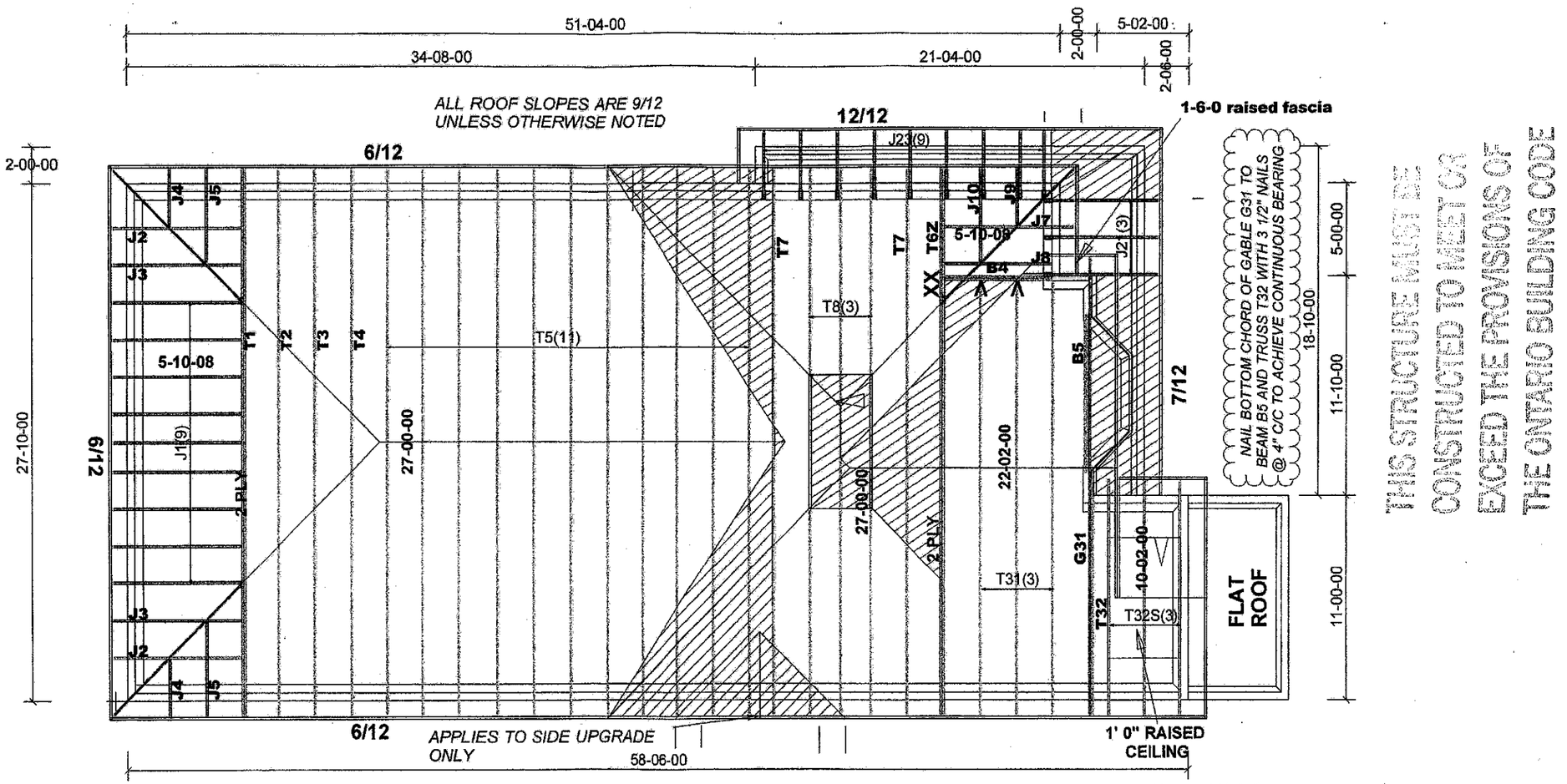


THIS STRUCTURE MUST BE CONSTRUCTED TO MEET OR EXCEED THE PROVISIONS OF THE ONTARIO BUILDING CODE

ASPHALT SHINGLES
12" FINISHED O.H.
5" CLADDING ALLOWANCE
2x6 EXTERIOR WALLS
2x6 FASCIA BOARD
HEEL: R.T.M.C.

ALL CONV. FRAMING TO CONFORM WITH PART 9 OF O.B.C. 2012 ROOF RAFTERS THAT CROSS OVER OR MEET TRUSSES TO BE 2X4 SPF #2 24" O.C. WITH A VERT.POST TO THE TRUSS UNDERNEATH AT EACH CROSS PT. VERT. POST LONGER THAN 6' TO HAVE LATERAL BRACING SO THAT THE DIST. BETWEEN END PT. & BETWEEN ROWS OF BRACING DOES NOT EXCEED 6'

DESIGN CONFORMS WITH OBC 2012
OCCUPANCY: RESIDENTIAL | PART: 9
GROUND SNOW LOAD Ss=37.6 psf Sr=8.4psf
DESIGN LOADS
TCDL (6 psf)
BCLL (10.5psf)
BCDL (7psf)

DENOTES:
CONVENTIONAL FRAMING

HARDWARE:
LJS26DS - (**V**)
HGUS26-2 - (**XX**)

BEAMS:
B4: 2 - 2x10 SPF #2

THIS STRUCTURE MUST BE CONSTRUCTED TO MEET OR EXCEED THE PROVISIONS OF THE ONTARIO BUILDING CODE

M12269

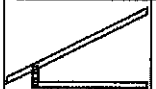
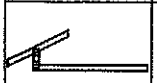
TAMARACK LUMBER INC. ALPA LUMBER GROUP

Job Track: **50120**	Builder / Location: **Greenpark / CALEDON**	Model / Elevation: **Brentwood 3A/ 3 STD or WITH SIDE UPGRADE** LOT 12	Mitek ver 8.2.3.229
Plan Log: **200142**	Project: **Lamberts Lane Home Corp.**		
Layout ID: **400342**	Date: 4/30/2019 Sales: **Mario DiCano** Designer: Brent Vaps		

DELIVERY SHIPLIST

Lumber Yard:	TAMARACK LUMBER	Job Track:	50120
Builder:	Greenpark	PlanLog:	200142
Project:	Lamberts Lane Home Corp.	Layout ID:	400342
Location:	CALEDON	Ref #	
Model:	Brentwood 3A	Page:	1 of 2
Lot #:		Date:	04/30/2019
Elevation:	3	Designer:	Brian Faneca
		Sales Rep:	Mario DiCano

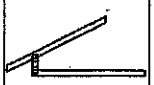
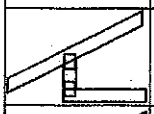
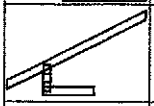
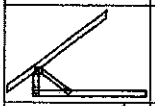
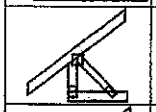
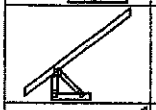
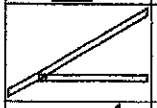
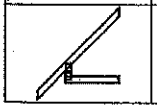
Roof Trusses

PROFILE	QTY / PLY	MARK / TYPE	PITCH	SPAN	HEIGHT	LUMBER	OVERHANG LEFT / RIGHT	HEEL HEIGHT LEFT / RIGHT	LBS. / BFT.	BUNDLE # / STACK #	LOAD BY / REMARKS
	1 2-ply	T1 Hip Girder	6 /12	**27-00-00**	4-01-04	2 x 4	1-03-08 1-03-08	1-02-00 1-02-00	209.02 132.67		
	1	T2 Hip	6 /12	**27-00-00**	5-01-04	2 x 4	1-03-08 1-03-08	1-02-00 1-02-00	109.31 68.83		
	1	T3 Hip	6 /12	**27-00-00**	6-01-04	2 x 4	1-03-08 1-03-08	1-02-00 1-02-00	110.98 70.67		
	1	T4 Hip	6 /12	**27-00-00**	7-01-04	2 x 4	1-03-08 1-03-08	1-02-00 1-02-00	112.6 70.67		
	11	T5 Common	6 /12	**27-00-00**	7-11-00	2 x 4	1-03-08 1-03-08	1-02-00 1-02-00	1251.35 788.33		
	1 2-ply	T6Z Hip Girder	9 /12	**27-00-00**	5-11-02	2 x 4 2 x 6	1-03-08 1-03-08	1-06-04 1-06-04	271.8 174.00		
	2	T7 Hip	9 /12	**27-00-00**	7-05-02	2 x 4	1-03-08 1-03-08	1-06-04 1-06-04	249.14 157.67		
	3	T8 Hip	9 /12	**27-00-00**	8-11-02	2 x 4	1-03-08 1-03-08	1-06-04 1-06-04	385.47 248.00		
	3	T31 Common	9 /12	**22-02-00**	10-07-00	2 x 4	1-03-08	1-06-04 3-00-04	305.98 189.50		
	1	G31 GABLE	9 /12	**22-02-00**	10-07-00	2 x 4	1-03-08 1-03-08	1-06-04 3-00-04	118.64 76.50		
	1	T32 Common	9 /12	**10-02-00**	5-04-00	2 x 4	1-03-08 1-03-08	1-06-04 1-06-04	44.38 29.50		
	3	T32S Roof Special	9 /12	**10-02-00**	5-04-00	2 x 4	1-03-08 1-03-08	1-06-04 1-06-04	156.34 110.00		
	9	J1 Jack-Open	6 /12	**5-10-08**	4-01-04	2 x 4	1-03-08	1-02-00 4-01-04	151.15 96.00		
	2	J2 Jack-Open Girder	6 /12	**1-09-07**	2-00-12	2 x 4	1-03-08 4-01-01	1-02-00 2-00-12	23.16 14.67		

DELIVERY SHIPLIST

Lumber Yard:	TAMARACK LUMBER	Job Track:	50120
Builder:	Greenpark	PlanLog:	200142
Project:	Lamberts Lane Home Corp.	Layout ID:	400342
Location:	CALEDON	Ref #	
Model:	Brentwood 3A	Page:	2 of 2
Lot #:		Date:	04/30/2019
Elevation:	3	Designer:	Brian Faneca
		Sales Rep:	Mario DiCano

Roof Trusses

PROFILE	QTY / PLY	MARK / TYPE	PITCH	SPAN	HEIGHT	LUMBER	OVERHANG LEFT / RIGHT	HEEL HEIGHT LEFT / RIGHT	LBS. / BFT.	BUNDLE # / STACK #	LOAD BY / REMARKS
	2	J3 Jack-Open	6 /12	**3-09-07**	3-00-12	2 x 4	1-03-08 2-01-01	1-02-00 3-00-12	28.26 17.33		
	2	J4 Jack-Open	6 /12	**1-09-07**	2-00-12	2 x 4	1-03-08 1-01	1-02-00 2-00-12	14.04 9.33		
	2	J5 Jack-Open	6 /12	**1-10-08**	3-00-12	2 x 4	1-03-08 1-10-15	1-02-00 2-01-04	19.14 12.00		
	1	J7 Jack-Open Girder	8 /12	**1-09-07**	2-07-02	2 x 4	1-03-08 4-01-01	1-04-13 2-07-02	13.47 8.33		
	1	J8 Jack-Open	9 /12	**5-10-08**	4-04-05	2 x 4	1-03-08	1-06-04 5-11-02	17.07 11.50		
	1	J9 Jack-Open	9 /12	**1-09-07**	2-10-05	2 x 4	1-03-08 1-01	1-06-04 2-10-05	9.31 7.00		
	1	J10 Jack-Open	9 /12	**1-10-08**	4-04-05	2 x 4	1-03-08 1-10-15	1-06-04 2-11-02	12.22 8.33		
	3	J21 Jack-Open	7 /12	**5-01-08**	4-01-00	2 x 4	1-03-08	4-05 3-03-14	43.53 28.00		
	9	J23 Jack-Open	12 /12	**2-05-08**	4-01-15	2 x 4	1-03-08	11-06 3-04-06	88.15 60.00		

TOTAL # TRUSS= **64** TOTAL BFT OF ALL TRUSSES= **2388.83** BFT. TOTAL WEIGHT OF ALL TRSSES **3744.54** LBS

HARDWARE

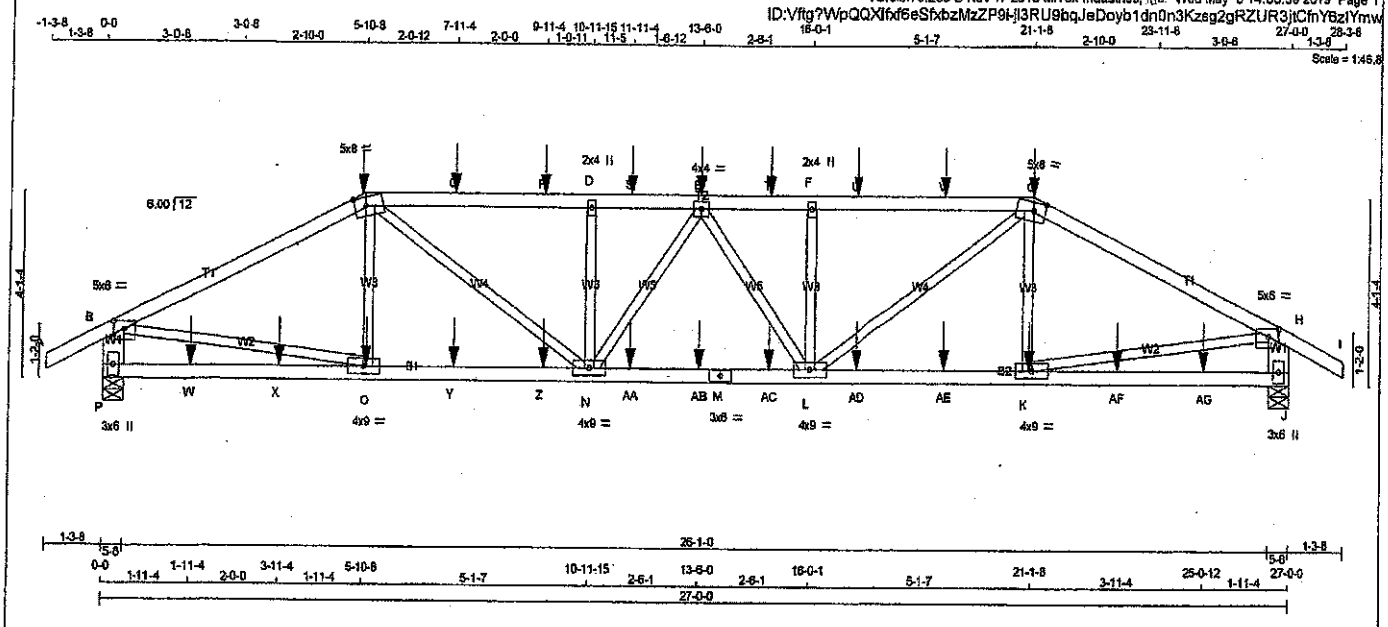
QTY	TYPE	MODEL	LENGTH
1	Hardware	HGUS26-2	
2	Hardware	LJS26DS	

TOTAL NUMBER OF ITEMS= **3**

JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
200142-400307	T1	1	2	Brentwood 3A TRUSS DESC.	

Tamarack Roof Truss, Burlington

Version 8.230 S Nov 17 2016 MiTek Industries, Inc. Wed May 8 14:08:59 2019 Page 1
ID:Vftg?WpQQXIfxf6eSfxbzMzZP9l-jl3RU9bqJsDoyb1dn0n3Kzsg2gRZUR3jtCfnYBzIYmw



TOTAL WEIGHT = 2 X 107 = 213 lb

[M]

LUMBER
N. L. G. A. RULES

CHORDS	SIZE		LUMBER	DESCR.
A - C	2x4	DRY	No.2	SPF
C - G	2x4	DRY	No.2	SPF
G - I	2x4	DRY	No.2	SPF
P - B	2x6	DRY	No.2	SPF
J - H	2x6	DRY	No.2	SPF
P - M	2x4	DRY	No.2	SPF
M - J	2x4	DRY	No.2	SPF
ALL WEBS EXCEPT	2x3	DRY	No.2	SPF

DRY: SEASONED LUMBER.

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

CHORDS	#ROWS	SURFACE SPACING (IN)	LOAD(PLF)
TOP CHORDS : (0.122"X3") SPIRAL NAILS			
A-C	1	12	SIDE(61.0)
C-G	1	12	SIDE(61.0)
G-I	1	12	SIDE(61.0)
P-B	2	12	TOP
J-H	2	12	TOP
BOTTOM CHORDS : (0.122"X3") SPIRAL NAILS			
P-M	1	12	SIDE(61.0)
M-J	1	12	SIDE(61.0)
WEBS : (0.122"X3") SPIRAL NAILS			
2x3	1	6	

NAILS TO BE DRIVEN FROM ONE SIDE ONLY.

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

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

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

PLATES (lable is in inches)

JT	TYPE	PLATES	W	LEN	Y	X
B	TMW-p	MT20	5.0	6.0	2.00	2.75
C	TTWW-m	MT20	5.0	8.0	2.25	3.25
D	TMW+w	MT20	2.0	4.0		
E	TMWW-t	MT20	4.0	4.0		
F	TMW+w	MT20	2.0	4.0		
G	TTWW-m	MT20	5.0	8.0	2.25	3.25
H	TMW-p	MT20	5.0	6.0	2.00	2.75
J	BMV1+p	MT20	3.0	6.0		
K	BMWW-t	MT20	4.0	9.0		
L	BMWWW-t	MT20	4.0	9.0		
M	BS-t	MT20	3.0	6.0		
N	BMWWW-t	MT20	4.0	9.0		
O	BMWW-t	MT20	4.0	9.0		
P	BMV1+p	MT20	3.0	6.0		

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

BEARINGS

JT	FACTORED GROSS REACTION VERT	HORZ	MAXIMUM FACTORED GROSS REACTION DOWN	HORZ	UPLIFT	INPUT BRG IN-SX	REQRD BRG IN-SX
P	3235	0	3235	0	0	5-8	5-8
J	3235	0	3235	0	0	5-8	5-8

UNFACTORED REACTIONS

JT	1ST LCASE COMBINED	MAX./MIN. COMPONENT REACTIONS SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
P	2420	1328 / 0	489 / 0	0 / 0	0 / 0	603 / 0	0 / 0
J	2420	1328 / 0	489 / 0	0 / 0	0 / 0	603 / 0	0 / 0

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

BRACING
TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 3.63 FT.
MAX. UNBRACED BOTTOM CHORD LENGTH = 10.00 FT OR RIGID CEILING DIRECTLY APPLIED.

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

LOADING
TOTAL LOAD CASES: (4)

CHORDS MEMS. FR-TO	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD LC1 FROM	TO	MAX. CSI (LC)	MAX. UNBRAC LENGTH
A-B	0 / 31	-102.1	-102.1	0.07 (1)	10.00
B-C	-4607 / 0	-102.1	-102.1	0.53 (1)	4.00
C-Q	-5772 / 0	-102.1	-102.1	0.47 (1)	3.63
Q-R	-5772 / 0	-102.1	-102.1	0.47 (1)	3.63
R-D	-5772 / 0	-102.1	-102.1	0.47 (1)	3.63
D-S	-5772 / 0	-102.1	-102.1	0.39 (1)	3.66
S-E	-5772 / 0	-102.1	-102.1	0.39 (1)	3.66
E-T	-5772 / 0	-102.1	-102.1	0.39 (1)	3.66
T-F	-5772 / 0	-102.1	-102.1	0.39 (1)	3.66
F-U	-5772 / 0	-102.1	-102.1	0.47 (1)	3.63
U-V	-5772 / 0	-102.1	-102.1	0.47 (1)	3.63
V-G	-5772 / 0	-102.1	-102.1	0.47 (1)	3.63
G-H	-4607 / 0	-102.1	-102.1	0.53 (1)	4.00
H-I	0 / 31	-102.1	-102.1	0.07 (1)	10.00
P-B	-3095 / 0	0.0	0.0	0.11 (1)	7.81
J-H	-3095 / 0	0.0	0.0	0.11 (1)	7.81
P-W	0 / 0	-38.5	-38.5	0.20 (3)	10.00
W-X	0 / 0	-38.5	-38.5	0.20 (3)	10.00
X-O	0 / 0	-38.5	-38.5	0.20 (3)	10.00
O-Y	0 / 4113	-38.5	-38.5	0.51 (2)	10.00
Y-Z	0 / 4113	-38.5	-38.5	0.51 (2)	10.00
Z-N	0 / 4113	-38.5	-38.5	0.51 (2)	10.00
N-AA	0 / 5815	-38.5	-38.5	0.62 (1)	10.00
AA-AB	0 / 5815	-38.5	-38.5	0.62 (1)	10.00
AB-M	0 / 5815	-38.5	-38.5	0.62 (1)	10.00
M-AC	0 / 5815	-38.5	-38.5	0.62 (1)	10.00
AC-L	0 / 5815	-38.5	-38.5	0.62 (1)	10.00
L-AD	0 / 4113	-38.5	-38.5	0.51 (2)	10.00
AD-AE	0 / 4113	-38.5	-38.5	0.51 (2)	10.00
AE-K	0 / 4113	-38.5	-38.5	0.51 (2)	10.00
K-AF	0 / 0	-38.5	-38.5	0.20 (3)	10.00
AF-AG	0 / 0	-38.5	-38.5	0.20 (3)	10.00
AG-J	0 / 0	-38.5	-38.5	0.20 (3)	10.00

WEBS MEMB. FR-TO	MAX. FACTORED FORCE (LBS)	MAX CSI (LC)
O-C	-177 / 254	0.03 (3)
C-N	0 / 2066	0.26 (1)
N-D	-844 / 0	0.11 (1)
L-F	-844 / 0	0.11 (1)
L-G	0 / 2066	0.26 (1)
K-G	-177 / 254	0.03 (3)
B-O	0 / 4160	0.51 (1)
K-H	0 / 4160	0.51 (1)
N-E	-78 / 0	0.01 (1)
E-L	-78 / 0	0.01 (1)

FACTORED CONCENTRATED LOADS (LBS)

JT	LOC.	LC1	MAX-	MAX+	FACE	DIR.	TYPE	HEEL	CONN.
C	5-10-8	-409	-409	—	FRONT	VERT	TOTAL	—	—
E	13-6-0	-123	-123	—	FRONT	VERT	TOTAL	—	—
G	21-1-8	-409	-409	—	FRONT	VERT	TOTAL	—	—

LICENSED PROFESSIONAL ENGINEER
05/09/19
H. J. G. ALVES
100099024
PROVINCE OF ONTARIO

DESIGN CRITERIA

SPECIFIED LOADS:

TOP CH.	LL	=	29.1	PSF
	DL	=	6.0	PSF
BOT CH.	LL	=	10.5	PSF
	DL	=	7.0	PSF
TOTAL LOAD		=	52.5	PSF

SPACING = 24.0 IN. C/C

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

THIS TRUSS IS DESIGNED FOR RESIDENTIAL OR SMALL BUILDING REQUIREMENTS OF PART 9, NBCC 2010, NBCC 2015

THIS DESIGN COMPLIES WITH:
- PART 9 OF BCBC 2018 , OBC 2012
- CSA 086-09, CSA 086-14
- TPIC 2011, TPIC 2014

(55 % OF 37.6 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 29.1 P.S.F. SPECIFIED ROOF LIVE LOAD

ALLOWABLE DEFL.(LL)= L/360 (0.90")
CALCULATED VERT. DEFL.(LL) = L/ 999 (0.15")
ALLOWABLE DEFL.(TL)= L/360 (0.90")
CALCULATED VERT. DEFL.(TL) = L/ 999 (0.25")

CSI: TC=0.53/1.00 (B-C:1) , BC=0.62/1.00 (L-N:1) , WB=0.51/1.00 (B-O:1) , SSI=0.21/1.00 (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

AUTOSOLVE HEELS OFF

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

NAIL VALUES

PLATE	GRIP(DRY) (PSI) MAX	MIN	SHEAR (PLI) MAX	MIN	SECTION (PLI) MAX	MIN
MT20	618	354	1667	788	1987	1656

PLATE PLACEMENT TOL. = 0.250 Inches

PLATE ROTATION TOL. = 5.0 Deg.

LSI GRIP= 0.90 (H) (INPUT = 0.90)
LSI METAL= 0.98 (M) (INPUT = 1.00)

DWG NO. TAM T1910920
STRUCTURAL COMPONENT ONLY 1/2

CONTINUED ON PAGE 2

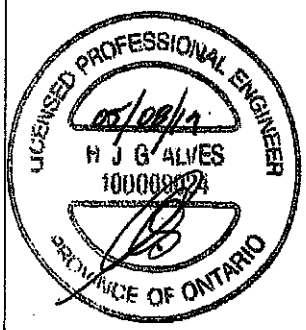
JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC. Brentwood 3A	DRWG NO.
200142-400307	T1	1	2	TRUSS DESC.	

Tamarack Roof Truss, Burlington

ID:Vftg?WpQQXlfxf6eSfxbzMzZP9l-jl9RU8bqJeDoyb1dn0n3Kzsg2gRZUR3jtCfnY6zlYmw

FACTORED CONCENTRATED LOADS (LBS)

JT	LOC.	LC1	MAX-	MAX+	FACE	DIR.	TYPE	HEEL	CONN.
K	21-0-12	-55	-70	—	FRONT	VERT	TOTAL	—	—
O	5-11-4	-55	-70	—	FRONT	VERT	TOTAL	—	—
Q	7-11-4	-123	-123	—	FRONT	VERT	TOTAL	—	—
R	9-11-4	-123	-123	—	FRONT	VERT	TOTAL	—	—
S	11-11-4	-123	-123	—	FRONT	VERT	TOTAL	—	—
T	15-0-12	-123	-123	—	FRONT	VERT	TOTAL	—	—
U	17-0-12	-123	-123	—	FRONT	VERT	TOTAL	—	—
V	19-0-12	-123	-123	—	FRONT	VERT	TOTAL	—	—
W	1-11-4	-56	-74	—	FRONT	VERT	TOTAL	—	—
X	3-11-4	-55	-70	—	FRONT	VERT	TOTAL	—	—
Y	7-11-4	-55	-70	—	FRONT	VERT	TOTAL	—	—
Z	9-11-4	-55	-70	—	FRONT	VERT	TOTAL	—	—
AA	11-11-4	-55	-70	—	FRONT	VERT	TOTAL	—	—
AB	13-6-0	-55	-70	—	FRONT	VERT	TOTAL	—	—
AC	15-0-12	-55	-70	—	FRONT	VERT	TOTAL	—	—
AD	17-0-12	-55	-70	—	FRONT	VERT	TOTAL	—	—
AE	19-0-12	-55	-70	—	FRONT	VERT	TOTAL	—	—
AF	23-0-12	-55	-70	—	FRONT	VERT	TOTAL	—	—
AG	25-0-12	-56	-74	—	FRONT	VERT	TOTAL	—	—



DWG NO. TAM T1/0920
STRUCTURAL
COMPONENT ONLY 2/2

JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
200142-400307	T2	1	1	Brentwood 3A TRUSS DESC.	

Tamarack Roof Truss, Burlington

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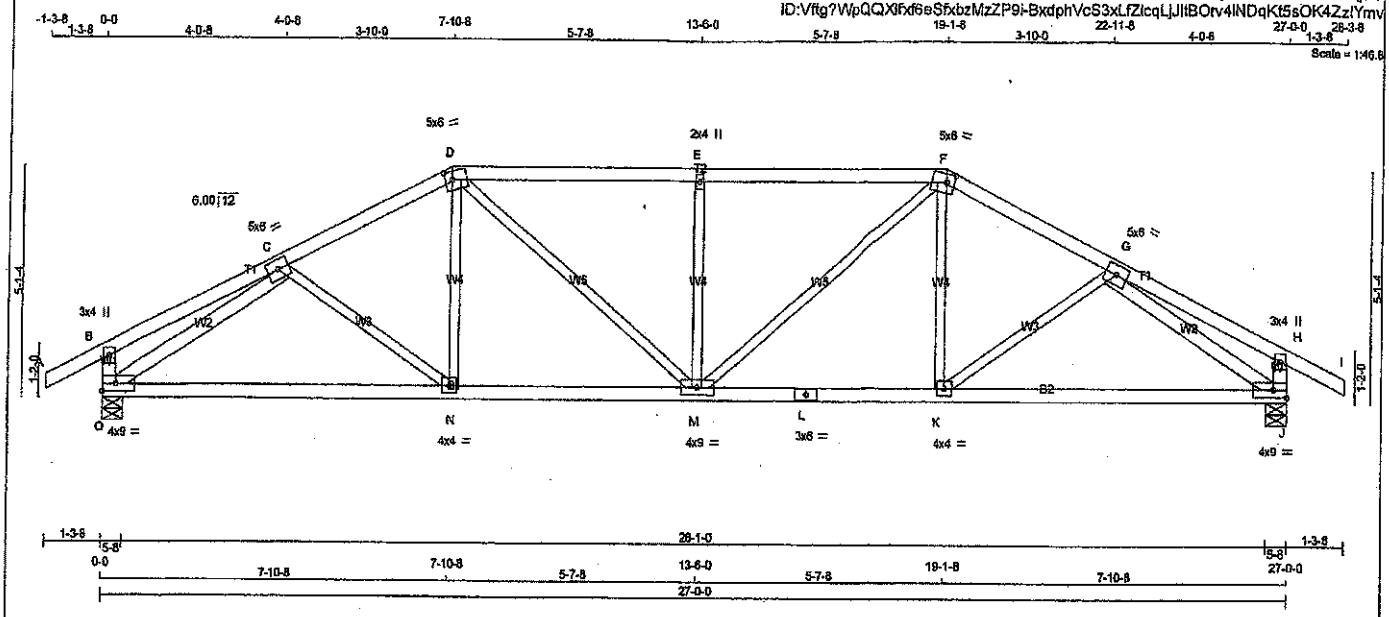


TOTAL WEIGHT = 109 lb [M](F)

LUMBER
N. L. G. A. RULES

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

DRY: SEASONED LUMBER.

PLATES (table is in inches)

JT	TYPE	PLATES	W	LEN	Y	X
B	TMV+p	MT20	3.0	4.0		
C	TMWW-t	MT20	5.0	6.0		
D	TTWW-m	MT20	5.0	6.0	2.25	2.00
E	TMW+w	MT20	2.0	4.0		
F	TTWW-m	MT20	5.0	6.0	2.25	2.00
G	TMWW-t	MT20	5.0	6.0		
H	TMV+p	MT20	3.0	4.0		
J	BMVW1-t	MT20	4.0	9.0		Edge
K	BMWW-t	MT20	4.0	4.0		
L	BS-t	MT20	3.0	6.0		
M	BMWWW-t	MT20	4.0	9.0		
N	BMWW-t	MT20	4.0	4.0		
O	BMVW1-t	MT20	4.0	9.0		Edge

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 VERT	HORZ	MAXIMUM FACTORED GROSS REACTION DOWN	HORZ	UPLIFT	INPUT BRG	REQRD BRG
O	2037	0	2037	0	0	5-8	5-8
J	2037	0	2037	0	0	5-8	5-8

UNFACTORED REACTIONS

JT	1ST LCASE COMBINED	MAX./MIN. COMPONENT REACTIONS SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
O	1514	863 / 0	284 / 0	0 / 0	0 / 0	367 / 0	0 / 0
J	1514	863 / 0	284 / 0	0 / 0	0 / 0	367 / 0	0 / 0

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

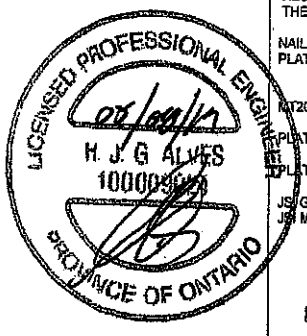
BRACING
TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 3.66 FT.
MAX. UNBRACED BOTTOM CHORD LENGTH = 10.00 FT OR RIGID CEILING DIRECTLY APPLIED.

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

LOADING
TOTAL LOAD CASES: (4)

CHORDS MEMB. FR-TO	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD FROM	TO	LC1 (PLF)	MAX CSI (LC)	MAX. UNBRAC LENGTH
A- B	0 / 31	-102.1	-102.1	0.13 (1)	10.00	
B- C	0 / 19	-102.1	-102.1	0.23 (1)	10.00	
C- D	-2533 / 0	-102.1	-102.1	0.25 (1)	4.13	
D- E	-2746 / 0	-102.1	-102.1	0.52 (1)	3.66	
E- F	-2746 / 0	-102.1	-102.1	0.52 (1)	3.66	
F- G	-2533 / 0	-102.1	-102.1	0.25 (1)	4.13	
G- H	0 / 19	-102.1	-102.1	0.23 (1)	10.00	
H- I	0 / 31	-102.1	-102.1	0.13 (1)	10.00	
O- B	-289 / 0	0.0	0.0	0.03 (1)	7.81	
J- H	-289 / 0	0.0	0.0	0.03 (1)	7.81	
O- N	0 / 2250	-38.5	-38.5	0.70 (2)	10.00	
N- M	0 / 2254	-38.5	-38.5	0.71 (2)	10.00	
M- L	0 / 2254	-38.5	-38.5	0.71 (2)	10.00	
L- K	0 / 2254	-38.5	-38.5	0.71 (2)	10.00	
K- J	0 / 2250	-38.5	-38.5	0.70 (2)	10.00	

WEBS MEMB. FR-TO	MAX. FACTORED FORCE (LBS)	MAX CSI (LC)
C- N	-3 / 138	0.03 (3)
N- D	0 / 375	0.08 (2)
D- M	0 / 647	0.15 (1)
M- E	-702 / 0	0.27 (1)
M- F	0 / 647	0.15 (1)
K- F	0 / 375	0.08 (2)
K- G	-3 / 138	0.03 (3)
O- C	-2768 / 0	0.77 (1)
G- J	-2768 / 0	0.77 (1)



DESIGN CRITERIA

SPECIFIED LOADS:

TOP CH.	LL	=	29.1	PSF
	DL	=	6.0	PSF
BOT CH.	LL	=	10.5	PSF
	DL	=	7.0	PSF
TOTAL LOAD		=	52.5	PSF

SPACING = 24.0 IN. C/C

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

THIS TRUSS IS DESIGNED FOR RESIDENTIAL OR SMALL BUILDING REQUIREMENTS OF PART 9, NBCC 2010, NBCC 2015

THIS DESIGN COMPLIES WITH:
- PART 9 OF BCBC 2018 , OBC 2012
- CSA 086-09, CSA 086-14
- TPIC 2011, TPIC 2014

(55 % OF 37.6 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 29.1 P.S.F. SPECIFIED ROOF LIVE LOAD

ALLOWABLE DEFL.(LL)= L/360 (0.90")
CALCULATED VERT. DEFL.(LL) = L/ 999 (0.18")
ALLOWABLE DEFL.(TL)= L/360 (0.90")
CALCULATED VERT. DEFL.(TL) = L/ 999 (0.30")

CSI: TC=0.52/1.00 (D-E:1) , BC=0.71/1.00 (K-M:2) , WB=0.77/1.00 (G-J:1) , SSI=0.28/1.00 (E-F:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

AUTOSOLVE HEELS OFF

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

NAIL VALUES

PLATE	GRIP(DRY) (PSI) MAX	MIN	SHEAR (PLI) MAX	MIN	SECTION (PLI) MAX	MIN
MT20	618	354	1667	788	1987	1658

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.86 (G) (INPUT = 0.90)
JSI METAL= 0.73 (L) (INPUT = 1.00)

DWG NO. TAM T1410921
STRUCTURAL
COMPONENT ONLY

JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
200142-400307	T3	1	1	Brentwood 3A TRUSS DESC.	

Tamarack Roof Truss, Burlington

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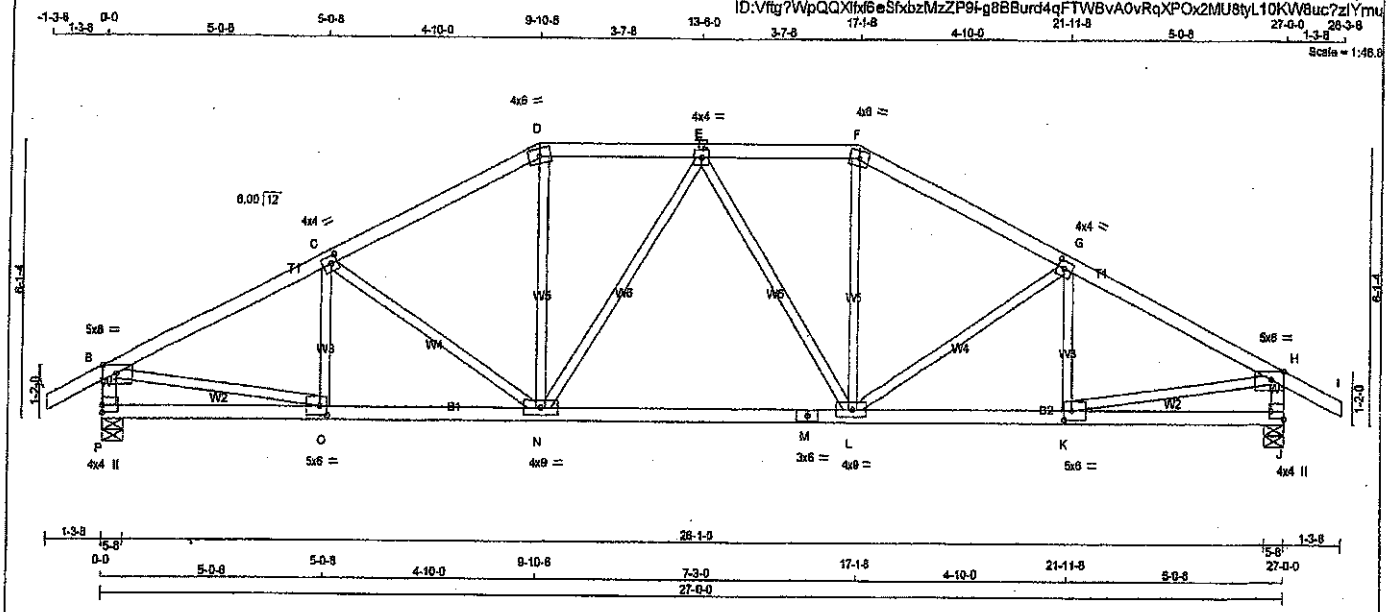


TOTAL WEIGHT = 111 lb [M|F]

LUMBER
N. L. G. A. RULES

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

DRY: SEASONED LUMBER.

PLATES (table is in inches)

JT	TYPE	PLATES	W	LEN	Y	X
B	TMWW-p	MT20	5.0	8.0	Edge	3.50
C	TMWW-t	MT20	4.0	4.0	2.00	1.75
D	TTW-m	MT20	4.0	6.0		
E	TMWW-t	MT20	4.0	4.0		
F	TTW-m	MT20	4.0	6.0		
G	TMWW-t	MT20	4.0	4.0	2.00	1.75
H	TMWW-p	MT20	5.0	8.0	Edge	3.50
J	BMV1+p	MT20	4.0	4.0	2.00	Edge
K	BMWW-t	MT20	5.0	6.0	2.50	2.00
L	BMWWW-t	MT20	4.0	9.0		
M	BS-t	MT20	3.0	6.0		
N	BMWWW-t	MT20	4.0	9.0		
O	BMWW-t	MT20	5.0	6.0	2.50	2.00
P	BMV1+p	MT20	4.0	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 VERT	HORZ	MAXIMUM FACTORED GROSS REACTION DOWN	HORZ	UPLIFT	INPUT BRG IN-SX	REQRD BRG IN-SX
P	2037	0	2037	0	0	5-8	5-8
J	2037	0	2037	0	0	5-8	5-8

UNFACTORED REACTIONS

JT	1ST LCASE COMBINED	MAX./MIN. COMPONENT REACTIONS SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
P	1514	863 / 0	284 / 0	0 / 0	0 / 0	367 / 0	0 / 0
J	1514	863 / 0	284 / 0	0 / 0	0 / 0	367 / 0	0 / 0

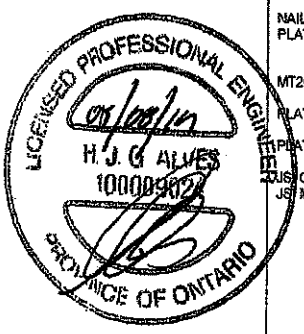
BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S) P, J

BRACING
TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 3.88 FT.
MAX. UNBRACED BOTTOM CHORD LENGTH = 10.00 FT OR RIGID CEILING DIRECTLY APPLIED.

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

LOADING
TOTAL LOAD CASES: (4)

CHORDS MEMB. FR-TO	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD LC1 (PLF) FROM	TO	MAX CSI (LC)	MAX. UNBRAC LENGTH	WEBS MEMB. FR-TO	MAX. FACTORED FORCE (LBS)	MAX CSI (LC)
A-B	0 / 31	-102.1	-102.1	0.13 (1)	10.00	O-C	-221 / 64	0.05 (1)
B-C	-2663 / 0	-102.1	-102.1	0.41 (1)	3.88	C-N	-410 / 0	0.26 (1)
C-D	-2337 / 0	-102.1	-102.1	0.38 (1)	4.14	N-D	0 / 698	0.16 (1)
D-E	-2078 / 0	-102.1	-102.1	0.20 (1)	4.53	N-E	-258 / 0	0.22 (1)
E-F	-2078 / 0	-102.1	-102.1	0.20 (1)	4.53	E-L	-258 / 0	0.22 (1)
F-G	-2337 / 0	-102.1	-102.1	0.38 (1)	4.14	L-F	0 / 698	0.16 (1)
G-H	-2663 / 0	-102.1	-102.1	0.41 (1)	3.88	L-G	-410 / 0	0.26 (1)
H-I	0 / 31	-102.1	-102.1	0.13 (1)	10.00	K-G	-221 / 64	0.05 (1)
P-B	-1951 / 0	0.0	0.0	0.20 (1)	6.03	B-O	0 / 2438	0.55 (1)
J-H	-1951 / 0	0.0	0.0	0.20 (1)	6.03	K-H	0 / 2438	0.55 (1)
P-O	0 / 0	-38.5	-38.5	0.16 (3)	10.00			
O-N	0 / 2404	-38.5	-38.5	0.56 (1)	10.00			
N-M	0 / 2211	-38.5	-38.5	0.53 (2)	10.00			
M-L	0 / 2211	-38.5	-38.5	0.53 (2)	10.00			
L-K	0 / 2404	-38.5	-38.5	0.56 (1)	10.00			
K-J	0 / 0	-38.5	-38.5	0.16 (3)	10.00			



DESIGN CRITERIA

SPECIFIED LOADS:

TOP CH.	LL	=	29.1	PSF
	DL	=	6.0	PSF
BOT CH.	LL	=	10.5	PSF
	DL	=	7.0	PSF
TOTAL LOAD		=	52.5	PSF

SPACING = 24.0 IN. C/C

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

THIS TRUSS IS DESIGNED FOR RESIDENTIAL OR SMALL BUILDING REQUIREMENTS OF PART 9, NBCC 2010, NBCC 2015

THIS DESIGN COMPLIES WITH:
- PART 9 OF BCBC 2018 , OBC 2012
- CSA 086-09, CSA 086-14
- TPIC 2011, TPIC 2014

(55 % OF 37.6 P.S.F. G.S.L. PLUS 6.4 P.S.F. RAIN LOAD) EQUALS 29.1 P.S.F. SPECIFIED ROOF LIVE LOAD

ALLOWABLE DEFL.(LL)= L/360 (0.90")
CALCULATED VERT. DEFL.(LL) = L/ 999 (0.13")
ALLOWABLE DEFL.(TL)= L/360 (0.90")
CALCULATED VERT. DEFL.(TL) = L/ 999 (0.23")

CSI: TC=0.41/1.00 (G-H:1) , BC=0.56/1.00 (N-O:1) , WB=0.55/1.00 (B-O:1) , SSI=0.22/1.00 (G-H:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

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

NAIL VALUES

PLATE	GRIP(DRY) (PSI) MAX	MIN	SHEAR (PLI) MAX	MIN	SECTION (PLI) MAX	MIN
MT20	618	354	1667	788	1987	1656

PLATE PLACEMENT TOL. = 0.250 Inches

PLATE ROTATION TOL. = 5.0 Deg.

LUS GRIP= 0.79 (K) (INPUT = 0.90)
JST METAL= 0.65 (M) (INPUT = 1.00)

DWG NO. TAM T9/0922
STRUCTURAL
COMPONENT ONLY

JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
200142-400307	T4	1	1	Brentwood 3A TRUSS DESC.	

Tamarack Roof Truss, Burlington

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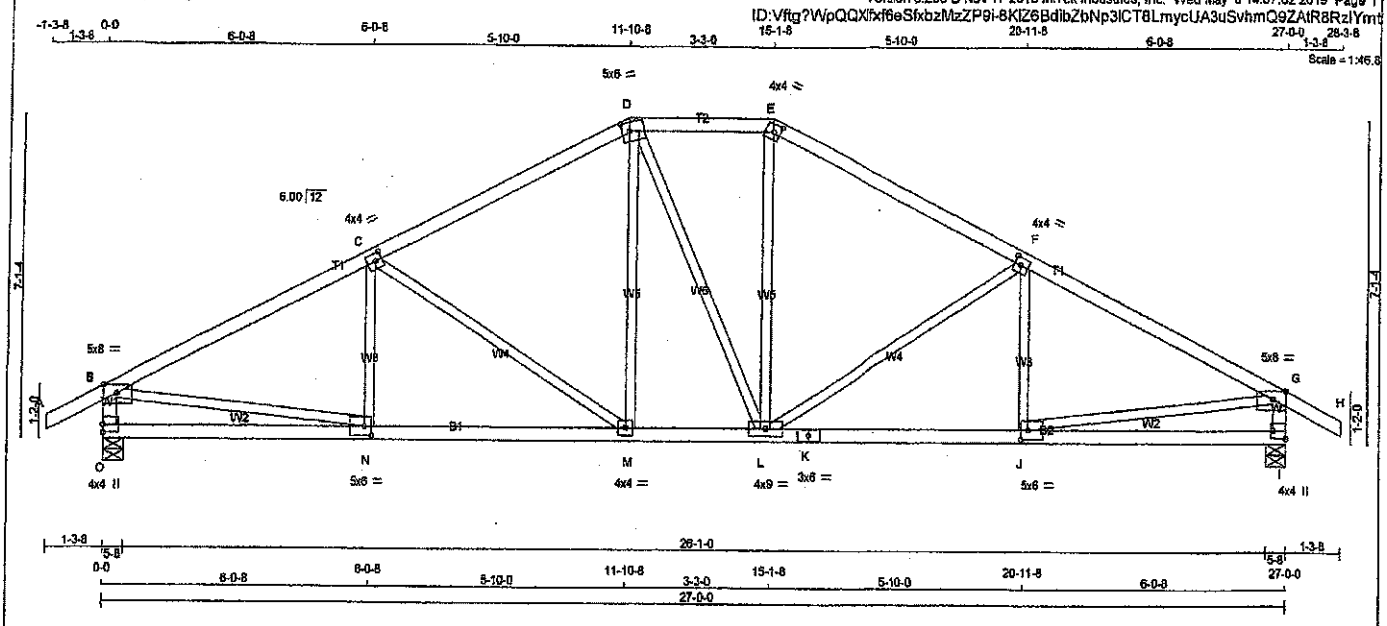


TOTAL WEIGHT = 113 lb

[M][F]

LUMBER

N. L. G. A. RULES

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

DRY: SEASONED LUMBER.

PLATES (table is in inches)

JT	TYPE	PLATES	W	LEN	Y	X
B	TMVW-p	MT20	5.0	8.0	Edge	3.50
C	TMWW-t	MT20	4.0	4.0	2.00	1.75
D	TTWW-m	MT20	5.0	6.0	2.25	2.00
E	TTW-h	MT20	4.0	4.0	2.00	1.75
F	TMWW-t	MT20	4.0	4.0	2.00	1.75
G	TMVW-p	MT20	5.0	8.0	Edge	3.50
I	BMV1+p	MT20	4.0	4.0	2.00	Edge
J	BMWW-t	MT20	5.0	6.0	2.50	2.00
K	BS-t	MT20	3.0	6.0		
L	BMWWW-t	MT20	4.0	9.0		
M	BMWW-t	MT20	4.0	4.0		
N	BMWW-t	MT20	5.0	6.0	2.50	2.00
O	BMV1+p	MT20	4.0	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 VERT	HORZ	MAXIMUM FACTORED GROSS REACTION DOWN	HORZ	UPLIFT	INPUT BRG	REQRD BRG
O	2037	0	2037	0	0	5-8	5-8
I	2037	0	2037	0	0	5-8	5-8

UNFACTORED REACTIONS

JT	1ST LCASE COMBINED	MAX./MIN. COMPONENT REACTIONS SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
O	1514	863 / 0	284 / 0	0 / 0	0 / 0	367 / 0	0 / 0
I	1514	863 / 0	284 / 0	0 / 0	0 / 0	367 / 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.

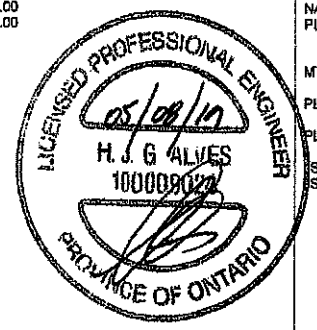
ALL PITCH BREAKS AND PERIMETER CORNER JOINTS MUST BE LATERALLY RESTRAINED.

LOADING

TOTAL LOAD CASES: (4)

CHORDS MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD LC1 (PLF) FROM	TO	MAX CSI (LC)	MAX. UNBRAC LENGTH
FR-TO					
A- B	0 / 31	-102.1	-102.1	0.13 (1)	10.00
B- C	-2694 / 0	-102.1	-102.1	0.61 (1)	3.63
C- D	-2111 / 0	-102.1	-102.1	0.53 (1)	4.11
D- E	-1668 / 0	-102.1	-102.1	0.18 (1)	4.78
E- F	-2113 / 0	-102.1	-102.1	0.53 (1)	4.11
F- G	-2693 / 0	-102.1	-102.1	0.61 (1)	3.63
G- H	0 / 31	-102.1	-102.1	0.13 (1)	10.00
O- B	-1942 / 0	0.0	0.0	0.20 (1)	8.04
I- G	-1942 / 0	0.0	0.0	0.20 (1)	8.04
O- N	0 / 0	-38.5	-38.5	0.27 (3)	10.00
N- M	0 / 2438	-38.5	-38.5	0.58 (2)	10.00
M- L	0 / 1866	-38.5	-38.5	0.40 (1)	10.00
L- K	0 / 2437	-38.5	-38.5	0.57 (2)	10.00
K- J	0 / 2437	-38.5	-38.5	0.57 (2)	10.00
J- I	0 / 0	-38.5	-38.5	0.27 (3)	10.00

WEBS MEMB.	MAX. FACTORED FORCE (LBS)	MAX CSI (LC)
FR-TO		
N- C	-84 / 185	0.04 (3)
C- M	-692 / 0	0.67 (1)
M- D	0 / 537	0.12 (1)
D- L	0 / 4	0.00 (1)
L- E	0 / 541	0.12 (1)
L- F	-689 / 0	0.66 (1)
J- F	-86 / 183	0.04 (3)
B- N	0 / 2462	0.55 (1)
J- G	0 / 2461	0.55 (1)



DESIGN CRITERIA

SPECIFIED LOADS:

TOP CH.	LL	=	29.1	PSF
	DL	=	6.0	PSF
BOT CH.	LL	=	10.5	PSF
	DL	=	7.0	PSF
TOTAL LOAD		=	52.5	PSF

SPACING = 24.0 IN. C/C

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

THIS TRUSS IS DESIGNED FOR RESIDENTIAL OR SMALL BUILDING REQUIREMENTS OF PART 9, NBCC 2010, NBCC 2015

THIS DESIGN COMPLIES WITH:
- PART 9 OF BCBC 2018 , OBC 2012
- CSA 086-09, CSA 086-14
- TPIC 2011, TPIC 2014

(55 % OF 37.6 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 29.1 P.S.F. SPECIFIED ROOF LIVE LOAD

ALLOWABLE DEFL.(LL)= L/360 (0.90")
CALCULATED VERT. DEFL.(LL) = L/ 999 (0.12")
ALLOWABLE DEFL.(TL)= L/360 (0.90")
CALCULATED VERT. DEFL.(TL) = L/ 999 (0.20")

CSI: TC=0.61/1.00 (B-C:1) , BC=0.58/1.00 (M-N:2) , WB=0.67/1.00 (C-M:1) , SSI=0.26/1.00 (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(ORY) (PSI) MAX	MIN	SHEAR (PLI) MAX	MIN	SECTION (PLI) MAX	MIN
MT20	618	354	1667	788	1987	1656

PLATE PLACEMENT TOL. = 0.250 Inches

PLATE ROTATION TOL. = 5.0 Deg.

SSI GRIP= 0.84 (E) (INPUT = 0.90)
SSI METAL= 0.71 (K) (INPUT = 1.00)

DWG NO. TAM T1910923
STRUCTURAL
COMPONENT ONLY

JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
200142-400307	T5	11	1	Brentwood 3A TRUSS DESC.	

Tamarack Roof Truss, Burlington

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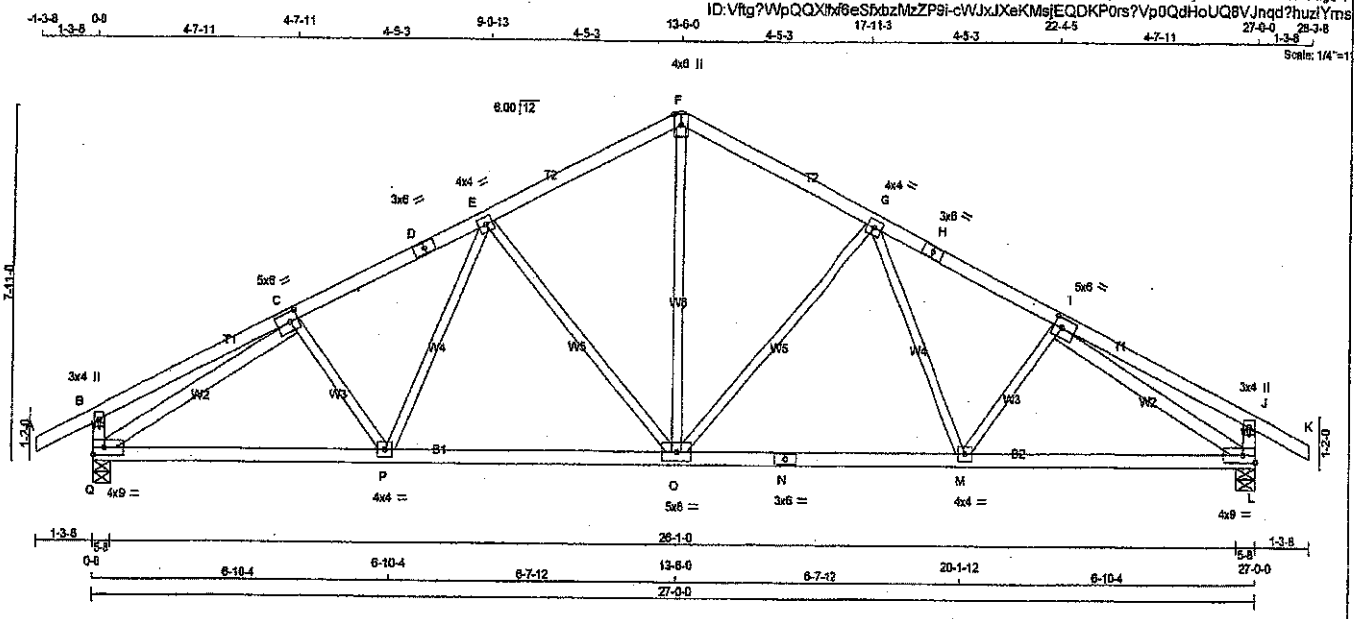

TOTAL WEIGHT = 11 X 114 = 1251 lb [M][F]

LUMBER
N. L. G. A. RULES

CHORDS	SIZE		LUMBER	DESCR.
A - D	2x4	DRY	No.2	SPF
D - F	2x4	DRY	No.2	SPF
F - H	2x4	DRY	No.2	SPF
H - K	2x4	DRY	No.2	SPF
Q - B	2x4	DRY	No.2	SPF
L - J	2x4	DRY	No.2	SPF
Q - N	2x4	DRY	No.2	SPF
N - L	2x4	DRY	No.2	SPF
ALL WEBS EXCEPT	2x3	DRY	No.2	SPF
Q - C	2x4	DRY	No.2	SPF
I - L	2x4	DRY	No.2	SPF

DRY: SEASONED LUMBER.

PLATES (table is in inches)

JT	TYPE	PLATES	W	LEN	Y	X
B	TMV+p	MT20	3.0	4.0		
C	TMWW-t	MT20	5.0	6.0	2.50	2.25
D	TS-t	MT20	3.0	6.0		
E	TMWW-t	MT20	4.0	4.0		
F	TTW+p	MT20	4.0	6.0	Edge	
G	TMWW-t	MT20	4.0	4.0		
H	TS-t	MT20	3.0	6.0		
I	TMWW-t	MT20	5.0	6.0	2.50	2.25
J	TMV+p	MT20	3.0	4.0		
L	BMVW1-t	MT20	4.0	9.0		Edge
M	BMWW-t	MT20	4.0	4.0		
N	BS-t	MT20	3.0	6.0		
O	BMWWW-t	MT20	5.0	8.0		
P	BMWW-t	MT20	4.0	4.0		
Q	BMVW1-t	MT20	4.0	9.0		Edge

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 VERT	HORZ	MAXIMUM FACTORED GROSS REACTION DOWN	HORZ	UPLIFT	INPUT BRG IN-SX	REQRD BRG IN-SX
Q	2037	0	2037	0	0	5-8	5-8
L	2037	0	2037	0	0	5-8	5-8

UNFACTORED REACTIONS

JT	1ST LCASE COMBINED	MAX./MIN. COMPONENT REACTIONS SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
Q	1514	863 / 0	284 / 0	0 / 0	0 / 0	367 / 0	0 / 0
L	1514	863 / 0	284 / 0	0 / 0	0 / 0	367 / 0	0 / 0

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

BRACING
TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 4.08 FT.
MAX. UNBRACED BOTTOM CHORD LENGTH = 10.00 FT OR RIGID CEILING DIRECTLY APPLIED.

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

LOADING
TOTAL LOAD CASES: (4)

CHORDS

MEMB. FR-TO	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF) FROM	TO	LC	MAX CSI (LC)	MAX. UNBRAC LENGTH
A- B	0 / 31	-102.1	-102.1	0.13 (1)	10.00	
B- C	0 / 17	-102.1	-102.1	0.25 (1)	10.00	
C- D	-2561 / 0	-102.1	-102.1	0.30 (1)	4.08	
D- E	-2561 / 0	-102.1	-102.1	0.30 (1)	4.08	
E- F	-1921 / 0	-102.1	-102.1	0.28 (1)	4.80	
F- G	-1921 / 0	-102.1	-102.1	0.28 (1)	4.80	
G- H	-2561 / 0	-102.1	-102.1	0.30 (1)	4.08	
H- I	-2561 / 0	-102.1	-102.1	0.30 (1)	4.08	
I- J	0 / 17	-102.1	-102.1	0.25 (1)	10.00	
J- K	0 / 31	-102.1	-102.1	0.13 (1)	10.00	
Q- B	-331 / 0	0.0	0.0	0.03 (1)	7.81	
L- J	-331 / 0	0.0	0.0	0.03 (1)	7.81	
Q- P	0 / 2320	-38.5	-38.5	0.62 (2)	10.00	
P- O	0 / 2158	-38.5	-38.5	0.60 (2)	10.00	
O- N	0 / 2158	-38.5	-38.5	0.60 (2)	10.00	
N- M	0 / 2158	-38.5	-38.5	0.60 (2)	10.00	
M- L	0 / 2320	-38.5	-38.5	0.62 (2)	10.00	

WEBS

MEMB. FR-TO	MAX. FACTORED FORCE (LBS)	MAX CSI (LC)
O- F	0 / 1325	0.30 (1)
O- G	-706 / 0	0.56 (1)
G- M	0 / 380	0.09 (2)
M- I	-49 / 112	0.03 (3)
E- O	-706 / 0	0.56 (1)
P- E	0 / 380	0.09 (2)
C- P	-49 / 112	0.03 (3)
Q- C	-2819 / 0	1.00 (1)
I- L	-2819 / 0	1.00 (1)

DESIGN CRITERIA

SPECIFIED LOADS:

TOP	CH.	LL =	29.1	PSF
		DL =	6.0	PSF
BOT	CH.	LL =	10.5	PSF
		DL =	7.0	PSF
TOTAL LOAD		=	52.5	PSF

SPACING = 24.0 IN. C/C

THIS TRUSS IS DESIGNED FOR RESIDENTIAL OR SMALL BUILDING REQUIREMENTS OF PART 9, NBCC 2010, NBCC 2015

THIS DESIGN COMPLIES WITH:
- PART 9 OF BCBC 2018 , OBC 2012
- CSA 086-09, CSA 086-14
- TPIC 2011, TPIC 2014

(55 % OF 37.6 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 29.1 P.S.F. SPECIFIED ROOF LIVE LOAD

ALLOWABLE DEFL.(LL)= L/360 (0.90")
CALCULATED VERT. DEFL.(LL) = L/ 999 (0.11")
ALLOWABLE DEFL.(TL)= L/360 (0.90")
CALCULATED VERT. DEFL.(TL) = L/ 999 (0.19")

CSI: TC=0.30/1.00 (G-I:1) , BC=0.62/1.00 (L-M:2) , WB=1.00/1.00 (H-L:1) , SSI=0.18/1.00 (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

AUTOSOLVE HEELS OFF

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

NAIL VALUES

PLATE	GRIP(DRY) (PSI) MAX	MIN	SHEAR (PLI) MAX	MIN	SECTION (PLI) MAX	MIN
MT20	616	354	1667	788	1987	1656

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JS GRIP= 0.85 (C) (INPUT = 0.90)
JS METAL= 0.77 (N) (INPUT = 1.00)

DWG NO. TAM 9291092A
STRUCTURAL COMPONENT ONLY

JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
200142-400342	T6Z	1	2	Brentwood 3A TRUSS DESC.	

Tamarack Roof Truss, Burlington

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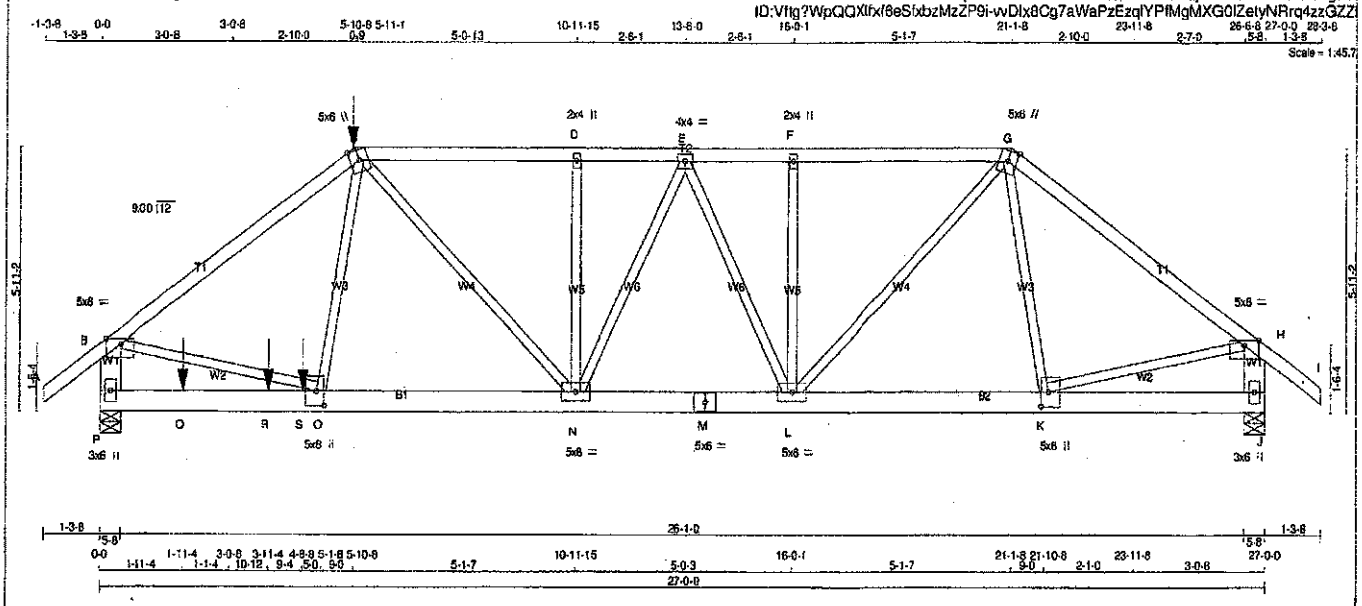

TOTAL WEIGHT = 2 X 136 = 272 lb

LUMBER

N. L. G. A. RULES

CHORDS	SIZE		LUMBER	DESCR.
A - C	2x4	DRY	No.2	SPF
C - G	2x4	DRY	No.2	SPF
G - I	2x4	DRY	No.2	SPF
P - B	2x6	DRY	No.2	SPF
J - H	2x6	DRY	No.2	SPF
P - M	2x6	DRY	No.2	SPF
M - J	2x6	DRY	No.2	SPF
ALL WEBS EXCEPT	2x3	DRY	No.2	SPF

DRY: SEASONED LUMBER.

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

CHORDS	#ROWS	SURFACE SPACING (IN)	LOAD(PLF)
TOP CHORDS : (0.122"X3") SPIRAL NAILS			
A- C	1	12	SIDE(61.0)
C- G	1	12	SIDE(61.0)
G- I	1	12	TOP
P- B	2	12	TOP
J- H	2	12	TOP
BOTTOM CHORDS : (0.122"X3") SPIRAL NAILS			
P- M	2	12	SIDE(0.0)
M- J	2	12	TOP
WEBS : (0.122"X3") SPIRAL NAILS			
O- C	1	6	SIDE(14.3)
2x3	1	6	

NAILS TO BE DRIVEN FROM ONE SIDE ONLY.

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

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

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

PLATES (table is in inches)

JT	TYPE	PLATES	W	LEN	Y	X
B	TMVW-p	MT20	5.0	8.0	Edge	
C	TTWW+m	MT20	5.0	6.0	Edge	
D	TMW+w	MT20	2.0	4.0		
E	TMWW-t	MT20	4.0	4.0		
F	TMW+w	MT20	2.0	4.0		
G	TTWW+m	MT20	5.0	6.0	Edge	
H	TMVW-p	MT20	5.0	8.0	Edge	
J	BMV1+p	MT20	3.0	6.0		
K	BMWW+t	MT20	5.0	8.0	4.00	2.00
L	BMWWW-t	MT20	5.0	8.0		
M	BS-t	MT20	5.0	6.0		
N	BMWWW-t	MT20	5.0	8.0		
O	BMWW+t	MT20	5.0	8.0	4.00	2.00
P	BMV1+p	MT20	3.0	6.0		

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 VERT	HORZ	MAXIMUM FACTORED GROSS REACTION DOWN	HORZ	UPLIFT	INPUT BRG IN-SX	REQRD BRG IN-SX
P	3862	0	3862	0	0	5-8	5-8
J	2332	0	2332	0	0	5-8	5-8

UNFACTORED REACTIONS

JT	1ST LCASE COMBINED	MAX./MIN. COMPONENT REACTIONS SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
P	3075	1769 / 0	564 / 0	0 / 0	0 / 0	741 / 0	0 / 0
J	1853	1072 / 0	336 / 0	0 / 0	0 / 0	445 / 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 = 4.19 FT.

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

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

LOADING

TOTAL LOAD CASES: (4)

CHORDS MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD LC1 (PLF) FROM	TO	MAX CSI (LC)	MAX. UNBRAC LENGTH	WEBS MEMB.	MAX. FACTORED FORCE (LBS)	MAX CSI (LC)
FR-TO						FR-TO		
A- B	0 / 42	-102.1	-102.1	0.08 (1)	10.00	C- N	0 / 289	0.04 (1)
B- C	-4166 / 0	-102.1	-102.1	0.55 (1)	4.19	N- D	-531 / 0	0.14 (1)
C- D	-3349 / 0	-102.1	-102.1	0.23 (1)	4.88	L- F	-532 / 0	0.14 (1)
D- E	-3349 / 0	-102.1	-102.1	0.21 (1)	4.88	L- G	0 / 1547	0.19 (1)
E- F	-2971 / 0	-102.1	-102.1	0.20 (1)	5.13	N- E	0 / 428	0.05 (1)
F- G	-2971 / 0	-102.1	-102.1	0.22 (1)	5.13	E- L	-489 / 0	0.16 (1)
G- H	-2366 / 0	-102.1	-102.1	0.42 (1)	5.35	O- C	0 / 1260	0.16 (1)
H- I	0 / 42	-102.1	-102.1	0.08 (1)	10.00	B- O	0 / 3410	0.42 (1)
P- B	-3665 / 0	0.0	0.0	0.13 (1)	7.35	G- K	-242 / 101	0.07 (1)
J- H	-2273 / 0	0.0	0.0	0.08 (1)	7.81	K- H	0 / 1937	0.24 (1)
P- Q	0 / 0	-28.0	-28.0	0.17 (1)	10.00			
Q- R	0 / 0	-28.0	-28.0	0.17 (1)	10.00			
R- S	0 / 0	-28.0	-28.0	0.17 (1)	10.00			
S- O	0 / 0	-28.0	-28.0	0.17 (1)	10.00			
O- N	0 / 3154	-28.0	-28.0	0.33 (1)	10.00			
N- M	0 / 3172	-28.0	-28.0	0.24 (1)	10.00			
M- L	0 / 3172	-28.0	-28.0	0.24 (1)	10.00			
L- K	0 / 1928	-28.0	-28.0	0.15 (1)	10.00			
K- J	0 / 0	-28.0	-28.0	0.05 (3)	10.00			

FACTORED CONCENTRATED LOADS (LBS)

JT	LOC.	LC1	MAX-	MAX+	FACE	DIR	TYPE
C	5-11-1	-522	-522	---	BACK	VERT	TOTAL
Q	1-11-4	-54	-95	---	BACK	VERT	TOTAL
R	3-11-4	-54	-95	---	BACK	VERT	TOTAL
S	4-8-8	-1769	-1769	---	BACK	VERT	TOTAL

DESIGN CRITERIA

SPECIFIED LOADS:

TOP CH.	LL =	29.1	PSF
	DL =	6.0	PSF
BOT CH.	LL =	10.5	PSF
	DL =	7.0	PSF
TOTAL LOAD	=	52.5	PSF

SPACING = 24.0 IN. C/C

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

THIS TRUSS IS DESIGNED FOR RESIDENTIAL OR SMALL BUILDING REQUIREMENTS OF PART 9, NBCC 2010

THIS DESIGN COMPLIES WITH:
- PART 9 OF OBC 2012 , BCBC 2012 , ABC 2014
- CSA 086-09
- TPIC 2011

(55 % OF 37.8 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 29.1 P.S.F. SPECIFIED ROOF LIVE LOAD

ALLOWABLE DEFL.(LL)= L/360 (0.90")
CALCULATED VERT. DEFL.(LL) = L/ 999 (0.06")
ALLOWABLE DEFL.(TL)= L/360 (0.90")
CALCULATED VERT. DEFL.(TL) = L/ 999 (0.10")

CSI: TC=0.55/1.00 (B-C:1) , BC=0.33/1.00 (N-O:1) , WB=0.42/1.00 (B-O:1) , SSI=0.80/1.00 (O-P:1)

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

COMPANION LIVE LOAD FACTOR = 0.50

AUTOSOLVE HEELS OFF

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

NAIL VALUES

PLATE	GRIP(DRY) (PSI) MAX	MIN	SHEAR (PLI) MAX	MIN	SECTION (PLI) MAX	MIN
MT20	618	354	1667	788	1987	1656

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JT GRIP= 0.74 (K) (INPUT = 0.90)
SI METAL= 0.57 (O) (INPUT = 1.00)

LICENSED PROFESSIONAL ENGINEER
05/14/19
H. J. G. ALVES
100009024
PROVINCE OF ONTARIO

AUG 08 2019

Structural component only
DWG# T-1911563

JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
200142-400307	T7	2	1	Brentwood 3A TRUSS DESC.	

Tamarack Roof Truss, Burlington

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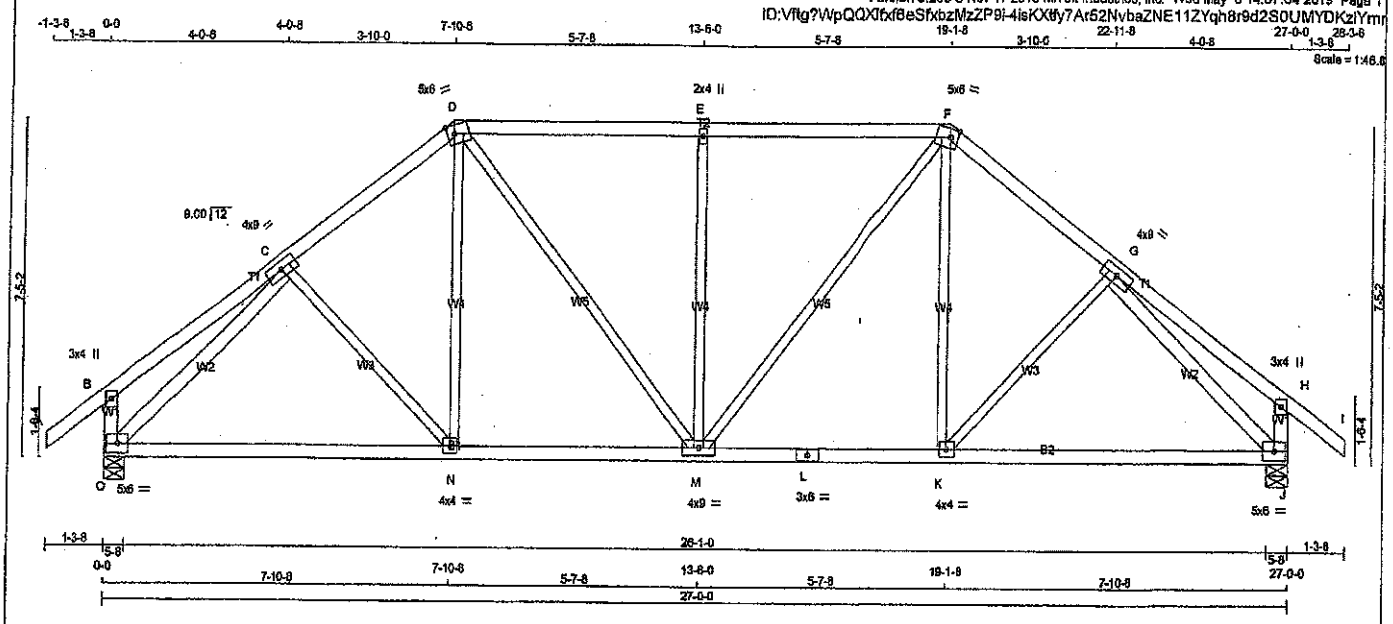


TOTAL WEIGHT = 2 X 125 = 249 lb (MiTek)

LUMBER
N. L. G. A. RULES

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

DRY: SEASONED LUMBER.

PLATES (table is in inches)

JT	TYPE	PLATES	W	LEN	Y	X
B	TMV+p	MT20	3.0	4.0		
C	TMWW-t	MT20	4.0	9.0		
D	TTWW-m	MT20	5.0	6.0	Edge	2.00
E	TMW+w	MT20	2.0	4.0		
F	TTWW-m	MT20	5.0	6.0	Edge	2.00
G	TMWW-t	MT20	4.0	9.0		
H	TMV+p	MT20	3.0	4.0		
J	BMWW1-t	MT20	5.0	6.0		
K	BMWW-t	MT20	4.0	4.0		
L	BS-t	MT20	3.0	6.0		
M	BMWWW-t	MT20	4.0	9.0		
N	BMWW-t	MT20	4.0	4.0		
O	BMVW1-t	MT20	5.0	6.0		

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 VERT	HORZ	MAXIMUM FACTORED GROSS REACTION DOWN	HORZ	UPLIFT	INPUT BRG IN-SX	REQRD BRG IN-SX
O	2039	0	2039	0	0	5-8	5-8
J	2039	0	2039	0	0	5-8	5-8

UNFACTORED REACTIONS

JT	1ST LCASE COMBINED	MAX./MIN. COMPONENT REACTIONS SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
O	1515	864 / 0	284 / 0	0 / 0	0 / 0	368 / 0	0 / 0
J	1515	864 / 0	284 / 0	0 / 0	0 / 0	368 / 0	0 / 0

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

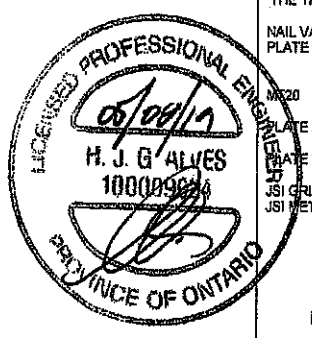
BRACING
TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 4.42 FT.
MAX. UNBRACED BOTTOM CHORD LENGTH = 10.00 FT OR RIGID CEILING DIRECTLY APPLIED.

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

LOADING
TOTAL LOAD CASES: (4)

CHORDS MEMB. FR-TO	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF) FROM	TO	LC	MAX CSI (LC)	MAX. UNBRAC LENGTH
A-B	0 / 42	-102.1	-102.1	0.14 (1)	10.00	
B-C	0 / 27	-102.1	-102.1	0.25 (1)	10.00	
C-D	-1927 / 0	-102.1	-102.1	0.24 (1)	4.64	
D-E	-1854 / 0	-102.1	-102.1	0.46 (1)	4.42	
E-F	-1854 / 0	-102.1	-102.1	0.46 (1)	4.42	
F-G	-1927 / 0	-102.1	-102.1	0.24 (1)	4.64	
G-H	0 / 27	-102.1	-102.1	0.25 (1)	10.00	
H-I	0 / 42	-102.1	-102.1	0.14 (1)	10.00	
O-B	-296 / 0	0.0	0.0	0.03 (1)	7.81	
J-H	-296 / 0	0.0	0.0	0.03 (1)	7.81	
O-N	0 / 1535	-38.5	-38.5	0.61 (2)	10.00	
N-M	0 / 1522	-38.5	-38.5	0.61 (2)	10.00	
M-L	0 / 1522	-38.5	-38.5	0.61 (2)	10.00	
L-K	0 / 1522	-38.5	-38.5	0.61 (2)	10.00	
K-J	0 / 1535	-38.5	-38.5	0.61 (2)	10.00	

WEBS MEMB. FR-TO	MAX. FACTORED FORCE (LBS)	MAX CSI (LC)
C-N	-25 / 100	0.02 (3)
N-D	0 / 390	0.09 (2)
D-M	0 / 535	0.12 (1)
M-E	-700 / 0	0.69 (1)
M-F	0 / 535	0.12 (1)
K-F	0 / 390	0.09 (2)
K-G	-25 / 100	0.02 (3)
O-C	-2231 / 0	0.85 (1)
G-J	-2231 / 0	0.85 (1)



DESIGN CRITERIA

SPECIFIED LOADS:

TOP CH.	LL	=	29.1	PSF
	DL	=	6.0	PSF
BOT CH.	LL	=	10.5	PSF
	DL	=	7.0	PSF
TOTAL LOAD		=	52.5	PSF

SPACING = 24.0 IN. C/C

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

THIS TRUSS IS DESIGNED FOR RESIDENTIAL OR SMALL BUILDING REQUIREMENTS OF PART 9, NBCC 2010, NBCC 2015

THIS DESIGN COMPLIES WITH:
- PART 9 OF BCBC 2018 , OBC 2012
- CSA 086-09, CSA 086-14
- TPIC 2011, TPIC 2014

(55 % OF 37.6 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 29.1 P.S.F. SPECIFIED ROOF LIVE LOAD

ALLOWABLE DEFL.(LL)= L/360 (0.90")
CALCULATED VERT. DEFL.(LL) = L/ 999 (0.16")
ALLOWABLE DEFL.(TL)= L/360 (0.90")
CALCULATED VERT. DEFL.(TL) = L/ 989 (0.27")

CSI: TC=0.46/1.00 (D-E:1) , BC=0.61/1.00 (K-M:2) , WB=0.85/1.00 (G-J:1) , SSI=0.28/1.00 (D-E:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

AUTOSOLVE HEELS OFF

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

NAIL VALUES

PLATE	GRIP(DRY) (PSI) MAX	MIN	SHEAR (PLI) MAX	MIN	SECTION (PLI) MAX	MIN
MT20	618	354	1667	768	1987	1656

PLATE PLACEMENT TOL. = 0.250 Inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.87 (C) (INPUT = 0.90)
JSI METAL= 0.51 (L) (INPUT = 1.00)

DWG NO. TAM T2910926
STRUCTURAL
COMPONENT ONLY

JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
200142-400307	T8	3	1	Brentwood 3A TRUSS DESC.	

Tamarack Roof Truss, Burlington

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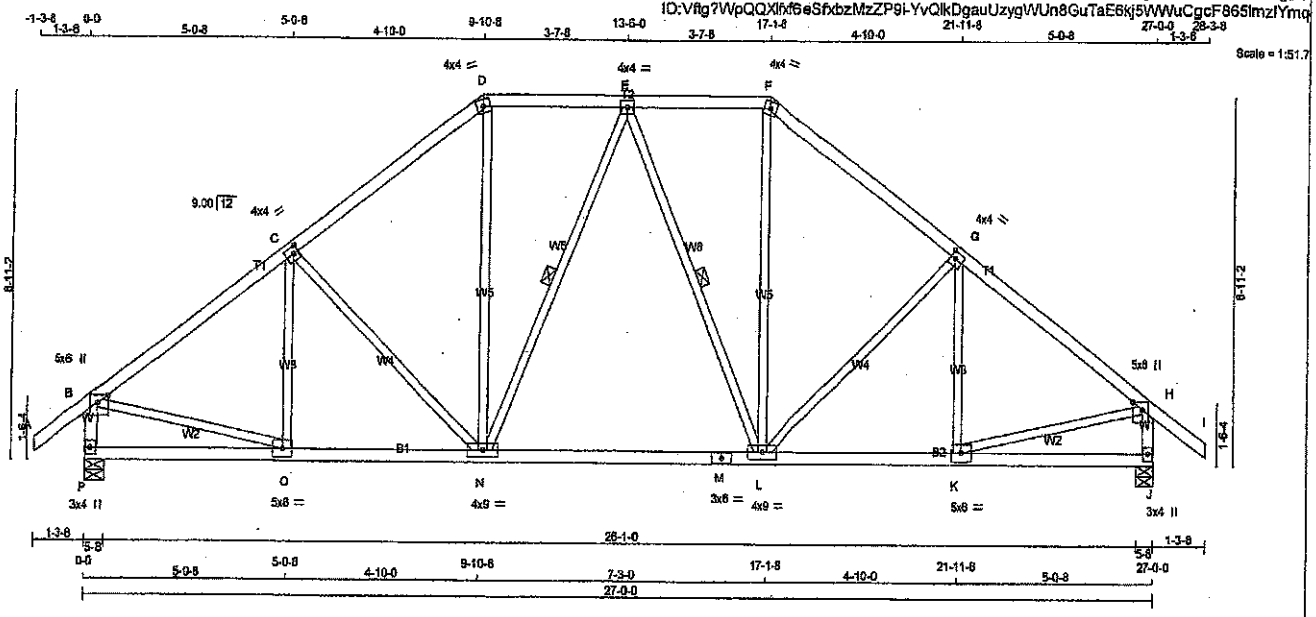

TOTAL WEIGHT = 3 X 128 = 385 lb [M][F]

LUMBER

N. L. G. A. RULES

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

DRY: SEASONED LUMBER.

PLATES (table is in inches)

JT	TYPE	PLATES	W	LEN	Y	X
B	TMVW+p	MT20	5.0	6.0	Edge	3.00
C	TMWW-t	MT20	4.0	4.0	2.00	1.50
D	TTW-m	MT20	4.0	4.0		
E	TMWW-t	MT20	4.0	4.0		
F	TTW-m	MT20	4.0	4.0		
G	TMWW-t	MT20	4.0	4.0	2.00	1.50
H	TMVW+p	MT20	5.0	6.0	Edge	3.00
J	BMV1+p	MT20	3.0	4.0		
K	BMWW-t	MT20	5.0	6.0		
L	BMWWW-t	MT20	4.0	9.0		
M	BS-t	MT20	3.0	6.0		
N	BMWWW-t	MT20	4.0	9.0		
O	BMWW-t	MT20	5.0	6.0		
P	BMV1+p	MT20	3.0	4.0		

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

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

BEARINGS

JT	FACTORED GROSS REACTION VERT	HORZ	MAXIMUM FACTORED GROSS REACTION DOWN	HORZ	UPLIFT	INPUT BRG IN-SX	REQRD BRG IN-SX
P	2039	0	2039	0	0	5-8	5-8
J	2039	0	2039	0	0	5-8	5-8

UNFACTORED REACTIONS

JT	1ST LCASE COMBINED	MAX./MIN. COMPONENT REACTIONS SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
P	1515	864 / 0	284 / 0	0 / 0	0 / 0	368 / 0	0 / 0
J	1515	864 / 0	284 / 0	0 / 0	0 / 0	368 / 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 = 4.40 FT.
MAX. UNBRACED BOTTOM CHORD LENGTH = 10.00 FT OR RIGID CEILING DIRECTLY APPLIED.

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

1 LATERAL BRACE(S) AT 1/2 LENGTH OF E-N, E-L.

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

LOADING

TOTAL LOAD CASES: (4)

CHORDS MEMB. FR-TO	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD LC1 (PLF) FROM	TO	MAX CSI (LC)	MAX. UNBRAC LENGTH
A-B	0 / 42	-102.1	-102.1	0.14 (1)	10.00
B-C	-2013 / 0	-102.1	-102.1	0.39 (1)	4.40
C-D	-1776 / 0	-102.1	-102.1	0.36 (1)	4.64
D-E	-1399 / 0	-102.1	-102.1	0.17 (1)	5.33
E-F	-1399 / 0	-102.1	-102.1	0.17 (1)	5.33
F-G	-1778 / 0	-102.1	-102.1	0.36 (1)	4.64
G-H	-2013 / 0	-102.1	-102.1	0.39 (1)	4.40
H-I	0 / 42	-102.1	-102.1	0.14 (1)	10.00
P-B	-1956 / 0	0.0	0.0	0.20 (1)	8.02
J-H	-1956 / 0	0.0	0.0	0.20 (1)	8.02
P-O	0 / 0	-38.5	-38.5	0.16 (3)	10.00
O-N	0 / 1638	-38.5	-38.5	0.45 (2)	10.00
N-M	0 / 1488	-38.5	-38.5	0.43 (2)	10.00
M-L	0 / 1488	-38.5	-38.5	0.43 (2)	10.00
L-K	0 / 1638	-38.5	-38.5	0.45 (2)	10.00
K-J	0 / 0	-38.5	-38.5	0.16 (3)	10.00

WEBS MEMB. FR-TO	MAX. FACTORED FORCE (LBS)	MAX CSI (LC)
O-C	-194 / 76	0.08 (1)
C-N	-351 / 0	0.33 (1)
N-D	0 / 710	0.16 (1)
L-F	0 / 710	0.16 (1)
L-G	-351 / 0	0.33 (1)
K-G	-194 / 76	0.08 (1)
B-O	0 / 1684	0.38 (1)
K-H	0 / 1684	0.38 (1)
N-E	-235 / 0	0.14 (1)
E-L	-235 / 0	0.14 (1)

DESIGN CRITERIA

SPECIFIED LOADS:

TOP CH.	LL =	29.1	PSF
	DL =	6.0	PSF
BOT CH.	LL =	10.5	PSF
	DL =	7.0	PSF
TOTAL LOAD	=	52.5	PSF

SPACING = 24.0 IN. O/C

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

THIS TRUSS IS DESIGNED FOR RESIDENTIAL OR SMALL BUILDING REQUIREMENTS OF PART 9, NBCC 2010, NBCC 2015

THIS DESIGN COMPLIES WITH:
- PART 9 OF BCBC 2018 , OSC 2012
- CSA 086-09, CSA 086-14
- TPIC 2011, TPIC 2014

(55 % OF 37.6 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 29.1 P.S.F. SPECIFIED ROOF LIVE LOAD

ALLOWABLE DEFL.(LL)= L/360 (0.90")
CALCULATED VERT. DEFL.(LL) = L/ 999 (0.10")
ALLOWABLE DEFL.(TL)= L/360 (0.90")
CALCULATED VERT. DEFL.(TL) = L/ 999 (0.16")

CSI: TC=0.39/1.00 (G-H:1) , BC=0.45/1.00 (K-L:2) , WB=0.38/1.00 (H-K:1) , SSI=0.20/1.00 (G-H:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

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

NAIL VALUES

PLATE	GRIP(DRY) (PSI) MAX	MIN	SHEAR (PLI) MAX	MIN	SECTION (PLI) MAX	MIN
MT20	618	354	1667	788	1987	1656

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

LS GRIP= 0.90 (B) (INPUT = 0.90)
LS METAL= 0.45 (M) (INPUT = 1.00)

PROFESSIONAL ENGINEER
PROVINCE OF ONTARIO
05/08/19
H. J. G. ALVES
100009044

DWG NO. TAM 87910987
STRUCTURAL COMPONENT ONLY

AUG 08 2019

JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
200142-400342	T31	3	1	Brentwood 3A TRUSS DESC.	

Tamarack Roof Truss, Burlington

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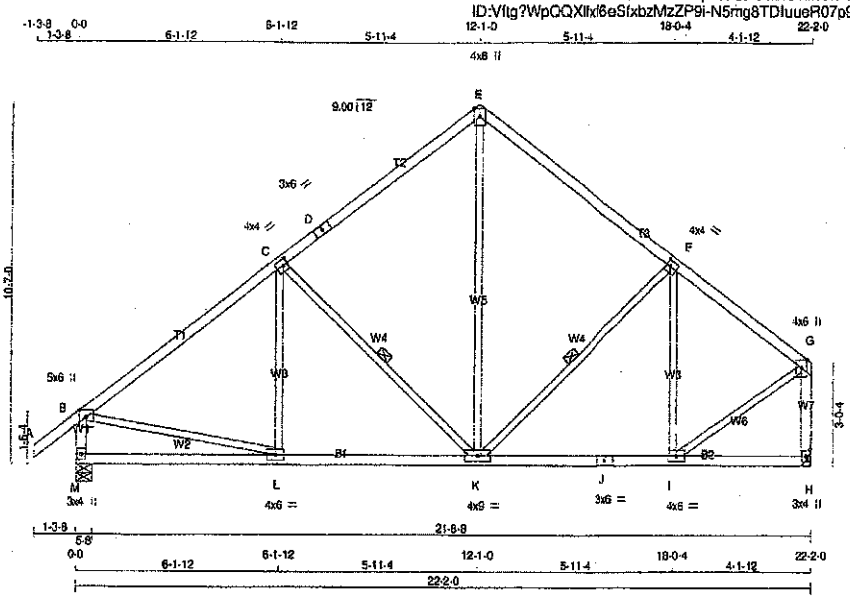


TOTAL WEIGHT = 3 X 102 = 306 lb (M|F)

LUMBER

N. L. G. A. RULES

CHORDS	SIZE		LUMBER	DESCR.
A - D	2x4	DRY	No.2	SPF
D - E	2x4	DRY	No.2	SPF
E - G	2x4	DRY	No.2	SPF
M - B	2x4	DRY	No.2	SPF
H - G	2x4	DRY	No.2	SPF
M - J	2x4	DRY	No.2	SPF
J - H	2x4	DRY	No.2	SPF
ALL WEBS EXCEPT	2x3	DRY	No.2	SPF

DRY: SEASONED LUMBER.

PLATES (table is in inches)

JT	TYPE	PLATES	W	LEN	Y	X
B	TMVW+p	MT20	5.0	6.0	Edge	
C	TMWW-t	MT20	4.0	4.0	2.00	1.50
D	TS-t	MT20	3.0	6.0		
E	TTW+p	MT20	4.0	6.0	Edge	
F	TMWW-t	MT20	4.0	4.0	2.00	1.50
G	TMVW+p	MT20	4.0	6.0	Edge	
H	BMV1+p	MT20	3.0	4.0		
I	BMWW-t	MT20	4.0	6.0		
J	BS-t	MT20	3.0	6.0		
K	BMWWW-t	MT20	4.0	9.0		
L	BMWW-t	MT20	4.0	6.0		
M	BMV1+p	MT20	3.0	4.0		

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

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

BEARINGS

JT	FACTORED GROSS REACTION VERT	HORZ	MAXIMUM FACTORED GROSS REACTION DOWN	HORZ	UPLIFT	INPUT BRG	REQRD BRG
M	1583	0	1583	0	0	IN-SX	IN-SX
H	1442	0	1442	0	0	MECHANICAL	

A SUITABLE HANGER/MECHANICAL CONNECTION IS REQUIRED AT JOINT H. MINIMUM BEARING LENGTH AT JOINT H = 3-8.

UNFACTORED REACTIONS

JT	1ST LCASE COMBINED	MAX./MIN. COMPONENT REACTIONS SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
M	1261	724 / 0	233 / 0	0 / 0	0 / 0	305 / 0	0 / 0
H	1165	644 / 0	233 / 0	0 / 0	0 / 0	288 / 0	0 / 0

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

BRACING

TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 4.75 FT.
MAX. UNBRACED BOTTOM CHORD LENGTH = 10.00 FT OR RIGID CEILING DIRECTLY APPLIED.

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

1 LATERAL BRACE(S) AT 1/ 2 LENGTH OF C-K, F-K.

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

LOADING

TOTAL LOAD CASES: (4)

CHORDS MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD LC1 (PLF) FROM	TO	MAX CSI (LC)	MAX. UNBRAC LENGTH
A-B	0 / 42	-102.1	-102.1	0.14 (1)	10.00
B-C	-1454 / 0	-102.1	-102.1	0.55 (1)	4.75
C-D	-1022 / 0	-102.1	-102.1	0.50 (1)	5.49
D-E	-1022 / 0	-102.1	-102.1	0.50 (1)	5.49
E-F	-1011 / 0	-102.1	-102.1	0.44 (1)	5.63
F-G	-1086 / 0	-102.1	-102.1	0.36 (1)	5.58
M-B	-1513 / 0	0.0	0.0	0.16 (1)	6.68
H-G	-1400 / 0	0.0	0.0	0.23 (1)	6.88
M-L	0 / 0	-28.0	-28.0	0.26 (3)	10.00
L-K	0 / 1199	-28.0	-28.0	0.38 (2)	10.00
K-J	0 / 909	-28.0	-28.0	0.29 (2)	10.00
J-I	0 / 909	-28.0	-28.0	0.29 (2)	10.00
I-H	0 / 0	-28.0	-28.0	0.18 (3)	10.00

WEBS MEMB.	MAX. FACTORED FORCE (LBS)	MAX CSI (LC)
L-C	-45 / 220	0.05 (3)
C-K	-585 / 0	0.27 (1)
K-E	0 / 669	0.18 (1)
K-F	-179 / 0	0.08 (1)
I-F	-435 / 0	0.26 (1)
B-L	0 / 1221	0.27 (1)
I-G	0 / 1083	0.24 (1)

DESIGN CRITERIA

SPECIFIED LOADS:

TOP CH.	LL =	29.1	PSF
	DL =	6.0	PSF
BOT CH.	LL =	10.5	PSF
	DL =	7.0	PSF
TOTAL LOAD	=	52.5	PSF

SPACING = 24.0 IN. C/C

THIS TRUSS IS DESIGNED FOR RESIDENTIAL OR SMALL BUILDING REQUIREMENTS OF PART 9, NBCC 2010

THIS DESIGN COMPLIES WITH:
- PART 9 OF OBC 2012 , BCBC 2012 , ABC 2014
- CSA 086-09
- TPIC 2011

(55 % OF 37.6 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 29.1 P.S.F. SPECIFIED ROOF LIVE LOAD

ALLOWABLE DEFL.(LL)= L/360 (0.74")
CALCULATED VERT. DEFL.(LL) = L/ 999 (0.06")
ALLOWABLE DEFL.(TL)= L/360 (0.74")
CALCULATED VERT. DEFL.(TL) = L/ 999 (0.11")

CSI: TC=0.55/1.00 (B-C:1) , BC=0.38/1.00 (K-L:2) , WB=0.27/1.00 (B-L:1) , SSI=0.24/1.00 (B-C:1)

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

COMPANION LIVE LOAD FACTOR = 0.50

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

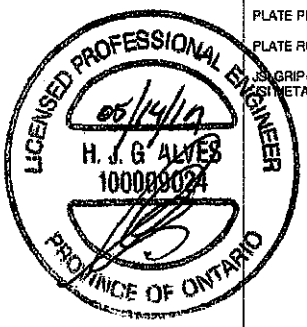
NAIL VALUES

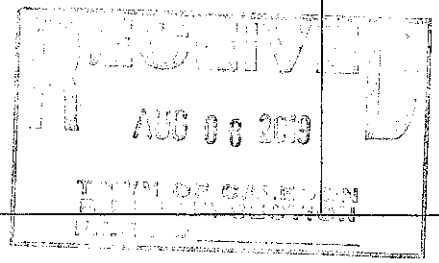
PLATE	GRIP(DRY) (PSI) MAX	MIN	SHEAR (PLI) MAX	MIN	SECTION (PLI) MAX	MIN
MT20	618	354	1687	822	2284	1856

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

SSI:GRIP= 0.89 (B) (INPUT = 0.90)
SSI:METAL= 0.32 (J) (INPUT = 1.00)





Structural component only
DWG# T-1911564

JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
200142-400342	G31	1	1	Brentwood 3A TRUSS DESC.	

Tamarack Roof Truss, Burlington

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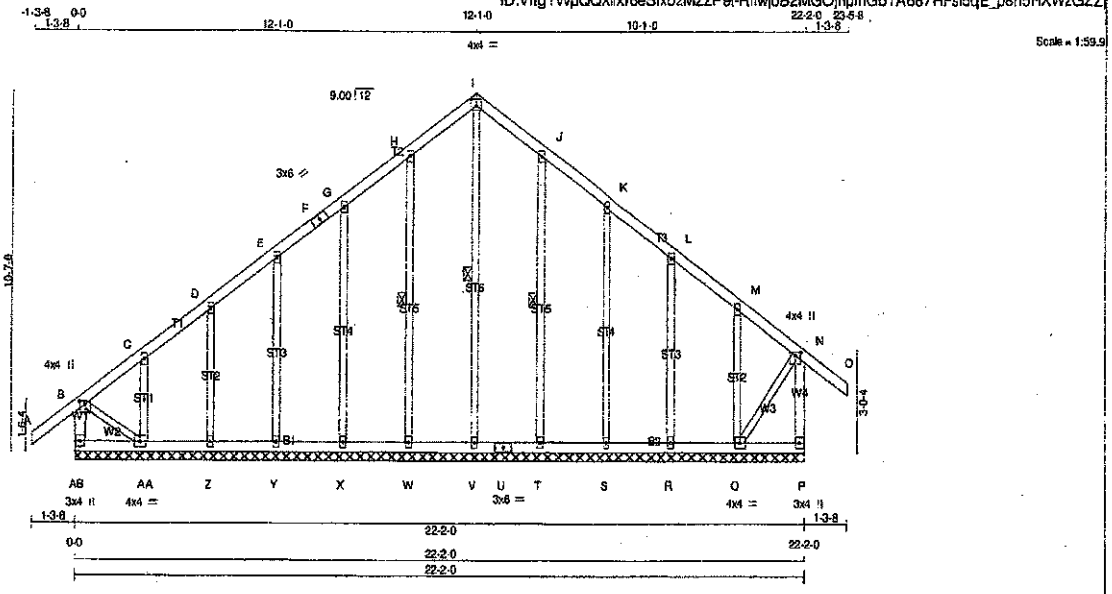


TOTAL WEIGHT = 120 lb

[M]

LUMBER

N. L. G. A. RULES

CHORDS	SIZE		LUMBER	DESCR.
AB- B	2x4	DRY	No.2	SPF
A - F	2x4	DRY	No.2	SPF
F - I	2x4	DRY	No.2	SPF
I - O	2x4	DRY	No.2	SPF
P - N	2x4	DRY	No.2	SPF
AB- U	2x4	DRY	No.2	SPF
U - P	2x4	DRY	No.2	SPF
ALL WEBS	2x3	DRY	No.2	SPF
ALL GABLE WEBS	2x3	DRY	No.2	SPF

DRY: SEASONED LUMBER.

GABLE STUDS SPACED AT 2-0-0 OC.

PLATES (table is in inches)

JT	TYPE	PLATES	W	LEN	Y	X
B	TMVW+p	MT20	4.0	4.0	1.00	2.00
C, D, E, G, H, J, K, L, M						
C	TMW+w	MT20	2.0	4.0		
F	TS-t	MT20	3.0	6.0		
I	TTW-p	MT20	4.0	4.0	2.25	2.00
N	TMVW+p	MT20	4.0	4.0	1.00	2.00
P	BMV1+p	MT20	3.0	4.0		
Q	BMWW1-t	MT20	4.0	4.0		
R, S, T, V, W, X, Y, Z						
R	BMW1+w	MT20	2.0	4.0		
U	BS-t	MT20	3.0	6.0		
AA	BMWW1-t	MT20	4.0	4.0		
AB	BMV1+p	MT20	3.0	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 PITCH BREAKS AND PERIMETER CORNER JOINTS MUST BE LATERALLY RESTRAINED.

1 LATERAL BRACE(S) AT 1/2 LENGTH OF I-V, H-W, J-T.

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

LOADING

TOTAL LOAD CASES: (4)

CHORDS

MEMB. FR-TO	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD LC1 (PLF) FROM	TO	MAX CSI (LC)	MAX. UNBRAC LENGTH
AB- B	-261 / 0	0.0	0.0	0.03 (1)	7.81
A- B	0 / 42	-102.1	-102.1	0.14 (1)	10.00
B- C	-25 / 0	-102.1	-102.1	0.08 (1)	6.25
C- D	-32 / 0	-102.1	-102.1	0.08 (1)	6.25
D- E	-23 / 0	-102.1	-102.1	0.05 (1)	6.25
E- F	-20 / 0	-102.1	-102.1	0.05 (1)	6.25
F- G	-20 / 0	-102.1	-102.1	0.05 (1)	6.25
G- H	-14 / 0	-102.1	-102.1	0.06 (1)	6.25
H- I	-26 / 0	-102.1	-102.1	0.06 (1)	6.25
I- J	-26 / 0	-102.1	-102.1	0.06 (1)	6.25
J- K	-14 / 0	-102.1	-102.1	0.06 (1)	6.25
K- L	-19 / 0	-102.1	-102.1	0.05 (1)	6.25
L- M	-26 / 0	-102.1	-102.1	0.06 (1)	6.25
M- N	-17 / 0	-102.1	-102.1	0.06 (1)	6.25
N- O	0 / 42	-102.1	-102.1	0.14 (1)	10.00
P- N	-270 / 0	0.0	0.0	0.04 (1)	7.81
AB-AA	0 / 0	-28.0	-28.0	0.03 (3)	10.00
AA- Z	0 / 23	-28.0	-28.0	0.03 (3)	10.00
Z- Y	0 / 19	-28.0	-28.0	0.02 (3)	10.00
Y- X	0 / 16	-28.0	-28.0	0.02 (3)	10.00
X- W	0 / 13	-28.0	-28.0	0.02 (3)	10.00
W- V	0 / 11	-28.0	-28.0	0.02 (3)	10.00
V- U	0 / 11	-28.0	-28.0	0.02 (3)	10.00
U- T	0 / 11	-28.0	-28.0	0.02 (3)	10.00
T- S	0 / 13	-28.0	-28.0	0.02 (3)	10.00
S- R	0 / 16	-28.0	-28.0	0.02 (3)	10.00
R- Q	0 / 19	-28.0	-28.0	0.03 (3)	10.00
Q- P	0 / 0	-28.0	-28.0	0.03 (3)	10.00

WEBS

MEMB. FR-TO	MAX. FACTORED FORCE (LBS)	MAX CSI (LC)
V- I	-156 / 0	0.12 (1)
W- H	-232 / 0	0.12 (1)
X- G	-197 / 0	0.21 (1)
Y- E	-204 / 0	0.12 (1)
Z- D	-195 / 0	0.06 (1)
AA- C	-225 / 0	0.04 (1)
T- J	-232 / 0	0.12 (1)
S- K	-198 / 0	0.21 (1)
R- L	-197 / 0	0.11 (1)
Q- M	-226 / 0	0.07 (1)
Q- N	0 / 38	0.01 (1)
B-AA	0 / 35	0.01 (1)

DESIGN CRITERIA

SPECIFIED LOADS:

TOP CH.	LL =	29.1	PSF
	DL =	8.0	PSF
BOT CH.	LL =	10.5	PSF
	DL =	7.0	PSF
TOTAL LOAD	=	52.5	PSF

SPACING = 24.0 IN. C/C

THIS TRUSS IS DESIGNED FOR RESIDENTIAL OR SMALL BUILDING REQUIREMENTS OF PART 9, NBCC 2010

THIS DESIGN COMPLIES WITH:
- PART 9 OF OBC 2012 , BCBC 2012 , ABC 2014
- CSA 086-09
- TPIC 2011

(55 % OF 37.6 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 29.1 P.S.F. SPECIFIED ROOF LIVE LOAD

CSI: TC=0.14/1.00 (A-B:1) , BC=0.03/1.00 (Z-AA:3) , WB=0.21/1.00 (K-S:1) , SSI=0.09/1.00 (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 = 0.50

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

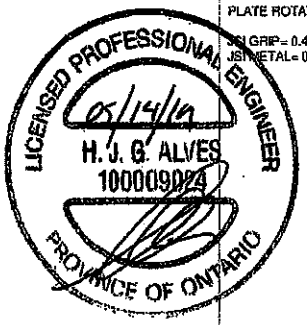
NAIL VALUES

PLATE	GRIP(DRY) (PSI) MAX	MIN	SHEAR (PLI) MAX	MIN	SECTION (PLI) MAX	MIN
MT20	618	354	1667	822	2284	1658

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.49 (I) (INPUT = 0.90)
JSI METAL= 0.06 (H) (INPUT = 1.00)



Structural component only
DWG# T-1911562

JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
200142-400342	T32	1	1	Brentwood 3A TRUSS DESC.	

Tamarack Roof Truss, Burlington

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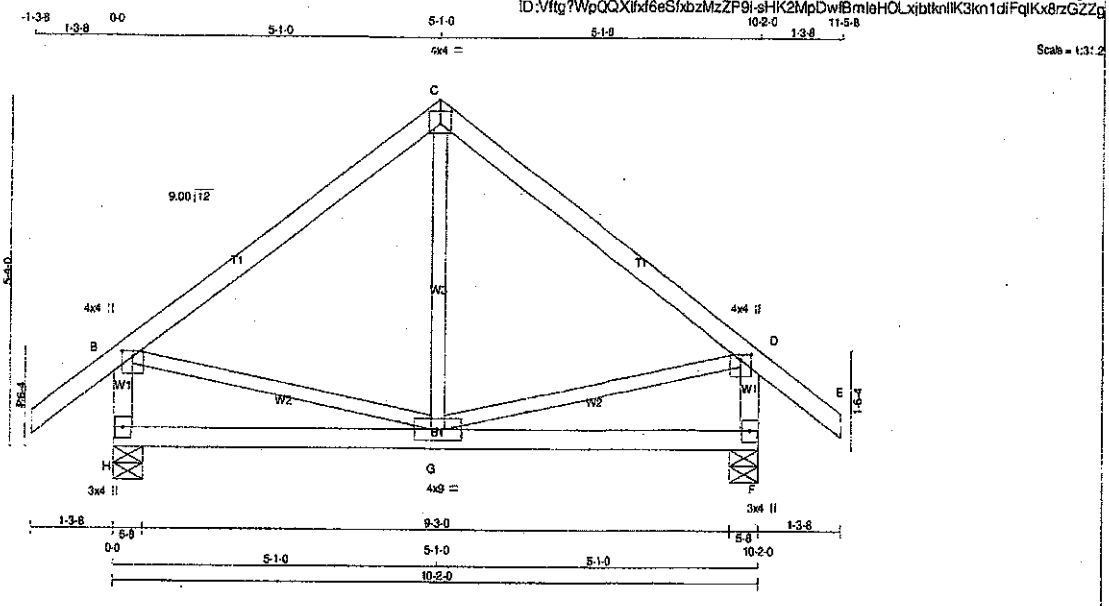

TOTAL WEIGHT = 44 lb

[M][F]

LUMBER
N. L. G. A. RULES

CHORDS	SIZE		LUMBER	DESCR.
A - C	2x4	DRY	No.2	SPF
C - E	2x4	DRY	No.2	SPF
H - B	2x4	DRY	No.2	SPF
F - D	2x4	DRY	No.2	SPF
H - F	2x4	DRY	No.2	SPF
ALL WEBS EXCEPT	2x3	DRY	No.2	SPF

DRY: SEASONED LUMBER.

PLATES (table is in inches)

JT	TYPE	PLATES	W	LEN	Y	X
B	TMVW+p	MT20	4.0	4.0	1.00	2.00
C	TTW-p	MT20	4.0	4.0	2.25	2.00
D	TMVW+p	MT20	4.0	4.0	1.00	2.00
F	BMVt+p	MT20	3.0	4.0		
G	BMWWW-t	MT20	4.0	9.0		
H	BMVt+p	MT20	3.0	4.0		

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

BEARINGS

JT	FACTORED GROSS REACTION VERT	HORZ	MAXIMUM FACTORED GROSS REACTION DOWN	HORZ	UPLIFT	INPUT BRG IN-SX	REQRD BRG IN-SX
H	802	0	802	0	0	5-8	5-8
F	802	0	802	0	0	5-8	5-8

UNFACTORED REACTIONS

JT	1ST LCASE COMBINED	MAX./MIN. COMPONENT REACTIONS SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
H	631	375 / 0	107 / 0	0 / 0	0 / 0	149 / 0	0 / 0
F	631	375 / 0	107 / 0	0 / 0	0 / 0	149 / 0	0 / 0

BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S) H, 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 PITCH BREAKS AND PERIMETER CORNER JOINTS MUST BE LATERALLY RESTRAINED.

LOADING
TOTAL LOAD CASES: (4)

CHORDS MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF) FROM	TO	LC	MAX CSI (LC)	WEBS MAX. UNBRAC LENGTH	MEMB. FR-TO	MAX. FACTORED FORCE (LBS)	MAX CSI (LC)
A-B	0 / 42	-102.1	-102.1	0.14 (1)	10.00	G-C	0 / 218	0.05 (3)	
B-C	-441 / 0	-102.1	-102.1	0.34 (1)	6.25	B-G	0 / 362	0.08 (1)	
C-D	-441 / 0	-102.1	-102.1	0.34 (1)	6.25	G-D	0 / 362	0.08 (1)	
D-E	0 / 42	-102.1	-102.1	0.14 (1)	10.00				
H-B	-748 / 0	0.0	0.0	0.06 (1)	7.81				
F-D	-748 / 0	0.0	0.0	0.06 (1)	7.81				
H-G	0 / 0	-28.0	-28.0	0.23 (3)	10.00				
G-F	0 / 0	-28.0	-28.0	0.23 (3)	10.00				

DESIGN CRITERIA

SPECIFIED LOADS:

TOP CH.	LL	=	29.1	PSF
	DL	=	6.0	PSF
BOT CH.	LL	=	10.5	PSF
	DL	=	7.0	PSF
TOTAL LOAD		=	52.5	PSF

SPACING = 24.0 IN. C/C

THIS TRUSS IS DESIGNED FOR RESIDENTIAL OR SMALL BUILDING REQUIREMENTS OF PART 9, NBCC 2010

THIS DESIGN COMPLIES WITH:
- PART 9 OF OBC 2012 , BCBC 2012 , ABC 2014
- CSA 086-09
- TPIC 2011

(55 % OF 37.6 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 29.1 P.S.F. SPECIFIED ROOF LIVE LOAD

ALLOWABLE DEFL.(LL)= L/360 (0.34")
CALCULATED VERT. DEFL.(LL) = L/ 999 (0.02")
ALLOWABLE DEFL.(TL)= L/360 (0.34")
CALCULATED VERT. DEFL.(TL) = L/ 999 (0.04")

CSI: TC=0.34/1.00 (C-D:1) , BC=0.23/1.00 (G-H:3) , WB=0.08/1.00 (B-G:1) , SSI=0.16/1.00 (C-D:1)

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

COMPANION LIVE LOAD FACTOR = 0.50

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

NAIL VALUES

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

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.69 (D) (INPUT = 0.90)
JSI METAL= 0.18 (D) (INPUT = 1.00)

LICENSED PROFESSIONAL ENGINEER
05/14/19
H. O. G. ALVES
100009924
PROVINCE OF ONTARIO

AUG 08 2019
TOWN OF CALEDON
BUILDING DIVISION

Structural component only
DWG# T-1911565

JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
200142-400342	T32S	3	1	Brentwood 3A TRUSS DESC.	

Tamarack Roof Truss, Burlington

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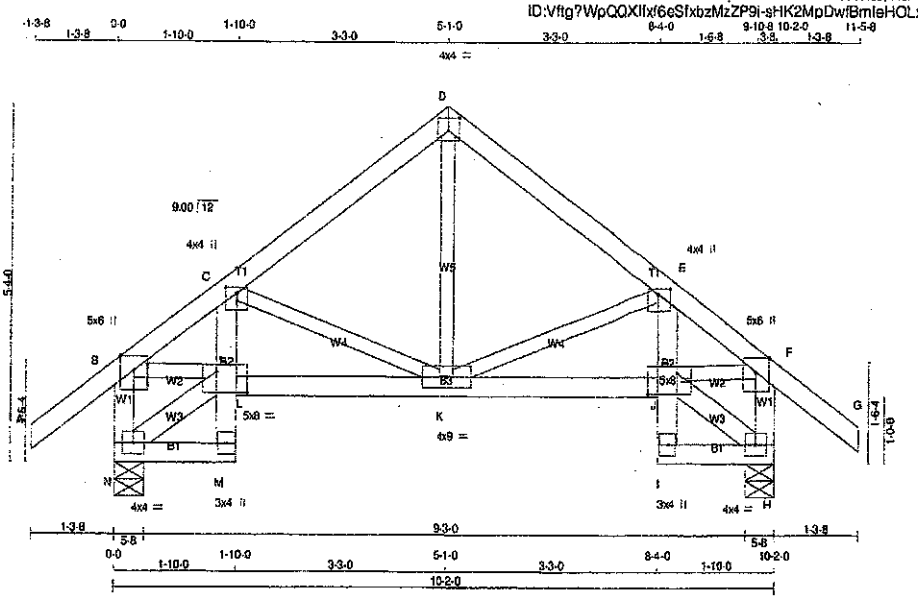

TOTAL WEIGHT = 3 X 52 = 156 lb

MiTek

LUMBER
N. L. G. A. RULES

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

DRY: SEASONED LUMBER.

PLATES (table is in inches)

JT	TYPE	PLATES	W	LEN	Y	X
B	TMVW+p	MT20	5.0	6.0	Edge	
C	TMVW+p	MT20	4.0	4.0	1.00	2.00
D	TTW-p	MT20	4.0	4.0	2.25	2.00
E	TMVW+p	MT20	4.0	4.0	1.00	2.00
F	TMVW+p	MT20	5.0	6.0	Edge	
H	BMVW1-t	MT20	4.0	4.0		
I	BMV+p	MT20	3.0	4.0		
J	BVMMW-t	MT20	5.0	8.0	3.75	5.50
K	BMWWW-t	MT20	4.0	9.0		
L	BVMMW-t	MT20	5.0	8.0	3.75	5.50
M	BMV+p	MT20	3.0	4.0		
N	BMVW1-t	MT20	4.0	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 VERT	HORZ	MAXIMUM FACTORED GROSS REACTION DOWN	HORZ	UPLIFT	INPUT BRG IN-SX	REQRD BRG IN-SX
N	802	0	802	0	0	5-8	5-8
H	802	0	802	0	0	5-8	5-8

UNFACTORED REACTIONS
1ST LCASE . MAX./MIN. COMPONENT REACTIONS

JT	COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
N	631	375 / 0	107 / 0	0 / 0	0 / 0	149 / 0	0 / 0
H	631	375 / 0	107 / 0	0 / 0	0 / 0	149 / 0	0 / 0

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

BRACING
TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 8.25 FT.
MAX. UNBRACED BOTTOM CHORD LENGTH = 10.00 FT OR RIGID CEILING DIRECTLY APPLIED.

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

LOADING
TOTAL LOAD CASES: (4)

CHORDS

MEMB. FR-TO	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD LC1 FROM	TO	MAX. CSI (LC)
A- B	0 / 42	-102.1	-102.1	0.14 (1)
B- C	-839 / 0	-102.1	-102.1	0.11 (1)
C- D	-519 / 0	-102.1	-102.1	0.15 (1)
D- E	-519 / 0	-102.1	-102.1	0.15 (1)
E- F	-839 / 0	-102.1	-102.1	0.11 (1)
F- G	0 / 42	-102.1	-102.1	0.14 (1)
N- B	-762 / 0	0.0	0.0	0.08 (1)
H- F	-762 / 0	0.0	0.0	0.08 (1)
N- M	0 / 25	-28.0	-28.0	0.03 (3)
M- L	0 / 41	0.0	0.0	0.04 (1)
L- C	0 / 99	0.0	0.0	0.05 (1)
L- K	0 / 687	-28.0	-28.0	0.17 (2)
K- J	0 / 687	-28.0	-28.0	0.17 (2)
I- J	0 / 41	0.0	0.0	0.04 (1)
J- E	0 / 99	0.0	0.0	0.05 (1)
I- H	0 / 25	-28.0	-28.0	0.03 (3)

WEBS

MEMB. FR-TO	MAX. FACTORED FORCE (LBS)	MAX CSI (LC)	MAX. UNBRAC LENGTH
A- B	0 / 42	0.14 (1)	10.00
B- C	-839 / 0	0.11 (1)	6.25
C- D	-519 / 0	0.15 (1)	6.25
D- E	-519 / 0	0.15 (1)	6.25
E- F	-839 / 0	0.11 (1)	6.25
F- G	0 / 42	0.14 (1)	10.00
N- B	-762 / 0	0.08 (1)	7.81
H- F	-762 / 0	0.08 (1)	7.81
N- L	-31 / 0	0.00 (1)	10.00
J- H	-31 / 0	0.00 (1)	10.00
B- L	0 / 665	0.15 (1)	10.00
J- F	0 / 665	0.15 (1)	10.00
K- D	0 / 325	0.07 (2)	10.00
C- K	-307 / 0	0.07 (1)	10.00
K- E	-307 / 0	0.07 (1)	10.00

DESIGN CRITERIA

SPECIFIED LOADS:

TOP CH.	LL =	29.1	PSF
	DL =	6.0	PSF
BOT CH.	LL =	10.5	PSF
	DL =	7.0	PSF
TOTAL LOAD	=	52.6	PSF

SPACING = 24.0 IN. C/C

THIS TRUSS IS DESIGNED FOR RESIDENTIAL OR SMALL BUILDING REQUIREMENTS OF PART 9, NBCC 2010

THIS DESIGN COMPLIES WITH:
- PART 9 OF OBC 2012 , BCBC 2012 , ABC 2014
- CSA 086-09
- TPIC 2011

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

(55 % OF 37.6 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 29.1 P.S.F. SPECIFIED ROOF LIVE LOAD

ALLOWABLE DEFL.(LL)= L/360 (0.34")
CALCULATED VERT. DEFL.(LL) = L/ 999 (0.01")
ALLOWABLE DEFL.(TL)= L/360 (0.34")
CALCULATED VERT. DEFL.(TL) = L/ 999 (0.02")

CSI: TC=0.15/1.00 (D-E:1) , BC=0.17/1.00 (J-K:2) , WB=0.15/1.00 (F-J:1) , SSI=0.12/1.00 (D-E:1)

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

COMPANION LIVE LOAD FACTOR = 0.50

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

NAIL VALUES

PLATE	GRIP(DRY) (PSI) MAX	MIN	SHEAR (PLI) MAX	MIN	SECTION (PLI) MAX	MIN
MT20	618	354	1667	822	2264	1658

PLATE PLACEMENT TOL. = 0.250 Inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.58 (D) (INPUT = 0.90)
JSI METAL= 0.17 (B) (INPUT = 1.00)

Structural component only
DWG# T-1911566

JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC. Brentwood 3A	DRWG NO.
200142-400307	J1	9	1	TRUSS DESC.	

Tamarack Roof Truss, Burlington

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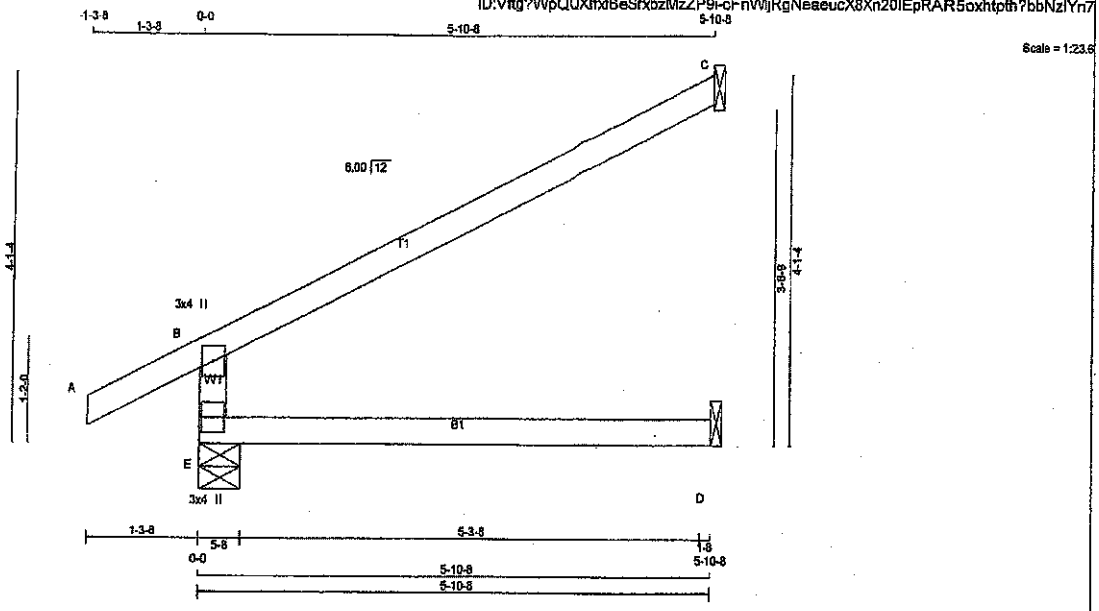


TOTAL WEIGHT = 9 X 17 = 151 lb [M]

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	3.0	4.0	
E	BMV1+p	MT20	3.0	4.0	

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

BEARINGS

	FACTORED GROSS REACTION		MAXIMUM FACTORED GROSS REACTION			INPUT BRG	REQRD BRG
JT	VERT	HORZ	DOWN	HORZ	UPLIFT	IN-SX	IN-SX
E	646	0	646	0	0	5-8	5-8
C	225	0	225	0	0	1-8	1-8
D	93	0	119	0	0	1-8	1-8

SEE MITEK STANDARD DETAIL B37821H FOR CONNECTION TO JOINT(S) C , D

UNFACTORED REACTIONS

	1ST LCASE	MAX./MIN. COMPONENT REACTIONS					
JT	COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
E	473	292 / 0	72 / 0	0 / 0	0 / 0	109 / 0	0 / 0
C	154	128 / 0	0 / 0	0 / 0	0 / 0	26 / 0	0 / 0
D	85	0 / 0	51 / 0	0 / 0	0 / 0	34 / 0	0 / 0

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

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

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

LOADING
TOTAL LOAD CASES: (4)

CHORDS						WEBS		
MEMB. FR-TO	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF) FROM	TO	LC1 MAX CSI (LC)	MAX. UNBRAC LENGTH	MEMB. FR-TO	MAX. FACTORED FORCE (LBS)	MAX CSI (LC)
E- B	-514 / 0	0.0	0.0	0.22 (3)	7.81			
A- B	0 / 31	-102.1	-102.1	0.13 (1)	10.00			
B- C	-34 / 0	-102.1	-102.1	0.60 (1)	6.25			
E- D	0 / 0	-38.5	-38.5	0.22 (3)	10.00			

DESIGN CRITERIA

SPECIFIED LOADS:

TOP CH.	LL. =	29.1	PSF	
	DL. =	8.0	PSF	
BOT CH.	LL. =	10.5	PSF	
	DL =	7.0	PSF	
TOTAL LOAD	=	52.5	PSF	

SPACING = 24.0 IN. C/C

THIS TRUSS IS DESIGNED FOR RESIDENTIAL OR SMALL BUILDING REQUIREMENTS OF PART 9, NBCC 2010, NBCC 2015

THIS DESIGN COMPLIES WITH:
- PART 9 OF BCBC 2018 , OBC 2012
- CSA 086-09, CSA 086-14
- TPIC 2011, TPIC 2014

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

(55 % OF 37.6 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 29.1 P.S.F. SPECIFIED ROOF LIVE LOAD

ALLOWABLE DEFL.(LL)= L/360 (0.20")
CALCULATED VERT. DEFL.(LL) = L/ 999 (0.04")
ALLOWABLE DEFL.(TL)= L/360 (0.20")
CALCULATED VERT. DEFL.(TL) = L/ 942 (0.07")

CSI: TC=0.60/1.00 (B-C:1) , BC=0.22/1.00 (D-E:3) , WB=0.00/1.00 (n/a:0) , SSI=0.26/1.00 (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 .

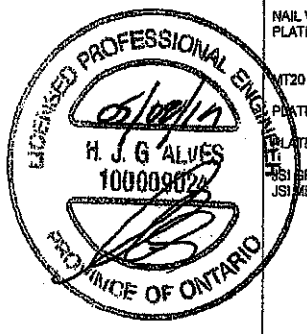
NAIL VALUES

PLATE	GRIP(DRY) (PSI)		SHEAR (PLI)		SECTION (PLI)	
	MAX	MIN	MAX	MIN	MAX	MIN
MT20	618	354	1667	788	1987	1656

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

SSI GRIP= 0.21 (E) (INPUT = 0.90)
SSI METAL= 0.14 (B) (INPUT = 1.00)



DWG NO. TAM 19/0937
STRUCTURAL
COMPONENT ONLY

JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
200142-400307	J2	2	1	Brentwood 3A TRUSS DESC.	

Tamarack Roof Truss, Burlington

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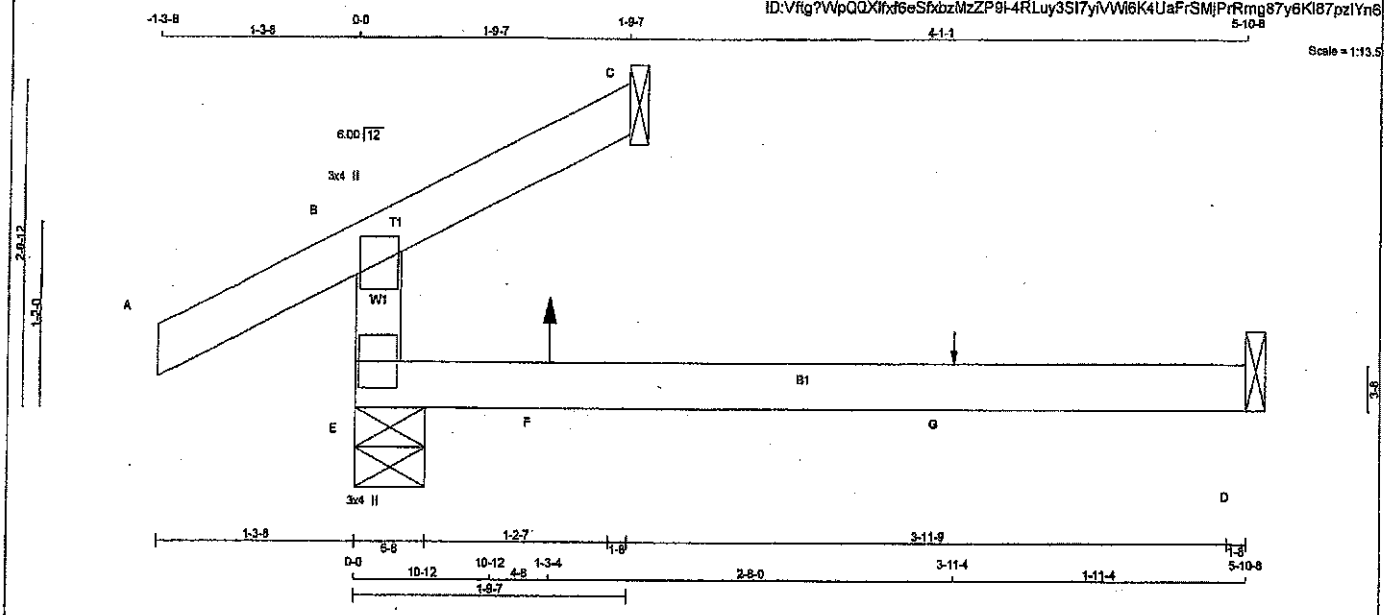


TOTAL WEIGHT = 2 X 12 = 23 lb [M]

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	3.0	4.0	
E	BMV1+p	MT20	3.0	4.0	

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

BEARINGS

JT	FACTORED GROSS REACTION VERT	HORZ	MAXIMUM FACTORED GROSS REACTION DOWN	HORZ	UPLIFT	INPUT BRG IN-SX	REQRD BRG IN-SX
E	351	0	351	0	0	5-8	5-8
C	95	0	97	0	0	1-8	1-8
D	94	0	123	0	0	1-8	1-8

SEE MITEK STANDARD DETAIL B37821H 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	258	155 / 0	42 / 0	0 / 0	0 / 0	61 / 0	0 / 0
C	77	24 / 0	28 / 0	0 / 0	0 / 0	24 / 0	0 / 0
D	86	0 / -2	53 / 0	0 / 0	0 / 0	35 / 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.

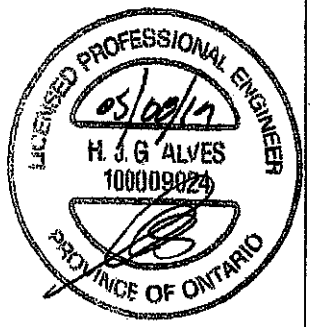
ALL PITCH BREAKS AND PERIMETER CORNER JOINTS MUST BE LATERALLY RESTRAINED.

LOADING
TOTAL LOAD CASES: (7)

CHORDS MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF) FROM	TO	LC	MAX CSI (LC)	MAX. UNBRAC LENGTH	WEBS MEMB.	MAX. FACTORED FORCE (LBS)	MAX CSI (LC)
FR-TO						FR-TO			
E- B	-228 / 26	0.0	0.0	0.19 (2)	7.81				
A- B	0 / 31	-102.1	-102.1	0.15 (1)	10.00				
B- C	0 / 27	-102.1	-102.1	0.16 (3)	10.00				
E- F	0 / 0	-38.5	-38.5	0.23 (3)	10.00				
F- G	0 / 0	-38.5	-38.5	0.23 (3)	10.00				
G- D	0 / 0	-38.5	-38.5	0.23 (3)	10.00				

FACTORED CONCENTRATED LOADS (LBS)

JT	LOC.	LC	MAX-	MAX+	FACE	DIR.	TYPE	HEEL	CONN.
F	1-3-4	8	1	13	FRONT	VERT	TOTAL	—	—
G	3-11-4	1	1	—	FRONT	VERT	TOTAL	—	—



DESIGN CRITERIA

SPECIFIED LOADS:

TOP CH.	LL =	29.1	PSF
	DL =	6.0	PSF
BOT CH.	LL =	10.5	PSF
	DL =	7.0	PSF
TOTAL LOAD	=	52.5	PSF

SPACING = 24.0 IN. C/C

THIS TRUSS IS DESIGNED FOR RESIDENTIAL OR SMALL BUILDING REQUIREMENTS OF PART 9, NBCC 2010, NBCC 2015

THIS DESIGN COMPLIES WITH:
- PART 9 OF BCBC 2018 , OBC 2012
- CSA 086-09, CSA 086-14
- TPIC 2011, TPIC 2014

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

(55 % OF 37.6 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 29.1 P.S.F. SPECIFIED ROOF LIVE LOAD

ALLOWABLE DEFL.(LL)= L/360 (0.20")
CALCULATED VERT. DEFL.(LL) = L/ 999 (0.05")
ALLOWABLE DEFL.(TL)= L/360 (0.20")
CALCULATED VERT. DEFL.(TL) = L/ 839 (0.05")

CSI: TC=0.19/1.00 (B-E:2) , BC=0.23/1.00 (D-E:3) , WB=0.00/1.00 (n/a:0) , SSI=0.14/1.00 (D-E:3)

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 .

NAIL VALUES

PLATE	GRIP(DRY) (PSI) MAX	MIN	SHEAR (PLI) MAX	MIN	SECTION (PLI) MAX	MIN
MT20	618	354	1657	768	1987	1656

PLATE PLACEMENT TOL. = 0.250 Inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.10 (E) (INPUT = 0.90)
JSI METAL= 0.06 (B) (INPUT = 1.00)

DESIGNED BY TAM 9/9/2938
STRUCTURAL
COMPONENT ONLY

JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
200142-400307	J3	2	1	Brentwood 3A TRUSS DESC.	

Tamarack Roof Truss, Burlington

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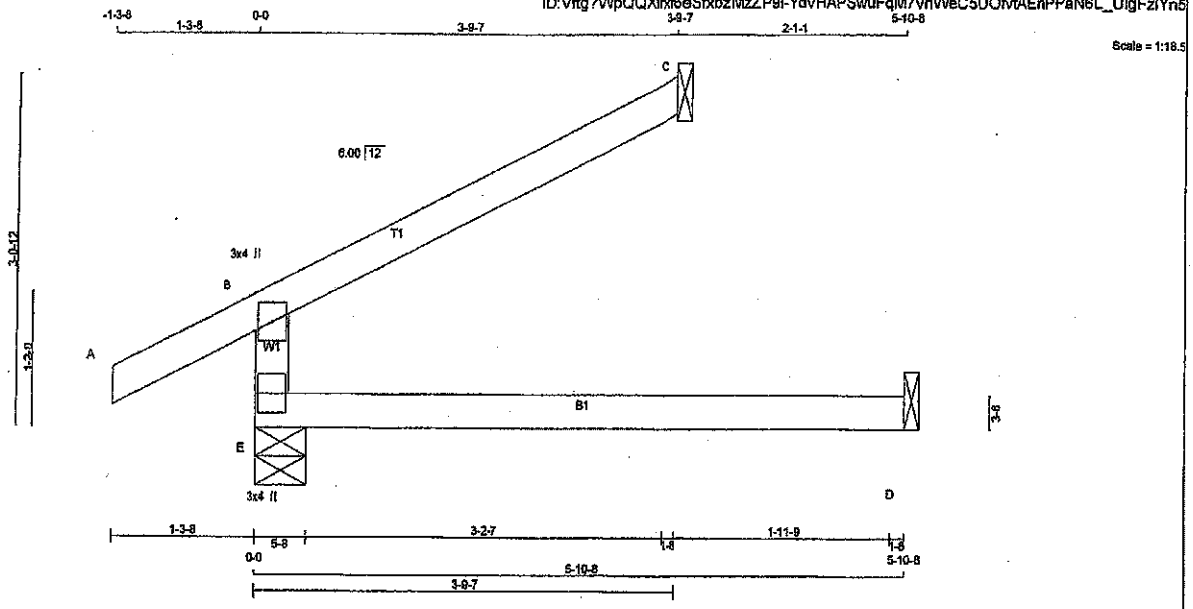

TOTAL WEIGHT = 2 X 14 = 28 lb

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	3.0	4.0		
E	BMV1+p	MT20	3.0	4.0		

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

BEARINGS

JT	FACTORED GROSS REACTION VERT	HORZ	MAXIMUM FACTORED GROSS REACTION DOWN	HORZ	UPLIFT	INPUT BRG IN-SX	REQRD BRG IN-SX
E	513	0	513	0	0	5-8	5-8
C	145	0	145	0	0	1-8	1-8
D	93	0	119	0	0	1-8	1-8

SEE MITEK STANDARD DETAIL B37821H 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	382	216 / 0	72 / 0	0 / 0	0 / 0	93 / 0	0 / 0
C	100	83 / 0	0 / 0	0 / 0	0 / 0	17 / 0	0 / 0
D	85	0 / 0	51 / 0	0 / 0	0 / 0	34 / 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 PITCH BREAKS AND PERIMETER CORNER JOINTS MUST BE LATERALLY RESTRAINED.

LOADING
TOTAL LOAD CASES: (4)

CHORDS

MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF) FROM	TO	LC1 MAX CSI (LC)	MAX. UNBRAC LENGTH
FR-TO					
E- B	-380 / 0	0.0	0.0	0.21 (3)	7.81
A- B	0 / 31	-102.1	-102.1	0.13 (1)	10.00
B- C	-22 / 0	-102.1	-102.1	0.25 (1)	6.25
E- D	0 / 0	-38.5	-38.5	0.21 (3)	10.00

WEBS

MEMB.	MAX. FACTORED FORCE (LBS)	MAX CSI (LC)
FR-TO		

DESIGN CRITERIA

SPECIFIED LOADS:

TOP CH.	LL	=	29.1	PSF
	DL	=	8.0	PSF
BOT CH.	LL	=	10.5	PSF
	DL	=	7.0	PSF
TOTAL LOAD		=	52.5	PSF

SPACING = 24.0 IN. C/C

THIS TRUSS IS DESIGNED FOR RESIDENTIAL OR SMALL BUILDING REQUIREMENTS OF PART 9, NBCC 2010, NBCC 2015

THIS DESIGN COMPLIES WITH:
- PART 9 OF BCBC 2018 , OBC 2012
- CSA 086-09, CSA 086-14
- TPIC 2011, TPIC 2014

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

(55 % OF 37.6 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 29.1 P.S.F. SPECIFIED ROOF LIVE LOAD

ALLOWABLE DEFL.(LL)= L/360 (0.20")
CALCULATED VERT. DEFL.(LL) = L/ 999 (0.04")
ALLOWABLE DEFL.(TL)= L/360 (0.20")
CALCULATED VERT. DEFL.(TL) = L/ 942 (0.07")

CSI: TC=0.25/1.00 (B-C:1) , BC=0.21/1.00 (D-E:3) , WB=0.00/1.00 (n/a:0) , SSI=0.17/1.00 (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) (PSI) MAX	MIN	SHEAR (PLI) MAX	MIN	SECTION (PLI) MAX	MIN
MT20	618	354	1687	788	1987	1656

PLATE PLACEMENT TOL. = 0.250 Inches

PLATE ROTATION TOL. = 5.0 Deg.

USI GRIP= 0.16 (E) (INPUT = 0.90)
USI METAL= 0.11 (B) (INPUT = 1.00)

LICENSED PROFESSIONAL ENGINEER
05/09/19
H. J. G. ALVES
100009024
PROVINCE OF ONTARIO

DWG NO. TAM 1791093A
STRUCTURAL
COMPONENT ONLY

JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
200142-400307	J4	2	1	Brentwood 3A TRUSS DESC.	

Tamarack Roof Truss, Burlington

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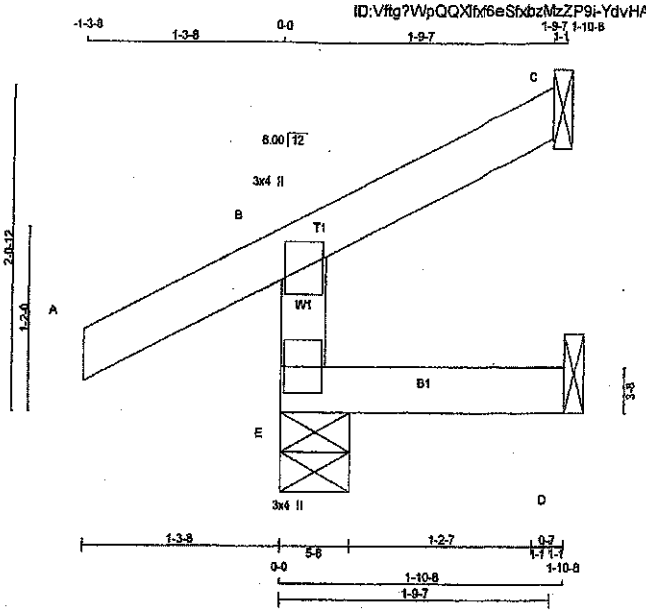

TOTAL WEIGHT = 2 X 7 = 14 lb

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	3.0	4.0	
E	BMV1+p	MT20	3.0	4.0	

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

BEARINGS

JT	FACTORED GROSS REACTION VERT	HORZ	MAXIMUM FACTORED GROSS REACTION DOWN	HORZ	UPLIFT	INPUT BRG IN-SX	REQRD BRG IN-SX
E	318	0	318	0	0	5-8	5-8
C	51	0	51	0	-26 ✓	1-8	1-8
D	24	0	41	0	-4 ✓	1-8	1-8

SEE MITEK STANDARD DETAIL B37821H FOR CONNECTION TO JOINT(S) C , D

PROVIDE ANCHORAGE AT BEARING JOINT C FOR 150 LBS FACTORED UPLIFT
PROVIDE ANCHORAGE AT BEARING JOINT D FOR 150 LBS FACTORED UPLIFT
} DRW
EG MRUNG

UNFACTORED REACTIONS

JT	1ST LCASE COMBINED	MAX./MIN. COMPONENT REACTIONS SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
E	226	160 / 0	20 / 0	0 / 0	0 / 0	46 / 0	0 / 0
C	36	27 / -21	2 / 0	0 / 0	0 / 0	7 / 0	0 / 0
D	24	0 / -9	18 / 0	0 / 0	0 / 0	11 / 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 PITCH BREAKS AND PERIMETER CORNER JOINTS MUST BE LATERALLY RESTRAINED.

LOADING
TOTAL LOAD CASES: (5)

CHORDS MEMB. FR-TO	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF) FROM	TO	LC1 MAX CSI (LC)	MAX. UNBRAC LENGTH	WEBS MEMB. FR-TO	MAX. FACTORED FORCE (LBS)	MAX CSI (LC)
E-B	-270 / 0	0.0	0.0	0.04 (5)	7.81			
A-B	0 / 31	-102.1	-102.1	0.13 (1)	10.00			
B-C	-18 / 0	-102.1	-102.1	0.10 (1)	6.25			
E-D	0 / 0	-36.5	-36.5	0.04 (5)	10.00			

CANTILEVER ANALYSIS HAS BEEN CONSIDERED IN THIS DESIGN

DWG NO. TAM 7191090
STRUCTURAL
COMPONENT ONLY

DESIGN CRITERIA

SPECIFIED LOADS:

TOP CH.	LL	=	29.1	PSF
	DL	=	6.0	PSF
BOT CH.	LL	=	10.5	PSF
	DL	=	7.0	PSF
TOTAL LOAD		=	52.5	PSF

SPACING = 24.0 IN. C/C

THIS TRUSS IS DESIGNED FOR RESIDENTIAL OR SMALL BUILDING REQUIREMENTS OF PART 9, NBCC 2010, NBCC 2015

THIS DESIGN COMPLIES WITH:
- PART 9 OF BCBC 2018 , OBC 2012
- CSA 086-09, CSA 086-14
- TPIC 2011, TPIC 2014

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

(55 % OF 37.6 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 29.1 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=0.13/1.00 (A-B:1) , BC=0.04/1.00 (D-E:5) , WB=0.00/1.00 (n/a:0) , SSI=0.10/1.00 (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 .

NAIL VALUES

PLATE	GRIP(DRY) (PSI) MAX	MIN	SHEAR (PLI) MAX	MIN	SECTION (PLI) MAX	MIN
MT20	618	354	1667	788	1987	1656

PLATE PLACEMENT TOL. = 0.250 Inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.11 (E) (INPUT = 0.90)
JSI METAL= 0.07 (B) (INPUT = 1.00)

JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
200142-400307	J5	2	1	Brentwood 3A TRUSS DESC.	

Tamarack Roof Truss, Burlington

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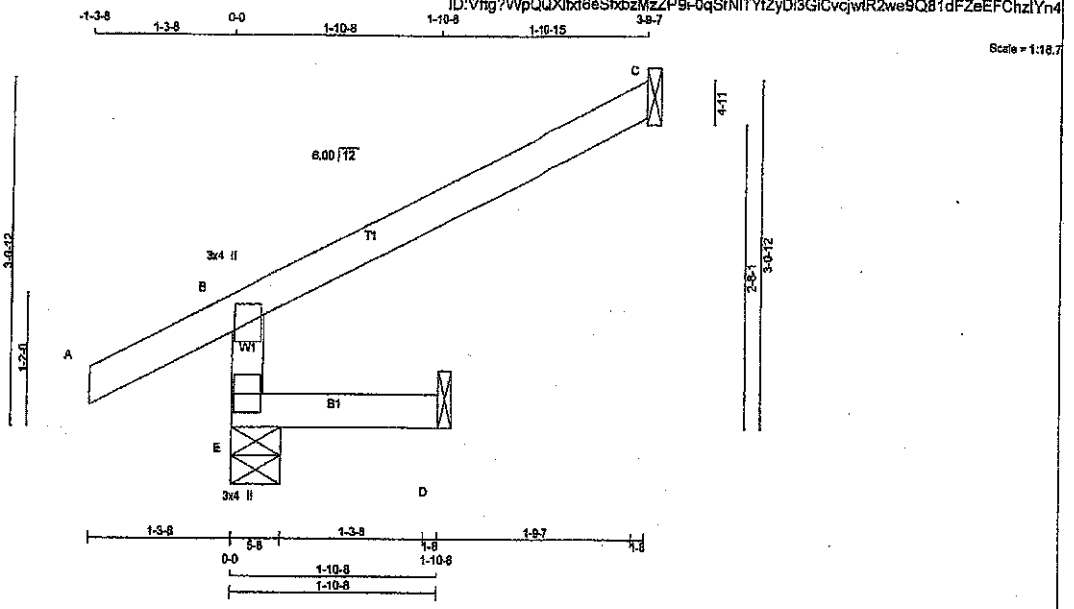

TOTAL WEIGHT = 2 X 10 = 19 lb [M]

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	3.0	4.0	
E	BMV1+p	MT20	3.0	4.0	

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

BEARINGS

JT	FACTORED GROSS REACTION VERT	HORZ	MAXIMUM FACTORED GROSS REACTION DOWN	HORZ	UPLIFT	INPUT BRG IN-SX	REQRD BRG IN-SX
E	420	0	420	0	0	5-8	5-8
C	145	0	145	0	0	1-8	1-8
D	32	0	41	0	0	1-8	1-8

SEE MITEK STANDARD DETAIL B37821H 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	297	216 / 0	22 / 0	0 / 0	0 / 0	59 / 0	0 / 0
C	100	83 / 0	0 / 0	0 / 0	0 / 0	17 / 0	0 / 0
D	29	0 / 0	18 / 0	0 / 0	0 / 0	12 / 0	0 / 0

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

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

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

LOADING
TOTAL LOAD CASES: (5)

CHORDS MEMB. FR-TO	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF) FROM	TO	LC1 MAX CSI (LC)	MAX. UNBRAC LENGTH	WEBS MEMB. FR-TO	MAX. FACTORED FORCE (LBS)	MAX CSI (LC)
E-B	-380 / 0	0.0	0.0	0.01 (3)	7.81			
A-B	0 / 31	-102.1	-102.1	0.13 (1)	10.00			
B-C	-22 / 0	-102.1	-102.1	0.25 (1)	6.25			
E-D	0 / 0	-38.5	-38.5	0.03 (3)	10.00			

CANTILEVER ANALYSIS HAS BEEN CONSIDERED IN THIS DESIGN

DESIGN CRITERIA

SPECIFIED LOADS:

TOP CH.	LL	=	29.1	PSF
	DL	=	6.0	PSF
BOT CH.	LL	=	10.5	PSF
	DL	=	7.0	PSF
TOTAL LOAD		=	52.5	PSF

SPACING = 24.0 IN. C/C

THIS TRUSS IS DESIGNED FOR RESIDENTIAL OR SMALL BUILDING REQUIREMENTS OF PART 9, NBCC 2010, NBCC 2015

THIS DESIGN COMPLIES WITH:
- PART 9 OF BCBC 2018 , OBC 2012
- CSA 086-09, CSA 086-14
- TPIC 2011, TPIC 2014

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

(55 % OF 37.6 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 29.1 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=0.25/1.00 (B-C:1) , BC=0.03/1.00 (D-E:3) , WB=0.00/1.00 (n/a:0) , SSI=0.17/1.00 (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) (PSI) MAX	MIN	SHEAR (PLI) MAX	MIN	SECTION (PLI) MAX	MIN
MT20	616	354	1667	788	1997	1656

PLATE PLACEMENT TOL. = 0.250 Inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.16 (E) (INPUT = 0.90)
JSI METAL= 0.11 (B) (INPUT = 1.00)

LICENSED PROFESSIONAL ENGINEER
05/08/19
H. J. G. ALVES
100089924
PROVINCE OF ONTARIO

DWG NO. TAM 7191094I
STRUCTURAL COMPONENT ONLY

JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
200142-400307	J7	1	1	Brentwood 3A TRUSS DESC.	

Tamarack Roof Truss, Burlington

Version 8.230 S Nov 17 2016 MiTek Industries, Inc. Wed May 8 14:06:50 2019 Page 1
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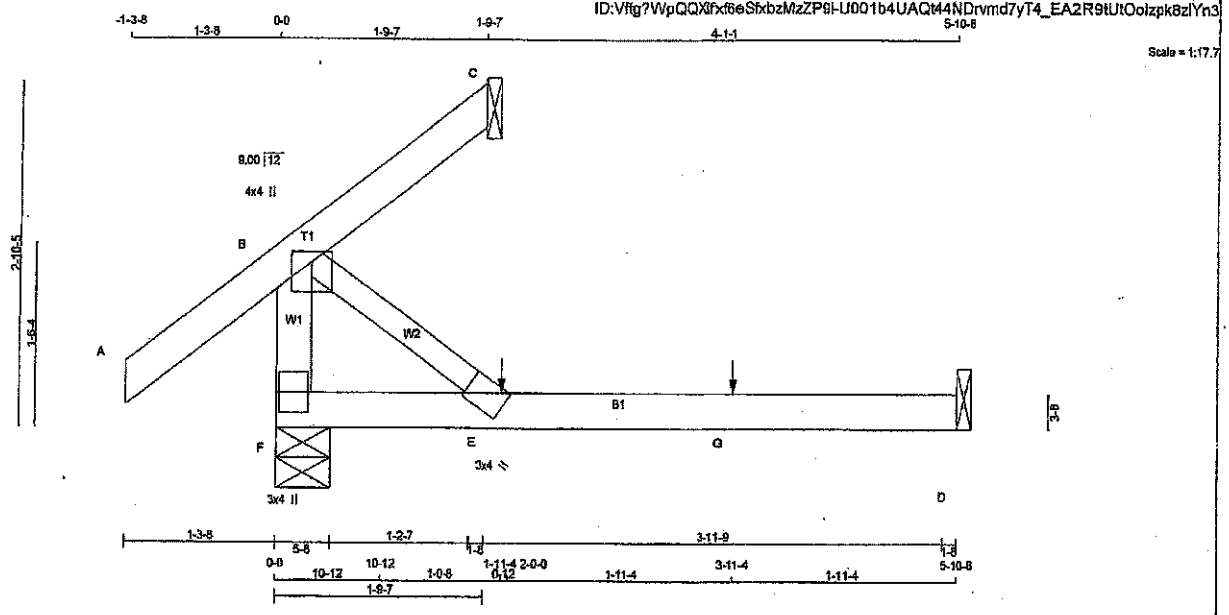

TOTAL WEIGHT = 14 lb

LUMBER
N. L. G. A. RULES

CHORDS	SIZE		LUMBER	DESCR.
F - B	2x4	DRY	No.2	SPF
A - C	2x4	DRY	No.2	SPF
F - D	2x4	DRY	No.2	SPF
ALL WEBS	2x3	DRY	No.2	SPF

DRY: SEASONED LUMBER.

PLATES (table is in inches)

JT	TYPE	PLATES	W	LEN	Y	X
B	TMVW+p	MT20	4.0	4.0	1.00	2.00
E	BMW+w	MT20	3.0	4.0	2.00	1.25
F	BMV1+p	MT20	3.0	4.0		

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

BEARINGS

JT	FACTORED GROSS REACTION VERT	FACTORED GROSS REACTION HORZ	MAXIMUM FACTORED DOWN	MAXIMUM FACTORED HORZ	MAXIMUM FACTORED UPLIFT	INPUT BRG IN-SX	REQRD BRG IN-SX
F	400	0	400	0	0	5-8	5-8
C	37	0	37	0	0	1-8	1-8
D	113	0	144	0	0	1-8	1-8

SEE MITEK STANDARD DETAIL B37821H FOR CONNECTION TO JOINT(S) C , D

UNFACTORED REACTIONS

JT	1ST LCASE COMBINED	MAX./MIN. COMPONENT REACTIONS SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
F	299	163 / 0	62 / 0	0 / 0	0 / 0	75 / 0	0 / 0
C	25	21 / 0	0 / 0	0 / 0	0 / 0	4 / 0	0 / 0
D	103	0 / 0	62 / 0	0 / 0	0 / 0	41 / 0	0 / 0

BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S) F, 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 PITCH BREAKS AND PERIMETER CORNER JOINTS MUST BE LATERALLY RESTRAINED.

LOADING
TOTAL LOAD CASES: (4)

CHORDS MEMB. FR-TO	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD LC1 (PLF) FROM	TO	MAX CSI (LC)	WEBS MAX. UNBRAC LENGTH	MEMB. FR-TO	MAX. FACTORED FORCE (LBS)	MAX CSI (LC)
F-B	-286 / 0	0.0	0.0	0.03 (1)	7.81	B-E	0 / 0	0.00 (1)
A-B	0 / 42	-102.1	-102.1	0.15 (1)	10.00			
B-C	-33 / 0	-102.1	-102.1	0.15 (1)	6.25			
F-E	0 / 0	-38.5	-38.5	0.27 (2)	10.00			
E-G	0 / 0	-38.5	-38.5	0.32 (2)	10.00			
G-D	0 / 0	-38.5	-38.5	0.32 (2)	10.00			

FACTORED CONCENTRATED LOADS (LBS)

JT	LOC.	LC1	MAX-	MAX+	FACE	DIR.	TYPE	HEEL	CONN.
E	1-11-4	1	1	—	FRONT	VERT	TOTAL	—	—
G	3-11-4	1	1	—	FRONT	VERT	TOTAL	—	—

DESIGN CRITERIA

SPECIFIED LOADS:

TOP CH.	LL =	29.1	PSF
	DL =	6.0	PSF
BOT CH.	LL =	10.5	PSF
	DL =	7.0	PSF
TOTAL LOAD	=	52.5	PSF

SPACING = 24.0 IN. C/C

THIS TRUSS IS DESIGNED FOR RESIDENTIAL OR SMALL BUILDING REQUIREMENTS OF PART 9, NBCC 2010, NBCC 2015

THIS DESIGN COMPLIES WITH:
- PART 9 OF BCBC 2018 , OBC 2012
- CSA 086-09, CSA 086-14
- TPIC 2011, TPIC 2014

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

(55 % OF 37.6 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 29.1 P.S.F. SPECIFIED ROOF LIVE LOAD

ALLOWABLE DEFL.(LL)= L/360 (0.20")
CALCULATED VERT. DEFL.(LL) = L/ 925 (0.08")
ALLOWABLE DEFL.(TL)= L/360 (0.20")
CALCULATED VERT. DEFL.(TL) = L/ 555 (0.13")

CSI: TC=0.15/1.00 (A-B:1) , BC=0.32/1.00 (D-E:2) , WB=0.00/1.00 (B-E:1) , SSI=0.12/1.00 (E-F:2)

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 .

NAIL VALUES

PLATE	GRIP(DRY) (PSI) MAX	MIN	SHEAR (PLI) MAX	MIN	SECTION (PLI) MAX	MIN
MT20	618	354	1667	788	1967	1656

PLATE PLACEMENT TOL. = 0.250 Inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.23 (B) (INPUT = 0.90)
JSI METAL= 0.06 (B) (INPUT = 1.00)

RECEIVED
AUG 08 2019
TOWN OF CALEDON
BUILDING DIVISION

LICENSED PROFESSIONAL ENGINEER
05/08/19
H. J. G. ALVES
100090924
PROVINCE OF ONTARIO

DWG NO. TAM T191942
STRUCTURAL
COPY FOR SITE ONLY

JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
200142-400307	J8	1	1	Brentwood 3A TRUSS DESC.	

Tamarack Roof Truss, Burlington

Version 8.230 S Nov 17 2016 MiTek Industries, Inc. Wed May 8 14:06:51 2019 Page 1
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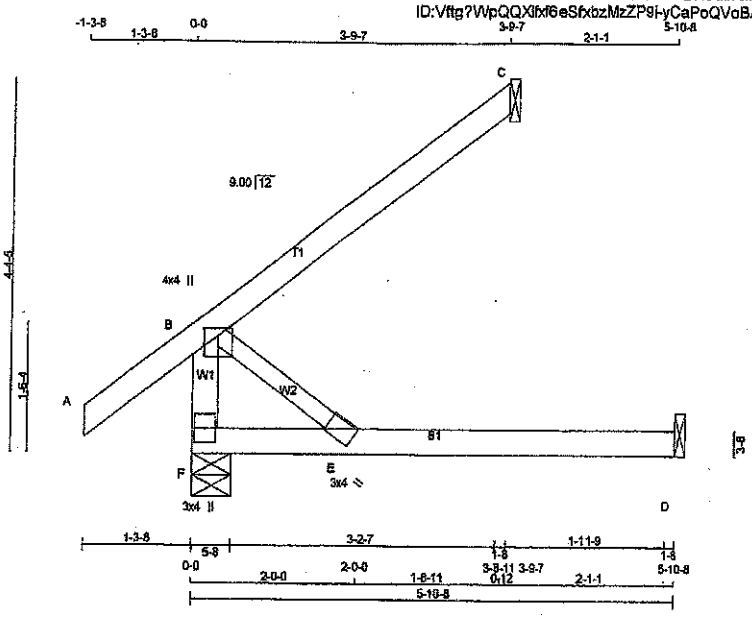


TOTAL WEIGHT = 17 lb [M]

LUMBER
N. L. G. A. RULES

CHORDS	SIZE		LUMBER	DESCR.
F - B	2x4	DRY	No.2	SPF
A - C	2x4	DRY	No.2	SPF
F - D	2x4	DRY	No.2	SPF
ALL WEBS	2x3	DRY	No.2	SPF

DRY: SEASONED LUMBER.

PLATES (table is in inches)

JT	TYPE	PLATES	W	LEN	Y	X
B	TMVW+p	MT20	4.0	4.0	1.00	2.00
E	BMW+w	MT20	3.0	4.0		
F	BMV1+p	MT20	3.0	4.0		

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

BEARINGS

JT	FACTORED GROSS REACTION VERT	HORZ	MAXIMUM FACTORED GROSS REACTION DOWN	HORZ	UPLIFT	INPUT BRG IN-SX	REQRD BRG IN-SX
F	447	0	447	0	0	5-8	5-8
C	193	0	193	0	0	1-8	1-8
D	113	0	144	0	0	1-8	1-8

SEE MITEK STANDARD DETAIL B37821H FOR CONNECTION TO JOINT(S) C , D

UNFACTORED REACTIONS

JT	1ST LCASE COMBINED	MAX./MIN. COMPONENT REACTIONS SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
F	332	190 / 0	62 / 0	0 / 0	0 / 0	80 / 0	0 / 0
C	133	110 / 0	0 / 0	0 / 0	0 / 0	23 / 0	0 / 0
D	103	0 / 0	62 / 0	0 / 0	0 / 0	41 / 0	0 / 0

BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S) F, 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 PITCH BREAKS AND PERIMETER CORNER JOINTS MUST BE LATERALLY RESTRAINED.

LOADING
TOTAL LOAD CASES: (4)

CHORDS

MEMB. FR-TO	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF) FROM	TO	LC	MAX CSI (LC)	MAX. UNBRAC LENGTH
F- B	-334 / 0	0.0	0.0	0.03 (1)	7.61
A- B	0 / 42	-102.1	-102.1	0.14 (1)	10.00
B- C	0 / 0	-102.1	-102.1	0.25 (1)	10.00
F- E	0 / 0	-38.5	-38.5	0.25 (3)	10.00
E- D	0 / 0	-38.5	-38.5	0.30 (3)	10.00

WEBS

MEMB. FR-TO	MAX. FACTORED FORCE (LBS)	MAX CSI (LC)
B- E	0 / 0	0.00 (1)

DESIGN CRITERIA

SPECIFIED LOADS:

TOP CH.	LL =	29.1	PSF
	DL =	6.0	PSF
BOT CH.	LL =	10.5	PSF
	DL =	7.0	PSF
TOTAL LOAD	=	52.5	PSF

SPACING = 24.0 IN. C/C

THIS TRUSS IS DESIGNED FOR RESIDENTIAL OR SMALL BUILDING REQUIREMENTS OF PART 9, NBCC 2010, NBCC 2015

THIS DESIGN COMPLIES WITH:
- PART 9 OF BCBC 2018 , OBC 2012
- CSA 086-09, CSA 086-14
- TPIC 2011, TPIC 2014

(55 % OF 37.6 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 29.1 P.S.F. SPECIFIED ROOF LIVE LOAD

ALLOWABLE DEFL.(LL)= L/360 (0.20")
CALCULATED VERT. DEFL.(LL) = L/ 925 (0.08")
ALLOWABLE DEFL.(TL)= L/360 (0.20")
CALCULATED VERT. DEFL.(TL) = L/ 565 (0.13")

CSI: TC=0.25/1.00 (B-C:1) , BC=0.30/1.00 (D-E:3) , WB=0.00/1.00 (B-E:1) , SSI=0.12/1.00 (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 .

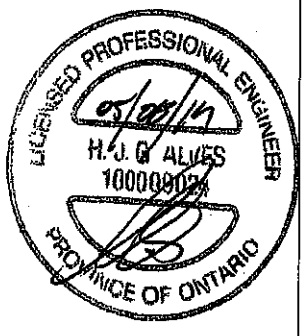
NAIL VALUES

PLATE	GRIP(DRY) (PSI) MAX	MIN	SHEAR (PLI) MAX	MIN	SECTION (PLI) MAX	MIN
MT20	618	354	1687	788	1987	1656

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.27 (B) (INPUT = 0.90)
JSI METAL= 0.07 (B) (INPUT = 1.00)



[illegible] TAM 100943
STRUCTURAL
[illegible] ONLY

JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC. Brentwood 3A	DRWG NO.
200142-400307	J9	1	1	TRUSS DESC.	

Tamarack Roof Truss, Burlington

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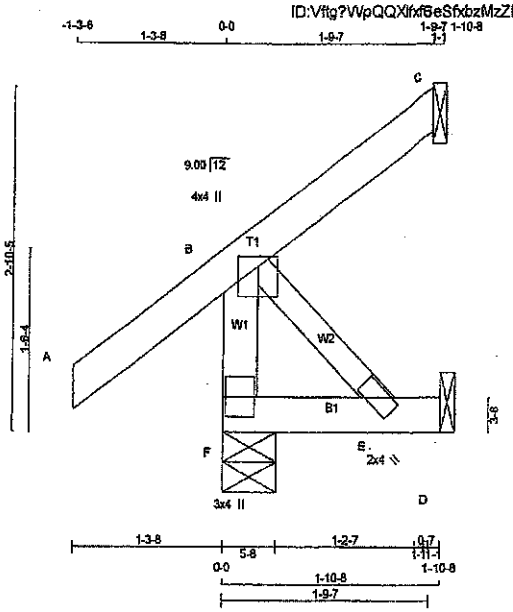


TOTAL WEIGHT = 9 lb

LUMBER

N. L. G. A. RULES

CHORDS	SIZE		LUMBER	DESCR.
F - B	2x4	DRY	No.2	SPF
A - C	2x4	DRY	No.2	SPF
F - D	2x4	DRY	No.2	SPF
ALL WEBS	2x3	DRY	No.2	SPF

DRY: SEASONED LUMBER.

PLATES (table is in inches)

JT	TYPE	PLATES	W	LEN	Y	X
B	TMWW+p	MT20	4.0	4.0	1.00	2.00
E	BMW+w	MT20	2.0	4.0		
F	BMV1+p	MT20	3.0	4.0		

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

BEARINGS

JT	FACTORED GROSS REACTION VERT	HORZ	MAXIMUM FACTORED GROSS REACTION DOWN	HORZ	UPLIFT	INPUT BRG IN-SX	REQRD BRG IN-SX
F	323	0	323	0	0	5-8	5-8
C	37	0	37	0	-45	1-8	1-8
D	38	0	46	0	0	1-8	1-8

SEE MITEK STANDARD DETAIL B37821H FOR CONNECTION TO JOINT(S) C , D

PROVIDE ANCHORAGE AT BEARING JOINT C FOR 150 LBS FACTORED UPLIFT

UNFACTORED REACTIONS

JT	1ST LCASE . COMBINED	MAX./MIN. COMPONENT REACTIONS SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
F	229	163 / 0	20 / 0	0 / 0	0 / 0	47 / 0	0 / 0
C	25	21 / -31	0 / 0	0 / 0	0 / 0	4 / 0	0 / 0
D	33	0 / 0	20 / 0	0 / 0	0 / 0	13 / 0	0 / 0

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

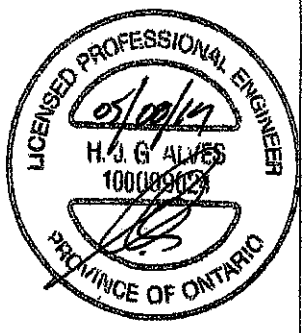
ALL PITCH BREAKS AND PERIMETER CORNER JOINTS MUST BE LATERALLY RESTRAINED.

LOADING

TOTAL LOAD CASES: (5)

CHORDS MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF) FROM	TO	LC	MAX CSI (LC)	MAX. UNBRAC LENGTH	WEBS MEMB.	MAX. FACTORED FORCE (LBS)	MAX CSI (LC)
FR-TO							FR-TO		
F- B	-286 / 0	0.0	0.0	0.03 (1)		7.81	B- E	0 / 0	0.00 (1)
A- B	0 / 42	-102.1	-102.1	0.14 (1)		10.00			
B- C	-33 / 0	-102.1	-102.1	0.13 (1)		6.25			
F- E	0 / 0	-38.5	-38.5	0.03 (3)		10.00			
E- D	0 / 0	-38.5	-38.5	0.03 (3)		10.00			

CANTILEVER ANALYSIS HAS BEEN CONSIDERED IN THIS DESIGN



DESIGN CRITERIA

SPECIFIED LOADS:

TOP CH.	LL	=	29.1	PSF
	DL	=	6.0	PSF
BOT CH.	LL	=	10.5	PSF
	DL	=	7.0	PSF
TOTAL LOAD		=	52.5	PSF

SPACING = 24.0 IN. C/C

THIS TRUSS IS DESIGNED FOR RESIDENTIAL OR SMALL BUILDING REQUIREMENTS OF PART 9, NBCC 2010, NBCC 2015

THIS DESIGN COMPLIES WITH:
- PART 9 OF BCBC 2018 , OBC 2012
- CSA 086-09, CSA 086-14
- TPIC 2011, TPIC 2014

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

(55 % OF 37.6 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 29.1 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=0.14/1.00 (A-B;1) , BC=0.03/1.00 (E-F;3) , WB=0.00/1.00 (B-E;1) , SSI=0.09/1.00 (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) (PSI) MAX	MIN	SHEAR (PLI) MAX	MIN	SECTION (PLI) MAX	MIN
MT20	618	354	1567	788	1957	1656

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.23 (B) (INPUT = 0.90)
JSI METAL= 0.06 (B) (INPUT = 1.00)

GAGANA TAM 100089023
STRUCTURAL
CERTIFICATE ONLY

JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
200142-400307	J10	1	1	Brentwood 3A TRUSS DESC.	

Tamarack Roof Truss, Burlington

Version 8.230 S Nov 17 2018 MiTek Industries, Inc. Wed May 8 14:06:52 2019 Page 1
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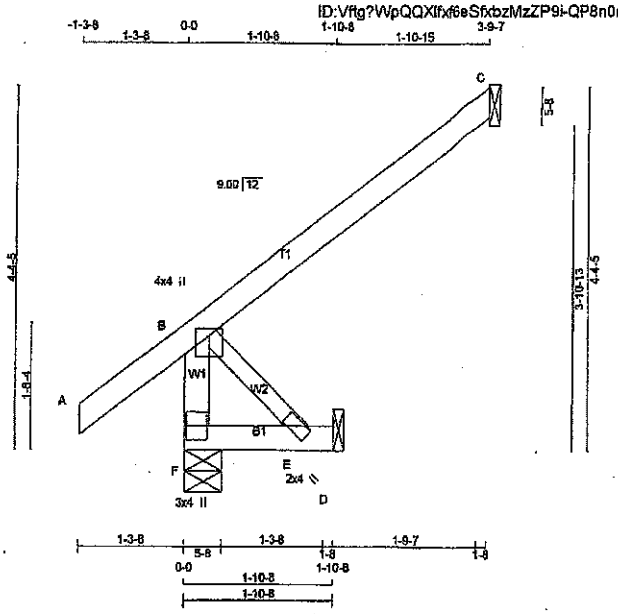


TOTAL WEIGHT = 12 lb

LUMBER
N. L. G. A. RULES

CHORDS	SIZE		LUMBER	DESCR.
F - B	2x4	DRY	No.2	SPF
A - C	2x4	DRY	No.2	SPF
F - D	2x4	DRY	No.2	SPF
ALL WEBS	2x3	DRY	No.2	SPF

DRY: SEASONED LUMBER.

PLATES (table is in inches)

JT	TYPE	PLATES	W	LEN	Y	X
B	TMWW+p	MT20	4.0	4.0	1.00	2.00
E	BMW+w	MT20	2.0	4.0		
F	BMV1+p	MT20	3.0	4.0		

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

BEARINGS

JT	FACTORED GROSS REACTION VERT	HORZ	MAXIMUM FACTORED GROSS REACTION DOWN	HORZ	UPLIFT	INPUT BRG IN-SX	REQRD BRG IN-SX
F	370	0	370	0	0	5-8	5-8
C	193	0	193	0	0	1-8	1-8
D	38	0	46	0	0	1-8	1-8

SEE MITEK STANDARD DETAIL S37821H FOR CONNECTION TO JOINT(S) C , D

UNFACTORED REACTIONS

JT	1ST LCASE COMBINED	MAX./MIN. COMPONENT REACTIONS SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
F	262	190 / 0	20 / 0	0 / 0	0 / 0	52 / 0	0 / 0
C	133	110 / 0	0 / 0	0 / 0	0 / 0	23 / 0	0 / 0
D	33	0 / 0	20 / 0	0 / 0	0 / 0	13 / 0	0 / 0

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

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

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

LOADING
TOTAL LOAD CASES: (5)

CHORDS MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD LC1 (PLF) FROM	TO	MAX CSI (LC)	MAX. UNBRAC LENGTH	WEBS MEMB. FR-TO	MAX. FACTORED FORCE (LBS)	MAX CSI (LC)
F-B	-334 / 0	0.0	0.0	0.03 (1)	7.81	B- E	0 / 0	0.00 (1)
A- B	0 / 42	-102.1	-102.1	0.14 (1)	10.00			
B- C	0 / 0	-102.1	-102.1	0.25 (1)	10.00			
F- E	0 / 0	-38.5	-38.5	0.04 (3)	10.00			
E- D	0 / 0	-38.5	-38.5	0.03 (3)	10.00			

CANTILEVER ANALYSIS HAS BEEN CONSIDERED IN THIS DESIGN

DESIGN CRITERIA

SPECIFIED LOADS:

TOP CH.	LL	=	29.1	PSF
	DL	=	6.0	PSF
BOT CH.	LL	=	10.5	PSF
	DL	=	7.0	PSF
TOTAL LOAD		=	52.5	PSF

SPACING = 24.0 IN. C/C

THIS TRUSS IS DESIGNED FOR RESIDENTIAL OR SMALL BUILDING REQUIREMENTS OF PART 9, NBCC 2010, NBCC 2015

THIS DESIGN COMPLIES WITH:
- PART 9 OF BCBC 2018 , OBC 2012
- CSA 086-09, CSA 086-14
- TPIC 2011, TPIC 2014

(55 % OF 37.6 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 29.1 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=0.25/1.00 (B-C:1) , BC=0.04/1.00 (E-F:3) , WB=0.00/1.00 (B-E:1) , SSI=0.12/1.00 (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 .

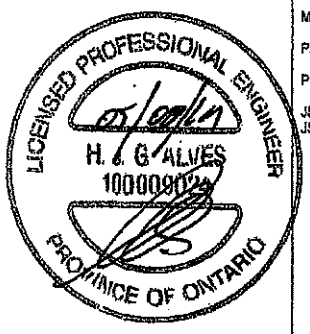
NAIL VALUES :

PLATE	GRIP(DRY) (PSI) MAX	MIN	SHEAR (PLI) MAX	MIN	SECTION (PLI) MAX	MIN
MT20	618	354	1667	788	1987	1658

PLATE PLACEMENT TOL. = 0.250 Inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.27 (B) (INPUT = 0.90)
JSI METAL= 0.07 (B) (INPUT = 1.00)



BMA ADDENDUM #910945
STRUCTURAL
CHANGES ONLY

JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC. Brentwood 3A	DRWG NO.
200142-400307	J21	3	1	TRUSS DESC.	

Tamarack Roof Truss, Burlington

Version 8.230 S Nov 17 2018 MiTek Industries, Inc. Wed May 8 14:08:57 2019 Page 1
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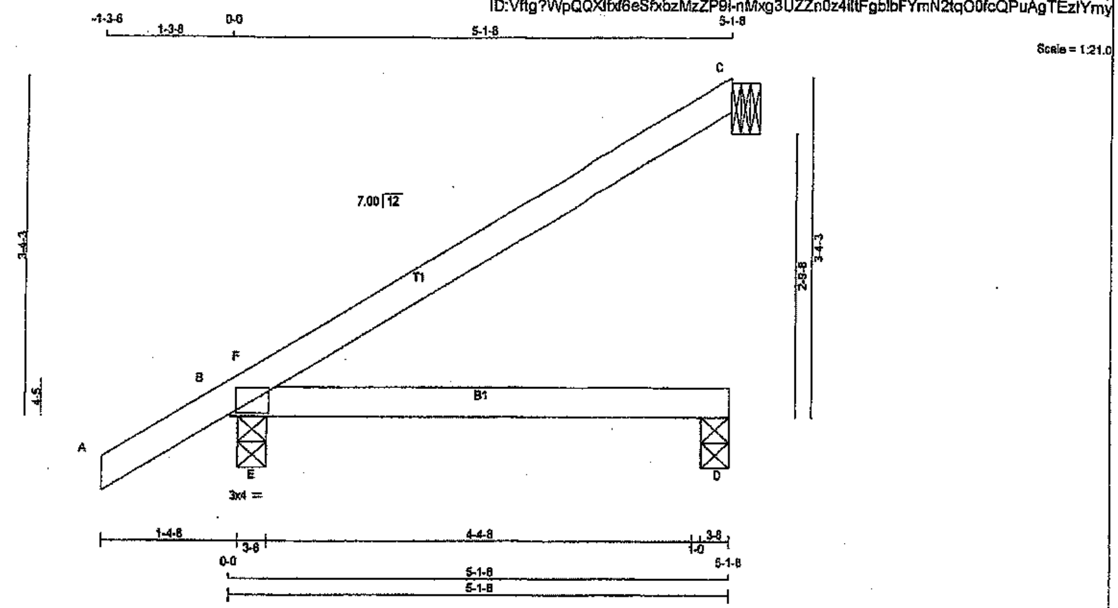

TOTAL WEIGHT = 3 X 15 = 44 lb

LUMBER

N. L. G. A. RULES

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

DRY: SEASONED LUMBER.

PLATES (table is in inches)

JT	TYPE	PLATES	W	LEN	Y	X
B	TMB1-I	MT20	3.0	4.0		

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

BEARINGS

JT	FACTORED GROSS REACTION VERT	HORZ	MAXIMUM FACTORED GROSS REACTION DOWN	HORZ	UPLIFT	INPUT BRG IN-SX	REQRD BRG IN-SX
C	235	0	235	0	0	4-8	4-8
D	126	0	136	0	0	3-8	3-8
B	500	0	500	0	0	3-8	3-8

SEE MITEK STANDARD DETAIL B37821H FOR CONNECTION TO JOINT(S) C

UNFACTORED REACTIONS

JT	1ST LCASE COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
		MAX./MIN. COMPONENT REACTIONS					
C	164	126 / 0	7 / 0	0 / 0	0 / 0	31 / 0	0 / 0
D	105	23 / 0	47 / 0	0 / 0	0 / 0	36 / 0	0 / 0
B	365	228 / 0	54 / 0	0 / 0	0 / 0	83 / 0	0 / 0

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

BRACING

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

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

LOADING

TOTAL LOAD CASES: (4)

CHORDS

MEMB. FR-TO	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD LC1 (PLF) FROM	TO	MAX CSI (LC)	MAX. UNBRAC LENGTH
A- B	0 / 34	-102.1	-102.1	0.13 (1)	10.00
B- F	-105 / 72	-102.1	-102.1	0.09 (3)	6.25
F- C	-5 / 7	-102.1	-102.1	0.37 (1)	10.00
B- E	0 / 0	-38.5	-38.5	0.22 (1)	10.00
E- D	0 / 0	-38.5	-38.5	0.28 (1)	10.00

WEBS

MEMB. FR-TO	MAX. FACTORED FORCE (LBS)	MAX CSI (LC)
E- F	-395 / 156	0.00 (1)

DESIGN CRITERIA

SPECIFIED LOADS:
TOP CH. LL = 29.1 PSF
DL = 6.0 PSF
BOT CH. LL = 10.5 PSF
DL = 7.0 PSF
TOTAL LOAD = 52.5 PSF

SPACING = 24.0 IN. C/C

THIS TRUSS IS DESIGNED FOR RESIDENTIAL OR SMALL BUILDING REQUIREMENTS OF PART 9, NBCC 2010, NBCC 2015

THIS DESIGN COMPLIES WITH:
- PART 9 OF BCBC 2018 , OBC 2012
- CSA 086-09, CSA 086-14
- TPIC 2011, TPIC 2014

(55 % OF 37.6 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 29.1 P.S.F. SPECIFIED ROOF LIVE LOAD

ALLOWABLE DEFL.(LL)= L/360 (0.19")
CALCULATED VERT. DEFL.(LL) = L/ 999 (0.06")
ALLOWABLE DEFL.(TL)= L/360 (0.19")
CALCULATED VERT. DEFL.(TL) = L/ 590 (0.10")

CSI: TC=0.37/1.00 (C-F:1) , BC=0.28/1.00 (D-E:1) , WB=0.00/1.00 (E-F:1) , SSI=0.36/1.00 (B-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) (PSI) MAX	MIN	SHEAR (PLI) MAX	MIN	SECTION (PLI) MAX	MIN
MT20	618	354	1687	788	1987	1656

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.37 (B) (INPUT = 0.90)
JSI METAL= 0.09 (B) (INPUT = 1.00)

LICENSED PROFESSIONAL ENGINEER
05/08/19
H. J. G. ALVES
100009024
PROVINCE OF ONTARIO

19109051
STRUCTURAL
ONLY

JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
200142-400307	J23	9	1	Brentwood 3A TRUSS DESC.	

Tamarack Roof Truss, Burlington

Version 8.230 S Nov 17 2016 MiTek Industries, Inc. Wed May 8 14:06:58 2019 Page 1
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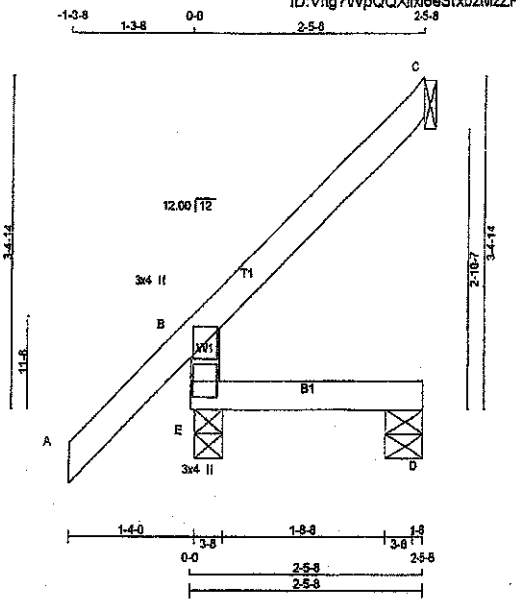


TOTAL WEIGHT = 9 X 10 = 88 lb [M]

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	3.0	4.0	
E	BMV1+p	MT20	3.0	4.0	

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

BEARINGS

JT	FACTORED GROSS REACTION VERT	HORZ	MAXIMUM FACTORED GROSS REACTION DOWN	HORZ	UPLIFT	INPUT BRG IN-6X	REQRD BRG IN-SX
E	353	0	353	0	0	3-8	3-8
C	94	0	94	0	0	1-8	1-8
D	40	0	52	0	0	5-0	5-0

SEE MITEK STANDARD DETAIL B37821H FOR CONNECTION TO JOINT(S) C

UNFACTORED REACTIONS

JT	1ST LCASE COMBINED	MAX./MIN. COMPONENT REACTIONS SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
E	255	170 / 0	30 / 0	0 / 0	0 / 0	55 / 0	0 / 0
C	65	54 / 0	0 / 0	0 / 0	0 / 0	11 / 0	0 / 0
D	37	0 / 0	22 / 0	0 / 0	0 / 0	15 / 0	0 / 0

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

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

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

LOADING
TOTAL LOAD CASES: (5)

CHORDS MEMB. FR-TO	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF) FROM	TO	LC1 MAX CSI (LC)	MAX. UNBRAC LENGTH	WEBS MEMB. FR-TO	MAX. FACTORED FORCE (LBS)	MAX CSI (LC)
E- B	-299 / 0	0.0	0.0	0.03 (3)	7.81			
A- B	0 / 50	-102.1	-102.1	0.14 (1)	10.00			
B- C	-22 / 0	-102.1	-102.1	0.10 (1)	6.25			
E- D	0 / 0	-38.5	-38.5	0.04 (3)	10.00			

CANTILEVER ANALYSIS HAS BEEN CONSIDERED IN THIS DESIGN

DESIGN CRITERIA

SPECIFIED LOADS:

TOP CH.	LL	=	29.1	PSF
	DL	=	6.0	PSF
BOT CH.	LL	=	10.5	PSF
	DL	=	7.0	PSF
TOTAL LOAD		=	52.5	PSF

SPACING = 24.0 IN. C/C

THIS TRUSS IS DESIGNED FOR RESIDENTIAL OR SMALL BUILDING REQUIREMENTS OF PART 9, NBCC 2010, NBCC 2015

THIS DESIGN COMPLIES WITH:
- PART 9 OF BCBC 2018 , OBC 2012
- CSA 086-09, CSA 086-14
- TPIC 2011, TPIC 2014

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

(55 % OF 37.6 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 29.1 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=0.14/1.00 (A-B:1) , BC=0.04/1.00 (D-E:3) , WB=0.00/1.00 (n/a:0) , SSI=0.09/1.00 (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) (PSI) MAX	MIN	SHEAR (PLI) MAX	MIN	SECTION (PLI) MAX	MIN
MT20	616	354	1667	766	1997	1656

PLATE PLACEMENT TOL. = 0.250 Inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.15 (B) (INPUT = 0.90)
JSI METAL= 0.10 (B) (INPUT = 1.00)

EXPIRY DATE: 07/10/753
ARCHITECTURAL
COMPONENTS DIV

ONTARIO WOOD TRUSS
FABRICATORS ASSOCIATION

TECH-NOTES

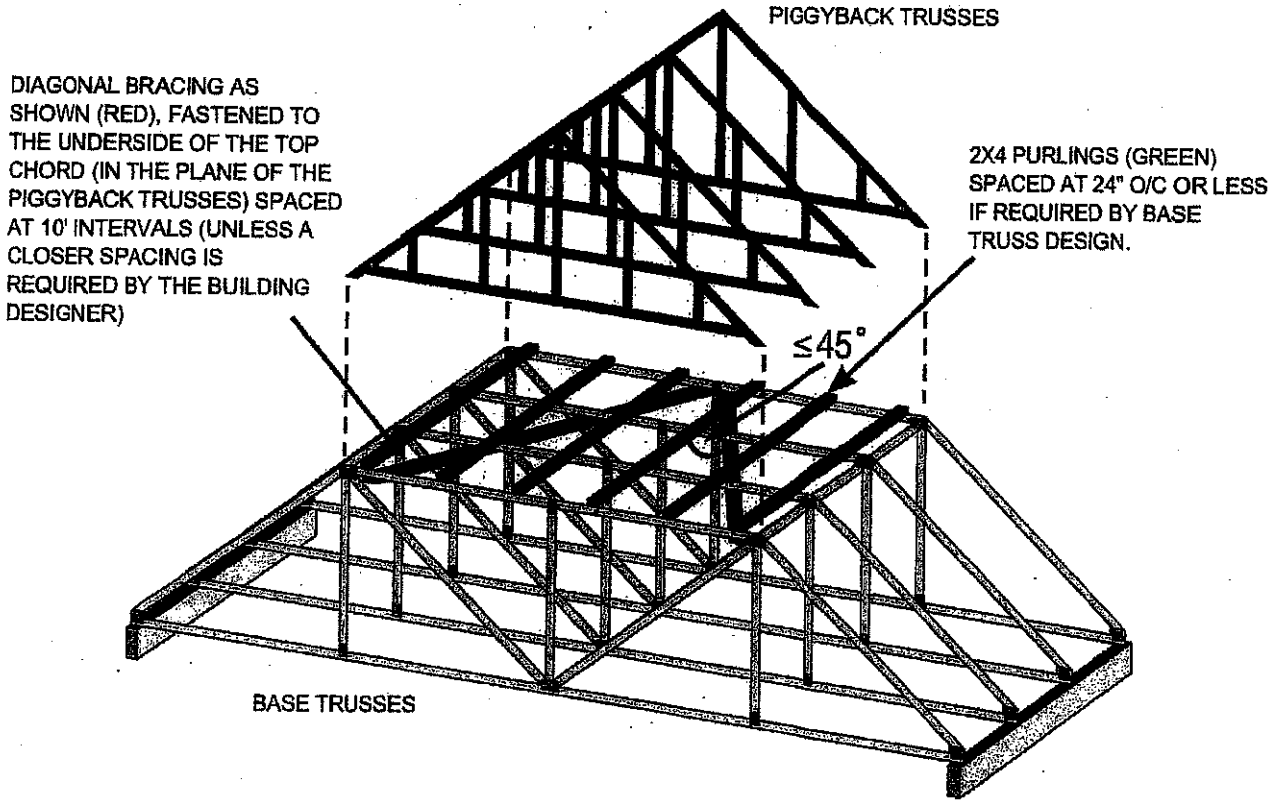
TN 15-001
Piggyback Bracing

Overview:

Where piggybacks are connected overtop of base trusses, 2x4 purlins must be first added to the flat portion of the base truss at a spacing no more than 24" o/c. These purlins not only provide support for the piggyback trusses above, but are required to laterally support the top chord of the base truss which will not have the sheathing directly connected to the flat portion of the base truss. This ensures the top chord, most often in compression, will not buckle laterally.

Further, the purlins in the plane of the flat portion require diagonal bracing to prevent lateral displacement of the purlins themselves where under certain conditions, the trusses may in fact all buckle in the same direction if this additional bracing is not added in the plane of the purlins.

Detail:



NOTE: THE SLOPED PORTION OF THE TOP CHORD OF THE BASE TRUSS AND PIGGYBACK TRUSS IN THIS SKETCH IS ASSUMED TO BE SHEATHED IN ACCORDANCE WITH THE OBC.

SKETCH FROM BCSI-CANADA 2013

Disclaimer:

TECHNICAL BULLETIN

LUS – Double Shear Joist Hangers

SIMPSON Strong-Tie®

All LUS hangers have double shear nailing. This patented innovation distributes the load through two points on each joist nail for greater strength. It also allows the use of fewer nails, faster installation and the use of common nails for all connections.

Material: 18 gauge

Finish: G90 galvanized

Design:

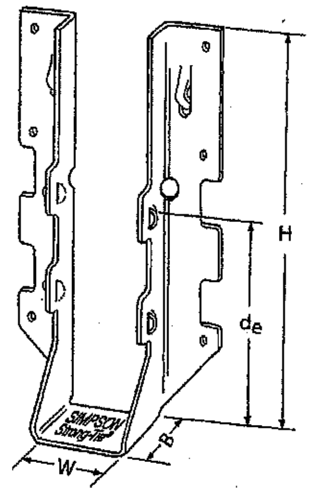
- Factored resistances are in accordance with CSA O86-14.
- Uplift resistances have been increased 15%. No further increase is permitted.
- Wood shear is not considered in the factored resistances given. The specifier must ensure that the joist and header capacities are capable of withstanding these loads.

Installation:

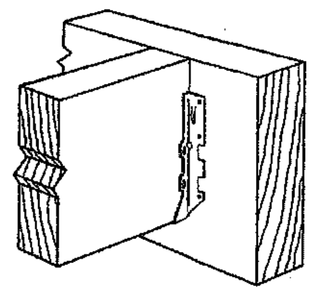
- Use all specified fasteners.
- Nails: 16d = 0.162" dia. x 3½" long common wire, 10d = 0.148" x 3" long common wire.
- Double shear nails must be driven at an angle through the joist or truss into the header to achieve the table loads.
- Not designed for welded or nailer applications.

Options:

- These hangers cannot be modified



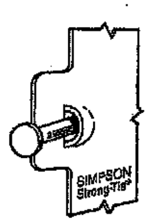
LUS28



Typical LUS Installation

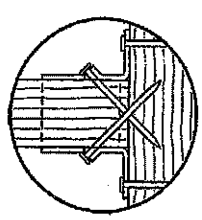
Model No.	Ga.	Dimensions (in.)				Fasteners		Factored Resistance (lb.)			
								D.Fir-L		S-P-F	
		W	H	B	d_e[1]	Face	Joist	Uplift (K_D=1.15)	Normal (K_D=1.00)	Uplift (K_D=1.15)	Normal (K_D=1.00)
LUS24	18	1 9/16	3 1/8	1 3/4	1 15/16	(4) 10d	(2) 10d	710	1630	645	1155
LUS24-2	18	3 1/8	3 1/8	2	1 13/16	(4) 16d	(2) 16d	835	2020	590	1435
LUS26	18	1 9/16	4 3/4	1 3/4	3 5/8	(4) 10d	(4) 10d	1420	2170	1290	1630
LUS26-2	18	3 1/8	4 7/8	2	4	(4) 16d	(4) 16d	1720	2595	1545	1920
LUS26-3	18	4 5/8	4 3/16	2	3 1/4	(4) 16d	(4) 16d	1720	2595	1545	2340
LUS28	18	1 9/16	6 5/8	1 3/4	3 3/4	(6) 10d	(6) 10d	1420	2520	1290	1790
LUS28-2	18	3 1/8	7	2	4	(6) 16d	(4) 16d	1720	3325	1545	2575
LUS28-3	18	4 5/8	6 1/4	2	3 1/4	(6) 16d	(4) 16d	1720	3325	1545	2375
LUS210	18	1 9/16	7 13/16	1 3/4	3 7/8	(8) 10d	(4) 10d	1420	2785	1290	2210
LUS210-2	18	3 1/8	9	2	6	(8) 16d	(6) 16d	2580	4500	2320	3195
LUS210-3	18	4 5/8	8 3/16	2	5 1/4	(8) 16d	(6) 16d	2580	3345	2320	2375

1. d_e is the distance from the seat of the hanger to the highest joist nail.

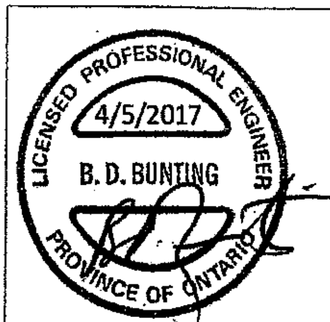


Dome Double Shear Nailing prevents tabs breaking off (available on some models).

U.S. Patent 5,603,580



Double Shear Nailing Top View.



SIMPSON Strong-Tie®

HUS/LJS – Double Shear Joist Hangers

All hangers have double shear nailing. This patented innovation distributes the load through two points on each joist nail for greater strength. It also allows the use of fewer nails, faster installation and the use of common nails for all connections. Do not bend or remove tabs.

Material: See table

Finish: G90 galvanized

Design:

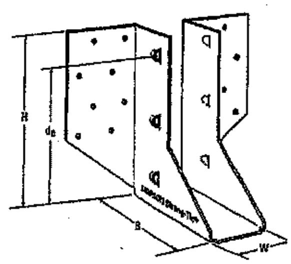
- Factored resistances are in accordance with CSA O86-14.
- Uplift resistances have been increased 15%. No further increase is permitted.
- Wood shear is not considered in the factored resistances given. The specifier must ensure that the joist and header capacities are capable of withstanding these loads.

Installation:

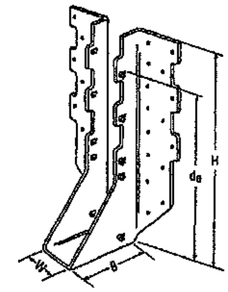
- Use all specified fasteners
- Nails: 16d = 0.162" dia. x 3½" long common wire
- Double shear nails must be driven at an angle through the joist or truss into the header to achieve the table loads
- Not designed for welded or nailer applications

Options:

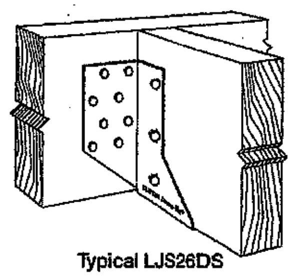
- See current catalogue for options



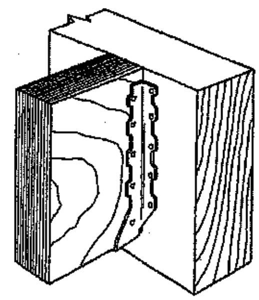
LJS26DS



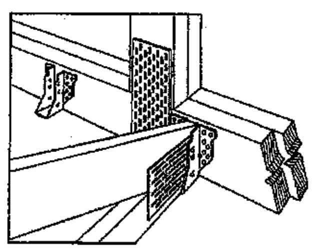
HUS210
(HUS26, HUS28, similar)



Typical LJS26DS Installation



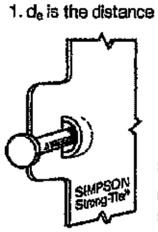
Typical HUS Installation



Typical HUS Installation (Truss Designer to provide fastener quantity for connecting multiple members together)

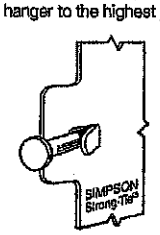
Model No.	Ga.	Dimensions (in.)				Fasteners		Factored Resistance (lb.)			
								D.Fir-L		S-P-F	
		W	H	B	d_e[1]	Face	Joist	Uplift (K_D=1.15)	Normal (K_D=1.00)	Uplift (K_D=1.15)	Normal (K_D=1.00)
								lb.	lb.	lb.	lb.
LJS26DS	18	1 9/16	5	3½	4⅝	(16) 16d	(6) 16d	2055	4265	1460	4115
HUS26	16	1⅝	5⅜	3	3 15/16	(14) 16d	(6) 16d	2705	4940	2065	3875
HUS28	16	1⅝	7 3/32	3	6 3/32	(22) 16d	(8) 16d	3605	5365	2675	4345
HUS210	16	1⅝	9 3/32	3	7 31/32	(30) 16d	(10) 16d	4505	5795	4010	4740
HUS1.81/10	16	1 13/16	9	3	8	(30) 16d	(10) 16d	4505	6450	4010	5200

1. d_e is the distance from the seat of the hanger to the highest joist nail.

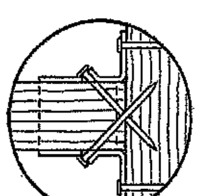


Dome Double Shear Nailing prevents tabs breaking off (available on some models).

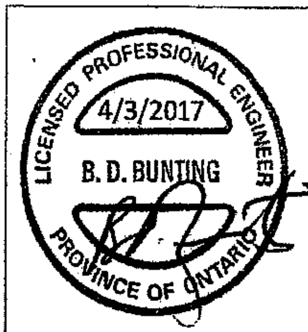
U.S. Patent 5,603,580



Double Shear Nailing Side View. Do not bend tab back.

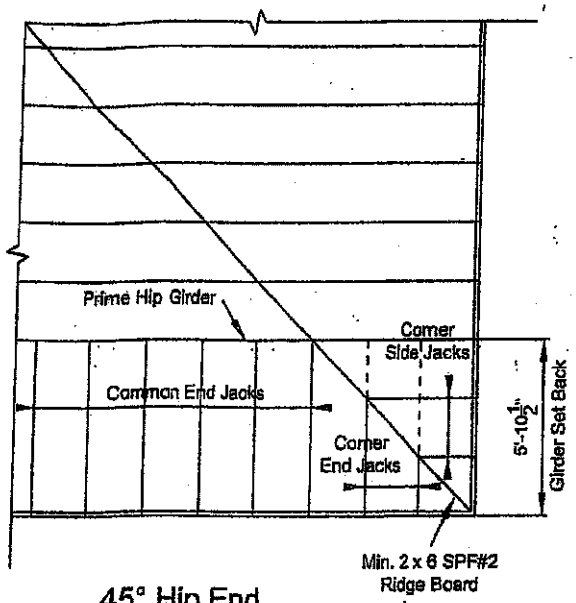


Double Shear Nailing Top View.



LIMIT STATES DESIGN

(800) 999-5099
strongtie.com



45° Hip End

LUMBER SPECIFICATION

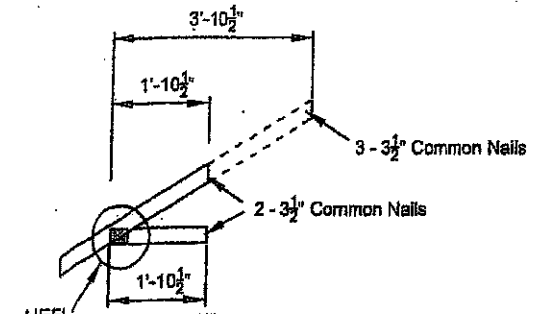
TOP CHORD	:	2 x 4 SPF#2
BOTTOM CHORD	:	2 x 4 SPF#2
WEBS	:	2 x 3 SPF#2

UNLESS OTHERWISE SHOWN

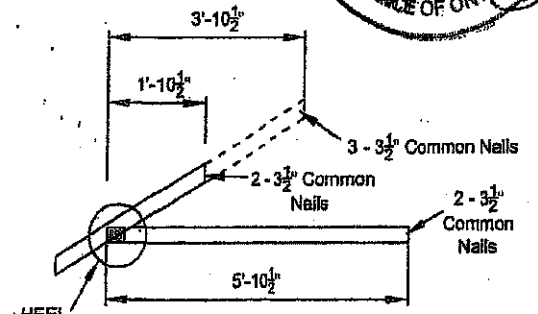
DESIGN LOAD

TOP CHORD SNOW LOAD	:	40.5 P.S.F.
TOP CHORD DEAD LOAD	:	3.0 P.S.F.
BOTTOM CHORD LIVE LOAD	:	0.0 P.S.F.
BOTTOM CHORD DEAD LOAD	:	7.0 P.S.F.
TOTAL LOAD	:	50.5 P.S.F

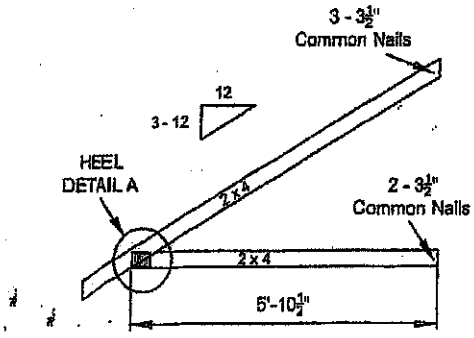
LICENSED PROFESSIONAL ENGINEER
06/11/18
H.J.G. ALVES
PROVINCE OF ONTARIO



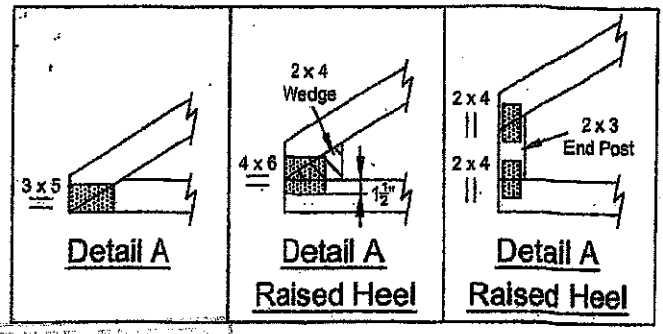
Corner Side Jacks



Corner End Jacks

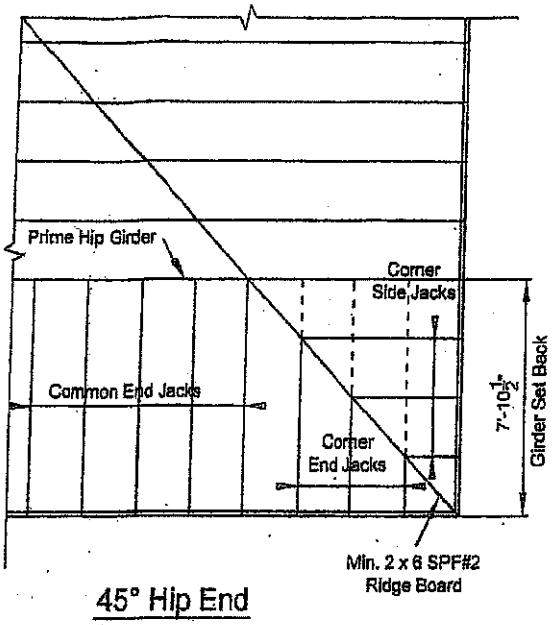


Common End Jacks



NOTE: DESIGN CONFORMS TO PART 9, O.B.C. 2012 (L.S.D. DESIGN)

T-1800216



45° Hip End

LUMBER SPECIFICATION

TOP CHORD : 2 x 4 SPF#2
BOTTOM CHORD : 2 x 4 SPF#2
WEBS : 2 x 3 SPF#2
UNLESS OTHERWISE SHOWN

DESIGN LOAD

TOP CHORD SNOW LOAD	:	40.5 P.S.F.
TOP CHORD DEAD LOAD	:	3.0 P.S.F.
BOTTOM CHORD LIVE LOAD	:	0.0 P.S.F.
BOTTOM CHORD DEAD LOAD	:	7.0 P.S.F.
TOTAL LOAD		50.5 P.S.F.

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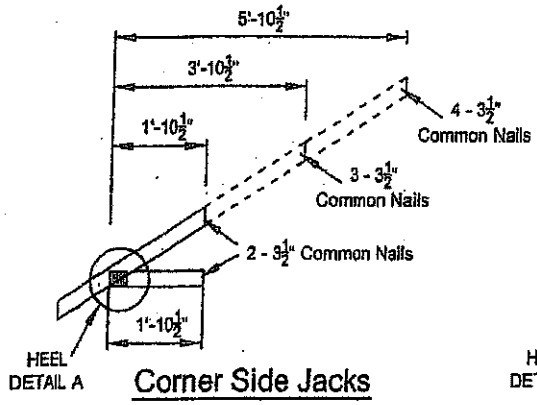
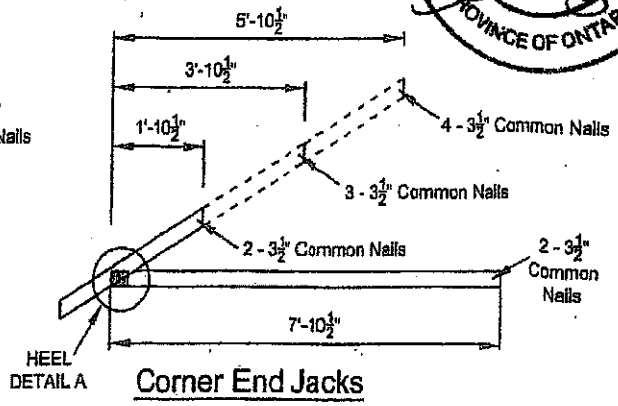
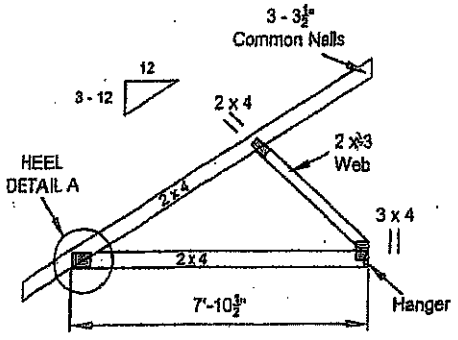
PROVINCE OF ONTARIO



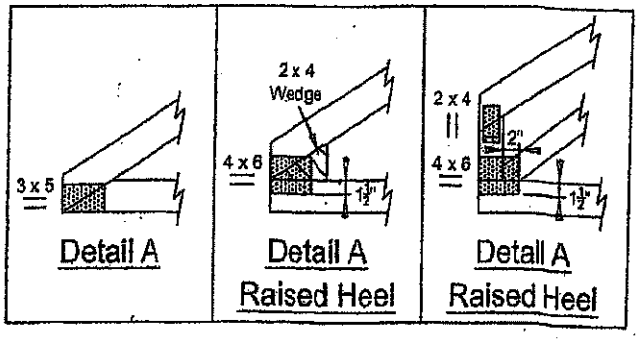
Corner Side Jacks



Corner End Jacks



Common End Jacks

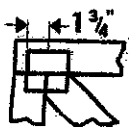


NOTE: DESIGN CONFORMS TO PART 9, O.B.C. 2012 (L.S.D. DESIGN)

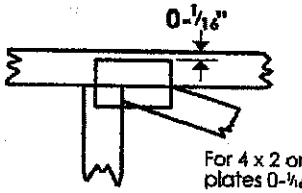
T-1800217

Symbols

PLATE LOCATION AND ORIENTATION



Center plate on joint unless x, y offsets are indicated. Dimensions are in ft-in-sixteenths or mm. Apply plates to both sides of truss and fully embed teeth.



For 4 x 2 orientation, locate plates 0-1/16" from outside edge of truss.

This symbol indicates the required direction of slots in connector plates.

*Plate location details available in MiTek software or upon request.

PLATE SIZE

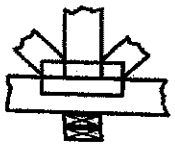
4 X 4

The first dimension is the plate width measured perpendicular to slots. Second dimension is the length parallel to slots.

LATERAL BRACING LOCATION

Indicated by symbol shown and/or by text in the bracing section of the output. Use T, I or Eliminator bracing if indicated.

BEARING



Indicates location where bearings (supports) occur. Icons vary but reaction section indicates joint number where bearings occur.

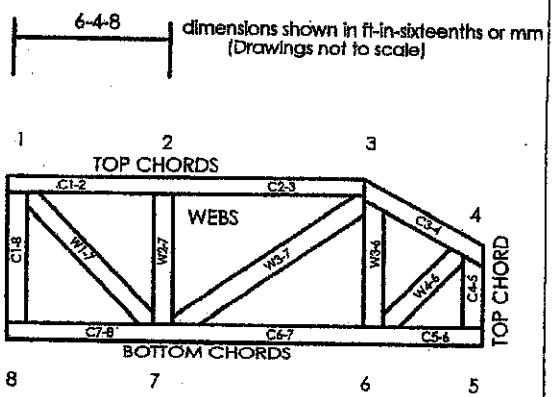
Industry Standards:

TPIC: Truss Design Procedures and Specifications for Light Metal Plate Connected Wood Trusses

DSB-89: Design Standard for Bracing.

BCSI: Building Component Safety Information, Guide to Good Practice for Handling, Installing & Bracing of Metal Plate Connected Wood Trusses.

Numbering System



JOINTS ARE GENERALLY NUMBERED/LETTERED CLOCKWISE AROUND THE TRUSS STARTING AT THE JOINT FARTHEST TO THE LEFT.

CHORDS AND WEBS ARE IDENTIFIED BY END JOINT NUMBERS/LETTERS.

PRODUCT CODE APPROVALS

CCMC Reports:

11996-L, 10319-L, 13270-L, 12691-R

MiTek®

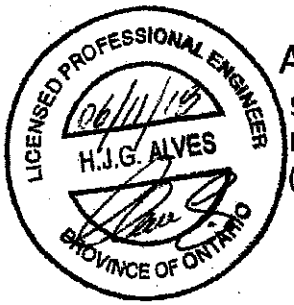
POWER TO PERFORM.™

MiTek Engineering Reference Sheet: MII-7473C rev. 10-'08

⚠ General Safety Notes

Failure to Follow Could Cause Property Damage or Personal Injury

1. Additional stability bracing for truss system, e.g. diagonal or X-bracing, is always required. See BCSI.
2. Truss bracing must be designed by an engineer. For wide truss spacing, individual lateral braces themselves may require bracing, or alternative T, I, or Eliminator bracing should be considered.
3. Never exceed the design loading shown and never stack materials on inadequately braced trusses.
4. Provide copies of this truss design to the building designer, erection supervisor, property owner and all other interested parties.
5. Cut members to bear tightly against each other.
6. Place plates on each face of truss at each joint and embed fully. Knots and wane at joint locations are regulated by TPIC.
7. Design assumes trusses will be suitably protected from the environment in accord with TPIC.
8. Unless otherwise noted, moisture content of lumber shall not exceed 19% at time of fabrication.
9. Unless expressly noted, this design is not applicable for use with fire retardant, preservative treated, or green lumber.
10. Camber is a non-structural consideration and is the responsibility of truss fabricator. General practice is to camber for dead load deflection.
11. Plate type, size, orientation and location dimensions indicated are minimum plating requirements.
12. Lumber used shall be of the species and size, and in all respects, equal to or better than that specified.
13. Top chords must be sheathed or purlins provided at spacing indicated on design.
14. Bottom chords require lateral bracing at 10 ft. spacing, or less, if no ceiling is installed, unless otherwise noted.
15. Connections not shown are the responsibility of others.
16. Do not cut or alter truss member or plate without prior approval of an engineer.
17. Install and load vertically unless indicated otherwise.
18. Use of green or treated lumber may pose unacceptable environmental, health or performance risks. Consult with project engineer before use.
19. Review all portions of this design (front, back, words and pictures) before use. Reviewing pictures alone is not sufficient.
20. Design assumes manufacture in accordance with TPIC Quality Criteria.



Alves Engineering Services Inc.
5208 Easton road
Burlington, Ontario L7L 6N6
(289) 259 5455

RESPONSABILITIES

1-Alves Engineering Services Inc. is responsible for the design of trusses as individual components

2-It is the responsibility of others to ascertain that the design loads utilized on this drawing meet or exceed the actual dead load imposed by the structure and the live load imposed by the local building code or the authorities having jurisdictions.

3- All dimensions are to be verified by owner, contractor, architect or other authority before manufacture.

4- Alves Engineering Services Inc. bears no responsibility for the erection of the trusses. Persons erecting trusses are cautioned to seek professional advice regarding temporary and permanent bracing system. Bracing shown on Alves Engineering Services Inc. drawings is specified for the truss as a single component and forms an integral part of the truss design, but is not meant to represent the only required bracing for that truss when trusses are installed in a series of trusses forming a roof truss system.

5- It is the manufactures responsibility to ensure that the trusses are manufactured in conformance with Alves Engineering Services Inc. specifications outlined below.

SPECIFICATIONS

1-Truss components sealed by Alves Engineering Services Inc. conform to the relevant sections of the current Building Code of Ontario and Canada (part 4 or part 9) or the current Canadian code for Farm Buildings in accordance with the application specified on the sealed truss component drawing. All truss component design procedures must conform to the current design standard issued by the truss plate institute of Canada (TPIC). All lumber and nailing stresses to conform to the current CSA wood design standard identified on the current Building Code and TPIC.

2- Lumber is to be the sizes and grade specified on the truss drawing.

3- Moist content of lumber is not to exceed 19% in service unless otherwise specified.

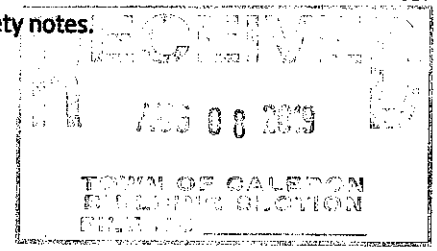
4- Plates shall be applied to both faces of the each truss joint and shall be positioned as shown on the truss drawings

5- Lumber used on manufacture of trusses is not to be treated with chemicals unless otherwise specified on the truss drawings.

6- The top chord is assumed to be continuously laterally braced by the roof sheathing or purlins at intervals specified on the truss drawing but not exceeding 24" c/c for (part 9) and not exceeding 48" for (part 4 or farm design)

7- When rigid ceiling is not attached directly to the bottom chord, lateral bracing is required and it should not exceed more than 3m or 10' intervals.

8-Refer to Mitek sheet MII7473C REV.10-08 attached for information on symbols, numbering system and General Safety notes.



T-1900213

Feb 09, 2018