

LUMBER				
N. L. G. A. R	ULES			
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				

PLATES	(table i	is in	inches)

JΤ	TYPE	PLATES	W	LEN	Υ	X
В	TMVW-t	MT20	4.0	8.0	1.50	3.00
С	TMWW-t	MT20	3.0	4.0	1.50	1.75
D	TTWW-m	MT20	5.0	6.0	2.50	2.00
Е	TMW+w	MT20	2.0	4.0		
F	TTWW-m	MT20	5.0	6.0	2.50	2.00
G	TMWW-t	MT20	3.0	4.0	1.50	1.75
Н	TMVW-t	MT20	4.0	8.0	1.50	3.00
J	BMV1+p	MT20	3.0	4.0		
K	BMWW-t	MT20	4.0	6.0	1.75	1.50
L	BMWW-t	MT20	3.0	4.0		
M	BSWWW-I	MT20	5.0	6.0	3.00	3.00
Ν	BMWW-t	MT20	3.0	4.0		
0	BMWW-t	MT20	4.0	6.0	1.75	1.50
Р	BMV1+p	MT20	3.0	4.0		

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

	FACTOR	RED	MAXIMU	M FACTO	INPUT	REQRD	
	GROSS REACTION GROSS REACTION E				BRG	BRG	
JT	VERT	HORZ	DOWN	HORZ	UPLIFT	IN-SX	IN-SX
Р	2296	0	2296	0	0	5-8	3-15
J	2296	0	2296	0	0	5-8	3-15

### UNFACTORED REACTIONS

	1ST LCASE	MAX./I	MAX./MIN. COMPONENT REACTIONS						
JT	COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL		
Р	1602	1174 / 0	0/0	0/0	0/0	429 / 0	0/0		
J	1602	1174 / 0	0/0	0/0	0/0	429 / 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 = 3.45 FT.
MAX. UNBRACED BOTTOM CHORD LENGTH = 10.00 FT OR RIGID CEILING DIRECTLY

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

LOADING TOTAL LOAD CASES: (4)

	ORDS					WE		
	K. FACTORED	FACTO					MAX. FACTO	
MEMB.	FORCE	VERT. LO	AD LC1	I MAX	MAX.	MEMB.	FORCE	MAX
	(LBS)	(PL	.F) (		UNBRAC		(LBS)	CSI (LC)
FR-TO		FROM	TO		LENGTH	FR-TO		
A-B	0 / 36	-119.4	-119.4	0.16(1)	10.00	O- C	-380 / 0	0.08 (1)
B- C	-3069 / 0	-119.4	-119.4	0.51(1)	3.49	C- N	-367 / 0	0.23 (1)
C- D	-2793 / 0	-119.4	-119.4	0.48 (1)	3.67	N- D	0/319	0.07 (1)
D- E	-2888 / 0	-119.4	-119.4	0.58 (1)	3.45	D- M	0 / 606	0.14 (1)
E-F	-2888 / 0	-119.4	-119.4	0.58(1)	3.45	M- E	-804 / 0	0.48 (1)
F- G	-2793 / 0	-119.4	-119.4	0.48(1)	3.67	M- F	0 / 606	0.14 (1)
G- H	-3069 / 0	-119.4	-119.4	0.51(1)	3.49	L- F	0/319	0.07 (1)
H-I	0 / 36	-119.4	-119.4	0.16(1)	10.00	L- G	-367 / 0	0.23(1)
P-B	-2251 / 0	0.0	0.0	0.23(1)	5.60	K- G	-380 / 0	0.08(1)
J- H	-2251 / 0	0.0	0.0	0.23 (1)	5.60	B- O	0 / 2810	0.63 (1)
						K- H	0 / 2810	0.63 (1)
P- 0	0/0	-18.2	-18.2	0.10(4)	10.00			
O- N	0 / 2771	-18.2	-18.2	0.52 (1)	10.00			
N- M	0 / 2474	-18.2	-18.2	0.47(1)	10.00			
M-L	0 / 2474	-18.2	-18.2	0.47(1)	10.00			
L-K	0 / 2771	-18.2	-18.2	0.52 (1)	10.00			
K-J	0/0	-18.2	-18.2	0.10 (4)	10.00			

### **DESIGN CRITERIA**

SPEC	IFIED	LOAI	DS:		
TOP	CH.	LL	=	34.8	PSF
		DL	=	6.0	PSF
BOT	CH.	LL	=	0.0	PSF
		DL	=	7.3	PSF
TOTA	L LO	AD	=	48.1	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, NBC-2019AE - PART 9 OF OBC 2012 (2019 AMENDMENT)

CSA 086-14 - TPIC 2014

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

ALLOWABLE DEFL.(LL)= L/360 (1.03")
CALCULATED VERT. DEFL.(LL)= L/999 (0.16")
ALLOWABLE DEFL.(TL)= L/360 (1.03")
CALCULATED VERT. DEFL.(TL) = L/999 (0.28")

CSI: TC=0.58/0.97 (D-E:1) , BC=0.52/0.97 (N-O:1) , WB=0.63/0.97 (B-O:1) , SSI=0.32/1.00 (D-E:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

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

NAIL VALUES

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

MAX MIN MAX MIN MAX MIN MAX MIN

MT20 650 371 1747 788 1987 1873

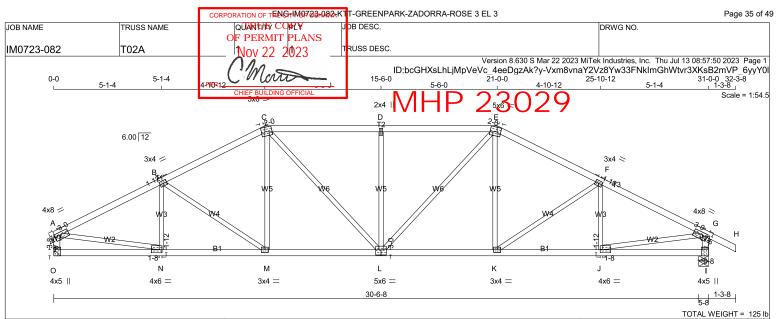
PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.90 (J) (INPUT = 0.90) JSI METAL= 0.66 (K) (INPUT = 1.00)







LUMBER				
N. L. G. A. R	ULES			
CHORDS	SIZE		LUMBER	DESCR.
A - C	2x4	DRY	No.2	SPF
C - E	2x4	DRY	No.2	SPF
E - H	2x4	DRY	No.2	SPF
0 - A	2x4	DRY	No.2	SPF
1 - G	2x4	DRY	No.2	SPF
0 - L	2x4	DRY	No.2	SPF
L - I	2x4	DRY	No.2	SPF
ALL WEBS	2x3	DRY	No.2	SPF
EXCEPT				• • •

## PLATES (table is in inches)

TYPE	PLATES	W	LEN	Y X	
TMVW-t	MT20	4.0	8.0	1.50 3	.00
TMWW-t	MT20	3.0	4.0	1.50 1	.75
TTWW-m	MT20	5.0	6.0	2.50 2	.00
TMW+w	MT20	2.0	4.0		
TTWW-m	MT20	5.0	6.0	2.50 2	.00
TMWW-t	MT20	3.0	4.0	1.50 1	.75
TMVW-t	MT20	4.0	8.0	1.50 3	.00
BMV1+t	MT20	4.0	5.0	Edge 0	.50
BMWW-t	MT20	4.0	6.0	1.75 1	.50
BMWW-t	MT20	3.0	4.0		
BSWWW-I	MT20	5.0	6.0	3.00 3	.00
BMWW-t	MT20	3.0	4.0		
BMWW-t	MT20	4.0	6.0	1.75 1	.50
BMV1+t	MT20	4.0	5.0	3.50	
	TMVW-t TMWW-t TMWW-m TMWW-t TMVW-t BMVV-t BMWW-t BSWWW-t BMWW-t BMWW-t BMWW-t	TMVW-t         MT20           TMWW-t         MT20           TTWW-m         MT20           TTWW-m         MT20           TTWW-m         MT20           TMWV-t         MT20           MWV-t         MT20           BMW+t         MT20           BMWW-t         MT20           BSWWW-l         MT20           BMWW-t         MT20           BMWW-t         MT20           BMWW-t         MT20           BMWW-t         MT20	TMVW-t         MT20         4.0           TMWW-t         MT20         3.0           TTWW-m         MT20         5.0           TMW+w         MT20         2.0           TTWW-m         MT20         3.0           TMWV-t         MT20         4.0           BMY+t         MT20         4.0           BMW+t         MT20         4.0           BSWWW-t         MT20         3.0           BSWWW-t         MT20         3.0           BMW+t         MT20         3.0	TMVW-t         MT20         4.0         8.0           TMWW-t         MT20         3.0         4.0           TTWW-m         MT20         5.0         6.0           TMW+w         MT20         2.0         4.0           TTWW-m         MT20         3.0         4.0           TMWW-t         MT20         4.0         8.0           BMVH-t         MT20         4.0         5.0           BMWY-t         MT20         4.0         6.0           BMWW-t         MT20         3.0         4.0           BSWWW-t         MT20         3.0         4.0           BMWW-t         MT20         3.0         4.0	TMVW-t         MT20         4.0         8.0         1.50         3           TMWW-t         MT20         3.0         4.0         1.50         1           TTWW-m         MT20         5.0         6.0         2.50         2           TMW+w         MT20         2.0         4.0         2.50         2           TWW-m         MT20         3.0         4.0         1.50         3           TMWW-t         MT20         4.0         8.0         1.50         3           BMVH-t         MT20         4.0         5.0         Edge 0           BMWW-t         MT20         4.0         6.0         1.75         1           BSWWW-t         MT20         3.0         4.0           BMWW-t         MT20         3.0         4.0           BMWW-t         MT20         3.0         4.0           BMWW-t         MT20         3.0         4.0           BMWW-t         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

	FACTOR	RED	MAXIMUN	M FACTO	INPUT	REQRD	
	GROSS RE	ACTION	GROSS F	REACTIO	BRG	BRG	
JT	VERT	HORZ	DOWN	HORZ	UPLIFT	IN-SX	IN-SX
0	2134	0	2134	0	0	MECHANIC	CAL
l	2296	0	2296	0	0	5-8	3-15

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

## UNFACTORED REACTIONS

	151 LUASE	IVIAX./I	VIIN. COMPO	NEINT REACTION	VO		
JT	COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
0	1491	1079 / 0	0/0	0/0	0/0	412 / 0	0/0
1	1602	1174 / 0	0/0	0/0	0/0	429 / 0	0/0

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

BRACING
TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 3.45 FT.
MAX. UNBRACED BOTTOM CHORD LENGTH = 10.00 FT OR RIGID CEILING DIRECTLY

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

LOADING TOTAL LOAD CASES: (4)

СН	ORDS		WEBS					
MA)	K. FACTORED	FACTO	RED				MAX. FACTO	RED
MEMB.	FORCE	VERT. LC	AD LC1	MAX	MAX.	MEMB.	FORCE	MAX
	(LBS)	(Pl	_F) (	CSI (LC)	UNBRAC	)	(LBS)	CSI (LC)
FR-TO		FROM	TO		LENGTH	I FR-TO		
A-B	-3069 / 0	-119.4	-119.4	0.51(1)	3.49	N- B	-380 / 0	0.08 (1)
B- C	-2793 / 0	-119.4	-119.4	0.48 (1)	3.67	B- M	-367 / 0	0.23(1)
C- D	-2888 / 0			0.58 (1)		M- C	0/319	0.07 (1)
D-E	-2888 / 0	-119.4	-119.4	0.58 (1)	3.45	C-L	0 / 606	0.14 (1)
E-F	-2793 / 0			0.48 (1)		L- D	-804 / 0	0.48 (1)
F- G	-3069 / 0			0.51 (1)		L- E	0 / 606	0.14 (1)
G- H	0 / 36			0.16(1)		K-E	0 / 319	0.07 (1)
O- A	-2089 / 0	0.0	0.0	0.21(1)	5.78	K- F	-367 / 0	0.23 (1)
I- G	-2251 / 0	0.0	0.0	0.23 (1)	5.60	J- F	-380 / 0	0.08 (1)
						A- N	0 / 2810	0.63 (1)
O- N	0/0	-18.2	-18.2	0.10 (4)	10.00	J- G	0 / 2810	0.63 (1)
N- M	0 / 2771	-18.2	-18.2	0.52 (1)	10.00			
M-L	0 / 2474	-18.2	-18.2	0.47 (1)	10.00			
L-K	0 / 2474			0.47 (1)				
K-J	0 / 2771			0.52 (1)				
J- I	0/0	-18.2	-18.2	0.10 (4)	10.00			

### **DESIGN CRITERIA**

SPEC	IFIED	LOAI	OS:		
TOP	CH.	LL	=	34.8	PS
		DL	=	6.0	PS
BOT	CH.	LL	=	0.0	PS
		DL	=	7.3	PS
TOTA	L LO	AD	=	48.1	PS

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 . NBC-2019AE

- PART 9 OF OBC 2012 (2019 AMENDMENT) CSA 086-14

- TPIC 2014

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

ALLOWABLE DEFL.(LL)= L/360 (1.03") CALCULATED VERT. DEFL.(LL)= L/ 999 (0.16") ALLOWABLE DEFL.(TL)= L/360 (1.03") CALCULATED VERT. DEFL.(TL)= L/ 999 (0.28")

CSI: TC=0.58/0.97 (C-D:1) , BC=0.52/0.97 (J-K:1) , WB=0.63/0.97 (A-N:1) , SSI=0.32/1.00 (C-D:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

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

NAIL VALUES

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

MAX MIN MAX MIN MAX MIN MAX MIN

MT20 650 371 1747 788 1987 1873

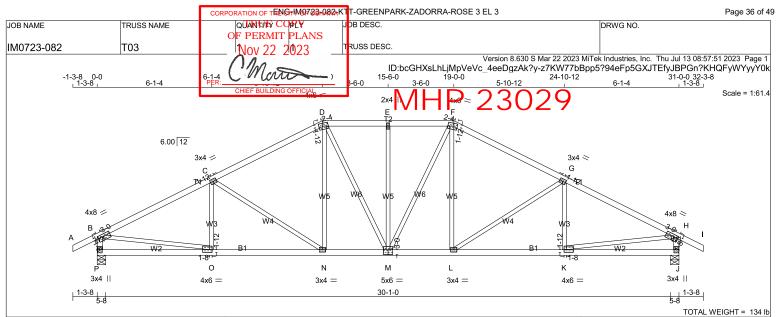
PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.90 (N) (INPUT = 0.90) JSI METAL= 0.66 (J) (INPUT = 1.00)







LUMBER									
N. L. G. A. R	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					

PLATES (table is in inches)
-----------------------------

J١	TYPE	PLATES	W	LEN	Υ	Х	
В	TMVW-t	MT20	4.0	8.0	1.50	3.00	
С	TMWW-t	MT20	3.0	4.0	1.50	1.75	
D	TTWW-m	MT20	4.0	6.0	1.75	2.25	
Е	TMW+w	MT20	2.0	4.0			
F	TTWW-m	MT20	4.0	6.0	1.75	2.25	
G	TMWW-t	MT20	3.0	4.0	1.50	1.75	
Н	TMVW-t	MT20	4.0	8.0	1.50	3.00	
J	BMV1+p	MT20	3.0	4.0			
K	BMWW-t	MT20	4.0	6.0	1.75	1.50	
L	BMWW-t	MT20	3.0	4.0			
M	BSWWW-I	MT20	5.0	6.0	3.00	3.00	
Ν	BMWW-t	MT20	3.0	4.0			
0	BMWW-t	MT20	4.0	6.0	1.75	1.50	
Р	BMV1+p	MT20	3.0	4.0			

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

	FACTOR GROSS RE					INPUT BRG	REQRD BRG
JT	VERT	HORZ	DOWN	HORZ	UPLIFT	IN-SX	IN-SX
Р	2296	0	2296	0	0	5-8	3-15
J	2296	0	2296	0	0	5-8	3-15

UNFACTORED REACTIONS

	1ST LCASE	MAX./ľ	иім. СОМРО	NENT REACTION	NS .		
JT	COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
Р	1602	1174 / 0	0/0	0/0	0/0	429 / 0	0/0
J	1602	1174 / 0	0/0	0/0	0/0	429 / 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 = 3.13 FT.
MAX. UNBRACED BOTTOM CHORD LENGTH = 10.00 FT OR RIGID CEILING DIRECTLY

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

LOADING TOTAL LOAD CASES: (4)

	ORDS X. FACTORED	FACTOR	=D			WE	B S MAX. FACTO	RED
MEMB.		VERT. LOA		1 MAX	MAX.	MEMB.		MAX
	(LBS)	(PLF			UNBRAC		(LBS)	CSI (LC)
FR-TO		FROM T	0		LENGTH			
A- B	0 / 36	-119.4 -1	119.4	0.16(1)	10.00	O- C	-279 / 34	0.07 (1)
B- C	-3111 / 0	-119.4 -1	119.4	0.75(1)	3.13	C-N	-633 / 0	0.63(1)
C- D	-2596 / 0	-119.4 -1	119.4	0.67(1)	3.49	N- D	0 / 443	0.10(1)
D- E	-2429 / 0	-119.4 -1	119.4	0.23(1)	4.18	D- M	0 / 301	0.07(1)
E-F	-2429 / 0	-119.4 -1	119.4	0.23(1)	4.18	M-E	-498 / 0	0.45(1)
F- G	-2596 / 0	-119.4 -1	119.4	0.67(1)	3.49	M- F	0 / 301	0.07 (1)
G- H	-3111 / 0	-119.4 -1	119.4	0.75(1)	3.13	L- F	0 / 443	0.10(1)
H- I	0 / 36	-119.4 -1	119.4	0.16(1)	10.00	L- G	-633 / 0	0.63(1)
P-B	-2247 / 0	0.0	0.0	0.23(1)	5.61	K- G	-279 / 34	0.07(1)
J- H	-2247 / 0	0.0	0.0	0.23 (1)	5.61	B- O	0 / 2844	0.64 (1)
						K- H	0 / 2844	0.64 (1)
P- 0	0/0	-18.2	-18.2	0.15 (4)	10.00			
O- N	0 / 2816	-18.2	-18.2	0.51 (1)	10.00			
N- M	0 / 2292	-18.2	-18.2	0.42(1)	10.00			
M- L	0 / 2292	-18.2	-18.2	0.42(1)	10.00			
L-K	0 / 2816	-18.2	-18.2	0.51 (1)	10.00			
K- J	0/0	-18.2	-18.2	0.15 (4)	10.00			

### **DESIGN CRITERIA**

SPEC	IFIED	LOAI	os:		
TOP	CH.	LL	=	34.8	PS
		DL	=	6.0	PS
BOT	CH.	LL	=	0.0	PS
		DL	=	7.3	PS
TOTA	L LO	AD	=	48.1	PS

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 . NBC-2019AE - PART 9 OF OBC 2012 (2019 AMENDMENT) CSA 086-14

ROOF LIVE LOAD

- 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

ALLOWABLE DEFL.(LL)= L/360 (1.03")
CALCULATED VERT. DEFL.(LL) = L/999 (0.15")
ALLOWABLE DEFL.(TL)= L/360 (1.03")
CALCULATED VERT. DEFL.(TL) = L/999 (0.25")

CSI: TC=0.75/0.97 (G-H:1) , BC=0.51/0.97 (N-O:1) , WB=0.64/0.97 (B-O:1) , SSI=0.31/1.00 (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) SHEAR SECTION (PSI) (PLI) (PLI)

MAX MIN MAX MIN MAX MIN MAX MIN

MT20 650 371 1747 788 1987 1873

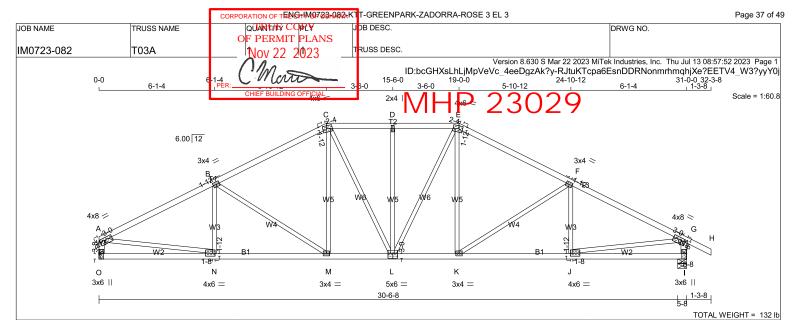
PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.90 (P) (INPUT = 0.90) JSI METAL= 0.67 (O) (INPUT = 1.00)







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 - H	2x4	DRY	No.2	SPF				
O - A	2x4	DRY	No.2	SPF				
I - G	2x4	DRY	No.2	SPF				
O - L	2x4	DRY	No.2	SPF				
L - I	2x4	DRY	No.2	SPF				
ALL WEBS	2x3	DRY	No.2	SPF				

## PLATES (table is in inches)

JT	TYPE	PLATES	W	LEN	Y X	
Α	TMVW-t	MT20	4.0	8.0	1.50 3.0	00
В	TMWW-t	MT20	3.0	4.0	1.50 1.	75
С	TTWW-m	MT20	4.0	6.0	1.75 2.3	25
D	TMW+w	MT20	2.0	4.0		
Е	TTWW-m	MT20	4.0	6.0	1.75 2.3	25
F	TMWW-t	MT20	3.0	4.0	1.50 1.	75
G	TMVW-t	MT20	4.0	8.0	1.50 3.0	00
1	BMV1+t	MT20	3.0	6.0	Edge 0.5	50
J	BMWW-t	MT20	4.0	6.0	1.75 1.	50
K	BMWW-t	MT20	3.0	4.0		
L	BSWWW-I	MT20	5.0	6.0	3.00 3.0	00
M	BMWW-t	MT20	3.0	4.0		
N	BMWW-t	MT20	4.0	6.0	1.75 1.5	50
0	BMV1+t	MT20	3.0	6.0	3.50	

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

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

DEA	KINGS						
	FACTOR	RED	MAXIMU	M FACTO	ORED	INPUT	REQRD
	GROSS RE	EACTION				BRG	BRG
JT	VERT	HORZ	DOWN	HORZ	UPLIFT	IN-SX	IN-SX
0	2134	0	2134	0	0	MECHANIC	CAL
I	2296	0	2296	0	0	5-8	3-15

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

### UNFACTORED REACTIONS

	1ST LCASE	MAX./N	<u>/IIN. COMPO</u>	NENT REACTION	NS .		
JT	COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
0	1491	1079 / 0	0/0	0/0	0/0	412 / 0	0/0
1	1602	1174 / 0	0/0	0/0	0/0	429 / 0	0/0

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

BRACING
TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 3.13 FT.
MAX. UNBRACED BOTTOM CHORD LENGTH = 10.00 FT OR RIGID CEILING DIRECTLY

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

LOADING TOTAL LOAD CASES: (4)

CH	ORDS		WEBS					
MA)	K. FACTORED	FACTOR	RED				MAX. FACTO	RED
MEMB.	FORCE	VERT. LOA	AD LC1	MAX	MAX.	MEMB.	FORCE	MAX
	(LBS)	(PLF	F) (	CSI (LC)	UNBRAC	;	(LBS)	CSI (LC)
FR-TO		FROM	ΤΌ		LENGTH	FR-TO		
A-B	-3111 / 0	-119.4 -	119.4	0.75(1)	3.13	N-B	-279 / 34	0.07(1)
B- C	-2596 / 0	-119.4 -	119.4	0.67(1)	3.49	B- M	-633 / 0	0.63(1)
C-D	-2429 / 0	-119.4 -	119.4	0.23(1)	4.18	M- C	0 / 443	0.10(1)
D-E	-2429 / 0	-119.4 -	119.4	0.23(1)	4.18	C-L	0 / 301	0.07 (1)
E-F	-2596 / 0	-119.4 -	119.4	0.67(1)	3.49	L- D	-498 / 0	0.45 (1)
F- G	-3111 / 0	-119.4 -	119.4	0.75(1)	3.13	L-E	0 / 301	0.07(1)
G- H	0 / 36	-119.4 -	119.4	0.16(1)	10.00	K-E	0 / 443	0.10(1)
O- A	-2085 / 0	0.0	0.0	0.21(1)	5.78	K-F	-633 / 0	0.63(1)
I- G	-2247 / 0	0.0	0.0	0.23(1)	5.61	J- F	-279 / 34	0.07(1)
						A- N	0 / 2844	0.64(1)
O- N	0/0	-18.2	-18.2	0.15(4)	10.00	J- G	0 / 2844	0.64 (1)
N- M	0 / 2816	-18.2	-18.2	0.51(1)	10.00			
M- L	0 / 2292	-18.2	-18.2	0.42(1)	10.00			
L-K	0 / 2292			0.42(1)				
K- J	0 / 2816	-18.2		0.51(1)				
J- I	0/0	-18.2	-18.2	0.15 (4)	10.00			



SPECIFIED LOADS:							
TOP	CH.	LL =	34.8	PSF			
		DL =	6.0	PSF			
BOT	CH.	LL =	0.0	PSF			
		DL =	7.3	PSF			
TOTA	L LO	AD =	48.1	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 . NBC-2019AE - PART 9 OF OBC 2012 (2019 AMENDMENT)

CSA 086-14 - TPIC 2014

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

ALLOWABLE DEFL.(LL)= L/360 (1.03") CALCULATED VERT. DEFL.(LL)= L/ 999 (0.14") ALLOWABLE DEFL.(TL)= L/360 (1.03") CALCULATED VERT. DEFL.(TL)= L/ 999 (0.25")

CSI: TC=0.75/0.97 (A-B:1) , BC=0.51/0.97 (J-K:1) , WB=0.64/0.97 (A-N:1) , SSI=0.31/1.00 (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 SECTION (PSI) (PLI) (PLI)

MAX MIN MAX MIN MAX MIN MAX MIN

MT20 650 371 1747 788 1987 1873

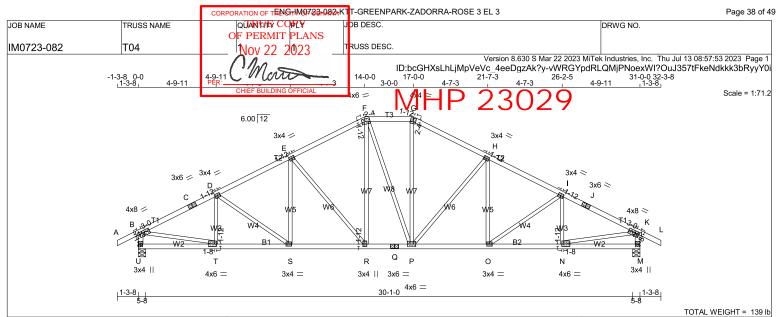
PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.88 (G) (INPUT = 0.90 ) JSI METAL= 0.67 (N) (INPUT = 1.00)







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

# PLATES (table is in inches)

JT	TYPE	PLATES	W	LEN	Υ	Х	
В	TMVW-t	MT20	4.0	8.0	1.50	3.00	
С	TS-t	MT20	3.0	6.0			
D, E	Ξ, Η, Ι						
D	TMWW-t	MT20	3.0	4.0	1.50	1.75	
F	TTWW-m	MT20	4.0	6.0	1.75	2.25	
G	TTW-m	MT20	4.0	4.0	2.25	1.75	
J	TS-t	MT20	3.0	6.0			
K	TMVW-t	MT20	4.0	8.0	1.50	3.00	
М	BMV1+p	MT20	3.0	4.0			
Ν	BMWW-t	MT20	4.0	6.0	1.75	1.50	
0	BMWW-t	MT20	3.0	4.0			
Ρ	BMWWW-t	MT20	4.0	6.0			
Q	BS-t	MT20	3.0	6.0			
R	BMWW+t	MT20	3.0	4.0	1.75	1.50	
S	BMWW-t	MT20	3.0	4.0			
Т	BMWW-t	MT20	4.0	6.0	1.75	1.50	
U	BMV1+p	MT20	3.0	4.0			

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

DEA	RINGS						
	FACTOR	RED	MAXIMU	MAXIMUM FACTORED			REQRD
	GROSS RE	EACTION	GROSS	REACTIC	N	BRG	BRG
JT	VERT	HORZ	DOWN	HORZ	UPLIFT	IN-SX	IN-SX
U	2296	0	2296	0	0	5-8	3-15
М	2296	0	2296	0	0	5-8	3-15

UNFACTORED REACTIONS

	1ST LCASE	MAX./I	иін. Сомро	NENT REACTION	NS .		
JT	COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
U	1602	1174 / 0	0/0	0/0	0/0	429 / 0	0/0
М	1602	1174 / 0	0/0	0/0	0/0	429 / 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 = 3.58 FT.
MAX. UNBRACED BOTTOM CHORD LENGTH = 10.00 FT OR RIGID CEILING DIRECTLY

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

LOADING TOTAL LOAD CASES: (4)

CH	ORDS				W E	BS	
MAX	K. FACTORED	FACTORED				MAX. FACTO	RED
MEMB.	FORCE	VERT. LOAD LC	1 MAX	MAX.	MEMB.	FORCE	MAX
	(LBS)	(PLF)	CSI (LC)	UNBRAC	;	(LBS)	CSI (LC)
FR-TO		FROM TO		LENGTH	FR-TO		
A- B	0 / 36	-119.4 -119.4	0.16(1)	10.00	T- D	-404 / 0	0.09 (1)
B- C	-3034 / 0	-119.4 -119.4	0.45 (1)	3.58	D-S	-210 / 0	0.11 (1)
C- D	-3034 / 0	-119.4 -119.4	0.45 (1)	3.58	S-E	0 / 212	0.05(1)
D- E	-2865 / 0	-119.4 -119.4	0.37 (1)	3.77	E-R	-753 / 0	0.77 (1)
E-F	-2347 / 0	-119.4 -119.4	0.36(1)	4.11	R-F	0 / 634	0.14 (1)
F- G	-2087 / 0	-119.4 -119.4				0/7	0.00(1)
G- H	-2349 / 0	-119.4 -119.4				0 / 642	0.14 (1)
H- I	-2864 / 0	-119.4 -119.4			P- H	-747 / 0	0.77 (1)
I- J	-3034 / 0	-119.4 -119.4				0 / 207	0.05 (1)
J- K	-3034 / 0	-119.4 -119.4			O- I	-211 / 0	0.11 (1)
K-L	0 / 36				N- I	-403 / 0	0.09 (1)
U- B	-2254 / 0		0.23 (1)			0 / 2777	0.62 (1)
M- K	-2254 / 0	0.0 0.0	0.23 (1)	5.60	N- K	0 / 2777	0.62 (1)
U- T		-18.2 -18.2					
T-S	0 / 2734		0.48 (1)				
S-R	0 / 2562		0.45 (1)				
R-Q	0 / 2085	-18.2 -18.2					
Q-P	0 / 2085		0.38 (1)				
P- 0		-18.2 -18.2					
0- N		-18.2 -18.2					
N- M	0/0	-18.2 -18.2	0.09 (4)	10.00			

### **DESIGN CRITERIA**

SPECIFIED LOADS:							
TOP	CH.	LL	=	34.8	PSF		
		DL	=	6.0	PSI		
BOT	CH.	LL	=	0.0	PSI		
		DL	=	7.3	PSI		
TOTA	L LO	AD	=	48.1	PSI		

### 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, NBC-2019AE - PART 9 OF OBC 2012 (2019 AMENDMENT)

CSA 086-14 - TPIC 2014

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

ALLOWABLE DEFL.(LL)= L/360 (1.03")
CALCULATED VERT. DEFL.(LL)= L/999 (0.14")
ALLOWABLE DEFL.(TL)= L/360 (1.03")
CALCULATED VERT. DEFL.(TL)= L/999 (0.25")

CSI: TC=0.45/0.97 (I-K:1) , BC=0.48/0.97 (N-O:1) , WB=0.77/0.97 (E-R:1) , SSI=0.23/1.00 (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 MAX MIN

MT20 650 371 1747 788 1987 1873

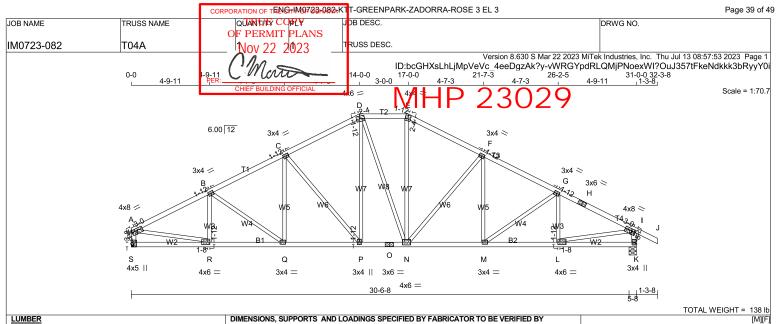
PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.90 (M) (INPUT = 0.90 ) JSI METAL= 0.65 (N) (INPUT = 1.00)







LUMBER				
N. L. G. A. R	ULES			
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
H - J	2x4	DRY	No.2	SPF
S - A	2x4	DRY	No.2	SPF
K - I	2x4	DRY	No.2	SPF
S - O	2x4	DRY	No.2	SPF
0 - K	2x4	DRY	No.2	SPF
ALL WEBS	2x3	DRY	No.2	SPF
EXCEPT				

PLATES (table is in inches)

<u> </u>	FLATES (table is ill literies)								
JT	TYPE	PLATES	W	LEN	Υ	X			
Α	TMVW-t	MT20	4.0	8.0	1.50	3.00			
В, (	B, C, F, G								
В	TMWW-t	MT20	3.0	4.0	1.50	1.75			
D	TTWW-m	MT20	4.0	6.0	1.75	2.25			
Ε	TTW-m	MT20	4.0	4.0	2.25	1.75			
Н	TS-t	MT20	3.0	6.0					
1	TMVW-t	MT20	4.0	8.0	1.50	3.00			
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					
Ν	BMWWW-t	MT20	4.0	6.0					
0	BS-t	MT20	3.0	6.0					
Ρ	BMWW+t	MT20	3.0	4.0	1.75	1.50			
Q	BMWW-t	MT20	3.0	4.0					
R	BMWW-t	MT20	4.0	6.0	1.75	1.50			
S	BMV1+t	MT20	4.0	5.0	3.50				

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

<u>, , , , , , , , , , , , , , , , , , , </u>	111100						
	FACTOR	MAXIMUN	/ FACTO	RED	INPUT	REQRD	
	<b>GROSS RE</b>	ACTION	GROSS F	REACTIO	N	BRG	BRG
ΙT	VERT	HORZ	DOWN	HORZ	UPLIFT	IN-SX	IN-SX
3	2134	0	2134	0	0	MECHANIC	CAL
(	2296	0	2296	0	0	5-8	3-15

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

UNFACTORED REACTIONS

	1ST LCASE	MAX./N	MIN. COMPO	NENT REACTION	NS		
JT	COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
S	1491	1079 / 0	0/0	0/0	0/0	412 / 0	0/0
K	1602	1174 / 0	0/0	0/0	0/0	429 / 0	0/0

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

BRACING
TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 3.58 FT.
MAX. UNBRACED BOTTOM CHORD LENGTH = 10.00 FT OR RIGID CEILING DIRECTLY

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

LOADING TOTAL LOAD CASES: (4)

Сн	CHORDS WEBS						
	K. FACTORED	FACTORED				MAX. FACTO	RED
мемв.		VERT. LOAD LO	C1 MAX	MAX	MEMB		MAX
	(LBS)	(PLF)					
FR-TO	(220)	FROM TO				(255)	00.(20)
A-B	-3034 / 0	-119.4 -119.			R-B	-404 / 0	0.09(1)
B-C	-2865 / 0	-119.4 -119.			B- Q	-210 / 0	0.11 (1)
C-D	-2347 / 0	-119.4 -119.				0 / 212	0.05 (1)
D- E	-2087 / 0	-119.4 -119.			Ĉ-P	-753 / 0	0.77 (1)
E-F	-2349 / 0	-119.4 -119.				0 / 634	0.14 (1)
F- G	-2864 / 0	-119.4 -119.				0/7	0.00 (1)
G- H	-3034 / 0	-119.4 -119.				0 / 642	0.14 (1)
H- I	-3034 / 0	-119.4 -119.			N- F	-747 / 0	0.77 (1)
	0 / 36					0 / 207	0.05 (1)
S- A	-2092 / 0		0 0.21 (1)		M- G	-211 / 0	0.11 (1)
K- I	-2254 / 0	0.0 0.	0 0.23 (1)	5.60	L- G	-403 / 0	0.09 (1)
			` '		A-R	0 / 2777	0.62 (1)
S-R	0/0	-18.2 -18.	2 0.09 (4)	10.00	L- I	0 / 2777	0.62 (1)
R-Q	0 / 2734	-18.2 -18.	2 0.48 (1)	10.00			( )
Q-P	0 / 2562	-18.2 -18.	2 0.45 (1)	10.00			
P- 0	0 / 2085	-18.2 -18.	2 0.38 (1)	10.00			
O- N	0 / 2085	-18.2 -18.	2 0.38 (1)	10.00			
N- M	0 / 2561	-18.2 -18.	2 0.46 (1)	10.00			
M-L	0 / 2734		2 0.48 (1)				
L-K	0/0	-18.2 -18.	2 0.09 (4)	10.00			



SPEC	IFIED	LOADS	:	
TOP	CH.	LL =	34.8	PSF
		DL =	6.0	PSF
BOT	CH.	LL =	0.0	PSF
		DL =	7.3	PSF
TOTA	L LO	AD =	48.1	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 . NBC-2019AE

- PART 9 OF OBC 2012 (2019 AMENDMENT) CSA 086-14 - TPIC 2014

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

ALLOWABLE DEFL.(LL)= L/360 (1.03")
CALCULATED VERT. DEFL.(LL)= L/999 (0.14")
ALLOWABLE DEFL.(TL)= L/360 (1.03")
CALCULATED VERT. DEFL.(TL) = L/999 (0.25")

CSI: TC=0.45/0.97 (G-I:1) , BC=0.48/0.97 (L-M:1) , WB=0.77/0.97 (C-P:1) , SSI=0.23/1.00 (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) SHEAR SECTION (PSI) (PLI) (PLI)

MAX MIN MAX MIN MAX MIN MAX MIN

MT20 650 371 1747 788 1987 1873

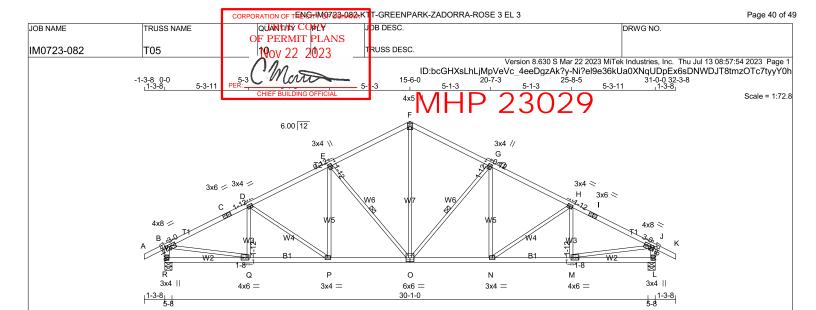
PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.90 (K) (INPUT = 0.90) JSI METAL= 0.65 (L) (INPUT = 1.00)







LUMBER				
N. L. G. A. R	ULES			
CHORDS	SIZE		LUMBER	DESCR.
A - C	2x4	DRY	No.2	SPF
C - F	2x4	DRY	No.2	SPF
F - I	2x4	DRY	No.2	SPF
I - K	2x4	DRY	No.2	SPF
R - B	2x4	DRY	No.2	SPF
L - J	2x4	DRY	No.2	SPF
R - O	2x4	DRY	No.2	SPF
O - L	2x4	DRY	No.2	SPF
ALL WEBS	2x3	DRY	No.2	SPF
EXCEPT				

1-3-8

DRY: SEASONED LUMBER.

PLA	TES	(table	is ir	inches	)
JT	TYPE		PI	ATES	

JT	TYPE	PLATES	W	LEN	Υ	X
В	TMVW-t	MT20	4.0	8.0	1.50	3.00
С	TS-t	MT20	3.0	6.0		
D	TMWW-t	MT20	3.0	4.0	1.50	1.75
Е	TMWW+t	MT20	3.0	4.0	1.75	0.75
F	TTW+p	MT20	4.0	5.0		
G	TMWW+t	MT20	3.0	4.0	1.75	0.75
Н	TMWW-t	MT20	3.0	4.0	1.50	1.75
1	TS-t	MT20	3.0	6.0		
J	TMVW-t	MT20	4.0	8.0	1.50	3.00
L	BMV1+p	MT20	3.0	4.0		
М	BMWW-t	MT20	4.0	6.0	1.75	1.50
N	BMWW-t	MT20	3.0	4.0		
0	BSWWW-I	MT20	6.0	6.0		
Ρ	BMWW-t	MT20	3.0	4.0		
Q	BMWW-t	MT20	4.0	6.0	1.75	1.50
R	BMV1+p	MT20	3.0	4.0		

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

30-1-0

111100						
FACTORED		MAXIMUM FACTORED			INPUT	REQRD
GROSS RE	ACTION	GROSS F	REACTIO	N	BRG	BRG
VERT	HORZ	DOWN	HORZ	UPLIFT	IN-SX	IN-SX
2296	0	2296	0	0	5-8	3-15
2296	0	2296	0	0	5-8	3-15
	FACTOR GROSS RE VERT 2296	FACTORED GROSS REACTION VERT HORZ 2296 0	FACTORED MAXIMUI GROSS REACTION GROSS R VERT HORZ DOWN 2296 0 2296	FACTORED MAXIMUM FACTO GROSS REACTION GROSS REACTIO VERT HORZ DOWN HORZ 2296 0 2296 0	FACTORED MAXIMUM FACTORED GROSS REACTION GROSS REACTION VERT HORZ DOWN HORZ UPLIFT 2296 0 0 0	FACTORED MAXIMUM FACTORED INPUT GROSS REACTION GROSS REACTION BRG VERT HORZ DOWN HORZ UPLIFT IN-SX 2296 0 2296 0 0 5-8

UNFACTORED REACTIONS

	1ST LCASE	MAX./N	IIN. COMPO	NENT REACTION	NS		
JT	COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
R	1602	1174 / 0	0/0	0/0	0/0	429 / 0	0/0
L	1602	1174 / 0	0/0	0/0	0/0	429 / 0	0/0

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

**BRACING**TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 3.45 FT.
MAX. UNBRACED BOTTOM CHORD LENGTH = 10.00 FT OR RIGID CEILING DIRECTLY

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

1 - 1x4 LATERAL BRACE(S) AT 1/2 LENGTH OF G-O, E-O. DBS = 20-0-0 . CBF = 110 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)

СН	ORDS	WEBS						
MAX	K. FACTORED	FACTO	RED				MAX. FACTO	DRED
MEMB.	FORCE						FORCE	MAX
	(LBS)	(Pl	_F)	CSI (LC)	UNBRAC		(LBS)	CSI (LC)
FR-TO		FROM	TO		LENGTH	I FR-TO		
A- B	0 / 36	-119.4	-119.4	0.16 (1)	10.00	0- F	0 / 1428	0.32(1)
B- C	-3065 / 0			0.55 (1)			-882 / 0	0.37 (1)
C- D	-3065 / 0	-119.4	-119.4	0.55 (1)	3.45	N- G	0 / 294	0.07(1)
D- E	-2784 / 0	-119.4	-119.4	0.45(1)	3.74	N- H	-334 / 0	0.23(1)
E-F	-2174 / 0	-119.4	-119.4	0.42(1)	4.16	M- H	-352 / 0	0.08 (1)
F- G	-2174 / 0	-119.4	-119.4	0.42(1)	4.16	E-O	-882 / 0	0.37(1)
G- H	-2784 / 0	-119.4	-119.4	0.45 (1)	3.74	P-E	0 / 294	0.07(1)
H- I	-3065 / 0			0.55 (1)		D- P	-334 / 0	0.23 (1)
I- J	-3065 / 0	-119.4	-119.4	0.55 (1)	3.45	Q- D	-352 / 0	0.08 (1)
J- K	0 / 36			0.16 (1)		B- Q	0 / 2800	0.63 (1)
R-B	-2251 / 0	0.0	0.0	0.23(1)	5.60	M- J	0 / 2800	0.63 (1)
L- J	-2251 / 0	0.0	0.0	0.23 (1)	5.60			
R-Q	0/0	-18.2	-18.2	0.10 (4)	10.00			
Q-P	0 / 2764			0.50 (1)				
P- O	0 / 2489			0.46 (1)				
O- N	0 / 2489	-18.2	-18.2	0.46 (1)	10.00			
N- M		-18.2						
M- L	0/0	-18.2	-18.2	0.10 (4)	10.00			

## **DESIGN CRITERIA**

SPEC	IFIED	LOAI	OS:		
TOP	CH.	LL	=	34.8	PSF
		DL	=	6.0	PSF
BOT	CH.	LL	=	0.0	PSF
		DL	=	7.3	PSF
TOTA	L LO	AD	=	48.1	PSF

### SPACING = 24.0 IN. C/C

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

TOTAL WEIGHT = 10 X 132 = 1316 lb

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

CSA 086-14 - TPIC 2014

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

ALLOWABLE DEFL.(LL)= L/360 (1.03") CALCULATED VERT. DEFL.(LL)= L/999 (0.15") ALLOWABLE DEFL.(TL)= L/360 (1.03") CALCULATED VERT. DEFL.(TL)= L/999 (0.27")

CSI: TC=0.55/0.97 (H-J:1) , BC=0.50/0.97 (M-N:1) , WB=0.63/0.97 (B-Q:1) , SSI=0.26/1.00 (H-J: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 650 371 1747 788 1987 1873

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.90 (L) (INPUT = 0.90 ) JSI METAL= 0.66 (Q) (INPUT = 1.00 )



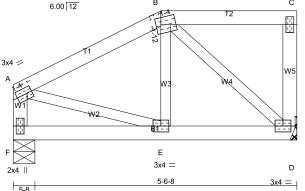


OF PERMIT PLANS IM0723-082 T06 Nov 22 2023

RUSS DESC. Version 8.630 S Mar 22 2023 MiTek Industries, Inc. Thu Jul 13 08:57:55 2023 Page 1 ID:bcGHXsLhLjMpVeVc\_4eeDgzAk?y-ruZ1zVeht1cRehy02xKTTJOU2wgJCimwC2DAfKyyY0g

3-1-8 2-10-8 4x5 =

Scale = 1:24.4



TOTAL WEIGHT = 24 lb

LUMBER				
N. L. G. A. R	ULES			
CHORDS	SIZE		LUMBER	DESCR.
A - B	2x4	DRY	No.2	SPF
B - C	2x4	DRY	No.2	SPF
D - C	2x4	DRY	No.2	SPF
F - A	2x4	DRY	No.2	SPF
F - D	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	Υ	Χ
Α	TMVW-t	MT20	3.0	4.0	1.50	1.25
В	TTWW-m	MT20	4.0	5.0	1.75	1.25
С	TMV+p	MT20	2.0	4.0		
D	BMVW1-t	MT20	3.0	4.0		
Е	BMWW-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

BEA	rings						
	FACTOR	ED	MAXIMUN	/ FACTO	RED	INPUT	REQRD
	GROSS RE	ACTION	GROSS F	REACTIO	N	BRG	BRG
JT	VERT	HORZ	DOWN	HORZ	UPLIFT	IN-SX	IN-SX
D	413	0	413	0	0	MECHANIC	AL
F	413	0	413	0	0	5-8	1-8

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

### UNFACTORED REACTIONS

	1ST LCASE	MAX./N	MAX./MIN. COMPONENT REACTIONS							
JT	COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL			
D	289	209 / 0	0/0	0/0	0/0	80 / 0	0/0			
F	289	209 / 0	0/0	0/0	0/0	80 / 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 = 6.25 FT.
MAX. UNBRACED BOTTOM CHORD LENGTH = 10.00 FT OR RIGID CEILING DIRECTLY

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

LOADING TOTAL LOAD CASES: (4)

	CHORDS MAX. FACTORED FACTORED				W E B S MAX. FACTORED				
MEMB.	FORCE (LBS)	VERT. LC	AD LC		MAX. UNBRAC	МЕМВ.	FORCE (LBS)	MAX CSI (LC)	
FR-TO	(LDO)	FROM		OOI (LO)	LENGTH		(LDO)	001 (LO)	
A-B	-292 / 0	-119.4	-119.4	0.15(1)	6.25	E-B	-6 / 55	0.02(4)	
B- C	0/0	-119.4	-119.4	0.17(1)	10.00	B- D	-342 / 0	0.08 (1)	
D- C	-172 / 0	0.0	0.0	0.02(1)	7.81	A-E	0 / 270	0.06(1)	
F- A	-387 / 0	0.0	0.0	0.04 (1)	7.81				
F-E	0/0			0.04 (4)					
E- D	0 / 261	-18.2	-18.2	0.06 (4)	10.00				

### **DESIGN CRITERIA**

SPECIFIED LOADS:								
TOP	CH.	LL	=	34.8	PSI			
		DL	=	6.0	PS			
BOT	CH.	LL	=	0.0	PS			
		DL	=	7.3	PS			
TOTA	L LO	AD	=	48.1	PS			

### 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 . NBC-2019AE - PART 9 OF OBC 2012 (2019 AMENDMENT)

CSA 086-14 - TPIC 2014

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

ALLOWABLE DEFL.(LL)= L/360 (0.20")
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=0.17/0.97 (B-C:1) , BC=0.06/0.97 (D-E:4) , WB=0.08/0.97 (B-D:1) , SSI=0.13/1.00 (B-C:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

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

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

MAX MIN MAX MIN MAX MIN MAX MIN

MT20 650 371 1747 788 1987 1873

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.65 (A) (INPUT = 0.90) JSI METAL= 0.13 (A) (INPUT = 1.00)





RUSS DESC.

2-8-0

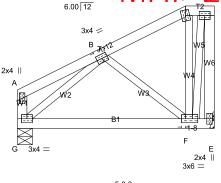
OF PERMIT PLANS Nov 22 2023 CHIEF BUILDING OFFICIA

Version 8,630 S Mar 22 2023 MiTek Industries, Inc. Thu Jul 13 08:57:55 2023 Page 1 ID:bcGHXsLhLjMpVeVc\_4eeDgzAk?y-ruZ1zVeht1cRehy02xKTTJOVkwflCiXwC2DAfKyyY0g 5-1-8 6-0-0 10-8

11) 3x4 =

Scale = 1:35.1

TOTAL WEIGHT = 29 lb



5-6-8

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

T07

IM0723-082

DRY: SEASONED LUMBER.

PLATES (table is in inches)

JT	TYPE	PLATES	W	LEN	Υ	Χ
Α	TMV+p	MT20	2.0	4.0		
В	TMWW-t	MT20	3.0	4.0	1.50	1.75
С	TTW+m	MT20	3.0	4.0		
D	TMVW-t	MT20	3.0	4.0		
Е	BMV1+p	MT20	2.0	4.0		
F	BMWWW-t	MT20	3.0	6.0	1.50	1.50
G	BMVW1-t	MT20	3.0	4.0		

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

SEA	RINGS						
	FACTOR	RED	MAXIMUM FACTORED			INPUT	REQRD
	GROSS RE	ACTION	GROSS REACTION			BRG	BRG
T	VERT	HORZ	DOWN	HORZ	UPLIFT	IN-SX	IN-SX
	413	0	413	0	0	MECHANIC	CAL
3	413	0	413	0	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

	1ST LCASE	MAX./N	MAX./MIN. COMPONENT REACTIONS							
JT	COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL			
Ε	289	209 / 0	0/0	0/0	0/0	80 / 0	0/0			
G	289	209 / 0	0/0	0/0	0/0	80 / 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

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

LOADING TOTAL LOAD CASES: (4)

CHC	CHORDS				WEBS					
MAX.	FACTORED	FACTOR	RED				MAX. FACTO	RED		
MEMB.	FORCE	VERT. LOA	AD LC1	MAX	MAX.	MEMB.	FORCE	MAX		
	(LBS)	(PLF	F) (	CSI (LC)	UNBRAC		(LBS)	CSI (LC)		
FR-TO		FROM	TO		LENGTH	FR-TO				
A- B	0 / 16	-119.4 -	119.4	0.12(1)	10.00	B- F	-269 / 0	0.06(1)		
B- C	-120 / 0	-119.4 -	119.4	0.09(1)	6.25	F- C	-126 / 0	0.03(1)		
C- D	-90 / 0	-119.4 -	119.4	0.01(1)	6.25	F- D	0 / 410	0.09(1)		
E- D	-451 / 0	0.0	0.0	0.10(1)	7.81	G-B	-398 / 0	0.08 (1)		
G- A	-117 / 0	0.0	0.0	0.01(1)	7.81					
G-F	0 / 305	-18.2	-18.2	0.13(4)	10.00					
F-E	0/0	-18.2	-18.2	0.11 (4)	10.00					

**DESIGN CRITERIA** 

SPECIFIED LOADS: LL DL 34.8 6.0 PSF PSF PSF TOP CH. 0.0 7.3 LL TOTAL LOAD 48.1

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 , NBC-2019AE - PART 9 OF OBC 2012 (2019 AMENDMENT)

CSA 086-14 - TPIC 2014

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

ALLOWABLE DEFL.(LL)= L/360 (0.20") CALCULATED VERT. DEFL.(LL)= L/ 999 (0.01") ALLOWABLE DEFL.(TL)= L/360 (0.20") CALCULATED VERT. DEFL.(TL)= L/ 999 (0.03")

CSI: TC=0.12/0.97 (A-B:1) , BC=0.13/0.97 (F-G:4) , WB=0.09/0.97 (D-F:1) , SSI=0.13/1.00 (B-C:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

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

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

MAX MIN MAX MIN MAX MIN MAX MIN

MT20 650 371 1747 788 1987 1873

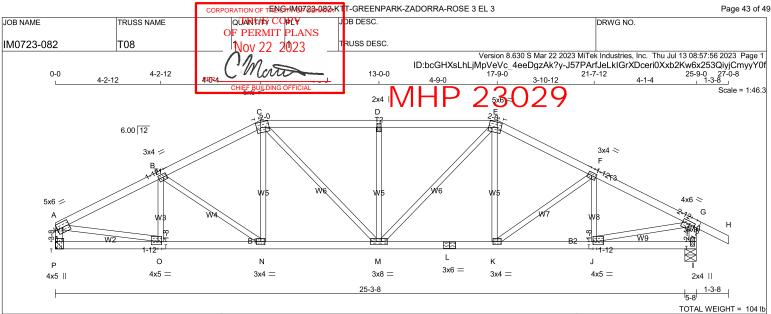
PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.79 (F) (INPUT = 0.90) JSI METAL= 0.13 (F) (INPUT = 1.00)







LUMBER				
N. L. G. A. F	RULES			
CHORDS	SIZE		LUMBER	DESCR.
A - C	2x4	DRY	No.2	SPF
C - E	2x4	DRY	No.2	SPF
E - H	2x4	DRY	No.2	SPF
P - A	2x4	DRY	No.2	SPF
1 - G	2x4	DRY	No.2	SPF
P - L	2x4	DRY	No.2	SPF
L - I	2x4	DRY	No.2	SPF
ALL WEBS	2x3	DRY	No.2	SPF
EXCEPT				

PLATES	(table	ıs ın	inches)

JT	TYPE	PLATES	W	LEN	Υ	Χ
Α	TMVW-t	MT20	5.0	6.0		Edge
В	TMWW-t	MT20	3.0	4.0	1.50	1.75
С	TTWW-m	MT20	5.0	6.0	2.50	2.00
D	TMW+w	MT20	2.0	4.0		
Е	TTWW-m	MT20	5.0	6.0	2.50	2.00
F	TMWW-t	MT20	3.0	4.0	1.50	1.75
G	TMVW-t	MT20	4.0	6.0	1.50	2.75
1	BMV1+p	MT20	2.0	4.0	2.25	1.00
J	BMWW-t	MT20	4.0	5.0	1.50	1.75
K	BMWW-t	MT20	3.0	4.0		
L	BS-t	MT20	3.0	6.0		
M	BMWWW-t	MT20	3.0	8.0		
N	BMWW-t	MT20	3.0	4.0		
0	BMWW-t	MT20	4.0	5.0	1.50	1.75
Р	BMV1+t	MT20	4.0	5.0	3.50	

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

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

DEAL	KINGS						
	FACTORED		MAXIMUN	M FACTO	INPUT	REQRD	
	GROSS RE	ACTION	GROSS REACTION			BRG	BRG
JT	VERT	HORZ	DOWN	HORZ	UPLIFT	IN-SX	IN-SX
Р	1773	0	1773	0	0	MECHANIC	CAL
l	1935	0	1935	0	0	5-8	2-13

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

## UNFACTORED REACTIONS

	151 LCASE	IVIAX./I	VIIN. COMPO	NENT REACTION	VO		
JT	COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
Р	1239	896 / 0	0/0	0/0	0/0	342 / 0	0/0
I	1350	991 / 0	0/0	0/0	0/0	359 / 0	0/0

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

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

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

LOADING TOTAL LOAD CASES: (4)

СН	ORDS					WE	R S	
	X. FACTORED	FACTO	RED			** L	MAX. FACTO	RED
мемв.						MEMB.	FORCE	
		(PI						
FR-TO	, ,				LENGTH		. ,	, ,
A-B	-2523 / 0	-119.4	-119.4	0.32(1)	4.03	O-B	-328 / 0	0.06(1)
B- C	-2313 / 0			0.30(1)		B- N	-283 / 0	0.12 (1)
C-D	-2409 / 0	-119.4	-119.4	0.41(1)	3.99	N- C	0 / 253	0.06 (1)
D-E	-2409 / 0	-119.4	-119.4	0.41 (1)	3.99	C- M	0 / 514	0.12 (1)
E-F	-2275 / 0	-119.4	-119.4	0.28 (1)	4.25	M- D	-691 / 0	0.27 (1)
F-G	-2406 / 0			0.29 (1)		M-E	0 / 562	0.13 (1)
G- H	0 / 36			0.16 (1)		K-E	0 / 208	0.05 (1)
P- A	-1733 / 0			0.17 (1)		K-F	-199 / 0	0.08 (1)
I- G	-1897 / 0	0.0	0.0	0.19 (1)	6.03	J- F	-389 / 0	0.07 (1)
							0 / 2311	0.52 (1)
P- 0	0/0	-18.2				J- G	0 / 2220	0.50 (1)
O- N	0 / 2277			0.41 (1)				
N- M	0 / 2050			0.37 (1)				
M-L	0 / 2016			0.37 (1)				
L-K	0 / 2016			0.37 (1)				
K-J	0 / 2173			0.39 (1)				
J- I	0/0	-18.2	-18.2	0.07 (4)	10.00			

## **DESIGN CRITERIA**

SPECIFIED LOADS:									
TOP	CH.	LL :	=	34.8	PSF				
		DL :	=	6.0	PSF				
BOT	CH.	LL :	=	0.0	PSF				
		DL :	=	7.3	PSF				
TOTA	L LO	AD :	=	48.1	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 . NBC-2019AE - PART 9 OF OBC 2012 (2019 AMENDMENT)

CSA 086-14 - TPIC 2014

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

ALLOWABLE DEFL.(LL)= L/360 (0.86") CALCULATED VERT. DEFL.(LL)= L/999 (0.11") ALLOWABLE DEFL.(TL)= L/360 (0.86") CALCULATED VERT. DEFL.(TL)= L/999 (0.18")

CSI: TC=0.41/0.97 (C-D:1) , BC=0.41/0.97 (N-O:1) , WB=0.52/0.97 (A-O:1) , SSI=0.27/1.00 (C-D:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

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

NAIL VALUES

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

MAX MIN MAX MIN MAX MIN MAX MIN

MT20 650 371 1747 788 1987 1873

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.90 (J) (INPUT = 0.90) JSI METAL= 0.65 (O) (INPUT = 1.00)





CORPORATION OF TENGTIMO7031-0824KTT-GREENPARK-ZADORRA-ROSE 3 EL 3 Page 44 of 49 TRUSS NAME QUARTERY COPLY DB DESC JOB NAME DRWG NO. OF PERMIT PLANS

2-11-0

Nov 22 2023 RUSS DESC.

Version 8.630 S Mar 22 2023 MiTek Industries, Inc. Thu Jul 13 08:57:57 2023 Page 1 ID:bcGHXsLhLjMpVeVc\_4eeDgzAk?y-nHhnNBgxPfs9t?5PALMxYkUqkkEXgcZDfMiHkCyyY0e 5-10-0 6-9-8 11-8

6.00 12 3x5 / В G 3x4 = 3x4 =2x4 ||

Scale = 1:33.4

1-3-8 6-4-8 DIMENSIONS, SUPPORTS AND LOADINGS SPECIFIED BY FABRICATOR TO BE VERIFIED BY

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

T09

DRY: SEASONED LUMBER.

IM0723-082

PLATES (table is in inches)

JΙ	TYPE	PLATES	VV	LEN	Y	Х
В	TMVW-t	MT20	3.0	5.0	1.50	2.25
С	TMWW-t	MT20	3.0	4.0	1.50	1.75
D	TMV+p	MT20	2.0	4.0		
F	BMVW-t	MT20	3.0	4.0		
G	BMWW-t	MT20	3.0	4.0		
Н	BMV1+p	MT20	2.0	4.0		

BUILDING DESIGNER MAXIMUM FACTORED REQRD

ONOGO NEACTION			011000	INLACTIC	DING	DIVO	
JT	VERT	HORZ	DOWN	HORZ	UPLIFT	IN-SX	IN-SX
Н	622	0	622	0	0	3-8	1-8
E	361	0	361	0	0	1-8	1-8

UNF	UNFACTORED REACTIONS										
	1ST LCASE	MAX./N	MIN. COMPO	NENT REACTION	NS .						
JT	COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL				
Н	432	326 / 0	0/0	0/0	0/0	106 / 0	0/0				
E	254	174 / 0	0/0	0/0	0/0	80 / 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 = 6.25 FT.
MAX. UNBRACED BOTTOM CHORD LENGTH = 10.00 FT OR RIGID CEILING DIRECTLY

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

LOADING TOTAL LOAD CASES: (4)

	CHORDS MAX. FACTORED FACTORED				W E B S MAX. FACTORED					
MEMB.	FORCE (LBS)	VERT. LC	AD LC		MAX. UNBRAC	МЕМВ.	FORCE (LBS)	MAX CSI (LC)		
FR-TO	( /	FROM		(,	LENGTH		()	()		
A-B	0 / 36	-119.4	-119.4	0.16(1)	10.00	G-C	0 / 108	0.03 (4)		
B- C	-446 / 0	-119.4	-119.4	0.12(1)	6.25	C-F	-530 / 0	0.12(1)		
C- D	-18 / 0	-119.4	-119.4	0.12(1)	6.25	B- G	0 / 432	0.10(1)		
F- D	-134 / 0	0.0	0.0	0.03(1)	7.81					
H- B	-626 / 0	0.0	0.0	0.06 (1)	7.81					
H- G	0/0	-18.2		0.12 (1)	10.00					
G-F	0 / 415	-18.2		0.53 (1)						
F-E	0/0	-18.2	-18.2	0.46 (1)	10.00					

**DESIGN CRITERIA** 

SPECIFIED LOADS:									
TOP	CH.	LL	=	34.8	PSF				
		DL	=	6.0	PSF				
BOT	CH.	LL	=	0.0	PSF				
		DL	=	7.3	PSF				
TOTA	L LO	AD	=	48.1	PSF				

SPACING = 24.0 IN. C/C

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

TOTAL WEIGHT = 3 X 28 = 85 lb

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

- TPIC 2014

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

ALLOWABLE DEFL.(LL)= L/360 (0.23")
CALCULATED VERT. DEFL.(LL) = L/999 (0.05")
ALLOWABLE DEFL.(TL)= L/360 (0.23") CALCULATED VERT. DEFL.(TL) = L/874 (0.09")

CSI: TC=0.16/0.97 (A-B:1) , BC=0.53/0.97 (F-G:1) , WB=0.12/0.97 (C-F:1) , SSI=0.28/1.00 (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 SECTION (PSI) (PLI) (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.

JSI GRIP= 0.66 (F) (INPUT = 0.90 ) JSI METAL= 0.17 (B) (INPUT = 1.00 )







6.00 12 3x4 / W3 В w1 Ε 3x4 =2x4 2-9-8 1-3-8

8-8

TOTAL WEIGHT = 6 X 13 = 79 lb

Scale = 1:20.3

LUMBER				
N. L. G. A. F	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: SEAS	ONED L	UMBER.		

## PLATES (table is in inches)

JT	TYPE	PLATES	W	LEN	Υ	Х	
В	TMVW-t	MT20	3.0	4.0	1.50	1.25	
С	TMV+p	MT20	2.0	4.0			
Е	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

	FACTOR GROSS RE		MAXIMUN GROSS F		INPUT BRG	REQRD BRG	
JT	VERT	HORZ	DOWN	HORZ	UPLIFT	IN-SX	IN-SX
=	374	0	374	0	0	3-8	1-8
)	146	0	146	0	0	1-8	1-8

### UNFACTORED REACTIONS

	1ST LCASE	MAX./N	/IIN. COMPOI	NENT REACTION	NS .		
JT	COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
F	259	201 / 0	0/0	0/0	0/0	58 / 0	0/0
D	103	68 / 0	0/0	0/0	0/0	35 / 0	0/0

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

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

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

LOADING TOTAL LOAD CASES: (7)

CHC	CHORDS WEBS							
MAX.	FACTORED	FACTO	RED				MAX. FACTO	RED
MEMB.	FORCE	VERT. LC	AD LC1	1 MAX	MAX.	MEMB.	FORCE	MAX
	(LBS)	(PL	-F) (	CSI (LC)	UNBRAC	)	(LBS)	CSI (LC)
FR-TO		FROM	TO		LENGTH	I FR-TO		
A- B	0 / 36	-119.4	-119.4	0.16(1)	10.00	B-E	0/0	0.00(1)
B- C	0/0	-119.4	-119.4	0.13(1)	10.00			
E- C	-149 / 0	0.0	0.0	0.02(1)	7.81			
F-B	-311 / 0	0.0	0.0	0.03(1)	7.81			
F-E	0/0	-18.2	-18.2	0.13(1)	10.00			
E- D	0/0	-18.2	-18.2	0.13(1)	10.00			

CANTILEVER ANALYSIS HAS BEEN CONSIDERED IN THIS DESIGN

PATTERN-LOADING CHECK APPLIED TO THIS TRUSS.

### **DESIGN CRITERIA**

SPEC	IFIED	LOADS	3:		
TOP	CH.	LL :	=	34.8	PSF
		DL :	=	6.0	PSF
BOT	CH.	LL :	=	0.0	PSF
		DL :	=	7.3	PSF
TOTA	L LO	AD :	=	48.1	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 , NBC-2019AE - PART 9 OF OBC 2012 (2019 AMENDMENT)

- CSA 086-14 - TPIC 2014

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

ALLOWABLE DEFL.(LL)= L/360 (0.19")
CALCULATED VERT. DEFL.(LL) = L/999 (0.01")
ALLOWABLE DEFL.(TL)= L/360 (0.19") CALCULATED VERT. DEFL.(TL) = L/ 999 (0.02")

CSI: TC=0.16/0.97 (A-B:1) , BC=0.13/0.97 (E-F:1) , WB=0.00/0.97 (B-E:1) , SSI=0.11/1.00 (D-E:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

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

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

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.27 (B) (INPUT = 0.90 ) JSI METAL= 0.07 (F) (INPUT = 1.00 )







# STANDARD DETAIL MSD2015-H

Issued: MHP 23029 Expiry:

MARCH 1, 2022

**APRIL 30, 2024** 

# **TOE-NAIL CAPACITY DETAILS**

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

	Length	Diameter	LATERAL Resistance per nail		WITHDRAWAL Resistance per nail		
<b>NAIL TYPE</b>			(Lbs.)		(Lbs.)		
	(in)	(in)	SPF	D. FIR	SPF	D. FIR	
COMMON	3.00	0.144	122	139	30	42	
COMMON WIRE	3.25	0.144	127	144	32	45	
VVIKE	3.50	0.160	152	173	38	52	
COMMON	3.00	0.122	96	108	26	36	
SPIRAL	3.25	0.122	97	108	28	40	
SFIRAL	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. F	R	2	2	2	2	2	
2x6 D. F	IR	3	3	3	4	4	

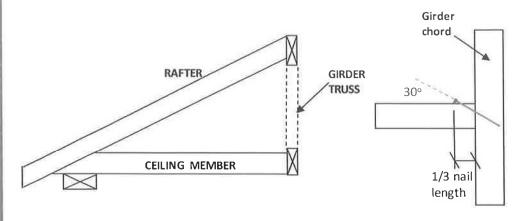


Figure 1: Toe-Nailing Rafter / Ceiling Member to Girder Truss

PEQ Certificate No. 10889485

Top view





# STANDARD DETAIL MSD2015-H

Issued: MHP 23029 Expiry:

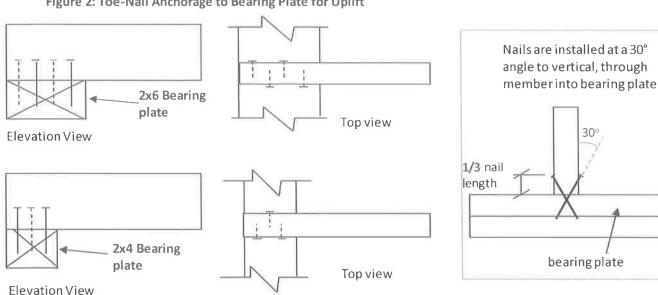
MARCH 1, 2022

309

**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° to the grain of the member.
- 6. For wind / earthquake loads, tabulated lateral resistances may be multiplied by 1.15 (K<sub>D</sub> 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 086-19, Clause 12.9.

PROFESSIONAL TIL **PEO** Certificate No. 10889485 POVINCE OF ONTAR

Page 2 of 2

©2020 MiTek Canada Inc., 240 Stirling Crescent, Bradford, Ontario, L3Z 4L5 | (800) 268-3434, www.mitek.ca

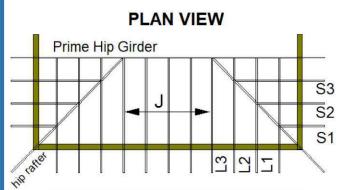


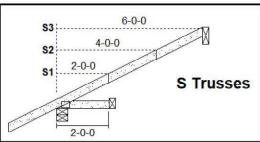
# STANDARD DETAIL MSD2015-J

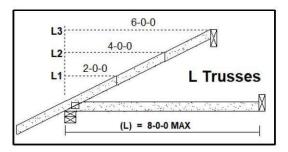
Issued: MARCH 17, 2021 Expiry: APRIL 30, 2024

# MHP 23029

# STANDARD HIP END FRAMING

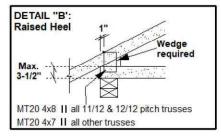


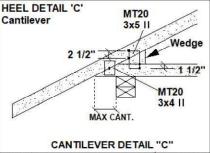




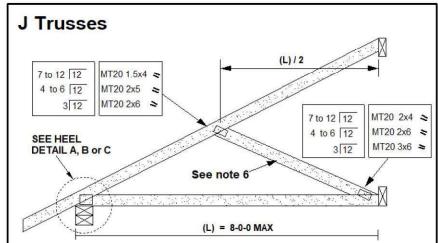
# Specified Load Rating:

Top chord Live: 51.0 PSF or less 6.0 PSF or less Top chord Dead: Bottom chord Live: 0.0 PSF Bottom chord Dead: 7.3 PSF or less HEEL DETAIL 'A' Standard Heel MT20 4x4 = MT20 3x4 = all 'S' and 'L' trusses





STATILETER DE IAIL O								
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"	3 X 5	2 X 6					
9/12	8"	3 X 5	2 X 6					
10/12	7.5"	3 X 5	2 X 6					



## NOTES:

- 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'



April 24, 2023

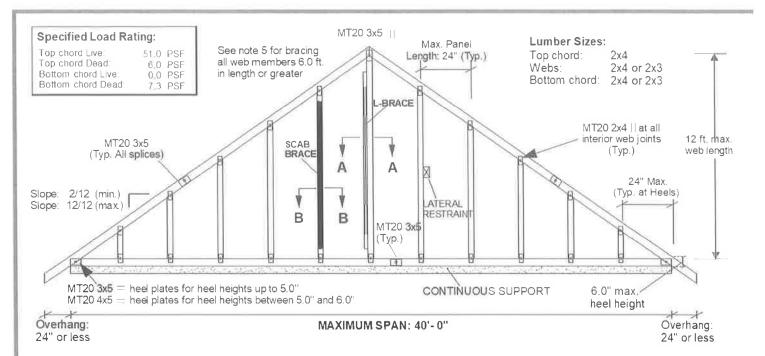


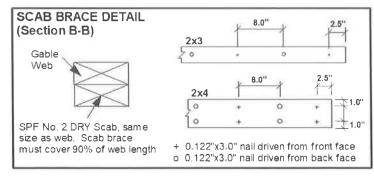
# STANDARD DETAIL MSD2015-K

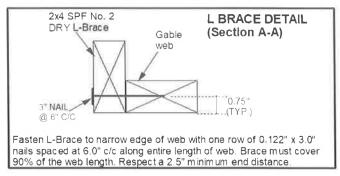
MHP 23029

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

# STANDARD GABLE END DETAIL







# Notes:

- 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
- 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 MITEK MT20 pressed into both faces of truss.
- All lumber to be SPF (or D-Fir) DRY and of No.2 grade or better. 7.
- 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.

