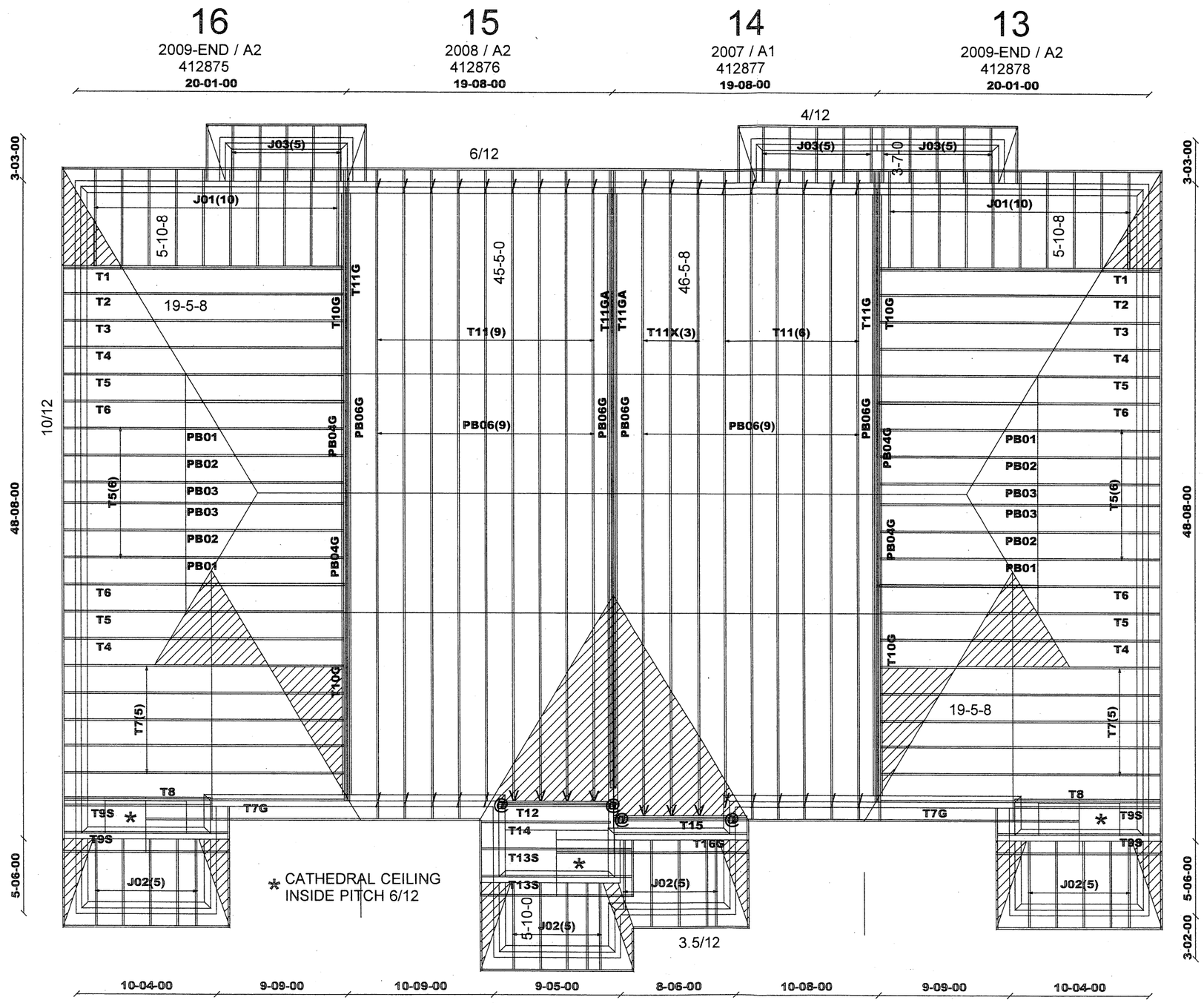


ASPHALT SHINGLES
FINISHED OVERHANG: 12"
2x6 EXTERIOR WALLS
2x6 FASCIA BOARD
HEEL: R.T.M.C.

DESIGN CONFORMS WITH OBC 2012
OCCUPANCY: RESIDENTIAL | PART: 9
Ss = 31.4 psf | Sr = 8.4 psf

DESIGN LOADS:
TCSL = 25.6 psf
TCDL = 6.0 psf
BCLL = 0.0 psf
BCDL = 7.4 psf

DENOTES:
CONVENTIONAL FRAMING

HARDWARE:
LJS26DS - (V)
H2.5T - (/)
LGT3 - (@)

All conventional framing to conform with Part 9 of O.B.C. 2012. Roof rafters that cross over or meet trusses to be min. 2x4 SPF #2 @ 24" o/c with a vertical post to the truss at each cross point. Vertical posts longer than 6' to have lateral bracing so that the distance between the post end points and lateral bracing does not exceed 6'.

M14106

TAMARACK ROOF TRUSSES INC.
ALPA LUMBER GROUP

Job Track: **51012**	Builder / Location: **ROYAL PINE HOMES / RICHMOND HILL**	Model / Elevation: **BLOCK 57 / UNITS 13 - 16**	Mitek ver 8.4.2.286
Plan Log: **203503**	Project: **CENTREFIELD**		
Layout ID: **412868**	Date: 2021-07-01 Sales: **Mario DiCano** Designer: AC		

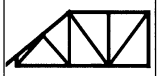
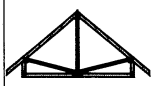
THESE DRAWINGS CONSTITUTE THE PROPERTY OF TAMARACK ROOF TRUSSES INC., SHALL NOT BE REPRODUCED, PUBLISHED, OR REDISTRIBUTED IN ANY MANNER OR UTILIZED FOR ANY PURPOSE OTHER THAN THE MANUFACTURE OF TRUSSES BY TAMARACK ROOF TRUSSES INC AND WILL BE RETRACTED BY TAMARACK ROOF TRUSSES INC IF UTLILZED FOR ANY OTHER PURPOSE.

DELIVERY SHIPLIST

TAMARACK ROOF TRUSSES INC.
ALPA LUMBER GROUP

Lumber Yard:	TAMARACK LUMBER	Job Track:	51012
Builder:	ROYAL PINE HOMES	PlanLog:	203503
Project:	CENTREFIELD	Layout ID:	412875
Location:	RICHMOND HILL	Ref #	
Model:	BLOCK 57	Page:	1 of 2
Lot #:		Date:	07-08-2021
Elevation:	A2 / UNIT16BK283	Designer:	Andrew Conway
		Sales Rep:	Mario DiCano

Roof Trusses

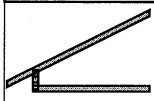
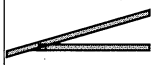
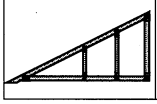
PROFILE	QTY PLY	MARK TYPE	PITCH	SPAN	HEIGHT	LUMBER	OVERHANG LEFT RIGHT	HEEL HEIGHT LEFT RIGHT	LBS. BFT.	BUNDLE # STACK #	LOAD BY REMARKS
	1 2-ply	T1 Half Hip Girder	10 /12	**19-05-08**	4-01-04	2 x 4 2 x 6	1-03-08	1-07-11 4-01-04	193.91 122.67		
	1	T2 Half Hip	10 /12	**19-05-08**	5-01-04	2 x 4	1-03-08	1-07-11 5-01-04	84.99 54.50		
	1	T3 Half Hip	10 /12	**19-05-08**	6-01-04	2 x 4	1-03-08	1-07-11 6-01-04	91.07 58.67		
	2	T4 Half Hip	10 /12	**19-05-08**	7-01-04	2 x 4	1-03-08	1-07-11 7-01-04	181.47 112.67		
	8	T5 Half Hip	10 /12	**19-05-08**	8-01-04	2 x 4	1-03-08	1-07-11 8-01-04	766.42 485.33		
	2	T6 Half Hip	10 /12	**19-05-08**	9-01-04	2 x 4	1-03-08	1-07-11 9-01-04	206.88 129.67		
	5	T7 Common	10 /12	**19-05-08**	9-07-15	2 x 4	1-03-08	1-07-11 1-05-09	455.71 291.67		
	1	T7G GABLE	10 /12	**19-05-08**	9-07-15	2 x 4	1-03-08	1-07-11 1-05-09	98.27 63.83		
	1	T8 Common	10 /12	**9-06-00**	5-07-03	2 x 4	1-03-08 1-03-08	1-07-11 1-07-11	43.46 28.83		
	2	T9S Roof Special	10 /12 6 /12	**9-06-00**	5-07-03	2 x 4	1-03-08 1-03-08	1-07-11 1-07-11	95.47 67.33		
	2	T10G GABLE	6 /12	**22-08-08**	8-01-04	2 x 4	1-05-00	1-02-00 8-01-04	243.75 153.67		
	2	PB01 Piggyback	10 /12	**11-08-07**	2-00-00	2 x 4		2-00-00	75.36 51.33		
	2	PB02 Piggyback	10 /12	**11-08-07**	3-00-00	2 x 4		3-00-00	81.28 54.67		
	2	PB03 Piggyback	10 /12	**11-08-07**	4-00-00	2 x 4		4-00-00	83.07 54.00		

DELIVERY SHIPLIST

TAMARACK ROOF TRUSSES INC.
ALPA LUMBER GROUP

Lumber Yard:	TAMARACK LUMBER	Job Track:	51012
Builder:	ROYAL PINE HOMES	PlanLog:	203503
Project:	CENTREFIELD	Layout ID:	412875
Location:	RICHMOND HILL	Ref #	
Model:	BLOCK 57	Page:	2 of 2
Lot #:		Date:	07-08-2021
Elevation:	A2 / UNIT16BK283	Designer:	Andrew Conway
		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
	**10**	**J01** **Jack-Open**	6 /12	**5-10-08**	4-01-04	2 x 4	1-03-08	1-02-00 4-01-04	167.94 106.67		
	**5**	**J02** **Jack-Open**	3.5 /12	**5-10-00**	2-04-09	2 x 4	1-03-08	3-14 1-09-11	76.06 46.67		
	5	**J03** **Jack-Open**	4 /12	**3-07-00**	1-11-03	2 x 4	1-03-08	3-15 1-03-04	50.28 33.33		
	**2**	**PB04G** **GABLE**	6 /12	**8-10-00**	4-05-00	2 x 4		4-05-00	56.15 34.33		

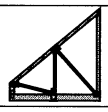
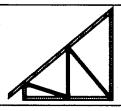
TOTAL # TRUSS= **55** TOTAL BFT OF ALL TRUSSES= **1949.84** BFT. TOTAL WEIGHT OF ALL TRSSES **3051.53** LBS

DELIVERY SHIPLIST

TAMARACK ROOF TRUSSES INC.
ALPA LUMBER GROUP

Lumber Yard:	TAMARACK LUMBER	Job Track:	51012
Builder:	ROYAL PINE HOMES	PlanLog:	203503
Project:	CENTREFIELD	Layout ID:	412876
Location:	RICHMOND HILL	Ref #	
Model:	BLOCK 57	Page:	1 of 1
Lot #:		Date:	07-08-2021
Elevation:	A2 / UNIT15BLK283	Designer:	
		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
	9	T11 Piggyback Base	6 /12	**45-05-00**	8-01-04	2 x 6	1-03-08 1-03-08	1-02-00 1-02-00	2302.82 1395.00		
	1	T11G GABLE	6 /12	**45-05-00**	8-01-04	2 x 6	1-03-08 1-03-08	1-02-00 1-02-00	272.06 169.67		
	1	T11GA GABLE	6 /12	**45-05-00**	8-01-04	2 x 6	1-03-08 1-03-08	1-02-00 1-02-00	265.46 167.00		
	1 3-ply	T12 Monopitch Girder	10 /12	**8-05-08**	8-08-04	2 x 4 2 x 8		1-07-11 8-08-04	164.13 108.50		
	2	T13S Scissor	10 /12 6 /12	**8-07-00**	5-02-10	2 x 4	1-03-08 1-03-08	1-07-11 1-07-11	81.56 52.00		
	1	T14 Monopitch	10 /12	**8-03-08**	8-06-10	2 x 4	1-03-08	1-07-11 8-06-10	45.99 28.83		
	9	PB06 Piggyback	6 /12	**17-08-00**	4-05-00	2 x 4			462.27 288.00		
	2	PB06G GABLE	6 /12	**17-08-00**	4-05-00	2 x 4			101.52 62.00		
	5	J02 Jack-Open	3.5 /12	**5-10-00**	2-04-09	2 x 4	1-03-08	3-14 1-09-11	76.06 46.67		

TOTAL # TRUSS= **33** TOTAL BFT OF ALL TRUSSES= **2317.67** BFT. TOTAL WEIGHT OF ALL TRSSES **3771.85** LBS

HARDWARE

QTY	TYPE	MODEL	LENGTH
4	Hardware	LJS26DS	
14	Hardware	H2.5T	
2	Hardware	LGT3	

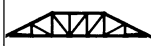
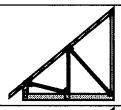
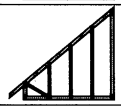
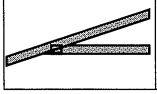
TOTAL NUMBER OF ITEMS= **20**

DELIVERY SHIPLIST

TAMARACK ROOF TRUSSES INC.
ALPA LUMBER GROUP

Lumber Yard:	TAMARACK LUMBER	Job Track:	51012
Builder:	ROYAL PINE HOMES	PlanLog:	203503
Project:	CENTREFIELD	Layout ID:	412877
Location:	RICHMOND HILL	Ref #	
Model:	BLOCK 57	Page:	1 of 1
Lot #:		Date:	07-08-2021
Elevation:	A1 / UNIT14BLK283	Designer:	Andrew Conway
		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
	6	T11 Piggyback Base	6 /12	**45-05-00**	8-01-04	2 x 6	1-03-08 1-03-08	1-02-00 1-02-00	1535.21 930.00		
	1	T11G GABLE	6 /12	**45-05-00**	8-01-04	2 x 6	1-03-08 1-03-08	1-02-00 1-02-00	272.06 169.67		
	1	T11GA GABLE	6 /12	**45-05-00**	8-01-04	2 x 6	1-03-08 1-03-08	1-02-00 1-02-00	265.46 167.00		
	3	T11X Piggyback Base	6 /12	**45-05-00**	8-01-04	2 x 6	1-03-08 1-03-08	1-02-00 1-02-00	746.45 453.00		
	1 3-ply	T15 Monopitch Girder	10 /12	**8-06-08**	8-09-02	2 x 4 2 x 8	1-03-08	1-07-11 8-09-02	171.4 112.50		
	1	T16G GABLE	10 /12	**8-05-00**	8-07-14	2 x 4	1-03-08	1-07-11 8-07-14	48.26 30.83		
	9	PB06 Piggyback	6 /12	**17-08-00**	4-05-00	2 x 4			462.27 288.00		
	2	PB06G GABLE	6 /12	**17-08-00**	4-05-00	2 x 4			101.52 62.00		
	5	J02 Jack-Open	3.5 /12	**5-10-00**	2-04-09	2 x 4	1-03-08	3-14 1-09-11	76.06 46.67		
	5	J03 Jack-Open	4 /12	**3-07-00**	1-11-03	2 x 4	1-03-08	3-15 1-03-04	50.28 33.33		

TOTAL # TRUSS= **36** TOTAL BFT OF ALL TRUSSES= **2293** BFT. TOTAL WEIGHT OF ALL TRSSES **3728.96** LBS

HARDWARE

QTY	TYPE	MODEL	LENGTH
3	Hardware	LJS26DS	
15	Hardware	H2.5T	
2	Hardware	LGT3	

TOTAL NUMBER OF ITEMS= **20**

DELIVERY SHIPLIST

TAMARACK ROOF TRUSSES INC.
ALPA LUMBER GROUP

Lumber Yard:	TAMARACK LUMBER	Job Track:	51012
Builder:	ROYAL PINE HOMES	PlanLog:	203503
Project:	CENTREFIELD	Layout ID:	412878
Location:	RICHMOND HILL	Ref #	
Model:	BLOCK 57	Page:	1 of 2
Lot #:		Date:	07-08-2021
Elevation:	A2 / UNIT13BLK283	Designer:	Andrew Conway
		Sales Rep:	Mario DiCano

Roof Trusses

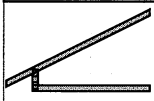
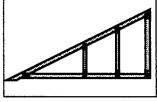
PROFILE	QTY PLY	MARK TYPE	PITCH	SPAN	HEIGHT	LUMBER	OVERHANG LEFT RIGHT	HEEL HEIGHT LEFT RIGHT	LBS. BFT.	BUNDLE # STACK #	LOAD BY REMARKS
	1 2-ply	T1 Half Hip Girder	10 /12	**19-05-08**	4-01-04	2 x 4 2 x 6	1-03-08	1-07-11 4-01-04	193.91 122.67		
	1	T2 Half Hip	10 /12	**19-05-08**	5-01-04	2 x 4	1-03-08	1-07-11 5-01-04	84.99 54.50		
	1	T3 Half Hip	10 /12	**19-05-08**	6-01-04	2 x 4	1-03-08	1-07-11 6-01-04	91.07 58.67		
	2	T4 Half Hip	10 /12	**19-05-08**	7-01-04	2 x 4	1-03-08	1-07-11 7-01-04	181.47 112.67		
	8	T5 Half Hip	10 /12	**19-05-08**	8-01-04	2 x 4	1-03-08	1-07-11 8-01-04	766.42 485.33		
	2	T6 Half Hip	10 /12	**19-05-08**	9-01-04	2 x 4	1-03-08	1-07-11 9-01-04	206.88 129.67		
	2	T10G GABLE	6 /12	**22-08-08**	8-01-04	2 x 4	1-05-00	1-02-00 8-01-04	243.75 153.67		
	5	T7 Common	10 /12	**19-05-08**	9-07-15	2 x 4	1-03-08	1-07-11 1-05-09	455.71 291.67		
	1	T7G GABLE	10 /12	**19-05-08**	9-07-15	2 x 4	1-03-08	1-07-11 1-05-09	98.27 63.83		
	1	T8 Common	10 /12	**9-06-00**	5-07-03	2 x 4	1-03-08 1-03-08	1-07-11 1-07-11	43.46 28.83		
	2	T9S Roof Special	10 /12 6 /12	**9-06-00**	5-07-03	2 x 4	1-03-08 1-03-08	1-07-11 1-07-11	95.47 67.33		
	2	PB01 Piggyback	10 /12	**11-08-07**	2-00-00	2 x 4		2-00-00	75.36 51.33		
	2	PB02 Piggyback	10 /12	**11-08-07**	3-00-00	2 x 4		3-00-00	81.28 54.67		
	2	PB03 Piggyback	10 /12	**11-08-07**	4-00-00	2 x 4		4-00-00	83.07 54.00		

DELIVERY SHIPLIST

TAMARACK ROOF TRUSSES INC.
ALPA LUMBER GROUP

Lumber Yard:	TAMARACK LUMBER	Job Track:	51012
Builder:	ROYAL PINE HOMES	PlanLog:	203503
Project:	CENTREFIELD	Layout ID:	412878
Location:	RICHMOND HILL	Ref #	
Model:	BLOCK 57	Page:	2 of 2
Lot #:		Date:	07-08-2021
Elevation:	A2 / UNIT13BLK283	Designer:	Andrew Conway
		Sales Rep:	Mario DiCano

Roof Trusses

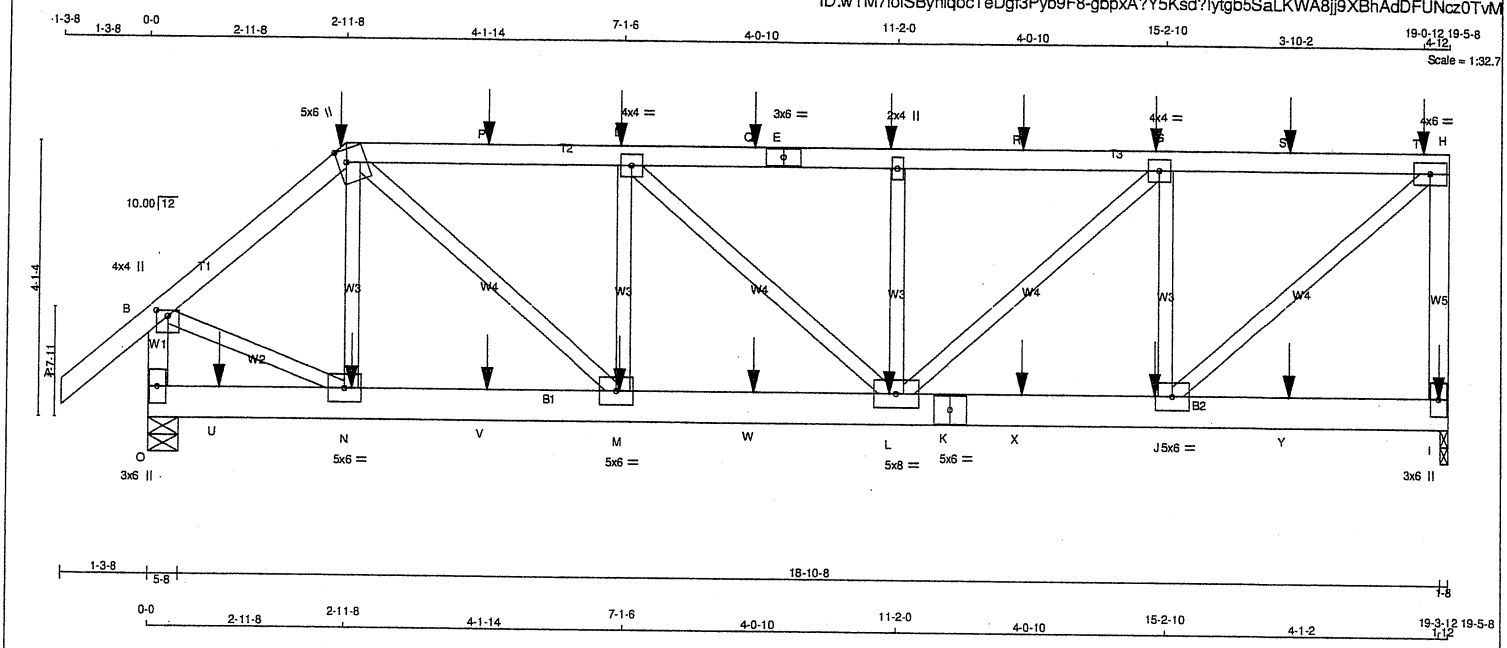
PROFILE	QTY PLY	MARK TYPE	PITCH	SPAN	HEIGHT	LUMBER	OVERHANG LEFT RIGHT	HEEL HEIGHT LEFT RIGHT	LBS. BFT.	BUNDLE # STACK #	LOAD BY REMARKS
	**10**	**J01** **Jack-Open**	6 /12	**5-10-08**	4-01-04	2 x 4	1-03-08	1-02-00 4-01-04	167.94 106.67		
	5	**J02** **Jack-Open**	3.5 /12	**5-10-00**	2-04-09	2 x 4	1-03-08	3-14 1-09-11	76.06 46.67		
	5	**J03** **Jack-Open**	4 /12	**3-07-00**	1-11-03	2 x 4	1-03-08	3-15 1-03-04	50.28 33.33		
	**2**	**PB04G** **GABLE**	6 /12	**8-10-00**	4-05-00	2 x 4		4-05-00	56.15 34.33		

TOTAL # TRUSS= **55** TOTAL BFT OF ALL TRUSSES= **1949.84** BFT. TOTAL WEIGHT OF ALL TRSSES **3051.54** LBS

JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
412868	T1	2	2	ROYAL PINE HOMES TRUSS DESC.	

Tamarack Roof Truss, Burlington

Version 8.420 S Jan 21 2021 MiTek Industries, Inc. Thu Jul 1 10:22:31 2021 Page 1
ID:wTM7iolSByniqocTeDgf3Pyb9F8-gbpxA?Y5Ksd?lytgb5SaLKWA8jj9XBhAdDFUNcz0TvM



LUMBER
N. L. G. A. RULES

CHORDS	SIZE		LUMBER	DESCR.
A - C	2x4	DRY	No.2	SPF
C - E	2x4	DRY	No.2	SPF
E - H	2x4	DRY	No.2	SPF
O - B	2x4	DRY	No.2	SPF
O - K	2x6	DRY	No.2	SPF
K - I	2x6	DRY	No.2	SPF
ALL WEBS EXCEPT	2x3	DRY	No.2	SPF
I - H	2x4	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- E	1	12	SIDE(61.0)
E- H	1	12	SIDE(61.0)
O- B	1	12	TOP
BOTTOM CHORDS : (0.122"X3") SPIRAL NAILS			
O- K	2	12	SIDE(183.1)
K- I	2	12	SIDE(183.1)
WEBS : (0.122"X3") SPIRAL NAILS			
2x3	1	6	
2x4	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.

LICENSED PROFESSIONAL ENGINEER
07/01/21
H. J. G. ALVES
100009024
PROVINCE OF ONTARIO

Structural component only
DWG# T-2121151

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
I	1856	0	1856	0	0	1-8	1-8
O	1936	0	1936	0	0	5-8	5-8

UNFACTORED REACTIONS

1ST LCASE MAX./MIN. COMPONENT REACTIONS

JT	COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
I	1314	855 / 0	0 / 0	0 / 0	0 / 0	460 / 0	0 / 0
O	1367	910 / 0	0 / 0	0 / 0	0 / 0	457 / 0	0 / 0

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

BRACING
TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 5.69 FT.
MAX. UNBRACED BOTTOM CHORD LENGTH = 6.25 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	MAX CSI (LC)	MAX. UNBRAC LENGTH
A- B	0 / 41	-91.8	-91.8	0.07 (1)	10.00
B- C	-1727 / 0	-91.8	-91.8	0.09 (1)	6.25
C- P	-2233 / 0	-91.8	-91.8	0.20 (1)	5.74
P- D	-2233 / 0	-91.8	-91.8	0.20 (1)	5.74
D- Q	-2268 / 0	-91.8	-91.8	0.20 (1)	5.71
Q- E	-2268 / 0	-91.8	-91.8	0.20 (1)	5.71
E- F	-2268 / 0	-91.8	-91.8	0.20 (1)	5.71
F- R	-2268 / 0	-91.8	-91.8	0.21 (1)	5.69
R- G	-2268 / 0	-91.8	-91.8	0.21 (1)	5.69
G- S	-1595 / 0	-91.8	-91.8	0.20 (1)	6.25
S- T	-1595 / 0	-91.8	-91.8	0.20 (1)	6.25
T- H	-1595 / 0	-91.8	-91.8	0.20 (1)	6.25
O- B	-1902 / 0	0.0	0.0	0.11 (1)	7.81
O- U	0 / 0	-18.5	-18.5	0.02 (4)	10.00
U- N	0 / 0	-18.5	-18.5	0.02 (4)	10.00
N- V	0 / 1311	-18.5	-18.5	0.10 (1)	10.00
V- M	0 / 1311	-18.5	-18.5	0.10 (1)	10.00
M- W	0 / 2234	-18.5	-18.5	0.18 (1)	10.00
W- L	0 / 2234	-18.5	-18.5	0.18 (1)	10.00
L- K	0 / 1595	-18.5	-18.5	0.14 (1)	10.00
K- X	0 / 1595	-18.5	-18.5	0.14 (1)	10.00
X- J	0 / 1595	-18.5	-18.5	0.14 (1)	10.00
J- Y	-69 / 0	-18.5	-18.5	0.03 (4)	6.25
Y- I	-69 / 0	-18.5	-18.5	0.03 (4)	6.25

WEBS

MEMB. FR-TO	MAX. FACTORED FORCE (LBS)	MAX CSI (LC)
I- H	-1775 / 0	0.16 (1)
N- C	-390 / 0	0.05 (1)
B- N	0 / 1423	0.18 (1)
J- H	0 / 2216	0.27 (1)
C- M	0 / 1237	0.15 (1)
J- G	-1324 / 0	0.17 (1)
M- D	-699 / 0	0.09 (1)
L- G	0 / 915	0.11 (1)
D- L	0 / 46	0.01 (1)
L- F	-542 / 0	0.07 (1)

SPECIFIED CONCENTRATED LOADS (LBS)

JT	LOC.	LC1	MAX-	MAX+	FACE	DIR.	TYPE	HEEL	CONN.
C	2-11-8	-25	-25	---	FRONT	VERT	DEAD	---	C1
C	2-11-8	-104	-104	---	BACK	VERT	TOTAL	---	C1
C	2-11-8	-105	-105	---	FRONT	VERT	SNOW	---	C1
D	7-0-12	-76	-76	---	BACK	VERT	TOTAL	---	C1
F	11-0-12	-76	-76	---	BACK	VERT	TOTAL	---	C1
G	15-0-12	-76	-76	---	BACK	VERT	TOTAL	---	C1
I	19-3-12	-27	-27	---	BACK	VERT	TOTAL	---	C1
J	15-0-12	-21	-21	---	BACK	VERT	TOTAL	---	C1
L	11-0-12	-21	-21	---	BACK	VERT	TOTAL	---	C1
M	7-0-12	-21	-21	---	BACK	VERT	TOTAL	---	C1
N	3-0-12	-21	-21	---	BACK	VERT	TOTAL	---	C1
P	5-0-12	-76	-76	---	BACK	VERT	TOTAL	---	C1
Q	9-0-12	-76	-76	---	BACK	VERT	TOTAL	---	C1
R	13-0-12	-76	-76	---	BACK	VERT	TOTAL	---	C1
S	17-0-12	-76	-76	---	BACK	VERT	TOTAL	---	C1

TOTAL WEIGHT = 4 X 95 = 381 lb
[M]

DESIGN CRITERIA

*** SPECIAL LOADS ANALYSIS ***
GEOMETRY AND/OR BASIC LOADS CHANGED BY USER.
LOADS WERE DERIVED FROM USER INPUT
NO FURTHER MODIFICATIONS WERE MADE

SPECIFIED LOADS:

TOP CH.	LL	=	25.6	PSF
	DL	=	6.0	PSF
BOT CH.	LL	=	0.0	PSF
	DL	=	7.4	PSF
TOTAL LOAD		=	39.0	PSF

SPACING = 24.0 IN. C/C

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

*** NON STANDARD GIRDER ***
ADDT'L USER-DEFINED LOADS APPLIED TO ALL LOAD CASES.

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

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

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

ALLOWABLE DEFL.(LL)= L/360 (0.64")
CALCULATED VERT. DEFL.(LL) = L/ 999 (0.03")
ALLOWABLE DEFL.(TL)= L/360 (0.64")
CALCULATED VERT. DEFL.(TL) = L/ 999 (0.06")

CSI: TC=0.21/1.00 (F-G:1) , BC=0.18/1.00 (L-M:1) , WB=0.27/1.00 (H-J:1) , SSI=0.14/1.00 (G-H:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

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

NAIL VALUES

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

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.85 (B) (INPUT = 0.90)
JSI METAL= 0.24 (H) (INPUT = 1.00)

CONTINUED ON PAGE 2

JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
412868	T1	2	2	ROYAL PINE HOMES TRUSS DESC.	

Tamarack Roof Truss, Burlington

ID:wTM7ioISBynigocTeDgf3Pyb9F8-gbpxA?Y5Ksd?lytgb5SaLKWA8jj9XBhAdDFUNcz0TvM

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	TTWW+m	MT20	5.0	6.0	2.25	1.50
D	TMWW-t	MT20	4.0	4.0		
E	TS-t	MT20	3.0	6.0		
F	TMW+w	MT20	2.0	4.0		
G	TMWW-t	MT20	4.0	4.0		
H	TMWW-t	MT20	4.0	6.0		
I	BMW1+w	MT20	3.0	6.0		
J, M, N						
J	BMWW-t	MT20	5.0	6.0		
K	BS-t	MT20	5.0	6.0		
L	BMWWW-t	MT20	5.0	8.0		
O	BMV1+p	MT20	3.0	6.0		

SPECIFIED CONCENTRATED LOADS (LBS)

JT	LOC.	LC1	MAX-	MAX+	FACE	DIR.	TYPE	HEEL	CONN.
T	19-0-12	-95	-95	---	BACK	VERT	TOTAL	---	C1
U	1-0-12	-21	-21	---	BACK	VERT	TOTAL	---	C1
V	5-0-12	-21	-21	---	BACK	VERT	TOTAL	---	C1
W	9-0-12	-21	-21	---	BACK	VERT	TOTAL	---	C1
X	13-0-12	-21	-21	---	BACK	VERT	TOTAL	---	C1
Y	17-0-12	-21	-21	---	BACK	VERT	TOTAL	---	C1

CONNECTION REQUIREMENTS

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

LICENSED PROFESSIONAL ENGINEER
07/01/21
H. J. G. ALVES
100009024
PROVINCE OF ONTARIO

Structural component only
DWG# T-2121151

JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
412868	T2	2	1	ROYAL PINE HOMES TRUSS DESC.	

Tamarack Roof Truss, Burlington

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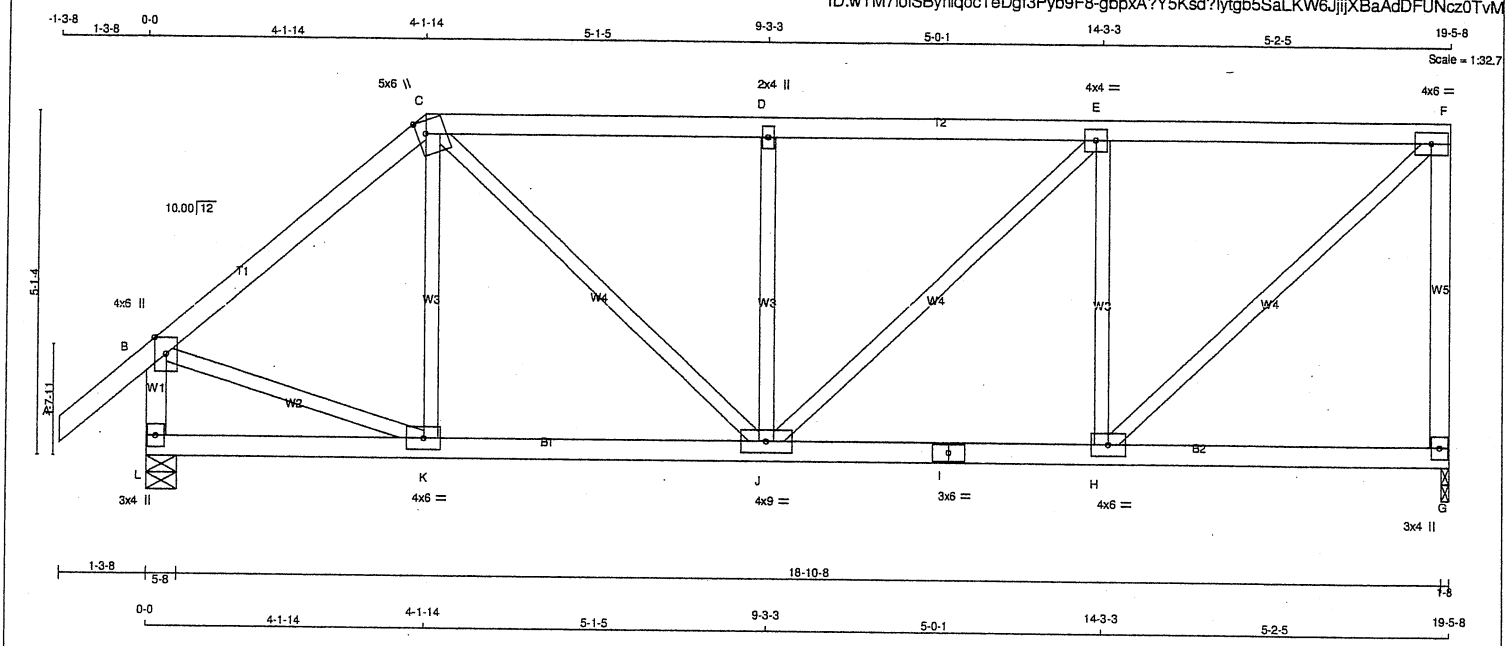

TOTAL WEIGHT = 2 X 85 = 170 lb
[M]

LUMBER
N. L. G. A. RULES

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

DRY: SEASONED LUMBER.

PLATES (table is in inches)

JT	TYPE	PLATES	W	LEN	Y	X
B	TMVW+p	MT20	4.0	6.0	Edge	
C	TTWW+m	MT20	5.0	6.0	2.25	1.50
D	TMW+w	MT20	2.0	4.0		
E	TMWW-t	MT20	4.0	4.0		
F	TMVW-t	MT20	4.0	6.0		
G	BMV1+p	MT20	3.0	4.0		
H	BMWW-t	MT20	4.0	6.0		
I	BS-t	MT20	3.0	6.0		
J	BMWWW-t	MT20	4.0	9.0		
K	BMWW-t	MT20	4.0	6.0		
L	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
G	1073	0	1073	0	0	1-8	1-8
L	1200	0	1200	0	0	5-8	5-8

UNFACTORED REACTIONS

JT	1ST LCASE COMBINED	MAX./MIN. COMPONENT REACTIONS SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
G	759	498 / 0	0 / 0	0 / 0	0 / 0	261 / 0	0 / 0
L	846	569 / 0	0 / 0	0 / 0	0 / 0	277 / 0	0 / 0

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

BRACING
TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 5.50 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	LC1	MAX CSI (LC)	MAX. UNBRAC LENGTH
A- B	0 / 41	-91.8	-91.8	0.13 (1)	10.00	
B- C	-971 / 0	-91.8	-91.8	0.30 (1)	5.92	
C- D	-1133 / 0	-91.8	-91.8	0.34 (1)	5.52	
D- E	-1133 / 0	-91.8	-91.8	0.35 (1)	5.50	
E- F	-906 / 0	-91.8	-91.8	0.35 (1)	5.99	
G- F	-1033 / 0	0.0	0.0	0.46 (1)	7.72	
L- B	-1170 / 0	0.0	0.0	0.12 (1)	7.37	
L- K	0 / 0	-18.5	-18.5	0.09 (4)	10.00	
K- J	0 / 741	-18.5	-18.5	0.17 (1)	10.00	
J- I	0 / 906	-18.5	-18.5	0.21 (1)	10.00	
I- H	0 / 906	-18.5	-18.5	0.21 (1)	10.00	
H- G	0 / 0	-18.5	-18.5	0.12 (4)	10.00	

WEBS

MEMB. FR-TO	MAX. FACTORED FORCE (LBS)	MAX CSI (LC)
K- C	-130 / 29	0.05 (1)
B- K	0 / 778	0.18 (1)
H- F	0 / 1236	0.28 (1)
C- J	0 / 537	0.12 (1)
H- E	-733 / 0	0.28 (1)
J- D	-500 / 0	0.19 (1)
J- E	0 / 315	0.07 (1)

DESIGN CRITERIA

SPECIFIED LOADS:

TOP CH.	LL	=	25.6	PSF
	DL	=	6.0	PSF
BOT CH.	LL	=	0.0	PSF
	DL	=	7.4	PSF
TOTAL LOAD		=	39.0	PSF

SPACING = 24.0 IN. C/C

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

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

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

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

ALLOWABLE DEFL.(LL)= L/360 (0.65")
CALCULATED VERT. DEFL.(LL) = L/ 999 (0.03")
ALLOWABLE DEFL.(TL)= L/360 (0.65")
CALCULATED VERT. DEFL.(TL) = L/ 999 (0.07")

CSI: TC=0.46/1.00 (F-G:1) , BC=0.21/1.00 (H-J:1) , WB=0.28/1.00 (E-H:1) , SSI=0.22/1.00 (E-F:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

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

NAIL VALUES

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

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.79 (H) (INPUT = 0.90)
JSI METAL= 0.49 (B) (INPUT = 1.00)

LICENSED PROFESSIONAL ENGINEER
07/01/21
H. J. G. ALVES
100009024
PROVINCE OF ONTARIO

Structural component only
DWG# T-2121152

JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
412868	T3	2	1	ROYAL PINE HOMES TRUSS DESC.	

Tamarack Roof Truss, Burlington

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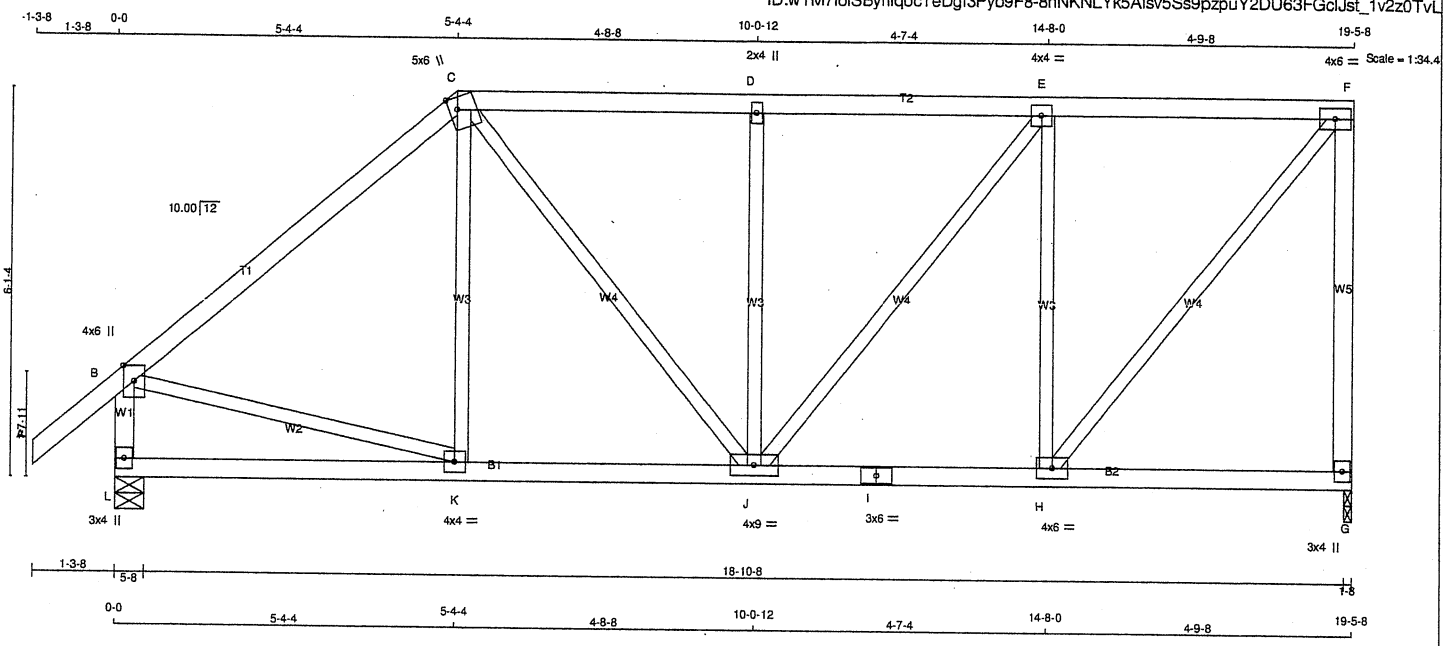

TOTAL WEIGHT = 2 X 91 = 182 lb [M]

LUMBER
N. L. G. A. RULES

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

DRY: SEASONED LUMBER.

PLATES (table is in inches)

JT	TYPE	PLATES	W	LEN	Y	X
B	TMVW+p	MT20	4.0	6.0	Edge	
C	TTWW+m	MT20	5.0	6.0	2.25	1.50
D	TMW+w	MT20	2.0	4.0		
E	TMWW-t	MT20	4.0	4.0		
F	TMVW-t	MT20	4.0	6.0		
G	BMV1+p	MT20	3.0	4.0		
H	BMWW-t	MT20	4.0	6.0		
I	BS-t	MT20	3.0	6.0		
J	BMWWW-t	MT20	4.0	9.0		
K	BMWW-t	MT20	4.0	4.0		
L	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
G	1073	0	1073	0	0	1-8	1-8
L	1200	0	1200	0	0	5-8	5-8

UNFACTORED REACTIONS

JT	1ST LCASE COMBINED	MAX./MIN. COMPONENT REACTIONS SNOW	LIVE	PERM. LIVE	WIND	DEAD	SOIL
G	759	498 / 0	0 / 0	0 / 0	0 / 0	261 / 0	0 / 0
L	846	569 / 0	0 / 0	0 / 0	0 / 0	277 / 0	0 / 0

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

BRACING
TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 5.62 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 / 41	-91.8	-91.8	0.13 (1)	10.00
B- C	-952 / 0	-91.8	-91.8	0.51 (1)	5.62
C- D	-931 / 0	-91.8	-91.8	0.28 (1)	6.04
D- E	-932 / 0	-91.8	-91.8	0.29 (1)	6.01
E- F	-708 / 0	-91.8	-91.8	0.29 (1)	6.25
G- F	-1037 / 0	0.0	0.0	0.75 (1)	7.71
L- B	-1159 / 0	0.0	0.0	0.12 (1)	7.40
L- K	0 / 0	-18.5	-18.5	0.12 (4)	10.00
K- J	0 / 729	-18.5	-18.5	0.19 (1)	10.00
J- I	0 / 708	-18.5	-18.5	0.17 (1)	10.00
I- H	0 / 708	-18.5	-18.5	0.17 (1)	10.00
H- G	0 / 0	-18.5	-18.5	0.10 (4)	10.00

WEBS

MEMB. FR-TO	MAX. FACTORED FORCE (LBS)	MAX CSI (LC)
K- C	-64 / 62	0.04 (1)
B- K	0 / 751	0.17 (1)
H- F	0 / 1112	0.25 (1)
C- J	0 / 321	0.07 (1)
H- E	-758 / 0	0.44 (1)
J- D	-460 / 0	0.27 (1)
J- E	0 / 361	0.08 (1)

DESIGN CRITERIA

SPECIFIED LOADS:

TOP CH.	LL	=	25.6	PSF
	DL	=	6.0	PSF
BOT CH.	LL	=	0.0	PSF
	DL	=	7.4	PSF
TOTAL LOAD		=	39.0	PSF

SPACING = 24.0 IN. C/C

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

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

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

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

ALLOWABLE DEFL.(LL)= L/360 (0.65")
CALCULATED VERT. DEFL.(LL) = L/ 999 (0.03")
ALLOWABLE DEFL.(TL)= L/360 (0.65")
CALCULATED VERT. DEFL.(TL) = L/ 999 (0.06")

CSI: TC=0.75/1.00 (F-G:1) , BC=0.19/1.00 (J-K:1) , WB=0.44/1.00 (E-H:1) , SSI=0.20/1.00 (E-F:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

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

NAIL VALUES

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

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.87 (H) (INPUT = 0.90)
JSI METAL= 0.50 (B) (INPUT = 1.00)

LICENSED PROFESSIONAL ENGINEER
07/01/21
H. J. G. ALVES
100009024
PROVINCE OF ONTARIO

Structural component only
DWG# T-2121153

JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
412868	T4	4	1	ROYAL PINE HOMES TRUSS DESC.	

Tamarack Roof Truss, Burlington

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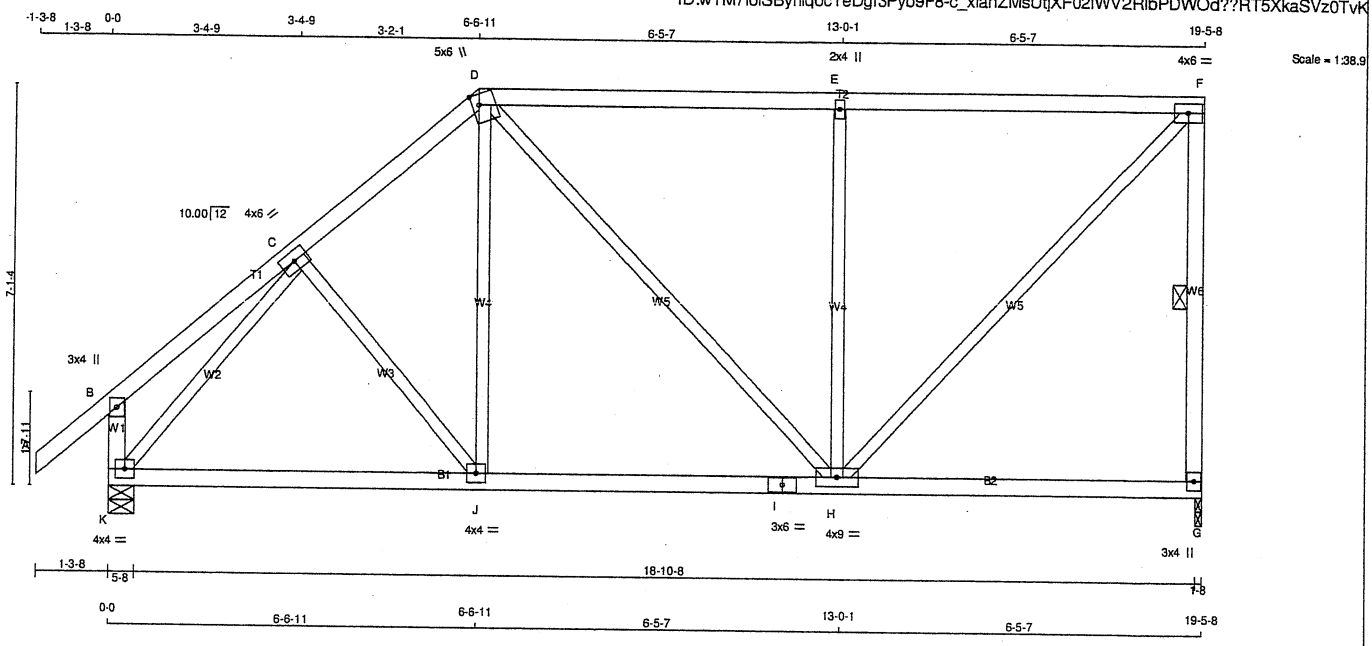

TOTAL WEIGHT = 4 X 91 = 363 lb [M]

LUMBER

N. L. G. A. RULES

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

DRY: SEASONED LUMBER.

PLATES (table is in inches)

JT	TYPE	PLATES	W	LEN	Y	X
B	TMV+p	MT20	3.0	4.0		
C	TMWW-t	MT20	4.0	6.0		
D	TTWW+m	MT20	5.0	6.0	2.25	1.50
E	TMW+w	MT20	2.0	4.0		
F	TMVW-t	MT20	4.0	6.0		
G	BMV1+p	MT20	3.0	4.0		
H	BMWWW-t	MT20	4.0	9.0		
I	BS-t	MT20	3.0	6.0		
J	BMWW-t	MT20	4.0	4.0		
K	BMVW1-t	MT20	4.0	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
G	1073	0	1073	0	0	1-8	1-8
K	1200	0	1200	0	0	5-8	5-8

UNFACTORED REACTIONS

JT	1ST LCASE COMBINED	MAX./MIN. COMPONENT REACTIONS SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
G	759	498 / 0	0 / 0	0 / 0	0 / 0	261 / 0	0 / 0
K	846	569 / 0	0 / 0	0 / 0	0 / 0	277 / 0	0 / 0

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

BRACING

TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 5.62 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 F-G.

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 / 41	-91.8	-91.8	0.13 (1)	10.00
B- C	0 / 21	-91.8	-91.8	0.15 (1)	10.00
C- D	-930 / 0	-91.8	-91.8	0.16 (1)	6.21
D- E	-759 / 0	-91.8	-91.8	0.68 (1)	5.62
E- F	-759 / 0	-91.8	-91.8	0.69 (1)	5.62
G- F	-1023 / 0	0.0	0.0	0.23 (1)	6.20
K- B	-243 / 0	0.0	0.0	0.03 (1)	7.81
K- J	0 / 734	-18.5	-18.5	0.24 (4)	10.00
J- I	0 / 699	-18.5	-18.5	0.24 (4)	10.00
I- H	0 / 699	-18.5	-18.5	0.24 (4)	10.00
H- G	0 / 0	-18.5	-18.5	0.17 (4)	10.00

WEBS

MEMB. FR-TO	MAX. FACTORED FORCE (LBS)	MAX CSI (LC)
C- J	-59 / 20	0.03 (1)
J- D	0 / 177	0.05 (4)
D- H	0 / 89	0.02 (1)
H- E	-734 / 0	0.64 (1)
H- F	0 / 1101	0.25 (1)
K- C	-1167 / 0	0.50 (1)

DESIGN CRITERIA

SPECIFIED LOADS:

TOP CH.	LL	=	25.6	PSF
	DL	=	6.0	PSF
BOT CH.	LL	=	0.0	PSF
	DL	=	7.4	PSF
TOTAL LOAD		=	39.0	PSF

SPACING = 24.0 IN. C/C

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

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

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

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

ALLOWABLE DEFL.(LL)= L/360 (0.65")
CALCULATED VERT. DEFL.(LL) = L/ 999 (0.03")
ALLOWABLE DEFL.(TL)= L/360 (0.65")
CALCULATED VERT. DEFL.(TL) = L/ 999 (0.07")

CSI: TC=0.69/1.00 (E-F:1) , BC=0.24/1.00 (H-J:4) , WB=0.64/1.00 (E-H:1) , SSI=0.29/1.00 (E-F:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

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

NAIL VALUES

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

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.88 (K) (INPUT = 0.90)
JSI METAL= 0.26 (C) (INPUT = 1.00)

LICENSED PROFESSIONAL ENGINEER
07/01/21
H. J. G. ALVES
100009024
PROVINCE OF ONTARIO

Structural component only
DWG# T-2121154

JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
412868	T5	16	1	ROYAL PINE HOMES TRUSS DESC.	

Tamarack Roof Truss, Burlington

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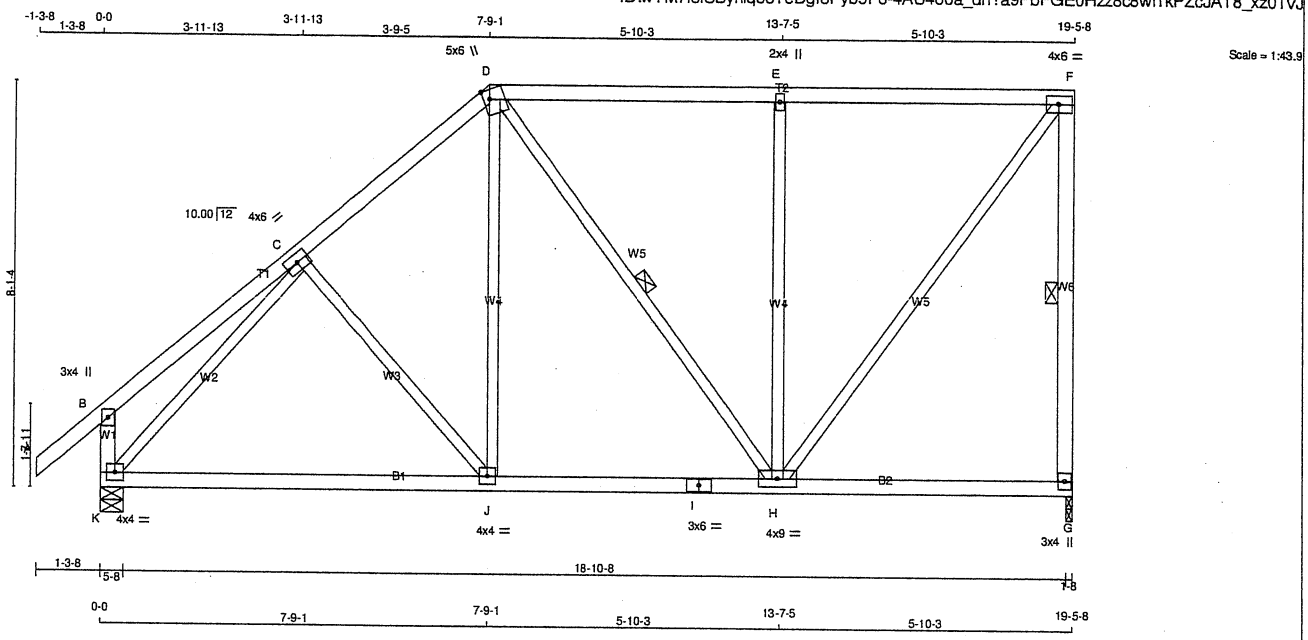

TOTAL WEIGHT = 16 X 96 = 1533 lb

LUMBER

N. L. G. A. RULES

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

DRY: SEASONED LUMBER.

PLATES (table is in inches)

JT	TYPE	PLATES	W	LEN	Y	X
B	TMV+p	MT20	3.0	4.0		
C	TMWW-t	MT20	4.0	6.0		
D	TTWW+m	MT20	5.0	6.0	2.25	1.50
E	TMW+w	MT20	2.0	4.0		
F	TMVW-t	MT20	4.0	6.0		
G	BMV1+p	MT20	3.0	4.0		
H	BMWWW-t	MT20	4.0	9.0		
I	BS-t	MT20	3.0	6.0		
J	BMWW-t	MT20	4.0	4.0		
K	BMVW1-t	MT20	4.0	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
G	1073	0	1073	0	0	1-8	1-8
K	1200	0	1200	0	0	5-8	5-8

UNFACTORED REACTIONS

JT	1ST LCASE COMBINED	MAX./MIN. COMPONENT REACTIONS SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
G	759	498 / 0	0 / 0	0 / 0	0 / 0	261 / 0	0 / 0
K	846	569 / 0	0 / 0	0 / 0	0 / 0	277 / 0	0 / 0

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

BRACING

TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 6.24 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 F-G, D-H.

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 / 41	-91.8	-91.8	0.13 (1)	10.00
B- C	0 / 26	-91.8	-91.8	0.22 (1)	10.00
C- D	-878 / 0	-91.8	-91.8	0.24 (1)	6.24
D- E	-618 / 0	-91.8	-91.8	0.55 (1)	6.25
E- F	-619 / 0	-91.8	-91.8	0.55 (1)	6.25
G- F	-1026 / 0	0.0	0.0	0.30 (1)	6.20
K- B	-262 / 0	0.0	0.0	0.03 (1)	7.81
K- J	0 / 748	-18.5	-18.5	0.29 (4)	10.00
J- I	0 / 656	-18.5	-18.5	0.30 (4)	10.00
I- H	0 / 656	-18.5	-18.5	0.30 (4)	10.00
H- G	0 / 0	-18.5	-18.5	0.13 (4)	10.00

WEBS

MEMB. FR-TO	MAX. FACTORED FORCE (LBS)	MAX CSI (LC)
C- J	-144 / 0	0.09 (1)
J- D	0 / 255	0.06 (1)
D- H	-62 / 0	0.04 (1)
H- E	-665 / 0	0.84 (1)
H- F	0 / 1027	0.23 (1)
K- C	-1153 / 0	0.68 (1)

DESIGN CRITERIA [M]

SPECIFIED LOADS:

TOP CH.	LL	=	25.6	PSF
	DL	=	6.0	PSF
BOT CH.	LL	=	0.0	PSF
	DL	=	7.4	PSF
TOTAL LOAD		=	39.0	PSF

SPACING = 24.0 IN. C/C

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

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

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

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

ALLOWABLE DEFL.(LL)= L/360 (0.65")
CALCULATED VERT. DEFL.(LL) = L/ 999 (0.03")
ALLOWABLE DEFL.(TL)= L/360 (0.65")
CALCULATED VERT. DEFL.(TL) = L/ 999 (0.12")

CSI: TC=0.55/1.00 (E-F:1) , BC=0.30/1.00 (H-J:4) , WB=0.84/1.00 (E-H:1) , SSI=0.26/1.00 (E-F:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

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

NAIL VALUES

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

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.88 (K) (INPUT = 0.90)
JSI METAL= 0.26 (C) (INPUT = 1.00)

LICENSED PROFESSIONAL ENGINEER
07/01/21
H. J. G. ALVES
100009024
PROVINCE OF ONTARIO

Structural component only
DWG# T-2121155

JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
412868	T6	4	1	ROYAL PINE HOMES TRUSS DESC.	

Tamarack Roof Truss, Burlington

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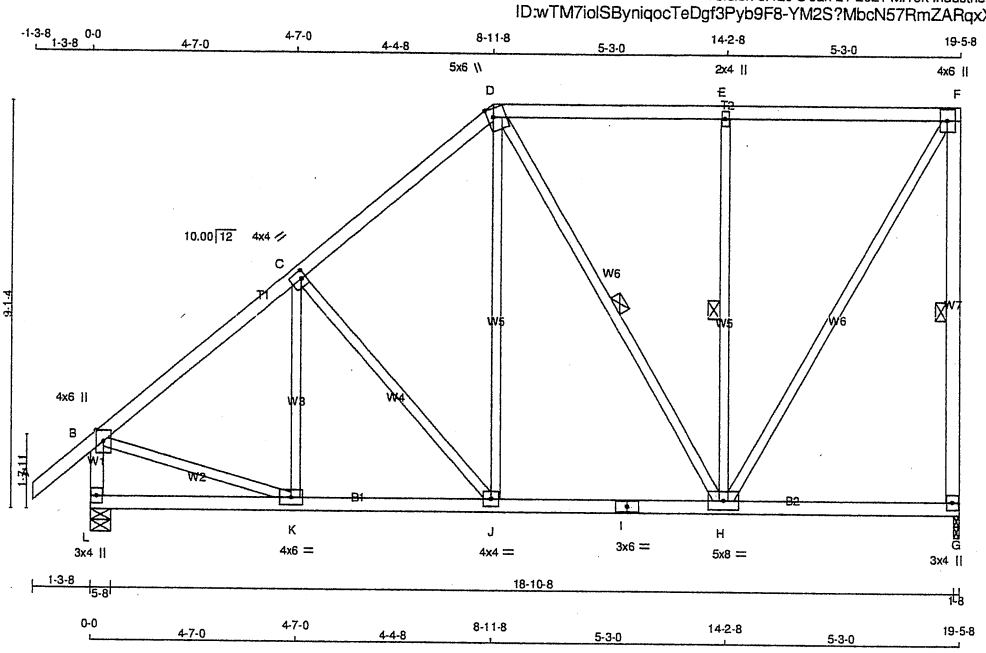

TOTAL WEIGHT = 4 X 103 = 414 lb

LUMBER

N. L. G. A. RULES

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

DRY: SEASONED LUMBER.

PLATES (table is in inches)

JT	TYPE	PLATES	W	LEN	Y	X
B	TMVW+p	MT20	4.0	6.0	Edge	
C	TMWW-t	MT20	4.0	4.0	2.00	1.25
D	TTWW+m	MT20	5.0	6.0	2.25	1.50
E	TMW+w	MT20	2.0	4.0		
F	TMVW+p	MT20	4.0	6.0		
G	BMV1+p	MT20	3.0	4.0		
H	BMWWW-t	MT20	5.0	8.0		
I	BS-t	MT20	3.0	6.0		
J	BMWW-t	MT20	4.0	4.0		
K	BMWW-t	MT20	4.0	6.0		
L	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
G	1073	0	1073	0	0	1-8	1-8
L	1200	0	1200	0	0	5-8	5-8

UNFACTORED REACTIONS

JT	1ST LCASE COMBINED	MAX./MIN. COMPONENT REACTIONS SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
G	759	498 / 0	0 / 0	0 / 0	0 / 0	261 / 0	0 / 0
L	846	569 / 0	0 / 0	0 / 0	0 / 0	277 / 0	0 / 0

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

BRACING

TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 5.83 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 F-G, D-H, E-H.

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 / 41	-91.8	-91.8	0.13 (1)	10.00
B- C	-988 / 0	-91.8	-91.8	0.34 (1)	5.83
C- D	-803 / 0	-91.8	-91.8	0.33 (1)	6.25
D- E	-509 / 0	-91.8	-91.8	0.43 (1)	6.25
E- F	-509 / 0	-91.8	-91.8	0.43 (1)	6.25
G- F	-1033 / 0	0.0	0.0	0.40 (1)	6.18
L- B	-1164 / 0	0.0	0.0	0.12 (1)	7.39
L- K	0 / 0	-18.5	-18.5	0.09 (4)	10.00
K- J	0 / 783	-18.5	-18.5	0.17 (1)	10.00
J- I	0 / 594	-18.5	-18.5	0.18 (4)	10.00
I- H	0 / 594	-18.5	-18.5	0.18 (4)	10.00
H- G	0 / 0	-18.5	-18.5	0.12 (4)	10.00

WEBS

MEMB. FR-TO	MAX. FACTORED FORCE (LBS)	MAX CSI (LC)
K- C	-132 / 29	0.06 (1)
C- J	-293 / 0	0.25 (1)
J- D	0 / 305	0.07 (1)
D- H	-166 / 0	0.13 (1)
H- E	-596 / 0	0.32 (1)
H- F	0 / 988	0.22 (1)
B- K	0 / 814	0.18 (1)

DESIGN CRITERIA

SPECIFIED LOADS:

TOP CH.	LL	=	25.6	PSF
	DL	=	6.0	PSF
BOT CH.	LL	=	0.0	PSF
	DL	=	7.4	PSF
TOTAL LOAD		=	39.0	PSF

SPACING = 24.0 IN. C/C

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

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

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

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

ALLOWABLE DEFL.(LL)= L/360 (0.65")
CALCULATED VERT. DEFL.(LL) = L/ 999 (0.02")
ALLOWABLE DEFL.(TL)= L/360 (0.65")
CALCULATED VERT. DEFL.(TL) = L/ 999 (0.05")

CSI: TC=0.43/1.00 (E-F:1) , BC=0.18/1.00 (H-J:4) , WB=0.32/1.00 (E-H:1) , SSI=0.23/1.00 (E-F:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

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

NAIL VALUES

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

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.77 (B) (INPUT = 0.90)
JSI METAL= 0.50 (B) (INPUT = 1.00)

LICENSED PROFESSIONAL ENGINEER
07/01/21
H. J. G. ALVES
100009024
PROVINCE OF ONTARIO

Structural component only
DWG# T-2121156

JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
412868	T7	10	1	ROYAL PINE HOMES TRUSS DESC.	

Tamarack Roof Truss, Burlington

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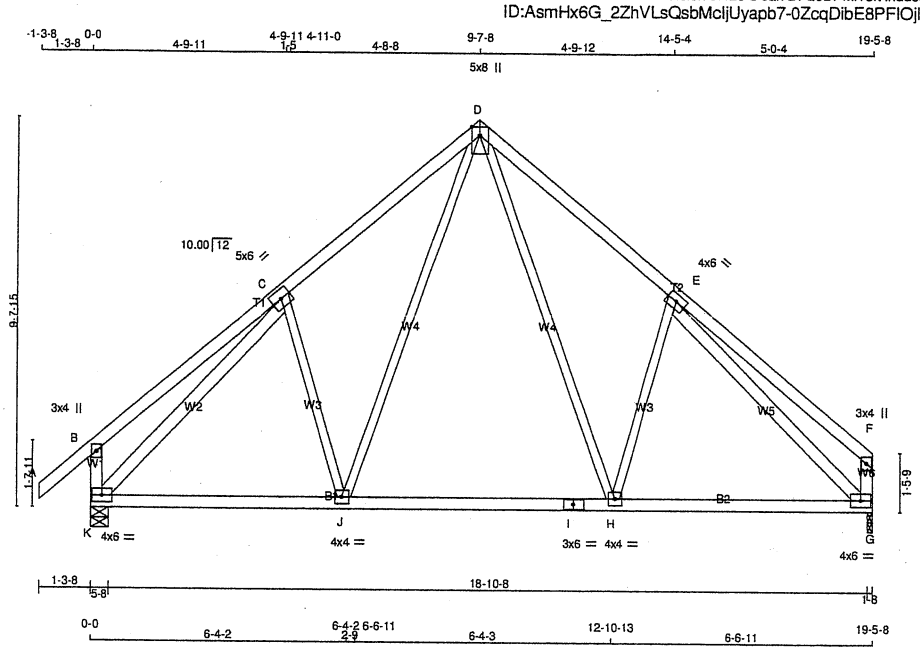

TOTAL WEIGHT = 10 X 95 = 955 lb
[M][F]

LUMBER
N. L. G. A. RULES

CHORDS	SIZE		LUMBER	DESCR.
A - D	2x4	DRY	No.2	SPF
D - F	2x4	DRY	No.2	SPF
K - B	2x4	DRY	No.2	SPF
G - F	2x4	DRY	No.2	SPF
K - I	2x4	DRY	No.2	SPF
I - G	2x4	DRY	No.2	SPF
ALL WEBS EXCEPT	2x3	DRY	No.2	SPF
K - C	2x4	DRY	No.2	SPF
E - G	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+p	MT20	5.0	8.0	Edge	
E	TMWW-t	MT20	4.0	6.0		
F	TMV+p	MT20	3.0	4.0		
G	BMVW1-t	MT20	4.0	6.0		
H	BMWW-t	MT20	4.0	4.0		
I	BS-t	MT20	3.0	6.0		
J	BMWW-t	MT20	4.0	4.0		
K	BMVW1-t	MT20	4.0	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
K	1200	0	1200	0	0	5-8	5-8
G	1073	0	1073	0	0	1-8	1-8

UNFACTORED REACTIONS

JT	1ST LCASE COMBINED	MAX./MIN. COMPONENT REACTIONS SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
K	846	569 / 0	0 / 0	0 / 0	0 / 0	277 / 0	0 / 0
G	759	498 / 0	0 / 0	0 / 0	0 / 0	261 / 0	0 / 0

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

BRACING
TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 5.99 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 / 41	-91.8	-91.8	0.13 (1)	10.00
B- C	0 / 35	-91.8	-91.8	0.35 (1)	10.00
C- D	-938 / 0	-91.8	-91.8	0.29 (1)	6.04
D- E	-957 / 0	-91.8	-91.8	0.30 (1)	5.99
E- F	0 / 35	-91.8	-91.8	0.37 (1)	10.00
K- B	-285 / 0	0.0	0.0	0.03 (1)	7.81
G- F	-168 / 0	0.0	0.0	0.02 (1)	7.81
K- J	0 / 779	-18.5	-18.5	0.24 (4)	10.00
J- I	0 / 556	-18.5	-18.5	0.23 (4)	10.00
I- H	0 / 556	-18.5	-18.5	0.23 (4)	10.00
H- G	0 / 803	-18.5	-18.5	0.25 (4)	10.00

WEBS

MEMB. FR-TO	MAX. FACTORED FORCE (LBS)	MAX CSI (LC)
C- J	-272 / 0	0.14 (1)
J- D	0 / 413	0.09 (1)
D- H	0 / 454	0.10 (1)
H- E	-308 / 0	0.16 (1)
K- C	-1166 / 0	0.75 (1)
E- G	-1174 / 0	0.80 (1)

DESIGN CRITERIA

SPECIFIED LOADS:

TOP CH.	LL	=	25.6	PSF
	DL	=	6.0	PSF
BOT CH.	LL	=	0.0	PSF
	DL	=	7.4	PSF
TOTAL LOAD		=	39.0	PSF

SPACING = 24.0 IN. C/C

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

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

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

ALLOWABLE DEFL.(LL)= L/360 (0.65")
CALCULATED VERT. DEFL.(LL) = L/ 999 (0.03")
ALLOWABLE DEFL.(TL)= L/360 (0.65")
CALCULATED VERT. DEFL.(TL) = L/ 999 (0.07")

CSI: TC=0.37/1.00 (E-F:1) , BC=0.25/1.00 (G-H:4) , WB=0.80/1.00 (E-G:1) , SSI=0.17/1.00 (D-E:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

AUTOSOLVE HEELS OFF

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

NAIL VALUES

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

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.85 (E) (INPUT = 0.90)
JSI METAL= 0.29 (E) (INPUT = 1.00)

LICENSED PROFESSIONAL ENGINEER
07/01/21
H. J. G. ALVES
100009024
PROVINCE OF ONTARIO

Structural component only
DWG# T-2121157

JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
412868	T7G	2	1	ROYAL PINE HOMES TRUSS DESC.	

Tamarack Roof Truss, Burlington

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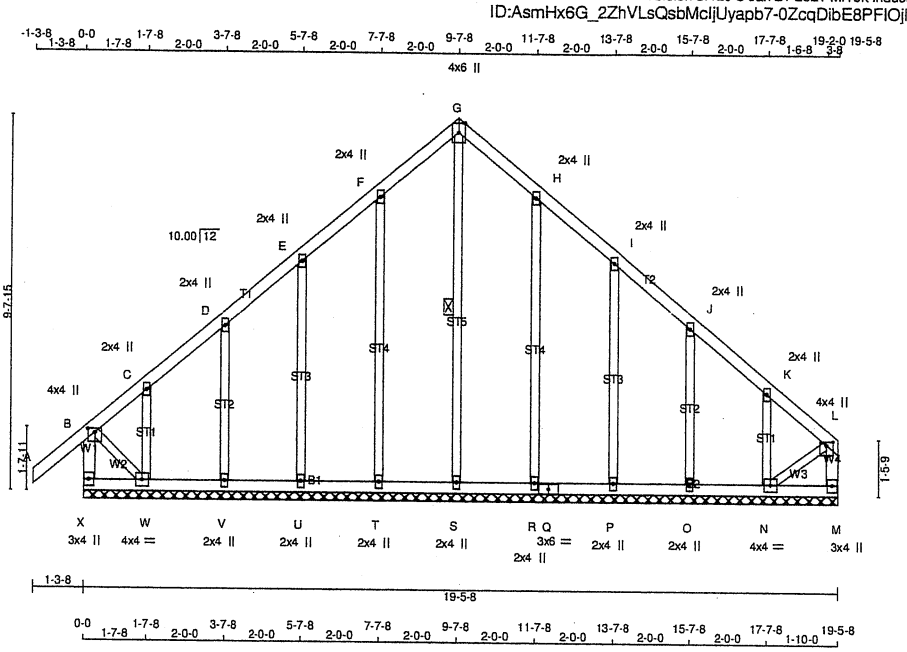

TOTAL WEIGHT = 2 X 98 = 197 lb

[M]

LUMBER

N. L. G. A. RULES

CHORDS	SIZE		LUMBER	DESCR.
A - G	2x4	DRY	No.2	SPF
G - L	2x4	DRY	No.2	SPF
X - B	2x4	DRY	No.2	SPF
M - L	2x4	DRY	No.2	SPF
X - Q	2x4	DRY	No.2	SPF
Q - M	2x4	DRY	No.2	SPF
ALL WEBS	2x3	DRY	No.2	SPF
ALL GABLE WEBS	2x3	DRY	No.2	SPF

DRY: SEASONED LUMBER.

GABLE STUDS SPACED AT 2-0-0 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, F, H, I, J, K						
C	TMW+w	MT20	2.0	4.0		
G	TTW+p	MT20	4.0	6.0	Edge	
L	TMVW+p	MT20	4.0	4.0	1.00	2.00
M	BMV1+p	MT20	3.0	4.0		
N	BMWW1-t	MT20	4.0	4.0		
O, P, R, S, T, U, V						
O	BMW1+w	MT20	2.0	4.0		
Q	BS-t	MT20	3.0	6.0		
W	BMWW1-t	MT20	4.0	4.0		
X	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

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 G-S.

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 / 41	-91.8	-91.8	0.13 (1)	10.00
B- C	-74 / 0	-91.8	-91.8	0.12 (1)	6.25
C- D	-30 / 0	-91.8	-91.8	0.05 (1)	6.25
D- E	-34 / 0	-91.8	-91.8	0.05 (1)	6.25
E- F	-25 / 0	-91.8	-91.8	0.05 (1)	6.25
F- G	-37 / 0	-91.8	-91.8	0.05 (1)	6.25
G- H	-37 / 0	-91.8	-91.8	0.05 (1)	6.25
H- I	-26 / 0	-91.8	-91.8	0.05 (1)	6.25
I- J	-32 / 0	-91.8	-91.8	0.04 (1)	6.25
J- K	-38 / 0	-91.8	-91.8	0.04 (1)	6.25
K- L	-34 / 0	-91.8	-91.8	0.04 (1)	6.25
X- B	-301 / 0	0.0	0.0	0.03 (1)	7.81
M- L	-113 / 0	0.0	0.0	0.01 (1)	7.81
X- W	0 / 0	-18.5	-18.5	0.01 (4)	10.00
W- V	0 / 29	-18.5	-18.5	0.02 (4)	10.00
V- U	0 / 25	-18.5	-18.5	0.02 (4)	10.00
U- T	0 / 22	-18.5	-18.5	0.02 (4)	10.00
T- S	0 / 19	-18.5	-18.5	0.02 (4)	10.00
S- R	0 / 19	-18.5	-18.5	0.02 (4)	10.00
R- Q	0 / 22	-18.5	-18.5	0.02 (4)	10.00
Q- P	0 / 22	-18.5	-18.5	0.02 (4)	10.00
P- O	0 / 25	-18.5	-18.5	0.02 (4)	10.00
O- N	0 / 29	-18.5	-18.5	0.02 (4)	10.00
N- M	0 / 0	-18.5	-18.5	0.02 (4)	10.00

WEBS

MEMB. FR-TO	MAX. FACTORED FORCE (LBS)	MAX CSI (LC)
S- G	-123 / 0	0.08 (1)
T- F	-209 / 0	0.25 (1)
U- E	-173 / 0	0.11 (1)
V- D	-195 / 0	0.06 (1)
W- C	-97 / 0	0.02 (1)
R- H	-208 / 0	0.25 (1)
P- I	-176 / 0	0.11 (1)
O- J	-180 / 0	0.06 (1)
N- K	-185 / 0	0.03 (1)
B- W	0 / 41	0.01 (1)
N- L	0 / 41	0.01 (1)

DESIGN CRITERIA

SPECIFIED LOADS:

TOP CH.	LL	=	25.6	PSF
	DL	=	6.0	PSF
BOT CH.	LL	=	0.0	PSF
	DL	=	7.4	PSF
TOTAL LOAD		=	39.0	PSF

SPACING = 24.0 IN. C/C

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

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

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

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

CSI: TC=0.13/1.00 (A-B:1) , BC=0.02/1.00 (N-O:4) , WB=0.25/1.00 (F-T:1) , SSI=0.08/1.00 (A-B:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

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

NAIL VALUES

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

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.51 (N) (INPUT = 0.90)
JSI METAL= 0.11 (F) (INPUT = 1.00)

LICENSED PROFESSIONAL ENGINEER
07/01/21
H. J. G. ALVES
100009024
PROVINCE OF ONTARIO

Structural component only
DWG# T-2121158

JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
412868	T8	2	1	ROYAL PINE HOMES TRUSS DESC.	

Tamarack Roof Truss, Burlington

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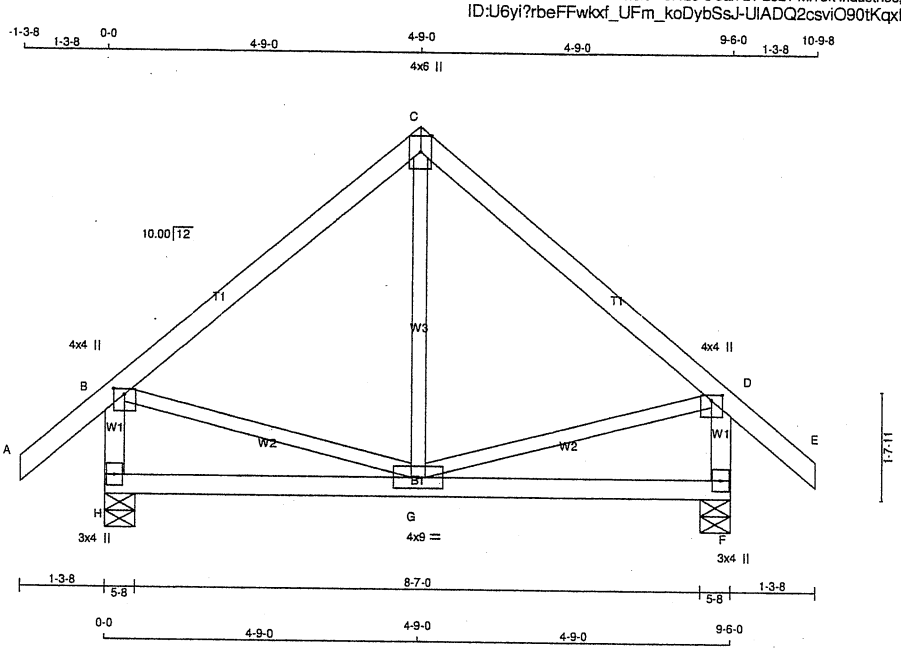

TOTAL WEIGHT = 2 X 43 = 87 lb
[M][F]

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	6.0	Edge	
D	TMVW+p	MT20	4.0	4.0	1.00	2.00
F	BMV1+p	MT20	3.0	4.0		
G	BMWWW-t	MT20	4.0	9.0		
H	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
H	651	0	651	0	0	5-8	5-8
F	651	0	651	0	0	5-8	5-8

UNFACTORED REACTIONS

JT	1ST LCASE COMBINED	MAX./MIN. COMPONENT REACTIONS SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
H	458	314 / 0	0 / 0	0 / 0	0 / 0	144 / 0	0 / 0
F	458	314 / 0	0 / 0	0 / 0	0 / 0	144 / 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. FR-TO	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF) FROM	TO	LC1	MAX CSI (LC)	MAX. UNBRAC LENGTH
A- B	0 / 41	-91.8	-91.8	0.13 (1)		10.00
B- C	-319 / 0	-91.8	-91.8	0.27 (1)		6.25
C- D	-319 / 0	-91.8	-91.8	0.27 (1)		6.25
D- E	0 / 41	-91.8	-91.8	0.13 (1)		10.00
H- B	-617 / 0	0.0	0.0	0.07 (1)		7.81
F- D	-617 / 0	0.0	0.0	0.07 (1)		7.81
H- G	0 / 0	-18.5	-18.5	0.12 (4)		10.00
G- F	0 / 0	-18.5	-18.5	0.12 (4)		10.00

WEBS

MEMB. FR-TO	MAX. FACTORED FORCE (LBS)	MAX CSI (LC)
G- C	-27 / 72	0.02 (4)
B- G	0 / 254	0.06 (1)
G- D	0 / 254	0.06 (1)

DESIGN CRITERIA

SPECIFIED LOADS:

TOP CH.	LL	=	25.6	PSF
	DL	=	6.0	PSF
BOT CH.	LL	=	0.0	PSF
	DL	=	7.4	PSF
TOTAL LOAD		=	39.0	PSF

SPACING = 24.0 IN. C/C

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

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

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

ALLOWABLE DEFL.(LL)= L/360 (0.32")
CALCULATED VERT. DEFL.(LL) = L/ 999 (0.00")
ALLOWABLE DEFL.(TL)= L/360 (0.32")
CALCULATED VERT. DEFL.(TL) = L/ 999 (0.01")

CSI: TC=0.27/1.00 (C-D:1) , BC=0.12/1.00 (G-H:4) , WB=0.06/1.00 (B-G:1) , SSI=0.13/1.00 (C-D:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

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

NAIL VALUES

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

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.50 (B) (INPUT = 0.90)
JSI METAL= 0.14 (D) (INPUT = 1.00)

LICENSED PROFESSIONAL ENGINEER
07/01/21
H. J. G. ALVES
100009624
PROVINCE OF ONTARIO

Structural component only
DWG# T-2121159

JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
412868	T9S	4	1	ROYAL PINE HOMES TRUSS DESC.	

Tamarack Roof Truss, Burlington

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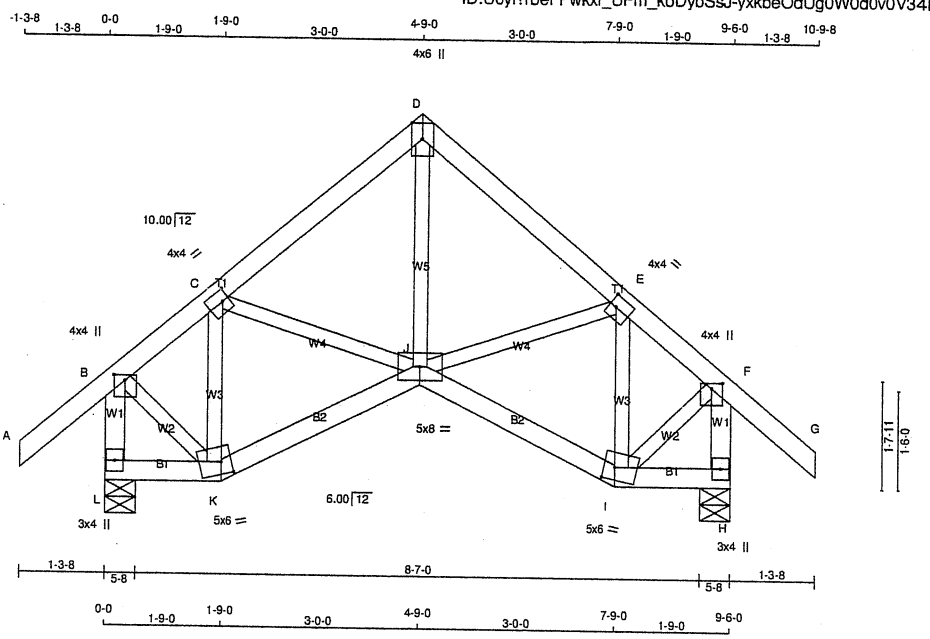

TOTAL WEIGHT = 4 X 48 = 191 lb

[M][F]

LUMBER

N. L. G. A. RULES

CHORDS	SIZE		LUMBER	DESCR.
A - D	2x4	DRY	No.2	SPF
D - G	2x4	DRY	No.2	SPF
L - B	2x4	DRY	No.2	SPF
H - F	2x4	DRY	No.2	SPF
L - K	2x4	DRY	No.2	SPF
K - J	2x4	DRY	No.2	SPF
J - I	2x4	DRY	No.2	SPF
I - 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	4.0	4.0	1.00	2.00
C	TMWW-t	MT20	4.0	4.0	2.00	1.25
D	TTW+p	MT20	4.0	6.0	Edge	
E	TMWW-t	MT20	4.0	4.0	2.00	1.25
F	TMVW+p	MT20	4.0	4.0	1.00	2.00
H	BMV1+p	MT20	3.0	4.0		
I	BBWW-m	MT20	5.0	6.0	2.25	2.00
J	BBWWW-p	MT20	5.0	8.0		
K	BBWW-m	MT20	5.0	6.0	2.25	2.00
L	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
L	651	0	651	0	0	5-8	5-8
H	651	0	651	0	0	5-8	5-8

UNFACTORED REACTIONS

JT	1ST LCASE COMBINED	MAX./MIN. COMPONENT REACTIONS SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
L	458	314 / 0	0 / 0	0 / 0	0 / 0	144 / 0	0 / 0
H	458	314 / 0	0 / 0	0 / 0	0 / 0	144 / 0	0 / 0

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

BRACING

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

ALL 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 / 41	-91.8	-91.8	0.13 (1)	10.00
B- C	-354 / 0	-91.8	-91.8	0.09 (1)	6.25
C- D	-414 / 0	-91.8	-91.8	0.11 (1)	6.25
D- E	-414 / 0	-91.8	-91.8	0.11 (1)	6.25
E- F	-354 / 0	-91.8	-91.8	0.09 (1)	6.25
F- G	0 / 41	-91.8	-91.8	0.13 (1)	10.00
L- B	-635 / 0	0.0	0.0	0.07 (1)	7.81
H- F	-635 / 0	0.0	0.0	0.07 (1)	7.81
L- K	0 / 0	-18.5	-18.5	0.02 (4)	10.00
K- J	0 / 283	-18.5	-18.5	0.07 (1)	10.00
J- I	0 / 283	-18.5	-18.5	0.07 (1)	10.00
I- H	0 / 0	-18.5	-18.5	0.02 (4)	10.00

WEBS

MEMB. FR-TO	MAX. FACTORED FORCE (LBS)	MAX CSI (LC)
J- D	0 / 268	0.06 (1)
J- E	0 / 59	0.01 (1)
I- E	-279 / 0	0.05 (1)
C- J	0 / 59	0.01 (1)
K- C	-279 / 0	0.05 (1)
B- K	0 / 328	0.07 (1)
I- F	0 / 328	0.07 (1)

DESIGN CRITERIA

SPECIFIED LOADS:

TOP CH.	LL	=	25.6	PSF
	DL	=	6.0	PSF
BOT CH.	LL	=	0.0	PSF
	DL	=	7.4	PSF
TOTAL LOAD		=	39.0	PSF

SPACING = 24.0 IN. C/C

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

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

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

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

ALLOWABLE DEFL.(LL)= L/360 (0.32")
CALCULATED VERT. DEFL.(LL) = L/ 999 (0.01")
ALLOWABLE DEFL.(TL)= L/360 (0.32")
CALCULATED VERT. DEFL.(TL) = L/ 999 (0.01")

CSI: TC=0.13/1.00 (A-B:1) , BC=0.07/1.00 (I-J:1) , WB=0.07/1.00 (F-I:1) , SSI=0.10/1.00 (D-E:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

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

NAIL VALUES

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

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.44 (F) (INPUT = 0.90)
JSI METAL= 0.13 (B) (INPUT = 1.00)

LICENSED PROFESSIONAL ENGINEER
07/01/21
H. J. G. ALVES
100009024
PROVINCE OF ONTARIO

Structural component only
DWG# T-2121160

JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
412868	T10G	4	1	ROYAL PINE HOMES TRUSS DESC.	

Tamarack Roof Truss, Burlington

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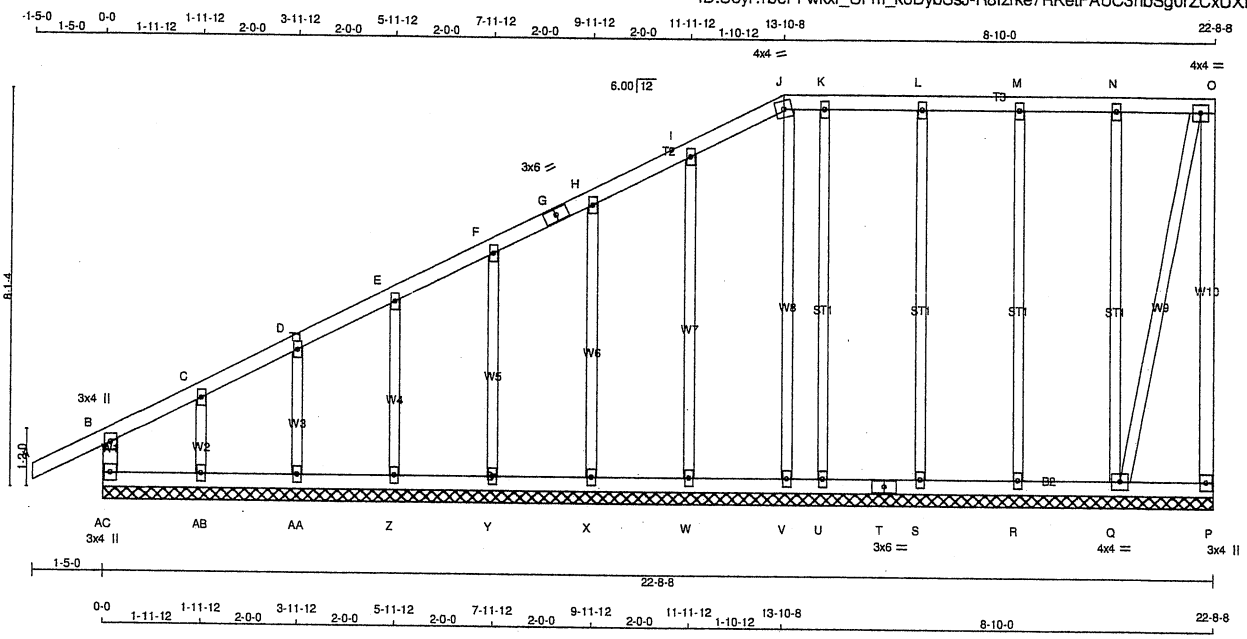

TOTAL WEIGHT = 4 X 122 = 488 lb

LUMBER

N. L. G. A. RULES

CHORDS	SIZE		LUMBER	DESCR.
AC- B	2x4	DRY	No.2	SPF
A - G	2x4	DRY	No.2	SPF
G - J	2x4	DRY	No.2	SPF
J - O	2x4	DRY	No.2	SPF
P - O	2x4	DRY	No.2	SPF
AC- T	2x4	DRY	No.2	SPF
T - 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	TMV+p	MT20	3.0	4.0	
C, D, E, F, H, I, K, L, M, N					
C	TMW+w	MT20	2.0	4.0	
G	TS-t	MT20	3.0	6.0	
J	TTW-m	MT20	4.0	4.0	
O	TMVW-t	MT20	4.0	4.0	
P	BMV1+p	MT20	3.0	4.0	
Q	BMWW1-t	MT20	4.0	4.0	
R, S, U, V, W, X, Y, Z, AA, AB					
R	BMW1+w	MT20	2.0	4.0	
T	BS-t	MT20	3.0	6.0	
AC	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 = 6.25 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
AC- B	-271 / 0	0.0	0.0	0.03 (1)	7.81
A- B	0 / 30	-91.8	-91.8	0.14 (1)	10.00
B- C	-21 / 0	-91.8	-91.8	0.14 (1)	6.25
C- D	0 / 10	-91.8	-91.8	0.05 (1)	10.00
D- E	0 / 9	-91.8	-91.8	0.05 (1)	10.00
E- F	0 / 14	-91.8	-91.8	0.04 (1)	10.00
F- G	0 / 16	-91.8	-91.8	0.04 (1)	10.00
G- H	0 / 16	-91.8	-91.8	0.04 (1)	10.00
H- I	0 / 19	-91.8	-91.8	0.05 (1)	10.00
I- J	0 / 13	-91.8	-91.8	0.05 (1)	10.00
J- K	0 / 20	-91.8	-91.8	0.03 (1)	10.00
K- L	0 / 20	-91.8	-91.8	0.05 (1)	10.00
L- M	0 / 20	-91.8	-91.8	0.05 (1)	10.00
M- N	0 / 20	-91.8	-91.8	0.05 (1)	10.00
N- O	0 / 20	-91.8	-91.8	0.05 (1)	10.00
P- O	0 / 0	0.0	0.0	0.00 (1)	10.00
AC-AB	0 / 0	-18.5	-18.5	0.02 (4)	10.00
AB-AA	-4 / 0	-18.5	-18.5	0.02 (4)	10.00
AA- Z	-9 / 0	-18.5	-18.5	0.01 (4)	10.00
Z- Y	-12 / 0	-18.5	-18.5	0.01 (4)	6.25
Y- X	-14 / 0	-18.5	-18.5	0.01 (4)	6.25
X- W	-16 / 0	-18.5	-18.5	0.02 (4)	6.25
W- V	-18 / 0	-18.5	-18.5	0.02 (4)	6.25
V- U	-20 / 0	-18.5	-18.5	0.01 (4)	6.25
U- T	-20 / 0	-18.5	-18.5	0.02 (4)	6.25
T- S	-20 / 0	-18.5	-18.5	0.02 (4)	6.25
S- R	-20 / 0	-18.5	-18.5	0.02 (4)	6.25
R- Q	-20 / 0	-18.5	-18.5	0.02 (4)	6.25
Q- P	0 / 0	-18.5	-18.5	0.02 (4)	10.00

WEBS

MEMB. FR-TO	MAX. FACTORED FORCE (LBS)	MAX CSI (LC)
Q- N	-200 / 0	0.25 (1)
R- M	-182 / 0	0.23 (1)
S- L	-190 / 0	0.24 (1)
U- K	-149 / 0	0.19 (1)
V- J	-95 / 0	0.12 (1)
AB- C	-118 / 0	0.02 (1)
AA- D	-196 / 0	0.04 (1)
Z- E	-179 / 0	0.05 (1)
Y- F	-183 / 0	0.07 (1)
X- H	-180 / 0	0.11 (1)
W- I	-200 / 0	0.18 (1)
Q- O	-79 / 0	0.11 (1)

DESIGN CRITERIA [M]

SPECIFIED LOADS:

TOP CH.	LL	=	25.6	PSF
	DL	=	6.0	PSF
BOT CH.	LL	=	0.0	PSF
	DL	=	7.4	PSF
TOTAL LOAD		=	39.0	PSF

SPACING = 24.0 IN. C/C

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

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

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

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

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

CSI: TC=0.14/1.00 (A-B:1) , BC=0.02/1.00 (Q-R:4) , WB=0.25/1.00 (N-Q: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 = 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	650	371	1747	788	1987	1873

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.59 (J) (INPUT = 0.90)
JSI METAL= 0.08 (I) (INPUT = 1.00)

LICENSED PROFESSIONAL ENGINEER
H. J. G. ALVES
100009024
PROVINCE OF ONTARIO

Structural component only
DWG# T-2121161

JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
412868	T11	15	1	ROYAL PINE HOMES TRUSS DESC.	

Tamarack Roof Truss, Burlington

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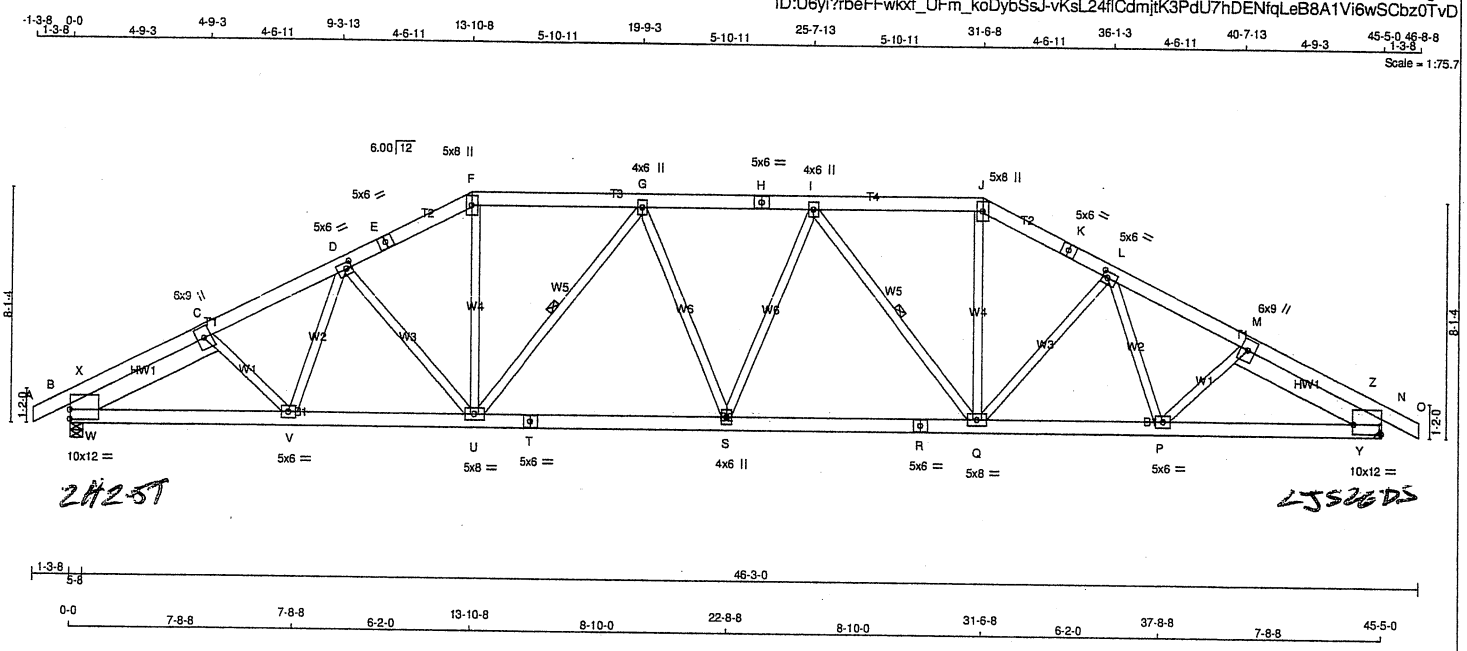

LUMBER

N. L. G. A. RULES

CHORDS	SIZE		LUMBER	DESCR.
A - E	2x6	DRY	No.2	SPF
E - F	2x6	DRY	No.2	SPF
F - H	2x6	DRY	No.2	SPF
H - J	2x6	DRY	No.2	SPF
J - K	2x6	DRY	No.2	SPF
K - O	2x6	DRY	No.2	SPF
B - T	2x6	DRY	No.2	SPF
T - R	2x6	DRY	No.2	SPF
R - N	2x6	DRY	No.2	SPF

REINFORCING MEMBERS

HW1	2x8	DRY	No.2	SPF
HW2	2x8	DRY	No.2	SPF

ALL WEBS 2x4 DRY No.2 SPF

DRY: SEASONED LUMBER.

PLATES (table is in inches)

JT	TYPE	PLATES	W	LEN	Y	X
B	TMBMW1m	MT20	10.0	12.0	4.00	
C	TMWW+t	MT20	6.0	9.0		
D	TMWW-t	MT20	5.0	6.0	2.50	2.25
E, H, K						
E	TS-t	MT20	5.0	6.0		
F	TTW+p	MT20	5.0	8.0		
G	TMWW+t	MT20	4.0	6.0		
I	TMWW+t	MT20	4.0	6.0		
J	TTW+p	MT20	5.0	8.0		
L	TMWW-t	MT20	5.0	6.0	2.50	2.25
M	TMWW+t	MT20	6.0	9.0		
N	TMBMW1m	MT20	10.0	12.0	4.00	Edge
P	BMWW-t	MT20	5.0	6.0		
Q	BMWWW-t	MT20	5.0	8.0		
R	BS-t	MT20	5.0	6.0		
S	BMWW+t	MT20	4.0	6.0		
T	BS-t	MT20	5.0	6.0		
U	BMWWW-t	MT20	5.0	8.0		
V	BMWW-t	MT20	5.0	6.0		

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

LICENSED PROFESSIONAL ENGINEER
07/01/21
H. J. G. ALVES
100089024
PROVINCE OF ONTARIO

Structural component only
DWG# T-2121162

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

BEARINGS

JT	FACTORED GROSS REACTION VERT	HORZ	MAXIMUM GROSS REACTION DOWN	HORZ	UPLIFT	FACTORED INPUT BRG IN-SX	REQRD BRG IN-SX
B	3675	0	3709	195	-1082	5-8	5-8
N	3675	0	3709	0	-1082	MECHANICAL	

A SUITABLE HANGER/MECHANICAL CONNECTION IS REQUIRED AT JOINT N. MINIMUM BEARING LENGTH AT JOINT N = 4-0.

PROVIDE ANCHORAGE AT BEARING JOINT B FOR 1082 LBS FACTORED UPLIFT
PROVIDE ANCHORAGE AT BEARING JOINT N FOR 1082 LBS FACTORED UPLIFT

PROVIDE FOR 195 LBS FACTORED HORIZONTAL REACTION AT JOINT B

UNFACTORED REACTIONS

JT	1ST LCASE COMBINED	MAX./MIN. COMPONENT REACTIONS SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
B	2713	1634 / 0	477 / 0	0 / 0	0 / -1073	625 / 0	0 / 0
N	2713	1634 / 0	477 / 0	0 / 0	59 / -1073	625 / 0	0 / 0
HORIZONTAL REACTIONS							
B	---	0 / 0	0 / 0	0 / 0	139 / -139	0 / 0	0 /0

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

BRACING

MAX. UNBRACED TOP CHORD LENGTH = 3.53 FT.
MAX. UNBRACED BOTTOM CHORD LENGTH = 6.25 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 G-U, I-Q.

LOADING

TOTAL LOAD CASES: (18)

CHORDS

MEMB. FR-TO	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF) FROM	TO	LC1	MAX CSI (LC)	MAX. UNBRAC LENGTH
A- B	0 / 1	-115.2	-115.2	0.09 (2)	10.00	
B- X	-4338 / 1145	-115.2	-115.2	0.18 (2)	4.06	
X- C	-2853 / 891	-115.2	-115.2	0.15 (2)	4.85	
C- D	-5520 / 1704	-115.2	-115.2	0.33 (2)	3.55	
D- E	-5000 / 1604	-115.2	-115.2	0.29 (2)	3.73	
E- F	-5000 / 1604	-115.2	-115.2	0.29 (2)	3.73	
F- G	-4482 / 1504	-115.2	-115.2	0.36 (1)	3.82	
G- H	-5228 / 1649	-115.2	-115.2	0.41 (1)	3.53	
H- I	-5228 / 1649	-115.2	-115.2	0.41 (1)	3.53	
I- J	-4482 / 1504	-115.2	-115.2	0.36 (1)	3.82	
J- K	-5000 / 1604	-115.2	-115.2	0.29 (3)	3.73	
K- L	-5000 / 1604	-115.2	-115.2	0.29 (3)	3.73	
L- M	-5520 / 1705	-115.2	-115.2	0.33 (3)	3.55	
M- Z	-2853 / 893	-115.2	-115.2	0.15 (3)	4.85	
Z- N	-4338 / 1148	-115.2	-115.2	0.18 (3)	4.06	
N- O	0 / 1	-115.2	-115.2	0.09 (3)	10.00	

WEBS

MEMB. FR-TO	MAX. FACTORED FORCE (LBS)	MAX CSI (LC)
C- V	-32 / 371	0.06 (3)
V- D	-90 / 264	0.04 (5)
D- U	-826 / 383	0.53 (2)
U- F	-479 / 1736	0.38 (13)
U- G	-1448 / 490	0.65 (3)
G- S	-167 / 458	0.16 (9)
S- I	-167 / 458	0.16 (10)
I- Q	-1448 / 490	0.65 (2)
Q- J	-479 / 1736	0.38 (14)
Q- L	-826 / 383	0.53 (3)
L- P	-100 / 264	0.04 (6)
P- M	-44 / 371	0.06 (2)
W- X	-379 / 1962	0.00 (1)
W- C	-2918 / 847	0.49 (1)
M- Y	-2918 / 846	0.49 (1)
Y- Z	-381 / 1962	0.00 (1)
B- W	-856 / 2550	-39.5 -39.5 0.33 (1) 6.25
W- V	-1532 / 4864	-39.5 -39.5 0.69 (1) 6.25
V- U	-1432 / 4893	-39.5 -39.5 0.71 (1) 6.25
U- T	-1381 / 5160	-39.5 -39.5 0.76 (1) 6.25
T- S	-1381 / 5160	-39.5 -39.5 0.76 (1) 6.25
S- R	-1327 / 5160	-39.5 -39.5 0.76 (1) 6.25
R- Q	-1327 / 5160	-39.5 -39.5 0.76 (1) 6.25
Q- P	-1237 / 4893	-39.5 -39.5 0.71 (1) 6.25
P- Y	-1338 / 4864	-39.5 -39.5 0.69 (1) 6.25
Y- N	-664 / 2550	-39.5 -39.5 0.33 (1) 6.25

TOTAL WEIGHT = 15 X 291 = 4371 lb [M]

DESIGN CRITERIA

SPECIFIED LOADS:

TOP CH.	LL	=	33.4	PSF
	DL	=	6.0	PSF
BOT CH.	LL	=	10.5	PSF
	DL	=	7.4	PSF
TOTAL LOAD		=	57.3	PSF

SPACING = 24.0 IN. C/C

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

THIS TRUSS IS DESIGNED FOR COMMERCIAL OR INDUSTRIAL BUILDING REQUIREMENTS OF PART 4, NBCC 2015

THIS DESIGN COMPLIES WITH:
- PART 4 OF BCBC 2018 , ABC 2019
- PART 4 OF OBC 2012 (2019 AMENDMENT)
- CSA 086-14
- TPIC 2014

DESIGN ASSUMPTIONS
- SLOPE REDUCTION FACTOR NOT USED
- PERCENTAGE OF GROUND SNOW LOAD IS USER-DEFINED.

(80 % OF 31.3 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) TIMES IMPORTANCE FACTOR EQUALS 33.4 P.S.F. SPECIFIED ROOF LIVE LOAD

ALLOWABLE DEFL.(LL)= L/360 (1.51")
CALCULATED VERT. DEFL.(LL) = L/ 999 (0.24")
ALLOWABLE DEFL.(TL)= L/180 (3.03")
CALCULATED VERT. DEFL.(TL) = L/ 999 (0.34")

CSI: TC=0.41/1.00 (G-I:1) , BC=0.76/1.00 (S-U:1) , WB=0.65/1.00 (G-U:3) , SSI=0.24/1.00 (I-J:2)

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

SNOW LOAD IMPORTANCE FACTOR = 1.00
WIND LOAD IMPORTANCE FACTOR = 1.00
LIVE LOAD IMPORTANCE FACTOR = 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	650	371	1747	788	1987	1873

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.83 (T) (INPUT = 0.90)
JSI METAL= 0.92 (T) (INPUT = 1.00)

CONTINUED ON PAGE 2

TRUSS HAS BEEN CHECKED FOR UNBALANCED LOADING
AS PER NBCC 4.1.6.2.(8)

WIND LOAD APPLIED IS DERIVED FROM REFERENCE VELOCITY PRESSURE OF { 9.2} PSF AT {31-0-0} FT-IN-SX REFERENCE HEIGHT ABOVE GRADE AND USING EXTERNAL PEAK COEFFICIENTS, CpCg, BASED ON THE {MAIN WIND FORCE RESISTING SYSTEM}.INTERNAL WIND PRESSURE IS BASED ON DESIGN {CATEGORY 2}. BUILDING MAY BE LOCATED ON {OPEN TERRAIN}, AND TRUSS IS DESIGNED TO BE LOCATED AT LEAST {0-0} FT-IN-SX AWAY FROM EAVE.TRUSS UPLIFT IS BASED ON TOP AND BOTTOM CHORD DEAD LOADS OF 5.0 PSF AND 5.0 PSF RESPECTIVELY.

LICENSED PROFESSIONAL ENGINEER
07/01/21
H. J. G. ALVES
100009024
PROVINCE OF ONTARIO

Structural component only
DWG# T-2121162

JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
412868	T11G	2	1	ROYAL PINE HOMES TRUSS DESC.	

Tamarack Roof Truss, Burlington

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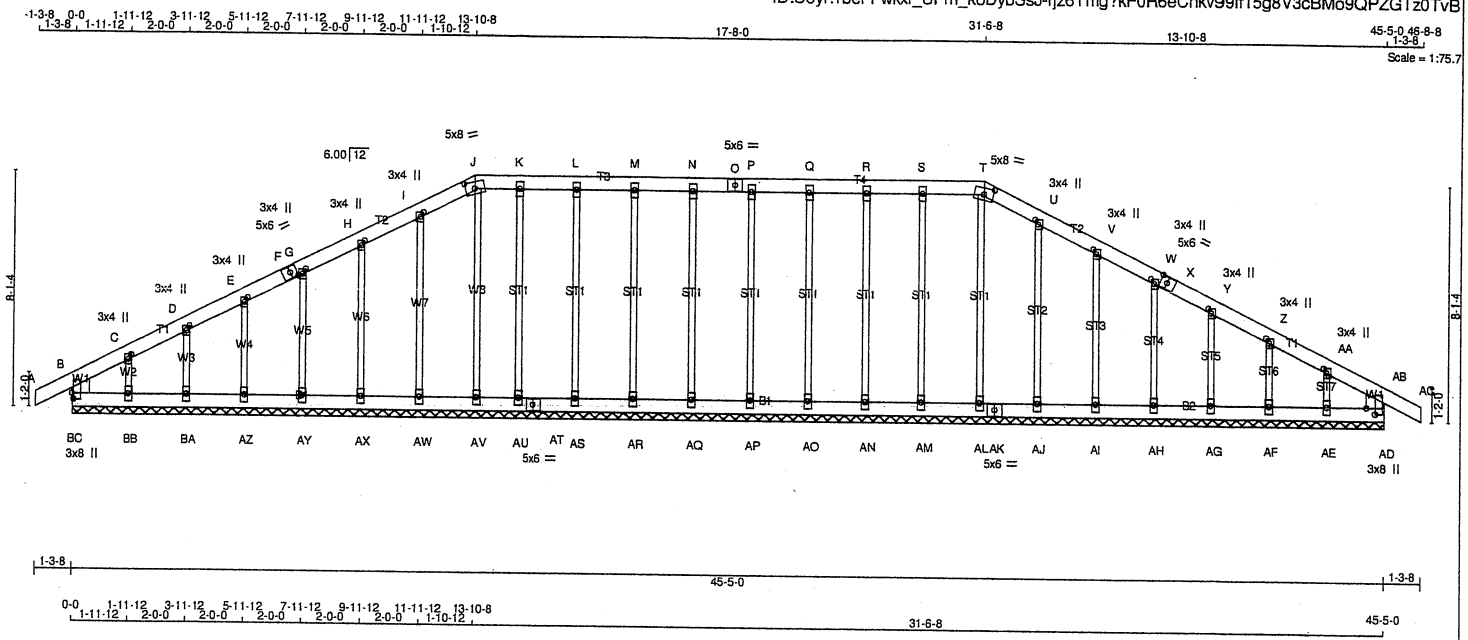

TOTAL WEIGHT = 2 X 272 = 544 lb [M]

LUMBER

N. L. G. A. RULES

CHORDS	SIZE		LUMBER	DESCR.
BC- B	2x8	DRY	No.2	SPF
A - F	2x6	DRY	No.2	SPF
F - J	2x6	DRY	No.2	SPF
J - O	2x6	DRY	No.2	SPF
O - T	2x6	DRY	No.2	SPF
T - X	2x6	DRY	No.2	SPF
X - AC	2x6	DRY	No.2	SPF
AD- AB	2x8	DRY	No.2	SPF
BC- AT	2x6	DRY	No.2	SPF
AT- AK	2x6	DRY	No.2	SPF
AK- AD	2x6	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, AB, AD, BC						
B						
C, D, E, G, H, I, U, V, W, Y, Z, AA						
C	TMW+w	MT20	3.0	4.0	2.00	1.25
F	TS-t	MT20	5.0	6.0	2.50	2.75
J	TTW-m	MT20	5.0	8.0	2.75	4.00
K, L, M, N, P, Q, R, S						
K	TMW+w	MT20	3.0	6.0		
O	TS-t	MT20	5.0	6.0		
T	TTW-m	MT20	5.0	8.0	2.75	4.00
X	TS-t	MT20	5.0	6.0	2.50	2.75
AD	TMBMV1+p	MT20	3.0	8.0	2.50	3.75
AE, AF, AG, AH, AI, AJ, AL, AM, AN, AO, AP, AQ, AR, AS, AU, AV, AW, AX, AY, AZ, BA, BB						
AE	BMW1+w	MT20	3.0	6.0		
AK	BS-t	MT20	5.0	6.0		
AT	BS-t	MT20	5.0	6.0		
BC	TMBMV1+p	MT20	3.0	8.0	2.50	0.50

LICENSED PROFESSIONAL ENGINEER
07/01/21
H. J. G. ALVES
100009024
PROVINCE OF ONTARIO

Structural component only
DWG# T-2121163

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.

LOADING

TOTAL LOAD CASES: (4)

CHORDS

MEMB. FR-TO	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF) FROM	TO	LC1 MAX CSI (LC)	MAX. UNBRAC LENGTH
BC- B	-260 / 0	0.0	0.0	0.02 (1)	7.81
A- B	0 / 29	-91.8	-91.8	0.06 (1)	10.00
B- C	-50 / 0	-91.8	-91.8	0.05 (1)	6.25
C- D	-24 / 0	-91.8	-91.8	0.02 (1)	6.25
D- E	-19 / 0	-91.8	-91.8	0.02 (1)	6.25
E- F	-13 / 0	-91.8	-91.8	0.02 (1)	6.25
F- G	-13 / 0	-91.8	-91.8	0.02 (1)	6.25
G- H	-9 / 0	-91.8	-91.8	0.02 (1)	10.00
H- I	-5 / 0	-91.8	-91.8	0.02 (1)	10.00
I- J	-3 / 0	-91.8	-91.8	0.02 (1)	10.00
J- K	0 / 0	-91.8	-91.8	0.02 (1)	10.00
K- L	0 / 0	-91.8	-91.8	0.02 (1)	10.00
L- M	0 / 0	-91.8	-91.8	0.02 (1)	10.00
M- N	0 / 0	-91.8	-91.8	0.02 (1)	10.00
N- O	0 / 0	-91.8	-91.8	0.02 (1)	10.00
O- P	0 / 0	-91.8	-91.8	0.02 (1)	10.00
P- Q	0 / 0	-91.8	-91.8	0.02 (1)	10.00
Q- R	0 / 0	-91.8	-91.8	0.02 (1)	10.00
R- S	0 / 0	-91.8	-91.8	0.02 (1)	10.00
S- T	0 / 0	-91.8	-91.8	0.02 (1)	10.00
T- U	-2 / 0	-91.8	-91.8	0.02 (1)	10.00
U- V	-5 / 0	-91.8	-91.8	0.02 (1)	10.00
V- W	-9 / 0	-91.8	-91.8	0.02 (1)	10.00
W- X	-14 / 0	-91.8	-91.8	0.02 (1)	6.25
X- Y	-14 / 0	-91.8	-91.8	0.02 (1)	6.25
Y- Z	-20 / 0	-91.8	-91.8	0.02 (1)	6.25
Z- AA	-24 / 0	-91.8	-91.8	0.02 (1)	6.25
AA-AB	-51 / 0	-91.8	-91.8	0.05 (1)	6.25
AB-AC	0 / 29	-91.8	-91.8	0.06 (1)	10.00
AD-AB	-260 / 0	0.0	0.0	0.02 (1)	7.81
BC-BB	0 / 33	-18.5	-18.5	0.03 (1)	10.00
BB-BA	0 / 24	-18.5	-18.5	0.01 (1)	10.00
BA-AZ	0 / 17	-18.5	-18.5	0.01 (4)	10.00
AZ-AY	0 / 12	-18.5	-18.5	0.01 (4)	10.00
AY-AX	0 / 8	-18.5	-18.5	0.01 (4)	10.00
AX-AW	0 / 5	-18.5	-18.5	0.01 (4)	10.00
AW-AV	0 / 2	-18.5	-18.5	0.01 (4)	10.00
AV-AU	0 / 0	-18.5	-18.5	0.01 (4)	10.00
AU-AT	0 / 0	-18.5	-18.5	0.01 (4)	10.00
AT-AS	0 / 0	-18.5	-18.5	0.01 (4)	10.00
AS-AR	0 / 0	-18.5	-18.5	0.01 (4)	10.00
AR-AQ	0 / 0	-18.5	-18.5	0.01 (4)	10.00
AQ-AP	0 / 0	-18.5	-18.5	0.01 (4)	10.00
AP-AO	0 / 0	-18.5	-18.5	0.01 (4)	10.00
AO-AN	0 / 0	-18.5	-18.5	0.01 (4)	10.00
AN-AM	0 / 0	-18.5	-18.5	0.01 (4)	10.00
AM-AL	0 / 0	-18.5	-18.5	0.01 (4)	10.00
AL-AK	0 / 2	-18.5	-18.5	0.01 (4)	10.00
AK-AJ	0 / 2	-18.5	-18.5	0.01 (4)	10.00
AJ-AI	0 / 5	-18.5	-18.5	0.01 (4)	10.00

WEBS

MEMB. FR-TO	MAX. FACTORED FORCE (LBS)	MAX CSI (LC)
AL- T	-186 / 0	0.21 (1)
AM- S	-190 / 0	0.21 (1)
AN- R	-183 / 0	0.21 (1)
AO- Q	-183 / 0	0.21 (1)
AP- P	-183 / 0	0.21 (1)
AQ- N	-183 / 0	0.21 (1)
AR- M	-184 / 0	0.21 (1)
AS- L	-184 / 0	0.21 (1)
AU- K	-163 / 0	0.18 (1)
AJ- U	-183 / 0	0.14 (1)
AI- V	-182 / 0	0.09 (1)
AH- W	-182 / 0	0.06 (1)
AG- Y	-180 / 0	0.04 (1)
AF- Z	-188 / 0	0.03 (1)
AE-AA	-137 / 0	0.02 (1)
AV- J	-159 / 0	0.18 (1)
BB- C	-137 / 0	0.02 (1)
BA- D	-188 / 0	0.03 (1)
AZ- E	-180 / 0	0.04 (1)
AY- G	-181 / 0	0.06 (1)
AX- H	-183 / 0	0.10 (1)
AW- I	-184 / 0	0.14 (1)

DESIGN CRITERIA

SPECIFIED LOADS:

TOP CH.	LL	=	25.6	PSF
	DL	=	6.0	PSF
BOT CH.	LL	=	0.0	PSF
	DL	=	7.4	PSF
TOTAL LOAD		=	39.0	PSF

SPACING = 24.0 IN. C/C

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

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

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

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

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

CSI: TC=0.06/1.00 (AB-AC:1) , BC=0.03/1.00 (AD-AE:1) , WB=0.21/1.00 (S-AM:1) , SSI=0.07/1.00 (AB-AC: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	650	371	1747	788	1987	1873

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.25 (J) (INPUT = 0.90)
JSI METAL= 0.09 (AD) (INPUT = 1.00)

CONTINUED ON PAGE 2

JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
412868	T11G	2	1	ROYAL PINE HOMES TRUSS DESC.	

Tamarack Roof Truss, Burlington

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
AI-AH	0 / 8	-18.5	-18.5	0.01 (4)	10.00
AH-AG	0 / 12	-18.5	-18.5	0.01 (4)	10.00
AG-AF	0 / 17	-18.5	-18.5	0.01 (4)	10.00
AF-AE	0 / 25	-18.5	-18.5	0.01 (1)	10.00
AE-AD	0 / 33	-18.5	-18.5	0.03 (1)	10.00

WEBS

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

LICENSED PROFESSIONAL ENGINEER
07/01/21
H. J. G. ALVES
100009024
PROVINCE OF ONTARIO

Structural component only
DWG# T-2121163 MC

JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
412868	T11GA	2	1	ROYAL PINE HOMES TRUSS DESC.	

Tamarack Roof Truss, Burlington

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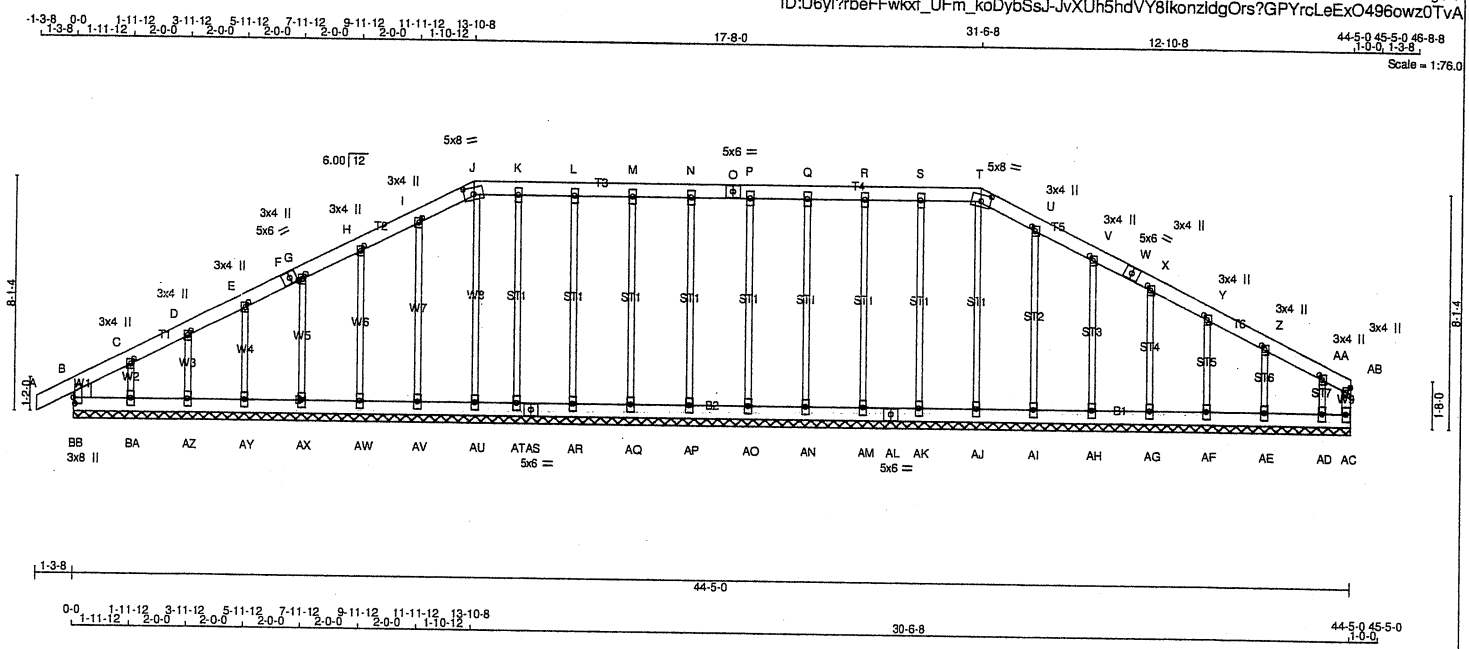

TOTAL WEIGHT = 2 X 265 = 531 lb [M]

LUMBER

N. L. G. A. RULES

CHORDS	SIZE		LUMBER	DESCR.
BB- B	2x8	DRY	No.2	SPF
A - F	2x6	DRY	No.2	SPF
F - J	2x6	DRY	No.2	SPF
J - O	2x6	DRY	No.2	SPF
O - T	2x6	DRY	No.2	SPF
T - W	2x6	DRY	No.2	SPF
W - AB	2x6	DRY	No.2	SPF
BB- AS	2x6	DRY	No.2	SPF
AS- AL	2x6	DRY	No.2	SPF
AL- AC	2x6	DRY	No.2	SPF
ALL WEBS EXCEPT	2x3	DRY	No.2	SPF
AC- AB	2x4	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						
C, D, E, G, H, I, U, V, X, Y, Z, AA						
C	TMW+w	MT20	3.0	4.0	2.00	1.25
F	TS-t	MT20	5.0	6.0	2.50	2.75
J	TTW-m	MT20	5.0	8.0	2.75	4.00
K, L, M, N, P, Q, R, S						
K	TMW+w	MT20	3.0	6.0		
O	TS-t	MT20	5.0	6.0		
T	TTW-m	MT20	5.0	8.0	2.75	4.00
W	TS-t	MT20	5.0	6.0		
AB	TMW+w	MT20	3.0	4.0	2.00	Edge
AC, AD, AE, AF, AG, AH, AI, AJ, AK, AM, AN, AO, AP, AQ, AR, AT, AU, AV, AW, AX, AY, AZ, BA						
AC	BMW1+w	MT20	3.0	6.0		
AL	BS-t	MT20	5.0	6.0		
AS	BS-t	MT20	5.0	6.0		
BB						
BB	TMBMV1+p	MT20	3.0	8.0	2.50	0.50

Structural component only
DWG# T-2121164

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.

PROVIDE ANCHORAGE AT BEARING JOINT AC FOR 150 LBS FACTORED UPLIFT
BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S)

BRACING

TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 10.00 FT.
MAX. UNBRACED BOTTOM CHORD LENGTH = 6.25 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	LC1 MAX CSI (LC)	MAX. UNBRAC LENGTH
BB- B	-228 / 0	0.0	0.0	0.01 (1)	7.81
A- B	0 / 29	-91.8	-91.8	0.06 (1)	10.00
B- C	-6 / 0	-91.8	-91.8	0.06 (1)	10.00
C- D	0 / 3	-91.8	-91.8	0.04 (1)	10.00
D- E	0 / 22	-91.8	-91.8	0.02 (1)	10.00
E- F	0 / 25	-91.8	-91.8	0.02 (1)	10.00
F- G	0 / 25	-91.8	-91.8	0.02 (1)	10.00
G- H	0 / 30	-91.8	-91.8	0.02 (1)	10.00
H- I	0 / 34	-91.8	-91.8	0.03 (1)	10.00
I- J	0 / 30	-91.8	-91.8	0.02 (1)	10.00
J- K	0 / 35	-91.8	-91.8	0.02 (1)	10.00
K- L	0 / 35	-91.8	-91.8	0.02 (1)	10.00
L- M	0 / 35	-91.8	-91.8	0.02 (1)	10.00
M- N	0 / 35	-91.8	-91.8	0.02 (1)	10.00
N- O	0 / 35	-91.8	-91.8	0.02 (1)	10.00
O- P	0 / 35	-91.8	-91.8	0.02 (1)	10.00
P- Q	0 / 35	-91.8	-91.8	0.02 (1)	10.00
Q- R	0 / 35	-91.8	-91.8	0.03 (1)	10.00
R- S	0 / 35	-91.8	-91.8	0.03 (1)	10.00
S- T	0 / 35	-91.8	-91.8	0.03 (1)	10.00
T- U	0 / 29	-91.8	-91.8	0.03 (1)	10.00
U- V	0 / 34	-91.8	-91.8	0.03 (1)	10.00
V- W	0 / 30	-91.8	-91.8	0.02 (1)	10.00
W- X	0 / 30	-91.8	-91.8	0.02 (1)	10.00
X- Y	0 / 25	-91.8	-91.8	0.02 (1)	10.00
Y- Z	0 / 19	-91.8	-91.8	0.03 (1)	10.00
Z-AA	0 / 12	-91.8	-91.8	0.03 (1)	10.00
AA-AB	0 / 18	-91.8	-91.8	0.03 (1)	10.00
BB-BA	0 / 0	-18.5	-18.5	0.01 (4)	10.00
BA-AZ	-11 / 0	-18.5	-18.5	0.01 (4)	6.25
AZ-AY	-17 / 0	-18.5	-18.5	0.01 (4)	6.25
AY-AX	-23 / 0	-18.5	-18.5	0.01 (4)	6.25
AX-AW	-27 / 0	-18.5	-18.5	0.01 (4)	6.25
AW-AV	-30 / 0	-18.5	-18.5	0.01 (4)	6.25
AV-AU	-33 / 0	-18.5	-18.5	0.01 (4)	6.25
AU-AT	-35 / 0	-18.5	-18.5	0.01 (4)	6.25
AT-AS	-35 / 0	-18.5	-18.5	0.01 (4)	6.25
AS-AR	-35 / 0	-18.5	-18.5	0.01 (4)	6.25
AR-AQ	-35 / 0	-18.5	-18.5	0.01 (4)	6.25
AQ-AP	-35 / 0	-18.5	-18.5	0.01 (4)	6.25
AP-AO	-35 / 0	-18.5	-18.5	0.01 (4)	6.25
AO-AN	-35 / 0	-18.5	-18.5	0.01 (4)	6.25
AN-AM	-35 / 0	-18.5	-18.5	0.01 (4)	6.25
AM-AL	-35 / 0	-18.5	-18.5	0.01 (4)	6.25
AL-AK	-35 / 0	-18.5	-18.5	0.01 (4)	6.25
AK-AJ	-35 / 0	-18.5	-18.5	0.01 (4)	6.25
AJ-AI	-33 / 0	-18.5	-18.5	0.01 (4)	6.25
AI-AH	-30 / 0	-18.5	-18.5	0.01 (4)	6.25

WEBS

MEMB. FR-TO	MAX. FACTORED FORCE (LBS)	MAX CSI (LC)
AJ- T	-168 / 0	0.19 (1)
AK- S	-212 / 0	0.24 (1)
AM- R	-180 / 0	0.20 (1)
AN- Q	-182 / 0	0.20 (1)
AO- P	-184 / 0	0.21 (1)
AP- N	-183 / 0	0.21 (1)
AQ- M	-184 / 0	0.21 (1)
AR- L	-190 / 0	0.21 (1)
AT- K	-169 / 0	0.19 (1)
AI- U	-200 / 0	0.16 (1)
AH- V	-181 / 0	0.09 (1)
AG- X	-181 / 0	0.06 (1)
AF- Y	-179 / 0	0.04 (1)
AE- Z	-183 / 0	0.03 (1)
AD-AA	-166 / 0	0.02 (1)
AU- J	-152 / 0	0.17 (1)
BA- C	-181 / 0	0.03 (1)
AZ- D	-153 / 0	0.03 (1)
AY- E	-187 / 0	0.04 (1)
AX- G	-181 / 0	0.06 (1)
AW- H	-182 / 0	0.09 (1)
AV- I	-198 / 0	0.16 (1)
AC-AB	0 / 3	0.00 (1)

DESIGN CRITERIA

SPECIFIED LOADS:

TOP CH.	LL =	25.6	PSF
	DL =	6.0	PSF
BOT CH.	LL =	0.0	PSF
	DL =	7.4	PSF
TOTAL LOAD	=	39.0	PSF

SPACING = 24.0 IN. C/C

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

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

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

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

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

CSI: TC=0.06/1.00 (A-B:1) , BC=0.01/1.00 (AZ-BA:4) , WB=0.24/1.00 (S-AK:1) , SSI=0.07/1.00 (S-T: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	650	371	1747	788	1987	1873

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.29 (AB) (INPUT = 0.90)
JSI METAL= 0.06 (BB) (INPUT = 1.00)

CONTINUED ON PAGE 2

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

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
AH-AG	-26 / 0	-18.5	-18.5	0.01 (4)	6.25
AG-AF	-22 / 0	-18.5	-18.5	0.01 (4)	6.25
AF-AE	-17 / 0	-18.5	-18.5	0.01 (4)	6.25
AE-AD	-10 / 0	-18.5	-18.5	0.01 (4)	6.25
AD-AC	0 / 0	-18.5	-18.5	0.01 (4)	10.00

WEBS

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

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100009024
PROVINCE OF ONTARIO

Structural component only
DWG# T-2121164

JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
412868	T11X	3	1	ROYAL PINE HOMES TRUSS DESC.	

Tamarack Roof Truss, Burlington

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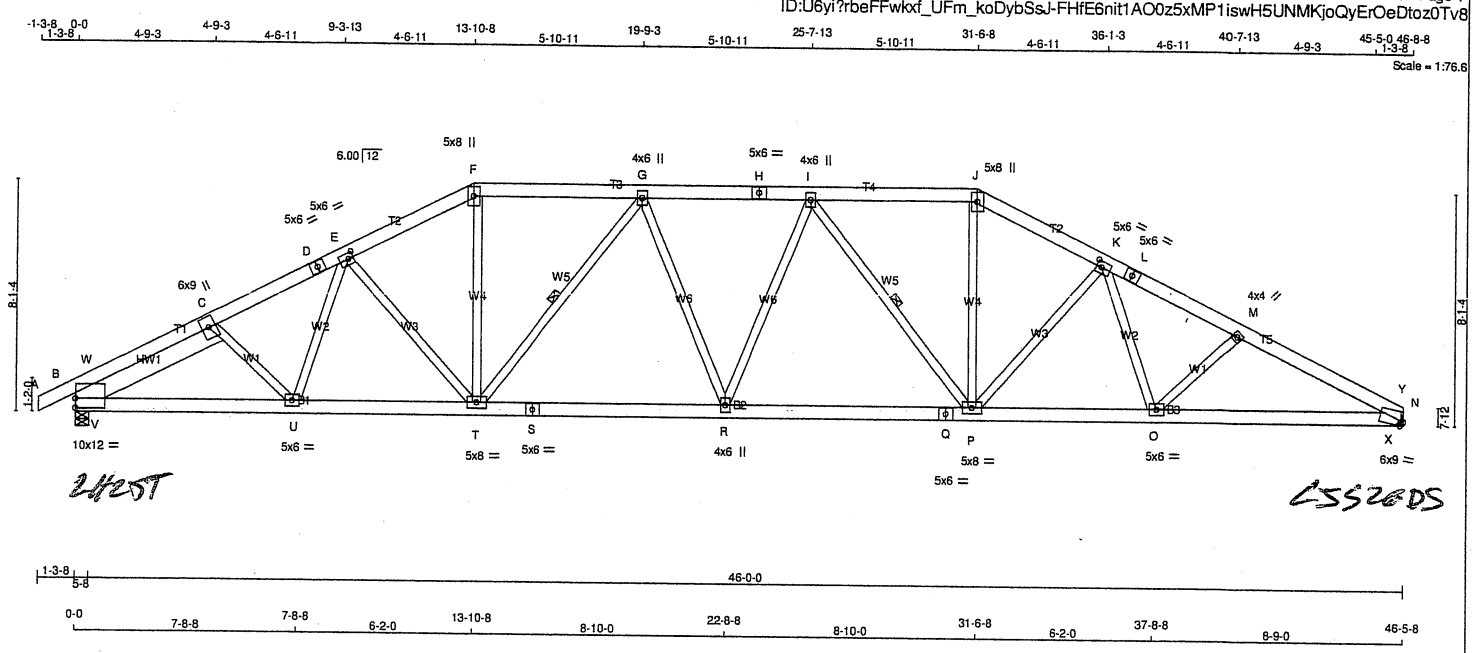

LUMBER

N. L. G. A. RULES

CHORDS	SIZE		LUMBER	DESCR.
A - D	2x6	DRY	No.2	SPF
D - F	2x6	DRY	No.2	SPF
F - H	2x6	DRY	No.2	SPF
H - J	2x6	DRY	No.2	SPF
J - L	2x6	DRY	No.2	SPF
L - N	2x6	DRY	No.2	SPF
B - S	2x6	DRY	No.2	SPF
S - Q	2x6	DRY	No.2	SPF
Q - N	2x6	DRY	No.2	SPF
REINFORCING MEMBERS				
HW1	2x8	DRY	No.2	SPF
ALL WEBS	2x4	DRY	No.2	SPF

DRY: SEASONED LUMBER.

PLATES (table is in inches)

JT	TYPE	PLATES	W	LEN	Y	X
B	TMBMW1-I	MT20	10.0	12.0	4.00	
C	TMWW+t	MT20	6.0	9.0		
D, H, L						
D	TS-t	MT20	5.0	6.0		
E	TMWW-t	MT20	5.0	6.0	2.50	2.25
F	TTW+p	MT20	5.0	8.0		
G	TMWW+t	MT20	4.0	6.0		
I	TMWW+t	MT20	4.0	6.0		
J	TTW+p	MT20	5.0	8.0		
K	TMWW-t	MT20	5.0	6.0	2.50	2.25
M	TMW+w	MT20	4.0	4.0		
N	TMB1-m	MT20	6.0	9.0	Edge	1.00
O	BMWW-t	MT20	5.0	6.0		
P	BMWWW-t	MT20	5.0	8.0		
Q	BS-t	MT20	5.0	6.0		
R	BMWW+t	MT20	4.0	6.0		
S	BS-t	MT20	5.0	6.0		
T	BMWWW-t	MT20	5.0	8.0		
U	BMWW-t	MT20	5.0	6.0		

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

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100009024
PROVINCE OF ONTARIO

Structural component only
DWG# T-2121165

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
B	3755	0	3763	195	-1100	5-8	5-8
N	3595	0	3622	0	-1050	MECHANICAL	

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

PROVIDE ANCHORAGE AT BEARING JOINT B FOR 1100 LBS FACTORED UPLIFT
PROVIDE ANCHORAGE AT BEARING JOINT N FOR 1050 LBS FACTORED UPLIFT

PROVIDE FOR 195 LBS FACTORED HORIZONTAL REACTION AT JOINT B

UNFACTORED REACTIONS

MAX./MIN. COMPONENT REACTIONS

JT	1ST LCASE COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
B	2773	1651 / 0	488 / 0	0 / 0	0 / -1093	639 / 0	0 / 0
N	2663	1571 / 0	488 / 0	0 / 0	77 / -1049	623 / 0	0 / 0
HORIZONTAL REACTIONS							
B	—	0 / 0	0 / 0	0 / 0	139 / -138	0 / 0	0 /0

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

BRACING

MAX. UNBRACED TOP CHORD LENGTH = 2.87 FT.
MAX. UNBRACED BOTTOM CHORD LENGTH = 6.10 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 G-T, I-P.

LOADING

TOTAL LOAD CASES: (18)

CHORDS

MEMB. FR-TO	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD LC1 (PLF) FROM	TO	MAX CSI (LC)	MAX. UNBRAC LENGTH
A- B	0 / 1	-115.2	-115.2	0.09 (2)	10.00
B- W	-4428 / 1167	-115.2	-115.2	0.18 (2)	4.03
W- C	-2902 / 905	-115.2	-115.2	0.15 (2)	4.83
C- D	-5672 / 1739	-115.2	-115.2	0.33 (2)	3.50
D- E	-5672 / 1739	-115.2	-115.2	0.33 (2)	3.50
E- F	-5164 / 1642	-115.2	-115.2	0.29 (2)	3.67
F- G	-4630 / 1538	-115.2	-115.2	0.37 (1)	3.76
G- H	-5466 / 1719	-115.2	-115.2	0.42 (1)	3.45
H- I	-5466 / 1719	-115.2	-115.2	0.42 (1)	3.45
I- J	-4815 / 1602	-115.2	-115.2	0.38 (1)	3.69
J- K	-5371 / 1713	-115.2	-115.2	0.31 (3)	3.59
K- L	-6250 / 1913	-115.2	-115.2	0.38 (3)	3.30
L- M	-6250 / 1913	-115.2	-115.2	0.38 (3)	3.30
M- Y	-6641 / 1989	-115.2	-115.2	0.55 (1)	3.02
Y- N	-7145 / 1894	-115.2	-115.2	0.52 (1)	2.87
B- V	-869 / 2593	-39.5	-39.5	0.33 (1)	6.25
V- U	-1561 / 4989	-39.5	-39.5	0.71 (1)	6.25
U- T	-1464 / 5032	-39.5	-39.5	0.72 (1)	6.25
T- S	-1429 / 5368	-39.5	-39.5	0.78 (1)	6.25
S- R	-1429 / 5368	-39.5	-39.5	0.78 (1)	6.25
R- Q	-1389 / 5430	-39.5	-39.5	0.79 (1)	6.25
Q- P	-1389 / 5430	-39.5	-39.5	0.79 (1)	6.25
P- O	-1391 / 5427	-39.5	-39.5	0.78 (1)	6.25
O- X	-1657 / 5910	-39.5	-39.5	0.86 (1)	6.10
X- N	-1657 / 5910	-39.5	-39.5	0.86 (1)	6.13

WEBS

MEMB. FR-TO	MAX. FACTORED FORCE (LBS)	MAX CSI (LC)
C- U	-35 / 387	0.06 (3)
U- E	-101 / 257	0.04 (5)
E- T	-817 / 380	0.53 (2)
T- F	-495 / 1807	0.39 (13)
T- G	-1548 / 519	0.70 (3)
G- R	-121 / 543	0.12 (9)
R- I	-242 / 399	0.24 (10)
I- P	-1378 / 465	0.62 (2)
P- J	-528 / 1903	0.42 (14)
P- K	-1143 / 470	0.74 (3)
K- O	-151 / 651	0.10 (3)
O- M	-532 / 311	0.11 (3)
V- W	-391 / 2013	0.00 (1)
V- C	-3006 / 867	0.50 (1)
X- Y	0 / 871	0.00 (1)

TRUSS HAS BEEN CHECKED FOR UNBALANCED LOADING AS PER NBCC 4.1.6.2.(8)

TOTAL WEIGHT = 3 X 280 = 839 lb [M]

DESIGN CRITERIA

SPECIFIED LOADS:

TOP CH.	LL	=	33.4	PSF
	DL	=	6.0	PSF
BOT CH.	LL	=	10.5	PSF
	DL	=	7.4	PSF
TOTAL LOAD		=	57.3	PSF

SPACING = 24.0 IN. C/C

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

THIS TRUSS IS DESIGNED FOR COMMERCIAL OR INDUSTRIAL BUILDING REQUIREMENTS OF PART 4, NBCC 2015

THIS DESIGN COMPLIES WITH:
- PART 4 OF BCBC 2018 , ABC 2019
- PART 4 OF OBC 2012 (2019 AMENDMENT)
- CSA 086-14
- TPIC 2014

DESIGN ASSUMPTIONS
- SLOPE REDUCTION FACTOR USED
- PERCENTAGE OF GROUND SNOW LOAD IS USER-DEFINED.

(80 % OF 31.3 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) TIMES IMPORTANCE FACTOR EQUALS 33.4 P.S.F. SPECIFIED ROOF LIVE LOAD

ALLOWABLE DEFL.(LL)= L/360 (1.55")
CALCULATED VERT. DEFL.(LL) = L/ 999 (0.29")
ALLOWABLE DEFL.(TL)= L/180 (3.10")
CALCULATED VERT. DEFL.(TL) = L/ 999 (0.41")

CSI: TC=0.55/1.00 (M-Y:1) , BC=0.86/1.00 (O-X:1) , WB=0.74/1.00 (K-P:3) , SSI=0.40/1.00 (N-Y:3)

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

SNOW LOAD IMPORTANCE FACTOR = 1.00
WIND LOAD IMPORTANCE FACTOR = 1.00
LIVE LOAD IMPORTANCE FACTOR = 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	650	371	1747	788	1987	1873

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.87 (Q) (INPUT = 0.90)
JSI METAL= 0.97 (Q) (INPUT = 1.00)

CONTINUED ON PAGE 2

WIND LOAD APPLIED IS DERIVED FROM REFERENCE VELOCITY PRESSURE OF { 9.2} PSF AT {31-0-0} FT-IN-SX REFERENCE HEIGHT ABOVE GRADE AND USING EXTERNAL PEAK COEFFICIENTS, CpCg, BASED ON THE {MAIN WIND FORCE RESISTING SYSTEM}.INTERNAL WIND PRESSURE IS BASED ON DESIGN {CATEGORY 2}. BUILDING MAY BE LOCATED ON {OPEN TERRAIN}, AND TRUSS IS DESIGNED TO BE LOCATED AT LEAST {0-0} FT-IN-SX AWAY FROM EAVE.TRUSS UPLIFT IS BASED ON TOP AND BOTTOM CHORD DEAD LOADS OF 5.0 PSF AND 5.0 PSF RESPECTIVELY.

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07/01/21
H. J. G. ALVES
100009024
PROVINCE OF ONTARIO

Structural component only
DWG# T-2121165

JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
412868	T12	1	3	ROYAL PINE HOMES TRUSS DESC.	

Tamarack Roof Truss, Burlington

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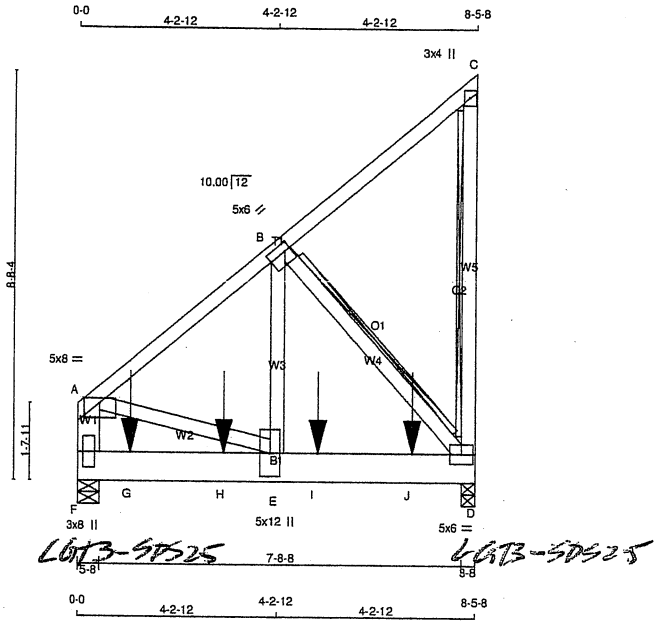

TOTAL WEIGHT = 3 X 59 = 178 lb

LUMBER

N. L. G. A. RULES

CHORDS	SIZE		LUMBER	DESCR.
A - C	2x4	DRY	No.2	SPF
D - C	2x4	DRY	No.2	SPF
F - A	2x6	DRY	No.2	SPF
F - D	2x8	DRY	No.2	SPF
ALL WEBS EXCEPT	2x4	DRY	No.2	SPF

DRY: SEASONED LUMBER.

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

CHORDS	#ROWS	SURFACE SPACING (IN)	LOAD(PLF)
TOP CHORDS : (0.122"X3") SPIRAL NAILS			
A- C	1	12	TOP
C- D	1	12	TOP
F- A	2	12	TOP
BOTTOM CHORDS : (0.122"X3") SPIRAL NAILS			
F- D	2	4	SIDE(957.4)
WEBS : (0.122"X3") SPIRAL NAILS			
2x4	1	6	

STAGGER NAILS BY HALF THE SURFACE SPACING IN ADJACENT PLIES.

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

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

SIDE - PLF SHOWN IS THE EQUIVALENT UDL APPLIED TO ONE SIDE THAT THE CORRESPONDING NAILING PATTERN 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
A	TMVW-p	MT20	5.0	8.0	Edge	
B	TMWW-t	MT20	5.0	6.0	2.00	1.50

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100009024
PROVINCE OF ONTARIO

Structural component only
DWG# T-2121166

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
D	7777	0	7857	0	-2445	3-8	3-8
F	8212	0	8291	477	-2340	5-8	5-8

PROVIDE ANCHORAGE AT BEARING JOINT D FOR 2445 LBS FACTORED UPLIFT
PROVIDE ANCHORAGE AT BEARING JOINT F FOR 2340 LBS FACTORED UPLIFT

PROVIDE FOR 477 LBS FACTORED HORIZONTAL REACTION AT JOINT F

UNFACTORED REACTIONS

JT	1ST LCASE COMBINED	MAX./MIN. COMPONENT REACTIONS SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
D	5726	3507 / 0	974 / 0	0 / 0	325 / -2372	1298 / 0	0 / 0
F	6045	3700 / 0	1028 / 0	0 / 0	280 / -2332	1371 / 0	0 / 0
HORIZONTAL REACTIONS							
F	—	0 / 0	0 / 0	0 / 0	341 / -225	0 / 0	0 /0

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

BRACING

MAX. UNBRACED TOP CHORD LENGTH = 4.63 FT.
MAX. UNBRACED BOTTOM CHORD LENGTH = 6.25 FT OR RIGID CEILING DIRECTLY APPLIED.

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

2x6 DRY SPF No.2 T-BRACE AT C-D, B-D

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

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

LOADING

TOTAL LOAD CASES: (18)

CHORDS

MEMB. FR-TO	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD LC1 (PLF) FROM	TO	MAX CSI (LC)	MAX. UNBRAC LENGTH
A- B	-6013 / 1767	-115.2	-115.2	0.19 (2)	4.63
B- C	-170 / 194	-115.2	-115.2	0.12 (2)	6.25
D- C	-223 / 159	0.0	0.0	0.13 (13)	7.81
F- A	-5360 / 1502	0.0	0.0	0.12 (2)	7.45
F- G	-455 / 305	-39.5	-39.5	0.54 (3)	6.25
G- H	-455 / 305	-39.5	-39.5	0.54 (3)	6.25
H- E	-455 / 305	-39.5	-39.5	0.54 (3)	6.25
E- I	-1504 / 4649	-39.5	-39.5	0.68 (2)	6.25
I- J	-1504 / 4649	-39.5	-39.5	0.68 (2)	6.25
J- D	-1504 / 4649	-39.5	-39.5	0.68 (2)	6.25

WEBS

MEMB. FR-TO	MAX. FACTORED FORCE (LBS)	MAX CSI (LC)
E- B	-2461 / 8415	0.45 (3)
B- D	-6928 / 2271	0.36 (2)
A- E	-1409 / 4817	0.26 (2)

SPECIFIED CONCENTRATED LOADS (LBS)

JT	LOC.	LC1	MAX-	MAX+	FACE	DIR.	TYPE	HEEL	CONN.
G	1-1-4	-2700	-2700	615	BACK	VERT	TOTAL	---	C1
H	3-1-4	-2700	-2700	615	BACK	VERT	TOTAL	---	C1
I	5-1-4	-2700	-2700	615	BACK	VERT	TOTAL	---	C1
J	7-1-4	-2700	-2700	615	BACK	VERT	TOTAL	---	C1

CONNECTION REQUIREMENTS

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

TRUSS HAS BEEN CHECKED FOR UNBALANCED LOADING AS PER NBCC 4.1.6.2.(8)

[M]

DESIGN CRITERIA

SPECIFIED LOADS:

TOP CH.	LL =	33.4	PSF
	DL =	6.0	PSF
BOT CH.	LL =	10.5	PSF
	DL =	7.4	PSF
TOTAL LOAD	=	57.3	PSF

SPACING = 24.0 IN. C/C

THIS TRUSS IS DESIGNED FOR COMMERCIAL OR INDUSTRIAL BUILDING REQUIREMENTS OF PART 4, NBCC 2015

THIS DESIGN COMPLIES WITH:
- PART 4 OF BCBC 2018 , ABC 2019
- PART 4 OF OBC 2012 (2019 AMENDMENT)
- CSA 086-14
- TPIC 2014

DESIGN ASSUMPTIONS
- SLOPE REDUCTION FACTOR NOT USED
- PERCENTAGE OF GROUND SNOW LOAD IS USER-DEFINED.

(80 % OF 31.3 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) TIMES IMPORTANCE FACTOR EQUALS 33.4 P.S.F. SPECIFIED ROOF LIVE LOAD

ALLOWABLE DEFL.(LL)= L/360 (0.28")
CALCULATED VERT. DEFL.(LL) = L/ 999 (0.03")
ALLOWABLE DEFL.(TL)= L/180 (0.56")
CALCULATED VERT. DEFL.(TL) = L/ 999 (0.04")

CSI: TC=0.19/1.00 (A-B:2) , BC=0.68/1.00 (D-E:2) , WB=0.45/1.00 (B-E:3) , SSI=0.89/1.00 (D-E:3)

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

SNOW LOAD IMPORTANCE FACTOR = 1.00
WIND LOAD IMPORTANCE FACTOR = 1.00
LIVE LOAD IMPORTANCE FACTOR = 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	650	371	1747	788	1987	1873

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.87 (B) (INPUT = 0.90)
JSI METAL= 0.56 (E) (INPUT = 1.00)

CONTINUED ON PAGE 2

JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC. ROYAL PINE HOMES	DRWG NO.
412868	T12	1	3	TRUSS DESC.	

Tamarack Roof Truss, Burlington

PLATES (table is in inches)

JT	TYPE	PLATES	W	LEN	Y	X
C	TMV+p	MT20	3.0	4.0		
D	BMVW1-t	MT20	5.0	6.0		
E	BMWW+t	MT20	5.0	12.0		
F	BMV1+p	MT20	3.0	8.0		

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

CONNECTION REQUIREMENTS

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

WIND LOAD APPLIED IS DERIVED FROM REFERENCE VELOCITY PRESSURE OF { 9.2} PSF AT {31-0-0} FT-IN-SX REFERENCE HEIGHT ABOVE GRADE AND USING EXTERNAL PEAK COEFFICIENTS, CpCg, BASED ON THE {MAIN WIND FORCE RESISTING SYSTEM}.INTERNAL WIND PRESSURE IS BASED ON DESIGN {CATEGORY 2}. BUILDING MAY BE LOCATED ON {OPEN TERRAIN}, AND TRUSS IS DESIGNED TO BE LOCATED AT LEAST {0-0} FT-IN-SX AWAY FROM EAVE.TRUSS UPLIFT IS BASED ON TOP AND BOTTOM CHORD DEAD LOADS OF 5.0 PSF AND 5.0 PSF RESPECTIVELY.

LICENSED PROFESSIONAL ENGINEER
07/01/21
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100009024
PROVINCE OF ONTARIO

Structural component only
DWG# T-2121166

JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
412868	T13S	2	1	ROYAL PINE HOMES TRUSS DESC.	

Tamarack Roof Truss, Burlington

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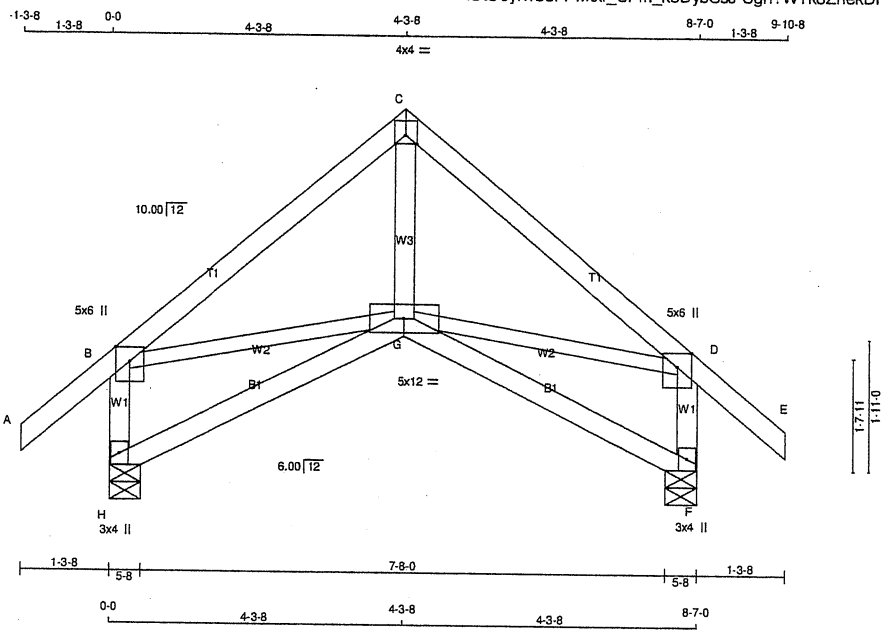

TOTAL WEIGHT = 2 X 41 = 82 lb

[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 - G	2x4	DRY	No.2	SPF
G - F	2x4	DRY	No.2	SPF
ALL WEBS	2x4	DRY	No.2	SPF
EXCEPT				
B - G	2x3	DRY	No.2	SPF
G - D	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	TTW-p	MT20	4.0	4.0	1.50	2.00
D	TMVW+p	MT20	5.0	6.0	Edge	
F	BMV1+p	MT20	3.0	4.0		
G	BBWWW-p	MT20	5.0	12.0		
H	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
H	600	0	600	0	0	5-8	5-8
F	600	0	600	0	0	5-8	5-8

UNFACTORED REACTIONS

JT	1ST LCASE COMBINED	MAX./MIN. COMPONENT REACTIONS SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
H	422	290 / 0	0 / 0	0 / 0	0 / 0	132 / 0	0 / 0
F	422	290 / 0	0 / 0	0 / 0	0 / 0	132 / 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. FR-TO	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD LC1 (PLF) FROM	TO	MAX CSI (LC)	MAX. UNBRAC LENGTH
A- B	0 / 41	-91.8	-91.8	0.13 (1)	10.00
B- C	-448 / 0	-91.8	-91.8	0.22 (1)	6.25
C- D	-448 / 0	-91.8	-91.8	0.22 (1)	6.25
D- E	0 / 41	-91.8	-91.8	0.13 (1)	10.00
H- B	-561 / 0	0.0	0.0	0.06 (1)	7.81
F- D	-561 / 0	0.0	0.0	0.06 (1)	7.81
H- G	0 / 0	-18.5	-18.5	0.10 (4)	10.00
G- F	0 / 0	-18.5	-18.5	0.10 (4)	10.00

WEBS

MEMB. FR-TO	MAX. FACTORED FORCE (LBS)	MAX CSI (LC)
G- C	0 / 180	0.03 (4)
B- G	0 / 348	0.08 (1)
G- D	0 / 348	0.08 (1)

DESIGN CRITERIA

SPECIFIED LOADS:

TOP CH.	LL	=	25.6	PSF
	DL	=	6.0	PSF
BOT CH.	LL	=	0.0	PSF
	DL	=	7.4	PSF
TOTAL LOAD		=	39.0	PSF

SPACING = 24.0 IN. C/C

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

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

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

ALLOWABLE DEFL.(LL)= L/360 (0.29")
CALCULATED VERT. DEFL.(LL) = L/ 999 (0.01")
ALLOWABLE DEFL.(TL)= L/360 (0.29")
CALCULATED VERT. DEFL.(TL) = L/ 999 (0.02")

CSI: TC=0.22/1.00 (B-C:1) , BC=0.10/1.00 (G-H:4) , WB=0.08/1.00 (D-G: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	650	371	1747	788	1987	1873

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.60 (C) (INPUT = 0.90)
JSI METAL= 0.22 (B) (INPUT = 1.00)

LICENSED PROFESSIONAL ENGINEER
07/01/21
H. J. G. ALVES
100009024
PROVINCE OF ONTARIO

Structural component only
DWG# T-2121167

JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
412868	T14	1	1	ROYAL PINE HOMES TRUSS DESC.	

Tamarack Roof Truss, Burlington

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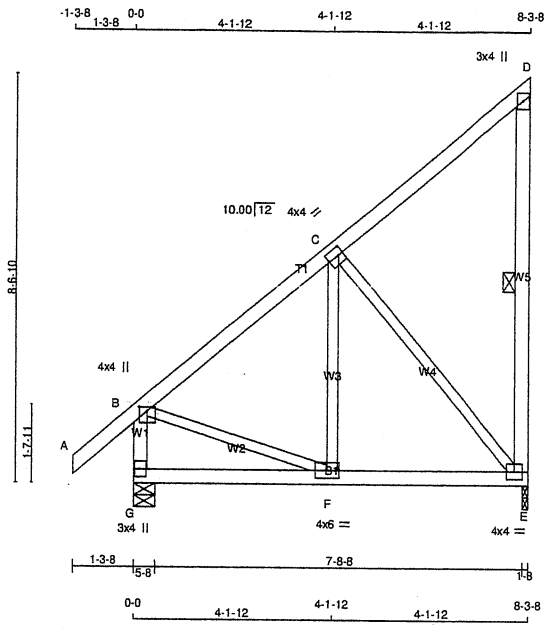

TOTAL WEIGHT = 46 lb.
[M][F]

LUMBER
N. L. G. A. RULES.

CHORDS	SIZE		LUMBER	DESCR.
A - D	2x4	DRY	No.2	SPF
E - D	2x4	DRY	No.2	SPF
G - B	2x4	DRY	No.2	SPF
G - E	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	TMWW-t	MT20	4.0	4.0	2.00	1.25
D	TMV+p	MT20	3.0	4.0		
E	BMVW1-t	MT20	4.0	4.0		
F	BMWW-t	MT20	4.0	6.0		
G	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	457	0	457	0	0	1-8	1-8
G	584	0	584	0	0	5-8	5-8

UNFACTORED REACTIONS

JT	1ST LCASE COMBINED	MAX./MIN. COMPONENT REACTIONS SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
E	323	212 / 0	0 / 0	0 / 0	0 / 0	111 / 0	0 / 0
G	411	283 / 0	0 / 0	0 / 0	0 / 0	128 / 0	0 / 0

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

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

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

1 LATERAL BRACE(S) AT 1/ 2 LENGTH OF D-E.

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 / 41	-91.8	-91.8	0.13 (1)	10.00
B- C	-292 / 0	-91.8	-91.8	0.20 (1)	6.25
C- D	-30 / 0	-91.8	-91.8	0.20 (1)	6.25
E- D	-143 / 0	0.0	0.0	0.05 (1)	6.25
G- B	-554 / 0	0.0	0.0	0.06 (1)	7.81
G- F	0 / 0	-18.5	-18.5	0.09 (4)	10.00
F- E	0 / 247	-18.5	-18.5	0.11 (4)	10.00

WEBS

MEMB. FR-TO	MAX. FACTORED FORCE (LBS)	MAX CSI (LC)
F- C	0 / 80	0.03 (4)
C- E	-376 / 0	0.25 (1)
B- F	0 / 259	0.06 (1)

DESIGN CRITERIA

SPECIFIED LOADS:

TOP CH.	LL	=	25.6	PSF
	DL	=	6.0	PSF
BOT CH.	LL	=	0.0	PSF
	DL	=	7.4	PSF
TOTAL LOAD		=	39.0	PSF

SPACING = 24.0 IN. C/C

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

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

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

ALLOWABLE DEFL.(LL)= L/360 (0.28")
CALCULATED VERT. DEFL.(LL) = L/ 999 (0.00")
ALLOWABLE DEFL.(TL)= L/360 (0.28")
CALCULATED VERT. DEFL.(TL) = L/ 999 (0.01")

CSI: TC=0.20/1.00 (B-C:1) , BC=0.11/1.00 (E-F:4) , WB=0.25/1.00 (C-E:1) , SSI=0.14/1.00 (B-C:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

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

NAIL VALUES

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

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.45 (B) (INPUT = 0.90)
JSI METAL= 0.12 (B) (INPUT = 1.00)

LICENSED PROFESSIONAL ENGINEER
07/01/21
H. J. G. ALVES
100009024
PROVINCE OF ONTARIO

Structural component only
DWG# T-2121168

JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
412868	T15	1	3	ROYAL PINE HOMES TRUSS DESC.	

Tamarack Roof Truss, Burlington

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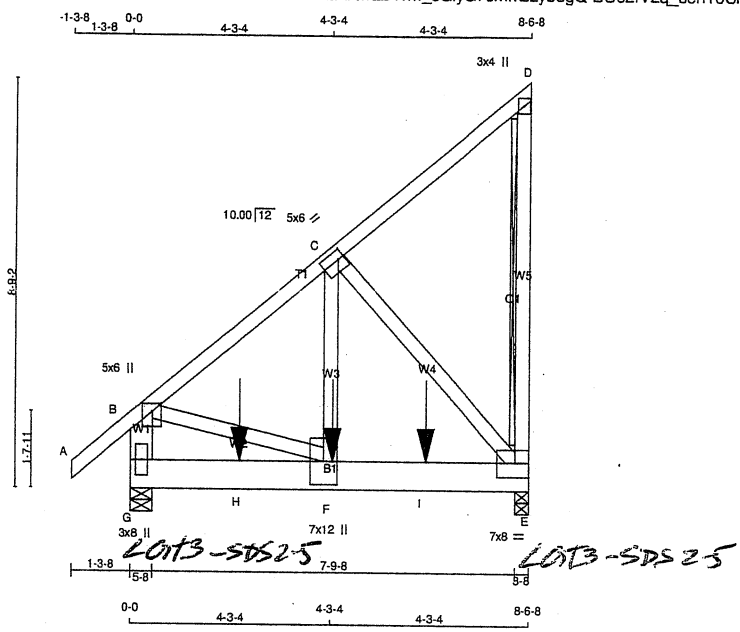

TOTAL WEIGHT = 3 X 62 = 185 lb
[M]

LUMBER

N. L. G. A. RULES

CHORDS	SIZE		LUMBER	DESCR.
A - D	2x4	DRY	No.2	SPF
E - D	2x4	DRY	No.2	SPF
G - B	2x6	DRY	No.2	SPF
G - E	2x8	DRY	No.2	SPF
ALL WEBS EXCEPT	2x4	DRY	No.2	SPF
C - E	2x4	DRY	2100F 1.8E	SPF

DRY: SEASONED LUMBER.

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

CHORDS	#ROWS	SURFACE SPACING (IN)	LOAD(PLF)
TOP CHORDS : (0.122"X3") SPIRAL NAILS			
A- D	1	12	TOP
D- E	1	12	TOP
G- B	2	12	TOP
BOTTOM CHORDS : (0.122"X3") SPIRAL NAILS			
G- E	2	4	SIDE(1158.2)
WEBS : (0.122"X3") SPIRAL NAILS			
2x4	2	5	
E- C	1	6	
F- B	1	6	

STAGGER NAILS BY HALF THE SURFACE SPACING IN ADJACENT PLIES.

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

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

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

Structural component only
DWG# T-2121169

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	6070	0	6150	0	-1933	3-8	3-8
G	6160	0	6267	510	-1724	5-8	5-8

PROVIDE ANCHORAGE AT BEARING JOINT E FOR 1933 LBS FACTORED UPLIFT
PROVIDE ANCHORAGE AT BEARING JOINT G FOR 1724 LBS FACTORED UPLIFT

PROVIDE FOR 510 LBS FACTORED HORIZONTAL REACTION AT JOINT G

UNFACTORED REACTIONS

JT	1ST LCASE COMBINED	MAX./MIN. COMPONENT REACTIONS SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
E	4483	2710 / 0	794 / 0	0 / 0	329 / -1877	1032 / 0	0 / 0
G	4541	2790 / 0	785 / 0	0 / 0	252 / -1731	1037 / 0	0 / 0
HORIZONTAL REACTIONS							
G	---	0 / 0	0 / 0	0 / 0	364 / -238	0 / 0	0 /0

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

BRACING

MAX. UNBRACED TOP CHORD LENGTH = 4.82 FT.
MAX. UNBRACED BOTTOM CHORD LENGTH = 6.25 FT OR RIGID CEILING DIRECTLY APPLIED.

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

2x6 DRY SPF No.2 T-BRACE AT D-E

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

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

LOADING

TOTAL LOAD CASES: (18)

CHORDS

MEMB. FR-TO	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD LC1 (PLF) FROM	TO	MAX CSI (LC)	MAX. UNBRAC LENGTH
A- B	0 / 59	-115.2	-115.2	0.06 (2)	10.00
B- C	-5428 / 1581	-115.2	-115.2	0.19 (2)	4.82
C- D	-171 / 196	-115.2	-115.2	0.12 (2)	6.25
E- D	-222 / 159	0.0	0.0	0.13 (13)	7.81
G- B	-5039 / 1395	0.0	0.0	0.11 (2)	7.63
G- H	-488 / 322	-39.5	-39.5	0.41 (2)	6.25
H- F	-488 / 322	-39.5	-39.5	0.41 (2)	6.25
F- I	-1369 / 4202	-39.5	-39.5	0.55 (2)	6.25
I- E	-1369 / 4202	-39.5	-39.5	0.55 (2)	6.25

WEBS

MEMB. FR-TO	MAX. FACTORED FORCE (LBS)	MAX CSI (LC)
F- C	-2191 / 7523	0.40 (3)
C- E	-6253 / 2074	0.61 (2)
B- F	-1276 / 4351	0.23 (2)

SPECIFIED CONCENTRATED LOADS (LBS)

JT	LOC.	LC1	MAX-	MAX+	FACE	DIR.	TYPE	HEEL	CONN.
F	4-3-12	-2645	-2645	594	FRONT	VERT	TOTAL	---	C1
H	2-3-12	-2645	-2645	594	FRONT	VERT	TOTAL	---	C1
I	6-3-12	-2645	-2645	594	FRONT	VERT	TOTAL	---	C1

CONNECTION REQUIREMENTS

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

TRUSS HAS BEEN CHECKED FOR UNBALANCED LOADING AS PER NBCC 4.1.6.2.(8)

DESIGN CRITERIA

SPECIFIED LOADS:

TOP CH.	LL	=	33.4	PSF
	DL	=	6.0	PSF
BOT CH.	LL	=	10.5	PSF
	DL	=	7.4	PSF
TOTAL LOAD		=	57.3	PSF

SPACING = 24.0 IN. C/C

THIS TRUSS IS DESIGNED FOR COMMERCIAL OR INDUSTRIAL BUILDING REQUIREMENTS OF PART 4, NBCC 2015

THIS DESIGN COMPLIES WITH:
- PART 4 OF BCBC 2018 , ABC 2019
- PART 4 OF OBC 2012 (2019 AMENDMENT)
- CSA 086-14
- TPIC 2014

DESIGN ASSUMPTIONS
- SLOPE REDUCTION FACTOR NOT USED
- PERCENTAGE OF GROUND SNOW LOAD IS USER-DEFINED.

(80 % OF 31.3 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) TIMES IMPORTANCE FACTOR EQUALS 33.4 P.S.F. SPECIFIED ROOF LIVE LOAD

ALLOWABLE DEFL.(LL)= L/360 (0.28")
CALCULATED VERT. DEFL.(LL) = L/ 999 (0.03")
ALLOWABLE DEFL.(TL)= L/180 (0.57")
CALCULATED VERT. DEFL.(TL) = L/ 999 (0.04")

CSI: TC=0.19/1.00 (B-C:2) , BC=0.55/1.00 (E-F:2) , WB=0.61/1.00 (C-E:2) , SSI=0.45/1.00 (F-G:3)

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

SNOW LOAD IMPORTANCE FACTOR = 1.00
WIND LOAD IMPORTANCE FACTOR = 1.00
LIVE LOAD IMPORTANCE.FACTOR = 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	650	371	1747	788	1987	1873

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.84 (C) (INPUT = 0.90)
JSI METAL= 0.38 (C) (INPUT = 1.00)

CONTINUED ON PAGE 2

JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC. ROYAL PINE HOMES	DRWG NO.
412868	T15	1	3	TRUSS DESC.	

Tamarack Roof Truss, Burlington

ID:6ZMXwLBWm_sGlyG7JmrkJzyb8gQ-BU62fV2g_cen16CksecGqW0roTowG?gAXGOeCRz0QKA

PLATES (table is in inches)

JT	TYPE	PLATES	W	LEN	Y	X
B	TMVW+p	MT20	5.0	6.0	2.00	2.25
C	TMWW-t	MT20	5.0	6.0	2.25	1.50
D	TMV+p	MT20	3.0	4.0		
E	BMVW1-t	MT20	7.0	8.0	3.75	3.50
F	BMWW+t	MT20	7.0	12.0		
G	BMV1+p	MT20	3.0	8.0		

CONNECTION REQUIREMENTS

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

WIND LOAD APPLIED IS DERIVED FROM REFERENCE VELOCITY PRESSURE OF { 9.2} PSF AT {31-0-0} FT-IN-SX REFERENCE HEIGHT ABOVE GRADE AND USING EXTERNAL PEAK COEFFICIENTS, CpCg, BASED ON THE {MAIN WIND FORCE RESISTING SYSTEM}.INTERNAL WIND PRESSURE IS BASED ON DESIGN {CATEGORY 2}. BUILDING MAY BE LOCATED ON {OPEN TERRAIN}, AND TRUSS IS DESIGNED TO BE LOCATED AT LEAST {0-0} FT-IN-SX AWAY FROM EAVE.TRUSS UPLIFT IS BASED ON TOP AND BOTTOM CHORD DEAD LOADS OF 5.0 PSF AND 5.0 PSF RESPECTIVELY.

LICENSED PROFESSIONAL ENGINEER
07/01/21
H. J. G. ALVES
100009024
PROVINCE OF ONTARIO

Structural component only
DWG# T-2121169

JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
412868	T16G	1	1	ROYAL PINE HOMES TRUSS DESC.	

Tamarack Roof Truss, Burlington

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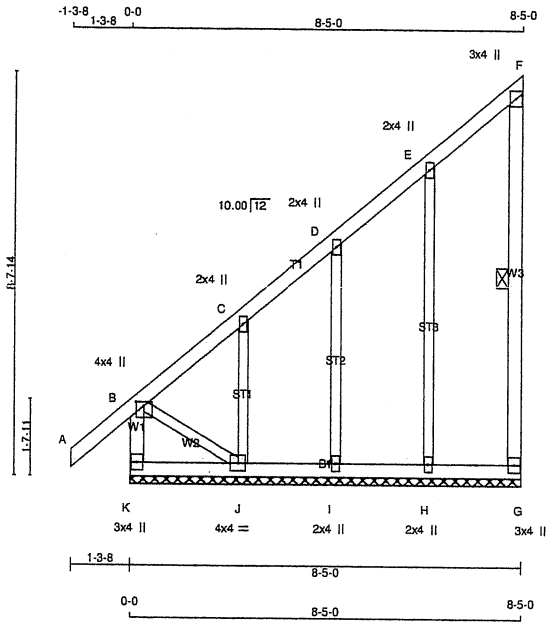

TOTAL WEIGHT = 48 lb
[M]

LUMBER
N. L. G. A. RULES

CHORDS	SIZE		LUMBER	DESCR.
K - B	2x4	DRY	No.2	SPF
A - F	2x4	DRY	No.2	SPF
G - F	2x4	DRY	No.2	SPF
K - G	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						
C	TMW+w	MT20	2.0	4.0		
F	TMV+p	MT20	3.0	4.0		
G	BMV1+p	MT20	3.0	4.0		
H	BMW1+w	MT20	2.0	4.0		
I	BMW1+w	MT20	2.0	4.0		
J	BMWW1-t	MT20	4.0	4.0		
K	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 F-G.

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
K- B	-230 / 0	0.0	0.0	0.02 (1)	7.81
A- B	0 / 41	-91.8	-91.8	0.13 (1)	10.00
B- C	-3 / 0	-91.8	-91.8	0.06 (1)	10.00
C- D	-15 / 0	-91.8	-91.8	0.06 (1)	6.25
D- E	0 / 0	-91.8	-91.8	0.05 (1)	10.00
E- F	-12 / 0	-91.8	-91.8	0.05 (1)	6.25
G- F	-78 / 0	0.0	0.0	0.03 (1)	6.25
K- J	0 / 0	-18.5	-18.5	0.02 (4)	10.00
J- I	0 / 6	-18.5	-18.5	0.02 (4)	10.00
I- H	0 / 3	-18.5	-18.5	0.02 (4)	10.00
H- G	0 / 0	-18.5	-18.5	0.02 (4)	10.00

WEBS

MEMB. FR-TO	MAX. FACTORED FORCE (LBS)	MAX CSI (LC)
H- E	-209 / 0	0.17 (1)
I- D	-164 / 0	0.07 (1)
J- C	-224 / 0	0.05 (1)
B- J	0 / 14	0.00 (1)

DESIGN CRITERIA

SPECIFIED LOADS:

TOP CH.	LL	=	25.6	PSF
	DL	=	6.0	PSF
BOT CH.	LL	=	0.0	PSF
	DL	=	7.4	PSF
TOTAL LOAD		=	39.0	PSF

SPACING = 24.0 IN. C/C

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

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

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

CSI: TC=0.13/1.00 (A-B:1) , BC=0.02/1.00 (I-J:4) , WB=0.17/1.00 (E-H:1) , SSI=0.08/1.00 (A-B:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

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

NAIL VALUES

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

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.17 (B) (INPUT = 0.90)
JSI METAL= 0.12 (C) (INPUT = 1.00)

LICENSED PROFESSIONAL ENGINEER
07/01/21
H. J. G. ALVES
100009024
PROVINCE OF ONTARIO

Structural component only
DWG# T-2121170

JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
412868	PB01	4	1	ROYAL PINE HOMES TRUSS DESC.	

Tamarack Roof Truss, Burlington

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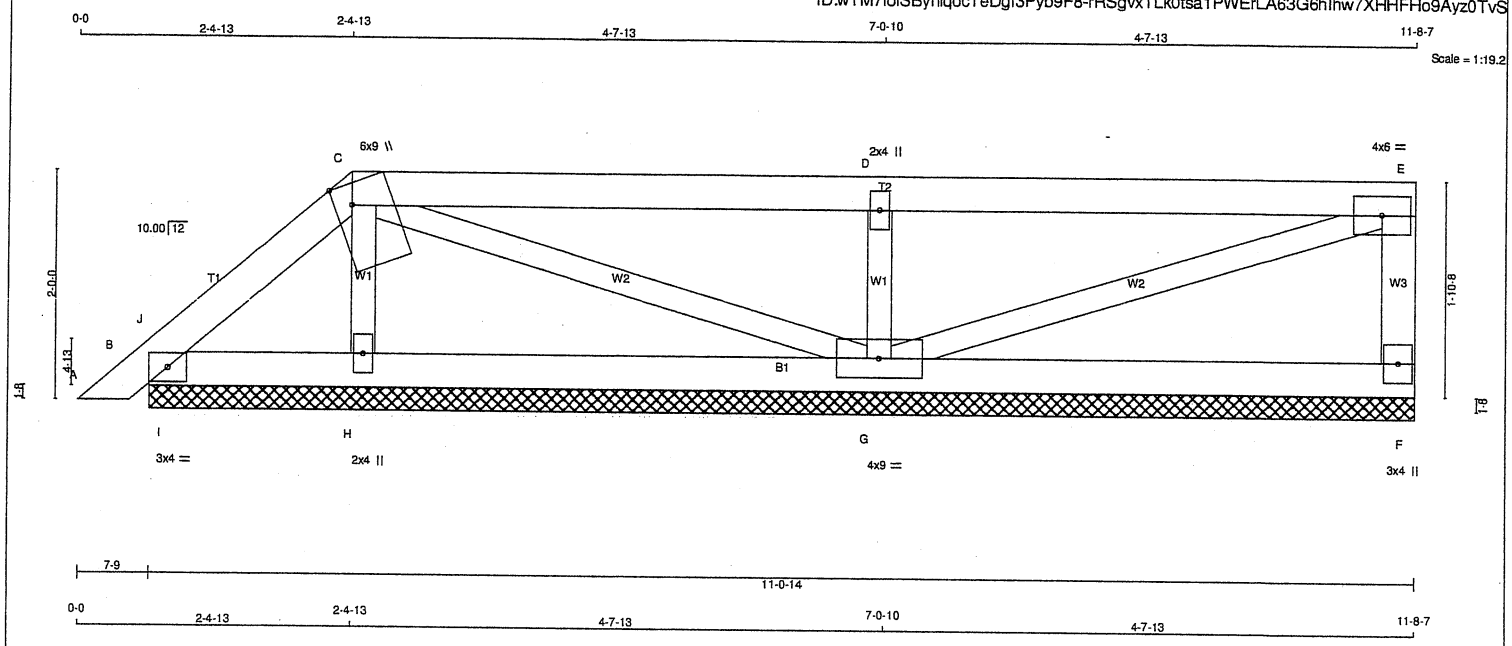

TOTAL WEIGHT = 4 X 38 = 151 lb

LUMBER

N. L. G. A. RULES

CHORDS	SIZE		LUMBER	DESCR.
A - C	2x4	DRY	No.2	SPF
C - E	2x4	DRY	No.2	SPF
F - E	2x4	DRY	No.2	SPF
B - F	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	TMB1-I	MT20	3.0	4.0		
C	TTWW+m	MT20	6.0	9.0	Edge	1.75
D	TMW+w	MT20	2.0	4.0		
E	TMVW-t	MT20	4.0	6.0		
F	BMV1+p	MT20	3.0	4.0		
G	BMWWW1-t	MT20	4.0	9.0		
H	BMW1+w	MT20	2.0	4.0		

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

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

BEARINGS

JT	FACTORED GROSS REACTION VERT	HORZ	MAXIMUM FACTORED GROSS REACTION DOWN	HORZ	UPLIFT	INPUT BRG IN-SX	REQRD BRG IN-SX
F	197	0	197	0	0	11-0-14	11-0-14
B	170	0	170	0	0	11-0-14	11-0-14
H	263	0	263	0	0	11-0-14	11-0-14
G	641	0	641	0	0	11-0-14	11-0-14

UNFACTORED REACTIONS

JT	1ST LCASE COMBINED	MAX./MIN. COMPONENT REACTIONS SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
F	139	91 / 0	0 / 0	0 / 0	0 / 0	48 / 0	0 / 0
B	117	91 / 0	0 / 0	0 / 0	0 / 0	26 / 0	0 / 0
H	188	110 / 0	0 / 0	0 / 0	0 / 0	78 / 0	0 / 0
G	452	302 / 0	0 / 0	0 / 0	0 / 0	151 / 0	0 / 0

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

BRACING

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

ALL 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	LC1	MAX CSI (LC)	MAX. UNBRAC LENGTH
A- B	0 / 14	-91.8	-91.8	0.02 (1)	10.00	
B- J	-32 / 0	-91.8	-91.8	0.01 (1)	6.25	
J- C	-54 / 0	-91.8	-91.8	0.03 (1)	6.25	
C- D	0 / 0	-91.8	-91.8	0.34 (1)	10.00	
D- E	0 / 0	-91.8	-91.8	0.34 (1)	10.00	
F- E	-162 / 0	0.0	0.0	0.02 (1)	7.81	
B- I	0 / 38	-18.5	-18.5	0.04 (1)	10.00	
I- H	0 / 38	-18.5	-18.5	0.05 (4)	10.00	
H- G	0 / 26	-18.5	-18.5	0.10 (4)	10.00	
G- F	0 / 0	-18.5	-18.5	0.10 (4)	10.00	

WEBS

MEMB. FR-TO	MAX. FACTORED FORCE (LBS)	MAX CSI (LC)
H- C	-181 / 0	0.03 (1)
C- G	-28 / 0	0.01 (1)
G- D	-533 / 0	0.08 (1)
G- E	0 / 0	0.00 (1)
I- J	-112 / 0	0.00 (1)

DESIGN CRITERIA

SPECIFIED LOADS:

TOP CH.	LL	=	25.6	PSF
	DL	=	6.0	PSF
BOT CH.	LL	=	0.0	PSF
	DL	=	7.4	PSF
TOTAL LOAD		=	39.0	PSF

SPACING = 24.0 IN. C/C

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

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

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

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

CSI: TC=0.34/1.00 (D-E:1) , BC=0.10/1.00 (G-H:4) , WB=0.08/1.00 (D-G:1) , SSI=0.21/1.00 (D-E:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

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

NAIL VALUES

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

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.27 (D) (INPUT = 0.90)
JSI METAL= 0.11 (D) (INPUT = 1.00)

LICENSED PROFESSIONAL ENGINEER
07/01/21
H. J. G. ALVES
100099024
PROVINCE OF ONTARIO

Structural component only
DWG# T-2121145

JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
412868	PB02	4	1	ROYAL PINE HOMES TRUSS DESC.	

Tamarack Roof Truss, Burlington

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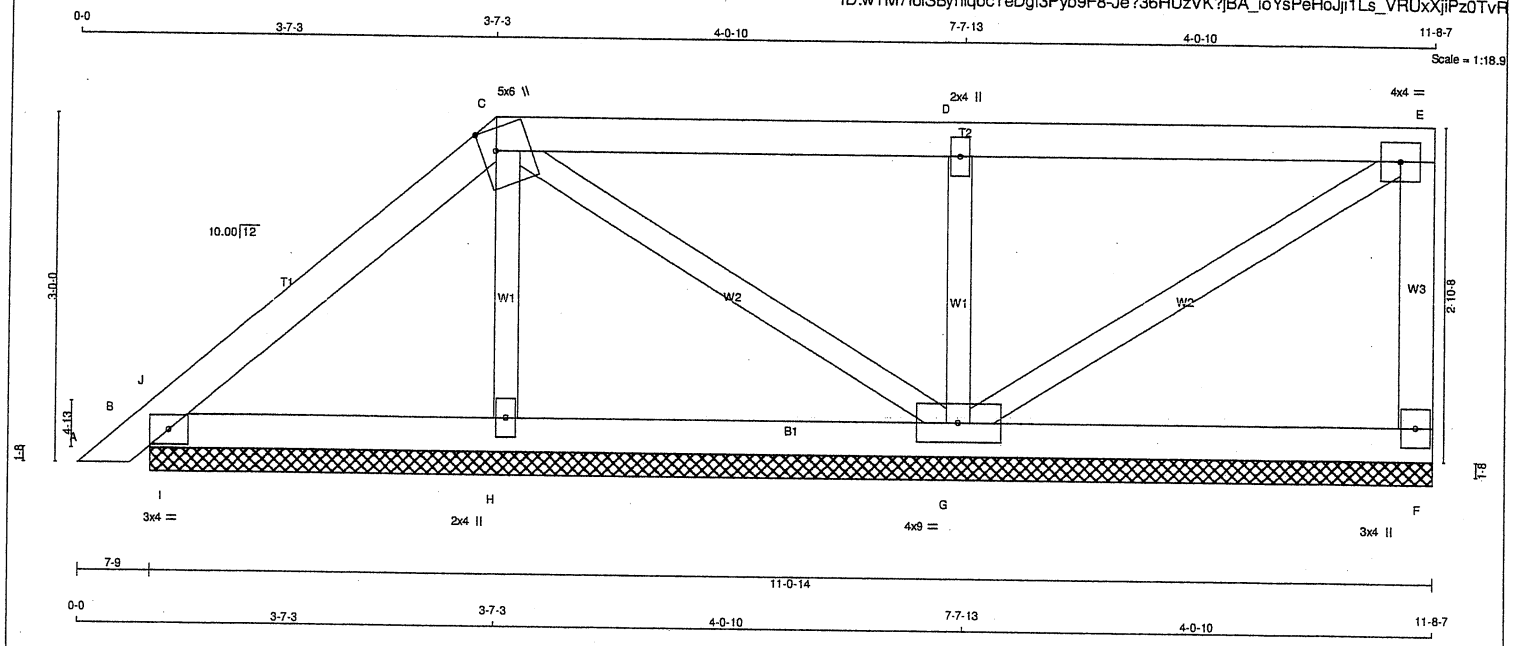

TOTAL WEIGHT = 4 X 41 = 163 lb

[M]

LUMBER

N. L. G. A. RULES

CHORDS	SIZE		LUMBER	DESCR.
A - C	2x4	DRY	No.2	SPF
C - E	2x4	DRY	No.2	SPF
F - E	2x4	DRY	No.2	SPF
B - F	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	TMB1-l	MT20	3.0	4.0		
C	TTWW+m	MT20	5.0	6.0	2.25	1.50
D	TMW+w	MT20	2.0	4.0		
E	TMVW-t	MT20	4.0	4.0		
F	BMV1+p	MT20	3.0	4.0		
G	BMWWW1-t	MT20	4.0	9.0		
H	BMW1+w	MT20	2.0	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	172	0	172	0	0	11-0-14	11-0-14
B	257	0	257	0	0	11-0-14	11-0-14
H	260	0	260	0	0	11-0-14	11-0-14
G	582	0	582	0	0	11-0-14	11-0-14

UNFACTORED REACTIONS

JT	1ST LCASE COMBINED	MAX./MIN. COMPONENT REACTIONS SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
F	122	79 / 0	0 / 0	0 / 0	0 / 0	43 / 0	0 / 0
B	180	130 / 0	0 / 0	0 / 0	0 / 0	50 / 0	0 / 0
H	186	109 / 0	0 / 0	0 / 0	0 / 0	77 / 0	0 / 0
G	410	277 / 0	0 / 0	0 / 0	0 / 0	133 / 0	0 / 0

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

BRACING

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

ALL 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 / 14	-91.8	-91.8	0.02 (1)	10.00
B- J	-20 / 0	-91.8	-91.8	0.04 (1)	6.25
J- C	-88 / 0	-91.8	-91.8	0.10 (1)	6.25
C- D	0 / 3	-91.8	-91.8	0.25 (1)	10.00
D- E	0 / 2	-91.8	-91.8	0.25 (1)	10.00
F- E	-141 / 0	0.0	0.0	0.02 (1)	7.81
B- I	0 / 62	-18.5	-18.5	0.09 (1)	10.00
I- H	0 / 62	-18.5	-18.5	0.09 (1)	10.00
H- G	0 / 56	-18.5	-18.5	0.08 (4)	10.00
G- F	0 / 0	-18.5	-18.5	0.07 (4)	10.00

WEBS

MEMB. FR-TO	MAX. FACTORED FORCE (LBS)	MAX CSI (LC)
H- C	-163 / 0	0.03 (1)
C- G	-69 / 0	0.02 (1)
G- D	-464 / 0	0.08 (1)
G- E	-3 / 0	0.00 (1)
I- J	-249 / 0	0.00 (1)

DESIGN CRITERIA

SPECIFIED LOADS:

TOP CH.	LL	=	25.6	PSF
	DL	=	6.0	PSF
BOT CH.	LL	=	0.0	PSF
	DL	=	7.4	PSF
TOTAL LOAD		=	39.0	PSF

SPACING = 24.0 IN. C/C

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

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

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

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

CSI: TC=0.25/1.00 (C-D:1) , BC=0.09/1.00 (B-I:1) , WB=0.08/1.00 (D-G:1) , SSI=0.19/1.00 (B-I: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	650	371	1747	788	1987	1873

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.23 (D) (INPUT = 0.90)
JSI METAL= 0.10 (D) (INPUT = 1.00)

LICENSED PROFESSIONAL ENGINEER
07/01/21
H. J. G. ALVES
100009024
PROVINCE OF ONTARIO

Structural component only
DWG# T-2121146

JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
412868	PB03	4	1	ROYAL PINE HOMES TRUSS DESC.	

Tamarack Roof Truss, Burlington

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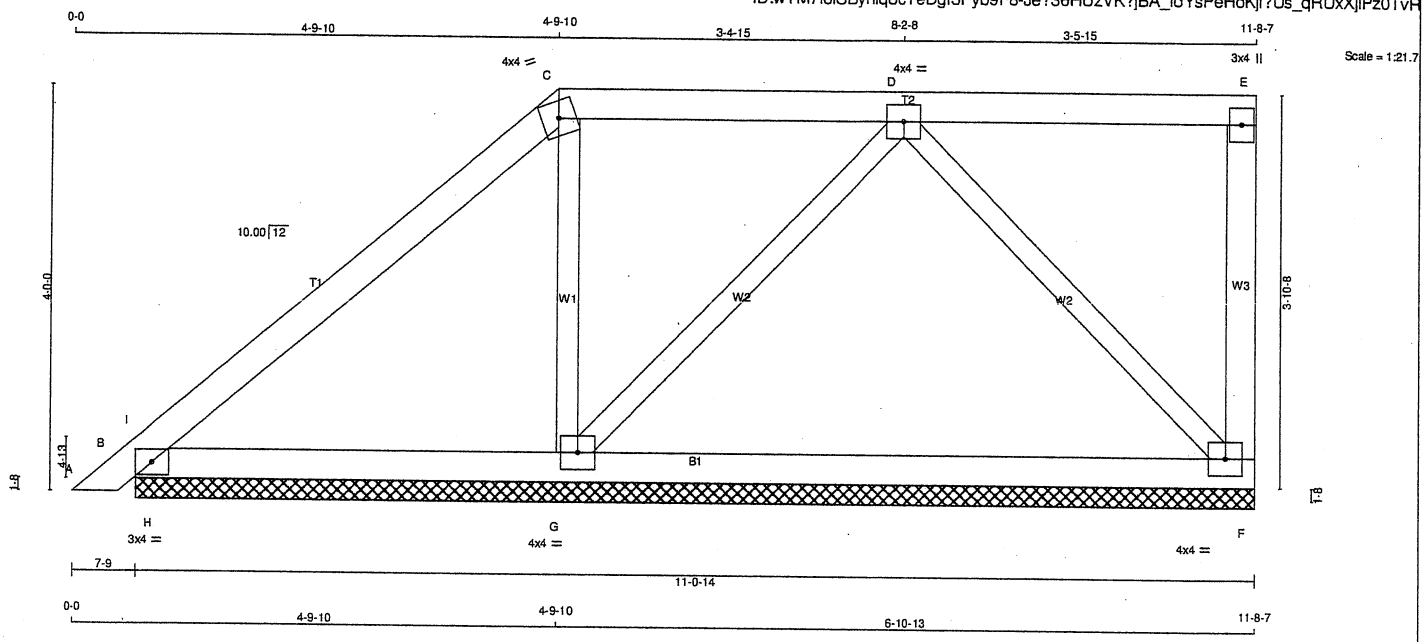

TOTAL WEIGHT = 4 X 42 = 166 lb

LUMBER

N. L. G. A. RULES

CHORDS	SIZE		LUMBER	DESCR.
A - C	2x4	DRY	No.2	SPF
C - E	2x4	DRY	No.2	SPF
F - E	2x4	DRY	No.2	SPF
B - F	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	TMB1-l	MT20	3.0	4.0		
C	TTW-m	MT20	4.0	4.0		
D	TMWW-t	MT20	4.0	4.0		
E	TMV+p	MT20	3.0	4.0		
F	BMVW1-t	MT20	4.0	4.0		
G	BMWW1-t	MT20	4.0	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	391	0	391	0	0	11-0-14	11-0-14
B	311	0	311	0	0	11-0-14	11-0-14
G	568	0	568	0	0	11-0-14	11-0-14

UNFACTORED REACTIONS

JT	1ST LCASE COMBINED	MAX./MIN. COMPONENT REACTIONS SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
F	275	190 / 0	0 / 0	0 / 0	0 / 0	85 / 0	0 / 0
B	216	162 / 0	0 / 0	0 / 0	0 / 0	54 / 0	0 / 0
G	406	242 / 0	0 / 0	0 / 0	0 / 0	163 / 0	0 / 0

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

BRACING

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

ALL 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	LC1 MAX CSI (LC)	MAX. UNBRAC LENGTH
A- B	0 / 14	-91.8	-91.8	0.02 (1)	10.00
B- I	0 / 144	-91.8	-91.8	0.13 (1)	10.00
I- C	-97 / 0	-91.8	-91.8	0.19 (1)	6.25
C- D	-57 / 0	-91.8	-91.8	0.18 (1)	6.25
D- E	0 / 0	-91.8	-91.8	0.18 (1)	10.00
F- E	-122 / 0	0.0	0.0	0.03 (1)	7.81
B- H	0 / 64	-18.5	-18.5	0.18 (1)	10.00
H- G	0 / 64	-18.5	-18.5	0.20 (4)	10.00
G- F	0 / 216	-18.5	-18.5	0.21 (4)	10.00

WEBS

MEMB. FR-TO	MAX. FACTORED FORCE (LBS)	MAX CSI (LC)
G- C	-224 / 0	0.05 (1)
G- D	-233 / 0	0.09 (1)
D- F	-309 / 0	0.12 (1)
H- I	-519 / 0	0.00 (1)

DESIGN CRITERIA

SPECIFIED LOADS:

TOP CH.	LL =	25.6	PSF
	DL =	6.0	PSF
BOT CH.	LL =	0.0	PSF
	DL =	7.4	PSF
TOTAL LOAD	=	39.0	PSF

SPACING = 24.0 IN. C/C

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

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

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

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

CSI: TC=0.19/1.00 (C-I:1) , BC=0.21/1.00 (F-G:4) , WB=0.12/1.00 (D-F:1) , SSI=0.39/1.00 (B-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	650	371	1747	788	1987	1873

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.26 (B) (INPUT = 0.90)
JSI METAL= 0.07 (F) (INPUT = 1.00)

LICENSED PROFESSIONAL ENGINEER
07/01/21
H. J. G. ALVES
100009024
PROVINCE OF ONTARIO

Structural component only
DWG# T-2121147

JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
412868	PB04G	4	1	ROYAL PINE HOMES TRUSS DESC.	

Tamarack Roof Truss, Burlington

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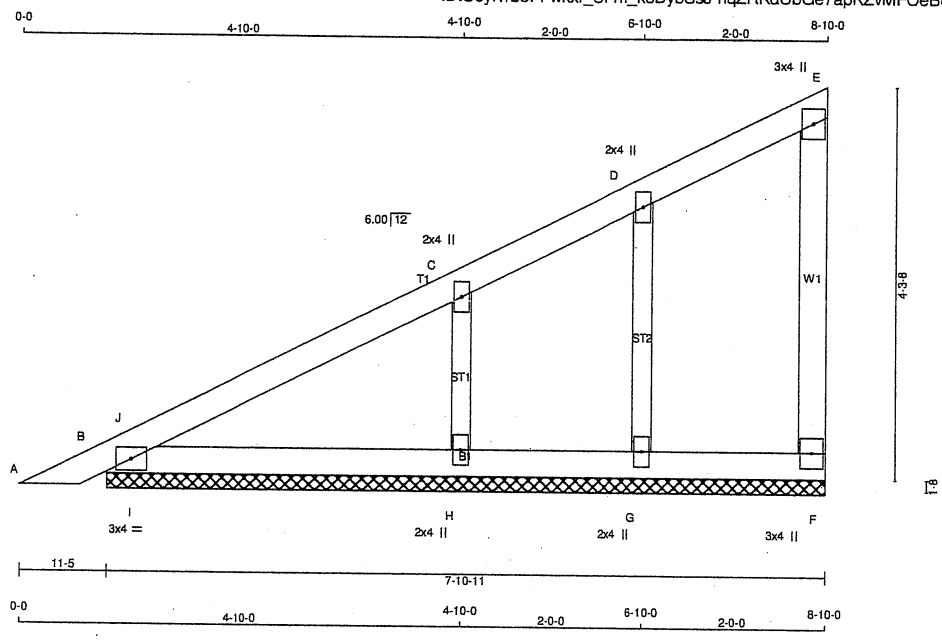

TOTAL WEIGHT = 4 X 28 = 112 lb

[M]

LUMBER

N. L. G. A. RULES

CHORDS	SIZE		LUMBER	DESCR.
A - E	2x4	DRY	No.2	SPF
F - E	2x4	DRY	No.2	SPF
B - F	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	TMB1-I	MT20	3.0	4.0		
C	TMW+w	MT20	2.0	4.0		
D	TMW+w	MT20	2.0	4.0		
E	TMV+p	MT20	3.0	4.0		
F	BMV1+p	MT20	3.0	4.0		
G	BMW1+w	MT20	2.0	4.0		
H	BMW1+w	MT20	2.0	4.0		

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

BEARINGS

THIS TRUSS DESIGNED FOR CONTINUOUS BEARINGS.

THIS TRUSS REQUIRES RIGID SHEATHING ON EXPOSED FACE.

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

BRACING

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

ALL 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 / 17	-91.8	-91.8	0.05 (1)	10.00
B- J	-17 / 0	-91.8	-91.8	0.02 (4)	6.25
J- C	-4 / 1	-91.8	-91.8	0.13 (1)	10.00
C- D	-21 / 0	-91.8	-91.8	0.13 (1)	6.25
D- E	-5 / 0	-91.8	-91.8	0.05 (1)	10.00
F- E	-84 / 0	0.0	0.0	0.02 (1)	7.81
B- I	0 / 14	-18.5	-18.5	0.10 (1)	10.00
I- H	0 / 14	-18.5	-18.5	0.10 (1)	10.00
H- G	0 / 4	-18.5	-18.5	0.07 (1)	10.00
G- F	0 / 0	-18.5	-18.5	0.02 (4)	10.00

WEBS

MEMB. FR-TO	MAX. FACTORED FORCE (LBS)	MAX CSI (LC)
G- D	-158 / 0	0.03 (1)
H- C	-307 / 0	0.05 (1)
I- J	-172 / 5	0.00 (1)

DESIGN CRITERIA

SPECIFIED LOADS:

TOP CH.	LL	=	25.6	PSF
	DL	=	6.0	PSF
BOT CH.	LL	=	0.0	PSF
	DL	=	7.4	PSF
TOTAL LOAD		=	39.0	PSF

SPACING = 24.0 IN. C/C

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

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

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

CSI: TC=0.13/1.00 (C-D:1) , BC=0.10/1.00 (B-I:1) , WB=0.05/1.00 (C-H:1) , SSI=0.14/1.00 (B-I: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	650	371	1747	788	1987	1873

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.20 (B) (INPUT = 0.90)
JSI METAL= 0.13 (C) (INPUT = 1.00)

LICENSED PROFESSIONAL ENGINEER
07/01/21
H. J. G. ALVES
100009024
PROVINCE OF ONTARIO

Structural component only
DWG# T-2121148

JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
412868	PB06	18	1	ROYAL PINE HOMES TRUSS DESC.	

Tamarack Roof Truss, Burlington

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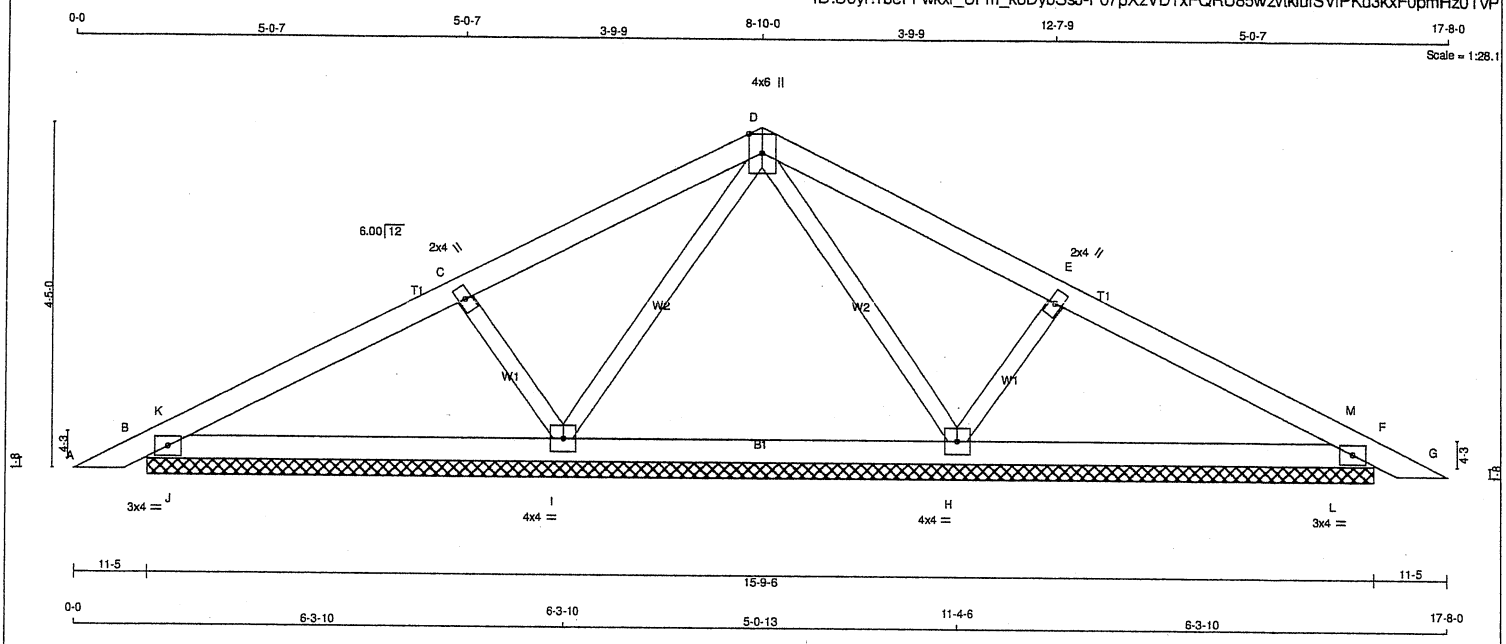

TOTAL WEIGHT = 18 X 51 = 925 lb

LUMBER

N. L. G. A. RULES

CHORDS	SIZE		LUMBER	DESCR.
A - D	2x4	DRY	No.2	SPF
D - G	2x4	DRY	No.2	SPF
B - F	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	TMB1-I	MT20	3.0	4.0		
C	TMW+w	MT20	2.0	4.0		
D	TTWW+p	MT20	4.0	6.0	Edge	
E	TMW+w	MT20	2.0	4.0		
F	TMB1-I	MT20	3.0	4.0		
H	BMWW1-t	MT20	4.0	4.0		
I	BMWW1-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
B	340	0	340	0	0	15-9-6	15-9-6
F	340	0	340	0	0	15-9-6	15-9-6
H	610	0	610	0	0	15-9-6	15-9-6
I	610	0	610	0	0	15-9-6	15-9-6

UNFACTORED REACTIONS

JT	1ST LCASE COMBINED	MAX./MIN. COMPONENT REACTIONS SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
B	239	166 / 0	0 / 0	0 / 0	0 / 0	73 / 0	0 / 0
F	239	166 / 0	0 / 0	0 / 0	0 / 0	73 / 0	0 / 0
H	432	283 / 0	0 / 0	0 / 0	0 / 0	149 / 0	0 / 0
I	432	283 / 0	0 / 0	0 / 0	0 / 0	149 / 0	0 / 0

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

BRACING

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

ALL 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	LC1	MAX CSI (LC)	MAX. UNBRAC LENGTH
A- B	0 / 17	-91.8	-91.8	0.05 (1)	10.00	
B- K	-199 / 0	-91.8	-91.8	0.06 (4)	6.25	
K- C	-143 / 0	-91.8	-91.8	0.23 (1)	6.25	
C- D	0 / 54	-91.8	-91.8	0.24 (1)	10.00	
D- E	0 / 54	-91.8	-91.8	0.24 (1)	10.00	
E- M	-143 / 0	-91.8	-91.8	0.23 (1)	6.25	
M- F	-199 / 0	-91.8	-91.8	0.06 (4)	6.25	
F- G	0 / 17	-91.8	-91.8	0.05 (1)	10.00	
B- J	0 / 149	-18.5	-18.5	0.08 (1)	10.00	
J- I	0 / 149	-18.5	-18.5	0.12 (4)	10.00	
I- H	0 / 40	-18.5	-18.5	0.11 (4)	10.00	
H- L	0 / 149	-18.5	-18.5	0.12 (4)	10.00	
L- F	0 / 149	-18.5	-18.5	0.08 (1)	10.00	

WEBS

MEMB. FR-TO	MAX. FACTORED FORCE (LBS)	MAX CSI (LC)
D- H	-197 / 0	0.07 (1)
H- E	-396 / 0	0.07 (1)
I- D	-197 / 0	0.07 (1)
C- I	-396 / 0	0.07 (1)
J- K	-69 / 58	0.00 (1)
L- M	-69 / 58	0.00 (1)

DESIGN CRITERIA

SPECIFIED LOADS:

TOP CH.	LL	=	25.6	PSF
	DL	=	6.0	PSF
BOT CH.	LL	=	0.0	PSF
	DL	=	7.4	PSF
TOTAL LOAD		=	39.0	PSF

SPACING = 24.0 IN. C/C

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

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

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

CSI: TC=0.24/1.00 (C-D:1) , BC=0.12/1.00 (I-J:4) , WB=0.07/1.00 (D-H:1) , SSI=0.15/1.00 (C-D:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

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

NAIL VALUES

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

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.24 (B) (INPUT = 0.90)
JSI METAL= 0.08 (E) (INPUT = 1.00)

LICENSED PROFESSIONAL ENGINEER
07/01/21
H. J. G. ALVES
100089024
PROVINCE OF ONTARIO

Structural component only
DWG# T-2121149

JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
412868	PB06G	4	1	ROYAL PINE HOMES TRUSS DESC.	

Tamarack Roof Truss, Burlington

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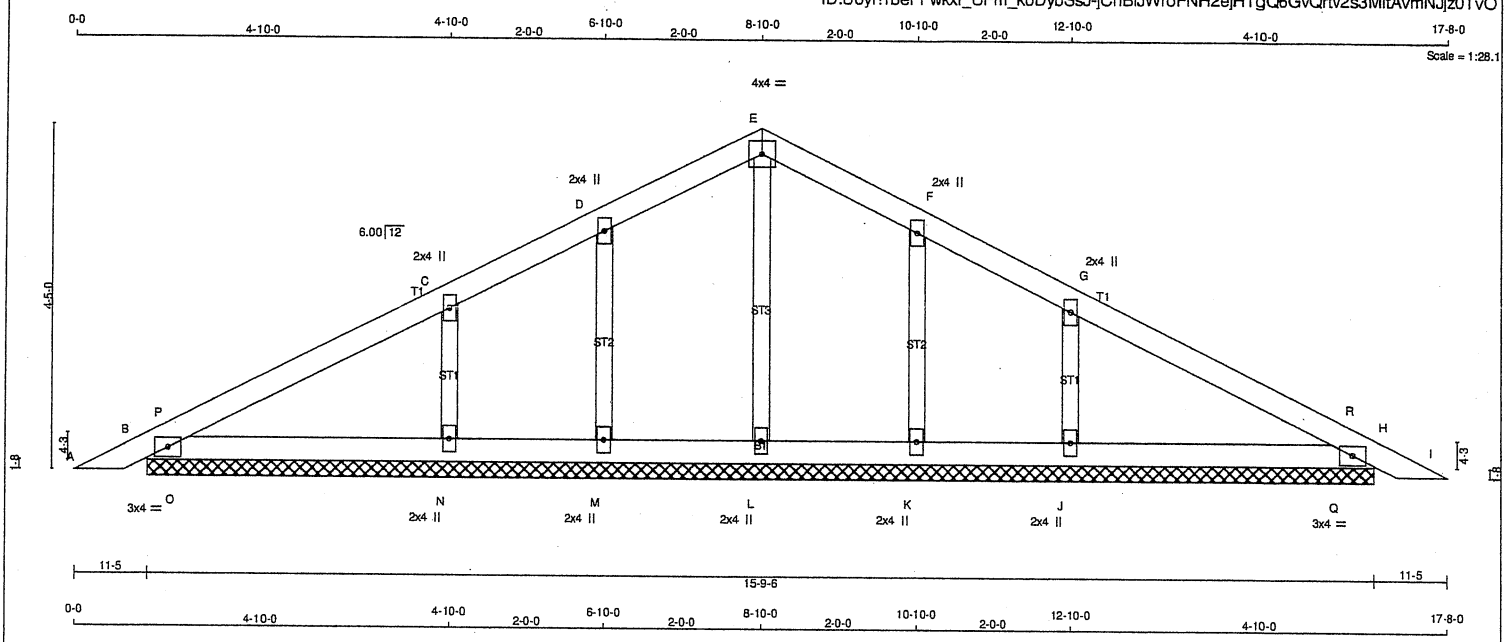

TOTAL WEIGHT = 4 X 51 = 203 lb
[M]

LUMBER
N. L. G. A. RULES

CHORDS	SIZE		LUMBER	DESCR.
A - E	2x4	DRY	No.2	SPF
E - I	2x4	DRY	No.2	SPF
B - H	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	TMB1-I	MT20	3.0	4.0		
C, D, F, G						
C	TMW+w	MT20	2.0	4.0		
E	TTW-p	MT20	4.0	4.0		
H	TMB1-I	MT20	3.0	4.0		
J, K, L, M, N						
J	BMW1+w	MT20	2.0	4.0		

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

BEARINGS

THIS TRUSS DESIGNED FOR CONTINUOUS BEARINGS.

THIS TRUSS REQUIRES RIGID SHEATHING ON EXPOSED FACE.

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

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

ALL 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 / 17	-91.8	-91.8	0.05 (1)	10.00
B- P	-44 / 0	-91.8	-91.8	0.02 (4)	6.25
P- C	-44 / 0	-91.8	-91.8	0.13 (1)	6.25
C- D	-60 / 0	-91.8	-91.8	0.13 (1)	6.25
D- E	-45 / 0	-91.8	-91.8	0.05 (1)	6.25
E- F	-45 / 0	-91.8	-91.8	0.05 (1)	6.25
F- G	-60 / 0	-91.8	-91.8	0.13 (1)	6.25
G- R	-44 / 0	-91.8	-91.8	0.13 (1)	6.25
R- H	-44 / 0	-91.8	-91.8	0.02 (4)	6.25
H- I	0 / 17	-91.8	-91.8	0.05 (1)	10.00
B- O	0 / 49	-18.5	-18.5	0.10 (1)	10.00
O- N	0 / 49	-18.5	-18.5	0.10 (1)	10.00
N- M	0 / 39	-18.5	-18.5	0.07 (1)	10.00
M- L	0 / 36	-18.5	-18.5	0.02 (4)	10.00
L- K	0 / 36	-18.5	-18.5	0.02 (4)	10.00
K- J	0 / 39	-18.5	-18.5	0.07 (1)	10.00
J- Q	0 / 49	-18.5	-18.5	0.10 (1)	10.00
Q- H	0 / 49	-18.5	-18.5	0.10 (1)	10.00

WEBS

MEMB. FR-TO	MAX. FACTORED FORCE (LBS)	MAX CSI (LC)
L- E	-131 / 0	0.04 (1)
M- D	-160 / 0	0.03 (1)
N- C	-306 / 0	0.05 (1)
K- F	-160 / 0	0.03 (1)
J- G	-306 / 0	0.05 (1)
O- P	-171 / 5	0.00 (1)
Q- R	-171 / 5	0.00 (1)

DESIGN CRITERIA

SPECIFIED LOADS:

TOP CH.	LL	=	25.6	PSF
	DL	=	6.0	PSF
BOT CH.	LL	=	0.0	PSF
	DL	=	7.4	PSF
TOTAL LOAD		=	39.0	PSF

SPACING = 24.0 IN. C/C

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

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

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

CSI: TC=0.13/1.00 (G-R:1) , BC=0.10/1.00 (H-Q:1) , WB=0.05/1.00 (G-J:1) , SSI=0.14/1.00 (B-O: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	650	371	1747	788	1987	1873

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.21 (B) (INPUT = 0.90)
JSI METAL= 0.13 (G) (INPUT = 1.00)

LICENSED PROFESSIONAL ENGINEER
07/01/21
H. J. G. ALVES
100009024
PROVINCE OF ONTARIO

Structural component only
DWG# T-2121150

JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
412868	J01	20	1	ROYAL PINE HOMES TRUSS DESC.	

Tamarack Roof Truss, Burlington

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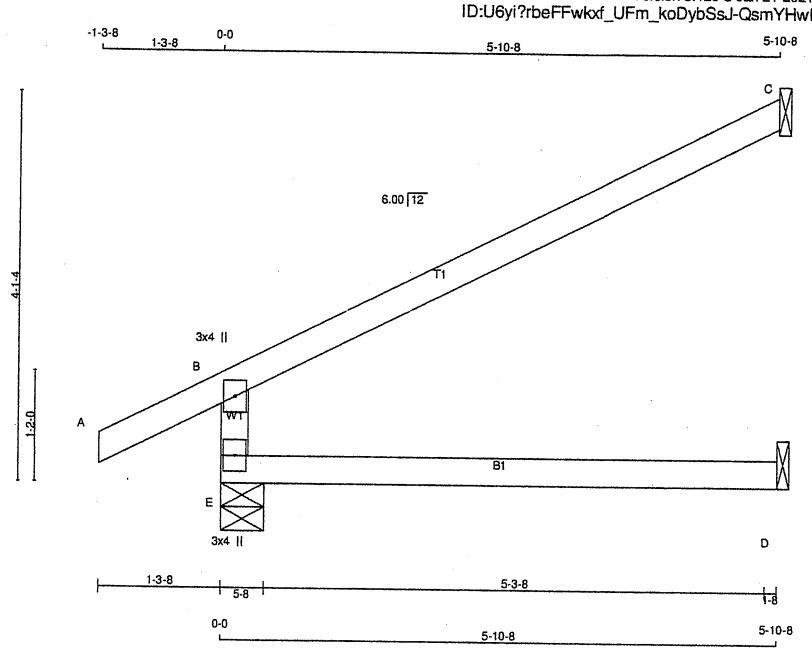

TOTAL WEIGHT = 20 X 17 = 336 lb

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	525	0	525	0	0	5-8	5-8
C	202	0	202	0	0	1-8	1-8
D	45	0	50	0	0	1-8	1-8

SEE MITEK STANDARD DETAIL B97791H 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	369	257 / 0	0 / 0	0 / 0	0 / 0	111 / 0	0 / 0
C	139	113 / 0	0 / 0	0 / 0	0 / 0	26 / 0	0 / 0
D	36	0 / 0	0 / 0	0 / 0	0 / 0	36 / 0	0 / 0

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

BRACING

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

ALL 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	LC1	MAX CSI (LC)	MAX. UNBRAC LENGTH
E- B	-461 / 0	0.0	0.0		0.13 (4)	7.81
A- B	0 / 28	-91.8	-91.8		0.12 (1)	10.00
B- C	-30 / 0	-91.8	-91.8		0.54 (1)	6.25
E- D	0 / 0	-18.5	-18.5		0.13 (4)	10.00

WEBS

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

DESIGN CRITERIA

SPECIFIED LOADS:

TOP CH.	LL =	25.6	PSF
	DL =	6.0	PSF
BOT CH.	LL =	0.0	PSF
	DL =	7.4	PSF
TOTAL LOAD	=	39.0	PSF

SPACING = 24.0 IN. C/C

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

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

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

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

ALLOWABLE DEFL.(LL)= L/360 (0.20")
CALCULATED VERT. DEFL.(LL) = L/ 999 (0.00")
ALLOWABLE DEFL.(TL)= L/360 (0.20")
CALCULATED VERT. DEFL.(TL) = L/ 999 (0.03")

CSI: TC=0.54/1.00 (B-C:1) , BC=0.13/1.00 (D-E:4) , WB=0.00/1.00 (n/a:0) , 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 = 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	650	371	1747	788	1987	1873

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.18 (E) (INPUT = 0.90)
JSI METAL= 0.13 (B) (INPUT = 1.00)

LICENSED PROFESSIONAL ENGINEER
H. J. G. ALVES
100009024
PROVINCE OF ONTARIO

Structural component only
DWG# T-2121142

JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
412868	J02	20	1	ROYAL PINE HOMES TRUSS DESC.	

Tamarack Roof Truss, Burlington

Version 8.420 S Jan 21 2021 MiTek Industries, Inc. Thu Jul 1 10:22:23 2021 Page 1
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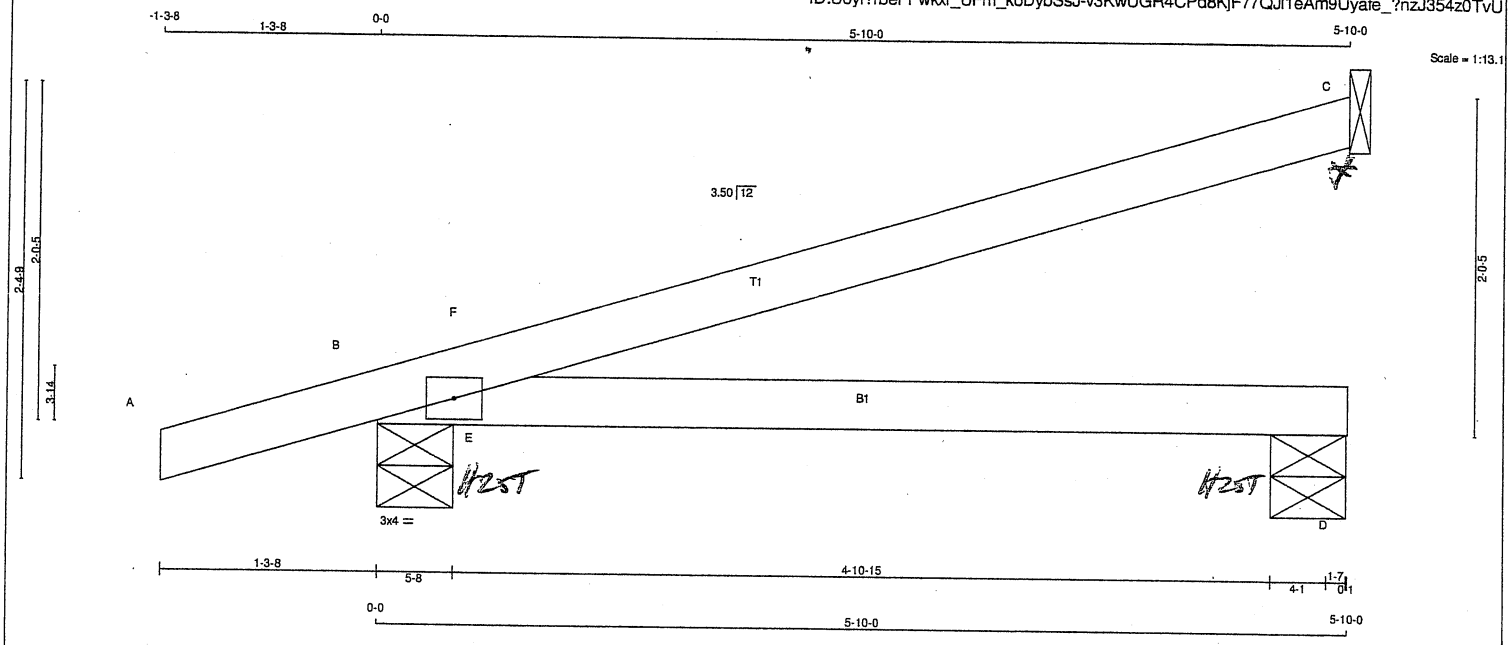

TOTAL WEIGHT = 20 X 15 = 304 lb [M]

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	233	0	233	121	-113	1-8	1-8
B	444	0	444	0	-308	5-8	5-8
D	88	0	88	0	-107	5-8	5-8

SEE MITEK STANDARD DETAIL B97791H FOR CONNECTION TO JOINT(S) C

PROVIDE ANCHORAGE AT BEARING JOINT C FOR 150 LBS FACTORED UPLIFT
PROVIDE ANCHORAGE AT BEARING JOINT B FOR 308 LBS FACTORED UPLIFT
PROVIDE ANCHORAGE AT BEARING JOINT D FOR 150 LBS FACTORED UPLIFT

PROVIDE FOR 121 LBS FACTORED HORIZONTAL REACTION AT JOINT C

UNFACTORED REACTIONS

JT	1ST LCASE COMBINED	MAX./MIN. COMPONENT REACTIONS SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
C	161	125 / 0	0 / 0	0 / 0	0 / -104	36 / 0	0 / 0
B	312	217 / 0	0 / 0	0 / 0	0 / -281	94 / 0	0 / 0
D	66	24 / 0	0 / 0	0 / 0	0 / -103	42 / 0	0 / 0
HORIZONTAL REACTIONS							
C	---	0 / 0	0 / 0	0 / 0	86 / 0	0 / 0	0 /0

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

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

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

LOADING
TOTAL LOAD CASES: (12)

CHORDS

MEMB. FR-TO	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF) FROM	TO	LC1	MAX CSI (LC)	MAX. UNBRAC LENGTH
A- B	0 / 16	-91.8	-91.8	0.11 (1)		10.00
B- F	-17 / 44	-91.8	-91.8	0.08 (12)		6.25
F- C	0 / 77	-91.8	-91.8	0.40 (1)		10.00
B- E	0 / 0	-18.5	-18.5	0.29 (1)		10.00
E- D	0 / 0	-18.5	-18.5	0.29 (1)		10.00

WEBS

MEMB. FR-TO	MAX. FACTORED FORCE (LBS)	MAX CSI (LC)
E- F	-308 / 100	0.00 (1)

WIND LOAD APPLIED IS DERIVED FROM REFERENCE VELOCITY PRESSURE OF { 9.2} PSF AT {15-0-0} FT-IN-SX REFERENCE HEIGHT ABOVE GRADE AND USING EXTERNAL PEAK COEFFICIENTS, CpCg, BASED ON THE {MAIN WIND FORCE RESISTING SYSTEM}.INTERNAL WIND PRESSURE IS BASED ON DESIGN {CATEGORY 2}. BUILDING MAY BE LOCATED ON {OPEN TERRAIN}, AND TRUSS IS DESIGNED TO BE LOCATED AT LEAST {0-0} FT-IN-SX AWAY FROM EAVE.TRUSS UPLIFT IS BASED ON TOP AND BOTTOM CHORD DEAD LOADS OF 6.0 PSF AND 7.4 PSF RESPECTIVELY.

DESIGN CRITERIA

SPECIFIED LOADS:

TOP CH.	LL	=	25.6	PSF
	DL	=	6.0	PSF
BOT CH.	LL	=	0.0	PSF
	DL	=	7.4	PSF
TOTAL LOAD		=	39.0	PSF

SPACING = 24.0 IN. C/C

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

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

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

ALLOWABLE DEFL.(LL)= L/360 (0.19")
CALCULATED VERT. DEFL.(LL) = L/ 684 (0.10")
ALLOWABLE DEFL.(TL)= L/360 (0.19")
CALCULATED VERT. DEFL.(TL) = L/ 496 (0.14")

CSI: TC=0.40/1.00 (C-F:1) , BC=0.29/1.00 (D-E:1) , WB=0.00/1.00 (E-F:1) , SSI=0.24/1.00 (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	650	371	1747	788	1987	1873

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.28 (B) (INPUT = 0.90)
JSI METAL= 0.08 (B) (INPUT = 1.00)

LICENSED PROFESSIONAL ENGINEER
07/01/21
H. J. G. ALVES
100009024
PROVINCE OF ONTARIO

Structural component only
DWG# T-2121143

JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
412868	J03	15	1	ROYAL PINE HOMES TRUSS DESC.	

Tamarack Roof Truss, Burlington

Version 8.420 S Jan 21 2021 MiTek Industries, Inc. Thu Jul 1 10:22:24 2021 Page 1
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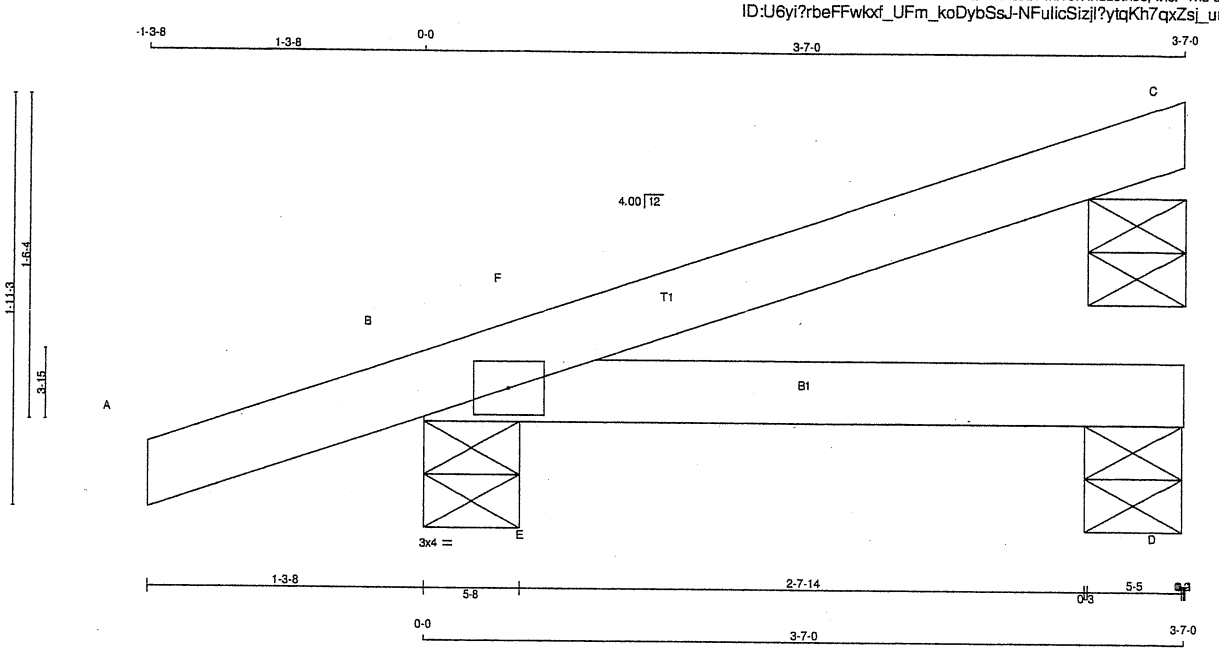


TOTAL WEIGHT = 15 X 10 = 151 lb

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	141	0	141	0	0	5-8 (5-7)	5-8
B	320	0	320	0	0	5-8	5-8
D	57	0	57	0	0	5-8	5-8

VALUE IN PARENTHESIS INDICATES EFFECTIVE BEARING LENGTH

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

UNFACTORED REACTIONS

JT	1ST LCASE COMBINED	MAX./MIN. COMPONENT REACTIONS SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
C	98	76 / 0	0 / 0	0 / 0	0 / 0	22 / 0	0 / 0
B	224	160 / 0	0 / 0	0 / 0	0 / 0	64 / 0	0 / 0
D	42	16 / 0	0 / 0	0 / 0	0 / 0	26 / 0	0 / 0

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

BRACING

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

ALL 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 LC1 (PLF) FROM	TO	MAX CSI (LC)	MAX. UNBRAC LENGTH
A- B	0 / 18	-91.8	-91.8	0.13 (5)	10.00
B- F	-10 / 0	-91.8	-91.8	0.04 (4)	6.25
F- C	0 / 2	-91.8	-91.8	0.15 (1)	10.00
B- E	0 / 0	-18.5	-18.5	0.12 (1)	10.00
E- D	0 / 0	-18.5	-18.5	0.12 (1)	10.00

WEBS

MEMB. FR-TO	MAX. FACTORED FORCE (LBS)	MAX CSI (LC)
E- F	-138 / 5	0.00 (1)

CANTILEVER ANALYSIS HAS BEEN CONSIDERED IN THIS DESIGN

DESIGN CRITERIA

SPECIFIED LOADS:

TOP CH.	LL =	25.6	PSF
	DL =	6.0	PSF
BOT CH.	LL =	0.0	PSF
	DL =	7.4	PSF
TOTAL LOAD	=	39.0	PSF

SPACING = 24.0 IN. C/C

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

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

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

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

CSI: TC=0.15/1.00 (C-F:1) , BC=0.12/1.00 (B-E:1) , WB=0.00/1.00 (E-F:1) , SSI=0.11/1.00 (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	650	371	1747	788	1987	1873

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.20 (B) (INPUT = 0.90)
JSI METAL= 0.05 (B) (INPUT = 1.00)

LICENSED PROFESSIONAL ENGINEER
07/01/21
H. J. G. ALVES
100009024
PROVINCE OF ONTARIO

Structural component only
DWG# T-2121144

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

LICENSED PROFESSIONAL ENGINEER
H.J.G. ALVES
PROVINCE OF ONTARIO

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-1800215 Feb 09, 2018

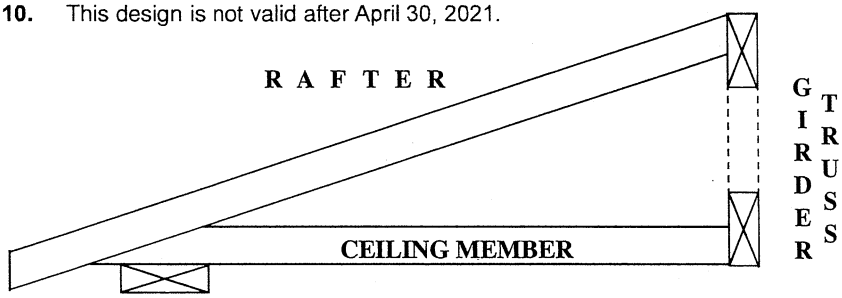
BEARING ANCHORAGE BY TOE-NAILS FOR LATERAL CAPACITY

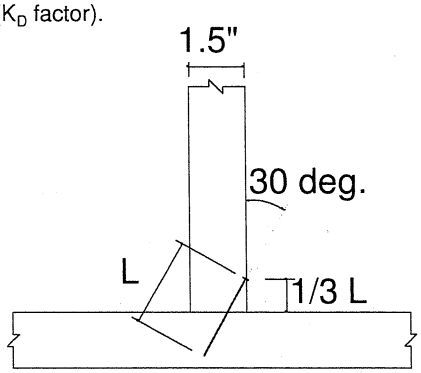
B97791H1

NAIL TYPE	LENGTH (IN)	DIAMETER (IN)	NAIL LATERAL CAPACITY (LB)	
			S-P-F	D. FIR
COMMON WIRE	3.00	0.144	132	147
	3.25	0.144	132	147
	3.50	0.160	159	177
COMMON SPIRAL	3.00	0.122	97	108
	3.25	0.122	97	108
	3.50	0.152	145	162

NOTES:

1. Rafter and ceiling members may be anchored to top and bottom chords of girder truss by toe-nailing rafter and ceiling members to girder chords provided the reaction does not exceed the lateral capacities in the table. Hangers (specified by others) are required for reactions higher than the maximum toe-nail capacity. Reactions are based on factored loads.
2. Toe nail capacities shown in the table are for **one** toe-nail. For additional toe-nails multiply values in table by the number of toe-nails used. Toe-nail capacities take into account toe-nailing factor J_A in CSA O86-14, section 12.9.4.1.
3. For 9- 3/4 gauge 3.25" common wire gun nails (diameter = 0.120") use 3" common spiral nail values.
4. Maximum number of toe-nails allowed depends on the lumber size & species to be toe-nailed to supporting member and nail diameter, as shown in tables below.
5. Nail values in table are based on the following relative lumber densities: G = 0.42 (SPF), G = 0.49 (D. Fir).
6. Toe-nails shall be driven at approximately 1/3 the nail length from the edge of the joist/truss chord and driven at an angle of 30° to the grain of the member (See next page for nailing on bearing plate).
7. For loads due to **wind** the nail lateral capacity in this table may be multiplied by 1.15 (K_D factor).
8. Lumber must be dry (< 19% moisture content) at the time of nail installation.
9. Nail values in this table comply with CSA O86-14, section 12.9.4
10. This design is not valid after April 30, 2021.





TOE-NAIL INSTALLATION

Nail type	Common wire	Common spiral	Common wire	Common spiral
Nail dia. (in)	0.160	0.152	0.144	0.122
	(3.5" nail)		(3" and 3.25" nail)	
LUMBER SIZE	MAXIMUM NUMBER OF TOE-NAILS			
2X4 SPF	2	2	3	3
2X4 D. Fir	2	2	2	2
2X6 SPF	4	4	4	5
2X6 D. Fir	3	3	3	4

PEO
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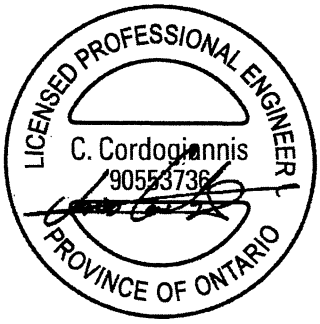


MiTek®
MiTek Canada Inc
100 Industrial Rd.
Bradford, Ontario L3Z 3G7

April 2, 2020

BEARING ANCHORAGE BY TOE-NAILS FOR WIND LOADING

B97791H2

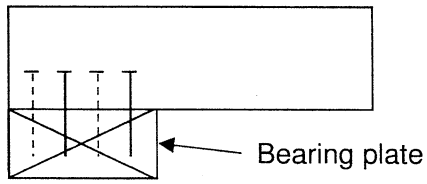
NAIL TYPE	LENGTH (IN)	DIAMETER (IN)	NAIL WITHDRAWAL CAPACITY (LB)	
			S-P-F	D. FIR
COMMON WIRE	3.00	0.144	30	42
	3.25	0.144	32	45
	3.50	0.160	38	52
COMMON SPIRAL	3.00	0.122	26	36
	3.25	0.122	28	40
	3.50	0.152	36	50

Note: If using truss with D. Fir lumber and S-P-F bearing plate, use values in table for S-P-F.

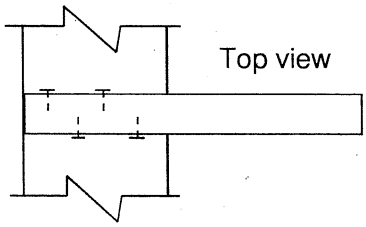
NOTES:

1. Truss chord, rafter, or ceiling members may be anchored to bearing plate by toe-nails, provided that the actual factored uplift force due to **wind** or **earthquake** load does not exceed the withdrawal capacities in the table. Hangers (specified by others) are required for uplift forces that are higher than the maximum toe-nail withdrawal capacity.
2. Toe nail capacities shown in the table are for **one** toe-nail. For additional toe-nails multiply values in table by the number of toe-nails used. Toe-nail capacities take into account toe-nailing factor J_A in CSA O86-14, section 12.9.5.2.
3. For 9- 3/4 gauge 3.25" common wire gun nails (diameter = 0.120") use 3" common spiral nail values.
4. Maximum number of toe-nails allowed depends on the lumber size & species to be toe-nailed to supporting member and nail diameter, as shown in table above.
5. Nail values in table are based on the following relative lumber densities: G = 0.42(SPF), G = 0.49(D. Fir).
6. Toe-nails shall be driven at approximately 1/3 the nail length from the edge of the joist/truss chord and driven at an angle of 30° to the grain of the member (See drawing on detail B37579H1).
7. Lumber must be dry (< 19% moisture content) at the time of nail installation.
8. Nail values in this table comply with CSA O86-14, section 12.9.5
9. This design is not valid after April 30, 2021.

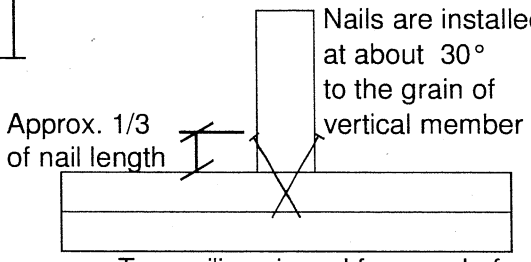
Toe-nailing on 2x6 Bearing Plate



Elevation view

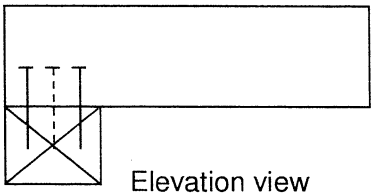


Top view

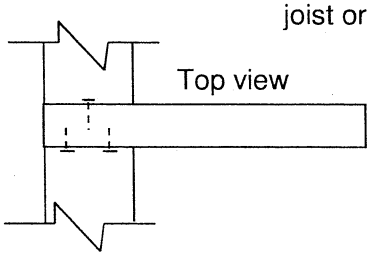


Toe-nailing viewed from end of joist or truss

Toe-nailing on 2x4 Bearing Plate



Elevation view



Top view

PEO
Certificate No. 10889485

LICENSED PROFESSIONAL ENGINEER
C. Cordogiannis
90553736
PROVINCE OF ONTARIO

MiTek®

MiTek Canada Inc
100 Industrial Rd.
Bradford, Ontario L3Z 3G7

April 2, 2020

HUS/LJS – Double Shear Joist Hangers

SIMPSON Strong-Tie®

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:

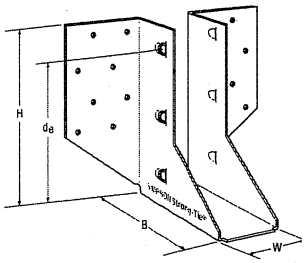
- Factored resistances are in accordance with CSA O86 -14.
- Uplift resistances have been increased 15%. No further increase is permitted.
- Wood shear is not considered in the factored resistances given. The specifier must ensure that the joist and header capacities are capable of withstanding these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

Installation:

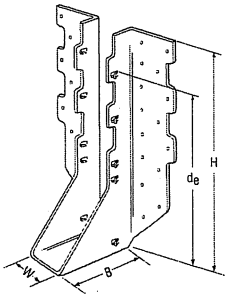
- Use all specified fasteners
- Nails: 16d = 0.162" dia. x 3½" long common wire
- Double shear nails must be driven at an angle through the joist or truss into the header to achieve the table loads
- Not designed for welded or nailer applications

Options:

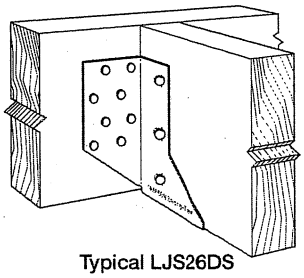
- See current catalogue for options



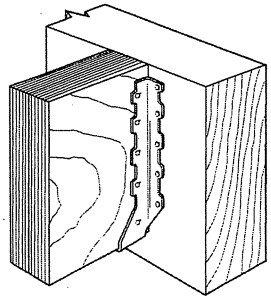
LJS26DS



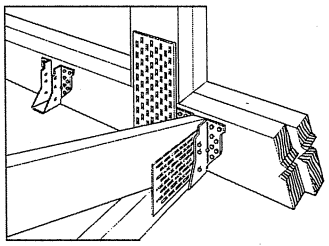
HUS210
(HUS26, HUS28, similar)



Typical LJS26DS Installation



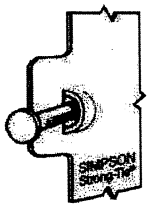
Typical HUS Installation



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

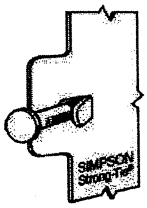
Model No.	Ga.	Dimensions (in.)				Fasteners		Factored Resistance (lb.)			
								D.Fir-L		S-P-F	
		W	H	B	d_e[1]	Face	Joist	Uplift (K_D=1.15)	Normal (K_D=1.00)	Uplift (K_D=1.15)	Normal (K_D=1.00)
								lb.	lb.	lb.	lb.
LJS26DS	18	1 9/16	5	3½	4⅝	(16) 16d	(6) 16d	2055	4265	1460	4115
HUS26	16	1⅝	5⅝	3	3 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.

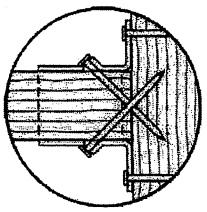


Dome Double Shear Nailing prevents tabs breaking off (available on some models).

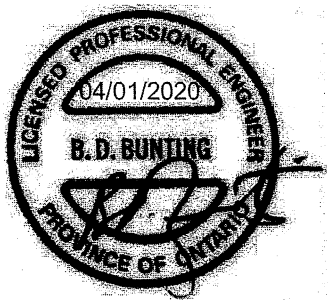
U.S. Patent 5,603,580



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



Double Shear Nailing Top View.



HGUS – Double Shear Joist Hangers

SIMPSON Strong-Tie

All HGUS 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: 12 gauge

Finish: G90 galvanized

Design:

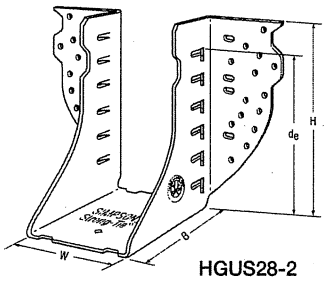
- Factored resistances are in accordance with CSA O86-14.
- Uplift resistances have been increased 15%. No further increase is permitted.
- Wood shear is not considered in the factored resistances given. The specifier must ensure that the joist and header capacities are capable of withstanding these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

Installation:

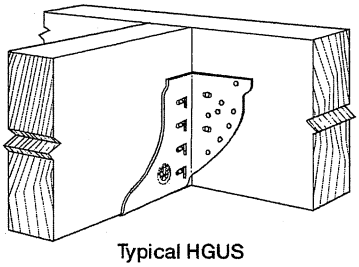
- Use all specified fasteners
- Nails: 16d = 0.162" dia x 3½" long common wire
- Double shear nails must be driven at an angle through the joist or truss into the header to achieve the table loads
- Not designed for welded or nailer applications

Options:

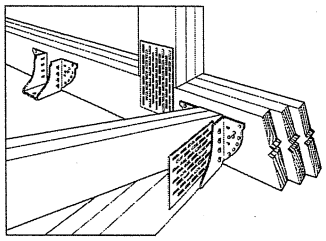
- See current catalogue for options



HGUS28-2



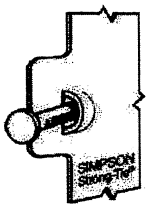
Typical HGUS Installation



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

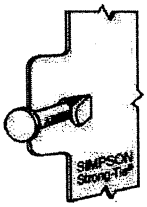
Model No.	Ga.	Dimensions (in.)				Fasteners		Factored Resistance (lb.)			
								D.Fir-L		S-P-F	
		W	H	B	d_e[1]	Face	Joist	Uplift (K_D=1.15)	Normal (K_D=1.00)	Uplift (K_D=1.15)	Normal (K_D=1.00)
HGUS26	12	1⅝	5⅜	5	4 5/32	(20) 16d	(8) 16d	2685	6625	2685	5700
HGUS26-2	12	3 5/16	5 7/16	4	4⅛	(20) 16d	(8) 16d	4385	8950	3100	6355
HGUS26-3	12	4 15/16	5½	4	4⅛	(20) 16d	(8) 16d	4385	8950	3100	6355
HGUS26-4	12	6 9/16	5 7/16	4	4⅛	(20) 16d	(8) 16d	4385	8950	3100	6355
HGUS28	12	1⅝	7⅛	5	6⅛	(36) 16d	(12) 16d	3310	7675	3100	6900
HGUS28-2	12	3 5/16	7 3/16	4	6⅛	(36) 16d	(12) 16d	6070	12980	4310	9215
HGUS28-3	12	4 15/16	7¼	4	6⅜	(36) 16d	(12) 16d	6070	12980	4310	9215
HGUS28-4	12	6 9/16	7 3/16	4	6⅛	(36) 16d	(12) 16d	6070	12980	4310	9215
HGUS210	12	1⅝	9⅛	5	7⅞	(46) 16d	(16) 16d	3535	11070	2510	8090
HGUS210-2	12	3 5/16	9 3/16	4	8⅛	(46) 16d	(16) 16d	6840	14015	4855	10270
HGUS210-3	12	4 15/16	9¼	4	8⅜	(46) 16d	(16) 16d	6840	14645	4855	10400
HGUS210-4	12	6 9/16	9 3/16	4	8⅛	(46) 16d	(16) 16d	6840	14645	4855	10400
HGUS212-4	12	6 9/16	10⅝	4	10⅛	(56) 16d	(20) 16d	7640	14995	5425	10645
HGUS214-4	12	6 9/16	12⅝	4	11⅛	(66) 16d	(22) 16d	10130	16400	7195	11645

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

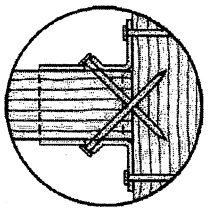


Dome Double Shear Nailing prevents tabs breaking off (available on some models).

U.S. Patent 5,603,580



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



Double Shear Nailing Top View.

H – Seismic and Hurricane Ties

SIMPSON Strong-Tie

The H connector series provides wind and seismic ties for trusses and rafters.

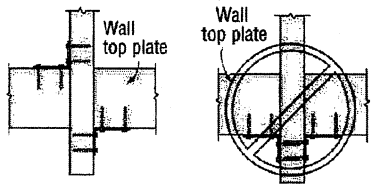
Material: 18 gauge **Finish:** G90 galvanized

Design: • Factored resistances are in accordance with CSA O86-14
- Factored resistances have been increased 15%. No further increase is permitted.

Installation: • Use all specified fasteners
- Nails: 8d = 0.131" dia. x 2½" long common wire, 8d x 1½" = 0.131" x 1½ long, 10d x 1½" = 0.146" x 1½" long
- H1 can be installed with flanges facing outwards
- Hurricane ties do not replace solid blocking

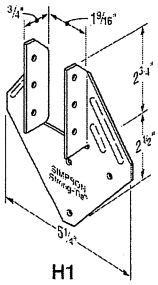
Factored resistances for more than one direction for a single connection cannot be added together. A factored load which can be divided into components in the directions given must be evaluated as follows: Factored Shear/Resisting Shear + Factored Tension/Resisting Tension ≤ 1.0.

Hurricane Tie Installations to Achieve Twice the Load (Top View)

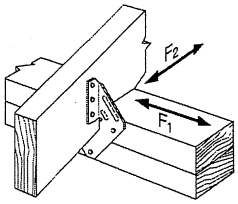


Install diagonally across from each other for minimum 2x truss.

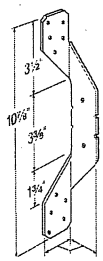
Nailing into both sides of a single ply 2x truss may cause the wood to split.



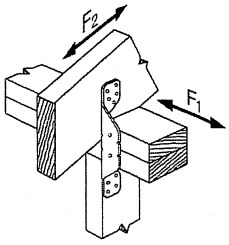
H1



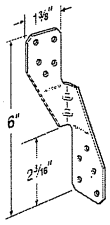
H1 Installation



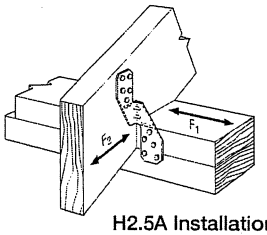
H2A



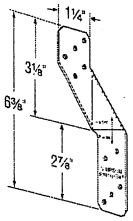
H2A Installation



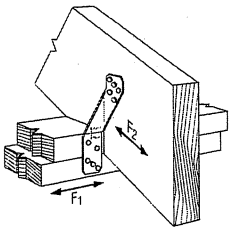
H2.5A



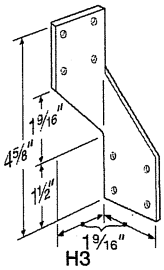
H2.5A Installation



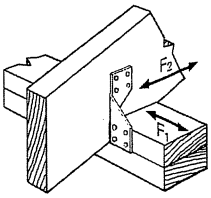
H2.5T



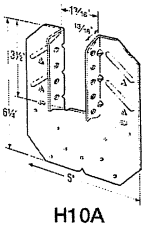
H2.5T Installation (Nails into both top plates)



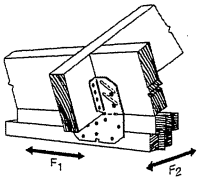
H3



H3 Installation



H10A



H10A Installation

Model No.	Ga.	Fasteners			Factored Resistance (lb.)					
					D.Fir-L			S-P-F		
		To Rafter	To Plates	To Studs	Uplift	Normal F_1	Normal F_2	Uplift	Normal F_1	Normal F_2
					(K_D=1.15)			(K_D=1.15)		
H1	18	(6) 8d x 1½"	(4) 8d	—	740	685	300	680	485	215
H2A	18	(5) 8d x 1½"	(2) 8d x 1½"	(5) 8d x 1½"	830	220	75	590	155	55
H2.5A	18	(5) 8d	(5) 8d	—	805	160	160	755	160	160
H2.5T	18	(5) 8d	(5) 8d	—	835	175	240	740	160	210
H3	18	(4) 8d	(4) 8d	—	740	180	265	615	125	190
H10A	18	(9) 10d x 1½"	(9) 10d x 1½"	—	1735	795	410	1505	565	290

1. Factored resistances have been increased 15% for earthquake or wind loading with no further increase allowed.
2. Factored resistances are for one anchor. A minimum rafter thickness of 2½" must be used when framing anchors are installed on each side of the joist and on the same side of the plate.
3. When cross-grain bending or cross-grain tension cannot be avoided, mechanical reinforcement to resist such forces should be considered.
4. Hurricane ties are shown installed on the outside of the wall for clarity. Installation on the inside of the wall is acceptable. For a Continuous Load Path, connections must be on same side of the wall.

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:

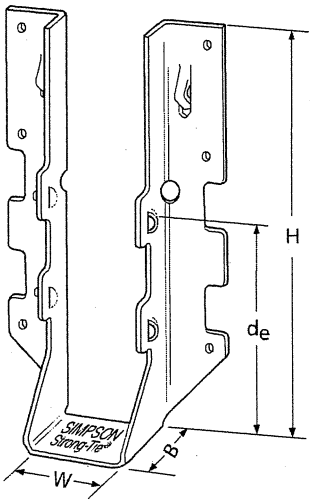
- Factored resistances are in accordance with CSA O86-14.
- Uplift resistances have been increased 15%. No further increase is permitted.
- Wood shear is not considered in the factored resistances given. The specifier must ensure that the joist and header capacities are capable of withstanding these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

Installation:

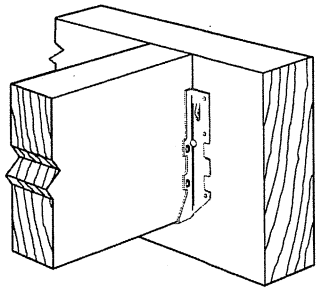
- Use all specified fasteners.
- Nails: 16d = 0.162" dia. x 3½" long common wire, 10d = 0.148" x 3" long common wire.
- Double shear nails must be driven at an angle through the joist or truss into the header to achieve the table loads.
- Not designed for welded or nailer applications.

Options:

- These hangers cannot be modified



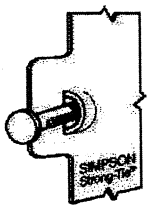
LUS28



Typical LUS Installation

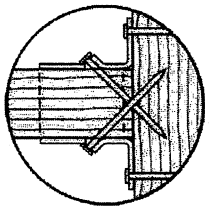
Model No.	Ga.	Dimensions (in.)				Fasteners		Factored Resistance (lb.)			
								D.Fir-L		S-P-F	
		W	H	B	d_e[1]	Face	Joist	Uplift (K_D=1.15)	Normal (K_D=1.00)	Uplift (K_D=1.15)	Normal (K_D=1.00)
LUS24	18	1 9/16	3 1/8	1 3/4	1 15/16	(4) 10d	(2) 10d	710	1630	645	1155
LUS24-2	18	3 1/8	3 1/8	2	1 13/16	(4) 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.

ONTARIO WOOD TRUSS
FABRICATORS ASSOCIATION

TECH-NOTES

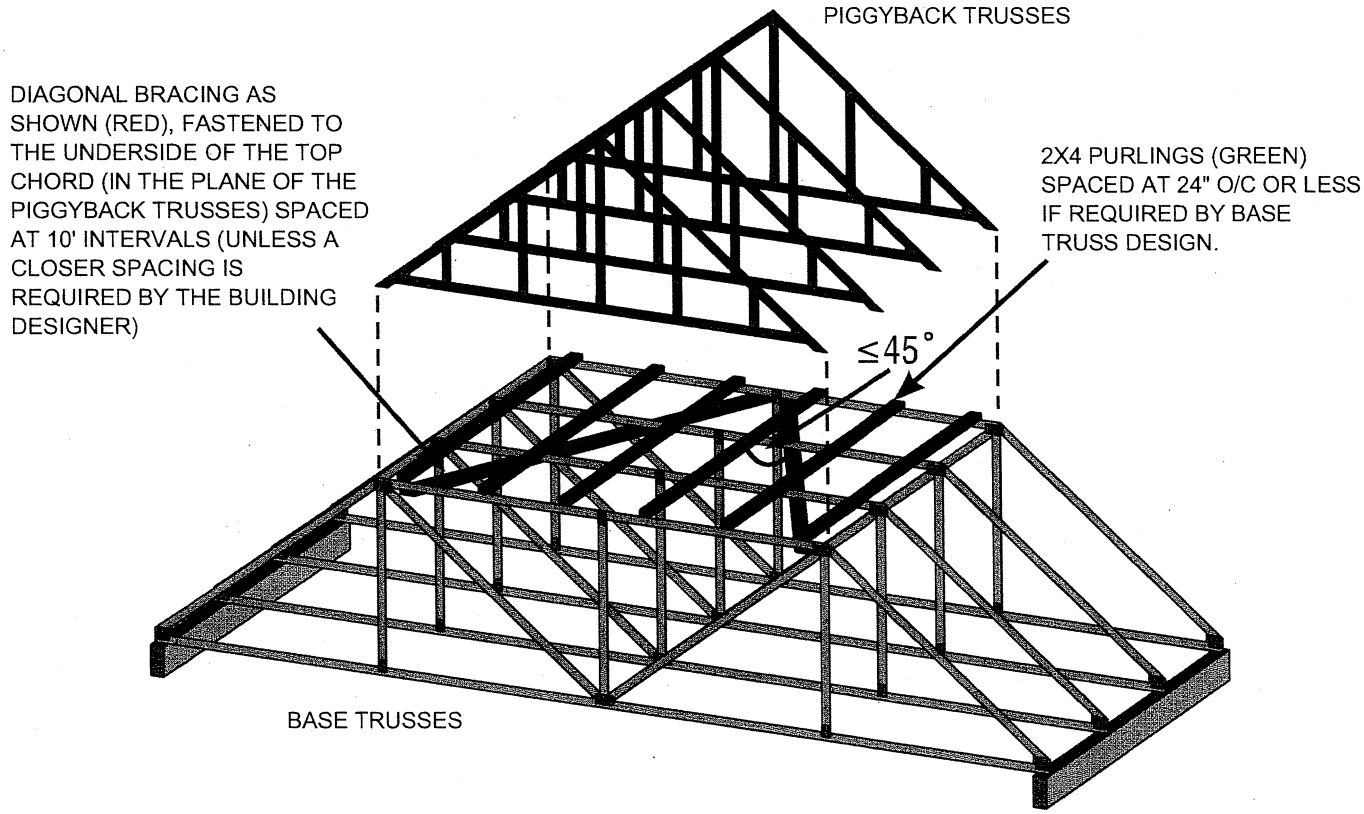
TN 15-001
Piggyback Bracing

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.

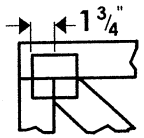
SKETCH FROM BCSI-CANADA 2013

Disclaimer:

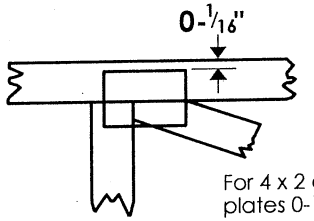
OWTFA Tech Notes are intended to provide guidance to the design community both within the membership as well as to third party designers who might benefit from the information. The details have been developed by the OWTFA technical committee and although there may be professional engineers involved in development, the information contained in the tech-note are not intended to be used without having a professional engineer review the information for a specific application. The OWTFA takes no responsibility with respect to the information provided but has developed this tech-note to offer guidance where it is not currently readily available.

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.

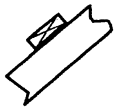
*Plate location details available in MiTek software or upon request.

PLATE SIZE

4 x 4

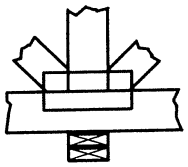
The first dimension is the plate width measured perpendicular to slots. Second dimension is the length parallel to slots.

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

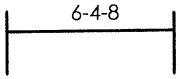


Indicates location where bearings (supports) occur. Icons vary but reaction section indicates joint number where bearings occur.

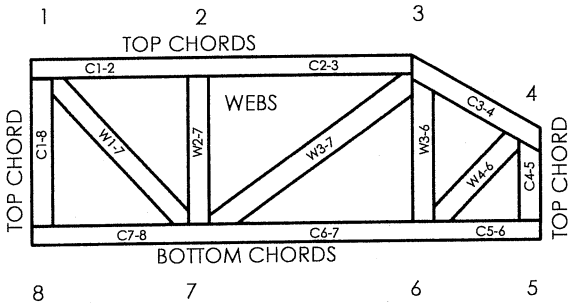
Industry Standards:

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



dimensions shown in ft-in-sixteenths or mm (Drawings not to scale)



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

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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.