

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 #	21-00078R0
Address	GLENROWAN 3 RICHMOND HILL, ON
Model	41-03 ELEV 3
Sales Rep	RALPH MIRIGELLO
Designer	KR
Date	4/9/2021
Path	C:\MITEK\CA\JOBS\GREENPARK GROUP\ROUNDEL HOMES INC\T-GR41-03-3\
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	

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

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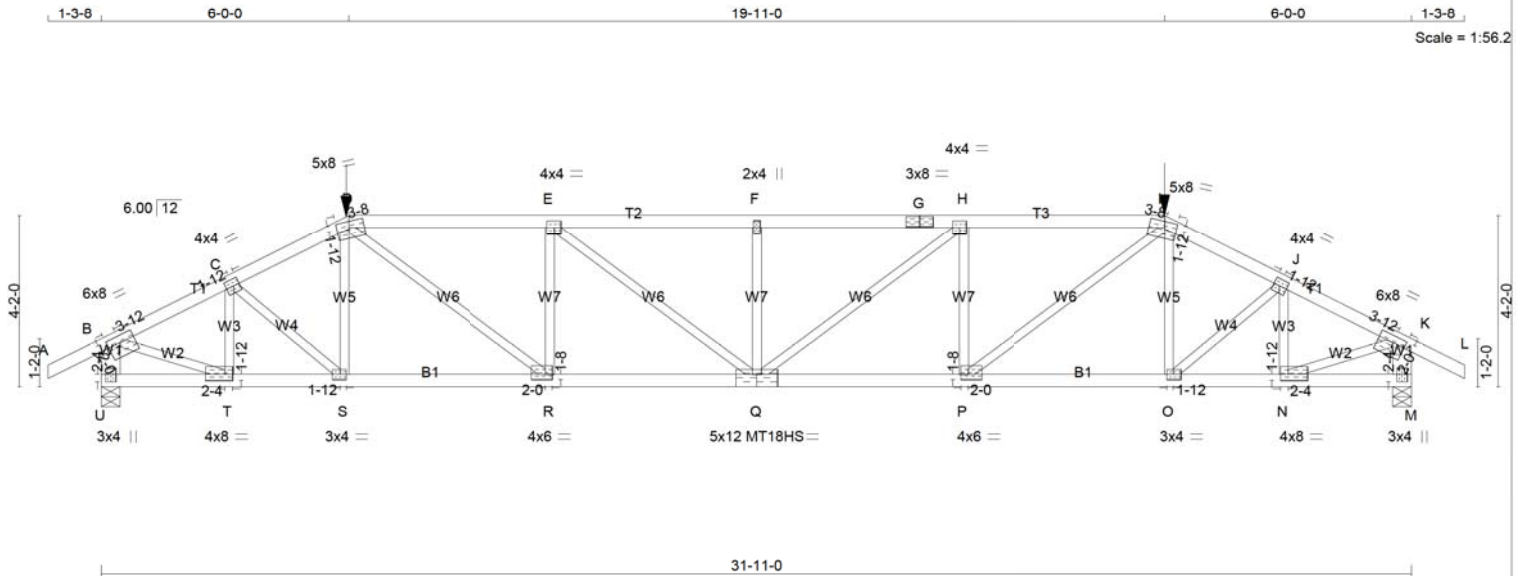
2020/04/22

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Per: joshua.nabua

JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
IM1021-021	G01	2	1	TRUSS DESC.	

Version 8.500 S Aug 16 2021 MiTek Industries, Inc. Tue Oct 5 10:30:48 2021 Page 1
ID:GcPAWhRPxUR3b0pzRu0qN9zceaP-O2vrCWFq5bMfmW99T42Zlhz64SFr2JZlv74i QyVWVhb



TOTAL WEIGHT = 2 X 128 = 256 lb

LUMBER

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

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

DRY: SEASONED LUMBER.

PLATES (table is in inches)

B	T	PLATES	W	LEN	Y	X
B	TMWV-t	MT20	6.0	8.0	2.00	3.75
C	TMWV-t	MT20	4.0	4.0	2.00	1.75
D	TTWV-m	MT20	5.0	8.0	1.75	3.50
E	TMWV-t	MT20	4.0	4.0		
F	TMW+w	MT20	2.0	4.0		
G	TS-t	MT20	3.0	8.0		
H	TMWV-t	MT20	4.0	4.0		
I	TTWV-m	MT20	5.0	8.0	1.75	3.50
J	TMWV-t	MT20	4.0	4.0	2.00	1.75
K	TMWV-t	MT20	6.0	8.0	2.00	3.75
M	BMV1+p	MT20	3.0	4.0	2.25	1.50
N	BMWV-t	MT20	4.0	8.0	1.75	2.25
O	BMWV-t	MT20	3.0	4.0	1.50	1.75
P	BMWV-t	MT20	4.0	6.0	1.50	2.00
Q	BSWVVW-I	MT18HS	5.0	12.0	Edge	6.00
R	BMWV-t	MT20	4.0	6.0	1.50	2.00
S	BMWV-t	MT20	3.0	4.0	1.50	1.75
T	BMWV-t	MT20	4.0	8.0	1.75	2.25
U	BMV1+p	MT20	3.0	4.0	2.25	1.50

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



October 05, 2021

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ENGINEERING NOTE PAGE ENP-1. THE NOTE PAGE
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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	UPLIFT	IN-SX	IN-SX
U	3130	0	3130	0	0	5-8	3-6
M	3130	0	3130	0	0	5-8	3-6

UNFACTORED REACTIONS

1ST LCASE		MAX/MIN. COMPONENT REACTIONS					
JT	COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
U	2191	1567 / 0	0 / 0	0 / 0	0 / 0	623 / 0	0 / 0
M	2191	1567 / 0	0 / 0	0 / 0	0 / 0	623 / 0	0 / 0

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

BRACING

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

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

LOADING

TOTAL LOAD CASES: (4)

C H O R D S					W E B S				
MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	MAX LC1 (LC)	MAX UNBRAC (LC)	MEMB.	MAX. FACTORED FORCE (LBS)	MAX LC1 (LC)		
FR-TO		FROM	TO	CS1 (LC)	LENGTH	FR-TO			
A-B	0 / 26	-84.3	-84.3	0.12 (1)	10.00	T-C	-958 / 0	0.17 (1)	
B-C	-4072 / 0	-84.3	-84.3	0.36 (1)	3.19	C-S	0 / 642	0.16 (1)	
C-D	-4635 / 0	-84.3	-84.3	0.39 (1)	2.94	S-D	-246 / 61	0.07 (1)	
D-E	-6070 / 0	-158.9	-158.9	0.68 (1)	2.89	D-R	0 / 2453	0.61 (1)	
E-F	-6658 / 0	-158.9	-158.9	0.74 (1)	2.81	R-E	-1333 / 0	0.37 (1)	
F-G	-6658 / 0	-158.9	-158.9	0.74 (1)	2.81	E-Q	0 / 742	0.18 (1)	
G-H	-6658 / 0	-158.9	-158.9	0.74 (1)	2.81	Q-F	-753 / 0	0.21 (1)	
H-I	-6070 / 0	-158.9	-158.9	0.68 (1)	2.99	Q-H	0 / 742	0.18 (1)	
I-J	-4635 / 0	-84.3	-84.3	0.39 (1)	2.94	P-H	-1333 / 0	0.37 (1)	
J-K	-4072 / 0	-84.3	-84.3	0.36 (1)	3.19	P-I	0 / 2453	0.61 (1)	
K-L	0 / 26	-84.3	-84.3	0.12 (1)	10.00	O-I	-246 / 61	0.07 (1)	
U-B	-3063 / 0	0.0	0.0	0.22 (1)	5.98	O-J	0 / 642	0.16 (1)	
M-K	-3063 / 0	0.0	0.0	0.22 (1)	5.98	N-J	-958 / 0	0.17 (1)	
						B-T	0 / 3785	0.94 (1)	
						N-K	0 / 3785	0.94 (1)	
U-T	0 / 0	-34.4	-34.4	0.06 (1)	10.00				
T-S	0 / 3648	-34.4	-34.4	0.36 (1)	10.00				
S-R	0 / 4141	-34.4	-34.4	0.40 (1)	10.00				
R-Q	0 / 6070	-34.4	-34.4	0.58 (1)	10.00				
Q-P	0 / 6070	-34.4	-34.4	0.58 (1)	10.00				
P-O	0 / 4141	-34.4	-34.4	0.40 (1)	10.00				
O-N	0 / 3648	-34.4	-34.4	0.36 (1)	10.00				
N-M	0 / 0	-34.4	-34.4	0.06 (1)	10.00				

FACTORED CONCENTRATED LOADS (LBS)

JT	LOC.	LC1	MAX-	MAX+	FACE	DIR.	TYPE	HEEL	CONN.
D	6-0-0	-379	-379	---	FRONT	VERT	TOTAL	---	C1
I	25-11-0	-379	-379	---	FRONT	VERT	TOTAL	---	C1

CONNECTION REQUIREMENTS

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

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 = 6-0-0
END SETBACK = 6-0-0
END WALL WIDTH = 5-8
CORNER FRAMING TYPE: CONVENTIONAL
END JACK TYPE: CONVENTIONAL
APPLIED TO FRONT SIDE
- ADDTL LOADS BASED ON 55 % OF GSL.

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 (0.33")
ALLOWABLE DEFL.(TL)= L/360 (1.06")
CALCULATED VERT. DEFL.(TL) = L/ 665 (0.58")

CSI: TC=0.74/1.00 (E-F:1) , BC=0.58/1.00 (Q-R:1) ,
WB=0.94/1.00 (K-N:1) , SSI=0.40/1.00 (D-E:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

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

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

MT20 650 371 1747 788 1987 1873

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Per: joshua.nabua

JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
IM1021-021	G01	2	1	TRUSS DESC.	

Version 8.500 S Aug 16 2021 MiTek Industries, Inc. Tue Oct 5 10:30:48 2021 Page 2
 ID:GcPAWhRPxUR3b0pzRu0qN8zceaP-O2vrCWFq5bMfmW99T42ZlhZ64SFr2JZlv74i_QyWVhb

MT18HS 586 403 2455 1382 3163 3004

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.90 (T) (INPUT = 0.90)

JSI METAL= 0.81 (Q) (INPUT = 1.00)



October 05, 2021

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CITY OF RICHMOND HILL
 BUILDING DIVISION

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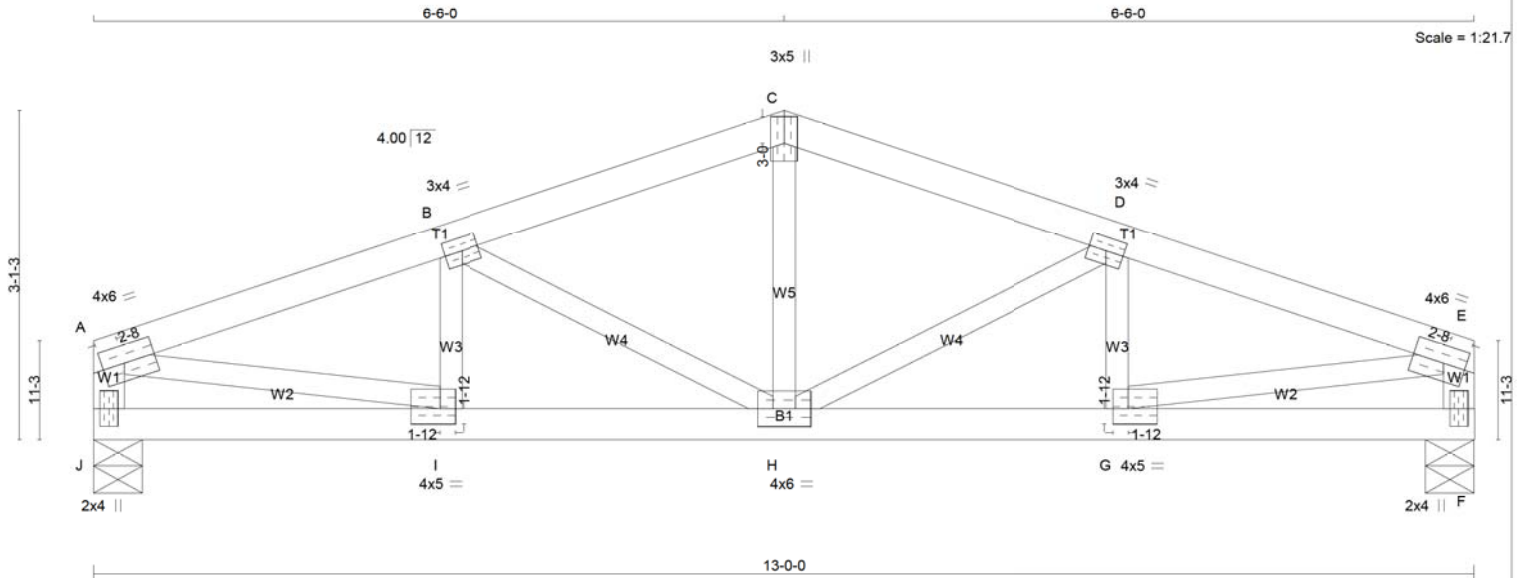


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Per: joshua.nabua

JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
IM1021-021	G02	1	1	TRUSS DESC.	

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ID:GcPAW/hrPxUR3b0pzRu0qN9zceP-tETDQsFSsvUVNgkL0nZorvVPHsdVntev8nqFWsyWVha



TOTAL WEIGHT = 46 lb
[M]

LUMBER

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

DRY: SEASONED LUMBER.

PLATES (table is in inches)

J	T	PLATES	W	LEN	Y	X
A	TMVW-t	MT20	4.0	6.0	2.00	2.50
B	TMVW-t	MT20	3.0	4.0		
C	TTW+p	MT20	3.0	5.0	3.00	1.50
D	TMVW-t	MT20	3.0	4.0		
E	TMVW-t	MT20	4.0	6.0	2.00	2.50
F	BMV1+p	MT20	2.0	4.0		
G	BMVW-t	MT20	4.0	5.0	1.75	1.75
H	BMVWVW-t	MT20	4.0	6.0		
I	BMVW-t	MT20	4.0	5.0	1.75	1.75
J	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
J	1333	0		1333	0	0	5-8	1-8
F	1333	0		1333	0	0	5-8	1-8

UNFACTORED REACTIONS

1ST LCASE		MAX./MIN. COMPONENT REACTIONS					
JT	COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
J	933	665 / 0	0 / 0	0 / 0	0 / 0	268 / 0	0 / 0
F	933	665 / 0	0 / 0	0 / 0	0 / 0	268 / 0	0 / 0

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

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.

LOADING

TOTAL LOAD CASES: (4)

C O R D S					W E B S				
MAX. FACTORED		FACTORED			MAX. FACTORED				
MEMB.	FORCE	VERT. LOAD	LC1	MAX	MAX.	MEMB.	FORCE	MAX	
	(LBS)	(PLF)	CSI (LC)		UNBRAC		(LBS)	CSI (LC)	
FR-TO		FROM TO			LENGTH	FR-TO			
A-B	-2080 / 0	-84.3	-84.3	0.20 (1)	4.49	H-C	0 / 829	0.21 (1)	
B-C	-1673 / 0	-84.3	-84.3	0.15 (1)	4.96	H-D	-455 / 0	0.11 (1)	
C-D	-1673 / 0	-84.3	-84.3	0.15 (1)	4.96	G-D	0 / 69	0.03 (4)	
D-E	-2080 / 0	-84.3	-84.3	0.20 (1)	4.49	B-H	-455 / 0	0.11 (1)	
J-A	-1156 / 0	0.0	0.0	0.13 (1)	7.37	I-B	0 / 69	0.03 (4)	
F-E	-1156 / 0	0.0	0.0	0.13 (1)	7.37	A-I	0 / 2014	0.50 (1)	
						G-E	0 / 2014	0.50 (1)	
J-I	0 / 0	-120.8	-120.8	0.19 (1)	10.00				
I-H	0 / 1979	-120.8	-120.8	0.49 (1)	10.00				
H-G	0 / 1979	-120.8	-120.8	0.49 (1)	10.00				
G-F	0 / 0	-120.8	-120.8	0.19 (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

GIRDER TYPE: CStdGirder
START DISTANCE = 0-0
START SPAN CARRIED = 6-0-0
END DISTANCE = 13-0-0
END SPAN CARRIED = 6-0-0
END WALL WIDTH = 0-0
APPLIED TO FRONT SIDE OF BOTTOM CHORD.
- ADDTL LOADS BASED ON 55 % OF GSL.
(DEFINED BY USER)

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 (0.05")
ALLOWABLE DEFL.(TL)= L/360 (0.43")
CALCULATED VERT. DEFL.(TL) = L/ 999 (0.09")

CSI: TC=0.20/1.00 (A-B:1), BC=0.49/1.00 (H-I:1),
WB=0.50/1.00 (A-I:1), SSI=0.20/1.00 (I-J: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	MAX	MIN
MT20	650	371	1747	788	1987	1873



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BUILDING DIVISION
CONTINUED ON PAGE 2

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Per: joshua.nabua

JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
IM1021-021	G02	1	1	TRUSS DESC.	

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ID:GcPAWhRPxUR3b0pzRu0qN9zceaP-tETDQsFSsvUVNgkL0nZorvVPHsdVntev8nqFWsyWVha

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.90 (G) (INPUT = 0.90)

JSI METAL= 0.54 (I) (INPUT = 1.00)



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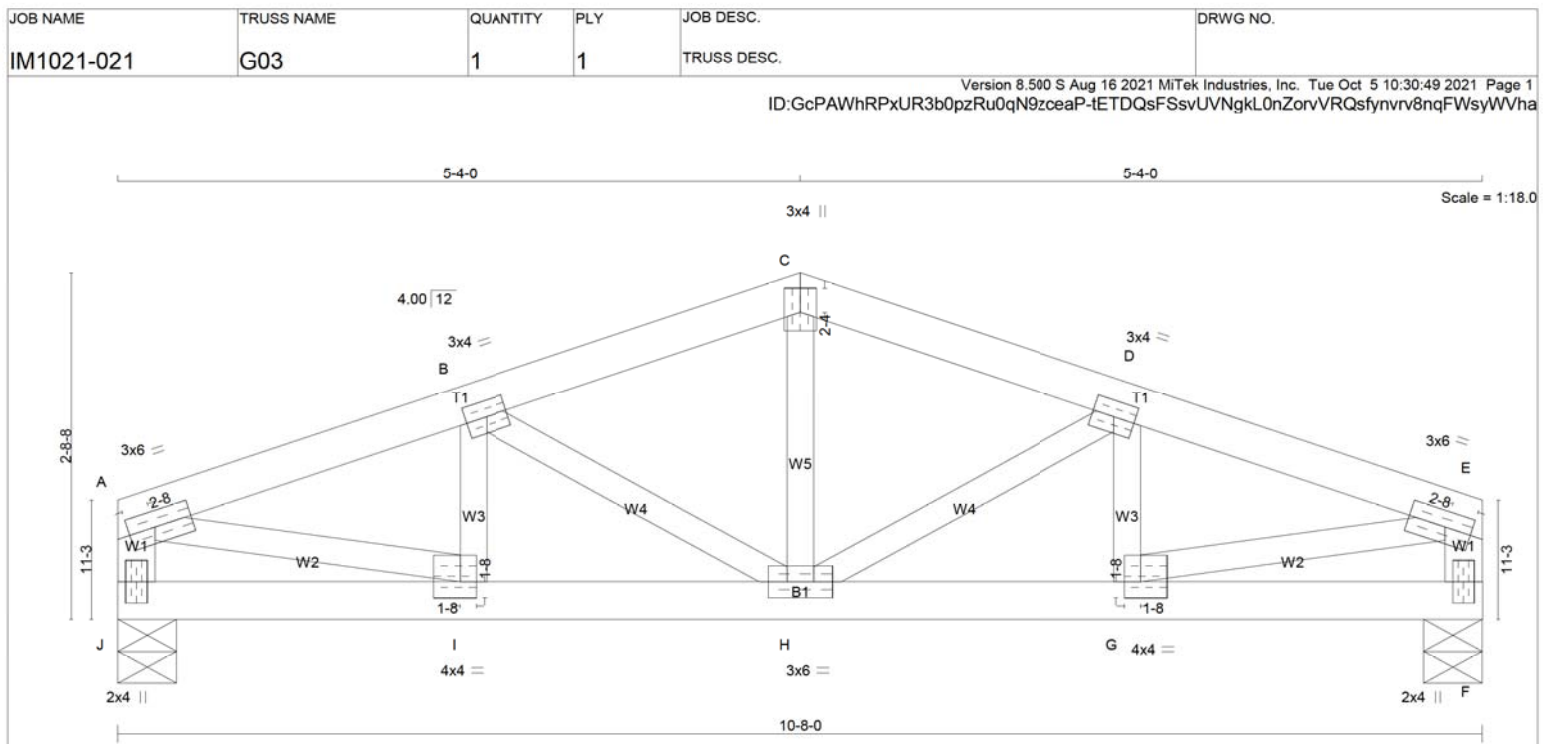
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BUILDING DIVISION

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Per: joshua.nabua

**LUMBER**

N. L. G. A. RULES

CHORDS	SIZE	LUMBER	DESCR.
A - C	2x4	DRY	No.2
C - E	2x4	DRY	No.2
J - A	2x4	DRY	No.2
F - E	2x4	DRY	No.2
J - 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
A	TMVW-t	MT20	3.0	6.0	1.50	2.50
B	TMWW-t	MT20	3.0	4.0		
C	TTW+p	MT20	3.0	4.0	2.25	1.50
D	TMWW-t	MT20	3.0	4.0		
E	TMVW-t	MT20	3.0	6.0	1.50	2.50
F	BMV1+p	MT20	2.0	4.0		
G	BMWW-t	MT20	4.0	4.0	1.50	1.50
H	BMWW-t	MT20	3.0	6.0		
I	BMWW-t	MT20	4.0	4.0	1.50	1.50
J	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
J	1031	0	1031	0
F	1031	0	1031	0

UNFACTORED REACTIONS

1ST LCASE	MAX/MIN. COMPONENT REACTIONS						
JT	COMBINED	SNOW	LIVE	PERM. LIVE	WIND	DEAD	SOIL
J	722	515 / 0	0 / 0	0 / 0	0 / 0	207 / 0	0 / 0
F	722	515 / 0	0 / 0	0 / 0	0 / 0	207 / 0	0 / 0

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

BRACING

TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 5.24 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. LC1 (LC)	MEMB.	MAX. FACTORED FORCE (LBS)	MAX. LC1 (LC)	
FR-TO		FROM	TO	FR-TO			
A-B	-1481 / 0	-84.3	-84.3 0.13 (1)	5.24	H-C	0 / 588	0.15 (1)
B-C	-1232 / 0	-84.3	-84.3 0.10 (1)	5.65	H-D	-286 / 0	0.06 (1)
C-D	-1232 / 0	-84.3	-84.3 0.10 (1)	5.65	G-D	-21 / 41	0.02 (4)
D-E	-1481 / 0	-84.3	-84.3 0.13 (1)	5.24	B-H	-286 / 0	0.06 (1)
J-A	-895 / 0	0.0	0.0 0.10 (1)	7.81	I-B	-21 / 41	0.02 (4)
F-E	-895 / 0	0.0	0.0 0.10 (1)	7.81	A-I	0 / 1445	0.36 (1)
					G-E	0 / 1445	0.36 (1)
J-I	0 / 0	-109.0	-109.0 0.13 (1)	10.00			
I-H	0 / 1408	-109.0	-109.0 0.34 (1)	10.00			
H-G	0 / 1408	-109.0	-109.0 0.34 (1)	10.00			
G-F	0 / 0	-109.0	-109.0 0.13 (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

GIRDER TYPE: CStdGirder
START DISTANCE = 0-0
START SPAN CARRIED = 6-0-0
END DISTANCE = 10-8-0
END SPAN CARRIED = 6-0-0
END WALL WIDTH = 5-8
APPLIED TO FRONT SIDE OF BOTTOM CHORD.
- ADDTL LOADS BASED ON 55 % OF GSL.
(DEFINED BY USER)

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 (0.36")
CALCULATED VERT. DEFL.(LL) = L/999 (0.03")
ALLOWABLE DEFL.(TL) = L/360 (0.36")
CALCULATED VERT. DEFL.(TL) = L/999 (0.05")

CSI: TC=0.13/1.00 (D-E:1), BC=0.34/1.00 (G-H:1), WB=0.36/1.00 (E-G:1), SSI=0.14/1.00 (F-G:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

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

NAIL VALUES

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



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.

CITY OF RICHMOND HILL
BUILDING DIVISION
CONTINUED ON PAGE 2

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JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
IM1021-021	G03	1	1	TRUSS DESC.	

Version 8.590 S Aug 16 2021 MiTek Industries, Inc. Tue Oct 5 10:30:49 2021 Page 2
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PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.90 (E) (INPUT = 0.90)

JSI METAL= 0.48 (I) (INPUT = 1.00)



October 05, 2021

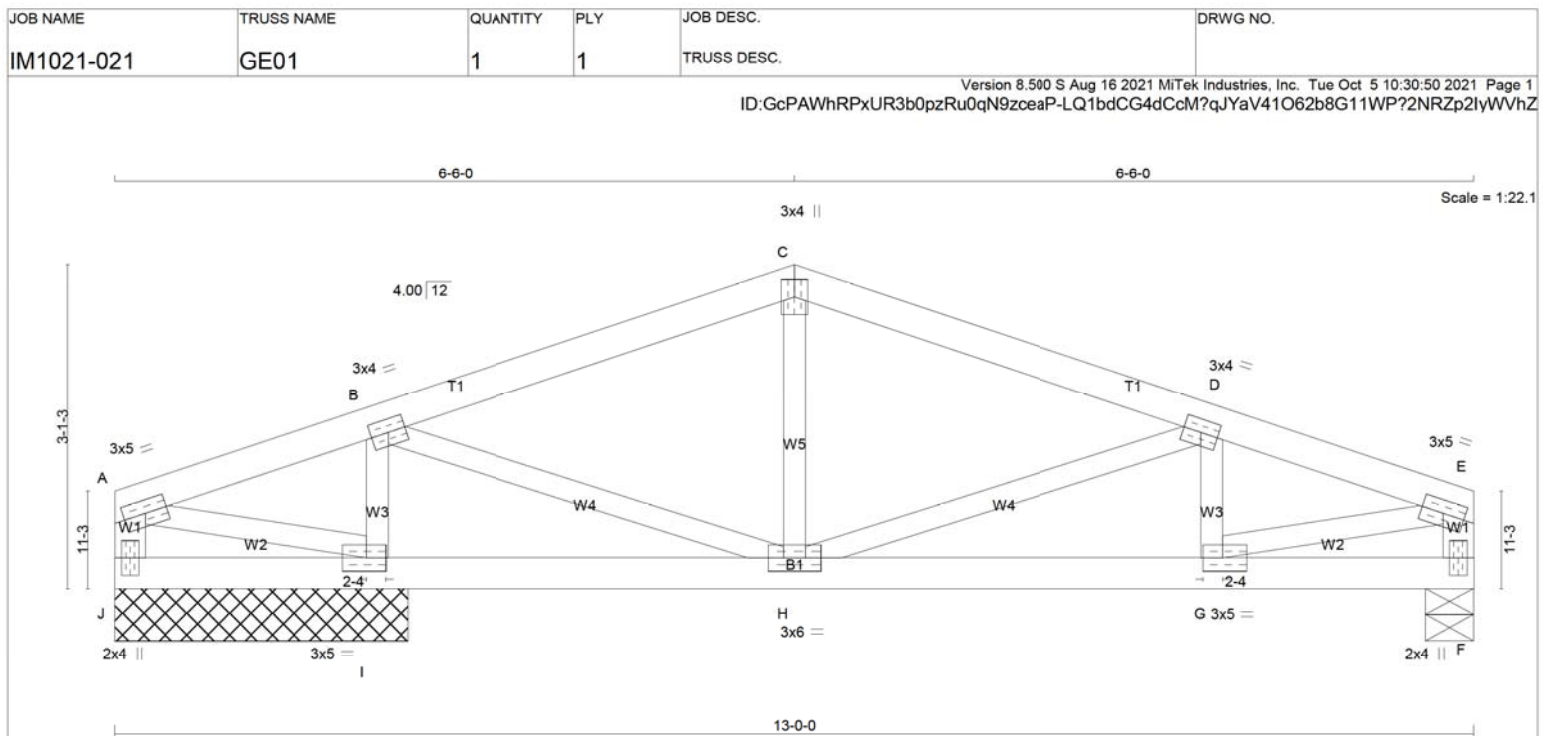
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 BUILDING DIVISION

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**LUMBER**

N. L. G. A. RULES

CHORDS	SIZE	LUMBER	DESCR.
A - C	2x4	DRY	No.2
C - E	2x4	DRY	No.2
J - A	2x4	DRY	No.2
F - E	2x4	DRY	No.2
J - F	2x4	DRY	No.2
ALL WEBS EXCEPT	2x3	DRY	No.2

DRY: SEASONED LUMBER.

GABLE STUDS SPACED AT 2'-0" OC.

PLATES (table is in inches)

JT	TYPE	PLATES	W	LEN	Y	X
A	TMVW-t	MT20	3.0	5.0		
B	TMWW-t	MT20	3.0	4.0		
C	TTW+p	MT20	3.0	4.0		
D	TMWW-t	MT20	3.0	4.0		
E	TMVW-t	MT20	3.0	5.0		
F	BMV1+p	MT20	2.0	4.0		
G	BMWW-t	MT20	3.0	5.0	1.50	2.25
H	BMWW-t	MT20	3.0	6.0		
I	BMWW1-t	MT20	3.0	5.0	1.50	2.25
J	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
	VERT	HORZ	DOWN	UP
JT	45	0	45	0
J	518	0	518	0
F	769	0	769	0

UNFACTORED REACTIONS

1ST LCASE	MAX / MIN	COMPONENT REACTIONS	DEAD	SOIL
JT	32	SNOW	23 / 0	0 / 0
J	363	LIVE	259 / 0	0 / 0
F	539	PERM. LIVE	384 / 0	0 / 0

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

BRACING

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

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

LOADING

TOTAL LOAD CASES: (4)

CHORDS				WEBS			
MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	MAX. FACTORED CSI (LC)	MEMB.	MAX. FACTORED FORCE (LBS)	MAX. FACTORED CSI (LC)	
FR-TO		FROM	TO	FR-TO		FROM	TO
A-B	0 / 47	-84.3	-84.3 0.19 (1)	10.00	H-C	0 / 59	0.02 (4)
B-C	-473 / 0	-84.3	-84.3 0.15 (1)	6.25	H-D	-320 / 0	0.10 (1)
C-D	-471 / 0	-84.3	-84.3 0.15 (1)	6.25	G-D	-134 / 19	0.02 (1)
D-E	-765 / 0	-84.3	-84.3 0.12 (1)	6.25	B-H	0 / 497	0.11 (1)
J-A	-35 / 3	0.0	0.0 0.00 (1)	7.81	I-B	-688 / 0	0.10 (1)
F-E	-495 / 0	0.0	0.0 0.05 (1)	7.81	A-I	-29 / 0	0.00 (1)
					G-E	0 / 762	0.17 (1)
J-I	0 / 0	-18.2	-18.2 0.05 (4)	10.00			
I-H	-28 / 0	-18.2	-18.2 0.05 (4)	6.25			
H-G	0 / 738	-18.2	-18.2 0.15 (1)	10.00			
G-F	0 / 0	-18.2	-18.2 0.03 (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) = $L/360$ (0.35")
CALCULATED VERT. DEFL.(LL) = $L/999$ (0.01")
ALLOWABLE DEFL.(TL) = $L/360$ (0.35")
CALCULATED VERT. DEFL.(TL) = $L/999$ (0.03")

CSI: TC=0.19/1.00 (A-B-1), BC=0.15/1.00 (G-H-1)
WB=0.17/1.00 (E-G-1), SSI=0.15/1.00 (B-C-1)

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

COMPANION LIVE LOAD FACTOR = 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= 0.87 (H) (INPUT = 0.90)
JSI METAL= 0.23 (A) (INPUT = 1.00)



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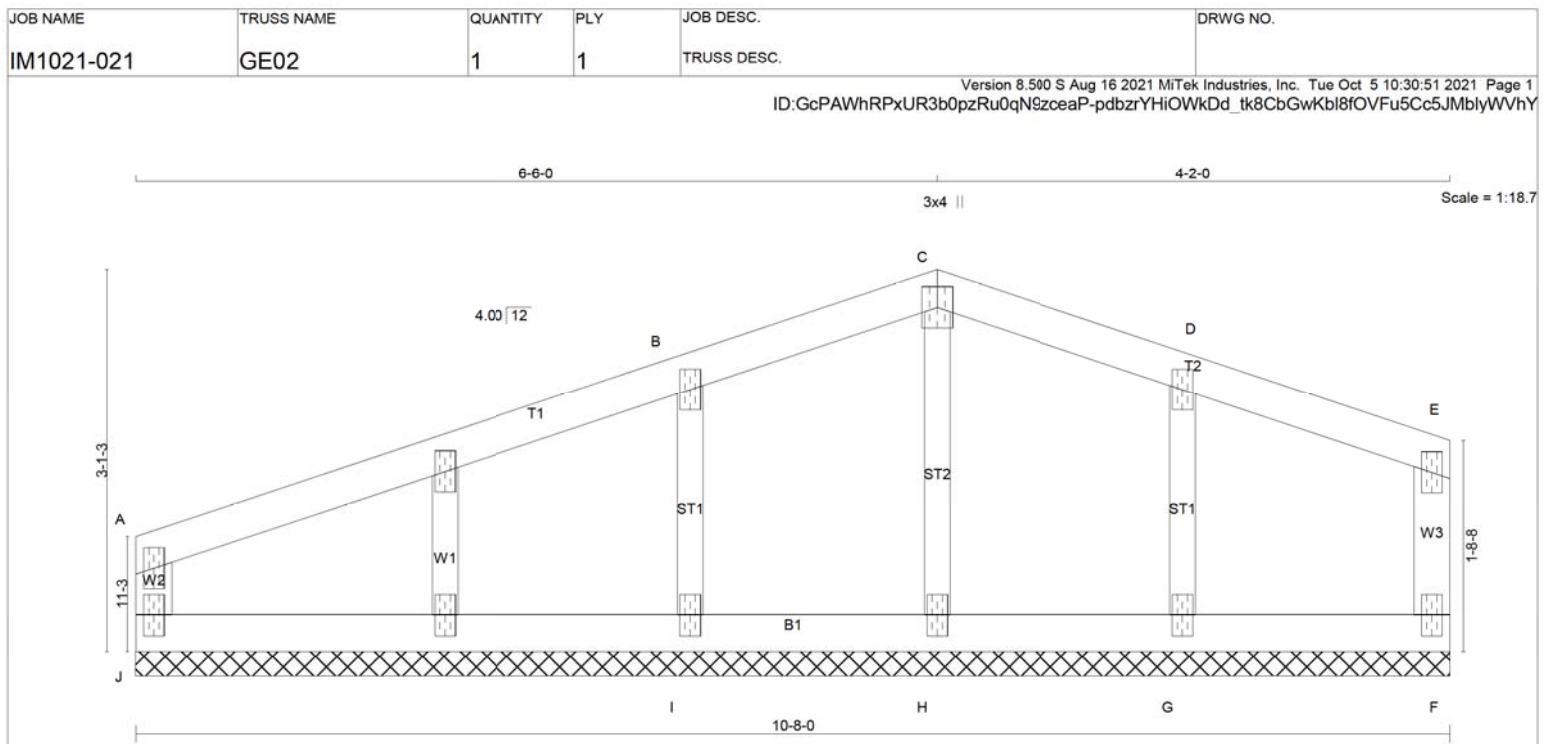
READ ALL NOTES ON THIS PAGE AND ON THE ENGINEERING NOTE PAGE ENP-1. THE NOTE PAGE IS AN INTEGRAL PART OF THIS DRAWING AS IT CONTAINS SPECIFICATIONS AND CRITERIA USED IN THE DESIGN OF THIS COMPONENT.

CITY OF RICHMOND HILL
BUILDING DIVISION

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**LUMBER**

N. L. G. A. RULES

CHORDS	SIZE	LUMBER	DESCR.
J - A	2x4	DRY	No.2
A - C	2x4	DRY	No.2
C - E	2x4	DRY	No.2
F - E	2x4	DRY	No.2
J - F	2x4	DRY	No.2

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

GABLE STUDS SPACED AT 2-0-0 OC.

PLATES (table is in inches)

JT TYPE	PLATES	W	LEN	Y	X
A	TMV+p	MT20	2.0	4.0	
B	TMW+w	MT20	2.0	4.0	
C	TTW+p	MT20	3.0	4.0	
D	TMW+w	MT20	2.0	4.0	
E	TMV+p	MT20	2.0	4.0	
F	BMV1+p	MT20	2.0	4.0	
G, H, I					
G	BMW1+w	MT20	2.0	4.0	
J	BMV1+p	MT20	2.0	4.0	
K	NP+w	MT20	2.0	4.0	
L	NP+w	MT20	2.0	4.0	

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

THIS TRUSS DESIGNED FOR CONTINUOUS BEARINGS.

THIS TRUSS REQUIRES RIGID SHEATHING ON EXPOSED FACE.

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

BRACING

TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 6.25 FT.

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

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

LOADING

TOTAL LOAD CASES: (4)

CHORDS	MAX. FACTORED				WEBS			
	MEMB.	FORCE (LBS)	VERT. LOAD (PLF)	LC1 MAX	MAX. UNBRACED LENGTH	MEMB.	FORCE (LBS)	MAX. CSI (LC)
FR-TO			FROM TO			FR-TO		
J-A	-201 / 0		0.0	0.0	0.10 (1)	7.81	H-C	-58 / 4
A-B	-77 / 0		-84.3	-84.3	0.18 (1)	6.25	I-B	-342 / 0
B-C	-91 / 0		-84.3	-84.3	0.18 (1)	6.25	G-D	-170 / 0
C-D	-75 / 0		-84.3	-84.3	0.04 (1)	6.25		
D-E	-81 / 0		-84.3	-84.3	0.08 (1)	6.25		
F-E	-128 / 0		0.0	0.0	0.08 (1)	7.81		
J-I	0 / 76		-18.2	-18.2	0.08 (4)	10.00		
I-H	0 / 69		-18.2	-18.2	0.08 (4)	10.00		
H-G	0 / 69		-18.2	-18.2	0.03 (1)	10.00		
G-F	0 / 72		-18.2	-18.2	0.07 (1)	10.00		

DESIGN CRITERIA**SPECIFIED LOADS:**

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

SPACING = 24.0 IN. C/C

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

CSI: TC=0.18/1.00 (A-B:1), BC=0.08/1.00 (I-J:4), WB=0.05/1.00 (B-I:1), SSI=0.15/1.00 (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	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 (A) (INPUT = 1.00)



October 05, 2021

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Version 8.500 S Aug 16 2021 MiTek Industries, Inc. Tue Oct 5 10:30:51 2021 Page 1
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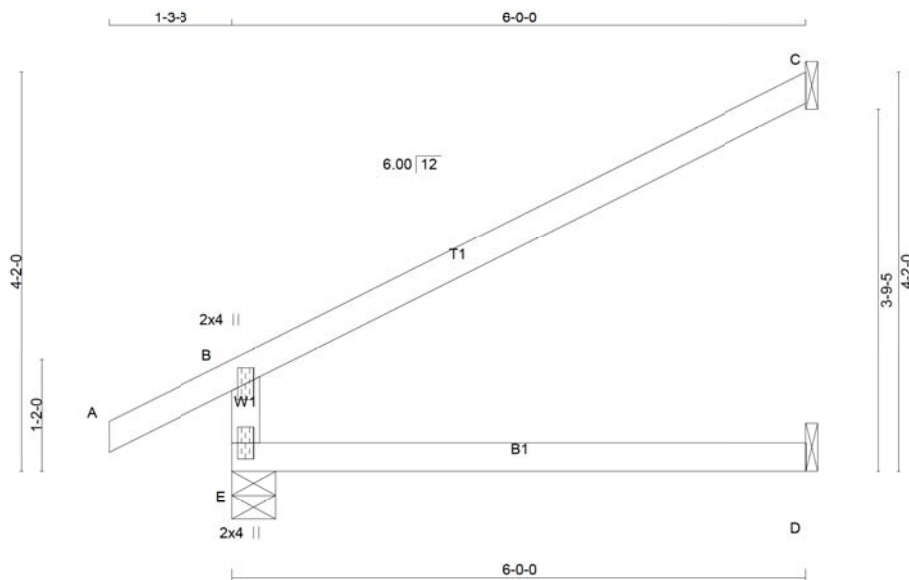


Per: joshua.nabua

JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
IM1021-021	J01	22	1	TRUSS DESC.	

Version 8.590 S Aug 16 2021 MiTek Industries, Inc. Tue Oct 5 10:30:52 2021 Page 1

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Scale: 1/2"=1'

TOTAL WEIGHT = 22 X 17 = 376 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	LIVE	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

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. 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), CSI=0.22/1.00 (B-C:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

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

NAIL VALUES

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

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

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

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

CITY OF RICHMOND HILL
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Per: joshua.nabua



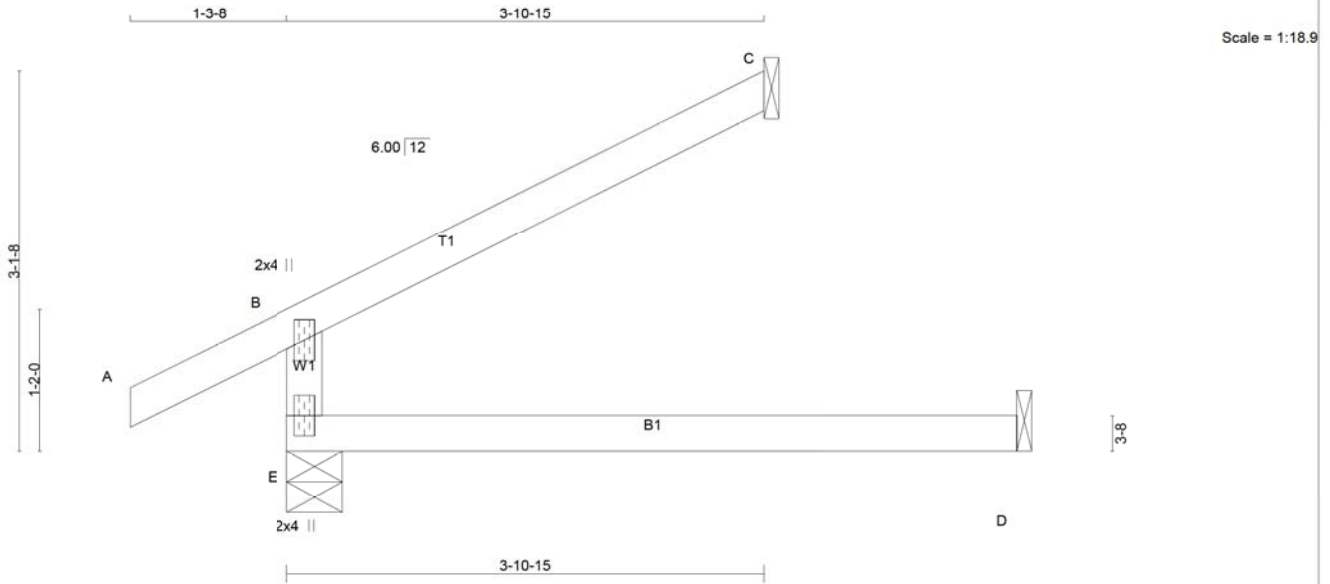
October 05, 2021

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JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
IM1021-021	J02	4	1	TRUSS DESC.	

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ID:GcPAWhRPxUR3b0pzRu0qN9zceaP-Hp9L2uL9qs4E8Swiw6VTX7vD3jp_LALqk2w7ByWVhX



TOTAL WEIGHT = 4 X 14 = 56 lb

LUMBER			
N. L. G. A. RULES	SIZE	LUMBER	DESCR.
CHORDS	2x4	No.2	SPF
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

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 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	269	194 / 0	0 / 0	0 / 0	0 / 0	74 / 0	0 / 0
C	84	75 / 0	0 / 0	0 / 0	0 / 0	9 / 0	0 / 0
D	36	0 / 0	0 / 0	0 / 0	0 / 0	36 / 0	0 / 0

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

BRACING

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

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

LOADING

TOTAL LOAD CASES: (4)

MEMB.	CHORDS		FACTORED		MAX. UNBRAC LENGTH	FR-TO	MEMB.	WEBS	
	MAX. FACTORED FORCE (LBS)	VERT. LOAD (PLF)	VERT. LOAD (PLF)	CS (LC)				MAX. FACTORED FORCE (LBS)	MAX. CS (LC)
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 (PSI)	SECTION (PLI)
MT20	650	371	1747
		788	1987
		1873	

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

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

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

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BUILDING DIVISION

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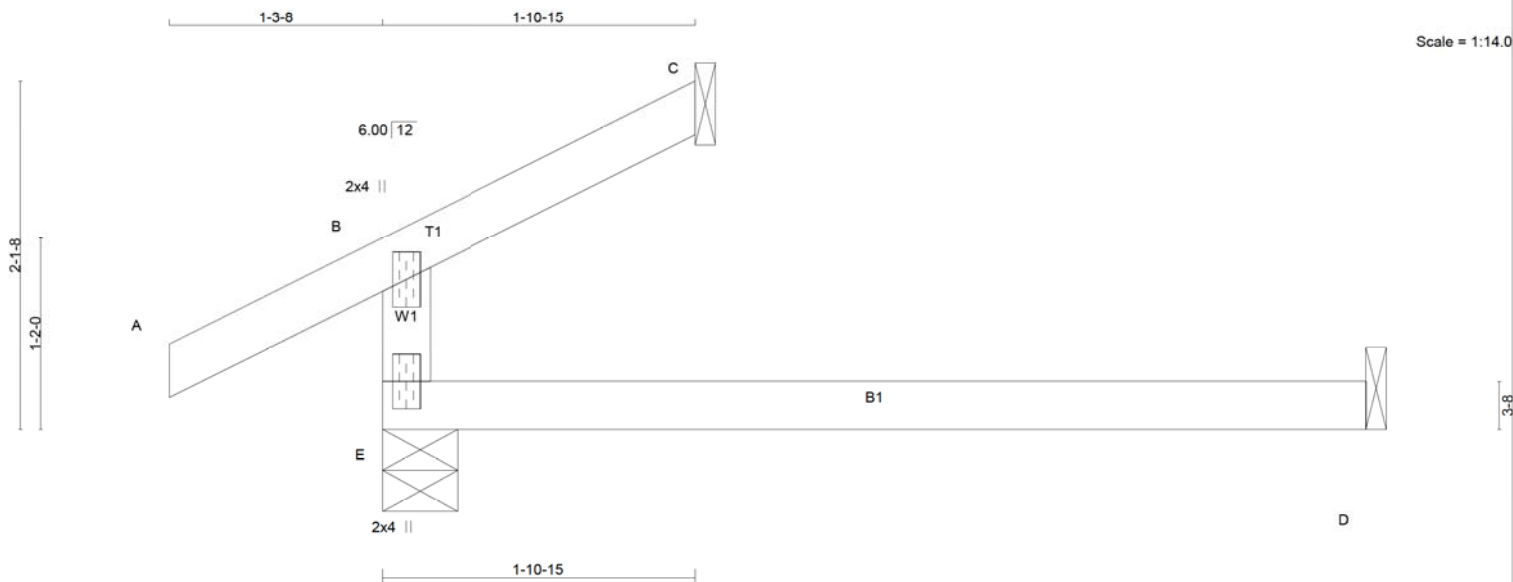


October 05, 2021

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JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
IM1021-021	J03	4	1	TRUSS DESC.	

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ID:GcPAWhRPxUR3b0pzRu0qN9zceaP-I?jkFDJzw7 xsH16Fddk?lg5HT32joQV3OoTfdyWVhW



TOTAL WEIGHT = 4 X 12 = 48 lb
[M]

LUMBER

N. L. G. A. RULES

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

DRY: SEASONED LUMBER.

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

	FACTORED GROSS REACTION	MAXIMUM FACTORED GROSS REACTION	INPUT BRG	REQRD BRG
JT	VERT	HORZ	DOWN	HORZ
E	279	0	279	0
C	61	0	61	0
D	45	0	51	0

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)	MAX. FACTORED CSI (LC)	MEMB.	MAX. FACTORED FORCE (LBS)	MAX. FACTORED CSI (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)
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= 0.12 (B) (INPUT = 0.90)

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

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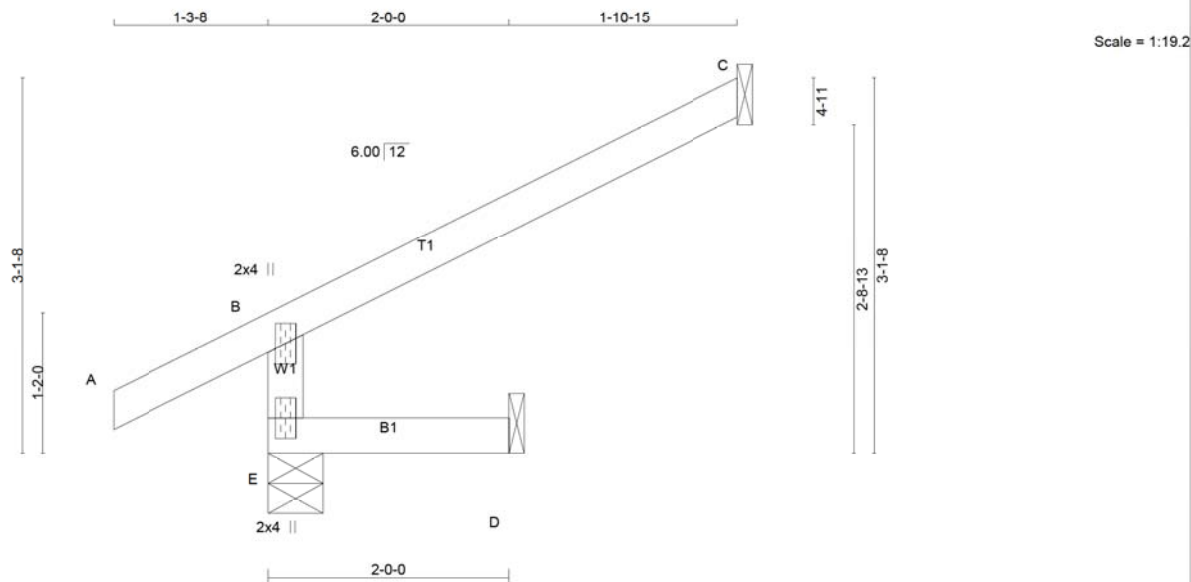


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JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
IM1021-021	J04	4	1	TRUSS DESC.	

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ID:GcPAWhRPxUR3b0pzRu0qN9zceaP-DBH6TZJbhR6oURcJpL8zYyDFjR7SFgel2X0B4yWVhV



TOTAL WEIGHT = 4 X 10 = 39 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	REQRD BRG
	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	MAX / MIN COMPONENT REACTIONS					
	COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
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)

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			
E-B	-320 / 0	0.0 0.0	0.01 (4) 7.81				
A-B	0 / 26	-84.3 -84.3	0.11 (1) 10.00				
B-C	-18 / 0	-84.3 -84.3	0.22 (1) 6.25				
E-D	0 / 0	-18.2 -18.2	0.02 (4) 10.00				

CANTILEVER ANALYSIS HAS BEEN CONSIDERED IN THIS DESIGN

PATTERN-LOADING CHECK APPLIED TO THIS TRUSS.

DESIGN CRITERIA**SPECIFIED LOADS:**

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

SPACING = 24.0 IN. C/C

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

THIS DESIGN COMPLIES WITH:

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

DESIGN ASSUMPTIONS

-OVERHANG NOT TO BE ALTERED OR CUT OFF.

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

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

CSI: TC=0.22/1.00 (B-C:1), BC=0.02/1.00 (D-E:4), WB=0.00/1.00 (n/a:0), SSI=0.14/1.00 (B-C:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

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

NAIL VALUES

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

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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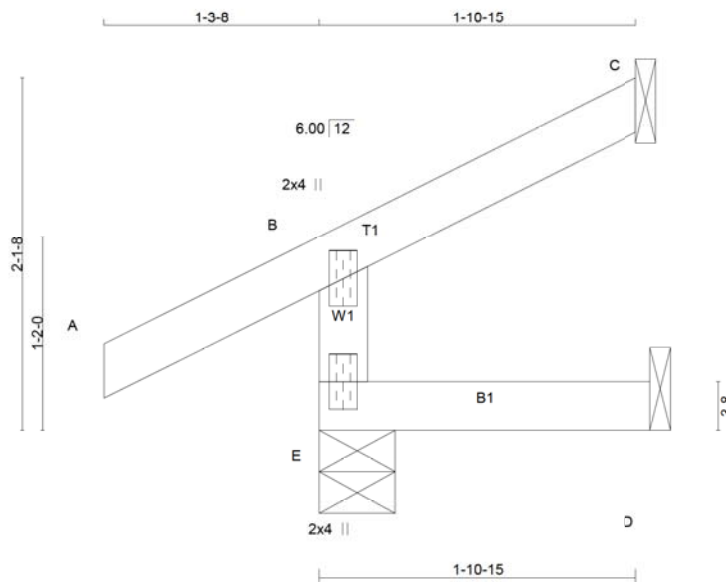


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JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
IM1021-021	J05	4	1	TRUSS DESC.	

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ID:GcPAWhRPxUR3b0pzRu0qN9zceaP-hOqUgvKDRIEf5bBVN2gC5AISAHnMBivnWiHakWyWVhU



TOTAL WEIGHT = 4 X 7 = 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

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)

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

CANTILEVER ANALYSIS HAS BEEN CONSIDERED IN THIS DESIGN

PATTERN-LOADING CHECK APPLIED TO THIS TRUSS.

DESIGN CRITERIA

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

SPACING = 24.0 IN. C/C

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

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

DESIGN ASSUMPTIONS
- OVERHANG NOT TO BE ALTERED OR CUT OFF.

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

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

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

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

COMPANION LIVE LOAD FACTOR = 1.00

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

NAIL VALUES
PLATE GRIP(DRY) SHEAR 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)

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JSI GRIP= 0.87 (P) (INPUT = 0.90)
JSI METAL = 0.62 (B) (INPUT = 1.00)

CITY OF RICHMOND HILL
BUILDING DIVISION

09/22/2022

 KOTT

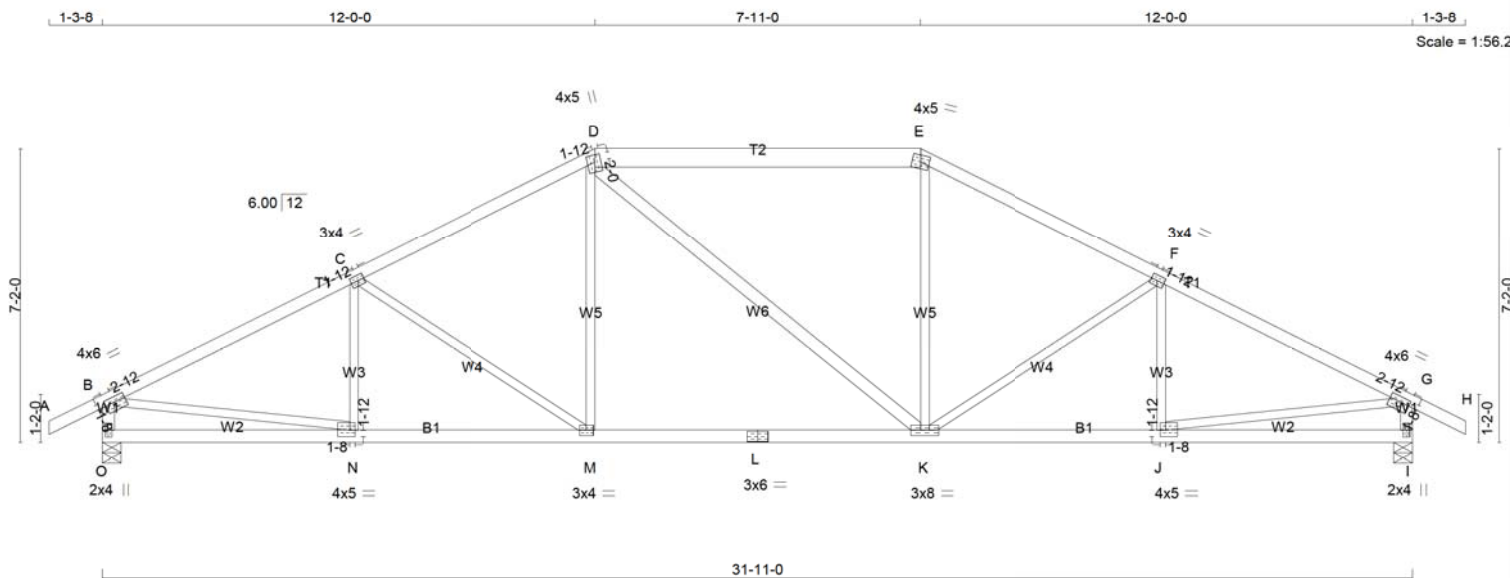
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Per: joshua.nabua

JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
IM1021-021	T03	2	1	TRUSS DESC.	

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ID:GcPAWhRPxUR3b0pzRu0qN9zceap-emyE5bMTzMUNLvLuUtigAbriU4LrfVj4_0mhoOyVWvHs

TOTAL WEIGHT = 2 X 135 = 270 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.

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

BRACINGTOP 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			



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.

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 (0.11")
 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	SECTION
(PSI)	(PLI)	(PLI)	
MT20	650	371	1747 788 1987 1873

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.89 (N) (INPUT = 0.90)

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

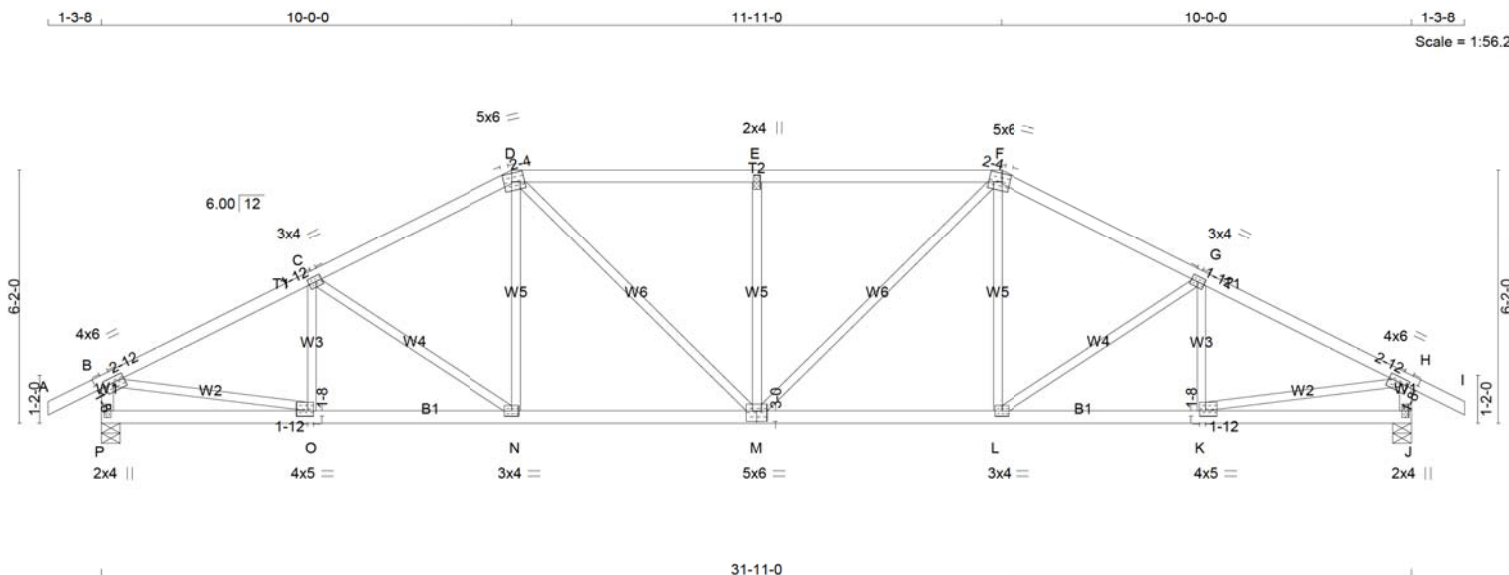
CITY OF RICHMOND HILL
BUILDING DIVISION09/22/2022
KOTT
RECEIVED

Per: joshua.nabua

JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
IM1021-021	T04	2	1	TRUSS DESC.	

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ID:GcPAWhRPxUR3b0pzRu0qN9zceaP-6zWdJxM5kgcEy3w42ADvioNtsUijOy3EDgVEKryWVhR



TOTAL WEIGHT = 2 X 130 = 259 lb

[M/F]

LUMBER

N. L. G. A. RULES

CHORDS	SIZE	LUMBER	DESCR.
A - D	2x4	DRY	No.2
D - F	2x4	DRY	No.2
F - I	2x4	DRY	No.2
P - B	2x4	DRY	No.2
J - H	2x4	DRY	No.2
P - M	2x4	DRY	No.2
M - J	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	4.0	6.0	1.50	2.75
C	TMWW-t	MT20	3.0	4.0	1.50	1.75
D	TTWW-m	MT20	5.0	6.0	2.50	2.25
E	TMW-w	MT20	2.0	4.0		
F	TTWW-m	MT20	5.0	6.0	2.50	2.25
G	TMWW-t	MT20	3.0	4.0	1.50	1.75
H	TMVW-t	MT20	4.0	6.0	1.50	2.75
J	BMV1+p	MT20	2.0	4.0		
K	BMWW-t	MT20	4.0	5.0	1.50	1.75
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	4.0	5.0	1.50	1.75
P	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		
P	1750	0	1750	0	5-8	2-3
J	1750	0	1750	0	5-8	2-3

UNFACTORED REACTIONS

JT	COMBINED	MAX./MIN. COMPONENT REACTIONS					
		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



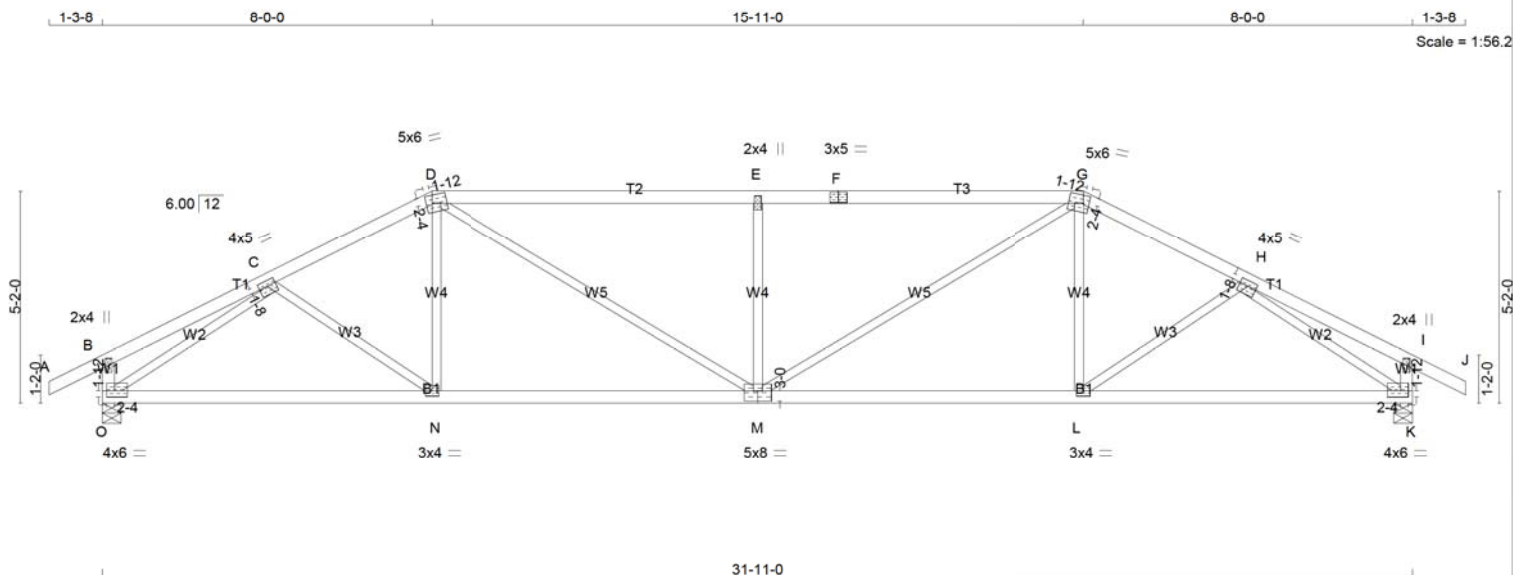
October 05, 2021

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.
IM1021-021	T05	2	1	TRUSS DESC.	

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ID:GcPAWhRPxUR3b0pzRu0qN9zceaP-6zWdJxM5kgcEy3w42ADvioNIUUhMoQLEDgVEKryVWvR



TOTAL WEIGHT = 2 X 121 = 242 lb [M]

LUMBER

N. L. G. A. RULES

CHORDS	SIZE	LUMBER	DESCR.
A - D	2x4	DRY No.2	SPF
D - F	2x4	DRY 2100F 1.8E	SPF
F - G	2x4	DRY No.2	SPF
G - J	2x4	DRY No.2	SPF
O - B	2x4	DRY No.2	SPF
K - I	2x4	DRY No.2	SPF
O - M	2x4	DRY No.2	SPF
M - K	2x4	DRY No.2	SPF

ALL WEBS	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	4.0	5.0	1.50	2.50
D	TTWW-m	MT20	5.0	6.0	2.25	1.75
E	TMW+w	MT20	2.0	4.0		
F	TS-t	MT20	3.0	5.0		
G	TTWW-m	MT20	5.0	6.0	2.25	1.75
H	TMWW-t	MT20	4.0	5.0	1.50	2.50
I	TMV+p	MT20	2.0	4.0		
K	BMVW1-t	MT20	4.0	6.0	1.75	2.25
L	BMWW-t	MT20	3.0	4.0		
M	BSWWW-t	MT20	5.0	8.0	3.00	4.00
N	BMWW-t	MT20	3.0	4.0		
O	BMVW1-t	MT20	4.0	6.0	1.75	2.25

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
O	1750	0	5-8	1-14
K	1750	0	5-8	1-14

UNFACTORED REACTIONS

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

BRACING

TOP CHORD TO BE SHEATHED OR MAX. PURLINE SPACING = 3.35 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 HORIZ. LOAD (LC)	MEMB.	MAX. FACTORED FORCE (LBS)	MAX. FACTORED HORIZ. LOAD (LC)	
FR-TO		FROM	TO	FR-TO		FROM	TO
A-B	0 / 26	-84.3	-84.3 0.11 (1)	10.00	C-N	0 / 77	0.03 (4)
B-C	0 / 15	-84.3	-84.3 0.19 (1)	10.00	N-D	0 / 165	0.05 (4)
C-D	-2299 / 0	-84.3	-84.3 0.27 (1)	4.28	D-M	0 / 903	0.20 (1)
D-E	-2815 / 0	-84.3	-84.3 0.85 (1)	4.02	M-E	-833 / 0	0.33 (1)
E-F	-2815 / 0	-84.3	-84.3 1.00 (1)	3.35	M-G	0 / 903	0.20 (1)
F-G	-2815 / 0	-84.3	-84.3 1.00 (1)	3.35	L-G	0 / 165	0.05 (4)
G-H	-2299 / 0	-84.3	-84.3 0.27 (1)	4.28	L-H	0 / 77	0.03 (4)
H-I	0 / 15	-84.3	-84.3 0.19 (1)	10.00	O-C	-2483 / 0	0.98 (1)
I-J	0 / 26	-84.3	-84.3 0.11 (1)	10.00	H-K	-2483 / 0	0.98 (1)
O-B	-250 / 0	0.0	0.0 0.03 (1)	7.81			
K-I	-250 / 0	0.0	0.0 0.03 (1)	7.81			
O-N	0 / 2021	-18.2	-18.2 0.51 (1)	10.00			
N-M	0 / 2044	-18.2	-18.2 0.51 (1)	10.00			
M-L	0 / 2044	-18.2	-18.2 0.51 (1)	10.00			
L-K	0 / 2021	-18.2	-18.2 0.51 (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 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 (0.15")
 ALLOWABLE DEFL.(TL)= L/360 (1.06")
 CALCULATED VERT. DEFL.(TL)= L/999 (0.31")

CSI: TC=1.00/1.00 (E-G:1), BC=0.51/1.00 (L-M:1)
 , WB=0.98/1.00 (H-K:1), SSI=0.33/1.00 (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= 0.90 (G) (INPUT = 0.90)

JSI METAL= 0.70 (G) (INPUT = 1.00)

CITY OF RICHMOND HILL
BUILDING DIVISION09/22/2022
KOTT
RECEIVED

Per: joshua.nabua



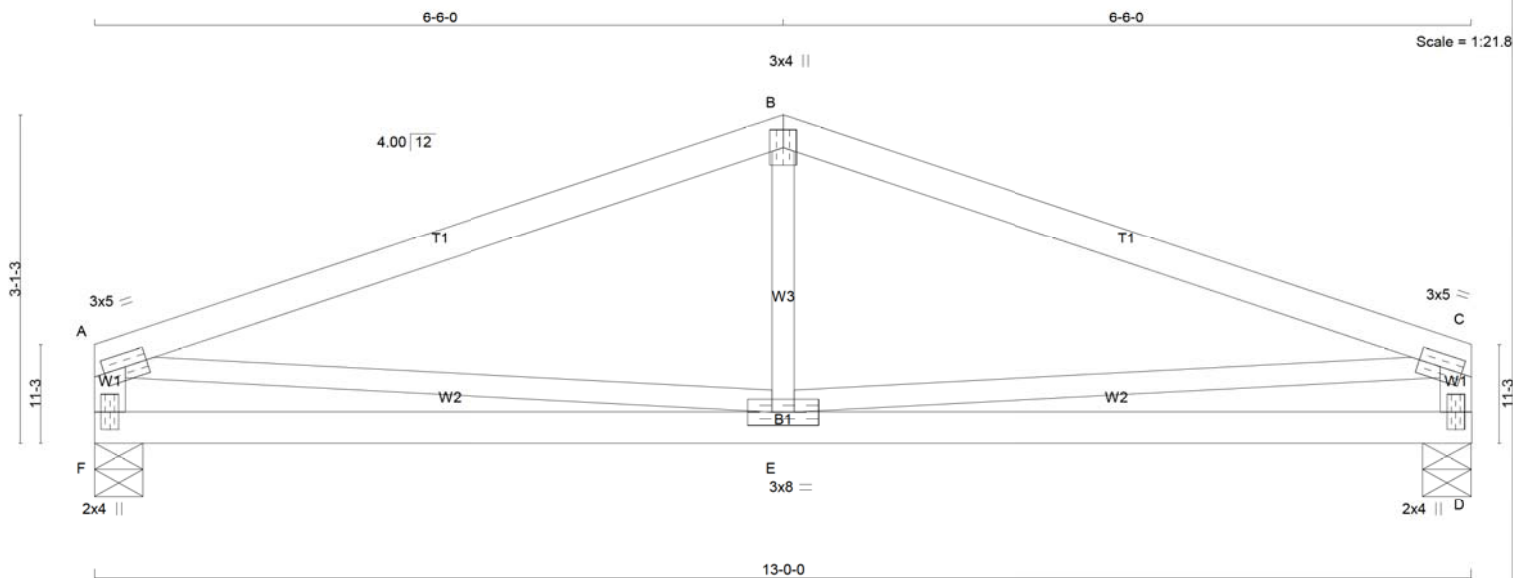
October 05, 2021

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.

JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
IM1021-021	T06	3	1	TRUSS DESC.	

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ID:GcPAWhRPxUR3b0pzRu0qN9zceaP-a94?WHNKVzk5aDVGcuk8F0w2Xu5B7U4NRKFntHyWVhQ

TOTAL WEIGHT = 3 X 44 = 131 lb
[M][F]**LUMBER**

N. L. G. A. RULES

CHORDS	SIZE	LUMBER	DESCR.
A - B	2x4 DRY	No.2	SPF
B - C	2x4 DRY	No.2	SPF
F - A	2x4 DRY	No.2	SPF
D - C	2x4 DRY	No.2	SPF
F - D	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
A	TMVW-t	MT20	3.0	5.0		
B	TTW+p	MT20	3.0	4.0		
C	TMVW-t	MT20	3.0	5.0		
D	BMV1+p	MT20	2.0	4.0		
E	BMVWW-t	MT20	3.0	8.0		
F	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
F	666	0	666	0
D	666	0	666	0

UNFACTORED REACTIONS

1ST LCASE	MAX/MIN. COMPONENT REACTIONS						
JT	COMBINED	SNOW	LIVE	PERM. LIVE	WIND	DEAD	SOIL
F	466	333 / 0	0 / 0	0 / 0	0 / 0	134 / 0	0 / 0
D	466	333 / 0	0 / 0	0 / 0	0 / 0	134 / 0	0 / 0

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

BRACINGTOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 5.96 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)	MAX. VERT. LOAD (LC)	MAX. UNBRACED LENGTH (FR-TO)	WEBS	MAX. FACTORED MEMB. FORCE (LBS)	MAX. VERT. LOAD (LC)
A-B	-846 / 0	-84.3	-84.3	0.47 (1)	5.96	-13 / 115	0.04 (4)
B-C	-846 / 0	-84.3	-84.3	0.47 (1)	5.96	0 / 806	0.18 (1)
F-A	-619 / 0	0.0	0.0	0.06 (1)	7.81	0 / 806	0.18 (1)
D-C	-619 / 0	0.0	0.0	0.06 (1)	7.81		
F-E	0 / 0	-18.2	-18.2	0.22 (4)	10.00		
E-D	0 / 0	-18.2	-18.2	0.22 (4)	10.00		

DESIGN CRITERIA**SPECIFIED LOADS:**

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

SPACING = 24.0 IN. C/C

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

THIS DESIGN COMPLIES WITH:

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

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

ALLOWABLE DEFL.(LL)= L/360 (0.43")
CALCULATED VERT. DEFL.(LL) = L/999 (0.02")
ALLOWABLE DEFL.(TL)= L/360 (0.43")
CALCULATED VERT. DEFL.(TL) = L/999 (0.06")

CSI: TC=0.47/1.00 (A-B:1), BC=0.22/1.00 (D-E:4), WB=0.18/1.00 (A-E:1), SSI=0.20/1.00 (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)	(PLI)
MT20	650	371	1747
		788	1987
			1873

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.75 (E) (INPUT = 0.90)
JSI METAL= 0.27 (A) (INPUT = 1.00)

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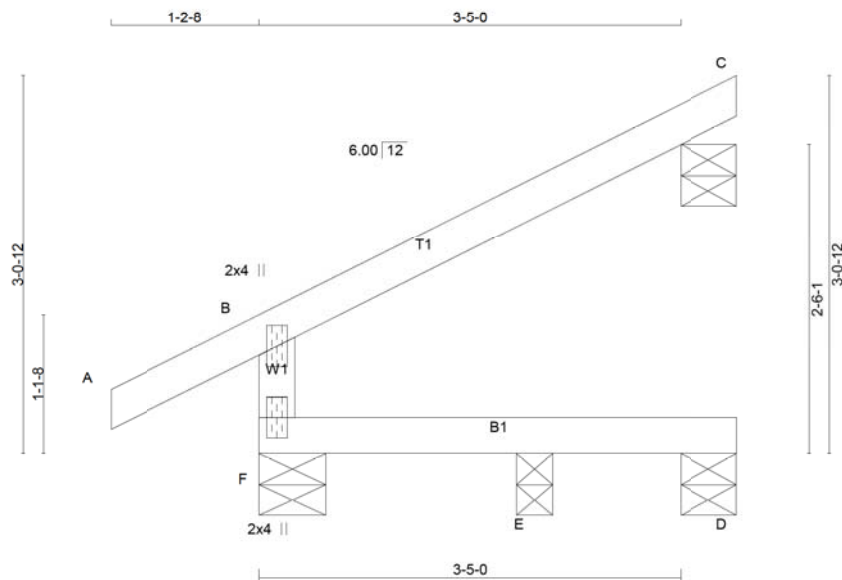
READ ALL NOTES ON THIS PAGE AND ON THE ENGINEERING NOTE PAGE ENP-1. THE NOTE PAGE IS AN INTEGRAL PART OF THIS DRAWING AS IT CONTAINS SPECIFICATIONS AND CRITERIA USED IN THE DESIGN OF THIS COMPONENT.

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JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
IM1021-021	T07	5	1	TRUSS DESC.	

Version 8.500 S Aug 16 2021 MiTek Industries, Inc. Tue Oct 5 10:30:59 2021 Page 1
ID:GcPAWhRPxUR3b0pzRu0qN9zceaP-a94?WHNKvzk5aDVGcuk8F0w6Wu8F7WvNRKFntHyWVhQ



Scale = 1:18.7

TOTAL WEIGHT = 5 X 12 = 59 lb [M]

LUMBER

N. L. G. A. RULES	CHORDS	SIZE	DRY	LUMBER	DESCR.
A - C	2x4	DRY	No.2	SPF	
F - B	2x4	DRY	No.2	SPF	
F - 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		
F	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
	VERT	HORZ	DOWN	HORZ
JT	123	0	123	0
C	329	0	329	0
F	10	0	11	0
D	42	0	48	0
E				

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
C	83	74 / 0	0 / 0	0 / 0	0 / 0	9 / 0
F	226	189 / 0	0 / 0	0 / 0	0 / 0	37 / 0
D	8	0 / 0	0 / 0	0 / 0	0 / 0	8 / 0
E	34	0 / 0	0 / 0	0 / 0	0 / 0	34 / 0

BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S) C, F, D, 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	MAX. FACTORED	FACTORED	WEBS	MAX. FACTORED
MEMB.	FORCE (LBS)	VERT. LOAD LC1 MAX (PLF)	CSI (LC)	MEMB. FORCE (LBS)
FR-TO		FROM TO	UNBRAC LENGTH	FR-TO
A-B	0 / 24	-84.3 -84.3	0.10 (1)	10.00
B-C	-18 / 0	-84.3 -84.3	0.21 (1)	6.25
F-B	-311 / 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=0.14/1.00 (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= 0.17 (B) (INPUT = 0.90)

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

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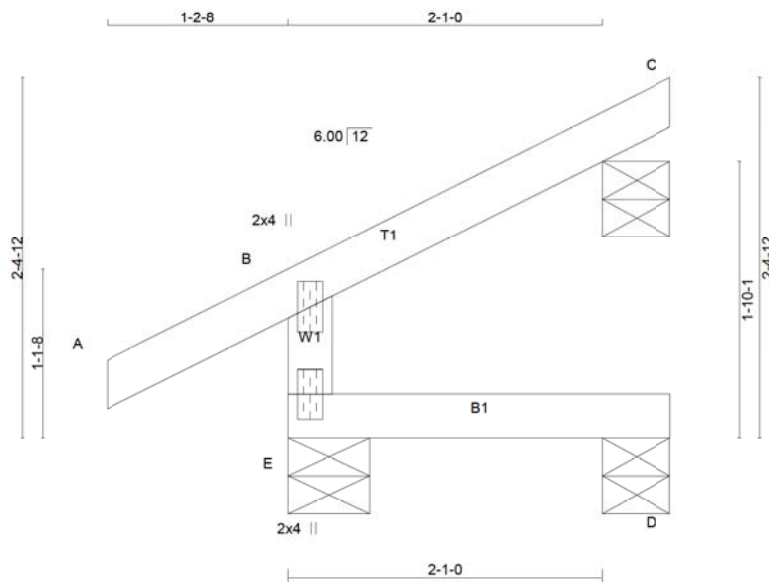


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JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
IM1021-021	T08	6	1	TRUSS DESC.	

Version 8.500 S Aug 16 2021 MiTek Industries, Inc. Tue Oct 5 10:31:00 2021 Page 1
ID:GcPAWhRPxUR3b0pzRu0qN9zceaP-2LeNkdOMGHsyCM3TAbFNoDTJ6IUNsz9Wg LPjyWVhP



Scale = 1:15.3

TOTAL WEIGHT = 6 X 9 = 52 lb [M]

LUMBER

N. L. G. A. RULES	CHORDS	SIZE	LUMBER	DESCR.
A - C	2x4	DRY	No.2	SPF
E - B	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		
C	81	0	81	0	5-8	5-8
E	267	0	267	0	6-8	2-8
D	20	0	23	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	55	49 / 0	0 / 0	0 / 0	0 / 0	6 / 0	0 / 0
E	184	146 / 0	0 / 0	0 / 0	0 / 0	38 / 0	0 / 0
D	16	0 / 0	0 / 0	0 / 0	0 / 0	16 / 0	0 / 0

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

BRACING

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

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

LOADING

TOTAL LOAD CASES: (7)

MEMB.	C H O R D S		F A C T O R E D		MEMB.	W E B S	
	MAX. FACTORED FORCE (LBS)	VERT. LOAD LC1 (PLF)	MAX. CS1 (LC)	MAX. UNBRACED LENGTH FR-TO		MAX. FACTORED FORCE (LBS)	MAX. CS1 (LC)
A-B	0 / 24	-84.3	-84.3	0.10 (1)	10.00		
B-C	-12 / 0	-84.3	-84.3	0.09 (6)	6.25		
E-B	-241 / 0	0.0	0.0	0.02 (4)	7.81		
E-D	0 / 0	-18.2	-18.2	0.03 (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=0.10/1.00 (A-B:1), BC=0.03/1.00 (D-E:4), WB=0.00/1.00 (n/a:0), SSI=0.09/1.00 (B-C:6)

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= 0.13 (B) (INPUT = 0.90)

JSI METAL= 0.10 (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

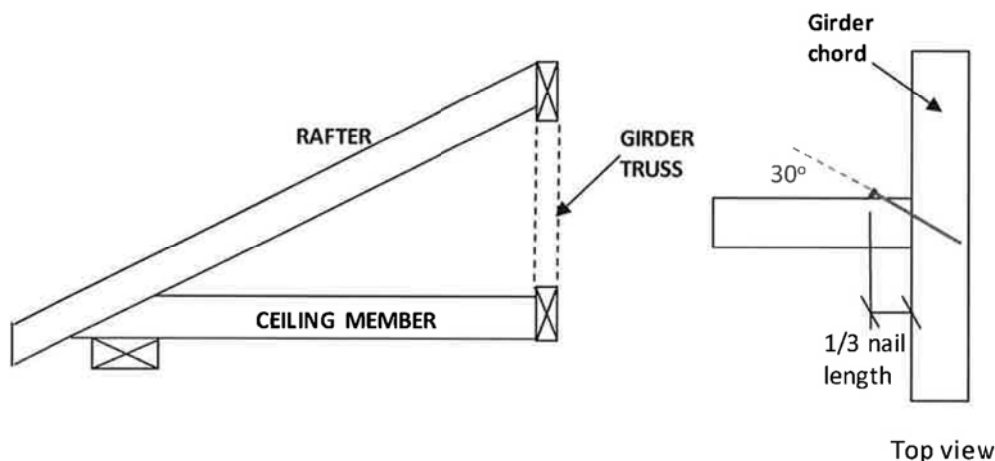


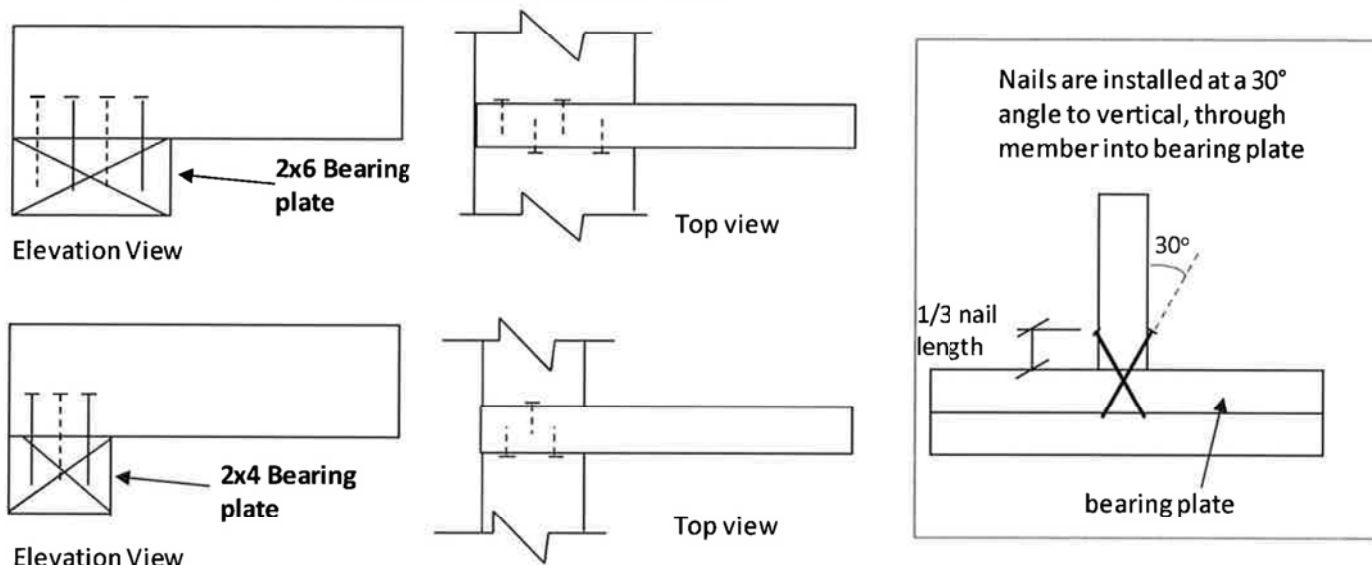
Figure 1: Toe-Nailing Rafter / Ceiling Member to Girder Truss

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TOE-NAIL CAPACITY DETAILS

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



NOTES:

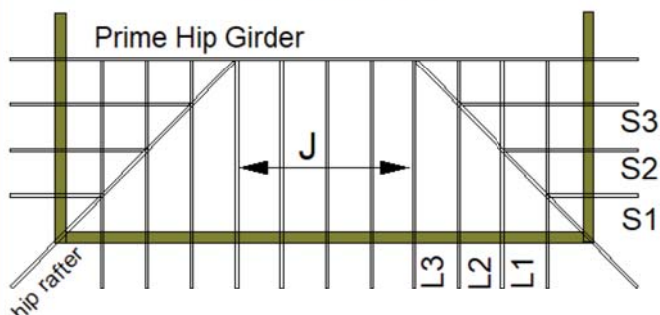
1. Rafter and ceiling members may be connected to top and bottom chords of girder truss by toe-nailing the members into the girder chords (see fig. 1), provided the factored vertical reactions of the supported members do not exceed the lateral resistance of the toe-nails. Mechanical connectors (hangers)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

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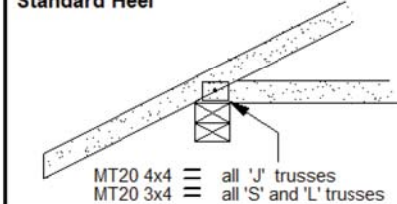


STANDARD HIP END FRAMING

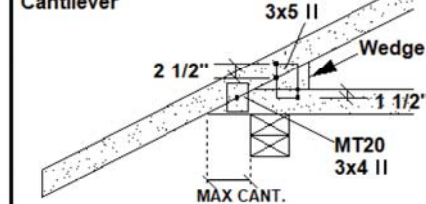
PLAN VIEW



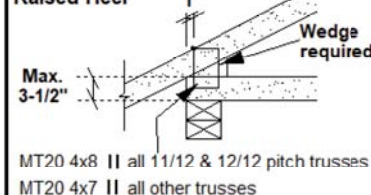
HEEL DETAIL 'A' Standard Heel



HEEL DETAIL 'C' Cantilever



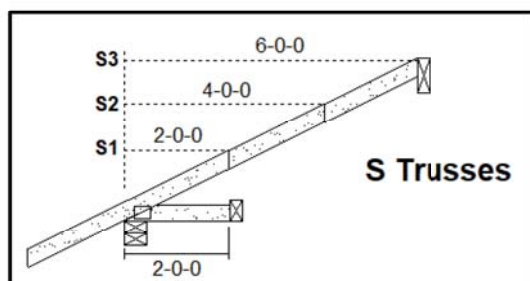
DETAIL 'B': Raised Heel



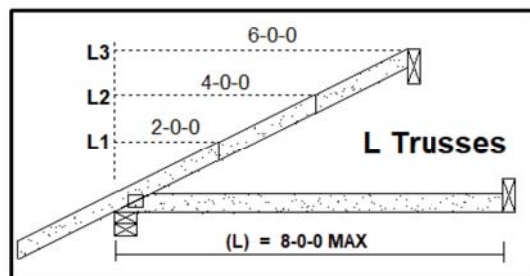
CANTILEVER DETAIL "C"

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

S Trusses



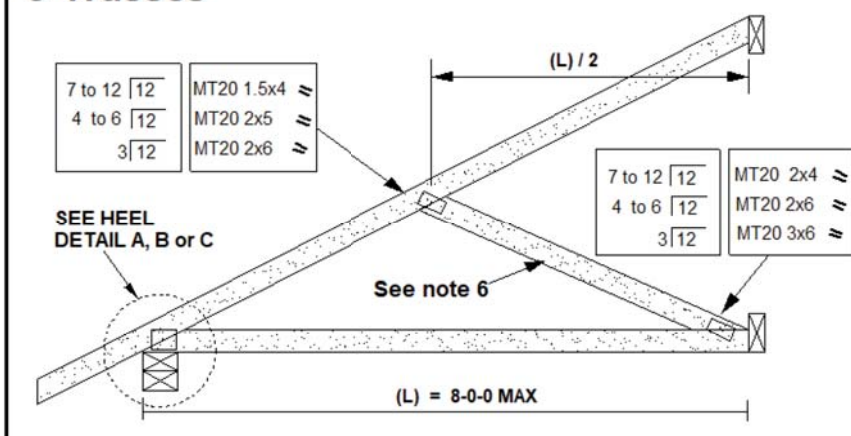
L Trusses



Specified Load Rating:

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

J Trusses



NOTES:

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

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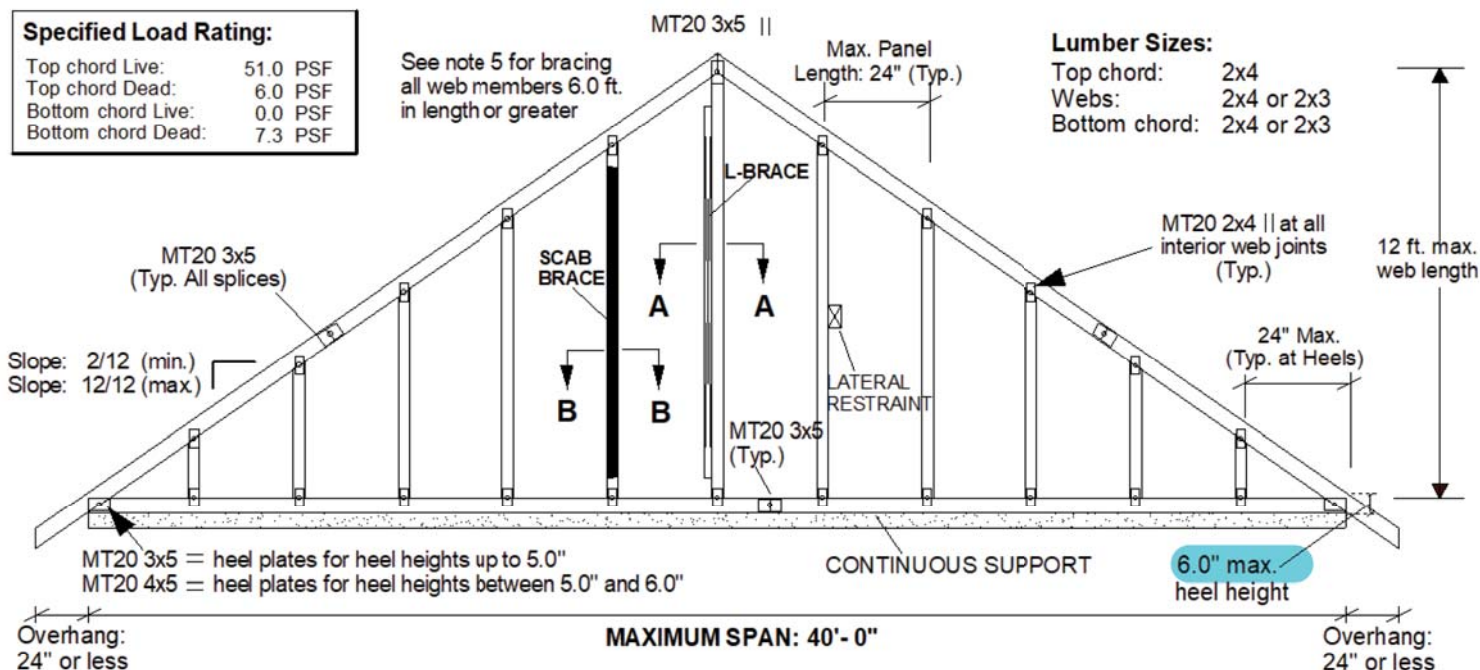
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BUILDING DIVISION

09/22/2022

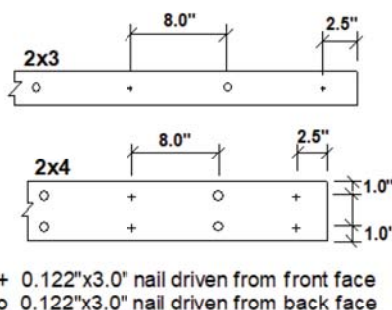
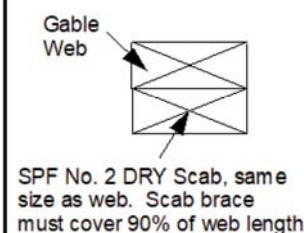
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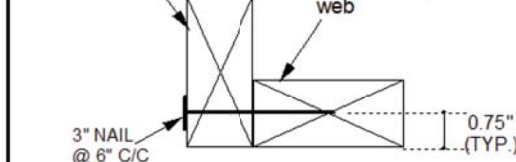
STANDARD GABLE END DETAIL



SCAB BRACE DETAIL (Section B-B)



L BRACE DETAIL (Section A-A)



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

Notes:

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

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Per: joshua.nabua