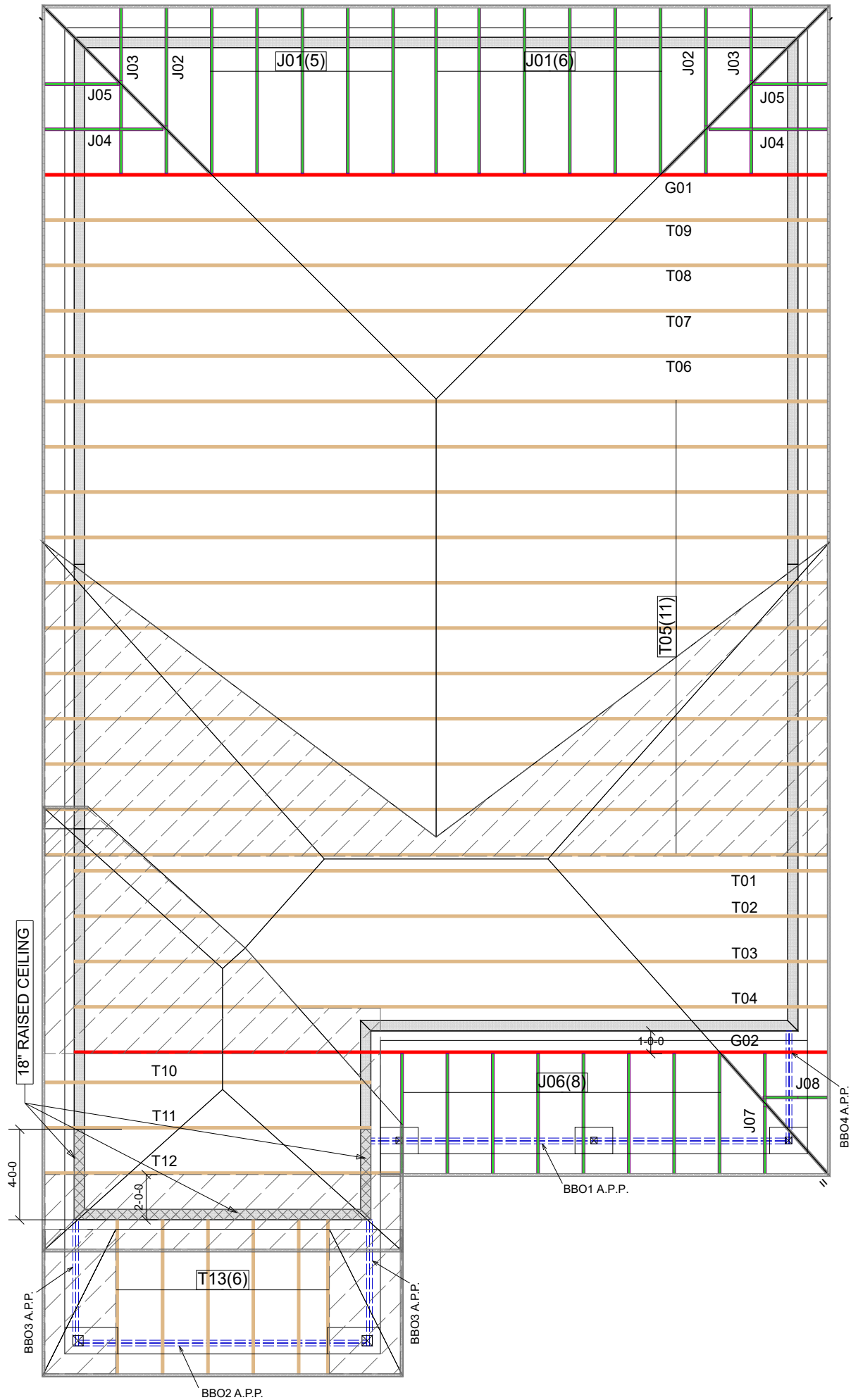




CONVENTIONAL
FRAMING BY OTHERS

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 #	21-00074R0
Address	GLENROWAN 2 RICHMOND HILL,ON
Model	41-02 ELEV 2
Sales Rep	RALPH MIRIGELLO
Designer	KR
Date	3/8/2021
Path	C:\MITEK\CA\JOBS\GREENPARK GROUP\ROUNDEL HOMES INC\T-GR41-02-2\
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.	
KOTT Inc. 14 Anderson Blvd. Uxbridge, ON 905.642.4400	

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

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ID:rNLIlavTWAmcAv8n3bXIWzd Iv-b2?jis4PYcz bRwHr2d4JADb4qbQoYP3Y6VQmEvWYNX

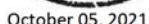


Edge - INDICATES REFERENCE CORNER OF PLATE
TOUCHES EDGE OF CHORD.

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

FACTORED CONCENTRATED LOADS (LBS)									
JT	LOC.	LC1	MAX-	MAX+	FACE	DIR.	TYPE	HEEL	CONN.
D	6-0-0	-379	-379	---	FRONT	VERT	TOTAL	---	C1
L	25-11-0	-379	-379	---	FRONT	VERT	TOTAL	---	C1

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



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IN THE DESIGN OF THIS COMPONENT.**

NAIL VALUES	PLATE GRIP(DRY)	SHEAR	SECTION
	(PSI)	(PLI)	(PLI)

	(PSI)	(PLI)	(PLI)
	MAX	MIN	MAX
MT20	650	371	1747
			788
			1987
			1873

CONTINUED ON PAGE 2

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JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
IM1021-017	G01	1	1	TRUSS DESC.	

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 ID:rNLItayITWAmcAy8n3bxIWzd_ly-3FZFwC51Jw5rDbVTOI8JsNimq4xfX?fDnmE_lgyWYNNW

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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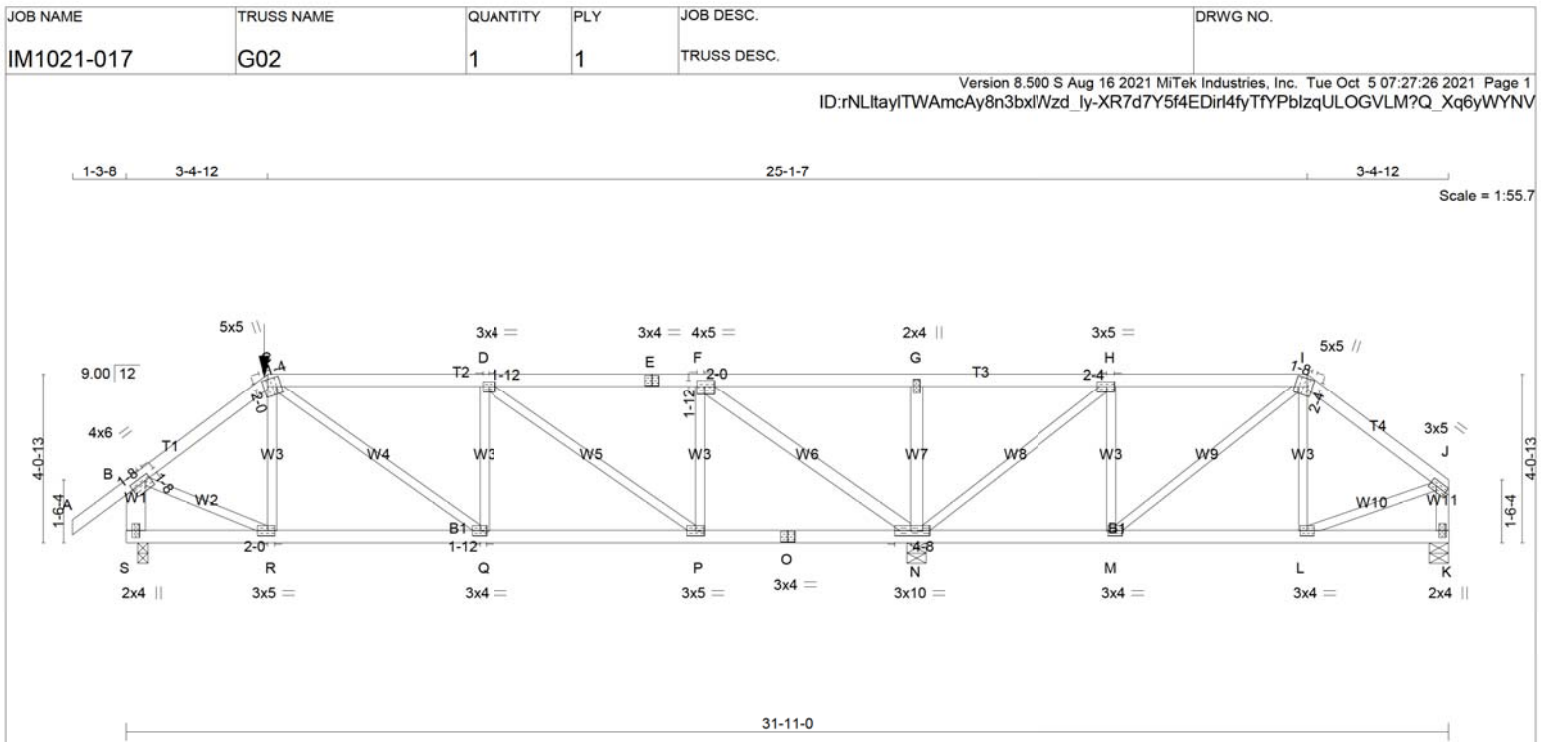
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 BUILDING DIVISION

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TOTAL WEIGHT = 130 lb [M]

LUMBER

N. L. G. A. RULES

CHORDS	SIZE	LUMBER	DESCR.
A - C	2x4	DRY	No.2
C - E	2x4	DRY	No.2
E - I	2x4	DRY	No.2
I - J	2x4	DRY	No.2
S - B	2x6	DRY	No.2
K - J	2x4	DRY	No.2
S - O	2x4	DRY	No.2
O - K	2x4	DRY	No.2
ALL WEBS EXCEPT	2x3	DRY	No.2
F - N	2x4	DRY	2100F 1.8E
N - G	2x4	DRY	No.2

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	1.50
C	TTWW+m	MT20	5.0	5.0	2.00	1.25
D	TMWW-t	MT20	3.0	4.0	1.50	1.75
E	TS-t	MT20	3.0	4.0		
F	TMWW-t	MT20	4.0	5.0	1.75	2.00
G	TMW+w	MT20	2.0	4.0		
H	TMWW-t	MT20	3.0	5.0	1.50	2.25
I	TTWW+m	MT20	5.0	5.0	2.25	1.50
J	TMVW-t	MT20	3.0	5.0	1.50	Edge
K	BMV1+p	MT20	2.0	4.0		
L	BMWW-t	MT20	3.0	4.0		
M	BMWW-t	MT20	3.0	4.0		
N	BMWWW1-t	MT20	3.0	10.0	1.50	4.50
O	BS-t	MT20	3.0	4.0		
P	BMWW-t	MT20	3.0	5.0		
Q	BMWW-t	MT20	3.0	4.0	1.50	1.75
R	BMWW-t	MT20	3.0	5.0	1.50	2.00
S	BMV1+p	MT20	2.0	4.0		

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.

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		
S	1375	0	1395	0	3-0	1-8
N	2582	0	2582	0	5-8	2-13
K	387	0	505	0	-77	5-8

PROVIDE ANCHORAGE AT BEARING JOINT K FOR 150 LBS. FACTORED UPLIFT

UNFACTORED REACTIONS								
JT	1ST LCASE		MAX./MIN. COMPONENT REACTIONS					
	COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL	
S	961	709 / 0	0 / 0	0 / 0	0 / 0	265 / 0	0 / 0	
N	1807	1296 / 0	0 / 0	0 / 0	0 / 0	511 / 0	0 / 0	
K	271	269 / -119	0 / 0	0 / 0	0 / 0	81 / 0	0 / 0	

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

BRACING
TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 4.41 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: (6)

CHORDS					WEBS				
MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	LC1 (LC)	MAX. UNBRACED LENGTH	MEMB.	MAX. FACTORED FORCE (LBS)	MAX. CSI (LC)		
FR-TO		FROM	TO		FR-TO				
A-B	0 / 35	-84.3	-84.3	0.13 (1)	10.00	R-C	-211 / 50	0.06 (5)	
B-C	-1260 / 0	-84.3	-84.3	0.21 (5)	5.46	C-Q	0 / 717	0.18 (5)	
C-D	-1581 / 0	-125.5	-125.5	0.60 (1)	4.41	Q-D	-280 / 52	0.07 (5)	
D-E	-971 / 0	-125.5	-125.5	0.55 (1)	5.42	D-P	-795 / 0	0.80 (1)	
E-F	-971 / 0	-125.5	-125.5	0.55 (1)	5.42	P-F	0 / 605	0.15 (1)	
F-G	0 / 843	-125.5	-125.5	0.57 (5)	10.00	F-N	-2142 / 0	0.72 (1)	
G-H	0 / 843	-84.3	-84.3	0.51 (1)	10.00	N-G	-534 / 0	0.10 (1)	
H-I	-247 / 389	-84.3	-84.3	0.30 (6)	6.25	N-H	-1061 / 0	0.68 (1)	
I-J	-387 / 129	-84.3	-84.3	0.19 (6)	6.25	M-H	0 / 305	0.08 (5)	
S-B	-1361 / 0	0.0	0.0	0.10 (5)	7.81	M-I	-369 / 0	0.23 (5)	
K-J	-482 / 100	0.0	0.0	0.06 (6)	7.81	L-I	-20 / 119	0.03 (5)	
						L-J	-109 / 326	0.08 (6)	
						B-R	0 / 1062	0.26 (5)	
S-R	0 / 0	-27.2	-27.2	0.13 (4)	10.00				
R-Q	0 / 1000	-27.2	-27.2	0.25 (5)	10.00				
Q-P	0 / 1581	-27.2	-27.2	0.36 (5)	10.00				
P-O	0 / 971	-27.2	-27.2	0.28 (5)	10.00				
O-N	0 / 971	-27.2	-27.2	0.28 (5)	10.00				
N-M	-389 / 247	-18.2	-18.2	0.14 (4)	6.25				
M-L	-100 / 308	-18.2	-18.2	0.10 (6)	6.25				
L-K	0 / 0	-18.2	-18.2	0.08 (4)	10.00				

FACTORED CONCENTRATED LOADS (LBS)

JT	LOC.	LC1	MAX-	MAX+	FACE	DIR.	TYPE	HEEL	CONN.
C	3-4-12	-139	-139	---	FRONT	VERT	TOTAL	---	C1

CONNECTION REQUIREMENTS

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

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

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

GIRDER TYPE: CPrimeHip
SIDE SETBACK = 3-4-12
END SETBACK = 4-5-0
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 19-0-12 OF SPAN MEASURED FROM THE LEFT.

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 (0.64")
CALCULATED VERT. DEFL.(LL) = L/999 (0.05")
ALLOWABLE DEFL.(TL) = L/360 (0.64")
CALCULATED VERT. DEFL.(TL) = L/999 (0.09")

CSI: TC=0.60/1.00 (C-D:1), BC=0.36/1.00 (P-Q:5), WB=0.72/1.00 (F-N:1), SSI=0.34/1.00 (C-D: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

AUTOSOLVE RIGHT HEEL ONLY

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

CITY OF RICHMOND HILL
BUILDING DIVISION
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CONTINUED ON PAGE 2

JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
IM1021-017	G02	1	1	TRUSS DESC.	

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 ID:rNLitaylTWAmcAy8n3bxl/Vzd_ly-XR7d7Y5f4EDir4fyTfYPblzqULOGVLM?Q_Xq6yWYNV

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= 0.47 (F) (INPUT = 1.00)



October 05, 2021

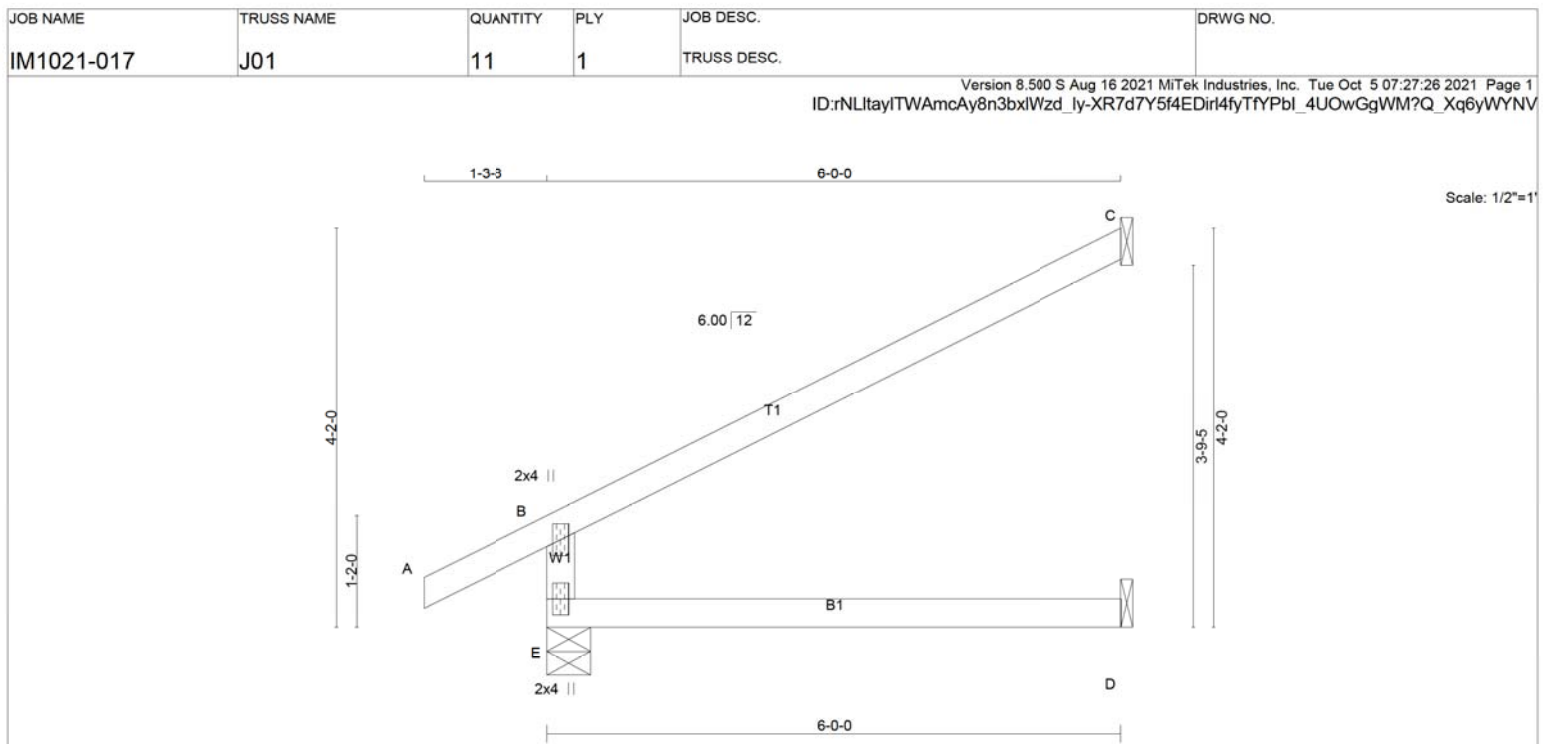
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TOTAL WEIGHT = 11 X 17 = 188 lb

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.

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	UPLIFT	IN-SX	IN-SX
E	495	0	495	0	0	5-8	1-8
C	190	0	190	0	0	1-8	1-8
D	45	0	51	0	0	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	COMPONENT REACTIONS	PERM. LIVE	WIND	DEAD	SOIL
E	343	261 / 0	0 / 0	0 / 0	0 / 0	0 / 0	82 / 0	0 / 0
C	129	115 / 0	0 / 0	0 / 0	0 / 0	0 / 0	14 / 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

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				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	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= 0.24 (B) (INPUT = 0.90)

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

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BUILDING DIVISION

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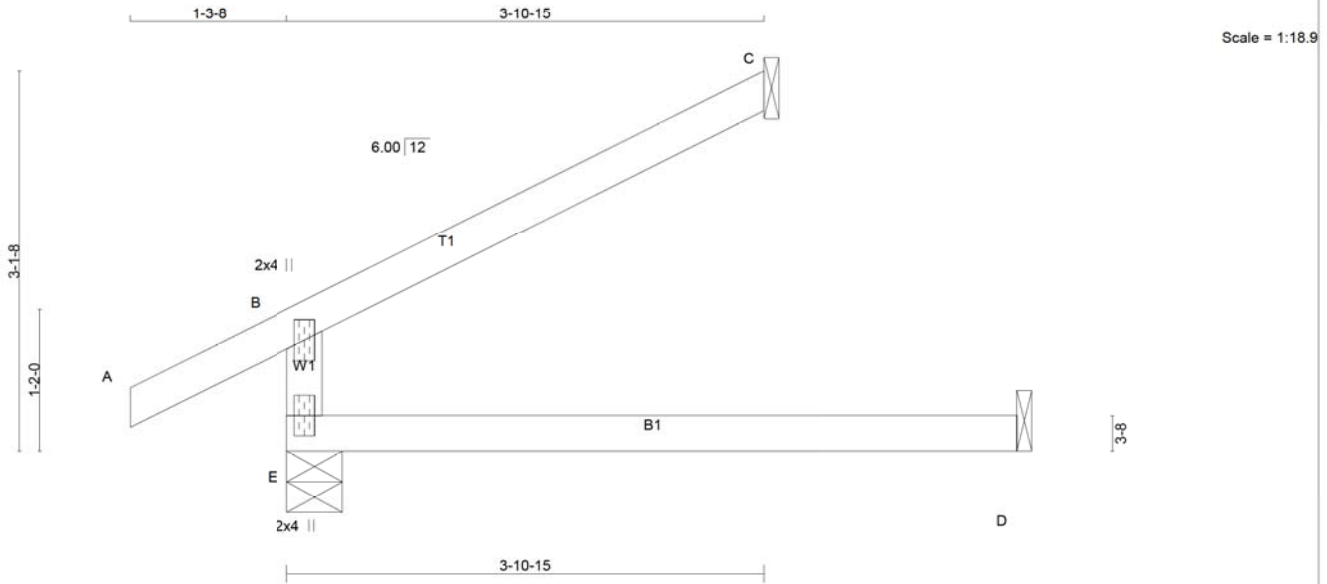


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JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
IM1021-017	J02	2	1	TRUSS DESC.	

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ID:rNLitayfTWAmcAy8n3bxIWzd_ly-?dh?Lu6HrXLZSvfsWAAAnxoruEUuk9?7mVE4j4MYyWYNU



TOTAL WEIGHT = 2 X 14 = 29 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
E	385	0	385	0	0	5-8	1-8
C	124	0	124	0	0	1-8	1-8
D	45	0	51	0	0	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	269	194 / 0	0 / 0	0 / 0	0 / 0	0 / 0	74 / 0	0 / 0
C	84	75 / 0	0 / 0	0 / 0	0 / 0	0 / 0	9 / 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 = 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				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 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 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= 0.18 (B) (INPUT = 0.90)
JSI METAL= 0.13 (B) (INPUT = 1.00)

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BUILDING DIVISION

09/22/2022

KOTT
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Per: joshua.nabua

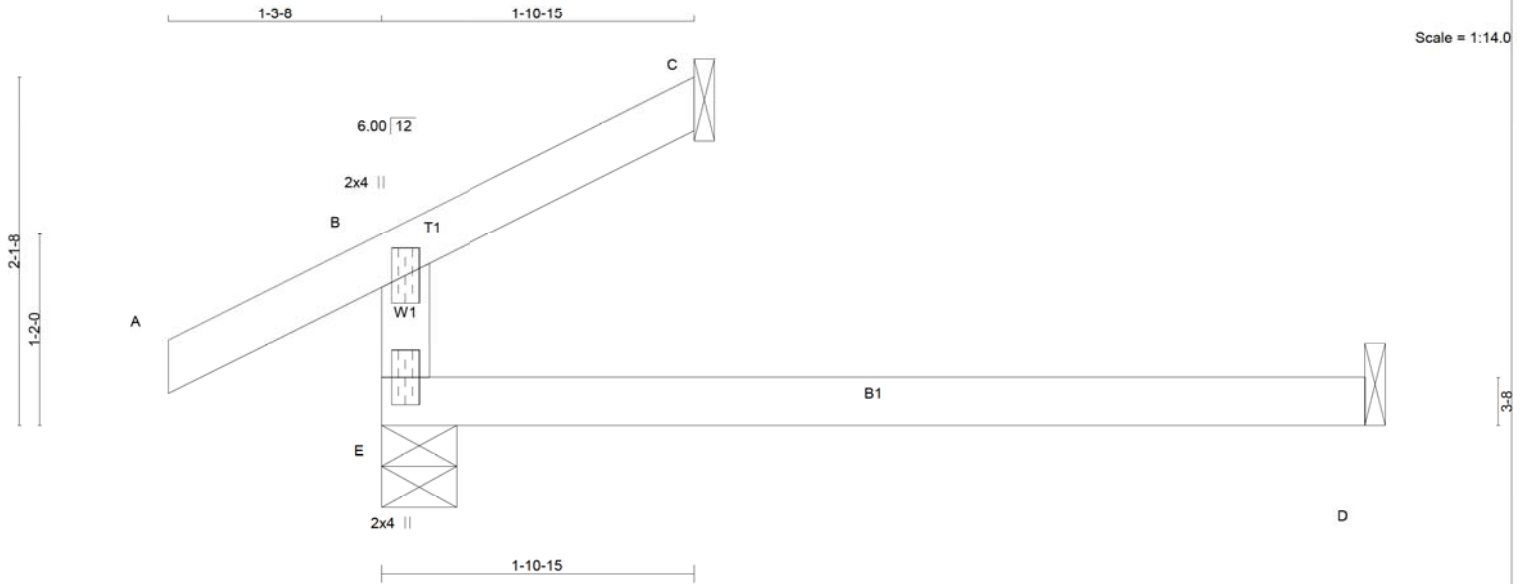


October 05, 2021

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.

JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
IM1021-017	J03	2	1	TRUSS DESC.	

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Scale = 1:14.0

TOTAL WEIGHT = 2 X 12 = 24 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**

JT	FACTORED GROSS REACTION		MAXIMUM FACTORED GROSS REACTION		INPUT BRG IN-SX	REQRD BRG IN-SX
	VERT	HORZ	DOWN	HORZ		
E	279	0	279	0	5-8	1-8
C	61	0	61	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 COMBINED	SNOW		LIVE		PERM.LIVE	WIND	DEAD	SOIL
		MAX	/MIN	MAX	/MIN				
E	197	130	0	0	0	0	0	67	0
C	41	37	0	0	0	0	0	4	0
D	36	0	0	0	0	0	0	36	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)

MEMB.	CHORDS		FACTORED		MAX. UNBRACED LENGTH	MEMB.	WEBS	
	MAX. FACTORED FORCE (LBS)	VERT. LOAD (PLF)	VERT. LOAD (PLF)	CS (LC)			MAX. FACTORED FORCE (LBS)	MAX. CS (LC)
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)
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)

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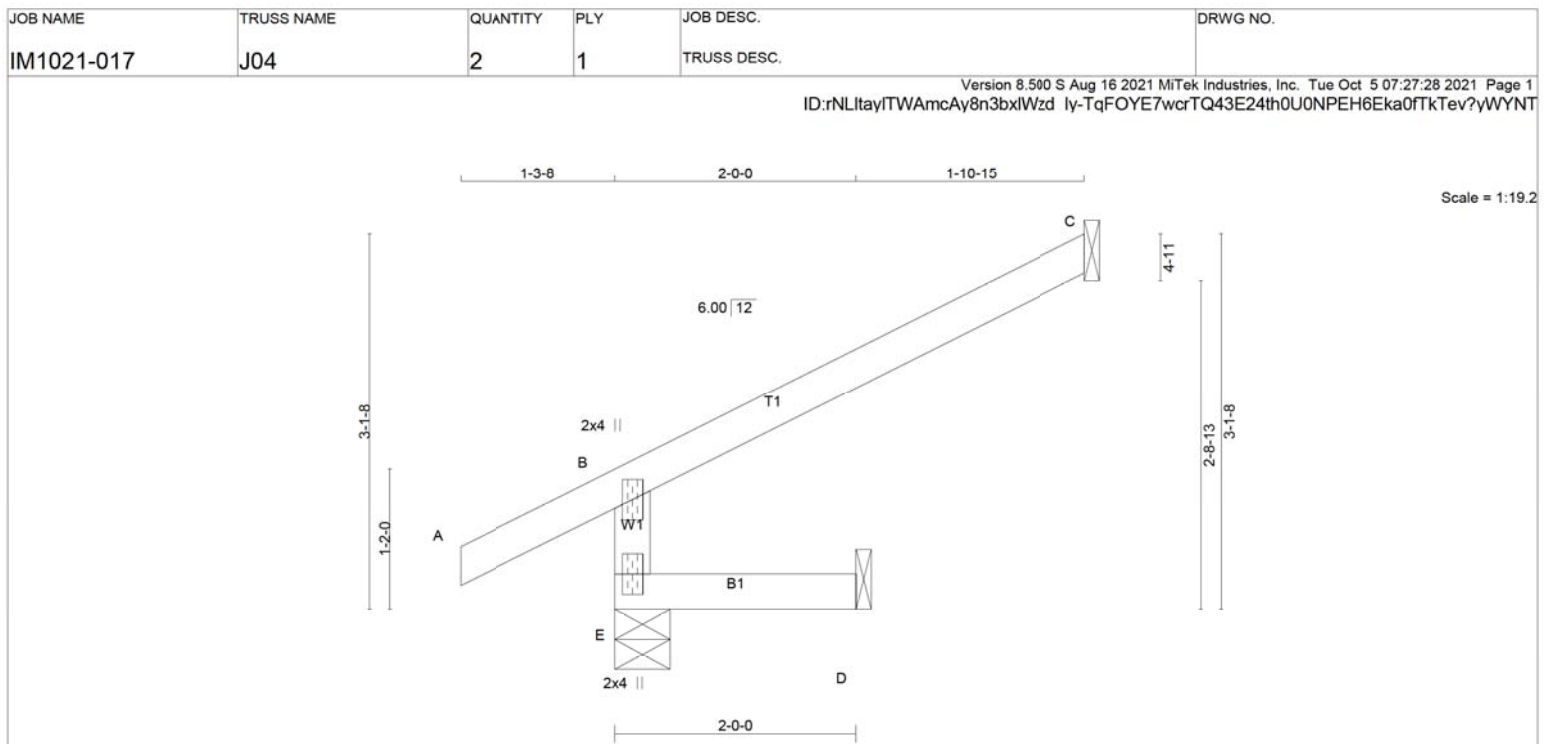
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TOTAL WEIGHT = 2 X 10 = 20 lb

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**

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

UNFACTORED REACTIONS

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

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

BRACING

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

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

LOADING

TOTAL LOAD CASES: (5)

C H O R D S				W E B S			
MEMB.	MAX. FACTORED (LBS)	FACTORED VERT. LOAD (PLF)	MAX CSI (LC)	MEMB.	MAX. FACTORED (LBS)	MAX CSI (LC)	
FR-TO		FROM	TO	FR-TO			
E-B	-320 / 0	0.0	0.0 (4)	7.81			
A-B	0 / 26	-84.3	-84.3 (1)	10.00			
B-C	-18 / 0	-84.3	-84.3 (1)	6.25			
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=0.22/1.00 (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

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)

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09/22/2022
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Per: joshua.nabua

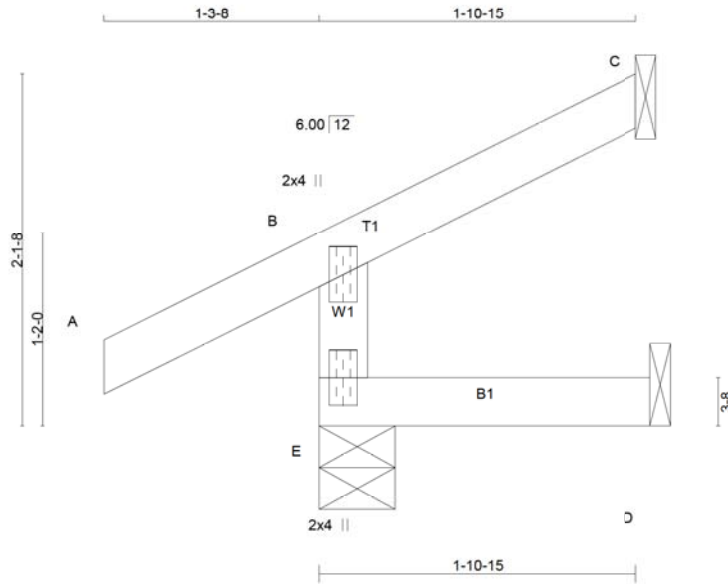


October 05, 2021

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JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
IM1021-017	J05	2	1	TRUSS DESC.	

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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

JT	FACTORED GROSS REACTION		MAXIMUM FACTORED GROSS REACTION		INPUT BRG IN-SX	REQRD BRG IN-SX
	VERT	HORZ	DOWN	HORZ		
E	235	0	235	0	5-8	1-8
C	61	0	61	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	1ST LCASE		MAX /MIN. COMPONENT REACTIONS		WIND	DEAD	SOIL
	COMBINED	SNOW	LIVE	PERM.LIVE			
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 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 (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



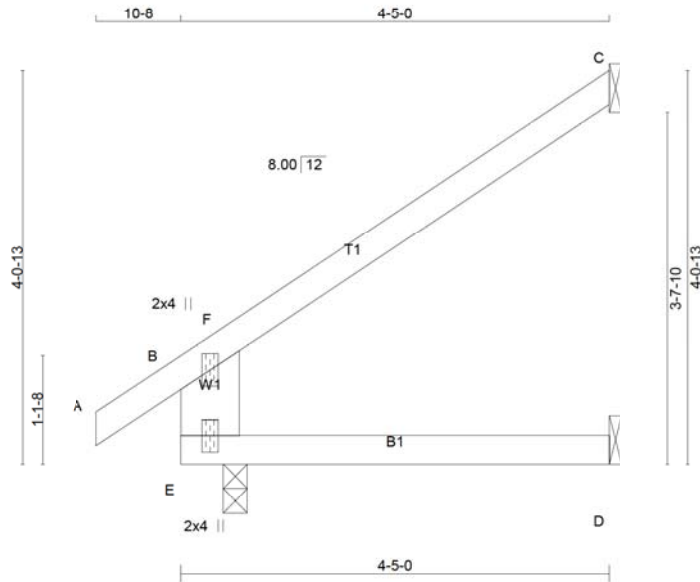
October 05, 2021

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JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
IM1021-017	J06	8	1	TRUSS DESC.	

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Scale: 1/2"=1'

TOTAL WEIGHT = 8 X 15 = 117 lb

[M]

LUMBER

N. L. G. A. RULES

CHORDS	SIZE	LUMBER	DESCR.
E - B	2x8	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	363	0	363	0	3-0	1-8
C	140	0	140	0	1-8	1-8
D	31	0	35	0	1-8	1-8

SEE MITTEK 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	252	190 / 0	0 / 0	0 / 0	0 / 0	62 / 0	0 / 0
C	95	85 / 0	0 / 0	0 / 0	0 / 0	10 / 0	0 / 0
D	25	0 / 0	0 / 0	0 / 0	0 / 0	25 / 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: (7)

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	LENGTH	FR-TO			
E-B	-313 / 0	0.0 0.0 0.03 (4)	7.81				
A-B	0 / 22	-84.3 -84.3 0.07 (7)	10.00				
B-F	-26 / 0	-84.3 -84.3 0.28 (1)	6.25				
F-C	-26 / 0	-84.3 -84.3 0.28 (1)	6.25				
E-D	0 / 0	-18.2 -18.2 0.10 (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 (0.01")

CSI: TC=0.28/1.00 (B-C:1), BC=0.10/1.00 (D-E:4),
 WB=0.00/1.00 (n/a:0), SSI=0.15/1.00 (B-C:1)

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

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

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

CITY OF RICHMOND HILL
BUILDING DIVISION

09/22/2022

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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.

Version 8.500 S Aug 16 2021 MiTek Industries, Inc. Tue Oct 5 07:27:30 2021 Page 1
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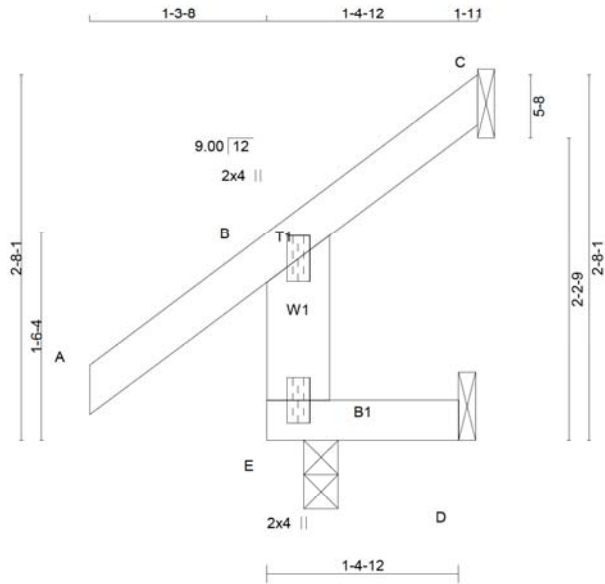


TOTAL WEIGHT = 11 lb

Per: joshua.nabua

JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
IM1021-017	J08r	1	1	TRUSS DESC.	

Version 8.500 S Aug 16 2021 MiTek Industries, Inc. Tue Oct 5 07:27:30 2021 Page 1
ID:rNLItayITWAmcAy8n3bxIWzd_ly-QCN8zw8A8Sj8JMNQBikUZRTnL5nACUWYw2yIztyWYNR



TOTAL WEIGHT = 8 lb [M]

LUMBER

N. L. G. A. RULES	CHORDS	SIZE	LUMBER	DESCR.
E - B	2x6	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

JT	FACTORED GROSS REACTION		MAXIMUM FACTORED GROSS REACTION		INPUT BRG IN-SX	REQRD BRG IN-SX
	VERT	HORZ	DOWN	HORZ		
E	248	0	248	0	3-0	1-8
C	30	0	30	0	1-8	1-8
D	-7	0	11	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	170	143 / 0	0 / 0	0 / 0	0 / 0	27 / 0	0 / 0
C	21	18 / -17	0 / 0	0 / 0	0 / 0	3 / 0	0 / 0
D	-3	0 / -16	0 / 0	0 / 0	0 / 0	8 / 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.	C H O R D S		F A C T O R E D		MAX. UNBRACED LENGTH FR-TO	W E B S	M A X . F A C T O R E D	
	MAX. FORCE (LBS)	VERT. LOAD (PLF)	VERT. LOAD (PLF)	CS (LC)			MAX. FORCE (LBS)	MAX. CS (LC)
FR-TO								
E - B	-215 / 0	0.0	0.0	0.02 (5)	7.81			
A - B	0 / 35	-84.3	-84.3	0.11 (1)	10.00			
B - C	-21 / 0	-84.3	-84.3	0.07 (1)	6.25			
E - D	0 / 0	-18.2	-18.2	0.05 (5)	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=0.05/1.00 (D-E:5),
WB=0.00/1.00 (n/a:0), SSI=0.07/1.00 (A-B:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

AUTOSOLVE RIGHT HEEL ONLY

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

PLATE	GRIP (DRY) (PSI)	SHEAR (PLI)	SECTION	
			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 = 0.14 (B) (INPUT = 0.90)

JSI METAL = 0.11 (B) (INPUT = 1.00)

CITY OF RICHMOND HILL
BUILDING DIVISION

09/22/2022
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Per: joshua.nabua



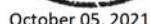
October 05, 2021

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.

Version 8.500 S Aug 16 2021 MiTek Industries, Inc. Tue Oct 5 07:27:32 2021 Page 1
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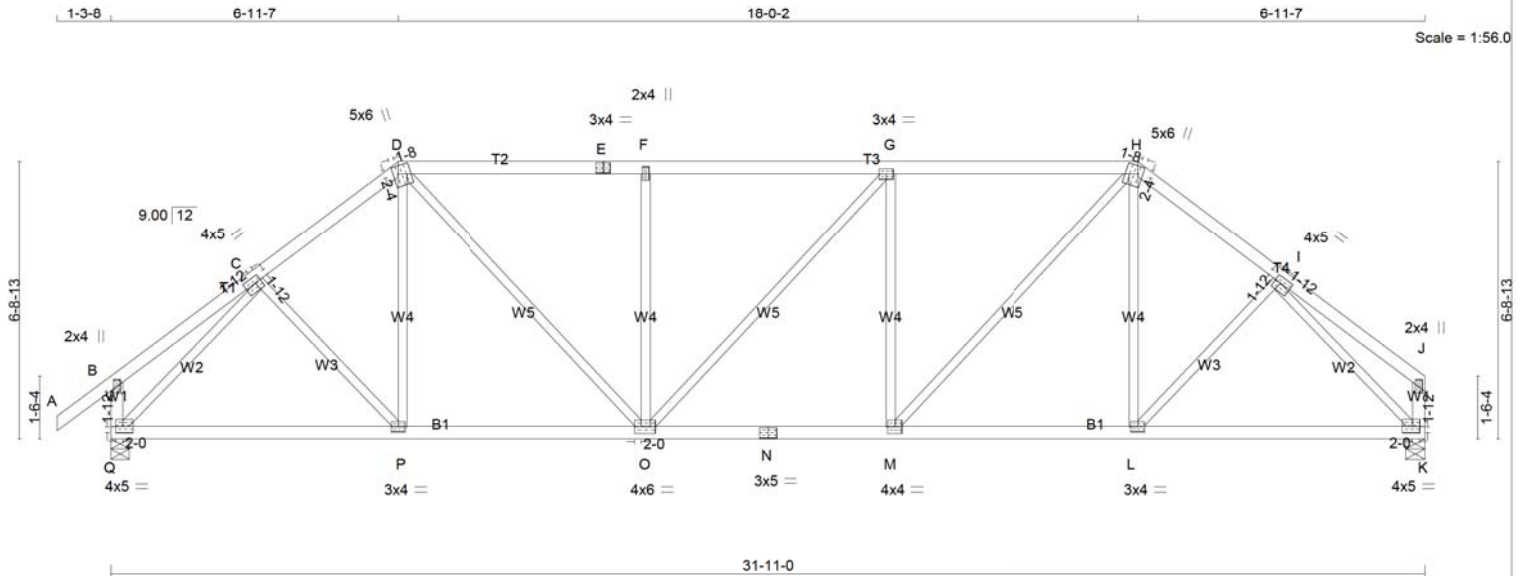
DRY: SEASONED LUMBER.

Per: joshua.nabua

**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.
IM1021-017	T03	1	1	TRUSS DESC.	

Version 8.500 S Aug 16 2021 MiTek Industries, Inc. Tue Oct 5 07:27:33 2021 Page 1
ID:rNLItayITWAmcAy8n3bxIWzd_ly-qn2GbxB2RN5jAq6?sRHBB35CGIkPeB0c0APaCyWYNO

**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 - H	2x4	DRY 2100F 1.8E	SPF
H - J	2x4	DRY No.2	SPF
Q - B	2x4	DRY No.2	SPF
K - J	2x4	DRY No.2	SPF
Q - N	2x4	DRY No.2	SPF
N - K	2x4	DRY No.2	SPF

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

DRY: SEASONED LUMBER.

PLATES (table is in inches)

JT	TYPE	PLATES	W	LEN	Y	X
B	TMV+p	MT20	2.0	4.0		
C	TMWW-t	MT20	4.0	5.0	1.75	1.75
D	TTWW+m	MT20	5.0	6.0	2.25	1.50
E	TS-t	MT20	3.0	4.0		
F	TMW+w	MT20	2.0	4.0		
G	TMWW-t	MT20	3.0	4.0		
H	TTWW+m	MT20	5.0	6.0	2.25	1.50
I	TMWW-t	MT20	4.0	5.0	1.75	1.75
J	TMV+p	MT20	2.0	4.0		
K	BMVW1-t	MT20	4.0	5.0	1.75	2.00
L	BMWW-t	MT20	3.0	4.0		
M	BMWW-t	MT20	4.0	4.0		
N	BS-t	MT20	3.0	5.0		
O	BMWWW-t	MT20	4.0	6.0	2.00	2.00
P	BMWW-t	MT20	3.0	4.0		
Q	BMVW1-t	MT20	4.0	5.0	1.75	2.00

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	DOWN	IN-SX	IN-SX
Q	1752	0	5-8	1-14
K	1636	0	5-8	1-12

UNFACTORED REACTIONS

1ST LCASE	MAX/MIN. COMPONENT REACTIONS						
JT	COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
Q	1224	887 / 0	0 / 0	0 / 0	0 / 0	337 / 0	0 / 0
K	1145	817 / 0	0 / 0	0 / 0	0 / 0	329 / 0	0 / 0

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

BRACING

TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 4.32 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				FR-TO			
A-B	0 / 35	-84.3	-84.3 0.11 (1)	10.00	C-P	0 / 82	0.02 (4)
B-C	0 / 16	-84.3	-84.3 0.15 (1)	10.00	P-D	0 / 103	0.04 (4)
C-D	-1769 / 0	-84.3	-84.3 0.19 (1)	4.85	D-O	0 / 892	0.20 (1)
D-E	-2010 / 0	-84.3	-84.3 0.46 (1)	4.32	O-F	-553 / 0	0.42 (1)
E-F	-2010 / 0	-84.3	-84.3 0.46 (1)	4.32	O-G	0 / 4	0.00 (1)
F-G	-2009 / 0	-84.3	-84.3 0.33 (1)	5.33	M-G	-545 / 0	0.41 (1)
G-H	-2006 / 0	-84.3	-84.3 0.31 (1)	5.36	M-H	0 / 888	0.20 (1)
H-I	-1768 / 0	-84.3	-84.3 0.19 (1)	4.85	L-H	0 / 103	0.04 (4)
I-J	0 / 18	-84.3	-84.3 0.15 (1)	10.00	L-I	0 / 82	0.02 (4)
Q-B	-232 / 0	0.0	0.0 0.02 (1)	7.81	Q-C	-1988 / 0	0.84 (1)
K-J	-115 / 0	0.0	0.0 0.01 (1)	7.81	I-K	-1987 / 0	0.84 (1)
Q-P	0 / 1340	-18.2	-18.2 0.33 (1)	10.00			
P-O	0 / 1398	-18.2	-18.2 0.34 (1)	10.00			
O-N	0 / 2006	-18.2	-18.2 0.38 (1)	10.00			
N-M	0 / 2006	-18.2	-18.2 0.38 (1)	10.00			
M-L	0 / 1398	-18.2	-18.2 0.34 (1)	10.00			
L-K	0 / 1340	-18.2	-18.2 0.33 (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

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 (0.09")
ALLOWABLE DEFL.(TL) = L/360 (1.06")
CALCULATED VERT. DEFL.(TL) = L/999 (0.17")

CSI: TC=0.46/1.00 (D-F:1), BC=0.38/1.00 (M-O:1)
WB=0.84/1.00 (C-Q:1), SSI=0.24/1.00 (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)	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 (Q) (INPUT = 0.90)

JSI METAL= 0.67 (N) (INPUT = 1.00)

CITY OF RICHMOND HILL
BUILDING DIVISION

09/22/2022
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Per: joshua.nabua

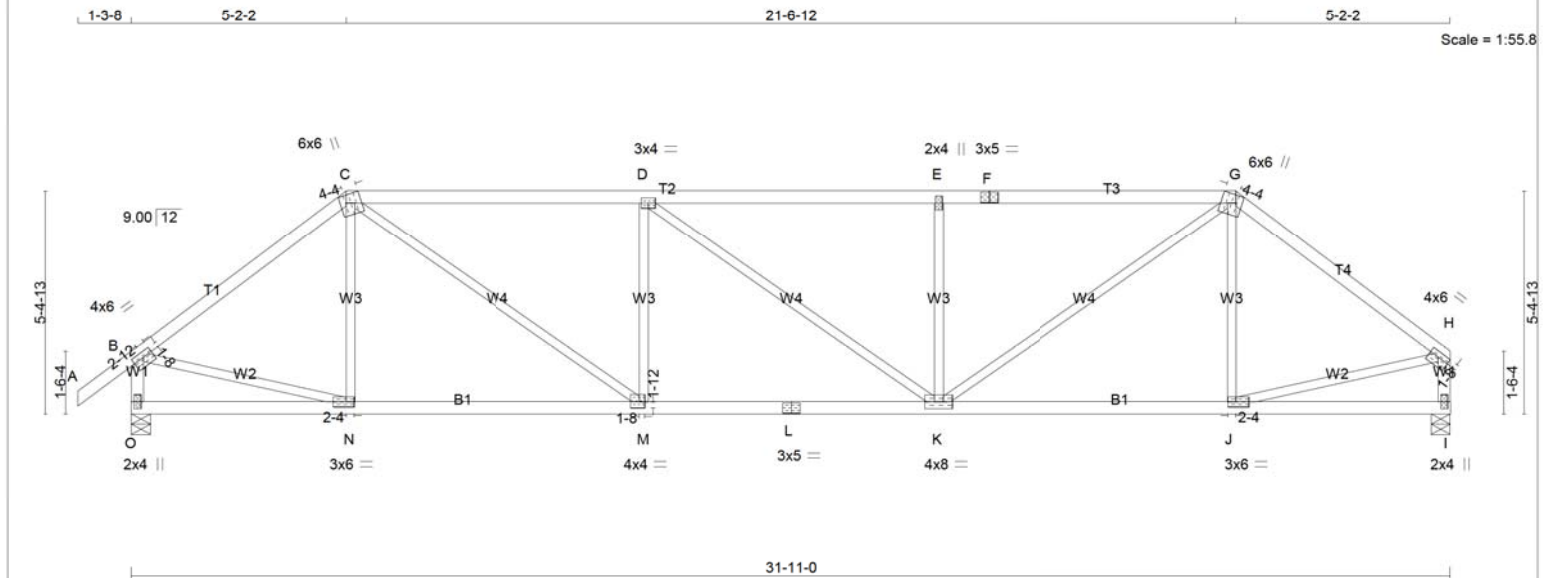


October 05, 2021

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JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
IM1021-017	T04	1	1	TRUSS DESC.	

Version 8.500 S Aug 16 2021 MiTek Industries, Inc. Tue Oct 5 07:27:34 2021 Page 1
ID:rNLitayITWAmcAy8n3bxiVzd_ly-lzcfpHCgChEZo_hCQ8oQjHdIpi288DQXrgwy6fyWYNN



TOTAL WEIGHT = 125 lb [M]

LUMBER

N. L. G. A. RULES	CHORDS	SIZE	LUMBER	DESCR.
A - C	2x4	DRY	No.2	SPF
C - F	2x4	DRY	2100F 1.8E	SPF
F - G	2x4	DRY	No.2	SPF
G - H	2x4	DRY	No.2	SPF
O - B	2x4	DRY	No.2	SPF
I - H	2x4	DRY	No.2	SPF
O - L	2x4	DRY	No.2	SPF
L - I	2x4	DRY	No.2	SPF

ALL WEBS	2x3	DRY	No.2	SPF
EXCEPT				

DRY: SEASONED LUMBER.

PLATES (table is in inches)

JT	TYPE	PLATES	W	LEN	Y	X
B	TMVW-t	MT20	4.0	6.0	1.50	2.75
C	TTWW+m	MT20	6.0	6.0	Edge	4.25
D	TMVW-t	MT20	3.0	4.0		
E	TMVW-w	MT20	2.0	4.0		
F	TS-t	MT20	3.0	5.0		
G	TTWW+m	MT20	6.0	6.0	Edge	4.25
H	TMVW-t	MT20	4.0	6.0	1.50	Edge
I	BMV1+p	MT20	2.0	4.0		
J	BMVW-t	MT20	3.0	6.0	1.50	2.25
K	BMVWW-t	MT20	4.0	8.0		
L	BS-t	MT20	3.0	5.0		
M	BMVW-t	MT20	4.0	4.0	1.75	1.50
N	BMVW-t	MT20	3.0	6.0	1.50	2.25
O	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

JT	FACTORED GROSS REACTION		MAXIMUM FACTORED GROSS REACTION		INPUT BRG IN-SX	REQRD BRG IN-SX
	VERT	HORZ	DOWN	HORZ		
O	1752	0	1752	0	5-8	2-3
I	1636	0	1636	0	5-8	1-13

UNFACTORED REACTIONS

JT	COMBINED	MAX/MIN. COMPONENT REACTIONS					
		SNOW	LIVE	PERM. LIVE	WIND	DEAD	SOIL
O	1224	887 / 0	0 / 0	0 / 0	0 / 0	337 / 0	0 / 0
I	1145	817 / 0	0 / 0	0 / 0	0 / 0	329 / 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 = 3.63 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	FR-TO		FROM	TO
A-B	0 / 35	-84.3	-84.3 0.11 (1)	10.00	N-C	-192 / 49	0.08 (1)
B-C	-1768 / 0	-84.3	-84.3 0.51 (1)	4.47	C-M	0 / 1361	0.31 (1)
C-D	-2520 / 0	-84.3	-84.3 0.50 (1)	4.72	M-D	-654 / 0	0.29 (1)
D-E	-2527 / 0	-84.3	-84.3 0.53 (1)	4.66	D-K	0 / 8	0.00 (1)
E-F	-2527 / 0	-84.3	-84.3 0.79 (1)	3.63	K-E	-665 / 0	0.29 (1)
F-G	-2527 / 0	-84.3	-84.3 0.79 (1)	3.63	K-G	0 / 1369	0.31 (1)
G-H	-1768 / 0	-84.3	-84.3 0.51 (1)	4.47	J-G	-192 / 49	0.08 (1)
O-B	-1717 / 0	0.0	0.0 0.18 (1)	6.35	B-N	0 / 1447	0.33 (1)
I-H	-1601 / 0	0.0	0.0 0.17 (1)	6.53	J-H	0 / 1447	0.33 (1)
O-N	0 / 0	-18.2	-18.2 0.16 (4)	10.00			
N-M	0 / 1408	-18.2	-18.2 0.32 (1)	10.00			
M-L	0 / 2520	-18.2	-18.2 0.50 (1)	10.00			
L-K	0 / 2520	-18.2	-18.2 0.50 (1)	10.00			
K-J	0 / 1408	-18.2	-18.2 0.32 (1)	10.00			
J-I	0 / 0	-18.2	-18.2 0.16 (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 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 (0.13")
ALLOWABLE DEFL.(TL) = L/360 (1.06")
CALCULATED VERT. DEFL.(TL) = L/999 (0.24")

CSI: TC=0.79/1.00 (E-G:1), BC=0.50/1.00 (K-M:1)
WB=0.33/1.00 (H-J:1), SSI=0.28/1.00 (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 (PSI)	SECTION (PLI)
MT20	650	371	1747
	788	1987	1873

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.90 (L) (INPUT = 0.90)

JSI METAL= 0.84 (L) (INPUT = 1.00)

CITY OF RICHMOND HILL
BUILDING DIVISION

09/22/2022

KOTT
RECEIVED

Per: joshua.nabua

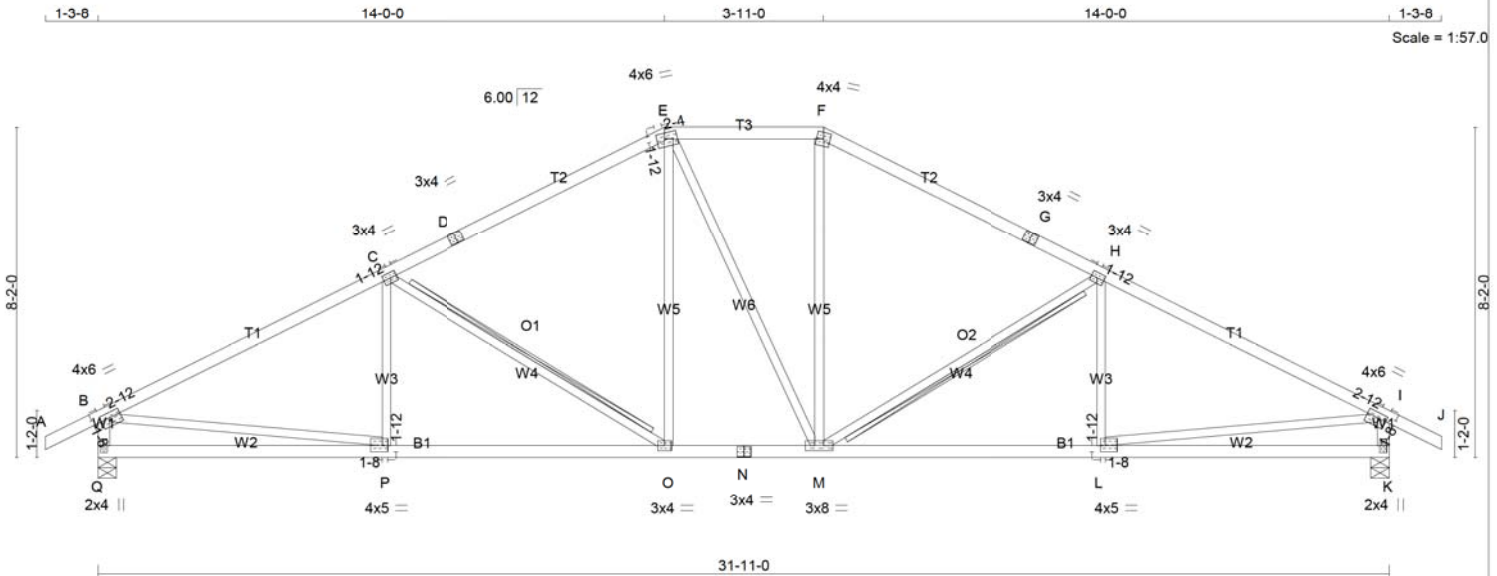


October 05, 2021

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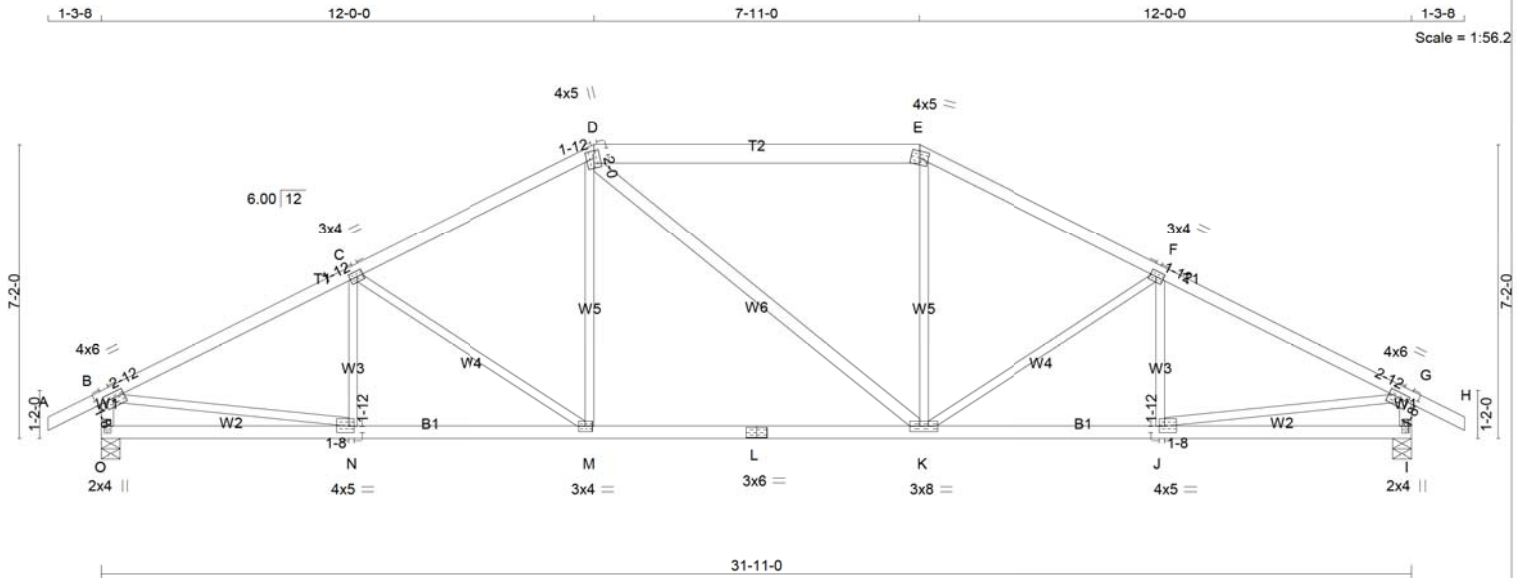
JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
IM1021-017	T06	1	1	TRUSS DESC.	

Version 8.500 S Aug 16 2021 MiTek Industries, Inc. Tue Oct 5 07:27:35 2021 Page 1
ID:rNLtlayITWAmcAy8n3bxIWZd_ly-mAA10dCjy?MQQ7GO_rJfGUUAUg6Nyte2h4KvF5yWYNM



JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
IM1021-017	T07	1	1	TRUSS DESC.	

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ID:rNLItayITWAmcAy8n3bxIWzd_ly-EMkPEzDxjIUh2HraXZrupijIwJ6c5JqJ_P3BXyWYNL



TOTAL WEIGHT = 135 lb

LUMBER

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

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. FACTORED VERT. LOAD (LC)	MEMB.	MAX. FACTORED FORCE (LBS)	MAX. FACTORED 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			

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 (0.11")
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



October 05, 2021

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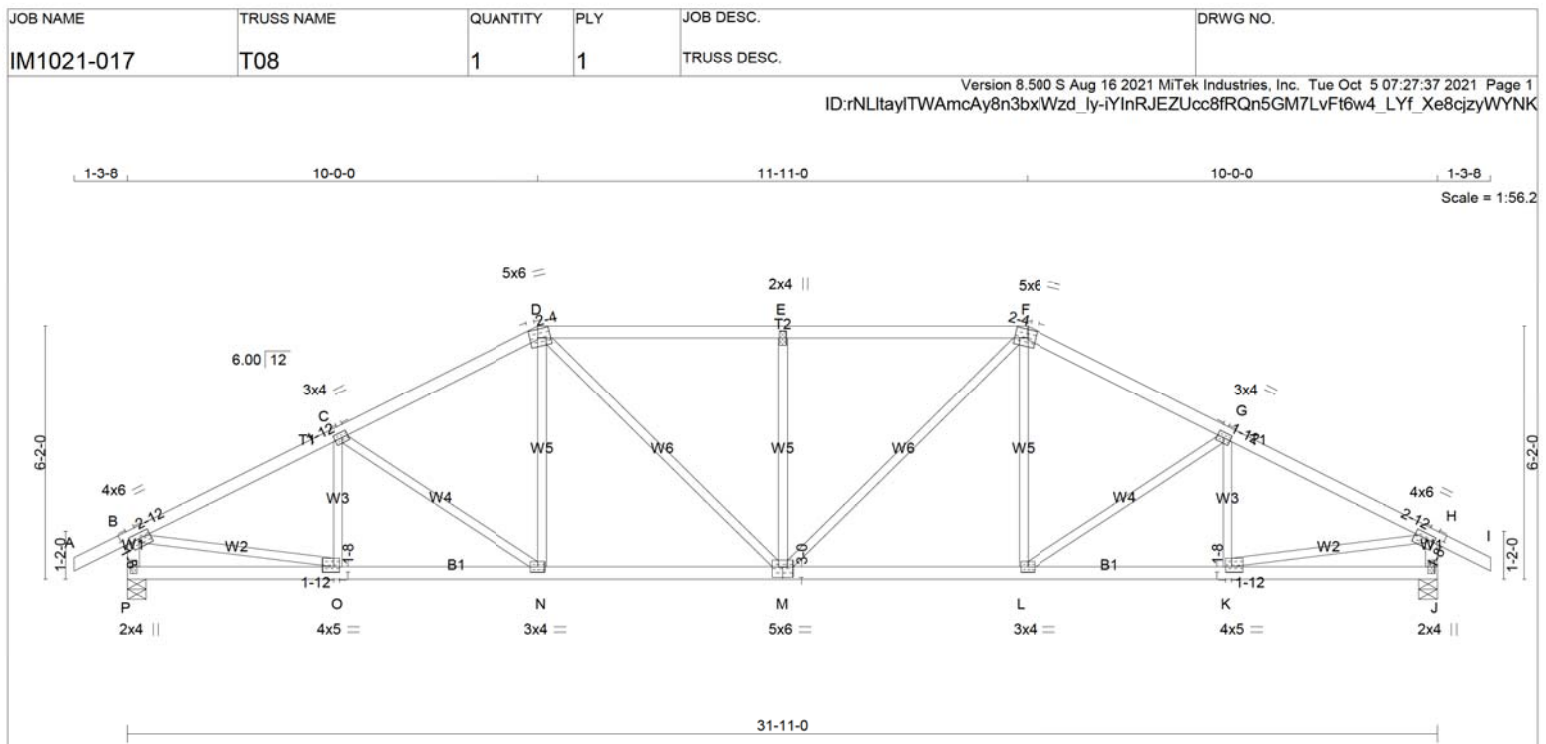


Table with 5 columns: LUMBER, N. L. G. A. RULES, CHORDS, SIZE, LUMBER, DESCR. It lists lumber specifications for various parts of the truss, including top and bottom chords and webs.

ALL WEBS 2x3 DRY No.2 SPF EXCEPT

DRY: SEASONED LUMBER.

Table with 5 columns: PLATES (table is in inches), JT, TYPE, PLATES, W, LEN, Y, X. It lists plate specifications for various joints and members.

October 05, 2021

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Table with 8 columns: DIMENSIONS, SUPPORTS AND LOADINGS SPECIFIED BY FABRICATOR TO BE VERIFIED BY BUILDING DESIGNER, BEARINGS, FACTORED, MAXIMUM FACTORED, INPUT, REQRD, GROSS REACTION, DOWN, HORZ, UPLIFT, IN-SX, IN-SX. It lists bearing and reaction data for joints JT, P, and J.

Table with 8 columns: UNFACTORED REACTIONS, 1ST LCASE, MAX/MIN. COMPONENT REACTIONS, JT, COMBINED, SNOW, LIVE, PERM. LIVE, WIND, DEAD, SOIL. It lists unfactored reaction data for joints JT, P, and J.

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.

Table with 10 columns: LOADING, TOTAL, LOAD CASES: (4), C H O R D S, M E M B E R S, MAX. FACTORED, FORCE, VERT. LOAD, LC1, MAX, UNBRAC, LENGTH, FR-TO, MAX. FACTORED, FORCE, VERT. LOAD, LC1, MAX, UNBRAC, LENGTH, FR-TO. It lists loading and member data for various members.

Table with 3 columns: 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 .

Table with 4 columns: NAIL VALUES, PLATE, GRIP(DRY), SHEAR, SECTION. It lists nail values for different plate types and sections.

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

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

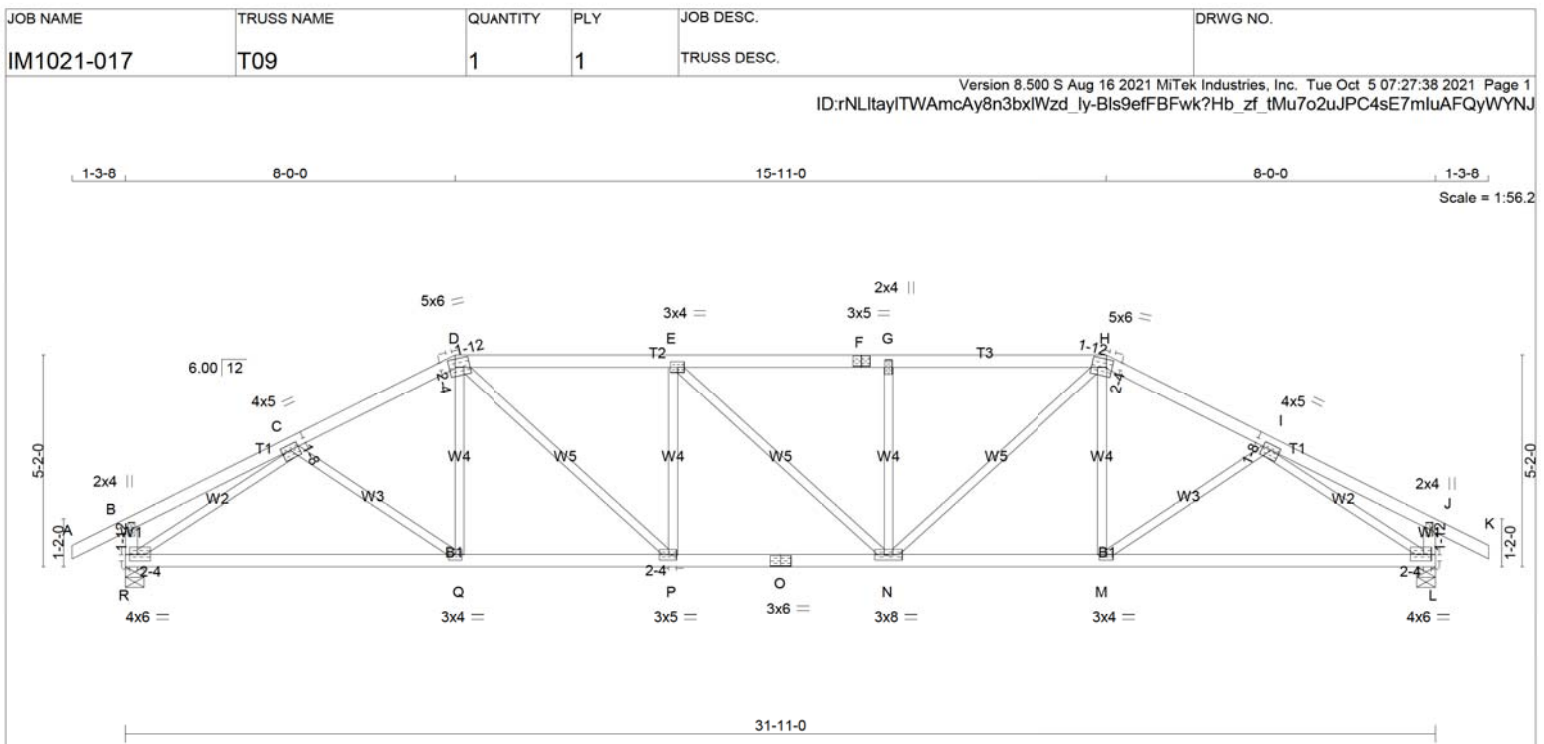
JSI METAL= 0.61 (K) (INPUT = 1.00)



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Per: joshua.nabua



N. L. G. A. RULES				DIMENSIONS, SUPPORTS AND LOADINGS SPECIFIED BY FABRICATOR TO BE VERIFIED BY BUILDING DESIGNER										DESIGN CRITERIA						
CHORDS		SIZE	LUMBER	DESCR.	BEARINGS				FACTORED		MAXIMUM FACTORED		INPUT		REQRD		SPECIFIED LOADS:			
					GROSS REACTION		GROSS REACTION		DOWN		HORZ		UPLIFT		BRG		TOP CH.		LL	
					VERT	HORZ	DOWN	HORZ	UPLIFT	IN-SX					BRG		DL		=	
A - D		2x4	DRY	No.2	SPF												25.6		PSF	
D - F		2x4	DRY	No.2	SPF												3.0		PSF	
F - H		2x4	DRY	No.2	SPF												0.0		PSF	
H - K		2x4	DRY	No.2	SPF												7.3		PSF	
R - B		2x4	DRY	No.2	SPF												35.9		PSF	
L - J		2x4	DRY	No.2	SPF															
R - O		2x4	DRY	No.2	SPF															
O - L		2x4	DRY	No.2	SPF															
ALL WEBS		2x3	DRY	No.2	SPF	UNFACTORED REACTIONS										SPACING = 24.0 IN. C/C				
EXCEPT						1ST LCASE MAX/MIN. COMPONENT REACTIONS														
						JT	COMBINED	SNOW	LIVE	PERM. LIVE	WIND	DEAD	SOIL							
						R	1223	886 / 0	0 / 0	0 / 0	0 / 0	337 / 0	0 / 0							
						L	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) R, L																THIS TRUSS IS DESIGNED FOR RESIDENTIAL OR SMALL BUILDING REQUIREMENTS OF PART 9, NBCC 2015				
BRACING																THIS DESIGN COMPLIES WITH:				
TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 3.83 FT.																- PART 9 OF BCBC 2018 , ABC 2019				
MAX. UNBRACED BOTTOM CHORD LENGTH = 10.00 FT OR RIGID CEILING DIRECTLY APPLIED.																- PART 9 OF OBC 2012 (2019 AMENDMENT)				
ALL FITCH BREAKS AND PERIMETER CORNER JOINTS MUST BE Laterally RESTRAINED.																- CSA 086-14				
LOADING																- TPIC 2014				
TOTAL LOAD CASES: (4)																(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				
CHORDS																WEBS				
MEMB. MAX. FACTORED FORCE (LBS)																MEMB. MAX. FACTORED FORCE (LBS)				
FR-TO																FR-TO				
A-B 0 / 26																C-Q 0 / 75				
B-C 0 / 15																Q-D 0 / 136				
C-D -2291 / 0																D-P 0 / 837				
D-E -2655 / 0																P-E -482 / 0				
E-F -2654 / 0																E-N -2 / 0				
F-G -2654 / 0																N-G -482 / 0				
G-H -2654 / 0																H-N 0 / 835				
H-I -2291 / 0																M-H 0 / 137				
I-J 0 / 15																M-I 0 / 75				
J-K 0 / 26																R-C -2476 / 0				
R-B -250 / 0																I-L -2476 / 0				
L-J -250 / 0																				
R-Q 0 / 2015																				
Q-P 0 / 2036																				
P-O 0 / 2655																				
O-N 0 / 2655																				
N-M 0 / 2037																				
M-L 0 / 2015																				
NAIL VALUES																TRUSS PLATE MANUFACTURER IS NOT RESPONSIBLE FOR QUALITY CONTROL IN THE TRUSS MANUFACTURING PLANT.				
PLATE GRIP(DRY) SHEAR SECTION																NAIL VALUES				
(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 (P) (INPUT = 0.90)				
JSI METAL= 0.86 (O) (INPUT = 1.00)																CITY OF RICHMOND HILL BUILDING DIVISION				



October 05, 2021

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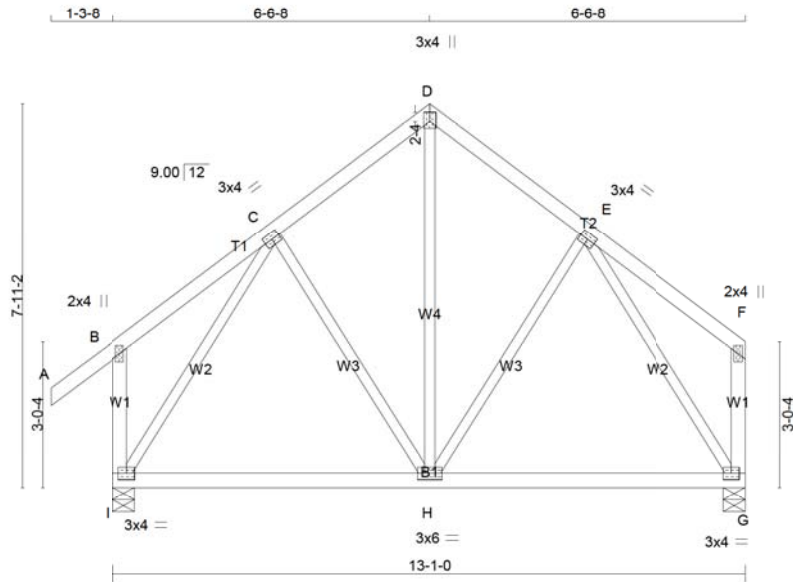
09/22/2022



Per: joshua.nabua

JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
IM1021-017	T10	1	1	TRUSS DESC.	

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ID:rNLItayTWAmcAy8n3bxIWzd ly-fxPYs?Fp0DssvIZ9DhObQKKIcpDpSjG?yjdjosyWYNI



Scale: 1/4"=1'

TOTAL WEIGHT = 66 lb

LUMBER			
N. L. G. A. RULES	CHORDS	SIZE	LUMBER
A - D	2x4	DRY	No.2
D - F	2x4	DRY	No.2
I - B	2x4	DRY	No.2
G - F	2x4	DRY	No.2
I - F	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	3.0	4.0		
D	TTW+p	MT20	3.0	4.0	2.25	1.50
E	TMWW-t	MT20	3.0	4.0		
F	TMV+p	MT20	2.0	4.0		
G	BMVW1-t	MT20	3.0	4.0		
H	BMVWW-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		MAXIMUM FACTORED		INPUT		REQRD	
JT	GROSS REACTION	VERT	HORZ	DOWN	HORZ	UPLIFT	BRG	IN-SX	BRG
I	787	0	0	787	0	0	5-8	1-8	1-8
G	671	0	0	671	0	0	5-8	1-8	1-8

UNFACTORED REACTIONS

JT	1ST LCASE	MAX/MIN. COMPONENT REACTIONS	SNOW	LIVE	PERM. LIVE	WIND	DEAD	SOIL
I	548	405 / 0	0 / 0	0 / 0	0 / 0	0 / 0	143 / 0	0 / 0
G	469	335 / 0	0 / 0	0 / 0	0 / 0	0 / 0	135 / 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		MAX. FACTORED		FACTORED		W E B S		MAX. FACTORED	
MEMB.	FORCE (LBS)	VERT. LOAD (PLF)	LC1	MAX	UNBRAC LENGTH	MEMB.	FORCE (LBS)	MAX	CSI (LC)
FR-TO		FROM TO				FR-TO			
A-B	0 / 35	-84.3	-84.3	0.11 (1)	10.00	H-D	0 / 242	0.05 (1)	
B-C	0 / 19	-84.3	-84.3	0.14 (1)	10.00	H-E	-56 / 27	0.04 (1)	
C-D	-395 / 0	-84.3	-84.3	0.11 (1)	6.25	C-H	-56 / 27	0.04 (1)	
D-E	-395 / 0	-84.3	-84.3	0.11 (1)	6.25	I-C	-614 / 0	0.39 (1)	
E-F	0 / 19	-84.3	-84.3	0.14 (1)	10.00	E-G	-614 / 0	0.39 (1)	
I-B	-224 / 0	0.0	0.0	0.04 (1)	7.81				
G-F	-107 / 0	0.0	0.0	0.02 (1)	7.81				
I-H	0 / 330	-18.2	-18.2	0.25 (4)	10.00				
H-G	0 / 330	-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 (0.44")
CALCULATED VERT. DEFL.(LL) = L/999 (0.01")
ALLOWABLE DEFL.(TL)= L/360 (0.44")
CALCULATED VERT. DEFL.(TL) = L/999 (0.04")

CSI: TC=0.14/1.00 (B-C:1), BC=0.25/1.00 (H-I:4), WB=0.39/1.00 (C-I:1), SSI=0.11/1.00 (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= 0.84 (C) (INPUT = 0.90)
JSI METAL= 0.20 (C) (INPUT = 1.00)



October 05, 2021

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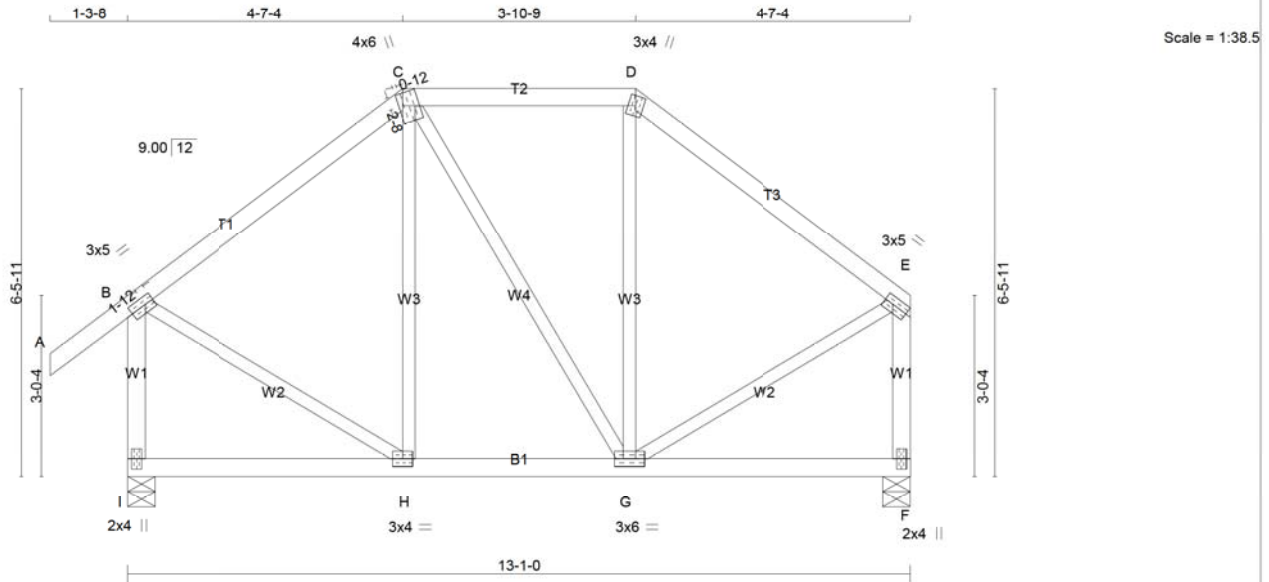
CITY OF RICHMOND HILL
BUILDING DIVISION

09/22/2022
KOTT
RECEIVED

Per: joshua.nabua

JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
IM1021-017	T11	1	1	TRUSS DESC.	

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ID:rNLItayITWAmcAy8n3bXlWzd ly-fxPYs?Fp0DssvlZ9DhObQKKHGjRpxXOG?ydjosyWYNI



TOTAL WEIGHT = 64 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
D - E	2x4	DRY	No.2	SPF
I - B	2x4	DRY	No.2	SPF
F - E	2x4	DRY	No.2	SPF
I - F	2x4	DRY	No.2	SPF

ALL WEBS 2x3 DRY No.2 SPF

EXCEPT

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	BMVWW-t	MT20	3.0	6.0		
H	BMVW-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**

JT	FACTORED GROSS REACTION	MAXIMUM FACTORED GROSS REACTION	INPUT BRG	REQRD BRG
	VERT	DOWN	IN-SX	IN-SX
I	787	0	5-8	1-8
F	671	0	5-8	1-8

UNFACTORED REACTIONS

JT	1ST LCASE	MAX/MIN. COMPONENT REACTIONS	WIND	DEAD	SOIL
	COMBINED	SNOW	PERM. LIVE		
I	548	405 / 0	0 / 0	143 / 0	0 / 0
F	469	335 / 0	0 / 0	135 / 0	0 / 0

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

BRACING

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

ALL 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 (LC)	MEMB.	MAX. FACTORED FORCE (LBS)	MAX. FACTORED VERT. LOAD (LC)	
FR-TO		FROM	TO	FR-TO		FROM	TO
A-B	0 / 35	-84.3	-84.3	0.11 (1)	H-C	-106 / 38	0.07 (1)
B-C	-416 / 0	-84.3	-84.3	0.23 (1)	C-G	0 / 0	0.00 (1)
C-D	-330 / 0	-84.3	-84.3	0.16 (1)	G-D	-107 / 38	0.07 (1)
D-E	-416 / 0	-84.3	-84.3	0.23 (1)	B-H	0 / 383	0.09 (1)
I-B	-751 / 0	0.0	0.0	0.12 (1)	G-E	0 / 382	0.09 (1)
F-E	-634 / 0	0.0	0.0	0.10 (1)			
I-H	0 / 0	-18.2	-18.2	0.08 (4)			
H-G	0 / 330	-18.2	-18.2	0.10 (4)			
G-F	0 / 0	-18.2	-18.2	0.08 (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

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 (0.44")
CALCULATED VERT. DEFL.(LL) = L/999 (0.01")
ALLOWABLE DEFL.(TL) = L/360 (0.44")
CALCULATED VERT. DEFL.(TL) = L/999 (0.02")

CSI: TC=0.23/1.00 (B-C:1), BC=0.10/1.00 (G-H:4), WB=0.09/1.00 (B-H:1), SSI=0.13/1.00 (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= 0.66 (G) (INPUT = 0.90)
JSI METAL= 0.17 (B) (INPUT = 1.00)

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BUILDING DIVISION

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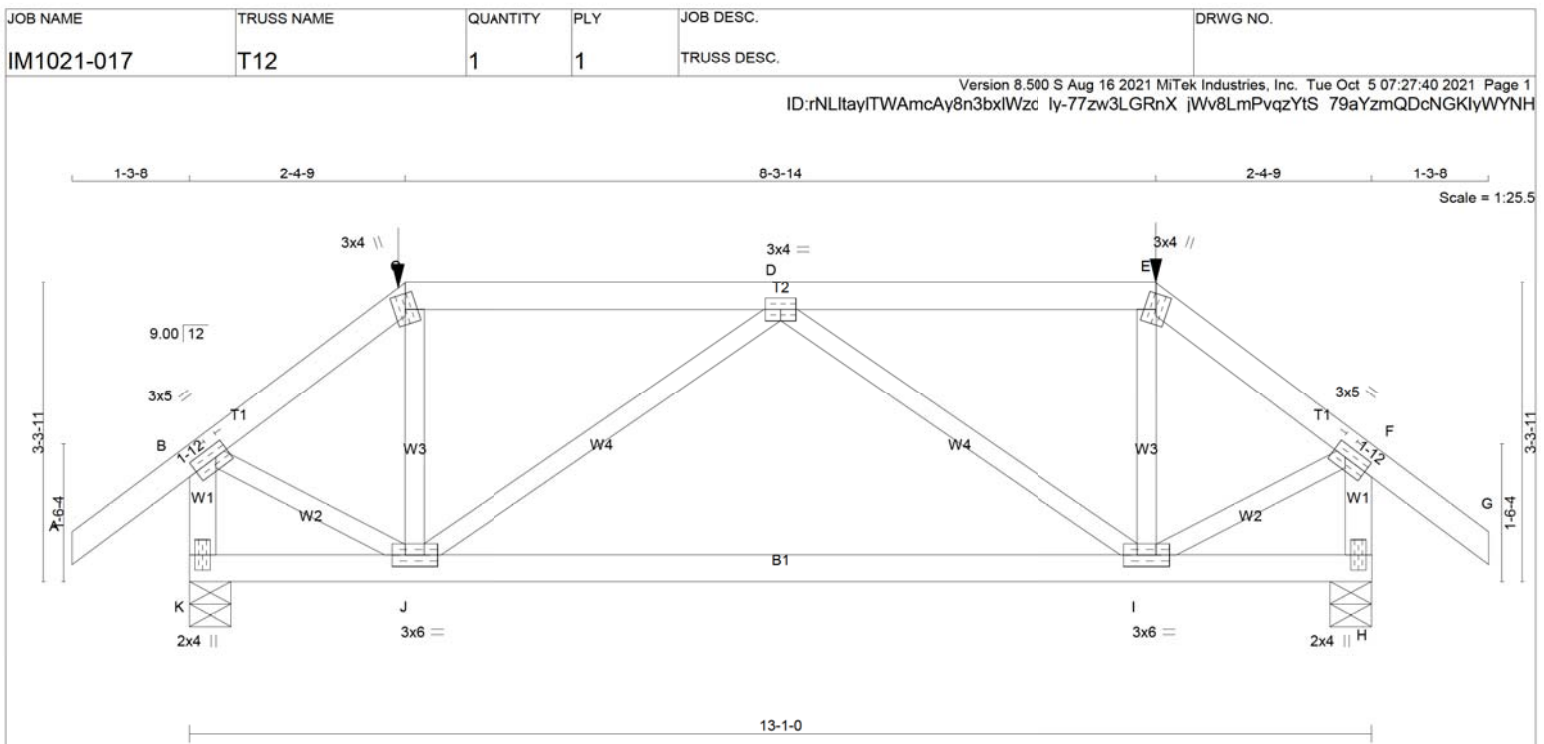
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October 05, 2021

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LUMBER				DIMENSIONS, SUPPORTS AND LOADINGS SPECIFIED BY FABRICATOR TO BE VERIFIED BY BUILDING DESIGNER				DESIGN CRITERIA			
CHORDS	SIZE	LUMBER	DESCR.	BEARINGS				SPECIFIED LOADS:			
A - C	2x4	DRY	No.2	FACTORED	MAXIMUM FACTORED	INPUT	REQRD	TOP CH.	LL	=	25.6 PSF
C - E	2x4	DRY	No.2	GROSS REACTION	GROSS REACTION	BRG	BRG	DL	=	3.0 PSF	
E - G	2x4	DRY	No.2	JT VERT	DOWN	UPLIFT	IN-SX	BOT CH.	LL	=	0.0 PSF
K - B	2x4	DRY	No.2	K 750	0	0	5-8	DL	=	7.3 PSF	
H - F	2x4	DRY	No.2	H 750	0	0	5-8	TOTAL LOAD	=	35.9 PSF	
K - H	2x4	DRY	No.2								

UNFACTORED REACTIONS				SPACING = 24.0 IN. C/C			
1ST LCASE	MAX/MIN.	COMPONENT REACTIONS		LOADING IN FLAT SECTION BASED ON A SLOPE OF 2.00/12 MINIMUM			
JT COMBINED	SNOW	LIVE	PERM. LIVE	WIND	DEAD	SOIL	
K 521	391 / 0	0 / 0	0 / 0	0 / 0	130 / 0	0 / 0	
H 521	391 / 0	0 / 0	0 / 0	0 / 0	130 / 0	0 / 0	

BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S) K, 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				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	0.13 (1)	J-C	0 / 94	0.03 (4)	
B-C	-549 / 0	-84.3 -84.3	0.09 (1)	J-D	-318 / 0	0.14 (1)	
C-D	-441 / 0	-74.6 -74.6	0.23 (1)	D-I	-318 / 0	0.14 (1)	
D-E	-441 / 0	-74.6 -74.6	0.23 (1)	I-E	0 / 94	0.03 (4)	
E-F	-549 / 0	-84.3 -84.3	0.09 (1)	B-J	0 / 485	0.12 (1)	
F-G	0 / 35	-84.3 -84.3	0.13 (1)	I-F	0 / 485	0.12 (1)	
K-B	-758 / 0	0.0 0.0	0.09 (1)				
H-F	-758 / 0	0.0 0.0	0.09 (1)				
K-J	0 / 0	-16.2 -16.2	0.19 (4)				
J-I	0 / 696	-16.2 -16.2	0.24 (4)				
I-H	0 / 0	-16.2 -16.2	0.19 (4)				

FACTORED CONCENTRATED LOADS (LBS)				CONNECTION REQUIREMENTS			
JT	LOC.	LC1	MAX- MAX+	FACE	DIR.	TYPE	HEEL CONN.
C	2-4-9	-17	-17	FRONT	VERT	TOTAL	--- C1
E	10-8-7	-17	-17	FRONT	VERT	TOTAL	--- C1

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



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JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
IM1021-017	T12	1	1	TRUSS DESC.	

Version 8.500 S Aug 16 2021 MiTek Industries, Inc. Tue Oct 5 07:27:40 2021 Page 2
 ID:rNLItayITWAmcAy8n3bxiWzc_ly-77zw3LGRnX_jWv8LmPvqzYtS_79aYzmQDcNGKlyWYNH

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.84 (I) (INPUT = 0.90)

JSI METAL= 0.19 (B) (INPUT = 1.00)



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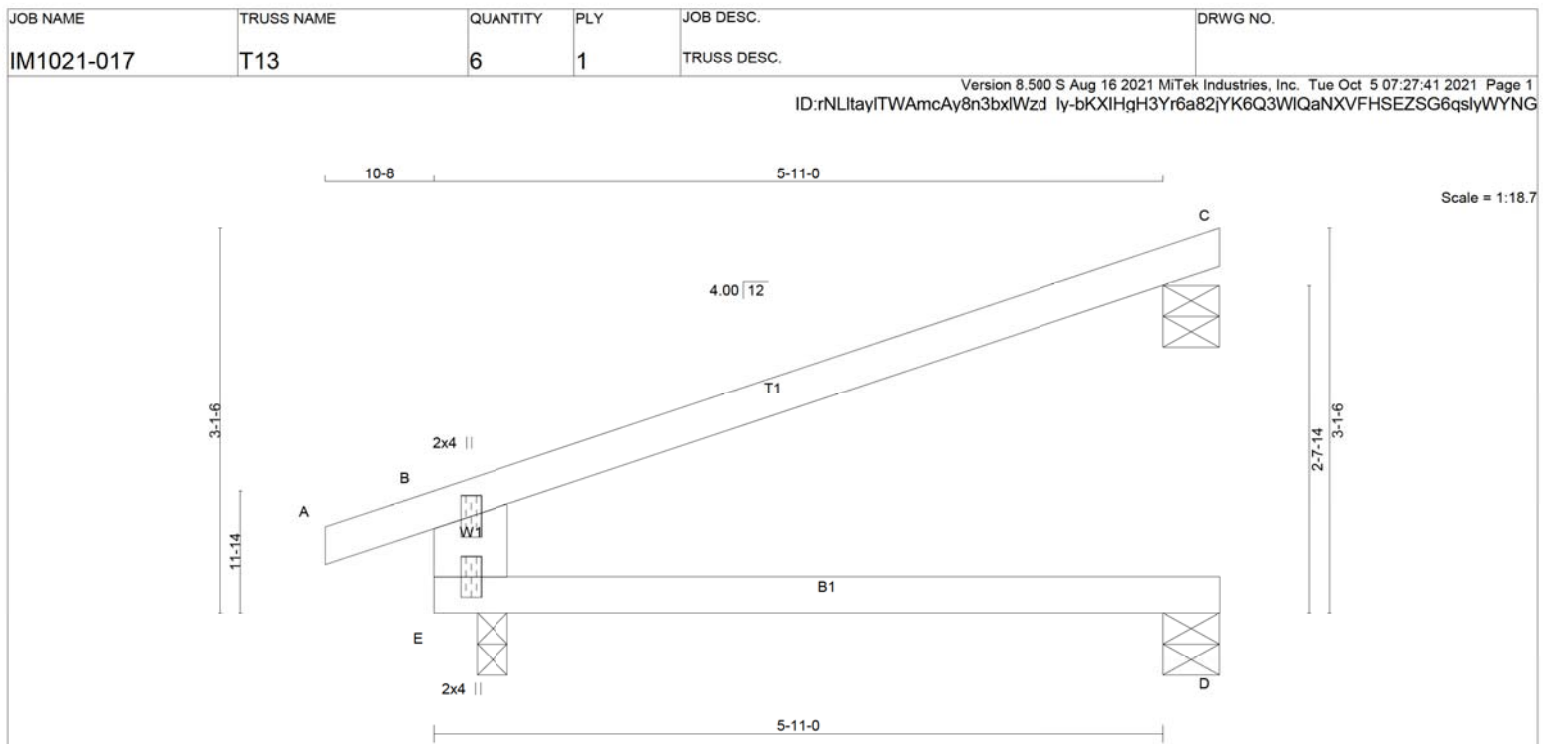
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TOTAL WEIGHT = 6 X 17 = 105 lb

[M][F]

LUMBER

N. L. G. A. RULES

CHORDS	SIZE	DRY	LUMBER	DESCR.
A - C	2x4	DRY	No.2	SPF
E - B	2x8	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
C	201	0	201	0	0	5-8	5-8
E	485	0	485	0	0	3-0	1-8
D	44	0	49	0	0	5-8	1-8

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

UNFACTORED REACTIONS

1ST LCASE		MAX /MIN. COMPONENT REACTIONS					
JT	COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
C	137	122 / 0	0 / 0	0 / 0	0 / 0	14 / 0	0 / 0
E	338	251 / 0	0 / 0	0 / 0	0 / 0	87 / 0	0 / 0
D	35	0 / 0	0 / 0	0 / 0	0 / 0	35 / 0	0 / 0

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

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)

MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	MAX. VERT. LOAD (LC1)	MAX. HORIZ. LOAD (LC1)	MAX. UNBRACED LENGTH (FR-TO)
FR-TO					
A-B	0 / 12	-84.3	-84.3	0.05 (1)	10.00
B-C	-21 / 0	-84.3	-84.3	0.45 (1)	6.25
E-B	-413 / 0	0.0	0.0	0.05 (4)	7.81
E-D	0 / 0	-18.2	-18.2	0.21 (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 (0.21")
CALCULATED VERT. DEFL.(LL) = L/999 (0.00")
ALLOWABLE DEFL.(TL) = L/360 (0.21")
CALCULATED VERT. DEFL.(TL) = L/999 (0.03")CSI: TC=0.45/1.00 (B-C:1), BC=0.21/1.00 (D-E:4),
WB=0.00/1.00 (n/a:0), SSI=0.25/1.00 (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

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.22 (B) (INPUT = 0.90)

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

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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

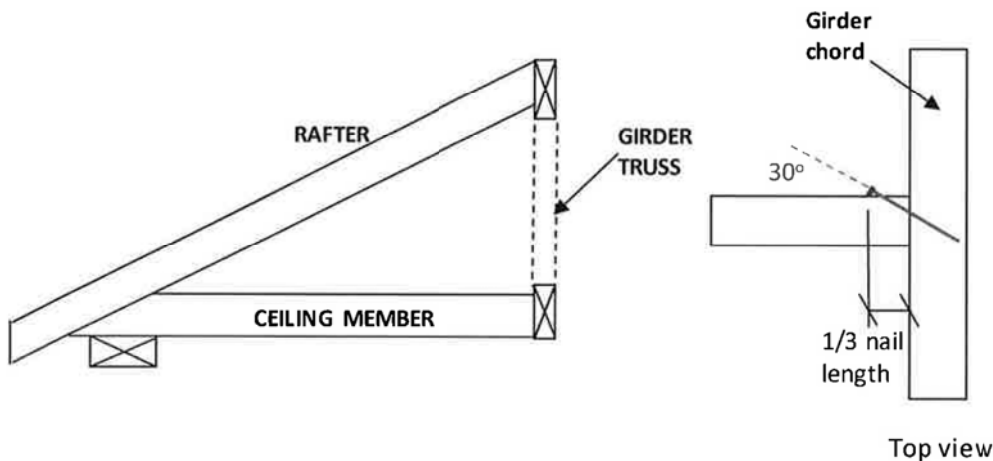
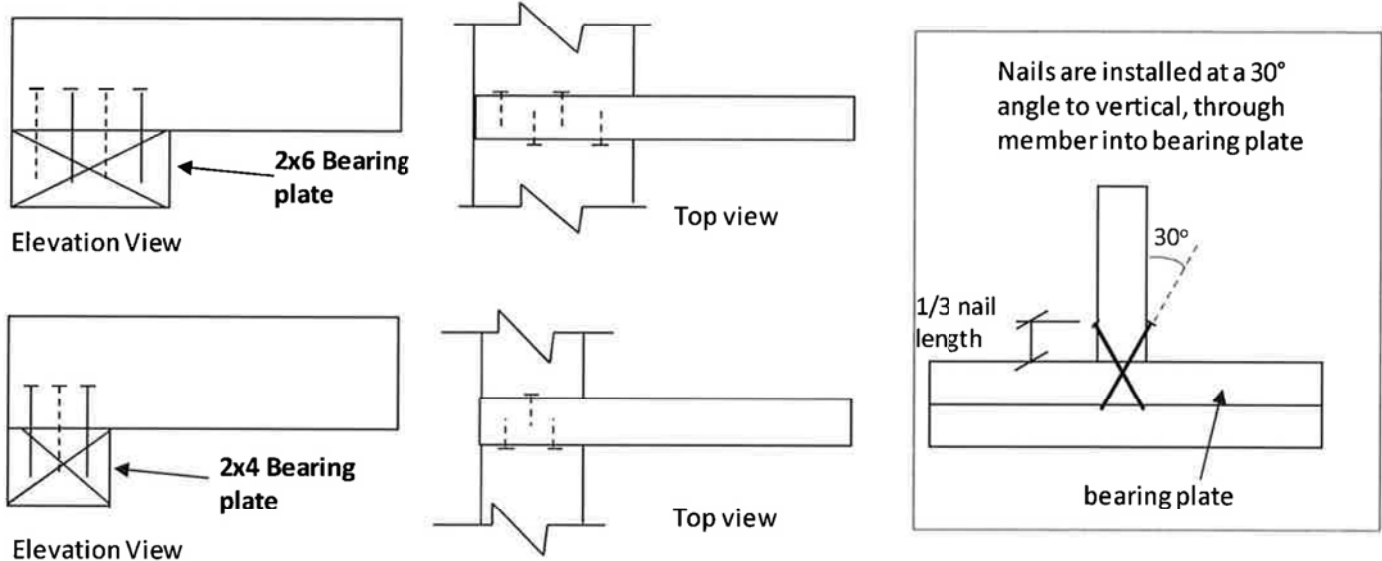


Figure 1: Toe-Nailing Rafter / Ceiling Member to Girder Truss



TOE-NAIL CAPACITY DETAILS

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



NOTES:

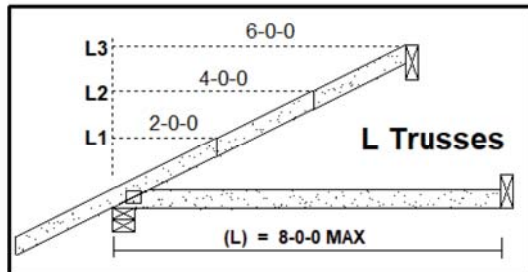
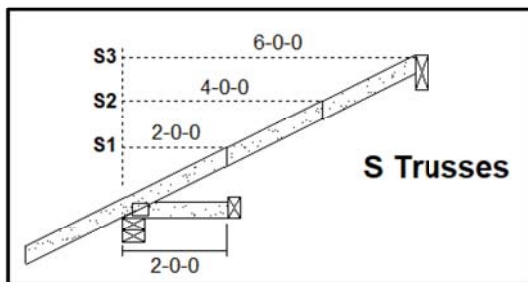
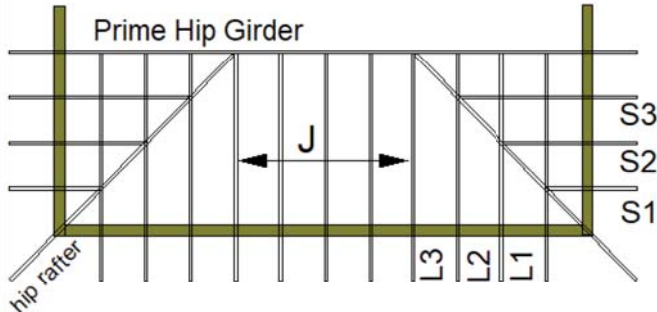
1. Rafter and ceiling members may be connected to top and bottom chords of girder truss by toe-nailing the members into the girder chords (see fig. 1), provided the factored vertical reactions of the supported members do not exceed the lateral resistance of the toe-nails. Mechanical connectors (hangers)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

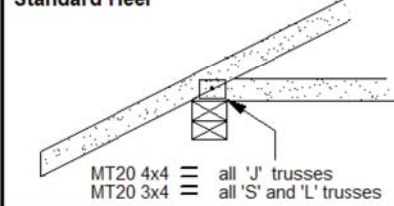
PLAN VIEW



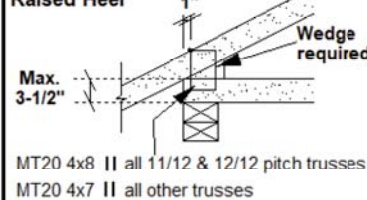
Specified Load Rating:

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

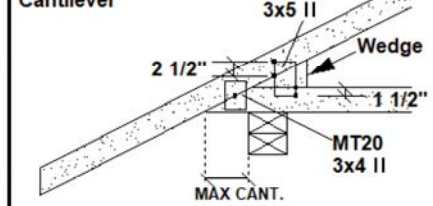
HEEL DETAIL 'A' Standard Heel



DETAIL 'B': Raised Heel



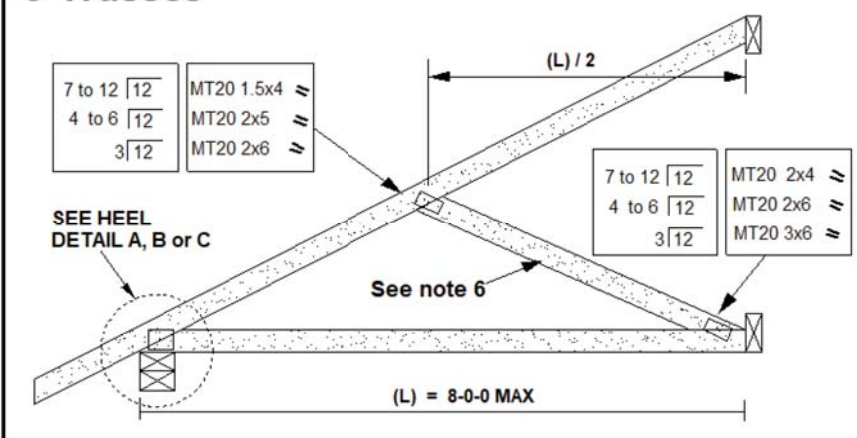
HEEL DETAIL 'C' Cantilever



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

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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