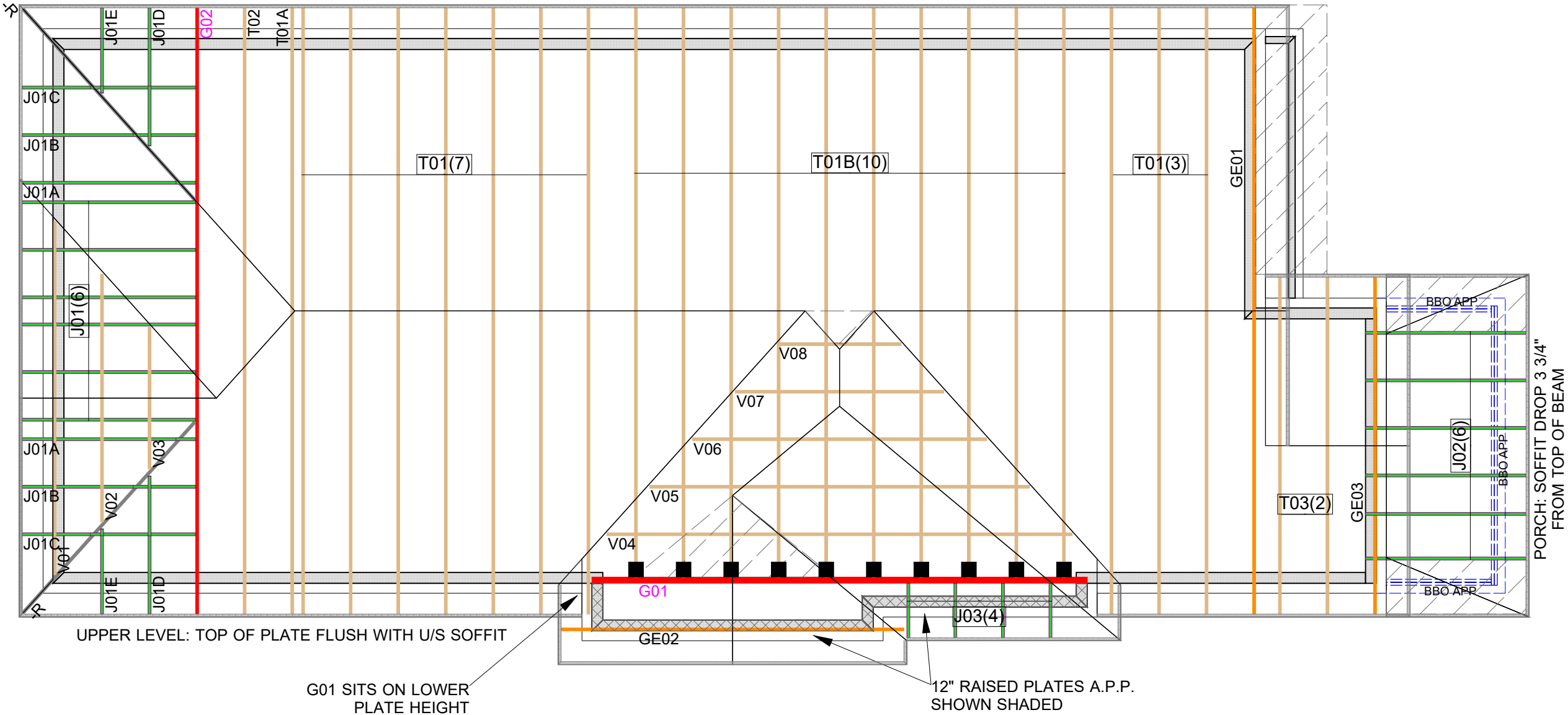




MHP 23026



| Hanger Name | Symbol | QTY |
|-------------|--------|-----|
| | ▲ | 0 |
| LJS26DS | ■ | 10 |



CONVENTIONAL
FRAMING BY OTHERS

ALL CONVENTIONAL FRAMING TO CONFORM WITH PART 9 OF THE OBC. ROOF RAFTERS THAT CROSS OVER TRUSSES TO BE MIN. 2x4 SPF @ 24" C/C WITH A 2x4 VERTICAL POST TO THE TRUSS BELOW. VERTICAL POSTS TO BE Laterally BRACED SO THAT UNBRACED LENGTH DOES NOT EXCEED 6'. DESIGN OF CONVENTIONAL FRAMING IS THE RESPONSIBILITY OF THE PROJECT ENGINEER.

JOB INFORMATION

| | |
|-----------|--|
| Customer | GREENPARK GROUP |
| Job # | 23-00085R0 |
| Address | ZADORRA ESTATES ZADORRA ESTATES INC OSHAWA,ON |
| Model | RIVER 9-2 |
| Sales Rep | RALPH MIRIGELLO |
| Designer | LI |
| Date | 2023-07-05 |
| Path | C:\MITEK\CA\JOBS\GREENPARK GROUP\ZADORRA ESTATES\MODELS\RIVER 9\RIVER 9-2\T-RIVE |

DESIGN INFORMATION

| | |
|---------------|---|
| Code | NBCC 2015 |
| Bldg | Residential - HSB (NBCC Part 9) |
| TC LL | 34.8 lb/ft ² |
| TC DL | 6.0 lb/ft ² |
| BC LL | 0.0 lb/ft ² |
| BC DL | 7.3 lb/ft ² |
| Deflection | LL=L/360 TL=L/360 |
| Spacing | 24" O/C unless otherwise noted |
| Complies With | OBC 2012 (2019 Amendment) CSA O86-14 and TPIC 2014 |

IMPORTANT INFORMATION

Hangers and Fasteners to be installed as per manufacturer

Refer to truss drawings in the Truss Engineering Package for ply-to-ply attachment notes

For site-framed valleys: top chords of all roof trusses must be laterally supported using 2x4 continuous bracing @24 O/C - all bracing must be anchored at ends as per TPIC Installation Guidelines

Read all notes on this page in addition to those shown on the KOTT Truss Engineering package

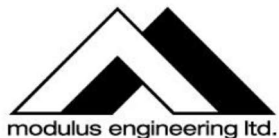
Field erection, handling and bracing are not the responsibility of KOTT, or KOTT Engineering

Unless noted otherwise, hurricane ties are to be installed at the bearings of all trusses > 40 ft clear span, and any girder or beam supporting trusses with a clear span >40 ft. See hanger legend for type.

Unless noted otherwise, for Part 9 bldgs, all trusses are to be anchored to the top of supporting walls as follows: trusses with a clear span <40 ft use 3-1/4" nails @ each bearing; trusses with a clear span >40 ft use 3-1/4" nails @ each bearing in addition to the appropriate hurricane tie.

KOTT Inc.
14 Anderson Blvd.
Uxbridge, ON
905.642.4400





General Guidelines for Truss Manufacturer and Installer on Reading Truss Component Drawings



**Read Carefully Prior to
Manufacture and Installation**

Note: It is important that all information on the truss component drawing is understood by all interested parties. If clarification is required, please contact your truss supplier prior to installation of the trusses

Standard Design Loading:

Standard loading is indicated on the drawing legend for the top and bottom chords, for snow, live and dead loads where indicated. Actual panel UDL is further indicated for individual panels in the body of the truss drawing.

Non-Standard Loading:

Additional uniform loading is included in individual panel loading. Concentrated loads are noted in a separate table in the body of the drawing.

Reactions:

Factored gross reactions are indicated as Maximum Factored Reactions, not necessarily for the load case outlined on the drawing. Includes vertical, horizontal and uplift.

Lumber size and Grade:

The member size and grade is indicated in the lumber table. The truss must be manufactured with the same size and species noted but may be an equal or better grade than indicated.

Plates sizes:

Plate sizes are noted as Width x Length, where the plate slot direction is parallel to the plate length. Plate sizes indicated are the minimum required and may be increased.

Plate location:

Plates are centred on the joint unless an x-y offset is indicated. If clarification of placement is required prior to manufacture or during inspection, additional detail on plate placement is available from the truss manufacturer.

Bearing:

In most cases, input bearing size (input by designer) and minimum required bearing are indicated on the drawing. In cases where the bearing capacity has been enhanced by using a bearing block, bearing enhancer or flush plate, the bearing required will match the input bearing even where the required bearing might be less than what is indicated

Ply to ply connection:

Where the truss is designed for 2 or more plys, the individual truss plys must be fastened together. A nailing chart will be included which includes nails size, type, spacing and rows for each member. For 4 ply trusses, bolts or structural screws may also be noted

Building Code:

The truss will be designed as Part 9, Part 4 or Farm and will be noted in the legend. In certain cases, wind loading will also be required and will be outlined on the drawing, including information pertaining to location, building height, exposure class and opening size. TPIC requires that some non-triangulated frames such as attic trusses and gambrel arches be designed Part 4 even though the building itself might meet the requirements of Part 9.

Chord Bracing:

Minimum spacing for bracing for the top and bottom chord is clearly indicated. This can also be achieved when suitable sheathing is directly connected to the top chord and when a suitable ceiling is directly connected to the bottom chord. For large cantilevers where there is typically not a directly connected ceiling, care should be taken to meet the bracing criteria noted. The base truss for piggyback situations must have 2x4 purlins (max truss spacing 24" o/c) connected at a maximum of 24" o/c along the flat top chord section. Additional x-bracing may be required in the plane of the purlins.

Web Bracing:

Requirements for individual web bracing will be indicated on the drawing. This will either be a lateral brace or T-brace. Where a T-brace is specified, size, grade and nailing requirement will be noted. For a lateral brace, a 1x4 minimum is required. Note: The building designer is responsible for ensuring adequate load transfer from the individual lateral braces into the overall structure.

Design Results:

Axial forces for load case 1 are indicated on the drawing. Other load case results can be supplied upon request. Maximum stress indices are also indicated for both the lumber and plates. Maximum deflection is indicated, both allowable and calculated.

Manufacturing tolerances:

Tolerances for plate placement as outlined in TPIC Appendix G are noted on each truss component drawing.

Failure to follow these guidelines could cause property damage and personal injury

1. Additional stability bracing for truss system, e.g. diagonal or xbracing is always required. Consult **BCSI-CANADA** for installation requirements (copies available from your truss supplier or from www.sbcindustry.com)

2. Truss bracing must be designed by an engineer. Individual lateral braces shown in truss drawings must be incorporated into overall structure through connection to diaphragm or other means.

3. Never exceed the design loading shown and never stack building materials on inadequately braced trusses

4. Provide copies of truss component drawings to the building department, erection supervisor, property owner and all interested parties (e.g. Building designer where required)

5. Cut members to bear tightly against one another

6. Place plates on each face of truss at each joint and use proper roller or hydraulic press. Knots and warps at locations are regulated by TPIC Appendix G

7. Design assumes trusses will be suitably protected from the environment in accordance with TPIC

8. Unless otherwise noted, MC of lumber shall not exceed 19% at time of manufacture

9. Unless expressly noted, this design is not applicable for fire retardant, preservative treatment or green lumber nor for use in a corrosive environment

10. Connections not shown are the responsibility of others

11. Do not cut or alter truss members or plates without prior approval of an engineer

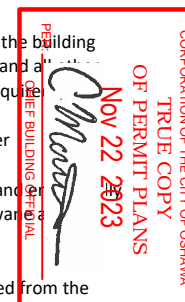
12. Install and load vertically unless otherwise noted

13. Review all portions of this design including all notes. Reviewing pictures alone is not sufficient

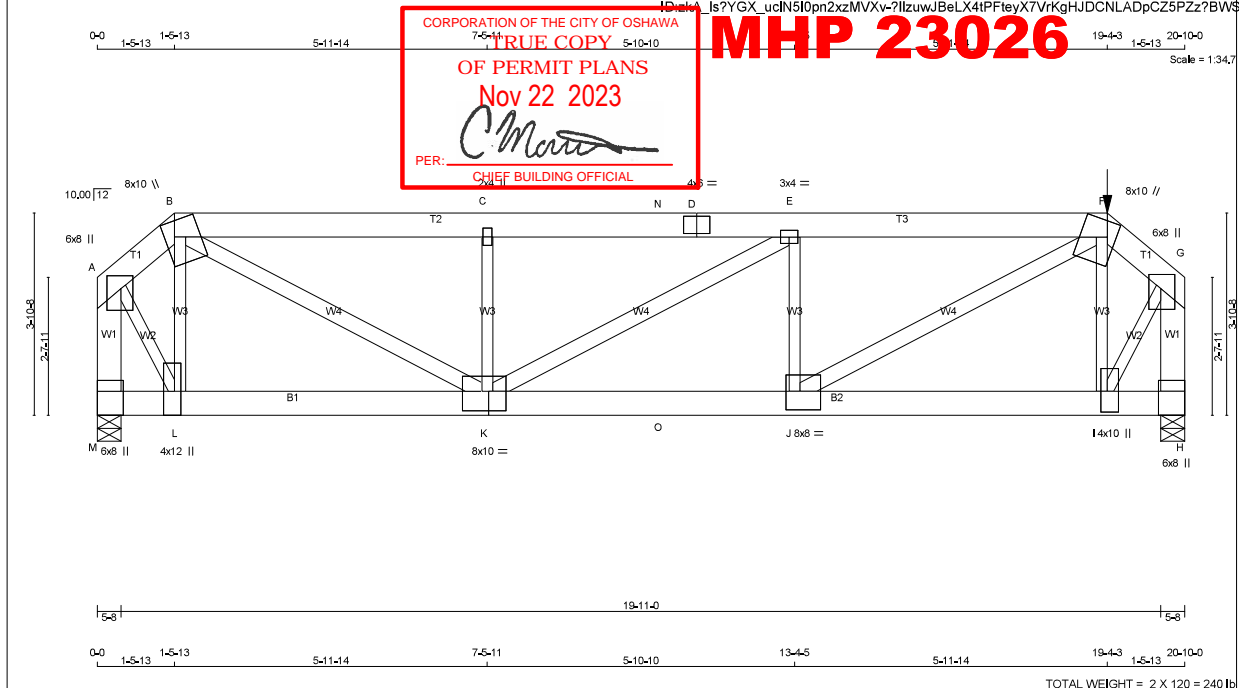
14. Design assumes manufactured in accordance with TPIC Quality criteria as outlined in Appendix G

16. Building designer must review individual component drawings to ensure they are suitable for the structure

15. Not designed for solar panels unless specifically noted



MHP 23026



| | | | | | |
|---|--|--|--|---|--|
| LUMBER N, L, G, A, RULES CHORDS SIZE LUMBER DESCR. A - B 2x6 DRY No.2 SPF B - D 2x6 DRY No.2 SPF D - F 2x6 DRY No.2 SPF F - G 2x6 DRY No.2 SPF M - A 2x6 DRY No.2 SPF H - G 2x6 DRY No.2 SPF M - K 2x6 DRY 2100F 1.8E SPF K - H 2x6 DRY 2100F 1.8E SPF ALL WEBS EXCEPT B - K 2x4 DRY No.2 SPF K - E 2x4 DRY No.2 SPF J - F 2x4 DRY No.2 SPF DRY: SEASONED LUMBER. DESIGN CONSISTS OF 2 TRUSSES BUILT SEPARATELY THEN FASTENED TOGETHER AS FOLLOWS: CHORDS #ROWS SURFACE SPACING (IN) LOAD(PLF) TOP CHORDS : (0,122"x3") SPIRAL NAILS A-B 2 12 TOP B-D 2 12 SIDE(6,8) D-F 2 12 SIDE(6,8) F-G 2 12 SIDE(0,0) M-A 2 12 TOP H-G 2 12 TOP BOTTOM CHORDS : (0,122"x3") SPIRAL NAILS M-K 2 8 SIDE(347,6) K-H 2 8 SIDE(347,6) WEBS : (0,122"x3") SPIRAL NAILS 2x3 1 6 2x4 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 TRANSFERRING. 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 A TMW+p MT20 6.0 8.0 3.00 2.75 B TMW+m MT20 8.0 10.0 3.50 2.25 C TMW+w MT20 2.0 4.0 D TS-t MT20 2.0 4.0 | | DIMENSIONS, SUPPORTS AND LOADINGS SPECIFIED BY FABRICATOR TO BE VERIFIED BY BUILDING DESIGNER BEARINGS FACTORED GROSS REACTION MAXIMUM FACTORED INPUT REQD JT VERT HORZ DOWN HORZ UPLIFT IN-SX IN-SX M 8640 0 8640 0 0 5-8 5-8 H 8589 0 8589 0 0 5-8 5-8 UNFACTORED REACTIONS 1ST LOASE MAX/MIN COMPONENT REACTIONS JT COMBINED SNOW LIVE PERMLIVE WIND DEAD SOIL M 6038 4369 / 0 0 / 0 0 / 0 1669 / 0 0 / 0 H 6002 4346 / 0 0 / 0 0 / 0 1656 / 0 0 / 0 BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S) M, H BEARING SIZE FACTOR = 1.15 AT JNT(S) M, H (BASED ON SUPPORT DEPTH = 1-8) BRACING TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 3,17 FT. MAX. UNBRACED BOTTOM CHORD LENGTH = 10,00 FT. OR RIGID CEILING DIRECTLY APPLIED. ALL PITCH BREAKS AND PERIMETER CORNER JOINTS MUST BE Laterally RESTRAINED. LOADING TOTAL LOAD CASES: (4) C H O R D S W E B S MEMB. MAX. FACTORED FORCE (LBS) VERT. LOAD LC1 MAX. MAX. FACTORED FORCE (LBS) MAX. FACTORED CSI (LC) UNBRAC FR-TO LENGTH FR-TO MEMB. MAX. FACTORED FORCE (LBS) MAX. FACTORED CSI (LC) FR-TO FROM TO A-B -5735 / 0 -118.4 -118.4 0.05 (1) 4.91 L-B -1164 / 0 0.13 (1) B-C -12153 / 0 -119.4 -119.4 0.44 (1) 3.24 B-K 0 / 9897 0.79 (1) C-N -12148 / 0 -119.4 -119.4 0.39 (1) 3.28 K-C -669 / 0 0.07 (1) N-D -12148 / 0 -105.7 -105.7 0.39 (1) 3.28 K-E -649 / 0 0.20 (1) D-E -12148 / 0 -105.7 -105.7 0.39 (1) 3.28 J-E -247 / 34 0.03 (1) E-F -12709 / 0 -105.7 -105.7 0.45 (1) 3.17 J-F 0 / 9956 0.88 (1) F-G -5395 / 0 -119.4 -119.4 0.05 (1) 5.03 I-F -1864 / 0 0.21 (1) M-A -9518 / 0 0.0 0.0 0.42 (1) 4.87 A-L 0 / 7252 0.90 (1) H-G -9053 / 0 0.0 0.0 0.40 (1) 5.01 I-G 0 / 6822 0.84 (1) M-L 0 / 0 -713.4 -713.4 0.49 (1) 10.00 L-K 0 / 4320 -713.4 -713.4 0.60 (1) 10.00 K-O 0 / 12708 -713.4 -713.4 0.77 (1) 10.00 O-J 0 / 12708 -711.4 -711.4 0.77 (1) 10.00 J-I 0 / 4040 -711.4 -711.4 0.54 (1) 10.00 I-H 0 / 0 -711.4 -711.4 0.33 (1) 10.00 FACTORED CONCENTRATED LOADS (LBS) JT LOC. LC1 MAX. MAX. FACE DIR. TYPE HEEL CONN. F 19-4-3 -15 -15 - FRONT VERT TOTAL - C1 CONNECTION REQUIREMENTS 1) C1: A SUITABLE HANGER/MECHANICAL CONNECTION IS REQUIRED. | | 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 = 240 IN. GIG LOADING IN FLAT SECTION BASED ON A SLOPE OF 2.00/12 MINIMUM GIRDER TYPE: CStdGirder START DISTANCE = 0-0 START SPAN CARRIED = 22-7-14 END DISTANCE = 20-10-0 END SPAN CARRIED = 22-7-14 END WALL WIDTH = 5-8 APPLIED TO FRONT SIDE OF BOTTOM CHORD. -ADDTL LOADS BASED ON 55 % OF GSL. GIRDER TYPE: CPrimeHip SIDE SETBACK = 1-5-13 END SETBACK = 2-0-0 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 10-0-0 OF SPAN MEASURED FROM THE RIGHT. THIS TRUSS IS DESIGNED FOR RESIDENTIAL OR SMALL BUILDING REQUIREMENTS OF PART 9, NBCC 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 (0.69") CALCULATED VERT. DEFL.(LL) = L/999 (0.23") ALLOWABLE DEFL.(TL) = L/360 (0.69") CALCULATED VERT. DEFL.(TL) = L/637 (0.39") CSI TC=0.45/1.00 (E-F:1), BC=0.77/1.00 (J-K:1), WB=0.90/1.00 (A-L:1), SS=0.84/1.00 (K-L:1) DOL LUMBER=1.00 NAIL=1.00 LS BEND=1.00 COMP=1.00 SHEAR=1.00 TENS=1.00 COMPANION LIVE LOAD FACTOR = 1.00 TRUSS PLATE MANUFACTURER IS NOT RESPONSIBLE FOR QUALITY CONTROL IN THE TRUSS MANUFACTURING PLANT. NAIL VALUES PLATE GRIP(DRY) 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 (I) (INPUT = 0.90) JSI METAL= 0.95 (L) (INPUT = 1.00) | |
|---|--|--|--|---|--|

PLATES (table is in inches)

| JT | TYPE | PLATES | W | LEN | Y | X |
|----|---------|--------|-----|------|------|------|
| E | TMWW+4 | MT20 | 3.0 | 4.0 | | |
| F | TTWW+m | MT20 | 8.0 | 10.0 | 3.50 | 2.00 |
| G | TMVW+p | MT20 | 6.0 | 8.0 | 3.25 | 2.75 |
| H | BMV1+t | MT20 | 6.0 | 8.0 | Edge | 0.50 |
| I | BMWW+1 | MT20 | 4.0 | 10.0 | 4.75 | 1.50 |
| J | BMWW+4 | MT20 | 8.0 | 8.0 | 4.25 | 3.25 |
| K | BSWWW+4 | MT20 | 8.0 | 10.0 | 4.50 | 4.00 |
| L | BMWW+1 | MT20 | 4.0 | 12.0 | Edge | 1.50 |
| M | BMV1+t | MT20 | 6.0 | 8.0 | 5.50 | |

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

CORPORATION OF THE CITY OF OSHAWA
TRUE COPY
OF PERMIT PLANS
Nov 22 2023
PER: 
CHIEF BUILDING OFFICIAL

MHP 23026

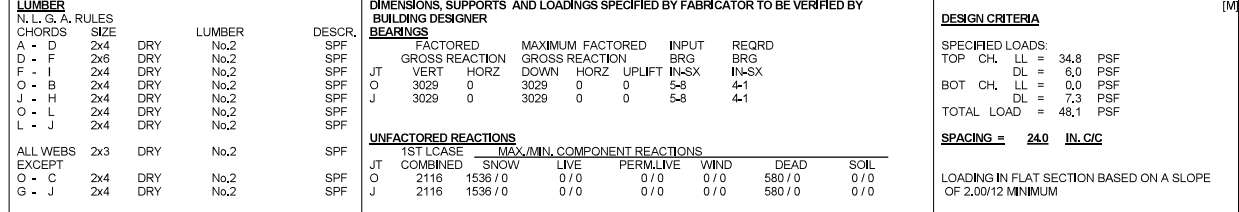


REVIEW FOR TRUSS COMPONENT ONLY

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 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





| | | | | | | | | | | | | | | | | | | | | | |
|---|--------|------|-----|------|------|-----------------------|--|--|------------------------|--|---------------|--|---------------|--|---------------|--|---|--|--|--|--|
| D | TMWw4 | MT20 | 3.0 | 10.0 | 1.50 | 2.75 | LOADING | | | | | | | | | | THIS TRUSS IS DESIGNED FOR RESIDENTIAL OR SMALL BUILDING REQUIREMENTS OF PART 9, NBC02 2015 | | | | |
| T | TTWw+m | MT20 | 5.0 | 6.0 | Edge | TOTAL LOAD CASES: (4) | | | | | | | | | | | | | | | |
| E | TTWw+w | MT20 | 2.0 | 4.0 | | | | | | | | | | | | | | | | | |
| F | TTWw+m | MT20 | 5.0 | 6.0 | Edge | | | | | | | | | | | | | | | | |
| G | MMWw4 | MT20 | 3.0 | 10.0 | 1.50 | 2.75 | CHORDS | | | | WEBS | | | | | | | | | | |
| H | TMV+p | MT20 | 2.0 | 4.0 | | | MAX. FACTORED | | FACTORED | | MAX. FACTORED | | MEMB. | | MAX. FACTORED | | | | | | |
| J | BMWV14 | MT20 | 5.0 | 5.0 | 2.00 | 1.75 | FORCE (LBS) | | VERT. LOAD LC1 (PLF) | | MAX. CSI (LC) | | UNBRAC | | FORCE (LBS) | | MAX. CSI (LC) | | | | |
| K | BMWV4 | MT20 | 3.0 | 4.0 | | | FR-TO | | FROM TO | | LENGTH | | FR-TO | | | | | | | | |
| L | BS4 | MT20 | 3.0 | 6.0 | | | A-B 0 / 49 | | -119.4 -119.4 0.18 (1) | | 10.00 | | C-N 0 / 399 | | 0.10 (1) | | | | | | |
| M | MMWw4 | MT20 | 4.0 | 6.0 | 1.75 | 3.00 | C-O 0 / 354 | | -119.4 -119.4 0.25 (1) | | 10.00 | | N-D -8 / 180 | | 0.07 (4) | | | | | | |
| N | BMWV4 | MT20 | 3.0 | 4.0 | | | C-D -3213 / 0 | | -119.4 -119.4 0.48 (1) | | 3.46 | | D-M 0 / 866 | | 0.21 (1) | | | | | | |
| O | BMWV14 | MT20 | 5.0 | 5.0 | 2.00 | 1.75 | D-E -3073 / 0 | | -225.2 -225.2 0.42 (1) | | 4.31 | | M-E -1286 / 0 | | 0.89 (1) | | | | | | |
| | | | | | | | E-F -3073 / 0 | | -225.2 -225.2 0.42 (1) | | 4.31 | | M-F 0 / 866 | | 0.21 (1) | | | | | | |
| | | | | | | | F-G -3213 / 0 | | -119.4 -119.4 0.48 (1) | | 3.46 | | K-F -8 / 180 | | 0.07 (4) | | | | | | |
| | | | | | | | G-H 0 / 35 | | -119.4 -119.4 0.25 (1) | | 10.00 | | K-G 0 / 399 | | 0.10 (1) | | | | | | |
| | | | | | | | H-I 0 / 49 | | -119.4 -119.4 0.18 (1) | | 10.00 | | C-C -3486 / 0 | | 0.76 (1) | | | | | | |
| | | | | | | | O-B -271 / 0 | | 0.0 0.0 0.03 (1) | | 7.81 | | G-J -3486 / 0 | | 0.76 (1) | | | | | | |
| | | | | | | | J-H -271 / 0 | | 0.0 0.0 0.03 (1) | | 7.81 | | | | | | | | | | |
| | | | | | | | O-N 0 / 2251 | | -34.4 -34.4 0.60 (1) | | 10.00 | | | | | | | | | | |
| | | | | | | | N-M 0 / 2559 | | -34.4 -34.4 0.66 (1) | | 10.00 | | | | | | | | | | |
| | | | | | | | M-L 0 / 2559 | | -34.4 -34.4 0.66 (1) | | 10.00 | | | | | | | | | | |
| | | | | | | | L-K 0 / 2559 | | -34.4 -34.4 0.66 (1) | | 10.00 | | | | | | | | | | |
| | | | | | | | K-J 0 / 2251 | | -34.4 -34.4 0.60 (1) | | 10.00 | | | | | | | | | | |
| Edge - INDICATES REFERENCE CORNER OF PLATE TOUCHES EDGE OF CHORD. | | | | | | | THIS DESIGN COMPLIES WITH: - PART 9 OF CBC02 2018, NBC-2019AE - PART 9 OF OBC 2012 (2019 AMENDMENT) - CSA 086-14 - TFC 2014 | | | | | | | | | | | | | | |
| | | | | | | | (575 G) 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 DEF(L) = L/360 (0.76") CALCULATED VERT. DEF(L) = L/999 (0.08") ALLOWABLE DEF(L) = L/360 (0.76") CALCULATED VERT. DEF(L) = L/999 (0.16") | | | | | | | | | | | | | | |
| | | | | | | | CSI TC=0.48/1.00 (C-D-I) , BC=0.66/1.00 (M-N-I) , WB=0.89/1.00 (E-M-I) , SS=0.42/1.00 (D-E-I) | | | | | | | | | | | | | | |
| | | | | | | | DOL LUMBER=1.00 NAIL=1.00 L.S LEND=1.00 | | | | | | | | | | | | | | |


| | | |
|--------------------------|---|--|
| MODULUS ENGINEERING LTD. | <u>CONNECTION REQUIREMENTS</u> | TRUSS PLATE MANUFACTURER IS NOT RESPONSIBLE FOR QUALITY CONTROL IN THE TRUSS MANUFACTURING PLANT . |
| | 1) C1: A SUITABLE HANGER/MECHANICAL CONNECTION IS REQUIRED. | |
| | | NAIL VALUES PLATE GRIP(DRY) SHEAR SECTION (PS) (PL) (PL) MAX MIN MAX MIN MAX MIN |


 D. A. SHERMAN
 100123373
 PROFESSIONAL ENGINEER
 STATE OF FLORIDA


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.bcsindustry.com




KOTT

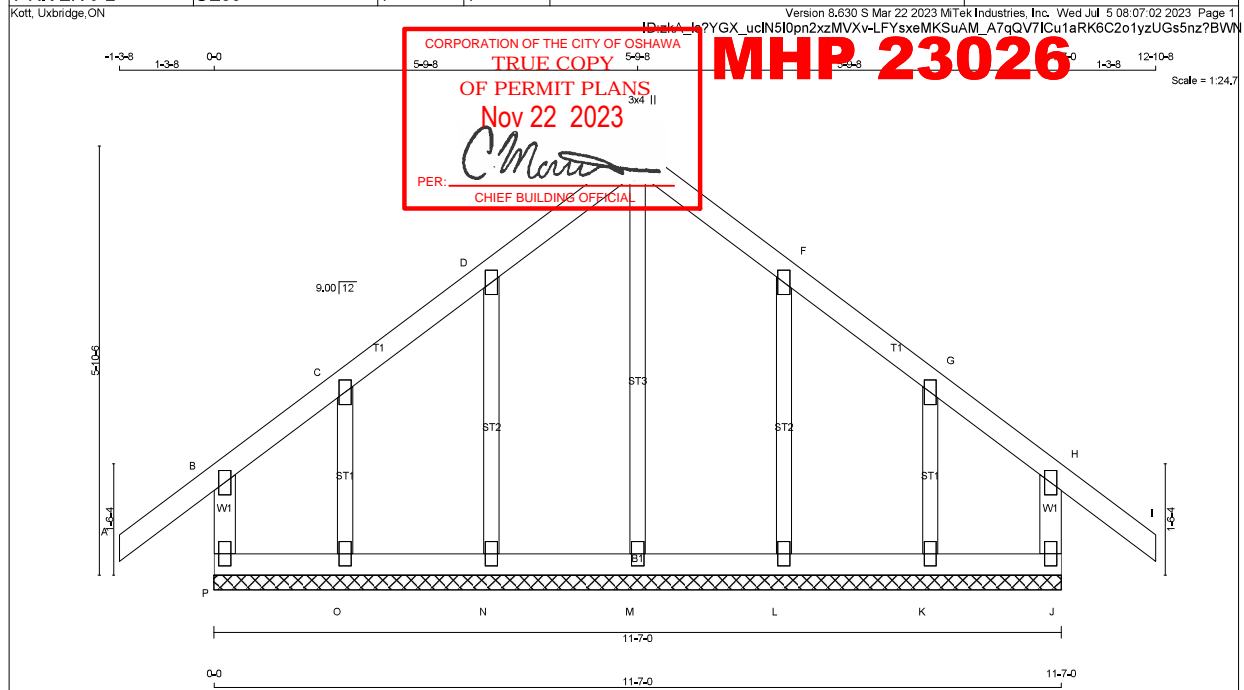


WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED IN MODULUS ENGINEERING LTD. NOTES ME-TC001 (VER 06/2017) BEFORE USE.

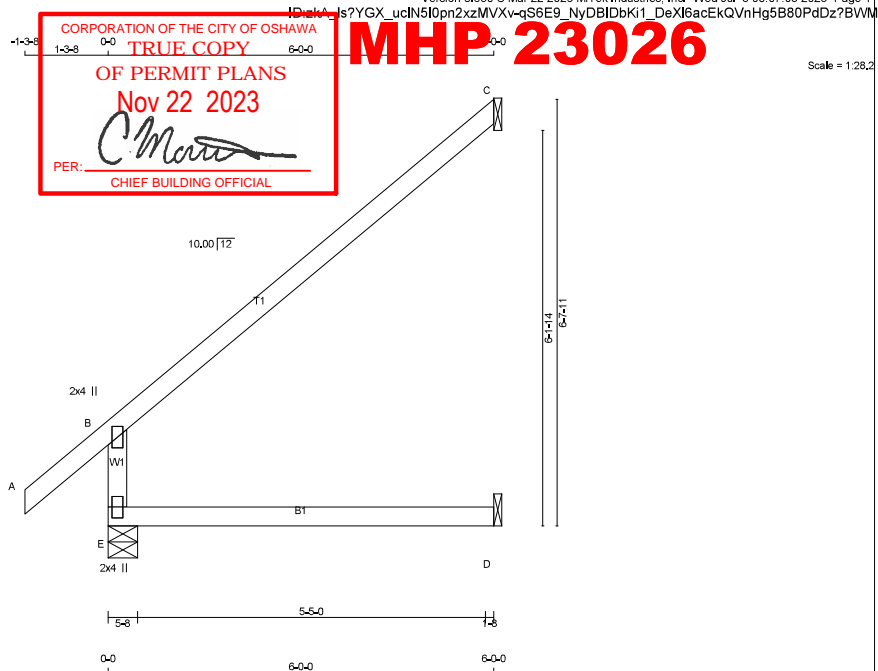
Design valid for use only with Mitek connectors. This design is based only upon parameters shown, and is for individual building components. Applicability of design parameters and proper incorporation of component is responsibility of building designer - not truss designer. Bracing shown is for lateral 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

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





| | | | | | | | | | | | |
|---|--|--|--|---|--|--|--|---|--|--|--|
| LUMBER N, L, G, A, RULES CHORDS SIZE LUMBER DESCR. P - B 2x4 DRY No.2 SPF A - E 2x4 DRY No.2 SPF E - I 2x4 DRY No.2 SPF J - H 2x4 DRY No.2 SPF P - J 2x4 DRY No.2 SPF ALL WEBS 2x3 DRY No.2 SPF ALL GABLE WEBS 2x3 DRY No.2 SPF DRY: SEASONED LUMBER. GABLE STUDS SPACED AT 2'-0" OC. | | | | DIMENSIONS, SUPPORTS AND LOADINGS SPECIFIED BY FABRICATOR TO BE VERIFIED BY BUILDING DESIGNER BEARINGS THIS TRUSS DESIGNED FOR CONTINUOUS BEARINGS. THIS TRUSS REQUIRES RIGID SHEATHING ON EXPOSED FACE. BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S) BRACING TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 10.00 FT. MAX. UNBRACED BOTTOM CHORD LENGTH = 6.25 FT. OR RIGID CEILING DIRECTLY APPLIED. ALL PITCH BREAKS AND PERIMETER CORNER JOINTS MUST BE Laterally RESTRAINED. LOADING TOTAL LOAD CASES: (4) | | | | 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. GIC 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 DESIGN ASSUMPTIONS - OVERHANG NOT TO BE ALTERED OR CUT OFF. (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 CSI: TC=0.16/1.00 (H-I-1), BC=0.01/1.00 (L-M-4), WB=0.15/1.00 (E-M-1), SSI=0.10/1.00 (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= 0.20 (E) (INPUT = 0.90) JSI METAL= 0.14 (D) (INPUT = 1.00) | | | |
| PLATES (table is in inches) JT TYPE PLATES W LEN Y X B TMV+p MT20 2.0 4.0 C, D, F, G C TMV+w MT20 2.0 4.0 E TTV+p MT20 3.0 4.0 2.25 1.50 H TMV+p MT20 2.0 4.0 J BMV1+p MT20 2.0 4.0 K, L, M, N, O K BMV1+w MT20 2.0 4.0 P BMV1+p MT20 2.0 4.0 | | | | CHORDS MAX. FACTORED FORCE (LBS) FACTORED VERT. LOAD (PLF) CSI (LC) UNBRAC LENGTH FR-TO P-B -276 / 0 0.0 0.0 0.05 (1) 7.81 M-E -298 / 0 0.15 (1) A-B 0 / 49 -119.4 -119.4 0.16 (1) 10.00 N-D -256 / 0 0.07 (1) B-C 0 / 15 -119.4 -119.4 0.10 (1) 10.00 O-C -175 / 0 0.03 (1) C-D 0 / 48 -119.4 -119.4 0.07 (1) 10.00 L-F -256 / 0 0.07 (1) D-E 0 / 45 -119.4 -119.4 0.07 (1) 10.00 K-G -175 / 0 0.03 (1) E-F 0 / 45 -119.4 -119.4 0.07 (1) 10.00 F-G 0 / 48 -119.4 -119.4 0.07 (1) 10.00 G-H 0 / 15 -119.4 -119.4 0.10 (1) 10.00 H-I 0 / 49 -119.4 -119.4 0.16 (1) 10.00 J-H -276 / 0 0.0 0.0 0.05 (1) 7.81 P-O -27 / 0 -18.2 -18.2 0.01 (4) 6.25 O-N -33 / 0 -18.2 -18.2 0.01 (4) 6.25 N-M -39 / 0 -18.2 -18.2 0.01 (4) 6.25 M-L -39 / 0 -18.2 -18.2 0.01 (4) 6.25 L-K -33 / 0 -18.2 -18.2 0.01 (4) 6.25 K-J -27 / 0 -18.2 -18.2 0.01 (4) 6.25 | | | | WEBS MAX. FACTORED FORCE (LBS) CSI (LC) FR-TO P-B -276 / 0 0.0 0.0 0.05 (1) 7.81 M-E -298 / 0 0.15 (1) A-B 0 / 49 -119.4 -119.4 0.16 (1) 10.00 N-D -256 / 0 0.07 (1) B-C 0 / 15 -119.4 -119.4 0.10 (1) 10.00 O-C -175 / 0 0.03 (1) C-D 0 / 48 -119.4 -119.4 0.07 (1) 10.00 L-F -256 / 0 0.07 (1) D-E 0 / 45 -119.4 -119.4 0.07 (1) 10.00 K-G -175 / 0 0.03 (1) E-F 0 / 45 -119.4 -119.4 0.07 (1) 10.00 F-G 0 / 48 -119.4 -119.4 0.07 (1) 10.00 G-H 0 / 15 -119.4 -119.4 0.10 (1) 10.00 H-I 0 / 49 -119.4 -119.4 0.16 (1) 10.00 J-H -276 / 0 0.0 0.0 0.05 (1) 7.81 P-O -27 / 0 -18.2 -18.2 0.01 (4) 6.25 O-N -33 / 0 -18.2 -18.2 0.01 (4) 6.25 N-M -39 / 0 -18.2 -18.2 0.01 (4) 6.25 M-L -39 / 0 -18.2 -18.2 0.01 (4) 6.25 L-K -33 / 0 -18.2 -18.2 0.01 (4) 6.25 K-J -27 / 0 -18.2 -18.2 0.01 (4) 6.25 | | | |



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

PLATES (table is in inches)

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

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

BEARINGS

| JT | FACTORED GROSS REACTION | MAXIMUM FACTORED GROSS REACTION | INPUT BRG IN-SX | REQRD BRG IN-SX |
|----|-------------------------|---------------------------------|-----------------|-----------------|
| E | 676 | 676 | 5-8 | 1-8 |
| C | 269 | 269 | 1-8 | 1-8 |
| D | 46 | 52 | 1-8 | 1-8 |

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

UNFACTORED REACTIONS

| JT | COMBINED | SNOW | LIVE | PERM.LIVE | WIND | DEAD | SOIL |
|----|----------|---------|-------|-----------|-------|---------|-------|
| E | 469 | 357 / 0 | 0 / 0 | 0 / 0 | 0 / 0 | 112 / 0 | 0 / 0 |
| C | 184 | 157 / 0 | 0 / 0 | 0 / 0 | 0 / 0 | 27 / 0 | 0 / 0 |
| D | 37 | 0 / 0 | 0 / 0 | 0 / 0 | 0 / 0 | 37 / 0 | 0 / 0 |

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

BRACING

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

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

LOADING

TOTAL LOAD CASES: (4)

| CHORDS | | | | WEBS | | | |
|--------|---------------------------|---------------------------|--------------------------------|------------------------------------|-------|---------------------------|-------------------------------|
| MEMB. | MAX. FACTORED FORCE (LBS) | FACTORED VERT. LOAD (PLF) | MAX. FACTORED HORZ. LOAD (LC1) | MAX. FACTORED UNBRACED LENGTH (LC) | MEMB. | MAX. FACTORED FORCE (LBS) | MAX. FACTORED HORZ. LOAD (LC) |
| FR-TO | | FROM | TO | | FR-TO | | |
| E-B | -613 / 0 | 0.0 | 0.0 | 0.12 (4) | 7.81 | | |
| A-B | 0 / 53 | -119.4 | -119.4 | 0.16 (1) | 10.00 | | |
| B-C | -57 / 0 | -119.4 | -119.4 | 0.74 (1) | 6.25 | | |
| E-D | 0 / 0 | -18.2 | -18.2 | 0.14 (4) | 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. 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

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

(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 (0.20")
 CALCULATED VERT. DEFL.(LL) = L/999 (0.00")
 ALLOWABLE DEFL.(TL) = L/360 (0.20")
 CALCULATED VERT. DEFL.(TL) = L/999 (0.04")

CSI TC=0.74/1.00 (B-C:1) BC=0.14/1.00 (D-E:4) ,
 WB=0.00/1.00 (n/a:0) , SSI=0.27/1.00 (B-C:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

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

NAIL VALUES
 PLATE GRIP(DRY) SHEAR SECTION (PSI) (PLI) (PU)
 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= 0.42 (B) (INPUT = 0.90)
 JSI METAL= 0.33 (B) (INPUT = 1.00)

MODULUS ENGINEERING LTD.

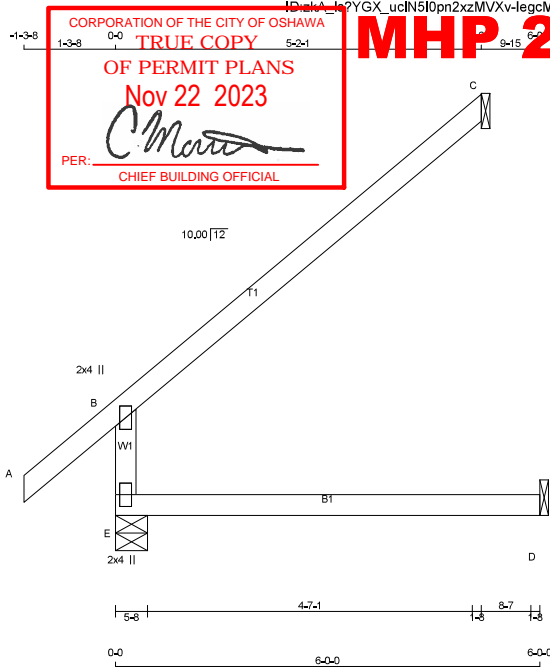


REVIEW FOR TRUSS COMPONENT ONLY

NOTE: ALTERING THIS DOCUMENT
 VOIDS THE ENGINEER'S 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 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.tpic.ca and BCSI-CANADA (Building Component Safety Information) available from TPI, 781 N. Lee Street, Suite 312, Alexandria, VA 22314 or www.sbindustry.com





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

PLATES (table is in inches)

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

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

BEARINGS

| JT | FACTORED GROSS REACTION | | MAXIMUM FACTORED GROSS REACTION | | INPUT BRG IN-SX | REQRD BRG IN-SX |
|----|-------------------------|------|---------------------------------|------|-----------------|-----------------|
| | VERT | HORZ | DOWN | HORZ | | |
| E | 615 | 0 | 615 | 0 | 5-8 | 1-8 |
| C | 232 | 0 | 232 | 0 | 1-8 | 1-8 |
| D | 46 | 0 | 52 | 0 | 1-8 | 1-8 |

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

UNFACTORED REACTIONS

| JT | 1ST LCASE | | MAX./MIN. COMPONENT REACTIONS | | | | |
|----|-----------|---------|-------------------------------|-----------|-------|---------|-------|
| | COMBINED | SNOW | LIVE | PERM.LIVE | WIND | DEAD | SOIL |
| E | 427 | 321 / 0 | 0 / 0 | 0 / 0 | 0 / 0 | 106 / 0 | 0 / 0 |
| C | 158 | 135 / 0 | 0 / 0 | 0 / 0 | 0 / 0 | 23 / 0 | 0 / 0 |
| D | 37 | 0 / 0 | 0 / 0 | 0 / 0 | 0 / 0 | 37 / 0 | 0 / 0 |

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

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 | | | | MEMB. | WEBS | |
| | MAX. FACTORED FORCE (LBS) | VERT. LOAD | LC1 (PLF) | MAX. CSI (LC) | MAX. UNBRAC LENGTH | MAX. FACTORED FORCE (LBS) | | MAX. CSI (LC) | |
| FR-TO | | | FROM TO | | | | FR-TO | | |
| E-B | -552 / 0 | | 0.0 | 0.0 | 0.12 (4) | 7.81 | | | |
| A-B | 0 / 53 | | -119.4 | -119.4 | 0.16 (1) | 10.00 | | | |
| B-C | -49 / 0 | | -119.4 | -119.4 | 0.55 (1) | 6.25 | | | |
| E-D | 0 / 0 | | -18.2 | -18.2 | 0.14 (4) | 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 = 240 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

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

(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 (0.20")
 CALCULATED VERT. DEFL.(LL) = L/999 (0.00")
 ALLOWABLE DEFL.(TL)= L/360 (0.20")
 CALCULATED VERT. DEFL.(TL) = L/999 (0.04")

CSI TC=0.55/1.00 (B-C:1) BC=0.14/1.00 (D-E:4) , WB=0.00/1.00 (n/a:0) , SSI=0.23/1.00 (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= 0.38 (B) (INPUT = 0.90)
 JSI METAL= 0.29 (B) (INPUT = 1.00)

MODULUS ENGINEERING LTD.



REVIEW FOR TRUSS COMPONENT ONLY

NOTE: ALTERING THIS DOCUMENT
 VOIDS THE ENGINEER'S 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





TOTAL WEIGHT = $2 \times 15 = 31 \text{ lb}$

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 |

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

UNFACTORED REACTIONS

THIS DESIGN COMPLIES WITH:

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

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

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 | | | |
|---------------|-------------|------------------|---------------|--------------------|----------|-------------|---------------|
| MAX. FACTORED | | FACTORED | | MAX. FACTORED | | | |
| MEMB. | FORCE (LBS) | VERT. LOAD (PLF) | MAX. CSI (LC) | MAX. UNBRAC LENGTH | MEMB. | FORCE (LBS) | MAX. CSI (LC) |
| FR-FR TO | | FROM TO | | | FR-FR TO | | |
| E-A | -417 / 0 | 0.0 | 0.0 | 0.12 (4) | 7.81 | | |
| A-B | 0 / 53 | -119.4 | -119.4 | 0.16 (1) | 10.00 | | |
| B-C | -32 / 0 | -119.4 | -119.4 | 0.23 (1) | 6.25 | | |
| E-D | 0 / 0 | -18.2 | -18.2 | 0.14 (4) | 10.00 | | |

DESIGN ASSUMPTIONS
-OVERHANG NOT TO BE ALTERED OR CUT OFF

(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)= $L/360$ (0.20")
 CALCULATED VERT. DEFL.(LL) = $L/999$ (0.00")
 ALLOWABLE DEFL.(TL)= $L/360$ (0.20")
 CALCULATED VERT. DEFL.(TL) = $L/999$ (0.04")

CSI: TC=0.23/1.00 (B-C:1), BC=0.14/1.00 (D-E:4),
WB=0.00/1.00 (n/a:0), SSI=0.15/1.00 (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.

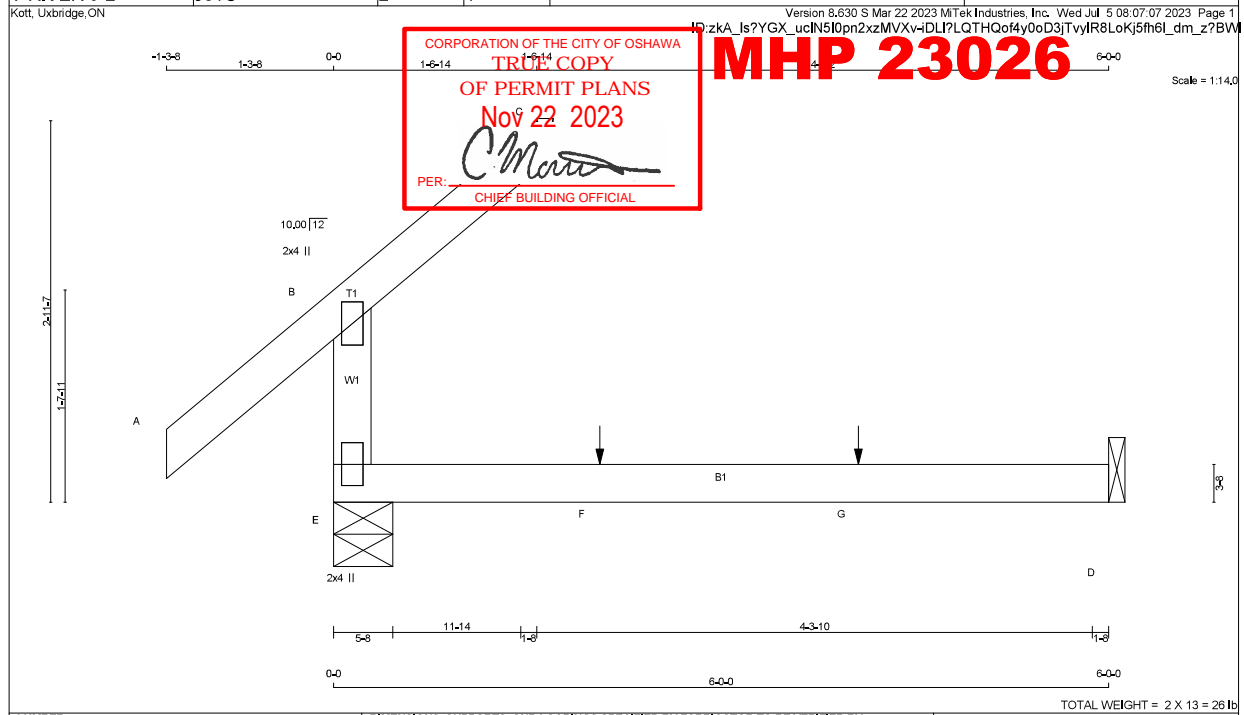
JSI GRIP= 0.29 (B) (INPUT = 0.90)
JSI METAL= 0.22 (B) (INPUT = 1.00)



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 (REV 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 installation, quality control, storage, delivery, erection and on-site bracing, consult TPC Appendix C - Minimum quality Manufacturing Criteria available from www.tpic.ca and BCSI-CANADA (Building Component Safety Information) available from TPI, 781 N. Lee Street, Suite 312, Alexandria, VA 22314 or www.sbcusdistr.com





LUMBER

N.L.G.A. RULES

CHORDS SIZE LUMBER

E - B 2x4 DRY No.2

A - C 2x4 DRY No.2

E - D 2x4 DRY No.2

DESCR.

SPF

SPF

SPF

DRY: SEASONED LUMBER.

PLATES (table is in inches)

JT TYPE PLATES W LEN Y X

B TMV+p MT20 2.0 4.0

E 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 | REQD BRG | | |
|----|-------------------------|---------------------------------|-----------|----------|-------|-------|
| JT | VERT | DOWN | HORIZ | UPLIFT | IN-SX | IN-SX |
| E | 361 | 0 | 361 | 0 | 5-8 | 1-8 |
| C | 56 | 0 | 56 | 0 | 1-8 | 1-8 |
| D | 46 | 0 | 53 | 0 | 1-8 | 1-8 |

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

UNFACTORED REACTIONS

| JT | COMBINED | SNOW | LIVE | PERM.LIVE | WIND | DEAD | SOIL |
|----|----------|---------|-------|-----------|-------|--------|-------|
| E | 251 | 190 / 0 | 0 / 0 | 0 / 0 | 0 / 0 | 61 / 0 | 0 / 0 |
| C | 41 | 18 / 0 | 0 / 0 | 0 / 0 | 0 / 0 | 24 / 0 | 0 / 0 |
| D | 37 | 0 / -1 | 0 / 0 | 0 / 0 | 0 / 0 | 38 / 0 | 0 / 0 |

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

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 (FT) | MEMB. | MAX. FACTORED FORCE (LBS) | MAX. UNBRACED LENGTH (FT) | |
| FR-TO | | FROM TO | | FR-TO | | | |
| E-B | -297 / 0 | 0.0 0.0 | 0.10 (4) | 7.81 | | | |
| A-B | 0 / 53 | -119.4 -119.4 | 0.16 (1) | 10.00 | | | |
| B-C | -24 / 13 | -119.4 -119.4 | 0.08 (1) | 6.25 | | | |
| E-F | 0 / 0 | -18.2 -18.2 | 0.15 (4) | 10.00 | | | |
| F-G | 0 / 0 | -18.2 -18.2 | 0.15 (4) | 10.00 | | | |
| G-D | 0 / 0 | -18.2 -18.2 | 0.15 (4) | 10.00 | | | |

FACTORED CONCENTRATED LOADS (LBS)

| JT | LOC. | LC1 | MAX- | MAX+ | FACE | DIR. | TYPE | HEEL | CONN. |
|----|--------|-----|------|------|------|------|-------|------|-------|
| F | 2-0-12 | 1 | 1 | 1 | BACK | VERT | TOTAL | — | C1 |
| G | 4-0-12 | 1 | 1 | 1 | BACK | VERT | TOTAL | — | C1 |

CONNECTION REQUIREMENTS

1) C1: A SUITABLE HANGER/MECHANICAL CONNECTION IS REQUIRED.

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. 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

DESIGN ASSUMPTIONS

- OVERHANG NOT TO BE ALTERED OR CUT OFF.

(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 (0.20")

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

ALLOWABLE DEFL.(TL)= L/360 (0.20")

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

CSI TC=0.16/1.00 (A-B 1), BC=0.15/1.00 (D-E 4), WB=0.00/1.00 (n/a 0), SSI=0.10/1.00 (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) (PU)

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= 0.20 (B) (INPUT = 0.90)

JSI METAL= 0.16 (B) (INPUT = 1.00)

MODULUS ENGINEERING LTD.

07/05/2023

D. A. SHERMAN

100123373

LICENSED PROFESSIONAL ENGINEER

PROVINCE OF ONTARIO

REVIEW FOR TRUSS COMPONENT ONLY

NOTE: ALTERING THIS DOCUMENT
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MODULUS ENGINEERING LTD.

REVIEW FOR TRUSS COMPONENT ONLY

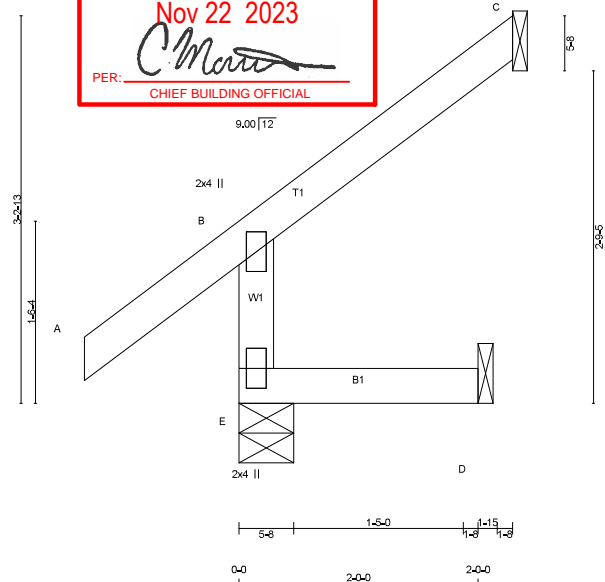
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WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED IN MODULUS ENGINEERING LTD. NOTES ME-TC001 (VER 06/2017) BEFORE USE.

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



MHP 23026



TOTAL WEIGHT = 2 X 9 = 18 lb

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

PLATES (table is in inches)

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

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

BEARINGS

| JT | FACTORED GROSS REACTION | | MAXIMUM FACTORED GROSS REACTION | | INPUT BRG IN-SX | REQRD BRG IN-SX |
|----|-------------------------|------|---------------------------------|------|-----------------|-----------------|
| | VERT | HORZ | DOWN | HORZ | | |
| E | 355 | 0 | 355 | 0 | 5-8 | 1-8 |
| C | 103 | 0 | 103 | 0 | 1-8 | 1-8 |
| D | 17 | 0 | 19 | 0 | 1-8 | 1-8 |

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

UNFACTORED REACTIONS

| | 1ST LCASE | MAX./MIN. COMPONENT REACTIONS | | | | | |
|----|-----------|-------------------------------|-------|-----------|-------|--------|-------|
| JT | COMBINED | SNOW | LIVE | PERM.LIVE | WIND | DEAD | SOIL |
| E | 245 | 195 / 0 | 0 / 0 | 0 / 0 | 0 / 0 | 50 / 0 | 0 / 0 |
| C | 70 | 60 / 0 | 0 / 0 | 0 / 0 | 0 / 0 | 10 / 0 | 0 / 0 |
| D | 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) E

BRACING

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

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

LOADING

TOTAL LOAD CASES: (5)

| CHORDS | | | | WEBS | | | |
|--------|---------------------------|---------------------------|---------------------|----------|---------------------------|---------------------|-------|
| MEMB. | MAX. FACTORED FORCE (LBS) | FACTORED VERT. LOAD (PLF) | MAX. UNBRAC. LENGTH | MEMB. | MAX. FACTORED FORCE (LBS) | MAX. UNBRAC. LENGTH | MEMB. |
| FR-TO | | FROM TO | CSI (LC) | | | | |
| E-B | -335 / 0 | 0.0 | 0.0 | 0.01 (4) | 7.81 | | |
| A-B | 0 / 49 | -119.4 | -119.4 | 0.16 (1) | 10.00 | | |
| B-C | -20 / 0 | -119.4 | -119.4 | 0.10 (1) | 6.25 | | |
| E-D | 0 / 0 | -18.2 | -18.2 | 0.02 (4) | 10.00 | | |

CANTILEVER ANALYSIS HAS BEEN CONSIDERED IN THIS DESIGN

PATTERN-LOADING CHECK APPLIED TO THIS TRUSS.

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. 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

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

(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=0.16/1.00 (A-B 1), BC=0.02/1.00 (D-E 4),
 WB=0.00/1.00 (n/a 0), SSI=0.11/1.00 (B-C 1)

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

COMPANION LIVE LOAD FACTOR = 1.00

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

NAIL VALUES
 PLATE GRIP(DRY) SHEAR 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= 0.22 (B) (INPUT = 0.90)
 JSI METAL= 0.18 (B) (INPUT = 1.00)

MODULUS ENGINEERING LTD.



REVIEW FOR TRUSS COMPONENT ONLY

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