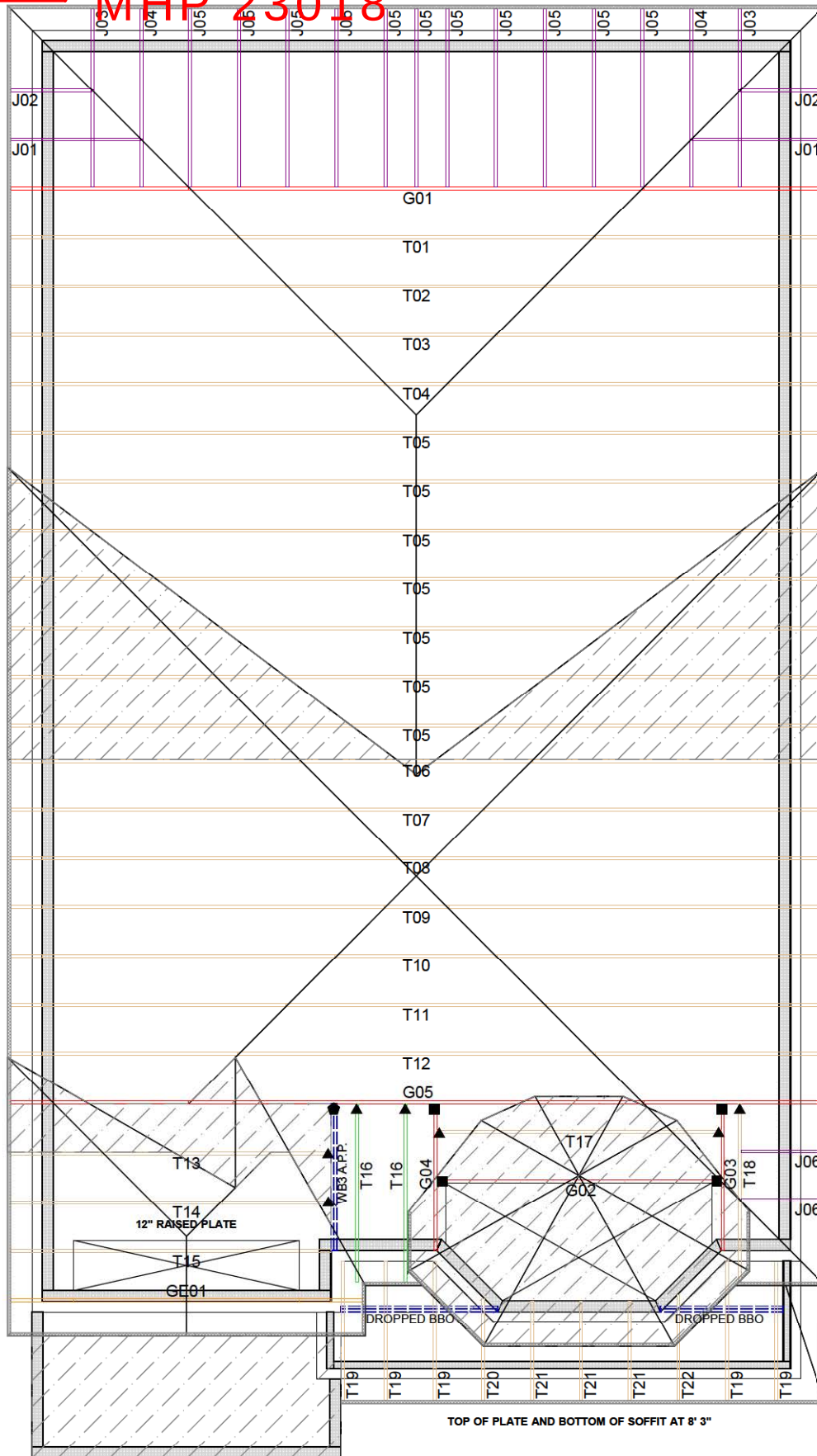


MHP 23018



| Hanger Name | Symbol | QTY |
|-------------|--------|-----|
| LUS24       | ▲      | 7   |
| LJS26DS     | ■      | 4   |
|             | ●      | 0   |
| LUS26-2     | ◆      | 1   |
|             | △      | 0   |
|             | □      | 0   |
|             | ◊      | 0   |
|             | ○      | 0   |



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 HOMES                                                                     |
| Job #     | 22-00192R0                                                                          |
| Address   | ZADORRA<br>PENROSE 1-1<br>OSHAWA, ON                                                |
| Model     | PENROSE 1-1                                                                         |
| Sales Rep | RALPH MIRIGELLO                                                                     |
| Designer  | BB                                                                                  |
| Date      | 5/30/2022                                                                           |
| Path      | S:\DESIGN\KLU\CUSTOMERS\GREENPARK\ZADORRA<br>ESTATES\MODELS\PENROSE 1\PENROSE 1-1\T |

DESIGN INFORMATION

|               |                                                       |
|---------------|-------------------------------------------------------|
| Code          | NBCC 2015                                             |
| Bldg          | Residential - HSB (NBCC Part 9)                       |
| TC LL         | 34.8 lb/ft <sup>2</sup>                               |
| TC DL         | 3.0 lb/ft <sup>2</sup>                                |
| BC LL         | 0.0 lb/ft <sup>2</sup>                                |
| BC DL         | 7.3 lb/ft <sup>2</sup>                                |
| Deflection    | LL=L/360 TL=L/360                                     |
| Spacing       | 24" O/C unless otherwise noted                        |
| Complies With | OBC 2012 (2019 Amendment)<br>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



ENGINEERING NO. (NP-1)  
PLEASE READ PRIOR TO INSTALLATION

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CHIEF BUILDING OFFICIAL

MHP 23018

## RESPONSIBILITIES

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

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

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

## USE AND OCCUPANCY

- The building is of the type indicated on the drawing

## LOADING

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

## HANDLING, INSTALLATION AND BRACING

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

## SUPPORTS

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

## DIMENSIONS

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





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OF QUANTITY PLANS

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PER: *C. M. H. P.*  
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JOB DESC.

TRUSS DESC.

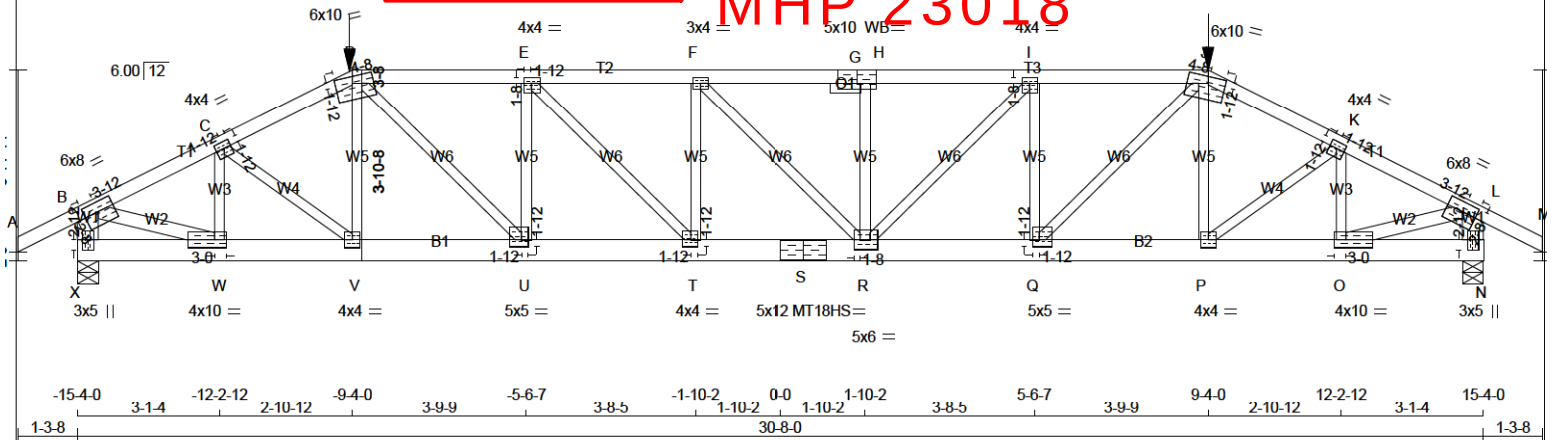
DRWG NO.

Version 8.500 S Aug 16 2021 MiTek Industries, Inc. Thu Jun 23 08:36:07 2022 Page 1

ID:OzM1q?scz2BChOKfHahjdLzPugE-8VPfxxofhXFLH3TgpKD1CGnz?1ZlehnkfsbWz3TJ6

Scale = 1:50.3

MHP 23018



TOTAL WEIGHT = 149 lb

## LUMBER

N. L. G. A. RULES

CHORDS SIZE

A - D 2x4 DRY No.2 SPF

D - G 2x4 DRY 2100F 1.8E SPF

G - J 2x4 DRY 2100F 1.8E SPF

J - M 2x4 DRY No.2 SPF

X - B 2x6 DRY No.2 SPF

N - L 2x6 DRY No.2 SPF

X - S 2x6 DRY 2100F 1.8E SPF

S - N 2x6 DRY 2100F 1.8E SPF

ALL WEBS 2x3 DRY No.2 SPF

EXCEPT

B - W 2x4 DRY No.2 SPF

O - L 2x4 DRY No.2 SPF

DRY: SEASONED LUMBER.

## PLATES (table is in inches)

JT TYPE PLATES W LEN Y X

B TMW-t MT20 6.0 8.0 2.50 3.75

C TMW-t MT20 4.0 4.0 1.75 1.75

D TTW-m MT20 6.0 10.0 1.75 4.50

E TMW-t MT20 4.0 4.0 1.50 1.75

F TMW-t MT20 3.0 4.0

G TSW-l MT20 5.0 10.0 Edge 5.00

H

I TMW-t MT20 4.0 4.0 1.50 2.00

J TTW-m MT20 6.0 10.0 1.75 4.50

K TMW-t MT20 4.0 4.0 1.75 1.75

L TMW-t MT20 6.0 8.0 2.50 3.75

N BMV-t MT20 3.0 5.0 2.75 1.50

O BMW-t MT20 4.0 10.0 2.00 3.00

P BMW-t MT20 4.0 4.0

Q BMW-t MT20 5.0 5.0 1.75 1.75

R BMW-t MT20 5.0 6.0 2.50 1.50

S BS-t MT18HS 5.0 12.0

T BMW-t MT20 4.0 4.0 1.75 1.75

U BMW-t MT20 5.0 5.0 1.75 1.75

V BMW-t MT20 4.0 4.0

W BMW-t MT20 4.0 10.0 2.00 3.00

X BMV-t MT20 3.0 5.0 2.75 1.50

Edge - INDICATES REFERENCE CORNER OF PLATE

TOUCHES EDGE OF CHORD.

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

BUILDING DESIGNER

## BEARINGS

FACTORED

GROSS REACTION

JT VERT HORZ

X 3823 0

N 3823 0

MAXIMUM FACTORED

GROSS REACTION

DOWN HORZ UPLIFT

3823 0 0

3823 0 0

INPUT

BRG

IN-SX

5-8

5-8

REQRD

BRG

IN-SX

4-10

4-10

## UNFACTORED REACTIONS

1ST LCASE MAX/MIN. COMPONENT REACTIONS

JT COMBINED SNOW LIVE PERM. LIVE WIND DEAD SOIL

X 2648 2050 / 0 0 / 0 0 / 0 599 / 0 0 / 0

N 2648 2050 / 0 0 / 0 0 / 0 599 / 0 0 / 0

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

BEARING SIZE FACTOR = 1.15 AT JNT(S) X, N (BASED ON SUPPORT DEPTH = 1-8)

## BRACING

TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 2.40 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

MEMB. FORCE (LBS)

FR-TO

A-B 0 / 34

B-C -5054 / 0

C-D -5784 / 0

D-E -6988 / 0

E-F -7851 / 0

F-G -7825 / 0

G-H -7825 / 0

H-I -7825 / 0

I-J -6994 / 0

J-K -5783 / 0

K-L -5054 / 0

L-M 0 / 34

X-B -3696 / 0

N-L -3696 / 0

X-W 0 / 0

W-V 0 / 4530

V-U 0 / 5151

U-T 0 / 6988

T-S 0 / 7851

S-R 0 / 7851

R-Q 0 / 6994

Q-P 0 / 5150

P-O 0 / 4530

O-N 0 / 0

X-W 0 / 0

W-V 0 / 4530

V-U 0 / 5151

U-T 0 / 6988

T-S 0 / 7851

S-R 0 / 7851

R-Q 0 / 6994

Q-P 0 / 5150

P-O 0 / 4530

O-N 0 / 0

X-W 0 / 0

W-V 0 / 4530

V-U 0 / 5151

U-T 0 / 6988

T-S 0 / 7851

S-R 0 / 7851

R-Q 0 / 6994

Q-P 0 / 5150

P-O 0 / 4530

O-N 0 / 0

X-W 0 / 0

W-V 0 / 4530

V-U 0 / 5151

U-T 0 / 6988

T-S 0 / 7851

S-R 0 / 7851

R-Q 0 / 6994

Q-P 0 / 5150

P-O 0 / 4530

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R-Q 0 / 6994

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O-N 0 / 0

X-W 0 / 0

W-V 0 / 4530

V-U 0 / 5151

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X-W 0 / 0

W-V 0 / 4530

V-U 0 / 5151

U-T 0 / 6988

T-S 0 / 7851

S-R 0 / 7851

R-Q 0 / 6994

Q-P 0 / 5150

P-O 0 / 4530

O-N 0 / 0

X-W 0 / 0

W-V 0 / 4530

V-U 0 / 5151

U-T 0 / 6988

T-S 0 / 7851

S-R 0 / 7851

R-Q 0 / 6994

Q-P 0 / 5150

P-O 0 / 4530

O-N 0 / 0

X-W 0 / 0

W-V 0 / 4530

V-U 0 / 5151

U-T 0 / 6988

T-S 0 / 7851

S-R 0 / 7851

R-Q 0 / 6994

Q-P 0 / 5150

P-O 0 / 4530

O-N 0 / 0

X-W 0 / 0

W-V 0 / 4530

V-U 0 / 5151

U-T 0 / 698

|            |            |             |          |
|------------|------------|-------------|----------|
| JOB NAME   | TRUSS NAME | JOB DESC.   | DRWG NO. |
| IM0622-131 | G01        | TRUSS DESC. |          |

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PER: *C. M. M.*  
CHIEF BUILDING OFFICIAL

Version 8.500 S Aug 16 2021 MiTek Industries, Inc. Thu Jun 23 08:36:08 2022 Page 2  
ID:OzM1q?scz2BChOKfHahjdLzPugE-dhztGxQQ?f6yRefEWrsZQpyjPMoU5xk0OPP7yz3TJ5

MHP 23018

WB - INDICATES BLOCKING REQUIRED



June 23, 2022

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









|            |            |             |          |
|------------|------------|-------------|----------|
| JOB NAME   | TRUSS NAME | JOB DESC.   | DRWG NO. |
| IM0622-131 | G03        | TRUSS DESC. |          |

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Dec 06 2023

PER:   
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Version 8.500 S Aug 16 2021 MiTek Industries, Inc. Thu Jun 23 08:36:09 2022 Page 2  
ID:OzM1q?scz2BChOKfHahjdLzPugE-5tXF4cy3BJnzabDmEMh6dLDZpiaDdctF28zfOz3TJ4

# MHP 23018

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= 0.88 (A) (INPUT = 0.90 )  
JSI METAL= 0.46 (B) (INPUT = 1.00 )



June 23, 2022

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





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OF QUANTITY PLANS

Dec 06 2023

PER: *C. Matuevic*  
CHIEF BUILDING OFFICIAL

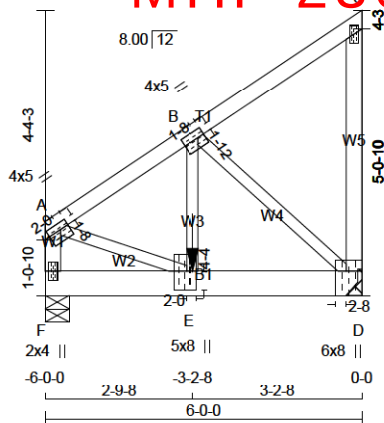
|            |            |             |          |
|------------|------------|-------------|----------|
| JOB NAME   | TRUSS NAME | JOB DESC.   | DRWG NO. |
| IM0622-131 | G04        | TRUSS DESC. |          |

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ID:OzM1q?scz2BChOKfHahjdLzPugE-Z45dHyzhycvqClo2LxtwfrPsC2my4c1TiuWBrz3TJ3

Scale = 1:43.7

MHP 23018



TOTAL WEIGHT = 33 lb

| LUMBER                | N. L. G. A. RULES | CHORDS | SIZE | LUMBER | DESCR. |
|-----------------------|-------------------|--------|------|--------|--------|
| F - A                 | 2x4               | DRY    | No.2 | SPF    |        |
| A - C                 | 2x4               | DRY    | No.2 | SPF    |        |
| D - C                 | 2x4               | DRY    | No.2 | SPF    |        |
| F - D                 | 2x6               | DRY    | No.2 | SPF    |        |
| ALL WEBS              | 2x3               | DRY    | No.2 | SPF    |        |
| DRY: SEASONED LUMBER. |                   |        |      |        |        |

**PLATES (table is in inches)**

| JT | TYPE    | PLATES | W   | LEN | Y    | X    |
|----|---------|--------|-----|-----|------|------|
| A  | TMW-t   | MT20   | 4.0 | 5.0 | 1.50 | 2.00 |
| B  | TMW-t   | MT20   | 4.0 | 5.0 | 1.75 | 1.50 |
| C  | TMV+p   | MT20   | 2.0 | 4.0 |      |      |
| D  | BMWV1+t | MT20   | 6.0 | 8.0 | Edge | 2.50 |
| E  | BMWV-t  | MT20   | 5.0 | 8.0 | 4.25 | 2.00 |
| F  | BMV1+p  | MT20   | 2.0 | 4.0 |      |      |

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

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

| JT | FACTORED GROSS REACTION | MAXIMUM FACTORED GROSS REACTION | INPUT BRG | REQRD BRG  |
|----|-------------------------|---------------------------------|-----------|------------|
| F  | 1398                    | 1398                            | 5-8       | 1-8        |
| D  | 1771                    | 1771                            | 0         | MECHANICAL |

A SUITABLE HANGER/MECHANICAL CONNECTION IS REQUIRED AT JOINT D. MINIMUM BEARING LENGTH AT JOINT D = 3-8.

**UNFACTORED REACTIONS**

| JT | 1ST LCASE | SNOW    | LIVE  | PERM. LIVE | WIND  | DEAD    | SOIL  |
|----|-----------|---------|-------|------------|-------|---------|-------|
| F  | 969       | 748 / 0 | 0 / 0 | 0 / 0      | 0 / 0 | 221 / 0 | 0 / 0 |
| D  | 1227      | 947 / 0 | 0 / 0 | 0 / 0      | 0 / 0 | 280 / 0 | 0 / 0 |

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

**BRACING**TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 5.16 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 MAX. FACTORED FORCE (LBS) | FACTORED VERT. LOAD (PLF) | LC1 MAX. CSI (LC) | MAX. UNBRACED LENGTH | MEMB. | WEBS MAX. FACTORED FORCE (LBS) | MAX. CSI (LC) |
|-------|----------------------------------|---------------------------|-------------------|----------------------|-------|--------------------------------|---------------|
| FR-TO |                                  | FROM                      | TO                |                      | FR-TO |                                |               |
| F-A   | -1391 / 0                        | 0.0                       | 0.0               | 0.16 (1)             | A-E   | 0 / 1320                       | 0.33 (1)      |
| A-B   | -1473 / 0                        | -111.9                    | -111.9            | 0.19 (1)             | E-B   | 0 / 1530                       | 0.38 (1)      |
| B-C   | -18 / 0                          | -111.9                    | -111.9            | 0.16 (1)             | B-D   | -1664 / 0                      | 0.49 (1)      |
| D-C   | -147 / 0                         | 0.0                       | 0.0               | 0.07 (1)             |       |                                |               |
| F-E   | 0 / 0                            | -18.2                     | -18.2             | 0.04 (1)             |       |                                |               |
| E-D   | 0 / 1243                         | -332.2                    | -332.2            | 0.46 (1)             |       |                                |               |

**FACTORED CONCENTRATED LOADS (LBS)**

| JT | LOC.  | LC1   | MAX.  | MAX+ | FACE  | DIR. | TYPE  | HEEL | CONN. |
|----|-------|-------|-------|------|-------|------|-------|------|-------|
| E  | 2-9-8 | -1381 | -1381 | —    | FRONT | VERT | TOTAL | —    | C1    |

**CONNECTION REQUIREMENTS**

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

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

|            |    |      |      |     |
|------------|----|------|------|-----|
| TOP CH.    | LL | =    | 34.8 | PSF |
|            | DL | =    | 3.0  | PSF |
| BOT CH.    | LL | =    | 0.0  | PSF |
|            | DL | =    | 7.3  | PSF |
| TOTAL LOAD | =  | 45.1 | PSF  |     |

**SPACING = 24.0 IN. C/C**GIRDER TYPE: CStdGirder  
START DISTANCE = 2-9-8  
START SPAN CARRIED = 11-7-13  
END DISTANCE = 6-0-0  
END SPAN CARRIED = 11-7-13  
END WALL WIDTH = 0-0  
APPLIED TO FRONT SIDE OF BOTTOM CHORD.  
- ADDTL. LOADS BASED ON 55 % OF GSL.**\*\*\* NON STANDARD GIRDER \*\*\***

ADDTL. USER-DEFINED LOADS APPLIED TO ALL LOAD CASES.

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

**THIS DESIGN COMPLIES WITH:**

- PART 9 OF BCBC 2018, ABC 2019
- 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 (0.20")  
CALCULATED VERT. DEFL. (LL) = L/999 (0.02")  
ALLOWABLE DEFL. (TL) = L/360 (0.20")  
CALCULATED VERT. DEFL. (TL) = L/999 (0.04")

CSI: TC=0.19/1.00 (A-B:1), BC=0.46/1.00 (D-E:1), WB=0.49/1.00 (B-D:1), SS=0.36/1.00 (D-E: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)              |
| MT20  | 650       | 371   | 1747 788 1987 1873 |

CONTINUED ON PAGE 2



June 23, 2022

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



|            |            |             |          |
|------------|------------|-------------|----------|
| JOB NAME   | TRUSS NAME | JOB DESC.   | DRWG NO. |
| IM0622-131 | G04        | TRUSS DESC. |          |

TRUE COPY  
OF QUANTITY PLANS  
Dec 06 2023

PER:   
CHIEF BUILDING OFFICIAL

Version 8.500 S Aug 16 2021 MiTek Industries, Inc. Thu Jun 23 08:36:10 2022 Page 2  
ID:OzM1q?scz2BChOKfHahjdLzPugE-Z45dHyzhycvqClo2LxtwfruPsC2my4c1TiuWBrz3TJ3

# MHP 23018

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

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

JSI METAL= 0.45 (E) (INPUT = 1.00 )



June 23, 2022

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



TRUE COPY

OF QUANTITY PLANS

Dec 06 2023

PER: *C. Motta*  
CHIEF BUILDING OFFICIAL

JOB DESC.

DRWG NO.

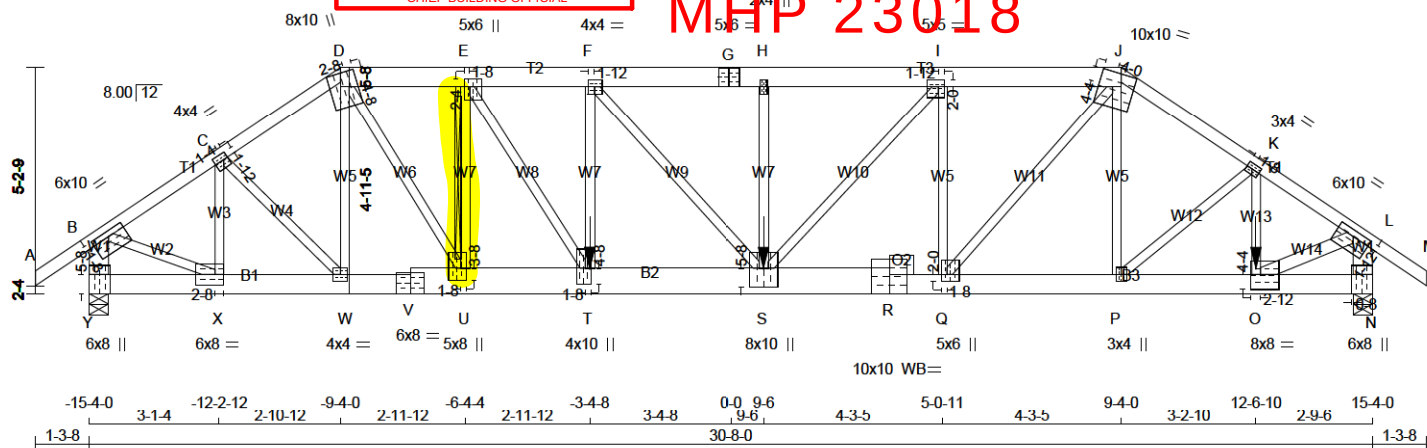
TRUSS DESC.

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ID: OzM1q7scz2BChOKfHahjdLzPugE-VSDNie\_xUE9XR2xQTMwOkGzd90h7QsNKx0NdGjz3TJ1

Scale = 1:55.1

MHP 23018



TOTAL WEIGHT = 180 lb

**LUMBER**

N. L. G. A. RULES

| CHORDS   | SIZE  | LUMBER | DESCR.     |
|----------|-------|--------|------------|
| A - D    | 2x4   | DRY    | No.2       |
| D - G    | 2x6   | DRY    | No.2       |
| G - J    | 2x6   | DRY    | No.2       |
| J - M    | 2x4   | DRY    | No.2       |
| Y - B    | 2x6   | DRY    | No.2       |
| N - L    | 2x6   | DRY    | No.2       |
| Y - V    | 2x6   | DRY    | No.2       |
| V - R    | 2x8   | DRY    | 1950F 1.7E |
| R - N    | 2x6   | DRY    | 2100F 1.8E |
| ALL WEBS | 2x3   | DRY    | No.2       |
| EXCEPT   | O - L | 2x4    | DRY        |

DRY: SEASONED LUMBER.

**PLATES (table is in inches)**

| JT | TYPE   | PLATES | W    | LEN  | Y    | X    |
|----|--------|--------|------|------|------|------|
| B  | TMVW-t | MT20   | 6.0  | 10.0 | 1.50 | 5.00 |
| C  | TMVW-t | MT20   | 4.0  | 4.0  | 1.75 | 1.25 |
| D  | TTWW+m | MT20   | 8.0  | 10.0 | 4.50 | 2.50 |
| E  | TMVW-t | MT20   | 5.0  | 6.0  | 2.25 | 1.50 |
| F  | TMVW-t | MT20   | 4.0  | 4.0  | 2.00 | 1.75 |
| G  | TS-t   | MT20   | 5.0  | 6.0  |      |      |
| H  | TMVW+w | MT20   | 2.0  | 4.0  |      |      |
| I  | TMVW-t | MT20   | 5.0  | 5.0  | 2.00 | 1.75 |
| J  | TTWW-m | MT20   | 10.0 | 10.0 | 4.25 | 4.00 |
| K  | TMVW-t | MT20   | 3.0  | 4.0  | 1.50 | 1.50 |
| L  | TMVW-t | MT20   | 6.0  | 10.0 | 1.75 | 5.00 |
| N  | BMV1+t | MT20   | 6.0  | 8.0  | Edge | 0.50 |
| O  | BMVW-t | MT20   | 8.0  | 8.0  | 4.25 | 2.75 |
| P  | BMVW-t | MT20   | 3.0  | 4.0  |      |      |
| Q  | BMVW-t | MT20   | 5.0  | 6.0  | 2.00 | 1.50 |
| R  | BS-t   | MT20   | 10.0 | 10.0 |      |      |
| S  | BMVW+t | MT20   | 8.0  | 10.0 | 5.50 | 4.00 |
| T  | BMVW-t | MT20   | 4.0  | 10.0 | 4.50 | 1.50 |
| U  | BMVW-t | MT20   | 5.0  | 8.0  | 3.50 | 1.50 |
| V  | BS-t   | MT20   | 6.0  | 8.0  |      |      |
| W  | BMVW-t | MT20   | 4.0  | 4.0  |      |      |
| X  | BMVW-t | MT20   | 6.0  | 8.0  | 3.00 | 2.50 |
| Y  | BMV1+t | MT20   | 6.0  | 8.0  | 5.50 |      |

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

**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                    | HORZ                            | DOWN      | HORZ     |
| Y  | 4130                    | 0                               | 4130      | 0        |
| N  | 5669                    | 0                               | 5669      | 0        |

**UNFACTORED REACTIONS**

|    | 1ST LCASE | MAX/MIN. COMPONENT REACTIONS | PERM. LIVE | WIND       | DEAD    | SOIL  |
|----|-----------|------------------------------|------------|------------|---------|-------|
| JT | COMBINED  | SNOW                         | LIVE       | PERM. LIVE | WIND    | DEAD  |
| Y  | 2860      | 2222 / 0                     | 0 / 0      | 0 / 0      | 638 / 0 | 0 / 0 |
| N  | 3926      | 3045 / 0                     | 0 / 0      | 0 / 0      | 881 / 0 | 0 / 0 |

BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S) Y, N.  
BEARING SIZE FACTOR = 1.15 AT JNT(S) Y, N (BASED ON SUPPORT DEPTH = 1-8)**BRACING**TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 2.35 FT.  
MAX. UNBRACED BOTTOM CHORD LENGTH = 10.00 FT. OR RIGID CEILING DIRECTLY APPLIED.

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

2x4 DRY SPF No.2 T-BRACE AT E-U

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

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

**LOADING**

TOTAL LOAD CASES: (4)

| CHORDS |                           |                               |                 | WEBS  |                           |               |          |
|--------|---------------------------|-------------------------------|-----------------|-------|---------------------------|---------------|----------|
| MEMB.  | MAX. FACTORED FORCE (LBS) | FACTORED VERT. LOAD LC1 (PLF) | MAX. CSI (LC)   | MEMB. | MAX. FACTORED FORCE (LBS) | MAX. CSI (LC) |          |
| FR-TO  |                           | FROM                          | TO              | FR-TO |                           |               |          |
| A-B    | 0 / 43                    | -111.9                        | -111.9 0.17 (1) | 10.00 | X-C                       | -1307 / 0     | 0.27 (1) |
| B-C    | -4552 / 0                 | -111.9                        | -111.9 0.45 (1) | 2.92  | C-W                       | 0 / 806       | 0.20 (1) |
| C-D    | -5240 / 0                 | -111.9                        | -111.9 0.52 (1) | 2.62  | W-D                       | -492 / 0      | 0.19 (1) |
| D-E    | -6247 / 0                 | -111.9                        | -111.9 0.34 (1) | 3.27  | D-U                       | 0 / 3642      | 0.90 (1) |
| E-F    | -7808 / 0                 | -111.9                        | -111.9 0.46 (1) | 2.81  | U-E                       | -2914 / 0     | 0.63 (1) |
| F-G    | -8417 / 0                 | -111.9                        | -111.9 0.62 (1) | 2.55  | E-T                       | 0 / 2990      | 0.74 (1) |
| G-H    | -8417 / 0                 | -111.9                        | -111.9 0.62 (1) | 2.55  | T-F                       | -1136 / 0     | 0.42 (1) |
| H-I    | -8417 / 0                 | -111.9                        | -111.9 0.59 (1) | 2.58  | F-S                       | 0 / 939       | 0.23 (1) |
| I-J    | -6849 / 0                 | -111.9                        | -111.9 0.44 (1) | 3.03  | S-H                       | -437 / 0      | 0.16 (1) |
| J-K    | -5707 / 0                 | -111.9                        | -111.9 0.65 (1) | 2.37  | S-I                       | 0 / 2377      | 0.59 (1) |
| K-L    | -5960 / 0                 | -111.9                        | -111.9 0.60 (1) | 2.35  | Q-I                       | -2370 / 0     | 0.93 (1) |
| L-M    | 0 / 43                    | -111.9                        | -111.9 0.17 (1) | 10.00 | Q-J                       | 0 / 3195      | 0.79 (1) |
| Y-B    | -4052 / 0                 | 0.0                           | 0.0 0.29 (1)    | 5.28  | P-J                       | 0 / 388       | 0.10 (1) |
| N-L    | -5378 / 0                 | 0.0                           | 0.0 0.38 (1)    | 4.59  | P-K                       | -283 / 0      | 0.09 (1) |
|        |                           |                               |                 |       | O-K                       | -18 / 50      | 0.02 (4) |
| Y-X    | 0 / 0                     | -18.2                         | -18.2 0.11 (1)  | 10.00 | B-X                       | 0 / 3992      | 0.99 (1) |
| X-W    | 0 / 3801                  | -18.2                         | -18.2 0.61 (1)  | 10.00 | O-L                       | 0 / 5281      | 0.93 (1) |
| W-V    | 0 / 4354                  | -18.2                         | -18.2 0.66 (1)  | 10.00 |                           |               |          |
| V-U    | 0 / 4354                  | -18.2                         | -18.2 0.66 (1)  | 10.00 |                           |               |          |
| U-T    | 0 / 6247                  | -18.2                         | -18.2 0.35 (1)  | 10.00 |                           |               |          |
| T-S    | 0 / 7808                  | -133.5                        | -133.5 0.51 (1) | 10.00 |                           |               |          |
| S-R    | 0 / 6847                  | -18.2                         | -18.2 0.45 (1)  | 10.00 |                           |               |          |
| R-Q    | 0 / 6847                  | -18.2                         | -18.2 0.45 (1)  | 10.00 |                           |               |          |
| Q-P    | 0 / 4764                  | -18.2                         | -18.2 0.29 (1)  | 10.00 |                           |               |          |
| P-O    | 0 / 4971                  | -18.2                         | -18.2 0.38 (1)  | 10.00 |                           |               |          |
| O-N    | 0 / 0                     | -133.5                        | -133.5 0.13 (1) | 10.00 |                           |               |          |

**FACTORED CONCENTRATED LOADS (LBS)**

| JT | LOC.     | LC1   | MAX.  | MAX+ | FACE  | DIR. | TYPE  | HEEL | CONN. |
|----|----------|-------|-------|------|-------|------|-------|------|-------|
| O  | 27-10-10 | -1773 | -1773 | —    | FRONT | VERT | TOTAL | —    | C1    |
| S  | 16-1-6   | -1773 | -1773 | —    | FRONT | VERT | TOTAL | —    | C1    |
| T  | 11-11-8  | -229  | -256  | —    | FRONT | VERT | DEAD  | —    | C1    |
| T  | 11-11-8  | -927  | -927  | —    | FRONT | VERT | SNOW  | —    | C1    |

**CONNECTION REQUIREMENTS**

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

**DESIGN CRITERIA**\*\*\* SPECIAL LOADS ANALYSIS \*\*\*  
GEOMETRY AND/OR BASIC LOADS CHANGED BY USER.  
LOADS WERE DERIVED FROM USER INPUT  
NO FURTHER MODIFICATIONS WERE MADE**SPECIFIED LOADS:**TOP CH. LL = 34.8 PSF  
DL = 3.0 PSF  
BOT CH. LL = 0.0 PSF  
DL = 7.3 PSF  
TOTAL LOAD = 45.1 PSF**SPACING = 24.0 IN. C/C**

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

GIRDER TYPE: CStdGirder  
START DISTANCE = 11-11-8  
START SPAN CARRIED = 6-0-0  
END DISTANCE = 16-1-6  
END SPAN CARRIED = 6-0-0  
END WALL WIDTH = 5-8  
APPLIED TO FRONT SIDE OF BOTTOM CHORD.  
- ADDTL. LOADS BASED ON 55 % OF GSL.GIRDER TYPE: CStdGirder  
START DISTANCE = 27-10-10  
START SPAN CARRIED = 6-0-0  
END DISTANCE = 30-8-0  
END SPAN CARRIED = 6-0-0  
END WALL WIDTH = 5-8  
APPLIED TO FRONT SIDE OF BOTTOM CHORD.  
- ADDTL. LOADS BASED ON 55 % OF GSL.\*\*\* NON STANDARD GIRDER \*\*\*  
ADDTL. USER-DEFINED LOADS APPLIED TO ALL LOAD CASES.

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

THIS DESIGN COMPLIES WITH:  
- PART 9 OF CBC 2018, ABC 2019  
- 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 (1.02")  
CALCULATED VERT. DEFL. (LL) = L/999 (0.31")  
ALLOWABLE DEFL. (TL) = L/360 (1.02")  
CALCULATED VERT. DEFL. (TL) = L/742 (0.50")

CSI: TC=0.65/1.00 (J-K:1), BC=0.66/1.00 (U-W:1), WB=0.99/1.00 (B-X:1), SSI=0.19/1.00 (N-O:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

CONTINUED ON PAGE 2



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



|                        |                   |                                                                                                     |                          |          |
|------------------------|-------------------|-----------------------------------------------------------------------------------------------------|--------------------------|----------|
| JOB NAME<br>IM0622-131 | TRUSS NAME<br>G05 | TRUE COPY<br>OF QUANTITY PLANS<br>Dec 06 2023<br>PER: <i>C. Matuevic</i><br>CHIEF BUILDING OFFICIAL | JOB DESC.<br>TRUSS DESC. | DRWG NO. |
|------------------------|-------------------|-----------------------------------------------------------------------------------------------------|--------------------------|----------|

Version 8.500 S Aug 16 2021 MiTek Industries, Inc. Thu Jun 23 08:36:12 2022 Page 2  
ID:OzM1q?scz2BChOKfHahjdLzPugE-VSDNie\_xUE9XR2xQTMwOkGzd90h7QsNKx0NdGjz3TJ1

WB - INDICATES BLOCKING REQUIRED

**MHP 23018**

CONNECTION REQUIREMENTS

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

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

NAIL VALUES

| PLATE | GRIP(DRY)<br>(PSI) | SHEAR<br>(PLI) | SECTION<br>(PLI) |
|-------|--------------------|----------------|------------------|
| MT20  | 650                | 371            | 1747             |
|       | 788                | 1987           | 1873             |

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

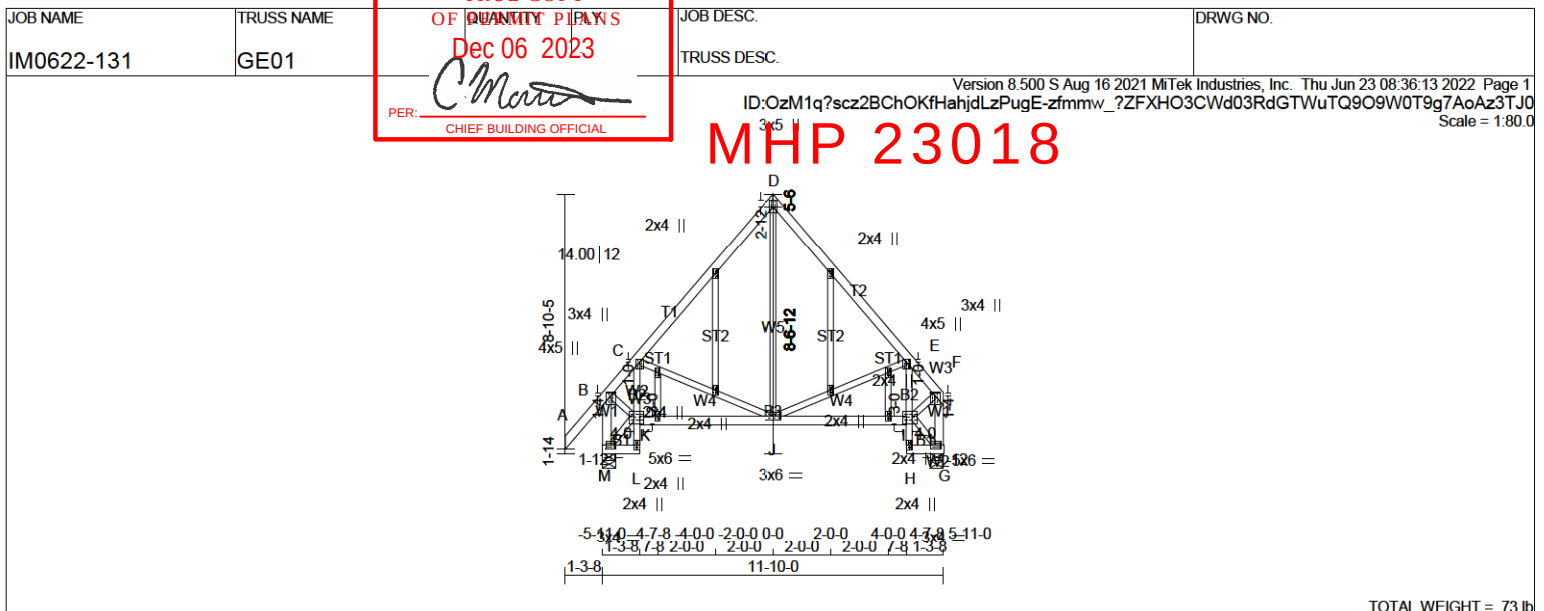
JSI GRIP= 0.90 (I) (INPUT = 0.90 )  
JSI METAL= 1.00 (J) (INPUT = 1.00 )

  
June 23, 2022

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







TOTAL WEIGHT = 73 lb

**LUMBER**

| N. L. G. A. RULES | CHORDS | SIZE | LUMBER | DESCR. |
|-------------------|--------|------|--------|--------|
| A - D             | 2x4    | DRY  | No.2   | SPF    |
| D - F             | 2x4    | DRY  | No.2   | SPF    |
| M - B             | 2x4    | DRY  | No.2   | SPF    |
| G - F             | 2x4    | DRY  | No.2   | SPF    |
| M - L             | 2x4    | DRY  | No.2   | SPF    |
| L - C             | 2x3    | DRY  | No.2   | SPF    |
| K - I             | 2x4    | DRY  | No.2   | SPF    |
| H - E             | 2x3    | DRY  | No.2   | SPF    |
| N - G             | 2x4    | DRY  | No.2   | SPF    |

ALL WEBS 2x3 DRY No.2 SPF  
EXCEPT

ALL GABLE WEBS 2x3 DRY No.2 SPF  
DRY: SEASONED LUMBER.

GABLE STUDS SPACED AT 2-0-0 OC.

**PLATES (table is in inches)**

| JT | TYPE                | PLATES | W   | LEN | Y    | X    |
|----|---------------------|--------|-----|-----|------|------|
| B  | TMVW+p              | MT20   | 4.0 | 5.0 | 1.25 | 2.00 |
| C  | TMVW+p              | MT20   | 3.0 | 4.0 | 1.00 | 1.50 |
| D  | TTW+p               | MT20   | 3.0 | 5.0 | 2.75 | 1.50 |
| E  | TMVW+p              | MT20   | 3.0 | 4.0 | 1.00 | 1.50 |
| F  | TMVW+p              | MT20   | 4.0 | 5.0 | 1.25 | 2.00 |
| G  | BMVW1-t             | MT20   | 3.0 | 4.0 | 1.50 | 1.75 |
| H  | BMV+p               | MT20   | 2.0 | 4.0 |      |      |
| I  | BVMWW-I             | MT20   | 5.0 | 6.0 | 3.00 | 4.00 |
| J  | BVMWW-t             | MT20   | 3.0 | 6.0 |      |      |
| K  | BVMWW-I             | MT20   | 5.0 | 6.0 | 3.00 | 4.00 |
| L  | BMV+p               | MT20   | 2.0 | 4.0 |      |      |
| M  | BMVW1-t             | MT20   | 3.0 | 4.0 | 1.50 | 1.75 |
| N  | O, P, Q, R, S, T, U |        |     |     |      |      |
| N  | NP+w                | MT20   | 2.0 | 4.0 |      |      |

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

|    | FACTORED GROSS REACTION | MAXIMUM FACTORED GROSS REACTION | INPUT BRG | REQRD BRG |
|----|-------------------------|---------------------------------|-----------|-----------|
| JT | VERT                    | HORZ                            | DOWN      | HORZ      |
| M  | 936                     | 0                               | 936       | 0         |
| G  | 761                     | 0                               | 761       | 0         |

**UNFACTORED REACTIONS**

| JT | 1ST LCASE COMBINED | SNOW    | LIVE  | PERM. LIVE | WIND  | DEAD    | SOIL  |
|----|--------------------|---------|-------|------------|-------|---------|-------|
| M  | 646                | 515 / 0 | 0 / 0 | 0 / 0      | 0 / 0 | 131 / 0 | 0 / 0 |
| G  | 527                | 406 / 0 | 0 / 0 | 0 / 0      | 0 / 0 | 121 / 0 | 0 / 0 |

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

**BRACING**

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

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

**LOADING**

TOTAL LOAD CASES: (4)

| CHORDS |                           |                           |                       | WEBS  |                           |                           |                       |
|--------|---------------------------|---------------------------|-----------------------|-------|---------------------------|---------------------------|-----------------------|
| MEMB.  | MAX. FACTORED FORCE (LBS) | FACTORED VERT. LOAD (PLF) | FACTORED LC1 MAX (LC) | MEMB. | MAX. FACTORED FORCE (LBS) | FACTORED VERT. LOAD (PLF) | FACTORED LC1 MAX (LC) |
| FR-TO  |                           | FROM                      | TO                    | FR-TO |                           | FROM                      | TO                    |
| A-B    | 0 / 60                    | -111.9                    | -111.9                | J-D   | 0 / 265                   | 0.06                      | (1)                   |
| B-C    | -609 / 0                  | -111.9                    | -111.9                | J-E   | -219 / 0                  | 0.10                      | (1)                   |
| C-D    | -494 / 0                  | -111.9                    | -111.9                | C-J   | -169 / 0                  | 0.08                      | (1)                   |
| D-E    | -495 / 0                  | -111.9                    | -111.9                | B-K   | 0 / 528                   | 0.12                      | (1)                   |
| E-F    | -604 / 0                  | -111.9                    | -111.9                | I-F   | 0 / 583                   | 0.13                      | (1)                   |
| M-B    | -920 / 0                  | 0.0                       | 0.0                   | M-K   | -7 / 0                    | 0.00                      | (1)                   |
| G-F    | -745 / 0                  | 0.0                       | 0.0                   | I-G   | -7 / 0                    | 0.00                      | (1)                   |
| M-L    | 0 / 6                     | -18.2                     | -18.2                 |       |                           |                           |                       |
| L-K    | 0 / 12                    | 0.0                       | 0.0                   |       |                           |                           |                       |
| K-C    | -240 / 0                  | 0.0                       | 0.0                   |       |                           |                           |                       |
| K-J    | 0 / 451                   | -18.2                     | -18.2                 |       |                           |                           |                       |
| J-I    | 0 / 497                   | -18.2                     | -18.2                 |       |                           |                           |                       |
| H-I    | 0 / 12                    | 0.0                       | 0.0                   |       |                           |                           |                       |
| I-E    | -268 / 0                  | 0.0                       | 0.0                   |       |                           |                           |                       |
| H-G    | 0 / 5                     | -18.2                     | -18.2                 |       |                           |                           |                       |

**DESIGN CRITERIA****SPECIFIED LOADS:**

|            |    |   |      |     |
|------------|----|---|------|-----|
| TOP CH.    | LL | = | 34.8 | PSF |
|            | DL | = | 3.0  | PSF |
| BOT CH.    | LL | = | 0.0  | PSF |
|            | DL | = | 7.3  | PSF |
| TOTAL LOAD |    | = | 45.1 | PSF |

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

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

THIS DESIGN COMPLIES WITH:

- PART 9 OF BCBC 2018, ABC 2019
- 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) =  $L/360$  (0.39")  
CALCULATED VERT. DEFL. (LL) =  $L/999$  (0.01")  
ALLOWABLE DEFL. (TL) =  $L/360$  (0.39")  
CALCULATED VERT. DEFL. (TL) =  $L/999$  (0.02")

CSI: TC=0.30/1.00 (D-E-1), BC=0.14/1.00 (I-J-1), WB=0.13/1.00 (F-I-1), SSI=0.16/1.00 (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

AUTOSOLVE HEELS OFF

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

**NAIL VALUES**

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

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.75 (M) (INPUT = 0.90)

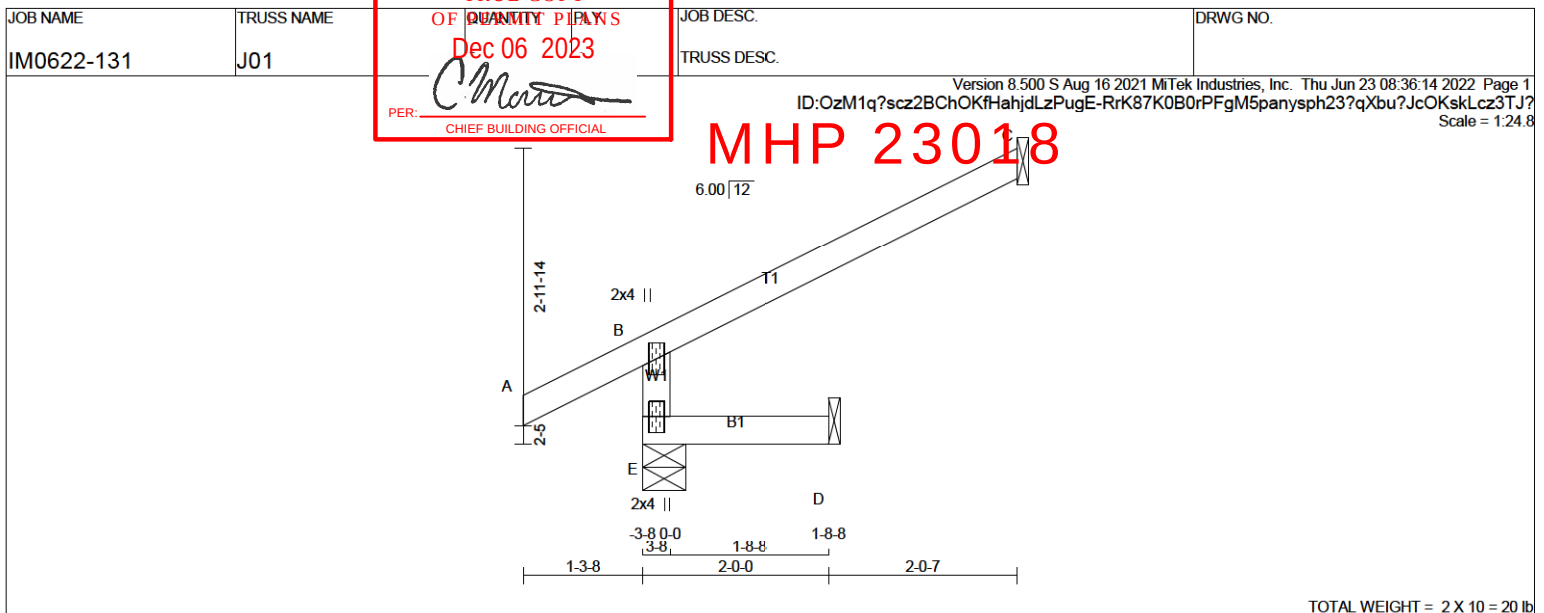
JSI METAL= 0.30 (B) (INPUT = 1.00)



June 23, 2022

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





TOTAL WEIGHT = 2 X 10 = 20 lb

**LUMBER**

N. L. G. A. RULES

| CHORDS | SIZE | LUMBER | DESCR. |
|--------|------|--------|--------|
| 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 | REQD BRG |
|----|-------------------------|---------------------------------|-----------|----------|
|    | VERT                    | HORZ                            | DOWN      | HORZ     |
| E  | 454                     | 0                               | 454       | 0        |
| C  | 169                     | 0                               | 169       | 0        |
| D  | 16                      | 0                               | 18        | 0        |

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

**UNFACTORED REACTIONS**

| JT | 1ST LCASE | MAX / MIN | COMPONENT REACTIONS | PERM. LIVE | WIND  | DEAD   | SOIL  |
|----|-----------|-----------|---------------------|------------|-------|--------|-------|
|    | COMBINED  | SNOW      | LIVE                | PERM. LIVE | WIND  | DEAD   | SOIL  |
| E  | 309       | 270 / 0   | 0 / 0               | 0 / 0      | 0 / 0 | 39 / 0 | 0 / 0 |
| C  | 114       | 105 / 0   | 0 / 0               | 0 / 0      | 0 / 0 | 9 / 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: (4)

| MEMB. | CHORDS | MAX. FACTORED FORCE (LBS) | FACTORED VERT. LOAD (PLF) | MAX. LIVE | MAX. CS1 (LC) | MAX. UNBRACED LENGTH | MEMB. | WEBS | MAX. FACTORED FORCE (LBS) | MAX. CS1 (LC) |
|-------|--------|---------------------------|---------------------------|-----------|---------------|----------------------|-------|------|---------------------------|---------------|
| FR-TO |        |                           |                           |           |               |                      | FR-TO |      |                           |               |
| E-B   |        | -434 / 0                  | 0.0                       | 0.0       | 0.01 (4)      | 7.81                 |       |      |                           |               |
| A-B   |        | 0 / 34                    | -111.9                    | -111.9    | 0.15 (1)      | 10.00                |       |      |                           |               |
| B-C   |        | -25 / 0                   | -111.9                    | -111.9    | 0.31 (1)      | 6.25                 |       |      |                           |               |
| E-D   |        | 0 / 0                     | -18.2                     | -18.2     | 0.02 (4)      | 10.00                |       |      |                           |               |

**DESIGN CRITERIA****SPECIFIED LOADS:**

|            |    |      |      |     |
|------------|----|------|------|-----|
| TOP CH.    | LL | =    | 34.8 | PSF |
|            | DL | =    | 3.0  | PSF |
| BOT CH.    | LL | =    | 0.0  | PSF |
|            | DL | =    | 7.3  | PSF |
| TOTAL LOAD | =  | 45.1 | PSF  |     |

**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, ABC 2019
- 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=0.31/1.00 (B-C:1), BC=0.02/1.00 (D-E:4), WB=0.00/1.00 (n/a:0), SSI=0.20/1.00 (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 (PSI) | SECTION (PLI) |
|-------|------------|-------------|---------------|
| MT20  | 650        | 371         | 1747          |
|       | 788        | 1987        | 1873          |

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

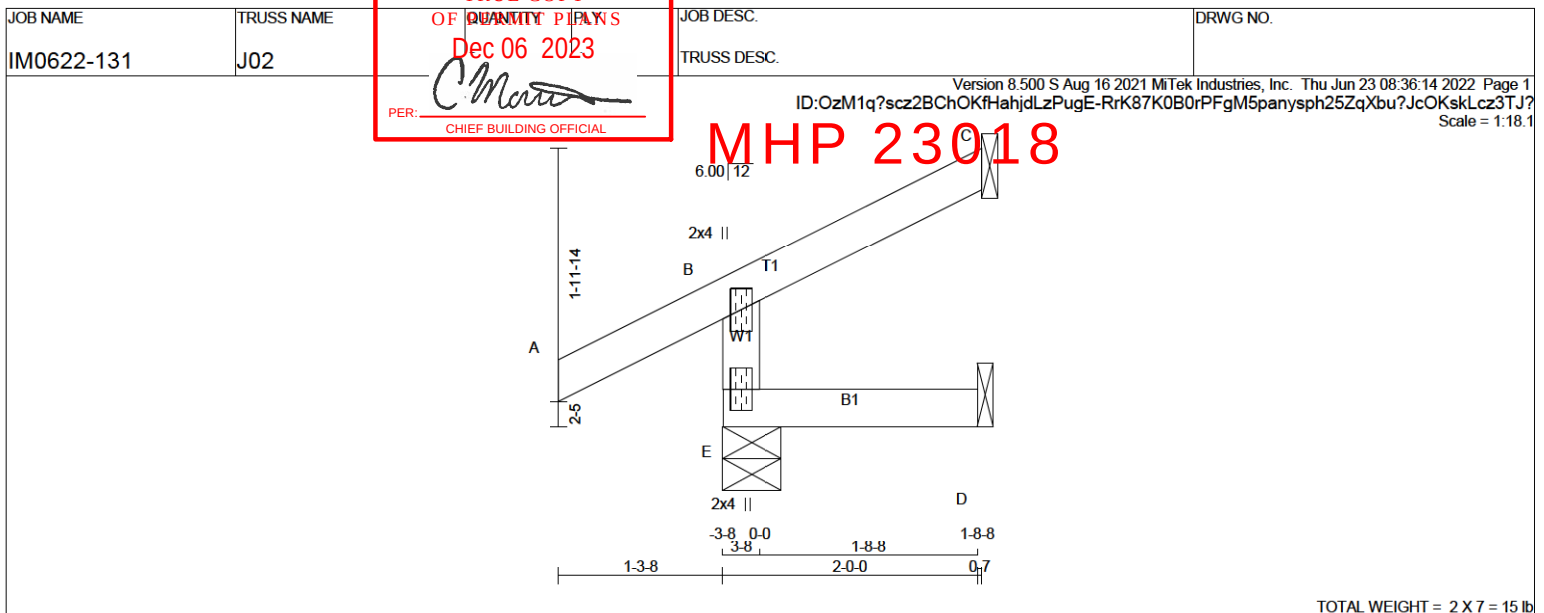
JSI GRIP= 0.24 (B) (INPUT = 0.90)  
JSI METAL= 0.18 (B) (INPUT = 1.00)



June 23, 2022

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





TOTAL WEIGHT = 2 X 7 = 15 lb

| LUMBER | N. L. G. A. RULES | CHORDS | SIZE | LUMBER | DESCR. |
|--------|-------------------|--------|------|--------|--------|
| 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 | REQD BRG IN-SX |
|----|-------------------------|------|---------------------------------|------|-----------------|----------------|
|    | VERT                    | HORZ | DOWN                            | HORZ |                 |                |
| E  | 314                     | 0    | 314                             | 0    | 5-8             | 1-8            |
| C  | 86                      | 0    | 86                              | 0    | 1-8             | 1-8            |
| D  | 16                      | 0    | 18                              | 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 |       | DEAD   | SOIL  |
|----|-----------|---------|-----------|-------|---------------------|-------|--------|-------|
|    | COMBINED  | SNOW    | LIVE      | PERM  | LIVE                | WIND  |        |       |
| E  | 215       | 183 / 0 | 0 / 0     | 0 / 0 | 0 / 0               | 0 / 0 | 32 / 0 | 0 / 0 |
| C  | 58        | 54 / 0  | 0 / 0     | 0 / 0 | 0 / 0               | 0 / 0 | 5 / 0  | 0 / 0 |
| D  | 13        | 0 / 0   | 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) | LOAD LC1 (PLF) | MAX. CSI (LC) | MAX. UNBRAC LENGTH | MEMB. | MAX. FACTORED FORCE (LBS) | FACTORED CSI (LC) |
| FR-TO  |                           | FROM                      | TO             |               |                    | FR-TO |                           |                   |
| E-B    | -294 / 0                  | 0.0                       | 0.0            | 0.01 (4)      | 7.81               |       |                           |                   |
| A-B    | 0 / 34                    | -111.9                    | -111.9         | 0.15 (1)      | 10.00              |       |                           |                   |
| B-C    | -12 / 0                   | -111.9                    | -111.9         | 0.08 (1)      | 6.25               |       |                           |                   |
| E-D    | 0 / 0                     | -18.2                     | -18.2          | 0.02 (4)      | 10.00              |       |                           |                   |

CANTILEVER ANALYSIS HAS BEEN CONSIDERED IN THIS DESIGNPATTERN-LOADING CHECK APPLIED TO THIS TRUSS.**DESIGN CRITERIA****SPECIFIED LOADS:**

|            |    |      |      |     |
|------------|----|------|------|-----|
| TOP CH.    | LL | =    | 34.8 | PSF |
|            | DL | =    | 3.0  | PSF |
| BOT CH.    | LL | =    | 0.0  | PSF |
|            | DL | =    | 7.3  | PSF |
| TOTAL LOAD | =  | 45.1 | PSF  |     |

**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, ABC 2019
- 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=0.15/1.00 (A-B:1), BC=0.02/1.00 (D-E:4), WB=0.00/1.00 (n/a:0), SSI=0.11/1.00 (A-B:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

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

**NAIL VALUES**

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

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

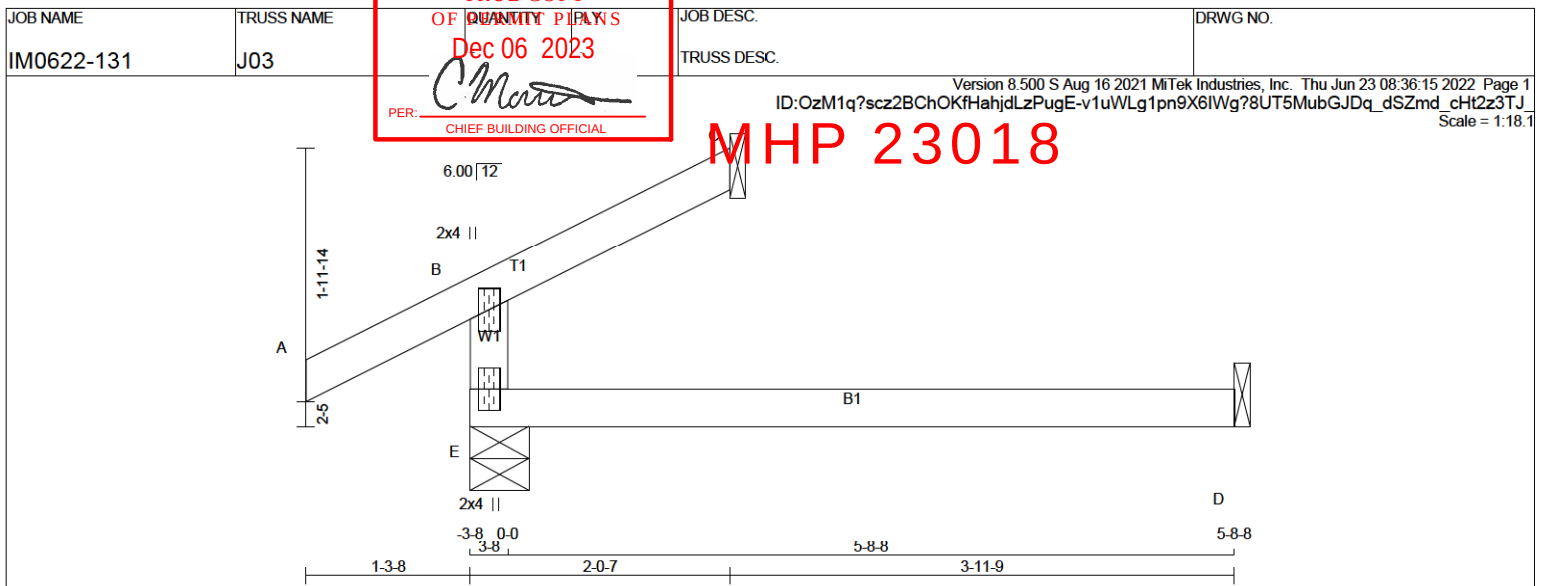
JSI GRIP= 0.16 (B) (INPUT = 0.90)  
JSI METAL= 0.12 (B) (INPUT = 1.00)



June 23, 2022

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





TOTAL WEIGHT = 2 X 12 = 24 lb

**LUMBER**

N. L. G. A. RULES

| CHORDS | SIZE | LUMBER | DESCR. |
|--------|------|--------|--------|
| 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**

|    | FACTORED GROSS REACTION | MAXIMUM FACTORED GROSS REACTION | INPUT BRG | REQD BRG |
|----|-------------------------|---------------------------------|-----------|----------|
| JT | VERT                    | HORZ                            | DOWN      | HORZ     |
| E  | 358                     | 0                               | 358       | 0        |
| C  | 86                      | 0                               | 86        | 0        |
| D  | 45                      | 0                               | 51        | 0        |

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

**UNFACTORED REACTIONS**

| JT | 1ST LCASE | MAX / MIN | COMPONENT REACTIONS | DEAD       | SOIL   |
|----|-----------|-----------|---------------------|------------|--------|
| E  | COMBINED  | SNOW      | LIVE                | PERM. LIVE | WIND   |
| E  | 250       | 183 / 0   | 0 / 0               | 0 / 0      | 67 / 0 |
| C  | 58        | 54 / 0    | 0 / 0               | 0 / 0      | 5 / 0  |
| D  | 36        | 0 / 0     | 0 / 0               | 0 / 0      | 36 / 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 | MAX. FACTORED FORCE (LBS) | FACTORED VERT. LOAD (PLF) | MAX. LIVE LC1 | MAX. UNBRACED LENGTH | MEMB. | WEBS | MAX. FACTORED FORCE (LBS) | MAX. LIVE LC1 |
|-------|--------|---------------------------|---------------------------|---------------|----------------------|-------|------|---------------------------|---------------|
| FR-TO |        |                           |                           |               |                      | FR-TO |      |                           |               |
| E-B   |        | -294 / 0                  | 0.0                       | 0.0           | 0.13 (4)             | 7.81  |      |                           |               |
| A-B   |        | 0 / 34                    | -111.9                    | -111.9        | 0.15 (1)             | 10.00 |      |                           |               |
| B-C   |        | -12 / 0                   | -111.9                    | -111.9        | 0.08 (1)             | 6.25  |      |                           |               |
| E-D   |        | 0 / 0                     | -18.2                     | -18.2         | 0.13 (4)             | 10.00 |      |                           |               |

**DESIGN CRITERIA****SPECIFIED LOADS:**

|            |    |   |      |     |
|------------|----|---|------|-----|
| TOP CH.    | LL | = | 34.8 | PSF |
|            | DL | = | 3.0  | PSF |
| BOT CH.    | LL | = | 0.0  | PSF |
|            | DL | = | 7.3  | PSF |
| TOTAL LOAD |    | = | 45.1 | PSF |

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

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

THIS DESIGN COMPLIES WITH:

- PART 9 OF BCBC 2018, ABC 2019
- 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) =  $L/999$  (0.03")

CSI: TC=0.15/1.00 (A-B:1), BC=0.13/1.00 (D-E:4),  
WB=0.00/1.00 (n/a:0), SSI=0.11/1.00 (A-B:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

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

**NAIL VALUES**

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

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.16 (B) (INPUT = 0.90)  
JSI METAL= 0.12 (B) (INPUT = 1.00)



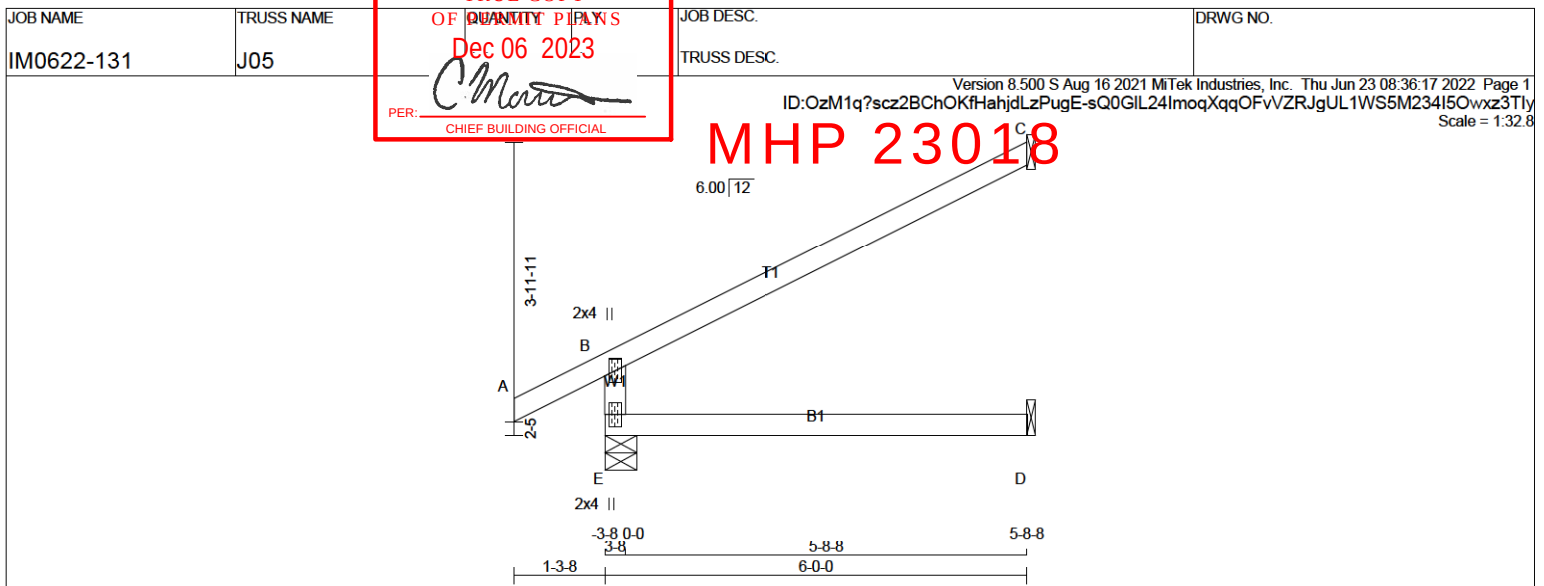
June 23, 2022

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TOTAL WEIGHT = 11 X 17 = 188 lb

**LUMBER**

N. L. G. A. RULES

| CHORDS | SIZE | LUMBER | DESCR. |
|--------|------|--------|--------|
| 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 VERT | FACTORED GROSS REACTION HORZ | MAXIMUM FACTORED GROSS REACTION DOWN | MAXIMUM FACTORED GROSS REACTION HORZ | INPUT UPLIFT | REQD BRG IN-SX | REQD BRG IN-SX |
|----|------------------------------|------------------------------|--------------------------------------|--------------------------------------|--------------|----------------|----------------|
| E  | 636                          | 0                            | 636                                  | 0                                    | 0            | 5-8            | 1-8            |
| C  | 252                          | 0                            | 252                                  | 0                                    | 0            | 1-8            | 1-8            |
| D  | 45                           | 0                            | 51                                   | 0                                    | 0            | 1-8            | 1-8            |

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

**UNFACTORED REACTIONS**

| JT | 1ST LCASE COMBINED | SNOW    | MAX / MIN LIVE | PERM. LIVE | WIND  | DEAD   | SOIL  |
|----|--------------------|---------|----------------|------------|-------|--------|-------|
| E  | 437                | 355 / 0 | 0 / 0          | 0 / 0      | 0 / 0 | 82 / 0 | 0 / 0 |
| C  | 170                | 157 / 0 | 0 / 0          | 0 / 0      | 0 / 0 | 14 / 0 | 0 / 0 |
| D  | 36                 | 0 / 0   | 0 / 0          | 0 / 0      | 0 / 0 | 36 / 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)

| MEMB. | CHORDS MAX. FACTORED FORCE (LBS) | FACTORED VERT. LOAD (PLF) | MAX LC1 CS1 (LC) | MAX UNBRACED LENGTH FR-TO | MEMB. | WEBS MAX. FACTORED FORCE (LBS) | MAX CS1 (LC) |
|-------|----------------------------------|---------------------------|------------------|---------------------------|-------|--------------------------------|--------------|
| FR-TO |                                  |                           |                  |                           | FR-TO |                                |              |
| E-B   | -571 / 0                         | 0.0                       | 0.0 0.13 (4)     | 7.81                      |       |                                |              |
| A-B   | 0 / 34                           | -111.9                    | -111.9 0.15 (1)  | 10.00                     |       |                                |              |
| B-C   | -38 / 0                          | -111.9                    | -111.9 0.69 (1)  | 6.25                      |       |                                |              |
| E-D   | 0 / 0                            | -18.2                     | -18.2 0.13 (4)   | 10.00                     |       |                                |              |

**DESIGN CRITERIA****SPECIFIED LOADS:**

|            |    |      |      |     |
|------------|----|------|------|-----|
| TOP CH.    | LL | =    | 34.8 | PSF |
|            | DL | =    | 3.0  | PSF |
| BOT CH.    | LL | =    | 0.0  | PSF |
|            | DL | =    | 7.3  | PSF |
| TOTAL LOAD | =  | 45.1 | PSF  |     |

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

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

THIS DESIGN COMPLIES WITH:

- PART 9 OF CBC 2018, ABC 2019
- 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) =  $L/999$  (0.03")

CSI:  $TC=0.69/1.00$  (B-C:1),  $BC=0.13/1.00$  (D-E:4),  
 $WB=0.00/1.00$  (n/a:0),  $SSI=0.29/1.00$  (B-C:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

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

**NAIL VALUES**

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

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.32 (B) (INPUT = 0.90)  
 JSI METAL= 0.24 (B) (INPUT = 1.00)



June 23, 2022

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



|            |            |             |          |
|------------|------------|-------------|----------|
| JOB NAME   | TRUSS NAME | JOB DESC.   | DRWG NO. |
| IM0622-131 | J06        | TRUSS DESC. |          |

TRUE COPY

OF QUANTITY PLANS

Dec 06 2023

PER: *C. Matuevic*

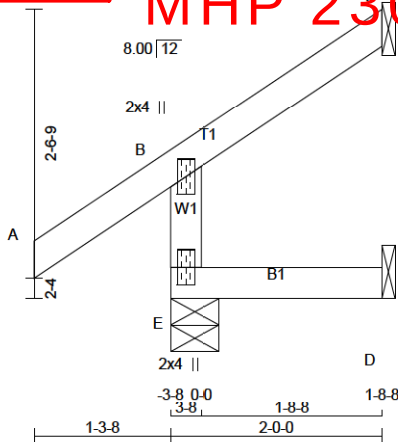
CHIEF BUILDING OFFICIAL

Version 8.500 S Aug 16 2021 MiTek Industries, Inc. Thu Jun 23 08:36:18 2022 Page 1

ID: OzM1q?scz2BChOKfHahjdLzPugE-Kcafzh3i34wh9zPapd1ozXDnTRuWqplCJyqxTNz3Tlx

Scale = 1:21.8

MHP 23018



TOTAL WEIGHT = 2 X 8 = 16 lb

**LUMBER**

N. L. G. A. RULES

CHORDS SIZE

E - B 2x4 DRY No.2

A - C 2x4 DRY No.2

E - D 2x4 DRY No.2

LUMBER

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**

| JT | FACTORED GROSS REACTION | MAXIMUM FACTORED GROSS REACTION | INPUT BRG | REQD BRG |
|----|-------------------------|---------------------------------|-----------|----------|
|    | VERT                    | HORZ                            | DOWN      | HORZ     |
| E  | 313                     | 0                               | 313       | 0        |
| C  | 85                      | 0                               | 85        | 0        |
| D  | 17                      | 0                               | 18        | 0        |

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

**UNFACTORED REACTIONS**

| JT | 1ST LCASE | MAX. MIN. | SNOW  | LIVE  | PERM. LIVE | WIND  | DEAD   | SOIL  |
|----|-----------|-----------|-------|-------|------------|-------|--------|-------|
| E  | 214       | 182 / 0   | 0 / 0 | 0 / 0 | 0 / 0      | 0 / 0 | 32 / 0 | 0 / 0 |
| C  | 57        | 53 / 0    | 0 / 0 | 0 / 0 | 0 / 0      | 0 / 0 | 5 / 0  | 0 / 0 |
| D  | 13        | 0 / 0     | 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)

| MEMB. | CHORDS | MAX. FACTORED FORCE (LBS) | FACTORED VERT. LOAD (PLF) | MAX. LIVE LC1 | MAX. UNBRACED LENGTH | MEMB. | WEBS | MAX. FACTORED FORCE (LBS) | MAX. LIVE LC1 |
|-------|--------|---------------------------|---------------------------|---------------|----------------------|-------|------|---------------------------|---------------|
| FR-TO |        |                           |                           |               |                      | FR-TO |      |                           |               |
| E-B   |        | -293 / 0                  | 0.0                       | 0.0           | 0.01 (4)             | 7.81  |      |                           |               |
| A-B   |        | 0 / 43                    | -111.9                    | -111.9        | 0.15 (1)             | 10.00 |      |                           |               |
| B-C   |        | -15 / 0                   | -111.9                    | -111.9        | 0.07 (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         | =  | 3.0  | PSF  |     |
| BOT CH.    | LL | =    | 0.0  | PSF |
| DL         | =  | 7.3  | PSF  |     |
| TOTAL LOAD | =  | 45.1 | PSF  |     |

**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, ABC 2019
- 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=0.15/1.00 (A-B:1), BC=0.02/1.00 (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 (PSI) | SECTION (PLI) |
|-------|------------|-------------|---------------|
| 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)



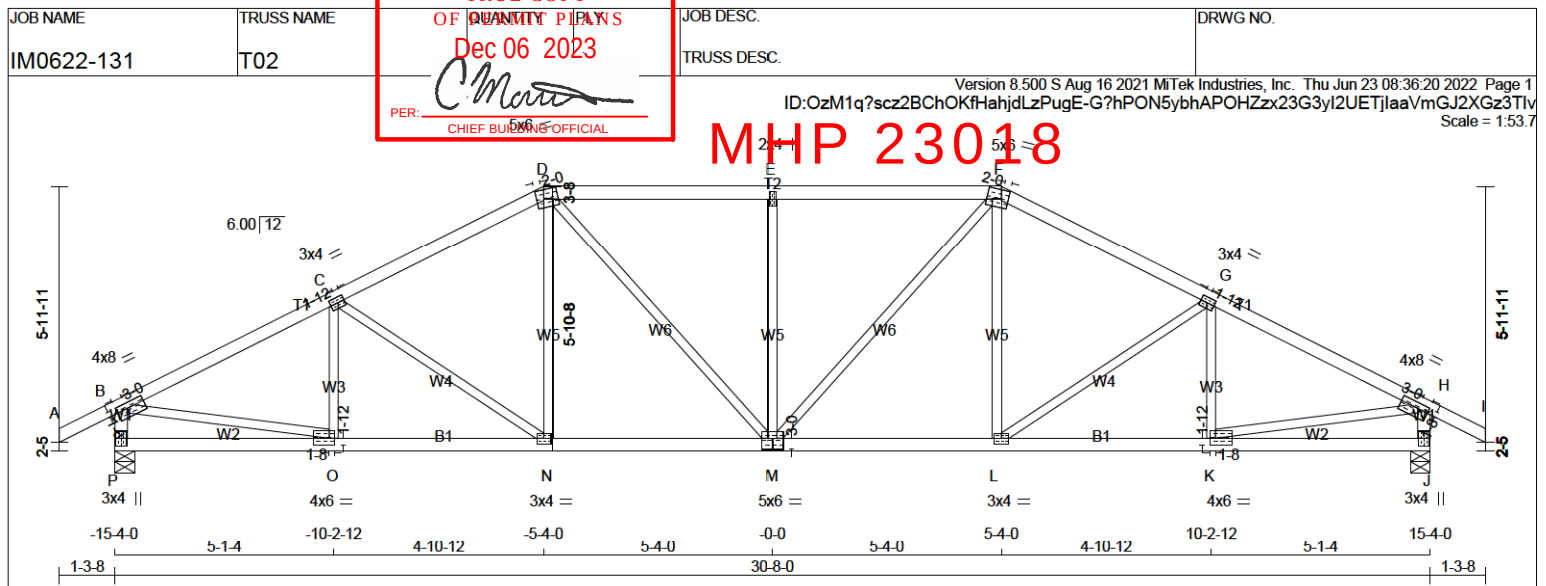
June 23, 2022

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









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

| PLATES (table is in inches) |         |        |     |     |           |
|-----------------------------|---------|--------|-----|-----|-----------|
| JT                          | TYPE    | PLATES | W   | LEN | Y X       |
| B                           | TMVW-t  | MT20   | 4.0 | 8.0 | 1.50 3.00 |
| C                           | TMVW-t  | MT20   | 3.0 | 4.0 | 1.50 1.75 |
| D                           | TTWW-m  | MT20   | 5.0 | 6.0 | 2.50 2.00 |
| E                           | TMVW-w  | MT20   | 2.0 | 4.0 |           |
| F                           | TTWW-m  | MT20   | 5.0 | 6.0 | 2.50 2.00 |
| G                           | TMVW-t  | MT20   | 3.0 | 4.0 | 1.50 1.75 |
| H                           | TMVW-t  | MT20   | 4.0 | 8.0 | 1.50 3.00 |
| J                           | BMV1+p  | MT20   | 3.0 | 4.0 |           |
| K                           | BMVW-t  | MT20   | 4.0 | 6.0 | 1.75 1.50 |
| L                           | BMVW-t  | MT20   | 3.0 | 4.0 |           |
| M                           | BSWWW-I | MT20   | 5.0 | 6.0 | 3.00 3.00 |
| N                           | BMVW-t  | MT20   | 3.0 | 4.0 |           |
| O                           | BMVW-t  | MT20   | 4.0 | 6.0 | 1.75 1.50 |
| P                           | BMV1+p  | MT20   | 3.0 | 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 DOWN | REQRD BRG IN-SX |
|----|-------------------------|------|---------------------------------|------|----------------|-----------------|
|    | VERT                    | HORZ | DOWN                            | HORZ |                |                 |
| P  | 2147                    | 0    | 2147                            | 0    | 5-8            | 3-8             |
| J  | 2147                    | 0    | 2147                            | 0    | 5-8            | 3-8             |

## **UNFACTORED REACTIONS**

| JT | 1ST LCASE COMBINED |          | MAX/MIN. SNOW |       | LIVE  |       | PERM. LIVE |       | WIND    | DEAD  | SOIL  |
|----|--------------------|----------|---------------|-------|-------|-------|------------|-------|---------|-------|-------|
|    | VERT               | HORZ     | DOWN          | HORZ  | DOWN  | HORZ  | DOWN       | HORZ  |         |       |       |
| P  | 1485               | 1161 / 0 | 0 / 0         | 0 / 0 | 0 / 0 | 0 / 0 | 0 / 0      | 0 / 0 | 324 / 0 | 0 / 0 | 0 / 0 |
| J  | 1485               | 1161 / 0 | 0 / 0         | 0 / 0 | 0 / 0 | 0 / 0 | 0 / 0      | 0 / 0 | 324 / 0 | 0 / 0 | 0 / 0 |

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

## **BRACING**

TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 3.69 FT.  
MAX. UNBRACED BOTTOM CHORD LENGTH = 10.00 FT. OR RIGID CEILING DIRECTLY APPLIED.

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

## **LOADING**

TOTAL LOAD CASES: (4)

| CHORDS |                           |                           |                                | WEBS     |                           |                               |                      |
|--------|---------------------------|---------------------------|--------------------------------|----------|---------------------------|-------------------------------|----------------------|
| MEMB.  | MAX. FACTORED FORCE (LBS) | FACTORED VERT. LOAD (PLF) | MAX. FACTORED VERT. LOAD (LC1) | MEMB.    | MAX. FACTORED FORCE (LBS) | MAX. FACTORED VERT. LOAD (LC) | UNBRACED LENGTH (FT) |
| FR-TO  |                           | FROM                      | TO                             | FR-TO    |                           |                               |                      |
| A-B    | 0 / 34                    | -111.9                    | -111.9                         | 0.15 (1) | 10.00                     | O-C                           | -347 / 14            |
| B-C    | -2864 / 0                 | -111.9                    | -111.9                         | 0.47 (1) | 3.69                      | C-N                           | -352 / 0             |
| C-D    | -2598 / 0                 | -111.9                    | -111.9                         | 0.44 (1) | 3.88                      | N-D                           | 0 / 308              |
| D-E    | -2668 / 0                 | -111.9                    | -111.9                         | 0.50 (1) | 3.74                      | D-M                           | 0 / 545              |
| E-F    | -2668 / 0                 | -111.9                    | -111.9                         | 0.50 (1) | 3.74                      | M-E                           | -730 / 0             |
| F-G    | -2598 / 0                 | -111.9                    | -111.9                         | 0.44 (1) | 3.88                      | M-F                           | 0 / 545              |
| G-H    | -2864 / 0                 | -111.9                    | -111.9                         | 0.47 (1) | 3.69                      | L-F                           | 0 / 308              |
| H-I    | 0 / 34                    | -111.9                    | -111.9                         | 0.15 (1) | 10.00                     | L-G                           | -352 / 0             |
| P-B    | -2103 / 0                 | 0.0                       | 0.0                            | 0.21 (1) | 5.84                      | K-G                           | -347 / 14            |
| J-H    | -2103 / 0                 | 0.0                       | 0.0                            | 0.21 (1) | 5.84                      | B-O                           | 0 / 2623             |
|        |                           |                           |                                |          |                           | K-H                           | 0 / 2623             |
| P-O    | 0 / 0                     | -18.2                     | -18.2                          | 0.10 (4) | 10.00                     |                               |                      |
| O-N    | 0 / 2587                  | -18.2                     | -18.2                          | 0.48 (1) | 10.00                     |                               |                      |
| N-M    | 0 / 2302                  | -18.2                     | -18.2                          | 0.44 (1) | 10.00                     |                               |                      |
| M-L    | 0 / 2301                  | -18.2                     | -18.2                          | 0.44 (1) | 10.00                     |                               |                      |
| L-K    | 0 / 2587                  | -18.2                     | -18.2                          | 0.48 (1) | 10.00                     |                               |                      |
| K-J    | 0 / 0                     | -18.2                     | -18.2                          | 0.10 (4) | 10.00                     |                               |                      |

## **DESIGN CRITERIA**

### **SPECIFIED LOADS:**

|            |    |   |      |     |
|------------|----|---|------|-----|
| TOP CH.    | LL | = | 34.8 | PSF |
|            | DL | = | 3.0  | PSF |
| BOT CH.    | LL | = | 0.0  | PSF |
|            | DL | = | 7.3  | PSF |
| TOTAL LOAD |    | = | 45.1 | PSF |

SPACING = 24.0 IN. C/C

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

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

THIS DESIGN COMPLIES WITH:

- PART 9 OF BCBC 2018, ABC 2019
- 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) =  $L/360$  (1.02")  
CALCULATED VERT. DEFL. (LL) =  $L/999$  (0.15")  
ALLOWABLE DEFL. (TL) =  $L/360$  (1.02")  
CALCULATED VERT. DEFL. (TL) =  $L/999$  (0.25")

CSI: TC=0.50/1.00 (D-E:1), BC=0.48/1.00 (N-O:1), WB=0.59/1.00 (B-O:1), SSI=0.29/1.00 (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 (PSI) | SECTION (PLI) |
|-------|------------|-------------|---------------|
| MT20  | 650        | 371         | 1747          |
|       | 788        | 1987        | 1873          |

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.84 (J) (INPUT = 0.90)  
JSI METAL= 0.62 (K) (INPUT = 1.00)



June 23, 2022

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





TRUE COPY

OF QUANTITY PLANS

Dec 06 2023

PER: *C. Mata*  
CHIEF BUILDING OFFICIAL

JOB DESC.

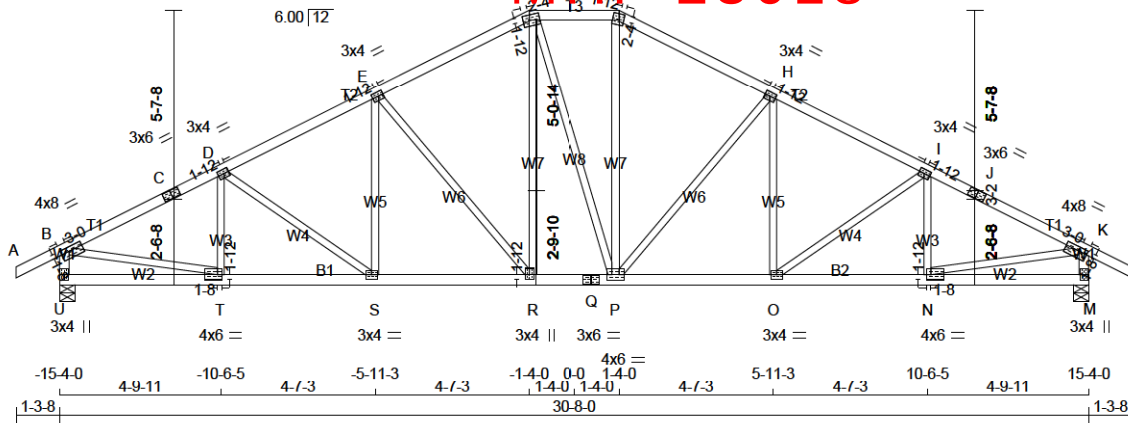
TRUSS DESC.

DRWG NO.

Version 8.500 S Aug 16 2021 MiTek Industries, Inc. Thu Jun 23 08:36:22 2022 Page 1

ID:OzM1q?scz2BChOKfHahjdLzPugE-CNp9p36C7IQ7ebiL2S5k8NOPL28emSooEao9c8z3TIt

Scale = 1:68.6



TOTAL WEIGHT = 138 lb

[M/F]

**LUMBER**

N. L. G. A. RULES

CHORDS SIZE

A - C 2x4 DRY No.2 SPF

C - F 2x4 DRY No.2 SPF

F - G 2x4 DRY No.2 SPF

G - J 2x4 DRY No.2 SPF

J - L 2x4 DRY No.2 SPF

U - B 2x4 DRY No.2 SPF

M - K 2x4 DRY No.2 SPF

U - Q 2x4 DRY No.2 SPF

Q - M 2x4 DRY No.2 SPF

ALL WEBS 2x3 DRY No.2 SPF

EXCEPT

DRY: SEASONED LUMBER.

**PLATES (table is in inches)**

JT TYPE PLATES

B TMWW-t MT20

C TS-t MT20

D, E, H, I

D TMWW-t MT20

F TTWW-m MT20

G TTW-m MT20

J TS-t MT20

K TMWW-t MT20

M BMV1+p MT20

N BMWW-t MT20

O BMWW-t MT20

P BMWW-t MT20

Q BS-t MT20

R BMWW-t MT20

S BMWW-t MT20

T BMWW-t MT20

U BMV1+p MT20

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

BUILDING DESIGNER

**BEARINGS**

FACTORED MAXIMUM FACTORED INPUT REQD

GROSS REACTION GROSS REACTION BRG BRG

JT VERT HORZ DOWN HORZ UPLIFT IN-SX IN-SX

U 2147 0 2147 0 0 5-8 3-8

M 2147 0 2147 0 0 5-8 3-8

**UNFACTORED REACTIONS**

1ST LCASE MAX/MIN. COMPONENT REACTIONS

JT COMBINED SNOW LIVE PERM. LIVE WIND DEAD SOIL

U 1485 1161 / 0 0 / 0 0 / 0 324 / 0 0 / 0

M 1485 1161 / 0 0 / 0 0 / 0 324 / 0 0 / 0

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

**BRACING**

TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 3.78 FT.

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

APPLIED.

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

**LOADING**

TOTAL LOAD CASES: (4)

CHORDS WEBS

MAX. FACTORED MAX. FACTORED

MEMB. FORCE VERT. LOAD LC1 MAX MAX. MEMB. MAX. FORCE MAX.

(LBS) (PLF) CSI (LC) UNBRAC LENGTH FR-TO (LBS) CSI (LC)

FR-TO FROM TO

A-B 0 / 34 -111.9 -111.9 0.15 (1) 10.00 T-D -371 / 4 0.08 (1)

B-C -2832 / 0 -111.9 -111.9 0.41 (1) 3.78 D-S -204 / 0 0.11 (1)

C-D -2832 / 0 -111.9 -111.9 0.41 (1) 3.78 S-E 0 / 209 0.05 (1)

D-E -2667 / 0 -111.9 -111.9 0.34 (1) 3.96 E-R -715 / 0 0.74 (1)

E-F -2174 / 0 -111.9 -111.9 0.33 (1) 4.32 R-F 0 / 599 0.13 (1)

F-G -1935 / 0 -111.9 -111.9 0.14 (1) 4.74 F-P 0 / 9 0.00 (1)

G-H -2177 / 0 -111.9 -111.9 0.33 (1) 4.32 P-G 0 / 609 0.14 (1)

H-I -2666 / 0 -111.9 -111.9 0.34 (1) 3.96 P-H -709 / 0 0.73 (1)

I-J -2833 / 0 -111.9 -111.9 0.41 (1) 3.78 O-H 0 / 203 0.05 (1)

J-K -2833 / 0 -111.9 -111.9 0.41 (1) 3.78 O-I -206 / 0 0.11 (1)

K-L 0 / 34 -111.9 -111.9 0.15 (1) 10.00 N-I -369 / 5 0.08 (1)

U-B -2105 / 0 0.0 0.0 0.21 (1) 5.84 B-T 0 / 2592 0.58 (1)

M-K -2106 / 0 0.0 0.0 0.21 (1) 5.84 N-K 0 / 2593 0.58 (1)

U-T 0 / 0 -18.2 -18.2 0.09 (4) 10.00

T-S 0 / 2552 -18.2 -18.2 0.45 (1) 10.00

S-R 0 / 2385 -18.2 -18.2 0.43 (1) 10.00

R-Q 0 / 1932 -18.2 -18.2 0.36 (1) 10.00

Q-P 0 / 1932 -18.2 -18.2 0.36 (1) 10.00

P-O 0 / 2384 -18.2 -18.2 0.43 (1) 10.00

O-N 0 / 2552 -18.2 -18.2 0.45 (1) 10.00

N-M 0 / 0 -18.2 -18.2 0.08 (4) 10.00

**DESIGN CRITERIA**

SPECIFIED LOADS:

TOP CH. LL = 34.8 PSF

DL = 3.0 PSF

BOT CH. LL = 0.0 PSF

DL = 7.3 PSF

TOTAL LOAD = 45.1 PSF

SPACING = 24.0 IN. C/C

LOADING IN FLAT SECTION BASED ON A  
SLOPE OF 2.00/12 MINIMUMTHIS TRUSS IS DESIGNED FOR RESIDENTIAL  
OR SMALL BUILDING REQUIREMENTS OF  
PART 9, NBCC 2015

THIS DESIGN COMPLIES WITH:

- PART 9 OF BCBC 2018, ABC 2019
- 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 LOADALLOWABLE DEFL. (LL) = L/360 (1.02")  
CALCULATED VERT. DEFL. (LL) = L/999 (0.14")  
ALLOWABLE DEFL. (TL) = L/360 (1.02")  
CALCULATED VERT. DEFL. (TL) = L/999 (0.23")CSI: TC=0.41/1.00 (I-K:1), BC=0.45/1.00 (N-O:1),  
WB=0.74/1.00 (E-R:1), SSI=0.22/1.00 (I-K: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= 0.85 (G) (INPUT = 0.90)

JSI METAL= 0.61 (N) (INPUT = 1.00)

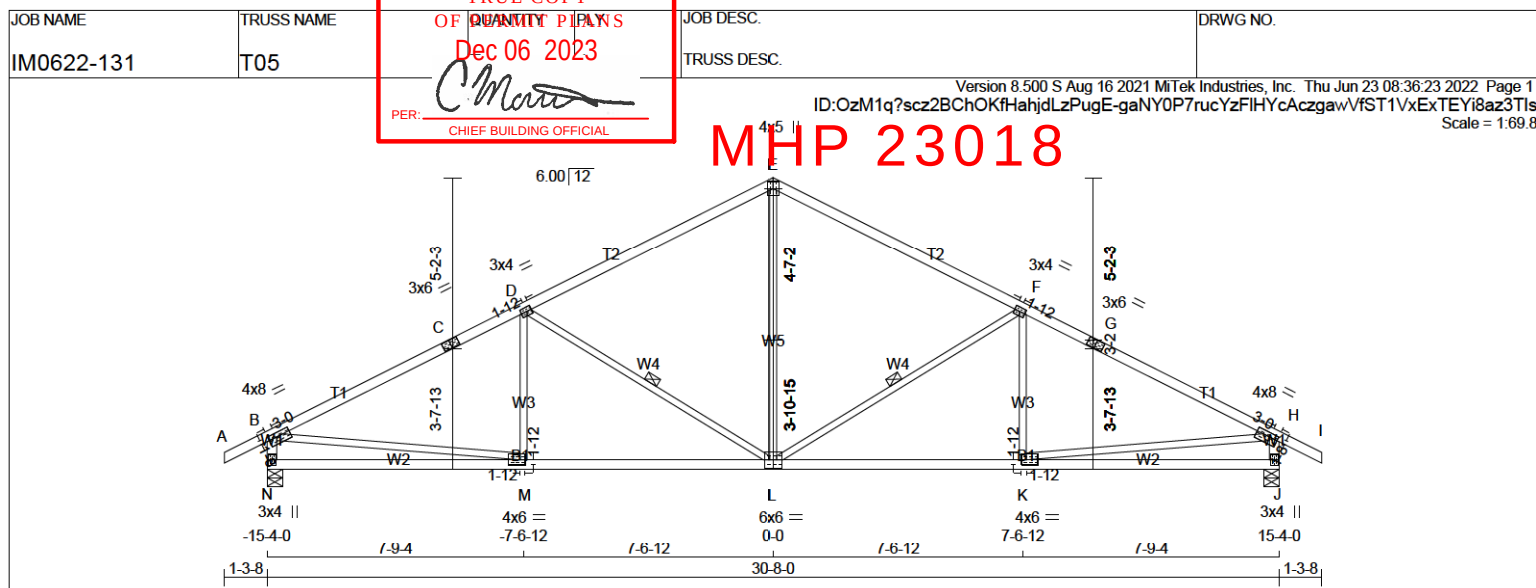


June 23, 2022

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

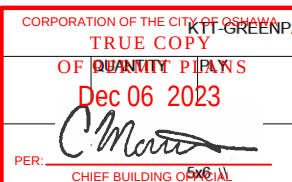






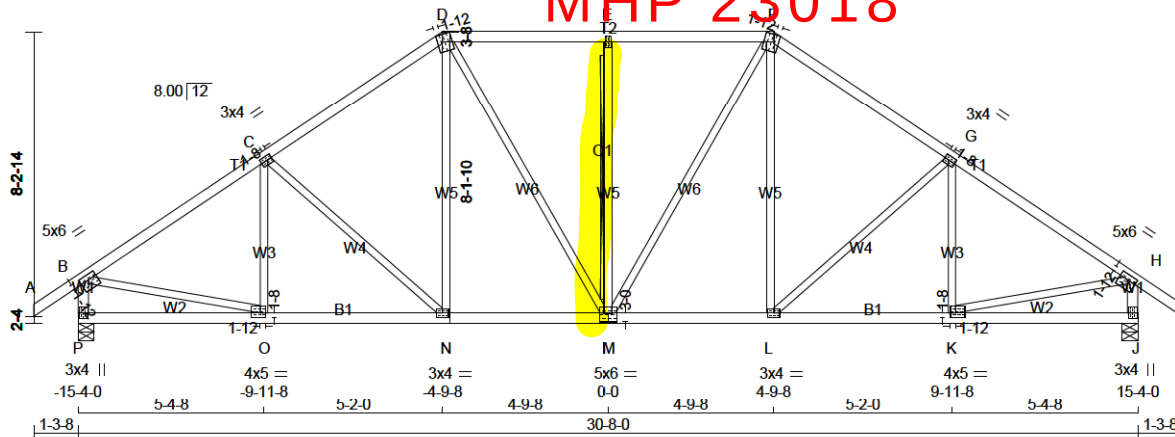


|            |            |             |          |
|------------|------------|-------------|----------|
| JOB NAME   | TRUSS NAME | JOB DESC.   | DRWG NO. |
| IM0622-131 | T06        | TRUSS DESC. |          |



Version 8.500 S Aug 16 2021 MiTek Industries, Inc. Thu Jun 23 08:36:24 2022 Page 1  
 ID: OzM1q7scz2BChOKfHahjdLzPugE-9mxwDl8TfvgqtuskAt7CDotjXssIEPg5huHGg1z3Tlr  
 Scale = 1:66.7

MHP 23018



TOTAL WEIGHT = 141 lb

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

#### PLATES (table is in inches)

| JT | TYPE    | PLATES | W   | LEN | Y    | X    |
|----|---------|--------|-----|-----|------|------|
| B  | TMW-t   | MT20   | 5.0 | 6.0 | 1.75 | 3.00 |
| C  | TMWW-t  | MT20   | 3.0 | 4.0 | 1.50 | 1.50 |
| D  | TTWW+m  | MT20   | 5.0 | 6.0 | Edge | 1.75 |
| E  | TMW+w   | MT20   | 2.0 | 4.0 |      |      |
| F  | TTWW+m  | MT20   | 5.0 | 6.0 | Edge | 1.75 |
| G  | TMWW-t  | MT20   | 3.0 | 4.0 | 1.50 | 1.50 |
| H  | TMW-t   | MT20   | 5.0 | 6.0 | 1.75 | 3.00 |
| J  | BMV1+p  | MT20   | 3.0 | 4.0 |      |      |
| K  | BMWW-t  | MT20   | 4.0 | 5.0 | 1.50 | 1.75 |
| L  | BMWW-t  | MT20   | 3.0 | 4.0 |      |      |
| M  | BSWWW-I | MT20   | 5.0 | 6.0 | 3.00 | 3.00 |
| N  | BMWW-t  | MT20   | 3.0 | 4.0 |      |      |
| O  | BMWW-t  | MT20   | 4.0 | 5.0 | 1.50 | 1.75 |
| P  | BMV1+p  | MT20   | 3.0 | 4.0 |      |      |

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

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

##### BEARINGS

|    | FACTORED GROSS REACTION | MAXIMUM FACTORED GROSS REACTION | INPUT BRG | REQRD BRG |
|----|-------------------------|---------------------------------|-----------|-----------|
| JT | VERT                    | HORZ                            | DOWN      | HORZ      |
| P  | 2149                    | 0                               | 2149      | 0         |
| J  | 2149                    | 0                               | 2149      | 0         |

##### UNFACTORED REACTIONS

| JT | 1ST LCASE | MAX/MIN  | COMPONENT REACTIONS | PERM. LIVE | WIND  | DEAD    | SOIL  |
|----|-----------|----------|---------------------|------------|-------|---------|-------|
| P  | 1487      | 1162 / 0 | 0 / 0               | 0 / 0      | 0 / 0 | 324 / 0 | 0 / 0 |
| J  | 1487      | 1162 / 0 | 0 / 0               | 0 / 0      | 0 / 0 | 324 / 0 | 0 / 0 |

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

##### BRACING

TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 3.99 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.

2x4 DRY SPF No.2 T-BRACE AT E-M

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

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

##### LOADING

TOTAL LOAD CASES: (4)

| CHORDS |                           |                           |                        | WEBS  |                           |                        |  |
|--------|---------------------------|---------------------------|------------------------|-------|---------------------------|------------------------|--|
| MEMB.  | MAX. FACTORED FORCE (LBS) | FACTORED VERT. LOAD (PLF) | MAX. FACTORED CSI (LC) | MEMB. | MAX. FACTORED FORCE (LBS) | MAX. FACTORED CSI (LC) |  |
| FR-TO  |                           | FROM TO                   |                        | FR-TO |                           |                        |  |
| A-B    | 0 / 43                    | -111.9 -111.9             | 0.15 (1)               | O-C   | -297 / 33                 | 0.11 (1)               |  |
| B-C    | -2345 / 0                 | -111.9 -111.9             | 0.50 (1)               | C-N   | -377 / 0                  | 0.35 (1)               |  |
| C-D    | -2087 / 0                 | -111.9 -111.9             | 0.47 (1)               | N-D   | 0 / 352                   | 0.08 (1)               |  |
| D-E    | -1917 / 0                 | -111.9 -111.9             | 0.37 (1)               | D-M   | 0 / 417                   | 0.09 (1)               |  |
| E-F    | -1917 / 0                 | -111.9 -111.9             | 0.37 (1)               | M-E   | -651 / 0                  | 0.33 (1)               |  |
| F-G    | -2087 / 0                 | -111.9 -111.9             | 0.47 (1)               | M-F   | 0 / 417                   | 0.09 (1)               |  |
| G-H    | -2345 / 0                 | -111.9 -111.9             | 0.50 (1)               | L-F   | 0 / 352                   | 0.08 (1)               |  |
| H-I    | 0 / 43                    | -111.9 -111.9             | 0.15 (1)               | L-G   | -377 / 0                  | 0.35 (1)               |  |
| P-B    | -2106 / 0                 | 0.0                       | 0.22 (1)               | K-G   | -297 / 33                 | 0.11 (1)               |  |
| J-H    | -2106 / 0                 | 0.0                       | 0.22 (1)               | B-O   | 0 / 2023                  | 0.46 (1)               |  |
|        |                           |                           |                        | K-H   | 0 / 2023                  | 0.46 (1)               |  |
| P-O    | 0 / 0                     | -18.2 -18.2               | 0.12 (4)               |       |                           |                        |  |
| O-N    | 0 / 1983                  | -18.2 -18.2               | 0.38 (1)               |       |                           |                        |  |
| N-M    | 0 / 1705                  | -18.2 -18.2               | 0.33 (1)               |       |                           |                        |  |
| M-L    | 0 / 1705                  | -18.2 -18.2               | 0.33 (1)               |       |                           |                        |  |
| L-K    | 0 / 1983                  | -18.2 -18.2               | 0.38 (1)               |       |                           |                        |  |
| K-J    | 0 / 0                     | -18.2 -18.2               | 0.12 (4)               |       |                           |                        |  |

#### DESIGN CRITERIA

##### SPECIFIED LOADS:

|            |    |   |      |     |
|------------|----|---|------|-----|
| TOP CH.    | LL | = | 34.8 | PSF |
|            | DL | = | 3.0  | PSF |
| BOT CH.    | LL | = | 0.0  | PSF |
|            | DL | = | 7.3  | PSF |
| TOTAL LOAD |    | = | 45.1 | PSF |

SPACING = 24.0 IN. C/C

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

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

THIS DESIGN COMPLIES WITH:

- PART 9 OF BCBC 2018, ABC 2019
- 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) =  $L/360$  (1.02")  
 CALCULATED VERT. DEFL. (LL) =  $L/999$  (0.10")  
 ALLOWABLE DEFL. (TL) =  $L/360$  (1.02")  
 CALCULATED VERT. DEFL. (TL) =  $L/999$  (0.16")

CSI: TC=0.50/1.00 (B-C:1), BC=0.38/1.00 (N-O:1), WB=0.46/1.00 (B-O:1), SSI=0.26/1.00 (E-F:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

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

##### NAIL VALUES

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

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

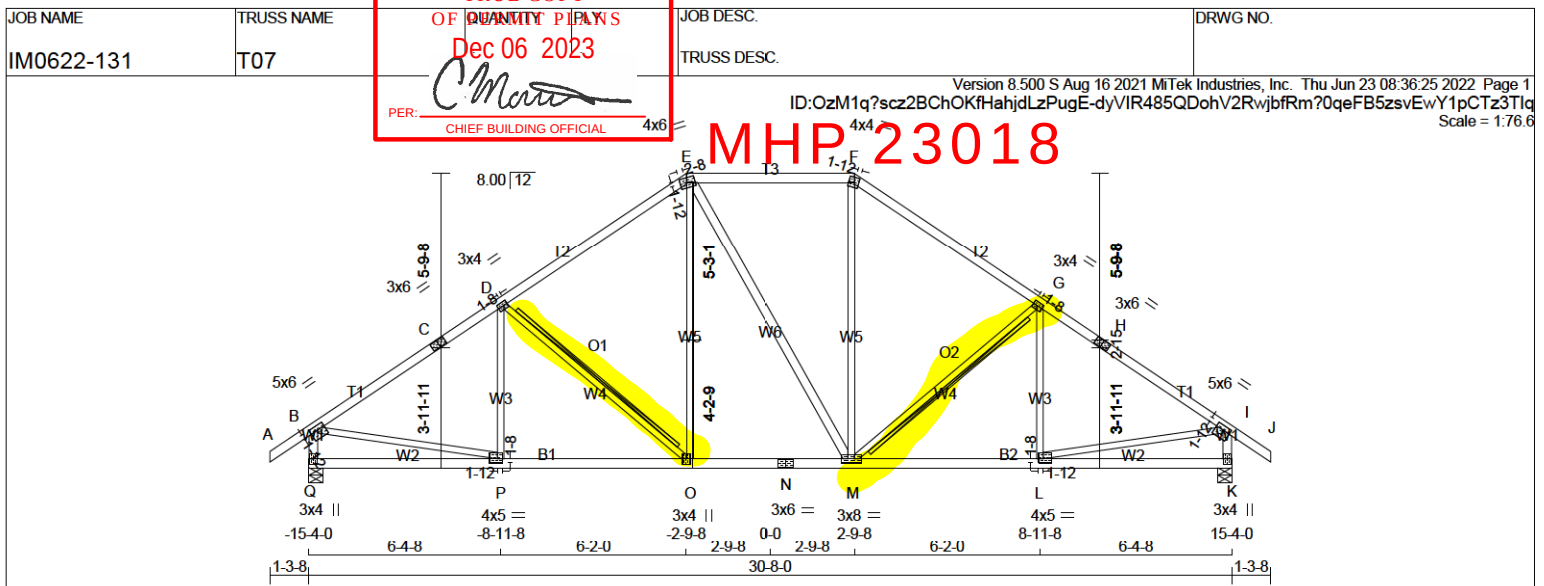
JSI GRIP= 0.86 (B) (INPUT = 0.90)  
 JSI METAL= 0.62 (H) (INPUT = 1.00)



June 23, 2022

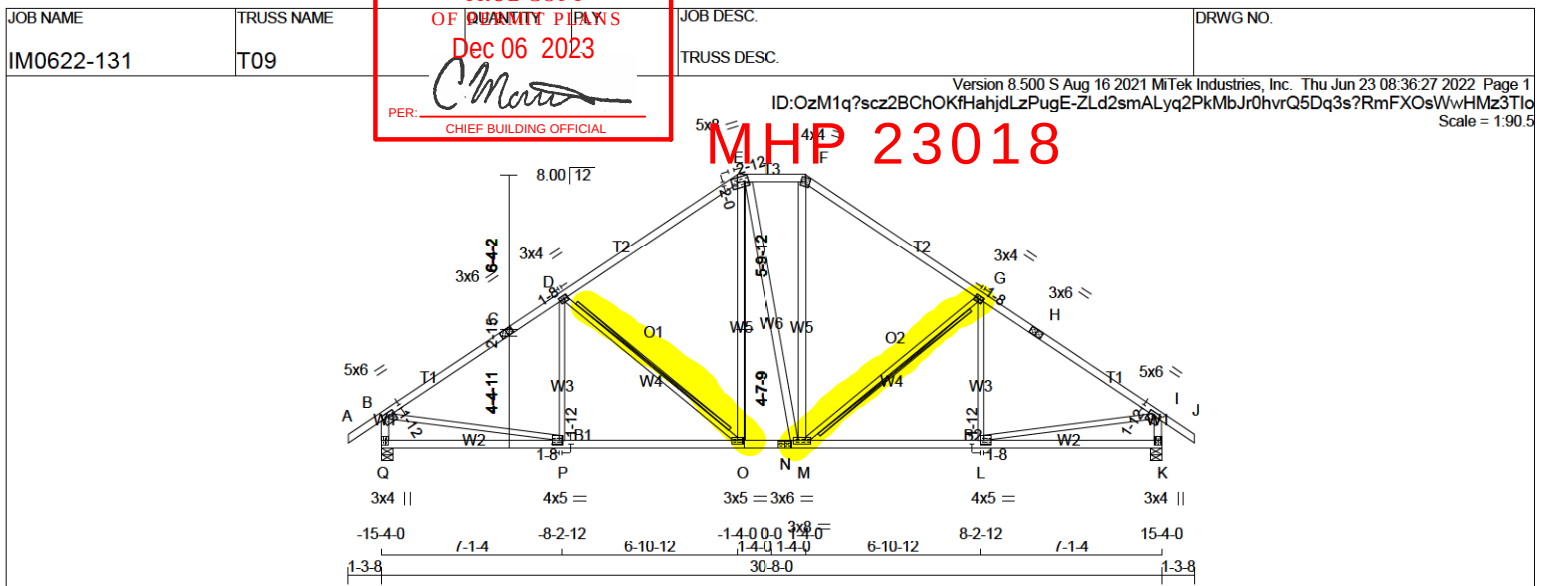
READ ALL NOTES ON THIS PAGE AND ON THE ENGINEERING NOTE PAGE ENP-1. THE NOTE PAGE IS AN INTEGRAL PART OF THIS DRAWING AS IT CONTAINS SPECIFICATIONS AND CRITERIA USED IN THE DESIGN OF THIS COMPONENT.



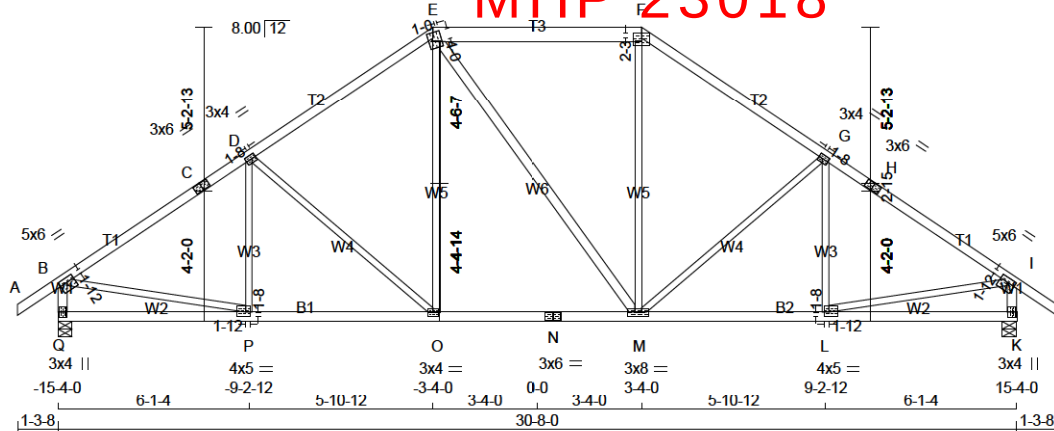












TOTAL WEIGHT = 142 lb

## LUMBER

| N. L. G. A. RULES  |      |     |        |       |
|--------------------|------|-----|--------|-------|
| CHORDS             | SIZE |     | LUMBER | DESCR |
| A - C              | 2x4  | DRY | No.2   | SPF   |
| C - E              | 2x4  | DRY | No.2   | SPF   |
| E - F              | 2x6  | DRY | No.2   | SPF   |
| F - H              | 2x4  | DRY | No.2   | SPF   |
| H - J              | 2x4  | DRY | No.2   | SPF   |
| Q - B              | 2x4  | DRY | No.2   | SPF   |
| K - I              | 2x4  | DRY | No.2   | SPF   |
| Q - N              | 2x4  | DRY | No.2   | SPF   |
| N - K              | 2x4  | DRY | No.2   | SPF   |
| ALL WEBS<br>EXCEPT | 2x3  | DRY | No.2   | SPF   |
| E - M              | 2x4  | DRY | No.2   | SPF   |

DRY: SEASONED LUMBER

**PLATES** (table is in inches)

| JT | TYPE    | PLATES | W   | LEN | Y    | X    |
|----|---------|--------|-----|-----|------|------|
| B  | TMW-t   | MT20   | 5.0 | 6.0 | 1.75 | 3.00 |
| C  | TS-t    | MT20   | 3.0 | 6.0 |      |      |
| D  | TMWV-t  | MT20   | 3.0 | 4.0 | 1.50 | 1.50 |
| E  | TTWV+m  | MT20   | 5.0 | 6.0 | 4.00 | 1.00 |
| F  | FTW-t   | MT20   | 5.0 | 6.0 | 2.25 | 3.00 |
| G  | TMWV-t  | MT20   | 3.0 | 4.0 | 1.50 | 1.50 |
| H  | TS-t    | MT20   | 3.0 | 6.0 |      |      |
| I  | TMW-t   | MT20   | 5.0 | 6.0 | 1.75 | 3.00 |
| K  | BMV1+p  | MT20   | 3.0 | 4.0 |      |      |
| L  | BMWV-t  | MT20   | 4.0 | 5.0 | 1.50 | 1.75 |
| M  | BMWVW-t | MT20   | 3.0 | 8.0 |      |      |
| N  | BS-t    | MT20   | 3.0 | 6.0 |      |      |
| O  | BMWV-t  | MT20   | 3.0 | 4.0 |      |      |
| P  | BMW-t   | MT20   | 4.0 | 5.0 | 1.50 | 1.75 |
| Q  | BMV1+p  | MT20   | 3.0 | 4.0 |      |      |

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

**BUILDING DESIGNER**

| BEARINGS                   |      |      |                                    |      |        |              |              |
|----------------------------|------|------|------------------------------------|------|--------|--------------|--------------|
| FACTORED<br>GROSS REACTION |      |      | MAXIMUM FACTORED<br>GROSS REACTION |      |        | INPUT<br>BRG | REQRD<br>BRG |
| JT                         | VERT | HORZ | DOWN                               | HORZ | UPLIFT | IN-SX        | IN-SX        |
| Q                          | 2149 | 0    | 2149                               | 0    | 0      | 5-8          | 3-8          |
| K                          | 2149 | 0    | 2149                               | 0    | 0      | 5-8          | 3-8          |

### UNFACTORED REACTIONS

| 1ST LCASE |          | MAX/MIN COMPONENT REACTIONS |      |           |      |       |      |
|-----------|----------|-----------------------------|------|-----------|------|-------|------|
| JT        | COMBINED | SNOW                        | LIVE | PERM.LIVE | WIND | DEAD  | SOIL |
| Q         | 1487     | 1162/0                      | 0/0  | 0/0       | 0/0  | 324/0 | 0/0  |
| K         | 1487     | 1162/0                      | 0/0  | 0/0       | 0/0  | 324/0 | 0/0  |

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

## BRACING

TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 3.76 FT.  
MAX. UNBRACED BOTTOM CHORD LENGTH = 10.00 FT OR RIGID CEILING DIRECTLY  
APPLIED

ALL PITCH BREAKS AND PERIMETER CORNER JOINTS MUST BE Laterally RESTRAINED

## LOADING

**TOTAL LOAD CASES: (4)**

| CHORDS |                           |                           |                  | WEBS               |       |                           |                       |
|--------|---------------------------|---------------------------|------------------|--------------------|-------|---------------------------|-----------------------|
| MEMB.  | MAX. FACTORED FORCE (LBS) | FACTORED VERT. LOAD (PLF) | LC1 MAX CSI (LC) | MAX. UNBRAC LENGTH | MEMB. | MAX. FACTORED FORCE (LBS) | FACTORED MAX CSI (LC) |
| FR-TO  |                           | FROM TO                   |                  |                    | FR-TO |                           |                       |
| A-B    | 0 / 43                    | -111.9 -111.9             | 0.15 (1)         | 10.00              | P-D   | -236 / 59                 | 0.11 (1)              |
| B-C    | -2358 / 0                 | -111.9 -111.9             | 0.66 (1)         | 3.76               | D-O   | -510 / 0                  | 0.66 (1)              |
| C-D    | -2358 / 0                 | -111.9 -111.9             | 0.66 (1)         | 3.76               | O-E   | 0 / 446                   | 0.10 (1)              |
| D-E    | -1978 / 0                 | -111.9 -111.9             | 0.60 (1)         | 4.11               | E-M   | 0 / 1                     | 0.00 (1)              |
| E-F    | -1617 / 0                 | -111.9 -111.9             | 0.33 (1)         | 5.77               | M-F   | 0 / 447                   | 0.10 (1)              |
| F-G    | -1979 / 0                 | -111.9 -111.9             | 0.60 (1)         | 4.11               | M-G   | -509 / 0                  | 0.66 (1)              |
| G-H    | -2358 / 0                 | -111.9 -111.9             | 0.66 (1)         | 3.76               | L-G   | -237 / 59                 | 0.11 (1)              |
| H-I    | -2358 / 0                 | -111.9 -111.9             | 0.66 (1)         | 3.76               | B-P   | 0 / 2030                  | 0.46 (1)              |
| I-J    | 0 / 43                    | -111.9 -111.9             | 0.15 (1)         | 10.00              | L-I   | 0 / 2029                  | 0.46 (1)              |
| Q-B    | -2101 / 0                 | 0.0 0.0                   | 0.22 (1)         | 5.84               |       |                           |                       |
| K-I    | -2101 / 0                 | 0.0 0.0                   | 0.22 (1)         | 5.84               |       |                           |                       |
| Q-P    | 0 / 0                     | -18.2 -18.2               | 0.15 (4)         | 10.00              |       |                           |                       |
| P-O    | 0 / 1999                  | -18.2 -18.2               | 0.40 (1)         | 10.00              |       |                           |                       |
| O-N    | 0 / 1617                  | -18.2 -18.2               | 0.34 (1)         | 10.00              |       |                           |                       |
| N-M    | 0 / 1617                  | -18.2 -18.2               | 0.34 (1)         | 10.00              |       |                           |                       |
| M-L    | 0 / 1998                  | -18.2 -18.2               | 0.40 (1)         | 10.00              |       |                           |                       |
| L-K    | 0 / 0                     | -18.2 -18.2               | 0.15 (4)         | 10.00              |       |                           |                       |

## DESIGN CRITERIA

|                  |     |      |          |
|------------------|-----|------|----------|
| SPECIFIED LOADS: |     |      |          |
| TOP              | CH. | LL = | 34.8 PSF |
|                  |     | DL = | 3.0 PSF  |
| BOT              | CH. | LL = | 0.0 PSF  |
|                  |     | DL = | 7.3 PSF  |
| TOTAL LOAD       |     | =    | 45.1 PSF |

SPACING =     24.0     IN. C/C

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

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

THIS DESIGN COMPLIES WITH:

- PART 9 OF BCBC 2018 , ABC 2019
- 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 (1.02")  
CALCULATED VERT. DEFL.(LL) = L/ 999 (0.09")  
ALLOWABLE DEFL.(TL)= L/360 (1.02")  
CALCULATED VERT. DEFL.(TL) = L/ 999 (0.17")

CSI: TC=0.66/1.00 (B-D:1) , BC=0.40/1.00 (L-M:1) ,  
WB=0.66/1.00 (D-O:1) , SSI=0.27/1.00 (G-I:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

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

### NAIL VALUES

| PLATE | GRIP(DRY)<br>(PSI) |     | SHEAR<br>(PLI) |     | SECTION<br>(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

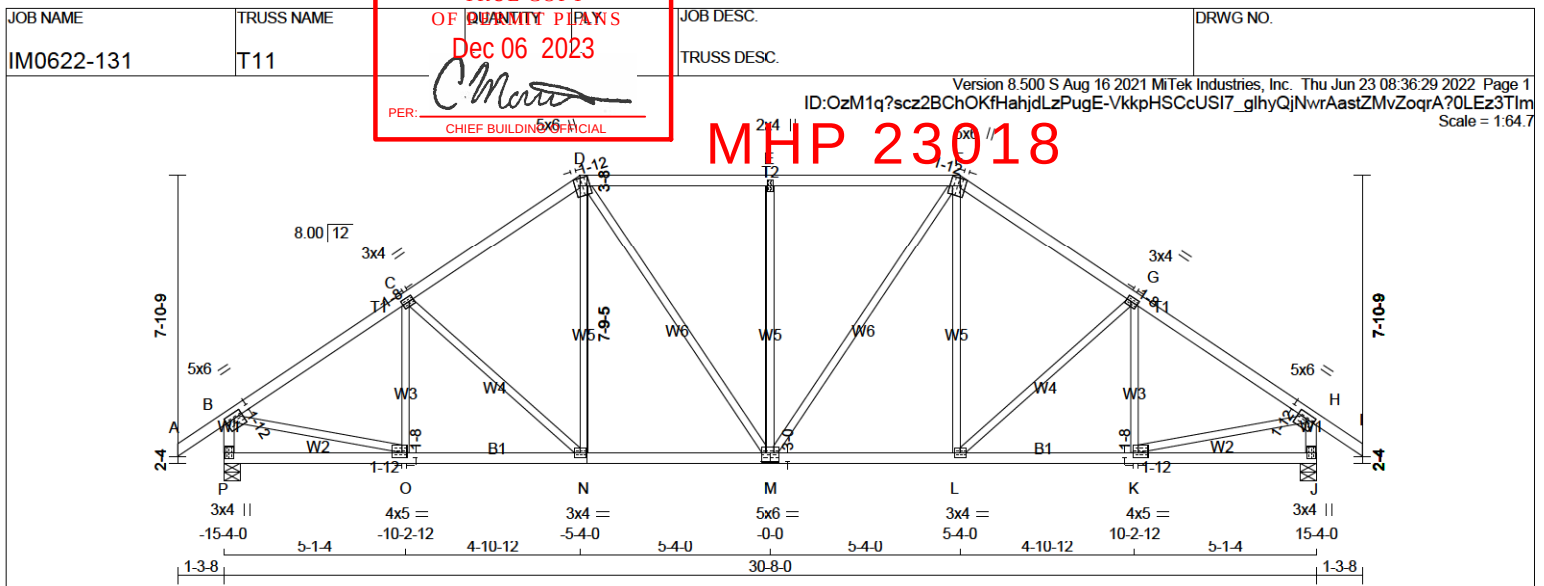
JSI GRIP= 0.85 (B) (INPUT = 0.90 )  
JSI METAL= 0.63 (B) (INPUT = 1.00 )



June 23, 2022

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





TOTAL WEIGHT = 139 lb

**LUMBER**

N. L. G. A. RULES

CHORDS SIZE

A - D 2x4 DRY No.2

D - F 2x4 DRY No.2

F - I 2x4 DRY No.2

P - B 2x4 DRY No.2

J - H 2x4 DRY No.2

P - M 2x4 DRY No.2

M - J 2x4 DRY No.2

ALL WEBS 2x3 DRY No.2

EXCEPT

DRY: SEASONED LUMBER.

**PLATES (table is in inches)**

| JT | TYPE    | PLATES | W   | LEN | Y    | X    |
|----|---------|--------|-----|-----|------|------|
| B  | TMW-t   | MT20   | 5.0 | 6.0 | 1.75 | 3.00 |
| C  | TMW-t   | MT20   | 3.0 | 4.0 | 1.50 | 1.50 |
| D  | TTWW+m  | MT20   | 5.0 | 6.0 | Edge | 1.75 |
| E  | TMW-w   | MT20   | 2.0 | 4.0 |      |      |
| F  | TTWW+m  | MT20   | 5.0 | 6.0 | Edge | 1.75 |
| G  | TMW-t   | MT20   | 3.0 | 4.0 | 1.50 | 1.50 |
| H  | TMW-t   | MT20   | 5.0 | 6.0 | 1.75 | 3.00 |
| J  | BMV1+p  | MT20   | 3.0 | 4.0 |      |      |
| K  | BMW-t   | MT20   | 4.0 | 5.0 | 1.50 | 1.75 |
| L  | BMW-t   | MT20   | 3.0 | 4.0 |      |      |
| M  | BSWWW-I | MT20   | 5.0 | 6.0 | 3.00 | 3.00 |
| N  | BMW-t   | MT20   | 3.0 | 4.0 |      |      |
| O  | BMW-t   | MT20   | 4.0 | 5.0 | 1.50 | 1.75 |
| P  | BMV1+p  | MT20   | 3.0 | 4.0 |      |      |

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

**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                    | HORZ                            | DOWN      | UPLIFT   |
| P  | 2149                    | 0                               | 2149      | 0        |
| J  | 2149                    | 0                               | 2149      | 0        |

**UNFACTORED REACTIONS**

| JT | 1ST LCASE COMBINED | MAX. MIN. SNOW | LIVE  | PERM. LIVE | WIND  | DEAD    | SOIL  |
|----|--------------------|----------------|-------|------------|-------|---------|-------|
| P  | 1487               | 1162 / 0       | 0 / 0 | 0 / 0      | 0 / 0 | 324 / 0 | 0 / 0 |
| J  | 1487               | 1162 / 0       | 0 / 0 | 0 / 0      | 0 / 0 | 324 / 0 | 0 / 0 |

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

**BRACING**TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 4.06 FT.  
MAX. UNBRACED BOTTOM CHORD LENGTH = 10.00 FT. OR RIGID CEILING DIRECTLY APPLIED.

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

**LOADING**

TOTAL LOAD CASES: (4)

| CHORDS |                           |                           |                           | WEBS  |                           |                           |          |
|--------|---------------------------|---------------------------|---------------------------|-------|---------------------------|---------------------------|----------|
| MEMB.  | MAX. FACTORED FORCE (LBS) | FACTORED VERT. LOAD (PLF) | MAX. UNBRACED LENGTH (LC) | MEMB. | MAX. FACTORED FORCE (LBS) | MAX. UNBRACED LENGTH (LC) |          |
| FR-TO  |                           | FROM TO                   |                           | FR-TO |                           |                           |          |
| A-B    | 0 / 43                    | -111.9 -111.9             | 0.15 (1)                  | 10.00 | O-C                       | -325 / 19                 | 0.11 (1) |
| B-C    | -2335 / 0                 | -111.9 -111.9             | 0.45 (1)                  | 4.06  | C-N                       | -320 / 0                  | 0.27 (1) |
| C-D    | -2126 / 0                 | -111.9 -111.9             | 0.42 (1)                  | 4.24  | N-D                       | 0 / 321                   | 0.07 (1) |
| D-E    | -2016 / 0                 | -111.9 -111.9             | 0.46 (1)                  | 4.27  | D-M                       | 0 / 488                   | 0.11 (1) |
| E-F    | -2016 / 0                 | -111.9 -111.9             | 0.46 (1)                  | 4.27  | M-E                       | -728 / 0                  | 0.91 (1) |
| F-G    | -2126 / 0                 | -111.9 -111.9             | 0.42 (1)                  | 4.24  | M-F                       | 0 / 488                   | 0.11 (1) |
| G-H    | -2335 / 0                 | -111.9 -111.9             | 0.45 (1)                  | 4.06  | L-F                       | 0 / 321                   | 0.07 (1) |
| H-I    | 0 / 43                    | -111.9 -111.9             | 0.15 (1)                  | 10.00 | L-G                       | -320 / 0                  | 0.27 (1) |
| P-B    | -2107 / 0                 | 0.0 0.0                   | 0.22 (1)                  | 5.84  | K-G                       | -325 / 19                 | 0.11 (1) |
| J-H    | -2107 / 0                 | 0.0 0.0                   | 0.22 (1)                  | 5.84  | B-O                       | 0 / 2017                  | 0.45 (1) |
|        |                           |                           |                           |       | K-H                       | 0 / 2017                  | 0.45 (1) |
| P-O    | 0 / 0                     | -18.2 -18.2               | 0.10 (4)                  | 10.00 |                           |                           |          |
| O-N    | 0 / 1973                  | -18.2 -18.2               | 0.38 (1)                  | 10.00 |                           |                           |          |
| N-M    | 0 / 1740                  | -18.2 -18.2               | 0.35 (1)                  | 10.00 |                           |                           |          |
| M-L    | 0 / 1740                  | -18.2 -18.2               | 0.35 (1)                  | 10.00 |                           |                           |          |
| L-K    | 0 / 1973                  | -18.2 -18.2               | 0.38 (1)                  | 10.00 |                           |                           |          |
| K-J    | 0 / 0                     | -18.2 -18.2               | 0.10 (4)                  | 10.00 |                           |                           |          |

**DESIGN CRITERIA****SPECIFIED LOADS:**

|            |    |   |      |     |
|------------|----|---|------|-----|
| TOP CH.    | LL | = | 34.8 | PSF |
|            | DL | = | 3.0  | PSF |
| BOT CH.    | LL | = | 0.0  | PSF |
|            | DL | = | 7.3  | PSF |
| TOTAL LOAD |    | = | 45.1 | PSF |

SPACING = 24.0 IN. C/C

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

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

THIS DESIGN COMPLIES WITH:

- PART 9 OF BCBC 2018, ABC 2019
- 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 (1.02")  
CALCULATED VERT. DEFL. (LL) = L/999 (0.10")  
ALLOWABLE DEFL. (TL) = L/360 (1.02")  
CALCULATED VERT. DEFL. (TL) = L/999 (0.17")

CSI: TC=0.46/1.00 (D-E:1), BC=0.38/1.00 (N-O:1), WB=0.91/1.00 (E-M:1), SSI=0.29/1.00 (D-E:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

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

**NAIL VALUES**

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

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.86 (H) (INPUT = 0.90)  
JSI METAL= 0.61 (H) (INPUT = 1.00)

June 23, 2022

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



TRUE COPY

OF QUANTITY PLANS

Dec 06 2023

PER: *C. M. M.*  
506-111-1111 BUILDING OFFICIAL

JOB DESC.

TRUSS DESC.

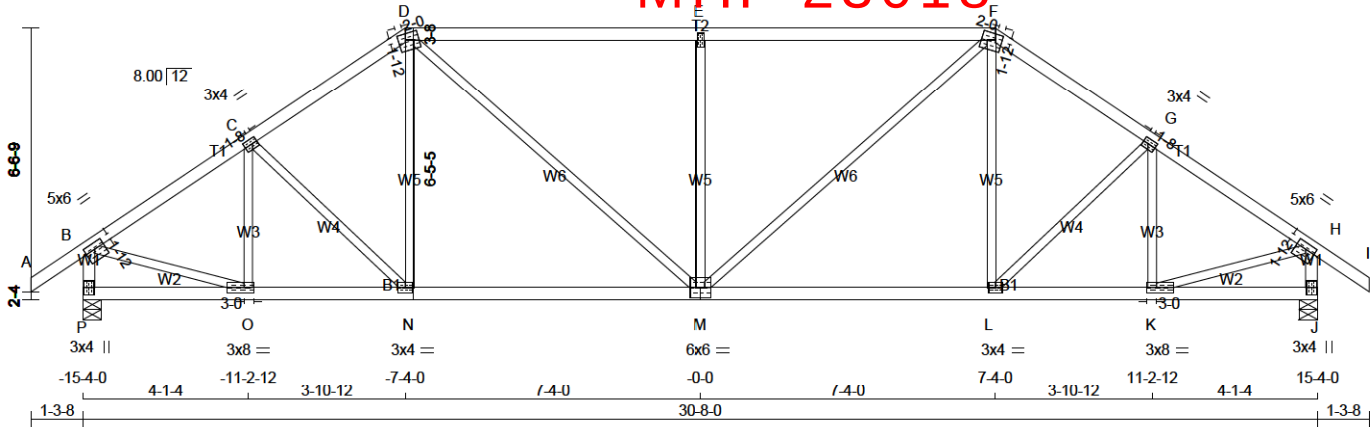
DRWG NO.

Version 8.500 S Aug 16 2021 MiTek Industries, Inc. Thu Jun 23 08:36:31 2022 Page 1

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Scale = 1:57.2

MHP 23018



TOTAL WEIGHT = 131 lb

[M/F]

**LUMBER**

N. L. G. A. RULES

CHORDS SIZE

A - D 2x4 DRY No.2

D - F 2x4 DRY No.2

F - I 2x4 DRY No.2

P - B 2x4 DRY No.2

J - H 2x4 DRY No.2

P - M 2x4 DRY No.2

M - J 2x4 DRY No.2

ALL WEBS 2x3 DRY No.2

EXCEPT

DRY: SEASONED LUMBER.

**PLATES (table is in inches)**

| JT | TYPE    | PLATES | W   | LEN | Y    | X    |
|----|---------|--------|-----|-----|------|------|
| B  | TMW-t   | MT20   | 5.0 | 6.0 | 1.75 | 3.00 |
| C  | TMW-t   | MT20   | 3.0 | 4.0 | 1.50 | 1.50 |
| D  | TTWW-m  | MT20   | 5.0 | 6.0 | 1.75 | 2.00 |
| E  | TMW-w   | MT20   | 2.0 | 4.0 |      |      |
| F  | TTWW-m  | MT20   | 5.0 | 6.0 | 1.75 | 2.00 |
| G  | TMW-t   | MT20   | 3.0 | 4.0 | 1.50 | 1.50 |
| H  | TMW-t   | MT20   | 5.0 | 6.0 | 1.75 | 3.00 |
| J  | BMV1+p  | MT20   | 3.0 | 4.0 |      |      |
| K  | BMW-t   | MT20   | 3.0 | 8.0 | 1.50 | 3.00 |
| L  | BMW-t   | MT20   | 3.0 | 4.0 |      |      |
| M  | BSWWW-I | MT20   | 6.0 | 6.0 |      |      |
| N  | BMW-t   | MT20   | 3.0 | 4.0 |      |      |
| O  | BMW-t   | MT20   | 3.0 | 8.0 | 1.50 | 3.00 |
| P  | BMV1+p  | MT20   | 3.0 | 4.0 |      |      |

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

BUILDING DESIGNER

**BEARINGS**

|    | FACTORED GROSS REACTION | MAXIMUM FACTORED GROSS REACTION | INPUT BRG | REQRD BRG |
|----|-------------------------|---------------------------------|-----------|-----------|
| JT | VERT                    | HORZ                            | DOWN      | HORZ      |
| P  | 2149                    | 0                               | 2149      | 0         |
| J  | 2149                    | 0                               | 2149      | 0         |

**UNFACTORED REACTIONS**

| JT | 1ST LCASE COMBINED | MAX. MIN. SNOW | LIVE  | PERM. LIVE | WIND  | DEAD    | SOIL  |
|----|--------------------|----------------|-------|------------|-------|---------|-------|
| P  | 1487               | 1162 / 0       | 0 / 0 | 0 / 0      | 0 / 0 | 324 / 0 | 0 / 0 |
| J  | 1487               | 1162 / 0       | 0 / 0 | 0 / 0      | 0 / 0 | 324 / 0 | 0 / 0 |

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

**BRACING**TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 2.94 FT.  
MAX. UNBRACED BOTTOM CHORD LENGTH = 10.00 FT. OR RIGID CEILING DIRECTLY APPLIED.

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

**LOADING**

TOTAL LOAD CASES: (4)

| CHORDS |                           |                           |               |                      | WEBS  |                           |                        |  |
|--------|---------------------------|---------------------------|---------------|----------------------|-------|---------------------------|------------------------|--|
| MEMB.  | MAX. FACTORED FORCE (LBS) | FACTORED VERT. LOAD (PLF) | LC1 MAX. (LC) | MAX. UNBRACED LENGTH | MEMB. | MAX. FACTORED FORCE (LBS) | FACTORED MAX. CSI (LC) |  |
| FR-TO  |                           | FROM TO                   |               |                      | FR-TO |                           |                        |  |
| A-B    | 0 / 43                    | -111.9 -111.9             | 0.15 (1)      | 10.00                | O-C   | -453 / 0                  | 0.12 (1)               |  |
| B-C    | -2269 / 0                 | -111.9 -111.9             | 0.28 (1)      | 4.30                 | C-N   | -88 / 3                   | 0.05 (1)               |  |
| C-D    | -2253 / 0                 | -111.9 -111.9             | 0.28 (1)      | 4.31                 | N-D   | 0 / 198                   | 0.05 (4)               |  |
| D-E    | -2488 / 0                 | -111.9 -111.9             | 0.93 (1)      | 2.94                 | D-M   | 0 / 848                   | 0.19 (1)               |  |
| E-F    | -2488 / 0                 | -111.9 -111.9             | 0.93 (1)      | 2.94                 | M-E   | -1010 / 0                 | 0.76 (1)               |  |
| F-G    | -2253 / 0                 | -111.9 -111.9             | 0.28 (1)      | 4.31                 | M-F   | 0 / 848                   | 0.19 (1)               |  |
| G-H    | -2269 / 0                 | -111.9 -111.9             | 0.28 (1)      | 4.30                 | L-F   | 0 / 198                   | 0.05 (4)               |  |
| H-I    | 0 / 43                    | -111.9 -111.9             | 0.15 (1)      | 10.00                | L-G   | -88 / 3                   | 0.05 (1)               |  |
| P-B    | -2110 / 0                 | 0.0 0.0                   | 0.22 (1)      | 5.83                 | K-G   | -453 / 0                  | 0.12 (1)               |  |
| J-H    | -2110 / 0                 | 0.0 0.0                   | 0.22 (1)      | 5.83                 | B-O   | 0 / 1975                  | 0.44 (1)               |  |
|        |                           |                           |               |                      | K-H   | 0 / 1975                  | 0.44 (1)               |  |
| P-O    | 0 / 0                     | -18.2 -18.2               | 0.08 (4)      | 10.00                |       |                           |                        |  |
| O-N    | 0 / 1910                  | -18.2 -18.2               | 0.42 (1)      | 10.00                |       |                           |                        |  |
| N-M    | 0 / 1850                  | -18.2 -18.2               | 0.41 (1)      | 10.00                |       |                           |                        |  |
| M-L    | 0 / 1850                  | -18.2 -18.2               | 0.41 (1)      | 10.00                |       |                           |                        |  |
| L-K    | 0 / 1910                  | -18.2 -18.2               | 0.42 (1)      | 10.00                |       |                           |                        |  |
| K-J    | 0 / 0                     | -18.2 -18.2               | 0.08 (4)      | 10.00                |       |                           |                        |  |

**DESIGN CRITERIA**

SPECIFIED LOADS:

TOP CH. LL = 34.8 PSF

DL = 3.0 PSF

BOT CH. LL = 0.0 PSF

DL = 7.3 PSF

TOTAL LOAD = 45.1 PSF

SPACING = 24.0 IN. C/C

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

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

THIS DESIGN COMPLIES WITH:

- PART 9 OF BCBC 2018, ABC 2019
- 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 (1.02")  
CALCULATED VERT. DEFL. (LL) = L/999 (0.12")  
ALLOWABLE DEFL. (TL) = L/360 (1.02")  
CALCULATED VERT. DEFL. (TL) = L/999 (0.24")

CSI: TC=0.93/1.00 (D-E:1), BC=0.42/1.00 (N-O:1), WB=0.76/1.00 (E-M:1), SSI=0.40/1.00 (D-E:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

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

**NAIL VALUES**

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

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.86 (B) (INPUT = 0.90)

JSI METAL= 0.61 (M) (INPUT = 1.00)



June 23, 2022

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









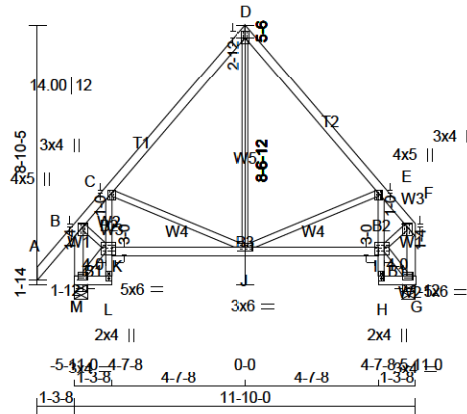
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|------------|------------|-------------|----------|
| JOB NAME   | TRUSS NAME | JOB DESC.   | DRWG NO. |
| IM0622-131 | T15        | TRUSS DESC. |          |

TRUE COPY  
OF QUANTITY PLANS  
Dec 06 2023

PER: *C. Mata*  
CHIEF BUILDING OFFICIAL

Version 8.500 S Aug 16 2021 MiTek Industries, Inc. Thu Jun 23 08:33 2022 Page 1  
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MHP 23018



TOTAL WEIGHT = 64 lb

| LUMBER | N. L. G. A. RULES | CHORDS | SIZE | LUMBER | DESCR. |
|--------|-------------------|--------|------|--------|--------|
| A - D  | 2x4               | DRY    | No.2 | SPF    |        |
| D - F  | 2x4               | DRY    | No.2 | SPF    |        |
| M - B  | 2x4               | DRY    | No.2 | SPF    |        |
| G - F  | 2x4               | DRY    | No.2 | SPF    |        |
| M - L  | 2x4               | DRY    | No.2 | SPF    |        |
| L - C  | 2x3               | DRY    | No.2 | SPF    |        |
| K - I  | 2x4               | DRY    | No.2 | SPF    |        |
| H - E  | 2x3               | DRY    | No.2 | SPF    |        |
| H - G  | 2x4               | DRY    | No.2 | SPF    |        |

ALL WEBS 2x3 DRY No.2 SPF  
EXCEPT

DRY: SEASONED LUMBER.

#### PLATES (table is in inches)

| JT | TYPE    | PLATES | W   | LEN | Y    | X    |
|----|---------|--------|-----|-----|------|------|
| B  | TMVW+p  | MT20   | 4.0 | 5.0 | 1.25 | 2.00 |
| C  | TMVW+p  | MT20   | 3.0 | 4.0 | 1.00 | 1.50 |
| D  | TTW+p   | MT20   | 3.0 | 5.0 | 2.75 | 1.50 |
| E  | TMVW+p  | MT20   | 3.0 | 4.0 | 1.00 | 1.50 |
| F  | TMVW+p  | MT20   | 4.0 | 5.0 | 1.25 | 2.00 |
| G  | BMVW1-t | MT20   | 3.0 | 4.0 | 1.50 | 1.75 |
| H  | BMV+p   | MT20   | 2.0 | 4.0 |      |      |
| I  | BVMWV-t | MT20   | 5.0 | 6.0 | 3.00 | 4.00 |
| J  | BVMWV-t | MT20   | 3.0 | 6.0 |      |      |
| K  | BVMWV-t | MT20   | 5.0 | 6.0 | 3.00 | 4.00 |
| L  | BMV+p   | MT20   | 2.0 | 4.0 |      |      |
| M  | BMVW1-t | MT20   | 3.0 | 4.0 | 1.50 | 1.75 |

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

##### BEARINGS

|    | FACTORED GROSS REACTION | MAXIMUM FACTORED GROSS REACTION | INPUT BRG | REQRD BRG |
|----|-------------------------|---------------------------------|-----------|-----------|
| JT | VERT                    | HORZ                            | DOWN      | HORZ      |
| M  | 936                     | 0                               | 936       | 0         |
| G  | 761                     | 0                               | 761       | 0         |

##### UNFACTORED REACTIONS

|    | 1ST LCASE | MAX. MIN. COMPONENT REACTIONS |       |            |       |         |       |
|----|-----------|-------------------------------|-------|------------|-------|---------|-------|
| JT | COMBINED  | SNOW                          | LIVE  | PERM. LIVE | WIND  | DEAD    | SOIL  |
| M  | 646       | 515 / 0                       | 0 / 0 | 0 / 0      | 0 / 0 | 131 / 0 | 0 / 0 |
| G  | 527       | 406 / 0                       | 0 / 0 | 0 / 0      | 0 / 0 | 121 / 0 | 0 / 0 |

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

##### BRACING

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

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

##### LOADING

TOTAL LOAD CASES: (4)

| CHORDS |                           |                           |                          | WEBS  |                           |                           |                          |
|--------|---------------------------|---------------------------|--------------------------|-------|---------------------------|---------------------------|--------------------------|
| MEMB.  | MAX. FACTORED FORCE (LBS) | FACTORED VERT. LOAD (PLF) | FACTORED HORZ. LOAD (LC) | MEMB. | MAX. FACTORED FORCE (LBS) | FACTORED VERT. LOAD (PLF) | FACTORED HORZ. LOAD (LC) |
| FR-TO  |                           | FROM                      | TO                       | FR-TO |                           | FROM                      | TO                       |
| A-B    | 0 / 60                    | -111.9                    | -111.9                   | J-D   | 0 / 265                   | 0.06 (1)                  | 10.00                    |
| B-C    | -609 / 0                  | -111.9                    | -111.9                   | J-E   | -219 / 0                  | 0.10 (1)                  | 6.25                     |
| C-D    | -494 / 0                  | -111.9                    | -111.9                   | C-J   | -169 / 0                  | 0.08 (1)                  | 6.25                     |
| D-E    | -495 / 0                  | -111.9                    | -111.9                   | B-K   | 0 / 528                   | 0.12 (1)                  | 6.25                     |
| E-F    | -604 / 0                  | -111.9                    | -111.9                   | I-F   | 0 / 583                   | 0.13 (1)                  | 6.25                     |
| M-B    | -920 / 0                  | 0.0                       | 0.0                      | M-K   | -7 / 0                    | 0.00 (1)                  | 7.81                     |
| G-F    | -745 / 0                  | 0.0                       | 0.0                      | I-G   | -7 / 0                    | 0.00 (1)                  | 7.81                     |
| M-L    | 0 / 6                     | -18.2                     | -18.2                    |       |                           |                           | 10.00                    |
| L-K    | 0 / 12                    | 0.0                       | 0.0                      |       |                           |                           | 10.00                    |
| K-C    | -240 / 0                  | 0.0                       | 0.0                      |       |                           |                           | 7.81                     |
| K-J    | 0 / 451                   | -18.2                     | -18.2                    |       |                           |                           | 10.00                    |
| J-I    | 0 / 497                   | -18.2                     | -18.2                    |       |                           |                           | 10.00                    |
| H-I    | 0 / 12                    | 0.0                       | 0.0                      |       |                           |                           | 10.00                    |
| I-E    | -268 / 0                  | 0.0                       | 0.0                      |       |                           |                           | 7.81                     |
| H-G    | 0 / 5                     | -18.2                     | -18.2                    |       |                           |                           | 10.00                    |

#### DESIGN CRITERIA

##### SPECIFIED LOADS:

|            |    |      |      |     |
|------------|----|------|------|-----|
| TOP CH.    | LL | =    | 34.8 | PSF |
| DL         | =  | 3.0  | PSF  |     |
| BOT CH.    | LL | =    | 0.0  | PSF |
| DL         | =  | 7.3  | PSF  |     |
| TOTAL LOAD | =  | 45.1 | PSF  |     |

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

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

THIS DESIGN COMPLIES WITH:

- PART 9 OF CBC 2018, ABC 2019
- 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) =  $L/360$  (0.39")  
CALCULATED VERT. DEFL. (LL) =  $L/999$  (0.01")  
ALLOWABLE DEFL. (TL) =  $L/360$  (0.39")  
CALCULATED VERT. DEFL. (TL) =  $L/999$  (0.02")

CSI: TC=0.30/1.00 (D-E-1), BC=0.14/1.00 (I-J-1), WB=0.13/1.00 (F-I-1), SSI=0.16/1.00 (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

AUTOSOLVE HEELS OFF

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

##### NAIL VALUES

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

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.75 (M) (INPUT = 0.90)

JSI METAL= 0.30 (B) (INPUT = 1.00)



June 23, 2022

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



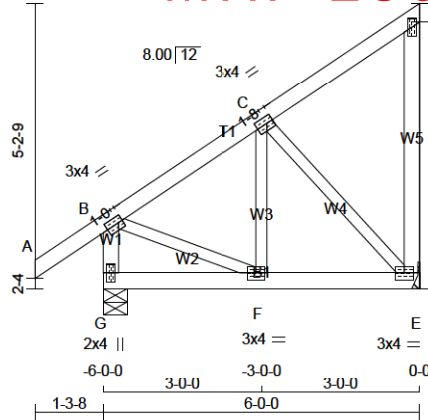
|            |            |             |          |
|------------|------------|-------------|----------|
| JOB NAME   | TRUSS NAME | JOB DESC.   | DRWG NO. |
| IM0622-131 | T16        | TRUSS DESC. |          |

TRUE COPY  
OF QUANTITY PLANS  
Dec 06 2023

PER: *C. M. M.*  
CHIEF BUILDING OFFICIAL

Version 8.500 S Aug 16 2021 MiTek Industries, Inc. Thu Jun 23 08:36:34 2022 Page 1  
ID:OzM1q?scz2BChOKfHahjdLzPugE-shYik9Fkl\_xQ4Rdfi\_JYdvtWBUda1IZ?Rin1Sz3Tlh  
Scale = 1:43.7

MHP 23018



TOTAL WEIGHT = 2 X 31 = 63 lb

| LUMBER                | N. L. G. A. RULES | CHORDS | SIZE | LUMBER | DESCR. |
|-----------------------|-------------------|--------|------|--------|--------|
| G - B                 | 2x4               | DRY    | No.2 | SPF    |        |
| A - D                 | 2x4               | DRY    | No.2 | SPF    |        |
| E - D                 | 2x4               | DRY    | No.2 | SPF    |        |
| G - E                 | 2x4               | DRY    | No.2 | SPF    |        |
| ALL WEBS              | 2x3               | DRY    | No.2 | SPF    |        |
| DRY: SEASONED LUMBER. |                   |        |      |        |        |

#### PLATES (table is in inches)

| JT | TYPE   | PLATES | W   | LEN | Y    | X    |
|----|--------|--------|-----|-----|------|------|
| B  | TMVW-t | MT20   | 3.0 | 4.0 | 1.50 | 1.00 |
| C  | TMVW-t | MT20   | 3.0 | 4.0 | 1.50 | 1.50 |
| D  | TMV+p  | MT20   | 2.0 | 4.0 |      |      |
| E  | BMVW-t | MT20   | 3.0 | 4.0 |      |      |
| F  | BMVW-t | MT20   | 3.0 | 4.0 |      |      |
| G  | 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 | REQD BRG |
|----|-------------------------|---------------------------------|-----------|----------|
| G  | 544                     | 544                             | 0         | 0        |
| E  | 390                     | 390                             | 0         | 0        |

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

#### UNFACTORED REACTIONS

| JT | 1ST LCASE | MAX./MIN. | COMPONENT REACTIONS |
|----|-----------|-----------|---------------------|
| G  | 374       | 304 / 0   | 0 / 0               |
| E  | 271       | 209 / 0   | 0 / 0               |

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

#### BRACING

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

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

#### LOADING

TOTAL LOAD CASES: (4)

| MEMB. | CHORDS   | MAX. FACTORED FORCE (LBS) | FACTORED VERT. LOAD (PLF) | MAX. FACTORED CS (LC) | MAX. UNBRACED LENGTH | MEMB. | WEBS     | MAX. FACTORED FORCE (LBS) | MAX. CS (LC) |
|-------|----------|---------------------------|---------------------------|-----------------------|----------------------|-------|----------|---------------------------|--------------|
| FR-TO |          |                           |                           |                       |                      | FR-TO |          |                           |              |
| G-B   | -521 / 0 | 0.0                       | 0.0                       | 0.05 (1)              | 7.81                 | B-F   | 0 / 248  | 0.06 (1)                  |              |
| A-B   | 0 / 43   | -111.9                    | -111.9                    | 0.15 (1)              | 10.00                | F-C   | -21 / 57 | 0.02 (4)                  |              |
| B-C   | -259 / 0 | -111.9                    | -111.9                    | 0.17 (1)              | 6.25                 | C-E   | -335 / 0 | 0.10 (1)                  |              |
| C-D   | -22 / 0  | -111.9                    | -111.9                    | 0.17 (1)              | 6.25                 |       |          |                           |              |
| E-D   | -127 / 0 | 0.0                       | 0.0                       | 0.06 (1)              | 7.81                 |       |          |                           |              |
| G-F   | 0 / 0    | -18.2                     | -18.2                     | 0.04 (4)              | 10.00                |       |          |                           |              |
| F-E   | 0 / 234  | -18.2                     | -18.2                     | 0.06 (1)              | 10.00                |       |          |                           |              |

#### DESIGN CRITERIA

##### SPECIFIED LOADS:

|            |    |      |      |     |
|------------|----|------|------|-----|
| TOP CH.    | LL | =    | 34.8 | PSF |
| DL         | =  | 3.0  | PSF  |     |
| BOT CH.    | LL | =    | 0.0  | PSF |
| DL         | =  | 7.3  | PSF  |     |
| TOTAL LOAD | =  | 45.1 | PSF  |     |

##### 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 CBC 2018, ABC 2019
- 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) =  $L/360$  (0.20")  
CALCULATED VERT. DEFL. (LL) =  $L/999$  (0.00")  
ALLOWABLE DEFL. (TL) =  $L/360$  (0.20")  
CALCULATED VERT. DEFL. (TL) =  $L/999$  (0.00")

CSI: TC=0.17/1.00 (B-C:1), BC=0.06/1.00 (E-F:1), WB=0.10/1.00 (C-E:1), SS=0.14/1.00 (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) | (PLI)              |
| MT20  | 650       | 371   | 1747 788 1987 1873 |

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

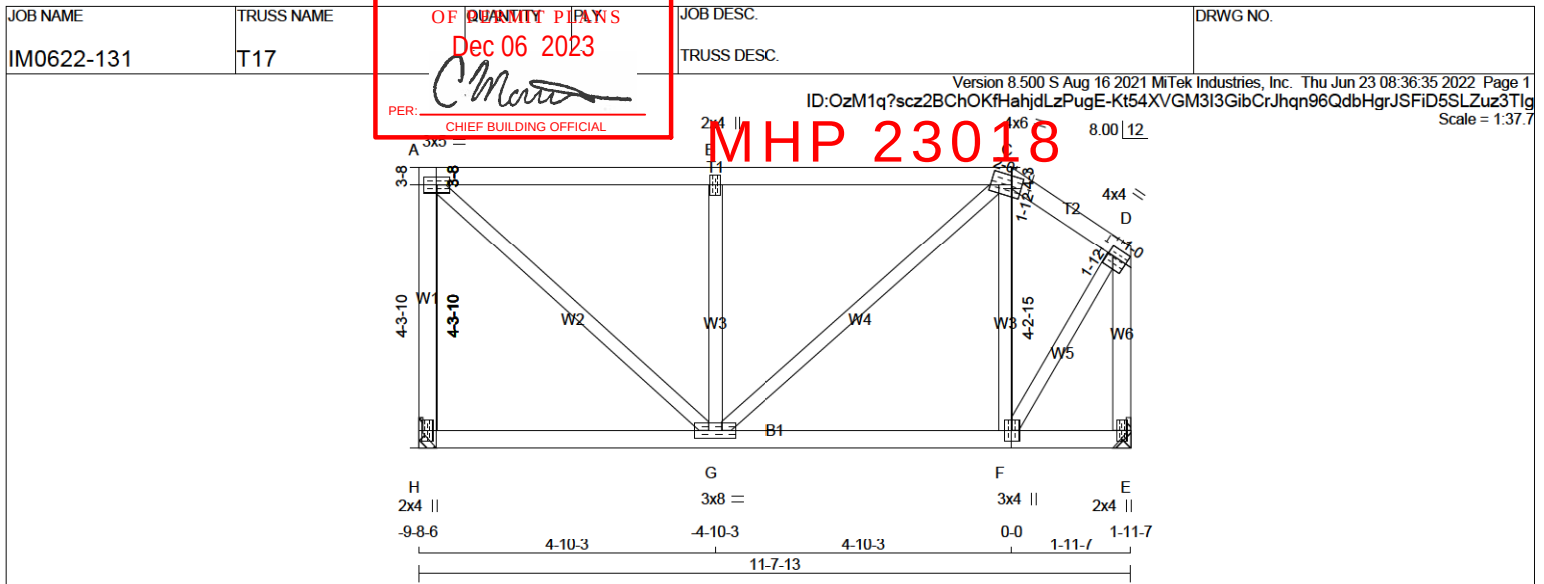
JSI GRIP= 0.77 (B) (INPUT = 0.90 )  
JSI METAL= 0.15 (B) (INPUT = 1.00 )



June 23, 2022

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TOTAL WEIGHT = 54 lb

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

ALL WEBS 2x3 DRY No.2 SPF

EXCEPT

DRY: SEASONED LUMBER.

| PLATES (table is in inches) | JT      | TYPE | PLATES | W   | LEN  | Y    | X |
|-----------------------------|---------|------|--------|-----|------|------|---|
| A                           | TMVW-t  | MT20 | 3.0    | 5.0 |      |      |   |
| B                           | TMVW-w  | MT20 | 2.0    | 4.0 |      |      |   |
| C                           | TTWW-m  | MT20 | 4.0    | 6.0 | 1.75 | 2.00 |   |
| D                           | TMVW-t  | MT20 | 4.0    | 4.0 | 1.75 | Edge |   |
| E                           | BMV1+p  | MT20 | 2.0    | 4.0 |      |      |   |
| F                           | BMVW-t  | MT20 | 3.0    | 4.0 |      |      |   |
| G                           | BMVWW-t | MT20 | 3.0    | 8.0 |      |      |   |
| H                           | BMV1+p  | MT20 | 2.0    | 4.0 |      |      |   |

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

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

## BEARINGS

|    | FACTORED       | MAXIMUM FACTORED | INPUT | REQD   |
|----|----------------|------------------|-------|--------|
|    | GROSS REACTION | GROSS REACTION   | BRG   | BRG    |
| JT | VERT           | HORZ             | DOWN  | UPLIFT |
| H  | 758            | 0                | 758   | 0      |
| E  | 758            | 0                | 758   | 0      |

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

## UNFACTORED REACTIONS

| JT | 1ST LCASE | MAX./MIN. | COMPONENT REACTIONS |            |       |         |       |
|----|-----------|-----------|---------------------|------------|-------|---------|-------|
|    | COMBINED  | SNOW      | LIVE                | PERM. LIVE | WIND  | DEAD    | SOIL  |
| H  | 525       | 405 / 0   | 0 / 0               | 0 / 0      | 0 / 0 | 120 / 0 | 0 / 0 |
| E  | 525       | 405 / 0   | 0 / 0               | 0 / 0      | 0 / 0 | 120 / 0 | 0 / 0 |

## BRACING

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

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

## LOADING

TOTAL LOAD CASES: (4)

| MEMB. | CHORDS   | MAX. FACTORED | FACTORED | VERT. LOAD | LC1   | MAX      | MAX      | MEMB.    | WEBS | MAX. FACTORED | FACTORED |
|-------|----------|---------------|----------|------------|-------|----------|----------|----------|------|---------------|----------|
|       |          | FORCE         | (PLF)    |            |       | CS1 (LC) | UNBRAC   |          |      | FORCE         | MAX      |
| FR-TO |          | (LBS)         | FROM     | TO         |       |          | LENGTH   | FR-TO    |      | (LBS)         | CS1 (LC) |
| H-A   | -721 / 0 | 0.0           | 0.0      | 0.24 (1)   | 7.81  | A-G      | 0 / 775  | 0.17 (1) |      |               |          |
| A-B   | -580 / 0 | -111.9        | -111.9   | 0.44 (1)   | 6.25  | G-B      | -671 / 0 | 0.21 (1) |      |               |          |
| B-C   | -580 / 0 | -111.9        | -111.9   | 0.44 (1)   | 6.25  | G-C      | 0 / 382  | 0.09 (1) |      |               |          |
| C-D   | -365 / 0 | -111.9        | -111.9   | 0.07 (1)   | 6.25  | F-C      | -366 / 0 | 0.11 (1) |      |               |          |
| E-D   | -751 / 0 | 0.0           | 0.0      | 0.14 (1)   | 7.81  | F-D      | 0 / 532  | 0.12 (1) |      |               |          |
| H-G   | 0 / 0    | -18.2         | -18.2    | 0.11 (4)   | 10.00 |          |          |          |      |               |          |
| G-F   | 0 / 294  | -18.2         | -18.2    | 0.12 (4)   | 10.00 |          |          |          |      |               |          |
| F-E   | 0 / 0    | -18.2         | -18.2    | 0.05 (4)   | 10.00 |          |          |          |      |               |          |

## DESIGN CRITERIA

## SPECIFIED LOADS:

|            |    |   |      |     |
|------------|----|---|------|-----|
| TOP CH.    | LL | = | 34.8 | PSF |
|            | DL | = | 3.0  | PSF |
| BOT CH.    | LL | = | 0.0  | PSF |
|            | DL | = | 7.3  | PSF |
| TOTAL LOAD |    | = | 45.1 | PSF |

## SPACING = 24.0 IN. C/C

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

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

THIS DESIGN COMPLIES WITH:

- PART 9 OF BCBC 2018, ABC 2019
- 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 (0.39")  
CALCULATED VERT. DEFL. (LL) = L/999 (0.02")  
ALLOWABLE DEFL. (TL) = L/360 (0.39")  
CALCULATED VERT. DEFL. (TL) = L/999 (0.03")CSI: TC=0.44/1.00 (A-B:1), BC=0.12/1.00 (F-G:4),  
WB=0.21/1.00 (B-G:1), SSI=0.26/1.00 (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) | (PLI)   |
| MT20  | 650        | 371   | 1747    |
|       | 788        | 1987  | 1873    |

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

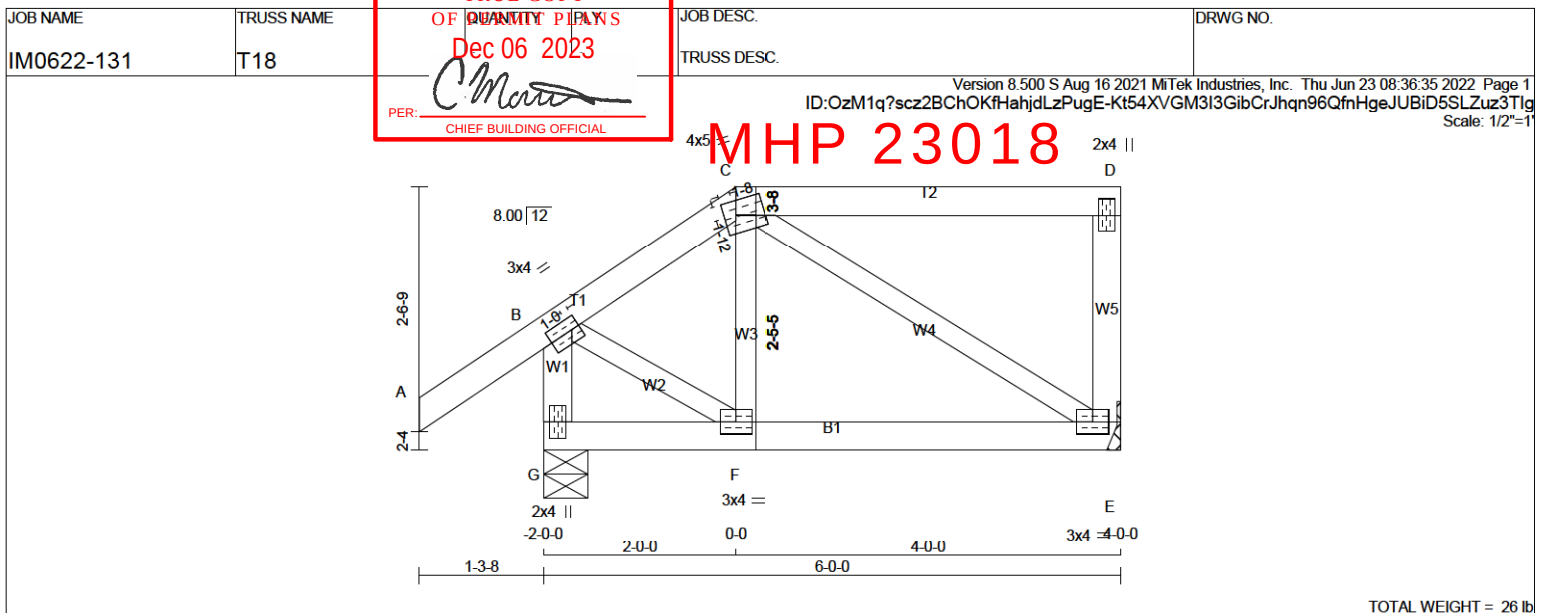
JSI GRIP= 0.88 (A) (INPUT = 0.90)  
JSI METAL= 0.21 (A) (INPUT = 1.00)

June 23, 2022

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TOTAL WEIGHT = 26 lb

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

ALL WEBS 2x3 DRY No.2 SPF  
EXCEPT

DRY: SEASONED LUMBER.

**PLATES (table is in inches)**

| JT | TYPE    | PLATES | W   | LEN | Y    | X    |
|----|---------|--------|-----|-----|------|------|
| B  | TMVW-t  | MT20   | 3.0 | 4.0 | 1.50 | 1.00 |
| C  | TTWW-m  | MT20   | 4.0 | 5.0 | 1.75 | 1.50 |
| D  | TMV+p   | MT20   | 2.0 | 4.0 |      |      |
| E  | BMVW1-t | MT20   | 3.0 | 4.0 |      |      |
| F  | BMVW-t  | MT20   | 3.0 | 4.0 |      |      |
| G  | 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 | REQD BRG   |
|----|-------------------------|------|---------------------------------|------|-----------|------------|
|    | VERT                    | HORZ | DOWN                            | HORZ | IN-SX     | IN-SX      |
| E  | 390                     | 0    | 390                             | 0    | 0         | MECHANICAL |
| G  | 544                     | 0    | 544                             | 0    | 5-8       | 1-8        |

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

**UNFACTORED REACTIONS**

| JT | 1ST LCASE COMBINED |         | MAX./MIN. SNOW |       | LIVE  |       | PERM. LIVE |       | WIND   | DEAD  | SOIL  |
|----|--------------------|---------|----------------|-------|-------|-------|------------|-------|--------|-------|-------|
|    | VERT               | HORZ    | DOWN           | HORZ  | DOWN  | HORZ  | DOWN       | HORZ  |        |       |       |
| E  | 271                | 209 / 0 | 0 / 0          | 0 / 0 | 0 / 0 | 0 / 0 | 0 / 0      | 0 / 0 | 62 / 0 | 0 / 0 | 0 / 0 |
| G  | 374                | 304 / 0 | 0 / 0          | 0 / 0 | 0 / 0 | 0 / 0 | 0 / 0      | 0 / 0 | 70 / 0 | 0 / 0 | 0 / 0 |

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

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

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

**LOADING**

TOTAL LOAD CASES: (4)

| CHORDS |                           |                           |                       | WEBS     |                           |                       |          |
|--------|---------------------------|---------------------------|-----------------------|----------|---------------------------|-----------------------|----------|
| MEMB.  | MAX. FACTORED FORCE (LBS) | FACTORED VERT. LOAD (PLF) | MAX. FACTORED CS (LC) | MEMB.    | MAX. FACTORED FORCE (LBS) | MAX. FACTORED CS (LC) |          |
| FR-TO  |                           | FROM                      | TO                    | FR-TO    |                           |                       |          |
| A-B    | 0 / 43                    | -111.9                    | -111.9                | 0.15 (1) | 10.00                     | F-C                   | -48 / 51 |
| B-C    | -272 / 0                  | -111.9                    | -111.9                | 0.08 (1) | 6.25                      | C-E                   | -262 / 0 |
| C-D    | 0 / 0                     | -111.9                    | -111.9                | 0.30 (1) | 10.00                     | B-F                   | 0 / 254  |
| E-D    | -224 / 0                  | 0.0                       | 0.0                   | 0.03 (1) | 7.81                      |                       |          |
| G-B    | -534 / 0                  | 0.0                       | 0.0                   | 0.05 (1) | 7.81                      |                       |          |
| G-F    | 0 / 0                     | -18.2                     | -18.2                 | 0.06 (4) | 10.00                     |                       |          |
| F-E    | 0 / 224                   | -18.2                     | -18.2                 | 0.07 (1) | 10.00                     |                       |          |

**DESIGN CRITERIA****SPECIFIED LOADS:**

|            |    |      |      |     |
|------------|----|------|------|-----|
| TOP CH.    | LL | =    | 34.8 | PSF |
|            | DL | =    | 3.0  | PSF |
| BOT CH.    | LL | =    | 0.0  | PSF |
|            | DL | =    | 7.3  | PSF |
| TOTAL LOAD | =  | 45.1 | PSF  |     |

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

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

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

THIS DESIGN COMPLIES WITH:

- PART 9 OF BCBC 2018, ABC 2019
- 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) =  $L/360$  (0.20")  
CALCULATED VERT. DEFL. (LL) =  $L/999$  (0.00")  
ALLOWABLE DEFL. (TL) =  $L/360$  (0.20")  
CALCULATED VERT. DEFL. (TL) =  $L/999$  (0.01")CSI: TC=0.30/1.00 (C-D:1), BC=0.07/1.00 (E-F:1),  
WB=0.08/1.00 (C-E:1), SSI=0.17/1.00 (C-D:1)DOL LUMBER=1.00 NAIL=1.00 LS BEND=1.10  
COMP=1.10 SHEAR=1.10 TENS= 1.10

COMPANION LIVE LOAD FACTOR = 1.00

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

**NAIL VALUES**

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

PLATE PLACEMENT TOL. = 0.250 inches

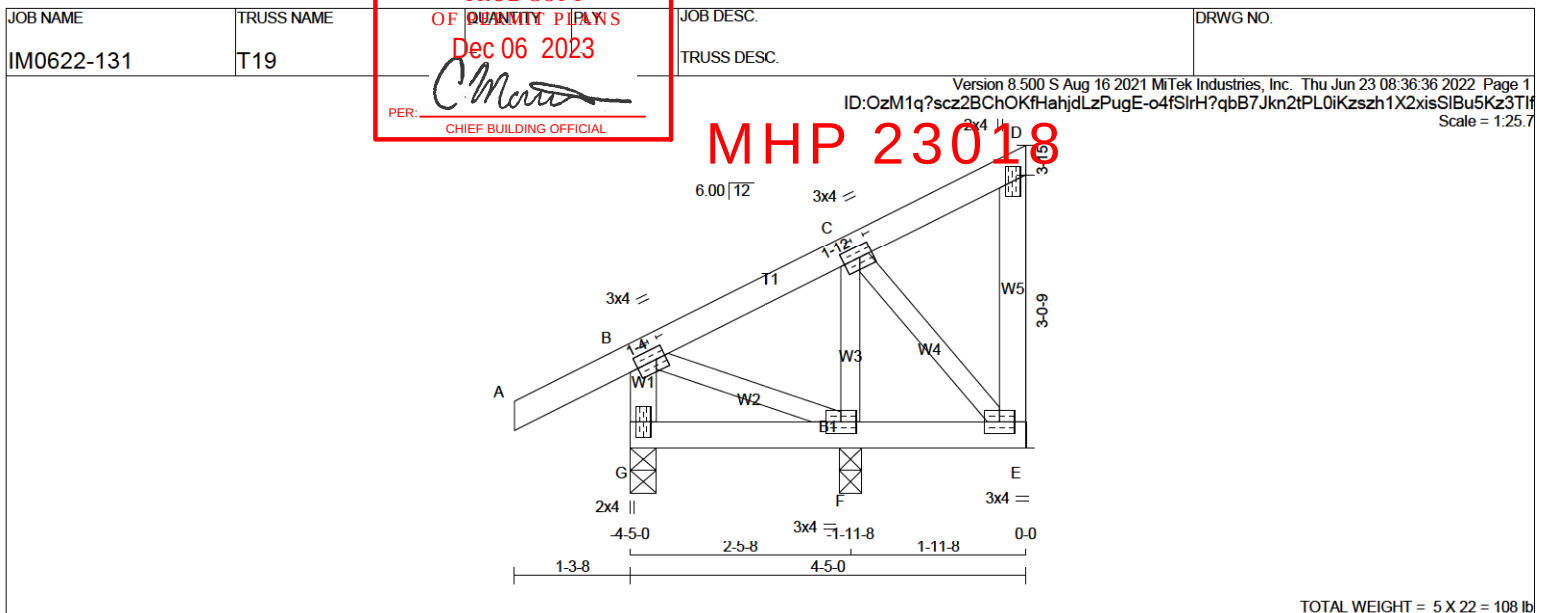
PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.79 (B) (INPUT = 0.90)  
JSI METAL= 0.14 (B) (INPUT = 1.00)

June 23, 2022

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





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

DRY: SEASONED LUMBER.

**PLATES (table is in inches)**

| JT | TYPE    | PLATES | W   | LEN | Y    | X    |
|----|---------|--------|-----|-----|------|------|
| B  | TMVW-t  | MT20   | 3.0 | 4.0 | 1.50 | 1.25 |
| C  | TMVW-t  | MT20   | 3.0 | 4.0 | 1.50 | 1.75 |
| D  | TMV+p   | MT20   | 2.0 | 4.0 |      |      |
| E  | BMVW-t  | MT20   | 3.0 | 4.0 |      |      |
| F  | BMVW1-t | MT20   | 3.0 | 4.0 |      |      |
| G  | BMV1+p  | MT20   | 2.0 | 4.0 |      |      |

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

**BEARINGS**

|    | FACTORED       | MAXIMUM FACTORED | INPUT | REQD |
|----|----------------|------------------|-------|------|
|    | GROSS REACTION | GROSS REACTION   | BRG   | BRG  |
| JT | VERT           | HORZ             | DOWN  | HORZ |
| G  | 210            | 0                | -71   | 3-8  |
| F  | 516            | 0                | 0     | 3-0  |

PROVIDE ANCHORAGE AT BEARING JOINT G FOR 150 LBS. FACTORED UPLIFT

**UNFACTORED REACTIONS**

|    | 1ST LCASE | MAX./MIN. | COMPONENT REACTIONS |           |       |        |
|----|-----------|-----------|---------------------|-----------|-------|--------|
| JT | COMBINED  | SNOW      | LIVE                | PERM.LIVE | WIND  | DEAD   |
| G  | 143       | 180 / -54 | 0 / 0               | 0 / 0     | 0 / 0 | 17 / 0 |
| F  | 358       | 276 / 0   | 0 / 0               | 0 / 0     | 0 / 0 | 82 / 0 |

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

**BRACING**

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

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

**LOADING**

TOTAL LOAD CASES: (13)

| CHORDS |               |             |                | WEBS               |       |               |               |
|--------|---------------|-------------|----------------|--------------------|-------|---------------|---------------|
| MEMB.  | MAX. FACTORED | FACTORED    | VERT. LOAD LC1 | MAX. MAX. UNBRACED | MEMB. | MAX. FACTORED | MAX. FACTORED |
|        | FORCE (LBS)   | VERT. (PLF) | CSI (LC)       | LENGTH FR-TO       |       | FORCE (LBS)   | MAX. FACTORED |
| FR-TO  |               | FROM        | TO             |                    | FR-TO |               |               |
| A-B    | 0 / 34        | -111.9      | -111.9         | 0.15 (5)           | 10.00 | F-C           | -432 / 0      |
| B-C    | 0 / 114       | -111.9      | -111.9         | 0.12 (1)           | 10.00 | C-E           | -8 / 143      |
| C-D    | -17 / 0       | -111.9      | -111.9         | 0.10 (1)           | 6.25  | B-F           | -103 / 6      |
| E-D    | -94 / 17      | 0.0         | 0.0            | 0.02 (12)          | 7.81  |               |               |
| G-B    | -274 / 81     | 0.0         | 0.0            | 0.03 (7)           | 7.81  |               |               |
| G-F    | 0 / 0         | -18.2       | -18.2          | 0.03 (4)           | 10.00 |               |               |
| F-E    | -98 / 6       | -18.2       | -18.2          | 0.03 (4)           | 6.25  |               |               |

**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 | =    | 3.0  | PSF |
| BOT CH.    | LL | =    | 0.0  | PSF |
|            | DL | =    | 7.3  | PSF |
| TOTAL LOAD | =  | 45.1 | PSF  |     |

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

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

THIS DESIGN COMPLIES WITH:

- PART 9 OF CBC 2018, ABC 2019
- 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")

**CANTILEVER DEFLECTION:**

ALLOWABLE DEFL. (LL) =  $L/120$  (0.20")  
CALCULATED VERT. DEFL. (LL) =  $L/999$  (0.00")  
ALLOWABLE DEFL. (TL) =  $L/120$  (0.20")  
CALCULATED VERT. DEFL. (TL) =  $L/999$  (0.00")

CSI: TC=0.15/1.00 (A-B:5), BC=0.03/1.00 (E-F:4), WB=0.07/1.00 (C-F:1), SSI=0.12/1.00 (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 (PSI) | SECTION (PLI) |
|-------|------------|-------------|---------------|
| MT20  | MAX 650    | MIN 371     | MAX 1747      |
|       | MIN 788    | MAX 1987    | MIN 1873      |

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.53 (C) (INPUT = 0.90)  
JSI METAL= 0.08 (C) (INPUT = 1.00)



June 23, 2022

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





|            |            |             |          |
|------------|------------|-------------|----------|
| JOB NAME   | TRUSS NAME | JOB DESC.   | DRWG NO. |
| IM0622-131 | T21        | TRUSS DESC. |          |

TRUE COPY

OF QUANTITY PLANS

Dec 06 2023

PER: *C. Motta*

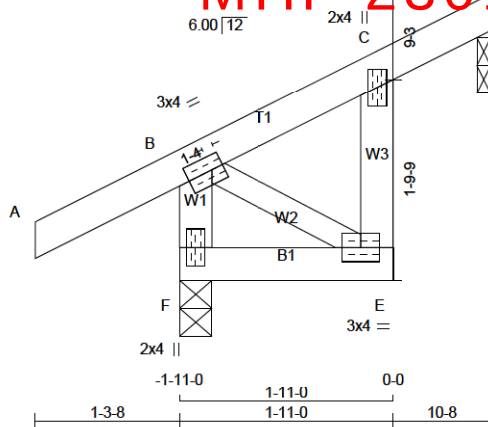
CHIEF BUILDING OFFICIAL

Version 8.500 S Aug 16 2021 MiTek Industries, Inc. Thu Jun 23 08:36:38 2022 Page 1

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Scale = 1:20.7

MHP 23018



TOTAL WEIGHT = 3 X 11 = 34 lb

| LUMBER                | N. L. G. A. RULES | CHORDS | SIZE | LUMBER | DESCR. |
|-----------------------|-------------------|--------|------|--------|--------|
| A - D                 | 2x4               | DRY    | No.2 | SPF    |        |
| E - C                 | 2x4               | DRY    | No.2 | SPF    |        |
| F - B                 | 2x4               | DRY    | No.2 | SPF    |        |
| F - E                 | 2x4               | DRY    | No.2 | SPF    |        |
| ALL WEBS              | 2x3               | DRY    | No.2 | SPF    |        |
| DRY: SEASONED LUMBER. |                   |        |      |        |        |

## PLATES (table is in inches)

| JT | TYPE   | PLATES | W   | LEN | Y    | X    |
|----|--------|--------|-----|-----|------|------|
| B  | TMVW-t | MT20   | 3.0 | 4.0 | 1.50 | 1.25 |
| C  | TMV+p  | MT20   | 2.0 | 4.0 |      |      |
| E  | BMVW-t | MT20   | 3.0 | 4.0 |      |      |
| F  | BMV1+p | MT20   | 2.0 | 4.0 |      |      |

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

## BUILDING DESIGNER

## BEARINGS

|    | FACTORED       | MAXIMUM FACTORED | INPUT | REQD |
|----|----------------|------------------|-------|------|
|    | GROSS REACTION | GROSS REACTION   | BRG   | BRG  |
| JT | VERT           | HORZ             | DOWN  | HORZ |
| D  | 168            | 0                | 168   | 0    |
| F  | 331            | 0                | 331   | 0    |

BEVELED PLATE OR SHIM REQUIRED TO PROVIDE FULL BEARING SURFACE WITH TRUSS CHORD AT JT(S): D

## UNFACTORED REACTIONS

| JT | 1ST LCASE | MAX/MIN | COMPONENT REACTIONS |
|----|-----------|---------|---------------------|
| JT | COMBINED  | SNOW    | LIVE                |
| D  | 115       | 97/0    | 0/0                 |
| F  | 226       | 192/0   | 0/0                 |

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

## BRACING

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

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

## LOADING

TOTAL LOAD CASES: (7)

| MEMB. | CHORDS | MAX. FACTORED | FACTORED | VERT. LOAD | LC1 | MAX      | MAX    | MEMB. | WEBS | MAX. FACTORED | MAX      |
|-------|--------|---------------|----------|------------|-----|----------|--------|-------|------|---------------|----------|
|       |        | (LBS)         | (PLF)    |            |     | CSI (LC) | UNBRAC |       |      | (LBS)         | CSI (LC) |
| FR-TO |        |               |          | FROM       | TO  |          | LENGTH | FR-TO |      |               |          |
| A-B   | 0/34   | -111.9        | -111.9   | 0.15       | (1) | 10.00    |        | B-E   | 0/0  | 0.00          | (1)      |
| B-C   | -24/0  | -111.9        | -111.9   | 0.16       | (6) | 6.25     |        |       |      |               |          |
| C-D   | 0/53   | -111.9        | -111.9   | 0.15       | (6) | 10.00    |        |       |      |               |          |
| E-C   | 0/20   | 0.0           | 0.0      | 0.00       | (4) | 10.00    |        |       |      |               |          |
| F-B   | -313/0 | 0.0           | 0.0      | 0.03       | (1) | 7.81     |        |       |      |               |          |
| F-E   | 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 | =    | 3.0  | PSF |
| BOT CH.    | LL | =    | 0.0  | PSF |
|            | DL | =    | 7.3  | PSF |
| TOTAL LOAD | =  | 45.1 | PSF  |     |

## 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 CBC 2018, ABC 2019
- 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) =  $L/999$  (0.01")  
ALLOWABLE DEFL. (TL) =  $L/360$  (0.19")  
CALCULATED VERT. DEFL. (TL) =  $L/999$  (0.02")CSI: TC=0.16/1.00 (B-C-6), BC=0.02/1.00 (E-F-4),  
WB=0.00/1.00 (B-E-1), SS=0.12/1.00 (C-D-6)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= 0.28 (B) (INPUT = 0.90)

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

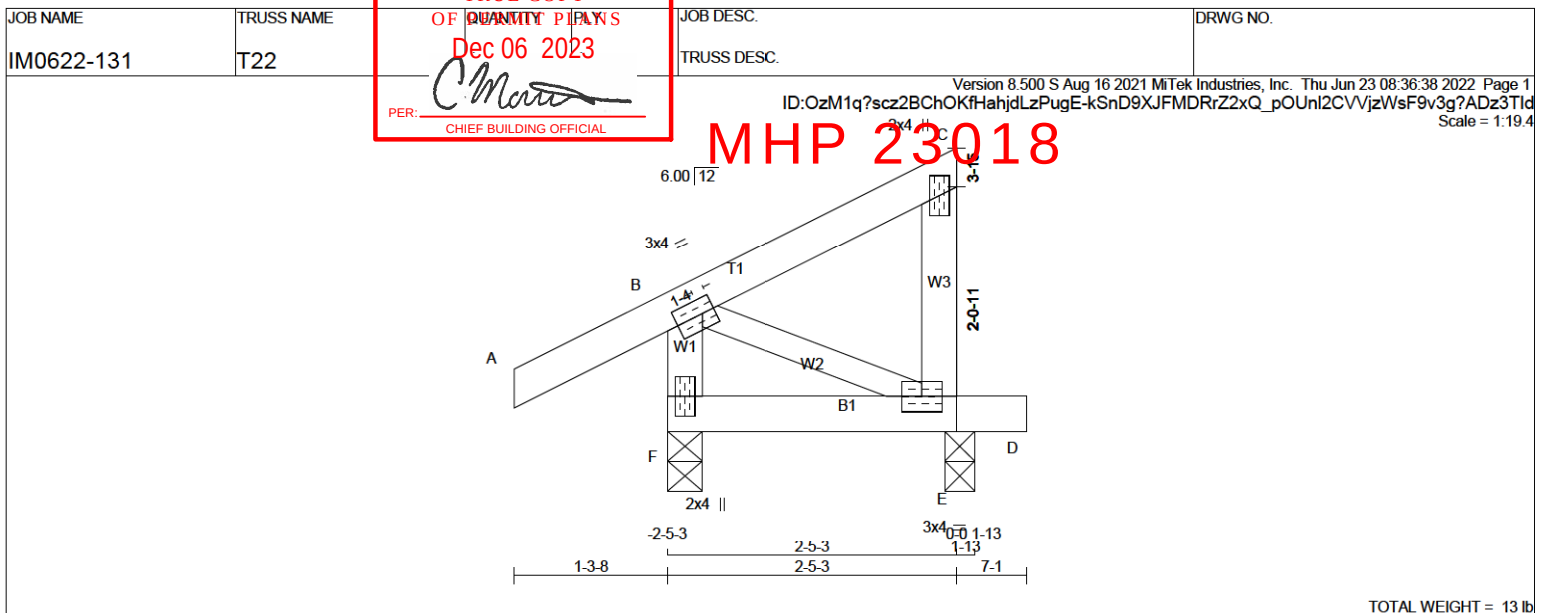


June 23, 2022

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







| LUMBER   | N. L. G. A. RULES | CHORDS | SIZE | LUMBER | DESCR. |
|----------|-------------------|--------|------|--------|--------|
| A - C    | 2x4               | DRY    | No.2 | SPF    |        |
| E - C    | 2x4               | DRY    | No.2 | SPF    |        |
| F - B    | 2x4               | DRY    | No.2 | SPF    |        |
| F - D    | 2x4               | DRY    | No.2 | SPF    |        |
| ALL WEBS | 2x3               | DRY    | No.2 | SPF    |        |
| DRY:     | SEASONED LUMBER.  |        |      |        |        |

**PLATES (table is in inches)**

| JT | TYPE    | PLATES | W   | LEN | Y    | X    |
|----|---------|--------|-----|-----|------|------|
| B  | TMVW-t  | MT20   | 3.0 | 4.0 | 1.50 | 1.25 |
| C  | TMV+p   | MT20   | 2.0 | 4.0 |      |      |
| E  | BMVW1-t | MT20   | 3.0 | 4.0 |      |      |
| F  | BMV1+p  | MT20   | 2.0 | 4.0 |      |      |

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

|    | FACTORED<br>GROSS REACTION |      | MAXIMUM FACTORED<br>GROSS REACTION |      |        | INPUT<br>BRG | REQRD<br>BRG |
|----|----------------------------|------|------------------------------------|------|--------|--------------|--------------|
| JT | VERT                       | HORZ | DOWN                               | HORZ | UPLIFT | IN-SX        | IN-SX        |
| E  | 169                        | 0    | 169                                | 0    | 0      | 3-0          | 1-8          |
| F  | 310                        | 0    | 310                                | 0    | 0      | 3-8          | 1-8          |

**UNFACTORED REACTIONS**

| JT | 1ST LCASE | MAX. MIN. COMPONENT REACTIONS | SNOW  | LIVE  | PERM. LIVE | WIND  | DEAD   | SOIL  |
|----|-----------|-------------------------------|-------|-------|------------|-------|--------|-------|
| E  | 118       | 85 / 0                        | 0 / 0 | 0 / 0 | 0 / 0      | 0 / 0 | 34 / 0 | 0 / 0 |
| F  | 212       | 179 / 0                       | 0 / 0 | 0 / 0 | 0 / 0      | 0 / 0 | 33 / 0 | 0 / 0 |

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

**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: (7)

| MEMB. | CHORDS   | MAX. FACTORED FORCE (LBS) | FACTORED VERT. LOAD (PLF) | MAX. LC1 | MAX. UNBRACED LENGTH | MEMB. | WEBS  | MAX. FACTORED FORCE (LBS) | MAX. LC1 |
|-------|----------|---------------------------|---------------------------|----------|----------------------|-------|-------|---------------------------|----------|
| FR-TO |          |                           | FROM                      | TO       |                      | FR-TO |       |                           |          |
| A-B   | 0 / 34   | -111.9                    | -111.9                    | 0.15 (1) | 10.00                | B-E   | 0 / 0 | 0.00 (1)                  |          |
| B-C   | 0 / 0    | -111.9                    | -111.9                    | 0.11 (1) | 10.00                |       |       |                           |          |
| E-C   | -136 / 0 | 0.0                       | 0.0                       | 0.02 (1) | 7.81                 |       |       |                           |          |
| F-B   | -288 / 0 | 0.0                       | 0.0                       | 0.03 (1) | 7.81                 |       |       |                           |          |
| F-E   | 0 / 0    | -18.2                     | -18.2                     | 0.03 (4) | 10.00                |       |       |                           |          |
| E-D   | 0 / 0    | -18.2                     | -18.2                     | 0.01 (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 | =    | 3.0  | PSF |
| BOT CH.    | LL | =    | 0.0  | PSF |
|            | DL | =    | 7.3  | PSF |
| TOTAL LOAD | =  | 45.1 | PSF  |     |

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

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

THIS DESIGN COMPLIES WITH:

- PART 9 OF BCBC 2018, ABC 2019
- 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. (TL) =  $L/360$  (0.19")  
CALCULATED VERT. DEFL. (TL) =  $L/999$  (0.00")

**CANTILEVER DEFLECTION:**

ALLOWABLE DEFL. (TL) =  $L/120$  (0.19")  
CALCULATED VERT. DEFL. (TL) =  $L/999$  (0.00")

CSI: TC=0.15/1.00 (A-B-1), BC=0.03/1.00 (E-F-4),  
WB=0.00/1.00 (B-E-1), SSI=0.11/1.00 (A-B-1)

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

COMPANION LIVE LOAD FACTOR = 1.00

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

**NAIL VALUES**

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

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.25 (B) (INPUT = 0.90)  
JSI METAL= 0.06 (F) (INPUT = 1.00)



June 23, 2022

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



MiTek



STANDARD DETAIL MSD2015-H

MHP 23018

Issued: MARCH 1, 2022  
Expiry: APRIL 30, 2024

## TOE-NAIL CAPACITY DETAILS

## LATERAL AND WITHDRAWAL RESISTANCE OF BEARING ANCHORAGE BY TOE-NAILS

| NAIL TYPE      | Length<br>(in) | Diameter<br>(in) | LATERAL Resistance per nail<br>(Lbs.) |        | WITHDRAWAL Resistance per nail<br>(Lbs.) |        |
|----------------|----------------|------------------|---------------------------------------|--------|------------------------------------------|--------|
|                |                |                  | SPF                                   | D. FIR | SPF                                      | D. FIR |
| COMMON WIRE    | 3.00           | 0.144            | 122                                   | 139    | 30                                       | 42     |
|                | 3.25           | 0.144            | 127                                   | 144    | 32                                       | 45     |
|                | 3.50           | 0.160            | 152                                   | 173    | 38                                       | 52     |
| COMMON SPIRAL  | 3.00           | 0.122            | 96                                    | 108    | 26                                       | 36     |
|                | 3.25           | 0.122            | 97                                    | 108    | 28                                       | 40     |
|                | 3.50           | 0.152            | 142                                   | 161    | 36                                       | 50     |
| 3.25" Gun nail | 3.25           | 0.120            | 94                                    | 105    | 28                                       | 39     |

Note: If using truss with D. Fir lumber and SPF bearing plate, use tabulated SPF values in table.

| Nail type:     | Common wire                 | Common spiral | Common wire | Common spiral | Gun Nail |
|----------------|-----------------------------|---------------|-------------|---------------|----------|
| Diameter (in.) | 0.160                       | 0.152         | 0.144       | 0.122         | 0.120    |
| Length (in.)   | 3.50                        | 3.50          | 3.00        | 3.00          | 3.25     |
| LUMBER         | MAXIMUM NUMBER OF TOE-NAILS |               |             |               |          |
| 2x4 SPF        | 2                           | 2             | 3           | 3             | 3        |
| 2x6 SPF        | 4                           | 4             | 4           | 5             | 5        |
| 2x4 D. FIR     | 2                           | 2             | 2           | 2             | 2        |
| 2x6 D. FIR     | 3                           | 3             | 3           | 4             | 4        |

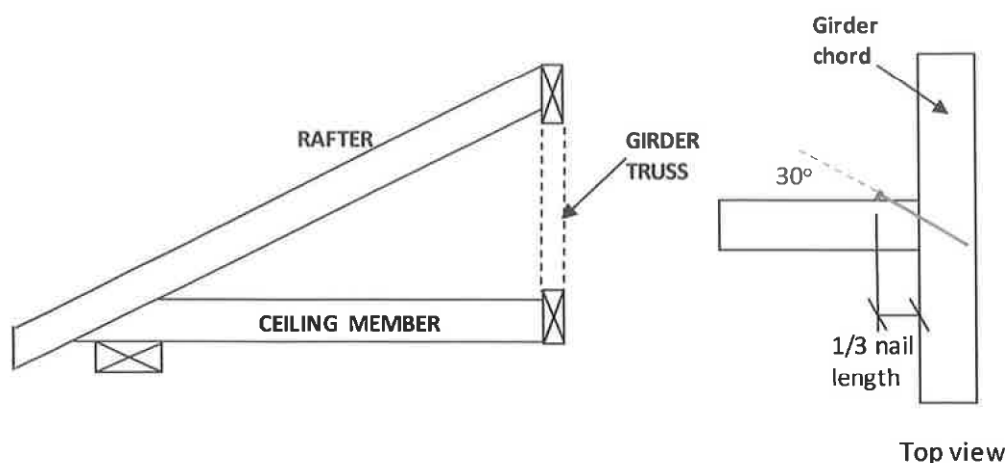


Figure 1: Toe-Nailing Rafter / Ceiling Member to Girder Truss



MiTek®



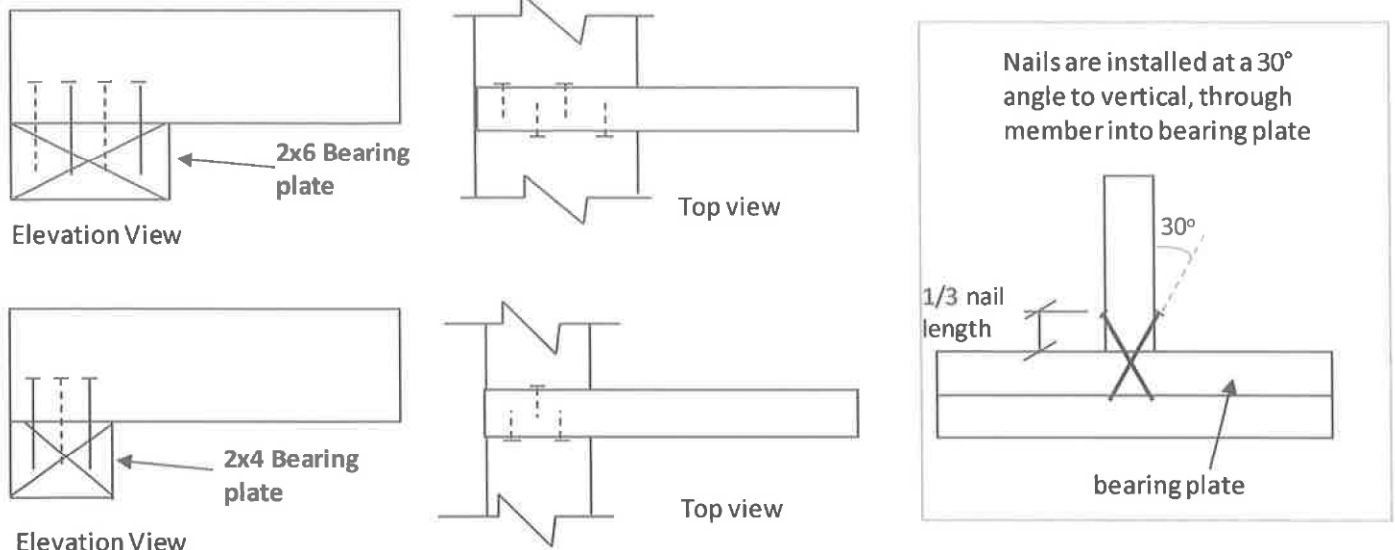
STANDARD DETAIL MSD2015-H

MHP 23018

Issued: MARCH 1, 2022  
Expiry: APRIL 30, 2024

## TOE-NAIL CAPACITY DETAILS

Figure 2: Toe-Nail Anchorage to Bearing Plate for Uplift



## NOTES:

1. Rafter and ceiling members may be connected to top and bottom chords of girder truss by toe-nailing the members into the girder chords (see fig. 1), provided the factored vertical reactions of the supported members do not exceed the lateral resistance of the toe-nails. Mechanical connectors (hangers) are required if factored vertical reactions exceed the toe-nail capacity, or if the connection must resist horizontal loads (loads perpendicular to the face of girder or rafter).
2. Trusses, rafters or ceiling members may be anchored to the bearing plate with toe-nails (see fig. 2), provided that the factored uplift reactions due to **wind or earthquake loads** do not exceed the **withdrawal resistance of the toe-nails**. Mechanical anchors (tie-downs) are required for reactions that exceed the toe-nail withdrawal capacity. Toe-nail anchorage to bearing plates is **NOT** permitted if uplift reactions are generated from gravity loads (snow, floor live, dead).
3. Tabulated toe-nail resistances on page 1 are for **one** toe-nail. Multiply unit values by the number of nails used in the connection. Maximum number of nails in a connection shall not exceed the tabulated limits shown on page 1 for a given lumber size /species.
4. Nail values are based on specific gravity of  $G = 0.42$  (SPF) and  $G = 0.49$  (D. Fir).
5. Toe-nails shall be driven at approximately  $1/3$  the nail length from the edge of the joist/truss chord and driven at an angle of  $30^\circ$  to the grain of the member.
6. For wind / earthquake loads, tabulated lateral resistances may be multiplied by 1.15 ( $K_D$  factor). No increases are permitted for tabulated withdrawal resistances.
7. Lumber must be dry ( $< 19\%$  moisture content) at the time of nail installation.
8. Nail values in this table comply with CSA O86-19, Clause 12.9.

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## STANDARD DETAIL MSD2015-J

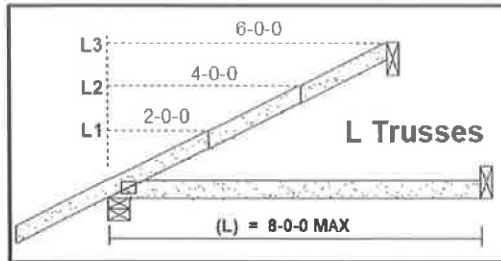
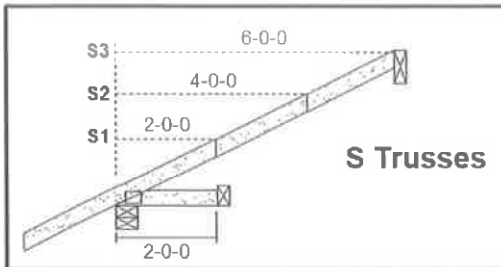
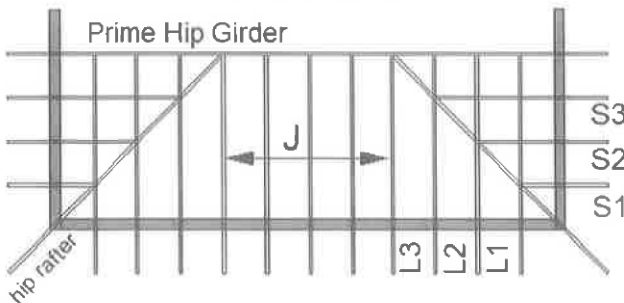
MHP 23018

Issued: MARCH 17, 2021

Expiry: APRIL 30, 2023

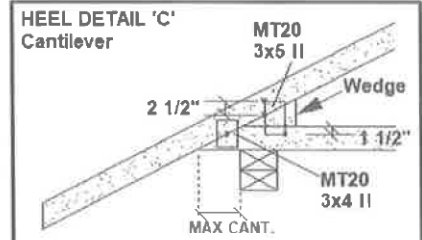
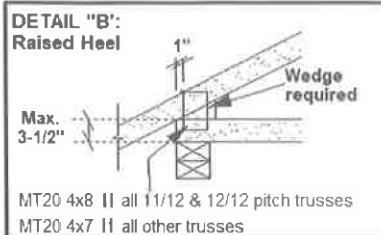
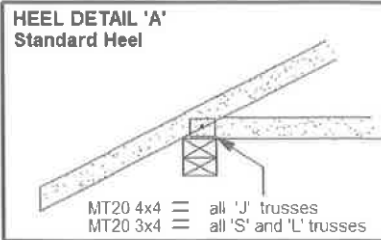
## STANDARD HIP END FRAMING

## PLAN VIEW



## Specified Load Rating:

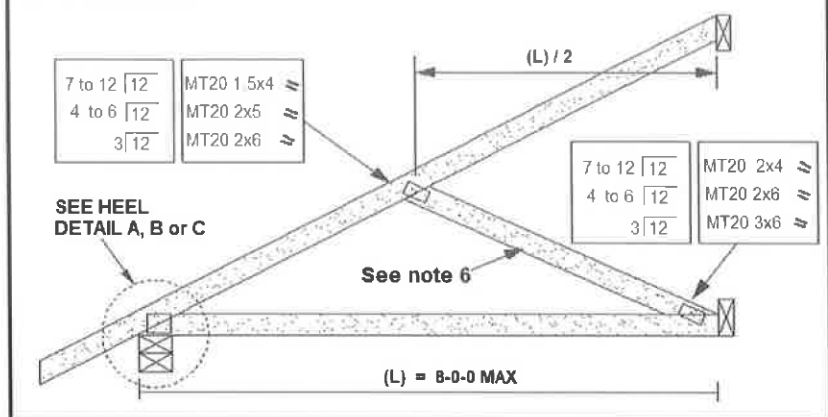
|                    |                  |
|--------------------|------------------|
| Top chord Live:    | 51.0 PSF or less |
| Top chord Dead:    | 6.0 PSF or less  |
| Bottom chord Live: | 0.0 PSF          |
| Bottom chord Dead: | 7.3 PSF or less  |



## CANTILEVER DETAIL "C"

| SLOPE | MAX CANT. | WEDGE PLATE | WEDGE SIZE |
|-------|-----------|-------------|------------|
| 3/12  | 17"       | 3 X 5       | 2 X 3      |
| 4/12  | 14"       | 3 X 5       | 2 X 3      |
| 5/12  | 12"       | 3 X 5       | 2 X 4      |
| 6/12  | 10"       | 3 X 5       | 2 X 4      |
| 7/12  | 9"        | 3 X 5       | 2 X 6      |
| 8/12  | 8 5/8"    | 3 X 5       | 2 X 6      |
| 9/12  | 8"        | 3 X 5       | 2 X 6      |
| 10/12 | 7 5/8"    | 3 X 5       | 2 X 6      |

## J Trusses



PEO

Certificate No. 10889485

## NOTES:

1. This detail is valid only for projects conforming to **PART 9 NBCC 2015** that do not require a wind analysis to be incorporated into the design of the trusses.
2. Overhang length shall not exceed 24 inches.
3. All lumber shall be 2x4 SPF (or D-Fir) DRY No. 2 grade or better.
4. All plates specified are MITEK MT20, pressed into both faces of each truss. Heel plates of all trusses shall conform to heel details 'A', 'B' or 'C'.
5. Diagonal hip rafter design shall conform to section 9.23.14.6 of NBCC 2015.
6. For 6.0 ft. or less span, diagonal web on truss 'J' is optional. Girder design must reflect choice of partial jack ('J' with diagonal web) or open jack ('J' without diagonal web)
7. All truss-to-rafter and truss-to-truss connections shall be specified as per MITEK standard detail 'MSD2015-H: Toe-Nail Capacity Details'





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STANDARD DETAIL MSD2015-K

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## STANDARD GABLE END DETAIL

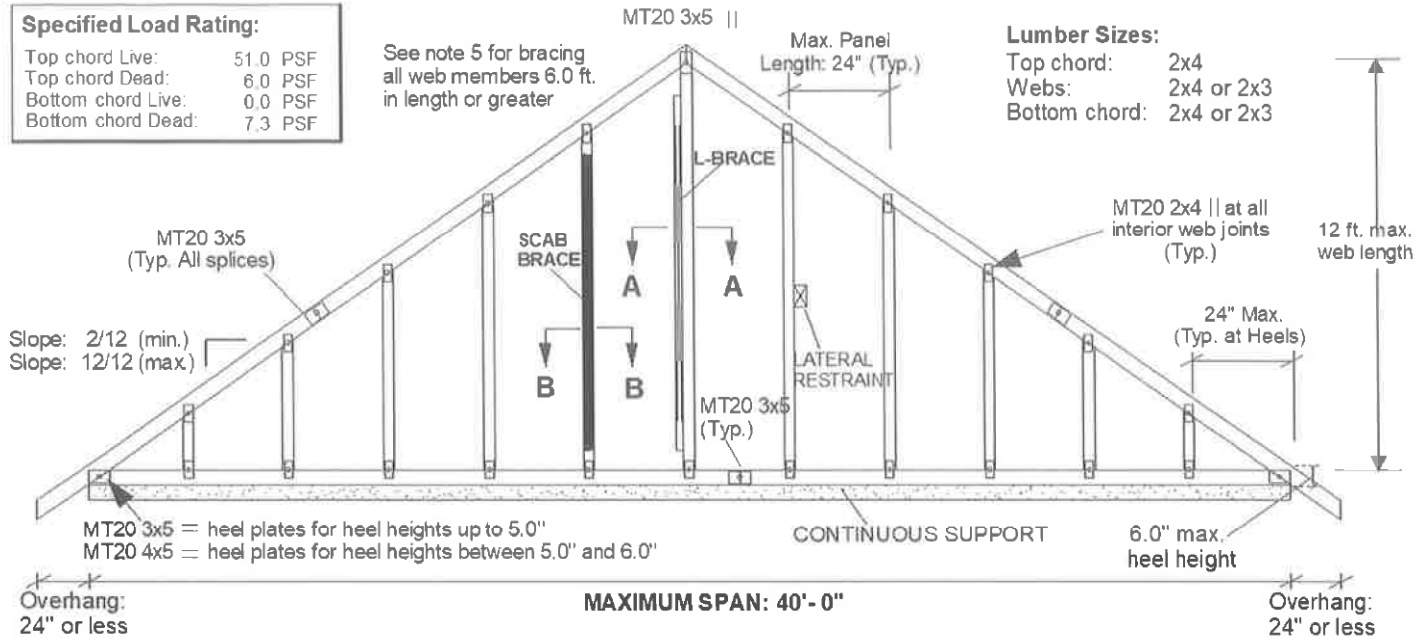
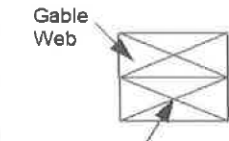
## Specified Load Rating:

|                    |          |
|--------------------|----------|
| Top chord Live:    | 51.0 PSF |
| Top chord Dead:    | 6.0 PSF  |
| Bottom chord Live: | 0.0 PSF  |
| Bottom chord Dead: | 7.3 PSF  |

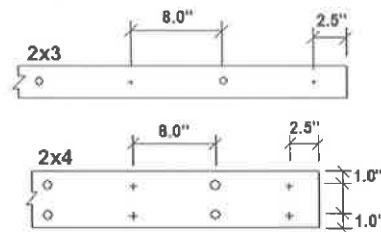
See note 5 for bracing  
all web members 6.0 ft.  
in length or greater

## Lumber Sizes:

|               |            |
|---------------|------------|
| Top chord:    | 2x4        |
| Webs:         | 2x4 or 2x3 |
| Bottom chord: | 2x4 or 2x3 |

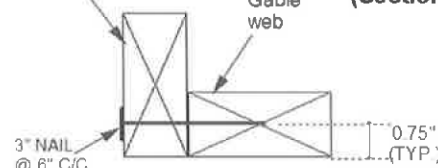
SCAB BRACE DETAIL  
(Section B-B)

SPF No. 2 DRY Scab, same  
size as web. Scab brace  
must cover 90% of web length



- + 0.122"x3.0" nail driven from front face
- o 0.122"x3.0" nail driven from back face

2x4 SPF No. 2  
DRY L-Brace

L BRACE DETAIL  
(Section A-A)

Fasten L-Brace to narrow edge of web with one row of 0.122" x 3.0" nails spaced at 6.0" c/c along entire length of web. Brace must cover 90% of the web length. Respect a 2.5" minimum end distance.

## Notes:

1. This detail is only valid for projects conforming to **Part 9, NBCC 2015** that do not require a wind analysis to be incorporated into the design of the truss.
2. This detail is for vertical (gravity) load rating of the truss only. Truss must be continuously supported over the entire length of bottom chord.
3. Maximum web length not to exceed 12.0 ft. Spacing of gable stud webs in the truss not to exceed 24 inches cc.
4. Splice joints shall not be located in the first panel adjacent to the heel joint or peak joint.
5. Lateral restraint required at half-length of all webs over 6.0 ft. long. Alternatively install an L-Brace or scab brace as shown above. Scab braces shall be limited to 10 ft. long webs or less.
6. All plates are MITTEK MT20 pressed into both faces of truss.
7. All lumber to be SPF (or D-Fir) DRY and of No.2 grade or better.
8. Additional building bracing is typically installed to brace the face of the end wall assembly. See BCSI Canada 'Building Designer Responsibilities for Gable End Frame Bracing' for additional information on building bracing for gable-end assemblies.

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