



TOWN OF MILTON  
PLANNING AND DEVELOPMENT  
BUILDING PERMIT:17-5246

BUILDING: REVIEWED  
SCOTT SHERRIFFS APR 24, 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 of Ontario, By-laws of the Region of Halton and Town of Milton

RECEIVED  
TOWN OF MILTON  
MAR 29, 2017  
17-5246  
BUILDING DIVISION



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

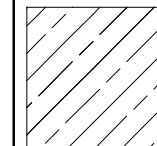
UNDERSIDE OF SOFFIT  
FOR PORCHES AT  
8' 6" A.F.F.

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



### 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'.

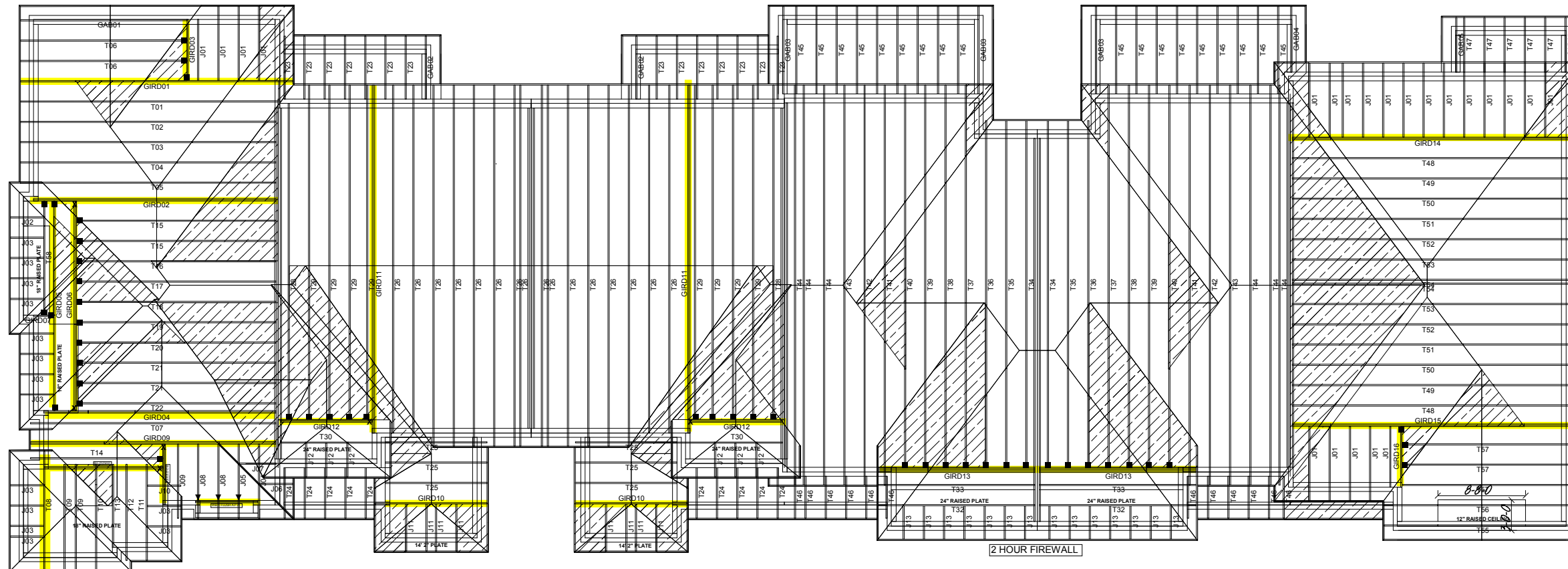
Model: **BLOCK 340**

Customer: **GREENPARK**

Project: **LECCO RIDGE**

Location: **MILTON**

Date: **3/14/2017** Drawn by: **BB**



IVY-12  
EL 2  
340-1

IVY-2  
EL 2  
340-2

IVY-2  
EL 2  
340-3

IVY-3  
EL 2  
340-4

IVY-3  
EL 2  
340-5

IVY-7E  
EL 2  
340-6

**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.

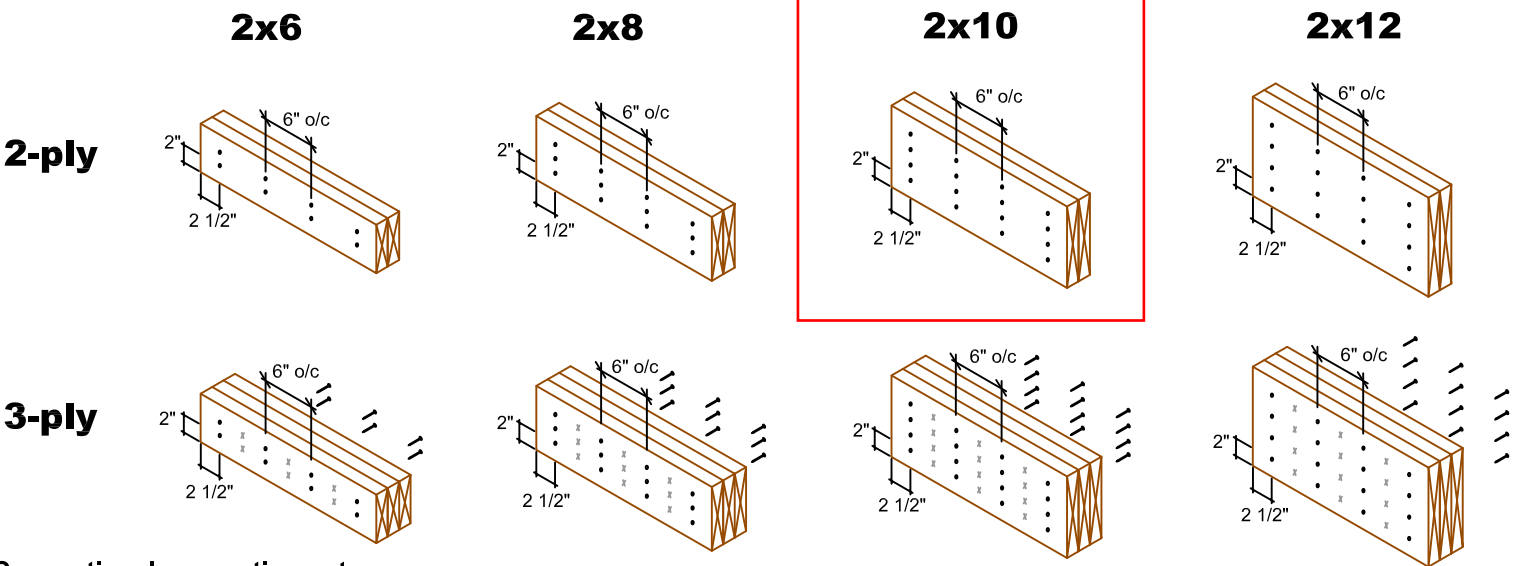
WHERE CONTINUOUS LATERAL  
BRACING IS REQUIRED FOR WEBS  
BUT CAN NOT BE PROVIDED  
SUBSTITUTE EACH WITH ONE SPF  
#2 2" X 4" T-BRACE COVERING 90%  
OF WEB LENGTH AND FASTENED  
TO EDGE OF WEB USING 3 1/4"  
SPIRAL NAILS @ 6" C/C

RECEIVED  
TOWN OF MILTON  
MAR 29, 2017  
17-5246  
BUILDING DIVISION

01/29/2013

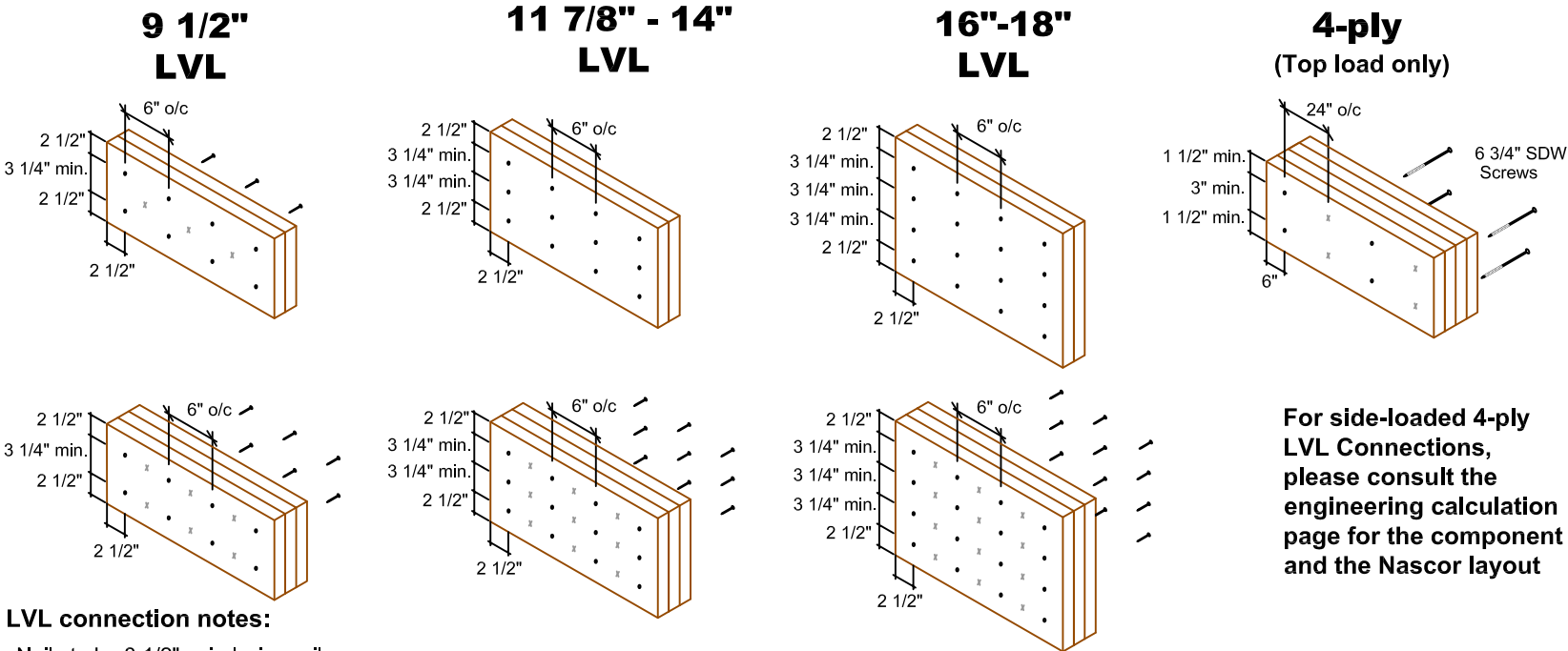
# MULTIPLE MEMBER CONNECTIONS

## Conventional Connections (for uniform distributed loads)



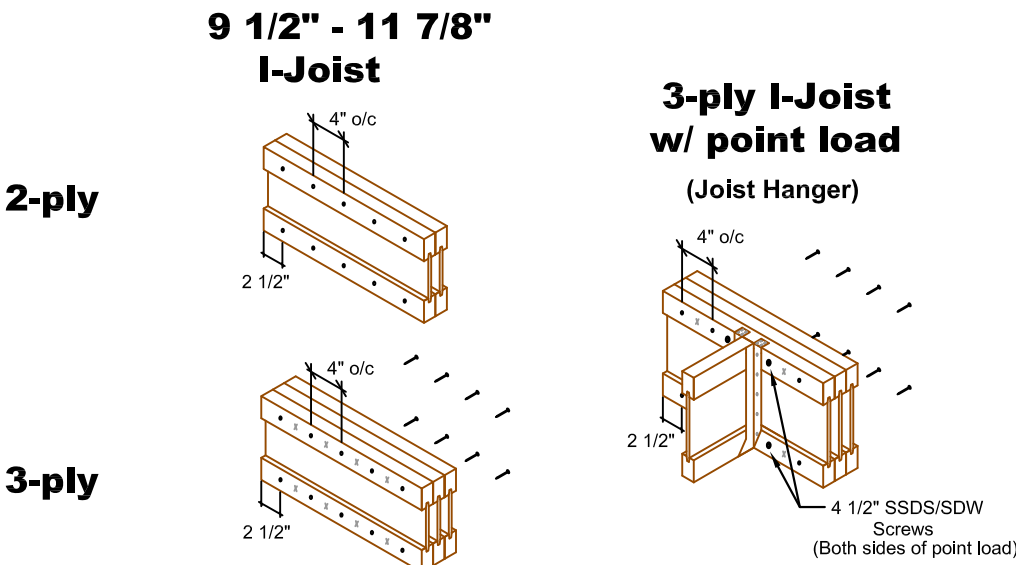
- Conventional connection notes:**
- Nails to be 3" 10d spiral wire nails.
  - Nails to be located a minimum of 2" from the top and bottom of the member. Start all nails a minimum of 2 1/2" in from ends.
  - Number of rows and spacing as per details shown, unless noted otherwise.
  - "X" represents nail driven from the opposite side.

## LVL Connections (for uniform distributed loads)



- LVL connection notes:**
- Nails to be 3 1/2" spiral wire nails.
  - Nails to be located a minimum of 2 1/2" from the top and bottom of the member. Start all nails a minimum of 2 1/2" in from ends.
  - Minimum 3 1/4" spacing between rows.
  - Number of rows and spacing as per details shown, unless noted otherwise.
  - "X" represents nail or screw driven from the opposite side.

## Vertical I-Joist Connections (for uniform distributed loads)



- Vertical I-Joist connection notes:**
- Nails to be 3" spiral wire nails.
  - Nails to be located at centre of top and bottom flanges. Start all nails a minimum of 2 1/2" in from ends.
  - Number of rows and spacing as per details shown, unless noted otherwise.
  - "X" represents nail driven from the opposite side.

RECEIVED  
TOWN OF MILTON  
MAR 29, 2017  
17-5246  
BUILDING DIVISION

MULTI -PLY  
CONNECTION  
DETAILS

Date: November 30, 2016  
Scale: NTS



KOTT  
3228 Moodie Drive  
Ottawa, ON  
K2H 7V1  
Ph: 613-838-2775  
Fx: 613-838-4751

CS Beam 4.11.26.1  
kmBeamEngine 4.11.26.1  
Materials Database 1516**Member Data B1****Description:**

Member Type: Beam

Application: Roof

Top Lateral Bracing: Continuous

Slope: 0.00 / 12

Bottom Lateral Bracing: Continuous

Moisture Condition: Dry

Building Code: OBC-2012

Standard Load:

Snow Load: 30 PLF

Deflection Criteria: L/360 live, L/240 total

0.720" max. LL

Dead Load: 15 PLF

Deck Connection: Nailed

Member Weight: 5.0 PLF

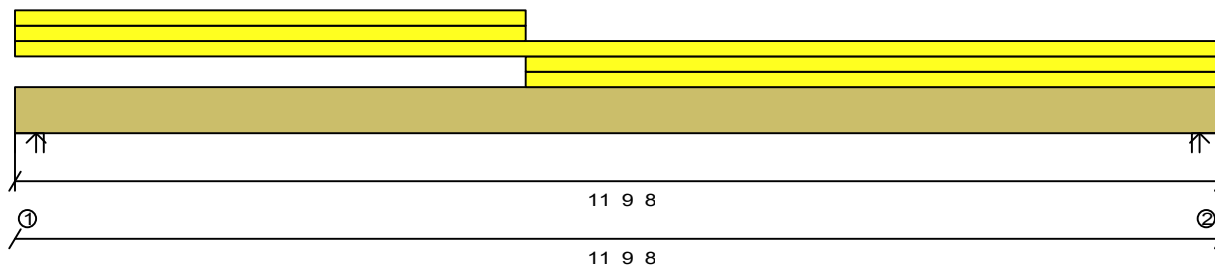
Filename: Beam2

Building Type: Residential

Importance Category: Normal (Part 9)

**Other Loads**

| Type (Description)       | Side | Begin    | End       | Trib. Width | Other Start | End | Dead Start | End | Category |
|--------------------------|------|----------|-----------|-------------|-------------|-----|------------|-----|----------|
| Additional Uniform (PLF) | Top  | 0' 0.00" | 5' 0.00"  |             | 0           |     | 41         |     | Live     |
| Additional Uniform (PLF) | Top  | 0' 0.00" | 5' 0.00"  |             | 95          |     | 0          |     | Snow     |
| Additional Uniform (PLF) | Top  | 0' 0.00" | 11' 9.50" |             | 0           |     | 10         |     | Live     |
| Additional Uniform (PLF) | Top  | 5' 0.00" | 11' 9.50" |             | 0           |     | 50         |     | Live     |
| Additional Uniform (PLF) | Top  | 5' 0.00" | 11' 9.50" |             | 139         |     | 0          |     | Snow     |

**Bearings and Factored Reactions**

|   | Location   | Type | Material | Input Length | Min Required | Gravity Reaction | Gravity Uplift |
|---|------------|------|----------|--------------|--------------|------------------|----------------|
| 1 | 0' 0.000"  | Wall | Steel    | 3.500"       | 1.500"       | 1715#            | --             |
| 2 | 11' 9.500" | Wall | Steel    | 3.500"       | 1.500"       | 1929#            | --             |

**Maximum Unfactored Load Case Reactions**

Used for applying point loads (or line loads) to carrying members

|   | Snow | Dead |
|---|------|------|
| 1 | 793# | 420# |
| 2 | 915# | 445# |

March 15th, 2017

Design spans

11' 4.250"

**Product: S-P-F No1/No2 2x10 2 ply****PASSES DESIGN CHECKS**

Design assumes continuous lateral bracing along the top chord.  
Design assumes continuous lateral bracing along the bottom chord.

**Limit States Design**

|                 | Actual  | Limit   | Capacity | Location | Loading                    |
|-----------------|---------|---------|----------|----------|----------------------------|
| Positive Moment | 5255.#  | 6042.#  | 86%      | 5.9'     | Total Load 1.25D+1.00*1.5S |
| Shear           | 1657.#  | 2656.#  | 62%      | 11.01'   | Total Load 1.25D+1.00*1.5S |
| Max. Reaction   | 1929.#  | 6457.#  | 29%      | 11.79'   | Total Load 1.25D+1.00*1.5S |
| TL Deflection   | 0.3093" | 0.5677" | L/440    | 5.9'     | Total Load D+S             |
| LL Deflection   | 0.2058" | 0.3785" | L/661    | 5.9'     | Total Load S               |

(Actual is factored load effects, Limit is design resistance)

Bearing length from point load of top loads beams assumed to be 3.50"

Control: Positive Moment

Manufacturer's installation guide MUST be consulted for multi-ply connection details and alternatives

RECEIVED  
TOWN OF MILTON  
MAR 29, 2017  
17-5246  
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.

CS Beam 4.11.26.1  
kmBeamEngine 4.11.26.1  
Materials Database 1516**Member Data B2****Description:****Standard Load:**

Snow Load: 30 PLF

Dead Load: 15 PLF

Member Type: Beam

Top Lateral Bracing: Continuous

Bottom Lateral Bracing: Continuous

Moisture Condition: Dry

Deflection Criteria: L/360 live, L/240 total

Deck Connection: Nailed

Filename: Beam3

Application: Roof

Slope: 0.00 / 12

Building Code: OBC-2012

0.720" max. LL

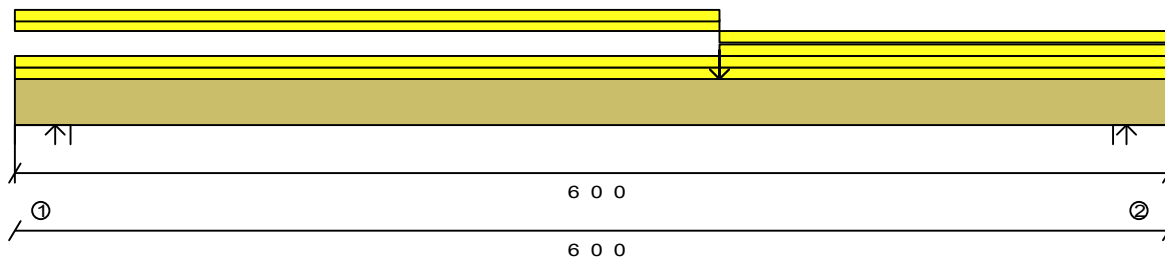
Member Weight: 5.0 PLF

Building Type: Residential

Importance Category: Normal (Part 9)

**Other Loads**

| Type (Description)       | Side | Begin    | End      | Trib. Width | Other Start | End | Dead Start | End | Category |
|--------------------------|------|----------|----------|-------------|-------------|-----|------------|-----|----------|
| Point (LBS)              | Top  | 3' 8.00" |          |             | 0           |     | 420        |     | Live     |
| Point (LBS)              | Top  | 3' 8.00" |          |             | 793         |     | 0          |     | Snow     |
| Additional Uniform (PLF) | Top  | 0' 0.00" | 3' 8.00" |             | 0           |     | 16         |     | Live     |
| Additional Uniform (PLF) | Top  | 0' 0.00" | 3' 8.00" |             | 61          |     | 0          |     | Snow     |
| Additional Uniform (PLF) | Top  | 3' 8.00" | 6' 0.00" |             | 0           |     | 59         |     | Live     |
| Additional Uniform (PLF) | Top  | 3' 8.00" | 6' 0.00" |             | 139         |     | 0          |     | Snow     |
| Additional Uniform (PLF) | Top  | 0' 0.00" | 6' 0.00" |             | 0           |     | 10         |     | Live     |
| Additional Uniform (PLF) | Top  | 0' 0.00" | 6' 0.00" |             | 23          |     | 0          |     | Live     |

**Bearings and Factored Reactions**

|   | Location  | Type | Material | Input Length | Min Required | Gravity Reaction | Gravity Uplift |
|---|-----------|------|----------|--------------|--------------|------------------|----------------|
| 1 | 0' 0.000" | Wall | Steel    | 3.500"       | 1.500"       | 1292#            | --             |
| 2 | 6' 0.000" | Wall | Steel    | 3.500"       | 1.500"       | 1927#            | --             |

**Maximum Unfactored Load Case Reactions**

Used for applying point loads (or line loads) to carrying members

|   | Live | Snow | Dead |
|---|------|------|------|
| 1 | 65#  | 586# | 305# |
| 2 | 65#  | 878# | 462# |

March 15th, 2017

**Design spans**

5' 6.750"

**Product: S-P-F No1/No2 2x10 2 ply****PASSES DESIGN CHECKS**

Design assumes continuous lateral bracing along the top chord.  
Design assumes continuous lateral bracing along the bottom chord.

**Limit States Design**

|                 | Actual  | Limit   | Capacity | Location | Loading                         |
|-----------------|---------|---------|----------|----------|---------------------------------|
| Positive Moment | 3234.#  | 6042.#  | 53%      | 3.67'    | Total Load 1.25D+1.00*1.5S+0.5L |
| Shear           | 1637.#  | 2656.#  | 61%      | 5.22'    | Total Load 1.25D+1.00*1.5S+0.5L |
| Max. Reaction   | 1927.#  | 6457.#  | 29%      | 6'       | Total Load 1.25D+1.00*1.5S+0.5L |
| TL Deflection   | 0.0395" | 0.2781" | L/999+   | 3.28'    | Total Load D+S+0.5L             |
| LL Deflection   | 0.0262" | 0.1854" | L/999+   | 3.28'    | Total Load S+0.5L               |

(Actual is factored load effects, Limit is design resistance)

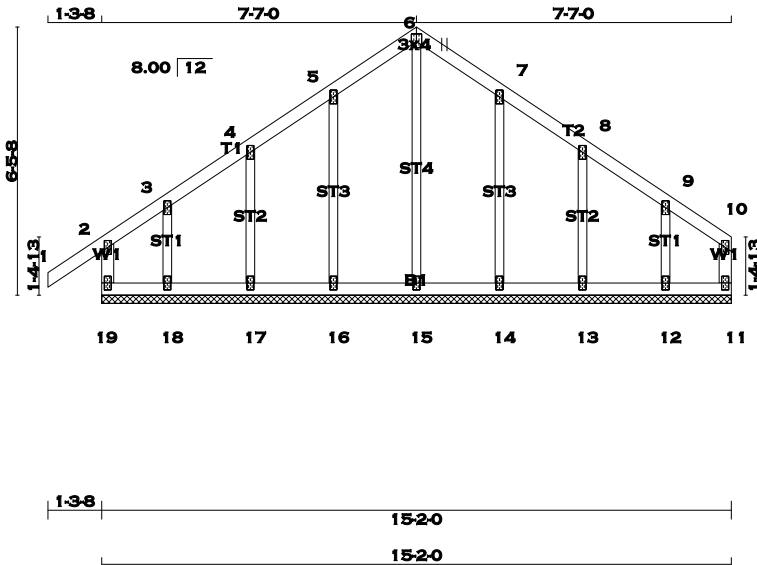
Bearing length from point load of top loads beams assumed to be 3.50"

Control: Shear

Manufacturer's installation guide MUST be consulted for multi-ply connection details and alternatives

RECEIVED  
TOWN OF MILTON  
MAR 29, 2017  
17-5246  
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 = 63 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                          | 2x4    | 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" O.C. |        |      |        |        |

| 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 = 10.00 FT. OR RIGID CEILING DIRECTLY APPLIED.  
ALL PITCH BREAKS AND PERIMETER CORNER JOINTS MUST BE LATERALLY RESTRAINED.

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

| CHORDS |                           |                           |                           | WEBS  |                           |                           |          |
|--------|---------------------------|---------------------------|---------------------------|-------|---------------------------|---------------------------|----------|
| MEMB.  | MAX. FACTORED FORCE (LBS) | FACTORED VERT. LOAD (PLF) | MAX. UNBRACED LENGTH (LC) | MEMB. | MAX. FACTORED FORCE (LBS) | MAX. UNBRACED LENGTH (LC) |          |
| FR-TO  |                           | FROM TO                   |                           | FR-TO |                           |                           |          |
| 19-2   | -196 / 0                  | 0.0                       | 0.0 0.02 (1)              | 7.81  | 15-6                      | -171 / 0                  | 0.11 (1) |
| 1-2    | 0 / 29                    | -77.3                     | -77.3 0.10 (1)            | 10.00 | 16-5                      | -155 / 0                  | 0.06 (1) |
| 2-3    | -19 / 0                   | -77.3                     | -77.3 0.08 (1)            | 6.25  | 17-4                      | -161 / 0                  | 0.04 (1) |
| 3-4    | 0 / 7                     | -77.3                     | -77.3 0.04 (1)            | 10.00 | 18-3                      | -94 / 0                   | 0.01 (1) |
| 4-5    | 0 / 6                     | -77.3                     | -77.3 0.04 (1)            | 10.00 | 14-7                      | -157 / 0                  | 0.06 (1) |
| 5-6    | 0 / 10                    | -77.3                     | -77.3 0.04 (1)            | 10.00 | 13-8                      | -153 / 0                  | 0.03 (1) |
| 6-7    | 0 / 10                    | -77.3                     | -77.3 0.04 (1)            | 10.00 | 12-9                      | -142 / 0                  | 0.02 (1) |
| 7-8    | 0 / 7                     | -77.3                     | -77.3 0.04 (1)            | 10.00 |                           |                           |          |
| 8-9    | -1 / 3                    | -77.3                     | -77.3 0.04 (1)            | 10.00 |                           |                           |          |
| 9-10   | -1 / 2                    | -77.3                     | -77.3 0.03 (1)            | 10.00 |                           |                           |          |
| 11-10  | -49 / 0                   | 0.0                       | 0.0 0.01 (1)              | 7.81  |                           |                           |          |
| 19-18  | 0 / 2                     | -17.5                     | -17.5 0.02 (1)            | 10.00 |                           |                           |          |
| 18-17  | -2 / 1                    | -17.5                     | -17.5 0.01 (4)            | 10.00 |                           |                           |          |
| 17-16  | -6 / 0                    | -17.5                     | -17.5 0.01 (4)            | 10.00 |                           |                           |          |
| 16-15  | -8 / 0                    | -17.5                     | -17.5 0.01 (4)            | 10.00 |                           |                           |          |
| 15-14  | -8 / 0                    | -17.5                     | -17.5 0.01 (4)            | 10.00 |                           |                           |          |
| 14-13  | -6 / 0                    | -17.5                     | -17.5 0.01 (4)            | 10.00 |                           |                           |          |
| 13-12  | -2 / 1                    | -17.5                     | -17.5 0.01 (4)            | 10.00 |                           |                           |          |
| 12-11  | 0 / 4                     | -17.5                     | -17.5 0.01 (4)            | 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=0.11 (6-15:1) , SS=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 (10) (INPUT = 0.90)  
JSI METAL= 0.06 (6) (INPUT = 1.00)

March 15th, 2017

RECEIVED  
TOWN OF MILTON  
MAR 29, 2017  
17-5246  
BUILDING DIVISION

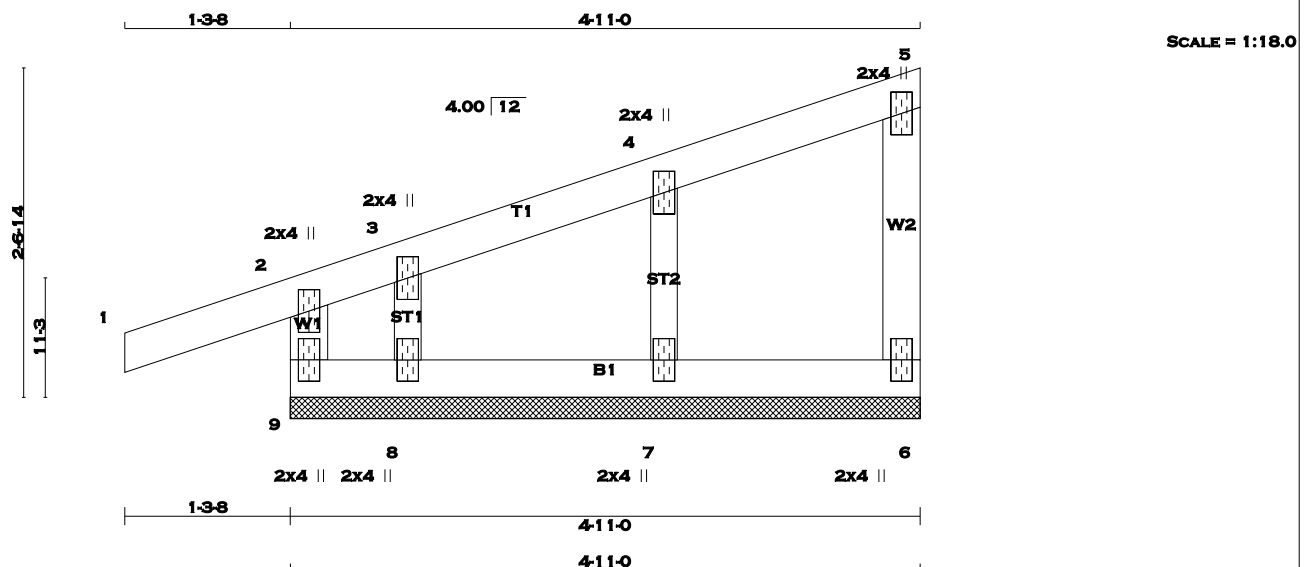
READ ALL NOTES ON THIS PAGE AND ON THE ENGINEERING NOTE PAGE ENP-1. THE NOTE PAGE IS AN INTEGRAL PART OF THIS DRAWING AS IT CONTAINS SPECIFICATIONS AND CRITERIA USED IN THE DESIGN OF THIS COMPONENT.



KOTT , Stouffville, ON, CGC

Version 8.100 S Feb 9 2017 MiTek Industries, Inc. Wed Mar 15 08:07:25 2017 Page 1

ID:li\_eiqps0H3vaJxP12FoSMYDKzM-ce8PBscHjONnZ3X1fTA2STsxy?dp2TqODLYVjizamC0



TOTAL WEIGHT = 2 X 18 = 35 lb [M]

| LUMBER                          |        |      |        |        |
|---------------------------------|--------|------|--------|--------|
| N. L. G. A. RULES               | CHORDS | SIZE | LUMBER | DESCR. |
| 9 - 2                           | 2x4    | DRY  | No.2   | SPF    |
| 1 - 5                           | 2x4    | DRY  | No.2   | SPF    |
| 6 - 5                           | 2x4    | 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: (4) |                           |       |                           |
| CHORDS                |                           | WEBS  |                           |
| MEMB.                 | MAX. FACTORED FORCE (LBS) | MEMB. | MAX. FACTORED FORCE (LBS) |
| FR-TO                 | VERT. LOAD                | FR-TO | VERT. LOAD                |
| 9-2                   | -194 / 0                  | 7-8   | -177 / 0                  |
| 1-2                   | 0 / 16                    | 8-3   | -46 / 0                   |
| 2-3                   | -31 / 0                   |       |                           |
| 3-4                   | -8 / 0                    |       |                           |
| 4-5                   | -10 / 0                   |       |                           |
| 6-5                   | -66 / 0                   |       |                           |
| 9-8                   | 0 / 13                    |       |                           |
| 8-7                   | 0 / 11                    |       |                           |
| 7-6                   | 0 / 6                     |       |                           |

**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=0.03 (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     |
| MT20  | 618       | 354   | 1667    |
|       | 822       | 2284  | 1656    |

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

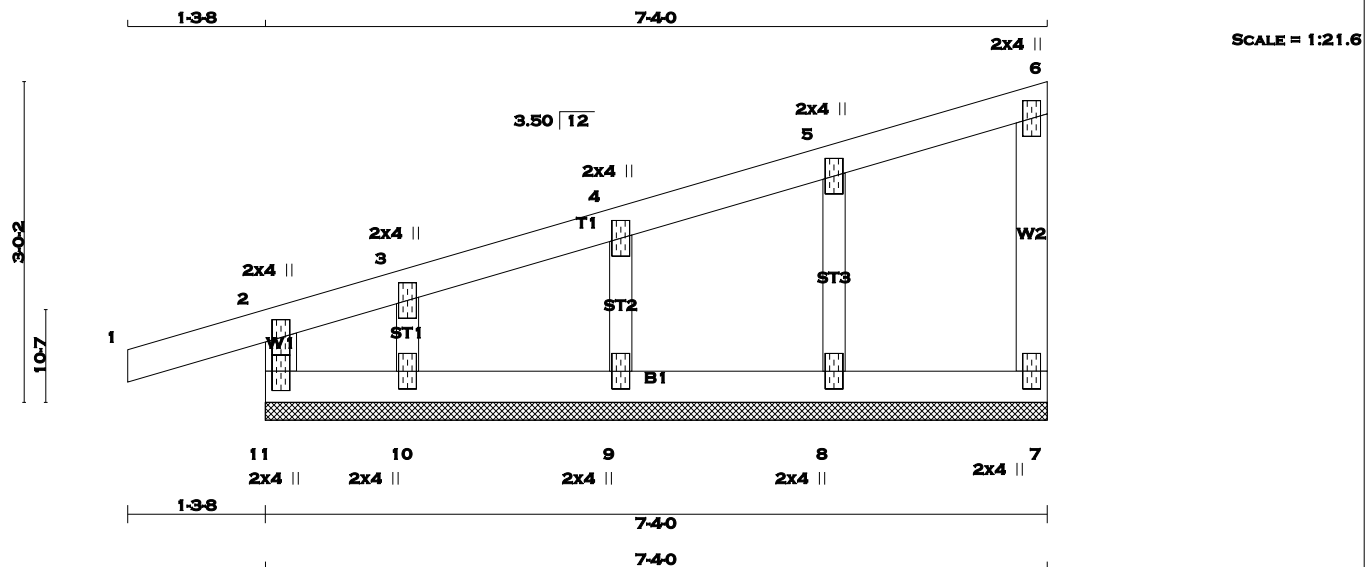
JSI GRIP= 0.11 (2) (INPUT = 0.90 )  
JSI METAL= 0.04 (2) (INPUT = 1.00 )

March 15th, 2017

RECEIVED  
TOWN OF MILTON  
MAR 29, 2017  
17-5246  
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 25 = 75 lb [M]

| LUMBER                          |        |      |        |     | DESCR. |
|---------------------------------|--------|------|--------|-----|--------|
| N. L. G. A. RULES               | CHORDS | SIZE | LUMBER |     |        |
| 11 - 2                          | 2x4    | DRY  | No.2   | SPF |        |
| 1 - 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, 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: (4)

| CHORDS |                           |                           |                | WEBS  |                           |                   |                  |
|--------|---------------------------|---------------------------|----------------|-------|---------------------------|-------------------|------------------|
| MEMB.  | MAX. FACTORED FORCE (LBS) | FACTORED VERT. LOAD (PLF) | MAX LC1 (LC)   | MEMB. | MAX. FACTORED FORCE (LBS) | MAX UNBRAC LENGTH | FACTORED LC (LC) |
| FR-TO  |                           | FROM TO                   |                | FR-TO |                           |                   |                  |
| 11-2   | -192 / 0                  | 0.0                       | 0.0 0.03 (1)   | 7.81  | 8-5                       | -164 / 0          | 0.03 (1)         |
| 1-2    | 0 / 14                    | -77.3                     | -77.3 0.10 (1) | 10.00 | 9-4                       | -162 / 0          | 0.02 (1)         |
| 2-3    | -27 / 0                   | -77.3                     | -77.3 0.07 (1) | 6.25  | 10-3                      | -84 / 0           | 0.01 (1)         |
| 3-4    | -11 / 0                   | -77.3                     | -77.3 0.04 (1) | 6.25  |                           |                   |                  |
| 4-5    | -9 / 0                    | -77.3                     | -77.3 0.04 (1) | 10.00 |                           |                   |                  |
| 5-6    | -8 / 0                    | -77.3                     | -77.3 0.04 (1) | 10.00 |                           |                   |                  |
| 7-6    | -69 / 0                   | 0.0                       | 0.0 0.02 (1)   | 7.81  |                           |                   |                  |
| 11-10  | 0 / 16                    | -17.5                     | -17.5 0.03 (1) | 10.00 |                           |                   |                  |
| 10-9   | 0 / 13                    | -17.5                     | -17.5 0.01 (4) | 10.00 |                           |                   |                  |
| 9-8    | 0 / 8                     | -17.5                     | -17.5 0.02 (4) | 10.00 |                           |                   |                  |
| 8-7    | 0 / 5                     | -17.5                     | -17.5 0.02 (4) | 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) | (PLI)   |
| MAX   | MIN       | MAX   | MIN     |
| MT20  | 618       | 354   | 1667    |
|       |           | 822   | 2284    |
|       |           |       | 1656    |

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

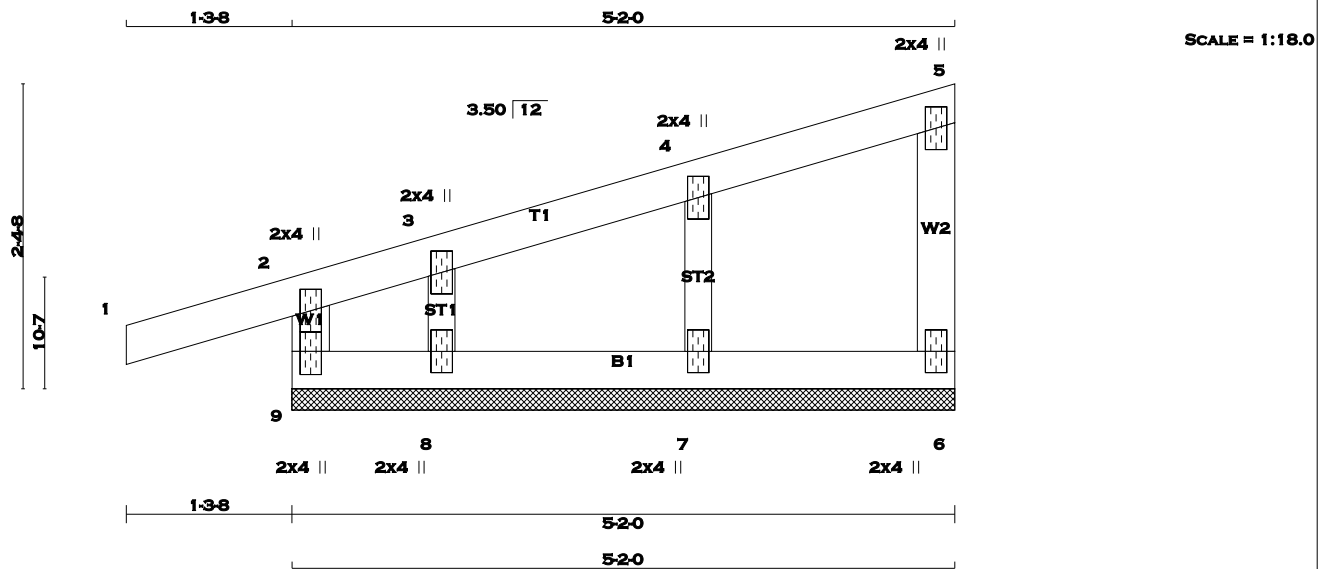
JSI GRIP= 0.10 (2) (INPUT = 0.90 )  
JSI METAL= 0.04 (2) (INPUT = 1.00 )

March 15th, 2017

RECEIVED  
TOWN OF MILTON  
MAR 29, 2017  
17-5246  
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 = 18 lb [M]

| LUMBER                                                                           |        |        |        |     |        | DIMENSIONS, SUPPORTS AND LOADINGS SPECIFIED BY FABRICATOR TO BE VERIFIED BY BUILDING DESIGNER |                                                                                                                                      |          |       |       |          |       |     |          |          | DESIGN CRITERIA                                                                                    |                                                                                                    |  |  |  |
|----------------------------------------------------------------------------------|--------|--------|--------|-----|--------|-----------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------|----------|-------|-------|----------|-------|-----|----------|----------|----------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------|--|--|--|
| N. L. G. A. RULES                                                                |        |        |        |     |        | BEARINGS                                                                                      |                                                                                                                                      |          |       |       |          |       |     |          |          | SPECIFIED LOADS:                                                                                   |                                                                                                    |  |  |  |
| CHORDS                                                                           | SIZE   |        | LUMBER |     | DESCR. | THIS TRUSS DESIGNED FOR CONTINUOUS BEARINGS.                                                  |                                                                                                                                      |          |       |       |          |       |     |          |          | TOP CH.                                                                                            |                                                                                                    |  |  |  |
| 9 - 2                                                                            | 2x4    | DRY    | No.2   |     | SPF    | THIS TRUSS REQUIRES RIGID SHEATHING ON EXPOSED FACE.                                          |                                                                                                                                      |          |       |       |          |       |     |          |          | DL = 23.3 PSF                                                                                      |                                                                                                    |  |  |  |
| 1 - 5                                                                            | 2x4    | DRY    | No.2   |     | SPF    | BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S)                                         |                                                                                                                                      |          |       |       |          |       |     |          |          | DL = 3.0 PSF                                                                                       |                                                                                                    |  |  |  |
| 6 - 5                                                                            | 2x4    | DRY    | No.2   |     | SPF    | BRACING                                                                                       |                                                                                                                                      |          |       |       |          |       |     |          |          | BOT CH. LL = 0.0 PSF                                                                               |                                                                                                    |  |  |  |
| 9 - 6                                                                            | 2x4    | DRY    | No.2   |     | SPF    | TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 6.25 FT.                                    |                                                                                                                                      |          |       |       |          |       |     |          |          | DL = 7.0 PSF                                                                                       |                                                                                                    |  |  |  |
| ALL WEBS 2x3 DRY No.2 SPF                                                        |        |        |        |     |        | MAX. UNBRACED BOTTOM CHORD LENGTH = 10.00 FT. OR RIGID CEILING DIRECTLY APPLIED.              |                                                                                                                                      |          |       |       |          |       |     |          |          | TOTAL LOAD = 33.3 PSF                                                                              |                                                                                                    |  |  |  |
| ALL GABLE WEBS 2x3 DRY No.2 SPF                                                  |        |        |        |     |        | ALL PITCH BREAKS AND PERIMETER CORNER JOINTS MUST BE Laterally RESTRAINED.                    |                                                                                                                                      |          |       |       |          |       |     |          |          | SPACING = 24.0 IN. C/C                                                                             |                                                                                                    |  |  |  |
| DRY: SEASONED LUMBER.                                                            |        |        |        |     |        | LOADING                                                                                       |                                                                                                                                      |          |       |       |          |       |     |          |          | THIS TRUSS IS DESIGNED FOR RESIDENTIAL OR SMALL BUILDING REQUIREMENTS OF PART 9, NBCC 2010         |                                                                                                    |  |  |  |
| GABLE STUDS SPACED AT 2'-0" OC.                                                  |        |        |        |     |        | TOTAL LOAD CASES: (4)                                                                         |                                                                                                                                      |          |       |       |          |       |     |          |          | THIS DESIGN COMPLIES WITH:                                                                         |                                                                                                    |  |  |  |
| PLATES (table is in inches)                                                      |        |        |        |     |        | CHORDS                                                                                        |                                                                                                                                      |          |       |       |          |       |     |          |          | - PART 9 OF OBC 2012 , BCBC 2012 , ABC 2014                                                        |                                                                                                    |  |  |  |
| JT                                                                               | TYPE   | PLATES | W      | LEN | Y      | X                                                                                             | MEMB. MAX. FACTORED FORCE (LBS) <td colspan="4">- CSA 086-09</td>                                                                    |          |       |       |          |       |     |          |          |                                                                                                    | - CSA 086-09                                                                                       |  |  |  |
| 2                                                                                | TMV+p  | MT20   | 2.0    | 4.0 |        |                                                                                               | VERT. LOAD LC1 MAX <td colspan="4">- TPIC 2011</td>                                                                                  |          |       |       |          |       |     |          |          |                                                                                                    | - TPIC 2011                                                                                        |  |  |  |
| 3                                                                                | TMW+w  | MT20   | 2.0    | 4.0 |        |                                                                                               | FROM TO <td colspan="4">OVERHANG NOT TO BE ALTERED OR CUT OFF.</td>                                                                  |          |       |       |          |       |     |          |          |                                                                                                    | OVERHANG NOT TO BE ALTERED OR CUT OFF.                                                             |  |  |  |
| 4                                                                                | TMW+w  | MT20   | 2.0    | 4.0 |        |                                                                                               | LENGTH FR-TO <td colspan="4">(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</td> |          |       |       |          |       |     |          |          |                                                                                                    | (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 |  |  |  |
| 5                                                                                | TMV+p  | MT20   | 2.0    | 4.0 |        |                                                                                               | 9-2                                                                                                                                  | -190 / 0 | 0.0   | 0.0   | 0.03 (1) | 7.81  | 7-4 | -178 / 0 | 0.03 (1) | 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)                        |                                                                                                    |  |  |  |
| 6                                                                                | BMV1+p | MT20   | 2.0    | 4.0 |        |                                                                                               | 1-2                                                                                                                                  | 0 / 14   | -77.3 | -77.3 | 0.10 (1) | 10.00 | 8-3 | -69 / 0  | 0.01 (1) | DOL LUMBER=1.00 NAIL=1.00 LS BEND=1.10 COMP=1.10 SHEAR=1.10 TENS= 1.10                             |                                                                                                    |  |  |  |
| 7                                                                                | BMV1+w | MT20   | 2.0    | 4.0 |        |                                                                                               | 2-3                                                                                                                                  | -26 / 0  | -77.3 | -77.3 | 0.07 (1) | 6.25  |     |          |          | COMPANION LIVE LOAD FACTOR = 0.50                                                                  |                                                                                                    |  |  |  |
| 8                                                                                | BMV1+w | MT20   | 2.0    | 4.0 |        |                                                                                               | 3-4                                                                                                                                  | -8 / 0   | -77.3 | -77.3 | 0.05 (1) | 10.00 |     |          |          | TRUSS PLATE MANUFACTURER IS NOT RESPONSIBLE FOR QUALITY CONTROL IN THE TRUSS MANUFACTURING PLANT . |                                                                                                    |  |  |  |
| 9                                                                                | BMV1+p | MT20   | 2.0    | 4.0 | 2.25   | 1.00                                                                                          | 4-5                                                                                                                                  | -9 / 0   | -77.3 | -77.3 | 0.05 (1) | 10.00 |     |          |          | NAIL VALUES                                                                                        |                                                                                                    |  |  |  |
| A SIZE FOR SIZE SUBSTITUTION OF MITEK MII20 WITH TEE-LOK TL20 PLATES IS ALLOWED. |        |        |        |     |        |                                                                                               | 6-5                                                                                                                                  | -66 / 0  | 0.0   | 0.0   | 0.01 (1) | 7.81  |     |          |          | PLATE GRIP(DRY) SHEAR SECTION (PSI) (PLI) (PLI)                                                    |                                                                                                    |  |  |  |
|                                                                                  |        |        |        |     |        |                                                                                               | 9-8                                                                                                                                  | 0 / 14   | -17.5 | -17.5 | 0.03 (1) | 10.00 |     |          |          | MAX MIN MAX MIN MAX MIN                                                                            |                                                                                                    |  |  |  |
|                                                                                  |        |        |        |     |        |                                                                                               | 8-7                                                                                                                                  | 0 / 11   | -17.5 | -17.5 | 0.02 (4) | 10.00 |     |          |          | MT20 618 354 1667 822 2284 1656                                                                    |                                                                                                    |  |  |  |
|                                                                                  |        |        |        |     |        |                                                                                               | 7-6                                                                                                                                  | 0 / 6    | -17.5 | -17.5 | 0.02 (4) | 10.00 |     |          |          | 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 )                                                                |                                                                                                    |  |  |  |

RECEIVED  
TOWN OF MILTON  
MAR 29, 2017  
17-5246  
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.

March 15th, 2017

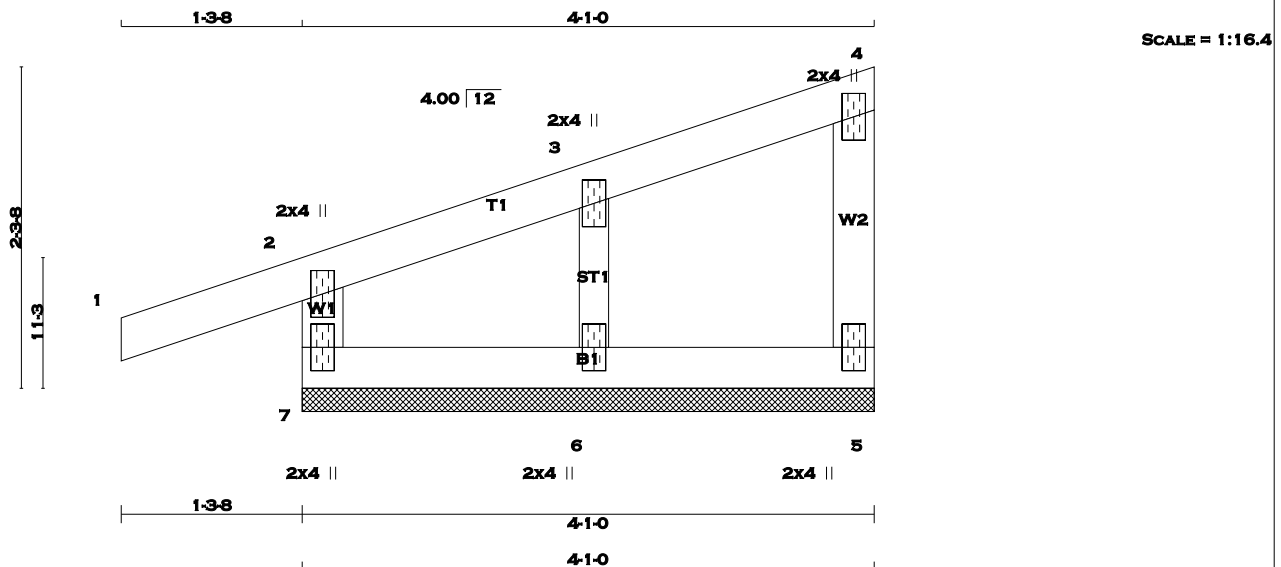


March 15th, 2017

RECEIVED  
TOWN OF MILTON  
MAR 29, 2017  
17-5246  
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 = 2 X 15 = 29 lb [M]

| LUMBER                          |      |        |      |     | DESCR. |
|---------------------------------|------|--------|------|-----|--------|
| N. L. G. A. RULES               | SIZE | LUMBER |      |     |        |
| CHORDS                          |      |        |      |     |        |
| 7 - 2                           | 2x4  | DRY    | No.2 | SPF |        |
| 1 - 4                           | 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 |        |
| ALL GABLE WEBS                  | 2x3  | DRY    | No.2 | SPF |        |
|                                 |      |        |      |     |        |
| DRY: SEASONED LUMBER.           |      |        |      |     |        |
|                                 |      |        |      |     |        |
| GABLE STUDS SPACED AT 2'-0" OC. |      |        |      |     |        |

**PLATES (table is in inches)**

| JT | TYPE   | PLATES | W   | LEN | Y | X |
|----|--------|--------|-----|-----|---|---|
| 2  | TMV+p  | MT20   | 2.0 | 4.0 |   |   |
| 3  | TMV+w  | MT20   | 2.0 | 4.0 |   |   |
| 4  | TMV+p  | MT20   | 2.0 | 4.0 |   |   |
| 5  | BMV1+p | MT20   | 2.0 | 4.0 |   |   |
| 6  | BMV1+w | MT20   | 2.0 | 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**  
THIS TRUSS DESIGNED FOR CONTINUOUS BEARINGS.  
THIS TRUSS REQUIRES RIGID SHEATHING ON EXPOSED FACE.  
BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S)

**BRACING**  
TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 6.25 FT.  
MAX. UNBRACED BOTTOM CHORD LENGTH = 10.00 FT. OR RIGID CEILING DIRECTLY APPLIED.  
ALL PITCH BREAKS AND PERIMETER CORNER JOINTS MUST BE Laterally RESTRAINED.

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

| 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   |                           |                           |          |
| 7-2         | -186 / 0                  | 0.0                       | 0.0 0.01 (1)              | 7.81    | 6-3                       | -164 / 0                  | 0.02 (1) |
| 1-2         | 0 / 16                    | -77.3                     | -77.3 0.10 (1)            | 10.00   |                           |                           |          |
| 2-3         | -17 / 0                   | -77.3                     | -77.3 0.04 (1)            | 6.25    |                           |                           |          |
| 3-4         | -13 / 0                   | -77.3                     | -77.3 0.04 (1)            | 6.25    |                           |                           |          |
| 5-4         | -69 / 0                   | 0.0                       | 0.0 0.02 (1)              | 7.81    |                           |                           |          |
| 7-6         | 0 / 16                    | -17.5                     | -17.5 0.02 (4)            | 10.00   |                           |                           |          |
| 6-5         | 0 / 11                    | -17.5                     | -17.5 0.02 (4)            | 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 (6-7:4), WB=0.02 (3-6:1), 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 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 )

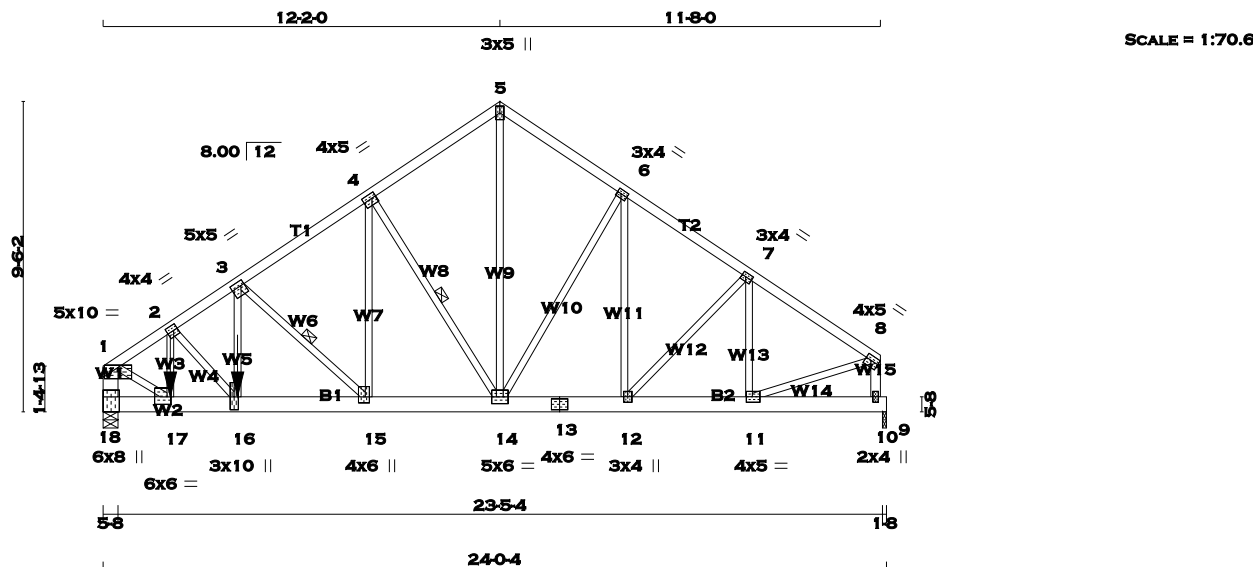
March 15th, 2017

**RECEIVED**  
**TOWN OF MILTON**  
**MAR 29, 2017**  
**17-5246**  
**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 = 2 X 130 = 261 lb [M]

| LUMBER            |        |      |        |        |
|-------------------|--------|------|--------|--------|
| N. L. G. A. RULES | CHORDS | SIZE | LUMBER | DESCR. |
| 1 - 5             | 2x4    | DRY  | No.2   | SPF    |
| 5 - 8             | 2x4    | DRY  | No.2   | SPF    |
| 18 - 1            | 2x6    | DRY  | No.2   | SPF    |
| 10 - 8            | 2x4    | DRY  | No.2   | SPF    |
| 18 - 13           | 2x6    | DRY  | No.2   | SPF    |
| 13 - 9            | 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- 5                                     | 12                   | TOP         |
| 5- 8                                     | 12                   | TOP         |
| 10- 8                                    | 12                   | TOP         |
| 18- 1                                    | 12                   | TOP         |
| BOTTOM CHORDS : (0.122"x3") SPIRAL NAILS |                      |             |
| 18- 13                                   | 12                   | SIDE(109.7) |
| 13- 9                                    | 12                   | TOP         |
| WEBS : (0.122"x3") SPIRAL NAILS          |                      |             |
| 2x3                                      | 6                    |             |

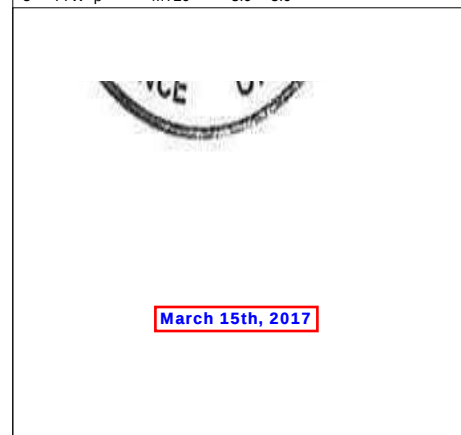
NAILS TO BE DRIVEN FROM ONE SIDE ONLY.

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       |
| 1                           | TMVW-p | MT20   | 5.0 | 10.0 | Edge      |
| 2                           | TMVW-t | MT20   | 4.0 | 4.0  | 2.00 1.50 |
| 3                           | TMVW-t | MT20   | 5.0 | 5.0  | 1.75 1.25 |
| 4                           | TMVW-t | MT20   | 4.0 | 5.0  | 1.75 1.50 |
| 5                           | TTW+p  | MT20   | 3.0 | 5.0  |           |



#### 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 |
| 18                      | 7257 | 0                               | 7257 | 0         | 0      | 5-8       | 5-8   |
| 9                       | 2175 | 0                               | 2175 | 0         | 0      | 1-8       | 1-8   |

| UNFACTORED REACTIONS |           |           |       |       |           |       |          |
|----------------------|-----------|-----------|-------|-------|-----------|-------|----------|
| JT                   | 1ST LCASE | MAX./MIN. | SNOW  | LIVE  | PERM.LIVE | WIND  | DEAD     |
| 18                   | 5093      | 3563 / 0  | 0 / 0 | 0 / 0 | 0 / 0     | 0 / 0 | 1530 / 0 |
| 9                    | 1527      | 1066 / 0  | 0 / 0 | 0 / 0 | 0 / 0     | 0 / 0 | 461 / 0  |

BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S) 18, 9

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

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

1 - 2x4 SPF No.2 LATERAL BRACE(S) AT 1/2 LENGTH OF 3-15. DBS = 6-0-0 . CBF = 151 LBS.  
1 - 2x3 SPF No.2 LATERAL BRACE(S) AT 1/2 LENGTH OF 4-14. DBS = 4-0-0 . CBF = 68 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 LC1 MAX CSI (LC) | MAX. UNBRAC LENGTH | MEMB. | MAX. FACTORED FORCE (LBS) | MAX CSI (LC) |
| FR-TO  |                           | FROM TO                   |                      |                    | FR-TO |                           |              |
| 1- 2   | -7120 / 0                 | -77.3 -77.3               | 0.25 (1)             | 3.50               | 17- 2 | -1153 / 0                 | 0.10 (1)     |
| 2- 3   | -7790 / 0                 | -77.3 -77.3               | 0.28 (1)             | 3.33               | 2-16  | 0 / 932                   | 0.12 (1)     |
| 3- 4   | -4277 / 0                 | -77.3 -77.3               | 0.18 (1)             | 4.49               | 16- 3 | 0 / 4425                  | 0.55 (1)     |
| 4- 5   | -2575 / 0                 | -77.3 -77.3               | 0.13 (1)             | 5.54               | 3-15  | -4023 / 0                 | 0.48 (1)     |
| 5- 6   | -2570 / 0                 | -77.3 -77.3               | 0.11 (1)             | 5.57               | 15- 4 | 0 / 2899                  | 0.36 (1)     |
| 6- 7   | -2670 / 0                 | -77.3 -77.3               | 0.11 (1)             | 5.47               | 4-14  | -2717 / 0                 | 0.54 (1)     |
| 7- 8   | -2549 / 0                 | -77.3 -77.3               | 0.11 (1)             | 5.57               | 14- 5 | 0 / 2588                  | 0.32 (1)     |
| 18- 1  | -6916 / 0                 | 0.0 0.0                   | 0.25 (1)             | 5.68               | 14- 6 | -180 / 0                  | 0.10 (1)     |
| 10- 8  | -2255 / 0                 | 0.0 0.0                   | 0.13 (1)             | 7.45               | 12- 6 | -95 / 24                  | 0.04 (1)     |
|        |                           |                           |                      |                    | 12- 7 | 0 / 124                   | 0.02 (1)     |
| 18-17  | 0 / 0                     | -236.8 -236.8             | 0.09 (1)             | 10.00              | 11- 7 | -484 / 0                  | 0.07 (1)     |
| 17-16  | 0 / 5901                  | -17.5 -17.5               | 0.54 (1)             | 10.00              | 1-17  | 0 / 6554                  | 0.81 (1)     |
| 16-15  | 0 / 6512                  | -17.5 -17.5               | 0.58 (1)             | 10.00              | 11- 8 | 0 / 2247                  | 0.28 (1)     |
| 15-14  | 0 / 3569                  | -17.5 -17.5               | 0.27 (1)             | 10.00              |       |                           |              |
| 14-13  | 0 / 2219                  | -17.5 -17.5               | 0.18 (1)             | 10.00              |       |                           |              |
| 13-12  | 0 / 2219                  | -17.5 -17.5               | 0.18 (1)             | 10.00              |       |                           |              |
| 12-11  | 0 / 2133                  | -17.5 -17.5               | 0.16 (1)             | 10.00              |       |                           |              |
| 11-10  | 0 / 0                     | -17.5 -17.5               | 0.15 (1)             | 10.00              |       |                           |              |
| 10- 9  | 0 / 0                     | -17.5 -17.5               | 0.15 (1)             | 10.00              |       |                           |              |

| FACTORED CONCENTRATED LOADS (LBS) |        |       |       |      |       |
|-----------------------------------|--------|-------|-------|------|-------|
| JT                                | LOC.   | LC1   | MAX-  | MAX+ | FACE  |
| 16                                | 4-1-8  | -5291 | -5291 | ---  | FRONT |
| 17                                | 2-0-12 | -1425 | -1425 | ---  | FRONT |

#### 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 |
| 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 = 11-3-0  
END DISTANCE = 2-0-12  
END SPAN CARRIED = 11-3-0  
END WALL WIDTH = 0-0  
APPLIED TO FRONT SIDE OF BOTTOM CHORD.  
- ADDTL LOADS BASED ON 55 % OF GSL.

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

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

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 (0.08")  
ALLOWABLE DEFL.(TL)= L/360 (0.80")  
CALCULATED VERT. DEFL.(TL) = L/ 999 (0.14")  
  
CSI: TC=0.28 (2-3:1) , BC=0.58 (15-16:1) ,  
WB=0.81 (1-17:1) , SSI=0.72 (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   | MIN | MAX     |
| MT20        | 618       | 354 | 1667  | 822 | 2284    |
|             |           |     |       |     | 1656    |

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.89 (7) (INPUT = 0.90 )  
JSI METAL= 0.74 (17) (INPUT = 1.00 )

March 15th, 2017

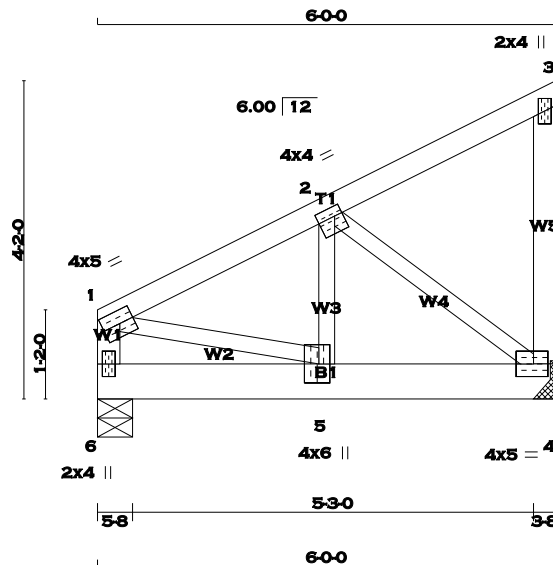
RECEIVED  
TOWN OF MILTON  
MAR 29, 2017  
17-5246  
BUILDING DIVISION

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 , Stouffville, ON, CGC

Version 8.100 S Feb 9 2017 MiTek Industries, Inc. Wed Mar 15 08:07:28 2017 Page 1

ID:li\_eiqpsoH3vaJxP12FoSMYDKzM-0DqYufA?JmLQXGcKckl46URvCaEFmcrvJm9J1zamBz



SCALE = 1:30.2

TOTAL WEIGHT = 29 lb

| LUMBER            |        |      |        |
|-------------------|--------|------|--------|
| N. L. G. A. RULES | CHORDS | SIZE | LUMBER |
| 1 - 3             | 2x4    | DRY  | No.2   |
| 4 - 3             | 2x4    | DRY  | No.2   |
| 6 - 1             | 2x4    | DRY  | No.2   |
| 6 - 4             | 2x6    | DRY  | No.2   |

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 | 2.00 | 2.25 |
| 2  | TMVW-t  | MT20   | 4.0 | 4.0 | 1.50 | 1.25 |
| 3  | TMV+p   | MT20   | 2.0 | 4.0 |      |      |
| 4  | BMVW1-t | MT20   | 4.0 | 5.0 | 2.00 | 2.25 |
| 5  | BMVW-t  | MT20   | 4.0 | 6.0 | 3.00 | 1.75 |
| 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 GROSS REACTION |      | MAXIMUM FACTORED GROSS REACTION |      | INPUT BRG |                     | REQRD BRG |     |
|----------|--|-------------------------|------|---------------------------------|------|-----------|---------------------|-----------|-----|
| JT       |  | VERT                    | HORZ | DOWN                            | HORZ | UPLIFT    | IN-SX               | IN-SX     |     |
| 4        |  | 1189                    | 0    | 1189                            | 0    | 0         | HANGER BY OTHERS    |           |     |
| 6        |  | 1189                    | 0    | 1189                            | 0    | 0         | MIN. SEAT SIZE: 3-8 | 5-8       | 5-8 |

UNFACTORED REACTIONS

| 1ST LCASE |  | MAX./MIN. COMPONENT REACTIONS |         | LIVE  |       | PERM.LIVE |       | WIND    |       | DEAD    |       | SOIL  |       |
|-----------|--|-------------------------------|---------|-------|-------|-----------|-------|---------|-------|---------|-------|-------|-------|
| JT        |  | COMBINED                      | SNOW    |       |       |           |       |         |       |         |       |       |       |
| 4         |  | 834                           | 584 / 0 | 0 / 0 | 0 / 0 | 0 / 0     | 0 / 0 | 251 / 0 | 0 / 0 | 251 / 0 | 0 / 0 | 0 / 0 | 0 / 0 |
| 6         |  | 834                           | 584 / 0 | 0 / 0 | 0 / 0 | 0 / 0     | 0 / 0 | 251 / 0 | 0 / 0 | 251 / 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 = 6.07 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    |                  | MAX. FACTORED |                | WEBS  |           | FACTORED    |           |
|--------|-----------|-------------|------------------|---------------|----------------|-------|-----------|-------------|-----------|
| MEMB.  |           | FORCE (LBS) | VERT. LOAD (PLF) | LC1 MAX. (LC) | UNBRAC. LENGTH | MEMB. |           | FORCE (LBS) | MAX. (LC) |
| FR-TO  |           |             | FROM             | TO            |                | FR-TO |           |             |           |
| 1-2    | -1012 / 0 | -77.3       | -77.3            | 0.11 (1)      | 6.07           | 5-2   | 0 / 874   | 0.22 (1)    |           |
| 2-3    | -10 / 0   | -77.3       | -77.3            | 0.10 (1)      | 10.00          | 2-4   | -1147 / 0 | 0.28 (1)    |           |
| 4-3    | -94 / 0   | 0.0         | 0.0              | 0.02 (1)      | 7.81           | 1-5   | 0 / 944   | 0.23 (1)    |           |
| 6-1    | -787 / 0  | 0.0         | 0.0              | 0.09 (1)      | 7.81           |       |           |             |           |
| 6-5    | 0 / 0     | -318.8      | -318.8           | 0.19 (1)      | 10.00          |       |           |             |           |
| 5-4    | 0 / 914   | -318.8      | -318.8           | 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

GIRDER TYPE: CStdGirder  
START DISTANCE = 0-0  
START SPAN CARRIED = 15-2-0  
END DISTANCE = 6-0-0  
END SPAN CARRIED = 15-2-0  
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 (0.01")  
ALLOWABLE DEFL.(TL)= L/360 (0.20")  
CALCULATED VERT. DEFL.(TL) = L/ 999 (0.02")

CSI: TC=0.11 (1-2:1) , BC=0.30 (4-5:1) , WB=0.28 (2-4:1) , SSI=0.37 (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.

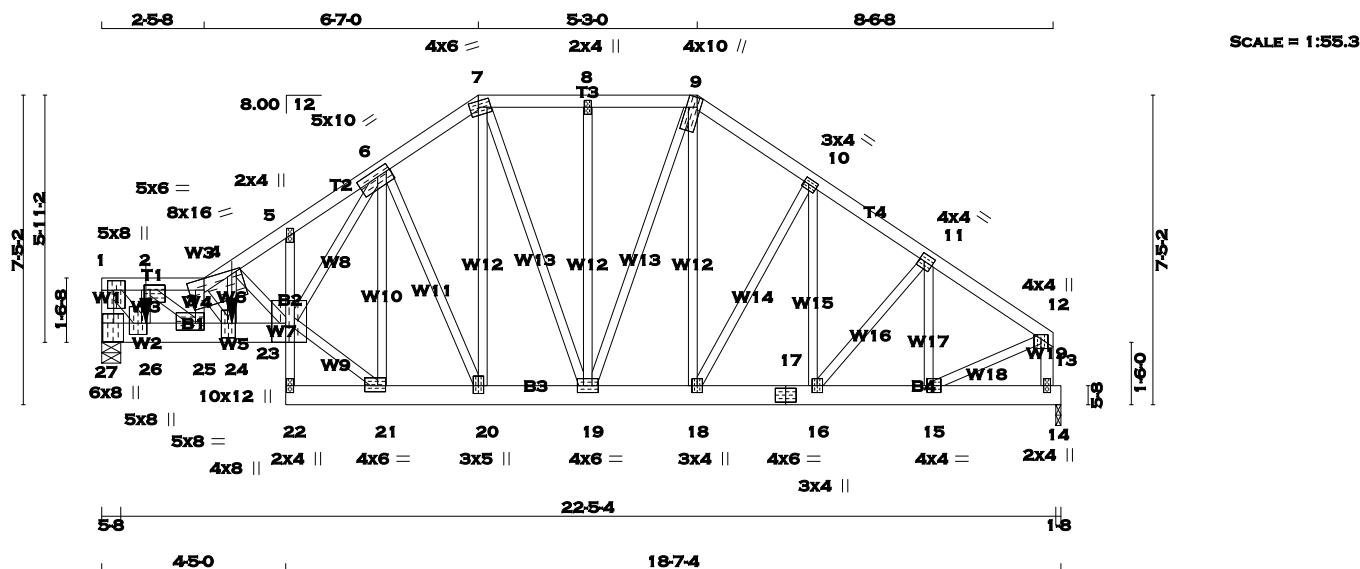
JSI GRIP= 0.72 (1) (INPUT = 0.90 )  
JSI METAL= 0.34 (2) (INPUT = 1.00 )

March 15th, 2017

RECEIVED  
TOWN OF MILTON  
MAR 29, 2017  
17-5246  
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 = 2 X 141 = 283 lb

| LUMBER          |      |        |        | N. L. G. A. RULES |      |
|-----------------|------|--------|--------|-------------------|------|
| CHORDS          | SIZE | LUMBER | DESCR. | CHORDS            | SIZE |
| 27 - 1          | 2x4  | DRY    | No.2   | SPF               |      |
| 1 - 3           | 2x4  | DRY    | No.2   | SPF               |      |
| 3 - 7           | 2x4  | DRY    | No.2   | SPF               |      |
| 7 - 9           | 2x4  | DRY    | No.2   | SPF               |      |
| 9 - 12          | 2x4  | DRY    | No.2   | SPF               |      |
| 14 - 12         | 2x4  | DRY    | No.2   | SPF               |      |
| 27 - 23         | 2x6  | DRY    | No.2   | SPF               |      |
| 22 - 5          | 2x3  | DRY    | No.2   | SPF               |      |
| 22 - 17         | 2x6  | DRY    | No.2   | SPF               |      |
| 17 - 13         | 2x6  | DRY    | No.2   | SPF               |      |
| ALL WEBS EXCEPT | 2x3  | DRY    | No.2   | SPF               |      |
| 1 - 26          | 2x4  | DRY    | No.2   | SPF               |      |

DRY: SEASONED LUMBER.

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

| CHORDS #ROWS                             | SURFACE SPACING (IN) | LOAD(PLF) |
|------------------------------------------|----------------------|-----------|
| TOP CHORDS : (0.122"x3") SPIRAL NAILS    |                      |           |
| 27- 1                                    | 12                   | TOP       |
| 1- 3                                     | 12                   | TOP       |
| 3- 7                                     | 12                   | TOP       |
| 7- 9                                     | 12                   | TOP       |
| 9- 12                                    | 12                   | TOP       |
| 14- 12                                   | 12                   | TOP       |
| BOTTOM CHORDS : (0.122"x3") SPIRAL NAILS |                      |           |
| 27- 23                                   | 12                   | SIDE(0.0) |
| 22- 17                                   | 12                   | TOP       |
| 17- 13                                   | 12                   | TOP       |
| 5- 22                                    | 12                   | TOP       |
| WEBS : (0.122"x3") SPIRAL NAILS          |                      |           |
| 2x3                                      | 6                    |           |
| 2x4                                      | 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.

### 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             |
| 27             | 6758 | 0                | 6758 | 0     | 0      | 5-8   | 5-8 + FLUSH PLATE |
| 13             | 1848 | 0                | 1848 | 0     | 0      | 1-8   | 1-8               |

#### UNFACTORED REACTIONS

| 1ST LCASE |          | MAX./MIN. COMPONENT REACTIONS |       |           |       |          |       |
|-----------|----------|-------------------------------|-------|-----------|-------|----------|-------|
| JT        | COMBINED | SNOW                          | LIVE  | PERM.LIVE | WIND  | DEAD     | SOIL  |
| 27        | 4743     | 3318 / 0                      | 0 / 0 | 0 / 0     | 0 / 0 | 1425 / 0 | 0 / 0 |
| 13        | 1298     | 906 / 0                       | 0 / 0 | 0 / 0     | 0 / 0 | 392 / 0  | 0 / 0 |

BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S) 27, 13

#### BRACING

TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 2.40 FT. MAX. UNBRACED BOTTOM CHORD LENGTH = 7.81 FT. OR RIGID CEILING DIRECTLY APPLIED.

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

#### LOADING

TOTAL LOAD CASES: (3)

| C H O R D S |                           |                           |                                      | W E B S |                           |                                      |                                      |
|-------------|---------------------------|---------------------------|--------------------------------------|---------|---------------------------|--------------------------------------|--------------------------------------|
| MEMB.       | MAX. FACTORED FORCE (LBS) | FACTORED VERT. LOAD (PLF) | MAX. FACTORED VERT. LOAD (LC1) (LBS) | MEMB.   | MAX. FACTORED FORCE (LBS) | MAX. FACTORED VERT. LOAD (LC1) (LBS) | MAX. FACTORED VERT. LOAD (LC1) (LBS) |
| FR-TO       |                           | FROM TO                   |                                      | FR-TO   |                           |                                      |                                      |
| 27- 1       | -6720 / 0                 | 0.0                       | 0.0 0.38 (1)                         | 4.64    | 1-26                      | 0 / 8938                             | 0.79 (1)                             |
| 1- 2        | -6023 / 0                 | -77.3                     | -77.3 0.17 (1)                       | 3.86    | 26- 2                     | -4311 / 0                            | 0.33 (1)                             |
| 2- 3        | -10974 / 0                | -77.3                     | -77.3 0.43 (1)                       | 2.62    | 2-25                      | 0 / 6665                             | 0.82 (1)                             |
| 3- 4        | -12285 / 0                | -77.3                     | -77.3 0.48 (1)                       | 2.40    | 25- 3                     | -5034 / 0                            | 0.39 (1)                             |
| 4- 5        | -8723 / 0                 | -77.3                     | -77.3 0.41 (1)                       | 2.97    | 3-24                      | -2152 / 0                            | 0.17 (1)                             |
| 5- 6        | -8476 / 0                 | -77.3                     | -77.3 0.41 (1)                       | 3.03    | 24- 4                     | 0 / 5171                             | 0.64 (1)                             |
| 6- 7        | -2807 / 0                 | -77.3                     | -77.3 0.10 (1)                       | 5.38    | 4-23                      | -4805 / 0                            | 0.40 (1)                             |
| 7- 8        | -2159 / 0                 | -77.3                     | -77.3 0.05 (1)                       | 6.01    | 23-21                     | 0 / 3906                             | 0.48 (1)                             |
| 8- 9        | -2159 / 0                 | -77.3                     | -77.3 0.05 (1)                       | 6.01    | 23- 6                     | 0 / 7829                             | 0.97 (1)                             |
| 9-10        | -2178 / 0                 | -77.3                     | -77.3 0.06 (1)                       | 5.98    | 21- 6                     | -1722 / 0                            | 0.44 (1)                             |
| 10-11       | -2187 / 0                 | -77.3                     | -77.3 0.06 (1)                       | 5.98    | 6-20                      | -2509 / 0                            | 0.78 (1)                             |
| 11-12       | -1993 / 0                 | -77.3                     | -77.3 0.06 (1)                       | 6.18    | 20- 7                     | 0 / 1891                             | 0.23 (1)                             |
| 14-12       | -1951 / 0                 | 0.0                       | 0.0 0.11 (1)                         | 7.81    | 7-19                      | -513 / 0                             | 0.28 (1)                             |
|             |                           |                           |                                      |         | 19- 8                     | -213 / 0                             | 0.10 (1)                             |
| 27-26       | 0 / 0                     | -17.5                     | -17.5 0.01 (1)                       | 10.00   | 19- 9                     | 0 / 1025                             | 0.13 (1)                             |
| 26-25       | 0 / 6023                  | -17.5                     | -17.5 0.46 (1)                       | 10.00   | 18- 9                     | 0 / 63                               | 0.01 (3)                             |
| 25-24       | 0 / 11426                 | -17.5                     | -17.5 0.69 (1)                       | 10.00   | 18-10                     | -41 / 0                              | 0.01 (1)                             |
| 24-23       | 0 / 10348                 | -17.5                     | -17.5 0.67 (1)                       | 10.00   | 16-10                     | -194 / 0                             | 0.04 (1)                             |
| 22-23       | -141 / 0                  | 0.0                       | 0.0 0.20 (1)                         | 7.81    | 16-11                     | 0 / 239                              | 0.03 (1)                             |
| 23- 5       | 0 / 231                   | 0.0                       | 0.0 0.23 (1)                         | 10.00   | 15-11                     | -526 / 0                             | 0.06 (1)                             |
| 22-21       | 0 / 91                    | -17.5                     | -17.5 0.14 (1)                       | 10.00   | 15-12                     | 0 / 1824                             | 0.23 (1)                             |
| 21-20       | 0 / 3322                  | -17.5                     | -17.5 0.35 (1)                       | 10.00   |                           |                                      |                                      |
| 20-19       | 0 / 2338                  | -17.5                     | -17.5 0.26 (1)                       | 10.00   |                           |                                      |                                      |
| 19-18       | 0 / 1800                  | -17.5                     | -17.5 0.17 (1)                       | 10.00   |                           |                                      |                                      |
| 18-17       | 0 / 1819                  | -17.5                     | -17.5 0.14 (1)                       | 10.00   |                           |                                      |                                      |
| 17-16       | 0 / 1819                  | -17.5                     | -17.5 0.14 (1)                       | 10.00   |                           |                                      |                                      |
| 16-15       | 0 / 1666                  | -17.5                     | -17.5 0.13 (1)                       | 10.00   |                           |                                      |                                      |
| 15-14       | 0 / 0                     | -17.5                     | -17.5 0.13 (1)                       | 10.00   |                           |                                      |                                      |
| 14-13       | 0 / 0                     | -17.5                     | -17.5 0.13 (1)                       | 10.00   |                           |                                      |                                      |

#### FACTORED CONCENTRATED LOADS (LBS)

| JT | LOC.   | LC1   | MAX- MAX+ | FACE | DIR.  | TYPE |
|----|--------|-------|-----------|------|-------|------|
| 24 | 3-1-8  | -5291 | -5291     | ---  | FRONT | VERT |
| 26 | 1-0-12 | -1147 | -1147     | ---  | FRONT | VERT |

RECEIVED  
TOWN OF MILTON  
MAR 29, 2017  
17-5246  
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

\*\*\* 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 ALL FLAT SECTIONS BASED ON A SLOPE OF 6.00/12

\*\*\* 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 (0.77")  
CALCULATED VERT. DEFL.(LL) = L/999 (0.14")  
ALLOWABLE DEFL.(TL)= L/360 (0.77")  
CALCULATED VERT. DEFL.(TL) = L/999 (0.25")

CSI: TC=0.48 (3-4:1), BC=0.69 (24-25:1), WB=0.97 (6-23:1), SSI=0.61 (13-14:1)

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

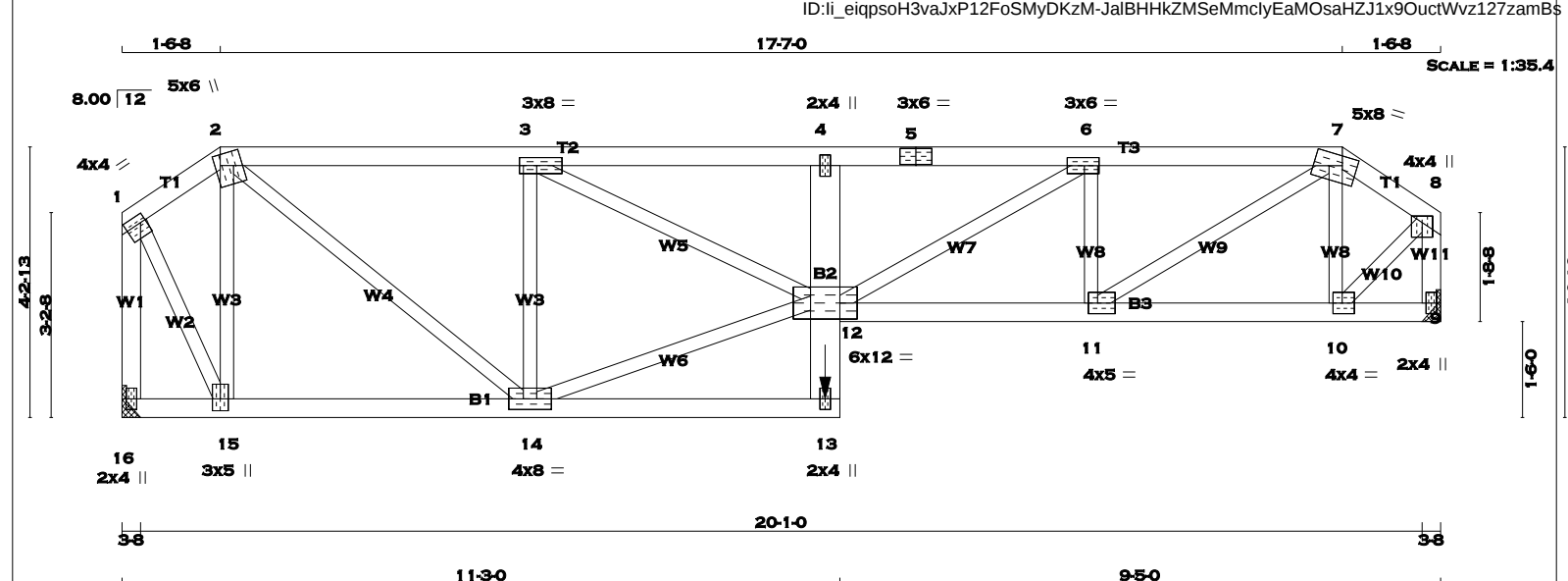
TRUSS PLATE MANUFACTURER IS NOT RESPONSIBLE FOR QUALITY CONTROL IN THE TRUSS MANUFACTURING PLANT .

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

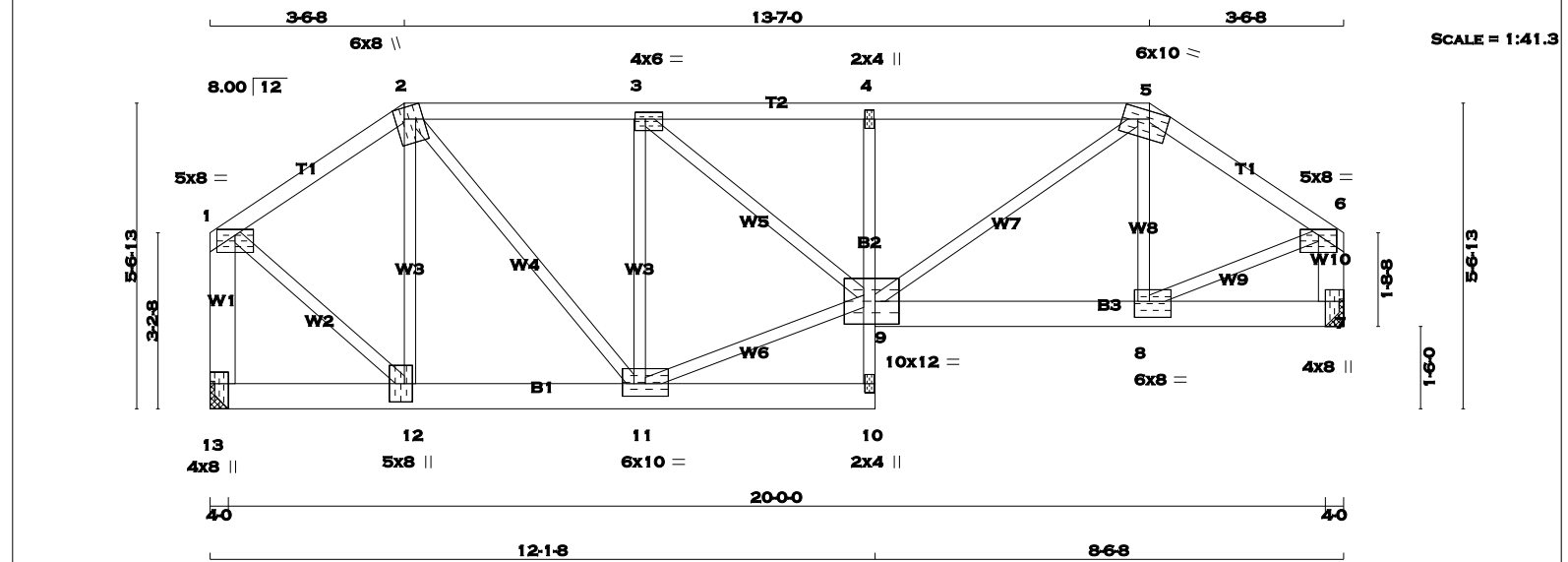
PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.90 (25) (INPUT = 0.90 )  
JSI METAL= 0.81 (3) (INPUT = 1.00 )



<



TOTAL WEIGHT = 2 X 108 = 215 lb  
[M]

| LUMBER            |      |        |        |
|-------------------|------|--------|--------|
| N. L. G. A. RULES |      |        |        |
| CHORDS            | SIZE | LUMBER | DESCR. |
| 1 - 2             | 2x4  | DRY    | No.2   |
| 2 - 5             | 2x4  | DRY    | No.2   |
| 5 - 6             | 2x4  | DRY    | No.2   |
| 13- 1             | 2x6  | DRY    | No.2   |
| 7 - 6             | 2x6  | DRY    | No.2   |
| 13- 10            | 2x6  | DRY    | No.2   |
| 10- 4             | 2x3  | DRY    | No.2   |
| 9 - 7             | 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    |                      |           |
| 1-2                                      | 12                   | TOP       |
| 2-5                                      | 12                   | TOP       |
| 5-6                                      | 12                   | TOP       |
| 13-1                                     | 2                    | TOP       |
| 7-6                                      | 2                    | TOP       |
| BOTTOM CHORDS : (0.122"x3") SPIRAL NAILS |                      |           |
| 13-10                                    | 2                    | 12        |
| 9-7                                      | 2                    | 12        |
| 10-4                                     | 1                    | 12        |
| WEBS : (0.122"x3") SPIRAL NAILS          |                      |           |
| 2x3                                      | 1                    | 6         |

NAILS TO BE DRIVEN FROM ONE SIDE ONLY.

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

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-p | MT20   | 5.0 | 8.0 | 1.25 4.00 |
| 2                           | TTWW+m | MT20   | 6.0 | 8.0 | Edge 2.00 |
| 3                           | TMVW-t | MT20   | 4.0 | 6.0 | 1.50 2.25 |
| 4                           | TMV+p  | MT20   | 2.0 | 4.0 |           |



March 15th, 2017

**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 | JT                              | HORZ | DOWN      | UPLIFT    |
| 13                      | 5291 | 0                               | 5291 | 0         | 0         |
| 7                       | 5291 | 0                               | 5291 | 0         | 0         |

| UNFACTORED REACTIONS |           |          |       |       |           |       |          |
|----------------------|-----------|----------|-------|-------|-----------|-------|----------|
| JT                   | 1ST LCASE | MAX/MIN. | SNOW  | LIVE  | PERM.LIVE | WIND  | DEAD     |
| 13                   | 3713      | 2598 / 0 | 0 / 0 | 0 / 0 | 0 / 0     | 0 / 0 | 1116 / 0 |
| 7                    | 3713      | 2598 / 0 | 0 / 0 | 0 / 0 | 0 / 0     | 0 / 0 | 1116 / 0 |

**BRACING**  
TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 3.38 FT.  
MAX. UNBRACED BOTTOM CHORD LENGTH = 7.81 FT. OR RIGID CEILING DIRECTLY APPLIED.

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

| LOADING               |                      |       |                      |
|-----------------------|----------------------|-------|----------------------|
| TOTAL LOAD CASES: (4) |                      |       |                      |
| CHORDS                |                      | WEBS  |                      |
| MEMB.                 | FACTORED FORCE (LBS) | MEMB. | FACTORED FORCE (LBS) |
| FR-TO                 | FROM TO              | FR-TO | FROM TO              |
| 1-2                   | -3793 / 0            | 12-2  | -557 / 0             |
| 2-3                   | -5106 / 0            | 2-11  | 0 / 3082             |
| 3-4                   | -7217 / 0            | 11-3  | -2194 / 0            |
| 4-5                   | -7235 / 0            | 11-9  | 0 / 5377             |
| 5-6                   | -5425 / 0            | 3-9   | 0 / 2815             |
| 13-1                  | -4671 / 0            | 8-5   | 0 / 3339             |
| 7-6                   | -4768 / 0            | 8-5   | 0 / 736              |
|                       |                      | 1-12  | 0 / 3973             |
|                       |                      | 8-6   | 0 / 4784             |
| 13-12                 | 0 / 0                |       |                      |
| 12-11                 | 0 / 3139             |       |                      |
| 11-10                 | 0 / 43               |       |                      |
| 10-9                  | 0 / 749              |       |                      |
| 9-4                   | -361 / 0             |       |                      |
| 9-8                   | 0 / 4526             |       |                      |
| 8-7                   | 0 / 0                |       |                      |

**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: CStdGirder  
START DISTANCE = 0-0  
START SPAN CARRIED = 19-8-10  
END DISTANCE = 20-8-0  
END SPAN CARRIED = 19-8-10  
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, 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 (0.69")  
CALCULATED VERT. DEFL.(LL) = L/ 999 (0.12")  
ALLOWABLE DEFL.(TL)= L/360 (0.69")  
CALCULATED VERT. DEFL.(TL) = L/ 999 (0.21")

CSI: TC=0.40 (4-5:1) , BC=0.66 (8-9:1) , WB=0.67 (9-11:1) , SSI=0.43 (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

AUTOSOLVE HEELS OFF

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 |

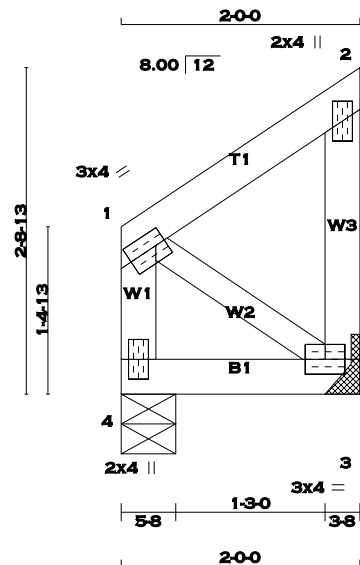
PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.72 (11) (INPUT = 0.90 )  
JSI METAL= 0.48 (5) (INPUT = 1.00 )

RECEIVED  
TOWN OF MILTON  
MAR 29, 2017  
17-5246  
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 = 1:19.3

TOTAL WEIGHT = 10 lb [M]

| LUMBER                |     |      |        |        |
|-----------------------|-----|------|--------|--------|
| N. L. G. A. RULES     |     |      |        |        |
| CHORDS                |     | SIZE | LUMBER | DESCR. |
| 1 - 2                 | 2x4 | DRY  | No.2   | SPF    |
| 3 - 2                 | 2x4 | DRY  | No.2   | SPF    |
| 4 - 1                 | 2x4 | DRY  | No.2   | SPF    |
| 4 - 3                 | 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    |
| 1                           | TMVW-t  | MT20   | 3.0 | 4.0 | 1.50 | 1.00 |
| 2                           | TMV+p   | MT20   | 2.0 | 4.0 |      |      |
| 3                           | BMVW1-t | MT20   | 3.0 | 4.0 |      |      |
| 4                           | 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     |  |
| 3  |  | 314                     | 0    | 314                             | 0    | 0         | HANGER BY OTHERS    |           |  |
| 4  |  | 314                     | 0    | 314                             | 0    | 0         | MIN. SEAT SIZE: 3-8 |           |  |

#### UNFACTORED REACTIONS

|    |  | 1ST LCASE | MAX./MIN. COMPONENT REACTIONS |       |           |       |        |       |
|----|--|-----------|-------------------------------|-------|-----------|-------|--------|-------|
| JT |  | COMBINED  | SNOW                          | LIVE  | PERM.LIVE | WIND  | DEAD   | SOIL  |
| 3  |  | 220       | 154 / 0                       | 0 / 0 | 0 / 0     | 0 / 0 | 66 / 0 | 0 / 0 |
| 4  |  | 220       | 154 / 0                       | 0 / 0 | 0 / 0     | 0 / 0 | 66 / 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 = 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         |        |                      | MAX. FACTORED | FACTORED    |                      |          |
| MEMB. |         | FORCE (LBS)   | VERT. LOAD (PLF) | LC1    | MAX. UNBRACED LENGTH | MEMB.         | FORCE (LBS) | MAX. UNBRACED LENGTH |          |
| FR-TO |         |               | FROM             | TO     |                      | FR-TO         |             |                      |          |
| 1-2   | 0 / 0   |               | -77.3            | -77.3  | 0.06 (1)             | 10.00         | 1-3         | 0 / 0                | 0.00 (1) |
| 3-2   | -77 / 0 |               | 0.0              | 0.0    | 0.01 (1)             | 7.81          |             |                      |          |
| 4-1   | -77 / 0 |               | 0.0              | 0.0    | 0.01 (1)             | 7.81          |             |                      |          |
| 4-3   | 0 / 0   |               | -236.8           | -236.8 | 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

GIRDER TYPE: CStdGirder  
START DISTANCE = 0-0  
START SPAN CARRIED = 11-3-0  
END DISTANCE = 2-0-0  
END SPAN CARRIED = 11-3-0  
END WALL WIDTH = 0-0  
APPLIED TO FRONT SIDE OF BOTTOM CHORD.  
- ADDTL LOADS BASED ON 55 % OF GSL.

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

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 (0.01")

CSI: TC=0.06 (1-2:1) , BC=0.18 (3-4:1) , WB=0.00 (1-3:1) , SSI=0.20 (3-4:1)

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) | (PSI)                 | (PLI) | (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.

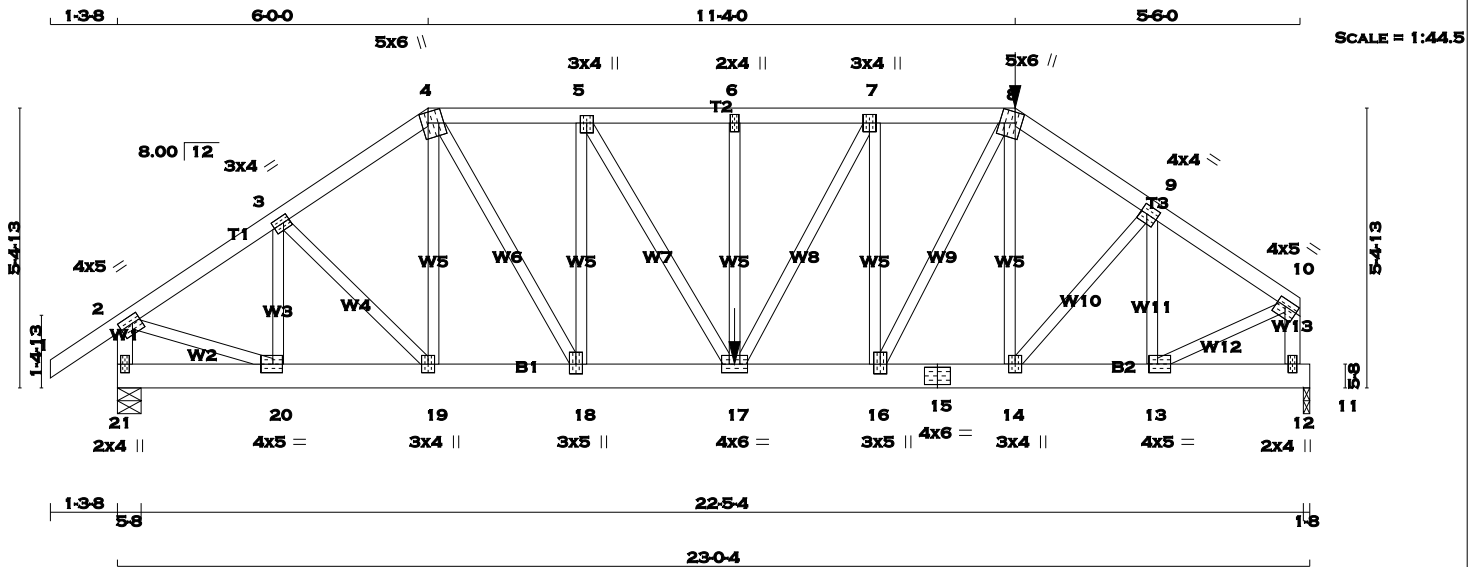
JSI GRIP= 0.08 (3) (INPUT = 0.90 )  
JSI METAL= 0.02 (2) (INPUT = 1.00 )

March 15th, 2017

RECEIVED  
TOWN OF MILTON  
MAR 29, 2017  
17-5246  
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 - 8                                                                                                                                                                                                | 2x4                  | DRY       | No.2       | SPF           |
| 8 - 10                                                                                                                                                                                               | 2x4                  | DRY       | No.2       | SPF           |
| 21 - 2                                                                                                                                                                                               | 2x4                  | DRY       | No.2       | SPF           |
| 12 - 10                                                                                                                                                                                              | 2x4                  | DRY       | No.2       | SPF           |
| 21 - 15                                                                                                                                                                                              | 2x6                  | DRY       | No.2       | SPF           |
| 15 - 11                                                                                                                                                                                              | 2x6                  | DRY       | No.2       | SPF           |
| ALL WEBS EXCEPT                                                                                                                                                                                      | 2x3                  | DRY       | No.2       | SPF           |
| DRY: SEASONED LUMBER.                                                                                                                                                                                |                      |           |            |               |
| DESIGN CONSISTS OF <b>2</b> TRUSSES BUILT SEPARATELY THEN FASTENED TOGETHER AS FOLLOWS:                                                                                                              |                      |           |            |               |
| CHORDS #ROWS                                                                                                                                                                                         | SURFACE SPACING (IN) | LOAD(PLF) |            |               |
| TOP CHORDS : (0.122"x3") SPIRAL NAILS                                                                                                                                                                |                      |           |            |               |
| 1-4                                                                                                                                                                                                  | 1                    | 12        | TOP        |               |
| 4-8                                                                                                                                                                                                  | 1                    | 12        | SIDE(34.2) |               |
| 8-10                                                                                                                                                                                                 | 1                    | 12        | SIDE(0.0)  |               |
| 21-2                                                                                                                                                                                                 | 1                    | 12        | TOP        |               |
| 12-10                                                                                                                                                                                                | 1                    | 12        | TOP        |               |
| BOTTOM CHORDS : (0.122"x3") SPIRAL NAILS                                                                                                                                                             |                      |           |            |               |
| 21-15                                                                                                                                                                                                | 2                    | 12        | SIDE(8.7)  |               |
| 15-11                                                                                                                                                                                                | 2                    | 12        | SIDE(8.7)  |               |
| WEBS : (0.122"x3") SPIRAL NAILS                                                                                                                                                                      |                      |           |            |               |
| 2x3                                                                                                                                                                                                  | 1                    | 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                                                                                                                                                                                                    | TMWV-t               | MT20      | 4.0        | 5.0 1.75 2.00 |
| 3                                                                                                                                                                                                    | TMWV-t               | MT20      | 3.0        | 4.0 1.50 1.50 |
| 4                                                                                                                                                                                                    | TTWW+m               | MT20      | 5.0        | 6.0 2.50 1.50 |

| 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        |       |  |
| 21                                                                                            | 2422                      | 0                             | 2422                            | 0                    | 0         | 5-8                       | 5-8          |       |  |
| 11                                                                                            | 2728                      | 0                             | 2728                            | 0                    | 0         | 1-8                       | 1-8          |       |  |
| UNFACTORED REACTIONS                                                                          |                           |                               |                                 |                      |           |                           |              |       |  |
| JT                                                                                            | 1ST LCASE COMBINED        | MAX./MIN. COMPONENT REACTIONS |                                 |                      |           | WIND                      | DEAD         | SOIL  |  |
| 21                                                                                            | 1697                      | 1204 / 0                      | 0 / 0                           | 0 / 0                | 0 / 0     | 0 / 0                     | 492 / 0      | 0 / 0 |  |
| 11                                                                                            | 1917                      | 1327 / 0                      | 0 / 0                           | 0 / 0                | 0 / 0     | 0 / 0                     | 590 / 0      | 0 / 0 |  |
| BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S) 21, 11                                  |                           |                               |                                 |                      |           |                           |              |       |  |
| BRACING                                                                                       |                           |                               |                                 |                      |           |                           |              |       |  |
| TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 4.60 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.                    |                           |                               |                                 |                      |           |                           |              |       |  |
| LOADING                                                                                       |                           |                               |                                 |                      |           |                           |              |       |  |
| TOTAL LOAD CASES: (4)                                                                         |                           |                               |                                 |                      |           |                           |              |       |  |
| CHORDS                                                                                        |                           |                               |                                 | WEBS                 |           |                           |              |       |  |
| 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 / 29                    | -77.3                         | -77.3 0.06 (1)                  | 10.00                | 20-3      | -722 / 0                  | 0.07 (1)     |       |  |
| 2-3                                                                                           | -2619 / 0                 | -77.3                         | -77.3 0.07 (1)                  | 5.56                 | 3-19      | 0 / 368                   | 0.05 (1)     |       |  |
| 3-4                                                                                           | -2959 / 0                 | -77.3                         | -77.3 0.08 (1)                  | 5.30                 | 19-4      | -166 / 0                  | 0.03 (1)     |       |  |
| 4-5                                                                                           | -3391 / 0                 | -77.3                         | -77.3 0.08 (1)                  | 5.02                 | 4-18      | 0 / 1865                  | 0.23 (1)     |       |  |
| 5-6                                                                                           | -4098 / 0                 | -77.3                         | -77.3 0.10 (1)                  | 4.64                 | 18-5      | -1442 / 0                 | 0.30 (1)     |       |  |
| 6-7                                                                                           | -4098 / 0                 | -145.8                        | -145.8 0.13 (1)                 | 4.60                 | 5-17      | 0 / 1394                  | 0.17 (1)     |       |  |
| 7-8                                                                                           | -3608 / 0                 | -145.8                        | -145.8 0.11 (1)                 | 4.86                 | 17-6      | -272 / 0                  | 0.06 (1)     |       |  |
| 8-9                                                                                           | -3347 / 0                 | -77.3                         | -77.3 0.07 (1)                  | 5.05                 | 17-7      | 0 / 1033                  | 0.13 (1)     |       |  |
| 9-10                                                                                          | -2940 / 0                 | -77.3                         | -77.3 0.07 (1)                  | 5.32                 | 16-7      | -1348 / 0                 | 0.28 (1)     |       |  |
| 21-2                                                                                          | -2367 / 0                 | 0.0                           | 0.0 0.13 (1)                    | 7.31                 | 16-8      | 0 / 1778                  | 0.22 (1)     |       |  |
| 12-10                                                                                         | -2873 / 0                 | 0.0                           | 0.0 0.17 (1)                    | 6.77                 | 14-8      | -298 / 4                  | 0.06 (1)     |       |  |
|                                                                                               |                           |                               |                                 |                      | 14-9      | 0 / 486                   | 0.06 (1)     |       |  |
| 21-20                                                                                         | 0 / 0                     | -17.5                         | -17.5 0.03 (1)                  | 10.00                | 13-9      | -844 / 0                  | 0.09 (1)     |       |  |
| 20-19                                                                                         | 0 / 2189                  | -17.5                         | -17.5 0.17 (1)                  | 10.00                | 2-20      | 0 / 2299                  | 0.28 (1)     |       |  |
| 19-18                                                                                         | 0 / 2443                  | -17.5                         | -17.5 0.18 (1)                  | 10.00                | 13-10     | 0 / 2707                  | 0.34 (1)     |       |  |
| 18-17                                                                                         | 0 / 3391                  | -17.5                         | -17.5 0.32 (1)                  | 10.00                |           |                           |              |       |  |
| 17-16                                                                                         | 0 / 3608                  | -33.0                         | -33.0 0.34 (1)                  | 10.00                |           |                           |              |       |  |
| 16-15                                                                                         | 0 / 2763                  | -33.0                         | -33.0 0.20 (1)                  | 10.00                |           |                           |              |       |  |
| 15-14                                                                                         | 0 / 2763                  | -33.0                         | -33.0 0.20 (1)                  | 10.00                |           |                           |              |       |  |
| 14-13                                                                                         | 0 / 2454                  | -33.0                         | -33.0 0.18 (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         |       |  |
| 8                                                                                             | 17-4-0                    | -330                          | -330                            | ---                  | FRONT     | VERT                      | TOTAL        |       |  |
| 17                                                                                            | 11-11-0                   | -2002                         | -2002                           | ---                  | 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 = 6-0-0  
RIGHT SETBACK = 5-8-4  
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 11-0-10 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 (0.77")  
CALCULATED VERT. DEFL.(LL) = L/999 (0.06")  
ALLOWABLE DEFL.(TL)= L/360 (0.77")  
CALCULATED VERT. DEFL.(TL) = L/999 (0.11")

CSI: TC=0.17 (10-12:1) , BC=0.34 (16-17:1) , WB=0.34 (10-13:1) , SSI=0.90 (11-12:1)

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

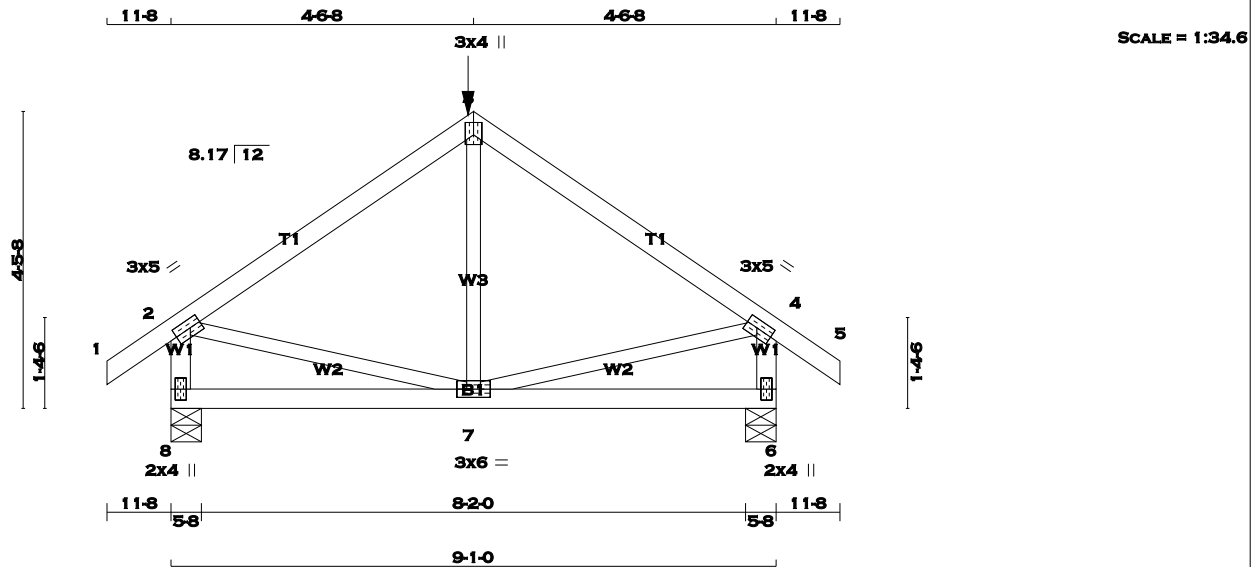
PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION = 1/8 deg

March 15th, 2017

RECEIVED  
TOWN OF MILTON  
MAR 29, 2017  
17-5246  
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 = 2 X 38 = 76 lb

| 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   |  | SPF    |
| EXCEPT                |        |      |        |  |        |
| 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.

**HANGERS NOTES**  
1) SPECIAL HANGER(S) OR CONNECTION(S) REQUIRED TO SUPPORT CONCENTRATED LOAD(S) 197.0 lbs FACTORED DOWN AT 4-6-8 ON TOP CHORD. DESIGN FOR UNSPECIFIED CONNECTION(S) IS DELEGATED TO THE BUILDING DESIGNER.

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

| BEARINGS |      | FACTORED       |      | MAXIMUM FACTORED |      | INPUT |        | REQRD |       |
|----------|------|----------------|------|------------------|------|-------|--------|-------|-------|
| JT       | VERT | GROSS REACTION | HORZ | GROSS REACTION   | DOWN | HORZ  | UPLIFT | BRG   | IN-SX |
| 8        | 624  | 0              | 624  | 0                | 0    | 5-8   | 5-8    | 5-8   | 5-8   |
| 6        | 624  | 0              | 624  | 0                | 0    | 5-8   | 5-8    | 5-8   | 5-8   |

| UNFACTORED REACTIONS |           |          |      |      |           |      |       |
|----------------------|-----------|----------|------|------|-----------|------|-------|
| JT                   | 1ST LCASE | COMBINED | SNOW | LIVE | PERM.LIVE | WIND | DEAD  |
| 8                    | 435       | 319      | 0    | 0/0  | 0/0       | 0/0  | 116/0 |
| 6                    | 435       | 319      | 0    | 0/0  | 0/0       | 0/0  | 116/0 |

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: (4) |                           |                           |               |
|---------|---------------------------|---------------------------|----------------|-----------------------|---------------------------|---------------------------|---------------|
| CHORDS  |                           | WEBS                      |                | 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 0.07 (1) | 10.00                 | 7-3                       | -53/83                    | 0.03 (4)      |
| 2-3     | -440/0                    | -77.3                     | -77.3 0.31 (1) | 6.25                  | 2-7                       | 0/373                     | 0.09 (1)      |
| 3-4     | -440/0                    | -77.3                     | -77.3 0.31 (1) | 6.25                  | 7-4                       | 0/373                     | 0.09 (1)      |
| 4-5     | 0/23                      | -77.3                     | -77.3 0.07 (1) | 10.00                 |                           |                           |               |
| 8-2     | -587/0                    | 0.0                       | 0.0 0.07 (1)   | 7.81                  |                           |                           |               |
| 6-4     | -587/0                    | 0.0                       | 0.0 0.07 (1)   | 7.81                  |                           |                           |               |
| 8-7     | 0/0                       | -20.7                     | -20.7 0.13 (4) | 10.00                 |                           |                           |               |
| 7-6     | 0/0                       | -20.7                     | -20.7 0.13 (4) | 10.00                 |                           |                           |               |

| FACTORED CONCENTRATED LOADS (LBS) |       |      |      |      |       |      |       |
|-----------------------------------|-------|------|------|------|-------|------|-------|
| JT                                | LOC.  | LC1  | MAX- | MAX+ | FACE  | DIR. | TYPE  |
| 3                                 | 4-6-8 | -197 | -197 | ---  | 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**

GIRDER TYPE: CPrimeHip  
SIDE SETBACK = 4-6-8  
END SETBACK = 3-2-3  
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, NBC 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=0.31 (3-4:1) , BC=0.13 (7-8:4) , WB=0.09 (2-7:1) , SSI=0.12 (3-4:1)

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.

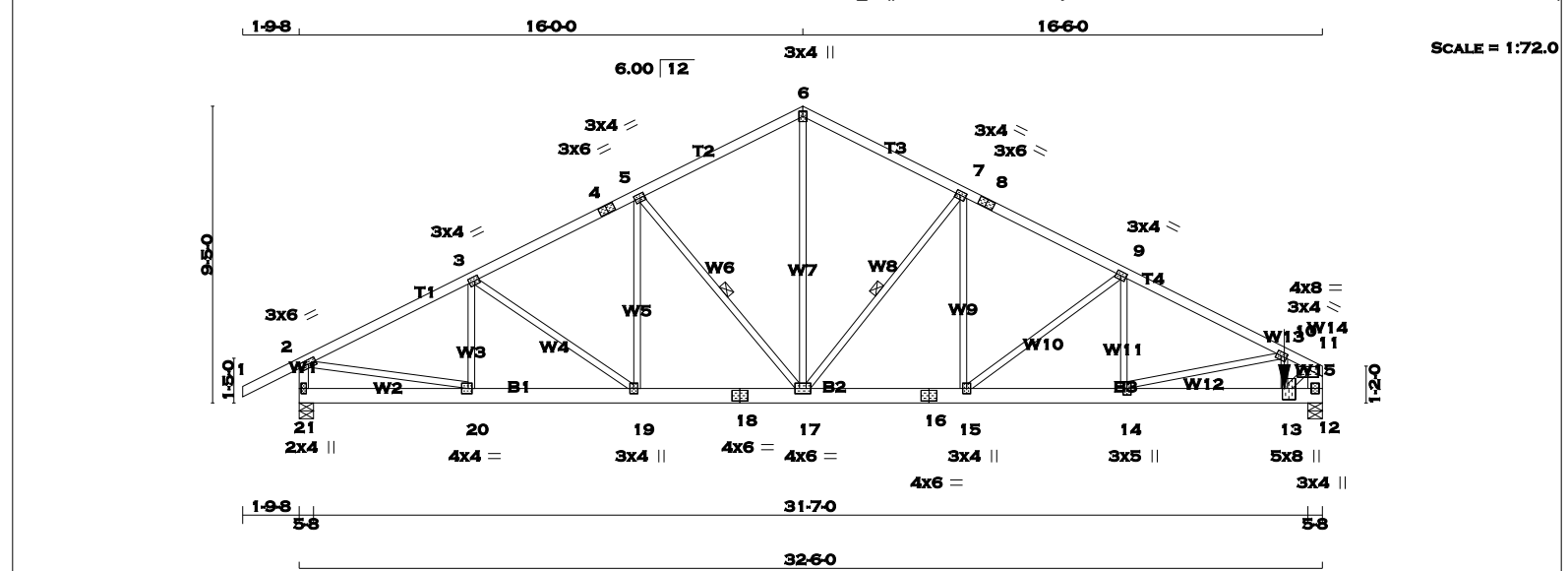
JSI GRIP= 0.69 (7) (INPUT = 0.90 )  
JSI METAL= 0.18 (4) (INPUT = 1.00 )

March 15th, 2017

RECEIVED  
TOWN OF MILTON  
MAR 29, 2017  
17-5246  
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 - 8

2x4

DRY

No.2

SPF

8 - 11

2x4

DRY

No.2

SPF

21 - 2

2x4

DRY

No.2

SPF

12 - 11

2x6

DRY

No.2

SPF

21 - 18

2x6

DRY

No.2

SPF

18 - 16

2x6

DRY

No.2

SPF

16 - 12

2x6

DRY

No.2

SPF

ALL WEBS

2x3

DRY

No.2

SPF

EXCEPT

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

21

1812

0

1812

0

0

5-8

5-8

12

4831

0

4831

0

0

5-8

5-8

UNFACTORED REACTIONS

1ST LCASE

MAX/MIN. COMPONENT REACTIONS

JT

COMBINED

SNOW

LIVE

PERM.LIVE

WIND

DEAD

SOIL

21

1268

906 / 0

0 / 0

0 / 0

0 / 0

363 / 0

0 / 0

12

3391

2372 / 0

0 / 0

0 / 0

0 / 0

1019 / 0

0 / 0

TOTAL WEIGHT = 4 X 159 = 638 lb

| CHORDS #ROWS                             | SURFACE SPACING (IN) | LOAD(PLF) |
|------------------------------------------|----------------------|-----------|
| TOP CHORDS : (0.122"x3") SPIRAL NAILS    |                      |           |
| 1-4                                      | 1                    | 12        |
| 4-6                                      | 1                    | 12        |
| 6-8                                      | 1                    | 12        |
| 8-11                                     | 1                    | 12        |
| 21-2                                     | 1                    | 12        |
| 12-11                                    | 2                    | 12        |
| BOTTOM CHORDS : (0.122"x3") SPIRAL NAILS |                      |           |
| 21-18                                    | 2                    | 12        |
| 18-16                                    | 2                    | 12        |
| 16-12                                    | 2                    | 12        |
| WEBS : (0.122"x3") SPIRAL NAILS          |                      |           |
| 2x3                                      | 1                    | 6         |

DRY: SEASONED LUMBER.

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

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

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

\*\*\* 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 (1.08")

CALCULATED VERT. DEFL.(LL)= L/999 (0.06")

ALLOWABLE DEFL.(TL)= L/360 (1.08")

CALCULATED VERT. DEFL.(TL)= L/999 (0.10")

CSI: TC=0.20 (2-3:1) , BC=0.40 (13-14:1) , WB=0.58 (11-13:1) , SSI=0.11 (12-13:1)

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= 0.87 (2) (INPUT = 0.90 )

JSI METAL= 0.51 (13) (INPUT = 1.00 )

|                                                                                                                                    |       |             |                  |           |              |             |       |             |              |                                                                                   |
|------------------------------------------------------------------------------------------------------------------------------------|-------|-------------|------------------|-----------|--------------|-------------|-------|-------------|--------------|-----------------------------------------------------------------------------------|
| GIRDER NAILING ASSUMES NAILED HANGERS ARE FASTENED WITH MIN. 3-0 INCH NAILS.                                                       | MEMB. | FORCE (LBS) | VERT. LOAD (LBS) | LC1 (PLF) | MAX CSI (LC) | MAX. UNBRAC | MEMB. | FORCE (LBS) | MAX CSI (LC) | CSI: TC=0.20 (2-3:1) , BC=0.40 (13-14:1) , WB=0.58 (11-13:1) , SSI=0.11 (12-13:1) |
| 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.   | FR-TO |             |                  | FROM      | TO           | LENGTH      | FR-TO |             |              |                                                                                   |
|                                                                                                                                    | 1-2   | 0 / 32      |                  | -77.3     | -77.3        | 0.10 (1)    | 10.00 | 20-3        | -309 / 0     | 0.04 (1)                                                                          |
|                                                                                                                                    | 2-3   | -2330 / 0   |                  | -77.3     | -77.3        | 0.20 (1)    | 5.67  | 3-19        | -148 / 0     | 0.06 (1)                                                                          |
|                                                                                                                                    | 3-4   | -2214 / 0   |                  | -77.3     | -77.3        | 0.19 (1)    | 5.78  | 19-5        | 0 / 173      | 0.02 (3)                                                                          |
|                                                                                                                                    | 4-5   | -2214 / 0   |                  | -77.3     | -77.3        | 0.19 (1)    | 5.78  | 5-17        | -566 / 0     | 0.13 (1)                                                                          |
|                                                                                                                                    | 5-6   | -1828 / 0   |                  | -77.3     | -77.3        | 0.18 (1)    | 6.23  | 17-6        | 0 / 1296     | 0.16 (1)                                                                          |
|                                                                                                                                    | 6-7   | -1828 / 0   |                  | -77.3     | -77.3        | 0.17 (1)    | 6.24  | 17-7        | -941 / 0     | 0.22 (1)                                                                          |
| SIDE - PLF SHOWN IS THE EQUIVALENT UDL APPLIED TO ONE SIDE THAT THE CORRESPONDING NAILING PATTERN SHALL BE CAPABLE OF TRANSFERING. | 7-8   | -2459 / 0   |                  | -77.3     | -77.3        | 0.19 (1)    | 5.57  | 15-7        | 0 / 594      | 0.07 (1)                                                                          |
| REMAINING PLF MUST BE APPLIED ON THE OPPOSITE SIDE OR ON THE TOP.                                                                  | 8-9   | -2459 / 0   |                  | -77.3     | -77.3        | 0.19 (1)    | 5.57  | 15-9        | -893 / 0     | 0.33 (1)                                                                          |
|                                                                                                                                    | 9-10  | -3241 / 0   |                  | -77.3     | -77.3        | 0.20 (1)    | 5.00  | 14-9        | 0 / 485      | 0.06 (1)                                                                          |
|                                                                                                                                    | 10-11 | -4386 / 0   |                  | -77.3     | -77.3        | 0.10 (1)    | 4.50  | 14-10       | -1068 / 0    | 0.26 (1)                                                                          |
|                                                                                                                                    | 21-2  | -1760 / 0   |                  | 0.0       | 0.0          | 0.10 (1)    | 7.81  | 13-10       | 0 / 531      | 0.07 (1)                                                                          |
|                                                                                                                                    | 12-11 | -4499 / 0   |                  | 0.0       | 0.0          | 0.16 (1)    | 6.79  | 2-20        | 0 / 2136     | 0.26 (1)                                                                          |
|                                                                                                                                    |       |             |                  |           |              |             |       |             |              |                                                                                   |
|                                                                                                                                    |       |             |                  |           |              |             |       |             |              |                                                                                   |
|                                                                                                                                    |       |             |                  |           |              |             |       |             |              |                                                                                   |
|                                                                                                                                    |       |             |                  |           |              |             |       |             |              |                                                                                   |
|                                                                                                                                    |       |             |                  |           |              |             |       |             |              |                                                                                   |
|                                                                                                                                    |       |             |                  |           |              |             |       |             |              |                                                                                   |
|                                                                                                                                    |       |             |                  |           |              |             |       |             |              |                                                                                   |
|                                                                                                                                    |       |             |                  |           |              |             |       |             |              |                                                                                   |
|                                                                                                                                    |       |             |                  |           |              |             |       |             |              |                                                                                   |
|                                                                                                                                    |       |             |                  |           |              |             |       |             |              |                                                                                   |
|                                                                                                                                    |       |             |                  |           |              |             |       |             |              |                                                                                   |
|                                                                                                                                    |       |             |                  |           |              |             |       |             |              |                                                                                   |
|                                                                                                                                    |       |             |                  |           |              |             |       |             |              |                                                                                   |
|                                                                                                                                    |       |             |                  |           |              |             |       |             |              |                                                                                   |
|                                                                                                                                    |       |             |                  |           |              |             |       |             |              |                                                                                   |
|                                                                                                                                    |       |             |                  |           |              |             |       |             |              |                                                                                   |
|                                                                                                                                    |       |             |                  |           |              |             |       |             |              |                                                                                   |
|                                                                                                                                    |       |             |                  |           |              |             |       |             |              |                                                                                   |
|                                                                                                                                    |       |             |                  |           |              |             |       |             |              |                                                                                   |
|                                                                                                                                    |       |             |                  |           |              |             |       |             |              |                                                                                   |
|                                                                                                                                    |       |             |                  |           |              |             |       |             |              |                                                                                   |
|                                                                                                                                    |       |             |                  |           |              |             |       |             |              |                                                                                   |
|                                                                                                                                    |       |             |                  |           |              |             |       |             |              |                                                                                   |
|                                                                                                                                    |       |             |                  |           |              |             |       |             |              |                                                                                   |
|                                                                                                                                    |       |             |                  |           |              |             |       |             |              |                                                                                   |
|                                                                                                                                    |       |             |                  |           |              |             |       |             |              |                                                                                   |
|                                                                                                                                    |       |             |                  |           |              |             |       |             |              |                                                                                   |
|                                                                                                                                    |       |             |                  |           |              |             |       |             |              |                                                                                   |
|                                                                                                                                    |       |             |                  |           |              |             |       |             |              |                                                                                   |
|                                                                                                                                    |       |             |                  |           |              |             |       |             |              |                                                                                   |
|                                                                                                                                    |       |             |                  |           |              |             |       |             |              |                                                                                   |
|                                                                                                                                    |       |             |                  |           |              |             |       |             |              |                                                                                   |
|                                                                                                                                    |       |             |                  |           |              |             |       |             |              |                                                                                   |
|                                                                                                                                    |       |             |                  |           |              |             |       |             |              |                                                                                   |
|                                                                                                                                    |       |             |                  |           |              |             |       |             |              |                                                                                   |
|                                                                                                                                    |       |             |                  |           |              |             |       |             |              |                                                                                   |
|                                                                                                                                    |       |             |                  |           |              |             |       |             |              |                                                                                   |
|                                                                                                                                    |       |             |                  |           |              |             |       |             |              |                                                                                   |
|                                                                                                                                    |       |             |                  |           |              |             |       |             |              |                                                                                   |
|                                                                                                                                    |       |             |                  |           |              |             |       |             |              |                                                                                   |
|                                                                                                                                    |       |             |                  |           |              |             |       |             |              |                                                                                   |
|                                                                                                                                    |       |             |                  |           |              |             |       |             |              |                                                                                   |
|                                                                                                                                    |       |             |                  |           |              |             |       |             |              |                                                                                   |
|                                                                                                                                    |       |             |                  |           |              |             |       |             |              |                                                                                   |
|                                                                                                                                    |       |             |                  |           |              |             |       |             |              |                                                                                   |
|                                                                                                                                    |       |             |                  |           |              |             |       |             |              |                                                                                   |
|                                                                                                                                    |       |             |                  |           |              |             |       |             |              |                                                                                   |
|                                                                                                                                    |       |             |                  |           |              |             |       |             |              |                                                                                   |
|                                                                                                                                    |       |             |                  |           |              |             |       |             |              |                                                                                   |
|                                                                                                                                    |       |             |                  |           |              |             |       |             |              |                                                                                   |
|                                                                                                                                    |       |             |                  |           |              |             |       |             |              |                                                                                   |
|                                                                                                                                    |       |             |                  |           |              |             |       |             |              |                                                                                   |
|                                                                                                                                    |       |             |                  |           |              |             |       |             |              |                                                                                   |
|                                                                                                                                    |       |             |                  |           |              |             |       |             |              |                                                                                   |
|                                                                                                                                    |       |             |                  |           |              |             |       |             |              |                                                                                   |
|                                                                                                                                    |       |             |                  |           |              |             |       |             |              |                                                                                   |
|                                                                                                                                    |       |             |                  |           |              |             |       |             |              |                                                                                   |
|                                                                                                                                    |       |             |                  |           |              |             |       |             |              |                                                                                   |
|                                                                                                                                    |       |             |                  |           |              |             |       |             |              |                                                                                   |
|                                                                                                                                    |       |             |                  |           |              |             |       |             |              |                                                                                   |
|                                                                                                                                    |       |             |                  |           |              |             |       |             |              |                                                                                   |
|                                                                                                                                    |       |             |                  |           |              |             |       |             |              |                                                                                   |
|                                                                                                                                    |       |             |                  |           |              |             |       |             |              |                                                                                   |
|                                                                                                                                    |       |             |                  |           |              |             |       |             |              |                                                                                   |
|                                                                                                                                    |       |             |                  |           |              |             |       |             |              |                                                                                   |
|                                                                                                                                    |       |             |                  |           |              |             |       |             |              |                                                                                   |
|                                                                                                                                    |       |             |                  |           |              |             |       |             |              |                                                                                   |
|                                                                                                                                    |       |             |                  |           |              |             |       |             |              |                                                                                   |
|                                                                                                                                    |       |             |                  |           |              |             |       |             |              |                                                                                   |
|                                                                                                                                    |       |             |                  |           |              |             |       |             |              |                                                                                   |
|                                                                                                                                    |       |             |                  |           |              |             |       |             |              |                                                                                   |
|                                                                                                                                    |       |             |                  |           |              |             |       |             |              |                                                                                   |
|                                                                                                                                    |       |             |                  |           |              |             |       |             |              |                                                                                   |
|                                                                                                                                    |       |             |                  |           |              |             |       |             |              |                                                                                   |
|                                                                                                                                    |       |             |                  |           |              |             |       |             |              |                                                                                   |
|                                                                                                                                    |       |             |                  |           |              |             |       |             |              |                                                                                   |
|                                                                                                                                    |       |             |                  |           |              |             |       |             |              |                                                                                   |
|                                                                                                                                    |       |             |                  |           |              |             |       |             |              |                                                                                   |
|                                                                                                                                    |       |             |                  |           |              |             |       |             |              |                                                                                   |
|                                                                                                                                    |       |             |                  |           |              |             |       |             |              |                                                                                   |
|                                                                                                                                    |       |             |                  |           |              |             |       |             |              |                                                                                   |
|                                                                                                                                    |       |             |                  |           |              |             |       |             |              |                                                                                   |
|                                                                                                                                    |       |             |                  |           |              |             |       |             |              |                                                                                   |
|                                                                                                                                    |       |             |                  |           |              |             |       |             |              |                                                                                   |
|                                                                                                                                    |       |             |                  |           |              |             |       |             |              |                                                                                   |
|                                                                                                                                    |       |             |                  |           |              |             |       |             |              |                                                                                   |
|                                                                                                                                    |       |             |                  |           |              |             |       |             |              |                                                                                   |
|                                                                                                                                    |       |             |                  |           |              |             |       |             |              |                                                                                   |
|                                                                                                                                    |       |             |                  |           |              |             |       |             |              |                                                                                   |
|                                                                                                                                    |       |             |                  |           |              |             |       |             |              |                                                                                   |

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |    |
|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|----|
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | </ |
|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|----|

| JT | LOC.   | LC1   | MAX-  | MAX+ | FACE  | DIR. | TYPE  |
|----|--------|-------|-------|------|-------|------|-------|
| 13 | 31-3-8 | -3417 | -3417 | ---  | FRONT | VERT | TOTAL |

RECEIVED TOWN OF MILTON

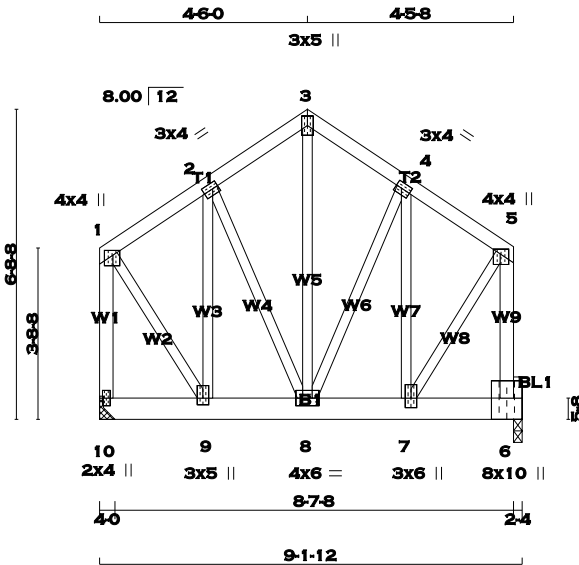
MAR 29, 2017

17-5246

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.

March 15th, 2017



TOTAL WEIGHT = 4 X 63 = 251 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    |
| 10 - 1            | 2x4    | DRY  | No.2       | SPF    |
| 6 - 5             | 2x4    | DRY  | No.2       | SPF    |
| 10 - 6            | 2x6    | DRY  | 2100F 1.8E | SPF    |

| BEARING BLOCKS |     |     |      |     |
|----------------|-----|-----|------|-----|
| BL1            | 2x6 | DRY | No.2 | SPF |

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

DRY: SEASONED LUMBER.

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

| CHORDS #ROWS                          | SURFACE SPACING (IN) | LOAD(PLF) |
|---------------------------------------|----------------------|-----------|
| TOP CHORDS : (0.122"x3") SPIRAL NAILS |                      |           |
| 1-3                                   | 12                   | TOP       |
| 3-5                                   | 12                   | TOP       |
| 10-1                                  | 12                   | TOP       |
| 6-5                                   | 12                   | TOP       |

| BOTTOM CHORDS : (0.122"x3") SPIRAL NAILS |   |             |
|------------------------------------------|---|-------------|
| 10-6                                     | 8 | SIDE(340.4) |
| 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+p  | MT20   | 4.0 | 4.0  | 1.25 | 1.75 |
| 2  | TMWW-t  | MT20   | 3.0 | 4.0  | 1.50 | 1.50 |
| 3  | TTW+p   | MT20   | 3.0 | 5.0  |      |      |
| 4  | TMWW-t  | MT20   | 3.0 | 4.0  | 1.50 | 1.50 |
| 5  | TMVW+p  | MT20   | 4.0 | 4.0  | 1.25 | 1.75 |
| 6  | BMVK1+p | MT20   | 8.0 | 10.0 | 5.50 | Edge |
| 7  | BMWW-t  | MT20   | 3.0 | 6.0  | 2.50 | 1.50 |

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       | 3417 | 0                       | 3417                            | 0         | 0         |
| 6        | 3429 | 0                       | 3429                            | 0         | 0         |

UNFACTORED REACTIONS

| 1ST LCASE |          | MAX./MIN. COMPONENT REACTIONS |       |           |       |         |       |
|-----------|----------|-------------------------------|-------|-----------|-------|---------|-------|
| JT        | COMBINED | SNOW                          | LIVE  | PERM.LIVE | WIND  | DEAD    | SOIL  |
| 10        | 2398     | 1678 / 0                      | 0 / 0 | 0 / 0     | 0 / 0 | 721 / 0 | 0 / 0 |
| 6         | 2406     | 1685 / 0                      | 0 / 0 | 0 / 0     | 0 / 0 | 721 / 0 | 0 / 0 |

BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S) 6  
BEARING SIZE FACTOR = 1.08 AT JNT(S) 6 ( BASED ON SUPPORT DEPTH = 1-8 )

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: (4)

| 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    | -1497 / 0                 | -77.3 -77.3               | 0.05 (1)      | 6.25  | 8-3                       | 0 / 1465      | 0.18 (1) |
| 2-3    | -1470 / 0                 | -77.3 -77.3               | 0.04 (1)      | 6.25  | 1-9                       | 0 / 2153      | 0.27 (1) |
| 3-4    | -1469 / 0                 | -77.3 -77.3               | 0.04 (1)      | 6.25  | 7-5                       | 0 / 2267      | 0.28 (1) |
| 4-5    | -1415 / 0                 | -77.3 -77.3               | 0.05 (1)      | 6.25  | 9-2                       | -107 / 2      | 0.02 (1) |
| 10-1   | -2676 / 0                 | 0.0 0.0                   | 0.29 (1)      | 6.97  | 7-4                       | -306 / 0      | 0.06 (1) |
| 6-5    | -2736 / 0                 | 0.0 0.0                   | 0.30 (1)      | 6.90  | 2-8                       | -58 / 0       | 0.01 (1) |
| 10-9   | 0 / 0                     | -698.2 -698.2             | 0.08 (1)      | 10.00 | 8-4                       | 0 / 113       | 0.01 (1) |
| 9-8    | 0 / 1246                  | -698.2 -698.2             | 0.08 (1)      | 10.00 |                           |               |          |
| 8-7    | 0 / 1177                  | -698.2 -698.2             | 0.08 (1)      | 10.00 |                           |               |          |
| 7-6    | -120 / 0                  | -698.2 -698.2             | 0.07 (1)      | 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

GIRDER TYPE: CStdGirder  
START DISTANCE = 0-0  
START SPAN CARRIED = 31-2-0  
END DISTANCE = 9-1-12  
END SPAN CARRIED = 31-2-0  
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, 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 (0.29")  
CALCULATED VERT. DEFL.(LL) = L/999 (0.01")  
ALLOWABLE DEFL.(TL)= L/360 (0.29")  
CALCULATED VERT. DEFL.(TL) = L/999 (0.02")

CSI: TC=0.30 (5-6:1) , BC=0.08 (9-10:1) , WB=0.28 (5-7:1) , SSI=0.30 (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

AUTOSOLVE HEELS OFF

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

| NAIL VALUES |           |         |         |
|-------------|-----------|---------|---------|
| PLATE       | GRIP(DRY) | SHEAR   | SECTION |
| (PSI)       | (PLI)     | (PLI)   | (PLI)   |
| MAX MIN     | MAX 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= 0.28 (7) (INPUT = 1.00 )

March 15th, 2017

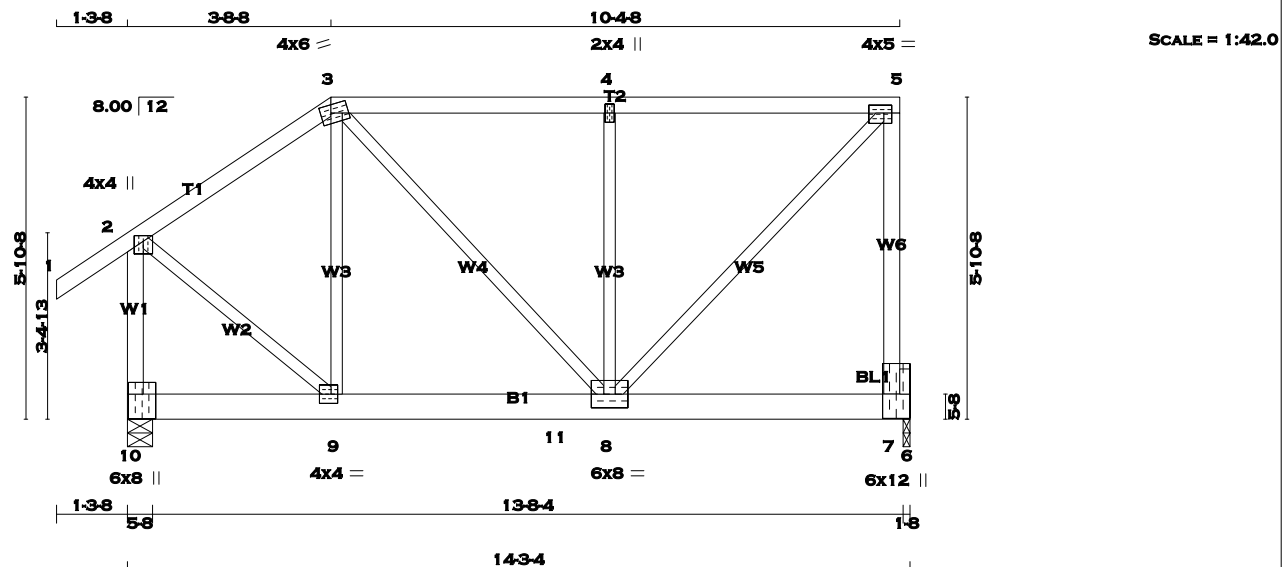
RECEIVED  
TOWN OF MILTON  
MAR 29, 2017  
17-5246  
BUILDING DIVISION

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 , Stouffville, ON, CGC

Version 8.100 S Feb 9 2017 MiTek Industries, Inc. Wed Mar 15 08:15:11 2017 Page 1

ID:li\_eiqpsoH3vaJxP12FoSMYDKzM-zlJa\_CFbzZ5fTg9byLXLkANqrXnE85\_NrQ83izam4k



TOTAL WEIGHT = 8 X 77 = 618 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    |
| 7 - 5             | 2x4    | DRY  | No.2   | SPF    |
| 10 - 2            | 2x4    | DRY  | No.2   | SPF    |
| 10 - 6            | 2x6    | DRY  | No.2   | SPF    |

|                 |     |      |      |  |     |
|-----------------|-----|------|------|--|-----|
| BEARING BLOCKS  |     |      |      |  |     |
| BL1             | 2x6 | DRY  | No.2 |  | SPF |
| ALL WEBS EXCEPT |     |      |      |  |     |
| 2x3             | DRY | No.2 |      |  | SPF |

DRY: SEASONED LUMBER.

DESIGN CONSISTS OF 4 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         |
| 5-7                                      | 12                   | TOP         |
| 10-2                                     | 12                   | TOP         |
| BOTTOM CHORDS : (0.122"x3") SPIRAL NAILS |                      |             |
| 10-6                                     | 4                    | SIDE(603.2) |
| WEBS : (0.122"x3") SPIRAL NAILS          |                      |             |
| 2x3                                      | 6                    |             |
| 7-6                                      | 4                    | SIDE(540.9) |

STAGGER NAILS BY HALF THE SURFACE SPACING IN ADJACENT PLIES.

IN ADDITION, PRE-DRILL ONE 0.56" DIAM. HOLE IN EACH CHORD PANEL AND INSTALL 0.50" DIAM. ASTM A307 BOLTS WITH WASHERS, BOTH SIDES. FOR OTHER BOLT TYPES SEE CSA086 3.3.2.

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.

#### 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      |
| 10 | 6398                    | 0                               | 6398      | 0         |
| 6  | 6009                    | 0                               | 6009      | 0         |

1-8 + FLUSH PLATE

##### UNFACTORED REACTIONS

| 1ST LCASE | COMBINED | SNOW     | LIVE  | PERM.LIVE | WIND  | DEAD     | SOIL  |
|-----------|----------|----------|-------|-----------|-------|----------|-------|
| JT        | 4488     | 3153 / 0 | 0 / 0 | 0 / 0     | 0 / 0 | 1335 / 0 | 0 / 0 |
| 6         | 4217     | 2951 / 0 | 0 / 0 | 0 / 0     | 0 / 0 | 1266 / 0 | 0 / 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 = 5.61 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: (4)

| C H O R D S |                           |                           |                  | W E B S |                           |                   |                       |
|-------------|---------------------------|---------------------------|------------------|---------|---------------------------|-------------------|-----------------------|
| MEMB.       | MAX. FACTORED FORCE (LBS) | FACTORED VERT. LOAD (PLF) | MAX LC1 CSI (LC) | MEMB.   | MAX. FACTORED FORCE (LBS) | MAX UNBRAC LENGTH | FACTORED MAX CSI (LC) |
| FR-TO       |                           | FROM TO                   |                  | FR-TO   |                           |                   |                       |
| 1-2         | 0 / 29                    | -77.3 -77.3               | 0.04 (1)         | 10.00   | 9-3                       | 0 / 1053          | 0.06 (1)              |
| 2-3         | -4059 / 0                 | -77.3 -77.3               | 0.09 (1)         | 5.74    | 3-8                       | 0 / 1219          | 0.07 (1)              |
| 3-4         | -4220 / 0                 | -77.3 -77.3               | 0.13 (1)         | 5.61    | 8-4                       | -465 / 0          | 0.06 (1)              |
| 4-5         | -4220 / 0                 | -77.3 -77.3               | 0.14 (1)         | 5.61    | 8-5                       | 0 / 6266          | 0.35 (1)              |
| 7-5         | -4685 / 0                 | 0.0 0.0                   | 0.83 (1)         | 6.89    | 2-9                       | 0 / 4287          | 0.24 (1)              |
| 10-2        | -5158 / 0                 | 0.0 0.0                   | 0.28 (1)         | 6.64    |                           |                   |                       |
| 10-9        | 0 / 0                     | -821.7 -821.7             | 0.26 (1)         | 10.00   |                           |                   |                       |
| 9-11        | 0 / 3391                  | -821.7 -821.7             | 0.61 (1)         | 10.00   |                           |                   |                       |
| 11-8        | 0 / 3391                  | -738.7 -738.7             | 0.61 (1)         | 10.00   |                           |                   |                       |
| 8-7         | -124 / 0                  | -738.7 -738.7             | 0.56 (1)         | 6.25    |                           |                   |                       |
| 7-6         | 0 / 0                     | -816.1 -816.1             | 0.15 (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

GIRDER TYPE: CStdGirder  
START DISTANCE = 0-0  
START SPAN CARRIED = 36-4-8  
END DISTANCE = 7-9-0  
END SPAN CARRIED = 36-4-8  
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 = 7-9-0  
START SPAN CARRIED = 32-10-8  
END DISTANCE = 14-3-4  
END SPAN CARRIED = 32-10-8  
END WALL WIDTH = 5-8  
APPLIED TO FRONT SIDE OF BOTTOM CHORD.  
- ADDT'L LOADS BASED ON 55 % OF GSL.

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

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 (0.48")  
CALCULATED VERT. DEFL.(LL) = L/999 (0.07")  
ALLOWABLE DEFL.(TL)= L/360 (0.48")  
CALCULATED VERT. DEFL.(TL) = L/999 (0.12")

CSI: TC=0.83 (5-7:1), BC=0.61 (8-9:1), WB=0.35 (5-8:1), SSI=0.48 (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 LUMBER 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   | MAX MIN | MAX MIN       |
| MT20        | 618     | 354       | 1667    | 822 2284 1656 |

PLATE PLACEMENT TOL. = 0.250 inches

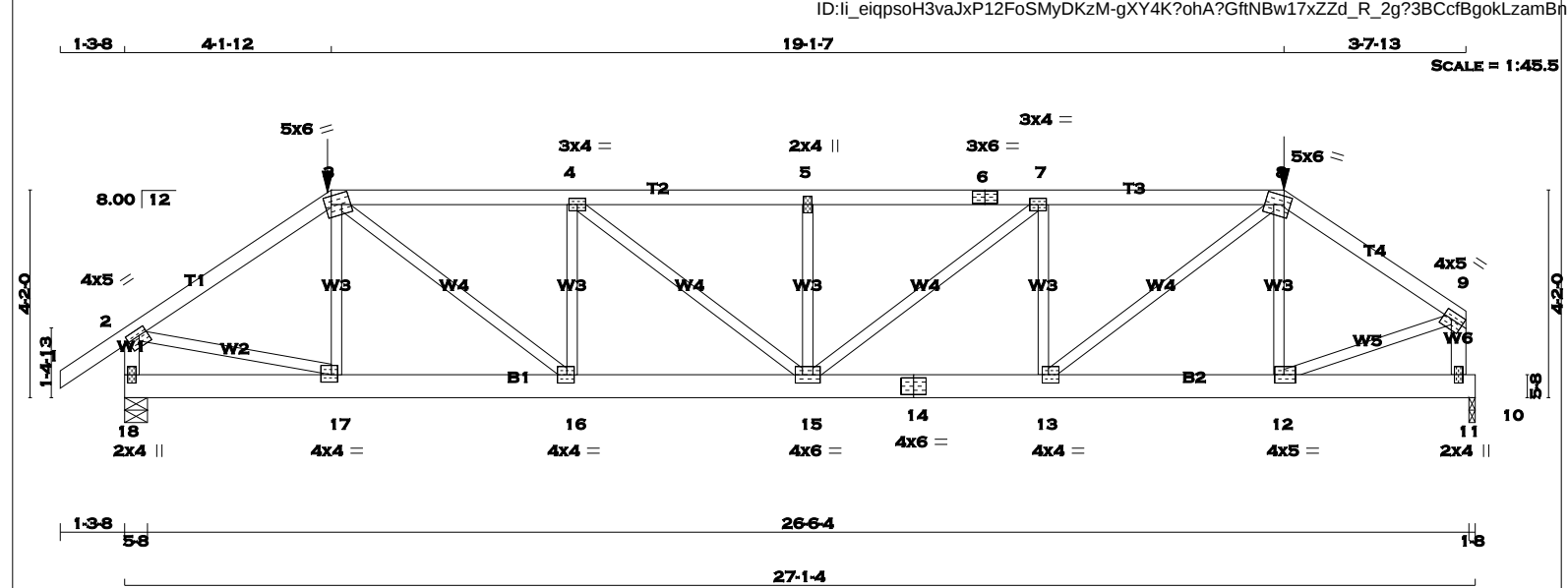
PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.90 (10-10)  
JSI METAL= 0.32 (9-10)

March 15th, 2017

RECEIVED  
TOWN OF MILTON  
MAR 29, 2017  
17-5246  
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.

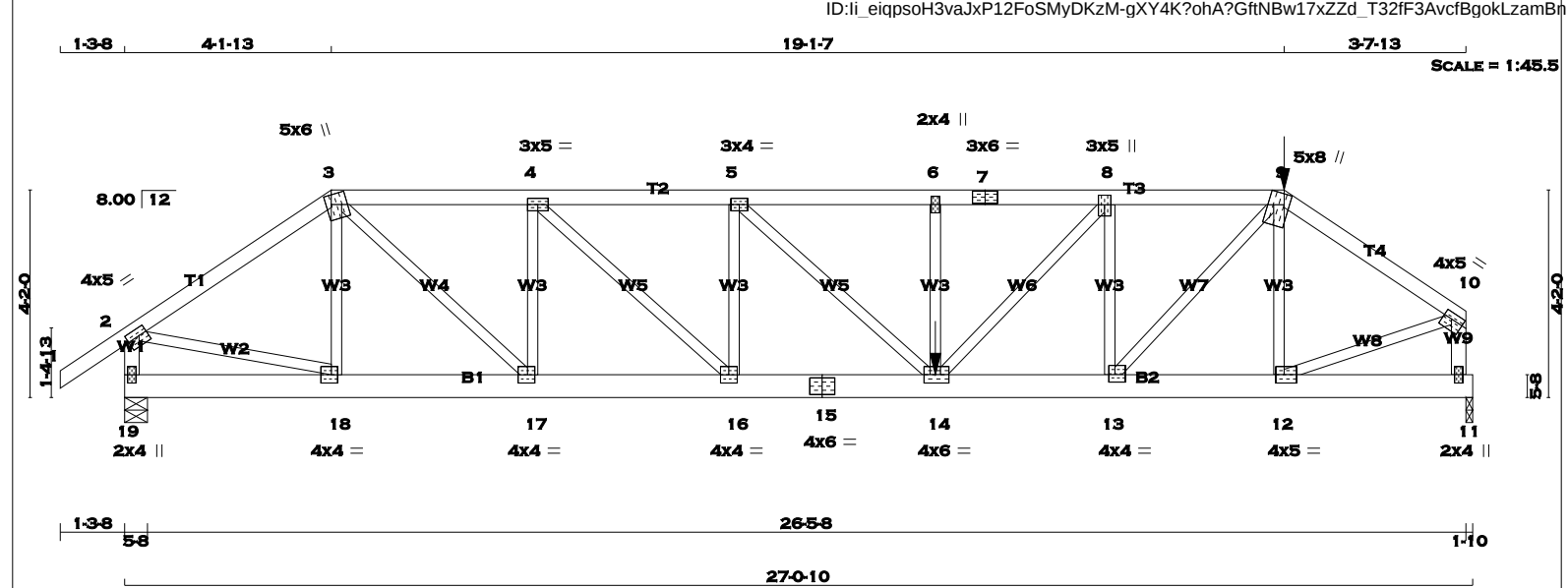


|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |  |  |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |  |  |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |  |  |  |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|--|--|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|--|--|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|--|--|
| <b>LUMBER</b><br>N. L. G. A. RULES<br>CHORDS SIZE LUMBER DESCR. 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>8 - 9 2x4 DRY No.2 SPF<br>18 - 2 2x4 DRY No.2 SPF<br>11 - 9 2x4 DRY No.2 SPF<br>18 - 14 2x6 DRY No.2 SPF<br>14 - 10 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 SIDE(0.0)<br>3-6 1 12 SIDE(34.2)<br>6-8 1 12 SIDE(34.2)<br>8-9 1 12 SIDE(0.0)<br>18-2 1 12 TOP<br>11-9 1 12 TOP<br>BOTTOM CHORDS : (0.122"x3") SPIRAL NAILS<br>18-14 2 12 SIDE(8.7)<br>14-10 2 12 SIDE(8.7)<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>2 TMVW-t MT20 4.0 5.0 1.50 2.00 |  |  |  | <b>DIMENSIONS, SUPPORTS AND LOADINGS SPECIFIED BY FABRICATOR TO BE VERIFIED BY BUILDING DESIGNER</b><br><b>BEARINGS</b><br>FACTORED MAXIMUM FACTORED INPUT REQRD<br>GROSS REACTION GROSS REACTION BRG BRG<br>JT VERT HORZ DOWN HORZ UPLIFT IN-SX IN-SX<br>18 2484 0 2484 0 0 5-8 5-8<br>10 2371 0 2371 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 1742 1226 / 0 0 / 0 0 / 0 516 / 0 0 / 0<br>10 1665 1158 / 0 0 / 0 0 / 0 507 / 0 0 / 0<br><br>BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S) 18, 10<br><br><b>BRACING</b><br>TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 4.18 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)<br><br>CHORDS WEBS<br>MAX. FACTORED MAX. FACTORED MAX. FACTORED<br>MEMB. FORCE VERT. LOAD LC1 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 / 29 -77.3 -77.3 0.06 (1) 10.00 17-3 -386 / 23 0.05 (1)<br>2-3 -2873 / 0 -77.3 -77.3 0.17 (1) 5.26 3-16 0 / 2094 0.26 (1)<br>3-4 -4026 / 0 -145.8 -145.8 0.35 (1) 4.39 16-4 -1140 / 0 0.15 (1)<br>4-5 -4471 / 0 -145.8 -145.8 0.36 (1) 4.18 4-15 0 / 571 0.07 (1)<br>5-6 -4471 / 0 -145.8 -145.8 0.36 (1) 4.18 15-5 -632 / 0 0.08 (1)<br>6-7 -4471 / 0 -145.8 -145.8 0.36 (1) 4.18 15-7 0 / 675 0.08 (1)<br>7-8 -3945 / 0 -145.8 -145.8 0.34 (1) 4.43 13-7 -1206 / 0 0.16 (1)<br>8-9 -2728 / 0 -77.3 -77.3 0.13 (1) 5.41 13-8 0 / 2148 0.27 (1)<br>18-2 -2426 / 0 0.0 0.0 0.14 (1) 7.23 12-8 -462 / 0 0.06 (1)<br>11-9 -2463 / 0 0.0 0.0 0.14 (1) 7.19 12-9 0 / 2451 0.30 (1)<br>12-9 0 / 2403 0.30 (1)<br>18-17 0 / 0 -33.0 -33.0 0.04 (4) 10.00<br>17-16 0 / 2376 -33.0 -33.0 0.18 (1) 10.00<br>16-15 0 / 4026 -33.0 -33.0 0.31 (1) 10.00<br>15-14 0 / 3945 -33.0 -33.0 0.31 (1) 10.00<br>14-13 0 / 3945 -33.0 -33.0 0.31 (1) 10.00<br>13-12 0 / 2253 -33.0 -33.0 0.20 (1) 10.00<br>12-11 0 / 0 -33.0 -33.0 0.16 (1) 10.00<br>11-10 0 / 0 -33.0 -33.0 0.16 (1) 10.00<br><br><b>FACTORED CONCENTRATED LOADS (LBS)</b><br>JT LOC. LC1 MAX- MAX+ FACE DIR. TYPE<br>3 4-1-12 -241 -241 --- FRONT VERT TOTAL<br>8 23-3-3 -223 -223 --- FRONT VERT TOTAL |  |  |  | <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>LEFT SETBACK = 4-1-12<br>RIGHT SETBACK = 3-10-1<br>END SETBACK = 6-0-0<br>END WALL WIDTH = 5-8<br>CORNER FRAMING TYPE: CONVENTIONAL<br>END JACK TYPE: CONVENTIONAL<br>APPLIED TO FRONT SIDE<br>- ADDTL 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 (0.90")<br>CALCULATED VERT. DEFL.(LL) = L/999 (0.10")<br>ALLOWABLE DEFL.(TL)= L/360 (0.90")<br>CALCULATED VERT. DEFL.(TL) = L/999 (0.17")<br><br>CSI: TC=0.36 (5-7:1), BC=0.31 (15-16:1), WB=0.30 (2-17:1), SSI=0.79 (10-11:1)<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<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= 0.89 (16) (INPUT = 0.90 )<br>JSI METAL= 0.45 (2) (INPUT = 1.00 ) |  |  |  |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|--|--|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|--|--|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|--|--|

March 15th, 2017

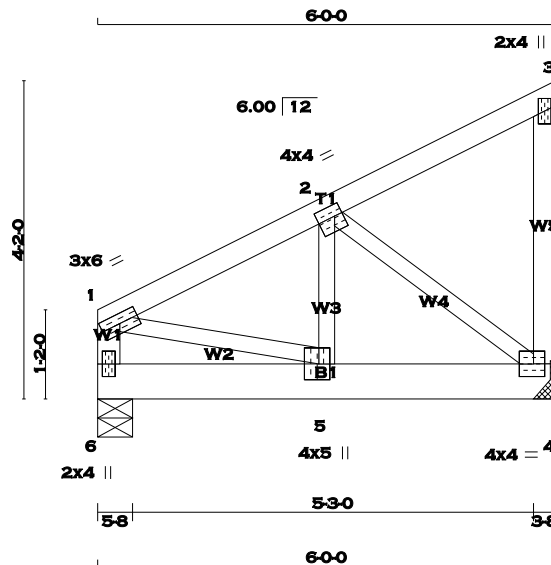
RECEIVED  
TOWN OF MILTON  
MAR 29, 2017  
17-5246  
BUILDING DIVISION

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. SPF<br>1 - 3 2x4 DRY No.2 No.2<br>3 - 7 2x4 DRY No.2 No.2<br>7 - 9 2x4 DRY No.2 No.2<br>9 - 10 2x4 DRY No.2 No.2<br>19 - 2 2x4 DRY No.2 No.2<br>11 - 10 2x4 DRY No.2 No.2<br>19 - 15 2x6 DRY No.2 No.2<br>15 - 11 2x6 DRY No.2 No.2<br>ALL WEBS 2x3 DRY No.2 SPF<br>EXCEPT<br>DRY: SEASONED LUMBER.<br>DESIGN CONSISTS OF <u>2</u> TRUSSES BUILT SEPARATELY THEN FASTENED TOGETHER AS FOLLOWS:<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 SIDE(34.2)<br>7-9 1 12 SIDE(34.2)<br>9-10 1 12 SIDE(0.0)<br>19-2 1 12 TOP<br>11-10 1 12 TOP<br>BOTTOM CHORDS : (0.122"x3") SPIRAL NAILS<br>19-15 2 12 TOP<br>15-11 2 12 SIDE(8.7)<br>WEBS : (0.122"x3") SPIRAL NAILS<br>2x3 1 6<br>NAILS TO BE DRIVEN FROM ONE SIDE ONLY.<br>GIRDER NAILING ASSUMES NAILED HANGERS ARE FASTENED WITH MIN. 3-0 INCH NAILS.<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>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>PLATES (table is in inches)<br>JT TYPE PLATES W LEN Y X<br>2 TMVW-t MT20 4.0 5.0 1.75 2.00 |  |  |  | <b>DIMENSIONS, SUPPORTS AND LOADINGS SPECIFIED BY FABRICATOR TO BE VERIFIED BY BUILDING DESIGNER</b><br><b>BEARINGS</b><br>FACTORED MAXIMUM FACTORED INPUT REQRD<br>GROSS REACTION GROSS REACTION BRG BRG<br>JT VERT HORZ DOWN HORZ UPLIFT IN-SX IN-SX<br>19 2072 0 2072 0 0 5-8 5-8<br>11 2714 0 2714 0 0 1-10 1-10<br><b>UNFACTORED REACTIONS</b><br>1ST LCASE MAX./MIN. COMPONENT REACTIONS<br>JT COMBINED SNOW LIVE PERM.LIVE WIND DEAD SOIL<br>19 1451 1030 / 0 0 / 0 0 / 0 421 / 0 0 / 0<br>11 1906 1328 / 0 0 / 0 0 / 0 578 / 0 0 / 0<br>BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S) 19, 11<br><b>BRACING</b><br>TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 4.10 FT.<br>MAX. UNBRACED BOTTOM CHORD LENGTH = 10.00 FT. OR RIGID CEILING DIRECTLY APPLIED.<br>ALL PITCH BREAKS AND PERIMETER CORNER JOINTS MUST BE LATERALLY RESTRAINED.<br><b>LOADING</b><br>TOTAL LOAD CASES: (4)<br>CHORDS WEBS<br>MEMB. MAX. FACTORED FORCE (LBS) FACTORED VERT. LOAD (PLF) LC1 MAX. UNBRAC LENGTH FR-TO FR-TO MEMB. MAX. FACTORED FORCE (LBS) MAX. CSI (LC)<br>1-2 0 / 29 -77.3 -77.3 0.06 (1) 10.00 18-3 -368 / 0 0.05 (1)<br>2-3 -2360 / 0 -77.3 -77.3 0.15 (1) 5.69 3-17 0 / 2023 0.25 (1)<br>3-4 -3428 / 0 -77.3 -77.3 0.14 (1) 4.94 17-4 -1330 / 0 0.17 (1)<br>4-5 -4486 / 0 -77.3 -77.3 0.17 (1) 4.40 4-16 0 / 1451 0.18 (1)<br>5-6 -5097 / 0 -77.3 -77.3 0.17 (1) 4.18 16-5 -880 / 0 0.11 (1)<br>6-7 -5097 / 0 -145.8 -145.8 0.23 (1) 4.10 5-14 0 / 838 0.10 (1)<br>7-8 -5097 / 0 -145.8 -145.8 0.23 (1) 4.10 14-6 -383 / 0 0.05 (1)<br>8-9 -4102 / 0 -145.8 -145.8 0.20 (1) 4.53 14-8 0 / 1468 0.18 (1)<br>9-10 -2961 / 0 -77.3 -77.3 0.13 (1) 5.24 13-8 -1648 / 0 0.21 (1)<br>19-2 -2040 / 0 0.0 0.0 0.11 (1) 7.73 13-9 0 / 2447 0.30 (1)<br>11-10 -2662 / 0 0.0 0.0 0.15 (1) 6.98 12-9 -731 / 0 0.09 (1)<br>2-18 0 / 2014 0.25 (1)<br>12-10 0 / 2609 0.32 (1)<br>19-18 0 / 0 -17.5 -17.5 0.02 (4) 10.00<br>18-17 0 / 1950 -17.5 -17.5 0.14 (1) 10.00<br>17-16 0 / 3428 -17.5 -17.5 0.25 (1) 10.00<br>16-15 0 / 4486 -17.5 -17.5 0.35 (1) 10.00<br>15-14 0 / 4486 -17.5 -17.5 0.35 (1) 10.00<br>14-13 0 / 4102 -33.0 -33.0 0.33 (1) 10.00<br>13-12 0 / 2439 -33.0 -33.0 0.17 (1) 10.00<br>12-11 0 / 0 -33.0 -33.0 0.03 (4) 10.00<br>FACTORED CONCENTRATED LOADS (LBS)<br>JT LOC. LC1 MAX- MAX+ FACE DIR. TYPE<br>9 23-3-3 -220 -220 --- FRONT VERT TOTAL<br>14 16-3-4 -1262 -1262 --- FRONT VERT TOTAL |  |  |  |  |  |  |  | <b>DESIGN CRITERIA</b><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>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><b>SPACING = 24.0 IN./C/C</b><br>LOADING IN FLAT SECTION BASED ON A SLOPE OF 6.00/12<br>GIRDER TYPE: CPrimeHip<br>LEFT SETBACK = 4-1-13<br>RIGHT SETBACK = 3-9-7<br>END SETBACK = 6-0-0<br>END WALL WIDTH = 5-8<br>CORNER FRAMING TYPE: CONVENTIONAL<br>END JACK TYPE: CONVENTIONAL<br>APPLIED TO FRONT SIDE<br>- ADDTL LOADS BASED ON 55 % OF GSL.<br>LOADS APPLIED TO FIRST 10-9-6 OF SPAN MEASURED FROM THE RIGHT.<br>*** NON STANDARD GIRDER ***<br>ADDTL USER-DEFINED LOADS APPLIED TO ALL LOAD CASES.<br>THIS TRUSS IS DESIGNED FOR RESIDENTIAL OR SMALL BUILDING REQUIREMENTS OF PART 9, NBCC 2010<br>THIS DESIGN COMPLIES WITH:<br>- PART 9 OF OBC 2012, BCBC 2012, ABC 2014<br>- CSA 086-09<br>- TPIC 2011<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>ALLOWABLE DEFL.(LL)= L/360 (0.90")<br>CALCULATED VERT. DEFL.(LL) = L/999 (0.10")<br>ALLOWABLE DEFL.(TL)= L/360 (0.90")<br>CALCULATED VERT. DEFL.(TL) = L/999 (0.18")<br>CSI: TC=0.23 (6-8:1), BC=0.35 (14-16:1), WB=0.32 (10-12:1), SSI=0.13 (8-9:1)<br>DOL LUMBER=1.00 NAIL=1.00 LS BEND=1.00 COMP=1.00 SHEAR=1.00 TENS=1.00<br>COMPANION LIVE LOAD FACTOR = 0.50<br>TRUSS PLATE MANUFACTURER IS NOT RESPONSIBLE FOR QUALITY CONTROL IN THE TRUSS MANUFACTURING PLANT .<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>PLATE PLACEMENT TOL. = 0.250 inches<br>PLATE ROTATION = deg<br>KOTT<br>CONTINUED ON PAGE 2 |  |  |  |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|--|--|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|--|--|--|--|--|--|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|--|--|

KOTT , Stouffville, ON, CGC



SCALE = 1:30.2

TOTAL WEIGHT = 29 lb

| LUMBER            |        |      |        |        |
|-------------------|--------|------|--------|--------|
| N. L. G. A. RULES | CHORDS | SIZE | LUMBER | DESCR. |
| 1 - 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 EXCEPT   | 2x3    | DRY  | No.2   | SPF    |

DRY: SEASONED LUMBER.

| PLATES (table is in inches) |         |        |     |     |           |
|-----------------------------|---------|--------|-----|-----|-----------|
| JT                          | TYPE    | PLATES | W   | LEN | X         |
| 1                           | TMVW-t  | MT20   | 3.0 | 6.0 |           |
| 2                           | TMVW-t  | MT20   | 4.0 | 4.0 | 1.75 1.25 |
| 3                           | TMV+p   | MT20   | 2.0 | 4.0 |           |
| 4                           | BMVW1-t | MT20   | 4.0 | 4.0 | 2.00 1.75 |
| 5                           | BMVW-t  | MT20   | 4.0 | 5.0 | 2.50 1.75 |
| 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 GROSS REACTION |      | MAXIMUM FACTORED GROSS REACTION |      | INPUT BRG |                     | REQRD BRG |     |
|----------|--|-------------------------|------|---------------------------------|------|-----------|---------------------|-----------|-----|
| JT       |  | VERT                    | HORZ | DOWN                            | HORZ | UPLIFT    | IN-SX               | IN-SX     |     |
| 4        |  | 1263                    | 0    | 1263                            | 0    | 0         | HANGER BY OTHERS    |           |     |
| 6        |  | 1263                    | 0    | 1263                            | 0    | 0         | MIN. SEAT SIZE: 3-8 | 5-8       | 5-8 |

#### UNFACTORED REACTIONS

| 1ST LCASE |  | MAX./MIN. COMPONENT REACTIONS |         |       |           |       |         |       |
|-----------|--|-------------------------------|---------|-------|-----------|-------|---------|-------|
| JT        |  | COMBINED                      | SNOW    | LIVE  | PERM.LIVE | WIND  | DEAD    | SOIL  |
| 4         |  | 886                           | 620 / 0 | 0 / 0 | 0 / 0     | 0 / 0 | 266 / 0 | 0 / 0 |
| 6         |  | 886                           | 620 / 0 | 0 / 0 | 0 / 0     | 0 / 0 | 266 / 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 = 5.93 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. (LC) | UNBRAC. LENGTH | MEMB. |           | MAX. FORCE (LBS) | MAX. CSI (LC) |
| FR-TO  |           |                  | FROM             | TO            |                | FR-TO |           |                  |               |
| 1-2    | -1076 / 0 | -77.3            | -77.3            | 0.11 (1)      | 5.93           | 5-2   | 0 / 946   | 0.23 (1)         |               |
| 2-3    | -10 / 0   | -77.3            | -77.3            | 0.10 (1)      | 10.00          | 2-4   | -1218 / 0 | 0.30 (1)         |               |
| 4-3    | -95 / 0   | 0.0              | 0.0              | 0.02 (1)      | 7.81           | 1-5   | 0 / 1002  | 0.25 (1)         |               |
| 6-1    | -830 / 0  | 0.0              | 0.0              | 0.09 (1)      | 7.81           |       |           |                  |               |
| 6-5    | 0 / 0     | -343.5           | -343.5           | 0.20 (1)      | 10.00          |       |           |                  |               |
| 5-4    | 0 / 971   | -343.5           | -343.5           | 0.33 (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 = 16-2-8  
END DISTANCE = 6-0-0  
END SPAN CARRIED = 16-2-8  
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 (0.20")  
CALCULATED VERT. DEFL.(LL) = L/999 (0.01")  
ALLOWABLE DEFL.(TL)= L/360 (0.20")  
CALCULATED VERT. DEFL.(TL) = L/999 (0.02")

CSI: TC=0.11 (1-2:1) , BC=0.33 (4-5:1) , WB=0.30 (2-4:1) , SSI=0.40 (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.

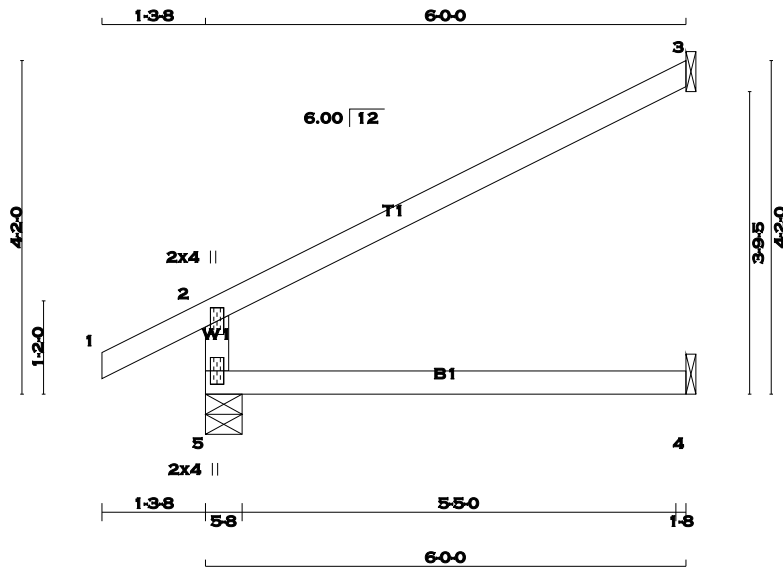
JSI GRIP= 0.90 (4) (INPUT = 0.90 )  
JSI METAL= 0.36 (4) (INPUT = 1.00 )

RECEIVED  
TOWN OF MILTON  
MAR 29, 2017  
17-5246  
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.



March 15th, 2017



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

| LUMBER            |        |      |        |        |
|-------------------|--------|------|--------|--------|
| N. L. G. A. RULES | CHORDS | SIZE | LUMBER | DESCR. |
| 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     | 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 |         | MAX./MIN. COMPONENT REACTIONS |           | WIND  | DEAD   | SOIL  |
|----|-----------|---------|-------------------------------|-----------|-------|--------|-------|
|    | COMBINED  | SNOW    | LIVE                          | PERM.LIVE |       |        |       |
| 5  | 318       | 238 / 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 |

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)

| MEMB. | CHORDS           |                  | FACTORED     |          | WEB S             |           | FACTORED         |           |
|-------|------------------|------------------|--------------|----------|-------------------|-----------|------------------|-----------|
|       | MAX. FORCE (LBS) | VERT. LOAD (PLF) | LC1 MAX (LC) | UNBRAC   | MEMB. FORCE (LBS) | MAX. (LC) | MAX. FORCE (LBS) | MAX. (LC) |
| FR-TO |                  |                  |              |          |                   |           |                  |           |
| 5-2   | -395 / 0         | 0.0              | 0.0          | 0.13 (4) | 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 (4) | 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 (4-5:4) , 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)  
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.

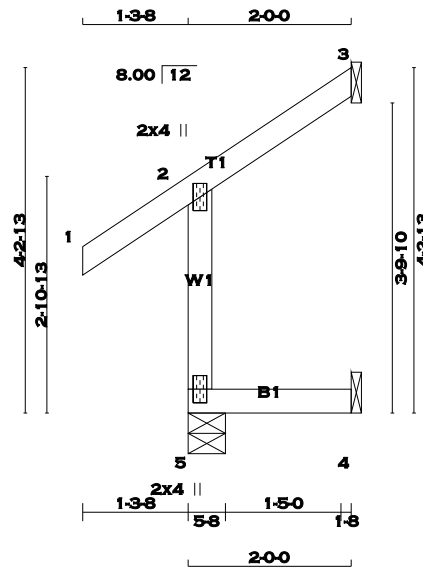
JSI GRIP= 0.23 (2) (INPUT = 0.90 )  
JSI METAL= 0.09 (2) (INPUT = 1.00 )

March 15th, 2017

RECEIVED  
TOWN OF MILTON  
MAR 29, 2017  
17-5246  
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 = 1:28.3

TOTAL WEIGHT = 10 lb [M]

| LUMBER            |      |        |        |     |
|-------------------|------|--------|--------|-----|
| N. L. G. A. RULES |      |        |        |     |
| CHORDS            | SIZE | LUMBER | DESCR. | SPF |
| 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**

|    |  | FACTORED GROSS REACTION |      | MAXIMUM FACTORED GROSS REACTION |      | INPUT BRG |       | REQRD BRG |  |
|----|--|-------------------------|------|---------------------------------|------|-----------|-------|-----------|--|
| JT |  | VERT                    | HORZ | DOWN                            | HORZ | UPLIFT    | IN-SX | IN-SX     |  |
| 5  |  | 220                     | 0    | 220                             | 0    | 0         | 5-8   | 5-8       |  |
| 3  |  | 59                      | 0    | 59                              | 0    | 0         | 1-8   | 1-8       |  |
| 4  |  | 17                      | 0    | 19                              | 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  |  | 152       | 121 / 0 | 0 / 0                         | 0 / 0     | 0 / 0 | 30 / 0 | 0 / 0 |  |
| 3  |  | 40        | 36 / 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: (5)

|       |  | CHORDS        |                  | WEBS                 |                   |                      |  |
|-------|--|---------------|------------------|----------------------|-------------------|----------------------|--|
|       |  | MAX. FACTORED | FACTORED         | MAX. FACTORED        | FACTORED          |                      |  |
| MEMB. |  | FORCE (LBS)   | VERT. LOAD (PLF) | MAX. UNBRACED LENGTH | MEMB. FORCE (LBS) | MAX. UNBRACED LENGTH |  |
| FR-TO |  |               | FROM TO          |                      | FR-TO             |                      |  |
| 5-2   |  | -202 / 0      | 0.0              | 0.0 0.00 (4)         | 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 (4)       | 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 (4-5:4), 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.

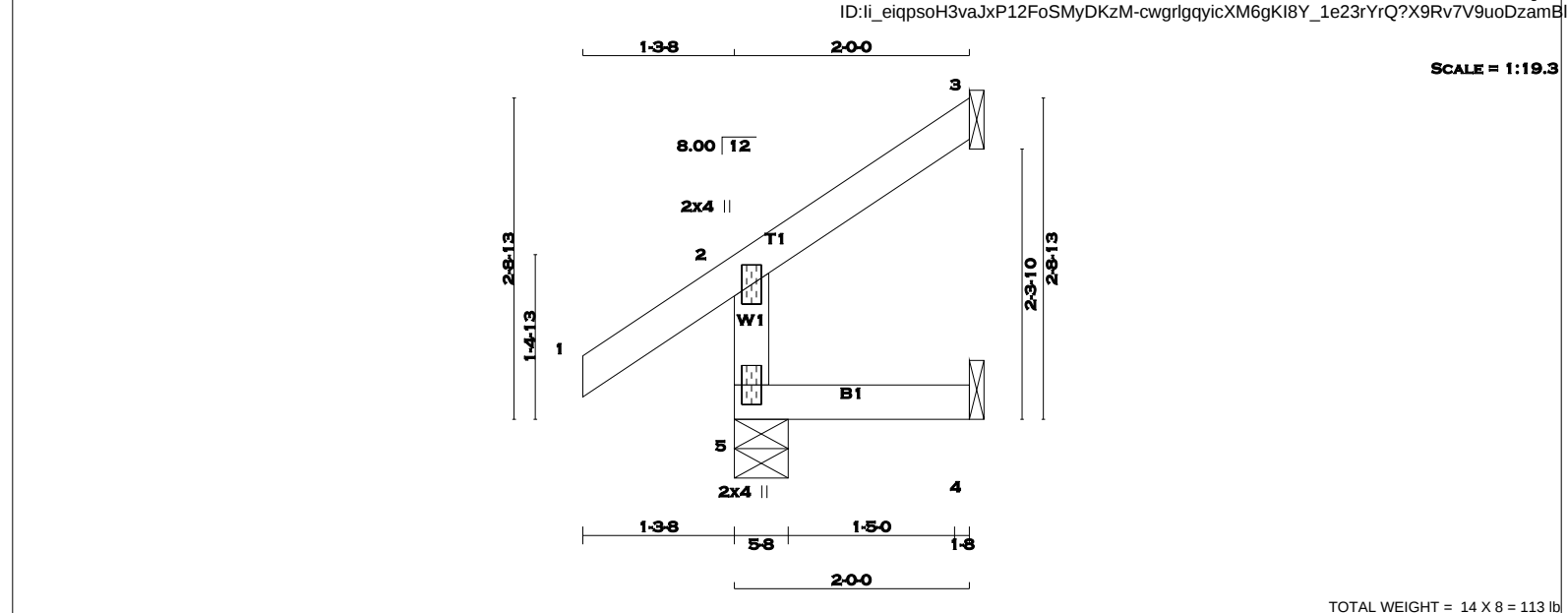
JSI GRIP= 0.13 (2) (INPUT = 0.90 )  
JSI METAL= 0.05 (2) (INPUT = 1.00 )

March 15th, 2017

RECEIVED  
TOWN OF MILTON  
MAR 29, 2017  
17-5246  
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 = 14 X 8 = 113 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.

| DIMENSIONS, SUPPORTS AND LOADINGS SPECIFIED BY FABRICATOR TO BE VERIFIED BY BUILDING DESIGNER |                         |      |                                 |      |       |
|-----------------------------------------------------------------------------------------------|-------------------------|------|---------------------------------|------|-------|
| BEARINGS                                                                                      |                         |      |                                 |      |       |
| JT                                                                                            | FACTORED GROSS REACTION |      | MAXIMUM FACTORED GROSS REACTION |      | INPUT |
|                                                                                               | VERT                    | HORZ | DOWN                            | HORZ | BRG   |
| 5                                                                                             | 222                     | 0    | 222                             | 0    | 5-8   |
| 3                                                                                             | 59                      | 0    | 59                              | 0    | 1-8   |
| 4                                                                                             | 16                      | 0    | 18                              | 0    | 1-8   |

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

| UNFACTORED REACTIONS |           |         |                               |           |       |
|----------------------|-----------|---------|-------------------------------|-----------|-------|
| JT                   | 1ST LCASE |         | MAX./MIN. COMPONENT REACTIONS |           |       |
|                      | COMBINED  | SNOW    | LIVE                          | PERM.LIVE | WIND  |
| 5                    | 153       | 122 / 0 | 0 / 0                         | 0 / 0     | 0 / 0 |
| 3                    | 40        | 35 / 0  | 0 / 0                         | 0 / 0     | 0 / 0 |
| 4                    | 13        | 0 / 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: (5)

| CHORDS |                           |                           |               | WEBS            |       |                           |           |
|--------|---------------------------|---------------------------|---------------|-----------------|-------|---------------------------|-----------|
| MEMB.  | MAX. FACTORED FORCE (LBS) | FACTORED VERT. LOAD (PLF) | LC1 MAX. (LC) | UNBRACED LENGTH | MEMB. | MAX. FACTORED FORCE (LBS) | MAX. (LC) |
|        |                           |                           |               |                 |       |                           |           |
| FR-TO  |                           | FROM TO                   |               |                 | FR-TO |                           |           |
| 5-2    | -202 / 0                  | 0.0                       | 0.0           | 0.01 (4)        | 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 (4)        | 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 (4-5:4) , 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 )



RECEIVED

TOWN OF MILTON

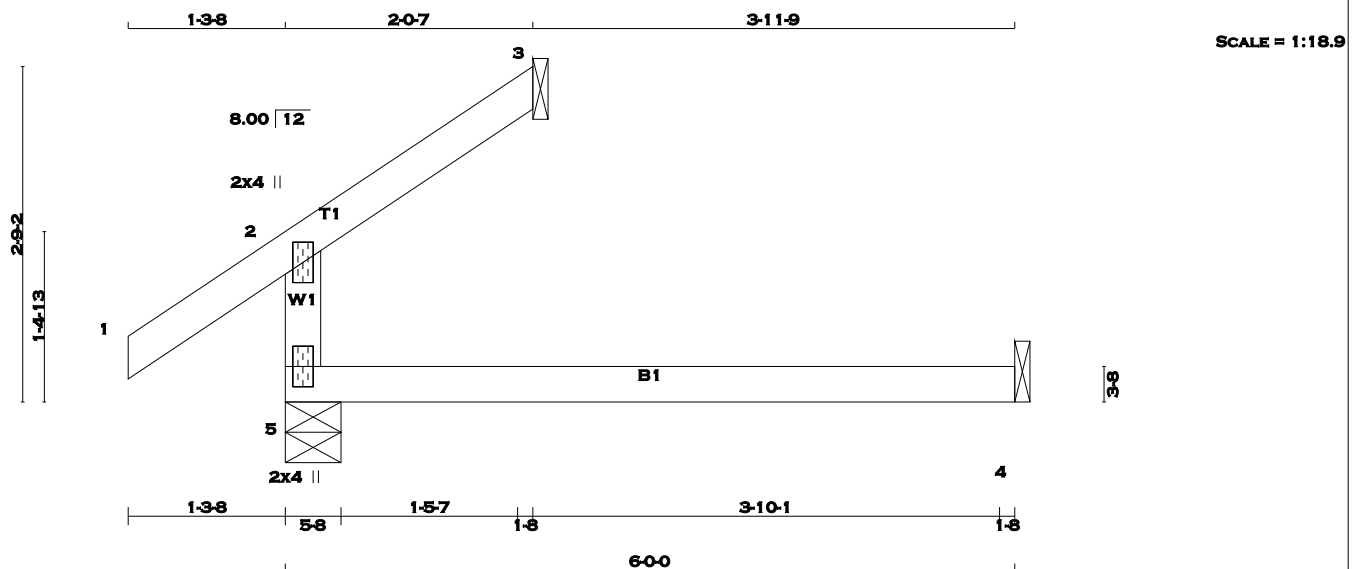
MAR 29, 2017

17-5246

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 = 13 lb [M]

| LUMBER |      |     |      | N. L. G. A. RULES |     |     |     |
|--------|------|-----|------|-------------------|-----|-----|-----|
| CHORDS | SIZE | DRY | No.2 | DESCR.            | SPF | 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 |                         |      |                                 |      |           |       |           |       |  |
|-----------------------------------------------------------------------------------------------|-------------------------|------|---------------------------------|------|-----------|-------|-----------|-------|--|
| BEARINGS                                                                                      |                         |      |                                 |      |           |       |           |       |  |
| JT                                                                                            | FACTORED GROSS REACTION |      | MAXIMUM FACTORED GROSS REACTION |      | INPUT BRG |       | REQRD BRG |       |  |
|                                                                                               | VERT                    | HORZ | DOWN                            | HORZ | UPLIFT    | IN-SX | IN-SX     | IN-SX |  |
| 5                                                                                             | 265                     | 0    | 265                             | 0    | 0         | 5-8   | 5-8       |       |  |
| 3                                                                                             | 60                      | 0    | 60                              | 0    | 0         | 1-8   | 1-8       |       |  |
| 4                                                                                             | 44                      | 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 |         | MAX./MIN. COMPONENT REACTIONS |       | WIND  | DEAD   | SOIL  |
|                      | COMBINED  | SNOW    | LIVE                          | PERM. |       |        |       |
| 5                    | 188       | 123 / 0 | 0 / 0                         | 0 / 0 | 0 / 0 | 65 / 0 | 0 / 0 |
| 3                    | 40        | 36 / 0  | 0 / 0                         | 0 / 0 | 0 / 0 | 5 / 0  | 0 / 0 |
| 4                    | 35        | 0 / 0   | 0 / 0                         | 0 / 0 | 0 / 0 | 35 / 0 | 0 / 0 |

BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S) 5, 3

**BRACING**  
TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 6.25 FT.  
MAX. UNBRACED BOTTOM CHORD LENGTH = 10.00 FT. OR RIGID CEILING DIRECTLY APPLIED.  
ALL PITCH BREAKS AND PERIMETER CORNER JOINTS MUST BE Laterally RESTRAINED.

| LOADING               |               |       |            |          |       |
|-----------------------|---------------|-------|------------|----------|-------|
| TOTAL LOAD CASES: (4) |               |       |            |          |       |
| MEMB.                 | CHORDS        |       | FACTORED   |          | WEBS  |
|                       | MAX. FACTORED | FORCE | VERT. LOAD | LC1 MAX  |       |
|                       | (LBS)         | (PLF) | (LC)       | UNBRAC   |       |
| FR-TO                 | FROM          | TO    | LENGTH     | FR-TO    |       |
| 5-2                   | -204 / 0      | 0.0   | 0.0        | 0.12 (4) | 7.81  |
| 1-2                   | 0 / 29        | -77.3 | -77.3      | 0.10 (1) | 10.00 |
| 2-3                   | -11 / 0       | -77.3 | -77.3      | 0.05 (1) | 6.25  |
| 5-4                   | 0 / 0         | -17.5 | -17.5      | 0.13 (4) | 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=0.12 (2-5:4), BC=0.13 (4-5:4), WB=0.00 (n/a:0), SSI=0.08 (4-5:4)

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

COMPANION LIVE LOAD FACTOR = 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.

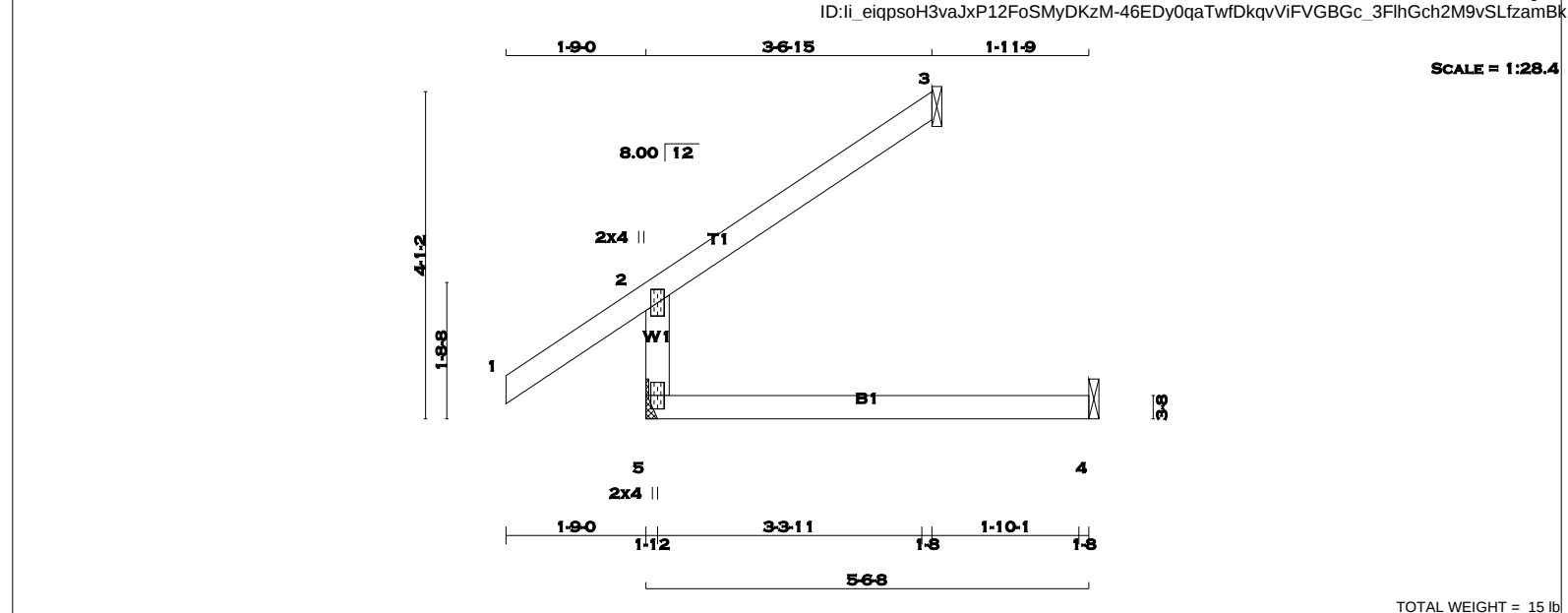
JSI GRIP= 0.13 (2) (INPUT = 0.90 )  
JSI METAL= 0.05 (2) (INPUT = 1.00 )

March 15th, 2017

RECEIVED  
TOWN OF MILTON  
MAR 29, 2017  
17-5246  
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 | DRY  | LUMBER | DESCR. |
|-------------------|--------|------|------|--------|--------|
| 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**

**BEARINGS**

| JT | FACTORED GROSS REACTION |      | MAXIMUM FACTORED GROSS REACTION |      | INPUT DOWN | REQRD BRG IN-SX  |
|----|-------------------------|------|---------------------------------|------|------------|------------------|
|    | VERT                    | HORZ | DOWN                            | HORZ |            |                  |
| 5  | 370                     | 0    | 370                             | 0    | 0          | HANGER BY OTHERS |
| 3  | 104                     | 0    | 104                             | 0    | 0          | 1-8              |
| 4  | 42                      | 0    | 47                              | 0    | 0          | 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  | 258       | 189 / 0 | 0 / 0                         | 0 / 0     | 0 / 0 | 69 / 0 | 0 / 0 |
| 3  | 71        | 63 / 0  | 0 / 0                         | 0 / 0     | 0 / 0 | 8 / 0  | 0 / 0 |
| 4  | 33        | 0 / 0   | 0 / 0                         | 0 / 0     | 0 / 0 | 33 / 0 | 0 / 0 |

**BRACING**

TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 6.25 FT.

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

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

**LOADING**

TOTAL LOAD CASES: (4)

| MEMB. | CHORDS           |                  | FACTORED        |                           | WEBS             |                           |
|-------|------------------|------------------|-----------------|---------------------------|------------------|---------------------------|
|       | MAX. FORCE (LBS) | VERT. LOAD (PLF) | MAX. LOAD (LC1) | MAX. UNBRACED LENGTH (LC) | MAX. FORCE (LBS) | MAX. UNBRACED LENGTH (LC) |
| FR-TO |                  |                  |                 |                           |                  |                           |
| 5-2   | -314 / 0         | 0.0              | 0.0             | 0.09 (4)                  | 7.81             |                           |
| 1-2   | 0 / 39           | -77.3            | -77.3           | 0.18 (1)                  | 10.00            |                           |
| 2-3   | -19 / 0          | -77.3            | -77.3           | 0.17 (1)                  | 6.25             |                           |
| 5-4   | 0 / 0            | -17.5            | -17.5           | 0.12 (4)                  | 10.00            |                           |

**DESIGN CRITERIA**

**SPECIFIED LOADS:**

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

**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 (0.03")

CSI: TC=0.18 (1-2:1) , BC=0.12 (4-5:4) , WB=0.00 (n/a:0) , SSI=0.11 (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     |
| MT20  | 618       | 354   | 1667    |
|       | 822       | 2284  | 1656    |

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.20 (2) (INPUT = 0.90 )

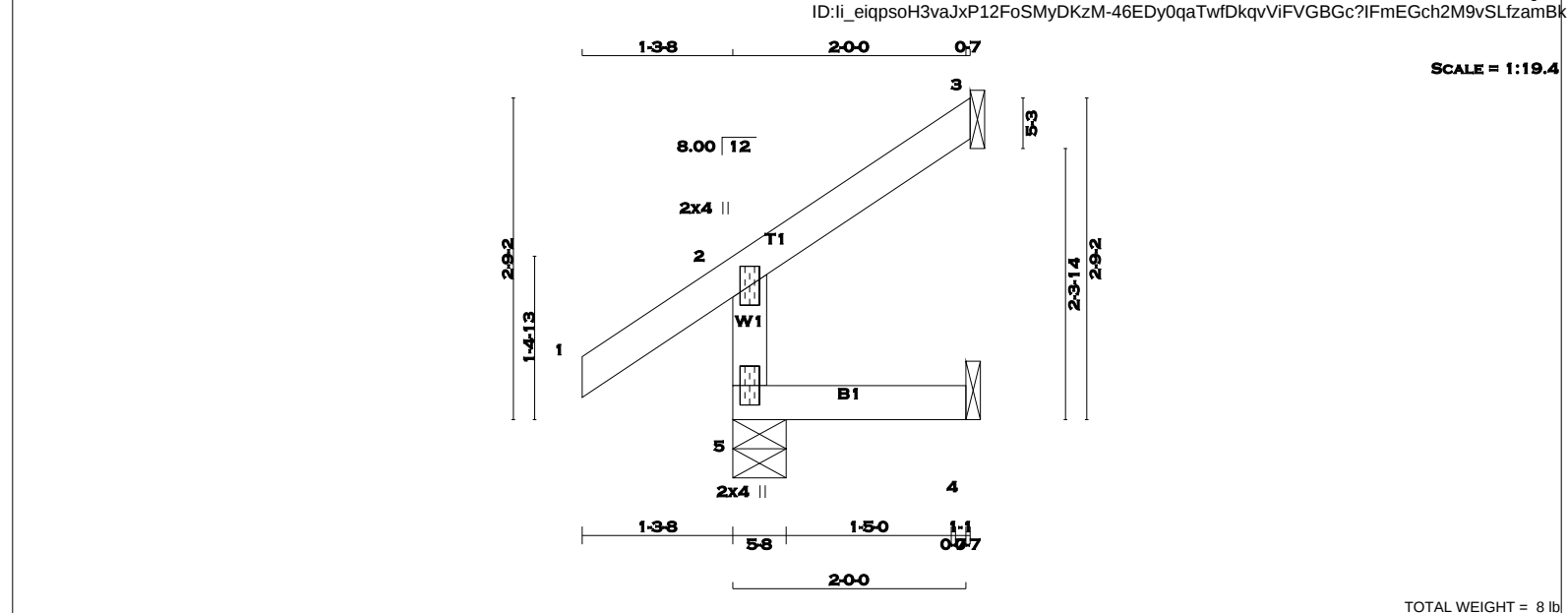
JSI METAL= 0.08 (2) (INPUT = 1.00 )

TOTAL WEIGHT = 15 lb [M]

RECEIVED  
TOWN OF MILTON  
MAR 29, 2017  
17-5246  
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.

March 15th, 2017



TOTAL WEIGHT = 8 lb [M]

| N. L. G. A. RULES     |     |      |      |        | DESCR. | BUILDING DESIGNER |      |                  |      |       |        | DESIGN CRITERIA  |                       |
|-----------------------|-----|------|------|--------|--------|-------------------|------|------------------|------|-------|--------|------------------|-----------------------|
| CHORDS                |     | SIZE |      | LUMBER |        | BEARINGS          |      |                  |      |       |        |                  |                       |
| 5 - 2                 | 2x4 | DRY  | No.2 |        |        | FACTORED          |      | MAXIMUM FACTORED |      | INPUT | REQRD  | SPECIFIED LOADS: |                       |
| 1 - 3                 | 2x4 | DRY  | No.2 |        |        | GROSS REACTION    |      | GROSS REACTION   |      | BRG   | BRG    | TOP              | CH. LL = 23.3 PSF     |
| 5 - 4                 | 2x4 | DRY  | No.2 |        |        | JT                | VERT | HORZ             | DOWN | HORZ  | UPLIFT | IN-SX            | IN-SX                 |
| DRY: SEASONED LUMBER. |     |      |      |        | 5      | 223               | 0    | 223              | 0    | 0     | 5-8    | 5-8              | BOT CH. LL = 0.0 PSF  |
|                       |     |      |      |        | 3      | 60                | 0    | 60               | 0    | 0     | 1-8    | 1-8              | DL = 7.0 PSF          |
|                       |     |      |      |        | 4      | 16                | 0    | 18               | 0    | 0     | 1-8    | 1-8              | TOTAL LOAD = 33.3 PSF |

| 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                                                                                             | 223  | 0    | 223                             | 0    | 0      | 5-8       |  | 5-8       |  |
| 3                                                                                             | 60   | 0    | 60                              | 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                                       | 154      | 123 / 0 | 0 / 0 | 0 / 0     | 0 / 0 | 31 / 0 | 0 / 0 |  |  |
| 3                                       | 40       | 36 / 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: (5) |                           |                           |                |                              |       |                           |                              |  |  |
| CHORDS                |                           |                           |                |                              | WEBS  |                           |                              |  |  |
| MEMB.                 | MAX. FACTORED FORCE (LBS) | FACTORED VERT. LOAD (PLF) | MAX. LC1 (LC)  | MAX. UNBRACED LENGTH (FR-TO) | MEMB. | MAX. FACTORED FORCE (LBS) | MAX. UNBRACED LENGTH (FR-TO) |  |  |
| 5-2                   | -204 / 0                  | 0.0                       | 0.0 0.01 (4)   | 7.81                         |       |                           |                              |  |  |
| 1-2                   | 0 / 29                    | -77.3                     | -77.3 0.10 (1) | 10.00                        |       |                           |                              |  |  |
| 2-3                   | -11 / 0                   | -77.3                     | -77.3 0.05 (1) | 6.25                         |       |                           |                              |  |  |
| 5-4                   | 0 / 0                     | -17.5                     | -17.5 0.02 (4) | 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 (4-5:4) , 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

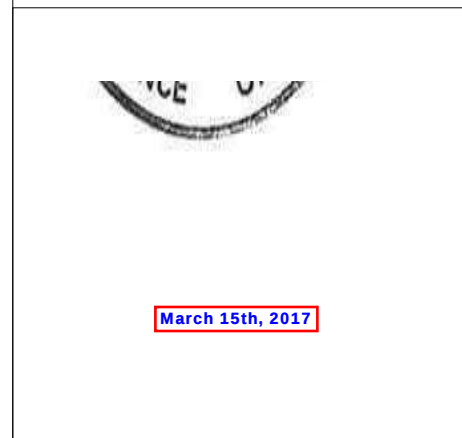
MT20 618 354 1667 822 2284 1656

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.13 (2) (INPUT = 0.90 )

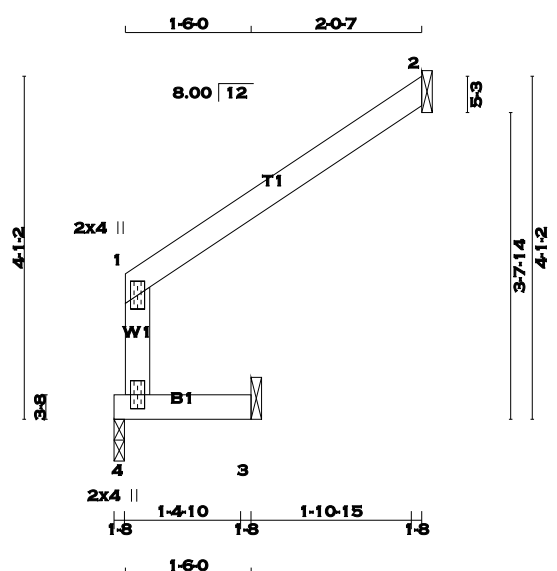
JSI METAL= 0.05 (2) (INPUT = 1.00 )



RECEIVED  
TOWN OF MILTON  
MAR 29, 2017  
17-5246  
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 = 1:27.5

TOTAL WEIGHT = 8 lb  
[M][F]

| LUMBER            |      |        |        |     |
|-------------------|------|--------|--------|-----|
| N. L. G. A. RULES |      |        |        |     |
| CHORDS            | SIZE | LUMBER | DESCR. |     |
| 4 - 1             | 2x4  | DRY    | No.2   | SPF |
| 1 - 2             | 2x4  | DRY    | No.2   | SPF |
| 4 - 3             | 2x4  | 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 |     |
| 4                           | 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     |  |
| 4  |  | 131                     | 0    | 131                             | 0    | 0         | 1-8   | 1-8       |  |
| 2  |  | 122                     | 0    | 122                             | 0    | 0         | 1-8   | 1-8       |  |
| 3  |  | 47                      | 0    | 47                              | 0    | 0         | 1-8   | 1-8       |  |

SEE MITEK STANDARD DETAIL B37579H FOR CONNECTION TO JOINT(S) 2 , 3

| UNFACTORED REACTIONS |           |           |       |       |           |       |        |
|----------------------|-----------|-----------|-------|-------|-----------|-------|--------|
| JT                   | 1ST LCASE | MAX./MIN. | SNOW  | LIVE  | PERM.LIVE | WIND  | DEAD   |
| 4                    | 90        | 70 / 0    | 0 / 0 | 0 / 0 | 0 / 0     | 0 / 0 | 20 / 0 |
| 2                    | 83        | 74 / 0    | 0 / 0 | 0 / 0 | 0 / 0     | 0 / 0 | 10 / 0 |
| 3                    | 33        | 21 / 0    | 0 / 0 | 0 / 0 | 0 / 0     | 0 / 0 | 13 / 0 |

BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S) 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                      |                           |
| MEMB.                 | MAX. FACTORED FORCE (LBS) | FACTORED VERT. LOAD (PLF) | MAX. FACTORED FORCE (LBS) |
| FR-TO                 |                           | FROM TO                   | LENGTH FR-TO              |
| 4-1                   | -151 / 0                  | 0.0 0.0 0.06 (1)          | 7.81                      |
| 1-2                   | -8 / 0                    | -77.3 -77.3 0.12 (1)      | 10.00                     |
| 4-3                   | 0 / 0                     | -17.5 -17.5 0.07 (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 (0.00")  
ALLOWABLE DEFL.(TL)= L/360 (0.19")  
CALCULATED VERT. DEFL.(TL) = L/ 999 (0.00")

CSI: TC=0.12 (1-2:1) , BC=0.07 (3-4:1) , WB=0.00 (n/a:0) , SSI=0.10 (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 |

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

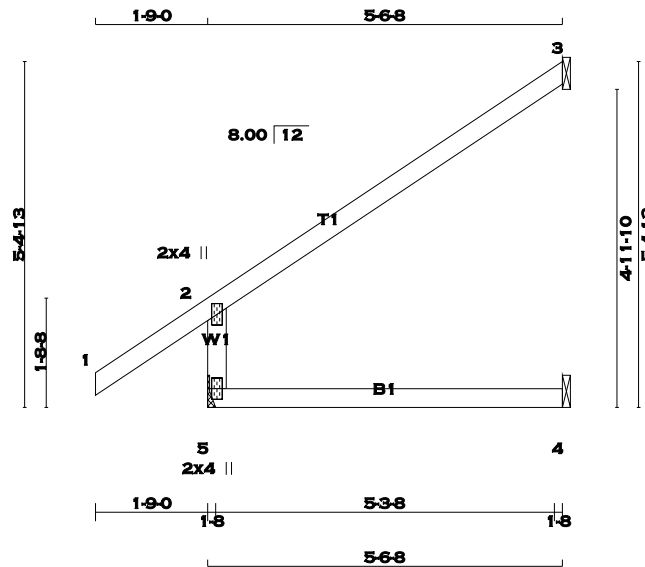
JSI GRIP= 0.10 (1) (INPUT = 0.90 )  
JSI METAL= 0.04 (1) (INPUT = 1.00 )

March 15th, 2017

RECEIVED  
TOWN OF MILTON  
MAR 29, 2017  
17-5246  
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 = 1:36.0

TOTAL WEIGHT = 2 X 18 = 36 lb [M]

| <u>LUMBER</u>     |     |      |     |        |        |
|-------------------|-----|------|-----|--------|--------|
| N. L. G. A. RULES |     |      |     |        |        |
| CHORDS            |     | SIZE |     | LUMBER | DESCR. |
| 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  | 465                     | 0    | 465                             | 0    | 0         |           |
| 3  | 161                     | 0    | 161                             | 0    | 0         |           |
| 4  | 42                      | 0    | 47                              | 0    | 0         |           |

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  | 323       | 246 / 0 | 0 / 0                         | 0 / 0     | 0 / 0 | 76 / 0 | 0 / 0 |
| 3  | 109       | 97 / 0  | 0 / 0                         | 0 / 0     | 0 / 0 | 12 / 0 | 0 / 0 |
| 4  | 33        | 0 / 0   | 0 / 0                         | 0 / 0     | 0 / 0 | 33 / 0 | 0 / 0 |

#### BRACING

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

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

#### LOADING

TOTAL LOAD CASES: (4)

| MEMB. | CHORDS           |                  | FACTORED |           | WEBS               |             | FACTORED         |           |
|-------|------------------|------------------|----------|-----------|--------------------|-------------|------------------|-----------|
|       | MAX. FORCE (LBS) | VERT. LOAD (PLF) | LC1      | MAX. (LC) | MAX. UNBRAC LENGTH | MEMB. FR-TO | MAX. FORCE (LBS) | MAX. (LC) |
| FR-TO |                  | FROM             | TO       |           |                    |             |                  |           |
| 5-2   | -409 / 0         | 0.0              | 0.0      | 0.09 (4)  | 7.81               |             |                  |           |
| 1-2   | 0 / 39           | -77.3            | -77.3    | 0.18 (1)  | 10.00              |             |                  |           |
| 2-3   | -30 / 0          | -77.3            | -77.3    | 0.40 (1)  | 6.25               |             |                  |           |
| 5-4   | 0 / 0            | -17.5            | -17.5    | 0.12 (4)  | 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 (0.19")  
CALCULATED VERT. DEFL.(LL) = L/ 999 (0.00")  
ALLOWABLE DEFL.(TL)= L/360 (0.19")  
CALCULATED VERT. DEFL.(TL) = L/ 999 (0.03")

CSI: TC=0.40 (2-3:1), BC=0.12 (4-5:4), WB=0.00 (n/a:0), 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= 0.26 (2) (INPUT = 0.90 )  
JSI METAL= 0.10 (2) (INPUT = 1.00 )

March 15th, 2017

RECEIVED  
TOWN OF MILTON  
MAR 29, 2017  
17-5246  
BUILDING DIVISION

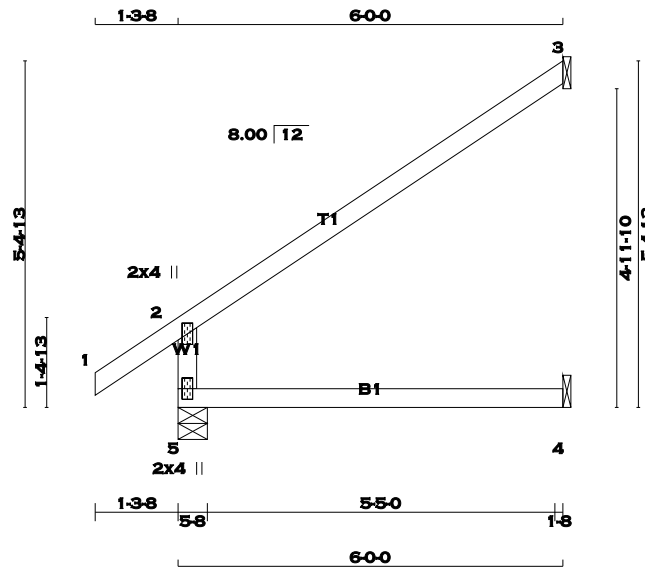
READ ALL NOTES ON THIS PAGE AND ON THE ENGINEERING NOTE PAGE ENP-1. THE NOTE PAGE IS AN INTEGRAL PART OF THIS DRAWING AS IT CONTAINS SPECIFICATIONS AND CRITERIA USED IN THE DESIGN OF THIS COMPONENT.



KOTT , Stouffville, ON, CGC

Version 8.100 S Feb 9 2017 MiTek Industries, Inc. Wed Mar 15 08:07:44 2017 Page 1

ID:li\_eiqpsoH3vaJxP12FoSMYDKzM-ZIobAMrCEDn4L\_UhGz0VjT94Ff4i?3wBapf?t6zamBj



SCALE = 1:35.9

TOTAL WEIGHT = 18 lb

| LUMBER            |        |      |        |  | DESCR. | SPF |
|-------------------|--------|------|--------|--|--------|-----|
| 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 |                         |      |                                 |      |           |       |           |       |  |
|-----------------------------------------------------------------------------------------------|-------------------------|------|---------------------------------|------|-----------|-------|-----------|-------|--|
| BEARINGS                                                                                      |                         |      |                                 |      |           |       |           |       |  |
| JT                                                                                            | FACTORED GROSS REACTION |      | MAXIMUM FACTORED GROSS REACTION |      | INPUT BRG |       | REQRD BRG |       |  |
|                                                                                               | VERT                    | HORZ | DOWN                            | HORZ | UPLIFT    | IN-SX | 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                                                                                             | 44                      | 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 |         | MAX./MIN. COMPONENT REACTIONS |       | LIVE  | PERM.LIVE | WIND   | DEAD  | SOIL  |
|                      | COMBINED  | SNOW    | SNOW                          | LIVE  |       |           |        |       |       |
| 5                    | 318       | 239 / 0 | 0 / 0                         | 0 / 0 | 0 / 0 | 0 / 0     | 80 / 0 | 0 / 0 | 0 / 0 |
| 3                    | 118       | 105 / 0 | 0 / 0                         | 0 / 0 | 0 / 0 | 0 / 0     | 14 / 0 | 0 / 0 | 0 / 0 |
| 4                    | 35        | 0 / 0   | 0 / 0                         | 0 / 0 | 0 / 0 | 0 / 0     | 35 / 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: (4)

| CHORDS |                           |                           | WEBS          |                            |                                 |
|--------|---------------------------|---------------------------|---------------|----------------------------|---------------------------------|
| MEMB.  | MAX. FACTORED FORCE (LBS) | FACTORED VERT. LOAD (PLF) | MAX. LC1 (LC) | MAX. UNBRACED LENGTH FR-TO | MEMB. MAX. FACTORED FORCE (LBS) |
| FR-TO  |                           | FROM TO                   |               |                            |                                 |
| 5-2    | -396 / 0                  | 0.0 0.0                   | 0.12 (4)      | 7.81                       |                                 |
| 1-2    | 0 / 29                    | -77.3 -77.3               | 0.10 (1)      | 10.00                      |                                 |
| 2-3    | -32 / 0                   | -77.3 -77.3               | 0.47 (1)      | 6.25                       |                                 |
| 5-4    | 0 / 0                     | -17.5 -17.5               | 0.13 (4)      | 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 (4-5:4) , WB=0.00 (n/a:0) , 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.

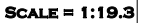
JSI GRIP= 0.25 (2) (INPUT = 0.90 )  
JSI METAL= 0.10 (2) (INPUT = 1.00 )

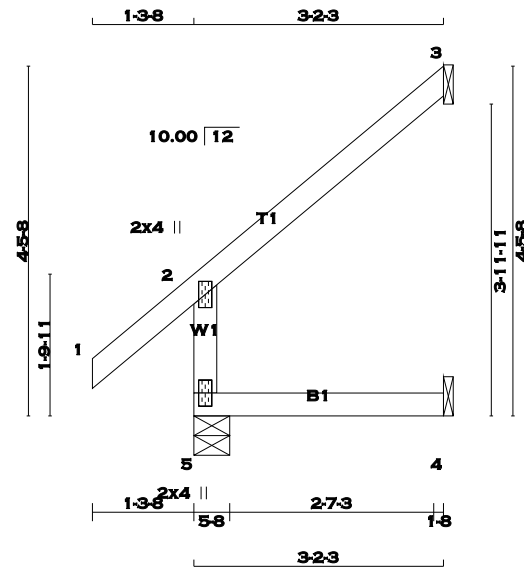
March 15th, 2017

RECEIVED  
TOWN OF MILTON  
MAR 29, 2017  
17-5246  
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 = 1:29.4

TOTAL WEIGHT = 8 X 12 = 97 lb [M]

#### LUMBER

| N. L. G. A. RULES | CHORDS | SIZE | LUMBER | DESCR. |
|-------------------|--------|------|--------|--------|
| 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

| BEARINGS | FACTORED GROSS REACTION | MAXIMUM FACTORED GROSS REACTION | INPUT BRG | REQRD BRG |
|----------|-------------------------|---------------------------------|-----------|-----------|
| JT       | VERT                    | HORZ                            | DOWN      | HORZ      |
| 5        | 292                     | 0                               | 292       | 0         |
| 3        | 93                      | 0                               | 93        | 0         |
| 4        | 25                      | 0                               | 28        | 0         |

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

#### UNFACTORED REACTIONS

| JT | 1ST LCASE | MAX./MIN. SNOW | LIVE  | PERM.LIVE | WIND  | DEAD   | SOIL  |
|----|-----------|----------------|-------|-----------|-------|--------|-------|
| 5  | 202       | 157 / 0        | 0 / 0 | 0 / 0     | 0 / 0 | 45 / 0 | 0 / 0 |
| 3  | 63        | 56 / 0         | 0 / 0 | 0 / 0     | 0 / 0 | 7 / 0  | 0 / 0 |
| 4  | 20        | 0 / 0          | 0 / 0 | 0 / 0     | 0 / 0 | 20 / 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: (5)

| MEMB. | CHORDS | MAX. FACTORED FORCE (LBS) | FACTORED VERT. LOAD (PLF) | FACTORED LC1 MAX (LC) | MAX. UNBRACED LENGTH | MEMB. | WEBS | MAX. FACTORED FORCE (LBS) | MAX. FACTORED CSI (LC) |
|-------|--------|---------------------------|---------------------------|-----------------------|----------------------|-------|------|---------------------------|------------------------|
| FR-TO |        |                           |                           |                       |                      | FR-TO |      |                           |                        |
| 5-2   |        | -261 / 0                  | 0.0                       | 0.02 (4)              | 7.81                 |       |      |                           |                        |
| 1-2   |        | 0 / 34                    | -77.3                     | -77.3 (1)             | 10.00                |       |      |                           |                        |
| 2-3   |        | -20 / 0                   | -77.3                     | -77.3 (1)             | 6.25                 |       |      |                           |                        |
| 5-4   |        | 0 / 0                     | -17.5                     | -17.5 (4)             | 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=0.13 (2-3:1), BC=0.04 (4-5:4), WB=0.00 (n/a:0), 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.

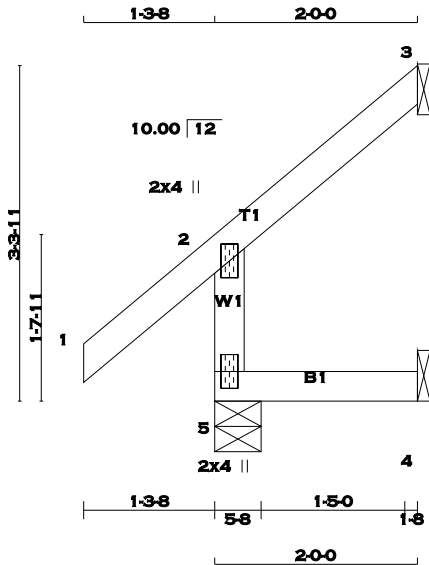
JSI GRIP= 0.19 (2) (INPUT = 0.90)  
JSI METAL= 0.07 (2) (INPUT = 1.00)

March 15th, 2017

RECEIVED  
TOWN OF MILTON  
MAR 29, 2017  
17-5246  
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 = 1:22.7

TOTAL WEIGHT = 6 X 9 = 53 lb [M]

| LUMBER            |      |        |        |  |
|-------------------|------|--------|--------|--|
| N. L. G. A. RULES |      |        |        |  |
| CHORDS            | SIZE | LUMBER | DESCR. |  |
| 5 - 2             | 2x4  | No.2   | SPF    |  |
| 1 - 3             | 2x4  | DRY    | SPF    |  |
| 5 - 4             | 2x4  | DRY    | 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                                                                                      |                         |      |                                 |      |           |       |           |  |  |
| JT                                                                                            | FACTORED GROSS REACTION |      | MAXIMUM FACTORED GROSS REACTION |      | INPUT BRG |       | REQRD BRG |  |  |
|                                                                                               | VERT                    | HORZ | DOWN                            | HORZ | UPLIFT    | IN-SX | IN-SX     |  |  |
| 5                                                                                             | 222                     | 0    | 222                             | 0    | 0         | 5-8   | 5-8       |  |  |
| 3                                                                                             | 59                      | 0    | 59                              | 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, 3

**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: (5) |               |                  |               |                |
| CHORDS                |               | WEBS             |               |                |
| MEMB.                 | MAX. FACTORED | FACTORED         | MAX. FACTORED | MAX. FACTORED  |
|                       | FORCE (LBS)   | VERT. LOAD (PLF) | LC1 MAX (LC)  | UNBRACED (LBS) |
| FR-TO                 |               | FROM TO          | LENGTH        | FR-TO          |
| 5-2                   | -203 / 0      | 0.0 0.0          | 0.01 (4)      | 7.81           |
| 1-2                   | 0 / 34        | -77.3 -77.3      | 0.11 (1)      | 10.00          |
| 2-3                   | -12 / 0       | -77.3 -77.3      | 0.05 (1)      | 6.25           |
| 5-4                   | 0 / 0         | -17.5 -17.5      | 0.02 (4)      | 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=0.11 (1-2:1) , BC=0.02 (4-5:4) , WB=0.00 (n/a:0) , SSI=0.06 (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.

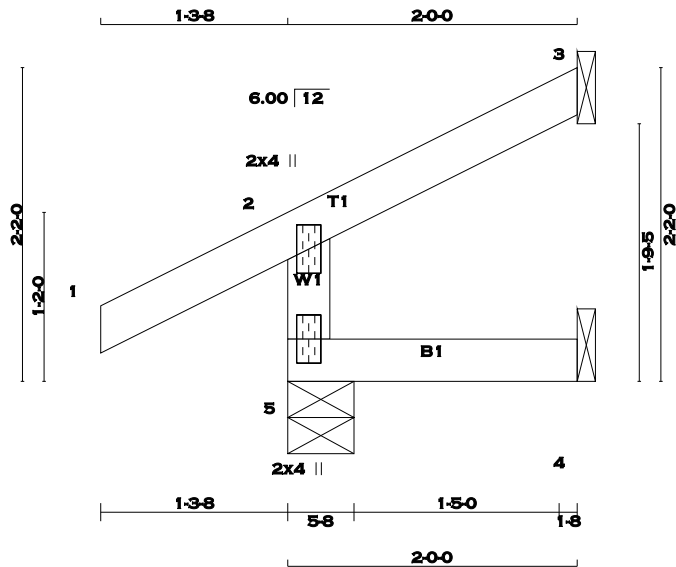
JSI GRIP= 0.15 (2) (INPUT = 0.90 )  
JSI METAL= 0.05 (2) (INPUT = 1.00 )

March 15th, 2017

RECEIVED  
TOWN OF MILTON  
MAR 29, 2017  
17-5246  
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 = 14 X 7 = 104 lb [M]

| LUMBER            |      |        |        |     |
|-------------------|------|--------|--------|-----|
| N. L. G. A. RULES |      |        |        |     |
| CHORDS            | SIZE | LUMBER | DESCR. |     |
| 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**

|    |  | 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         | 5-8   | 5-8       |  |
| 3  |  | 58                      | 0    | 58                              | 0    | 0         | 1-8   | 1-8       |  |
| 4  |  | 16                      | 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 |           |       |        |       |  |
|----|--|-----------|---------|-------------------------------|-----------|-------|--------|-------|--|
| JT |  | COMBINED  | SNOW    | LIVE                          | PERM.LIVE | WIND  | DEAD   | SOIL  |  |
| 5  |  | 152       | 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: (5)

|       |  | 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   |  | -201 / 0         | 0.0              | 0.0      | 0.01 (4)      | 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 (4)      | 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 (4-5:4) , 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  |
| MT20        | 618       | 354   | 1667    | 822 | 2284 |

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

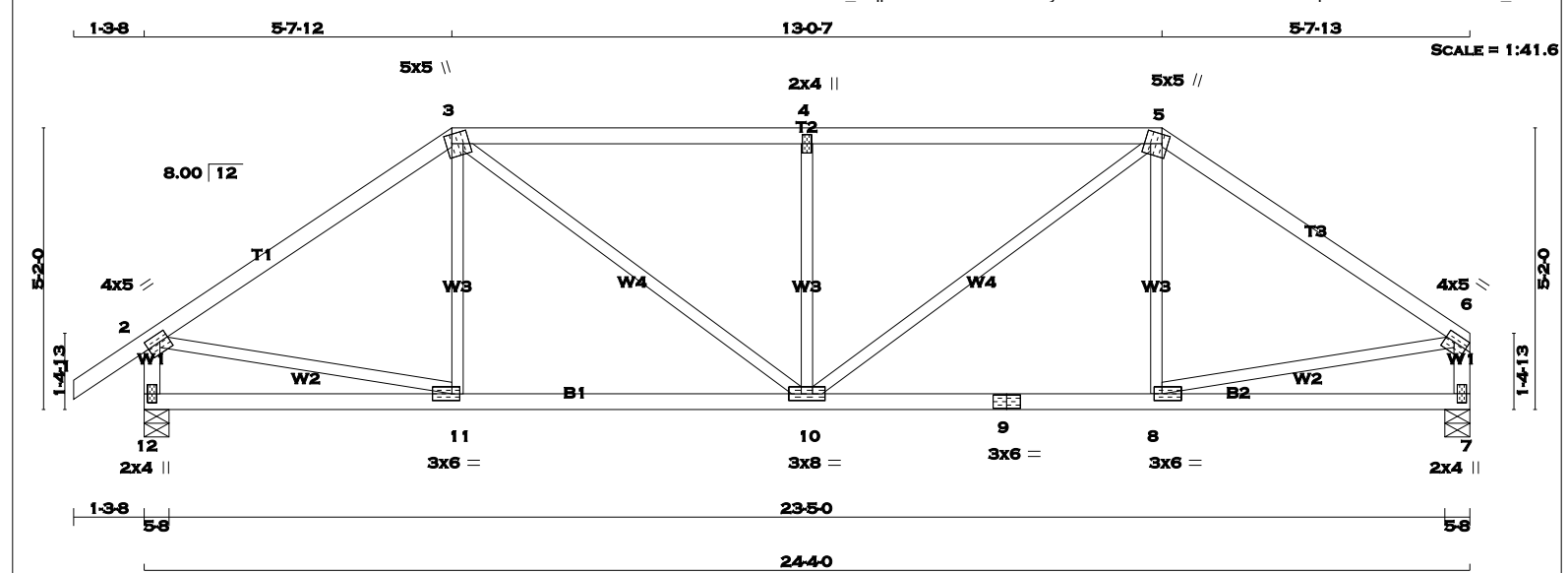
JSI GRIP= 0.12 (2) (INPUT = 0.90 )  
JSI METAL= 0.04 (2) (INPUT = 1.00 )

March 15th, 2017

RECEIVED  
TOWN OF MILTON  
MAR 29, 2017  
17-5246  
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 - 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.

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

1260

0

1260

0

0

5-8

5-8

7

1154

0

1154

0

0

5-8

5-8

UNFACTORED REACTIONS

1ST LCASE

MAX/MIN. COMPONENT REACTIONS

JT

COMBINED

SNOW

LIVE

PERM.LIVE

WIND

DEAD

SOIL

12

882

630 / 0

0 / 0

0 / 0

0 / 0

252 / 0

0 / 0

7

810

567 / 0

0 / 0

0 / 0

0 / 0

243 / 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 = 4.43 FT.

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

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

LOADING

TOTAL LOAD CASES: (4)

CHORDS

MAX. FACTORED

FACTORED

WEBS

MAX. FACTORED

MEMB.

FORCE

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 / 29

-77.3

-77.3

0.10 (1)

10.00

11-3

-76 / 74

0.03 (1)

2-3

-1258 / 0

-77.3

-77.3

0.50 (1)

5.08

3-10

0 / 607

0.14 (1)

3-4

-1530 / 0

-77.3

-77.3

0.66 (1)

4.43

10-4

-619 / 0

0.24 (1)

4-5

-1530 / 0

-77.3

-77.3

0.66 (1)

4.43

10-5

0 / 607

0.14 (1)

5-6

-1258 / 0

-77.3

-77.3

0.50 (1)

5.08

8-5

-76 / 74

0.03 (1)

12-2

-1221 / 0

0.0

0.0

0.13 (1)

7.25

2-11

0 / 1064

0.24 (1)

7-6

-1115 / 0

0.0

0.0

0.11 (1)

7.51

8-6

0 / 1064

0.24 (1)

12-11

0 / 0

-17.5

-17.5

0.15 (4)

10.00

11-10

0 / 1044

-17.5

-17.5

0.25 (1)

10.00

10-9

0 / 1044

-17.5

-17.5

0.25 (1)

10.00

9-8

0 / 1044

-17.5

-17.5

0.25 (1)

10.00

8-7

0 / 0

-17.5

-17.5

0.15 (4)

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 (0.81")

CALCULATED VERT. DEFL.(LL) = L/ 999 (0.06")

ALLOWABLE DEFL.(TL)= L/360 (0.81")

CALCULATED VERT. DEFL.(TL) = L/ 999 (0.10")

CSI: TC=0.66 (3-4:1) , BC=0.25 (8-10:1) , WB=0.24 (4-10:1) , SSI=0.24 (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.

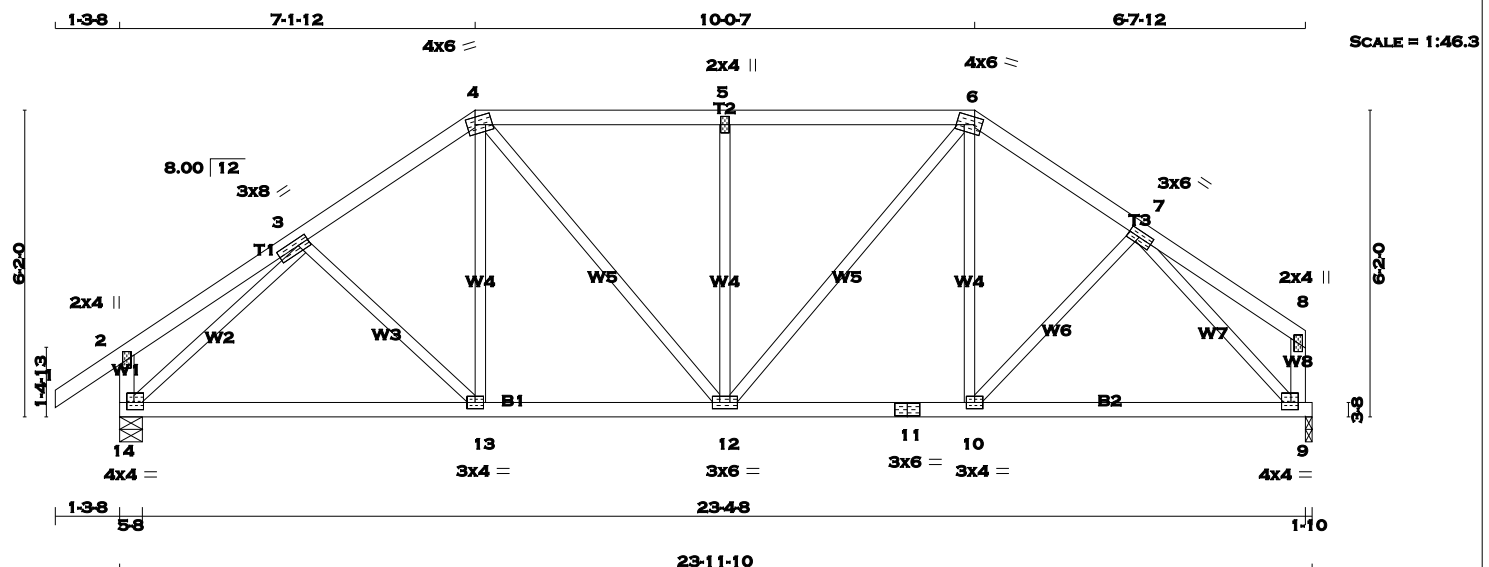
JSI GRIP= 0.90 (11) (INPUT = 0.90 )

JSI METAL= 0.43 (2) (INPUT = 1.00 )

March 15th, 2017

RECEIVED  
TOWN OF MILTON  
MAR 29, 2017  
17-5246  
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 = 103 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 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                           | TMWW-t  | MT20   | 3.0 | 8.0 | 1.50 2.75 |
| 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 | 6.0 | 1.75 1.75 |
| 7                           | TMWW-t  | MT20   | 3.0 | 6.0 | 1.50 2.75 |
| 8                           | TMV+p   | MT20   | 2.0 | 4.0 |           |
| 9                           | BMVW1-t | MT20   | 4.0 | 4.0 | 1.75 1.75 |
| 10                          | BMWW-t  | MT20   | 3.0 | 4.0 |           |
| 11                          | BS-t    | MT20   | 3.0 | 6.0 |           |
| 12                          | BMWW-t  | MT20   | 3.0 | 6.0 |           |
| 13                          | BMWW-t  | MT20   | 3.0 | 4.0 |           |
| 14                          | BMVW1-t | MT20   | 4.0 | 4.0 | 1.75 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                   |  | 1236                    | 0       | 1236                            | 0         | 0         | 5-8     | 5-8       |  |
| 9                    |  | 1130                    | 0       | 1130                            | 0         | 0         | 1-10    | 1-10      |  |
| UNFACTORED REACTIONS |  |                         |         |                                 |           |           |         |           |  |
|                      |  | 1ST LCASE               |         | MAX./MIN. COMPONENT REACTIONS   |           |           |         |           |  |
| JT                   |  | COMBINED                | SNOW    | LIVE                            | PERM.LIVE | WIND      | DEAD    | SOIL      |  |
| 14                   |  | 865                     | 619 / 0 | 0 / 0                           | 0 / 0     | 0 / 0     | 247 / 0 | 0 / 0     |  |
| 9                    |  | 793                     | 555 / 0 | 0 / 0                           | 0 / 0     | 0 / 0     | 238 / 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 = 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.

| LOADING               |  |                           |                           |                |                      |       |  |                           |              |
|-----------------------|--|---------------------------|---------------------------|----------------|----------------------|-------|--|---------------------------|--------------|
| TOTAL LOAD CASES: (4) |  |                           |                           |                |                      |       |  |                           |              |
| CHORDS                |  |                           |                           |                | WEBS                 |       |  |                           |              |
| MEMB.                 |  | MAX. FACTORED FORCE (LBS) | FACTORED VERT. LOAD (PLF) | MAX LC1 (LC)   | MAX. UNBRACED LENGTH | MEMB. |  | MAX. FACTORED FORCE (LBS) | MAX LC1 (LC) |
| FR-TO                 |  |                           | FROM                      | TO             |                      | FR-TO |  |                           |              |
| 1-2                   |  | 0 / 29                    | -77.3                     | -77.3 0.10 (1) | 10.00                | 3-13  |  | -31 / 40                  | 0.01 (4)     |
| 2-3                   |  | 0 / 16                    | -77.3                     | -77.3 0.15 (1) | 10.00                | 13-4  |  | 0 / 154                   | 0.04 (4)     |
| 3-4                   |  | -1193 / 0                 | -77.3                     | -77.3 0.13 (1) | 5.73                 | 4-12  |  | 0 / 317                   | 0.07 (1)     |
| 4-5                   |  | -1186 / 0                 | -77.3                     | -77.3 0.26 (1) | 5.57                 | 12-5  |  | -474 / 0                  | 0.28 (1)     |
| 5-6                   |  | -1186 / 0                 | -77.3                     | -77.3 0.26 (1) | 5.57                 | 12-6  |  | 0 / 382                   | 0.09 (1)     |
| 6-7                   |  | -1143 / 0                 | -77.3                     | -77.3 0.11 (1) | 5.84                 | 10-6  |  | 0 / 98                    | 0.03 (4)     |
| 7-8                   |  | 0 / 15                    | -77.3                     | -77.3 0.13 (1) | 10.00                | 10-7  |  | 0 / 60                    | 0.02 (4)     |
| 14-2                  |  | -214 / 0                  | 0.0                       | 0.0 0.02 (1)   | 7.81                 | 14-3  |  | -1393 / 0                 | 0.55 (1)     |
| 9-8                   |  | -101 / 0                  | 0.0                       | 0.0 0.01 (1)   | 7.81                 | 7-9   |  | -1330 / 0                 | 0.51 (1)     |
| 14-13                 |  | 0 / 1000                  | -17.5                     | -17.5 0.27 (1) | 10.00                |       |  |                           |              |
| 13-12                 |  | 0 / 980                   | -17.5                     | -17.5 0.27 (4) | 10.00                |       |  |                           |              |
| 12-11                 |  | 0 / 938                   | -17.5                     | -17.5 0.25 (1) | 10.00                |       |  |                           |              |
| 11-10                 |  | 0 / 938                   | -17.5                     | -17.5 0.25 (1) | 10.00                |       |  |                           |              |
| 10-9                  |  | 0 / 898                   | -17.5                     | -17.5 0.24 (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 (0.79")  
CALCULATED VERT. DEFL.(LL) = L/999 (0.04")  
ALLOWABLE DEFL.(TL)= L/360 (0.79")  
CALCULATED VERT. DEFL.(TL) = L/999 (0.10")

CSI: TC=0.26 (4-5:1), BC=0.27 (12-13:4), WB=0.55 (3-14:1), 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

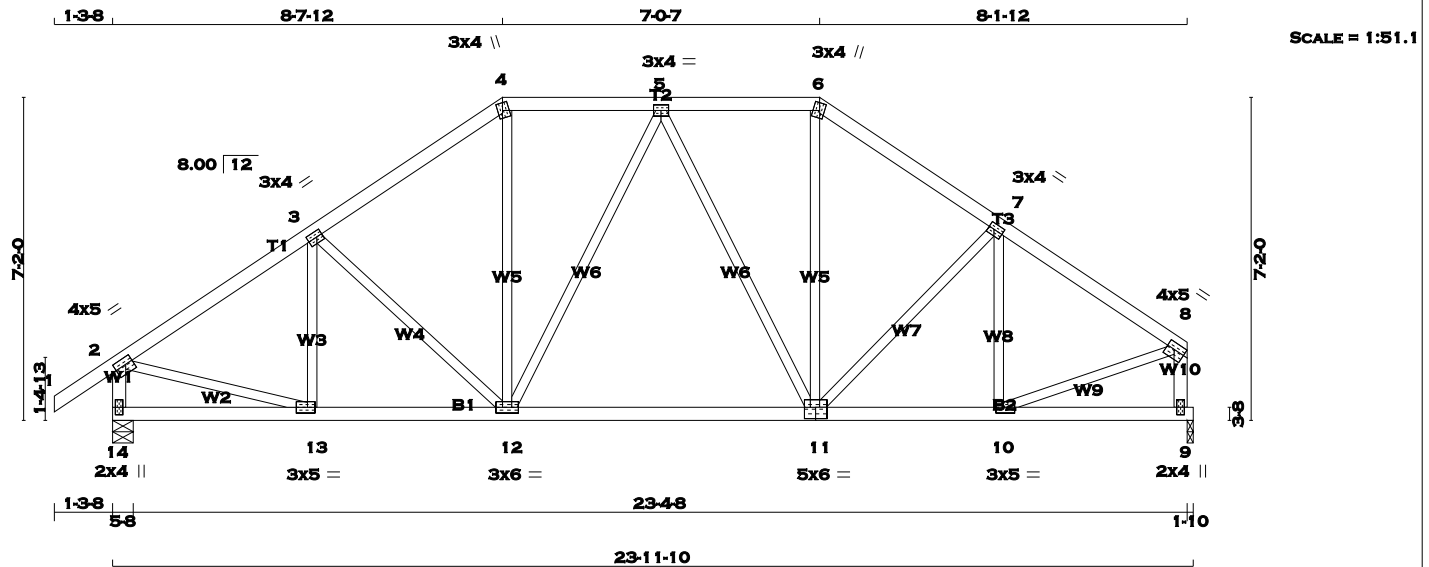
PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.90 (7) (INPUT = 0.90 )  
JSI METAL= 0.37 (14) (INPUT = 1.00 )

RECEIVED  
TOWN OF MILTON  
MAR 29, 2017  
17-5246  
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.

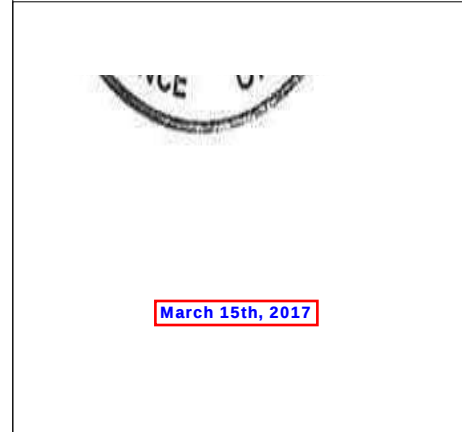




TOTAL WEIGHT = 108 lb  
[M][F]

| 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 |        |        |     |
| 14 - 2                       | 2x4  | DRY               | No.2 |        |        |     |
| 9 - 8                        | 2x4  | DRY               | No.2 |        |        |     |
| 14 - 11                      | 2x4  | DRY               | No.2 |        |        |     |
| 11 - 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 | 5.0 | 1.75 | 2.00 |
| 3                                                                                | TMVW-t | MT20   | 3.0 | 4.0 | 1.50 | 1.50 |
| 4                                                                                | TTW+m  | MT20   | 3.0 | 4.0 | 2.00 | 1.25 |
| 5                                                                                | TMVW-t | MT20   | 3.0 | 4.0 |      |      |
| 6                                                                                | TTW+m  | MT20   | 3.0 | 4.0 | 2.00 | 1.25 |
| 7                                                                                | TMVW-t | MT20   | 3.0 | 4.0 | 1.50 | 1.50 |
| 8                                                                                | TMVW-t | MT20   | 4.0 | 5.0 | 1.75 | Edge |
| 9                                                                                | BMV1+p | MT20   | 2.0 | 4.0 |      |      |
| 10                                                                               | BMVW-t | MT20   | 3.0 | 5.0 | 1.50 | 2.00 |
| 11                                                                               | BSVW-t | MT20   | 5.0 | 6.0 | 3.00 | 3.00 |
| 12                                                                               | BMVW-t | MT20   | 3.0 | 6.0 |      |      |
| 13                                                                               | BMVW-t | MT20   | 3.0 | 5.0 | 1.50 | 2.00 |
| 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        | IN-SX       | IN-SX     |          |
| 14                                                                                                                                          |  | 1236                    | 0           | 1236                            | 0             | 0             | 5-8         | 5-8       |          |
| 9                                                                                                                                           |  | 1130                    | 0           | 1130                            | 0             | 0             | 1-10        | 1-10      |          |
| UNFACTORED REACTIONS                                                                                                                        |  |                         |             |                                 |               |               |             |           |          |
|                                                                                                                                             |  | 1ST LCASE               |             | MAX/MIN. COMPONENT REACTIONS    |               |               |             |           |          |
| JT                                                                                                                                          |  | COMBINED                | SNOW        | LIVE                            | PERM.LIVE     | WIND          | DEAD        | SOIL      |          |
| 14                                                                                                                                          |  | 865                     | 619 / 0     | 0 / 0                           | 0 / 0         | 0 / 0         | 247 / 0     | 0 / 0     |          |
| 9                                                                                                                                           |  | 793                     | 555 / 0     | 0 / 0                           | 0 / 0         | 0 / 0         | 238 / 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 = 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.                                                                  |  |                         |             |                                 |               |               |             |           |          |
| LOADING                                                                                                                                     |  |                         |             |                                 |               |               |             |           |          |
| TOTAL LOAD CASES: (4)                                                                                                                       |  |                         |             |                                 |               |               |             |           |          |
|                                                                                                                                             |  | CHORDS                  |             |                                 | WEBS          |               |             |           |          |
|                                                                                                                                             |  | MAX. FACTORED           |             | FACTORED                        |               | MAX. FACTORED |             | FACTORED  |          |
|                                                                                                                                             |  | MEMB.                   | FORCE (LBS) | VERT. LOAD (LBS)                | LC1 MAX (PLF) | MEMB.         | FORCE (LBS) | MAX (PLF) |          |
|                                                                                                                                             |  | FR-TO                   |             | FROM                            | TO            | FR-TO         |             | LENGTH    |          |
| 1-2                                                                                                                                         |  | 0 / 29                  |             | -77.3                           | -77.3         | 0.10 (1)      | 10.00       | 13-3      | -187 / 9 |
| 2-3                                                                                                                                         |  | -1248 / 0               |             | -77.3                           | -77.3         | 0.20 (1)      | 5.55        | 3-12      | -196 / 0 |
| 3-4                                                                                                                                         |  | -1121 / 0               |             | -77.3                           | -77.3         | 0.19 (1)      | 5.78        | 12-4      | 0 / 379  |
| 4-5                                                                                                                                         |  | -919 / 0                |             | -77.3                           | -77.3         | 0.12 (1)      | 6.25        | 12-5      | -155 / 0 |
| 5-6                                                                                                                                         |  | -894 / 0                |             | -77.3                           | -77.3         | 0.12 (1)      | 6.25        | 5-11      | -209 / 0 |
| 6-7                                                                                                                                         |  | -1092 / 0               |             | -77.3                           | -77.3         | 0.17 (1)      | 5.87        | 11-6      | 0 / 371  |
| 7-8                                                                                                                                         |  | -1141 / 0               |             | -77.3                           | -77.3         | 0.17 (1)      | 5.77        | 11-7      | -110 / 0 |
| 14-2                                                                                                                                        |  | -1201 / 0               |             | 0.0                             | 0.0           | 0.12 (1)      | 7.29        | 10-7      | -262 / 0 |
| 9-8                                                                                                                                         |  | -1097 / 0               |             | 0.0                             | 0.0           | 0.12 (1)      | 7.55        | 2-13      | 0 / 1087 |
|                                                                                                                                             |  |                         |             |                                 |               |               |             | 10-8      | 0 / 1020 |
| 14-13                                                                                                                                       |  | 0 / 0                   |             | -17.5                           | -17.5         | 0.07 (4)      | 10.00       |           | 0.23 (1) |
| 13-12                                                                                                                                       |  | 0 / 1056                |             | -17.5                           | -17.5         | 0.24 (1)      | 10.00       |           |          |
| 12-11                                                                                                                                       |  | 0 / 988                 |             | -17.5                           | -17.5         | 0.23 (1)      | 10.00       |           |          |
| 11-10                                                                                                                                       |  | 0 / 966                 |             | -17.5                           | -17.5         | 0.23 (1)      | 10.00       |           |          |
| 10-9                                                                                                                                        |  | 0 / 0                   |             | -17.5                           | -17.5         | 0.07 (4)      | 10.00       |           |          |

[M][F]

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 (0.79")  
CALCULATED VERT. DEFL.(LL) = L/ 999 (0.03")  
ALLOWABLE DEFL.(TL)= L/360 (0.79")  
CALCULATED VERT. DEFL.(TL) = L/ 999 (0.09")

CSI: TC=0.20 (2-3:1), BC=0.24 (12-13:1), WB=0.25 (5-11:1), SSI=0.14 (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.

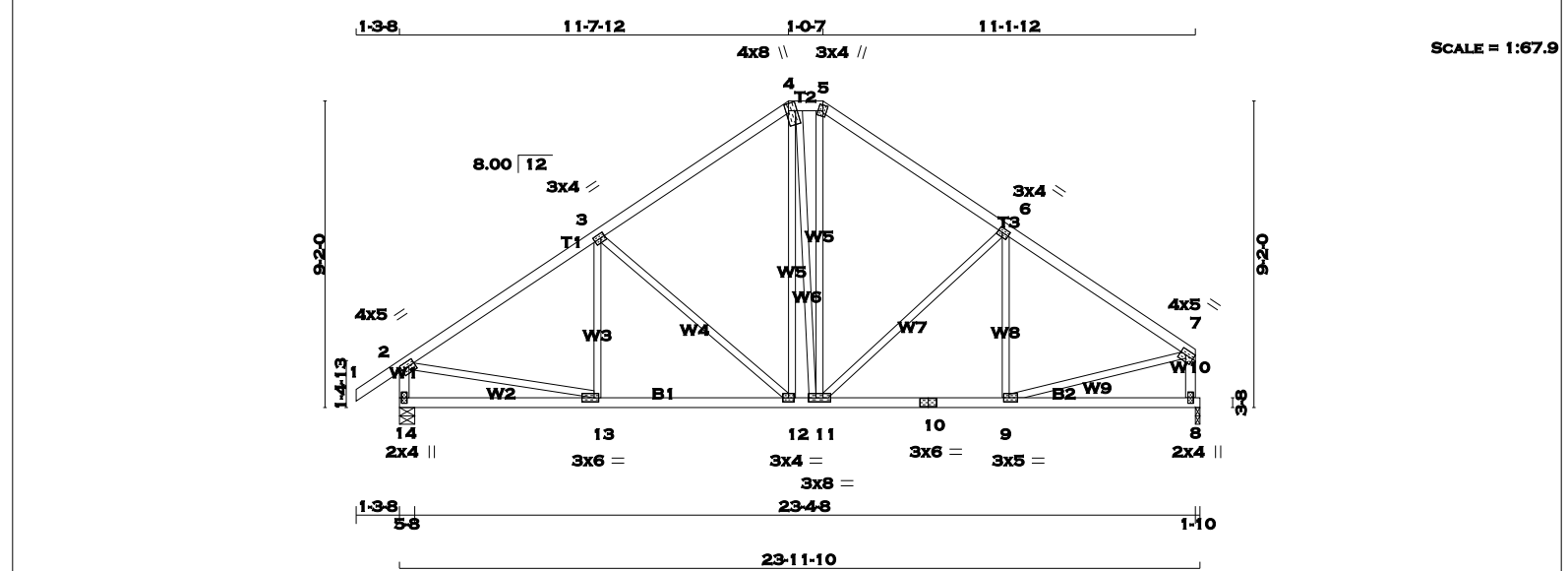
JSI GRIP= 0.90 (13) (INPUT = 0.90 )  
JSI METAL= 0.42 (2) (INPUT = 1.00 )

RECEIVED  
TOWN OF MILTON  
MAR 29, 2017  
17-5246  
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.



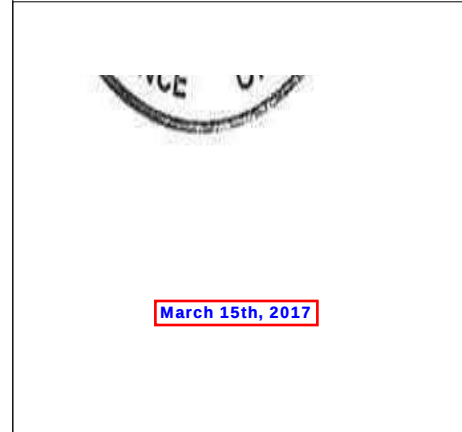




TOTAL WEIGHT = 114 lb  
[M][F]

| LUMBER                |      | N. L. G. A. RULES |      | LUMBER | DESCR. |
|-----------------------|------|-------------------|------|--------|--------|
| CHORDS                | SIZE |                   |      |        |        |
| 1 - 4                 | 2x4  | DRY               | No.2 | SPF    | SPF    |
| 4 - 5                 | 2x4  | DRY               | No.2 |        |        |
| 5 - 7                 | 2x4  | DRY               | No.2 |        |        |
| 14 - 2                | 2x4  | DRY               | No.2 |        |        |
| 8 - 7                 | 2x4  | DRY               | No.2 |        |        |
| 14 - 10               | 2x4  | DRY               | No.2 |        |        |
| 10 - 8                | 2x4  | DRY               | No.2 |        |        |
| 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 | 5.0 | 1.75 | 2.00 |
| 3                                                                                | TMVW-t | MT20   | 3.0 | 4.0 | 1.50 | 1.50 |
| 4                                                                                | TTWW+m | MT20   | 4.0 | 8.0 | 2.50 | 1.00 |
| 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 | 1.75 | Edge |
| 8                                                                                | BMV1+p | MT20   | 2.0 | 4.0 |      |      |
| 9                                                                                | BMVW-t | MT20   | 3.0 | 5.0 | 1.50 | 2.00 |
| 10                                                                               | BS-t   | MT20   | 3.0 | 6.0 |      |      |
| 11                                                                               | BMVW-t | MT20   | 3.0 | 8.0 |      |      |
| 12                                                                               | BMVW-t | MT20   | 3.0 | 4.0 |      |      |
| 13                                                                               | BMVW-t | MT20   | 3.0 | 6.0 | 1.50 | 1.75 |
| 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. |        |        |     |     |      |      |



March 15th, 2017

RECEIVED  
TOWN OF MILTON  
MAR 29, 2017  
17-5246  
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.

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 | IN-SX | IN-SX |
| 14       | 1236 | 0              | 1236 | 0                | 0      | 5-8   | 5-8   |       |       |
| 8        | 1130 | 0              | 1130 | 0                | 0      | 1-10  | 1-10  |       |       |

| UNFACTORED REACTIONS |          |                               |       |           |       |         |       |
|----------------------|----------|-------------------------------|-------|-----------|-------|---------|-------|
| 1ST LCASE            |          | MAX./MIN. COMPONENT REACTIONS |       |           |       |         |       |
| JT                   | COMBINED | SNOW                          | LIVE  | PERM.LIVE | WIND  | DEAD    | SOIL  |
| 14                   | 865      | 619 / 0                       | 0 / 0 | 0 / 0     | 0 / 0 | 247 / 0 | 0 / 0 |
| 8                    | 793      | 555 / 0                       | 0 / 0 | 0 / 0     | 0 / 0 | 238 / 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 = 5.29 FT.  
MAX. UNBRACED BOTTOM CHORD LENGTH = 10.00 FT. OR RIGID CEILING DIRECTLY APPLIED.

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

| LOADING |                           |                           |                | TOTAL LOAD CASES: (4) |       |                           |               |
|---------|---------------------------|---------------------------|----------------|-----------------------|-------|---------------------------|---------------|
| CHORDS  |                           | WEBS                      |                |                       |       |                           |               |
| MEMB.   | MAX. FACTORED FORCE (LBS) | FACTORED VERT. LOAD (LBS) | MAX. LC1 (LC)  | MAX. UNBRACED LENGTH  | 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                 | 13-3  | -77 / 77                  | 0.03 (1)      |
| 2-3     | -1262 / 0                 | -77.3                     | -77.3 0.38 (1) | 5.29                  | 3-12  | -419 / 0                  | 0.50 (1)      |
| 3-4     | -943 / 0                  | -77.3                     | -77.3 0.35 (1) | 5.93                  | 12-4  | 0 / 292                   | 0.07 (1)      |
| 4-5     | -763 / 0                  | -77.3                     | -77.3 0.02 (1) | 6.25                  | 4-11  | 0 / 10                    | 0.00 (1)      |
| 5-6     | -943 / 0                  | -77.3                     | -77.3 0.32 (1) | 5.98                  | 11-5  | 0 / 310                   | 0.07 (1)      |
| 6-7     | -1180 / 0                 | -77.3                     | -77.3 0.34 (1) | 5.48                  | 11-6  | -337 / 0                  | 0.39 (1)      |
| 14-2    | -1194 / 0                 | 0.0                       | 0.0 0.12 (1)   | 7.31                  | 9-6   | -144 / 52                 | 0.07 (1)      |
| 8-7     | -1089 / 0                 | 0.0                       | 0.0 0.12 (1)   | 7.57                  | 2-13  | 0 / 1093                  | 0.25 (1)      |
|         |                           |                           |                |                       | 9-7   | 0 / 1036                  | 0.23 (1)      |
| 14-13   | 0 / 0                     | -17.5                     | -17.5 0.15 (4) | 10.00                 |       |                           |               |
| 13-12   | 0 / 1075                  | -17.5                     | -17.5 0.25 (1) | 10.00                 |       |                           |               |
| 12-11   | 0 / 762                   | -17.5                     | -17.5 0.19 (1) | 10.00                 |       |                           |               |
| 11-10   | 0 / 1005                  | -17.5                     | -17.5 0.23 (1) | 10.00                 |       |                           |               |
| 10-9    | 0 / 1005                  | -17.5                     | -17.5 0.23 (1) | 10.00                 |       |                           |               |
| 9-8     | 0 / 0                     | -17.5                     | -17.5 0.13 (4) | 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 (0.79")  
CALCULATED VERT. DEFL.(LL) = L/ 999 (0.04")  
ALLOWABLE DEFL.(TL)= L/360 (0.79")  
CALCULATED VERT. DEFL.(TL) = L/ 999 (0.08")

CSI: TC=0.38 (2-3:1), BC=0.25 (12-13:1), WB=0.50 (3-12:1), 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.

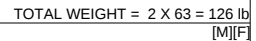
| NAIL VALUES |           |       |         |       |       |
|-------------|-----------|-------|---------|-------|-------|
| PLATE       | GRIP(DRY) | SHEAR | SECTION | (PSI) | (PLI) |
|             | MAX       | MIN   | MAX     | MIN   | MAX   |
| MT20        | 618       | 354   | 1667    | 822   |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

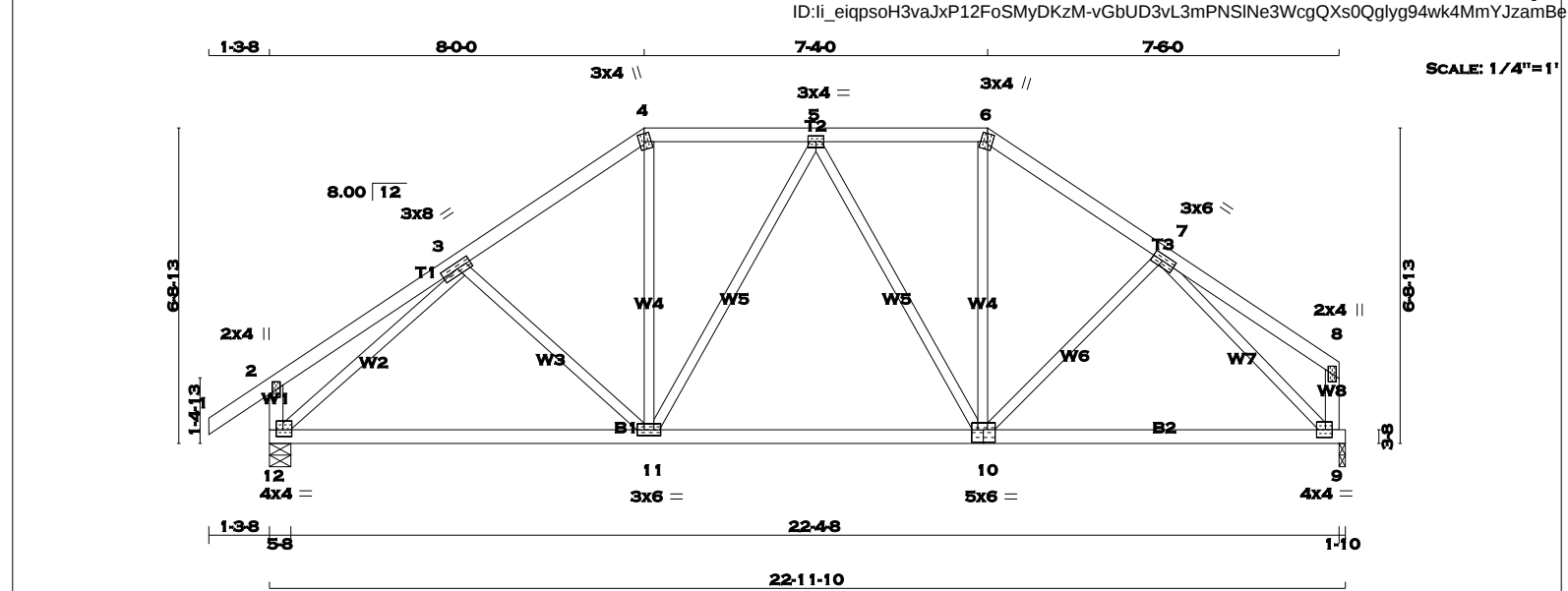
PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.90 (13) (INPUT = 0.90)  
JSI METAL= 0.43 (2) (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

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 GROSS REACTION |         | MAXIMUM FACTORED GROSS REACTION |           | INPUT BRG |         | REQRD BRG |  |
| JT                                                                                            |  | VERT                    | HORZ    | DOWN                            | HORZ      | UPLIFT    | IN-SX   | IN-SX     |  |
| 12                                                                                            |  | 1189                    | 0       | 1189                            | 0         | 0         | 5-8     | 5-8       |  |
| 9                                                                                             |  | 1083                    | 0       | 1083                            | 0         | 0         | 1-10    | 1-10      |  |
| UNFACTORED REACTIONS                                                                          |  |                         |         |                                 |           |           |         |           |  |
|                                                                                               |  | 1ST LCASE               |         | MAX./MIN. COMPONENT REACTIONS   |           |           |         |           |  |
| JT                                                                                            |  | COMBINED                | SNOW    | LIVE                            | PERM.LIVE | WIND      | DEAD    | SOIL      |  |
| 12                                                                                            |  | 832                     | 596 / 0 | 0 / 0                           | 0 / 0     | 0 / 0     | 237 / 0 | 0 / 0     |  |
| 9                                                                                             |  | 760                     | 532 / 0 | 0 / 0                           | 0 / 0     | 0 / 0     | 228 / 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 = 5.88 FT.

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

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

LOADING

TOTAL LOAD CASES: (4)

| CHORDS |  |               |            |                |        |       |           |          |  |
|--------|--|---------------|------------|----------------|--------|-------|-----------|----------|--|
|        |  | MAX. FACTORED |            | FACTORED       |        | WEBS  |           | FACTORED |  |
| MEMB.  |  | FORCE         | VERT. LOAD | LC1 MAX        | UNBRAC | MEMB. | FORCE     | MAX      |  |
| FR-TO  |  | (LBS)         | FROM TO    | CSI (LC)       | LENGTH | FR-TO | (LBS)     | CSI (LC) |  |
| 1-2    |  | 0 / 29        | -77.3      | -77.3 0.10 (1) | 10.00  | 3-11  | -103 / 25 | 0.05 (1) |  |
| 2-3    |  | 0 / 19        | -77.3      | -77.3 0.19 (1) | 10.00  | 11-4  | 0 / 362   | 0.08 (1) |  |
| 3-4    |  | -1089 / 0     | -77.3      | -77.3 0.16 (1) | 5.88   | 11-5  | -165 / 0  | 0.18 (1) |  |
| 4-5    |  | -894 / 0      | -77.3      | -77.3 0.13 (1) | 6.25   | 5-10  | -224 / 0  | 0.24 (1) |  |
| 5-6    |  | -866 / 0      | -77.3      | -77.3 0.13 (1) | 6.25   | 10-6  | 0 / 351   | 0.08 (1) |  |
| 6-7    |  | -1054 / 0     | -77.3      | -77.3 0.14 (1) | 5.98   | 10-7  | -23 / 43  | 0.01 (4) |  |
| 7-8    |  | 0 / 18        | -77.3      | -77.3 0.17 (1) | 10.00  | 12-3  | -1323 / 0 | 0.65 (1) |  |
| 12-2   |  | -226 / 0      | 0.0        | 0.0 0.02 (1)   | 7.81   | 7-9   | -1267 / 0 | 0.60 (1) |  |
| 9-8    |  | -113 / 0      | 0.0        | 0.0 0.01 (1)   | 7.81   |       |           |          |  |
| 12-11  |  | 0 / 965       | -17.5      | -17.5 0.31 (4) | 10.00  |       |           |          |  |
| 11-10  |  | 0 / 975       | -17.5      | -17.5 0.32 (4) | 10.00  |       |           |          |  |
| 10-9   |  | 0 / 877       | -17.5      | -17.5 0.27 (4) | 10.00  |       |           |          |  |

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

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 (0.76")

CALCULATED VERT. DEFL.(LL) = L/999 (0.04")

ALLOWABLE DEFL.(TL)= L/360 (0.76")

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

CSI: TC=0.19 (2-3:1), BC=0.32 (10-11:4), WB=0.65 (3-12:1), 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= 0.89 (10) (INPUT = 0.90)

JSI METAL= 0.36 (12) (INPUT = 1.00)

March 15th, 2017

RECEIVED

TOWN OF MILTON

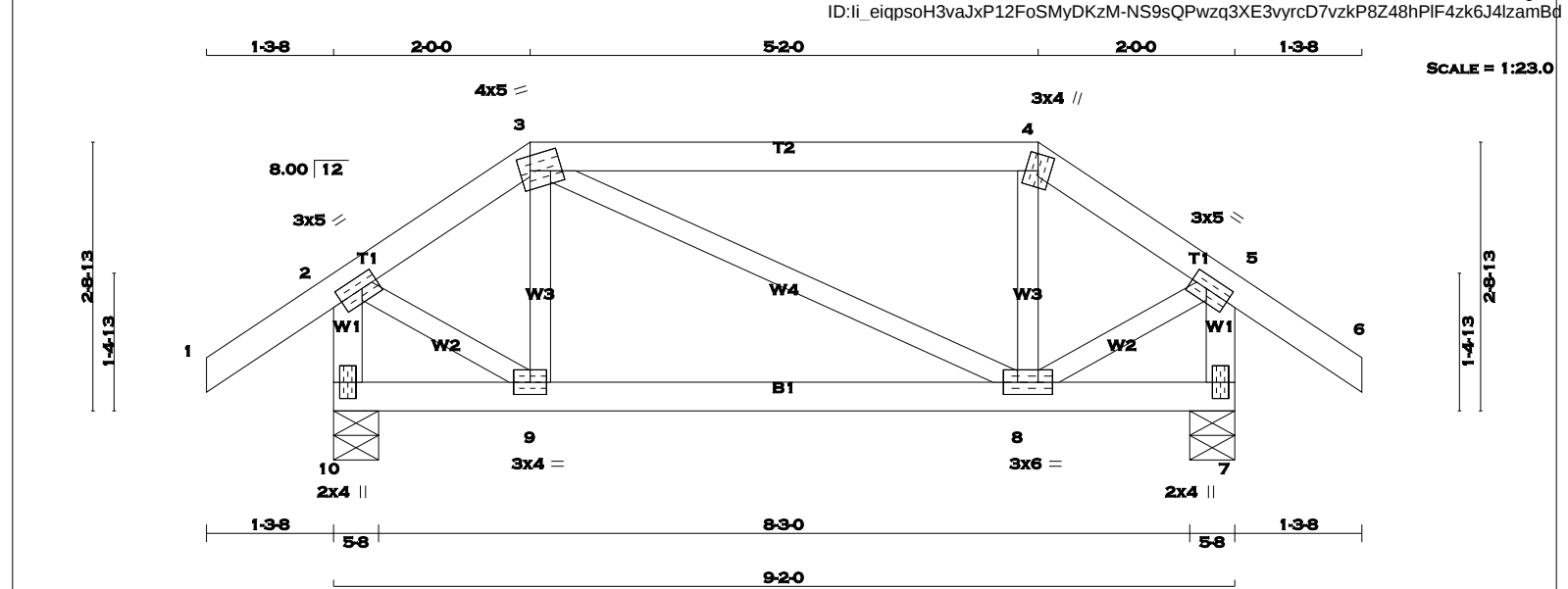
MAR 29, 2017

17-5246

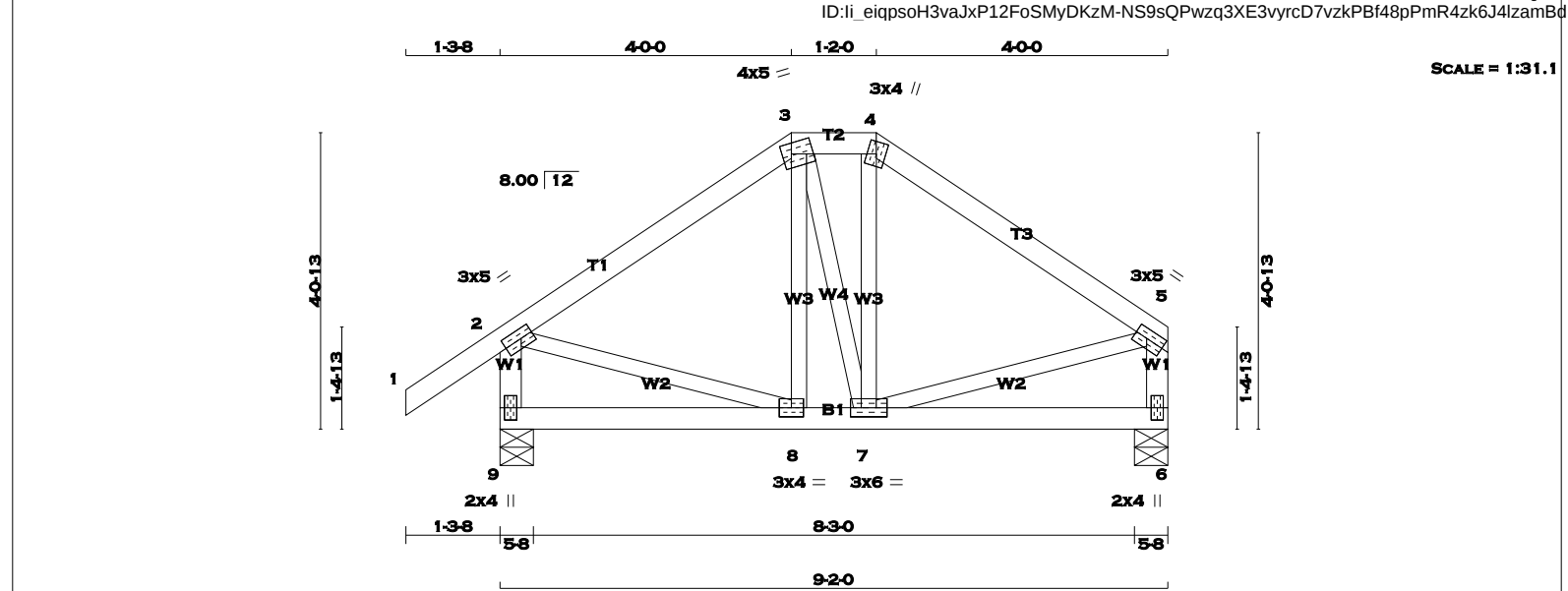
BUILDING DIVISION

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 = 39 lb                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |  |  |  |  |  |  |  |  |  |
| [M]                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |  |  |  |  |  |  |  |  |  |
| <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>10 - 2 2x4 DRY No.2 SPF<br>7 - 5 2x4 DRY No.2 SPF<br>10 - 7 2x4 DRY No.2 SPF<br><br>ALL WEBS 2x3 DRY No.2 SPF<br>EXCEPT<br><br>DRY: SEASONED LUMBER.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |  |  |  |  |  |  |  |  |  |
| <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 (0.31")<br>CALCULATED VERT. DEFL.(LL) = L/ 999 (0.00")<br>ALLOWABLE DEFL.(TL)= L/360 (0.31")<br>CALCULATED VERT. DEFL.(TL) = L/ 999 (0.02")<br><br>CSI: TC=0.36 (3-4:1) , BC=0.09 (8-9:4) , WB=0.07 (2-9:1) , SSI=0.16 (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<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= 0.60 (8) (INPUT = 0.90 )<br>JSI METAL= 0.14 (2) (INPUT = 1.00 )                                                                                                                                                                                                                                         |  |  |  |  |  |  |  |  |  |
| <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>10 541 0 541 0 0 5-8 5-8<br>7 541 0 541 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>10 377 277 / 0 0 / 0 0 / 0 100 / 0 0 / 0<br>7 377 277 / 0 0 / 0 0 / 0 100 / 0 0 / 0<br><br>BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S) 10, 7<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)<br><br>CHORDS WEBS<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>1-2 0 / 29 -77.3 -77.3 0.10 (1) 10.00 9-3 -78 / 35 0.01 (1)<br>2-3 -357 / 0 -77.3 -77.3 0.05 (1) 6.25 3-8 0 / 0 0.00 (1)<br>3-4 -293 / 0 -77.3 -77.3 0.36 (1) 6.25 8-4 -78 / 35 0.01 (1)<br>4-5 -357 / 0 -77.3 -77.3 0.05 (1) 6.25 2-9 0 / 333 0.07 (1)<br>5-6 0 / 29 -77.3 -77.3 0.10 (1) 10.00 8-5 0 / 333 0.07 (1)<br>10-2 -535 / 0 0.0 0.0 0.06 (1) 7.81<br>7-5 -535 / 0 0.0 0.0 0.06 (1) 7.81<br><br>10-9 0 / 0 -17.5 -17.5 0.07 (4) 10.00<br>9-8 0 / 293 -17.5 -17.5 0.09 (4) 10.00<br>8-7 0 / 0 -17.5 -17.5 0.07 (4) 10.00 |  |  |  |  |  |  |  |  |  |
| <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 2.00<br>3 TTWW-m MT20 4.0 5.0 1.75 1.25<br>4 TTW+m MT20 3.0 4.0<br>5 TMVW-t MT20 3.0 5.0 1.50 2.00<br>7 BMV1+p MT20 2.0 4.0<br>8 BMVWW-t MT20 3.0 6.0<br>9 BMVWW-t MT20 3.0 4.0<br>10 BMV1+p MT20 2.0 4.0<br><br>A SIZE FOR SIZE SUBSTITUTION OF MITEK MII20 WITH TEE-LOK TL20 PLATES IS ALLOWED.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |  |  |  |  |  |  |  |  |  |
| <div>RECEIVED<br/>TOWN OF MILTON<br/>MAR 29, 2017<br/>17-5246<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>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |  |  |  |  |  |  |  |  |  |
| <div>March 15th, 2017</div> <div>KOTT</div>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |  |  |  |  |  |  |  |  |  |



**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 - 5             | 2x4    | DRY  | No.2   | SPF    |
| 9 - 2             | 2x4    | DRY  | No.2   | SPF    |
| 6 - 5             | 2x4    | DRY  | No.2   | SPF    |
| 9 - 6             | 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**

| JT | FACTORED GROSS REACTION |      | MAXIMUM FACTORED GROSS REACTION |      | INPUT BRG |       | REQRD BRG |  |
|----|-------------------------|------|---------------------------------|------|-----------|-------|-----------|--|
|    | VERT                    | HORZ | DOWN                            | HORZ | UPLIFT    | IN-SX | IN-SX     |  |
| 9  | 541                     | 0    | 541                             | 0    | 0         | 5-8   | 5-8       |  |
| 6  | 435                     | 0    | 435                             | 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      | IN-SX   | IN-SX | IN-SX | IN-SX | IN-SX | IN-SX |  |
| 9  | 377                | 277 / 0 | 0 / 0         | 0 / 0 | 0 / 0  | 0 / 0 | 0 / 0      | 100 / 0 | 0 / 0 | 0 / 0 | 0 / 0 | 0 / 0 | 0 / 0 |  |
| 6  | 305                | 213 / 0 | 0 / 0         | 0 / 0 | 0 / 0  | 0 / 0 | 0 / 0      | 92 / 0  | 0 / 0 | 0 / 0 | 0 / 0 | 0 / 0 | 0 / 0 |  |

BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S) 9, 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: (4)

| 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) |
| 1-2    | 0 / 29                    | -77.3                     | -77.3 0.10 (1) | 8-3   | -20 / 33                  | 0.01 (4)                  | 0.01 (4)      |
| 2-3    | -322 / 0                  | -77.3                     | -77.3 0.16 (1) | 3-7   | 0 / 2                     | 0.00 (4)                  | 0.00 (4)      |
| 3-4    | -267 / 0                  | -77.3                     | -77.3 0.01 (1) | 7-4   | -21 / 35                  | 0.01 (4)                  | 0.01 (4)      |
| 4-5    | -322 / 0                  | -77.3                     | -77.3 0.16 (1) | 2-8   | 0 / 277                   | 0.06 (1)                  | 0.06 (1)      |
| 9-2    | -511 / 0                  | 0.0                       | 0.0 0.05 (1)   | 7-5   | 0 / 277                   | 0.06 (1)                  | 0.06 (1)      |
| 6-5    | -404 / 0                  | 0.0                       | 0.0 0.04 (1)   |       |                           |                           |               |
| 9-8    | 0 / 0                     | -17.5                     | -17.5 0.06 (4) | 10.00 |                           |                           |               |
| 8-7    | 0 / 267                   | -17.5                     | -17.5 0.08 (4) | 10.00 |                           |                           |               |
| 7-6    | 0 / 0                     | -17.5                     | -17.5 0.06 (4) | 10.00 |                           |                           |               |

**DESIGN CRITERIA**

SPECIFIED LOADS:

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

**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 (0.31")

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

ALLOWABLE DEFL.(TL)= L/360 (0.31")

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

CSI: TC=0.16 (2-3:1), BC=0.08 (7-8:4), WB=0.06 (2-8:1), SSI=0.10 (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) | (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= 0.51 (7) (INPUT = 0.90 )

JSI METAL= 0.14 (2) (INPUT = 1.00 )

**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  | TTWW-m  | MT20   | 4.0 | 5.0 | 1.75 | 1.50 |
| 4  | TTW+m   | MT20   | 3.0 | 4.0 |      |      |
| 5  | 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  | BMVWW-t | MT20   | 3.0 | 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.

RECEIVED

TOWN OF MILTON

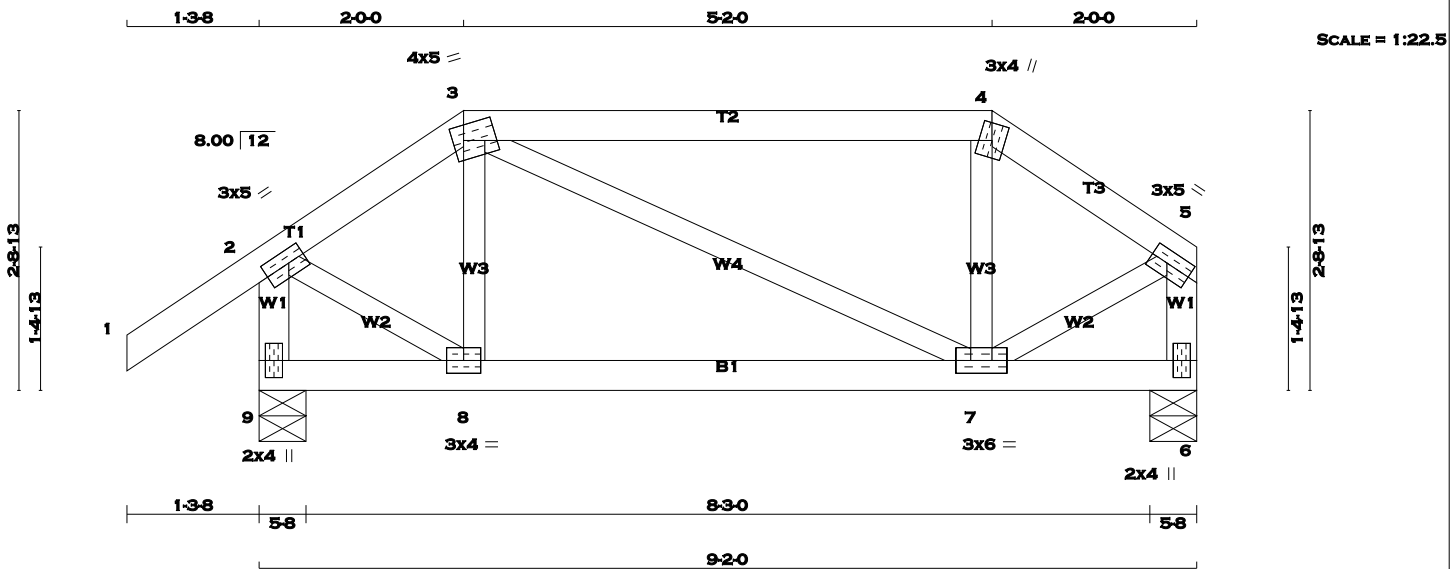
MAR 29, 2017

17-5246

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.

March 15th, 2017



TOTAL WEIGHT = 37 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 |
| 4 - 5                 | 2x4  | DRY    | No.2   | SPF |
| 9 - 2                 | 2x4  | DRY    | No.2   | SPF |
| 6 - 5                 | 2x4  | DRY    | No.2   | SPF |
| 9 - 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       |
| 2                           | TMVW-t  | MT20   | 3.0 | 5.0 | 1.50 2.00 |
| 3                           | TTWW-m  | MT20   | 4.0 | 5.0 | 1.75 1.25 |
| 4                           | TTWW-m  | MT20   | 3.0 | 4.0 |           |
| 5                           | 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                           | BMVWW-t | MT20   | 3.0 | 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       |      | FACTORED       |      | MAXIMUM FACTORED |        | INPUT |       | REQRD |       |
|----------------|------|----------------|------|------------------|--------|-------|-------|-------|-------|
| GROSS REACTION |      | GROSS REACTION |      | DOWN             |        | BRG   |       | BRG   |       |
| JT             | VERT | JT             | HORZ | JT               | UPLIFT | JT    | IN-SX | JT    | IN-SX |
| 9              | 541  | 0              | 541  | 0                | 0      | 5-8   | 5-8   | 5-8   | 5-8   |
| 6              | 435  | 0              | 435  | 0                | 0      | 5-8   | 5-8   | 5-8   | 5-8   |

| UNFACTORED REACTIONS |           |         |                              |            |                              |         |                              |
|----------------------|-----------|---------|------------------------------|------------|------------------------------|---------|------------------------------|
| JT                   | 1ST LCASE | JT      | MAX/MIN. COMPONENT REACTIONS | JT         | MAX/MIN. COMPONENT REACTIONS | JT      | MAX/MIN. COMPONENT REACTIONS |
| 9                    | 377       | 277 / 0 | 0 / 0                        | PERM. LIVE | WIND                         | DEAD    | SOIL                         |
| 6                    | 305       | 213 / 0 | 0 / 0                        | 0 / 0      | 0 / 0                        | 100 / 0 | 0 / 0                        |

BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S) 9, 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: (4) |                           |                           |                           |
|---------|---------------------------|---------------------------|---------------------------|-----------------------|---------------------------|---------------------------|---------------------------|
| CHORDS  |                           |                           |                           | WEBS                  |                           |                           |                           |
| MEMB.   | MAX. FACTORED FORCE (LBS) | FACTORED VERT. LOAD (LBS) | MAX. UNBRACED LENGTH (FT) | MEMB.                 | MAX. FACTORED FORCE (LBS) | MAX. UNBRACED LENGTH (FT) | MAX. FACTORED FORCE (LBS) |
| FR-TO   |                           | FROM TO                   |                           | FR-TO                 |                           | FROM TO                   |                           |
| 1-2     | 0 / 29                    | -77.3 -77.3               | 0.10 (1)                  | 10.00                 | 8-3                       | -78 / 35                  | 0.01 (1)                  |
| 2-3     | -357 / 0                  | -77.3 -77.3               | 0.05 (1)                  | 6.25                  | 3-7                       | 0 / 0                     | 0.00 (1)                  |
| 3-4     | -293 / 0                  | -77.3 -77.3               | 0.36 (1)                  | 6.25                  | 7-4                       | -78 / 35                  | 0.01 (1)                  |
| 4-5     | -357 / 0                  | -77.3 -77.3               | 0.05 (1)                  | 6.25                  | 2-8                       | 0 / 333                   | 0.07 (1)                  |
| 9-2     | -535 / 0                  | 0.0 0.0                   | 0.06 (1)                  | 7.81                  | 7-5                       | 0 / 333                   | 0.07 (1)                  |
| 6-5     | -429 / 0                  | 0.0 0.0                   | 0.04 (1)                  | 7.81                  |                           |                           |                           |
| 9-8     | 0 / 0                     | -17.5 -17.5               | 0.07 (4)                  | 10.00                 |                           |                           |                           |
| 8-7     | 0 / 293                   | -17.5 -17.5               | 0.09 (4)                  | 10.00                 |                           |                           |                           |
| 7-6     | 0 / 0                     | -17.5 -17.5               | 0.07 (4)                  | 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 (0.31")  
CALCULATED VERT. DEFL.(LL) = L/ 999 (0.00")  
ALLOWABLE DEFL.(TL)= L/360 (0.31")  
CALCULATED VERT. DEFL.(TL) = L/ 999 (0.02")

CSI: TC=0.36 (3-4:1), BC=0.09 (7-8:4), WB=0.07 (2-8:1), SSI=0.16 (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)   | (PLI)   |     |           |
| MAX MIN     | 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.

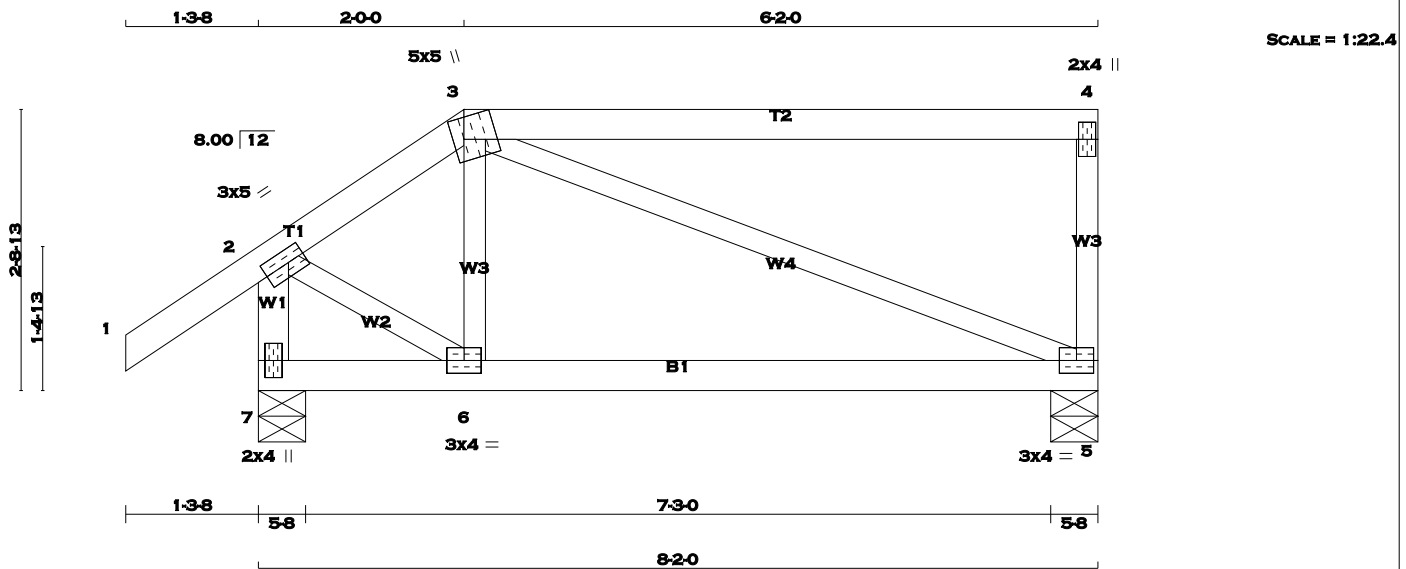
JSI GRIP= 0.60 (7) (INPUT = 0.90 )  
JSI METAL= 0.14 (2) (INPUT = 1.00 )

March 15th, 2017

RECEIVED  
TOWN OF MILTON  
MAR 29, 2017  
17-5246  
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 = 32 lb [M]

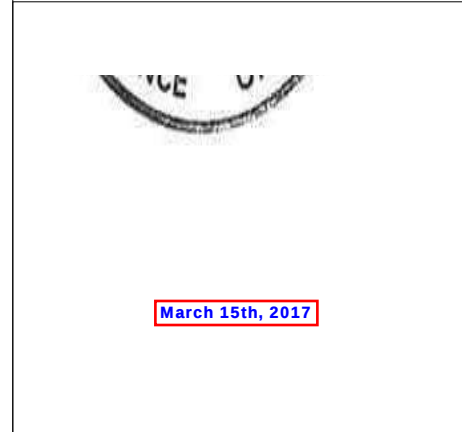
| LUMBER            |        |      |        |        |
|-------------------|--------|------|--------|--------|
| N. L. G. A. RULES | CHORDS | SIZE | LUMBER | DESCR. |
| 1 - 3             | 2x4    | DRY  | No.2   | SPF    |
| 3 - 4             | 2x4    | DRY  | No.2   | SPF    |
| 5 - 4             | 2x3    | DRY  | No.2   | SPF    |
| 7 - 2             | 2x4    | DRY  | No.2   | SPF    |
| 7 - 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 | 5.0 | 1.50 | 2.00 |
| 3                           | TTWW+m  | MT20   | 5.0 | 5.0 | Edge | 3.75 |
| 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 |      |      |

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.



March 15th, 2017

#### 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        |  | 387                     | 0    | 387                             | 0    | 0         | 5-8   | 5-8       |  |
| 7        |  | 493                     | 0    | 493                             | 0    | 0         | 5-8   | 5-8       |  |

| UNFACTORED REACTIONS |  | 1ST LCASE |         | MAX./MIN. COMPONENT REACTIONS |           |       |        |       |  |
|----------------------|--|-----------|---------|-------------------------------|-----------|-------|--------|-------|--|
| JT                   |  | COMBINED  | SNOW    | LIVE                          | PERM.LIVE | WIND  | DEAD   | SOIL  |  |
| 5                    |  | 272       | 190 / 0 | 0 / 0                         | 0 / 0     | 0 / 0 | 82 / 0 | 0 / 0 |  |
| 7                    |  | 344       | 254 / 0 | 0 / 0                         | 0 / 0     | 0 / 0 | 90 / 0 | 0 / 0 |  |

BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S) 5, 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: (4)     |       |                                   |          |                        |     |                                |          |
|---------|--|---------------------------|-------|-----------------------------------|----------|------------------------|-----|--------------------------------|----------|
| CHORDS  |  | MAX. FACTORED FORCE (LBS) |       | FACTORED VERT. LOAD LC1 MAX (PLF) |          | MAX. MEMB. FORCE (LBS) |     | WEBS MAX. FACTORED FORCE (LBS) |          |
| FR-TO   |  |                           |       | FROM TO                           | LENGTH   | FR-TO                  |     |                                |          |
| 1-2     |  | 0 / 29                    | -77.3 | -77.3                             | 0.10 (1) | 10.00                  | 6-3 | -31 / 72                       | 0.02 (4) |
| 2-3     |  | -322 / 0                  | -77.3 | -77.3                             | 0.05 (1) | 6.25                   | 3-5 | -286 / 0                       | 0.22 (1) |
| 3-4     |  | 0 / 0                     | -77.3 | -77.3                             | 0.50 (1) | 10.00                  | 2-6 | 0 / 301                        | 0.07 (1) |
| 5-4     |  | -238 / 0                  | 0.0   | 0.0                               | 0.05 (1) | 7.81                   |     |                                |          |
| 7-2     |  | -501 / 0                  | 0.0   | 0.0                               | 0.05 (1) | 7.81                   |     |                                |          |
| 7-6     |  | 0 / 0                     | -17.5 | -17.5                             | 0.14 (4) | 10.00                  |     |                                |          |
| 6-5     |  | 0 / 266                   | -17.5 | -17.5                             | 0.16 (4) | 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 (0.27")  
CALCULATED VERT. DEFL.(LL) = L/ 999 (0.00")  
ALLOWABLE DEFL.(TL)= L/360 (0.27")  
CALCULATED VERT. DEFL.(TL) = L/ 999 (0.04")

CSI: TC=0.50 (3-4:1), BC=0.16 (5-6:4), WB=0.22 (3-5:1), SSI=0.19 (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)     |
|             |           |       |         | MAX MIN | MAX MIN   |
| MT20        | 618       | 354   | 1667    | 822     | 2284 1656 |

PLATE PLACEMENT TOL. = 0.250 inches

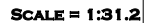
PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.49 (2) (INPUT = 0.90 )  
JSI METAL= 0.13 (2) (INPUT = 1.00 )

RECEIVED  
TOWN OF MILTON  
MAR 29, 2017  
17-5246  
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 = 36 lb

DRY: SEASONED LUMBER.

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

## FA

### UNFACTORED REACTIONS

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

TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 6.25 FT.

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

**TOTAL LOAD CASES: (4)**

|     |         |       |       |          |       |
|-----|---------|-------|-------|----------|-------|
| 7-6 | 0 / 0   | -17.5 | -17.5 | 0.08 (4) | 10.00 |
| 6-5 | 0 / 220 | -17.5 | -17.5 | 0.10 (4) | 10.00 |

SPECIFIED LOADS:

SPACING = 24.0 IN. C/C

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

(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=0.23 (3-4:1), BC=0.10 (5-6:4), WB=0.15 (3-5:1), 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     | MIN  |
| MT20        | 618       | 354 | 1667  | 822 | 2284    | 1656 |

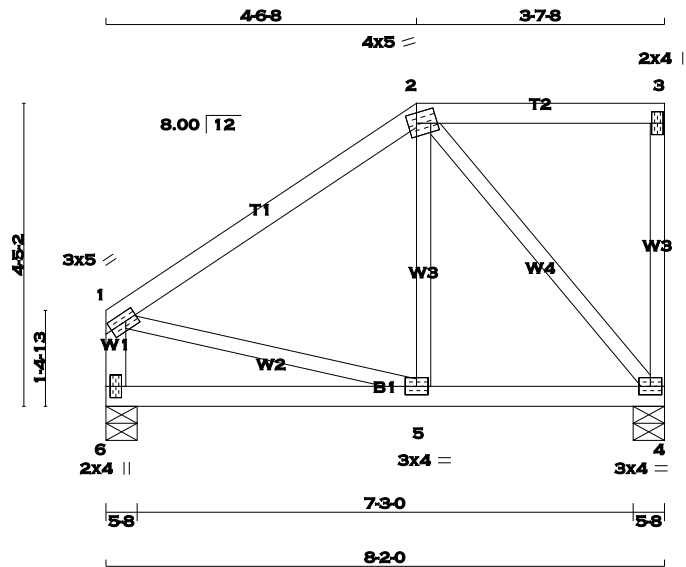
PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.74 (2) (INPUT = 0.90 )  
JSI METAL= 0.15 (2) (INPUT = 1.00 )

**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 = 1:33.7

TOTAL WEIGHT = 35 lb

[M][F]

| LUMBER            |      |        |        |     |
|-------------------|------|--------|--------|-----|
| N. L. G. A. RULES |      |        |        |     |
| CHORDS            | SIZE | LUMBER | DESCR. |     |
| 1 - 2             | 2x4  | DRY    | No.2   | SPF |
| 2 - 3             | 2x4  | DRY    | No.2   | SPF |
| 4 - 3             | 2x3  | DRY    | No.2   | SPF |
| 6 - 1             | 2x4  | DRY    | No.2   | SPF |
| 6 - 4             | 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                           | TTWW-m  | MT20   | 4.0 | 5.0 | 1.75 | 1.50 |
| 3                           | TMV+p   | MT20   | 2.0 | 4.0 |      |      |
| 4                           | BMVW1-t | MT20   | 3.0 | 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     |  |
| 4  |  | 387                     | 0    | 387                             | 0    | 0         | 5-8   | 5-8       |  |
| 6  |  | 387                     | 0    | 387                             | 0    | 0         | 5-8   | 5-8       |  |

#### UNFACTORED REACTIONS

|    |  | 1ST LCASE |         | MAX/MIN. COMPONENT REACTIONS |           |       |        |       |  |
|----|--|-----------|---------|------------------------------|-----------|-------|--------|-------|--|
| JT |  | COMBINED  | SNOW    | LIVE                         | PERM.LIVE | WIND  | DEAD   | SOIL  |  |
| 4  |  | 272       | 190 / 0 | 0 / 0                        | 0 / 0     | 0 / 0 | 82 / 0 | 0 / 0 |  |
| 6  |  | 272       | 190 / 0 | 0 / 0                        | 0 / 0     | 0 / 0 | 82 / 0 | 0 / 0 |  |

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

| CHORDS |  |                           |                           | WEBS                     |                      |       |                           |
|--------|--|---------------------------|---------------------------|--------------------------|----------------------|-------|---------------------------|
| MEMB.  |  | MAX. FACTORED FORCE (LBS) | FACTORED VERT. LOAD (PLF) | MAX. VERT. LOAD LC1 (LC) | MAX. UNBRACED LENGTH | MEMB. | MAX. FACTORED FORCE (LBS) |
| FR-TO  |  |                           | FROM TO                   |                          |                      | FR-TO |                           |
| 1-2    |  | -238 / 0                  | -77.3                     | -77.3 0.20 (1)           | 6.25                 | 5-2   | 0 / 85                    |
| 2-3    |  | 0 / 0                     | -77.3                     | -77.3 0.17 (1)           | 10.00                | 2-4   | -301 / 0                  |
| 4-3    |  | -140 / 0                  | 0.0                       | 0.0 0.06 (1)             | 7.81                 | 1-5   | 0 / 203                   |
| 6-1    |  | -354 / 0                  | 0.0                       | 0.0 0.04 (1)             | 7.81                 |       |                           |
| 6-5    |  | 0 / 0                     | -17.5                     | -17.5 0.09 (4)           | 10.00                |       |                           |
| 5-4    |  | 0 / 199                   | -17.5                     | -17.5 0.10 (4)           | 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 (0.27")  
CALCULATED VERT. DEFL.(LL) = L/ 999 (0.00")  
ALLOWABLE DEFL.(TL)= L/360 (0.27")  
CALCULATED VERT. DEFL.(TL) = L/ 999 (0.01")

CSI: TC=0.20 (1-2:1), BC=0.10 (4-5:4), WB=0.14 (2-4:1), SSI=0.11 (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.

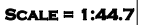
JSI GRIP= 0.55 (2) (INPUT = 0.90 )  
JSI METAL= 0.10 (1) (INPUT = 1.00 )

March 15th, 2017

RECEIVED  
TOWN OF MILTON  
MAR 29, 2017  
17-5246  
BUILDING DIVISION

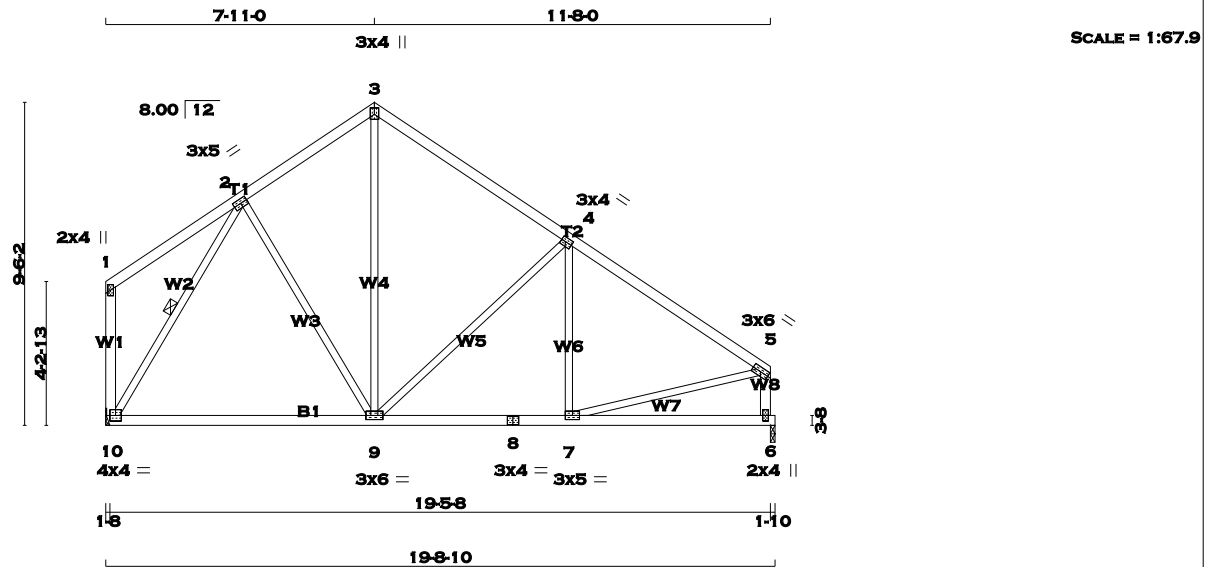
READ ALL NOTES ON THIS PAGE AND ON THE ENGINEERING NOTE PAGE ENP-1. THE NOTE PAGE IS AN INTEGRAL PART OF THIS DRAWING AS IT CONTAINS SPECIFICATIONS AND CRITERIA USED IN THE DESIGN OF THIS COMPONENT.





[M][F]





TOTAL WEIGHT = 2 X 90 = 179 lb

| LUMBER                |      |        |        |     | N. L. G. A. RULES     |      |        |        |     |
|-----------------------|------|--------|--------|-----|-----------------------|------|--------|--------|-----|
| CHORDS                | SIZE | LUMBER | DESCR. |     | CHORDS                | SIZE | LUMBER | DESCR. |     |
| 1 - 3                 | 2x4  | DRY    | No.2   | SPF | 1 - 3                 | 2x4  | DRY    | No.2   | SPF |
| 3 - 5                 | 2x4  | DRY    | No.2   | SPF | 3 - 5                 | 2x4  | DRY    | No.2   | SPF |
| 10 - 1                | 2x4  | DRY    | No.2   | SPF | 10 - 1                | 2x4  | DRY    | No.2   | SPF |
| 6 - 5                 | 2x4  | DRY    | No.2   | SPF | 6 - 5                 | 2x4  | DRY    | No.2   | SPF |
| 10 - 8                | 2x4  | DRY    | No.2   | SPF | 10 - 8                | 2x4  | DRY    | No.2   | SPF |
| 8 - 6                 | 2x4  | DRY    | No.2   | SPF | 8 - 6                 | 2x4  | DRY    | No.2   | SPF |
| ALL WEBS              | 2x3  | DRY    | No.2   | SPF | ALL WEBS              | 2x3  | DRY    | No.2   | SPF |
| EXCEPT                |      |        |        |     | EXCEPT                |      |        |        |     |
| DRY: SEASONED LUMBER. |      |        |        |     | 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 |      |      |  |  |  |
| 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-t  | MT20   | 3.0 | 6.0 |      |      |  |  |  |
| 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                           | BMVW-t  | MT20   | 3.0 | 6.0 |      |      |  |  |  |
| 10                          | 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 |      | MAXIMUM FACTORED |      | INPUT |       | REQRD |       |
|----------|----------------|----------|------|------------------|------|-------|-------|-------|-------|
| JT       | GROSS REACTION | DOWN     | HORZ | DOWN             | HORZ | BRG   | IN-SX | BRG   | IN-SX |
| 10       | 929            | 0        | 0    | 929              | 0    | 0     | 0     | 0     | 0     |
| 6        | 929            | 0        | 0    | 929              | 0    | 0     | 0     | 0     | 0     |

| UNFACTORED REACTIONS |          | 1ST LCASE |       | MAX./MIN. COMPONENT REACTIONS |       | PERM.LIVE |       | WIND     |         | DEAD  |           | SOIL    |       |
|----------------------|----------|-----------|-------|-------------------------------|-------|-----------|-------|----------|---------|-------|-----------|---------|-------|
| JT                   | COMBINED | SNOW      | LIVE  | PERM.LIVE                     | WIND  | DEAD      | SOIL  | COMBINED | SNOW    | LIVE  | PERM.LIVE | WIND    | DEAD  |
| 10                   | 652      | 456 / 0   | 0 / 0 | 0 / 0                         | 0 / 0 | 196 / 0   | 0 / 0 | 652      | 456 / 0 | 0 / 0 | 0 / 0     | 196 / 0 | 0 / 0 |
| 6                    | 652      | 456 / 0   | 0 / 0 | 0 / 0                         | 0 / 0 | 196 / 0   | 0 / 0 | 652      | 456 / 0 | 0 / 0 | 0 / 0     | 196 / 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 = 5.99 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.

1 - 2x3 SPF No.2 LATERAL BRACE(S) AT 1/2 LENGTH OF 2-10. DBS = 16-0-0 . 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: (4)

| CHORDS |             | MAX. FACTORED  |       | FACTORED |        | VERT. LOAD LC1 |          | MAX      |       | MAX.  |       | MEMB. |             | MAX. FACTORED |          |
|--------|-------------|----------------|-------|----------|--------|----------------|----------|----------|-------|-------|-------|-------|-------------|---------------|----------|
| MEMB.  | FORCE (LBS) | VERT. LOAD LC1 | PLF   | CS1 (LC) | UNBRAC | LENGTH         | FR-TO    | FR-TO    | FR-TO | FR-TO | FR-TO | MEMB. | FORCE (LBS) | MAX           | CS1 (LC) |
| 1-2    | 0 / 20      | -77.3          | -77.3 | 0.20 (1) | 10.00  | 2-9            | 0 / 64   | 0.02 (4) |       |       |       | 1-2   | 0 / 20      | -77.3         | -77.3    |
| 2-3    | -605 / 0    | -77.3          | -77.3 | 0.15 (1) | 6.25   | 9-3            | 0 / 368  | 0.08 (1) |       |       |       | 2-3   | -605 / 0    | -77.3         | -77.3    |
| 3-4    | -616 / 0    | -77.3          | -77.3 | 0.34 (1) | 6.25   | 9-4            | -406 / 0 | 0.52 (1) |       |       |       | 3-4   | -616 / 0    | -77.3         | -77.3    |
| 4-5    | -911 / 0    | -77.3          | -77.3 | 0.36 (1) | 5.99   | 7-4            | -87 / 59 | 0.04 (1) |       |       |       | 4-5   | -911 / 0    | -77.3         | -77.3    |
| 10-1   | -119 / 0    | 0.0            | 0.0   | 0.04 (1) | 7.81   | 10-2           | -881 / 0 | 0.34 (1) |       |       |       | 10-1  | -119 / 0    | 0.0           | 0.0      |
| 6-5    | -884 / 0    | 0.0            | 0.0   | 0.10 (1) | 7.81   | 7-5            | 0 / 805  | 0.18 (1) |       |       |       | 6-5   | -884 / 0    | 0.0           | 0.0      |
| 10-9   | 0 / 457     | -17.5          | -17.5 | 0.26 (4) | 10.00  |                |          |          |       |       |       | 10-9  | 0 / 457     | -17.5         | -17.5    |
| 9-8    | 0 / 783     | -17.5          | -17.5 | 0.29 (4) | 10.00  |                |          |          |       |       |       | 9-8   | 0 / 783     | -17.5         | -17.5    |
| 8-7    | 0 / 783     | -17.5          | -17.5 | 0.29 (4) | 10.00  |                |          |          |       |       |       | 8-7   | 0 / 783     | -17.5         | -17.5    |
| 7-6    | 0 / 0       | -17.5          | -17.5 | 0.13 (4) | 10.00  |                |          |          |       |       |       | 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

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 (0.65")  
CALCULATED VERT. DEFL.(LL)= L/ 999 (0.02")  
ALLOWABLE DEFL.(TL)= L/360 (0.65")  
CALCULATED VERT. DEFL.(TL)= L/ 999 (0.11")

CSI: TC=0.36 (4-5:1) , BC=0.29 (7-9:4) , WB=0.52 (4-9:1) , 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  
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= 0.26 (5) (INPUT = 1.00 )

March 15th, 2017

RECEIVED  
TOWN OF MILTON  
MAR 29, 2017  
17-5246  
BUILDING DIVISION

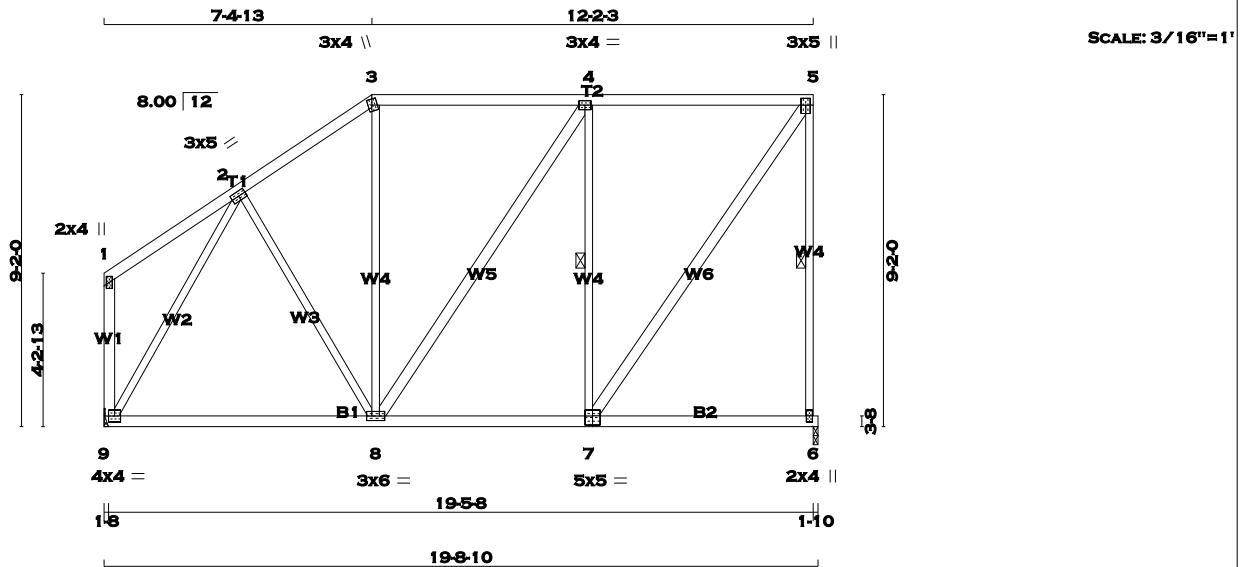
READ ALL NOTES ON THIS PAGE AND ON THE ENGINEERING NOTE PAGE ENP-1. THE NOTE PAGE IS AN INTEGRAL PART OF THIS DRAWING AS IT CONTAINS SPECIFICATIONS AND CRITERIA USED IN THE DESIGN OF THIS COMPONENT.



KOTT , Stouffville, ON, CGC

Version 8.100 S Feb 9 2017 MiTek Industries, Inc. Wed Mar 15 08:07:54 2017 Page 1

ID:li\_eiqpsoH3vaJxP12FoSMYDKzM-GDPNGnzTt1fYWFcr3Cr7aZolhTHLM6gtM4XDZambBZ



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                 | 2x3    | DRY  | No.2   | SPF |        |
| 9 - 1                 | 2x4    | DRY  | No.2   | SPF |        |
| 9 - 7                 | 2x4    | DRY  | No.2   | SPF |        |
| 7 - 6                 | 2x4    | DRY  | No.2   | SPF |        |
| ALL WEBS EXCEPT       | 2x3    | DRY  | No.2   | SPF |        |
| 8 - 4                 | 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 | Y    | X    |
| 1                           | TMV+p   | MT20   | 2.0 | 4.0 |      |      |
| 2                           | TMWW-t  | MT20   | 3.0 | 5.0 |      |      |
| 3                           | TTW+m   | MT20   | 3.0 | 4.0 | 2.00 | 1.25 |
| 4                           | TMWW-t  | MT20   | 3.0 | 4.0 |      |      |
| 5                           | TMVW+p  | MT20   | 3.0 | 5.0 | 2.25 | 1.50 |
| 6                           | BMV1+p  | MT20   | 2.0 | 4.0 |      |      |
| 7                           | BSWW-l  | MT20   | 5.0 | 5.0 | 3.00 | 2.50 |
| 8                           | BMWWW-t | MT20   | 3.0 | 6.0 |      |      |
| 9                           | 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

| FACTORED            |      |      | MAXIMUM FACTORED |      |        | INPUT            | REQRD |
|---------------------|------|------|------------------|------|--------|------------------|-------|
| GROSS REACTION      |      |      | GROSS REACTION   |      |        | BRG              | BRG   |
| JT                  | VERT | HORZ | DOWN             | HORZ | UPLIFT | IN-SX            | IN-SX |
| 6                   | 929  | 0    | 929              | 0    | 0      | 1-10             | 1-10  |
| 9                   | 929  | 0    | 929              | 0    | 0      | HANGER BY OTHERS |       |
| MIN. SEAT SIZE: 1-8 |      |      |                  |      |        |                  |       |

| UNFACTORED REACTIONS |           |           |           |           |       |         |       |
|----------------------|-----------|-----------|-----------|-----------|-------|---------|-------|
| JT                   | 1ST LCASE | MAX./MIN. | COMPONENT | REACTIONS |       |         |       |
| 6                    | 652       | 456 / 0   | 0 / 0     | 0 / 0     | 0 / 0 | 196 / 0 | 0 / 0 |
| 9                    | 652       | 456 / 0   | 0 / 0     | 0 / 0     | 0 / 0 | 196 / 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 = 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. DBS = 16-0-0 . CBF = 88 LBS.  
1 - 2x3 SPF No.2 LATERAL BRACE(S) AT 1/2 LENGTH OF 4-7. DBS = 20-0-0 . CBF = 74 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: (4) |               |                  |                  |       |               |              |  |
| CHORDS                |               |                  |                  | WEBS  |               |              |  |
| MEMB.                 | MAX. FACTORED | FACTORED         |                  | MEMB. | MAX. FACTORED | FACTORED     |  |
| FR-TO                 | FORCE (LBS)   | VERT. LOAD (PLF) | LC1 MAX CSI (LC) | FR-TO | FORCE (LBS)   | MAX CSI (LC) |  |
| 1-2                   | 0 / 18        | -77.3            | -77.3 0.17 (1)   | 2-8   | 0 / 93        | 0.02 (4)     |  |
| 2-3                   | -611 / 0      | -77.3            | -77.3 0.18 (1)   | 8-3   | 0 / 71        | 0.02 (4)     |  |
| 3-4                   | -493 / 0      | -77.3            | -77.3 0.50 (1)   | 8-4   | 0 / 22        | 0.01 (4)     |  |
| 4-5                   | -489 / 0      | -77.3            | -77.3 0.50 (1)   | 7-4   | -591 / 0      | 0.32 (1)     |  |
| 6-5                   | -883 / 0      | 0.0              | 0.0 0.48 (1)     | 7-5   | 0 / 854       | 0.14 (1)     |  |
| 9-1                   | -111 / 0      | 0.0              | 0.0 0.03 (1)     | 9-2   | -883 / 0      | 0.92 (1)     |  |
| 9-8                   | 0 / 445       | -17.5            | -17.5 0.24 (4)   | 10.00 |               |              |  |
| 8-7                   | 0 / 489       | -17.5            | -17.5 0.24 (4)   | 10.00 |               |              |  |
| 7-6                   | 0 / 0         | -17.5            | -17.5 0.14 (4)   | 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 (0.65")  
CALCULATED VERT. DEFL.(LL) = L/ 999 (0.02")  
ALLOWABLE DEFL.(TL)= L/360 (0.65")  
CALCULATED VERT. DEFL.(TL) = L/ 999 (0.10")

CSI: TC=0.50 (4-5:1) , BC=0.24 (7-8:4) , WB=0.92 (2-9:1) , SSI=0.23 (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.

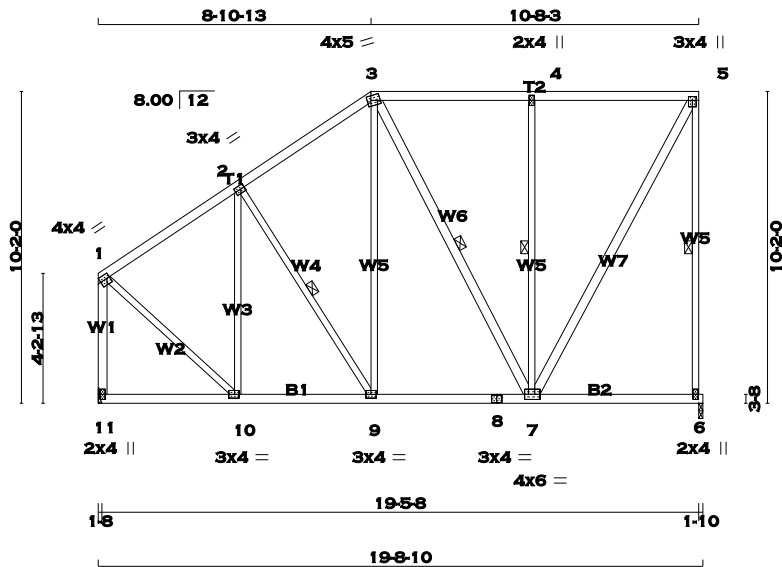
JSI GRIP= 0.88 (2) (INPUT = 0.90 )  
JSI METAL= 0.24 (2) (INPUT = 1.00 )

March 15th, 2017

RECEIVED  
TOWN OF MILTON  
MAR 29, 2017  
17-5246  
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 = 116 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                 | 2x3  | 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<br>EXCEPT    | 2x3  | DRY | No.2   |  | SPF    |
| 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 | Y    | X    |
| 1                           | TMVW-t  | MT20   | 4.0 | 4.0 | 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                           | TMVW-w  | MT20   | 2.0 | 4.0 |      |      |
| 5                           | TMVW+p  | MT20   | 3.0 | 4.0 | 1.50 | 1.50 |
| 6                           | BMV1+p  | MT20   | 2.0 | 4.0 |      |      |
| 7                           | BMVWV-t | MT20   | 4.0 | 6.0 | 2.00 | 1.50 |
| 8                           | BS-t    | MT20   | 3.0 | 4.0 |      |      |
| 9                           | BMVW-t  | MT20   | 3.0 | 4.0 |      |      |
| 10                          | BMVW-t  | MT20   | 3.0 | 4.0 | 1.50 | 1.75 |
| 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 GROSS REACTION |      | MAXIMUM FACTORED GROSS REACTION |      | INPUT BRG                            |       | REQRD BRG |       |
|----------|-----|-------------------------|------|---------------------------------|------|--------------------------------------|-------|-----------|-------|
| JT       |     | VERT                    | HORZ | DOWN                            | HORZ | IN-SX                                | IN-SX | IN-SX     | IN-SX |
| 6        | 929 | 0                       | 929  | 0                               | 0    | 1-10                                 | 1-10  |           |       |
| 11       | 929 | 0                       | 929  | 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         | 652      | 456 / 0                       | 0 / 0 | 0 / 0     | 0 / 0 | 196 / 0 | 0 / 0 |  |
| 11        | 652      | 456 / 0                       | 0 / 0 | 0 / 0     | 0 / 0 | 196 / 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 = 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. DBS = 16-0-0 . CBF = 89 LBS.  
1 - 2x3 SPF No.2 LATERAL BRACE(S) AT 1/2 LENGTH OF 2-9, 3-7, 4-7. DBS = 20-0-0 . CBF = 64 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: (4)

| CHORDS |                           |                           |                           | WEBS  |                           |                           |          |
|--------|---------------------------|---------------------------|---------------------------|-------|---------------------------|---------------------------|----------|
| MEMB.  | MAX. FACTORED FORCE (LBS) | FACTORED VERT. LOAD (PLF) | MAX. UNBRACED LENGTH (LC) | MEMB. | MAX. FACTORED FORCE (LBS) | MAX. UNBRACED LENGTH (LC) |          |
| FR-TO  |                           | FROM TO                   |                           | FR-TO |                           |                           |          |
| 1-2    | -577 / 0                  | -77.3 -77.3               | 0.27 (1)                  | 10-2  | -341 / 0                  | 0.32 (1)                  |          |
| 2-3    | -576 / 0                  | -77.3 -77.3               | 0.27 (1)                  | 6.25  | -74 / 0                   | 0.03 (1)                  |          |
| 3-4    | -401 / 0                  | -77.3 -77.3               | 0.37 (1)                  | 6.25  | 0 / 140                   | 0.03 (4)                  |          |
| 4-5    | -402 / 0                  | -77.3 -77.3               | 0.37 (1)                  | 6.25  | 3-7                       | -125 / 0                  | 0.08 (1) |
| 6-5    | -890 / 0                  | 0.0 0.0                   | 0.63 (1)                  | 5.76  | 7-4                       | -512 / 0                  | 0.36 (1) |
| 11-1   | -896 / 0                  | 0.0 0.0                   | 0.27 (1)                  | 7.81  | 7-5                       | 0 / 831                   | 0.13 (1) |
|        |                           |                           |                           |       | 1-10                      | 0 / 657                   | 0.15 (1) |
| 11-10  | 0 / 0                     | -17.5 -17.5               | 0.08 (4)                  | 10.00 |                           |                           |          |
| 10-9   | 0 / 499                   | -17.5 -17.5               | 0.13 (1)                  | 10.00 |                           |                           |          |
| 9-8    | 0 / 460                   | -17.5 -17.5               | 0.16 (4)                  | 10.00 |                           |                           |          |
| 8-7    | 0 / 460                   | -17.5 -17.5               | 0.16 (4)                  | 10.00 |                           |                           |          |
| 7-6    | 0 / 0                     | -17.5 -17.5               | 0.12 (4)                  | 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 (0.65")  
CALCULATED VERT. DEFL.(LL) = L/ 999 (0.02")  
ALLOWABLE DEFL.(TL)= L/360 (0.65")  
CALCULATED VERT. DEFL.(TL) = L/ 999 (0.04")

CSI: TC=0.63 (5-6:1) , BC=0.16 (7-9:4) , WB=0.36 (4-7:1) , 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

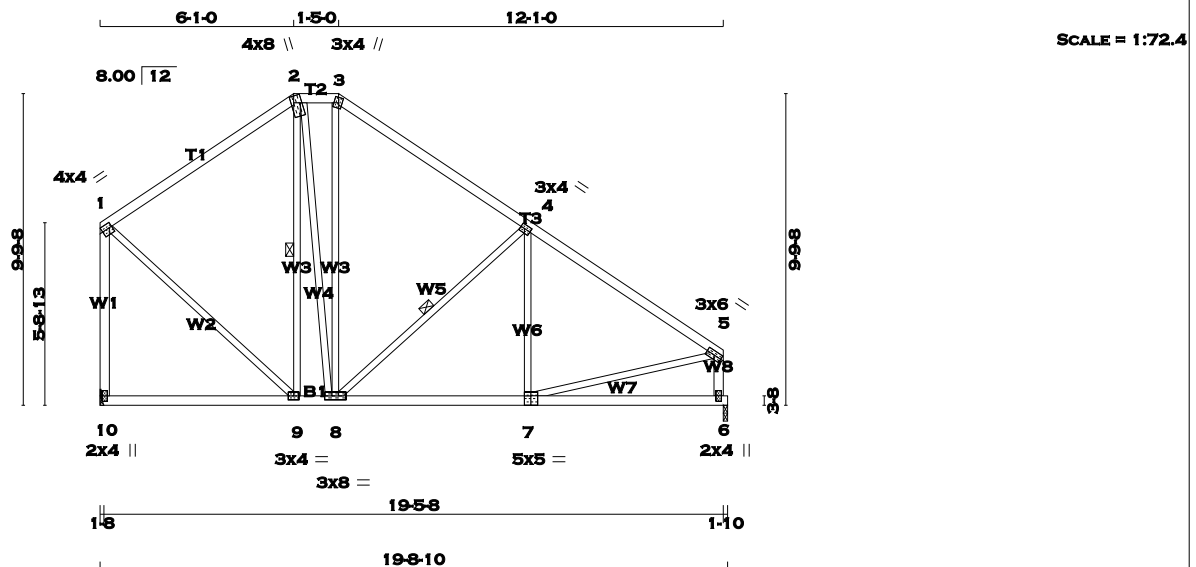
PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.90 (10) (INPUT = 0.90 )  
JSI METAL= 0.25 (1) (INPUT = 1.00 )

RECEIVED  
TOWN OF MILTON  
MAR 29, 2017  
17-5246  
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 = 101 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    |
| 3 - 5                 | 2x4    | DRY  | No.2   |  | SPF    |
| 10 - 1                | 2x4    | DRY  | No.2   |  | SPF    |
| 6 - 5                 | 2x4    | DRY  | No.2   |  | SPF    |
| 10 - 7                | 2x4    | DRY  | No.2   |  | SPF    |
| 7 - 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-t | MT20   | 4.0 | 4.0 | 1.75 | Edge |
| 2                           | TTWW+m | MT20   | 4.0 | 8.0 | 2.50 | 1.00 |
| 3                           | TTW+m  | MT20   | 3.0 | 4.0 | 2.00 | 1.25 |
| 4                           | TMVW-t | MT20   | 3.0 | 4.0 | 1.50 | 1.50 |
| 5                           | TMVW-t | MT20   | 3.0 | 6.0 |      |      |
| 6                           | BMV1+p | MT20   | 2.0 | 4.0 |      |      |
| 7                           | BSWW-l | MT20   | 5.0 | 5.0 | Edge | 2.50 |
| 8                           | BMVW-t | MT20   | 3.0 | 8.0 |      |      |
| 9                           | BMVW-t | MT20   | 3.0 | 4.0 |      |      |
| 10                          | 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 | IN-SX     | IN-SX | IN-SX     | IN-SX |
| 10       |  | 929                     | 0    | 929                             | 0    | 0         | 0     | 0         | 0     |
| 6        |  | 929                     | 0    | 929                             | 0    | 0         | 0     | 0         | 0     |

| UNFACTORED REACTIONS |  | 1ST LCASE |         | MAX./MIN. LIVE |       | PERM. LIVE |       | WIND  |       | DEAD    |       | SOIL  |       |
|----------------------|--|-----------|---------|----------------|-------|------------|-------|-------|-------|---------|-------|-------|-------|
| JT                   |  | COMBINED  | SNOW    |                |       |            |       |       |       |         |       |       |       |
| 10                   |  | 652       | 456 / 0 | 0 / 0          | 0 / 0 | 0 / 0      | 0 / 0 | 0 / 0 | 0 / 0 | 196 / 0 | 0 / 0 | 0 / 0 | 0 / 0 |
| 6                    |  | 652       | 456 / 0 | 0 / 0          | 0 / 0 | 0 / 0      | 0 / 0 | 0 / 0 | 0 / 0 | 196 / 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 = 5.94 FT.  
MAX. UNBRACED BOTTOM CHORD LENGTH = 10.00 FT. OR RIGID CEILING DIRECTLY APPLIED.

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

1 - 2x3 SPF No.2 LATERAL BRACE(S) AT 1/2 LENGTH OF 2-9, 4-8, DBS = 20-0-0 . CBF = 57 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: (4)

| 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         | -508 / 0                  | -77.3 -77.3               | 0.37 (1)                  | 6.25    | 9-2                       | -241 / 6                  | 0.16 (1) |
| 2-3         | -452 / 0                  | -77.3 -77.3               | 0.02 (1)                  | 6.25    | 2-8                       | 0 / 235                   | 0.05 (1) |
| 3-4         | -575 / 0                  | -77.3 -77.3               | 0.37 (1)                  | 6.25    | 8-3                       | 0 / 76                    | 0.02 (4) |
| 4-5         | -913 / 0                  | -77.3 -77.3               | 0.39 (1)                  | 5.94    | 8-4                       | -453 / 0                  | 0.21 (1) |
| 10-1        | -887 / 0                  | 0.0 0.0                   | 0.57 (1)                  | 7.81    | 7-4                       | -54 / 87                  | 0.03 (4) |
| 6-5         | -886 / 0                  | 0.0 0.0                   | 0.10 (1)                  | 7.81    | 1-9                       | 0 / 561                   | 0.13 (1) |
|             |                           |                           |                           |         | 7-5                       | 0 / 806                   | 0.18 (1) |
| 10-9        | 0 / 0                     | -17.5 -17.5               | 0.16 (4)                  | 10.00   |                           |                           |          |
| 9-8         | 0 / 420                   | -17.5 -17.5               | 0.19 (4)                  | 10.00   |                           |                           |          |
| 8-7         | 0 / 786                   | -17.5 -17.5               | 0.22 (4)                  | 10.00   |                           |                           |          |
| 7-6         | 0 / 0                     | -17.5 -17.5               | 0.17 (4)                  | 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 (0.65")  
CALCULATED VERT. DEFL.(LL) = L/ 999 (0.03")  
ALLOWABLE DEFL.(TL)= L/360 (0.65")  
CALCULATED VERT. DEFL.(TL) = L/ 999 (0.06")

CSI: TC=0.57 (1-10:1) , BC=0.22 (7-8:4) , WB=0.21 (4-8:1) , 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.

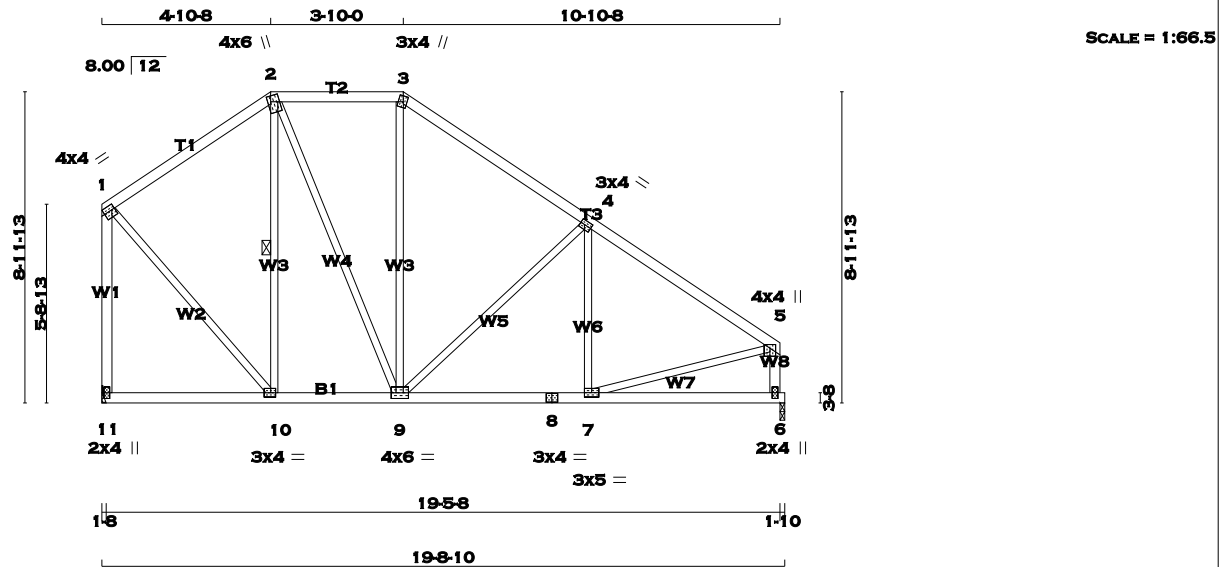
JSI GRIP= 0.88 (9) (INPUT = 0.90 )  
JSI METAL= 0.26 (5) (INPUT = 1.00 )

March 15th, 2017

RECEIVED  
TOWN OF MILTON  
MAR 29, 2017  
17-5246  
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 = 97 lb  
[M][F]

| LUMBER                |      |        |        |     |
|-----------------------|------|--------|--------|-----|
| N. L. G. A. RULES     |      |        |        |     |
| CHORDS                | SIZE | LUMBER | DESCR. |     |
| 1 - 2                 | 2x4  | DRY    | No.2   | SPF |
| 2 - 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-t | MT20   | 4.0 | 4.0 | 1.75 | Edge |
| 2                                                                                | TTWW+m | MT20   | 4.0 | 6.0 | 2.00 | 1.00 |
| 3                                                                                | TTW+m  | MT20   | 3.0 | 4.0 | 2.00 | 1.25 |
| 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                                                                                | BMVW-t | MT20   | 4.0 | 6.0 |      |      |
| 10                                                                               | BMVW-t | MT20   | 3.0 | 4.0 | 1.50 | 1.75 |
| 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 GROSS REACTION |      | MAXIMUM FACTORED GROSS REACTION |      | INPUT BRG |                     | REQRD BRG |  |
| JT                                                                                            |  | VERT                    | HORZ | DOWN                            | HORZ | UPLIFT    | IN-SX               | IN-SX     |  |
| 11                                                                                            |  | 929                     | 0    | 929                             | 0    | 0         | HANGER BY OTHERS    |           |  |
| 6                                                                                             |  | 929                     | 0    | 929                             | 0    | 0         | MIN. SEAT SIZE: 1-8 |           |  |

| UNFACTORED REACTIONS |           |           |           |           |       |         |       |
|----------------------|-----------|-----------|-----------|-----------|-------|---------|-------|
| JT                   | 1ST LCASE | MAX./MIN. | COMPONENT | REACTIONS |       |         |       |
| 11                   | COMBINED  | SNOW      | LIVE      | PERM.LIVE | WIND  | DEAD    | SOIL  |
| 6                    | 652       | 456 / 0   | 0 / 0     | 0 / 0     | 0 / 0 | 196 / 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 = 6.05 FT.  
MAX. UNBRACED BOTTOM CHORD LENGTH = 10.00 FT. OR RIGID CEILING DIRECTLY APPLIED.

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

1 - 2x3 SPF No.2 LATERAL BRACE(S) AT 1/2 LENGTH OF 2-10. DBS = 20-0-0 . CBF = 43 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: (4) |                           |                           |                           |                           |
| C H O R D S           |                           |                           |                           |                           |
| MEMB.                 | MAX. FACTORED FORCE (LBS) | FACTORED VERT. LOAD (PLF) | MAX. UNBRACED LENGTH (LC) | MAX. FACTORED FORCE (LBS) |
| FR-TO                 |                           | FROM TO                   |                           | FR-TO                     |
| 1-2                   | -483 / 0                  | -77.3 -77.3               | 0.24 (1)                  | 6.25 10-2                 |
| 2-3                   | -517 / 0                  | -77.3 -77.3               | 0.15 (1)                  | 6.25 2-9                  |
| 3-4                   | -650 / 0                  | -77.3 -77.3               | 0.30 (1)                  | 6.25 9-3                  |
| 4-5                   | -918 / 0                  | -77.3 -77.3               | 0.31 (1)                  | 6.05 9-4                  |
| 11-1                  | -893 / 0                  | 0.0 0.0                   | 0.58 (1)                  | 7.81 7-4                  |
| 6-5                   | -890 / 0                  | 0.0 0.0                   | 0.10 (1)                  | 7.81 1-10                 |
| 11-10                 | 0 / 0                     | -17.5 -17.5               | 0.09 (4)                  | 10.00 7-5                 |
| 10-9                  | 0 / 397                   | -17.5 -17.5               | 0.12 (4)                  | 10.00                     |
| 9-8                   | 0 / 787                   | -17.5 -17.5               | 0.20 (1)                  | 10.00                     |
| 8-7                   | 0 / 787                   | -17.5 -17.5               | 0.20 (1)                  | 10.00                     |
| 7-6                   | 0 / 0                     | -17.5 -17.5               | 0.13 (4)                  | 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 (0.65")  
CALCULATED VERT. DEFL.(LL) = L/ 999 (0.02")  
ALLOWABLE DEFL.(TL)= L/360 (0.65")  
CALCULATED VERT. DEFL.(TL) = L/ 999 (0.05")

CSI: TC=0.58 (1-11:1) , BC=0.20 (7-9:1) , WB=0.41 (4-9:1) , 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 |

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

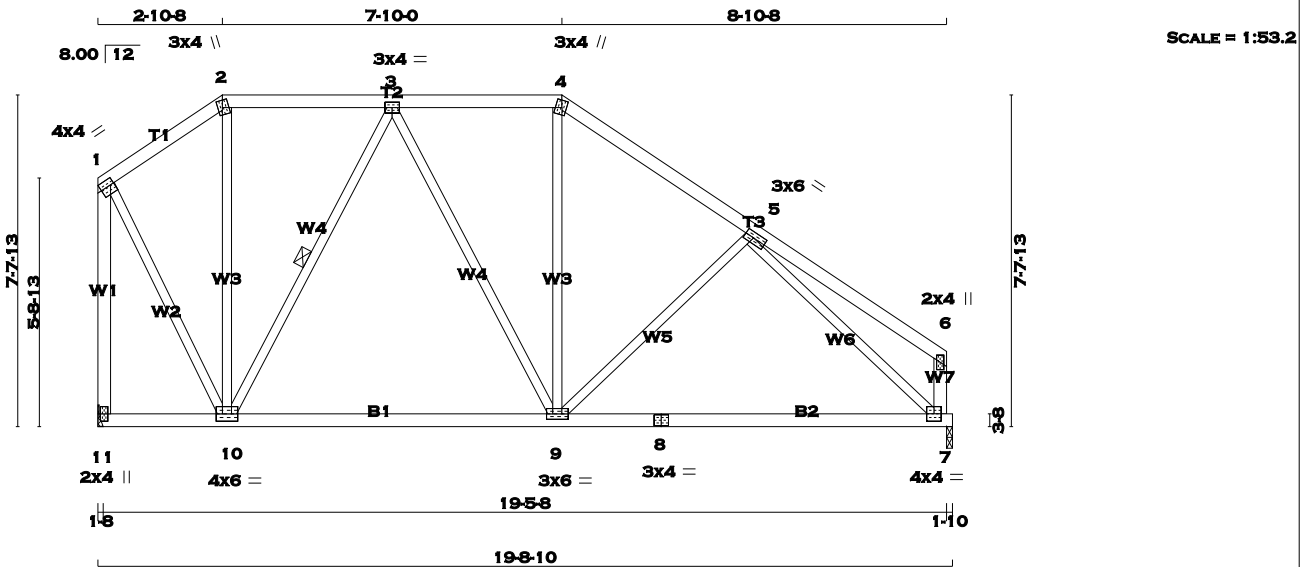
JSI GRIP= 0.90 (10) (INPUT = 0.90 )  
JSI METAL= 0.24 (5) (INPUT = 1.00 )

March 15th, 2017

RECEIVED  
TOWN OF MILTON  
MAR 29, 2017  
17-5246  
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.





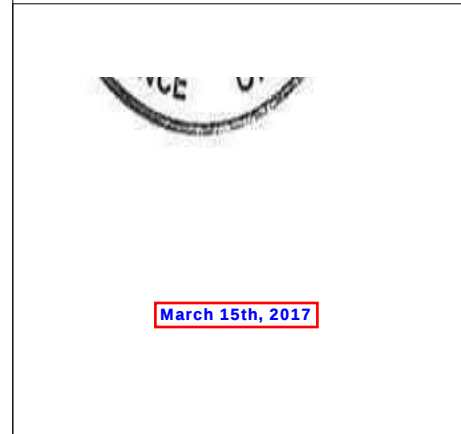
TOTAL WEIGHT = 94 lb  
[M][F]

| LUMBER                |      |        |        |     |
|-----------------------|------|--------|--------|-----|
| N. L. G. A. RULES     |      |        |        |     |
| CHORDS                | SIZE | LUMBER | DESCR. |     |
| 1 - 2                 | 2x4  | DRY    | No.2   | SPF |
| 2 - 4                 | 2x4  | DRY    | No.2   | SPF |
| 4 - 6                 | 2x4  | DRY    | No.2   | SPF |
| 11- 1                 | 2x4  | DRY    | No.2   | SPF |
| 7 - 6                 | 2x4  | DRY    | No.2   | SPF |
| 11- 8                 | 2x4  | DRY    | No.2   | SPF |
| 8 - 7                 | 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-t  | MT20   | 4.0 | 4.0 | 1.75 | Edge |
| 2                           | TTW+m   | MT20   | 3.0 | 4.0 | 2.00 | 1.25 |
| 3                           | TMVW-t  | MT20   | 3.0 | 4.0 |      |      |
| 4                           | TTW+m   | MT20   | 3.0 | 4.0 | 2.00 | 1.25 |
| 5                           | TMVW-t  | MT20   | 3.0 | 6.0 | 1.50 | 2.50 |
| 6                           | TMV+p   | MT20   | 2.0 | 4.0 |      |      |
| 7                           | BMVW1-t | MT20   | 4.0 | 4.0 |      |      |
| 8                           | BS-t    | MT20   | 3.0 | 4.0 |      |      |
| 9                           | BMVW-t  | MT20   | 3.0 | 6.0 |      |      |
| 10                          | BMVW-t  | MT20   | 4.0 | 6.0 |      |      |
| 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.



March 15th, 2017

#### 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     |  |
| 11                  | 929 | 0                       |      | 929                             | 0    | 0         |       |           |  |
| HANGER BY OTHERS    |     |                         |      |                                 |      |           |       |           |  |
| MIN. SEAT SIZE: 1-8 |     |                         |      |                                 |      |           |       |           |  |
| 7                   | 929 | 0                       |      | 929                             | 0    | 0         | 1-10  | 1-10      |  |

| UNFACTORED REACTIONS |           |           |           |           |       |         |       |
|----------------------|-----------|-----------|-----------|-----------|-------|---------|-------|
| JT                   | 1ST LCASE | MAX./MIN. | COMPONENT | REACTIONS |       |         |       |
| 11                   | 652       | 456 / 0   | 0 / 0     | 0 / 0     | 0 / 0 | 196 / 0 | 0 / 0 |
| 7                    | 652       | 456 / 0   | 0 / 0     | 0 / 0     | 0 / 0 | 196 / 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.

1 - 2x3 SPF No.2 LATERAL BRACE(S) AT 1/2 LENGTH OF 3-10. DBS = 20-0-0. CBF = 68 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: (4)

| C H O R D S |                           |                           |                      | W E B S            |       |                           |              |
|-------------|---------------------------|---------------------------|----------------------|--------------------|-------|---------------------------|--------------|
| MEMB.       | MAX. FACTORED FORCE (LBS) | FACTORED VERT. LOAD (PLF) | MAX LC1 MAX CSI (LC) | MAX. UNBRAC LENGTH | MEMB. | MAX. FACTORED FORCE (LBS) | MAX CSI (LC) |
| FR-TO       |                           | FROM TO                   |                      |                    | FR-TO |                           |              |
| 1-2         | -390 / 0                  | -77.3 -77.3               | 0.08 (1)             | 6.25               | 10-2  | -10 / 42                  | 0.01 (4)     |
| 2-3         | -323 / 0                  | -77.3 -77.3               | 0.15 (1)             | 6.25               | 10-3  | -545 / 0                  | 0.26 (1)     |
| 3-4         | -632 / 0                  | -77.3 -77.3               | 0.15 (1)             | 6.25               | 3-9   | 0 / 126                   | 0.03 (4)     |
| 4-5         | -780 / 0                  | -77.3 -77.3               | 0.20 (1)             | 6.25               | 9-4   | 0 / 172                   | 0.04 (1)     |
| 5-6         | 0 / 22                    | -77.3 -77.3               | 0.25 (1)             | 10.00              | 9-5   | -160 / 13                 | 0.11 (1)     |
| 11-1        | -917 / 0                  | 0.0 0.0                   | 0.59 (1)             | 7.81               | 1-10  | 0 / 671                   | 0.15 (1)     |
| 7-6         | -131 / 0                  | 0.0 0.0                   | 0.01 (1)             | 7.81               | 5-7   | -1047 / 0                 | 0.69 (1)     |
| 11-10       | 0 / 0                     | -17.5 -17.5               | 0.10 (4)             | 10.00              |       |                           |              |
| 10-9        | 0 / 574                   | -17.5 -17.5               | 0.37 (4)             | 10.00              |       |                           |              |
| 9-8         | 0 / 745                   | -17.5 -17.5               | 0.38 (4)             | 10.00              |       |                           |              |
| 8-7         | 0 / 745                   | -17.5 -17.5               | 0.38 (4)             | 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 (0.65")  
CALCULATED VERT. DEFL.(LL) = L/ 999 (0.02")  
ALLOWABLE DEFL.(TL)= L/360 (0.65")  
CALCULATED VERT. DEFL.(TL) = L/ 999 (0.17")

CSI: TC=0.59 (1-11:1), BC=0.38 (7-9:4), WB=0.69 (5-7:1), 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

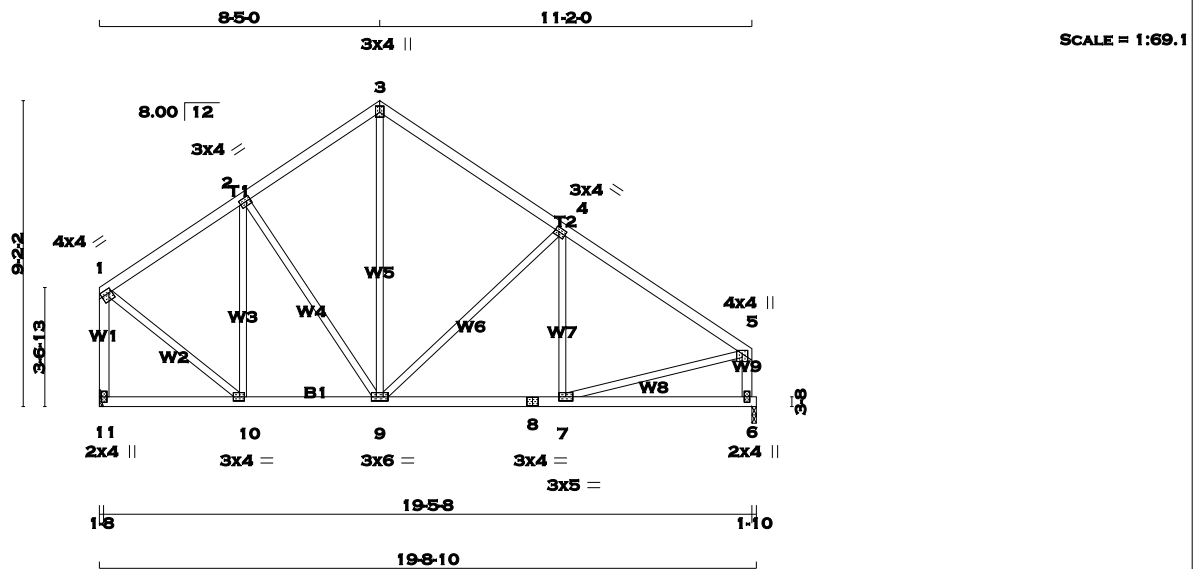
PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.88 (5) (INPUT = 0.90 )  
JSI METAL= 0.28 (7) (INPUT = 1.00 )

RECEIVED  
TOWN OF MILTON  
MAR 29, 2017  
17-5246  
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 = 2 X 91 = 181 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              | 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 | 4.0 | 1.50 | 1.00 |  |
| 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 |      |      |  |
| 8                           | BS-t   | MT20   | 3.0 | 4.0 |      |      |  |
| 9                           | BMVW-t | MT20   | 3.0 | 6.0 |      |      |  |
| 10                          | BMVW-t | MT20   | 3.0 | 4.0 | 1.50 | 1.75 |  |
| 11                          | BMV1+p | MT20   | 2.0 | 4.0 |      |      |  |

A SIZE FOR SIZE SUBSTITUTION OF MITEK M120 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 | BRG   | BRG | IN-SX               | IN-SX |
| 11       | 929            | 0        | 0    | 929              | 0    | 0     | 0   | HANGER BY OTHERS    |       |
| 6        | 929            | 0        | 0    | 929              | 0    | 0     | 0   | MIN. SEAT SIZE: 1-8 | 1-10  |

#### UNFACTORED REACTIONS

| JT | 1ST LCASE | MAX./MIN. | LIVE  | PERM.LIVE | WIND  | DEAD    | SOIL  |
|----|-----------|-----------|-------|-----------|-------|---------|-------|
| 11 | 652       | 456 / 0   | 0 / 0 | 0 / 0     | 0 / 0 | 196 / 0 | 0 / 0 |
| 6  | 652       | 456 / 0   | 0 / 0 | 0 / 0     | 0 / 0 | 196 / 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 = 6.03 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.

#### LOADING

TOTAL LOAD CASES: (4)

| CHORDS |                           |                  |                          | WEBS  |                           |                    |          |
|--------|---------------------------|------------------|--------------------------|-------|---------------------------|--------------------|----------|
| MEMB.  | MAX. FACTORED FORCE (LBS) | VERT. LOAD (PLF) | MAX. FACTORED (LC1) (LC) | MEMB. | MAX. FACTORED FORCE (LBS) | MAX. FACTORED (LC) |          |
| FR-TO  |                           | FROM             | TO                       | FR-TO |                           |                    |          |
| 1-2    | -630 / 0                  | -77.3            | -77.3 0.18 (1)           | 6.25  | 10-2                      | -328 / 0           | 0.22 (1) |
| 2-3    | -631 / 0                  | -77.3            | -77.3 0.18 (1)           | 6.25  | 2-9                       | -63 / 0            | 0.07 (1) |
| 3-4    | -638 / 0                  | -77.3            | -77.3 0.32 (1)           | 6.25  | 9-3                       | 0 / 398            | 0.09 (1) |
| 4-5    | -917 / 0                  | -77.3            | -77.3 0.33 (1)           | 6.03  | 9-4                       | -386 / 0           | 0.44 (1) |
| 11-1   | -897 / 0                  | 0.0              | 0.0 0.19 (1)             | 7.81  | 7-4                       | -84 / 69           | 0.04 (1) |
| 6-5    | -888 / 0                  | 0.0              | 0.0 0.10 (1)             | 7.81  | 1-10                      | 0 / 678            | 0.15 (1) |
|        |                           |                  |                          |       | 7-5                       | 0 / 810            | 0.18 (1) |
| 11-10  | 0 / 0                     | -17.5            | -17.5 0.07 (4)           | 10.00 |                           |                    |          |
| 10-9   | 0 / 541                   | -17.5            | -17.5 0.13 (1)           | 10.00 |                           |                    |          |
| 9-8    | 0 / 786                   | -17.5            | -17.5 0.20 (1)           | 10.00 |                           |                    |          |
| 8-7    | 0 / 786                   | -17.5            | -17.5 0.20 (1)           | 10.00 |                           |                    |          |
| 7-6    | 0 / 0                     | -17.5            | -17.5 0.14 (4)           | 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 (0.65")  
CALCULATED VERT. DEFL.(LL) = L/ 999 (0.02")  
ALLOWABLE DEFL.(TL)= L/360 (0.65")  
CALCULATED VERT. DEFL.(TL) = L/ 999 (0.05")

CSI: TC=0.33 (4-5:1) , BC=0.20 (7-9:1) , WB=0.44 (4-9:1) , 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

| 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.

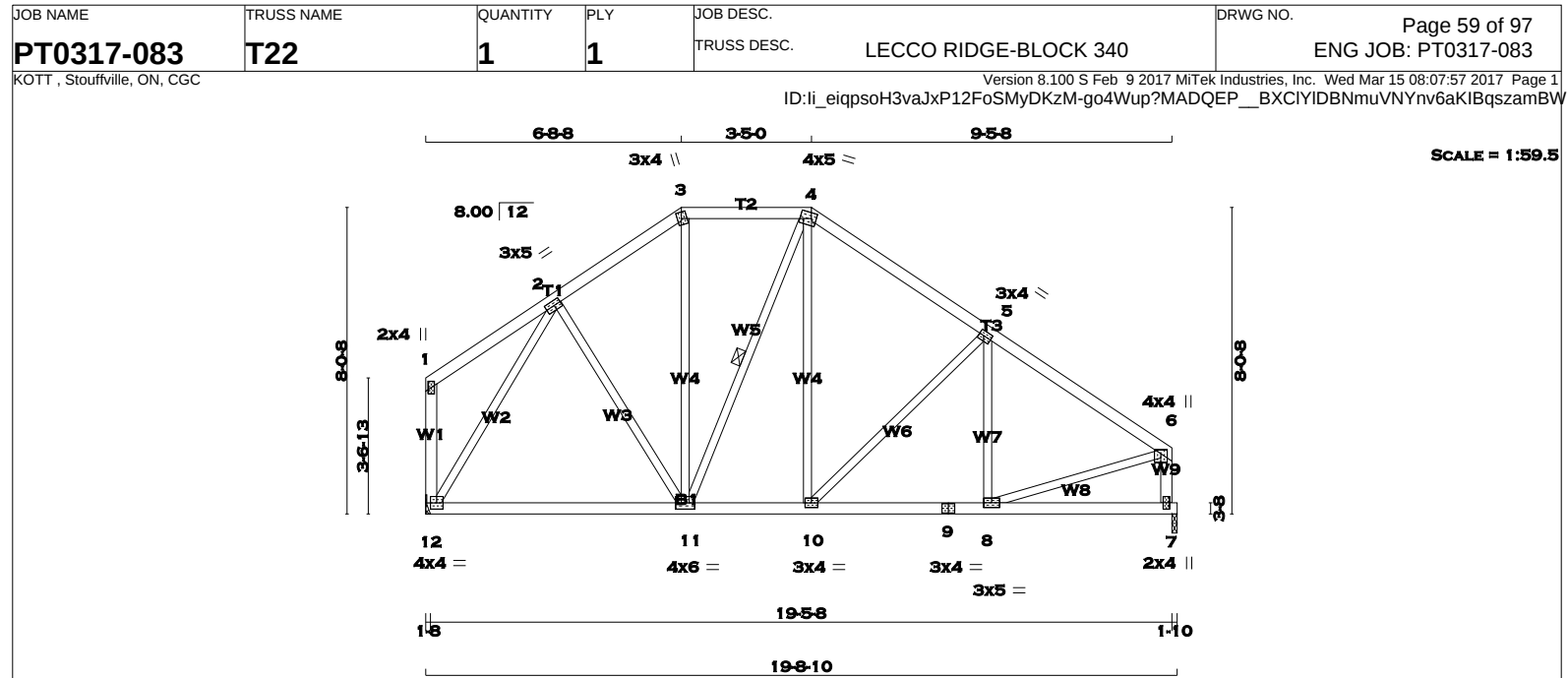
JSI GRIP= 0.90 (10) (INPUT = 0.90 )  
JSI METAL= 0.27 (1) (INPUT = 1.00 )

RECEIVED  
TOWN OF MILTON  
MAR 29, 2017  
17-5246  
BUILDING DIVISION

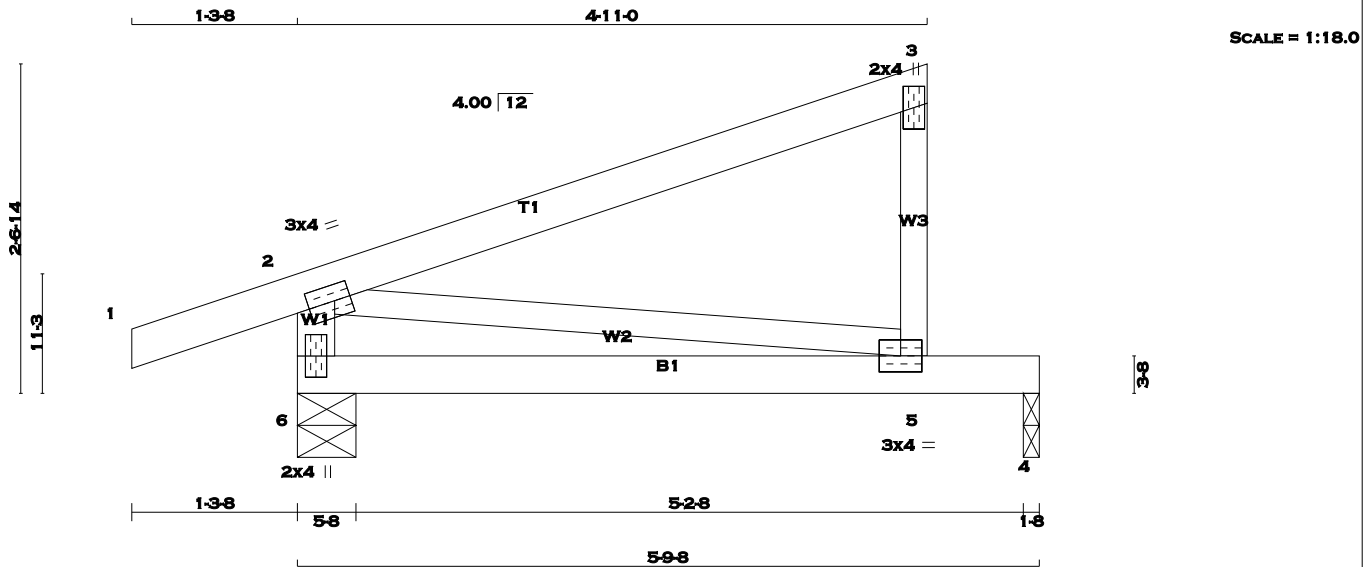
READ ALL NOTES ON THIS PAGE AND ON THE ENGINEERING NOTE PAGE ENP-1. THE NOTE PAGE IS AN INTEGRAL PART OF THIS DRAWING AS IT CONTAINS SPECIFICATIONS AND CRITERIA USED IN THE DESIGN OF THIS COMPONENT.



March 15th, 2017



<



TOTAL WEIGHT = 14 X 20 = 278 lb [M]

LUMBER

N. L. G. A. RULES

CHORDS SIZE

1 - 3 2x4 DRY

5 - 3 2x3 DRY

6 - 2 2x4 DRY

6 - 4 2x4 DRY

ALL WEBS 2x3 DRY

DRY: SEASONED LUMBER.

LUMBER

No.2

No.2

No.2

No.2

No.2

DESCR.

SPF

SPF

SPF

SPF

SPF

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.

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  | 373                     | 0    | 373                             | 0    | 0         | 5-8   | 5-8       |  |
| 4  | 212                     | 0    | 212                             | 0    | 0         | 1-8   | 1-8       |  |

UNFACTORED REACTIONS

| JT | 1ST LCASE COMBINED |         | MAX./MIN. SNOW |       | LIVE  |       | PERM. LIVE |        | WIND  |        | DEAD  |       | SOIL  |  |
|----|--------------------|---------|----------------|-------|-------|-------|------------|--------|-------|--------|-------|-------|-------|--|
|    | 260                | 194 / 0 | 0 / 0          | 0 / 0 | 0 / 0 | 0 / 0 | 0 / 0      | 66 / 0 | 0 / 0 | 53 / 0 | 0 / 0 | 0 / 0 | 0 / 0 |  |
| 6  | 260                | 194 / 0 | 0 / 0          | 0 / 0 | 0 / 0 | 0 / 0 | 0 / 0      | 66 / 0 | 0 / 0 | 53 / 0 | 0 / 0 | 0 / 0 | 0 / 0 |  |
| 4  | 150                | 97 / 0  | 0 / 0          | 0 / 0 | 0 / 0 | 0 / 0 | 0 / 0      | 53 / 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               |       |                  |                       |
|--------|------------------|---------------------------|------------------|--------------------|-------|------------------|-----------------------|
| MEMB.  | MAX. FORCE (LBS) | FACTORED VERT. LOAD (PLF) | LC1 MAX CSI (LC) | MAX. UNBRAC LENGTH | MEMB. | MAX. 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- 5             | 0 / 0                 |
| 2- 3   | 0 / 0            | -77.3                     | -77.3            | 0.32 (1)           | 10.00 |                  |                       |
| 5- 3   | -190 / 0         | 0.0                       | 0.0              | 0.03 (1)           | 7.81  |                  |                       |
| 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 |                  |                       |

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 (0.19")

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

ALLOWABLE DEFL.(TL)= L/360 (0.19")

CALCULATED VERT. DEFL.(TL) = L/ 586 (0.12")

CSI: TC=0.32 (2-3:1) , BC=0.25 (5-6:1) , WB=0.00 (2-5:1) , 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= 0.27 (2) (INPUT = 0.90 )

JSI METAL= 0.05 (6) (INPUT = 1.00 )

RECEIVED

TOWN OF MILTON

MAR 29, 2017

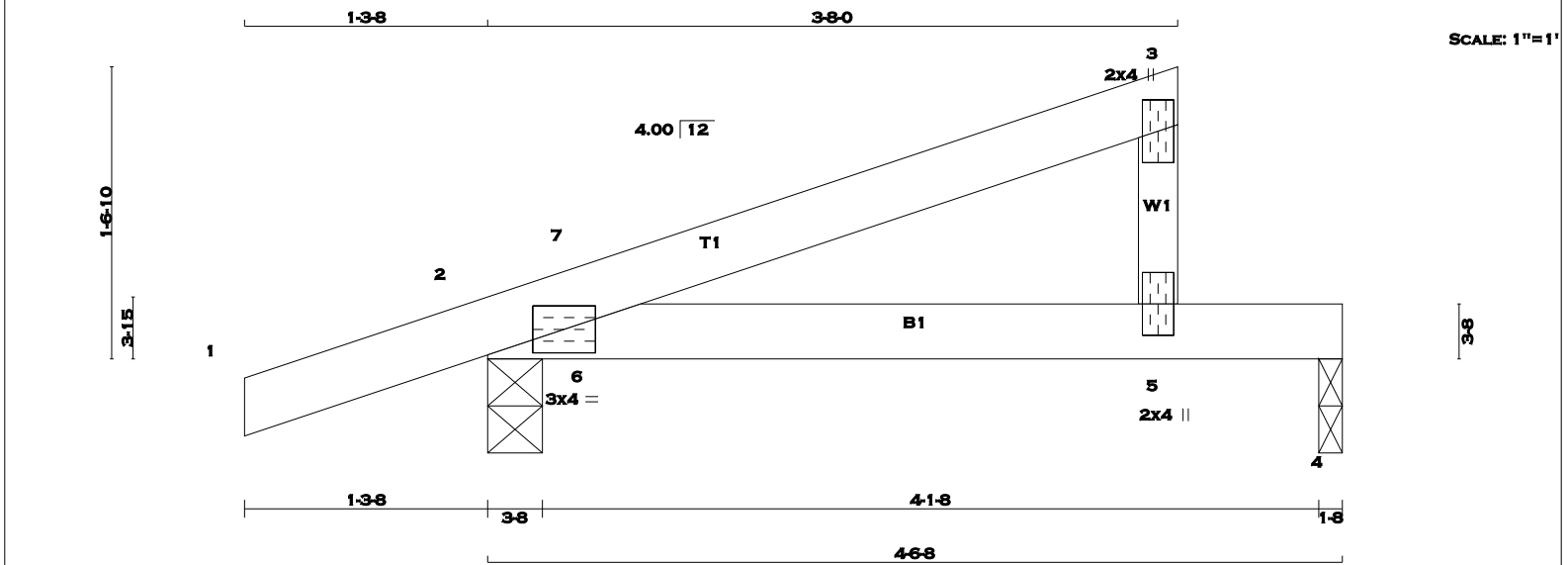
17-5246

BUILDING DIVISION

March 15th, 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.

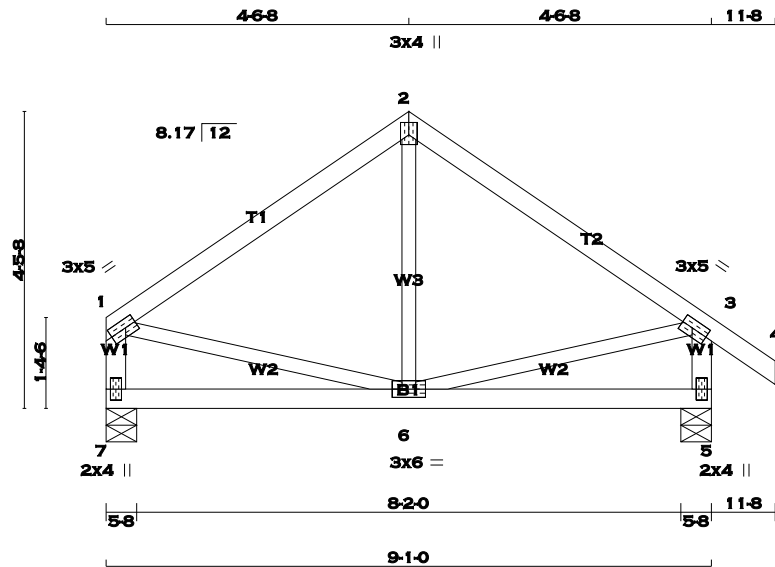
KOTT



|                                                                                                                |        |        |      |     |   |   |
|----------------------------------------------------------------------------------------------------------------|--------|--------|------|-----|---|---|
| <b>LUMBER</b><br>N. L. G. A. RULES<br>CHORDS      SIZE                      LUMBER                      DESCR. |        |        |      |     |   |   |
| 1 - 3                                                                                                          | 2x4    | DRY    | No.2 | SPF |   |   |
| 5 - 3                                                                                                          | 2x3    | DRY    | No.2 | SPF |   |   |
| 2 - 4                                                                                                          | 2x4    | DRY    | No.2 | SPF |   |   |
| DRY: SEASONED LUMBER.                                                                                          |        |        |      |     |   |   |
| <br><b>PLATES (table is in inches)</b>                                                                         |        |        |      |     |   |   |
| 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.                               |        |        |      |     |   |   |

|                                                                                                      |                           |                               |                                 |                      |           |                           |              |  |  |
|------------------------------------------------------------------------------------------------------|---------------------------|-------------------------------|---------------------------------|----------------------|-----------|---------------------------|--------------|--|--|
| <b>DIMENSIONS, SUPPORTS AND LOADINGS SPECIFIED BY FABRICATOR TO BE VERIFIED BY BUILDING DESIGNER</b> |                           |                               |                                 |                      |           |                           |              |  |  |
| <b>BEARINGS</b>                                                                                      |                           |                               |                                 |                      |           |                           |              |  |  |
|                                                                                                      | FACTORED GROSS REACTION   |                               | MAXIMUM FACTORED GROSS REACTION |                      | INPUT BRG | REQRD BRG                 |              |  |  |
| JT                                                                                                   | VERT                      | HORZ                          | DOWN                            | HORZ                 | UPLIFT    | IN-SX                     | IN-SX        |  |  |
| 2                                                                                                    | 312                       | 0                             | 312                             | 0                    | 0         | 3-8                       | 3-8          |  |  |
| 4                                                                                                    | 154                       | 0                             | 154                             | 0                    | 0         | 1-8                       | 1-8          |  |  |
| <br><b>UNFACTORED REACTIONS</b>                                                                      |                           |                               |                                 |                      |           |                           |              |  |  |
|                                                                                                      | 1ST LCASE COMBINED        | MAX./MIN. COMPONENT REACTIONS |                                 |                      |           |                           |              |  |  |
| JT                                                                                                   |                           | SNOW                          | LIVE                            | PERM.LIVE            | WIND      | DEAD                      | SOIL         |  |  |
| 2                                                                                                    | 217                       | 164 / 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                                           |                           |                               |                                 |                      |           |                           |              |  |  |
| <b>BRACING</b>                                                                                       |                           |                               |                                 |                      |           |                           |              |  |  |
| 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.                           |                           |                               |                                 |                      |           |                           |              |  |  |
| <b>LOADING</b>                                                                                       |                           |                               |                                 |                      |           |                           |              |  |  |
| TOTAL LOAD CASES: (4)                                                                                |                           |                               |                                 |                      |           |                           |              |  |  |
|                                                                                                      | CHORDS                    |                               |                                 |                      | WEBS      |                           |              |  |  |
|                                                                                                      | 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 / 15                    | -77.3 -77.3                   | 0.10 (1)                        | 10.00                | 6- 7      | -46 / 43                  | 0.00 (1)     |  |  |
| 2- 7                                                                                                 | -28 / 0                   | -77.3 -77.3                   | 0.07 (1)                        | 6.25                 |           |                           |              |  |  |
| 7- 3                                                                                                 | 0 / 5                     | -77.3 -77.3                   | 0.16 (1)                        | 10.00                |           |                           |              |  |  |
| 5- 3                                                                                                 | -134 / 0                  | 0.0 0.0                       | 0.02 (1)                        | 7.81                 |           |                           |              |  |  |
| 2- 6                                                                                                 | 0 / 0                     | -17.5 -17.5                   | 0.08 (1)                        | 10.00                |           |                           |              |  |  |
| 6- 5                                                                                                 | 0 / 0                     | -17.5 -17.5                   | 0.18 (1)                        | 10.00                |           |                           |              |  |  |
| 5- 4                                                                                                 | 0 / 0                     | -17.5 -17.5                   | 0.17 (1)                        | 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     |      |
| <br><b>SPACING = 24.0 IN. C/C</b>                                                                  |           |       |         |      |
| 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/ 978 (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  |
| MT20                                                                                               | 618       | 354   | 1667    | 822  |
|                                                                                                    |           |       | 2284    | 1656 |
| PLATE PLACEMENT TOL. = 0.250 inches                                                                |           |       |         |      |
| PLATE ROTATION TOL. = 5.0 Deg.                                                                     |           |       |         |      |
| JSI GRIP= 0.15 (2) (INPUT = 0.90 )                                                                 |           |       |         |      |
| JSI METAL= 0.05 (2) (INPUT = 1.00 )                                                                |           |       |         |      |



TOTAL WEIGHT = 6 X 37 = 221 lb  
[M][F]

| LUMBER            |        |      |        |  | DESCR. |
|-------------------|--------|------|--------|--|--------|
| N. L. G. A. RULES | CHORDS | SIZE | LUMBER |  |        |
| 1 - 2             | 2x4    | DRY  | No.2   |  | SPF    |
| 2 - 4             | 2x4    | DRY  | No.2   |  | SPF    |
| 7 - 1             | 2x4    | DRY  | No.2   |  | SPF    |
| 5 - 3             | 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    |
|----|---------|--------|-----|-----|------|------|
| 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 |
| 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

|    |  | FACTORED       |      | MAXIMUM FACTORED |      | INPUT  |       | REQRD |  |
|----|--|----------------|------|------------------|------|--------|-------|-------|--|
|    |  | GROSS REACTION |      | GROSS REACTION   |      | BRG    |       | BRG   |  |
| JT |  | VERT           | HORZ | DOWN             | HORZ | UPLIFT | IN-SX | IN-SX |  |
| 7  |  | 431            | 0    | 431              | 0    | 0      | 5-8   | 5-8   |  |
| 5  |  | 511            | 0    | 511              | 0    | 0      | 5-8   | 5-8   |  |

#### UNFACTORED REACTIONS

|    |  | 1ST LCASE | MAX./MIN. COMPONENT REACTIONS |       |           |       |        |       |
|----|--|-----------|-------------------------------|-------|-----------|-------|--------|-------|
| JT |  | COMBINED  | SNOW                          | LIVE  | PERM.LIVE | WIND  | DEAD   | SOIL  |
| 7  |  | 302       | 211 / 0                       | 0 / 0 | 0 / 0     | 0 / 0 | 91 / 0 | 0 / 0 |
| 5  |  | 357       | 260 / 0                       | 0 / 0 | 0 / 0     | 0 / 0 | 97 / 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: (4)

| CHORDS |          |            |                | WEBS   |       |            |          |
|--------|----------|------------|----------------|--------|-------|------------|----------|
| MEMB.  |          | MAX. FORCE | FACTORED       | MEMB.  |       | MAX. FORCE | FACTORED |
|        |          | (LBS)      | VERT. LOAD     |        |       | (LBS)      | MAX      |
|        |          |            | (PLF)          |        |       |            | CSI (LC) |
|        |          |            |                |        |       |            |          |
| FR-TO  |          |            | FROM TO        | LENGTH | FR-TO |            |          |
| 1-2    | -298 / 0 | -77.3      | -77.3 0.20 (1) | 6.25   | 6-2   | -16 / 73   | 0.03 (4) |
| 2-3    | -298 / 0 | -77.3      | -77.3 0.20 (1) | 6.25   | 1-6   | 0 / 253    | 0.06 (1) |
| 3-4    | 0 / 23   | -77.3      | -77.3 0.06 (1) | 10.00  | 6-3   | 0 / 253    | 0.06 (1) |
| 7-1    | -400 / 0 | 0.0        | 0.0 0.04 (1)   | 7.81   |       |            |          |
| 5-3    | -480 / 0 | 0.0        | 0.0 0.05 (1)   | 7.81   |       |            |          |
| 7-6    | 0 / 0    | -17.5      | -17.5 0.10 (4) | 10.00  |       |            |          |
| 6-5    | 0 / 0    | -17.5      | -17.5 0.10 (4) | 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 (0.30")  
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 (1-2:1) , BC=0.10 (5-6:4) , WB=0.06 (3-6:1) , SSI=0.11 (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.

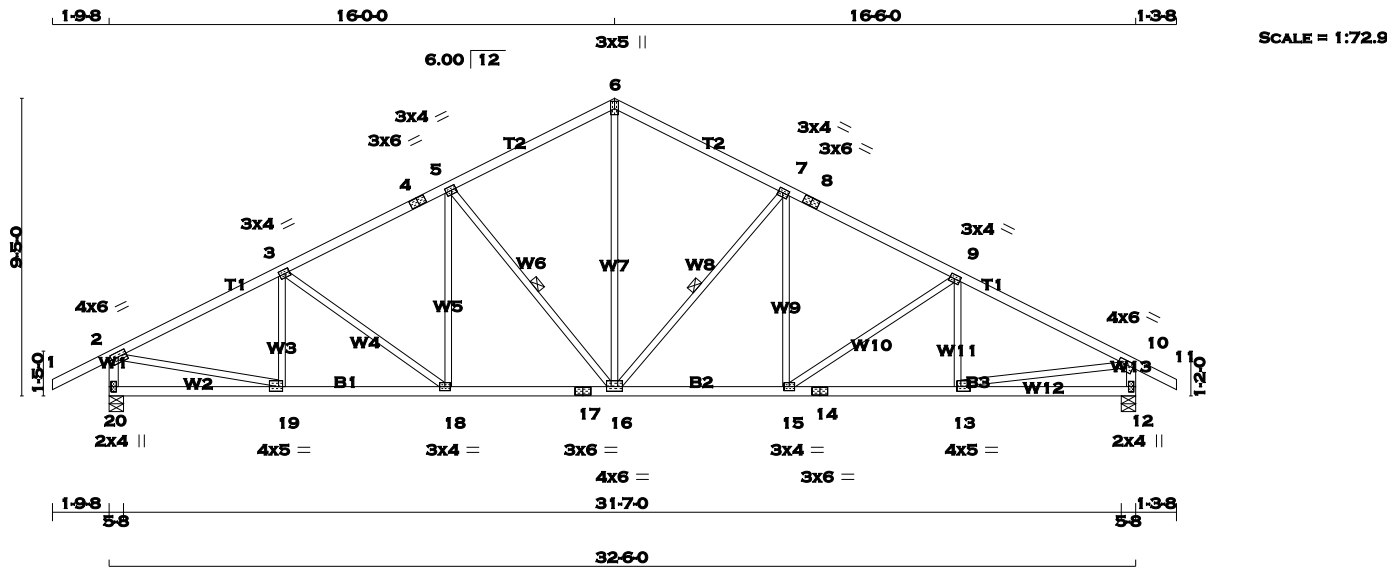
JSI GRIP= 0.46 (6) (INPUT = 0.90 )  
JSI METAL= 0.13 (3) (INPUT = 1.00 )

March 15th, 2017

RECEIVED  
TOWN OF MILTON  
MAR 29, 2017  
17-5246  
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 = 16 X 139 = 2229 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 | SPF    | SPF    |
| 6 - 8                 | 2x4  | DRY               | No.2 | SPF    | SPF    |
| 8 - 11                | 2x4  | DRY               | No.2 | SPF    | SPF    |
| 20 - 2                | 2x4  | DRY               | No.2 | SPF    | SPF    |
| 12 - 10               | 2x4  | DRY               | No.2 | SPF    | SPF    |
| 20 - 17               | 2x4  | DRY               | No.2 | SPF    | SPF    |
| 17 - 14               | 2x4  | DRY               | No.2 | SPF    | SPF    |
| 14 - 12               | 2x4  | DRY               | No.2 | SPF    | 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 | 1.75 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                          | BMVW-t | MT20   | 4.0 | 5.0 | 1.75 1.50 |
| 14                          | BS-t   | MT20   | 3.0 | 6.0 |           |
| 15                          | BMVW-t | MT20   | 3.0 | 4.0 |           |
| 16                          | BMVW-t | MT20   | 4.0 | 6.0 | 1.75 3.00 |
| 17                          | BS-t   | MT20   | 3.0 | 6.0 |           |
| 18                          | BMVW-t | MT20   | 3.0 | 4.0 |           |
| 19                          | BMVW-t | MT20   | 4.0 | 5.0 | 1.75 1.50 |
| 20                          | 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       |      | MAXIMUM FACTORED |      | INPUT |       | REQRD |       |
|----------|------|----------------|------|------------------|------|-------|-------|-------|-------|
| JT       | VERT | GROSS REACTION | HORZ | DOWN             | HORZ | BRG   | IN-SX | BRG   | IN-SX |
| 20       | 1685 | 0              | 1685 | 0                | 0    | 5-8   | 5-8   | 5-8   | 5-8   |
| 12       | 1646 | 0              | 1646 | 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    |
| 20                   | 1179     | 843 / 0   | 0 / 0 | 0 / 0                         | 336 / 0 |
| 12                   | 1153     | 820 / 0   | 0 / 0 | 0 / 0                         | 333 / 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 = 4.24 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.

1 - 2x3 SPF No.2 LATERAL BRACE(S) AT 1/2 LENGTH OF 5-16, 7-16. DBS = 20-0-0. CBF = 81 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: (4)     |                           |
|-------------|---------------------------|---------------------------|---------------------------|
| C H O R D S |                           | W E B S                   |                           |
| MEMB.       | MAX. FACTORED FORCE (LBS) | FACTORED VERT. LOAD (PLF) | MAX. UNBRACED LENGTH (LC) |
| FR-TO       |                           | FROM TO                   | FR-TO                     |
| 1-2         | 0 / 32                    | -77.3 -77.3               | 0.19 (1) 10.00            |
| 2-3         | -2094 / 0                 | -77.3 -77.3               | 0.34 (1) 4.39             |
| 3-4         | -1954 / 0                 | -77.3 -77.3               | 0.29 (1) 4.58             |
| 4-5         | -1954 / 0                 | -77.3 -77.3               | 0.29 (1) 4.58             |
| 5-6         | -1560 / 0                 | -77.3 -77.3               | 0.28 (1) 5.00             |
| 6-7         | -1560 / 0                 | -77.3 -77.3               | 0.30 (1) 4.98             |
| 7-8         | -2012 / 0                 | -77.3 -77.3               | 0.31 (1) 4.50             |
| 8-9         | -2012 / 0                 | -77.3 -77.3               | 0.31 (1) 4.50             |
| 9-10        | -2244 / 0                 | -77.3 -77.3               | 0.38 (1) 4.24             |
| 10-11       | 0 / 23                    | -77.3 -77.3               | 0.10 (1) 10.00            |
| 20-2        | -1643 / 0                 | 0.0 0.0                   | 0.17 (1) 6.46             |
| 12-10       | -1603 / 0                 | 0.0 0.0                   | 0.16 (1) 6.53             |

|       |          |             |                |
|-------|----------|-------------|----------------|
| 20-19 | 0 / 0    | -17.5 -17.5 | 0.11 (4) 10.00 |
| 19-18 | 0 / 1888 | -17.5 -17.5 | 0.35 (1) 10.00 |
| 18-17 | 0 / 1747 | -17.5 -17.5 | 0.34 (1) 10.00 |
| 17-16 | 0 / 1747 | -17.5 -17.5 | 0.34 (1) 10.00 |
| 16-15 | 0 / 1799 | -17.5 -17.5 | 0.35 (1) 10.00 |
| 15-14 | 0 / 2023 | -17.5 -17.5 | 0.37 (1) 10.00 |
| 14-13 | 0 / 2023 | -17.5 -17.5 | 0.37 (1) 10.00 |
| 13-12 | 0 / 0    | -17.5 -17.5 | 0.12 (4) 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 (1.08")  
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=0.38 (9-10:1), BC=0.37 (13-15:1), WB=0.46 (10-13:1), SSI=0.18 (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.

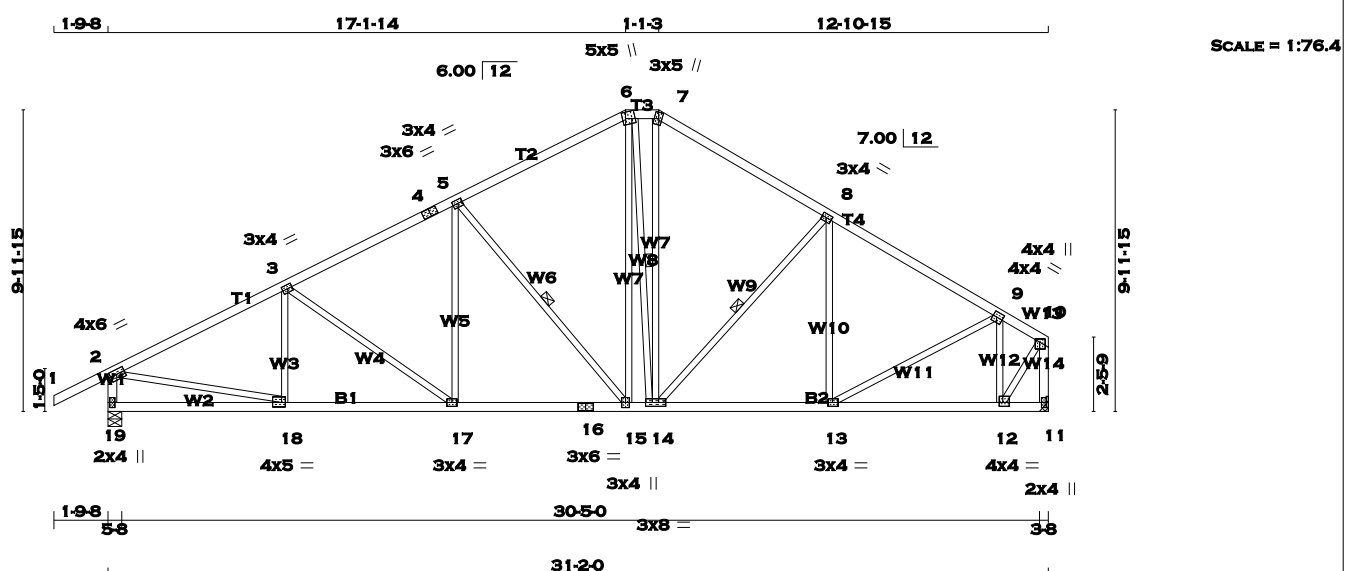
JSI GRIP= 0.89 (19) (INPUT = 0.90)  
JSI METAL= 0.61 (13) (INPUT = 1.00)

March 15th, 2017

RECEIVED  
TOWN OF MILTON  
MAR 29, 2017  
17-5246  
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 = 2 X 151 = 302 lb  
[M][F]

| LUMBER                |      |        |      | DESCR. |
|-----------------------|------|--------|------|--------|
| CHORDS                | SIZE | LUMBER |      |        |
| 1 - 4                 | 2x4  | DRY    | No.2 | SPF    |
| 4 - 6                 | 2x4  | DRY    | No.2 | SPF    |
| 6 - 7                 | 2x4  | DRY    | No.2 | SPF    |
| 7 - 10                | 2x4  | DRY    | No.2 | SPF    |
| 19 - 2                | 2x4  | DRY    | No.2 | SPF    |
| 11 - 10               | 2x4  | DRY    | No.2 | SPF    |
| 19 - 16               | 2x4  | DRY    | No.2 | SPF    |
| 16 - 11               | 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 | X         |
| 3, 5, 8                     | TMVW-t  | MT20   | 4.0 | 6.0 | 1.75 2.75 |
| 3                           | TMWW-t  | MT20   | 3.0 | 4.0 | 1.50 1.75 |
| 4                           | TS-t    | MT20   | 3.0 | 6.0 |           |
| 6                           | TTWW+m  | MT20   | 5.0 | 5.0 | 2.50 1.25 |
| 7                           | TTW+m   | MT20   | 3.0 | 5.0 | 2.50 1.25 |
| 9                           | TMWW-t  | MT20   | 4.0 | 4.0 | 2.00 1.50 |
| 10                          | TMVW+p  | MT20   | 4.0 | 4.0 | 1.25 1.75 |
| 11                          | BMV1+p  | MT20   | 2.0 | 4.0 |           |
| 12                          | BMWW-t  | MT20   | 4.0 | 4.0 | 1.50 1.50 |
| 13                          | BMWW-t  | MT20   | 3.0 | 4.0 | 1.50 1.75 |
| 14                          | BMWWW-t | MT20   | 3.0 | 8.0 |           |
| 15                          | BMWW+t  | MT20   | 3.0 | 4.0 |           |
| 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 MIITEK MII20 WITH TEE-LOK TL20 PLATES IS ALLOWED.



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

| FACTORED<br>GROSS REACTION |      |      | MAXIMUM FACTORED<br>GROSS REACTION |      |        | INPUT<br>BRG     | REQRD<br>BRG        |
|----------------------------|------|------|------------------------------------|------|--------|------------------|---------------------|
| JT                         | VERT | HORZ | DOWN                               | HORZ | UPLIFT | IN-SX            | IN-SX               |
| 19                         | 1622 | 0    | 1622                               | 0    | 0      | 5-8              | 5-8                 |
| 11                         | 1478 | 0    | 1478                               | 0    | 0      | HANGER BY OTHERS |                     |
|                            |      |      |                                    |      |        |                  | MIN. SEAT SIZE: 3-8 |

| UNFACTORED REACTIONS |           |           |           |           |           |           |           |
|----------------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| JT                   | 1ST LCASE | 2ND LCASE | 3RD LCASE | 4TH LCASE | 5TH LCASE | 6TH LCASE | 7TH LCASE |
| 19                   | 1135      | 812 / 0   | 0 / 0     | 0 / 0     | 0 / 0     | 323 / 0   | 0 / 0     |
| 11                   | 1037      | 726 / 0   | 0 / 0     | 0 / 0     | 0 / 0     | 312 / 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 = 4.42 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, 6-14, 8-14. 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: (4)

| CHORDS |                           |                           |                               | WEBS  |                           |                           |                               |
|--------|---------------------------|---------------------------|-------------------------------|-------|---------------------------|---------------------------|-------------------------------|
| MEMB.  | MAX. FACTORED FORCE (LBS) | FACTORED VERT. LOAD (PLF) | MAX. FACTORED VERT. LOAD (LC) | MEMB. | MAX. FACTORED FORCE (LBS) | FACTORED VERT. LOAD (PLF) | MAX. FACTORED VERT. LOAD (LC) |
| FR-TO  |                           | FROM TO                   | CSI (LC)                      | FR-TO |                           | FROM TO                   | CSI (LC)                      |
| 1-2    | 0 / 32                    | -77.3 -77.3               | 0.19 (1)                      | 10.00 | 18-3                      | -236 / 24                 | 0.07 (1)                      |
| 2-3    | -2007 / 0                 | -77.3 -77.3               | 0.39 (1)                      | 4.42  | 3-17                      | -254 / 0                  | 0.23 (1)                      |
| 3-4    | -1795 / 0                 | -77.3 -77.3               | 0.32 (1)                      | 4.70  | 17-5                      | 0 / 256                   | 0.06 (1)                      |
| 4-5    | -1795 / 0                 | -77.3 -77.3               | 0.32 (1)                      | 4.70  | 5-15                      | -677 / 0                  | 0.38 (1)                      |
| 5-6    | -1329 / 0                 | -77.3 -77.3               | 0.31 (1)                      | 5.27  | 15-6                      | 0 / 496                   | 0.11 (1)                      |
| 6-7    | -1163 / 0                 | -77.3 -77.3               | 0.03 (1)                      | 5.90  | 6-14                      | -125 / 0                  | 0.09 (1)                      |
| 7-8    | -1366 / 0                 | -77.3 -77.3               | 0.33 (1)                      | 5.20  | 14-7                      | 0 / 461                   | 0.10 (1)                      |
| 8-9    | -1535 / 0                 | -77.3 -77.3               | 0.33 (1)                      | 4.98  | 14-8                      | -266 / 0                  | 0.13 (1)                      |
| 9-10   | -866 / 0                  | -77.3 -77.3               | 0.14 (1)                      | 6.25  | 13-8                      | -209 / 26                 | 0.16 (1)                      |
| 19-2   | -1577 / 0                 | 0.0 0.0                   | 0.16 (1)                      | 6.57  | 13-9                      | 0 / 630                   | 0.14 (1)                      |
| 11-10  | -1484 / 0                 | 0.0 0.0                   | 0.19 (1)                      | 6.73  | 12-9                      | -963 / 0                  | 0.19 (1)                      |
|        |                           |                           |                               |       | 2-18                      | 0 / 1844                  | 0.41 (1)                      |
|        |                           |                           |                               |       | 12-10                     | 0 / 1307                  | 0.29 (1)                      |
| 19-18  | 0 / 0                     | -17.5 -17.5               | 0.13 (4)                      | 10.00 |                           |                           |                               |
| 18-17  | 0 / 1812                  | -17.5 -17.5               | 0.36 (1)                      | 10.00 |                           |                           |                               |
| 17-16  | 0 / 1606                  | -17.5 -17.5               | 0.32 (1)                      | 10.00 |                           |                           |                               |
| 16-15  | 0 / 1606                  | -17.5 -17.5               | 0.32 (1)                      | 10.00 |                           |                           |                               |
| 15-14  | 0 / 1176                  | -17.5 -17.5               | 0.29 (1)                      | 10.00 |                           |                           |                               |
| 14-13  | 0 / 1337                  | -17.5 -17.5               | 0.31 (1)                      | 10.00 |                           |                           |                               |
| 13-12  | 0 / 784                   | -17.5 -17.5               | 0.17 (1)                      | 10.00 |                           |                           |                               |
| 12-11  | 0 / 0                     | -17.5 -17.5               | 0.08 (4)                      | 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 (1.04")  
CALCULATED VERT. DEFL.(LL) = L/999 (0.09")  
ALLOWABLE DEFL.(TL)= L/360 (1.04")  
CALCULATED VERT. DEFL.(TL) = L/999 (0.17")

CSI: TC=0.39 (2-3:1), BC=0.36 (17-18:1), WB=0.41 (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.

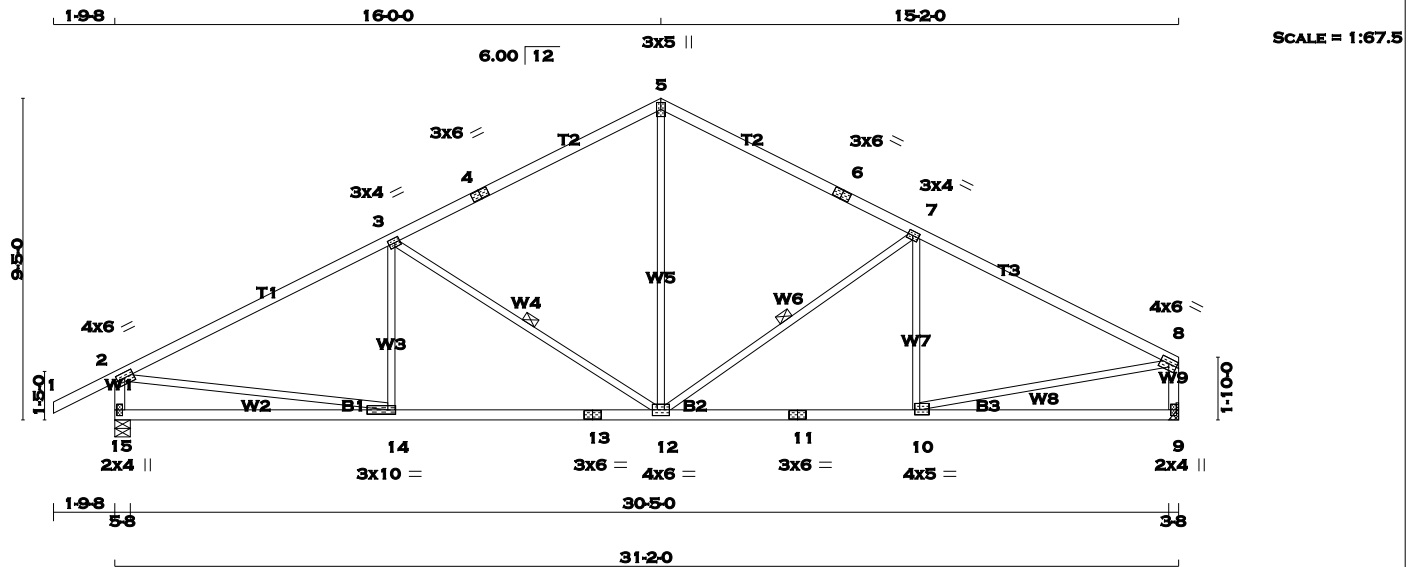
JSI GRIP= 0.90 (13) (INPUT = 0.90)  
JSI METAL= 0.54 (18) (INPUT = 1.00)

March 15th, 2017

RECEIVED  
TOWN OF MILTON  
MAR 29, 2017  
17-5246  
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 = 8 X 123 = 983 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 |
| 15- 2                 | 2x4  | DRY    | No.2   | SPF |
| 9 - 8                 | 2x4  | DRY    | No.2   | SPF |
| 15- 13                | 2x4  | DRY    | No.2   | SPF |
| 13- 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                                                                                | TMVW-t  | MT20   | 4.0 | 6.0  | 1.75 2.75 |
| 3                                                                                | TMWW-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                                                                                | TMWW-t  | MT20   | 3.0 | 4.0  | 1.50 1.75 |
| 8                                                                                | TMVW-t  | MT20   | 4.0 | 6.0  | 1.75 Edge |
| 9                                                                                | BMV1+p  | MT20   | 2.0 | 4.0  |           |
| 10                                                                               | BMWW-t  | MT20   | 4.0 | 5.0  | 1.75 1.75 |
| 11                                                                               | BS-t    | MT20   | 3.0 | 6.0  |           |
| 12                                                                               | BMWWW-t | MT20   | 4.0 | 6.0  |           |
| 13                                                                               | BS-t    | MT20   | 3.0 | 6.0  |           |
| 14                                                                               | BMWW-t  | MT20   | 3.0 | 10.0 | 1.50 2.75 |
| 15                                                                               | 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     |  |
| 15                                                                                            |  | 1622                    | 0    | 1622                            | 0    | 0      | 5-8              | 5-8       |  |
| 9                                                                                             |  | 1478                    | 0    | 1478                            | 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    |
| 15                   |  | 1135      | 812 / 0                       | 0 / 0 | 0 / 0     | 0 / 0 | 323 / 0 |
| 9                    |  | 1037      | 726 / 0                       | 0 / 0 | 0 / 0     | 0 / 0 | 312 / 0 |

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

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

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

1 - 2x3 SPF No.2 LATERAL BRACE(S) AT 1/2 LENGTH OF 3-12, 7-12. DBS = 20-0-0 . CBF = 87 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: (4) |               |             |            |          |         |           |               |          |      |
| C H O R D S           |               |             |            |          | W E B S |           |               |          |      |
| MEMB.                 | MAX. FACTORED | FACTORED    | VERT. LOAD | LC1 MAX  | MAX.    | MEMB.     | MAX. FACTORED | FACTORED |      |
|                       | FORCE (LBS)   | (PLF)       |            | CSI (LC) | UNBRAC  |           | FORCE (LBS)   | MAX      | (LC) |
| FR-TO                 |               | FROM TO     |            |          | LENGTH  | FR-TO     |               |          |      |
| 1- 2                  | 0 / 32        | -77.3 -77.3 | 0.19 (1)   | 10.00    | 14- 3   | -97 / 105 | 0.04 (1)      |          |      |
| 2- 3                  | -2040 / 0     | -77.3 -77.3 | 0.85 (1)   | 3.70     | 3-12    | -696 / 0  | 0.44 (1)      |          |      |
| 3- 4                  | -1456 / 0     | -77.3 -77.3 | 0.74 (1)   | 4.38     | 12- 5   | 0 / 826   | 0.19 (1)      |          |      |
| 4- 5                  | -1456 / 0     | -77.3 -77.3 | 0.74 (1)   | 4.38     | 12- 7   | -542 / 0  | 0.32 (1)      |          |      |
| 5- 6                  | -1455 / 0     | -77.3 -77.3 | 0.66 (1)   | 4.55     | 10- 7   | -193 / 68 | 0.10 (1)      |          |      |
| 6- 7                  | -1455 / 0     | -77.3 -77.3 | 0.66 (1)   | 4.55     | 2-14    | 0 / 1872  | 0.42 (1)      |          |      |
| 7- 8                  | -1883 / 0     | -77.3 -77.3 | 0.73 (1)   | 4.03     | 10- 8   | 0 / 1746  | 0.39 (1)      |          |      |
| 15- 2                 | -1564 / 0     | 0.0         | 0.0        | 0.16 (1) | 6.59    |           |               |          |      |
| 9- 8                  | -1423 / 0     | 0.0         | 0.0        | 0.16 (1) | 6.84    |           |               |          |      |
| 15-14                 | 0 / 0         | -17.5 -17.5 | 0.27 (4)   | 10.00    |         |           |               |          |      |
| 14-13                 | 0 / 1855      | -17.5 -17.5 | 0.44 (1)   | 10.00    |         |           |               |          |      |
| 13-12                 | 0 / 1855      | -17.5 -17.5 | 0.44 (1)   | 10.00    |         |           |               |          |      |
| 12-11                 | 0 / 1712      | -17.5 -17.5 | 0.40 (1)   | 10.00    |         |           |               |          |      |
| 11-10                 | 0 / 1712      | -17.5 -17.5 | 0.40 (1)   | 10.00    |         |           |               |          |      |
| 10- 9                 | 0 / 0         | -17.5 -17.5 | 0.24 (4)   | 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 (1.04")  
CALCULATED VERT. DEFL.(LL) = L/ 999 (0.10")  
ALLOWABLE DEFL.(TL)= L/360 (1.04")  
CALCULATED VERT. DEFL.(TL) = L/ 999 (0.20")

CSI: TC=0.85 (2-3:1) , BC=0.44 (12-14:1) , WB=0.44 (3-12:1) , 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.

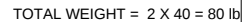
JSI GRIP= 0.89 (14) (INPUT = 0.90)  
JSI METAL= 0.56 (2) (INPUT = 1.00)

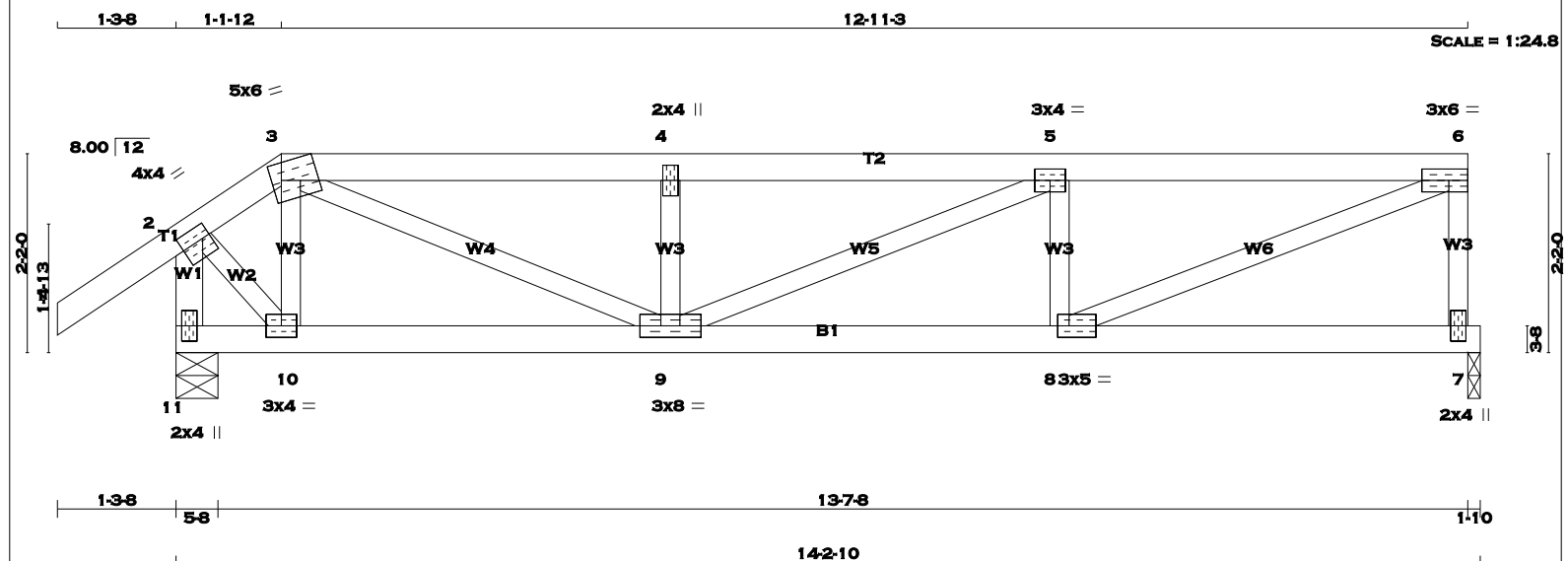
March 15th, 2017

RECEIVED  
TOWN OF MILTON  
MAR 29, 2017  
17-5246  
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 =  $2 \times 52 = 105 \text{ lb}$

| LUMBER                |      |     |        |        |
|-----------------------|------|-----|--------|--------|
| N. L. G. A. RULES     |      |     |        |        |
| CHORDS                | SIZE |     | LUMBER | DESCR. |
| 1 - 3                 | 2x4  | DRY | No.2   | SPF    |
| 3 - 6                 | 2x4  | DRY | No.2   | SPF    |
| 7 - 6                 | 2x3  | DRY | No.2   | SPF    |
| 11- 2                 | 2x4  | DRY | No.2   | SPF    |
| 11- 7                 | 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 | 4.0 | 1.75 | 1.00 |
| 3                           | TTWW-m   | MT20   | 5.0 | 6.0 | Edge | 4.75 |
| 4                           | TMW+w    | MT20   | 2.0 | 4.0 |      |      |
| 5                           | TMVW-t   | MT20   | 3.0 | 4.0 |      |      |
| 6                           | TMVW-t   | MT20   | 3.0 | 6.0 |      | Edge |
| 7                           | BMV1+p   | MT20   | 2.0 | 4.0 |      |      |
| 8                           | BMVW-t   | MT20   | 3.0 | 5.0 | 1.50 | 1.50 |
| 9                           | BMVWWW-t | MT20   | 3.0 | 8.0 |      |      |
| 10                          | BMVW-t   | MT20   | 3.0 | 4.0 |      |      |
| 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                        |      |           |           |       |
|-----------------------------------------------------------------------------------------------|-------------------------|------|---------------------------------|------|-----------|-----------|-------|
| JT                                                                                            | FACTORED GROSS REACTION |      | MAXIMUM FACTORED GROSS REACTION |      | INPUT BRG | REQRD BRG |       |
|                                                                                               | VERT                    | HORZ | DOWN                            | HORZ | UPLIFT    | IN-SX     | IN-SX |
| 7                                                                                             | 663                     | 0    | 663                             | 0    | 0         | 1-10      | 1-10  |
| 11                                                                                            | 779                     | 0    | 779                             | 0    | 0         | 5-8       | 5-8   |

### UNFACTORED REACTIONS

| 1ST LCASE |          | MAX./MIN. COMPONENT REACTIONS |      |           |      |       |      |
|-----------|----------|-------------------------------|------|-----------|------|-------|------|
| JT        | COMBINED | SNOW                          | LIVE | PERM.LIVE | WIND | DEAD  | SOIL |
| 7         | 465      | 325/0                         | 0/0  | 0/0       | 0/0  | 140/0 | 0/0  |
| 11        | 544      | 395/0                         | 0/0  | 0/0       | 0/0  | 149/0 | 0/0  |

BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S) 7, 11

## BRACING

TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 5.56 FT.  
MAX. UNBRACED BOTTOM CHORD LENGTH = 10.00 FT. OR RIGID CEILING DIRECTLY  
APPLIED.

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

## LOADING

**TOTAL LOAD CASES: (4)**

| 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 |
| FR-TO       | (LBS)         | (PLF)      | CSI (LC) | LENGTH   | FR-TO   | (LBS) | CSI (LC)      |          |     |
| 1-2         | 0 / 29        | -77.3      | -77.3    | 0.10 (1) | 10.00   | 10-3  | -243 / 0      | 0.04 (1) |     |
| 2-3         | -492 / 0      | -77.3      | -77.3    | 0.10 (1) | 10.00   | 3-9   | 0 / 939       | 0.21 (1) |     |
| 3-4         | -1224 / 0     | -77.3      | -77.3    | 0.19 (1) | 5.58    | 9-4   | -348 / 0      | 0.05 (1) |     |
| 4-5         | -1224 / 0     | -77.3      | -77.3    | 0.20 (1) | 5.56    | 9-5   | 0 / 80        | 0.02 (1) |     |
| 5-6         | -1150 / 0     | -77.3      | -77.3    | 0.20 (1) | 5.69    | 8-5   | -401 / 0      | 0.06 (1) |     |
| 7-6         | -628 / 0      | 0.0        | 0.0      | 0.10 (1) | 7.81    | 8-6   | 0 / 1248      | 0.28 (1) |     |
| 11-2        | -796 / 0      | 0.0        | 0.0      | 0.08 (1) | 7.81    | 2-10  | 0 / 498       | 0.11 (1) |     |
| 11-10       | 0 / 0         | -17.5      | -17.5    | 0.05 (4) | 10.00   |       |               |          |     |
| 10-9        | 0 / 364       | -17.5      | -17.5    | 0.11 (1) | 10.00   |       |               |          |     |
| 9-8         | 0 / 1150      | -17.5      | -17.5    | 0.23 (1) | 10.00   |       |               |          |     |
| 8-7         | 0 / 0         | -17.5      | -17.5    | 0.07 (4) | 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

## 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 (0.47")  
CALCULATED VERT. DEFL.(LL) = L/ 999 (0.04")  
ALLOWABLE DEFL.(TL)= L/360 (0.47")  
CALCULATED VERT. DEFL.(TL) = L/ 999 (0.08")

CSI: TC=0.20 (5-6:1), BC=0.23 (8-9:1), WB=0.28 (6-8:1), SSI=0.16 (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

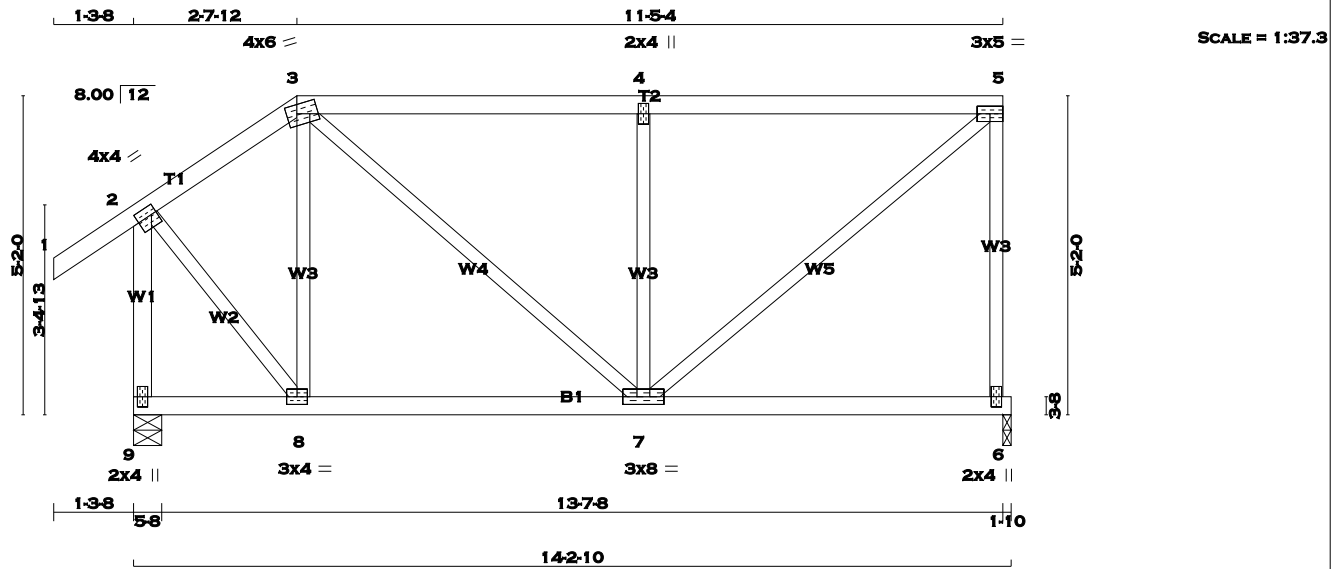
PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.87 (9) (INPUT = 0.90 )  
JSI METAL= 0.34 (8) (INPUT = 1.00 )

RECEIVED  
TOWN OF MILTON  
MAR 29, 2017  
17-5246  
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.**



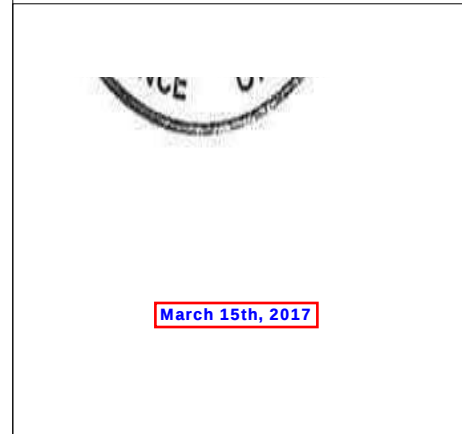


TOTAL WEIGHT = 2 X 64 = 128 lb [M]

| 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                 | 2x3    | DRY  | No.2   | SPF    |
| 9 - 2                 | 2x4    | DRY  | No.2   | SPF    |
| 9 - 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   | 4.0 | 4.0 | 1.75 | 1.00 |
| 3                           | TTWW-m  | MT20   | 4.0 | 6.0 | 1.75 | 2.00 |
| 4                           | TMW+w   | MT20   | 2.0 | 4.0 |      |      |
| 5                           | TMVW-t  | MT20   | 3.0 | 5.0 |      |      |
| 6                           | BMV1+p  | MT20   | 2.0 | 4.0 |      |      |
| 7                           | BMWWW-t | MT20   | 3.0 | 8.0 |      |      |
| 8                           | BMWW-t  | MT20   | 3.0 | 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       |      | 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 |
| 6              | 668  | 0              | 668  | 0                | 0      | 1-10  | 1-10  | 1-10  | 1-10  |
| 9              | 774  | 0              | 774  | 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  |
| 6                    | 469      | 328 / 0                       | 0 / 0 | 0 / 0     | 0 / 0 | 141 / 0 | 0 / 0 |
| 9                    | 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, 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: (4)

| CHORDS |          |             |                  | WEBS  |     |             |                  |
|--------|----------|-------------|------------------|-------|-----|-------------|------------------|
| MEMB.  |          | FACTORED    |                  | MEMB. |     | FACTORED    |                  |
| FR-TO  |          | FORCE (LBS) | VERT. LOAD (PLF) | FR-TO |     | FORCE (LBS) | VERT. LOAD (PLF) |
| 1-2    | 0 / 29   | -77.3       | -77.3 0.10 (1)   | 10.00 | 8-3 | -266 / 0    | 0.11 (1)         |
| 2-3    | -372 / 0 | -77.3       | -77.3 0.09 (1)   | 6.25  | 3-7 | 0 / 316     | 0.07 (1)         |
| 3-4    | -541 / 0 | -77.3       | -77.3 0.43 (1)   | 6.25  | 7-4 | -548 / 0    | 0.22 (1)         |
| 4-5    | -542 / 0 | -77.3       | -77.3 0.44 (1)   | 6.25  | 7-5 | 0 / 706     | 0.16 (1)         |
| 6-5    | -626 / 0 | 0.0         | 0.0 0.40 (1)     | 7.81  | 2-8 | 0 / 463     | 0.10 (1)         |
| 9-2    | -761 / 0 | 0.0         | 0.0 0.15 (1)     | 7.81  |     |             |                  |
| 9-8    | 0 / 0    | -17.5       | -17.5 0.07 (4)   | 10.00 |     |             |                  |
| 8-7    | 0 / 303  | -17.5       | -17.5 0.17 (4)   | 10.00 |     |             |                  |
| 7-6    | 0 / 0    | -17.5       | -17.5 0.14 (4)   | 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 (0.47")  
CALCULATED VERT. DEFL.(LL) = L/ 999 (0.02")  
ALLOWABLE DEFL.(TL)= L/360 (0.47")  
CALCULATED VERT. DEFL.(TL) = L/ 999 (0.04")

CSI: TC=0.44 (4-5:1), BC=0.17 (7-8:4), WB=0.22 (4-7:1), 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.

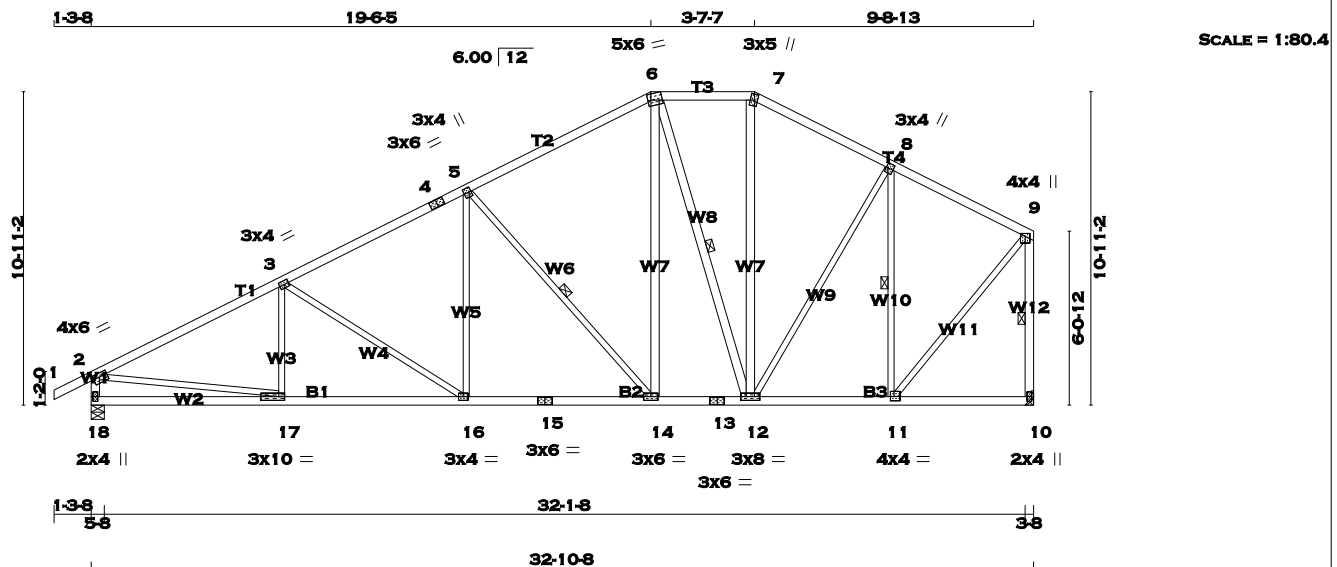
JSI GRIP= 0.82 (5) (INPUT = 0.90 )  
JSI METAL= 0.18 (2) (INPUT = 1.00 )

RECEIVED  
TOWN OF MILTON  
MAR 29, 2017  
17-5246  
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 =  $2 \times 172 = 344$  lb

| 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    |
| 18 - 2             | 2x4  | DRY | No.2   | SPF    |
| 10 - 9             | 2x4  | DRY | No.2   | SPF    |
| 18 - 15            | 2x4  | DRY | No.2   | SPF    |
| 15 - 13            | 2x4  | DRY | No.2   | SPF    |
| 13 - 10            | 2x4  | DRY | No.2   | SPF    |
| ALL WEBS<br>EXCEPT | 2x3  | DRY | No.2   | SPF    |
| 14 - 6             | 2x4  | DRY | No.2   | SPF    |
| 6 - 12             | 2x4  | DRY | No.2   | SPF    |
| 12 - 7             | 2x4  | DRY | No.2   | SPF    |

DRY: SEASONED LUMBER.

| 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  | TS-t    | MT20   | 3.0 | 6.0  |      |      |
| 5  | TMWW+t  | MT20   | 3.0 | 4.0  | Edge | 0.75 |
| 6  | TTVW-m  | MT20   | 5.0 | 6.0  | 2.00 | 0.75 |
| 7  | TTW+m   | MT20   | 3.0 | 5.0  | 2.50 | 1.25 |
| 8  | TMWW+t  | MT20   | 3.0 | 4.0  | 2.00 | 0.75 |
| 9  | TMVW+p  | MT20   | 4.0 | 4.0  | 1.25 | 2.00 |
| 10 | BMV1+p  | MT20   | 2.0 | 4.0  |      |      |
| 11 | BMWW-t  | MT20   | 4.0 | 4.0  | 1.75 | 1.50 |
| 12 | BMWWW-t | MT20   | 3.0 | 8.0  |      |      |
| 13 | BS-t    | MT20   | 3.0 | 6.0  |      |      |
| 14 | BMWW-t  | MT20   | 3.0 | 6.0  |      |      |
| 15 | BS-t    | MT20   | 3.0 | 6.0  |      |      |
| 16 | BMWW-t  | MT20   | 3.0 | 4.0  |      |      |
| 17 | BMWW-t  | MT20   | 3.0 | 10.0 | 1.50 | 2.50 |
| 18 | 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<br>GROSS REACTION |      |      | MAXIMUM FACTORED<br>GROSS REACTION |      |        | INPUT<br>BRG                            | REQRD<br>BRG |
|----------------------------|------|------|------------------------------------|------|--------|-----------------------------------------|--------------|
| JT                         | VERT | HORZ | DOWN                               | HORZ | UPLIFT | IN-SX                                   | IN-SX        |
| 18                         | 1664 | 0    | 1664                               | 0    | 0      | 5-8                                     | 5-8          |
| 10                         | 1559 | 0    | 1559                               | 0    | 0      | HANGER BY OTHERS<br>MIN. SEAT SIZE: 3-8 |              |

### UNFACTORED REACTIONS

| 1ST LCASE |          | MAX./MIN. COMPONENT REACTIONS |       |           |       |         |       |
|-----------|----------|-------------------------------|-------|-----------|-------|---------|-------|
| JT        | COMBINED | SNOW                          | LIVE  | PERM.LIVE | WIND  | DEAD    | SOIL  |
| 18        | 1165     | 829 / 0                       | 0 / 0 | 0 / 0     | 0 / 0 | 337 / 0 | 0 / 0 |
| 10        | 1094     | 765 / 0                       | 0 / 0 | 0 / 0     | 0 / 0 | 329 / 0 | 0 / 0 |

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

## 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 5-14. DBS = 18-0-0 . CBF = 93 LBS.  
1 - 2x3 SPF No.2 LATERAL BRACE(S) AT 1/2 LENGTH OF 6-12. DBS = 20-0-0 . CBF = 62 LBS.  
1 - 2x3 SPF No.2 LATERAL BRACE(S) AT 1/2 LENGTH OF 8-11. DBS = 16-0-0 . CBF = 86 LBS.  
1 - 2x3 SPF No.2 LATERAL BRACE(S) AT 1/2 LENGTH OF 9-10. DBS = 8-0-0 . CBF = 76 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: (4)**

| CHORDS |                            |                                 |                     | WEBS           |       |                            |                 |
|--------|----------------------------|---------------------------------|---------------------|----------------|-------|----------------------------|-----------------|
| MEMB.  | FACTORED<br>FORCE<br>(LBS) | FACTORED<br>VERT. LOAD<br>(PLF) | LC1 MAX<br>CSI (LC) | MAX.<br>UNBRAC | MEMB. | FACTORED<br>FORCE<br>(LBS) | MAX<br>CSI (LC) |
| FR-TO  |                            | FROM TO                         |                     | LENGTH         | FR-TO |                            |                 |
| 1-2    | 0 / 23                     | -77.3                           | -77.3 0.10 (1)      | 10.00          | 17-3  | -144 / 64                  | 0.04 (1)        |
| 2-3    | -2289 / 0                  | -77.3                           | -77.3 0.54 (1)      | 4.03           | 3-16  | -426 / 0                   | 0.51 (1)        |
| 3-4    | -1912 / 0                  | -77.3                           | -77.3 0.43 (1)      | 4.47           | 16-5  | 0 / 349                    | 0.08 (1)        |
| 4-5    | -1912 / 0                  | -77.3                           | -77.3 0.43 (1)      | 4.47           | 5-14  | -830 / 0                   | 0.58 (1)        |
| 5-6    | -1317 / 0                  | -77.3                           | -77.3 0.42 (1)      | 5.16           | 14-6  | 0 / 711                    | 0.11 (1)        |
| 6-7    | -1014 / 0                  | -77.3                           | -77.3 0.14 (1)      | 6.07           | 6-12  | -495 / 0                   | 0.34 (1)        |
| 7-8    | -1151 / 0                  | -77.3                           | -77.3 0.25 (1)      | 5.65           | 12-7  | 0 / 229                    | 0.04 (1)        |
| 8-9    | -909 / 0                   | -77.3                           | -77.3 0.24 (1)      | 6.18           | 12-8  | 0 / 352                    | 0.08 (1)        |
| 18-2   | -1614 / 0                  | 0.0                             | 0.0 0.16 (1)        | 6.51           | 11-8  | -861 / 0                   | 0.40 (1)        |
| 10-9   | -1525 / 0                  | 0.0                             | 0.0 0.28 (1)        | 5.32           | 2-17  | 0 / 2084                   | 0.47 (1)        |
|        |                            |                                 |                     |                | 11-9  | 0 / 1270                   | 0.29 (1)        |
| 18-17  | 0 / 0                      | -17.5                           | -17.5 0.17 (4)      | 10.00          |       |                            |                 |
| 17-16  | 0 / 2067                   | -17.5                           | -17.5 0.41 (1)      | 10.00          |       |                            |                 |
| 16-15  | 0 / 1710                   | -17.5                           | -17.5 0.35 (1)      | 10.00          |       |                            |                 |
| 15-14  | 0 / 1710                   | -17.5                           | -17.5 0.35 (1)      | 10.00          |       |                            |                 |
| 14-13  | 0 / 1167                   | -17.5                           | -17.5 0.24 (1)      | 10.00          |       |                            |                 |
| 13-12  | 0 / 1167                   | -17.5                           | -17.5 0.24 (1)      | 10.00          |       |                            |                 |
| 12-11  | 0 / 831                    | -17.5                           | -17.5 0.19 (1)      | 10.00          |       |                            |                 |
| 11-10  | 0 / 0                      | -17.5                           | -17.5 0.11 (4)      | 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)=  $L/360$  (1.10")  
 CALCULATED VERT. DEFL.(LL) =  $L/999$  (0.10")  
 ALLOWABLE DEFL.(TL)=  $L/360$  (1.10")  
 CALCULATED VERT. DEFL.(TL) =  $L/999$  (0.19")

CSI: TC=0.54 (2-3:1), BC=0.41 (16-17:1),  
WB=0.58 (5-14:1), 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 ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.90 (5) (INPUT = 0.90 )  
JSI METAL= 0.61 (2) (INPUT = 1.00 )

RECEIVED  
TOWN OF MILTON

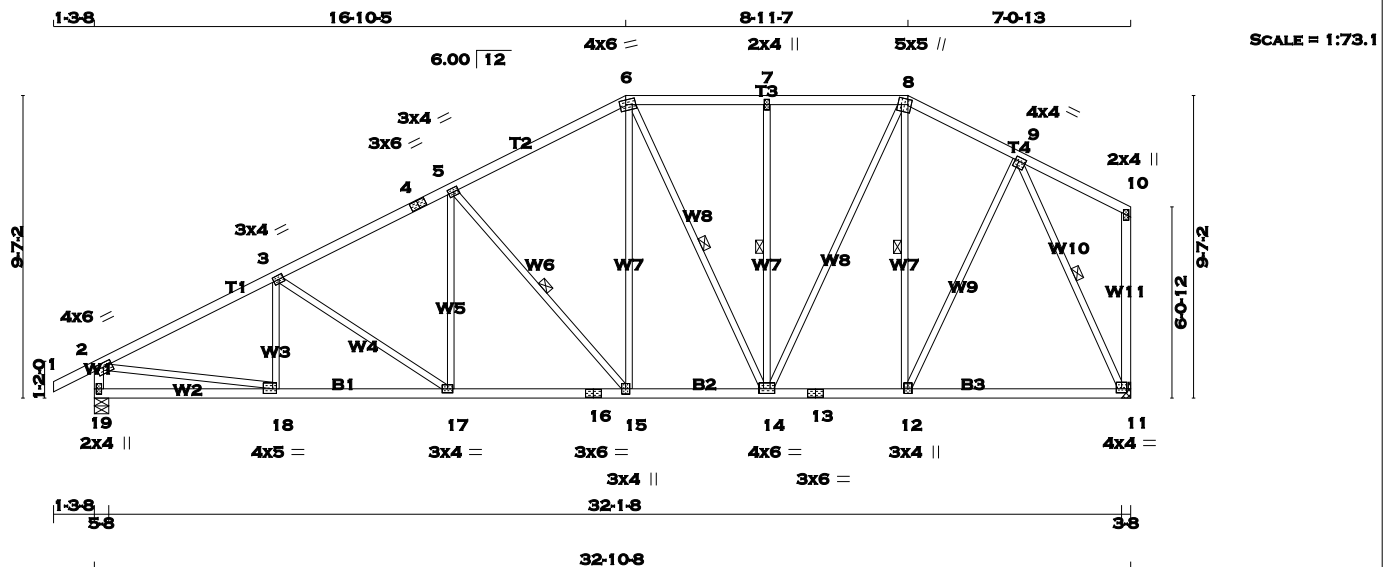
MAR 29, 2017

17-5246

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 = 2 X 163 = 326 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    |
| 8 - 10                | 2x4  | DRY | No.2   | SPF    |
| 19 - 2                | 2x4  | DRY | No.2   | SPF    |
| 11 - 10               | 2x4  | DRY | No.2   | SPF    |
| 19 - 16               | 2x4  | DRY | No.2   | SPF    |
| 16 - 13               | 2x4  | DRY | No.2   | SPF    |
| 13 - 11               | 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 | 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                           | TMWW-t  | MT20   | 3.0 | 4.0 | 1.50 1.75 |
| 6                           | TTWW-m  | MT20   | 4.0 | 6.0 | 1.75 2.25 |
| 7                           | TMW+w   | MT20   | 2.0 | 4.0 |           |
| 8                           | TTWW+m  | MT20   | 5.0 | 5.0 | 2.00 1.25 |
| 9                           | TMWW-t  | MT20   | 4.0 | 4.0 | 1.50 1.50 |
| 10                          | TMV+p   | MT20   | 2.0 | 4.0 |           |
| 11                          | BMVW1-t | MT20   | 4.0 | 4.0 | 1.50 2.00 |
| 12                          | BMWW+t  | MT20   | 3.0 | 4.0 | 1.75 1.50 |
| 13                          | BS-t    | MT20   | 3.0 | 6.0 |           |
| 14                          | BMWWW-t | MT20   | 4.0 | 6.0 | 1.75 3.00 |
| 15                          | BMWW+t  | MT20   | 3.0 | 4.0 |           |
| 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       |      | MAXIMUM FACTORED |      | INPUT  |                  | REQRD |       |
|---------------------|------|----------------|------|------------------|------|--------|------------------|-------|-------|
| JT                  | VERT | GROSS REACTION | HORZ | GROSS REACTION   | DOWN | UPLIFT | BRG              | BRG   | IN-SX |
| 19                  | 1664 | 0              | 1664 | 0                | 0    | 5-8    | 5-8              |       |       |
| 11                  | 1559 | 0              | 1559 | 0                | 0    |        | HANGER BY OTHERS |       |       |
| MIN. SEAT SIZE: 3-8 |      |                |      |                  |      |        |                  |       |       |

#### UNFACTORED REACTIONS

| JT | 1ST LCASE | MAX./MIN. | COMPONENT REACTIONS |           |       |         |       |  |  |
|----|-----------|-----------|---------------------|-----------|-------|---------|-------|--|--|
| 19 | 1165      | 829 / 0   | 0 / 0               | PERM.LIVE | WIND  | DEAD    | SOIL  |  |  |
| 11 | 1094      | 765 / 0   | 0 / 0               | 0 / 0     | 0 / 0 | 337 / 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 = 4.19 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, 6-14, 7-14, 8-12. DBS = 20-0-0 . CBF = 84 LBS.  
1 - 2x3 SPF No.2 LATERAL BRACE(S) AT 1/2 LENGTH OF 9-11. DBS = 8-0-0 . CBF = 78 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: (4)

| CHORDS |                           |                           |                           | WEBS  |                           |                           |          |
|--------|---------------------------|---------------------------|---------------------------|-------|---------------------------|---------------------------|----------|
| MEMB.  | MAX. FACTORED FORCE (LBS) | FACTORED VERT. LOAD (PLF) | MAX. UNBRACED LENGTH (LC) | MEMB. | MAX. FACTORED FORCE (LBS) | MAX. UNBRACED LENGTH (LC) |          |
| FR-TO  |                           | FROM TO                   |                           | FR-TO |                           |                           |          |
| 1-2    | 0 / 23                    | -77.3 -77.3               | 0.10 (1)                  | 10.00 | 18-3                      | -201 / 33                 | 0.05 (1) |
| 2-3    | -2278 / 0                 | -77.3 -77.3               | 0.40 (1)                  | 4.19  | 3-17                      | -284 / 0                  | 0.23 (1) |
| 3-4    | -2032 / 0                 | -77.3 -77.3               | 0.32 (1)                  | 4.47  | 17-5                      | 0 / 257                   | 0.06 (1) |
| 4-5    | -2032 / 0                 | -77.3 -77.3               | 0.32 (1)                  | 4.47  | 5-15                      | -674 / 0                  | 0.34 (1) |
| 5-6    | -1557 / 0                 | -77.3 -77.3               | 0.31 (1)                  | 4.96  | 15-6                      | 0 / 605                   | 0.14 (1) |
| 6-7    | -1275 / 0                 | -77.3 -77.3               | 0.21 (1)                  | 5.49  | 6-14                      | -248 / 0                  | 0.19 (1) |
| 7-8    | -1275 / 0                 | -77.3 -77.3               | 0.21 (1)                  | 5.49  | 14-7                      | -422 / 0                  | 0.26 (1) |
| 8-9    | -1073 / 0                 | -77.3 -77.3               | 0.13 (1)                  | 5.95  | 14-8                      | 0 / 772                   | 0.17 (1) |
| 9-10   | 0 / 14                    | -77.3 -77.3               | 0.16 (1)                  | 10.00 | 12-8                      | -458 / 0                  | 0.28 (1) |
| 19-2   | -1620 / 0                 | 0.0 0.0                   | 0.16 (1)                  | 6.50  | 12-9                      | 0 / 652                   | 0.15 (1) |
| 11-10  | -106 / 0                  | 0.0 0.0                   | 0.08 (1)                  | 7.81  | 2-18                      | 0 / 2076                  | 0.47 (1) |
|        |                           |                           |                           | 9-11  | -1551 / 0                 | 0.71 (1)                  |          |
| 19-18  | 0 / 0                     | -17.5 -17.5               | 0.12 (4)                  | 10.00 |                           |                           |          |
| 18-17  | 0 / 2053                  | -17.5 -17.5               | 0.38 (1)                  | 10.00 |                           |                           |          |
| 17-16  | 0 / 1817                  | -17.5 -17.5               | 0.35 (1)                  | 10.00 |                           |                           |          |
| 16-15  | 0 / 1817                  | -17.5 -17.5               | 0.35 (1)                  | 10.00 |                           |                           |          |
| 15-14  | 0 / 1382                  | -17.5 -17.5               | 0.28 (1)                  | 10.00 |                           |                           |          |
| 14-13  | 0 / 940                   | -17.5 -17.5               | 0.27 (1)                  | 10.00 |                           |                           |          |
| 13-12  | 0 / 940                   | -17.5 -17.5               | 0.27 (1)                  | 10.00 |                           |                           |          |
| 12-11  | 0 / 664                   | -17.5 -17.5               | 0.24 (4)                  | 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 (1.10")  
CALCULATED VERT. DEFL.(LL) = L/999 (0.10")  
ALLOWABLE DEFL.(TL)= L/360 (1.10")  
CALCULATED VERT. DEFL.(TL) = L/999 (0.18")

CSI: TC=0.40 (2-3:1), BC=0.38 (17-18:1), WB=0.71 (9-11:1), 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)  
MAX MIN MAX MIN MAX MIN  
MT20 618 354 1667 822 2284 1656

PLATE PLACEMENT TOL. = 0.250 inches

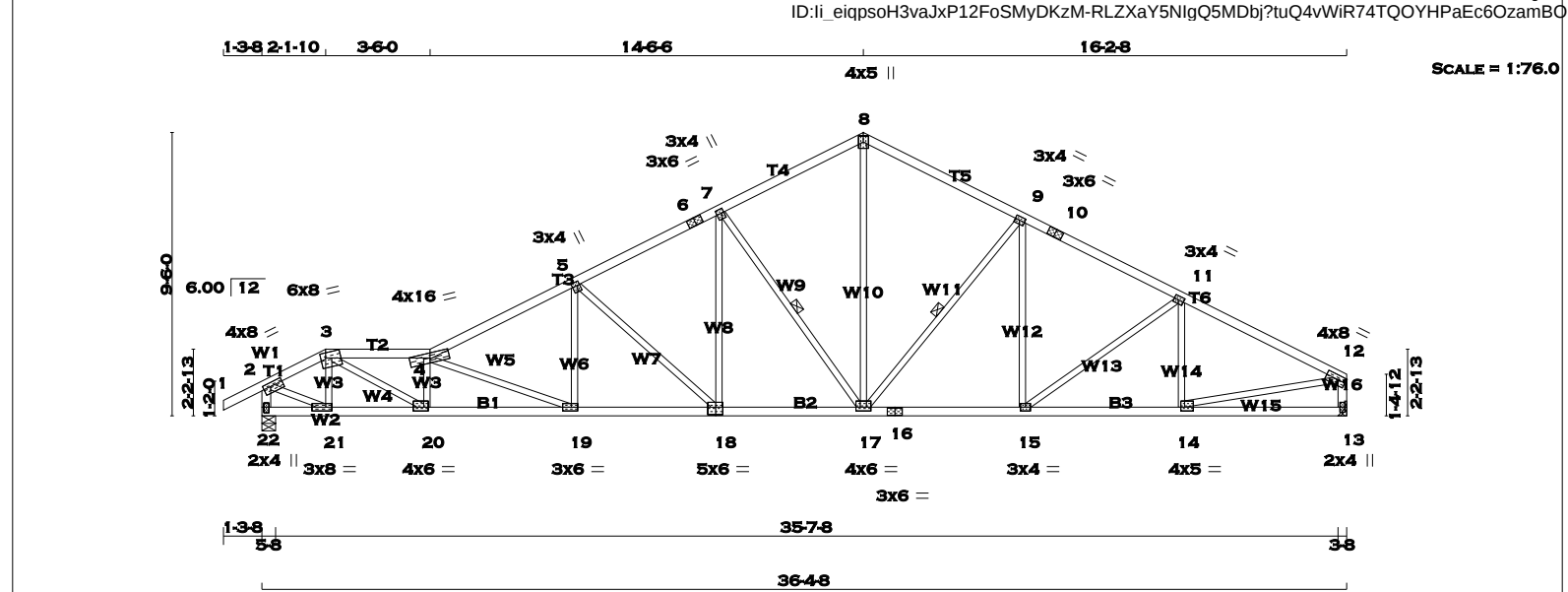
PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.89 (18) (INPUT = 0.90 )  
JSI METAL= 0.62 (18) (INPUT = 1.00 )

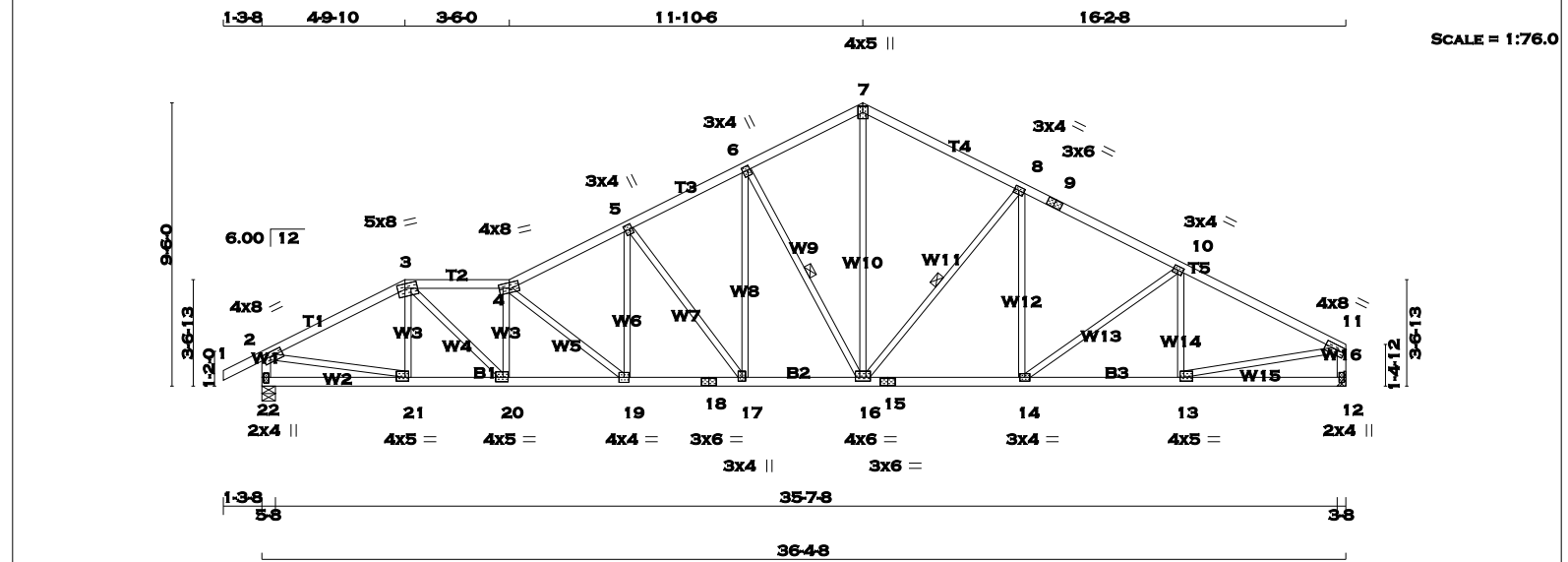
RECEIVED  
TOWN OF MILTON  
MAR 29, 2017  
17-5246  
BUILDING DIVISION

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.<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>22 - 2 2x4 DRY No.2 SPF<br>13 - 12 2x4 DRY No.2 SPF<br>22 - 18 2x4 DRY No.2 SPF<br>18 - 16 2x4 DRY No.2 SPF<br>16 - 13 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 REQD<br>GROSS REACTION GROSS REACTION BRG BRG<br>JT VERT HORZ DOWN HORZ UPLIFT IN-SX IN-SX<br>22 1830 0 1830 0 0 5-8 5-8<br>13 1725 0 1725 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>22 1282 910 / 0 0 / 0 0 / 0 0 / 0 372 / 0 0 / 0<br>13 1211 847 / 0 0 / 0 0 / 0 0 / 0 364 / 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 = 3.25 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>1 - 2x3 SPF No.2 LATERAL BRACE(S) AT 1/2 LENGTH OF 7-17. DBS = 14-0-0. CBF = 90 LBS.<br>1 - 2x3 SPF No.2 LATERAL BRACE(S) AT 1/2 LENGTH OF 9-17. DBS = 20-0-0. CBF = 71 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: (4)<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 21-3 -615 / 0 0.09 (1)<br>2-3 -2069 / 0 -77.3 -77.3 0.09 (1) 4.66 3-20 0 / 2682 0.60 (1)<br>3-4 -4145 / 0 -77.3 -77.3 0.31 (1) 3.25 20-4 -1307 / 0 0.20 (1)<br>4-5 -3345 / 0 -77.3 -77.3 0.38 (1) 3.58 4-19 -1300 / 0 0.61 (1)<br>5-6 -2557 / 0 -77.3 -77.3 0.28 (1) 4.11 19-5 0 / 593 0.13 (1)<br>6-7 -2557 / 0 -77.3 -77.3 0.28 (1) 4.11 5-18 -968 / 0 0.74 (1)<br>7-8 -1907 / 0 -77.3 -77.3 0.26 (1) 4.65 18-7 0 / 720 0.16 (1)<br>8-9 -1909 / 0 -77.3 -77.3 0.31 (1) 4.59 7-17 -1024 / 0 0.48 (1)<br>9-10 -2295 / 0 -77.3 -77.3 0.32 (1) 4.26 17-8 0 / 1372 0.31 (1)<br>10-11 -2295 / 0 -77.3 -77.3 0.32 (1) 4.26 17-9 -569 / 0 0.27 (1)<br>11-12 -2403 / 0 -77.3 -77.3 0.38 (1) 4.11 15-9 0 / 171 0.04 (4)<br>22-2 -1826 / 0 0.0 0.0 0.18 (1) 6.20 15-11 -139 / 0 0.11 (1)<br>13-12 -1683 / 0 0.0 0.0 0.17 (1) 6.40 14-11 -323 / 0 0.08 (1)<br>2-21 0 / 1978 0.45 (1)<br>14-12 0 / 2206 0.50 (1)<br><br>22-21 0 / 0 -17.5 -17.5 0.05 (1) 10.00<br>21-20 0 / 1814 -17.5 -17.5 0.37 (1) 10.00<br>20-19 0 / 4215 -17.5 -17.5 0.78 (1) 10.00<br>19-18 0 / 3008 -17.5 -17.5 0.54 (1) 10.00<br>18-17 0 / 2287 -17.5 -17.5 0.43 (1) 10.00<br>17-16 0 / 2052 -17.5 -17.5 0.39 (1) 10.00<br>16-15 0 / 2052 -17.5 -17.5 0.39 (1) 10.00<br>15-14 0 / 2165 -17.5 -17.5 0.39 (1) 10.00<br>14-13 0 / 0 -17.5 -17.5 0.12 (4) 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 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>(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 (1.21")<br>CALCULATED VERT. DEFL.(LL) = L/ 999 (0.23")<br>ALLOWABLE DEFL.(TL)= L/360 (1.21")<br>CALCULATED VERT. DEFL.(TL) = L/ 999 (0.41")<br><br>CSI: TC=0.38 (11-12:1), BC=0.78 (19-20:1), WB=0.74 (5-18:1), 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= 0.89 (3) (INPUT = 0.90 )<br>JSI METAL= 0.65 (14) (INPUT = 1.00 ) |  |  |  |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|--|--|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|--|--|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|--|--|



TOTAL WEIGHT = 2 X 160 = 320 lb  
[M][F]

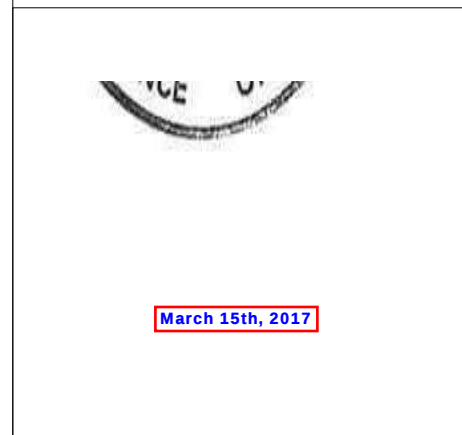
| LUMBER            |         |        |        |
|-------------------|---------|--------|--------|
| N. L. G. A. RULES |         |        |        |
| CHORDS            | SIZE    | LUMBER | DESCR. |
| 1 - 3             | 2x4 DRY | No.2   | SPF    |
| 3 - 4             | 2x4 DRY | No.2   | SPF    |
| 4 - 7             | 2x4 DRY | No.2   | SPF    |
| 7 - 9             | 2x4 DRY | No.2   | SPF    |
| 9 - 11            | 2x4 DRY | No.2   | SPF    |
| 22 - 2            | 2x4 DRY | No.2   | SPF    |
| 12 - 11           | 2x4 DRY | No.2   | SPF    |
| 22 - 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                           | TTWW-m  | MT20   | 5.0 | 8.0 | 1.75 3.00 |
| 4                           | TTWW-m  | MT20   | 4.0 | 8.0 | 2.25 4.00 |
| 5                           | TMWW+t  | MT20   | 3.0 | 4.0 | 2.00 0.75 |
| 6                           | TMWW+t  | MT20   | 3.0 | 4.0 | 1.75 0.75 |
| 7                           | TTW+p   | MT20   | 4.0 | 5.0 |           |
| 8                           | TMWW-t  | MT20   | 3.0 | 4.0 | 1.50 1.75 |
| 9                           | TS-t    | MT20   | 3.0 | 6.0 |           |
| 10                          | TMWW-t  | MT20   | 3.0 | 4.0 | 1.50 1.75 |
| 11                          | TMVW-t  | MT20   | 4.0 | 8.0 | 1.75 Edge |
| 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 | 1.50 3.00 |
| 17                          | BMWWW-t | MT20   | 3.0 | 4.0 | 1.50 1.50 |
| 18                          | BS-t    | MT20   | 3.0 | 6.0 |           |
| 19                          | BMWWW-t | MT20   | 4.0 | 4.0 |           |
| 20                          | BMWW-t  | MT20   | 4.0 | 5.0 | 1.75 2.00 |
| 21                          | BMWW-t  | MT20   | 4.0 | 5.0 | 1.50 1.50 |
| 22                          | 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 REQRD BRG |
| JT       | VERT                    | HORZ                            | DOWN            |
| 22       | 1830                    | 0                               | 1830 0 0        |
| 12       | 1725                    | 0                               | 1725 0 0        |

| UNFACTORED REACTIONS |           |           |                     |       |       |         |       |
|----------------------|-----------|-----------|---------------------|-------|-------|---------|-------|
| JT                   | 1ST LCASE | MAX./MIN. | COMPONENT REACTIONS |       |       |         |       |
| 22                   | 1282      | 910 / 0   | 0 / 0               | 0 / 0 | 0 / 0 | 372 / 0 | 0 / 0 |
| 12                   | 1211      | 847 / 0   | 0 / 0               | 0 / 0 | 0 / 0 | 364 / 0 | 0 / 0 |

BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S) 22

**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 6-16. DBS = 14-0-0. CBF = 86 LBS.  
1 - 2x3 SPF No.2 LATERAL BRACE(S) AT 1/2 LENGTH OF 8-16. DBS = 20-0-0. 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: (4) |                           |                           |                                   |
| C H O R D S           |                           |                           |                                   |
| MEMB.                 | MAX. FACTORED FORCE (LBS) | FACTORED VERT. LOAD (PLF) | W E B S MAX. FACTORED FORCE (LBS) |
| FR-TO                 |                           | FROM TO                   | LENGTH FR-TO                      |
| 1-2                   | 0 / 23                    | -77.3 -77.3 0.10 (1)      | 10.00 21-3 -297 / 0 0.06 (1)      |
| 2-3                   | -2484 / 0                 | -77.3 -77.3 0.32 (1)      | 4.11 3-20 0 / 1571 0.35 (1)       |
| 3-4                   | -3342 / 0                 | -77.3 -77.3 0.25 (1)      | 3.66 20-4 -1049 / 0 0.22 (1)      |
| 4-5                   | -3005 / 0                 | -77.3 -77.3 0.24 (1)      | 3.86 4-19 -875 / 0 0.39 (1)       |
| 5-6                   | -2420 / 0                 | -77.3 -77.3 0.19 (1)      | 4.28 19-5 0 / 639 0.14 (1)        |
| 6-7                   | -1903 / 0                 | -77.3 -77.3 0.18 (1)      | 4.74 5-17 -890 / 0 0.69 (1)       |
| 7-8                   | -1908 / 0                 | -77.3 -77.3 0.31 (1)      | 4.59 17-6 0 / 767 0.17 (1)        |
| 8-9                   | -2295 / 0                 | -77.3 -77.3 0.32 (1)      | 4.26 6-16 -984 / 0 0.45 (1)       |
| 9-10                  | -2295 / 0                 | -77.3 -77.3 0.32 (1)      | 4.26 16-7 0 / 1398 0.31 (1)       |
| 10-11                 | -2403 / 0                 | -77.3 -77.3 0.38 (1)      | 4.11 16-8 -570 / 0 0.28 (1)       |
| 22-2                  | -1793 / 0                 | 0.0 0.0 0.18 (1)          | 6.24 14-8 0 / 172 0.04 (4)        |
| 12-11                 | -1683 / 0                 | 0.0 0.0 0.17 (1)          | 6.40 14-10 -139 / 0 0.11 (1)      |
|                       |                           |                           | 13-10 -323 / 0 0.09 (1)           |
| 22-21                 | 0 / 0                     | -17.5 -17.5 0.09 (4)      | 10.00 2-21 0 / 2253 0.51 (1)      |
| 21-20                 | 0 / 2210                  | -17.5 -17.5 0.39 (1)      | 10.00 13-11 0 / 2206 0.50 (1)     |
| 20-19                 | 0 / 3376                  | -17.5 -17.5 0.60 (1)      | 10.00                             |
| 19-18                 | 0 / 2701                  | -17.5 -17.5 0.47 (1)      | 10.00                             |
| 18-17                 | 0 / 2701                  | -17.5 -17.5 0.47 (1)      | 10.00                             |
| 17-16                 | 0 / 2164                  | -17.5 -17.5 0.41 (1)      | 10.00                             |
| 16-15                 | 0 / 2052                  | -17.5 -17.5 0.39 (1)      | 10.00                             |
| 15-14                 | 0 / 2052                  | -17.5 -17.5 0.39 (1)      | 10.00                             |
| 14-13                 | 0 / 2165                  | -17.5 -17.5 0.39 (1)      | 10.00                             |
| 13-12                 | 0 / 0                     | -17.5 -17.5 0.12 (4)      | 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  
- 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 (1.21")  
CALCULATED VERT. DEFL.(LL) = L/999 (0.20")  
ALLOWABLE DEFL.(TL)= L/360 (1.21")  
CALCULATED VERT. DEFL.(TL) = L/999 (0.35")

CSI: TC=0.38 (10-11:1), BC=0.60 (19-20:1), WB=0.69 (5-17:1), SSI=0.18 (10-11:1)

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

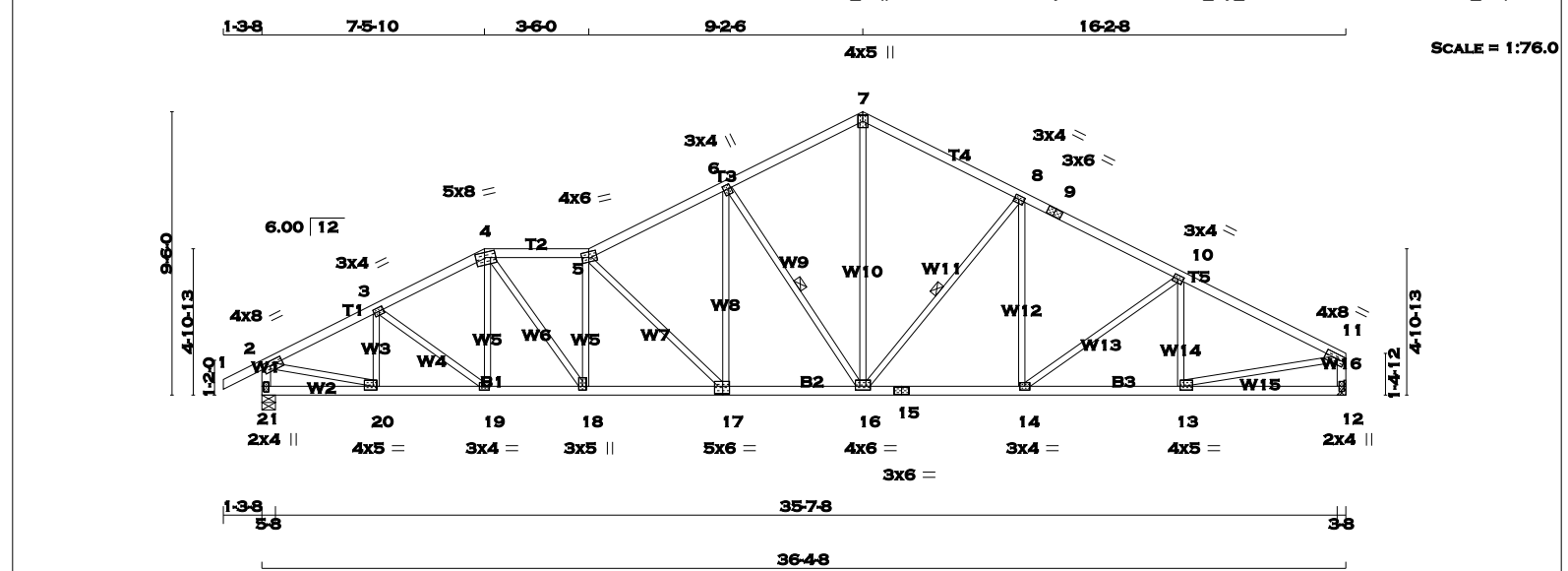
PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.90 (20) (INPUT = 0.90 )  
JSI METAL= 0.71 (18) (INPUT = 1.00 )

RECEIVED  
TOWN OF MILTON  
MAR 29, 2017  
17-5246  
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 = 2 X 159 = 319 lb  
[M][F]

| LUMBER            |      |        |        |
|-------------------|------|--------|--------|
| N. L. G. A. RULES |      |        |        |
| CHORDS            | SIZE | LUMBER | DESCR. |
| 1 - 4             | 2x4  | DRY    | No.2   |
| 4 - 5             | 2x4  | DRY    | No.2   |
| 5 - 7             | 2x4  | DRY    | No.2   |
| 7 - 9             | 2x4  | DRY    | No.2   |
| 9 - 11            | 2x4  | DRY    | No.2   |
| 21 - 2            | 2x4  | DRY    | No.2   |
| 12 - 11           | 2x4  | DRY    | No.2   |
| 21 - 17           | 2x4  | DRY    | No.2   |
| 17 - 15           | 2x4  | DRY    | No.2   |
| 15 - 12           | 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 | 8.0 | 1.75 3.00 |
| 3, 8, 10                    |         |        |     |     |           |
| 3                           | TMWW-t  | MT20   | 3.0 | 4.0 | 1.50 1.75 |
| 4                           | TTWW-m  | MT20   | 5.0 | 8.0 | 2.00 3.50 |
| 5                           | TTWW-m  | MT20   | 4.0 | 6.0 | 2.25 2.75 |
| 6                           | TMWW-t  | MT20   | 3.0 | 4.0 | 1.75 0.75 |
| 7                           | TTW+p   | MT20   | 4.0 | 5.0 |           |
| 9                           | TS-t    | MT20   | 3.0 | 6.0 |           |
| 11                          | TMVW-t  | MT20   | 4.0 | 8.0 | 1.75 Edge |
| 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 | 1.50 3.00 |
| 17                          | BSWW-l  | MT20   | 5.0 | 6.0 | 3.00 2.75 |
| 18                          | BMWW-t  | MT20   | 3.0 | 5.0 | 1.50 1.50 |
| 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 |

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 |
| 21                      | 1830 | 0                               | 1830 |
| 12                      | 1725 | 0                               | 1725 |

| UNFACTORED REACTIONS |          |                               |       |           |       |         |       |
|----------------------|----------|-------------------------------|-------|-----------|-------|---------|-------|
| 1ST LCASE            |          | MAX./MIN. COMPONENT REACTIONS |       |           |       |         |       |
| JT                   | COMBINED | SNOW                          | LIVE  | PERM.LIVE | WIND  | DEAD    | SOIL  |
| 21                   | 1282     | 910 / 0                       | 0 / 0 | 0 / 0     | 0 / 0 | 372 / 0 | 0 / 0 |
| 12                   | 1211     | 847 / 0                       | 0 / 0 | 0 / 0     | 0 / 0 | 364 / 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 = 3.96 FT.  
MAX. UNBRACED BOTTOM CHORD LENGTH = 10.00 FT. OR RIGID CEILING DIRECTLY APPLIED.

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

1 - 2x3 SPF No.2 LATERAL BRACE(S) AT 1/2 LENGTH OF 6-16. DBS = 14-0-0. CBF = 89 LBS.  
1 - 2x3 SPF No.2 LATERAL BRACE(S) AT 1/2 LENGTH OF 8-16. DBS = 20-0-0. 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: (4) |                |                  |                |
| C H O R D S           |                |                  |                |
| MAX. FACTORED         |                | FACTORED         |                |
| MEMB.                 | FORCE (LBS)    | VERT. LOAD (PLF) | MAX. CSI (LC)  |
| W E B S               |                |                  |                |
| MAX. FACTORED         |                | FACTORED         |                |
| MEMB.                 | FORCE (LBS)    | MAX. UNBRAC      | MAX. CSI (LC)  |
| FR-TO                 |                |                  |                |
| 1-2                   | 0 / 23         | -77.3            | -77.3 0.10 (1) |
| 2-3                   | -2413 / 0      | -77.3            | -77.3 0.19 (1) |
| 3-4                   | -2509 / 0      | -77.3            | -77.3 0.19 (1) |
| 4-5                   | -2855 / 0      | -77.3            | -77.3 0.21 (1) |
| 5-6                   | -2505 / 0      | -77.3            | -77.3 0.29 (1) |
| 6-7                   | -1909 / 0      | -77.3            | -77.3 0.25 (1) |
| 7-8                   | -1908 / 0      | -77.3            | -77.3 0.31 (1) |
| 8-9                   | -2295 / 0      | -77.3            | -77.3 0.32 (1) |
| 9-10                  | -2295 / 0      | -77.3            | -77.3 0.32 (1) |
| 10-11                 | -2403 / 0      | -77.3            | -77.3 0.38 (1) |
| 21-2                  | -1795 / 0      | 0.0              | 0.0 0.18 (1)   |
| 12-11                 | -1683 / 0      | 0.0              | 0.0 0.17 (1)   |
| LENGTH FR-TO          |                |                  |                |
| 10.00                 | 20-3           | -427 / 0         | 0.08 (1)       |
| 4.28                  | 3-19           | 0 / 77           | 0.02 (1)       |
| 4.22                  | 19-4           | 0 / 51           | 0.02 (4)       |
| 3.96                  | 4-18           | 0 / 1050         | 0.24 (1)       |
| 4.13                  | 18-5           | -784 / 0         | 0.28 (1)       |
| 4.65                  | 5-17           | -868 / 0         | 0.67 (1)       |
| 4.59                  | 17-6           | 0 / 692          | 0.16 (1)       |
| 4.26                  | 6-16           | -1022 / 0        | 0.48 (1)       |
| 4.26                  | 16-7           | 0 / 1387         | 0.31 (1)       |
| 4.11                  | 16-8           | -570 / 0         | 0.28 (1)       |
| 6.24                  | 14-8           | 0 / 172          | 0.04 (4)       |
| 6.40                  | 14-10          | -139 / 0         | 0.11 (1)       |
| 13-10                 | -323 / 0       | 0.09 (1)         |                |
| 21-20                 | 0 / 2222       | 0.50 (1)         |                |
| 13-11                 | 0 / 2206       | 0.50 (1)         |                |
| 17.5                  | -17.5 0.05 (4) | 10.00            |                |
| 17.5                  | -17.5 0.38 (1) | 10.00            |                |
| 17.5                  | -17.5 0.39 (1) | 10.00            |                |
| 17.5                  | -17.5 0.51 (1) | 10.00            |                |
| 17.5                  | -17.5 0.42 (1) | 10.00            |                |
| 17.5                  | -17.5 0.39 (1) | 10.00            |                |
| 17.5                  | -17.5 0.39 (1) | 10.00            |                |
| 17.5                  | -17.5 0.39 (1) | 10.00            |                |
| 17.5                  | -17.5 0.39 (1) | 10.00            |                |
| 17.5                  | -17.5 0.12 (4) | 10.00            |                |

DESIGN CRITERIA

SPECIFIED LOADS:  
TOP CH. LL = 23.3 PSF  
DL = 3.0 PSF  
BOT CH. LL = 0.0 PSF  
DL = 7.3 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 (1.21")  
CALCULATED VERT. DEFL.(LL)= L/999 (0.17")  
ALLOWABLE DEFL.(TL)= L/360 (1.21")  
CALCULATED VERT. DEFL.(TL)= L/999 (0.31")

CSI: TC=0.38 (10-11:1), BC=0.51 (17-18:1), WB=0.67 (5-17:1), SSI=0.18 (10-11:1)

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

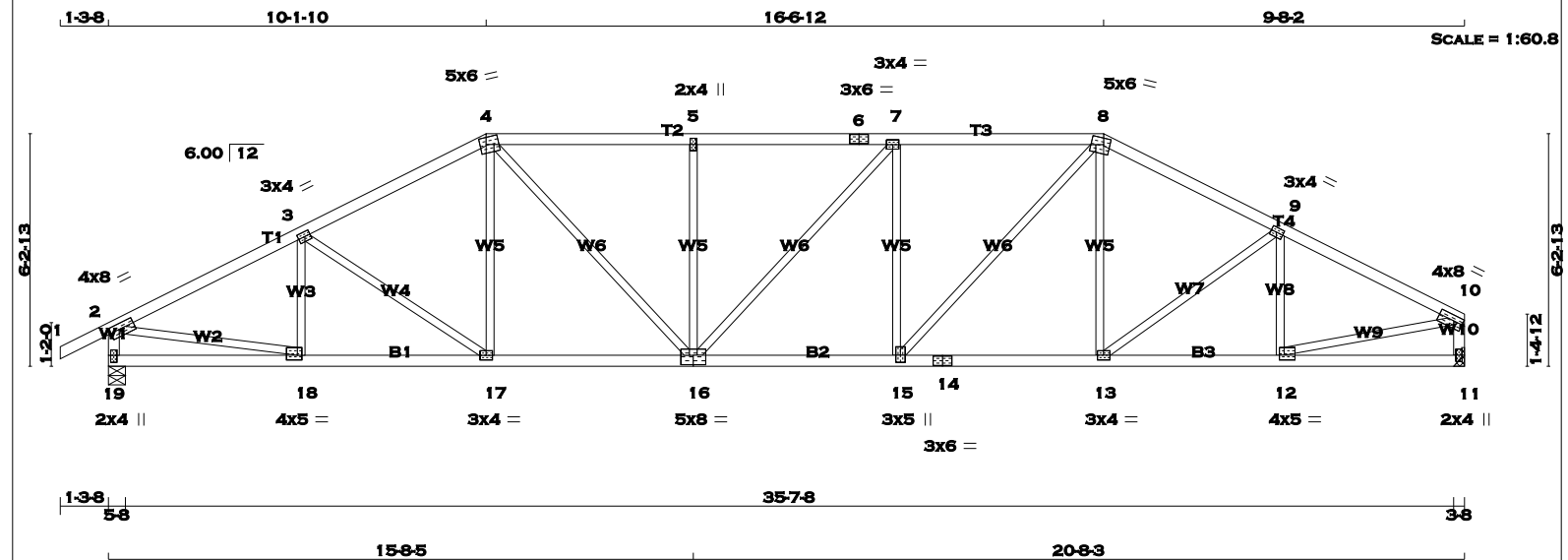
PLATE ROTATION TOL. = 5.0 Deg.

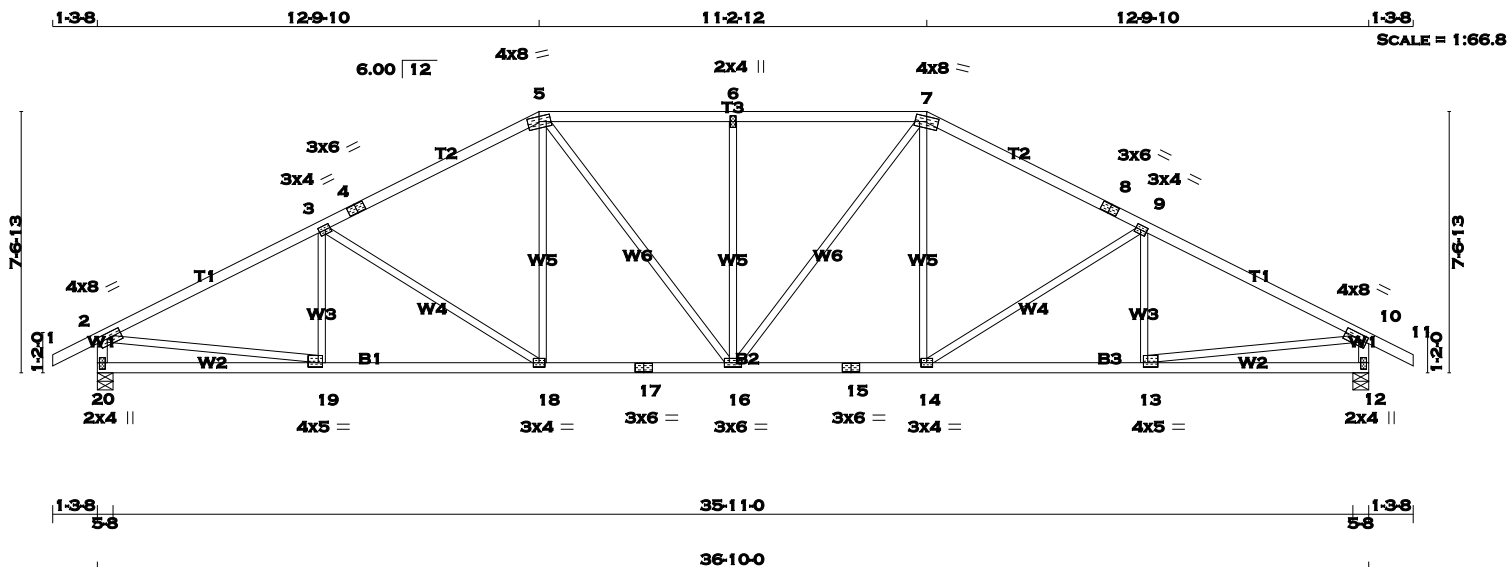
JSI GRIP= 0.89 (18) (INPUT = 0.90 )  
JSI METAL= 0.65 (20) (INPUT = 1.00 )

RECEIVED  
TOWN OF MILTON  
MAR 29, 2017  
17-5246  
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 = 2 X 152 = 304 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 - 7    | 2x4  | DRY    | No.2   | SPF               |  |  |
| 7 - 8    | 2x4  | DRY    | No.2   | SPF               |  |  |
| 8 - 11   | 2x4  | DRY    | No.2   | SPF               |  |  |
| 20 - 2   | 2x4  | DRY    | No.2   | SPF               |  |  |
| 12 - 10  | 2x4  | DRY    | No.2   | SPF               |  |  |
| 20 - 17  | 2x4  | DRY    | No.2   | SPF               |  |  |
| 17 - 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                           | 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 | 8.0 | 1.75 | 4.00 |
| 6                           | TMW+w   | MT20   | 2.0 | 4.0 |      |      |
| 7                           | TTWW-m  | MT20   | 4.0 | 8.0 | 1.75 | 4.00 |
| 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 | 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   | 3.0 | 6.0 |      |      |
| 17                          | BS-t    | MT20   | 3.0 | 6.0 |      |      |
| 18                          | BMWWW-t | MT20   | 3.0 | 4.0 |      |      |
| 19                          | BMWWW-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       | MAXIMUM FACTORED | INPUT | REQRD  |
|----------|------|----------------|------------------|-------|--------|
|          |      | GROSS REACTION | GROSS REACTION   | BRG   | BRG    |
| JT       | VERT | HORZ           | DOWN             | HORZ  | UPLIFT |
| 20       | 1852 | 0              | 1852             | 0     | 5-8    |
| 12       | 1852 | 0              | 1852             | 0     | 5-8    |

| UNFACTORED REACTIONS |          |           |          |           |           |         |       |
|----------------------|----------|-----------|----------|-----------|-----------|---------|-------|
|                      |          | 1ST LCASE | MAX/MIN. | COMPONENT | REACTIONS |         |       |
| JT                   | COMBINED | SNOW      | LIVE     | PERM.     | LIVE      | WIND    | DEAD  |
| 20                   | 1297     | 921 / 0   | 0 / 0    | 0 / 0     | 0 / 0     | 376 / 0 | 0 / 0 |
| 12                   | 1297     | 921 / 0   | 0 / 0    | 0 / 0     | 0 / 0     | 376 / 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 = 3.75 FT.  
MAX. UNBRACED BOTTOM CHORD LENGTH = 10.00 FT. OR RIGID CEILING DIRECTLY APPLIED.

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

#### LOADING

TOTAL LOAD CASES: (4)

| CHORDS |           |               |                | WEBS  |       |               |          |
|--------|-----------|---------------|----------------|-------|-------|---------------|----------|
|        |           | MAX. FACTORED | FACTORED       |       |       | MAX. FACTORED | FACTORED |
| MEMB.  | FORCE     | VERT. LOAD    | LC1 MAX        | MEMB. | FORCE | MAX           | MAX      |
|        |           | (LBS)         | (PLF)          |       |       | (LBS)         | (LC)     |
| FR-TO  | FROM      | TO            | LENGTH         | FR-TO | FROM  | TO            | LENGTH   |
| 1-2    | 0 / 23    | -77.3         | -77.3 0.10 (1) | 10.00 | 19-3  | -193 / 51     | 0.06 (1) |
| 2-3    | -2635 / 0 | -77.3         | -77.3 0.58 (1) | 3.75  | 3-18  | -439 / 0      | 0.51 (1) |
| 3-4    | -2275 / 0 | -77.3         | -77.3 0.51 (1) | 4.05  | 18-5  | 0 / 345       | 0.08 (1) |
| 4-5    | -2275 / 0 | -77.3         | -77.3 0.51 (1) | 4.05  | 5-16  | 0 / 392       | 0.09 (1) |
| 5-6    | -2255 / 0 | -77.3         | -77.3 0.38 (1) | 4.19  | 16-6  | -531 / 0      | 0.55 (1) |
| 6-7    | -2255 / 0 | -77.3         | -77.3 0.38 (1) | 4.19  | 16-7  | 0 / 392       | 0.09 (1) |
| 7-8    | -2275 / 0 | -77.3         | -77.3 0.51 (1) | 4.05  | 14-7  | 0 / 345       | 0.08 (1) |
| 8-9    | -2275 / 0 | -77.3         | -77.3 0.51 (1) | 4.05  | 14-9  | -439 / 0      | 0.51 (1) |
| 9-10   | -2635 / 0 | -77.3         | -77.3 0.58 (1) | 3.75  | 13-9  | -193 / 51     | 0.06 (1) |
| 10-11  | 0 / 23    | -77.3         | -77.3 0.10 (1) | 10.00 | 2-19  | 0 / 2401      | 0.54 (1) |
| 20-2   | -1803 / 0 | 0.0           | 0.0 0.18 (1)   | 6.23  | 13-10 | 0 / 2401      | 0.54 (1) |
| 12-10  | -1803 / 0 | 0.0           | 0.0 0.18 (1)   | 6.23  |       |               |          |
| 20-19  | 0 / 0     | -17.5         | -17.5 0.17 (4) | 10.00 |       |               |          |
| 19-18  | 0 / 2380  | -17.5         | -17.5 0.45 (1) | 10.00 |       |               |          |
| 18-17  | 0 / 2015  | -17.5         | -17.5 0.39 (1) | 10.00 |       |               |          |
| 17-16  | 0 / 2015  | -17.5         | -17.5 0.39 (1) | 10.00 |       |               |          |
| 16-15  | 0 / 2015  | -17.5         | -17.5 0.39 (1) | 10.00 |       |               |          |
| 15-14  | 0 / 2015  | -17.5         | -17.5 0.39 (1) | 10.00 |       |               |          |
| 14-13  | 0 / 2380  | -17.5         | -17.5 0.45 (1) | 10.00 |       |               |          |
| 13-12  | 0 / 0     | -17.5         | -17.5 0.17 (4) | 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 (1.23")  
CALCULATED VERT. DEFL.(LL)= L/999 (0.15")  
ALLOWABLE DEFL.(TL)= L/360 (1.23")  
CALCULATED VERT. DEFL.(TL)= L/999 (0.27")

CSI: TC=0.58 (9-10:1), BC=0.45 (18-19:1), WB=0.55 (6-16:1), SSI=0.22 (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.

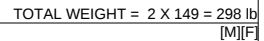
JSI GRIP= 0.87 (13) (INPUT = 0.90 )  
JSI METAL= 0.71 (19) (INPUT = 1.00 )

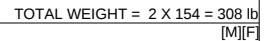
March 15th, 2017

RECEIVED  
TOWN OF MILTON  
MAR 29, 2017  
17-5246  
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.

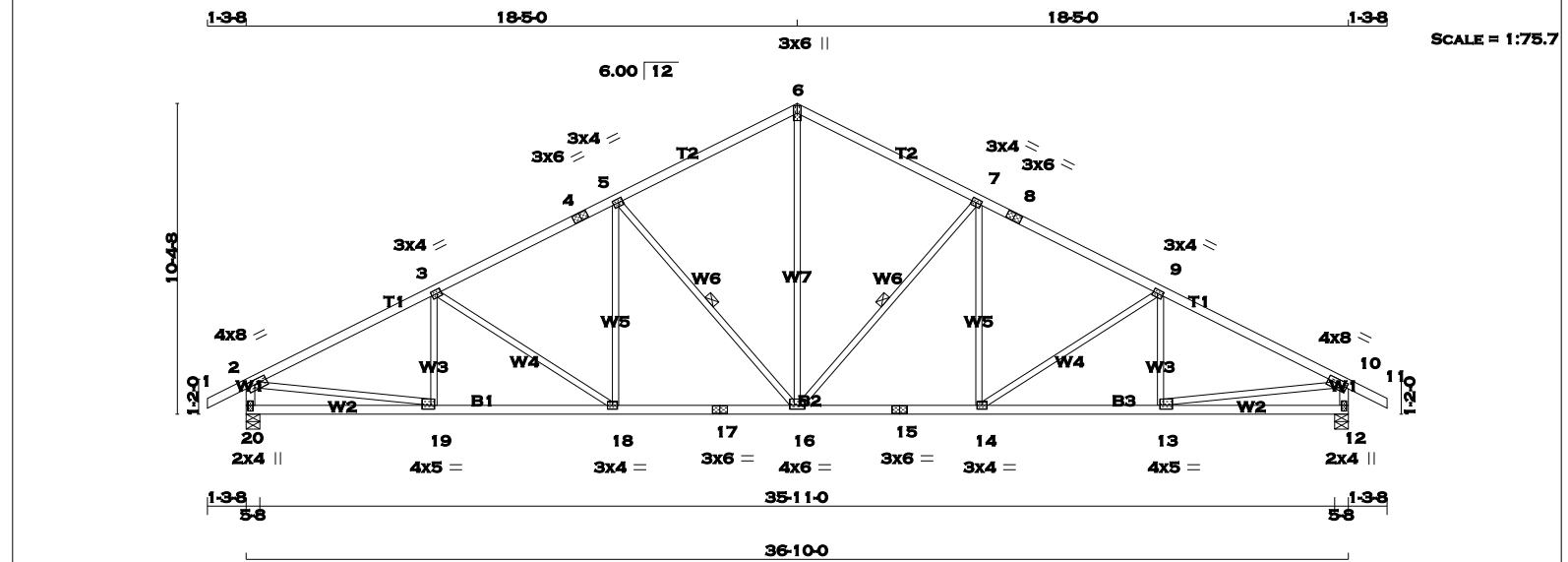






JSI GRIP= 0.90 (6) (INPUT = 0.90 )  
JSI METAL= 0.71 (19) (INPUT = 1.00 )



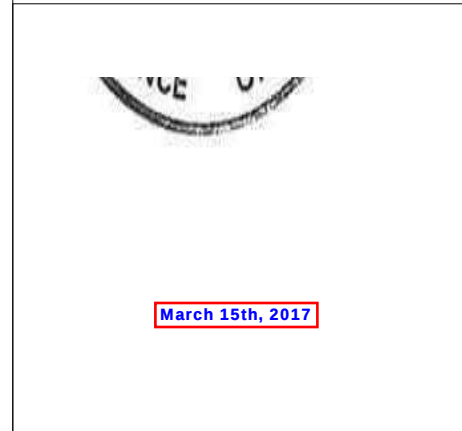


| LUMBER          |      | N. L. G. A. RULES |      | LUMBER | DESCR. |
|-----------------|------|-------------------|------|--------|--------|
| CHORDS          | SIZE |                   |      |        |        |
| 1 - 4           | 2x4  | DRY               | No.2 | SPF    | SPF    |
| 4 - 6           | 2x4  | DRY               | No.2 |        |        |
| 6 - 8           | 2x4  | DRY               | No.2 |        |        |
| 8 - 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                          | BMVW-t  | MT20   | 4.0 | 5.0 | 1.50 | 1.50 |
| 14                          | BMVW-t  | MT20   | 3.0 | 4.0 |      |      |
| 15                          | BS-t    | MT20   | 3.0 | 6.0 |      |      |
| 16                          | BMVWV-t | MT20   | 4.0 | 6.0 | 1.50 | 3.00 |
| 17                          | BS-t    | MT20   | 3.0 | 6.0 |      |      |
| 18                          | BMVW-t  | MT20   | 3.0 | 4.0 |      |      |
| 19                          | BMVW-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

| FACTORED GROSS REACTION |      | MAXIMUM FACTORED GROSS REACTION |      | INPUT BRG |        | REQRD BRG |       |
|-------------------------|------|---------------------------------|------|-----------|--------|-----------|-------|
| JT                      | VERT | HORZ                            | DOWN | HORZ      | UPLIFT | IN-SX     | IN-SX |
| 20                      | 1852 | 0                               | 1852 | 0         | 0      | 5-8       | 5-8   |
| 12                      | 1852 | 0                               | 1852 | 0         | 0      | 5-8       | 5-8   |

| UNFACTORED REACTIONS |          |                               |       |           |       |         |       |
|----------------------|----------|-------------------------------|-------|-----------|-------|---------|-------|
| 1ST LCASE            |          | MAX./MIN. COMPONENT REACTIONS |       |           |       |         |       |
| JT                   | COMBINED | SNOW                          | LIVE  | PERM.LIVE | WIND  | DEAD    | SOIL  |
| 20                   | 1297     | 921 / 0                       | 0 / 0 | 0 / 0     | 0 / 0 | 376 / 0 | 0 / 0 |
| 12                   | 1297     | 921 / 0                       | 0 / 0 | 0 / 0     | 0 / 0 | 376 / 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 = 3.85 FT.  
MAX. UNBRACED BOTTOM CHORD LENGTH = 10.00 FT. OR RIGID CEILING DIRECTLY APPLIED.

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

1 - 2x3 SPF No.2 LATERAL BRACE(S) AT 1/2 LENGTH OF 7-16, 5-16. DBS = 20-0-0 . 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

| C H O R D S |                           |                           |                        | W E B S |                           |                        |          |
|-------------|---------------------------|---------------------------|------------------------|---------|---------------------------|------------------------|----------|
| MEMB.       | MAX. FACTORED FORCE (LBS) | FACTORED VERT. LOAD (PLF) | MAX UNBRAC LENGTH (LC) | MEMB.   | MAX. FACTORED FORCE (LBS) | MAX UNBRAC LENGTH (LC) |          |
| FR-TO       |                           | FROM TO                   |                        | FR-TO   |                           |                        |          |
| 1-2         | 0 / 23                    | -77.3 -77.3               | 0.10 (1)               | 10-00   | 16-6                      | 0 / 1225               | 0.28 (1) |
| 2-3         | -2616 / 0                 | -77.3 -77.3               | 0.52 (1)               | 3.85    | 16-7                      | -735 / 0               | 0.44 (1) |
| 3-4         | -2330 / 0                 | -77.3 -77.3               | 0.42 (1)               | 4.14    | 14-7                      | 0 / 283                | 0.06 (1) |
| 4-5         | -2330 / 0                 | -77.3 -77.3               | 0.42 (1)               | 4.14    | 14-9                      | -327 / 0               | 0.34 (1) |
| 5-6         | -1813 / 0                 | -77.3 -77.3               | 0.40 (1)               | 4.58    | 13-9                      | -206 / 41              | 0.06 (1) |
| 6-7         | -1813 / 0                 | -77.3 -77.3               | 0.40 (1)               | 4.58    | 5-16                      | -735 / 0               | 0.44 (1) |
| 7-8         | -2330 / 0                 | -77.3 -77.3               | 0.42 (1)               | 4.14    | 18-5                      | 0 / 283                | 0.06 (1) |
| 8-9         | -2330 / 0                 | -77.3 -77.3               | 0.42 (1)               | 4.14    | 3-18                      | -327 / 0               | 0.34 (1) |
| 9-10        | -2616 / 0                 | -77.3 -77.3               | 0.52 (1)               | 3.85    | 19-3                      | -206 / 41              | 0.06 (1) |
| 10-11       | 0 / 23                    | -77.3 -77.3               | 0.10 (1)               | 10.00   | 2-19                      | 0 / 2379               | 0.54 (1) |
| 20-2        | -1804 / 0                 | 0.0                       | 0.0 0.18 (1)           | 6.23    | 13-10                     | 0 / 2379               | 0.54 (1) |
| 12-10       | -1804 / 0                 | 0.0                       | 0.0 0.18 (1)           | 6.23    |                           |                        |          |

|       |          |             |          |       |
|-------|----------|-------------|----------|-------|
| 20-19 | 0 / 0    | -17.5 -17.5 | 0.15 (4) | 10.00 |
| 19-18 | 0 / 2357 | -17.5 -17.5 | 0.44 (1) | 10.00 |
| 18-17 | 0 / 2084 | -17.5 -17.5 | 0.41 (1) | 10.00 |
| 17-16 | 0 / 2084 | -17.5 -17.5 | 0.41 (1) | 10.00 |
| 16-15 | 0 / 2084 | -17.5 -17.5 | 0.41 (1) | 10.00 |
| 15-14 | 0 / 2084 | -17.5 -17.5 | 0.41 (1) | 10.00 |
| 14-13 | 0 / 2357 | -17.5 -17.5 | 0.44 (1) | 10.00 |
| 13-12 | 0 / 0    | -17.5 -17.5 | 0.15 (4) | 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 (1.23")  
CALCULATED VERT. DEFL.(LL) = L/ 999 (0.15")  
ALLOWABLE DEFL.(TL)= L/360 (1.23")  
CALCULATED VERT. DEFL.(TL) = L/ 999 (0.27")

CSI: TC=0.52 (9-10:1) , BC=0.44 (13-14:1) , WB=0.54 (10-13:1) , SSI=0.20 (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  |
| MT20        | 618       | 354   | 1667    | 822 | 2284 |

PLATE PLACEMENT TOL. = 0.250 inches

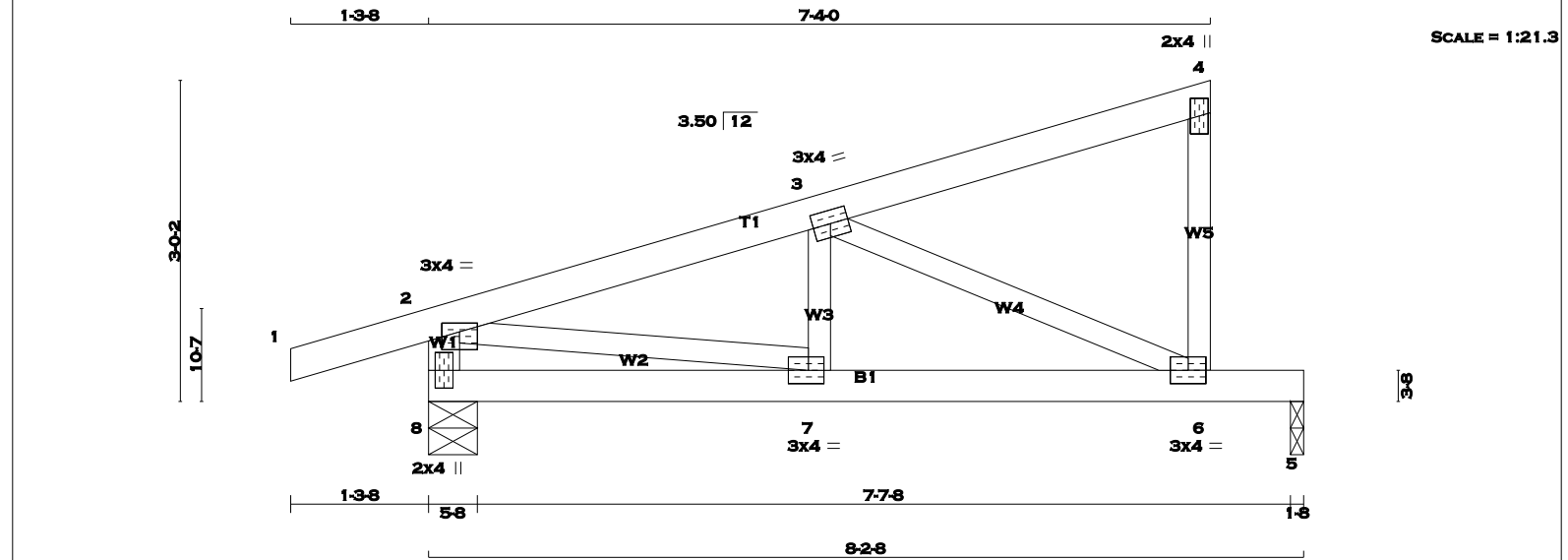
PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.90 (6) (INPUT = 0.90 )  
JSI METAL= 0.71 (13) (INPUT = 1.00 )

RECEIVED  
TOWN OF MILTON  
MAR 29, 2017  
17-5246  
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 = 18 X 29 = 519 lb  
[M][F]

| LUMBER                |        |      |        | DESCR. |
|-----------------------|--------|------|--------|--------|
| N. L. G. A. RULES     | CHORDS | SIZE | LUMBER |        |
| 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 |      |      |
| 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 MI TEK 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        | 489            | 0        | 489  | 0                | 0    | 5-8    | 5-8   |       |       |
| 5        | 325            | 0        | 325  | 0                | 0    | 1-8    | 1-8   |       |       |

| UNFACTORED REACTIONS |           |          |           |           |       |        |       |
|----------------------|-----------|----------|-----------|-----------|-------|--------|-------|
| JT                   | 1ST LCASE | MAX/MIN. | COMPONENT | REACTIONS |       |        |       |
| 8                    | 341       | 251 / 0  | 0 / 0     | PERM.LIVE | WIND  | DEAD   | SOIL  |
| 5                    | 230       | 153 / 0  | 0 / 0     | 0 / 0     | 0 / 0 | 77 / 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: (4)

| CHORDS |                           |                           |                  | WEBS  |                           |                            |                       |
|--------|---------------------------|---------------------------|------------------|-------|---------------------------|----------------------------|-----------------------|
| MEMB.  | MAX. FACTORED FORCE (LBS) | FACTORED VERT. LOAD (PLF) | LC1 MAX CSI (LC) | MEMB. | MAX. FACTORED FORCE (LBS) | MAX. UNBRACED LENGTH FR-TO | FACTORED MAX CSI (LC) |
| 1-2    | 0 / 14                    | -77.3                     | -77.3 0.10 (1)   | 7-3   | 0 / 94                    | 0.03 (4)                   |                       |
| 2-3    | -604 / 0                  | -77.3                     | -77.3 0.12 (1)   | 3-6   | -644 / 0                  | 0.17 (1)                   |                       |
| 3-4    | -8 / 0                    | -77.3                     | -77.3 0.12 (1)   | 2-7   | 0 / 595                   | 0.13 (1)                   |                       |
| 6-4    | -112 / 0                  | 0.0                       | 0.0 0.02 (1)     |       |                           |                            |                       |
| 8-2    | -478 / 0                  | 0.0                       | 0.0 0.05 (1)     |       |                           |                            |                       |
| 8-7    | 0 / 0                     | -17.5                     | -17.5 0.11 (1)   |       |                           |                            |                       |
| 7-6    | 0 / 588                   | -17.5                     | -17.5 0.47 (1)   |       |                           |                            |                       |
| 6-5    | 0 / 0                     | -17.5                     | -17.5 0.38 (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**

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 (0.27")  
CALCULATED VERT. DEFL.(LL) = L/ 999 (0.06")  
ALLOWABLE DEFL.(TL)= L/360 (0.27")  
CALCULATED VERT. DEFL.(TL) = L/ 921 (0.11")

CSI: TC=0.12 (2-3:1) , BC=0.47 (6-7:1) , WB=0.17 (3-6:1) , SSI=0.25 (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 (6) (INPUT = 0.90 )  
JSI METAL= 0.22 (2) (INPUT = 1.00 )

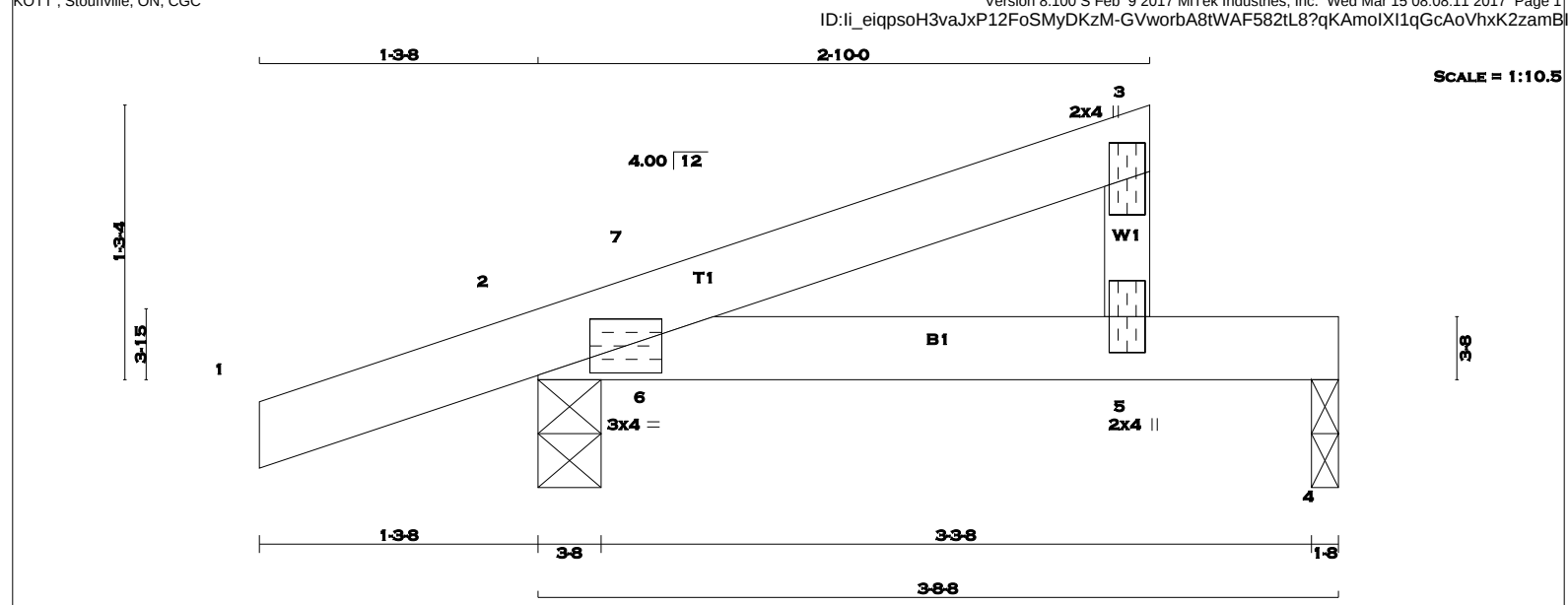


March 15th, 2017

RECEIVED  
TOWN OF MILTON  
MAR 29, 2017  
17-5246  
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<br>1 - 3 2x4 DRY No.2<br>5 - 3 2x3 DRY No.2<br>2 - 4 2x4 DRY No.2<br><br>DRY: SEASONED LUMBER.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                              | <b>PLATES (table is in inches)</b><br>JT TYPE PLATES W LEN Y X<br>2 TMB1-I MT20 3.0 4.0<br>3 TMV+p MT20 2.0 4.0<br>5 BMV+p MT20 2.0 4.0<br><br>A SIZE FOR SIZE SUBSTITUTION OF MITEK MII20 WITH 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 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 (0.19")<br>CALCULATED VERT. DEFL.(LL) = L/ 999 (0.01")<br>ALLOWABLE DEFL.(TL)= L/360 (0.19")<br>CALCULATED VERT. DEFL.(TL) = L/ 999 (0.03")<br><br>CSI: TC=0.10 (3-7:1) , BC=0.13 (5-6:1) , WB=0.00 (6-7:1) , SSI=0.09 (4-5:1)<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= 0.12 (2) (INPUT = 0.90 )<br>JSI METAL= 0.04 (2) (INPUT = 1.00 ) |                              | <b>DIMENSIONS, SUPPORTS AND LOADINGS SPECIFIED BY FABRICATOR TO BE VERIFIED BY BUILDING DESIGNER</b><br><b>BEARINGS</b><br><table><tr><th>JT</th><th>FACTORED GROSS REACTION VERT</th><th>FACTORED GROSS REACTION HORZ</th><th>INPUT DOWN</th><th>REQRD BRG IN-SX</th></tr><tr><td>2</td><td>271</td><td>0</td><td>271</td><td>0</td></tr><tr><td>4</td><td>116</td><td>0</td><td>116</td><td>0</td></tr></table><br><b>UNFACTORED REACTIONS</b><br><table><tr><th>JT</th><th>1ST LCASE COMBINED</th><th>MAX/MIN. SNOW</th><th>MAX/MIN. LIVE</th><th>MAX/MIN. PERM.LIVE</th><th>MAX/MIN. WIND</th><th>MAX/MIN. DEAD</th><th>MAX/MIN. SOIL</th></tr><tr><td>2</td><td>188</td><td>144 / 0</td><td>0 / 0</td><td>0 / 0</td><td>0 / 0</td><td>44 / 0</td><td>0 / 0</td></tr><tr><td>4</td><td>83</td><td>50 / 0</td><td>0 / 0</td><td>0 / 0</td><td>0 / 0</td><td>32 / 0</td><td>0 / 0</td></tr></table><br>BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S) 2, 4<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: (5)<br><table><tr><th>CHORDS</th><th>MEMB.</th><th>MAX. FACTORED FORCE (LBS)</th><th>FACTORED VERT. LOAD (PLF)</th><th>MAX. LC1 (LC)</th><th>MAX. UNBRACED LENGTH</th><th>WEBS</th><th>MEMB.</th><th>MAX. FACTORED FORCE (LBS)</th><th>MAX. LC1 (LC)</th></tr><tr><td>FR-TO</td><td></td><td></td><td></td><td></td><td></td><td>FR-TO</td><td></td><td></td><td></td></tr><tr><td>1-2</td><td></td><td>0 / 15</td><td>-77.3</td><td>-77.3</td><td>0.10 (1)</td><td>10.00</td><td>6-7</td><td>-18 / 32</td><td>0.00 (1)</td></tr><tr><td>2-7</td><td></td><td>-25 / 0</td><td>-77.3</td><td>-77.3</td><td>0.06 (1)</td><td>6.25</td><td></td><td></td><td></td></tr><tr><td>7-3</td><td></td><td>0 / 6</td><td>-77.3</td><td>-77.3</td><td>0.10 (1)</td><td>10.00</td><td></td><td></td><td></td></tr><tr><td>5-3</td><td></td><td>-106 / 0</td><td>0.0</td><td>0.0</td><td>0.01 (1)</td><td>7.81</td><td></td><td></td><td></td></tr><tr><td>2-6</td><td></td><td>0 / 0</td><td>-17.5</td><td>-17.5</td><td>0.06 (1)</td><td>10.00</td><td></td><td></td><td></td></tr><tr><td>6-5</td><td></td><td>0 / 0</td><td>-17.5</td><td>-17.5</td><td>0.13 (1)</td><td>10.00</td><td></td><td></td><td></td></tr><tr><td>5-4</td><td></td><td>0 / 0</td><td>-17.5</td><td>-17.5</td><td>0.13 (1)</td><td>10.00</td><td></td><td></td><td></td></tr></table><br><b>CANTILEVER ANALYSIS HAS BEEN CONSIDERED IN THIS DESIGN</b> |                           | JT                 | FACTORED GROSS REACTION VERT | FACTORED GROSS REACTION HORZ | INPUT DOWN    | REQRD BRG IN-SX           | 2             | 271 | 0 | 271 | 0 | 4 | 116 | 0 | 116 | 0 | JT | 1ST LCASE COMBINED | MAX/MIN. SNOW | MAX/MIN. LIVE | MAX/MIN. PERM.LIVE | MAX/MIN. WIND | MAX/MIN. DEAD | MAX/MIN. SOIL | 2 | 188 | 144 / 0 | 0 / 0 | 0 / 0 | 0 / 0 | 44 / 0 | 0 / 0 | 4 | 83 | 50 / 0 | 0 / 0 | 0 / 0 | 0 / 0 | 32 / 0 | 0 / 0 | CHORDS | MEMB. | MAX. FACTORED FORCE (LBS) | FACTORED VERT. LOAD (PLF) | MAX. LC1 (LC) | MAX. UNBRACED LENGTH | WEBS | MEMB. | MAX. FACTORED FORCE (LBS) | MAX. LC1 (LC) | FR-TO |  |  |  |  |  | FR-TO |  |  |  | 1-2 |  | 0 / 15 | -77.3 | -77.3 | 0.10 (1) | 10.00 | 6-7 | -18 / 32 | 0.00 (1) | 2-7 |  | -25 / 0 | -77.3 | -77.3 | 0.06 (1) | 6.25 |  |  |  | 7-3 |  | 0 / 6 | -77.3 | -77.3 | 0.10 (1) | 10.00 |  |  |  | 5-3 |  | -106 / 0 | 0.0 | 0.0 | 0.01 (1) | 7.81 |  |  |  | 2-6 |  | 0 / 0 | -17.5 | -17.5 | 0.06 (1) | 10.00 |  |  |  | 6-5 |  | 0 / 0 | -17.5 | -17.5 | 0.13 (1) | 10.00 |  |  |  | 5-4 |  | 0 / 0 | -17.5 | -17.5 | 0.13 (1) | 10.00 |  |  |  |
| JT                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | FACTORED GROSS REACTION VERT | FACTORED GROSS REACTION HORZ                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | INPUT DOWN                | REQRD BRG IN-SX    |                              |                              |               |                           |               |     |   |     |   |   |     |   |     |   |    |                    |               |               |                    |               |               |               |   |     |         |       |       |       |        |       |   |    |        |       |       |       |        |       |        |       |                           |                           |               |                      |      |       |                           |               |       |  |  |  |  |  |       |  |  |  |     |  |        |       |       |          |       |     |          |          |     |  |         |       |       |          |      |  |  |  |     |  |       |       |       |          |       |  |  |  |     |  |          |     |     |          |      |  |  |  |     |  |       |       |       |          |       |  |  |  |     |  |       |       |       |          |       |  |  |  |     |  |       |       |       |          |       |  |  |  |
| 2                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | 271                          | 0                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | 271                       | 0                  |                              |                              |               |                           |               |     |   |     |   |   |     |   |     |   |    |                    |               |               |                    |               |               |               |   |     |         |       |       |       |        |       |   |    |        |       |       |       |        |       |        |       |                           |                           |               |                      |      |       |                           |               |       |  |  |  |  |  |       |  |  |  |     |  |        |       |       |          |       |     |          |          |     |  |         |       |       |          |      |  |  |  |     |  |       |       |       |          |       |  |  |  |     |  |          |     |     |          |      |  |  |  |     |  |       |       |       |          |       |  |  |  |     |  |       |       |       |          |       |  |  |  |     |  |       |       |       |          |       |  |  |  |
| 4                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | 116                          | 0                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | 116                       | 0                  |                              |                              |               |                           |               |     |   |     |   |   |     |   |     |   |    |                    |               |               |                    |               |               |               |   |     |         |       |       |       |        |       |   |    |        |       |       |       |        |       |        |       |                           |                           |               |                      |      |       |                           |               |       |  |  |  |  |  |       |  |  |  |     |  |        |       |       |          |       |     |          |          |     |  |         |       |       |          |      |  |  |  |     |  |       |       |       |          |       |  |  |  |     |  |          |     |     |          |      |  |  |  |     |  |       |       |       |          |       |  |  |  |     |  |       |       |       |          |       |  |  |  |     |  |       |       |       |          |       |  |  |  |
| JT                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | 1ST LCASE COMBINED           | MAX/MIN. SNOW                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | MAX/MIN. LIVE             | MAX/MIN. PERM.LIVE | MAX/MIN. WIND                | MAX/MIN. DEAD                | MAX/MIN. SOIL |                           |               |     |   |     |   |   |     |   |     |   |    |                    |               |               |                    |               |               |               |   |     |         |       |       |       |        |       |   |    |        |       |       |       |        |       |        |       |                           |                           |               |                      |      |       |                           |               |       |  |  |  |  |  |       |  |  |  |     |  |        |       |       |          |       |     |          |          |     |  |         |       |       |          |      |  |  |  |     |  |       |       |       |          |       |  |  |  |     |  |          |     |     |          |      |  |  |  |     |  |       |       |       |          |       |  |  |  |     |  |       |       |       |          |       |  |  |  |     |  |       |       |       |          |       |  |  |  |
| 2                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | 188                          | 144 / 0                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | 0 / 0                     | 0 / 0              | 0 / 0                        | 44 / 0                       | 0 / 0         |                           |               |     |   |     |   |   |     |   |     |   |    |                    |               |               |                    |               |               |               |   |     |         |       |       |       |        |       |   |    |        |       |       |       |        |       |        |       |                           |                           |               |                      |      |       |                           |               |       |  |  |  |  |  |       |  |  |  |     |  |        |       |       |          |       |     |          |          |     |  |         |       |       |          |      |  |  |  |     |  |       |       |       |          |       |  |  |  |     |  |          |     |     |          |      |  |  |  |     |  |       |       |       |          |       |  |  |  |     |  |       |       |       |          |       |  |  |  |     |  |       |       |       |          |       |  |  |  |
| 4                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | 83                           | 50 / 0                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | 0 / 0                     | 0 / 0              | 0 / 0                        | 32 / 0                       | 0 / 0         |                           |               |     |   |     |   |   |     |   |     |   |    |                    |               |               |                    |               |               |               |   |     |         |       |       |       |        |       |   |    |        |       |       |       |        |       |        |       |                           |                           |               |                      |      |       |                           |               |       |  |  |  |  |  |       |  |  |  |     |  |        |       |       |          |       |     |          |          |     |  |         |       |       |          |      |  |  |  |     |  |       |       |       |          |       |  |  |  |     |  |          |     |     |          |      |  |  |  |     |  |       |       |       |          |       |  |  |  |     |  |       |       |       |          |       |  |  |  |     |  |       |       |       |          |       |  |  |  |
| CHORDS                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | MEMB.                        | MAX. FACTORED FORCE (LBS)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | FACTORED VERT. LOAD (PLF) | MAX. LC1 (LC)      | MAX. UNBRACED LENGTH         | WEBS                         | MEMB.         | MAX. FACTORED FORCE (LBS) | MAX. LC1 (LC) |     |   |     |   |   |     |   |     |   |    |                    |               |               |                    |               |               |               |   |     |         |       |       |       |        |       |   |    |        |       |       |       |        |       |        |       |                           |                           |               |                      |      |       |                           |               |       |  |  |  |  |  |       |  |  |  |     |  |        |       |       |          |       |     |          |          |     |  |         |       |       |          |      |  |  |  |     |  |       |       |       |          |       |  |  |  |     |  |          |     |     |          |      |  |  |  |     |  |       |       |       |          |       |  |  |  |     |  |       |       |       |          |       |  |  |  |     |  |       |       |       |          |       |  |  |  |
| FR-TO                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                           |                    |                              | FR-TO                        |               |                           |               |     |   |     |   |   |     |   |     |   |    |                    |               |               |                    |               |               |               |   |     |         |       |       |       |        |       |   |    |        |       |       |       |        |       |        |       |                           |                           |               |                      |      |       |                           |               |       |  |  |  |  |  |       |  |  |  |     |  |        |       |       |          |       |     |          |          |     |  |         |       |       |          |      |  |  |  |     |  |       |       |       |          |       |  |  |  |     |  |          |     |     |          |      |  |  |  |     |  |       |       |       |          |       |  |  |  |     |  |       |       |       |          |       |  |  |  |     |  |       |       |       |          |       |  |  |  |
| 1-2                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                              | 0 / 15                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | -77.3                     | -77.3              | 0.10 (1)                     | 10.00                        | 6-7           | -18 / 32                  | 0.00 (1)      |     |   |     |   |   |     |   |     |   |    |                    |               |               |                    |               |               |               |   |     |         |       |       |       |        |       |   |    |        |       |       |       |        |       |        |       |                           |                           |               |                      |      |       |                           |               |       |  |  |  |  |  |       |  |  |  |     |  |        |       |       |          |       |     |          |          |     |  |         |       |       |          |      |  |  |  |     |  |       |       |       |          |       |  |  |  |     |  |          |     |     |          |      |  |  |  |     |  |       |       |       |          |       |  |  |  |     |  |       |       |       |          |       |  |  |  |     |  |       |       |       |          |       |  |  |  |
| 2-7                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                              | -25 / 0                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | -77.3                     | -77.3              | 0.06 (1)                     | 6.25                         |               |                           |               |     |   |     |   |   |     |   |     |   |    |                    |               |               |                    |               |               |               |   |     |         |       |       |       |        |       |   |    |        |       |       |       |        |       |        |       |                           |                           |               |                      |      |       |                           |               |       |  |  |  |  |  |       |  |  |  |     |  |        |       |       |          |       |     |          |          |     |  |         |       |       |          |      |  |  |  |     |  |       |       |       |          |       |  |  |  |     |  |          |     |     |          |      |  |  |  |     |  |       |       |       |          |       |  |  |  |     |  |       |       |       |          |       |  |  |  |     |  |       |       |       |          |       |  |  |  |
| 7-3                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                              | 0 / 6                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | -77.3                     | -77.3              | 0.10 (1)                     | 10.00                        |               |                           |               |     |   |     |   |   |     |   |     |   |    |                    |               |               |                    |               |               |               |   |     |         |       |       |       |        |       |   |    |        |       |       |       |        |       |        |       |                           |                           |               |                      |      |       |                           |               |       |  |  |  |  |  |       |  |  |  |     |  |        |       |       |          |       |     |          |          |     |  |         |       |       |          |      |  |  |  |     |  |       |       |       |          |       |  |  |  |     |  |          |     |     |          |      |  |  |  |     |  |       |       |       |          |       |  |  |  |     |  |       |       |       |          |       |  |  |  |     |  |       |       |       |          |       |  |  |  |
| 5-3                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                              | -106 / 0                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | 0.0                       | 0.0                | 0.01 (1)                     | 7.81                         |               |                           |               |     |   |     |   |   |     |   |     |   |    |                    |               |               |                    |               |               |               |   |     |         |       |       |       |        |       |   |    |        |       |       |       |        |       |        |       |                           |                           |               |                      |      |       |                           |               |       |  |  |  |  |  |       |  |  |  |     |  |        |       |       |          |       |     |          |          |     |  |         |       |       |          |      |  |  |  |     |  |       |       |       |          |       |  |  |  |     |  |          |     |     |          |      |  |  |  |     |  |       |       |       |          |       |  |  |  |     |  |       |       |       |          |       |  |  |  |     |  |       |       |       |          |       |  |  |  |
| 2-6                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                              | 0 / 0                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | -17.5                     | -17.5              | 0.06 (1)                     | 10.00                        |               |                           |               |     |   |     |   |   |     |   |     |   |    |                    |               |               |                    |               |               |               |   |     |         |       |       |       |        |       |   |    |        |       |       |       |        |       |        |       |                           |                           |               |                      |      |       |                           |               |       |  |  |  |  |  |       |  |  |  |     |  |        |       |       |          |       |     |          |          |     |  |         |       |       |          |      |  |  |  |     |  |       |       |       |          |       |  |  |  |     |  |          |     |     |          |      |  |  |  |     |  |       |       |       |          |       |  |  |  |     |  |       |       |       |          |       |  |  |  |     |  |       |       |       |          |       |  |  |  |
| 6-5                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                              | 0 / 0                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | -17.5                     | -17.5              | 0.13 (1)                     | 10.00                        |               |                           |               |     |   |     |   |   |     |   |     |   |    |                    |               |               |                    |               |               |               |   |     |         |       |       |       |        |       |   |    |        |       |       |       |        |       |        |       |                           |                           |               |                      |      |       |                           |               |       |  |  |  |  |  |       |  |  |  |     |  |        |       |       |          |       |     |          |          |     |  |         |       |       |          |      |  |  |  |     |  |       |       |       |          |       |  |  |  |     |  |          |     |     |          |      |  |  |  |     |  |       |       |       |          |       |  |  |  |     |  |       |       |       |          |       |  |  |  |     |  |       |       |       |          |       |  |  |  |
| 5-4                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                              | 0 / 0                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | -17.5                     | -17.5              | 0.13 (1)                     | 10.00                        |               |                           |               |     |   |     |   |   |     |   |     |   |    |                    |               |               |                    |               |               |               |   |     |         |       |       |       |        |       |   |    |        |       |       |       |        |       |        |       |                           |                           |               |                      |      |       |                           |               |       |  |  |  |  |  |       |  |  |  |     |  |        |       |       |          |       |     |          |          |     |  |         |       |       |          |      |  |  |  |     |  |       |       |       |          |       |  |  |  |     |  |          |     |     |          |      |  |  |  |     |  |       |       |       |          |       |  |  |  |     |  |       |       |       |          |       |  |  |  |     |  |       |       |       |          |       |  |  |  |

RECEIVED  
TOWN OF MILTON  
MAR 29, 2017  
17-5246  
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.

March 15th, 2017

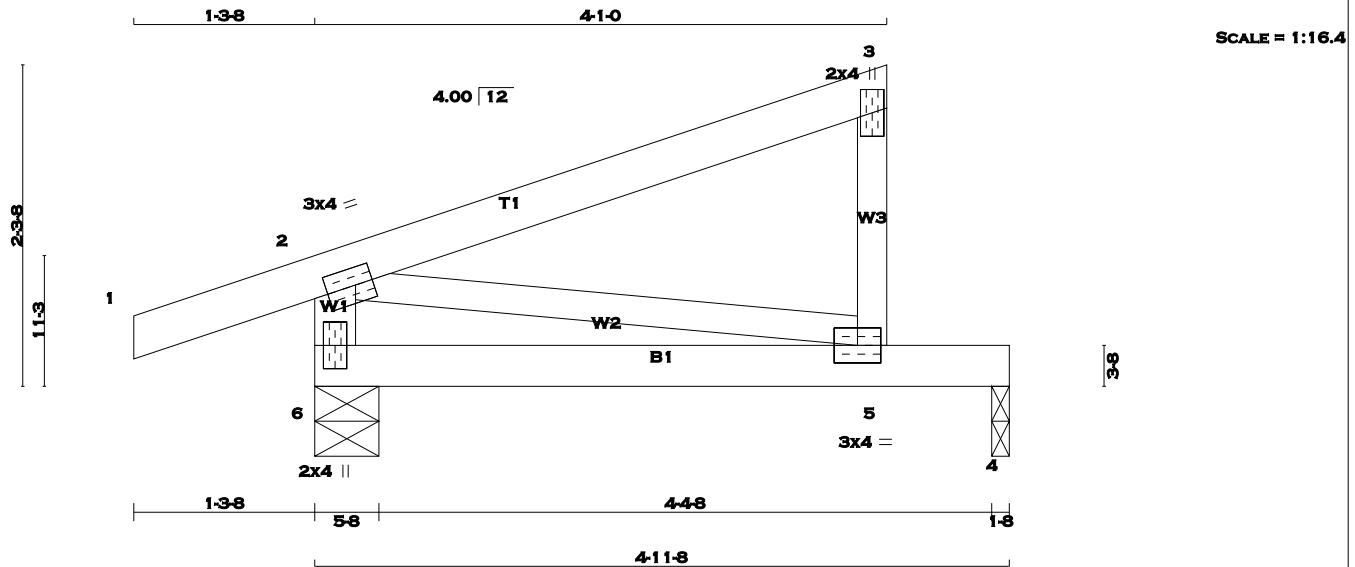


March 15th, 2017

RECEIVED  
TOWN OF MILTON  
MAR 29, 2017  
17-5246  
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 = 5 X 17 = 85 lb [M]

| LUMBER                |      |        |      | DESCR. |     |
|-----------------------|------|--------|------|--------|-----|
| N. L. G. A. RULES     | SIZE | LUMBER |      | SPF    |     |
| CHORDS                |      |        |      |        |     |
| 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 | 1.50 |
| 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.

#### 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        |  | 333      | 0        | 333              | 0        | 0      | 5-8   | 5-8   |  |
| 4        |  | 173      | 0        | 173              | 0        | 0      | 1-8   | 1-8   |  |

#### UNFACTORED REACTIONS

| 1ST LCASE |          | MAX./MIN. COMPONENT 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: (4)

| CHORDS |                  |          | FACTORED         |                  |                    | WEBS  |                  |                       |
|--------|------------------|----------|------------------|------------------|--------------------|-------|------------------|-----------------------|
| MEMB.  | MAX. FORCE (LBS) | FACTORED | VERT. LOAD (PLF) | LC1 MAX CSI (LC) | MAX. UNBRAC LENGTH | MEMB. | MAX. 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 | 0 / 0            | 0.00 (1)              |
| 2-3    | 0 / 0            |          | -77.3            | -77.3            | 0.22 (1)           | 10.00 |                  |                       |
| 5-3    | -158 / 0         |          | 0.0              | 0.0              | 0.03 (1)           | 7.81  |                  |                       |
| 6-2    | -261 / 0         |          | 0.0              | 0.0              | 0.03 (1)           | 7.81  |                  |                       |
| 6-5    | 0 / 0            |          | -17.5            | -17.5            | 0.20 (1)           | 10.00 |                  |                       |
| 5-4    | 0 / 0            |          | -17.5            | -17.5            | 0.20 (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 (0.03")  
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     |
| MT20  | 618       | 354   | 1667    |
|       | 822       | 2284  | 1656    |

PLATE PLACEMENT TOL. = 0.250 inches

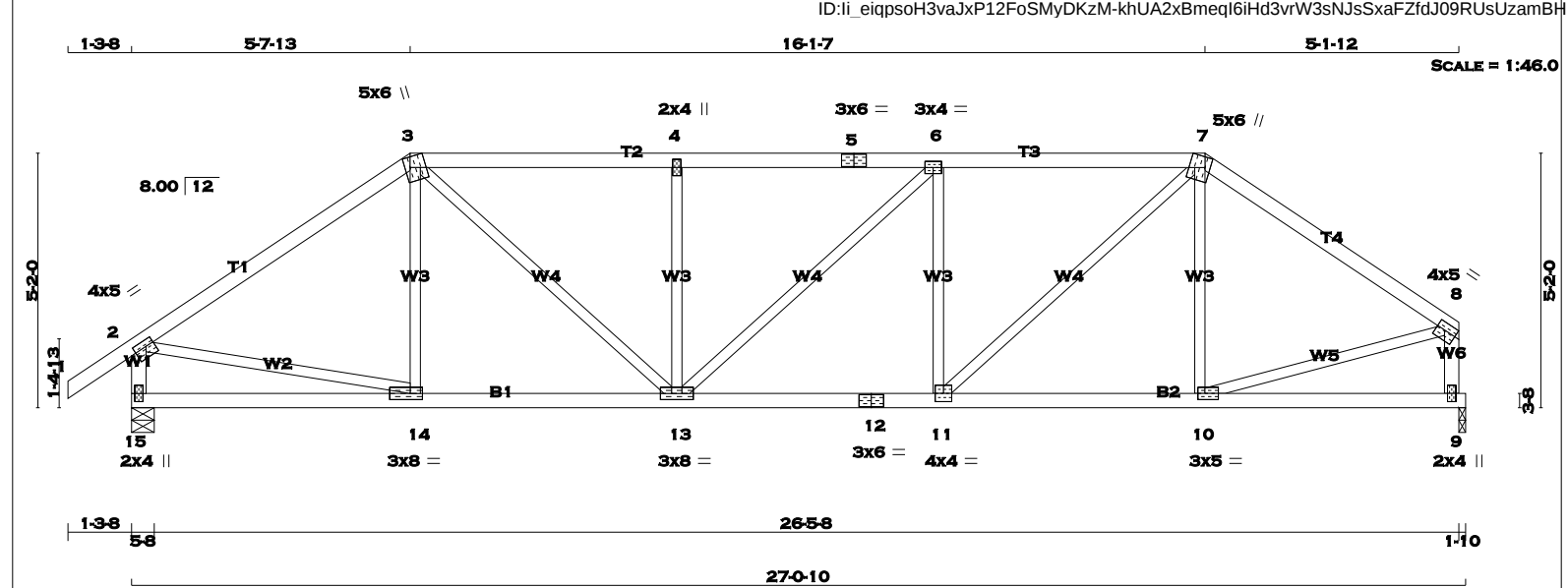
PLATE ROTATION TOL. = 5.0 Deg.

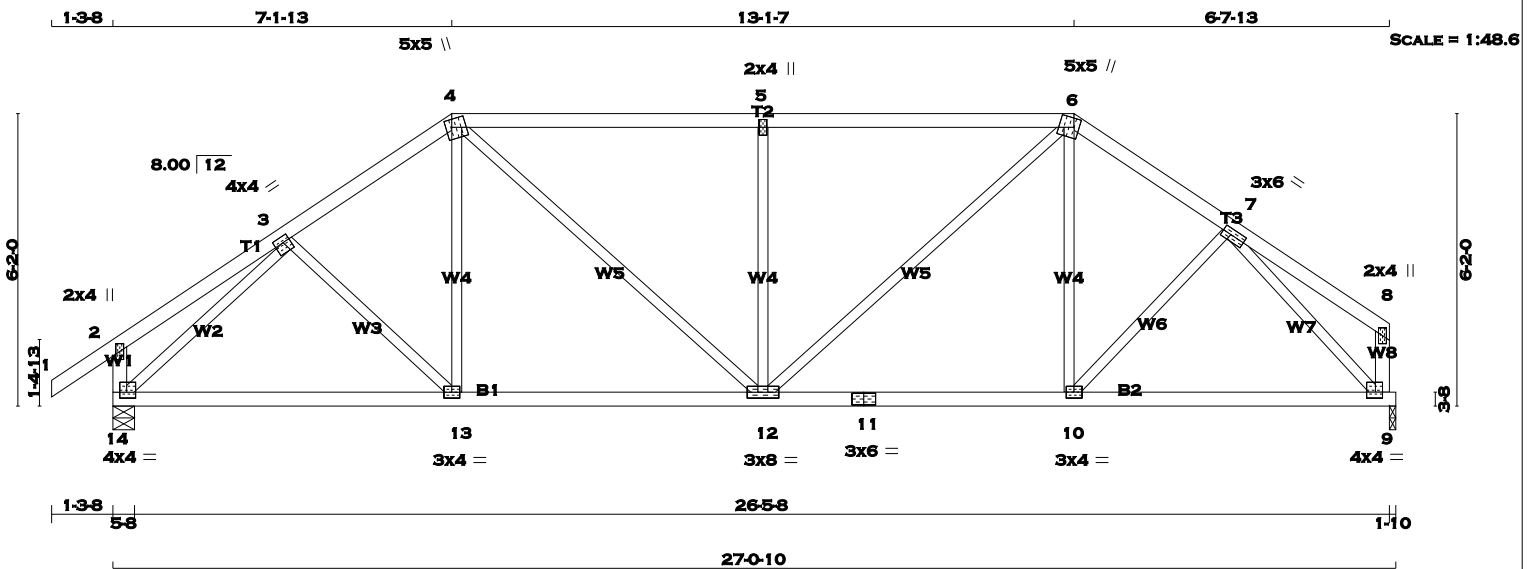
JSI GRIP= 0.24 (2) (INPUT = 0.90 )  
JSI METAL= 0.05 (6) (INPUT = 1.00 )

March 15th, 2017

RECEIVED  
TOWN OF MILTON  
MAR 29, 2017  
17-5246  
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 = 2 X 112 = 224 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   |
| 14 - 2                | 2x4  | DRY    | No.2   |
| 9 - 8                 | 2x4  | DRY    | No.2   |
| 14 - 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                           | TMV+p   | MT20   | 2.0 | 4.0 |           |
| 3                           | TMWW-t  | MT20   | 4.0 | 4.0 | 1.50 1.75 |
| 4                           | TTWW+m  | MT20   | 5.0 | 5.0 | 2.00 1.50 |
| 5                           | TMW+w   | MT20   | 2.0 | 4.0 |           |
| 6                           | TTWW+m  | MT20   | 5.0 | 5.0 | 2.25 1.25 |
| 7                           | TMWW-t  | MT20   | 3.0 | 6.0 | 1.50 2.25 |
| 8                           | TMV+p   | MT20   | 2.0 | 4.0 |           |
| 9                           | BMVW1-t | MT20   | 4.0 | 4.0 | 1.50 1.75 |
| 10                          | BMWW-t  | MT20   | 3.0 | 4.0 |           |
| 11                          | BS-t    | MT20   | 3.0 | 6.0 |           |
| 12                          | BMWW-t  | MT20   | 3.0 | 8.0 |           |
| 13                          | BMWW-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    |
| 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           |
| 14                   | 968      | 691 / 0   | 0 / 0    | 0 / 0               |
| 9                    | 896      | 627 / 0   | 0 / 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 = 4.76 FT.  
MAX. UNBRACED BOTTOM CHORD LENGTH = 10.00 FT. OR RIGID CEILING DIRECTLY APPLIED.  
ALL PITCH BREAKS AND PERIMETER CORNER JOINTS MUST BE Laterally RESTRAINED.

| LOADING |                           | TOTAL LOAD CASES: (4)     |                  |                    |             |                           |              |
|---------|---------------------------|---------------------------|------------------|--------------------|-------------|---------------------------|--------------|
| CHORDS  |                           |                           |                  | WEBS               |             |                           |              |
| MEMB.   | 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) |
| FR-TO   |                           | FROM                      | TO               |                    |             |                           |              |
| 1-2     | 0 / 29                    | -77.3                     | -77.3 0.10 (1)   | 10.00              | 3-13        | 0 / 51                    | 0.02 (4)     |
| 2-3     | 0 / 16                    | -77.3                     | -77.3 0.14 (1)   | 10.00              | 13-4        | 0 / 134                   | 0.04 (4)     |
| 3-4     | -1410 / 0                 | -77.3                     | -77.3 0.13 (1)   | 5.37               | 4-12        | 0 / 506                   | 0.11 (1)     |
| 4-5     | -1537 / 0                 | -77.3                     | -77.3 0.47 (1)   | 4.76               | 12-5        | -623 / 0                  | 0.37 (1)     |
| 5-6     | -1537 / 0                 | -77.3                     | -77.3 0.47 (1)   | 4.76               | 12-6        | 0 / 579                   | 0.13 (1)     |
| 6-7     | -1345 / 0                 | -77.3                     | -77.3 0.11 (1)   | 5.49               | 10-6        | 0 / 95                    | 0.03 (4)     |
| 7-8     | 0 / 15                    | -77.3                     | -77.3 0.12 (1)   | 10.00              | 10-7        | 0 / 104                   | 0.03 (4)     |
| 14-2    | -215 / 0                  | 0.0                       | 0.0 0.02 (1)     | 7.81               | 14-3        | -1604 / 0                 | 0.63 (1)     |
| 9-8     | -102 / 0                  | 0.0                       | 0.0 0.01 (1)     | 7.81               | 7-9         | -1529 / 0                 | 0.58 (1)     |
| 14-13   | 0 / 1151                  | -17.5                     | -17.5 0.30 (1)   | 10.00              |             |                           |              |
| 13-12   | 0 / 1160                  | -17.5                     | -17.5 0.30 (1)   | 10.00              |             |                           |              |
| 12-11   | 0 / 1105                  | -17.5                     | -17.5 0.29 (1)   | 10.00              |             |                           |              |
| 11-10   | 0 / 1105                  | -17.5                     | -17.5 0.29 (1)   | 10.00              |             |                           |              |
| 10-9    | 0 / 1033                  | -17.5                     | -17.5 0.27 (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=0.47 (4-5:1), BC=0.30 (12-13:1), WB=0.63 (3-14:1), 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.

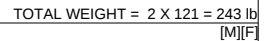
JSI GRIP= 0.89 (14) (INPUT = 0.90 )  
JSI METAL= 0.59 (3) (INPUT = 1.00 )

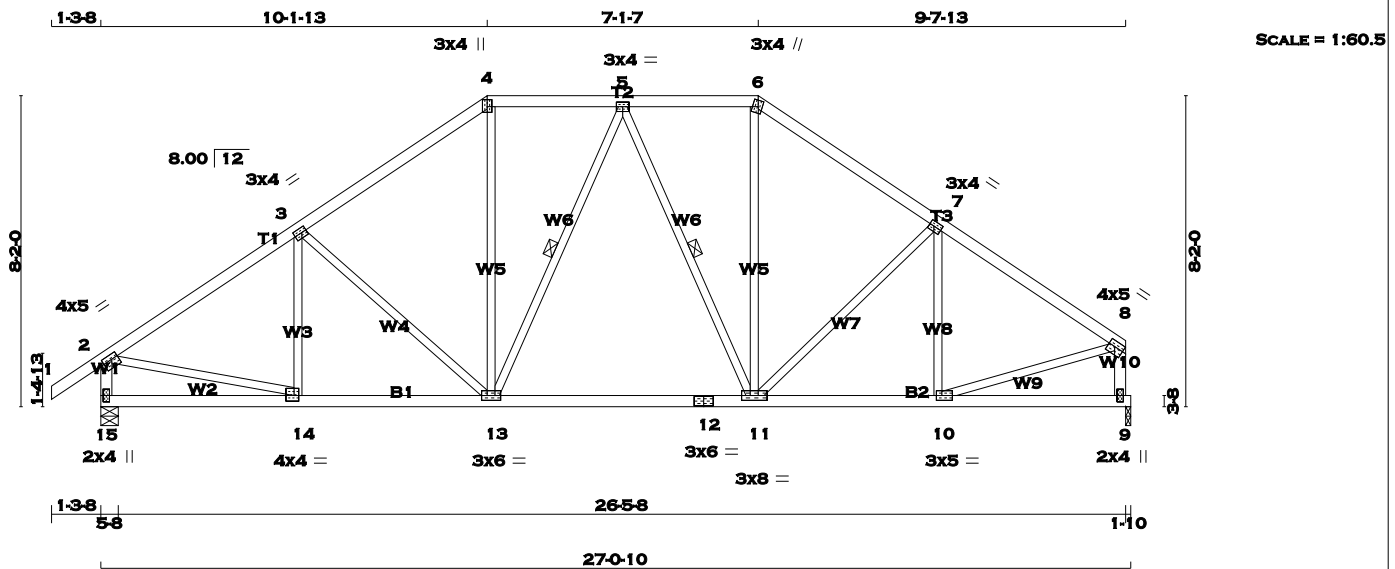
March 15th, 2017

RECEIVED  
TOWN OF MILTON  
MAR 29, 2017  
17-5246  
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 = 2 X 122 = 244 lb

| 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    |
| 15- 2                 | 2x4  | DRY | No.2   | SPF    |
| 9 - 8                 | 2x4  | DRY | No.2   | SPF    |
| 15- 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 | 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 |      |      |
| 6                                                                                | TTW+m  | MT20   | 3.0 | 4.0 | 2.00 | 1.25 |
| 7                                                                                | TMVW-t | MT20   | 3.0 | 4.0 | 1.50 | 1.50 |
| 8                                                                                | TMVW-t | MT20   | 4.0 | 5.0 | 1.75 | Edge |
| 9                                                                                | BMV1+p | MT20   | 2.0 | 4.0 |      |      |
| 10                                                                               | BMVW-t | MT20   | 3.0 | 5.0 | 1.50 | 1.75 |
| 11                                                                               | BMVW-t | MT20   | 3.0 | 8.0 |      |      |
| 12                                                                               | BS-t   | MT20   | 3.0 | 6.0 |      |      |
| 13                                                                               | BMVW-t | MT20   | 3.0 | 6.0 |      |      |
| 14                                                                               | BMVW-t | MT20   | 4.0 | 4.0 | 1.75 | 1.50 |
| 15                                                                               | 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 |
| 15       |  | 1383                    | 0                               | 1383      | 0         | 0      | 5-8   |
| 9        |  | 1276                    | 0                               | 1276      | 0         | 0      | 1-10  |

| UNFACTORED REACTIONS |           |          |           |           |       |         |       |
|----------------------|-----------|----------|-----------|-----------|-------|---------|-------|
| JT                   | 1ST LCASE | MAX/MIN. | COMPONENT | REACTIONS |       |         |       |
| JT                   | COMBINED  | SNOW     | LIVE      | PERM.LIVE | WIND  | DEAD    | SOIL  |
| 15                   | 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) 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" - CBF = 26 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. 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 | 14-3                      | -168 / 29                 | 0.06 (1) |
| 2-3    | -1461 / 0                 | -77.3 -77.3               | 0.29 (1)                  | 5.12  | 3-13                      | -276 / 0                  | 0.24 (1) |
| 3-4    | -1267 / 0                 | -77.3 -77.3               | 0.27 (1)                  | 5.42  | 13-4                      | 0 / 434                   | 0.10 (1) |
| 4-5    | -1037 / 0                 | -77.3 -77.3               | 0.12 (1)                  | 6.04  | 13-5                      | -153 / 0                  | 0.08 (1) |
| 5-6    | -1016 / 0                 | -77.3 -77.3               | 0.12 (1)                  | 6.08  | 5-11                      | -205 / 0                  | 0.10 (1) |
| 6-7    | -1241 / 0                 | -77.3 -77.3               | 0.25 (1)                  | 5.50  | 11-6                      | 0 / 427                   | 0.10 (1) |
| 7-8    | -1352 / 0                 | -77.3 -77.3               | 0.25 (1)                  | 5.32  | 11-7                      | -188 / 0                  | 0.16 (1) |
| 15-2   | -1343 / 0                 | 0.0 0.0                   | 0.14 (1)                  | 6.99  | 10-7                      | -244 / 2                  | 0.09 (1) |
| 9-8    | -1239 / 0                 | 0.0 0.0                   | 0.13 (1)                  | 7.22  | 2-14                      | 0 / 1263                  | 0.28 (1) |
|        |                           |                           |                           |       | 10-8                      | 0 / 1191                  | 0.27 (1) |
| 15-14  | 0 / 0                     | -17.5 -17.5               | 0.10 (4)                  | 10.00 |                           |                           |          |
| 14-13  | 0 / 1237                  | -17.5 -17.5               | 0.28 (1)                  | 10.00 |                           |                           |          |
| 13-12  | 0 / 1098                  | -17.5 -17.5               | 0.25 (1)                  | 10.00 |                           |                           |          |
| 12-11  | 0 / 1098                  | -17.5 -17.5               | 0.25 (1)                  | 10.00 |                           |                           |          |
| 11-10  | 0 / 1145                  | -17.5 -17.5               | 0.26 (1)                  | 10.00 |                           |                           |          |
| 10-9   | 0 / 0                     | -17.5 -17.5               | 0.09 (4)                  | 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 (0.04")  
ALLOWABLE DEFL.(TL)= L/360 (0.90")  
CALCULATED VERT. DEFL.(TL) = L/999 (0.11")

CSI: TC=0.29 (2-3:1), BC=0.28 (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) | (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.

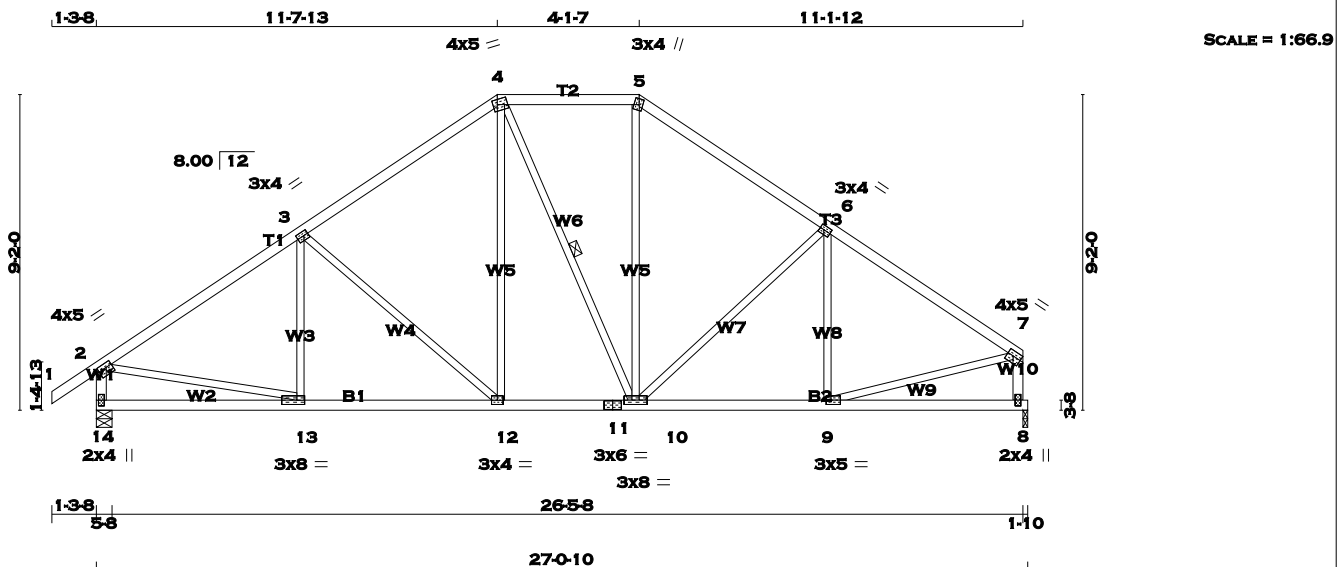
JSI GRIP= 0.90 (4) (INPUT = 0.90 )  
JSI METAL= 0.49 (2) (INPUT = 1.00 )

March 15th, 2017

RECEIVED  
TOWN OF MILTON  
MAR 29, 2017  
17-5246  
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 = 2 X 122 = 244 lb  
[M][F]

| LUMBER                |      |        |      | DESCR. |     |
|-----------------------|------|--------|------|--------|-----|
| N. L. G. A. RULES     |      | LUMBER | SIZE | SPF    | DRY |
| 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 - 11               | 2x4  | DRY    | No.2 | SPF    |     |
| 11 - 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 | 1.50 | 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 | 1.75 | Edge |
| 8                           | BMV1+p | MT20   | 2.0 | 4.0 |      |      |
| 9                           | BMVW-t | MT20   | 3.0 | 5.0 | 1.50 | 1.75 |
| 10                          | BMVW-t | MT20   | 3.0 | 8.0 |      |      |
| 11                          | BS-t   | MT20   | 3.0 | 6.0 |      |      |
| 12                          | BMVW-t | MT20   | 3.0 | 4.0 |      |      |
| 13                          | BMVW-t | MT20   | 3.0 | 8.0 | 1.50 | 2.75 |
| 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.



March 15th, 2017

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

| BEARINGS       |      | FACTORED       |      | MAXIMUM FACTORED |      | INPUT |       | REQRD |       |
|----------------|------|----------------|------|------------------|------|-------|-------|-------|-------|
| GROSS REACTION |      | GROSS REACTION |      | DOWN             |      | UP    |       | BRG   |       |
| JT             | VERT | JT             | HORZ | JT               | HORZ | JT    | IN-SX | JT    | IN-SX |
| 14             | 1383 | 0              | 1383 | 0                | 0    | 5-8   | 5-8   |       |       |
| 8              | 1276 | 0              | 1276 | 0                | 0    | 1-10  | 1-10  |       |       |

| 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 |
| 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) 14, 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.

1 - 2x3 SPF No.2 LATERAL BRACE(S) AT 1/2 LENGTH OF 4-10. 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: (4) |                  |               |          |
|---------|------------------|------------------|---------------|-----------------------|------------------|---------------|----------|
| CHORDS  |                  | FACTORED         |               | W E B S               |                  | FACTORED      |          |
| MEMB.   | MAX. FORCE (LBS) | VERT. LOAD (PLF) | MAX. CSI (LC) | MEMB.                 | MAX. FORCE (LBS) | MAX. CSI (LC) |          |
| FR-TO   |                  | FROM TO          |               | FR-TO                 |                  |               |          |
| 1-2     | 0 / 29           | -77.3 -77.3      | 0.10 (1)      | 10-00                 | 13-3             | -110 / 67     | 0.05 (1) |
| 2-3     | -1468 / 0        | -77.3 -77.3      | 0.39 (1)      | 4.99                  | 3-12             | -390 / 0      | 0.47 (1) |
| 3-4     | -1176 / 0        | -77.3 -77.3      | 0.36 (1)      | 5.45                  | 12-4             | 0 / 335       | 0.08 (1) |
| 4-5     | -945 / 0         | -77.3 -77.3      | 0.18 (1)      | 6.17                  | 4-10             | -25 / 0       | 0.02 (1) |
| 5-6     | -1163 / 0        | -77.3 -77.3      | 0.33 (1)      | 5.52                  | 10-5             | 0 / 312       | 0.07 (1) |
| 6-7     | -1372 / 0        | -77.3 -77.3      | 0.35 (1)      | 5.17                  | 10-6             | -306 / 0      | 0.36 (1) |
| 14-2    | -1340 / 0        | 0.0 0.0          | 0.14 (1)      | 7.00                  | 9-6              | -180 / 42     | 0.08 (1) |
| 8-7     | -1236 / 0        | 0.0 0.0          | 0.13 (1)      | 7.22                  | 2-13             | 0 / 1267      | 0.29 (1) |
|         |                  |                  |               |                       | 9-7              | 0 / 1201      | 0.27 (1) |
| 14-13   | 0 / 0            | -17.5 -17.5      | 0.15 (4)      | 10.00                 |                  |               |          |
| 13-12   | 0 / 1246         | -17.5 -17.5      | 0.28 (1)      | 10.00                 |                  |               |          |
| 12-11   | 0 / 956          | -17.5 -17.5      | 0.20 (1)      | 10.00                 |                  |               |          |
| 11-10   | 0 / 956          | -17.5 -17.5      | 0.20 (1)      | 10.00                 |                  |               |          |
| 10-9    | 0 / 1165         | -17.5 -17.5      | 0.25 (1)      | 10.00                 |                  |               |          |
| 9-8     | 0 / 0            | -17.5 -17.5      | 0.14 (4)      | 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 (0.09")

CSI: TC=0.39 (2-3:1), BC=0.28 (12-13:1), WB=0.47 (3-12:1), 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

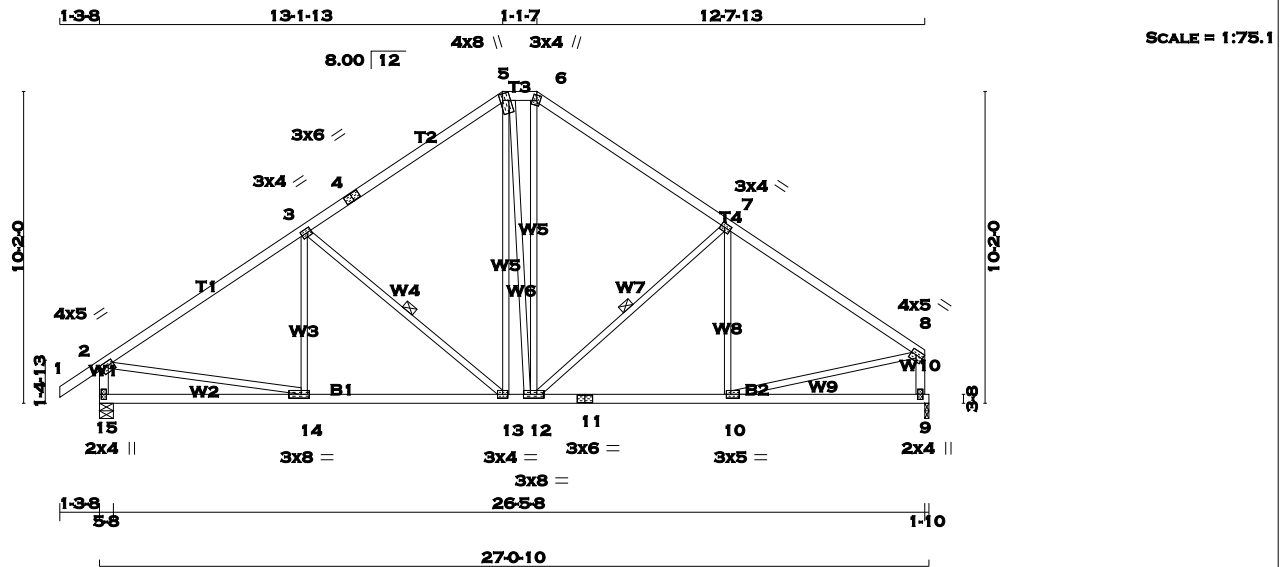
PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.90 (10) (INPUT = 0.90 )  
JSI METAL= 0.50 (2) (INPUT = 1.00 )

RECEIVED  
TOWN OF MILTON  
MAR 29, 2017  
17-5246  
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. | 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 - 6                 | 2x4  | DRY    | No.2   | 5 - 6                 | 2x4  | DRY    | No.2   |
| 6 - 8                 | 2x4  | DRY    | No.2   | 6 - 8                 | 2x4  | DRY    | No.2   |
| 15 - 2                | 2x4  | DRY    | No.2   | 15 - 2                | 2x4  | DRY    | No.2   |
| 9 - 8                 | 2x4  | DRY    | No.2   | 9 - 8                 | 2x4  | DRY    | No.2   |
| 15 - 11               | 2x4  | DRY    | No.2   | 15 - 11               | 2x4  | DRY    | No.2   |
| 11 - 9                | 2x4  | DRY    | No.2   | 11 - 9                | 2x4  | DRY    | No.2   |
| ALL WEBS              | 2x3  | DRY    | No.2   | ALL WEBS              | 2x3  | DRY    | No.2   |
| EXCEPT                |      |        |        | EXCEPT                |      |        |        |
| 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 | 1.50 | 2.00 |
| 3                           | TMVW-t | MT20   | 3.0 | 4.0 | 1.50 | 1.50 |
| 4                           | TS-t   | MT20   | 3.0 | 6.0 |      |      |
| 5                           | TTWW+m | MT20   | 4.0 | 8.0 | 2.50 | 1.00 |
| 6                           | TTW+m  | MT20   | 3.0 | 4.0 | 2.00 | 1.25 |
| 7                           | TMVW-t | MT20   | 3.0 | 4.0 | 1.50 | 1.50 |
| 8                           | TMVW-t | MT20   | 4.0 | 5.0 | 1.75 | Edge |
| 9                           | BMV1+p | MT20   | 2.0 | 4.0 |      |      |
| 10                          | BMVW-t | MT20   | 3.0 | 5.0 | 1.50 | 1.75 |
| 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                          | BMVW-t | MT20   | 3.0 | 8.0 | 1.50 | 3.25 |
| 15                          | 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 |
| 15                                                                                            | 1383 | 0                               | 1383 | 0         | 0      | 5-8       | 5-8   |
| 9                                                                                             | 1276 | 0                               | 1276 | 0         | 0      | 1-10      | 1-10  |

| 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     | 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) 15, 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.

1 - 2x3 SPF No.2 LATERAL BRACE(S) AT 1/2 LENGTH OF 3-13, 7-12. DBS = 20-0-0 . CBF = 62 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

| C H O R D S |                           |                           |                      | W E B S              |       |                           |              |
|-------------|---------------------------|---------------------------|----------------------|----------------------|-------|---------------------------|--------------|
| MEMB.       | MAX. FACTORED FORCE (LBS) | FACTORED VERT. LOAD (PLF) | MAX LC1 MAX CSI (LC) | MAX. UNBRACED LENGTH | MEMB. | MAX. FACTORED FORCE (LBS) | MAX CSI (LC) |
| FR-TO       |                           | FROM                      | TO                   | FR-TO                |       |                           |              |
| 1-2         | 0 / 29                    | -77.3                     | -77.3 0.10 (1)       | 10.00                | 14-3  | -67 / 92                  | 0.04 (1)     |
| 2-3         | -1464 / 0                 | -77.3                     | -77.3 0.51 (1)       | 4.82                 | 3-13  | -492 / 0                  | 0.25 (1)     |
| 3-4         | -1081 / 0                 | -77.3                     | -77.3 0.47 (1)       | 5.46                 | 13-5  | 0 / 343                   | 0.08 (1)     |
| 4-5         | -1081 / 0                 | -77.3                     | -77.3 0.47 (1)       | 5.46                 | 5-12  | 0 / 9                     | 0.00 (1)     |
| 5-6         | -874 / 0                  | -77.3                     | -77.3 0.02 (1)       | 6.25                 | 12-6  | 0 / 359                   | 0.08 (1)     |
| 6-7         | -1081 / 0                 | -77.3                     | -77.3 0.43 (1)       | 5.52                 | 12-7  | -407 / 0                  | 0.20 (1)     |
| 7-8         | -1378 / 0                 | -77.3                     | -77.3 0.46 (1)       | 5.00                 | 10-7  | -136 / 67                 | 0.08 (1)     |
| 15-2        | -1336 / 0                 | 0.0                       | 0.0 0.14 (1)         | 7.00                 | 2-14  | 0 / 1262                  | 0.28 (1)     |
| 9-8         | -1230 / 0                 | 0.0                       | 0.0 0.13 (1)         | 7.23                 | 10-8  | 0 / 1201                  | 0.27 (1)     |
| 15-14       | 0 / 0                     | -17.5                     | -17.5 0.19 (4)       | 10.00                |       |                           |              |
| 14-13       | 0 / 1246                  | -17.5                     | -17.5 0.30 (1)       | 10.00                |       |                           |              |
| 13-12       | 0 / 873                   | -17.5                     | -17.5 0.22 (1)       | 10.00                |       |                           |              |
| 12-11       | 0 / 1173                  | -17.5                     | -17.5 0.27 (1)       | 10.00                |       |                           |              |
| 11-10       | 0 / 1173                  | -17.5                     | -17.5 0.27 (1)       | 10.00                |       |                           |              |
| 10-9        | 0 / 0                     | -17.5                     | -17.5 0.17 (4)       | 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=0.51 (2-3:1), BC=0.30 (13-14:1), WB=0.28 (2-14:1), 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

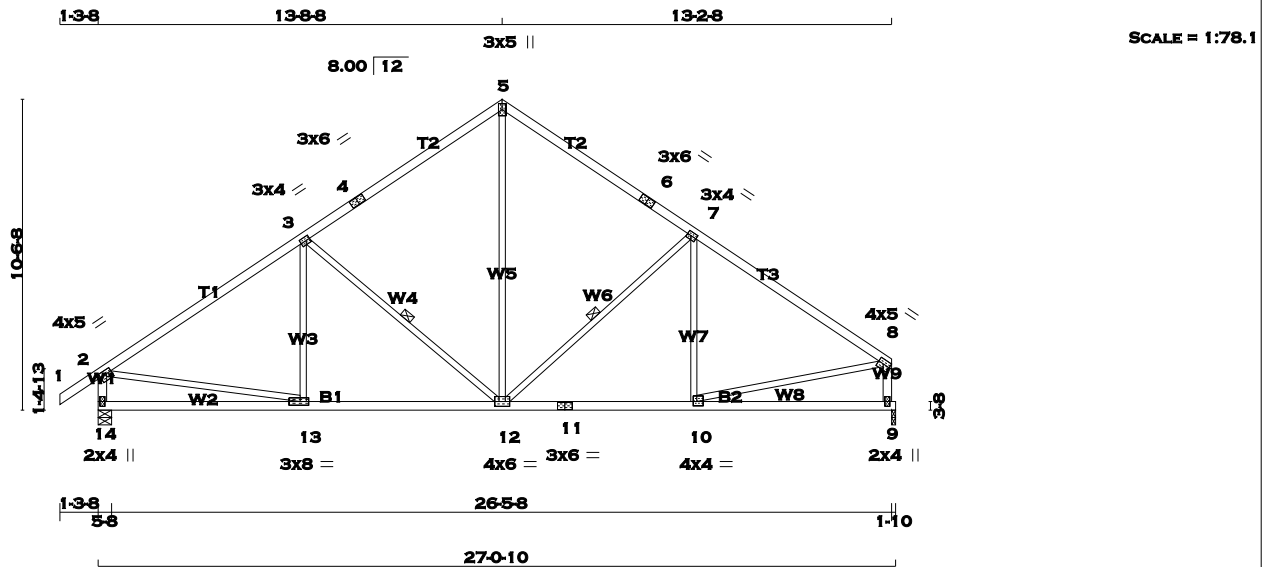
PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.90 (10) (INPUT = 0.90 )  
JSI METAL= 0.50 (2) (INPUT = 1.00 )

RECEIVED  
TOWN OF MILTON  
MAR 29, 2017  
17-5246  
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 = 2 X 114 = 228 lb [M][F]

| 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   |
| 14 - 2                | 2x4  | DRY    | No.2   |
| 9 - 8                 | 2x4  | DRY    | No.2   |
| 14 - 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 | 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+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 | 5.0 | 1.75 Edge |
| 9                                                                                | BMV1+p | MT20   | 2.0 | 4.0 |           |
| 10                                                                               | BMVW-t | MT20   | 4.0 | 4.0 | 1.75 1.50 |
| 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. |        |        |     |     |           |

March 15th, 2017

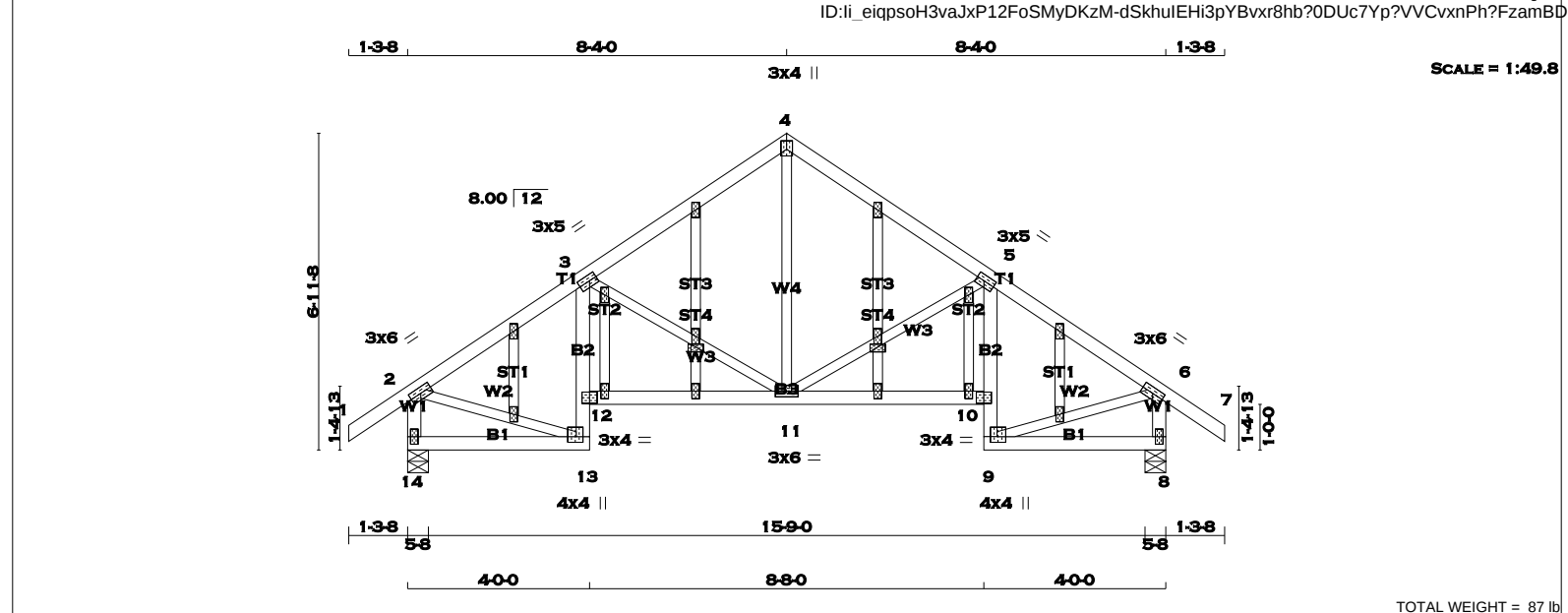
| DIMENSIONS, SUPPORTS AND LOADINGS SPECIFIED BY FABRICATOR TO BE VERIFIED BY BUILDING DESIGNER                                                                                                                                |                           |                           |              |                                 |           |                           |              |                   |  |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------|---------------------------|--------------|---------------------------------|-----------|---------------------------|--------------|-------------------|--|
| 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                         | 1-10         | 1-10              |  |
| 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 = 4.75 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 = 65 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: (4)                                                                                                                                                                                                        |                           |                           |              |                                 |           |                           |              |                   |  |
| 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) | MAX UNBRAC LENGTH |  |
| FR-TO                                                                                                                                                                                                                        |                           | FROM                      | TO           |                                 | FR-TO     |                           |              |                   |  |
| 1-2                                                                                                                                                                                                                          | 0 / 29                    | -77.3                     | -77.3        | 0.10 (1)                        | 10.00     | 13-3                      | -59 / 97     | 0.03 (1)          |  |
| 2-3                                                                                                                                                                                                                          | -1458 / 0                 | -77.3                     | -77.3        | 0.56 (1)                        | 4.75      | 3-12                      | -520 / 0     | 0.28 (1)          |  |
| 3-4                                                                                                                                                                                                                          | -1053 / 0                 | -77.3                     | -77.3        | 0.51 (1)                        | 5.44      | 12-5                      | 0 / 744      | 0.17 (1)          |  |
| 4-5                                                                                                                                                                                                                          | -1053 / 0                 | -77.3                     | -77.3        | 0.51 (1)                        | 5.44      | 12-7                      | -443 / 0     | 0.23 (1)          |  |
| 5-6                                                                                                                                                                                                                          | -1052 / 0                 | -77.3                     | -77.3        | 0.47 (1)                        | 5.52      | 10-7                      | -119 / 74    | 0.07 (1)          |  |
| 6-7                                                                                                                                                                                                                          | -1052 / 0                 | -77.3                     | -77.3        | 0.47 (1)                        | 5.52      | 2-13                      | 0 / 1257     | 0.28 (1)          |  |
| 7-8                                                                                                                                                                                                                          | -1377 / 0                 | -77.3                     | -77.3        | 0.51 (1)                        | 4.94      | 10-8                      | 0 / 1200     | 0.27 (1)          |  |
| 14-2                                                                                                                                                                                                                         | -1333 / 0                 | 0.0                       | 0.0          | 0.14 (1)                        | 7.02      |                           |              |                   |  |
| 9-8                                                                                                                                                                                                                          | -1228 / 0                 | 0.0                       | 0.0          | 0.13 (1)                        | 7.23      |                           |              |                   |  |
| 14-13                                                                                                                                                                                                                        | 0 / 0                     | -17.5                     | -17.5        | 0.20 (4)                        | 10.00     |                           |              |                   |  |
| 13-12                                                                                                                                                                                                                        | 0 / 1243                  | -17.5                     | -17.5        | 0.30 (1)                        | 10.00     |                           |              |                   |  |
| 12-11                                                                                                                                                                                                                        | 0 / 1174                  | -17.5                     | -17.5        | 0.29 (1)                        | 10.00     |                           |              |                   |  |
| 11-10                                                                                                                                                                                                                        | 0 / 1174                  | -17.5                     | -17.5        | 0.29 (1)                        | 10.00     |                           |              |                   |  |
| 10-9                                                                                                                                                                                                                         | 0 / 0                     | -17.5                     | -17.5        | 0.19 (4)                        | 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:<br>- PART 9 OF OBC 2012 , BCBC 2012 , ABC 2014<br>- CSA 086-09<br>- 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")<br>CALCULATED VERT. DEFL.(LL) = L/ 999 (0.05")<br>ALLOWABLE DEFL.(TL)= L/360 (0.90")<br>CALCULATED VERT. DEFL.(TL) = L/ 999 (0.11") |      |      |     |
| CSI: TC=0.56 (2-3:1) , BC=0.30 (12-13:1) , WB=0.28 (2-13:1) , SSI=0.22 (2-3:1)                                                                                         |      |      |     |
| DOL LUMBER=1.00 NAIL=1.00 LS BEND=1.10<br>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<br>PLATE GRIP(DRY) SHEAR SECTION (PSI) (PLI) (PLI)<br>MAX MIN MAX MIN MAX MIN<br>MT20 618 354 1667 822 2284 1656                                           |      |      |     |
| PLATE PLACEMENT TOL. = 0.250 inches                                                                                                                                    |      |      |     |
| PLATE POSITIONING TOL. = 5.0 Deg.                                                                                                                                      |      |      |     |
| JSI GRIP= 0.90 (8) (INPUT = 0.90 )<br>JSI METAL= 0.50 (2) (INPUT = 1.00 )                                                                                              |      |      |     |

RECEIVED  
TOWN OF MILTON  
MAR 29, 2017  
17-5246  
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.



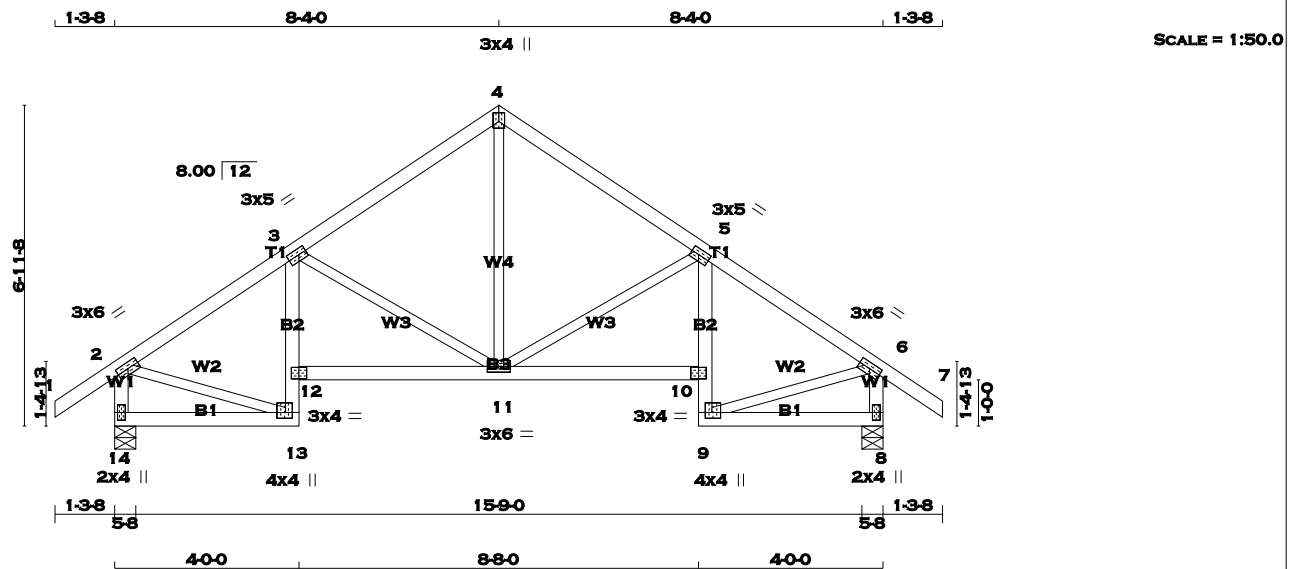


|                                    |  |  |  |  |  |                                                                                                      |  |  |  |  |  |                         |  |  |  |                        |  |  |  |  |  |
|------------------------------------|--|--|--|--|--|------------------------------------------------------------------------------------------------------|--|--|--|--|--|-------------------------|--|--|--|------------------------|--|--|--|--|--|
| <b>LUMBER</b><br>N. L. G. A. RULES |  |  |  |  |  | <b>DIMENSIONS, SUPPORTS AND LOADINGS SPECIFIED BY FABRICATOR TO BE VERIFIED BY BUILDING DESIGNER</b> |  |  |  |  |  |                         |  |  |  | <b>DESIGN CRITERIA</b> |  |  |  |  |  |
| <b>CHORDS</b>                      |  |  |  |  |  | <b>BEARINGS</b>                                                                                      |  |  |  |  |  | <b>SPECIFIED LOADS:</b> |  |  |  |                        |  |  |  |  |  |
| SIZE                               |  |  |  |  |  | FACTORED                                                                                             |  |  |  |  |  | TOP CH. LL = 23.3 PSF   |  |  |  |                        |  |  |  |  |  |
| LUMBER                             |  |  |  |  |  | MAXIMUM FACTORED                                                                                     |  |  |  |  |  | DL = 3.0 PSF            |  |  |  |                        |  |  |  |  |  |
| DESCR.                             |  |  |  |  |  | INPUT                                                                                                |  |  |  |  |  | BOT CH. LL = 0.0 PSF    |  |  |  |                        |  |  |  |  |  |
| SPF                                |  |  |  |  |  | REQRD                                                                                                |  |  |  |  |  | DL = 7.0 PSF            |  |  |  |                        |  |  |  |  |  |
| 1 - 4 2x4 DRY No.2                 |  |  |  |  |  | GROSS REACTION                                                                                       |  |  |  |  |  | TOTAL LOAD = 33.3 PSF   |  |  |  |                        |  |  |  |  |  |
| 4 - 7 2x4 DRY No.2                 |  |  |  |  |  | BRG                                                                                                  |  |  |  |  |  |                         |  |  |  |                        |  |  |  |  |  |
| 14 - 2 2x4 DRY No.2                |  |  |  |  |  | BRG                                                                                                  |  |  |  |  |  |                         |  |  |  |                        |  |  |  |  |  |
| 8 - 6 2x4 DRY No.2                 |  |  |  |  |  | DOWN                                                                                                 |  |  |  |  |  |                         |  |  |  |                        |  |  |  |  |  |
| 14 - 13 2x4 DRY No.2               |  |  |  |  |  | HORZ                                                                                                 |  |  |  |  |  |                         |  |  |  |                        |  |  |  |  |  |
| 13 - 3 2x4 DRY No.2                |  |  |  |  |  | UPLIFT                                                                                               |  |  |  |  |  |                         |  |  |  |                        |  |  |  |  |  |
| 12 - 10 2x4 DRY No.2               |  |  |  |  |  | IN-SX                                                                                                |  |  |  |  |  |                         |  |  |  |                        |  |  |  |  |  |
| 9 - 5 2x4 DRY No.2                 |  |  |  |  |  | IN-SX                                                                                                |  |  |  |  |  |                         |  |  |  |                        |  |  |  |  |  |
| 9 - 8 2x4 DRY No.2                 |  |  |  |  |  |                                                                                                      |  |  |  |  |  |                         |  |  |  |                        |  |  |  |  |  |
| ALL WEBS 2x3 DRY No.2              |  |  |  |  |  |                                                                                                      |  |  |  |  |  |                         |  |  |  |                        |  |  |  |  |  |
| EXCEPT                             |  |  |  |  |  |                                                                                                      |  |  |  |  |  |                         |  |  |  |                        |  |  |  |  |  |
| ALL GABLE WEBS                     |  |  |  |  |  |                                                                                                      |  |  |  |  |  |                         |  |  |  |                        |  |  |  |  |  |
| 2x3 DRY No.2                       |  |  |  |  |  |                                                                                                      |  |  |  |  |  |                         |  |  |  |                        |  |  |  |  |  |
| SPF                                |  |  |  |  |  |                                                                                                      |  |  |  |  |  |                         |  |  |  |                        |  |  |  |  |  |
| DRY: SEASONED LUMBER.              |  |  |  |  |  |                                                                                                      |  |  |  |  |  |                         |  |  |  |                        |  |  |  |  |  |
| GABLE STUDS SPACED AT 2-0-0 OC.    |  |  |  |  |  |                                                                                                      |  |  |  |  |  |                         |  |  |  |                        |  |  |  |  |  |
|                                    |  |  |  |  |  |                                                                                                      |  |  |  |  |  |                         |  |  |  |                        |  |  |  |  |  |
|                                    |  |  |  |  |  |                                                                                                      |  |  |  |  |  |                         |  |  |  |                        |  |  |  |  |  |
|                                    |  |  |  |  |  |                                                                                                      |  |  |  |  |  |                         |  |  |  |                        |  |  |  |  |  |
|                                    |  |  |  |  |  |                                                                                                      |  |  |  |  |  |                         |  |  |  |                        |  |  |  |  |  |
|                                    |  |  |  |  |  |                                                                                                      |  |  |  |  |  |                         |  |  |  |                        |  |  |  |  |  |
|                                    |  |  |  |  |  |                                                                                                      |  |  |  |  |  |                         |  |  |  |                        |  |  |  |  |  |
|                                    |  |  |  |  |  |                                                                                                      |  |  |  |  |  |                         |  |  |  |                        |  |  |  |  |  |
|                                    |  |  |  |  |  |                                                                                                      |  |  |  |  |  |                         |  |  |  |                        |  |  |  |  |  |
|                                    |  |  |  |  |  |                                                                                                      |  |  |  |  |  |                         |  |  |  |                        |  |  |  |  |  |
|                                    |  |  |  |  |  |                                                                                                      |  |  |  |  |  |                         |  |  |  |                        |  |  |  |  |  |
|                                    |  |  |  |  |  |                                                                                                      |  |  |  |  |  |                         |  |  |  |                        |  |  |  |  |  |
|                                    |  |  |  |  |  |                                                                                                      |  |  |  |  |  |                         |  |  |  |                        |  |  |  |  |  |
|                                    |  |  |  |  |  |                                                                                                      |  |  |  |  |  |                         |  |  |  |                        |  |  |  |  |  |
|                                    |  |  |  |  |  |                                                                                                      |  |  |  |  |  |                         |  |  |  |                        |  |  |  |  |  |
|                                    |  |  |  |  |  |                                                                                                      |  |  |  |  |  |                         |  |  |  |                        |  |  |  |  |  |
|                                    |  |  |  |  |  |                                                                                                      |  |  |  |  |  |                         |  |  |  |                        |  |  |  |  |  |
|                                    |  |  |  |  |  |                                                                                                      |  |  |  |  |  |                         |  |  |  |                        |  |  |  |  |  |
|                                    |  |  |  |  |  |                                                                                                      |  |  |  |  |  |                         |  |  |  |                        |  |  |  |  |  |
|                                    |  |  |  |  |  |                                                                                                      |  |  |  |  |  |                         |  |  |  |                        |  |  |  |  |  |
|                                    |  |  |  |  |  |                                                                                                      |  |  |  |  |  |                         |  |  |  |                        |  |  |  |  |  |
|                                    |  |  |  |  |  |                                                                                                      |  |  |  |  |  |                         |  |  |  |                        |  |  |  |  |  |
|                                    |  |  |  |  |  |                                                                                                      |  |  |  |  |  |                         |  |  |  |                        |  |  |  |  |  |
|                                    |  |  |  |  |  |                                                                                                      |  |  |  |  |  |                         |  |  |  |                        |  |  |  |  |  |
|                                    |  |  |  |  |  |                                                                                                      |  |  |  |  |  |                         |  |  |  |                        |  |  |  |  |  |
|                                    |  |  |  |  |  |                                                                                                      |  |  |  |  |  |                         |  |  |  |                        |  |  |  |  |  |
|                                    |  |  |  |  |  |                                                                                                      |  |  |  |  |  |                         |  |  |  |                        |  |  |  |  |  |
|                                    |  |  |  |  |  |                                                                                                      |  |  |  |  |  |                         |  |  |  |                        |  |  |  |  |  |
|                                    |  |  |  |  |  |                                                                                                      |  |  |  |  |  |                         |  |  |  |                        |  |  |  |  |  |
|                                    |  |  |  |  |  |                                                                                                      |  |  |  |  |  |                         |  |  |  |                        |  |  |  |  |  |
|                                    |  |  |  |  |  |                                                                                                      |  |  |  |  |  |                         |  |  |  |                        |  |  |  |  |  |
|                                    |  |  |  |  |  |                                                                                                      |  |  |  |  |  |                         |  |  |  |                        |  |  |  |  |  |
|                                    |  |  |  |  |  |                                                                                                      |  |  |  |  |  |                         |  |  |  |                        |  |  |  |  |  |
|                                    |  |  |  |  |  |                                                                                                      |  |  |  |  |  |                         |  |  |  |                        |  |  |  |  |  |
|                                    |  |  |  |  |  |                                                                                                      |  |  |  |  |  |                         |  |  |  |                        |  |  |  |  |  |
|                                    |  |  |  |  |  |                                                                                                      |  |  |  |  |  |                         |  |  |  |                        |  |  |  |  |  |
|                                    |  |  |  |  |  |                                                                                                      |  |  |  |  |  |                         |  |  |  |                        |  |  |  |  |  |
|                                    |  |  |  |  |  |                                                                                                      |  |  |  |  |  |                         |  |  |  |                        |  |  |  |  |  |
|                                    |  |  |  |  |  |                                                                                                      |  |  |  |  |  |                         |  |  |  |                        |  |  |  |  |  |
|                                    |  |  |  |  |  |                                                                                                      |  |  |  |  |  |                         |  |  |  |                        |  |  |  |  |  |
|                                    |  |  |  |  |  |                                                                                                      |  |  |  |  |  |                         |  |  |  |                        |  |  |  |  |  |
|                                    |  |  |  |  |  |                                                                                                      |  |  |  |  |  |                         |  |  |  |                        |  |  |  |  |  |
|                                    |  |  |  |  |  |                                                                                                      |  |  |  |  |  |                         |  |  |  |                        |  |  |  |  |  |
|                                    |  |  |  |  |  |                                                                                                      |  |  |  |  |  |                         |  |  |  |                        |  |  |  |  |  |
|                                    |  |  |  |  |  |                                                                                                      |  |  |  |  |  |                         |  |  |  |                        |  |  |  |  |  |
|                                    |  |  |  |  |  |                                                                                                      |  |  |  |  |  |                         |  |  |  |                        |  |  |  |  |  |
|                                    |  |  |  |  |  |                                                                                                      |  |  |  |  |  |                         |  |  |  |                        |  |  |  |  |  |
|                                    |  |  |  |  |  |                                                                                                      |  |  |  |  |  |                         |  |  |  |                        |  |  |  |  |  |
|                                    |  |  |  |  |  |                                                                                                      |  |  |  |  |  |                         |  |  |  |                        |  |  |  |  |  |
|                                    |  |  |  |  |  |                                                                                                      |  |  |  |  |  |                         |  |  |  |                        |  |  |  |  |  |
|                                    |  |  |  |  |  |                                                                                                      |  |  |  |  |  |                         |  |  |  |                        |  |  |  |  |  |
|                                    |  |  |  |  |  |                                                                                                      |  |  |  |  |  |                         |  |  |  |                        |  |  |  |  |  |
|                                    |  |  |  |  |  |                                                                                                      |  |  |  |  |  |                         |  |  |  |                        |  |  |  |  |  |
|                                    |  |  |  |  |  |                                                                                                      |  |  |  |  |  |                         |  |  |  |                        |  |  |  |  |  |
|                                    |  |  |  |  |  |                                                                                                      |  |  |  |  |  |                         |  |  |  |                        |  |  |  |  |  |
|                                    |  |  |  |  |  |                                                                                                      |  |  |  |  |  |                         |  |  |  |                        |  |  |  |  |  |
|                                    |  |  |  |  |  |                                                                                                      |  |  |  |  |  |                         |  |  |  |                        |  |  |  |  |  |
|                                    |  |  |  |  |  |                                                                                                      |  |  |  |  |  |                         |  |  |  |                        |  |  |  |  |  |
|                                    |  |  |  |  |  |                                                                                                      |  |  |  |  |  |                         |  |  |  |                        |  |  |  |  |  |
|                                    |  |  |  |  |  |                                                                                                      |  |  |  |  |  |                         |  |  |  |                        |  |  |  |  |  |
|                                    |  |  |  |  |  |                                                                                                      |  |  |  |  |  |                         |  |  |  |                        |  |  |  |  |  |
|                                    |  |  |  |  |  |                                                                                                      |  |  |  |  |  |                         |  |  |  |                        |  |  |  |  |  |
|                                    |  |  |  |  |  |                                                                                                      |  |  |  |  |  |                         |  |  |  |                        |  |  |  |  |  |
|                                    |  |  |  |  |  |                                                                                                      |  |  |  |  |  |                         |  |  |  |                        |  |  |  |  |  |
|                                    |  |  |  |  |  |                                                                                                      |  |  |  |  |  |                         |  |  |  |                        |  |  |  |  |  |
|                                    |  |  |  |  |  |                                                                                                      |  |  |  |  |  |                         |  |  |  |                        |  |  |  |  |  |
|                                    |  |  |  |  |  |                                                                                                      |  |  |  |  |  |                         |  |  |  |                        |  |  |  |  |  |
|                                    |  |  |  |  |  |                                                                                                      |  |  |  |  |  |                         |  |  |  |                        |  |  |  |  |  |
|                                    |  |  |  |  |  |                                                                                                      |  |  |  |  |  |                         |  |  |  |                        |  |  |  |  |  |
|                                    |  |  |  |  |  |                                                                                                      |  |  |  |  |  |                         |  |  |  |                        |  |  |  |  |  |
|                                    |  |  |  |  |  |                                                                                                      |  |  |  |  |  |                         |  |  |  |                        |  |  |  |  |  |
|                                    |  |  |  |  |  |                                                                                                      |  |  |  |  |  |                         |  |  |  |                        |  |  |  |  |  |
|                                    |  |  |  |  |  |                                                                                                      |  |  |  |  |  |                         |  |  |  |                        |  |  |  |  |  |
|                                    |  |  |  |  |  |                                                                                                      |  |  |  |  |  |                         |  |  |  |                        |  |  |  |  |  |
|                                    |  |  |  |  |  |                                                                                                      |  |  |  |  |  |                         |  |  |  |                        |  |  |  |  |  |
|                                    |  |  |  |  |  |                                                                                                      |  |  |  |  |  |                         |  |  |  |                        |  |  |  |  |  |
|                                    |  |  |  |  |  |                                                                                                      |  |  |  |  |  |                         |  |  |  |                        |  |  |  |  |  |
|                                    |  |  |  |  |  |                                                                                                      |  |  |  |  |  |                         |  |  |  |                        |  |  |  |  |  |
|                                    |  |  |  |  |  |                                                                                                      |  |  |  |  |  |                         |  |  |  |                        |  |  |  |  |  |
|                                    |  |  |  |  |  |                                                                                                      |  |  |  |  |  |                         |  |  |  |                        |  |  |  |  |  |
|                                    |  |  |  |  |  |                                                                                                      |  |  |  |  |  |                         |  |  |  |                        |  |  |  |  |  |
|                                    |  |  |  |  |  |                                                                                                      |  |  |  |  |  |                         |  |  |  |                        |  |  |  |  |  |
|                                    |  |  |  |  |  |                                                                                                      |  |  |  |  |  |                         |  |  |  |                        |  |  |  |  |  |
|                                    |  |  |  |  |  |                                                                                                      |  |  |  |  |  |                         |  |  |  |                        |  |  |  |  |  |
|                                    |  |  |  |  |  |                                                                                                      |  |  |  |  |  |                         |  |  |  |                        |  |  |  |  |  |
|                                    |  |  |  |  |  |                                                                                                      |  |  |  |  |  |                         |  |  |  |                        |  |  |  |  |  |
|                                    |  |  |  |  |  |                                                                                                      |  |  |  |  |  |                         |  |  |  |                        |  |  |  |  |  |
|                                    |  |  |  |  |  |                                                                                                      |  |  |  |  |  |                         |  |  |  |                        |  |  |  |  |  |
|                                    |  |  |  |  |  |                                                                                                      |  |  |  |  |  |                         |  |  |  |                        |  |  |  |  |  |
|                                    |  |  |  |  |  |                                                                                                      |  |  |  |  |  |                         |  |  |  |                        |  |  |  |  |  |
|                                    |  |  |  |  |  |                                                                                                      |  |  |  |  |  |                         |  |  |  |                        |  |  |  |  |  |
|                                    |  |  |  |  |  |                                                                                                      |  |  |  |  |  |                         |  |  |  |                        |  |  |  |  |  |
|                                    |  |  |  |  |  |                                                                                                      |  |  |  |  |  |                         |  |  |  |                        |  |  |  |  |  |
|                                    |  |  |  |  |  |                                                                                                      |  |  |  |  |  |                         |  |  |  |                        |  |  |  |  |  |
|                                    |  |  |  |  |  |                                                                                                      |  |  |  |  |  |                         |  |  |  |                        |  |  |  |  |  |
|                                    |  |  |  |  |  |                                                                                                      |  |  |  |  |  |                         |  |  |  |                        |  |  |  |  |  |
|                                    |  |  |  |  |  |                                                                                                      |  |  |  |  |  |                         |  |  |  |                        |  |  |  |  |  |
|                                    |  |  |  |  |  |                                                                                                      |  |  |  |  |  |                         |  |  |  |                        |  |  |  |  |  |
|                                    |  |  |  |  |  |                                                                                                      |  |  |  |  |  |                         |  |  |  |                        |  |  |  |  |  |
|                                    |  |  |  |  |  |                                                                                                      |  |  |  |  |  |                         |  |  |  |                        |  |  |  |  |  |
|                                    |  |  |  |  |  |                                                                                                      |  |  |  |  |  |                         |  |  |  |                        |  |  |  |  |  |
|                                    |  |  |  |  |  |                                                                                                      |  |  |  |  |  |                         |  |  |  |                        |  |  |  |  |  |
|                                    |  |  |  |  |  |                                                                                                      |  |  |  |  |  |                         |  |  |  |                        |  |  |  |  |  |
|                                    |  |  |  |  |  |                                                                                                      |  |  |  |  |  |                         |  |  |  |                        |  |  |  |  |  |
|                                    |  |  |  |  |  |                                                                                                      |  |  |  |  |  |                         |  |  |  |                        |  |  |  |  |  |
|                                    |  |  |  |  |  |                                                                                                      |  |  |  |  |  |                         |  |  |  |                        |  |  |  |  |  |
|                                    |  |  |  |  |  |                                                                                                      |  |  |  |  |  |                         |  |  |  |                        |  |  |  |  |  |
|                                    |  |  |  |  |  |                                                                                                      |  |  |  |  |  |                         |  |  |  |                        |  |  |  |  |  |
|                                    |  |  |  |  |  |                                                                                                      |  |  |  |  |  |                         |  |  |  |                        |  |  |  |  |  |
|                                    |  |  |  |  |  |                                                                                                      |  |  |  |  |  |                         |  |  |  |                        |  |  |  |  |  |
|                                    |  |  |  |  |  |                                                                                                      |  |  |  |  |  |                         |  |  |  |                        |  |  |  |  |  |
|                                    |  |  |  |  |  |                                                                                                      |  |  |  |  |  |                         |  |  |  |                        |  |  |  |  |  |
|                                    |  |  |  |  |  |                                                                                                      |  |  |  |  |  |                         |  |  |  |                        |  |  |  |  |  |
|                                    |  |  |  |  |  |                                                                                                      |  |  |  |  |  |                         |  |  |  |                        |  |  |  |  |  |
|                                    |  |  |  |  |  |                                                                                                      |  |  |  |  |  |                         |  |  |  |                        |  |  |  |  |  |
|                                    |  |  |  |  |  |                                                                                                      |  |  |  |  |  |                         |  |  |  |                        |  |  |  |  |  |
|                                    |  |  |  |  |  |                                                                                                      |  |  |  |  |  |                         |  |  |  |                        |  |  |  |  |  |
|                                    |  |  |  |  |  |                                                                                                      |  |  |  |  |  |                         |  |  |  |                        |  |  |  |  |  |
|                                    |  |  |  |  |  |                                                                                                      |  |  |  |  |  |                         |  |  |  |                        |  |  |  |  |  |
|                                    |  |  |  |  |  |                                                                                                      |  |  |  |  |  |                         |  |  |  |                        |  |  |  |  |  |
|                                    |  |  |  |  |  |                                                                                                      |  |  |  |  |  |                         |  |  |  |                        |  |  |  |  |  |
|                                    |  |  |  |  |  |                                                                                                      |  |  |  |  |  |                         |  |  |  |                        |  |  |  |  |  |
|                                    |  |  |  |  |  |                                                                                                      |  |  |  |  |  |                         |  |  |  |                        |  |  |  |  |  |
|                                    |  |  |  |  |  |                                                                                                      |  |  |  |  |  |                         |  |  |  |                        |  |  |  |  |  |
|                                    |  |  |  |  |  |                                                                                                      |  |  |  |  |  |                         |  |  |  |                        |  |  |  |  |  |
|                                    |  |  |  |  |  |                                                                                                      |  |  |  |  |  |                         |  |  |  |                        |  |  |  |  |  |
|                                    |  |  |  |  |  |                                                                                                      |  |  |  |  |  |                         |  |  |  |                        |  |  |  |  |  |
|                                    |  |  |  |  |  |                                                                                                      |  |  |  |  |  |                         |  |  |  |                        |  |  |  |  |  |
|                                    |  |  |  |  |  |                                                                                                      |  |  |  |  |  |                         |  |  |  |                        |  |  |  |  |  |
|                                    |  |  |  |  |  |                                                                                                      |  |  |  |  |  |                         |  |  |  |                        |  |  |  |  |  |
|                                    |  |  |  |  |  |                                                                                                      |  |  |  |  |  |                         |  |  |  |                        |  |  |  |  |  |
|                                    |  |  |  |  |  |                                                                                                      |  |  |  |  |  |                         |  |  |  |                        |  |  |  |  |  |
|                                    |  |  |  |  |  |                                                                                                      |  |  |  |  |  |                         |  |  |  |                        |  |  |  |  |  |
|                                    |  |  |  |  |  |                                                                                                      |  |  |  |  |  |                         |  |  |  |                        |  |  |  |  |  |
|                                    |  |  |  |  |  |                                                                                                      |  |  |  |  |  |                         |  |  |  |                        |  |  |  |  |  |
|                                    |  |  |  |  |  |                                                                                                      |  |  |  |  |  |                         |  |  |  |                        |  |  |  |  |  |
|                                    |  |  |  |  |  |                                                                                                      |  |  |  |  |  |                         |  |  |  |                        |  |  |  |  |  |
|                                    |  |  |  |  |  |                                                                                                      |  |  |  |  |  |                         |  |  |  |                        |  |  |  |  |  |
|                                    |  |  |  |  |  |                                                                                                      |  |  |  |  |  |                         |  |  |  |                        |  |  |  |  |  |
|                                    |  |  |  |  |  |                                                                                                      |  |  |  |  |  |                         |  |  |  |                        |  |  |  |  |  |
|                                    |  |  |  |  |  |                                                                                                      |  |  |  |  |  |                         |  |  |  |                        |  |  |  |  |  |
|                                    |  |  |  |  |  |                                                                                                      |  |  |  |  |  |                         |  |  |  |                        |  |  |  |  |  |
|                                    |  |  |  |  |  |                                                                                                      |  |  |  |  |  |                         |  |  |  |                        |  |  |  |  |  |
|                                    |  |  |  |  |  |                                                                                                      |  |  |  |  |  |                         |  |  |  |                        |  |  |  |  |  |
|                                    |  |  |  |  |  |                                                                                                      |  |  |  |  |  |                         |  |  |  |                        |  |  |  |  |  |
|                                    |  |  |  |  |  |                                                                                                      |  |  |  |  |  |                         |  |  |  |                        |  |  |  |  |  |
|                                    |  |  |  |  |  |                                                                                                      |  |  |  |  |  |                         |  |  |  |                        |  |  |  |  |  |
|                                    |  |  |  |  |  |                                                                                                      |  |  |  |  |  |                         |  |  |  |                        |  |  |  |  |  |
|                                    |  |  |  |  |  |                                                                                                      |  |  |  |  |  |                         |  |  |  |                        |  |  |  |  |  |
|                                    |  |  |  |  |  |                                                                                                      |  |  |  |  |  |                         |  |  |  |                        |  |  |  |  |  |
|                                    |  |  |  |  |  |                                                                                                      |  |  |  |  |  |                         |  |  |  |                        |  |  |  |  |  |
|                                    |  |  |  |  |  |                                                                                                      |  |  |  |  |  |                         |  |  |  |                        |  |  |  |  |  |
|                                    |  |  |  |  |  |                                                                                                      |  |  |  |  |  |                         |  |  |  |                        |  |  |  |  |  |
|                                    |  |  |  |  |  |                                                                                                      |  |  |  |  |  |                         |  |  |  |                        |  |  |  |  |  |
| </                                 |  |  |  |  |  |                                                                                                      |  |  |  |  |  |                         |  |  |  |                        |  |  |  |  |  |

KOTT , Stouffville, ON, CGC

Version 8.100 S Feb 9 2017 MiTek Industries, Inc. Wed Mar 15 08:08:17 2017 Page 1

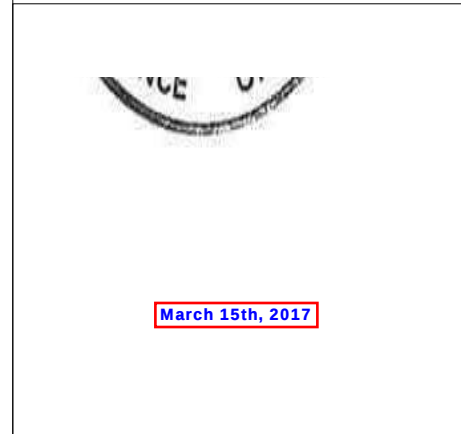
ID:li\_eiqpsoH3vaJxP12FoSMYDKzM-5f135eFvTMxPp3W1iO6EZR0nty9EEyS2AR8FXhzamBC



| LUMBER                |     | N. L. G. A. RULES |      | CHORDS |     | SIZE |  | LUMBER |  | DESCR. |  |
|-----------------------|-----|-------------------|------|--------|-----|------|--|--------|--|--------|--|
| 1 - 4                 | 2x4 | DRY               | No.2 | SPF    | SPF |      |  |        |  |        |  |
| 4 - 7                 | 2x4 | DRY               | No.2 | SPF    | SPF |      |  |        |  |        |  |
| 14 - 2                | 2x4 | DRY               | No.2 | SPF    | SPF |      |  |        |  |        |  |
| 8 - 6                 | 2x4 | DRY               | No.2 | SPF    | SPF |      |  |        |  |        |  |
| 14 - 13               | 2x4 | DRY               | No.2 | SPF    | SPF |      |  |        |  |        |  |
| 13 - 3                | 2x4 | DRY               | No.2 | SPF    | SPF |      |  |        |  |        |  |
| 12 - 10               | 2x4 | DRY               | No.2 | SPF    | SPF |      |  |        |  |        |  |
| 9 - 5                 | 2x4 | DRY               | No.2 | SPF    | SPF |      |  |        |  |        |  |
| 9 - 8                 | 2x4 | DRY               | No.2 | SPF    | SPF |      |  |        |  |        |  |
| ALL WEBS EXCEPT       | 2x3 | DRY               | No.2 | SPF    | SPF |      |  |        |  |        |  |
| DRY: SEASONED LUMBER. |     |                   |      |        |     |      |  |        |  |        |  |

| PLATES (table is in inches) |         |        |     |     |      |      |
|-----------------------------|---------|--------|-----|-----|------|------|
| JT                          | TYPE    | PLATES | W   | LEN | Y    | X    |
| 2                           | TMVW-t  | MT20   | 3.0 | 6.0 |      |      |
| 3                           | TMVW-t  | MT20   | 3.0 | 5.0 | 1.50 | 2.00 |
| 4                           | TTW+p   | MT20   | 3.0 | 4.0 | 2.25 | 1.50 |
| 5                           | TMVW-t  | MT20   | 3.0 | 5.0 | 1.50 | 2.00 |
| 6                           | TMVW-t  | MT20   | 3.0 | 6.0 |      |      |
| 8                           | BMV1+p  | MT20   | 2.0 | 4.0 |      |      |
| 9                           | BMVW+p  | MT20   | 4.0 | 4.0 | 1.50 | 1.75 |
| 10                          | BVM-I   | MT20   | 3.0 | 4.0 |      |      |
| 11                          | BMVWW-t | MT20   | 3.0 | 6.0 |      |      |
| 12                          | BVM-I   | MT20   | 3.0 | 4.0 |      |      |
| 13                          | BMVW+p  | MT20   | 4.0 | 4.0 | 1.50 | 1.75 |
| 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 GROSS REACTION |      | MAXIMUM FACTORED GROSS REACTION |      | INPUT BRG |       | REQRD BRG |  |
| JT                                                                                            |  | VERT                    | HORZ | DOWN                            | HORZ | UPLIFT    | IN-SX | IN-SX     |  |
| 14                                                                                            |  | 897                     | 0    | 897                             | 0    | 0         | 5-8   | 5-8       |  |
| 8                                                                                             |  | 897                     | 0    | 897                             | 0    | 0         | 5-8   | 5-8       |  |

ALLOW FOR 0.4" OF HORIZONTAL MOVEMENT DUE TO TOTAL LOAD.

| UNFACTORED REACTIONS |  |           |         |                               |           |       |         |
|----------------------|--|-----------|---------|-------------------------------|-----------|-------|---------|
|                      |  | 1ST LCASE |         | MAX./MIN. COMPONENT REACTIONS |           |       |         |
| JT                   |  | COMBINED  | SNOW    | LIVE                          | PERM.LIVE | WIND  | DEAD    |
| 14                   |  | 627       | 452 / 0 | 0 / 0                         | 0 / 0     | 0 / 0 | 175 / 0 |
| 8                    |  | 627       | 452 / 0 | 0 / 0                         | 0 / 0     | 0 / 0 | 175 / 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 = 6.25 FT.  
MAX. UNBRACED BOTTOM CHORD LENGTH = 7.81 FT. OR RIGID CEILING DIRECTLY APPLIED.

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

| LOADING               |  |               |                  |                |               |               |             |          |  |
|-----------------------|--|---------------|------------------|----------------|---------------|---------------|-------------|----------|--|
| TOTAL LOAD CASES: (4) |  |               |                  |                |               |               |             |          |  |
| CHORDS                |  |               |                  |                | WEBS          |               |             |          |  |
|                       |  | MAX. FACTORED |                  | FACTORED       |               | MAX. FACTORED |             | FACTORED |  |
| MEMB.                 |  | FORCE (LBS)   | VERT. LOAD (PLF) | LC1 MAX (LC)   | UNBRAC LENGTH | MEMB.         | FORCE (LBS) | MAX (LC) |  |
| FR-TO                 |  |               | FROM TO          |                |               | FR-TO         |             |          |  |
| 1-2                   |  | 0 / 29        | -77.3            | -77.3 0.10 (1) | 10.00         | 11-4          | 0 / 483     | 0.11 (1) |  |
| 2-3                   |  | -788 / 0      | -77.3            | -77.3 0.15 (1) | 6.25          | 11-5          | -380 / 0    | 0.17 (1) |  |
| 3-4                   |  | -722 / 0      | -77.3            | -77.3 0.22 (1) | 6.25          | 3-11          | -380 / 0    | 0.17 (1) |  |
| 4-5                   |  | -722 / 0      | -77.3            | -77.3 0.22 (1) | 6.25          | 2-13          | 0 / 692     | 0.16 (1) |  |
| 5-6                   |  | -788 / 0      | -77.3            | -77.3 0.15 (1) | 6.25          | 9-6           | 0 / 692     | 0.16 (1) |  |
| 6-7                   |  | 0 / 29        | -77.3            | -77.3 0.10 (1) | 10.00         |               |             |          |  |
| 14-2                  |  | -863 / 0      | 0.0              | 0.0 0.09 (1)   | 7.81          |               |             |          |  |
| 8-6                   |  | -863 / 0      | 0.0              | 0.0 0.09 (1)   | 7.81          |               |             |          |  |
| 14-13                 |  | 0 / 0         | -17.5            | -17.5 0.08 (4) | 10.00         |               |             |          |  |
| 13-12                 |  | -153 / 0      | 0.0              | 0.0 0.91 (1)   | 7.81          |               |             |          |  |
| 12-3                  |  | -123 / 18     | 0.0              | 0.0 0.91 (1)   | 7.81          |               |             |          |  |
| 12-11                 |  | 0 / 918       | -17.5            | -17.5 0.20 (1) | 10.00         |               |             |          |  |
| 11-10                 |  | 0 / 918       | -17.5            | -17.5 0.20 (1) | 10.00         |               |             |          |  |
| 9-10                  |  | -153 / 0      | 0.0              | 0.0 0.91 (1)   | 7.81          |               |             |          |  |
| 10-5                  |  | -123 / 18     | 0.0              | 0.0 0.91 (1)   | 7.81          |               |             |          |  |
| 9-8                   |  | 0 / 0         | -17.5            | -17.5 0.08 (4) | 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 (0.56")  
CALCULATED VERT. DEFL.(LL) = L/ 999 (0.12")  
ALLOWABLE DEFL.(TL)= L/360 (0.56")  
CALCULATED VERT. DEFL.(TL) = L/ 921 (0.22")

CSI: TC=0.22 (3-4:1) , BC=0.91 (3-12:1) , WB=0.17 (3-11:1) , SSI=0.52 (12-13:1)

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   |
| MT20        | 618       | 354   | 1667    | 822     | 2284 1656 |

PLATE PLACEMENT TOL. = 0.250 inches

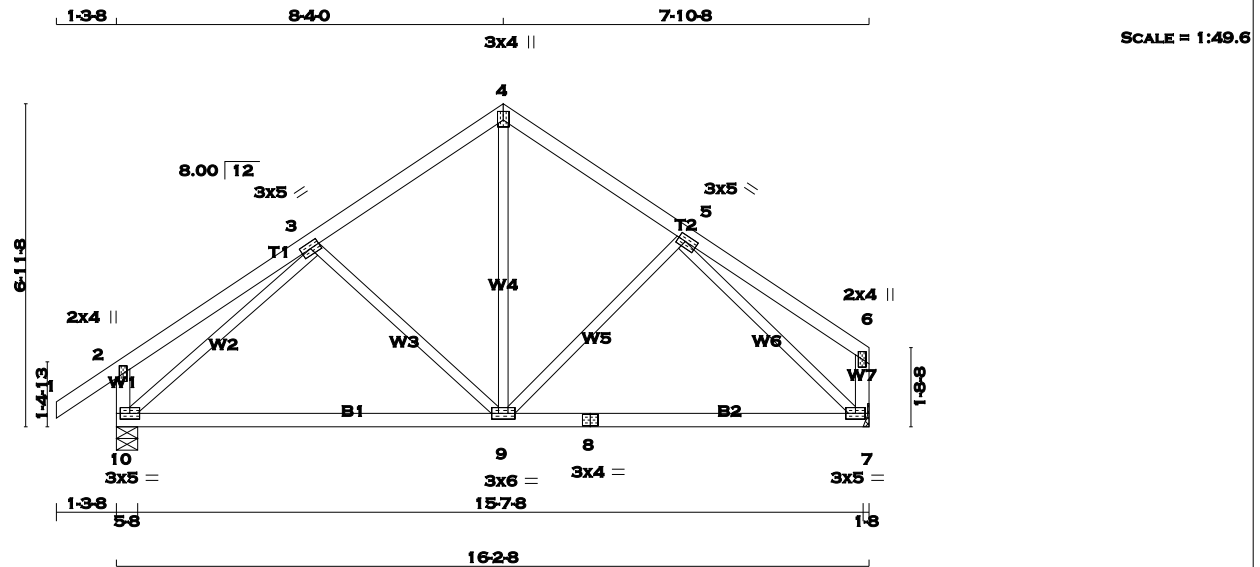
PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.88 (11) (INPUT = 0.90)  
JSI METAL= 0.23 (6) (INPUT = 1.00)

RECEIVED  
TOWN OF MILTON  
MAR 29, 2017  
17-5246  
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 68 = 203 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 |
| 10 - 2            | 2x4  | DRY    | No.2   | SPF |
| 7 - 6             | 2x4  | DRY    | No.2   | SPF |
| 10 - 8            | 2x4  | DRY    | No.2   | SPF |
| 8 - 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  | TMVW-t  | MT20   | 3.0 | 5.0 |      |      |
| 4  | TTW+p   | MT20   | 3.0 | 4.0 | 2.25 | 1.50 |
| 5  | TMVW-t  | MT20   | 3.0 | 5.0 | 1.50 | 2.00 |
| 6  | 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**

| FACTORED<br>GROSS REACTION |      |      | MAXIMUM FACTORED<br>GROSS REACTION |      |        | INPUT<br>BRG     | REQRD<br>BRG        |
|----------------------------|------|------|------------------------------------|------|--------|------------------|---------------------|
| JT                         | VERT | HORZ | DOWN                               | HORZ | UPLIFT | IN-SX            | IN-SX               |
| 10                         | 875  | 0    | 875                                | 0    | 0      | 5-8              | 5-8                 |
| 7                          | 769  | 0    | 769                                | 0    | 0      | HANGER BY OTHERS |                     |
|                            |      |      |                                    |      |        |                  | MIN. SEAT SIZE: 1-8 |

**UNFACTORED REACTIONS**

| 1ST LCASE |          | MAX./MIN. COMPONENT REACTIONS |       | PERM.LIVE |       | WIND    |       | DEAD |          | SOIL    |       |
|-----------|----------|-------------------------------|-------|-----------|-------|---------|-------|------|----------|---------|-------|
| JT        | COMBINED | SNOW                          | LIVE  | PERM.LIVE | WIND  | DEAD    | SOIL  | JT   | COMBINED | SNOW    | LIVE  |
| 10        | 612      | 441 / 0                       | 0 / 0 | 0 / 0     | 0 / 0 | 170 / 0 | 0 / 0 | 10   | 612      | 441 / 0 | 0 / 0 |
| 7         | 539      | 377 / 0                       | 0 / 0 | 0 / 0     | 0 / 0 | 162 / 0 | 0 / 0 | 7    | 539      | 377 / 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: (4)

| CHORDS |                           |                  |                          | WEBS  |                           |                    |                      |
|--------|---------------------------|------------------|--------------------------|-------|---------------------------|--------------------|----------------------|
| MEMB.  | MAX. FACTORED FORCE (LBS) | VERT. LOAD (PLF) | MAX. FACTORED (LC1) (LC) | MEMB. | MAX. FACTORED FORCE (LBS) | MAX. FACTORED (LC) | UNBRACED LENGTH (LC) |
| FR-TO  |                           |                  |                          | FR-TO |                           |                    |                      |
| 1-2    | 0 / 29                    | -77.3            | -77.3 0.10 (1)           | 3-9   | -199 / 0                  | 0.11 (1)           | 10.00                |
| 2-3    | 0 / 21                    | -77.3            | -77.3 0.22 (1)           | 9-4   | 0 / 411                   | 0.09 (1)           | 10.00                |
| 3-4    | -609 / 0                  | -77.3            | -77.3 0.17 (1)           | 6-25  | -141 / 12                 | 0.08 (1)           | 6.25                 |
| 4-5    | -608 / 0                  | -77.3            | -77.3 0.15 (1)           | 10-3  | -867 / 0                  | 0.46 (1)           | 6.25                 |
| 5-6    | 0 / 20                    | -77.3            | -77.3 0.19 (1)           | 10.00 | 5-7                       | -841 / 0           | 0.43 (1)             |
| 10-2   | -229 / 0                  | 0.0              | 0.0 0.02 (1)             | 7.81  |                           |                    |                      |
| 7-6    | -117 / 0                  | 0.0              | 0.0 0.01 (1)             | 7.81  |                           |                    |                      |
| 10-9   | 0 / 636                   | -17.5            | -17.5 0.37 (4)           | 10.00 |                           |                    |                      |
| 9-8    | 0 / 589                   | -17.5            | -17.5 0.37 (4)           | 10.00 |                           |                    |                      |
| 8-7    | 0 / 589                   | -17.5            | -17.5 0.37 (4)           | 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 (2-3:1), BC=0.37 (9-10:4), WB=0.46 (3-10:1), 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 MIN  
MT20 618 354 1667 822 2284 1656

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

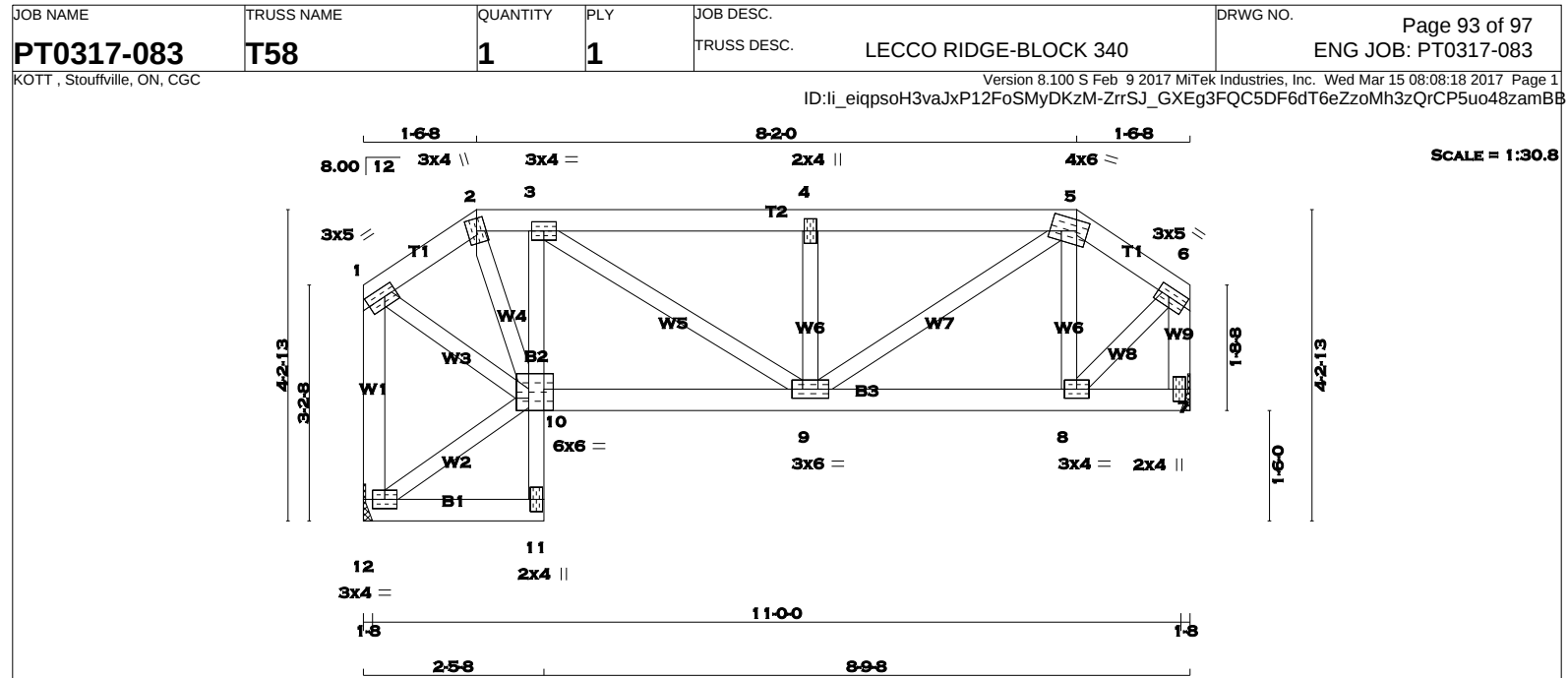
JSI GRIP= 0.90 (3) (INPUT = 0.90)  
JSI METAL= 0.24 (3) (INPUT = 1.00)

March 15th, 2017

RECEIVED  
TOWN OF MILTON  
MAR 29, 2017  
17-5246  
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<br>1 - 2 2x4 DRY No.2<br>2 - 5 2x4 DRY No.2<br>5 - 6 2x4 DRY No.2<br>12 - 1 2x4 DRY No.2<br>7 - 6 2x4 DRY No.2<br>12 - 11 2x4 DRY No.2<br>11 - 3 2x3 DRY No.2<br>10 - 7 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 TMVW-t MT20 3.0 5.0 1.50 2.00<br>2 TTW+m MT20 3.0 4.0<br>3 TMVW-t MT20 3.0 4.0<br>4 TMW+w MT20 2.0 4.0<br>5 TTWW-m MT20 4.0 6.0 1.75 1.75<br>6 TMVW-t MT20 3.0 5.0 1.50 2.00<br>7 BMV1+p MT20 2.0 4.0<br>8 BMWW-t MT20 3.0 4.0<br>9 BMWWW-t MT20 3.0 6.0<br>10 BMVWW-I MT20 6.0 6.0 Edge 4.00<br>11 BMV+p MT20 2.0 4.0<br>12 BMVW1-t MT20 3.0 4.0<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>DESCR.</b><br>SPF<br>SPF<br>SPF<br>SPF<br>SPF<br>SPF<br>SPF<br>SPF<br><br>SPF                                                                                                                                                                      |  |  |  |
| <b>RECEIVED</b><br><b>TOWN OF MILTON</b><br><br>MAR 29, 2017<br>17-5246<br><b>BUILDING DIVISION</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |  |  |  | <b>RECEIVED</b><br><b>TOWN OF MILTON</b><br><br>MAR 29, 2017<br>17-5246<br><b>BUILDING DIVISION</b>                                                                                                                                                   |  |  |  |
| <b>March 15th, 2017</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |  |  |  | <b>March 15th, 2017</b>                                                                                                                                                                                                                               |  |  |  |
| <b>READ ALL NOTES ON THIS PAGE AND ON THE</b><br><b>ENGINEERING NOTE PAGE ENP-1. THE NOTE PAGE</b><br><b>IS AN INTEGRAL PART OF THIS DRAWING AS IT</b><br><b>CONTAINS SPECIFICATIONS AND CRITERIA USED</b><br><b>IN THE DESIGN OF THIS COMPONENT.</b>                                                                                                                                                                                                                                                                                                                                  |  |  |  | <b>READ ALL NOTES ON THIS PAGE AND ON THE</b><br><b>ENGINEERING NOTE PAGE ENP-1. THE NOTE PAGE</b><br><b>IS AN INTEGRAL PART OF THIS DRAWING AS IT</b><br><b>CONTAINS SPECIFICATIONS AND CRITERIA USED</b><br><b>IN THE DESIGN OF THIS COMPONENT.</b> |  |  |  |

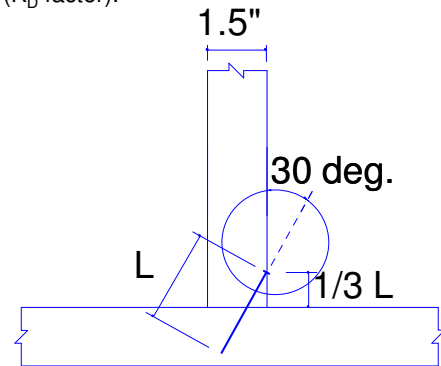
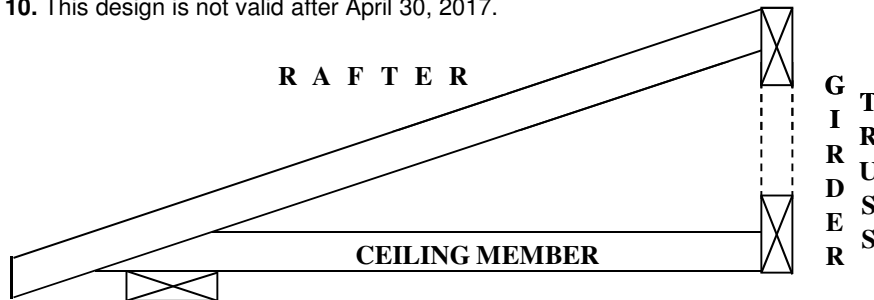
## BEARING ANCHORAGE BY TOE-NAILS FOR LATERAL CAPACITY

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             |



MiTek Canada Inc  
100 Industrial Rd.  
Bradford, Ontario L3Z 3G7



PEO  
Certificate No. 10889485



April 24, 2015

## BEARING ANCHORAGE BY TOE-NAILS FOR WIND LOADING

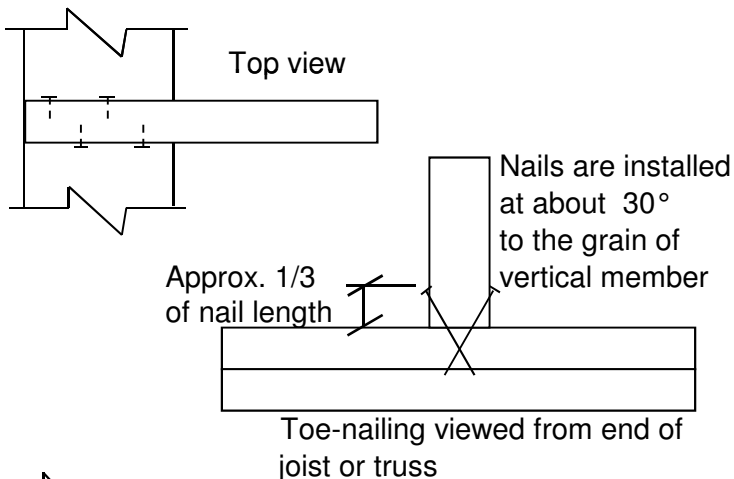
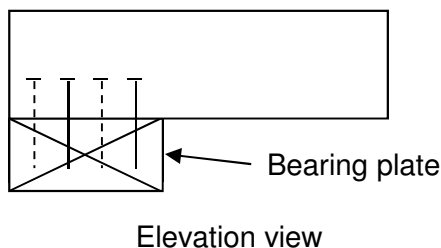
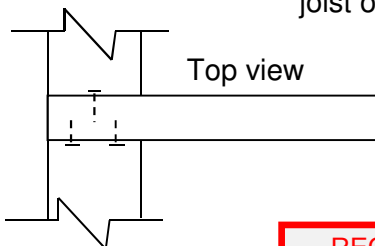
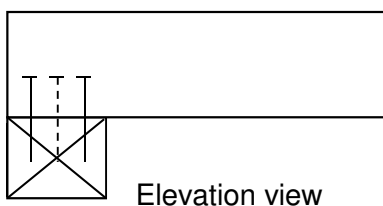
B37579H2

| 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:**

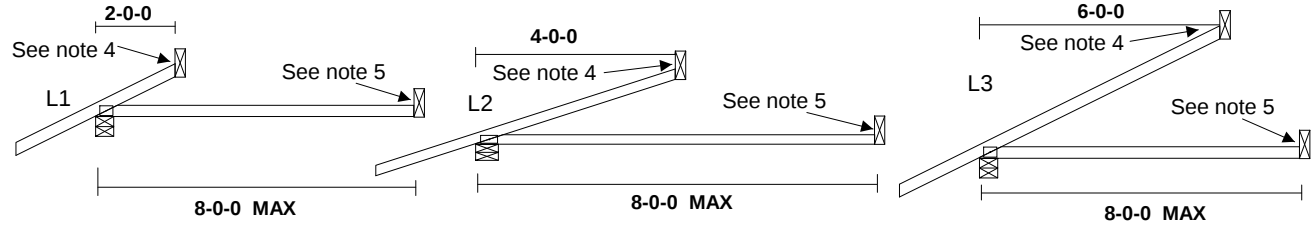
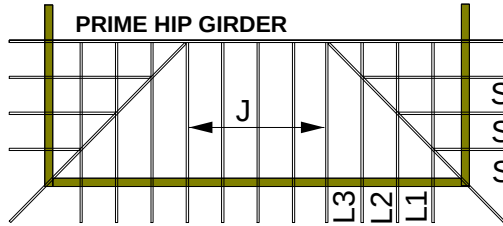
1. Truss chord, rafter, or ceiling members may be anchored to bearing plate by toe-nails, provided that the actual factored uplift force due to **wind** or **earthquake** load does not exceed the withdrawal capacities in the table. Hangers (specified by others) are required for uplift forces that are 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**

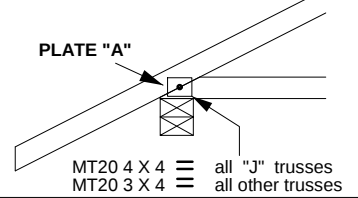
MiTek Canada Inc  
100 Industrial Rd.  
Bradford, Ontario L3Z 3G7



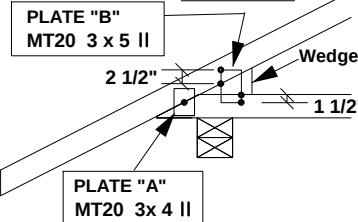
April 24, 2015



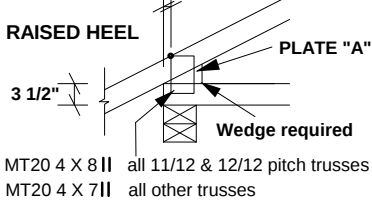
**DETAIL "A"**



**DETAIL "C"**



**DETAIL "B"**

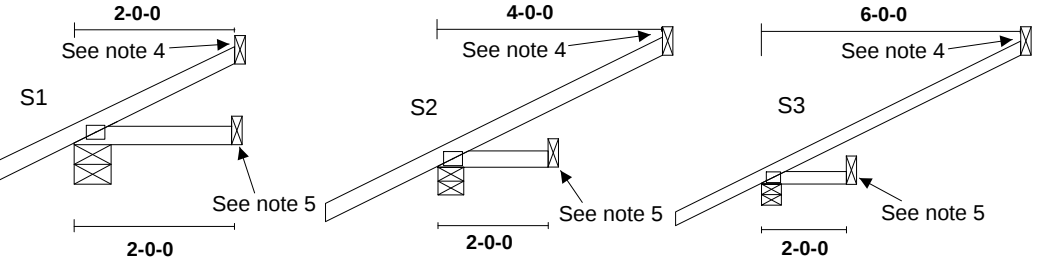


**CANTILEVER DETAIL "C"**

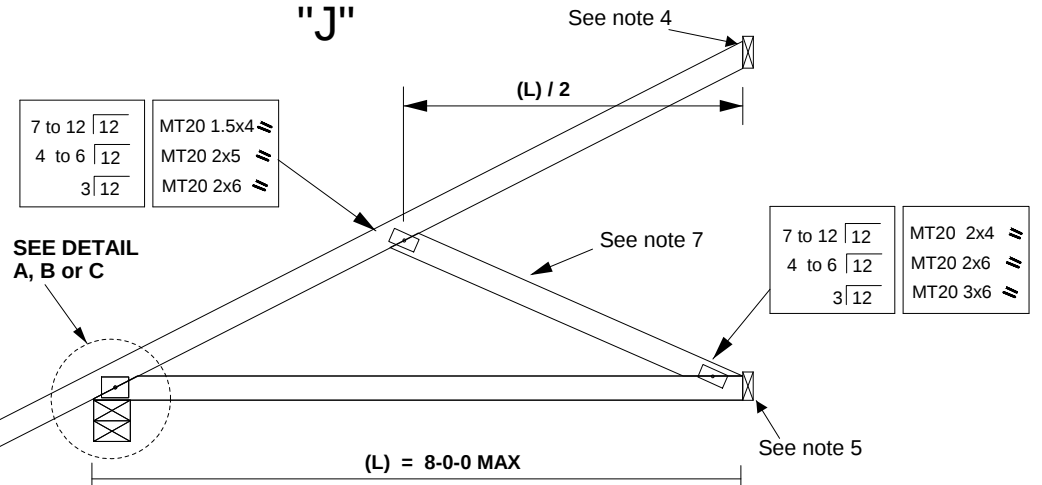
| SLOPE | MAX CANTILEVER | PLATE "B" | WEDGE SIZE |
|-------|----------------|-----------|------------|
| 3/12  | 17"            | 3 X 5     | 2 X 3      |
| 4/12  | 14"            | 3 X 5     | 2 X 3      |
| 5/12  | 12"            | 3 X 5     | 2 X 4      |
| 6/12  | 10"            | 3 X 5     | 2 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      |

**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



**"J"**



MiTek Canada, Inc.  
100 Industrial Rd.  
Bradford, Ontario, L3Z 3G7

PEO  
Certificate No. 10889485



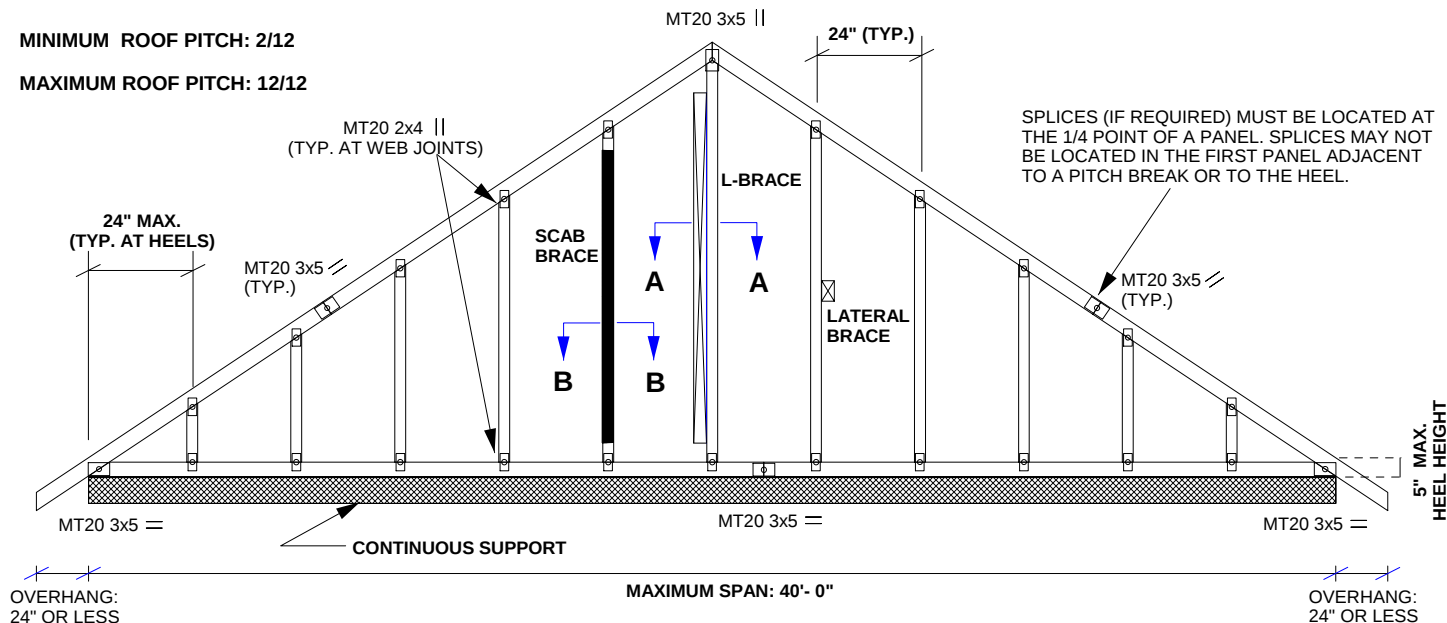
**RECEIVED**  
**TOWN OF MILTON**  
MAR 29, 2017  
17-5246  
**BUILDING DIVISION**

April 24, 2015

## STANDARD GABLE END DETAIL

**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

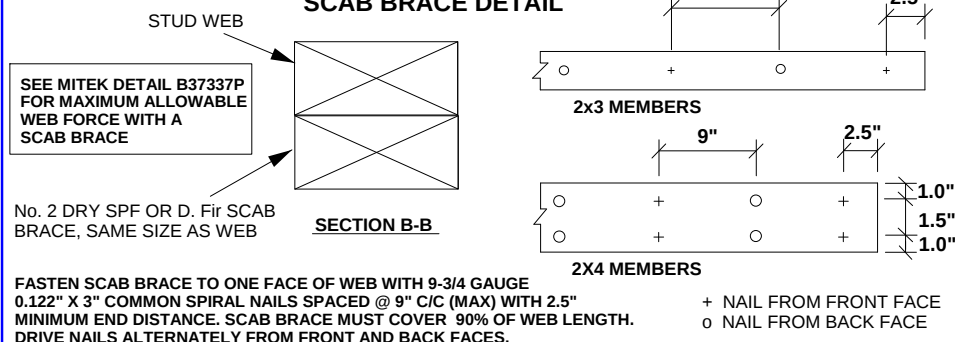
**TOTAL LOAD = 73.0 PSF OR LESS**

## 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:

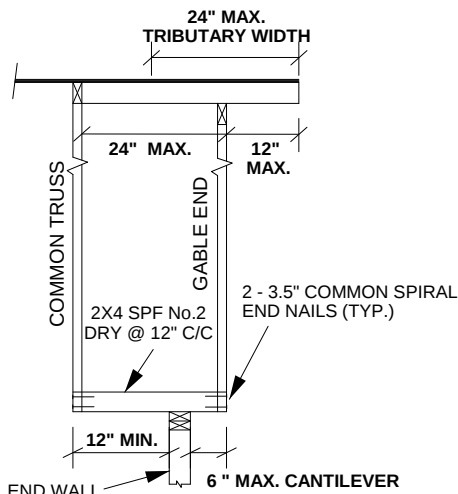
| WEB LENGTH (L)     | SCAB BRACE   | L-BRACE      | LATERAL BRACE                  |
|--------------------|--------------|--------------|--------------------------------|
| L < 6 FT.          | NOT REQUIRED | NOT REQUIRED | NOT REQUIRED                   |
| 6 FT. < L < 12 FT. | REQUIRED     | 2x4 L-BRACE  | 1 LATERAL AT 1/2 LENGTH OF WEB |

### SCAB BRACE DETAIL

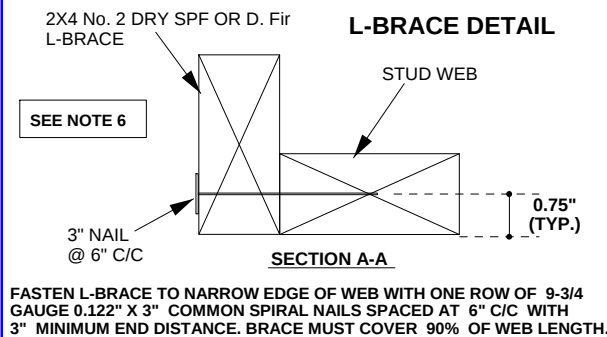


## CANTILEVER DETAIL

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



**NOTES:**

1. Gable studs are spaced at 24" C/C (max.) with a max. length of 12 ft.
2. All plates specified are MiTek MT20, centered at each joint, and pressed into both faces of truss.
3. Truss spacing is 24" C/C, maximum.
4. 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.
5. This truss requires rigid sheathing attached to exposed face.
6. 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.
7. This truss is designed for residential or small building requirements, conforming to Part 9, NBCC 2010.
8. This detail is not valid after April 30, 2017.

PEO  
Certificate No. 10889485



RECEIVED  
TOWN OF MILTON  
MAR 29, 2017  
17-5246  
BUILDING DIVISION

April 24, 2015



**MiTek Canada, Inc.**  
100 Industrial Rd.  
Bradford, Ontario, L3Z 3G7