



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

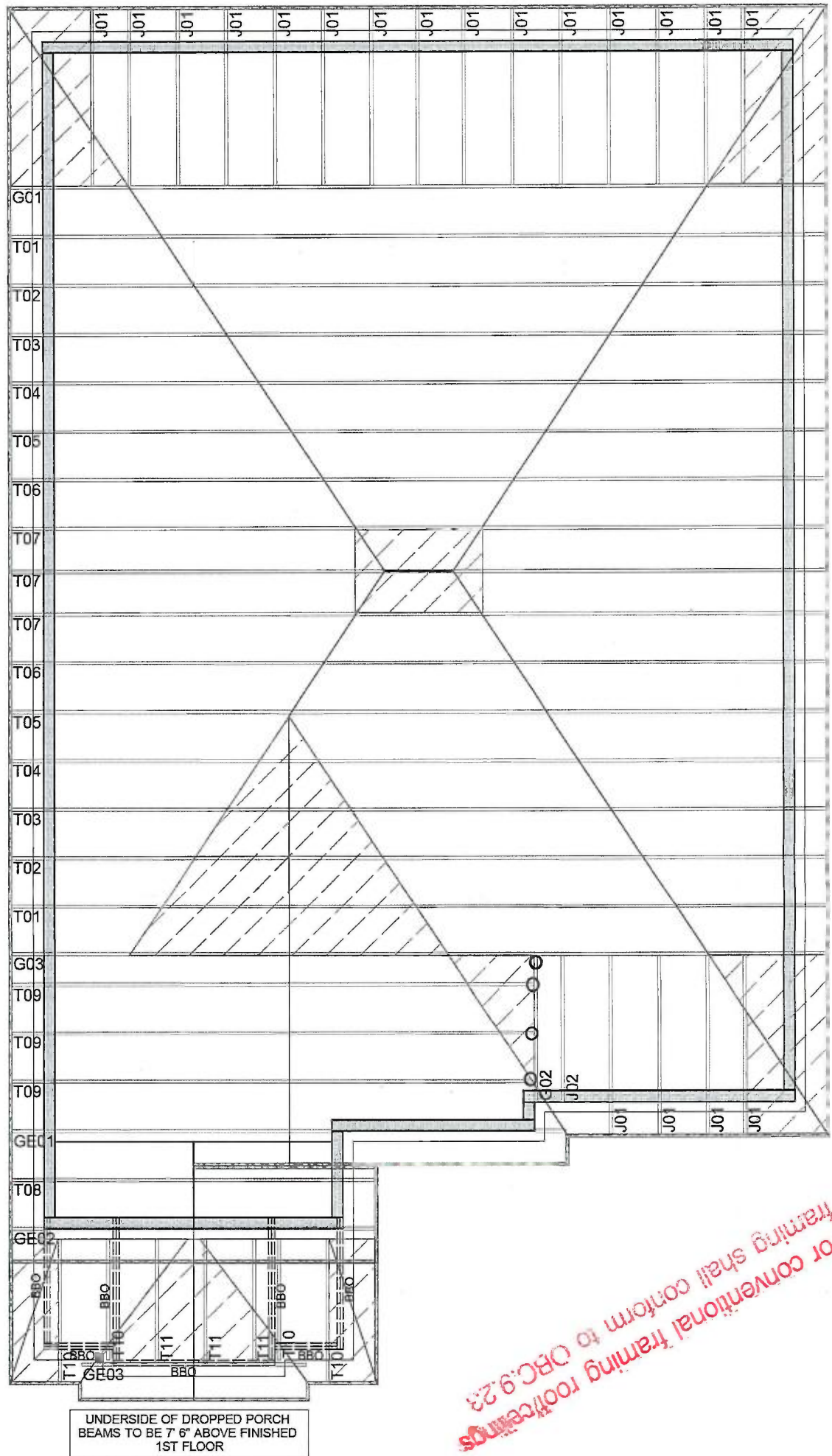
This certification is for the engineering review of structural components shown on this drawing and is limited to the components supplied by KOTT for the loads and conditions shown on the calculation page of each component. The placement of these components on this layout is shown for reference only. 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



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



ROOF TRUSS LAYOUT

LOT 6



CONVENTIONAL
FRAMING BY OTHERS

HANGER LEGEND

X - LUS24
- HGUS26

O - LJS26DS
% - HGUS26-2

DESIGN CRITERIA
SPECIFIED LOADS
TOP CH. LL = 31.3 psf
DL = 3.0 psf
BOT CH. LL = 0.0 psf
DL = 7.0 psf
TOTAL LOAD = 41.3 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 2
Customer:	GREENPARK
Project:	MINNISALE HOMES
Location:	BRAMPTON
Drawn By:	DM
Date:	6/22/2018

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'

18-331263-000-00 RE-ROOF

1010715

Lot 6

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.

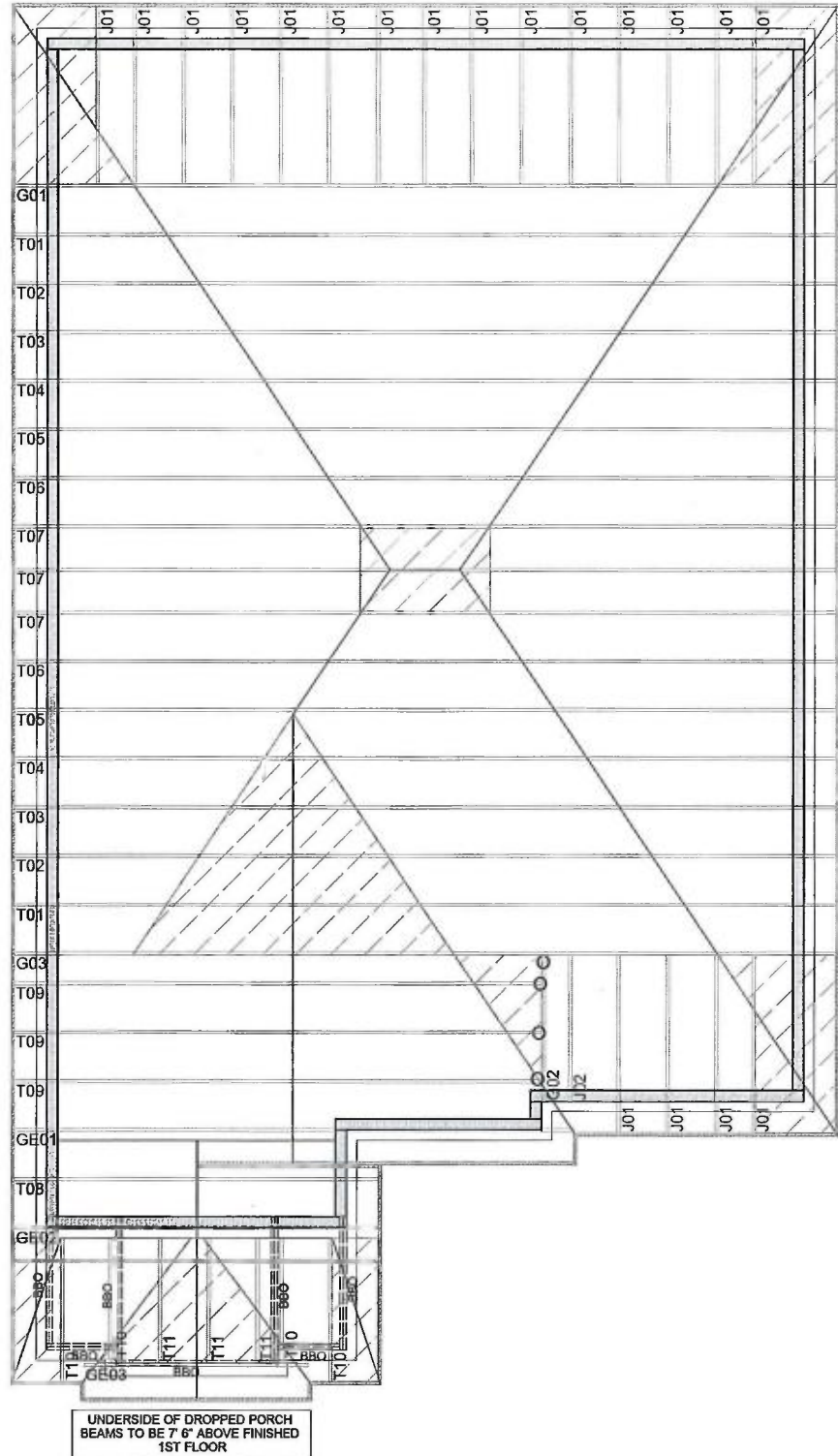


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Dated April 26/18

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September 14, 2018



ROOF TRUSS LAYOUT



**CONVENTIONAL
FRAMING** BY OTHERS

HANGER LEGEND

X - LUS24
- HGUS26

O - LJS26DS
% - HGUS26-2

DESIGN CRITERIA
SPECIFIED LOADS:
TOP CH LL = 31.3 psf
DL = 3.0 psf
BOT CH LL = 0.0 psf
DL = 7.0 psf
TOTAL LOAD = 41.3 psf

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

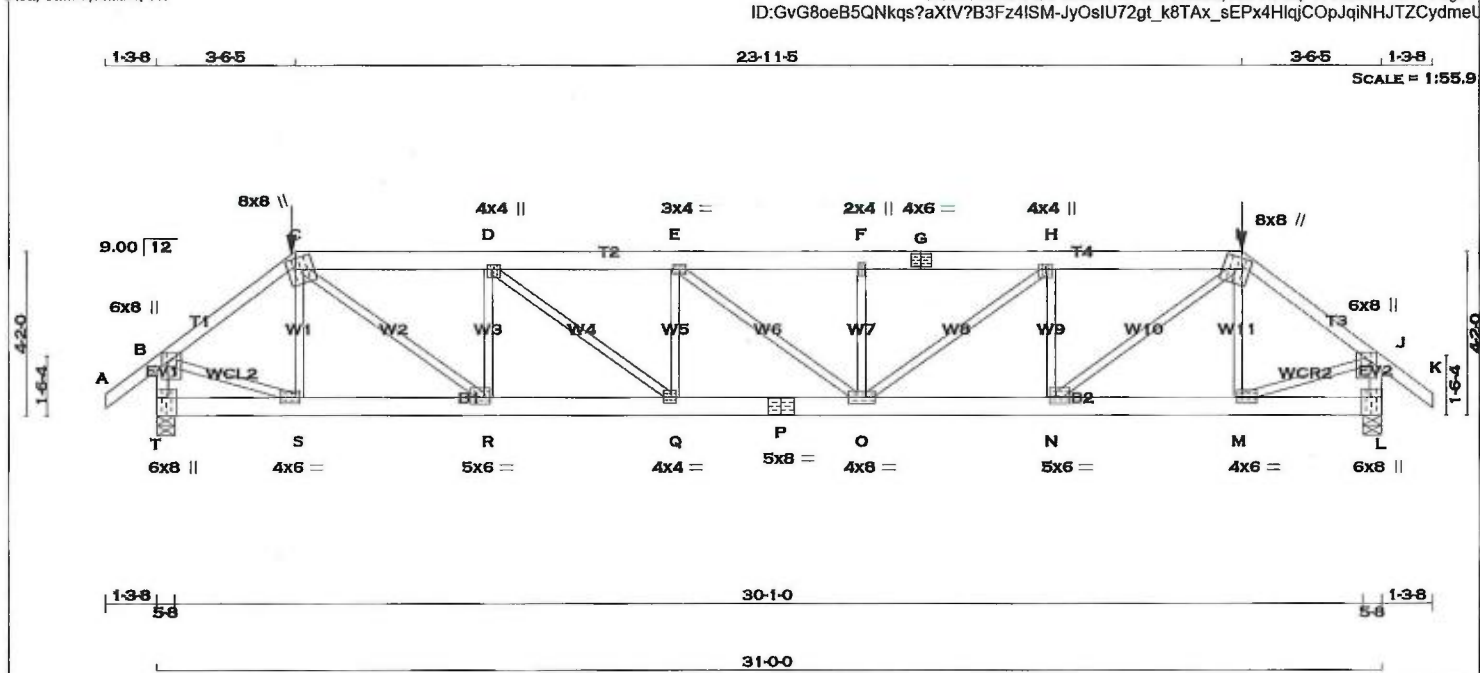
THIS DESIGN COMPLIES WITH PART 9 OF OBC 2012,
BCBC 2012, ABC 2012, CSA 688-09, TPIC 2011

ALLOWABLE DEFLECTION OF EACH COMPONENT = L/360

Model:	MILLWOOD 2 EL 2
Customer:	GREENPARK
Project:	MINNISALE HOMES
Location:	BRAMPTON
Drawn By:	DM
Date:	6/22/2018

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'



TOTAL WEIGHT = 159 lb

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 - C	2x4	DRY	No.2	SPF	FACTORED	MAXIMUM FACTORED	INPUT
C - G	2x6	DRY	No.2	SPF	GROSS REACTION	GROSS REACTION	BRG
G - I	2x6	DRY	No.2	SPF	JT VERT	DOWN	IN-SX
I - K	2x4	DRY	No.2	SPF	T 2842	0	5-8
T - B	2x4	DRY	No.2	SPF	L 2842	0	5-8
L - J	2x4	DRY	No.2	SPF			
T - P	2x6	DRY	No.2	SPF			
P - L	2x6	DRY	No.2	SPF			

UNFACTORED REACTIONS				DESIGN CRITERIA			
1ST LCASE	MAX./MIN.	COMPONENT REACTIONS		SPECIFIED LOADS:			
JT COMBINED	SNOW	LIVE	PERM.LIVE	TOP CH.	LL = 23.3	PSF	
T 1993	1403 / 0	0 / 0	0 / 0	DL = 3.0	PSF		
L 1993	1403 / 0	0 / 0	0 / 0	BOT CH.	LL = 0.0	PSF	
				DL = 7.0	PSF		
				TOTAL LOAD = 33.3	PSF		

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

BRACING
TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 3.31 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 MAX (LC)	MEMB.	MAX. FACTORED FORCE (LBS)	MAX. LC1 MAX (LC)	
FR-TO		FROM	TO	FR-TO			
A-B	0 / 32	-77.4	-77.4 0.12 (1)	10.00	S-C	-569 / 0	0.14 (1)
B-C	-3039 / 0	-77.4	-77.4 0.34 (1)	3.69	C-R	0 / 2892	0.72 (1)
C-D	-4716 / 0	-145.9	-145.9 0.39 (1)	3.67	R-D	-1625 / 0	0.40 (1)
D-E	-5783 / 0	-145.9	-145.9 0.43 (1)	3.31	D-Q	0 / 1354	0.34 (1)
E-F	-5774 / 0	-145.9	-145.9 0.41 (1)	3.34	Q-E	-674 / 0	0.16 (1)
F-G	-5774 / 0	-145.9	-145.9 0.43 (1)	3.31	E-O	-12 / 0	0.01 (1)
G-H	-5774 / 0	-145.9	-145.9 0.43 (1)	3.31	O-F	-669 / 0	0.16 (1)
H-I	-4718 / 0	-145.9	-145.9 0.39 (1)	3.67	O-H	0 / 1340	0.33 (1)
I-J	-3039 / 0	-77.4	-77.4 0.34 (1)	3.69	H-N	-1621 / 0	0.40 (1)
J-K	0 / 32	-77.4	-77.4 0.12 (1)	10.00	N-I	0 / 2895	0.72 (1)
T-B	-2801 / 0	0.0	0.0 0.32 (1)	5.08	M-I	-571 / 0	0.14 (1)
L-J	-2801 / 0	0.0	0.0 0.32 (1)	5.08	B-S	0 / 2550	0.63 (1)
					M-J	0 / 2550	0.63 (1)
T-S	0 / 0	-33.0	-33.0 0.07 (4)	10.00			
S-R	0 / 2423	-33.0	-33.0 0.37 (1)	10.00			
R-Q	0 / 4716	-33.0	-33.0 0.69 (1)	10.00			
Q-P	0 / 5783	-33.0	-33.0 0.84 (1)	10.00			
P-O	0 / 5783	-33.0	-33.0 0.84 (1)	10.00			
O-N	0 / 4718	-33.0	-33.0 0.70 (1)	10.00			
N-M	0 / 2423	-33.0	-33.0 0.37 (1)	10.00			
M-L	0 / 0	-33.0	-33.0 0.07 (4)	10.00			

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

A SIZE FOR SIZE SUBSTITUTION OF MITEK MH20 WITH TEE-LOK TL20 PLATES IS ALLOWED.

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

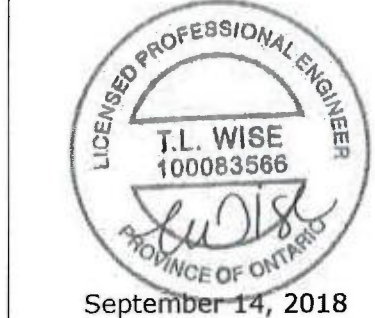
NAIL VALUES

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 (Q) (INPUT = 0.90)
JSI METAL= 0.95 (P) (INPUT = 1.00)



September 14, 2018

JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC. TRUSS DESC.	DRWG NO.	Page 4 of 24 TW0918-068
TW0918-068	G01	1	1	TR - GREENPARK - MINNISALE HOMES - MILLWOOD 2 ELE 2		

Kott, Ottawa, Ontario, TW

Version 8.210 S Mar 12 2018 MiTek Industries, Inc. Fri Sep 14 09:30:07 2018 Page 2

ID:GvG8oeB5QNkqs?aXtV?B3Fz4ISM-JyOsIU72gt_k8TAx_sEPx4HlqjCOpJqinHJTZCydmeU

HANGERS NOTES

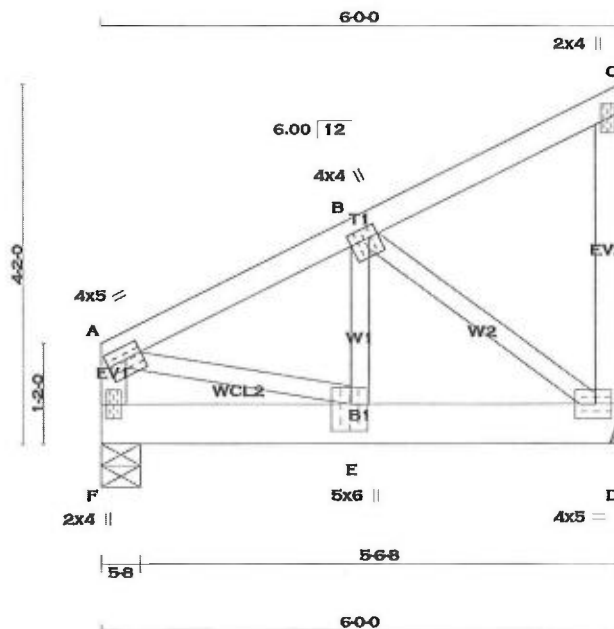
1) SPECIAL HANGER(S) OR CONNECTION(S) REQUIRED TO SUPPORT CONCENTRATED LOAD(S) 204.6 lbs FACTORED DOWN AT 27-5-11, AND 204.6 lbs FACTORED DOWN AT 3-6-5 ON TOP CHORD. DESIGN FOR UNSPECIFIED CONNECTION(S) IS DELEGATED TO THE BUILDING DESIGNER.



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.

Kott, Ottawa, Ontario, TW

Version 8.210 S Mar 12 2018 MiTek Industries, Inc. Fri Sep 14 09:30:07 2018 Page 1 ID:GvG8oeB5QNkqs?axIV?B3Fz4ISM-JyOsIU72gt_k8TAx_sEPx4HqmjJ7pPKINHJTZYCydmel



SCALE = 1:25.5

TOTAL WEIGHT = 29 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-1	MT20	4.0	5.0	1.75 2.25
B	TMVW-t	MT20	4.0	4.0	1.50 1.25
C	TMV+p	MT20	2.0	4.0	
D	BMVW-1	MT20	4.0	5.0	2.00 2.25
E	BMVW-t	MT20	5.0	6.0	3.75 2.25
F	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 GROSS REACTION	MAXIMUM FACTORED GROSS REACTION	INPUT BRG	REQD BRG
JT	VERT	HORZ	DOWN	HORZ
D	1550	0	1550	0
F	1550	0	1550	0

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	1088	761 / 0	0 / 0	0 / 0	0 / 0	327 / 0	0 / 0
F	1088	761 / 0	0 / 0	0 / 0	0 / 0	327 / 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 = 5.49 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. FACTORED	MEMB.	MAX. FACTORED
MEMB.	FORCE (LBS)	VERT. LOAD (PLF)	LOAD LC1 MAX (LC) (LBS)	MAX. UNBRACED LENGTH (LBS)	MEMB.	MAX. FACTORED (LBS)
FR-TO		FROM	TO		FR-TO	
A-B	-1323 / 0	-77.4	-77.4 0.12 (1)	5.49	E-B	0 / 1227
B-C	-9 / 0	-77.4	-77.4 0.09 (1)	10.00	B-D	-1495 / 0
D-C	-96 / 0	0.0	0.0 0.02 (1)	7.81	A-E	0 / 1230
F-A	-999 / 0	0.0	0.0 0.11 (1)	7.79		
F-E	0 / 0	-439.4	-439.4 0.25 (1)	10.00		
E-D	0 / 1191	-439.4	-439.4 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

GIRDER TYPE: CStd Girder

START DISTANCE = 0-0
START SPAN CARRIED = 20-3-0
END DISTANCE = 6-0-0
END SPAN CARRIED = 20-3-0
END WALL WIDTH = 5-8
APPLIED TO FRONT SIDE OF BOTTOM CHORD.
- ADDTL LOADS BASED ON 55 % OF GSL.

THIS TRUSS IS DESIGNED FOR RESIDENTIAL OR SMALL BUILDING REQUIREMENTS OF PART 9, NBCC 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 (0.02")
ALLOWABLE DEFL.(TL)= L/360 (0.20")
CALCULATED VERT. DEFL.(TL)= L/999 (0.03")

CSI: TC=0.12/1.00 (A-B:1), BC=0.41/1.00 (D-E:1), WB=0.36/1.00 (B-D:1), SSI=0.51/1.00 (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.

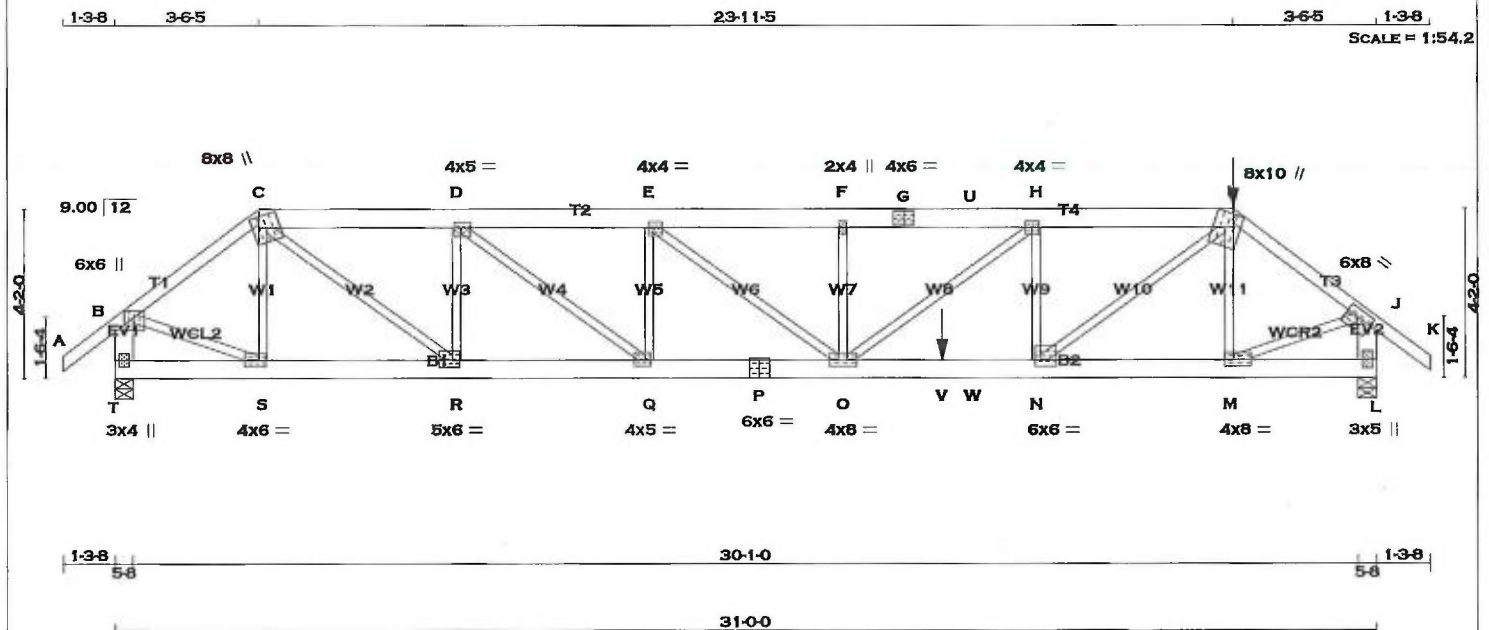
JSI GRIP= 0.89 (B) (INPUT = 0.90)
JSI METAL = 0.41 (B) (INPUT = 1.00)



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 = 160 lb

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

A - C	2x4	DRY	No.2	SPF
C - G	2x6	DRY	No.2	SPF
G - I	2x6	DRY	No.2	SPF
I - K	2x4	DRY	No.2	SPF
T - B	2x6	DRY	No.2	SPF
L - J	2x6	DRY	No.2	SPF
T - P	2x6	DRY	No.2	SPF
P - L	2x6	DRY	2100F 1.8E	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+p	MT20	6.0	6.0	2.25 2.75
C	TTWW+m	MT20	8.0	8.0	4.00 3.75
D	TMWW-t	MT20	4.0	5.0	1.50 2.00
E	TMWW-t	MT20	4.0	4.0	1.75 1.50
F	TMW+w	MT20	2.0	4.0	
G	TS-t	MT20	4.0	6.0	
H	TMWW-t	MT20	4.0	4.0	
I	TTWW+m	MT20	8.0	10.0	4.50 3.50
J	TMVW-t	MT20	6.0	8.0	2.25 3.50
L	BMV1+p	MT20	3.0	5.0	
M	BMWW-t	MT20	4.0	8.0	2.00 2.75
N	BMWW-t	MT20	6.0	6.0	2.00 1.50
O	BMWW-t	MT20	4.0	8.0	
P	BS-t	MT20	6.0	6.0	
Q	BMWW-t	MT20	4.0	5.0	1.75 1.75
R	BMWW-t	MT20	5.0	6.0	2.25 2.00
S	BMWW-t	MT20	4.0	6.0	2.00 2.00
T	BMV1+p	MT20	3.0	4.0	

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	REQRD BRG
	VERT	HORZ	DOWN	UPLIFT		
T	2256	0	2256	0	5-8	2-7
L	3251	0	3251	0	5-8	3-8

UNFACTORED REACTIONS

JT	1ST LCASE COMBINED		MAX/MIN. COMPONENT REACTIONS		WIND	DEAD	SOIL
	SNOW	LIVE	PERM. LIVE	WIND			
T	1581	1121 / 0	0 / 0	0 / 0	0 / 0	460 / 0	0 / 0
L	2280	1603 / 0	0 / 0	0 / 0	0 / 0	677 / 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 = 3.17 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 LC1 MAX. (LC)	MEMB.	MAX. FACTORED FORCE (LBS)	MAX. FACTORED UNBRACED LENGTH (LC)	MAX. FACTORED UNBRACED LENGTH (LC)
FR-TO				FR-TO			
A-B	0 / 32	-77.4	-77.4 0.12 (1)	10.00	S-C	-486 / 0	0.12 (1)
B-C	-2369 / 0	-77.4	-77.4 0.28 (1)	4.17	C-R	0 / 2655	0.66 (1)
C-D	-3992 / 0	-77.4	-77.4 0.24 (1)	4.12	R-D	-1515 / 0	0.37 (1)
D-E	-5393 / 0	-77.4	-77.4 0.29 (1)	3.58	D-Q	0 / 1777	0.44 (1)
E-F	-6397 / 0	-77.4	-77.4 0.41 (1)	3.19	Q-E	-1161 / 0	0.28 (1)
F-G	-6397 / 0	-77.4	-77.4 0.43 (1)	3.17	E-O	0 / 1275	0.32 (1)
G-U	-6397 / 0	-77.4	-77.4 0.43 (1)	3.17	O-F	-333 / 0	0.08 (1)
U-H	-6397 / 0	-145.9	-145.9 0.43 (1)	3.17	O-H	0 / 810	0.20 (1)
H-I	-5759 / 0	-145.9	-145.9 0.49 (1)	3.24	N-H	-1234 / 0	0.30 (1)
I-J	-3487 / 0	-77.4	-77.4 0.39 (1)	3.41	N-I	0 / 3764	0.93 (1)
J-K	0 / 32	-77.4	-77.4 0.12 (1)	10.00	M-I	-841 / 0	0.21 (1)
T-B	-2237 / 0	0.0	0.0 0.16 (1)	6.80	B-S	0 / 1988	0.49 (1)
L-J	-3178 / 0	0.0	0.0 0.23 (1)	5.89	M-J	0 / 2926	0.72 (1)
T-S	0 / 0	-17.5	-17.5 0.04 (4)	10.00			
S-R	0 / 1888	-17.5	-17.5 0.28 (1)	10.00			
R-Q	0 / 3992	-17.5	-17.5 0.62 (1)	10.00			
Q-P	0 / 5393	-17.5	-17.5 0.80 (1)	10.00			
P-O	0 / 5393	-17.5	-17.5 0.80 (1)	10.00			
O-V	0 / 5758	-17.5	-17.5 0.88 (1)	10.00			
V-W	0 / 5758	-17.5	-17.5 0.88 (1)	10.00			
W-N	0 / 5758	-33.0	-33.0 0.88 (1)	10.00			
N-M	0 / 2775	-33.0	-33.0 0.34 (1)	10.00			
M-L	0 / 0	-33.0	-33.0 0.03 (1)	10.00			

FACTORED CONCENTRATED LOADS (LBS)

JT	LOC.	LC1	MAX.	FACE	DIR.	TYPE
I	27-5-11	-205	-205	---	FRONT	VERT
V	20-3-12	-1550	-1550	---	FRONT	VERT

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 = 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.
LOADS APPLIED TO FIRST 10-0-0 OF SPAN MEASURED FROM THE RIGHT.

*** 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, 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 (0.28")
ALLOWABLE DEFL.(TL) = L/360 (1.03")
CALCULATED VERT. DEFL.(TL) = L/756 (0.49")

CSI: TC=0.49/1.00 (H-I:1), BC=0.88/1.00 (N-O:1), WB=0.93/1.00 (I-N:1), SSI=0.58/1.00 (N-O: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.



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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 ON TOP CHORD, AND 1550.3 lbs FACTORED DOWN AT 20-3-12 ON BOTTOM CHORD. DESIGN FOR UNSPECIFIED CONNECTION(S) IS DELEGATED TO THE BUILDING DESIGNER.

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

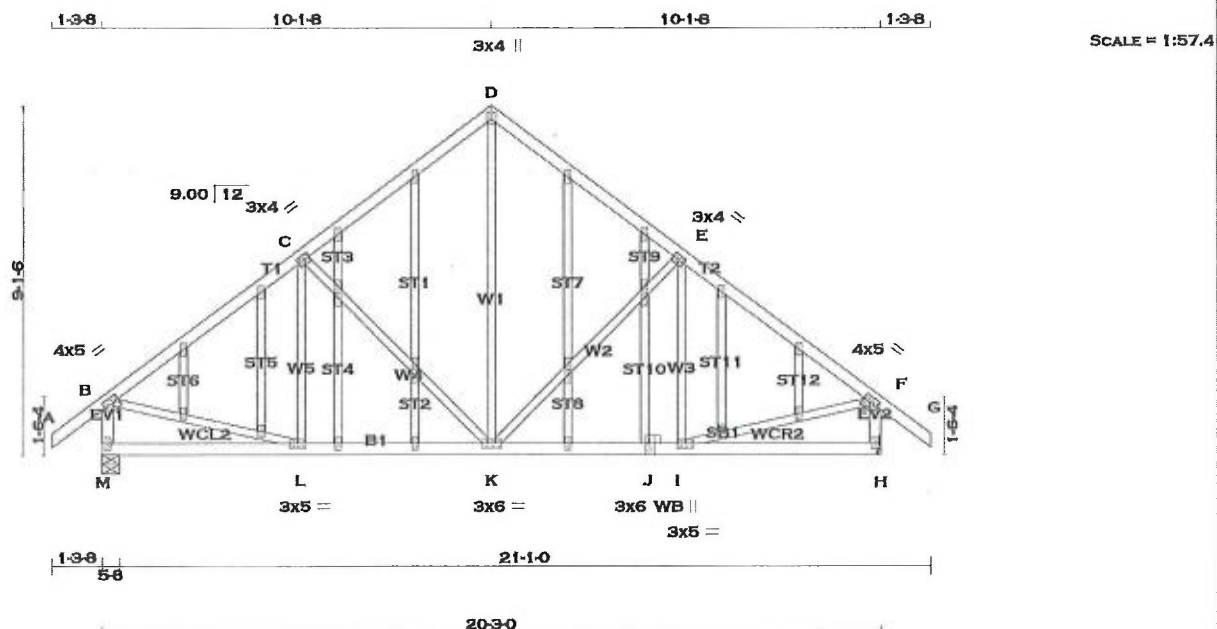
PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.90 (R) (INPUT = 0.90)
JSI METAL= 0.75 (N) (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.



LUMBER

N. L. G. A. RULES

CHORDS

SIZE

LUMBER

DESCR.

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

TMVW-I

MT20

4.0

5.0

1.75

2.00

C

TMWW-I

MT20

3.0

4.0

1.50

1.50

D

TTW+p

MT20

3.0

4.0

2.25

1.50

E

TMWW-I

MT20

3.0

4.0

1.50

1.50

F

TMVW-I

MT20

4.0

5.0

1.75

2.00

H

BMV1+p

MT20

2.0

4.0

I

BMWW-I

MT20

3.0

5.0

J

J

J

BSW-I

MT20

3.0

6.0

K

BMWW-I

MT20

3.0

6.0

L

BMWW-I

MT20

3.0

5.0

M

BMV1+p

MT20

2.0

4.0

N, Q, Z, AB

N

NP+w

MT20

2.0

4.0

1.50

1.00

N, O, P, Q, R, S, T, U, V, W, X, Y, Z, AA, AB, AC, AD, AE, AF

N

NP+w

MT20

2.0

4.0

A SIZE FOR SIZE SUBSTITUTION OF MITEK M120 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

GROSS REACTION

MAXIMUM FACTORED

GROSS REACTION

INPUT

REQRD

BRG

IN-SX

IN-SX

JT

VERT

HORZ

DOWN

HORZ

UPLIFT

IN-SX

IN-SX

M

1067

0

1067

0

0

5-8

1-13

H

1067

0

1067

0

0

MECHANICAL

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

UNFACTORED REACTIONS

1ST LCASE

MAX./MIN. COMPONENT REACTIONS

JT

COMBINED

SNOW

LIVE

PERM.LIVE

WIND

DEAD

SOIL

M

747

536 / 0

0 / 0

0 / 0

0 / 0

211 / 0

0 / 0

H

747

536 / 0

0 / 0

0 / 0

0 / 0

211 / 0

0 / 0

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

BRACING

TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 6.04 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

VERT. LOAD

LC1

MAX

MAX.

MEMB.

FORCE

VERT.

PLF

CSI (LC)

UNBRAC

MEMB.

FORCE

MAX

FACTORED

FR-TO

FROM

TO

LENGTH

FR-TO

FROM

TO

A-B

0 / 32

-77.4

-77.4

0.11 (1)

10.00

K-D

0 / 548

0.12 (1)

B-C

-953 / 0

-77.4

-77.4

0.27 (1)

6.04

K-E

-325 / 0

0.31 (1)

C-D

-725 / 0

-77.4

-77.4

0.26 (1)

6.25

I-E

-83 / 60

0.04 (1)

D-E

-725 / 0

-77.4

-77.4

0.26 (1)

6.25

C-K

-325 / 0

0.31 (1)

E-F

-953 / 0

-77.4

-77.4

0.27 (1)

6.04

L-C

-83 / 60

0.04 (1)

F-G

0 / 32

-77.4

-77.4

0.11 (1)

10.00

B-L

0 / 805

0.18 (1)

M-B

-1030 / 0

0.0

0.0

0.11 (1)

7.74

I-F

0 / 805

0.18 (1)

H-F

-1030 / 0

0.0

0.0

0.11 (1)

7.74

M-L

0 / 0

-17.5

-17.5

0.11 (4)

10.00

L-K

0 / 784

-17.5

-17.5

0.18 (1)

10.00

K-J

0 / 784

-17.5

-17.5

0.18 (1)

10.00

J-I

0 / 784

-17.5

-17.5

0.18 (1)

10.00

I-H

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/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)= 1/360 (0.68")

CALCULATED VERT. DEFL.(LL) = 1/999 (0.02")

ALLOWABLE DEFL.(TL)= 1/360 (0.68")

CALCULATED VERT. DEFL.(TL) = 1/999 (0.05")

CSI: TC=0.27/1.00 (B-C:1), BC=0.18/1.00 (K-L:1), WB=0.31/1.00 (C-K:1), SSI=0.15/1.00 (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= 0.88 (K) (INPUT = 0.90)

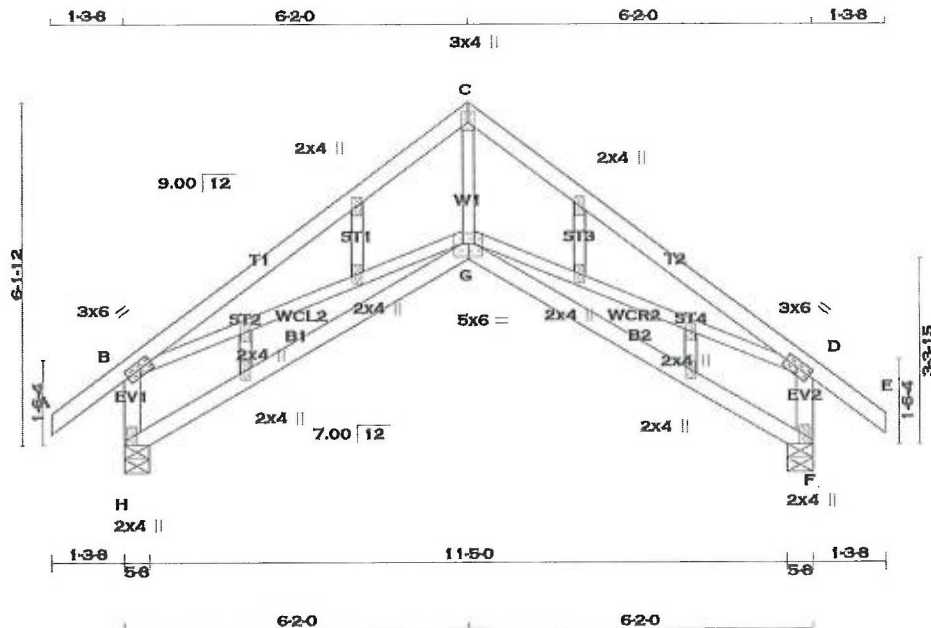
JSI METAL= 0.34 (F) (INPUT = 1.00)



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SCALE = 1:39.5

TOTAL WEIGHT = 57 lb
(M/F)

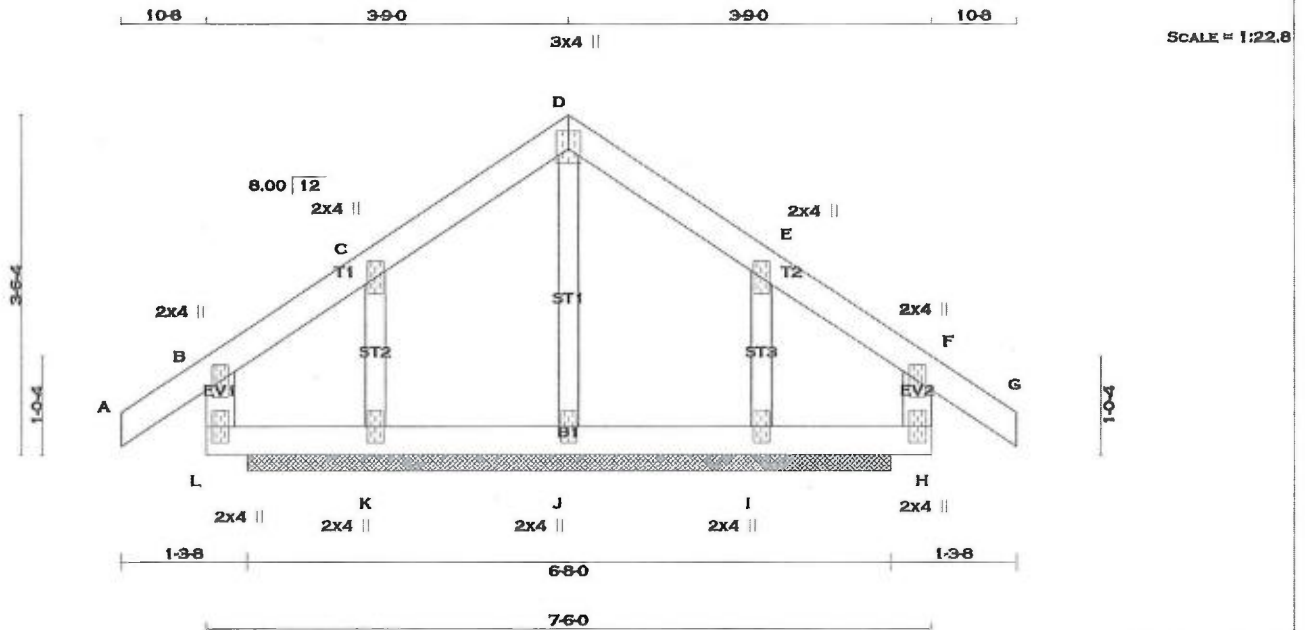
LUMBER N. L. G. A. RULES CHORDS SIZE LUMBER DESCR.				DIMENSIONS, SUPPORTS AND LOADINGS SPECIFIED BY FABRICATOR TO BE VERIFIED BY BUILDING DESIGNER				DESIGN CRITERIA			
A - C 2x4 DRY No.2 C - E 2x4 DRY No.2 H - B 2x4 DRY No.2 F - D 2x4 DRY No.2 H - G 2x4 DRY No.2 G - F 2x4 DRY No.2				BEARINGS FACTORED MAXIMUM FACTORED INPUT REQD GROSS REACTION GROSS REACTION BRG BRG JT VERT HORZ DOWN HORZ UPLIFT IN-SX IN-SX H 692 0 692 0 0 5-8 1-8 F 692 0 692 0 0 5-8 1-8				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			
ALL WEBS 2x3 DRY No.2 EXCEPT ALL GABLE WEBS 2x3 DRY No.2 DRY: SEASONED LUMBER.				UNFACTORED REACTIONS 1ST LCASE MAX/MIN COMPONENT REACTIONS JT COMBINED SNOW LIVE PERM.LIVE WIND DEAD SOIL H 483 351 / 0 0 / 0 0 / 0 132 / 0 0 / 0 F 483 351 / 0 0 / 0 0 / 0 132 / 0 0 / 0				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 (0.04") ALLOWABLE DEFL.(TL)= L/360 (0.41") CALCULATED VERT. DEFL.(TL) = L/999 (0.11") CSI: TC=0.40/1.00 (C-D:1), BC=0.20/1.00 (F-G:4), WB=0.17/1.00 (B-G: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			
GABLE STUDS SPACED AT 2-0-0 OC.				BRACING TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 5.93 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.				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= 0.89 (C) (INPUT = 0.90) JSI METAL= 0.28 (D) (INPUT = 1.00)			
PLATES (table is in inches) JT TYPE PLATES W LEN Y X B TMVW-1 MT20 3.0 6.0 1.50 2.75 C TTW+p MT20 3.0 4.0 2.25 1.50 D TMVW-1 MT20 3.0 6.0 1.50 2.75 F BMV1+p MT20 2.0 4.0 Edge G BBWWV-p MT20 5.0 6.0 2.75 3.00 H BMV1+p MT20 2.0 4.0 Edge I, J, K, L, M, N, O, P I NP+w MT20 2.0 4.0				LOADING TOTAL LOAD CASES: (4) CHORDS MAX. FACTORED WEBS MAX. FACTORED MEMB. FORCE VERT. LOAD LC1 MAX MEMB. FORCE MAX (LBS) (PLF) CSI (LC) UNBRAC LENGTH FR-TO (LBS) CSI (LC) FR-TO FROM TO A-B 0 / 32 -77.4 -77.4 0.11 (1) 10.00 G- C 0 / 621 0.14 (1) B-C -915 / 0 -77.4 -77.4 0.40 (1) 5.93 B- G 0 / 775 0.17 (1) C-D -915 / 0 -77.4 -77.4 0.40 (1) 5.93 G- D 0 / 775 0.17 (1) D-E 0 / 32 -77.4 -77.4 0.11 (1) 10.00 H-B -638 / 0 0.0 0.0 0.07 (1) 7.81 F-D -638 / 0 0.0 0.0 0.07 (1) 7.81 H-G 0 / 0 -17.5 -17.5 0.20 (4) 10.00 G-F 0 / 0 -17.5 -17.5 0.20 (4) 10.00				Edge - INDICATES REFERENCE CORNER OF PLATE TOUCHES EDGE OF CHORD. A SIZE FOR SIZE SUBSTITUTION OF MITEK MI120 WITH TEE-LOK TL20 PLATES IS ALLOWED.			



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 = 28 lb

LUMBER				DIMENSIONS, SUPPORTS AND LOADINGS SPECIFIED BY FABRICATOR TO BE VERIFIED BY BUILDING DESIGNER				DESIGN CRITERIA			
N. L. G. A. RULES	CHORDS	SIZE	LUMBER	DESCR.	BEARINGS					SPECIFIED LOADS:	
L - B	2x4	DRY	No.2	SPF	THIS TRUSS DESIGNED FOR CONTINUOUS BEARINGS.					TOP CH. LL = 23.3	PSF
A - D	2x4	DRY	No.2	SPF	THIS TRUSS REQUIRES RIGID SHEATHING ON EXPOSED FACE.					DL = 3.0	PSF
D - G	2x4	DRY	No.2	SPF	BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S)					BOT CH. LL = 0.0	PSF
H - F	2x4	DRY	No.2	SPF						DL = 7.0	PSF
L - H	2x4	DRY	No.2	SPF						TOTAL LOAD = 33.3	PSF
ALL WEBS	2x3	DRY	No.2	SPF						SPACING = 24.0	IN. C/C
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	BMV+p	MT20	2.0	4.0		
I, J, K						
I	BMW1+w	MT20	2.0	4.0		
L	BMV+p	MT20	2.0	4.0		

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

LOADING

TOTAL LOAD CASES: (4)

CHORDS
MAX. FACTORED
MEMB. FORCE (LBS)
VERT. LOAD LC1 MAX (PLF)
CS1 (LC)
UNBRAC
MAX. MEMB. FORCE (LBS)
MAX. CS1 (LC)

FR-TO	FROM	TO	LENGTH	FR-TO	FROM	TO	LENGTH
L-B	-25 / 7	0.0	0.0	0.06 (1)	7.81	J-D	-295 / 0
A-B	0 / 21	-77.4	-77.4	0.05 (1)	10.00	K-C	-192 / 0
B-C	0 / 158	-77.4	-77.4	0.09 (1)	10.00	I-E	-192 / 0
C-D	0 / 139	-77.4	-77.4	0.09 (1)	10.00		
D-E	0 / 139	-77.4	-77.4	0.09 (1)	10.00		
E-F	0 / 158	-77.4	-77.4	0.09 (1)	10.00		
F-G	0 / 21	-77.4	-77.4	0.05 (1)	10.00		
H-F	-25 / 7	0.0	0.0	0.06 (1)	7.81		
L-K	-114 / 0	-17.5	-17.5	0.05 (1)	6.25		
K-J	-123 / 0	-17.5	-17.5	0.04 (1)	6.25		
J-I	-123 / 0	-17.5	-17.5	0.04 (1)	6.25		
I-H	-114 / 0	-17.5	-17.5	0.05 (1)	6.25		

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=0.09/1.00 (B-C:1), BC=0.05/1.00 (H-I:1), WB=0.06/1.00 (D-J:1), SSI=0.09/1.00 (B-L: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.

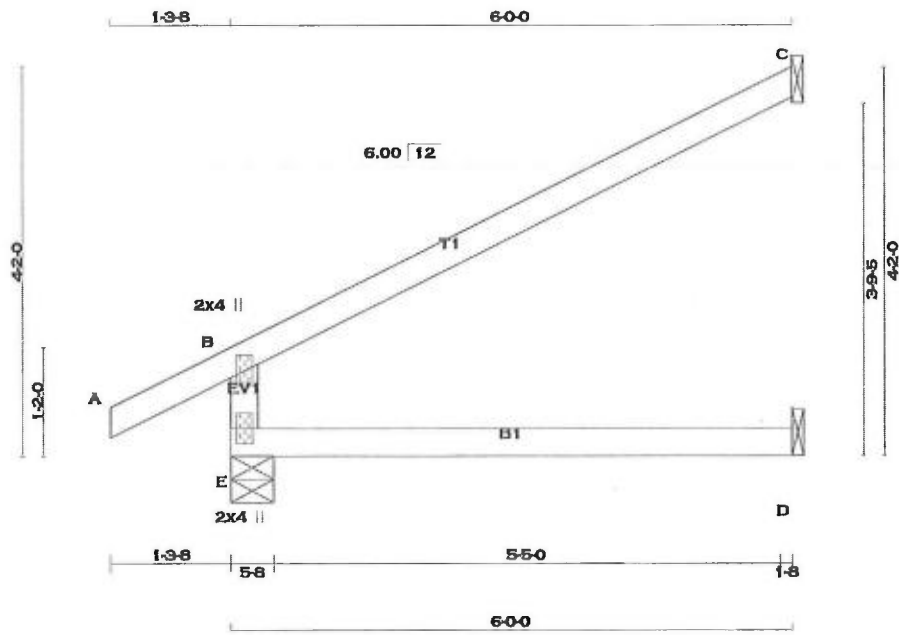
JSI GRIP= 0.20 (D) (INPUT = 0.90)
JSI METAL= 0.07 (L) (INPUT = 1.00)



September 14, 2018



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TOTAL WEIGHT = 20 X 17 = 342 lb [M]

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

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

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

JT	1ST LCASE COMBINED	MAX/MIN COMPONENT REACTIONS					
		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)

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		
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 (PSI)	SECTION (PLI)
MT20	618	354	1667
	822	2284	1656

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

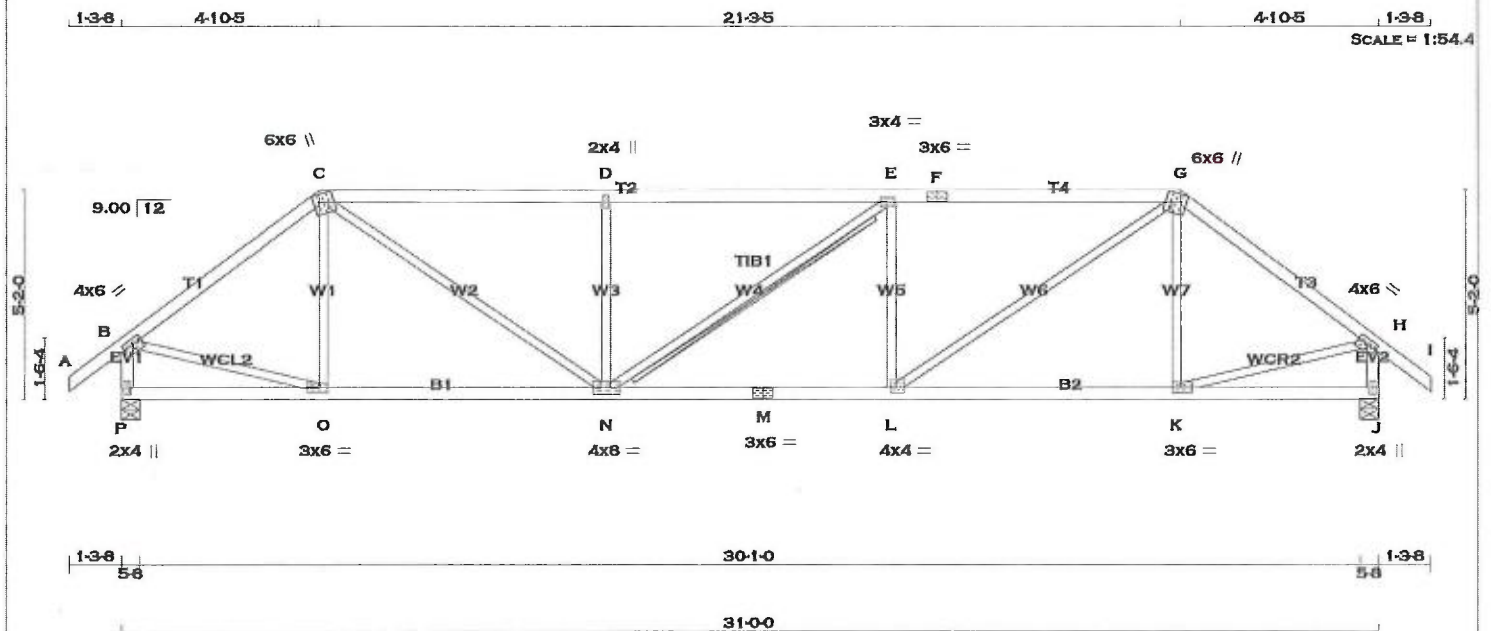
JSI GRIP= 0.23 (B) (INPUT = 0.90)
 JSI METAL= 0.09 (B) (INPUT = 1.00)



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LUMBER	CHORDS	SIZE	LUMBER	DESCR.
N. L. G. A. RULES				
A - C	2x4	DRY	No.2	SPF
C - F	2x4	DRY	No.2	SPF
F - G	2x4	DRY	No.2	SPF
G - 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	TTWW+m	MT20	6.0	6.0	Edge	4.25	
D	TMW+w	MT20	2.0	4.0			
E	TMWW-t	MT20	3.0	4.0			
F	TS-t	MT20	3.0	6.0			
G	TTWW+m	MT20	6.0	6.0	Edge	4.25	
H	TMVW-t	MT20	4.0	6.0	1.50	2.75	
J	BMV1+p	MT20	2.0	4.0			
K	BMWW-t	MT20	3.0	6.0	1.50	2.50	
L	BMWW-t	MT20	4.0	4.0	1.75	1.50	
M	BS-t	MT20	3.0	6.0			
N	BMWW-t	MT20	4.0	8.0			
O	BMWW-t	MT20	3.0	6.0	1.50	2.50	
P	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 GROSS REACTION	MAXIMUM FACTORED GROSS REACTION	INPUT BRG	REQRD BRG
JT	VERT	HORZ	DOWN	HORZ
P	1577	0	1577	0
J	1577	0	1577	0

UNFACTORED REACTIONS

1ST LCASE	MAX	MIN	COMPONENT REACTIONS
JT	COMBINED	SNOW	LIVE
P	1104	786 / 0	0 / 0
J	1104	786 / 0	0 / 0

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

BRACING

TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 3.72 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

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	MEMB.	FORCE	FACTORED	VERT. LOAD	MAX	CS1 (LC)	UNBRAC	LENGTH	FR-TO	MEMB.	FORCE	FACTORED	MAX	CS1 (LC)
FR-TO														
A-B	0 / 32	-77.4	-77.4	0.11	(1)	10.00	0-C	-184 / 39	0.07	(1)				
B-C	-1577 / 0	-77.4	-77.4	0.39	(1)	4.82	C-N	0 / 1272	0.29	(1)				
C-D	-2306 / 0	-77.4	-77.4	0.79	(1)	3.72	N-D	-594 / 0	0.23	(1)				
D-E	-2306 / 0	-77.4	-77.4	0.78	(1)	3.72	N-E	0 / 0	0.00	(1)				
E-F	-2307 / 0	-77.4	-77.4	0.78	(1)	3.72	L-E	-593 / 0	0.23	(1)				
F-G	-2307 / 0	-77.4	-77.4	0.78	(1)	3.72	L-G	0 / 1272	0.29	(1)				
G-H	-1577 / 0	-77.4	-77.4	0.39	(1)	4.83	K-G	-185 / 39	0.07	(1)				
H-I	0 / 32	-77.4	-77.4	0.11	(1)	10.00	B-O	0 / 1295	0.29	(1)				
P-B	-1546 / 0	0.0	0.0	0.16	(1)	6.62	K-H	0 / 1295	0.29	(1)				
J-H	-1546 / 0	0.0	0.0	0.16	(1)	6.62								
P-O	0 / 0	-17.5	-17.5	0.15	(4)	10.00								
O-N	0 / 1255	-17.5	-17.5	0.29	(1)	10.00								
N-M	0 / 2307	-17.5	-17.5	0.46	(1)	10.00								
M-L	0 / 2307	-17.5	-17.5	0.46	(1)	10.00								
L-K	0 / 1255	-17.5	-17.5	0.29	(1)	10.00								
K-J	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 (1.03")
CALCULATED VERT. DEFL.(LL)= L/999 (0.12")
ALLOWABLE DEFL.(TL)= L/360 (1.03")
CALCULATED VERT. DEFL.(TL)= L/999 (0.24")

CSI: TC=0.79/1.00 (C-D:1), BC=0.46/1.00 (L-N:1), WB=0.29/1.00 (B-O:1), SSI=0.26/1.00 (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)	SHEAR	SECTION
(PSI)	(PLI)	(PLI)	(PLI)
MAX	MIN	MAX	MIN
MT20	618	354	1667

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.88 (O) (INPUT = 0.90)
JSI METAL= 0.68 (M) (INPUT = 1.00)

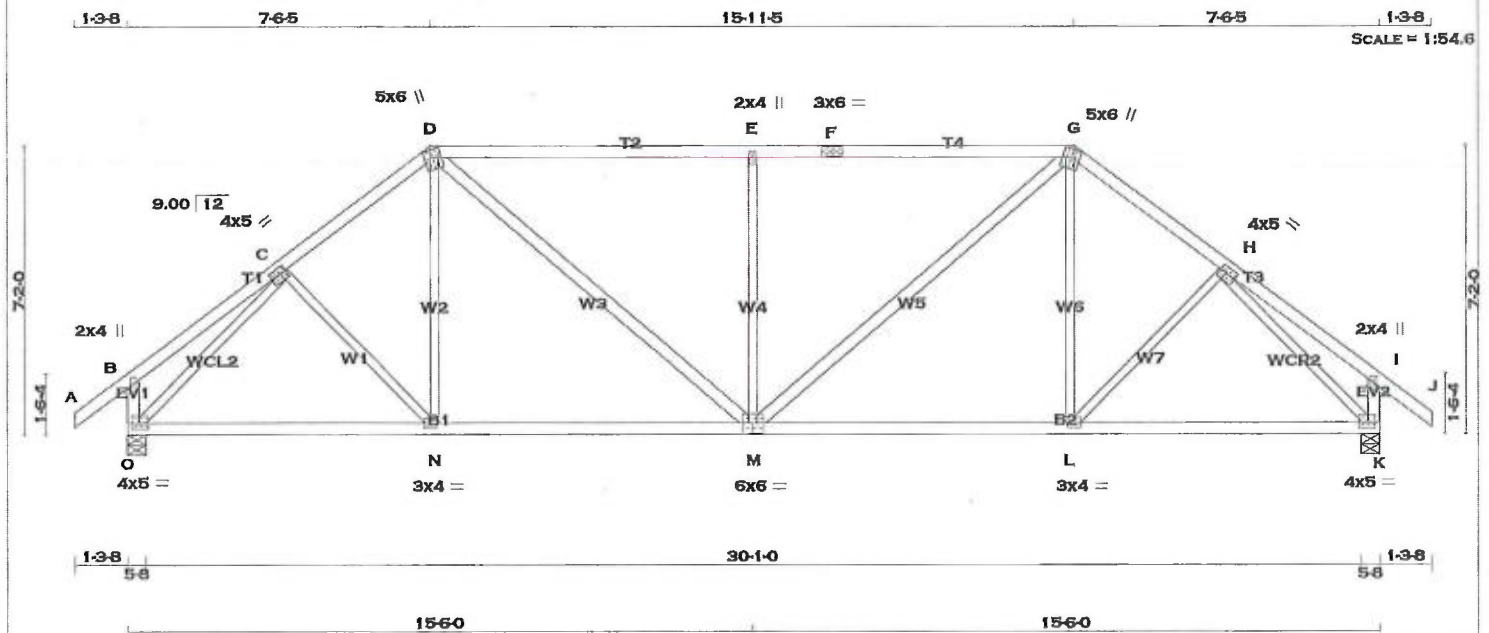


September 14, 2018



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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	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-t	MT20	4.0	5.0	1.75	2.25
L	BMWW-t	MT20	3.0	4.0		
M	BSWW-t	MT20	6.0	6.0	3.25	3.00
N	BMWW-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		MAXIMUM FACTORED		INPUT		REQRD	
JT	GROSS REACTION	VERT	HORZ	DOWN	HORZ	UPLIFT	BRG	IN-SX	BRG
O	1577	0	1577	0	0	5-8	1-13		
K	1577	0	1577	0	0	5-8	1-13		

UNFACTORED REACTIONS							
	1ST LCASE	MAX./MIN. COMPONENT REACTIONS					
JT	COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
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.	FORCE (LBS)	MEMB.	FORCE (LBS)
FR-TO	MAX. FACTORED	FR-TO	MAX. FACTORED
A-B	0 / 32	C-N	0 / 56
B-C	0 / 19	D-M	0 / 136
C-D	-1568 / 0	E-F	0 / 687
D-E	-1759 / 0	F-G	-766 / 0
E-F	-1760 / 0	G-H	0 / 687
F-G	-1760 / 0	H-I	0 / 136
G-H	-1568 / 0	I-J	0 / 56
H-I	0 / 19	J-K	-1786 / 0
I-J	0 / 32	K-L	-1786 / 0
O-B	-220 / 0		
K-I	-220 / 0		
O-N	0 / 1220		
N-M	0 / 1239		
M-L	0 / 1239		
L-K	0 / 1220		

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, 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 (L-M: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 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.

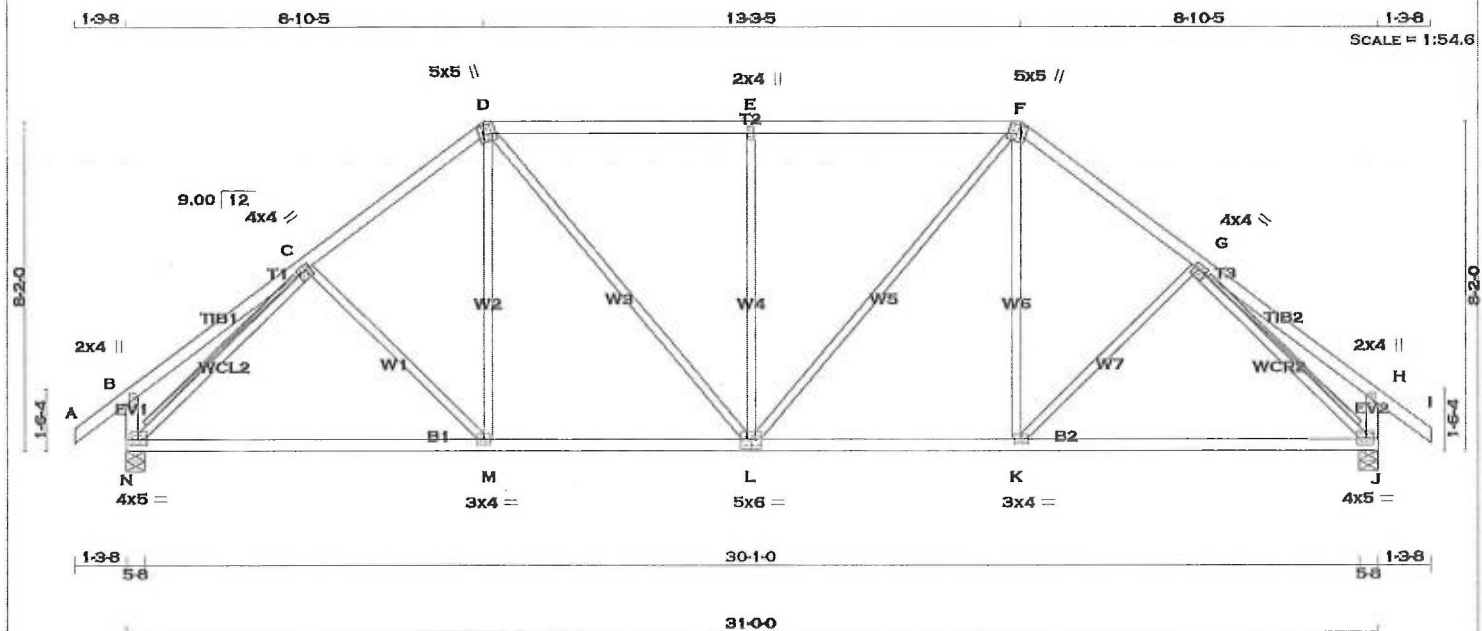
JSI GRIP= 0.89 (H) (INPUT = 0.90)
JSI METAL= 0.53 (H) (INPUT = 1.00)



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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
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	4.0	1.50	1.50
D	TTWW+m	MT20	5.0	5.0	2.25	1.50
E	TMW+w	MT20	2.0	4.0		
F	TTWW+m	MT20	5.0	5.0	2.25	1.50
G	TMWW-t	MT20	4.0	4.0	1.50	1.50
H	TMV+p	MT20	2.0	4.0		
J	BMVW-t	MT20	4.0	5.0	1.75	2.25
K	BMWW-t	MT20	3.0	4.0		
L	BSWW-t	MT20	5.0	6.0	3.00	3.00
M	BMWW-t	MT20	3.0	4.0		
N	BMVW-t	MT20	4.0	5.0	1.75	2.25

A SIZE FOR SIZE SUBSTITUTION OF MI TEK 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	IN-SX	IN-SX		
N	1577	0	1577	0	0	5-8	1-12	
J	1577	0	1577	0	0	5-8	1-12	

UNFACTORED REACTIONS

JT	1ST LCASE COMBINED		MAX/MIN. COMPONENT REACTIONS		WIND	DEAD	SOIL
	SNOW	LIVE	PERM.LIVE				
N	1104	786 / 0	0 / 0	0 / 0	0 / 0	318 / 0	0 / 0
J	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) N, J

BRACING
TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 4.79 FT.
MAX. UNBRACED BOTTOM CHORD LENGTH = 10.00 FT OR RIGID CEILING DIRECTLY APPLIED.

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

2x4 DRY SPF No.2 T-BRACE AT C-N, G-J

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)

MEMB.	CHORDS MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	FACTORED CSI (LC)	MAX. UNBRACED LENGTH FR-TO	MEMB.	WEBS MAX. FACTORED FORCE (LBS)	
						FORCE (LBS)	MAX. CSI (LC)
						FR-TO	
A-B	0 / 32	-77.4	-77.4 0.11 (1)	10.00	C-M	-71 / 38	0.05 (1)
B-C	0 / 23	-77.4	-77.4 0.24 (1)	10.00	M-D	0 / 216	0.06 (4)
C-D	-1525 / 0	-77.4	-77.4 0.22 (1)	5.12	D-L	0 / 466	0.10 (1)
D-E	-1502 / 0	-77.4	-77.4 0.48 (1)	4.79	L-E	-630 / 0	0.82 (1)
E-F	-1502 / 0	-77.4	-77.4 0.48 (1)	4.79	L-F	0 / 466	0.10 (1)
F-G	-1525 / 0	-77.4	-77.4 0.22 (1)	5.12	K-F	0 / 216	0.06 (4)
G-H	0 / 23	-77.4	-77.4 0.24 (1)	10.00	K-G	-71 / 38	0.05 (1)
H-I	0 / 32	-77.4	-77.4 0.11 (1)	10.00	N-C	-1785 / 0	0.53 (1)
N-B	-238 / 0	0.0	0.0 0.02 (1)	7.81	G-J	-1785 / 0	0.53 (1)
J-H	-238 / 0	0.0	0.0 0.02 (1)	7.81			
N-M	0 / 1249	-17.5	-17.5 0.40 (4)	10.00			
M-L	0 / 1202	-17.5	-17.5 0.40 (4)	10.00			
L-K	0 / 1202	-17.5	-17.5 0.40 (4)	10.00			
K-J	0 / 1249	-17.5	-17.5 0.40 (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, 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 (0.20")

CSI: TC=0.48/1.00 (D-E:1), BC=0.40/1.00 (K-L:4), WB=0.82/1.00 (E-L:1), SSI=0.25/1.00 (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)
MT20	618	354	1667
	822	2284	1656

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

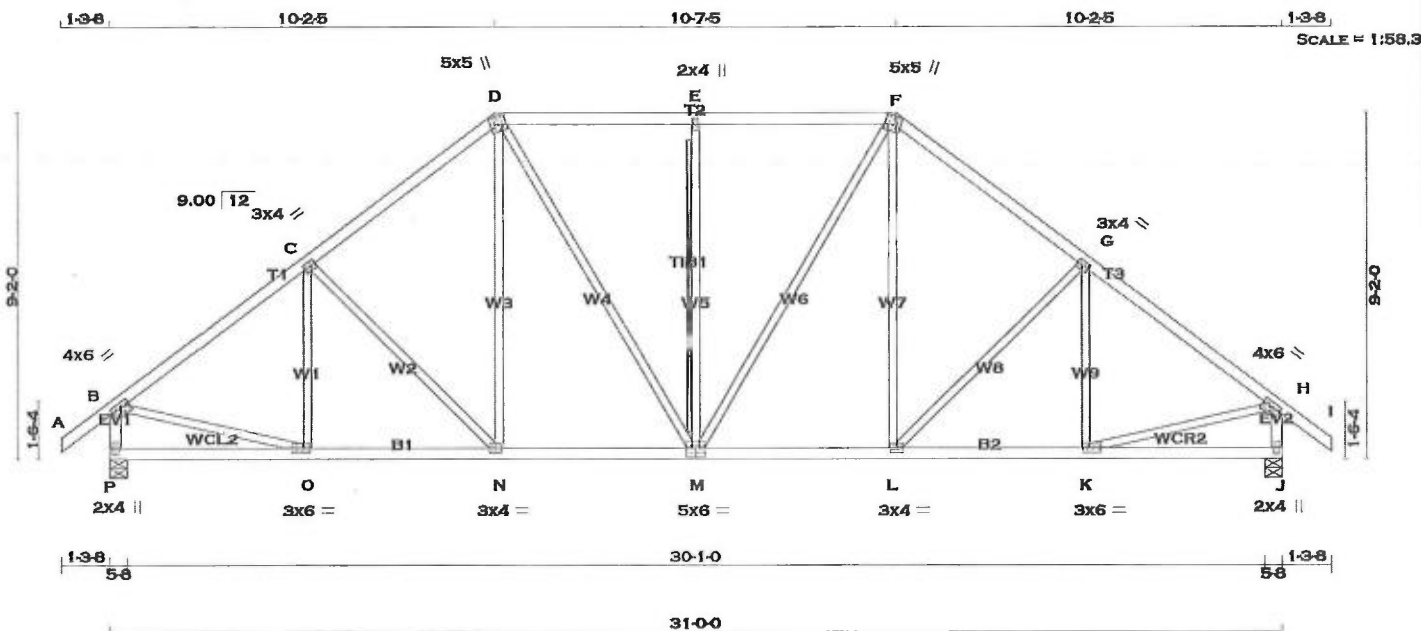
JSI GRIP= 0.89 (C) (INPUT = 0.90)
JSI METAL= 0.66 (C) (INPUT = 1.00)



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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	
P - B	2x4	DRY	No.2	SPF	
J - H	2x4	DRY	No.2	SPF	
P - M	2x4	DRY	No.2	SPF	
M - J	2x4	DRY	No.2	SPF	
ALL WEBS EXCEPT	2x3	DRY	No.2	SPF	

DRY: SEASONED LUMBER.

PLATES (table is in inches)

JT	TYPE	PLATES	W	LEN	Y	X
B	TMVW-1	MT20	4.0	6.0	1.50	2.75
C	TMVW-1	MT20	3.0	4.0	1.50	1.50
D	TTWW+m	MT20	5.0	5.0	2.25	1.50
E	TMVW+m	MT20	2.0	4.0		
F	TTWW+m	MT20	5.0	5.0	2.25	1.50
G	TMVW-1	MT20	3.0	4.0	1.50	1.50
H	TMVW-1	MT20	4.0	6.0	1.50	2.75
J	BMV1+p	MT20	2.0	4.0		
K	BMVW-1	MT20	3.0	6.0	1.50	2.25
L	BMVW-1	MT20	3.0	4.0		
M	BSVWVW-1	MT20	5.0	6.0	3.00	3.00
N	BMVW-1	MT20	3.0	4.0		
O	BMVW-1	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

BEARINGS

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	0	5-8	2-11	
J	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
P	1104	786 / 0	0 / 0	0 / 0	0 / 0	318 / 0	0 / 0
J	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) 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. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	CS1 MAX (LC)	MAX. UNBRACED LENGTH	MEMB.	MAX. FACTORED FORCE (LBS)	CS1 MAX (LC)		
FR-TO		FROM	TO		FR-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, 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) = $L/999$ (0.10")

CSI: TC=0.30/1.00 (G-H:1), BC=0.26/1.00 (K-L:1), WB=0.31/1.00 (E-M:1), SSI=0.20/1.00 (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)
	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.

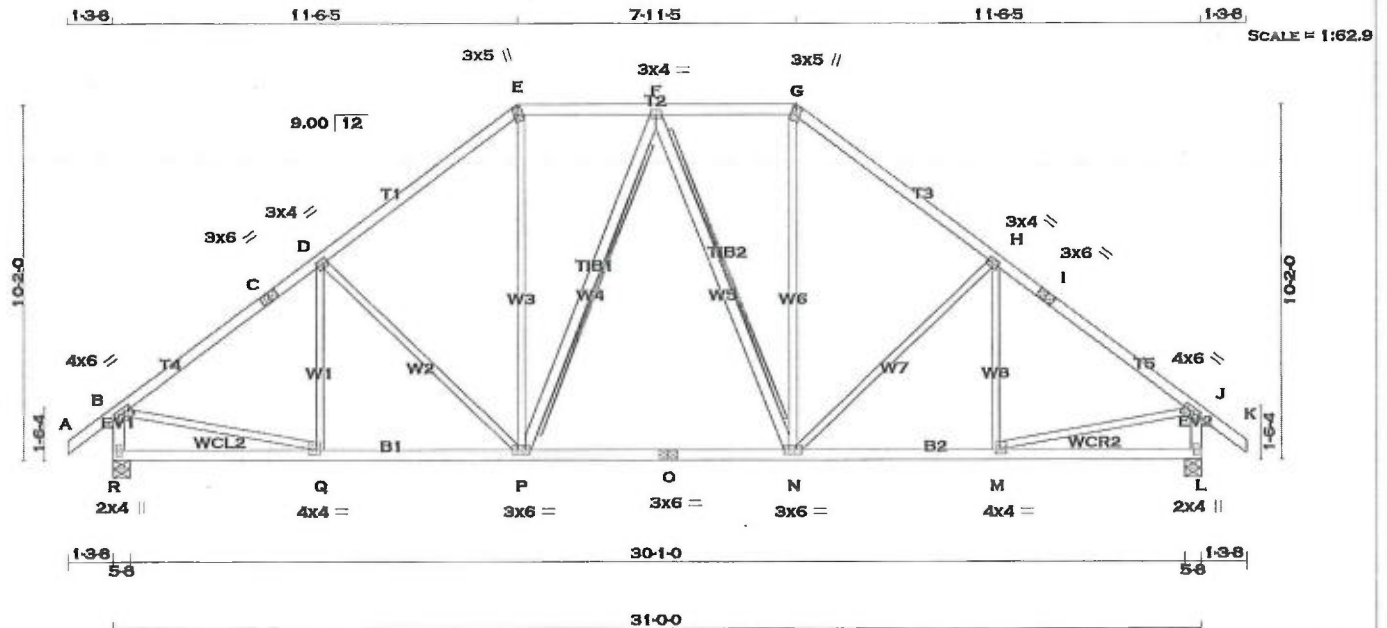
JSI GRIP= 0.83 (K) (INPUT = 0.90)
JSI METAL= 0.45 (B) (INPUT = 1.00)



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TOTAL WEIGHT = 2 X 153 = 307 lb [MJF]

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	2x3	DRY	No.2	SPF	
EXCEPT					
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	TMVW-t	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	TTW+m	MT20	3.0	5.0	Edge	1.25
F	TMVW-t	MT20	3.0	4.0		
G	TTW+m	MT20	3.0	5.0	Edge	1.25
H	TMVW-t	MT20	3.0	4.0	1.50	1.50
I	TS-t	MT20	3.0	6.0		
J	TMVW-t	MT20	4.0	6.0	1.50	2.75
L	BMV1+p	MT20	2.0	4.0		
M	BMVW-t	MT20	4.0	4.0	1.50	1.50
N	BMVW-t	MT20	3.0	6.0		
O	BS-t	MT20	3.0	6.0		
P	BMVW-t	MT20	3.0	6.0		
Q	BMVW-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

BEARINGS

	FACTORED GROSS REACTION	MAXIMUM FACTORED GROSS REACTION	INPUT BRG	REQRD BRG
JT	VERT	HORZ	DOWN	HORZ
R	1577	0	1577	0
L	1577	0	1577	0

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	MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	FACTORED HORIZ. LOAD (PLF)	MAX. UNBRACED LENGTH (FT)	MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	FACTORED HORIZ. LOAD (PLF)	MAX. UNBRACED LENGTH (FT)
FR-TO						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-G	-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 (M-N: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 (PSI)	SECTION (PLI)
	MAX	MIN	MAX
MT20	618	354	1667
	822	2284	1656

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

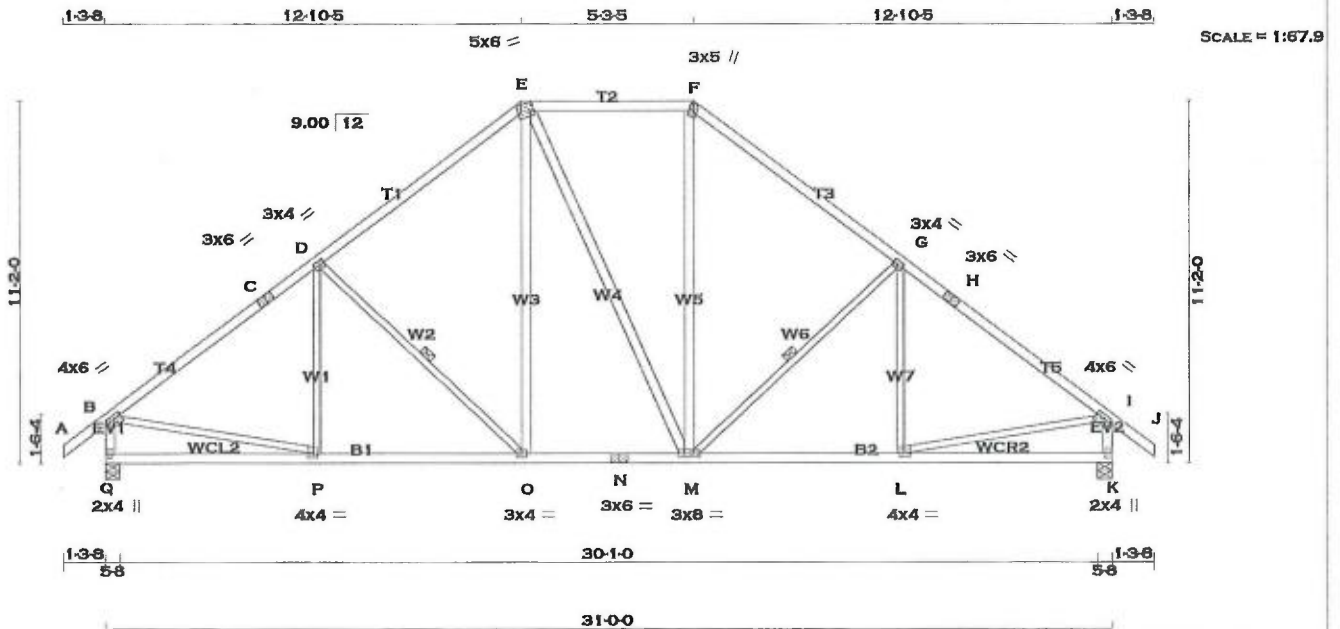
JSI GRIP= 0.88 (P) (INPUT = 0.90)
 JSI METAL= 0.49 (Q) (INPUT = 1.00)



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TOTAL WEIGHT = 3 X 156 = 467 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	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-I	MT20	3.0	6.0		
D	TMVW-I	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-I	MT20	3.0	4.0	1.50	1.50
H	TS-I	MT20	3.0	6.0		
I	TMVW-I	MT20	4.0	6.0	1.50	2.75
K	BMV1+p	MT20	2.0	4.0		
L	BMVW-I	MT20	4.0	4.0	1.50	1.50
M	BMVW-I	MT20	3.0	8.0		
N	BS-I	MT20	3.0	6.0		
O	BMVW-I	MT20	3.0	4.0		
P	BMVW-I	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 GROSS REACTION		MAXIMUM FACTORED GROSS REACTION		INPUT BRG	REQRD BRG
	VERT	HORZ	DOWN	HORZ		
JT	1577	0	1577	0	5-8	2-11
Q	1577	0	1577	0	5-8	2-11
K	1577	0	1577	0	5-8	2-11

UNFACTORED REACTIONS

1ST LCASE	MAX./MIN. COMPONENT REACTIONS					
	COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD
Q	1104	786 / 0	0 / 0	0 / 0	0 / 0	318 / 0
K	1104	786 / 0	0 / 0	0 / 0	0 / 0	318 / 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 FORCE (LBS)	FACTORED VERT. LOAD (PLF)	LC1 (LC)	MAX. CSI (LC)	MAX. UNBRACED 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	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				
Q-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, 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 (0.11")

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 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.

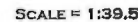
JSI GRIP= 0.88 (F) (INPUT = 0.90)
JSI METAL= 0.49 (P) (INPUT = 1.00)



September 14, 2018



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TOTAL WEIGHT = 53 lb

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

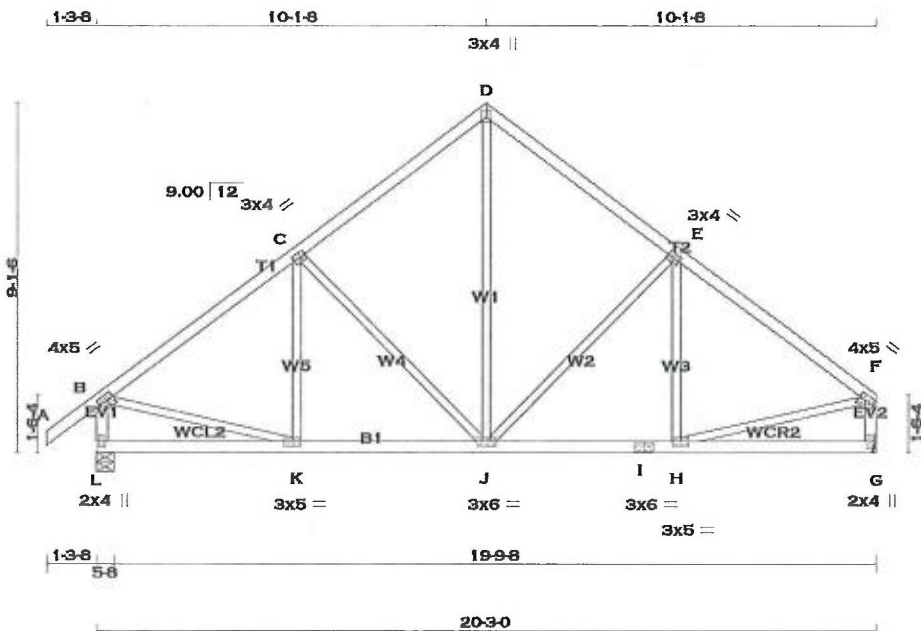
TOTAL LOAD CASES: (4)

CHORDS				WEBS			
MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	LC1 MAX. CSI (LC)	MAX. UNBRAC	MEMB.	MAX. FACTORED FORCE (LBS)	MAX. CSI (LC)
FR-TO		FROM TO		LENGTH	FR-TO		
A-B	0/32	-77.4	-77.4	0.11 (1)	10.00	G-C	0/621 0.14 (1)
B-C	-915/0	-77.4	-77.4	0.40 (1)	5.93	B-G	0/775 0.17 (1)
C-D	-915/0	-77.4	-77.4	0.40 (1)	5.93	G-D	0/775 0.17 (1)
D-E	0/32	-77.4	-77.4	0.11 (1)	10.00		
H-B	-638/0	0.0	0.0	0.07 (1)	7.81		
F-D	-638/0	0.0	0.0	0.07 (1)	7.81		
H-G	0/0	-17.5	-17.5	0.20 (4)	10.00		
G-F	0/0	-17.5	-17.5	0.20 (4)	10.00		

JSI GRIP= 0.89 (C) (INPUT = 0.90)
JSI METAL= 0.28 (D) (INPUT = 1.00)



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LUMBER				DESCR.	
N. L. G. A. RULES	CHORDS	SIZE	LUMBER		
A - D	2x4	DRY	No.2	SPF	
D - F	2x4	DRY	No.2	SPF	
L - B	2x4	DRY	No.2	SPF	
G - F	2x4	DRY	No.2	SPF	
L - I	2x4	DRY	No.2	SPF	
I - G	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	TMW-1	MT20	4.0	5.0	1.75	2.00
C	TMW-1	MT20	3.0	4.0	1.50	1.50
D	TTW+p	MT20	3.0	4.0	2.25	1.50
E	TMW-1	MT20	3.0	4.0	1.50	1.50
F	TMW-1	MT20	4.0	5.0	1.75	Edge
G	BMV1+p	MT20	2.0	4.0		
H	BMW-1	MT20	3.0	5.0		
I	BS-1	MT20	3.0	6.0		
J	BMW-1	MT20	3.0	6.0		
K	BMW-1	MT20	3.0	5.0		
L	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 IN-SX	REQRD BRG IN-SX
	VERT	HORZ	DOWN	HORZ		
L	1067	0	1067	0	5-8	1-13
G	960	0	960	0	0	MECHANICAL

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

UNFACTORED REACTIONS

JT	1ST LCASE COMBINED		MAX/MIN. LIVE		PERM. LIVE		DEAD	SOIL
	SNOW							
L	747	536 / 0	0 / 0	0 / 0	0 / 0	0 / 0	211 / 0	0 / 0
G	674	472 / 0	0 / 0	0 / 0	0 / 0	0 / 0	202 / 0	0 / 0

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

BRACING

TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 6.04 FT.
MAX. UNBRACED BOTTOM CHORD LENGTH = 10.00 FT. OR RIGID CEILING DIRECTLY APPLIED.

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

LOADING

TOTAL LOAD CASES: (4)

CHORDS				WEBS			
MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	MAX. FACTORED CSI (LC)	MEMB.	MAX. FACTORED FORCE (LBS)	MAX. FACTORED CSI (LC)	
FR-TO		FROM TO		FR-TO			
A-B	0 / 32	-77.4 -77.4 0.11 (1)	10.00	J-D	0 / 548	0.12 (1)	
B-C	-853 / 0	-77.4 -77.4 0.27 (1)	6.04	J-E	-325 / 0	0.31 (1)	
C-D	-725 / 0	-77.4 -77.4 0.26 (1)	6.25	H-E	-83 / 60	0.04 (1)	
D-E	-725 / 0	-77.4 -77.4 0.26 (1)	6.25	C-J	-325 / 0	0.31 (1)	
E-F	-853 / 0	-77.4 -77.4 0.27 (1)	6.04	K-C	-83 / 60	0.04 (1)	
L-B	-1030 / 0	0.0 0.0 0.11 (1)	7.74	B-K	0 / 805	0.18 (1)	
G-F	-923 / 0	0.0 0.0 0.10 (1)	7.81	H-F	0 / 805	0.18 (1)	
L-K	0 / 0	-17.5 -17.5 0.11 (4)	10.00				
K-J	0 / 784	-17.5 -17.5 0.18 (1)	10.00				
J-I	0 / 784	-17.5 -17.5 0.18 (1)	10.00				
I-H	0 / 784	-17.5 -17.5 0.18 (1)	10.00				
H-G	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/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 (0.67")
CALCULATED VERT. DEFL.(LL)= L/ 999 (0.02")
ALLOWABLE DEFL.(TL)= L/360 (0.67")
CALCULATED VERT. DEFL.(TL)= L/ 999 (0.05")

CSI: TC=0.27/1.00 (B-C:1), BC=0.18/1.00 (H-J:1), WB=0.31/1.00 (E-J:1), SSI=0.15/1.00 (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) (PSI)	SHEAR (PLI)	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 (J) (INPUT = 0.90)

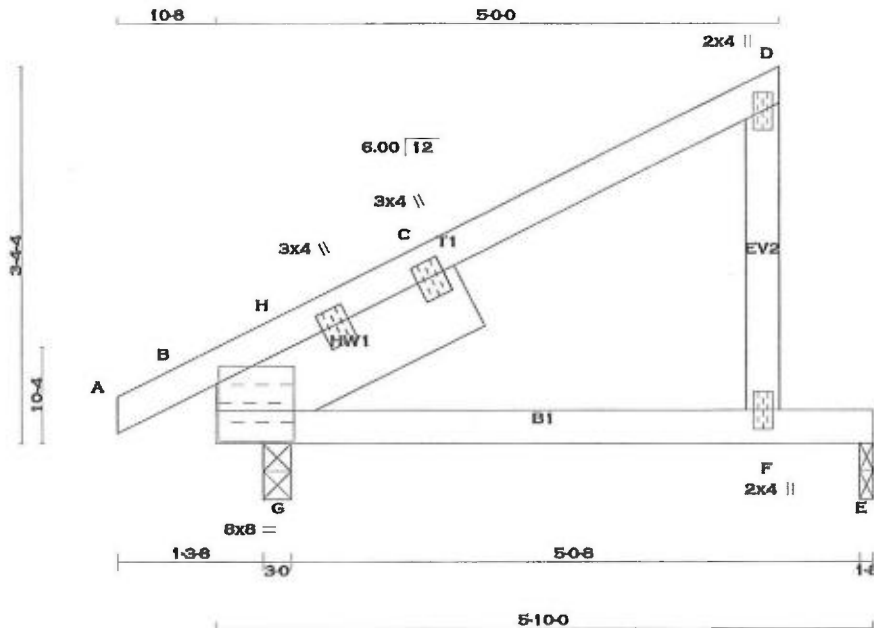
JSI METAL= 0.34 (B) (INPUT = 1.00)



September 14, 2018



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SCALE = 1:19.6

TOTAL WEIGHT = 4 X 23 = 93 lb

LUMBER				DESCR.	
N. L. G. A. RULES					
CHORDS	SIZE	LUMBER		SPF	
A - D	2x4	DRY	No.2	SPF	
F - D	2x4	DRY	No.2	SPF	
B - E	2x4	DRY	No.2	SPF	
REINFORCING MEMBERS					
HW1	2x8	DRY	No.2	SPF	

DRY: SEASONED LUMBER.

PLATES (table is in inches)

JT	TYPE	PLATES	W	LEN	Y	X
B	TMBMR1-I	MT20	8.0	8.0	6.00	0.25
B	RT+H	MT20	3.0	4.0	1.75	12.75
B	RT+H	MT20	3.0	4.0	1.75	24.00
D	TMV+p	MT20	2.0	4.0		
F	BMV+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

BEARINGS		FACTORED		MAXIMUM FACTORED		INPUT		REQRD	
JT	GROSS REACTION	VERT	HORZ	GROSS REACTION	DOWN	HORZ	UPLIFT	BRG	BRG
B	345	0	0	345	0	0	3-0	1-8	1-8
E	217	0	0	217	0	0	1-8	1-8	1-8

UNFACTORED REACTIONS

JT	1ST LCASE	MAX/MIN. COMPONENT REACTIONS					
B	240	177 / 0	0 / 0	0 / 0	0 / 0	64 / 0	0 / 0
E	153	100 / 0	0 / 0	0 / 0	0 / 0	54 / 0	0 / 0

BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S) B, 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		MAX. FACTORED		WEBS		MAX. FACTORED	
MEMB.	FORCE (LBS)	VERT. (PLF)	LC1 (LC)	MAX. (LC)	UNBRAC LENGTH	MEMB.	FORCE (LBS)	MAX. (LC)	CS1 (LC)
FR-TO		FROM	TO			FR-TO			
A-B	-3 / 0	-77.4	-77.4	0.04 (1)	10.00	G-H	-239 / 0	0.00 (1)	
B-H	-189 / 0	-77.4	-77.4	0.06 (1)	6.25	G-C	0 / 240	0.02 (1)	
H-C	-102 / 0	-77.4	-77.4	0.32 (1)	6.25				
C-D	-102 / 0	-77.4	-77.4	0.32 (1)	6.25				
F-D	-186 / 0	0.0	0.0	0.03 (1)	7.81				
B-G	0 / 154	-17.5	-17.5	0.13 (1)	10.00				
G-F	0 / 0	-17.5	-17.5	0.25 (1)	10.00				
F-E	0 / 0	-17.5	-17.5	0.24 (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/986 (0.07")
ALLOWABLE DEFL.(TL)= L/360 (0.19")
CALCULATED VERT. DEFL.(TL) = L/525 (0.13")

CSI: TC=0.32/1.00 (D-H:1), BC=0.25/1.00 (F-G:1)
WB=0.02/1.00 (C-G:1), SSI=0.18/1.00 (D-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

AUTOSOLVE LEFT 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.

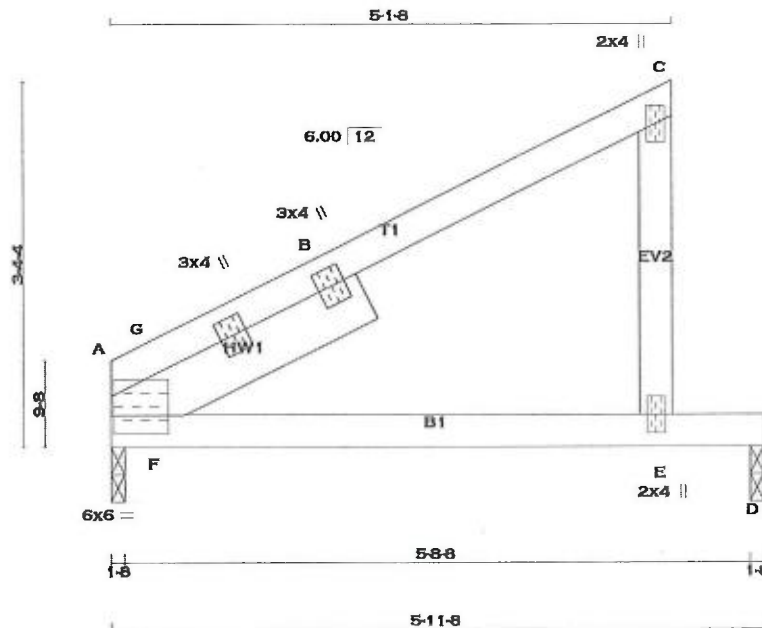
JSI GRIP= 0.12 (B) (INPUT = 0.90)
JSI METAL= 0.04 (D) (INPUT = 1.00)



September 14, 2018



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SCALE = 1:20.2

TOTAL WEIGHT = 3 X 21 = 64 lb

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

CHORDS	SIZE	LUMBER	DESCR.
A - C	2x4	DRY	No.2 SPF
E - C	2x4	DRY	No.2 SPF
A - D	2x4	DRY	No.2 SPF
REINFORCING MEMBERS			
HW1	2x6	DRY	No.2 SPF

DRY: SEASONED LUMBER.

PLATES (table is in inches)

JT	TYPE	PLATES	W	LEN	Y	X
A	TMBMR1-I	MT20	6.0	6.0	2.00	0.25
A	RT+t	MT20	3.0	4.0		
A	RT+t	MT20	3.0	4.0		
C	TMV+p	MT20	2.0	4.0		
E	BMV+p	MT20	2.0	4.0		

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

JT	FACTORED GROSS REACTION	MAXIMUM FACTORED GROSS REACTION	INPUT BRG	REQRD BRG
	VERT	HORZ	DOWN	HORZ
A	278	0	278	0
D	223	0	223	0

UNFACTORED REACTIONS

JT	1ST LCASE	MAX/MIN. COMPONENT REACTIONS	WIND	DEAD	SOIL
	COMBINED	SNOW	LIVE	PERM.LIVE	
A	195	136 / 0	0 / 0	0 / 0	59 / 0
D	158	103 / 0	0 / 0	0 / 0	0 / 0

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

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. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	FACTORED LC1 MAX (PLF)	MAX. UNBRACED LENGTH	WEBS	MEMB.	MAX. FACTORED FORCE (LBS)	MAX. UNBRACED LENGTH
FR-TO						FR-TO			
A-G	-192 / 0	-77.4	-77.4	0.08 (1)	6.25	F-G	-245 / 13	0.00 (1)	
G-B	-111 / 0	-77.4	-77.4	0.34 (1)	6.25	F-B	0 / 246	0.03 (1)	
B-C	-111 / 0	-77.4	-77.4	0.34 (1)	6.25				
E-C	-191 / 0	0.0	0.0	0.03 (1)	7.81				
A-F	0 / 176	-17.5	-17.5	0.13 (1)	10.00				
F-E	0 / 0	-17.5	-17.5	0.26 (1)	10.00				
E-D	0 / 0	-17.5	-17.5	0.24 (1)	10.00				

DESIGN CRITERIA

SPECIFIED LOADS:

TOP CH.	LL	PSF
DL	23.3	PSF
DL	3.0	PSF
BOT CH.	LL	PSF
DL	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) = $L/360$ (0.20")
CALCULATED VERT. DEFL.(LL) = $L/941$ (0.08")
ALLOWABLE DEFL.(TL) = $L/360$ (0.20")
CALCULATED VERT. DEFL.(TL) = $L/497$ (0.14")

CSI: TC=0.34/1.00 (C-G:1), BC=0.26/1.00 (E-F:1), WB=0.03/1.00 (B-F:1), SSI=0.17/1.00 (C-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 LEFT 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. = 0.25 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.11 (C) (INPUT = 0.80)
JSI METAL= 0.04 (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.

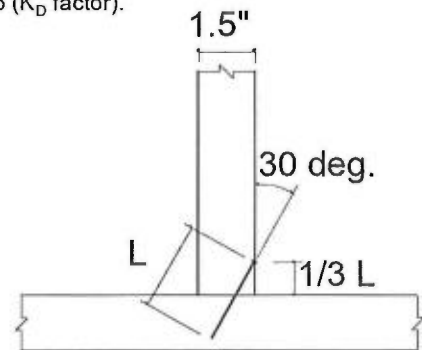
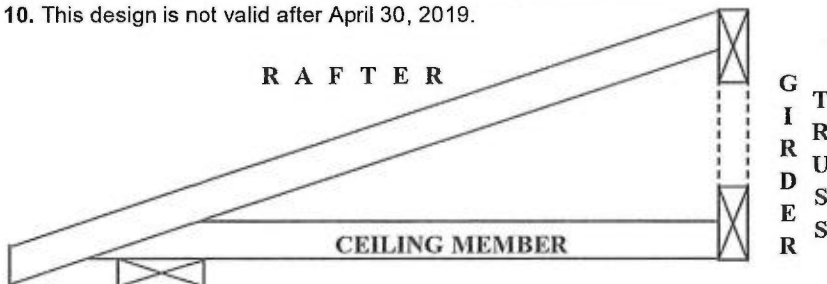
BEARING ANCHORAGE BY TOE-NAILS FOR LATERAL CAPACITY

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.



TOE-NAIL INSTALLATION

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



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April 26, 2017

BEARING ANCHORAGE BY TOE-NAILS FOR WIND LOADING

B37579H2

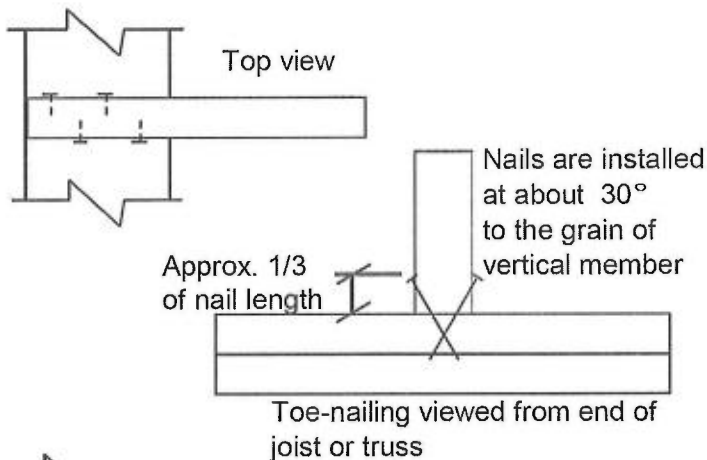
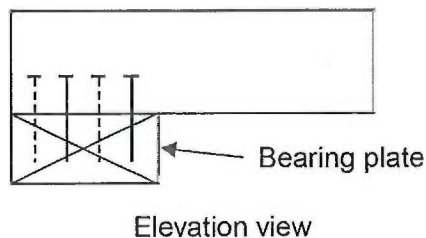
NAIL TYPE	LENGTH (IN)	DIAMETER (IN)	NAIL WITHDRAWAL CAPACITY (LB)	
			S-P-F	D. FIR
COMMON WIRE	3.00	0.144	30	42
	3.25	0.144	32	45
	3.50	0.160	38	52

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

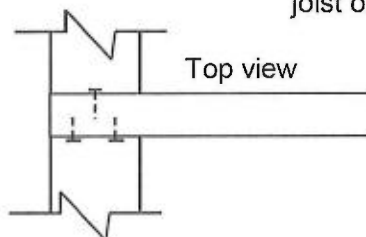
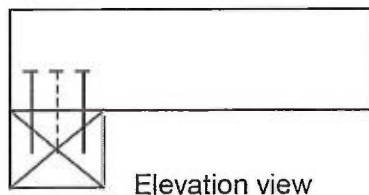
NOTES:

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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