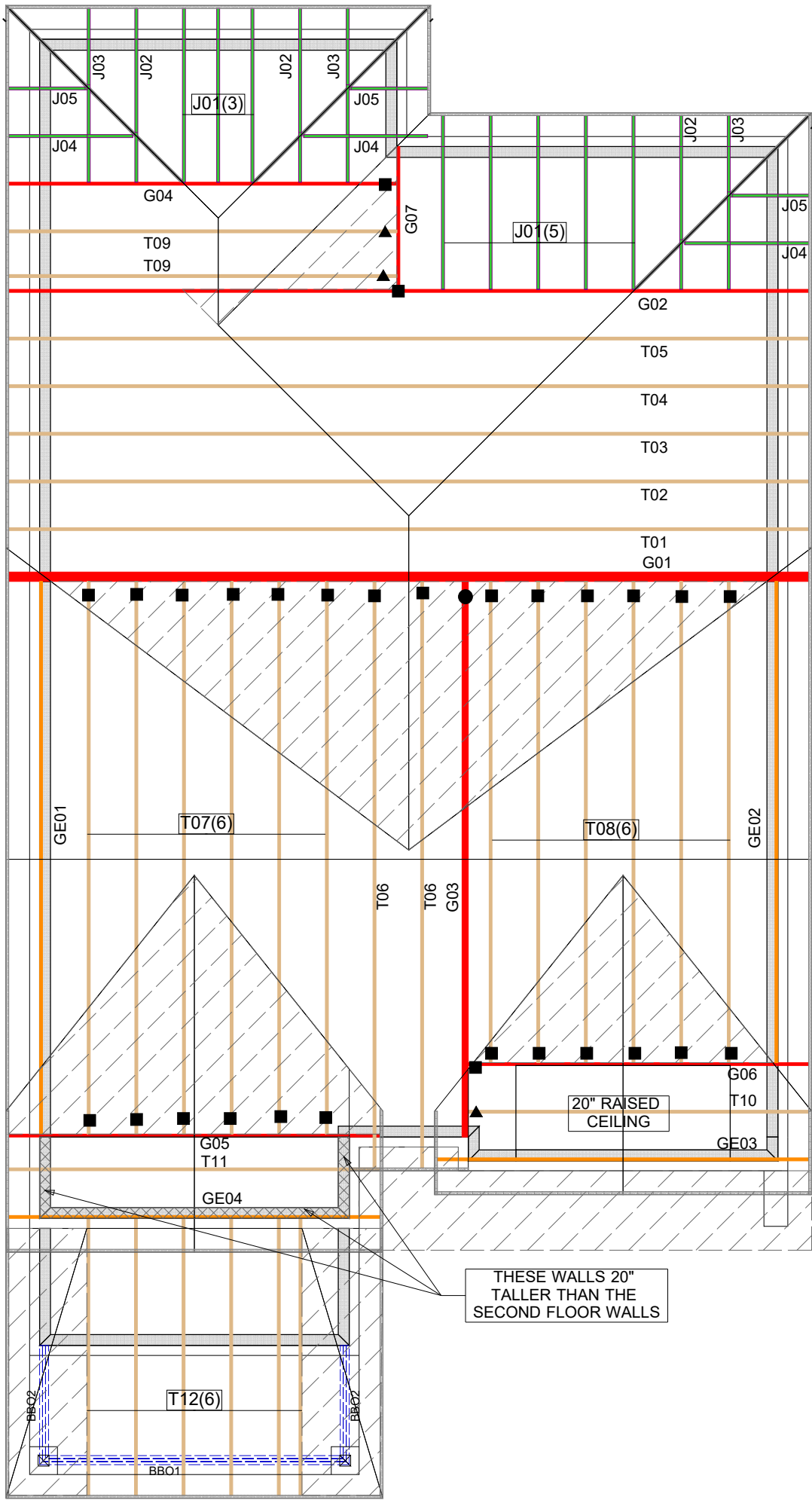




Hanger Name	Symbol	QTY
LUS24	▲	3
LJS26DS	■	29
LUS26-2	●	1



CONVENTIONAL
FRAMING BY OTHERS

ALL CONVENTIONAL FRAMING TO CONFORM WITH PART 9 OF THE OBC. ROOF RAFTERS THAT CROSS OVER TRUSSES TO BE MIN. 2x4 SPF @ 24" C/C WITH A 2x4 VERTICAL POST TO THE TRUSS BELOW. VERTICAL POSTS TO BE Laterally BRACED SO THAT UNBRACED LENGTH DOES NOT EXCEED 6'. DESIGN OF CONVENTIONAL FRAMING IS THE RESPONSIBILITY OF THE PROJECT ENGINEER.

JOB INFORMATION

Customer	ROUNDEL HOMES INC
Job #	21-00086R0
Address	PINETREE 3 RICHMOND HILL,ON
Model	38-03 ELEV 2
Sales Rep	RALPH MIRIGELLO
Designer	KR
Date	7/15/2021
Path	C:\MITEK\CA\JOBS\GREENPARK GROUP\ROUNDEL HOMES INC\T-PT38-03-2\

DESIGN INFORMATION

Code	NBCC 2015
Bldg	Residential - HSB (NBCC Part 9)
TC LL	25.6 lb/ft²
TC DL	3.0 lb/ft²
BC LL	0.0 lb/ft²
BC DL	7.3 lb/ft²
Deflection	LL=L/360 TL=L/360
Spacing	24" O/C unless otherwise noted
Complies With	OBC 2012 (2019 Amendment) CSA O86-14 and TPIC 2014

IMPORTANT INFORMATION

Refer to truss drawings in the Truss Engineering Package for ply-to-ply attachment notes

For site-framed valleys: top chords of all roof trusses must be laterally supported using 2x4 continuous bracing @24 O/C - all bracing must be anchored at ends as per TPIC Installation Guidelines

Read all notes on this page in addition to those shown on the KOTT Truss Engineering package

Field erection, handling and bracing are not the responsibility of KOTT, or KOTT Engineering

Unless noted otherwise, hurricane ties are to be installed at the bearings of all trusses > 40 ft clear span, and any girder or beam supporting trusses with a clear span >40 ft. See hanger legend for type.

Unless noted otherwise, for Part 9 bldgs, all trusses are to be anchored to the top of supporting walls as follows: trusses with a clear span <40 ft use 3-1/4" nails @ each bearing, trusses with a clear span >40 ft use 3-1/4" nails @ each bearing in addition to the appropriate hurricane tie.

09/22/2022

KOTT Inc.

14 Anderson Blvd.
Uxbridge, ON
905.642.4400

Per: **joshua.nabua**

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ENGINEERING NOTE PAGE (ENP-1)

PLEASE READ PRIOR TO INSTALLATION

RESPONSIBILITIES

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



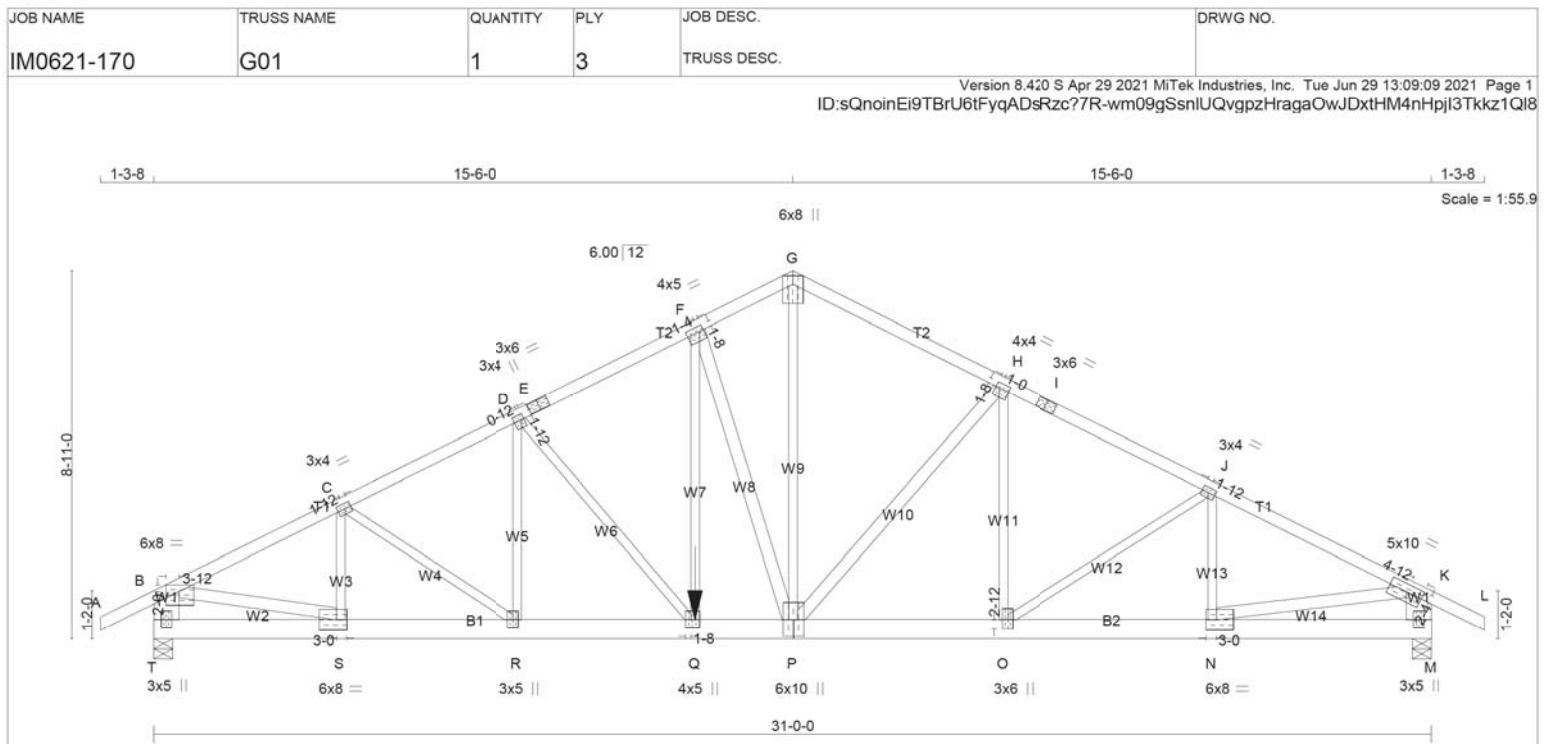
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BUILDING DIVISION

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TOTAL WEIGHT = 3 X 168 = 504 lb [M]

LUMBER

N. L. G. A. RULES

CHORDS	SIZE	LUMBER	DESCR.
A - E	2x4	DRY	No.2 SPF
E - G	2x4	DRY	No.2 SPF
G - I	2x4	DRY	No.2 SPF
I - L	2x4	DRY	No.2 SPF
T - B	2x8	DRY	No.2 SPF
M - K	2x8	DRY	No.2 SPF
T - P	2x6	DRY	No.2 SPF
P - M	2x6	DRY	No.2 SPF

ALL WEBS EXCEPT	2x3	DRY	No.2	SPF
F - P	2x4	DRY	2100F 1.8E	SPF
P - H	2x4	DRY	2100F 1.8E	SPF
B - S	2x4	DRY	No.2	SPF
N - K	2x4	DRY	No.2	SPF

DRY: SEASONED LUMBER.

DESIGN CONSISTS OF 3 TRUSSES BUILT SEPARATELY THEN FASTENED TOGETHER AS FOLLOWS:

CHORDS #ROWS	SURFACE SPACING (IN)	LOAD (PLF)
TOP CHORDS : (0.122"x3") SPIRAL NAILS		
A - E 1	12	TOP
E - G 1	12	TOP
G - I 1	12	TOP
I - L 1	12	TOP
T - B 2	12	TOP
M - K 2	12	TOP

BOTTOM CHORDS : (0.122"x3") SPIRAL NAILS		
T - P 2	5	SIDE(702.9)
P - M 2	6	SIDE(356.4)

WEBS : (0.122"x3") SPIRAL NAILS		
2x3 1	6	
2x4 1	6	

STAGGER NAILS BY HALF THE SURFACE SPACING IN ADJACENT PLIES.

GIRDER NAILING ASSUMES NAILED HANGERS ARE FASTENED WITH MIN. 3-0 INCH NAILS.

TOP - COMPONENTS ARE LOADED FROM THE TOP AND MUST BE PLACED ON TOP EDGE OF ALL PLIES FOR THE LOAD TO BE TRANSFERRED TO EACH PLY.

SIDE - PLF SHOWN IS THE EQUIVALENT UDL APPLIED TO ONE SIDE THAT THE CORRESPONDING NAILING PATTERN MUST BE CAPABLE OF TRANSFERRING. REMAINING PLF MUST BE APPLIED ON THE OPPOSITE SIDE OR ON THE TOP.

PLATES (table is in inches)

JT	TYPE	PLATES	W	LEN	Y	X
B	TMVW-p	MT20	6.0	8.0	Edge	3.75
C	TMVW-t	MT20	3.0	4.0	1.50	1.75
D	TMVW+t	MT20	3.0	4.0	1.75	0.75
E	TS-t	MT20	3.0	6.0		
F	TMVW-t	MT20	4.0	5.0	1.50	1.25
G	TTW+p	MT20	6.0	8.0	Edge	
H	TMVW-t	MT20	4.0	4.0	1.50	1.00
I	TS-t	MT20	3.0	6.0		
J	TMVW-t	MT20	3.0	4.0	1.50	1.75
K	TMVW-t	MT20	5.0	10.0	2.25	4.75
M	BMV1+p	MT20	3.0	5.0		
N	BMVW-t	MT20	6.0	8.0	3.00	3.00

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

	FACTORED GROSS REACTION	MAXIMUM FACTORED GROSS REACTION	INPUT BRG	REQRD BRG
JT	VERT	HORZ	DOWN	UP
T	10284	0	10284	0
M	10535	0	10535	0

UNFACTORED REACTIONS

1ST LCASE	MAX/MIN. COMPONENT REACTIONS						
JT	COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
T	7198	5146 / 0	0 / 0	0 / 0	0 / 0	2052 / 0	0 / 0
M	7374	5272 / 0	0 / 0	0 / 0	0 / 0	2103 / 0	0 / 0

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

BRACING

TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 2.81 FT. MAX. UNBRACED BOTTOM CHORD LENGTH = 10.00 FT OR RIGID CEILING DIRECTLY APPLIED.

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

LOADING

TOTAL LOAD CASES: (4)

C H O R D S					W E B S				
MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	LC1	MAX. UNBRACED LENGTH	MEMB.	MAX. FACTORED FORCE (LBS)	MAX. CSI (LC)		
FR-TO		FROM	TO		FR-TO				
A- B	0 / 26	-84.3	-84.3	0.04 (1)	10.00	S- C	-108 / 46 0.01 (1)		
B- C	-14966 / 0	-84.3	-84.3	0.49 (1)	2.91	C- R	-257 / 0 0.04 (1)		
C- D	-14726 / 0	-84.3	-84.3	0.41 (1)	2.98	R- D	0 / 2402 0.18 (1)		
D- E	-12899 / 0	-84.3	-84.3	0.36 (1)	3.21	D- Q	-2593 / 0 0.71 (1)		
E- F	-12899 / 0	-84.3	-84.3	0.36 (1)	3.21	Q- F	0 / 5368 0.40 (1)		
F- G	-11126 / 0	-84.3	-84.3	0.20 (1)	3.54	F- P	-5052 / 0 0.91 (1)		
G- H	-11169 / 0	-84.3	-84.3	0.35 (1)	3.48	P- G	0 / 9663 0.72 (1)		
H- I	-14095 / 0	-84.3	-84.3	0.48 (1)	3.05	P- H	-4067 / 0 0.76 (1)		
I- J	-14095 / 0	-84.3	-84.3	0.48 (1)	3.05	O- H	0 / 3941 0.30 (1)		
J- K	-15461 / 0	-84.3	-84.3	0.64 (1)	2.81	O- J	-1476 / 0 0.32 (1)		
K- L	0 / 26	-84.3	-84.3	0.04 (1)	10.00	N- J	0 / 989 0.07 (1)		
T- B	-9287 / 0	0.0	0.0	0.15 (1)	6.71	B- S	0 / 13584 0.73 (1)		
M- K	-9256 / 0	0.0	0.0	0.15 (1)	6.71	N- K	0 / 13983 0.75 (1)		

T-S	0 / 0	-484.6	-484.6	0.23 (1)	10.00
S-R	0 / 13389	-484.6	-484.6	0.67 (1)	10.00
R-Q	0 / 13178	-484.6	-484.6	0.69 (1)	10.00
Q-P	0 / 11521	-552.9	-552.9	0.53 (1)	10.00
P-O	0 / 12612	-552.9	-552.9	0.78 (1)	10.00
O-N	0 / 13836	-552.9	-552.9	0.83 (1)	10.00
N-M	0 / 0	-552.9	-552.9	0.33 (1)	10.00

FACTORED CONCENTRATED LOADS (LBS)

JT	LOC.	LC1	MAX-	MAX+	FACE	DIR.	TYPE	HEEL	CONN.
Q	13-1-9	-436	-489	---	FRONT	VERT	DEAD	---	C1
Q	13-1-9	-1299	-1299	---	FRONT	VERT	SNOW	---	C1

CONNECTION REQUIREMENTS

1) C1: A SUITABLE HANGER/MECHANICAL CONNECTION IS REQUIRED.

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.

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	=	25.6	PSF
	DL	=	3.0	PSF
BOT CH.	LL	=	0.0	PSF
	DL	=	7.3	PSF
TOTAL LOAD	=	35.9	PSF	

SPACING = 24.0 IN./C

GIRDER TYPE: CStdGirder
START DISTANCE = 0-0
START SPAN CARRIED = 20-2-6
END DISTANCE = 13-1-9
END SPAN CARRIED = 20-2-6
END WALL WIDTH = 0-0
APPLIED TO FRONT SIDE OF BOTTOM CHORD.
- ADDTL LOADS BASED ON 55 % OF GSL.

GIRDER TYPE: CStdGirder
START DISTANCE = 13-1-9
START SPAN CARRIED = 23-3-14
END DISTANCE = 31-0-0
END SPAN CARRIED = 23-3-14
END WALL WIDTH = 5-8
APPLIED TO FRONT SIDE OF BOTTOM CHORD.
- ADDTL LOADS BASED ON 55 % OF GSL.

*** 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 2015

THIS DESIGN COMPLIES WITH:
- PART 9 OF BCBC 2018, ABC 2019
- PART 9 OF OBC 2012 (2019 AMENDMENT)
- CSA 086-14
- TPIC 2014

(55 % OF 31.3 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 25.6 P.S.F. SPECIFIED ROOF LIVE LOAD

ALLOWABLE DEFL.(LL) = L/360 (1.03")
CALCULATED VERT. DEFL.(LL) = L/999 (0.24")
ALLOWABLE DEFL.(TL) = L/360 (1.03")
CALCULATED VERT. DEFL.(TL) = L/880 (0.42")

CSI: TC=0.64/1.00 (J-K-T), BC=0.83/1.00 (N-O-T),
WB=0.91/1.00 (F-H), SS=0.33/1.00 (O-P-T)

CITY OF RICHMOND HILL
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CONTINUED ON PAGE 2

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JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
IM0621-170	G01	1	3	TRUSS DESC.	

Version 8.420 S Apr 29 2021 MiTek Industries, Inc. Tue Jun 29 13:09:09 2021 Page 2
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PLATES (table is in inches)

JT	TYPE	PLATES	W	LEN	Y	X
O	BMWw+t	MT20	3.0	6.0	2.75	1.50
P	BSWWw+i	MT20	6.0	10.0		
Q	BMWw+t	MT20	4.0	5.0	2.50	1.50
R	BMWw+t	MT20	3.0	5.0		
S	BMWw-t	MT20	6.0	8.0	3.00	3.00
T	BMV1+p	MT20	3.0	5.0		

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

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

COMPANION LIVE LOAD FACTOR = 1.00

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

NAIL VALUES

PLATE	GRIP(DRY) (PSI)	SHEAR (PLI)	SECTION (PLI)
	MAX MIN	MAX MIN	MAX MIN
MT20	650 371	1747 788	1987 1873

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.90 (K) (INPUT = 0.90)
JSI METAL= 0.79 (N) (INPUT = 1.00)



June 29, 2021

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ENGINEERING NOTE PAGE ENP-1. THE NOTE PAGE
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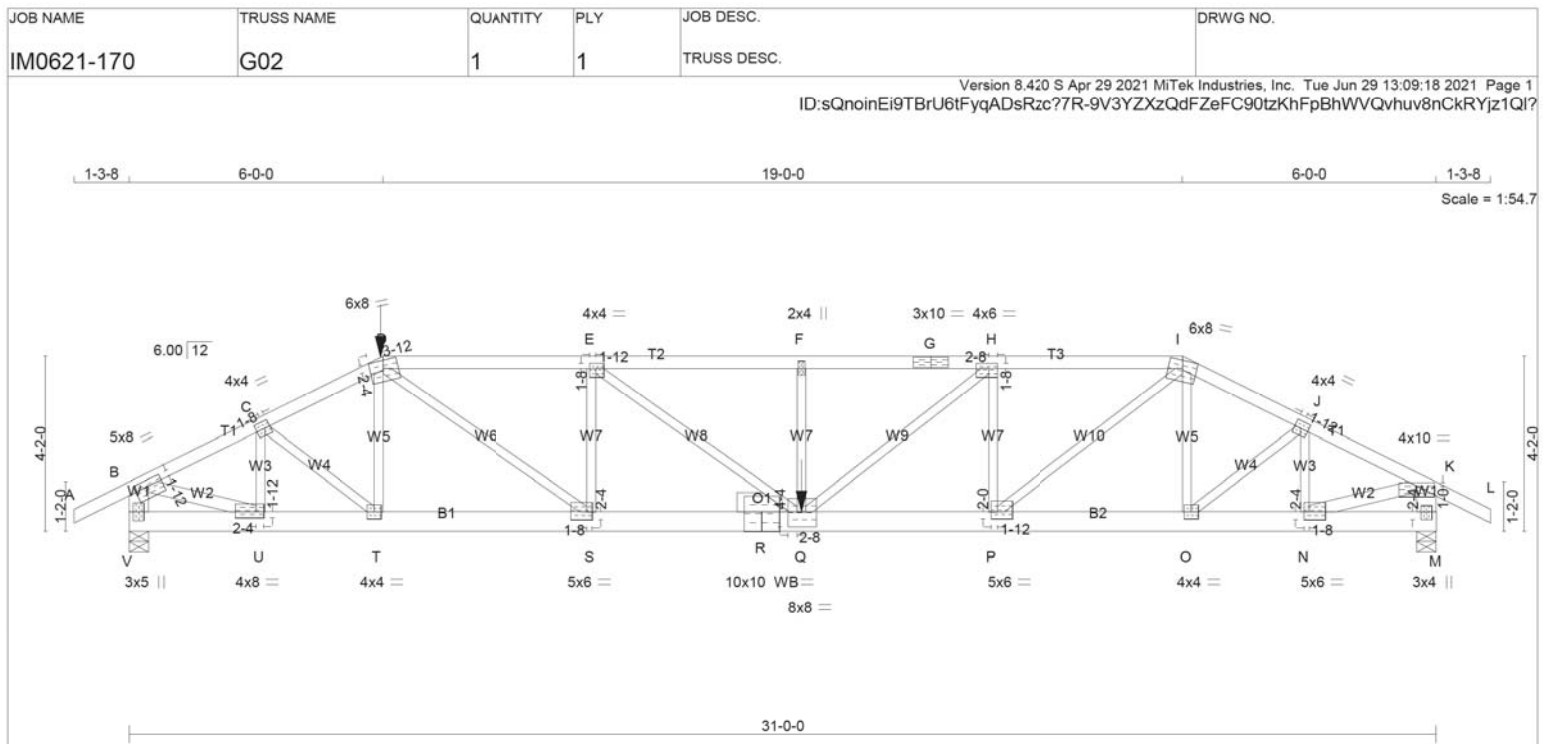
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BUILDING DIVISION

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Per: joshua.nabua



TOTAL WEIGHT = 147 lb

LUMBER

N. L. G. A. RULES

CHORDS	SIZE	LUMBER	DESCR.
A - D	2x4	DRY No.2	SPF
D - G	2x4	DRY 2100F 1.8E	SPF
G - I	2x4	DRY 2100F 1.8E	SPF
I - L	2x4	DRY No.2	SPF
V - B	2x6	DRY No.2	SPF
M - K	2x6	DRY No.2	SPF
V - R	2x6	DRY 2100F 1.8E	SPF
R - M	2x6	DRY 2100F 1.8E	SPF

ALL WEBS EXCEPT	2x3	DRY No.2	SPF
B - U	2x4	DRY No.2	SPF
N - K	2x4	DRY No.2	SPF

DRY: SEASONED LUMBER.

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

	FACTORED GROSS REACTION	MAXIMUM FACTORED GROSS REACTION	INPUT BRG	REQRD BRG
JT	VERT	HORZ	DOWN	UP
V	3440	0	3440	0
M	2910	0	2910	0

UNFACTORED REACTIONS

1ST LCASE	MAX/MIN. COMPONENT REACTIONS						
JT	COMBINED	SNOW	LIVE	PERM. LIVE	WIND	DEAD	SOIL
V	2409	1718 / 0	0 / 0	0 / 0	0 / 0	690 / 0	0 / 0
M	2035	1467 / 0	0 / 0	0 / 0	0 / 0	567 / 0	0 / 0

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

BRACING

TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 2.36 FT.
MAX. UNBRACED BOTTOM CHORD LENGTH = 10.00 FT OR RIGID CEILING DIRECTLY APPLIED.

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

LOADING

TOTAL LOAD CASES: (4)

CHORDS					WEBS				
MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	LC1 MAX. CSI (LC)	MAX. UNBRACED LENGTH	MEMB.	MAX. FACTORED FORCE (LBS)	MAX. CSI (LC)		
FR-TO		FROM	TO		FR-TO				
A-B	0 / 26	-84.3	-84.3	0.12 (1)	10.00	U-C	-1107 / 0	0.19 (1)	
B-C	-4602 / 0	-84.3	-84.3	0.42 (1)	2.94	C-T	0 / 788	0.20 (1)	
C-D	-5300 / 0	-84.3	-84.3	0.48 (1)	2.65	T-D	-233 / 67	0.06 (1)	
D-E	-7100 / 0	-158.9	-158.9	0.81 (1)	2.62	D-S	0 / 2973	0.74 (1)	
E-F	-8015 / 0	-158.9	-158.9	0.91 (1)	2.36	S-E	-1609 / 0	0.42 (1)	
F-G	-8015 / 0	-84.3	-84.3	0.54 (1)	2.79	E-Q	0 / 1152	0.29 (1)	
G-H	-8015 / 0	-84.3	-84.3	0.54 (1)	2.79	Q-F	-534 / 0	0.14 (1)	
H-I	-6296 / 0	-84.3	-84.3	0.40 (1)	3.26	Q-H	0 / 2241	0.55 (1)	
I-J	-4441 / 0	-84.3	-84.3	0.36 (1)	3.04	P-H	-1838 / 0	0.48 (1)	
J-K	-3862 / 0	-84.3	-84.3	0.32 (1)	3.30	P-I	0 / 3036	0.75 (1)	
K-L	0 / 26	-84.3	-84.3	0.12 (1)	10.00	O-I	-228 / 0	0.06 (1)	
V-B	-3319 / 0	0.0	0.0	0.23 (1)	5.78	O-J	0 / 648	0.16 (1)	
M-K	-2821 / 0	0.0	0.0	0.20 (1)	6.20	N-J	-966 / 0	0.17 (1)	
V-U	0 / 0	-34.4	-34.4	0.08 (1)	10.00	B-U	0 / 4249	0.75 (1)	
U-T	0 / 4122	-34.4	-34.4	0.30 (1)	10.00	N-K	0 / 3568	0.63 (1)	
T-S	0 / 4734	-34.4	-34.4	0.29 (1)	10.00				
S-R	0 / 7100	-34.4	-34.4	0.48 (1)	10.00				
R-Q	0 / 7100	-34.4	-34.4	0.48 (1)	10.00				
Q-P	0 / 6296	-18.2	-18.2	0.43 (1)	10.00				
P-O	0 / 3966	-18.2	-18.2	0.24 (1)	10.00				
O-N	0 / 3462	-18.2	-18.2	0.26 (1)	10.00				
N-M	0 / 0	-18.2	-18.2	0.08 (1)	10.00				

FACTORED CONCENTRATED LOADS (LBS)

JT	LOC.	LC1	MAX-	MAX+	FACE	DIR.	TYPE	HEEL	CONN.
D	6-0-0	-379	-379	---	FRONT	VERT	TOTAL	---	C1
Q	15-11-4	-396	-444	---	FRONT	VERT	DEAD	---	C1
Q	15-11-4	-1170	-1170	---	FRONT	VERT	SNOW	---	C1

CONNECTION REQUIREMENTS

1) C1: A SUITABLE HANGER/MECHANICAL CONNECTION IS REQUIRED.

READ ALL NOTES ON THIS PAGE AND ON THE
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IN THE DESIGN OF THIS COMPONENT.

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	=	25.6	PSF
	DL	=	3.0	PSF
BOT CH.	LL	=	0.0	PSF
	DL	=	7.3	PSF
TOTAL LOAD	=	35.9	PSF	

SPACING = 24.0 IN. C/C

LOADING IN FLAT SECTION BASED ON A
SLOPE OF 6.00/12

GIRDER TYPE: CPrimeHip

SIDE SETBACK = 6-0-0

END SETBACK = 6-0-0

END WALL WIDTH = 5-8

CORNER FRAMING TYPE: CONVENTIONAL
END JACK TYPE: CONVENTIONAL
APPLIED TO FRONT SIDE
- ADDTL LOADS BASED ON 55 % OF GSL.
LOADS APPLIED TO FIRST 15-11-4 OF SPAN
MEASURED FROM THE LEFT.

***** NON STANDARD GIRDER *****

ADDTL USER-DEFINED LOADS APPLIED TO
ALL LOAD CASES.

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

THIS DESIGN COMPLIES WITH:

- PART 9 OF BCBC 2018, ABC 2019
- PART 9 OF OBC 2012 (2019 AMENDMENT)
- CSA 086-14
- TPIC 2014

(55 % OF 31.3 P.S.F. G.S.L. PLUS 8.4 P.S.F.
RAIN LOAD) EQUALS 25.6 P.S.F. SPECIFIED
ROOF LIVE LOAD

ALLOWABLE DEFL.(LL) = $L/360$ (1.03")
CALCULATED VERT. DEFL.(LL) = $L/999$ (0.33")
ALLOWABLE DEFL.(TL) = $L/360$ (1.03")
CALCULATED VERT. DEFL.(TL) = $L/645$ (0.58")

CSI: TC=0.91/1.00 (E-F:1), BC=0.48/1.00 (Q-S:1),
WB=0.75/1.00 (I-P:1), SSI=0.41/1.00 (D-E:1)

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

CITY OF RICHMOND HILL
BUILDING DIVISION
CONTINUED ON PAGE 2

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June 29, 2021

JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
IM0621-170	G02	1	1	TRUSS DESC.	

Version 8.420 S Apr 29 2021 MiTek Industries, Inc. Tue Jun 29 13:09:18 2021 Page 2
 ID:sQnoinEi9TBrU6tFyqADsRzc?7R-9V3YZXzQdFZeFC90tzKhFpBhWVQvhuv8nChRYjz1QI?

COMPANION LIVE LOAD FACTOR = 1.00

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

NAIL VALUES
 PLATE GRIP(DRY) SHEAR SECTION
 (PSI) (PLI) (PLI)
 MAX MIN MAX MIN MAX MIN
 MT20 650 371 1747 788 1987 1873

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.90 (H) (INPUT = 0.90)
 JSI METAL= 0.99 (R) (INPUT = 1.00)



June 29, 2021

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.

CITY OF RICHMOND HILL
 BUILDING DIVISION

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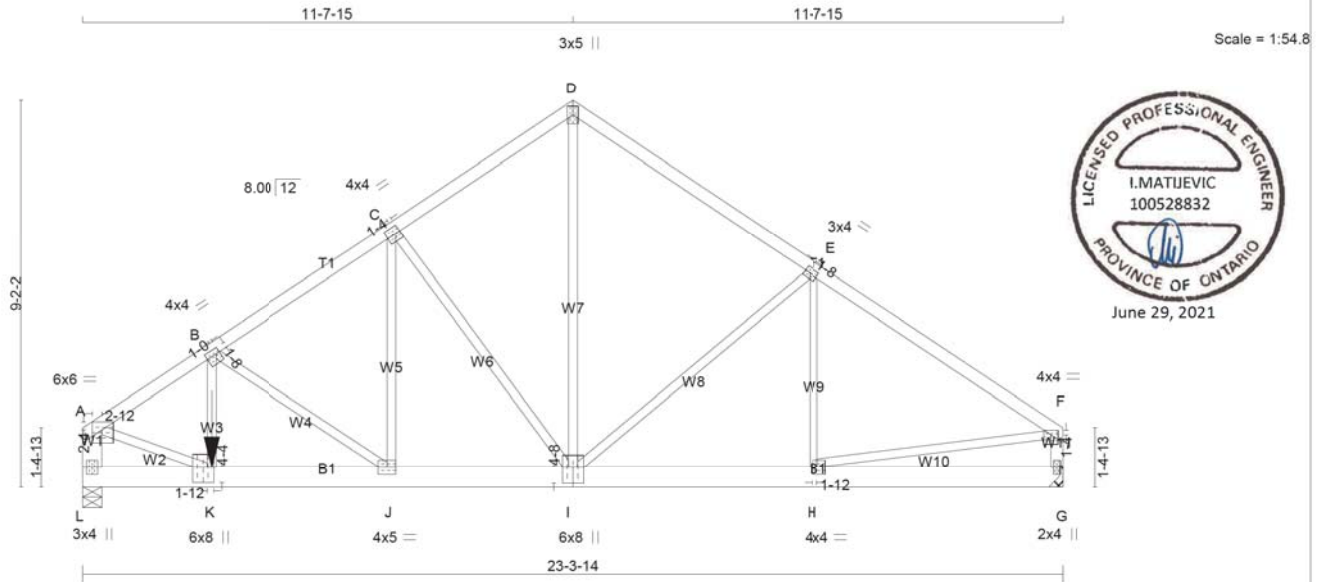


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JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
IM0621-170	G03	1	2	TRUSS DESC.	

Version 8.420 S Apr 29 2021 MiTek Industries, Inc. Tue Jun 29 13:09:29 2021 Page 1
ID:sQnoinEi9TBrU6tFyqADsRzc?7R-KdEjtl6K1dy43uV70n1GC88j3xD4mqmJPvWQaz1QKq



TOTAL WEIGHT = 2 X 116 = 232 lb [M]

LUMBER

N. L. G. A. RULES	CHORDS	SIZE	LUMBER	DESCR.
A - D	2x4	DRY	No.2	SPF
D - F	2x4	DRY	No.2	SPF
L - A	2x6	DRY	No.2	SPF
G - F	2x4	DRY	No.2	SPF
L - I	2x6	DRY	No.2	SPF
I - G	2x6	DRY	No.2	SPF

ALL WEBS 2x3 DRY No.2 SPF
EXCEPT

DRY: SEASONED LUMBER.

DESIGN CONSISTS OF 2 TRUSSES BUILT SEPARATELY THEN FASTENED TOGETHER AS FOLLOWS:

CHORDS #ROWS	SURFACE SPACING (IN)	LOAD(PLF)
TOP CHORDS : (0.122"x3") SPIRAL NAILS		
A - D 1	12	TOP
D - F 1	12	TOP
G - F 1	12	TOP
L - A 2	12	TOP
BOTTOM CHORDS : (0.122"x3") SPIRAL NAILS		
L - I 2	12	SIDE(135.1)
I - G 2	12	TOP
WEBS : (0.122"x3") SPIRAL NAILS		
2x3 1	6	

NAILS TO BE DRIVEN FROM ONE SIDE ONLY.

GIRDER NAILING ASSUMES NAILED HANGERS ARE FASTENED WITH MIN. 3-0 INCH NAILS.

TOP - COMPONENTS ARE LOADED FROM THE TOP AND MUST BE PLACED ON TOP EDGE OF ALL PLIES FOR THE LOAD TO BE TRANSFERRED TO EACH PLY.

SIDE - PLF SHOWN IS THE EQUIVALENT UDL APPLIED TO ONE SIDE THAT THE CORRESPONDING NAILING PATTERN SHALL BE CAPABLE OF TRANSFERRING. REMAINING PLF MUST BE APPLIED ON THE OPPOSITE SIDE OR ON THE TOP.

PLATES (table is in inches)

JT TYPE	PLATES	W	LEN	Y	X
A TMVW-p	MT20	6.0	6.0	2.25	2.75
B TMWW-t	MT20	4.0	4.0	1.50	1.00
C TMWW-t	MT20	4.0	4.0	2.00	1.25
D TTW+p	MT20	3.0	5.0		
E TMWW-t	MT20	3.0	4.0	1.50	1.50
F TMVW-p	MT20	4.0	4.0	1.25	2.00
G BMV1+p	MT20	2.0	4.0		
H BMWW-t	MT20	4.0	4.0	2.00	1.75
I BSWWW+I	MT20	6.0	8.0	4.50	3.00
J BMWW-t	MT20	4.0	5.0		
K BMWW-t	MT20	6.0	8.0	4.25	1.75
L BMV1+p	MT20	3.0	4.0		

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
L	5179	0	5179	0
G	1735	0	1735	0

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

UNFACTORED REACTIONS

JT	1ST LCASE COMBINED	MAX/MIN. SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
L	3626	2585 / 0	0 / 0	0 / 0	0 / 0	1041 / 0	0 / 0
G	1215	866 / 0	0 / 0	0 / 0	0 / 0	349 / 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 = 4.03 FT.
MAX. UNBRACED BOTTOM CHORD LENGTH = 10.00 FT OR RIGID CEILING DIRECTLY APPLIED.

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

LOADING

TOTAL LOAD CASES: (4)

C H O R D S				W E B S			
MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	LC1 MAX. CS1 (LC)	MAX. UNBRAC	MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED MAX. CS1 (LC)
FR-TO		FROM TO		LENGTH	FR-TO		
A-B	-5504 / 0	-84.3 -84.3	0.17 (1)	4.03	K-B	0 / 2558	0.32 (1)
B-C	-3001 / 0	-84.3 -84.3	0.17 (1)	5.17	B-J	-2542 / 0	0.59 (1)
C-D	-1839 / 0	-84.3 -84.3	0.15 (1)	6.25	J-C	0 / 1606	0.70 (1)
D-E	-1850 / 0	-84.3 -84.3	0.30 (1)	6.03	C-I	-1697 / 0	0.87 (1)
E-F	-2114 / 0	-84.3 -84.3	0.31 (1)	5.73	I-D	0 / 1692	0.21 (1)
L-A	-4668 / 0	0.0 0.0	0.17 (1)	6.68	I-E	-361 / 0	0.21 (1)
G-F	-1683 / 0	0.0 0.0	0.09 (1)	7.81	H-E	-189 / 58	0.04 (1)
					A-K	0 / 4823	0.60 (1)
L-K	0 / 0	-288.4 -288.4	0.17 (1)	10.00	H-F	0 / 1810	0.22 (1)
K-J	0 / 4586	-18.2 -18.2	0.38 (1)	10.00			
J-I	0 / 2511	-18.2 -18.2	0.17 (1)	10.00			
I-H	0 / 1785	-18.2 -18.2	0.14 (1)	10.00			
H-G	0 / 0	-18.2 -18.2	0.04 (4)	10.00			

FACTORED CONCENTRATED LOADS (LBS)

JT	LOC.	LC1	MAX- MAX+	FACE	DIR.	TYPE	HEEL	CONN.
K	3-0-12	-929	-1040	---	FRONT	VERT	DEAD	C1
K	3-0-12	-2768	-2768	---	FRONT	VERT	SNOW	C1

CONNECTION REQUIREMENTS

1) C1: A SUITABLE HANGER/MECHANICAL CONNECTION IS REQUIRED.

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	=	25.6	PSF
	DL	=	3.0	PSF
BOT CH.	LL	=	0.0	PSF
	DL	=	7.3	PSF
TOTAL LOAD	=	35.9	PSF	

SPACING = 24.0 IN. C/C

GIRDER TYPE: CStdGirder
START DISTANCE = 0-0
START SPAN CARRIED = 13-0-0
END DISTANCE = 3-0-12
END SPAN CARRIED = 13-0-0
END WALL WIDTH = 5-8
APPLIED TO FRONT SIDE OF BOTTOM CHORD.
- ADDTL LOADS BASED ON 55 % OF GSL.

***** 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 2015

THIS DESIGN COMPLIES WITH:

- PART 9 OF BCBC 2018, ABC 2019
- PART 9 OF OBC 2012 (2019 AMENDMENT)
- CSA 086-14
- TPIC 2014

(55 % OF 31.3 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 25.6 P.S.F. SPECIFIED ROOF LIVE LOAD

ALLOWABLE DEFL.(LL) = L/360 (0.78")
CALCULATED VERT. DEFL.(LL) = L/999 (0.05")
ALLOWABLE DEFL.(TL) = L/360 (0.78")
CALCULATED VERT. DEFL.(TL) = L/999 (0.09")

CSI: TC=0.31/1.00 (E-F:1), BC=0.38/1.00 (J-K:1), WB=0.87/1.00 (C-I:1), SSI=0.17/1.00 (K-L:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

TRUSS PLATE MANUFACTURER IS NOT RESPONSIBLE FOR QUALITY CONTROL IN THE TRUSS MANUFACTURING PLANT.
BUILDING DIVISION
CONTINUED ON PAGE 2

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JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
IM0621-170	G03	1	2	TRUSS DESC.	

Version 8.420 S Apr 29 2021 MiTek Industries, Inc. Tue Jun 29 13:09:29 2021 Page 2
 ID:sQnoinEi9TBrU6tFyqADsRzc?7R-KdEjtl6K1dy43uV70n1GC88j3xD4mqImJPvWQaz1Qkq

NAIL VALUES
 PLATE GRIP(DRY) SHEAR SECTION
 (PSI) (PLI) (PLI)
 MAX MIN MAX MIN MAX MIN
 MT20 650 371 1747 788 1987 1873
 PLATE PLACEMENT TOL. = 0.250 inches
 PLATE ROTATION TOL. = 5.0 Deg.
 JSI GRIP= 0.89 (A) (INPUT = 0.90)
 JSI METAL= 0.69 (K) (INPUT = 1.00)



June 29, 2021

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 BUILDING DIVISION

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Version 8.420 S Apr 29 2021 MiTek Industries, Inc. Tue Jun 29 13:09:40 2021 Page 1
ID:sQnoinEi9TBrU6tFyqADsRzc?7R-WkOtB2EDR?KWuarFABjr8S5cMN arwnNrd3cJRz1Qkf



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JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
IM0621-170	G04	1	1	TRUSS DESC.	

Version 8.420 S Apr 29 2021 MiTek Industries, Inc. Tue Jun 29 13:09:40 2021 Page 2
 ID:sQnoinEi9TBrU6tFyqADsRzc?7R-WkOtB2EDR?KWuarFAbjr8S5cMN_arwnNrd3cJRz1Qkf

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.90 (B) (INPUT = 0.90)

JSI METAL= 0.42 (B) (INPUT = 1.00)



June 29, 2021

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CITY OF RICHMOND HILL
 BUILDING DIVISION

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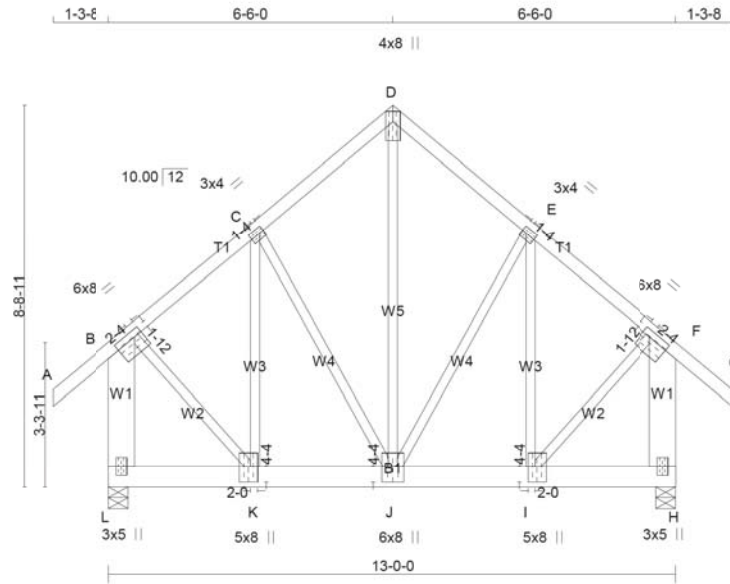


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JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
IM0621-170	G05	1	1	TRUSS DESC.	

Version 8.420 S Apr 29 2021 MiTek Industries, Inc. Tue Jun 29 13:09:50 2021 Page 1
ID:sQnoinEi9TBrU6tFyqADsRzc?7R-Df?fHTMV54b556cAlhvBYZWIAPOMBNYS8AU7fsz1QkV



JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
IM0621-170	G05	1	1	TRUSS DESC.	

Version 8.420 S Apr 29 2021 MiTek Industries, Inc. Tue Jun 29 13:09:50 2021 Page 2
 ID:sQnoinEi9TBrU6tFyqADsRzc?7R-Df?fHTMV54b556cAlhvBYZWIAPOMBNYS8AU7fsz1QkV

JSI GRIP= 0.88 (H) (INPUT = 0.90)
 JSI METAL= 0.70 (I) (INPUT = 1.00)



June 29, 2021

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CITY OF RICHMOND HILL
 BUILDING DIVISION

09/22/2022

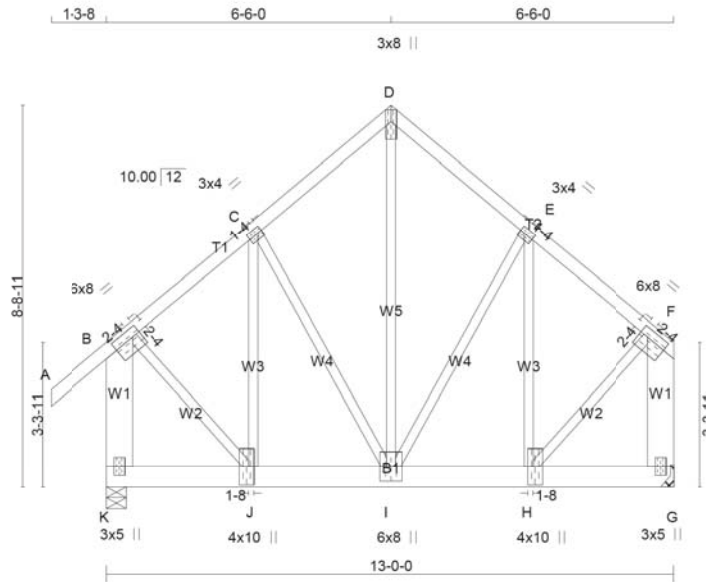


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JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
IM0621-170	G06	1	1	TRUSS DESC.	

Version 8.420 S Apr 29 2021 MiTek Industries, Inc. Tue Jun 29 13:10:01 2021 Page 1
ID:sQnoinEi9TBrU6tFyqADsRzc77R-On9pbEVOVS_XvpyHuVcmVuTB_q5xGOaTgOfDYjz1QkK



Scale = 1:52.7

TOTAL WEIGHT = 91 lb

LUMBER			
N. L. G. A. RULES	CHORDS	SIZE	LUMBER
A - D	2x4	DRY	No.2
D - F	2x4	DRY	No.2
K - B	2x8	DRY	No.2
G - F	2x8	DRY	No.2
K - G	2x6	DRY	No.2

ALL WEBS 2x3 DRY No.2 SPF
EXCEPT

DRY: SEASONED LUMBER.

PLATES (table is in inches)

JT	TYPE	PLATES	W	LEN	Y	X
B	TMVW-t	MT20	6.0	8.0	2.25	2.25
C	TMWW-t	MT20	3.0	4.0	1.50	1.25
D	TTW+p	MT20	3.0	8.0	Edge	
E	TMVW-t	MT20	3.0	4.0	1.50	1.25
F	TMVW-t	MT20	6.0	8.0	2.25	2.25
G	BMV1+p	MT20	3.0	5.0		
H	BMWW+t	MT20	4.0	10.0	5.00	1.50
I	BMWW+t	MT20	6.0	8.0		
J	BMWW+t	MT20	4.0	10.0	5.00	1.50
K	BMV1+p	MT20	3.0	5.0		

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

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
K	3814	0		3814	0	0	5-8	5-2	
G	3697	0		3697	0	0	MECHANICAL		

A SUITABLE HANGER/MECHANICAL CONNECTION IS REQUIRED AT JOINT G. MINIMUM BEARING LENGTH AT JOINT G = 4-12.

UNFACTORED REACTIONS

JT	1ST LCASE	MAX/MIN	COMPONENT REACTIONS					
	COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL	
K	2668	1917 / 0	0 / 0	0 / 0	0 / 0	751 / 0	0 / 0	
G	2589	1846 / 0	0 / 0	0 / 0	0 / 0	743 / 0	0 / 0	

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

BRACING

TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 4.38 FT.
MAX. UNBRACED BOTTOM CHORD LENGTH = 10.00 FT OR RIGID CEILING DIRECTLY APPLIED.

ALL FITCH 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 VERT. LOAD (LC1)	MEMB.	MAX. FACTORED FORCE (LBS)	MAX. FACTORED VERT. LOAD (LC1)	
FR-TO		FROM	TO	FR-TO			
A-B	0 / 37	-84.3	-84.3 0.13 (1)	I-D	0 / 2258	0.56 (1)	
B-C	-2211 / 0	-84.3	-84.3 0.21 (1)	I-E	-461 / 0	0.35 (1)	
C-D	-1949 / 0	-84.3	-84.3 0.17 (1)	H-E	0 / 270	0.07 (1)	
D-E	-1949 / 0	-84.3	-84.3 0.17 (1)	C-I	-461 / 0	0.35 (1)	
E-F	-2211 / 0	-84.3	-84.3 0.21 (1)	J-C	0 / 270	0.07 (1)	
K-B	-3132 / 0	0.0	0.0 0.31 (1)	B-J	0 / 2255	0.56 (1)	
G-F	-3016 / 0	0.0	0.0 0.30 (1)	H-F	0 / 2255	0.56 (1)	
K-J	0 / 0	-484.6	-484.6 0.35 (1)				
J-I	0 / 1709	-484.6	-484.6 0.54 (1)				
I-H	0 / 1709	-484.6	-484.6 0.54 (1)				
H-G	0 / 0	-484.6	-484.6 0.35 (1)				

DESIGN CRITERIA

SPECIFIED LOADS:
TOP CH. LL = 25.6 PSF
DL = 3.0 PSF
BOT CH. LL = 0.0 PSF
DL = 7.3 PSF
TOTAL LOAD = 35.9 PSF

SPACING = 24.0 IN. C/C

GIRDER TYPE: CStdGirder
START DISTANCE = 0-0
START SPAN CARRIED = 20-2-6
END DISTANCE = 13-0-0
END SPAN CARRIED = 20-2-6
END WALL WIDTH = 0-0
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 2015

THIS DESIGN COMPLIES WITH:
- PART 9 OF BCBC 2018, ABC 2019
- PART 9 OF OBC 2012 (2019 AMENDMENT)
- CSA 086-14
- TPIC 2014

(55 % OF 31.3 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 25.6 P.S.F. SPECIFIED ROOF LIVE LOAD

ALLOWABLE DEFL.(LL)= L/360 (0.43")
CALCULATED VERT. DEFL.(LL) = L/999 (0.04")
ALLOWABLE DEFL.(TL)= L/360 (0.43")
CALCULATED VERT. DEFL.(TL) = L/999 (0.07")

CSI: TC=0.31/1.00 (B-K:1), BC=0.54/1.00 (H-I:1), WB=0.56/1.00 (D-I:1), SSI=0.63/1.00 (G-H:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

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

NAIL VALUES	PLATE	GRIP(DRY)	SHEAR	SECTION
(PSI)	(PLI)	(PLI)	(PLI)	
MAX MIN	MAX MIN	MAX MIN	MAX MIN	
MT20	650	371	1747	788 1987 1873

PLATE PLACEMENT TOL. = 0.250 inches

CITY OF RICHMOND HILL
BUILDING DIVISION
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June 29, 2021

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JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
IM0621-170	G06	1	1	TRUSS DESC.	

Version 8.420 S Apr 29 2021 MiTek Industries, Inc. Tue Jun 29 13:10:01 2021 Page 2
 ID:sQnoinEi9TBrU6tFyqADsRzc?7R-On9pbEVOVS_XvpyHuVcmVuTB_q5xGOaTgOfDYjz1QkK

JSI GRIP= 0.89 (H) (INPUT = 0.90)
 JSI METAL= 0.77 (J) (INPUT = 1.00)



June 29, 2021

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CITY OF RICHMOND HILL
 BUILDING DIVISION

09/22/2022

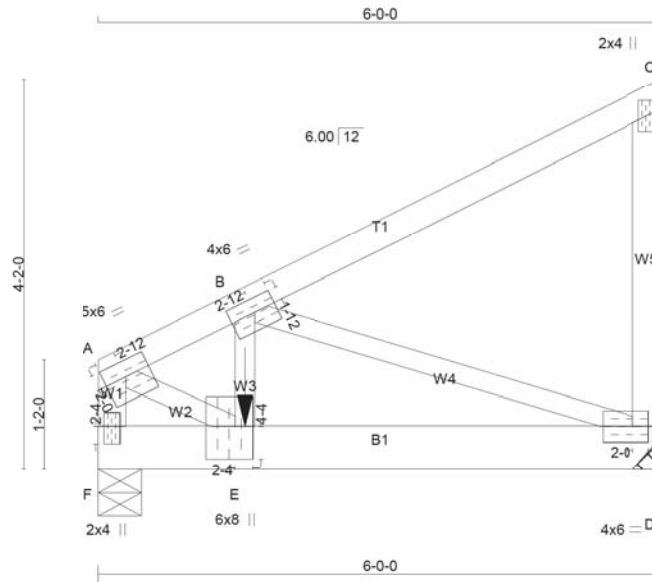


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Per: joshua.nabua

JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
IM0621-170	G07	1	1	TRUSS DESC.	

Version 8.420 S Apr 29 2021 MiTek Industries, Inc. Tue Jun 29 13:10:11 2021 Page 1
ID:sQnoinEi9TBrU6tFyqADsRzc77R-5imbhfcg8XE66LiCUn6v?uwdsRicsqxzx4lv8z1QkA



Scale = 1:24.6

TOTAL WEIGHT = 28 lb [M]

LUMBER

N. L. G. A. RULES

CHORDS	SIZE	LUMBER	DESCR.
F - A	2x4	DRY	No.2
A - C	2x4	DRY	No.2
D - C	2x4	DRY	No.2
F - D	2x6	DRY	No.2
ALL WEBS	2x3	DRY	No.2
DRY: SEASONED LUMBER.			

PLATES (table is in inches)

JT	TYPE	PLATES	W	LEN	Y	X
A	TMVW-t	MT20	5.0	6.0	2.00	2.75
B	TMVW-t	MT20	4.0	6.0	1.75	2.75
C	TMV+p	MT20	2.0	4.0		
D	BMVW1-t	MT20	4.0	6.0	2.00	2.00
E	BMVW+t	MT20	6.0	8.0	4.25	2.25
F	BMV1+p	MT20	2.0	4.0	2.25	1.00

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
F	1856	1856	5-8	2-9
D	1566	1566	0	MECHANICAL

A SUITABLE HANGER/MECHANICAL CONNECTION IS REQUIRED AT JOINT D. MINIMUM BEARING LENGTH AT JOINT D = 1-11.

UNFACTORED REACTIONS

JT	1ST CASE	MAX./MIN.	COMPONENT REACTIONS
F	1300	921 / 0	0 / 0
D	1097	780 / 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 = 4.30 FT.
MAX. UNBRACED BOTTOM CHORD LENGTH = 10.00 FT OR RIGID CEILING DIRECTLY APPLIED.

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

LOADING

TOTAL LOAD CASES: (4)

MEMB.	CHORDS	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	MAX. LC1	MAX. UNBRAC	MEMB.	WEBS	MAX. FACTORED FORCE (LBS)	MAX. CSI (LC)
FR-TO						FR-TO			
F-A	-2036 / 0	0.0	0.0	0.22 (1)	5.87	A-E	0 / 2283	0.57 (1)	
A-B	-2257 / 0	-84.3	-84.3	0.22 (1)	4.30	E-B	0 / 1398	0.35 (1)	
B-C	-10 / 0	-84.3	-84.3	0.24 (1)	6.25	B-D	-2167 / 0	0.76 (1)	
D-C	-164 / 0	0.0	0.0	0.04 (1)	7.81				
F-E	0 / 0	-18.2	-18.2	0.22 (1)	10.00				
E-D	0 / 2045	-339.6	-339.6	0.77 (1)	10.00				

FACTORED CONCENTRATED LOADS (LBS)

JT	LOC.	LC1	MAX-	MAX+	FACE	DIR.	TYPE	HEEL	CONN.
E	1-6-12	-358	-400	---	FRONT	VERT	DEAD	---	C1
E	1-6-12	-1023	-1023	---	FRONT	VERT	SNOW	---	C1

CONNECTION REQUIREMENTS

1) C1: A SUITABLE HANGER/MECHANICAL CONNECTION IS REQUIRED.

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 =	25.6	PSF
	DL =	3.0	PSF
BOT CH.	LL =	0.0	PSF
	DL =	7.3	PSF
TOTAL LOAD	=	35.9	PSF

SPACING = 24.0 IN. C/C

GIRDER TYPE: CStdGirder
START DISTANCE = 1-6-12
START SPAN CARRIED = 15-0-0
END DISTANCE = 6-0-0
END SPAN CARRIED = 15-0-0
END WALL WIDTH = 5-8
APPLIED TO FRONT SIDE OF BOTTOM CHORD.
- ADDTL LOADS BASED ON 55 % OF GSL.

***** 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 2015

THIS DESIGN COMPLIES WITH:

- PART 9 OF BCBC 2018, ABC 2019
- PART 9 OF OBC 2012 (2019 AMENDMENT)
- CSA 086-14
- TPIC 2014

(55 % OF 31.3 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 25.6 P.S.F. SPECIFIED ROOF LIVE LOAD

ALLOWABLE DEFL.(LL)= L/360 (0.20")
CALCULATED VERT. DEFL.(LL) = L/999 (0.05")
ALLOWABLE DEFL.(TL)= L/360 (0.20")
CALCULATED VERT. DEFL.(TL) = L/806 (0.09")

CSI: TC=0.24/1.00 (B-C:1), BC=0.77/1.00 (D-E:1), WB=0.76/1.00 (B-D:1), SSI=0.55/1.00 (D-E:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

TRUSS PLATE MANUFACTURER IS NOT RESPONSIBLE FOR QUALITY CONTROL IN THE TRUSS MANUFACTURING PLANT.
BUILDING DIVISION
CONTINUED ON PAGE 2

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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.

JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
IM0621-170	G07	1	1	TRUSS DESC.	

Version 8.420 S Apr 29 2021 MiTek Industries, Inc. Tue Jun 29 13:10:11 2021 Page 2
 ID:sQnoinEi9TBrU6tFyqADsRzc?77R-5imbhfcg8XE66LiCUcn6v?uwdsRicsqxzx4lv8z1QkA

NAIL VALUES
 PLATE GRIP(DRY) SHEAR SECTION
 (PSI) (PLI) (PLI)
 MAX MIN MAX MIN MAX MIN
 MT20 650 371 1747 788 1987 1873
 PLATE PLACEMENT TOL. = 0.250 inches
 PLATE ROTATION TOL. = 5.0 Deg.
 JSI GRIP= 0.87 (F) (INPUT = 0.90)
 JSI METAL= 0.61 (E) (INPUT = 1.00)



June 29, 2021

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

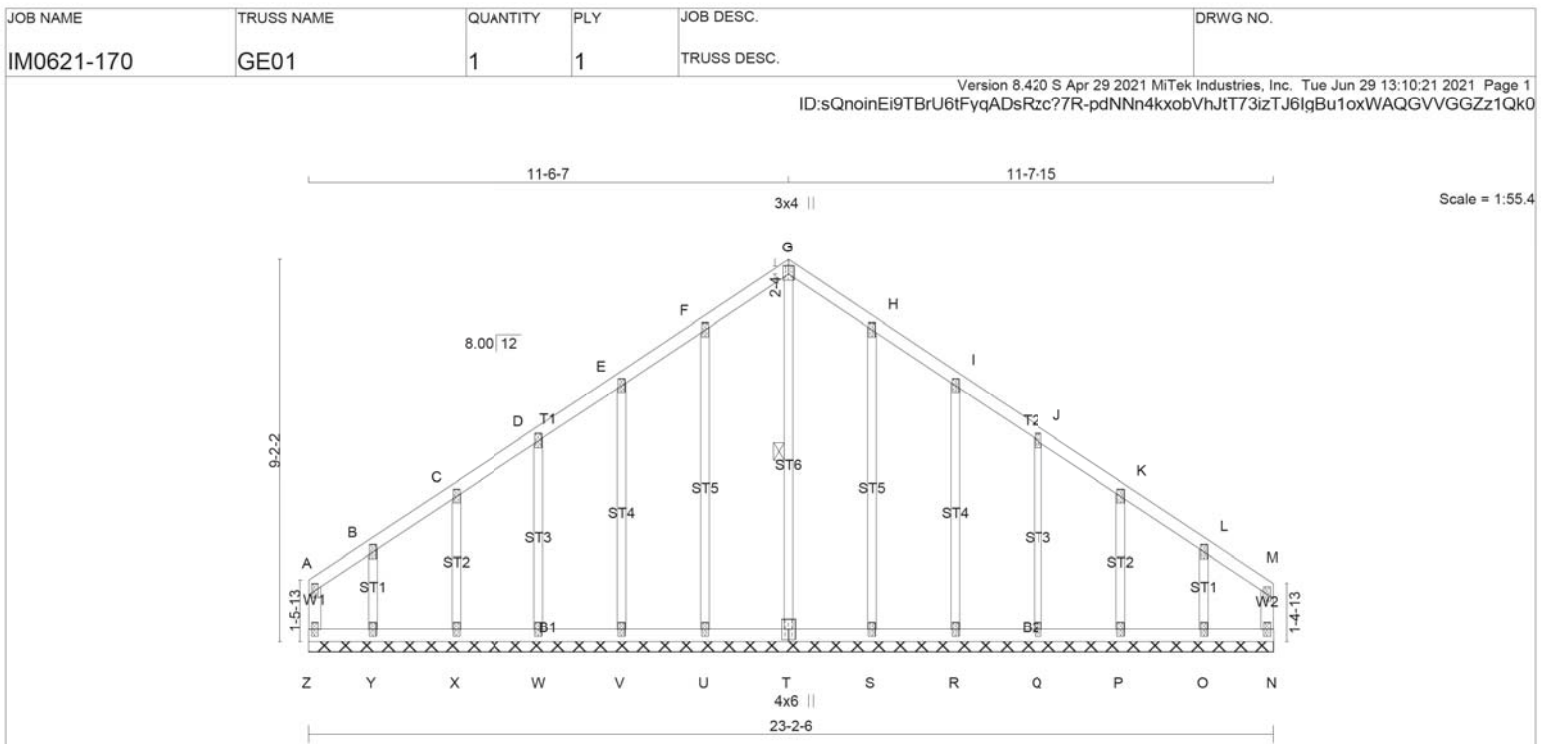
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TOTAL WEIGHT = 105 lb [M]

LUMBER

N. L. G. A. RULES	CHORDS	SIZE	LUMBER	DESCR.
Z - A	2x4	DRY	No.2	SPF
A - G	2x4	DRY	No.2	SPF
G - M	2x4	DRY	No.2	SPF
N - M	2x4	DRY	No.2	SPF
Z - T	2x4	DRY	No.2	SPF
T - N	2x4	DRY	No.2	SPF
ALL WEBS	2x3	DRY	No.2	SPF
ALL GABLE WEBS	2x3	DRY	No.2	SPF
DRY: SEASONED LUMBER.				

GABLE STUDS SPACED AT 2'-0" OC.

PLATES (table is in inches)

JT	TYPE	PLATES	W	LEN	Y	X
A	TMV+p	MT20	2.0	4.0		
B, C, D, E, F, H, I, J, K, L						
B	TMW+w	MT20	2.0	4.0		
G	TTW+p	MT20	3.0	4.0	2.25	1.50
M	TMV+p	MT20	2.0	4.0		
N	BMV1+p	MT20	2.0	4.0		
O, P, Q, R, S, U, V, W, X, Y						
O	BMW1+w	MT20	2.0	4.0		
T	BSW1+l	MT20	4.0	6.0		
Z	BMV1+p	MT20	2.0	4.0		

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

BEARINGS

THIS TRUSS DESIGNED FOR CONTINUOUS BEARINGS.
THIS TRUSS REQUIRES RIGID SHEATHING ON EXPOSED FACE.
BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S)

BRACING

TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 6.25 FT.
MAX. UNBRACED BOTTOM CHORD LENGTH = 10.00 FT OR RIGID CEILING DIRECTLY APPLIED.
ALL FITCH BREAKS AND PERIMETER CORNER JOINTS MUST BE Laterally RESTRAINED.
1 - 1x4 LATERAL BRACE(S) AT 1/2 LENGTH OF G-T. DBS = 20'-0" . CBF = 20 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)	VERT. LOAD (PLF)	MAX. FACTORED FORCE (LC)	MEMB.	MAX. FACTORED FORCE (LBS)	MAX. FACTORED FORCE (LC)	
FR-TO		FROM TO		FR-TO			
Z-A	-76 / 0	0.0	0.0 0.02 (1)	7.81	T-G	-164 / 0	0.09 (1)
A-B	-29 / 0	-84.3	-84.3 0.03 (1)	6.25	U-F	-171 / 0	0.20 (1)
B-C	-22 / 0	-84.3	-84.3 0.04 (1)	6.25	V-E	-167 / 0	0.12 (1)
C-D	-20 / 0	-84.3	-84.3 0.04 (1)	6.25	W-D	-166 / 0	0.07 (1)
D-E	-16 / 0	-84.3	-84.3 0.04 (1)	6.25	X-C	-171 / 0	0.04 (1)
E-F	-13 / 0	-84.3	-84.3 0.04 (1)	6.25	Y-B	-141 / 0	0.02 (1)
F-G	-11 / 0	-84.3	-84.3 0.04 (1)	6.25	S-H	-171 / 0	0.20 (1)
G-H	-11 / 0	-84.3	-84.3 0.04 (1)	6.25	R-I	-167 / 0	0.12 (1)
H-I	-13 / 0	-84.3	-84.3 0.04 (1)	6.25	Q-J	-166 / 0	0.07 (1)
I-J	-16 / 0	-84.3	-84.3 0.04 (1)	6.25	P-K	-170 / 0	0.04 (1)
J-K	-20 / 0	-84.3	-84.3 0.04 (1)	6.25	O-L	-148 / 0	0.02 (1)
K-L	-23 / 0	-84.3	-84.3 0.04 (1)	6.25			
L-M	-29 / 0	-84.3	-84.3 0.03 (1)	6.25			
N-M	-80 / 0	0.0	0.0 0.02 (1)	7.81			
Z-Y	0 / 26	-18.2	-18.2 0.02 (1)	10.00			
Y-X	0 / 20	-18.2	-18.2 0.02 (4)	10.00			
X-W	0 / 16	-18.2	-18.2 0.02 (4)	10.00			
W-V	0 / 13	-18.2	-18.2 0.02 (4)	10.00			
V-U	0 / 11	-18.2	-18.2 0.02 (4)	10.00			
U-T	0 / 9	-18.2	-18.2 0.02 (4)	10.00			
T-S	0 / 9	-18.2	-18.2 0.02 (4)	10.00			
S-R	0 / 11	-18.2	-18.2 0.02 (4)	10.00			
R-Q	0 / 13	-18.2	-18.2 0.02 (4)	10.00			
Q-P	0 / 16	-18.2	-18.2 0.02 (4)	10.00			
P-O	0 / 20	-18.2	-18.2 0.02 (4)	10.00			
O-N	0 / 26	-18.2	-18.2 0.02 (1)	10.00			

DESIGN CRITERIA

SPECIFIED LOADS:
TOP CH. LL = 25.6 PSF
DL = 3.0 PSF
BOT CH. LL = 0.0 PSF
DL = 7.3 PSF
TOTAL LOAD = 35.9 PSF

SPACING = 24.0 IN. C/C

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

THIS DESIGN COMPLIES WITH:
- PART 9 OF CBC 2018, ABC 2019
- PART 9 OF OBC 2012 (2019 AMENDMENT)
- CSA 086-14
- TPIC 2014

(55 % OF 31.3 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 25.6 P.S.F. SPECIFIED ROOF LIVE LOAD

CSI: TC=0.04/1.00 (F-G:1) , BC=0.02/1.00 (Y-Z:1) , WB=0.20/1.00 (H-S:1) , SSI=0.06/1.00 (B-C:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

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

NAIL VALUES

PLATE	GRIP(DRY)	SHEAR	SECTION
	(PSI)	(PLI)	(PLI)
	MAX MIN	MAX MIN	MAX MIN
MT20	650 371	1747 788	1987 1873

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.52 (G) (INPUT = 0.90)
JSI METAL= 0.09 (C) (INPUT = 1.00)



June 29, 2021

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.

CITY OF RICHMOND HILL
BUILDING DIVISION

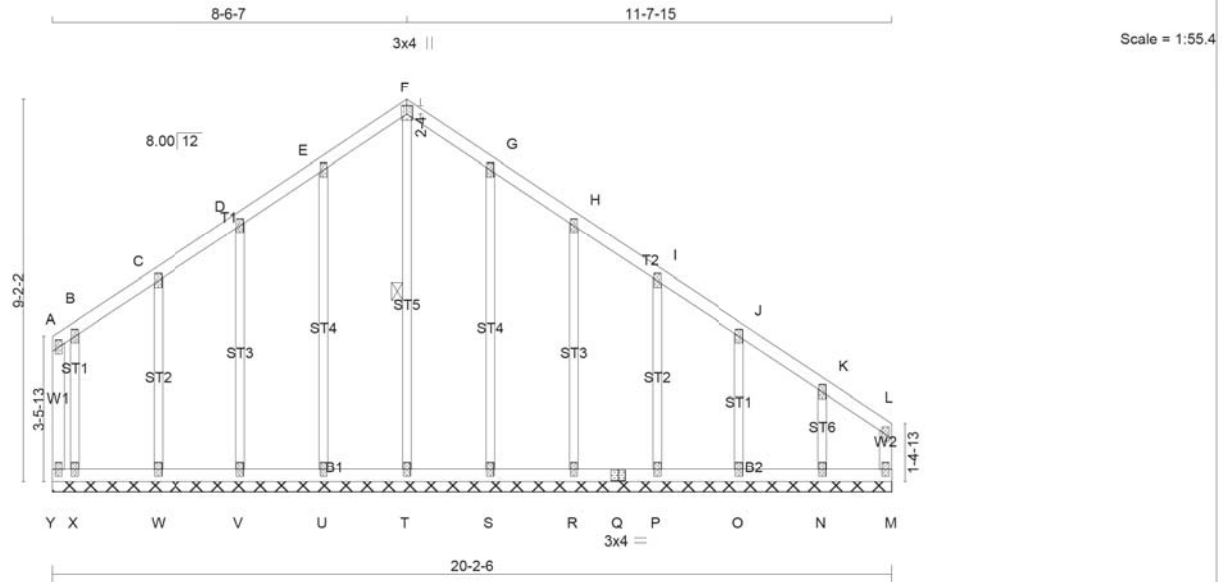
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JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
IM0621-170	GE02	1	1	TRUSS DESC.	

Version 8.420 S Apr 29 2021 MiTek Industries, Inc. Tue Jun 29 13:10:32 2021 Page 1
ID:sQnoinEi9TBrU6tFyqADsRzc77R- kXX5qtrC u87apEDWf2FQFYOKoS0Us1ojgM7Qz1Qjr



TOTAL WEIGHT = 99 lb
[M]

LUMBER	CHORDS	SIZE	DRY	LUMBER	DESCR.
N. L. G. A. RULES					
Y - A	2x4	DRY	No.2	SPF	
A - F	2x4	DRY	No.2	SPF	
F - L	2x4	DRY	No.2	SPF	
M - L	2x4	DRY	No.2	SPF	
Y - Q	2x4	DRY	No.2	SPF	
Q - M	2x4	DRY	No.2	SPF	
ALL WEBS	2x3	DRY	No.2	SPF	
ALL GABLE WEBS	2x3	DRY	No.2	SPF	
DRY: SEASONED LUMBER.					
GABLE STUDS SPACED AT	2'-0" O.C.				

PLATES (table is in inches)	JT	TYPE	PLATES	W	LEN	Y	X
A	TMV+p	MT20	2.0	4.0			
B, C, D, E, G, H, I, J, K							
B	TMW+w	MT20	2.0	4.0			
F	TTW+p	MT20	3.0	4.0	2.25	1.50	
L	TMV+p	MT20	2.0	4.0			
M	BMV1+p	MT20	2.0	4.0			
N, O, P, R, S, T, U, V, W, X							
N	BMW1+w	MT20	2.0	4.0			
Q	BS-t	MT20	3.0	4.0			
Y	BMV1+p	MT20	2.0	4.0			

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

BEARINGS
THIS TRUSS DESIGNED FOR CONTINUOUS BEARINGS.
THIS TRUSS REQUIRES RIGID SHEATHING ON EXPOSED FACE.
BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S)

BRACING
TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 6.25 FT.
MAX. UNBRACED BOTTOM CHORD LENGTH = 10.00 FT OR RIGID CEILING DIRECTLY APPLIED.
ALL FITCH BREAKS AND PERIMETER CORNER JOINTS MUST BE Laterally RESTRAINED.
1 - 1x4 LATERAL BRACE(S) AT 1/2 LENGTH OF F-T. DBS = 20'-0" . CBF = 22 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)	VERT. LOAD (PLF)	MAX. FACTORED FORCE (LBS)	MEMB.	MAX. FACTORED FORCE (LBS)	MAX. FACTORED FORCE (LBS)	MAX. FACTORED FORCE (LBS)
FR-TO		FROM TO		FR-TO			
Y-A	-21 / 0	0.0 0.0 0.02 (1)	7.81	T-F	-177 / 0	0.10 (1)	
A-B	-7 / 0	-84.3 -84.3 0.02 (1)	10.00	U-E	-172 / 0	0.20 (1)	
B-C	-3 / 0	-84.3 -84.3 0.04 (1)	10.00	V-D	-165 / 0	0.11 (1)	
C-D	-4 / 0	-84.3 -84.3 0.04 (1)	10.00	W-C	-175 / 0	0.07 (1)	
D-E	0 / 0	-84.3 -84.3 0.04 (1)	10.00	X-B	-99 / 0	0.02 (1)	
E-F	0 / 2	-84.3 -84.3 0.04 (1)	10.00	S-G	-172 / 0	0.20 (1)	
F-G	0 / 2	-84.3 -84.3 0.04 (1)	10.00	R-H	-166 / 0	0.12 (1)	
G-H	0 / 0	-84.3 -84.3 0.04 (1)	10.00	P-I	-166 / 0	0.07 (1)	
H-I	-3 / 0	-84.3 -84.3 0.04 (1)	10.00	O-J	-169 / 0	0.04 (1)	
I-J	-7 / 0	-84.3 -84.3 0.04 (1)	10.00	N-K	-153 / 0	0.02 (1)	
J-K	-10 / 0	-84.3 -84.3 0.04 (1)	6.25				
K-L	-14 / 0	-84.3 -84.3 0.03 (1)	6.25				
M-L	-69 / 0	0.0 0.0 0.02 (1)	7.81				
Y-X	0 / 8	-18.2 -18.2 0.02 (1)	10.00				
X-W	0 / 6	-18.2 -18.2 0.02 (4)	10.00				
W-V	0 / 3	-18.2 -18.2 0.02 (4)	10.00				
V-U	0 / 0	-18.2 -18.2 0.01 (4)	10.00				
U-T	-1 / 0	-18.2 -18.2 0.01 (4)	10.00				
T-S	-1 / 0	-18.2 -18.2 0.01 (4)	10.00				
S-R	0 / 0	-18.2 -18.2 0.01 (4)	10.00				
R-Q	0 / 3	-18.2 -18.2 0.01 (4)	10.00				
Q-P	0 / 3	-18.2 -18.2 0.01 (4)	10.00				
P-O	0 / 5	-18.2 -18.2 0.01 (4)	10.00				
O-N	0 / 9	-18.2 -18.2 0.01 (4)	10.00				
N-M	0 / 15	-18.2 -18.2 0.01 (4)	10.00				

DESIGN CRITERIA

SPECIFIED LOADS:
TOP CH. LL = 25.6 PSF
DL = 3.0 PSF
BOT CH. LL = 0.0 PSF
DL = 7.3 PSF
TOTAL LOAD = 35.9 PSF

SPACING = 24.0 IN. C/C

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

THIS DESIGN COMPLIES WITH:
- PART 9 OF BCBC 2018, ABC 2019
- PART 9 OF OBC 2012 (2019 AMENDMENT)
- CSA 086-14
- TPIC 2014

(55 % OF 31.3 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 25.6 P.S.F. SPECIFIED ROOF LIVE LOAD

CSI: TC=0.04/1.00 (C-D:1) , BC=0.02/1.00 (X-Y:1) , WB=0.20/1.00 (E-U:1) , SSI=0.06/1.00 (B-C:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

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

NAIL VALUES
PLATE GRIP(DRY) SHEAR SECTION (PSI) (PLI) (PLI)
MAX MIN MAX MIN MAX MIN
MT20 650 371 1747 788 1987 1873

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.52 (F) (INPUT = 0.90)
JSI METAL= 0.09 (C) (INPUT = 1.00)



June 29, 2021

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.

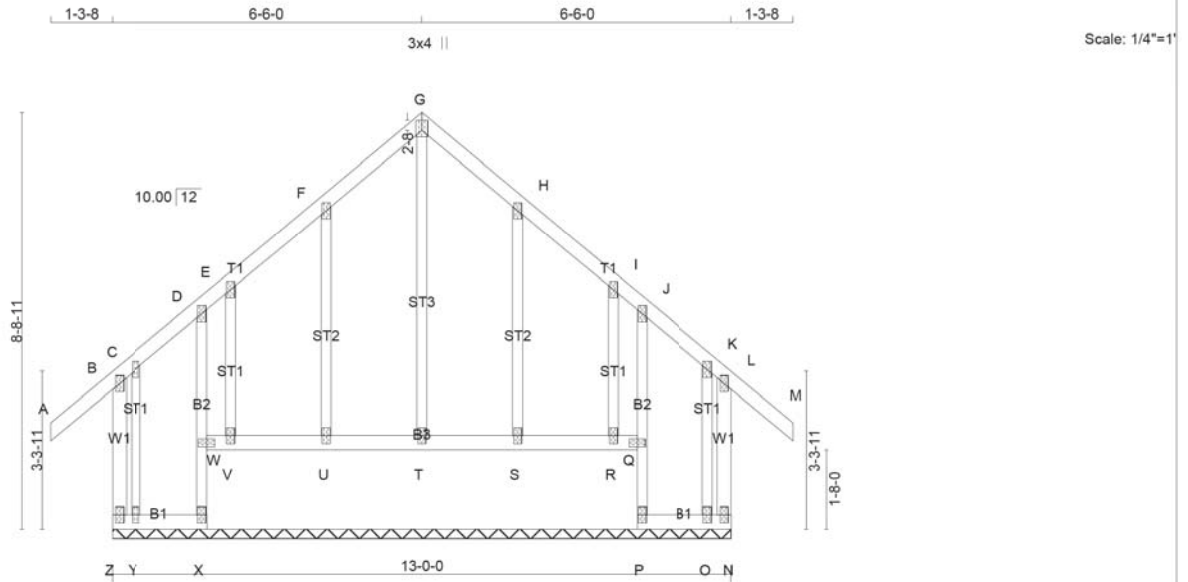
CITY OF RICHMOND HILL
BUILDING DIVISION

09/22/2022
KOTT
RECEIVED

Per: joshua.nabua

JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
IM0621-170	GE03	1	1	TRUSS DESC.	

Version 8.420 S Apr 29 2021 MiTek Industries, Inc. Tue Jun 29 13:10:46 2021 Page 1
ID:sQnoinEi9TBrU6tFyqADsRzc77R-aRQq1d2dvHe8pjux1SvKqNqixZkIqv50u35dcz1Qjd



TOTAL WEIGHT = 75 lb
[M]

LUMBER

N. L. G. A. RULES

CHORDS	SIZE	LUMBER	DESCR.
A - G	2x4	DRY	No.2
G - M	2x4	DRY	No.2
Z - B	2x4	DRY	No.2
N - L	2x4	DRY	No.2
Z - X	2x4	DRY	No.2
X - D	2x3	DRY	No.2
W - Q	2x4	DRY	No.2
P - J	2x3	DRY	No.2
P - N	2x4	DRY	No.2

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, D, J, L					
B TMV+p	MT20	2.0	4.0		
C, E, F, H, I, K					
C TMW+w	MT20	2.0	4.0		
C TTW+p	MT20	3.0	4.0	2.50	1.50
N, P, X, Z					
N BMV1+p	MT20	2.0	4.0		
O, R, S, T, U, V, Y					
O BMV1+w	MT20	2.0	4.0		
Q BVM-H	MT20	2.0	4.0		
W BVM-H	MT20	2.0	4.0		

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

THIS TRUSS DESIGNED FOR CONTINUOUS BEARINGS.

THIS TRUSS REQUIRES RIGID SHEATHING ON EXPOSED FACE.

BEVELED PLATE OR SHIM REQUIRED TO PROVIDE FULL BEARING SURFACE WITH TRUSS CHORD AT JT(S): T, U, V, S, R
BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S)

BRACING

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

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

LOADING

TOTAL LOAD CASES: (4)

CHORDS				WEBS			
MEMB.	MAX. FACTORED FORCE (LBS)	VERT. LOAD (PLF)	MAX. CSI (LC)	MAX. UNBRACED LENGTH	MEMB.	MAX. FACTORED FORCE (LBS)	MAX. CSI (LC)
FR-TO		FROM TO		FR-TO			
A-B	0 / 37	-84.3 -84.3	0.12 (1)	10.00	T-G	-196 / 0	0.16 (1)
B-C	-53 / 0	-84.3 -84.3	0.09 (1)	6.25	U-F	-178 / 0	0.08 (1)
C-D	0 / 0	-84.3 -84.3	0.03 (1)	10.00	V-E	-122 / 0	0.03 (1)
D-E	0 / 23	-84.3 -84.3	0.03 (1)	10.00	Y-C	0 / 8	0.00 (1)
E-F	0 / 18	-84.3 -84.3	0.05 (1)	10.00	S-H	-178 / 0	0.08 (1)
F-G	0 / 17	-84.3 -84.3	0.05 (1)	10.00	R-I	-122 / 0	0.03 (1)
G-H	0 / 17	-84.3 -84.3	0.05 (1)	10.00	O-K	0 / 8	0.00 (1)
H-I	0 / 18	-84.3 -84.3	0.05 (1)	10.00			
I-J	0 / 23	-84.3 -84.3	0.03 (1)	10.00			
J-K	0 / 0	-84.3 -84.3	0.03 (1)	10.00			
K-L	-53 / 0	-84.3 -84.3	0.09 (1)	6.25			
L-M	0 / 37	-84.3 -84.3	0.12 (1)	10.00			
Z-B	-225 / 0	0.0 0.0	0.03 (1)	7.81			
N-L	-225 / 0	0.0 0.0	0.03 (1)	7.81			
Z-Y	-7 / 0	-18.2 -18.2	0.01 (4)	10.00			
Y-X	-7 / 0	-18.2 -18.2	0.01 (1)	10.00			
X-W	-56 / 0	0.0 0.0	0.01 (1)	7.81			
W-D	-50 / 0	0.0 0.0	0.00 (1)	7.81			
W-V	-7 / 0	-18.2 -18.2	0.01 (4)	10.00			
V-U	-11 / 0	-18.2 -18.2	0.02 (4)	6.25			
U-T	-14 / 0	-18.2 -18.2	0.02 (4)	6.25			
T-S	-14 / 0	-18.2 -18.2	0.02 (4)	6.25			
S-R	-11 / 0	-18.2 -18.2	0.02 (4)	6.25			
R-Q	-7 / 0	-18.2 -18.2	0.01 (4)	10.00			
P-Q	-56 / 0	0.0 0.0	0.01 (1)	7.81			
Q-J	-50 / 0	0.0 0.0	0.00 (1)	7.81			
P-O	-7 / 0	-18.2 -18.2	0.01 (1)	10.00			
O-N	-7 / 0	-18.2 -18.2	0.01 (4)	10.00			

DESIGN CRITERIA**SPECIFIED LOADS:**

TOP CH.	LL	=	25.6	PSF
DL	=	3.0	PSF	
BOT CH.	LL	=	0.0	PSF
DL	=	7.3	PSF	
TOTAL LOAD	=	35.9	PSF	

SPACING = 24.0 IN. C/C

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

THIS DESIGN COMPLIES WITH:

- PART 9 OF BCBC 2018, ABC 2019
- PART 9 OF OBC 2012 (2019 AMENDMENT)
- CSA 086-14
- TPIC 2014

DESIGN ASSUMPTIONS

-OVERHANG NOT TO BE ALTERED OR CUT OFF.

(55 % OF 31.3 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 25.6 P.S.F. SPECIFIED ROOF LIVE LOAD

CSI: TC=0.12/1.00 (L-M:1), BC=0.02/1.00 (S-T:4), WB=0.16/1.00 (G-T:1), SSI=0.07/1.00 (L-M:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

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

NAIL VALUES

PLATE	GRIP(DRY)	SHEAR	SECTION
(PSI)	(PLI)	(PLI)	(PLI)
MAX MIN	MAX MIN	MAX MIN	MAX MIN
MT20	650 371	1747 788	1987 1873

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.25 (G) (INPUT = 0.90)
JSI METAL= 0.12 (B) (INPUT = 1.00)



June 29, 2021

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.

CITY OF RICHMOND HILL
BUILDING DIVISION

09/22/2022

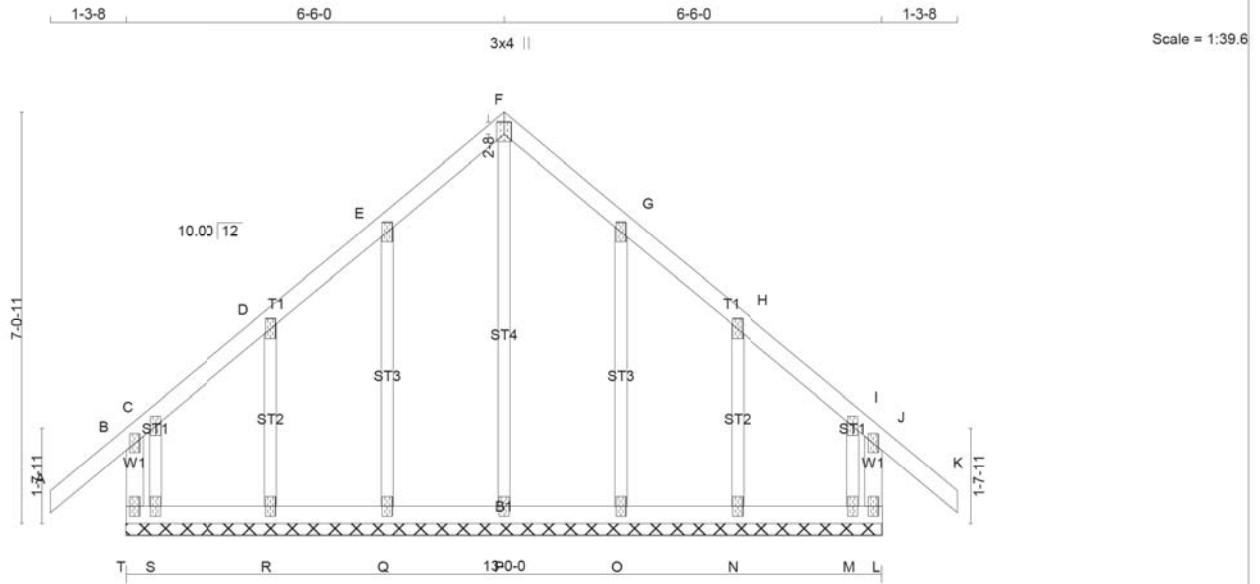
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Per: joshua.nabua

JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
IM0621-170	GE04	1	1	TRUSS DESC.	

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Scale = 1:39.6

TOTAL WEIGHT = 62 lb [M]

LUMBER

N. L. G. A. RULES

CHORDS	SIZE	LUMBER	DESCR.
T - B	2x4	DRY	No.2
A - F	2x4	DRY	No.2
F - K	2x4	DRY	No.2
L - J	2x4	DRY	No.2
T - L	2x4	DRY	No.2
ALL WEBS	2x3	DRY	No.2
ALL GABLE WEBS	2x3	DRY	No.2
DRY: SEASONED LUMBER.			

GABLE STUDS SPACED AT 2'-0" OC.

PLATES (table is in inches)

JT TYPE	PLATES	W	LEN	Y	X
B TMV+p	MT20	2.0	4.0		
C, D, E, G, H, I					
C TMW+w	MT20	2.0	4.0		
F TTW+p	MT20	3.0	4.0	2.50	1.50
J TMV+p	MT20	2.0	4.0		
L BMV1+p	MT20	2.0	4.0		
M, N, O, P, Q, R, S					
M BMW1+w	MT20	2.0	4.0		
T BMV1+p	MT20	2.0	4.0		

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

THIS TRUSS DESIGNED FOR CONTINUOUS BEARINGS.
THIS TRUSS REQUIRES RIGID SHEATHING ON EXPOSED FACE.
BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S)

BRACING

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

ALL FITCH 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. CSI (LC)	MEMB.	MAX. FACTORED FORCE (LBS)	MAX. CSI (LC)	UNBRACED LENGTH (FT)
FR-TO		FROM TO		FR-TO			
T-B	-226 / 0	0.0	0.02 (1)	P-F	-199 / 0	0.17 (1)	
A-B	0 / 37	-84.3	-84.3 0.12 (1)	Q-E	-172 / 0	0.07 (1)	
B-C	-54 / 0	-84.3	-84.3 0.09 (1)	R-D	-165 / 0	0.04 (1)	
C-D	0 / 10	-84.3	-84.3 0.04 (1)	S-C	-1 / 0	0.00 (1)	
D-E	0 / 16	-84.3	-84.3 0.04 (1)	O-G	-172 / 0	0.07 (1)	
E-F	0 / 19	-84.3	-84.3 0.04 (1)	N-H	-165 / 0	0.04 (1)	
F-G	0 / 19	-84.3	-84.3 0.04 (1)	M-I	-1 / 0	0.00 (1)	
G-H	0 / 16	-84.3	-84.3 0.04 (1)				
H-I	0 / 10	-84.3	-84.3 0.04 (1)				
I-J	-54 / 0	-84.3	-84.3 0.09 (1)				
J-K	0 / 37	-84.3	-84.3 0.12 (1)				
L-J	-226 / 0	0.0	0.02 (1)				
T-S	-7 / 0	-18.2	-18.2 0.01 (4)				
S-R	-7 / 0	-18.2	-18.2 0.02 (4)				
R-Q	-12 / 0	-18.2	-18.2 0.02 (4)				
Q-P	-15 / 0	-18.2	-18.2 0.01 (4)				
P-O	-15 / 0	-18.2	-18.2 0.01 (4)				
O-N	-12 / 0	-18.2	-18.2 0.02 (4)				
N-M	-7 / 0	-18.2	-18.2 0.02 (4)				
M-L	-7 / 0	-18.2	-18.2 0.01 (4)				

DESIGN CRITERIA**SPECIFIED LOADS:**

TOP CH.	LL =	25.6	PSF
	DL =	3.0	PSF
BOT CH.	LL =	0.0	PSF
	DL =	7.3	PSF
TOTAL LOAD	=	35.9	PSF

SPACING = 24.0 IN. C/C

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

THIS DESIGN COMPLIES WITH:

- PART 9 OF BCBC 2018, ABC 2019
- PART 9 OF OBC 2012 (2019 AMENDMENT)
- CSA 086-14
- TPIC 2014

DESIGN ASSUMPTIONS

-OVERHANG NOT TO BE ALTERED OR CUT OFF.

(55 % OF 31.3 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 25.6 P.S.F. SPECIFIED ROOF LIVE LOAD

CSI: TC=0.12/1.00 (A-B:1), BC=0.02/1.00 (N-O:4), WB=0.17/1.00 (F-P:1), SSI=0.07/1.00 (A-B:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

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

NAIL VALUES

PLATE	GRIP(DRY)	SHEAR	SECTION
(PSI)	(PLI)	(PLI)	
MAX MIN	MAX MIN	MAX MIN	
MT20	650 371	1747 788	1987 1873

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.25 (F) (INPUT = 0.90)

JSI METAL= 0.12 (J) (INPUT = 1.00)



June 29, 2021

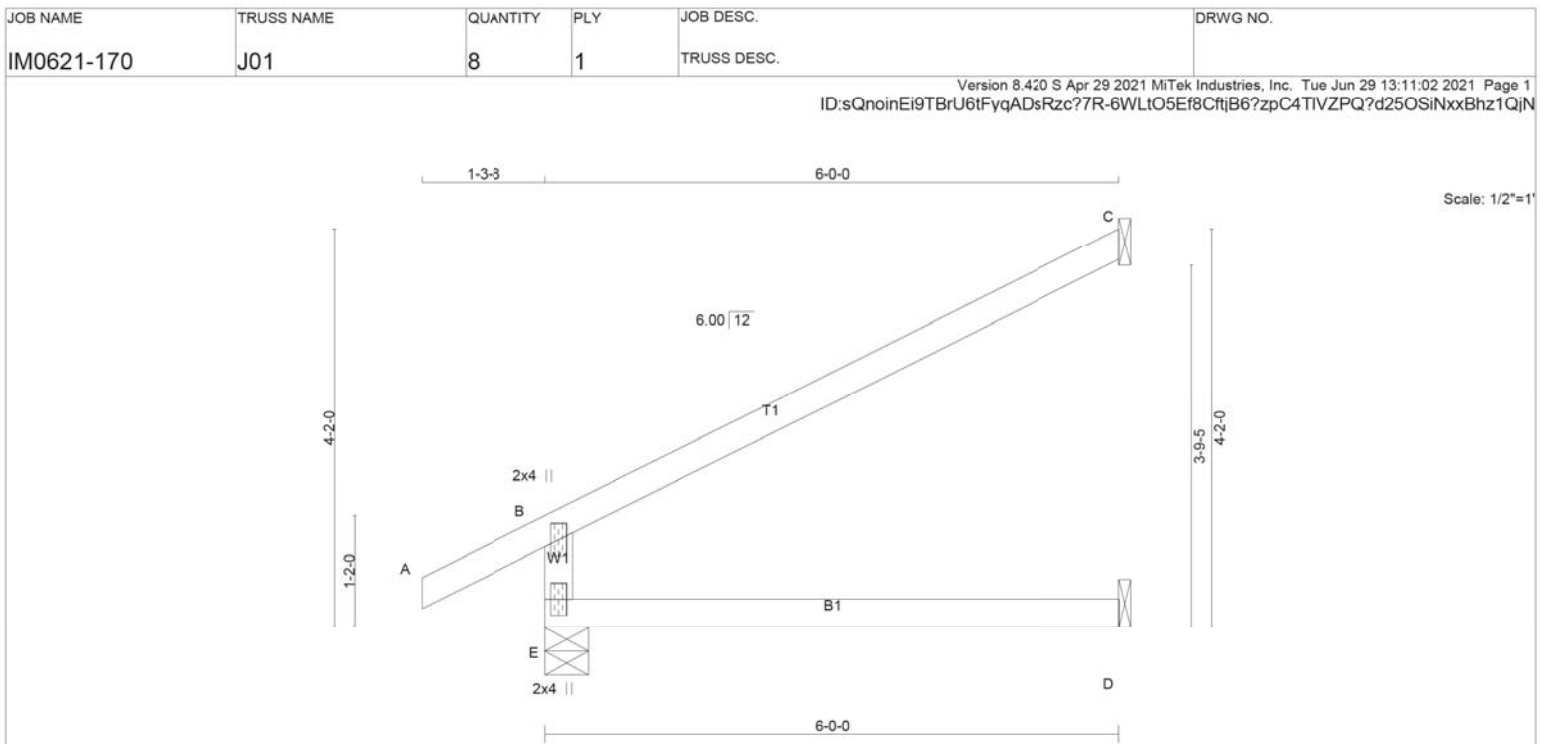
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CITY OF RICHMOND HILL
BUILDING DIVISION

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Per: joshua.nabua



TOTAL WEIGHT = 8 X 17 = 137 lb

LUMBER

N. L. G. A. RULES

CHORDS	SIZE	DRY	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		

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

	FACTORED GROSS REACTION	MAXIMUM FACTORED GROSS REACTION	INPUT BRG	REQRD BRG
JT	VERT	HORZ	DOWN	HORZ
E	495	0	495	0
C	190	0	190	0
D	45	0	51	0

SEE MITEK STANDARD DETAIL MSD2015-H FOR CONNECTION TO JOINT(S) C, D

UNFACTORED REACTIONS

JT	1ST LCASE	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
E	343	261 / 0	0 / 0	0 / 0	0 / 0	82 / 0	0 / 0
C	129	115 / 0	0 / 0	0 / 0	0 / 0	14 / 0	0 / 0
D	36	0 / 0	0 / 0	0 / 0	0 / 0	36 / 0	0 / 0

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

BRACING

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

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

LOADING

TOTAL LOAD CASES: (4)

MEMB.	CHORDS	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	MAX. VERT. LOAD LC1	MAX. UNBRACED LENGTH	MEMB.	WEBS	MAX. FACTORED FORCE (LBS)	MAX. UNBRACED LENGTH
FR-TO						FR-TO			
E-B		-430 / 0	0.0	0.0	0.13 (4)	7.81			
A-B		0 / 26	-84.3	-84.3	0.11 (1)	10.00			
B-C		-28 / 0	-84.3	-84.3	0.52 (1)	6.25			
E-D		0 / 0	-18.2	-18.2	0.13 (4)	10.00			

DESIGN CRITERIA**SPECIFIED LOADS:**

TOP CH.	LL	=	25.6	PSF
DL	=	3.0	PSF	
BOT CH.	LL	=	0.0	PSF
DL	=	7.3	PSF	
TOTAL LOAD	=	35.9	PSF	

SPACING = 24.0 IN. C/C

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

THIS DESIGN COMPLIES WITH:

- PART 9 OF BCBC 2018, ABC 2019
- PART 9 OF OBC 2012 (2019 AMENDMENT)
- CSA 086-14
- TPIC 2014

DESIGN ASSUMPTIONS

-OVERHANG NOT TO BE ALTERED OR CUT OFF.

(55 % OF 31.3 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 25.6 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=0.52/1.00 (B-C:1), BC=0.13/1.00 (D-E:4), WB=0.00/1.00 (n/a:0), SSI=0.22/1.00 (B-C:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

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

NAIL VALUES

PLATE	GRIP(DRY)	SHEAR (PSI)	SECTION (PLI)	MAX MIN	MAX MIN	MAX MIN
MT20	650	371	1747	788	1987	1873

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.24 (B) (INPUT = 0.90)

JSI METAL= 0.18 (B) (INPUT = 1.00)

CITY OF RICHMOND HILL
BUILDING DIVISION

09/22/2022

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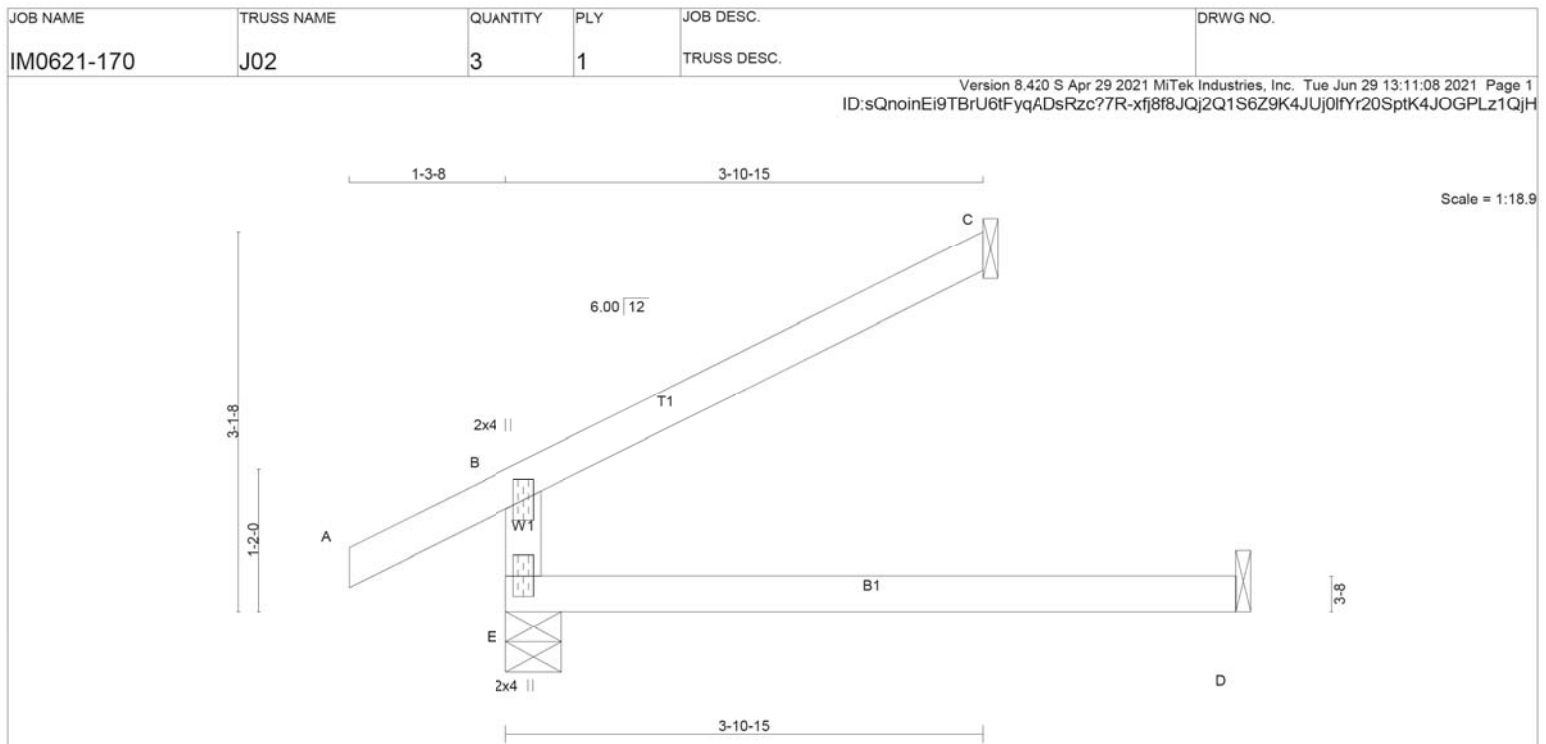
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TOTAL WEIGHT = 3 X 14 = 43 lb [M]

LUMBER

N. L. G. A. RULES

CHORDS	SIZE	DRY	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		

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

	FACTORED GROSS REACTION	MAXIMUM FACTORED GROSS REACTION	INPUT BRG	REQRD BRG
JT	VERT	HORZ	DOWN	HORZ
E	385	0	385	0
C	124	0	124	0
D	45	0	51	0

SEE MITEK STANDARD DETAIL MSD2015-H FOR CONNECTION TO JOINT(S) C, D

UNFACTORED REACTIONS

JT	1ST LCASE	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
E	269	194 / 0	0 / 0	0 / 0	0 / 0	74 / 0	0 / 0
C	84	75 / 0	0 / 0	0 / 0	0 / 0	9 / 0	0 / 0
D	36	0 / 0	0 / 0	0 / 0	0 / 0	36 / 0	0 / 0

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

BRACING

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

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

LOADING

TOTAL LOAD CASES: (4)

MEMB.	CHORDS	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	LC1 MAX	MAX. UNBRACED LENGTH	MEMB.	WEBS	MAX. FACTORED FORCE (LBS)	MAX. UNBRACED LENGTH
FR-TO						FR-TO			
E-B		-320 / 0	0.0	0.0	0.13 (4)	7.81			
A-B		0 / 26	-84.3	-84.3	0.11 (1)	10.00			
B-C		-18 / 0	-84.3	-84.3	0.22 (1)	6.25			
E-D		0 / 0	-18.2	-18.2	0.13 (4)	10.00			

DESIGN CRITERIA**SPECIFIED LOADS:**

TOP CH.	LL	=	25.6	PSF
DL	=	3.0	PSF	
BOT CH.	LL	=	0.0	PSF
DL	=	7.3	PSF	
TOTAL LOAD	=	35.9	PSF	

SPACING = 24.0 IN. C/C

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

THIS DESIGN COMPLIES WITH:

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

DESIGN ASSUMPTIONS

-OVERHANG NOT TO BE ALTERED OR CUT OFF.

(55 % OF 31.3 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 25.6 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=0.22/1.00 (B-C:1), BC=0.13/1.00 (D-E:4), WB=0.00/1.00 (n/a:0), 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 = 1.00

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

NAIL VALUES

PLATE	GRIP(DRY)	SHEAR (PSI)	SECTION (PLI)
MT20	650	371	1747

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.18 (B) (INPUT = 0.90)

JSI METAL= 0.13 (B) (INPUT = 1.00)

CITY OF RICHMOND HILL
BUILDING DIVISION

09/22/2022



Per: joshua.nabua



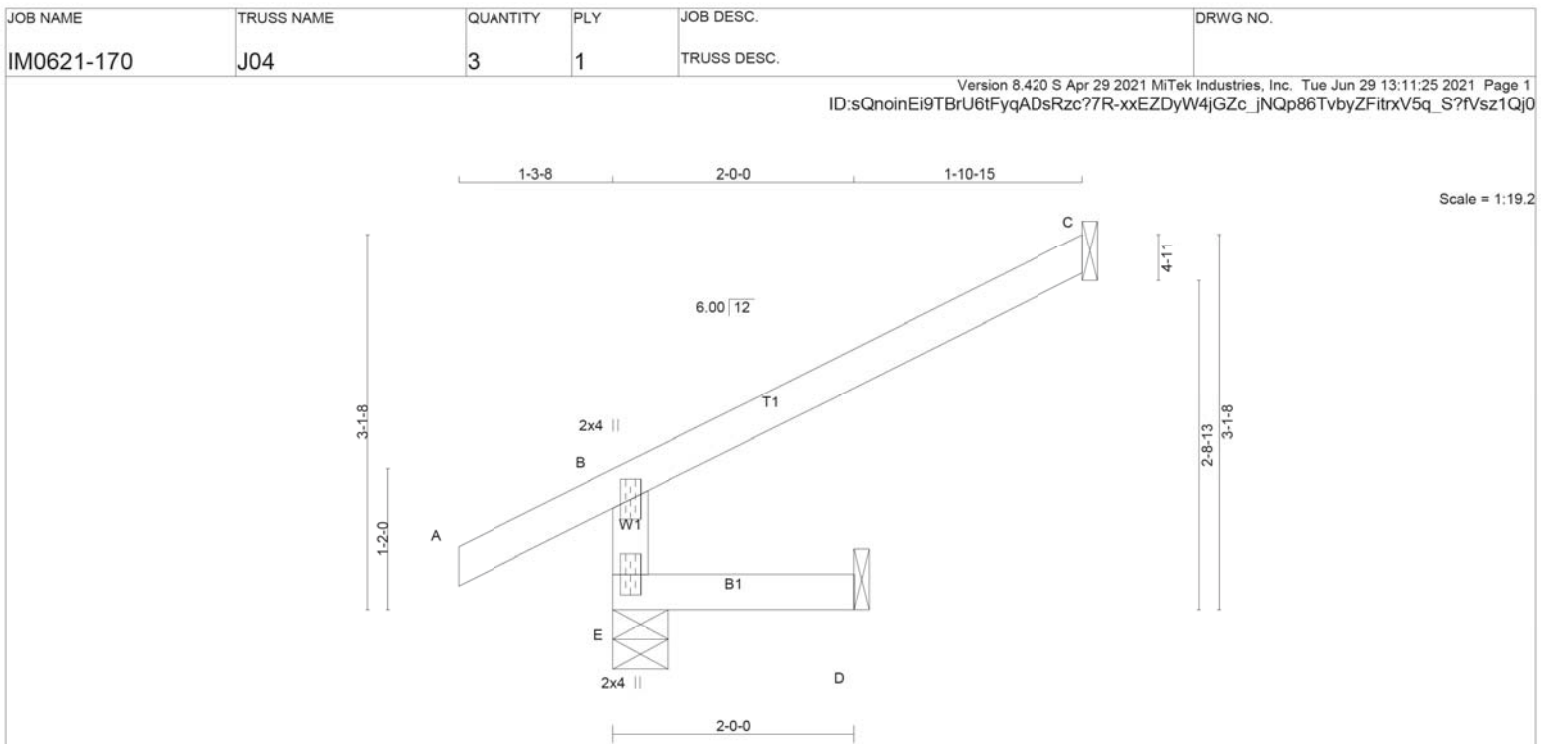
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Version 8.420 S Apr 29 2021 MiTek Industries, Inc. Tue Jun 29 13:11:16 2021 Page 1
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CONTAINS SPECIFICATIONS AND CRITERIA USED
IN THE DESIGN OF THIS COMPONENT.**



TOTAL WEIGHT = 3 X 10 = 30 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.

DESCR.
SPF
SPF
SPF**DIMENSIONS, SUPPORTS AND LOADINGS SPECIFIED BY FABRICATOR TO BE VERIFIED BY BUILDING DESIGNER****BEARINGS**

	FACTORED GROSS REACTION	MAXIMUM FACTORED GROSS REACTION	INPUT BRG	REQRD BRG
JT	VERT	HORZ	DOWN	HORZ
E	340	0	340	0
C	124	0	124	0
D	16	0	16	0

SEE MITEK STANDARD DETAIL MSD2015-H FOR CONNECTION TO JOINT(S) C, D

UNFACTORED REACTIONS

JT	1ST LCASE	MAX / MIN	COMPONENT REACTIONS	SNOW	LIVE	PERM. LIVE	WIND	DEAD	SOIL
E	233	194 / 0	0 / 0	0 / 0	0 / 0	0 / 0	0 / 0	39 / 0	0 / 0
C	84	75 / 0	0 / 0	0 / 0	0 / 0	0 / 0	0 / 0	9 / 0	0 / 0
D	13	0 / 0	0 / 0	0 / 0	0 / 0	0 / 0	0 / 0	13 / 0	0 / 0

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

BRACINGTOP 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 FITCH BREAKS AND PERIMETER CORNER JOINTS MUST BE Laterally RESTRAINED.

LOADING

TOTAL LOAD CASES: (5)

MEMB.	CHORDS	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	LC1	MAX	MAX. UNBRACED LENGTH	MEMB.	WEBS	MAX. FACTORED FORCE (LBS)	MAX. UNBRACED LENGTH
FR-TO							FR-TO			
E-B		-320 / 0	0.0	0.0	0.01 (4)	7.81				
A-B		0 / 26	-84.3	-84.3	0.11 (1)	10.00				
B-C		-18 / 0	-84.3	-84.3	0.22 (1)	6.25				
E-D		0 / 0	-18.2	-18.2	0.02 (4)	10.00				

CANTILEVER ANALYSIS HAS BEEN CONSIDERED IN THIS DESIGN

PATTERN-LOADING CHECK APPLIED TO THIS TRUSS.

DESIGN CRITERIA**SPECIFIED LOADS:**

TOP CH.	LL	=	25.6	PSF
	DL	=	3.0	PSF
BOT CH.	LL	=	0.0	PSF
	DL	=	7.3	PSF
TOTAL LOAD	=	35.9	PSF	

SPACING = 24.0 IN. C/C

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

THIS DESIGN COMPLIES WITH:

- PART 9 OF BCBC 2018, ABC 2019
- PART 9 OF OBC 2012 (2019 AMENDMENT)
- CSA 086-14
- TPIC 2014

DESIGN ASSUMPTIONS

-OVERHANG NOT TO BE ALTERED OR CUT OFF.

(55 % OF 31.3 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 25.6 P.S.F. SPECIFIED ROOF LIVE LOAD

ALLOWABLE DEFL.(LL) = L/360 (0.19")
CALCULATED VERT. DEFL.(LL) = L/999 (0.00")
ALLOWABLE DEFL.(TL) = L/360 (0.19")
CALCULATED VERT. DEFL.(TL) = L/999 (0.00")CSI: TC=0.22/1.00 (B-C:1), BC=0.02/1.00 (D-E:4),
WB=0.00/1.00 (n/a:0), 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 = 1.00

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

NAIL VALUES

PLATE	GRIP(DRY)	SHEAR (PSI)	SECTION (PLI)
MT20	650	371	1747
	788	1987	1873

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.18 (B) (INPUT = 0.90)

JSI METAL= 0.13 (B) (INPUT = 1.00)

CITY OF RICHMOND HILL
BUILDING DIVISION

09/22/2022

KOTT

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Per: joshua.nabua

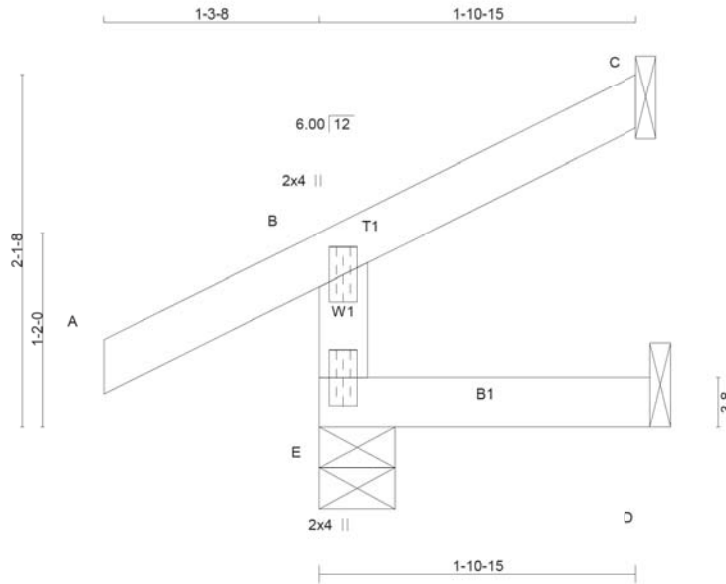


June 29, 2021

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JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
IM0621-170	J05	3	1	TRUSS DESC.	

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Scale = 1:13.9

TOTAL WEIGHT = 3 X 7 = 22 lb [M]

LUMBER

N. L. G. A. RULES

CHORDS	SIZE	DRY	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		

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

	FACTORED GROSS REACTION		MAXIMUM FACTORED GROSS REACTION			INPUT BRG	REQRD BRG
JT	VERT	HORZ	DOWN	HORZ	UPLIFT	IN-SX	IN-SX
E	235	0	235	0	0	5-8	1-8
C	61	0	61	0	0	1-8	1-8
D	16	0	18	0	0	1-8	1-8

SEE MITEK STANDARD DETAIL MSD2015-H FOR CONNECTION TO JOINT(S) C, D

UNFACTORED REACTIONS

JT	1ST LCASE	MAX /MIN	COMPONENT REACTIONS	PERM.LIVE	WIND	DEAD	SOIL
E	162	130 / 0	0 / 0	0 / 0	0 / 0	31 / 0	0 / 0
C	41	37 / 0	0 / 0	0 / 0	0 / 0	4 / 0	0 / 0
D	13	0 / 0	0 / 0	0 / 0	0 / 0	13 / 0	0 / 0

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

BRACING

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

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

LOADING

TOTAL LOAD CASES: (5)

CHORDS				WEBS			
MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	FACTORED LC1 MAX CSI (LC)	MEMB.	MAX. FACTORED FORCE (LBS)	MAX. FACTORED CSI (LC)	
FR-TO				FR-TO			
E-B	-214 / 0	0.0	0.0 0.01 (4)	7.81			
A-B	0 / 26	-84.3	-84.3 0.11 (1)	10.00			
B-C	-9 / 0	-84.3	-84.3 0.05 (1)	10.00			
E-D	0 / 0	-18.2	-18.2 0.02 (4)	10.00			

CANTILEVER ANALYSIS HAS BEEN CONSIDERED IN THIS DESIGN

PATTERN-LOADING CHECK APPLIED TO THIS TRUSS.

DESIGN CRITERIA**SPECIFIED LOADS:**

TOP CH.	LL	=	25.6	PSF
	DL	=	3.0	PSF
BOT CH.	LL	=	0.0	PSF
	DL	=	7.3	PSF
TOTAL LOAD	=	35.9	PSF	

SPACING = 24.0 IN. C/C

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

THIS DESIGN COMPLIES WITH:

- PART 9 OF BCBC 2018, ABC 2019
- PART 9 OF OBC 2012 (2019 AMENDMENT)
- CSA 086-14
- TPIC 2014

DESIGN ASSUMPTIONS

-OVERHANG NOT TO BE ALTERED OR CUT OFF.

(55% OF 31.3 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 25.6 P.S.F. SPECIFIED ROOF LIVE LOAD

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

CSI: TC=0.11/1.00 (A-B:1), BC=0.02/1.00 (D-E:4),
WB=0.00/1.00 (n/a:0), SSI=0.08/1.00 (A-B:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

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	650	371	1747
	MAX	MIN	MAX
	788	1987	1873

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.12 (B) (INPUT = 0.90)

JSI METAL= 0.09 (B) (INPUT = 1.00)

CITY OF RICHMOND HILL
BUILDING DIVISION

09/22/2022



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Per: joshua.nabua



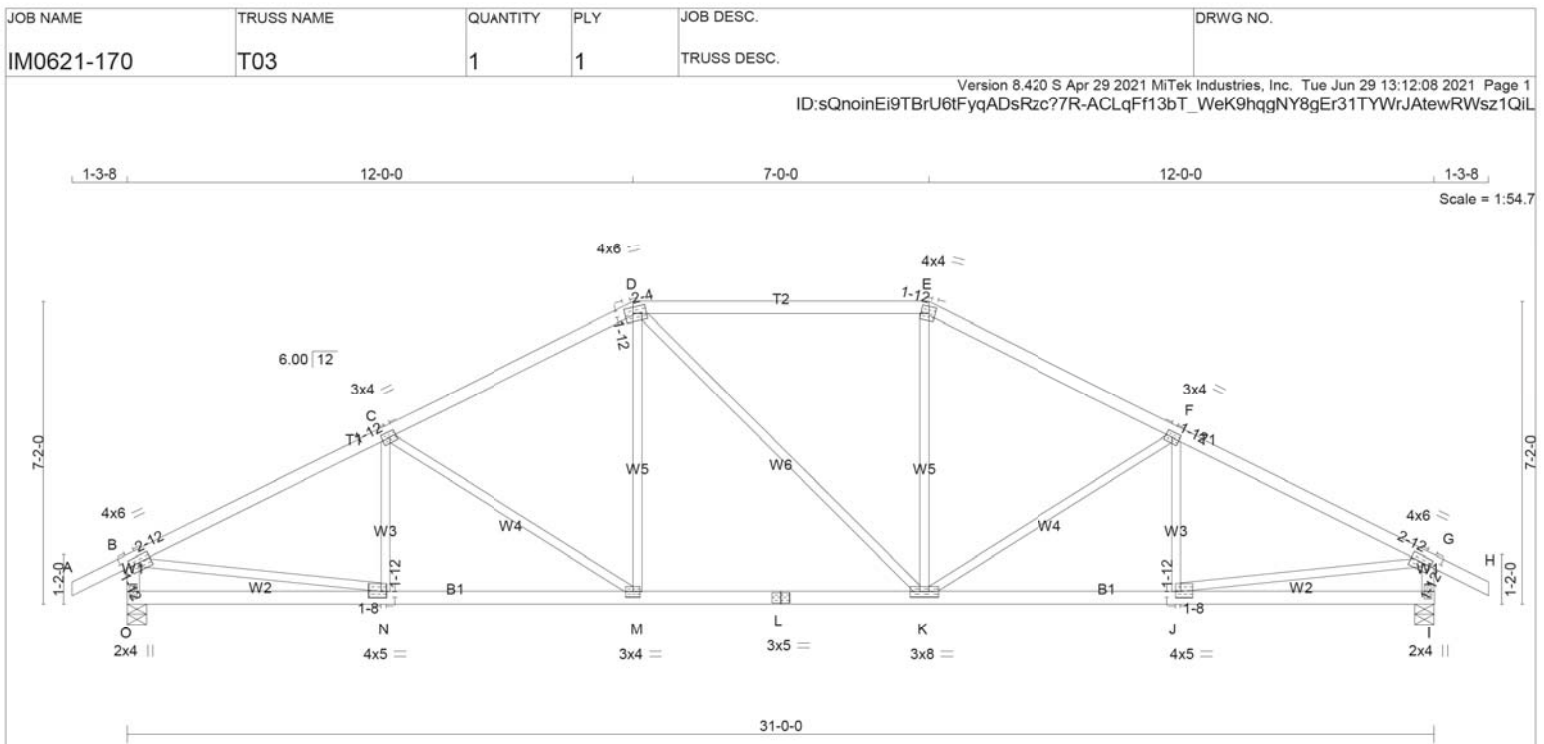
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READ ALL NOTES ON THIS PAGE AND ON THE ENGINEERING NOTE PAGE ENP-1. THE NOTE PAGE IS AN INTEGRAL PART OF THIS DRAWING AS IT CONTAINS SPECIFICATIONS AND CRITERIA USED IN THE DESIGN OF THIS COMPONENT.

Version 8.420 S Apr 29 2021 MiTek Industries, Inc. Tue Jun 29 13:12:00 2021 Page 1
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**LUMBER**

N. L. G. A. RULES

CHORDS SIZE

A - D 2x4 DRY

D - E 2x4 DRY

E - H 2x4 DRY

O - B 2x4 DRY

I - G 2x4 DRY

O - L 2x4 DRY

L - I 2x4 DRY

LUMBER

No.2

2100F 1.8E

No.2

No.2

No.2

No.2

No.2

DESCR.

SPF

SPF

SPF

SPF

SPF

SPF

ALL WEBS 2x3 DRY

EXCEPT

DRY: SEASONED LUMBER.

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

FACTORED

GROSS REACTION

JT VERT

O 1703 0

I 1703 0

MAXIMUM FACTORED

GROSS REACTION

DOWN

1703 0

1703 0

INPUT

BRG

IN-SX

5-8

5-8

REQRD

BRG

IN-SX

2-1

2-1

UNFACTORED REACTIONS

1ST LCASE

COMBINED

O 1190 863 / 0

I 1190 863 / 0

MAX/MIN. COMPONENT REACTIONS

SNOW

LIVE

PERM. LIVE

WIND

DEAD

SOIL

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

BRACING

TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 4.03 FT.

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

APPLIED.

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

LOADING

TOTAL LOAD CASES: (4)

MEMB.	CHORDS		WEBS		MEMB.	FACTORED	
	MAX. FACTORED	FORCE	MAX. FACTORED	FORCE		MAX. FACTORED	FORCE
FR-TO	FROM	TO	FROM	TO	FR-TO	FROM	TO
A-B	0 / 26	-84.3	-84.3	0.11 (1)	10.00	N-C	-179 / 53
B-C	-2316 / 0	-84.3	-84.3	0.50 (1)	4.03	C-M	-464 / 0
C-D	-1936 / 0	-84.3	-84.3	0.45 (1)	4.38	M-D	0 / 372
D-E	-1712 / 0	-84.3	-84.3	0.37 (1)	5.61	D-K	0 / 0
E-F	-1936 / 0	-84.3	-84.3	0.45 (1)	4.38	K-E	0 / 373
F-G	-2315 / 0	-84.3	-84.3	0.50 (1)	4.03	K-F	-463 / 0
G-H	0 / 26	-84.3	-84.3	0.11 (1)	10.00	J-F	-180 / 52
O-B	-1655 / 0	0.0	0.0	0.17 (1)	6.45	B-N	0 / 2115
I-G	-1655 / 0	0.0	0.0	0.17 (1)	6.45	J-G	0 / 2115
O-N	0 / 0	-18.2	-18.2	0.15 (4)	10.00		
N-M	0 / 2095	-18.2	-18.2	0.42 (1)	10.00		
M-L	0 / 1712	-18.2	-18.2	0.36 (1)	10.00		
L-K	0 / 1712	-18.2	-18.2	0.36 (1)	10.00		
K-J	0 / 2094	-18.2	-18.2	0.42 (1)	10.00		
J-I	0 / 0	-18.2	-18.2	0.14 (4)	10.00		

DESIGN CRITERIA

SPECIFIED LOADS:

TOP CH. LL = 25.6 PSF

DL = 3.0 PSF

BOT CH. LL = 0.0 PSF

DL = 7.3 PSF

TOTAL LOAD = 35.9 PSF

SPACING = 24.0 IN. C/C

LOADING IN FLAT SECTION BASED ON A SLOPE OF 6.00/12

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

THIS DESIGN COMPLIES WITH:

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

(55 % OF 31.3 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 25.6 P.S.F. SPECIFIED ROOF LIVE LOAD

ALLOWABLE DEFL. (LL) = $L/360$ (1.03")
 CALCULATED VERT. DEFL. (LL) = $L/999$ (0.10")
 ALLOWABLE DEFL. (TL) = $L/360$ (1.03")
 CALCULATED VERT. DEFL. (TL) = $L/999$ (0.20")

CSI: TC=0.50/1.00 (B-C:1), BC=0.42/1.00 (J-K:1),
 WB=0.48/1.00 (B-N:1), SSI=0.23/1.00 (D-E:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

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

NAIL VALUES

PLATE	GRIP(DRY)	SHEAR	SECTION
(PSI)	(PLI)	(PLI)	(PLI)
MAX MIN	MAX MIN	MAX MIN	MAX MIN
MT20	650 371	1747 788	1987 1873

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.90 (B) (INPUT = 0.90)

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

CITY OF RICHMOND HILL
BUILDING DIVISION

09/22/2022

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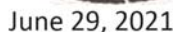
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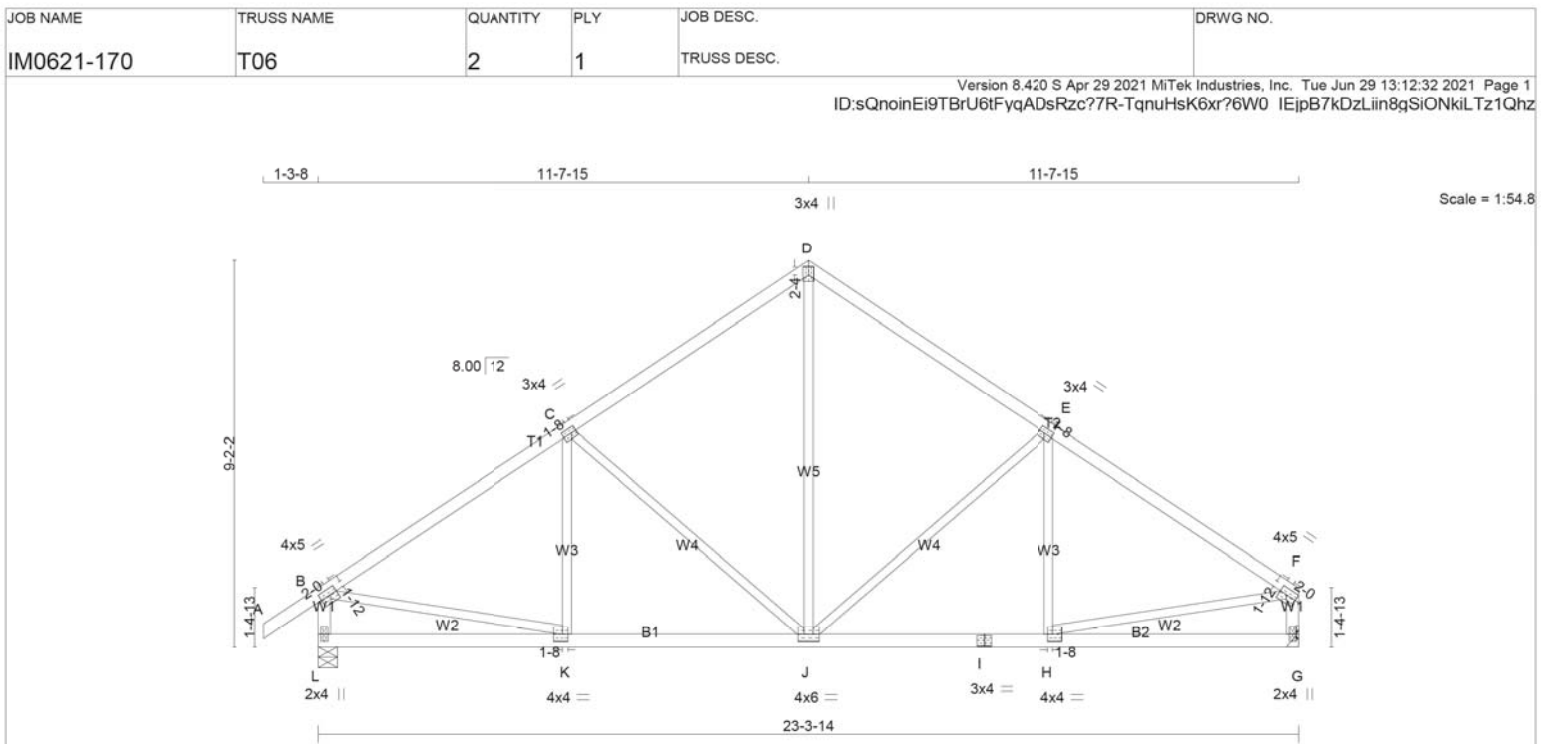
June 29, 2021

Version 8.420 S Apr 29 2021 MiTek Industries, Inc. Tue Jun 29 13:12:16 2021 Page 1
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Per: joshua.nabua

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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	FACTORED GROSS REACTION	MAXIMUM FACTORED GROSS REACTION	INPUT BRG	REQRD BRG	SPECIFIED LOADS:	
A - D	2x4	DRY	No.2	SPF	JT	VERT	DOWN	UPLIFT	IN-SX	TOP CH. LL = 25.6 PSF	
D - F	2x4	DRY	No.2	SPF	L	1311	0	0	5-8	DL = 3.0 PSF	
L - B	2x4	DRY	No.2	SPF	G	1195	0	0	MECHANICAL	BOT CH. LL = 0.0 PSF	
G - F	2x4	DRY	No.2	SPF						DL = 7.3 PSF	
L - I	2x4	DRY	No.2	SPF						TOTAL LOAD = 35.9 PSF	
I - G	2x4	DRY	No.2	SPF							
ALL WEBS EXCEPT	2x3	DRY	No.2	SPF	A SUITABLE HANGER/MECHANICAL CONNECTION IS REQUIRED AT JOINT G. MINIMUM BEARING LENGTH AT JOINT G = 1-8.						

DRY: SEASONED LUMBER.

PLATES (table is in inches)

JT	TYPE	PLATES	W	LEN	Y	X
B	TMVW-t	MT20	4.0	5.0	1.75	2.00
C	TMWW-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-t	MT20	4.0	5.0	1.75	Edge
G	BMV1+p	MT20	2.0	4.0		
H	BMWW-t	MT20	4.0	4.0	2.00	1.50
I	BS-t	MT20	3.0	4.0		
J	BMWW-t	MT20	4.0	6.0		
K	BMWW-t	MT20	4.0	4.0	2.00	1.50
L	BMV1+p	MT20	2.0	4.0		

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



June 29, 2021

UNFACTORED REACTIONS

JT	1ST LCASE	MAX /MIN.	COMPONENT REACTIONS				
L	915	667 / 0	0 / 0	0 / 0	0 / 0	248 / 0	0 / 0
G	837	597 / 0	0 / 0	0 / 0	0 / 0	240 / 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 = 5.15 FT.
MAX. UNBRACED BOTTOM CHORD LENGTH = 10.00 FT OR RIGID CEILING DIRECTLY APPLIED.

ALL FITCH 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. CSI (LC)	MEMB.	MAX. FACTORED FORCE (LBS)	MAX. CSI (LC)	
FR-TO		FROM	TO	FR-TO			
A-B	0 / 32	-84.3	-84.3 0.11 (1)	J-D	0 / 694	0.16 (1)	
B-C	-1325 / 0	-84.3	-84.3 0.41 (1)	J-E	-449 / 0	0.53 (1)	
C-D	-985 / 0	-84.3	-84.3 0.38 (1)	H-E	-88 / 78	0.04 (1)	
D-E	-985 / 0	-84.3	-84.3 0.38 (1)	C-J	-449 / 0	0.53 (1)	
E-F	-1325 / 0	-84.3	-84.3 0.41 (1)	K-C	-88 / 78	0.04 (1)	
L-B	-1266 / 0	0.0	0.0 0.13 (1)	B-K	0 / 1148	0.26 (1)	
G-F	-1150 / 0	0.0	0.0 0.12 (1)	H-F	0 / 1148	0.26 (1)	
L-K	0 / 0	-18.2	-18.2 0.15 (4)				
K-J	0 / 1129	-18.2	-18.2 0.26 (1)				
J-I	0 / 1129	-18.2	-18.2 0.26 (1)				
I-H	0 / 1129	-18.2	-18.2 0.26 (1)				
H-G	0 / 0	-18.2	-18.2 0.15 (4)				

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.

CITY OF RICHMOND HILL
BUILDING DIVISION

09/22/2022

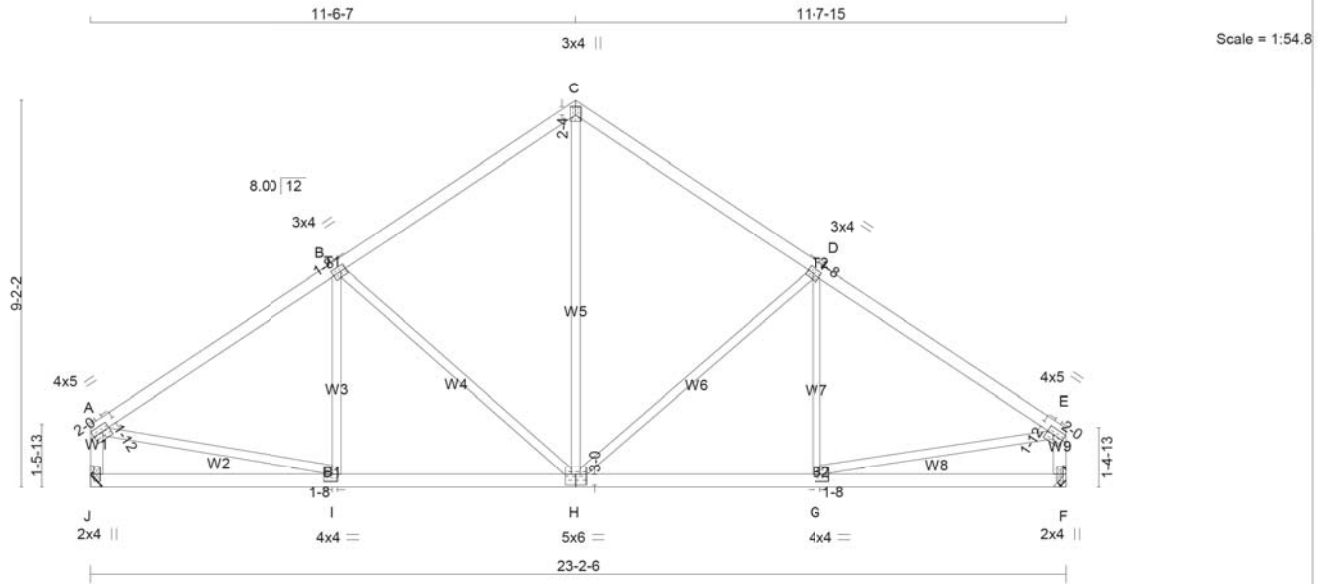


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Per: joshua.nabua

JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
IM0621-170	T07	6	1	TRUSS DESC.	

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ID:sQnoinEi9TBtBrU6tFyqADsRzc77R-EMGwybQ73J0zUEbriOy3RQZKLwQR0IEtEdg7d7z1Qhr



TOTAL WEIGHT = 6 X 97 = 580 lb
[M][F]

LUMBER			
N. L. G. A. RULES	CHORDS	SIZE	LUMBER
A - C	2x4	DRY	No.2
C - E	2x4	DRY	No.2
J - A	2x4	DRY	No.2
F - E	2x4	DRY	No.2
J - H	2x4	DRY	No.2
H - F	2x4	DRY	No.2

ALL WEBS	EXCEPT	SIZE	LUMBER	DESCR.
		2x3	DRY	No.2

DRY: SEASONED LUMBER.

PLATES (table is in inches)

JT	TYPE	PLATES	W	LEN	Y	X
A	TMVW-t	MT20	4.0	5.0	1.75	Edge
B	TMWW-t	MT20	3.0	4.0	1.50	1.50
C	TTW+p	MT20	3.0	4.0	2.25	1.50
D	TMWW-t	MT20	3.0	4.0	1.50	1.50
E	TMVW-t	MT20	4.0	5.0	1.75	Edge
F	BMV1+p	MT20	2.0	4.0		
G	BMWW-t	MT20	4.0	4.0	2.00	1.50
H	BSWW-t	MT20	5.0	6.0	3.00	3.00
I	BMWW-t	MT20	4.0	4.0	2.00	1.50
J	BMV1+p	MT20	2.0	4.0		

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

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

BEARINGS		FACTORED GROSS REACTION		MAXIMUM FACTORED GROSS REACTION		INPUT REQD	
JT	VERT	HORZ	DOWN	UP	BRG	IN-SX	BRG
J	1189	0	1189	0	0	MECHANICAL	
F	1189	0	1189	0	0	MECHANICAL	

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

UNFACTORED REACTIONS

JT	COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
J	832	594 / 0	0 / 0	0 / 0	0 / 0	239 / 0	0 / 0
F	832	594 / 0	0 / 0	0 / 0	0 / 0	239 / 0	0 / 0

BRACING

TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 5.16 FT.
MAX. UNBRACED BOTTOM CHORD LENGTH = 10.00 FT OR RIGID CEILING DIRECTLY APPLIED.

ALL FITCH 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 VERT. LOAD (PLF)	MEMB.	MAX. FACTORED FORCE (LBS)	MAX. FACTORED VERT. LOAD (PLF)	MAX. FACTORED VERT. LOAD (PLF)
FR-TO		FROM TO	CS (LC)	FR-TO		FROM TO	CS (LC)
A-B	-1297 / 0	-84.3 -84.3	0.40 (1)	I-B	-92 / 84	0.04 (1)	
B-C	-969 / 0	-84.3 -84.3	0.37 (1)	B-H	-439 / 0	0.51 (1)	
C-D	-969 / 0	-84.3 -84.3	0.38 (1)	H-C	0 / 679	0.15 (1)	
D-E	-1318 / 0	-84.3 -84.3	0.41 (1)	H-D	-460 / 0	0.54 (1)	
J-A	-1146 / 0	0.0 0.0	0.12 (1)	G-D	-76 / 90	0.03 (1)	
F-E	-1146 / 0	0.0 0.0	0.12 (1)	A-I	0 / 1127	0.25 (1)	
				G-E	0 / 1142	0.26 (1)	
J-I	0 / 0	-18.2 -18.2	0.17 (4)				
I-H	0 / 1106	-18.2 -18.2	0.26 (1)				
H-G	0 / 1124	-18.2 -18.2	0.27 (1)				
G-F	0 / 0	-18.2 -18.2	0.17 (4)				

DESIGN CRITERIA

SPECIFIED LOADS:

TOP CH.	LL	=	25.6	PSF
	DL	=	3.0	PSF
BOT CH.	LL	=	0.0	PSF
	DL	=	7.3	PSF
TOTAL LOAD		=	35.9	PSF

SPACING = 24.0 IN. C/C

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

THIS DESIGN COMPLIES WITH:

- PART 9 OF BCBC 2018, ABC 2019
- PART 9 OF OBC 2012 (2019 AMENDMENT)
- CSA 086-14
- TPIC 2014

(55 % OF 31.3 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 25.6 P.S.F. SPECIFIED ROOF LIVE LOAD

ALLOWABLE DEFL.(LL)= L/360 (0.77")
CALCULATED VERT. DEFL.(LL) = L/999 (0.04")
ALLOWABLE DEFL.(TL)= L/360 (0.77")
CALCULATED VERT. DEFL.(TL) = L/999 (0.09")

CSI: TC=0.41/1.00 (D-E:1), BC=0.27/1.00 (G-H:1)
WB=0.54/1.00 (D-H: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 = 1.00

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

NAIL VALUES

PLATE	GRIP(DRY)	SHEAR	SECTION
	(PSI)	(PLI)	(PLI)
MT20	650	371	1747 788 1987 1873

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.89 (I) (INPUT = 0.90)
JSI METAL= 0.42 (E) (INPUT = 1.00)



June 29, 2021

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.

CITY OF RICHMOND HILL
BUILDING DIVISION

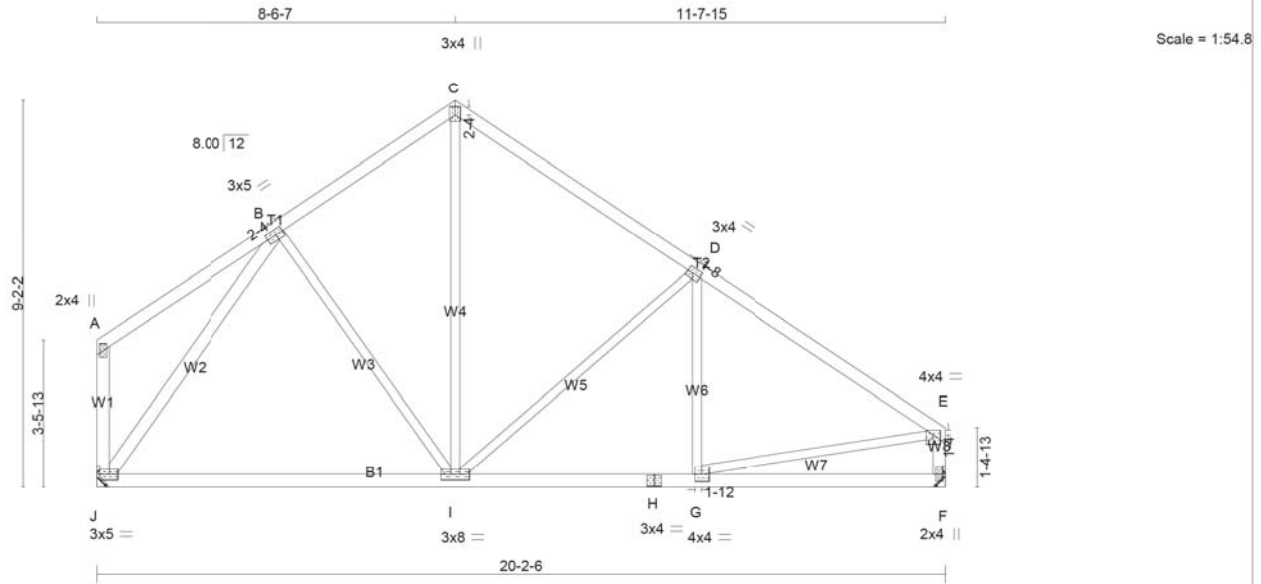
09/22/2022



Per: joshua.nabua

JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
IM0621-170	T08	6	1	TRUSS DESC.	

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ID:sQnoinEi9TBrU6tFyqADsRzc?7R-XiBZQ?VWPu_qJeBdNaiDuLXllnw9QcwrDs?N5z1Qhk



TOTAL WEIGHT = 6 X 91 = 545 lb
[M][F]

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

DRY: SEASONED LUMBER.

PLATES (table is in inches)					
JT	TYPE	PLATES	W	LEN	Y X
A	TMV+p	MT20	2.0	4.0	
B	TMWW-t	MT20	3.0	5.0	1.50 2.25
C	TTW+p	MT20	3.0	4.0	2.25 1.50
D	TMWW-t	MT20	3.0	4.0	1.50 1.50
E	TMVW-p	MT20	4.0	4.0	1.25 2.00
F	BMV1+p	MT20	2.0	4.0	
G	BMWW-t	MT20	4.0	4.0	2.00 1.75
H	BS-t	MT20	3.0	4.0	
I	BMVWW-t	MT20	3.0	8.0	
J	BMVW1-t	MT20	3.0	5.0	

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	UP	DOWN	UP	IN-SX	IN-SX	
J	1035	0	1035	0	0	0	MECHANICAL		
F	1035	0	1035	0	0	0	MECHANICAL		

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

UNFACTORED REACTIONS

JT	1ST LCASE	MAX / MIN.	SNOW	LIVE	PERM. LIVE	WIND	DEAD	SOIL
J	725	517 / 0	0 / 0	0 / 0	0 / 0	0 / 0	208 / 0	0 / 0
F	725	517 / 0	0 / 0	0 / 0	0 / 0	0 / 0	208 / 0	0 / 0

BRACING

TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 5.54 FT.
MAX. UNBRACED BOTTOM CHORD LENGTH = 10.00 FT OR RIGID CEILING DIRECTLY APPLIED.

ALL FITCH 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. CSI (LC)	MEMB.	MAX. FACTORED FORCE (LBS)	MAX. CSI (LC)	
FR-TO		FROM TO		FR-TO			
A-B	0 / 24	-84.3 -84.3	0.25 (1)	10.00	B-I	-6 / 54	0.02 (4)
B-C	-732 / 0	-84.3 -84.3	0.20 (1)	6.25	I-C	0 / 469	0.11 (1)
C-D	-742 / 0	-84.3 -84.3	0.38 (1)	6.25	I-D	-464 / 0	0.54 (1)
D-E	-1095 / 0	-84.3 -84.3	0.40 (1)	5.54	G-D	-72 / 66	0.03 (1)
J-A	-138 / 0	0.0 0.0	0.03 (1)	7.81	J-B	-1022 / 0	0.75 (1)
F-E	-987 / 0	0.0 0.0	0.10 (1)	7.81	G-E	0 / 953	0.21 (1)
J-I	0 / 593	-18.2 -18.2	0.32 (4)	10.00			
I-H	0 / 938	-18.2 -18.2	0.34 (4)	10.00			
H-G	0 / 938	-18.2 -18.2	0.34 (4)	10.00			
G-F	0 / 0	-18.2 -18.2	0.14 (4)	10.00			

DESIGN CRITERIA

SPECIFIED LOADS:
TOP CH. LL = 25.6 PSF
DL = 3.0 PSF
BOT CH. LL = 0.0 PSF
DL = 7.3 PSF
TOTAL LOAD = 35.9 PSF

SPACING = 24.0 IN. C/C

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

THIS DESIGN COMPLIES WITH:
- PART 9 OF CBC 2018, ABC 2019
- PART 9 OF OBC 2012 (2019 AMENDMENT)
- CSA 086-14
- TPIC 2014

(55 % OF 31.3 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 25.6 P.S.F. SPECIFIED ROOF LIVE LOAD

ALLOWABLE DEFL.(LL)= L/360 (0.67")
CALCULATED VERT. DEFL.(LL) = L/999 (0.03")
ALLOWABLE DEFL.(TL)= L/360 (0.67")
CALCULATED VERT. DEFL.(TL) = L/999 (0.16")

CSI: TC=0.40/1.00 (D-E:1), BC=0.34/1.00 (G-I:4), WB=0.75/1.00 (B-J: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 = 1.00

AUTOSOLVE RIGHT HEEL ONLY

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

NAIL VALUES			
PLATE	GRIP(DRY)	SHEAR	SECTION
	(PSI)	(PLI)	(PLI)
MT20	650	371	1747 788 1987 1873

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.88 (E) (INPUT = 0.90)
JSI METAL= 0.32 (G) (INPUT = 1.00)



June 29, 2021

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.

CITY OF RICHMOND HILL
BUILDING DIVISION

09/22/2022

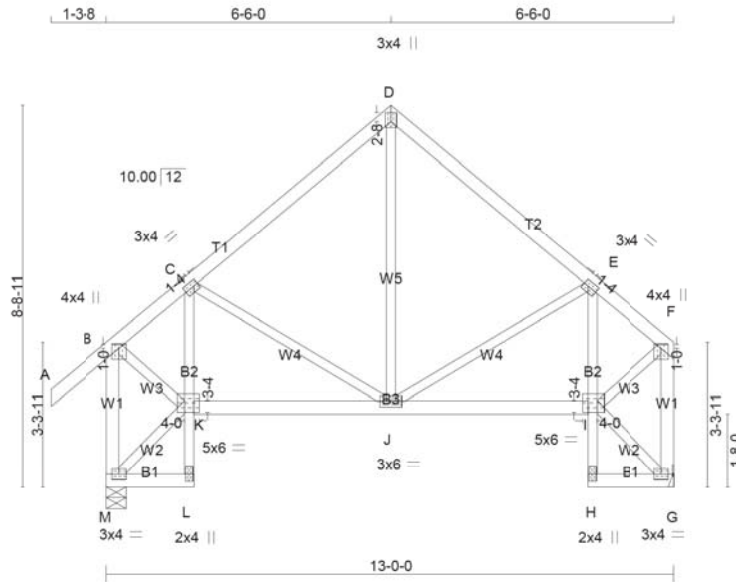
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Per: joshua.nabua

JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
IM0621-170	T10	1	1	TRUSS DESC.	

Version 8.420 S Apr 29 2021 MiTek Industries, Inc. Tue Jun 29 13:13:03 2021 Page 1
ID:sQnoinEi9TBrU6tFyqAdRsZc?7R-3n9cnTiZeNvilsGZktStG0JeCltpvXGXilrAz1QhU



TOTAL WEIGHT = 71 lb

[M][F]

LUMBER

N. L. G. A. RULES

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

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-t	MT20	3.0	4.0	1.50	1.25
D	TTW+p	MT20	3.0	4.0	2.50	1.50
E	TMVW-t	MT20	3.0	4.0	1.50	1.25
F	TMVW+p	MT20	4.0	4.0	1.00	2.00
G	BMVW1-t	MT20	3.0	4.0		
H	BMV+p	MT20	2.0	4.0		
I	BVMWW-I	MT20	5.0	6.0	3.25	4.00
J	BVMWW-t	MT20	3.0	6.0		
K	BVMWW-I	MT20	5.0	6.0	3.25	4.00
L	BMV+p	MT20	2.0	4.0		
M	BMVW1-t	MT20	3.0	4.0		

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	DOWN	IN-SX	IN-SX
M	789	0	5-8	1-8
G	660	0	0	MECHANICAL

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

UNFACTORED REACTIONS

JT	1ST CASE COMBINED	MAX /MIN. SNOW	LIVE	PERM. LIVE	WIND	DEAD	SOIL
M	550	407 / 0	0 / 0	0 / 0	0 / 0	143 / 0	0 / 0
G	462	329 / 0	0 / 0	0 / 0	0 / 0	133 / 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 = 6.25 FT.
MAX. UNBRACED BOTTOM CHORD LENGTH = 7.81 FT. OR RIGID CEILING DIRECTLY APPLIED.

ALL FITCH 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. CS1 (LC)	MEMB.	MAX. FACTORED FORCE (LBS)	MAX. CS1 (LC)	
FR-TO		FROM	TO	FR-TO			
A-B	0 / 37	-84.3	-84.3 0.12 (1)	10.00	J-D	0 / 218	0.05 (1)
B-C	-498 / 0	-84.3	-84.3 0.16 (1)	6.25	J-E	-122 / 0	0.06 (1)
C-D	-441 / 0	-84.3	-84.3 0.21 (1)	6.25	C-J	-94 / 0	0.05 (1)
D-E	-443 / 0	-84.3	-84.3 0.20 (1)	6.25	B-K	0 / 487	0.11 (1)
E-F	-498 / 0	-84.3	-84.3 0.17 (1)	6.25	I-F	0 / 516	0.12 (1)
M-B	-770 / 0	0.0	0.0 0.14 (1)	7.81	M-K	-3 / 0	0.00 (1)
G-F	-641 / 0	0.0	0.0 0.12 (1)	7.81	I-G	-3 / 0	0.00 (1)
M-L	0 / 2	-18.2	-18.2 0.02 (4)	10.00			
L-K	0 / 19	0.0	0.0 0.01 (1)	10.00			
K-C	-228 / 0	0.0	0.0 0.01 (1)	7.81			
K-J	0 / 402	-18.2	-18.2 0.14 (4)	10.00			
J-I	0 / 426	-18.2	-18.2 0.14 (4)	10.00			
H-I	0 / 19	0.0	0.0 0.01 (1)	10.00			
I-E	-245 / 0	0.0	0.0 0.01 (1)	7.81			
H-G	0 / 2	-18.2	-18.2 0.02 (4)	10.00			

DESIGN CRITERIA**SPECIFIED LOADS:**

TOP CH.	LL	=	25.6	PSF
	DL	=	3.0	PSF
BOT CH.	LL	=	0.0	PSF
	DL	=	7.3	PSF
TOTAL LOAD	=	35.9	PSF	

SPACING = 24.0 IN. C/C

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

THIS DESIGN COMPLIES WITH:

- PART 9 OF BCBC 2018, ABC 2019
- PART 9 OF OBC 2012 (2019 AMENDMENT)
- CSA 086-14
- TPIC 2014

DESIGN ASSUMPTIONS

- OVERHANG NOT TO BE ALTERED OR CUT OFF.

(55 % OF 31.3 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 25.6 P.S.F. SPECIFIED ROOF LIVE LOAD

ALLOWABLE DEFL.(LL)= L/360 (0.43")
CALCULATED VERT. DEFL.(LL)= L/999 (0.01")
ALLOWABLE DEFL.(TL)= L/360 (0.43")
CALCULATED VERT. DEFL.(TL)= L/999 (0.02")

CSI: TC=0.21/1.00 (C-D:1), BC=0.14/1.00 (I-J:4), WB=0.12/1.00 (F-I:1), SSI=0.14/1.00 (D-E:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

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
MT20	650	371	1747

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.73 (M) (INPUT = 0.90)

JSI METAL= 0.16 (F) (INPUT = 1.00)

OFFICE OF RICHMOND HILL BUILDING DIVISION

09/22/2022



Per: joshua.nabua

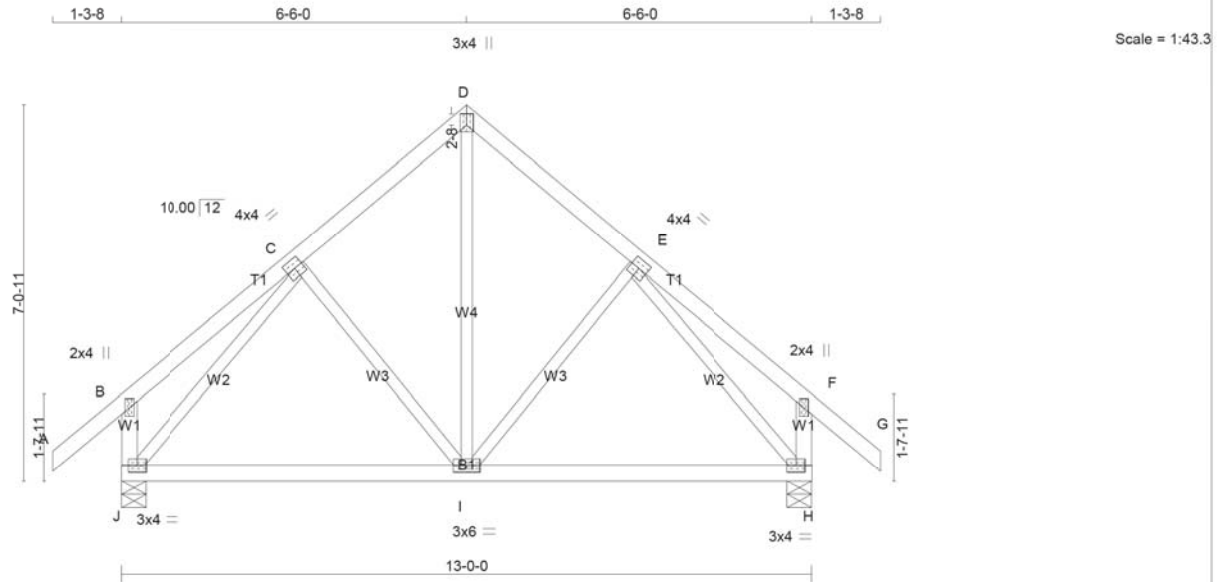


June 29, 2021

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.

JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
IM0621-170	T11	1	1	TRUSS DESC.	

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ID:sQnoinEi9TBrU6tFyqADsRzc?7R-qKeeTCoalqwai?To1P0KCylhJQ02nNxRM/yhGDiz1QhM



TOTAL WEIGHT = 62 lb

[M][F]

LUMBER

N. L. G. A. RULES

CHORDS	SIZE	LUMBER	DESCR.
A - D	2x4	DRY	No.2
D - G	2x4	DRY	No.2
J - B	2x4	DRY	No.2
H - F	2x4	DRY	No.2
J - H	2x4	DRY	No.2
ALL WEBS EXCEPT	2x3	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		
C	TMWW-t	MT20	4.0	4.0		
D	TTW+p	MT20	3.0	4.0	2.50	1.50
E	TMWW-t	MT20	4.0	4.0		
F	TMV+p	MT20	2.0	4.0		
H	BMVW1-t	MT20	3.0	4.0		
I	BMVWW-t	MT20	3.0	6.0		
J	BMVW1-t	MT20	3.0	4.0		

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	DOWN	IN-SX	IN-SX
J	783	0	5-8	1-8
H	783	0	5-8	1-8

UNFACTORED REACTIONS

1ST LCASE	COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
JT	546	403 / 0	0 / 0	0 / 0	0 / 0	142 / 0	0 / 0
H	546	403 / 0	0 / 0	0 / 0	0 / 0	142 / 0	0 / 0

BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S) J, 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 FITCH BREAKS AND PERIMETER CORNER JOINTS MUST BE Laterally RESTRAINED.

LOADING

TOTAL LOAD CASES: (4)

CHORDS	MAX. FACTORED MEMB. FORCE (LBS)	FACTORED VERT. LOAD (PLF)	LC1	MAX. UNBRACED LENGTH	FR-TO	WEBS	MAX. FACTORED MEMB. FORCE (LBS)	MAX. CSI (LC)
A-B	0 / 37	-84.3	-84.3	0.12 (1)	10.00	I-D	0 / 344	0.08 (1)
B-C	0 / 20	-84.3	-84.3	0.14 (1)	10.00	I-E	-128 / 7	0.06 (1)
C-D	-456 / 0	-84.3	-84.3	0.11 (1)	6.25	C-I	-128 / 7	0.06 (1)
D-E	-456 / 0	-84.3	-84.3	0.11 (1)	6.25	J-C	-664 / 0	0.28 (1)
E-F	0 / 20	-84.3	-84.3	0.14 (1)	10.00	E-H	-664 / 0	0.28 (1)
F-G	0 / 37	-84.3	-84.3	0.12 (1)	10.00			
J-B	-221 / 0	0.0	0.0	0.02 (1)	7.81			
H-F	-221 / 0	0.0	0.0	0.02 (1)	7.81			
J-I	0 / 417	-18.2	-18.2	0.25 (4)	10.00			
I-H	0 / 417	-18.2	-18.2	0.25 (4)	10.00			

DESIGN CRITERIA**SPECIFIED LOADS:**

TOP CH.	LL	=	25.6	PSF
	DL	=	3.0	PSF
BOT CH.	LL	=	0.0	PSF
	DL	=	7.3	PSF
TOTAL LOAD		=	35.9	PSF

SPACING = 24.0 IN. C/C

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

THIS DESIGN COMPLIES WITH:

- PART 9 OF BCBC 2018, ABC 2019
- PART 9 OF OBC 2012 (2019 AMENDMENT)
- CSA 086-14
- TPIC 2014

(55 % OF 31.3 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 25.6 P.S.F. SPECIFIED ROOF LIVE LOAD

ALLOWABLE DEFL.(LL)= L/360 (0.43")
CALCULATED VERT. DEFL.(LL)= L/999 (0.01")
ALLOWABLE DEFL.(TL)= L/360 (0.43")
CALCULATED VERT. DEFL.(TL)= L/999 (0.04")

CSI: TC=0.14/1.00 (E-F:1), BC=0.25/1.00 (H-I:4), WB=0.28/1.00 (E-H:1), SSI=0.10/1.00 (D-E:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

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

NAIL VALUES

PLATE	GRIP(DRY)	SHEAR	SECTION
(PSI)	(PLI)	(PLI)	(PLI)
MT20	650	371	1747 788 1987 1873

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.87 (D) (INPUT = 0.90)
JSI METAL= 0.22 (C) (INPUT = 1.00)



June 29, 2021

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

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Version 8.420 S Apr 29 2021 MiTek Industries, Inc. Tue Jun 29 13:13:22 2021 Page 1
ID:sQnoinEi9TBRU6tFvqADsRzc?77R-0RponzwT9DI0WipvADiv8GLXLSnysPq3u9rl6az1QhB



SPECIFIED LOADS:			
TOP	CH.	LL =	25.6 PSF
		DL =	3.0 PSF
BOT	CH.	LL =	0.0 PSF
		DL =	7.3 PSF
TOTAL LOAD		=	35.9 PSF

THIS DESIGN COMPLIES WITH:

- PART 9 OF BCBC 2018 , ABC 2019
- PART 9 OF OBC 2012 (2019 AMENDMENT)
- CSA 086-14
- TPIC 2014

(55 % OF 31.3 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 25.6 P.S.F. SPECIFIED ROOF LIVE LOAD

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

CSI: TC=0.37/1.00 (C-D:1) , BC=0.16/1.00 (F-G:4)
 , WB=0.08/1.00 (C-F:1) , SSI=0.22/1.00 (C-D:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

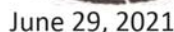
TRUSS PLATE MANUFACTURER IS NOT RESPONSIBLE FOR QUALITY CONTROL IN THE TRUSS MANUFACTURING PLANT.

NAIL VALUES						
PLATE	GRIP(DRY)		SHEAR		SECTION	
	(PSI)		(PLI)		(PLI)	
	MAX	MIN	MAX	MIN	MAX	MIN
MT20	650	371	1747	788	1987	1873

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.43 (F) (INPUT = 0.90)
JSI METAL= 0.21 (F) (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
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TOE-NAIL CAPACITY DETAILS

LATERAL AND WITHDRAWAL RESISTANCE OF BEARING ANCHORAGE BY TOE-NAILS

NAIL TYPE	Length (in)	Diameter (in)	LATERAL Resistance per nail (Lbs.)		WITHDRAWAL Resistance per nail (Lbs.)	
			SPF	D. FIR	SPF	D. FIR
COMMON WIRE	3.00	0.144	122	139	30	42
	3.25	0.144	127	144	32	45
	3.50	0.160	152	173	38	52
COMMON SPIRAL	3.00	0.122	96	108	26	36
	3.25	0.122	97	108	28	40
	3.50	0.152	142	161	36	50
3.25" Gun nail	3.25	0.120	94	105	28	39

Note: If using truss with D. Fir lumber and SPF bearing plate, use tabulated SPF values in table.

Nail type:	Common wire	Common spiral	Common wire	Common spiral	Gun Nail
Diameter (in.)	0.160	0.152	0.144	0.122	0.120
Length (in.)	3.50	3.50	3.00	3.00	3.25
LUMBER	MAXIMUM NUMBER OF TOE-NAILS				
2x4 SPF	2	2	3	3	3
2x6 SPF	4	4	4	5	5
2x4 D. FIR	2	2	2	2	2
2x6 D. FIR	3	3	3	4	4

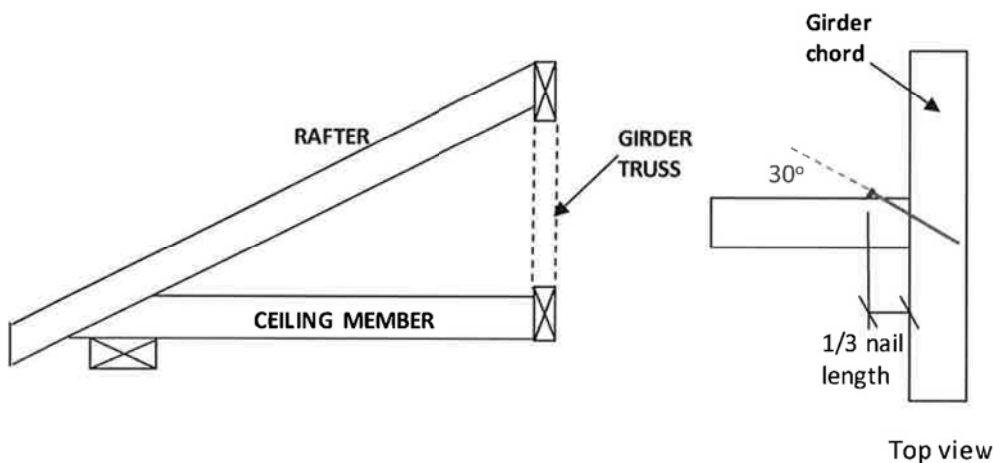


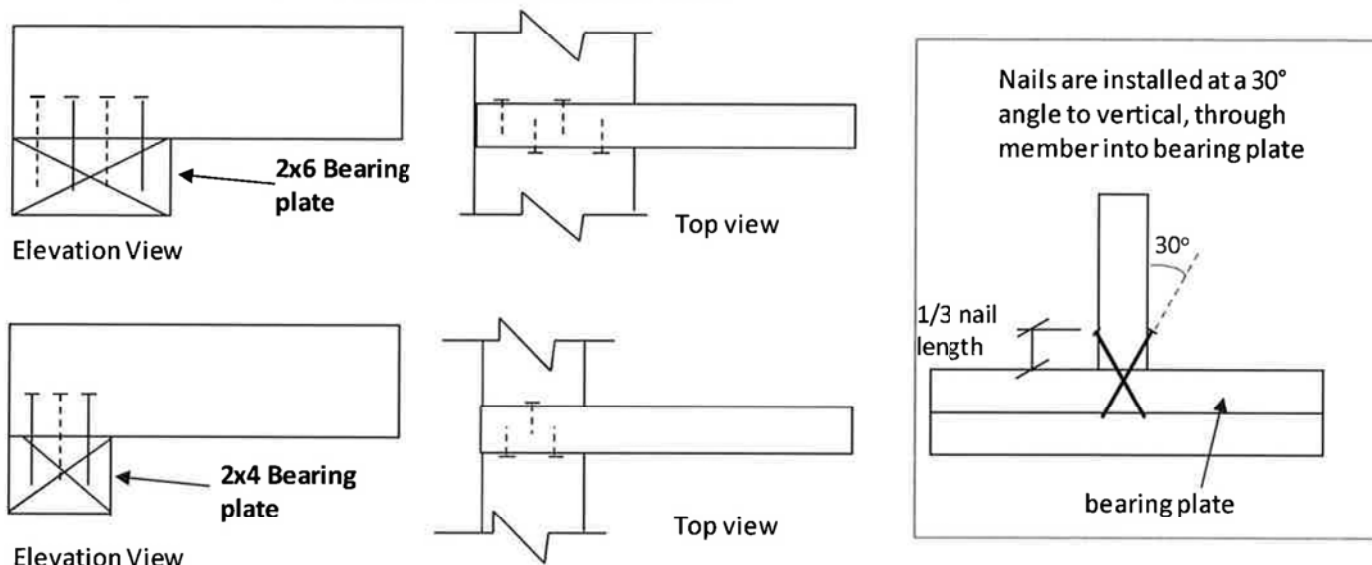
Figure 1: Toe-Nailing Rafter / Ceiling Member to Girder Truss

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TOE-NAIL CAPACITY DETAILS

Figure 2: Toe-Nail Anchorage to Bearing Plate for Uplift



NOTES:

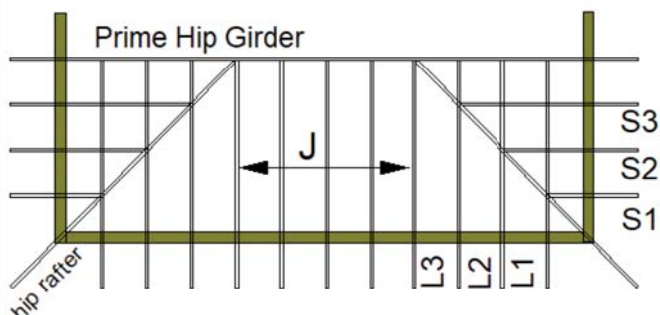
1. Rafter and ceiling members may be connected to top and bottom chords of girder truss by toe-nailing the members into the girder chords (see fig. 1), provided the factored vertical reactions of the supported members do not exceed the lateral resistance of the toe-nails. Mechanical connectors (hangers) are required if factored vertical reactions exceed the toe-nail capacity, or if the connection must resist horizontal loads (loads perpendicular to the face of girder or rafter).
2. Trusses, rafters or ceiling members may be anchored to the bearing plate with toe-nails (see fig. 2), provided that the factored uplift reactions due to **wind or earthquake loads** do not exceed the **withdrawal resistance of the toe-nails**. Mechanical anchors (tie-downs) are required for reactions that exceed the toe-nail withdrawal capacity. Toe-nail anchorage to bearing plates is **NOT** permitted if uplift reactions are generated from gravity loads (snow, floor live, dead).
3. Tabulated toe-nail resistances on page 1 are for **one** toe-nail. Multiply unit values by the number of nails used in the connection. Maximum number of nails in a connection shall not exceed the tabulated limits shown on page 1 for a given lumber size /species.
4. Nail values are based on specific gravity of $G = 0.42$ (SPF) and $G = 0.49$ (D. Fir).
5. Toe-nails shall be driven at approximately $1/3$ the nail length from the edge of the joist/truss chord and driven at an angle of 30° to the grain of the member.
6. For wind / earthquake loads, tabulated lateral resistances may be multiplied by 1.15 (K_D factor). No increases are permitted for tabulated withdrawal resistances.
7. Lumber must be dry ($< 19\%$ moisture content) at the time of nail installation.
8. Nail values in this table comply with CSA O86-19, Clause 12.9.

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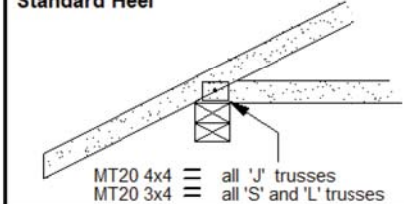


STANDARD HIP END FRAMING

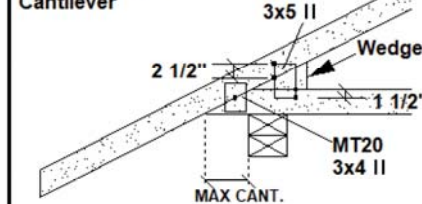
PLAN VIEW



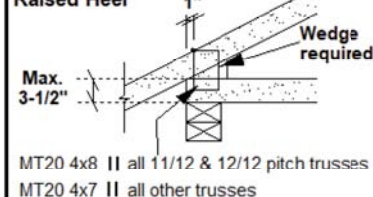
HEEL DETAIL 'A' Standard Heel



HEEL DETAIL 'C' Cantilever



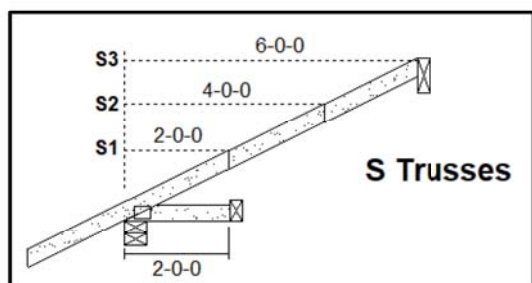
DETAIL 'B': Raised Heel



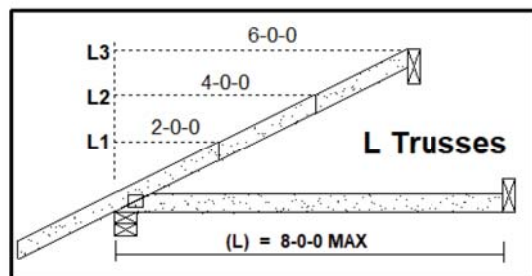
CANTILEVER DETAIL "C"

SLOPE	MAX CANT.	WEDGE PLATE	WEDGE SIZE
3/12	17"	3 X 5	2 X 3
4/12	14"	3 X 5	2 X 3
5/12	12"	3 X 5	2 X 4
6/12	10"	3 X 5	2 X 4
7/12	9"	3 X 5	2 X 6
8/12	8.5"	3 X 5	2 X 6
9/12	8"	3 X 5	2 X 6
10/12	7.5"	3 X 5	2 X 6

S Trusses



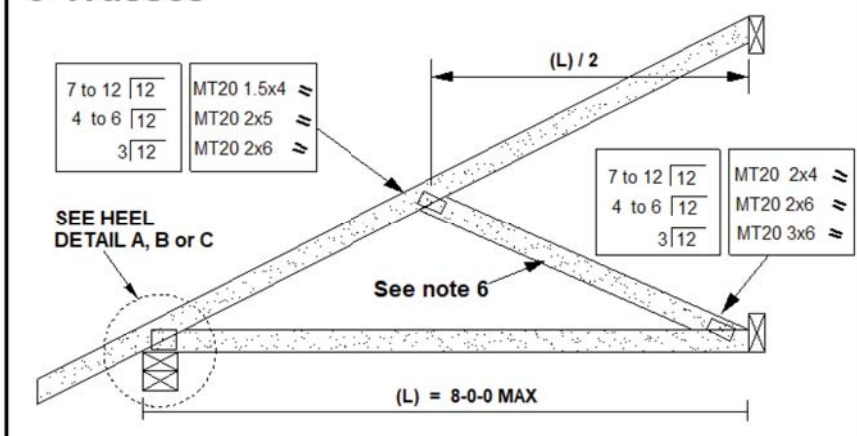
L Trusses



Specified Load Rating:

Top chord Live:	51.0 PSF or less
Top chord Dead:	6.0 PSF or less
Bottom chord Live:	0.0 PSF
Bottom chord Dead:	7.3 PSF or less

J Trusses



NOTES:

1. This detail is valid only for projects conforming to **PART 9 NBCC 2015** that do not require a wind analysis to be incorporated into the design of the trusses.
2. Overhang length shall not exceed 24 inches.
3. All lumber shall be 2x4 SPF (or D-Fir) DRY No. 2 grade or better.
4. All plates specified are MITEK MT20, pressed into both faces of each truss. Heel plates of all trusses shall conform to heel details 'A', 'B' or 'C'.
5. Diagonal hip rafter design shall conform to section 9.23.14.6 of NBCC 2015.
6. For 6.0 ft. or less span, diagonal web on truss 'J' is optional. Girder design must reflect choice of partial jack ('J' with diagonal web) or open jack ('J' without diagonal web)
7. All truss-to-rafter and truss-to-truss connections shall be specified as per MITEK standard detail 'MSD2015-H: Toe-Nail Capacity Details'

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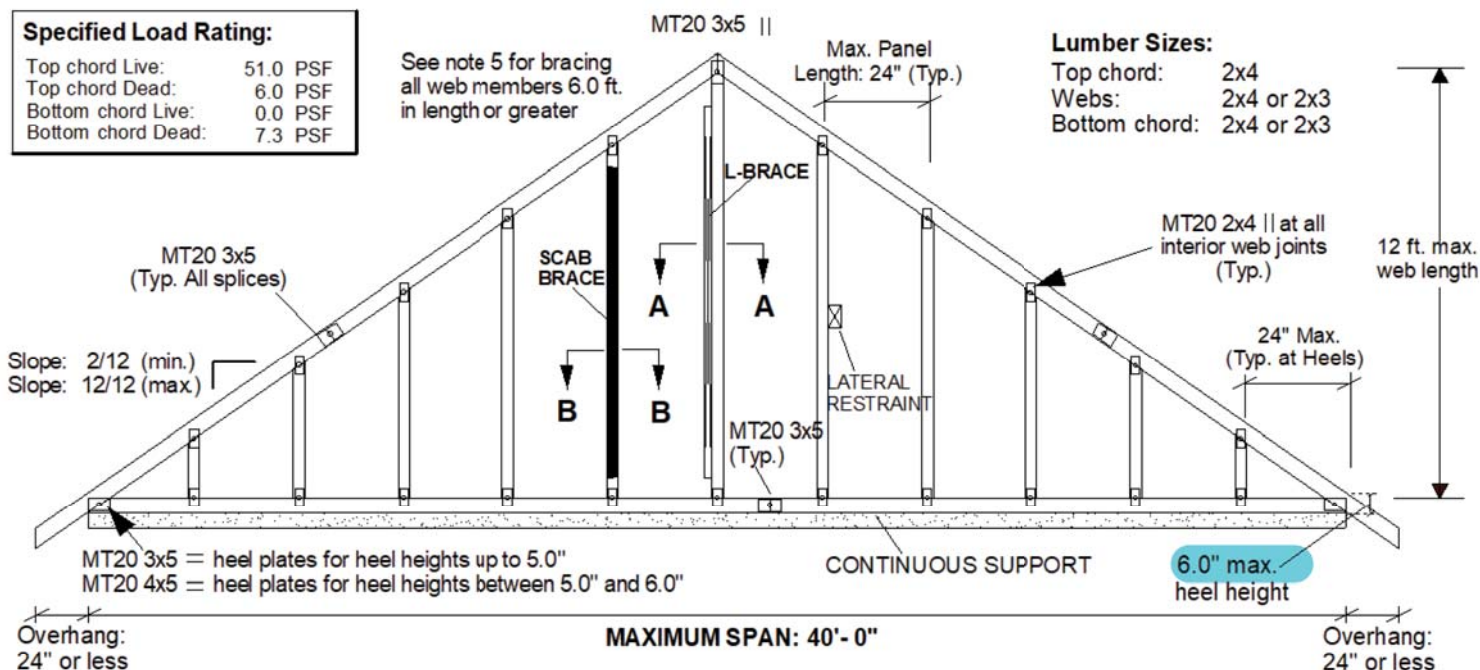


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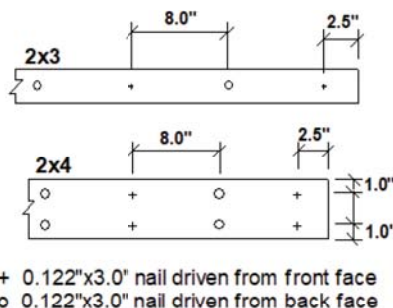
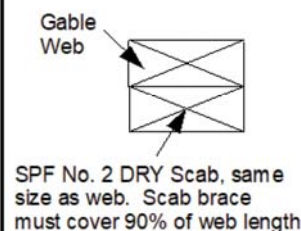
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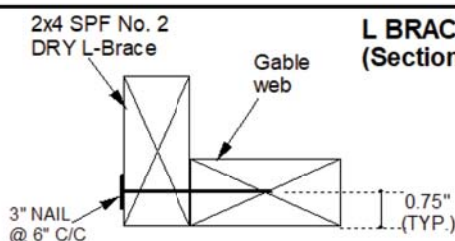
STANDARD GABLE END DETAIL



SCAB BRACE DETAIL (Section B-B)



L BRACE DETAIL (Section A-A)



Fasten L-Brace to narrow edge of web with one row of 0.122" x 3.0" nails spaced at 6.0" c/c along entire length of web. Brace must cover 90% of the web length. Respect a 2.5" minimum end distance.

Notes:

1. This detail is only valid for projects conforming to **Part 9, NBCC 2015** that do not require a wind analysis to be incorporated into the design of the truss.
2. This detail is for vertical (gravity) load rating of the truss only. Truss must be continuously supported over the entire length of bottom chord.
3. Maximum web length not to exceed 12.0 ft. Spacing of gable stud webs in the truss not to exceed 24 inches cc.
4. Splice joints shall not be located in the first panel adjacent to the heel joint or peak joint.
5. Lateral restraint required at half-length of all webs over 6.0 ft. long. Alternatively install an L-Brace or scab brace as shown above. Scab braces shall be limited to 10 ft. long webs or less.
6. All plates are MITEK MT20 pressed into both faces of truss.
7. All lumber to be SPF (or D-Fir) DRY and of No.2 grade or better.
8. Additional building bracing is typically installed to brace the face of the end wall assembly. See BCSI Canada 'Building Designer Responsibilities for Gable End Frame Bracing' for additional information on building bracing for gable-end assemblies.

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