

18-331265-000 RE - Roof

CITY OF BRAMPTON
BUILDING DIVISION
REVIEWED
JAN 04 2019
BY
MARK DERIKSEN

TR - GREENPARK - MINNISALE HOMES - MILLWOOD 4 ELE 2

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TW0918-075



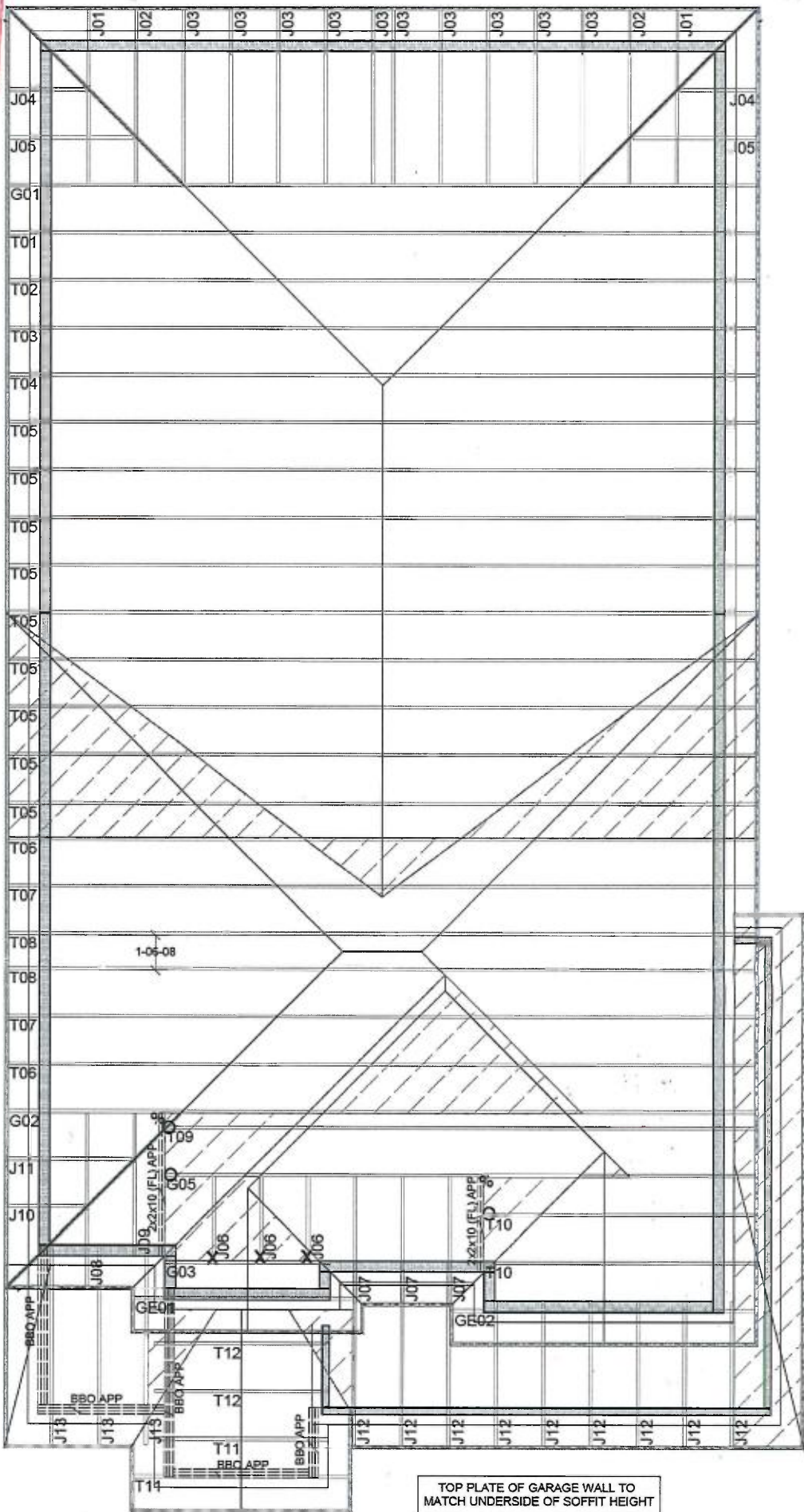
This certification is for the engineering review of structural components shown on this drawing and is limited to the components supplied by KOTT for the loads and conditions shown on the calculation page of each component. The placement of these components on this layout is shown for reference only. Roof trusses must be installed according to manufacturer's guidelines at 24" C/C unless noted otherwise. Conventional framing shown on the layout must be designed and approved by the project engineer. Temporary and permanent bracing is to conform to BCSI guidelines.



September 17, 2018

For conventional framing roof/ceilings
framing shall conform to OBC.9.23

All work shall conform to the Ontario
Building Code O. Reg. 332/12 as amended



Layout based on plans provided by
JARDIN DESIGN GROUP INC.
Dated APRIL 26/18

ROOF TRUSS LAYOUT

Lot 10

 CONVENTIONAL FRAMING BY OTHERS	HANGER LEGEND X - LUS24 # - HGUS26 O - LJS26DS % - HGUS26-2	DESIGN CRITERIA SPECIFIED LOADS: TOP CH. LL = 23.3 psf DL = 3.0 psf BOT CH. LL = 0.0 psf DL = 7.0 psf TOTAL LOAD = 33.3 psf SPACING @ 24" CENTERS, THIS TRUSS SYSTEM IS DESIGN FOR RESIDENTIAL OR SMALL BUILDING REQUIREMENTS OF PART 9, NBCC 2010 THIS DESIGN COMPLIES WITH PART 9 OF OBC 2012, BCBC 2012, ABC 2012, CSA 086-09, TPIC 2011 ALLOWABLE DEFLECTION OF EACH COMPONENT = L/360	Model: MILLWOOD 4 EL 2
		Customer: GREENPARK	
		Project: MINNISALE	
		Location: BRAMPTON	
		Drawn By: DM	
		Date: 6/26/2018	

SIZE AND LOCATION OF CONVENTIONAL FRAMING IS APPROXIMATE. ALL AREAS MAY NOT BE SHOWN. REFER TO ARCHITECTURAL PLANS FOR DETAILS. ALL CONVENTIONAL FRAMING TO CONFORM WITH PART 9 OF THE O.B.C RAFTER THAT CROSS MEET OVER TRUSSES TO BE 2X4 SPF @ 24" O/C WITH 2X4 VERT POST TO THE TRUSS BELOW EA CROSS PT. VERT POS . THAN 6' TO HAVE A LATERAL BRACING SO THAT THE DISTANCE BETEN PT & VERT ROWS OF BRACING DOES NOT EXCEED 6'
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ENGINEERING NOTE PAGE (ENP-1)

PLEASE READ PRIOR TO INSTALLATION

RESPONSIBILITIES

THIS DESIGN IS FOR AN INDIVIDUAL BUILDING COMPONENT AND HAS BEEN BASED ON INFORMATION PROVIDED BY THE DESIGN OFFICE OF KOTT LUMBER. 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 LUMBER 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

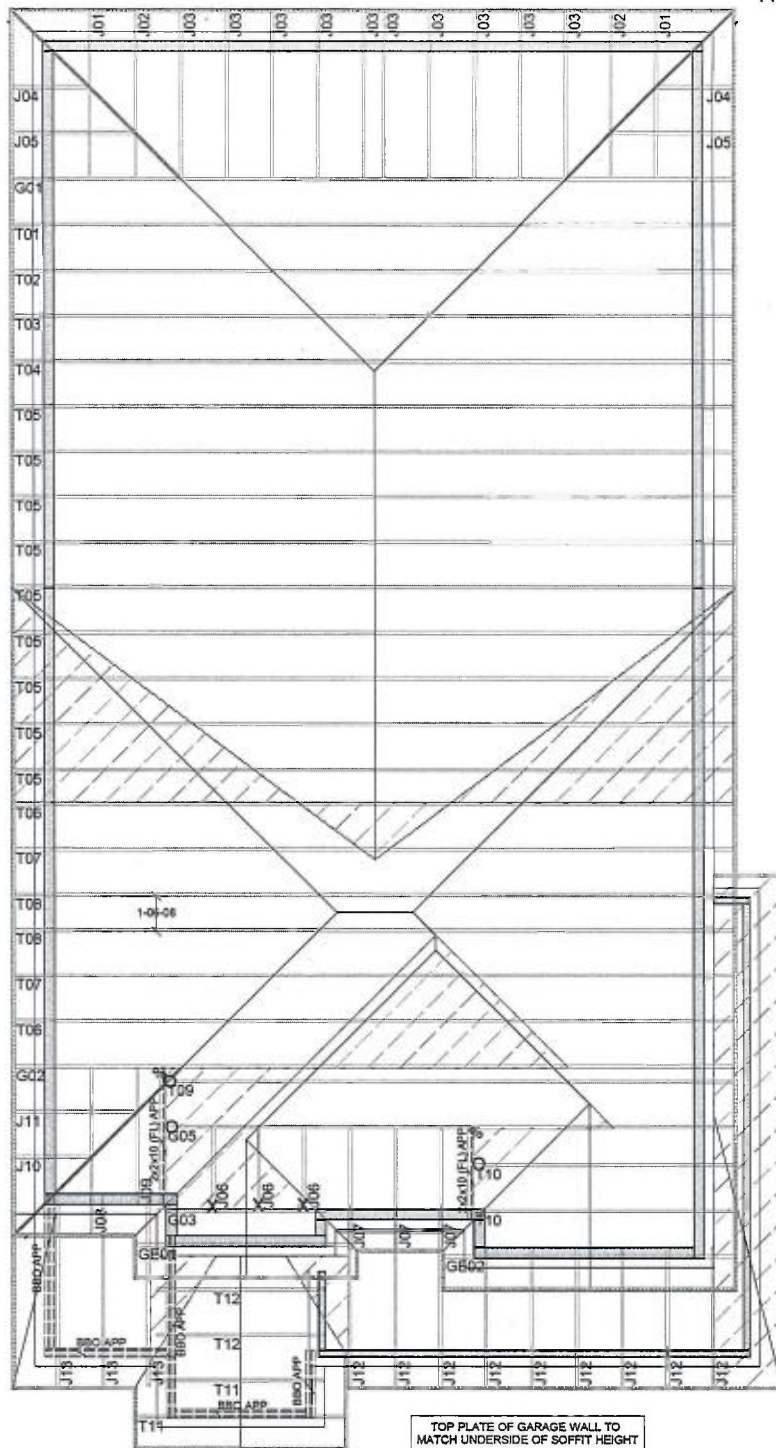
- Geometry of the truss and dimensions indicated on the drawing are identical to those of the installed truss.



This certification is for the engineering review of structural components shown on this drawing and is limited to the components supplied by KOTT for the loads and conditions shown on the calculation page of each component. The placement of these components on this layout is shown for reference only. Roof trusses must be installed according to manufacturer's guidelines at 24" C/C unless noted otherwise. Conventional framing shown on the layout must be designed and approved by the project engineer. Temporary and permanent bracing is to conform to BCSI guidelines.



September 17, 2018



ROOF TRUSS LAYOUT



HANGER LEGEND

X - LUS24
- HGUS26

O - LJS26DS
% - HGUS26-2

DESIGN CRITERIA

SPECIFIED LOADS:
TOP CH. LL = 23.3 psf
DL = 3.0 psf
BOT CH. LL = 0.0 psf
DL = 7.0 psf
TOTAL LOAD = 33.3 psf

SPACING @ 24" CENTERS.
THIS TRUSS SYSTEM IS DESIGN FOR RESIDENTIAL OR SMALL BUILDING REQUIREMENTS OF PART 9, NBCC 2010

THIS DESIGN COMPLIES WITH PART 9 OF OBC 2012, BCBC 2012, ABC 2012, CSA 086-09, TPIC 2011

ALLOWABLE DEFLECTION OF EACH COMPONENT = L/360

Model: MILLWOOD 4 EL 2

Customer: GREENPARK

Project: MINNISALE

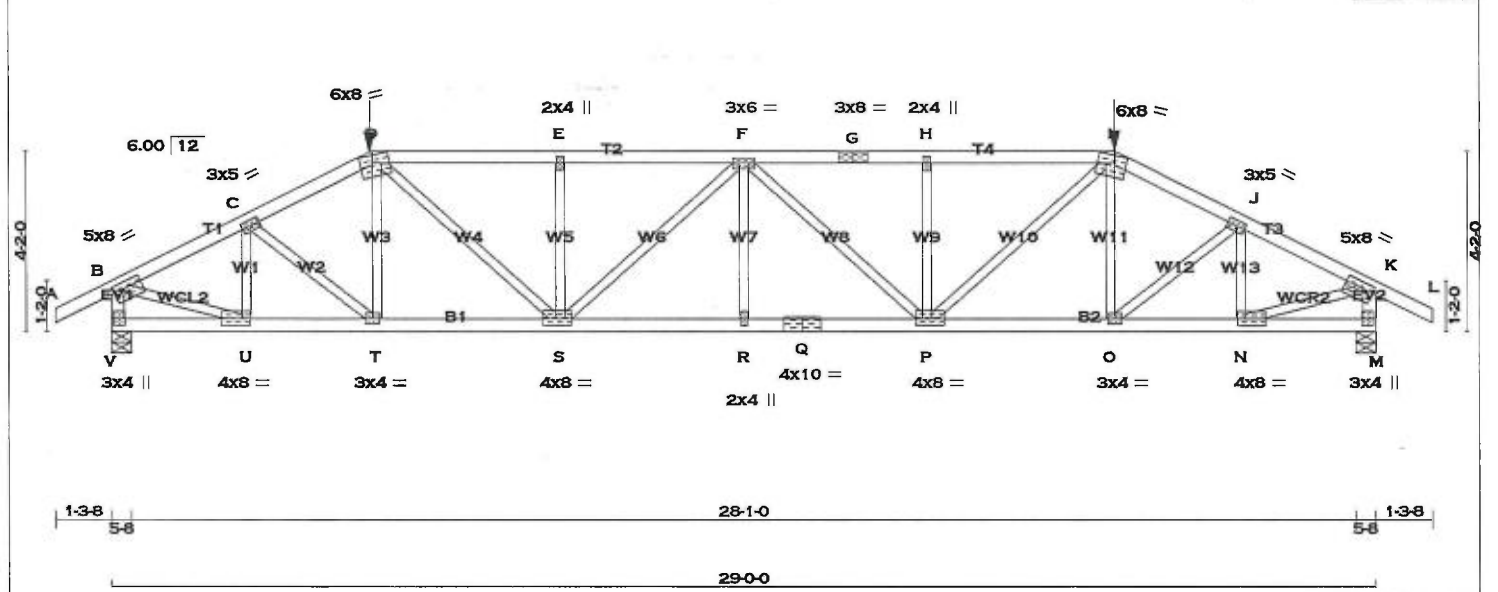
Location: BRAMPTON

Drawn By: DM

Date: 6/26/2018

SIZE AND LOCATION OF CONVENTIONAL FRAMING IS APPROXIMATE. ALL AREAS MAY NOT BE SHOWN. REFER TO ARCHITECTURAL PLANS FOR DETAILS.

ALL CONVENTIONAL FRAMING TO CONFORM WITH PART 9 OF THE O.B.C RAFTER THAT CROSS MEET OVER TRUSSES TO BE 2X4 SPF @ 24" O/C WITH 2X4 VERT POST TO THE TRUSS BELOW EA CROSS PT. VERT POS. THAN 6" TO HAVE A LATERAL BRACING SO THAT THE DISTANCE BETEN PT & VERT ROWS OF BRACING DOES NOT EXCEED 6"



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 - I 2x4 DRY No.2 SPF I - L 2x4 DRY No.2 SPF V - B 2x4 DRY No.2 SPF M - K 2x4 DRY No.2 SPF V - Q 2x4 DRY No.2 SPF Q - M 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 MAXIMUM FACTORED INPUT REQD GROSS REACTION GROSS REACTION BRG BRG JT VERT HORZ DOWN HORZ UPLIFT IN-SX IN-SX V 2635 0 2635 0 0 5-8 5-1 M 2635 0 2635 0 0 5-8 5-1 UNFACTORED REACTIONS 1ST LOASE MAX/MIN COMPONENT REACTIONS JT COMBINED SNOW LIVE PERM.LIVE WIND DEAD SOIL V 1849 1299 / 0 0 / 0 0 / 0 550 / 0 0 / 0 M 1849 1299 / 0 0 / 0 0 / 0 550 / 0 0 / 0 BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S) V, M BRACING TOP CHORD TO BE SHEATHED OR MAX. FURLIN SPACING = 2.44 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 MAX. FACTORED FORCE VERT. LOAD LC1 MAX. MAX. FACTORED MEMB. (LBS) (PLF) CSI (LC) UNBRAC MEMB. (LBS) MAX. FACTORED FR-TO FROM TO LENGTH FR-TO A-B 0 / 23 -77.4 -77.4 0.11 (1) 10.00 U-C -769 / 0 0.14 (1) B-C -3402 / 0 -77.4 -77.4 0.27 (1) 3.56 C-T 0 / 491 0.12 (1) C-D -3847 / 0 -77.4 -77.4 0.29 (1) 3.33 T-D -161 / 71 0.04 (1) D-E -4736 / 0 -145.9 -145.9 0.79 (1) 2.44 D-S 0 / 1760 0.44 (1) E-F -4736 / 0 -145.9 -145.9 0.79 (1) 2.44 S-E -688 / 0 0.19 (1) F-G -4736 / 0 -145.9 -145.9 0.79 (1) 2.44 S-F -526 / 0 0.30 (1) G-H -4736 / 0 -145.9 -145.9 0.79 (1) 2.44 R-F 0 / 153 0.06 (4) H-I -4736 / 0 -145.9 -145.9 0.79 (1) 2.44 F-P -526 / 0 0.30 (1) I-J -3847 / 0 -77.4 -77.4 0.29 (1) 3.33 P-H -688 / 0 0.19 (1) J-K -3402 / 0 -77.4 -77.4 0.27 (1) 3.56 P-I 0 / 1760 0.44 (1) K-L 0 / 23 -77.4 -77.4 0.11 (1) 10.00 O-I -161 / 71 0.04 (1) V-B -2578 / 0 0.0 0.0 0.29 (1) 5.29 O-J 0 / 491 0.12 (1) M-K -2578 / 0 0.0 0.0 0.29 (1) 5.29 N-J -769 / 0 0.14 (1) V-U 0 / 0 -33.0 -33.0 0.08 (4) 10.00 B-U 0 / 3163 0.78 (1) U-T 0 / 3049 -33.0 -33.0 0.61 (1) 10.00 N-K 0 / 3163 0.78 (1) T-S 0 / 3427 -33.0 -33.0 0.67 (1) 10.00 S-R 0 / 5122 -33.0 -33.0 0.98 (1) 10.00 R-Q 0 / 5122 -33.0 -33.0 0.98 (1) 10.00 Q-P 0 / 5122 -33.0 -33.0 0.98 (1) 10.00 P-O 0 / 3427 -33.0 -33.0 0.67 (1) 10.00 O-N 0 / 3049 -33.0 -33.0 0.61 (1) 10.00 N-M 0 / 0 -33.0 -33.0 0.08 (4) 10.00 FACTORED CONCENTRATED LOADS (LBS) JT LOC. LC1 MAX- MAX+ FACE DIR. TYPE D 6-0-0 -348 -348 - FRONT VERT TOTAL I 23-0-0 -348 -348 - FRONT VERT TOTAL				DESIGN CRITERIA SPECIFIED LOADS: TOP CH. LL = 23.3 PSF DL = 3.0 PSF BOT CH. LL = 0.0 PSF DL = 7.0 PSF TOTAL LOAD = 33.3 PSF SPACING = 24.0 IN. C/C LOADING IN FLAT SECTION BASED ON A SLOPE OF 2.00/12 MINIMUM GIRDER TYPE: CPrimeHlp 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 2010 THIS DESIGN COMPLIES WITH: - PART 9 OF CBC 2012, BCBC 2012, ABC 2014 - CSA 086-09 - TPIC 2011 (55 % OF 27.2 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 23.3 P.S.F. SPECIFIED ROOF LIVE LOAD ALLOWABLE DEFL.(LL)= L/360 (0.97") CALCULATED VERT. DEFL.(LL)= L/ 999 (0.26") ALLOWABLE DEFL.(TL)= L/360 (0.97") CALCULATED VERT. DEFL.(TL)= L/ 776 (0.45") CSI: TC=0.79/1.00 (H-I:1), BC=0.98/1.00 (R-S:1), WB=0.78/1.00 (K-N:1), SSI=0.32/1.00 (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 = 0.50 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 618 354 1667 822 2284 1656 PLATE PLACEMENT TOL. = 0.250 inches PLATE ROTATION TOL. = 5.0 Deg. JSI GRIP= 0.90 (V) (INPUT = 0.90) JSI METAL= 0.99 (Q) (INPUT = 1.00)			
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September 17, 2018

JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC TRUSS DESC.	DEWG NO.	Page 4 of 38 TW0918-075
TW0918-075	G01	1	1	TR - GREENPARK - MINNISALE HOMES - MILLWOOD 4 ELE 2		

Kott, Ottawa, Ontario, TW

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ID:luy2SMGWusjivMKCN0gKdgz4O6R-rMd2E25CahSIVeX34G3n4mqHBL2zi?pdvHJjEaycng?

HANGERS NOTES
 1) SPECIAL HANGER(S) OR CONNECTION(S) REQUIRED TO SUPPORT CONCENTRATED LOAD(S) 348.1 lbs FACTORED DOWN AT 23'-0"0, AND 348.1 lbs FACTORED DOWN AT 6'-0"0 ON TOP CHORD. DESIGN FOR UNSPECIFIED CONNECTION(S) IS DELEGATED TO THE BUILDING DESIGNER.

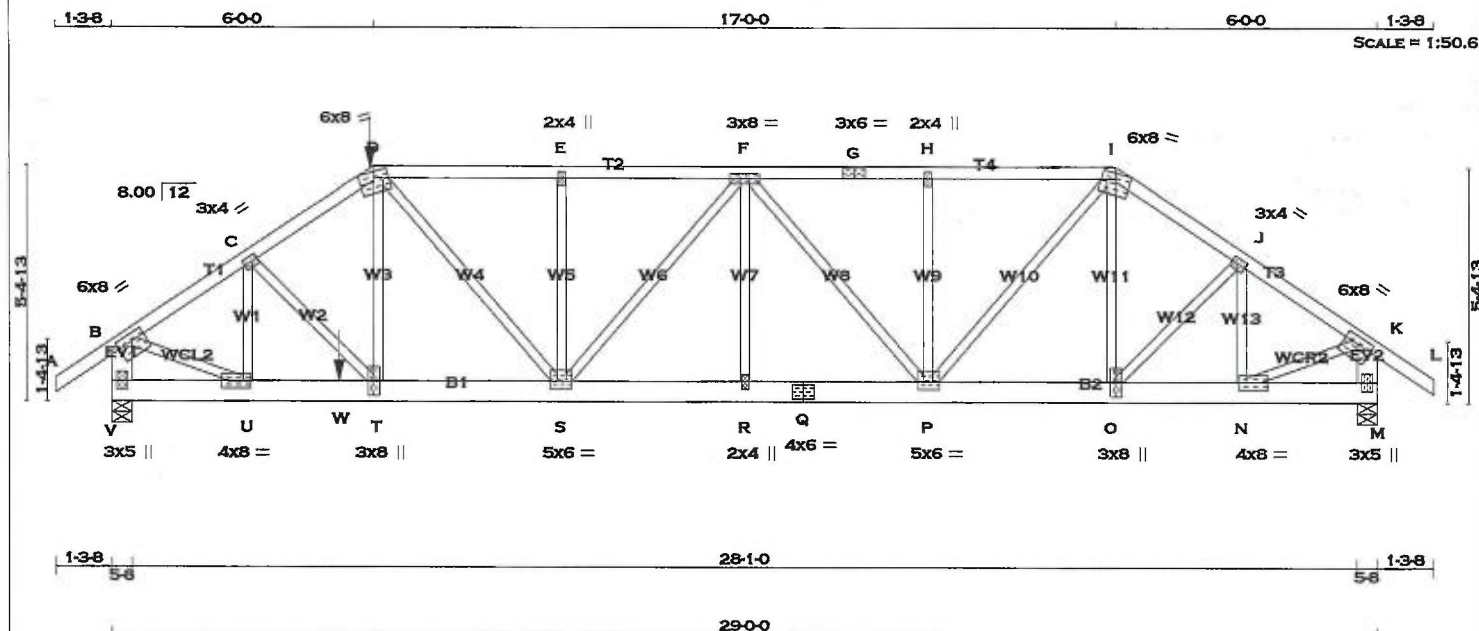


READ ALL NOTES ON THIS PAGE AND ON THE ENGINEERING NOTE PAGE ENP-1. THE NOTE PAGE IS AN INTEGRAL PART OF THIS DRAWING AS IT CONTAINS SPECIFICATIONS AND CRITERIA USED IN THE DESIGN OF THIS COMPONENT.

Rott, Ottawa, Ontario, TW

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ID:luy2SMGWusjivMKCN0qKdgz4O6R-JYBQRN6qL?a97o6Fd_a0c_NYGiWZRSnBx2Hm0ycnc



TOTAL WEIGHT = 149 lb

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 - I	2x4	DRY	No.2	SPF	
I - L	2x4	DRY	No.2	SPF	
V - B	2x6	DRY	No.2	SPF	
M - K	2x6	DRY	No.2	SPF	
V - Q	2x6	DRY	2100F 1.8E	SPF	
Q - M	2x6	DRY	2100F 1.8E	SPF	

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

PLATES (table is in inches)

JT	TYPE	PLATES	W	LEN	Y	X
B	TMVW-t	MT20	6.0	8.0	2.00	3.75
C	TMVW-t	MT20	3.0	4.0	1.50	1.50
D	TTWW-m	MT20	6.0	8.0	Edge	
E	TMVW-w	MT20	2.0	4.0		
F	TMVWW-t	MT20	3.0	8.0		
G	TS-t	MT20	3.0	6.0		
H	TMVW-w	MT20	2.0	4.0		
I	TTWW-m	MT20	6.0	8.0	Edge	
J	TMVW-t	MT20	3.0	4.0	1.50	1.50
K	TMVW-t	MT20	6.0	8.0	2.00	3.75
M	BMV1+p	MT20	3.0	8.0		
N	BMVW-t	MT20	4.0	8.0	2.00	2.00
O	BMVW-t	MT20	3.0	8.0		
P	BMVWW-t	MT20	5.0	6.0	2.00	1.50
Q	BS-t	MT20	4.0	6.0		
R	BMVW-w	MT20	2.0	4.0		
S	BMVWW-t	MT20	5.0	6.0	2.00	2.00
T	BMVW-t	MT20	3.0	8.0		
U	BMVW-t	MT20	4.0	8.0	2.00	2.00
V	BMV1+p	MT20	3.0	5.0		

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

A SIZE FOR SIZE SUBSTITUTION OF MITEK M120 WITH TEE-LOK TL20 PLATES IS ALLOWED.

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		
V	3259	0	3259	0	0	5-8	3-9		
M	1874	0	1874	0	0	5-8	2-0		

UNFACTORED REACTIONS

JT	1ST LCASE		MAX./MIN. COMPONENT REACTIONS				
	COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
V	2287	1602 / 0	0 / 0	0 / 0	0 / 0	685 / 0	0 / 0
M	1312	935 / 0	0 / 0	0 / 0	0 / 0	377 / 0	0 / 0

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

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. UNBRACED LENGTH (LC)	MEMB.	MAX. FACTORED FORCE (LBS)	MAX. UNBRACED LENGTH (LC)	
FR-TO				FR-TO			
A-B	0 / 29	-77.4	-77.4 0.11 (1)	10.00	U-C	-398 / 0	0.08 (1)
B-C	-3679 / 0	-77.4	-77.4 0.31 (1)	3.40	C-T	0 / 103	0.03 (1)
C-D	-3790 / 0	-77.4	-77.4 0.29 (1)	3.36	T-D	0 / 1383	0.34 (1)
D-E	-3283 / 0	-77.4	-77.4 0.39 (1)	3.51	D-S	0 / 176	0.04 (1)
E-F	-3283 / 0	-77.4	-77.4 0.38 (1)	3.51	S-E	-356 / 0	0.15 (1)
F-G	-2636 / 0	-77.4	-77.4 0.32 (1)	3.94	S-F	0 / 227	0.06 (1)
G-H	-2636 / 0	-77.4	-77.4 0.32 (1)	3.94	R-F	0 / 119	0.03 (4)
H-I	-2636 / 0	-77.4	-77.4 0.33 (1)	3.94	F-P	-782 / 0	0.60 (1)
I-J	-2170 / 0	-77.4	-77.4 0.17 (1)	4.44	P-H	-359 / 0	0.15 (1)
J-K	-1954 / 0	-77.4	-77.4 0.16 (1)	4.65	P-I	0 / 1300	0.32 (1)
K-L	0 / 29	-77.4	-77.4 0.11 (1)	10.00	O-I	-16 / 42	0.02 (4)
V-B	-3244 / 0	0.0	0.0 0.23 (1)	5.84	O-J	0 / 220	0.05 (1)
M-K	-1821 / 0	0.0	0.0 0.13 (1)	7.37	N-J	-547 / 0	0.11 (1)
V-U	0 / 0	-33.0	-33.0 0.04 (1)	10.00	B-U	0 / 3222	0.80 (1)
U-W	0 / 3067	-33.0	-33.0 0.51 (1)	10.00	N-K	0 / 1719	0.43 (1)
W-T	0 / 3067	-33.0	-33.0 0.51 (1)	10.00			
T-S	0 / 3168	-17.5	-17.5 0.29 (1)	10.00			
S-R	0 / 3137	-17.5	-17.5 0.20 (1)	10.00			
R-Q	0 / 3137	-17.5	-17.5 0.19 (1)	10.00			
Q-P	0 / 3137	-17.5	-17.5 0.19 (1)	10.00			
P-O	0 / 1790	-17.5	-17.5 0.12 (1)	10.00			
O-N	0 / 1636	-17.5	-17.5 0.12 (1)	10.00			
N-M	0 / 0	-17.5	-17.5 0.03 (1)	10.00			

FACTORED CONCENTRATED LOADS (LBS)

JT	LOC.	LC1	MAX-	FACE	DIR.	TYPE
D	6-0-0	-348	-348	FRONT	VERT	TOTAL
W	5-2-8	-454	-508	FRONT	VERT	DEAD
W	5-2-8	-1274	-1274	FRONT	VERT	SNOW

DESIGN CRITERIA

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

SPECIFIED LOADS:

TOP CH.	LL = 23.3	PSF
DL = 3.0	PSF	
BOT CH.	LL = 0.0	PSF
DL = 7.0	PSF	
TOTAL LOAD = 33.3	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.
LOADS APPLIED TO FIRST 6-0-0 OF SPAN MEASURED FROM THE LEFT.

*** NON STANDARD GIRDER ***
ADDTL USER-DEFINED LOADS APPLIED TO ALL LOAD CASES.

THIS TRUSS IS DESIGNED FOR RESIDENTIAL OR SMALL BUILDING REQUIREMENTS OF PART 9, NBCC 2010

THIS DESIGN COMPLIES WITH:
- PART 9 OF OBC 2012, CBC 2012, ABC 2014
- CSA 086-09
- TPIC 2011

(55 % OF 27.2 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 23.3 P.S.F. SPECIFIED ROOF LIVE LOAD

ALLOWABLE DEFL.(LL) = L/360 (0.97")
CALCULATED VERT. DEFL.(LL) = L/999 (0.11")
ALLOWABLE DEFL.(TL) = L/360 (0.97")
CALCULATED VERT. DEFL.(TL) = L/999 (0.20")

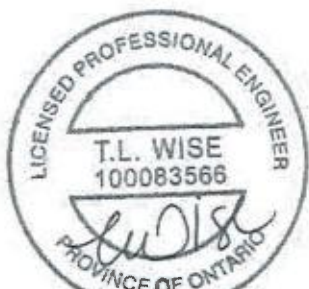
CSI: TC=0.39/1.00 (D-E-1), BC=0.51/1.00 (T-U-1), WB=0.80/1.00 (B-U-1), SS=0.88/1.00 (T-U-1)

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

COMPANION LIVE LOAD FACTOR = 0.50

AUTOSOLVE HEELS OFF

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



September 17, 2018

HANGERS NOTES

1) SPECIAL HANGER(S) OR CONNECTION(S) REQUIRED TO SUPPORT CONCENTRATED LOAD(S) 348.1 lbs FACTORED DOWN AT 6-0-0 ON TOP CHORD, AND 1727.3 lbs FACTORED DOWN AT 5-2-8 ON BOTTOM CHORD. DESIGN FOR UNSPECIFIED CONNECTION(S) IS DELEGATED TO THE BUILDING DESIGNER.

NAIL VALUES

PLATE	GRIP(DRY)	SHEAR	SECTION
(PSI)	(PLI)	(PLI)	(PLI)
MAX	MIN	MAX	MIN
MT20	618	354	1667 822 2284 1656

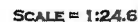
PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

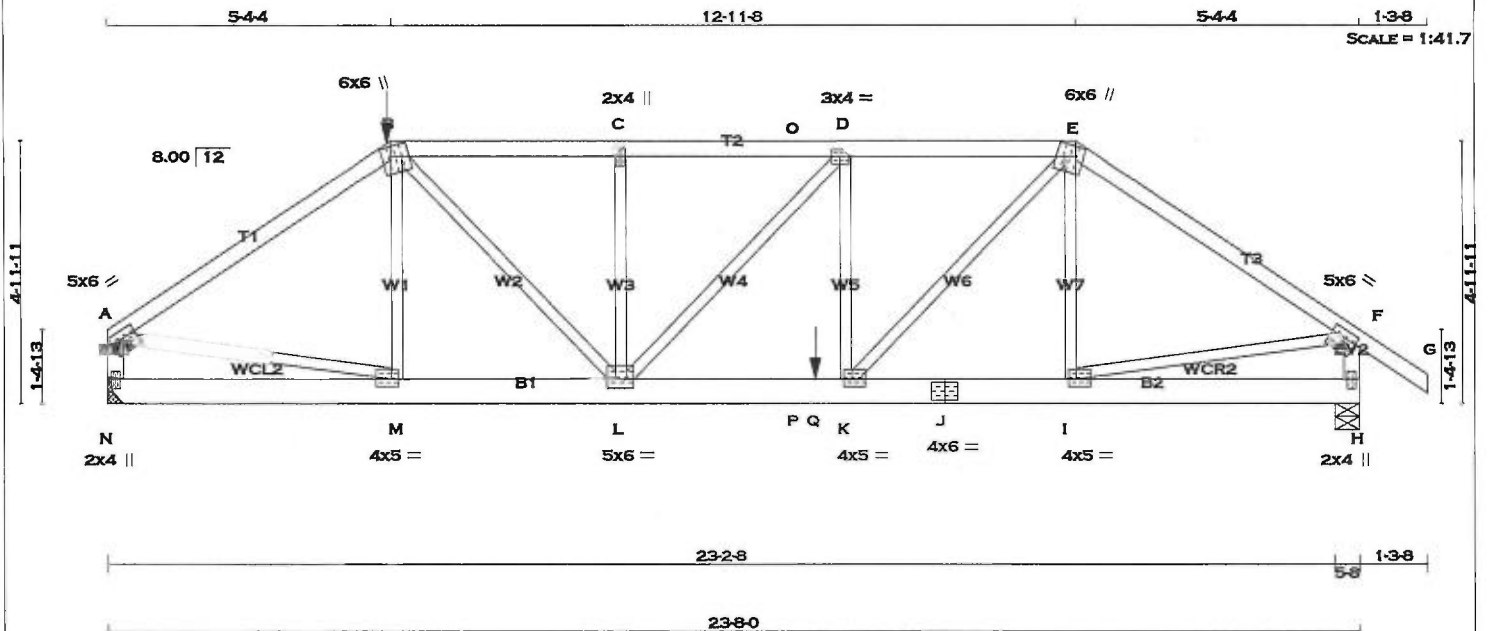
JSI GRIP= 0.89 (N) (INPUT = 0.90)
JSI METAL= 0.71 (K) (INPUT = 1.00)



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.



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CONTAINS SPECIFICATIONS AND CRITERIA USED
IN THE DESIGN OF THIS COMPONENT



TOTAL WEIGHT = 112 lb [M]

LUMBER			
N. L. G. A. RULES			
CHORDS	SIZE	DRY	DESCR.
A - B	2x4	DRY	No.2
B - E	2x4	DRY	No.2
E - G	2x4	DRY	No.2
N - A	2x4	DRY	No.2
H - F	2x4	DRY	No.2
N - J	2x6	DRY	No.2
J - H	2x6	DRY	No.2
ALL WEBS	2x3	DRY	No.2
EXCEPT			SPF

DRY: SEASONED LUMBER.

PLATES (table is in inches)

JT	TYPE	PLATES	W	LEN	Y	X
A	TMVW-t	MT20	5.0	6.0	1.75	Edge
B	TTWW+m	MT20	6.0	5.0	2.25	2.00
C	TMW+w	MT20	2.0	4.0		
D	TMWW-t	MT20	3.0	4.0		
E	TTWW+m	MT20	6.0	6.0	2.25	1.75
F	TMVW-t	MT20	5.0	6.0	1.75	3.00
H	BMV1+p	MT20	2.0	4.0	2.25	1.00
I	BMWW-t	MT20	4.0	5.0	1.75	1.75
J	BS-t	MT20	4.0	6.0		
K	BMWW-t	MT20	4.0	5.0	1.75	1.75
L	BMWWW-t	MT20	5.0	6.0	2.00	2.00
M	BMWW-t	MT20	4.0	5.0	1.75	1.50
N	BMV1+p	MT20	2.0	4.0	2.25	1.00

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

A SIZE FOR SIZE SUBSTITUTION OF MITEK M120 WITH TEE-LOK TL20 PLATES IS ALLOWED.

HANGERS NOTES

1)

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

BEARINGS

JT	FACTORED GROSS REACTION		MAXIMUM FACTORED GROSS REACTION		INPUT BRG	RECORD BRG
	VERT	HORZ	DOWN	HORZ		
N	1862	0	1862	0	0	MECHANICAL
H	1904	0	1904	0	5-8	3-4

A SUITABLE MECHANICAL CONNECTION IS REQUIRED AT JOINT N TO RESIST THE MAX FACTORED REACTIONS.

UNFACTORED REACTIONS

1ST LCASE		MAX./MIN. COMPONENT REACTIONS					
JT	COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
N	1307	913 / 0	0 / 0	0 / 0	0 / 0	394 / 0	0 / 0
H	1333	949 / 0	0 / 0	0 / 0	0 / 0	384 / 0	0 / 0

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

BRACING

TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 3.75 FT.
MAX. UNBRACED BOTTOM CHORD LENGTH = 10.00 FT OR RIGID CEILING DIRECTLY APPLIED.

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

LOADING

TOTAL LOAD CASES: (4)

CHORDS				WEBS			
MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	LC1 MAX CSI (LC)	MAX. UNBRACED LENGTH	MEMB.	MAX. FACTORED FORCE (LBS)	MAX. CSI (LC)
FR-TO					FR-TO		
A-B	-2250 / 0	-77.4	-77.4 0.61 (1)	3.90	M-B	-227 / 46	0.08 (1)
B-C	-2719 / 0	-107.2	-107.2 0.42 (1)	3.76	B-L	0 / 1241	0.31 (1)
C-O	-2719 / 0	-107.2	-107.2 0.42 (1)	3.76	L-C	-503 / 0	0.18 (1)
O-D	-2719 / 0	-77.4	-77.4 0.42 (1)	3.76	L-D	-248 / 0	0.17 (1)
D-E	-2887 / 0	-77.4	-77.4 0.35 (1)	3.75	K-D	-199 / 19	0.07 (1)
E-F	-2177 / 0	-77.4	-77.4 0.60 (1)	3.96	K-E	0 / 1575	0.39 (1)
F-G	0 / 29	-77.4	-77.4 0.11 (1)	10.00	I-E	-285 / 0	0.10 (1)
N-A	-1800 / 0	0.0	0.0 0.20 (1)	6.18	A-M	0 / 1900	0.47 (1)
H-F	-1855 / 0	0.0	0.0 0.21 (1)	6.10	I-F	0 / 1839	0.46 (1)
N-M	0 / 0	-24.2	-24.2 0.08 (4)	10.00			
M-L	0 / 1864	-24.2	-24.2 0.28 (1)	10.00			
L-P	0 / 2887	-24.2	-24.2 0.63 (1)	10.00			
P-Q	0 / 2887	-17.5	-17.5 0.63 (1)	10.00			
Q-K	0 / 2887	-17.5	-17.5 0.63 (1)	10.00			
K-J	0 / 1802	-17.5	-17.5 0.35 (1)	10.00			
J-I	0 / 1802	-17.5	-17.5 0.35 (1)	10.00			
I-H	0 / 0	-17.5	-17.5 0.06 (4)	10.00			

FACTORED CONCENTRATED LOADS (LBS)

JT	LOC.	LC1	MAX-	MAX+	FACE	DIR.	TYPE
B	5-4.4	-173	-173	---	FRONT	VERT	TOTAL
Q	13-4.8	-926	-926	---	FRONT	VERT	TOTAL

DESIGN CRITERIA

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

SPECIFIED LOADS:

TOP CH.	LL	=	23.3	PSF
	DL	=	3.0	PSF
BOT CH.	LL	=	0.0	PSF
	DL	=	7.0	PSF
TOTAL LOAD		=	33.3	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 = 5-4.4
END SETBACK = 4-0-0
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 13-0-0 OF SPAN MEASURED FROM THE LEFT.

*** NON STANDARD GIRDER ***

ADDTL USER-DEFINED LOADS APPLIED TO ALL LOAD CASES.
THIS TRUSS IS DESIGNED FOR RESIDENTIAL OR SMALL BUILDING REQUIREMENTS OF PART 9, NBCC 2010

THIS DESIGN COMPLIES WITH:

- PART 9 OF OBC 2012, BCBC 2012, ABC 2014
- CSA 086-09
- TPIC 2011

(55 % OF 27.2 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 23.3 P.S.F. SPECIFIED ROOF LIVE LOAD

ALLOWABLE DEFL.(LL) = L/360 (0.79")
CALCULATED VERT. DEFL.(LL) = L/999 (0.10")
ALLOWABLE DEFL.(TL) = L/360 (0.79")
CALCULATED VERT. DEFL.(TL) = L/999 (0.18")

CSI: TC=0.61/1.00 (A-B:1), BC=0.63/1.00 (K-L:1), WB=0.47/1.00 (A-M:1), SSI=0.58/1.00 (K-L:1)

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

COMPANION LIVE LOAD FACTOR = 0.50

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

NAIL VALUES

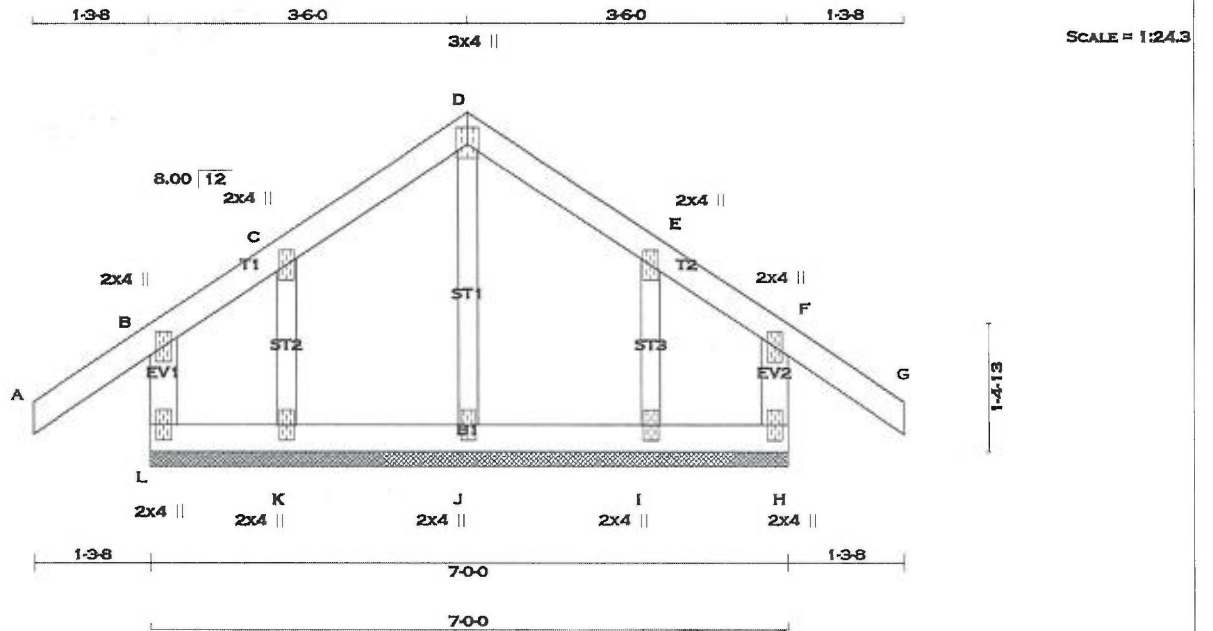
PLATE	GRIP(DRY)	SHEAR	SECTION
(PSI)	(PLI)	(PLI)	
MAX	MIN	MAX	MIN
MT20	618	354	1667 822 2284 1656

CONTINUED ON PAGE 2



September 17, 2018

HANGERS NOTES 1) SPECIAL HANGER(S) OR CONNECTION(S) REQUIRED TO SUPPORT CONCENTRATED LOAD(S) 172.6 lbs FACTORED DOWN AT 5-4-4 ON TOP CHORD, AND 926.2 lbs FACTORED DOWN AT 13-4-8 ON BOTTOM CHORD. DESIGN FOR UNSPECIFIED CONNECTION(S) IS DELEGATED TO THE BUILDING DESIGNER.  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.	PLATE PLACEMENT TOL. = 0.250 inches PLATE ROTATION TOL. = 5.0 Deg. JSI GRIP= 0.89 (K) (INPUT = 0.90) JSI METAL= 0.59 (A) (INPUT = 1.00)
---	---



TOTAL WEIGHT = 29 lb

[M]

LUMBER

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

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

GABLE STUDS SPACED AT 2-0-0 OC.

PLATES (table is in inches)

JT	TYPE	PLATES	W	LEN	Y	X
B	TMV+p	MT20	2.0	4.0		
C	TMW+w	MT20	2.0	4.0		
D	TTW+p	MT20	3.0	4.0	2.25	1.50
E	TMW+w	MT20	2.0	4.0		
F	TMV+p	MT20	2.0	4.0		
H	BMV1+p	MT20	2.0	4.0		
I, J, K						
I	BMW1+w	MT20	2.0	4.0		
L	BMV1+p	MT20	2.0	4.0		

A SIZE FOR SIZE SUBSTITUTION OF MITEK MI20 WITH TEE-LOK TL20 PLATES IS ALLOWED.

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

BEARINGS

THIS TRUSS DESIGNED FOR CONTINUOUS BEARINGS.

THIS TRUSS REQUIRES RIGID SHEATHING ON EXPOSED FACE.

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

BRACING

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

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

LOADING

TOTAL LOAD CASES: (4)

CHORDS				WEBS			
MEMB.	FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	LC1 MAX. (LC)	MEMB.	FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	LC1 MAX. (LC)
FR-TO		FROM TO		FR-TO			
L-B	-162 / 0	0.0 0.0	0.04 (1)	7.81	J-D	-216 / 0	0.05 (1)
A-B	0 / 29	-77.4 -77.4	0.10 (1)	10.00	K-C	-107 / 0	0.02 (1)
B-C	0 / 22	-77.4 -77.4	0.06 (1)	10.00	I-E	-107 / 0	0.02 (1)
C-D	0 / 41	-77.4 -77.4	0.05 (1)	10.00			
D-E	0 / 41	-77.4 -77.4	0.05 (1)	10.00			
E-F	0 / 22	-77.4 -77.4	0.06 (1)	10.00			
F-G	0 / 29	-77.4 -77.4	0.10 (1)	10.00			
H-F	-162 / 0	0.0 0.0	0.04 (1)	7.81			
L-K	-27 / 0	-17.5 -17.5	0.01 (4)	6.25			
K-J	-31 / 0	-17.5 -17.5	0.01 (4)	6.25			
J-I	-31 / 0	-17.5 -17.5	0.01 (4)	6.25			
I-H	-27 / 0	-17.5 -17.5	0.01 (4)	6.25			

DESIGN CRITERIA

SPECIFIED LOADS:

TOP CH.	LL	=	23.3	PSF
	DL	=	3.0	PSF
BOT CH.	LL	=	0.0	PSF
	DL	=	7.0	PSF
TOTAL LOAD	=	33.3	PSF	

SPACING = 24.0 IN. C/C

THIS TRUSS IS DESIGNED FOR RESIDENTIAL OR SMALL BUILDING REQUIREMENTS OF PART 9, NBCC 2010

THIS DESIGN COMPLIES WITH:

- PART 9 OF OBC 2012, BCBC 2012, ABC 2014
- CSA 086-09
- TPIC 2011

DESIGN ASSUMPTIONS

-OVERHANG NOT TO BE ALTERED OR CUT OFF.

(55 % OF 27.2 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 23.3 P.S.F. SPECIFIED ROOF LIVE LOAD

CSI: TC=0.10/1.00 (F-G:1), BC=0.01/1.00 (I-J:4), WB=0.05/1.00 (D-J:1), SSI=0.07/1.00 (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 = 0.50

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

NAIL VALUES

PLATE	GRIP(DRY)	SHEAR (PSI)	SECTION (PLI)
			MAX MIN MAX MIN MAX MIN
MT20	618	354	1667 822 2284 1656

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

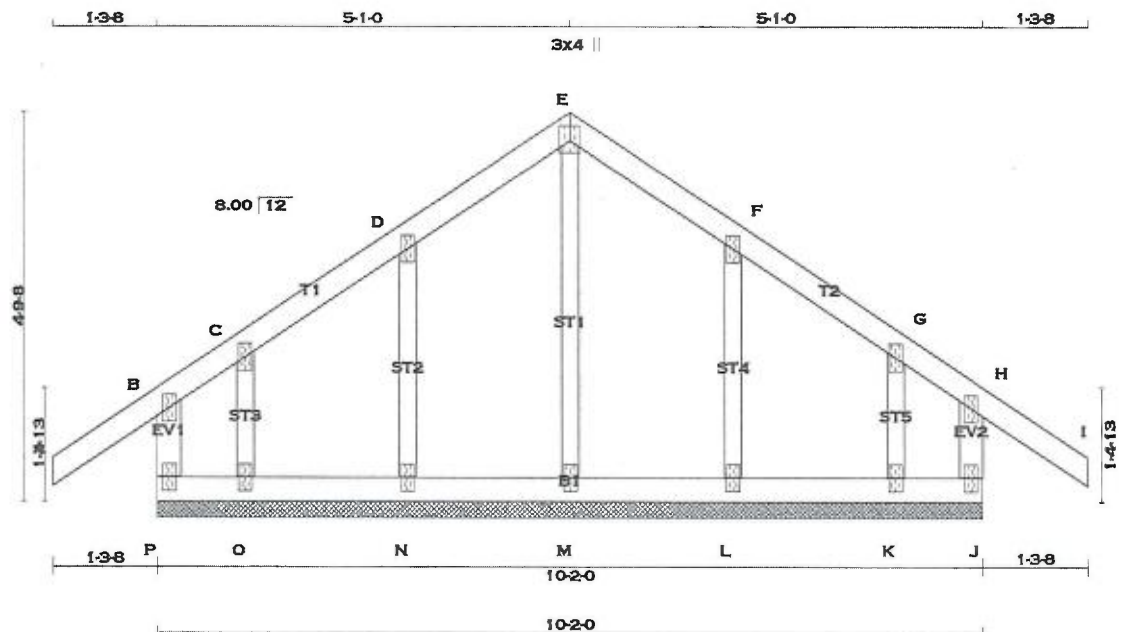
JSI GRIP= 0.15 (D) (INPUT = 0.90)
 JSI METAL= 0.08 (D) (INPUT = 1.00)

September 17, 2018

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.



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.



SCALE = 1:27.2

TOTAL WEIGHT = 42 lb [M]

LUMBER

N. L. G. A. RULES

CHORDS SIZE

P - B 2x4 DRY No.2

A - E 2x4 DRY No.2

E - I 2x4 DRY No.2

J - H 2x4 DRY No.2

P - J 2x4 DRY No.2

ALL WEBS 2x3 DRY No.2

ALL GABLE WEBS 2x3 DRY No.2

DRY: SEASONED LUMBER.

GABLE STUDS SPACED AT 2-0-0 OC.

PLATES (table is in inches)

JT TYPE	PLATES	W	LEN	Y	X
B TMV+p	MT20	2.0	4.0		
C, D, F, G					
C TMW+w	MT20	2.0	4.0		
E TTW+p	MT20	3.0	4.0	2.25	1.50
H TMV+p	MT20	2.0	4.0		
J BMV1+p	MT20	2.0	4.0		
K, L, M, N, O					
K BMW1+w	MT20	2.0	4.0		
P BMV1+p	MT20	2.0	4.0		

A SIZE FOR SIZE SUBSTITUTION OF MITK MI20 WITH TEE-LOK TL20 PLATES IS ALLOWED.

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

BEARINGS

THIS TRUSS DESIGNED FOR CONTINUOUS BEARINGS.

THIS TRUSS REQUIRES RIGID SHEATHING ON EXPOSED FACE.

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

BRACING

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

MAX. UNBRACED BOTTOM CHORD LENGTH = 6.25 FT OR RIGID CEILING DIRECTLY APPLIED.

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

LOADING

TOTAL LOAD CASES: (4)

CHORDS				WEBS			
MEMB.	MAX. FACTORED FORCE (LBS)	VERT. LOAD (PLF)	LC1 MAX. UNBRACED LENGTH (FT)	MEMB.	MAX. FACTORED FORCE (LBS)	LC1 MAX. UNBRACED LENGTH (FT)	
FR-TO				FR-TO			
P-B	-164 / 0	0.0	0.0 0.04 (1)	7.81	M-E	-194 / 0	0.06 (1)
A-B	0 / 29	-77.4	-77.4 0.10 (1)	10.00	N-D	-168 / 0	0.03 (1)
B-C	0 / 7	-77.4	-77.4 0.06 (1)	10.00	O-C	-71 / 0	0.01 (1)
C-D	0 / 35	-77.4	-77.4 0.05 (1)	10.00	L-F	-168 / 0	0.03 (1)
D-E	0 / 33	-77.4	-77.4 0.05 (1)	10.00	K-G	-71 / 0	0.01 (1)
E-F	0 / 33	-77.4	-77.4 0.05 (1)	10.00			
F-G	0 / 35	-77.4	-77.4 0.05 (1)	10.00			
G-H	0 / 7	-77.4	-77.4 0.06 (1)	10.00			
H-I	0 / 29	-77.4	-77.4 0.10 (1)	10.00			
J-H	-164 / 0	0.0	0.0 0.04 (1)	7.81			
P-O	-22 / 0	-17.5	-17.5 0.01 (4)	6.25			
O-N	-25 / 0	-17.5	-17.5 0.01 (4)	6.25			
N-M	-29 / 0	-17.5	-17.5 0.01 (4)	6.25			
M-L	-29 / 0	-17.5	-17.5 0.01 (4)	6.25			
L-K	-25 / 0	-17.5	-17.5 0.01 (4)	6.25			
K-J	-22 / 0	-17.5	-17.5 0.01 (4)	6.25			

DESIGN CRITERIA

SPECIFIED LOADS:

TOP CH. LL = 23.3 PSF

DL = 3.0 PSF

BOT CH. LL = 0.0 PSF

DL = 7.0 PSF

TOTAL LOAD = 33.3 PSF

SPACING = 24.0 IN. C/C

THIS TRUSS IS DESIGNED FOR RESIDENTIAL OR SMALL BUILDING REQUIREMENTS OF PART 9, NBCC 2010

THIS DESIGN COMPLIES WITH:

- PART 9 OF OBC 2012, BCBC 2012, ABC 2014

- CSA 086-09

- TPIC 2011

DESIGN ASSUMPTIONS

- OVERHANG NOT TO BE ALTERED OR CUT OFF.

(55 % OF 27.2 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 23.3 P.S.F. SPECIFIED ROOF LIVE LOAD

CSI: TC=0.10/1.00 (A-B:1), BC=0.01/1.00 (L-M:4), WB=0.06/1.00 (E-M:1), SS=0.07/1.00 (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 = 0.50

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 618 354 1667 822 2284 1656

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.13 (E) (INPUT = 0.90)

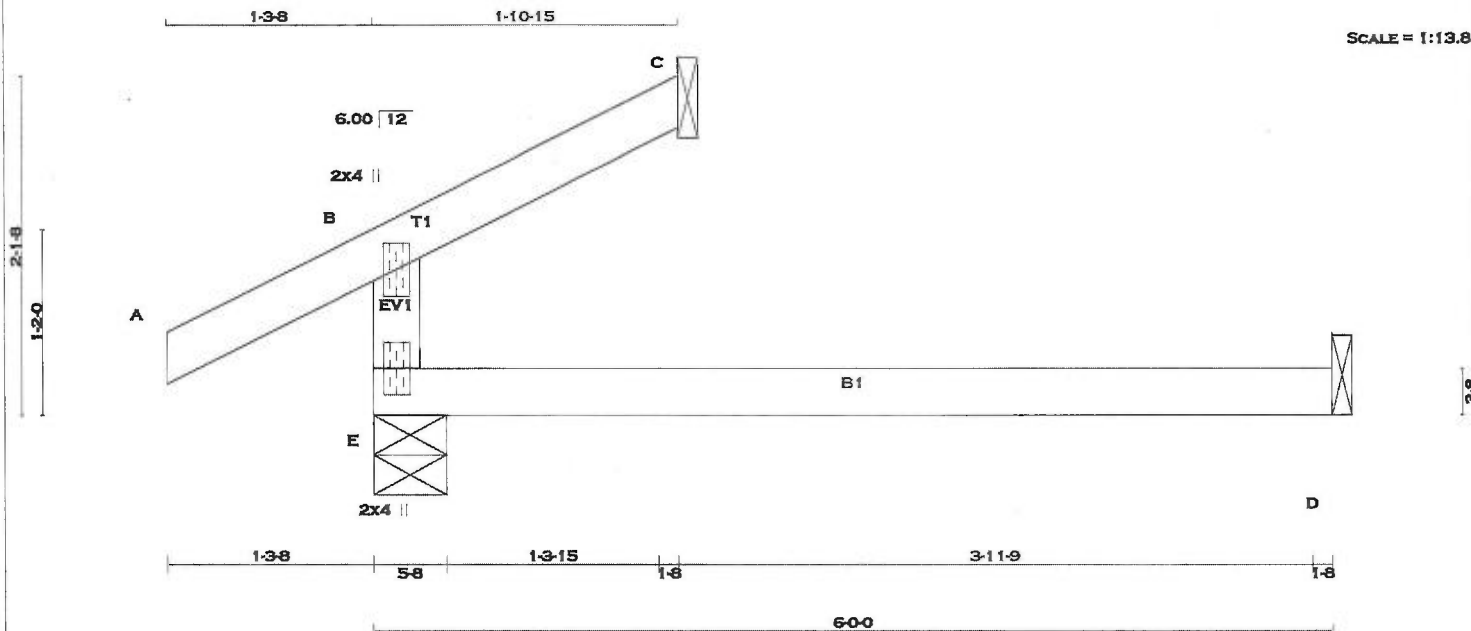
JSI METAL= 0.06 (E) (INPUT = 1.00)



September 17, 2018



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LUMBER				DIMENSIONS, SUPPORTS AND LOADINGS SPECIFIED BY FABRICATOR TO BE VERIFIED BY BUILDING DESIGNER			
N. L. G. A. RULES	CHORDS	SIZE	LUMBER	DESCR.	SPF	SPF	SPF
E - B	2x4	DRY	No.2	SPF			
A - C	2x4	DRY	No.2	SPF			
E - D	2x4	DRY	No.2	SPF			

DRY: SEASONED LUMBER.

PLATES (table is in inches)

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

A SIZE FOR SIZE SUBSTITUTION OF MITEK M1120 WITH TEE-LOK TL20 PLATES IS ALLOWED.

BEARINGS

JT	FACTORED GROSS REACTION	MAXIMUM FACTORED GROSS REACTION	INPUT BRG	REQRD BRG
	VERT	HORZ	DOWN	HORZ
E	259	0	259	0
C	56	0	56	0
D	43	0	49	0

SEE MITEK STANDARD DETAIL B37579H FOR CONNECTION TO JOINT(S) C, D

UNFACTORED REACTIONS

JT	1ST LCASE	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
	COMBINED						
E	183	119 / 0	0 / 0	0 / 0	0 / 0	65 / 0	0 / 0
C	38	34 / 0	0 / 0	0 / 0	0 / 0	4 / 0	0 / 0
D	35	0 / 0	0 / 0	0 / 0	0 / 0	35 / 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 = 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				WEBS			
MEMB.	MAX. FACTORED FORCE (LBS)	VERT. LOAD (LBS)	FACTORED LOAD LC1 MAX (PLF)	MEMB.	MAX. FACTORED FORCE (LBS)	MAX. FACTORED UNBRACED LENGTH (LC)	MEMB.
FR-TO				FR-TO			
E-B	-197 / 0	0.0	0.0 0.13 (4)	7.81			
A-B	0 / 23	-77.4	-77.4 0.10 (1)	10.00			
B-C	-8 / 0	-77.4	-77.4 0.05 (1)	10.00			
E-D	0 / 0	-17.5	-17.5 0.13 (4)	10.00			

DESIGN CRITERIA

SPECIFIED LOADS:
 TOP CH. LL = 23.3 PSF
 DL = 3.0 PSF
 BOT CH. LL = 0.0 PSF
 DL = 7.0 PSF
 TOTAL LOAD = 33.3 PSF

SPACING = 24.0 IN. C/C

THIS TRUSS IS DESIGNED FOR RESIDENTIAL OR SMALL BUILDING REQUIREMENTS OF PART 9, NBCC 2010

THIS DESIGN COMPLIES WITH:
 - PART 9 OF OBC 2012, BCBC 2012, ABC 2014
 - CSA 086-09
 - TPIC 2011

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

(55 % OF 27.2 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 23.3 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=0.13/1.00 (B-E-4), BC=0.13/1.00 (D-E-4)
 , WB=0.00/1.00 (n/a:0), SS=0.08/1.00 (D-E-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 = 0.50

AUTOSOLVE RIGHT HEEL ONLY

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 618 354 1667 822 2284 1656

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

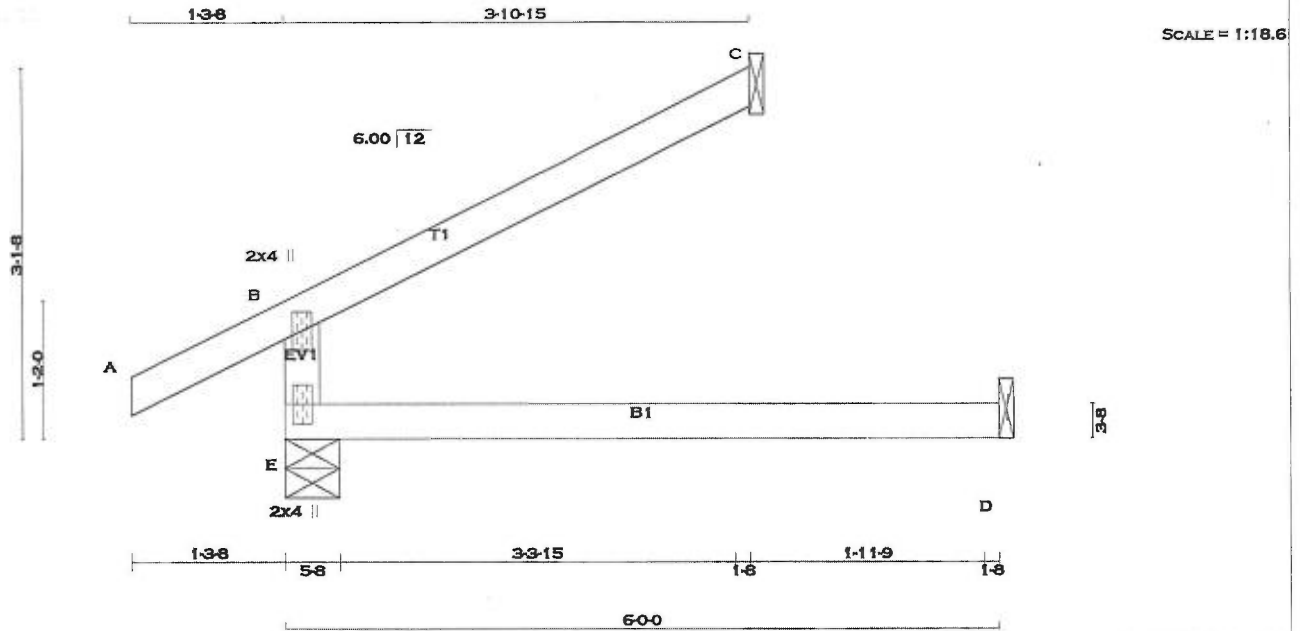
JSI GRIP= 0.11 (B) (INPUT = 0.90)
 JSI METAL= 0.04 (B) (INPUT = 1.00)



September 17, 2018



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TOTAL WEIGHT = 2 X 14 = 28 lb [M]

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		

A SIZE FOR SIZE SUBSTITUTION OF MITEK MII20 WITH TEE-LOK TL20 PLATES IS ALLOWED.

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

JT	FACTORED GROSS REACTION		MAXIMUM FACTORED GROSS REACTION		INPUT BRG	REQRD BRG
	VERT	HORZ	DOWN	HORZ		
E	356	0	356	0	5-8	1-8
C	114	0	114	0	1-8	1-8
D	43	0	49	0	1-8	1-8

SEE MITEK STANDARD DETAIL B37579H FOR CONNECTION TO JOINT(S) C, D

UNFACTORED REACTIONS

JT	1ST LCASE COMBINED	MAX./MIN. COMPONENT REACTIONS					
		SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
E	249	177 / 0	0 / 0	0 / 0	0 / 0	72 / 0	0 / 0
C	77	68 / 0	0 / 0	0 / 0	0 / 0	9 / 0	0 / 0
D	35	0 / 0	0 / 0	0 / 0	0 / 0	35 / 0	0 / 0

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

BRACING

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

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

LOADING

TOTAL LOAD CASES: (4)

MEMB.	CHORDS		WEBS			
	MAX. FACTORED FORCE (LBS)	VERT. LOAD (PLF)	FACTORED VERT. LOAD (LC1) (PLF)	MAX. UNBRACED LENGTH (LC1) (FT)	MAX. FACTORED FORCE (LBS)	MAX. FACTORED FORCE (LC1) (LBS)
FR-TO						
E-B	-294 / 0	0.0	0.0	0.13 (4)	7.81	
A-B	0 / 23	-77.4	-77.4	0.10 (1)	10.00	
B-C	-17 / 0	-77.4	-77.4	0.20 (1)	6.25	
E-D	0 / 0	-17.5	-17.5	0.13 (4)	10.00	

DESIGN CRITERIA

SPECIFIED LOADS:
 TOP CH. LL = 23.3 PSF
 DL = 3.0 PSF
 BOT CH. LL = 0.0 PSF
 DL = 7.0 PSF
 TOTAL LOAD = 33.3 PSF

SPACING = 24.0 IN. C/C

THIS TRUSS IS DESIGNED FOR RESIDENTIAL OR SMALL BUILDING REQUIREMENTS OF PART 9, NBCC 2010

THIS DESIGN COMPLIES WITH:
 - PART 9 OF OBC 2012, BCBC 2012, ABC 2014
 - CSA 086-09
 - TPIC 2011

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

(55 % OF 27.2 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 23.3 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=0.20/1.00 (B-C:1), BC=0.13/1.00 (D-E:4)
 WB=0.00/1.00 (n/a:0), SS=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 = 0.50

AUTOSOLVE RIGHT HEEL ONLY

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

NAIL VALUES

PLATE	GRIP(DRY)	SHEAR (PSI)	SECTION (PLI)
MT20	618	354	1667

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

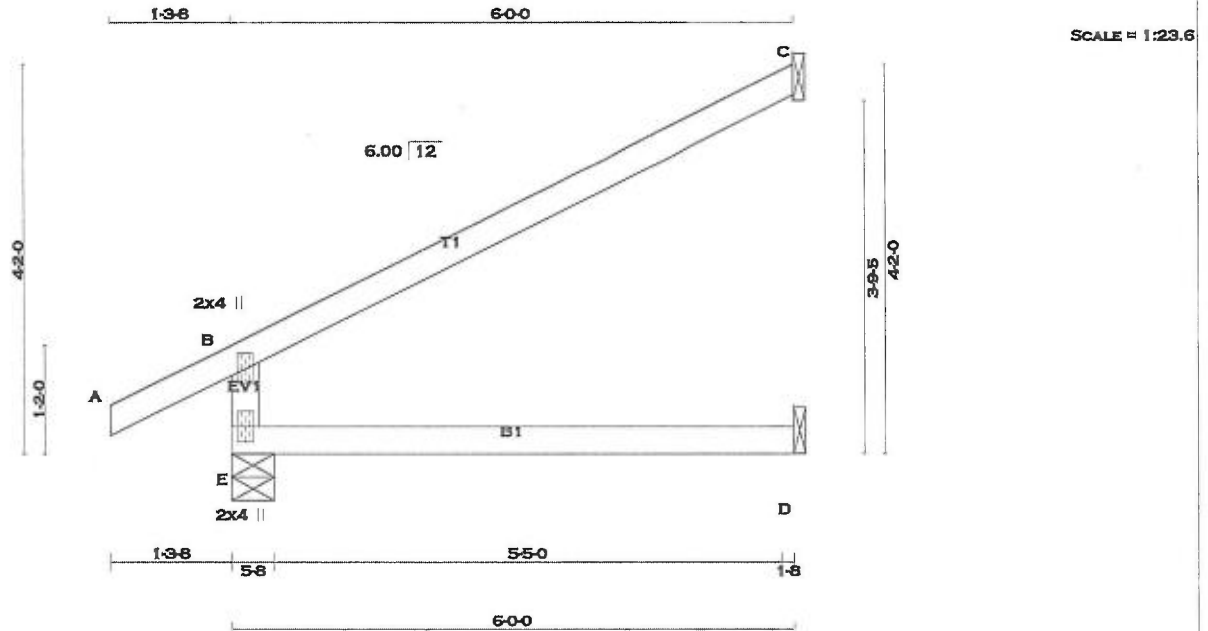
JSI GRIP= 0.17 (B) (INPUT = 0.90)
 JSI METAL= 0.07 (B) (INPUT = 1.00)



September 17, 2018



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TOTAL WEIGHT = 10 X 17 = 171 lb [M]

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		

A SIZE FOR SIZE SUBSTITUTION OF MITEK M120 WITH TEE-LOK TL20 PLATES IS ALLOWED.

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

JT	FACTORED GROSS REACTION		MAXIMUM FACTORED GROSS REACTION		INPUT BRG	REQD BRG
	VERT	HORZ	DOWN	HORZ		
E	457	0	457	0	5-8	1-8
C	174	0	174	0	1-8	1-8
D	43	0	49	0	1-8	1-8

SEE MITEK STANDARD DETAIL B37579H FOR CONNECTION TO JOINT(S) C, D

UNFACTORED REACTIONS

JT	1ST LCASE		MAX/MIN. COMPONENT REACTIONS		DEAD	SOIL
	COMBINED	SNOW	LIVE	PERM.LIVE		
E	318	238 / 0	0 / 0	0 / 0	80 / 0	0 / 0
C	118	105 / 0	0 / 0	0 / 0	14 / 0	0 / 0
D	35	0 / 0	0 / 0	0 / 0	35 / 0	0 / 0

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

BRACING

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

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

LOADING

TOTAL LOAD CASES: (4)

MEMB.	CHORDS		FACTORED		MEMB.	WEBS	
	MAX. FORCE (LBS)	VERT. LOAD (LBS)	VERT. LOAD (LBS)	MAX. FORCE (LBS)		MAX. FORCE (LBS)	MAX. FORCE (LBS)
FR-TO							
E-B	-395 / 0	0.0	0.0	0.13 (4)	7.81		
A-B	0 / 23	-77.4	-77.4	0.10 (1)	10.00		
B-C	-26 / 0	-77.4	-77.4	0.47 (1)	6.25		
E-D	0 / 0	-17.5	-17.5	0.13 (4)	10.00		

DESIGN CRITERIA

SPECIFIED LOADS:
 TOP CH. LL = 23.3 PSF
 DL = 3.0 PSF
 BOT CH. LL = 0.0 PSF
 DL = 7.0 PSF
 TOTAL LOAD = 33.3 PSF

SPACING = 24.0 IN. C/C

THIS TRUSS IS DESIGNED FOR RESIDENTIAL OR SMALL BUILDING REQUIREMENTS OF PART 9, NBCC 2010

THIS DESIGN COMPLIES WITH:
 - PART 9 OF OBC 2012, BCBC 2012, ABC 2014
 - CSA 086-09
 - TPIC 2011

DESIGN ASSUMPTIONS

-OVERHANG NOT TO BE ALTERED OR CUT OFF.

(55 % OF 27.2 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 23.3 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=0.47/1.00 (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 = 0.50

AUTOSOLVE RIGHT HEEL ONLY

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

NAIL VALUES

PLATE	GRIP(DRY)	SHEAR	SECTION
(PSI)	(PLI)	(PLI)	(PLI)
MT20	618	354	1667

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

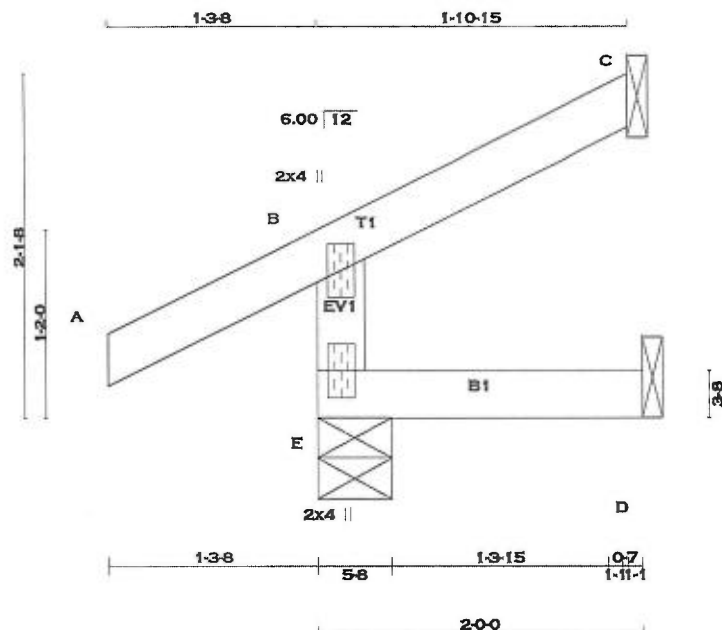
JSI GRIP= 0.23 (B) (INPUT = 0.90)
 JSI METAL= 0.09 (B) (INPUT = 1.00)



September 17, 2018



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SCALE = 1:13.6

TOTAL WEIGHT = 2 X 7 = 15 lb [M]

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		

A SIZE FOR SIZE SUBSTITUTION OF MITEK MII20 WITH TEE-LOK TL20 PLATES IS ALLOWED.

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
E	216	0	216	0
C	56	0	56	0
D	16	0	17	0

SEE MITEK STANDARD DETAIL B37579H FOR CONNECTION TO JOINT(S) C, D

UNFACTORED REACTIONS

JT	1ST LCASE	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
E	149	119 / 0	0 / 0	0 / 0	0 / 0	31 / 0	0 / 0
C	38	34 / 0	0 / 0	0 / 0	0 / 0	4 / 0	0 / 0
D	12	0 / 0	0 / 0	0 / 0	0 / 0	12 / 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 = 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: (5)

MEMB.	CHORDS	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	MAX. LC1 MAX. (PLF)	MAX. UNBRACED LENGTH FR-TO	MEMB.	WEBS	MAX. FACTORED FORCE (LBS)	MAX. LC1 MAX. (PLF)
E-B	-197 / 0	0.0	0.0	0.01 (4)	7.81				
A-B	0 / 23	-77.4	-77.4	0.10 (1)	10.00				
B-C	-8 / 0	-77.4	-77.4	0.05 (1)	10.00				
E-D	0 / 0	-17.5	-17.5	0.02 (4)	10.00				

CANTILEVER ANALYSIS HAS BEEN CONSIDERED IN THIS DESIGN

DESIGN CRITERIA

SPECIFIED LOADS:

TOP CH.	LL	=	23.3	PSF
	DL	=	3.0	PSF
BOT CH.	LL	=	0.0	PSF
	DL	=	7.0	PSF
TOTAL LOAD	=	33.3	PSF	

SPACING = 24.0 IN. C/C

THIS TRUSS IS DESIGNED FOR RESIDENTIAL OR SMALL BUILDING REQUIREMENTS OF PART 9, NBCC 2010

THIS DESIGN COMPLIES WITH:

- PART 9 OF OBC 2012, BCBC 2012, ABC 2014
 - CSA 086-09
 - TPIC 2011

DESIGN ASSUMPTIONS

- OVERHANG NOT TO BE ALTERED OR CUT OFF.

(55 % OF 27.2 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 23.3 P.S.F. SPECIFIED ROOF LIVE LOAD

ALLOWABLE DEFL.(LL) = L/360 (0.19")
 CALCULATED VERT. DEFL.(LL) = L/999 (0.00")
 ALLOWABLE DEFL.(TL) = L/360 (0.19")
 CALCULATED VERT. DEFL.(TL) = L/999 (0.00")

CSI: TC=0.10/1.00 (A-B:1), BC=0.02/1.00 (D-E:4), WB=0.00/1.00 (n/a:0), SSI=0.07/1.00 (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 = 0.50

AUTOSOLVE RIGHT HEEL ONLY

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

NAIL VALUES

PLATE GRIP(DRY)	SHEAR (PSI)	SECTION (PLI)
MAX MIN	MAX MIN	MAX MIN
MT20	618 354	1667 822
	2284	1656

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

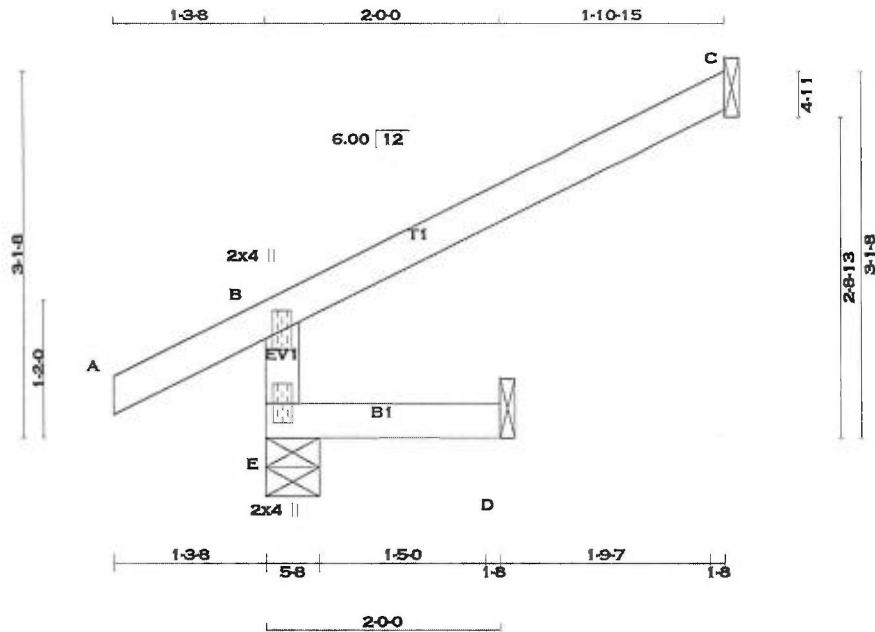
JSI GRIP= 0.11 (B) (INPUT = 0.90)
 JSI METAL= 0.04 (B) (INPUT = 1.00)



September 17, 2018



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SCALE = 1:18.8

TOTAL WEIGHT = 2 X 10 = 20 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		

A SIZE FOR SIZE SUBSTITUTION OF MITEK MII20 WITH TEE-LOK TL20 PLATES IS ALLOWED.

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

BEARINGS

	FACTORED GROSS REACTION	MAXIMUM FACTORED GROSS REACTION	INPUT DOWN	REQRD BRG
JT	VERT	HORZ	DOWN	HORZ
E	313	0	313	0
C	114	0	114	0
D	16	0	17	0

SEE MITEK STANDARD DETAIL B37579H FOR CONNECTION TO JOINT(S) C, D

UNFACTORED REACTIONS

1ST LCASE	SNOW	LIVE	PERM. LIVE	WIND	DEAD	SOIL
JT	COMBINED					
E	215	177 / 0	0 / 0	0 / 0	38 / 0	0 / 0
C	77	68 / 0	0 / 0	0 / 0	9 / 0	0 / 0
D	12	0 / 0	0 / 0	0 / 0	12 / 0	0 / 0

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

BRACING

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

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

LOADING

TOTAL LOAD CASES: (5)

CHORDS	MAX. FACTORED	FACTORED	WEBS	MAX. FACTORED
MEMB.	FORCE (LBS)	VERT. LOAD (PLF)	MEMB. FORCE (LBS)	MAX. FORCE (LBS)
FR-TO		FROM TO	LENGTH	FR-TO
E-B	-294 / 0	0.0	0.0	0.01 (4)
A-B	0 / 23	-77.4	-77.4	0.10 (1)
B-C	-17 / 0	-77.4	-77.4	0.20 (1)
E-D	0 / 0	-17.5	-17.5	0.02 (4)

CANTILEVER ANALYSIS HAS BEEN CONSIDERED IN THIS DESIGN

DESIGN CRITERIA

SPECIFIED LOADS:

TOP CH.	LL = 23.3	PSF
	DL = 3.0	PSF
BOT CH.	LL = 0.0	PSF
	DL = 7.0	PSF
TOTAL LOAD	= 33.3	PSF

SPACING = 24.0 IN. C/C

THIS TRUSS IS DESIGNED FOR RESIDENTIAL OR SMALL BUILDING REQUIREMENTS OF PART 9, NBC 2010

THIS DESIGN COMPLIES WITH:
- PART 9 OF OBC 2012, BCBC 2012, ABC 2014
- CSA 086-09
- TPIC 2011

DESIGN ASSUMPTIONS

-OVERHANG NOT TO BE ALTERED OR CUT OFF.

(55 % OF 27.2 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 23.3 P.S.F. SPECIFIED ROOF LIVE LOAD

ALLOWABLE DEFL.(LL)= L/360 (0.19")
CALCULATED VERT. DEFL.(LL)= L/ 999 (0.00")
ALLOWABLE DEFL.(TL)= L/360 (0.19")
CALCULATED VERT. DEFL.(TL)= L/ 999 (0.00")

CSI: TC=0.20/1.00 (B-C:1), BC=0.02/1.00 (D-E:4)
WB=0.00/1.00 (n/a:0), SS=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 = 0.50

AUTOSOLVE RIGHT HEEL ONLY

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
MT20	618	354	1667

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

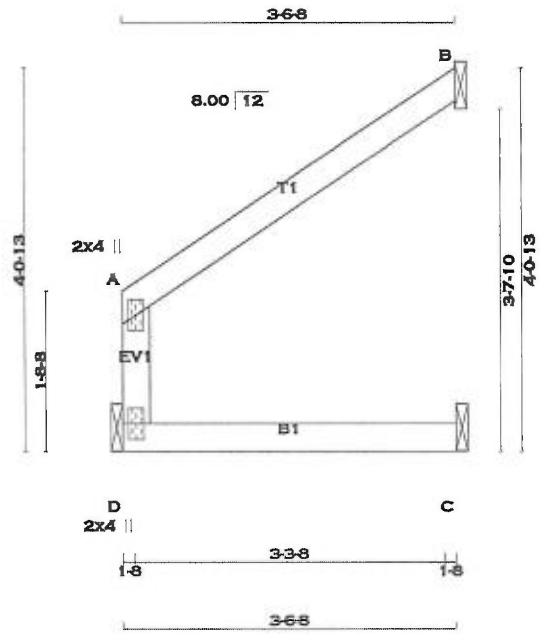
JSI GRIP= 0.17 (B) (INPUT = 0.90)
JSI METAL= 0.07 (B) (INPUT = 1.00)



September 17, 2018



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SCALE = 1:23.5

LUMBER

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

A SIZE FOR SIZE SUBSTITUTION OF MITEK MII20 WITH TEE-LOK TL20 PLATES IS ALLOWED.

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
D	168	0	168	0
B	127	0	127	0
C	41	0	41	0

SEE MITEK STANDARD DETAIL B37579H FOR CONNECTION TO JOINT(S) D , B , C

UNFACTORED REACTIONS

1ST LCASE	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
JT	COMBINED	MAX	MIN	COMPONENT	REACTIONS	
D	118	82/0	0/0	0/0	0/0	35/0
B	87	75/0	0/0	0/0	0/0	12/0
C	31	7/0	0/0	0/0	0/0	24/0

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	MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	LC1 MAX	CS1 (LC)	UNBRAC LENGTH	FR-TO
D-A		-147 / 0	0.0	0.0	0.04 (1)	7.81	
A-B		-5 / 0	-77.4	-77.4	0.13 (1)	10.00	
D-C		0 / 0	-17.5	-17.5	0.06 (1)	10.00	

DESIGN CRITERIA

SPECIFIED LOADS:					
TOP	CH.	LL	=	23.3	PSF
		DL	=	3.0	PSF
BOT	CH.	LL	=	0.0	PSF
		DL	=	7.0	PSF
TOTAL LOAD		=		33.3	PSF

SPACING = 24.0 IN. C/C

THIS TRUSS IS DESIGNED FOR RESIDENTIAL OR SMALL BUILDING REQUIREMENTS OF PART 9, NBCC 2010

THIS DESIGN COMPLIES WITH:
- PART 9 OF OBC 2012 , BCBC 2012 , ABC 2014
- CSA 086-09
- TPIC 2011

(55 % OF 27.2 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 23.3 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 (0.01")

CSI: TC=0.13/1.00 (A-B:1) , BC=0.06/1.00 (C-D:1)
WB=0.00/1.00 (n/a:0) , SSI=0.10/1.00 (A-B:1)

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

COMPANION LIVE LOAD FACTOR = 0.50

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

NAIL VALUES	PLATE GRIP(DRY)	SHEAR (PSI)	SECTION (PLI)
	MAX	MIN	MAX MIN
MT20	618	354	1667 822
			2284 1656

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

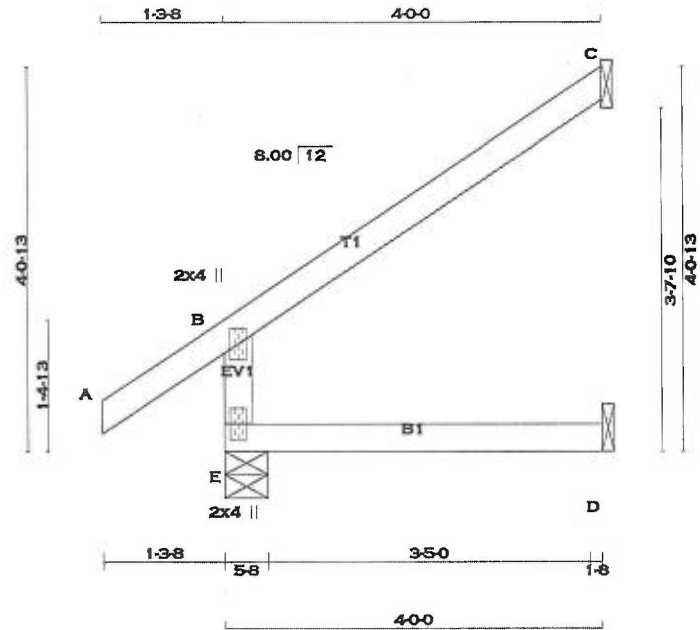
JSI GRIP= 0.09 (A) (INPUT = 0.90)
JSI METAL= 0.04 (A) (INPUT = 1.00)



September 17, 2018



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



TOTAL WEIGHT = 3 X 13 = 39 lb [M]

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		

A SIZE FOR SIZE SUBSTITUTION OF MITEK M1120 WITH TEE-LOK TL20 PLATES IS ALLOWED.

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	339	0	339	0	0	5-8	1-8	
C	116	0	116	0	0	1-8	1-8	
D	30	0	34	0	0	1-8	1-8	

SEE MITEK STANDARD DETAIL B37579H FOR CONNECTION TO JOINT(S) C, D

UNFACTORED REACTIONS

1ST LCASE		MAX./MIN. COMPONENT REACTIONS					
JT	COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
E	235	180 / 0	0 / 0	0 / 0	0 / 0	55 / 0	0 / 0
C	79	70 / 0	0 / 0	0 / 0	0 / 0	9 / 0	0 / 0
D	24	0 / 0	0 / 0	0 / 0	0 / 0	24 / 0	0 / 0

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

BRACING

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

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

LOADING

TOTAL LOAD CASES: (4)

MEMB.	CHORDS		FACTORED		WEBS		FACTORED	
	MAX. FORCE (LBS)	VERT. LOAD (PLF)	VERT. LOAD (PLF)	MAX. CS (LC)	MAX. MEMB. FORCE (LBS)	MAX. CS (LC)	MAX. FORCE (LBS)	MAX. CS (LC)
FR-TO								
E-B	-299 / 0	0.0	0.0	0.05 (4)	7.81			
A-B	0 / 29	-77.4	-77.4	0.10 (1)	10.00			
B-C	-21 / 0	-77.4	-77.4	0.21 (1)	6.25			
E-D	0 / 0	-17.5	-17.5	0.06 (4)	10.00			

DESIGN CRITERIA

SPECIFIED LOADS:
 TOP CH. LL = 23.3 PSF
 DL = 3.0 PSF
 BOT CH. LL = 0.0 PSF
 DL = 7.0 PSF
 TOTAL LOAD = 33.3 PSF

SPACING = 24.0 IN. C/C

THIS TRUSS IS DESIGNED FOR RESIDENTIAL OR SMALL BUILDING REQUIREMENTS OF PART 9, NBCC 2010

THIS DESIGN COMPLIES WITH:
 - PART 9 OF OBC 2012, BCBC 2012, ABC 2014
 - CSA 086-09
 - TPIC 2011

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

(55 % OF 27.2 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 23.3 P.S.F. SPECIFIED ROOF LIVE LOAD

ALLOWABLE DEFL.(LL)= L/360 (0.19")
 CALCULATED VERT. DEFL.(LL)= 1/ 999 (0.00")
 ALLOWABLE DEFL.(TL)= L/360 (0.19")
 CALCULATED VERT. DEFL.(TL)= 1/ 999 (0.01")

CSI: TC=0.21/1.00 (B-C:1), BC=0.09/1.00 (D-E:4)
 , WB=0.00/1.00 (n/a:0), 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 = 0.50

AUTOSOLVE RIGHT HEEL ONLY

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

NAIL VALUES

PLATE	GRIP(DRY)		SHEAR		SECTION	
	(PSI)	(PLI)	(PSI)	(PLI)	(PLI)	(PLI)
MT20	618	354	1667	822	2284	1556

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

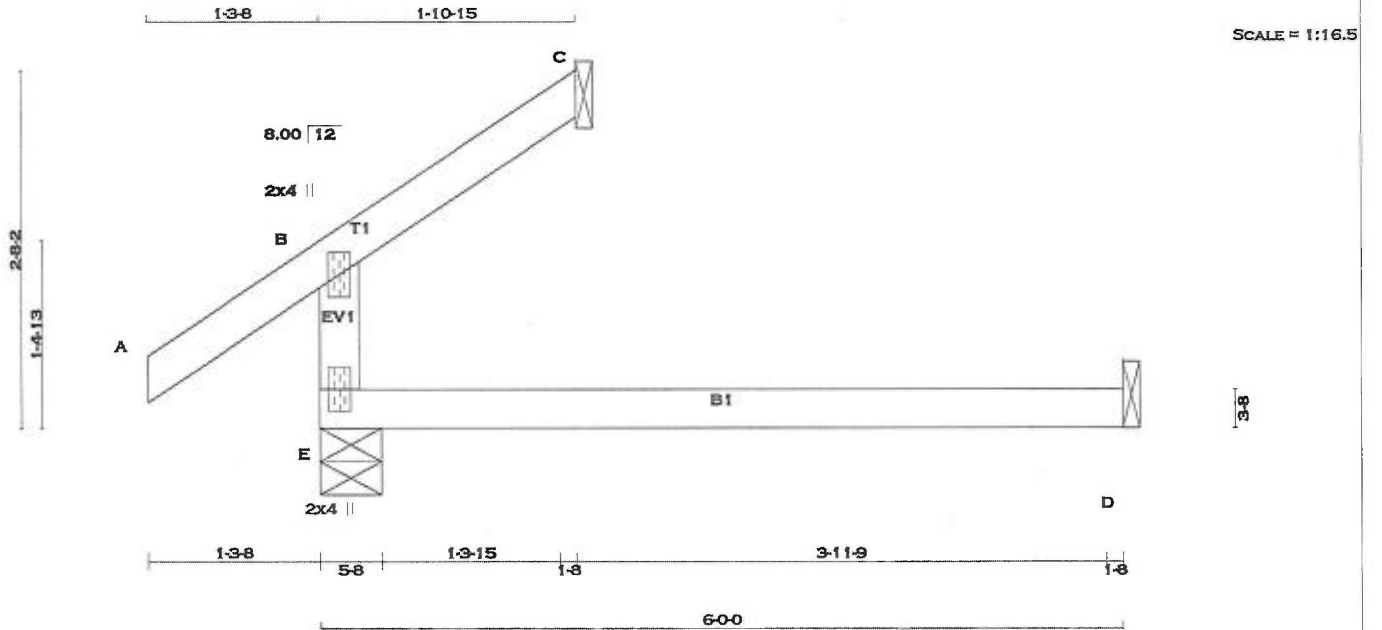
JSI GRIP= 0.19 (B) (INPUT = 0.90)
 JSI METAL= 0.07 (B) (INPUT = 1.00)



September 17, 2018



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LUMBER

N. L. G. A. RULES

CHORDS SIZE

LUMBER

DESCR.

SPF

SPF

SPF

DRY: SEASONED LUMBER.

FACTORED

MAXIMUM FACTORED

INPUT

REQD

GROSS REACTION

GROSS REACTION

BRG

BRG

VERT

HORZ

DOWN

HORZ

UPLIFT

IN-SX

IN-SX

253

0

253

0

0

5-8

1-8

61

0

61

0

0

1-8

1-8

44

0

51

0

0

1-8

1-8

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

A SIZE FOR SIZE SUBSTITUTION OF MITEK MII20 WITH TEE-LOK TL20 PLATES IS ALLOWED.

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

BEARINGS

FACTORED

MAXIMUM FACTORED

INPUT

REQD

GROSS REACTION

GROSS REACTION

BRG

BRG

VERT

HORZ

DOWN

HORZ

UPLIFT

IN-SX

IN-SX

253

0

253

0

0

5-8

1-8

61

0

61

0

0

1-8

1-8

44

0

51

0

0

1-8

1-8

SEE MITEK STANDARD DETAIL B37579H FOR CONNECTION TO JOINT(S) C, D

UNFACTORED REACTIONS

1ST LCASE

MAX/MIN

COMPONENT REACTIONS

JT

COMBINED

SNOW

LIVE

PERM.LIVE

WIND

DEAD

SOIL

E

177

130 / 0

0 / 0

0 / 0

0 / 0

47 / 0

0 / 0

C

44

24 / 0

0 / 0

0 / 0

0 / 0

20 / 0

0 / 0

D

36

0 / -1

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 = 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

MAX. FACTORED

FACTORED

WEBS

MAX. FACTORED

MEMB.

FORCE

VERT. LOAD

LC1 MAX

MAX.

MEMB.

FORCE

MAX

(LBS)

(PLF)

CSI (LC)

UNBRAC

(LBS)

CSI (LC)

FR-TO

FROM

TO

LENGTH FR-TO

E-B

-193 / 0

0.0

0.0

0.10 (4)

7.81

A-B

0 / 29

-77.4

-77.4

0.10 (1)

10.00

B-C

-7 / 11

-77.4

-77.4

0.08 (4)

10.00

E-D

0 / 0

-17.5

-17.5

0.14 (4)

10.00

DESIGN CRITERIA

SPECIFIED LOADS:
TOP CH. LL = 23.3 PSF
DL = 3.0 PSF
BOT CH. LL = 0.0 PSF
DL = 7.0 PSF
TOTAL LOAD = 33.3 PSF

SPACING = 24.0 IN. C/C

THIS TRUSS IS DESIGNED FOR RESIDENTIAL OR SMALL BUILDING REQUIREMENTS OF PART 9, NBCC 2010

THIS DESIGN COMPLIES WITH:
- PART 9 OF OBC 2012, BCBC 2012, ABC 2014
- CSA 086-09
- TPIC 2011

DESIGN ASSUMPTIONS

-OVERHANG NOT TO BE ALTERED OR CUT OFF.

(55 % OF 27.2 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 23.3 P.S.F. SPECIFIED ROOF LIVE LOAD

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

CSI: TC=0.10/1.00 (A-B:1), BC=0.14/1.00 (D-E:4)
WB=0.00/1.00 (n/a:0), SSI=0.08/1.00 (D-E: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 = 0.50

AUTOSOLVE RIGHT HEEL ONLY

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 618 354 1667 822 2284 1656

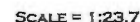
PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.12 (B) (INPUT = 0.90)
JSI METAL= 0.05 (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.



TOTAL WEIGHT = 14 lb

DRY: SEASONED LUMBER.

A SIZE FOR SIZE SUBSTITUTION OF MITEK MII20 WITH TEE-LOK TL 20 PLATES IS ALLOWED.

FACTORED GROSS REACTION		MAXIMUM FACTORED GROSS REACTION		INPUT BRG	REQRD BRG		
JT	VERT	HORZ	DOWN	HORZ	UPLIFT	IN-SX	IN-SX
D	205	0	205	0	0	5-8	1-8
B	147	0	147	0	0	1-8	1-8
C	55	0	55	0	0	1-8	1-8

1ST LCASE		MAX./MIN. COMPONENT REACTIONS					
JT	COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
D	145	94/0	0/0	0/0	0/0	52/0	0/0
B	101	83/0	0/0	0/0	0/0	18/0	0/0
C	43	5/0	0/0	0/0	0/0	38/0	0/0

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.

TOTAL LOAD CASES: (4)

CHORDS					WEBS		
MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	MAX LC1 CSI (LC)	MAX. UNBRAC LENGTH	MEMB.	MAX. FACTORED FORCE (LBS)	MAX CSI (LC)
FR-TO		FROM TO		FR-TO			
D-A	-155 / 0	0.0	0.0 0.06 (4)	7.81			
A-B	-2 / 5	-77.4	-77.4 0.18 (1)	10.00			
D-C	0 / 0	-17.5	-17.5 0.15 (4)	10.00			

SPECIFIED LOADS:

TOP CH.	LL	=	23.3	PSF
	DL	=	3.0	PSF
BOT CH.	LL	=	0.0	PSF
	DL	=	7.0	PSF
TOTAL LOAD		=	33.3	PSF

THIS TRUSS IS DESIGNED FOR RESIDENTIAL
OR SMALL BUILDING REQUIREMENTS OF
PART 9, NBC 2010

THIS DESIGN COMPLIES WITH:
- PART 9 OF OBC 2012, CBC 2012, ABC 2014
- CSA 086-09
- TPIC 2011

(55 % OF 27.2 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 23.3 P.S.F. SPECIFIED ROOF LIVE LOAD

ALLOWABLE DEFL.(LL)= $L/360$ (0.20")
 CALCULATED VERT. DEFL.(LL) = $L/999$ (0.02")
 ALLOWABLE DEFL.(TL)= $L/360$ (0.20")
 CALCULATED VERT. DEFL.(TL) = $L/999$ (0.06")

CSI: TC=0.18/1.00 (A-B:1) , BC=0.15/1.00 (C-D:4)
 , WB=0.00/1.00 (n/a:0) , SSI=0.10/1.00 (A-B:1)

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

COMPANION LIVE LOAD FACTOR = 0.50

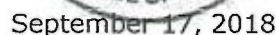
TRUSS PLATE MANUFACTURER IS NOT RESPONSIBLE FOR QUALITY CONTROL IN THE TRUSS MANUFACTURING PLANT.

	GRIP(DRY)		SHEAR		SECTION	
	(PSI)		(PLI)		(PLI)	
	MAX	MIN	MAX	MIN	MAX	MIN
MT20	618	354	1667	822	2284	1656

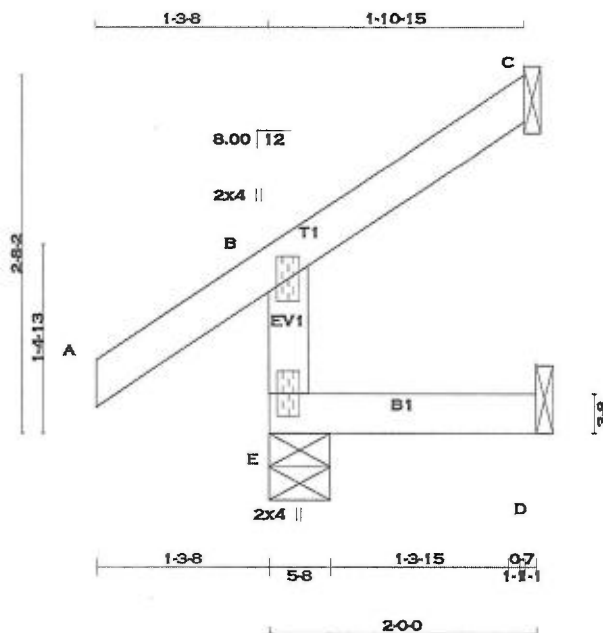
PLATE PLACEMENT TOL = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.10 (A) (INPUT = 0.90)
JSI METAL= 0.04 (A) (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.



SCALE = 1:16.5

TOTAL WEIGHT = 8 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	

A SIZE FOR SIZE SUBSTITUTION OF MITEK M1120 WITH TEE-LOK TL20 PLATES IS ALLOWED.

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

BEARINGS		FACTORED		MAXIMUM FACTORED		INPUT		REQRD	
JT	GROSS REACTION	DOWN	HORZ	DOWN	HORZ	UPLIFT	IN-SX	BRG	IN-SX
E	235	0	235	0	0	5-8	1-8	1-8	
C	43	0	43	0	-21	1-8	1-8	1-8	
D	10	0	18	0	0	1-8	1-8	1-8	

SEE MITEK STANDARD DETAIL B37579H FOR CONNECTION TO JOINT(S) C, D

PROVIDE ANCHORAGE AT BEARING JOINT C FOR 150 LBS FACTORED UPLIFT

UNFACTORED REACTIONS

JT	1ST LCASE	MAX/MIN	COMPONENT REACTIONS	PERM.LIVE	WIND	DEAD	SOIL
E	162	131/0	0/0	0/0	0/0	31/0	0/0
C	30	25/-16	0/0	0/0	0/0	4/0	0/0
D	9	0/-7	0/0	0/0	0/0	13/0	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: (5)

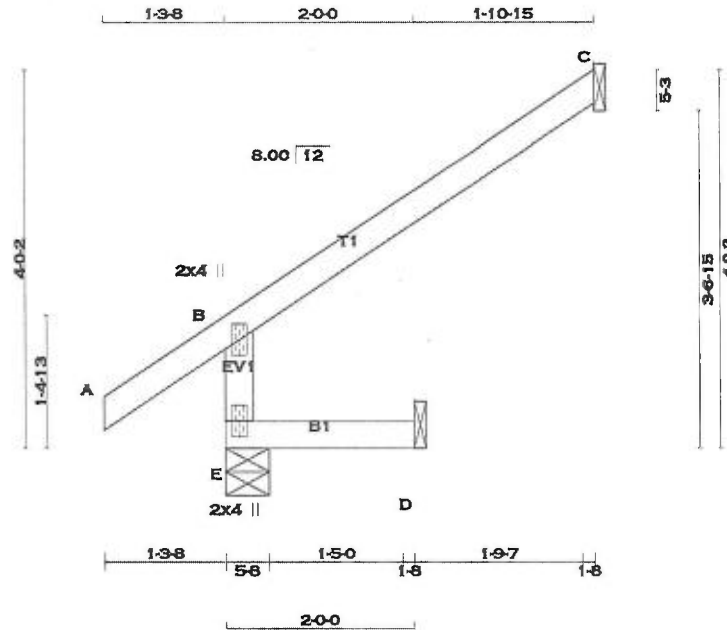
CHORDS				WEBS			
MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	LC1 MAX (LC)	MAX. UNBRAC LENGTH	MEMB.	MAX. FACTORED FORCE (LBS)	MAX. UNBRAC LENGTH
FR-TO					FR-TO		
E-B	-211/0	0.0	0.0 0.03 (5)	7.81			
A-B	0/29	-77.4	-77.4 0.10 (1)	10.00			
B-C	-17/0	-77.4	-77.4 0.08 (1)	6.25			
E-D	0/0	-17.5	-17.5 0.03 (5)	10.00			

CANTILEVER ANALYSIS HAS BEEN CONSIDERED IN THIS DESIGN

DESIGN CRITERIA

SPECIFIED LOADS:

TOP CH.	LL = 23.3	PSF
	DL = 3.0	PSF
BOT CH.	LL = 0.0	PSF
	DL = 7.0	PSF



SCALE = 1:23.4

TOTAL WEIGHT = 11 lb [M]

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		

A SIZE FOR SIZE SUBSTITUTION OF MITEK M1120 WITH TEE-LOK TL20 PLATES IS ALLOWED.

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

JT	FACTORED GROSS REACTION		MAXIMUM FACTORED GROSS REACTION		INPUT BRG IN-SX	REGRD BRG IN-SX
	VERT	HORZ	DOWN	HORZ		
E	314	0	314	0	5-8	1-8
C	114	0	114	0	1-8	1-8
D	16	0	18	0	1-8	1-8

SEE MITEK STANDARD DETAIL B37579H FOR CONNECTION TO JOINT(S) C, D

UNFACTORED REACTIONS

1ST LCASE		MAX/MIN. COMPONENT REACTIONS					
JT	COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
E	216	178 / 0	0 / 0	0 / 0	0 / 0	38 / 0	0 / 0
C	77	68 / 0	0 / 0	0 / 0	0 / 0	9 / 0	0 / 0
D	13	0 / 0	0 / 0	0 / 0	0 / 0	13 / 0	0 / 0

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

BRACING

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

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

LOADING

TOTAL LOAD CASES: (5)

MEMB.	CHORDS		WEBS			
	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	LC1 MAX	MAX. UNBRACED LENGTH	MEMB. FORCE (LBS)	MAX. FACTORED FORCE (LBS)
FR-TO		FROM TO				
E-B	-295 / 0	0.0	0.0	0.01 (4)	7.81	
A-B	0 / 29	-77.4	-77.4	0.10 (1)	10.00	
B-C	-21 / 0	-77.4	-77.4	0.20 (1)	6.25	
E-D	0 / 0	-17.5	-17.5	0.02 (4)	10.00	

CANTILEVER ANALYSIS HAS BEEN CONSIDERED IN THIS DESIGN

DESIGN CRITERIA

SPECIFIED LOADS:

TOP CH.	LL = 23.3	PSF
DL = 3.0	PSF	
BOT CH.	LL = 0.0	PSF
DL = 7.0	PSF	
TOTAL LOAD	= 33.3	PSF

SPACING = 24.0 IN. C/C

THIS TRUSS IS DESIGNED FOR RESIDENTIAL OR SMALL BUILDING REQUIREMENTS OF PART 9, NBCC 2010

THIS DESIGN COMPLIES WITH:

- PART 9 OF OBC 2012, CBC 2012, ABC 2014
- CSA 086-09
- TPIC 2011

DESIGN ASSUMPTIONS

- OVERHANG NOT TO BE ALTERED OR CUT OFF.

(55 % OF 27.2 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 23.3 P.S.F. SPECIFIED ROOF LIVE LOAD

ALLOWABLE DEFL.(LL) = $L/360$ (0.19")
CALCULATED VERT. DEFL.(LL) = $L/999$ (0.00")
ALLOWABLE DEFL.(TL) = $L/360$ (0.19")
CALCULATED VERT. DEFL.(TL) = $L/999$ (0.00")

CSI: TC=0.20/1.00 (B-C:1), BC=0.02/1.00 (D-E:4)
WB=0.00/1.00 (n/a:0), SSI=0.12/1.00 (B-C:1)

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

COMPANION LIVE LOAD FACTOR = 0.50

AUTOSOLVE RIGHT HEEL ONLY

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

NAIL VALUES

PLATE GRIP(DRY)	SHEAR (PSI)	SECTION (PLI)
MAX MIN	MAX MIN	MAX MIN
MT20	618 354	1667 822 2284 1656

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

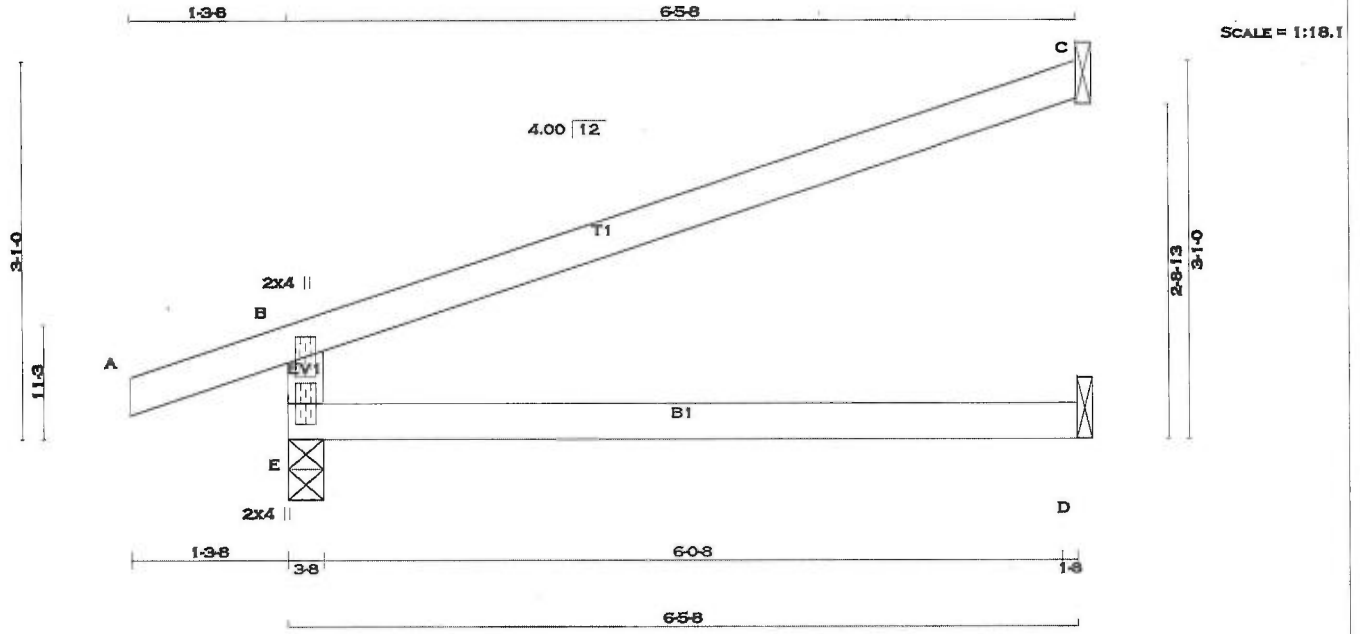
JSI GRIP= 0.19 (B) (INPUT = 0.90)
JSI METAL= 0.07 (B) (INPUT = 1.00)



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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		

A SIZE FOR SIZE SUBSTITUTION OF MITEK MII20 WITH TEE-LOK TL20 PLATES IS ALLOWED.

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

BEARINGS		FACTORED		MAXIMUM FACTORED		INPUT		REQRD	
JT	COMBINED	GROSS REACTION	DOWN	GROSS REACTION	DOWN	BRG	IN-SX	BRG	IN-SX
E	483	0	483	0	0	3-8	1-8		
C	187	0	187	0	0	1-8	1-8		
D	46	0	51	0	0	1-8	1-8		

SEE MITEK STANDARD DETAIL B37579H FOR CONNECTION TO JOINT(S) C, D

UNFACTORED REACTIONS

JT	COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
E	336	250 / 0	0 / 0	0 / 0	0 / 0	86 / 0	0 / 0
C	127	113 / 0	0 / 0	0 / 0	0 / 0	15 / 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		FACTORED		WEBS		FACTORED	
MEMB.	FORCE (LBS)	VERT. LOAD (PLF)	LC1 MAX (LC)	MEMB.	FORCE (LBS)	MAX (LC)	UNBRACED LENGTH FR-TO
E-B	-416 / 0	0.0	0.0 0.13 (4)	E-B	0 / 16	-77.4	-77.4 0.10 (1) 10.00
A-B	0 / 16	-77.4	-77.4 0.10 (1) 10.00	B-C	-20 / 0	-77.4	-77.4 0.42 (1) 6.25
B-C	-20 / 0	-77.4	-77.4 0.42 (1) 6.25	E-D	0 / 0	-17.5	-17.5 0.17 (4) 10.00

DESIGN CRITERIA

SPECIFIED LOADS:

TOP CH.	LL	=	23.3	PSF
	DL	=	3.0	PSF
BOT CH.	LL	=	0.0	PSF
	DL	=	7.0	PSF
TOTAL LOAD		=	33.3	PSF

SPACING = 24.0 IN. C/C

THIS TRUSS IS DESIGNED FOR RESIDENTIAL OR SMALL BUILDING REQUIREMENTS OF PART 9, NBCC 2010

THIS DESIGN COMPLIES WITH:

- PART 9 OF OBC 2012, BCBC 2012, ABC 2014
- CSA 086-09
- TPIC 2011

DESIGN ASSUMPTIONS

-OVERHANG NOT TO BE ALTERED OR CUT OFF.

(55 % OF 27.2 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 23.3 P.S.F. SPECIFIED ROOF LIVE LOAD

ALLOWABLE DEFL.(LL)= L/360 (0.22")
 CALCULATED VERT. DEFL.(LL) = L/999 (0.00")
 ALLOWABLE DEFL.(TL)= L/360 (0.22")
 CALCULATED VERT. DEFL.(TL) = L/999 (0.04")

CSI: TC=0.42/1.00 (B-C:1), BC=0.17/1.00 (D-E:4)
 , WB=0.00/1.00 (n/a:0), SSI=0.23/1.00 (B-C:1)

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

COMPANION LIVE LOAD FACTOR = 0.50

AUTOSOLVE RIGHT HEEL ONLY

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

NAIL VALUES

PLATE GRIP(DRY)	SHEAR	SECTION
(PSI)	(PLI)	(PLI)
MT20	618	354
	1667	822
	2284	1656

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.23 (B) (INPUT = 0.90)
 JSI METAL= 0.08 (E) (INPUT = 1.00)



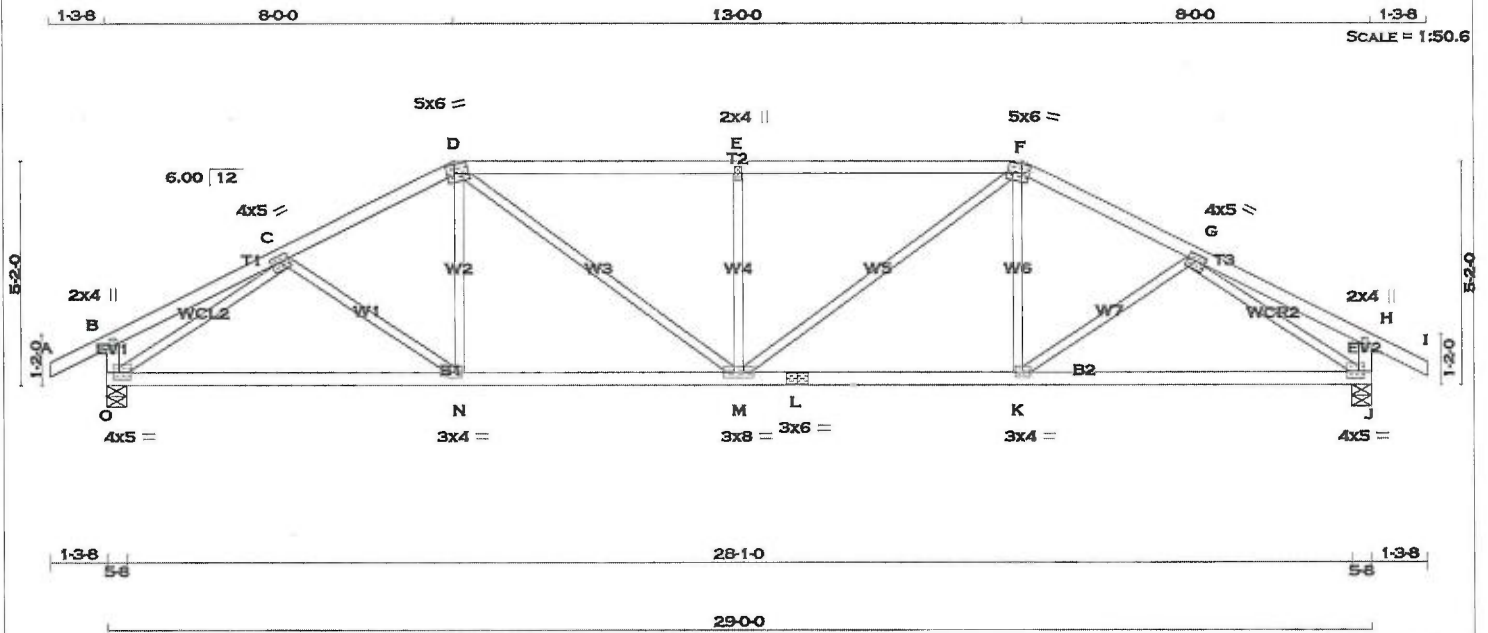
September 17, 2018



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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
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 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	TMWW-t	MT20	4.0	5.0	1.75	2.50
D	TTWW-m	MT20	5.0	6.0	2.50	2.00
E	TMW+w	MT20	2.0	4.0		
F	TTWW-m	MT20	5.0	6.0	2.50	2.00
G	TMWW-t	MT20	4.0	5.0	1.75	2.50
H	TMV+p	MT20	2.0	4.0		
J	BMVW1-t	MT20	4.0	5.0	1.75	1.75
K	BMVW-t	MT20	3.0	4.0		
L	BS-t	MT20	3.0	6.0		
M	BMVW-t	MT20	3.0	8.0		
N	BMVW-t	MT20	3.0	4.0		
O	BMVW1-t	MT20	4.0	5.0	1.75	1.75

A SIZE FOR SIZE SUBSTITUTION OF MITEK MII20 WITH TEE-LOK TL20 PLATES IS ALLOWED.

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		
O	1480	0	1480	0	5-8	1-10
J	1480	0	1480	0	5-8	1-10

UNFACTORED REACTIONS

JT	1ST LCASE MAX./MIN. COMPONENT REACTIONS						
	COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
O	1037	739 / 0	0 / 0	0 / 0	0 / 0	298 / 0	0 / 0
J	1037	739 / 0	0 / 0	0 / 0	0 / 0	298 / 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 = 4.14 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		MAX. UNBRACED LENGTH	MEMB.	WEBS	
	MAX. FORCE (LBS)	VERT. LOAD (PLF)	VERT. LOAD (PLF)	MAX. FORCE (LBS)			MAX. FORCE (LBS)	MAX. CSI (LC)
FR-TO						FR-TO		
A-B	0 / 23	-77.4	-77.4	0.10 (1)	10.00	C-N	-19 / 60	0.02 (4)
B-C	0 / 14	-77.4	-77.4	0.17 (1)	10.00	N-D	0 / 163	0.05 (4)
C-D	-1868 / 0	-77.4	-77.4	0.18 (1)	4.77	D-M	0 / 588	0.13 (1)
D-E	-2131 / 0	-77.4	-77.4	0.50 (1)	4.14	M-E	-818 / 0	0.24 (1)
E-F	-2131 / 0	-77.4	-77.4	0.50 (1)	4.14	M-F	0 / 588	0.13 (1)
F-G	-1868 / 0	-77.4	-77.4	0.18 (1)	4.77	K-F	0 / 163	0.05 (4)
G-H	0 / 14	-77.4	-77.4	0.17 (1)	10.00	K-G	-19 / 60	0.02 (4)
H-I	0 / 23	-77.4	-77.4	0.10 (1)	10.00	O-C	-2054 / 0	0.81 (1)
O-B	-229 / 0	0.0	0.0	0.02 (1)	7.81	G-J	-2054 / 0	0.81 (1)
J-H	-229 / 0	0.0	0.0	0.02 (1)	7.81			
O-N	0 / 1672	-17.5	-17.5	0.41 (1)	10.00			
N-M	0 / 1660	-17.5	-17.5	0.41 (1)	10.00			
M-L	0 / 1660	-17.5	-17.5	0.41 (1)	10.00			
L-K	0 / 1660	-17.5	-17.5	0.41 (1)	10.00			
K-J	0 / 1672	-17.5	-17.5	0.41 (1)	10.00			

DESIGN CRITERIA

SPECIFIED LOADS:
 TOP CH. LL = 23.3 PSF
 DL = 3.0 PSF
 BOT CH. LL = 0.0 PSF
 DL = 7.0 PSF
 TOTAL LOAD = 33.3 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 2010

THIS DESIGN COMPLIES WITH:
 - PART 9 OF OBC 2012, BCBC 2012, ABC 2014
 - CSA 086-09
 - TPIC 2011

(55% OF 27.2 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 23.3 P.S.F. SPECIFIED ROOF LIVE LOAD

ALLOWABLE DEFL.(LL) = L/360 (0.97")
 CALCULATED VERT. DEFL.(LL) = L/999 (0.11")
 ALLOWABLE DEFL.(TL) = L/360 (0.97")
 CALCULATED VERT. DEFL.(TL) = L/999 (0.19")

CSI: TC=0.50/1.00 (E-F:1), BC=0.41/1.00 (J-K:1), WB=0.81/1.00 (G-J:1), SSI=0.24/1.00 (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 = 0.50

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 618 354 1667 822 2284 1656

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

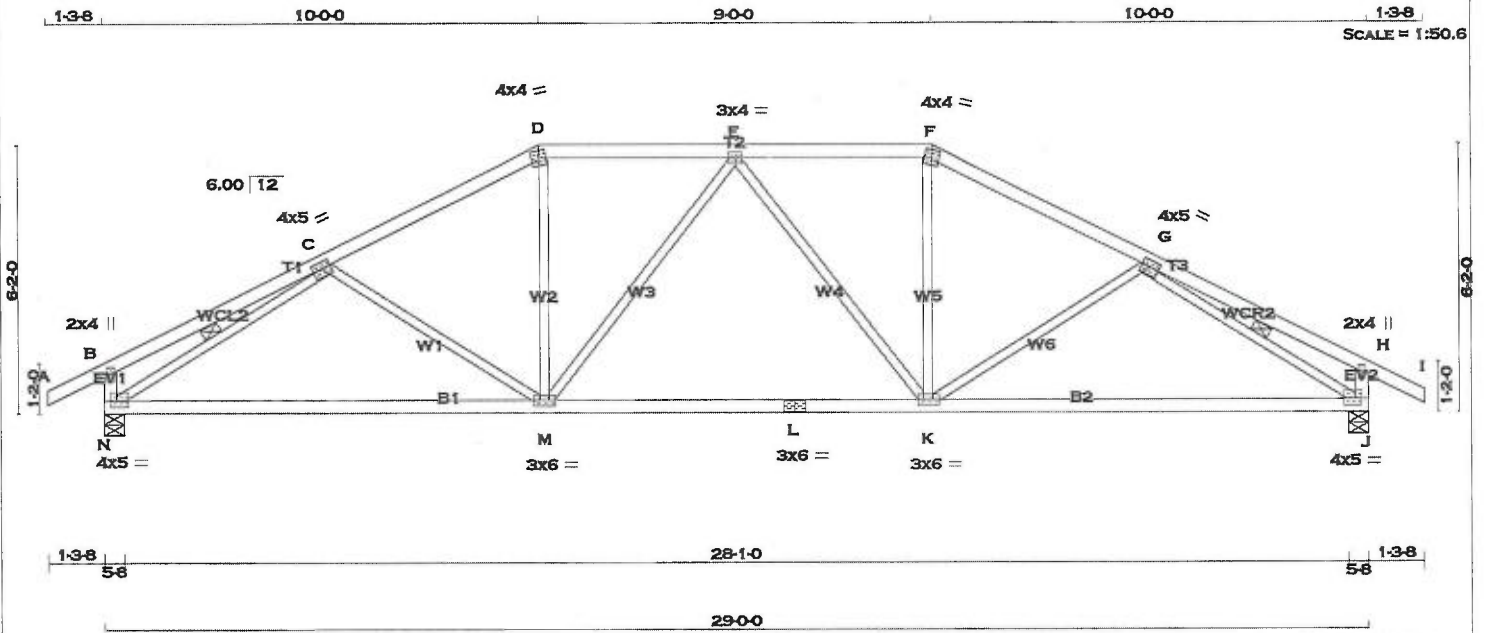
JSI GRIP= 0.90 (G) (INPUT = 0.90)
 JSI METAL= 0.61 (C) (INPUT = 1.00)



September 17, 2018



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TOTAL WEIGHT = 113 lb [MIF]

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	TMWW-t	MT20	4.0	5.0	1.75	2.50
D	TTW-m	MT20	4.0	4.0		
E	TMWW-t	MT20	3.0	4.0		
F	TTW-m	MT20	4.0	4.0		
G	TMWW-t	MT20	4.0	5.0	1.75	2.50
H	TMV+p	MT20	2.0	4.0		
J	BMVW1-t	MT20	4.0	5.0	1.75	1.75
K	BMVWW-t	MT20	3.0	6.0		
L	BS-t	MT20	3.0	6.0		
M	BMVWW-t	MT20	3.0	6.0		
N	BMVW1-t	MT20	4.0	5.0	1.75	1.75

A SIZE FOR SIZE SUBSTITUTION OF MITEK M1120 WITH TEE-LOK TL20 PLATES IS ALLOWED.

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		
N	1480	0	1480	0	5-8	1-10
J	1480	0	1480	0	5-8	1-10

UNFACTORED REACTIONS

JT	1ST LCASE		MAX / MIN. COMPONENT REACTIONS				
	COMBINED	SNOW	LIVE	PERM. LIVE	WIND	DEAD	SOIL
N	1037	739 / 0	0 / 0	0 / 0	0 / 0	298 / 0	0 / 0
J	1037	739 / 0	0 / 0	0 / 0	0 / 0	298 / 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 = 4.77 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 C-N, G-J. DBS = 14-0-0, CBF = 181 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)

MEMB.	CHORDS			MAX. UNBRACED LENGTH	FR-TO	WEBS		
	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	FACTORED VERT. LOAD LC1 MAX (LC)			MEMB.	MAX. FACTORED FORCE (LBS)	MAX. FACTORED VERT. LOAD (PLF)
A-B	0 / 23	-77.4	-77.4	0.10 (1)	10.00	C-M	-188 / 29	0.13 (1)
B-C	0 / 19	-77.4	-77.4	0.30 (1)	10.00	M-D	0 / 496	0.11 (1)
C-D	-1763 / 0	-77.4	-77.4	0.28 (1)	4.77	M-E	-264 / 0	0.28 (1)
D-E	-1567 / 0	-77.4	-77.4	0.22 (1)	5.05	E-K	-264 / 0	0.28 (1)
E-F	-1567 / 0	-77.4	-77.4	0.22 (1)	5.05	K-F	0 / 496	0.11 (1)
F-G	-1763 / 0	-77.4	-77.4	0.28 (1)	4.77	K-G	-188 / 29	0.13 (1)
G-H	0 / 19	-77.4	-77.4	0.30 (1)	10.00	N-C	-2066 / 0	0.54 (1)
H-I	0 / 23	-77.4	-77.4	0.10 (1)	10.00	G-J	-2066 / 0	0.54 (1)
N-B	-256 / 0	0.0	0.0	0.03 (1)	7.81			
J-H	-256 / 0	0.0	0.0	0.03 (1)	7.81			
N-M	0 / 1715	-17.5	-17.5	0.49 (1)	10.00			
M-L	0 / 1725	-17.5	-17.5	0.50 (4)	10.00			
L-K	0 / 1725	-17.5	-17.5	0.50 (4)	10.00			
K-J	0 / 1715	-17.5	-17.5	0.49 (1)	10.00			

DESIGN CRITERIA

SPECIFIED LOADS:
 TOP CH. LL = 23.3 PSF
 DL = 3.0 PSF
 BOT CH. LL = 0.0 PSF
 DL = 7.0 PSF
 TOTAL LOAD = 33.3 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 2010

THIS DESIGN COMPLIES WITH:
 - PART 9 OF OBC 2012, BCBC 2012, ABC 2014
 - CSA 086-09
 - TPIC 2011

(55 % OF 27.2 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 23.3 P.S.F. SPECIFIED ROOF LIVE LOAD

ALLOWABLE DEFL.(LL) = L/360 (0.97")
 CALCULATED VERT. DEFL.(LL) = L/999 (0.10")
 ALLOWABLE DEFL.(TL) = L/360 (0.97")
 CALCULATED VERT. DEFL.(TL) = L/999 (0.34")

CSI: TC=0.30/1.00 (G-H:1), BC=0.50/1.00 (K-M:4), WB=0.54/1.00 (G-J:1), SSI=0.17/1.00 (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 = 0.50

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 618 354 1667 822 2284 1656

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

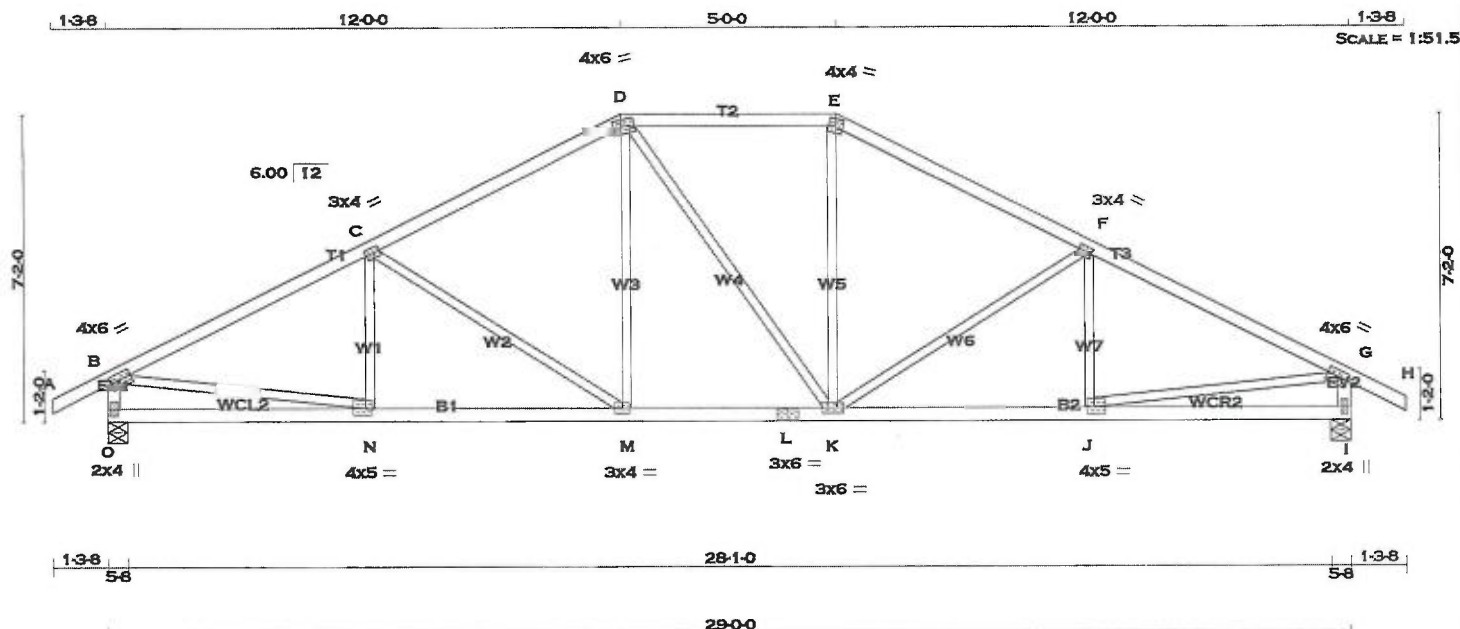
JSI GRIP= 0.88 (J) (INPUT = 0.90)
 JSI METAL= 0.59 (C) (INPUT = 1.00)



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LUMBER				DIMENSIONS, SUPPORTS AND LOADINGS SPECIFIED BY FABRICATOR TO BE VERIFIED BY BUILDING DESIGNER			
N. L. G. A. RULES	CHORDS	SIZE	LUMBER	DESCR.	BEARINGS		
A - D	2x4	DRY	No.2	SPF	FACTORED	MAXIMUM FACTORED	INPUT
D - E	2x4	DRY	No.2	SPF	GROSS REACTION	GROSS REACTION	BRG
E - H	2x4	DRY	No.2	SPF	JT VERT	DOWN	IN-SX
O - B	2x4	DRY	No.2	SPF	O 1480 0	1480 0	5-8
I - G	2x4	DRY	No.2	SPF	I 1480 0	1480 0	5-8
O - L	2x4	DRY	No.2	SPF			
L - I	2x4	DRY	No.2	SPF			

LUMBER				UNFACTORED REACTIONS			
ALL WEBS	2x3	DRY	No.2	SPF	1ST LCASE	MAX/MIN, COMPONENT REACTIONS	
EXCEPT					JT COMBINED	SNOW	LIVE
					O 1037	739 / 0	0 / 0
					I 1037	739 / 0	0 / 0

DRY: SEASONED LUMBER. BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S) O, I

PLATES (table is in inches)				BRACING			
JT TYPE	PLATES	W	LEN Y X	TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 4.38 FT.			
B TMVW-t	MT20	4.0	6.0 1.75 3.00	MAX. UNBRACED BOTTOM CHORD LENGTH = 10.00 FT OR RIGID CEILING DIRECTLY APPLIED.			
C TMVW-t	MT20	3.0	4.0 1.50 1.75	ALL PITCH BREAKS AND PERIMETER CORNER JOINTS MUST BE Laterally RESTRAINED.			
D TTWW-m	MT20	4.0	6.0 1.75 2.25				
E TTWW-m	MT20	4.0	4.0				
F TMVW-t	MT20	3.0	4.0 1.50 1.75				
G TMVW-t	MT20	4.0	6.0 1.75 3.00				
I BMV1+p	MT20	2.0	4.0				
J BMVW-t	MT20	4.0	5.0 1.75 1.75				
K BMVW-t	MT20	3.0	6.0				
L BS-t	MT20	3.0	6.0				
M BMVW-t	MT20	3.0	4.0				
N BMVW-t	MT20	4.0	5.0 1.75 1.75				
O BMV1+p	MT20	2.0	4.0				

A SIZE FOR SIZE SUBSTITUTION OF MITEK M120 WITH TEE-LOK TL20 PLATES IS ALLOWED.

CHORDS				WEBS			
MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD LC1 (PLF)	MAX. UNBRACED LENGTH (LC)	MEMB.	MAX. FACTORED FORCE (LBS)	MAX. UNBRACED LENGTH (LC)	
FR-TO				FR-TO			
A-B	0 / 23	-77.4	-77.4 0.10 (1)	10.00	N-C	-136 / 62	0.04 (1)
B-C	-1980 / 0	-77.4	-77.4 0.44 (1)	4.38	C-M	-456 / 0	0.45 (1)
C-D	-1602 / 0	-77.4	-77.4 0.40 (1)	4.80	M-D	0 / 341	0.08 (1)
D-E	-1416 / 0	-77.4	-77.4 0.27 (1)	5.19	D-K	0 / 0	0.00 (1)
E-F	-1603 / 0	-77.4	-77.4 0.40 (1)	4.80	K-E	0 / 342	0.08 (1)
F-G	-1979 / 0	-77.4	-77.4 0.44 (1)	4.38	K-F	-455 / 0	0.45 (1)
G-H	0 / 23	-77.4	-77.4 0.10 (1)	10.00	J-F	-137 / 61	0.04 (1)
O-B	-1435 / 0	0.0	0.0 0.15 (1)	6.82	B-N	0 / 1810	0.41 (1)
I-G	-1435 / 0	0.0	0.0 0.15 (1)	6.82	J-G	0 / 1810	0.41 (1)
O-N	0 / 0	-17.5	-17.5 0.15 (4)	10.00			
N-M	0 / 1792	-17.5	-17.5 0.36 (1)	10.00			
M-L	0 / 1415	-17.5	-17.5 0.28 (1)	10.00			
L-K	0 / 1415	-17.5	-17.5 0.28 (1)	10.00			
K-J	0 / 1792	-17.5	-17.5 0.35 (1)	10.00			
J-I	0 / 0	-17.5	-17.5 0.15 (4)	10.00			

DESIGN CRITERIA

SPECIFIED LOADS:
 TOP CH. LL = 23.3 PSF
 DL = 3.0 PSF
 BOT CH. LL = 0.0 PSF
 DL = 7.0 PSF
 TOTAL LOAD = 33.3 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 2010

THIS DESIGN COMPLIES WITH:
 - PART 9 OF OBC 2012, BCBC 2012, ABC 2014
 - CSA 086-09
 - TPIC 2011

(55% OF 27.2 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 23.3 P.S.F. SPECIFIED ROOF LIVE LOAD

ALLOWABLE DEFL.(LL)= L/360 (0.97")
 CALCULATED VERT. DEFL.(LL)= L/999 (0.08")
 ALLOWABLE DEFL.(TL)= L/360 (0.97")
 CALCULATED VERT. DEFL.(TL)= L/999 (0.16")

CSI: TC=0.44/1.00 (B-C:1), BC=0.36/1.00 (M-N:1), WB=0.45/1.00 (C-M:1), SS=0.20/1.00 (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 = 0.50

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 618 354 1667 822 2284 1656

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

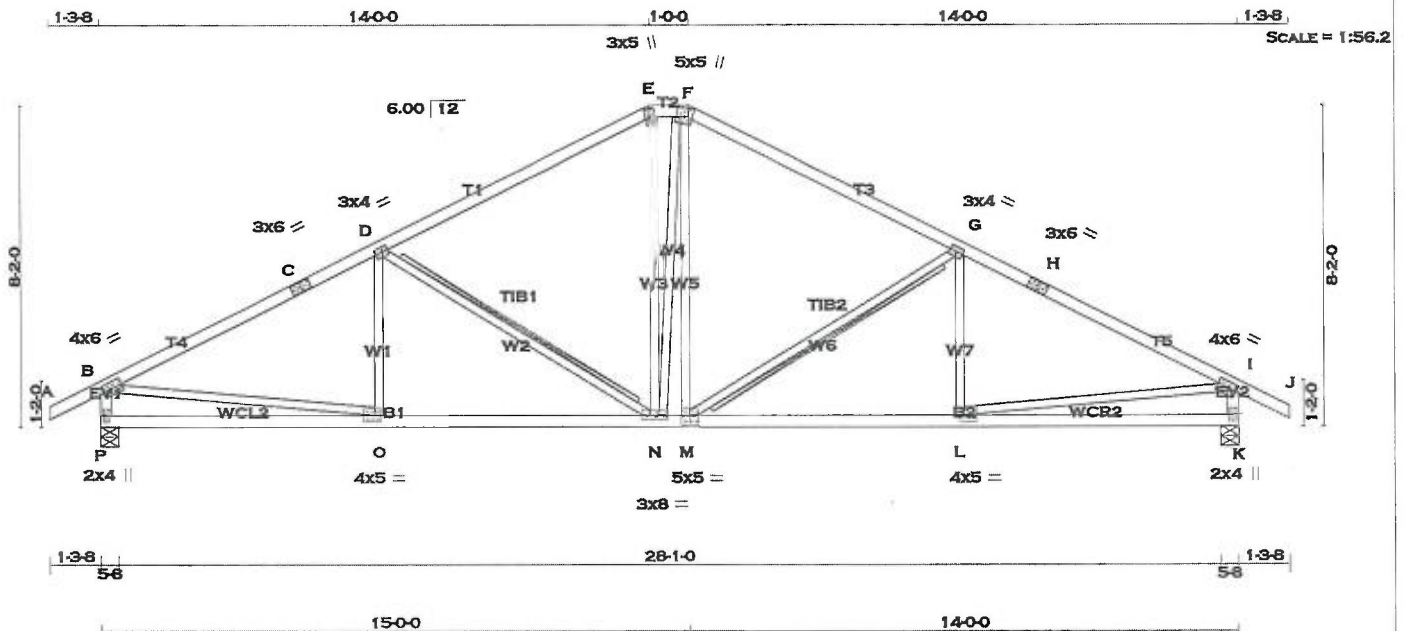
JSI GRIP= 0.88 (B) (INPUT = 0.90)
 JSI METAL= 0.54 (N) (INPUT = 1.00)



September 17, 2018



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



TOTAL WEIGHT = 124 lb [M/F]

LUMBER	N. L. G. A. RULES	CHORDS	SIZE	LUMBER	DESCR.
A - C	2x4	DRY	No.2	SPF	
C - E	2x4	DRY	No.2	SPF	
E - F	2x4	DRY	No.2	SPF	
F - H	2x4	DRY	No.2	SPF	
H - J	2x4	DRY	No.2	SPF	
P - B	2x4	DRY	No.2	SPF	
K - I	2x4	DRY	No.2	SPF	
P - M	2x4	DRY	No.2	SPF	
M - K	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	6.0	2.00	2.75
C	TS-t	MT20	3.0	6.0		
D	TMVW-t	MT20	3.0	4.0	1.50	1.75
E	TTW+m	MT20	3.0	5.0	2.50	1.25
F	TTW+m	MT20	5.0	5.0	2.50	1.25
G	TMVW-t	MT20	3.0	4.0	1.50	1.75
H	TS-t	MT20	3.0	6.0		
I	TMVW-t	MT20	4.0	6.0	1.75	3.00
K	BMV1+p	MT20	2.0	4.0		
L	BMVW-t	MT20	4.0	5.0	2.00	1.50
M	BSW-t	MT20	5.0	5.0	3.00	2.50
N	BMVW-t	MT20	3.0	8.0		
O	BMVW-t	MT20	4.0	5.0	2.00	1.50
P	BMV1+p	MT20	2.0	4.0		

A SIZE FOR SIZE SUBSTITUTION OF MITEK M1120 WITH TEE-LOK TL20 PLATES IS ALLOWED.

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

BEARINGS

	FACTORED	MAXIMUM FACTORED	INPUT	REQRD
	GROSS REACTION	GROSS REACTION	BRG	IN-SX
JT	VERT	HORZ	DOWN	HORZ
P	1480	0	1480	0
K	1480	0	1480	0

UNFACTORED REACTIONS

JT	1ST LCASE	MAX./MIN.	COMPONENT REACTIONS	DEAD	SOIL
P	COMBINED	SNOW	LIVE	PERM.LIVE	WIND
P	1037	739 / 0	0 / 0	0 / 0	298 / 0
K	1037	739 / 0	0 / 0	0 / 0	298 / 0

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

BRACING

TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 4.14 FT.
 MAX. UNBRACED BOTTOM CHORD LENGTH = 10.00 FT OR RIGID CEILING DIRECTLY APPLIED.

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

2x4 DRY SPF No.2 T-BRACE AT D-N, G-M

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

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

LOADING

TOTAL LOAD CASES: (4)

CHORDS				WEBS			
MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	MAX. FACTORED VERT. LOAD (LC)	MEMB.	MAX. FACTORED FORCE (LBS)	MAX. FACTORED VERT. LOAD (LC)	MAX. FACTORED VERT. LOAD (LC)
FR-TO		FROM TO		FR-TO			
A-B	0 / 23	-77.4	-77.4 0.10 (1)	10.00	O-D	-83 / 94	0.03 (4)
B-C	-1976 / 0	-77.4	-77.4 0.62 (1)	4.14	D-N	-618 / 0	0.32 (1)
C-D	-1976 / 0	-77.4	-77.4 0.62 (1)	4.14	N-E	0 / 397	0.09 (1)
D-E	-1450 / 0	-77.4	-77.4 0.54 (1)	4.76	E-F	0 / 37	0.01 (1)
E-F	-1275 / 0	-77.4	-77.4 0.03 (1)	5.69	F-G	0 / 359	0.08 (1)
F-G	-1446 / 0	-77.4	-77.4 0.54 (1)	4.77	G-H	-624 / 0	0.33 (1)
G-H	-1977 / 0	-77.4	-77.4 0.62 (1)	4.14	H-I	-77 / 96	0.03 (4)
H-I	-1977 / 0	-77.4	-77.4 0.62 (1)	4.14	I-J	0 / 1806	0.41 (1)
I-J	0 / 23	-77.4	-77.4 0.10 (1)	10.00	J-K	0 / 1807	0.41 (1)
P-B	-1428 / 0	0.0	0.0 0.14 (1)	6.83			
K-I	-1429 / 0	0.0	0.0 0.14 (1)	6.83			
P-O	0 / 0	-17.5	-17.5 0.21 (4)	10.00			
O-N	0 / 1793	-17.5	-17.5 0.39 (1)	10.00			
N-M	0 / 1271	-17.5	-17.5 0.30 (1)	10.00			
M-L	0 / 1794	-17.5	-17.5 0.40 (1)	10.00			
L-K	0 / 0	-17.5	-17.5 0.22 (4)	10.00			

DESIGN CRITERIA

SPECIFIED LOADS:

TOP CH.	LL = 23.3 PSF
DL = 3.0 PSF	
BOT CH.	LL = 0.0 PSF
DL = 7.0 PSF	
TOTAL LOAD	= 33.3 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, NBC 2010

THIS DESIGN COMPLIES WITH:

- PART 9 OF OBC 2012, BCBC 2012, ABC 2014
 - CSA 086-09
 - TPIC 2011

(55% OF 27.2 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 23.3 P.S.F. SPECIFIED ROOF LIVE LOAD

ALLOWABLE DEFL.(LL) = L/360 (0.97")
 CALCULATED VERT. DEFL.(LL) = L/999 (0.09")
 ALLOWABLE DEFL.(TL) = L/360 (0.97")
 CALCULATED VERT. DEFL.(TL) = L/999 (0.18")

CSI: TC=0.62/1.00 (G-I:1), BC=0.40/1.00 (L-M:1), WB=0.41/1.00 (I-L:1), SS=0.24/1.00 (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 = 0.50

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	618	354	1667
	822	2284	1656

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

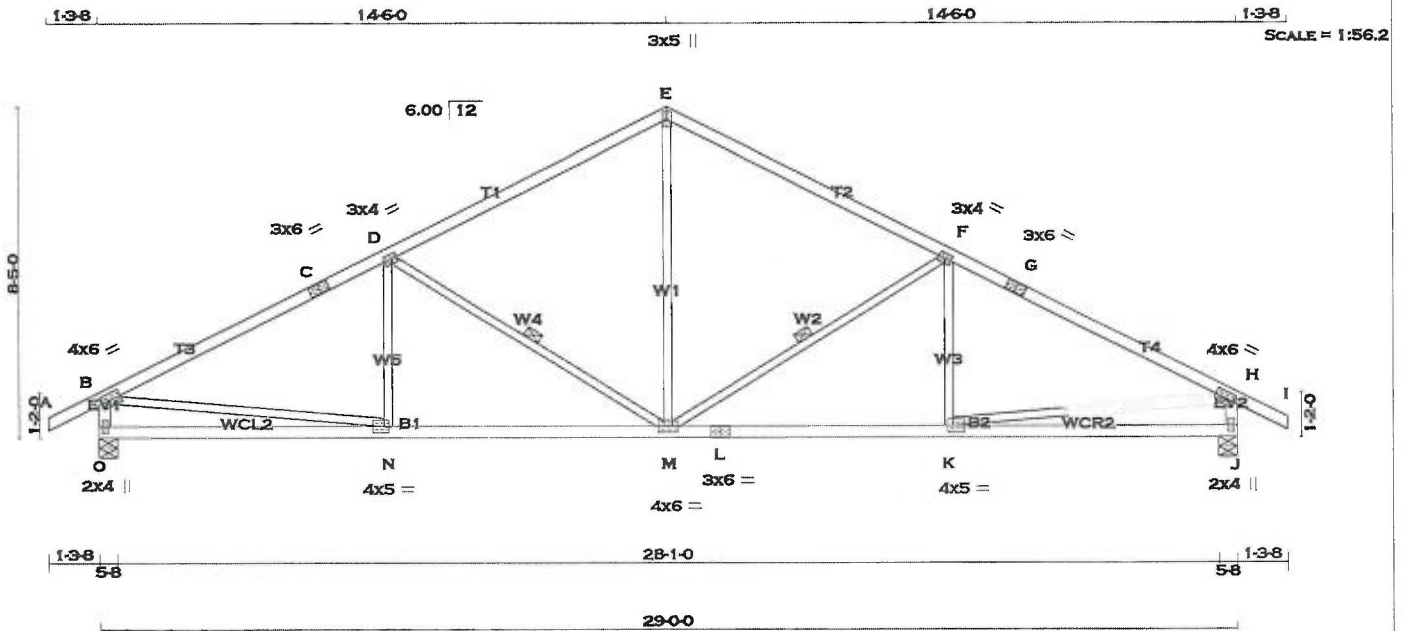
JSI GRIP= 0.90 (B) (INPUT = 0.90)
 JSI METAL= 0.54 (L) (INPUT = 1.00)



September 17, 2018



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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 - G	2x4	DRY	No.2 SPF
G - 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 EXCEPT	2x3	DRY	No.2	SPF
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DRY: SEASONED LUMBER.

PLATES (table is in inches)					
JT TYPE	PLATES	W	LEN	Y	X
B TMVW-t	MT20	4.0	6.0	2.00	2.75
C TS-t	MT20	3.0	6.0		
D TMVW-t	MT20	3.0	4.0	1.50	1.75
E TTW+p	MT20	3.0	5.0		
F TMVW-t	MT20	3.0	4.0	1.50	1.75
G TS-t	MT20	3.0	6.0		
H TMVW-t	MT20	4.0	6.0	2.00	2.75
J BMV1+p	MT20	2.0	4.0		
K BMVW-t	MT20	4.0	5.0	2.00	1.50
L BS-t	MT20	3.0	6.0		
M BMVW-t	MT20	4.0	6.0		
N BMVW-t	MT20	4.0	5.0	2.00	1.50
O BMV1+p	MT20	2.0	4.0		

A SIZE FOR SIZE SUBSTITUTION OF MITEK MII20 WITH TEE-LOK TL20 PLATES IS ALLOWED.

September 17, 2018

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	UPLIFT	IN-SX	IN-SX		
O	1480	0	1480	0	0	5-8	2-8		
J	1480	0	1480	0	0	5-8	2-8		

UNFACTORED REACTIONS								
	1ST LCASE		MAX/MIN. COMPONENT REACTIONS					
JT	COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL	
O	1037	739 / 0	0 / 0	0 / 0	0 / 0	298 / 0	0 / 0	
J	1037	739 / 0	0 / 0	0 / 0	0 / 0	298 / 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 = 4.07 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-M, D-M, DBS = 20-0-0 . CBF = 82 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

CHORDS				WEBS			
MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	MAX. UNBRACED LENGTH (LC)	MEMB.	MAX. FACTORED FORCE (LBS)	MAX. UNBRACED LENGTH (LC)	
FR-TO		FROM TO		FR-TO			
A-B	0 / 23	-77.4 -77.4 0.10 (1)	10.00	M-E	0 / 823	0.19 (1)	
B-C	-1972 / 0	-77.4 -77.4 0.67 (1)	4.07	M-F	-654 / 0	0.32 (1)	
C-D	-1972 / 0	-77.4 -77.4 0.67 (1)	4.07	K-F	-70 / 100	0.03 (4)	
D-E	-1415 / 0	-77.4 -77.4 0.59 (1)	4.74	D-M	-654 / 0	0.32 (1)	
E-F	-1415 / 0	-77.4 -77.4 0.59 (1)	4.74	N-D	-70 / 100	0.03 (4)	
F-G	-1972 / 0	-77.4 -77.4 0.67 (1)	4.07	B-N	0 / 1803	0.41 (1)	
G-H	-1972 / 0	-77.4 -77.4 0.67 (1)	4.07	K-H	0 / 1803	0.41 (1)	
H-I	0 / 23	-77.4 -77.4 0.10 (1)	10.00				
O-B	-1427 / 0	0.0 0.0 0.14 (1)	6.84				
J-H	-1427 / 0	0.0 0.0 0.14 (1)	6.84				
O-N	0 / 0	-17.5 -17.5 0.22 (4)	10.00				
N-M	0 / 1790	-17.5 -17.5 0.40 (1)	10.00				
M-L	0 / 1790	-17.5 -17.5 0.40 (1)	10.00				
L-K	0 / 1790	-17.5 -17.5 0.40 (1)	10.00				
K-J	0 / 0	-17.5 -17.5 0.22 (4)	10.00				

DESIGN CRITERIA		
SPECIFIED LOADS:		
TOP CH.	LL	= 23.3 PSF
	DL	= 3.0 PSF
BOT CH.	LL	= 0.0 PSF
	DL	= 7.0 PSF
TOTAL LOAD = 33.3 PSF		

SPACING = 24.0 IN. C/C
THIS TRUSS IS DESIGNED FOR RESIDENTIAL OR SMALL BUILDING REQUIREMENTS OF PART 9, NBCC 2010

THIS DESIGN COMPLIES WITH:
- PART 9 OF OBC 2012, BCBC 2012, ABC 2014
- CSA 086-09
- TPIC 2011

(55 % OF 27.2 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 23.3 P.S.F. SPECIFIED ROOF LIVE LOAD

ALLOWABLE DEFL.(LL)= L/360 (0.97")
CALCULATED VERT. DEFL.(LL) = L/999 (0.09")
ALLOWABLE DEFL.(TL)= L/360 (0.97")
CALCULATED VERT. DEFL.(TL) = L/999 (0.18")

CSI: TC=0.67/1.00 (F-H:1) , BC=0.40/1.00 (K-M:1) , WB=0.41/1.00 (H-K:1) , SSI=0.25/1.00 (F-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 = 0.50

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

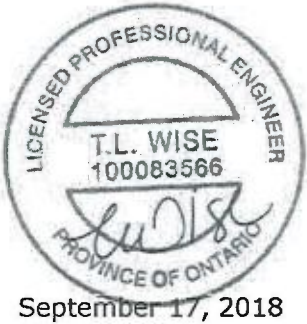
NAIL VALUES					
PLATE	GRIP(DRY)	SHEAR	SECTION		
	(PSI)	(PLI)	(PLI)		
	MAX	MIN	MAX	MIN	MAX
MT20	618	354	1667	822	2284 1656

PLATE PLACEMENT TOL. = 0.250 inches

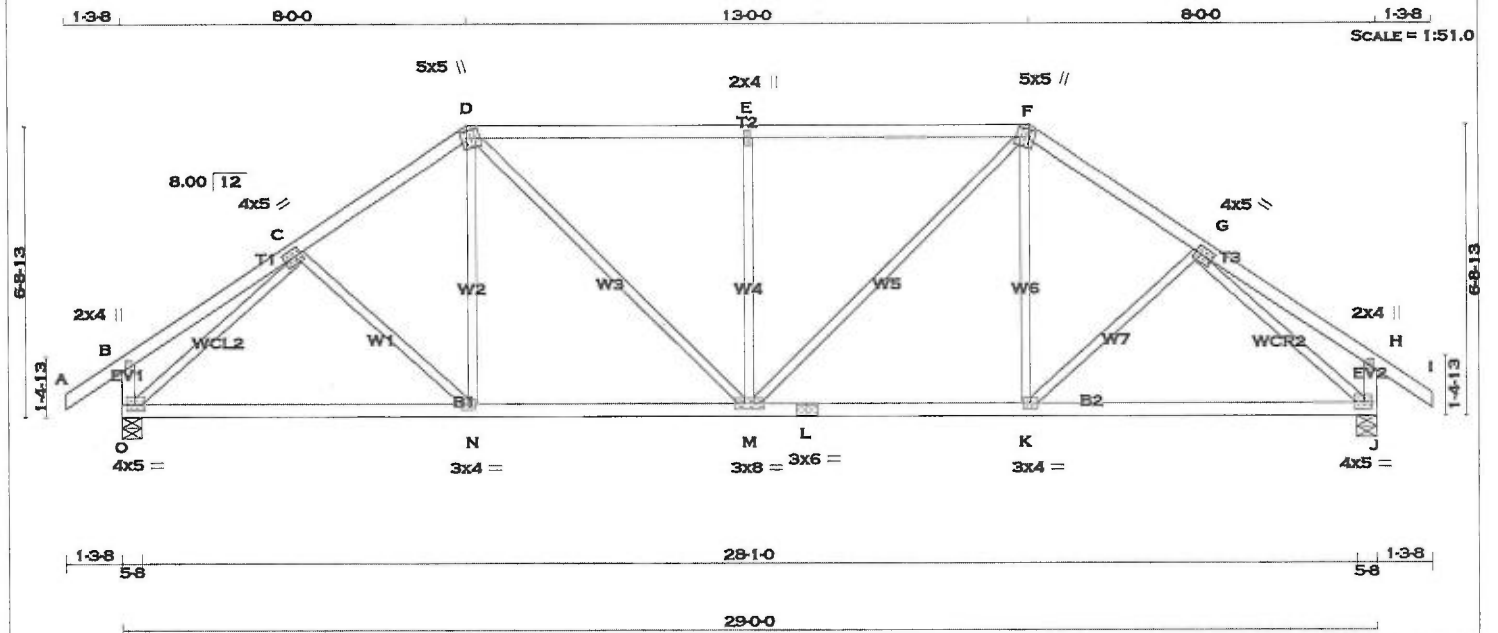
PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.90 (H) (INPUT = 0.90)
JSI METAL= 0.54 (K) (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.



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



TOTAL WEIGHT = 2 X 122 = 244 lb

[M]F

LUMBER			
N. L. G. A. RULES			
CHORDS	SIZE	LUMBER	DESCR.
A - D	2x4	DRY	No.2
D - F	2x4	DRY	No.2
F - I	2x4	DRY	No.2
O - B	2x4	DRY	No.2
J - H	2x4	DRY	No.2
O - L	2x4	DRY	No.2
L - J	2x4	DRY	No.2

ALL WEBS	2x3	DRY	No.2	SPF
EXCEPT				

DRY: SEASONED LUMBER.

PLATES (table is in inches)

JT	TYPE	PLATES	W	LEN	Y	X
B	TMV+p	MT20	2.0	4.0		
C	TMVW-t	MT20	4.0	5.0	2.00	1.75
D	TTWW+m	MT20	5.0	5.0	2.00	1.50
E	TMV+w	MT20	2.0	4.0		
F	TTWW+m	MT20	5.0	5.0	2.00	1.50
G	TMVW-t	MT20	4.0	5.0	2.00	1.75
H	TMV+p	MT20	2.0	4.0		
J	BMVW-t	MT20	4.0	5.0	1.75	2.25
K	BMVW-t	MT20	3.0	4.0		
L	BS-t	MT20	3.0	6.0		
M	BMVW-w	MT20	3.0	8.0		
N	BMVW-t	MT20	3.0	4.0		
O	BMVW-t	MT20	4.0	5.0	1.75	2.25

A SIZE FOR SIZE SUBSTITUTION OF MITEK M120 WITH TEE-LOK TL20 PLATES IS ALLOWED.

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
	VERT	DOWN	UPLIFT	IN-SX
JT				
O	1482	0	0	5-8
J	1482	0	0	5-8

UNFACTORED REACTIONS

	1ST LCASE	MAX./MIN. COMPONENT REACTIONS					
	COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
JT							
O	1037	739 / 0	0 / 0	0 / 0	0 / 0	298 / 0	0 / 0
J	1037	739 / 0	0 / 0	0 / 0	0 / 0	298 / 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 = 4.68 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 / 29	-77.4	-77.4 0.10 (1)	C-N	-30 / 46	0.02 (4)	
B-C	0 / 19	-77.4	-77.4 0.19 (1)	N-D	0 / 173	0.05 (4)	
C-D	-1528 / 0	-77.4	-77.4 0.17 (1)	D-M	0 / 501	0.11 (1)	
D-E	-1613 / 0	-77.4	-77.4 0.47 (1)	M-E	-617 / 0	0.47 (1)	
E-F	-1613 / 0	-77.4	-77.4 0.47 (1)	M-F	0 / 501	0.11 (1)	
F-G	-1528 / 0	-77.4	-77.4 0.17 (1)	K-F	0 / 173	0.05 (4)	
G-H	0 / 19	-77.4	-77.4 0.19 (1)	K-G	-30 / 46	0.02 (4)	
H-I	0 / 29	-77.4	-77.4 0.10 (1)	O-C	-1750 / 0	0.86 (1)	
O-B	-227 / 0	0.0	0.0 0.02 (1)	G-J	-1750 / 0	0.86 (1)	
J-H	-227 / 0	0.0	0.0 0.02 (1)				
O-N	0 / 1277	-17.5	-17.5 0.35 (1)				
N-M	0 / 1257	-17.5	-17.5 0.35 (4)				
M-L	0 / 1257	-17.5	-17.5 0.35 (4)				
L-K	0 / 1257	-17.5	-17.5 0.35 (4)				
K-J	0 / 1277	-17.5	-17.5 0.35 (1)				

DESIGN CRITERIA

SPECIFIED LOADS:

TOP CH.	LL	=	23.3	PSF
	DL	=	3.0	PSF
BOT CH.	LL	=	0.0	PSF
	DL	=	7.0	PSF
TOTAL LOAD	=	33.3	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 2010

THIS DESIGN COMPLIES WITH:

- PART 9 OF OBC 2012, BCBC 2012, ABC 2014
- CSA 086-09
- TPIC 2011

(55 % OF 27.2 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 23.3 P.S.F. SPECIFIED ROOF LIVE LOAD

ALLOWABLE DEFL.(LL) = L/360 (0.97")
CALCULATED VERT. DEFL.(LL) = L/999 (0.07")
ALLOWABLE DEFL.(TL) = L/360 (0.97")
CALCULATED VERT. DEFL.(TL) = L/999 (0.15")

CSI: TC=0.47/1.00 (E-F:1), BC=0.35/1.00 (M-N:4), WB=0.86/1.00 (G-J:1), SSI=0.24/1.00 (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 = 0.50

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
MT20	618	354	1667 822 2284 1656

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.87 (C) (INPUT = 0.90)
JSI METAL= 0.52 (C) (INPUT = 1.00)

September 17, 2018

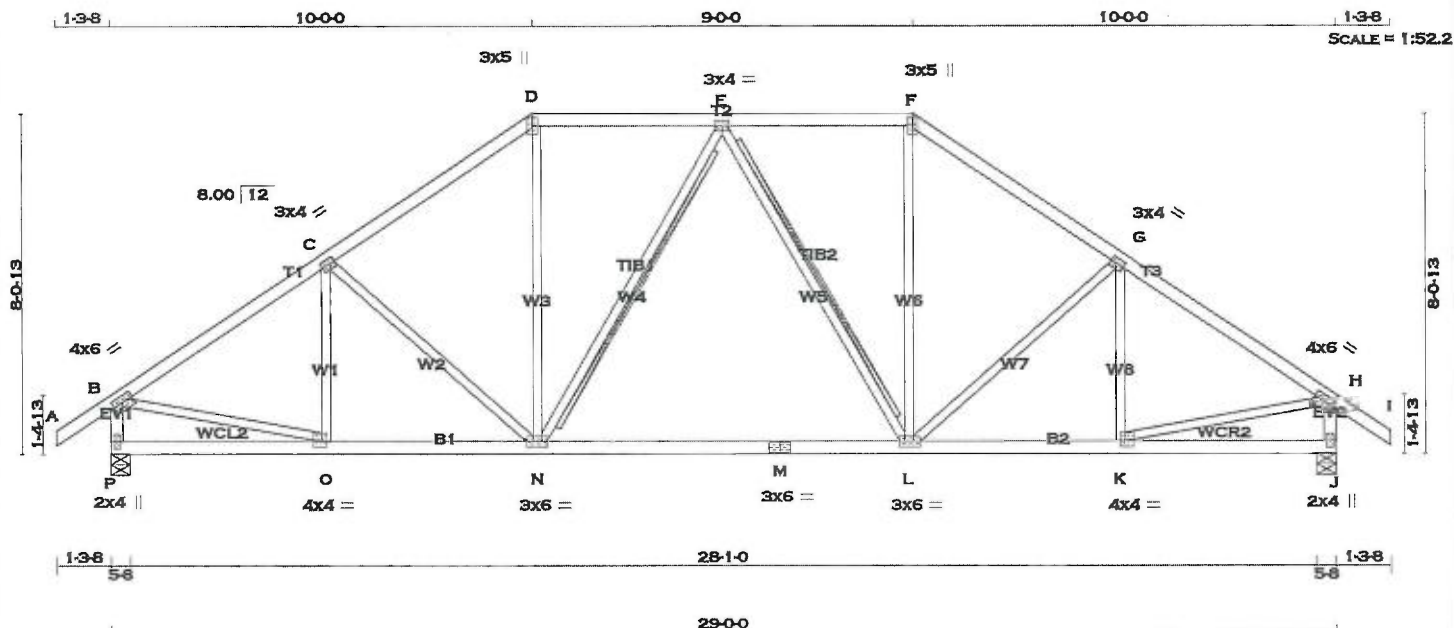
READ ALL NOTES ON THIS PAGE AND ON THE ENGINEERING NOTE PAGE ENP-1. THE NOTE PAGE IS AN INTEGRAL PART OF THIS DRAWING AS IT CONTAINS SPECIFICATIONS AND CRITERIA USED IN THE DESIGN OF THIS COMPONENT.



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IN THE DESIGN OF THIS COMPONENT.



LUMBER	N. L. G. A. RULES	CHORDS	SIZE	LUMBER	DESCR.
A - D	2x4	DRY	No.2	SPF	
D - F	2x4	DRY	No.2	SPF	
F - I	2x4	DRY	No.2	SPF	
P - B	2x4	DRY	No.2	SPF	
J - H	2x4	DRY	No.2	SPF	
P - M	2x4	DRY	No.2	SPF	
M - J	2x4	DRY	No.2	SPF	

ALL WEBS 2x3 DRY No.2 SPF
 EXCEPT

DRY: SEASONED LUMBER.

PLATES (table is in inches)

JT	TYPE	PLATES	W	LEN	Y	X
B	TMVW-t	MT20	4.0	6.0	1.75	3.00
C	TMVW-t	MT20	3.0	4.0	1.50	1.50
D	TTW+p	MT20	3.0	5.0		
E	TMVW-t	MT20	3.0	4.0		
F	TTW+p	MT20	3.0	5.0		
G	TMVW-t	MT20	3.0	4.0	1.50	1.50
H	TMVW-t	MT20	4.0	6.0	1.75	3.00
J	BMV1+p	MT20	2.0	4.0		
K	BMVW-t	MT20	4.0	4.0	1.50	1.50
L	BMVW-t	MT20	3.0	6.0		
M	BS-t	MT20	3.0	6.0		
N	BMVW-t	MT20	3.0	6.0		
O	BMVW-t	MT20	4.0	4.0	1.50	1.50
P	BMV1+p	MT20	2.0	4.0		

A SIZE FOR SIZE SUBSTITUTION OF MITEK MI120 WITH TEE-LOK TL20 PLATES IS ALLOWED.

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
	VERT	HORZ	DOWN	UP
JT	1482	0	0	5-8
P	1482	0	0	5-8
J	1482	0	0	5-8

UNFACTORED REACTIONS

	1ST LCASE	MAX./MIN. COMPONENT REACTIONS					
	COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
JT	1037	739 / 0	0 / 0	0 / 0	0 / 0	298 / 0	0 / 0
P	1037	739 / 0	0 / 0	0 / 0	0 / 0	298 / 0	0 / 0
J	1037	739 / 0	0 / 0	0 / 0	0 / 0	298 / 0	0 / 0

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

BRACING

TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 4.96 FT.
 MAX. UNBRACED BOTTOM CHORD LENGTH = 10.00 FT OR RIGID CEILING DIRECTLY APPLIED.

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

2x4 DRY SPF No.2 T-BRACE AT E-N, E-L

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

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

LOADING

TOTAL LOAD CASES: (4)

FR-TO	CHORDS			WEBS		
	MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD LC1 MAX (PLF)	MEMB.	MAX. FACTORED FORCE (LBS)	MAX. FACTORED UNBRACED LENGTH FR-TO (LC)
A-B	0 / 29	-77.4	-77.4 0.10 (1)	10.00	O-C	-207 / 8 0.07 (1)
B-C	-1592 / 0	-77.4	-77.4 0.28 (1)	4.96	C-N	-236 / 0 0.20 (1)
C-D	-1434 / 0	-77.4	-77.4 0.27 (1)	5.18	N-D	0 / 503 0.11 (1)
D-E	-1176 / 0	-77.4	-77.4 0.21 (1)	5.65	N-E	-242 / 0 0.15 (1)
E-F	-1176 / 0	-77.4	-77.4 0.21 (1)	5.65	E-L	-242 / 0 0.15 (1)
F-G	-1434 / 0	-77.4	-77.4 0.27 (1)	5.18	L-F	0 / 503 0.11 (1)
G-H	-1592 / 0	-77.4	-77.4 0.28 (1)	4.96	L-G	-236 / 0 0.20 (1)
H-I	0 / 29	-77.4	-77.4 0.10 (1)	10.00	K-G	-207 / 8 0.07 (1)
P-B	-1441 / 0	0.0	0.0 0.15 (1)	6.81	B-O	0 / 1375 0.31 (1)
J-H	-1441 / 0	0.0	0.0 0.15 (1)	6.81	K-H	0 / 1375 0.31 (1)
P-O	0 / 0	-17.5	-17.5 0.10 (4)	10.00		
O-N	0 / 1345	-17.5	-17.5 0.34 (1)	10.00		
N-M	0 / 1296	-17.5	-17.5 0.33 (1)	10.00		
M-L	0 / 1296	-17.5	-17.5 0.33 (1)	10.00		
L-K	0 / 1345	-17.5	-17.5 0.34 (1)	10.00		
K-J	0 / 0	-17.5	-17.5 0.10 (4)	10.00		

DESIGN CRITERIA

SPECIFIED LOADS:

TOP CH.	LL = 23.3 PSF
DL = 3.0 PSF	
BOT CH.	LL = 0.0 PSF
DL = 7.0 PSF	
TOTAL LOAD = 33.3 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 2010

THIS DESIGN COMPLIES WITH:
 - PART 9 OF OBC 2012, BCBC 2012, ABC 2014
 - CSA 086-09
 - TPIC 2011

(55 % OF 27.2 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 23.3 P.S.F. SPECIFIED ROOF LIVE LOAD

ALLOWABLE DEFL.(LL)= L/360 (0.97")
 CALCULATED VERT. DEFL.(LL)= L/999 (0.06")
 ALLOWABLE DEFL.(TL)= L/360 (0.97")
 CALCULATED VERT. DEFL.(TL)= L/999 (0.19")

CSI: TC=0.28/1.00 (B-C:1), BC=0.34/1.00 (N-O:1), WB=0.31/1.00 (B-O:1), SSI=0.17/1.00 (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 = 0.50

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 618 354 1667 822 2284 1656

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

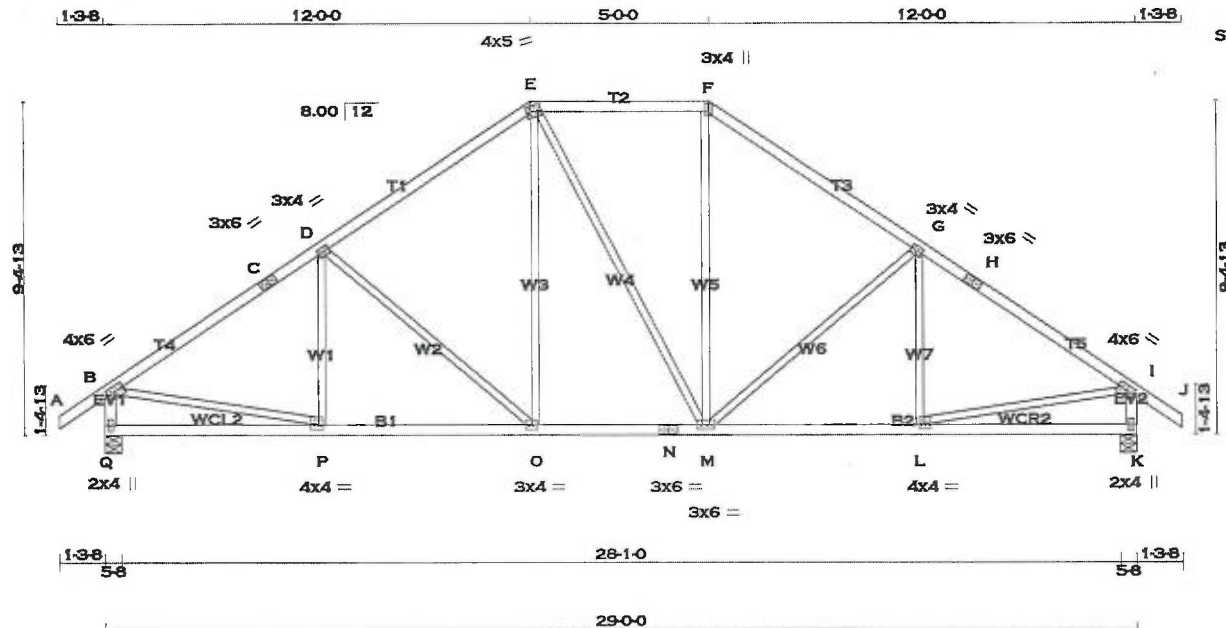
JSI GRIP= 0.88 (D) (INPUT = 0.90)
 JSI METAL= 0.50 (K) (INPUT = 1.00)



September 17, 2018



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TOTAL WEIGHT = 2 X 130 = 260 lb (M/F)

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

DRY: SEASONED LUMBER.

PLATES (table is in inches)

JT	TYPE	PLATES	W	LEN	Y	X
B	TMVW-t	MT20	4.0	6.0	1.75	3.00
C	TS-t	MT20	3.0	6.0		
D	TMWW-t	MT20	3.0	4.0	1.50	1.50
E	TTWW-m	MT20	4.0	5.0	1.75	1.50
F	TTW+p	MT20	3.0	4.0	2.50	1.50
G	TMWW-t	MT20	3.0	4.0	1.50	1.50
H	TS-t	MT20	3.0	6.0		
I	TMVW-t	MT20	4.0	6.0	1.75	3.00
K	BMV1+p	MT20	2.0	4.0		
L	BMWW-t	MT20	4.0	4.0	1.50	1.50
M	BMWW-t	MT20	3.0	6.0		
N	BS-t	MT20	3.0	6.0		
O	BMWW-t	MT20	3.0	4.0		
P	BMWW-t	MT20	4.0	4.0	1.50	1.50
Q	BMV1+p	MT20	2.0	4.0		

A SIZE FOR SIZE SUBSTITUTION OF MITK MIL20 WITH TEE-LOK TL20 PLATES IS ALLOWED.

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		
Q	1482	0	1482	0	5-8	2-8
K	1482	0	1482	0	5-8	2-8

UNFACTORED REACTIONS

1ST LCASE		MAX/MIN. COMPONENT REACTIONS					
JT	COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
Q	1037	739 / 0	0 / 0	0 / 0	0 / 0	298 / 0	0 / 0
K	1037	739 / 0	0 / 0	0 / 0	0 / 0	298 / 0	0 / 0

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

BRACING

TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 4.77 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 UNBRACED LENGTH (LC)	MEMB.	MAX. FACTORED FORCE (LBS)	MAX. FACTORED UNBRACED LENGTH (LC)	
FR-TO				FR-TO			
A-B	0 / 29	-77.4	-77.4 0.10 (1)	10.00	P-D	-123 / 65	0.06 (1)
B-C	-1608 / 0	-77.4	-77.4 0.43 (1)	4.77	D-O	-394 / 0	0.51 (1)
C-D	-1608 / 0	-77.4	-77.4 0.43 (1)	4.77	O-E	0 / 347	0.08 (1)
D-E	-1312 / 0	-77.4	-77.4 0.39 (1)	5.19	E-M	0 / 1	0.00 (1)
E-F	-1069 / 0	-77.4	-77.4 0.26 (1)	5.79	M-F	0 / 348	0.08 (1)
F-G	-1313 / 0	-77.4	-77.4 0.39 (1)	5.19	M-G	-393 / 0	0.51 (1)
G-H	-1608 / 0	-77.4	-77.4 0.43 (1)	4.77	L-G	-124 / 65	0.06 (1)
H-I	-1608 / 0	-77.4	-77.4 0.43 (1)	4.77	B-P	0 / 1385	0.31 (1)
I-J	0 / 29	-77.4	-77.4 0.10 (1)	10.00	L-I	0 / 1384	0.31 (1)
Q-B	-1438 / 0	0.0	0.0 0.15 (1)	6.81			
K-I	-1437 / 0	0.0	0.0 0.15 (1)	6.81			
Q-P	0 / 0	-17.5	-17.5 0.16 (4)	10.00			
P-O	0 / 1363	-17.5	-17.5 0.30 (1)	10.00			
O-N	0 / 1068	-17.5	-17.5 0.23 (1)	10.00			
N-M	0 / 1068	-17.5	-17.5 0.23 (1)	10.00			
M-L	0 / 1363	-17.5	-17.5 0.30 (1)	10.00			
L-K	0 / 0	-17.5	-17.5 0.16 (4)	10.00			

DESIGN CRITERIA

SPECIFIED LOADS:

TOP CH.	LL = 23.3	PSF
	DL = 3.0	PSF
BOT CH.	LL = 0.0	PSF
	DL = 7.0	PSF
TOTAL LOAD	= 33.3	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, NBC 2010

THIS DESIGN COMPLIES WITH:

- PART 9 OF OBC 2012, BCBC 2012, ABC 2014
- CSA 086-09
- TPIC 2011

(55 % OF 27.2 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 23.3 P.S.F. SPECIFIED ROOF LIVE LOAD

ALLOWABLE DEFL.(LL) = L/360 (0.97")
 CALCULATED VERT. DEFL.(LL) = L/999 (0.06")
 ALLOWABLE DEFL.(TL) = L/360 (0.97")
 CALCULATED VERT. DEFL.(TL) = L/999 (0.11")

CSI: TC=0.43/1.00 (B-D:1), BC=0.30/1.00 (O-P:1)
 , WB=0.51/1.00 (D-O:1), SS=0.19/1.00 (B-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 = 0.50

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

NAIL VALUES

PLATE	GRIP(DRY)	SHEAR (PSI)	SECTION (PLI)
MT20	618	354	1667
	822	2284	1656

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

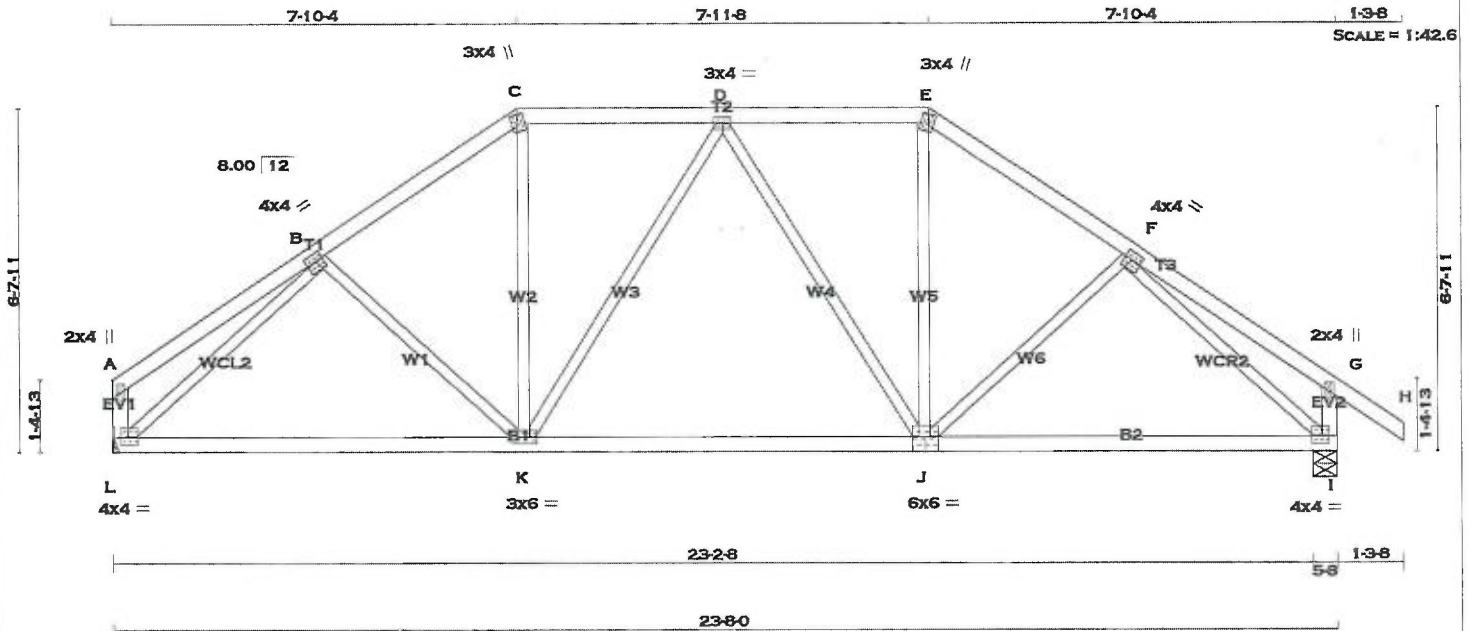
JSI GRIP= 0.88 (M) (INPUT = 0.90)
 JSI METAL= 0.51 (P) (INPUT = 1.00)



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TOTAL WEIGHT = 100 lb [M/F]

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	
L - A	2x4	DRY	No.2	SPF	
I - G	2x4	DRY	No.2	SPF	
J - J	2x4	DRY	No.2	SPF	
J - I	2x4	DRY	No.2	SPF	

ALL WEBS 2x3 DRY No.2 SPF
EXCEPT

DRY: SEASONED LUMBER.

PLATES (table is in inches)

JT	TYPE	PLATES	W	LEN	Y	X
A	TMV+p	MT20	2.0	4.0		
B	TMVW-1	MT20	4.0	4.0	1.75	1.75
C	TTW+m	MT20	3.0	4.0	2.00	1.25
D	TMVW-1	MT20	3.0	4.0		
E	TTW+m	MT20	3.0	4.0	2.00	1.25
F	TMVW-1	MT20	4.0	4.0	1.75	1.75
G	TMV+p	MT20	2.0	4.0		
I	BMVW-1	MT20	4.0	4.0	1.75	1.75
J	BSWW-1	MT20	6.0	6.0	Edge	3.00
K	BMVW-1	MT20	3.0	6.0		
L	BMVW-1	MT20	4.0	4.0	1.75	1.75

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

A SIZE FOR SIZE SUBSTITUTION OF MITK MI20 WITH TEE-LOK TL20 PLATES IS ALLOWED.

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

BEARINGS	FACTORED		MAXIMUM FACTORED		INPUT	REQRD
	GROSS REACTION	DOWN	GROSS REACTION	DOWN		
JT	VERT	HORZ	VERT	HORZ	BRG	BRG
L	1123	0	1123	0	0	MECHANICAL
I	1229	0	1229	0	5-8	1-8

A SUITABLE MECHANICAL CONNECTION IS REQUIRED AT JOINT L TO RESIST THE MAX FACTORED REACTIONS.

UNFACTORED REACTIONS

1ST LCASE	MAX/MIN. COMPONENT REACTIONS						
JT	COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
L	788	551 / 0	0 / 0	0 / 0	0 / 0	237 / 0	0 / 0
I	860	615 / 0	0 / 0	0 / 0	0 / 0	245 / 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 = 5.76 FT.
MAX. UNBRACED BOTTOM CHORD LENGTH = 10.00 FT OR RIGID CEILING DIRECTLY APPLIED.

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

LOADING

TOTAL LOAD CASES: (4)

CHORDS				WEBS			
MEMB.	MAX. FACTORED	FACTORED	MAX. FACTORED	MEMB.	MAX. FACTORED	FACTORED	MAX. FACTORED
	(LBS)	(PLF)	CSI (LC)		(LBS)	(PLF)	CSI (LC)
FR-TO		FROM	TO	FR-TO		FROM	TO
A-B	0 / 19	-77.4	-77.4 0.18 (1)	10.00	B-K	-83 / 30	0.04 (1)
B-C	-1155 / 0	-77.4	-77.4 0.18 (1)	5.76	K-C	0 / 392	0.09 (1)
C-D	-950 / 0	-77.4	-77.4 0.18 (1)	6.19	D-J	-218 / 0	0.24 (1)
D-E	-950 / 0	-77.4	-77.4 0.18 (1)	6.19	D-J	-218 / 0	0.24 (1)
E-F	-1156 / 0	-77.4	-77.4 0.18 (1)	5.76	J-E	0 / 392	0.09 (1)
F-G	0 / 19	-77.4	-77.4 0.18 (1)	10.00	J-F	-83 / 30	0.04 (1)
G-H	0 / 29	-77.4	-77.4 0.10 (1)	10.00	L-B	-1382 / 0	0.65 (1)
L-A	-118 / 0	0.0	0.0 0.01 (1)	7.81	F-I	-1382 / 0	0.65 (1)
I-G	-224 / 0	0.0	0.0 0.02 (1)	7.81			
L-K	0 / 1005	-17.5	-17.5 0.32 (4)	10.00			
K-J	0 / 1064	-17.5	-17.5 0.33 (4)	10.00			
J-I	0 / 1005	-17.5	-17.5 0.32 (4)	10.00			

DESIGN CRITERIA

SPECIFIED LOADS:

TOP CH.	LL = 23.3	PSF
	DL = 3.0	PSF
BOT CH.	LL = 0.0	PSF
	DL = 7.0	PSF
TOTAL LOAD	= 33.3	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 2010

THIS DESIGN COMPLIES WITH:

- PART 9 OF OBC 2012, CBC 2012, ABC 2014
- CSA 086-09
- TPIC 2011

(55 % OF 27.2 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 23.3 P.S.F. SPECIFIED ROOF LIVE LOAD

ALLOWABLE DEFL. (LL) = $L/360$ (0.79")
CALCULATED VERT. DEFL. (LL) = $L/999$ (0.04")
ALLOWABLE DEFL. (TL) = $L/360$ (0.79")
CALCULATED VERT. DEFL. (TL) = $L/999$ (0.13")

CSI: TC=0.18/1.00 (F-G:1), BC=0.33/1.00 (J-K:4),
WB=0.65/1.00 (F-I:1), SSI=0.15/1.00 (C-D: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 = 0.50

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

NAIL VALUES

PLATE	GRIP(DRY)	SHEAR	SECTION
(PSI)	(PLI)	(PLI)	(PLI)
MT20	618	354	1667 822 2284 1656

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

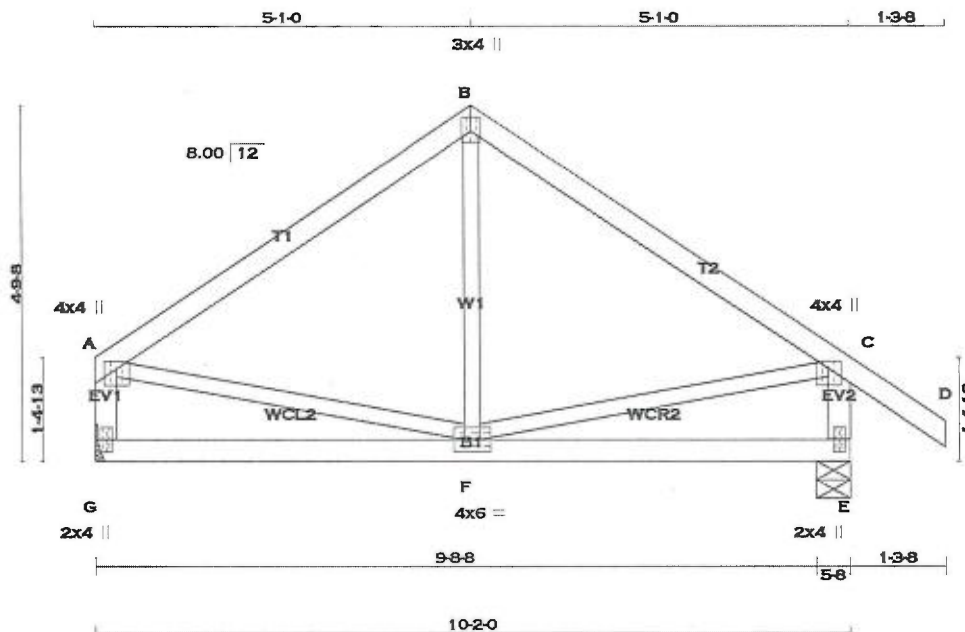
JSI GRIP= 0.89 (J) (INPUT = 0.90)
JSI METAL= 0.50 (B) (INPUT = 1.00)



September 17, 2018



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.



SCALE = 1:29.7

TOTAL WEIGHT = 2 X 41 = 82 lb [M][F]

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

DRY: SEASONED LUMBER.

PLATES (table is in inches)

JT	TYPE	PLATES	W	LEN	Y	X
A	TMVW+p	MT20	4.0	4.0	1.25	2.00
B	TTW+p	MT20	3.0	4.0	2.25	1.50
C	TMVW+p	MT20	4.0	4.0	1.25	2.00
E	BMV1+p	MT20	2.0	4.0		
F	BMVWW-l	MT20	4.0	6.0		
G	BMV1+p	MT20	2.0	4.0		

A SIZE FOR SIZE SUBSTITUTION OF MITEK M1120 WITH TEE-LOK TL20 PLATES IS ALLOWED.

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

BEARINGS	FACTORED	MAXIMUM FACTORED	INPUT	REQD
	GROSS REACTION	GROSS REACTION	BRG	BRG
JT	VERT	HORZ	UP	IN-SX
G	482	0	482	0
E	588	0	588	0

A SUITABLE MECHANICAL CONNECTION IS REQUIRED AT JOINT G TO RESIST THE MAX FACTORED REACTIONS.

UNFACTORED REACTIONS

JT	1ST LCASE	MAX	MIN	COMPONENT REACTIONS
	COMBINED	SNOW	LIVE	PERM.LIVE
G	338	237 / 0	0 / 0	0 / 0
E	411	301 / 0	0 / 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	MAX. FACTORED	FACTORED	WEBS	MAX. FACTORED
MEMB.	FORCE	VERT. LOAD LC1 MAX	MEMB.	FORCE
	(LBS)	(PLF)		(LBS)
FR-TO		FROM TO	FR-TO	
A-B	-343 / 0	-77.4 -77.4 0.26 (1)	F-B	-12 / 84
B-C	-343 / 0	-77.4 -77.4 0.26 (1)	A-F	0 / 292
C-D	0 / 29	-77.4 -77.4 0.10 (1)	F-C	0 / 292
G-A	-448 / 0	0.0 0.0 0.05 (1)		
E-C	-554 / 0	0.0 0.0 0.06 (1)		
G-F	0 / 0	-17.5 -17.5 0.13 (4)		
F-E	0 / 0	-17.5 -17.5 0.13 (4)		

DESIGN CRITERIA

SPECIFIED LOADS:

TOP CH.	LL = 23.3	PSF
DL = 3.0	PSF	
BOT CH.	LL = 0.0	PSF
DL = 7.0	PSF	
TOTAL LOAD	= 33.3	PSF

SPACING = 24.0 IN. C/C

THIS TRUSS IS DESIGNED FOR RESIDENTIAL OR SMALL BUILDING REQUIREMENTS OF PART 9, NBCC 2010

THIS DESIGN COMPLIES WITH:

- PART 9 OF OBC 2012, BCBC 2012, ABC 2014
- CSA 086-09
- TPIC 2011

(55% OF 27.2 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 23.3 P.S.F. SPECIFIED ROOF LIVE LOAD

ALLOWABLE DEFL.(LL) = $L/360$ (0.34")
CALCULATED VERT. DEFL.(LL) = $L/999$ (0.00")
ALLOWABLE DEFL.(TL) = $L/360$ (0.34")
CALCULATED VERT. DEFL.(TL) = $L/999$ (0.02")

CSI: $TC=0.26/1.00$ (A-B:1), $BC=0.13/1.00$ (F-G:4)
 $WB=0.07/1.00$ (C-F:1), $SSI=0.13/1.00$ (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 = 0.50

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
MT20	618	354	1667
	822	2284	1656

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

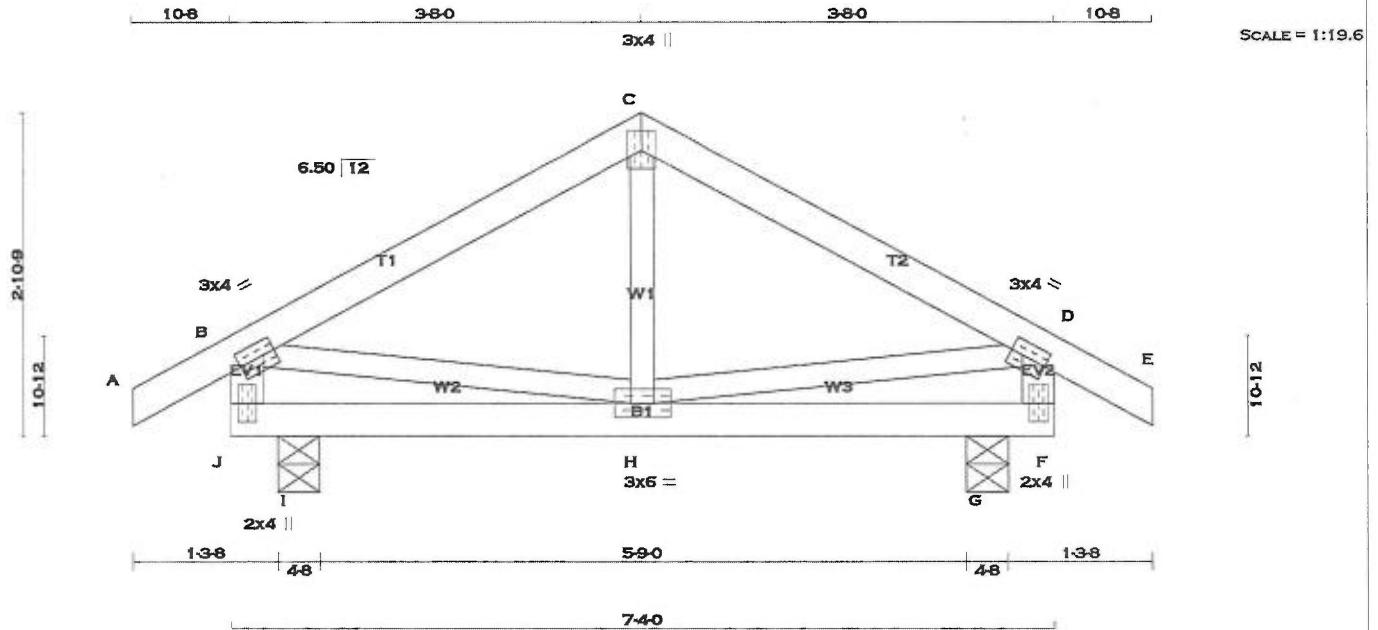
JSI GRIP= 0.42 (C) (INPUT = 0.90)
JSI METAL= 0.12 (C) (INPUT = 1.00)



September 17, 2018



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



TOTAL WEIGHT = 2 X 29 = 57 lb [M]

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

DRY: SEASONED LUMBER.

PLATES (table is in inches)

JT	TYPE	PLATES	W	LEN	Y	X
B	TMVW-t	MT20	3.0	4.0	1.50	1.25
C	TTW+p	MT20	3.0	4.0		
D	TMVW-t	MT20	3.0	4.0	1.50	1.25
F	BMV+p	MT20	2.0	4.0		
H	BMVWV-t	MT20	3.0	4.0		
J	BMV+p	MT20	2.0	4.0		

A SIZE FOR SIZE SUBSTITUTION OF MITEK MII20 WITH TEE-LOK TL20 PLATES IS ALLOWED.

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

BEARINGS		FACTORED		MAXIMUM FACTORED		INPUT		REQD	
		GROSS REACTION		GROSS REACTION		BRG		BRG	
JT	VERT	HORZ	DOWN	HORZ	UPLIFT	IN-SX	IN-SX		
I	421	0	421	0	0	4-8	1-8		
G	421	0	421	0	0	4-8	1-8		

UNFACTORED REACTIONS

JT	COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
I	294	215/0	0/0	0/0	0/0	79/0	0/0
G	294	215/0	0/0	0/0	0/0	79/0	0/0

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

BRACING

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

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

LOADING

TOTAL LOAD CASES: (4)

CHORDS		FACTORED		WEBS		FACTORED	
MEMB.	FORCE	VERT. LOAD	LC1 MAX	MEMB.	FORCE	MAX	
	(LBS)	(PLF)	CSI (LC)		(LBS)	CSI (LC)	
FR-TO		FROM	TO	FR-TO			
A-B	0/17	-77.4	-77.4 0.05 (1)	10.00	H-C	-125/27	0.02 (1)
B-C	-159/0	-77.4	-77.4 0.13 (1)	6.25	B-H	0/262	0.06 (1)
C-D	-159/0	-77.4	-77.4 0.13 (1)	6.25	H-D	0/262	0.06 (1)
D-E	0/17	-77.4	-77.4 0.05 (1)	10.00			
J-B	-335/0	0.0	0.0 0.14 (1)	7.81			
F-D	-335/0	0.0	0.0 0.14 (1)	7.81			
J-I	-120/0	-17.5	-17.5 0.14 (1)	6.25			
I-H	-120/0	-17.5	-17.5 0.14 (1)	6.25			
H-G	-120/0	-17.5	-17.5 0.14 (1)	6.25			
G-F	-120/0	-17.5	-17.5 0.14 (1)	6.25			

DESIGN CRITERIA

SPECIFIED LOADS:
 TOP CH. LL = 23.3 PSF
 DL = 3.0 PSF
 BOT CH. LL = 0.0 PSF
 DL = 7.0 PSF
 TOTAL LOAD = 33.3 PSF

SPACING = 24.0 IN. C/C

THIS TRUSS IS DESIGNED FOR RESIDENTIAL OR SMALL BUILDING REQUIREMENTS OF PART 9, NBCC 2010

THIS DESIGN COMPLIES WITH:
 - PART 9 OF OBC 2012, BCBC 2012, ABC 2014
 - CSA 086-09
 - TPIC 2011

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

(55% OF 27.2 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 23.3 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 (0.01")

CANTILEVER DEFLECTION:
 ALLOWABLE DEFL.(LL) = L/120 (0.19")
 CALCULATED VERT. DEFL.(LL) = L/999 (0.00")
 ALLOWABLE DEFL.(TL) = L/120 (0.19")
 CALCULATED VERT. DEFL.(TL) = L/999 (0.01")

CSI: TC=0.14/1.00 (D-F:1), BC=0.14/1.00 (F-G:1), WB=0.06/1.00 (B-H:1), SSI=0.27/1.00 (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 = 0.50

AUTOSOLVE HEELS OFF

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 618 354 1667 822 2284 1656

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

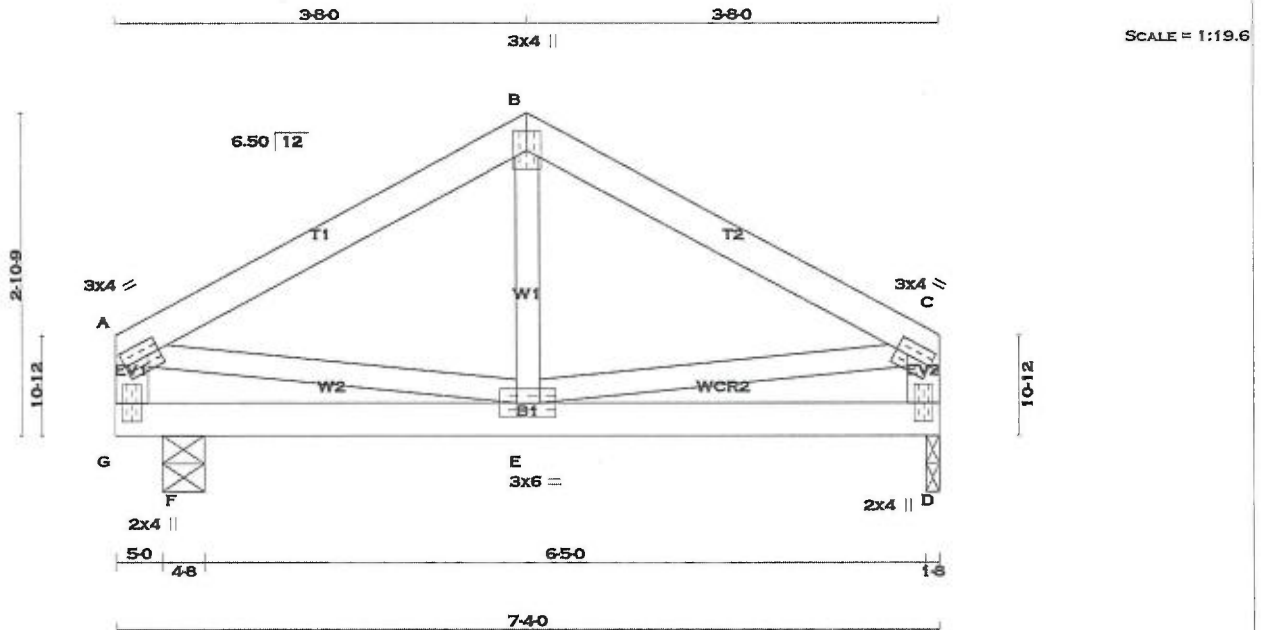
JSI GRIP= 0.62 (B) (INPUT = 0.90)
 JSI METAL= 0.10 (D) (INPUT = 1.00)



September 17, 2018



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



TOTAL WEIGHT = 2 X 26 = 53 lb [M]

LUMBER	N. L. G. A. RULES	CHORDS	SIZE	LUMBER	DESCR.
A - B	2x4	DRY	No.2	SPF	
B - C	2x4	DRY	No.2	SPF	
G - A	2x4	DRY	No.2	SPF	
D - C	2x4	DRY	No.2	SPF	
G - 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	Y	X
A	TMVW-t	MT20	3.0	4.0	1.50	1.25
B	TTW+p	MT20	3.0	4.0		
C	TMVW-t	MT20	3.0	4.0	1.50	1.25
D	BMV1+p	MT20	2.0	4.0		
E	BMVWW-t	MT20	3.0	6.0		
G	BMV+p	MT20	2.0	4.0		

A SIZE FOR SIZE SUBSTITUTION OF MI TEK MII20 WITH TEE-LOK TL20 PLATES IS ALLOWED.

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

BEARINGS		FACTORED		MAXIMUM FACTORED		INPUT		REQRD	
JT	GROSS REACTION	VERT	HORZ	DOWN	HORZ	BRG	IN-SX	BRG	IN-SX
D	317	0	317	0	0	1-8	1-8		
F	379	0	379	0	0	4-8	1-8		

UNFACTORED REACTIONS

JT	COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
D	222	155 / 0	0 / 0	0 / 0	0 / 0	67 / 0	0 / 0
F	266	186 / 0	0 / 0	0 / 0	0 / 0	80 / 0	0 / 0

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

BRACING

TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 6.25 FT.
 MAX. UNBRACED BOTTOM CHORD LENGTH = 6.25 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	FACTORED	VERT. LOAD LC1	MAX. FACTORED	MEMB.	MAX. FACTORED	VERT. LOAD LC1
FR-TO	FORCE (LBS)	(PLF)	CSI (LC)	UNBRAC LENGTH	FR-TO	FORCE (LBS)	CSI (LC)
A-B	-263 / 0	-77.4	-77.4 0.12 (1)	6.25	E-B	-38 / 44	0.02 (4)
B-C	-262 / 0	-77.4	-77.4 0.12 (1)	6.25	E-C	0 / 49	0.01 (1)
G-A	-308 / 0	0.0	0.0 0.14 (1)	7.81	A-E	0 / 270	0.06 (1)
D-C	-272 / 0	0.0	0.0 0.10 (1)	7.81			
G-F	-35 / 0	-17.5	-17.5 0.14 (1)	6.25			
F-E	-35 / 0	-17.5	-17.5 0.12 (1)	6.25			
E-D	0 / 183	-17.5	-17.5 0.07 (1)	10.00			

DESIGN CRITERIA

SPECIFIED LOADS:
 TOP CH. LL = 23.3 PSF
 DL = 3.0 PSF
 BOT CH. LL = 0.0 PSF
 DL = 7.0 PSF
 TOTAL LOAD = 33.3 PSF

SPACING = 24.0 IN. C/C

THIS TRUSS IS DESIGNED FOR RESIDENTIAL OR SMALL BUILDING REQUIREMENTS OF PART 9, NBCC 2010

THIS DESIGN COMPLIES WITH:
 - PART 9 OF OBC 2012, BCBC 2012, ABC 2014
 - CSA 086-09
 - TPIC 2011

(55% OF 27.2 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 23.3 P.S.F. SPECIFIED ROOF LIVE LOAD

ALLOWABLE DEFL.(LL) = L/360 (0.22")
 CALCULATED VERT. DEFL.(LL) = L/999 (0.01")
 ALLOWABLE DEFL.(TL) = L/360 (0.22")
 CALCULATED VERT. DEFL.(TL) = L/999 (0.01")

CANTILEVER DEFLECTION:
 ALLOWABLE DEFL.(LL) = L/120 (0.19")
 CALCULATED VERT. DEFL.(LL) = L/999 (0.00")
 ALLOWABLE DEFL.(TL) = L/120 (0.19")
 CALCULATED VERT. DEFL.(TL) = L/999 (0.01")

CSI: TC=0.14/1.00 (A-G:1), BC=0.14/1.00 (F-G:1), WB=0.06/1.00 (A-E:1), SSI=0.25/1.00 (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 = 0.50

AUTOSOLVE RIGHT HEEL ONLY

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	618	354	1667
	822	2284	1656

PLATE PLACEMENT TOL = 0.250 inches

PLATE ROTATION TOL = 5.0 Deg.

JSI GRIP= 0.64 (A) (INPUT = 0.90)
 JSI METAL= 0.12 (C) (INPUT = 1.00)



September 17, 2018



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.

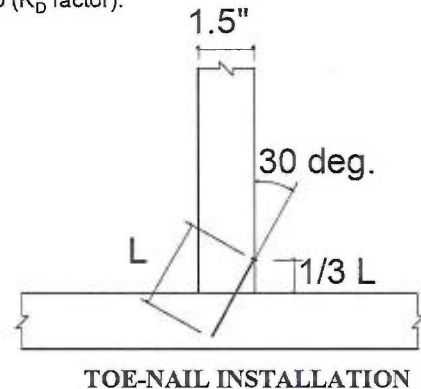
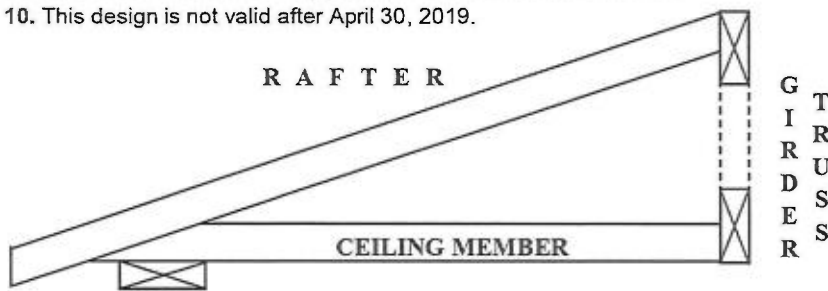
BEARING ANCHORAGE BY TOE-NAILS FOR LATERAL CAPACITY

B37579H1

NAIL TYPE	LENGTH (IN)	DIAMETER (IN)	NAIL LATERAL CAPACITY (LB)	
			S-P-F	D. FIR
COMMON WIRE	3.00	0.144	132	147
	3.25	0.144	132	147
	3.50	0.160	159	177

NOTES:

1. Rafter and ceiling members may be anchored to top and bottom chords of girder truss by toe-nailing rafter and ceiling members to girder chords provided the reaction does not exceed the lateral capacities in the table. Hangers (specified by others) are required for reactions higher than the maximum toe-nail capacity. Reactions are based on factored loads.
2. Toe nail capacities shown in the table are for one toe-nail. For additional toe-nails multiply values in table by the number of toe-nails used. Toe-nail capacities take into account toe-nailing factor J_A in CSA O86-09, section 10.9.4.1.
3. For 9- 3/4 gauge 3.25" common wire gun nails (diameter = 0.120") use 3" common spiral nail values.
4. Maximum number of toe-nails allowed depends on the lumber size & species to be toe-nailed to supporting member and nail diameter, as shown in tables below.
5. Nail values in table are based on the following relative lumber densities: G = 0.42 (SPF), G = 0.49 (D. Fir).
6. 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 (See next page for nailing on bearing plate).
7. For loads due to wind the nail lateral capacity in this table may be multiplied by 1.15 (K_D factor).
8. Lumber must be dry (< 19% moisture content) at the time of nail installation.
9. Nail values in this table comply with CSA O86-09, section 10.9.4
10. This design is not valid after April 30, 2019.



Nail type	Common wire	Common spiral	Common wire
Nail dia. (in)	0.160	0.152	0.144
	(3.5" nail)		(3" and 3.25" nail)
LUMBER SIZE	MAXIMUM NUMBER OF TOE-NAILS		
2X4 SPF	2	2	3
2X4 D. Fir	2	2	2
2X6 SPF	4	4	4
2X6 D. Fir	3	3	3



MiTek Canada Inc
100 Industrial Rd.
Bradford, Ontario L3Z 3G7

PEO
Certificate No. 10889485



April 26, 2017

BEARING ANCHORAGE BY TOE-NAILS FOR WIND LOADING

B37579H2

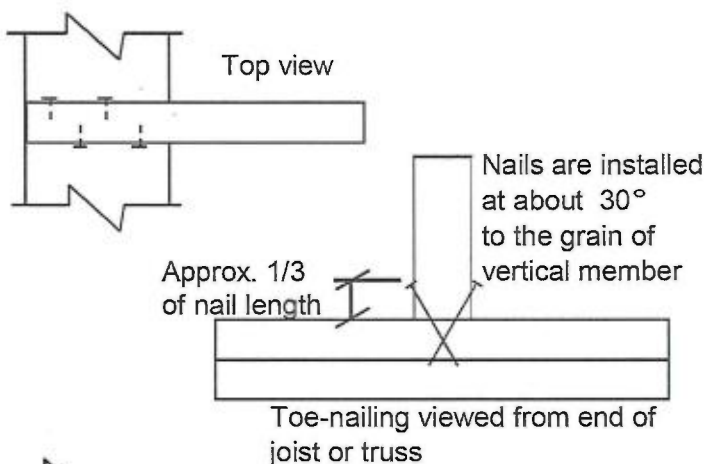
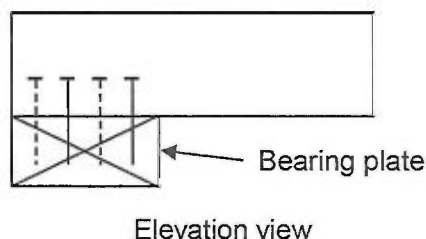
NAIL TYPE	LENGTH (IN)	DIAMETER (IN)	NAIL WITHDRAWAL CAPACITY (LB)	
			S-P-F	D. FIR
COMMON WIRE	3.00	0.144	30	42
	3.25	0.144	32	45
	3.50	0.160	38	52

Note: If using truss with D. Fir lumber and S-P-F bearing plate, use values in table for S-P-F.

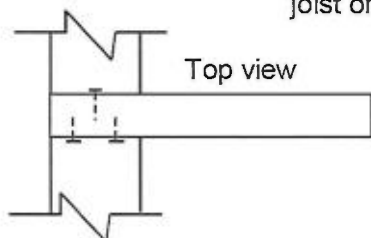
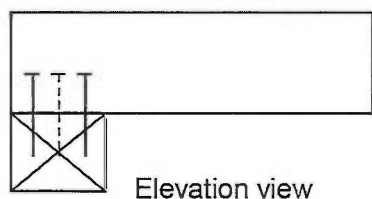
NOTES:

1. Truss chord, rafter, or ceiling members may be anchored to bearing plate by toe-nails, provided that the actual factored uplift force due to **wind or earthquake** load does not exceed the withdrawal capacities in the table. Hangers (specified by others) are required for uplift forces that are higher than the maximum toe-nail withdrawal capacity.
2. Toe nail capacities shown in the table are for **one** toe-nail. For additional toe-nails multiply values in table by the number of toe-nails used. Toe-nail capacities take into account toe-nailing factor J_A in CSA O86-09, section 10.9.5.2.
3. For 9- 3/4 gauge 3.25" common wire gun nails (diameter = 0.120") use 3" common spiral nail values.
4. Maximum number of toe-nails allowed depends on the lumber size & species to be toe-nailed to supporting member and nail diameter, as shown in table above.
5. Nail values in table are based on the following relative lumber densities: $G = 0.42$ (SPF), $G = 0.49$ (D. Fir).
6. 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 (See drawing on detail B37579H1).
7. Lumber must be dry (< 19% moisture content) at the time of nail installation.
8. Nail values in this table comply with CSA O86-09, section 10.9.5
9. This design is not valid after April 30, 2019

Toe-nailing on 2x6 Bearing Plate



Toe-nailing on 2x4 Bearing Plate



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100 Industrial Rd.
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April 26, 2017