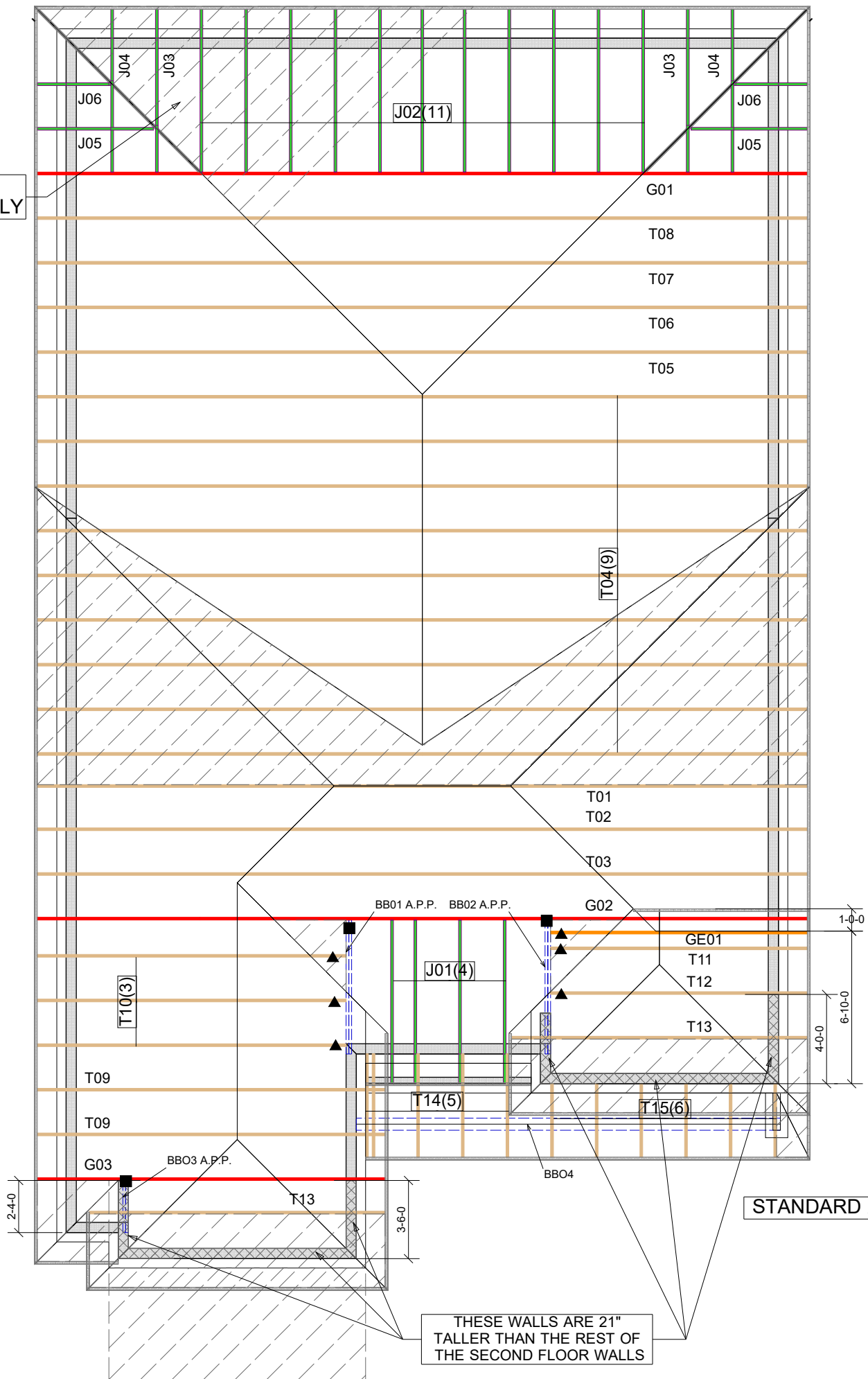


FOR REAR
UPGRADE ONLY



Hanger Name	Symbol	QTY
LUS24	▲	6
LUS26-2	■	3



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 #	21-00077R0
Address	GLENROWAN 3 RICHMOND HILL, ON
Model	41-03 ELEV 2
Sales Rep	RALPH MIRIGELLO
Designer	KR
Date	9/29/2021
Path	C:\MITEK\CA\JOBS\GREENPARK GROUP\ROUNDEL HOMES INC\T-GR41-03-2\

DESIGN INFORMATION

Code	NBCC 2015
Bldg	Residential - HSB (NBCC Part 9)
TC LL	25.6 lb/ft ²
TC DL	3.0 lb/ft ²
BC LL	0.0 lb/ft ²
BC DL	7.3 lb/ft ²
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.

KOTT Inc.
14 Anderson Blvd.
Uxbridge, ON
905.642.4400

Per:



09/22/2022

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.



CITY OF RICHMOND HILL
BUILDING DIVISION

09/22/2022

2020/04/22

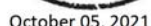
RECEIVED

Per: joshua.nabua

Version 8.500 S Aug 16 2021 MiTek Industries, Inc. Tue Oct 5 10:30:22 2021 Page 1
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Edge - INDICATES REFERENCE CORNER OF PLATE
TOUCHES EDGE OF CHORD.



**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.**

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

Continued on page 2

09/22/2022



Per: joshua.nabua

JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
IM1021-020	G01	1	1	TRUSS DESC.	

Version 8.500 S Aug 16 2021 MiTek Industries, Inc. Tue Oct 5 10:30:22 2021 Page 2
 ID:wmmB55KKGaueypY0VJsDd0zcfk8-91L0ldxWDc4LeXA9xcaSFCufezNmyZ7wx4nK4wyWVv?

MT18HS 586 403 2455 1382 3163 3004
 PLATE PLACEMENT TOL. = 0.250 inches
 PLATE ROTATION TOL. = 5.0 Deg.
 JSI GRIP= 0.90 (N) (INPUT = 0.90)
 JSI METAL= 0.81 (Q) (INPUT = 1.00)



October 05, 2021

READ ALL NOTES ON THIS PAGE AND ON THE
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CITY OF RICHMOND HILL
 BUILDING DIVISION

09/22/2022



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Per: joshua.nabua

Version 8.500 S Aug 16 2021 MiTek Industries, Inc. Tue Oct 5 10:30:23 2021 Page 1
ID:wmmB55KKGauvepY0VJsDd0zck8-dEvOzzx8 wCCGakLVK5hoQRmWNaGh?Z49kXtcNvWVj



Per: joshua.nabua

JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
IM1021-020	G02	1	1	TRUSS DESC.	

Version 8.500 S Aug 16 2021 MiTek Industries, Inc. Tue Oct 5 10:30:23 2021 Page 2
 ID:wmmB55KKGaeypY0VJsDd0zcfk8-dEvOzzx8 wCCGgkLVK5hoQRmWNgGh?Z49kXtcNyWVi

CONNECTION REQUIREMENTS

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

NAIL VALUES

PLATE	GRIP(DRY)	SHEAR	SECTION
(PSI)	(PLI)	(PLI)	(PLI)
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 (P) (INPUT = 0.90)

JSI METAL= 0.96 (C) (INPUT = 1.00)



October 05, 2021

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CITY OF RICHMOND HILL
 BUILDING DIVISION

09/22/2022

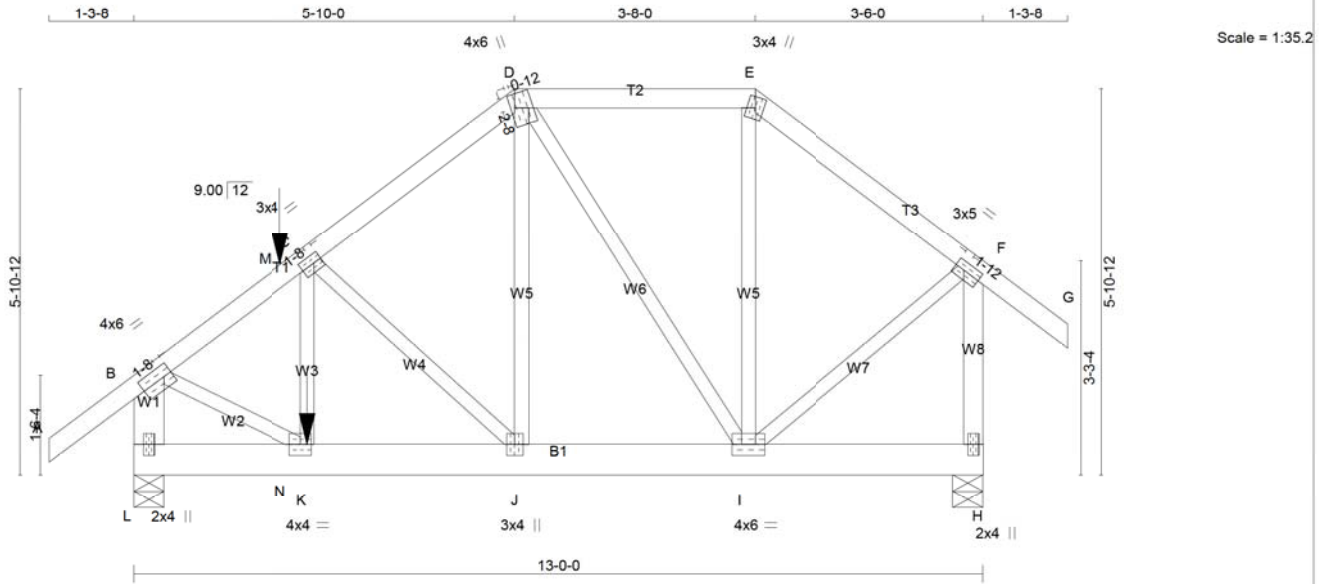


RECEIVED

Per: joshua.nabua

JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
IM1021-020	G03	1	1	TRUSS DESC.	

Version 8.500 S Aug 16 2021 MiTek Industries, Inc. Tue Oct 5 10:30:24 2021 Page 1
ID:wmmB55KKGaueypY0VJsDd0zcfk8-5QTmAJynlDK2tqJY31cxKdz7KnBNQeDDOGR7pyWVhz



TOTAL WEIGHT = 74 lb [M]

LUMBER

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

ALL WEBS	2x3	DRY	No.2	SPF
----------	-----	-----	------	-----

EXCEPT
DRY: SEASONED LUMBER.

PLATES (table is in inches)

JT	TYPE	PLATES	W	LEN	Y	X
B	TMVW-t	MT20	4.0	6.0	2.00	1.50
C	TMWW-t	MT20	3.0	4.0	1.50	1.50
D	TTWW+m	MT20	4.0	6.0	2.50	0.75
E	TTW+m	MT20	3.0	4.0		
F	TMVW-t	MT20	3.0	5.0	1.50	1.75
H	BMV1+p	MT20	2.0	4.0		
I	BMWW-t	MT20	4.0	6.0		
J	BMWW-t	MT20	3.0	4.0		
K	BMWW-t	MT20	4.0	4.0		
L	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
L	1082	0	1082	0
H	859	0	859	0

UNFACTORED REACTIONS

1ST LCASE	MAX/MIN. COMPONENT REACTIONS						
JT	COMBINED	SNOW	LIVE	PERM. LIVE	WIND	DEAD	SOIL
L	754	562 / 0	0 / 0	0 / 0	0 / 0	191 / 0	0 / 0
H	599	444 / 0	0 / 0	0 / 0	0 / 0	155 / 0	0 / 0

BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S) L, 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)	LC1
A-B	0 / 35	-84.3	-84.3	0.13 (1)	10.00	K-C	0 / 74	0.02 (4)
B-M	-879 / 0	-84.3	-84.3	0.14 (1)	6.25	C-J	-328 / 0	0.11 (1)
M-C	-879 / 0	-84.3	-84.3	0.14 (1)	6.25	J-D	0 / 298	0.07 (1)
C-D	-624 / 0	-84.3	-84.3	0.13 (1)	6.25	D-I	-230 / 0	0.17 (1)
D-E	-366 / 0	-84.3	-84.3	0.22 (1)	6.25	I-E	-25 / 49	0.02 (4)
E-F	-460 / 0	-84.3	-84.3	0.20 (1)	6.25	B-K	0 / 783	0.19 (1)
F-G	0 / 35	-84.3	-84.3	0.13 (1)	10.00	I-F	0 / 468	0.12 (1)
L-B	-1044 / 0	0.0	0.0	0.08 (1)	7.81			
H-F	-832 / 0	0.0	0.0	0.15 (1)	7.81			
L-N	0 / 0	-17.7	-17.7	0.03 (1)	10.00			
N-K	0 / 0	-18.2	-18.2	0.03 (1)	10.00			
K-J	0 / 723	-18.2	-18.2	0.13 (1)	10.00			
J-I	0 / 491	-18.2	-18.2	0.08 (1)	10.00			
I-H	0 / 0	-18.2	-18.2	0.03 (4)	10.00			

FACTORED CONCENTRATED LOADS (LBS)

JT	LOC.	LC1	MAX-	MAX+	FACE	DIR.	TYPE	HEEL	CONN.
K	2-8-0	-76	-85	---	FRONT	VERT	DEAD	---	C1
K	2-8-0	-275	-275	---	FRONT	VERT	SNOW	---	C1
M	2-4-0	-27	-27	---	FRONT	VERT	TOTAL	---	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

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

GIRDER TYPE: CPrimeHip
LEFT SETBACK = 2-4-0
RIGHT SETBACK = 3-6-0
END SETBACK = 2-4-0
END WALL WIDTH = 5-8
CORNER FRAMING TYPE: CONVENTIONAL
END JACK TYPE: CONVENTIONAL
APPLIED TO FRONT SIDE
- ADDTL LOADS BASED ON 55 % OF GSL.
LOADS APPLIED TO FIRST 2-4-0 OF SPAN MEASURED FROM THE LEFT.

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

THIS TRUSS IS DESIGNED FOR RESIDENTIAL OR SMALL BUILDING REQUIREMENTS OF PART 9, NBCC 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 (0.43")
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=0.22/1.00 (D-E:1) , BC=0.13/1.00 (J-K:1) , WB=0.19/1.00 (B-K:1) , SSI=0.13/1.00 (D-E:1)

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

CONTINUED ON PAGE 2



October 05, 2021

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09/22/2022
KOTT
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Per: joshua.nabua

JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
IM1021-020	G03	1	1	TRUSS DESC.	

Version 8.500 S Aug 16 2021 MiTek Industries, Inc. Tue Oct 5 10:30:24 2021 Page 2
 ID:wmmB55KKGaueypY0VJsDd0zcfk8-5QTmAJynIDK2tqJY31cxKdz7KnBNQeDDOGR7pyWVhz

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 (F) (INPUT = 0.90)
 JSI METAL= 0.25 (K) (INPUT = 1.00)



October 05, 2021

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CITY OF RICHMOND HILL
 BUILDING DIVISION

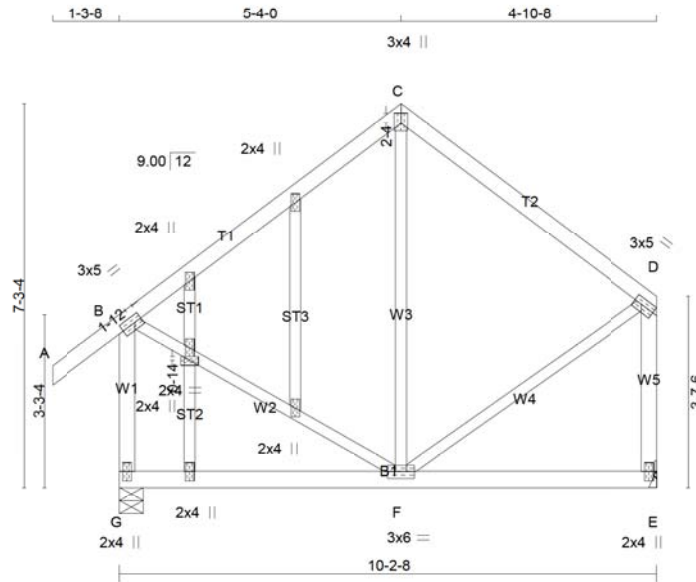
09/22/2022

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Per: joshua.nabua

JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
IM1021-020	GE01	1	1	TRUSS DESC.	

Version 8.500 S Aug 16 2021 MiTek Industries, Inc. Tue Oct 5 10:30:25 2021 Page 1
ID:wmmB55KKGauyepY0VJsDd0zcfk8-ac08NfzPWXSvV ukcl7AtrWDBVE95PNd20 gFyWVhy



Scale = 1:43.7

TOTAL WEIGHT = 56 lb

LUMBER

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

PLATES (table is in inches)

JT	TYPE	PLATES	W	LEN	Y	X
B	TMVW-t	MT20	3.0	5.0	1.50	1.75
C	TTW+p	MT20	3.0	4.0	2.25	1.50
D	TMVW-t	MT20	3.0	5.0	1.50	Edge
E	BMV1+p	MT20	2.0	4.0		
F	BMVWW-t	MT20	3.0	6.0		
G	BMV1+p	MT20	2.0	4.0		
H, I, J, K, L						
H	NP+w	MT20	2.0	4.0		
J	NP-p	MT20	2.0	4.0	1.00	2.00

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 BRG	REQRD BRG
JT	VERT	HORZ	DOWN	HORZ
G	681	0	681	0
E	540	0	540	0

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

UNFACTORED REACTIONS

JT	1ST LCASE	MAX /MIN	COMPONENT REACTIONS				
	COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
G	478	332 / 0	0 / 0	0 / 0	0 / 0	146 / 0	0 / 0
E	380	261 / 0	0 / 0	0 / 0	0 / 0	119 / 0	0 / 0

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

BRACING

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

ALL 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 HORZ. LOAD (LC)	MEMB.	MAX. FACTORED FORCE (LBS)	MAX. FACTORED HORZ. LOAD (LC)	
FR-TO		FROM TO		FR-TO			
A-B	0 / 35	-84.3	-84.3 0.13 (1)	10.00	F-C	-145 / 36 0.13 (1)	
B-C	-263 / 0	-91.1	-99.3 0.52 (1)	6.25	B-F	0 / 242 0.06 (1)	
C-D	-265 / 0	-84.3	-84.3 0.38 (1)	6.25	F-D	0 / 256 0.06 (1)	
G-B	-642 / 0	0.0	0.0 0.12 (1)	7.81			
E-D	-507 / 0	0.0	0.0 0.12 (1)	7.81			
G-F	0 / 0	-18.2	-18.2 0.15 (4)	10.00			
F-E	0 / 0	-18.2	-18.2 0.15 (4)	10.00			

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

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

CSI: TC=0.52/1.00 (B-C:1) , BC=0.15/1.00 (F-G:4) ,
WB=0.13/1.00 (C-F:1) , SSI=0.18/1.00 (B-C:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

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

NAIL VALUES

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



October 05, 2021

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CITY OF RICHMOND HILL
BUILDING DIVISION
CONTINUED ON PAGE 2

09/22/2022
KOTT
RECEIVED
Per: joshua.nabua

JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
IM1021-020	GE01	1	1	TRUSS DESC.	

Version 8.500 S Aug 16 2021 MiTek Industries, Inc. Tue Oct 5 10:30:25 2021 Page 2

ID:wmmB55KKGaueypY0VJsDd0zcfk8-ac08NfzPWXSvV_ukcl7AtrWDBVE95PNd20_gFyWVhy

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.52 (B) (INPUT = 0.90)

JSI METAL= 0.14 (B) (INPUT = 1.00)



October 05, 2021

READ ALL NOTES ON THIS PAGE AND ON THE
ENGINEERING NOTE PAGE ENP-1. THE NOTE PAGE
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BUILDING DIVISION

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Version 8.500 S Aug 16 2021 MiTek Industries, Inc. Tue Oct 5 10:30:26 2021 Page 1
ID:wmmB55KKGaeypY0VJsDd0zcfk8-2paWb? 1Hram78TwASePP22O6brhuakWslYChvWVhx

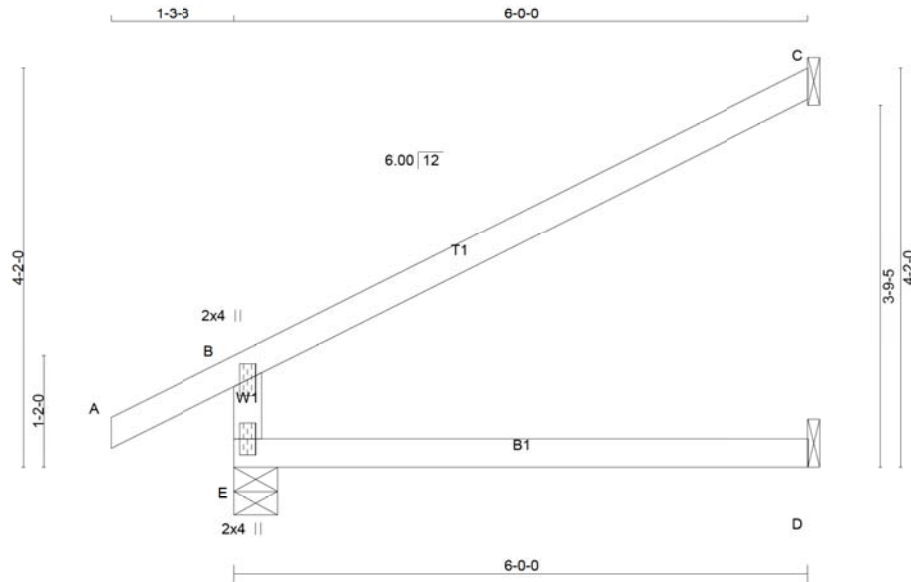


TOTAL WEIGHT = $4 \times 19 = 75 \text{ lb}$

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JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
IM1021-020	J02	11	1	TRUSS DESC.	

Version 8.500 S Aug 16 2021 MiTek Industries, Inc. Tue Oct 5 10:30:26 2021 Page 1
ID:wmmB55KKGaueypY0VJsDd0zcfk8-2paWb?_1Hram78TwaSePP22O7brjuakWsiYChyWVhx



TOTAL WEIGHT = 11 X 17 = 188 lb

LUMBER

N. L. G. A. RULES

CHORDS	SIZE	LUMBER
E - B	2x4	DRY No.2
A - C	2x4	DRY No.2
E - D	2x4	DRY No.2

DRY: SEASONED LUMBER.

PLATES (table is in inches)

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

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

BEARINGS

JT	FACTORED GROSS REACTION		MAXIMUM FACTORED GROSS REACTION		INPUT BRG	REQRD BRG
	VERT	HORZ	DOWN	HORZ		
E	495	0	495	0	5-8	1-8
C	190	0	190	0	1-8	1-8
D	45	0	51	0	1-8	1-8

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

UNFACTORED REACTIONS

JT	1ST LCASE	MAX / MIN. COMPONENT REACTIONS					
	COMBINED	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		FACTORED		MAX. CSI (LC)	UNBRAC	MEMB.	WEBS	
	MAX. FACTORED FORCE (LBS)	VERT. LOAD (PLF)	VERT. LOAD (PLF)	MAX. CSI (LC)				MAX. FACTORED FORCE (LBS)	MAX. CSI (LC)
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.(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	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= 0.24 (B) (INPUT = 0.90)
JSI METAL= 0.18 (B) (INPUT = 1.00)



October 05, 2021

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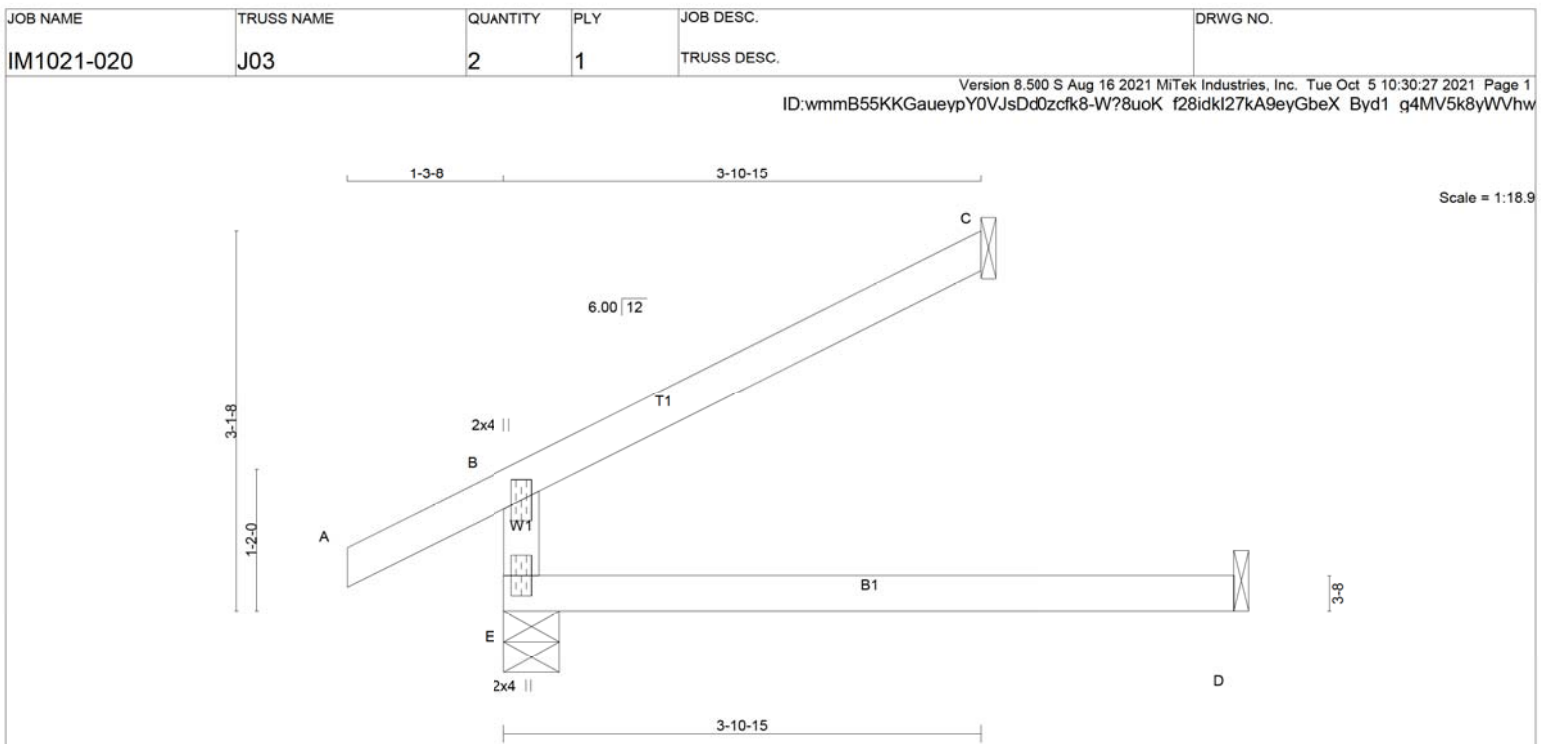
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BUILDING DIVISION

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Per: joshua.nabua



TOTAL WEIGHT = 2 X 14 = 29 lb [M]

LUMBER

N. L. G. A. RULES

CHORDS	SIZE	DRY	No.2
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

JT	FACTORED GROSS REACTION		MAXIMUM FACTORED GROSS REACTION		INPUT BRG IN-SX	REQRD BRG IN-SX
	VERT	HORZ	DOWN	HORZ		
E	385	0	385	0	5-8	1-8
C	124	0	124	0	1-8	1-8
D	45	0	51	0	1-8	1-8

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

UNFACTORED REACTIONS

JT	1ST LCASE COMBINED	MAX /MIN. COMPONENT REACTIONS					
		SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
E	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)

CHORDS				WEBS			
MEMB.	MAX. FACTORED (LBS)	FACTORED VERT. LOAD (PLF)	MAX LC1 CSI (LC)	MEMB.	MAX. FACTORED (LBS)	FACTORED MAX CSI (LC)	
FR-TO		FROM	TO	FR-TO			
E-B	-320 / 0	0.0	0.0 0.13 (4)				
A-B	0 / 26	-84.3	-84.3 0.11 (1)				
B-C	-18 / 0	-84.3	-84.3 0.22 (1)				
E-D	0 / 0	-18.2	-18.2 0.13 (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

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)
	MAX	MIN	MAX
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

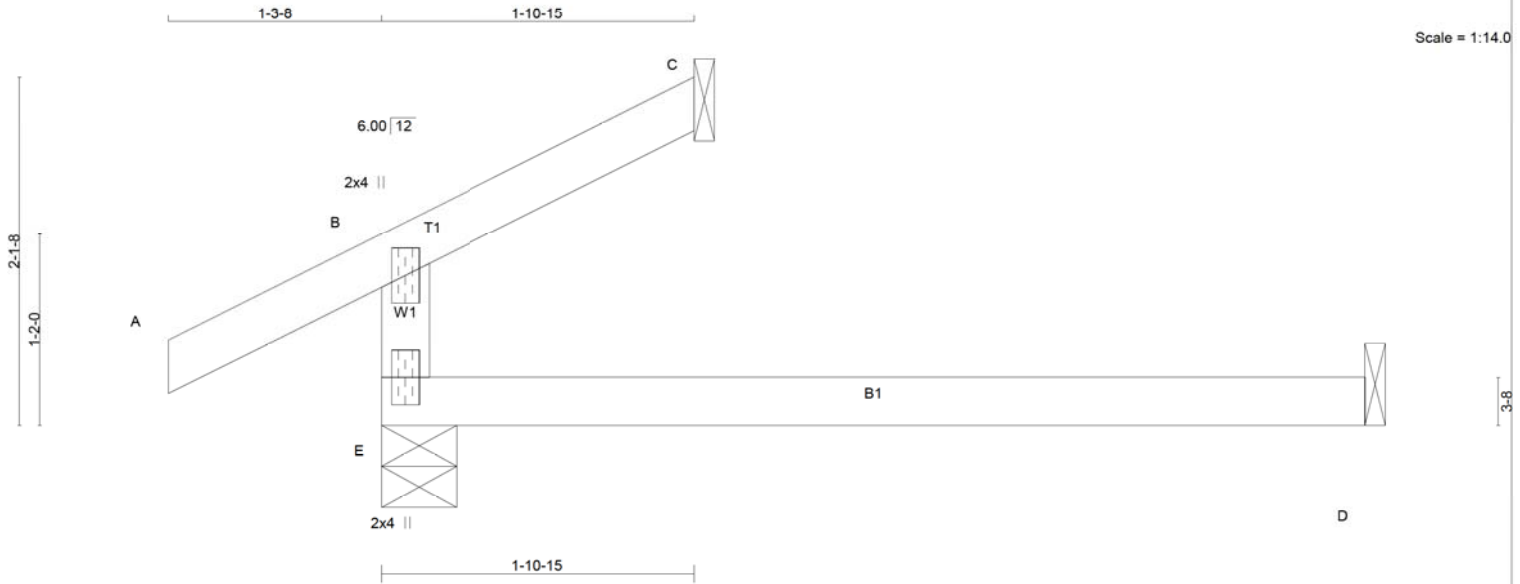


October 05, 2021

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JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
IM1021-020	J04	2	1	TRUSS DESC.	

Version 8.500 S Aug 16 2021 MiTek Industries, Inc. Tue Oct 5 10:30:27 2021 Page 1
ID:wmmB55KKGaueypY0VJsDd0zcfk8-W?8uoK f28idkl27kA9eyGbfr Byd1 q4MV5k8yWVhw



TOTAL WEIGHT = 2 X 12 = 24 lb

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

DRY: SEASONED LUMBER.

PLATES (table is in inches)					
JT	TYPE	PLATES	W	LEN	Y X
B	TMV+p	MT20	2.0	4.0	
E	BMV1+p	MT20	2.0	4.0	

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	IN-SX	IN-SX
E	279	0	279	0	0	5-8	1-8	1-8	1-8
C	61	0	61	0	0	1-8	1-8	1-8	1-8
D	45	0	51	0	0	1-8	1-8	1-8	1-8

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

UNFACTORED REACTIONS

JT	1ST LCASE	SNOW	MAX /MIN	LIVE	PERM.LIVE	WIND	DEAD	SOIL
E	197	130 / 0	0 / 0	0 / 0	0 / 0	0 / 0	67 / 0	0 / 0
C	41	37 / 0	0 / 0	0 / 0	0 / 0	0 / 0	4 / 0	0 / 0
D	36	0 / 0	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 = 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: (4)

CHORDS				WEBS			
MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	FACTORED HORZ. LOAD (LC)	MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	FACTORED HORZ. LOAD (LC)
FR-TO				FR-TO			
E-B	-214 / 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	-9 / 0	-84.3	-84.3 0.05 (1)	10.00			
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=0.13/1.00 (B-E:4), BC=0.13/1.00 (D-E:4), WB=0.00/1.00 (n/a:0), SSI=0.09/1.00 (D-E:4)

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

COMPANION LIVE LOAD FACTOR = 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= 0.12 (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

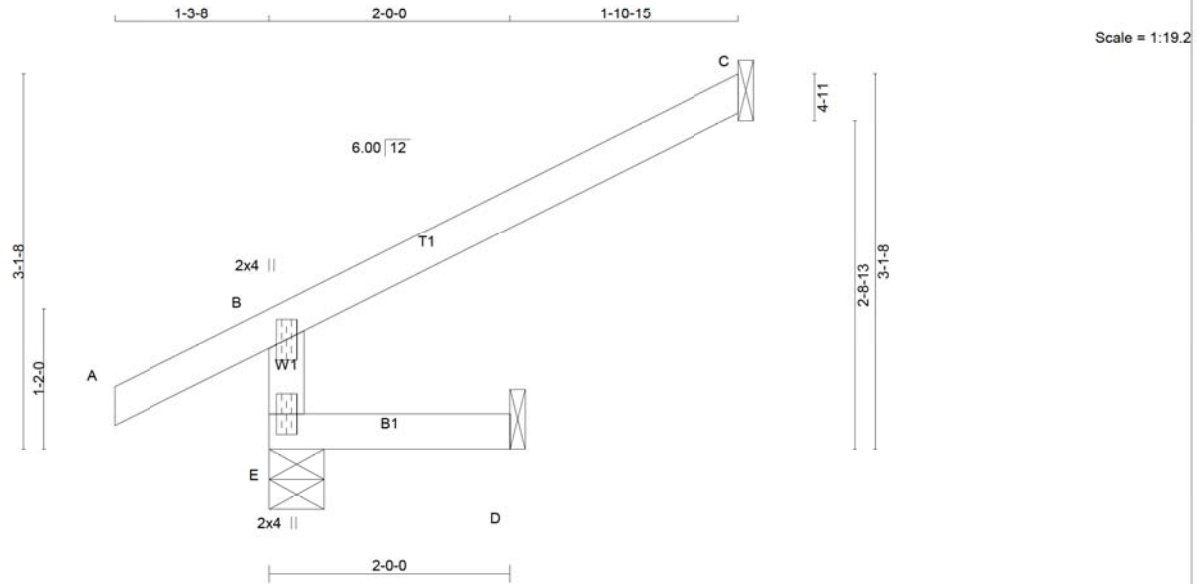


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JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
IM1021-020	J05	2	1	TRUSS DESC.	

Version 8.500 S Aug 16 2021 MiTek Industries, Inc. Tue Oct 5 10:30:28 2021 Page 1
ID:wmmB55KKGauyepY0VJsDd0zcfk8-BiH0g?HoSqUMSDJlthtVT8pHOZ1MUEpJ?EeHayWVhv



TOTAL WEIGHT = 2 X 10 = 20 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**

JT	FACTORED GROSS REACTION		MAXIMUM FACTORED GROSS REACTION		INPUT BRG IN-SX	REQRD BRG IN-SX
	VERT	HORZ	DOWN	HORZ		
E	340	0	340	0	5-8	1-8
C	124	0	124	0	1-8	1-8
D	16	0	18	0	1-8	1-8

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

UNFACTORED REACTIONS

JT	COMBINED	1ST LCASE MAX / MIN. COMPONENT REACTIONS		LIVE	PERM. LIVE	WIND	DEAD	SOIL
		SNOW	DOWN					
E	233	194 / 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	9 / 0	0 / 0
D	13	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

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: (5)

MEMB.	CHORDS		FACTORED		MAX. CSI (LC)	UNBRAC LENGTH	FR-TO	MEMB.	WEBS	
	MAX. FACTORED FORCE (LBS)	VERT. LOAD (PLF)	VERT. LOAD (PLF)	MAX. CSI (LC)					MAX. FACTORED FORCE (LBS)	MAX. CSI (LC)
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	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= 0.18 (B) (INPUT = 0.90)

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

CITY OF RICHMOND HILL
BUILDING DIVISION

09/22/2022

KOTT

RECEIVED

Per: joshua.nabua

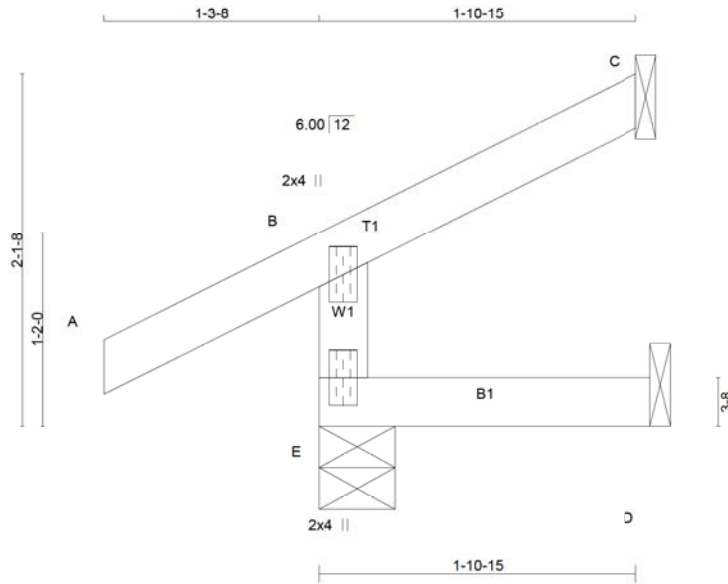


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JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
IM1021-020	J06	2	1	TRUSS DESC.	

Version 8.500 S Aug 16 2021 MiTek Industries, Inc. Tue Oct 5 10:30:28 2021 Page 1
ID:wmmB55KKGaueypY0VJsDd0zcfk8-BiH0g?HoSqUMSDJlthtVT8r_OZ1MUEpJ?EeHayWVhv



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

LUMBER

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

DRY: SEASONED LUMBER.

PLATES (table is in inches)

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

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	IN-SX	IN-SX
E	235	0	235	0	0	5-8	1-8	1-8	1-8
C	61	0	61	0	0	1-8	1-8	1-8	1-8
D	16	0	18	0	0	1-8	1-8	1-8	1-8

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

UNFACTORED REACTIONS

JT	1ST LCASE	SNOW	MAX /MIN	LIVE	PERM.LIVE	WIND	DEAD	SOIL
E	162	130 / 0	0 / 0	0 / 0	0 / 0	0 / 0	31 / 0	0 / 0
C	41	37 / 0	0 / 0	0 / 0	0 / 0	0 / 0	4 / 0	0 / 0
D	13	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, 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		FACTORED		W E B S		MAX. FACTORED	
MEMB.	FORCE (LBS)	VERT. LOAD (PLF)	LC1 MAX (LC)	MAX. UNBRAC	MEMB.	FORCE (LBS)	MAX (LC)
FR-TO				LENGTH FR-TO			
E-B	-214 / 0	0.0	0.0 (4)	7.81			
A-B	0 / 26	-84.3	-84.3 (1)	10.00			
B-C	-9 / 0	-84.3	-84.3 (1)	10.00			
E-D	0 / 0	-18.2	-18.2 (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 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= 0.12 (B) (INPUT = 0.90)
JSI METAL= 0.09 (B) (INPUT = 1.00)

CITY OF RICHMOND HILL
BUILDING DIVISION

09/22/2022

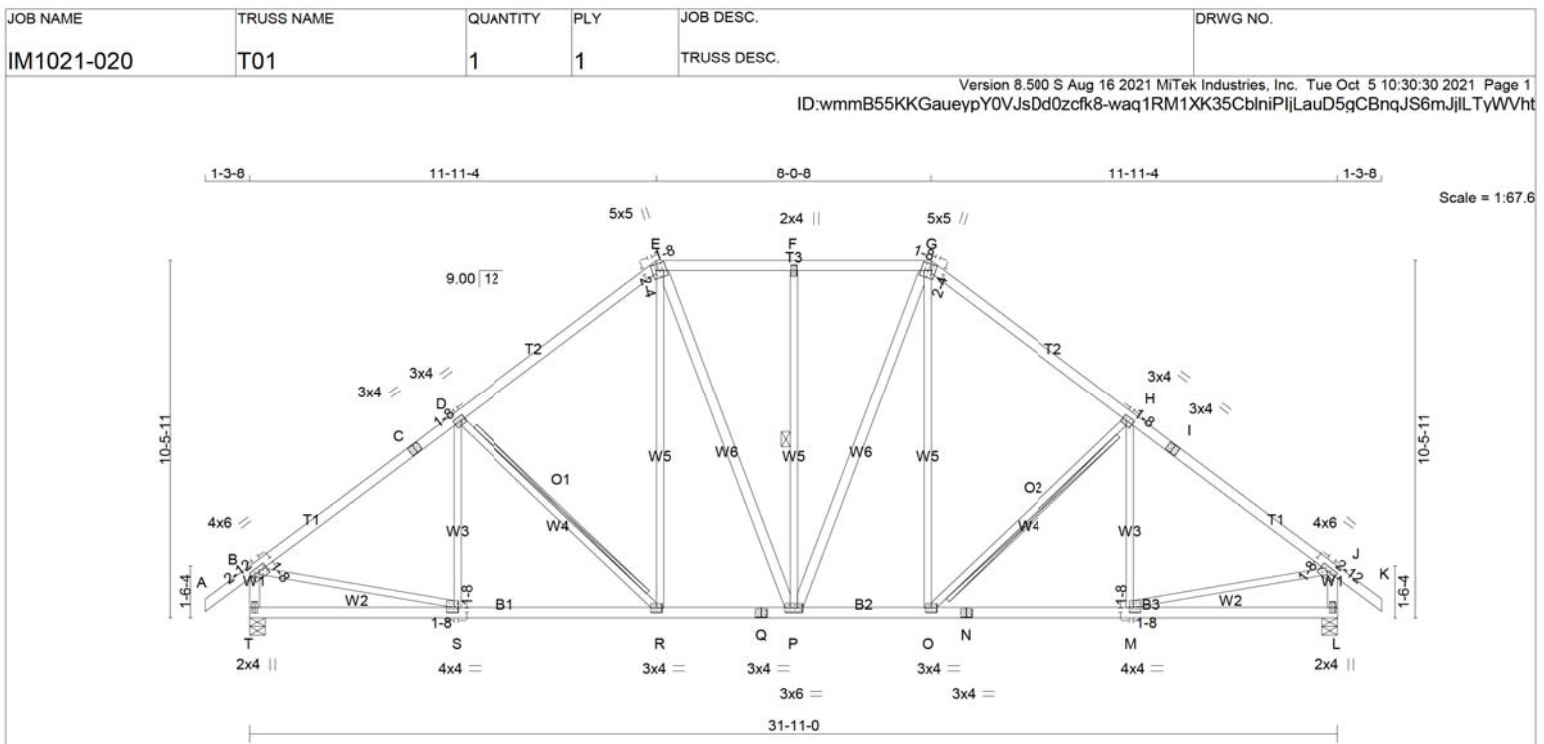
KOTT
RECEIVED

Per: joshua.nabua



October 05, 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.



TOTAL WEIGHT = 166 lb

LUMBER

N. L. G. A. RULES	CHORDS	SIZE	LUMBER	DESCR.
A - C	2x4	DRY	No.2	SPF
C - E	2x4	DRY	No.2	SPF
E - G	2x4	DRY	No.2	SPF
G - I	2x4	DRY	No.2	SPF
I - K	2x4	DRY	No.2	SPF
T - B	2x4	DRY	No.2	SPF
L - J	2x4	DRY	No.2	SPF
T - Q	2x4	DRY	No.2	SPF
Q - N	2x4	DRY	No.2	SPF
N - L	2x4	DRY	No.2	SPF

ALL WEBS EXCEPT	2x3	DRY	No.2	SPF
E - P	2x4	DRY	No.2	SPF
P - G	2x4	DRY	No.2	SPF

DRY: SEASONED LUMBER.

PLATES (table is in inches)

JT	TYPE	PLATES	W	LEN	Y	X
B	TMVW-t	MT20	4.0	6.0	1.50	2.75
C	TS-t	MT20	3.0	4.0		
D	TMVW-t	MT20	3.0	4.0	1.50	1.50
E	TTWW+m	MT20	5.0	5.0	2.25	1.50
F	TMVW-t	MT20	2.0	4.0		
G	TTWW+m	MT20	5.0	5.0	2.25	1.50
H	TMVW-t	MT20	3.0	4.0	1.50	1.50
I	TS-t	MT20	3.0	4.0		
J	TMVW-t	MT20	4.0	6.0	1.50	2.75
L	BMV1+p	MT20	2.0	4.0		
M	BMVW-t	MT20	4.0	4.0	1.50	1.50
N	BS-t	MT20	3.0	4.0		
O	BMVW-t	MT20	3.0	4.0		
P	BMVW-t	MT20	3.0	6.0		
Q	BS-t	MT20	3.0	4.0		
R	BMVW-t	MT20	3.0	4.0		
S	BMVW-t	MT20	4.0	4.0	1.50	1.50
T	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	DOWN	IN-SX	IN-SX
T	1752	0	5-8	2-3
L	1752	0	5-8	2-3

UNFACTORED REACTIONS

1ST LCASE	MAX/MIN. COMPONENT REACTIONS						
JT	COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
T	1224	887 / 0	0 / 0	0 / 0	0 / 0	337 / 0	0 / 0
L	1224	887 / 0	0 / 0	0 / 0	0 / 0	337 / 0	0 / 0

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

BRACING

TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 4.49 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-P. DBS = 20-0-0. CBF = 51 LBS.
2x4 DRY SPF No.2 T-BRACE AT D-R, H-O

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.

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

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

LOADING

TOTAL LOAD CASES: (4)

C H O R D S				W E B S			
MEMB.	MAX. FACTORED FORCE (LBS)	VERT. LOAD (PLF)	MAX. FACTORED CSI (LC)	MEMB.	MAX. FACTORED FORCE (LBS)	MAX. FACTORED CSI (LC)	
FR-TO		FROM TO	LENGTH	FR-TO			
A-B	0 / 35	-84.3 -84.3	0.11 (1)	10.00	S-D	-166 / 61	0.10 (1)
B-C	-1806 / 0	-84.3 -84.3	0.48 (1)	4.49	D-R	-375 / 0	0.20 (1)
C-D	-1806 / 0	-84.3 -84.3	0.48 (1)	4.49	R-E	0 / 351	0.08 (1)
D-E	-1543 / 0	-84.3 -84.3	0.44 (1)	4.82	E-P	0 / 251	0.04 (1)
E-F	-1299 / 0	-84.3 -84.3	0.18 (1)	5.47	P-F	-405 / 0	0.31 (1)
F-G	-1299 / 0	-84.3 -84.3	0.18 (1)	5.47	G-P	0 / 251	0.04 (1)
G-H	-1543 / 0	-84.3 -84.3	0.44 (1)	4.82	O-G	0 / 351	0.08 (1)
H-I	-1806 / 0	-84.3 -84.3	0.48 (1)	4.49	O-H	-375 / 0	0.20 (1)
I-J	-1806 / 0	-84.3 -84.3	0.48 (1)	4.49	M-H	-166 / 61	0.10 (1)
J-K	0 / 35	-84.3 -84.3	0.11 (1)	10.00	B-S	0 / 1501	0.34 (1)
T-B	-1706 / 0	0.0 0.0	0.18 (1)	6.36	M-J	0 / 1501	0.34 (1)
L-J	-1706 / 0	0.0 0.0	0.18 (1)	6.36			
T-S	0 / 0	-18.2 -18.2	0.16 (4)	10.00			
S-R	0 / 1473	-18.2 -18.2	0.32 (1)	10.00			
R-Q	0 / 1207	-18.2 -18.2	0.24 (1)	10.00			
Q-P	0 / 1207	-18.2 -18.2	0.24 (1)	10.00			
P-O	0 / 1207	-18.2 -18.2	0.24 (1)	10.00			
O-N	0 / 1473	-18.2 -18.2	0.32 (1)	10.00			
N-M	0 / 1473	-18.2 -18.2	0.32 (1)	10.00			
M-L	0 / 0	-18.2 -18.2	0.16 (4)	10.00			



October 05, 2021

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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 2.00/12 MINIMUM

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

THIS DESIGN COMPLIES WITH:

- PART 9 OF 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 (1.06")
CALCULATED VERT. DEFL.(LL) = L/999 (0.06")
ALLOWABLE DEFL.(TL) = L/360 (1.06")
CALCULATED VERT. DEFL.(TL) = L/999 (0.12")

CSI: TC=0.48/1.00 (B-D:1), BC=0.32/1.00 (R-S:1), WB=0.34/1.00 (B-S:1), SSI=0.20/1.00 (B-D:1)

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

COMPANION LIVE LOAD FACTOR = 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= 0.85 (P) (INPUT = 0.90)

JSI METAL= 0.50 (S) (INPUT = 1.00)

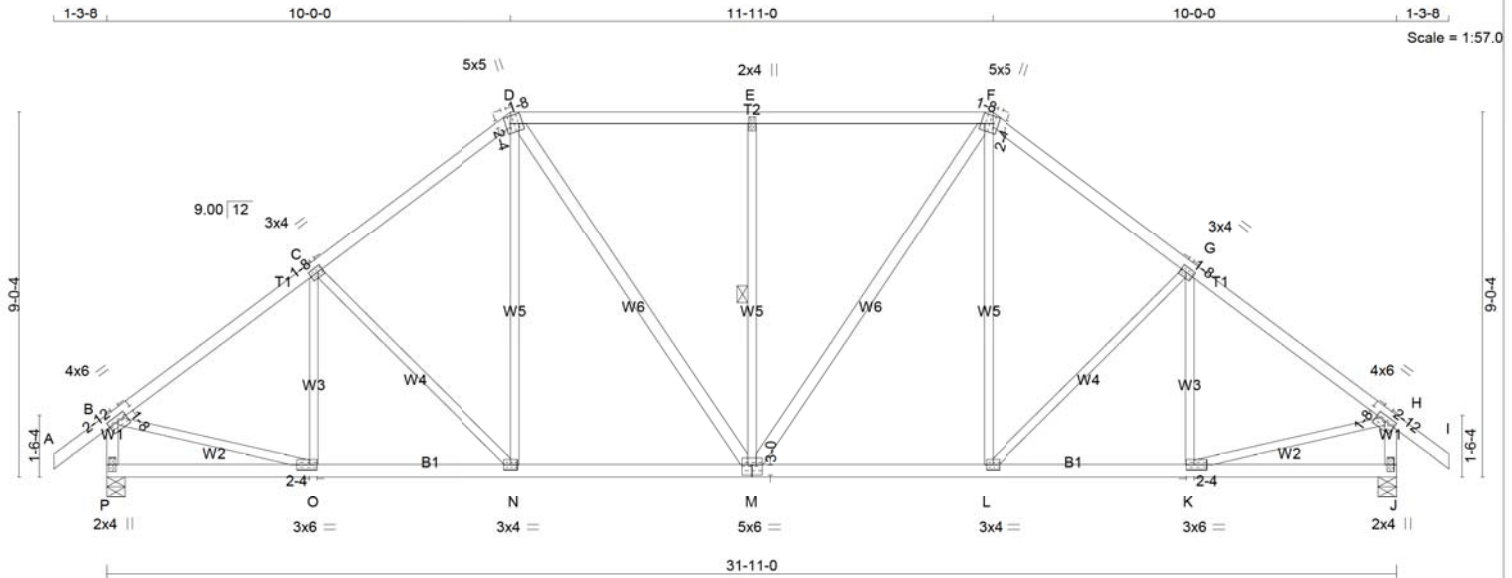
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BUILDING DIVISION

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Per: joshua.nabua

JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
IM1021-020	T02	1	1	TRUSS DESC.	

Version 8.500 S Aug 16 2021 MiTek Industries, Inc. Tue Oct 5 10:30:30 2021 Page 1
ID:wmmB55KKGauypY0VJsDd0zcfk8-waq1RM1XK35CblniPljLauD6cBuqJU6mJjLTyWVht



TOTAL WEIGHT = 156 lb
[M][F]

LUMBER

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

DRY: SEASONED LUMBER.

PLATES (table is in inches)

JT	TYPE	PLATES	W	LEN	Y	X
B	TMVW-t	MT20	4.0	6.0	1.50	2.75
C	TMWW-t	MT20	3.0	4.0	1.50	1.50
D	TTWW+m	MT20	5.0	5.0	2.25	1.50
E	TMW+w	MT20	2.0	4.0		
F	TTWW+m	MT20	5.0	5.0	2.25	1.50
G	TMWW-t	MT20	3.0	4.0	1.50	1.50
H	TMVW-t	MT20	4.0	6.0	1.50	2.75
J	BMV1+p	MT20	2.0	4.0		
K	BMWW-t	MT20	3.0	6.0	1.50	2.25
L	BMWW-t	MT20	3.0	4.0		
M	BSWWW-l	MT20	5.0	6.0	3.00	3.00
N	BMWW-t	MT20	3.0	4.0		
O	BMWW-t	MT20	3.0	6.0	1.50	2.25
P	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
P	1752	0	1752	0
J	1752	0	1752	0

UNFACTORED REACTIONS

JT	1ST LCASE COMBINED	MAX/MIN. SNOW	MAX/MIN. LIVE	MAX/MIN. PERM. LIVE	MAX/MIN. WIND	MAX/MIN. DEAD	MAX/MIN. SOIL
P	1224	887 / 0	0 / 0	0 / 0	0 / 0	337 / 0	0 / 0
J	1224	887 / 0	0 / 0	0 / 0	0 / 0	337 / 0	0 / 0

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

BRACING

TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 4.69 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 E-M. DBS = 20-0-0. CBF = 77 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)

C H O R D S				W E B S			
MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	MAX. FACTORED CSI (LC)	MEMB.	MAX. FACTORED FORCE (LBS)	MAX. FACTORED CSI (LC)	
FR-TO		FROM TO		FR-TO			
A-B	0 / 35	-84.3	-84.3 0.11 (1)	O-C	-247 / 13	0.11 (1)	
B-C	-1786 / 0	-84.3	-84.3 0.33 (1)	C-N	-226 / 0	0.22 (1)	
C-D	-1651 / 0	-84.3	-84.3 0.31 (1)	N-D	0 / 274	0.06 (1)	
D-E	-1537 / 0	-84.3	-84.3 0.42 (1)	D-M	0 / 425	0.07 (1)	
E-F	-1537 / 0	-84.3	-84.3 0.42 (1)	M-E	-614 / 0	0.32 (1)	
F-G	-1651 / 0	-84.3	-84.3 0.31 (1)	M-F	0 / 425	0.07 (1)	
G-H	-1786 / 0	-84.3	-84.3 0.33 (1)	L-F	0 / 274	0.06 (1)	
H-I	0 / 35	-84.3	-84.3 0.11 (1)	L-G	-226 / 0	0.22 (1)	
P-B	-1711 / 0	0.0	0.0 0.18 (1)	K-G	-247 / 13	0.11 (1)	
J-H	-1711 / 0	0.0	0.0 0.18 (1)	B-O	0 / 1492	0.34 (1)	
				K-H	0 / 1492	0.34 (1)	
P-O	0 / 0	-18.2	-18.2 0.10 (4)				
O-N	0 / 1453	-18.2	-18.2 0.31 (1)				
N-M	0 / 1297	-18.2	-18.2 0.29 (1)				
M-L	0 / 1297	-18.2	-18.2 0.29 (1)				
L-K	0 / 1453	-18.2	-18.2 0.31 (1)				
K-J	0 / 0	-18.2	-18.2 0.10 (4)				



October 05, 2021

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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 2.00/12 MINIMUM

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 (1.06")
CALCULATED VERT. DEFL.(LL) = L/999 (0.07")
ALLOWABLE DEFL.(TL) = L/360 (1.06")
CALCULATED VERT. DEFL.(TL) = L/999 (0.14")

CSI: TC=0.42/1.00 (E-F:1), BC=0.31/1.00 (K-L:1), WB=0.34/1.00 (H-K:1), SSI=0.24/1.00 (E-F:1)

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

COMPANION LIVE LOAD FACTOR = 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
MT20 650 371 1747 788 1987 1873

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

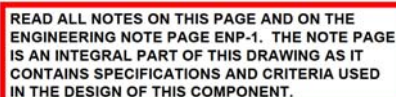
JSI GRIP= 0.88 (O) (INPUT = 0.90)
JSI METAL= 0.47 (H) (INPUT = 1.00)

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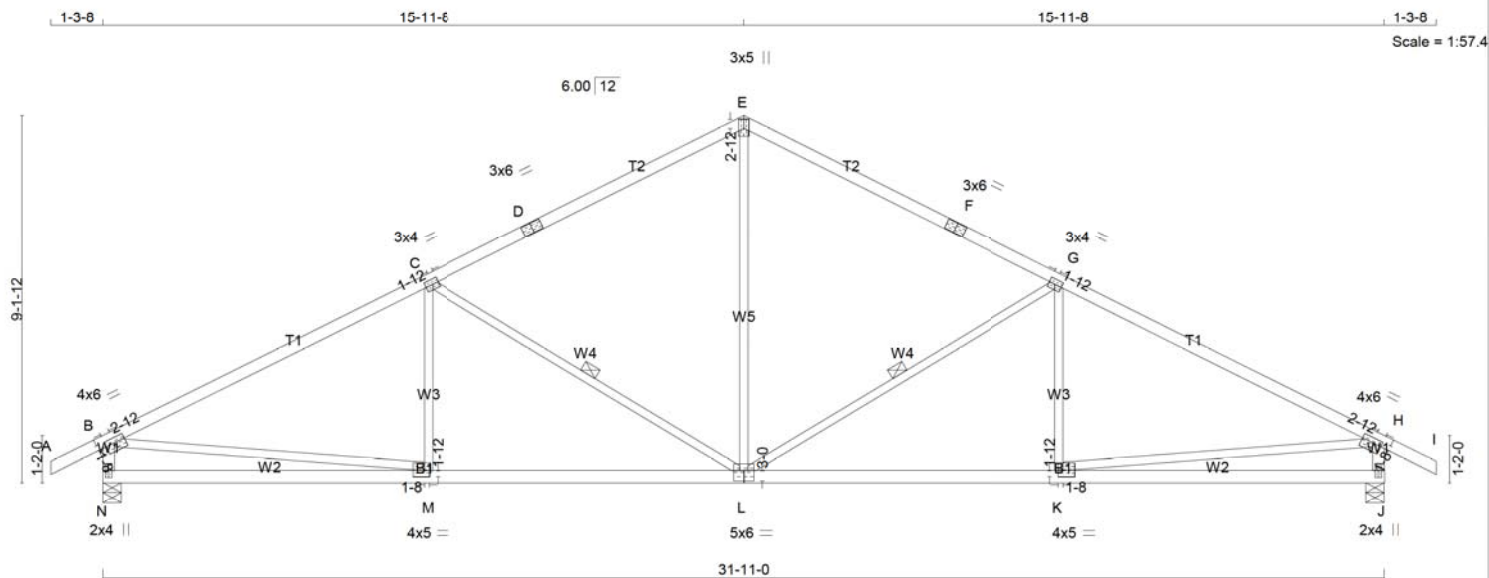
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Per: joshua.nabua

JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
IM1021-020	T04	9	1	TRUSS DESC.	

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TOTAL WEIGHT = $9 \times 124 = 1116 \text{ lb}$

LUMBER

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

ALL WEBS EXCEPT	2x3	DRY	No.2	SPF
--------------------	-----	-----	------	-----

DRY: SEASONED LUMBER.

PLATES (table is in inches)

JT	TYPE	PLATES	W	LEN	Y	X
B	TMWV-t	MT20	4.0	6.0	1.50	2.75
C	TMWV-t	MT20	3.0	4.0	1.50	1.75
D	TS-t	MT20	3.0	6.0		
E	TTW+p	MT20	3.0	5.0	2.75	1.50
F	TS-t	MT20	3.0	6.0		
G	TMWV-t	MT20	3.0	4.0	1.50	1.75
H	TMWV-t	MT20	4.0	6.0	1.50	2.75
J	BMV1+p	MT20	2.0	4.0		
K	BMWV-t	MT20	4.0	5.0	1.75	1.50
L	BSWVWV-t	MT20	5.0	6.0	3.00	3.00
M	BMWV-t	MT20	4.0	5.0	1.75	1.50
N	BMV1+p	MT20	2.0	4.0		

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

BEARINGS

	FACTORED		MAXIMUM FACTORED			INPUT	REQRD
	GROSS REACTION		GROSS REACTION			BRG	BRG
JT	VERT	HORZ	DOWN	HORZ	UPLIFT	IN-SX	IN-SX
N	1750	0	1750	0	0	5-8	2-3
J	1750	0	1750	0	0	5-8	2-3

UNFACTORED REACTIONS

1ST LCASE		MAX./MIN. COMPONENT REACTIONS					
JT	COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
N	1223	886 / 0	0 / 0	0 / 0	0 / 0	337 / 0	0 / 0
J	1223	886 / 0	0 / 0	0 / 0	0 / 0	337 / 0	0 / 0

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

BRACING

TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 3.23 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-L, C-L. DBS = 20-0-0 . CBF = 103 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

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 CSI (LC)	MAX. UNBRAC LENGTH	MEMB.	MAX. FACTORED FORCE (LBS)	MAX CSI (LC)
FR-TO		FROM	TO		FR-TO		
A-B	0 / 26	-84.3	-84.3	0.11 (1)	10.00	L-E	0 / 979 0.22 (1)
B-C	-2394 / 0	-84.3	-84.3	0.98 (1)	3.23	L-G	-820 / 0 0.50 (1)
C-D	-1688 / 0	-84.3	-84.3	0.82 (1)	3.94	K-G	-54 / 137 0.05 (4)
D-E	-1688 / 0	-84.3	-84.3	0.82 (1)	3.94	L-C	-820 / 0 0.50 (1)
E-F	-1688 / 0	-84.3	-84.3	0.82 (1)	3.94	M-L	-54 / 137 0.05 (4)
F-G	-1688 / 0	-84.3	-84.3	0.82 (1)	3.94	B-M	0 / 2185 0.49 (1)
G-H	-2394 / 0	-84.3	-84.3	0.98 (1)	3.23	K-H	0 / 2185 0.49 (1)
H-I	0 / 26	-84.3	-84.3	0.11 (1)	10.00		
N-B	-1692 / 0	0.0	0.0	0.17 (1)	6.39		
J-H	-1692 / 0	0.0	0.0	0.17 (1)	6.39		
N-M	0 / 0	-18.2	-18.2	0.33 (4)	10.00		
M-L	0 / 2173	-18.2	-18.2	0.52 (1)	10.00		
L-K	0 / 2173	-18.2	-18.2	0.52 (1)	10.00		
K-J	0 / 0	-18.2	-18.2	0.33 (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 (1.06")
CALCULATED VERT. DEFL.(LL) = L/999 (0.13")
ALLOWABLE DEFL.(TL)= L/360 (1.06")
CALCULATED VERT. DEFL.(TL) = L/999 (0.29")

CSI: TC=0.98/1.00 (G-H:1), BC=0.52/1.00 (K-L:1), WB=0.50/1.00 (G-L:1), SSI=0.29/1.00 (G-H:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

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

NAIL VALUES

PLATE	GRIP(DRY) (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= 0.85 (M) (INPUT = 0.90)
JSI METAL= 0.62 (H) (INPUT = 1.00)



October 05, 2021

**READ ALL NOTES ON THIS PAGE AND ON THE
ENGINEERING NOTE PAGE ENP-1. THE NOTE PAGE
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**CITY OF RICHMOND HILL
BUILDING DIVISION**

09/22/2022
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Per: joshua.nabua

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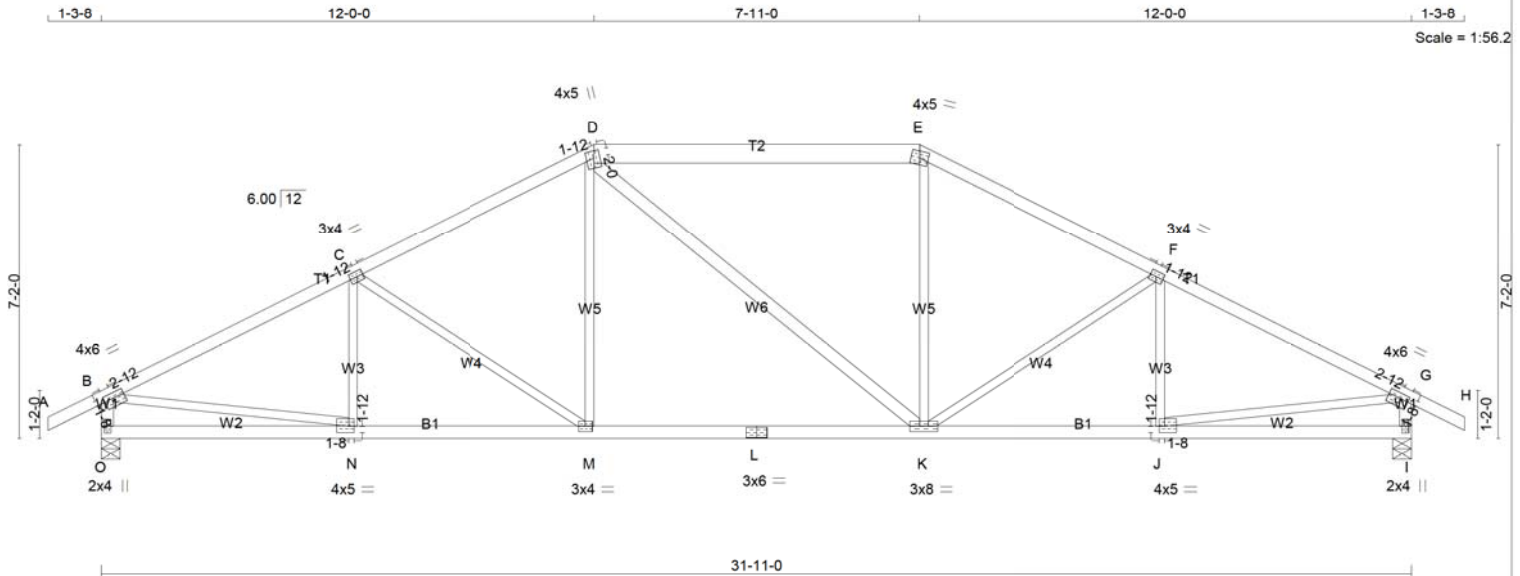


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IN THE DESIGN OF THIS COMPONENT.**

JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
IM1021-020	T06	1	1	TRUSS DESC.	

Version 8.500 S Aug 16 2021 MiTek Industries, Inc. Tue Oct 5 10:30:34 2021 Page 1

ID:wmmB55KKGaueypY0VJsDd0zcfk8-pL3YGk420lbe4N4Te8oHkkOnlpVSm51ihxhzUEyWVhp



TOTAL WEIGHT = 135 lb

[M][F]

LUMBER

N. L. G. A. RULES

CHORDS	SIZE	LUMBER	DESCR.
A - D	2x4	DRY	No.2
D - E	2x6	DRY	No.2
E - H	2x4	DRY	No.2
O - B	2x4	DRY	No.2
I - G	2x4	DRY	No.2
O - L	2x4	DRY	No.2
L - I	2x4	DRY	No.2

ALL WEBS	2x3	DRY	No.2	SPF
EXCEPT				
D - 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	HORZ
O	1750	0	1750	0
I	1750	0	1750	0

UNFACTORED REACTIONS

JT	1ST LCASE	MAX/MIN. COMPONENT REACTIONS	SNOW	LIVE	PERM. LIVE	WIND	DEAD	SOIL
O	1223	886 / 0	0 / 0	0 / 0	0 / 0	0 / 0	337 / 0	0 / 0
I	1223	886 / 0	0 / 0	0 / 0	0 / 0	0 / 0	337 / 0	0 / 0

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

BRACING

TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 3.97 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. VERT. LOAD (LC)	MEMB.	MAX. FACTORED FORCE (LBS)	MAX. VERT. LOAD (LC)	
FR-TO		FROM	TO	FR-TO		FROM	TO
A-B	0 / 26	-84.3	-84.3 0.11 (1)	10.00	N-C	-198 / 41	0.05 (1)
B-C	-2395 / 0	-84.3	-84.3 0.50 (1)	3.97	C-M	-428 / 0	0.40 (1)
C-D	-2047 / 0	-84.3	-84.3 0.46 (1)	4.28	M-D	0 / 374	0.08 (1)
D-E	-1806 / 0	-84.3	-84.3 0.35 (1)	5.50	D-K	0 / 0	0.00 (1)
E-F	-2048 / 0	-84.3	-84.3 0.46 (1)	4.28	K-E	0 / 374	0.08 (1)
F-G	-2395 / 0	-84.3	-84.3 0.50 (1)	3.97	K-F	-427 / 0	0.40 (1)
G-H	0 / 26	-84.3	-84.3 0.11 (1)	10.00	J-F	-198 / 41	0.05 (1)
O-B	-1700 / 0	0.0	0.0 0.17 (1)	6.38	B-N	0 / 2187	0.49 (1)
I-G	-1700 / 0	0.0	0.0 0.17 (1)	6.38	J-G	0 / 2187	0.49 (1)
O-N	0 / 0	-18.2	-18.2 0.14 (4)	10.00			
N-M	0 / 2166	-18.2	-18.2 0.46 (1)	10.00			
M-L	0 / 1806	-18.2	-18.2 0.41 (1)	10.00			
L-K	0 / 1806	-18.2	-18.2 0.41 (1)	10.00			
K-J	0 / 2166	-18.2	-18.2 0.46 (1)	10.00			
J-I	0 / 0	-18.2	-18.2 0.14 (4)	10.00			

PLATES (table is in inches)

JT	TYPE	PLATES	W	LEN	Y	X
B	TMVW-t	MT20	4.0	6.0	1.50	2.75
C	TMVW-t	MT20	3.0	4.0	1.50	1.75
D	TTWW+m	MT20	4.0	5.0	2.00	1.75
E	TTW-m	MT20	4.0	5.0		
F	TMVW-t	MT20	3.0	4.0	1.50	1.75
G	TMVW-t	MT20	4.0	6.0	1.50	2.75
I	BMV1+p	MT20	2.0	4.0		
J	BMVW-t	MT20	4.0	5.0	1.75	1.50
K	BMVWW-t	MT20	3.0	8.0		
L	BS-t	MT20	3.0	6.0		
M	BMVW-t	MT20	3.0	4.0		
N	BMVW-t	MT20	4.0	5.0	1.75	1.50
O	BMV1+p	MT20	2.0	4.0		



October 05, 2021

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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 2.00/12 MINIMUM

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 (1.06")
 CALCULATED VERT. DEFL.(LL) = L/999 (0.11")
 ALLOWABLE DEFL.(TL) = L/360 (1.06")
 CALCULATED VERT. DEFL.(TL) = L/999 (0.25")

CSI: TC=0.50/1.00 (B-C:1), BC=0.46/1.00 (J-K:1),
 WB=0.49/1.00 (B-N:1), SSI=0.22/1.00 (F-G:1)

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

COMPANION LIVE LOAD FACTOR = 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= 0.89 (N) (INPUT = 0.90)

JSI METAL= 0.69 (L) (INPUT = 1.00)

CITY OF RICHMOND HILL
BUILDING DIVISION

09/22/2022

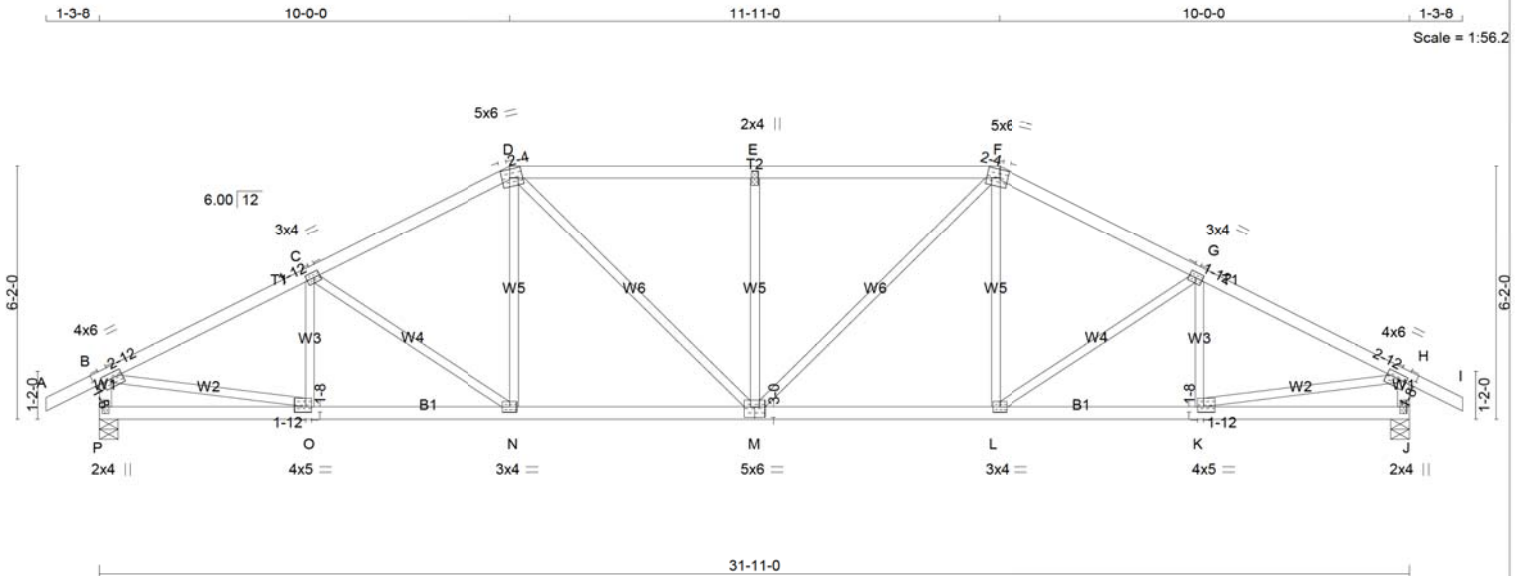
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Per: joshua.nabua

JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
IM1021-020	T07	1	1	TRUSS DESC.	

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ID:wmmB55KKGaueypY0VJsDd0zcfk8-pL3YGk420lbe4N4Te8oHkOnwpW5m57ihxhzUEyWVhp



TOTAL WEIGHT = 130 lb
[M/F]

LUMBER

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

ALL WEBS 2x3 DRY No.2 SPF
EXCEPT

DRY: SEASONED LUMBER.

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	UP	IN-SX
P	1750	0	0	5-8
J	1750	0	0	5-8

UNFACTORED REACTIONS

1ST LCASE	MAX/MIN. COMPONENT REACTIONS						
JT	COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
P	1223	886 / 0	0 / 0	0 / 0	0 / 0	337 / 0	0 / 0
J	1223	886 / 0	0 / 0	0 / 0	0 / 0	337 / 0	0 / 0

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

BRACING

TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 4.06 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 / 26	-84.3 -84.3	0.11 (1)	10.00	O-C	-271 / 6	0.06 (1)
B-C	-2363 / 0	-84.3 -84.3	0.34 (1)	4.17	C-N	-255 / 0	0.16 (1)
C-D	-2171 / 0	-84.3 -84.3	0.32 (1)	4.33	N-D	0 / 261	0.06 (1)
D-E	-2282 / 0	-84.3 -84.3	0.46 (1)	4.06	D-M	0 / 501	0.11 (1)
E-F	-2282 / 0	-84.3 -84.3	0.46 (1)	4.06	M-E	-615 / 0	0.37 (1)
F-G	-2171 / 0	-84.3 -84.3	0.32 (1)	4.33	M-F	0 / 501	0.11 (1)
G-H	-2363 / 0	-84.3 -84.3	0.34 (1)	4.17	L-F	0 / 261	0.06 (1)
H-I	0 / 26	-84.3 -84.3	0.11 (1)	10.00	L-G	-255 / 0	0.16 (1)
P-B	-1707 / 0	0.0 0.0	0.17 (1)	6.36	K-G	-271 / 6	0.06 (1)
J-H	-1707 / 0	0.0 0.0	0.17 (1)	6.36	B-O	0 / 2162	0.49 (1)
					K-H	0 / 2162	0.49 (1)
P-O	0 / 0	-18.2 -18.2	0.10 (4)	10.00			
O-N	0 / 2132	-18.2 -18.2	0.42 (1)	10.00			
N-M	0 / 1926	-18.2 -18.2	0.39 (1)	10.00			
M-L	0 / 1926	-18.2 -18.2	0.39 (1)	10.00			
L-K	0 / 2132	-18.2 -18.2	0.42 (1)	10.00			
K-J	0 / 0	-18.2 -18.2	0.10 (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 2.00/12 MINIMUM

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 (1.06")
CALCULATED VERT. DEFL.(LL) = L/999 (0.13")
ALLOWABLE DEFL.(TL) = L/360 (1.06")
CALCULATED VERT. DEFL.(TL) = L/999 (0.23")

CSI: TC=0.46/1.00 (D-E:1), BC=0.42/1.00 (K-L:1), WB=0.49/1.00 (H-K:1), SSI=0.24/1.00 (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 (PSI)	SECTION (PLI)
MT20	650	371	1747
		788	1987
		1873	

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

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

JSI METAL= 0.61 (K) (INPUT = 1.00)

CITY OF RICHMOND HILL
BUILDING DIVISION

09/22/2022

KOTT

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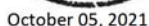
Per: joshua.nabua



October 05, 2021

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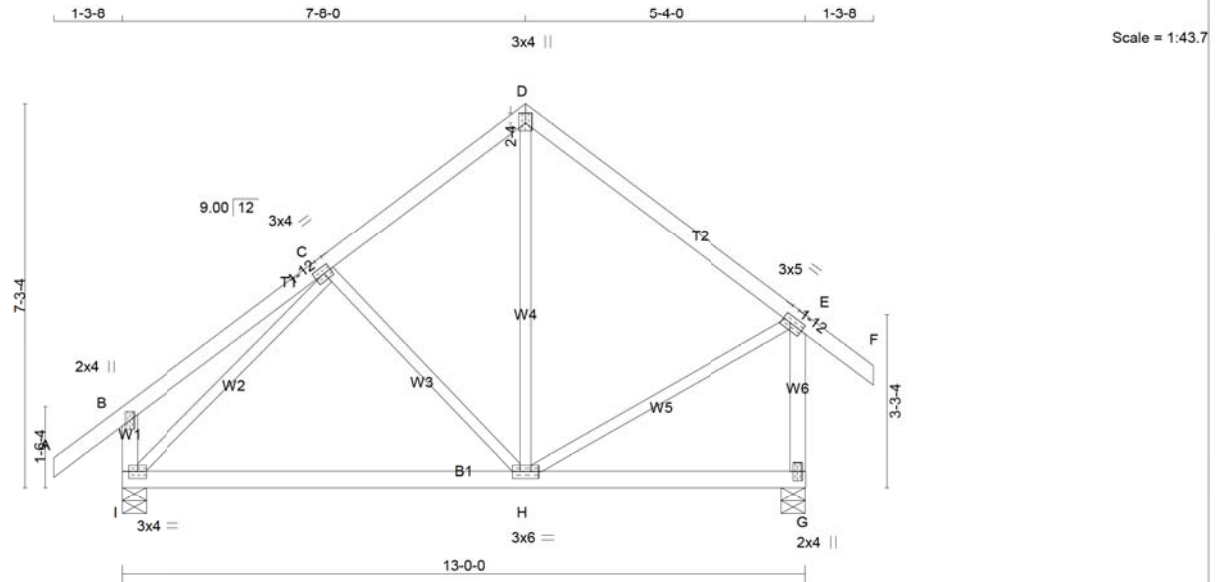
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Per: joshua.nabua

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JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
IM1021-020	T09	2	1	TRUSS DESC.	

Version 8.500 S Aug 16 2021 MiTek Industries, Inc. Tue Oct 5 10:30:36 2021 Page 1
ID:wmmB55KKGauepyY0VJsDd0zcfk8-lkBlhP5lwvrMKgErmZqlp9T9rdExE1w 9FA3Z6yWVhn



TOTAL WEIGHT = 2 X 61 = 121 lb
[M][F]

LUMBER

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

DRY: SEASONED LUMBER.

PLATES (table is in inches)

JT	TYPE	PLATES	W	LEN	Y	X
B	TMV+p	MT20	2.0	4.0		
C	TMWW-t	MT20	3.0	4.0	1.50	1.75
D	TTW+p	MT20	3.0	4.0	2.25	1.50
E	TMVW-t	MT20	3.0	5.0	1.50	1.75
G	BMV1+p	MT20	2.0	4.0		
H	BMWWW-t	MT20	3.0	6.0		
I	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	HORZ	DOWN	UP
I	782	0	782	0
G	782	0	782	0

UNFACTORED REACTIONS

1ST LCASE	COMBINED	SNOW	LIVE	PERM. LIVE	WIND	DEAD	SOIL
I	545	403 / 0	0 / 0	0 / 0	0 / 0	142 / 0	0 / 0
G	545	403 / 0	0 / 0	0 / 0	0 / 0	142 / 0	0 / 0

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

BRACING

TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 6.25 FT.
MAX. UNBRACED BOTTOM CHORD LENGTH = 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 / 35	-84.3 -84.3	0.11 (1)	C-H	-206 / 0	0.11 (1)	
B-C	0 / 23	-84.3 -84.3	0.20 (1)	H-D	0 / 125	0.04 (4)	
C-D	-418 / 0	-84.3 -84.3	0.16 (1)	I-C	-669 / 0	0.34 (1)	
D-E	-395 / 0	-84.3 -84.3	0.31 (1)	H-E	0 / 361	0.08 (1)	
E-F	0 / 35	-84.3 -84.3	0.11 (1)				
I-B	-239 / 0	0.0 0.0	0.02 (1)				
G-E	-753 / 0	0.0 0.0	0.14 (1)				
I-H	0 / 458	-18.2 -18.2	0.27 (4)				
H-G	0 / 0	-18.2 -18.2	0.24 (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

(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 (0.09")

CSI: TC=0.31/1.00 (D-E:1), BC=0.27/1.00 (H-I:4), WB=0.34/1.00 (C-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

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= 0.85 (C) (INPUT = 0.90)
JSI METAL= 0.22 (C) (INPUT = 1.00)



October 05, 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.

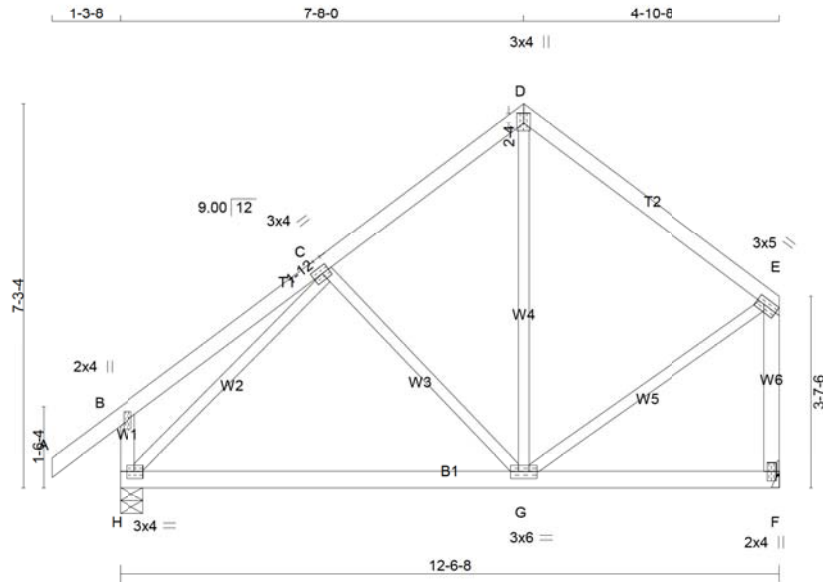
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Per: joshua.nabua

JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
IM1021-020	T10	3	1	TRUSS DESC.	

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Scale = 1:43.7

TOTAL WEIGHT = 3 X 58 = 173 lb [M][F]

LUMBER

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

ALL WEBS 2x3 DRY No.2 SPF EXCEPT

DRY: SEASONED LUMBER.

PLATES (table is in inches)

JT	TYPE	PLATES	W	LEN	Y	X
B	TMV+p	MT20	2.0	4.0		
C	TMWW-t	MT20	3.0	4.0	1.50	1.75
D	TTW+p	MT20	3.0	4.0	2.25	1.50
E	TMVW-t	MT20	3.0	5.0	1.50	Edge
F	BMV1+p	MT20	2.0	4.0		
G	BMWWW-t	MT20	3.0	6.0		
H	BMVW1-t	MT20	3.0	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 BRG	REQRD BRG
JT	VERT	DOWN	IN-SX	IN-SX
H	759	0	5-8	1-8
F	643	0	MECHANICAL	

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

UNFACTORED REACTIONS

JT	1ST LCASE COMBINED	MAX /MIN. SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
H	529	391 / 0	0 / 0	0 / 0	0 / 0	137 / 0	0 / 0
F	450	321 / 0	0 / 0	0 / 0	0 / 0	129 / 0	0 / 0

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

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: (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 / 35	-84.3	-84.3 0.11 (1)	10.00	C-G	-212 / 0	0.11 (1)
B-C	0 / 23	-84.3	-84.3 0.20 (1)	10.00	G-D	0 / 108	0.04 (4)
C-D	-385 / 0	-84.3	-84.3 0.16 (1)	6.25	H-C	-636 / 0	0.32 (1)
D-E	-362 / 0	-84.3	-84.3 0.26 (1)	6.25	G-E	0 / 350	0.08 (1)
H-B	-238 / 0	0.0	0.0 0.02 (1)	7.81			
F-E	-618 / 0	0.0	0.0 0.13 (1)	7.81			
H-G	0 / 436	-18.2	-18.2 0.26 (4)	10.00			
G-F	0 / 0	-18.2	-18.2 0.24 (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 (0.42")
CALCULATED VERT. DEFL.(LL) = L/999 (0.01")
ALLOWABLE DEFL.(TL)= L/360 (0.42")
CALCULATED VERT. DEFL.(TL) = L/999 (0.09")CSI: TC=0.26/1.00 (D-E:1), BC=0.26/1.00 (G-H:4)
WB=0.32/1.00 (C-H:1), SSI=0.13/1.00 (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
MT20	650	371	1747 788 1987 1873

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.80 (C) (INPUT = 0.90)
JSI METAL= 0.21 (C) (INPUT = 1.00)

October 05, 2021

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CITY OF RICHMOND HILL
BUILDING DIVISION

09/22/2022

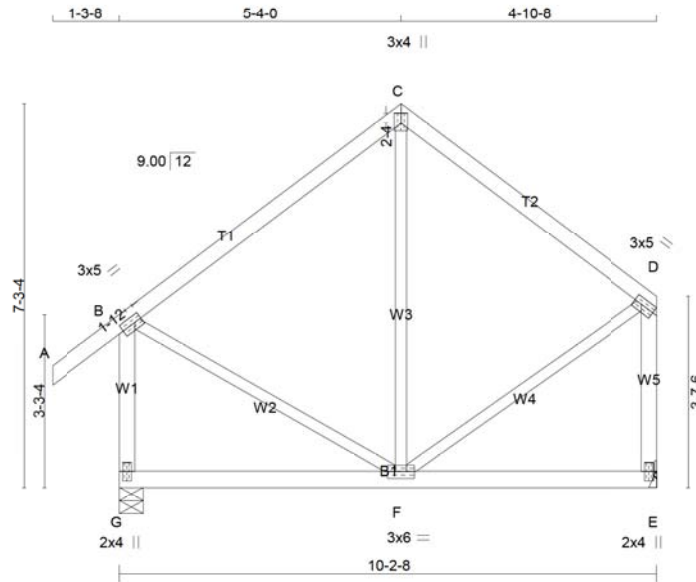


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Per: joshua.nabua

JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
IM1021-020	T11	1	1	TRUSS DESC.	

Version 8.590 S Aug 16 2021 MiTek Industries, Inc. Tue Oct 5 10:30:37 2021 Page 1
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Scale = 1:43.7

TOTAL WEIGHT = 50 lb

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

ALL WEBS 2x3 DRY No.2 SPF
EXCEPT

DRY: SEASONED LUMBER.

PLATES (table is in inches)

JT	TYPE	PLATES	W	LEN	Y	X
B	TMVW-t	MT20	3.0	5.0	1.50	1.75
C	TTW+p	MT20	3.0	4.0	2.25	1.50
D	TMVW-t	MT20	3.0	5.0	1.50	Edge
E	BMV1+p	MT20	3.0	4.0		
F	BMVWW-t	MT20	3.0	6.0		
G	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 BRG		REQRD BRG	
JT		VERT	HORZ	DOWN	HORZ	UPLIFT	IN-SX	IN-SX	
G	639	0	639	0	0	5-8	1-8		
E	523	0	523	0	0	MECHANICAL			

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

UNFACTORED REACTIONS

JT	1ST LCASE	MAX/MIN	COMPONENT REACTIONS				
	COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
G	445	332 / 0	0 / 0	0 / 0	0 / 0	113 / 0	0 / 0
E	366	261 / 0	0 / 0	0 / 0	0 / 0	105 / 0	0 / 0

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

BRACING

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

ALL 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 CS1 (LC)	MEMB.	MAX. FACTORED FORCE (LBS)	MAX. FACTORED CS1 (LC)	
FR-TO		FROM TO	LENGTH	FR-TO			
A-B	0 / 35	-84.3 -84.3	0.11 (1)	10.00	F-C	-130 / 52	0.12 (1)
B-C	-250 / 0	-84.3 -84.3	0.31 (1)	6.25	B-F	0 / 228	0.05 (1)
C-D	-250 / 0	-84.3 -84.3	0.26 (1)	6.25	F-D	0 / 241	0.05 (1)
G-B	-601 / 0	0.0 0.0	0.11 (1)	7.81			
E-D	-490 / 0	0.0 0.0	0.11 (1)	7.81			
G-F	0 / 0	-18.2 -18.2	0.14 (4)	10.00			
F-E	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 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 (0.34")
CALCULATED VERT. DEFL.(LL) = L/999 (0.00")
ALLOWABLE DEFL.(TL)= L/360 (0.34")
CALCULATED VERT. DEFL.(TL) = L/999 (0.02")

CSI: TC=0.31/1.00 (B-C:1) , BC=0.14/1.00 (E-F:4) ,
WB=0.12/1.00 (C-F:1) , SSI=0.14/1.00 (B-C:1)

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

COMPANION LIVE LOAD FACTOR = 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= 0.49 (B) (INPUT = 0.90)
JSI METAL= 0.13 (B) (INPUT = 1.00)



October 05, 2021

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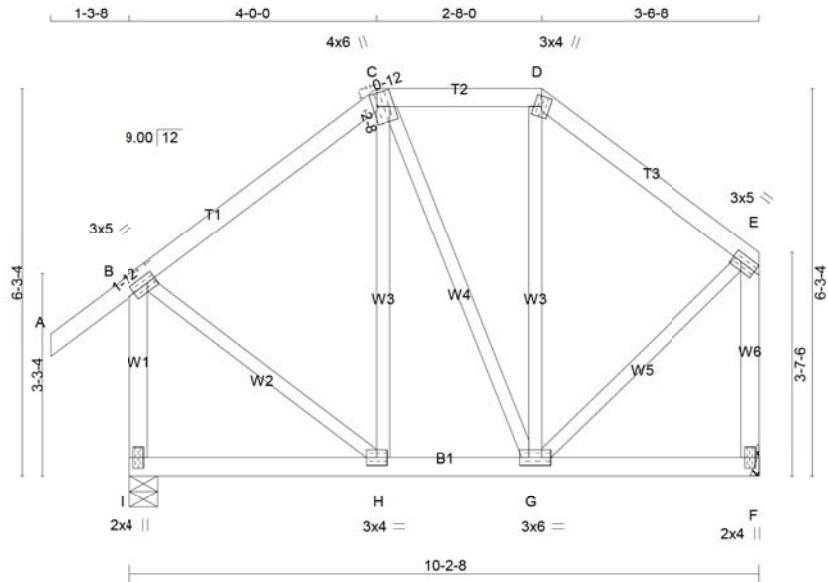
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Per: joshua.nabua

JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
IM1021-020	T12	1	1	TRUSS DESC.	

Version 8.500 S Aug 16 2021 MiTek Industries, Inc. Tue Oct 5 10:30:38 2021 Page 1
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Scale = 1:37.3

TOTAL WEIGHT = 56 lb

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

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

PLATES (table is in inches)

JT	TYPE	PLATES	W	LEN	Y	X
B	TMVW-t	MT20	3.0	5.0	1.50	1.75
C	TTWW+m	MT20	4.0	6.0	2.50	0.75
D	TTW+m	MT20	3.0	4.0		
E	TMVW-t	MT20	3.0	5.0	1.50	Edge
F	BMV1+p	MT20	2.0	4.0		
G	BMWWW-t	MT20	3.0	6.0		
H	BMWW-t	MT20	3.0	4.0		
I	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		MAXIMUM FACTORED			INPUT	REQRD	
	GROSS REACTION		GROSS REACTION			BRG	BRG	
JT	VERT	HORZ	DOWN	HORZ	UPLIFT	IN-SX	IN-SX	
I	639	0	639	0	0	5-8	1-8	
F	523	0	523	0	0	MECHANICAL		

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

UNFACTORED REACTIONS

JT	1ST LCASE	MAX /MIN	COMPONENT REACTIONS				
I	445	332 / 0	0 / 0	0 / 0	0 / 0	113 / 0	0 / 0
F	366	261 / 0	0 / 0	0 / 0	0 / 0	105 / 0	0 / 0

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

BRACING

TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 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				WEBS			
MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	MAX. FACTORED CSI (LC)	MEMB.	MAX. FACTORED FORCE (LBS)	MAX. FACTORED CSI (LC)	
FR-TO		FROM TO	LENGTH	FR-TO			
A-B	0 / 35	-84.3 -84.3	0.11 (1)	10.00	H-C	-88 / 30	0.06 (1)
B-C	-275 / 0	-84.3 -84.3	0.17 (1)	6.25	C-G	-30 / 0	0.02 (1)
C-D	-206 / 0	-84.3 -84.3	0.08 (1)	6.25	G-D	-104 / 20	0.07 (1)
D-E	-261 / 0	-84.3 -84.3	0.14 (1)	6.25	B-H	0 / 270	0.06 (1)
I-B	-608 / 0	0.0 0.0	0.11 (1)	7.81	G-E	0 / 280	0.06 (1)
F-E	-494 / 0	0.0 0.0	0.11 (1)	7.81			
I-H	0 / 0	-18.2 -18.2	0.06 (4)	10.00			
H-G	0 / 218	-18.2 -18.2	0.07 (4)	10.00			
G-F	0 / 0	-18.2 -18.2	0.05 (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 2.00/12 MINIMUM

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 (0.34")
CALCULATED VERT. DEFL.(LL) = L/999 (0.00")
ALLOWABLE DEFL.(TL) = L/360 (0.34")
CALCULATED VERT. DEFL.(TL) = L/999 (0.01")

CSI: TC=0.17/1.00 (B-C:1), BC=0.07/1.00 (G-H:4)
WB=0.07/1.00 (D-G:1), SSI=0.10/1.00 (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= 0.57 (E) (INPUT = 0.90)

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

CITY OF RICHMOND HILL
BUILDING DIVISION

09/22/2022

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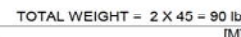
Per: joshua.nabua



October 05, 2021

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CONTINUED ON PAGE 2

Per: joshua.nabua

JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
IM1021-020	T13	2	1	TRUSS DESC.	

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PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.69 (D) (INPUT = 0.90)

JSI METAL= 0.15 (B) (INPUT = 1.00)



October 05, 2021

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CITY OF RICHMOND HILL
BUILDING DIVISION

09/22/2022



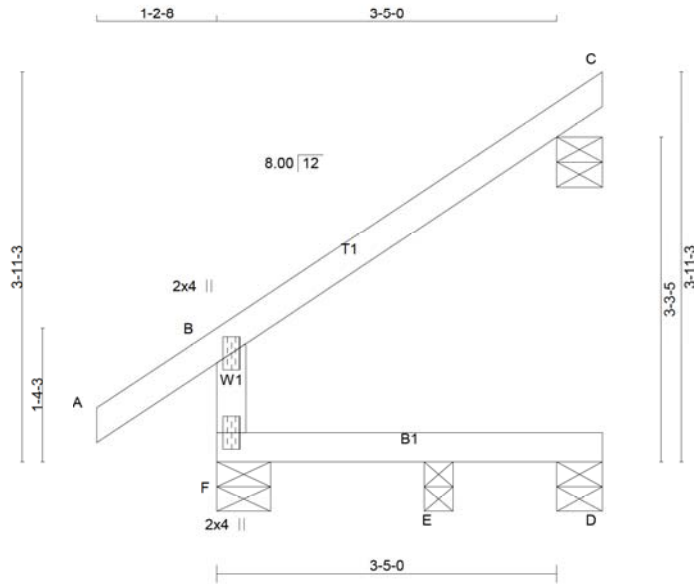
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JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
IM1021-020	T14	5	1	TRUSS DESC.	

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TOTAL WEIGHT = 5 X 13 = 63 lb

LUMBER

N. L. G. A. RULES

CHORDS	SIZE	LUMBER	DESCR.
A - C	2x4	DRY	No.2
F - B	2x4	DRY	No.2
F - D	2x4	DRY	No.2

DRY: SEASONED LUMBER.

PLATES (table is in inches)

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

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

JT	FACTORED GROSS REACTION		MAXIMUM FACTORED GROSS REACTION		INPUT BRG IN-SX	REQRD BRG IN-SX
	VERT	HORZ	DOWN	HORZ		
C	123	0	123	0	5-8	5-8
F	331	0	331	0	6-8	2-8
D	10	0	11	0	5-8	1-8
E	43	0	48	0	3-8	1-8

BEVELED PLATE OR SHIM REQUIRED TO PROVIDE FULL BEARING SURFACE WITH TRUSS CHORD AT JT(S): C

UNFACTORED REACTIONS

JT	1ST LCASE COMBINED	MAX./MIN. COMPONENT REACTIONS					
		SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
C	83	74 / 0	0 / 0	0 / 0	0 / 0	9 / 0	0 / 0
F	226	190 / 0	0 / 0	0 / 0	0 / 0	37 / 0	0 / 0
D	8	0 / 0	0 / 0	0 / 0	0 / 0	8 / 0	0 / 0
E	34	0 / 0	0 / 0	0 / 0	0 / 0	34 / 0	0 / 0

BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S) C, F, D, 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: (4)

C H O R D S				W E B S			
MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	LC1	MAX. UNBRAC LENGTH	MEMB.	MAX. FACTORED FORCE (LBS)	MAX. FACTORED CSI (LC)
FR-TO		FROM	TO		FR-TO		
A- B	0 / 30	-84.3	-84.3	0.10 (1)	10.00		
B- C	-23 / 0	-84.3	-84.3	0.21 (1)	6.25		
F- B	-313 / 0	0.0	0.0	0.01 (4)	7.81		
F- E	0 / 0	-18.2	-18.2	0.02 (4)	10.00		
E- D	0 / 0	-18.2	-18.2	0.02 (4)	10.00		

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=0.21/1.00 (B-C:1), BC=0.02/1.00 (E-F:4),
WB=0.00/1.00 (n/a:0), SSI=0.13/1.00 (B-C:1)DOL LUMBER=1.00 NAIL=1.00 LS BEND=1.10
COMP=1.10 SHEAR=1.10 TENS=1.10

COMPANION LIVE LOAD FACTOR = 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= 0.19 (B) (INPUT = 0.90)

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

CITY OF RICHMOND HILL
BUILDING DIVISION

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ID:wmmB55KKGaeupY0VJsD10zcfk8-dVQpXn9p 8LnoIYd?Ouh ?eu5EfGawCa4t8HivWVh



TOTAL WEIGHT = $6 \times 9 = 56 \text{ lb}$

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Per: joshua.nabua

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

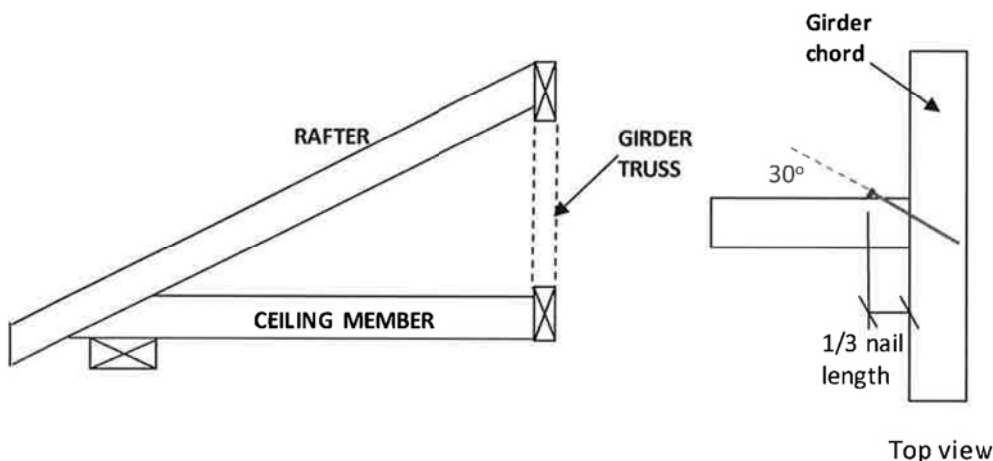


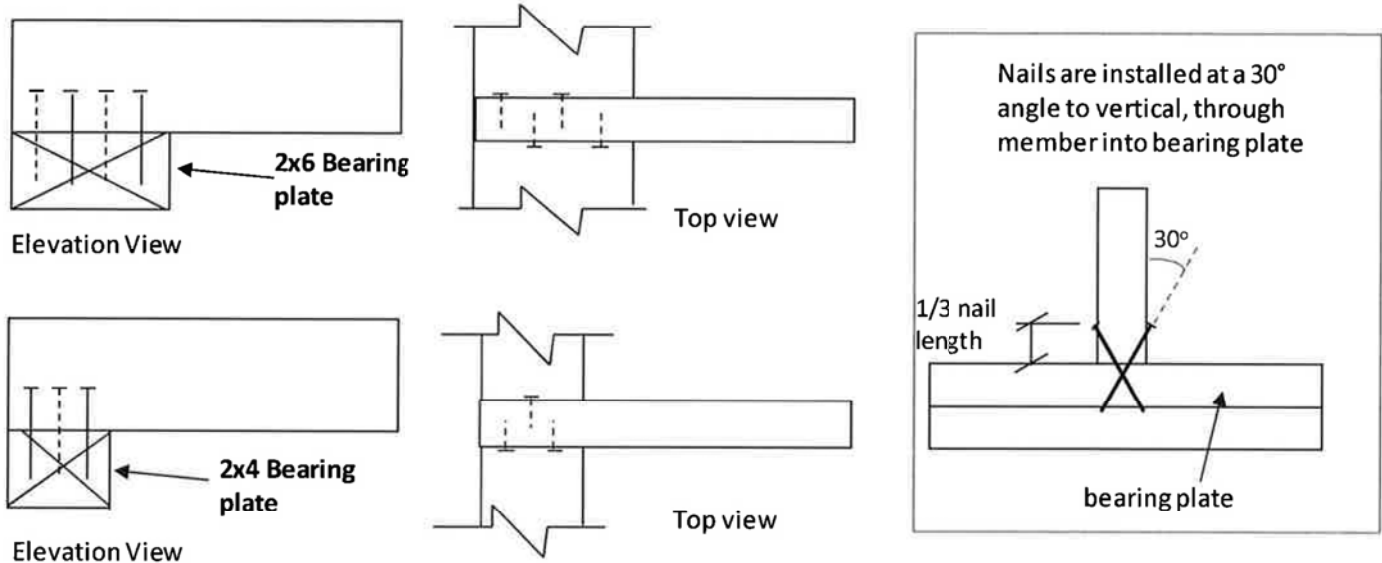
Figure 1: Toe-Nailing Rafter / Ceiling Member to Girder Truss

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TOE-NAIL CAPACITY DETAILS

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



NOTES:

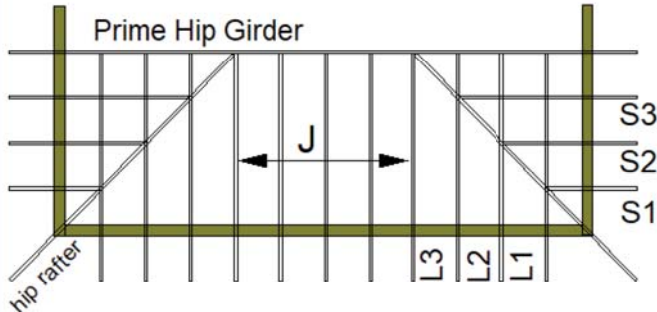
1. Rafter and ceiling members may be connected to top and bottom chords of girder truss by toe-nailing the members into the girder chords (see fig. 1), provided the factored vertical reactions of the supported members do not exceed the lateral resistance of the toe-nails. Mechanical connectors (hangers) 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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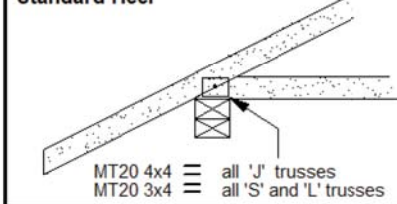


STANDARD HIP END FRAMING

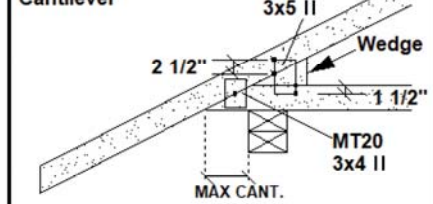
PLAN VIEW



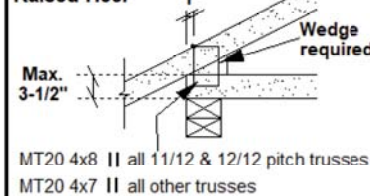
HEEL DETAIL 'A' Standard Heel



HEEL DETAIL 'C' Cantilever



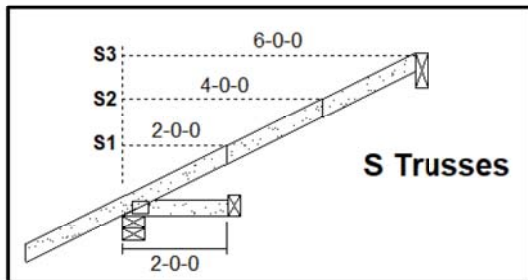
DETAIL 'B': Raised Heel



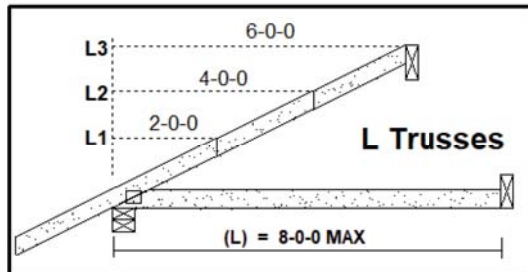
CANTILEVER DETAIL "C"

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



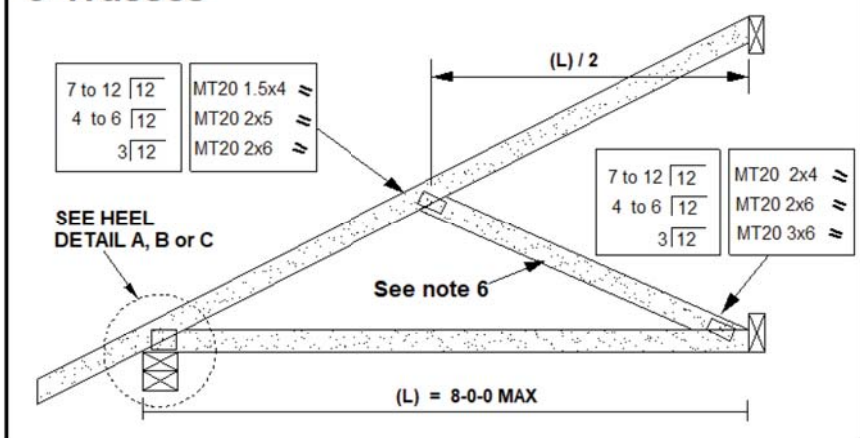
L Trusses



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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