| 13                          | BMVWWW-t | MT20   | 4.0 | 6.0 |           |
| 14                          | BS-t     | MT20   | 3.0 | 6.0 |           |
| 15                          | BSWWW-I  | MT20   | 5.0 | 8.0 | 3.00 4.00 |
| 16                          | BMVW-t   | MT20   | 4.0 | 6.0 | 1.75 2.00 |
| 17                          | BMV1+p   | MT20   | 2.0 | 4.0 | 2.25 1.00 |

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

A SIZE FOR SIZE SUBSTITUTION OF MITEK MII20 WITH TEE-LOK TL20 PLATES IS ALLOWED.

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

| JT | FACTORED<br>GROSS REACTION |      | MAXIMUM FACTORED<br>GROSS REACTION |      |        | INPUT<br>BRG     | REQRD<br>BRG |
|----|----------------------------|------|------------------------------------|------|--------|------------------|--------------|
|    | VERT                       | HORZ | DOWN                               | HORZ | UPLIFT | IN-SX            | IN-SX        |
| 17 | 1925                       | 0    | 1925                               | 0    | 0      | 5-8              | 5-8          |
| 11 | 1820                       | 0    | 1820                               | 0    | 0      | HANGER BY OTHERS |              |

### UNFACTORED REACTIONS

| 1ST LCASE |          | MAX./MIN. COMPONENT REACTIONS |       |           |       |         |       |
|-----------|----------|-------------------------------|-------|-----------|-------|---------|-------|
| JT        | COMBINED | SNOW                          | LIVE  | PERM.LIVE | WIND  | DEAD    | SOIL  |
| 17        | 1349     | 957 / 0                       | 0 / 0 | 0 / 0     | 0 / 0 | 392 / 0 | 0 / 0 |
| 11        | 1277     | 893 / 0                       | 0 / 0 | 0 / 0     | 0 / 0 | 384 / 0 | 0 / 0 |

BEARING MATERIAL TO BE SPE NO.2 OR BETTER AT JOINT(S) 17

## BRACING

TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 3.39 FT.  
MAX. UNBRACED BOTTOM CHORD LENGTH = 10.00 FT. OR RIGID CEILING DIRECTLY  
APPLIED.

1 - 2x3 SPF No.2 LATERAL BRACE(S) AT 1/ 2 LENGTH OF 3-15, 6-15, 6-13, 9-13. DBS = 20-0-0  
CBF = 72 LBS.

DBS = DIAGONAL BRACE SPACING (MAX). CBF = CUMULATIVE BRACING FORCE. FASTEN LATERAL BRACE(S) USING (0.122"x3") SPIRAL NAILS : 1 NAIL FOR 2x3 BRACE(S), 2 FOR 1x4, 2x4, 2x5, 3 FOR 2x6, 4 FOR 2x8, 5 FOR 2x10, AND 6 FOR 2x12.

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: (3)

| C H O R D S   |             |                  |                  | W E B S       |       |             |              |
|---------------|-------------|------------------|------------------|---------------|-------|-------------|--------------|
| MAX. FACTORED |             | FACTORED         |                  | MAX. FACTORED |       |             |              |
| MEMB.         | FORCE (LBS) | VERT. LOAD (PLF) | LC1 MAX CSI (LC) | MAX. UNBRAC   | MEMB. | FORCE (LBS) | MAX CSI (LC) |
| FR-TO         |             | FROM TO          |                  | LENGTH        | FR-TO |             |              |
| 1-2           | 0 / 23      | -77.3            | -77.3 0.10 (1)   | 10.00         | 16-3  | -156 / 70   | 0.06 (1)     |
| 2-3           | -2774 / 0   | -77.3            | -77.3 0.82 (1)   | 3.39          | 3-15  | -577 / 0    | 0.30 (1)     |
| 3-4           | -2289 / 0   | -77.3            | -77.3 0.71 (1)   | 3.78          | 15-5  | 0 / 657     | 0.15 (1)     |
| 4-5           | -2289 / 0   | -77.3            | -77.3 0.71 (1)   | 3.78          | 15-6  | -229 / 0    | 0.14 (1)     |
| 5-6           | -2024 / 0   | -77.3            | -77.3 0.26 (1)   | 4.52          | 6-13  | -278 / 0    | 0.18 (1)     |
| 6-7           | -2001 / 0   | -77.3            | -77.3 0.26 (1)   | 4.54          | 13-7  | 0 / 651     | 0.15 (1)     |
| 7-8           | -2259 / 0   | -77.3            | -77.3 0.65 (1)   | 3.88          | 13-9  | -470 / 0    | 0.23 (1)     |
| 8-9           | -2259 / 0   | -77.3            | -77.3 0.65 (1)   | 3.88          | 12-9  | -230 / 44   | 0.09 (1)     |
| 9-10          | -2637 / 0   | -77.3            | -77.3 0.74 (1)   | 3.56          | 2-16  | 0 / 2525    | 0.57 (1)     |
| 17-2          | -1869 / 0   | 0.0              | 0.0 0.19 (1)     | 6.13          | 12-10 | 0 / 2412    | 0.54 (1)     |
| 11-10         | -1766 / 0   | 0.0              | 0.0 0.18 (1)     | 6.28          |       |             |              |
| 17-16         | 0 / 0       | -17.5            | -17.5 0.20 (3)   | 10.00         |       |             |              |
| 16-15         | 0 / 2508    | -17.5            | -17.5 0.55 (1)   | 10.00         |       |             |              |
| 15-14         | 0 / 2137    | -17.5            | -17.5 0.49 (1)   | 10.00         |       |             |              |
| 14-13         | 0 / 2137    | -17.5            | -17.5 0.49 (1)   | 10.00         |       |             |              |
| 13-12         | 0 / 2385    | -17.5            | -17.5 0.53 (1)   | 10.00         |       |             |              |
| 12-11         | 0 / 0       | -17.5            | -17.5 0.19 (3)   | 10.00         |       |             |              |

## DESIGN CRITERIA

SPECIFIED LOADS:

|            |     |      |      |     |
|------------|-----|------|------|-----|
| TOP        | CH. | LL = | 23.3 | PSF |
|            |     | DL = | 3.0  | PSF |
| BOT        | CH. | LL = | 0.0  | PSF |
|            |     | DL = | 7.0  | PSF |
| TOTAL LOAD |     | =    | 33.3 | PSF |

SPACING = 24.0 IN. C/C

LOADING IN FLAT SECTION BASED ON A SLOPE  
OF 6.00/12

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

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

(55 % OF 27.2 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 23.3 P.S.F. SPECIFIED ROOF LIVE LOAD

ALLOWABLE DEFL.(LL)= L/360 (1.28")  
CALCULATED VERT. DEFL.(LL) = L/ 999 (0.15")  
ALLOWABLE DEFL.(TL)= L/360 (1.28")  
CALCULATED VERT. DEFL.(TL) = L/ 999 (0.37")

CSI: TC=0.82 (2-3:1) , BC=0.55 (15-16:1) ,  
WB=0.57 (2-16:1) , SSI=0.25 (2-3:1)

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

COMPANION LIVE LOAD FACTOR = 0.50

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

| NAIL VALUES |           |     |       |     |         |      |
|-------------|-----------|-----|-------|-----|---------|------|
| PLATE       | GRIP(DRY) |     | SHEAR |     | SECTION |      |
|             | (PSI)     |     | (PLI) |     | (PLI)   |      |
|             | MAX       | MIN | MAX   | MIN | MAX     | MIN  |
| MT20        | 618       | 354 | 1667  | 822 | 2284    | 1656 |

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

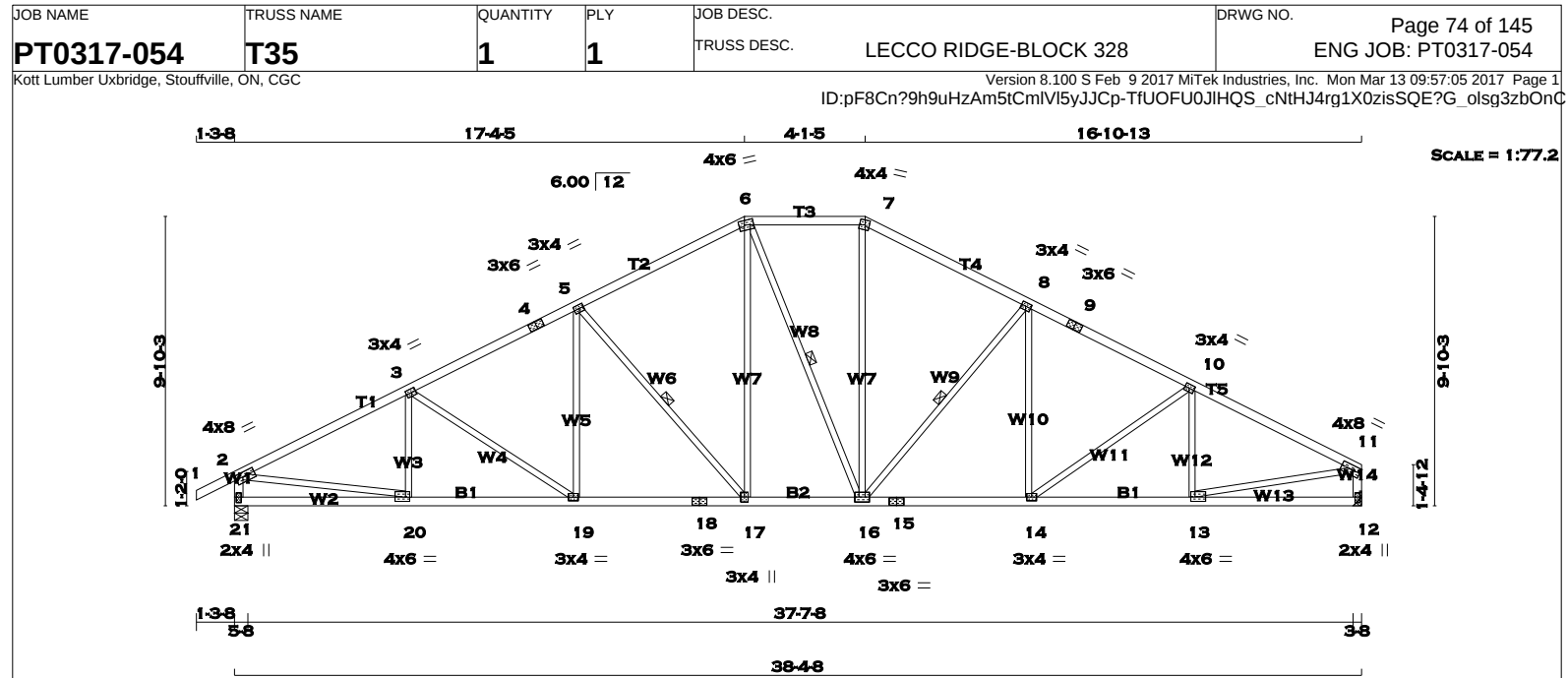
JSI GRIP= 0.90 (5) (INPUT = 0.90 )  
JSI METAL= 0.63 (16) (INPUT = 1.00 )



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**READ ALL NOTES ON THIS PAGE AND ON THE  
ENGINEERING NOTE PAGE ENP-1. THE NOTE PAGE  
IS AN INTEGRAL PART OF THIS DRAWING AS IT  
CONTAINS SPECIFICATIONS AND CRITERIA USED  
IN THE DESIGN OF THIS COMPONENT.**

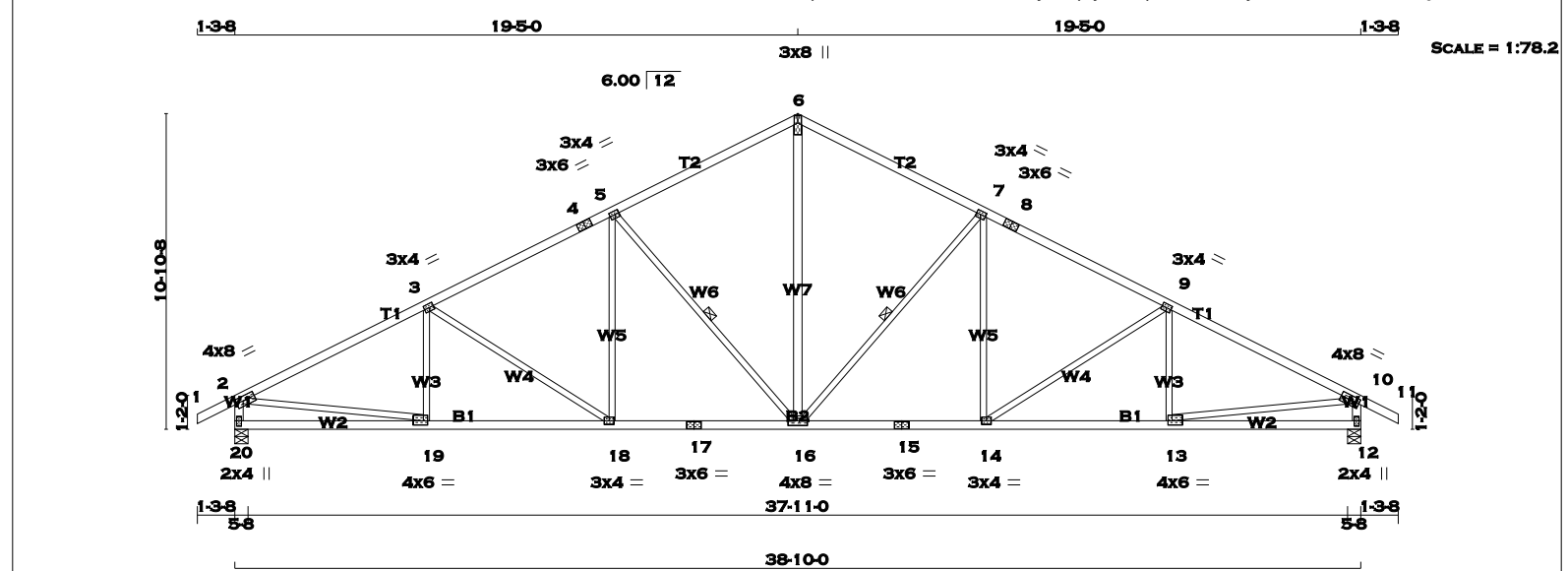




|                                                                                                                                                                                                                                                                                                                                                                                                                       |  |  |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |  |  |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |  |  |  |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|--|--|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|--|--|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|--|--|
| <b>LUMBER</b><br>N. L. G. A. RULES<br>CHORDS SIZE LUMBER DESCR.<br>1 - 4 2x4 DRY No.2 SPF<br>4 - 6 2x4 DRY No.2 SPF<br>6 - 7 2x4 DRY No.2 SPF<br>7 - 9 2x4 DRY No.2 SPF<br>9 - 11 2x4 DRY No.2 SPF<br>21 - 2 2x4 DRY No.2 SPF<br>12 - 11 2x4 DRY No.2 SPF<br>21 - 18 2x4 DRY No.2 SPF<br>18 - 15 2x4 DRY No.2 SPF<br>15 - 12 2x4 DRY No.2 SPF<br><br>ALL WEBS 2x3 DRY No.2 SPF<br>EXCEPT<br><br>DRY: SEASONED LUMBER. |  |  |  | <b>DIMENSIONS, SUPPORTS AND LOADINGS SPECIFIED BY FABRICATOR TO BE VERIFIED BY BUILDING DESIGNER</b><br><b>BEARINGS</b><br>FACTORED MAXIMUM FACTORED INPUT REQ'D<br>GROSS REACTION GROSS REACTION BRG BRG<br>JT VERT HORZ DOWN HORZ UPLIFT IN-SX IN-SX<br>21 1925 0 1925 0 0 5-8 5-8<br>12 1820 0 1820 0 0 HANGER BY OTHERS<br>MIN. SEAT SIZE: 3-8<br><br><b>UNFACTORED REACTIONS</b><br>1ST LCASE MAX./MIN. COMPONENT REACTIONS<br>JT COMBINED SNOW LIVE PERM.LIVE WIND DEAD SOIL<br>21 1349 957 / 0 0 / 0 0 / 0 0 / 0 392 / 0 0 / 0<br>12 1277 893 / 0 0 / 0 0 / 0 0 / 0 384 / 0 0 / 0<br><br>BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S) 21<br><br><b>BRACING</b><br>TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 3.81 FT.<br>MAX. UNBRACED BOTTOM CHORD LENGTH = 10.00 FT. OR RIGID CEILING DIRECTLY APPLIED.<br><br>ALL PITCH BREAKS AND PERIMETER CORNER JOINTS MUST BE Laterally RESTRAINED.<br><br>1 - 2x3 SPF No.2 LATERAL BRACE(S) AT 1/2 LENGTH OF 5-17, 6-16, 8-16. DBS = 20-0-0. CBF = 84 LBS.<br><br>DBS = DIAGONAL BRACE SPACING (MAX). CBF = CUMULATIVE BRACING FORCE. FASTEN LATERAL BRACE(S) USING (0.122"x3") SPIRAL NAILS : 1 NAIL FOR 2x3 BRACE(S), 2 FOR 1x4, 2x4, 2x5, 3 FOR 2x6, 4 FOR 2x8, 5 FOR 2x10, AND 6 FOR 2x12.<br><br>END VERTICAL(S) MUST BE SHEATHED OR HAVE BRACES AS INDICATED IN THE MAX. UNBRACED LENGTH COLUMN OF THE TABLE BELOW<br><br><b>LOADING</b><br>TOTAL LOAD CASES: (3)<br><br>C H O R D S W E B S<br>MAX. FACTORED MAX. FACTORED MAX. FACTORED<br>MEMB. FORCE VERT. LOAD LC1 MAX. MAX. MEMB. FORCE MAX.<br>(LBS) (PLF) CSI (LC) UNBRAC (LBS) CSI (LC)<br>FR-TO FROM TO LENGTH FR-TO<br>1-2 0 / 23 -77.3 -77.3 0.10 (1) 10.00 20-3 -249 / 21 0.06 (1)<br>2-3 -2732 / 0 -77.3 -77.3 0.47 (1) 3.81 3-19 -249 / 0 0.22 (1)<br>3-4 -2519 / 0 -77.3 -77.3 0.39 (1) 4.05 19-5 0 / 243 0.05 (1)<br>4-5 -2519 / 0 -77.3 -77.3 0.39 (1) 4.05 5-17 -675 / 0 0.37 (1)<br>5-6 -2043 / 0 -77.3 -77.3 0.37 (1) 4.41 17-6 0 / 589 0.13 (1)<br>6-7 -1808 / 0 -77.3 -77.3 0.21 (1) 4.79 6-16 -21 / 0 0.02 (1)<br>7-8 -2034 / 0 -77.3 -77.3 0.35 (1) 4.44 16-7 0 / 571 0.13 (1)<br>8-9 -2450 / 0 -77.3 -77.3 0.36 (1) 4.11 16-8 -607 / 0 0.32 (1)<br>9-10 -2450 / 0 -77.3 -77.3 0.36 (1) 4.11 14-8 0 / 185 0.05 (3)<br>10-11 -2569 / 0 -77.3 -77.3 0.43 (1) 3.96 14-10 -151 / 0 0.13 (1)<br>21-2 -1879 / 0 0.0 0.0 0.19 (1) 6.12 13-10 -330 / 0 0.09 (1)<br>12-11 -1776 / 0 0.0 0.0 0.18 (1) 6.26 2-20 0 / 2485 0.56 (1)<br>13-12 0 / 0 -17.5 -17.5 0.12 (3) 10.00 13-11 0 / 2355 0.53 (1)<br><br>21-20 0 / 0 -17.5 -17.5 0.13 (3) 10.00<br>20-19 0 / 2460 -17.5 -17.5 0.45 (1) 10.00<br>19-18 0 / 2253 -17.5 -17.5 0.42 (1) 10.00<br>18-17 0 / 2253 -17.5 -17.5 0.42 (1) 10.00<br>17-16 0 / 1816 -17.5 -17.5 0.35 (1) 10.00<br>16-15 0 / 2191 -17.5 -17.5 0.41 (1) 10.00<br>15-14 0 / 2191 -17.5 -17.5 0.41 (1) 10.00<br>14-13 0 / 2314 -17.5 -17.5 0.42 (1) 10.00<br>13-12 0 / 0 -17.5 -17.5 0.12 (3) 10.00 |  |  |  | <b>DESIGN CRITERIA</b><br><br>SPECIFIED LOADS:<br>TOP CH. LL = 23.3 PSF<br>DL = 3.0 PSF<br>BOT CH. LL = 0.0 PSF<br>DL = 7.0 PSF<br>TOTAL LOAD = 33.3 PSF<br><br><b>SPACING = 24.0 IN. C/C</b><br><br>LOADING IN FLAT SECTION BASED ON A SLOPE OF 6.00/12<br><br>THIS TRUSS IS DESIGNED FOR RESIDENTIAL OR SMALL BUILDING REQUIREMENTS OF PART 9, NBCC 2010<br><br>THIS DESIGN COMPLIES WITH:<br>- PART 9 OF OBC 2012, BCBC 2012, ABC 2014<br>- CSA 086-09<br>- TPIC 2011<br><br>(55 % OF 27.2 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 23.3 P.S.F. SPECIFIED ROOF LIVE LOAD<br><br>ALLOWABLE DEFL.(LL)= L/360 (1.28")<br>CALCULATED VERT. DEFL.(LL) = L/999 (0.15")<br>ALLOWABLE DEFL.(TL)= L/360 (1.28")<br>CALCULATED VERT. DEFL.(TL) = L/999 (0.28")<br><br>CSI: TC=0.47 (2-3:1), BC=0.45 (19-20:1), WB=0.56 (2-20:1), SSI=0.19 (2-3:1)<br><br>DOL LUMBER=1.00 NAIL=1.00 LS BEND=1.10 COMP=1.10 SHEAR=1.10 TENS= 1.10<br><br>COMPANION LIVE LOAD FACTOR = 0.50<br><br>TRUSS PLATE MANUFACTURER IS NOT RESPONSIBLE FOR QUALITY CONTROL IN THE TRUSS MANUFACTURING PLANT .<br><br>NAIL VALUES<br>PLATE GRIP(DRY) SHEAR SECTION (PSI) (PLI) (PLI)<br>MAX MIN MAX MIN MAX MIN<br>MT20 618 354 1667 822 2284 1656<br><br>PLATE PLACEMENT TOL. = 0.250 inches<br><br>PLATE ROTATION TOL. = 5.0 Deg.<br><br>JSI GRIP= 0.89 (7) (INPUT = 0.90 )<br>JSI METAL= 0.62 (18) (INPUT = 1.00 ) |  |  |  |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|--|--|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|--|--|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|--|--|

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IS AN INTEGRAL PART OF THIS DRAWING AS IT  
CONTAINS SPECIFICATIONS AND CRITERIA USED  
IN THE DESIGN OF THIS COMPONENT.



TOTAL WEIGHT = 6 X 166 = 996 lb  
[M][F]

| LUMBER            |      |        |        |
|-------------------|------|--------|--------|
| N. L. G. A. RULES |      |        |        |
| CHORDS            | SIZE | LUMBER | DESCR. |
| 1 - 4             | 2x4  | DRY    | No.2   |
| 4 - 6             | 2x4  | DRY    | No.2   |
| 6 - 8             | 2x4  | DRY    | No.2   |
| 8 - 11            | 2x4  | DRY    | No.2   |
| 20 - 2            | 2x4  | DRY    | No.2   |
| 12 - 10           | 2x4  | DRY    | No.2   |
| 20 - 17           | 2x4  | DRY    | No.2   |
| 17 - 15           | 2x4  | DRY    | No.2   |
| 15 - 12           | 2x4  | DRY    | No.2   |
| ALL WEBS EXCEPT   | 2x3  | DRY    | No.2   |
| 16 - 6            | 2x4  | DRY    | No.2   |

DRY: SEASONED LUMBER.

| PLATES (table is in inches) |         |        |     |     |           |
|-----------------------------|---------|--------|-----|-----|-----------|
| JT                          | TYPE    | PLATES | W   | LEN | X         |
| 2                           | TMVW-t  | MT20   | 4.0 | 8.0 | 1.75 3.00 |
| 3, 5, 7, 9                  |         |        |     |     |           |
| 3                           | TMWW-t  | MT20   | 3.0 | 4.0 | 1.50 1.75 |
| 4                           | TS-t    | MT20   | 3.0 | 6.0 |           |
| 6                           | TTW+p   | MT20   | 3.0 | 8.0 | Edge      |
| 8                           | TS-t    | MT20   | 3.0 | 6.0 |           |
| 10                          | TMVW-t  | MT20   | 4.0 | 8.0 | 1.75 3.00 |
| 12                          | BMV1+p  | MT20   | 2.0 | 4.0 | 2.25 1.00 |
| 13                          | BMWW-t  | MT20   | 4.0 | 6.0 | 1.75 1.75 |
| 14                          | BMWW-t  | MT20   | 3.0 | 4.0 |           |
| 15                          | BS-t    | MT20   | 3.0 | 6.0 |           |
| 16                          | BMWWW-t | MT20   | 4.0 | 8.0 |           |
| 17                          | BS-t    | MT20   | 3.0 | 6.0 |           |
| 18                          | BMWW-t  | MT20   | 3.0 | 4.0 |           |
| 19                          | BMWW-t  | MT20   | 4.0 | 6.0 | 1.75 1.75 |
| 20                          | BMV1+p  | MT20   | 2.0 | 4.0 | 2.25 1.00 |

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

A SIZE FOR SIZE SUBSTITUTION OF MITEK MII20 WITH TEE-LOK TL20 PLATES IS ALLOWED.

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

| BEARINGS                |      |                                 |      |
|-------------------------|------|---------------------------------|------|
| FACTORED GROSS REACTION |      | MAXIMUM FACTORED GROSS REACTION |      |
| JT                      | VERT | DOWN                            | HORZ |
| 20                      | 1947 | 0                               | 1947 |
| 12                      | 1947 | 0                               | 1947 |

| UNFACTORED REACTIONS |          |                               |       |           |       |         |       |
|----------------------|----------|-------------------------------|-------|-----------|-------|---------|-------|
| 1ST LCASE            |          | MAX./MIN. COMPONENT REACTIONS |       |           |       |         |       |
| JT                   | COMBINED | SNOW                          | LIVE  | PERM.LIVE | WIND  | DEAD    | SOIL  |
| 20                   | 1364     | 967 / 0                       | 0 / 0 | 0 / 0     | 0 / 0 | 396 / 0 | 0 / 0 |
| 12                   | 1364     | 967 / 0                       | 0 / 0 | 0 / 0     | 0 / 0 | 396 / 0 | 0 / 0 |

BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S) 20, 12

**BRACING**  
TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 3.66 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 - 2x3 SPF No.2 LATERAL BRACE(S) AT 1/2 LENGTH OF 7-16, 5-16. DBS = 18-0-0 . CBF = 88 LBS.

DBS = DIAGONAL BRACE SPACING (MAX). CBF = CUMULATIVE BRACING FORCE. FASTEN LATERAL BRACE(S) USING (0.122"x3") SPIRAL NAILS : 1 NAIL FOR 2x3 BRACE(S), 2 FOR 1x4, 2x4, 2x5, 3 FOR 2x6, 4 FOR 2x8, 5 FOR 2x10, AND 6 FOR 2x12.

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: (3)

| CHORDS |                           |                           |                  | WEBS                 |       |                           |              |
|--------|---------------------------|---------------------------|------------------|----------------------|-------|---------------------------|--------------|
| MEMB.  | MAX. FACTORED FORCE (LBS) | FACTORED VERT. LOAD (PLF) | LC1 MAX CSI (LC) | MAX. UNBRACED LENGTH | MEMB. | MAX. FACTORED FORCE (LBS) | MAX CSI (LC) |
| FR-TO  |                           | FROM TO                   |                  |                      | FR-TO |                           |              |
| 1-2    | 0 / 23                    | -77.3                     | -77.3 0.10 (1)   | 10.00                | 16-6  | 0 / 1299                  | 0.21 (1)     |
| 2-3    | -2790 / 0                 | -77.3                     | -77.3 0.61 (1)   | 3.66                 | 16-7  | -783 / 0                  | 0.53 (1)     |
| 3-4    | -2473 / 0                 | -77.3                     | -77.3 0.48 (1)   | 3.99                 | 14-7  | 0 / 305                   | 0.07 (1)     |
| 4-5    | -2473 / 0                 | -77.3                     | -77.3 0.48 (1)   | 3.99                 | 14-9  | -360 / 0                  | 0.43 (1)     |
| 5-6    | -1920 / 0                 | -77.3                     | -77.3 0.46 (1)   | 4.41                 | 13-9  | -203 / 47                 | 0.06 (1)     |
| 6-7    | -1920 / 0                 | -77.3                     | -77.3 0.46 (1)   | 4.41                 | 5-16  | -783 / 0                  | 0.53 (1)     |
| 7-8    | -2473 / 0                 | -77.3                     | -77.3 0.48 (1)   | 3.99                 | 18-5  | 0 / 305                   | 0.07 (1)     |
| 8-9    | -2473 / 0                 | -77.3                     | -77.3 0.48 (1)   | 3.99                 | 3-18  | -360 / 0                  | 0.43 (1)     |
| 9-10   | -2790 / 0                 | -77.3                     | -77.3 0.61 (1)   | 3.66                 | 19-3  | -203 / 47                 | 0.06 (1)     |
| 10-11  | 0 / 23                    | -77.3                     | -77.3 0.10 (1)   | 10.00                | 2-19  | 0 / 2535                  | 0.57 (1)     |
| 20-2   | -1897 / 0                 | 0.0                       | 0.0 0.19 (1)     | 6.10                 | 13-10 | 0 / 2535                  | 0.57 (1)     |
| 12-10  | -1897 / 0                 | 0.0                       | 0.0 0.19 (1)     | 6.10                 |       |                           |              |

|       |          |             |          |       |
|-------|----------|-------------|----------|-------|
| 20-19 | 0 / 0    | -17.5 -17.5 | 0.17 (3) | 10.00 |
| 19-18 | 0 / 2514 | -17.5 -17.5 | 0.48 (1) | 10.00 |
| 18-17 | 0 / 2212 | -17.5 -17.5 | 0.44 (1) | 10.00 |
| 17-16 | 0 / 2212 | -17.5 -17.5 | 0.44 (1) | 10.00 |
| 16-15 | 0 / 2212 | -17.5 -17.5 | 0.44 (1) | 10.00 |
| 15-14 | 0 / 2212 | -17.5 -17.5 | 0.44 (1) | 10.00 |
| 14-13 | 0 / 2514 | -17.5 -17.5 | 0.48 (1) | 10.00 |
| 13-12 | 0 / 0    | -17.5 -17.5 | 0.17 (3) | 10.00 |

DESIGN CRITERIA

SPECIFIED LOADS:  
TOP CH. LL = 23.3 PSF  
DL = 3.0 PSF  
BOT CH. LL = 0.0 PSF  
DL = 7.0 PSF  
TOTAL LOAD = 33.3 PSF

SPACING = 24.0 IN./C/C

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

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

(55 % OF 27.2 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 23.3 P.S.F. SPECIFIED ROOF LIVE LOAD

ALLOWABLE DEFL.(LL)= L/360 (1.29")  
CALCULATED VERT. DEFL.(LL) = L/ 999 (0.16")  
ALLOWABLE DEFL.(TL)= L/360 (1.29")  
CALCULATED VERT. DEFL.(TL) = L/ 999 (0.30")

CSI: TC=0.61 (9-10:1) , BC=0.48 (13-14:1) , WB=0.57 (2-19:1) , SSI=0.21 (9-10:1)

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

COMPANION LIVE LOAD FACTOR = 0.50

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

NAIL VALUES  
PLATE GRIP(DRY) SHEAR SECTION  
(PSI) (PLI) (PLI)  
MAX MIN MAX MIN MAX MIN  
MT20 618 354 1667 822 2284 1656

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

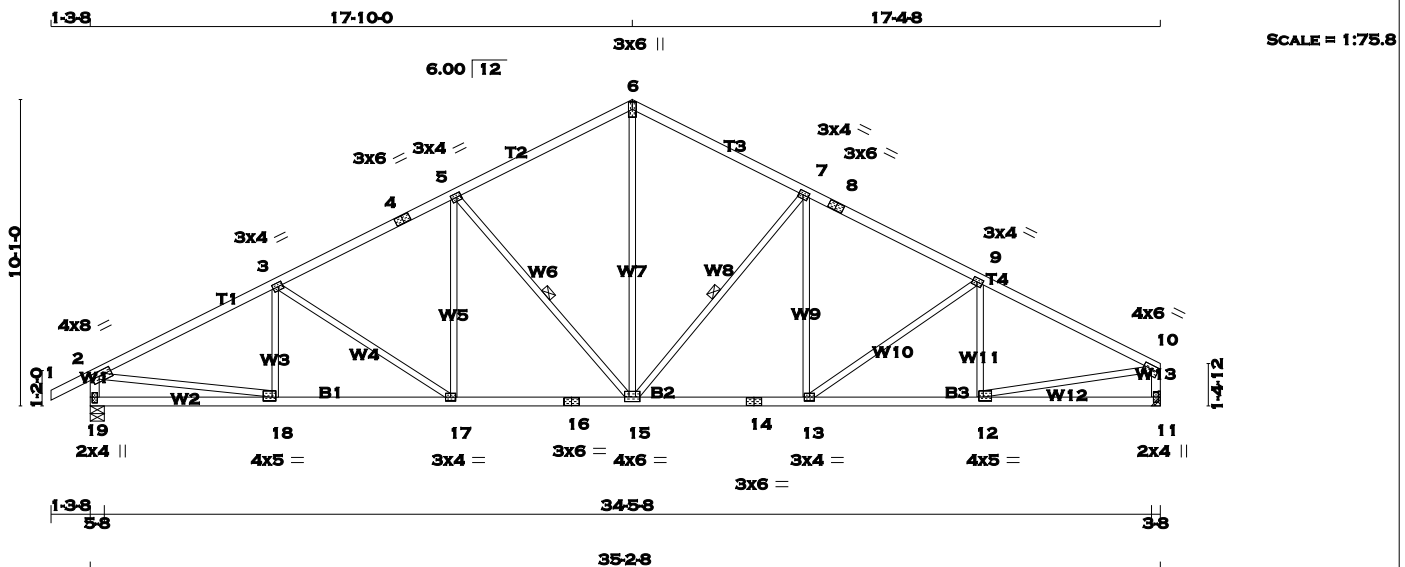
JSI GRIP= 0.90 (6) (INPUT = 0.90 )  
JSI METAL= 0.63 (19) (INPUT = 1.00 )



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TOTAL WEIGHT = 7 X 148 = 1034 lb

| LUMBER                |      | N. L. G. A. RULES |      | LUMBER | DESCR. |     |
|-----------------------|------|-------------------|------|--------|--------|-----|
| CHORDS                | SIZE |                   |      |        |        |     |
| 1 - 4                 | 2x4  | DRY               | No.2 | SPF    | SPF    |     |
| 4 - 6                 | 2x4  | DRY               | No.2 |        |        |     |
| 6 - 8                 | 2x4  | DRY               | No.2 |        |        |     |
| 8 - 10                | 2x4  | DRY               | No.2 |        |        |     |
| 19- 2                 | 2x4  | DRY               | No.2 |        |        |     |
| 11- 10                | 2x4  | DRY               | No.2 |        |        |     |
| 19- 16                | 2x4  | DRY               | No.2 |        |        |     |
| 16- 14                | 2x4  | DRY               | No.2 |        |        |     |
| 14- 11                | 2x4  | DRY               | No.2 |        |        |     |
| ALL WEBS EXCEPT       | 2x3  | DRY               | No.2 |        |        | SPF |
| DRY: SEASONED LUMBER. |      |                   |      |        |        |     |

| PLATES (table is in inches) |          |        |     |     |      |      |
|-----------------------------|----------|--------|-----|-----|------|------|
| JT                          | TYPE     | PLATES | W   | LEN | Y    | X    |
| 2                           | TMVW-t   | MT20   | 4.0 | 8.0 | 1.75 | 3.00 |
| 3, 5, 7, 9                  |          |        |     |     |      |      |
| 3                           | TMVW-t   | MT20   | 3.0 | 4.0 | 1.50 | 1.75 |
| 4                           | TS-t     | MT20   | 3.0 | 6.0 |      |      |
| 6                           | TTW+p    | MT20   | 3.0 | 6.0 |      |      |
| 8                           | TS-t     | MT20   | 3.0 | 6.0 |      |      |
| 10                          | TMVW-t   | MT20   | 4.0 | 6.0 | 1.50 | 2.75 |
| 11                          | BMV1+p   | MT20   | 2.0 | 4.0 |      |      |
| 12                          | BMVW-t   | MT20   | 4.0 | 5.0 | 1.50 | 1.75 |
| 13                          | BMVW-t   | MT20   | 3.0 | 4.0 |      |      |
| 14                          | BS-t     | MT20   | 3.0 | 6.0 |      |      |
| 15                          | BMVWVW-t | MT20   | 4.0 | 6.0 | 1.75 | 3.00 |
| 16                          | BS-t     | MT20   | 3.0 | 6.0 |      |      |
| 17                          | BMVW-t   | MT20   | 3.0 | 4.0 |      |      |
| 18                          | BMVW-t   | MT20   | 4.0 | 5.0 | 1.50 | 1.50 |
| 19                          | BMV1+p   | MT20   | 2.0 | 4.0 | 2.25 | 1.00 |

A SIZE FOR SIZE SUBSTITUTION OF MITEK MII20 WITH TEE-LOK TL20 PLATES IS ALLOWED.

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

| FACTORED |                |      | MAXIMUM FACTORED |      |        | INPUT            | REQRD               |
|----------|----------------|------|------------------|------|--------|------------------|---------------------|
| JT       | GROSS REACTION |      | GROSS REACTION   |      |        | BRG              | BRG                 |
|          | VERT           | HORZ | DOWN             | HORZ | UPLIFT | IN-SX            | IN-SX               |
| 19       | 1775           | 0    | 1775             | 0    | 0      | 5-8              | 5-8                 |
| 11       | 1670           | 0    | 1670             | 0    | 0      | HANGER BY OTHERS |                     |
|          |                |      |                  |      |        |                  | MIN. SEAT SIZE: 3-8 |

| UNFACTORED REACTIONS |          | 1ST LCASE |       | MAX./MIN. COMPONENT REACTIONS |       | LIVE  |       | PERM.LIVE |       | WIND    |       | DEAD    |       | SOIL  |       |
|----------------------|----------|-----------|-------|-------------------------------|-------|-------|-------|-----------|-------|---------|-------|---------|-------|-------|-------|
| JT                   | COMBINED | SNOW      |       |                               |       |       |       |           |       |         |       |         |       |       |       |
| 19                   | 1243     | 883 / 0   | 0 / 0 | 0 / 0                         | 0 / 0 | 0 / 0 | 0 / 0 | 360 / 0   | 0 / 0 | 352 / 0 | 0 / 0 | 360 / 0 | 0 / 0 | 0 / 0 | 0 / 0 |
| 11                   | 1172     | 820 / 0   | 0 / 0 | 0 / 0                         | 0 / 0 | 0 / 0 | 0 / 0 | 352 / 0   | 0 / 0 | 352 / 0 | 0 / 0 | 352 / 0 | 0 / 0 | 0 / 0 | 0 / 0 |

BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S) 19

**BRACING**  
TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 3.98 FT.  
MAX. UNBRACED BOTTOM CHORD LENGTH = 10.00 FT. OR RIGID CEILING DIRECTLY APPLIED.

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

1 - 2x3 SPF No.2 LATERAL BRACE(S) AT 1/2 LENGTH OF 5-15, 7-15. DBS = 20-0-0. CBF = 89 LBS.

DBS = DIAGONAL BRACE SPACING (MAX). CBF = CUMULATIVE BRACING FORCE. FASTEN LATERAL BRACE(S) USING (0.122"x3") SPIRAL NAILS : 1 NAIL FOR 2x3 BRACE(S), 2 FOR 1x4, 2x4, 2x5, 3 FOR 2x6, 4 FOR 2x8, 5 FOR 2x10, AND 6 FOR 2x12.

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: (3) |               |
|-------------|---------------|-----------------------|---------------|
| C H O R D S |               | W E B S               |               |
| MEMB.       | MAX. FACTORED | MEMB.                 | MAX. FACTORED |
| FR-TO       | FORCE (LBS)   | FR-TO                 | FORCE (LBS)   |
| 1-2         | 0 / 23        | 18-3                  | -202 / 38     |
| 2-3         | -2477 / 0     | 3-17                  | -313 / 0      |
| 3-4         | -2205 / 0     | 17-5                  | 0 / 273       |
| 4-5         | -2205 / 0     | 5-15                  | -710 / 0      |
| 5-6         | -1706 / 0     | 15-6                  | 0 / 1146      |
| 6-7         | -1706 / 0     | 15-7                  | -650 / 0      |
| 7-8         | -2151 / 0     | 13-7                  | 0 / 224       |
| 8-9         | -2151 / 0     | 13-9                  | -222 / 0      |
| 9-10        | -2334 / 0     | 12-9                  | -275 / 15     |
| 19-2        | -1729 / 0     | 6-33                  | 0 / 2255      |
| 11-10       | -1625 / 0     | 6-49                  | 0 / 2139      |

|       |          |       |       |          |       |
|-------|----------|-------|-------|----------|-------|
| 19-18 | 0 / 0    | -17.5 | -17.5 | 0.14 (3) | 10.00 |
| 18-17 | 0 / 2233 | -17.5 | -17.5 | 0.42 (1) | 10.00 |
| 17-16 | 0 / 1972 | -17.5 | -17.5 | 0.39 (1) | 10.00 |
| 16-15 | 0 / 1972 | -17.5 | -17.5 | 0.39 (1) | 10.00 |
| 15-14 | 0 / 1923 | -17.5 | -17.5 | 0.38 (1) | 10.00 |
| 14-13 | 0 / 1923 | -17.5 | -17.5 | 0.38 (1) | 10.00 |
| 13-12 | 0 / 2104 | -17.5 | -17.5 | 0.40 (1) | 10.00 |
| 12-11 | 0 / 0    | -17.5 | -17.5 | 0.14 (3) | 10.00 |

#### DESIGN CRITERIA

SPECIFIED LOADS:  
TOP CH. LL = 23.3 PSF  
DL = 3.0 PSF  
BOT CH. LL = 0.0 PSF  
DL = 7.0 PSF  
TOTAL LOAD = 33.3 PSF

SPACING = 24.0 IN./C

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

THIS DESIGN COMPLIES WITH:  
- PART 9 OF OBC 2012, BCBC 2012, ABC 2014  
- CSA 086-09  
- TPC 2011

(55 % OF 27.2 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 23.3 P.S.F. SPECIFIED ROOF LIVE LOAD

ALLOWABLE DEFL.(LL)= L/360 (1.17")  
CALCULATED VERT. DEFL.(LL) = L/ 999 (0.13")  
ALLOWABLE DEFL.(TL)= L/360 (1.17")  
CALCULATED VERT. DEFL.(TL) = L/ 999 (0.24")

CSI: TC=0.47 (2-3:1), BC=0.42 (17-18:1), WB=0.51 (2-18:1), SSI=0.19 (2-3:1)

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

COMPANION LIVE LOAD FACTOR = 0.50

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

NAIL VALUES  
PLATE GRIP(DRY) SHEAR SECTION  
(PSI) (PLI) (PLI)  
MAX MIN MAX MIN MAX MIN  
MT20 618 354 1667 822 2284 1656

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

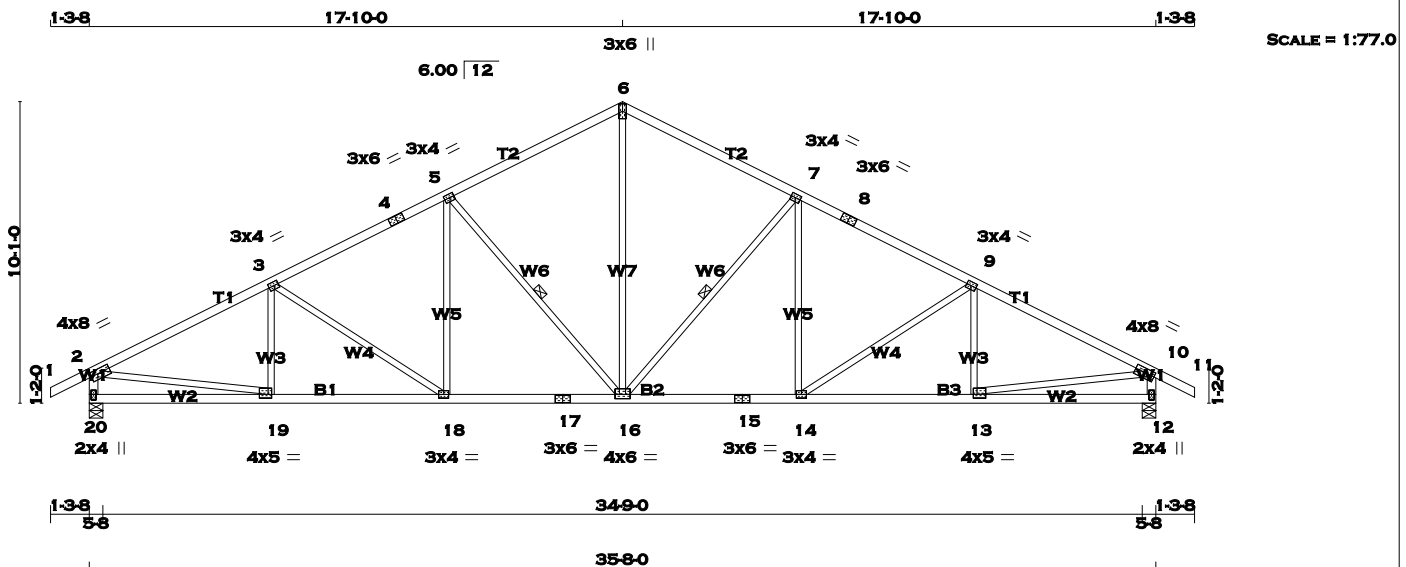
JSI GRIP= 0.90 (12) (INPUT = 0.90)  
JSI METAL= 0.67 (18) (INPUT = 1.00)



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TOTAL WEIGHT = 12 X 150 = 1802 lb

| LUMBER            |      |        |        |
|-------------------|------|--------|--------|
| N. L. G. A. RULES |      |        |        |
| CHORDS            | SIZE | LUMBER | DESCR. |
| 1 - 4             | 2x4  | DRY    | No.2   |
| 4 - 6             | 2x4  | DRY    | No.2   |
| 6 - 8             | 2x4  | DRY    | No.2   |
| 8 - 11            | 2x4  | DRY    | No.2   |
| 20 - 2            | 2x4  | DRY    | No.2   |
| 12 - 10           | 2x4  | DRY    | No.2   |
| 20 - 17           | 2x4  | DRY    | No.2   |
| 17 - 15           | 2x4  | DRY    | No.2   |
| 15 - 12           | 2x4  | DRY    | No.2   |
| ALL WEBS EXCEPT   | 2x3  | DRY    | No.2   |

DRY: SEASONED LUMBER.

| PLATES (table is in inches) |         |        |     |     |           |
|-----------------------------|---------|--------|-----|-----|-----------|
| JT                          | TYPE    | PLATES | W   | LEN | Y X       |
| 2                           | TMVW-t  | MT20   | 4.0 | 8.0 | 1.75 3.00 |
| 3, 5, 7, 9                  |         |        |     |     |           |
| 3                           | TMVW-t  | MT20   | 3.0 | 4.0 | 1.50 1.75 |
| 4                           | TS-t    | MT20   | 3.0 | 6.0 |           |
| 6                           | TTW+p   | MT20   | 3.0 | 6.0 |           |
| 8                           | TS-t    | MT20   | 3.0 | 6.0 |           |
| 10                          | TMVW-t  | MT20   | 4.0 | 8.0 | 1.75 3.00 |
| 12                          | BMV1+p  | MT20   | 2.0 | 4.0 | 2.25 1.00 |
| 13                          | BMWW-t  | MT20   | 4.0 | 5.0 | 1.50 1.50 |
| 14                          | BMWW-t  | MT20   | 3.0 | 4.0 |           |
| 15                          | BS-t    | MT20   | 3.0 | 6.0 |           |
| 16                          | BMWWW-t | MT20   | 4.0 | 6.0 | 1.75 3.00 |
| 17                          | BS-t    | MT20   | 3.0 | 6.0 |           |
| 18                          | BMWW-t  | MT20   | 3.0 | 4.0 |           |
| 19                          | BMWW-t  | MT20   | 4.0 | 5.0 | 1.50 1.50 |
| 20                          | BMV1+p  | MT20   | 2.0 | 4.0 | 2.25 1.00 |

A SIZE FOR SIZE SUBSTITUTION OF MITEK MII20 WITH TEE-LOK TL20 PLATES IS ALLOWED.

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

| BEARINGS                |      |                                 |      |
|-------------------------|------|---------------------------------|------|
| FACTORED GROSS REACTION |      | MAXIMUM FACTORED GROSS REACTION |      |
| JT                      | VERT | DOWN                            | HORZ |
| 20                      | 1796 | 0                               | 1796 |
| 12                      | 1796 | 0                               | 1796 |

| UNFACTORED REACTIONS |          |                               |       |           |       |         |       |
|----------------------|----------|-------------------------------|-------|-----------|-------|---------|-------|
| 1ST LCASE            |          | MAX./MIN. COMPONENT REACTIONS |       |           |       |         |       |
| JT                   | COMBINED | SNOW                          | LIVE  | PERM.LIVE | WIND  | DEAD    | SOIL  |
| 20                   | 1258     | 894 / 0                       | 0 / 0 | 0 / 0     | 0 / 0 | 365 / 0 | 0 / 0 |
| 12                   | 1258     | 894 / 0                       | 0 / 0 | 0 / 0     | 0 / 0 | 365 / 0 | 0 / 0 |

BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S) 20, 12

**BRACING**  
TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 3.95 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 - 2x3 SPF No.2 LATERAL BRACE(S) AT 1/2 LENGTH OF 7-16, 5-16. DBS = 20-0-0. CBF = 88 LBS.

DBS = DIAGONAL BRACE SPACING (MAX). CBF = CUMULATIVE BRACING FORCE. FASTEN LATERAL BRACE(S) USING (0.122"x3") SPIRAL NAILS : 1 NAIL FOR 2x3 BRACE(S), 2 FOR 1x4, 2x4, 2x5, 3 FOR 2x6, 4 FOR 2x8, 5 FOR 2x10, AND 6 FOR 2x12.

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

| CHORDS |                           |                           |              | WEBS                 |       |                           |              |
|--------|---------------------------|---------------------------|--------------|----------------------|-------|---------------------------|--------------|
| MEMB.  | MAX. FACTORED FORCE (LBS) | FACTORED VERT. LOAD (PLF) | MAX LC1 (LC) | MAX. UNBRACED LENGTH | MEMB. | MAX. FACTORED FORCE (LBS) | MAX LC1 (LC) |
| FR-TO  |                           | FROM TO                   |              |                      | FR-TO |                           |              |
| 1-2    | 0 / 23                    | -77.3 -77.3               | 0.10 (1)     | 10.00                | 16-6  | 0 / 1181                  | 0.27 (1)     |
| 2-3    | -2515 / 0                 | -77.3 -77.3               | 0.47 (1)     | 3.95                 | 16-7  | -708 / 0                  | 0.40 (1)     |
| 3-4    | -2247 / 0                 | -77.3 -77.3               | 0.38 (1)     | 4.24                 | 14-7  | 0 / 270                   | 0.06 (1)     |
| 4-5    | -2247 / 0                 | -77.3 -77.3               | 0.38 (1)     | 4.24                 | 14-9  | -308 / 0                  | 0.29 (1)     |
| 5-6    | -1751 / 0                 | -77.3 -77.3               | 0.37 (1)     | 4.68                 | 13-9  | -207 / 37                 | 0.06 (1)     |
| 6-7    | -1751 / 0                 | -77.3 -77.3               | 0.37 (1)     | 4.68                 | 5-16  | -708 / 0                  | 0.40 (1)     |
| 7-8    | -2247 / 0                 | -77.3 -77.3               | 0.38 (1)     | 4.24                 | 18-5  | 0 / 270                   | 0.06 (1)     |
| 8-9    | -2247 / 0                 | -77.3 -77.3               | 0.38 (1)     | 4.24                 | 3-18  | -308 / 0                  | 0.29 (1)     |
| 9-10   | -2515 / 0                 | -77.3 -77.3               | 0.47 (1)     | 3.95                 | 19-3  | -207 / 37                 | 0.06 (1)     |
| 10-11  | 0 / 23                    | -77.3 -77.3               | 0.10 (1)     | 10.00                | 2-19  | 0 / 2289                  | 0.52 (1)     |
| 20-2   | -1750 / 0                 | 0.0                       | 0.0 0.18 (1) | 6.30                 | 13-10 | 0 / 2289                  | 0.52 (1)     |
| 12-10  | -1750 / 0                 | 0.0                       | 0.0 0.18 (1) | 6.30                 |       |                           |              |
| 20-19  | 0 / 0                     | -17.5 -17.5               | 0.14 (3)     | 10.00                |       |                           |              |
| 19-18  | 0 / 2266                  | -17.5 -17.5               | 0.42 (1)     | 10.00                |       |                           |              |
| 18-17  | 0 / 2010                  | -17.5 -17.5               | 0.40 (1)     | 10.00                |       |                           |              |
| 17-16  | 0 / 2010                  | -17.5 -17.5               | 0.40 (1)     | 10.00                |       |                           |              |
| 16-15  | 0 / 2010                  | -17.5 -17.5               | 0.40 (1)     | 10.00                |       |                           |              |
| 15-14  | 0 / 2010                  | -17.5 -17.5               | 0.40 (1)     | 10.00                |       |                           |              |
| 14-13  | 0 / 2266                  | -17.5 -17.5               | 0.42 (1)     | 10.00                |       |                           |              |
| 13-12  | 0 / 0                     | -17.5 -17.5               | 0.14 (3)     | 10.00                |       |                           |              |

DESIGN CRITERIA

SPECIFIED LOADS:  
TOP CH. LL = 23.3 PSF  
DL = 3.0 PSF  
BOT CH. LL = 0.0 PSF  
DL = 7.0 PSF  
TOTAL LOAD = 33.3 PSF

SPACING = 24.0 IN./C

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

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

(55 % OF 27.2 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 23.3 P.S.F. SPECIFIED ROOF LIVE LOAD

ALLOWABLE DEFL.(LL)= L/360 (1.19")  
CALCULATED VERT. DEFL.(LL) = L/ 999 (0.14")  
ALLOWABLE DEFL.(TL)= L/360 (1.19")  
CALCULATED VERT. DEFL.(TL) = L/ 999 (0.25")

CSI: TC=0.47 (2-3:1), BC=0.42 (13-14:1), WB=0.52 (10-13:1), SSI=0.19 (2-3:1)

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

COMPANION LIVE LOAD FACTOR = 0.50

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

NAIL VALUES  
PLATE GRIP(DRY) SHEAR SECTION  
(PSI) (PLI) (PLI)  
MAX MIN MAX MIN MAX MIN  
MT20 618 354 1667 822 2284 1656

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.88 (16) (INPUT = 0.90)  
JSI METAL= 0.68 (13) (INPUT = 1.00)



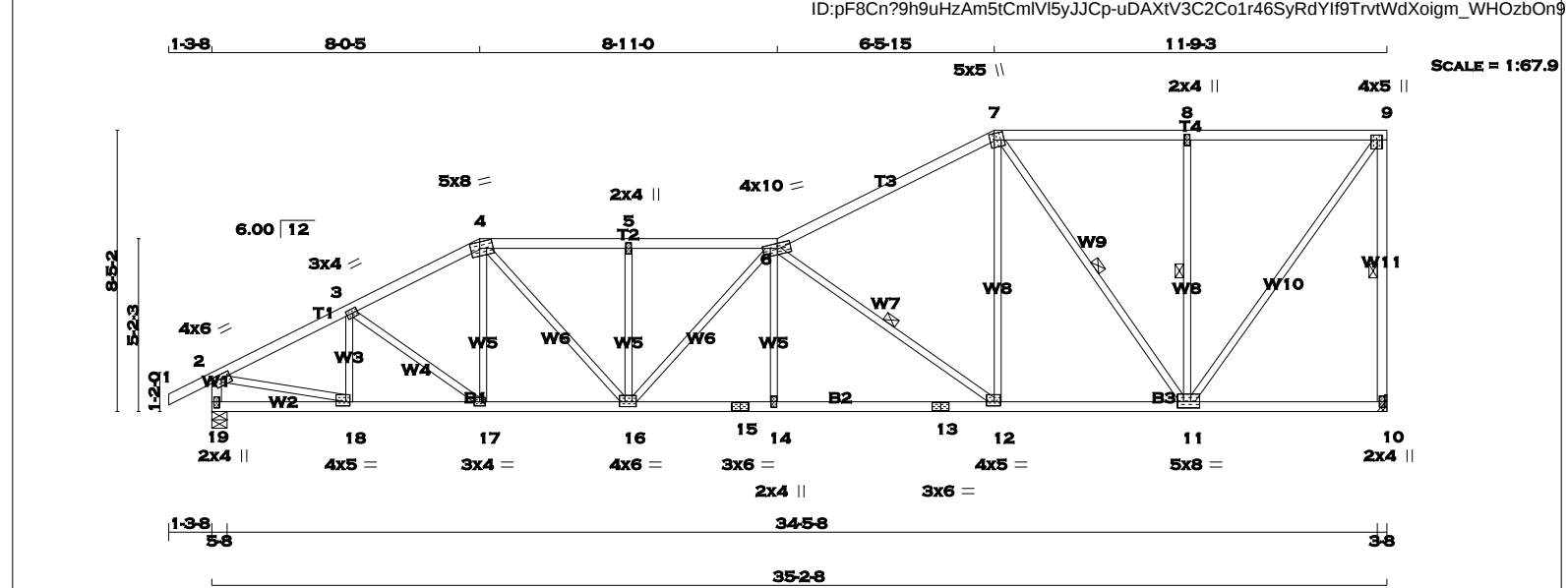
RECEIVED  
TOWN OF MILTON  
MAR 29, 2017  
17-4990  
BUILDING DIVISION

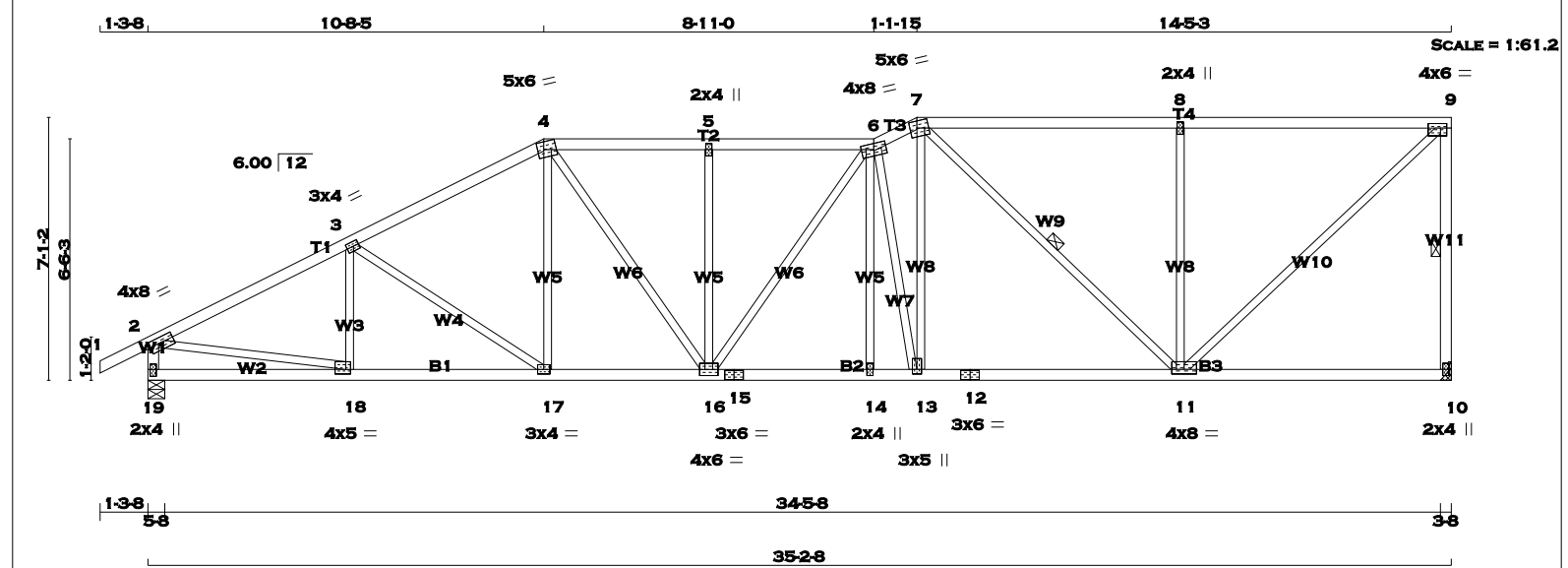
READ ALL NOTES ON THIS PAGE AND ON THE ENGINEERING NOTE PAGE ENP-1. THE NOTE PAGE IS AN INTEGRAL PART OF THIS DRAWING AS IT CONTAINS SPECIFICATIONS AND CRITERIA USED IN THE DESIGN OF THIS COMPONENT.











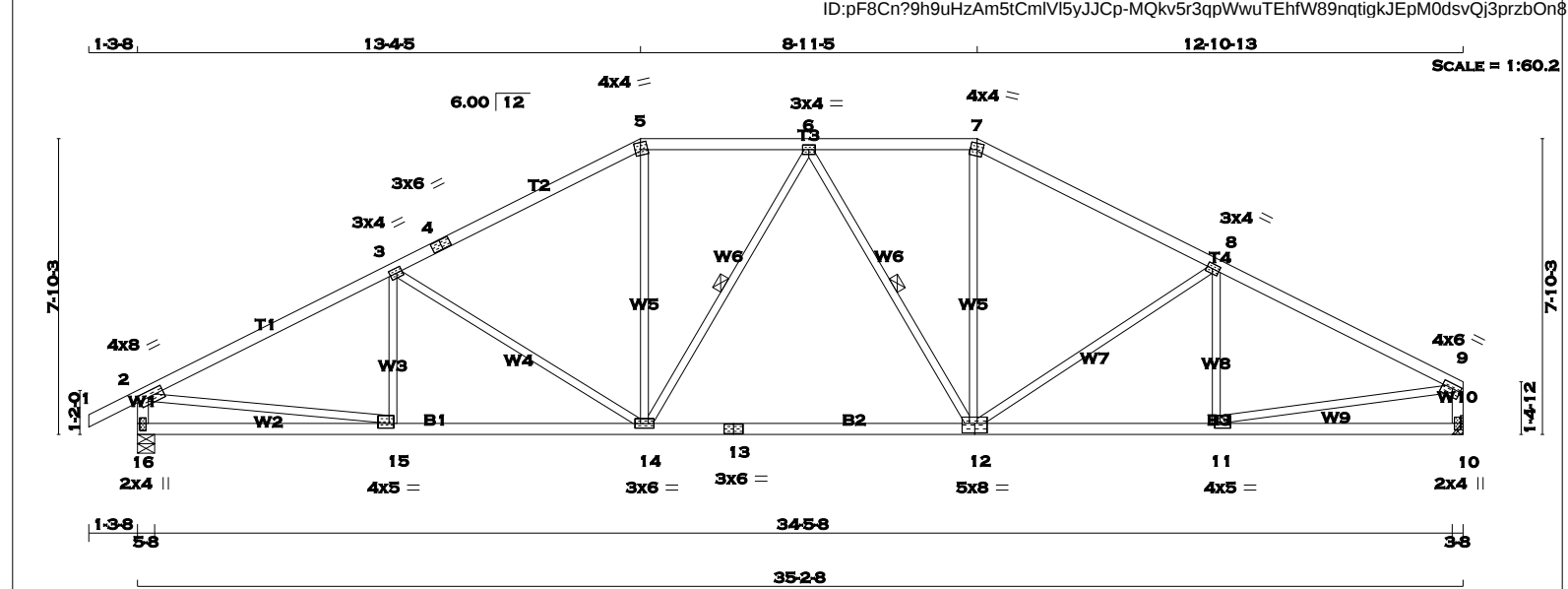
|                                                                                    |         |                                                                                                                         |     |     |      |      |  |  |  |  |  |                        |  |  |  |  |  |  |  |  |  |
|------------------------------------------------------------------------------------|---------|-------------------------------------------------------------------------------------------------------------------------|-----|-----|------|------|--|--|--|--|--|------------------------|--|--|--|--|--|--|--|--|--|
| <b>LUMBER</b><br>N. L. G. A. RULES<br>CHORDS SIZE LUMBER DESCR.                    |         | <b>DIMENSIONS, SUPPORTS AND LOADINGS SPECIFIED BY FABRICATOR TO BE VERIFIED BY BUILDING DESIGNER</b><br><b>BEARINGS</b> |     |     |      |      |  |  |  |  |  | <b>DESIGN CRITERIA</b> |  |  |  |  |  |  |  |  |  |
| 1 - 4 2x4 DRY No.2 SPF                                                             |         | FACTORED MAXIMUM FACTORED INPUT REQD                                                                                    |     |     |      |      |  |  |  |  |  | SPECIFIED LOADS:       |  |  |  |  |  |  |  |  |  |
| 4 - 6 2x4 DRY No.2 SPF                                                             |         | GROSS REACTION GROSS REACTION BRG BRG                                                                                   |     |     |      |      |  |  |  |  |  | TOP CH. LL = 23.3 PSF  |  |  |  |  |  |  |  |  |  |
| 6 - 7 2x4 DRY No.2 SPF                                                             |         | JT VERT HORZ DOWN HORZ UPLIFT IN-SX IN-SX                                                                               |     |     |      |      |  |  |  |  |  | DL = 3.0 PSF           |  |  |  |  |  |  |  |  |  |
| 7 - 9 2x4 DRY No.2 SPF                                                             |         | 10 1670 0 1670 0 0 HANGER BY OTHERS                                                                                     |     |     |      |      |  |  |  |  |  | BOT CH. LL = 0.0 PSF   |  |  |  |  |  |  |  |  |  |
| 10 - 9 2x4 DRY No.2 SPF                                                            |         | 19 1775 0 1775 0 0 5-8 5-8 MIN. SEAT SIZE: 3-8                                                                          |     |     |      |      |  |  |  |  |  | DL = 7.0 PSF           |  |  |  |  |  |  |  |  |  |
| 19 - 2 2x4 DRY No.2 SPF                                                            |         |                                                                                                                         |     |     |      |      |  |  |  |  |  | TOTAL LOAD = 33.3 PSF  |  |  |  |  |  |  |  |  |  |
| 19 - 15 2x4 DRY No.2 SPF                                                           |         |                                                                                                                         |     |     |      |      |  |  |  |  |  |                        |  |  |  |  |  |  |  |  |  |
| 15 - 12 2x4 DRY No.2 SPF                                                           |         |                                                                                                                         |     |     |      |      |  |  |  |  |  |                        |  |  |  |  |  |  |  |  |  |
| 12 - 10 2x4 DRY No.2 SPF                                                           |         |                                                                                                                         |     |     |      |      |  |  |  |  |  |                        |  |  |  |  |  |  |  |  |  |
| ALL WEBS 2x3 DRY No.2 SPF                                                          |         |                                                                                                                         |     |     |      |      |  |  |  |  |  |                        |  |  |  |  |  |  |  |  |  |
| EXCEPT                                                                             |         |                                                                                                                         |     |     |      |      |  |  |  |  |  |                        |  |  |  |  |  |  |  |  |  |
| DRY: SEASONED LUMBER.                                                              |         |                                                                                                                         |     |     |      |      |  |  |  |  |  |                        |  |  |  |  |  |  |  |  |  |
| <b>PLATES (table is in inches)</b>                                                 |         |                                                                                                                         |     |     |      |      |  |  |  |  |  |                        |  |  |  |  |  |  |  |  |  |
| JT                                                                                 | TYPE    | PLATES                                                                                                                  | W   | LEN | Y    | X    |  |  |  |  |  |                        |  |  |  |  |  |  |  |  |  |
| 2                                                                                  | TMVW-t  | MT20                                                                                                                    | 4.0 | 8.0 | 1.75 | 3.00 |  |  |  |  |  |                        |  |  |  |  |  |  |  |  |  |
| 3                                                                                  | TMWW-t  | MT20                                                                                                                    | 3.0 | 4.0 | 1.50 | 1.75 |  |  |  |  |  |                        |  |  |  |  |  |  |  |  |  |
| 4                                                                                  | TTWW-m  | MT20                                                                                                                    | 5.0 | 6.0 | 2.50 | 2.00 |  |  |  |  |  |                        |  |  |  |  |  |  |  |  |  |
| 5                                                                                  | TMW+w   | MT20                                                                                                                    | 2.0 | 4.0 |      |      |  |  |  |  |  |                        |  |  |  |  |  |  |  |  |  |
| 6                                                                                  | TTWWW-m | MT20                                                                                                                    | 4.0 | 8.0 |      |      |  |  |  |  |  |                        |  |  |  |  |  |  |  |  |  |
| 7                                                                                  | TTWW-m  | MT20                                                                                                                    | 5.0 | 6.0 | 2.25 | 2.25 |  |  |  |  |  |                        |  |  |  |  |  |  |  |  |  |
| 8                                                                                  | TMW+w   | MT20                                                                                                                    | 2.0 | 4.0 |      |      |  |  |  |  |  |                        |  |  |  |  |  |  |  |  |  |
| 9                                                                                  | TMW-t   | MT20                                                                                                                    | 4.0 | 6.0 | 1.50 | 2.00 |  |  |  |  |  |                        |  |  |  |  |  |  |  |  |  |
| 10                                                                                 | BMV1+p  | MT20                                                                                                                    | 2.0 | 4.0 |      |      |  |  |  |  |  |                        |  |  |  |  |  |  |  |  |  |
| 11                                                                                 | BMWWW-t | MT20                                                                                                                    | 4.0 | 8.0 | 1.50 | 1.50 |  |  |  |  |  |                        |  |  |  |  |  |  |  |  |  |
| 12                                                                                 | BS-t    | MT20                                                                                                                    | 3.0 | 6.0 |      |      |  |  |  |  |  |                        |  |  |  |  |  |  |  |  |  |
| 13                                                                                 | BMWW+t  | MT20                                                                                                                    | 3.0 | 5.0 | 1.50 | 1.50 |  |  |  |  |  |                        |  |  |  |  |  |  |  |  |  |
| 14                                                                                 | BMW+w   | MT20                                                                                                                    | 2.0 | 4.0 |      |      |  |  |  |  |  |                        |  |  |  |  |  |  |  |  |  |
| 15                                                                                 | BS-t    | MT20                                                                                                                    | 3.0 | 6.0 |      |      |  |  |  |  |  |                        |  |  |  |  |  |  |  |  |  |
| 16                                                                                 | BMWWW-t | MT20                                                                                                                    | 4.0 | 6.0 |      |      |  |  |  |  |  |                        |  |  |  |  |  |  |  |  |  |
| 17                                                                                 | BMWW-t  | MT20                                                                                                                    | 3.0 | 4.0 |      |      |  |  |  |  |  |                        |  |  |  |  |  |  |  |  |  |
| 18                                                                                 | BMWW-t  | MT20                                                                                                                    | 4.0 | 5.0 | 1.50 | 1.50 |  |  |  |  |  |                        |  |  |  |  |  |  |  |  |  |
| 19                                                                                 | BMV1+p  | MT20                                                                                                                    | 2.0 | 4.0 | 2.25 | 1.00 |  |  |  |  |  |                        |  |  |  |  |  |  |  |  |  |
| A SIZE FOR SIZE SUBSTITUTION OF MITEK MI20 WITH TEE-LOK TL20 PLATES IS ALLOWED.    |         |                                                                                                                         |     |     |      |      |  |  |  |  |  |                        |  |  |  |  |  |  |  |  |  |
|  |         |                                                                                                                         |     |     |      |      |  |  |  |  |  |                        |  |  |  |  |  |  |  |  |  |
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|                                                                                    |         |                                                                                                                         |     |     |      |      |  |  |  |  |  |                        |  |  |  |  |  |  |  |  |  |
|                                                                                    |         |                                                                                                                         |     |     |      |      |  |  |  |  |  |                        |  |  |  |  |  |  |  |  |  |
|                                                                                    |         |                                                                                                                         |     |     |      |      |  |  |  |  |  |                        |  |  |  |  |  |  |  |  |  |
|                                                                                    |         |                                                                                                                         |     |     |      |      |  |  |  |  |  |                        |  |  |  |  |  |  |  |  |  |
|                                                                                    |         |                                                                                                                         |     |     |      |      |  |  |  |  |  |                        |  |  |  |  |  |  |  |  |  |
|                                                                                    |         |                                                                                                                         |     |     |      |      |  |  |  |  |  |                        |  |  |  |  |  |  |  |  |  |
|                                                                                    |         |                                                                                                                         |     |     |      |      |  |  |  |  |  |                        |  |  |  |  |  |  |  |  |  |
|                                                                                    |         |                                                                                                                         |     |     |      |      |  |  |  |  |  |                        |  |  |  |  |  |  |  |  |  |
|                                                                                    |         |                                                                                                                         |     |     |      |      |  |  |  |  |  |                        |  |  |  |  |  |  |  |  |  |
|                                                                                    |         |                                                                                                                         |     |     |      |      |  |  |  |  |  |                        |  |  |  |  |  |  |  |  |  |
|                                                                                    |         |                                                                                                                         |     |     |      |      |  |  |  |  |  |                        |  |  |  |  |  |  |  |  |  |
|                                                                                    |         |                                                                                                                         |     |     |      |      |  |  |  |  |  |                        |  |  |  |  |  |  |  |  |  |
|                                                                                    |         |                                                                                                                         |     |     |      |      |  |  |  |  |  |                        |  |  |  |  |  |  |  |  |  |
|                                                                                    |         |                                                                                                                         |     |     |      |      |  |  |  |  |  |                        |  |  |  |  |  |  |  |  |  |
|                                                                                    |         |                                                                                                                         |     |     |      |      |  |  |  |  |  |                        |  |  |  |  |  |  |  |  |  |
|                                                                                    |         |                                                                                                                         |     |     |      |      |  |  |  |  |  |                        |  |  |  |  |  |  |  |  |  |
|                                                                                    |         |                                                                                                                         |     |     |      |      |  |  |  |  |  |                        |  |  |  |  |  |  |  |  |  |
|                                                                                    |         |                                                                                                                         |     |     |      |      |  |  |  |  |  |                        |  |  |  |  |  |  |  |  |  |
|                                                                                    |         |                                                                                                                         |     |     |      |      |  |  |  |  |  |                        |  |  |  |  |  |  |  |  |  |
|                                                                                    |         |                                                                                                                         |     |     |      |      |  |  |  |  |  |                        |  |  |  |  |  |  |  |  |  |
|                                                                                    |         |                                                                                                                         |     |     |      |      |  |  |  |  |  |                        |  |  |  |  |  |  |  |  |  |
|                                                                                    |         |                                                                                                                         |     |     |      |      |  |  |  |  |  |                        |  |  |  |  |  |  |  |  |  |
|                                                                                    |         |                                                                                                                         |     |     |      |      |  |  |  |  |  |                        |  |  |  |  |  |  |  |  |  |
|                                                                                    |         |                                                                                                                         |     |     |      |      |  |  |  |  |  |                        |  |  |  |  |  |  |  |  |  |
|                                                                                    |         |                                                                                                                         |     |     |      |      |  |  |  |  |  |                        |  |  |  |  |  |  |  |  |  |
|                                                                                    |         |                                                                                                                         |     |     |      |      |  |  |  |  |  |                        |  |  |  |  |  |  |  |  |  |
|                                                                                    |         |                                                                                                                         |     |     |      |      |  |  |  |  |  |                        |  |  |  |  |  |  |  |  |  |
|                                                                                    |         |                                                                                                                         |     |     |      |      |  |  |  |  |  |                        |  |  |  |  |  |  |  |  |  |
|                                                                                    |         |                                                                                                                         |     |     |      |      |  |  |  |  |  |                        |  |  |  |  |  |  |  |  |  |
|                                                                                    |         |                                                                                                                         |     |     |      |      |  |  |  |  |  |                        |  |  |  |  |  |  |  |  |  |
|                                                                                    |         |                                                                                                                         |     |     |      |      |  |  |  |  |  |                        |  |  |  |  |  |  |  |  |  |
|                                                                                    |         |                                                                                                                         |     |     |      |      |  |  |  |  |  |                        |  |  |  |  |  |  |  |  |  |
|                                                                                    |         |                                                                                                                         |     |     |      |      |  |  |  |  |  |                        |  |  |  |  |  |  |  |  |  |
|                                                                                    |         |                                                                                                                         |     |     |      |      |  |  |  |  |  |                        |  |  |  |  |  |  |  |  |  |
|                                                                                    |         |                                                                                                                         |     |     |      |      |  |  |  |  |  |                        |  |  |  |  |  |  |  |  |  |
|                                                                                    |         |                                                                                                                         |     |     |      |      |  |  |  |  |  |                        |  |  |  |  |  |  |  |  |  |
|                                                                                    |         |                                                                                                                         |     |     |      |      |  |  |  |  |  |                        |  |  |  |  |  |  |  |  |  |
|                                                                                    |         |                                                                                                                         |     |     |      |      |  |  |  |  |  |                        |  |  |  |  |  |  |  |  |  |
|                                                                                    |         |                                                                                                                         |     |     |      |      |  |  |  |  |  |                        |  |  |  |  |  |  |  |  |  |
|                                                                                    |         |                                                                                                                         |     |     |      |      |  |  |  |  |  |                        |  |  |  |  |  |  |  |  |  |
|                                                                                    |         |                                                                                                                         |     |     |      |      |  |  |  |  |  |                        |  |  |  |  |  |  |  |  |  |
|                                                                                    |         |                                                                                                                         |     |     |      |      |  |  |  |  |  |                        |  |  |  |  |  |  |  |  |  |
|                                                                                    |         |                                                                                                                         |     |     |      |      |  |  |  |  |  |                        |  |  |  |  |  |  |  |  |  |
|                                                                                    |         |                                                                                                                         |     |     |      |      |  |  |  |  |  |                        |  |  |  |  |  |  |  |  |  |
|                                                                                    |         |                                                                                                                         |     |     |      |      |  |  |  |  |  |                        |  |  |  |  |  |  |  |  |  |
|                                                                                    |         |                                                                                                                         |     |     |      |      |  |  |  |  |  |                        |  |  |  |  |  |  |  |  |  |
|                                                                                    |         |                                                                                                                         |     |     |      |      |  |  |  |  |  |                        |  |  |  |  |  |  |  |  |  |
|                                                                                    |         |                                                                                                                         |     |     |      |      |  |  |  |  |  |                        |  |  |  |  |  |  |  |  |  |
|                                                                                    |         |                                                                                                                         |     |     |      |      |  |  |  |  |  |                        |  |  |  |  |  |  |  |  |  |
|                                                                                    |         |                                                                                                                         |     |     |      |      |  |  |  |  |  |                        |  |  |  |  |  |  |  |  |  |
|                                                                                    |         |                                                                                                                         |     |     |      |      |  |  |  |  |  |                        |  |  |  |  |  |  |  |  |  |
|                                                                                    |         |                                                                                                                         |     |     |      |      |  |  |  |  |  |                        |  |  |  |  |  |  |  |  |  |
|                                                                                    |         |                                                                                                                         |     |     |      |      |  |  |  |  |  |                        |  |  |  |  |  |  |  |  |  |
|                                                                                    |         |                                                                                                                         |     |     |      |      |  |  |  |  |  |                        |  |  |  |  |  |  |  |  |  |
|                                                                                    |         |                                                                                                                         |     |     |      |      |  |  |  |  |  |                        |  |  |  |  |  |  |  |  |  |
|                                                                                    |         |                                                                                                                         |     |     |      |      |  |  |  |  |  |                        |  |  |  |  |  |  |  |  |  |
|                                                                                    |         |                                                                                                                         |     |     |      |      |  |  |  |  |  |                        |  |  |  |  |  |  |  |  |  |
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|                                                                                    |         |                                                                                                                         |     |     |      |      |  |  |  |  |  |                        |  |  |  |  |  |  |  |  |  |
|                                                                                    |         |                                                                                                                         |     |     |      |      |  |  |  |  |  |                        |  |  |  |  |  |  |  |  |  |
|                                                                                    |         |                                                                                                                         |     |     |      |      |  |  |  |  |  |                        |  |  |  |  |  |  |  |  |  |
|                                                                                    |         |                                                                                                                         |     |     |      |      |  |  |  |  |  |                        |  |  |  |  |  |  |  |  |  |
|                                                                                    |         |                                                                                                                         |     |     |      |      |  |  |  |  |  |                        |  |  |  |  |  |  |  |  |  |
|                                                                                    |         |                                                                                                                         |     |     |      |      |  |  |  |  |  |                        |  |  |  |  |  |  |  |  |  |
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|                                                                                    |         |                                                                                                                         |     |     |      |      |  |  |  |  |  |                        |  |  |  |  |  |  |  |  |  |
|                                                                                    |         |                                                                                                                         |     |     |      |      |  |  |  |  |  |                        |  |  |  |  |  |  |  |  |  |
|                                                                                    |         |                                                                                                                         |     |     |      |      |  |  |  |  |  |                        |  |  |  |  |  |  |  |  |  |
|                                                                                    |         |                                                                                                                         |     |     |      |      |  |  |  |  |  |                        |  |  |  |  |  |  |  |  |  |
|                                                                                    |         |                                                                                                                         |     |     |      |      |  |  |  |  |  |                        |  |  |  |  |  |  |  |  |  |
|                                                                                    |         |                                                                                                                         |     |     |      |      |  |  |  |  |  |                        |  |  |  |  |  |  |  |  |  |
|                                                                                    |         |                                                                                                                         |     |     |      |      |  |  |  |  |  |                        |  |  |  |  |  |  |  |  |  |
|                                                                                    |         |                                                                                                                         |     |     |      |      |  |  |  |  |  |                        |  |  |  |  |  |  |  |  |  |
|                                                                                    |         |                                                                                                                         |     |     |      |      |  |  |  |  |  |                        |  |  |  |  |  |  |  |  |  |
|                                                                                    |         |                                                                                                                         |     |     |      |      |  |  |  |  |  |                        |  |  |  |  |  |  |  |  |  |
|                                                                                    |         |                                                                                                                         |     |     |      |      |  |  |  |  |  |                        |  |  |  |  |  |  |  |  |  |
|                                                                                    |         |                                                                                                                         |     |     |      |      |  |  |  |  |  |                        |  |  |  |  |  |  |  |  |  |
|                                                                                    |         |                                                                                                                         |     |     |      |      |  |  |  |  |  |                        |  |  |  |  |  |  |  |  |  |
|                                                                                    |         |                                                                                                                         |     |     |      |      |  |  |  |  |  |                        |  |  |  |  |  |  |  |  |  |
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|                                                                                    |         |                                                                                                                         |     |     |      |      |  |  |  |  |  |                        |  |  |  |  |  |  |  |  |  |
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|                                                                                    |         |                                                                                                                         |     |     |      |      |  |  |  |  |  |                        |  |  |  |  |  |  |  |  |  |
|                                                                                    |         |                                                                                                                         |     |     |      |      |  |  |  |  |  |                        |  |  |  |  |  |  |  |  |  |
|                                                                                    |         |                                                                                                                         |     |     |      |      |  |  |  |  |  |                        |  |  |  |  |  |  |  |  |  |
|                                                                                    |         |                                                                                                                         |     |     |      |      |  |  |  |  |  |                        |  |  |  |  |  |  |  |  |  |
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|                                                                                    |         |                                                                                                                         |     |     |      |      |  |  |  |  |  |                        |  |  |  |  |  |  |  |  |  |
|                                                                                    |         |                                                                                                                         |     |     |      |      |  |  |  |  |  |                        |  |  |  |  |  |  |  |  |  |
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|                                                                                    |         |                                                                                                                         |     |     |      |      |  |  |  |  |  |                        |  |  |  |  |  |  |  |  |  |
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|                                                                                    |         |                                                                                                                         |     |     |      |      |  |  |  |  |  |                        |  |  |  |  |  |  |  |  |  |
|                                                                                    |         |                                                                                                                         |     |     |      |      |  |  |  |  |  |                        |  |  |  |  |  |  |  |  |  |
|                                                                                    |         |                                                                                                                         |     |     |      |      |  |  |  |  |  |                        |  |  |  |  |  |  |  |  |  |
|                                                                                    |         |                                                                                                                         |     |     |      |      |  |  |  |  |  |                        |  |  |  |  |  |  |  |  |  |
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|                                                                                    |         |                                                                                                                         |     |     |      |      |  |  |  |  |  |                        |  |  |  |  |  |  |  |  |  |
|                                                                                    |         |                                                                                                                         |     |     |      |      |  |  |  |  |  |                        |  |  |  |  |  |  |  |  |  |
|                                                                                    |         |                                                                                                                         |     |     |      |      |  |  |  |  |  |                        |  |  |  |  |  |  |  |  |  |
|                                                                                    |         |                                                                                                                         |     |     |      |      |  |  |  |  |  |                        |  |  |  |  |  |  |  |  |  |
|                                                                                    |         |                                                                                                                         |     |     |      |      |  |  |  |  |  |                        |  |  |  |  |  |  |  |  |  |
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|                                                                                    |         |                                                                                                                         |     |     |      |      |  |  |  |  |  |                        |  |  |  |  |  |  |  |  |  |
|                                                                                    |         |                                                                                                                         |     |     |      |      |  |  |  |  |  |                        |  |  |  |  |  |  |  |  |  |
|                                                                                    |         |                                                                                                                         |     |     |      |      |  |  |  |  |  |                        |  |  |  |  |  |  |  |  |  |
|                                                                                    |         |                                                                                                                         |     |     |      |      |  |  |  |  |  |                        |  |  |  |  |  |  |  |  |  |
|                                                                                    |         |                                                                                                                         |     |     |      |      |  |  |  |  |  |                        |  |  |  |  |  |  |  |  |  |
|                                                                                    |         |                                                                                                                         |     |     |      |      |  |  |  |  |  |                        |  |  |  |  |  |  |  |  |  |
|                                                                                    |         |                                                                                                                         |     |     |      |      |  |  |  |  |  |                        |  |  |  |  |  |  |  |  |  |
|                                                                                    |         |                                                                                                                         |     |     |      |      |  |  |  |  |  |                        |  |  |  |  |  |  |  |  |  |
|                                                                                    |         |                                                                                                                         |     |     |      |      |  |  |  |  |  |                        |  |  |  |  |  |  |  |  |  |
|                                                                                    |         |                                                                                                                         |     |     |      |      |  |  |  |  |  |                        |  |  |  |  |  |  |  |  |  |
|                                                                                    |         |                                                                                                                         |     |     |      |      |  |  |  |  |  |                        |  |  |  |  |  |  |  |  |  |
|                                                                                    |         |                                                                                                                         |     |     |      |      |  |  |  |  |  |                        |  |  |  |  |  |  |  |  |  |
|                                                                                    |         |                                                                                                                         |     |     |      |      |  |  |  |  |  |                        |  |  |  |  |  |  |  |  |  |
|                                                                                    |         |                                                                                                                         |     |     |      |      |  |  |  |  |  |                        |  |  |  |  |  |  |  |  |  |
|                                                                                    |         |                                                                                                                         |     |     |      |      |  |  |  |  |  |                        |  |  |  |  |  |  |  |  |  |
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|                                                                                    |         |                                                                                                                         |     |     |      |      |  |  |  |  |  |                        |  |  |  |  |  |  |  |  |  |
|                                                                                    |         |                                                                                                                         |     |     |      |      |  |  |  |  |  |                        |  |  |  |  |  |  |  |  |  |
|                                                                                    |         |                                                                                                                         |     |     |      |      |  |  |  |  |  |                        |  |  |  |  |  |  |  |  |  |
|                                                                                    |         |                                                                                                                         |     |     |      |      |  |  |  |  |  |                        |  |  |  |  |  |  |  |  |  |
|                                                                                    |         |                                                                                                                         |     |     |      |      |  |  |  |  |  |                        |  |  |  |  |  |  |  |  |  |
|                                                                                    |         |                                                                                                                         |     |     |      |      |  |  |  |  |  |                        |  |  |  |  |  |  |  |  |  |
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|                                                                                    |         |                                                                                                                         |     |     |      |      |  |  |  |  |  |                        |  |  |  |  |  |  |  |  |  |
|                                                                                    |         |                                                                                                                         |     |     |      |      |  |  |  |  |  |                        |  |  |  |  |  |  |  |  |  |
|                                                                                    |         |                                                                                                                         |     |     |      |      |  |  |  |  |  |                        |  |  |  |  |  |  |  |  |  |
|                                                                                    |         |                                                                                                                         |     |     |      |      |  |  |  |  |  |                        |  |  |  |  |  |  |  |  |  |
|                                                                                    |         |                                                                                                                         |     |     |      |      |  |  |  |  |  |                        |  |  |  |  |  |  |  |  |  |
|                                                                                    |         |                                                                                                                         |     |     |      |      |  |  |  |  |  |                        |  |  |  |  |  |  |  |  |  |
|                                                                                    |         |                                                                                                                         |     |     |      |      |  |  |  |  |  |                        |  |  |  |  |  |  |  |  |  |
|                                                                                    |         |                                                                                                                         |     |     |      |      |  |  |  |  |  |                        |  |  |  |  |  |  |  |  |  |
|                                                                                    |         |                                                                                                                         |     |     |      |      |  |  |  |  |  |                        |  |  |  |  |  |  |  |  |  |
|                                                                                    |         |                                                                                                                         |     |     |      |      |  |  |  |  |  |                        |  |  |  |  |  |  |  |  |  |
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READ ALL NOTES ON THIS PAGE AND ON THE  
ENGINEERING NOTE PAGE ENP-1. THE NOTE PAGE  
IS AN INTEGRAL PART OF THIS DRAWING AS IT  
CONTAINS SPECIFICATIONS AND CRITERIA USED  
IN THE DESIGN OF THIS COMPONENT.





**LUMBER**  
N. L. G. A. RULES  
CHORDS SIZE LUMBER DESCR.  
1 - 4 2x4 DRY No.2 SPF  
4 - 5 2x4 DRY No.2 SPF  
5 - 7 2x4 DRY No.2 SPF  
7 - 9 2x4 DRY No.2 SPF  
16 - 2 2x4 DRY No.2 SPF  
10 - 9 2x4 DRY No.2 SPF  
16 - 13 2x4 DRY No.2 SPF  
13 - 12 2x4 DRY No.2 SPF  
12 - 10 2x4 DRY No.2 SPF  
ALL WEBS 2x3 DRY No.2 SPF  
EXCEPT  
DRY: SEASONED LUMBER.

**DIMENSIONS, SUPPORTS AND LOADINGS SPECIFIED BY FABRICATOR TO BE VERIFIED BY BUILDING DESIGNER**  
**BEARINGS**  
FACTORED MAXIMUM FACTORED INPUT REQ'D  
GROSS REACTION GROSS REACTION BRG BRG  
JT VERT HORZ DOWN HORZ UPLIFT IN-SX IN-SX  
16 1775 0 1775 0 0 5-8 5-8  
10 1670 0 1670 0 0 HANGER BY OTHERS  
MIN. SEAT SIZE: 3-8  
**UNFACTORED REACTIONS**  
1ST LCASE MAX./MIN. COMPONENT REACTIONS  
JT COMBINED SNOW LIVE PERM.LIVE WIND DEAD SOIL  
16 1243 883 / 0 0 / 0 0 / 0 0 / 0 360 / 0 0 / 0  
10 1172 820 / 0 0 / 0 0 / 0 0 / 0 352 / 0 0 / 0  
BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S) 16  
**BRACING**  
TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 3.78 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 - 2x3 SPF No.2 LATERAL BRACE(S) AT 1/2 LENGTH OF 6-14, 6-12. DBS = 20-0-0 . CBF = 33 LBS.  
DBS = DIAGONAL BRACE SPACING (MAX). CBF = CUMULATIVE BRACING FORCE. FASTEN LATERAL BRACE(S) USING (0.122"x3") SPIRAL NAILS : 1 NAIL FOR 2x3 BRACE(S), 2 FOR 1x4, 2x4, 2x5, 3 FOR 2x6, 4 FOR 2x8, 5 FOR 2x10, AND 6 FOR 2x12.  
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: (3)  
C H O R D S W E B S  
MEMB. MAX. FACTORED FORCE VERT. LOAD LC1 MAX. MAX. MEMB. MAX. FACTORED FORCE MAX. FACTORED  
(LBS) (PLF) CSI (LC) UNBRAC LENGTH FR-TO (LBS) CSI (LC)  
FR-TO  
1- 2 0 / 23 -77.3 -77.3 0.10 (1) 10.00 15- 3 -167 / 55 0.05 (1)  
2- 3 -2500 / 0 -77.3 -77.3 0.62 (1) 3.78 3-14 -496 / 0 0.65 (1)  
3- 4 -2089 / 0 -77.3 -77.3 0.54 (1) 4.14 14- 5 0 / 595 0.13 (1)  
4- 5 -2089 / 0 -77.3 -77.3 0.54 (1) 4.14 14- 6 -216 / 0 0.11 (1)  
5- 6 -1850 / 0 -77.3 -77.3 0.23 (1) 4.72 6-12 -268 / 0 0.14 (1)  
6- 7 -1823 / 0 -77.3 -77.3 0.23 (1) 4.75 12- 7 0 / 589 0.13 (1)  
7- 8 -2061 / 0 -77.3 -77.3 0.50 (1) 4.22 12- 8 -388 / 0 0.48 (1)  
8- 9 -2366 / 0 -77.3 -77.3 0.55 (1) 3.94 11- 8 -241 / 29 0.08 (1)  
16- 2 -1723 / 0 0.0 0.0 0.17 (1) 6.34 2-15 0 / 2279 0.51 (1)  
10- 9 -1620 / 0 0.0 0.0 0.17 (1) 6.50 11- 9 0 / 2168 0.49 (1)  
16-15 0 / 0 -17.5 -17.5 0.16 (3) 10.00  
15-14 0 / 2261 -17.5 -17.5 0.49 (1) 10.00  
14-13 0 / 1958 -17.5 -17.5 0.44 (1) 10.00  
13-12 0 / 1958 -17.5 -17.5 0.44 (1) 10.00  
12-11 0 / 2139 -17.5 -17.5 0.47 (1) 10.00  
11-10 0 / 0 -17.5 -17.5 0.15 (3) 10.00

**DESIGN CRITERIA**  
SPECIFIED LOADS:  
TOP CH. LL = 23.3 PSF  
DL = 3.0 PSF  
BOT CH. LL = 0.0 PSF  
DL = 7.0 PSF  
TOTAL LOAD = 33.3 PSF  
**SPACING = 24.0 IN. C/C**  
LOADING IN FLAT SECTION BASED ON A SLOPE OF 6.00/12  
THIS TRUSS IS DESIGNED FOR RESIDENTIAL OR SMALL BUILDING REQUIREMENTS OF PART 9, NBCC 2010  
THIS DESIGN COMPLIES WITH:  
- PART 9 OF OBC 2012, BCBC 2012, ABC 2014  
- CSA 086-09  
- TPIC 2011  
(55 % OF 27.2 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 23.3 P.S.F. SPECIFIED ROOF LIVE LOAD  
ALLOWABLE DEFL.(LL)= L/360 (1.17")  
CALCULATED VERT. DEFL.(LL) = L/ 999 (0.12")  
ALLOWABLE DEFL.(TL)= L/360 (1.17")  
CALCULATED VERT. DEFL.(TL) = L/ 999 (0.30")  
CSI: TC=0.62 (2-3:1) , BC=0.49 (14-15:1) , WB=0.65 (3-14:1) , SSI=0.23 (2-3:1)  
DOL LUMBER=1.00 NAIL=1.00 LS BEND=1.10 COMP=1.10 SHEAR=1.10 TENS= 1.10  
COMPANION LIVE LOAD FACTOR = 0.50  
TRUSS PLATE MANUFACTURER IS NOT RESPONSIBLE FOR QUALITY CONTROL IN THE TRUSS MANUFACTURING PLANT .  
NAIL VALUES  
PLATE GRIP(DRY) SHEAR SECTION (PSI) (PLI) (PLI)  
MAX MIN MAX MIN MAX MIN  
MT20 618 354 1667 822 2284 1656  
PLATE PLACEMENT TOL. = 0.250 inches  
PLATE ROTATION TOL. = 5.0 Deg.  
JSI GRIP= 0.90 (11) (INPUT = 0.90 )  
JSI METAL= 0.68 (15) (INPUT = 1.00 )

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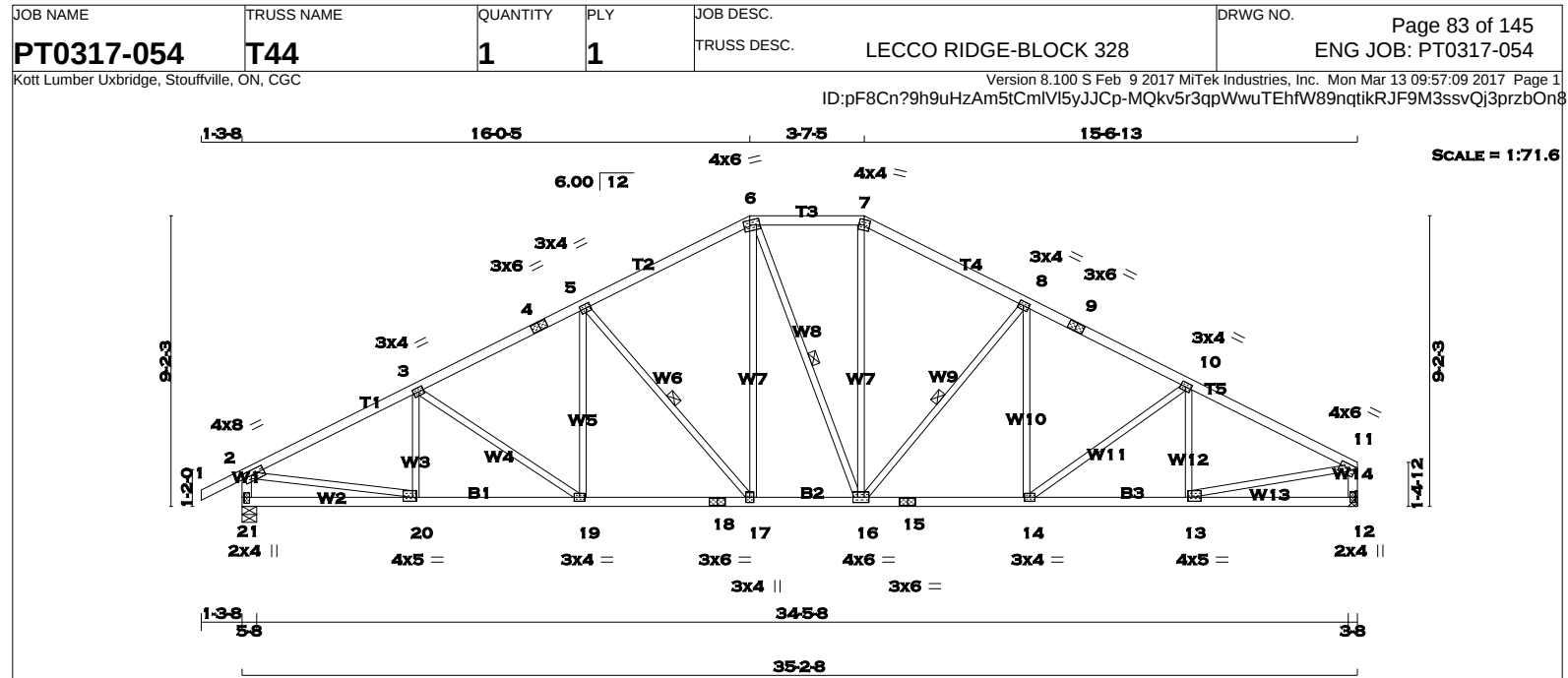
TOWN OF MILTON

MAR 29, 2017

17-4990

BUILDING DIVISION

READ ALL NOTES ON THIS PAGE AND ON THE ENGINEERING NOTE PAGE ENP-1. THE NOTE PAGE IS AN INTEGRAL PART OF THIS DRAWING AS IT CONTAINS SPECIFICATIONS AND CRITERIA USED IN THE DESIGN OF THIS COMPONENT.



LUMBER

N. L. G. A. RULES

CHORDS

SIZE

LUMBER

DESCR.

1 - 4

2x4

DRY

No.2

SPF

4 - 6

2x4

DRY

No.2

SPF

6 - 7

2x4

DRY

No.2

SPF

7 - 9

2x4

DRY

No.2

SPF

9 - 11

2x4

DRY

No.2

SPF

21- 2

2x4

DRY

No.2

SPF

12- 11

2x4

DRY

No.2

SPF

21- 18

2x4

DRY

No.2

SPF

18- 15

2x4

DRY

No.2

SPF

15- 12

2x4

DRY

No.2

SPF

ALL WEBS

2x3

DRY

No.2

SPF

EXCEPT

DRY: SEASONED LUMBER.

PLATES (table is in inches)

JT

TYPE

PLATES

W

LEN

Y

X

2

TMVW-t

MT20

4.0

8.0

1.75

3.00

3, 5, 8, 10

3

TMWW-t

MT20

3.0

4.0

1.50

1.75

4

TS-t

MT20

3.0

6.0

6

TTWW-m

MT20

4.0

6.0

1.75

2.25

7

TTW-m

MT20

4.0

4.0

9

TS-t

MT20

3.0

6.0

11

TMVW-t

MT20

4.0

6.0

1.50

2.75

12

BMV1+p

MT20

2.0

4.0

13

BMWW-t

MT20

4.0

5.0

1.50

1.50

14

BMWW-t

MT20

3.0

4.0

15

BS-t

MT20

3.0

6.0

16

BMWWW-t

MT20

4.0

6.0

17

BMWWW+t

MT20

3.0

4.0

18

BS-t

MT20

3.0

6.0

19

BMWW-t

MT20

3.0

4.0

20

BMWW-t

MT20

4.0

5.0

1.50

1.50

21

BMV1+p

MT20

2.0

4.0

2.25

1.00

A SIZE FOR SIZE SUBSTITUTION OF MITEK MII20 WITH TEE-LOK TL20 PLATES IS ALLOWED.

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

BEARINGS

FACTORED

MAXIMUM FACTORED

INPUT

REQ'D

GROSS REACTION

GROSS REACTION

BRG

BRG

JT

VERT

HORZ

DOWN

HORZ

UPLIFT

IN-SX

IN-SX

21

1775

0

1775

0

0

5-8

5-8

12

1670

0

1670

0

0

HANGER BY OTHERS

MIN. SEAT SIZE: 3-8

UNFACTORED REACTIONS

1ST LCASE

MAX./MIN. COMPONENT REACTIONS

JT

COMBINED

SNOW

LIVE

PERM.LIVE

WIND

DEAD

SOIL

21

1243

883 / 0

0 / 0

0 / 0

0 / 0

360 / 0

0 / 0

12

1172

820 / 0

0 / 0

0 / 0

0 / 0

352 / 0

0 / 0

BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S) 21

BRACING

TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 4.08 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.

1 - 2x3 SPF No.2 LATERAL BRACE(S) AT 1/2 LENGTH OF 5-17, 6-16, 8-16. DBS = 20-0-0 . CBF = 77 LBS.

DBS = DIAGONAL BRACE SPACING (MAX). CBF = CUMULATIVE BRACING FORCE. FASTEN LATERAL BRACE(S) USING (0.122"x3") SPIRAL NAILS : 1 NAIL FOR 2x3 BRACE(S), 2 FOR 1x4, 2x4, 2x5, 3 FOR 2x6, 4 FOR 2x8, 5 FOR 2x10, AND 6 FOR 2x12.

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: (3)

C H O R D S

W E B S

MAX. FACTORED

FACTORED

MAX. FACTORED

MEMB.

FORCE

VERT. LOAD

LC1

MAX

MAX.

MEMB.

FORCE

MAX

(LBS)

(PLF)

CSI (LC)

UNBRAC

(LBS)

CSI (LC)

FR-TO

FROM

TO

LENGTH

FR-TO

1- 2

0 / 23

-77.3

-77.3

0.10 (1)

10.00

20- 3

-249 / 14

0.06 (1)

2- 3

-2457 / 0

-77.3

-77.3

0.38 (1)

4.08

3-19

-209 / 0

0.15 (1)

3- 4

-2280 / 0

-77.3

-77.3

0.31 (1)

4.28

19- 5

0 / 215

0.05 (3)

4- 5

-2280 / 0

-77.3

-77.3

0.31 (1)

4.28

5-17

-614 / 0

0.28 (1)

5- 6

-1851 / 0

-77.3

-77.3

0.30 (1)

4.66

17- 6

0 / 536

0.12 (1)

6- 7

-1637 / 0

-77.3

-77.3

0.16 (1)

5.04

6-16

-20 / 0

0.01 (1)

7- 8

-1842 / 0

-77.3

-77.3

0.28 (1)

4.69

16- 7

0 / 519

0.12 (1)

8- 9

-2213 / 0

-77.3

-77.3

0.29 (1)

4.35

16- 8

-546 / 0

0.25 (1)

9-10

-2213 / 0

-77.3

-77.3

0.29 (1)

4.35

14- 8

0 / 158

0.04 (3)

10-11

-2301 / 0

-77.3

-77.3

0.34 (1)

4.22

14-10

-116 / 0

0.08 (1)

21- 2

-1732 / 0

0.0

0.0

0.18 (1)

6.33

13-10

-326 / 0

0.08 (1)

12-11

-1629 / 0

0.0

0.0

0.17 (1)

6.48

2-20

0 / 2239

0.50 (1)

13-11

0 / 2115

0.48 (1)

21-20

0 / 0

-17.5

-17.5

0.11 (3)

10.00

20-19

0 / 2212

-17.5

-17.5

0.41 (1)

10.00

19-18

0 / 2039

-17.5

-17.5

0.38 (1)

10.00

18-17

0 / 2039

-17.5

-17.5

0.38 (1)

10.00

17-16

0 / 1645

-17.5

-17.5

0.31 (1)

10.00

16-15

0 / 1979

-17.5

-17.5

0.37 (1)

10.00

15-14

0 / 1979

-17.5

-17.5

0.37 (1)

10.00

14-13

0 / 2073

-17.5

-17.5

0.37 (1)

10.00

13-12

0 / 0

-17.5

-17.5

0.10 (3)

10.00

DESIGN CRITERIA

SPECIFIED LOADS:

TOP

CH.

LL

=

23.3

PSF

DL

=

3.0

PSF

BOT

CH.

LL

=

0.0

PSF

DL

=

7.0

PSF

TOTAL LOAD

=

33.3

PSF

SPACING =

24.0

IN. C/C

LOADING IN FLAT SECTION BASED ON A SLOPE OF 6.00/12

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

THIS DESIGN COMPLIES WITH:

- PART 9 OF OBC 2012 , BCBC 2012 , ABC 2014

- CSA 086-09

- TPIC 2011

(55 % OF 27.2 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 23.3 P.S.F. SPECIFIED ROOF LIVE LOAD

ALLOWABLE DEFL.(LL)= L/360 (1.17")

CALCULATED VERT. DEFL.(LL) = L/ 999 (0.12")

ALLOWABLE DEFL.(TL)= L/360 (1.17")

CALCULATED VERT. DEFL.(TL) = L/ 999 (0.23")

CSI: TC=0.38 (2-3:1) , BC=0.41 (19-20:1) , WB=0.50 (2-20:1) , SSI=0.17 (2-3:1)

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

COMPANION LIVE LOAD FACTOR = 0.50

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

NAIL VALUES

PLATE

GRIP(DRY)

SHEAR

SECTION

(PSI)

(PLI)

(PLI)

MAX MIN

MAX MIN

MAX MIN

MT20

618

354

1667

822

2284

1656

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.88 (11) (INPUT = 0.90 )

JSI METAL= 0.66 (20) (INPUT = 1.00 )

LICENSED PROFESSIONAL ENGINEER

P. M. TREVISAN

100136551

March 13th, 2017

PROVINCE OF ONTARIO

RECEIVED

TOWN OF MILTON

MAR 29, 2017

17-4990

BUILDING DIVISION

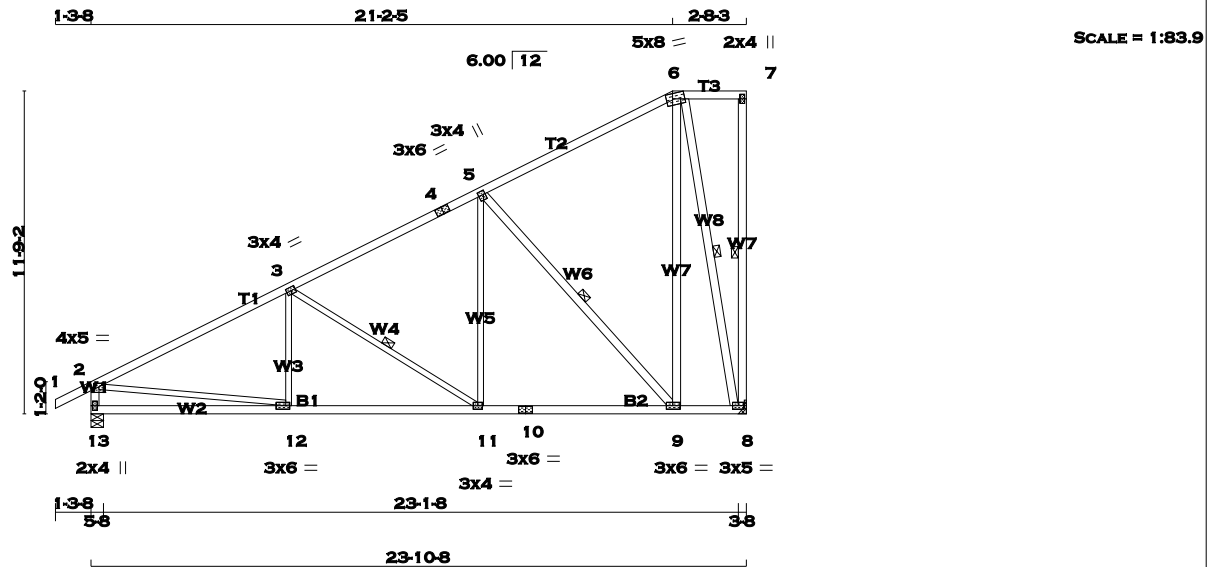
READ ALL NOTES ON THIS PAGE AND ON THE ENGINEERING NOTE PAGE ENP-1. THE NOTE PAGE IS AN INTEGRAL PART OF THIS DRAWING AS IT CONTAINS SPECIFICATIONS AND CRITERIA USED IN THE DESIGN OF THIS COMPONENT.

KOTT

Kott Lumber Uxbridge, Stouffville, ON, CGC

Version 8.100 S Feb 9 2017 MiTek Industries, Inc. Mon Mar 13 09:57:09 2017 Page 1

ID:pF8Cn?9h9uHzAm5tCmIV5yJJCP-MQkv5r3qpWwuTEhfW89nqtihmJGPM\_xsvQj3przbOn8



TOTAL WEIGHT = 132 lb  
[M][F]

| LUMBER          |      | N. L. G. A. RULES |      | LUMBER | DESCR. |
|-----------------|------|-------------------|------|--------|--------|
| CHORDS          | SIZE |                   |      |        |        |
| 1 - 4           | 2x4  | DRY               | No.2 | SPF    |        |
| 4 - 6           | 2x4  | DRY               | No.2 |        |        |
| 6 - 7           | 2x4  | DRY               | No.2 |        |        |
| 8 - 7           | 2x4  | DRY               | No.2 |        |        |
| 13- 2           | 2x4  | DRY               | No.2 |        |        |
| 13- 10          | 2x4  | DRY               | No.2 |        |        |
| 10- 8           | 2x4  | DRY               | No.2 |        |        |
| ALL WEBS EXCEPT |      | 2x3               | DRY  | No.2   | SPF    |
| 5 - 9           | 2x4  | DRY               | No.2 | SPF    |        |
| 9 - 6           | 2x4  | DRY               | No.2 | SPF    |        |
| 6 - 8           | 2x4  | DRY               | No.2 | SPF    |        |

| PLATES (table is in inches) |         |        |     |     |           |
|-----------------------------|---------|--------|-----|-----|-----------|
| JT                          | TYPE    | PLATES | W   | LEN | Y X       |
| 2                           | TMVW-p  | MT20   | 4.0 | 5.0 | 1.50 2.25 |
| 3                           | TMWW-t  | MT20   | 3.0 | 4.0 | 1.50 1.75 |
| 4                           | TS-t    | MT20   | 3.0 | 6.0 |           |
| 5                           | TMWW+t  | MT20   | 3.0 | 4.0 | 1.75 0.75 |
| 6                           | TTWW-m  | MT20   | 5.0 | 8.0 | 2.25 2.75 |
| 7                           | TMV+p   | MT20   | 2.0 | 4.0 |           |
| 8                           | BMVW1-t | MT20   | 3.0 | 5.0 |           |
| 9                           | BMWW-t  | MT20   | 3.0 | 6.0 | 1.50 2.75 |
| 10                          | BS-t    | MT20   | 3.0 | 6.0 |           |
| 11                          | BMWW-t  | MT20   | 3.0 | 4.0 |           |
| 12                          | BMWW-t  | MT20   | 3.0 | 6.0 | 1.50 1.75 |
| 13                          | BMV1+p  | MT20   | 2.0 | 4.0 |           |

A SIZE FOR SIZE SUBSTITUTION OF MITEK MII20 WITH TEE-LOK TL20 PLATES IS ALLOWED.

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

| BEARINGS            |      | FACTORED GROSS REACTION |      | MAXIMUM FACTORED GROSS REACTION |      | INPUT BRG |       | REQRD BRG        |       |
|---------------------|------|-------------------------|------|---------------------------------|------|-----------|-------|------------------|-------|
| JT                  |      | VERT                    | HORZ | DOWN                            | HORZ | IN-SX     | IN-SX | IN-SX            | IN-SX |
| 8                   | 1132 | 0                       |      | 1132                            | 0    | 0         |       | HANGER BY OTHERS |       |
| MIN. SEAT SIZE: 3-8 |      |                         |      |                                 |      |           |       |                  |       |
| 13                  | 1237 | 0                       |      | 1237                            | 0    | 0         | 5-8   | 5-8              |       |

| UNFACTORED REACTIONS |     | 1ST LCASE |      | MAX./MIN. COMPONENT REACTIONS |  | PERM.LIVE |       | WIND  |         | DEAD |       | SOIL |  |
|----------------------|-----|-----------|------|-------------------------------|--|-----------|-------|-------|---------|------|-------|------|--|
| JT                   |     | COMBINED  | SNOW | LIVE                          |  |           |       |       |         |      |       |      |  |
| 8                    | 795 | 556 / 0   |      | 0 / 0                         |  | 0 / 0     | 0 / 0 | 0 / 0 | 239 / 0 |      | 0 / 0 |      |  |
| 13                   | 866 | 619 / 0   |      | 0 / 0                         |  | 0 / 0     | 0 / 0 | 0 / 0 | 247 / 0 |      | 0 / 0 |      |  |

BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S) 13

**BRACING**  
TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 4.69 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 - 2x3 SPF No.2 LATERAL BRACE(S) AT 1/2 LENGTH OF 7-8, 3-11. DBS = 20-0-0 . CBF = 75 LBS.  
1 - 2x3 SPF No.2 LATERAL BRACE(S) AT 1/2 LENGTH OF 5-9, 6-8. DBS = 14-0-0 . CBF = 92 LBS.

DBS = DIAGONAL BRACE SPACING (MAX). CBF = CUMULATIVE BRACING FORCE. FASTEN LATERAL BRACE(S) USING (0.122"x3") SPIRAL NAILS : 1 NAIL FOR 2x3 BRACE(S), 2 FOR 1x4, 2x4, 2x5, 3 FOR 2x6, 4 FOR 2x8, 5 FOR 2x10, AND 6 FOR 2x12.

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: (3)

| C H O R D S |                           |                           |               | W E B S            |       |                           |               |
|-------------|---------------------------|---------------------------|---------------|--------------------|-------|---------------------------|---------------|
| MEMB.       | MAX. FACTORED FORCE (LBS) | FACTORED VERT. LOAD (PLF) | MAX. LC1 (LC) | MAX. UNBRAC LENGTH | MEMB. | MAX. FACTORED FORCE (LBS) | MAX. CSI (LC) |
| FR-TO       |                           | FROM TO                   |               |                    | FR-TO |                           |               |
| 1-2         | 0 / 23                    | -77.3 -77.3               | 0.10 (1)      | 10.00              | 12-3  | -29 / 107                 | 0.04 (3)      |
| 2-3         | -1519 / 0                 | -77.3 -77.3               | 0.55 (1)      | 4.69               | 3-11  | -598 / 0                  | 0.28 (1)      |
| 3-4         | -979 / 0                  | -77.3 -77.3               | 0.43 (1)      | 5.74               | 11-5  | 0 / 449                   | 0.10 (1)      |
| 4-5         | -979 / 0                  | -77.3 -77.3               | 0.43 (1)      | 5.74               | 5-9   | -967 / 0                  | 0.59 (1)      |
| 5-6         | -280 / 0                  | -77.3 -77.3               | 0.45 (1)      | 6.25               | 9-6   | 0 / 817                   | 0.13 (1)      |
| 6-7         | 0 / 0                     | -77.3 -77.3               | 0.09 (1)      | 10.00              | 6-8   | -1051 / 0                 | 0.82 (1)      |
| 8-7         | -104 / 0                  | 0.0 0.0                   | 0.08 (1)      | 6.25               | 2-12  | 0 / 1390                  | 0.31 (1)      |
| 13-2        | -1185 / 0                 | 0.0 0.0                   | 0.12 (1)      | 7.34               |       |                           |               |
| 13-12       | 0 / 0                     | -17.5 -17.5               | 0.21 (3)      | 10.00              |       |                           |               |
| 12-11       | 0 / 1380                  | -17.5 -17.5               | 0.33 (1)      | 10.00              |       |                           |               |
| 11-10       | 0 / 875                   | -17.5 -17.5               | 0.24 (1)      | 10.00              |       |                           |               |
| 10-9        | 0 / 875                   | -17.5 -17.5               | 0.24 (1)      | 10.00              |       |                           |               |
| 9-8         | 0 / 240                   | -17.5 -17.5               | 0.15 (3)      | 10.00              |       |                           |               |

**DESIGN CRITERIA**

SPECIFIED LOADS:  
TOP CH. LL = 23.3 PSF  
DL = 3.0 PSF  
BOT CH. LL = 0.0 PSF  
DL = 7.0 PSF  
TOTAL LOAD = 33.3 PSF

SPACING = 24.0 IN./C/C

LOADING IN FLAT SECTION BASED ON A SLOPE OF 6.00/12

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

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

(55 % OF 27.2 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 23.3 P.S.F. SPECIFIED ROOF LIVE LOAD

ALLOWABLE DEFL.(LL)= L/360 (0.80")  
CALCULATED VERT. DEFL.(LL) = L/ 999 (0.06")  
ALLOWABLE DEFL.(TL)= L/360 (0.80")  
CALCULATED VERT. DEFL.(TL) = L/ 999 (0.12")

CSI: TC=0.55 (2-3:1) , BC=0.33 (11-12:1) , WB=0.82 (6-8:1) , SSI=0.23 (2-3:1)

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

COMPANION LIVE LOAD FACTOR = 0.50

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

NAIL VALUES  
PLATE GRIP(DRY) SHEAR SECTION (PSI) (PLI) (PLI)  
MAX MIN MAX MIN MAX MIN  
MT20 618 354 1667 822 2284 1656

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

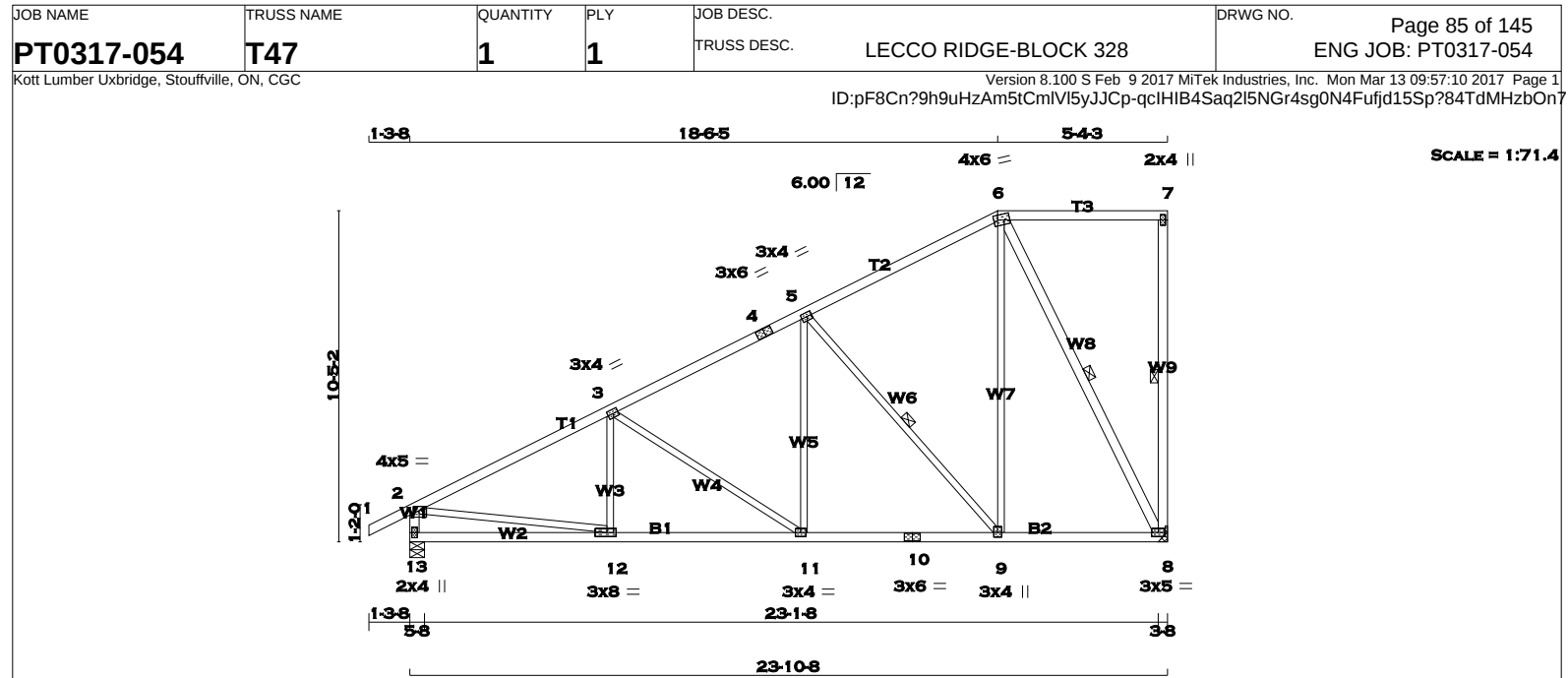
JSI GRIP= 0.90 (12) (INPUT = 0.90 )  
JSI METAL= 0.40 (2) (INPUT = 1.00 )



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READ ALL NOTES ON THIS PAGE AND ON THE ENGINEERING NOTE PAGE ENP-1. THE NOTE PAGE IS AN INTEGRAL PART OF THIS DRAWING AS IT CONTAINS SPECIFICATIONS AND CRITERIA USED IN THE DESIGN OF THIS COMPONENT.





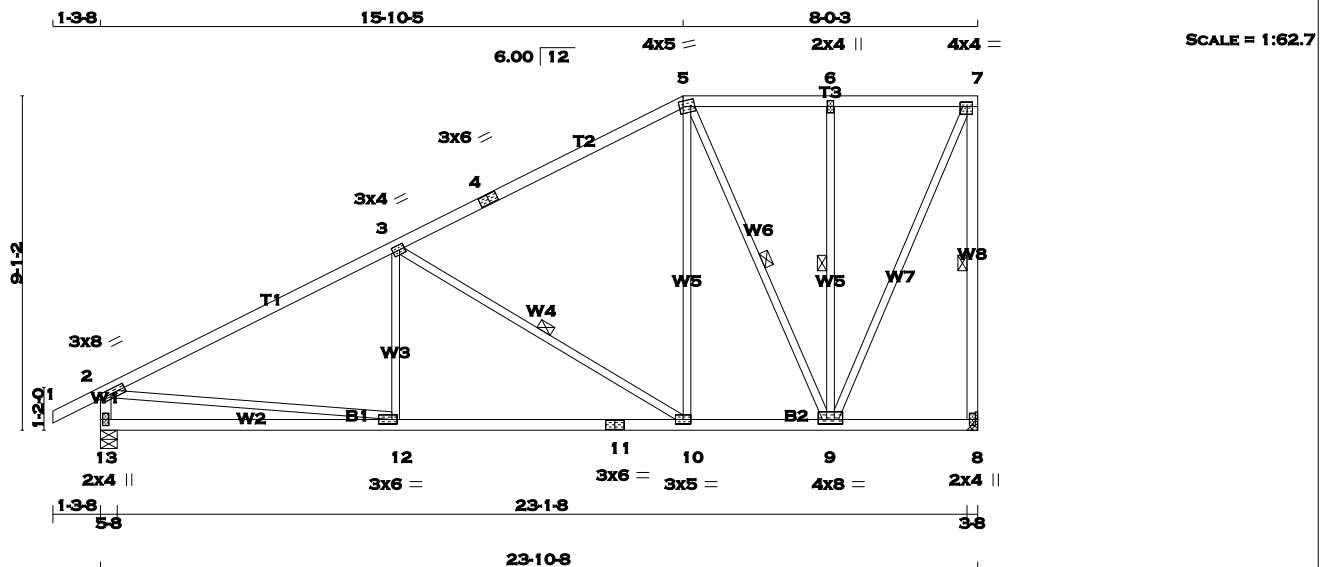
|                                                                                                                                                                                                                              |           |                           |                               |                        |                  |                           |                           |                           |       |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------|---------------------------|-------------------------------|------------------------|------------------|---------------------------|---------------------------|---------------------------|-------|
| TOTAL WEIGHT = 118 lb                                                                                                                                                                                                        |           |                           |                               |                        |                  |                           |                           |                           |       |
| [M][F]                                                                                                                                                                                                                       |           |                           |                               |                        |                  |                           |                           |                           |       |
| <b>LUMBER</b><br>N. L. G. A. RULES<br>CHORDS SIZE LUMBER DESCR. SPF                                                                                                                                                          |           |                           |                               |                        |                  |                           |                           |                           |       |
| 1 - 4                                                                                                                                                                                                                        | 2x4       | DRY                       | No.2                          |                        |                  |                           |                           |                           |       |
| 4 - 6                                                                                                                                                                                                                        | 2x4       | DRY                       | No.2                          |                        |                  |                           |                           |                           |       |
| 6 - 7                                                                                                                                                                                                                        | 2x4       | DRY                       | No.2                          |                        |                  |                           |                           |                           |       |
| 8 - 7                                                                                                                                                                                                                        | 2x4       | DRY                       | No.2                          |                        |                  |                           |                           |                           |       |
| 13 - 2                                                                                                                                                                                                                       | 2x4       | DRY                       | No.2                          |                        |                  |                           |                           |                           |       |
| 13 - 10                                                                                                                                                                                                                      | 2x4       | DRY                       | No.2                          |                        |                  |                           |                           |                           |       |
| 10 - 8                                                                                                                                                                                                                       | 2x4       | DRY                       | No.2                          |                        |                  |                           |                           |                           |       |
| ALL WEBS 2x3 DRY No.2 SPF                                                                                                                                                                                                    |           |                           |                               |                        |                  |                           |                           |                           |       |
| EXCEPT 6 - 8 2x4 DRY No.2 SPF                                                                                                                                                                                                |           |                           |                               |                        |                  |                           |                           |                           |       |
| DRY: SEASONED LUMBER.                                                                                                                                                                                                        |           |                           |                               |                        |                  |                           |                           |                           |       |
| <b>PLATES (table is in inches)</b>                                                                                                                                                                                           |           |                           |                               |                        |                  |                           |                           |                           |       |
| JT                                                                                                                                                                                                                           | TYPE      | PLATES                    | W                             | LEN                    | Y                | X                         |                           |                           |       |
| 2                                                                                                                                                                                                                            | TMVW-p    | MT20                      | 4.0                           | 5.0                    | 1.50             | 2.25                      |                           |                           |       |
| 3                                                                                                                                                                                                                            | TMVW-t    | MT20                      | 3.0                           | 4.0                    | 1.50             | 1.75                      |                           |                           |       |
| 4                                                                                                                                                                                                                            | TS-t      | MT20                      | 3.0                           | 6.0                    |                  |                           |                           |                           |       |
| 5                                                                                                                                                                                                                            | TMVW-t    | MT20                      | 3.0                           | 4.0                    | 1.50             | 1.75                      |                           |                           |       |
| 6                                                                                                                                                                                                                            | TTWW-m    | MT20                      | 4.0                           | 6.0                    | 1.75             | 1.50                      |                           |                           |       |
| 7                                                                                                                                                                                                                            | TMV+p     | MT20                      | 2.0                           | 4.0                    |                  |                           |                           |                           |       |
| 8                                                                                                                                                                                                                            | BMVW1-t   | MT20                      | 3.0                           | 5.0                    |                  |                           |                           |                           |       |
| 9                                                                                                                                                                                                                            | BMVW-t    | MT20                      | 3.0                           | 4.0                    | 1.75             | 1.50                      |                           |                           |       |
| 10                                                                                                                                                                                                                           | BS-t      | MT20                      | 3.0                           | 6.0                    |                  |                           |                           |                           |       |
| 11                                                                                                                                                                                                                           | BMVW-t    | MT20                      | 3.0                           | 4.0                    |                  |                           |                           |                           |       |
| 12                                                                                                                                                                                                                           | BMVW-t    | MT20                      | 3.0                           | 8.0                    | 1.50             | 3.50                      |                           |                           |       |
| 13                                                                                                                                                                                                                           | BMV1+p    | MT20                      | 2.0                           | 4.0                    |                  |                           |                           |                           |       |
| A SIZE FOR SIZE SUBSTITUTION OF MITEK MII20 WITH TEE-LOK TL20 PLATES IS ALLOWED.                                                                                                                                             |           |                           |                               |                        |                  |                           |                           |                           |       |
| <b>DIMENSIONS, SUPPORTS AND LOADINGS SPECIFIED BY FABRICATOR TO BE VERIFIED BY BUILDING DESIGNER</b>                                                                                                                         |           |                           |                               |                        |                  |                           |                           |                           |       |
| <b>BEARINGS</b>                                                                                                                                                                                                              |           |                           |                               |                        |                  |                           |                           |                           |       |
|                                                                                                                                                                                                                              |           |                           | FACTORED                      |                        | MAXIMUM FACTORED |                           | INPUT                     |                           | REQRD |
|                                                                                                                                                                                                                              |           |                           | GROSS REACTION                |                        | GROSS REACTION   |                           | BRG                       |                           | BRG   |
| JT                                                                                                                                                                                                                           | VERT      | HORZ                      | DOWN                          | HORZ                   | UPLIFT           | IN-SX                     | IN-SX                     |                           |       |
| 8                                                                                                                                                                                                                            | 1132      | 0                         | 1132                          | 0                      | 0                | HANGER BY OTHERS          | MIN. SEAT SIZE: 3-8       |                           |       |
| 13                                                                                                                                                                                                                           | 1237      | 0                         | 1237                          | 0                      | 0                | 5-8                       | 5-8                       |                           |       |
| <b>UNFACTORED REACTIONS</b>                                                                                                                                                                                                  |           |                           |                               |                        |                  |                           |                           |                           |       |
|                                                                                                                                                                                                                              | 1ST LCASE |                           | MAX./MIN. COMPONENT REACTIONS |                        |                  |                           |                           |                           |       |
| JT                                                                                                                                                                                                                           | COMBINED  | SNOW                      | LIVE                          | PERM.LIVE              | WIND             | DEAD                      | SOIL                      |                           |       |
| 8                                                                                                                                                                                                                            | 795       | 556 / 0                   | 0 / 0                         | 0 / 0                  | 0 / 0            | 239 / 0                   | 0 / 0                     |                           |       |
| 13                                                                                                                                                                                                                           | 866       | 619 / 0                   | 0 / 0                         | 0 / 0                  | 0 / 0            | 247 / 0                   | 0 / 0                     |                           |       |
| BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S) 13                                                                                                                                                                     |           |                           |                               |                        |                  |                           |                           |                           |       |
| <b>BRACING</b>                                                                                                                                                                                                               |           |                           |                               |                        |                  |                           |                           |                           |       |
| TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 4.86 FT.                                                                                                                                                                   |           |                           |                               |                        |                  |                           |                           |                           |       |
| MAX. UNBRACED BOTTOM CHORD LENGTH = 10.00 FT. OR RIGID CEILING DIRECTLY APPLIED.                                                                                                                                             |           |                           |                               |                        |                  |                           |                           |                           |       |
| ALL PITCH BREAKS AND PERIMETER CORNER JOINTS MUST BE Laterally RESTRAINED.                                                                                                                                                   |           |                           |                               |                        |                  |                           |                           |                           |       |
| 1 - 2x3 SPF No.2 LATERAL BRACE(S) AT 1/2 LENGTH OF 7-8. DBS = 20-0-0 . CBF = 26 LBS.                                                                                                                                         |           |                           |                               |                        |                  |                           |                           |                           |       |
| 1 - 2x3 SPF No.2 LATERAL BRACE(S) AT 1/2 LENGTH OF 5-9. DBS = 18-0-0 . CBF = 92 LBS.                                                                                                                                         |           |                           |                               |                        |                  |                           |                           |                           |       |
| 1 - 2x3 SPF No.2 LATERAL BRACE(S) AT 1/2 LENGTH OF 6-8. DBS = 14-0-0 . CBF = 88 LBS.                                                                                                                                         |           |                           |                               |                        |                  |                           |                           |                           |       |
| DBS = DIAGONAL BRACE SPACING (MAX). CBF = CUMULATIVE BRACING FORCE. FASTEN LATERAL BRACE(S) USING (0.122"x3") SPIRAL NAILS : 1 NAIL FOR 2x3 BRACE(S), 2 FOR 1x4, 2x4, 2x5, 3 FOR 2x6, 4 FOR 2x8, 5 FOR 2x10, AND 6 FOR 2x12. |           |                           |                               |                        |                  |                           |                           |                           |       |
| END VERTICAL(S) MUST BE SHEATHED OR HAVE BRACES AS INDICATED IN THE MAX. UNBRACED LENGTH COLUMN OF THE TABLE BELOW                                                                                                           |           |                           |                               |                        |                  |                           |                           |                           |       |
| <b>LOADING</b>                                                                                                                                                                                                               |           |                           |                               |                        |                  |                           |                           |                           |       |
| TOTAL LOAD CASES: (3)                                                                                                                                                                                                        |           |                           |                               |                        |                  |                           |                           |                           |       |
| <b>C H O R D S</b>                                                                                                                                                                                                           |           |                           |                               |                        |                  |                           |                           |                           |       |
|                                                                                                                                                                                                                              | MEMB.     | MAX. FACTORED FORCE (LBS) | FACTORED VERT. LOAD (PLF)     | LC1 MAX. UNBRAC LENGTH | FR-TO            | MAX. FACTORED FORCE (LBS) | MAX. FACTORED FORCE (LBS) | MAX. FACTORED FORCE (LBS) |       |
|                                                                                                                                                                                                                              |           |                           | FROM TO                       |                        |                  |                           |                           |                           |       |
| 1-2                                                                                                                                                                                                                          |           | 0 / 23                    | -77.3                         | -77.3 0.10 (1)         | 10.00            | 12-3                      | -71 / 81                  | 0.03 (3)                  |       |
| 2-3                                                                                                                                                                                                                          |           | -1540 / 0                 | -77.3                         | -77.3 0.41 (1)         | 4.86             | 3-11                      | -472 / 0                  | 0.49 (1)                  |       |
| 3-4                                                                                                                                                                                                                          |           | -1120 / 0                 | -77.3                         | -77.3 0.33 (1)         | 5.60             | 11-5                      | 0 / 365                   | 0.08 (1)                  |       |
| 4-5                                                                                                                                                                                                                          |           | -1120 / 0                 | -77.3                         | -77.3 0.33 (1)         | 5.60             | 5-9                       | -816 / 0                  | 0.51 (1)                  |       |
| 5-6                                                                                                                                                                                                                          |           | -538 / 0                  | -77.3                         | -77.3 0.34 (1)         | 6.25             | 9-6                       | 0 / 725                   | 0.16 (1)                  |       |
| 6-7                                                                                                                                                                                                                          |           | 0 / 0                     | -77.3                         | -77.3 0.38 (1)         | 10.00            | 6-8                       | -1006 / 0                 | 0.71 (1)                  |       |
| 8-7                                                                                                                                                                                                                          |           | -207 / 0                  | 0.0                           | 0.0 0.11 (1)           | 6.25             | 2-12                      | 0 / 1408                  | 0.32 (1)                  |       |
| 13-2                                                                                                                                                                                                                         |           | -1191 / 0                 | 0.0                           | 0.0 0.12 (1)           | 7.32             |                           |                           |                           |       |
| 13-12                                                                                                                                                                                                                        |           | 0 / 0                     | -17.5                         | -17.5 0.16 (3)         | 10.00            |                           |                           |                           |       |
| 12-11                                                                                                                                                                                                                        |           | 0 / 1396                  | -17.5                         | -17.5 0.30 (1)         | 10.00            |                           |                           |                           |       |
| 11-10                                                                                                                                                                                                                        |           | 0 / 1001                  | -17.5                         | -17.5 0.23 (1)         | 10.00            |                           |                           |                           |       |
| 10-9                                                                                                                                                                                                                         |           | 0 / 1001                  | -17.5                         | -17.5 0.23 (1)         | 10.00            |                           |                           |                           |       |
| 9-8                                                                                                                                                                                                                          |           | 0 / 470                   | -17.5                         | -17.5 0.17 (3)         | 10.00            |                           |                           |                           |       |
| <b>DESIGN CRITERIA</b>                                                                                                                                                                                                       |           |                           |                               |                        |                  |                           |                           |                           |       |
| SPECIFIED LOADS:                                                                                                                                                                                                             |           |                           |                               |                        |                  |                           |                           |                           |       |
| TOP                                                                                                                                                                                                                          | CH.       | LL                        | =                             | 23.3                   | PSF              |                           |                           |                           |       |
|                                                                                                                                                                                                                              |           | DL                        | =                             | 3.0                    | PSF              |                           |                           |                           |       |
| BOT                                                                                                                                                                                                                          | CH.       | LL                        | =                             | 0.0                    | PSF              |                           |                           |                           |       |
|                                                                                                                                                                                                                              |           | DL                        | =                             | 7.0                    | PSF              |                           |                           |                           |       |
| TOTAL                                                                                                                                                                                                                        | LOAD      | =                         | 33.3                          | PSF                    |                  |                           |                           |                           |       |
| <b>SPACING = 24.0 IN./C/C</b>                                                                                                                                                                                                |           |                           |                               |                        |                  |                           |                           |                           |       |
| LOADING IN FLAT SECTION BASED ON A SLOPE OF 6.00/12                                                                                                                                                                          |           |                           |                               |                        |                  |                           |                           |                           |       |
| THIS TRUSS IS DESIGNED FOR RESIDENTIAL OR SMALL BUILDING REQUIREMENTS OF PART 9, NBCC 2010                                                                                                                                   |           |                           |                               |                        |                  |                           |                           |                           |       |
| THIS DESIGN COMPLIES WITH:                                                                                                                                                                                                   |           |                           |                               |                        |                  |                           |                           |                           |       |
| - PART 9 OF OBC 2012, BCBC 2012, ABC 2014                                                                                                                                                                                    |           |                           |                               |                        |                  |                           |                           |                           |       |
| - CSA 086-09                                                                                                                                                                                                                 |           |                           |                               |                        |                  |                           |                           |                           |       |
| - TPIC 2011                                                                                                                                                                                                                  |           |                           |                               |                        |                  |                           |                           |                           |       |
| (55 % OF 27.2 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 23.3 P.S.F. SPECIFIED ROOF LIVE LOAD                                                                                                                           |           |                           |                               |                        |                  |                           |                           |                           |       |
| ALLOWABLE DEFL.(LL)= L/360 (0.80")                                                                                                                                                                                           |           |                           |                               |                        |                  |                           |                           |                           |       |
| CALCULATED VERT. DEFL.(LL) = L/ 999 (0.06")                                                                                                                                                                                  |           |                           |                               |                        |                  |                           |                           |                           |       |
| ALLOWABLE DEFL.(TL)= L/360 (0.80")                                                                                                                                                                                           |           |                           |                               |                        |                  |                           |                           |                           |       |
| CALCULATED VERT. DEFL.(TL) = L/ 999 (0.11")                                                                                                                                                                                  |           |                           |                               |                        |                  |                           |                           |                           |       |
| CSI: TC=0.41 (2-3:1) , BC=0.30 (11-12:1) , WB=0.71 (6-8:1) , SSI=0.20 (2-3:1)                                                                                                                                                |           |                           |                               |                        |                  |                           |                           |                           |       |
| DOL LUMBER=1.00 NAIL=1.00 LS BEND=1.10                                                                                                                                                                                       |           |                           |                               |                        |                  |                           |                           |                           |       |
| COMP=1.10 SHEAR=1.10 TENS= 1.10                                                                                                                                                                                              |           |                           |                               |                        |                  |                           |                           |                           |       |
| COMPANION LIVE LOAD FACTOR = 0.50                                                                                                                                                                                            |           |                           |                               |                        |                  |                           |                           |                           |       |
| TRUSS PLATE MANUFACTURER IS NOT RESPONSIBLE FOR QUALITY CONTROL IN THE TRUSS MANUFACTURING PLANT .                                                                                                                           |           |                           |                               |                        |                  |                           |                           |                           |       |
| NAIL VALUES                                                                                                                                                                                                                  |           |                           |                               |                        |                  |                           |                           |                           |       |
| PLATE                                                                                                                                                                                                                        | GRIP(DRY) | SHEAR                     | SECTION                       |                        |                  |                           |                           |                           |       |
|                                                                                                                                                                                                                              | (PSI)     | (PLI)                     | (PLI)                         |                        |                  |                           |                           |                           |       |
|                                                                                                                                                                                                                              | MAX MIN   | MAX MIN                   | MAX MIN                       |                        |                  |                           |                           |                           |       |
| MT20                                                                                                                                                                                                                         | 618 354   | 1667 822                  | 2284 1656                     |                        |                  |                           |                           |                           |       |
| PLATE PLACEMENT TOL. = 0.250 inches                                                                                                                                                                                          |           |                           |                               |                        |                  |                           |                           |                           |       |
| PLATE ROTATION TOL. = 5.0 Deg.                                                                                                                                                                                               |           |                           |                               |                        |                  |                           |                           |                           |       |
| JSI GRIP= 0.90 (8) (INPUT = 0.90 )                                                                                                                                                                                           |           |                           |                               |                        |                  |                           |                           |                           |       |
| JSI METAL= 0.40 (2) (INPUT = 1.00 )                                                                                                                                                                                          |           |                           |                               |                        |                  |                           |                           |                           |       |

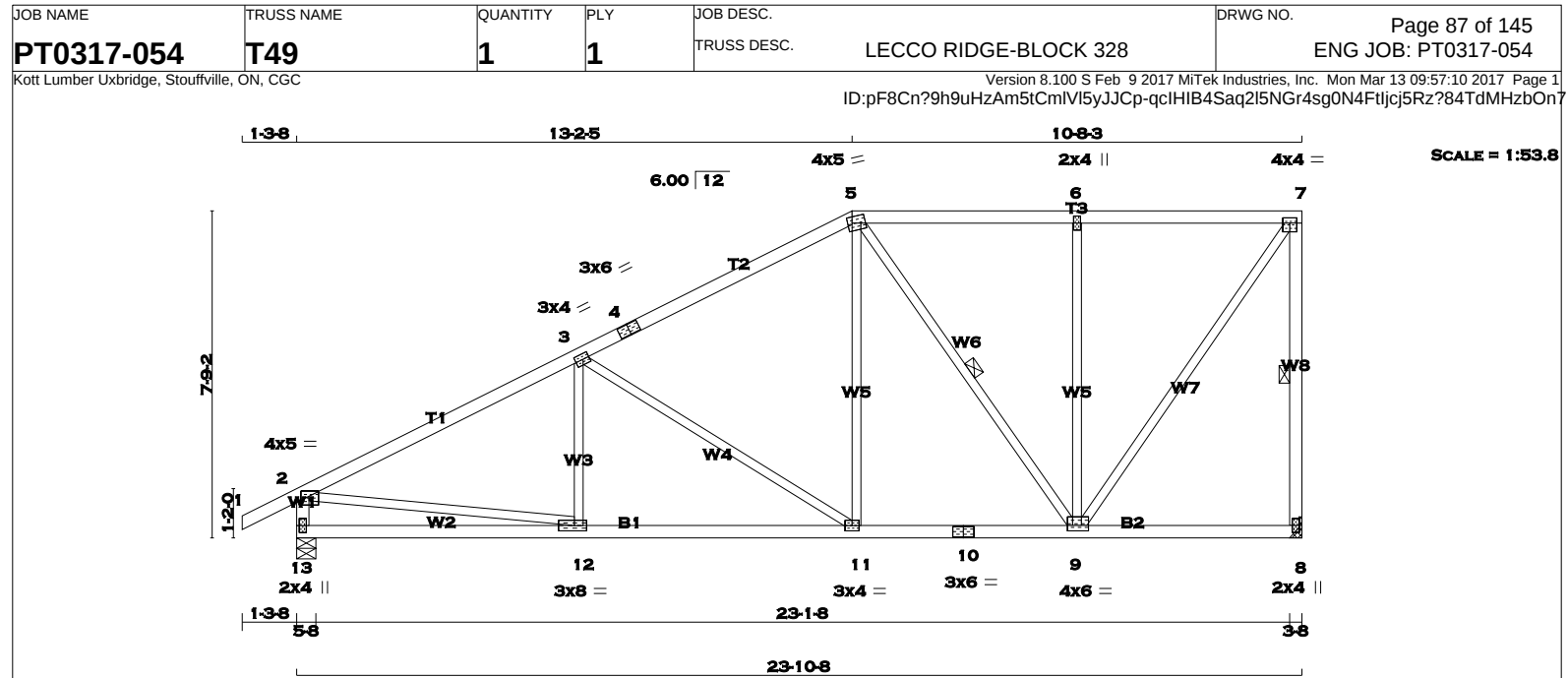


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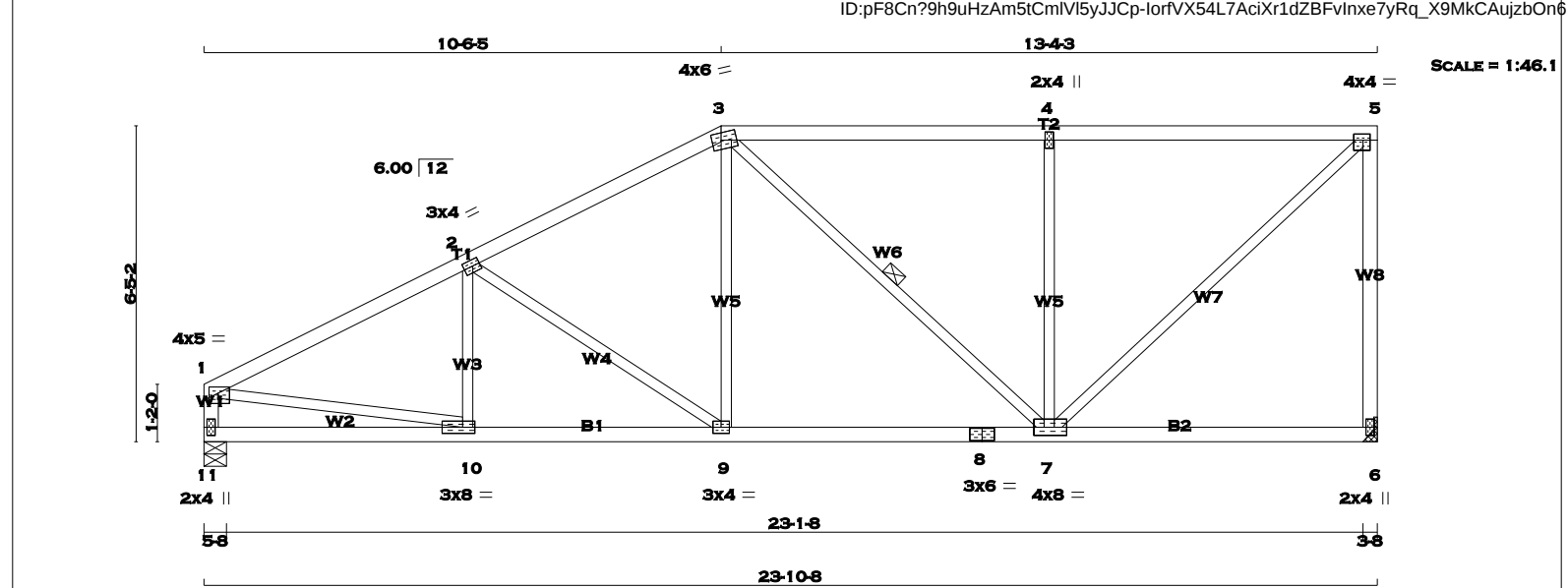
READ ALL NOTES ON THIS PAGE AND ON THE  
ENGINEERING NOTE PAGE ENP-1. THE NOTE PAGE  
IS AN INTEGRAL PART OF THIS DRAWING AS IT  
CONTAINS SPECIFICATIONS AND CRITERIA USED  
IN THE DESIGN OF THIS COMPONENT.







|                                                                                                                                                                                                                                                                                  |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |  |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|
| <b>LUMBER</b><br>N. L. G. A. RULES<br>CHORDS SIZE<br>1 - 4 2x4 DRY No.2<br>4 - 5 2x4 DRY No.2<br>5 - 7 2x4 DRY No.2<br>8 - 7 2x4 DRY No.2<br>13- 2 2x4 DRY No.2<br>13- 10 2x4 DRY No.2<br>10- 8 2x4 DRY No.2<br><br>ALL WEBS 2x3 DRY No.2<br>EXCEPT<br><br>DRY: SEASONED LUMBER. |  | <b>DIMENSIONS, SUPPORTS AND LOADINGS SPECIFIED BY FABRICATOR TO BE VERIFIED BY BUILDING DESIGNER</b><br><b>BEARINGS</b><br>FACTORED GROSS REACTION<br>JT VERT HORZ<br>8 1132 0<br>13 1237 0<br><br>MAXIMUM FACTORED GROSS REACTION<br>DOWN HORZ UPLIFT<br>1132 0 0<br>1237 0 0<br><br>INPUT BRG IN-SX<br>HANGER BY OTHERS<br>MIN. SEAT SIZE: 3-8<br>5-8 5-8<br><br>REQRD BRG IN-SX<br><br><br><br><b>UNFACTORED REACTIONS</b><br>1ST LCASE MAX./MIN. COMPONENT REACTIONS<br>JT COMBINED SNOW LIVE PERM.LIVE WIND DEAD SOIL<br>8 795 556 / 0 0 / 0 0 / 0 0 / 0 239 / 0 0 / 0<br>13 866 619 / 0 0 / 0 0 / 0 0 / 0 247 / 0 0 / 0<br><br>BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S) 13<br><br><b>BRACING</b><br>TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 4.72 FT.<br>MAX. UNBRACED BOTTOM CHORD LENGTH = 10.00 FT. OR RIGID CEILING DIRECTLY APPLIED.<br><br>ALL PITCH BREAKS AND PERIMETER CORNER JOINTS MUST BE Laterally RESTRAINED.<br><br>1 - 2x3 SPF No.2 LATERAL BRACE(S) AT 1/2 LENGTH OF 7-8. DBS = 12-0-0 . CBF = 82 LBS.<br>1 - 2x3 SPF No.2 LATERAL BRACE(S) AT 1/2 LENGTH OF 5-9. DBS = 20-0-0 . CBF = 50 LBS.<br><br>DBS = DIAGONAL BRACE SPACING (MAX). CBF = CUMULATIVE BRACING FORCE. FASTEN LATERAL BRACE(S) USING (0.122"x3") SPIRAL NAILS : 1 NAIL FOR 2x3 BRACE(S), 2 FOR 1x4, 2x4, 2x5, 3 FOR 2x6, 4 FOR 2x8, 5 FOR 2x10, AND 6 FOR 2x12.<br><br>END VERTICAL(S) MUST BE SHEATHED OR HAVE BRACES AS INDICATED IN THE MAX. UNBRACED LENGTH COLUMN OF THE TABLE BELOW<br><br><b>LOADING</b><br>TOTAL LOAD CASES: (3)<br><br>CHORDS MAX. FACTORED FORCE (LBS) FACTORED VERT. LOAD LC1 MAX. MAX. WEBS MAX. FACTORED FORCE (LBS) MAX. FACTORED FORCE (LBS)<br>MEMB. FR-TO MEMB. FR-TO<br>1-2 0 / 23 -77.3 -77.3 0.10 (1) 10.00 12-3 -50 / 97 0.03 (3)<br>2-3 -1549 / 0 -77.3 -77.3 0.50 (1) 4.72 3-11 -609 / 0 0.77 (1)<br>3-4 -1031 / 0 -77.3 -77.3 0.45 (1) 5.58 11-5 0 / 428 0.10 (1)<br>4-5 -1031 / 0 -77.3 -77.3 0.45 (1) 5.58 5-9 -400 / 0 0.23 (1)<br>5-6 -670 / 0 -77.3 -77.3 0.28 (1) 6.25 9-6 -512 / 0 0.57 (1)<br>6-7 -670 / 0 -77.3 -77.3 0.28 (1) 6.25 9-7 0 / 1151 0.26 (1)<br>8-7 -1093 / 0 0.0 0.0 0.30 (1) 6.05 2-12 0 / 1421 0.32 (1)<br>13-2 -1189 / 0 0.0 0.0 0.12 (1) 7.32<br><br>13-12 0 / 0 -17.5 -17.5 0.19 (3) 10.00<br>12-11 0 / 1410 -17.5 -17.5 0.32 (1) 10.00<br>11-10 0 / 902 -17.5 -17.5 0.21 (1) 10.00<br>10-9 0 / 902 -17.5 -17.5 0.21 (1) 10.00<br>9-8 0 / 0 -17.5 -17.5 0.11 (3) 10.00 |  | <b>DESIGN CRITERIA</b><br><br>SPECIFIED LOADS:<br>TOP CH. LL = 23.3 PSF<br>DL = 3.0 PSF<br>BOT CH. LL = 0.0 PSF<br>DL = 7.0 PSF<br>TOTAL LOAD = 33.3 PSF<br><br><b>SPACING = 24.0 IN. C/C</b><br><br>LOADING IN FLAT SECTION BASED ON A SLOPE OF 6.00/12<br><br>THIS TRUSS IS DESIGNED FOR RESIDENTIAL OR SMALL BUILDING REQUIREMENTS OF PART 9, NBCC 2010<br><br>THIS DESIGN COMPLIES WITH:<br>- PART 9 OF OBC 2012, BCBC 2012, ABC 2014<br>- CSA 086-09<br>- TPIC 2011<br><br>(55 % OF 27.2 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 23.3 P.S.F. SPECIFIED ROOF LIVE LOAD<br><br>ALLOWABLE DEFL.(LL)= L/360 (0.80")<br>CALCULATED VERT. DEFL.(LL) = L/ 999 (0.06")<br>ALLOWABLE DEFL.(TL)= L/360 (0.80")<br>CALCULATED VERT. DEFL.(TL) = L/ 999 (0.11")<br><br>CSI: TC=0.50 (2-3:1), BC=0.32 (11-12:1), WB=0.77 (3-11:1), SSI=0.22 (2-3:1)<br><br>DOL LUMBER=1.00 NAIL=1.00 LS BEND=1.10 COMP=1.10 SHEAR=1.10 TENS= 1.10<br><br>COMPANION LIVE LOAD FACTOR = 0.50<br><br>TRUSS PLATE MANUFACTURER IS NOT RESPONSIBLE FOR QUALITY CONTROL IN THE TRUSS MANUFACTURING PLANT .<br><br>NAIL VALUES<br>PLATE GRIP(DRY) SHEAR SECTION (PSI) (PLI) (PLI)<br>MAX MIN MAX MIN MAX MIN<br>MT20 618 354 1667 822 2284 1656<br><br>PLATE PLACEMENT TOL. = 0.250 inches<br><br>PLATE ROTATION TOL. = 5.0 Deg.<br><br>JSI GRIP= 0.89 (7) (INPUT = 0.90 )<br>JSI METAL= 0.40 (2) (INPUT = 1.00 ) |  |
|                                                                                                                                                                                                |  | <div>RECEIVED<br/>TOWN OF MILTON<br/>MAR 29, 2017<br/>17-4990<br/>BUILDING DIVISION</div> <div>READ ALL NOTES ON THIS PAGE AND ON THE<br/>ENGINEERING NOTE PAGE ENP-1. THE NOTE PAGE<br/>IS AN INTEGRAL PART OF THIS DRAWING AS IT<br/>CONTAINS SPECIFICATIONS AND CRITERIA USED<br/>IN THE DESIGN OF THIS COMPONENT.</div>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |  |



LUMBER

N. L. G. A. RULES

CHORDS

SIZE

LUMBER

DESCR.

SPF

1 - 3

2x4

DRY

No.2

SPF

3 - 5

2x4

DRY

No.2

SPF

6 - 5

2x4

DRY

No.2

SPF

11 - 1

2x4

DRY

No.2

SPF

11 - 8

2x4

DRY

No.2

SPF

8 - 6

2x4

DRY

No.2

SPF

ALL WEBS

2x3

DRY

No.2

SPF

EXCEPT

DRY: SEASONED LUMBER.

TOTAL WEIGHT = 99 lb

[M]

| 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     |  |
| 6                                                                                             | 1132 | 0                       |      | 1132                            | 0    | 0         | HANGER BY OTHERS    |           |  |
| 11                                                                                            | 1132 | 0                       |      | 1132                            | 0    | 0         | MIN. SEAT SIZE: 3-8 |           |  |

| UNFACTORED REACTIONS |     |           |      |                |  |            |       |         |       |
|----------------------|-----|-----------|------|----------------|--|------------|-------|---------|-------|
|                      |     | 1ST LCASE |      | MAX./MIN. LIVE |  | PERM. LIVE |       | DEAD    |       |
| JT                   |     | COMBINED  | SNOW |                |  |            |       |         | SOIL  |
| 6                    | 795 | 556 / 0   |      | 0 / 0          |  | 0 / 0      | 0 / 0 | 239 / 0 | 0 / 0 |
| 11                   | 795 | 556 / 0   |      | 0 / 0          |  | 0 / 0      | 0 / 0 | 239 / 0 | 0 / 0 |

BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S) 11

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

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

1 - 2x3 SPF No.2 LATERAL BRACE(S) AT 1/2 LENGTH OF 3-7. DBS = 20-0-0 . CBF = 22 LBS.

DBS = DIAGONAL BRACE SPACING (MAX). CBF = CUMULATIVE BRACING FORCE. FASTEN LATERAL BRACE(S) USING (0.122"x3") SPIRAL NAILS : 1 NAIL FOR 2x3 BRACE(S), 2 FOR 1x4, 2x4, 2x5, 3 FOR 2x6, 4 FOR 2x8, 5 FOR 2x10, AND 6 FOR 2x12.

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: (3)

| C H O R D S |           |               |            |          | W E B S |               |           |             |     |
|-------------|-----------|---------------|------------|----------|---------|---------------|-----------|-------------|-----|
|             |           | MAX. FACTORED |            | FACTORED |         | MAX. FACTORED |           | FACTORED    |     |
| MEMB.       |           | FORCE (LBS)   | VERT. LOAD | LC1 MAX  | UNBRAC  | MEMB.         |           | FORCE (LBS) | MAX |
|             |           |               |            | CSI (LC) | LENGTH  |               |           |             |     |
| FR-TO       |           | FROM          | TO         |          |         | FR-TO         |           | FROM        | TO  |
| 1-2         | -1556 / 0 | -77.3         | -77.3      | 0.42 (1) | 4.80    | 10-2          | -129 / 48 | 0.03 (1)    |     |
| 2-3         | -1242 / 0 | -77.3         | -77.3      | 0.39 (1) | 5.26    | 2-9           | -385 / 0  | 0.28 (1)    |     |
| 3-4         | -968 / 0  | -77.3         | -77.3      | 0.64 (1) | 5.28    | 9-3           | 0 / 317   | 0.07 (1)    |     |
| 4-5         | -968 / 0  | -77.3         | -77.3      | 0.64 (1) | 5.28    | 3-7           | -174 / 0  | 0.10 (1)    |     |
| 6-5         | -1085 / 0 | 0.0           | 0.0        | 0.91 (1) | 7.58    | 7-4           | -641 / 0  | 0.43 (1)    |     |
| 11-1        | -1091 / 0 | 0.0           | 0.0        | 0.11 (1) | 7.57    | 7-5           | 0 / 1315  | 0.30 (1)    |     |
|             |           |               |            |          |         | 1-10          | 0 / 1428  | 0.32 (1)    |     |
| 11-10       | 0 / 0     | -17.5         | -17.5      | 0.11 (3) | 10.00   |               |           |             |     |
| 10-9        | 0 / 1410  | -17.5         | -17.5      | 0.29 (1) | 10.00   |               |           |             |     |
| 9-8         | 0 / 1096  | -17.5         | -17.5      | 0.28 (1) | 10.00   |               |           |             |     |
| 8-7         | 0 / 1096  | -17.5         | -17.5      | 0.28 (1) | 10.00   |               |           |             |     |
| 7-6         | 0 / 0     | -17.5         | -17.5      | 0.19 (3) | 10.00   |               |           |             |     |

COMPANION LIVE LOAD FACTOR = 0.50

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

NAIL VALUES  
PLATE GRIP(DRY) SHEAR SECTION (PSI) (PLI) (PLI)  
MAX MIN MAX MIN MAX MIN  
MT20 618 354 1667 822 2284 1656

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.89 (10) (INPUT = 0.90 )  
JSI METAL= 0.39 (1) (INPUT = 1.00 )

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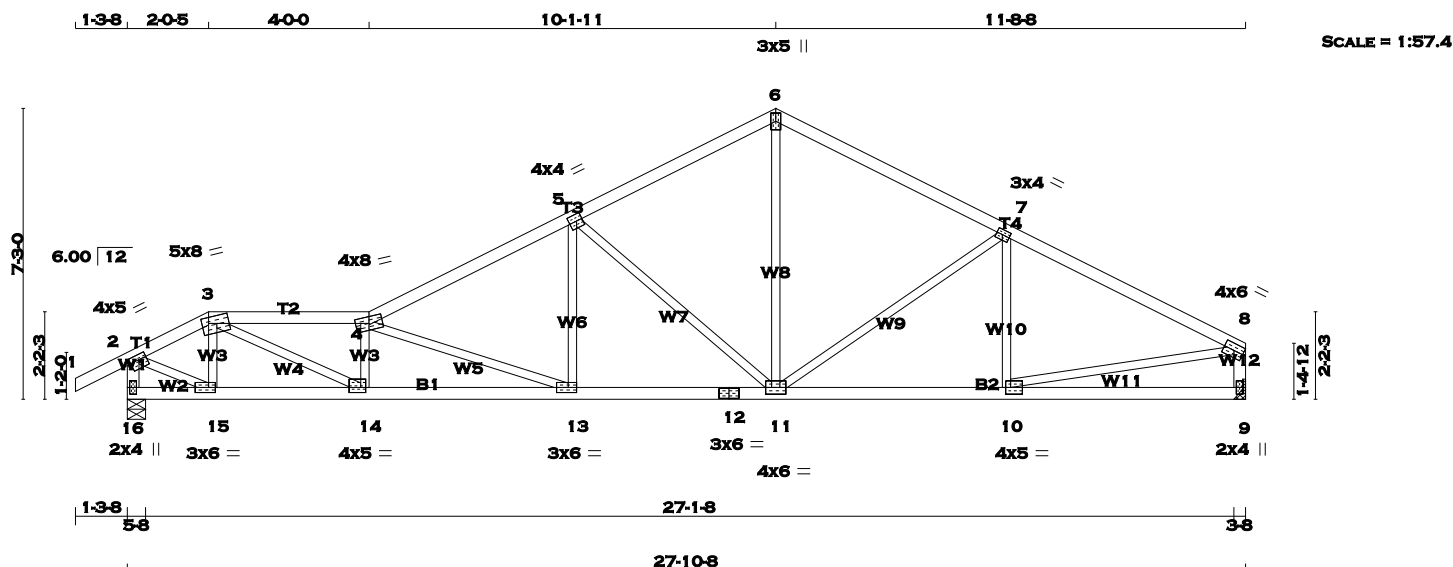
READ ALL NOTES ON THIS PAGE AND ON THE

ENGINEERING NOTE PAGE ENP-1. THE NOTE PAGE

IS AN INTEGRAL PART OF THIS DRAWING AS IT

CONTAINS SPECIFICATIONS AND CRITERIA USED

IN THE DESIGN OF THIS COMPONENT.



TOTAL WEIGHT = 109 lb

| LUMBER            |      |        |        |
|-------------------|------|--------|--------|
| N. L. G. A. RULES |      |        |        |
| CHORDS            | SIZE | LUMBER | DESCR. |
| 1 - 3             | 2x4  | No.2   | SPF    |
| 3 - 4             | 2x4  | DRY    | No.2   |
| 4 - 6             | 2x4  | DRY    | No.2   |
| 6 - 8             | 2x4  | DRY    | No.2   |
| 16 - 2            | 2x4  | DRY    | No.2   |
| 9 - 8             | 2x4  | DRY    | No.2   |
| 16 - 12           | 2x4  | DRY    | No.2   |
| 12 - 9            | 2x4  | DRY    | No.2   |

ALL WEBS 2x3 DRY No.2 SPF

DRY: SEASONED LUMBER.

| PLATES (table is in inches) |         |        |     | W   | LEN  | Y    | X |
|-----------------------------|---------|--------|-----|-----|------|------|---|
| JT                          | TYPE    | PLATES |     |     |      |      |   |
| 2                           | TMVW-t  | MT20   | 4.0 | 5.0 | 1.50 | 2.25 |   |
| 3                           | TTWW-m  | MT20   | 5.0 | 8.0 | 1.75 | 2.00 |   |
| 4                           | TTWW-m  | MT20   | 4.0 | 8.0 |      |      |   |
| 5                           | MMWW-t  | MT20   | 4.0 | 4.0 | 2.00 | 1.75 |   |
| 6                           | TTW+p   | MT20   | 3.0 | 5.0 |      |      |   |
| 7                           | TMVW-t  | MT20   | 3.0 | 4.0 | 1.50 | 1.75 |   |
| 8                           | TMVW-t  | MT20   | 4.0 | 6.0 |      |      |   |
| 9                           | BMV1+p  | MT20   | 2.0 | 4.0 |      |      |   |
| 10                          | BMVW-t  | MT20   | 4.0 | 5.0 | 2.00 | 1.50 |   |
| 11                          | BMVWW-t | MT20   | 4.0 | 6.0 |      |      |   |
| 12                          | BS-t    | MT20   | 3.0 | 6.0 |      |      |   |
| 13                          | BMVW-t  | MT20   | 3.0 | 6.0 | 1.50 | 2.50 |   |
| 14                          | BMVW-t  | MT20   | 4.0 | 5.0 | 1.50 | 1.50 |   |
| 15                          | BMVW-t  | MT20   | 3.0 | 6.0 | 1.50 | 2.00 |   |
| 16                          | BMV1+n  | MT20   | 2.0 | 4.0 |      |      |   |

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

A SIZE FOR SIZE SUBSTITUTION OF MITEK MII20 WITH TEE-LOK TL20 PLATES IS ALLOWED.

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

| FACTORED       |      |      | MAXIMUM FACTORED |      |        | INPUT            | REQ'D               |
|----------------|------|------|------------------|------|--------|------------------|---------------------|
| GROSS REACTION |      |      | GROSS REACTION   |      |        | BRG              | BRG                 |
| JT             | VERT | HORZ | DOWN             | HORZ | UPLIFT | IN-SX            | IN-SX               |
| 16             | 1427 | 0    | 1427             | 0    | 0      | 5-8              | 5-8                 |
| 9              | 1322 | 0    | 1322             | 0    | 0      | HANGER BY OTHERS |                     |
|                |      |      |                  |      |        |                  | MIN. SEAT SIZE: 3-8 |

### UNFACTORED REACTIONS

| 1ST LCASE |          | MAX./MIN. COMPONENT REACTIONS |       |           |       |         |       |
|-----------|----------|-------------------------------|-------|-----------|-------|---------|-------|
| JT        | COMBINED | SNOW                          | LIVE  | PERM.LIVE | WIND  | DEAD    | SOIL  |
| 16        | 999      | 712 / 0                       | 0 / 0 | 0 / 0     | 0 / 0 | 287 / 0 | 0 / 0 |
| 9         | 928      | 649 / 0                       | 0 / 0 | 0 / 0     | 0 / 0 | 279 / 0 | 0 / 0 |

BEARING MATERIAL TO BE SPE NO.2 OR BETTER AT JOINT(S) 16

## BRACING

TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 3.67 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: (3)**

| C H O R D S |                           |                           |               | W E B S     |       |                           |               |
|-------------|---------------------------|---------------------------|---------------|-------------|-------|---------------------------|---------------|
| MEMB.       | MAX. FACTORED FORCE (LBS) | FACTORED VERT. LOAD (PLF) | MAX. LC1 (LC) | MAX. UNBRAC | MEMB. | MAX. FACTORED FORCE (LBS) | MAX. CSI (LC) |
| FR-TO       |                           | FROM                      | TO            | LENGTH      | FR-TO |                           |               |
| 1-2         | 0/23                      | -77.3                     | -77.3         | 10.00       | 15-3  | -461/0                    | 0.07 (1)      |
| 2-3         | -1535/0                   | -77.3                     | -77.3         | 5.27        | 3-14  | 0/2114                    | 0.48 (1)      |
| 3-4         | -3249/0                   | -77.3                     | -77.3         | 3.67        | 4-4   | -879/0                    | 0.13 (1)      |
| 4-5         | -2288/0                   | -77.3                     | -77.3         | 4.24        | 4-13  | -1313/0                   | 0.67 (1)      |
| 5-6         | -1473/0                   | -77.3                     | -77.3         | 5.13        | 13-5  | 0/563                     | 0.13 (1)      |
| 6-7         | -1477/0                   | -77.3                     | -77.3         | 4.99        | 5-11  | -1017/0                   | 0.85 (1)      |
| 7-8         | -1778/0                   | -77.3                     | -77.3         | 4.61        | 11-6  | 0/981                     | 0.22 (1)      |
| 16-2        | -1426/0                   | 0.0                       | 0.0           | 6.84        | 11-7  | -383/0                    | 0.36 (1)      |
| 9-8         | -1278/0                   | 0.0                       | 0.0           | 7.13        | 10-7  | -182/44                   | 0.05 (1)      |
|             |                           |                           |               |             | 2-15  | 0/1478                    | 0.33 (1)      |
| 16-15       | 0/0                       | -17.5                     | -17.5         | 10.00       | 10-8  | 0/1638                    | 0.37 (1)      |
| 15-14       | 0/1345                    | -17.5                     | -17.5         | 10.00       |       |                           |               |
| 14-13       | 0/3298                    | -17.5                     | -17.5         | 10.00       |       |                           |               |
| 13-12       | 0/2067                    | -17.5                     | -17.5         | 10.00       |       |                           |               |
| 12-11       | 0/2067                    | -17.5                     | -17.5         | 10.00       |       |                           |               |
| 11-10       | 0/1611                    | -17.5                     | -17.5         | 10.00       |       |                           |               |
| 10-9        | 0/0                       | -17.5                     | -17.5         | 10.00       |       |                           |               |

## DESIGN CRITERIA

SPECIFIED LOADS:

|            |     |      |      |     |
|------------|-----|------|------|-----|
| TOP        | CH. | LL = | 23.3 | PSF |
|            |     | DL = | 3.0  | PSF |
| BOT        | CH. | LL = | 0.0  | PSF |
|            |     | DL = | 7.0  | PSF |
| TOTAL LOAD |     | =    | 33.3 | PSF |

SPACING = 24.0 IN. C/C

LOADING IN ALL FLAT SECTIONS BASED ON A  
SLOPE OF 6.00/12

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

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

(55 % OF 27.2 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 23.3 P.S.F. SPECIFIED ROOF LIVE LOAD

ALLOWABLE DEFL.(LL)= L/360 (0.93")  
CALCULATED VERT. DEFL.(LL) = L/ 999 (0.16")  
ALLOWABLE DEFL.(TL)= L/360 (0.93")  
CALCULATED VERT. DEFL.(TL) = L/ 999 (0.29")

CSI: TC=0.40 (7-8:1) , BC=0.62 (13-14:1) ,  
WB=0.85 (5-11:1) . SSI=0.20 (7-8:1)

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

COMPANION LIVE LOAD FACTOR = 0.50

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

| NAIL VALUES |                    |     |                |     |                  |
|-------------|--------------------|-----|----------------|-----|------------------|
| PLATE       | GRIP(DRY)<br>(PSI) |     | SHEAR<br>(PLI) |     | SECTION<br>(PLI) |
|             | MAX                | MIN | MAX            | MIN | MAX MIN          |
| MT20        | 618                | 354 | 1667           | 822 | 2284 1656        |

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.89 (10) (INPUT = 0.90 )  
JSI METAL= 0.59 (14) (INPUT = 1.00 )

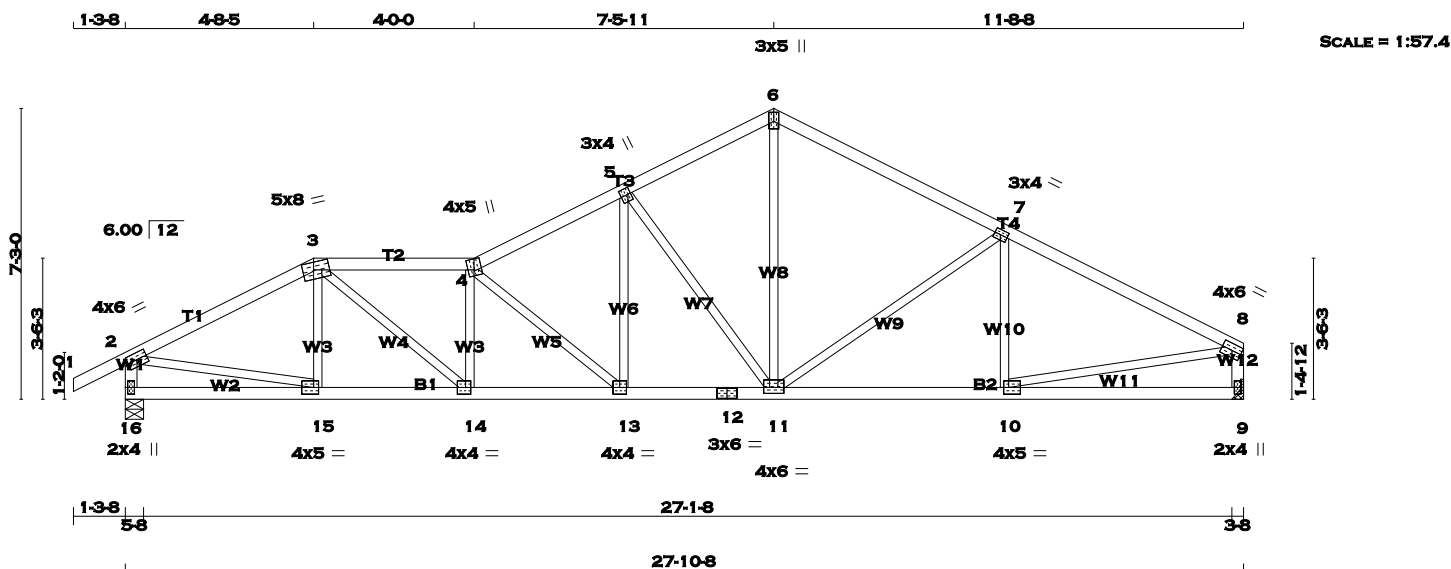
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**READ ALL NOTES ON THIS PAGE AND ON THE  
ENGINEERING NOTE PAGE ENP-1. THE NOTE PAGE  
IS AN INTEGRAL PART OF THIS DRAWING AS IT  
CONTAINS SPECIFICATIONS AND CRITERIA USED  
IN THE DESIGN OF THIS COMPONENT.**





| LUMBER                |      |     |        |        |
|-----------------------|------|-----|--------|--------|
| N. L. G. A. RULES     |      |     |        |        |
| CHORDS                | SIZE |     | LUMBER | DESCR. |
| 1 - 3                 | 2x4  | DRY | No.2   | SPF    |
| 3 - 4                 | 2x4  | DRY | No.2   | SPF    |
| 4 - 6                 | 2x4  | DRY | No.2   | SPF    |
| 6 - 8                 | 2x4  | DRY | No.2   | SPF    |
| 16 - 2                | 2x4  | DRY | No.2   | SPF    |
| 9 - 8                 | 2x4  | DRY | No.2   | SPF    |
| 16 - 12               | 2x4  | DRY | No.2   | SPF    |
| 12 - 9                | 2x4  | DRY | No.2   | SPF    |
| ALL WEBS<br>EXCEPT    | 2x3  | DRY | No.2   | SPF    |
| DRY: SEASONED LUMBER. |      |     |        |        |

| PLATES (table is in inches)                                                      |         |        |     |     |      |      |
|----------------------------------------------------------------------------------|---------|--------|-----|-----|------|------|
| JT                                                                               | TYPE    | PLATES | W   | LEN | Y    | X    |
| 2                                                                                | TMVW-t  | MT20   | 4.0 | 6.0 | 2.00 | 3.00 |
| 3                                                                                | TTWW-m  | MT20   | 5.0 | 8.0 | 2.25 | 3.25 |
| 4                                                                                | TTWW+m  | MT20   | 4.0 | 5.0 | 3.25 | 1.75 |
| 5                                                                                | TMWW+t  | MT20   | 3.0 | 4.0 | 2.00 | 0.75 |
| 6                                                                                | TTW+p   | MT20   | 3.0 | 5.0 | 2.75 | 1.50 |
| 7                                                                                | TMWW-t  | MT20   | 3.0 | 4.0 | 1.50 | 1.75 |
| 8                                                                                | TMVW-t  | MT20   | 4.0 | 6.0 |      | Edge |
| 9                                                                                | BMV1+p  | MT20   | 2.0 | 4.0 |      |      |
| 10                                                                               | BMWW-t  | MT20   | 4.0 | 5.0 | 2.00 | 1.50 |
| 11                                                                               | BMWWW-t | MT20   | 4.0 | 6.0 | 1.75 | 3.00 |
| 12                                                                               | BS-t    | MT20   | 3.0 | 6.0 |      |      |
| 13                                                                               | BMWW-t  | MT20   | 4.0 | 4.0 |      |      |
| 14                                                                               | BMWW-t  | MT20   | 4.0 | 4.0 | 2.00 | 1.50 |
| 15                                                                               | BMWW-t  | MT20   | 4.0 | 5.0 | 2.00 | 1.50 |
| 16                                                                               | BMV1+p  | MT20   | 2.0 | 4.0 |      |      |
| Edge - INDICATES REFERENCE CORNER OF PLATE TOUCHES EDGE OF CHORD.                |         |        |     |     |      |      |
| A SIZE FOR SIZE SUBSTITUTION OF MITEK MII20 WITH TEE-LOK TL20 PLATES IS ALLOWED. |         |        |     |     |      |      |



| 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     |  |
| 16                                                                                            |  | 1427                    | 0       | 1427                            | 0         | 0         | 5-8                 | 5-8       |  |
| 9                                                                                             |  | 1322                    | 0       | 1322                            | 0         | 0         | HANGER BY OTHERS    |           |  |
|                                                                                               |  |                         |         |                                 |           |           | MIN. SEAT SIZE: 3-8 |           |  |
| UNFACTORED REACTIONS                                                                          |  |                         |         |                                 |           |           |                     |           |  |
|                                                                                               |  | 1ST LCASE               |         | MAX./MIN. COMPONENT REACTIONS   |           |           |                     |           |  |
| JT                                                                                            |  | COMBINED                | SNOW    | LIVE                            | PERM.LIVE | WIND      | DEAD                | SOIL      |  |
| 16                                                                                            |  | 999                     | 712 / 0 | 0 / 0                           | 0 / 0     | 0 / 0     | 287 / 0             | 0 / 0     |  |
| 9                                                                                             |  | 928                     | 649 / 0 | 0 / 0                           | 0 / 0     | 0 / 0     | 279 / 0             | 0 / 0     |  |

BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S) 16

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

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

**LOADING**  
TOTAL LOAD CASES: (3)

| CHORDS |             |                  |                     | WEBS  |             |                     |          |
|--------|-------------|------------------|---------------------|-------|-------------|---------------------|----------|
| MEMB.  | FORCE (LBS) | VERT. LOAD (PLF) | MAX. FACTORED (LC1) | MEMB. | FORCE (LBS) | MAX. FACTORED (LC1) |          |
| FR-TO  |             | FROM TO          |                     | FR-TO |             |                     |          |
| 1-2    | 0 / 23      | -77.3 -77.3      | 0.10 (1)            | 10-00 | 15-3        | -199 / 12           | 0.04 (1) |
| 2-3    | -1816 / 0   | -77.3 -77.3      | 0.27 (1)            | 4.72  | 3-14        | 0 / 1064            | 0.24 (1) |
| 3-4    | -2438 / 0   | -77.3 -77.3      | 0.23 (1)            | 4.22  | 14-4        | -623 / 0            | 0.13 (1) |
| 4-5    | -2018 / 0   | -77.3 -77.3      | 0.18 (1)            | 4.63  | 4-13        | -842 / 0            | 0.34 (1) |
| 5-6    | -1467 / 0   | -77.3 -77.3      | 0.15 (1)            | 5.27  | 13-5        | 0 / 609             | 0.14 (1) |
| 6-7    | -1477 / 0   | -77.3 -77.3      | 0.37 (1)            | 4.99  | 5-11        | -877 / 0            | 0.62 (1) |
| 7-8    | -1778 / 0   | -77.3 -77.3      | 0.40 (1)            | 4.61  | 11-6        | 0 / 1019            | 0.23 (1) |
| 16-2   | -1391 / 0   | 0.0              | 0.0                 | 6.90  | 11-7        | -383 / 0            | 0.36 (1) |
| 9-8    | -1278 / 0   | 0.0              | 0.0                 | 7.13  | 10-7        | -182 / 45           | 0.05 (1) |
|        |             |                  |                     |       | 2-15        | 0 / 1649            | 0.37 (1) |
|        |             |                  |                     |       | 10-8        | 0 / 1638            | 0.37 (1) |
| 16-15  | 0 / 0       | -17.5 -17.5      | 0.08 (3)            | 10.00 |             |                     |          |
| 15-14  | 0 / 1617    | -17.5 -17.5      | 0.30 (1)            | 10.00 |             |                     |          |
| 14-13  | 0 / 2458    | -17.5 -17.5      | 0.44 (1)            | 10.00 |             |                     |          |
| 13-12  | 0 / 1819    | -17.5 -17.5      | 0.35 (1)            | 10.00 |             |                     |          |
| 12-11  | 0 / 1819    | -17.5 -17.5      | 0.35 (1)            | 10.00 |             |                     |          |
| 11-10  | 0 / 1611    | -17.5 -17.5      | 0.32 (1)            | 10.00 |             |                     |          |
| 10-9   | 0 / 0       | -17.5 -17.5      | 0.14 (3)            | 10.00 |             |                     |          |

**DESIGN CRITERIA**

SPECIFIED LOADS:  
TOP CH. LL = 23.3 PSF  
DL = 3.0 PSF  
BOT CH. LL = 0.0 PSF  
DL = 7.0 PSF  
TOTAL LOAD = 33.3 PSF

**SPACING = 24.0 IN./C**

LOADING IN ALL FLAT SECTIONS BASED ON A SLOPE OF 6.00/12

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

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

(55 % OF 27.2 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 23.3 P.S.F. SPECIFIED ROOF LIVE LOAD

ALLOWABLE DEFL.(LL)= L/360 (0.93")  
CALCULATED VERT. DEFL.(LL) = L/ 999 (0.12")  
ALLOWABLE DEFL.(TL)= L/360 (0.93")  
CALCULATED VERT. DEFL.(TL) = L/ 999 (0.21")

CSI: TC=0.40 (7-8:1), BC=0.44 (13-14:1), WB=0.62 (5-11:1), SSI=0.20 (7-8:1)

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

COMPANION LIVE LOAD FACTOR = 0.50

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

NAIL VALUES  
PLATE GRIP(DRY) SHEAR SECTION (PSI) (PLI) (PLI)  
MAX MIN MAX MIN MAX MIN  
MT20 618 354 1667 822 2284 1656

PLATE PLACEMENT TOL. = 0.250 inches

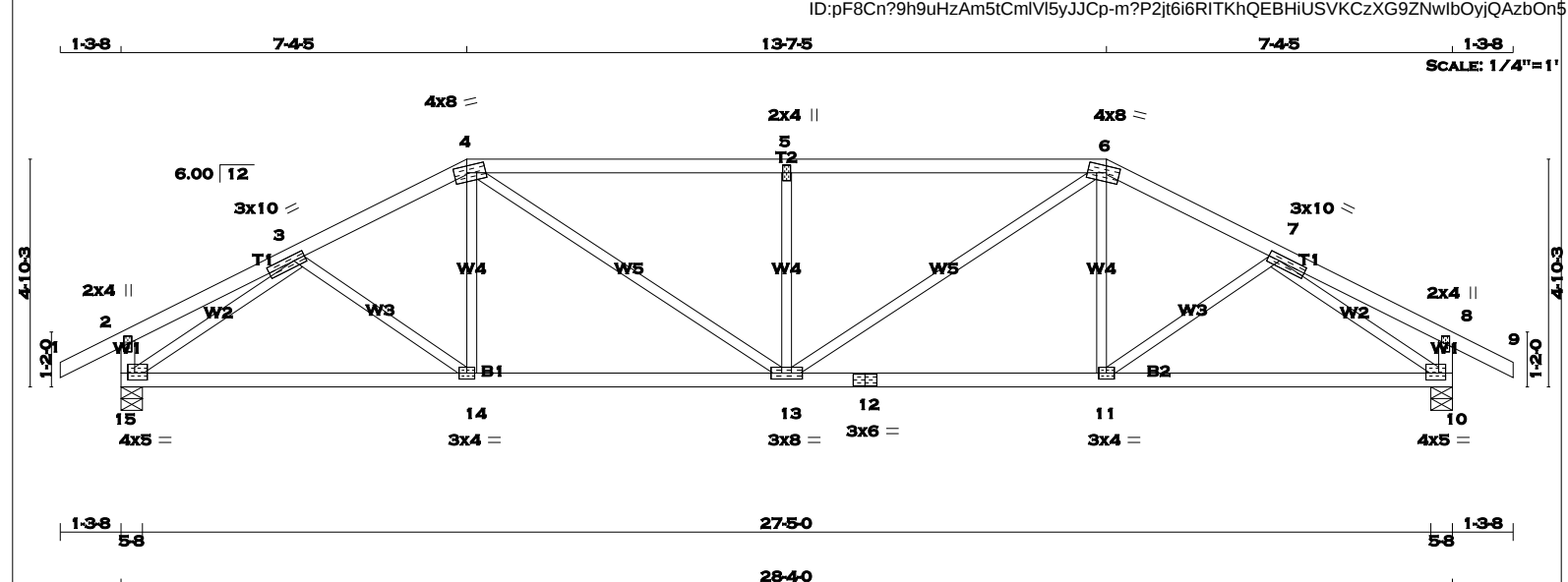
PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.89 (10) (INPUT = 0.90 )  
JSI METAL= 0.49 (2) (INPUT = 1.00 )

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READ ALL NOTES ON THIS PAGE AND ON THE  
ENGINEERING NOTE PAGE ENP-1. THE NOTE PAGE  
IS AN INTEGRAL PART OF THIS DRAWING AS IT  
CONTAINS SPECIFICATIONS AND CRITERIA USED  
IN THE DESIGN OF THIS COMPONENT.





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

1 - 4 2x4 DRY No.2 SPF  
4 - 6 2x4 DRY No.2 SPF  
6 - 9 2x4 DRY No.2 SPF  
15 - 2 2x4 DRY No.2 SPF  
10 - 8 2x4 DRY No.2 SPF  
15 - 12 2x4 DRY No.2 SPF  
12 - 10 2x4 DRY No.2 SPF  
ALL WEBS 2x3 DRY No.2 SPF  
EXCEPT  
DRY: SEASONED LUMBER.

**TOTAL WEIGHT = 109 lb**  
[M][F]

| 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     |  |
| 15                                                                                            | 1449 | 0                       | 1449 | 0                               | 0    | 5-8       | 5-8   | 5-8       |  |
| 10                                                                                            | 1449 | 0                       | 1449 | 0                               | 0    | 5-8       | 5-8   | 5-8       |  |

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

JT COMBINED SNOW LIVE PERM.LIVE WIND DEAD SOIL  
15 1014 723 / 0 0 / 0 0 / 0 291 / 0 0 / 0  
10 1014 723 / 0 0 / 0 0 / 0 291 / 0 0 / 0

BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S) 15, 10

**BRACING**  
TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 4.02 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.

**LOADING**  
TOTAL LOAD CASES: (3)

| CHORDS |           |               |       |          |       |             |           |          |  |
|--------|-----------|---------------|-------|----------|-------|-------------|-----------|----------|--|
|        |           | MAX. FACTORED |       | FACTORED |       | MEMB. FORCE |           | MAX      |  |
|        |           | (LBS)         |       | (PLF)    |       | (LBS)       |           | (LC)     |  |
|        |           | FROM          |       | TO       |       | LENGTH      |           | FR-TO    |  |
| 1-2    | 0 / 23    | -77.3         | -77.3 | 0.10 (1) | 10.00 | 3-14        | 0 / 68    | 0.02 (3) |  |
| 2-3    | 0 / 12    | -77.3         | -77.3 | 0.14 (1) | 10.00 | 14-4        | 0 / 127   | 0.04 (3) |  |
| 3-4    | -1835 / 0 | -77.3         | -77.3 | 0.15 (1) | 4.83  | 4-13        | 0 / 673   | 0.15 (1) |  |
| 4-5    | -2191 / 0 | -77.3         | -77.3 | 0.55 (1) | 4.02  | 13-5        | -647 / 0  | 0.22 (1) |  |
| 5-6    | -2191 / 0 | -77.3         | -77.3 | 0.55 (1) | 4.02  | 13-6        | 0 / 673   | 0.15 (1) |  |
| 6-7    | -1835 / 0 | -77.3         | -77.3 | 0.15 (1) | 4.83  | 11-6        | 0 / 127   | 0.04 (3) |  |
| 7-8    | 0 / 12    | -77.3         | -77.3 | 0.14 (1) | 10.00 | 11-7        | 0 / 68    | 0.02 (3) |  |
| 8-9    | 0 / 23    | -77.3         | -77.3 | 0.10 (1) | 10.00 | 15-3        | -1989 / 0 | 0.68 (1) |  |
| 15-2   | -220 / 0  | 0.0           | 0.0   | 0.02 (1) | 7.81  | 7-10        | -1989 / 0 | 0.68 (1) |  |
| 10-8   | -220 / 0  | 0.0           | 0.0   | 0.02 (1) | 7.81  |             |           |          |  |
| 15-14  | 0 / 1605  | -17.5         | -17.5 | 0.38 (1) | 10.00 |             |           |          |  |
| 14-13  | 0 / 1632  | -17.5         | -17.5 | 0.39 (1) | 10.00 |             |           |          |  |
| 13-12  | 0 / 1632  | -17.5         | -17.5 | 0.39 (1) | 10.00 |             |           |          |  |
| 12-11  | 0 / 1632  | -17.5         | -17.5 | 0.39 (1) | 10.00 |             |           |          |  |
| 11-10  | 0 / 1605  | -17.5         | -17.5 | 0.38 (1) | 10.00 |             |           |          |  |

**DESIGN CRITERIA**  
SPECIFIED LOADS:  
TOP CH. LL = 23.3 PSF  
DL = 3.0 PSF  
BOT CH. LL = 0.0 PSF  
DL = 7.0 PSF  
TOTAL LOAD = 33.3 PSF

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

LOADING IN FLAT SECTION BASED ON A SLOPE OF 6.00/12

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

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

(55 % OF 27.2 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 23.3 P.S.F. SPECIFIED ROOF LIVE LOAD

ALLOWABLE DEFL.(LL)= L/360 (0.94")  
CALCULATED VERT. DEFL.(LL) = L/ 999 (0.11")  
ALLOWABLE DEFL.(TL)= L/360 (0.94")  
CALCULATED VERT. DEFL.(TL) = L/ 999 (0.19")

CSI: TC=0.55 (4-5:1), BC=0.39 (11-13:1), WB=0.68 (7-10:1), SSI=0.25 (4-5:1)

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

COMPANION LIVE LOAD FACTOR = 0.50

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

NAIL VALUES  
PLATE GRIP(DRY) SHEAR SECTION  
(Psi) (PLI) (PLI)  
MAX MIN MAX MIN MAX MIN  
MT20 618 354 1667 822 2284 1656

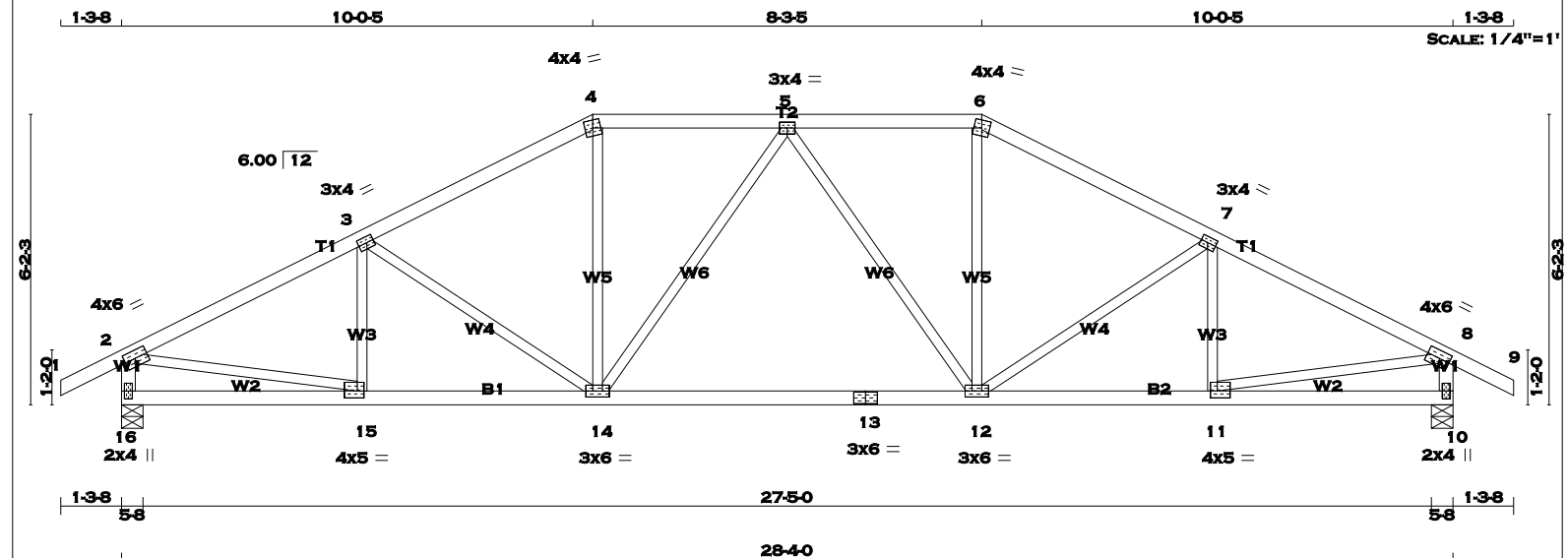
PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.90 (7) (INPUT = 0.90 )  
JSI METAL= 0.48 (15) (INPUT = 1.00 )

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

|                 |     |     |      |     |
|-----------------|-----|-----|------|-----|
| 1 - 4           | 2x4 | DRY | No.2 | SPF |
| 4 - 6           | 2x4 | DRY | No.2 | SPF |
| 6 - 9           | 2x4 | DRY | No.2 | SPF |
| 16 - 2          | 2x4 | DRY | No.2 | SPF |
| 10 - 8          | 2x4 | DRY | No.2 | SPF |
| 16 - 13         | 2x4 | DRY | No.2 | SPF |
| 13 - 10         | 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    |
|----|--------|--------|-----|-----|------|------|
| 2  | TMVW-t | MT20   | 4.0 | 6.0 | 2.00 | 2.75 |
| 3  | TMVW-t | MT20   | 3.0 | 4.0 | 1.50 | 1.75 |
| 4  | TTW-m  | MT20   | 4.0 | 4.0 |      |      |
| 5  | TMVW-t | MT20   | 3.0 | 4.0 |      |      |
| 6  | TTW-m  | MT20   | 4.0 | 4.0 |      |      |
| 7  | TMVW-t | MT20   | 3.0 | 4.0 | 1.50 | 1.75 |
| 8  | TMVW-t | MT20   | 4.0 | 6.0 | 2.00 | 2.75 |
| 10 | BMV1+p | MT20   | 2.0 | 4.0 |      |      |
| 11 | BMVW-t | MT20   | 4.0 | 5.0 | 1.75 | 1.75 |
| 12 | BMVW-t | MT20   | 3.0 | 6.0 |      |      |
| 13 | BS-t   | MT20   | 3.0 | 6.0 |      |      |
| 14 | BMVW-t | MT20   | 3.0 | 6.0 |      |      |
| 15 | BMVW-t | MT20   | 4.0 | 5.0 | 1.75 | 1.75 |
| 16 | BMV1+p | MT20   | 2.0 | 4.0 |      |      |

A SIZE FOR SIZE SUBSTITUTION OF MIITEK MII20 WITH TEE-LOK TL20 PLATES IS ALLOWED.



**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      |
| 16 | 1449                    | 0                               | 1449      | 0         |
| 10 | 1449                    | 0                               | 1449      | 0         |

**UNFACTORED REACTIONS**

| JT | 1ST LCASE COMBINED | MAX/MIN. SNOW | MAX/MIN. LIVE | MAX/MIN. PERM. LIVE | MAX/MIN. WIND | MAX/MIN. DEAD | MAX/MIN. SOIL |
|----|--------------------|---------------|---------------|---------------------|---------------|---------------|---------------|
| 16 | 1014               | 723 / 0       | 0 / 0         | 0 / 0               | 0 / 0         | 291 / 0       | 0 / 0         |
| 10 | 1014               | 723 / 0       | 0 / 0         | 0 / 0               | 0 / 0         | 291 / 0       | 0 / 0         |

BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S) 16, 10

**BRACING**  
 TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 4.61 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: (3)

| CHORDS |                           |                           |                | WEBS  |                           |                           |               |
|--------|---------------------------|---------------------------|----------------|-------|---------------------------|---------------------------|---------------|
| MEMB.  | MAX. FACTORED FORCE (LBS) | FACTORED VERT. LOAD (PLF) | MAX. LC1 (LC)  | MEMB. | MAX. FACTORED FORCE (LBS) | FACTORED VERT. LOAD (PLF) | MAX. LC1 (LC) |
| FR-TO  |                           | FROM                      | TO             | FR-TO |                           | FROM                      | TO            |
| 1-2    | 0 / 23                    | -77.3                     | -77.3 0.10 (1) | 10.00 | 15-3                      | -209 / 11                 | 0.05 (1)      |
| 2-3    | -1902 / 0                 | -77.3                     | -77.3 0.29 (1) | 4.61  | 3-14                      | -277 / 0                  | 0.18 (1)      |
| 3-4    | -1687 / 0                 | -77.3                     | -77.3 0.28 (1) | 4.85  | 14-4                      | 0 / 476                   | 0.11 (1)      |
| 4-5    | -1498 / 0                 | -77.3                     | -77.3 0.19 (1) | 5.18  | 14-5                      | -235 / 0                  | 0.23 (1)      |
| 5-6    | -1498 / 0                 | -77.3                     | -77.3 0.19 (1) | 5.18  | 5-12                      | -235 / 0                  | 0.23 (1)      |
| 6-7    | -1687 / 0                 | -77.3                     | -77.3 0.28 (1) | 4.85  | 12-6                      | 0 / 476                   | 0.11 (1)      |
| 7-8    | -1902 / 0                 | -77.3                     | -77.3 0.29 (1) | 4.61  | 12-7                      | -277 / 0                  | 0.18 (1)      |
| 8-9    | 0 / 23                    | -77.3                     | -77.3 0.10 (1) | 10.00 | 11-7                      | -209 / 11                 | 0.05 (1)      |
| 16-2   | -1407 / 0                 | 0.0                       | 0.0 0.14 (1)   | 6.87  | 2-15                      | 0 / 1742                  | 0.39 (1)      |
| 10-8   | -1407 / 0                 | 0.0                       | 0.0 0.14 (1)   | 6.87  | 11-8                      | 0 / 1742                  | 0.39 (1)      |
| 16-15  | 0 / 0                     | -17.5                     | -17.5 0.10 (3) | 10.00 |                           |                           |               |
| 15-14  | 0 / 1718                  | -17.5                     | -17.5 0.38 (1) | 10.00 |                           |                           |               |
| 14-13  | 0 / 1631                  | -17.5                     | -17.5 0.37 (1) | 10.00 |                           |                           |               |
| 13-12  | 0 / 1631                  | -17.5                     | -17.5 0.37 (1) | 10.00 |                           |                           |               |
| 12-11  | 0 / 1718                  | -17.5                     | -17.5 0.38 (1) | 10.00 |                           |                           |               |
| 11-10  | 0 / 0                     | -17.5                     | -17.5 0.10 (3) | 10.00 |                           |                           |               |

**DESIGN CRITERIA**

**SPECIFIED LOADS:**  
 TOP CH. LL = 23.3 PSF  
 DL = 3.0 PSF  
 BOT CH. LL = 0.0 PSF  
 DL = 7.0 PSF  
 TOTAL LOAD = 33.3 PSF

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

LOADING IN FLAT SECTION BASED ON A SLOPE OF 6.00/12

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

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

(55 % OF 27.2 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 23.3 P.S.F. SPECIFIED ROOF LIVE LOAD

ALLOWABLE DEFL.(LL)= L/360 (0.94")  
 CALCULATED VERT. DEFL.(LL) = L/ 999 (0.08")  
 ALLOWABLE DEFL.(TL)= L/360 (0.94")  
 CALCULATED VERT. DEFL.(TL) = L/ 999 (0.20")

CSI: TC=0.29 (7-8:1), BC=0.38 (11-12:1), WB=0.39 (8-11:1), SSI=0.17 (7-8:1)

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

COMPANION LIVE LOAD FACTOR = 0.50

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

**NAIL VALUES**  
 PLATE GRIP(DRY) SHEAR SECTION  
 (PSI) (PLI) (PLI)  
 MAX MIN MAX MIN MAX MIN  
 MT20 618 354 1667 822 2284 1656

PLATE PLACEMENT TOL. = 0.250 inches

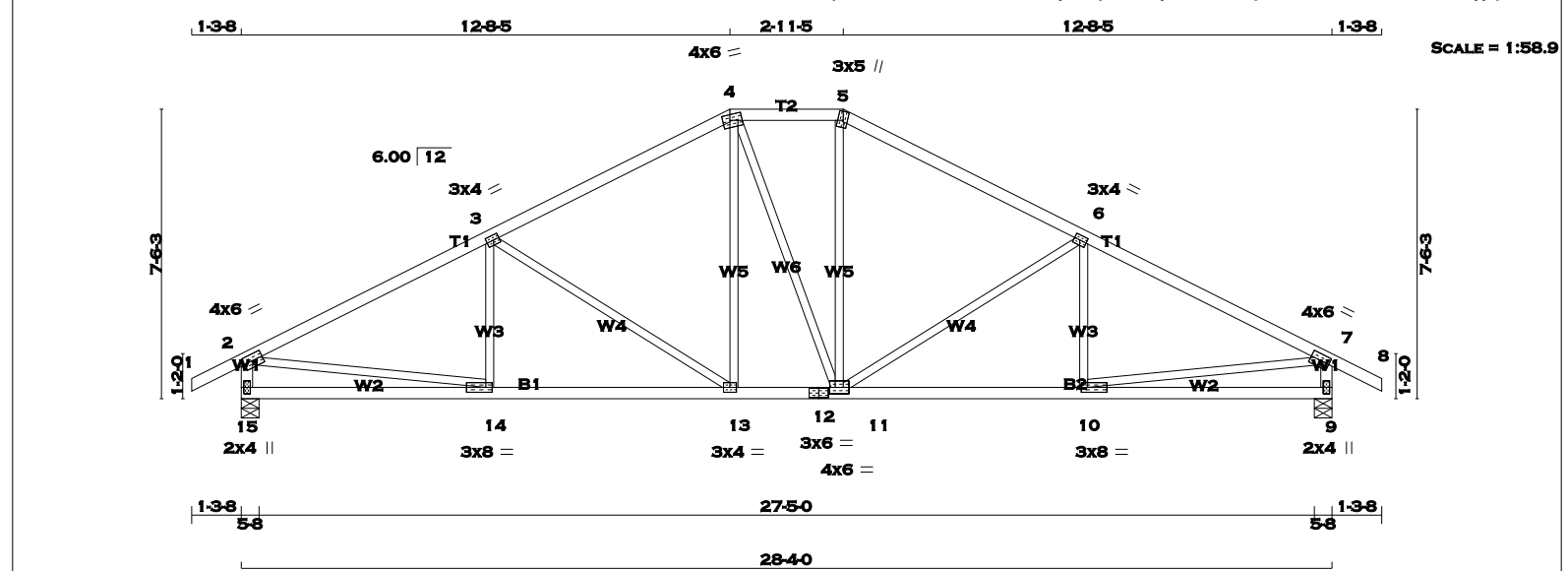
PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.89 (8) (INPUT = 0.90 )  
 JSI METAL= 0.52 (15) (INPUT = 1.00 )

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 17-4990  
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TOTAL WEIGHT = 118 lb  
[M][F]

| LUMBER          |      | N. L. G. A. RULES |      | LUMBER |  | DESCR. |  |
|-----------------|------|-------------------|------|--------|--|--------|--|
| CHORDS          | SIZE |                   |      |        |  |        |  |
| 1 - 4           | 2x4  | DRY               | No.2 |        |  | SPF    |  |
| 4 - 5           | 2x4  | DRY               | No.2 |        |  | SPF    |  |
| 5 - 8           | 2x4  | DRY               | No.2 |        |  | SPF    |  |
| 15 - 2          | 2x4  | DRY               | No.2 |        |  | SPF    |  |
| 9 - 7           | 2x4  | DRY               | No.2 |        |  | SPF    |  |
| 15 - 12         | 2x4  | DRY               | No.2 |        |  | SPF    |  |
| 12 - 9          | 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    |
| 2                           | TMVW-t | MT20   | 4.0 | 6.0 | 2.00 | 2.75 |
| 3                           | TMVW-t | MT20   | 3.0 | 4.0 | 1.50 | 1.75 |
| 4                           | TTWW-m | MT20   | 4.0 | 6.0 | 1.75 | 2.25 |
| 5                           | TTW+m  | MT20   | 3.0 | 5.0 | 2.75 | 1.25 |
| 6                           | TMVW-t | MT20   | 3.0 | 4.0 | 1.50 | 1.75 |
| 7                           | TMVW-t | MT20   | 4.0 | 6.0 | 2.00 | 2.75 |
| 9                           | BMV1+p | MT20   | 2.0 | 4.0 |      |      |
| 10                          | BMVW-t | MT20   | 3.0 | 8.0 | 1.50 | 2.00 |
| 11                          | BMVW-t | MT20   | 4.0 | 6.0 |      |      |
| 12                          | BS-t   | MT20   | 3.0 | 6.0 |      |      |
| 13                          | BMVW-t | MT20   | 3.0 | 4.0 |      |      |
| 14                          | BMVW-t | MT20   | 3.0 | 8.0 | 1.50 | 2.00 |
| 15                          | BMV1+p | MT20   | 2.0 | 4.0 |      |      |

A SIZE FOR SIZE SUBSTITUTION OF MITEK MII20 WITH TEE-LOK TL20 PLATES IS ALLOWED.



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

| BEARINGS |  | FACTORED       |      | MAXIMUM FACTORED |      | INPUT  |       | REQRD |  |
|----------|--|----------------|------|------------------|------|--------|-------|-------|--|
|          |  | GROSS REACTION |      | GROSS REACTION   |      | BRG    |       | BRG   |  |
| JT       |  | VERT           | HORZ | DOWN             | HORZ | UPLIFT | IN-SX | IN-SX |  |
| 15       |  | 1449           | 0    | 1449             | 0    | 0      | 5-8   | 5-8   |  |
| 9        |  | 1449           | 0    | 1449             | 0    | 0      | 5-8   | 5-8   |  |

| UNFACTORED REACTIONS |           |          |      |      |           |      |       |
|----------------------|-----------|----------|------|------|-----------|------|-------|
| JT                   | 1ST LCASE | COMBINED | SNOW | LIVE | PERM.LIVE | WIND | DEAD  |
| 15                   | 1014      | 723      | 0    | 0/0  | 0/0       | 0/0  | 291/0 |
| 9                    | 1014      | 723      | 0    | 0/0  | 0/0       | 0/0  | 291/0 |

BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S) 15, 9

**BRACING**  
TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 4.36 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: (3)

| CHORDS |                           |                           |                | WEBS  |                           |                           |               |
|--------|---------------------------|---------------------------|----------------|-------|---------------------------|---------------------------|---------------|
| MEMB.  | MAX. FACTORED FORCE (LBS) | FACTORED VERT. LOAD (LBS) | MAX. LC1 (LC)  | MEMB. | MAX. FACTORED FORCE (LBS) | FACTORED VERT. LOAD (LBS) | MAX. LC1 (LC) |
| FR-TO  |                           | FROM                      | TO             | FR-TO |                           | FROM                      | TO            |
| 1-2    | 0/23                      | -77.3                     | -77.3 0.10 (1) | 10.00 | 14-3                      | -106/78                   | 0.03 (1)      |
| 2-3    | -1926/0                   | -77.3                     | -77.3 0.49 (1) | 4.36  | 3-13                      | -524/0                    | 0.60 (1)      |
| 3-4    | -1486/0                   | -77.3                     | -77.3 0.44 (1) | 4.88  | 13-4                      | 0/355                     | 0.08 (1)      |
| 4-5    | -1311/0                   | -77.3                     | -77.3 0.10 (1) | 5.55  | 4-11                      | 0/3                       | 0.00 (1)      |
| 5-6    | -1488/0                   | -77.3                     | -77.3 0.44 (1) | 4.88  | 11-5                      | 0/359                     | 0.08 (1)      |
| 6-7    | -1925/0                   | -77.3                     | -77.3 0.49 (1) | 4.36  | 11-6                      | -522/0                    | 0.60 (1)      |
| 7-8    | 0/23                      | -77.3                     | -77.3 0.10 (1) | 10.00 | 10-6                      | -108/77                   | 0.03 (1)      |
| 15-2   | -1402/0                   | 0.0                       | 0.0 0.14 (1)   | 6.88  | 2-14                      | 0/1761                    | 0.40 (1)      |
| 9-7    | -1401/0                   | 0.0                       | 0.0 0.14 (1)   | 6.88  | 10-7                      | 0/1760                    | 0.40 (1)      |
| 15-14  | 0/0                       | -17.5                     | -17.5 0.18 (3) | 10.00 |                           |                           |               |
| 14-13  | 0/1745                    | -17.5                     | -17.5 0.36 (1) | 10.00 |                           |                           |               |
| 13-12  | 0/1310                    | -17.5                     | -17.5 0.27 (1) | 10.00 |                           |                           |               |
| 12-11  | 0/1310                    | -17.5                     | -17.5 0.27 (1) | 10.00 |                           |                           |               |
| 11-10  | 0/1745                    | -17.5                     | -17.5 0.36 (1) | 10.00 |                           |                           |               |
| 10-9   | 0/0                       | -17.5                     | -17.5 0.18 (3) | 10.00 |                           |                           |               |

### DESIGN CRITERIA

| SPECIFIED LOADS:      |    |            |
|-----------------------|----|------------|
| TOP CH.               | LL | = 23.3 PSF |
|                       | DL | = 3.0 PSF  |
| BOT CH.               | LL | = 0.0 PSF  |
|                       | DL | = 7.0 PSF  |
| TOTAL LOAD = 33.3 PSF |    |            |

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

LOADING IN FLAT SECTION BASED ON A SLOPE OF 6.00/12

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

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

(55 % OF 27.2 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 23.3 P.S.F. SPECIFIED ROOF LIVE LOAD

ALLOWABLE DEFL.(LL)= L/360 (0.94")  
CALCULATED VERT. DEFL.(LL) = L/999 (0.08")  
ALLOWABLE DEFL.(TL)= L/360 (0.94")  
CALCULATED VERT. DEFL.(TL) = L/999 (0.16")

CSI: TC=0.49 (2-3:1), BC=0.36 (13-14:1), WB=0.60 (3-13:1), SSI=0.21 (6-7:1)

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

COMPANION LIVE LOAD FACTOR = 0.50

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

| NAIL VALUES |           |       |         |     |      |
|-------------|-----------|-------|---------|-----|------|
| PLATE       | GRIP(DRY) | SHEAR | SECTION |     |      |
| (PSI)       | (PLI)     | (PLI) |         |     |      |
| MAX         | MIN       | MAX   | MIN     | MAX | MIN  |
| MT20        | 618       | 354   | 1667    | 822 | 2284 |

PLATE PLACEMENT TOL. = 0.250 inches

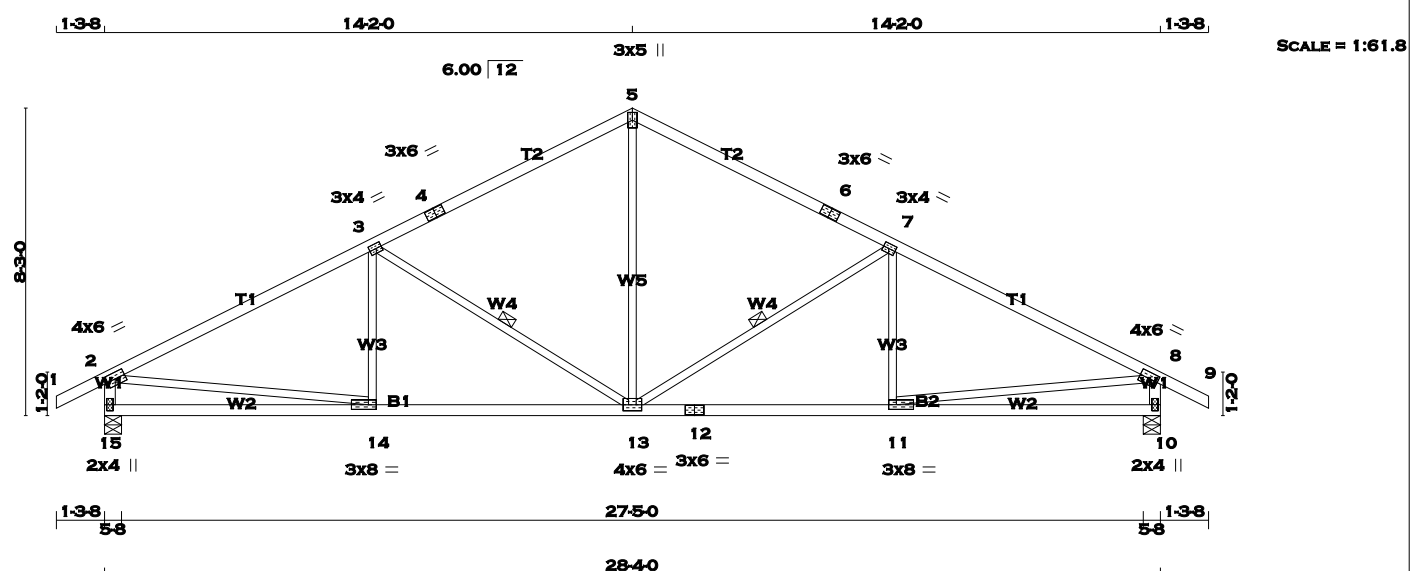
PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.88 (2) (INPUT = 0.90 )  
JSI METAL= 0.52 (2) (INPUT = 1.00 )

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TOTAL WEIGHT = 3 X 111 = 332 lb

[M][F]

| LUMBER                |      |        |        |     |
|-----------------------|------|--------|--------|-----|
| N. L. G. A. RULES     |      |        |        |     |
| CHORDS                | SIZE | LUMBER | DESCR. |     |
| 1 - 4                 | 2x4  | DRY    | No.2   | SPF |
| 4 - 5                 | 2x4  | DRY    | No.2   | SPF |
| 5 - 6                 | 2x4  | DRY    | No.2   | SPF |
| 6 - 9                 | 2x4  | DRY    | No.2   | SPF |
| 15 - 2                | 2x4  | DRY    | No.2   | SPF |
| 10 - 8                | 2x4  | DRY    | No.2   | SPF |
| 15 - 12               | 2x4  | DRY    | No.2   | SPF |
| 12 - 10               | 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    |
| 2                                                                                 | TMVW-t | MT20   | 4.0 | 6.0 | 2.00 | 2.75 |
| 3                                                                                 | TMVW-t | MT20   | 3.0 | 4.0 | 1.50 | 1.75 |
| 4                                                                                 | TS-t   | MT20   | 3.0 | 6.0 |      |      |
| 5                                                                                 | TTW+p  | MT20   | 3.0 | 5.0 |      |      |
| 6                                                                                 | TS-t   | MT20   | 3.0 | 6.0 |      |      |
| 7                                                                                 | TMVW-t | MT20   | 3.0 | 4.0 | 1.50 | 1.75 |
| 8                                                                                 | TMVW-t | MT20   | 4.0 | 6.0 | 2.00 | 2.75 |
| 10                                                                                | BMV1+p | MT20   | 2.0 | 4.0 |      |      |
| 11                                                                                | BMVW-t | MT20   | 3.0 | 8.0 | 1.50 | 2.50 |
| 12                                                                                | BS-t   | MT20   | 3.0 | 6.0 |      |      |
| 13                                                                                | BMVW-t | MT20   | 4.0 | 6.0 |      |      |
| 14                                                                                | BMVW-t | MT20   | 3.0 | 8.0 | 1.50 | 2.50 |
| 15                                                                                | BMV1+p | MT20   | 2.0 | 4.0 |      |      |
| A SIZE FOR SIZE SUBSTITUTION OF MIITEK MII20 WITH TEE-LOK TL20 PLATES IS ALLOWED. |        |        |     |     |      |      |

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

**BEARINGS**

| JT | FACTORED GROSS REACTION |      | MAXIMUM FACTORED GROSS REACTION |      | INPUT BRG |       | REQRD BRG |  |
|----|-------------------------|------|---------------------------------|------|-----------|-------|-----------|--|
|    | VERT                    | HORZ | DOWN                            | HORZ | UPLIFT    | IN-SX | IN-SX     |  |
| 15 | 1449                    | 0    | 1449                            | 0    | 0         | 5-8   | 5-8       |  |
| 10 | 1449                    | 0    | 1449                            | 0    | 0         | 5-8   | 5-8       |  |

**UNFACTORED REACTIONS**

| JT | 1ST LCASE COMBINED |         | MAX/MIN. SNOW |       | LIVE  |       | PERM. LIVE |       | WIND    |       | DEAD    |       | SOIL  |       |
|----|--------------------|---------|---------------|-------|-------|-------|------------|-------|---------|-------|---------|-------|-------|-------|
|    | 1014               | 723 / 0 | 0 / 0         | 0 / 0 | 0 / 0 | 0 / 0 | 0 / 0      | 0 / 0 | 291 / 0 | 0 / 0 | 291 / 0 | 0 / 0 | 0 / 0 | 0 / 0 |
| 10 | 1014               | 723 / 0 | 0 / 0         | 0 / 0 | 0 / 0 | 0 / 0 | 0 / 0      | 0 / 0 | 291 / 0 | 0 / 0 | 291 / 0 | 0 / 0 | 0 / 0 | 0 / 0 |

BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S) 15, 10

**BRACING**

TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 4.17 FT.  
MAX. UNBRACED BOTTOM CHORD LENGTH = 10.00 FT. OR RIGID CEILING DIRECTLY APPLIED.

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

1 - 2x3 SPF No.2 LATERAL BRACE(S) AT 1/2 LENGTH OF 7-13, 3-13. DBS = 20-0-0 . CBF = 79 LBS.

DBS = DIAGONAL BRACE SPACING (MAX). CBF = CUMULATIVE BRACING FORCE. FASTEN LATERAL BRACE(S) USING (0.122"x3") SPIRAL NAILS : 1 NAIL FOR 2x3 BRACE(S), 2 FOR 1x4, 2x4, 2x5, 3 FOR 2x6, 4 FOR 2x8, 5 FOR 2x10, AND 6 FOR 2x12.

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: (3)

| CHORDS |                           |                           |               |              | WEBS                 |       |                           |              |  |
|--------|---------------------------|---------------------------|---------------|--------------|----------------------|-------|---------------------------|--------------|--|
| MEMB.  | MAX. FACTORED FORCE (LBS) | FACTORED VERT. LOAD (PLF) | MAX LC1 (PLF) | MAX CSI (LC) | MAX. UNBRACED LENGTH | MEMB. | MAX. FACTORED FORCE (LBS) | MAX CSI (LC) |  |
| FR-TO  |                           | FROM                      | TO            |              |                      | FR-TO |                           |              |  |
| 1-2    | 0 / 23                    | -77.3                     | -77.3         | 0.10 (1)     | 10.00                | 13-5  | 0 / 801                   | 0.18 (1)     |  |
| 2-3    | -1917 / 0                 | -77.3                     | -77.3         | 0.62 (1)     | 4.17                 | 13-7  | -633 / 0                  | 0.30 (1)     |  |
| 3-4    | -1379 / 0                 | -77.3                     | -77.3         | 0.55 (1)     | 4.84                 | 11-7  | -72 / 96                  | 0.03 (3)     |  |
| 4-5    | -1379 / 0                 | -77.3                     | -77.3         | 0.55 (1)     | 4.84                 | 3-13  | -633 / 0                  | 0.30 (1)     |  |
| 5-6    | -1379 / 0                 | -77.3                     | -77.3         | 0.55 (1)     | 4.84                 | 14-3  | -72 / 96                  | 0.03 (3)     |  |
| 6-7    | -1379 / 0                 | -77.3                     | -77.3         | 0.55 (1)     | 4.84                 | 2-14  | 0 / 1753                  | 0.39 (1)     |  |
| 7-8    | -1917 / 0                 | -77.3                     | -77.3         | 0.62 (1)     | 4.17                 | 11-8  | 0 / 1753                  | 0.39 (1)     |  |
| 8-9    | 0 / 23                    | -77.3                     | -77.3         | 0.10 (1)     | 10.00                |       |                           |              |  |
| 15-2   | -1396 / 0                 | 0.0                       | 0.0           | 0.14 (1)     | 6.89                 |       |                           |              |  |
| 10-8   | -1396 / 0                 | 0.0                       | 0.0           | 0.14 (1)     | 6.89                 |       |                           |              |  |
| 15-14  | 0 / 0                     | -17.5                     | -17.5         | 0.21 (3)     | 10.00                |       |                           |              |  |
| 14-13  | 0 / 1741                  | -17.5                     | -17.5         | 0.38 (1)     | 10.00                |       |                           |              |  |
| 13-12  | 0 / 1741                  | -17.5                     | -17.5         | 0.38 (1)     | 10.00                |       |                           |              |  |
| 12-11  | 0 / 1741                  | -17.5                     | -17.5         | 0.38 (1)     | 10.00                |       |                           |              |  |
| 11-10  | 0 / 0                     | -17.5                     | -17.5         | 0.21 (3)     | 10.00                |       |                           |              |  |

**DESIGN CRITERIA**

SPECIFIED LOADS:

|            |    |   |      |            |
|------------|----|---|------|------------|
| TOP CH.    | LL | = | 23.3 | PSF        |
|            | DL | = | 3.0  | PSF        |
| BOT CH.    | LL | = | 0.0  | PSF        |
|            | DL | = | 7.0  | PSF        |
| TOTAL LOAD |    |   |      | = 33.3 PSF |

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

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

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

(55 % OF 27.2 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 23.3 P.S.F. SPECIFIED ROOF LIVE LOAD

ALLOWABLE DEFL.(LL)= L/360 (0.94")  
CALCULATED VERT. DEFL.(LL) = L/ 999 (0.09")  
ALLOWABLE DEFL.(TL)= L/360 (0.94")  
CALCULATED VERT. DEFL.(TL) = L/ 999 (0.17")

CSI: TC=0.62 (2-3:1) , BC=0.38 (11-13:1) ,  
WB=0.39 (2-14:1) , SSI=0.24 (7-8:1)

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

COMPANION LIVE LOAD FACTOR = 0.50

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

NAIL VALUES  
PLATE GRIP(DRY) SHEAR SECTION  
(PSI) (PLI) (PLI)  
MAX MIN MAX MIN MAX MIN  
MT20 618 354 1667 822 2284 1656

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

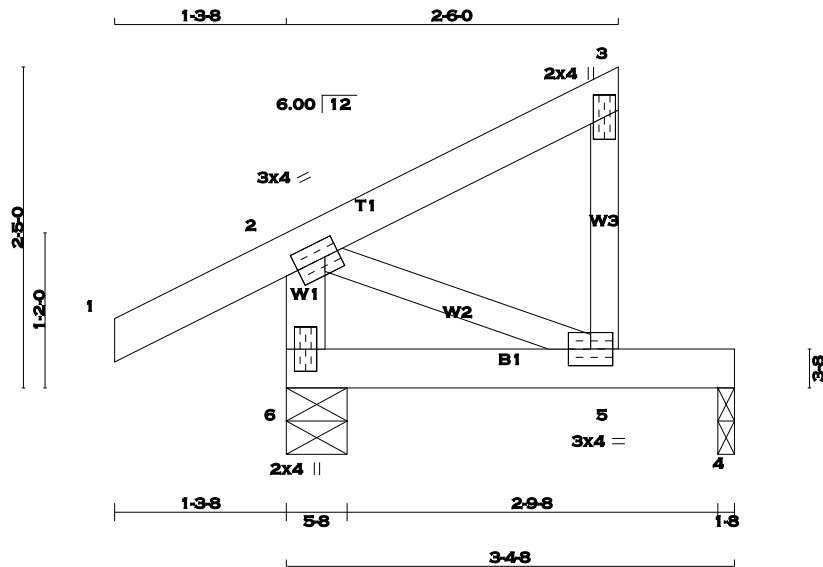
JSI GRIP= 0.90 (14) (INPUT = 0.90 )  
JSI METAL= 0.52 (2) (INPUT = 1.00 )



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READ ALL NOTES ON THIS PAGE AND ON THE  
ENGINEERING NOTE PAGE ENP-1. THE NOTE PAGE  
IS AN INTEGRAL PART OF THIS DRAWING AS IT  
CONTAINS SPECIFICATIONS AND CRITERIA USED  
IN THE DESIGN OF THIS COMPONENT.





SCALE = 1:17.3

TOTAL WEIGHT = 6 X 13 = 77 lb [M]

| LUMBER                |        |      |        |  | DESCR. |     |
|-----------------------|--------|------|--------|--|--------|-----|
| N. L. G. A. RULES     | CHORDS | SIZE | LUMBER |  |        |     |
| 1 - 3                 | 2x4    | DRY  | No.2   |  | SPF    |     |
| 5 - 3                 | 2x3    | DRY  | No.2   |  | SPF    |     |
| 6 - 2                 | 2x4    | DRY  | No.2   |  | SPF    |     |
| 6 - 4                 | 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    |
| 2                           | TMVW-t | MT20   | 3.0 | 4.0 | 1.50 | 1.25 |
| 3                           | TMV+p  | MT20   | 2.0 | 4.0 |      |      |
| 5                           | BMVW-t | MT20   | 3.0 | 4.0 |      |      |
| 6                           | BMV1+p | MT20   | 2.0 | 4.0 |      |      |

A SIZE FOR SIZE SUBSTITUTION OF MITEK MII20 WITH TEE-LOK TL20 PLATES IS ALLOWED.

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

|    |     | FACTORED GROSS REACTION |      | MAXIMUM FACTORED GROSS REACTION |      | INPUT BRG |       | REQRD BRG |  |
|----|-----|-------------------------|------|---------------------------------|------|-----------|-------|-----------|--|
| JT |     | VERT                    | HORZ | DOWN                            | HORZ | UPLIFT    | IN-SX | IN-SX     |  |
| 6  | 256 | 0                       | 256  | 0                               | 0    | 5-8       | 5-8   |           |  |
| 4  | 101 | 0                       | 101  | 0                               | 0    | 1-8       | 1-8   |           |  |

#### UNFACTORED REACTIONS

|    |          | 1ST LCASE | MAX./MIN. COMPONENT REACTIONS |           |       |        |       |  |
|----|----------|-----------|-------------------------------|-----------|-------|--------|-------|--|
| JT | COMBINED | SNOW      | LIVE                          | PERM.LIVE | WIND  | DEAD   | SOIL  |  |
| 6  | 178      | 136 / 0   | 0 / 0                         | 0 / 0     | 0 / 0 | 41 / 0 | 0 / 0 |  |
| 4  | 72       | 43 / 0    | 0 / 0                         | 0 / 0     | 0 / 0 | 29 / 0 | 0 / 0 |  |

BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S) 6, 4

#### BRACING

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

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

#### LOADING

TOTAL LOAD CASES: (4)

|     |          | CHORDS        |                  | WEBS        |               |             |               |
|-----|----------|---------------|------------------|-------------|---------------|-------------|---------------|
|     |          | MAX. FACTORED | FACTORED         | MEMB.       | MAX. FACTORED | MEMB.       | MAX. FACTORED |
|     |          | FORCE (LBS)   | VERT. LOAD (PLF) | FORCE (LBS) | FORCE (LBS)   | FORCE (LBS) | FORCE (LBS)   |
|     |          |               | LC1 MAX          | UNBRAC      |               |             |               |
|     |          |               | CSI (LC)         | LENGTH      |               |             |               |
|     |          |               |                  | FR-TO       |               |             |               |
| 1-2 | 0 / 23   | -77.3         | -77.3 0.10 (1)   | 10.00       | 2-5           | 0 / 0       | 0.00 (1)      |
| 2-3 | 0 / 0    | -77.3         | -77.3 0.08 (1)   | 10.00       |               |             |               |
| 5-3 | -97 / 0  | 0.0           | 0.0 0.02 (1)     | 7.81        |               |             |               |
| 6-2 | -202 / 0 | 0.0           | 0.0 0.02 (1)     | 7.81        |               |             |               |
| 6-5 | 0 / 0    | -17.5         | -17.5 0.11 (1)   | 10.00       |               |             |               |
| 5-4 | 0 / 0    | -17.5         | -17.5 0.11 (1)   | 10.00       |               |             |               |

CANTILEVER ANALYSIS HAS BEEN CONSIDERED IN THIS DESIGN

#### DESIGN CRITERIA

SPECIFIED LOADS:  
TOP CH. LL = 23.3 PSF  
DL = 3.0 PSF  
BOT CH. LL = 0.0 PSF  
DL = 7.0 PSF  
TOTAL LOAD = 33.3 PSF

SPACING = 24.0 IN./C/C

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

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

(55 % OF 27.2 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 23.3 P.S.F. SPECIFIED ROOF LIVE LOAD

ALLOWABLE DEFL.(LL)= L/360 (0.19")  
CALCULATED VERT. DEFL.(LL) = L/ 999 (0.01")  
ALLOWABLE DEFL.(TL)= L/360 (0.19")  
CALCULATED VERT. DEFL.(TL) = L/ 999 (0.02")

CSI: TC=0.10 (1-2:1), BC=0.11 (5-6:1), WB=0.00 (2-5:1), SSI=0.08 (4-5:1)

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

COMPANION LIVE LOAD FACTOR = 0.50

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

NAIL VALUES  
PLATE GRIP(DRY) SHEAR SECTION  
(PSI) (PLI) (PLI)  
MAX MIN MAX MIN MAX MIN  
MT20 618 354 1667 822 2284 1656

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

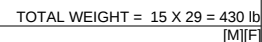
JSI GRIP= 0.18 (2) (INPUT = 0.90 )  
JSI METAL= 0.04 (6) (INPUT = 1.00 )

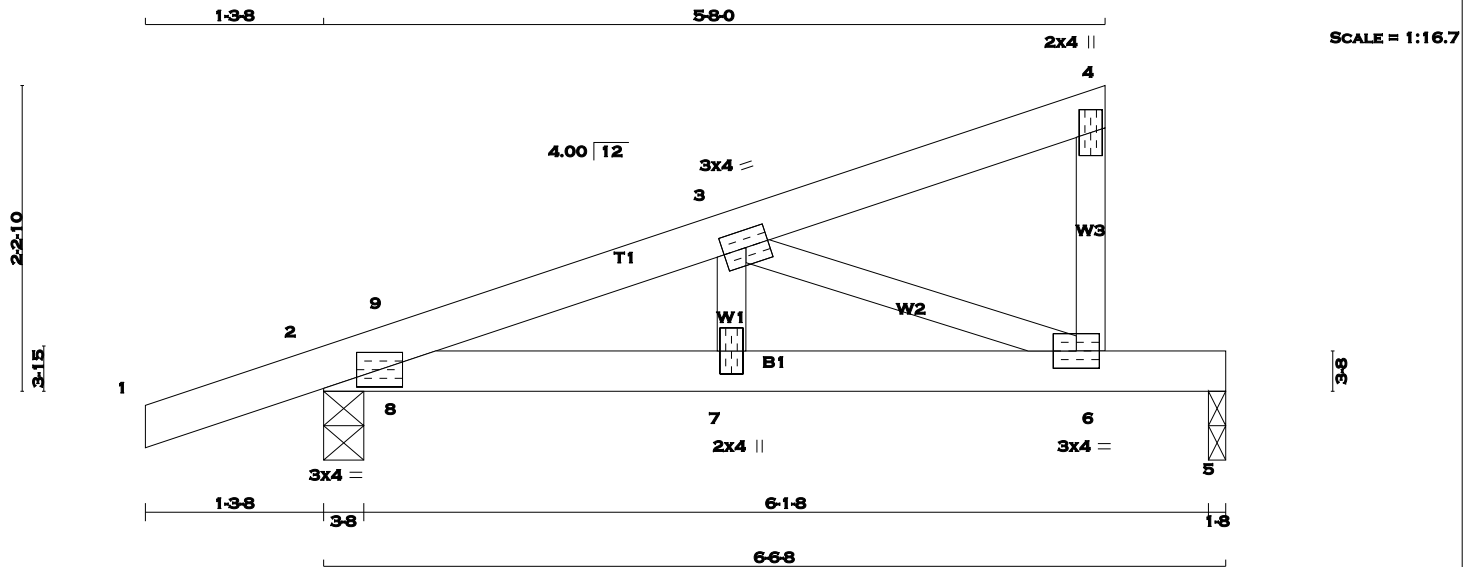


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TOTAL WEIGHT = 11 X 20 = 219 lb  
 [M][F]

| LUMBER                    |      |        |        |     |
|---------------------------|------|--------|--------|-----|
| N. L. G. A. RULES         |      |        |        |     |
| CHORDS                    | SIZE | LUMBER | DESCR. |     |
| 1 - 4                     | 2x4  | DRY    | No.2   | SPF |
| 6 - 4                     | 2x3  | DRY    | No.2   | SPF |
| 2 - 5                     | 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 |
| 2                           | TMB1-I | MT20   | 3.0 | 4.0 |     |
| 3                           | TMVW-t | MT20   | 3.0 | 4.0 |     |
| 4                           | TMV+p  | MT20   | 2.0 | 4.0 |     |
| 6                           | BMVW-t | MT20   | 3.0 | 4.0 |     |
| 7                           | BMV+w  | MT20   | 2.0 | 4.0 |     |

A SIZE FOR SIZE SUBSTITUTION OF MITEK MII20 WITH TEE-LOK TL20 PLATES IS ALLOWED.

#### 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                            | UPLIFT    | IN-SX     |
| 2        |  | 409                     | 0                               | 0         | 3-8       |
| 5        |  | 247                     | 0                               | 0         | 1-8       |

| UNFACTORED REACTIONS |           |          |           |           |       |        |       |
|----------------------|-----------|----------|-----------|-----------|-------|--------|-------|
| JT                   | 1ST LCASE | MAX/MIN. | COMPONENT | REACTIONS |       |        |       |
| 2                    | COMBINED  | SNOW     | LIVE      | PERM.LIVE | WIND  | DEAD   | SOIL  |
| 2                    | 285       | 212 / 0  | 0 / 0     | 0 / 0     | 0 / 0 | 73 / 0 | 0 / 0 |
| 5                    | 175       | 114 / 0  | 0 / 0     | 0 / 0     | 0 / 0 | 61 / 0 | 0 / 0 |

BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S) 2, 5

**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: (3) |                           |                           |              |                   |       |                           |              |  |  |
| CHORDS                |                           |                           |              |                   | WEBS  |                           |              |  |  |
| MEMB.                 | MAX. FACTORED FORCE (LBS) | FACTORED VERT. LOAD (PLF) | MAX LC1 (LC) | MAX UNBRAC LENGTH | MEMB. | MAX. FACTORED FORCE (LBS) | MAX LC1 (LC) |  |  |
| FR-TO                 |                           | FROM TO                   |              |                   | FR-TO |                           |              |  |  |
| 1-2                   | 0 / 15                    | -77.3 -77.3               | 0.10 (1)     | 10.00             | 3-6   | -606 / 0                  | 0.11 (1)     |  |  |
| 2-9                   | -607 / 0                  | -77.3 -77.3               | 0.01 (1)     | 6.25              | 7-3   | 0 / 178                   | 0.04 (1)     |  |  |
| 9-3                   | -593 / 0                  | -77.3 -77.3               | 0.05 (1)     | 6.25              | 8-9   | -74 / 2                   | 0.00 (1)     |  |  |
| 3-4                   | -4 / 0                    | -77.3 -77.3               | 0.06 (1)     | 10.00             |       |                           |              |  |  |
| 6-4                   | -91 / 0                   | 0.0 0.0                   | 0.01 (1)     | 7.81              |       |                           |              |  |  |
| 2-8                   | 0 / 568                   | -17.5 -17.5               | 0.14 (1)     | 10.00             |       |                           |              |  |  |
| 8-7                   | 0 / 568                   | -17.5 -17.5               | 0.16 (1)     | 10.00             |       |                           |              |  |  |
| 7-6                   | 0 / 568                   | -17.5 -17.5               | 0.38 (1)     | 10.00             |       |                           |              |  |  |
| 6-5                   | 0 / 0                     | -17.5 -17.5               | 0.29 (1)     | 10.00             |       |                           |              |  |  |

**DESIGN CRITERIA**

SPECIFIED LOADS:  
 TOP CH. LL = 23.3 PSF  
 DL = 3.0 PSF  
 BOT CH. LL = 0.0 PSF  
 DL = 7.0 PSF  
 TOTAL LOAD = 33.3 PSF

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

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

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

(55 % OF 27.2 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 23.3 P.S.F. SPECIFIED ROOF LIVE LOAD

ALLOWABLE DEFL.(LL)= L/360 (0.22")  
 CALCULATED VERT. DEFL.(LL) = L/ 999 (0.03")  
 ALLOWABLE DEFL.(TL)= L/360 (0.22")  
 CALCULATED VERT. DEFL.(TL) = L/ 999 (0.06")

CSI: TC=0.10 (1-2:1) , BC=0.38 (6-7:1) , WB=0.11 (3-6:1) , SSI=0.19 (5-6:1)

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

COMPANION LIVE LOAD FACTOR = 0.50

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

NAIL VALUES  
 PLATE GRIP(DRY) SHEAR SECTION  
 (PSI) (PLI) (PLI)  
 MAX MIN MAX MIN MAX MIN  
 MT20 618 354 1667 822 2284 1656

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.86 (6) (INPUT = 0.90 )  
 JSI METAL= 0.21 (6) (INPUT = 1.00 )



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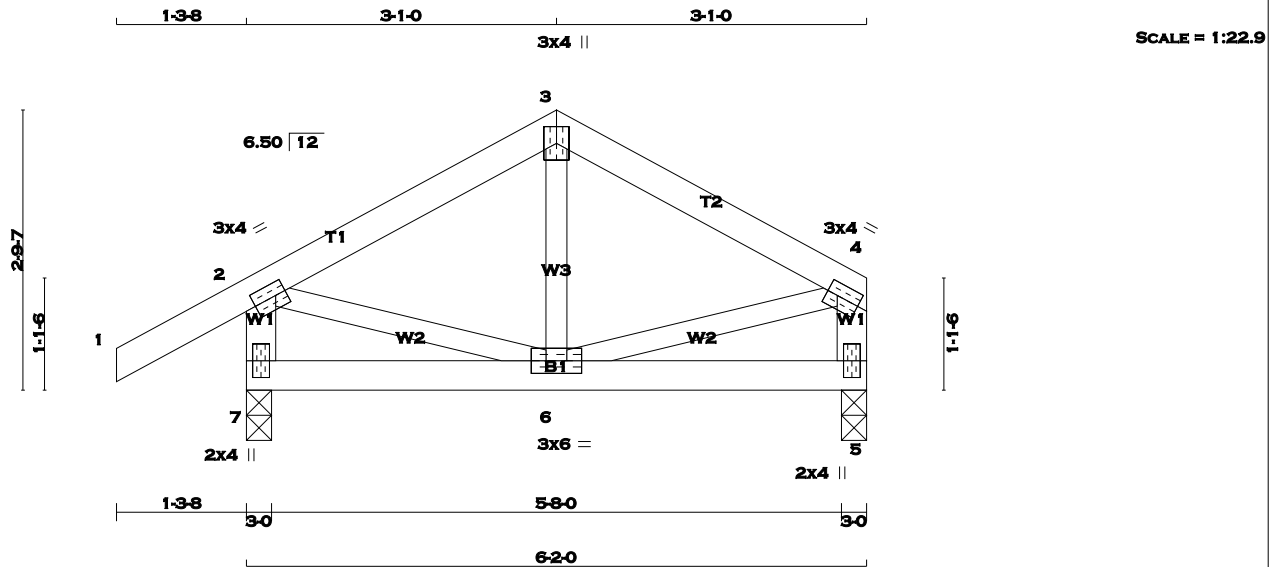
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READ ALL NOTES ON THIS PAGE AND ON THE ENGINEERING NOTE PAGE ENP-1. THE NOTE PAGE IS AN INTEGRAL PART OF THIS DRAWING AS IT CONTAINS SPECIFICATIONS AND CRITERIA USED IN THE DESIGN OF THIS COMPONENT.









TOTAL WEIGHT = 4 X 25 = 99 lb [M][F]

| LUMBER                       |        |      |        | DESCR. |
|------------------------------|--------|------|--------|--------|
| N. L. G. A. RULES            | CHORDS | SIZE | LUMBER |        |
| 1 - 3                        | 2x4    | DRY  | No.2   | SPF    |
| 3 - 4                        | 2x4    | DRY  | No.2   | SPF    |
| 7 - 2                        | 2x4    | DRY  | No.2   | SPF    |
| 5 - 4                        | 2x4    | DRY  | No.2   | SPF    |
| 7 - 5                        | 2x4    | DRY  | No.2   | SPF    |
| ALL WEBS 2x3 DRY No.2 EXCEPT |        |      |        | SPF    |
| DRY: SEASONED LUMBER.        |        |      |        |        |

| PLATES (table is in inches) |         |        |     |     |      |      |
|-----------------------------|---------|--------|-----|-----|------|------|
| JT                          | TYPE    | PLATES | W   | LEN | Y    | X    |
| 2                           | TMVW-t  | MT20   | 3.0 | 4.0 | 1.50 | 1.25 |
| 3                           | TTW+p   | MT20   | 3.0 | 4.0 |      |      |
| 4                           | TMVW-t  | MT20   | 3.0 | 4.0 | 1.50 | 1.25 |
| 5                           | BMV1+p  | MT20   | 2.0 | 4.0 |      |      |
| 6                           | BMVWW-t | MT20   | 3.0 | 6.0 |      |      |
| 7                           | BMV1+p  | MT20   | 2.0 | 4.0 |      |      |

A SIZE FOR SIZE SUBSTITUTION OF MITEK MII20 WITH TEE-LOK TL20 PLATES IS ALLOWED.

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

| BEARINGS |      | FACTORED       |      | MAXIMUM FACTORED |      | INPUT |       | REQRD |       |
|----------|------|----------------|------|------------------|------|-------|-------|-------|-------|
| JT       | VERT | GROSS REACTION | HORZ | DOWN             | HORZ | BRG   | IN-SX | BRG   | IN-SX |
| 7        | 398  | 0              | 398  | 0                | 0    | 3-0   | 3-0   | 3-0   | 3-0   |
| 5        | 292  | 0              | 292  | 0                | 0    | 3-0   | 3-0   | 3-0   | 3-0   |

#### UNFACTORED REACTIONS

| 1ST LCASE |          | MAX./MIN. COMPONENT REACTIONS |       |           |       |        |       |  |  |
|-----------|----------|-------------------------------|-------|-----------|-------|--------|-------|--|--|
| JT        | COMBINED | SNOW                          | LIVE  | PERM.LIVE | WIND  | DEAD   | SOIL  |  |  |
| 7         | 277      | 207 / 0                       | 0 / 0 | 0 / 0     | 0 / 0 | 70 / 0 | 0 / 0 |  |  |
| 5         | 205      | 144 / 0                       | 0 / 0 | 0 / 0     | 0 / 0 | 62 / 0 | 0 / 0 |  |  |

BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S) 7, 5

#### 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: (3)

| CHORDS |                  |                           |               | WEBS  |                  |                        |  |
|--------|------------------|---------------------------|---------------|-------|------------------|------------------------|--|
| MEMB.  | MAX. FORCE (LBS) | FACTORED VERT. LOAD (PLF) | MAX. LC1 (LC) | MEMB. | MAX. FORCE (LBS) | FACTORED MAX. LC1 (LC) |  |
| FR-TO  |                  | FROM TO                   |               | FR-TO |                  |                        |  |
| 1-2    | 0 / 25           | -77.3 -77.3               | 0.10 (1)      | 6-3   | -34 / 42         | 0.01 (3)               |  |
| 2-3    | -214 / 0         | -77.3 -77.3               | 0.09 (1)      | 2-6   | 0 / 195          | 0.04 (1)               |  |
| 3-4    | -214 / 0         | -77.3 -77.3               | 0.09 (1)      | 6-4   | 0 / 195          | 0.04 (1)               |  |
| 7-2    | -376 / 0         | 0.0 0.0                   | 0.04 (1)      |       |                  |                        |  |
| 5-4    | -270 / 0         | 0.0 0.0                   | 0.03 (1)      |       |                  |                        |  |
| 7-6    | 0 / 0            | -17.5 -17.5               | 0.04 (3)      | 10.00 |                  |                        |  |
| 6-5    | 0 / 0            | -17.5 -17.5               | 0.04 (3)      | 10.00 |                  |                        |  |

#### DESIGN CRITERIA

SPECIFIED LOADS:

|            |      |      |     |
|------------|------|------|-----|
| TOP CH.    | LL = | 23.3 | PSF |
|            | DL = | 3.0  | PSF |
| BOT CH.    | LL = | 0.0  | PSF |
|            | DL = | 7.0  | PSF |
| TOTAL LOAD | =    | 33.3 | PSF |

SPACING = 24.0 IN./C/C

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

THIS DESIGN COMPLIES WITH:

- PART 9 OF OBC 2012, BCBC 2012, ABC 2014  
- CSA 086-09  
- TPIC 2011

(55 % OF 27.2 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 23.3 P.S.F. SPECIFIED ROOF LIVE LOAD

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

CSI: TC=0.10 (1-2:1), BC=0.04 (6-7:3), WB=0.04 (2-6:1), SSI=0.08 (3-4:1)

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

COMPANION LIVE LOAD FACTOR = 0.50

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

#### NAIL VALUES

| PLATE | GRIP(DRY) | SHEAR    | SECTION   |
|-------|-----------|----------|-----------|
|       | (PSI)     | (PLI)    | (PLI)     |
|       | MAX MIN   | MAX MIN  | MAX MIN   |
| MT20  | 618 354   | 1667 822 | 2284 1656 |

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

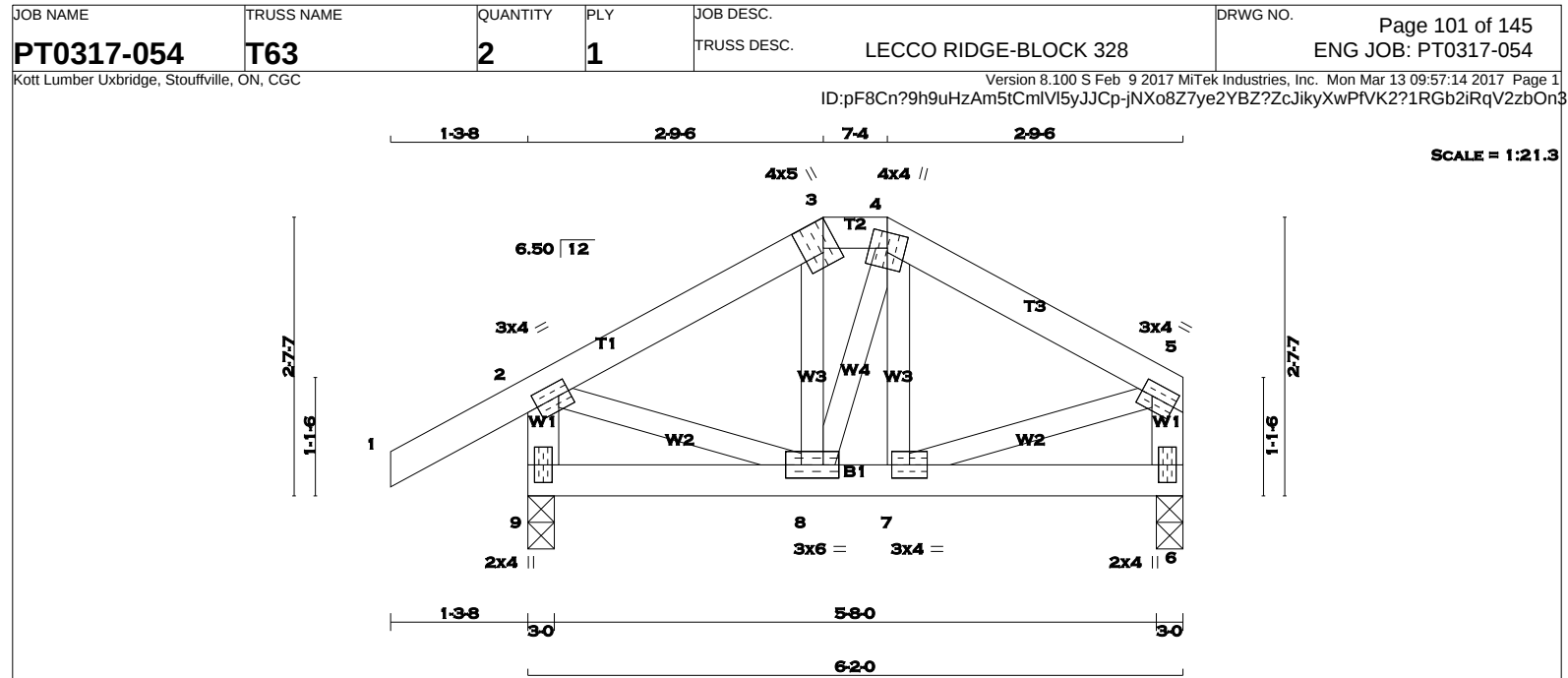
JSI GRIP= 0.48 (2) (INPUT = 0.90 )  
JSI METAL= 0.12 (4) (INPUT = 1.00 )



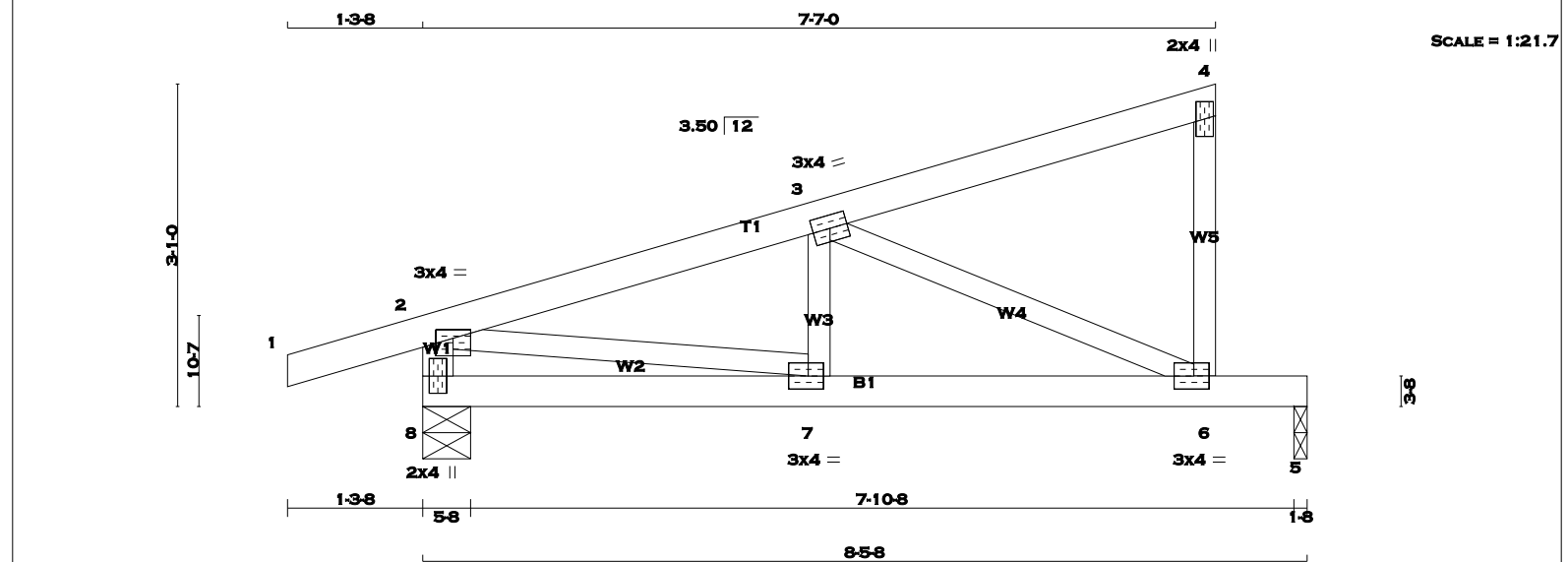
RECEIVED  
TOWN OF MILTON  
MAR 29, 2017  
17-4990  
BUILDING DIVISION

READ ALL NOTES ON THIS PAGE AND ON THE ENGINEERING NOTE PAGE ENP-1. THE NOTE PAGE IS AN INTEGRAL PART OF THIS DRAWING AS IT CONTAINS SPECIFICATIONS AND CRITERIA USED IN THE DESIGN OF THIS COMPONENT.





|                                                                               |  |  |  |  |                                                                                                      |  |  |  |  |  |  |  |  |  |                                                                                                    |  |  |  |  |  |  |  |  |  |
|-------------------------------------------------------------------------------|--|--|--|--|------------------------------------------------------------------------------------------------------|--|--|--|--|--|--|--|--|--|----------------------------------------------------------------------------------------------------|--|--|--|--|--|--|--|--|--|
| <b>LUMBER</b><br>N. L. G. A. RULES<br>CHORDS SIZE LUMBER DESCR. LUMBER DESCR. |  |  |  |  | <b>DIMENSIONS, SUPPORTS AND LOADINGS SPECIFIED BY FABRICATOR TO BE VERIFIED BY BUILDING DESIGNER</b> |  |  |  |  |  |  |  |  |  | <b>DESIGN CRITERIA</b>                                                                             |  |  |  |  |  |  |  |  |  |
| 1 - 3 2x4 DRY No.2 SPF                                                        |  |  |  |  | <b>BEARINGS</b>                                                                                      |  |  |  |  |  |  |  |  |  | SPECIFIED LOADS:                                                                                   |  |  |  |  |  |  |  |  |  |
| 3 - 4 2x4 DRY No.2 SPF                                                        |  |  |  |  | FACTORED MAXIMUM FACTORED INPUT REQD                                                                 |  |  |  |  |  |  |  |  |  | TOP CH. LL = 23.3 PSF                                                                              |  |  |  |  |  |  |  |  |  |
| 4 - 5 2x4 DRY No.2 SPF                                                        |  |  |  |  | GROSS REACTION GROSS REACTION BRG BRG                                                                |  |  |  |  |  |  |  |  |  | DL = 3.0 PSF                                                                                       |  |  |  |  |  |  |  |  |  |
| 9 - 2 2x4 DRY No.2 SPF                                                        |  |  |  |  | JT VERT HORZ DOWN HORZ UPLIFT IN-SX IN-SX                                                            |  |  |  |  |  |  |  |  |  | BOT CH. LL = 0.0 PSF                                                                               |  |  |  |  |  |  |  |  |  |
| 6 - 5 2x4 DRY No.2 SPF                                                        |  |  |  |  | 9 398 0 398 0 0 3-0 3-0                                                                              |  |  |  |  |  |  |  |  |  | DL = 7.0 PSF                                                                                       |  |  |  |  |  |  |  |  |  |
| 9 - 6 2x4 DRY No.2 SPF                                                        |  |  |  |  | 6 292 0 292 0 0 3-0 3-0                                                                              |  |  |  |  |  |  |  |  |  | TOTAL LOAD = 33.3 PSF                                                                              |  |  |  |  |  |  |  |  |  |
| ALL WEBS 2x3 DRY No.2 SPF                                                     |  |  |  |  | <b>UNFACTORED REACTIONS</b>                                                                          |  |  |  |  |  |  |  |  |  | <b>SPACING = 24.0 IN. C/C</b>                                                                      |  |  |  |  |  |  |  |  |  |
| EXCEPT                                                                        |  |  |  |  | 1ST LCASE MAX/MIN. COMPONENT REACTIONS                                                               |  |  |  |  |  |  |  |  |  | LOADING IN FLAT SECTION BASED ON A SLOPE OF 6.00/12                                                |  |  |  |  |  |  |  |  |  |
| DRY: SEASONED LUMBER.                                                         |  |  |  |  | JT COMBINED SNOW LIVE PERM. LIVE WIND DEAD SOIL                                                      |  |  |  |  |  |  |  |  |  | THIS TRUSS IS DESIGNED FOR RESIDENTIAL OR SMALL BUILDING REQUIREMENTS OF PART 9, NBCC 2010         |  |  |  |  |  |  |  |  |  |
|                                                                               |  |  |  |  | 9 277 207 / 0 0 / 0 0 / 0 0 / 0 70 / 0 0 / 0                                                         |  |  |  |  |  |  |  |  |  | THIS DESIGN COMPLIES WITH:                                                                         |  |  |  |  |  |  |  |  |  |
|                                                                               |  |  |  |  | 6 205 144 / 0 0 / 0 0 / 0 0 / 0 62 / 0 0 / 0                                                         |  |  |  |  |  |  |  |  |  | - PART 9 OF OBC 2012, BCBC 2012, ABC 2014                                                          |  |  |  |  |  |  |  |  |  |
|                                                                               |  |  |  |  | BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S) 9, 6                                           |  |  |  |  |  |  |  |  |  | - CSA 086-09                                                                                       |  |  |  |  |  |  |  |  |  |
|                                                                               |  |  |  |  | <b>BRACING</b>                                                                                       |  |  |  |  |  |  |  |  |  | - TPIC 2011                                                                                        |  |  |  |  |  |  |  |  |  |
|                                                                               |  |  |  |  | TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 6.25 FT.                                           |  |  |  |  |  |  |  |  |  | (55 % OF 27.2 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 23.3 P.S.F. SPECIFIED ROOF LIVE LOAD |  |  |  |  |  |  |  |  |  |
|                                                                               |  |  |  |  | MAX. UNBRACED BOTTOM CHORD LENGTH = 10.00 FT. OR RIGID CEILING DIRECTLY APPLIED.                     |  |  |  |  |  |  |  |  |  | ALLOWABLE DEFL.(LL)= L/360 (0.21")                                                                 |  |  |  |  |  |  |  |  |  |
|                                                                               |  |  |  |  | ALL PITCH BREAKS AND PERIMETER CORNER JOINTS MUST BE Laterally RESTRAINED.                           |  |  |  |  |  |  |  |  |  | CALCULATED VERT. DEFL.(LL) = L/999 (0.00")                                                         |  |  |  |  |  |  |  |  |  |
|                                                                               |  |  |  |  | <b>LOADING</b>                                                                                       |  |  |  |  |  |  |  |  |  | ALLOWABLE DEFL.(TL)= L/360 (0.21")                                                                 |  |  |  |  |  |  |  |  |  |
|                                                                               |  |  |  |  | TOTAL LOAD CASES: (3)                                                                                |  |  |  |  |  |  |  |  |  | CALCULATED VERT. DEFL.(TL) = L/999 (0.00")                                                         |  |  |  |  |  |  |  |  |  |
|                                                                               |  |  |  |  | CHORDS                                                                                               |  |  |  |  |  |  |  |  |  | CSI: TC=0.10 (1-2:1), BC=0.04 (7-8:1), WB=0.05 (5-7:1), SSI=0.07 (4-5:1)                           |  |  |  |  |  |  |  |  |  |
|                                                                               |  |  |  |  | MEMB. MAX. FACTORED FORCE (LBS) VERT. LOAD LC1 MAX (PLF) CSI (LC) UNBRAC LENGTH FR-TO                |  |  |  |  |  |  |  |  |  | DOL LUMBER=1.00 NAIL=1.00 LS BEND=1.10 COMP=1.10 SHEAR=1.10 TENS= 1.10                             |  |  |  |  |  |  |  |  |  |
|                                                                               |  |  |  |  | FR-TO 1-2 0 / 25 -77.3 -77.3 0.10 (1) 10.00 8-3 -25 / 20 0.01 (3)                                    |  |  |  |  |  |  |  |  |  | COMPANION LIVE LOAD FACTOR = 0.50                                                                  |  |  |  |  |  |  |  |  |  |
|                                                                               |  |  |  |  | 2-3 -220 / 0 -77.3 -77.3 0.08 (1) 6.25 8-4 -2 / 1 0.00 (3)                                           |  |  |  |  |  |  |  |  |  | TRUSS PLATE MANUFACTURER IS NOT RESPONSIBLE FOR QUALITY CONTROL IN THE TRUSS MANUFACTURING PLANT . |  |  |  |  |  |  |  |  |  |
|                                                                               |  |  |  |  | 3-4 -195 / 0 -77.3 -77.3 0.00 (1) 6.25 7-4 -23 / 18 0.01 (3)                                         |  |  |  |  |  |  |  |  |  | NAIL VALUES                                                                                        |  |  |  |  |  |  |  |  |  |
|                                                                               |  |  |  |  | 4-5 -221 / 0 -77.3 -77.3 0.08 (1) 6.25 2-8 0 / 202 0.05 (1)                                          |  |  |  |  |  |  |  |  |  | PLATE GRIP(DRY) SHEAR SECTION                                                                      |  |  |  |  |  |  |  |  |  |
|                                                                               |  |  |  |  | 9-2 -376 / 0 0.0 0.0 0.04 (1) 7.81 7-5 0 / 203 0.05 (1)                                              |  |  |  |  |  |  |  |  |  | (PSI) (PLI) (PLI)                                                                                  |  |  |  |  |  |  |  |  |  |
|                                                                               |  |  |  |  | 6-5 -272 / 0 0.0 0.0 0.03 (1) 7.81                                                                   |  |  |  |  |  |  |  |  |  | MAX MIN MAX MIN MAX MIN                                                                            |  |  |  |  |  |  |  |  |  |
|                                                                               |  |  |  |  |                                                                                                      |  |  |  |  |  |  |  |  |  | MT20 618 354 1667 822 2284 1656                                                                    |  |  |  |  |  |  |  |  |  |
|                                                                               |  |  |  |  |                                                                                                      |  |  |  |  |  |  |  |  |  | PLATE PLACEMENT TOL. = 0.250 inches                                                                |  |  |  |  |  |  |  |  |  |
|                                                                               |  |  |  |  |                                                                                                      |  |  |  |  |  |  |  |  |  | PLATE ROTATION TOL. = 5.0 Deg.                                                                     |  |  |  |  |  |  |  |  |  |
|                                                                               |  |  |  |  |                                                                                                      |  |  |  |  |  |  |  |  |  | JSI GRIP= 0.51 (5) (INPUT = 0.90 )                                                                 |  |  |  |  |  |  |  |  |  |
|                                                                               |  |  |  |  |                                                                                                      |  |  |  |  |  |  |  |  |  | JSI METAL= 0.12 (2) (INPUT = 1.00 )                                                                |  |  |  |  |  |  |  |  |  |
|                                                                               |  |  |  |  |                                                                                                      |  |  |  |  |  |  |  |  |  |                                                                                                    |  |  |  |  |  |  |  |  |  |
|                                                                               |  |  |  |  |                                                                                                      |  |  |  |  |  |  |  |  |  |                                                                                                    |  |  |  |  |  |  |  |  |  |
|                                                                               |  |  |  |  |                                                                                                      |  |  |  |  |  |  |  |  |  |                                                                                                    |  |  |  |  |  |  |  |  |  |
|                                                                               |  |  |  |  |                                                                                                      |  |  |  |  |  |  |  |  |  |                                                                                                    |  |  |  |  |  |  |  |  |  |
|                                                                               |  |  |  |  |                                                                                                      |  |  |  |  |  |  |  |  |  |                                                                                                    |  |  |  |  |  |  |  |  |  |
|                                                                               |  |  |  |  |                                                                                                      |  |  |  |  |  |  |  |  |  |                                                                                                    |  |  |  |  |  |  |  |  |  |
|                                                                               |  |  |  |  |                                                                                                      |  |  |  |  |  |  |  |  |  |                                                                                                    |  |  |  |  |  |  |  |  |  |
|                                                                               |  |  |  |  |                                                                                                      |  |  |  |  |  |  |  |  |  |                                                                                                    |  |  |  |  |  |  |  |  |  |
|                                                                               |  |  |  |  |                                                                                                      |  |  |  |  |  |  |  |  |  |                                                                                                    |  |  |  |  |  |  |  |  |  |
|                                                                               |  |  |  |  |                                                                                                      |  |  |  |  |  |  |  |  |  |                                                                                                    |  |  |  |  |  |  |  |  |  |
|                                                                               |  |  |  |  |                                                                                                      |  |  |  |  |  |  |  |  |  |                                                                                                    |  |  |  |  |  |  |  |  |  |
|                                                                               |  |  |  |  |                                                                                                      |  |  |  |  |  |  |  |  |  |                                                                                                    |  |  |  |  |  |  |  |  |  |
|                                                                               |  |  |  |  |                                                                                                      |  |  |  |  |  |  |  |  |  |                                                                                                    |  |  |  |  |  |  |  |  |  |
|                                                                               |  |  |  |  |                                                                                                      |  |  |  |  |  |  |  |  |  |                                                                                                    |  |  |  |  |  |  |  |  |  |
|                                                                               |  |  |  |  |                                                                                                      |  |  |  |  |  |  |  |  |  |                                                                                                    |  |  |  |  |  |  |  |  |  |
|                                                                               |  |  |  |  |                                                                                                      |  |  |  |  |  |  |  |  |  |                                                                                                    |  |  |  |  |  |  |  |  |  |
|                                                                               |  |  |  |  |                                                                                                      |  |  |  |  |  |  |  |  |  |                                                                                                    |  |  |  |  |  |  |  |  |  |
|                                                                               |  |  |  |  |                                                                                                      |  |  |  |  |  |  |  |  |  |                                                                                                    |  |  |  |  |  |  |  |  |  |
|                                                                               |  |  |  |  |                                                                                                      |  |  |  |  |  |  |  |  |  |                                                                                                    |  |  |  |  |  |  |  |  |  |
|                                                                               |  |  |  |  |                                                                                                      |  |  |  |  |  |  |  |  |  |                                                                                                    |  |  |  |  |  |  |  |  |  |
|                                                                               |  |  |  |  |                                                                                                      |  |  |  |  |  |  |  |  |  |                                                                                                    |  |  |  |  |  |  |  |  |  |
|                                                                               |  |  |  |  |                                                                                                      |  |  |  |  |  |  |  |  |  |                                                                                                    |  |  |  |  |  |  |  |  |  |
|                                                                               |  |  |  |  |                                                                                                      |  |  |  |  |  |  |  |  |  |                                                                                                    |  |  |  |  |  |  |  |  |  |
|                                                                               |  |  |  |  |                                                                                                      |  |  |  |  |  |  |  |  |  |                                                                                                    |  |  |  |  |  |  |  |  |  |
|                                                                               |  |  |  |  |                                                                                                      |  |  |  |  |  |  |  |  |  |                                                                                                    |  |  |  |  |  |  |  |  |  |
|                                                                               |  |  |  |  |                                                                                                      |  |  |  |  |  |  |  |  |  |                                                                                                    |  |  |  |  |  |  |  |  |  |
|                                                                               |  |  |  |  |                                                                                                      |  |  |  |  |  |  |  |  |  |                                                                                                    |  |  |  |  |  |  |  |  |  |
|                                                                               |  |  |  |  |                                                                                                      |  |  |  |  |  |  |  |  |  |                                                                                                    |  |  |  |  |  |  |  |  |  |
|                                                                               |  |  |  |  |                                                                                                      |  |  |  |  |  |  |  |  |  |                                                                                                    |  |  |  |  |  |  |  |  |  |
|                                                                               |  |  |  |  |                                                                                                      |  |  |  |  |  |  |  |  |  |                                                                                                    |  |  |  |  |  |  |  |  |  |
|                                                                               |  |  |  |  |                                                                                                      |  |  |  |  |  |  |  |  |  |                                                                                                    |  |  |  |  |  |  |  |  |  |
|                                                                               |  |  |  |  |                                                                                                      |  |  |  |  |  |  |  |  |  |                                                                                                    |  |  |  |  |  |  |  |  |  |
|                                                                               |  |  |  |  |                                                                                                      |  |  |  |  |  |  |  |  |  |                                                                                                    |  |  |  |  |  |  |  |  |  |
|                                                                               |  |  |  |  |                                                                                                      |  |  |  |  |  |  |  |  |  |                                                                                                    |  |  |  |  |  |  |  |  |  |
|                                                                               |  |  |  |  |                                                                                                      |  |  |  |  |  |  |  |  |  |                                                                                                    |  |  |  |  |  |  |  |  |  |
|                                                                               |  |  |  |  |                                                                                                      |  |  |  |  |  |  |  |  |  |                                                                                                    |  |  |  |  |  |  |  |  |  |
|                                                                               |  |  |  |  |                                                                                                      |  |  |  |  |  |  |  |  |  |                                                                                                    |  |  |  |  |  |  |  |  |  |
|                                                                               |  |  |  |  |                                                                                                      |  |  |  |  |  |  |  |  |  |                                                                                                    |  |  |  |  |  |  |  |  |  |
|                                                                               |  |  |  |  |                                                                                                      |  |  |  |  |  |  |  |  |  |                                                                                                    |  |  |  |  |  |  |  |  |  |
|                                                                               |  |  |  |  |                                                                                                      |  |  |  |  |  |  |  |  |  |                                                                                                    |  |  |  |  |  |  |  |  |  |
|                                                                               |  |  |  |  |                                                                                                      |  |  |  |  |  |  |  |  |  |                                                                                                    |  |  |  |  |  |  |  |  |  |
|                                                                               |  |  |  |  |                                                                                                      |  |  |  |  |  |  |  |  |  |                                                                                                    |  |  |  |  |  |  |  |  |  |
|                                                                               |  |  |  |  |                                                                                                      |  |  |  |  |  |  |  |  |  |                                                                                                    |  |  |  |  |  |  |  |  |  |
|                                                                               |  |  |  |  |                                                                                                      |  |  |  |  |  |  |  |  |  |                                                                                                    |  |  |  |  |  |  |  |  |  |
|                                                                               |  |  |  |  |                                                                                                      |  |  |  |  |  |  |  |  |  |                                                                                                    |  |  |  |  |  |  |  |  |  |
|                                                                               |  |  |  |  |                                                                                                      |  |  |  |  |  |  |  |  |  |                                                                                                    |  |  |  |  |  |  |  |  |  |
|                                                                               |  |  |  |  |                                                                                                      |  |  |  |  |  |  |  |  |  |                                                                                                    |  |  |  |  |  |  |  |  |  |
|                                                                               |  |  |  |  |                                                                                                      |  |  |  |  |  |  |  |  |  |                                                                                                    |  |  |  |  |  |  |  |  |  |
|                                                                               |  |  |  |  |                                                                                                      |  |  |  |  |  |  |  |  |  |                                                                                                    |  |  |  |  |  |  |  |  |  |
|                                                                               |  |  |  |  |                                                                                                      |  |  |  |  |  |  |  |  |  |                                                                                                    |  |  |  |  |  |  |  |  |  |
|                                                                               |  |  |  |  |                                                                                                      |  |  |  |  |  |  |  |  |  |                                                                                                    |  |  |  |  |  |  |  |  |  |
|                                                                               |  |  |  |  |                                                                                                      |  |  |  |  |  |  |  |  |  |                                                                                                    |  |  |  |  |  |  |  |  |  |
|                                                                               |  |  |  |  |                                                                                                      |  |  |  |  |  |  |  |  |  |                                                                                                    |  |  |  |  |  |  |  |  |  |
|                                                                               |  |  |  |  |                                                                                                      |  |  |  |  |  |  |  |  |  |                                                                                                    |  |  |  |  |  |  |  |  |  |
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|                                                                               |  |  |  |  |                                                                                                      |  |  |  |  |  |  |  |  |  |                                                                                                    |  |  |  |  |  |  |  |  |  |
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|                                                                               |  |  |  |  |                                                                                                      |  |  |  |  |  |  |  |  |  |                                                                                                    |  |  |  |  |  |  |  |  |  |
|                                                                               |  |  |  |  |                                                                                                      |  |  |  |  |  |  |  |  |  |                                                                                                    |  |  |  |  |  |  |  |  |  |
|                                                                               |  |  |  |  |                                                                                                      |  |  |  |  |  |  |  |  |  |                                                                                                    |  |  |  |  |  |  |  |  |  |
|                                                                               |  |  |  |  |                                                                                                      |  |  |  |  |  |  |  |  |  |                                                                                                    |  |  |  |  |  |  |  |  |  |
|                                                                               |  |  |  |  |                                                                                                      |  |  |  |  |  |  |  |  |  |                                                                                                    |  |  |  |  |  |  |  |  |  |
|                                                                               |  |  |  |  |                                                                                                      |  |  |  |  |  |  |  |  |  |                                                                                                    |  |  |  |  |  |  |  |  |  |
|                                                                               |  |  |  |  |                                                                                                      |  |  |  |  |  |  |  |  |  |                                                                                                    |  |  |  |  |  |  |  |  |  |
|                                                                               |  |  |  |  |                                                                                                      |  |  |  |  |  |  |  |  |  |                                                                                                    |  |  |  |  |  |  |  |  |  |
|                                                                               |  |  |  |  |                                                                                                      |  |  |  |  |  |  |  |  |  |                                                                                                    |  |  |  |  |  |  |  |  |  |
|                                                                               |  |  |  |  |                                                                                                      |  |  |  |  |  |  |  |  |  |                                                                                                    |  |  |  |  |  |  |  |  |  |
|                                                                               |  |  |  |  |                                                                                                      |  |  |  |  |  |  |  |  |  |                                                                                                    |  |  |  |  |  |  |  |  |  |
|                                                                               |  |  |  |  |                                                                                                      |  |  |  |  |  |  |  |  |  |                                                                                                    |  |  |  |  |  |  |  |  |  |
|                                                                               |  |  |  |  |                                                                                                      |  |  |  |  |  |  |  |  |  |                                                                                                    |  |  |  |  |  |  |  |  |  |
|                                                                               |  |  |  |  |                                                                                                      |  |  |  |  |  |  |  |  |  |                                                                                                    |  |  |  |  |  |  |  |  |  |
|                                                                               |  |  |  |  |                                                                                                      |  |  |  |  |  |  |  |  |  |                                                                                                    |  |  |  |  |  |  |  |  |  |
|                                                                               |  |  |  |  |                                                                                                      |  |  |  |  |  |  |  |  |  |                                                                                                    |  |  |  |  |  |  |  |  |  |
|                                                                               |  |  |  |  |                                                                                                      |  |  |  |  |  |  |  |  |  |                                                                                                    |  |  |  |  |  |  |  |  |  |
|                                                                               |  |  |  |  |                                                                                                      |  |  |  |  |  |  |  |  |  |                                                                                                    |  |  |  |  |  |  |  |  |  |
|                                                                               |  |  |  |  |                                                                                                      |  |  |  |  |  |  |  |  |  |                                                                                                    |  |  |  |  |  |  |  |  |  |
|                                                                               |  |  |  |  |                                                                                                      |  |  |  |  |  |  |  |  |  |                                                                                                    |  |  |  |  |  |  |  |  |  |
|                                                                               |  |  |  |  |                                                                                                      |  |  |  |  |  |  |  |  |  |                                                                                                    |  |  |  |  |  |  |  |  |  |
|                                                                               |  |  |  |  |                                                                                                      |  |  |  |  |  |  |  |  |  |                                                                                                    |  |  |  |  |  |  |  |  |  |
|                                                                               |  |  |  |  |                                                                                                      |  |  |  |  |  |  |  |  |  |                                                                                                    |  |  |  |  |  |  |  |  |  |
|                                                                               |  |  |  |  |                                                                                                      |  |  |  |  |  |  |  |  |  |                                                                                                    |  |  |  |  |  |  |  |  |  |
|                                                                               |  |  |  |  |                                                                                                      |  |  |  |  |  |  |  |  |  |                                                                                                    |  |  |  |  |  |  |  |  |  |
|                                                                               |  |  |  |  |                                                                                                      |  |  |  |  |  |  |  |  |  |                                                                                                    |  |  |  |  |  |  |  |  |  |
|                                                                               |  |  |  |  |                                                                                                      |  |  |  |  |  |  |  |  |  |                                                                                                    |  |  |  |  |  |  |  |  |  |
|                                                                               |  |  |  |  |                                                                                                      |  |  |  |  |  |  |  |  |  |                                                                                                    |  |  |  |  |  |  |  |  |  |
|                                                                               |  |  |  |  |                                                                                                      |  |  |  |  |  |  |  |  |  |                                                                                                    |  |  |  |  |  |  |  |  |  |
|                                                                               |  |  |  |  |                                                                                                      |  |  |  |  |  |  |  |  |  |                                                                                                    |  |  |  |  |  |  |  |  |  |
|                                                                               |  |  |  |  |                                                                                                      |  |  |  |  |  |  |  |  |  |                                                                                                    |  |  |  |  |  |  |  |  |  |
|                                                                               |  |  |  |  |                                                                                                      |  |  |  |  |  |  |  |  |  |                                                                                                    |  |  |  |  |  |  |  |  |  |



| LUMBER            |      |        |      | DESCR. |
|-------------------|------|--------|------|--------|
| N. L. G. A. RULES | SIZE | LUMBER |      |        |
| CHORDS            | SIZE |        |      |        |
| 1 - 4             | 2x4  | DRY    | No.2 | SPF    |
| 6 - 4             | 2x3  | DRY    | No.2 | SPF    |
| 8 - 2             | 2x4  | DRY    | No.2 | SPF    |
| 8 - 5             | 2x4  | DRY    | No.2 | SPF    |
| ALL WEBS          | 2x3  | DRY    | No.2 | SPF    |
| EXCEPT            |      |        |      |        |

DRY: SEASONED LUMBER.

#### PLATES (table is in inches)

| JT | TYPE   | PLATES | W   | LEN | Y    | X    |
|----|--------|--------|-----|-----|------|------|
| 2  | TMVW-p | MT20   | 3.0 | 4.0 | 1.00 | 2.00 |
| 3  | TMVW-t | MT20   | 3.0 | 4.0 |      |      |
| 4  | TMV+p  | MT20   | 2.0 | 4.0 |      |      |
| 6  | BMVW-t | MT20   | 3.0 | 4.0 | 1.50 | 1.75 |
| 7  | BMVW-t | MT20   | 3.0 | 4.0 | 1.50 | 1.75 |
| 8  | BMV1+p | MT20   | 2.0 | 4.0 |      |      |

A SIZE FOR SIZE SUBSTITUTION OF MITEK MII20 WITH TEE-LOK TL20 PLATES IS ALLOWED.

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

| BEARINGS |     | FACTORED       |     | MAXIMUM FACTORED |   | INPUT |     | REQRD |  |
|----------|-----|----------------|-----|------------------|---|-------|-----|-------|--|
| JT       |     | GROSS REACTION |     | GROSS REACTION   |   | BRG   |     | BRG   |  |
| 8        | 501 | 0              | 501 | 0                | 0 | 5-8   | 5-8 |       |  |
| 5        | 337 | 0              | 337 | 0                | 0 | 1-8   | 1-8 |       |  |

#### UNFACTORED REACTIONS

| JT | 1ST LCASE | MAX./MIN. | COMPONENT REACTIONS |           |       |        |       |  |  |
|----|-----------|-----------|---------------------|-----------|-------|--------|-------|--|--|
| 8  | COMBINED  | SNOW      | LIVE                | PERM.LIVE | WIND  | DEAD   | SOIL  |  |  |
| 8  | 349       | 257 / 0   | 0 / 0               | 0 / 0     | 0 / 0 | 92 / 0 | 0 / 0 |  |  |
| 5  | 238       | 158 / 0   | 0 / 0               | 0 / 0     | 0 / 0 | 80 / 0 | 0 / 0 |  |  |

BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S) 8, 5

#### 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: (3)

| CHORDS |                  |                           |                  | WEBS  |                  |                       |          |
|--------|------------------|---------------------------|------------------|-------|------------------|-----------------------|----------|
| MEMB.  | MAX. FORCE (LBS) | FACTORED VERT. LOAD (PLF) | LC1 MAX CSI (LC) | MEMB. | MAX. FORCE (LBS) | FACTORED MAX CSI (LC) |          |
| FR-TO  |                  | FROM TO                   |                  | FR-TO |                  |                       |          |
| 1-2    | 0 / 14           | -77.3 -77.3               | 0.10 (1)         | 10.00 | 7-3              | 0 / 97                | 0.03 (3) |
| 2-3    | -629 / 0         | -77.3 -77.3               | 0.13 (1)         | 6.25  | 3-6              | -670 / 0              | 0.19 (1) |
| 3-4    | -9 / 0           | -77.3 -77.3               | 0.13 (1)         | 10.00 | 2-7              | 0 / 619               | 0.14 (1) |
| 6-4    | -115 / 0         | 0.0 0.0                   | 0.03 (1)         | 7.81  |                  |                       |          |
| 8-2    | -489 / 0         | 0.0 0.0                   | 0.05 (1)         | 7.81  |                  |                       |          |
| 8-7    | 0 / 0            | -17.5 -17.5               | 0.11 (1)         | 10.00 |                  |                       |          |
| 7-6    | 0 / 612          | -17.5 -17.5               | 0.49 (1)         | 10.00 |                  |                       |          |
| 6-5    | 0 / 0            | -17.5 -17.5               | 0.39 (1)         | 10.00 |                  |                       |          |

#### DESIGN CRITERIA

##### SPECIFIED LOADS:

|            |      |      |     |
|------------|------|------|-----|
| TOP CH.    | LL = | 23.3 | PSF |
|            | DL = | 3.0  | PSF |
| BOT CH.    | LL = | 0.0  | PSF |
|            | DL = | 7.0  | PSF |
| TOTAL LOAD | =    | 33.3 | PSF |

##### SPACING = 24.0 IN./C/C

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

THIS DESIGN COMPLIES WITH:

- PART 9 OF OBC 2012, BCBC 2012, ABC 2014
- CSA 086-09
- TPIC 2011

(55 % OF 27.2 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 23.3 P.S.F. SPECIFIED ROOF LIVE LOAD

ALLOWABLE DEFL.(LL)= L/360 (0.28")  
 CALCULATED VERT. DEFL.(LL) = L/ 999 (0.06")  
 ALLOWABLE DEFL.(TL)= L/360 (0.28")  
 CALCULATED VERT. DEFL.(TL) = L/ 873 (0.12")

CSI: TC=0.13 (2-3:1), BC=0.49 (6-7:1), WB=0.19 (3-6:1), SSI=0.26 (5-6:1)

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

COMPANION LIVE LOAD FACTOR = 0.50

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

#### NAIL VALUES

| PLATE | GRIP(DRY) | SHEAR | SECTION |
|-------|-----------|-------|---------|
| (PSI) | (PLI)     | (PLI) | (PLI)   |
| MAX   | MIN       | MAX   | MIN     |
| MT20  | 618       | 354   | 1667    |
|       | 822       | 2284  | 1656    |

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

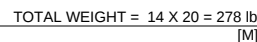
JSI GRIP= 0.83 (7) (INPUT = 0.90 )  
 JSI METAL= 0.23 (7) (INPUT = 1.00 )



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READ ALL NOTES ON THIS PAGE AND ON THE ENGINEERING NOTE PAGE ENP-1. THE NOTE PAGE IS AN INTEGRAL PART OF THIS DRAWING AS IT CONTAINS SPECIFICATIONS AND CRITERIA USED IN THE DESIGN OF THIS COMPONENT.

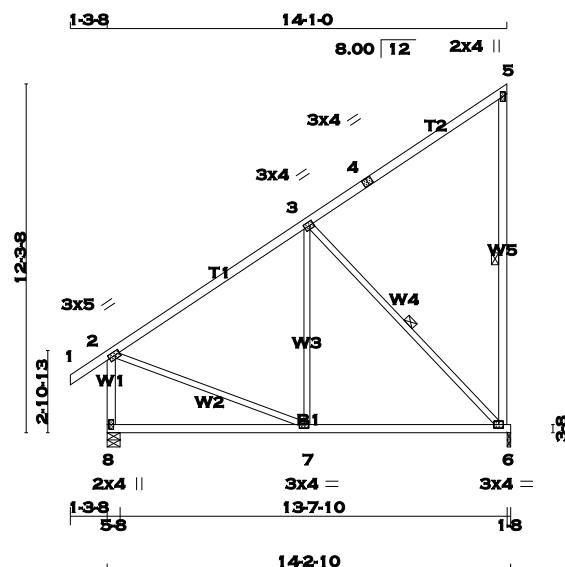




A SIZE FOR SIZE SUBSTITUTION OF MITEK MII20 WITH TEE-LOK TL20 PLATES IS ALLOWED.

| C H O R D S |                           |                           |                   | W E B S             |       |                           |                        |
|-------------|---------------------------|---------------------------|-------------------|---------------------|-------|---------------------------|------------------------|
| MEMB.       | MAX. FACTORED FORCE (LBS) | FACTORED VERT. LOAD (PLF) | LC1 MAX. CSI (LC) | MAX. UNBRAC. LENGTH | MEMB. | MAX. FACTORED FORCE (LBS) | FACTORED MAX. CSI (LC) |
| FR-TO       |                           | FROM                      | TO                |                     | FR-TO |                           |                        |
| 1-2         | 0/16                      | -77.3                     | -77.3             | 0.10 (1)            | 10.00 |                           |                        |
| 2-3         | 0/0                       | -77.3                     | -77.3             | 0.32 (1)            | 10.00 | 2-5                       | 0/0                    |
| 5-3         | -190/0                    | 0.0                       | 0.0               | 0.03 (1)            | 7.81  |                           | 0.00 (1)               |
| 6-2         | -294/0                    | 0.0                       | 0.0               | 0.03 (1)            | 7.81  |                           |                        |
| 6-5         | 0/0                       | -17.5                     | -17.5             | 0.25 (1)            | 10.00 |                           |                        |
| 5-4         | 0/0                       | -17.5                     | -17.5             | 0.24 (1)            | 10.00 |                           |                        |





SCALE = 1:81.2

TOTAL WEIGHT = 3 X 73 = 219 lb

| LUMBER                       |        |      |        |  | DESCR. |
|------------------------------|--------|------|--------|--|--------|
| N. L. G. A. RULES            | CHORDS | SIZE | LUMBER |  |        |
| 1 - 4                        | 2x4    | DRY  | No.2   |  | SPF    |
| 4 - 5                        | 2x4    | DRY  | No.2   |  | SPF    |
| 6 - 5                        | 2x4    | DRY  | No.2   |  | SPF    |
| 8 - 2                        | 2x4    | DRY  | No.2   |  | SPF    |
| 8 - 6                        | 2x4    | DRY  | No.2   |  | SPF    |
| ALL WEBS 2x3 DRY No.2 EXCEPT |        |      |        |  | SPF    |

DRY: SEASONED LUMBER.

**PLATES (table is in inches)**

| JT | TYPE    | PLATES | W   | LEN | Y    | X    |
|----|---------|--------|-----|-----|------|------|
| 2  | TMVW-t  | MT20   | 3.0 | 5.0 | 1.50 | 2.00 |
| 3  | TMVW-t  | MT20   | 3.0 | 4.0 | 1.50 | 1.50 |
| 4  | TS-t    | MT20   | 3.0 | 4.0 |      |      |
| 5  | TMV+p   | MT20   | 2.0 | 4.0 |      |      |
| 6  | BMVW1-t | MT20   | 3.0 | 4.0 |      |      |
| 7  | BMVW-t  | MT20   | 3.0 | 4.0 |      |      |
| 8  | BMV1+p  | MT20   | 2.0 | 4.0 |      |      |

A SIZE FOR SIZE SUBSTITUTION OF MITEK MII20 WITH TEE-LOK TL20 PLATES IS ALLOWED.

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

**BEARINGS**

| JT | FACTORED GROSS REACTION |      | MAXIMUM FACTORED GROSS REACTION |      | INPUT BRG |       | REQRD BRG |  |
|----|-------------------------|------|---------------------------------|------|-----------|-------|-----------|--|
|    | VERT                    | HORZ | DOWN                            | HORZ | UPLIFT    | IN-SX | IN-SX     |  |
| 6  | 668                     | 0    | 668                             | 0    | 0         | 1-8   | 1-8       |  |
| 8  | 774                     | 0    | 774                             | 0    | 0         | 5-8   | 5-8       |  |

**UNFACTORED REACTIONS**

| JT | 1ST LCASE COMBINED |     | MAX./MIN. SNOW |   | LIVE |   | PERM. LIVE |   | WIND |   | DEAD |   | SOIL |   |
|----|--------------------|-----|----------------|---|------|---|------------|---|------|---|------|---|------|---|
|    |                    |     |                |   |      |   |            |   |      |   |      |   |      |   |
| 6  | 469                | 328 | 0              | 0 | 0    | 0 | 0          | 0 | 0    | 0 | 141  | 0 | 0    | 0 |
| 8  | 541                | 392 | 0              | 0 | 0    | 0 | 0          | 0 | 0    | 0 | 149  | 0 | 0    | 0 |

BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S) 6, 8

**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 - 2x3 SPF No.2 LATERAL BRACE(S) AT 1/2 LENGTH OF 5-6, 3-6. DBS = 20-0-0. CBF = 72 LBS.

DBS = DIAGONAL BRACE SPACING (MAX). CBF = CUMULATIVE BRACING FORCE. FASTEN LATERAL BRACE(S) USING (0.122"x3") SPIRAL NAILS : 1 NAIL FOR 2x3 BRACE(S), 2 FOR 1x4, 2x4, 2x5, 3 FOR 2x6, 4 FOR 2x8, 5 FOR 2x10, AND 6 FOR 2x12.

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: (3)

| C H O R D S   |             |                  |       |              | W E B S            |       |             |              |  |
|---------------|-------------|------------------|-------|--------------|--------------------|-------|-------------|--------------|--|
| MAX. FACTORED |             | FACTORED         |       |              | MAX. FACTORED      |       |             |              |  |
| MEMB.         | FORCE (LBS) | VERT. LOAD (PLF) | LC1   | MAX CSI (LC) | MAX. UNBRAC LENGTH | MEMB. | FORCE (LBS) | MAX CSI (LC) |  |
| FR-TO         |             | FROM             | TO    |              |                    | FR-TO |             |              |  |
| 1-2           | 0 / 29      | -77.3            | -77.3 | 0.10 (1)     | 10.00              | 7-3   | 0 / 128     | 0.04 (3)     |  |
| 2-3           | -447 / 0    | -77.3            | -77.3 | 0.52 (1)     | 6.25               | 3-6   | -579 / 0    | 0.42 (1)     |  |
| 3-4           | -38 / 0     | -77.3            | -77.3 | 0.51 (1)     | 6.25               | 2-7   | 0 / 429     | 0.10 (1)     |  |
| 4-5           | -38 / 0     | -77.3            | -77.3 | 0.51 (1)     | 6.25               |       |             |              |  |
| 6-5           | -205 / 0    | 0.0              | 0.0   | 0.17 (1)     | 6.25               |       |             |              |  |
| 8-2           | -727 / 0    | 0.0              | 0.0   | 0.11 (1)     | 7.81               |       |             |              |  |
|               |             |                  |       |              |                    |       |             |              |  |
| 8-7           | 0 / 0       | -17.5            | -17.5 | 0.25 (3)     | 10.00              |       |             |              |  |
| 7-6           | 0 / 403     | -17.5            | -17.5 | 0.28 (3)     | 10.00              |       |             |              |  |

**DESIGN CRITERIA**

**SPECIFIED LOADS:**

|            |      |      |     |
|------------|------|------|-----|
| TOP CH.    | LL = | 23.3 | PSF |
|            | DL = | 3.0  | PSF |
| BOT CH.    | LL = | 0.0  | PSF |
|            | DL = | 7.0  | PSF |
| TOTAL LOAD | =    | 33.3 | PSF |

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

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

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

(55 % OF 27.2 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 23.3 P.S.F. SPECIFIED ROOF LIVE LOAD

ALLOWABLE DEFL.(LL)= L/360 (0.47")  
CALCULATED VERT. DEFL.(LL) = L/ 999 (0.01")  
ALLOWABLE DEFL.(TL)= L/360 (0.47")  
CALCULATED VERT. DEFL.(TL) = L/ 999 (0.05")

CSI: TC=0.52 (2-3:1), BC=0.28 (6-7:3), WB=0.42 (3-6:1), SSI=0.22 (2-3:1)

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

COMPANION LIVE LOAD FACTOR = 0.50

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

| NAIL VALUES |       | PLATE GRIP(DRY) SHEAR |       | SECTION |       |
|-------------|-------|-----------------------|-------|---------|-------|
| (PSI)       | (PLI) | (PSI)                 | (PLI) | (PLI)   | (PLI) |
|             |       | MAX                   | MIN   | MAX     | MIN   |
| MT20        | 618   | 354                   | 1667  | 822     | 2284  |

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

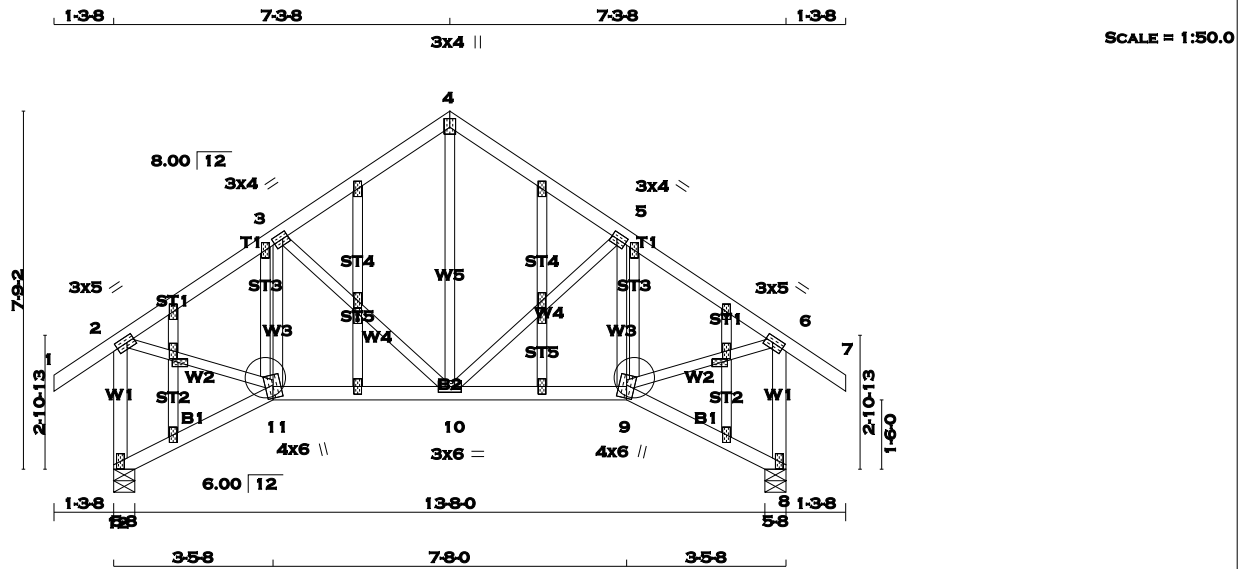
JSI GRIP= 0.75 (4) (INPUT = 0.90 )  
JSI METAL= 0.20 (2) (INPUT = 1.00 )



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READ ALL NOTES ON THIS PAGE AND ON THE  
 ENGINEERING NOTE PAGE ENP-1. THE NOTE PAGE  
 IS AN INTEGRAL PART OF THIS DRAWING AS IT  
 CONTAINS SPECIFICATIONS AND CRITERIA USED  
 IN THE DESIGN OF THIS COMPONENT.

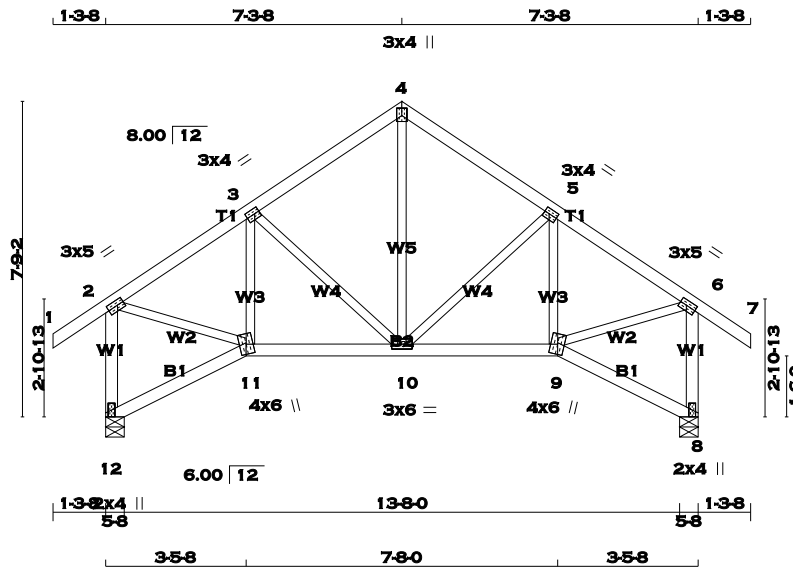




Kott Lumber Uxbridge, Stouffville, ON, CGC

Version 8.100 S Feb 9 2017 MiTek Industries, Inc. Mon Mar 13 09:57:16 2017 Page 1

ID:pF8Cn?9h9uHzAm5tCmlVl5yJJCP-fmfYZE9DAgoupIj?Q6nQcLV\_Y8i4VJMuW0wxZxzbn1



TOTAL WEIGHT = 71 lb  
[M][F]

| LUMBER                |      |        |        |
|-----------------------|------|--------|--------|
| N. L. G. A. RULES     |      |        |        |
| CHORDS                | SIZE | LUMBER | DESCR. |
| 1 - 4                 | 2x4  | DRY    | No.2   |
| 4 - 7                 | 2x4  | DRY    | No.2   |
| 12 - 2                | 2x4  | DRY    | No.2   |
| 8 - 6                 | 2x4  | DRY    | No.2   |
| 12 - 11               | 2x4  | DRY    | No.2   |
| 11 - 9                | 2x4  | DRY    | No.2   |
| 9 - 8                 | 2x4  | DRY    | No.2   |
| ALL WEBS EXCEPT       | 2x3  | DRY    | No.2   |
| SPF                   |      |        |        |
| DRY: SEASONED LUMBER. |      |        |        |

| PLATES (table is in inches) |        |        |     |     |      |
|-----------------------------|--------|--------|-----|-----|------|
| JT                          | TYPE   | PLATES | W   | LEN | X    |
| 2                           | TMVW-t | MT20   | 3.0 | 5.0 | 1.50 |
| 3                           | TMVW-t | MT20   | 3.0 | 4.0 | 1.50 |
| 4                           | TTW+p  | MT20   | 3.0 | 4.0 | 2.25 |
| 5                           | TMVW-t | MT20   | 3.0 | 4.0 | 1.50 |
| 6                           | TMVW-t | MT20   | 3.0 | 5.0 | 1.50 |
| 8                           | BMV1+p | MT20   | 2.0 | 4.0 |      |
| 9                           | BBVW+m | MT20   | 4.0 | 6.0 |      |
| 10                          | BMVW-t | MT20   | 3.0 | 6.0 |      |
| 11                          | BBVW+m | MT20   | 4.0 | 6.0 |      |
| 12                          | BMV1+p | MT20   | 2.0 | 4.0 |      |

A SIZE FOR SIZE SUBSTITUTION OF MITEK MII20 WITH TEE-LOK TL20 PLATES IS ALLOWED.

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

| BEARINGS |      | FACTORED       |      | MAXIMUM FACTORED |      | INPUT |       | REQRD |       |
|----------|------|----------------|------|------------------|------|-------|-------|-------|-------|
| JT       | VERT | GROSS REACTION | HORZ | DOWN             | HORZ | BRG   | IN-SX | BRG   | IN-SX |
| 12       | 798  | 0              | 798  | 0                | 0    | 5-8   | 5-8   | 5-8   | 5-8   |
| 8        | 798  | 0              | 798  | 0                | 0    | 5-8   | 5-8   | 5-8   | 5-8   |

| UNFACTORED REACTIONS |          | 1ST LCASE |       | MAX./MIN. COMPONENT REACTIONS |         |
|----------------------|----------|-----------|-------|-------------------------------|---------|
| JT                   | COMBINED | SNOW      | LIVE  | PERM.LIVE                     | WIND    |
| 12                   | 558      | 403 / 0   | 0 / 0 | 0 / 0                         | 154 / 0 |
| 8                    | 558      | 403 / 0   | 0 / 0 | 0 / 0                         | 154 / 0 |

BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S) 12, 8

**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: (3)          |                                |
|---------|---------------------------|--------------------------------|--------------------------------|
| CHORDS  |                           | WEBS                           |                                |
| MEMB.   | MAX. FACTORED FORCE (LBS) | MAX. FACTORED VERT. LOAD (LBS) | MAX. FACTORED HORZ. LOAD (LBS) |
| FR-TO   | FROM                      | TO                             | LENGTH                         |
| 1-2     | 0 / 29                    | -77.3                          | -77.3 0.10 (1)                 |
| 2-3     | -667 / 0                  | -77.3                          | -77.3 0.13 (1)                 |
| 3-4     | -534 / 0                  | -77.3                          | -77.3 0.13 (1)                 |
| 4-5     | -534 / 0                  | -77.3                          | -77.3 0.13 (1)                 |
| 5-6     | -667 / 0                  | -77.3                          | -77.3 0.13 (1)                 |
| 6-7     | 0 / 29                    | -77.3                          | -77.3 0.10 (1)                 |
| 12-2    | -768 / 0                  | 0.0                            | 0.0 0.13 (1)                   |
| 8-6     | -767 / 0                  | 0.0                            | 0.0 0.13 (1)                   |
| 12-11   | 0 / 0                     | -17.5                          | -17.5 0.06 (3)                 |
| 11-10   | 0 / 574                   | -17.5                          | -17.5 0.13 (1)                 |
| 10-9    | 0 / 574                   | -17.5                          | -17.5 0.13 (1)                 |
| 9-8     | 0 / 0                     | -17.5                          | -17.5 0.06 (3)                 |

#### DESIGN CRITERIA

SPECIFIED LOADS:  
TOP CH. LL = 23.3 PSF  
DL = 3.0 PSF  
BOT CH. LL = 0.0 PSF  
DL = 7.0 PSF  
TOTAL LOAD = 33.3 PSF

#### SPACING = 24.0 IN./C

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

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

(55 % OF 27.2 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 23.3 P.S.F. SPECIFIED ROOF LIVE LOAD

ALLOWABLE DEFL.(LL)= L/360 (0.49")  
CALCULATED VERT. DEFL.(LL) = L/999 (0.01")  
ALLOWABLE DEFL.(TL)= L/360 (0.49")  
CALCULATED VERT. DEFL.(TL) = L/999 (0.03")

CSI: TC=0.13 (5-6:1), BC=0.13 (9-10:1), WB=0.13 (6-9:1), SSI=0.11 (4-5:1)

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

COMPANION LIVE LOAD FACTOR = 0.50

AUTOSOLVE HEELS OFF

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

NAIL VALUES  
PLATE GRIP(DRY) SHEAR SECTION  
(PSI) (PLI) (PLI)  
MAX MIN MAX MIN MAX MIN  
MT20 618 354 1667 822 2284 1656

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

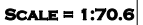
JSI GRIP= 0.81 (6) (INPUT = 0.90 )  
JSI METAL= 0.24 (6) (INPUT = 1.00 )



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READ ALL NOTES ON THIS PAGE AND ON THE ENGINEERING NOTE PAGE ENP-1. THE NOTE PAGE IS AN INTEGRAL PART OF THIS DRAWING AS IT CONTAINS SPECIFICATIONS AND CRITERIA USED IN THE DESIGN OF THIS COMPONENT.

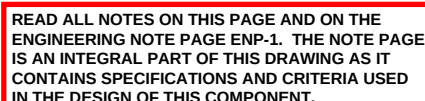


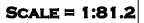


[M][F]

JSI GRIP= 0.76 (7) (INPUT = 0.90 )  
JSI METAL= 0.19 (2) (INPUT = 1.00 )

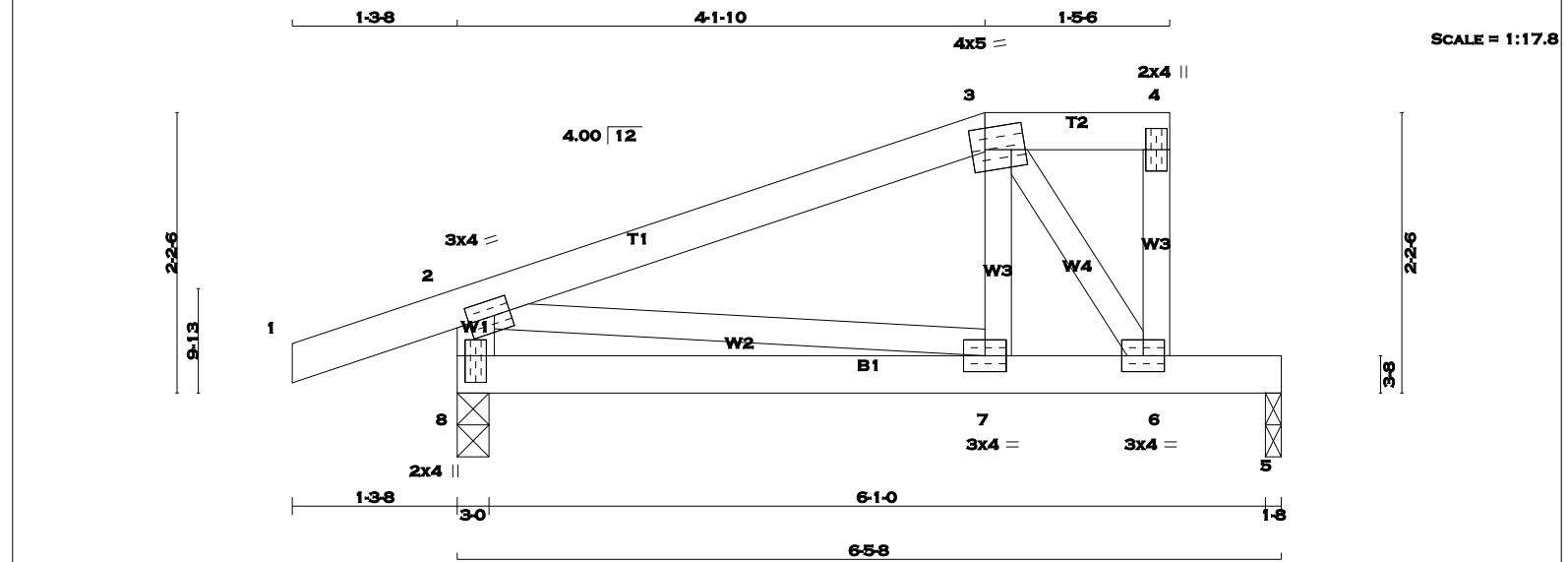
| C H O R D S |                                 |                                 |                        |                          | W E B S |                                 |                 |  |  |
|-------------|---------------------------------|---------------------------------|------------------------|--------------------------|---------|---------------------------------|-----------------|--|--|
| MEMB.       | MAX. FACTORED<br>FORCE<br>(LBS) | FACTORED<br>VERT. LOAD<br>(PLF) | LC1<br>MAX<br>CSI (LC) | MAX.<br>UNBRAC<br>LENGTH | MEMB.   | MAX. FACTORED<br>FORCE<br>(LBS) | MAX<br>CSI (LC) |  |  |
| FR-TO       |                                 | FROM                            | TO                     |                          | FR-TO   |                                 |                 |  |  |
| 1-2         | 0 / 29                          | -77.3                           | -77.3 0.10 (1)         | 10.00                    | 8-3     | -73 / 73                        | 0.05 (1)        |  |  |
| 2-3         | -466 / 0                        | -77.3                           | -77.3 0.31 (1)         | 6.25                     | 3-7     | -388 / 0                        | 0.19 (1)        |  |  |
| 3-4         | -218 / 0                        | -77.3                           | -77.3 0.31 (1)         | 6.25                     | 7-4     | -168 / 2                        | 0.12 (1)        |  |  |
| 4-5         | -155 / 0                        | -77.3                           | -77.3 0.09 (1)         | 6.25                     | 7-5     | 0 / 557                         | 0.09 (1)        |  |  |
| 5-6         | -650 / 0                        | 0.0                             | 0.0 0.34 (1)           | 6.25                     | 2-8     | 0 / 452                         | 0.10 (1)        |  |  |
| 9-2         | -735 / 0                        | 0.0                             | 0.0 0.11 (1)           | 7.81                     |         |                                 |                 |  |  |
| 9-8         | 0 / 0                           | -17.5                           | -17.5 0.14 (3)         | 10.00                    |         |                                 |                 |  |  |
| 8-7         | 0 / 411                         | -17.5                           | -17.5 0.17 (3)         | 10.00                    |         |                                 |                 |  |  |
| 7-6         | 0 / 0                           | -17.5                           | -17.5 0.07 (3)         | 10.00                    |         |                                 |                 |  |  |





TOTAL WEIGHT = 73 lb





TOTAL WEIGHT = 2 X 23 = 47 lb [M]

| LUMBER                |        |      |        |        |
|-----------------------|--------|------|--------|--------|
| N. L. G. A. RULES     | CHORDS | SIZE | LUMBER | DESCR. |
| 1 - 3                 | 2x4    | DRY  | No.2   | SPF    |
| 3 - 4                 | 2x4    | DRY  | No.2   | SPF    |
| 6 - 4                 | 2x3    | DRY  | No.2   | SPF    |
| 8 - 2                 | 2x4    | DRY  | No.2   | SPF    |
| 8 - 5                 | 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    |
| 2                           | TMVW-t | MT20   | 3.0 | 4.0 | 1.50 | 1.50 |
| 3                           | TTWW-m | MT20   | 4.0 | 5.0 | 2.00 | 1.25 |
| 4                           | TMV+p  | MT20   | 2.0 | 4.0 |      |      |
| 6                           | BMVW-t | MT20   | 3.0 | 4.0 |      |      |
| 7                           | BMVW-t | MT20   | 3.0 | 4.0 |      |      |
| 8                           | BMV1+p | MT20   | 2.0 | 4.0 | 2.50 | 1.00 |

A SIZE FOR SIZE SUBSTITUTION OF MITEK MII20 WITH TEE-LOK TL20 PLATES IS ALLOWED.

#### 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    |
| 8        | 410  | 0                       | 410                             | 0         | 0         |
| 5        | 306  | 0                       | 306                             | 0         | 0         |

| UNFACTORED REACTIONS |          | 1ST LCASE | MAX/MIN. COMPONENT REACTIONS |           |       |        |       |  |
|----------------------|----------|-----------|------------------------------|-----------|-------|--------|-------|--|
| JT                   | COMBINED | SNOW      | LIVE                         | PERM.LIVE | WIND  | DEAD   | SOIL  |  |
| 8                    | 285      | 213 / 0   | 0 / 0                        | 0 / 0     | 0 / 0 | 73 / 0 | 0 / 0 |  |
| 5                    | 215      | 150 / 0   | 0 / 0                        | 0 / 0     | 0 / 0 | 65 / 0 | 0 / 0 |  |

BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S) 8, 5

**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: (3) |                           |                           |                  |                    |       |                           |              |          |  |
| CHORDS                |                           |                           |                  |                    | WEBS  |                           |              |          |  |
| MEMB.                 | MAX. FACTORED FORCE (LBS) | FACTORED VERT. LOAD (PLF) | LC1 MAX CSI (LC) | MAX. UNBRAC LENGTH | MEMB. | MAX. FACTORED FORCE (LBS) | MAX CSI (LC) |          |  |
| FR-TO                 |                           | FROM                      | TO               |                    | FR-TO |                           |              |          |  |
| 1-2                   | 0 / 16                    | -77.3                     | -77.3            | 0.10 (1)           | 10.00 | 7-3                       | 0 / 233      | 0.05 (1) |  |
| 2-3                   | -277 / 0                  | -77.3                     | -77.3            | 0.23 (1)           | 6.25  | 3-6                       | -454 / 0     | 0.07 (1) |  |
| 3-4                   | 0 / 0                     | -77.3                     | -77.3            | 0.03 (1)           | 10.00 | 2-7                       | 0 / 264      | 0.06 (1) |  |
| 6-4                   | -56 / 0                   | 0.0                       | 0.0              | 0.01 (1)           | 7.81  |                           |              |          |  |
| 8-2                   | -383 / 0                  | 0.0                       | 0.0              | 0.04 (1)           | 7.81  |                           |              |          |  |
|                       |                           |                           |                  |                    |       |                           |              |          |  |
| 8-7                   | 0 / 0                     | -17.5                     | -17.5            | 0.08 (3)           | 10.00 |                           |              |          |  |
| 7-6                   | 0 / 275                   | -17.5                     | -17.5            | 0.36 (1)           | 10.00 |                           |              |          |  |
| 6-5                   | 0 / 0                     | -94.8                     | -94.8            | 0.32 (1)           | 10.00 |                           |              |          |  |

#### DESIGN CRITERIA

SPECIFIED LOADS:  
TOP CH. LL = 23.3 PSF  
DL = 3.0 PSF  
BOT CH. LL = 0.0 PSF  
DL = 7.0 PSF  
TOTAL LOAD = 33.3 PSF

SPACING = 24.0 IN. C/C

LOADING IN FLAT SECTION BASED ON A SLOPE OF 6.00/12

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

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

(55 % OF 27.2 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 23.3 P.S.F. SPECIFIED ROOF LIVE LOAD

ALLOWABLE DEFL.(LL)= L/360 (0.22")  
CALCULATED VERT. DEFL.(LL) = L/ 999 (0.02")  
ALLOWABLE DEFL.(TL)= L/360 (0.22")  
CALCULATED VERT. DEFL.(TL) = L/ 999 (0.03")

CSI: TC=0.23 (2-3:1), BC=0.36 (6-7:1), WB=0.07 (3-6:1), SSI=0.24 (5-6:1)

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

COMPANION LIVE LOAD FACTOR = 0.50

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

NAIL VALUES  
PLATE GRIP(DRY) SHEAR SECTION (PSI) (PLI) (PLI)  
MAX MIN MAX MIN MAX MIN  
MT20 618 354 1667 822 2284 1656

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

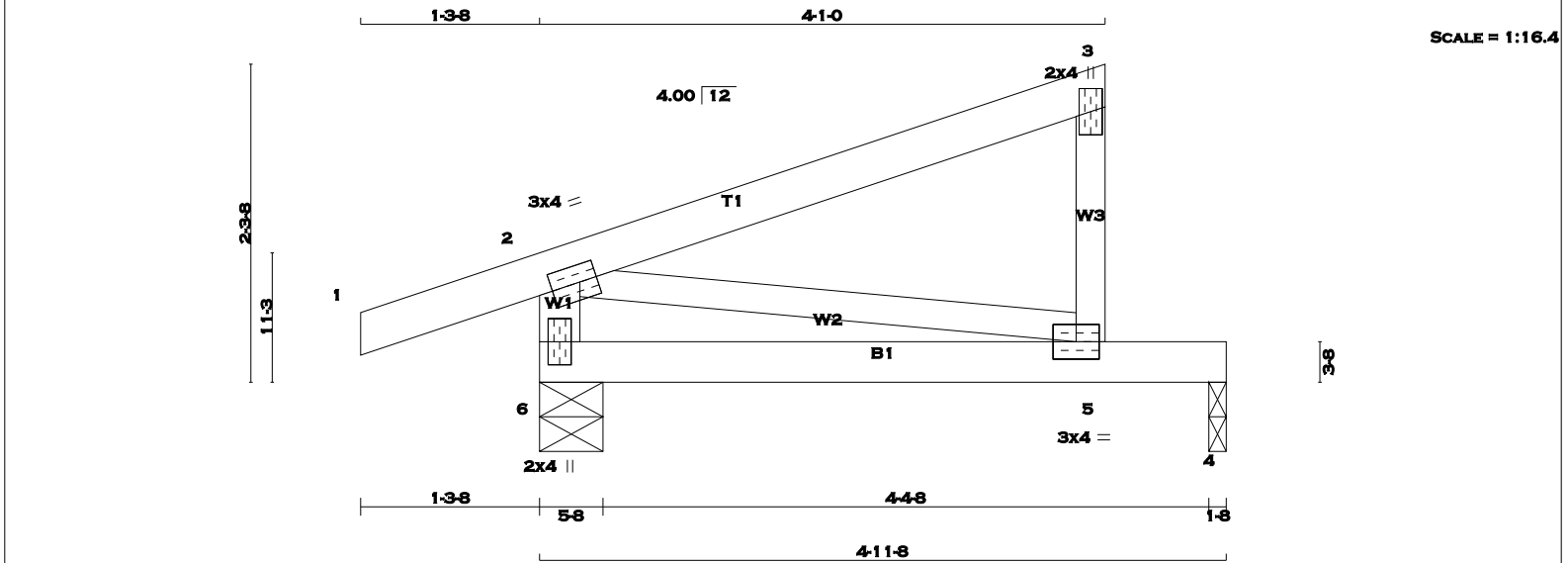
JSI GRIP= 0.64 (3) (INPUT = 0.90 )  
JSI METAL= 0.16 (3) (INPUT = 1.00 )



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| LUMBER                |        |      |        | DIMENSIONS, SUPPORTS AND LOADINGS SPECIFIED BY FABRICATOR TO BE VERIFIED BY BUILDING DESIGNER |                |          |                  | DESIGN CRITERIA |       |                  |          |
|-----------------------|--------|------|--------|-----------------------------------------------------------------------------------------------|----------------|----------|------------------|-----------------|-------|------------------|----------|
| N. L. G. A. RULES     | CHORDS | SIZE | LUMBER | DESCR.                                                                                        | BEARINGS       | FACTORED | MAXIMUM FACTORED | INPUT           | REQRD | SPECIFIED LOADS: |          |
| 1 - 3                 | 2x4    | DRY  | No.2   | SPF                                                                                           | GROSS REACTION | DOWN     | DOWN             | BRG             | BRG   | TOP CH. LL =     | 23.3 PSF |
| 5 - 3                 | 2x3    | DRY  | No.2   | SPF                                                                                           | VERT           | 0        | 0                | 0               | 0     | DL =             | 3.0 PSF  |
| 6 - 2                 | 2x4    | DRY  | No.2   | SPF                                                                                           | HORZ           | 0        | 0                | 0               | 0     | BOT CH. LL =     | 0.0 PSF  |
| 6 - 4                 | 2x4    | DRY  | No.2   | SPF                                                                                           | DOWN           | 0        | 0                | 0               | 0     | DL =             | 7.0 PSF  |
| ALL WEBS              | 2x3    | DRY  | No.2   | SPF                                                                                           | HORZ           | 0        | 0                | 0               | 0     | TOTAL LOAD =     | 33.3 PSF |
| DRY: SEASONED LUMBER. |        |      |        |                                                                                               |                |          |                  |                 |       |                  |          |

| PLATES (table is in inches) |        |        |     |     |      |      |
|-----------------------------|--------|--------|-----|-----|------|------|
| JT                          | TYPE   | PLATES | W   | LEN | Y    | X    |
| 2                           | TMVW-t | MT20   | 3.0 | 4.0 | 1.50 | 1.50 |
| 3                           | TMV+p  | MT20   | 2.0 | 4.0 |      |      |
| 5                           | BMVW-t | MT20   | 3.0 | 4.0 |      |      |
| 6                           | BMV1+p | MT20   | 2.0 | 4.0 |      |      |

A SIZE FOR SIZE SUBSTITUTION OF MITEK MII20 WITH TEE-LOK TL20 PLATES IS ALLOWED.

| UNFACTORED REACTIONS |          |         |       |           |       |        |       |
|----------------------|----------|---------|-------|-----------|-------|--------|-------|
| JT                   | COMBINED | SNOW    | LIVE  | PERM.LIVE | WIND  | DEAD   | SOIL  |
| 6                    | 231      | 174 / 0 | 0 / 0 | 0 / 0     | 0 / 0 | 57 / 0 | 0 / 0 |
| 4                    | 123      | 78 / 0  | 0 / 0 | 0 / 0     | 0 / 0 | 45 / 0 | 0 / 0 |

BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S) 6, 4

**BRACING**  
TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 10.00 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: (3) |                           |                           |              |       |                           |              |  |
| CHORDS                |                           |                           |              | WEBS  |                           |              |  |
| MEMB.                 | MAX. FACTORED FORCE (LBS) | FACTORED VERT. LOAD (PLF) | MAX LC1 (LC) | MEMB. | MAX. FACTORED FORCE (LBS) | MAX LC1 (LC) |  |
| FR-TO                 |                           | FROM TO                   |              | FR-TO |                           |              |  |
| 1-2                   | 0 / 16                    | -77.3 -77.3               | 0.10 (1)     | 2-5   | 0 / 0                     | 0.00 (1)     |  |
| 2-3                   | 0 / 0                     | -77.3 -77.3               | 0.22 (1)     |       |                           |              |  |
| 5-3                   | -158 / 0                  | 0.0 0.0                   | 0.03 (1)     |       |                           |              |  |
| 6-2                   | -261 / 0                  | 0.0 0.0                   | 0.03 (1)     |       |                           |              |  |
| 6-5                   | 0 / 0                     | -17.5 -17.5               | 0.20 (1)     |       |                           |              |  |
| 5-4                   | 0 / 0                     | -17.5 -17.5               | 0.20 (1)     |       |                           |              |  |

ALLOWABLE DEFL.(LL)= L/360 (0.19")  
CALCULATED VERT. DEFL.(LL) = L/ 999 (0.03")  
ALLOWABLE DEFL.(TL)= L/360 (0.19")  
CALCULATED VERT. DEFL.(TL) = L/ 872 (0.07")

CSI: TC=0.22 (2-3:1) , BC=0.20 (5-6:1) , WB=0.00 (2-5:1) , SSI=0.14 (4-5:1)

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

COMPANION LIVE LOAD FACTOR = 0.50

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

NAIL VALUES  
PLATE GRIP(DRY) SHEAR SECTION  
(PSI) (PLI) (PLI)  
MAX MIN MAX MIN MAX MIN  
MT20 618 354 1667 822 2284 1656

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

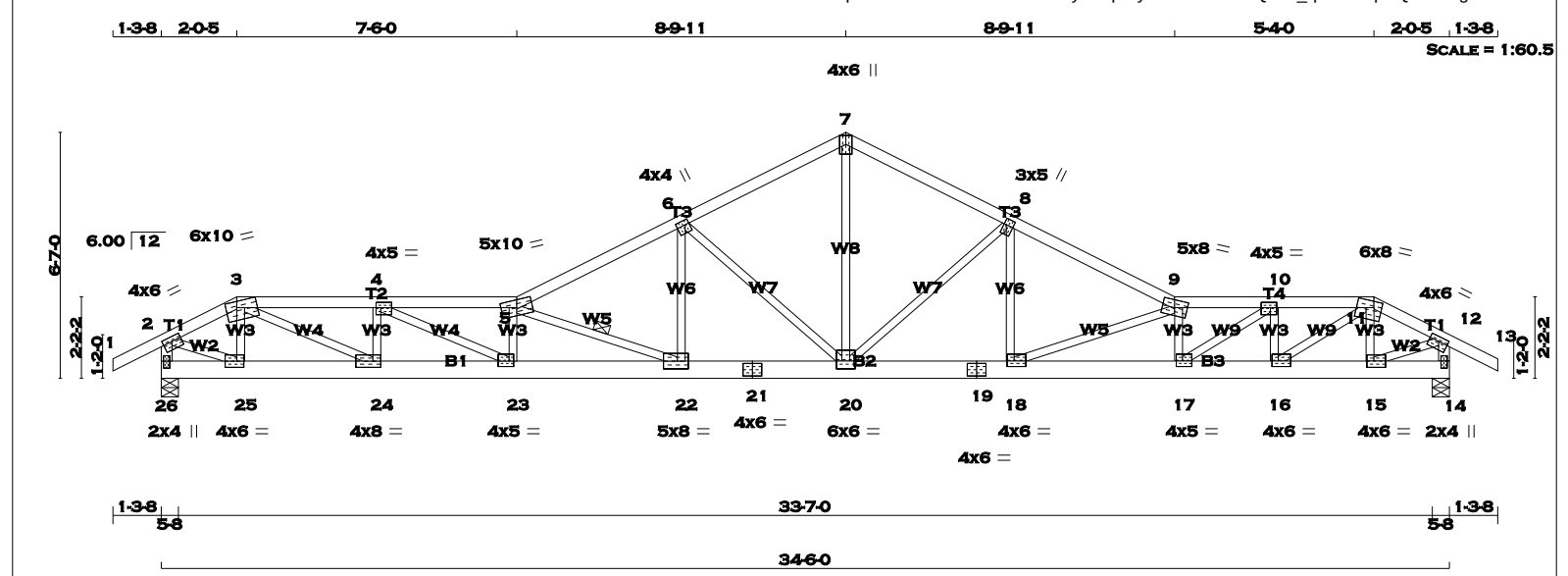
JSI GRIP= 0.24 (2) (INPUT = 0.90 )  
JSI METAL= 0.05 (6) (INPUT = 1.00 )



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TOTAL WEIGHT = 157 lb  
[M][F]

| LUMBER            |      |        |        |     |
|-------------------|------|--------|--------|-----|
| N. L. G. A. RULES |      |        |        |     |
| CHORDS            | SIZE | LUMBER | DESCR. |     |
| 1 - 3             | 2x4  | DRY    | No.2   | SPF |
| 3 - 5             | 2x4  | DRY    | No.2   | SPF |
| 5 - 7             | 2x4  | DRY    | No.2   | SPF |
| 7 - 9             | 2x4  | DRY    | No.2   | SPF |
| 9 - 11            | 2x4  | DRY    | No.2   | SPF |
| 11 - 13           | 2x4  | DRY    | No.2   | SPF |
| 26 - 2            | 2x4  | DRY    | No.2   | SPF |
| 14 - 12           | 2x4  | DRY    | No.2   | SPF |
| 26 - 21           | 2x6  | DRY    | No.2   | SPF |
| 21 - 19           | 2x6  | DRY    | No.2   | SPF |
| 19 - 14           | 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       |
| 2                           | TMVW-t | MT20   | 4.0 | 6.0  | 1.50 3.00 |
| 3                           | TTWW-m | MT20   | 6.0 | 10.0 | 2.00 3.50 |
| 4                           | TMVW-t | MT20   | 4.0 | 5.0  | 1.75 1.50 |
| 5                           | TTWW-m | MT20   | 5.0 | 10.0 |           |
| 6                           | TMVW-t | MT20   | 4.0 | 4.0  | 1.50 1.25 |
| 7                           | TTW+p  | MT20   | 4.0 | 6.0  | Edge      |
| 8                           | TMVW-t | MT20   | 3.0 | 5.0  | 2.00 0.75 |
| 9                           | TTWW-m | MT20   | 5.0 | 8.0  |           |
| 10                          | TMVW-t | MT20   | 4.0 | 5.0  | 1.75 2.00 |
| 11                          | TTWW-m | MT20   | 6.0 | 8.0  | 2.00 2.50 |
| 12                          | TMVW-t | MT20   | 4.0 | 6.0  | 1.50 3.00 |
| 14                          | BMV1+p | MT20   | 2.0 | 4.0  | 2.25 1.00 |
| 15                          | BMVW-t | MT20   | 4.0 | 6.0  | 2.00 2.25 |
| 16                          | BMVW-t | MT20   | 4.0 | 6.0  | 1.75 2.00 |
| 17                          | BMVW-t | MT20   | 4.0 | 5.0  | 1.75 2.00 |
| 18                          | BMVW-t | MT20   | 4.0 | 6.0  | 1.75 2.25 |
| 19                          | BS-t   | MT20   | 4.0 | 6.0  |           |
| 20                          | BMVW-t | MT20   | 6.0 | 6.0  | 2.50 3.00 |
| 21                          | BS-t   | MT20   | 4.0 | 6.0  |           |
| 22                          | BMVW-t | MT20   | 5.0 | 8.0  | 2.50 3.50 |
| 23                          | BMVW-t | MT20   | 4.0 | 5.0  | 1.75 1.50 |
| 24                          | BMVW-t | MT20   | 4.0 | 8.0  | 2.00 2.50 |
| 25                          | BMVW-t | MT20   | 4.0 | 6.0  | 2.00 2.25 |
| 26                          | BMV1+p | MT20   | 2.0 | 4.0  | 2.25 1.00 |

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

A SIZE FOR SIZE SUBSTITUTION OF MITEK MII20 WITH TEE-LOK TL20 PLATES IS ALLOWED.



| 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 |
| 26                                                                                            | 1741                    | 0                               | 1741      | 0         | 0      | 5-8   | 5-8   |
| 14                                                                                            | 1741                    | 0                               | 1741      | 0         | 0      | 5-8   | 5-8   |

| UNFACTORED REACTIONS |                    |           |           |                 |       |         |       |
|----------------------|--------------------|-----------|-----------|-----------------|-------|---------|-------|
| JT                   | 1ST LCASE COMBINED | MAX. SNOW | MIN. LIVE | MAX. PERM. LIVE | WIND  | DEAD    | SOIL  |
| 26                   | 1220               | 866 / 0   | 0 / 0     | 0 / 0           | 0 / 0 | 353 / 0 | 0 / 0 |
| 14                   | 1220               | 866 / 0   | 0 / 0     | 0 / 0           | 0 / 0 | 353 / 0 | 0 / 0 |

BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S) 26, 14

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

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

1 - 2x3 SPF No.2 LATERAL BRACE(S) AT 1/2 LENGTH OF 5-22. DBS = 4-0-0 . CBF = 71 LBS.

DBS = DIAGONAL BRACE SPACING (MAX). CBF = CUMULATIVE BRACING FORCE. FASTEN LATERAL BRACE(S) USING (0.122"x3") SPIRAL NAILS : 1 NAIL FOR 2x3 BRACE(S), 2 FOR 1x4, 2x4, 2x5, 3 FOR 2x6, 4 FOR 2x8, 5 FOR 2x10, AND 6 FOR 2x12.

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: (3)

| CHORDS |                           |                           |               | WEBS     |                           |                      |                        |
|--------|---------------------------|---------------------------|---------------|----------|---------------------------|----------------------|------------------------|
| MEMB.  | MAX. FACTORED FORCE (LBS) | FACTORED VERT. LOAD (PLF) | MAX. LC1 (LC) | MEMB.    | MAX. FACTORED FORCE (LBS) | MAX. UNBRACED LENGTH | FACTORED MAX. CSI (LC) |
| FR-TO  |                           | FROM TO                   |               | FR-TO    |                           |                      |                        |
| 1-2    | 0 / 23                    | -77.3 -77.3               | 0.10 (1)      | 10.00    | 25-3                      | -521 / 0             | 0.08 (1)               |
| 2-3    | -2036 / 0                 | -77.3 -77.3               | 0.08 (1)      | 4.70     | 3-24                      | 0 / 2839             | 0.64 (1)               |
| 3-4    | -4348 / 0                 | -77.3 -77.3               | 0.34 (1)      | 3.16     | 24-4                      | -1146 / 0            | 0.17 (1)               |
| 4-5    | -6037 / 0                 | -77.3 -77.3               | 0.54 (1)      | 2.47     | 4-23                      | 0 / 1885             | 0.42 (1)               |
| 5-6    | -3843 / 0                 | -77.3 -77.3               | 0.38 (1)      | 3.34     | 23-5                      | -918 / 0             | 0.14 (1)               |
| 6-7    | -2562 / 0                 | -77.3 -77.3               | 0.27 (1)      | 4.11     | 5-22                      | -2845 / 0            | 0.57 (1)               |
| 7-8    | -2562 / 0                 | -77.3 -77.3               | 0.26 (1)      | 4.11     | 22-6                      | 0 / 1234             | 0.28 (1)               |
| 8-9    | -3587 / 0                 | -77.3 -77.3               | 0.35 (1)      | 3.47     | 6-20                      | -1590 / 0            | 0.95 (1)               |
| 9-10   | -5049 / 0                 | -77.3 -77.3               | 0.34 (1)      | 2.92     | 20-7                      | 0 / 2011             | 0.45 (1)               |
| 10-11  | -3646 / 0                 | -77.3 -77.3               | 0.21 (1)      | 3.55     | 20-8                      | -1281 / 0            | 0.76 (1)               |
| 11-12  | -2002 / 0                 | -77.3 -77.3               | 0.08 (1)      | 4.73     | 18-8                      | 0 / 912              | 0.21 (1)               |
| 12-13  | 0 / 23                    | -77.3 -77.3               | 0.10 (1)      | 10.00    | 18-9                      | -2036 / 0            | 0.78 (1)               |
| 26-2   | -1761 / 0                 | 0.0                       | 0.0           | 0.18 (1) | 6-29                      | 17-9 -1083 / 0       | 0.16 (1)               |
| 14-12  | -1735 / 0                 | 0.0                       | 0.0           | 0.17 (1) | 6-32                      | 17-10 0 / 1715       | 0.39 (1)               |
|        |                           |                           |               |          |                           | 16-10 -1184 / 0      | 0.17 (1)               |
|        |                           |                           |               |          |                           | 16-11 0 / 2279       | 0.51 (1)               |
|        |                           |                           |               |          |                           | 15-11 -556 / 0       | 0.08 (1)               |
|        |                           |                           |               |          |                           | 2-25 0 / 1934        | 0.44 (1)               |
|        |                           |                           |               |          |                           | 15-12 0 / 1902       | 0.43 (1)               |
| 26-25  | 0 / 0                     | -17.5 -17.5               | 0.06 (1)      | 10.00    |                           |                      |                        |
| 25-24  | 0 / 1787                  | -17.5 -17.5               | 0.28 (1)      | 10.00    |                           |                      |                        |
| 24-23  | 0 / 4348                  | -17.5 -17.5               | 0.75 (1)      | 10.00    |                           |                      |                        |
| 23-22  | 0 / 6090                  | -17.5 -17.5               | 0.96 (1)      | 10.00    |                           |                      |                        |
| 22-21  | 0 / 3455                  | -17.5 -17.5               | 0.43 (1)      | 10.00    |                           |                      |                        |
| 21-20  | 0 / 3455                  | -17.5 -17.5               | 0.43 (1)      | 10.00    |                           |                      |                        |
| 20-19  | 0 / 3226                  | -17.5 -17.5               | 0.41 (1)      | 10.00    |                           |                      |                        |
| 19-18  | 0 / 3226                  | -17.5 -17.5               | 0.41 (1)      | 10.00    |                           |                      |                        |
| 18-17  | 0 / 5111                  | -17.5 -17.5               | 0.80 (1)      | 10.00    |                           |                      |                        |
| 17-16  | 0 / 3646                  | -17.5 -17.5               | 0.63 (1)      | 10.00    |                           |                      |                        |
| 16-15  | 0 / 1755                  | -17.5 -17.5               | 0.26 (1)      | 10.00    |                           |                      |                        |
| 15-14  | 0 / 0                     | -17.5 -17.5               | 0.02 (1)      | 10.00    |                           |                      |                        |

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BUILDING DIVISION

READ ALL NOTES ON THIS PAGE AND ON THE ENGINEERING NOTE PAGE ENP-1. THE NOTE PAGE IS AN INTEGRAL PART OF THIS DRAWING AS IT CONTAINS SPECIFICATIONS AND CRITERIA USED IN THE DESIGN OF THIS COMPONENT.

| DESIGN CRITERIA       |    |   |          |
|-----------------------|----|---|----------|
| SPECIFIED LOADS:      |    |   |          |
| TOP CH.               | LL | = | 23.3 PSF |
|                       | DL | = | 3.0 PSF  |
| BOT CH.               | LL | = | 0.0 PSF  |
|                       | DL | = | 7.0 PSF  |
| TOTAL LOAD = 33.3 PSF |    |   |          |

SPACING = 24.0 IN./C/C

LOADING IN ALL FLAT SECTIONS BASED ON A SLOPE OF 6.00/12

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

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

(55 % OF 27.2 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 23.3 P.S.F. SPECIFIED ROOF LIVE LOAD

ALLOWABLE DEFL.(LL)= L/360 (1.15")  
CALCULATED VERT. DEFL.(LL) = L/ 959 (0.43")  
ALLOWABLE DEFL.(TL)= L/360 (1.15")  
CALCULATED VERT. DEFL.(TL) = L/ 542 (0.76")

CSI: TC=0.54 (4-5:1), BC=0.96 (22-23:1), WB=0.95 (6-20:1), SSI=0.15 (5-6:1)

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

COMPANION LIVE LOAD FACTOR = 0.50

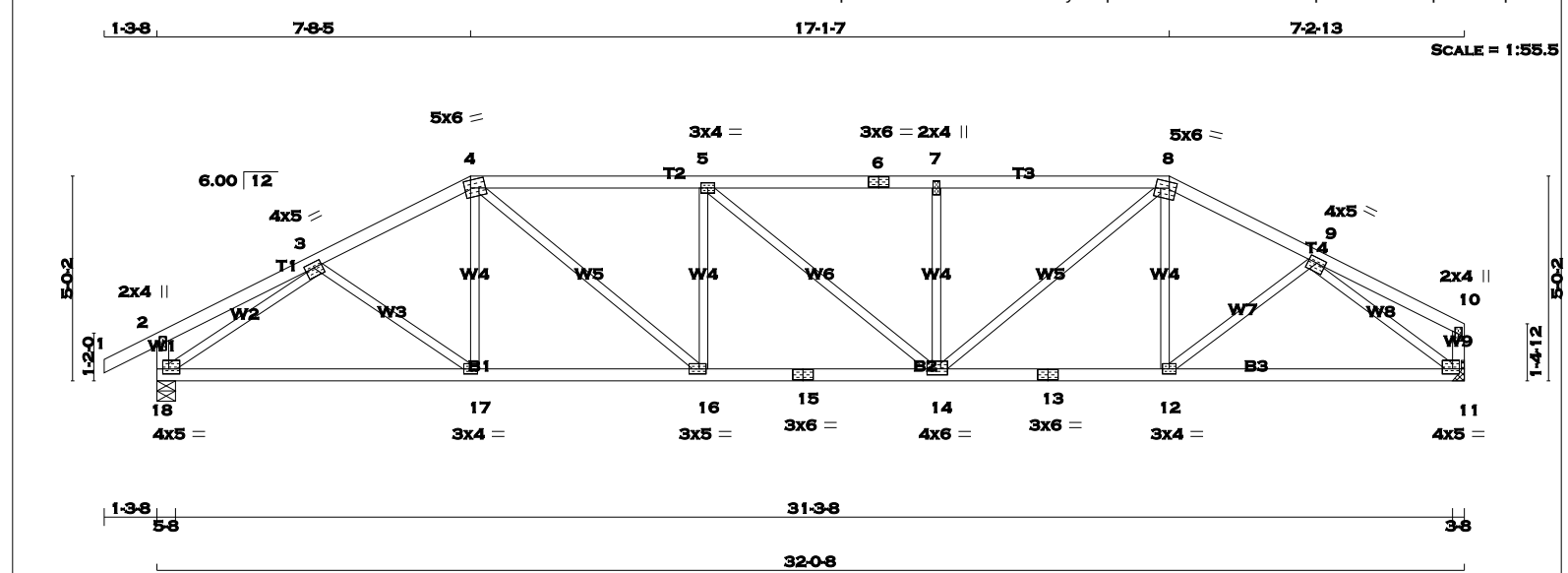
TRUSS PLATE MANUFACTURER IS NOT RESPONSIBLE FOR QUALITY CONTROL IN THE TRUSS MANUFACTURING PLANT .

| NAIL VALUES |           |       |         |         |           |
|-------------|-----------|-------|---------|---------|-----------|
| PLATE       | GRIP(DRY) | SHEAR | SECTION |         |           |
| (PSI)       | (PLI)     | (PLI) | (PLI)   | MAX MIN | MAX MIN   |
| MT20        | 618       | 354   | 1667    | 822     | 2284 1656 |

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.90 (25) (INPUT = 0.90 )  
JSI METAL= 0.65 (21) (INPUT = 1.00 )



LUMBER

N. L. G. A. RULES

CHORDS

SIZE

LUMBER

DESCR.

1 - 4

2x4

DRY

No.2

SPF

4 - 6

2x4

DRY

No.2

SPF

6 - 8

2x4

DRY

No.2

SPF

8 - 10

2x4

DRY

No.2

SPF

18 - 2

2x4

DRY

No.2

SPF

11 - 10

2x4

DRY

No.2

SPF

18 - 15

2x4

DRY

No.2

SPF

15 - 13

2x4

DRY

No.2

SPF

13 - 11

2x4

DRY

No.2

SPF

ALL WEBS

2x3

DRY

No.2

SPF

EXCEPT

DRY: SEASONED LUMBER.

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

BEARINGS

FACTORED

MAXIMUM FACTORED

INPUT

REQRD

GROSS REACTION

GROSS REACTION

BRG

BRG

JT

VERT

HORZ

DOWN

HORZ

UPLIFT

IN-SX

IN-SX

18

1624

0

1624

0

0

5-8

5-8

11

1520

0

1520

0

0

HANGER BY OTHERS

MIN. SEAT SIZE: 3-8

DESIGN CRITERIA

SPECIFIED LOADS:

TOP

CH.

LL

=

23.3

PSF

DL

=

3.0

PSF

BOT

CH.

LL

=

0.0

PSF

DL

=

7.0

PSF

TOTAL LOAD

=

33.3

PSF

SPACING

=

24.0

IN./C/C

LOADING IN FLAT SECTION BASED ON A SLOPE OF 6.00/12

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

THIS DESIGN COMPLIES WITH:

- PART 9 OF OBC 2012, BCBC 2012, ABC 2014

- CSA 086-09

- TPIC 2011

(55 % OF 27.2 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 23.3 P.S.F. SPECIFIED ROOF LIVE LOAD

ALLOWABLE DEFL.(LL)= L/360 (1.07")

CALCULATED VERT. DEFL.(LL) = L/ 999 (0.14")

ALLOWABLE DEFL.(TL)= L/360 (1.07")

CALCULATED VERT. DEFL.(TL) = L/ 999 (0.27")

CSI: TC=0.50 (4-5:1), BC=0.47 (14-16:1), WB=0.84 (3-18:1), SSI=0.20 (4-5:1)

DOL LUMBER=1.00 NAIL=1.00 LS BEND=1.10

COMP=1.10 SHEAR=1.10 TENS= 1.10

COMPANION LIVE LOAD FACTOR = 0.50

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

NAIL VALUES

PLATE GRIP(DRY) SHEAR SECTION

(PSI) (PLI) (PLI)

MAX MIN MAX MIN MAX MIN

MT20 618 354 1667 822 2284 1656

PLATE PLACEMENT TOL. = 0.250 inches

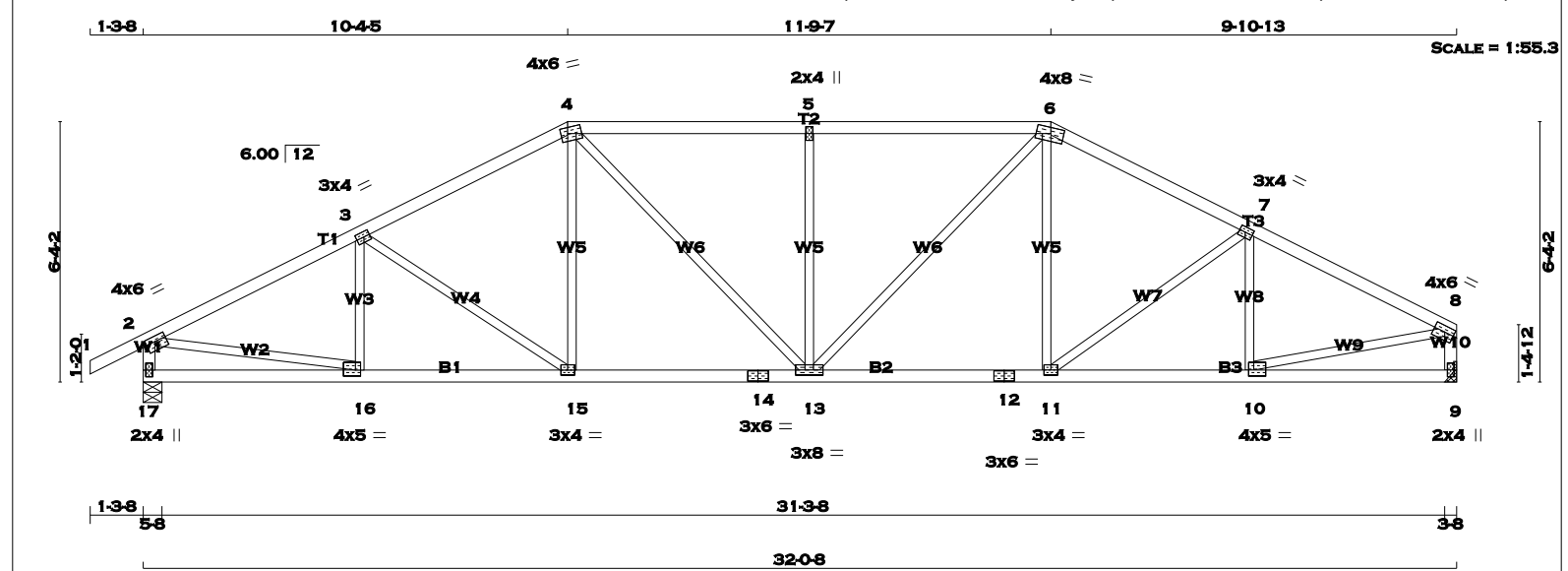
PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.90 (11) (INPUT = 0.90 )

JSI METAL= 0.73 (15) (INPUT = 1.00 )

| UNFACTORED REACTIONS |          |                               |       | UNFACTORED REACTIONS |       |                               |       |
|----------------------|----------|-------------------------------|-------|----------------------|-------|-------------------------------|-------|
| 1ST LCASE            |          | MAX./MIN. COMPONENT REACTIONS |       | 1ST LCASE            |       | MAX./MIN. COMPONENT REACTIONS |       |
| JT                   | COMBINED | SNOW                          | LIVE  | PERM.LIVE            | WIND  | DEAD                          | SOIL  |
| 18                   | 1138     | 809 / 0                       | 0 / 0 | 0 / 0                | 0 / 0 | 329 / 0                       | 0 / 0 |
| 11                   | 1066     | 746 / 0                       | 0 / 0 | 0 / 0                | 0 / 0 | 320 / 0                       | 0 / 0 |

| CHORDS |           |         |                | WEBS  |      |           |          |
|--------|-----------|---------|----------------|-------|------|-----------|----------|
| MEMB.  |           | FORCE   |                | MEMB. |      | FORCE     |          |
| FR-TO  |           | FROM TO |                | FR-TO |      | FROM TO   |          |
| 1-2    | 0 / 23    | -77.3   | -77.3 0.10 (1) | 10.00 | 3-17 | 0 / 78    | 0.03 (3) |
| 2-3    | 0 / 13    | -77.3   | -77.3 0.15 (1) | 10.00 | 17-4 | 0 / 112   | 0.04 (3) |
| 3-4    | -2142 / 0 | -77.3   | -77.3 0.22 (1) | 4.46  | 4-16 | 0 / 857   | 0.19 (1) |
| 4-5    | -2566 / 0 | -77.3   | -77.3 0.50 (1) | 3.86  | 16-5 | -458 / 0  | 0.17 (1) |
| 5-6    | -2539 / 0 | -77.3   | -77.3 0.49 (1) | 3.88  | 5-14 | -35 / 0   | 0.04 (1) |
| 6-7    | -2539 / 0 | -77.3   | -77.3 0.49 (1) | 3.88  | 14-7 | -479 / 0  | 0.18 (1) |
| 7-8    | -2539 / 0 | -77.3   | -77.3 0.49 (1) | 3.88  | 14-8 | 0 / 927   | 0.21 (1) |
| 8-9    | -2053 / 0 | -77.3   | -77.3 0.19 (1) | 4.56  | 12-8 | 0 / 85    | 0.03 (3) |
| 9-10   | 0 / 12    | -77.3   | -77.3 0.13 (1) | 10.00 | 12-9 | 0 / 167   | 0.04 (1) |
| 18-2   | -225 / 0  | 0.0     | 0.0 0.02 (1)   | 7.81  | 18-3 | -2292 / 0 | 0.84 (1) |
| 11-10  | -113 / 0  | 0.0     | 0.0 0.01 (1)   | 7.81  | 9-11 | -2166 / 0 | 0.75 (1) |
| 18-17  | 0 / 1858  | -17.5   | -17.5 0.42 (1) | 10.00 |      |           |          |
| 17-16  | 0 / 1905  | -17.5   | -17.5 0.43 (1) | 10.00 |      |           |          |
| 16-15  | 0 / 2566  | -17.5   | -17.5 0.47 (1) | 10.00 |      |           |          |
| 15-14  | 0 / 2566  | -17.5   | -17.5 0.47 (1) | 10.00 |      |           |          |
| 14-13  | 0 / 1824  | -17.5   | -17.5 0.40 (1) | 10.00 |      |           |          |
| 13-12  | 0 / 1824  | -17.5   | -17.5 0.40 (1) | 10.00 |      |           |          |
| 12-11  | 0 / 1692  | -17.5   | -17.5 0.38 (1) | 10.00 |      |           |          |



LUMBER

N. L. G. A. RULES

CHORDS

SIZE

LUMBER

DESCR.

1 - 4

2x4

DRY

No.2

SPF

4 - 6

2x4

DRY

No.2

SPF

6 - 8

2x4

DRY

No.2

SPF

17 - 2

2x4

DRY

No.2

SPF

9 - 8

2x4

DRY

No.2

SPF

17 - 14

2x4

DRY

No.2

SPF

14 - 12

2x4

DRY

No.2

SPF

12 - 9

2x4

DRY

No.2

SPF

| CHORDS                | SIZE | LUMBER | DESCR. |
|-----------------------|------|--------|--------|
| 1 - 4                 | 2x4  | DRY    | No.2   |
| 4 - 6                 | 2x4  | DRY    | No.2   |
| 6 - 8                 | 2x4  | DRY    | No.2   |
| 17 - 2                | 2x4  | DRY    | No.2   |
| 9 - 8                 | 2x4  | DRY    | No.2   |
| 17 - 14               | 2x4  | DRY    | No.2   |
| 14 - 12               | 2x4  | DRY    | No.2   |
| 12 - 9                | 2x4  | DRY    | No.2   |
| ALL WEBS              | 2x3  | DRY    | No.2   |
| EXCEPT                |      |        | SPF    |
| DRY: SEASONED LUMBER. |      |        |        |

PLATES (table is in inches)

JT

TYPE

PLATES

W

LEN

Y

X

2

TMVW-t

MT20

4.0

6.0

1.50

2.75

3

TMVW-t

MT20

3.0

4.0

1.50

1.75

4

TTWW-m

MT20

4.0

6.0

1.75

2.00

5

TMW+w

MT20

2.0

4.0

6

TTWW-m

MT20

4.0

8.0

1.75

3.75

7

TMVW-t

MT20

3.0

4.0

1.50

1.75

8

TMVW-t

MT20

4.0

6.0

1.75

2.75

9

BMV1+p

MT20

2.0

4.0

10

BMVW-t

MT20

4.0

5.0

1.75

1.50

11

BMVW-t

MT20

3.0

4.0

12

BS-t

MT20

3.0

6.0

13

BMVW-t

MT20

3.0

8.0

14

BS-t

MT20

3.0

6.0

15

BMVW-t

MT20

3.0

4.0

16

BMVW-t

MT20

4.0

5.0

1.75

1.50

17

BMV1+p

MT20

2.0

4.0

| JT | TYPE   | PLATES | W   | LEN | Y    | X    |
|----|--------|--------|-----|-----|------|------|
| 2  | TMVW-t | MT20   | 4.0 | 6.0 | 1.50 | 2.75 |
| 3  | TMVW-t | MT20   | 3.0 | 4.0 | 1.50 | 1.75 |
| 4  | TTWW-m | MT20   | 4.0 | 6.0 | 1.75 | 2.00 |
| 5  | TMW+w  | MT20   | 2.0 | 4.0 |      |      |
| 6  | TTWW-m | MT20   | 4.0 | 8.0 | 1.75 | 3.75 |
| 7  | TMVW-t | MT20   | 3.0 | 4.0 | 1.50 | 1.75 |
| 8  | TMVW-t | MT20   | 4.0 | 6.0 | 1.75 | 2.75 |
| 9  | BMV1+p | MT20   | 2.0 | 4.0 |      |      |
| 10 | BMVW-t | MT20   | 4.0 | 5.0 | 1.75 | 1.50 |
| 11 | BMVW-t | MT20   | 3.0 | 4.0 |      |      |
| 12 | BS-t   | MT20   | 3.0 | 6.0 |      |      |
| 13 | BMVW-t | MT20   | 3.0 | 8.0 |      |      |
| 14 | BS-t   | MT20   | 3.0 | 6.0 |      |      |
| 15 | BMVW-t | MT20   | 3.0 | 4.0 |      |      |
| 16 | BMVW-t | MT20   | 4.0 | 5.0 | 1.75 | 1.50 |
| 17 | BMV1+p | MT20   | 2.0 | 4.0 |      |      |

A SIZE FOR SIZE SUBSTITUTION OF MITEK MII20 WITH

TEE-LOK TL20 PLATES IS ALLOWED.

| MEMB. | FORCE (LBS) | VERT. LOAD (PLF) | MAX. FACTORED (LC1) | MAX. FACTORED (LC) | MAX. FACTORED (UNBRAC) | MEMB. | FORCE (LBS) | MAX. FACTORED (LC) |
|-------|-------------|------------------|---------------------|--------------------|------------------------|-------|-------------|--------------------|
| FR-TO |             |                  |                     |                    |                        | FR-TO |             |                    |
| 1-2   | 0 / 23      | -77.3            | -77.3               | 0.10 (1)           | 10.00                  | 16-3  | -231 / 17   | 0.05 (1)           |
| 2-3   | -2205 / 0   | -77.3            | -77.3               | 0.33 (1)           | 4.30                   | 3-15  | -271 / 0    | 0.19 (1)           |
| 3-4   | -1997 / 0   | -77.3            | -77.3               | 0.31 (1)           | 4.50                   | 15-4  | 0 / 252     | 0.06 (1)           |
| 4-5   | -2070 / 0   | -77.3            | -77.3               | 0.41 (1)           | 4.31                   | 4-13  | 0 / 430     | 0.10 (1)           |
| 5-6   | -2070 / 0   | -77.3            | -77.3               | 0.41 (1)           | 4.31                   | 13-5  | -559 / 0    | 0.36 (1)           |
| 6-7   | -1949 / 0   | -77.3            | -77.3               | 0.28 (1)           | 4.57                   | 13-6  | 0 / 491     | 0.11 (1)           |
| 7-8   | -2056 / 0   | -77.3            | -77.3               | 0.30 (1)           | 4.47                   | 11-6  | 0 / 195     | 0.04 (3)           |
| 17-2  | -1583 / 0   | 0.0              | 0.0                 | 0.16 (1)           | 6.56                   | 11-7  | -163 / 0    | 0.11 (1)           |
| 9-8   | -1480 / 0   | 0.0              | 0.0                 | 0.15 (1)           | 6.74                   | 10-7  | -311 / 0    | 0.07 (1)           |
|       |             |                  |                     |                    |                        | 2-16  | 0 / 2016    | 0.45 (1)           |
|       |             |                  |                     |                    |                        | 10-8  | 0 / 1898    | 0.43 (1)           |
| 17-16 | 0 / 0       | -17.5            | -17.5               | 0.10 (3)           | 10.00                  |       |             |                    |
| 16-15 | 0 / 1990    | -17.5            | -17.5               | 0.38 (1)           | 10.00                  |       |             |                    |
| 15-14 | 0 / 1770    | -17.5            | -17.5               | 0.34 (1)           | 10.00                  |       |             |                    |
| 14-13 | 0 / 1770    | -17.5            | -17.5               | 0.34 (1)           | 10.00                  |       |             |                    |
| 13-12 | 0 / 1728    | -17.5            | -17.5               | 0.34 (1)           | 10.00                  |       |             |                    |
| 12-11 | 0 / 1728    | -17.5            | -17.5               | 0.34 (1)           | 10.00                  |       |             |                    |
| 11-10 | 0 / 1856    | -17.5            | -17.5               | 0.36 (1)           | 10.00                  |       |             |                    |
| 10-9  | 0 / 0       | -17.5            | -17.5               | 0.09 (3)           | 10.00                  |       |             |                    |

BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S) 17

BRACING

TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 4.30 FT.

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

LOADING

TOTAL LOAD CASES: (3)

DESIGN CRITERIA

SPECIFIED LOADS:

TOP CH. LL = 23.3 PSF

DL = 3.0 PSF

BOT CH. LL = 0.0 PSF

DL = 7.0 PSF

TOTAL LOAD = 33.3 PSF

SPACING = 24.0 IN./C

LOADING IN FLAT SECTION BASED ON A SLOPE OF 6.00/12

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

THIS DESIGN COMPLIES WITH:

- PART 9 OF OBC 2012, BCBC 2012, ABC 2014

- CSA 086-09

- TPIC 2011

(55 % OF 27.2 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 23.3 P.S.F. SPECIFIED ROOF LIVE LOAD

ALLOWABLE DEFL.(LL)= L/360 (1.07")

CALCULATED VERT. DEFL.(LL) = L/ 999 (0.11")

ALLOWABLE DEFL.(TL)= L/360 (1.07")

CALCULATED VERT. DEFL.(TL) = L/ 999 (0.20")

CSI: TC=0.41 (5-6:1), BC=0.38 (15-16:1), WB=0.45 (2-16:1), SSI=0.22 (5-6:1)

DOL LUMBER=1.00 NAIL=1.00 LS BEND=1.10

COMP=1.10 SHEAR=1.10 TENS= 1.10

COMPANION LIVE LOAD FACTOR = 0.50

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

NAIL VALUES

PLATE GRIP(DRY) SHEAR SECTION

(PSI) (PLI) (PLI)

MAX MIN MAX MIN MAX MIN

MT20 618 354 1667 822 2284 1656

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.89 (10) (INPUT = 0.90)

JSI METAL= 0.60 (16) (INPUT = 1.00)

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READ ALL NOTES ON THIS PAGE AND ON THE ENGINEERING NOTE PAGE ENP-1. THE NOTE PAGE IS AN INTEGRAL PART OF THIS DRAWING AS IT CONTAINS SPECIFICATIONS AND CRITERIA USED IN THE DESIGN OF THIS COMPONENT.

LICENSED PROFESSIONAL ENGINEER

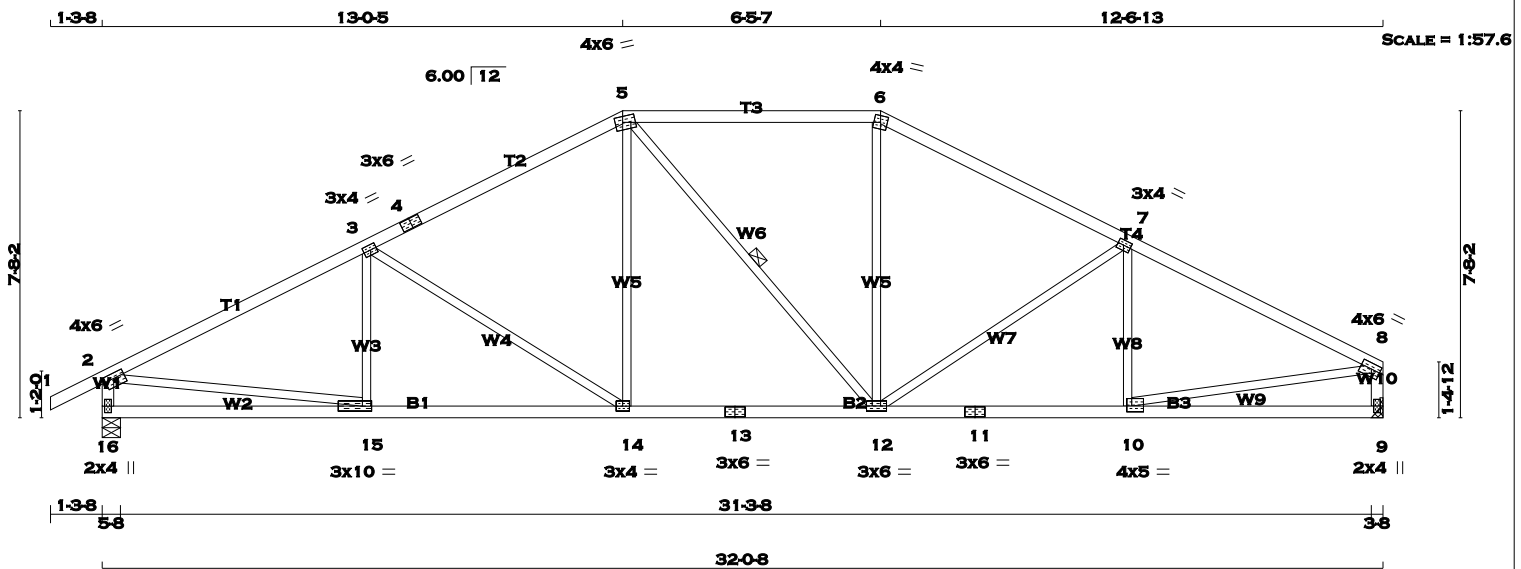
P. TREVISAN

100136551

March 13th, 2017

PROVINCE OF ONTARIO

KOTT



| LUMBER                |      |        |        |
|-----------------------|------|--------|--------|
| N. L. G. A. RULES     |      |        |        |
| CHORDS                | SIZE | LUMBER | DESCR. |
| 1 - 4                 | 2x4  | DRY    | No.2   |
| 4 - 5                 | 2x4  | DRY    | No.2   |
| 5 - 6                 | 2x4  | DRY    | No.2   |
| 6 - 8                 | 2x4  | DRY    | No.2   |
| 16 - 2                | 2x4  | DRY    | No.2   |
| 9 - 8                 | 2x4  | DRY    | No.2   |
| 16 - 13               | 2x4  | DRY    | No.2   |
| 13 - 11               | 2x4  | DRY    | No.2   |
| 11 - 9                | 2x4  | DRY    | No.2   |
| ALL WEBS EXCEPT       | 2x3  | DRY    | No.2   |
| SPF                   |      |        |        |
| DRY: SEASONED LUMBER. |      |        |        |

| PLATES (table is in inches) |         |        |     |      |           |
|-----------------------------|---------|--------|-----|------|-----------|
| JT                          | TYPE    | PLATES | W   | LEN  | Y X       |
| 2                           | TMVW-t  | MT20   | 4.0 | 6.0  | 1.50 2.75 |
| 3                           | TMWW-t  | MT20   | 3.0 | 4.0  | 1.50 1.75 |
| 4                           | TS-t    | MT20   | 3.0 | 6.0  |           |
| 5                           | TTWW-m  | MT20   | 4.0 | 6.0  | 1.75 2.25 |
| 6                           | TTW-m   | MT20   | 4.0 | 4.0  |           |
| 7                           | TMWW-t  | MT20   | 3.0 | 4.0  | 1.50 1.75 |
| 8                           | TMVW-t  | MT20   | 4.0 | 6.0  | 1.75 2.75 |
| 9                           | BMV1+p  | MT20   | 2.0 | 4.0  |           |
| 10                          | BMWW-t  | MT20   | 4.0 | 5.0  | 1.75 1.50 |
| 11                          | BS-t    | MT20   | 3.0 | 6.0  |           |
| 12                          | BMWWW-t | MT20   | 3.0 | 6.0  |           |
| 13                          | BS-t    | MT20   | 3.0 | 6.0  |           |
| 14                          | BMWW-t  | MT20   | 3.0 | 4.0  |           |
| 15                          | BMWW-t  | MT20   | 3.0 | 10.0 | 1.50 2.75 |
| 16                          | BMV1+p  | MT20   | 2.0 | 4.0  |           |

A SIZE FOR SIZE SUBSTITUTION OF MITEK MII20 WITH TEE-LOK TL20 PLATES IS ALLOWED.



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

| BEARINGS                |      |                                 |      |
|-------------------------|------|---------------------------------|------|
| FACTORED GROSS REACTION |      | MAXIMUM FACTORED GROSS REACTION |      |
| JT                      | VERT | DOWN                            | HORZ |
| 16                      | 1624 | 0                               | 0    |
| 9                       | 1520 | 0                               | 0    |

| UNFACTORED REACTIONS |          |                               |       |           |       |         |       |
|----------------------|----------|-------------------------------|-------|-----------|-------|---------|-------|
| 1ST LCASE            |          | MAX./MIN. COMPONENT REACTIONS |       |           |       |         |       |
| JT                   | COMBINED | SNOW                          | LIVE  | PERM.LIVE | WIND  | DEAD    | SOIL  |
| 16                   | 1138     | 809 / 0                       | 0 / 0 | 0 / 0     | 0 / 0 | 329 / 0 | 0 / 0 |
| 9                    | 1066     | 746 / 0                       | 0 / 0 | 0 / 0     | 0 / 0 | 320 / 0 | 0 / 0 |

BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S) 16

**BRACING**  
TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 4.03 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 - 2x3 SPF No.2 LATERAL BRACE(S) AT 1/2 LENGTH OF 5-12. DBS = 20-0-0. CBF = 4 LBS.

DBS = DIAGONAL BRACE SPACING (MAX). CBF = CUMULATIVE BRACING FORCE. FASTEN LATERAL BRACE(S) USING (0.122"x3") SPIRAL NAILS : 1 NAIL FOR 2x3 BRACE(S), 2 FOR 1x4, 2x4, 2x5, 3 FOR 2x6, 4 FOR 2x8, 5 FOR 2x10, AND 6 FOR 2x12.

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: (3)

| C H O R D S |                           |                           |              | W E B S              |       |                           |              |
|-------------|---------------------------|---------------------------|--------------|----------------------|-------|---------------------------|--------------|
| MEMB.       | MAX. FACTORED FORCE (LBS) | FACTORED VERT. LOAD (PLF) | MAX LC1 (LC) | MAX. UNBRACED LENGTH | MEMB. | MAX. FACTORED FORCE (LBS) | MAX LC1 (LC) |
| FR-TO       |                           | FROM                      | TO           |                      | FR-TO |                           |              |
| 1-2         | 0 / 23                    | -77.3                     | -77.3        | 0.10 (1)             | 10.00 | 15-3                      | -138 / 68    |
| 2-3         | -2235 / 0                 | -77.3                     | -77.3        | 0.55 (1)             | 4.03  | 3-14                      | -508 / 0     |
| 3-4         | -1811 / 0                 | -77.3                     | -77.3        | 0.49 (1)             | 4.46  | 14-5                      | 0 / 385      |
| 4-5         | -1811 / 0                 | -77.3                     | -77.3        | 0.49 (1)             | 4.46  | 5-12                      | -29 / 0      |
| 5-6         | -1581 / 0                 | -77.3                     | -77.3        | 0.46 (1)             | 4.72  | 12-6                      | 0 / 361      |
| 6-7         | -1790 / 0                 | -77.3                     | -77.3        | 0.45 (1)             | 4.53  | 12-7                      | -407 / 0     |
| 7-8         | -2113 / 0                 | -77.3                     | -77.3        | 0.49 (1)             | 4.19  | 10-7                      | -206 / 43    |
| 16-2        | -1575 / 0                 | 0.0                       | 0.0          | 0.16 (1)             | 6.57  | 2-15                      | 0 / 2040     |
| 9-8         | -1472 / 0                 | 0.0                       | 0.0          | 0.15 (1)             | 6.74  | 10-8                      | 0 / 1940     |
| 16-15       | 0 / 0                     | -17.5                     | -17.5        | 0.17 (3)             | 10.00 |                           |              |
| 15-14       | 0 / 2023                  | -17.5                     | -17.5        | 0.40 (1)             | 10.00 |                           |              |
| 14-13       | 0 / 1600                  | -17.5                     | -17.5        | 0.33 (1)             | 10.00 |                           |              |
| 13-12       | 0 / 1600                  | -17.5                     | -17.5        | 0.33 (1)             | 10.00 |                           |              |
| 12-11       | 0 / 1913                  | -17.5                     | -17.5        | 0.38 (1)             | 10.00 |                           |              |
| 11-10       | 0 / 1913                  | -17.5                     | -17.5        | 0.38 (1)             | 10.00 |                           |              |
| 10-9        | 0 / 0                     | -17.5                     | -17.5        | 0.16 (3)             | 10.00 |                           |              |

### DESIGN CRITERIA

SPECIFIED LOADS:  
TOP CH. LL = 23.3 PSF  
DL = 3.0 PSF  
BOT CH. LL = 0.0 PSF  
DL = 7.0 PSF  
TOTAL LOAD = 33.3 PSF

SPACING = 24.0 IN./C

LOADING IN FLAT SECTION BASED ON A SLOPE OF 6.00/12

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

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

(55 % OF 27.2 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 23.3 P.S.F. SPECIFIED ROOF LIVE LOAD

ALLOWABLE DEFL.(LL)= L/360 (1.07")  
CALCULATED VERT. DEFL.(LL)= L/ 999 (0.10")  
ALLOWABLE DEFL.(TL)= L/360 (1.07")  
CALCULATED VERT. DEFL.(TL)= L/ 999 (0.19")

CSI: TC=0.55 (2-3:1), BC=0.40 (14-15:1), WB=0.62 (3-14:1), SSI=0.22 (2-3:1)

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

COMPANION LIVE LOAD FACTOR = 0.50

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

| NAIL VALUES |           |       |         |       |       |
|-------------|-----------|-------|---------|-------|-------|
| PLATE       | GRIP(DRY) | SHEAR | SECTION | (PSI) | (PLI) |
|             | MAX       | MIN   | MAX     | MIN   | MAX   |
| MT20        | 618       | 354   | 1667    | 822   | 2284  |

PLATE PLACEMENT TOL. = 0.250 inches

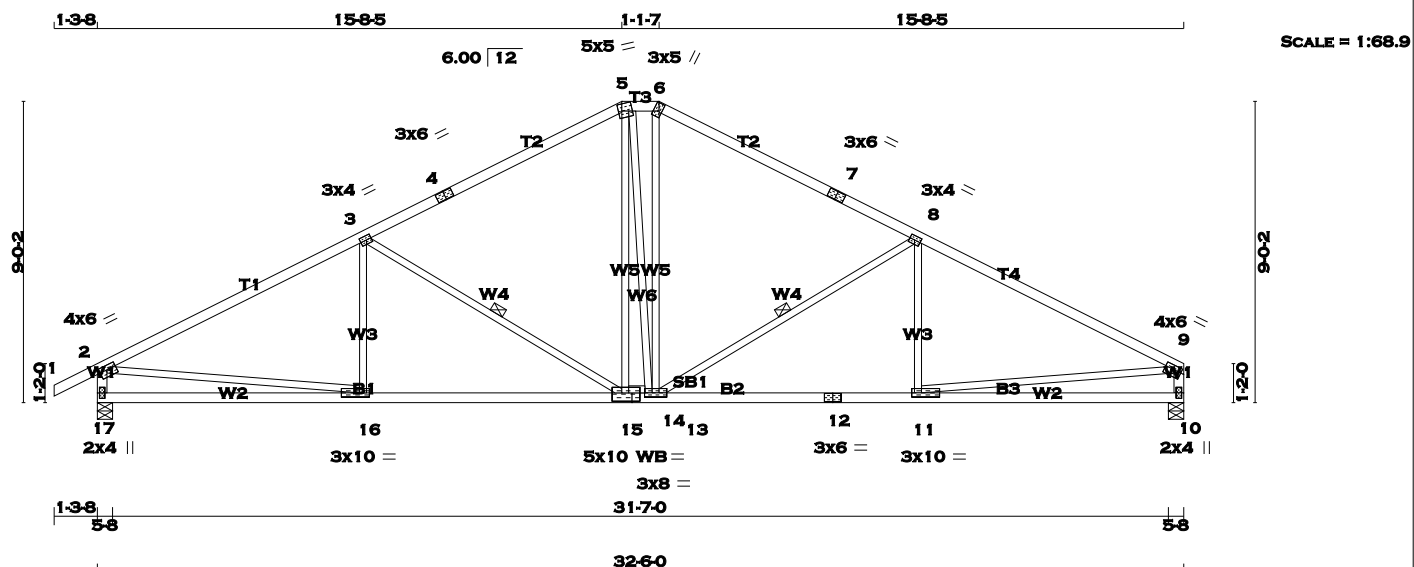
PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.89 (15) (INPUT = 0.90 )  
JSI METAL= 0.60 (2) (INPUT = 1.00 )

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READ ALL NOTES ON THIS PAGE AND ON THE ENGINEERING NOTE PAGE ENP-1. THE NOTE PAGE IS AN INTEGRAL PART OF THIS DRAWING AS IT CONTAINS SPECIFICATIONS AND CRITERIA USED IN THE DESIGN OF THIS COMPONENT.





TOTAL WEIGHT = 137 lb

| LUMBER  |      |        |        | N. L. G. A. RULES |      |        |        |
|---------|------|--------|--------|-------------------|------|--------|--------|
| CHORDS  | SIZE | LUMBER | DESCR. | CHORDS            | SIZE | LUMBER | DESCR. |
| 1 - 4   | 2x4  | DRY    | No.2   | 17 - 2            | 2x4  | DRY    | No.2   |
| 4 - 5   | 2x4  | DRY    | No.2   | 10 - 9            | 2x4  | DRY    | No.2   |
| 5 - 6   | 2x4  | DRY    | No.2   | 17 - 14           | 2x4  | DRY    | No.2   |
| 6 - 7   | 2x4  | DRY    | No.2   | 14 - 12           | 2x4  | DRY    | No.2   |
| 7 - 9   | 2x4  | DRY    | No.2   | 12 - 10           | 2x4  | DRY    | No.2   |
| 17 - 2  | 2x4  | DRY    | No.2   |                   |      |        |        |
| 10 - 9  | 2x4  | DRY    | No.2   |                   |      |        |        |
| 17 - 14 | 2x4  | DRY    | No.2   |                   |      |        |        |
| 14 - 12 | 2x4  | DRY    | No.2   |                   |      |        |        |
| 12 - 10 | 2x4  | DRY    | No.2   |                   |      |        |        |

ALL WEBS 2x3 DRY No.2 SPF

DRY: SEASONED LUMBER.

#### PLATES (table is in inches)

| JT | TYPE    | PLATES | W   | LEN  | Y    | X    |
|----|---------|--------|-----|------|------|------|
| 2  | TMVW-t  | MT20   | 4.0 | 6.0  | 1.50 | 2.75 |
| 3  | TMWW-t  | MT20   | 3.0 | 4.0  | 1.50 | 1.75 |
| 4  | TS-t    | MT20   | 3.0 | 6.0  |      |      |
| 5  | TTWW-m  | MT20   | 5.0 | 5.0  | 2.50 | 1.25 |
| 6  | TTW+h   | MT20   | 3.0 | 5.0  | 2.75 | 1.00 |
| 7  | TS-t    | MT20   | 3.0 | 6.0  |      |      |
| 8  | TMWW-t  | MT20   | 3.0 | 4.0  | 1.50 | 1.75 |
| 9  | TMVW-t  | MT20   | 4.0 | 6.0  | 1.50 | 2.75 |
| 10 | BMV1+p  | MT20   | 2.0 | 4.0  |      |      |
| 11 | BMWW-t  | MT20   | 3.0 | 10.0 | 1.50 | 3.50 |
| 12 | BS-t    | MT20   | 3.0 | 6.0  |      |      |
| 13 | BMWWW-t | MT20   | 3.0 | 8.0  |      |      |
| 14 |         |        |     |      |      |      |
| 15 | BBWW-l  | MT20   | 5.0 | 10.0 | 3.00 | 3.50 |
| 16 | BMWWW-t | MT20   | 3.0 | 10.0 | 1.50 | 3.50 |
| 17 | BMV1+p  | MT20   | 2.0 | 4.0  |      |      |

A SIZE FOR SIZE SUBSTITUTION OF MITEK MII20 WITH TEE-LOCK TL20 PLATES IS ALLOWED.

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

| BEARINGS |                | FACTORED |      | MAXIMUM FACTORED |      | INPUT  |       | REQRD |       |
|----------|----------------|----------|------|------------------|------|--------|-------|-------|-------|
| JT       | GROSS REACTION | DOWN     | HORZ | DOWN             | HORZ | UPLIFT | IN-SX | BRG   | IN-SX |
| 17       | 1646           | 0        | 0    | 1646             | 0    | 0      | 5-8   | 5-8   | 5-8   |
| 10       | 1541           | 0        | 0    | 1541             | 0    | 0      | 5-8   | 5-8   | 5-8   |

#### UNFACTORED REACTIONS

| 1ST LCASE |          | MAX./MIN. COMPONENT REACTIONS |       |           |       |         |       |  |  |
|-----------|----------|-------------------------------|-------|-----------|-------|---------|-------|--|--|
| JT        | COMBINED | SNOW                          | LIVE  | PERM.LIVE | WIND  | DEAD    | SOIL  |  |  |
| 17        | 1153     | 820 / 0                       | 0 / 0 | 0 / 0     | 0 / 0 | 333 / 0 | 0 / 0 |  |  |
| 10        | 1082     | 757 / 0                       | 0 / 0 | 0 / 0     | 0 / 0 | 325 / 0 | 0 / 0 |  |  |

BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S) 17, 10

#### BRACING

TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 3.58 FT.  
MAX. UNBRACED BOTTOM CHORD LENGTH = 10.00 FT. OR RIGID CEILING DIRECTLY APPLIED.

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

1 - 2x3 SPF No.2 LATERAL BRACE(S) AT 1/2 LENGTH OF 3-15, 8-13. DBS = 20-0-0. CBF = 91 LBS.

DBS = DIAGONAL BRACE SPACING (MAX). CBF = CUMULATIVE BRACING FORCE. FASTEN LATERAL BRACE(S) USING (0.122"x3") SPIRAL NAILS: 1 NAIL FOR 2x3 BRACE(S), 2 FOR 1x4, 2x4, 2x5, 3 FOR 2x6, 4 FOR 2x8, 5 FOR 2x10, AND 6 FOR 2x12.

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: (3)

| C H O R D S |                           |                           |                  | W E B S              |       |                           |              |
|-------------|---------------------------|---------------------------|------------------|----------------------|-------|---------------------------|--------------|
| MEMB.       | MAX. FACTORED FORCE (LBS) | FACTORED VERT. LOAD (PLF) | MAX LC1 CSI (LC) | MAX. UNBRACED LENGTH | MEMB. | MAX. FACTORED FORCE (LBS) | MAX CSI (LC) |
| FR-TO       |                           | FROM TO                   |                  | FR-TO                |       |                           |              |
| 1-2         | 0 / 23                    | -77.3 -77.3               | 0.10 (1)         | 10.00                | 16-3  | -65 / 114                 | 0.04 (3)     |
| 2-3         | -2266 / 0                 | -77.3 -77.3               | 0.86 (1)         | 3.58                 | 3-15  | -727 / 0                  | 0.43 (1)     |
| 3-4         | -1640 / 0                 | -77.3 -77.3               | 0.73 (1)         | 4.22                 | 15-5  | 0 / 419                   | 0.09 (1)     |
| 4-5         | -1640 / 0                 | -77.3 -77.3               | 0.73 (1)         | 4.22                 | 5-13  | 0 / 33                    | 0.01 (1)     |
| 5-6         | -1446 / 0                 | -77.3 -77.3               | 0.03 (1)         | 5.43                 | 13-6  | 0 / 454                   | 0.10 (1)     |
| 6-7         | -1644 / 0                 | -77.3 -77.3               | 0.73 (1)         | 4.21                 | 13-8  | -722 / 0                  | 0.43 (1)     |
| 7-8         | -1644 / 0                 | -77.3 -77.3               | 0.73 (1)         | 4.21                 | 11-8  | -70 / 112                 | 0.04 (3)     |
| 8-9         | -2265 / 0                 | -77.3 -77.3               | 0.86 (1)         | 3.58                 | 2-16  | 0 / 2068                  | 0.47 (1)     |
| 17-2        | -1590 / 0                 | 0.0 0.0                   | 0.16 (1)         | 6.55                 | 11-9  | 0 / 2066                  | 0.47 (1)     |
| 10-9        | -1484 / 0                 | 0.0 0.0                   | 0.15 (1)         | 6.73                 |       |                           |              |
| 17-16       | 0 / 0                     | -17.5 -17.5               | 0.27 (3)         | 10.00                |       |                           |              |
| 16-15       | 0 / 2056                  | -17.5 -17.5               | 0.47 (1)         | 10.00                |       |                           |              |
| 15-14       | 0 / 1442                  | -17.5 -17.5               | 0.35 (1)         | 10.00                |       |                           |              |
| 14-13       | 0 / 1442                  | -17.5 -17.5               | 0.35 (1)         | 10.00                |       |                           |              |
| 13-12       | 0 / 2055                  | -17.5 -17.5               | 0.46 (1)         | 10.00                |       |                           |              |
| 12-11       | 0 / 2055                  | -17.5 -17.5               | 0.46 (1)         | 10.00                |       |                           |              |
| 11-10       | 0 / 0                     | -17.5 -17.5               | 0.27 (3)         | 10.00                |       |                           |              |

#### DESIGN CRITERIA

SPECIFIED LOADS:

|            |    |      |      |     |
|------------|----|------|------|-----|
| TOP CH.    | LL | =    | 23.3 | PSF |
| BOT CH.    | LL | =    | 0.0  | PSF |
|            | DL | =    | 7.0  | PSF |
| TOTAL LOAD | =  | 33.3 | PSF  |     |

SPACING = 24.0 IN./C/C

LOADING IN FLAT SECTION BASED ON A SLOPE OF 6.00/12

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

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

(55 % OF 27.2 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 23.3 P.S.F. SPECIFIED ROOF LIVE LOAD

ALLOWABLE DEFL.(LL)= L/360 (1.08")  
CALCULATED VERT. DEFL.(LL) = L/999 (0.12")  
ALLOWABLE DEFL.(TL)= L/360 (1.08")  
CALCULATED VERT. DEFL.(TL) = L/999 (0.24")

CSI: TC=0.86 (2-3:1), BC=0.47 (15-16:1), WB=0.47 (2-16:1), SSI=0.27 (2-3:1)

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

COMPANION LIVE LOAD FACTOR = 0.50

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

NAIL VALUES  
PLATE GRIP(DRY) SHEAR SECTION (PSI) (PLI) (PLI)  
MAX MIN MAX MIN MAX MIN  
MT20 618 354 1667 822 2284 1656

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

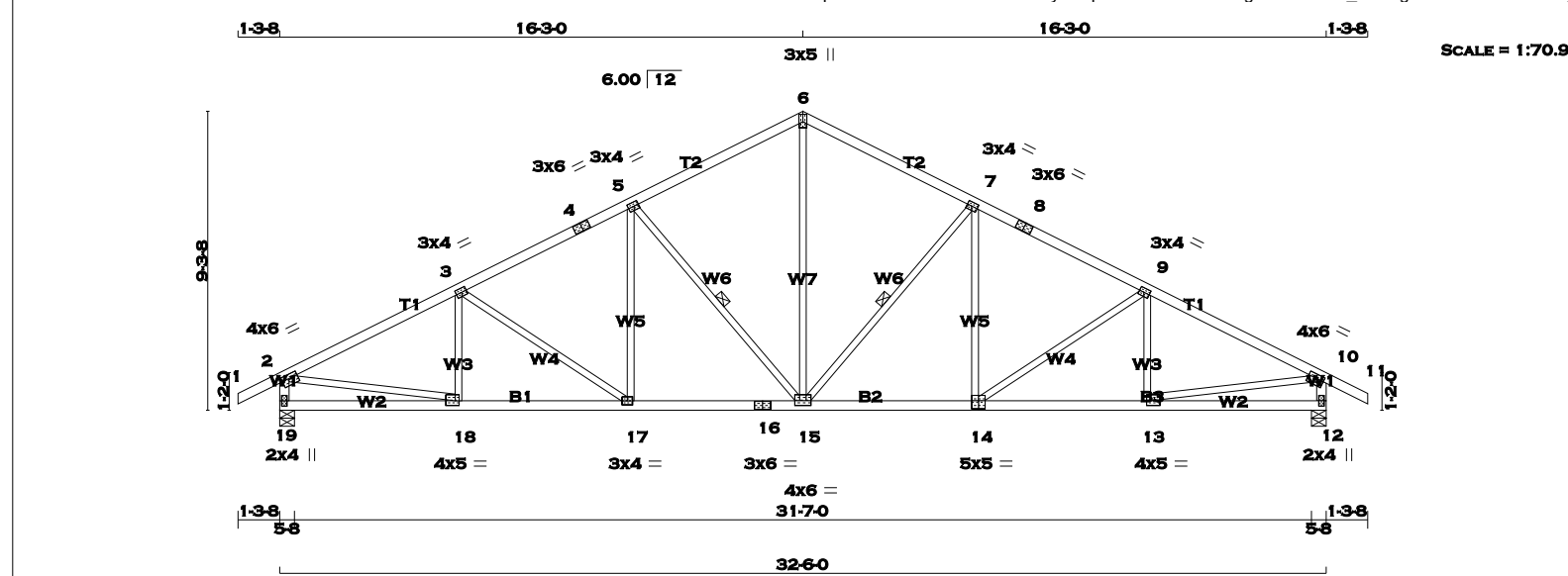
JSI GRIP= 0.89 (16) (INPUT = 0.90)  
JSI METAL= 0.61 (2) (INPUT = 1.00)



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LUMBER

N. L. G. A. RULES

CHORDS

SIZE

LUMBER

DESCR.

DRY: SEASONED LUMBER.

TOTAL WEIGHT = 14 X 138 = 1926 lb

[M][F]

| CHORDS          | SIZE | LUMBER | DESCR. |
|-----------------|------|--------|--------|
| 1 - 4           | 2x4  | DRY    | No.2   |
| 4 - 6           | 2x4  | DRY    | No.2   |
| 6 - 8           | 2x4  | DRY    | No.2   |
| 8 - 11          | 2x4  | DRY    | No.2   |
| 19 - 2          | 2x4  | DRY    | No.2   |
| 12 - 10         | 2x4  | DRY    | No.2   |
| 19 - 16         | 2x4  | DRY    | No.2   |
| 16 - 14         | 2x4  | DRY    | No.2   |
| 14 - 12         | 2x4  | DRY    | No.2   |
| ALL WEBS EXCEPT | 2x3  | DRY    | No.2   |

DRY: SEASONED LUMBER.

| PLATES (table is in inches) | W   | LEN | Y    | X    |
|-----------------------------|-----|-----|------|------|
| 2 TMVW-t MT20               | 4.0 | 6.0 | 1.50 | 2.75 |
| 3, 5, 7, 9                  |     |     |      |      |
| 3 TMVW-t MT20               | 3.0 | 4.0 | 1.50 | 1.75 |
| 4 TS-t MT20                 | 3.0 | 6.0 |      |      |
| 6 TTW+p MT20                | 3.0 | 5.0 | 2.75 | 1.50 |
| 8 TS-t MT20                 | 3.0 | 6.0 |      |      |
| 10 TMVW-t MT20              | 4.0 | 6.0 | 1.50 | 2.75 |
| 12 BMV1+p MT20              | 2.0 | 4.0 |      |      |
| 13 BMWW-t MT20              | 4.0 | 5.0 | 1.75 | 1.50 |
| 14 BSWW-t MT20              | 5.0 | 5.0 | 3.00 | 2.50 |
| 15 BMWWW-t MT20             | 4.0 | 6.0 | 1.75 | 3.00 |
| 16 BS-t MT20                | 3.0 | 6.0 |      |      |
| 17 BMWW-t MT20              | 3.0 | 4.0 |      |      |
| 18 BMWW-t MT20              | 4.0 | 5.0 | 1.75 | 1.50 |
| 19 BMV1+p MT20              | 2.0 | 4.0 |      |      |

A SIZE FOR SIZE SUBSTITUTION OF MITEK MII20 WITH TEE-LOK TL20 PLATES IS ALLOWED.



### 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      |
| 19       | 1646                    | 0                               | 1646      | 0         |
| 12       | 1646                    | 0                               | 1646      | 0         |

| UNFACTORED REACTIONS | 1ST LCASE | MAX./MIN. | COMPONENT REACTIONS |
|----------------------|-----------|-----------|---------------------|
| JT                   | COMBINED  | SNOW      | LIVE                |
| 19                   | 1153      | 820 / 0   | 0 / 0               |
| 12                   | 1153      | 820 / 0   | 0 / 0               |

BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S) 19, 12

**BRACING**  
TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 4.25 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 - 2x3 SPF No.2 LATERAL BRACE(S) AT 1/2 LENGTH OF 7-15, 5-15. DBS = 20-0-0. CBF = 79 LBS.

DBS = DIAGONAL BRACE SPACING (MAX). CBF = CUMULATIVE BRACING FORCE. FASTEN LATERAL BRACE(S) USING (0.122"x3") SPIRAL NAILS : 1 NAIL FOR 2x3 BRACE(S), 2 FOR 1x4, 2x4, 2x5, 3 FOR 2x6, 4 FOR 2x8, 5 FOR 2x10, AND 6 FOR 2x12.

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: (3)

| CHORDS | MAX. FACTORED FORCE (LBS) | FACTORED VERT. LOAD (PLF) | MAX. FACTORED VERT. LOAD (PLF) | MAX. FACTORED VERT. LOAD (PLF) |
|--------|---------------------------|---------------------------|--------------------------------|--------------------------------|
| MEMB.  | FORCE (LBS)               | VERT. LOAD (PLF)          | MAX. FACTORED VERT. LOAD (PLF) | MAX. FACTORED VERT. LOAD (PLF) |
| FR-TO  | FROM                      | TO                        | LENGTH                         | FR-TO                          |
| 1-2    | 0 / 23                    | -77.3                     | -77.3                          | 0.10 (1)                       |
| 2-3    | -2242 / 0                 | -77.3                     | -77.3                          | 0.37 (1)                       |
| 3-4    | -2022 / 0                 | -77.3                     | -77.3                          | 0.30 (1)                       |
| 4-5    | -2022 / 0                 | -77.3                     | -77.3                          | 0.30 (1)                       |
| 5-6    | -1582 / 0                 | -77.3                     | -77.3                          | 0.29 (1)                       |
| 6-7    | -1582 / 0                 | -77.3                     | -77.3                          | 0.29 (1)                       |
| 7-8    | -2022 / 0                 | -77.3                     | -77.3                          | 0.30 (1)                       |
| 8-9    | -2022 / 0                 | -77.3                     | -77.3                          | 0.30 (1)                       |
| 9-10   | -2242 / 0                 | -77.3                     | -77.3                          | 0.37 (1)                       |
| 10-11  | 0 / 23                    | -77.3                     | -77.3                          | 0.10 (1)                       |
| 19-2   | -1604 / 0                 | 0.0                       | 0.0                            | 0.16 (1)                       |
| 12-10  | -1604 / 0                 | 0.0                       | 0.0                            | 0.16 (1)                       |

|       |          |       |       |          |
|-------|----------|-------|-------|----------|
| 19-18 | 0 / 0    | -17.5 | -17.5 | 0.12 (3) |
| 18-17 | 0 / 2021 | -17.5 | -17.5 | 0.37 (1) |
| 17-16 | 0 / 1808 | -17.5 | -17.5 | 0.35 (1) |
| 16-15 | 0 / 1808 | -17.5 | -17.5 | 0.35 (1) |
| 15-14 | 0 / 1808 | -17.5 | -17.5 | 0.35 (1) |
| 14-13 | 0 / 2021 | -17.5 | -17.5 | 0.37 (1) |
| 13-12 | 0 / 0    | -17.5 | -17.5 | 0.12 (3) |

### DESIGN CRITERIA

SPECIFIED LOADS:  
TOP CH. LL = 23.3 PSF  
DL = 3.0 PSF  
BOT CH. LL = 0.0 PSF  
DL = 7.0 PSF  
TOTAL LOAD = 33.3 PSF

SPACING = 24.0 IN. C/C

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

THIS DESIGN COMPLIES WITH:  
- PART 9 OF OBC 2012, BCBC 2012, ABC 2014  
- CSA 086-09  
- TPC 2011

(55 % OF 27.2 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 23.3 P.S.F. SPECIFIED ROOF LIVE LOAD

ALLOWABLE DEFL.(LL)= L/360 (1.08")  
CALCULATED VERT. DEFL.(LL) = L/999 (0.11")  
ALLOWABLE DEFL.(TL)= L/360 (1.08")  
CALCULATED VERT. DEFL.(TL) = L/999 (0.20")

CSI: TC=0.37 (2-3:1), BC=0.37 (17-18:1), WB=0.46 (2-18:1), SSI=0.18 (2-3:1)

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

COMPANION LIVE LOAD FACTOR = 0.50

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

NAIL VALUES  
PLATE GRIP(DRY) SHEAR SECTION  
(PSI) (PLI) (PLI)  
MAX MIN MAX MIN MAX MIN  
MT20 618 354 1667 822 2284 1656

PLATE PLACEMENT TOL. = 0.250 inches

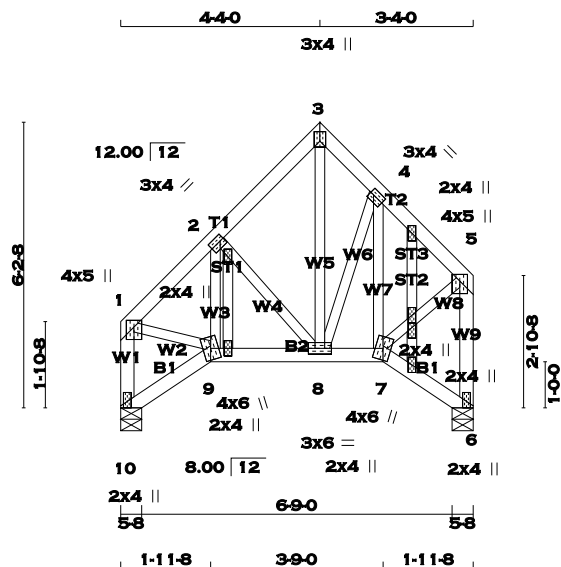
PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.88 (18) (INPUT = 0.90)  
JSI METAL= 0.61 (18) (INPUT = 1.00)

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TOTAL WEIGHT = 2 X 49 = 98 lb  
[M][F]

| LUMBER                                            |        |      |        |  | DESCR. |
|---------------------------------------------------|--------|------|--------|--|--------|
| N. L. G. A. RULES                                 | CHORDS | SIZE | LUMBER |  |        |
| 1 - 3                                             | 2x4    | DRY  | No.2   |  | SPF    |
| 3 - 5                                             | 2x4    | DRY  | No.2   |  | SPF    |
| 10 - 1                                            | 2x4    | DRY  | No.2   |  | SPF    |
| 6 - 5                                             | 2x4    | DRY  | No.2   |  | SPF    |
| 10 - 9                                            | 2x4    | DRY  | No.2   |  | SPF    |
| 9 - 7                                             | 2x4    | DRY  | No.2   |  | SPF    |
| 7 - 6                                             | 2x4    | DRY  | No.2   |  | SPF    |
| ALL WEBS 2x3 DRY No.2 EXCEPT                      |        |      |        |  | SPF    |
| ALL GABLE WEBS 2x3 DRY No.2 DRY: SEASONED LUMBER. |        |      |        |  | SPF    |
| GABLE STUDS SPACED AT 2-0-0 OC.                   |        |      |        |  |        |

| PLATES (table is in inches) |         |        |     |     |      |      |
|-----------------------------|---------|--------|-----|-----|------|------|
| JT                          | TYPE    | PLATES | W   | LEN | Y    | X    |
| 1                           | TMVW+p  | MT20   | 4.0 | 5.0 | 1.75 | 2.00 |
| 2                           | TMWW-t  | MT20   | 3.0 | 4.0 | 1.50 | 1.00 |
| 3                           | TTW+p   | MT20   | 3.0 | 4.0 | Edge |      |
| 4                           | TMWW-t  | MT20   | 3.0 | 4.0 | 1.50 | 1.00 |
| 5                           | TMVW+p  | MT20   | 4.0 | 5.0 | 1.75 | 2.00 |
| 6                           | BMV1+p  | MT20   | 2.0 | 4.0 | Edge |      |
| 7                           | BBWW+m  | MT20   | 4.0 | 6.0 |      |      |
| 8                           | BMWWW-t | MT20   | 3.0 | 6.0 |      |      |
| 9                           | BBWW+m  | MT20   | 4.0 | 6.0 |      |      |
| 10                          | BMV1+p  | MT20   | 2.0 | 4.0 | Edge |      |
| 11, 12, 13, 14, 15          |         |        |     |     |      |      |
| 11                          | NP+w    | MT20   | 2.0 | 4.0 |      |      |
| 15                          | NP+w    | MT20   | 2.0 | 4.0 | 1.25 | 1.00 |

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

A SIZE FOR SIZE SUBSTITUTION OF MITEK MII20 WITH TEE-LOK TL20 PLATES IS ALLOWED.

#### 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    |
| 10       | 364  | 0                       | 364                             | 0         | 5-8       |
| 6        | 364  | 0                       | 364                             | 0         | 5-8       |

| UNFACTORED REACTIONS |                    |           |           |                      |       |        |
|----------------------|--------------------|-----------|-----------|----------------------|-------|--------|
| JT                   | 1ST LCASE COMBINED | MAX. SNOW | MIN. LIVE | COMPONENT PERM. LIVE | WIND  | DEAD   |
| 10                   | 255                | 178 / 0   | 0 / 0     | 0 / 0                | 0 / 0 | 77 / 0 |
| 6                    | 255                | 178 / 0   | 0 / 0     | 0 / 0                | 0 / 0 | 77 / 0 |

BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S) 10, 6

**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: (3) |                  |                           |                |               |       |                  |                           |               |  |
| CHORDS                |                  |                           |                |               | WEBS  |                  |                           |               |  |
| MEMB.                 | MAX. FORCE (LBS) | FACTORED VERT. LOAD (LBS) | MAX. LC1 (PLF) | MAX. CSI (LC) | MEMB. | MAX. FORCE (LBS) | FACTORED VERT. LOAD (LBS) | MAX. CSI (LC) |  |
| FR-TO                 |                  | FROM                      | TO             | LENGTH        | FR-TO |                  | FROM                      | TO            |  |
| 1-2                   | -307 / 0         | -77.3                     | -77.3          | 0.04 (1)      | 6.25  | 9-2              | -21 / 22                  | 0.01 (3)      |  |
| 2-3                   | -213 / 0         | -77.3                     | -77.3          | 0.04 (1)      | 6.25  | 2-8              | -130 / 0                  | 0.03 (1)      |  |
| 3-4                   | -214 / 0         | -77.3                     | -77.3          | 0.02 (1)      | 6.25  | 8-3              | 0 / 182                   | 0.04 (1)      |  |
| 4-5                   | -214 / 0         | -77.3                     | -77.3          | 0.04 (1)      | 6.25  | 8-4              | -53 / 0                   | 0.01 (1)      |  |
| 10-1                  | -346 / 0         | 0.0                       | 0.0            | 0.04 (1)      | 7.81  | 7-4              | -93 / 0                   | 0.02 (1)      |  |
| 6-5                   | -346 / 0         | 0.0                       | 0.0            | 0.06 (1)      | 7.81  | 1-9              | 0 / 234                   | 0.05 (1)      |  |
|                       |                  |                           |                |               |       | 7-5              | 0 / 198                   | 0.04 (1)      |  |
| 10-9                  | 0 / 0            | -17.5                     | -17.5          | 0.02 (3)      | 10.00 |                  |                           |               |  |
| 9-8                   | 0 / 228          | -17.5                     | -17.5          | 0.05 (1)      | 10.00 |                  |                           |               |  |
| 8-7                   | 0 / 160          | -17.5                     | -17.5          | 0.03 (1)      | 10.00 |                  |                           |               |  |
| 7-6                   | 0 / 0            | -17.5                     | -17.5          | 0.02 (3)      | 10.00 |                  |                           |               |  |

**DESIGN CRITERIA**

**SPECIFIED LOADS:**  
TOP CH. LL = 23.3 PSF  
DL = 3.0 PSF  
BOT CH. LL = 0.0 PSF  
DL = 7.0 PSF  
TOTAL LOAD = 33.3 PSF

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

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

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

(55 % OF 27.2 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 23.3 P.S.F. SPECIFIED ROOF LIVE LOAD

ALLOWABLE DEFL.(LL)= L/360 (0.26")  
CALCULATED VERT. DEFL.(LL) = L/ 999 (0.00")  
ALLOWABLE DEFL.(TL)= L/360 (0.26")  
CALCULATED VERT. DEFL.(TL) = L/ 999 (0.01")

CSI: TC=0.06 (5-6:1) , BC=0.05 (8-9:1) , WB=0.05 (1-9:1) , SSI=0.06 (2-3:1)

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

COMPANION LIVE LOAD FACTOR = 0.50

AUTOSOLVE HEELS OFF

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

**NAIL VALUES**  
PLATE GRIP(DRY) SHEAR SECTION (PSI) (PLI) (PLI)  
MAX MIN MAX MIN MAX MIN  
MT20 618 354 1667 822 2284 1656

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

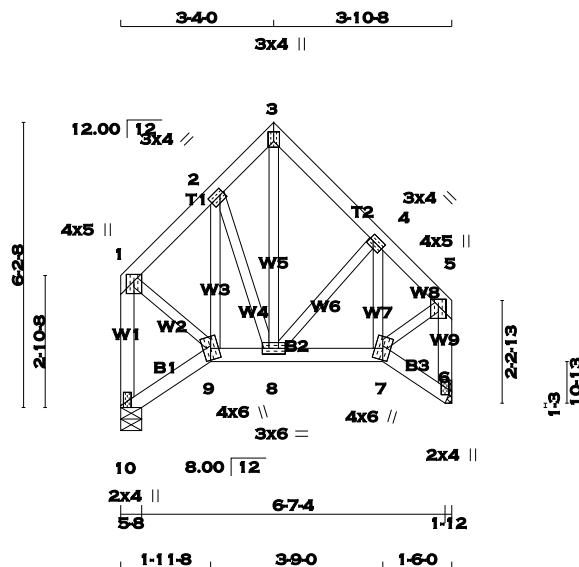
JSI GRIP= 0.58 (3) (INPUT = 0.90 )  
JSI METAL= 0.08 (10) (INPUT = 1.00 )



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SCALE = 1:50.2

TOTAL WEIGHT = 2 X 43 = 87 lb

| LUMBER                |      |     |        |       |
|-----------------------|------|-----|--------|-------|
| N. L. G. A. RULES     |      |     |        |       |
| CHORDS                | SIZE |     | LUMBER | DESCR |
| 1 - 3                 | 2x4  | DRY | No.2   | SPF   |
| 3 - 5                 | 2x4  | DRY | No.2   | SPF   |
| 10 - 1                | 2x4  | DRY | No.2   | SPF   |
| 6 - 5                 | 2x4  | DRY | No.2   | SPF   |
| 10 - 9                | 2x4  | DRY | No.2   | SPF   |
| 9 - 7                 | 2x4  | DRY | No.2   | SPF   |
| 7 - 6                 | 2x4  | DRY | No.2   | SPF   |
| ALL WEBS<br>EXCEPT    | 2x3  | DRY | No.2   | SPF   |
| DRY: SEASONED LUMBER. |      |     |        |       |

| PLATES (table is in inches) |        |        |     |     |      |      |
|-----------------------------|--------|--------|-----|-----|------|------|
| JT                          | TYPE   | PLATES | W   | LEN | Y    | X    |
| 1                           | TMVW+p | MT20   | 4.0 | 5.0 | 1.75 | 2.00 |
| 2                           | TMVW-t | MT20   | 3.0 | 4.0 | 1.50 | 1.00 |
| 3                           | TTW+p  | MT20   | 3.0 | 4.0 | Edge |      |
| 4                           | TMVW-t | MT20   | 3.0 | 4.0 | 1.50 | 1.00 |
| 5                           | TMVW+p | MT20   | 4.0 | 5.0 | 1.75 | 2.00 |
| 6                           | BMV1+p | MT20   | 2.0 | 4.0 |      |      |
| 7                           | BBWW+m | MT20   | 4.0 | 6.0 |      |      |
| 8                           | BMVW-t | MT20   | 3.0 | 6.0 |      |      |
| 9                           | BBWW+m | MT20   | 4.0 | 6.0 |      |      |
| 10                          | BMV1+p | MT20   | 2.0 | 4.0 | Edge |      |

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

A SIZE FOR SIZE SUBSTITUTION OF MITEK MII20 WITH TEE-LOK TL20 PLATES IS ALLOWED.

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

##### BEARINGS

| JT                   | FACTORED<br>GROSS REACTION |      | MAXIMUM FACTORED<br>GROSS REACTION |      | INPUT<br>BRG | REQRD<br>BRG |
|----------------------|----------------------------|------|------------------------------------|------|--------------|--------------|
|                      | VERT                       | HORZ | DOWN                               | HORZ | IN-SX        | IN-SX        |
| 10                   | 342                        | 0    | 342                                | 0    | 0            | 5-8          |
| 6                    | 342                        | 0    | 342                                | 0    | 0            | 5-8          |
| HANGER BY OTHERS     |                            |      |                                    |      |              |              |
| MIN. SEAT SIZE: 1-12 |                            |      |                                    |      |              |              |

##### UNFACTORED REACTIONS

| JT | 1ST LCASE |         | MAX./MIN. COMPONENT REACTIONS |           | WIND  | DEAD   | SOIL  |
|----|-----------|---------|-------------------------------|-----------|-------|--------|-------|
|    | COMBINED  | SNOW    | LIVE                          | PERM.LIVE |       |        |       |
| 10 | 240       | 168 / 0 | 0 / 0                         | 0 / 0     | 0 / 0 | 72 / 0 | 0 / 0 |
| 6  | 240       | 168 / 0 | 0 / 0                         | 0 / 0     | 0 / 0 | 72 / 0 | 0 / 0 |

BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S) 10

##### 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: (3)

| CHORDS |                           |                           |                           | WEBS  |                           |                           |  |
|--------|---------------------------|---------------------------|---------------------------|-------|---------------------------|---------------------------|--|
| MEMB.  | MAX. FACTORED FORCE (LBS) | FACTORED VERT. LOAD (PLF) | MAX. UNBRACED LENGTH (LC) | MEMB. | MAX. FACTORED FORCE (LBS) | MAX. UNBRACED LENGTH (LC) |  |
| FR-TO  |                           | FROM TO                   |                           | FR-TO |                           |                           |  |
| 1-2    | -197 / 0                  | -77.3 -77.3               | 0.04 (1)                  | 9-2   | -84 / 0                   | 0.02 (1)                  |  |
| 2-3    | -193 / 0                  | -77.3 -77.3               | 0.03 (1)                  | 6-25  | -61 / 0                   | 0.02 (1)                  |  |
| 3-4    | -190 / 0                  | -77.3 -77.3               | 0.04 (1)                  | 6-25  | 0 / 151                   | 0.03 (1)                  |  |
| 4-5    | -233 / 0                  | -77.3 -77.3               | 0.04 (1)                  | 6-25  | -78 / 0                   | 0.02 (1)                  |  |
| 10-1   | -325 / 0                  | 0.0 0.0                   | 0.06 (1)                  | 7-81  | -80 / 3                   | 0.01 (1)                  |  |
| 6-5    | -329 / 0                  | 0.0 0.0                   | 0.04 (1)                  | 7-81  | 0 / 183                   | 0.04 (1)                  |  |
|        |                           |                           |                           | 7-5   | 0 / 208                   | 0.05 (1)                  |  |
| 10-9   | 0 / 0                     | -17.5 -17.5               | 0.02 (3)                  | 10.00 |                           |                           |  |
| 9-8    | 0 / 147                   | -17.5 -17.5               | 0.03 (1)                  | 10.00 |                           |                           |  |
| 8-7    | 0 / 178                   | -17.5 -17.5               | 0.04 (1)                  | 10.00 |                           |                           |  |
| 7-6    | 0 / 0                     | -17.5 -17.5               | 0.01 (3)                  | 10.00 |                           |                           |  |

#### DESIGN CRITERIA

##### SPECIFIED LOADS:

|            |      |      |     |
|------------|------|------|-----|
| TOP CH.    | LL = | 23.3 | PSF |
|            | DL = | 3.0  | PSF |
| BOT CH.    | LL = | 0.0  | PSF |
|            | DL = | 7.0  | PSF |
| TOTAL LOAD | =    | 33.3 | PSF |

##### SPACING = 24.0 IN./C

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

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

(55 % OF 27.2 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 23.3 P.S.F. SPECIFIED ROOF LIVE LOAD

ALLOWABLE DEFL.(LL)= L/360 (0.24")  
CALCULATED VERT. DEFL.(LL) = L/999 (0.00")  
ALLOWABLE DEFL.(TL)= L/360 (0.24")  
CALCULATED VERT. DEFL.(TL) = L/999 (0.01")

CSI: TC=0.06 (1-10:1), BC=0.04 (7-8:1), WB=0.05 (5-7:1), SSI=0.06 (3-4:1)

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

COMPANION LIVE LOAD FACTOR = 0.50

AUTOSOLVE HEELS OFF

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

NAIL VALUES  
PLATE GRIP(DRY) SHEAR SECTION  
(PSI) (PLI) (PLI)  
MAX MIN MAX MIN MAX MIN  
MT20 618 354 1667 822 2284 1656

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.48 (3) (INPUT = 0.90 )  
JSI METAL= 0.08 (6) (INPUT = 1.00 )



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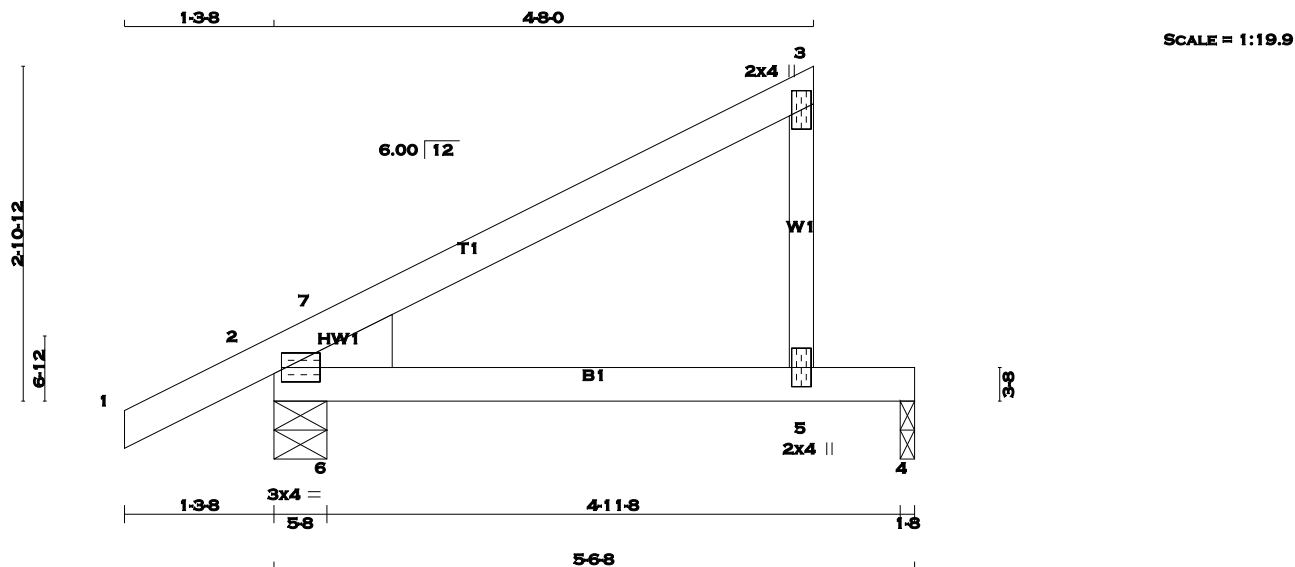
READ ALL NOTES ON THIS PAGE AND ON THE ENGINEERING NOTE PAGE ENP-1. THE NOTE PAGE IS AN INTEGRAL PART OF THIS DRAWING AS IT CONTAINS SPECIFICATIONS AND CRITERIA USED IN THE DESIGN OF THIS COMPONENT.





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

|       |     |     |      |     |
|-------|-----|-----|------|-----|
| 1 - 3 | 2x4 | DRY | No.2 | SPF |
| 5 - 3 | 2x3 | DRY | No.2 | SPF |
| 2 - 4 | 2x4 | DRY | No.2 | SPF |

DRY: SEASONED LUMBER.

**PLATES (table is in inches)**

| JT | TYPE    | PLATES | W   | LEN | Y    | X    |
|----|---------|--------|-----|-----|------|------|
| 2  | TMBH1-I | MT20   | 3.0 | 4.0 | 1.50 | 0.50 |
| 3  | TMV+p   | MT20   | 2.0 | 4.0 |      |      |
| 5  | BMV+p   | MT20   | 2.0 | 4.0 |      |      |

A SIZE FOR SIZE SUBSTITUTION OF MITEK MII20 WITH TEE-LOK TL20 PLATES IS ALLOWED.

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

**BEARINGS**

| JT | FACTORED GROSS REACTION |      | MAXIMUM FACTORED GROSS REACTION |      | INPUT BRG | REQRD BRG | HEEL WEDGE |
|----|-------------------------|------|---------------------------------|------|-----------|-----------|------------|
|    | VERT                    | HORZ | DOWN                            | HORZ |           |           |            |
| 2  | 362                     | 0    | 362                             | 0    | 5-8       | 5-8       | 2x6 L      |
| 4  | 200                     | 0    | 200                             | 0    | 1-8       | 1-8       |            |

| UNFACTORED REACTIONS |           |                               |       |           |       |        |       |
|----------------------|-----------|-------------------------------|-------|-----------|-------|--------|-------|
| JT                   | 1ST LCASE | MAX./MIN. COMPONENT REACTIONS |       |           |       |        |       |
|                      | COMBINED  | SNOW                          | LIVE  | PERM.LIVE | WIND  | DEAD   | SOIL  |
| 2                    | 252       | 189 / 0                       | 0 / 0 | 0 / 0     | 0 / 0 | 63 / 0 | 0 / 0 |
| 4                    | 142       | 91 / 0                        | 0 / 0 | 0 / 0     | 0 / 0 | 51 / 0 | 0 / 0 |

BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S) 2, 4

**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: (3)

| C H O R D S |                           |                           |                |                    | W E B S |                           |              |          |  |
|-------------|---------------------------|---------------------------|----------------|--------------------|---------|---------------------------|--------------|----------|--|
| MEMB.       | MAX. FACTORED FORCE (LBS) | FACTORED VERT. LOAD (PLF) | LC1 MAX (LC)   | MAX. UNBRAC LENGTH | MEMB.   | MAX. FACTORED FORCE (LBS) | LC1 MAX (LC) |          |  |
| FR-TO       |                           | FROM                      | TO             |                    | FR-TO   |                           |              |          |  |
| 1-2         | 0 / 16                    | -77.3                     | -77.3 0.10 (1) | 10.00              | 6-7     | -117 / 60                 |              | 0.00 (1) |  |
| 2-7         | -50 / 0                   | -77.3                     | -77.3 0.08 (3) | 6.25               |         |                           |              |          |  |
| 7-3         | 0 / 4                     | -77.3                     | -77.3 0.25 (1) | 10.00              |         |                           |              |          |  |
| 5-3         | -168 / 0                  | 0.0                       | 0.0 0.03 (1)   | 7.81               |         |                           |              |          |  |
| 2-6         | 0 / 0                     | -17.5                     | -17.5 0.12 (1) | 10.00              |         |                           |              |          |  |
| 6-5         | 0 / 0                     | -17.5                     | -17.5 0.24 (1) | 10.00              |         |                           |              |          |  |
| 5-4         | 0 / 0                     | -17.5                     | -17.5 0.23 (1) | 10.00              |         |                           |              |          |  |

**DESIGN CRITERIA**

**SPECIFIED LOADS:**  
TOP CH. LL = 23.3 PSF  
DL = 3.0 PSF  
BOT CH. LL = 0.0 PSF  
DL = 7.0 PSF  
TOTAL LOAD = 33.3 PSF

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

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

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

(55 % OF 27.2 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 23.3 P.S.F. SPECIFIED ROOF LIVE LOAD

ALLOWABLE DEFL.(LL)= L/360 (0.19")  
CALCULATED VERT. DEFL.(LL) = L/ 999 (0.06")  
ALLOWABLE DEFL.(TL)= L/360 (0.19")  
CALCULATED VERT. DEFL.(TL) = L/ 549 (0.12")

CSI: TC=0.25 (3-7:1), BC=0.24 (5-6:1), WB=0.00 (6-7:1), SSI=0.16 (4-5:1)

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

COMPANION LIVE LOAD FACTOR = 0.50

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

**NAIL VALUES**  
PLATE GRIP(DRY) SHEAR SECTION  
(PSI) (PLI) (PLI)  
MAX MIN MAX MIN MAX MIN  
MT20 618 354 1667 822 2284 1656

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

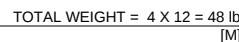
JSI GRIP= 0.87 (2) (INPUT = 0.90 )  
JSI METAL= 0.06 (2) (INPUT = 1.00 )



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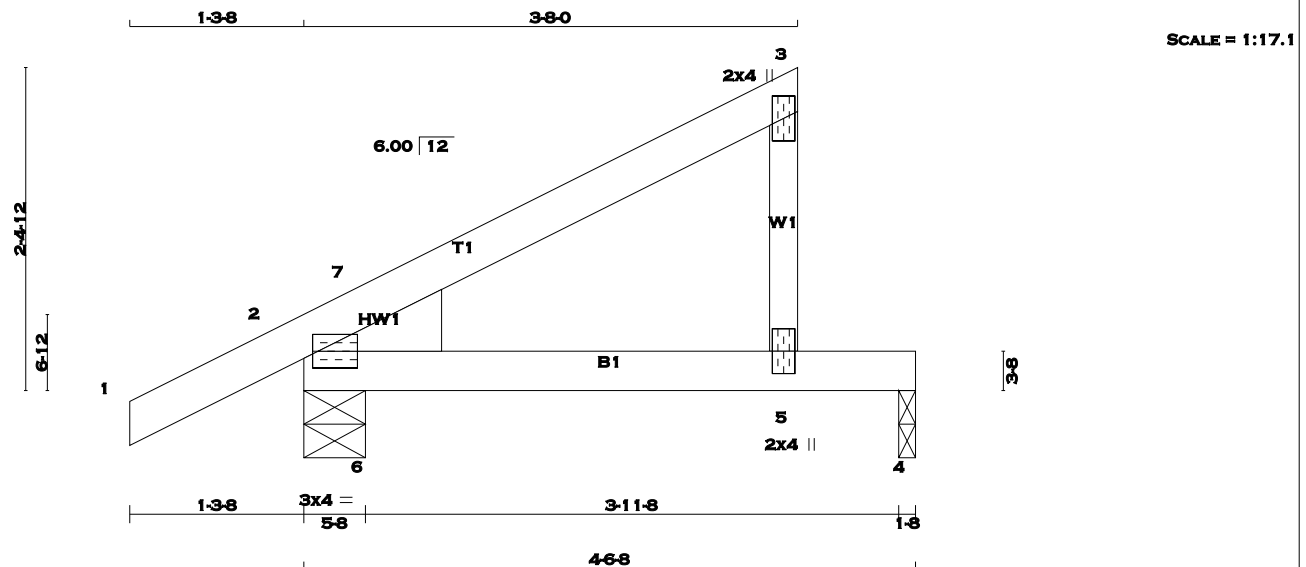




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TOTAL WEIGHT = 5 X 15 = 74 lb [M]

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

| CHORDS | SIZE | LUMBER | DESCR. |
|--------|------|--------|--------|
| 1 - 3  | 2x4  | DRY    | No.2   |
| 5 - 3  | 2x3  | DRY    | No.2   |
| 2 - 4  | 2x4  | DRY    | No.2   |

SPF  
SPF  
SPF

DRY: SEASONED LUMBER.

**PLATES (table is in inches)**

| JT | TYPE    | PLATES | W   | LEN | Y    | X    |
|----|---------|--------|-----|-----|------|------|
| 2  | TMBH1-I | MT20   | 3.0 | 4.0 | 1.50 | 0.50 |
| 3  | TMV+p   | MT20   | 2.0 | 4.0 |      |      |
| 5  | BMV+p   | MT20   | 2.0 | 4.0 |      |      |

A SIZE FOR SIZE SUBSTITUTION OF MITEK MII20 WITH TEE-LOK TL20 PLATES IS ALLOWED.

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

**BEARINGS**

| JT | FACTORED GROSS REACTION |      | MAXIMUM FACTORED GROSS REACTION |      | INPUT BRG | REQRD BRG | HEEL WEDGE |
|----|-------------------------|------|---------------------------------|------|-----------|-----------|------------|
|    | VERT                    | HORZ | DOWN                            | HORZ |           |           |            |
| 2  | 314                     | 0    | 314                             | 0    | 5-8       | 5-8       | 2x6 L      |
| 4  | 154                     | 0    | 154                             | 0    | 1-8       | 1-8       |            |

**UNFACTORED REACTIONS**

| JT | 1ST LCASE COMBINED |         | MAX./MIN. COMPONENT REACTIONS |           | WIND  | DEAD   | SOIL  |
|----|--------------------|---------|-------------------------------|-----------|-------|--------|-------|
|    | VERT               | SNOW    | LIVE                          | PERM.LIVE |       |        |       |
| 2  | 218                | 165 / 0 | 0 / 0                         | 0 / 0     | 0 / 0 | 53 / 0 | 0 / 0 |
| 4  | 110                | 69 / 0  | 0 / 0                         | 0 / 0     | 0 / 0 | 41 / 0 | 0 / 0 |

BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S) 2, 4

**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: (3)

| MEMB. | CHORDS           |                           | WEBS             |                  | MEMB. | FACTORED         |                  |
|-------|------------------|---------------------------|------------------|------------------|-------|------------------|------------------|
|       | MAX. FORCE (LBS) | FACTORED VERT. LOAD (PLF) | MAX. FORCE (LBS) | MAX. FORCE (LBS) |       | MAX. FORCE (LBS) | MAX. FORCE (LBS) |
| FR-TO |                  |                           |                  |                  | FR-TO |                  |                  |
| 1-2   | 0 / 16           | -77.3                     | -77.3            | 0.10 (1)         | 6-7   | -63 / 44         | 0.00 (1)         |
| 2-7   | -48 / 0          | -77.3                     | -77.3            | 0.06 (3)         |       |                  |                  |
| 7-3   | 0 / 5            | -77.3                     | -77.3            | 0.16 (1)         |       |                  |                  |
| 5-3   | -133 / 0         | 0.0                       | 0.0              | 0.02 (1)         |       |                  |                  |
| 2-6   | 0 / 0            | -17.5                     | -17.5            | 0.08 (1)         |       |                  |                  |
| 6-5   | 0 / 0            | -17.5                     | -17.5            | 0.18 (1)         |       |                  |                  |
| 5-4   | 0 / 0            | -17.5                     | -17.5            | 0.17 (1)         |       |                  |                  |

**DESIGN CRITERIA**

**SPECIFIED LOADS:**  
TOP CH. LL = 23.3 PSF  
DL = 3.0 PSF  
BOT CH. LL = 0.0 PSF  
DL = 7.0 PSF  
TOTAL LOAD = 33.3 PSF

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

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

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

(55 % OF 27.2 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 23.3 P.S.F. SPECIFIED ROOF LIVE LOAD

ALLOWABLE DEFL.(LL)= L/360 (0.19")  
CALCULATED VERT. DEFL.(LL) = L/ 999 (0.03")  
ALLOWABLE DEFL.(TL)= L/360 (0.19")  
CALCULATED VERT. DEFL.(TL) = L/ 963 (0.06")

CSI: TC=0.16 (3-7:1), BC=0.18 (5-6:1), WB=0.00 (6-7:1), SSI=0.12 (4-5:1)

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

COMPANION LIVE LOAD FACTOR = 0.50

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

**NAIL VALUES**  
PLATE GRIP(DRY) SHEAR SECTION  
(PSI) (PLI) (PLI)  
MAX MIN MAX MIN MAX MIN  
MT20 618 354 1667 822 2284 1656

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

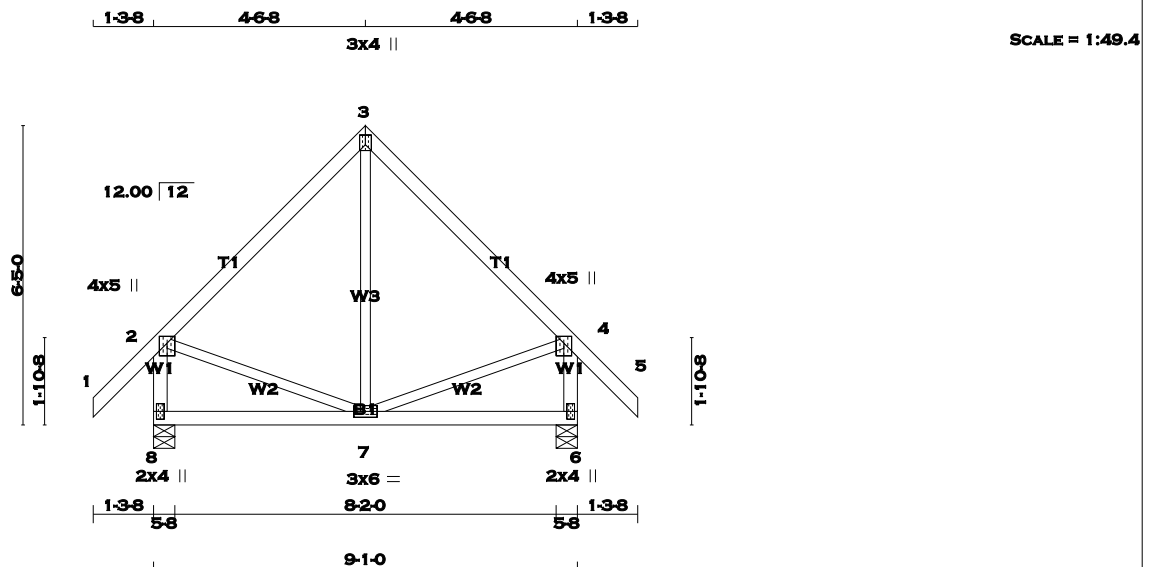
JSI GRIP= 0.73 (2) (INPUT = 0.90 )  
JSI METAL= 0.05 (2) (INPUT = 1.00 )



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 ENGINEERING NOTE PAGE ENP-1. THE NOTE PAGE  
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 CONTAINS SPECIFICATIONS AND CRITERIA USED  
 IN THE DESIGN OF THIS COMPONENT.





TOTAL WEIGHT = 6 X 45 = 270 lb  
[M][F]

| LUMBER                       |        |      |        |  | DESCR. |
|------------------------------|--------|------|--------|--|--------|
| N. L. G. A. RULES            | CHORDS | SIZE | LUMBER |  |        |
| 1 - 3                        | 2x4    | DRY  | No.2   |  | SPF    |
| 3 - 5                        | 2x4    | DRY  | No.2   |  | SPF    |
| 8 - 2                        | 2x4    | DRY  | No.2   |  | SPF    |
| 6 - 4                        | 2x4    | DRY  | No.2   |  | SPF    |
| 8 - 6                        | 2x4    | DRY  | No.2   |  | SPF    |
| ALL WEBS 2x3 DRY No.2 EXCEPT |        |      |        |  | SPF    |

DRY: SEASONED LUMBER.

| PLATES (table is in inches) |         |        |     |     |      |      |
|-----------------------------|---------|--------|-----|-----|------|------|
| JT                          | TYPE    | PLATES | W   | LEN | Y    | X    |
| 2                           | TMVW+p  | MT20   | 4.0 | 5.0 | 1.75 | 2.00 |
| 3                           | TTW+p   | MT20   | 3.0 | 4.0 | Edge |      |
| 4                           | TMVW+p  | MT20   | 4.0 | 5.0 | 1.75 | 2.00 |
| 6                           | BMV1+p  | MT20   | 2.0 | 4.0 |      |      |
| 7                           | BMVWW-t | MT20   | 3.0 | 6.0 |      |      |
| 8                           | BMV1+p  | MT20   | 2.0 | 4.0 |      |      |

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

A SIZE FOR SIZE SUBSTITUTION OF MITEK MII20 WITH TEE-LOK TL20 PLATES IS ALLOWED.

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

##### BEARINGS

| JT | FACTORED GROSS REACTION |      | MAXIMUM FACTORED GROSS REACTION |      | INPUT BRG |       | REQRD BRG |  |
|----|-------------------------|------|---------------------------------|------|-----------|-------|-----------|--|
|    | VERT                    | HORZ | DOWN                            | HORZ | UPLIFT    | IN-SX | IN-SX     |  |
| 8  | 539                     | 0    | 539                             | 0    | 0         | 5-8   | 5-8       |  |
| 6  | 539                     | 0    | 539                             | 0    | 0         | 5-8   | 5-8       |  |

##### UNFACTORED REACTIONS

| JT | 1ST LCASE COMBINED |   | MAX/MIN. SNOW |         | LIVE  |       | PERM.LIVE |       | WIND  |        | DEAD   |       | SOIL  |       |
|----|--------------------|---|---------------|---------|-------|-------|-----------|-------|-------|--------|--------|-------|-------|-------|
|    | 8                  | 6 | 376           | 276 / 0 | 0 / 0 | 0 / 0 | 0 / 0     | 0 / 0 | 0 / 0 | 99 / 0 | 99 / 0 | 0 / 0 | 0 / 0 | 0 / 0 |

BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S) 8, 6

##### 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: (3)

| CHORDS |                           |                           |               |              | WEBS  |                           |                           |          |                           |
|--------|---------------------------|---------------------------|---------------|--------------|-------|---------------------------|---------------------------|----------|---------------------------|
| MEMB.  | MAX. FACTORED FORCE (LBS) | FACTORED VERT. LOAD (LBS) | LC1 MAX (PLF) | LC1 MAX (LC) | MEMB. | MAX. FACTORED FORCE (LBS) | MAX. UNBRACED LENGTH (FT) | FR-TO    | MAX. FACTORED FORCE (LBS) |
| 1-2    | 0 / 38                    | -77.3                     | -77.3         | 0.11 (1)     | 10.00 | 7-3                       | -15 / 73                  | 0.03 (3) |                           |
| 2-3    | -238 / 0                  | -77.3                     | -77.3         | 0.20 (1)     | 6.25  | 2-7                       | 0 / 177                   | 0.04 (1) |                           |
| 3-4    | -238 / 0                  | -77.3                     | -77.3         | 0.20 (1)     | 6.25  | 7-4                       | 0 / 177                   | 0.04 (1) |                           |
| 4-5    | 0 / 38                    | -77.3                     | -77.3         | 0.11 (1)     | 10.00 |                           |                           |          |                           |
| 8-2    | -508 / 0                  | 0.0                       | 0.0           | 0.06 (1)     | 7.81  |                           |                           |          |                           |
| 6-4    | -508 / 0                  | 0.0                       | 0.0           | 0.06 (1)     | 7.81  |                           |                           |          |                           |
| 8-7    | 0 / 0                     | -17.5                     | -17.5         | 0.10 (3)     | 10.00 |                           |                           |          |                           |
| 7-6    | 0 / 0                     | -17.5                     | -17.5         | 0.10 (3)     | 10.00 |                           |                           |          |                           |

#### DESIGN CRITERIA

##### SPECIFIED LOADS:

|            |      |      |     |
|------------|------|------|-----|
| TOP CH.    | LL = | 23.3 | PSF |
|            | DL = | 3.0  | PSF |
| BOT CH.    | LL = | 0.0  | PSF |
|            | DL = | 7.0  | PSF |
| TOTAL LOAD | =    | 33.3 | PSF |

##### SPACING = 24.0 IN./C

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

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

(55 % OF 27.2 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 23.3 P.S.F. SPECIFIED ROOF LIVE LOAD

ALLOWABLE DEFL.(LL)= L/360 (0.30")  
CALCULATED VERT. DEFL.(LL) = L/ 999 (0.00")  
ALLOWABLE DEFL.(TL)= L/360 (0.30")  
CALCULATED VERT. DEFL.(TL) = L/ 999 (0.01")

CSI: TC=0.20 (2-3:1) , BC=0.10 (6-7:3) , WB=0.04 (4-7:1) , SSI=0.10 (2-3:1)

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

COMPANION LIVE LOAD FACTOR = 0.50

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

NAIL VALUES  
PLATE GRIP(DRY) SHEAR SECTION  
(PSI) (PLI) (PLI)  
MAX MIN MAX MIN MAX MIN  
MT20 618 354 1667 822 2284 1656

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.36 (3) (INPUT = 0.90 )  
JSI METAL= 0.09 (6) (INPUT = 1.00 )



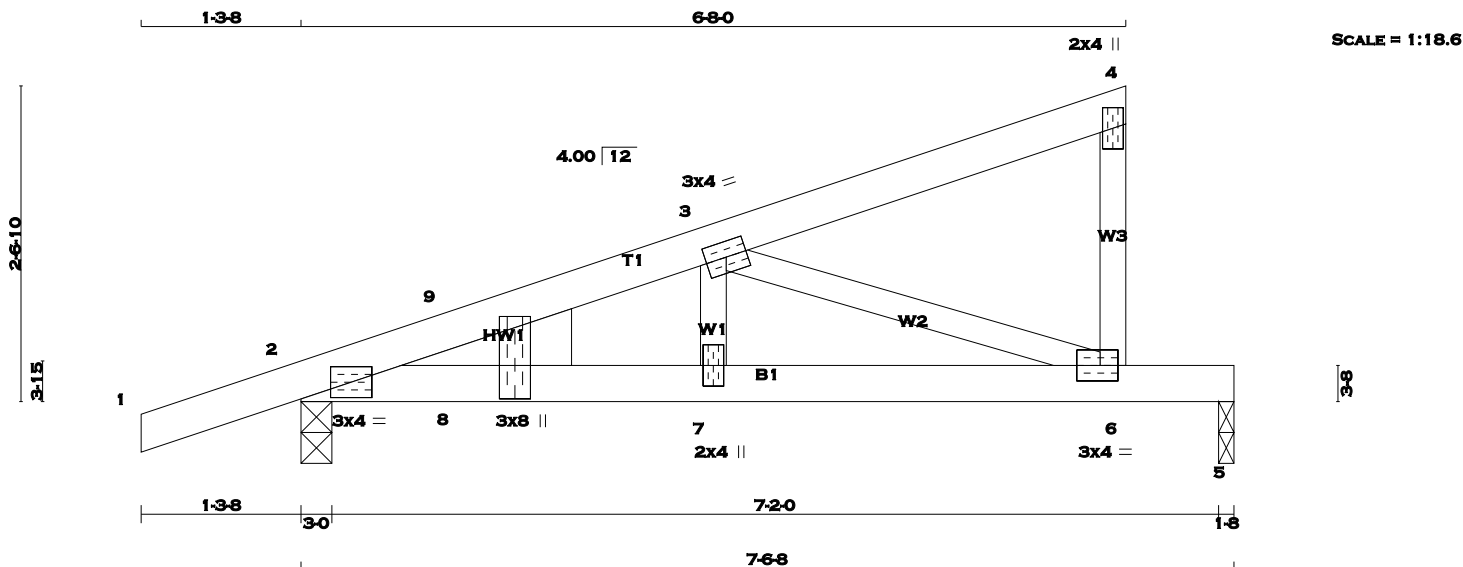
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IN THE DESIGN OF THIS COMPONENT.



Kott Lumber Uxbridge, Stouffville, ON, CGC

Version 8.100 S Feb 9 2017 MiTek Industries, Inc. Mon Mar 13 09:57:21 2017 Page 1  
ID:pF8Cn?9h9uHzAm5tCmlVl5yJJCP-?kSRcyDL\_CRBv4cyDgMbJPCrm9KEAZBdfHdiE8zbOmy



TOTAL WEIGHT = 6 X 26 = 154 lb  
[M][F]

#### LUMBER

| N. L. G. A. RULES     | CHORDS | SIZE | LUMBER | DESCR. |
|-----------------------|--------|------|--------|--------|
| 1 - 4                 | 2x4    | DRY  | No.2   | SPF    |
| 6 - 4                 | 2x3    | DRY  | No.2   | SPF    |
| 2 - 5                 | 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     |
|----|--------|--------|-----|-----|------|-------|
| 2  | TMB1-l | MT20   | 3.0 | 4.0 | 0.25 | 3.00  |
| 2  | WP+H   | MT20   | 3.0 | 8.0 |      | 19.25 |
| 3  | TMWW-t | MT20   | 3.0 | 4.0 |      |       |
| 4  | TMV+p  | MT20   | 2.0 | 4.0 |      |       |
| 6  | BMVW-t | MT20   | 3.0 | 4.0 | 1.50 | 1.75  |
| 7  | BMVW-w | MT20   | 2.0 | 4.0 |      |       |

A SIZE FOR SIZE SUBSTITUTION OF MITEK MII20 WITH TEE-LOK TL20 PLATES IS ALLOWED.

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

| FACTORED GROSS REACTION |      | MAXIMUM FACTORED GROSS REACTION |      | INPUT BRG | REQRD BRG | HEEL  |
|-------------------------|------|---------------------------------|------|-----------|-----------|-------|
| JT                      | VERT | HORZ                            | DOWN | HORZ      | IN-SX     | WEDGE |
| 2                       | 457  | 0                               | 457  | 0         | 3-0       | 3-0   |
| 5                       | 294  | 0                               | 294  | 0         | 1-8       | 1-8   |

#### UNFACTORED REACTIONS

| JT | 1ST LCASE | MAX/MIN. COMPONENT REACTIONS | PERM. LIVE | WIND  | DEAD   | SOIL  |
|----|-----------|------------------------------|------------|-------|--------|-------|
| 2  | 319       | 236 / 0                      | 0 / 0      | 0 / 0 | 83 / 0 | 0 / 0 |
| 5  | 208       | 137 / 0                      | 0 / 0      | 0 / 0 | 70 / 0 | 0 / 0 |

BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S) 2, 5

#### 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: (3)

| CHORDS |                           |                           |                | WEBS  |                           |                      |                        |
|--------|---------------------------|---------------------------|----------------|-------|---------------------------|----------------------|------------------------|
| MEMB.  | MAX. FACTORED FORCE (LBS) | FACTORED VERT. LOAD (PLF) | MAX. LC1 (LC)  | MEMB. | MAX. FACTORED FORCE (LBS) | MAX. UNBRACED LENGTH | FACTORED MAX. CSI (LC) |
| FR-TO  |                           | FROM TO                   |                | FR-TO |                           |                      |                        |
| 1-2    | 0 / 15                    | -77.3                     | -77.3 0.10 (1) | 10.00 | 7-3                       | 0 / 202              | 0.05 (1)               |
| 2-9    | -734 / 0                  | -77.3                     | -77.3 0.03 (1) | 6.25  | 3-6                       | -726 / 0             | 0.16 (1)               |
| 9-3    | -713 / 0                  | -77.3                     | -77.3 0.07 (1) | 6.25  | 8-9                       | -65 / 0              | 0.00 (1)               |
| 3-4    | -5 / 0                    | -77.3                     | -77.3 0.10 (1) | 10.00 |                           |                      |                        |
| 6-4    | -112 / 0                  | 0.0                       | 0.0 0.02 (1)   | 7.81  |                           |                      |                        |
| 2-8    | 0 / 687                   | -17.5                     | -17.5 0.17 (1) | 10.00 |                           |                      |                        |
| 8-7    | 0 / 687                   | -17.5                     | -17.5 0.21 (1) | 10.00 |                           |                      |                        |
| 7-6    | 0 / 687                   | -17.5                     | -17.5 0.45 (1) | 10.00 |                           |                      |                        |
| 6-5    | 0 / 0                     | -17.5                     | -17.5 0.34 (1) | 10.00 |                           |                      |                        |

#### DESIGN CRITERIA

##### SPECIFIED LOADS:

|              |          |          |
|--------------|----------|----------|
| TOP CH.      | LL =     | 23.3 PSF |
| DL =         | 3.0 PSF  |          |
| BOT CH.      | LL =     | 0.0 PSF  |
| DL =         | 7.0 PSF  |          |
| TOTAL LOAD = | 33.3 PSF |          |

##### SPACING = 24.0 IN. C/C

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

THIS DESIGN COMPLIES WITH:

- PART 9 OF OBC 2012, BCBC 2012, ABC 2014
- CSA 086-09
- TPIC 2011

(55 % OF 27.2 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 23.3 P.S.F. SPECIFIED ROOF LIVE LOAD

ALLOWABLE DEFL.(LL)= L/360 (0.25")  
CALCULATED VERT. DEFL.(LL) = L/ 999 (0.05")  
ALLOWABLE DEFL.(TL)= L/360 (0.25")  
CALCULATED VERT. DEFL.(TL) = L/ 999 (0.09")

CSI: TC=0.10 (3-4:1), BC=0.45 (6-7:1), WB=0.16 (3-6:1), SSI=0.23 (5-6:1)

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

COMPANION LIVE LOAD FACTOR = 0.50

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

#### NAIL VALUES

| PLATE | GRIP(DRY) | SHEAR | SECTION            |
|-------|-----------|-------|--------------------|
|       | (PSI)     | (PLI) | (PLI)              |
|       | MAX       | MIN   | MAX MIN            |
| MT20  | 618       | 354   | 1667 822 2284 1656 |

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

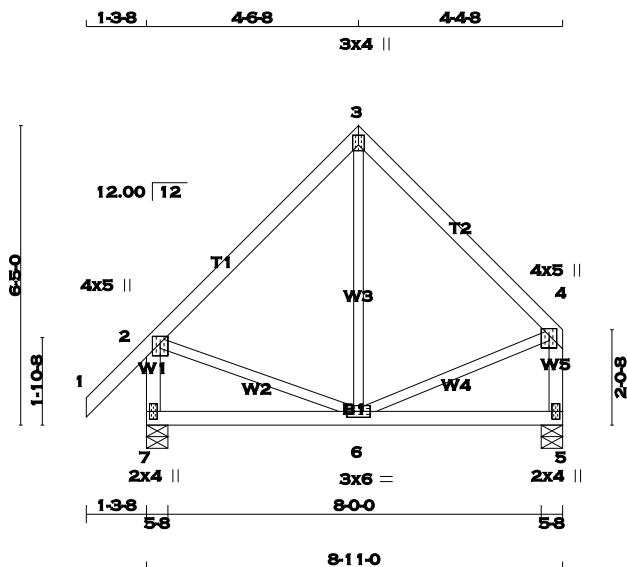
JSI GRIP= 0.87 (6) (INPUT = 0.90 )  
JSI METAL= 0.26 (6) (INPUT = 1.00 )



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TOTAL WEIGHT = 4 X 43 = 170 lb  
[M][F]

| LUMBER                       |        |      |        |  | DESCR. |
|------------------------------|--------|------|--------|--|--------|
| N. L. G. A. RULES            | CHORDS | SIZE | LUMBER |  |        |
| 1 - 3                        | 2x4    | DRY  | No.2   |  | SPF    |
| 3 - 4                        | 2x4    | DRY  | No.2   |  | SPF    |
| 7 - 2                        | 2x4    | DRY  | No.2   |  | SPF    |
| 5 - 4                        | 2x4    | DRY  | No.2   |  | SPF    |
| 7 - 5                        | 2x4    | DRY  | No.2   |  | SPF    |
| ALL WEBS 2x3 DRY No.2 EXCEPT |        |      |        |  | SPF    |
| DRY: SEASONED LUMBER.        |        |      |        |  |        |

| PLATES (table is in inches) |         |        |     |     |      |      |
|-----------------------------|---------|--------|-----|-----|------|------|
| JT                          | TYPE    | PLATES | W   | LEN | Y    | X    |
| 2                           | TMVW+p  | MT20   | 4.0 | 5.0 | 1.75 | 2.00 |
| 3                           | TTW+p   | MT20   | 3.0 | 4.0 | Edge |      |
| 4                           | TMVW+p  | MT20   | 4.0 | 5.0 | 1.75 | 2.00 |
| 5                           | BMV1+p  | MT20   | 2.0 | 4.0 |      |      |
| 6                           | BMVWW-t | MT20   | 3.0 | 6.0 |      |      |
| 7                           | BMV1+p  | MT20   | 2.0 | 4.0 |      |      |

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

A SIZE FOR SIZE SUBSTITUTION OF MITEK MII20 WITH TEE-LOK TL20 PLATES IS ALLOWED.

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

|    |     | FACTORED GROSS REACTION |      | MAXIMUM FACTORED GROSS REACTION |      | INPUT BRG |       | REQRD BRG |  |
|----|-----|-------------------------|------|---------------------------------|------|-----------|-------|-----------|--|
| JT |     | VERT                    | HORZ | DOWN                            | HORZ | UPLIFT    | IN-SX | IN-SX     |  |
| 7  | 531 | 0                       |      | 531                             | 0    | 0         | 5-8   | 5-8       |  |
| 5  | 423 | 0                       |      | 423                             | 0    | 0         | 5-8   | 5-8       |  |

#### UNFACTORED REACTIONS

|    |     | 1ST LCASE |       | MAX./MIN. COMPONENT REACTIONS |           |       |        |       |  |
|----|-----|-----------|-------|-------------------------------|-----------|-------|--------|-------|--|
| JT |     | COMBINED  | SNOW  | LIVE                          | PERM.LIVE | WIND  | DEAD   | SOIL  |  |
| 7  | 370 | 273 / 0   | 0 / 0 | 0 / 0                         | 0 / 0     | 0 / 0 | 98 / 0 | 0 / 0 |  |
| 5  | 297 | 208 / 0   | 0 / 0 | 0 / 0                         | 0 / 0     | 0 / 0 | 89 / 0 | 0 / 0 |  |

BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S) 7, 5

#### 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: (3)

| CHORDS |                  |                           |                | WEBS  |                  |                       |          |
|--------|------------------|---------------------------|----------------|-------|------------------|-----------------------|----------|
| MEMB.  | MAX. FORCE (LBS) | FACTORED VERT. LOAD (LBS) | MAX LC1 (LC)   | MEMB. | MAX. FORCE (LBS) | FACTORED MAX LC1 (LC) |          |
| FR-TO  |                  | FROM                      | TO             | FR-TO |                  |                       |          |
| 1-2    | 0 / 38           | -77.3                     | -77.3 0.11 (1) | 10.00 | 6-3              | -21 / 70              | 0.02 (3) |
| 2-3    | -229 / 0         | -77.3                     | -77.3 0.20 (1) | 6.25  | 2-6              | 0 / 171               | 0.04 (1) |
| 3-4    | -229 / 0         | -77.3                     | -77.3 0.19 (1) | 6.25  | 6-4              | 0 / 174               | 0.04 (1) |
| 7-2    | -500 / 0         | 0.0                       | 0.0 0.06 (1)   | 7.81  |                  |                       |          |
| 5-4    | -394 / 0         | 0.0                       | 0.0 0.05 (1)   | 7.81  |                  |                       |          |
| 7-6    | 0 / 0            | -17.5                     | -17.5 0.10 (3) | 10.00 |                  |                       |          |
| 6-5    | 0 / 0            | -17.5                     | -17.5 0.10 (3) | 10.00 |                  |                       |          |

#### DESIGN CRITERIA

SPECIFIED LOADS:  
TOP CH. LL = 23.3 PSF  
DL = 3.0 PSF  
BOT CH. LL = 0.0 PSF  
DL = 7.0 PSF  
TOTAL LOAD = 33.3 PSF

SPACING = 24.0 IN./C

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

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

(55 % OF 27.2 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 23.3 P.S.F. SPECIFIED ROOF LIVE LOAD

ALLOWABLE DEFL.(LL)= L/360 (0.30")  
CALCULATED VERT. DEFL.(LL) = L/ 999 (0.00")  
ALLOWABLE DEFL.(TL)= L/360 (0.30")  
CALCULATED VERT. DEFL.(TL) = L/ 999 (0.01")

CSI: TC=0.20 (2-3:1) , BC=0.10 (6-7:3) , WB=0.04 (4-6:1) , SSI=0.10 (2-3:1)

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

COMPANION LIVE LOAD FACTOR = 0.50

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

NAIL VALUES  
PLATE GRIP(DRY) SHEAR SECTION  
(PSI) (PLI) (PLI)  
MAX MIN MAX MIN MAX MIN  
MT20 618 354 1667 822 2284 1656

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

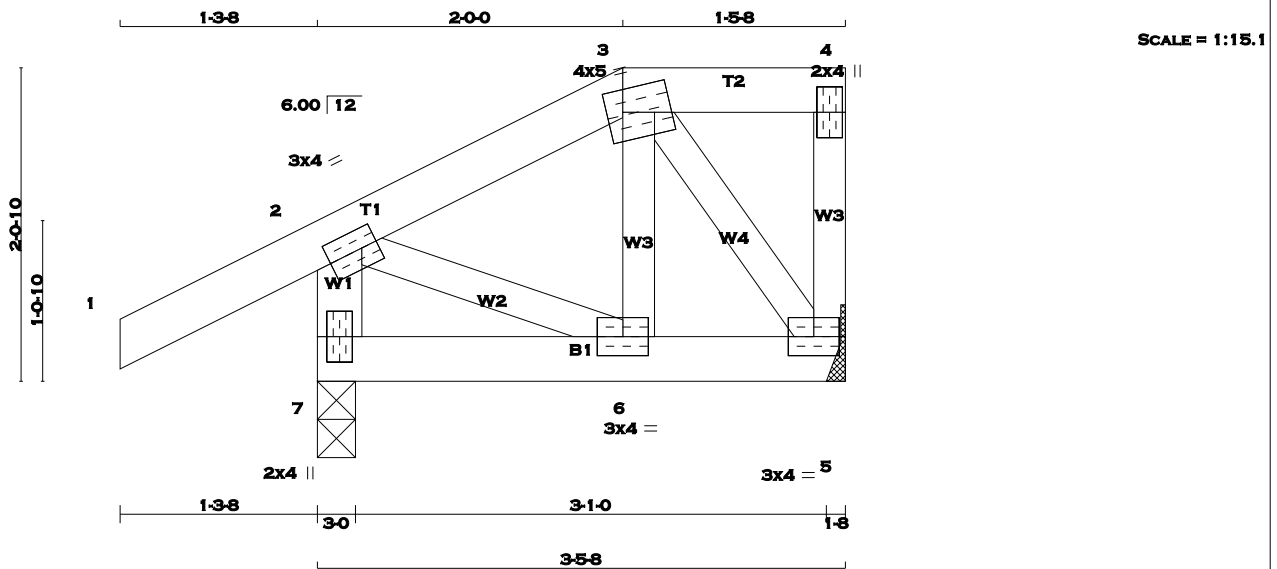
JSI GRIP= 0.35 (2) (INPUT = 0.90 )  
JSI METAL= 0.09 (7) (INPUT = 1.00 )



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TOTAL WEIGHT = 16 lb [M]

| LUMBER                       |        |      |        | DESCR. |
|------------------------------|--------|------|--------|--------|
| N. L. G. A. RULES            | CHORDS | SIZE | LUMBER |        |
| 1 - 3                        | 2x4    | DRY  | No.2   | SPF    |
| 3 - 4                        | 2x4    | DRY  | No.2   | SPF    |
| 5 - 4                        | 2x3    | DRY  | No.2   | SPF    |
| 7 - 2                        | 2x4    | DRY  | No.2   | SPF    |
| 7 - 5                        | 2x4    | DRY  | No.2   | SPF    |
| ALL WEBS 2x3 DRY No.2 EXCEPT |        |      |        | SPF    |

DRY: SEASONED LUMBER.

| PLATES (table is in inches) |         |        |     |     |      |      |
|-----------------------------|---------|--------|-----|-----|------|------|
| JT                          | TYPE    | PLATES | W   | LEN | Y    | X    |
| 2                           | TMVW-t  | MT20   | 3.0 | 4.0 | 1.50 | 1.25 |
| 3                           | TTWW-m  | MT20   | 4.0 | 5.0 | 1.75 | 1.25 |
| 4                           | TMV+p   | MT20   | 2.0 | 4.0 |      |      |
| 5                           | BMVW1-t | MT20   | 3.0 | 4.0 |      |      |
| 6                           | BMVW-t  | MT20   | 3.0 | 4.0 |      |      |
| 7                           | BMV1+p  | MT20   | 2.0 | 4.0 |      |      |

A SIZE FOR SIZE SUBSTITUTION OF MITEK MII20 WITH TEE-LOK TL20 PLATES IS ALLOWED.

#### 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     |                     |
| 5        |  | 164                     | 0    | 164                             | 0    | 0         | HANGER BY OTHERS |           |                     |
| 7        |  | 269                     | 0    | 269                             | 0    | 0         | 3-0              | 3-0       | MIN. SEAT SIZE: 1-8 |

| UNFACTORED REACTIONS |           | MAX./MIN. COMPONENT REACTIONS |         |       |           |       |        |       |
|----------------------|-----------|-------------------------------|---------|-------|-----------|-------|--------|-------|
| JT                   | 1ST LCASE | COMBINED                      | SNOW    | LIVE  | PERM.LIVE | WIND  | DEAD   | SOIL  |
| 5                    |           | 115                           | 81 / 0  | 0 / 0 | 0 / 0     | 0 / 0 | 35 / 0 | 0 / 0 |
| 7                    |           | 186                           | 144 / 0 | 0 / 0 | 0 / 0     | 0 / 0 | 43 / 0 | 0 / 0 |

BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S) 7

**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 |          | CHORDS                    |                           |               |                      | WEBS  |                           |                    |  |
|---------|----------|---------------------------|---------------------------|---------------|----------------------|-------|---------------------------|--------------------|--|
|         |          | MAX. FACTORED FORCE (LBS) | FACTORED VERT. LOAD (PLF) | LC1 MAX. (LC) | MAX. UNBRACED LENGTH | MEMB. | MAX. FACTORED FORCE (LBS) | MAX. FACTORED (LC) |  |
| FR-TO   |          |                           | FROM                      | TO            |                      | FR-TO |                           |                    |  |
| 1-2     | 0 / 23   | -77.3                     | -77.3                     | 0.10 (1)      | 10.00                | 6-3   | 0 / 32                    | 0.01 (3)           |  |
| 2-3     | -91 / 0  | -77.3                     | -77.3                     | 0.05 (1)      | 6.25                 | 3-5   | -127 / 0                  | 0.02 (1)           |  |
| 3-4     | 0 / 0    | -77.3                     | -77.3                     | 0.03 (1)      | 10.00                | 2-6   | 0 / 86                    | 0.02 (1)           |  |
| 5-4     | -56 / 0  | 0.0                       | 0.0                       | 0.01 (1)      | 7.81                 |       |                           |                    |  |
| 7-2     | -252 / 0 | 0.0                       | 0.0                       | 0.03 (1)      | 7.81                 |       |                           |                    |  |
| 7-6     | 0 / 0    | -17.5                     | -17.5                     | 0.02 (3)      | 10.00                |       |                           |                    |  |
| 6-5     | 0 / 81   | -17.5                     | -17.5                     | 0.02 (3)      | 10.00                |       |                           |                    |  |

CANTILEVER ANALYSIS HAS BEEN CONSIDERED IN THIS DESIGN

**DESIGN CRITERIA**

SPECIFIED LOADS:  
TOP CH. LL = 23.3 PSF  
DL = 3.0 PSF  
BOT CH. LL = 0.0 PSF  
DL = 7.0 PSF  
TOTAL LOAD = 33.3 PSF

**SPACING = 24.0 IN./C**

LOADING IN FLAT SECTION BASED ON A SLOPE OF 6.00/12

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

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

(55 % OF 27.2 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 23.3 P.S.F. SPECIFIED ROOF LIVE LOAD

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

CSI: TC=0.10 (1-2:1) , BC=0.02 (5-6:3) , WB=0.02 (3-5:1) , SSI=0.07 (1-2:1)

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

COMPANION LIVE LOAD FACTOR = 0.50

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

NAIL VALUES  
PLATE GRIP(DRY) SHEAR SECTION (PSI) (PLI) (PLI)  
MAX MIN MAX MIN MAX MIN  
MT20 618 354 1667 822 2284 1656

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

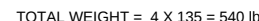
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JSI METAL= 0.06 (2) (INPUT = 1.00 )



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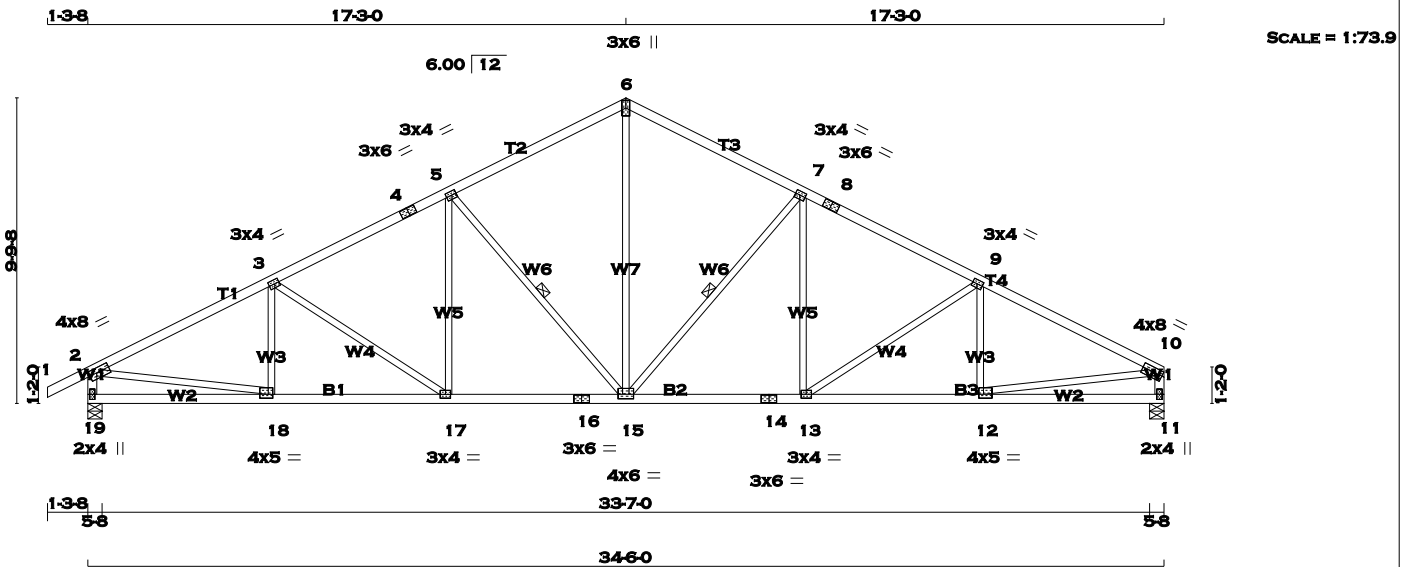


JSI GRIP= 0.88 (12) (INPUT = 0.90 )  
JSI METAL= 0.60 (17) (INPUT = 1.00 )



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TOTAL WEIGHT = 144 lb  
[M][F]

| LUMBER          |      | N. L. G. A. RULES |      | LUMBER | DESCR. |
|-----------------|------|-------------------|------|--------|--------|
| CHORDS          | SIZE |                   |      |        |        |
| 1 - 4           | 2x4  | DRY               | No.2 | SPF    | SPF    |
| 4 - 6           | 2x4  | DRY               | No.2 |        |        |
| 6 - 8           | 2x4  | DRY               | No.2 |        |        |
| 8 - 10          | 2x4  | DRY               | No.2 |        |        |
| 19 - 2          | 2x4  | DRY               | No.2 |        |        |
| 11 - 10         | 2x4  | DRY               | No.2 |        |        |
| 19 - 16         | 2x4  | DRY               | No.2 |        |        |
| 16 - 14         | 2x4  | DRY               | No.2 |        |        |
| 14 - 11         | 2x4  | DRY               | No.2 |        |        |
| ALL WEBS EXCEPT | 2x3  | DRY               | No.2 |        |        |

DRY: SEASONED LUMBER.

| PLATES (table is in inches) |        |        |     |     |           |
|-----------------------------|--------|--------|-----|-----|-----------|
| JT                          | TYPE   | PLATES | W   | LEN | Y X       |
| 2                           | TMVW-t | MT20   | 4.0 | 8.0 | 1.75 3.00 |
| 3, 5, 7, 9                  |        |        |     |     |           |
| 3                           | TMVW-t | MT20   | 3.0 | 4.0 | 1.50 1.75 |
| 4                           | TS-t   | MT20   | 3.0 | 6.0 |           |
| 6                           | TTW+p  | MT20   | 3.0 | 6.0 |           |
| 8                           | TS-t   | MT20   | 3.0 | 6.0 |           |
| 10                          | TMVW-t | MT20   | 4.0 | 8.0 | 1.75 Edge |
| 11                          | BMV1+p | MT20   | 2.0 | 4.0 |           |
| 12                          | BMVW-t | MT20   | 4.0 | 5.0 | 1.50 1.75 |
| 13                          | BMVW-t | MT20   | 3.0 | 4.0 |           |
| 14                          | BS-t   | MT20   | 3.0 | 6.0 |           |
| 15                          | BMVW-t | MT20   | 4.0 | 6.0 | 1.75 3.00 |
| 16                          | BS-t   | MT20   | 3.0 | 6.0 |           |
| 17                          | BMVW-t | MT20   | 3.0 | 4.0 |           |
| 18                          | BMVW-t | MT20   | 4.0 | 5.0 | 1.50 1.75 |
| 19                          | BMV1+p | MT20   | 2.0 | 4.0 |           |

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

A SIZE FOR SIZE SUBSTITUTION OF MITEK MII20 WITH TEE-LOK TL20 PLATES IS ALLOWED.

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

| BEARINGS |      | FACTORED       |      | MAXIMUM FACTORED |      | INPUT  |       | REQRD |       |
|----------|------|----------------|------|------------------|------|--------|-------|-------|-------|
| JT       | VERT | GROSS REACTION | HORZ | DOWN             | HORZ | UPLIFT | IN-SX | BRG   | IN-SX |
| 19       | 1741 | 0              | 1741 | 0                | 0    | 5-8    | 5-8   | 5-8   | 5-8   |
| 11       | 1636 | 0              | 1636 | 0                | 0    | 5-8    | 5-8   | 5-8   | 5-8   |

| UNFACTORED REACTIONS |          | 1ST LCASE |       | MAX./MIN. COMPONENT REACTIONS |         |
|----------------------|----------|-----------|-------|-------------------------------|---------|
| JT                   | COMBINED | SNOW      | LIVE  | PERM.LIVE                     | WIND    |
| 19                   | 1220     | 866 / 0   | 0 / 0 | 0 / 0                         | 353 / 0 |
| 11                   | 1148     | 803 / 0   | 0 / 0 | 0 / 0                         | 345 / 0 |

BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S) 19, 11

**BRACING**  
TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 4.06 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 - 2x3 SPF No.2 LATERAL BRACE(S) AT 1/2 LENGTH OF 7-15, 5-15. DBS = 20-0-0 . CBF = 85 LBS.

DBS = DIAGONAL BRACE SPACING (MAX). CBF = CUMULATIVE BRACING FORCE. FASTEN LATERAL BRACE(S) USING (0.122"x3") SPIRAL NAILS : 1 NAIL FOR 2x3 BRACE(S), 2 FOR 1x4, 2x4, 2x5, 3 FOR 2x6, 4 FOR 2x8, 5 FOR 2x10, AND 6 FOR 2x12.

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: (3)     |                           |
|---------|---------------------------|---------------------------|---------------------------|
| CHORDS  |                           | WEBS                      |                           |
| MEMB.   | MAX. FACTORED FORCE (LBS) | FACTORED VERT. LOAD (PLF) | MAX. UNBRACED LENGTH (LC) |
| FR-TO   | FROM                      | TO                        | FR-TO                     |
| 1-2     | 0 / 23                    | -77.3                     | 0.10 (1)                  |
| 2-3     | -2414 / 0                 | -77.3                     | 0.43 (1)                  |
| 3-4     | -2164 / 0                 | -77.3                     | 0.35 (1)                  |
| 4-5     | -2164 / 0                 | -77.3                     | 0.35 (1)                  |
| 5-6     | -1689 / 0                 | -77.3                     | 0.34 (1)                  |
| 6-7     | -1689 / 0                 | -77.3                     | 0.34 (1)                  |
| 7-8     | -2164 / 0                 | -77.3                     | 0.35 (1)                  |
| 8-9     | -2164 / 0                 | -77.3                     | 0.35 (1)                  |
| 9-10    | -2414 / 0                 | -77.3                     | 0.43 (1)                  |
| 19-2    | -1696 / 0                 | 0.0                       | 0.17 (1)                  |
| 11-10   | -1591 / 0                 | 0.0                       | 0.16 (1)                  |

|       |          |       |       |          |       |
|-------|----------|-------|-------|----------|-------|
| 19-18 | 0 / 0    | -17.5 | -17.5 | 0.13 (3) | 10.00 |
| 18-17 | 0 / 2176 | -17.5 | -17.5 | 0.40 (1) | 10.00 |
| 17-16 | 0 / 1935 | -17.5 | -17.5 | 0.38 (1) | 10.00 |
| 16-15 | 0 / 1935 | -17.5 | -17.5 | 0.38 (1) | 10.00 |
| 15-14 | 0 / 1935 | -17.5 | -17.5 | 0.38 (1) | 10.00 |
| 14-13 | 0 / 1935 | -17.5 | -17.5 | 0.38 (1) | 10.00 |
| 13-12 | 0 / 2176 | -17.5 | -17.5 | 0.40 (1) | 10.00 |
| 12-11 | 0 / 0    | -17.5 | -17.5 | 0.13 (3) | 10.00 |

#### DESIGN CRITERIA

SPECIFIED LOADS:  
TOP CH. LL = 23.3 PSF  
DL = 3.0 PSF  
BOT CH. LL = 0.0 PSF  
DL = 7.0 PSF  
TOTAL LOAD = 33.3 PSF

SPACING = 24.0 IN./C

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

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

(55 % OF 27.2 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 23.3 P.S.F. SPECIFIED ROOF LIVE LOAD

ALLOWABLE DEFL.(LL)= L/360 (1.15")  
CALCULATED VERT. DEFL.(LL) = L/999 (0.13")  
ALLOWABLE DEFL.(TL)= L/360 (1.15")  
CALCULATED VERT. DEFL.(TL) = L/999 (0.23")

CSI: TC=0.43 (9-10:1) , BC=0.40 (12-13:1) , WB=0.49 (10-12:1) , SSI=0.19 (2-3:1)

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

COMPANION LIVE LOAD FACTOR = 0.50

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

NAIL VALUES  
PLATE GRIP(DRY) SHEAR SECTION  
(PSI) (PLI) (PLI)  
MAX MIN MAX MIN MAX MIN  
MT20 618 354 1667 822 2284 1656

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

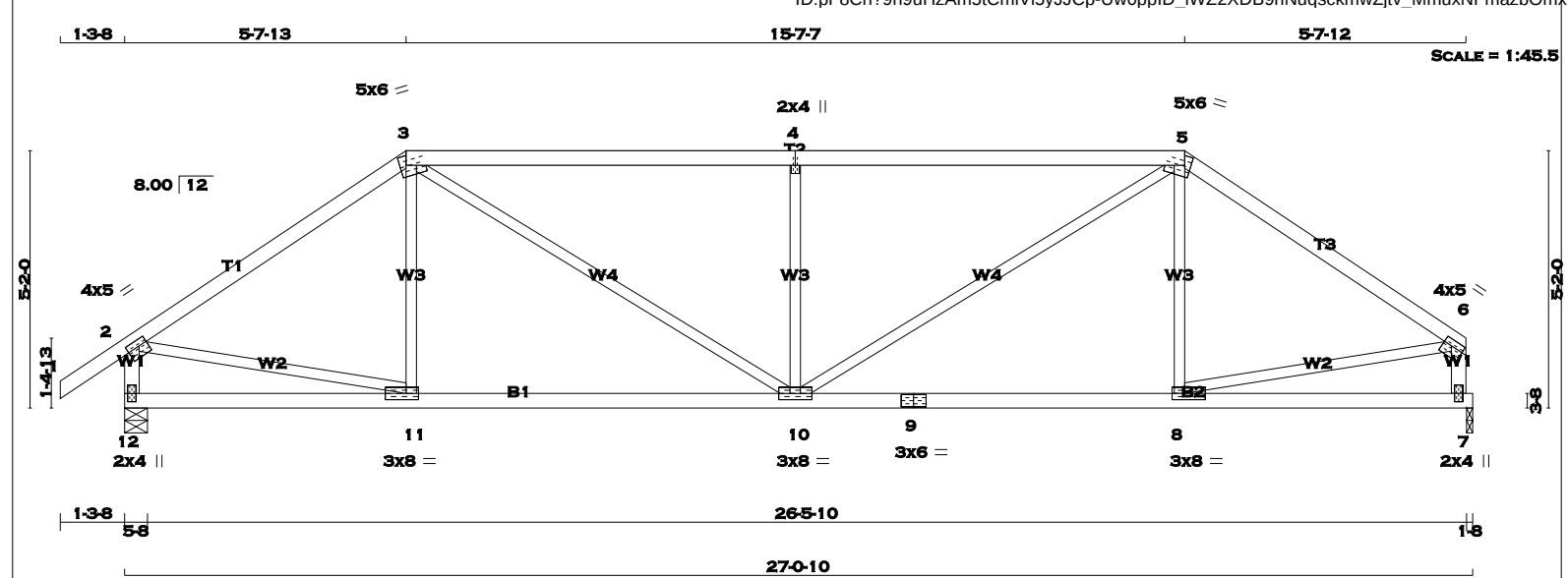
JSI GRIP= 0.89 (11) (INPUT = 0.90)  
JSI METAL= 0.65 (18) (INPUT = 1.00)



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LUMBER

N. L. G. A. RULES

CHORDS

SIZE

LUMBER

DESCR.

1 - 3

2x4

DRY

No.2

SPF

3 - 5

2x4

DRY

No.2

SPF

5 - 6

2x4

DRY

No.2

SPF

12 - 2

2x4

DRY

No.2

SPF

7 - 6

2x4

DRY

No.2

SPF

12 - 9

2x4

DRY

No.2

SPF

9 - 7

2x4

DRY

No.2

SPF

ALL WEBS

2x3

DRY

No.2

SPF

EXCEPT

DRY: SEASONED LUMBER.

\*\*\*CSI FAILURE: 3-4, 4-5\*\*\*

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

BEARINGS

FACTORED

MAXIMUM FACTORED

INPUT

REQRD

GROSS REACTION

GROSS REACTION

BRG

BRG

JT

VERT

HORZ

DOWN

HORZ

UPLIFT

IN-SX

IN-SX

12

1383

0

1383

0

0

5-8

5-8

7

1276

0

1276

0

0

1-8

1-8

UNFACTORED REACTIONS

1ST LCASE

MAX./MIN. COMPONENT REACTIONS

JT

COMBINED

SNOW

LIVE

PERM.LIVE

WIND

DEAD

SOIL

12

968

691 / 0

0 / 0

0 / 0

0 / 0

277 / 0

0 / 0

7

896

627 / 0

0 / 0

0 / 0

0 / 0

269 / 0

0 / 0

BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S) 12, 7

BRACING

TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 3.22 FT.

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

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

LOADING

TOTAL LOAD CASES: (3)

CHORDS

WEBS

MAX. FACTORED

FACTORED

MAX. FACTORED

MEMB.

FORCE

VERT. LOAD LC1

MAX

UNBRAC

MEMB.

FORCE

MAX

(LBS)

(PLF)

CSI (LC)

LENGTH

(LBS)

CSI (LC)

FR-TO

FROM TO

FR-TO

1-2

0 / 29

-77.3

-77.3

0.10 (1)

10.00

11-3

-92 / 78

0.04 (1)

2-3

-1434 / 0

-77.3

-77.3

0.52 (1)

4.82

3-10

0 / 831

0.19 (1)

3-4

-1895 / 0

-77.3

-77.3

1.10 (1)

3.22

10-4

-744 / 0

0.29 (1)

4-5

-1895 / 0

-77.3

-77.3

1.10 (1)

3.22

10-5

0 / 831

0.19 (1)

5-6

-1433 / 0

-77.3

-77.3

0.52 (1)

4.82

8-5

-93 / 77

0.04 (1)

12-2

-1346 / 0

0.0

0.0

0.14 (1)

6.99

2-11

0 / 1212

0.27 (1)

7-6

-1240 / 0

0.0

0.0

0.13 (1)

7.21

8-6

0 / 1212

0.27 (1)

12-11

0 / 0

-17.5

-17.5

0.18 (3)

10.00

11-10

0 / 1190

-17.5

-17.5

0.30 (1)

10.00

10-9

0 / 1189

-17.5

-17.5

0.30 (1)

10.00

9-8

0 / 1189

-17.5

-17.5

0.30 (1)

10.00

8-7

0 / 0

-17.5

-17.5

0.18 (3)

10.00

DESIGN CRITERIA

SPECIFIED LOADS:

TOP CH. LL = 23.3 PSF

DL = 3.0 PSF

BOT CH. LL = 0.0 PSF

DL = 7.0 PSF

TOTAL LOAD = 33.3 PSF

SPACING = 24.0 IN. C/C

LOADING IN FLAT SECTION BASED ON A SLOPE OF 6.00/12

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

THIS DESIGN COMPLIES WITH:

- PART 9 OF OBC 2012 , BCBC 2012 , ABC 2014

- CSA 086-09

- TPIC 2011

(55 % OF 27.2 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 23.3 P.S.F. SPECIFIED ROOF LIVE LOAD

ALLOWABLE DEFL.(LL)= L/360 (0.90")

CALCULATED VERT. DEFL.(LL) = L/ 999 (0.08")

ALLOWABLE DEFL.(TL)= L/360 (0.90")

CALCULATED VERT. DEFL.(TL) = L/ 999 (0.16")

CSI: TC=1.10 (3-4:1) , BC=0.30 (10-11:1) , WB=0.29 (4-10:1) , SSI=0.29 (3-4:1)

DOL LUMBER=1.00 NAIL=1.00 LS BEND=1.10

COMP=1.10 SHEAR=1.10 TENS= 1.10

COMPANION LIVE LOAD FACTOR = 0.50

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

NAIL VALUES

PLATE GRIP(DRY) SHEAR SECTION

(PSI) (PLI) (PLI)

MAX MIN MAX MIN MAX MIN

MT20 618 354 1667 822 2284 1656

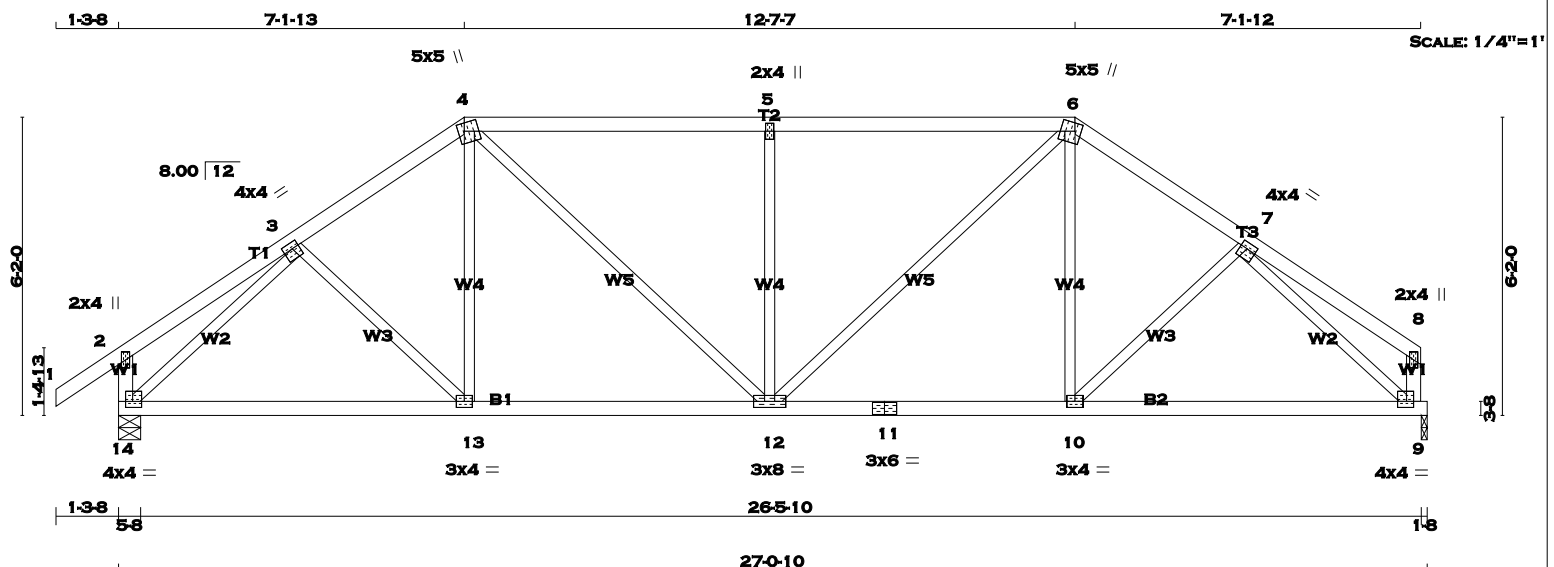
PLATE PLACEMENT TOL. = 0.250 inches



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IN THE DESIGN OF THIS COMPONENT.





TOTAL WEIGHT = 2 X 111 = 223 lb  
[M][F]

| LUMBER                |     |      |        |        |
|-----------------------|-----|------|--------|--------|
| N. L. G. A. RULES     |     |      |        |        |
| CHORDS                |     | SIZE | LUMBER | DESCR. |
| 1 - 4                 | 2x4 | DRY  | No.2   | SPF    |
| 4 - 6                 | 2x4 | DRY  | No.2   | SPF    |
| 6 - 8                 | 2x4 | DRY  | No.2   | SPF    |
| 14 - 2                | 2x4 | DRY  | No.2   | SPF    |
| 9 - 8                 | 2x4 | DRY  | No.2   | SPF    |
| 14 - 11               | 2x4 | DRY  | No.2   | SPF    |
| 11 - 9                | 2x4 | DRY  | No.2   | SPF    |
| ALL WEBS<br>EXCEPT    | 2x3 | DRY  | No.2   | SPF    |
| DRY: SEASONED LUMBER. |     |      |        |        |

| PLATES (table is in inches) |         |        |     |     |           |
|-----------------------------|---------|--------|-----|-----|-----------|
| JT                          | TYPE    | PLATES | W   | LEN | Y X       |
| 2                           | TMV+p   | MT20   | 2.0 | 4.0 |           |
| 3                           | TMVW-t  | MT20   | 4.0 | 4.0 | 1.50 1.75 |
| 4                           | TTWW+m  | MT20   | 5.0 | 5.0 | 2.00 1.50 |
| 5                           | TMV+w   | MT20   | 2.0 | 4.0 |           |
| 6                           | TTWW+m  | MT20   | 5.0 | 5.0 | 2.00 1.50 |
| 7                           | TMVW-t  | MT20   | 4.0 | 4.0 | 1.50 1.75 |
| 8                           | TMV+p   | MT20   | 2.0 | 4.0 |           |
| 9                           | BMVW1-t | MT20   | 4.0 | 4.0 | 1.50 1.75 |
| 10                          | BMVW-t  | MT20   | 3.0 | 4.0 |           |
| 11                          | BS-t    | MT20   | 3.0 | 6.0 |           |
| 12                          | BMVW-t  | MT20   | 3.0 | 8.0 |           |
| 13                          | BMVW-t  | MT20   | 3.0 | 4.0 |           |
| 14                          | BMVW1-t | MT20   | 4.0 | 4.0 | 1.50 1.75 |

A SIZE FOR SIZE SUBSTITUTION OF MITEK MII20 WITH TEE-LOK TL20 PLATES IS ALLOWED.

#### 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     |  |
| 14       |  | 1383                    | 0    | 1383                            | 0    | 0         | 5-8   | 5-8       |  |
| 9        |  | 1276                    | 0    | 1276                            | 0    | 0         | 1-8   | 1-8       |  |

#### UNFACTORED REACTIONS

| JT | 1ST LCASE | MAX/MIN. COMPONENT REACTIONS |       |           |       |         |       |  |  |
|----|-----------|------------------------------|-------|-----------|-------|---------|-------|--|--|
| JT | COMBINED  | SNOW                         | LIVE  | PERM.LIVE | WIND  | DEAD    | SOIL  |  |  |
| 14 | 968       | 691 / 0                      | 0 / 0 | 0 / 0     | 0 / 0 | 277 / 0 | 0 / 0 |  |  |
| 9  | 896       | 627 / 0                      | 0 / 0 | 0 / 0     | 0 / 0 | 269 / 0 | 0 / 0 |  |  |

BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S) 14, 9

#### BRACING

TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 4.82 FT.  
MAX. UNBRACED BOTTOM CHORD LENGTH = 10.00 FT. OR RIGID CEILING DIRECTLY APPLIED.

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

#### LOADING

TOTAL LOAD CASES: (3)

| CHORDS |                           |                           |                | WEBS  |                           |                           |              |
|--------|---------------------------|---------------------------|----------------|-------|---------------------------|---------------------------|--------------|
| MEMB.  | MAX. FACTORED FORCE (LBS) | FACTORED VERT. LOAD (PLF) | MAX LC1 (LC)   | MEMB. | MAX. FACTORED FORCE (LBS) | FACTORED VERT. LOAD (PLF) | MAX LC1 (LC) |
| FR-TO  |                           | FROM                      | TO             | FR-TO |                           | FROM                      | TO           |
| 1-2    | 0 / 29                    | -77.3                     | -77.3 0.10 (1) | 10.00 | 3-13                      | 0 / 51                    | 0.02 (3)     |
| 2-3    | 0 / 16                    | -77.3                     | -77.3 0.14 (1) | 10.00 | 13-4                      | 0 / 133                   | 0.04 (3)     |
| 3-4    | -1409 / 0                 | -77.3                     | -77.3 0.13 (1) | 5.37  | 4-12                      | 0 / 507                   | 0.11 (1)     |
| 4-5    | -1531 / 0                 | -77.3                     | -77.3 0.43 (1) | 4.82  | 12-5                      | -599 / 0                  | 0.36 (1)     |
| 5-6    | -1531 / 0                 | -77.3                     | -77.3 0.43 (1) | 4.82  | 12-6                      | 0 / 507                   | 0.11 (1)     |
| 6-7    | -1409 / 0                 | -77.3                     | -77.3 0.13 (1) | 5.37  | 10-6                      | 0 / 133                   | 0.04 (3)     |
| 7-8    | 0 / 16                    | -77.3                     | -77.3 0.14 (1) | 10.00 | 10-7                      | 0 / 51                    | 0.02 (3)     |
| 14-2   | -215 / 0                  | 0.0                       | 0.0 0.02 (1)   | 7.81  | 14-3                      | -1603 / 0                 | 0.63 (1)     |
| 9-8    | -109 / 0                  | 0.0                       | 0.0 0.01 (1)   | 7.81  | 7-9                       | -1603 / 0                 | 0.63 (1)     |
| 14-13  | 0 / 1151                  | -17.5                     | -17.5 0.30 (1) | 10.00 |                           |                           |              |
| 13-12  | 0 / 1159                  | -17.5                     | -17.5 0.30 (1) | 10.00 |                           |                           |              |
| 12-11  | 0 / 1159                  | -17.5                     | -17.5 0.30 (1) | 10.00 |                           |                           |              |
| 11-10  | 0 / 1159                  | -17.5                     | -17.5 0.30 (1) | 10.00 |                           |                           |              |
| 10-9   | 0 / 1150                  | -17.5                     | -17.5 0.30 (1) | 10.00 |                           |                           |              |

#### DESIGN CRITERIA

##### SPECIFIED LOADS:

|            |      |      |     |
|------------|------|------|-----|
| TOP CH.    | LL = | 23.3 | PSF |
|            | DL = | 3.0  | PSF |
| BOT CH.    | LL = | 0.0  | PSF |
|            | DL = | 7.0  | PSF |
| TOTAL LOAD | =    | 33.3 | PSF |

SPACING = 24.0 IN. C/C

LOADING IN FLAT SECTION BASED ON A SLOPE OF 6.00/12

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

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

(55 % OF 27.2 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 23.3 P.S.F. SPECIFIED ROOF LIVE LOAD

ALLOWABLE DEFL.(LL)= L/360 (0.90")  
CALCULATED VERT. DEFL.(LL) = L/999 (0.06")  
ALLOWABLE DEFL.(TL)= L/360 (0.90")  
CALCULATED VERT. DEFL.(TL) = L/999 (0.11")

CSI: TC=0.43 (4-5:1), BC=0.30 (12-13:1), WB=0.63 (3-14:1), SSI=0.24 (4-5:1)

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

COMPANION LIVE LOAD FACTOR = 0.50

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

NAIL VALUES  
PLATE GRIP(DRY) SHEAR SECTION  
(PSI) (PLI) (PLI)  
MAX MIN MAX MIN MAX MIN  
MT20 618 354 1667 822 2284 1656

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

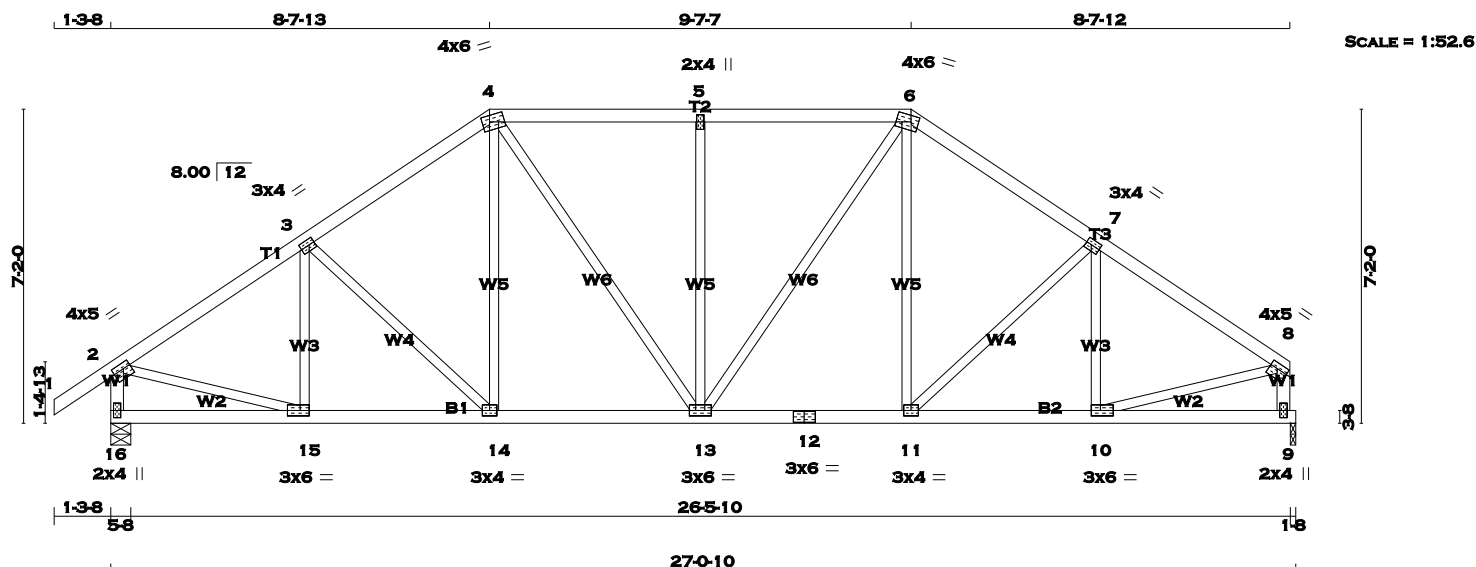
JSI GRIP= 0.89 (14) (INPUT = 0.90)  
JSI METAL= 0.59 (7) (INPUT = 1.00)



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 IN THE DESIGN OF THIS COMPONENT.





TOTAL WEIGHT = 2 X 121 = 242 lb

| LUMBER            |      |        |      | DESCR. |  |
|-------------------|------|--------|------|--------|--|
| N. L. G. A. RULES | SIZE | LUMBER |      |        |  |
| CHORDS            |      |        |      |        |  |
| 1 - 4             | 2x4  | DRY    | No.2 | SPF    |  |
| 4 - 6             | 2x4  | DRY    | No.2 | SPF    |  |
| 6 - 8             | 2x4  | DRY    | No.2 | SPF    |  |
| 16 - 2            | 2x4  | DRY    | No.2 | SPF    |  |
| 9 - 8             | 2x4  | DRY    | No.2 | SPF    |  |
| 16 - 12           | 2x4  | DRY    | No.2 | SPF    |  |
| 12 - 9            | 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    |
|----|---------|--------|-----|-----|------|------|
| 2  | TMVW-t  | MT20   | 4.0 | 5.0 | 1.50 | 2.00 |
| 3  | TMVW-t  | MT20   | 3.0 | 4.0 | 1.50 | 1.50 |
| 4  | TTWW-m  | MT20   | 4.0 | 6.0 | 1.75 | 2.00 |
| 5  | TMVW-w  | MT20   | 2.0 | 4.0 |      |      |
| 6  | TTWW-m  | MT20   | 4.0 | 6.0 | 1.75 | 2.00 |
| 7  | TMVW-t  | MT20   | 3.0 | 4.0 | 1.50 | 1.50 |
| 8  | TMVW-t  | MT20   | 4.0 | 5.0 | 1.50 | 2.00 |
| 9  | BMV1+p  | MT20   | 2.0 | 4.0 |      |      |
| 10 | BMVW-t  | MT20   | 3.0 | 6.0 | 1.50 | 2.50 |
| 11 | BMVW-t  | MT20   | 3.0 | 4.0 |      |      |
| 12 | BS-t    | MT20   | 3.0 | 6.0 |      |      |
| 13 | BMVWV-t | MT20   | 3.0 | 6.0 |      |      |
| 14 | BMVW-t  | MT20   | 3.0 | 4.0 |      |      |
| 15 | BMVW-t  | MT20   | 3.0 | 6.0 | 1.50 | 2.50 |
| 16 | BMV1+p  | MT20   | 2.0 | 4.0 |      |      |

A SIZE FOR SIZE SUBSTITUTION OF MITEK MII20 WITH TEE-LOK TL20 PLATES IS ALLOWED.

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

| FACTORED GROSS REACTION |      | MAXIMUM FACTORED GROSS REACTION |      | INPUT BRG |        | REQRD BRG |       |
|-------------------------|------|---------------------------------|------|-----------|--------|-----------|-------|
| JT                      | VERT | HORZ                            | DOWN | HORZ      | UPLIFT | IN-SX     | IN-SX |
| 16                      | 1383 | 0                               | 1383 | 0         | 0      | 5-8       | 5-8   |
| 9                       | 1276 | 0                               | 1276 | 0         | 0      | 1-8       | 1-8   |

#### UNFACTORED REACTIONS

| JT | 1ST LCASE COMBINED | MAX. SNOW | MIN. LIVE | PERM. LIVE | WIND  | DEAD    | SOIL  |
|----|--------------------|-----------|-----------|------------|-------|---------|-------|
| 16 | 968                | 691 / 0   | 0 / 0     | 0 / 0      | 0 / 0 | 277 / 0 | 0 / 0 |
| 9  | 896                | 627 / 0   | 0 / 0     | 0 / 0      | 0 / 0 | 269 / 0 | 0 / 0 |

BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S) 16, 9

#### BRACING

TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 5.24 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: (3)

| CHORDS |                           |                           |                | WEBS  |                           |               |          |
|--------|---------------------------|---------------------------|----------------|-------|---------------------------|---------------|----------|
| MEMB.  | MAX. FACTORED FORCE (LBS) | FACTORED VERT. LOAD (LBS) | MAX. LC1 (LC)  | MEMB. | MAX. FACTORED FORCE (LBS) | MAX. LC1 (LC) |          |
| FR-TO  |                           | FROM                      | TO             | FR-TO |                           | FROM          | TO       |
| 1-2    | 0 / 29                    | -77.3                     | -77.3 0.10 (1) | 10-00 | 15-3                      | -218 / 7      | 0.06 (1) |
| 2-3    | -1443 / 0                 | -77.3                     | -77.3 0.21 (1) | 5.24  | 3-14                      | -169 / 0      | 0.10 (1) |
| 3-4    | -1339 / 0                 | -77.3                     | -77.3 0.20 (1) | 5.40  | 14-4                      | 0 / 197       | 0.04 (1) |
| 4-5    | -1284 / 0                 | -77.3                     | -77.3 0.24 (1) | 5.43  | 4-13                      | 0 / 326       | 0.07 (1) |
| 5-6    | -1284 / 0                 | -77.3                     | -77.3 0.24 (1) | 5.43  | 13-5                      | -452 / 0      | 0.40 (1) |
| 6-7    | -1339 / 0                 | -77.3                     | -77.3 0.20 (1) | 5.40  | 13-6                      | 0 / 326       | 0.07 (1) |
| 7-8    | -1442 / 0                 | -77.3                     | -77.3 0.21 (1) | 5.24  | 11-6                      | 0 / 197       | 0.04 (1) |
| 16-2   | -1348 / 0                 | 0.0                       | 0.0 0.14 (1)   | 6.98  | 11-7                      | -169 / 0      | 0.10 (1) |
| 9-8    | -1242 / 0                 | 0.0                       | 0.0 0.13 (1)   | 7.20  | 10-7                      | -218 / 7      | 0.06 (1) |
|        |                           |                           |                |       | 2-15                      | 0 / 1254      | 0.28 (1) |
| 16-15  | 0 / 0                     | -17.5                     | -17.5 0.07 (3) | 10.00 | 10-8                      | 0 / 1253      | 0.28 (1) |
| 15-14  | 0 / 1218                  | -17.5                     | -17.5 0.24 (1) | 10.00 |                           |               |          |
| 14-13  | 0 / 1097                  | -17.5                     | -17.5 0.22 (1) | 10.00 |                           |               |          |
| 13-12  | 0 / 1097                  | -17.5                     | -17.5 0.22 (1) | 10.00 |                           |               |          |
| 12-11  | 0 / 1097                  | -17.5                     | -17.5 0.22 (1) | 10.00 |                           |               |          |
| 11-10  | 0 / 1217                  | -17.5                     | -17.5 0.24 (1) | 10.00 |                           |               |          |
| 10-9   | 0 / 0                     | -17.5                     | -17.5 0.07 (3) | 10.00 |                           |               |          |

#### DESIGN CRITERIA

##### SPECIFIED LOADS:

|            |           |     |
|------------|-----------|-----|
| TOP CH.    | LL = 23.3 | PSF |
|            | DL = 3.0  | PSF |
| BOT CH.    | LL = 0.0  | PSF |
|            | DL = 7.0  | PSF |
| TOTAL LOAD | = 33.3    | PSF |

SPACING = 24.0 IN. C/C

LOADING IN FLAT SECTION BASED ON A SLOPE OF 6.00/12

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

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

(55 % OF 27.2 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 23.3 P.S.F. SPECIFIED ROOF LIVE LOAD

ALLOWABLE DEFL.(LL)= L/360 (0.90")  
CALCULATED VERT. DEFL.(LL) = L/999 (0.05")  
ALLOWABLE DEFL.(TL)= L/360 (0.90")  
CALCULATED VERT. DEFL.(TL) = L/999 (0.09")

CSI: TC=0.24 (4-5:1), BC=0.24 (14-15:1), WB=0.40 (5-13:1), SSI=0.18 (4-5:1)

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

COMPANION LIVE LOAD FACTOR = 0.50

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

| NAIL VALUES |           | SECTION |                    |
|-------------|-----------|---------|--------------------|
| PLATE       | GRIP(DRY) | (PSI)   | (PLI)              |
|             |           | MAX MIN | MAX MIN            |
| MT20        | 618       | 354     | 1667 822 2284 1656 |

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

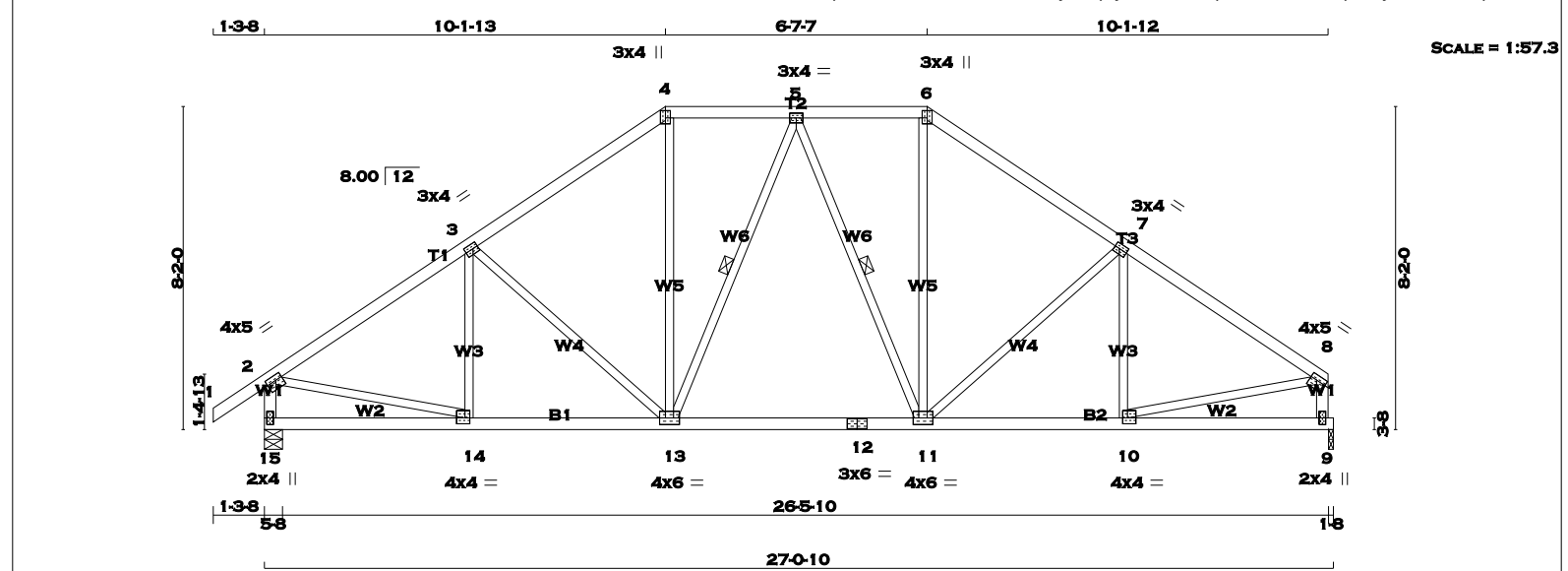
JSI GRIP= 0.87 (13) (INPUT = 0.90 )  
JSI METAL= 0.48 (2) (INPUT = 1.00 )



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 ENGINEERING NOTE PAGE ENP-1. THE NOTE PAGE  
 IS AN INTEGRAL PART OF THIS DRAWING AS IT  
 CONTAINS SPECIFICATIONS AND CRITERIA USED  
 IN THE DESIGN OF THIS COMPONENT.





**LUMBER**  
N. L. G. A. RULES  
CHORDS SIZE  
1 - 4 2x4 DRY No.2  
4 - 6 2x4 DRY No.2  
6 - 8 2x4 DRY No.2  
15 - 2 2x4 DRY No.2  
9 - 8 2x4 DRY No.2  
15 - 12 2x4 DRY No.2  
12 - 9 2x4 DRY No.2  
  
ALL WEBS 2x3 DRY No.2  
EXCEPT  
  
DRY: SEASONED LUMBER.

**DESCR.**  
SPF  
SPF  
SPF  
SPF  
SPF  
SPF  
SPF  
SPF  
  
SPF  
  
SPF

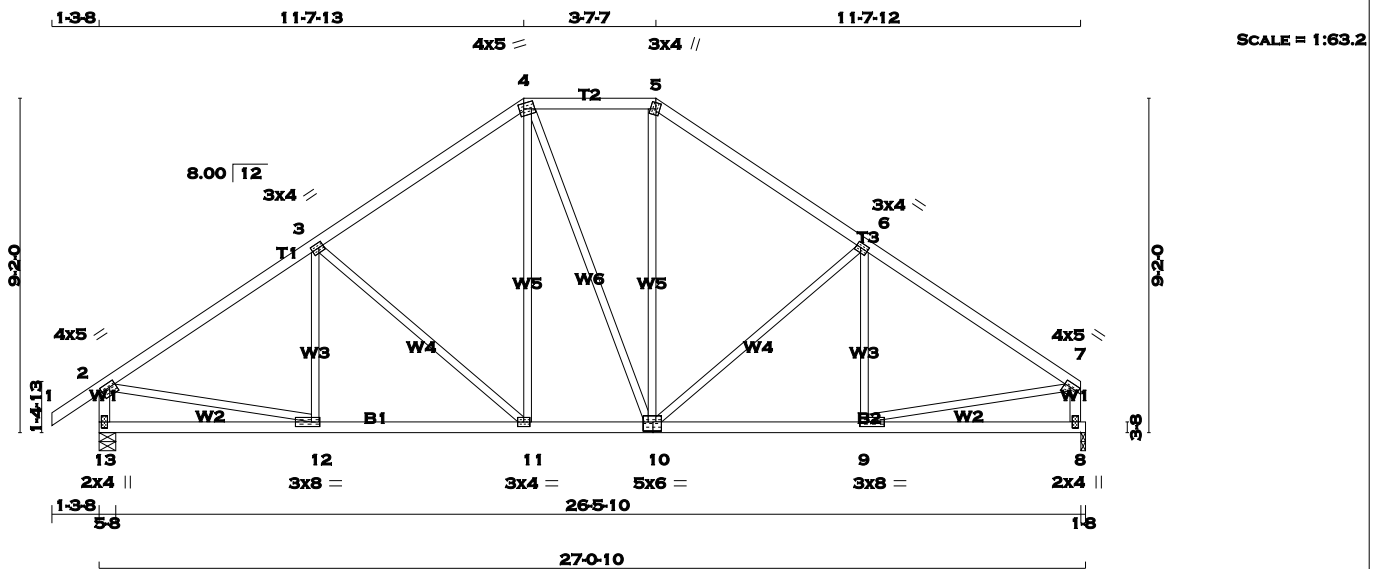
**DIMENSIONS, SUPPORTS AND LOADINGS SPECIFIED BY FABRICATOR TO BE VERIFIED BY BUILDING DESIGNER**  
**BEARINGS**  
FACTORED GROSS REACTION  
JT VERT HORZ  
15 1383 0  
9 1276 0  
  
MAXIMUM FACTORED GROSS REACTION  
DOWN HORZ UPLIFT  
15 1383 0 0  
9 1276 0 0  
  
INPUT BRG IN-SX  
5-8 5-8  
1-8 1-8  
  
REQRD BRG IN-SX  
5-8 5-8  
1-8 1-8  
  
**UNFACTORED REACTIONS**  
1ST LCASE MAX./MIN. COMPONENT REACTIONS  
JT COMBINED SNOW LIVE PERM.LIVE WIND DEAD SOIL  
15 968 691 / 0 0 / 0 0 / 0 277 / 0 0 / 0  
9 896 627 / 0 0 / 0 0 / 0 269 / 0 0 / 0  
  
BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S) 15, 9  
  
**BRACING**  
TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 5.12 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 - 2x3 SPF No.2 LATERAL BRACE(S) AT 1/2 LENGTH OF 5-13, 5-11. DBS = 20-0-0. CBF = 20 LBS.  
  
DBS = DIAGONAL BRACE SPACING (MAX). CBF = CUMULATIVE BRACING FORCE. FASTEN LATERAL BRACE(S) USING (0.122"x3") SPIRAL NAILS : 1 NAIL FOR 2x3 BRACE(S), 2 FOR 1x4, 2x4, 2x5, 3 FOR 2x6, 4 FOR 2x8, 5 FOR 2x10, AND 6 FOR 2x12.  
  
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: (3)  
  
C H O R D S  
MEMB. MAX. FACTORED FORCE (LBS)  
FR-TO 0 / 29  
2-3 -1461 / 0  
3-4 -1266 / 0  
4-5 -1036 / 0  
5-6 -1036 / 0  
6-7 -1266 / 0  
7-8 -1461 / 0  
15-2 -1343 / 0  
9-8 -1237 / 0  
15-14 0 / 0  
14-13 0 / 1237  
13-12 0 / 1097  
12-11 0 / 1097  
11-10 0 / 1236  
10-9 0 / 0  
  
F A C T O R E D  
VERT. LOAD LC1 MAX. FACTORED (PLF) CSI (LC)  
FROM TO  
-77.3 -77.3 0.10 (1)  
-77.3 -77.3 0.29 (1)  
-77.3 -77.3 0.27 (1)  
-77.3 -77.3 0.11 (1)  
-77.3 -77.3 0.11 (1)  
-77.3 -77.3 0.27 (1)  
-77.3 -77.3 0.29 (1)  
0.0 0.0 0.14 (1)  
0.0 0.0 0.13 (1)  
-17.5 -17.5 0.10 (3)  
-17.5 -17.5 0.27 (1)  
-17.5 -17.5 0.24 (1)  
-17.5 -17.5 0.24 (1)  
-17.5 -17.5 0.27 (1)  
-17.5 -17.5 0.10 (3)  
  
W E B S  
MEMB. MAX. FACTORED FORCE (LBS) MAX. FACTORED CSI (LC)  
FR-TO 14-3 -166 / 31 0.06 (1)  
3-13 -277 / 0 0.24 (1)  
13-4 0 / 439 0.10 (1)  
13-5 -162 / 0 0.08 (1)  
5-11 -163 / 0 0.08 (1)  
11-6 0 / 439 0.10 (1)  
11-7 -277 / 0 0.24 (1)  
10-7 -166 / 31 0.06 (1)  
2-14 0 / 1264 0.28 (1)  
10-8 0 / 1263 0.28 (1)  
15-14 0 / 0 10.00  
14-13 0 / 1237 10.00  
13-12 0 / 1097 10.00  
12-11 0 / 1097 10.00  
11-10 0 / 1236 10.00  
10-9 0 / 0 10.00

**DESIGN CRITERIA**  
  
SPECIFIED LOADS:  
TOP CH. LL = 23.3 PSF  
DL = 3.0 PSF  
BOT CH. LL = 0.0 PSF  
DL = 7.0 PSF  
TOTAL LOAD = 33.3 PSF  
  
SPACING = 24.0 IN. C/C  
  
LOADING IN FLAT SECTION BASED ON A SLOPE OF 6.00/12  
  
THIS TRUSS IS DESIGNED FOR RESIDENTIAL OR SMALL BUILDING REQUIREMENTS OF PART 9, NBCC 2010  
  
THIS DESIGN COMPLIES WITH:  
- PART 9 OF OBC 2012, BCBC 2012, ABC 2014  
- CSA 086-09  
- TPIC 2011  
  
(55 % OF 27.2 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 23.3 P.S.F. SPECIFIED ROOF LIVE LOAD  
  
ALLOWABLE DEFL.(LL)= L/360 (0.90")  
CALCULATED VERT. DEFL.(LL) = L/999 (0.05")  
ALLOWABLE DEFL.(TL)= L/360 (0.90")  
CALCULATED VERT. DEFL.(TL) = L/999 (0.11")  
  
CSI: TC=0.29 (2-3:1), BC=0.27 (13-14:1), WB=0.28 (2-14:1), SSI=0.16 (2-3:1)  
  
DOL LUMBER=1.00 NAIL=1.00 LS BEND=1.10 COMP=1.10 SHEAR=1.10 TENS= 1.10  
  
COMPANION LIVE LOAD FACTOR = 0.50  
  
TRUSS PLATE MANUFACTURER IS NOT RESPONSIBLE FOR QUALITY CONTROL IN THE TRUSS MANUFACTURING PLANT .  
  
NAIL VALUES  
PLATE GRIP(DRY) SHEAR SECTION (PSI) (PLI) (PLI)  
MAX MIN MAX MIN MAX MIN  
MT20 618 354 1667 822 2284 1656  
  
PLATE PLACEMENT TOL. = 0.250 inches  
  
PLATE ROTATION TOL. = 5.0 Deg.  
  
JSI GRIP= 0.90 (4) (INPUT = 0.90 )  
JSI METAL= 0.49 (2) (INPUT = 1.00 )

**TOTAL WEIGHT = 2 X 122 = 244 lb**  
[M][F]

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TOTAL WEIGHT = 2 X 122 = 243 lb

[M][F]

| LUMBER                |      | N. L. G. A. RULES |      | LUMBER |  | DESCR. |  |
|-----------------------|------|-------------------|------|--------|--|--------|--|
| CHORDS                | SIZE |                   |      |        |  |        |  |
| 1 - 4                 | 2x4  | DRY               | No.2 |        |  | SPF    |  |
| 4 - 5                 | 2x4  | DRY               | No.2 |        |  | SPF    |  |
| 5 - 7                 | 2x4  | DRY               | No.2 |        |  | SPF    |  |
| 13 - 2                | 2x4  | DRY               | No.2 |        |  | SPF    |  |
| 8 - 7                 | 2x4  | DRY               | No.2 |        |  | SPF    |  |
| 13 - 10               | 2x4  | DRY               | No.2 |        |  | SPF    |  |
| 10 - 8                | 2x4  | DRY               | No.2 |        |  | SPF    |  |
| ALL WEBS              |      | 2x3               | DRY  | No.2   |  | SPF    |  |
| EXCEPT                |      |                   |      |        |  |        |  |
| DRY: SEASONED LUMBER. |      |                   |      |        |  |        |  |

| PLATES (table is in inches)                                                      |         |        |     |     |      |      |
|----------------------------------------------------------------------------------|---------|--------|-----|-----|------|------|
| JT                                                                               | TYPE    | PLATES | W   | LEN | Y    | X    |
| 2                                                                                | TMVW-t  | MT20   | 4.0 | 5.0 | 1.50 | 2.00 |
| 3                                                                                | TMVW-t  | MT20   | 3.0 | 4.0 | 1.50 | 1.50 |
| 4                                                                                | TTWW-m  | MT20   | 4.0 | 5.0 | 1.75 | 1.50 |
| 5                                                                                | TTW+m   | MT20   | 3.0 | 4.0 | 2.00 | 1.25 |
| 6                                                                                | TMVW-t  | MT20   | 3.0 | 4.0 | 1.50 | 1.50 |
| 7                                                                                | TMVW-t  | MT20   | 4.0 | 5.0 | 1.50 | 2.00 |
| 8                                                                                | BMV1+p  | MT20   | 2.0 | 4.0 |      |      |
| 9                                                                                | BMVW-t  | MT20   | 3.0 | 8.0 | 1.50 | 2.75 |
| 10                                                                               | BSWWW-I | MT20   | 5.0 | 6.0 | 3.00 | 2.75 |
| 11                                                                               | BMVW-t  | MT20   | 3.0 | 4.0 |      |      |
| 12                                                                               | BMVW-t  | MT20   | 3.0 | 8.0 | 1.50 | 2.75 |
| 13                                                                               | BMV1+p  | MT20   | 2.0 | 4.0 |      |      |
| A SIZE FOR SIZE SUBSTITUTION OF MITEK MII20 WITH TEE-LOK TL20 PLATES IS ALLOWED. |         |        |     |     |      |      |



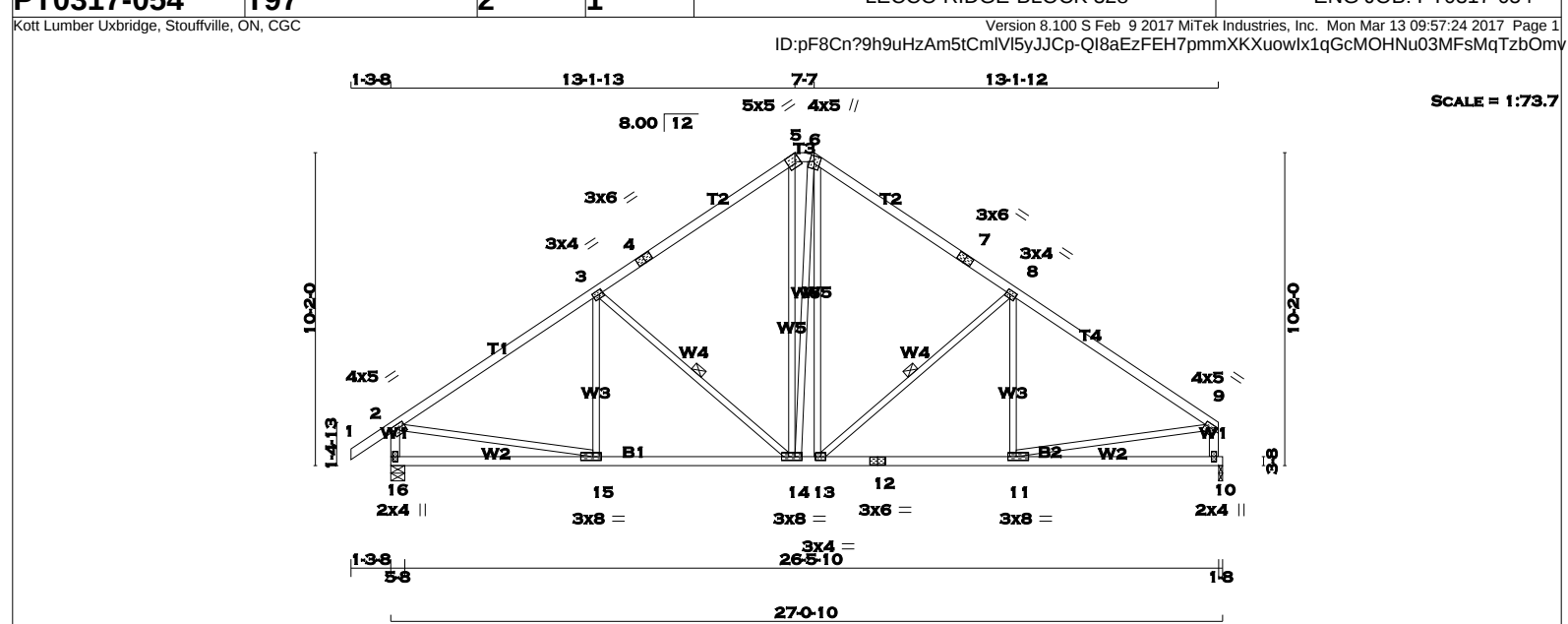
| DIMENSIONS, SUPPORTS AND LOADINGS SPECIFIED BY FABRICATOR TO BE VERIFIED BY BUILDING DESIGNER |  |                         |            |                                 |           |               |         |             |               |
|-----------------------------------------------------------------------------------------------|--|-------------------------|------------|---------------------------------|-----------|---------------|---------|-------------|---------------|
| BEARINGS                                                                                      |  |                         |            |                                 |           |               |         |             |               |
|                                                                                               |  | FACTORED GROSS REACTION |            | MAXIMUM FACTORED GROSS REACTION |           | INPUT BRG     |         | REQRD BRG   |               |
| JT                                                                                            |  | VERT                    | HORZ       | DOWN                            | HORZ      | UPLIFT        | IN-SX   | IN-SX       |               |
| 13                                                                                            |  | 1383                    | 0          | 1383                            | 0         | 0             | 5-8     | 5-8         |               |
| 8                                                                                             |  | 1276                    | 0          | 1276                            | 0         | 0             | 1-8     | 1-8         |               |
| UNFACTORED REACTIONS                                                                          |  |                         |            |                                 |           |               |         |             |               |
|                                                                                               |  | 1ST LCASE               |            | MAX./MIN. COMPONENT REACTIONS   |           |               |         |             |               |
| JT                                                                                            |  | COMBINED                | SNOW       | LIVE                            | PERM.LIVE | WIND          | DEAD    | SOIL        |               |
| 13                                                                                            |  | 968                     | 691 / 0    | 0 / 0                           | 0 / 0     | 0 / 0         | 277 / 0 | 0 / 0       |               |
| 8                                                                                             |  | 896                     | 627 / 0    | 0 / 0                           | 0 / 0     | 0 / 0         | 269 / 0 | 0 / 0       |               |
| BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S) 13, 8                                   |  |                         |            |                                 |           |               |         |             |               |
| BRACING                                                                                       |  |                         |            |                                 |           |               |         |             |               |
| TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 4.99 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: (3)                                                                         |  |                         |            |                                 |           |               |         |             |               |
| CHORDS                                                                                        |  |                         |            |                                 | WEBS      |               |         |             |               |
|                                                                                               |  | MAX. FACTORED           |            | FACTORED                        |           | MAX. FACTORED |         | FACTORED    |               |
| MEMB.                                                                                         |  | FORCE (LBS)             | VERT. LOAD | LC1 MAX (PLF)                   | CSI (LC)  | MEMB.         |         | FORCE (LBS) | MAX (CSI (LC) |
| FR-TO                                                                                         |  | FROM                    |            | TO                              |           | FR-TO         |         | LENGTH      |               |
| 1-2                                                                                           |  | 0 / 29                  | -77.3      | -77.3                           | 0.10 (1)  | 10.00         | 12-3    | -110 / 68   | 0.05 (1)      |
| 2-3                                                                                           |  | -1469 / 0               | -77.3      | -77.3                           | 0.39 (1)  | 4.99          | 3-11    | -390 / 0    | 0.47 (1)      |
| 3-4                                                                                           |  | -1176 / 0               | -77.3      | -77.3                           | 0.36 (1)  | 5.46          | 11-4    | 0 / 329     | 0.07 (1)      |
| 4-5                                                                                           |  | -956 / 0                | -77.3      | -77.3                           | 0.14 (1)  | 6.20          | 4-10    | 0 / 2       | 0.00 (1)      |
| 5-6                                                                                           |  | -1177 / 0               | -77.3      | -77.3                           | 0.36 (1)  | 5.45          | 10-5    | 0 / 332     | 0.07 (1)      |
| 6-7                                                                                           |  | -1468 / 0               | -77.3      | -77.3                           | 0.39 (1)  | 4.99          | 10-6    | -388 / 0    | 0.47 (1)      |
| 13-2                                                                                          |  | -1340 / 0               | 0.0        | 0.0                             | 0.14 (1)  | 7.00          | 9-6     | -112 / 66   | 0.05 (1)      |
| 8-7                                                                                           |  | -1234 / 0               | 0.0        | 0.0                             | 0.13 (1)  | 7.23          | 2-12    | 0 / 1267    | 0.29 (1)      |
|                                                                                               |  |                         |            |                                 |           |               | 9-7     | 0 / 1266    | 0.28 (1)      |
| 13-12                                                                                         |  | 0 / 0                   | -17.5      | -17.5                           | 0.15 (3)  | 10.00         |         |             |               |
| 12-11                                                                                         |  | 0 / 1247                | -17.5      | -17.5                           | 0.28 (1)  | 10.00         |         |             |               |
| 11-10                                                                                         |  | 0 / 955                 | -17.5      | -17.5                           | 0.20 (1)  | 10.00         |         |             |               |
| 10-9                                                                                          |  | 0 / 1246                | -17.5      | -17.5                           | 0.27 (1)  | 10.00         |         |             |               |
| 9-8                                                                                           |  | 0 / 0                   | -17.5      | -17.5                           | 0.15 (3)  | 10.00         |         |             |               |

| DESIGN CRITERIA                                                                                    |           |          |           |     |      |     |  |  |  |
|----------------------------------------------------------------------------------------------------|-----------|----------|-----------|-----|------|-----|--|--|--|
| SPECIFIED LOADS:                                                                                   |           |          |           |     |      |     |  |  |  |
| TOP CH.                                                                                            | LL        | =        | 23.3      | PSF |      |     |  |  |  |
|                                                                                                    | DL        | =        | 3.0       | PSF |      |     |  |  |  |
| BOT CH.                                                                                            | LL        | =        | 0.0       | PSF |      |     |  |  |  |
|                                                                                                    | DL        | =        | 7.0       | PSF |      |     |  |  |  |
| TOTAL LOAD                                                                                         |           |          |           | =   | 33.3 | PSF |  |  |  |
| SPACING = 24.0 IN. C/C                                                                             |           |          |           |     |      |     |  |  |  |
| LOADING IN FLAT SECTION BASED ON A SLOPE OF 6.00/12                                                |           |          |           |     |      |     |  |  |  |
| THIS TRUSS IS DESIGNED FOR RESIDENTIAL OR SMALL BUILDING REQUIREMENTS OF PART 9, NBCC 2010         |           |          |           |     |      |     |  |  |  |
| THIS DESIGN COMPLIES WITH:                                                                         |           |          |           |     |      |     |  |  |  |
| - PART 9 OF OBC 2012, BCBC 2012, ABC 2014                                                          |           |          |           |     |      |     |  |  |  |
| - CSA 086-09                                                                                       |           |          |           |     |      |     |  |  |  |
| - TPIC 2011                                                                                        |           |          |           |     |      |     |  |  |  |
| (55 % OF 27.2 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 23.3 P.S.F. SPECIFIED ROOF LIVE LOAD |           |          |           |     |      |     |  |  |  |
| ALLOWABLE DEFL.(LL)= L/360 (0.90")                                                                 |           |          |           |     |      |     |  |  |  |
| CALCULATED VERT. DEFL.(LL) = L/ 999 (0.05")                                                        |           |          |           |     |      |     |  |  |  |
| ALLOWABLE DEFL.(TL)= L/360 (0.90")                                                                 |           |          |           |     |      |     |  |  |  |
| CALCULATED VERT. DEFL.(TL) = L/ 999 (0.10")                                                        |           |          |           |     |      |     |  |  |  |
| CSI: TC=0.39 (2-3:1), BC=0.28 (11-12:1), WB=0.47 (3-11:1), SSI=0.18 (2-3:1)                        |           |          |           |     |      |     |  |  |  |
| DOL LUMBER=1.00 NAIL=1.00 LS BEND=1.10                                                             |           |          |           |     |      |     |  |  |  |
| COMP=1.10 SHEAR=1.10 TENS= 1.10                                                                    |           |          |           |     |      |     |  |  |  |
| COMPANION LIVE LOAD FACTOR = 0.50                                                                  |           |          |           |     |      |     |  |  |  |
| TRUSS PLATE MANUFACTURER IS NOT RESPONSIBLE FOR QUALITY CONTROL IN THE TRUSS MANUFACTURING PLANT . |           |          |           |     |      |     |  |  |  |
| NAIL VALUES                                                                                        |           |          |           |     |      |     |  |  |  |
| PLATE                                                                                              | GRIP(DRY) | SHEAR    | SECTION   |     |      |     |  |  |  |
| (PSI)                                                                                              | (PLI)     | (PLI)    | (PLI)     |     |      |     |  |  |  |
|                                                                                                    | MAX MIN   | MAX MIN  | MAX MIN   |     |      |     |  |  |  |
| MT20                                                                                               | 618 354   | 1667 822 | 2284 1656 |     |      |     |  |  |  |
| PLATE PLACEMENT TOL. = 0.250 inches                                                                |           |          |           |     |      |     |  |  |  |
| PLATE ROTATION TOL. = 5.0 Deg.                                                                     |           |          |           |     |      |     |  |  |  |
| JSI GRIP= 0.90 (9) (INPUT = 0.90 )                                                                 |           |          |           |     |      |     |  |  |  |
| JSI METAL= 0.50 (2) (INPUT = 1.00 )                                                                |           |          |           |     |      |     |  |  |  |

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READ ALL NOTES ON THIS PAGE AND ON THE  
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IS AN INTEGRAL PART OF THIS DRAWING AS IT  
CONTAINS SPECIFICATIONS AND CRITERIA USED  
IN THE DESIGN OF THIS COMPONENT.





TOTAL WEIGHT = 2 X 127 = 255 lb

| LUMBER            |      |        |        |
|-------------------|------|--------|--------|
| N. L. G. A. RULES |      |        |        |
| CHORDS            | SIZE | LUMBER | DESCR. |
| 1 - 4             | 2x4  | DRY    | No.2   |
| 4 - 5             | 2x4  | DRY    | No.2   |
| 5 - 6             | 2x4  | DRY    | No.2   |
| 6 - 7             | 2x4  | DRY    | No.2   |
| 7 - 9             | 2x4  | DRY    | No.2   |
| 16 - 2            | 2x4  | DRY    | No.2   |
| 10 - 9            | 2x4  | DRY    | No.2   |
| 16 - 12           | 2x4  | DRY    | No.2   |
| 12 - 10           | 2x4  | DRY    | No.2   |
| ALL WEBS EXCEPT   | 2x3  | DRY    | No.2   |

DRY: SEASONED LUMBER.

| PLATES (table is in inches) |        |        |     |     |           |
|-----------------------------|--------|--------|-----|-----|-----------|
| JT                          | TYPE   | PLATES | W   | LEN | Y X       |
| 2                           | TMVW-t | MT20   | 4.0 | 5.0 | 1.50 2.00 |
| 3                           | TMVW-t | MT20   | 3.0 | 4.0 | 1.50 1.50 |
| 4                           | TS-t   | MT20   | 3.0 | 6.0 |           |
| 5                           | TTW-h  | MT20   | 5.0 | 5.0 | Edge 2.00 |
| 6                           | TTW+m  | MT20   | 4.0 | 5.0 | 2.25 1.75 |
| 7                           | TS-t   | MT20   | 3.0 | 6.0 |           |
| 8                           | TMVW-t | MT20   | 3.0 | 4.0 | 1.50 1.50 |
| 9                           | TMVW-t | MT20   | 4.0 | 5.0 | 1.50 2.00 |
| 10                          | BMV1+p | MT20   | 2.0 | 4.0 |           |
| 11                          | BMVW-t | MT20   | 3.0 | 8.0 | 1.50 3.25 |
| 12                          | BS-t   | MT20   | 3.0 | 6.0 |           |
| 13                          | BMVW-t | MT20   | 3.0 | 4.0 |           |
| 14                          | BMVW-t | MT20   | 3.0 | 8.0 |           |
| 15                          | BMVW-t | MT20   | 3.0 | 8.0 | 1.50 3.25 |
| 16                          | BMV1+p | MT20   | 2.0 | 4.0 |           |

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

A SIZE FOR SIZE SUBSTITUTION OF MITEK MII20 WITH TEE-LOK TL20 PLATES IS ALLOWED.

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

| BEARINGS                |      |                                 |      |
|-------------------------|------|---------------------------------|------|
| FACTORED GROSS REACTION |      | MAXIMUM FACTORED GROSS REACTION |      |
| JT                      | VERT | DOWN                            | HORZ |
| 16                      | 1383 | 0                               | 1383 |
| 10                      | 1276 | 0                               | 1276 |

| UNFACTORED REACTIONS |          |                               |       |           |       |         |       |
|----------------------|----------|-------------------------------|-------|-----------|-------|---------|-------|
| 1ST LCASE            |          | MAX./MIN. COMPONENT REACTIONS |       |           |       |         |       |
| JT                   | COMBINED | SNOW                          | LIVE  | PERM.LIVE | WIND  | DEAD    | SOIL  |
| 16                   | 968      | 691 / 0                       | 0 / 0 | 0 / 0     | 0 / 0 | 277 / 0 | 0 / 0 |
| 10                   | 896      | 627 / 0                       | 0 / 0 | 0 / 0     | 0 / 0 | 269 / 0 | 0 / 0 |

BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S) 16, 10

#### BRACING

TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 4.82 FT.  
MAX. UNBRACED BOTTOM CHORD LENGTH = 10.00 FT. OR RIGID CEILING DIRECTLY APPLIED.

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

1 - 2x3 SPF No.2 LATERAL BRACE(S) AT 1/2 LENGTH OF 3-14, 8-13. DBS = 20-0-0. CBF = 61 LBS.

DBS = DIAGONAL BRACE SPACING (MAX). CBF = CUMULATIVE BRACING FORCE. FASTEN LATERAL BRACE(S) USING (0.122"x3") SPIRAL NAILS : 1 NAIL FOR 2x3 BRACE(S), 2 FOR 1x4, 2x4, 2x5, 3 FOR 2x6, 4 FOR 2x8, 5 FOR 2x10, AND 6 FOR 2x12.

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: (3)

| CHORDS |                           |                           |                           | WEBS     |                           |                           |          |
|--------|---------------------------|---------------------------|---------------------------|----------|---------------------------|---------------------------|----------|
| MEMB.  | MAX. FACTORED FORCE (LBS) | FACTORED VERT. LOAD (PLF) | MAX. UNBRACED LENGTH (LC) | MEMB.    | MAX. FACTORED FORCE (LBS) | MAX. UNBRACED LENGTH (LC) |          |
| FR-TO  |                           | FROM TO                   |                           | FR-TO    |                           |                           |          |
| 1-2    | 0 / 29                    | -77.3 -77.3               | 0.10 (1)                  | 10.00    | 15-3                      | -76 / 87                  | 0.04 (1) |
| 2-3    | -1462 / 0                 | -77.3 -77.3               | 0.51 (1)                  | 4.82     | 3-14                      | -482 / 0                  | 0.23 (1) |
| 3-4    | -1094 / 0                 | -77.3 -77.3               | 0.47 (1)                  | 5.43     | 14-5                      | 0 / 378                   | 0.09 (1) |
| 4-5    | -1094 / 0                 | -77.3 -77.3               | 0.47 (1)                  | 5.43     | 14-6                      | 0 / 41                    | 0.01 (1) |
| 5-6    | -877 / 0                  | -77.3 -77.3               | 0.01 (1)                  | 6.25     | 13-6                      | 0 / 334                   | 0.08 (1) |
| 6-7    | -1090 / 0                 | -77.3 -77.3               | 0.47 (1)                  | 5.44     | 13-8                      | -488 / 0                  | 0.24 (1) |
| 7-8    | -1090 / 0                 | -77.3 -77.3               | 0.47 (1)                  | 5.44     | 11-8                      | -69 / 90                  | 0.04 (1) |
| 8-9    | -1463 / 0                 | -77.3 -77.3               | 0.51 (1)                  | 4.82     | 2-15                      | 0 / 1261                  | 0.28 (1) |
| 16-2   | -1334 / 0                 | 0.0                       | 0.0                       | 14 (1)   | 7.01                      | 11-9                      | 0 / 1262 |
| 10-9   | -1229 / 0                 | 0.0                       | 0.0                       | 0.13 (1) | 7.23                      |                           |          |
| 16-15  | 0 / 0                     | -17.5                     | -17.5                     | 0.18 (3) | 10.00                     |                           |          |
| 15-14  | 0 / 1244                  | -17.5                     | -17.5                     | 0.29 (1) | 10.00                     |                           |          |
| 14-13  | 0 / 874                   | -17.5                     | -17.5                     | 0.22 (1) | 10.00                     |                           |          |
| 13-12  | 0 / 1246                  | -17.5                     | -17.5                     | 0.30 (1) | 10.00                     |                           |          |
| 12-11  | 0 / 1246                  | -17.5                     | -17.5                     | 0.30 (1) | 10.00                     |                           |          |
| 11-10  | 0 / 0                     | -17.5                     | -17.5                     | 0.19 (3) | 10.00                     |                           |          |

#### DESIGN CRITERIA

SPECIFIED LOADS:

|            |      |      |     |
|------------|------|------|-----|
| TOP CH.    | LL = | 23.3 | PSF |
|            | DL = | 3.0  | PSF |
| BOT CH.    | LL = | 0.0  | PSF |
|            | DL = | 7.0  | PSF |
| TOTAL LOAD | =    | 33.3 | PSF |

SPACING = 24.0 IN./C

LOADING IN FLAT SECTION BASED ON A SLOPE OF 6.00/12

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

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

(55 % OF 27.2 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 23.3 P.S.F. SPECIFIED ROOF LIVE LOAD

ALLOWABLE DEFL.(LL)= L/360 (0.90")  
CALCULATED VERT. DEFL.(LL) = L/999 (0.05")  
ALLOWABLE DEFL.(TL)= L/360 (0.90")  
CALCULATED VERT. DEFL.(TL) = L/999 (0.11")

CSI: TC=0.51 (2-3:1), BC=0.30 (11-13:1), WB=0.28 (9-11:1), SSI=0.21 (2-3:1)

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

COMPANION LIVE LOAD FACTOR = 0.50

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

| NAIL VALUES |           |       |         |       |       |
|-------------|-----------|-------|---------|-------|-------|
| PLATE       | GRIP(DRY) | SHEAR | SECTION | (PSI) | (PLI) |
|             | MAX       | MIN   | MAX     | MIN   | MAX   |
| MT20        | 618       | 354   | 1667    | 822   | 2284  |

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

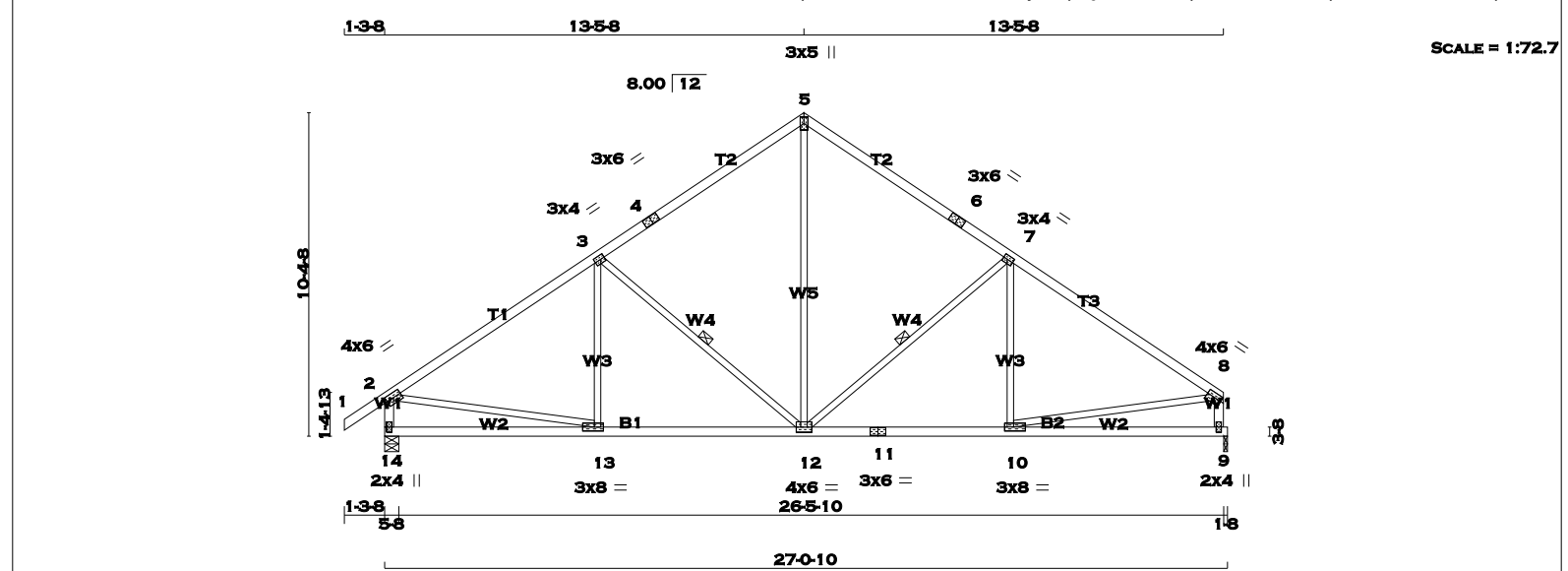
JSI GRIP= 0.89 (9) (INPUT = 0.90 )  
JSI METAL= 0.50 (2) (INPUT = 1.00 )



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READ ALL NOTES ON THIS PAGE AND ON THE ENGINEERING NOTE PAGE ENP-1. THE NOTE PAGE IS AN INTEGRAL PART OF THIS DRAWING AS IT CONTAINS SPECIFICATIONS AND CRITERIA USED IN THE DESIGN OF THIS COMPONENT.





TOTAL WEIGHT = 2 X 113 = 226 lb  
[M][F]

| LUMBER                |      |     |        |  |        |
|-----------------------|------|-----|--------|--|--------|
| N. L. G. A. RULES     |      |     |        |  |        |
| CHORDS                | SIZE |     | LUMBER |  | DESCR. |
| 1 - 4                 | 2x4  | DRY | No.2   |  | SPF    |
| 4 - 5                 | 2x4  | DRY | No.2   |  | SPF    |
| 5 - 6                 | 2x4  | DRY | No.2   |  | SPF    |
| 6 - 8                 | 2x4  | DRY | No.2   |  | SPF    |
| 14 - 2                | 2x4  | DRY | No.2   |  | SPF    |
| 9 - 8                 | 2x4  | DRY | No.2   |  | SPF    |
| 14 - 11               | 2x4  | DRY | No.2   |  | SPF    |
| 11 - 9                | 2x4  | DRY | No.2   |  | SPF    |
| ALL WEBS              | 2x3  | DRY | No.2   |  | SPF    |
| EXCEPT                |      |     |        |  |        |
| DRY: SEASONED LUMBER. |      |     |        |  |        |

| PLATES (table is in inches) |        |        |     |     |      |      |
|-----------------------------|--------|--------|-----|-----|------|------|
| JT                          | TYPE   | PLATES | W   | LEN | Y    | X    |
| 2                           | TMVW-t | MT20   | 4.0 | 6.0 | 1.75 | 3.00 |
| 3                           | TMVW-t | MT20   | 3.0 | 4.0 | 1.50 | 1.50 |
| 4                           | TS-t   | MT20   | 3.0 | 6.0 |      |      |
| 5                           | TTW+p  | MT20   | 3.0 | 5.0 |      |      |
| 6                           | TS-t   | MT20   | 3.0 | 6.0 |      |      |
| 7                           | TMVW-t | MT20   | 3.0 | 4.0 | 1.50 | 1.50 |
| 8                           | TMVW-t | MT20   | 4.0 | 6.0 | 1.75 | Edge |
| 9                           | BMV1+p | MT20   | 2.0 | 4.0 |      |      |
| 10                          | BMVW-t | MT20   | 3.0 | 8.0 | 1.50 | 3.50 |
| 11                          | BS-t   | MT20   | 3.0 | 6.0 |      |      |
| 12                          | BMVW-t | MT20   | 4.0 | 6.0 |      |      |
| 13                          | BMVW-t | MT20   | 3.0 | 8.0 | 1.50 | 3.50 |
| 14                          | BMV1+p | MT20   | 2.0 | 4.0 |      |      |

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

A SIZE FOR SIZE SUBSTITUTION OF MITEK MII20 WITH TEE-LOK TL20 PLATES IS ALLOWED.



### 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    |
| 14       | 1383 | 0                       | 1383                            | 0         | 0         |
| 9        | 1276 | 0                       | 1276                            | 0         | 0         |

| UNFACTORED REACTIONS |          |                               |       |           |       |         |       |
|----------------------|----------|-------------------------------|-------|-----------|-------|---------|-------|
| 1ST LCASE            |          | MAX./MIN. COMPONENT REACTIONS |       |           |       |         |       |
| JT                   | COMBINED | SNOW                          | LIVE  | PERM.LIVE | WIND  | DEAD    | SOIL  |
| 14                   | 968      | 691 / 0                       | 0 / 0 | 0 / 0     | 0 / 0 | 277 / 0 | 0 / 0 |
| 9                    | 896      | 627 / 0                       | 0 / 0 | 0 / 0     | 0 / 0 | 269 / 0 | 0 / 0 |

BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S) 14, 9

**BRACING**  
TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 4.79 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 - 2x3 SPF No.2 LATERAL BRACE(S) AT 1/2 LENGTH OF 3-12, 7-12. DBS = 20-0-0. CBF = 63 LBS.

DBS = DIAGONAL BRACE SPACING (MAX). CBF = CUMULATIVE BRACING FORCE. FASTEN LATERAL BRACE(S) USING (0.122"x3") SPIRAL NAILS: 1 NAIL FOR 2x3 BRACE(S), 2 FOR 1x4, 2x4, 2x5, 3 FOR 2x6, 4 FOR 2x8, 5 FOR 2x10, AND 6 FOR 2x12.

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: (3)

| CHORDS |                           |                           |                           | WEBS   |                           |                           |          |
|--------|---------------------------|---------------------------|---------------------------|--------|---------------------------|---------------------------|----------|
| MEMB.  | MAX. FACTORED FORCE (LBS) | FACTORED VERT. LOAD (PLF) | MAX. UNBRACED LENGTH (LC) | MEMB.  | MAX. FACTORED FORCE (LBS) | MAX. UNBRACED LENGTH (LC) |          |
| FR-TO  |                           | FROM TO                   |                           | FR-TO  |                           |                           |          |
| 1-2    | 0 / 29                    | -77.3 -77.3               | 0.10 (1)                  | 10.00  | 13-3                      | -65 / 92                  | 0.04 (1) |
| 2-3    | -1460 / 0                 | -77.3 -77.3               | 0.54 (1)                  | 4.79   | 3-12                      | -503 / 0                  | 0.26 (1) |
| 3-4    | -1069 / 0                 | -77.3 -77.3               | 0.49 (1)                  | 5.44   | 12-5                      | 0 / 763                   | 0.17 (1) |
| 4-5    | -1069 / 0                 | -77.3 -77.3               | 0.49 (1)                  | 5.44   | 12-7                      | -503 / 0                  | 0.26 (1) |
| 5-6    | -1069 / 0                 | -77.3 -77.3               | 0.49 (1)                  | 5.44   | 10-7                      | -66 / 92                  | 0.04 (1) |
| 6-7    | -1069 / 0                 | -77.3 -77.3               | 0.49 (1)                  | 5.44   | 2-13                      | 0 / 1259                  | 0.28 (1) |
| 7-8    | -1459 / 0                 | -77.3 -77.3               | 0.54 (1)                  | 4.79   | 10-8                      | 0 / 1259                  | 0.28 (1) |
| 14-2   | -1334 / 0                 | 0.0                       | 0.0                       | 14 (1) | 7.01                      |                           |          |
| 9-8    | -1227 / 0                 | 0.0                       | 0.0                       | 13 (1) | 7.23                      |                           |          |
| 14-13  | 0 / 0                     | -17.5 -17.5               | 0.19 (3)                  | 10.00  |                           |                           |          |
| 13-12  | 0 / 1243                  | -17.5 -17.5               | 0.30 (1)                  | 10.00  |                           |                           |          |
| 12-11  | 0 / 1243                  | -17.5 -17.5               | 0.30 (1)                  | 10.00  |                           |                           |          |
| 11-10  | 0 / 1243                  | -17.5 -17.5               | 0.30 (1)                  | 10.00  |                           |                           |          |
| 10-9   | 0 / 0                     | -17.5 -17.5               | 0.19 (3)                  | 10.00  |                           |                           |          |

### DESIGN CRITERIA

SPECIFIED LOADS:  
TOP CH. LL = 23.3 PSF  
DL = 3.0 PSF  
BOT CH. LL = 0.0 PSF  
DL = 7.0 PSF  
TOTAL LOAD = 33.3 PSF

SPACING = 24.0 IN./C

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

THIS DESIGN COMPLIES WITH:  
- PART 9 OF OBC 2012, BCBC 2012, ABC 2014  
- CSA 086-09  
- TPC 2011

(55 % OF 27.2 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 23.3 P.S.F. SPECIFIED ROOF LIVE LOAD

ALLOWABLE DEFL.(LL)= L/360 (0.90")  
CALCULATED VERT. DEFL.(LL) = L/999 (0.05")  
ALLOWABLE DEFL.(TL)= L/360 (0.90")  
CALCULATED VERT. DEFL.(TL) = L/999 (0.11")

CSI: TC=0.54 (2-3:1), BC=0.30 (12-13:1), WB=0.28 (2-13:1), SSI=0.21 (2-3:1)

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

COMPANION LIVE LOAD FACTOR = 0.50

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

NAIL VALUES  
PLATE GRIP(DRY) SHEAR SECTION  
(PSI) (PLI) (PLI)  
MAX MIN MAX MIN MAX MIN  
MT20 618 354 1667 822 2284 1656

PLATE PLACEMENT TOL. = 0.250 inches

PLATE POSITIONING TOL. = 5.0 Deg.

JSI GRIP= 0.90 (10) (INPUT = 0.90)  
JSI METAL= 0.42 (8) (INPUT = 1.00)

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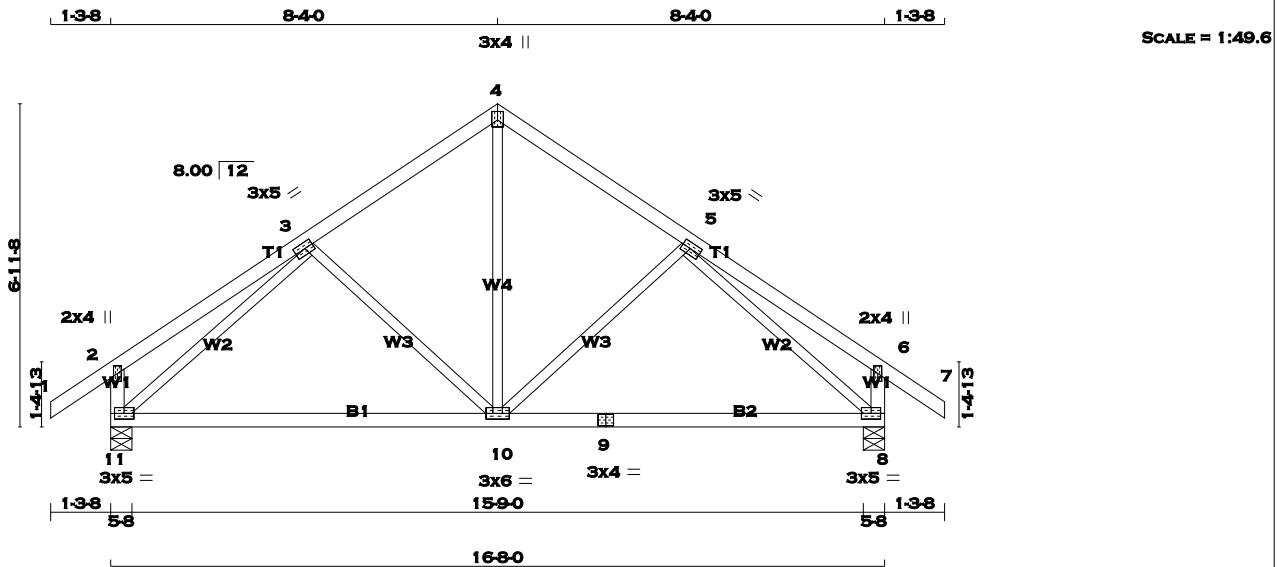
READ ALL NOTES ON THIS PAGE AND ON THE ENGINEERING NOTE PAGE ENP-1. THE NOTE PAGE IS AN INTEGRAL PART OF THIS DRAWING AS IT CONTAINS SPECIFICATIONS AND CRITERIA USED IN THE DESIGN OF THIS COMPONENT.



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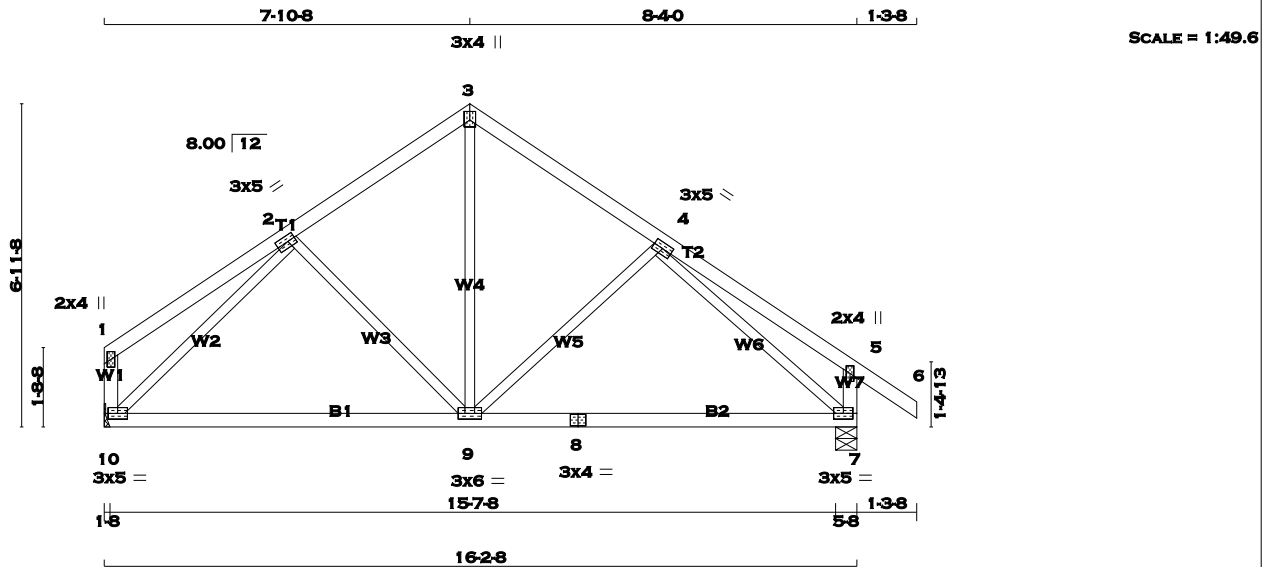
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TOTAL WEIGHT = 71 lb  
[M][F]

| LUMBER                |      |        |        |      |     |
|-----------------------|------|--------|--------|------|-----|
| N. L. G. A. RULES     |      |        |        |      |     |
| CHORDS                | SIZE | LUMBER | DESCR. |      |     |
| 1 - 4                 | 2x4  | DRY    | No.2   | SPF  |     |
| 4 - 7                 | 2x4  | DRY    | No.2   | SPF  |     |
| 11 - 2                | 2x4  | DRY    | No.2   | SPF  |     |
| 8 - 6                 | 2x4  | DRY    | No.2   | SPF  |     |
| 11 - 9                | 2x4  | DRY    | No.2   | SPF  |     |
| 9 - 8                 | 2x4  | DRY    | No.2   | SPF  |     |
| ALL WEBS<br>EXCEPT    |      | 2x3    | DRY    | No.2 | SPF |
| DRY: SEASONED LUMBER. |      |        |        |      |     |



TOTAL WEIGHT = 3 X 68 = 203 lb [M][F]

| LUMBER                |      |        |        | N. L. G. A. RULES |      |        |        |
|-----------------------|------|--------|--------|-------------------|------|--------|--------|
| CHORDS                | SIZE | LUMBER | DESCR. | CHORDS            | SIZE | LUMBER | DESCR. |
| 1 - 3                 | 2x4  | DRY    | No.2   | SPF               |      |        |        |
| 3 - 6                 | 2x4  | DRY    | No.2   | SPF               |      |        |        |
| 10 - 1                | 2x4  | DRY    | No.2   | SPF               |      |        |        |
| 7 - 5                 | 2x4  | DRY    | No.2   | SPF               |      |        |        |
| 10 - 8                | 2x4  | DRY    | No.2   | SPF               |      |        |        |
| 8 - 7                 | 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    |  |
| 1                           | TMV+p   | MT20   | 2.0 | 4.0 |      |      |  |
| 2                           | TMVW-t  | MT20   | 3.0 | 5.0 | 1.50 | 2.00 |  |
| 3                           | TTW+p   | MT20   | 3.0 | 4.0 | 2.25 | 1.50 |  |
| 4                           | TMVW-t  | MT20   | 3.0 | 5.0 |      |      |  |
| 5                           | TMV+p   | MT20   | 2.0 | 4.0 |      |      |  |
| 7                           | BMVW1-t | MT20   | 3.0 | 5.0 |      |      |  |
| 8                           | BS-t    | MT20   | 3.0 | 4.0 |      |      |  |
| 9                           | BMVWV-t | MT20   | 3.0 | 6.0 |      |      |  |
| 10                          | BMVW1-t | MT20   | 3.0 | 5.0 |      |      |  |

A SIZE FOR SIZE SUBSTITUTION OF MITEK MII20 WITH TEE-LOK TL20 PLATES IS ALLOWED.

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

| BEARINGS |  | FACTORED GROSS REACTION |      | MAXIMUM FACTORED GROSS REACTION |      | INPUT BRG |       | REQRD BRG           |  |
|----------|--|-------------------------|------|---------------------------------|------|-----------|-------|---------------------|--|
| JT       |  | VERT                    | HORZ | DOWN                            | HORZ | IN-SX     | IN-SX |                     |  |
| 10       |  | 769                     | 0    | 769                             | 0    | 0         | 0     | HANGER BY OTHERS    |  |
| 7        |  | 875                     | 0    | 875                             | 0    | 0         | 0     | MIN. SEAT SIZE: 1-8 |  |

#### UNFACTORED REACTIONS

| JT | 1ST LCASE | MAX./MIN. SNOW | LIVE    | PERM.LIVE | WIND  | DEAD    | SOIL  |
|----|-----------|----------------|---------|-----------|-------|---------|-------|
| 10 |           | 539            | 377 / 0 | 0 / 0     | 0 / 0 | 162 / 0 | 0 / 0 |
| 7  |           | 612            | 441 / 0 | 0 / 0     | 0 / 0 | 170 / 0 | 0 / 0 |

BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S) 7

#### 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: (3)

| CHORDS |                           |                  |                        | WEBS  |                           |                                    |          |
|--------|---------------------------|------------------|------------------------|-------|---------------------------|------------------------------------|----------|
| MEMB.  | MAX. FACTORED FORCE (LBS) | VERT. LOAD (PLF) | MAX. FACTORED LC1 (LC) | MEMB. | MAX. FACTORED FORCE (LBS) | MAX. FACTORED UNBRACED LENGTH (LC) |          |
| FR-TO  |                           | FROM             | TO                     | FR-TO |                           | LENGTH                             |          |
| 1-2    | 0 / 20                    | -77.3            | -77.3 0.19 (1)         | 10.00 | 2-9                       | -141 / 12                          | 0.08 (1) |
| 2-3    | -608 / 0                  | -77.3            | -77.3 0.15 (1)         | 6.25  | 9-3                       | 0 / 411                            | 0.09 (1) |
| 3-4    | -609 / 0                  | -77.3            | -77.3 0.17 (1)         | 6.25  | 9-4                       | -199 / 0                           | 0.11 (1) |
| 4-5    | 0 / 21                    | -77.3            | -77.3 0.22 (1)         | 10.00 | 10-2                      | -841 / 0                           | 0.43 (1) |
| 5-6    | 0 / 29                    | -77.3            | -77.3 0.10 (1)         | 10.00 | 4-7                       | -867 / 0                           | 0.46 (1) |
| 10-1   | -117 / 0                  | 0.0              | 0.0 0.01 (1)           | 7.81  |                           |                                    |          |
| 7-5    | -229 / 0                  | 0.0              | 0.0 0.02 (1)           | 7.81  |                           |                                    |          |
| 10-9   | 0 / 589                   | -17.5            | -17.5 0.37 (3)         | 10.00 |                           |                                    |          |
| 9-8    | 0 / 636                   | -17.5            | -17.5 0.37 (3)         | 10.00 |                           |                                    |          |
| 8-7    | 0 / 636                   | -17.5            | -17.5 0.37 (3)         | 10.00 |                           |                                    |          |

#### DESIGN CRITERIA

##### SPECIFIED LOADS:

|            |    |      |      |     |
|------------|----|------|------|-----|
| TOP CH.    | LL | =    | 23.3 | PSF |
|            | DL | =    | 3.0  | PSF |
| BOT CH.    | LL | =    | 0.0  | PSF |
|            | DL | =    | 7.0  | PSF |
| TOTAL LOAD | =  | 33.3 | PSF  |     |

##### SPACING = 24.0 IN./C/C

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

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

(55 % OF 27.2 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 23.3 P.S.F. SPECIFIED ROOF LIVE LOAD

ALLOWABLE DEFL.(LL)= L/360 (0.54")  
CALCULATED VERT. DEFL.(LL) = L/ 999 (0.02")  
ALLOWABLE DEFL.(TL)= L/360 (0.54")  
CALCULATED VERT. DEFL.(TL) = L/ 999 (0.11")

CSI: TC=0.22 (4-5:1), BC=0.37 (7-9:3), WB=0.46 (4-7:1), SSI=0.13 (3-4:1)

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

COMPANION LIVE LOAD FACTOR = 0.50

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

##### NAIL VALUES

| PLATE | GRIP(DRY) | SHEAR (PSI) | SECTION (PLI) |
|-------|-----------|-------------|---------------|
| MAX   | MIN       | MAX         | MIN           |
| MT20  | 618       | 354         | 1667          |
|       | 822       | 2284        | 1656          |

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

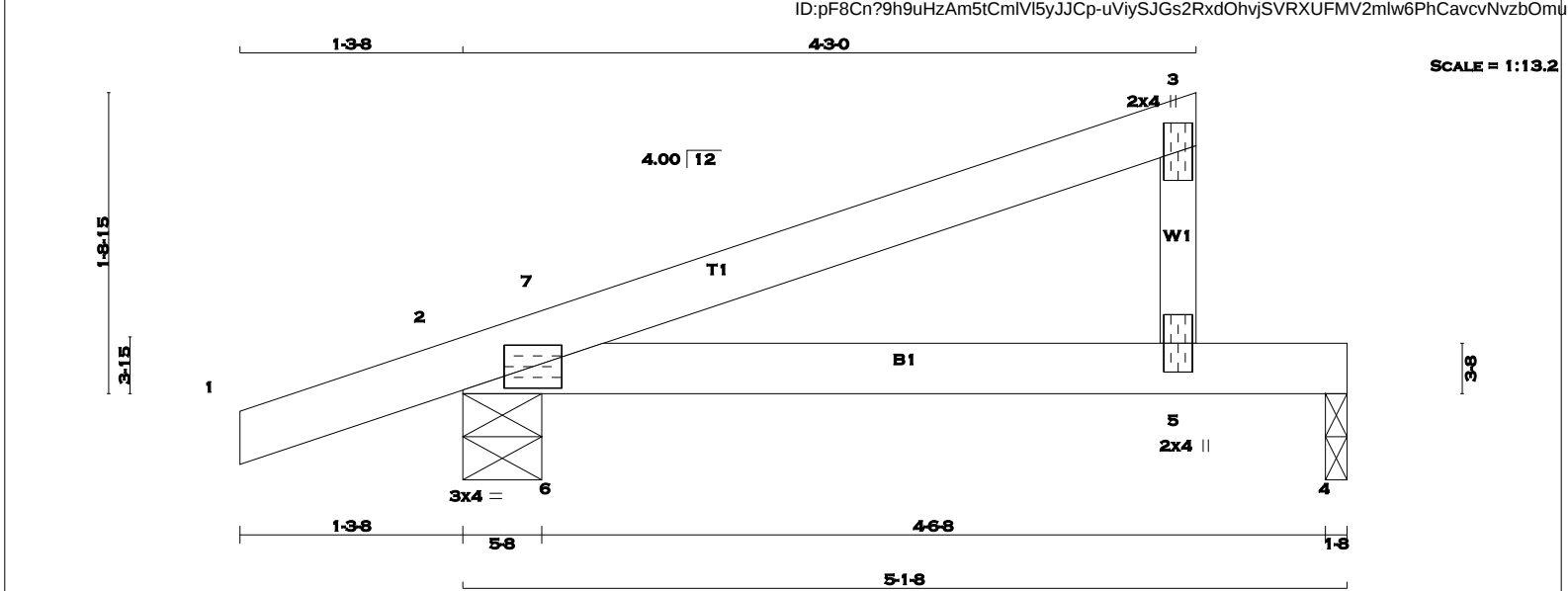
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JSI METAL= 0.24 (4) (INPUT = 1.00 )



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TOTAL WEIGHT = 12 X 14 = 163 lb [M]

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

| CHORDS | SIZE | LUMBER | DESCR. |
|--------|------|--------|--------|
| 1 - 3  | 2x4  | DRY    | No.2   |
| 5 - 3  | 2x3  | DRY    | No.2   |
| 2 - 4  | 2x4  | DRY    | No.2   |

SPF  
SPF  
SPF

DRY: SEASONED LUMBER.

**PLATES (table is in inches)**

| JT | TYPE   | PLATES | W   | LEN | Y | X |
|----|--------|--------|-----|-----|---|---|
| 2  | TMB1-I | MT20   | 3.0 | 4.0 |   |   |
| 3  | TMV+p  | MT20   | 2.0 | 4.0 |   |   |
| 5  | BMV+p  | MT20   | 2.0 | 4.0 |   |   |

A SIZE FOR SIZE SUBSTITUTION OF MITEK MII20 WITH TEE-LOK TL20 PLATES IS ALLOWED.

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

**BEARINGS**

| JT | FACTORED GROSS REACTION |      | MAXIMUM FACTORED GROSS REACTION |      | INPUT BRG | REQRD BRG |
|----|-------------------------|------|---------------------------------|------|-----------|-----------|
|    | VERT                    | HORZ | DOWN                            | HORZ |           |           |
| 2  | 341                     | 0    | 341                             | 0    | 5-8       | 5-8       |
| 4  | 181                     | 0    | 181                             | 0    | 1-8       | 1-8       |

**UNFACTORED REACTIONS**

| JT | 1ST LCASE |         | MAX./MIN. COMPONENT REACTIONS |           |       |        |       |
|----|-----------|---------|-------------------------------|-----------|-------|--------|-------|
|    | COMBINED  | SNOW    | LIVE                          | PERM.LIVE | WIND  | DEAD   | SOIL  |
| 2  | 237       | 178 / 0 | 0 / 0                         | 0 / 0     | 0 / 0 | 59 / 0 | 0 / 0 |
| 4  | 129       | 82 / 0  | 0 / 0                         | 0 / 0     | 0 / 0 | 46 / 0 | 0 / 0 |

BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S) 2, 4

**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: (3)

| CHORDS |                  |                           |               | WEBS                 |       |                  |               |
|--------|------------------|---------------------------|---------------|----------------------|-------|------------------|---------------|
| MEMB.  | MAX. FORCE (LBS) | FACTORED VERT. LOAD (PLF) | MAX. LC1 (LC) | MAX. UNBRACED LENGTH | MEMB. | MAX. FORCE (LBS) | MAX. LC1 (LC) |
| FR-TO  |                  | FROM TO                   |               |                      | FR-TO |                  |               |
| 1-2    | 0 / 15           | -77.3 -77.3               | 0.10 (1)      | 10.00                | 6-7   | -71 / 51         | 0.00 (1)      |
| 2-7    | -28 / 0          | -77.3 -77.3               | 0.08 (3)      | 6.25                 |       |                  |               |
| 7-3    | 0 / 4            | -77.3 -77.3               | 0.21 (1)      | 10.00                |       |                  |               |
| 5-3    | -154 / 0         | 0.0 0.0                   | 0.02 (1)      | 7.81                 |       |                  |               |
| 2-6    | 0 / 0            | -17.5 -17.5               | 0.11 (1)      | 10.00                |       |                  |               |
| 6-5    | 0 / 0            | -17.5 -17.5               | 0.21 (1)      | 10.00                |       |                  |               |
| 5-4    | 0 / 0            | -17.5 -17.5               | 0.21 (1)      | 10.00                |       |                  |               |

**DESIGN CRITERIA**

**SPECIFIED LOADS:**  
TOP CH. LL = 23.3 PSF  
DL = 3.0 PSF  
BOT CH. LL = 0.0 PSF  
DL = 7.0 PSF  
TOTAL LOAD = 33.3 PSF

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

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

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

(55 % OF 27.2 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 23.3 P.S.F. SPECIFIED ROOF LIVE LOAD

ALLOWABLE DEFL.(LL)= L/360 (0.19")  
CALCULATED VERT. DEFL.(LL) = L/ 999 (0.05")  
ALLOWABLE DEFL.(TL)= L/360 (0.19")  
CALCULATED VERT. DEFL.(TL) = L/ 694 (0.09")

CSI: TC=0.21 (3-7:1) , BC=0.21 (5-6:1) , WB=0.00 (6-7:1) , SSI=0.14 (4-5:1)

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

COMPANION LIVE LOAD FACTOR = 0.50

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

**NAIL VALUES**  
PLATE GRIP(DRY) SHEAR SECTION  
(PSI) (PLI) (PLI)  
MAX MIN MAX MIN MAX MIN  
MT20 618 354 1667 822 2284 1656

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

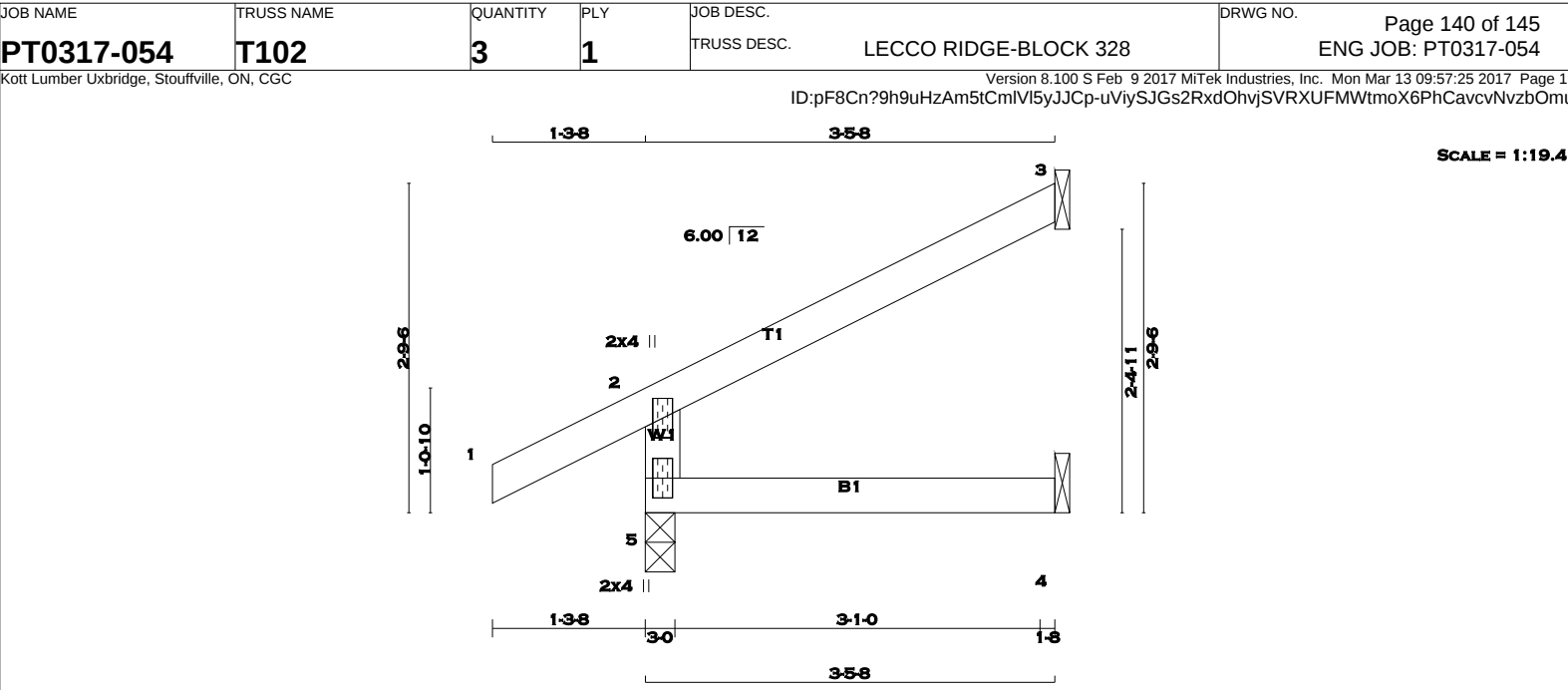
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JSI METAL= 0.05 (2) (INPUT = 1.00 )



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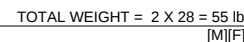
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SCALE = 1:19.4

| <b>LUMBER</b><br>N. L. G. A. RULES<br>CHORDS SIZE LUMBER<br>5 - 2 2x4 DRY No.2<br>1 - 3 2x4 DRY No.2<br>5 - 4 2x4 DRY No.2<br><br>DRY: SEASONED LUMBER.                                                                                                                                                                                                                                                           |                           |                           |                                 | <b>DIMENSIONS, SUPPORTS AND LOADINGS SPECIFIED BY FABRICATOR TO BE VERIFIED BY BUILDING DESIGNER</b><br><b>BEARINGS</b> <table><tr><th rowspan="2">JT</th><th colspan="2">FACTORED GROSS REACTION</th><th colspan="2">MAXIMUM FACTORED GROSS REACTION</th><th rowspan="2">INPUT BRG IN-SX</th><th rowspan="2">REQRD BRG IN-SX</th></tr><tr><th>VERT</th><th>HORZ</th><th>DOWN</th><th>HORZ</th></tr><tr><td>5</td><td>307</td><td>0</td><td>307</td><td>0</td><td>3-0</td><td>3-0</td></tr><tr><td>3</td><td>100</td><td>0</td><td>100</td><td>0</td><td>1-8</td><td>1-8</td></tr><tr><td>4</td><td>26</td><td>0</td><td>29</td><td>0</td><td>1-8</td><td>1-8</td></tr></table><br>SEE MITEK STANDARD DETAIL B37579H FOR CONNECTION TO JOINT(S) 3 , 4 |                           |                      |                      | JT  | FACTORED GROSS REACTION |   | MAXIMUM FACTORED GROSS REACTION |       | INPUT BRG IN-SX | REQRD BRG IN-SX | VERT | HORZ | DOWN | HORZ | 5      | 307  | 0   | 307 | 0 | 3-0 | 3-0                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | 3 | 100 | 0 | 100 | 0         | 1-8 | 1-8                           | 4 | 26 | 0 | 29   | 0        | 1-8  | 1-8  | <b>DESIGN CRITERIA</b><br><br>SPECIFIED LOADS:<br>TOP CH. LL = 23.3 PSF<br>DL = 3.0 PSF<br>BOT CH. LL = 0.0 PSF<br>DL = 7.0 PSF<br>TOTAL LOAD = 33.3 PSF<br><br>SPACING = 24.0 IN. C/C<br><br>THIS TRUSS IS DESIGNED FOR RESIDENTIAL OR SMALL BUILDING REQUIREMENTS OF PART 9, NBCC 2010<br><br>THIS DESIGN COMPLIES WITH:<br>- PART 9 OF OBC 2012 , BCBC 2012 , ABC 2014<br>- CSA 086-09<br>- TPIC 2011<br><br>DESIGN ASSUMPTIONS<br>-OVERHANG NOT TO BE ALTERED OR CUT OFF.<br><br>(55 % OF 27.2 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 23.3 P.S.F. SPECIFIED ROOF LIVE LOAD<br><br>ALLOWABLE DEFL.(LL)= L/360 (0.19")<br>CALCULATED VERT. DEFL.(LL) = L/ 999 (0.00")<br>ALLOWABLE DEFL.(TL)= L/360 (0.19")<br>CALCULATED VERT. DEFL.(TL) = L/ 999 (0.00")<br><br>CSI: TC=0.16 (2-3:1) , BC=0.04 (4-5:3) , WB=0.00 (n/a:0) , SSI=0.12 (2-3:1)<br><br>DOL LUMBER=1.00 NAIL=1.00 LS BEND=1.10<br>COMP=1.10 SHEAR=1.10 TENS= 1.10<br><br>COMPANION LIVE LOAD FACTOR = 0.50<br><br>TRUSS PLATE MANUFACTURER IS NOT RESPONSIBLE FOR QUALITY CONTROL IN THE TRUSS MANUFACTURING PLANT .<br><br>NAIL VALUES<br>PLATE GRIP(DRY) SHEAR SECTION<br>(PSI) (PLI) (PLI)<br>MAX MIN MAX MIN MAX MIN<br>MT20 618 354 1667 822 2284 1656<br><br>PLATE PLACEMENT TOL. = 0.250 inches<br><br>PLATE ROTATION TOL. = 5.0 Deg.<br><br>JSI GRIP= 0.16 (2) (INPUT = 0.90 )<br>JSI METAL= 0.06 (2) (INPUT = 1.00 ) |      |      |   |     |         |       |       |       |        |       |   |    |        |       |       |       |       |       |   |    |       |       |       |       |        |       |        |  |  |  |      |  |  |  |       |                           |                           |               |       |                           |                      |                      |       |      |    |       |  |      |          |     |              |      |  |  |  |      |        |       |                |       |  |  |  |      |         |       |                |      |  |  |  |      |       |       |                |       |  |  |  |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------|---------------------------|---------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------|----------------------|----------------------|-----|-------------------------|---|---------------------------------|-------|-----------------|-----------------|------|------|------|------|--------|------|-----|-----|---|-----|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---|-----|---|-----|-----------|-----|-------------------------------|---|----|---|------|----------|------|------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|------|---|-----|---------|-------|-------|-------|--------|-------|---|----|--------|-------|-------|-------|-------|-------|---|----|-------|-------|-------|-------|--------|-------|--------|--|--|--|------|--|--|--|-------|---------------------------|---------------------------|---------------|-------|---------------------------|----------------------|----------------------|-------|------|----|-------|--|------|----------|-----|--------------|------|--|--|--|------|--------|-------|----------------|-------|--|--|--|------|---------|-------|----------------|------|--|--|--|------|-------|-------|----------------|-------|--|--|--|
| JT                                                                                                                                                                                                                                                                                                                                                                                                                | FACTORED GROSS REACTION   |                           | MAXIMUM FACTORED GROSS REACTION |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | INPUT BRG IN-SX           | REQRD BRG IN-SX      |                      |     |                         |   |                                 |       |                 |                 |      |      |      |      |        |      |     |     |   |     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |   |     |   |     |           |     |                               |   |    |   |      |          |      |      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |      |      |   |     |         |       |       |       |        |       |   |    |        |       |       |       |       |       |   |    |       |       |       |       |        |       |        |  |  |  |      |  |  |  |       |                           |                           |               |       |                           |                      |                      |       |      |    |       |  |      |          |     |              |      |  |  |  |      |        |       |                |       |  |  |  |      |         |       |                |      |  |  |  |      |       |       |                |       |  |  |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                   | VERT                      | HORZ                      | DOWN                            | HORZ                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                           |                      |                      |     |                         |   |                                 |       |                 |                 |      |      |      |      |        |      |     |     |   |     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             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| 5                                                                                                                                                                                                                                                                                                                                                                                                                 | 307                       | 0                         | 307                             | 0                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        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| 3                                                                                                                                                                                                                                                                                                                                                                                                                 | 100                       | 0                         | 100                             | 0                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        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| 4                                                                                                                                                                                                                                                                                                                                                                                                                 | 26                        | 0                         | 29                              | 0                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        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| <b>PLATES (table is in inches)</b> <table><tr><th>JT</th><th>TYPE</th><th>PLATES</th><th>W</th><th>LEN</th><th>Y</th><th>X</th></tr><tr><td>2</td><td>TMV+p</td><td>MT20</td><td>2.0</td><td>4.0</td><td></td><td></td></tr><tr><td>5</td><td>BMV1+p</td><td>MT20</td><td>2.0</td><td>4.0</td><td></td><td></td></tr></table><br>A SIZE FOR SIZE SUBSTITUTION OF MITEK MII20 WITH TEE-LOK TL20 PLATES IS ALLOWED. |                           |                           |                                 | JT                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | TYPE                      | PLATES               | W                    | LEN | Y                       | X | 2                               | TMV+p | MT20            | 2.0             | 4.0  |      |      | 5    | BMV1+p | MT20 | 2.0 | 4.0 |   |     | <b>UNFACTORED REACTIONS</b> <table><tr><th rowspan="2">JT</th><th colspan="2">1ST LCASE</th><th colspan="4">MAX./MIN. COMPONENT REACTIONS</th><th rowspan="2">SOIL</th></tr><tr><th>COMBINED</th><th>SNOW</th><th>LIVE</th><th>PERM.LIVE</th><th>WIND</th><th>DEAD</th></tr><tr><td>5</td><td>213</td><td>164 / 0</td><td>0 / 0</td><td>0 / 0</td><td>0 / 0</td><td>49 / 0</td><td>0 / 0</td></tr><tr><td>3</td><td>68</td><td>60 / 0</td><td>0 / 0</td><td>0 / 0</td><td>0 / 0</td><td>8 / 0</td><td>0 / 0</td></tr><tr><td>4</td><td>21</td><td>0 / 0</td><td>0 / 0</td><td>0 / 0</td><td>0 / 0</td><td>21 / 0</td><td>0 / 0</td></tr></table><br>BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S) 5<br><br><b>BRACING</b><br>TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 6.25 FT.<br>MAX. UNBRACED BOTTOM CHORD LENGTH = 10.00 FT. OR RIGID CEILING DIRECTLY APPLIED.<br><br>ALL PITCH BREAKS AND PERIMETER CORNER JOINTS MUST BE Laterally RESTRAINED.<br><br><b>LOADING</b><br>TOTAL LOAD CASES: (4) <table><tr><th colspan="4">CHORDS</th><th colspan="4">WEBS</th></tr><tr><th rowspan="2">MEMB.</th><th>MAX. FACTORED FORCE (LBS)</th><th>FACTORED VERT. LOAD (PLF)</th><th>MAX. LC1 (LC)</th><th rowspan="2">MEMB.</th><th>MAX. FACTORED FORCE (LBS)</th><th>MAX. UNBRACED LENGTH</th><th>FACTORED FORCE (LBS)</th></tr><tr><th>FR-TO</th><th>FROM</th><th>TO</th><th>FR-TO</th><th></th></tr><tr><td>5- 2</td><td>-272 / 0</td><td>0.0</td><td>0.0 0.04 (3)</td><td>7.81</td><td></td><td></td><td></td></tr><tr><td>1- 2</td><td>0 / 23</td><td>-77.3</td><td>-77.3 0.10 (1)</td><td>10.00</td><td></td><td></td><td></td></tr><tr><td>2- 3</td><td>-15 / 0</td><td>-77.3</td><td>-77.3 0.16 (1)</td><td>6.25</td><td></td><td></td><td></td></tr><tr><td>5- 4</td><td>0 / 0</td><td>-17.5</td><td>-17.5 0.04 (3)</td><td>10.00</td><td></td><td></td><td></td></tr></table><br><u>CANTILEVER ANALYSIS HAS BEEN CONSIDERED IN THIS DESIGN</u> |   |     |   | JT  | 1ST LCASE |     | MAX./MIN. COMPONENT REACTIONS |   |    |   | SOIL | COMBINED | SNOW | LIVE | PERM.LIVE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | WIND | DEAD | 5 | 213 | 164 / 0 | 0 / 0 | 0 / 0 | 0 / 0 | 49 / 0 | 0 / 0 | 3 | 68 | 60 / 0 | 0 / 0 | 0 / 0 | 0 / 0 | 8 / 0 | 0 / 0 | 4 | 21 | 0 / 0 | 0 / 0 | 0 / 0 | 0 / 0 | 21 / 0 | 0 / 0 | CHORDS |  |  |  | WEBS |  |  |  | MEMB. | MAX. FACTORED FORCE (LBS) | FACTORED VERT. LOAD (PLF) | MAX. LC1 (LC) | MEMB. | MAX. FACTORED FORCE (LBS) | MAX. UNBRACED LENGTH | FACTORED FORCE (LBS) | FR-TO | FROM | TO | FR-TO |  | 5- 2 | -272 / 0 | 0.0 | 0.0 0.04 (3) | 7.81 |  |  |  | 1- 2 | 0 / 23 | -77.3 | -77.3 0.10 (1) | 10.00 |  |  |  | 2- 3 | -15 / 0 | -77.3 | -77.3 0.16 (1) | 6.25 |  |  |  | 5- 4 | 0 / 0 | -17.5 | -17.5 0.04 (3) | 10.00 |  |  |  |
| JT                                                                                                                                                                                                                                                                                                                                                                                                                | TYPE                      | PLATES                    | W                               | LEN                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      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| 2                                                                                                                                                                                                                                                                                                                                                                                                                 | TMV+p                     | MT20                      | 2.0                             | 4.0                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      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| 5                                                                                                                                                                                                                                                                                                                                                                                                                 | BMV1+p                    | MT20                      | 2.0                             | 4.0                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      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| JT                                                                                                                                                                                                                                                                                                                                                                                                                | 1ST LCASE                 |                           | MAX./MIN. COMPONENT REACTIONS   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                           |                      | SOIL                 |     |                         |   |                                 |       |                 |                 |      |      |      |      |        |      |     |     |   |  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|                                                                                                                                                                                                                                                                                                                                                                                                                   | COMBINED                  | SNOW                      | LIVE                            | PERM.LIVE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                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| 5                                                                                                                                                                                                                                                                                                                                                                                                                 | 213                       | 164 / 0                   | 0 / 0                           | 0 / 0                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | 0 / 0                     | 49 / 0               | 0 / 0                |     |                         |   |                                 |       |                 |                 |      |      |      |      |        |      |     |     |   |     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             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| 3                                                                                                                                                                                                                                                                                                                                                                                                                 | 68                        | 60 / 0                    | 0 / 0                           | 0 / 0                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    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| 4                                                                                                                                                                                                                                                                                                                                                                                                                 | 21                        | 0 / 0                     | 0 / 0                           | 0 / 0                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    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| CHORDS                                                                                                                                                                                                                                                                                                                                                                                                            |                           |                           |                                 | WEBS                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     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| MEMB.                                                                                                                                                                                                                                                                                                                                                                                                             | MAX. FACTORED FORCE (LBS) | FACTORED VERT. LOAD (PLF) | MAX. LC1 (LC)                   | MEMB.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | MAX. FACTORED FORCE (LBS) | MAX. UNBRACED LENGTH | FACTORED FORCE (LBS) |     |                         |   |                                 |       |                 |                 |      |      |      |      |        |      |     |     |   |     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |   |     |   |     |           |     |                               |   |    |   |      |          |      |      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |      |      |   |     |         |       |       |       |        |       |   |    |        |       |       |       |       |       |   |    |       |       |       |       |        |       |        |  |  |  |      |  |  |  |       |                           |                           |               |       |                           |                      |                      |       |      |    |       |  |      |          |     |              |      |  |  |  |      |        |       |                |       |  |  |  |      |         |       |                |      |  |  |  |      |       |       |                |       |  |  |  |
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      |        |       |        |  |  |  |      |  |  |  |       |                           |                           |               |       |                           |                      |                      |       |      |    |       |  |      |          |     |              |      |  |  |  |      |        |       |                |       |  |  |  |      |         |       |                |      |  |  |  |      |       |       |                |       |  |  |  |
| 5- 2                                                                                                                                                                                                                                                                                                                                                                                                              | -272 / 0                  | 0.0                       | 0.0 0.04 (3)                    | 7.81                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                           |                      |                      |     |                         |   |                                 |       |                 |                 |      |      |      |      |        |      |     |     |   |     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             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      |        |       |        |  |  |  |      |  |  |  |       |                           |                           |               |       |                           |                      |                      |       |      |    |       |  |      |          |     |              |      |  |  |  |      |        |       |                |       |  |  |  |      |         |       |                |      |  |  |  |      |       |       |                |       |  |  |  |
| 1- 2                                                                                                                                                                                                                                                                                                                                                                                                              | 0 / 23                    | -77.3                     | -77.3 0.10 (1)                  | 10.00                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                           |                      |                      |     |                         |   |                                 |       |                 |                 |      |      |      |      |        |      |     |     |   |     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             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      |        |       |        |  |  |  |      |  |  |  |       |                           |                           |               |       |                           |                      |                      |       |      |    |       |  |      |          |     |              |      |  |  |  |      |        |       |                |       |  |  |  |      |         |       |                |      |  |  |  |      |       |       |                |       |  |  |  |
| 2- 3                                                                                                                                                                                                                                                                                                                                                                                                              | -15 / 0                   | -77.3                     | -77.3 0.16 (1)                  | 6.25                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                           |                      |                      |     |                         |   |                                 |       |                 |                 |      |      |      |      |        |      |     |     |   |     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             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      |        |       |        |  |  |  |      |  |  |  |       |                           |                           |               |       |                           |                      |                      |       |      |    |       |  |      |          |     |              |      |  |  |  |      |        |       |                |       |  |  |  |      |         |       |                |      |  |  |  |      |       |       |                |       |  |  |  |
| 5- 4                                                                                                                                                                                                                                                                                                                                                                                                              | 0 / 0                     | -17.5                     | -17.5 0.04 (3)                  | 10.00                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                           |                      |                      |     |                         |   |                                 |       |                 |                 |      |      |      |      |        |      |     |     |   |     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             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      |        |       |        |  |  |  |      |  |  |  |       |                           |                           |               |       |                           |                      |                      |       |      |    |       |  |      |          |     |              |      |  |  |  |      |        |       |                |       |  |  |  |      |         |       |                |      |  |  |  |      |       |       |                |       |  |  |  |
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      |        |       |        |  |  |  |      |  |  |  |       |                           |                           |               |       |                           |                      |                      |       |      |    |       |  |      |          |     |              |      |  |  |  |      |        |       |                |       |  |  |  |      |         |       |                |      |  |  |  |      |       |       |                |       |  |  |  |



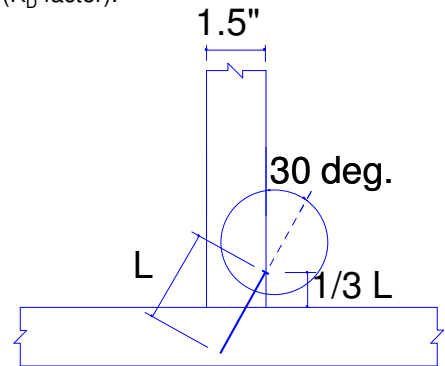
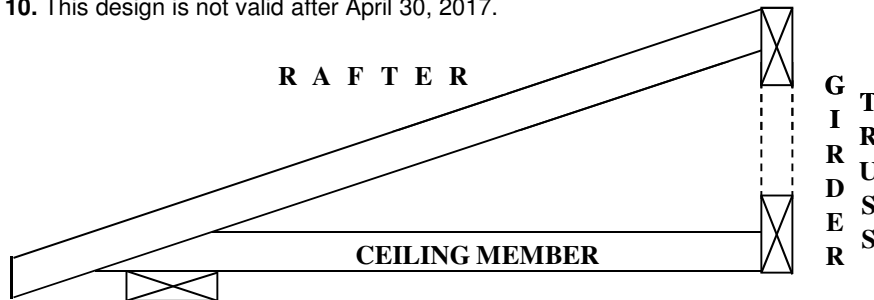
## BEARING ANCHORAGE BY TOE-NAILS FOR LATERAL CAPACITY

B37579H1

| NAIL TYPE        | LENGTH<br>(IN) | DIAMETER<br>(IN) | NAIL LATERAL CAPACITY (LB) |        |
|------------------|----------------|------------------|----------------------------|--------|
|                  |                |                  | S-P-F                      | D. FIR |
| COMMON<br>WIRE   | 3.00           | 0.144            | 132                        | 147    |
|                  | 3.25           | 0.144            | 132                        | 147    |
|                  | 3.50           | 0.160            | 159                        | 177    |
| COMMON<br>SPIRAL | 3.00           | 0.122            | 97                         | 108    |
|                  | 3.25           | 0.122            | 97                         | 108    |
|                  | 3.50           | 0.152            | 145                        | 162    |

## NOTES:

1. Rafter and ceiling members may be anchored to top and bottom chords of girder truss by toe-nailing rafter and ceiling members to girder chords provided the reaction does not exceed the lateral capacities in the table. Hangers (specified by others) are required for reactions higher than the maximum toe-nail capacity. Reactions are based on factored loads.
2. Toe nail capacities shown in the table are for **one** toe-nail. For additional toe-nails multiply values in table by the number of toe-nails used. Toe-nail capacities take into account toe-nailing factor  $J_A$  in CSA O86-09, section 10.9.4.1.
3. For 9- 3/4 gauge 3.25" common wire gun nails (diameter = 0.120") use 3" common spiral nail values.
4. Maximum number of toe-nails allowed depends on the lumber size & species to be toe-nailed to supporting member and nail diameter, as shown in tables below.
5. Nail values in table are based on the following relative lumber densities: G = 0.42 (SPF), G = 0.49 (D. Fir).
6. Toe-nails shall be driven at approximately 1/3 the nail length from the edge of the joist/truss chord and driven at an angle of 30° to the grain of the member (See next page for nailing on bearing plate).
7. For loads due to **wind** the nail lateral capacity in this table may be multiplied by 1.15 ( $K_D$  factor).
8. Lumber must be dry ( < 19% moisture content ) at the time of nail installation.
9. Nail values in this table comply with CSA O86-09, section 10.9.4
10. This design is not valid after April 30, 2017.



TOE-NAIL INSTALLATION

|                |                             |               |                       |               |
|----------------|-----------------------------|---------------|-----------------------|---------------|
| Nail type      | Common wire                 | Common spiral | Common wire           | Common spiral |
| Nail dia. (in) | 0.160                       | 0.152         | 0.144                 | 0.122         |
|                | ( 3.5" nail )               |               | ( 3" and 3.25" nail ) |               |
| LUMBER SIZE    | MAXIMUM NUMBER OF TOE-NAILS |               |                       |               |
| 2X4 SPF        | 2                           | 2             | 3                     | 3             |
| 2X4 D. Fir     | 2                           | 2             | 2                     | 2             |
|                |                             |               |                       |               |
| 2X6 SPF        | 4                           | 4             | 4                     | 5             |
| 2X6 D. Fir     | 3                           | 3             | 3                     | 4             |



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## BEARING ANCHORAGE BY TOE-NAILS FOR WIND LOADING

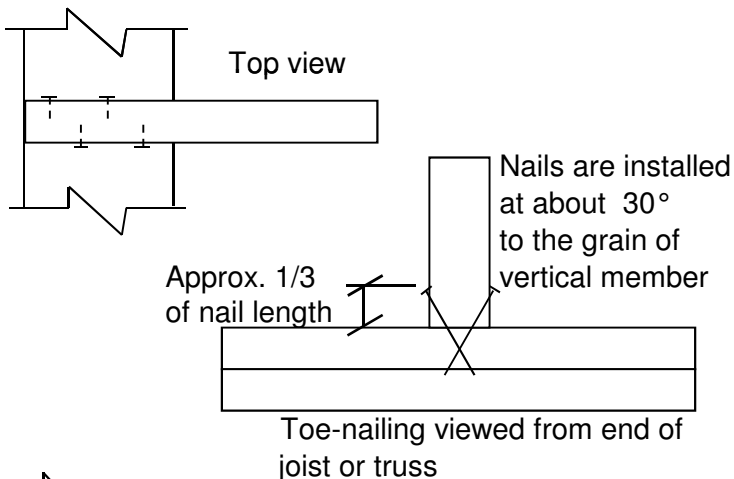
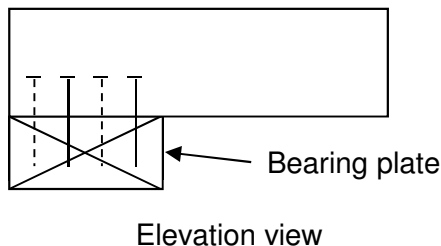
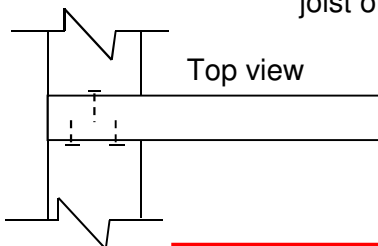
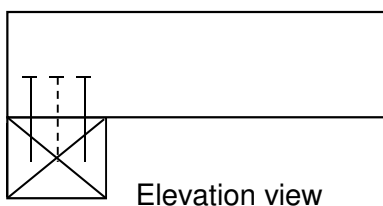
B37579H2

| NAIL TYPE        | LENGTH<br>(IN) | DIAMETER<br>(IN) | NAIL WITHDRAWAL CAPACITY (LB) |        |
|------------------|----------------|------------------|-------------------------------|--------|
|                  |                |                  | S-P-F                         | D. FIR |
| COMMON<br>WIRE   | 3.00           | 0.144            | 30                            | 42     |
|                  | 3.25           | 0.144            | 32                            | 45     |
|                  | 3.50           | 0.160            | 38                            | 52     |
| COMMON<br>SPIRAL | 3.00           | 0.122            | 26                            | 36     |
|                  | 3.25           | 0.122            | 28                            | 40     |
|                  | 3.50           | 0.152            | 36                            | 50     |

**Note:** If using truss with D. Fir lumber and S-P-F bearing plate, use values in table for S-P-F.

**NOTES:**

1. Truss chord, rafter, or ceiling members may be anchored to bearing plate by toe-nails, provided that the actual factored uplift force due to **wind** or **earthquake** load does not exceed the withdrawal capacities in the table. Hangers (specified by others) are required for uplift forces that are higher than the maximum toe-nail withdrawal capacity.
2. Toe nail capacities shown in the table are for **one** toe-nail. For additional toe-nails multiply values in table by the number of toe-nails used. Toe-nail capacities take into account toe-nailing factor  $J_A$  in CSA O86-09, section 10.9.5.2.
3. For 9- 3/4 gauge 3.25" common wire gun nails (diameter = 0.120") use 3" common spiral nail values.
4. Maximum number of toe-nails allowed depends on the lumber size & species to be toe-nailed to supporting member and nail diameter, as shown in table above.
5. Nail values in table are based on the following relative lumber densities:  $G = 0.42$ (SPF),  $G = 0.49$ (D. Fir).
6. Toe-nails shall be driven at approximately 1/3 the nail length from the edge of the joist/truss chord and driven at an angle of 30° to the grain of the member (See drawing on detail B37579H1).
7. Lumber must be dry ( < 19% moisture content ) at the time of nail installation.
8. Nail values in this table comply with CSA O86-09, section 10.9.5
9. This design is not valid after April 30, 2017

**Toe-nailing on 2x6 Bearing Plate****Toe-nailing on 2x4 Bearing Plate**

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JOB NAME DETAILS

JOB DESC.

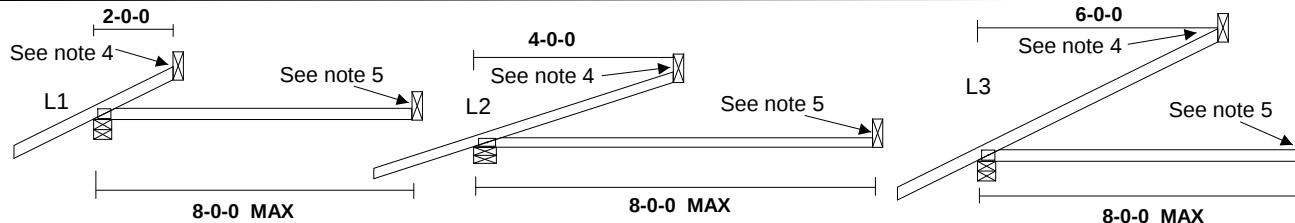
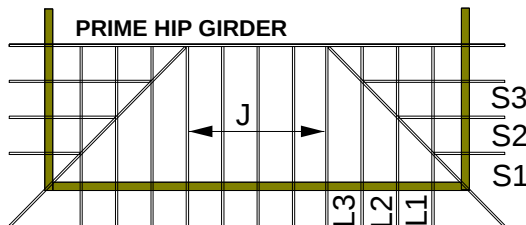
HIP END FRAMING

1000 BRIDGE-BLOCK 328

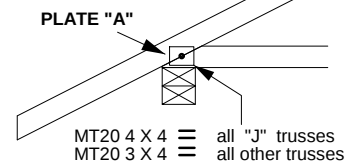
DRAWING NO.

B37579J

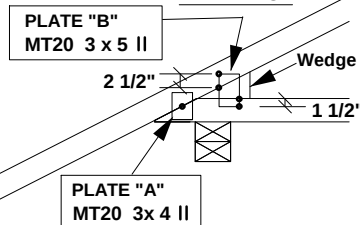
EMC JOB # 10317-054



DETAIL "A"



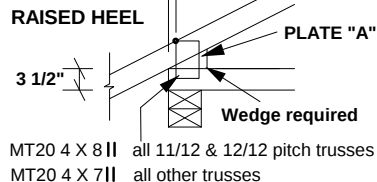
DETAIL "C"



CANTILEVER DETAIL "C"

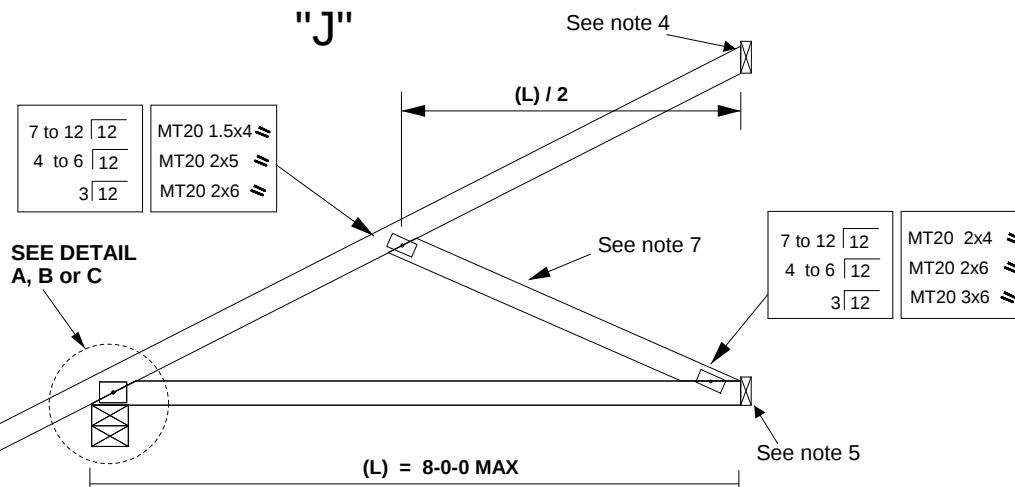
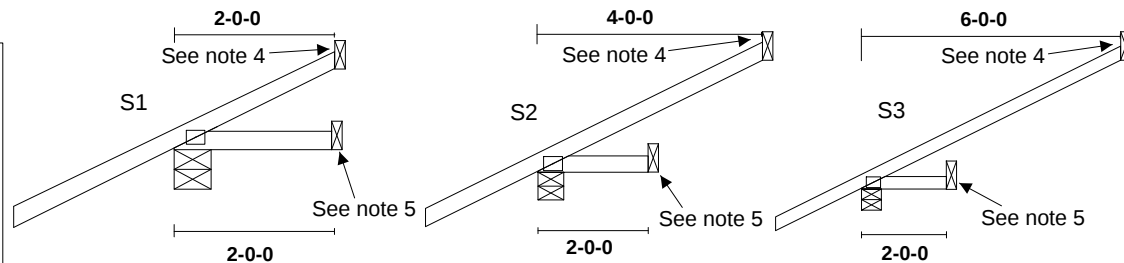
| SLOPE | MAX CANTILEVER | PLATE "B" | WEDGE SIZE |
|-------|----------------|-----------|------------|
| 3/12  | 17"            | 3 X 5     | 2 X 3      |
| 4/12  | 14"            | 3 X 5     | 2 X 3      |
| 5/12  | 12"            | 3 X 5     | 2 X 4      |
| 6/12  | 10"            | 3 X 5     | 2 X 4      |
| 7/12  | 9"             | 3 X 5     | 2 X 6      |
| 8/12  | 8.5"           | 3 X 5     | 2 X 6      |
| 9/12  | 8"             | 3 X 5     | 2 X 6      |
| 10/12 | 7.5"           | 3 X 5     | 2 X 6      |

DETAIL "B"



NOTES:

- ALL LUMBER SHALL BE 2x4 SPF OR D. Fir No. 2 DRY OR BETTER.
- THIS TRUSS IS DESIGNED FOR HOUSING AND SMALL BUILDING REQUIREMENTS OF PART 9 NBC 2010, WHERE GROUND SNOW LOAD IS 60.0 PSF OR LESS AND RAIN LOAD DOES NOT EXCEED 12.53 PSF; TOP CHORD DEAD LOAD IS 6 PSF OR LESS; BC LIVE LOAD IS 0 PSF AND BC DEAD LOAD IS 7 PSF.
- HIP RAFTER DESIGN SHALL CONFORM TO SECTION 9.23.14.6 OF NBC 2010.
- FASTEN HIGH END OF RAFTERS USING MITEK CANADA INC. "BEARING ANCHORAGE BY TOE-NAILS FOR LATERAL CAPACITY" STANDARD DETAIL B37579H1.
- FASTEN RIGHT END OF CEILING USING MITEK CANADA INC. "BEARING ANCHORAGE BY TOE-NAILS FOR LATERAL CAPACITY" STANDARD DETAIL B37579H1.
- OVERHANG LENGTH SHALL NOT EXCEED 2 FT.
- WHEN SETBACK IS 6 FT OR LESS, DIAGONAL WEB MAY BE OMITTED AND HIGH END OF TOP CHORD SHALL BE CONNECTED AS PER NOTE 4.
- ALL PLATES SPECIFIED ARE PRESSED INTO BOTH FACES OF THE TRUSS.
- MITEK REFERENCE PAGE MII-7473C FORMS AN INTEGRAL PART OF THIS DETAIL.
- THIS DETAIL IS NOT VALID AFTER APRIL 30, 2017



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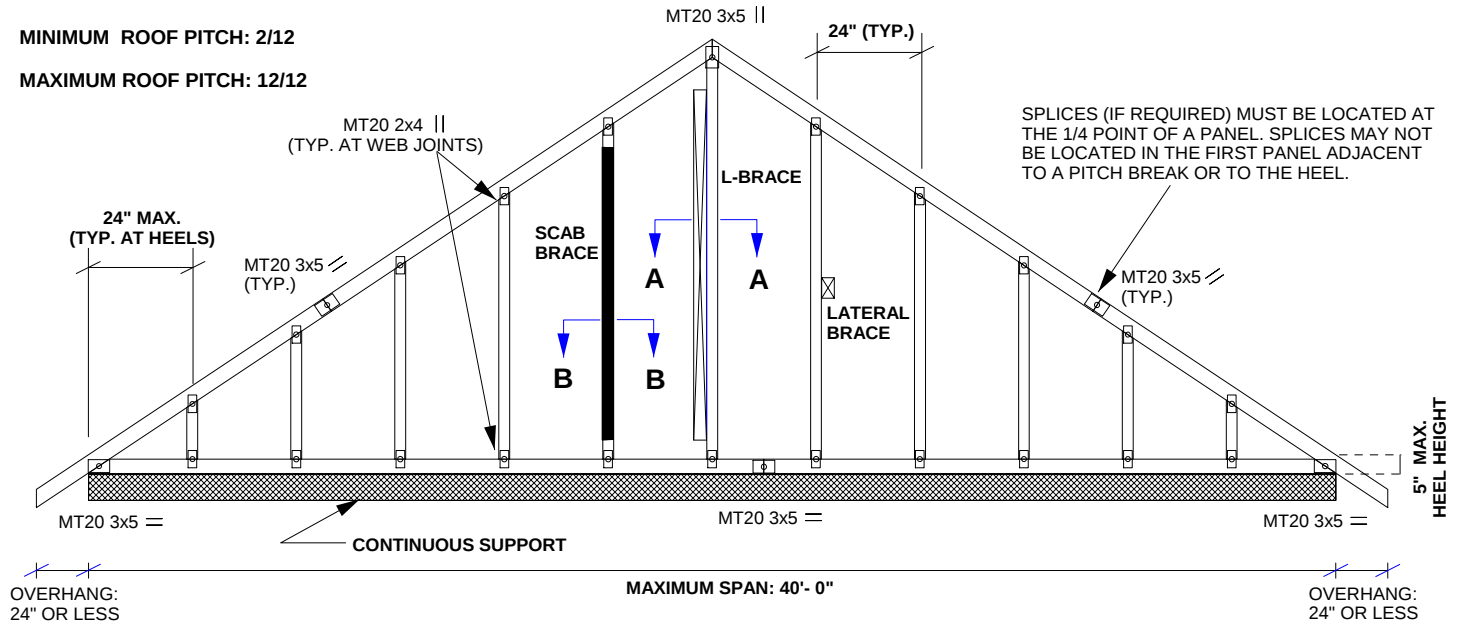
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MINIMUM ROOF PITCH: 2/12

MAXIMUM ROOF PITCH: 12/12



## LUMBER

TOP CHORD: 2 X 4 No. 2 DRY SPF or D- Fir  
 BOTTOM CHORD: 2 X 3 or 2 X 4 No. 2 DRY SPF or D- Fir  
 GABLE WEB: 2 X 3 or 2 X 4 No. 2 DRY SPF or D- Fir

## PLATES

JOINT PLATES  
 HEELS MT20 3 X 5  
 PEAK MT20 3 X 5  
 TC SPLICES MT20 3 X 5  
 BC SPLICES MT20 3 X 5  
 WEB JOINTS MT20 2 X 4

## DESIGN CRITERIA

TOP CHORD LL = 60.0 PSF OR LESS  
 TOP CHORD DL = 6.0 PSF OR LESS  
 BOTTOM CHORD LL = 0 PSF  
 BOTTOM CHORD DL = 7.0 PSF

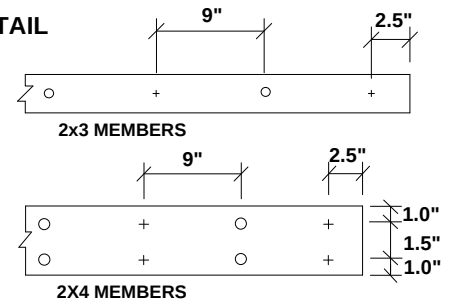
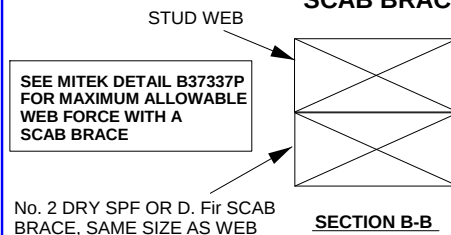
TOTAL LOAD = 73.0 PSF OR LESS

## BRACING

TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 2 FT.  
 MAX. UNBRACED BOTTOM CHORD LENGTH = 10 FT. OR RIGID CEILING DIRECTLY APPLIED.  
 WEBS MUST BE Laterally Braced, SCAB BRACED OR L-BRACED AS INDICATED IN TABLE BELOW:

| WEB LENGTH (L)     | SCAB BRACE   | L-BRACE      | LATERAL BRACE                  |
|--------------------|--------------|--------------|--------------------------------|
| L < 6 FT.          | NOT REQUIRED | NOT REQUIRED | NOT REQUIRED                   |
| 6 FT. < L < 12 FT. | REQUIRED     | 2x4 L-BRACE  | 1 LATERAL AT 1/2 LENGTH OF WEB |

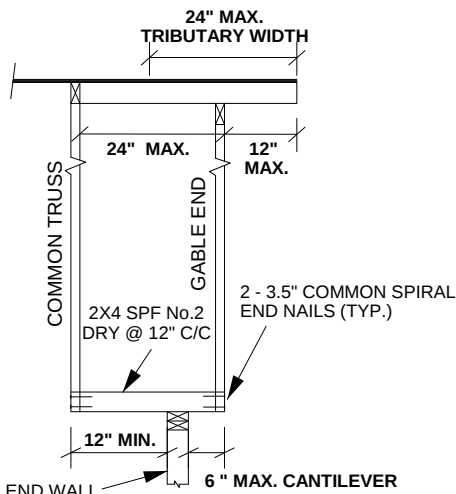
## SCAB BRACE DETAIL



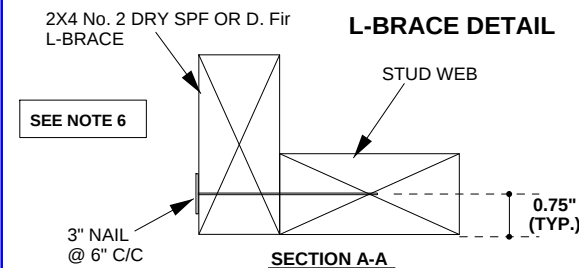
FASTEN SCAB BRACE TO ONE FACE OF WEB WITH 9-3/4 GAUGE 0.122" X 3" COMMON SPIRAL NAILS SPACED @ 9" C/C (MAX) WITH 2.5" MINIMUM END DISTANCE. SCAB BRACE MUST COVER 90% OF WEB LENGTH. DRIVE NAILS ALTERNATELY FROM FRONT AND BACK FACES.

## CANTILEVER DETAIL

Note: Gable end may be cantilevered up to 6 inches past end wall as shown. Gable end to be continuously supported by 2x4 SPF No.2 (DRY) members at 12" o.c. along the bottom chord. Roof design loads shall not exceed the loading shown above.



## L-BRACE DETAIL



FASTEN L-BRACE TO NARROW EDGE OF WEB WITH ONE ROW OF 9-3/4 GAUGE 0.122" X 3" COMMON SPIRAL NAILS SPACED AT 6" C/C WITH 3" MINIMUM END DISTANCE. BRACE MUST COVER 90% OF WEB LENGTH.

## NOTES:

- Gable studs are spaced at 24" C/C (max.) with a max. length of 12 ft.
- All plates specified are MiTek MT20, centered at each joint, and pressed into both faces of truss.
- Truss spacing is 24" C/C, maximum.
- Gable truss is designed for continuous support. Bearing material must be of the same species as chord member and of grade No. 2 or better.
- This truss requires rigid sheathing attached to exposed face.
- 2x3 or 2x4 T-braces shown for gable webs in the MiTek engineering drawings may be replaced by a 2x4 L-brace as shown above.
- This truss is designed for residential or small building requirements, conforming to Part 9, NBCC 2010.
- This detail is not valid after April 30, 2017.

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