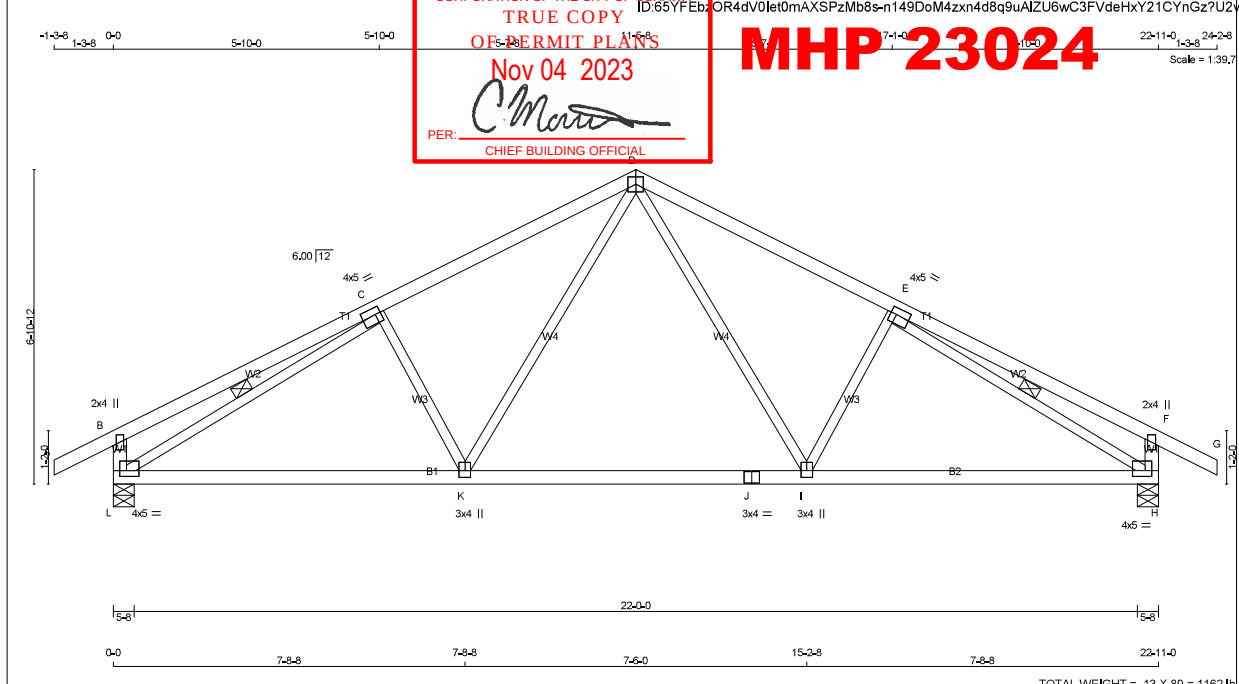






LUMBER				DIMENSIONS, SUPPORTS AND LOADINGS SPECIFIED BY FABRICATOR TO BE VERIFIED BY BUILDING DESIGNER										DESIGN CRITERIA	
N L G A RULES				FACTORED										SPECIFIED LOADS:	
CHORDS				GROSS REACTION										TOP CH. LL = 34.8 PSF	
SIZE				DOWN										DL = 6.0 PSF	
LUMBER				UP										BOT CH. LL = 0.0 PSF	
DESCR.				IN-SX										DL = 7.3 PSF	
A - D				BRG										TOTAL LOAD = 48.1 PSF	
2x4				BRG											
DRY				IN-SX											
No.2															
D - G															
2x4															
DRY															
No.2															
L - B															
2x4															
DRY															
No.2															
H - F															
2x4															
DRY															
No.2															
L - J															
2x4															
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J - H															
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BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S) L, H

BRACING

TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 4.20 FT.

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

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

1 LATERAL BRACE(S) AT 1/2 LENGTH OF C₄, E₄, H.

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

LOADING

TOTAL LOAD CASES: (4)

CHORDS				WEBS			
MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	MAX. CSI (LC)	MEMB.	MAX. FACTORED FORCE (LBS)	MAX. CSI (LC)	
FR-TO	FROM	TO	LENGTH	FR-TO	FROM	TO	LENGTH
A-B	0 / 36	-119.4	-119.4	0.16 (1)	D-I	0 / 679	0.15 (1)
B-C	0 / 36	-119.4	-119.4	0.63 (1)	I-E	-497 / 0	0.15 (1)
C-D	-1936 / 0	-119.4	-119.4	0.56 (1)	K-D	0 / 679	0.15 (1)
D-E	-1936 / 0	-119.4	-119.4	0.56 (1)	C-K	-497 / 0	0.15 (1)
E-F	0 / 36	-119.4	-119.4	0.63 (1)	L-C	-2308 / 0	0.72 (1)
F-G	0 / 36	-119.4	-119.4	0.16 (1)	E-H	-2308 / 0	0.72 (1)
L-B	-424 / 0	0.0	0.0	0.04 (1)			
H-F	-424 / 0	0.0	0.0	0.04 (1)			
L-K	0 / 1936	-18.2	-18.2	0.44 (1)			
K-J	0 / 1367	-18.2	-18.2	0.34 (1)			
J-I	0 / 1367	-18.2	-18.2	0.34 (1)			
I-H	0 / 1936	-18.2	-18.2	0.44 (1)			

COMPANION LIVE LOAD FACTOR = 1.00

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

NAIL VALUES

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

MAX MIN MAX MIN MAX MIN

MT20 650 371 1747 788 1987 1873

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

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

JSI METAL= 0.62 (E) (INPUT = 1.00)

MODULUS ENGINEERING LTD.

07/04/2023

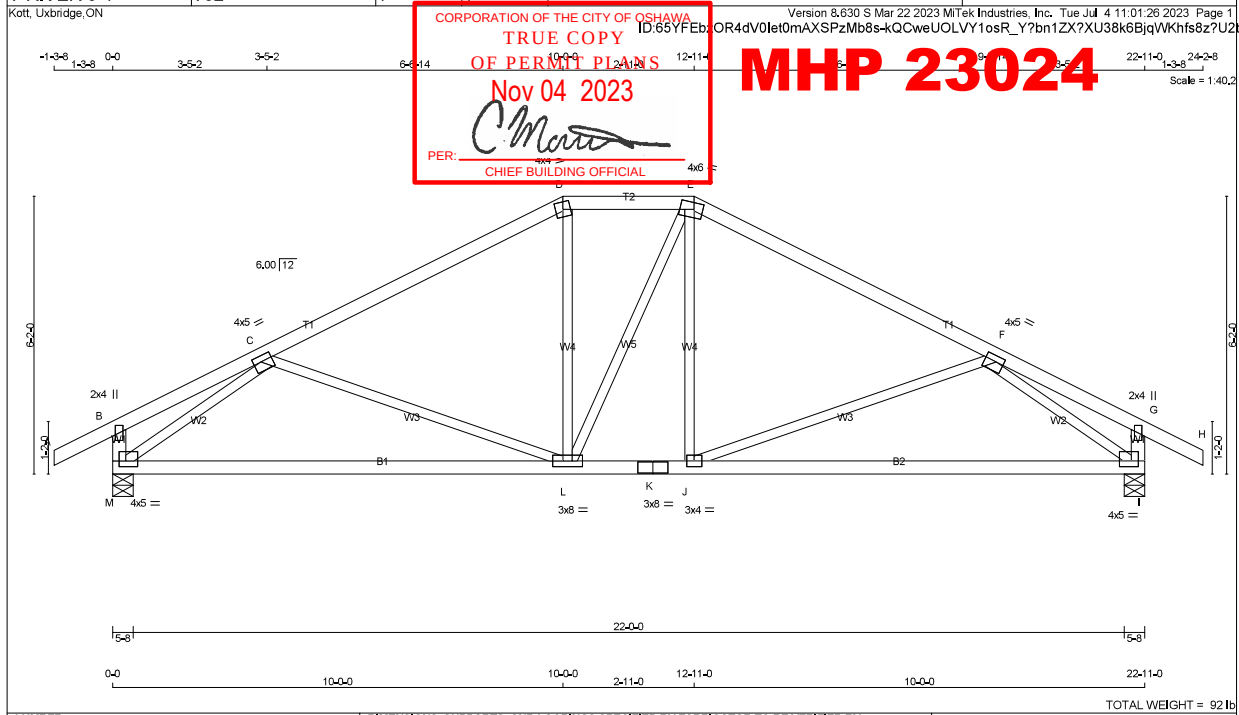
D. A. SHERMAN

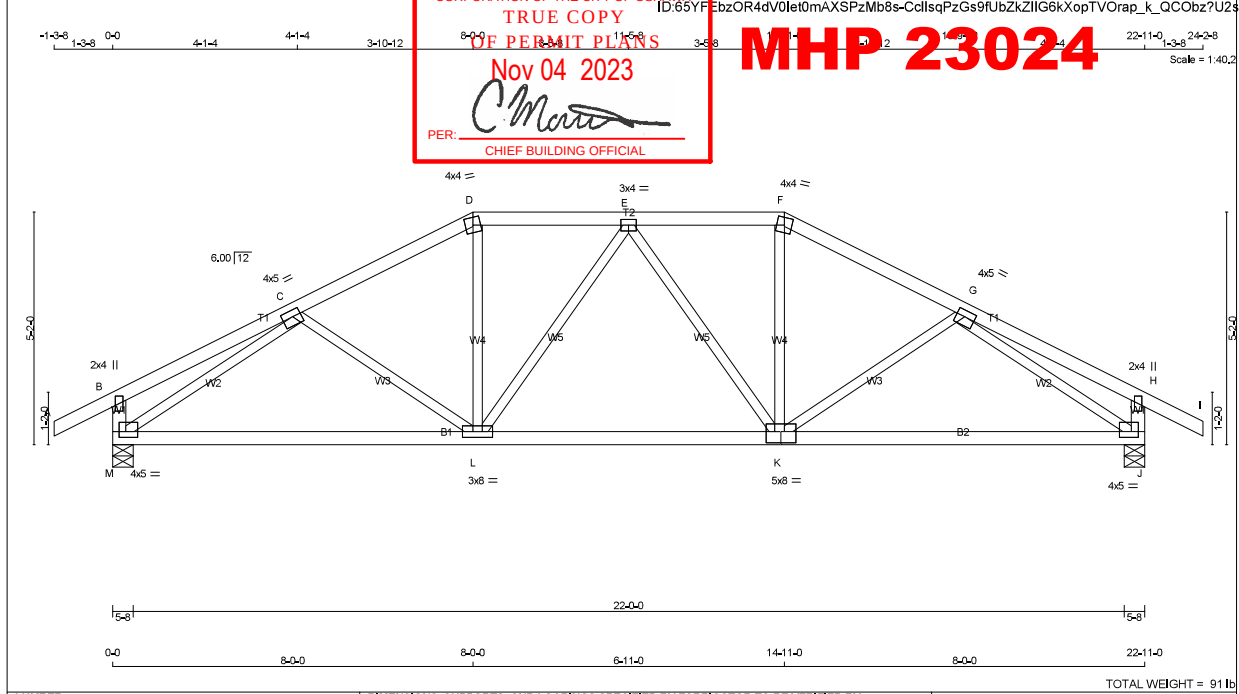
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PROVINCE OF ONTARIO

REVIEW FOR TRUSS COMPONENT ONLY

NOTE: ALTERING THIS DOCUMENT VOIDS THE ENGINEERS SEAL





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

PLATES (table is in inches)				
JT	TYPE	PLATES	W	LEN Y X
B	TMV+p	MT20	2.0	4.0
C	TMVW+4	MT20	4.0	5.0 1.75 2.25
D	TTW+m	MT20	4.0	4.0
E	TMVW+4	MT20	3.0	4.0
F	TTW+m	MT20	4.0	4.0
G	TMVW+4	MT20	4.0	5.0 1.75 2.25
H	TMV+p	MT20	2.0	4.0
J	BMVW+4	MT20	4.0	5.0 1.50 1.75
K	BSVW+4	MT20	5.0	8.0 3.00 4.00
L	BMVW+4	MT20	3.0	8.0
M	BMVW+4	MT20	4.0	5.0 1.50 1.75

DIMENSIONS, SUPPORTS AND LOADINGS SPECIFIED BY FABRICATOR TO BE VERIFIED BY BUILDING DESIGNER									
BEARINGS									
JT	VERT	DOWN	HORZ	UP	BRG	IN-SX	IN-SX	IN-SX	IN-SX
M	1740	0	1740	0	0	5-8	1-14	1-14	1-14
J	1740	0	1740	0	0	5-8	1-14	1-14	1-14
UNFACTORED REACTIONS									
JT	1ST CASE	MAX./MIN.	COMPONENT	REACTIONS					
M	1213	892 / 0	0 / 0	0 / 0	0 / 0	321 / 0	0 / 0	0 / 0	0 / 0
J	1213	892 / 0	0 / 0	0 / 0	0 / 0	321 / 0	0 / 0	0 / 0	0 / 0

BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S) M, J									
BRACING									
TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 4.60 FT.									
MAX. UNBRACED BOTTOM CHORD LENGTH = 10.00 FT. OR RIGID CEILING DIRECTLY APPLIED.									
ALL PITCH BREAKS AND PERIMETER CORNER JOINTS MUST BE LATERALLY RESTRAINED.									
LOADING									
TOTAL LOAD CASES: (4)									
CHORDS									
MEMB.	MAX. FACTORED FORCE (LBS)	VERT. LOAD (PLF)	MAX. UNBRACED LENGTH (FT)	MAX. FACTORED FORCE (LBS)	MEMB.	MAX. FACTORED FORCE (LBS)	MAX. UNBRACED LENGTH (FT)	MAX. FACTORED FORCE (LBS)	MEMB.
FR-TO					FR-TO				FR-TO
A-B	0 / 36	-119.4	-119.4	0.16 (1)	10.00	C-L	-189 / 19	0.08 (1)	10.00
B-C	0 / 23	-119.4	-119.4	0.28 (1)	10.00	L-D	0 / 506	0.11 (1)	10.00
C-D	-1933 / 0	-119.4	-119.4	0.28 (1)	4.60	L-E	-281 / 0	0.17 (1)	4.60
D-E	-1718 / 0	-119.4	-119.4	0.20 (1)	4.90	E-K	-323 / 0	0.20 (1)	4.90
E-F	-1693 / 0	-119.4	-119.4	0.20 (1)	4.93	K-F	0 / 495	0.11 (1)	4.93
F-G	-1909 / 0	-119.4	-119.4	0.26 (1)	4.63	G-K	-193 / 14	0.08 (1)	4.63
G-H	0 / 23	-119.4	-119.4	0.28 (1)	10.00	M-C	-2288 / 0	0.90 (1)	10.00
H-I	0 / 36	-119.4	-119.4	0.16 (1)	10.00	G-J	-2264 / 0	0.89 (1)	10.00
M-B	-351 / 0	0.0	0.0	0.04 (1)	7.81				
J-H	-351 / 0	0.0	0.0	0.04 (1)	7.81				
M-L	0 / 1862	-18.2	-18.2	0.45 (1)	10.00				
L-K	0 / 1877	-18.2	-18.2	0.46 (1)	10.00				
K-J	0 / 1843	-18.2	-18.2	0.50 (1)	10.00				

DESIGN CRITERIA									
SPECIFIED LOADS:									
TOP CH.	LL	=	34.8	PSF					
	DL	=	6.0	PSF					
BOT CH.	LL	=	0.0	PSF					
	DL	=	7.3	PSF					
TOTAL LOAD				=	48.1	PSF			
SPACING = 24.0 IN. GIG									
LOADING IN FLAT SECTION BASED ON A SLOPE OF 2.00/12 MINIMUM									

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

THIS DESIGN COMPLIES WITH:

- PART 9 OF 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 (0.76")

CALCULATED VERT. DEFL.(LL) = L/999 (0.08")

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

CALCULATED VERT. DEFL.(TL) = L/999 (0.26")

CSI: TC=0.28/1.00 (G+H 1), BC=0.50/1.00 (J+K 1), WB=0.90/1.00 (C-M 1), SS=0.20/1.00 (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
MT20	650	371	1747	788	1987

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

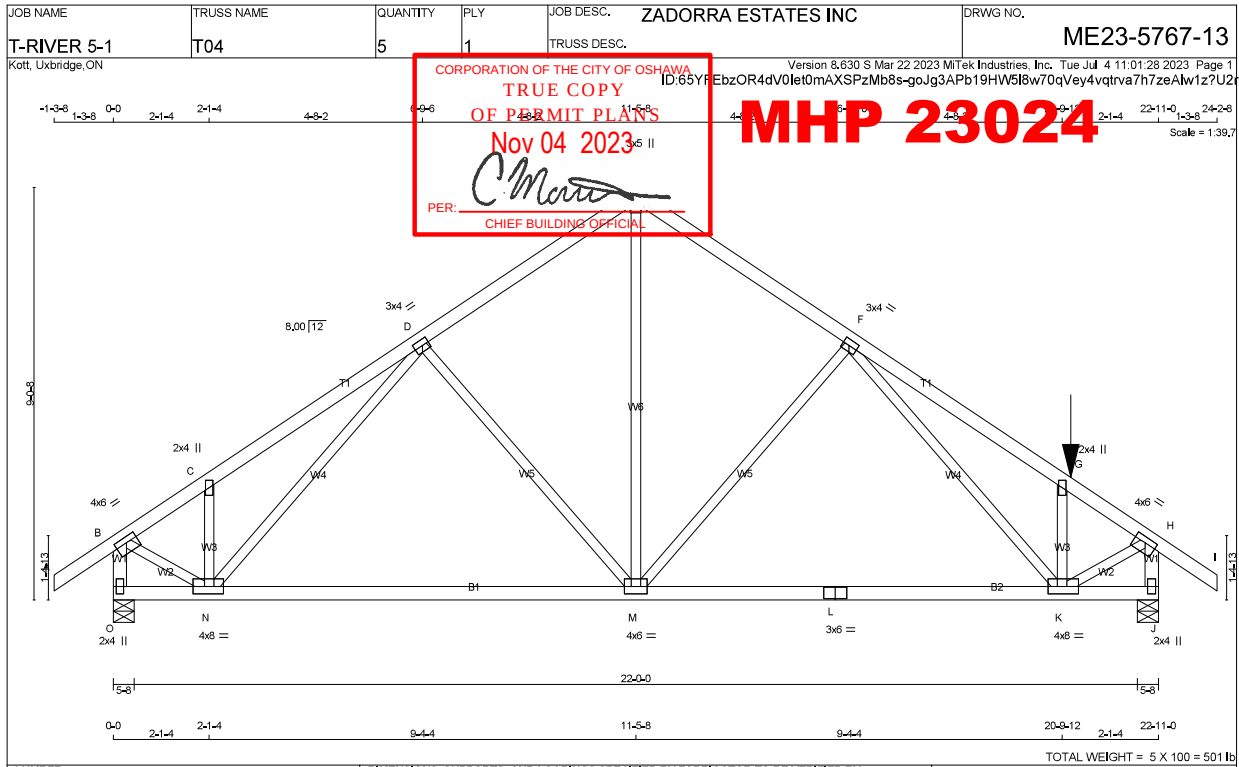
JSI GRIP= 0.88 (K) (INPUT = 0.90)

JSI METAL= 0.59 (C) (INPUT = 1.00)

MODULUS ENGINEERING LTD.

REVIEW FOR TRUSS COMPONENT ONLY

NOTE: ALTERING THIS DOCUMENT VOIDS THE ENGINEER'S SEAL



LUMBER N, L, G, A, RULES CHORDS SIZE LUMBER DESCR. A - E 2x4 DRY No.2 SPF E - I 2x4 DRY No.2 SPF O - B 2x4 DRY No.2 SPF J - H 2x4 DRY No.2 SPF O - L 2x4 DRY No.2 SPF L - J 2x4 DRY No.2 SPF ALL WEBS 2x3 DRY No.2 SPF EXCEPT DRY: SEASONED LUMBER.	DIMENSIONS, SUPPORTS AND LOADINGS SPECIFIED BY FABRICATOR TO BE VERIFIED BY BUILDING DESIGNER BEARINGS FACTORED GROSS REACTION MAXIMUM FACTORED GROSS REACTION INPUT REQD JT VERT HORZ DOWN HORZ UPLIFT BRG BRG IN-SX IN-SX O 1743 0 1743 0 0 5-8 2-3 J 1755 0 1755 0 0 5-8 2-3 UNFACTORED REACTIONS 1ST LOASE MAX./MIN. COMPONENT REACTIONS JT COMBINED SNOW LIVE PERM.LIVE WIND DEAD SOIL O 1216 894 / 0 0 / 0 0 / 0 321 / 0 0 / 0 J 1224 904 / 0 0 / 0 0 / 0 320 / 0 0 / 0 BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S) O, J BRACING TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 4.60 FT. MAX, UNBRACED BOTTOM CHORD LENGTH = 10.00 FT. OR RIGID CEILING DIRECTLY APPLIED. ALL PITCH BREAKS AND PERIMETER CORNER JOINTS MUST BE LATERALLY RESTRAINED. LOADING TOTAL LOAD CASES: (4) C H O R D S W E B S MEMB. FORCE FACTORED VERT. LOAD LC1 MAX. MAX. MEMB. FORCE FACTORED VERT. LOAD LC1 MAX. MAX. (LBS) (PLF) CSI (LC) UNBRAC LENGTH FR-TO (LBS) CSI (LC) FR-TO FROM TO A-B 0 / 45 -119.4 -119.4 0.18 (1) 10.00 M-E 0 / 972 0.24 (1) B-C -1536 / 0 -119.4 -119.4 0.23 (1) 5.02 M-F -515 / 0 0.54 (1) C-D -1537 / 0 -119.4 -119.4 0.52 (1) 4.62 F-K -125 / 34 0.13 (1) D-E -1303 / 0 -119.4 -119.4 0.50 (1) 4.96 K-G -448 / 0 0.08 (1) E-F -1303 / 0 -119.4 -119.4 0.50 (1) 4.96 D-M -510 / 0 0.54 (1) F-G -1550 / 0 -119.4 -119.4 0.52 (1) 4.60 N-D -139 / 34 0.15 (1) G-H -1550 / 0 -119.4 -119.4 0.23 (1) 5.00 N-C -429 / 0 0.08 (1) H-I 0 / 45 -119.4 -119.4 0.18 (1) 10.00 B-N 0 / 1471 0.36 (1) O-B -1764 / 0 0.0 0.0 0.20 (1) 6.24 K-H 0 / 1484 0.37 (1) J-H -1778 / 0 0.0 0.0 0.20 (1) 6.22 O-N 0 / 0 -18.2 -18.2 0.25 (4) 10.00 N-M 0 / 1383 -18.2 -18.2 0.48 (4) 10.00 M-L 0 / 1385 -18.2 -18.2 0.48 (4) 10.00 L-K 0 / 1385 -18.2 -18.2 0.48 (4) 10.00 K-J 0 / 0 -16.2 -16.2 0.25 (4) 10.00 FACTORED CONCENTRATED LOADS (LBS) JT LOC. LC1 MAX- MAX+ FACE DIR. TYPE HEEL CONN. G 20-11-0 -20 -20 - FRONT VERT TOTAL - C1 CONNECTION REQUIREMENTS 1) C1: A SUITABLE HANGER/MECHANICAL CONNECTION IS REQUIRED.	DESIGN CRITERIA SPECIFIED LOADS: TOP CH. LL = 34.8 PSF DL = 6.0 PSF BOT CH. LL = 0.0 PSF DL = 7.3 PSF TOTAL LOAD = 48.1 PSF SPACING = 24.0 IN. G/C GIRDER TYPE: CPrimeHip SIDE SETBACK = 2-0-0 END SETBACK = 2-0-0 END WALL WIDTH = 5-8 CORNER FRAMING TYPE: CONVENTIONAL END JACK TYPE: CONVENTIONAL APPLIED TO FRONT SIDE - ADDTL LOADS BASED ON 55 % OF GSL. LOADS APPLIED TO FIRST 2-2-0 OF SPAN MEASURED FROM THE RIGHT. THIS TRUSS IS DESIGNED FOR RESIDENTIAL OR SMALL BUILDING REQUIREMENTS OF PART 9, NBC 2015 THIS DESIGN COMPLIES WITH: - PART 9 OF BCC 2018, NBC-2019AE - PART 9 OF OBC 2012 (2019 AMENDMENT) - CSA 086-14 - TPIC 2014 (55 % OF 48.1 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 34.8 P.S.F. SPECIFIED ROOF LIVE LOAD ALLOWABLE DEFL.(LL) = L/360 (0.76") CALCULATED VERT. DEFL.(LL) = L/999 (0.05") ALLOWABLE DEFL.(TL) = L/360 (0.76") CALCULATED VERT. DEFL.(TL) = L/999 (0.16") CSI: TC=0.52/1.00 (F-G:1), BC=0.48/1.00 (K-M:4), WB=0.54/1.00 (F-M:1), SS=0.24/1.00 (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 TRUSS PLATE MANUFACTURER IS NOT RESPONSIBLE FOR QUALITY CONTROL IN THE TRUSS MANUFACTURING PLANT. NAIL VALUES PLATE GRIP(DRY) SHEAR SECTION (PSI) (PLI) (PLI) MAX MIN MAX MIN MAX MIN MT20 650 371 1747 788 1987 1873 PLATE PLACEMENT TOL. = 0.250 inches PLATE ROTATION TOL. = 5.0 Deg. JSI GRIP= 0.89 (J) (INPUT = 0.90) JSI METAL= 0.60 (L) (INPUT = 1.00)
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BUILDING DESIGNER		MAXIMUM FACTORED		INPUT		REQRD	
<u>BEARINGS</u>		GROSS REACTION		BRG		BRG	
JT	VERT	HORIZ	UP/LIFT	BRG	HORIZ	BRG	HORIZ
M	1741	0	1741	0	0	5-8	1-14
I	1741	0	1741	0	0	5-8	1-14

<u>UNFACTORED REACTIONS</u>							
1ST CASE		MAX. MIN. COMPONENT REACTIONS					
JT	COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
M	1215	893 / 0	0 / 0	0 / 0	0 / 0	321 / 0	0 / 0
I	1215	893 / 0	0 / 0	0 / 0	0 / 0	321 / 0	0 / 0

DESIGN CRITERIA

SPECIFIED LOADS:

TOP CH.	LL =	34.8 PSF
	DL =	6.0 PSF
BOT CH.	LL =	0.0 PSF
	DL =	7.3 PSF
TOTAL LOAD	=	48.1 PSF

SPACING = 240 IN./C

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

TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 4.79 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 LC1 (PL)	MAX. CSI (LC)	MAX. UNBRACED LENGTH	MEMB.	MAX. FACTORED FORCE (LBS)	MAX. CSI (LC)
FR-TO		FROM TO			FR-TO		
A-B	0 / 45	-119.4 -119.4	0.16 (1)	10.00	C-L	-292 / 0	0.27 (1)
B-C	0 / 53	-119.4 -119.4	0.50 (1)	10.00	L-D	0 / 289	0.06 (1)
C-D	-1470 / 0	-119.4 -119.4	0.50 (1)	10.00	L-E	0 / 0	0.00 (1)
D-E	0 / 119	-119.4 -119.4	0.24 (1)	5.57	J-E	0 / 287	0.06 (1)
E-F	-1470 / 0	-119.4 -119.4	0.50 (1)	4.79	J-F	-293 / 0	0.27 (1)
F-G	0 / 53	-119.4 -119.4	0.50 (1)	10.00	M-C	-1991 / 0	0.89 (1)
G-H	0 / 45	-119.4 -119.4	0.16 (1)	10.00	F-I	-1990 / 0	0.89 (1)
M-B	-295 / 0	0.0	0.0	0.03 (1)			
I-G	-295 / 0	0.0	0.0	0.03 (1)			
M-L	0 / 1442	-18.2	-18.2	0.44 (1)	10.00		
L-K	0 / 1196	-18.2	-18.2	0.42 (4)	10.00		
K-J	0 / 1196	-18.2	-18.2	0.42 (4)	10.00		
J-I	0 / 1441	-18.2	-18.2	0.44 (1)	10.00		

THIS DESIGN COMPLIES WITH:

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

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

ALLOWABLE DEFL.(LL) = $L/960$ (0.76")
CALCULATED VERT. DEFL.(LL) = $L/999$ (0.05")
ALLOWABLE DEFL.(TL) = $L/960$ (0.76")
CALCULATED VERT. DEFL.(TL) = $L/966$ (0.28")

CSI: TC=0.50/1.00 (C-D-1). BC=0.44/1.00 (I-J-1).
WB=0.89/1.00 (C-M-1). SB=0.26/1.00 (E-F-1).

DOL LUMBER=1.00 NAIL=1.00 L/S 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.

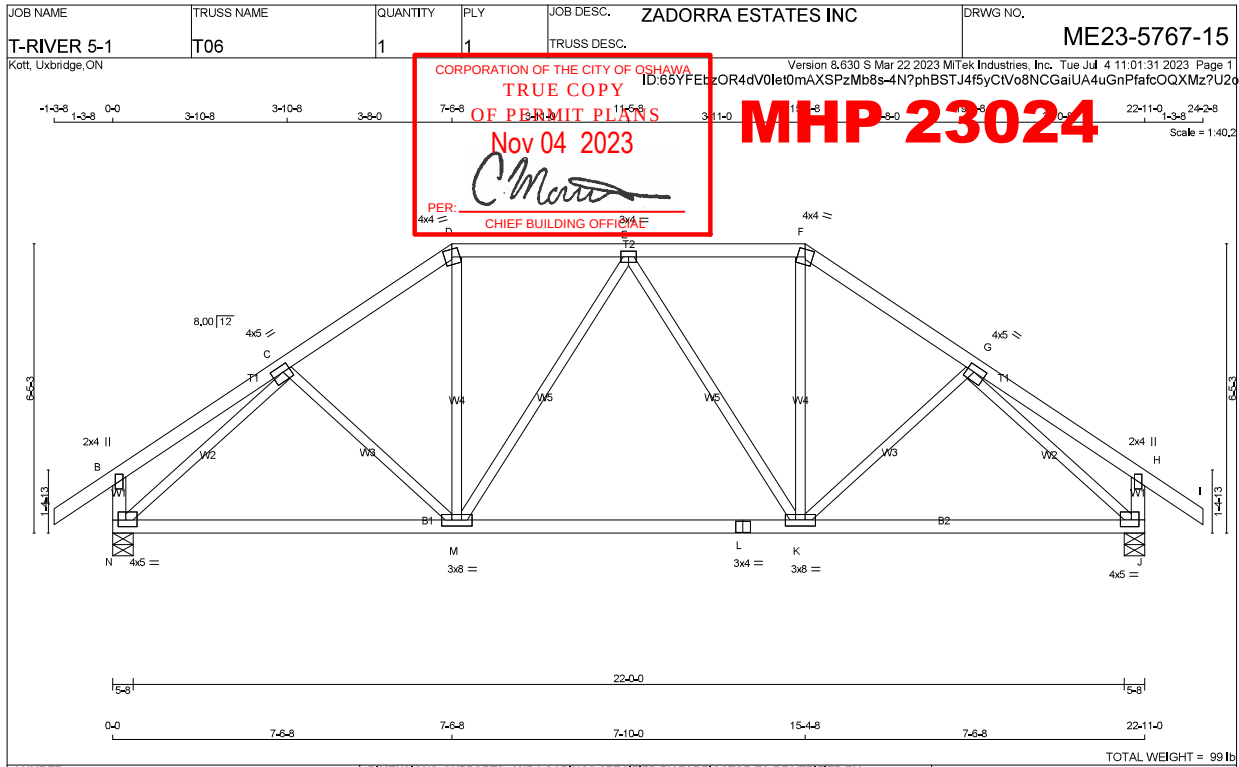
JSI GRIP= 0.90 (D) (INPUT = 0.90)
JSI METAL= 0.87 (K) (INPUT = 1.00)



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

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





LUMBER
N, L, G, A, RULES
CHORDS SIZE LUMBER DESCR.

A - D	2x4	DRY	No.2	SPF
D - F	2x4	DRY	No.2	SPF
F - I	2x4	DRY	No.2	SPF
N - B	2x4	DRY	No.2	SPF
J - H	2x4	DRY	No.2	SPF
N - L	2x4	DRY	No.2	SPF
L - J	2x4	DRY	No.2	SPF
ALL WEBS EXCEPT	2x3	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		
C	TMWV4	MT20	4.0	5.0	1.75	2.00
D	TTW-m	MT20	4.0	4.0		
E	TMWV4	MT20	3.0	4.0		
F	TTW-m	MT20	4.0	4.0		
G	TMWV4	MT20	4.0	5.0	1.75	2.00
H	TMV+p	MT20	2.0	4.0		
J	BMWV4	MT20	4.0	5.0	1.75	2.00
K	BMWV4	MT20	3.0	8.0		
L	BS4	MT20	3.0	4.0		
M	BMWV4	MT20	3.0	8.0		
N	BMWV4	MT20	4.0	5.0	1.75	2.00

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	IN-SX	IN-SX
N	1741	0	1741	0	5-8	1-14
J	1741	0	1741	0	5-8	1-14

UNFACTORED REACTIONS

JT	1ST LCASE	MAX./MIN. COMPONENT REACTIONS					
	COMBINED	SNOW	LIVE	PERM. LIVE	WIND	DEAD	SOIL
N	1215	893 / 0	0 / 0	0 / 0	0 / 0	321 / 0	0 / 0
J	1215	893 / 0	0 / 0	0 / 0	0 / 0	321 / 0	0 / 0

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

BRACING
TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 4.99 FT.
MAX. UNBRACED BOTTOM CHORD LENGTH = 10.00 FT. OR RIGID CEILING DIRECTLY APPLIED.
ALL PITCH BREAKS AND PERIMETER CORNER JOINTS MUST BE Laterally RESTRAINED.

LOADING
TOTAL LOAD CASES: (4)

C H O R D S				W E B S			
MEMB.	MAX. FACTORED FORCE (LBS)	VERT. LOAD (PLF)	MAX. FACTORED CSI (LC)	MEMB.	MAX. FACTORED FORCE (LBS)	MAX. FACTORED CSI (LC)	UNBRACED LENGTH (FT)
FR-TO	FROM	TO		FR-TO	FROM	TO	
A-B	0 / 45	-119.4	-119.4	0.16 (1)	10.00	C-M	-127 / 21
B-C	0 / 28	-119.4	-119.4	0.26 (1)	10.00	M-D	0 / 522
C-D	-1613 / 0	-119.4	-119.4	0.23 (1)	4.99	M-E	-333 / 0
D-E	-1325 / 0	-119.4	-119.4	0.24 (1)	5.36	E-K	-333 / 0
E-F	-1325 / 0	-119.4	-119.4	0.24 (1)	5.36	K-F	0 / 522
F-G	-1613 / 0	-119.4	-119.4	0.23 (1)	4.99	K-G	-127 / 21
G-H	0 / 28	-119.4	-119.4	0.26 (1)	10.00	N-C	-1949 / 0
H-I	0 / 45	-119.4	-119.4	0.16 (1)	10.00	G-J	-1949 / 0
I-B	-339 / 0	0.0	0.0	0.03 (1)	7.81		
J-H	-339 / 0	0.0	0.0	0.03 (1)	7.81		
N-M	0 / 1410	-18.2	-18.2	0.36 (1)	10.00		
M-L	0 / 1501	-18.2	-18.2	0.37 (1)	10.00		
L-K	0 / 1501	-18.2	-18.2	0.37 (1)	10.00		
K-J	0 / 1410	-18.2	-18.2	0.36 (1)	10.00		

DESIGN CRITERIA

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

SPACING = 24.0 IN. GIG

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

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

THIS DESIGN COMPLIES WITH:
- PART 9 OF 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 (0.76")
CALCULATED VERT. DEFL.(LL) = L/999 (0.06")
ALLOWABLE DEFL.(TL)= L/360 (0.76")
CALCULATED VERT. DEFL.(TL) = L/999 (0.13")

CSI: TC=0.26/1.00 (B-C-1), BC=0.37/1.00 (K-M-1), WB=0.85/1.00 (C-N-1), SS=0.22/1.00 (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) (PU)
MAX MIN MAX MIN MAX MIN
MT20 650 371 1747 788 1987 1873

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

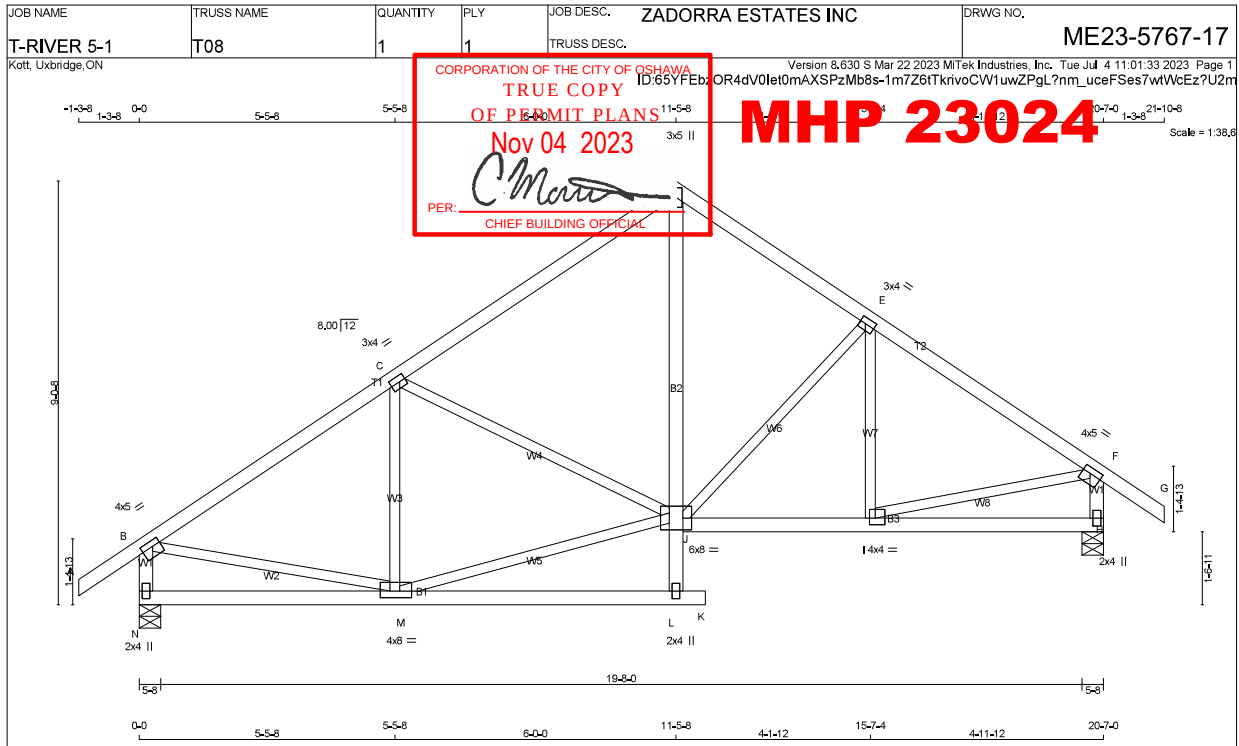
JSI GRIP= 0.86 (J) (INPUT = 0.90)
JSI METAL= 0.52 (C) (INPUT = 1.00)

MODULUS ENGINEERING LTD.

REVIEW FOR TRUSS COMPONENT ONLY

NOTE: ALTERING THIS DOCUMENT
VOIDS THE ENGINEER'S SEAL





LUMBER N, L, G, A, RULES CHORDS SIZE LUMBER DESCR. A - D 2x4 DRY No.2 SPF D - G 2x4 DRY No.2 SPF N - B 2x4 DRY No.2 SPF H - F 2x4 DRY No.2 SPF N - K 2x4 DRY No.2 SPF L - D 2x4 DRY No.2 SPF J - H 2x4 DRY No.2 SPF ALL WEBS EXCEPT 2x3 DRY No.2 SPF DRY, SEASONED LUMBER.	DIMENSIONS, SUPPORTS AND LOADINGS SPECIFIED BY FABRICATOR TO BE VERIFIED BY BUILDING DESIGNER BEARINGS FACTORED GROSS REACTION MAXIMUM FACTORED GROSS REACTION INPUT REQD DOWN HORZ DOWN HORZ UPLIFT IN-SX IN-SX N 1586 0 1586 0 0 5-8 1-11 H 1587 0 1587 0 0 5-8 1-12 UNFACTORED REACTIONS 1ST CASE MAX./MIN. COMPONENT REACTIONS JT COMBINED SNOW LIVE PERM.LIVE WIND DEAD SOIL N 1106 812 / 0 0 / 0 0 / 0 294 / 0 0 / 0 H 1107 812 / 0 0 / 0 0 / 0 295 / 0 0 / 0 BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S) N, H BRACING TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 4.60 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. FORCE FACTORED VERT. LOAD LC1 MAX. MAX. MEMB. MAX. FACTORED (LBS) (PLF) CSI (LC) UNBRAC LENGTH FR-TO (LBS) CSI (LC) FR-TO FROM TO A-B 0 / 45 -119.4 -119.4 0.16 (1) 10.00 M-C -478 / 0 0.18 (1) B-C -1553 / 0 -119.4 -119.4 0.55 (1) 4.60 M-J 0 / 1343 0.30 (1) C-D -1258 / 0 -119.4 -119.4 0.56 (1) 4.97 C-J -342 / 0 0.28 (1) D-E -1258 / 0 -119.4 -119.4 0.34 (1) 5.33 J-E -417 / 0 0.26 (1) E-F -1527 / 0 -119.4 -119.4 0.37 (1) 4.91 I-E -184 / 38 0.06 (1) F-G 0 / 45 -119.4 -119.4 0.16 (1) 10.00 B-M 0 / 1356 0.31 (1) N-B -1545 / 0 0.0 0.0 0.16 (1) 6.62 I-F 0 / 1329 0.30 (1) H-F -1548 / 0 0.0 0.0 0.16 (1) 6.61 N-M 0 / 0 -18.2 -18.2 0.17 (4) 10.00 M-L 0 / 15 -18.2 -18.2 0.17 (4) 10.00 L-K 0 / 0 -18.2 -18.2 0.01 (4) 10.00 L-J 0 / 58 0.0 0.0 0.04 (1) 10.00 J-D 0 / 895 0.0 0.0 0.18 (1) 10.00 J-I 0 / 1299 -18.2 -18.2 0.25 (1) 10.00 I-H 0 / 0 -18.2 -18.2 0.10 (4) 10.00	DESIGN CRITERIA SPECIFIED LOADS: TOP CH. LL = 34.8 PSF DL = 6.0 PSF BOT CH. LL = 0.0 PSF DL = 7.3 PSF TOTAL LOAD = 48.1 PSF SPACING = 24.0 IN. G.C THIS TRUSS IS DESIGNED FOR RESIDENTIAL OR SMALL BUILDING REQUIREMENTS OF PART 9, NBC 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 (0.69") CALCULATED VERT. DEFL.(LL) = L/999 (0.05") ALLOWABLE DEFL.(TL) = L/360 (0.69") CALCULATED VERT. DEFL.(TL) = L/999 (0.10") CSI TC=0.56/1.00 (C-D-1), BC=0.25/1.00 (I-J-1), WB=0.31/1.00 (B-M-1), SSI=0.28/1.00 (C-D-1) DOL LUMBER=1.00 NAIL=1.00 LS BEND=1.10 COMP=1.10 SHEAR=1.10 TENS=1.10 COMPANION LIVE LOAD FACTOR = 1.00 TRUSS PLATE MANUFACTURER IS NOT RESPONSIBLE FOR QUALITY CONTROL IN THE TRUSS MANUFACTURING PLANT. NAIL VALUES PLATE GRIP(DRY) SHEAR SECTION (PSI) (PLI) (PLI) MAX MIN MAX MIN MAX MIN MT20 650 371 1747 788 1987 1873 PLATE PLACEMENT TOL. = 0.250 inches PLATE ROTATION TOL. = 5.0 Deg. JSI GRIP= 0.89 (B) (INPUT = 0.90) JSI METAL= 0.52 (B) (INPUT = 1.00)
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