

For conventional wood framing
framing shall conform to OBC.9.23

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



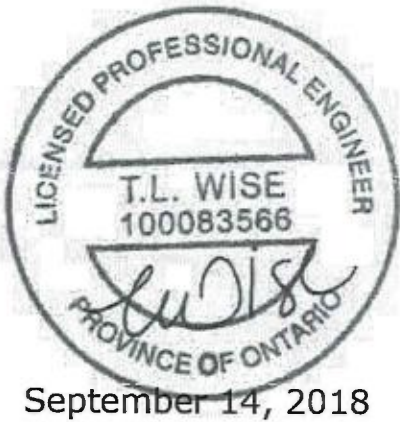
TR - GREENPARK - MINNISALE HOMES - MILLWOOD 2 ELE 3

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TW0918-069

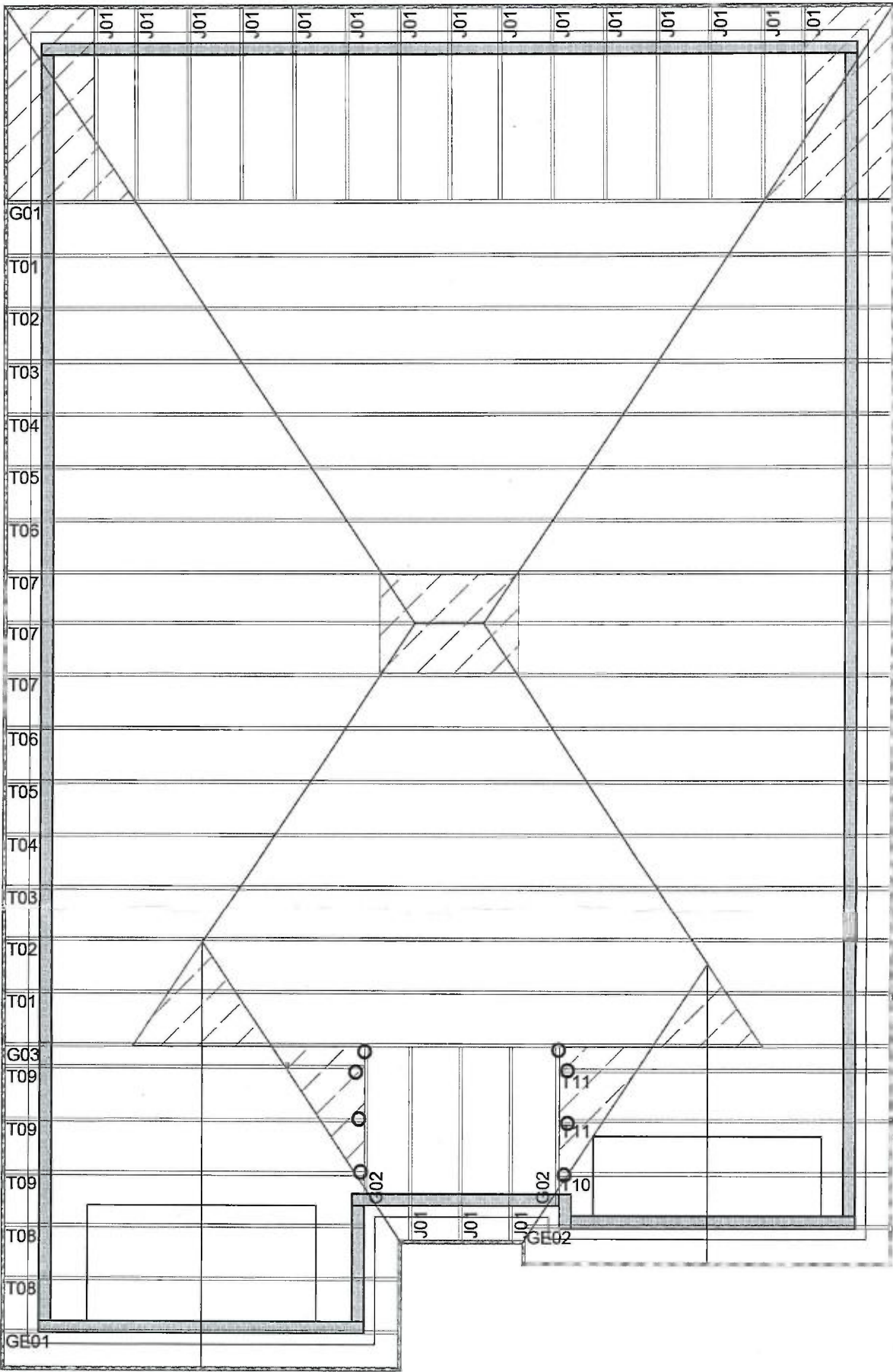


Layout based on plans provided by
JARDIN DESIGN GROUP INC
Dated April 26/18

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 14, 2018



FLAT ROOF BELOW
BY OTHERS

ROOF TRUSS LAYOUT

LOT 28



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 2 EL 3
Customer:	GREENPARK
Project:	MINNISALE HOMES
Location:	BRAMPTON
Drawn By:	DM
Date:	7/27/2018

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'

LOT 28

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.

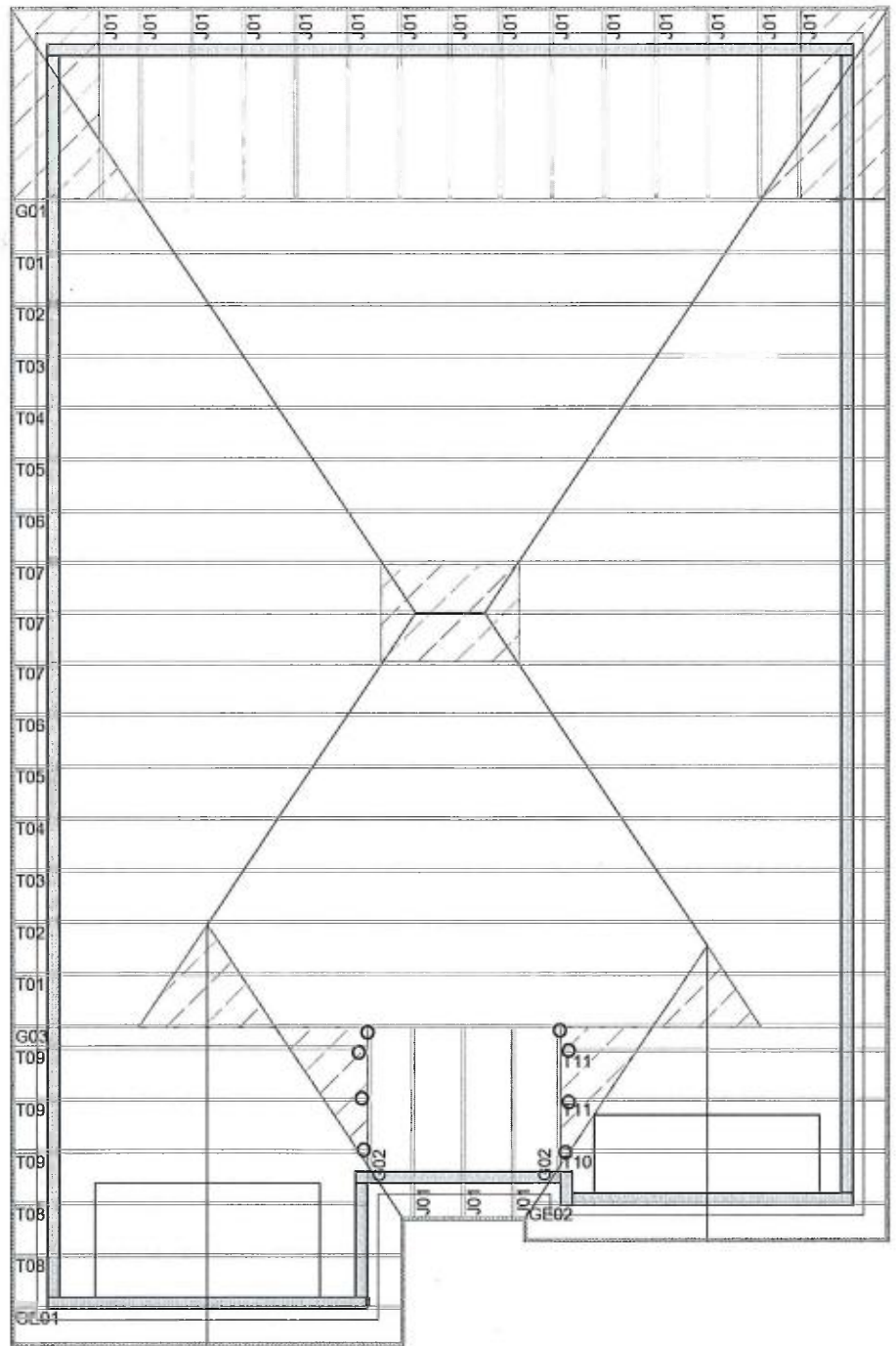


Layout based on plans provided by
JARDIN DESIGN GROUP INC
Dated April 26/18

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 14, 2018



FLAT ROOF BELOW
BY OTHERS

ROOF TRUSS LAYOUT



**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, TPC 2011

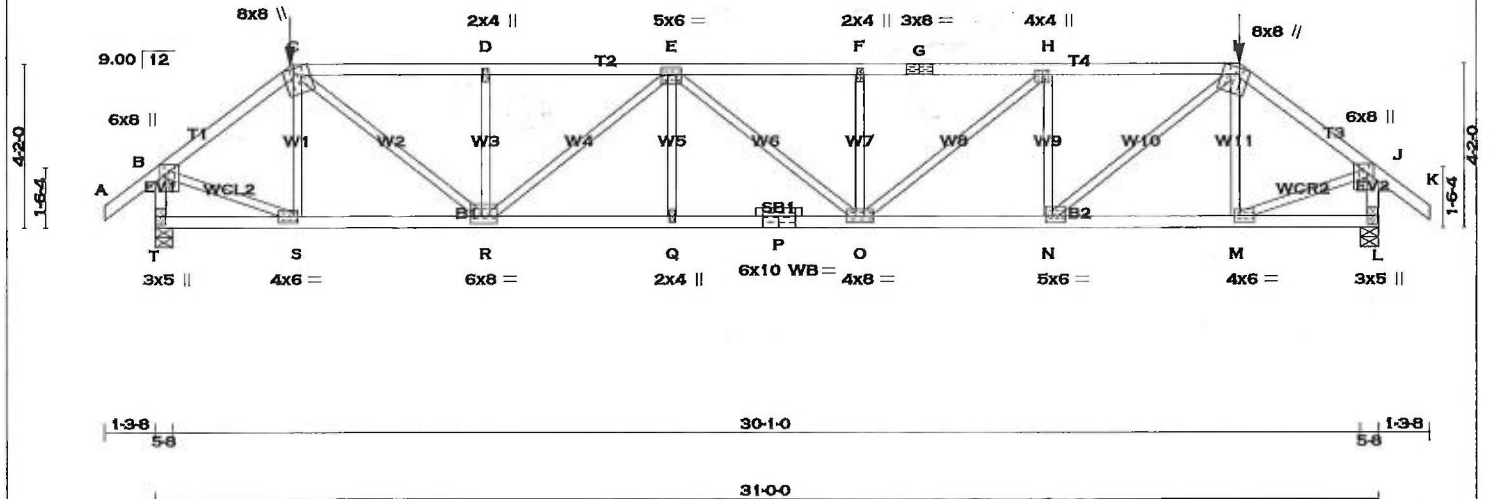
ALLOWABLE DEFLECTION OF EACH COMPONENT = L/360

Model:	MILLWOOD 2 EL 3
Customer:	GREENPARK
Project:	MINNISALE HOMES
Location:	BRAMPTON
Drawn By:	DM
Date:	7/27/2018

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'

1-3-8 3-6-5 23-11-5 3-6-5 1-3-8 SCALE = 1:55.9



TOTAL WEIGHT = 127 lb

LUMBER			
N. L. G. A. RULES			
CHORDS	SIZE	LUMBER	DESCR.
A - C	2x4	DRY	No.2
C - G	2x4	DRY	2100F 1.8E
G - I	2x4	DRY	2100F 1.8E
I - K	2x4	DRY	No.2
T - B	2x4	DRY	No.2
L - J	2x4	DRY	No.2
T - P	2x4	DRY	2100F 1.8E
P - L	2x4	DRY	2100F 1.8E

ALL WEBS 2x3 DRY No.2 SPF
EXCEPT

DRY: SEASONED LUMBER.

PLATES (table is in inches)

JT	TYPE	PLATES	W	LEN	Y	X
B	TMVW+p	MT20	6.0	8.0	2.75	2.00
C	TTWW+m	MT20	8.0	8.0	Edge	3.00
D	TMW+w	MT20	2.0	4.0		
E	TMWWW-t	MT20	5.0	6.0	2.25	2.00
F	TMW+w	MT20	2.0	4.0		
G	TS-t	MT20	3.0	8.0		
H	TMWW+t	MT20	4.0	4.0	1.50	1.50
I	TTWW+m	MT20	8.0	8.0	Edge	3.00
J	TMVW+p	MT20	6.0	8.0	2.75	2.00
L	BMV1+p	MT20	3.0	5.0		
M	BMWW-t	MT20	4.0	6.0	2.00	1.50
N	BMWW-t	MT20	5.0	6.0	2.00	2.00
O	BMWW-t	MT20	4.0	8.0		
P	BS-t	MT20	6.0	10.0		
Q	BMW+w	MT20	2.0	4.0		
R	BMWWW-t	MT20	6.0	8.0	2.25	3.50
S	BMWW-t	MT20	4.0	6.0	2.00	1.50
T	BMV1+p	MT20	3.0	5.0		

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

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

WB - INDICATES BLOCKING REQUIRED

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

BEARINGS

	FACTORED		MAXIMUM FACTORED		INPUT		REQRD	
	GROSS	REACTION	GROSS	REACTION	BRG		BRG	
JT	VERT	HORZ	DOWN	HORZ	UPLIFT	IN-SX	IN-SX	
T	2842	0	2842	0	0	5-8	4-13	
L	2842	0	2842	0	0	5-8	4-13	

UNFACTORED REACTIONS

	1ST LCASE		MAX/MIN. COMPONENT REACTIONS					
	COMBINED	SNOW	LIVE	PERM. LIVE	WIND	DEAD	SOIL	
JT	1993	1403 / 0	0 / 0	0 / 0	0 / 0	590 / 0	0 / 0	
L	1993	1403 / 0	0 / 0	0 / 0	0 / 0	590 / 0	0 / 0	

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

BRACING

TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 3.25 FT.
MAX. UNBRACED BOTTOM CHORD LENGTH = 10.00 FT OR RIGID CEILING DIRECTLY APPLIED.

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

LOADING

TOTAL LOAD CASES: (4)

CHORDS				WEBS			
MEMB.	MAX. FACTORED	FORCE		MEMB.	MAX. FACTORED	FORCE	
	(LBS)				(LBS)		
FR-TO		FROM	TO	FR-TO		FROM	TO
A-B	0 / 32	-77.4	-77.4 0.12 (1)	10.00	S-C	-612 / 0	0.17 (1)
B-C	-2956 / 0	-77.4	-77.4 0.33 (1)	3.74	C-R	0 / 2807	0.69 (1)
C-D	-4540 / 0	-145.9	-145.9 0.49 (1)	3.64	R-D	-766 / 0	0.21 (1)
D-E	-4540 / 0	-145.9	-145.9 0.48 (1)	3.64	R-E	-1318 / 0	0.88 (1)
E-F	-5556 / 0	-145.9	-145.9 0.47 (1)	3.38	Q-E	0 / 175	0.07 (4)
F-G	-5556 / 0	-145.9	-145.9 0.57 (1)	3.25	O-F	-7 / 0	0.00 (1)
G-H	-5556 / 0	-145.9	-145.9 0.57 (1)	3.25	O-F	-668 / 0	0.18 (1)
H-I	-4543 / 0	-145.9	-145.9 0.50 (1)	3.64	O-H	0 / 1307	0.32 (1)
I-J	-2956 / 0	-77.4	-77.4 0.33 (1)	3.74	N-H	-1597 / 0	0.44 (1)
J-K	0 / 32	-77.4	-77.4 0.12 (1)	10.00	N-I	0 / 2812	0.70 (1)
T-B	-2800 / 0	0.0	0.0 0.32 (1)	5.08	M-I	-614 / 0	0.17 (1)
L-J	-2799 / 0	0.0	0.0 0.32 (1)	5.08	B-S	0 / 2483	0.61 (1)
					M-J	0 / 2483	0.61 (1)
T-S	0 / 0	-33.0	-33.0 0.10 (4)	10.00			
S-R	0 / 2343	-33.0	-33.0 0.26 (1)	10.00			
R-Q	0 / 5561	-33.0	-33.0 0.52 (1)	10.00			
Q-P	0 / 5561	-33.0	-33.0 0.52 (1)	10.00			
P-O	0 / 5561	-33.0	-33.0 0.52 (1)	10.00			
O-N	0 / 4543	-33.0	-33.0 0.43 (1)	10.00			
N-M	0 / 2342	-33.0	-33.0 0.25 (1)	10.00			
M-L	0 / 0	-33.0	-33.0 0.10 (4)	10.00			

FACTORED CONCENTRATED LOADS (LBS)

JT	LOC.	LC1	MAX.	MAX+	FACE	DIR.	TYPE
C	3-6-5	-205	-205	---	FRONT	VERT	TOTAL
I	27-5-11	-205	-205	---	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: CPrimeHip
SIDE SETBACK = 3-6-5
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 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 (1.03")
CALCULATED VERT. DEFL.(LL) = L/999 (0.26")
ALLOWABLE DEFL.(TL) = L/360 (1.03")
CALCULATED VERT. DEFL.(TL) = L/799 (0.47")

CSI: TC=0.57/1.00 (F-H:1), BC=0.52/1.00 (Q-R:1), WB=0.88/1.00 (E-R:1), SSI=0.36/1.00 (H-I: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 (N) (INPUT = 0.90)
JSI METAL= 0.94 (P) (INPUT = 1.00)



September 14, 2018

JOB NAME:	TRUSS NAME	QUANTITY	PLY	JOB DESC	DRWG NO.	Page 4 of 23
TW0918-069	G01	1	1	TR - GREENPARK - MINNISALE HOMES - MILLWOOD 2 ELE 3		TW0918-069
Kott, Ottawa, Ontario, TW				TRUSS DESC.	Version 8.210 S Mar 12 2018 MiTek Industries, Inc. Fri Sep 14 10:22:05 2018 Page 2	

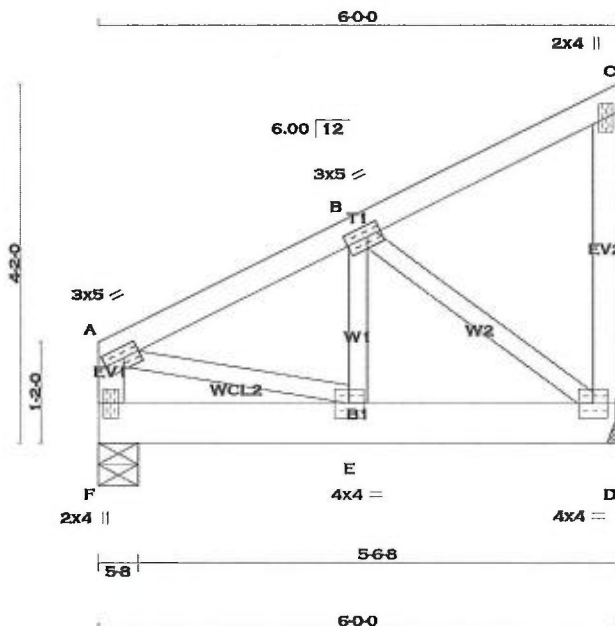
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HANGERS NOTES

- 1) SPECIAL HANGER(S) OR CONNECTION(S) REQUIRED TO SUPPORT CONCENTRATED LOAD(S) 204.6 lbs FACTORED DOWN AT 27-5-11, AND 204.6 lbs FACTORED DOWN AT 3-6-5 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.



SCALE = 1:25.5

TOTAL WEIGHT = 2 X 29 = 59 lb

LUMBER

N. L. G. A. RULES	CHORDS	SIZE	LUMBER	DESCR.
A - C	2x4	DRY	No.2	SPF
D - C	2x4	DRY	No.2	SPF
F - A	2x4	DRY	No.2	SPF
F - D	2x6	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	5.0	1.50	2.25
B	TMWW-t	MT20	3.0	5.0	1.50	2.00
C	TMV+p	MT20	2.0	4.0		
D	BMVW1-t	MT20	4.0	4.0		
E	BMVW-t	MT20	4.0	4.0		
F	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 UPLIFT		
D	987	0	987	0	0	MECHANICAL
F	987	0	987	0	5-8	1-11

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

UNFACTORED REACTIONS

1ST LCASE		MAX./MIN. COMPONENT REACTIONS					
JT	COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
D	693	485/0	0/0	0/0	0/0	208/0	0/0
F	693	485/0	0/0	0/0	0/0	208/0	0/0

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

BRACING

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

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

LOADING

TOTAL LOAD CASES: (4)

MEMB.	CHORDS			WEBS		
	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	-839 / 0	-77.4	-77.4 0.12 (1)	E-B	0 / 677	0.17 (1)
B-C	-10 / 0	-77.4	-77.4 0.10 (1)	B-D	-953 / 0	0.23 (1)
D-C	-93 / 0	0.0	0.0 0.02 (1)	A-E	0 / 784	0.19 (1)
F-A	-669 / 0	0.0	0.0 0.07 (1)			
F-E	0 / 0	-251.7	-251.7 0.15 (1)			
E-D	0 / 759	-251.7	-251.7 0.25 (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

GIRDER TYPE: CSldGirder
START DISTANCE = 0-0
START SPAN CARRIED = 12-4-0
END DISTANCE = 6-0-0
END SPAN CARRIED = 12-4-0
END WALL WIDTH = 5-8
APPLIED TO BACK SIDE OF BOTTOM CHORD.
- ADDT'L 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 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 (0.20")
CALCULATED VERT. DEFL.(LL) = L/ 999 (0.01")
ALLOWABLE DEFL.(TL)= L/360 (0.20")
CALCULATED VERT. DEFL.(TL) = L/ 999 (0.02")

CSI: TC=0.12/1.00 (A-B:1), BC=0.25/1.00 (D-E:1), WB=0.23/1.00 (B-D:1), SSI=0.29/1.00 (E-F:1)

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

COMPANION LIVE LOAD FACTOR = 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.

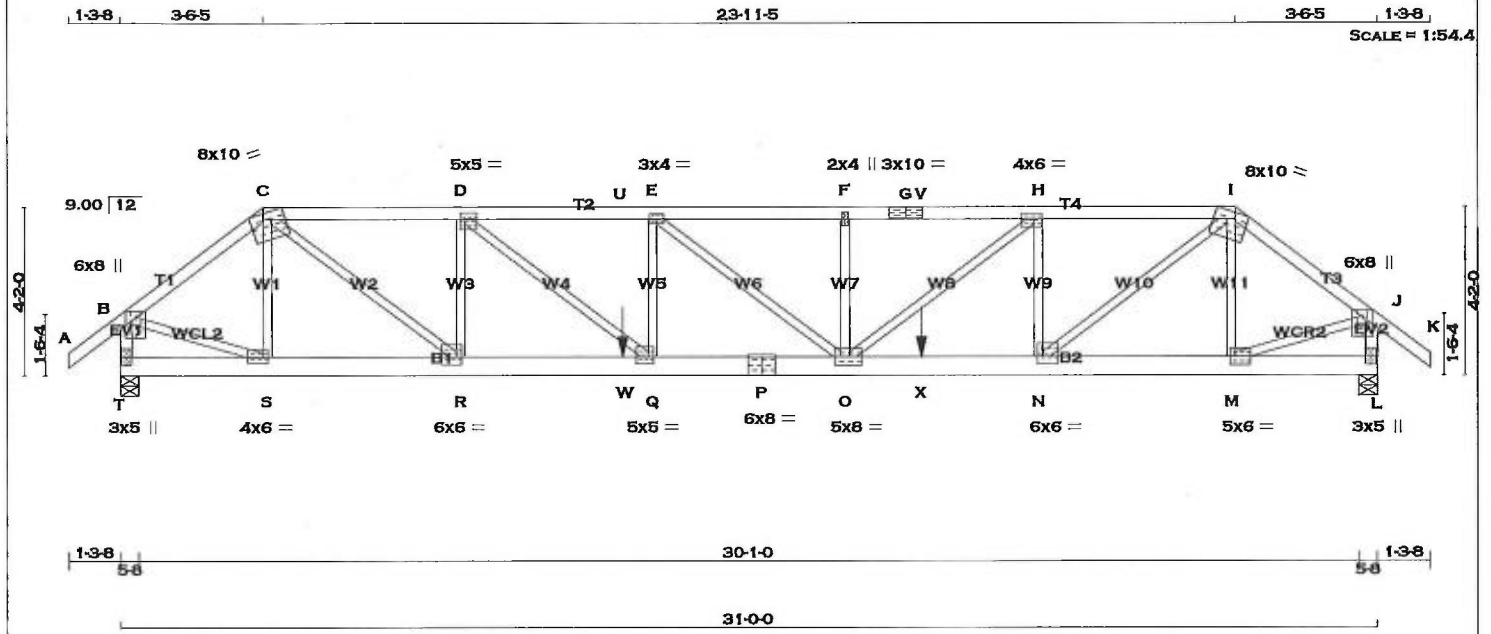
JSI GRIP= 0.88 (B) (INPUT = 0.90)
JSI METAL= 0.28 (D) (INPUT = 1.00)



September 14, 2018



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

A - C	2x4	DRY	No.2	SPF
C - G	2x4	DRY	2100F 1.8E	SPF
G - I	2x4	DRY	2100F 1.8E	SPF
I - K	2x4	DRY	No.2	SPF
T - B	2x4	DRY	No.2	SPF
L - J	2x4	DRY	No.2	SPF
T - P	2x6	DRY	2100F 1.8E	SPF
P - L	2x6	DRY	2100F 1.8E	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+p	MT20	6.0	8.0	2.75	2.00
C	TTWW-m	MT20	8.0	10.0	Edge	4.00
D	TMWW-i	MT20	5.0	5.0	1.75	1.50
E	TMWW-i	MT20	3.0	4.0		
F	TMW+w	MT20	2.0	4.0		
G	TS-i	MT20	3.0	10.0		
H	TMWW-i	MT20	4.0	6.0	1.50	2.25
I	TTWW-m	MT20	8.0	10.0	Edge	4.00
J	TMVW+p	MT20	6.0	8.0	2.75	2.00
L	BMV1+p	MT20	3.0	5.0	2.50	
M	BMWW-i	MT20	5.0	6.0	2.50	1.50
N	BMWW-i	MT20	6.0	6.0	2.00	1.50
O	BMWW-i	MT20	5.0	8.0	2.50	1.75
P	BS-i	MT20	6.0	8.0		
Q	BMWW-i	MT20	5.0	5.0	2.00	1.50
R	BMWW-i	MT20	6.0	6.0	2.25	1.50
S	BMWW-i	MT20	4.0	6.0	1.75	1.50
T	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

JT	FACTORED GROSS REACTION		MAXIMUM FACTORED GROSS REACTION		INPUT BRG	REQRD BRG
	VERT	HORZ	DOWN	UPLIFT		
T	2825	0	2825	0	5-8	4-13
L	2920	0	2920	0	5-8	5-0

UNFACTORED REACTIONS

JT	1ST LCASE MAX/MIN. COMPONENT REACTIONS						
	COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
T	1986	1371 / 0	0 / 0	0 / 0	0 / 0	615 / 0	0 / 0
L	2053	1415 / 0	0 / 0	0 / 0	0 / 0	638 / 0	0 / 0

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

BRACING
 TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 2.92 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. UNBRACED LENGTH
	FORCE (LBS)	VERT. LOAD (LBS)	PLF	CSI (LC)			FORCE (LBS)	MAX. FACTORED (LBS)	
FR-TO						FR-TO			
A-B	0 / 32	-77.4	-77.4	0.12 (1)	10.00	S-C	-665 / 0	0.17 (1)	
B-C	-3025 / 0	-77.4	-77.4	0.34 (1)	3.69	C-R	0 / 3542	0.88 (1)	
C-D	-5191 / 0	-77.4	-77.4	0.35 (1)	3.61	R-D	-1923 / 0	0.50 (1)	
D-U	-7124 / 0	-77.4	-77.4	0.53 (1)	2.98	D-Q	0 / 2473	0.61 (1)	
U-E	-7124 / 0	-144.3	-144.3	0.53 (1)	2.98	Q-E	-607 / 0	0.16 (1)	
E-F	-7160 / 0	-144.3	-144.3	0.58 (1)	2.92	E-O	0 / 47	0.01 (1)	
F-G	-7160 / 0	-144.3	-144.3	0.58 (1)	2.94	O-F	-641 / 0	0.17 (1)	
G-V	-7160 / 0	-144.3	-144.3	0.58 (1)	2.94	F-H	0 / 2190	0.54 (1)	
V-H	-7160 / 0	-77.4	-77.4	0.58 (1)	2.94	H-N	-1765 / 0	0.46 (1)	
H-I	-5449 / 0	-77.4	-77.4	0.37 (1)	3.53	N-I	0 / 3773	0.93 (1)	
I-J	-3123 / 0	-77.4	-77.4	0.35 (1)	3.63	M-I	-747 / 0	0.19 (1)	
J-K	0 / 32	-77.4	-77.4	0.12 (1)	10.00	B-S	0 / 2524	0.62 (1)	
T-B	-2803 / 0	0.0	0.0	0.32 (1)	5.08	M-J	0 / 2606	0.64 (1)	
L-J	-2886 / 0	0.0	0.0	0.33 (1)	5.00				
T-S	0 / 0	-17.5	-17.5	0.02 (4)	10.00				
S-R	0 / 2395	-17.5	-17.5	0.16 (1)	10.00				
R-W	0 / 5191	-17.5	-17.5	0.50 (1)	10.00				
W-Q	0 / 5191	-33.8	-33.8	0.50 (1)	10.00				
Q-P	0 / 7124	-33.8	-33.8	0.45 (1)	10.00				
P-O	0 / 7124	-33.8	-33.8	0.45 (1)	10.00				
O-X	0 / 5449	-33.8	-33.8	0.67 (1)	10.00				
X-N	0 / 5449	-17.5	-17.5	0.67 (1)	10.00				
N-M	0 / 2471	-17.5	-17.5	0.23 (1)	10.00				
M-L	0 / 0	-17.5	-17.5	0.01 (4)	10.00				

FACTORED CONCENTRATED LOADS (LBS)

JT	LOC.	LC1	MAX.	MAX+	FACE	DIR.	TYPE
W	12-4-12	-987	-987	--	FRONT	VERT	TOTAL
X	19-9-0	-987	-987	--	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

*** 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 (1.03")
 CALCULATED VERT. DEFL.(LL)= L/999 (0.30")
 ALLOWABLE DEFL.(TL)= L/360 (1.03")
 CALCULATED VERT. DEFL.(TL)= L/687 (0.54")

CSI: TC=0.58/1.00 (E-F:1), BC=0.67/1.00 (N-O:1), WB=0.93/1.00 (I-N:1), SSI=0.59/1.00 (Q-R: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 (PSI)	SECTION (PLI)
MT20	618	354	1667 822 2284 1656

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.89 (N) (INPUT = 0.90)
 JSI METAL= 0.89 (P) (INPUT = 1.00)



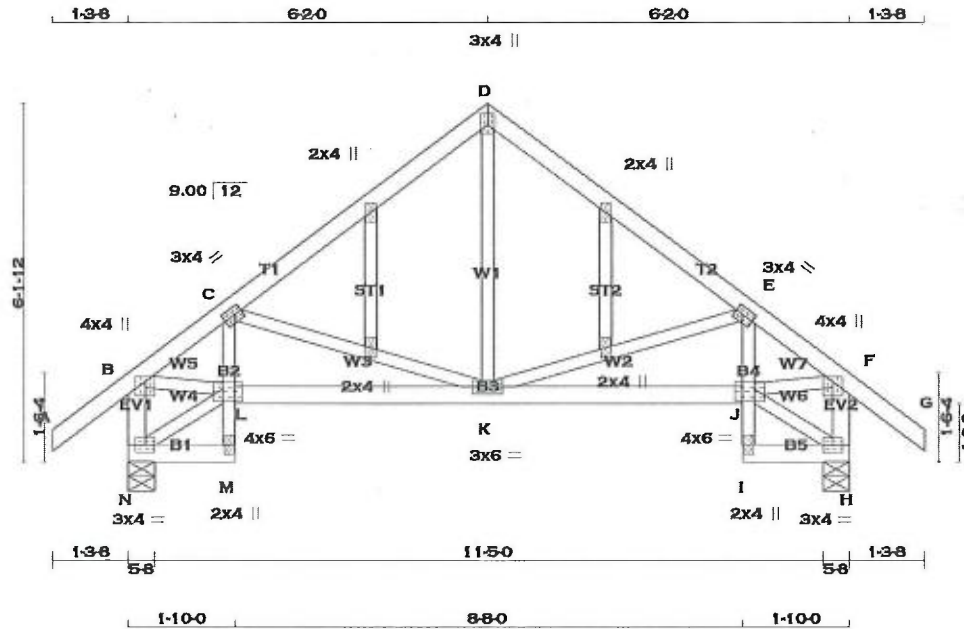
September 14, 2018

HANGERS NOTES

1) SPECIAL HANGER(S) OR CONNECTION(S) REQUIRED TO SUPPORT CONCENTRATED LOAD(S) 987.5 lbs FACTORED DOWN AT 12-4-12, AND 987.5 lbs FACTORED DOWN AT 19-9-0 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.



LUMBER

N. L. G. A. RULES	CHORDS	SIZE	LUMBER	DESCR.
A - D	2x4	DRY	No.2	SPF
D - G	2x4	DRY	No.2	SPF
N - B	2x4	DRY	No.2	SPF
H - F	2x4	DRY	No.2	SPF
N - M	2x4	DRY	No.2	SPF
M - C	2x3	DRY	No.2	SPF
L - J	2x4	DRY	No.2	SPF
I - E	2x3	DRY	No.2	SPF
I - H	2x4	DRY	No.2	SPF
ALL WEBS EXCEPT	2x3	DRY	No.2	SPF
ALL GABLE WEBS	2x3	DRY	No.2	SPF
DRY: SEASONED LUMBER.				
GABLE STUDS SPACED AT	24-0-0	OC.		

PLATES (table is in inches)

JT	TYPE	PLATES	W	LEN	Y	X
B	TMVW+p	MT20	4.0	4.0	1.00	2.00
C	TMVW-t	MT20	3.0	4.0	1.50	1.50
D	TTW+p	MT20	3.0	4.0	2.25	1.50
E	TMVW-t	MT20	3.0	4.0	1.50	1.50
F	TMVW+p	MT20	4.0	4.0	1.00	2.00
H	BMVW1-t	MT20	3.0	4.0		
I	BMV+p	MT20	2.0	4.0		
J	BMVW1-t	MT20	4.0	6.0	2.50	4.00
K	BMVW1-t	MT20	3.0	6.0		
L	BMVW1-t	MT20	4.0	6.0	2.50	4.00
M	BMV+p	MT20	2.0	4.0		
N	BMVW1-t	MT20	3.0	4.0		
O, P, Q, R						
O	NP+w	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							
JT	FACTORED GROSS REACTION		MAXIMUM FACTORED GROSS REACTION		INPUT BRG	REQRD BRG	
	VERT	HORZ	DOWN	HORZ	UPLIFT	IN-SX	
N	692	0	692	0	0	5-8	1-8
H	692	0	692	0	0	5-8	1-8

UNFACTORED REACTIONS							
JT	1ST LCASE	MAX./MIN. COMPONENT REACTIONS					
	COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
N	483	351 / 0	0 / 0	0 / 0	0 / 0	132 / 0	0 / 0
H	483	351 / 0	0 / 0	0 / 0	0 / 0	132 / 0	0 / 0

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

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

CHORDS				WEBS			
MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	LC1 MAX CSI (LC)	MAX. UNBRAC LENGTH	MEMB.	MAX. FACTORED FORCE (LBS)	MAX. CSI (LC)
FR-TO		FROM TO			FR-TO		
A-B	0 / 32	-77.4	-77.4 0.11 (1)	10.00	K-D	0 / 261	0.06 (1)
B-B	-766 / 0	-77.4	-77.4 0.13 (1)	6.25	K-E	-279 / 0	0.10 (1)
C-D	-475 / 0	-77.4	-77.4 0.18 (1)	6.25	C-K	-279 / 0	0.10 (1)
D-E	-475 / 0	-77.4	-77.4 0.18 (1)	6.25	N-L	-10 / 0	0.00 (1)
E-F	-766 / 0	-77.4	-77.4 0.13 (1)	6.25	B-L	0 / 628	0.14 (1)
F-G	0 / 32	-77.4	-77.4 0.11 (1)	10.00	J-H	-10 / 0	0.00 (1)
N-B	-671 / 0	0.0	0.0 0.07 (1)	7.81	J-F	0 / 628	0.14 (1)
H-F	-671 / 0	0.0	0.0 0.07 (1)	7.81			
N-M	0 / 9	-17.5	-17.5 0.02 (4)	10.00			
M-L	0 / 17	0.0	0.0 0.03 (1)	10.00			
L-C	-9 / 35	0.0	0.0 0.02 (4)	10.00			
L-K	0 / 632	-17.5	-17.5 0.16 (1)	10.00			
K-J	0 / 632	-17.5	-17.5 0.16 (1)	10.00			
I-J	0 / 17	0.0	0.0 0.03 (1)	10.00			
J-E	-9 / 35	0.0	0.0 0.02 (4)	10.00			
I-H	0 / 9	-17.5	-17.5 0.02 (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 (0.41")
CALCULATED VERT. DEFL.(LL)= L/999 (0.01")
ALLOWABLE DEFL.(TL)= L/360 (0.41")
CALCULATED VERT. DEFL.(TL)= L/999 (0.03")

CSI: TC=0.18/1.00 (D-E:1), BC=0.16/1.00 (K-L:1),
WB=0.14/1.00 (B-L:1), SSI=0.12/1.00 (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

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.

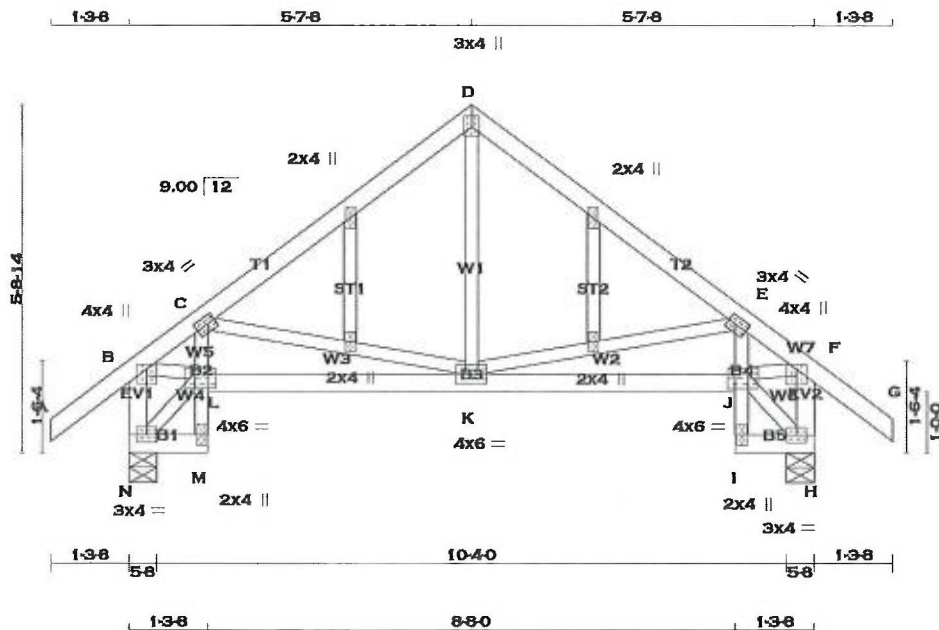
JSI GRIP= 0.86 (F) (INPUT = 0.90)
JSI METAL= 0.23 (B) (INPUT = 1.00)



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SCALE = 1:36.3

TOTAL WEIGHT = 56 lb [M]F

LUMBER				
N. L. G. A. RULES	CHORDS	SIZE	LUMBER	DESCR.
A - D	2x4	DRY	No.2	SPF
D - G	2x4	DRY	No.2	SPF
N - B	2x4	DRY	No.2	SPF
H - F	2x4	DRY	No.2	SPF
N - M	2x4	DRY	No.2	SPF
M - C	2x3	DRY	No.2	SPF
L - J	2x4	DRY	No.2	SPF
I - E	2x3	DRY	No.2	SPF
I - H	2x4	DRY	No.2	SPF
ALL WEBS EXCEPT	2x3	DRY	No.2	SPF
ALL GABLE WEBS	2x3	DRY	No.2	SPF
DRY: SEASONED LUMBER.				
GABLE STUDS SPACED AT 2'-0" OC.				

PLATES (table is in inches)					
JT	TYPE	PLATES	W	LEN	X
B	TMVW+p	MT20	4.0	4.0	1.00 2.00
C	TMVW-t	MT20	3.0	4.0	1.50 1.50
D	TTW+p	MT20	3.0	4.0	2.25 1.50
E	TMVW-t	MT20	3.0	4.0	1.50 1.50
F	TMVW+p	MT20	4.0	4.0	1.00 2.00
H	BMVW-t	MT20	3.0	4.0	
I	BMV+p	MT20	2.0	4.0	
J	BMVW-t	MT20	4.0	6.0	3.00 4.00
K	BMVW-t	MT20	4.0	6.0	
L	BMVW-t	MT20	4.0	6.0	3.00 4.00
M	BMV+p	MT20	2.0	4.0	
N	BMVW-t	MT20	3.0	4.0	
O, P, Q, R					
O	NP+w	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					
JT	FACTORED GROSS REACTION		MAXIMUM FACTORED GROSS REACTION		REQRD BRG
	VERT	HORZ	DOWN	HORZ	
N	640	0	640	0	5-8
H	640	0	640	0	5-8

UNFACTORED REACTIONS							
JT	1ST LCASE COMBINED		MAX/MIN. COMPONENT REACTIONS				
	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL	
N	447	326 / 0	0 / 0	0 / 0	0 / 0	121 / 0	0 / 0
H	447	326 / 0	0 / 0	0 / 0	0 / 0	121 / 0	0 / 0

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

BRACING
TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 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					
MEMB.	MAX. FORCE (LBS)	FACTORED VERT. (PLF)	MAX. UNBRACED (LC)	MAX. FACTORED (LC)	WEBS
FR-TO		FROM	TO	LENGTH	FR-TO
A-B	0 / 32	-77.4	-77.4	0.11 (1)	10.00
B-C	-760 / 0	-77.4	-77.4	0.13 (1)	6.25
C-D	-433 / 0	-77.4	-77.4	0.18 (1)	6.25
D-E	-433 / 0	-77.4	-77.4	0.18 (1)	6.25
E-F	-760 / 0	-77.4	-77.4	0.13 (1)	6.25
F-G	0 / 32	-77.4	-77.4	0.11 (1)	10.00
N-B	-620 / 0	0.0	0.0	0.06 (1)	7.81
H-F	-620 / 0	0.0	0.0	0.06 (1)	7.81
N-M	0 / 10	-17.5	-17.5	0.01 (4)	10.00
M-L	0 / 12	0.0	0.0	0.03 (1)	10.00
L-C	0 / 36	0.0	0.0	0.03 (1)	10.00
L-K	0 / 640	-17.5	-17.5	0.16 (1)	10.00
K-J	0 / 640	-17.5	-17.5	0.16 (1)	10.00
I-J	0 / 12	0.0	0.0	0.03 (1)	10.00
J-E	0 / 36	0.0	0.0	0.03 (1)	10.00
I-H	0 / 10	-17.5	-17.5	0.01 (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 (0.38")
CALCULATED VERT. DEFL.(LL) = L/999 (0.01")
ALLOWABLE DEFL.(TL)= L/360 (0.38")
CALCULATED VERT. DEFL.(TL) = L/999 (0.02")

CSI: TC=0.18/1.00 (D-E:1), BC=0.16/1.00 (K-L:1), WB=0.14/1.00 (B-L:1), SSI=0.12/1.00 (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

AUTOSOLVE HEELS OFF

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

NAIL VALUES			
PLATE	GRIP(DRY) (PSI)	SHEAR (PLI)	SECTION (PLI)
MAX MIN	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= 0.84 (F) (INPUT = 0.90)
JSI METAL= 0.22 (F) (INPUT = 1.00)



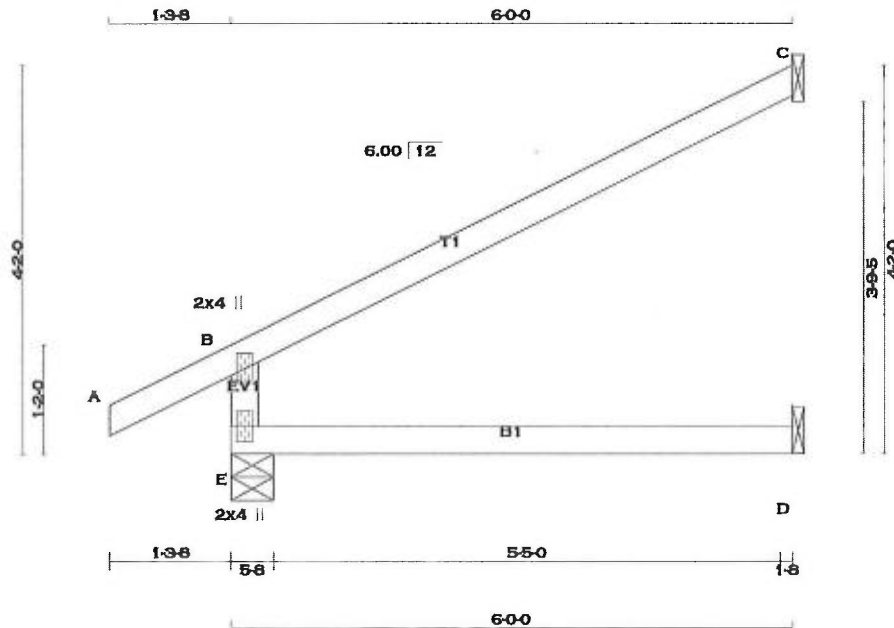
September 14, 2018



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.

Koti, Ottawa, Ontario, TW

Version 8.210 S Mar 12 2018 Mitek Industries, Inc. Fri Sep 14 10:22:07 2018 Page 1
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SCALE = 1:23.6

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	REQRD BRG IN-SX
	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

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

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)	FACTORED VERT. LOAD (PLF)	MAX. FACTORED UNBRACED LENGTH (FT)	MEMB.	MAX. FACTORED FORCE (LBS)	MAX. FACTORED UNBRACED LENGTH (FT)
FR-TO						
E-B	-395 / 0	0.0	0.0 0.13 (4)			
A-B	0 / 23	-77.4	-77.4 0.10 (1)			
B-C	-26 / 0	-77.4	-77.4 0.47 (1)			
E-D	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

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 (PSI)	SECTION (PLI)
	MAX MIN	MAX MIN	MAX MIN
MT20	618 354	1667 822	2284 1856

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

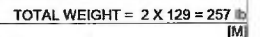
JSI GRIP= 0.23 (B) (INPUT = 0.90)
JSI METAL= 0.09 (B) (INPUT = 1.00)



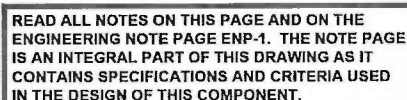
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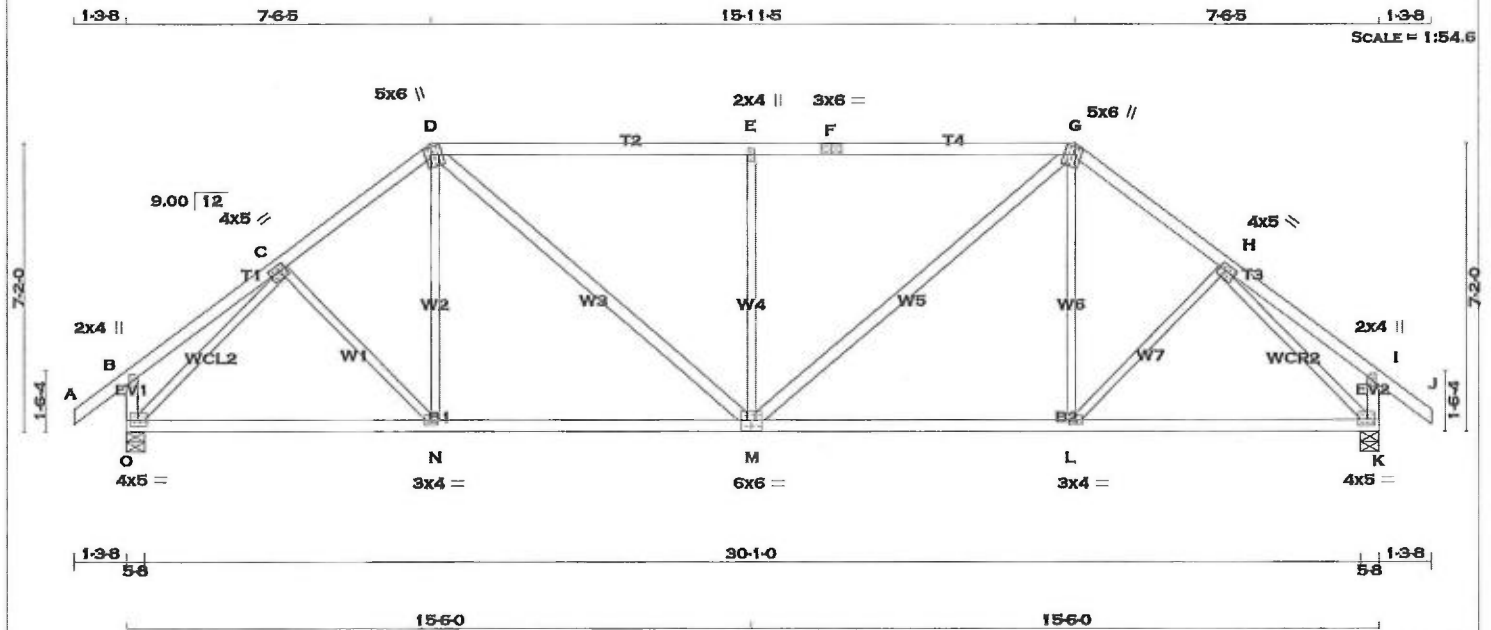


JSI GRIP= 0.89 (G) (INPUT = 0.90)
JSI METAL= 0.56 (M) (INPUT = 1.00)



Kott, Ottawa, Ontario, TW

Version 8.210 S Mar 12 2018 MiTek Industries, Inc. Fri Sep 14 10:22:08 2018 Page 1
ID:GvG8oeB5QNkqs7aXIV7B3Fz4ISM-RNUkKfukgoCv45GmJqHwE22HpWDZp052Lr6bpydl



LUMBER	N. L. G. A. RULES	CHORDS	SIZE	LUMBER	DESCR.
A - D	2x4	DRY	No.2	SPF	
D - F	2x4	DRY	2100F 1.8E	SPF	
F - G	2x4	DRY	No.2	SPF	
G - J	2x4	DRY	No.2	SPF	
O - B	2x4	DRY	No.2	SPF	
K - I	2x4	DRY	No.2	SPF	
O - M	2x4	DRY	No.2	SPF	
M - K	2x4	DRY	No.2	SPF	
ALL WEBS EXCEPT	2x3	DRY	No.2	SPF	
D - M	2x4	DRY	No.2	SPF	
M - G	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		
C	TMWW-t	MT20	4.0	5.0	1.75	2.00
D	TTWW+m	MT20	5.0	6.0	2.25	1.75
E	TMW+w	MT20	2.0	4.0		
F	TS-t	MT20	3.0	6.0		
G	TTWW+m	MT20	5.0	6.0	2.25	1.75
H	TMWW-t	MT20	4.0	5.0	1.75	2.00
I	TMV+p	MT20	2.0	4.0		
K	BMVW-1-t	MT20	4.0	5.0	1.75	2.25
L	BMVW-1-t	MT20	3.0	4.0		
M	BSWWW-1	MT20	6.0	6.0	3.25	3.00
N	BMVW-1-t	MT20	3.0	4.0		
O	BMVW-1-t	MT20	4.0	5.0	1.75	2.25

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	REQRD BRG
	VERT	HORZ	DOWN	HORZ		
O	1577	0	1577	0	5-8	1-13
K	1577	0	1577	0	5-8	1-13

UNFACTORED REACTIONS

JT	1ST LCASE		MAX/MIN. COMPONENT REACTIONS		WIND	DEAD	SOIL
	COMBINED	SNOW	LIVE	PERM. LIVE			
O	1104	786 / 0	0 / 0	0 / 0	0 / 0	318 / 0	0 / 0
K	1104	786 / 0	0 / 0	0 / 0	0 / 0	318 / 0	0 / 0

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

BRACING

TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 4.34 FT.
MAX. UNBRACED BOTTOM CHORD LENGTH = 10.00 FT OR RIGID CEILING DIRECTLY APPLIED.

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

LOADING

TOTAL LOAD CASES: (4)

CHORDS				WEBS			
MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	LC1 MAX (LC)	MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED UNBRACED LENGTH (LC)	MAX. FACTORED FORCE (LBS)
FR-TO		FROM TO		FR-TO			
A-B	0 / 32	-77.4 -77.4	0.11 (1)	C-N	0 / 56	0.02 (4)	
B-C	0 / 19	-77.4 -77.4	0.16 (1)	N-D	0 / 136	0.05 (4)	
C-D	-1568 / 0	-77.4 -77.4	0.20 (1)	D-M	0 / 687	0.11 (1)	
D-E	-1759 / 0	-77.4 -77.4	0.68 (1)	M-E	-766 / 0	0.69 (1)	
E-F	-1760 / 0	-77.4 -77.4	0.68 (1)	M-G	0 / 687	0.11 (1)	
F-G	-1760 / 0	-77.4 -77.4	0.68 (1)	L-G	0 / 136	0.05 (4)	
G-H	-1568 / 0	-77.4 -77.4	0.20 (1)	L-H	0 / 56	0.02 (4)	
H-I	0 / 19	-77.4 -77.4	0.16 (1)	O-C	-1786 / 0	0.87 (1)	
I-J	0 / 32	-77.4 -77.4	0.11 (1)	H-K	-1786 / 0	0.87 (1)	
O-B	-220 / 0	0.0	0.0				
K-I	-220 / 0	0.0	0.0				
O-N	0 / 1220	-17.5 -17.5	0.34 (4)				
N-M	0 / 1239	-17.5 -17.5	0.35 (4)				
M-L	0 / 1239	-17.5 -17.5	0.35 (4)				
L-K	0 / 1220	-17.5 -17.5	0.34 (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

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 (1.03")
CALCULATED VERT. DEFL.(LL)= L/ 999 (0.07")
ALLOWABLE DEFL.(TL)= L/360 (1.03")
CALCULATED VERT. DEFL.(TL)= L/ 999 (0.14")

CSI: TC=0.68/1.00 (E-G:1), BC=0.35/1.00 (M-N:4), WB=0.87/1.00 (H-K:1), SSI=0.30/1.00 (D-E:1)

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

COMPANION LIVE LOAD FACTOR = 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.

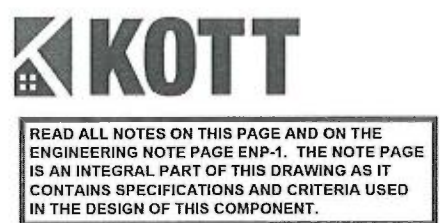
JSI GRIP= 0.89 (C) (INPUT = 0.90)
JSI METAL= 0.53 (H) (INPUT = 1.00)

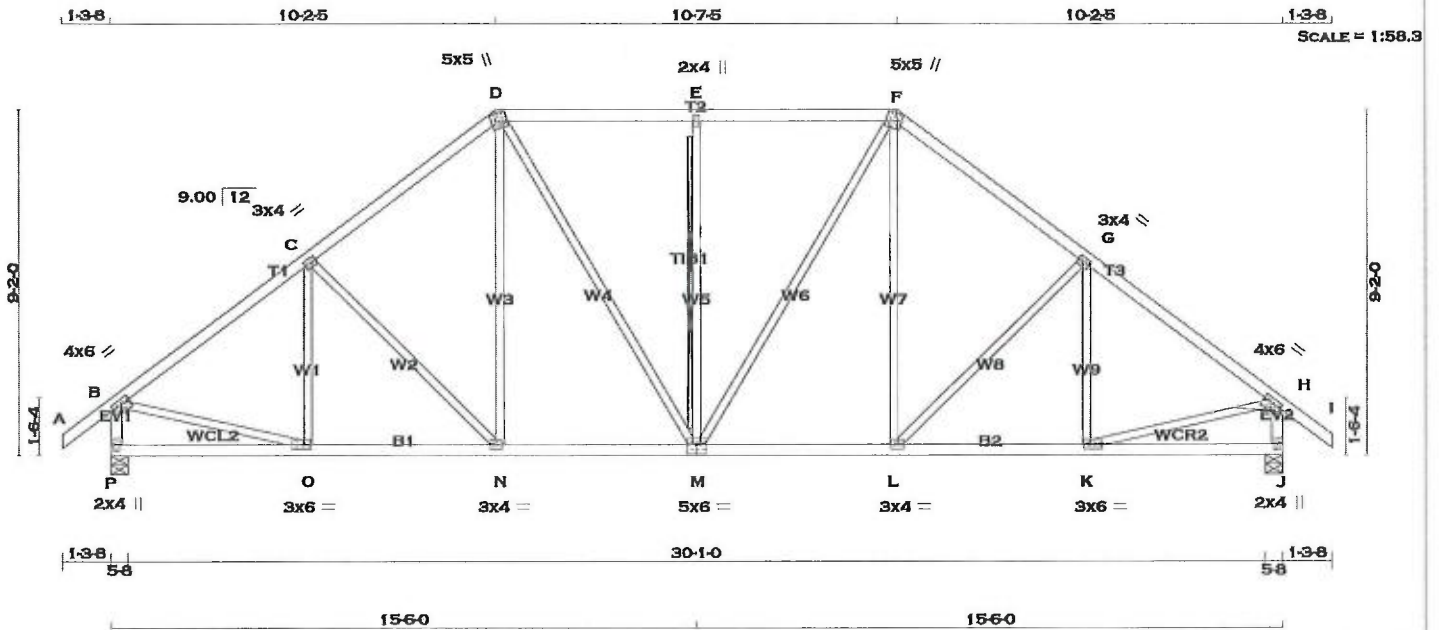


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LUMBER		N. L. G. A. RULES		LUMBER		DESCR.	
CHORDS	SIZE						
A - D	2x4	DRY	No.2	SPF			
D - F	2x4	DRY	No.2	SPF			
F - I	2x4	DRY	No.2	SPF			
P - B	2x4	DRY	No.2	SPF			
J - H	2x4	DRY	No.2	SPF			
P - M	2x4	DRY	No.2	SPF			
M - J	2x4	DRY	No.2	SPF			
ALL WEBS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

DRY: SEASONED LUMBER.

PLATES (table is in inches)					
JT	TYPE	PLATES	W	LEN	Y X
B	TMVW-t	MT20	4.0	6.0	1.50 2.75
C	TMVW-t	MT20	3.0	4.0	1.50 1.50
D	TTWW+m	MT20	5.0	5.0	2.25 1.50
E	TMVW-t	MT20	2.0	4.0	
F	TTWW+m	MT20	5.0	5.0	2.25 1.50
G	TMVW-t	MT20	3.0	4.0	1.50 1.50
H	TMVW-t	MT20	4.0	6.0	1.50 2.75
J	BMV1+p	MT20	2.0	4.0	
K	BMVW-t	MT20	3.0	6.0	1.50 2.25
L	BMVW-t	MT20	3.0	4.0	
M	BSVW-t	MT20	5.0	6.0	3.00 3.00
N	BMVW-t	MT20	3.0	4.0	
O	BMVW-t	MT20	3.0	6.0	1.50 2.25
P	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

JT	FACTORED GROSS REACTION		MAXIMUM FACTORED GROSS REACTION		INPUT BRG	REQRD BRG
	VERT	HORZ	DOWN	HORZ	IN-SX	IN-SX
P	1577	0	1577	0	5-8	2-11
J	1577	0	1577	0	5-8	2-11

UNFACTORED REACTIONS

JT	1ST LCASE COMBINED		MAX/MIN. LIVE		PERM. LIVE	WIND	DEAD	SOIL
	SNOW							
P	1104	786 / 0	0 / 0	0 / 0	0 / 0	0 / 0	318 / 0	0 / 0
J	1104	786 / 0	0 / 0	0 / 0	0 / 0	0 / 0	318 / 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 = 4.93 FT. MAX. UNBRACED BOTTOM CHORD LENGTH = 10.00 FT OR RIGID CEILING DIRECTLY APPLIED.

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

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

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

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

LOADING

TOTAL LOAD CASES: (4)

CHORDS				WEBS			
MEMB.	MAX. FORCE (LBS)	FACTORED VERT. LOAD (LBS)	MAX. CS1 (LC)	MEMB.	MAX. FORCE (LBS)	FACTORED VERT. LOAD (LBS)	MAX. CS1 (LC)
FR-TO		FROM	TO	FR-TO		FROM	TO
A-B	0 / 32	-77.4	-77.4 0.11 (1)	10.00	O-C	-202 / 25	0.09 (1)
B-C	-1602 / 0	-77.4	-77.4 0.30 (1)	4.93	C-N	-235 / 0	0.24 (1)
C-D	-1453 / 0	-77.4	-77.4 0.29 (1)	5.13	N-D	0 / 256	0.06 (1)
D-E	-1317 / 0	-77.4	-77.4 0.30 (1)	5.30	D-M	0 / 344	0.08 (1)
E-F	-1317 / 0	-77.4	-77.4 0.30 (1)	5.30	M-E	-499 / 0	0.31 (1)
F-G	-1453 / 0	-77.4	-77.4 0.29 (1)	5.13	M-F	0 / 344	0.08 (1)
G-H	-1602 / 0	-77.4	-77.4 0.30 (1)	4.93	L-F	0 / 256	0.06 (1)
H-I	0 / 32	-77.4	-77.4 0.11 (1)	10.00	L-G	-235 / 0	0.24 (1)
P-B	-1538 / 0	0.0	0.0 0.16 (1)	6.64	K-G	-202 / 25	0.09 (1)
J-H	-1538 / 0	0.0	0.0 0.16 (1)	6.64	B-O	0 / 1337	0.30 (1)
					K-H	0 / 1337	0.30 (1)
P-O	0 / 0	-17.5	-17.5 0.11 (4)	10.00			
O-N	0 / 1304	-17.5	-17.5 0.26 (1)	10.00			
N-M	0 / 1141	-17.5	-17.5 0.23 (1)	10.00			
M-L	0 / 1141	-17.5	-17.5 0.23 (1)	10.00			
L-K	0 / 1304	-17.5	-17.5 0.26 (1)	10.00			
K-J	0 / 0	-17.5	-17.5 0.11 (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

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 (1.03")
 CALCULATED VERT. DEFL.(LL)= L/ 999 (0.06")
 ALLOWABLE DEFL.(TL)= L/360 (1.03")
 CALCULATED VERT. DEFL.(TL)= L/ 999 (0.10")

CSI: TC=0.30/1.00 (G-H:1), BC=0.26/1.00 (N-O:1), WB=0.31/1.00 (E-M:1), SSI=0.20/1.00 (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 (PSI)	SECTION (PLI)
MT20	618	354	1667
	822	2284	1656

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

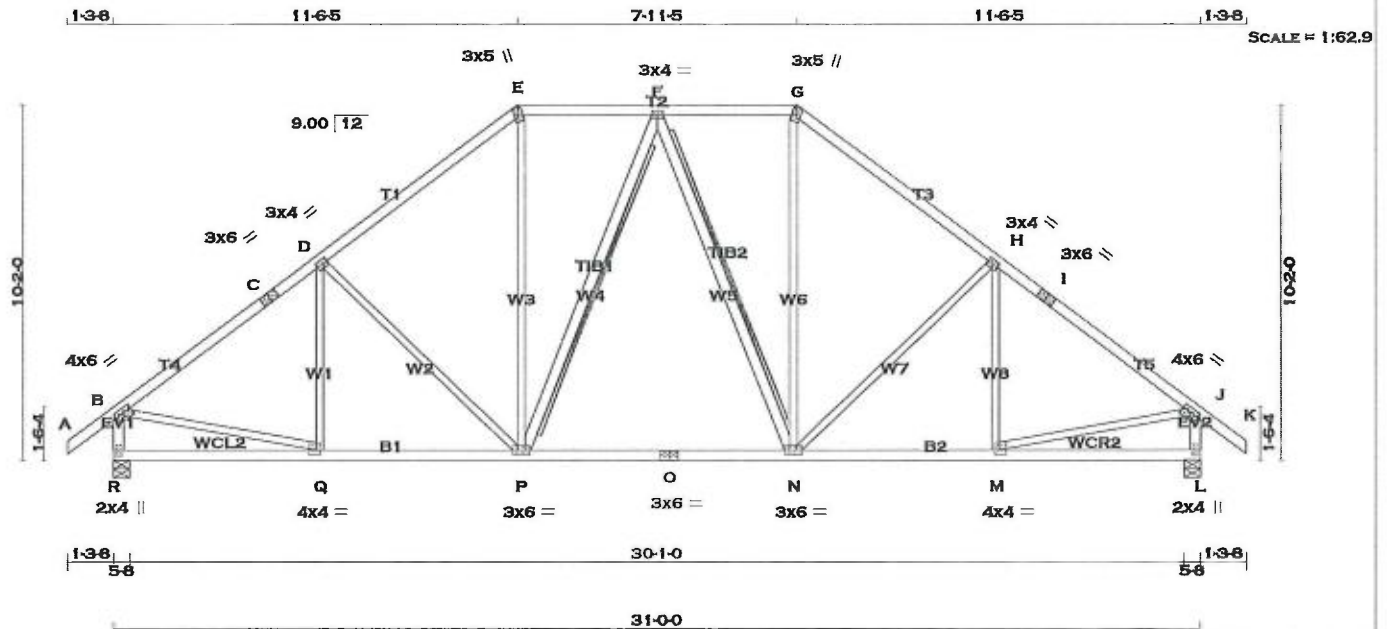
JSI GRIP= 0.83 (O) (INPUT = 0.90)
 JSI METAL= 0.45 (B) (INPUT = 1.00)



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TOTAL WEIGHT = 2 X 153 = 307 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 - G	2x4	DRY	No.2	SPF
G - I	2x4	DRY	No.2	SPF
I - K	2x4	DRY	No.2	SPF
R - B	2x4	DRY	No.2	SPF
L - J	2x4	DRY	No.2	SPF
R - O	2x4	DRY	No.2	SPF
O - L	2x4	DRY	No.2	SPF
ALL WEBS EXCEPT	2x3	DRY	No.2	SPF
P - F	2x4	DRY	No.2	SPF
F - N	2x4	DRY	No.2	SPF

DRY: SEASONED LUMBER.

PLATES (table is in inches)						
JT	TYPE	PLATES	W	LEN	Y	X
B	TMWV-t	MT20	4.0	6.0	1.50	2.75
C	TS-t	MT20	3.0	6.0		
D	TMWV-t	MT20	3.0	4.0	1.50	1.50
E	TTW+m	MT20	3.0	5.0	Edge	1.25
F	TMWV-t	MT20	3.0	4.0		
G	TTW+m	MT20	3.0	5.0	Edge	1.25
H	TMWV-t	MT20	3.0	4.0	1.50	1.50
I	TS-t	MT20	3.0	6.0		
J	TMWV-t	MT20	4.0	6.0	1.50	2.75
L	BMV1+p	MT20	2.0	4.0		
M	BMWV-t	MT20	4.0	4.0	1.50	1.50
N	BMWVW-t	MT20	3.0	6.0		
O	BS-t	MT20	3.0	6.0		
P	BMWVWV-t	MT20	3.0	6.0		
Q	BMWV-t	MT20	4.0	4.0	1.50	1.50
R	BMV1+p	MT20	2.0	4.0		

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

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	UPLIFT	IN-SX	IN-SX
R	1577	0	1577	0	0	5-8	2-11
L	1577	0	1577	0	0	5-8	2-11

UNFACTORED REACTIONS

1ST LCASE		MAX./MIN. COMPONENT REACTIONS					
JT	COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
R	1104	786 / 0	0 / 0	0 / 0	0 / 0	318 / 0	0 / 0
L	1104	786 / 0	0 / 0	0 / 0	0 / 0	318 / 0	0 / 0

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

BRACING

TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 4.81 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 F-P, F-N

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)	LC1 CSI (LBS)	MAX. UNBRAC	MEMB.	MAX. FACTORED FORCE (LBS)	MAX. CSI (LBS)		
FR-TO		FROM	TO	LENGTH	FR-TO				
A-B	0/32	-77.4	-77.4	0.11 (1)	10.00	Q-D	-163/42 0.09 (1)		
B-C	-1610/0	-77.4	-77.4	0.40 (1)	4.81	D-P	-319/0 0.43 (1)		
C-D	-1610/0	-77.4	-77.4	0.40 (1)	4.81	P-E	0/529 0.12 (1)		
D-E	-1391/0	-77.4	-77.4	0.37 (1)	5.11	P-F	-197/0 0.16 (1)		
E-F	-1090/0	-77.4	-77.4	0.16 (1)	5.88	F-N	-197/0 0.16 (1)		
F-G	-1090/0	-77.4	-77.4	0.16 (1)	5.88	N-G	0/529 0.12 (1)		
G-H	-1391/0	-77.4	-77.4	0.37 (1)	5.11	N-H	-319/0 0.43 (1)		
H-I	-1610/0	-77.4	-77.4	0.40 (1)	4.81	M-H	-163/42 0.09 (1)		
I-J	-1610/0	-77.4	-77.4	0.40 (1)	4.81	B-Q	0/1340 0.30 (1)		
J-K	0/32	-77.4	-77.4	0.11 (1)	10.00	M-J	0/1340 0.30 (1)		
R-B	-1533/0	0.0	0.0	0.16 (1)	6.64				
L-J	-1533/0	0.0	0.0	0.16 (1)	6.64				
R-Q	0/0	-17.5	-17.5	0.12 (4)	10.00				
Q-P	0/1314	-17.5	-17.5	0.31 (1)	10.00				
P-O	0/1162	-17.5	-17.5	0.29 (1)	10.00				
O-N	0/1162	-17.5	-17.5	0.29 (1)	10.00				
N-M	0/1314	-17.5	-17.5	0.31 (1)	10.00				
M-L	0/0	-17.5	-17.5	0.12 (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 (1.03")
CALCULATED VERT. DEFL.(LL) = L/ 999 (0.06")
ALLOWABLE DEFL.(TL)= L/360 (1.03")
CALCULATED VERT. DEFL.(TL) = L/ 999 (0.15")

CSI: TC=0.40/1.00 (H-J:1), BC=0.31/1.00 (P-Q:1)
 , WB=0.43/1.00 (H-N:1), SSI=0.17/1.00 (H-J:1)

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

COMPANION LIVE LOAD FACTOR = 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

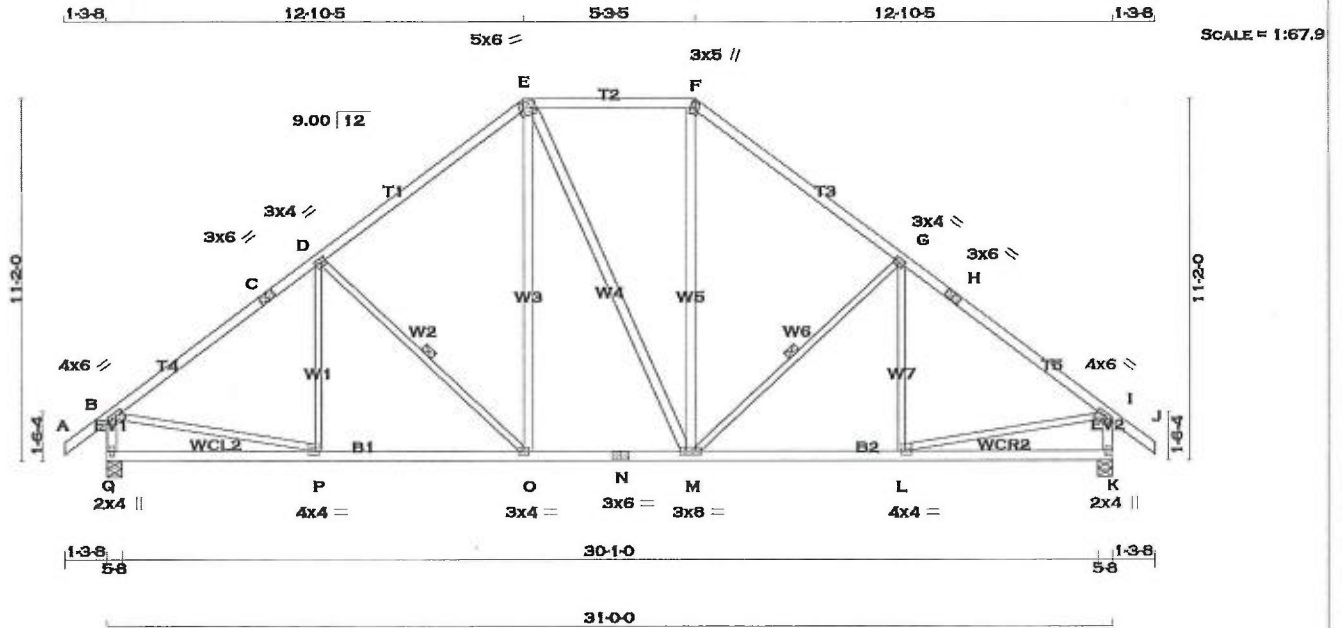
PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.88 (P) (INPUT = 0.90)
JSI METAL= 0.49 (Q) (INPUT = 1.00)



September 14, 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.**



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 - B	2x4	DRY	No.2	SPF	
Q - J	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	2x3	DRY	No.2	SPF	
EXCEPT					
O - E	2x4	DRY	No.2	SPF	
E - M	2x4	DRY	No.2	SPF	
M - F	2x4	DRY	No.2	SPF	

DRY: SEASONED LUMBER.

PLATES (table is in inches)

JT	TYPE	PLATES	W	LEN	Y	X
B	TMVW-I	MT20	4.0	6.0	1.50	2.75
C	TS-t	MT20	3.0	6.0		
D	TMVW-t	MT20	3.0	4.0	1.50	1.50
E	TTWW-m	MT20	5.0	6.0	2.00	1.50
F	TTWW-m	MT20	3.0	5.0	Edge	1.25
G	TMVW-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	1.50	2.75
K	BMV1+p	MT20	2.0	4.0		
L	BMVW-t	MT20	4.0	4.0	1.50	1.50
M	BMVW-t	MT20	3.0	8.0		
N	BS-t	MT20	3.0	6.0		
O	BMVW-t	MT20	3.0	4.0		
P	BMVW-t	MT20	4.0	4.0	1.50	1.50
Q	BMV1+p	MT20	2.0	4.0		

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

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

	FACTORED	MAXIMUM FACTORED	INPUT	REQD
	GROSS REACTION	GROSS REACTION	BRG	BRG
JT	VERT	HORZ	DOWN	UPLIFT
Q	1577	0	1577	0
K	1577	0	1577	0

UNFACTORED REACTIONS

JT	1ST LCASE	MAX/MIN	COMPONENT REACTIONS	WIND	DEAD	SOIL
Q	1104	786 / 0	0 / 0	0 / 0	318 / 0	0 / 0
K	1104	786 / 0	0 / 0	0 / 0	318 / 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 = 4.66 FT.
MAX. UNBRACED BOTTOM CHORD LENGTH = 10.00 FT OR RIGID CEILING DIRECTLY APPLIED.

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

1 - 1x4 LATERAL BRACE(S) AT 1/2 LENGTH OF D-O, G-M. DBS = 20-0-0. CBF = 52 LBS.

DBS = DIAGONAL BRACE SPACING (MAX). CBF = CUMULATIVE BRACING FORCE (PER BRACE). FASTEN LATERAL BRACE(S) USING (0.122"x3") SPIRAL NAILS : 1 NAIL FOR 2x3 BRACE(S), 2 FOR 1x4, 2x4, 2x5, 3 FOR 2x6, 4 FOR 2x8, 5 FOR 2x10, AND 6 FOR 2x12.

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

LOADING

TOTAL LOAD CASES: (4)

CHORDS							WEBS			
MEMB.	MAX. FACTORED	FACTORED			MAX.	MEMB.	MAX. FACTORED			
	FORCE	VERT. LOAD	LC1	MAX	MAX.		FORCE	MAX		
	(LBS)	(PLF)	CSI (LC)	UNBRAC			(LBS)	CSI (LC)		
FR-TO		FROM	TO	LENGTH	FR-TO					
A-B	0 / 32	-77.4	-77.4	0.11 (1)	10.00	P-D	-112 / 76	0.07 (1)		
B-C	-1614 / 0	-77.4	-77.4	0.51 (1)	4.66	D-O	-414 / 0	0.22 (1)		
C-D	-1614 / 0	-77.4	-77.4	0.51 (1)	4.66	O-E	0 / 379	0.06 (1)		
D-E	-1312 / 0	-77.4	-77.4	0.47 (1)	5.09	E-M	0 / 0	0.00 (1)		
E-F	-1024 / 0	-77.4	-77.4	0.29 (1)	5.84	M-F	0 / 380	0.06 (1)		
F-G	-1312 / 0	-77.4	-77.4	0.47 (1)	5.09	M-G	-413 / 0	0.22 (1)		
G-H	-1614 / 0	-77.4	-77.4	0.51 (1)	4.66	L-G	-113 / 76	0.08 (1)		
H-I	-1614 / 0	-77.4	-77.4	0.51 (1)	4.66	B-P	0 / 1342	0.30 (1)		
I-J	0 / 32	-77.4	-77.4	0.11 (1)	10.00	L-I	0 / 1342	0.30 (1)		
Q-B	-1531 / 0	0.0	0.0	0.16 (1)	6.65					
K-I	-1530 / 0	0.0	0.0	0.16 (1)	6.65					
Q-P	0 / 0	-17.5	-17.5	0.18 (4)	10.00					
P-O	0 / 1320	-17.5	-17.5	0.31 (1)	10.00					
O-N	0 / 1024	-17.5	-17.5	0.23 (1)	10.00					
N-M	0 / 1024	-17.5	-17.5	0.23 (1)	10.00					
M-L	0 / 1320	-17.5	-17.5	0.31 (1)	10.00					
L-K	0 / 0	-17.5	-17.5	0.18 (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 088-09
- 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 (1.03")
CALCULATED VERT. DEFL.(LL) = L/999 (0.06")
ALLOWABLE DEFL.(TL)= L/360 (1.03")
CALCULATED VERT. DEFL.(TL) = L/999 (0.11")

CSI: TC=0.51/1.00 (B-D:1), BC=0.31/1.00 (O-P:1), WB=0.30/1.00 (B-P:1), SSI=0.20/1.00 (B-D:1)

DOL LUMBER=1.00 NAIL=1.00 LBS 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

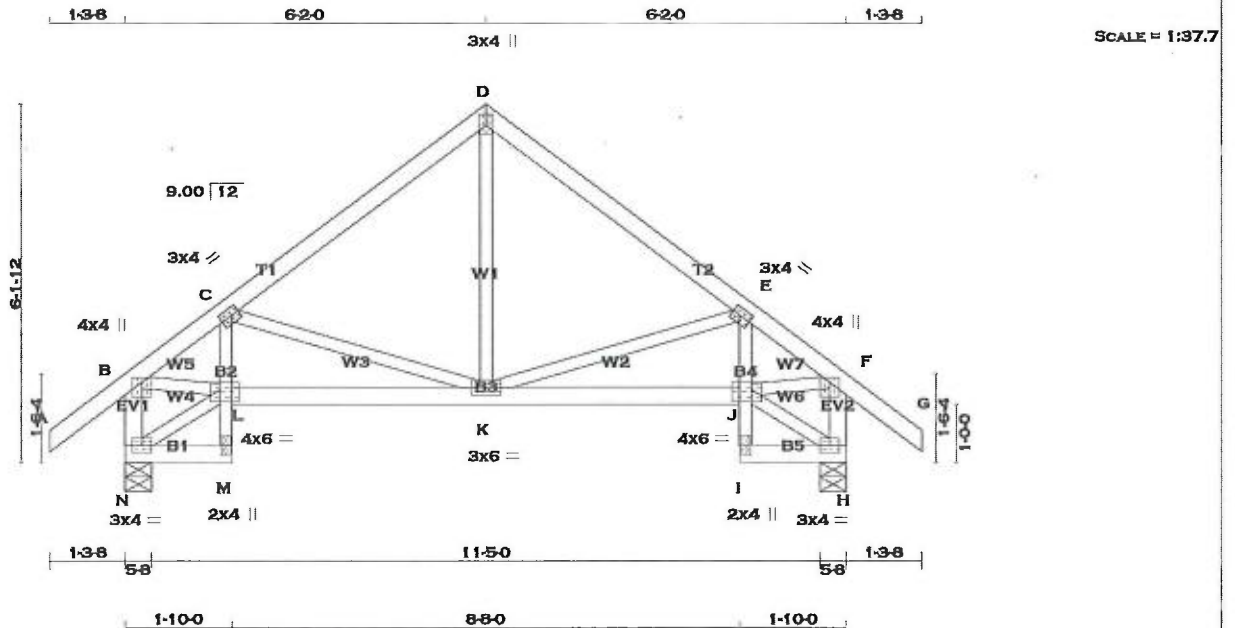
PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP = 0.88 (F) (INPUT = 0.90)
JSI METAL = 0.49 (P) (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 = 2 X 58 = 115 lb

(M)F

LUMBER

N. L. G. A. RULES	CHORDS	SIZE	LUMBER	DESCR.
A - D	2x4	DRY	No.2	SPF
D - G	2x4	DRY	No.2	SPF
N - B	2x4	DRY	No.2	SPF
H - F	2x4	DRY	No.2	SPF
N - M	2x4	DRY	No.2	SPF
M - C	2x4	DRY	No.2	SPF
L - J	2x4	DRY	No.2	SPF
I - E	2x3	DRY	No.2	SPF
I - H	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+p	MT20	4.0	4.0	1.00	2.00
C	TMVW-l	MT20	3.0	4.0	1.50	1.50
D	TTW+p	MT20	3.0	4.0	2.25	1.50
E	TMVW-l	MT20	3.0	4.0	1.50	1.50
F	TMVW+p	MT20	4.0	4.0	1.00	2.00
H	BMVW-l	MT20	3.0	4.0		
I	BMV+p	MT20	2.0	4.0		
J	BMVW-l	MT20	4.0	6.0	2.50	4.00
K	BMVW-l	MT20	3.0	6.0		
L	BMVW-l	MT20	4.0	6.0	2.50	4.00
M	BMV+p	MT20	2.0	4.0		
N	BMVW-l	MT20	3.0	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 GROSS REACTION	MAXIMUM FACTORED GROSS REACTION	INPUT BRG	REQRD BRG
JT	VERT	HORZ	DOWN	HORZ
N	692	0	692	0
H	692	0	692	0

UNFACTORED REACTIONS

JT	1ST LCASE COMBINED	MAX. SNOV	MIN. LIVE	COMPONENT PERM.LIVE	REACTIIONS WIND	DEAD	SOIL
N	483	351 / 0	0 / 0	0 / 0	0 / 0	132 / 0	0 / 0
H	483	351 / 0	0 / 0	0 / 0	0 / 0	132 / 0	0 / 0

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

BRACING

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

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

LOADING

TOTAL LOAD CASES: (4)

CHORDS				WEBS			
MEMB.	MAX. FORCE (LBS)	FACTORED VERT. (PLF)	MAX. UNBRACED LC1 (LC)	MEMB.	MAX. FORCE (LBS)	FACTORED VERT. (PLF)	MAX. UNBRACED LC1 (LC)
FR-TO				FR-TO			
A-B	0 / 32	-77.4	-77.4 0.11 (1)	10.00	K-D	0 / 261	0.06 (1)
B-C	-766 / 0	-77.4	-77.4 0.13 (1)	6.25	K-E	-279 / 0	0.10 (1)
C-D	-475 / 0	-77.4	-77.4 0.18 (1)	6.25	C-K	-279 / 0	0.10 (1)
D-E	-475 / 0	-77.4	-77.4 0.18 (1)	6.25	N-L	-10 / 0	0.00 (1)
E-F	-766 / 0	-77.4	-77.4 0.13 (1)	6.25	B-L	0 / 628	0.14 (1)
F-G	0 / 32	-77.4	-77.4 0.11 (1)	10.00	J-H	-10 / 0	0.00 (1)
N-B	-671 / 0	0.0	0.0 0.07 (1)	7.81	J-F	0 / 628	0.14 (1)
H-F	-671 / 0	0.0	0.0 0.07 (1)	7.81			
N-M	0 / 9	-17.5	-17.5 0.02 (4)	10.00			
M-L	0 / 17	0.0	0.0 0.03 (1)	10.00			
L-C	-9 / 35	0.0	0.0 0.02 (4)	10.00			
L-K	0 / 632	-17.5	-17.5 0.16 (1)	10.00			
K-J	0 / 632	-17.5	-17.5 0.16 (1)	10.00			
I-J	0 / 17	0.0	0.0 0.03 (1)	10.00			
J-E	-9 / 35	0.0	0.0 0.02 (4)	10.00			
I-H	0 / 9	-17.5	-17.5 0.02 (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 (0.41")
CALCULATED VERT. DEFL.(LL) = L/ 999 (0.01")
ALLOWABLE DEFL.(TL)= L/360 (0.41")
CALCULATED VERT. DEFL.(TL) = L/ 999 (0.03")

CSI: TC=0.18/1.00 (D-E:1), BC=0.16/1.00 (K-L:1), WB=0.14/1.00 (B-L:1), SSI=0.12/1.00 (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

AUTOSOLVE HEELS OFF

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

NAIL VALUES

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

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

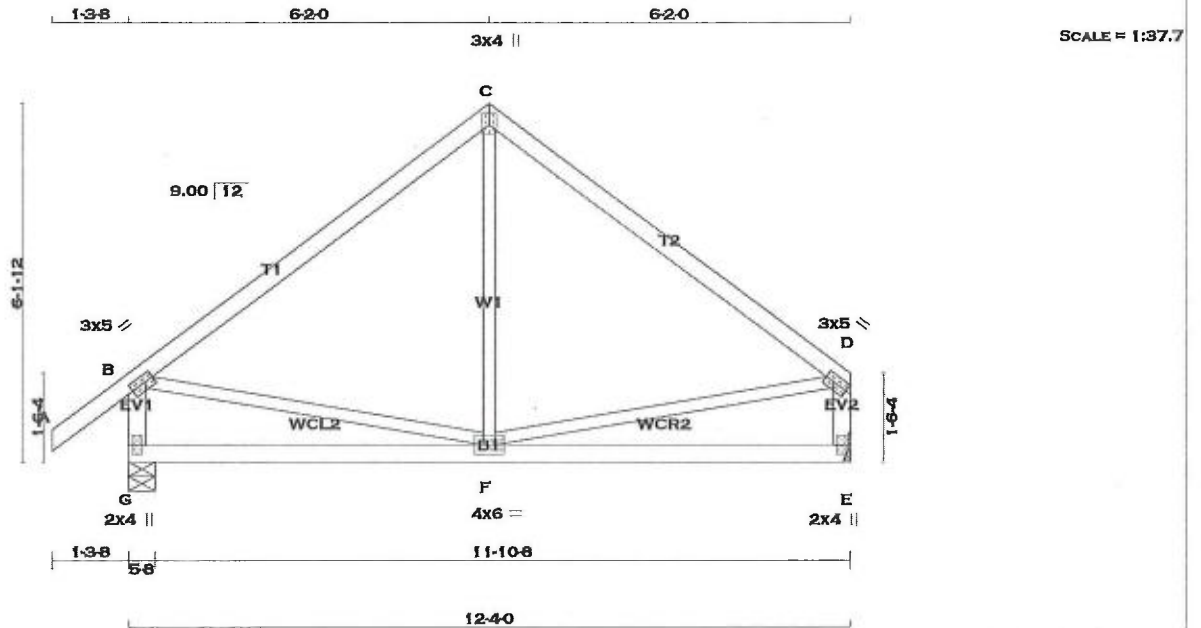
JSI GRIP= 0.86 (F) (INPUT = 0.90)
JSI METAL= 0.23 (B) (INPUT = 1.00)



September 14, 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 50 = 151 [M]

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

ALL WEBS 2x3 DRY No.2 SPF EXCEPT

DRY: SEASONED LUMBER.

PLATES (table is in inches)

JT	TYPE	PLATES	W	LEN	Y	X
B	TMVW-t	MT20	3.0	5.0	1.50	1.75
C	TTW+p	MT20	3.0	4.0	2.25	1.50
D	TMVW-t	MT20	3.0	5.0	1.50	Edge
E	BMV1+p	MT20	2.0	4.0		
F	BMVWW-t	MT20	4.0	6.0		
G	BMV1+p	MT20	2.0	4.0		

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

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

JT	FACTORED GROSS REACTION	MAXIMUM FACTORED GROSS REACTION	INPUT BRG	REQRD BRG
	VERT	DOWN	UPLIFT	IN-SX
G	692	0	692	0
E	585	0	585	0

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

UNFACTORED REACTIONS

JT	1ST LCASE COMBINED	MAX MIN. COMPONENT REACTIONS	SNOW	LIVE	PERM. LIVE	WIND	DEAD	SOIL
G	483	351 / 0	0 / 0	0 / 0	0 / 0	0 / 0	132 / 0	0 / 0
E	411	287 / 0	0 / 0	0 / 0	0 / 0	0 / 0	123 / 0	0 / 0

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

BRACING

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

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

LOADING

TOTAL LOAD CASES: (4)

CHORDS				WEBS			
MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	MAX. UNBRACED LENGTH (LC)	MEMB.	MAX. FACTORED FORCE (LBS)	MAX. UNBRACED LENGTH (LC)	
FR-TO				FR-TO			
A-B	0 / 32	-77.4	-77.4 0.11 (1)	F-C	0 / 109	0.04 (4)	
B-C	-404 / 0	-77.4	-77.4 0.38 (1)	B-F	0 / 330	0.07 (1)	
C-D	-404 / 0	-77.4	-77.4 0.38 (1)	F-D	0 / 330	0.07 (1)	
G-B	-650 / 0	0.0	0.0 0.07 (1)				
E-D	-544 / 0	0.0	0.0 0.06 (1)				
G-F	0 / 0	-17.5	-17.5 0.19 (4)				
F-E	0 / 0	-17.5	-17.5 0.19 (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 (0.41")
CALCULATED VERT. DEFL.(LL) = L/999 (0.01")
ALLOWABLE DEFL.(TL)= L/360 (0.41")
CALCULATED VERT. DEFL.(TL) = L/999 (0.03")

CSI: TC=0.38/1.00 (C-D:1), BC=0.19/1.00 (F-G:4), WB=0.07/1.00 (B-F:1), SSI=0.15/1.00 (C-D:1)

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

COMPANION LIVE LOAD FACTOR = 0.50

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

NAIL VALUES

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

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.55 (D) (INPUT = 0.90)
JSI METAL= 0.18 (B) (INPUT = 1.00)



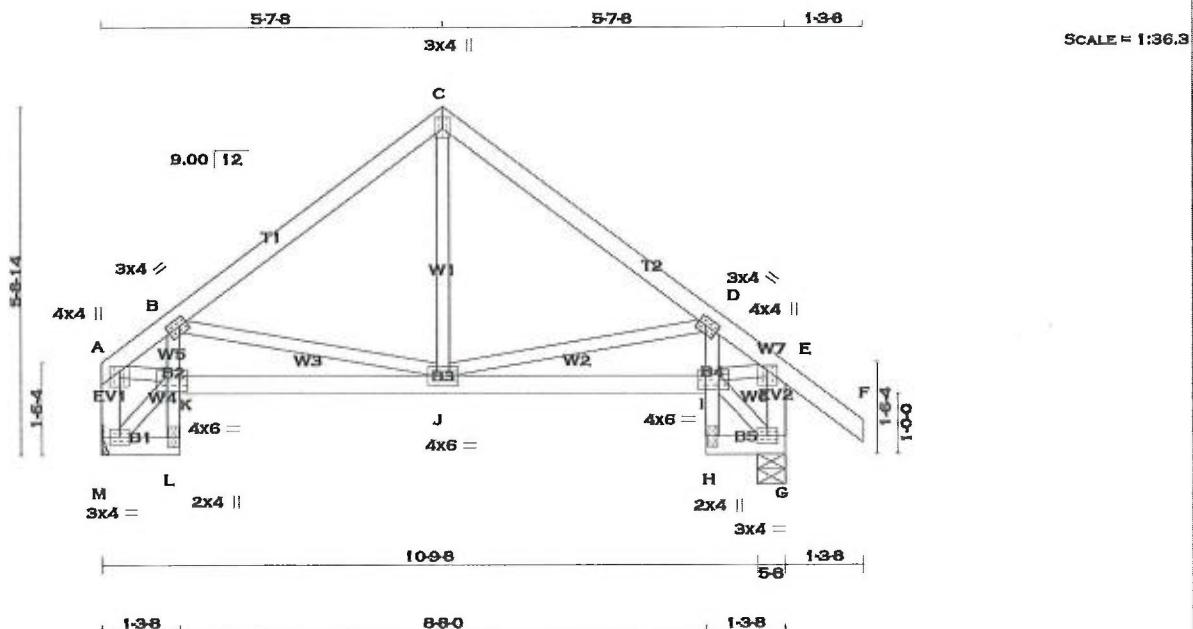
September 14, 2018



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.

Kott, Ottawa, Ontario, TW

Version 8.210 S Mar 12 2018 MiTek Industries, Inc. Fri Sep 14 10:22:10 2018 Page 1 ID:GvG8oeB5QNkqs?axIV?B3Fz4ISM-NmcUJLw?CQScJPP9Rfml?7fVcdFU1uhNWfKdgydlth



TOTAL WEIGHT = 50 lb

LUMBER N.L.G.A. RULES CHORDS SIZE LUMBER DESCR. **DIMENSIONS, SUPPORTS AND LOADINGS SPECIFIED BY FABRICATOR TO BE VERIFIED BY BUILDING DESIGNER** **BEARINGS** **DESIGN CRITERIA**

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

ALL WEBS 2x3 DRY No.2 SPF EXCEPT

DRY: SEASONED LUMBER.

FACTORED	MAXIMUM FACTORED	INPUT	REQD
GROSS REACTION	GROSS REACTION	BRG	BRG
JT VERT HORZ	DOWN HORZ UPLIFT	IN-SX	IN-SX
M 527 0	527 0 0	MECHANICAL	
G 647 0	647 0 0	5-8	1-8

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

UNFACTORED REACTIONS

1ST LCASE		MAX/MIN. COMPONENT REACTIONS					
JT	COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
M	370	258 / 0	0 / 0	0 / 0	0 / 0	112 / 0	0 / 0
G	451	330 / 0	0 / 0	0 / 0	0 / 0	121 / 0	0 / 0

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

BRACING

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

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

LOADING

TOTAL LOAD CASES: (4)

CHORDS				WEBS			
MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	MAX LC1 CSI (LC)	MAX. UNBRAC	MEMB.	MAX. FACTORED FORCE (LBS)	MAX CSI (LC)
FR-TO		FROM TO		LENGTH	FR-TO		
A-B	-812 / 0	-77.4	-77.4 0.14 (1)	6.25	J-C	0 / 224	0.05 (1)
B-C	-444 / 0	-77.4	-77.4 0.18 (1)	6.25	J-D	-315 / 0	0.11 (1)
C-D	-443 / 0	-77.4	-77.4 0.18 (1)	6.25	B-J	-383 / 0	0.13 (1)
D-E	-770 / 0	-77.4	-77.4 0.13 (1)	6.25	M-K	-15 / 0	0.00 (1)
E-F	0 / 32	-77.4	-77.4 0.11 (1)	10.00	A-K	0 / 702	0.16 (1)
M-A	-506 / 0	0.0	0.0 0.05 (1)	7.81	I-G	-14 / 0	0.00 (1)
G-E	-626 / 0	0.0	0.0 0.07 (1)	7.81	I-E	0 / 636	0.14 (1)
M-L	0 / 11	-17.5	-17.5 0.01 (4)	10.00			
L-K	0 / 12	0.0	0.0 0.03 (1)	10.00			
K-B	0 / 36	0.0	0.0 0.03 (1)	10.00			
K-J	0 / 713	-17.5	-17.5 0.17 (1)	10.00			
J-I	0 / 647	-17.5	-17.5 0.16 (1)	10.00			
H-I	0 / 12	0.0	0.0 0.03 (1)	10.00			
I-D	0 / 36	0.0	0.0 0.03 (1)	10.00			
H-G	0 / 11	-17.5	-17.5 0.01 (4)	10.00			

PLATES (table is in inches)

JT TYPE	PLATES	W	LEN	Y	X
A TMVW+p	MT20	4.0	4.0	1.00	2.00
B TMVW-l	MT20	3.0	4.0	1.50	1.50
C TTW+p	MT20	3.0	4.0	2.25	1.50
D TMVW-l	MT20	3.0	4.0	1.50	1.50
E TMVW+p	MT20	4.0	4.0	1.00	2.00
G BMVW-l	MT20	3.0	4.0		
H BMV+p	MT20	2.0	4.0		
I BMVWW-l	MT20	4.0	6.0	3.00	4.00
J BMVWW-l	MT20	4.0	6.0		
K BMVWW-l	MT20	4.0	6.0	3.00	4.00
L BMV+p	MT20	2.0	4.0		
M BMVW-l	MT20	3.0	4.0		

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

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 (0.37")
CALCULATED VERT. DEFL.(LL) = L/999 (0.01")
ALLOWABLE DEFL.(TL)= L/360 (0.37")
CALCULATED VERT. DEFL.(TL) = L/999 (0.02")

CSI: TC=0.18/1.00 (C-D:1), BC=0.17/1.00 (J-K:1), WB=0.16/1.00 (A-K:1), SSI=0.12/1.00 (B-C:1)

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

COMPANION LIVE LOAD FACTOR = 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)	(PLI)
MAX MIN	MAX MIN	MAX MIN	MAX MIN
MT20	618	354	1667

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

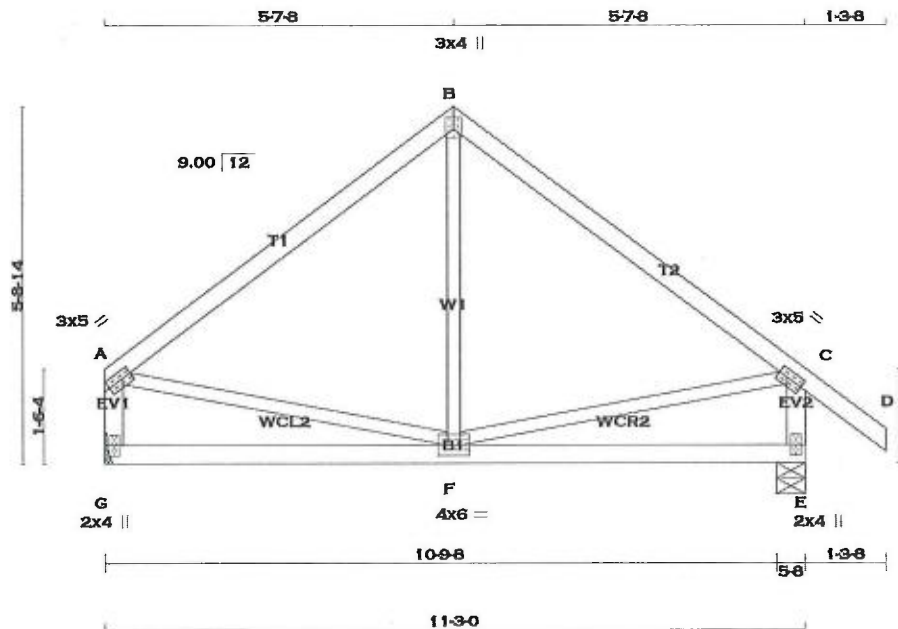
JSI GRIP= 0.85 (E) (INPUT = 0.90)
JSI METAL= 0.23 (E) (INPUT = 1.00)



September 14, 2018



READ ALL NOTES ON THIS PAGE AND 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 47 = 93 lb

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-1	MT20	3.0	5.0	1.50	Edge	
B	TTW+p	MT20	3.0	4.0	2.25	1.50	
C	TMVW-1	MT20	3.0	5.0	1.50	1.75	
E	BMV1+p	MT20	2.0	4.0			
F	BMVWW-1	MT20	4.0	6.0			
G	BMV1+p	MT20	2.0	4.0			

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	MAXIMUM FACTORED	INPUT	REQD
	GROSS REACTION	GROSS REACTION	BRG	BRG
JT	VERT	DOWN	HORZ	UPLIFT
G	534	0	534	0
E	640	0	640	0

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

UNFACTORED REACTIONS

1ST LCASE	MAX /MIN	COMPONENT REACTIONS					
JT	COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
G	374	262 / 0	0 / 0	0 / 0	0 / 0	112 / 0	0 / 0
E	447	326 / 0	0 / 0	0 / 0	0 / 0	121 / 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	MEMB.	MAX. FORCE	MAX. FACTORED
	FORCE	VERT. LOAD		(LBS)	FORCE
	(LBS)	(PLF)			(LBS)
FR-TO		FROM TO	CS1 (LC)	UNBRAC	CS1 (LC)
A-B	-362 / 0	-77.4	-77.4	0.32 (1)	6.25
B-C	-362 / 0	-77.4	-77.4	0.32 (1)	6.25
C-D	0 / 32	-77.4	-77.4	0.11 (1)	10.00
G-A	-496 / 0	0.0	0.0	0.05 (1)	7.81
E-C	-603 / 0	0.0	0.0	0.06 (1)	7.81
G-F	0 / 0	-17.5	-17.5	0.16 (4)	10.00
F-E	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

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 (0.37")
CALCULATED DEFL.(LL) = L/999 (0.00")
ALLOWABLE DEFL.(TL)= L/360 (0.37")
CALCULATED VERT. DEFL.(TL) = L/999 (0.02")

CSI: TC=0.32/1.00 (B-C:1), BC=0.16/1.00 (F-G:4), WB=0.07/1.00 (C-F:1), SSI=0.14/1.00 (B-C:1)

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

COMPANION LIVE LOAD FACTOR = 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= 0.51 (A) (INPUT = 0.90)
JSI METAL= 0.17 (C) (INPUT = 1.00)



September 14, 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.

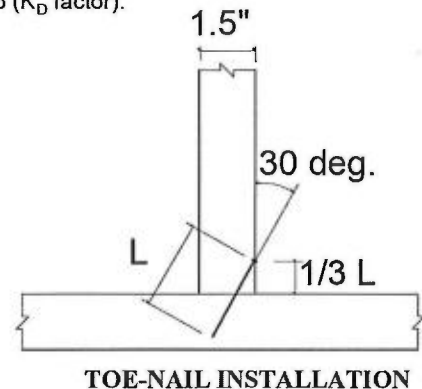
BEARING ANCHORAGE BY TOE-NAILS FOR LATERAL CAPACITY

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

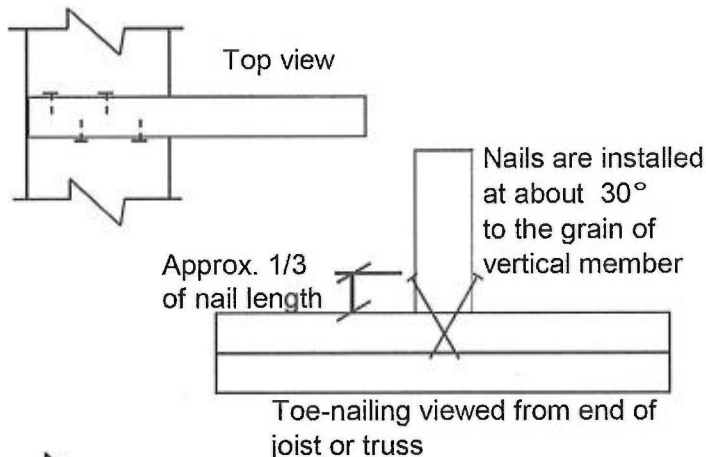
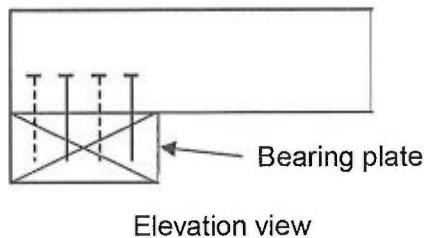
NAIL TYPE	LENGTH (IN)	DIAMETER (IN)	NAIL WITHDRAWAL CAPACITY (LB)	
			S-P-F	D. FIR
COMMON	3.00	0.144	30	42
	3.25	0.144	32	45
	3.50	0.160	38	52
WIRE				

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

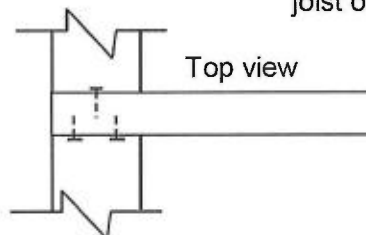
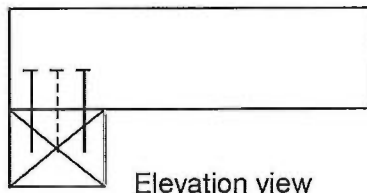
NOTES:

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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April 26, 2017