

| | | | | | | | | |
|------------------------------|----|---|----|---|---|-----|-----|-----------------------|
| D | 79 | 0 | 79 | 0 | 0 | 1-8 | 1-8 | TOTAL LOAD = 48.1 PSF |
| SPACING = <u>240</u> IN. C/C | | | | | | | | |

| | |
|--|-----------------------------|
| BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S) E, C | - CSA 088-14 - TPIC 2014 |
|--|-----------------------------|

| | |
|---|---|
| MAX, UNBRACED BOTTOM CHORD LENGTH = 10.00 FT OR RIGID CEILING DIRECTLY APPLIED, | (55 % OF 48,1 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 34.8 P.S.F. SPECIFIED |
| ALL PITCH BREAKS AND PERIMETER CORNER JOINTS MUST BE Laterally RESTRAINED. | |

| | |
|--|--|
| <p>LOADING</p> <p>TOTAL LOAD CASES: (4)</p> | <p>ROOF LIVE LOAD</p> <p>ALLOWABLE DEFL.(LL)= $L/360$ (0.20")</p> <p>ALLOWABLE TOTAL DEFLECTION = 0.20"</p> |
|--|--|

| JT | LOC. | LC1 | MAX- | MAX+ | FACE | DIR. | TYPE | HEEL | CONN. | |
|----|------|-----|------|------|------|------|------|------|-------|---|
| | | | | | | | | | | TRUSS PLATE MANUFACTURER IS NOT RESPONSIBLE FOR QUALITY CONTROL IN THE TRUSS MANUFACTURING PLANT. |

| | | | | | | | | | | |
|-------------------------|--------|-----|-----|---|-------|------|-------|---|----|--|
| F | 2-0-12 | -7 | -7 | — | FRONT | VERT | TOTAL | — | C1 | NAIL VALUES PLATE GRIP(DRY) SHEAR SECTION (IN) (IN) (IN) |
| F | 4-0-12 | -53 | -53 | — | FRONT | VERT | TOTAL | — | C1 | |
| CONNECTION REQUIREMENTS | | | | | | | | | | |

| CONNECTION REQUIREMENTS | | (F-34) | (F-35) | (F-36) |
|---|------|---------|---------|--------------------|
| | | MAX MIN | MAX MIN | MAX MIN |
| 1) C1: A SUITABLE HANGER/MECHANICAL CONNECTION IS REQUIRED. | MT20 | 650 | 371 | 1747 788 1987 1873 |

| | |
|--|-------------------------------------|
| | PLATE PLACEMENT TOL. = 0,250 inches |
| | PLATE ROTATION TOL. = 5,0 Deg. |

JSI GRIP= 0,18 (B) (INPUT = 0,90)
JSI METAL= 0,15 (B) (INPUT = 1,00)

MODULUS ENGINEERING LTD.



07/04/2023

07/04/2023
D. A. SHERMAN

100123373




 PROVINCE OF ONTARIO
 MINISTRY OF REVENUE AND FINANCE
 100 KING STREET WEST, 10TH FLOOR, TORONTO, ONTARIO M5X 1C3
 TEL: (416) 327-8600 FAX: (416) 327-8601
 WWW.ONTARIO.GOV

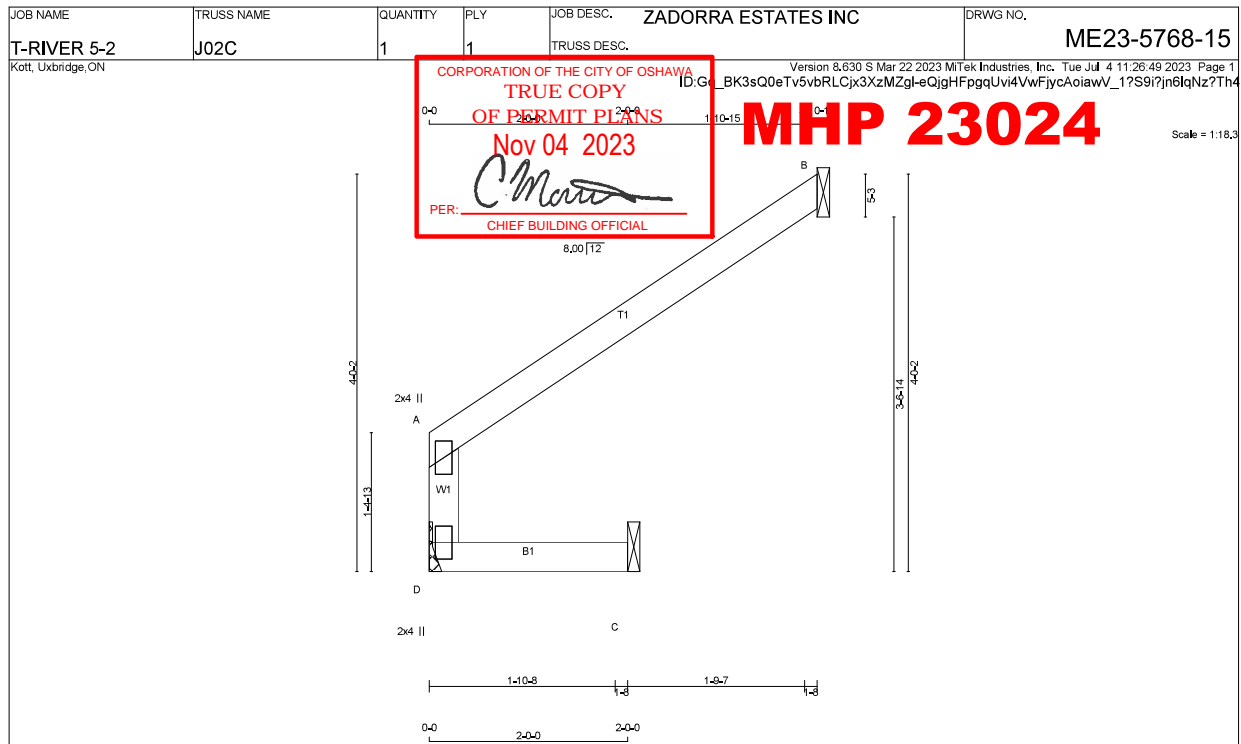
REVIEW FOR TRUSS COMPONENT ONLY
 NOTE: ALTERING THIS DOCUMENT

| | | |
|--------------------------|--|--|
| VOIDS THE ENGINEERS SEAL | | |
|--------------------------|--|--|

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED IN MODULUS ENGINEERING LTD. NOTES ME-TCD01 (VER 06/2017) BEFORE USE.
Design valid for use only with Miteq connectors. This design is based only on parameters shown, and is for individual building components. Applicability of design parameters and proper incorporation of component's measurability of building design - not by design. Reader shown in the Internal report of individual user members only. Additional parameters leading to any use.

TPIC Appendix G - Minimum quality Manufacturing Criteria available from www.tpic.ca and BCSI-CANADA (Building Common Safety Information) available from TPI 781 N. Lee

Street, Suite 312, Alexandria, VA 22314 or www.sbcindustry.com



| | |
|--|--|
| TOTAL WEIGHT = 915 LBS | |
| [M]F | |
| LUMBER N. L. G. A. RULES CHORDS SIZE LUMBER DESCR. SPF D - A 2x4 DRY No.2 SPF A - B 2x4 DRY No.2 SPF D - C 2x4 DRY No.2 SPF DRY: SEASONED LUMBER. | |
| DIMENSIONS, SUPPORTS AND LOADINGS SPECIFIED BY FABRICATOR TO BE VERIFIED BY BUILDING DESIGNER BEARINGS FACTORED GROSS REACTION MAXIMUM FACTORED REACTION INPUT REQD BRG BRG JT VERT HORZ DOWN HORZ UPLIFT IN-SX IN-SX D 226 0 226 0 0 MECHANICAL B 206 0 206 0 0 1-8 1-8 C 71 0 71 0 0 1-8 1-8 A SUITABLE HANGER/MECHANICAL CONNECTION IS REQUIRED AT JOINT D, MINIMUM BEARING LENGTH AT JOINT D = 1-8. SEE MITEK STANDARD DETAIL MSD2015-H FOR CONNECTION TO JOINT(S) B , C | |
| UNFACTORED REACTIONS 1ST LCASE MAX./MIN. COMPONENT REACTIONS JT COMBINED SNOW LIVE PERM.LIVE WIND DEAD SOIL D 157 121 / 0 0 / 0 0 / 0 36 / 0 0 / 0 B 141 120 / 0 0 / 0 0 / 0 21 / 0 0 / 0 C 51 31 / 0 0 / 0 0 / 0 19 / 0 0 / 0 | |
| BRACING TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 6,25 FT. MAX. UNBRACED BOTTOM CHORD LENGTH = 10,00 FT OR RIGID CEILING DIRECTLY APPLIED. ALL PITCH BREAKS AND PERIMETER CORNER JOINTS MUST BE Laterally RESTRAINED. | |
| LOADING TOTAL LOAD CASES: (4) CHORDS MAX. FACTORED FORCE (LBS) FACTORED VERT. LOAD LC1 MAX (PLF) CSI (LC) UNBRAC LENGTH FR-TO MEMB. FR-TO D-A -261 / 0 0,0 0,0 0,13 (1) 7,81 A-B -15 / 0 -119,4 -119,4 0,23 (1) 6,25 D-C 0 / 0 -18,2 -18,2 0,14 (1) 10,00 WEBS MAX. FACTORED FORCE (LBS) MAX. FACTORED CSI (LC) MEMB. FR-TO D-A 0,0 0,0 0,13 (1) 7,81 A-B -15 / 0 -119,4 -119,4 0,23 (1) 6,25 D-C 0 / 0 -18,2 -18,2 0,14 (1) 10,00 | |
| DESIGN CRITERIA SPECIFIED LOADS: TOP CH. LL = 34,8 PSF DL = 8,0 PSF BOT CH. LL = 0,0 PSF DL = 7,3 PSF TOTAL LOAD = 48,1 PSF SPACING = 24.0 IN. G.C THIS TRUSS IS DESIGNED FOR RESIDENTIAL OR SMALL BUILDING REQUIREMENTS OF PART 9, NBCC 2015 THIS DESIGN COMPLIES WITH: - PART 9 OF BCBC 2018, NBC-2019AE - PART 9 OF OBC 2012 (2019 AMENDMENT) - CSA 086-14 - TPIC 2014 (55 % OF 48,1 P.S.F. G.S.L. PLUS 8,4 P.S.F. RAIN LOAD) EQUALS 34,8 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 (0,01") CSI: TC=0,23/1,00 (A-B:1) , BC=0,14/1,00 (C-D:1) , WB=0,00/1,00 (n/a:0) , SSI=0,17/1,00 (A-B:1) DOL LUMBER=1,00 NAIL=1,00 LS BEND=1,10 COMP=1,10 SHEAR=1,10 TENS=1,10 COMPANION LIVE LOAD FACTOR = 1,00 TRUSS PLATE MANUFACTURER IS NOT RESPONSIBLE FOR QUALITY CONTROL IN THE TRUSS MANUFACTURING PLANT. NAIL VALUES PLATE GRIP(DRY) SHEAR SECTION (PSI) (PLI) (PLI) MAX MIN MAX MIN MAX MIN MT20 650 371 1747 788 1987 1873 PLATE PLACEMENT TOL. = 0,250 inches PLATE ROTATION TOL. = 5,0 Deg. JSI GRIP= 0,16 (A) (INPUT = 0,90) JSI METAL= 0,13 (A) (INPUT = 1,00) | |
| MODULUS ENGINEERING LTD. | |
| REVIEW FOR TRUSS COMPONENT ONLY NOTE: ALTERING THIS DOCUMENT VOIDS THE ENGINEERS SEAL | |



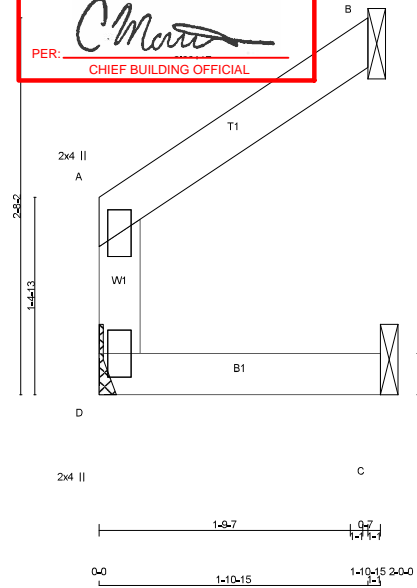
Kott, Uxbridge, ON

CORPORATION OF THE CITY OF OSHAWA
TRUE COPY
OF PERMIT PLANS
Nov 04 2023
PER: 
CHIEF BUILDING OFFICIAL

Version 8.630 S Mar 22 2023 MiTek Industries, Inc. Tue Jul 4 11:26:51 2023 Page 1
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MHP 23024

Scale = 1:12,9



TOTAL WEIGHT = 6 lb [M]F

LUMBER

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

DRY: SEASONED LUMBER.

PLATES (table is in inches)

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

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

| BEARINGS | FACTORED GROSS REACTION | MAXIMUM FACTORED GROSS REACTION | INPUT BRG | REQRD BRG |
|----------|-------------------------|---------------------------------|-----------|-----------|
| JT | VERT | DOWN | UP | IN-SX |
| D | 133 | 0 | 133 | 0 |
| B | 107 | 0 | 107 | 0 |
| C | 25 | 0 | 25 | 0 |

A SUITABLE HANGER/MECHANICAL CONNECTION IS REQUIRED AT JOINT D, MINIMUM BEARING LENGTH AT JOINT D = 1-8.

SEE MITEK STANDARD DETAIL, MSD2015-H FOR CONNECTION TO JOINT(S) B, C

UNFACTORED REACTIONS

| JT | 1ST LCASE | MAX./MIN. COMPONENT REACTIONS | SNOW | LIVE | PERM.LIVE | WIND | DEAD | SOIL |
|----|-----------|-------------------------------|-------|-------|-----------|-------|--------|-------|
| D | 93 | 67 / 0 | 0 / 0 | 0 / 0 | 0 / 0 | 0 / 0 | 26 / 0 | 0 / 0 |
| B | 73 | 62 / 0 | 0 / 0 | 0 / 0 | 0 / 0 | 0 / 0 | 12 / 0 | 0 / 0 |
| C | 19 | 5 / 0 | 0 / 0 | 0 / 0 | 0 / 0 | 0 / 0 | 14 / 0 | 0 / 0 |

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 | MAX. FACTORED | FACTORED | WEBS | MAX. FACTORED |
|--------|---------------|----------------------|----------------------------|-------------------|
| MEMB. | FORCE (LBS) | VERT. LOAD LC1 (PLF) | MAX. UNBRACED LENGTH FR-TO | MEMB. FORCE (LBS) |
| FR-TO | | | | |
| D-A | -121 / 0 | 0.0 | 0.0 | 0.02 (1) |
| A-B | -4 / 0 | -119.4 | -119.4 | 0.05 (1) |
| D-C | 0 / 0 | -18.2 | -18.2 | 0.02 (1) |

DESIGN CRITERIA

| | | | |
|------------|---|------|-----|
| TOP CH. LL | = | 34.8 | PSF |
| DL | = | 8.0 | PSF |
| BOT CH. LL | = | 0.0 | PSF |
| DL | = | 7.3 | PSF |
| TOTAL LOAD | = | 48.1 | PSF |

SPACING = 24.0 IN. G/C

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

THIS DESIGN COMPLIES WITH:
- PART 9 OF BCBC 2018, NBC-2019AE
- PART 9 OF OBC 2012 (2019 AMENDMENT)
- CSA 086-14
- TPIC 2014

(55 % OF 48.1 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 34.8 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=0.05/1.00 (A-B:1), BC=0.02/1.00 (C-D:1), WB=0.00/1.00 (n/a:0), SSI=0.08/1.00 (A-B:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

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

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

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.07 (A) (INPUT = 0.90)
JSI METAL= 0.06 (A) (INPUT = 1.00)

MODULUS ENGINEERING LTD.



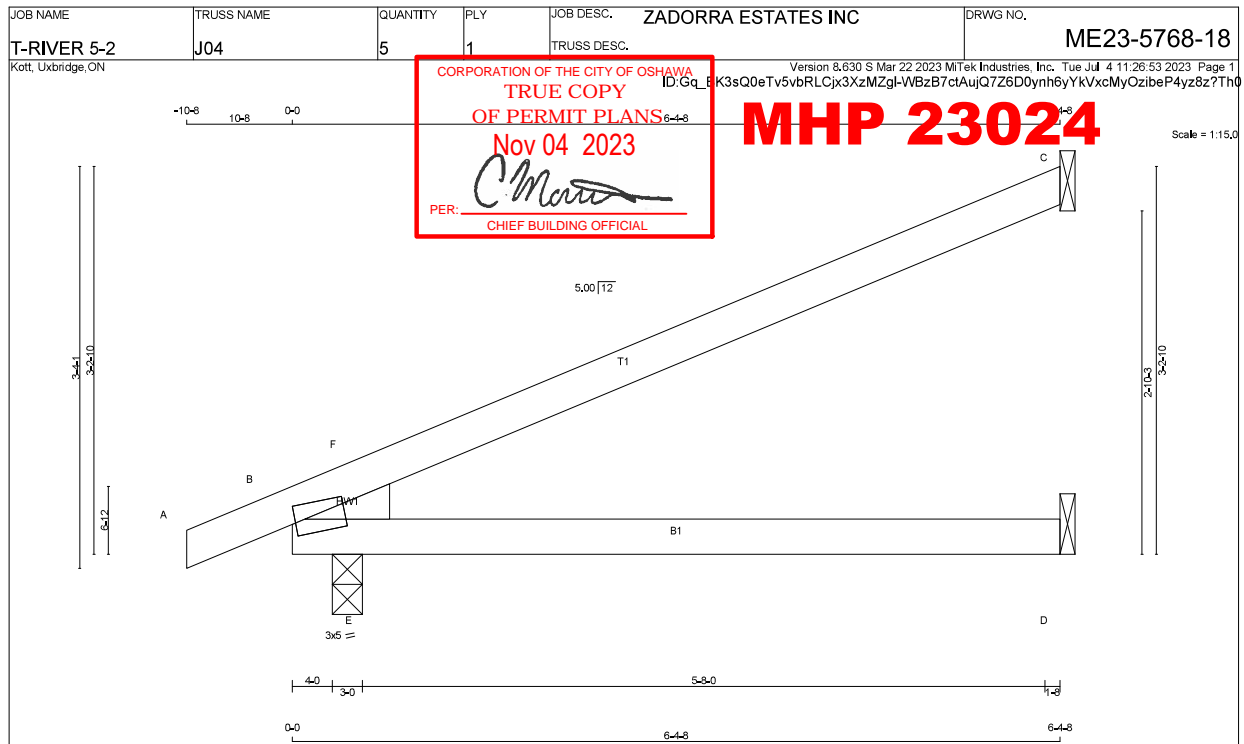
REVIEW FOR TRUSS COMPONENT ONLY

NOTE: ALTERING THIS DOCUMENT
VOIDS THE ENGINEERS SEAL

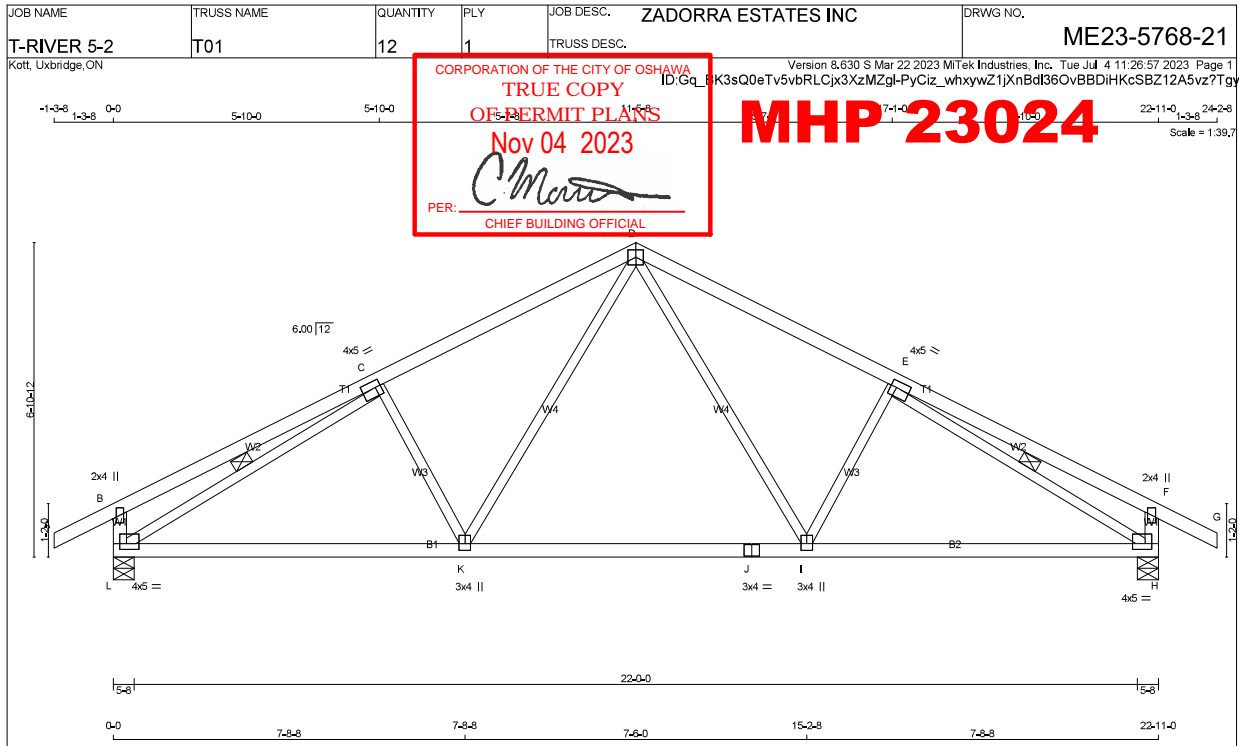
WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED IN MODULUS ENGINEERING LTD. NOTES ME-TC001 (VER 06/2017) BEFORE USE.
Design valid for use only with Mitek connectors. This design is based only upon parameters shown, and is for individual building components. Applicability of design parameters and proper incorporation of component is responsibility of building designer - not truss designer. Bracing shown is for lateral support of individual web members only. Additional temporary bracing to ensure stability during construction is the responsibility of the erector. Additional permanent bracing of the overall structure is the responsibility of the building designer. For general guidance regarding fabrication, quality control, storage, delivery, erection and bracing, consult
TPIC Appendix G - Minimum quality Manufacturing Criteria available from www.tpica.ca and BCSI-CANADA (Building Component Safety Information) available from TPI, 781 N. Lee Street, Suite 312, Alexandria, VA 22314 or www.sbindustry.com



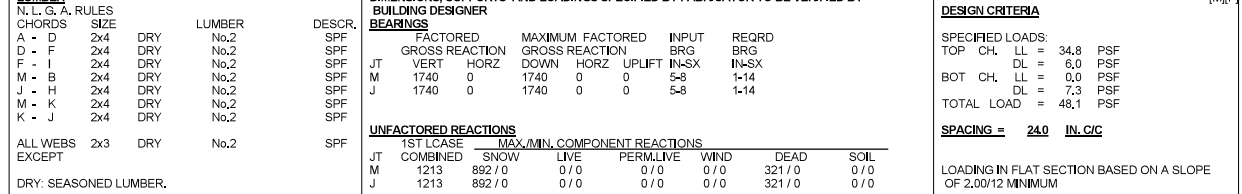




| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|--|------------------------------|--------------------------------------|-----------------|---|------------|-------------|---------------|----|------------------------------|--------------------------------------|-----------------|-----------------|------------|---|-------|-------|-----|-----|--|---|-------|-------|-----|-----|-------|---|-------|-------|-----|-----|--|----|--------------------|------|------|-----------|------|------|------|---|-----|---------|-------|-------|-------|--------|-------|---|-----|---------|-------|-------|-------|--------|-------|---|----|--------|-------|-------|-------|--------|-------|--------|--|----------|--|------|--|----------|--|-------|-------------|------------|---------------|---------------|-------|-------------|---------------|-------|--|------|----|---------------|-------|--|--|-----|-------|--------|--------|----------|-------|-----|----------|-----|-----------|--------|--------|----------|------|--|--|-----|--------|--------|--------|----------|-------|--|--|-----|-------|-------|-------|----------|-------|--|--|-----|-------|-------|-------|----------|-------|--|--|---|--|--|--|
| <div>LUMBER</div> <div>N. L. G. A. RULES</div> <div>CHORDS SIZE</div> <div>A - C 2x4 DRY No.2</div> <div>B - D 2x4 DRY 2100F 1.8E</div> <div>DESCR. SPF</div> <div>DRY: SEASONED LUMBER.</div> | | | | <div>DIMENSIONS, SUPPORTS AND LOADINGS SPECIFIED BY FABRICATOR TO BE VERIFIED BY BUILDING DESIGNER</div> <div>BEARINGS</div> <table><tr><td>JT</td><td>FACTORED GROSS REACTION VERT</td><td>MAXIMUM FACTORED GROSS REACTION DOWN</td><td>INPUT BRG IN-SX</td><td>REQRD BRG IN-SX</td><td>HEEL WEDGE</td></tr><tr><td>C</td><td>321 0</td><td>321 0</td><td>1-8</td><td>1-8</td><td></td></tr><tr><td>B</td><td>550 0</td><td>550 0</td><td>3-0</td><td>1-8</td><td>2x4 L</td></tr><tr><td>D</td><td>117 0</td><td>117 0</td><td>1-8</td><td>1-8</td><td></td></tr></table> <div>SEE MITEK STANDARD DETAIL MSD2015-H FOR CONNECTION TO JOINT(S) C , D</div> <div>UNFACTORED REACTIONS</div> <table><tr><td>JT</td><td>1ST LCASE COMBINED</td><td>SNOW</td><td>LIVE</td><td>PERM.LIVE</td><td>WIND</td><td>DEAD</td><td>SOIL</td></tr><tr><td>C</td><td>221</td><td>183 / 0</td><td>0 / 0</td><td>0 / 0</td><td>0 / 0</td><td>37 / 0</td><td>0 / 0</td></tr><tr><td>B</td><td>353</td><td>287 / 0</td><td>0 / 0</td><td>0 / 0</td><td>0 / 0</td><td>96 / 0</td><td>0 / 0</td></tr><tr><td>D</td><td>86</td><td>39 / 0</td><td>0 / 0</td><td>0 / 0</td><td>0 / 0</td><td>48 / 0</td><td>0 / 0</td></tr></table> <div>BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S) B, D</div> <div>BEARING SIZE FACTOR = 1,15 AT JNT(S) B (BASED ON SUPPORT DEPTH = 1-8)</div> <div>BRACING</div> <div>TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 6,25 FT.</div> <div>MAX. UNBRACED BOTTOM CHORD LENGTH = 10,00 FT OR RIGID CEILING DIRECTLY APPLIED.</div> <div>ALL PITCH BREAKS AND PERIMETER CORNER JOINTS MUST BE LATERALLY RESTRAINED.</div> <div>LOADING</div> <div>TOTAL LOAD CASES: (4)</div> <table><tr><td colspan="2">CHORDS</td><td colspan="2">FACTORED</td><td colspan="2">WEBS</td><td colspan="2">FACTORED</td></tr><tr><td>MEMB.</td><td>FORCE (LBS)</td><td>VERT. LOAD</td><td>LC1 MAX (PLF)</td><td>MAX. CSI (LC)</td><td>MEMB.</td><td>FORCE (LBS)</td><td>MAX. CSI (LC)</td></tr><tr><td>FR-TO</td><td></td><td>FROM</td><td>TO</td><td>UNBRAC LENGTH</td><td>FR-TO</td><td></td><td></td></tr><tr><td>A-B</td><td>0 / 8</td><td>-119,4</td><td>-119,4</td><td>0,07 (1)</td><td>10,00</td><td>E-F</td><td>-623 / 0</td></tr><tr><td>B-F</td><td>-23 / 141</td><td>-119,4</td><td>-119,4</td><td>0,20 (1)</td><td>6,25</td><td></td><td></td></tr><tr><td>F-C</td><td>-9 / 1</td><td>-119,4</td><td>-119,4</td><td>0,59 (1)</td><td>10,00</td><td></td><td></td></tr><tr><td>B-E</td><td>0 / 0</td><td>-18,2</td><td>-18,2</td><td>0,34 (1)</td><td>10,00</td><td></td><td></td></tr><tr><td>E-D</td><td>0 / 0</td><td>-18,2</td><td>-18,2</td><td>0,34 (1)</td><td>10,00</td><td></td><td></td></tr></table> | | | | JT | FACTORED GROSS REACTION VERT | MAXIMUM FACTORED GROSS REACTION DOWN | INPUT BRG IN-SX | REQRD BRG IN-SX | HEEL WEDGE | C | 321 0 | 321 0 | 1-8 | 1-8 | | B | 550 0 | 550 0 | 3-0 | 1-8 | 2x4 L | D | 117 0 | 117 0 | 1-8 | 1-8 | | JT | 1ST LCASE COMBINED | SNOW | LIVE | PERM.LIVE | WIND | DEAD | SOIL | C | 221 | 183 / 0 | 0 / 0 | 0 / 0 | 0 / 0 | 37 / 0 | 0 / 0 | B | 353 | 287 / 0 | 0 / 0 | 0 / 0 | 0 / 0 | 96 / 0 | 0 / 0 | D | 86 | 39 / 0 | 0 / 0 | 0 / 0 | 0 / 0 | 48 / 0 | 0 / 0 | CHORDS | | FACTORED | | WEBS | | FACTORED | | MEMB. | FORCE (LBS) | VERT. LOAD | LC1 MAX (PLF) | MAX. CSI (LC) | MEMB. | FORCE (LBS) | MAX. CSI (LC) | FR-TO | | FROM | TO | UNBRAC LENGTH | FR-TO | | | A-B | 0 / 8 | -119,4 | -119,4 | 0,07 (1) | 10,00 | E-F | -623 / 0 | B-F | -23 / 141 | -119,4 | -119,4 | 0,20 (1) | 6,25 | | | F-C | -9 / 1 | -119,4 | -119,4 | 0,59 (1) | 10,00 | | | B-E | 0 / 0 | -18,2 | -18,2 | 0,34 (1) | 10,00 | | | E-D | 0 / 0 | -18,2 | -18,2 | 0,34 (1) | 10,00 | | | <div>DESIGN CRITERIA</div> <div>SPECIFIED LOADS:</div> <div>TOP CH. LL = 34,8 PSF</div> <div>DL = 8,0 PSF</div> <div>BOT CH. LL = 0,0 PSF</div> <div>DL = 7,3 PSF</div> <div>TOTAL LOAD = 48,1 PSF</div> <div>SPACING = 240 IN.CIC</div> <div>THIS TRUSS IS DESIGNED FOR RESIDENTIAL OR SMALL BUILDING REQUIREMENTS OF PART 9, NBCC 2015</div> <div>THIS DESIGN COMPLIES WITH:</div> <div>- PART 9 OF BCBC 2018, NBC-2019AE</div> <div>- PART 9 OF OBC 2012 (2019 AMENDMENT)</div> <div>- CSA 086-14</div> <div>- TPIC 2014</div> <div>(55 % OF 48,1 P.S.F. G.S.L. PLUS 8,4 P.S.F. RAIN LOAD) EQUALS 34,8 P.S.F. SPECIFIED ROOF LIVE LOAD</div> <div>ALLOWABLE DEFL.(LL)= L/360 (0,21")</div> <div>CALCULATED VERT. DEFL.(LL) = L/ 673 (0,11")</div> <div>ALLOWABLE DEFL.(TL)= L/360 (0,21")</div> <div>CALCULATED VERT. DEFL.(TL) = L/ 365 (0,21")</div> <div>CSI TC=0,59/1,00 (C-F:1) , BC=0,34/1,00 (B-E:1) , WB=0,00/1,00 (E-F:1) , SSH=0,48/1,00 (B-E:1)</div> <div>DOL LUMBER=1,00 NAIL=1,00 LS BEND=1,10 COMP=1,10 SHEAR=1,10 TENS= 1,10</div> <div>COMPANION LIVE LOAD FACTOR = 1,00</div> <div>TRUSS PLATE MANUFACTURER IS NOT RESPONSIBLE FOR QUALITY CONTROL IN THE TRUSS MANUFACTURING PLANT .</div> <div>NAIL VALUES</div> <div>PLATE GRIP(DRY) SHEAR SECTION</div> <div>(PSI) (PLI) (PLI)</div> <div>MAX MIN MAX MIN MAX MIN</div> <div>MT20 650 371 1747 788 1987 1873</div> <div>PLATE PLACEMENT TOL. = 0,250 inches</div> <div>PLATE ROTATION TOL. = 5,0 Deg.</div> <div>JSI GRIP= 0,69 (B) (INPUT = 0,90)</div> <div>JSI METAL= 0,08 (B) (INPUT = 1,00)</div> | | | |
| JT | FACTORED GROSS REACTION VERT | MAXIMUM FACTORED GROSS REACTION DOWN | INPUT BRG IN-SX | REQRD BRG IN-SX | HEEL WEDGE | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| C | 321 0 | 321 0 | 1-8 | 1-8 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| B | 550 0 | 550 0 | 3-0 | 1-8 | 2x4 L | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| D | 117 0 | 117 0 | 1-8 | 1-8 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| JT | 1ST LCASE COMBINED | SNOW | LIVE | PERM.LIVE | WIND | DEAD | SOIL | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| C | 221 | 183 / 0 | 0 / 0 | 0 / 0 | 0 / 0 | 37 / 0 | 0 / 0 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| B | 353 | 287 / 0 | 0 / 0 | 0 / 0 | 0 / 0 | 96 / 0 | 0 / 0 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| D | 86 | 39 / 0 | 0 / 0 | 0 / 0 | 0 / 0 | 48 / 0 | 0 / 0 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| CHORDS | | FACTORED | | WEBS | | FACTORED | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| MEMB. | FORCE (LBS) | VERT. LOAD | LC1 MAX (PLF) | MAX. CSI (LC) | MEMB. | FORCE (LBS) | MAX. CSI (LC) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| FR-TO | | FROM | TO | UNBRAC LENGTH | FR-TO | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| A-B | 0 / 8 | -119,4 | -119,4 | 0,07 (1) | 10,00 | E-F | -623 / 0 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| B-F | -23 / 141 | -119,4 | -119,4 | 0,20 (1) | 6,25 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| F-C | -9 / 1 | -119,4 | -119,4 | 0,59 (1) | 10,00 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| B-E | 0 / 0 | -18,2 | -18,2 | 0,34 (1) | 10,00 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| E-D | 0 / 0 | -18,2 | -18,2 | 0,34 (1) | 10,00 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <div>MODULUS ENGINEERING LTD.</div> <div><div><div>07/04/2023</div><div>D. A. SHERMAN</div><div>100123373</div></div><div>LICENSED PROFESSIONAL ENGINEER</div><div>PROVINCE OF ONTARIO</div></div> <div>REVIEW FOR TRUSS COMPONENT ONLY</div> <div>NOTE: ALTERING THIS DOCUMENT VOIDS THE ENGINEERS SEAL</div> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |



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|---|--|---|
| LUMBER N, L, G, A, RULES CHORDS SIZE LUMBER DESCR. A - D 2x4 DRY No.2 SPF D - G 2x4 DRY No.2 SPF L - B 2x4 DRY No.2 SPF H - F 2x4 DRY No.2 SPF L - J 2x4 DRY No.2 SPF J - H 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 DOWN HORZ UPLIFT INPUT REQD BRG IN-SX JT 1740 0 1740 0 0 5-8 1-14 H 1740 0 1740 0 0 5-8 1-14 UNFACTORED REACTIONS 1ST CASE MAX./MIN. COMPONENT REACTIONS JT COMBINED SNOW LIVE PERM.LIVE WIND DEAD SOIL L 1213 892 / 0 0 / 0 0 / 0 321 / 0 0 / 0 H 1213 892 / 0 0 / 0 0 / 0 321 / 0 0 / 0 BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S) L, H BRACING TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 4.20 FT. MAX. UNBRACED BOTTOM CHORD LENGTH = 10.00 FT. OR RIGID CEILING DIRECTLY APPLIED. ALL PITCH BREAKS AND PERIMETER CORNER JOINTS MUST BE LATERALLY RESTRAINED. 1 LATERAL BRACE(S) AT 1/2 LENGTH OF C ₄ , E ₄ , END VERTICAL(S) MUST BE SHEATHED OR HAVE BRACES AS INDICATED IN THE MAX. UNBRACED LENGTH COLUMN OF THE TABLE BELOW LOADING TOTAL LOAD CASES: (4) CHORDS WEBS MEMB. MAX. FACTORED FORCE (LBS) VERT. LOAD LC1 MAX. FACTORED FORCE (LBS) UNBRACED LENGTH FR-TO MEMB. MAX. FACTORED FORCE (LBS) MAX. FACTORED FORCE (LBS) CSI (LC) CSI (LC) FR-TO FROM TO A-B 0 / 36 -119.4 -119.4 0.16 (1) 10.00 D-I 0 / 679 0.15 (1) B-C 0 / 36 -119.4 -119.4 0.63 (1) 10.00 I-E -497 / 0 0.15 (1) C-D -1939 / 0 -119.4 -119.4 0.56 (1) 4.20 K-D 0 / 679 0.15 (1) D-E -1939 / 0 -119.4 -119.4 0.56 (1) 4.20 C-K -497 / 0 0.15 (1) E-F 0 / 36 -119.4 -119.4 0.63 (1) 10.00 L-C -2308 / 0 0.72 (1) F-G 0 / 36 -119.4 -119.4 0.16 (1) 10.00 E-H -2308 / 0 0.72 (1) L-B -424 / 0 0.0 0.0 0.04 (1) 7.81 H-F -424 / 0 0.0 0.0 0.04 (1) 7.81 L-K 0 / 1936 -18.2 -18.2 0.44 (1) 10.00 K-J 0 / 1367 -18.2 -18.2 0.34 (1) 10.00 J-I 0 / 1367 -18.2 -18.2 0.34 (1) 10.00 I-H 0 / 1936 -18.2 -18.2 0.44 (1) 10.00 | DESIGN CRITERIA SPECIFIED LOADS: TOP CH. LL = 34.8 PSF DL = 6.0 PSF BOT CH. LL = 0.0 PSF DL = 7.3 PSF TOTAL LOAD = 48.1 PSF SPACING = 24.0 IN. GIG THIS TRUSS IS DESIGNED FOR RESIDENTIAL OR SMALL BUILDING REQUIREMENTS OF PART 9, NBC 2015 THIS DESIGN COMPLIES WITH: - PART 9 OF CBC 2018, NBC-2019AE - PART 9 OF OBC 2012 (2019 AMENDMENT) - CSA 086-14 - TPIC 2014 (55 % OF 48.1 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 34.8 P.S.F. SPECIFIED ROOF LIVE LOAD ALLOWABLE DEFL.(LL) = L/360 (0.76") CALCULATED VERT. DEFL.(LL) = L/999 (0.09") ALLOWABLE DEFL.(TL) = L/360 (0.76") CALCULATED VERT. DEFL.(TL) = L/999 (0.17") CSI TC=0.63/1.00 (B-C:1), BC=0.44/1.00 (H-I:1), WB=0.72/1.00 (C-L:1), SH=0.30/1.00 (B-C:1) DOL LUMBER=1.00 NAIL=1.00 LS BEND=1.10 COMP=1.10 SHEAR=1.10 TENS=1.10 COMPANION LIVE LOAD FACTOR = 1.00 TRUSS PLATE MANUFACTURER IS NOT RESPONSIBLE FOR QUALITY CONTROL IN THE TRUSS MANUFACTURING PLANT. NAIL VALUES PLATE GRIP(DRY) SHEAR SECTION (PSI) (PLI) (PLI) MAX MIN MAX MIN MAX MIN MT20 650 371 1747 788 1987 1873 PLATE PLACEMENT TOL. = 0.250 inches PLATE ROTATION TOL. = 5.0 Deg. JSI GRIP= 0.89 (E) (INPUT = 0.90) JSI METAL= 0.62 (C) (INPUT = 1.00) |
|---|--|---|




| | | | | | | | | | |
|-----|-----------|--------|--------|----------|-------|-----|-----------|----------|--|
| A-B | 0/36 | -119.4 | -119.4 | 0.16 (1) | 10.00 | C-L | -189 / 19 | 0.08 (1) | ALLOWABLE DEFLECTION = L/360 (0.76") CALCULATED VERT. DEFLECTION = L/ 999 (0.26") |
| B-C | 0/23 | -119.4 | -119.4 | 0.28 (1) | 10.00 | L-D | 0 / 506 | 0.11 (1) | |
| C-D | -1933 / 0 | -119.4 | -119.4 | 0.26 (1) | 4.60 | L-E | -281 / 0 | 0.17 (1) | |
| D-E | -1718 / 0 | -119.4 | -119.4 | 0.20 (1) | 4.90 | E-K | -323 / 0 | 0.20 (1) | |
| E-F | -1693 / 0 | -119.4 | -119.4 | 0.20 (1) | 4.93 | K-F | 0 / 495 | 0.11 (1) | |
| F-G | -1909 / 0 | -119.4 | -119.4 | 0.26 (1) | 4.63 | K-G | -193 / 14 | 0.08 (1) | |
| G-H | 0/23 | -119.4 | -119.4 | 0.28 (1) | 10.00 | M-C | -2288 / 0 | 0.90 (1) | |
| H-I | 0/36 | -119.4 | -119.4 | 0.16 (1) | 10.00 | G-J | -2264 / 0 | 0.89 (1) | |
| M-B | -351 / 0 | 0.0 | 0.0 | 0.04 (1) | 7.81 | | | | |
| J-H | -351 / 0 | 0.0 | 0.0 | 0.04 (1) | 7.81 | | | | |
| | | | | | | | | | COMPANION LIVE LOAD FACTOR = 1.00 |
| M-L | 0 / 1862 | -18.2 | -18.2 | 0.45 (1) | 10.00 | | | | TRUSS PLATE MANUFACTURER IS NOT RESPONSIBLE FOR QUALITY CONTROL IN THE |
| L-K | 0 / 1877 | -18.2 | -18.2 | 0.46 (1) | 10.00 | | | | |
| K-J | 0 / 1843 | -18.2 | -18.2 | 0.50 (1) | 10.00 | | | | |

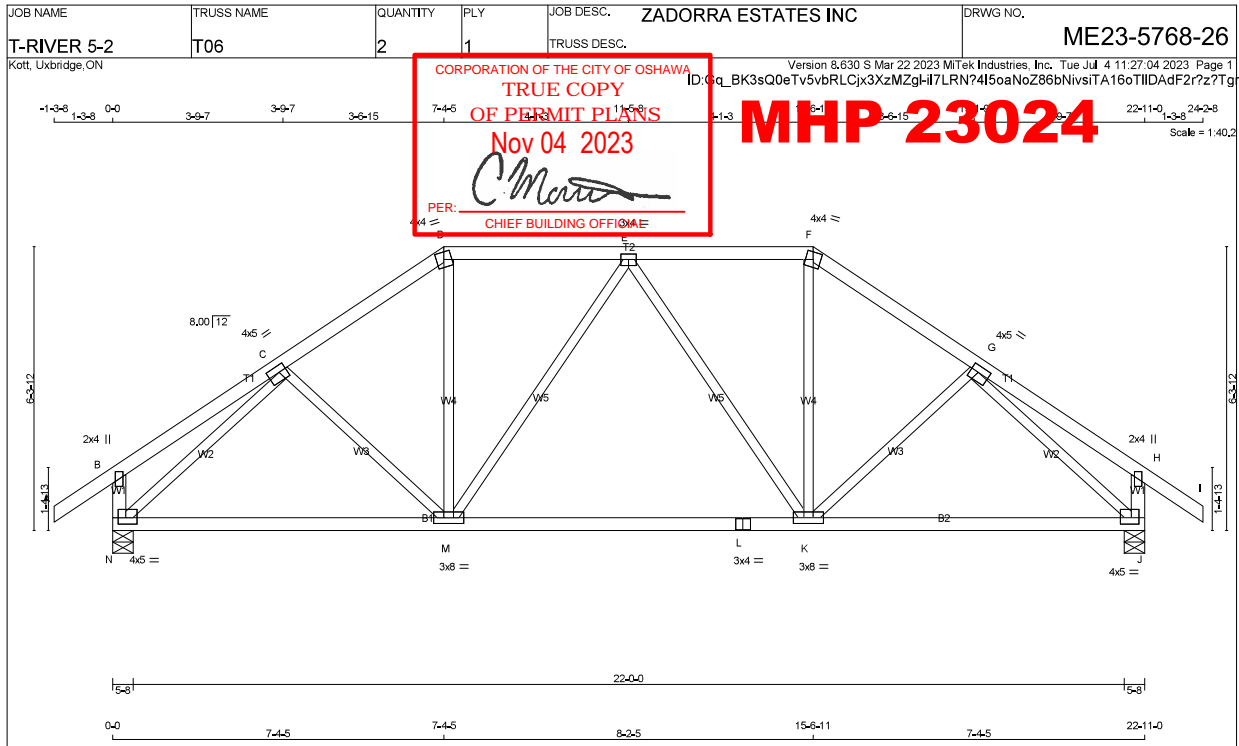
MODULUS ENGINEERING LTD.



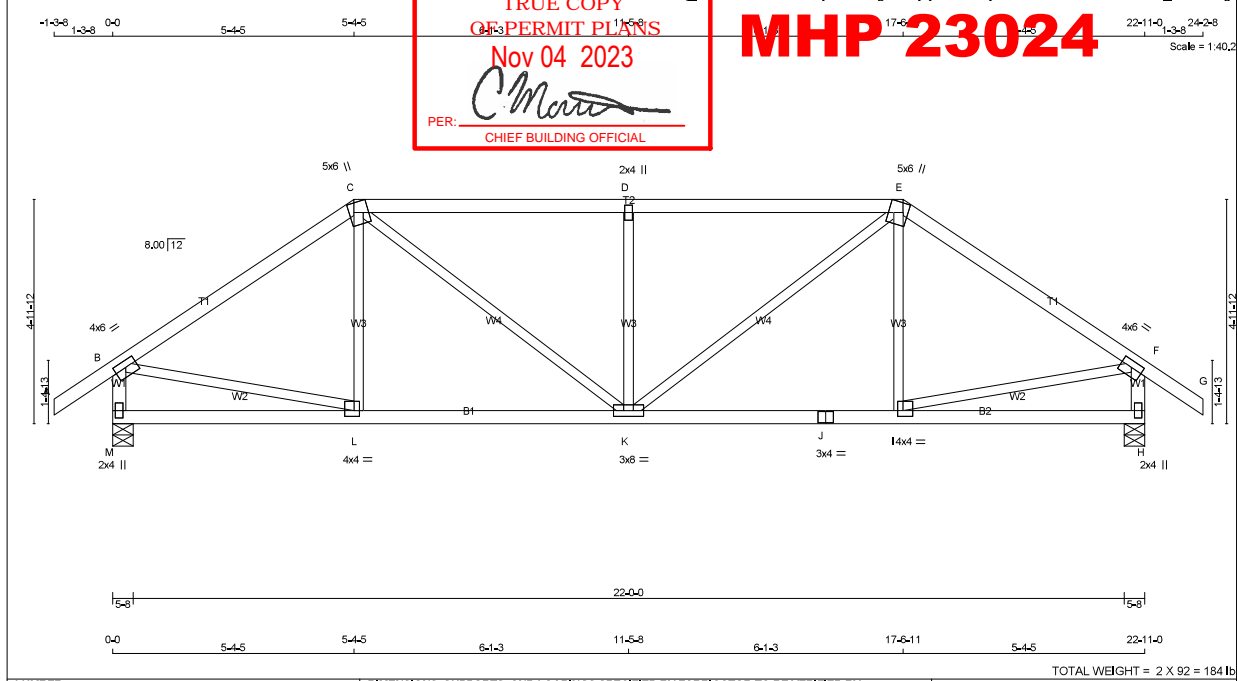
WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED IN MODULUS ENGINEERING LTD. NOTES ME-TC001 (VER 06/2017) BEFORE USE.
Design valid for use only with Mitek connectors. This design is based only upon parameters shown, and is for individual building components. Applicability of design parameters and proper incorporation of component is responsibility of building designer - not truss designer. Bracing shown is for lateral support of individual web members only. Additional temporary bracing to ensure stability during construction is the responsibility of the erector. Additional permanent bracing of the overall structure is the responsibility of the building designer. For general guidance regarding fabrication, quality control, storage, delivery, erection and bracing, consult

TPIC Appendix G - Minimum quality Manufacturing Criteria available from www.tpica.ca and **BCSI-CANADA (Building Component Safety Information)** available from TPI, 781 N. Lee Street, Suite 312, Alexandria, VA 22314 or www.sbcindustry.com

 **KOTT**



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|---|--|--|---|--|--|---|--|--|
| LUMBER N. L. G. A. RULES CHORDS SIZE LUMBER DESCR. A - D 2x4 DRY No.2 SPF D - F 2x4 DRY No.2 SPF F - I 2x4 DRY No.2 SPF N - B 2x4 DRY No.2 SPF J - H 2x4 DRY No.2 SPF N - L 2x4 DRY No.2 SPF L - J 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 DOWN VERT JT 1741 0 N 1741 0 J 1741 0 MAXIMUM FACTORED GROSS REACTION UP LIFT BRG IN-SX 5-8 1-14 5-8 1-14 UNFACTORED REACTIONS 1ST CASE MAX./MIN. COMPONENT REACTIONS JT COMBINED SNOW LIVE PERM. LIVE WIND DEAD SOIL N 1215 893 / 0 0 / 0 0 / 0 321 / 0 0 / 0 J 1215 893 / 0 0 / 0 0 / 0 321 / 0 0 / 0 BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S) N, J BRACING TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 4.99 FT. MAX. UNBRACED BOTTOM CHORD LENGTH = 10.00 FT. OR RIGID CEILING DIRECTLY APPLIED. ALL PITCH BREAKS AND PERIMETER CORNER JOINTS MUST BE LATERALLY RESTRAINED. LOADING TOTAL LOAD CASES: (4) CHORDS MEMB. MAX. FACTORED FORCE (LBS) VERT. LOAD (PLF) MAX. FACTORED FORCE (LBS) UNBRACED LENGTH (FT) MEMB. MAX. FACTORED FORCE (LBS) WEBS FR-TO FROM TO A-B 0 / 45 -119.4 -119.4 0.16 (1) 10.00 C-M -108 / 25 0.05 (1) B-C 0 / 27 -119.4 -119.4 0.24 (1) 10.00 M-D 0 / 525 0.12 (1) C-D -1624 / 0 -119.4 -119.4 0.22 (1) 4.99 M-E -356 / 0 0.36 (1) D-E -1336 / 0 -119.4 -119.4 0.27 (1) 5.31 E-K -356 / 0 0.36 (1) E-F -1336 / 0 -119.4 -119.4 0.27 (1) 5.31 K-F 0 / 525 0.12 (1) F-G -1624 / 0 -119.4 -119.4 0.22 (1) 4.99 K-G -108 / 25 0.05 (1) G-H 0 / 27 -119.4 -119.4 0.24 (1) 10.00 N-C -1950 / 0 0.81 (1) H-I 0 / 45 -119.4 -119.4 0.16 (1) 10.00 G-J -1950 / 0 0.81 (1) N-B -335 / 0 0.0 0.0 0.03 (1) 7.81 J-H -335 / 0 0.0 0.0 0.03 (1) 7.81 N-M 0 / 1406 -18.2 -18.2 0.36 (1) 10.00 M-L 0 / 1533 -18.2 -18.2 0.38 (1) 10.00 L-K 0 / 1533 -18.2 -18.2 0.38 (1) 10.00 K-J 0 / 1406 -18.2 -18.2 0.36 (1) 10.00 | | | DESIGN CRITERIA SPECIFIED LOADS: TOP CH. LL = 34.8 PSF DL = 6.0 PSF BOT CH. LL = 0.0 PSF DL = 7.3 PSF TOTAL LOAD = 48.1 PSF SPACING = 24.0 IN. GIG LOADING IN FLAT SECTION BASED ON A SLOPE OF 2.00/12 MINIMUM THIS TRUSS IS DESIGNED FOR RESIDENTIAL OR SMALL BUILDING REQUIREMENTS OF PART 9, NBC 2015 THIS DESIGN COMPLIES WITH: - PART 9 OF CBC 2018, NBC-2019AE - PART 9 OF OBC 2012 (2019 AMENDMENT) - CSA 086-14 - TPIC 2014 (55 % OF 48.1 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 34.8 P.S.F. SPECIFIED ROOF LIVE LOAD ALLOWABLE DEFL.(LL)= L/360 (0.76") CALCULATED VERT. DEFL.(LL) = L/999 (0.06") ALLOWABLE DEFL.(TL)= L/360 (0.76") CALCULATED VERT. DEFL.(TL) = L/999 (0.12") CSI: TC=0.27/1.00 (D-E-1), BC=0.38/1.00 (K-M-1), WB=0.81/1.00 (G-J-1), SSI=0.24/1.00 (D-E-1) DOL LUMBER=1.00 NAIL=1.00 LS BEND=1.10 COMP=1.10 SHEAR=1.10 TENS=1.10 COMPANION LIVE LOAD FACTOR = 1.00 TRUSS PLATE MANUFACTURER IS NOT RESPONSIBLE FOR QUALITY CONTROL IN THE TRUSS MANUFACTURING PLANT. NAIL VALUES PLATE GRIP(DRY) SHEAR SECTION (PSI) (PLI) (PLI) MAX MIN MAX MIN MAX MIN MT20 650 371 1747 788 1987 1873 PLATE PLACEMENT TOL. = 0.250 inches PLATE ROTATION TOL. = 5.0 Deg. JSI GRIP= 0.86 (N) (INPUT = 0.90) JSI METAL= 0.52 (G) (INPUT = 1.00) | | |
|---|--|--|---|--|--|---|--|--|



| LUMBER | | | | DIMENSIONS, SUPPORTS AND LOADINGS SPECIFIED BY FABRICATOR TO BE VERIFIED BY BUILDING DESIGNER | | | | DESIGN CRITERIA | | | |
|-----------------------|--------|------|--------|---|----------|----------------|------------------|-----------------|-------|------------------|----------|
| N, L, G, A, RULES | CHORDS | SIZE | LUMBER | DESCR. | BEARINGS | FACTORED | MAXIMUM FACTORED | INPUT | REQRD | SPECIFIED LOADS: | |
| A - C | 2x4 | DRY | No.2 | SPF | JT | GROSS REACTION | GROSS REACTION | BRG | BRG | TOP CH. LL = | 34.8 PSF |
| C - E | 2x4 | DRY | No.2 | SPF | M | VERT | DOWN | UPLIFT | IN-SX | DL = | 6.0 PSF |
| E - G | 2x4 | DRY | No.2 | SPF | H | 1741 | 0 | 1741 | 0 | BOT CH. LL = | 0.0 PSF |
| M - B | 2x4 | DRY | No.2 | SPF | H | 1741 | 0 | 1741 | 0 | DL = | 7.3 PSF |
| H - F | 2x4 | DRY | No.2 | SPF | | | | | | TOTAL LOAD = | 48.1 PSF |
| M - J | 2x4 | DRY | No.2 | SPF | | | | | | | |
| J - H | 2x4 | DRY | No.2 | SPF | | | | | | | |
| ALL WEBS EXCEPT | 2x3 | DRY | No.2 | SPF | | | | | | | |
| DRY, SEASONED LUMBER. | | | | | | | | | | | |

| PLATES (table is in inches) | | | | UNFACTORED REACTIONS | | | | SPACING = 24.0 IN. GIG | | | |
|-----------------------------|--------|--------|-------------------|----------------------|-------------------------------|-------|------|------------------------|------|-------|------|
| JT | TYPE | PLATES | W LEN Y X | 1ST CASE | MAX. MIN. COMPONENT REACTIONS | SNOW | LIVE | PERM. LIVE | WIND | DEAD | SOIL |
| B | TMVW4 | MT20 | 4.0 6.0 1.75 3.00 | JT | COMBINED | 0/0 | 0/0 | 0/0 | 0/0 | 321/0 | 0/0 |
| C | TTVW+m | MT20 | 5.0 6.0 Edge 3.75 | H | 1215 | 893/0 | 0/0 | 0/0 | 0/0 | 321/0 | 0/0 |
| D | TMVW4 | MT20 | 2.0 4.0 | | | | | | | | |
| E | TTVW+m | MT20 | 5.0 6.0 Edge 3.75 | | | | | | | | |
| F | TMVW4 | MT20 | 4.0 6.0 1.75 3.00 | | | | | | | | |
| H | BMV1+p | MT20 | 2.0 4.0 | | | | | | | | |
| I | BMVW4 | MT20 | 4.0 4.0 1.50 1.50 | | | | | | | | |
| J | BS4 | MT20 | 3.0 4.0 | | | | | | | | |
| K | BMVW4 | MT20 | 3.0 8.0 | | | | | | | | |
| L | BMVW4 | MT20 | 4.0 4.0 1.50 1.50 | | | | | | | | |
| M | BMV1+p | MT20 | 2.0 4.0 | | | | | | | | |

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

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

BRACING

TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 3.31 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 CSI (LC) | MEMB. | MAX. FACTORED FORCE (LBS) | MAX. FACTORED CSI (LC) | |
| FR-TO | FROM | TO | LENGTH | FR-TO | FROM | TO | LENGTH |
| A-B | 0/45 | -119.4 | -119.4 0.16 (1) | 10.00 | L-C | -159/55 | 0.06 (1) |
| B-C | -1690/0 | -119.4 | -119.4 0.73 (1) | 4.13 | C-K | 0/818 | 0.18 (1) |
| C-D | -2050/0 | -119.4 | -119.4 0.92 (1) | 3.31 | K-D | -983/0 | 0.33 (1) |
| D-E | -2050/0 | -119.4 | -119.4 0.92 (1) | 3.31 | K-E | 0/818 | 0.18 (1) |
| E-F | -1690/0 | -119.4 | -119.4 0.73 (1) | 4.13 | I-E | -159/55 | 0.06 (1) |
| F-G | 0/45 | -119.4 | -119.4 0.16 (1) | 10.00 | B-L | 0/1432 | 0.32 (1) |
| M-B | -1702/0 | 0.0 | 0.0 0.18 (1) | 6.37 | I-F | 0/1432 | 0.32 (1) |
| H-F | -1702/0 | 0.0 | 0.0 0.18 (1) | 6.37 | | | |

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

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

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

CALCULATED VERT. DEFL.(TL) = L/999 (0.12")

CSI: TC=0.92/1.00 (C-D 1), BC=0.30/1.00 (H-K 1), WB=0.33/1.00 (D-K 1), SSI=0.35/1.00 (C-D 1)

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

COMPANION LIVE LOAD FACTOR = 1.00

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

NAIL VALUES

PLATE GRIP(DRY) SHEAR SECTION (PSI) (PLI) (PLI)

MAX MIN MAX MIN MAX MIN

MT20 650 371 1747 788 1987 1873

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.90 (B) (INPUT = 0.90)

JSI METAL= 0.48 (L) (INPUT = 1.00)

MODULUS ENGINEERING LTD.

LICENSED PROFESSIONAL ENGINEER

07/04/2023

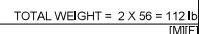
D. A. SHERMAN

100123373

PROVINCE OF ONTARIO

REVIEW FOR TRUSS COMPONENT ONLY

NOTE: ALTERING THIS DOCUMENT VOIDS THE ENGINEER'S SEAL



DESIGN CRITERIA

SPACING = 24.0 IN. C/C

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

THIS DESIGN COMPLIES WITH:

- PART 9 OF BCBC 2018 , NBC-2019AE
- PART 9 OF OBC 2012 (2019 AMENDMENT)
- CSA 086-14
- TPIC 2014

(55 % OF 48.1 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 34.8 P.S.F. SPECIFIED ROOF LIVE LOAD

ALLOWABLE DEFL.(LL)= L/360 (0.42")
CALCULATED VERT. DEFL.(LL) = L/999 (0.01")
ALLOWABLE DEFL.(TL)= L/360 (0.42")
CALCULATED VERT. DEFL.(TL) = L/999 (0.05")

CSI: TC=0.53/1.00 (D-E:1), BC=0.25/1.00 (G-H:4),
WB=0.82/1.00 (D-F:1), SSI=0.20/1.00 (D-E:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

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

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

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.89 (H) (INPUT = 0.90)
JSI METAL= 0.26 (C) (INPUT = 1.00)

PLATES (table is in inches)

| PLATES (table is in inches) | | | | W | LEN | Y | X |
|-----------------------------|---------|--------|--|-----|-----|------|------|
| JT | TYPE | PLATES | | | | | |
| B | TMV+p | MT20 | | 2.0 | 4.0 | | |
| C | TMVW+ | MT20 | | 3.0 | 5.0 | 1.50 | 1.75 |
| D | TTWW+p | MT20 | | 4.0 | 6.0 | Edge | 2.50 |
| E | TMV+p | MT20 | | 2.0 | 4.0 | | |
| F | BMVWV-1 | MT20 | | 3.0 | 4.0 | | |
| G | BMVWV-1 | MT20 | | 3.0 | 4.0 | | |
| H | BMVWV-1 | MT20 | | 3.0 | 5.0 | | |

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

UNFACTORED REACTIONS

| UNFACTORED REACTIONS | | MAX./MIN. COMPONENT REACTIONS | | | | | |
|----------------------|-----------------------|-------------------------------|-------|-----------|-------|---------|-------|
| JT | 1ST LCASE COMBINED | SNOW | LIVE | PERM.LIVE | WIND | DEAD | SOIL |
| H | 717 | 534 / 0 | 0 / 0 | 0 / 0 | 0 / 0 | 184 / 0 | 0 / 0 |
| F | 605 | 438 / 0 | 0 / 0 | 0 / 0 | 0 / 0 | 167 / 0 | 0 / 0 |

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

BRACING

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

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

LOADING

LOADING
TOTAL LOAD CASES: (4)

| CHORDS | | | | WEBS | | | |
|--------|---------------------------|---------------------------|-----------------------|-------|---------------------------|---------------|--|
| MEMB. | MAX. FACTORED FORCE (LBS) | FACTORED VERT. LOAD (PLF) | MAX. UNBRAC. CSI (LC) | MEMB. | MAX. FACTORED FORCE (LBS) | MAX. CSI (LC) | |
| FR-TO | | FROM TO | LENGTH | FR-TO | | | |
| A-B | 0/45 | -119.4 -119.4 | 0.16 (1) | C-G | -293/0 | 0.09 (1) | |
| B-C | 0/29 | -119.4 -119.4 | 0.27 (1) | G-D | 0/387 | 0.09 (1) | |
| C-D | -642/0 | -119.4 -119.4 | 0.21 (1) | H-C | -943/0 | 0.40 (1) | |
| D-E | 0/0 | -119.4 -119.4 | 0.53 (1) | D-F | -675/0 | 0.82 (1) | |
| H-B | -334/0 | 0.0 0.0 | 0.03 (1) | | | | |
| F-E | -305/0 | 0.0 0.0 | 0.05 (1) | | | | |
| | | | | | | | |
| H-G | 0/681 | -18.2 -18.2 | 0.25 (4) | | | | |
| G-F | 0/435 | -18.2 -18.2 | 0.24 (4) | | | | |

MODULUS ENGINEERING LTD.



REVIEW FOR TRUSS COMPONENT ONLY

NOTE: ALTERING THIS DOCUMENT
VOIDS THE ENGINEERS SEAL

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED IN MODULUS ENGINEERING LTD. NOTES ME-TCDD1 (VER 06/2017) BEFORE USE.
Design valid for use only with Mitek connectors. This design is based only upon parameters shown, and is for individual building components. Applicability of design parameters and proper incorporation of component is responsibility of building designer - not truss designer. Bracing shown is for lateral support of individual web members only. Additional temporary bracing to ensure stability during construction is the responsibility of the erector. Additional permanent bracing of the overall structure is the responsibility of the building designer. For general guidance regarding fabrication, quality control, storage, delivery, erection and bracing, consult

TPIC Appendix G - Minimum quality Manufacturing Criteria available from www.tpica.ca and **BCSI-CANADA (Building Component Safety Information)** available from TPI, 781 N. Lee Street, Suite 312, Alexandria, VA 22314 or www.sboindustry.com

