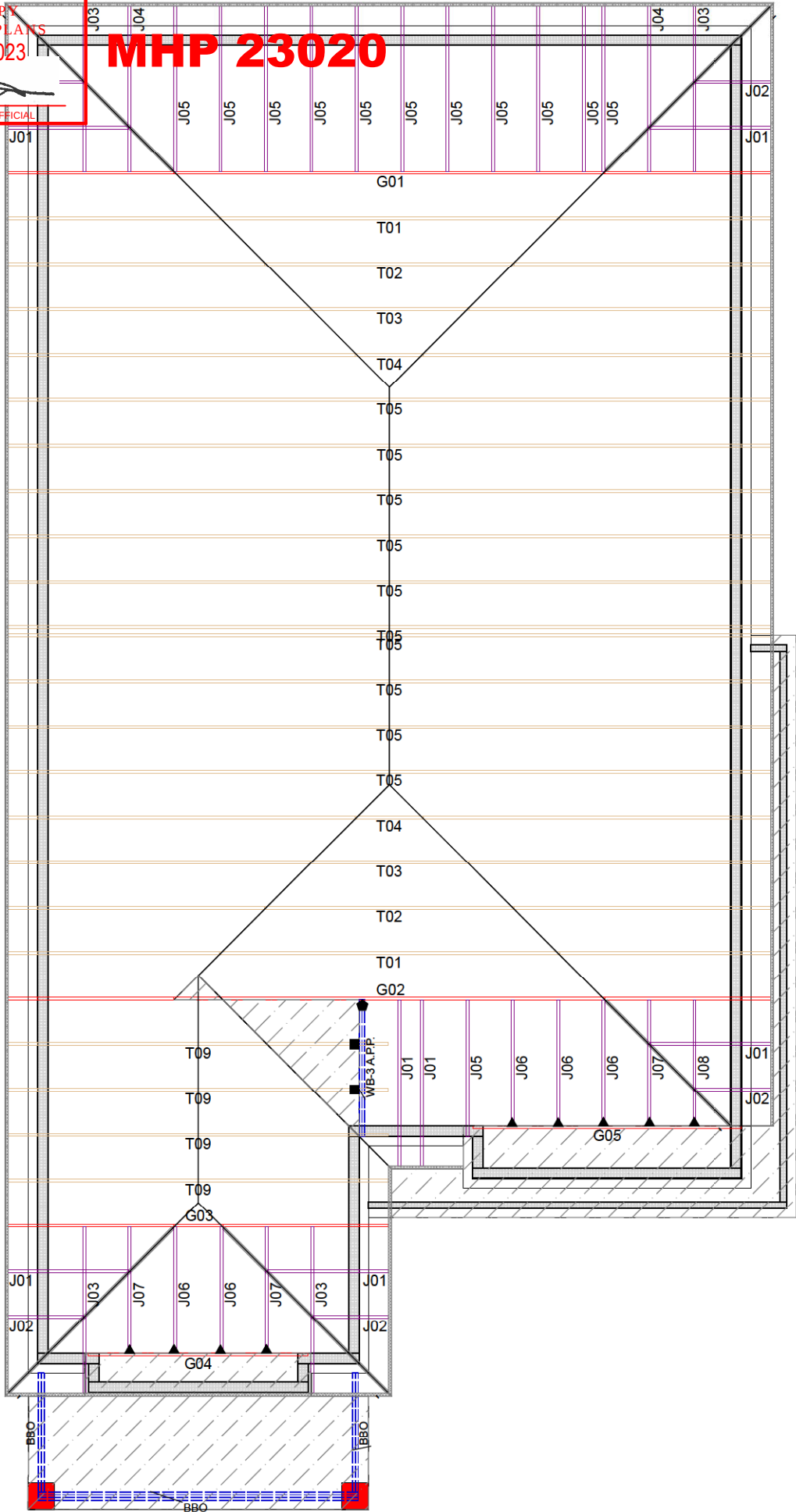


CORPORATION OF THE CITY OF OSHAWA
TRUE COPY
OF PERMIT PLANS
Dec 06 2023
PER: 
CHIEF BUILDING OFFICIAL

MHP 23020



Hanger Name	Symbol	QTY
LUS24	▲	9
LJS26DS	■	2
	●	0
HGUS26-2	⬆	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 #	22-00197R0
Address	ZADORRA PENROSE 3-3 OSHAWA,ON
Model	PENROSE 3-3
Sales Rep	RALPH MIRIGELLO
Designer	BB
Date	6/28/2022
Path	S:\DESIGN\KLU\CUSTOMERS\GREENPARK\ZADORRA ESTATES\MODELS\PENROSE 3\PENROSE 3-3\T

DESIGN INFORMATION

Code	NBCC 2015
Bldg	Residential - HSB (NBCC Part 9)
TC LL	34.8 lb/ft ²
TC DL	3.0 lb/ft ²
BC LL	0.0 lb/ft ²
BC DL	7.3 lb/ft ²
Deflection	LL=L/360 TL=L/360
Spacing	24" O/C unless otherwise noted
Complies With	OBC 2012 (2019 Amendment) CSA O86-14 and TPIC 2014

IMPORTANT INFORMATION

Hangers and Fasteners to be installed as per manufacturer

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

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

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

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

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

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

KOTT Inc.
14 Anderson Blvd.
Uxbridge, ON
905.642.4400



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



MHP 23020

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")**

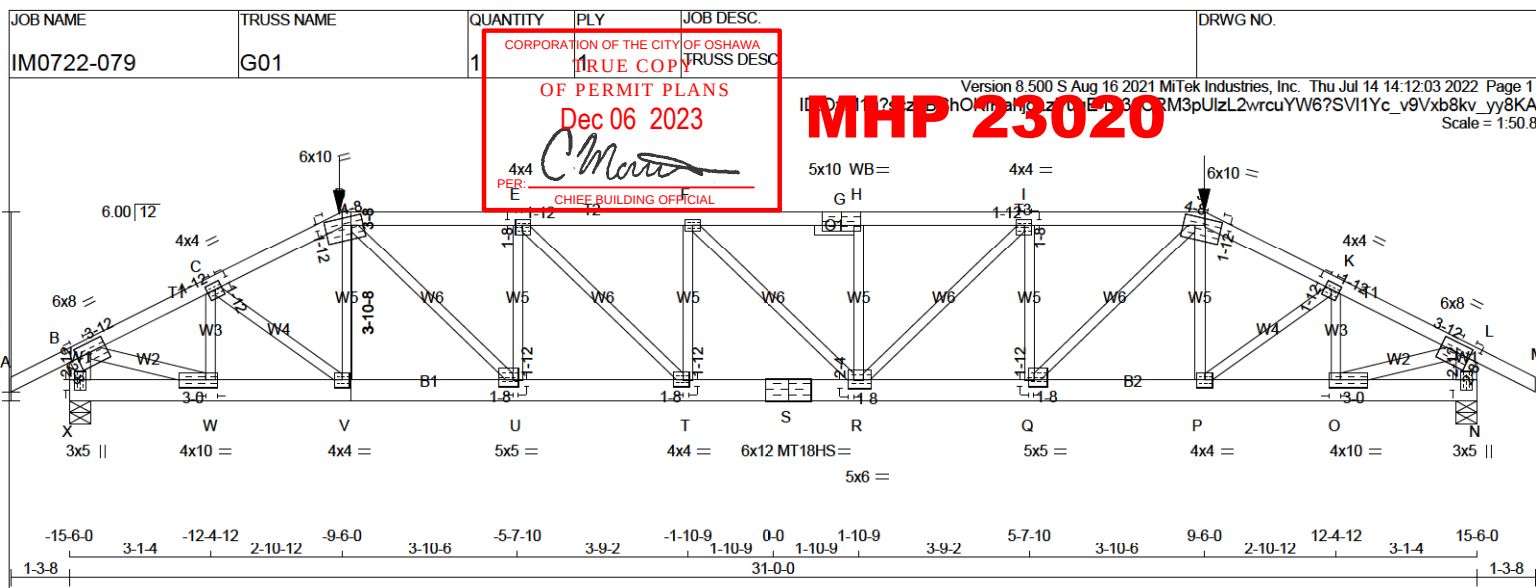
SUPPORTS

- 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.





LUMBER				
N. L. G. A.	RULES			
CHORDS	SIZE		LUMBER	DESCR.
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 EXCEPT	2x3	DRY	No.2	SPF
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	TMWV-t	MT20	6.0	8.0	2.50	3.75
C	TMWV-t	MT20	4.0	4.0	1.75	1.75
D	TTWV-m	MT20	6.0	10.0	1.75	4.50
E	TMWV-t	MT20	4.0	4.0	1.50	1.75
F	TMWV-t	MT20	3.0	4.0		
G						
H	TSW-I	MT20	5.0	10.0	Edge	5.00
I	TMWV-t	MT20	4.0	4.0	1.50	1.75
J	TTWV-m	MT20	6.0	10.0	1.75	4.50
K	TMWV-t	MT20	4.0	4.0	1.75	1.75
L	TMV-t	MT20	6.0	8.0	2.50	3.75
N	BMV1+p	MT20	3.0	5.0	2.75	1.50
O	BMWV-t	MT20	4.0	10.0	2.00	3.00
P	BMWV-t	MT20	4.0	4.0		
Q	BMWV-t	MT20	5.0	5.0	1.75	1.50
R	BMWVW-t	MT20	5.0	6.0	2.25	1.50
S	BS-t	MT18HS	6.0	12.0		
T	BMWV-t	MT20	4.0	4.0	1.75	1.50
U	BMWV-t	MT20	5.0	5.0	1.75	1.50
V	BMWV-t	MT20	4.0	4.0		
W	BMWV-t	MT20	4.0	10.0	2.00	3.00
X	BMV1+p	MT20	3.0	5.0	2.75	1.50

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



July 14, 2022

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

BUILDING DESIGNER

BEARINGS

	FACTORED GROSS REACTION		MAXIMUM FACTORED GROSS REACTION			INPUT BRG	REQRD BRG
JT	VERT	HORZ	DOWN	HORZ	UPLIFT	IN-SX	IN-SX
X	3864	0	3864	0	0	5-8	4-12
N	3864	0	3864	0	0	5-8	4-12

UNFACTORED REACTIONS

1ST LCASE		MAX./MIN. COMPONENT REACTIONS					
JT	COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
X	2677	2071 / 0	0 / 0	0 / 0	0 / 0	605 / 0	0 / 0
N	2677	2071 / 0	0 / 0	0 / 0	0 / 0	605 / 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 = 2.37 FT.
MAX. UNBRACED BOTTOM CHORD LENGTH = 10.00 FT OR RIGID CEILING DIRECTLY
APPLIED

ALL PITCH BREAKS AND PERIMETER CORNER JOINTS MUST BE Laterally RESTRAINED

LOADING

LOADING
TOTAL LOAD CASES: (4)

CHORDS					WEBS				
MAX. FACTORED		FACTORED			MAX. FACTORED		FACTORED		
MEMB.	FORCE (LBS)	VERT. (PLF)	LOAD LC1	MAX. CSI (LC)	MAX. UNBRAC	MEMB.	FORCE (LBS)	MAX. CSI (LC)	
FR-TO		FROM TO			LENGTH	FR-TO			
A-B	0 / 34	-111.9	-111.9	0.16 (1)	10.00	W-C	-1218 / 0	0.21 (1)	
B-C	-5113 / 0	-111.9	-111.9	0.52 (1)	2.66	C-V	0 / 810	0.20 (1)	
C-D	-5858 / 0	-111.9	-111.9	0.59 (1)	2.37	V-D	-228 / 77	0.06 (1)	
D-E	-7120 / 0	-210.9	-210.9	0.58 (1)	2.83	D-U	0 / 2665	0.66 (1)	
E-F	-8016 / 0	-210.9	-210.9	0.65 (1)	2.59	U-E	-1783 / 0	0.46 (1)	
F-G	-7989 / 0	-210.9	-210.9	0.56 (1)	2.71	E-T	0 / 1272	0.31 (1)	
G-H	-7989 / 0	-210.9	-210.9	0.56 (1)	2.71	T-F	-751 / 0	0.19 (1)	
H-I	-7989 / 0	-210.9	-210.9	0.65 (1)	2.59	F-R	-38 / 0	0.02 (1)	
I-J	-7126 / 0	-210.9	-210.9	0.58 (1)	2.83	R-H	-760 / 0	0.20 (1)	
J-K	-5857 / 0	-111.9	-111.9	0.59 (1)	2.37	R-I	0 / 1225	0.30 (1)	
K-L	-5114 / 0	-111.9	-111.9	0.52 (1)	2.66	Q-I	-1758 / 0	0.46 (1)	
L-M	0 / 34	-111.9	-111.9	0.16 (1)	10.00	Q-J	0 / 2675	0.66 (1)	
X-B	-3736 / 0	0.0	0.0	0.26 (1)	5.49	P-J	-234 / 76	0.06 (1)	
N-L	-3736 / 0	0.0	0.0	0.26 (1)	5.49	P-K	0 / 808	0.20 (1)	
						O-K	-1216 / 0	0.21 (1)	
X-W	0 / 0	-34.4	-34.4	0.09 (1)	10.00	B-W	0 / 4724	0.84 (1)	
W-V	0 / 4583	-34.4	-34.4	0.33 (1)	10.00	O-L	0 / 4724	0.84 (1)	
V-U	0 / 5217	-34.4	-34.4	0.31 (1)	10.00				
U-T	0 / 7120	-34.4	-34.4	0.43 (1)	10.00				
T-S	0 / 8016	-34.4	-34.4	0.50 (1)	10.00				
S-R	0 / 8016	-34.4	-34.4	0.50 (1)	10.00				
R-Q	0 / 7127	-34.4	-34.4	0.45 (1)	10.00				
Q-P	0 / 5215	-34.4	-34.4	0.31 (1)	10.00				
P-O	0 / 4583	-34.4	-34.4	0.33 (1)	10.00				
O-N	0 / 0	-34.4	-34.4	0.09 (1)	10.00				

FACTORED CONCENTRATED LOADS (LBS)

JT	LOC.	LC1	MAX-	MAX+	FACE	DIR.	TYPE	HEEL	CONN
D	6-0-0	-503	-503	—	FRONT	VERT	TOTAL	—	C1
J	25-0-0	-503	-503	—	FRONT	VERT	TOTAL	—	C1

CONNECTION REQUIREMENTS

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

DESIGN CRITERIA

SPECIFIED LOADS:

TOP	CH.	LL =	34.8	PSF
		DL =	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: CPrimeHip
SIDE SETBACK = 6-0-0
END SETBACK = 6-0-0
END WALL WIDTH = 5-8
CORNER FRAMING TYPE: CONVENTIONAL
END JACK TYPE: CONVENTIONAL
APPLIED TO FRONT SIDE
- ADDTL LOADS BASED ON 55 % OF GSL

THIS TRUSS IS DESIGNED FOR RESIDENTIAL
OR SMALL BUILDING REQUIREMENTS OF
PART 9, NBCC 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)= $L/360$ (1.03")
CALCULATED VERT. DEFL.(LL) = $L/999$ (0.37")
ALLOWABLE DEFL.(TL)= $L/360$ (1.03")
CALCULATED VERT. DEFL.(TL)= $L/628$ (0.59")

CSI: TC=0.65/1.00 (H-I:1), BC=0.50/1.00 (R-T:1),
WB=0.84/1.00 (L-O:1), SSI=0.41/1.00 (I-J: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) (PSI)		SHEAR (PLI)		SECTION (PLI)	
	MAX	MIN	MAX	MIN	MAX	MIN
MT20	650	371	1747	788	1987	1873
MT18HS	586	403	2455	1382	3163	3004

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.90 (G) (INPUT = 0.90)
JSI METAL= 0.94 (L) (INPUT = 1.00)

CONTINUED ON PAGE 2



JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
IM0722-079	G01	1	1	CORPORATION OF THE CITY OF OSHAWA TRUE COPY TRUSS DESC	

OF PERMIT PLANS

Dec 06 2023

PER:

CHIEF BUILDING OFFICIAL

Version 8.500 S Aug 16 2021 MiTek Industries, Inc. Thu Jul 14 14:12:03 2022 Page 2
Il 0 2 011 23 2 5 hOnm and 2 7 6 8 3 3 RM3pUizL2wrcuYW6?SV11Yc_v9Vxb8kv_yy8KA**MHP 23020**

WB - INDICATES BLOCKING REQUIRED

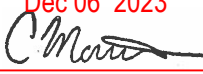


July 14, 2022

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JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
IM0722-079	G02	1	1	TRUE COPY	

CORPORATION OF THE CITY OF OSHAWA
TRUE COPY
OF PERMIT PLANS
Dec 06 2023

PER: _____
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MHP 23020

Version 8.500 S Aug 16 2021 MiTek Industries, Inc. Thu Jul 14 14:12:04 2022 Page 2
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NAIL VALUES

PLATE	GRIP(DRY)	SHEAR	SECTION
(PSI)	(PLI)	(PLI)	(PLI)
	MAX MIN	MAX MIN	MAX MIN
MT20	650 371	1747 788	1987 1873
MT18HS	586 403	2455 1382	3163 3004

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

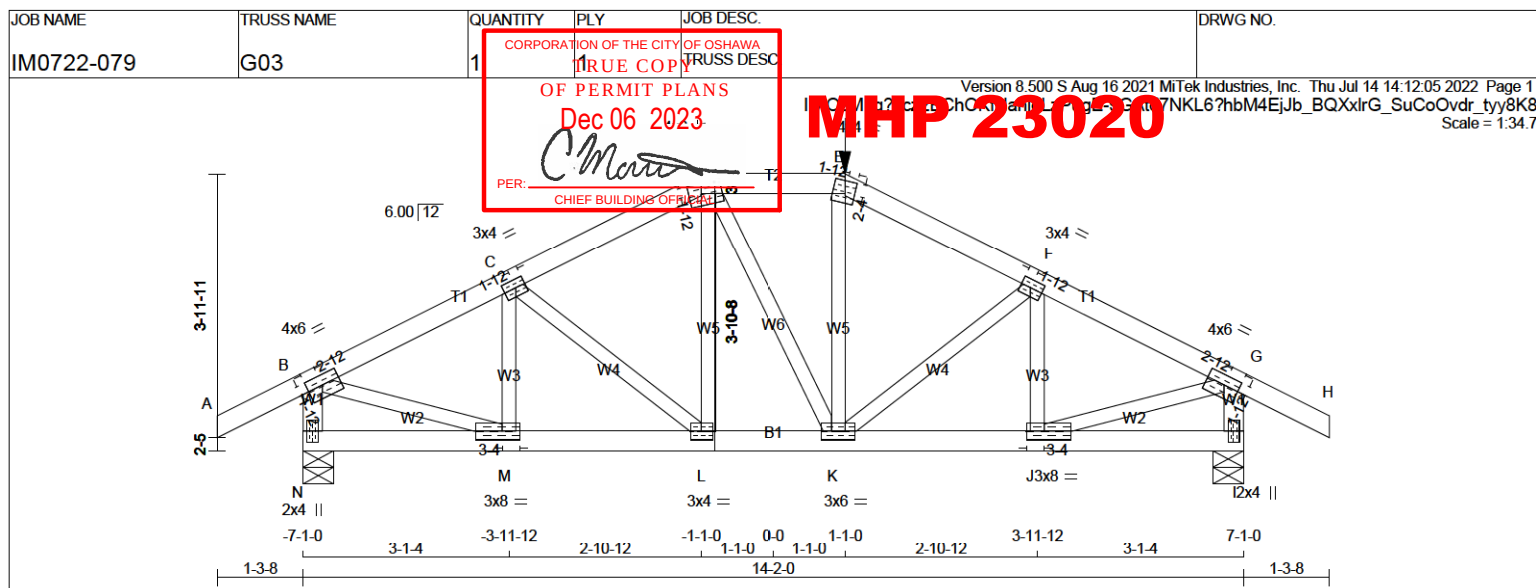
JSI GRIP= 0.90 (W) (INPUT = 0.90)
 JSI METAL= 0.97 (I) (INPUT = 1.00)



July 14, 2022

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TOTAL WEIGHT = 62 lb

LUMBER			
N. L. G. A. RULES			
CHORDS	SIZE	LUMBER	DESCR
A - D	2x4	DRY No.2	SPF
D - E	2x4	DRY No.2	SPF
E - H	2x4	DRY No.2	SPF
N - B	2x4	DRY No.2	SPF
I - G	2x4	DRY No.2	SPF
N - I	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	TMW-t	MT20	4.0	6.0	1.75 2.75
C	TMWV-t	MT20	3.0	4.0	1.50 1.75
D	TTWV-m	MT20	4.0	6.0	1.75 2.25
E	TTW-m	MT20	4.0	4.0	2.25 1.75
F	TMWV-t	MT20	3.0	4.0	1.50 1.75
G	TMW-t	MT20	4.0	6.0	1.75 2.75
I	BMV1+p	MT20	2.0	4.0	
J	BMWV-t	MT20	3.0	8.0	1.50 3.25
K	BMWVW-t	MT20	3.0	6.0	
L	BMWV-t	MT20	3.0	4.0	
M	BMWV-t	MT20	3.0	8.0	1.50 3.25
N	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	REQRD BRG
	VERT	HORZ	DOWN	HORZ	UPLIFT	IN-SX	IN-SX
N	1799	0	1799	0	0	5-8	2-6
I	1799	0	1799	0	0	5-8	2-6

UNFACTORED REACTIONS

1ST LCASE		MAX/MIN COMPONENT REACTIONS					
JT	COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
N	1246	967 / 0	0 / 0	0 / 0	0 / 0	278 / 0	0 / 0
I	1246	967 / 0	0 / 0	0 / 0	0 / 0	278 / 0	0 / 0

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

BRACING

TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 4.44 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 CSI (LC)	MAX UNBRAC LENGTH	MEMB.	MAX. FACTORED FORCE (LBS)	MAX CSI (LC)
FR-TO		FROM TO			FR-TO		
A-B	0/34	-111.9	-111.9	0.16 (1)	10.00	M-C	-412/21 0.07 (1)
B-C	-2078/0	-111.9	-111.9	0.21 (1)	4.48	C-L	-48/6 0.02 (4)
C-D	-2115/0	-111.9	-111.9	0.21 (1)	4.44	L-D	0/118 0.04 (4)
D-E	-1879/0	-210.9	-210.9	0.23 (1)	4.63	D-K	0/2 0.00 (4)
E-F	-2116/0	-111.9	-111.9	0.21 (1)	4.44	K-E	0/120 0.05 (4)
F-G	-2078/0	-111.9	-111.9	0.21 (1)	4.48	K-F	-46/8 0.02 (4)
G-H	0/34	-111.9	-111.9	0.16 (1)	10.00	J-F	-413/19 0.07 (1)
N-B	-1747/0	0.0	0.0	0.19 (1)	6.26	B-M	0/1041 0.48 (1)
I-G	-1747/0	0.0	0.0	0.19 (1)	6.26	J-G	0/1941 0.48 (1)
N-M	0/0	-34.4	-34.4	0.08 (4)	10.00		
M-L	0/1871	-34.4	-34.4	0.38 (1)	10.00		
L-K	0/1878	-34.4	-34.4	0.35 (1)	10.00		
K-J	0/1871	-34.4	-34.4	0.38 (1)	10.00		
J-L	0/0	-34.4	-34.4	0.07 (4)	10.00		

FACTORED CONCENTRATED LOADS (LBS)

JT	LOC.	LC1	MAX-	MAX+	FACE	DIR.	TYPE	HEEL	CONN.
D	6-0-0	-503	-503	—	FRONT	VERT	TOTAL	—	C1
F	8-2-0	-503	-503	—	FRONT	VERT	TOTAL	—	C1

CONNECTION REQUIREMENTS

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



July 14, 2022

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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

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

THIS TRUSS IS DESIGNED FOR RESIDENTIAL
OR SMALL BUILDING REQUIREMENTS OF
PART 9, NBCC 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 (0.47")
CALCULATED VERT. DEFL.(LL) = L/ 999 (0.04")
ALLOWABLE DEFL.(TL)= L/360 (0.47")
CALCULATED VERT. DEFL.(TL) = L/ 999 (0.07")

CSI: TC=0.23/1.00 (D-E:1) , BC=0.38/1.00 (L-M:1) ,
WB=0.48/1.00 (B-M:1) , SSI=0.20/1.00 (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.

NAI L V A L U E S

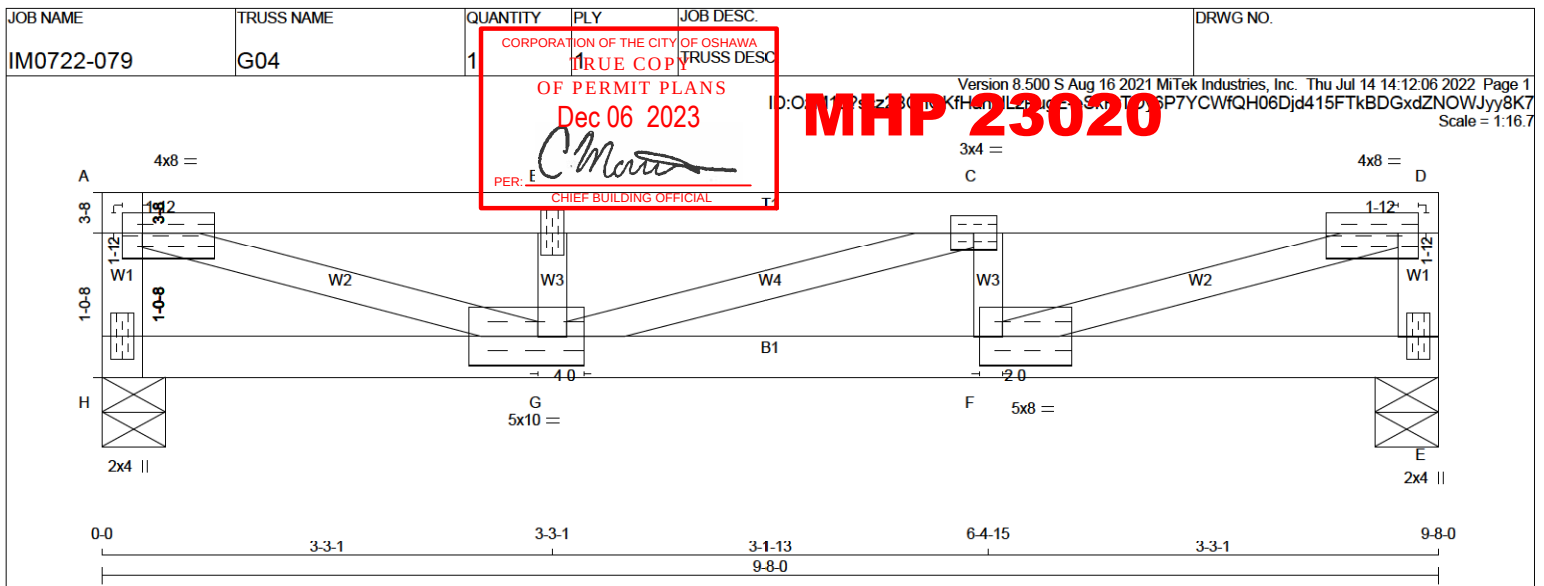
PLATE	GRIP(DRY) (PSI)		SHEAR (PLI)		SECTION (PLI)	
	MAX	MIN	MAX	MIN	MAX	MIN
MT20	650	371	1747	788	1987	1873

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg

JSI GRIP= 0.89 (B) (INPUT = 0.90)
JSI METAL= 0.53 (B) (INPUT = 1.00)



**LUMBER****N. L. G. A. RULES**

CHORDS	SIZE	LUMBER	DESCR.
H - A	2x4	DRY	No.2
A - D	2x4	DRY	No.2
E - D	2x4	DRY	No.2
H - E	2x4	DRY	No.2
ALL WEBS	2x3	DRY	No.2
DRY: SEASONED LUMBER.			

PLATES (table is in inches)

JT	TYPE	PLATES	W	LEN	Y	X
A	TMW-t	MT20	4.0	8.0	1.75	1.75
B	TMW-w	MT20	2.0	4.0		
C	TMWW-t	MT20	3.0	4.0		
D	TMW-t	MT20	4.0	8.0	1.75	1.75
E	BMV1+p	MT20	2.0	4.0		
F	BMWW-t	MT20	5.0	8.0	2.50	2.00
G	BMWW-t	MT20	5.0	10.0	2.50	4.00
H	BMV1+p	MT20	2.0	4.0		

DIMENSIONS, SUPPORTS AND LOADINGS SPECIFIED BY FABRICATOR TO BE VERIFIED BY**BUILDING DESIGNER****PROVIDE ADEQUATE DRAINAGE TO PREVENT PONDING****BEARINGS**

JT	FACTORED GROSS REACTION	MAXIMUM FACTORED GROSS REACTION	INPUT BRG	REQRD BRG
VERT	HORZ	DOWN	HORZ	UPLIFT
H	1345	0	1345	0
E	1345	0	1345	0

UNFACTORED REACTIONS

JT	1ST LCASE	MAX./MIN.	COMPONENT REACTIONS	WIND	DEAD	SOIL
COMBINED	SNOW	LIVE	PERM. LIVE			
H	949	634 / 0	0 / 0	0 / 0	315 / 0	0 / 0
E	949	634 / 0	0 / 0	0 / 0	315 / 0	0 / 0

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

BRACING

TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 3.05 FT.

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

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

LOADING

TOTAL LOAD CASES: (4)

MEMB.	CHORDS	MAX. FACTORED FORCE (LBS)	VERT. LOAD (PLF)	MAX. FACTORED VERT. LOAD (LC1)	MAX. FACTORED HORIZ. LOAD (LC2)	MAX. FACTORED UNBRACED LENGTH (FR-TO)	MEMB.	WEBS	MAX. FACTORED FORCE (LBS)	MAX. FACTORED VERT. LOAD (LC1)	MAX. FACTORED HORIZ. LOAD (LC2)
FR-TO							FR-TO				
H-A	-1123 / 0	0.0	0.0	0.17 (1)	6.67	A-G	0 / 3040	1.00 (1)			
A-B	-2896 / 0	-129.4	-129.4	0.51 (1)	3.05	G-B	-428 / 0	0.09 (1)			
B-C	-2896 / 0	-129.4	-129.4	0.44 (1)	3.15	G-C	-3 / 0	0.00 (1)			
C-D	-2898 / 0	-129.4	-129.4	0.51 (1)	3.05	F-C	-429 / 0	0.09 (1)			
E-D	-1123 / 0	0.0	0.0	0.17 (1)	6.67	F-D	0 / 3043	1.00 (1)			
H-G	0 / 0	-149.0	-149.0	0.33 (1)	10.00						
G-F	0 / 2898	-149.0	-149.0	0.92 (1)	10.00						
F-E	0 / 0	-149.0	-149.0	0.33 (1)	10.00						

DESIGN CRITERIA**SPECIFIED LOADS:**

TOP CH.	LL	=	34.8	PSF
DL	=	10.0	PSF	
BOT CH.	LL	=	0.0	PSF
DL	=	7.3	PSF	
TOTAL LOAD	=	52.1	PSF	

SPACING = 24.0 IN. C/C

LOADING IN FLAT SECTION BASED ON A SLOPE OF 0.24/12

GIRDER TYPE: CSStdGirder

START DISTANCE = 0-0

START SPAN CARRIED = 5-6-8

END DISTANCE = 9-8-0

END SPAN CARRIED = 5-6-8

END WALL WIDTH = 0-0

APPLIED TO FRONT SIDE OF BOTTOM CHORD.

- ADDTL. LOADS BASED ON 55 % OF GSL.

THIS TRUSS IS DESIGNED FOR RESIDENTIAL OR SMALL BUILDING REQUIREMENTS OF PART 9, NBCC 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) = $L/360$ (0.32")
 CALCULATED VERT. DEFL (LL) = $L/999$ (0.10")
 ALLOWABLE DEFL (TL) = $L/360$ (0.32")
 CALCULATED VERT. DEFL (TL) = $L/662$ (0.18")

 CSI: TC=0.51/1.00 (A-B-1), BC=0.92/1.00 (F-G-1),
 WB=1.00/1.00 (D-F-1), SSI=0.30/1.00 (E-F-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
 FLAT ROOF FACTOR = 0.75

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

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

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

 JSI GRIP= 0.88 (D) (INPUT = 0.90)
 JSI METAL= 0.69 (D) (INPUT = 1.00)


July 14, 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.



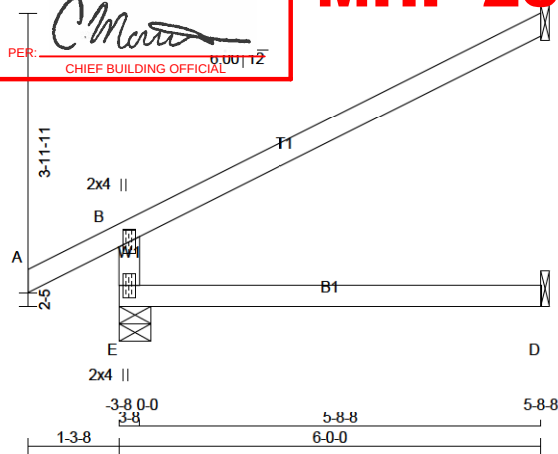
[illegible]

JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
IM0722-079	J01	7	TRUE COPY	TRUSS DESC	

CORPORATION OF THE CITY OF OSHAWA

OF PERMIT PLANS
Dec 06 2023PER: *C. Monte*
CHIEF BUILDING OFFICIAL

MHP 23020



TOTAL WEIGHT = 7 X 17 = 120 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

No.2

No.2

No.2

DESCR.

SPF

SPF

SPF

DRY: SEASONED LUMBER.

PLATES (table is in inches)

JT TYPE PLATES W LEN Y X

B TMV+p MT20 2.0 4.0

E BMV1+p MT20 2.0 4.0

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

BUILDING DESIGNER

BEARINGS

JT	FACTORED GROSS REACTION		MAXIMUM FACTORED GROSS REACTION		INPUT BRG		REQRD BRG	
	VERT	HORZ	DOWN	HORZ	UPLIFT	IN-SX	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		MAX / MIN		COMPONENT REACTIONS		DEAD	SOIL
	COMBINED	SNOW	LIVE	PERM. LIVE	WIND			
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.

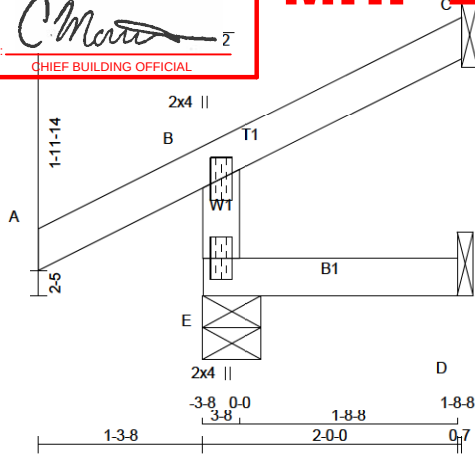
LOADING

TOTAL LOAD CASES: (4)

CHORDS				WEBS			
MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	LOA1 MAX CSI (LC)	MAX UNBRAC LENGTH	MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED MAX CSI (LC)
FR-TO		FROM 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		

5

CORPORATION OF THE CITY OF OSHAWA	TRUE COPY	TRUSS DESCRIPTION
OF PERMIT PLANS		
Dec 06 2023		
		
PER:		
CHIEF BUILDING OFFICIAL		

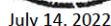


Version 8.500 S Aug 16 2021 MiTek Industries, Inc. Thu Jul 14 14:12:08 2022 Page 1
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Scale = 1:18.1

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

PATTERN-LOADING CHECK APPLIED TO THIS TRUSS

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



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



JOB NAME	TRUSS NAME		QUANTITY	PLY	JOB DESC.	DRWG NO.	
IM0722-079	J03		4	CORPORATION OF THE CITY OF OSHAWA TRUE COPY TRUSS DESG			
Version 8.500 S Aug 16 2021 MiTek Industries, Inc. Thu Jul 14 14:12:09 2022 Page 1						ID:C:\Mg\c2Bj\DKfina\data\Pkg\JL20\NOCrQPKV73zO?y9fwLGie5SgjOphOJVWb37eyy8K4 Scale = 1:18.1	
OF PERMIT PLANS Dec 06 2023 PER: CHIEF BUILDING OFFICIAL MHP 23020							
LUMBER	N L G A RULES CHORDS SIZE	LUMBER	DESCR.	DIMENSIONS, SUPPORTS AND LOADINGS SPECIFIED BY FABRICATOR TO BE VERIFIED BY BUILDING DESIGNER			TOTAL WEIGHT = 4 X 12 = 48 lb [M]
E - B	2x4 DRY No.2 SPF	No.2	SPF				DESIGN CRITERIA
A - C	2x4 DRY No.2 SPF	No.2	SPF				SPECIFIED LOADS:
E - D	2x4 DRY No.2 SPF	No.2	SPF				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
DRY: SEASONED LUMBER.							SPACING = 24.0 IN./C/C
PLATES (table is in inches)							THIS TRUSS IS DESIGNED FOR RESIDENTIAL OR SMALL BUILDING REQUIREMENTS OF PART 9, NBCC 2015
JT	TYPE	PLATES	W LEN Y X				THIS DESIGN COMPLIES WITH:
B	TMV+p	MT20	2.0 4.0				- PART 9 OF BCBC 2018 , ABC 2019
E	BMV1+p	MT20	2.0 4.0				- PART 9 OF OBC 2012 (2019 AMENDMENT) - CSA 086-14 - TPIC 2014
				SEE MITEK STANDARD DETAIL MSD2015-H FOR CONNECTION TO JOINT(S) C , D			DESIGN ASSUMPTIONS
				UNFACTORED REACTIONS			.OVERHANG NOT TO BE ALTERED OR CUT OFF.
				MAX /MIN COMPONENT REACTIONS			(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
JT	COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
E	250	183 / 0	0 / 0	0 / 0	0 / 0	67 / 0	0 / 0
C	58	54 / 0	0 / 0	0 / 0	0 / 0	5 / 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, 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. FORCE (LBS) FACTORED VERT. LOAD LC1 MAX CSI (LC) UNBRAC LENGTH FR-TO FROM TO MEMB. FORCE (LBS) WEBS MAX. FACTORED MAX CSI (LC)			
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		
CS I: 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 SECTION (PSI) (PLI) (PLI) MAX MIN MAX MIN MAX MIN MT20 650 371 1747 788 1987 1873 PLATE PLACEMENT TOL. = 0.250 inches PLATE ROTATION TOL. = 5.0 Deg. JSI GRIP= 0.16 (B) (INPUT = 0.90) JSI METAL= 0.12 (B) (INPUT = 1.00)							
I.MATUEVIC 100528832 PROVINCE OF ONTARIO July 14, 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. KOTT							

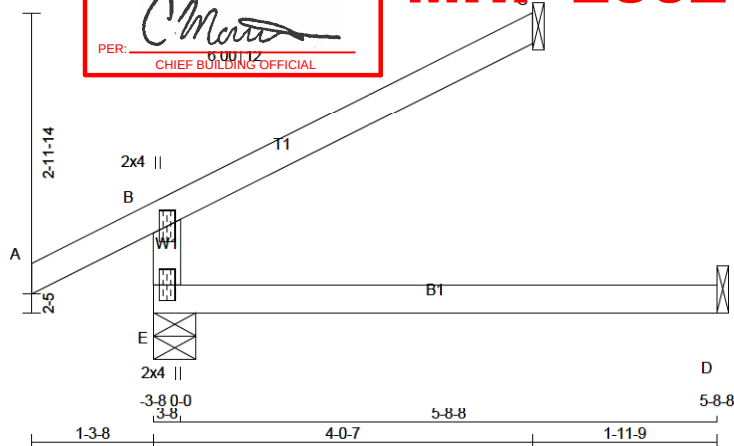
JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
IM0722-079	J04	2	1	TRUE COPY	

CORPORATION OF THE CITY OF OSHAWA

Dec 06 2023

PER: *C. Morris*
CHIEF BUILDING OFFICIALVersion 8.500 S Aug 16 2021 MiTek Industries, Inc. Thu Jul 14 14:12:10 2022 Page 1
D:\C:\Users\jz3\My Documents\KTT\GreenPark\Penrose\3-3\SAedzh7zBW\A9uTEhHs0y7GxXYALcf4yy8K3
Scale = 1:24.5

MHP 23020



TOTAL WEIGHT = 2 X 15 = 29 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	REQD BRG
	VERT	HORZ	DOWN	HORZ
E	498	0	498	0
C	169	0	169	0
D	45	0	45	0

SEE MITTEK 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	345	270 / 0	0 / 0	0 / 0	75 / 0
C	114	105 / 0	0 / 0	0 / 0	9 / 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

BRACINGTOP 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. 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	0.13 (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	0.13 (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=0.31/1.00 (B-C:1), BC=0.13/1.00 (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)

July 14, 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	QUANTITY	PLY	JOB DESC.	DRWG NO.
IM0722-079	J05	12	1	CORPORATION OF THE CITY OF OSHAWA TRUSS DESC	

OF PERMIT PLANS

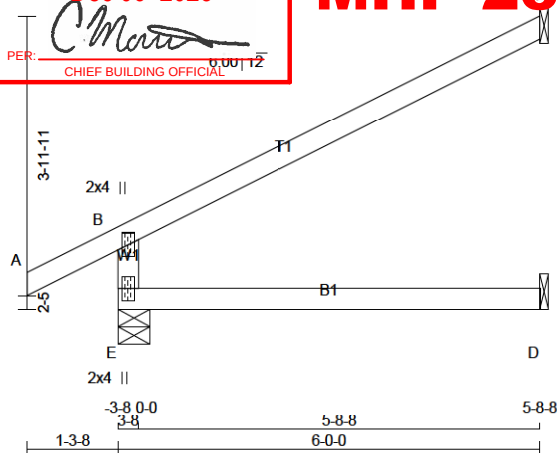
Dec 06 2023

PER: C. M. White 6.00 | 12
CHIEF BUILDING OFFICIAL

MHP 23020

Version 8.500 S Aug 16 2021 MiTek Industries, Inc. Thu Jul 14 14:12:10 2022 Page 1

Scale = 1:32.8



TOTAL WEIGHT = $12 \times 17 = 205 \text{ lb}$

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

BUILDING BEARINGS

JT	FACTORED GROSS REACTION		MAXIMUM FACTORED GROSS REACTION		INPUT BRG	REQRD BRG
	VERT	HORZ	DOWN	HORZ	IN-SX	IN-SX
E	636	0	636	0	0	1-8
C	252	0	252	0	0	1-8
D	45	0	51	0	0	1-8

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

UNFACTORED REACTIONS

JT	1ST LCASE	MAX/MIN. COMPONENT REACTIONS					
	COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
E	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)

CHORDS				WEBS			
MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	FACTORED LR1 CSI (LC)	MAX. UNBRAC. LENGTH	MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED LR1 CSI (LC)
FR-TO		FROM 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 0.09 (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, 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

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) (PSI)		SHEAR (PLI)		SECTION (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

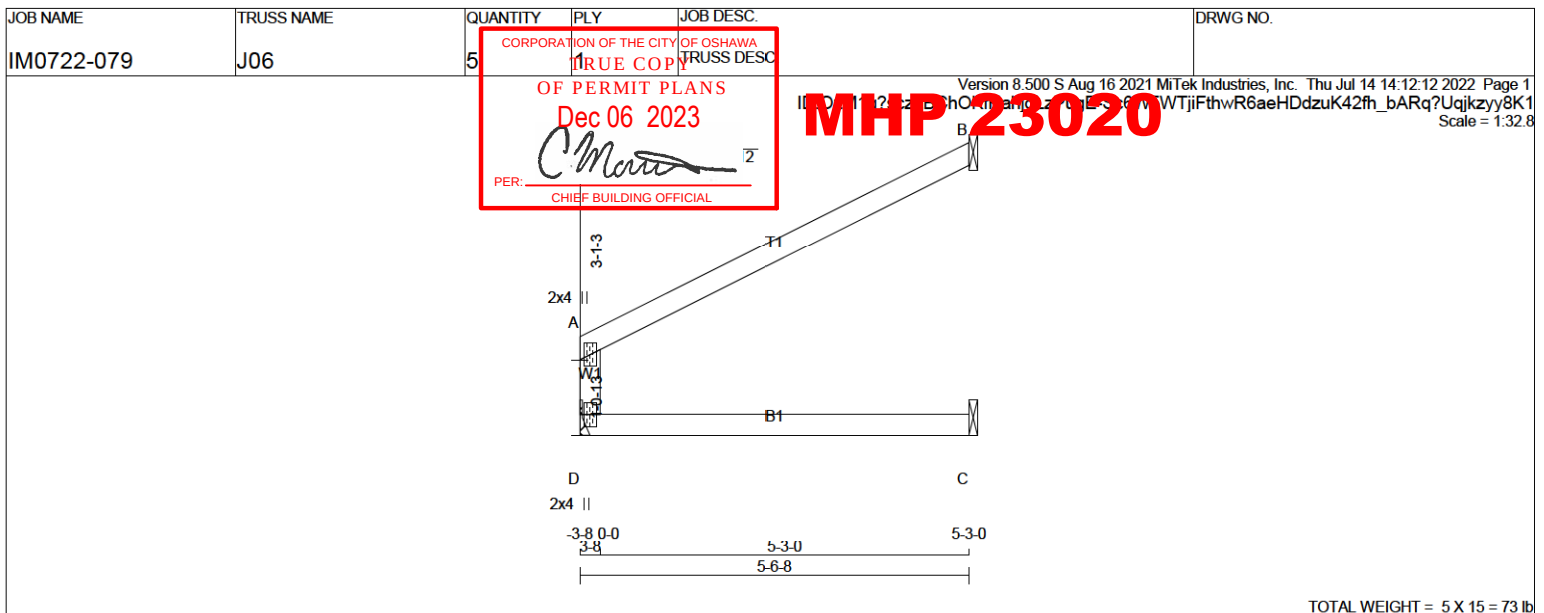
JSI GRIP= 0.32 (B) (INPUT = 0.90)
JSI METAL= 0.24 (B) (INPUT = 1.00)



July 14, 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. SPF

D - A	2x4	DRY	No.2	SPF
A - B	2x4	DRY	No.2	SPF
D - C	2x4	DRY	No.2	SPF

DRY: SEASONED LUMBER.

PLATES (table is in inches)

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

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

BEARINGS

JT	FACTORED GROSS REACTION		MAXIMUM FACTORED GROSS REACTION		INPUT BRG	REQD BRG
	VERT	HORZ	DOWN	HORZ		
D	361	0	361	0	MECHANICAL	
B	283	0	283	0	1-8	1-8
C	78	0	78	0	1-8	1-8

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

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

UNFACTORED REACTIONS

JT	1ST LCASE	MAX./MIN. COMPONENT REACTIONS					
	COMBINED	SNOW	LIVE	PERM. LIVE	WIND	DEAD	SOIL
D	250	193 / 0	0 / 0	0 / 0	0 / 0	57 / 0	0 / 0
B	192	173 / 0	0 / 0	0 / 0	0 / 0	19 / 0	0 / 0
C	58	20 / 0	0 / 0	0 / 0	0 / 0	38 / 0	0 / 0

BRACING

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

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

LOADING

TOTAL LOAD CASES: (4)

MEMB.	CHORDS		FACTORED		WEBS	
	MAX. FACTORED FORCE (LBS)	VERT. LOAD (PLF)	MAX. FACTORED FORCE (LBS)	MAX. FACTORED FORCE (LBS)	MAX. FACTORED FORCE (LBS)	MAX. FACTORED FORCE (LBS)
FR-TO						
D-A	-337 / 0	0.0	0.0	0.18 (1)	7.81	
A-B	-12 / 1	-111.9	-111.9	0.48 (1)	6.25	
D-C	0 / 0	-18.2	-18.2	0.23 (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 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) = $L/360$ (0.19")
 CALCULATED VERT. DEFL. (LL) = $L/999$ (0.05")
 ALLOWABLE DEFL. (TL) = $L/360$ (0.19")
 CALCULATED VERT. DEFL. (TL) = $L/640$ (0.10")

CSI: TC=0.48/1.00 (A-B:1), BC=0.23/1.00 (C-D:1),
 WB=0.00/1.00 (n/a:0), SSI=0.24/1.00 (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)
MAX MIN	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.

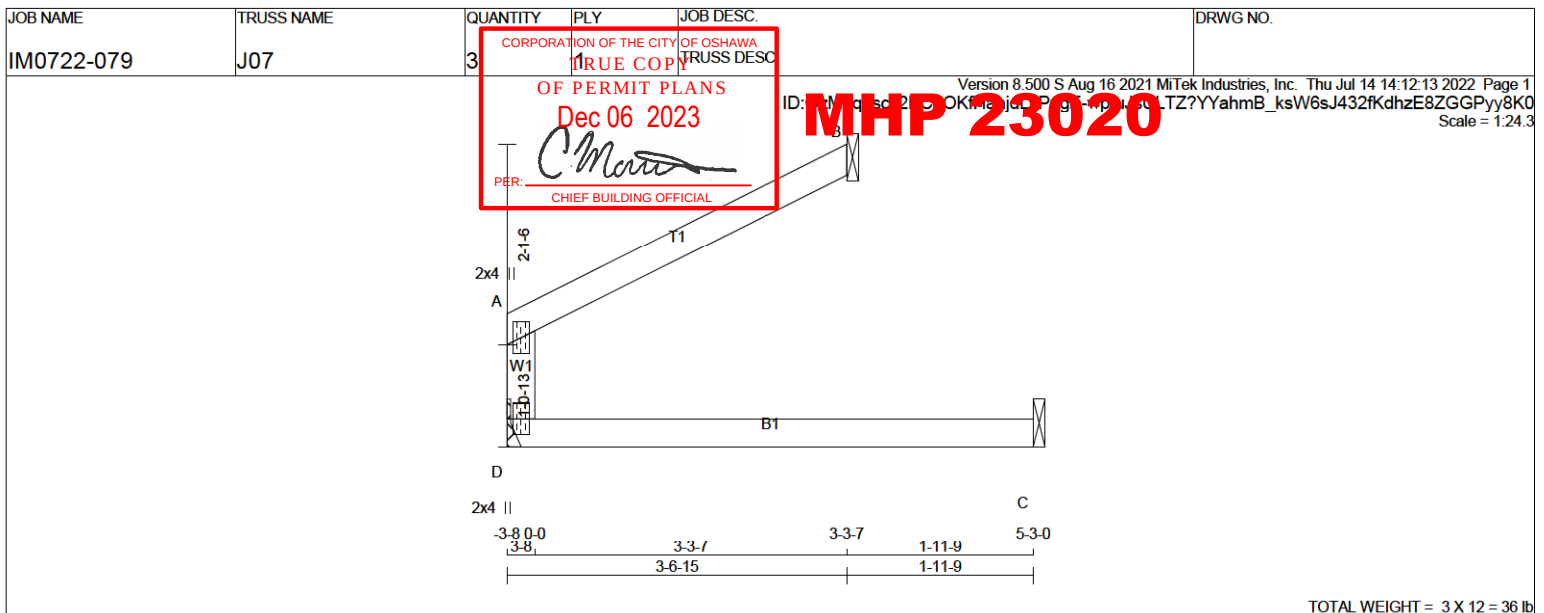
JSI GRIP= 0.19 (A) (INPUT = 0.90)
 JSI METAL= 0.14 (A) (INPUT = 1.00)



July 14, 2022

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TOTAL WEIGHT = 3 X 12 = 36 lb

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

DESCR. SPF

DRY: SEASONED LUMBER.

PLATES (table is in inches)				
JT	TYPE	PLATES	W	LEN Y X
A	TMV+p	MT20	2.0	4.0
D	BMV1+p	MT20	2.0	4.0

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

BEARINGS		FACTORED		MAXIMUM FACTORED		INPUT		REQD	
JT	GROSS REACTION	VERT	HORZ	GROSS REACTION	DOWN	BRG	IN-SX	BRG	IN-SX
D	253	0	0	253	0	0	MECHANICAL	0	0
B	193	0	0	193	0	0	1-8	1-8	1-8
C	55	0	0	55	0	0	1-8	1-8	1-8

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

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

UNFACTORED REACTIONS

1ST LCASE		MAX./MIN. COMPONENT REACTIONS						
JT	COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL	
D	177	128 / 0	0 / 0	0 / 0	0 / 0	49 / 0	0 / 0	
B	131	115 / 0	0 / 0	0 / 0	0 / 0	17 / 0	0 / 0	
C	43	6 / 0	0 / 0	0 / 0	0 / 0	37 / 0	0 / 0	

BRACING

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

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

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

LOADING

TOTAL LOAD CASES: (4)

CHORDS		FACTORED		MEMB.		WEBS		MEMB.	
MEMB.	MAX. FACTORED FORCE (LBS)	VERT. LOAD (PLF)	MAX. CS (LC)	MAX. UNBRACED LENGTH	FR-TO	MEMB.	MAX. FACTORED FORCE (LBS)	MAX. CS (LC)	FR-TO
D-A	-207 / 0	0.0	0.0	0.05 (4)	7.81				
A-B	-3 / 4	-111.9	-111.9	0.21 (1)	10.00				
D-C	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

(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) = $L/999$ (0.02")
ALLOWABLE DEFL. (TL) = $L/360$ (0.19")
CALCULATED VERT. DEFL. (TL) = $L/999$ (0.05")

CSI: TC=0.21/1.00 (A-B:1), BC=0.13/1.00 (C-D:4), WB=0.00/1.00 (n/a:0), SSI=0.14/1.00 (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)
MAX MIN	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.

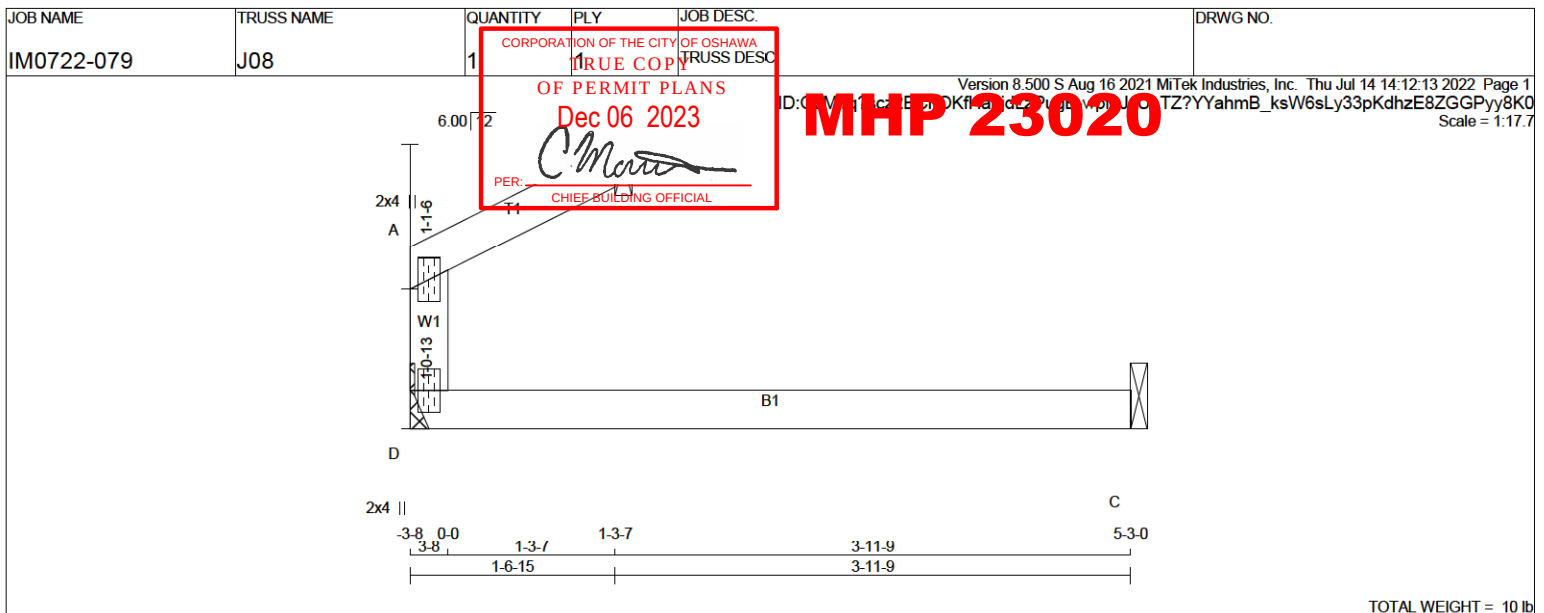
JSI GRIP= 0.12 (A) (INPUT = 0.90)
JSI METAL= 0.09 (A) (INPUT = 1.00)



July 14, 2022

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

DRY: SEASONED LUMBER.

PLATES (table is in inches)

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

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

BEARINGS

JT	FACTORED GROSS REACTION		MAXIMUM FACTORED GROSS REACTION		INPUT BRG IN-SX	REQRD BRG IN-SX
	VERT	HORZ	DOWN	HORZ		
D	125	0	125	0	MECHANICAL	
B	108	0	108	0	1-8	1-8
C	45	0	49	0	1-8	1-8

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

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

UNFACTORED REACTIONS

JT	COMBINED	MAX./MIN. COMPONENT REACTIONS					
		1ST LCASE	SNOW	LIVE	PERM.LIVE	WIND	DEAD
D	89	57/0	0/0	0/0	0/0	0/0	32/0
B	76	53/0	0/0	0/0	0/0	0/0	23/0
C	36	1/0	0/0	0/0	0/0	0/0	35/0

BRACING

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

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

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

LOADING

TOTAL LOAD CASES: (4)

MEMB.	CHORDS		FACTORED				WEBS	
	MAX. FACTORED FORCE (LBS)	VERT. LOAD (PLF)	MAX. LC1 (LC)	MAX. UNBRACED LENGTH	MEMB. FORCE (LBS)	MAX. FACTORED FORCE (LBS)	MAX. LC1 (LC)	MAX. UNBRACED LENGTH
FR-TO								
D-A	-69 / 19	0.0	0.0	0.09 (4)	7.81			
A-B	0 / 12	-111.9	-111.9	0.09 (4)	10.00			
D-C	0 / 0	-18.2	-18.2	0.12 (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

(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) = $L/999$ (0.03")

CSI: TC=0.09/1.00 (A-D-4), BC=0.12/1.00 (C-D-4), WB=0.00/1.00 (n/a 0), SSF=0.08/1.00 (C-D-4)

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

COMPANION LIVE LOAD FACTOR = 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)
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= 0.04 (A) (INPUT = 0.90)

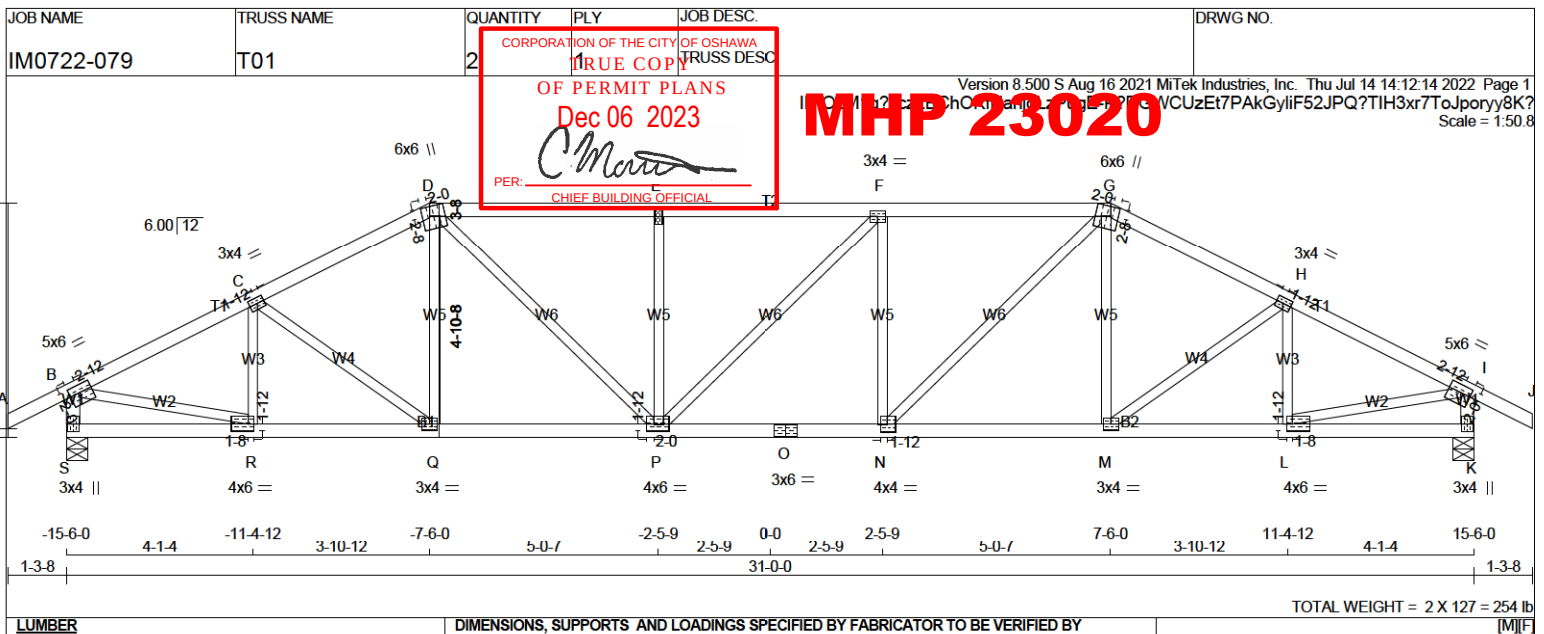
JSI METAL= 0.03 (A) (INPUT = 1.00)



July 14, 2022

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**LUMBER****N. L. G. A. RULES**

CHORDS	SIZE	LUMBER	DESCR.
A - D	2x4	DRY	No.2 SPF
D - G	2x4	DRY	No.2 SPF
G - J	2x4	DRY	No.2 SPF
S - B	2x4	DRY	No.2 SPF
K - I	2x4	DRY	No.2 SPF
S - O	2x4	DRY	No.2 SPF
O - K	2x4	DRY	No.2 SPF
ALL WEBS EXCEPT	2x3	DRY	No.2 SPF

DRY: SEASONED LUMBER.

PLATES (table is in inches)

JT	TYPE	PLATES	W	LEN	Y	X
B	TMW-t	MT20	5.0	6.0	2.00	2.75
C	TMWW-t	MT20	3.0	4.0	1.50	1.75
D	TTWW+m	MT20	6.0	6.0	2.50	2.00
E	TMW-w	MT20	2.0	4.0		
F	TMWW-t	MT20	3.0	4.0		
G	TTWW+m	MT20	6.0	6.0	2.50	2.00
H	TMWW-t	MT20	3.0	4.0	1.50	1.75
I	TMWW-t	MT20	5.0	6.0	2.00	2.75
K	BMV1+p	MT20	3.0	4.0		
L	BMWW-t	MT20	4.0	6.0	1.75	1.50
M	BMWW-t	MT20	3.0	4.0		
N	BMWW-t	MT20	4.0	4.0	2.00	1.75
O	BS-t	MT20	3.0	6.0		
P	BMWWWW-t	MT20	4.0	6.0	1.75	2.00
Q	BMWW-t	MT20	3.0	4.0		
R	BMWW-t	MT20	4.0	6.0	1.75	1.50
S	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	REQD BRG
JT	VERT	HORZ	DOWN	HORZ
S	2169	0	2169	0
K	2169	0	2169	0

UNFACTORED REACTIONS

JT	1ST LCASE COMBINED	MAX. MIN. SNOW	MAX. MIN. LIVE	PERM. LIVE	WIND	DEAD	SOIL
S	1500	1173 / 0	0 / 0	0 / 0	0 / 0	327 / 0	0 / 0
K	1500	1173 / 0	0 / 0	0 / 0	0 / 0	327 / 0	0 / 0

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

BRACING

TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 3.53 FT.
MAX. UNBRACED BOTTOM CHORD LENGTH = 10.00 FT. OR RIGID CEILING DIRECTLY APPLIED.

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

LOADING

TOTAL LOAD CASES: (4)

CHORDS				WEBS			
MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	MAX. LC1 (LC)	MEMB.	MAX. FACTORED FORCE (LBS)	MAX. LC1 (LC)	
FR-TO		FROM	TO	FR-TO			
A-B	0 / 34	-111.9	-111.9	0.15 (1)	10.00	R-C	-468 / 0
B-C	-2809 / 0	-111.9	-111.9	0.31 (1)	3.90	C-Q	-81 / 0
C-D	-2781 / 0	-111.9	-111.9	0.30 (1)	3.92	Q-D	0 / 143
D-E	-3182 / 0	-111.9	-111.9	0.45 (1)	3.53	D-P	0 / 993
E-F	-3182 / 0	-111.9	-111.9	0.42 (1)	3.58	P-E	-602 / 0
F-G	-3184 / 0	-111.9	-111.9	0.45 (1)	3.53	P-F	-3 / 0
G-H	-2780 / 0	-111.9	-111.9	0.30 (1)	3.92	N-F	-603 / 0
H-I	-2809 / 0	-111.9	-111.9	0.31 (1)	3.90	N-G	0 / 996
I-J	0 / 34	-111.9	-111.9	0.15 (1)	10.00	M-G	0 / 142
S-B	-2130 / 0	0.0	0.0	0.22 (1)	5.81	M-H	-82 / 0
K-I	-2130 / 0	0.0	0.0	0.22 (1)	5.81	L-H	-467 / 0
S-R	0 / 0	-18.2	-18.2	0.07 (4)	10.00	B-R	0 / 2586
R-Q	0 / 2531	-18.2	-18.2	0.46 (1)	10.00	L-I	0 / 2586
Q-P	0 / 2469	-18.2	-18.2	0.45 (1)	10.00		
P-O	0 / 3184	-18.2	-18.2	0.56 (1)	10.00		
O-N	0 / 3184	-18.2	-18.2	0.56 (1)	10.00		
N-M	0 / 2468	-18.2	-18.2	0.44 (1)	10.00		
M-L	0 / 2531	-18.2	-18.2	0.45 (1)	10.00		
L-K	0 / 0	-18.2	-18.2	0.07 (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) = $L/360$ (1.03")
CALCULATED VERT. DEFL. (LL) = $L/999$ (0.18")
ALLOWABLE DEFL. (TL) = $L/360$ (1.03")
CALCULATED VERT. DEFL. (TL) = $L/999$ (0.30")

CSI: TC=0.45/1.00 (D-E-1), BC=0.56/1.00 (N-P-1),
WB=0.58/1.00 (L-1), SSI=0.26/1.00 (F-G-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= 0.90 (I) (INPUT = 0.90)
JSI METAL= 0.98 (O) (INPUT = 1.00)



July 14, 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 QUANTITY PLY JOB DESC.

IM0722-079 T02

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MHP 23020

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Scale = 1:53.5

LUMBER

N L G A	RULES
CHORDS	SIZE
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	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	TMV-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
K	BMV1+p	MT20	3.0	4.0		
L	BMVW-t	MT20	4.0	6.0	1.75	1.75
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	1.75
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 VERT	MAXIMUM FACTORED GROSS REACTION DOWN	INPUT BRG IN-SX	REQRD BRG IN-SX
P	2169	0	5-8	3-9
J	2169	0	5-8	3-9

UNFACTORED REACTIONS

JT	1ST LCASE COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
P	1500	1173 / 0	0 / 0	0 / 0	0 / 0	327 / 0	0 / 0
J	1500	1173 / 0	0 / 0	0 / 0	0 / 0	327 / 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 = 3.66 FT.
MAX. UNBRACED BOTTOM CHORD LENGTH = 10.00 FT OR RIGID CEILING DIRECTLY APPLIED.

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

LOADING

TOTAL LOAD CASES: (4)

CHORDS				WEBS			
MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	MAX. CSI (LC)	MEMB.	MAX. FACTORED FORCE (LBS)	MAX. CSI (LC)	
FR-TO		FROM TO		FR-TO			
A-B	-2900 / 0	-111.9 -111.9	0.15 (1)	10.00	O-C	-353 / 12	0.08 (1)
B-C	-2640 / 0	-111.9 -111.9	0.47 (1)	3.67	C-N	-346 / 0	0.22 (1)
C-D	-2729 / 0	-111.9 -111.9	0.44 (1)	3.85	N-D	0 / 307	0.07 (1)
D-E	-2729 / 0	-111.9 -111.9	0.54 (1)	3.66	D-M	0 / 571	0.13 (1)
E-F	-2640 / 0	-111.9 -111.9	0.44 (1)	3.85	M-E	-753 / 0	0.45 (1)
F-G	-2900 / 0	-111.9 -111.9	0.47 (1)	3.67	M-F	0 / 571	0.13 (1)
G-H	-2125 / 0	-111.9 -111.9	0.15 (1)	10.00	L-F	0 / 307	0.07 (1)
H-I	0 / 34	0.0 0.0	0.21 (1)	5.81	L-G	-346 / 0	0.22 (1)
P-B	-2125 / 0	0.0 0.0	0.21 (1)	5.81	K-G	-353 / 12	0.08 (1)
J-H	-2125 / 0	0.0 0.0	0.21 (1)	5.81	B-O	0 / 2656	0.60 (1)
					K-H	0 / 2656	0.60 (1)
P-O	0 / 0	-18.2 -18.2	0.10 (4)	10.00			
O-N	0 / 2619	-18.2 -18.2	0.49 (1)	10.00			
N-M	0 / 2339	-18.2 -18.2	0.45 (1)	10.00			
M-L	0 / 2339	-18.2 -18.2	0.45 (1)	10.00			
L-K	0 / 2619	-18.2 -18.2	0.49 (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 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 (1.03")
CALCULATED VERT. DEFL.(LL) = L/999 (0.16")
ALLOWABLE DEFL.(TL)= L/360 (1.03")
CALCULATED VERT. DEFL.(TL) = L/999 (0.26")

CSI: TC=0.54/1.00 (D-E-1), BC=0.49/1.00 (K-L-1), WB=0.60/1.00 (H-K-1), SSI=0.30/1.00 (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 .

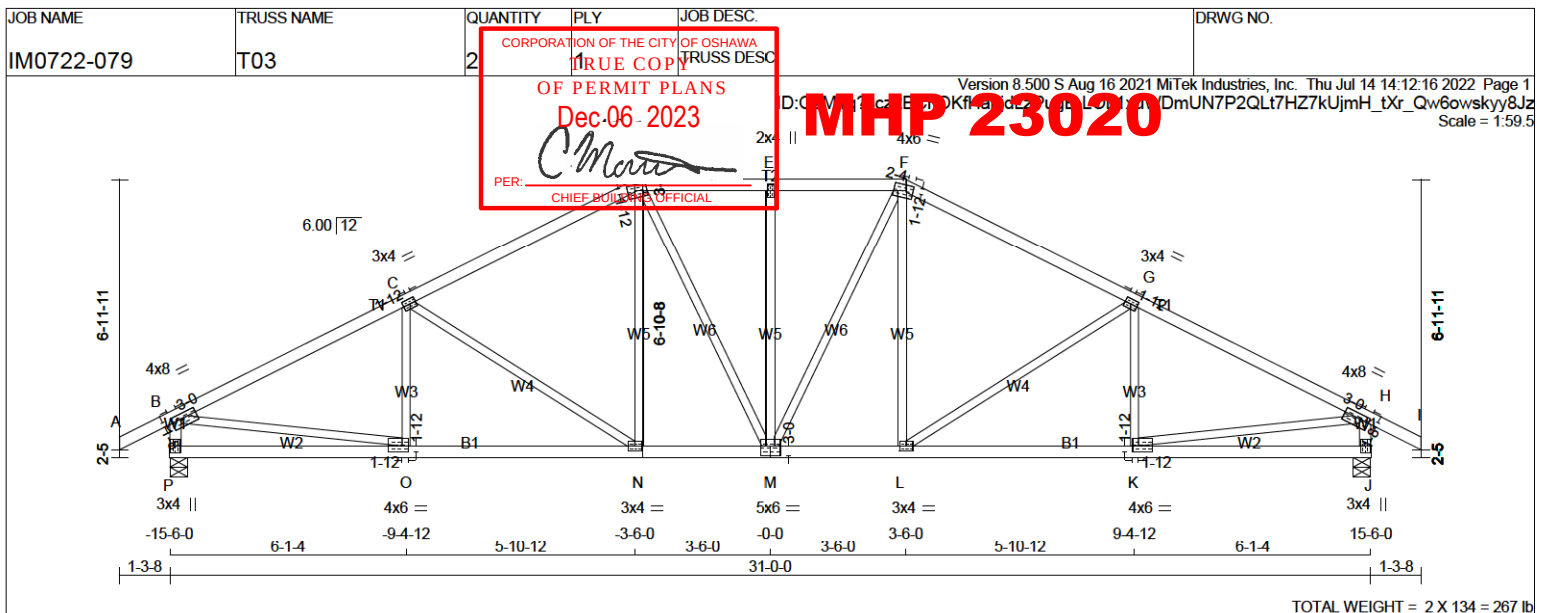
NAIL VALUES

PLATE GRIP(DRY) (PSI)	SHEAR (PLI)	SECTION (PLI)
MAX MIN	MAX MIN	MAX MIN
650 371	1747 788	1987 1873

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

<



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 EXCEPT	2x3	DRY	No.2 SPF

DRY: SEASONED LUMBER.

PLATES (table is in inches)

JT	TYPE	PLATES	W	LEN	Y	X
B	TMW-t	MT20	4.0	8.0	1.50	3.00
C	TMW-t	MT20	3.0	4.0	1.50	1.75
D	TTWW-m	MT20	4.0	6.0	1.75	2.25
E	TMW-w	MT20	2.0	4.0		
F	TTWW-m	MT20	4.0	6.0	1.75	2.25
G	TMW-t	MT20	3.0	4.0	1.50	1.75
H	TMW-t	MT20	4.0	8.0	1.50	3.00
J	BMV1-p	MT20	3.0	4.0		
K	BMW-t	MT20	4.0	6.0	1.75	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	6.0	1.75	1.75
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 IN-SX	REQD BRG IN-SX
	VERT	HORZ	DOWN	HORZ		
P	2169	0	2169	0	5-8	3-9
J	2169	0	2169	0	5-8	3-9

UNFACTORED REACTIONS

JT	1ST LCASE COMBINED		MAX/MIN. COMPONENT REACTIONS		WIND PERM. LIVE	DEAD	SOIL
	SNOW	LIVE	SNOW	LIVE			
P	1500	1173 / 0	0 / 0	0 / 0	0 / 0	327 / 0	0 / 0
J	1500	1173 / 0	0 / 0	0 / 0	0 / 0	327 / 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 = 3.36 FT.
MAX. UNBRACED BOTTOM CHORD LENGTH = 10.00 FT. OR RIGID CEILING DIRECTLY APPLIED.

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

LOADING

TOTAL LOAD CASES: (4)

CHORDS					WEBS			
MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	MAX. FACTORED CSI (LC)	MAX. UNBRACED LENGTH	MEMB.	MAX. FACTORED FORCE (LBS)	MAX. FACTORED CSI (LC)	
FR-TO		FROM	TO		FR-TO			
A-B	0 / 34	-111.9	-111.9	0.15 (1)	10.00	O-C	-256 / 59 0.07 (1)	
B-C	-2941 / 0	-111.9	-111.9	0.69 (1)	3.36	C-N	-598 / 0 0.59 (1)	
C-D	-2453 / 0	-111.9	-111.9	0.62 (1)	3.72	N-D	0 / 424 0.10 (1)	
D-E	-2295 / 0	-111.9	-111.9	0.22 (1)	4.34	D-M	0 / 283 0.06 (1)	
E-F	-2295 / 0	-111.9	-111.9	0.22 (1)	4.34	M-E	-466 / 0 0.42 (1)	
F-G	-2453 / 0	-111.9	-111.9	0.62 (1)	3.72	M-F	0 / 283 0.06 (1)	
G-H	-2941 / 0	-111.9	-111.9	0.69 (1)	3.36	L-F	0 / 424 0.10 (1)	
H-I	0 / 34	-111.9	-111.9	0.15 (1)	10.00	L-G	-598 / 0 0.59 (1)	
P-B	-2120 / 0	0.0	0.0	0.21 (1)	5.82	K-G	-256 / 59 0.07 (1)	
J-H	-2120 / 0	0.0	0.0	0.21 (1)	5.82	B-O	0 / 2687 0.60 (1)	
						K-H	0 / 2687 0.60 (1)	
P-O	0 / 0	-18.2	-18.2	0.16 (4)	10.00			
O-N	0 / 2661	-18.2	-18.2	0.49 (1)	10.00			
N-M	0 / 2167	-18.2	-18.2	0.40 (1)	10.00			
M-L	0 / 2167	-18.2	-18.2	0.40 (1)	10.00			
L-K	0 / 2661	-18.2	-18.2	0.49 (1)	10.00			
K-J	0 / 0	-18.2	-18.2	0.16 (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) = $L/360$ (1.03")
CALCULATED VERT. DEFL. (LL) = $L/999$ (0.14")
ALLOWABLE DEFL. (TL) = $L/360$ (1.03")
CALCULATED VERT. DEFL. (TL) = $L/999$ (0.24")

CSI: TC=0.69/1.00 (G-H-1), BC=0.49/1.00 (K-L-1), WB=0.60/1.00 (B-O-1), SSI=0.29/1.00 (G-H-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= 0.88 (O) (INPUT = 0.90)
JSI METAL= 0.63 (O) (INPUT = 1.00)



July 14, 2022

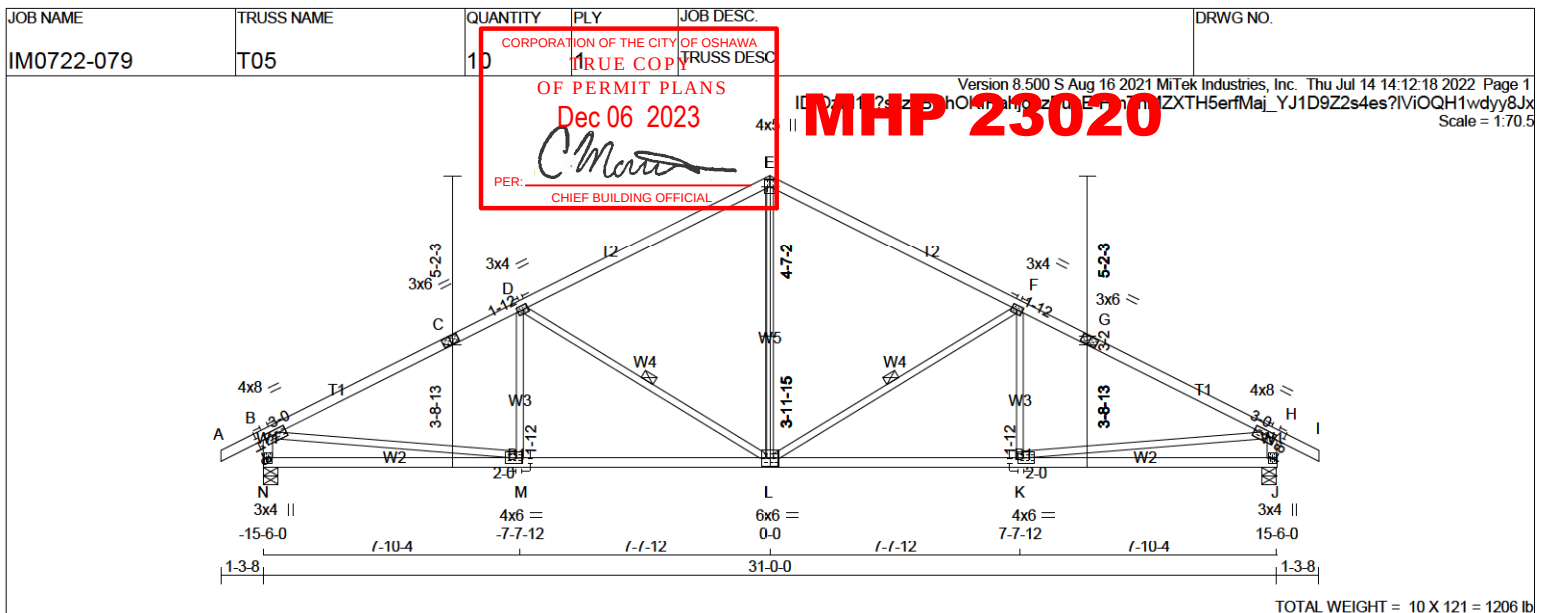
READ ALL NOTES ON THIS PAGE AND ON THE ENGINEERING NOTE PAGE ENP-1. THE NOTE PAGE IS AN INTEGRAL PART OF THIS DRAWING AS IT CONTAINS SPECIFICATIONS AND CRITERIA USED IN THE DESIGN OF THIS COMPONENT.



Version 8.500 S Aug 16 2021 MiTek Industries, Inc. Thu Jul 14 14:12:17 2022 Page 1
ID: 00112223301 KFH-11LZ-10-04737X WoV_1C?XQqoogy1p_gJOGIDZ9mXUOAyy8Jy
Scale = 1:68.9

JSI GRIP= 0.86 (F) (INPUT = 0.90)
JSI METAL= 0.64 (N) (INPUT = 1.00)



**LUMBER**

N. L. G. A. RULES

CHORDS SIZE

A - C 2x4 DRY 2100F 1.8E

C - E 2x4 DRY 2100F 1.8E

E - G 2x4 DRY 2100F 1.8E

G - I 2x4 DRY 2100F 1.8E

N - B 2x4 DRY No.2

J - H 2x4 DRY No.2

N - L 2x4 DRY No.2

L - J 2x4 DRY No.2

ALL WEBS 2x3 DRY No.2

EXCEPT

DRY: SEASONED LUMBER.

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

BUILDING DESIGNER

BEARINGS

FACTORED

GROSS REACTION

DOWN

HORZ

UP

BRG

IN-SX

BRG

IN-SX

BRG

IN-SX

BRG

IN-SX

BRG

IN-SX

BRG

IN-SX

BRG

IN-SX

BRG

IN-SX

BRG

IN-SX

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BRG

IN-SX

BRG

IN-SX

BRG

IN-SX

UNFACTORED REACTIONS

1ST LCASE

MAX/MIN. COMPONENT REACTIONS

DOWN

HORZ

UP

BRG

IN-SX

BRG

IN-SX

BRG

IN-SX

BRG

IN-SX

BRG

IN-SX

BRG

IN-SX

BRG

IN-SX

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BRG

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BRG

IN-SX

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

BRACING

TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 4.10 FT.

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

APPLIED.

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

1 - 1x4 LATERAL BRACE(S) AT 1/2 LENGTH OF F-L, D-L. DBS = 20-0-0. CBF = 125 LBS.

DBS = DIAGONAL BRACE SPACING (MAX). CBF = CUMULATIVE BRACING FORCE (PER

BRACE). FASTEN LATERAL BRACE(S) USING (0.122"x3") SPIRAL NAILS : 1 NAIL FOR 2x3

BRACE(S), 2 FOR 1x4, 2x4, 2x5, 3 FOR 2x6, 4 FOR 2x8, 5 FOR 2x10, AND 6 FOR 2x12.

END VERTICAL(S) MUST BE SHEATHED OR HAVE BRACES AS INDICATED IN

THE MAX. UNBRACED LENGTH COLUMN OF THE TABLE BELOW

LOADING

TOTAL LOAD CASES: (4)

CHORDS

MEMB.

MAX. FACTORED

FORCE

(LBS)

FACTORED

VERT. LOAD

LC1

MAX

CSI (LC)

UNBRAC

LENGTH

FR-TO

MEMB.

MAX. FACTORED

FORCE

(LBS)

MAX

CSI (LC)

FR-TO

MEMB.

MAX. FACTORED

FORCE

(LBS)

MAX

CSI (LC)

FR-TO

MEMB.

MAX. FACTORED

FORCE

(LBS)

MAX

CSI (LC)

FR-TO

MEMB.

MAX. FACTORED

FORCE

(LBS)

MAX

WEBS

MEMB.

MAX. FACTORED

FORCE

(LBS)

MAX

CSI (LC)

FR-TO

MEMB.

MAX. FACTORED

FORCE

(LBS)

MAX

CSI (LC)

FR-TO

MEMB.

MAX. FACTORED

FORCE

(LBS)

MAX

CSI (LC)

FR-TO

MEMB.

MAX. FACTORED

FORCE

(LBS)

MAX

CSI (LC)

FR-TO

MEMB.

MAX. FACTORED

FORCE

(LBS)

MAX

CSI (LC)

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STANDARD DETAIL MSD2015-H
MHP 23020 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 (in)	Diameter (in)	LATERAL Resistance per nail (Lbs.)		WITHDRAWAL Resistance per nail (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

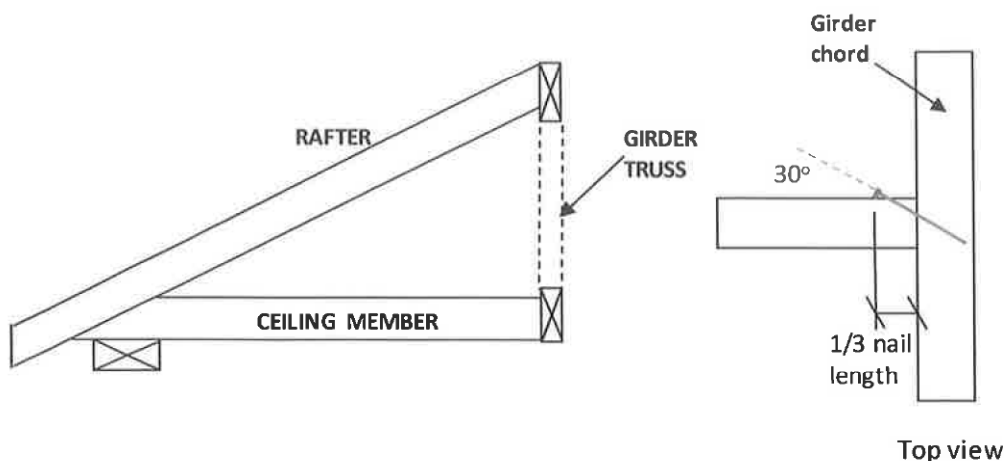
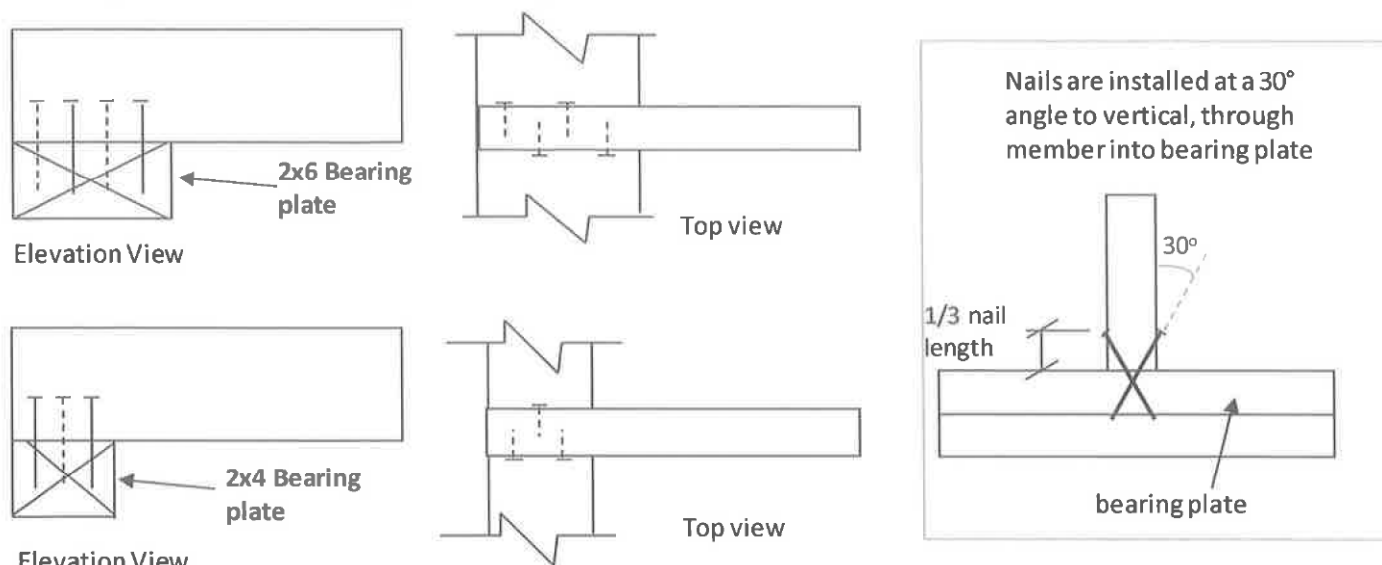


Figure 1: Toe-Nailing Rafter / Ceiling Member to Girder Truss



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° 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.

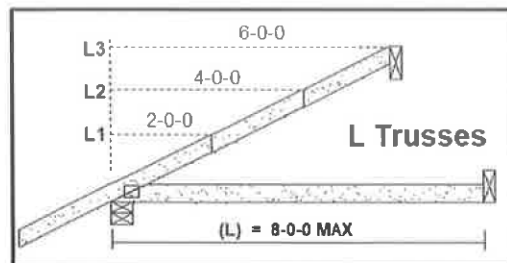
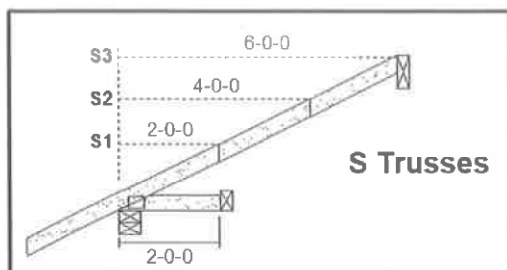
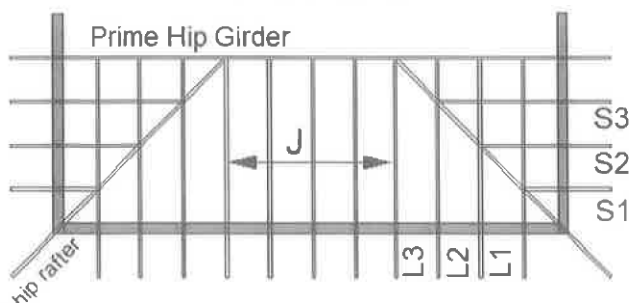
MiTek®

CORPORATION OF THE CITY OF OSHAWA
TRUE COPY
OF PERMIT PLANS
Dec 06 2023
PER: *C. Morris*
CHIEF BUILDING OFFICIAL

STANDARD DETAIL MSD2015-J
MHP 23020
Issued: MARCH 17, 2021
Expiry: APRIL 30, 2023

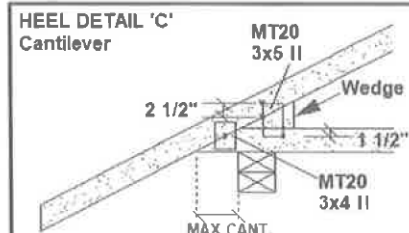
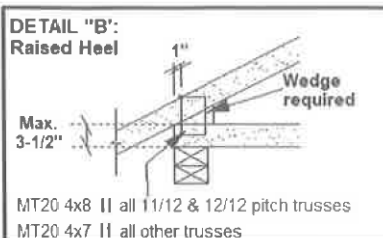
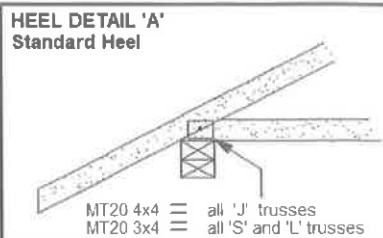
STANDARD HIP END FRAMING

PLAN VIEW



Specified Load Rating:

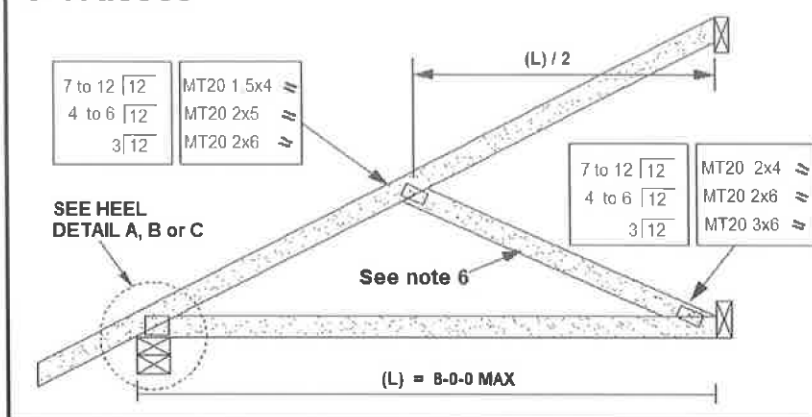
Top chord Live:	51.0 PSF or less
Top chord Dead:	6.0 PSF or less
Bottom chord Live:	0.0 PSF
Bottom chord Dead:	7.3 PSF or less



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'

