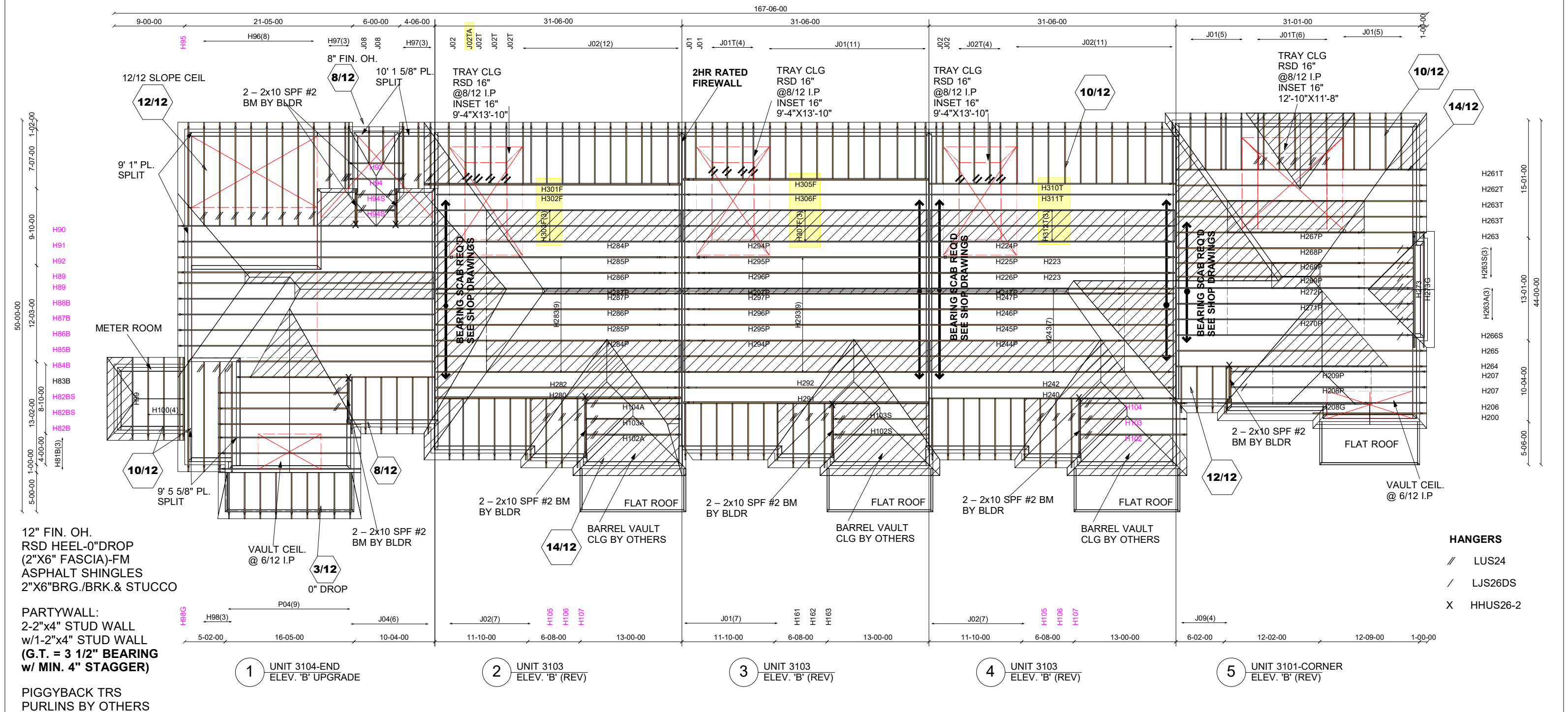




E21104087 - E21104098, E21104164 - E21104180, E21104184 - E21104211, E21104213, E21104216 - E21104221, E21104223, E21104226 - E21104238

E23090658 - E23090667

EWP DESIGN INC.

(905) 832-2250

FAX (905) 832-0286

RESPONSIBILITIES AND SPECIFICATIONS

RESPONSIBILITIES

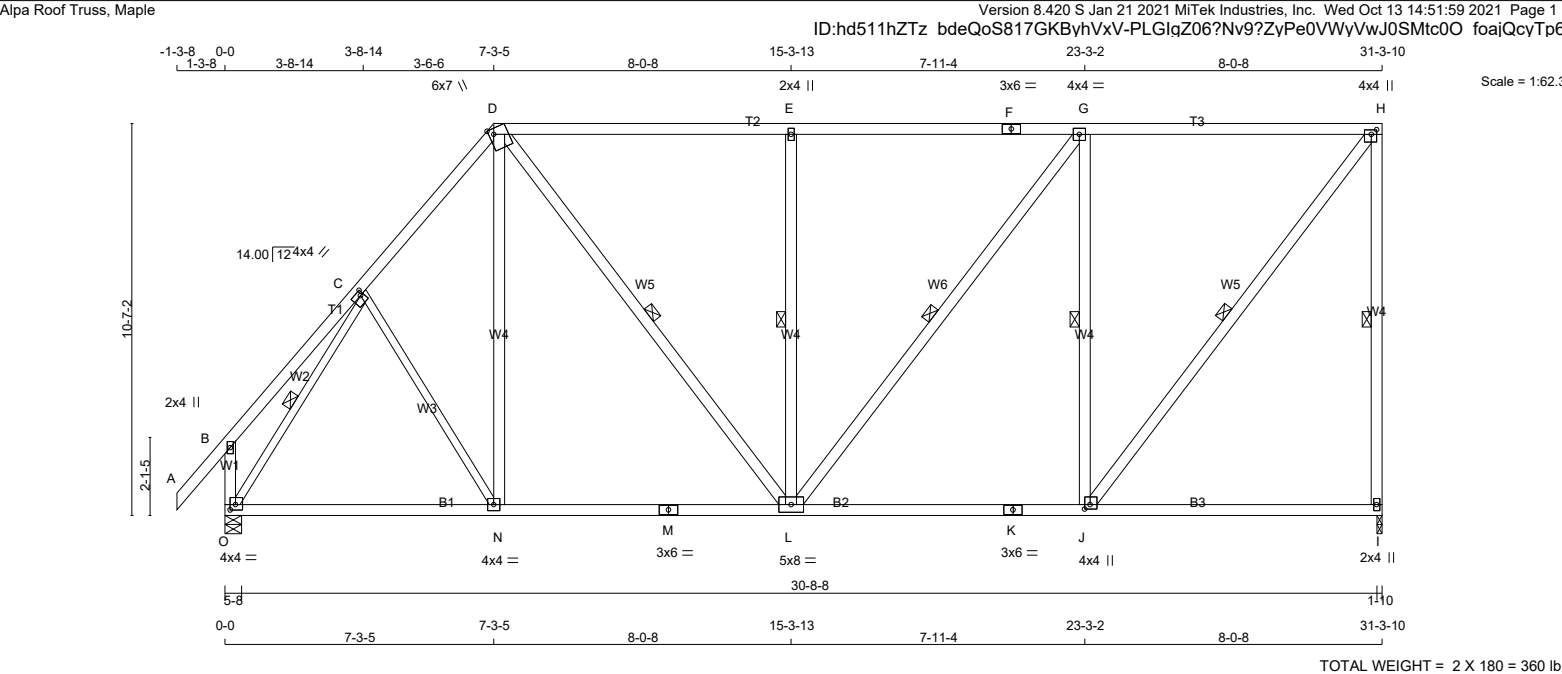
1. EWP DESIGN INC. is responsible for the design of trusses as individual components.
2. It is the responsibility of others to ascertain that the design loads utilized on each drawing meet or exceed the actual dead load imposed by the structure, the live load imposed by the intended use and the snow load imposed by local building code or authorities with jurisdictions.
3. All dimensions are to be verified by the owner, contractor, architect or other authorities with jurisdictions before truss fabrication.
4. EWP DESIGN INC. bears no responsibility for the erection of trusses. Persons erecting trusses are cautioned to seek professional advice regarding the temporary and permanent bracing for the system. Bracing shown on EWP DESIGN INC. drawing is specified for the truss as a component only and forms an integral part of the truss design.
5. It is the truss manufacturer's responsibility to ensure that trusses are manufactured in conformance with specifications of EWP DESIGN INC. as outlined below.

SPECIFICATIONS

1. Trusses designed by EWP DESIGN INC. conform to the relevant section of the Ontario Building Code of Canada (Part 9 or Part 4) or to the Canadian code for farm buildings, whichever applies to the building type, as indicated on the EWP DESIGN INC. drawings, and conform to the design procedures established by the Truss Plate Institute of Canada. Unit stresses used for truss designs are as per the edition of CSA-O86 shown on EWP DESIGN INC. drawings.
2. Lumber is to be the size, species and grade as specified on EWP DESIGN INC. drawings.
3. Moisture content of lumber shall not exceed 19% in service unless specified otherwise.
4. Metal connector plates shall be applied to both faces of truss at each joint and shall be positioned as specified.
5. Top chords of trusses are assumed to be continuously braced laterally by roof sheathing or by purlins at intervals not exceeding 12.5 times the thickness of top chord member.
6. Bottom chords shall be laterally braced at intervals not exceeding 3M (10') o.c., where rigid ceiling is not applied directly to the underside of chords.

THESE DRAWINGS CONSTITUTE THE PROPERTY OF EWP DESIGN INC., SHALL NOT BE REPRODUCED, PUBLISHED, OR REDISTRIBUTED IN ANY MANNER OR UTILIZED FOR ANY PURPOSE OTHER THAN THE MANUFACTURE OF TRUSSES BY THE ALPA LUMBER GROUP, AND WILL BE RETRACTED BY EWP DESIGN INC. IF UTILIZED FOR ANY OTHER PURPOSE.

JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
336324	H89		1	TRUSS DESC. JT 45147	E21104087

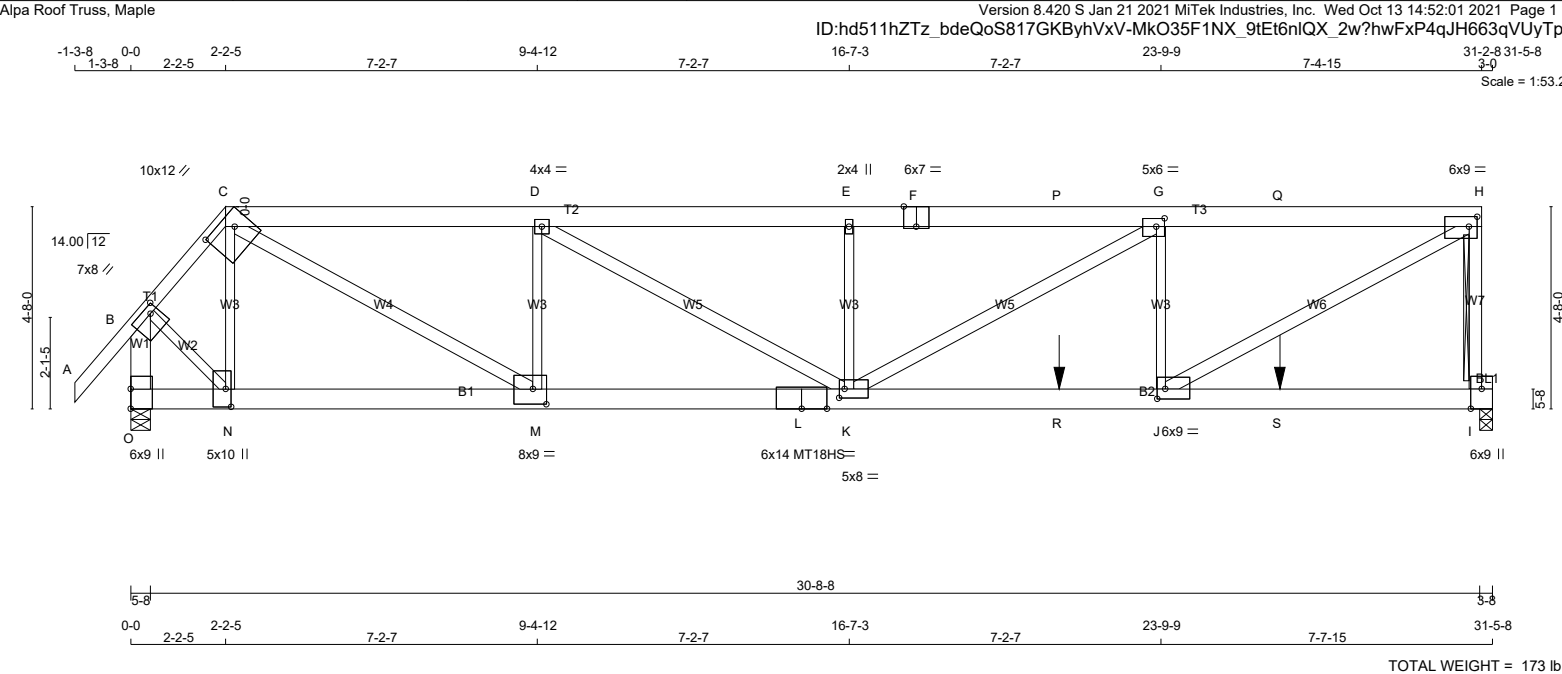


LUMBER N. L. G. A. RULES CHORDS SIZE LUMBER DESCR.				DIMENSIONS, SUPPORTS AND LOADINGS SPECIFIED BY FABRICATOR TO BE VERIFIED BY BUILDING DESIGNER BEARINGS										DESIGN CRITERIA			
A - D	2x4	DRY	No.2	SPF	FACTORED		MAXIMUM FACTORED		INPUT		REQRD		SPECIFIED LOADS:				
D - F	2x4	DRY	No.2	SPF	GROSS REACTION		GROSS REACTION		BRG		BRG		TOP CH. LL = 21.0 PSF				
F - H	2x4	DRY	No.2	SPF	JT	VERT	HORZ	DOWN	HORZ	UPLIFT	IN-SX	IN-SX	DL = 6.0 PSF				
I - H	2x4	DRY	No.2	SPF	I	1510	0	1510	0	0	1-10	1-10	BOT CH. LL = 0.0 PSF				
O - B	2x4	DRY	No.2	SPF	O	1619	0	1619	0	0	5-8	1-12	DL = 7.4 PSF				
O - M	2x4	DRY	No.2	SPF	TOTAL LOAD = 34.4 PSF												
M - K	2x4	DRY	No.2	SPF	SPACING = 24.0 IN. C/C												
K - I	2x4	DRY	No.2	SPF													
ALL WEBS 2x4 DRY No.2 SPF				LOADING IN FLAT SECTION BASED ON A SLOPE OF 2.00/12 MINIMUM													
EXCEPT				THIS TRUSS IS DESIGNED FOR RESIDENTIAL OR SMALL BUILDING REQUIREMENTS OF PART 9, NBCC 2015													
C - N 2x3 DRY No.2 SPF				THIS DESIGN COMPLIES WITH:													
O - C 2x3 DRY No.2 SPF				- PART 9 OF CBC 2018 , ABC 2019													
DRY: SEASONED LUMBER.				- PART 9 OF OBC 2012 (2019 AMENDMENT)													
				- CSA 086-14													
				- TPIC 2014													
				(55 % OF 23.0 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 21.0 P.S.F. SPECIFIED ROOF LIVE LOAD													
				ALLOWABLE DEFL.(LL)= L/360 (1.04")													
				CALCULATED VERT. DEFL.(LL) = L/ 999 (0.05")													
				ALLOWABLE DEFL.(TL)= L/360 (1.04")													
				CALCULATED VERT. DEFL.(TL) = L/ 999 (0.13")													
				CSI: TC=0.83/1.00 (D-E:1) , BC=0.38/1.00 (J-L:4) , WB=0.58/1.00 (G-J:1) , SSI=0.29/1.00 (G-H:1)													
				DOL LUMBER=1.00 NAIL=1.00 LS BEND=1.10 COMP=1.10 SHEAR=1.10 TENS= 1.10													
				COMPANION LIVE LOAD FACTOR = 1.00													
				TRUSS PLATE MANUFACTURER IS NOT RESPONSIBLE FOR QUALITY CONTROL IN THE TRUSS MANUFACTURING PLANT .													
				NAIL VALUES													
				PLATE GRIP(DRY) SHEAR SECTION (PSI) (PLI) (PLI)													
				MAX MIN MAX MIN MAX MIN													
				MT20 650 371 1747 788 1987 1873													
				PLATE PLACEMENT TOL. = 0.250 inches													
				PLATE ROTATION TOL. = 5.0 Deg.													
				JSI GRIP= 0.90 (H) (INPUT = 0.90)													
				JSI METAL= 0.53 (C) (INPUT = 1.00)													

PLATES (table is in inches)						
JT	TYPE	PLATES	W	LEN	Y	X
B	TMV+p	MT20	2.0	4.0		
C	TMWW-t	MT20	4.0	4.0	1.50	1.00
D	TTWW+m	MT20	6.0	7.0	Edge	1.50
E	TMW+w	MT20	2.0	4.0		
F	TS-t	MT20	3.0	6.0		
G	TMWW-t	MT20	4.0	4.0		
H	TMVW+p	MT20	4.0	4.0	1.50	1.75
I	BMV1+p	MT20	2.0	4.0		
J	BMWW+t	MT20	4.0	4.0	1.50	1.75
K	BS-t	MT20	3.0	6.0		
L	BMWWW-t	MT20	5.0	8.0		
M	BS-t	MT20	3.0	6.0		
N	BMWW-t	MT20	4.0	4.0		
O	BMVW1-t	MT20	4.0	4.0	1.75	1.75
Edge - INDICATES REFERENCE CORNER OF PLATE TOUCHES EDGE OF CHORD.						

LATERAL BRACE(S) SHOWN SHALL BE 2X4 SPF#2

JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
336324	H90		1	TRUSS DESC. JT 45147	E21104088

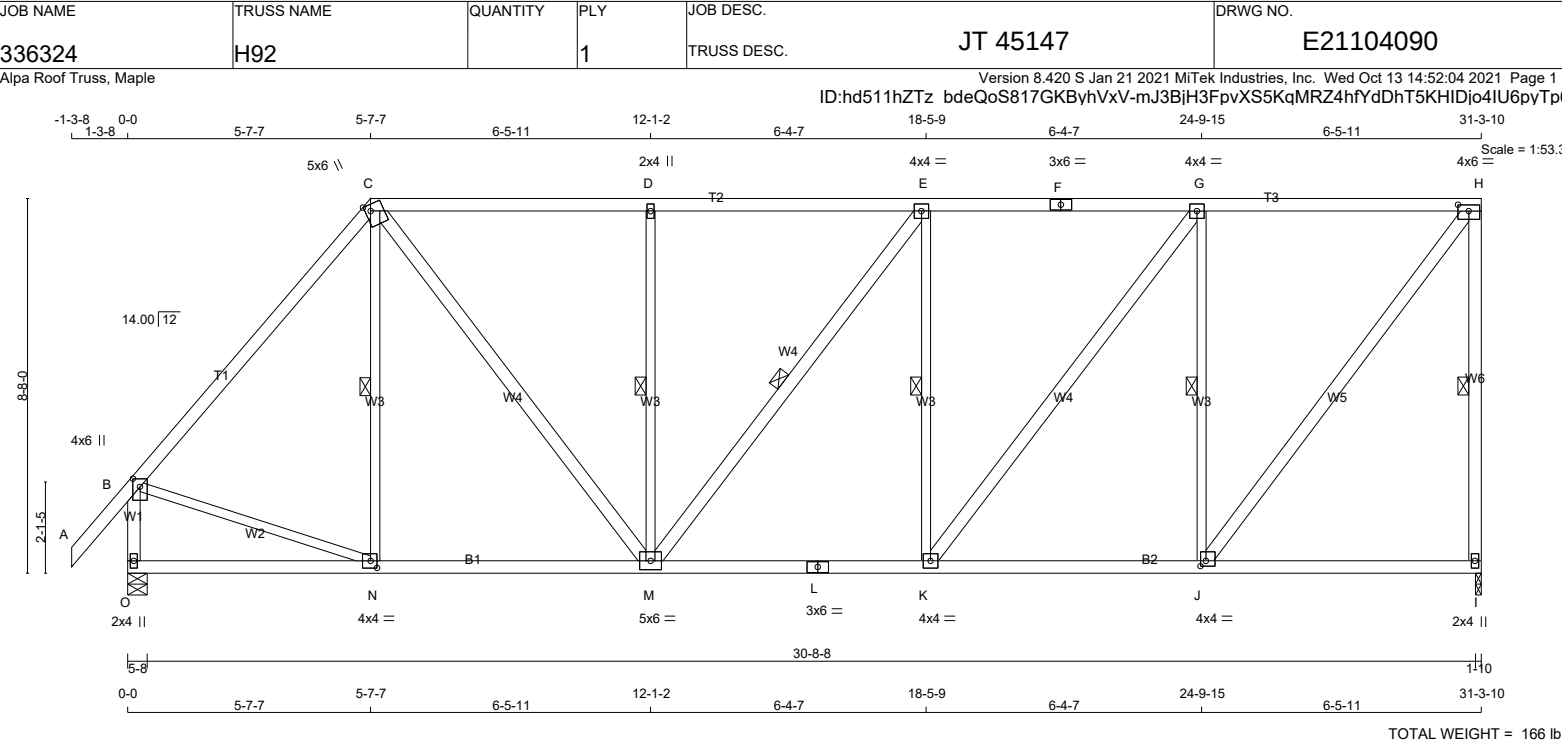


LUMBER						
N. L. G. A. RULES						
CHORDS		SIZE	LUMBER	DESCR.		
A - C	2x4	DRY	No.2	SPF		
C - F	2x6	DRY	1650F 1.5E	SPF		
F - H	2x6	DRY	1650F 1.5E	SPF		
I - H	2x4	DRY	No.2	SPF		
O - B	2x6	DRY	No.2	SPF		
O - L	2x6	DRY	2100F 1.8E	SPF		
L - I	2x6	DRY	2100F 1.8E	SPF		
BEARING BLOCKS						
BL1	2x4	DRY	No.2	SPF		
ALL WEBS EXCEPT						
C - M	2x4	DRY	No.2	SPF		
D - K	2x4	DRY	1650F 1.5E	SPF		
K - G	2x4	DRY	1650F 1.5E	SPF		
J - H	2x4	DRY	1650F 1.5E	SPF		
DRY: SEASONED LUMBER.						
PLATES (table is in inches)						
JT	TYPE	PLATES	W	LEN	Y X	
B	TMVW-t	MT20	7.0	8.0	2.00 2.25	
C	TTWW-h	MT20	10.0	12.0	3.75 8.00	
D	TMWW-t	MT20	4.0	4.0		
E	TMW+w	MT20	2.0	4.0		
F	TS-t	MT20	6.0	7.0	Edge 3.50	
G	TMWW-t	MT20	5.0	6.0	2.25 2.25	
H	TMVW-t	MT20	6.0	9.0	2.75 2.25	
I	BMVK1-t	MT20	6.0	9.0	Edge 3.00	
J	BMWW-t	MT20	6.0	9.0	2.75 2.25	
K	BMWW-t	MT20	5.0	8.0	2.50 1.50	
L	BS-t	MT18HS	6.0	14.0		
M	BMWW-t	MT20	8.0	9.0	4.25 3.75	
N	BMWW-t	MT20	5.0	10.0	5.00 1.50	
O	BMV1-t	MT20	6.0	9.0	5.50	
Edge - INDICATES REFERENCE CORNER OF PLATE TOUCHES EDGE OF CHORD.						
LATERAL BRACE(S) SHOWN SHALL BE 2X4 SPF#2						
						
DIMENSIONS, SUPPORTS AND LOADINGS SPECIFIED BY FABRICATOR TO BE VERIFIED BY BUILDING DESIGNER						
BEARINGS						
	FACTORED		MAXIMUM FACTORED	INPUT	REQRD	
	GROSS REACTION		GROSS REACTION	BRG	BRG	
JT	VERT	HORZ	DOWN	HORZ	UPLIFT	
I	3675	0	3675	0	0	
O	4844	0	4844	0	0	
UNFACTORED REACTIONS						
	1ST LCASE		MAX./MIN. COMPONENT REACTIONS			
JT	COMBINED	SNOW	LIVE	PERM.LIVE	WIND	
I	2620	1600 / 0	0 / 0	0 / 0	1020 / 0	
O	3452	2119 / 0	0 / 0	0 / 0	1333 / 0	
BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S) I, O						
BEARING SIZE FACTOR = 1.15 AT JNT(S) I, O (BASED ON SUPPORT DEPTH = 1-8)						
BRACING						
TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 3.23 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.						
2x3 DRY SPF No.2 T-BRACE AT H-I						
FASTEN T AND I-BRACES TO NARROW EDGE OF WEB WITH ONE ROW PER PLY OF 3" COMMON WIRE NAILS @ 6" O.C. WITH 3" MINIMUM END DISTANCE. BRACE MUST COVER 90% OF WEB LENGTH.						
END VERTICAL(S) MUST BE SHEATHED OR HAVE BRACES AS INDICATED IN THE MAX. UNBRACED LENGTH COLUMN OF THE TABLE BELOW						
LOADING						
TOTAL LOAD CASES: (4)						
	CHORDS			WEBS		
	MAX. FACTORED	FACTORED		MAX. FACTORED		
MEMB.	FORCE (LBS)	VERT. LOAD LC1 (PLF)	MAX CSI (LC)	MEMB.	FORCE (LBS)	
FR-TO		FROM TO	LENGTH	FR-TO		
A-B	0 / 42	-78.0 -78.0	0.12 (1)	10.00	N-C	-260 / 0
B-C	-3851 / 0	-78.0 -78.0	0.27 (1)	3.36	C-M	0 / 5660
C-D	-7387 / 0	-78.0 -78.0	0.41 (1)	3.49	M-D	-914 / 0
D-E	-7922 / 0	-78.0 -78.0	0.39 (1)	3.41	D-K	0 / 619
E-F	-7922 / 0	-137.2 -137.2	0.57 (1)	3.23	K-E	-713 / 0
F-P	-7922 / 0	-137.2 -137.2	0.57 (1)	3.23	K-G	0 / 2988
P-G	-7922 / 0	-78.0 -78.0	0.57 (1)	3.23	J-G	-2372 / 0
G-Q	-5342 / 0	-78.0 -78.0	0.43 (1)	3.95	J-H	0 / 6282
Q-H	-5342 / 0	-130.8 -130.8	0.43 (1)	3.95	B-N	0 / 3092
I-H	-3483 / 0	0.0 0.0	0.68 (1)	6.00		
O-B	-4925 / 0	0.0 0.0	0.40 (1)	4.81		
O-N	0 / 0	-256.7 -256.7	0.35 (1)	10.00		
N-M	0 / 2502	-256.7 -256.7	0.57 (1)	10.00		
M-L	0 / 7387	-256.7 -256.7	0.83 (1)	10.00		
L-K	0 / 7387	-256.7 -256.7	0.83 (1)	10.00		
K-R	0 / 5342	-33.5 -33.5	0.50 (1)	10.00		
R-J	0 / 5342	-18.5 -18.5	0.50 (1)	10.00		
J-S	-121 / 0	-18.5 -18.5	0.22 (1)	6.25		
S-I	-121 / 0	-31.0 -31.0	0.22 (1)	6.25		
FACTORED CONCENTRATED LOADS (LBS)						
JT	LOC.	LC1	MAX-	MAX+	FACE	
R	21-5-7	-393	-393	---	FRONT	
S	26-6-9	-393	-393	---	FRONT	
CONNECTION REQUIREMENTS						
1) C1: A SUITABLE HANGER/MECHANICAL CONNECTION IS REQUIRED.						
DESIGN CRITERIA						
*** SPECIAL LOADS ANALYSIS ***						
GEOMETRY AND/OR BASIC LOADS CHANGED BY USER.						
LOADS WERE DERIVED FROM USER INPUT						
NO FURTHER MODIFICATIONS WERE MADE						
SPECIFIED LOADS:						
TOP CH.	LL	=	21.0	PSF		
	DL	=	6.0	PSF		
BOT CH.	LL	=	0.0	PSF		
	DL	=	7.4	PSF		
TOTAL LOAD	=	34.4	PSF			
SPACING = 24.0 IN./C						
LOADING IN FLAT SECTION BASED ON A SLOPE OF 2.00/12 MINIMUM						
GIRDER TYPE: CStdGirder						
START DISTANCE = 0-0						
START SPAN CARRIED = 11-10-8						
END DISTANCE = 16-6-0						
END SPAN CARRIED = 11-10-8						
END WALL WIDTH = 0-0						
APPLIED TO FRONT SIDE OF BOTTOM CHORD.						
- ADDTL LOADS BASED ON 55 % OF GSL.						
GIRDER TYPE: CPrimeHip						
LEFT SETBACK = 2-2-5						
RIGHT SETBACK = 0-0						
END SETBACK = 4-8-8						
END WALL WIDTH = 0-0						
CORNER FRAMING TYPE: CONVENTIONAL						
END JACK TYPE: CONVENTIONAL						
APPLIED TO FRONT SIDE						
- ADDTL LOADS BASED ON 55 % OF GSL.						
LOADS APPLIED TO FIRST 4-10-15 OF SPAN						
MEASURED FROM THE RIGHT.						
*** 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 CBC2018 , ABC 2019						
- PART 9 OF OBC 2012 (2019 AMENDMENT)						
- CSA 086-14						
- TPIC 2014						
(55 % OF 23.0 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 21.0 P.S.F. SPECIFIED ROOF LIVE LOAD						
ALLOWABLE DEFL.(LL)= L/360 (1.04")						
CALCULATED VERT. DEFL.(LL)= L/ 999 (0.33")						
ALLOWABLE DEFL.(TL)= L/360 (1.04")						
CALCULATED VERT. DEFL.(TL)= L/ 581 (0.64")						
CSI: TC=0.68/1.00 (H-I:1), BC=0.83/1.00 (K-M:1), WB=1.00/1.00 (C-M:1), SSI=0.66/1.00 (K-M: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						
CONTINUED ON PAGE 2						

Timeline of the 2013-2014 season for the 1st team. The timeline shows dates from 1-3-8 to 31-3-10. Key events are marked with vertical lines and labels: 1-3-8 (1-3-8), 3-10-14 (3-10-14), 6-10-13 (6-10-13), 10-9-11 (10-9-11), 6-9-9 (6-9-9), 17-7-4 (17-7-4), 6-9-9 (6-9-9), 24-4-13 (24-4-13), 6-10-13 (6-10-13), and 31-3-10 (31-3-10). A scale bar at the bottom right indicates 'Scale = 1:52.2'.



JSI GRIP= 0.90 (H) (INPUT = 0.90)
JSI METAL= 0.54 (L) (INPUT = 1.00)



LUMBER

N. L. G. A. RULES

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

DRY: SEASONED LUMBER.

PLATES (table is in inches)

JT	TYPE	PLATES	W	LEN	Y	X
B	TMVW+p	MT20	4.0	6.0	2.25	2.00
C	TTWW+m	MT20	5.0	6.0	1.75	1.50
D	TMW+w	MT20	2.0	4.0		
E	TMWW-t	MT20	4.0	4.0		
F	TS-t	MT20	3.0	6.0		
G	TMWW-t	MT20	4.0	4.0		
H	TMVW-t	MT20	4.0	6.0	1.75	3.00
I	BMV1+p	MT20	2.0	4.0		
J	BMWW-t	MT20	4.0	4.0	1.50	1.50
K	BMWW-t	MT20	4.0	4.0		
L	BS-t	MT20	3.0	6.0		
M	BMWWW-t	MT20	5.0	6.0		
N	BMWW-t	MT20	4.0	4.0	2.00	1.75
O	BMV1+p	MT20	2.0	4.0		

LATERAL BRACE(S) SHOWN SHALL BE 2X4 SPF#2



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

BEARINGS

	FACTORED GROSS REACTION	MAXIMUM FACTORED GROSS REACTION	INPUT BRG	REQRD BRG
JT	VERT	HORZ	DOWN	HORZ
I	1510	0	1510	0
O	1619	0	1619	0

UNFACTORED REACTIONS

	1ST LCASE COMBINED	MAX./MIN. SNOW	MIN. LIVE	PERM. LIVE	WIND	DEAD	SOIL
JT	1076	657 / 0	0 / 0	0 / 0	0 / 0	419 / 0	0 / 0
O	1152	716 / 0	0 / 0	0 / 0	0 / 0	436 / 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 = 4.79 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 H-I, C-N, D-M, E-M, E-K, G-J.

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				WEBS			
MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	MAX. CSI (LC)	MEMB.	MAX. FACTORED FORCE (LBS)	MAX. CSI (LC)	
FR-TO		FROM TO		FR-TO			
A- B	0 / 42	-78.0 -78.0	0.11 (1)	10.00	N- C	-131 / 38	0.06 (1)
B- C	-1304 / 0	-78.0 -78.0	0.58 (1)	5.02	C- M	0 / 881	0.14 (1)
C- D	-1384 / 0	-78.0 -78.0	0.56 (1)	4.81	M- D	-563 / 0	0.27 (1)
D- E	-1385 / 0	-78.0 -78.0	0.55 (1)	4.81	M- E	-22 / 0	0.01 (1)
E- F	-1398 / 0	-78.0 -78.0	0.56 (1)	4.79	K- E	-442 / 0	0.21 (1)
F- G	-1398 / 0	-78.0 -78.0	0.56 (1)	4.79	K- G	0 / 698	0.11 (1)
G- H	-975 / 0	-78.0 -78.0	0.52 (1)	5.54	J- G	-1127 / 0	0.54 (1)
I- H	-1462 / 0	0.0 0.0	0.50 (1)	5.41	J- H	0 / 1595	0.26 (1)
O- B	-1578 / 0	0.0 0.0	0.19 (1)	6.57	B- N	0 / 884	0.20 (1)
O- N	0 / 0	-18.5 -18.5	0.16 (4)	10.00			
N- M	0 / 844	-18.5 -18.5	0.24 (4)	10.00			
M- L	0 / 1398	-18.5 -18.5	0.30 (1)	10.00			
L- K	0 / 1398	-18.5 -18.5	0.30 (1)	10.00			
K- J	0 / 975	-18.5 -18.5	0.28 (4)	10.00			
J- I	0 / 0	-18.5 -18.5	0.19 (4)	10.00			

DESIGN CRITERIA

SPECIFIED LOADS:

TOP CH.	LL = 21.0	PSF
	DL = 6.0	PSF
BOT CH.	LL = 0.0	PSF
	DL = 7.4	PSF
TOTAL LOAD =	34.4	PSF

SPACING = 24.0 IN. C/C

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

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

THIS DESIGN COMPLIES WITH:

- PART 9 OF CBC 2018 , ABC 2019

- PART 9 OF OBC 2012 (2019 AMENDMENT)

- CSA 086-14

- TPIC 2014

(55 % OF 23.0 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 21.0 P.S.F. SPECIFIED ROOF LIVE LOAD

ALLOWABLE DEFL.(LL)= L/360 (1.04")

CALCULATED VERT. DEFL.(LL) = L/ 999 (0.06")

ALLOWABLE DEFL.(TL)= L/360 (1.04")

CALCULATED VERT. DEFL.(TL) = L/ 999 (0.13")

CSI: TC=0.58/1.00 (B-C:1) , BC=0.30/1.00 (K-M:1) , WB=0.54/1.00 (G-J:1) , SSI=0.24/1.00 (G-H:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

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

NAIL VALUES

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

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

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

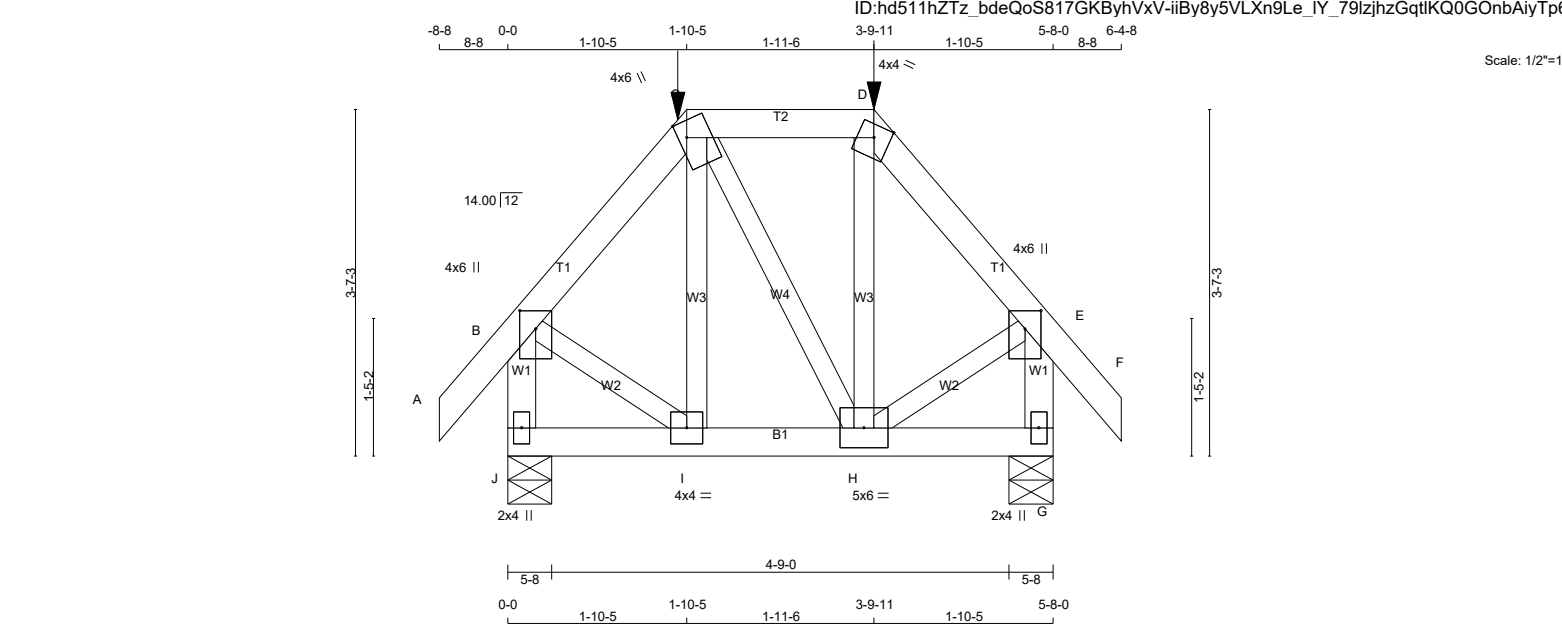
JSI METAL= 0.52 (B) (INPUT = 1.00)

JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
336324	H93		1	TRUSS DESC. JT 45147	E21104091

Alpa Roof Truss, Maple

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LUMBER

N. L. G. A. RULES

CHORDS SIZE LUMBER DESCR.

A - C 2x4 DRY No.2 SPF

C - D 2x4 DRY No.2 SPF

D - F 2x4 DRY No.2 SPF

J - B 2x4 DRY No.2 SPF

G - E 2x4 DRY No.2 SPF

J - G 2x4 DRY No.2 SPF

ALL WEBS 2x3 DRY No.2 SPF

EXCEPT

DRY: SEASONED LUMBER.

CHORDS	SIZE	LUMBER	DESCR.
A - C	2x4	DRY No.2	SPF
C - D	2x4	DRY No.2	SPF
D - F	2x4	DRY No.2	SPF
J - B	2x4	DRY No.2	SPF
G - E	2x4	DRY No.2	SPF
J - G	2x4	DRY No.2	SPF

DRY: SEASONED LUMBER.

PLATES (table is in inches)	W	LEN	Y	X
JT TYPE PLATES				
B TMVW+p MT20	4.0	6.0	2.25	2.00
C TTWW+m MT20	4.0	6.0	2.00	1.00
D TTW-m MT20	4.0	4.0	Edge	
E TMVW+p MT20	4.0	6.0	2.25	2.00
G BMV1+p MT20	2.0	4.0		
H BMWW-t MT20	5.0	6.0		
I BMWW-t MT20	4.0	4.0		
J BMV1+p MT20	2.0	4.0		

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

LATERAL BRACE(S) SHOWN SHALL BE 2X4 SPF#2



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

BEARINGS	FACTORED GROSS REACTION	MAXIMUM FACTORED GROSS REACTION	INPUT BRG	REQRD BRG
JT VERT				
J 455	0	455	0	5-8
G 455	0	455	0	5-8

UNFACTORED REACTIONS	1ST LCASE	MAX./MIN. COMPONENT REACTIONS	DEAD	SOIL
JT COMBINED				
J 323	203 / 0	0 / 0	0 / 0	120 / 0
G 323	203 / 0	0 / 0	0 / 0	120 / 0

BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S) J, 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	MEMB.	CHORDS MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	LC1 MAX. CSI (LC)	MEMB. UNBRAC LENGTH	WEBS MAX. FACTORED FORCE (LBS)	MAX. CSI (LC)
TOTAL LOAD CASES: (4)							
FR-TO							
A-B	0 / 24	-78.0	-78.0	0.04 (1)	10.00	-38 / 25	0.01 (4)
B-C	-265 / 0	-78.0	-78.0	0.05 (1)	6.25	0 / 0	0.00 (1)
C-D	-169 / 0	-114.5	-114.5	0.08 (1)	6.25	-39 / 26	0.01 (4)
D-E	-265 / 0	-78.0	-78.0	0.05 (1)	6.25	0 / 194	0.05 (1)
E-F	0 / 24	-78.0	-78.0	0.04 (1)	10.00	0 / 194	0.05 (1)
J-B	-431 / 0	0.0	0.0	0.05 (1)	7.81		
G-E	-431 / 0	0.0	0.0	0.05 (1)	7.81		
J-I	0 / 0	-27.2	-27.2	0.02 (4)	10.00		
I-H	0 / 170	-27.2	-27.2	0.04 (4)	10.00		
H-G	0 / 0	-27.2	-27.2	0.02 (4)	10.00		

FACTORED CONCENTRATED LOADS (LBS)	JT	LOC.	LC1	MAX-	MAX+	FACE	DIR.	TYPE	HEEL	CONN.
C	1-10-5	-57	-57	---	---	FRONT	VERT	TOTAL	---	C1
D	3-9-11	-57	-57	---	---	FRONT	VERT	TOTAL	---	C1

DESIGN CRITERIA

SPECIFIED LOADS:

TOP CH. LL = 21.0 PSF

DL = 6.0 PSF

BOT CH. LL = 0.0 PSF

DL = 7.4 PSF

TOTAL LOAD = 34.4 PSF

SPACING = 24.0 IN. C/C

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

GIRDER TYPE: CPrimeHip

SIDE SETBACK = 1-10-5

END SETBACK = 3-10-8

END WALL WIDTH = 0-0

CORNER FRAMING TYPE: CONVENTIONAL

END JACK TYPE: CONVENTIONAL

APPLIED TO FRONT SIDE

- ADDTL LOADS BASED ON 55 % OF GSL.

THIS TRUSS IS DESIGNED FOR RESIDENTIAL OR SMALL BUILDING REQUIREMENTS OF PART 9, NBC2015

THIS DESIGN COMPLIES WITH:

- PART 9 OF CBC 2018, ABC 2019

- PART 9 OF OBC 2012 (2019 AMENDMENT)

- CSA 086-14

- TPIC 2014

(55 % OF 23.0 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 21.0 P.S.F. SPECIFIED ROOF LIVE LOAD

ALLOWABLE DEFL.(LL)= L/360 (0.19")

CALCULATED VERT. DEFL.(LL) = L/ 999 (0.00")

ALLOWABLE DEFL.(TL)= L/360 (0.19")

CALCULATED VERT. DEFL.(TL) = L/ 999 (0.00")

CSI: TC=0.08/1.00 (C-D:1), BC=0.04/1.00 (H-I:4), WB=0.05/1.00 (B-I:1), SSI=0.10/1.00 (C-D:1)

DOL LUMBER=1.00 NAIL=1.00 LS BEND=1.00

COMP=1.00 SHEAR=1.00 TENS= 1.00

COMPANION LIVE LOAD FACTOR = 1.00

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

NAIL VALUES

PLATE GRIP(DRY) SHEAR SECTION

(PSI) (PLI) (PLI)

MAX MIN MAX MIN MAX MIN

MT20 650 371 1747 788 1987 1873

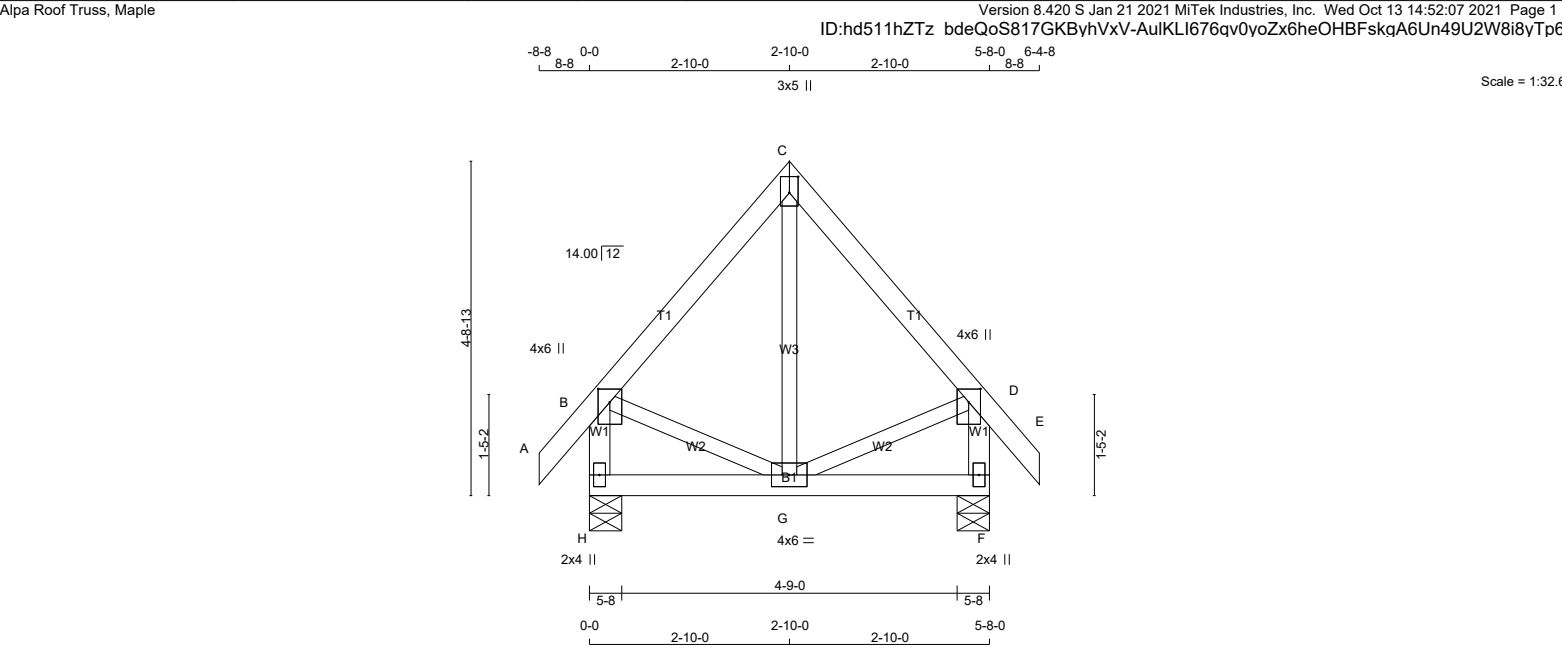
PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

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

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

JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
336324	H94		1	TRUSS DESC. JT 45147	E21104092



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

PLATES (table is in inches)					
JT	TYPE	PLATES	W	LEN	Y X
B	TMVW+p	MT20	4.0	6.0	2.25 2.00
C	TTW+p	MT20	3.0	5.0	2.75 1.50
D	TMVW+p	MT20	4.0	6.0	2.25 2.00
F	BMV1+p	MT20	2.0	4.0	
G	BMWWW-t	MT20	4.0	6.0	
H	BMV1+p	MT20	2.0	4.0	

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

BEARINGS		FACTORED GROSS REACTION	MAXIMUM FACTORED GROSS REACTION	INPUT BRG	REQRD BRG
JT	VERT	HORZ	DOWN	HORZ	UPLIFT
H	337	0	337	0	5-8
F	337	0	337	0	5-8

UNFACTORED REACTIONS		1ST LCASE	MAX./MIN. COMPONENT REACTIONS	DEAD	SOIL
JT	COMBINED	SNOW	LIVE	WIND	
H	239	153 / 0	0 / 0	0 / 0	86 / 0
F	239	153 / 0	0 / 0	0 / 0	86 / 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				WEBS			
MAX. FACTORED		FACTORED		MAX. FACTORED		MAX. FACTORED	
MEMB.	FORCE	VERT. LOAD	LC1 MAX	MAX.	MEMB.	FORCE	MAX
	(LBS)	(PLF)	CSI (LC)	UNBRAC		(LBS)	CSI (LC)
FR-TO		FROM TO		LENGTH	FR-TO		
A-B	0 / 24	-78.0	-78.0 0.04 (1)	10.00	G-C	-6 / 43	0.01 (4)
B-C	-142 / 0	-78.0	-78.0 0.08 (1)	6.25	B-G	0 / 98	0.02 (1)
C-D	-142 / 0	-78.0	-78.0 0.08 (1)	6.25	G-D	0 / 98	0.02 (1)
D-E	0 / 24	-78.0	-78.0 0.04 (1)	10.00			
H-B	-316 / 0	0.0	0.0 0.03 (1)	7.81			
F-D	-316 / 0	0.0	0.0 0.03 (1)	7.81			
H-G	0 / 0	-18.5	-18.5 0.04 (4)	10.00			
G-F	0 / 0	-18.5	-18.5 0.04 (4)	10.00			

TOTAL WEIGHT = 30 lb

[M][F]

DESIGN CRITERIA

SPECIFIED LOADS:
TOP CH. LL = 21.0 PSF
DL = 6.0 PSF
BOT CH. LL = 0.0 PSF
DL = 7.4 PSF
TOTAL LOAD = 34.4 PSF

SPACING = 24.0 IN./C
THIS DESIGN 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 23.0 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 21.0 P.S.F. SPECIFIED ROOF LIVE LOAD

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

CSI: TC=0.08/1.00 (C-D:1) , BC=0.04/1.00 (F-G:4) , WB=0.02/1.00 (B-G:1) , SSI=0.06/1.00 (C-D:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

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

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

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.18 (D) (INPUT = 0.90)
JSI METAL= 0.09 (B) (INPUT = 1.00)

LATERAL BRACE(S) SHOWN SHALL BE 2X4 SPF#2

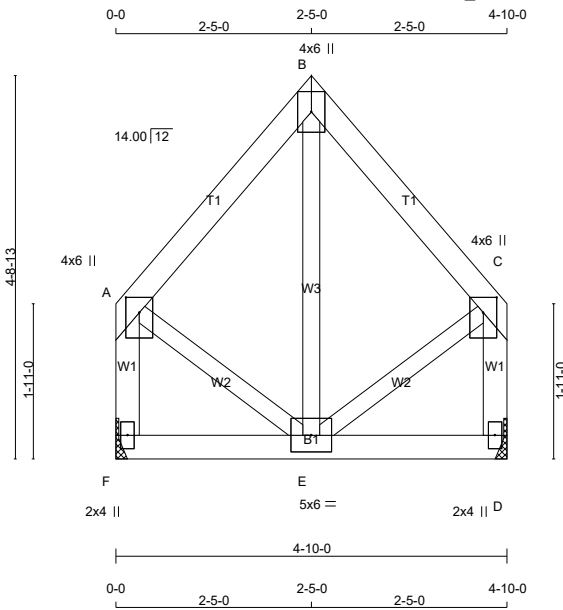


JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
336324	H94S		1	TRUSS DESC. JT 45147	E21104093

Alpa Roof Truss, Maple

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TOTAL WEIGHT = 2 X 26 = 51 lb

[M][F]

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

PLATES (table is in inches)						
JT	TYPE	PLATES	W	LEN	Y	X
A	TMVW+p	MT20	4.0	6.0	2.25	2.00
B	TTW+p	MT20	4.0	6.0		
C	TMVW+p	MT20	4.0	6.0	2.25	2.00
D	BMV1+p	MT20	2.0	4.0		
E	BMWWW-t	MT20	5.0	6.0		
F	BMV1+p	MT20	2.0	4.0		

DIMENSIONS, SUPPORTS AND LOADINGS SPECIFIED BY FABRICATOR TO BE VERIFIED BY BUILDING DESIGNER									
BEARINGS									
	FACTORED GROSS REACTION	MAXIMUM FACTORED GROSS REACTION	INPUT BRG	REQRD BRG					
JT	VERT	HORZ	DOWN	HORZ	UPLIFT	IN-SX	IN-SX		
F	233	0	233	0	0	MECHANICAL			
D	233	0	233	0	0	MECHANICAL			
A SUITABLE HANGER/MECHANICAL CONNECTION IS REQUIRED AT JOINT F, D. MINIMUM BEARING LENGTH AT JOINT F = 1-8, JOINT D = 1-8.									

UNFACTORED REACTIONS							
JT	1ST LCASE COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
F	166	101 / 0	0 / 0	0 / 0	0 / 0	65 / 0	0 / 0
D	166	101 / 0	0 / 0	0 / 0	0 / 0	65 / 0	0 / 0

BRACING
 TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 6.25 FT.
 MAX. UNBRACED BOTTOM CHORD LENGTH = 10.00 FT OR RIGID CEILING DIRECTLY APPLIED.
 ALL PITCH BREAKS AND PERIMETER CORNER JOINTS MUST BE Laterally RESTRAINED.

LOADING				
TOTAL LOAD CASES: (4)				
CHORDS			WEBS	
MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	MAX. UNBRACED LENGTH	MEMB. MAX. FACTORED FORCE (LBS)
FR-TO		FROM TO		FR-TO
A-B	-103 / 0	-78.0 -78.0 0.06 (1)	6.25	E-B -32 / 25
B-C	-103 / 0	-78.0 -78.0 0.06 (1)	6.25	A-E 0 / 80
F-A	-215 / 0	0.0 0.0 0.02 (1)	7.81	E-C 0 / 80
D-C	-215 / 0	0.0 0.0 0.02 (1)	7.81	
F-E	0 / 0	-18.5 -18.5 0.03 (4)	10.00	
E-D	0 / 0	-18.5 -18.5 0.03 (4)	10.00	

DESIGN CRITERIA

SPECIFIED LOADS:
 TOP CH. LL = 21.0 PSF
 DL = 6.0 PSF
 BOT CH. LL = 0.0 PSF
 DL = 7.4 PSF
 TOTAL LOAD = 34.4 PSF

SPACING = 24.0 IN./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 23.0 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 21.0 P.S.F. SPECIFIED ROOF LIVE LOAD

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

CSI: TC=0.06/1.00 (A-B:1) , BC=0.03/1.00 (E-F:4) ,
 WB=0.02/1.00 (C-E:1) , SSI=0.05/1.00 (A-B:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

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

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

PLATE PLACEMENT TOL. = 0.250 inches

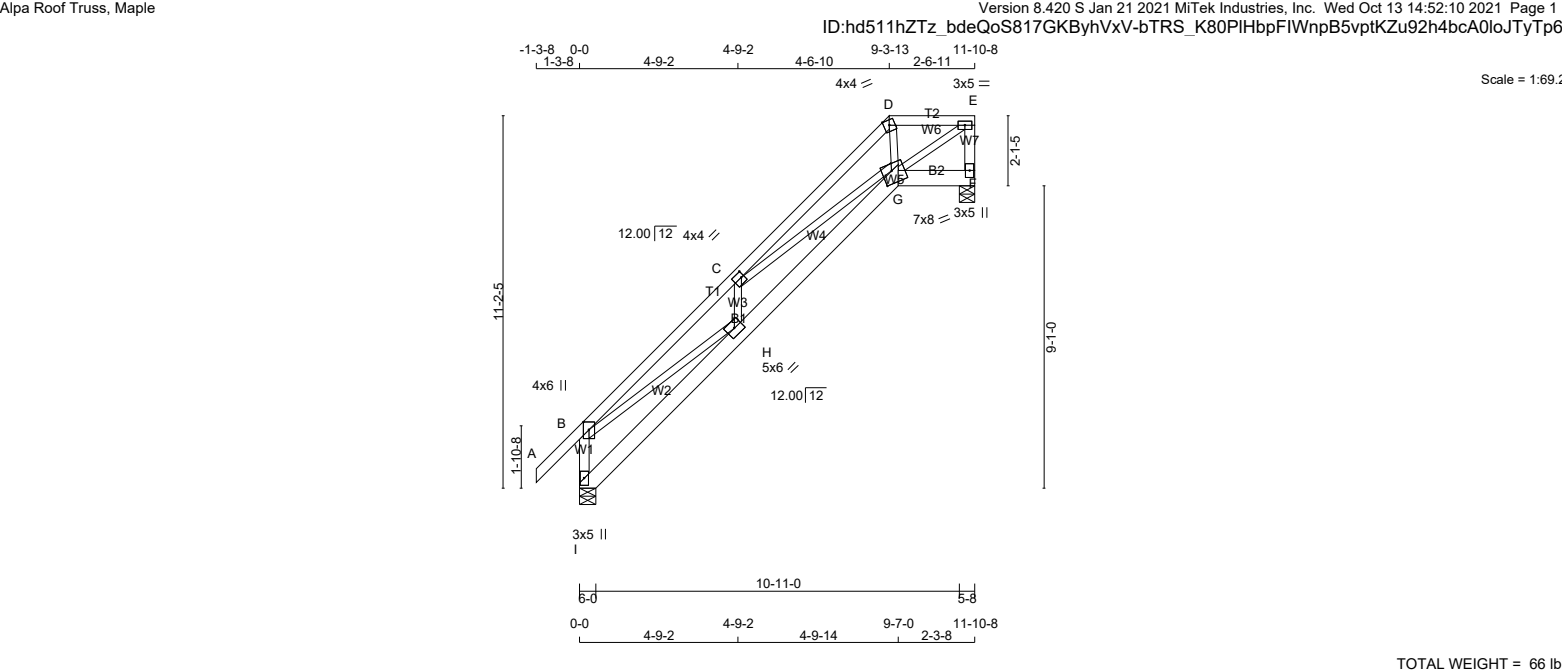
PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.12 (C) (INPUT = 0.90)
 JSI METAL= 0.06 (A) (INPUT = 1.00)

LATERAL BRACE(S) SHOWN SHALL BE 2X4 SPF#2



JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
336324	H95		1	TRUSS DESC. JT 45147	E21104094



LUMBER				
N. L. G. A. RULES				
CHORDS	SIZE	LUMBER		DESCR.
I - B	2x4	DRY	No.2	SPF
A - D	2x4	DRY	No.2	SPF
D - E	2x4	DRY	No.2	SPF
F - E	2x4	DRY	No.2	SPF
I - G	2x6	DRY	No.2	SPF
G - F	2x6	DRY	No.2	SPF
ALL WEBS 2x3 DRY No.2 SPF				
DRY: SEASONED LUMBER.				

PLATES (table is in inches)						
JT	TYPE	PLATES	W	LEN	Y	X
B	TMVW+p	MT20	4.0	6.0	2.75	2.00
C	TMWW-t	MT20	4.0	4.0	2.00	1.00
D	TTW-m	MT20	4.0	4.0	Edge	
E	TMVW-t	MT20	3.0	5.0		
F	BMV1+p	MT20	3.0	5.0		
G	BBWWW-m	MT20	7.0	8.0	4.50	3.50
H	BMWW-t	MT20	5.0	6.0		
I	BMV1+p	MT20	3.0	5.0		

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

LATERAL BRACE(S) SHOWN SHALL BE 2X4 SPF#2



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

BEARINGS		FACTORED GROSS REACTION		MAXIMUM FACTORED GROSS REACTION		INPUT BRG		REQRD IN-SX	
JT	VERT	HORZ	DOWN	HORZ	UPLIFT	IN-SX	IN-SX		
I	682	0	682	0	0	6-0	1-8		
F	573	0	573	0	0	5-8	1-8		

UNFACTORED REACTIONS		1ST LCASE		MAX./MIN. COMPONENT REACTIONS					
JT	COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL		
I	484	308 / 0	0 / 0	0 / 0	0 / 0	176 / 0	0 / 0		
F	408	249 / 0	0 / 0	0 / 0	0 / 0	159 / 0	0 / 0		

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

BRACING
TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 5.31 FT.
MAX. UNBRACED BOTTOM CHORD LENGTH = 10.00 FT OR RIGID CEILING DIRECTLY APPLIED.

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

LOADING					TOTAL LOAD CASES: (4)				
CHORDS					WEBS				
MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	LC1 MAX CSI (LC)	MAX UNBRAC LENGTH	MEMB.	MAX. FACTORED FORCE (LBS)	MAX CSI (LC)		
FR-TO		FROM	TO		FR-TO				
I-B	-623 / 0	0.0	0.0	0.07 (1)	7.81	B-H	0 / 1174	0.26 (1)	
A-B	0 / 38	-78.0	-78.0	0.11 (1)	10.00	H-C	-257 / 0	0.04 (1)	
B-C	-1379 / 0	-78.0	-78.0	0.23 (1)	5.31	C-G	-440 / 0	0.29 (1)	
C-D	-839 / 0	-78.0	-78.0	0.21 (1)	6.25	D-G	0 / 329	0.07 (1)	
D-E	-624 / 0	-78.0	-78.0	0.07 (1)	6.25	G-E	0 / 775	0.17 (1)	
F-E	-552 / 0	0.0	0.0	0.06 (1)	7.81				
I-H	-9 / 2	-18.5	-18.5	0.07 (1)	10.00				
H-G	0 / 1342	-18.5	-18.5	0.22 (1)	10.00				
G-F	0 / 0	-18.5	-18.5	0.01 (4)	10.00				

DESIGN CRITERIA

SPECIFIED LOADS:		
TOP CH.	LL = 21.0	PSF
	DL = 6.0	PSF
BOT CH.	LL = 0.0	PSF
	DL = 7.4	PSF
TOTAL LOAD	= 34.4	PSF

SPACING = 24.0 IN./C/C

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

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

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

(55 % OF 23.0 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 21.0 P.S.F. SPECIFIED ROOF LIVE LOAD

ALLOWABLE DEFL.(LL)= L/360 (0.40")
CALCULATED VERT. DEFL.(LL)= L/ 999 (0.05")
ALLOWABLE DEFL.(TL)= L/360 (0.40")
CALCULATED VERT. DEFL.(TL)= L/ 999 (0.09")

CSI: TC=0.23/1.00 (B-C:1) , BC=0.22/1.00 (G-H:1) , WB=0.29/1.00 (C-G:1) , SSI=0.12/1.00 (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)	SHEAR (PLI)	SECTION (PLI)		
	MAX	MIN	MAX	MIN	MAX
MT20	650	371	1747	788	1987 1873

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.81 (E) (INPUT = 0.90)
JSI METAL= 0.59 (B) (INPUT = 1.00)

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TOTAL WEIGHT = $8 \times 69 = 556 \text{ lb}$

PLATES (table is in inches)							
PLATES	JT	TYPE	PLATES	W	LEN	Y	X
B	CTMWW+p		MT20	4.0	6.0	2.75	2.00
C	CTMWW-t		MT20	4.0	4.0	2.00	1.00
D	TS-t		MT20	3.0	6.0		
E	ETMWW-t		MT20	4.0	4.0	2.00	1.00
F	TMV+p		MT20	2.0	4.0		
G	BMWV1-t		MT20	3.0	4.0	1.50	1.75
H	BBWV+p		MT20	7.0	8.0	3.25	2.75
I	BMWV-t		MT20	5.0	6.0		
J	BMV1+p		MT20	3.0	5.0		

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

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

TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 5.29 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.

TOTAL LOAD CASES: (4)

CHORDS				WEBS				
MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	LC1 MAX. CSI (LC)	MAX. UNBRAC LENGTH	MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED MAX. CSI (LC)	
FR-TO		FROM TO			FR-TO			
J-B	-622 / 0	0.0	0.0	0.07 (1)	7.81	B-I	0 / 1181	0.27 (1)
A-B	0 / 38	-78.0	-78.0	0.11 (1)	10.00	I-C	-242 / 0	0.04 (1)
B-C	-1833 / 0	-78.0	-78.0	0.24 (1)	5.29	C-H	-416 / 0	0.29 (1)
C-D	-850 / 0	-78.0	-78.0	0.19 (1)	6.25	E-H	0 / 819	0.18 (1)
D-E	-850 / 0	-78.0	-78.0	0.19 (1)	6.25	E-G	-770 / 0	0.14 (1)
E-F	-35 / 0	-78.0	-78.0	0.11 (1)	6.25			
G-F	-36 / 0	0.0	0.0	0.01 (1)	7.81			
J-I	-9 / 2	-18.5	-18.5	0.07 (1)	10.00			
I-H	0 / 1342	-18.5	-18.5	0.22 (1)	10.00			
H-G	0 / 553	-18.5	-18.5	0.11 (1)	10.00			

SPECIFIED LOADS:

TOP	CH.	LL	=	21.0	PSF
		DL	=	6.0	PSF
BOT	CH.	LL	=	0.0	PSF
		DL	=	7.4	PSF
TOTAL LOAD				=	34.4 PSF

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 23.0 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 21.0 P.S.F. SPECIFIED ROOF LIVE LOAD

ALLOWABLE DEFL.(LL)= L/360 (0.40")
CALCULATED VERT. DEFL.(LL) = L/ 999 (0.05")
ALLOWABLE DEFL.(TL)= L/360 (0.40")
CALCULATED VERT. DEFL.(TL) = L/ 999 (0.09")

CSI: TC=0.24/1.00 (B-C:1), BC=0.22/1.00 (H-I:1),
WB=0.29/1.00 (C-H: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)		SHEAR		SECTION	
	(PSI)		(PLI)		(PLI)	
	MAX	MIN	MAX	MIN	MAX	MIN
MT20	650	371	1747	788	1987	1873

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.83 (E) (INPUT = 0.90)
JSI METAL= 0.59 (B) (INPUT = 1.00)

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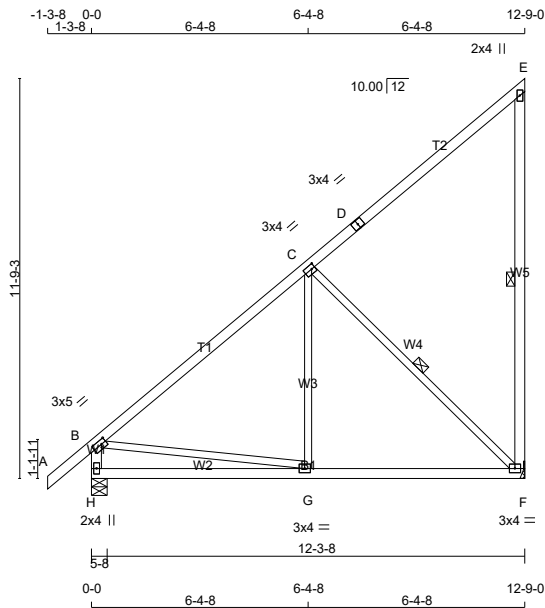


JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
336324	H98		1	TRUSS DESC. JT 45147	E21104097

Alpa Roof Truss, Maple

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TOTAL WEIGHT = 3 X 66 = 197 lb

[M][F]

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

PLATES (table is in inches)						
JT	TYPE	PLATES	W	LEN	Y	X
B	TMVW-t	MT20	3.0	5.0	1.50	1.75
C	TMWW-t	MT20	3.0	4.0	1.50	1.25
D	TS-t	MT20	3.0	4.0		
E	TMV+p	MT20	2.0	4.0		
F	BMVW1-t	MT20	3.0	4.0		
G	BMWW-t	MT20	3.0	4.0		
H	BMV1+p	MT20	2.0	4.0		

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

BEARINGS

	FACTORED GROSS REACTION	MAXIMUM FACTORED GROSS REACTION	INPUT	REQRD
	VERT	HORZ	DOWN	HORZ
JT	615	0	0	0
F	615	0	0	0
H	723	0	0	0

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

UNFACTORED REACTIONS

1ST LCASE	MAX./MIN. COMPONENT REACTIONS
JT	COMBINED
F	438
H	513

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

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

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				WEBS			
MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	MAX. FACTORED CSI (LC)	MEMB.	MAX. FACTORED FORCE (LBS)	MAX. FACTORED CSI (LC)	
FR-TO		FROM TO		FR-TO			
A-B	0 / 35	-78.0 -78.0	0.11 (1)	10.00	G-C	0 / 145	0.05 (4)
B-C	-480 / 0	-78.0 -78.0	0.43 (1)	6.25	C-F	-553 / 0	0.29 (1)
C-D	-39 / 0	-78.0 -78.0	0.42 (1)	6.25	B-G	0 / 402	0.09 (1)
D-E	-39 / 0	-78.0 -78.0	0.42 (1)	6.25			
F-E	-187 / 0	0.0 0.0	0.14 (1)	6.25			
H-B	-678 / 0	0.0 0.0	0.07 (1)	7.81			
H-G	0 / 0	-18.5 -18.5	0.21 (4)	10.00			
G-F	0 / 399	-18.5 -18.5	0.25 (4)	10.00			

DESIGN CRITERIA

SPECIFIED LOADS:

TOP CH.	LL	=	21.0	PSF
	DL	=	6.0	PSF
BOT CH.	LL	=	0.0	PSF
	DL	=	7.4	PSF
TOTAL LOAD	=	34.4	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 23.0 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 21.0 P.S.F. SPECIFIED ROOF LIVE LOAD

ALLOWABLE DEFL.(LL)= L/360 (0.42")
CALCULATED VERT. DEFL.(LL) = L/ 999 (0.01")
ALLOWABLE DEFL.(TL)= L/360 (0.42")
CALCULATED VERT. DEFL.(TL) = L/ 999 (0.04")

CSI: TC=0.43/1.00 (B-C:1) , BC=0.25/1.00 (F-G:4) ,
WB=0.29/1.00 (C-F:1) , SSI=0.19/1.00 (B-C:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

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

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

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.68 (C) (INPUT = 0.90)
JSI METAL= 0.20 (B) (INPUT = 1.00)

LATERAL BRACE(S) SHOWN SHALL BE 2X4 SPF#2

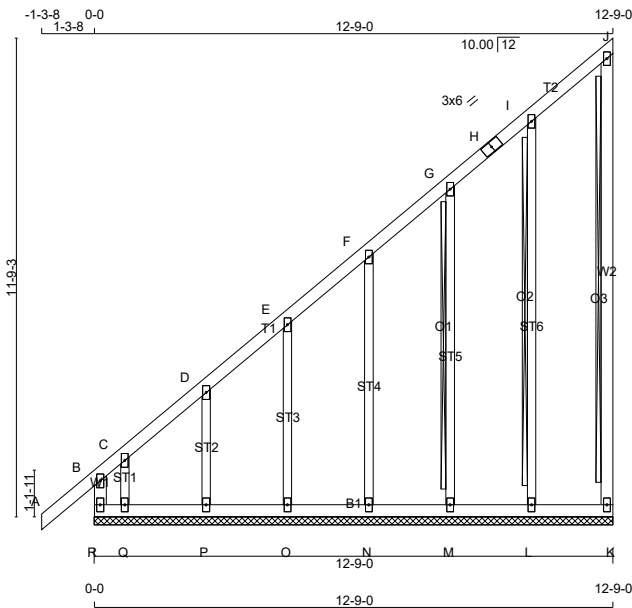


JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
336324	H98G		1	TRUSS DESC. JT 45147	E21104098

Alpa Roof Truss, Maple

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TOTAL WEIGHT = 75 lb [M]

LUMBER				
N. L. G. A. RULES				
CHORDS	SIZE	LUMBER		DESCR.
R - B	2x4 DRY	No.2		SPF
A - H	2x4 DRY	No.2		SPF
H - J	2x4 DRY	No.2		SPF
K - J	2x4 DRY	No.2		SPF
R - K	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	2.0	4.0	
C, D, E, F, G, I					
C	TMW+w	MT20	2.0	4.0	
H	TS-t	MT20	3.0	6.0	
J	TMV+p	MT20	2.0	4.0	
K	BMV1+p	MT20	2.0	4.0	
L, M, N, O, P, Q					
L	BMW1+w	MT20	2.0	4.0	
R	BMV1+p	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.

2x4 DRY SPF No.2 T-BRACE AT J-K, I-L

2x3 DRY SPF No.2 T-BRACE AT G-M

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

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

LOADING

TOTAL LOAD CASES: (4)

CHORDS					WEBS				
MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	LC1	MAX CSI (LC)	MEMB.	MAX. FACTORED FORCE (LBS)	MAX CSI (LC)		
FR-TO		FROM TO			FR-TO				
R-B	-223 / 0	0.0	0.0	0.03 (1)	7.81	L-I	-169 / 0	0.13 (1)	
A-B	0 / 35	-78.0	-78.0	0.11 (1)	10.00	M-G	-153 / 0	0.17 (1)	
B-C	-70 / 0	-78.0	-78.0	0.09 (1)	6.25	N-F	-155 / 0	0.12 (1)	
C-D	-15 / 0	-78.0	-78.0	0.04 (1)	6.25	O-E	-152 / 0	0.06 (1)	
D-E	-14 / 0	-78.0	-78.0	0.04 (1)	6.25	P-D	-161 / 0	0.03 (1)	
E-F	-9 / 0	-78.0	-78.0	0.04 (1)	10.00	Q-C	-19 / 0	0.00 (1)	
F-G	-6 / 0	-78.0	-78.0	0.04 (1)	10.00				
G-H	-3 / 0	-78.0	-78.0	0.04 (1)	10.00				
H-I	-3 / 0	-78.0	-78.0	0.04 (1)	10.00				
I-J	-8 / 0	-78.0	-78.0	0.04 (1)	10.00				
K-J	-71 / 0	0.0	0.0	0.02 (1)	7.81				
R-Q	0 / 16	-18.5	-18.5	0.03 (1)	10.00				
Q-P	0 / 15	-18.5	-18.5	0.02 (4)	10.00				
P-O	0 / 10	-18.5	-18.5	0.02 (4)	10.00				
O-N	0 / 7	-18.5	-18.5	0.02 (4)	10.00				
N-M	0 / 4	-18.5	-18.5	0.02 (4)	10.00				
M-L	0 / 3	-18.5	-18.5	0.02 (4)	10.00				
L-K	0 / 1	-18.5	-18.5	0.02 (4)	10.00				

DESIGN CRITERIA

SPECIFIED LOADS:

TOP CH. LL = 21.0 PSF

DL = 6.0 PSF

BOT CH. LL = 0.0 PSF

DL = 7.4 PSF

TOTAL LOAD = 34.4 PSF

SPACING = 24.0 IN./C

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

THIS DESIGN COMPLIES WITH:

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

DESIGN ASSUMPTIONS

-OVERHANG NOT TO BE ALTERED OR CUT OFF.

(55 % OF 23.0 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 21.0 P.S.F. SPECIFIED ROOF LIVE LOAD

CSI: TC=0.11/1.00 (A-B:1), BC=0.03/1.00 (Q-R:1), WB=0.17/1.00 (G-M:1), SSI=0.06/1.00 (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)	SHEAR (PLI)	SECTION (PLI)	
MAX MIN	MAX MIN	MAX MIN	MAX MIN	
MT20	650	371	1747	788 1987 1873

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.17 (B) (INPUT = 0.90)

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

LATERAL BRACE(S) SHOWN SHALL BE 2X4 SPF#2

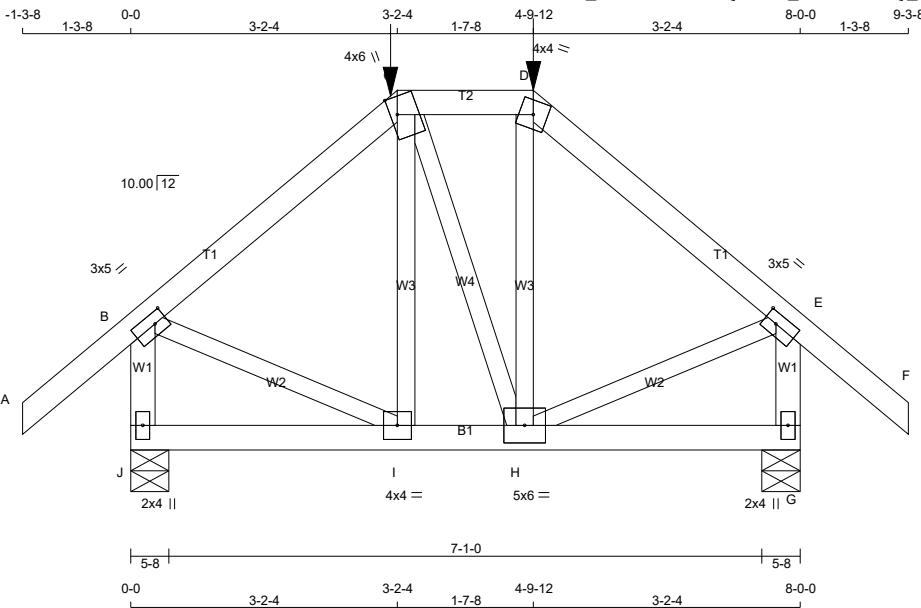


JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
336335	H99		1	TRUSS DESC. JT 45147	E21104164

Alpa Roof Truss, Maple

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TOTAL WEIGHT = 42 lb

[M]

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

PLATES (table is in inches)					
JT	TYPE	PLATES	W	LEN	Y X
B	TMVW-t	MT20	3.0	5.0	1.50 1.75
C	TTWW+m	MT20	4.0	6.0	Edge 1.00
D	TTW-m	MT20	4.0	4.0	
E	TMVW-t	MT20	3.0	5.0	1.50 1.75
G	BMV1+p	MT20	2.0	4.0	
H	BMWWW-t	MT20	5.0	6.0	
I	BMWW-t	MT20	4.0	4.0	
J	BMV1+p	MT20	2.0	4.0	

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

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

BEARINGS		FACTORED GROSS REACTION		MAXIMUM FACTORED GROSS REACTION		INPUT BRG		REQRD BRG	
JT	VERT	HORZ		DOWN	HORZ	UPLIFT	IN-SX	IN-SX	
J	552	0		552	0	0	5-8	1-8	
G	552	0		552	0	0	5-8	1-8	

UNFACTORED REACTIONS		1ST LCASE		MAX./MIN. COMPONENT REACTIONS		SNOW		LIVE		PERM.LIVE		WIND		DEAD		SOIL	
JT	COMBINED																
J	391		253 / 0		0 / 0					0 / 0		0 / 0		139 / 0		0 / 0	
G	391		253 / 0		0 / 0					0 / 0		0 / 0		139 / 0		0 / 0	

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

CHORDS				WEBS			
MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	LC1 MAX (LC)	MEMB. UNBRAC LENGTH	MEMB. MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	LC1 MAX (LC)
FR-TO		FROM	TO	FR-TO			
A-B	0 / 35	-78.0	-78.0 0.12 (1)	10.00	I-C	-38 / 24	0.01 (1)
B-C	-307 / 0	-78.0	-78.0 0.15 (1)	6.25	C-H	-1 / 0	0.00 (1)
C-D	-234 / 0	-87.7	-87.7 0.04 (1)	6.25	H-D	-40 / 25	0.01 (1)
D-E	-306 / 0	-78.0	-78.0 0.15 (1)	6.25	B-I	0 / 253	0.06 (1)
E-F	0 / 35	-78.0	-78.0 0.12 (1)	10.00	H-E	0 / 252	0.06 (1)
J-B	-523 / 0	0.0	0.0 0.06 (1)	7.81			
G-E	-522 / 0	0.0	0.0 0.06 (1)	7.81			
J-I	0 / 0	-20.8	-20.8 0.05 (4)	10.00			
I-H	0 / 234	-20.8	-20.8 0.07 (4)	10.00			
H-G	0 / 0	-20.8	-20.8 0.05 (4)	10.00			

FACTORED CONCENTRATED LOADS (LBS)							
JT	LOC.	LC1	MAX-	MAX+	FACE	DIR.	TYPE
C	3-2-4	-41	-41	---	FRONT	VERT	TOTAL
D	4-9-12	-41	-41	---	FRONT	VERT	TOTAL

DESIGN CRITERIA

SPECIFIED LOADS:
TOP CH. LL = 21.0 PSF
DL = 6.0 PSF
BOT CH. LL = 0.0 PSF
DL = 7.4 PSF
TOTAL LOAD = 34.4 PSF

SPACING = 24.0 IN./C

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

GIRDER TYPE: CPrimeHip
SIDE SETBACK = 3-2-4
END SETBACK = 2-6-0
END WALL WIDTH = 0-0
CORNER FRAMING TYPE: CONVENTIONAL
END JACK TYPE: CONVENTIONAL
APPLIED TO FRONT SIDE
- ADDT'L LOADS BASED ON 55 % OF GSL.

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

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

(55 % OF 23.0 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 21.0 P.S.F. SPECIFIED ROOF LIVE LOAD

ALLOWABLE DEFL.(LL)= L/360 (0.27")
CALCULATED VERT. DEFL.(LL) = L/ 999 (0.00")
ALLOWABLE DEFL.(TL)= L/360 (0.27")
CALCULATED VERT. DEFL.(TL) = L/ 999 (0.01")

CSI: TC=0.15/1.00 (B-C:1) , BC=0.07/1.00 (H-I:4) , WB=0.06/1.00 (B-I:1) , SSI=0.08/1.00 (D-E:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

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

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

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

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

LATERAL BRACE(S) SHOWN SHALL BE 2X4 SPF#2



Alpa Roof Truss, Maple

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TOTAL WEIGHT = 4 X 38 = 151 lb



JSI GRIP= 0.39 (D) (INPUT = 0.90)
JSI METAL= 0.11 (B) (INPUT = 1.00)

Alpa Roof Truss, Maple

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ID:hd511hZTz bdeQoS817GKByhVxV-OzElxmwGrKZ4rCb5L5yck89x6NJvOvWiQeirkvTZHK



TOTAL WEIGHT = 67 lb

DRY: SEASONED LUMBER.

LATERAL BRACE(S) SHOWN SHALL BE
2X4 SPF#2



JT	LOC.	LC1	MAX-	MAX+	FACE	DIR.	TYPE	HEEL	CONN.
C	3-7-8	-112	-112	---	FRONT	VERT	TOTAL	---	C1
D	8-6-8	-107	-107	---	FRONT	VERT	TOTAL	---	C1

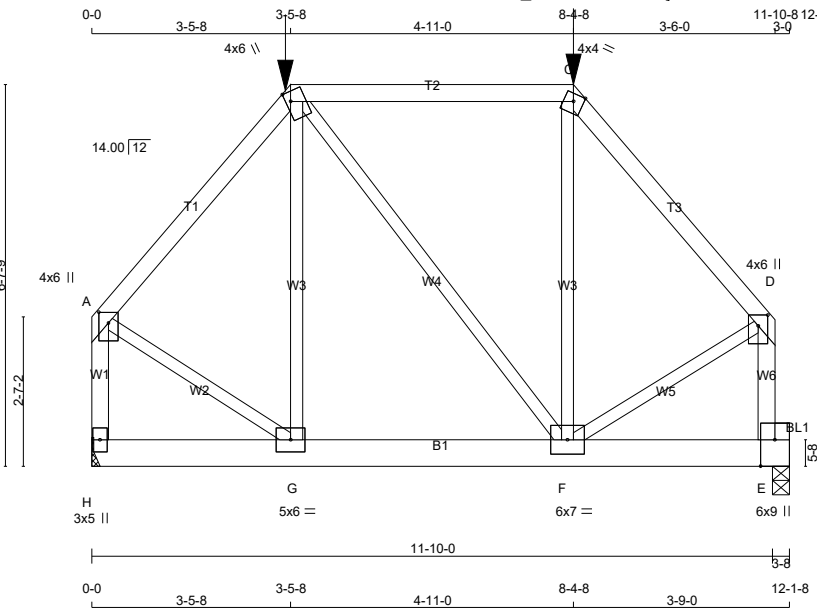
JSI GRIP= 0.69 (G) (INPUT = 0.90)
JSI METAL= 0.22 (E) (INPUT = 1.00)

JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
336335	H102S		1	TRUSS DESC. JT 45147	E21104167

Alpa Roof Truss, Maple

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ID:hd511hZTz_bdeQoS817GKByhVxV-KLM3MSxWNcaHJ9M_Dm7Qh9EURv2oQIOpBk7qvDyTZHl



TOTAL WEIGHT = 67 lb [M]

LUMBER				
N. L. G. A. RULES				
CHORDS	SIZE	LUMBER	DESCR.	
A - B	2x4	DRY	No.2	SPF
B - C	2x4	DRY	No.2	SPF
C - D	2x4	DRY	No.2	SPF
H - A	2x4	DRY	No.2	SPF
E - D	2x4	DRY	No.2	SPF
H - E	2x6	DRY	No.2	SPF
BEARING BLOCKS				
BL1	2x4	DRY	No.2	SPF
ALL WEBS 2x3 DRY No.2 SPF				
EXCEPT				
DRY: SEASONED LUMBER.				

PLATES (table is in inches)					
JT	TYPE	PLATES	W	LEN	Y X
A	TMVW+p	MT20	4.0	6.0	2.25 2.00
B	TTWW+m	MT20	4.0	6.0	2.00 1.00
C	TTW-m	MT20	4.0	4.0	Edge
D	TMVW+p	MT20	4.0	6.0	2.25 2.00
E	BMVK1+p	MT20	6.0	9.0	Edge 3.00
F	BMWWW-t	MT20	6.0	7.0	
G	BMWW-t	MT20	5.0	6.0	
H	BMV1+p	MT20	3.0	5.0	

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

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

BEARINGS		FACTORED GROSS REACTION		MAXIMUM FACTORED GROSS REACTION		INPUT BRG		REQRD BRG	
JT	VERT	HORZ	DOWN	HORZ	UPLIFT	IN-SX	IN-SX	IN-SX	IN-SX
H	814	0	814	0	0	MECHANICAL			
E	833	0	833	0	0	3-8	2-8		

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

UNFACTORED REACTIONS		1ST LCASE MAX./MIN. COMPONENT REACTIONS					
JT	COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
H	581	352 / 0	0 / 0	0 / 0	0 / 0	228 / 0	0 / 0
E	594	363 / 0	0 / 0	0 / 0	0 / 0	231 / 0	0 / 0

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

BRACING
TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 6.25 FT.
MAX. UNBRACED BOTTOM CHORD LENGTH = 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				WEBS			
MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	MAX. FACTORED LC1 MAX. CSI (LC)	MEMB.	MAX. FACTORED FORCE (LBS)	MAX. FACTORED UNBRAC LENGTH	MAX. FACTORED CSI (LC)
FR-TO		FROM	TO	FR-TO			
A-B	-557 / 0	-78.0	-78.0 0.19 (1)	6.25	G-B	-92 / 55	0.06 (1)
B-C	-354 / 0	-114.5	-114.5 0.53 (1)	6.25	B-F	-8 / 0	0.01 (1)
C-D	-550 / 0	-78.0	-78.0 0.19 (1)	6.25	F-C	-115 / 48	0.08 (1)
H-A	-776 / 0	0.0	0.0 0.11 (1)	7.81	A-G	0 / 421	0.10 (1)
E-D	-796 / 0	0.0	0.0 0.11 (1)	7.81	F-D	0 / 475	0.12 (1)
H-G	0 / 0	-27.2	-27.2 0.05 (4)	10.00			
G-F	0 / 359	-27.2	-27.2 0.08 (4)	10.00			
F-E	-55 / 0	-27.2	-27.2 0.05 (4)	6.25			

FACTORED CONCENTRATED LOADS (LBS)									
JT	LOC.	LC1	MAX-	MAX+	FACE	DIR.	TYPE	HEEL	CONN.
B	3-5-8	-107	-107	---	FRONT	VERT	TOTAL	---	C1
C	8-4-8	-116	-116	---	FRONT	VERT	TOTAL	---	C1

DESIGN CRITERIA

SPECIFIED LOADS:
TOP CH. LL = 21.0 PSF
DL = 6.0 PSF
BOT CH. LL = 0.0 PSF
DL = 7.4 PSF
TOTAL LOAD = 34.4 PSF

SPACING = 24.0 IN. C/C

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

GIRDER TYPE: CPrimeHip
LEFT SETBACK = 3-5-8
RIGHT SETBACK = 3-9-0
END SETBACK = 3-10-8
END WALL WIDTH = 0-0
CORNER FRAMING TYPE: CONVENTIONAL
END JACK TYPE: CONVENTIONAL
APPLIED TO FRONT SIDE
- ADDT'L LOADS BASED ON 55 % OF GSL.

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

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

(55 % OF 23.0 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 21.0 P.S.F. SPECIFIED ROOF LIVE LOAD

ALLOWABLE DEFL.(LL)= L/360 (0.39")
CALCULATED VERT. DEFL.(LL)= L/ 999 (0.01")
ALLOWABLE DEFL.(TL)= L/360 (0.39")
CALCULATED VERT. DEFL.(TL)= L/ 999 (0.01")

CSI: TC=0.53/1.00 (B-C:1) , BC=0.08/1.00 (F-G:4) , WB=0.12/1.00 (D-F:1) , SSI=0.24/1.00 (B-C:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

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

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

PLATE PLACEMENT TOL. = 0.250 inches

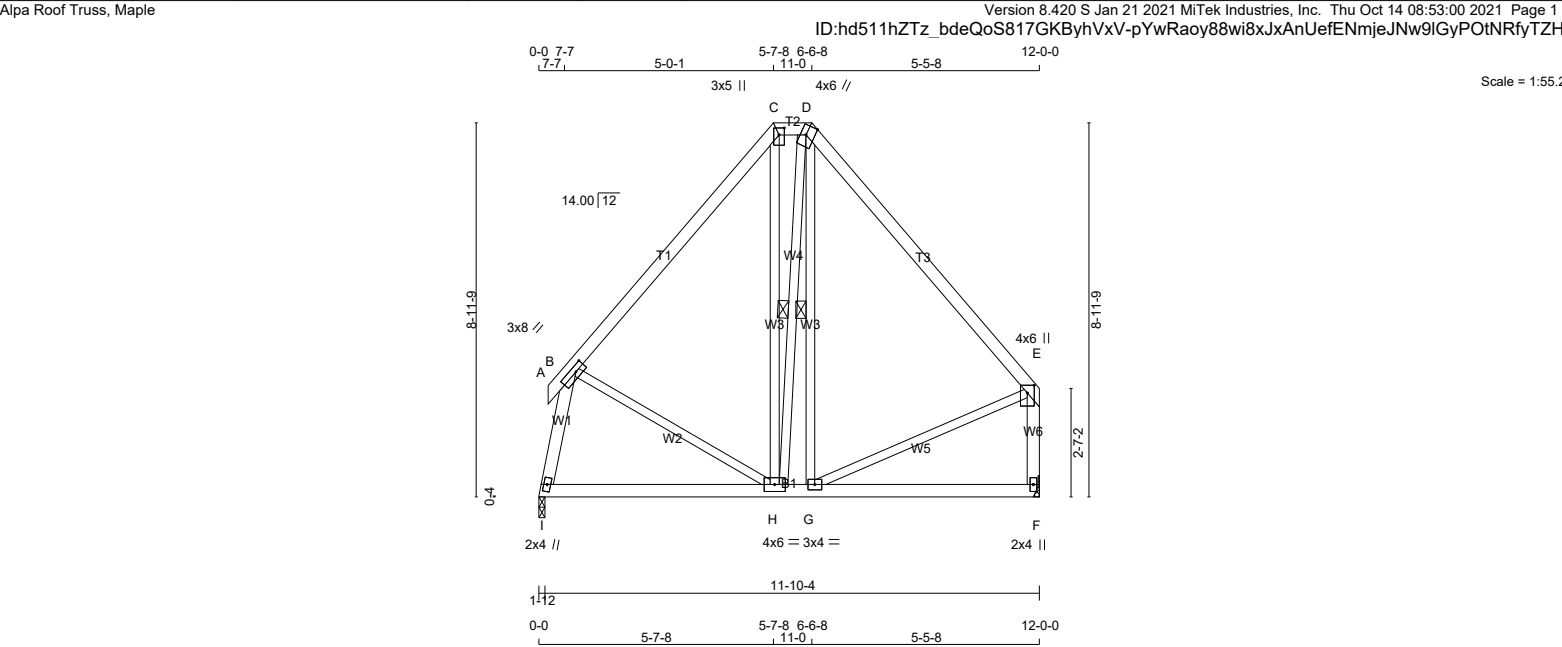
PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.48 (C) (INPUT = 0.90)
JSI METAL= 0.22 (A) (INPUT = 1.00)

LATERAL BRACE(S) SHOWN SHALL BE 2X4 SPF#2



JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
336335	H103A		1	TRUSS DESC. JT 45147	E21104168



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

DRY: SEASONED LUMBER.

PLATES (table is in inches)					
JT	TYPE	PLATES	W	LEN	Y X
B	TMWW-t	MT20	3.0	8.0	1.50 3.00
C	TTW+p	MT20	3.0	5.0	2.00 1.50
D	TTWW+m	MT20	4.0	6.0	Edge 2.50
E	TMVV+p	MT20	4.0	6.0	2.25 2.00
F	BMV1+p	MT20	2.0	4.0	
G	BMWW-t	MT20	3.0	4.0	
H	BMWWW-t	MT20	4.0	6.0	
I	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		FACTORED GROSS REACTION		MAXIMUM FACTORED GROSS REACTION		INPUT BRG		REQRD BRG	
JT	VERT	HORZ	DOWN	HORZ	UPLIFT	IN-SX	IN-SX		
I	574	0	574	0	0	1-12	1-8		
F	570	0	570	0	0		MECHANICAL		

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

UNFACTORED REACTIONS

1ST LCASE		MAX./MIN. COMPONENT REACTIONS							
JT	COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL		
I	409	250 / 0	0 / 0	0 / 0	0 / 0	159 / 0	0 / 0		
F	407	248 / 0	0 / 0	0 / 0	0 / 0	158 / 0	0 / 0		

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

BRACING

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

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

1 LATERAL BRACE(S) AT 1/2 LENGTH OF D-H, D-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				WEBS			
MAX. FACTORED		FACTORED		MAX. FACTORED		FACTORED	
MEMB.	FORCE (LBS)	VERT. LOAD (PLF)	CSI (LC)	MEMB.	FORCE (LBS)	MAX	CSI (LC)
FR-TO		FROM TO		FR-TO			
A-B	0 / 19	-78.0 -78.0	0.02 (1)	10.00	I-B	-543 / 0	0.08 (1)
B-C	-307 / 0	-78.0 -78.0	0.24 (1)	6.25	B-H	0 / 114	0.03 (1)
C-D	-200 / 0	-78.0 -78.0	0.01 (1)	6.25	H-C	0 / 48	0.02 (4)
D-E	-307 / 0	-78.0 -78.0	0.31 (1)	6.25	H-D	-2 / 3	0.00 (1)
F-E	-529 / 0	0.0 0.0	0.07 (1)	7.81	G-D	-11 / 40	0.01 (4)
					G-E	0 / 216	0.05 (1)
I-H	0 / 101	-18.5 -18.5	0.14 (4)	10.00			
H-G	0 / 200	-18.5 -18.5	0.15 (4)	10.00			
G-F	0 / 0	-18.5 -18.5	0.13 (4)	10.00			

TOTAL WEIGHT = 70 lb

[M][F]

DESIGN CRITERIA

SPECIFIED LOADS:

TOP CH.	LL	=	21.0	PSF
	DL	=	6.0	PSF
BOT CH.	LL	=	0.0	PSF
	DL	=	7.4	PSF
TOTAL LOAD	=	34.4	PSF	

SPACING = 24.0 IN./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 23.0 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 21.0 P.S.F. SPECIFIED ROOF LIVE LOAD

ALLOWABLE DEFL.(LL)= L/360 (0.39")
CALCULATED VERT. DEFL.(LL)= L/ 999 (0.00")
ALLOWABLE DEFL.(TL)= L/360 (0.39")
CALCULATED VERT. DEFL.(TL)= L/ 999 (0.03")

CSI: TC=0.31/1.00 (D-E:1) , BC=0.15/1.00 (G-H:4) , WB=0.08/1.00 (B-I:1) , SSI=0.11/1.00 (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 RIGHT HEEL ONLY

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

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

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.31 (B) (INPUT = 0.90)
JSI METAL= 0.16 (E) (INPUT = 1.00)

LATERAL BRACE(S) SHOWN SHALL BE 2X4 SPF#2

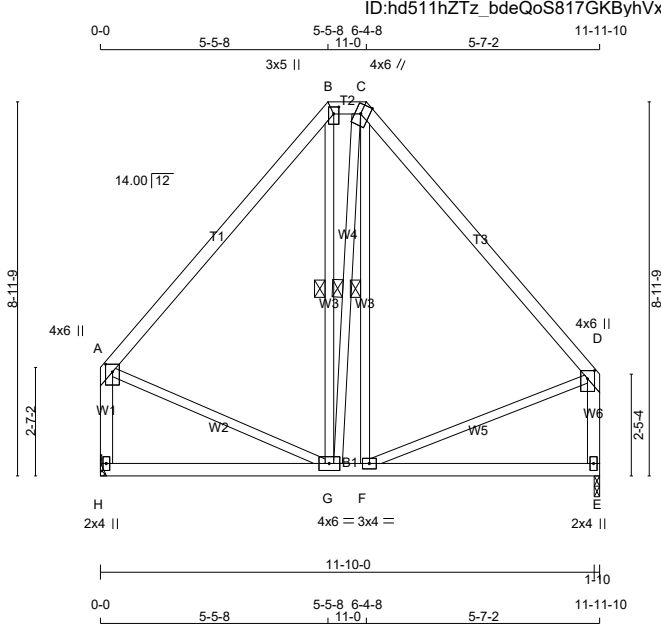


JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
336335	H103S		1	TRUSS DESC. JT 45147	E21104169

Alpa Roof Truss, Maple

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Scale = 1:55.2

TOTAL WEIGHT = 69 lb [M][F]

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

DRY: SEASONED LUMBER.

PLATES (table is in inches)					
JT	TYPE	PLATES	W	LEN	Y X
A	TMVW+p	MT20	4.0	6.0	2.25 2.00
B	TTW+p	MT20	3.0	5.0	2.00 1.50
C	TTWW+m	MT20	4.0	6.0	Edge 2.50
D	TMVW+p	MT20	4.0	6.0	2.25 2.00
E	BMV1+p	MT20	2.0	4.0	
F	BMWW-t	MT20	3.0	4.0	
G	BMWWW-t	MT20	4.0	6.0	
H	BMV1+p	MT20	2.0	4.0	

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

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

BEARINGS		FACTORED GROSS REACTION		MAXIMUM FACTORED GROSS REACTION		INPUT BRG		REQRD BRG	
JT	VERT	HORZ	DOWN	HORZ	UPLIFT	IN-SX	IN-SX	IN-SX	IN-SX
H	577	0	577	0	0	MECHANICAL			
E	577	0	577	0	0	1-10	1-8		

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

UNFACTORED REACTIONS

1ST LCASE		MAX./MIN. COMPONENT REACTIONS						
JT	COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL	
H	412	251 / 0	0 / 0	0 / 0	0 / 0	160 / 0	0 / 0	
E	412	251 / 0	0 / 0	0 / 0	0 / 0	160 / 0	0 / 0	

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

BRACING

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

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

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

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					WEBS				
MEMB.		MAX. FACTORED FORCE (LBS)		FACTORED VERT. LOAD (PLF)		MAX. FACTORED FORCE (LBS)		MAX. FACTORED FORCE (LBS)	
FR-TO		FROM TO		CSI (LC)		UNBRAC LENGTH		FR-TO	
A-B	-314 / 0	-78.0	-78.0	0.31 (1)	6.25	G-B	-8 / 46	0.02 (4)	
B-C	-204 / 0	-78.0	-78.0	0.01 (1)	6.25	G-C	-10 / 0	0.01 (1)	
C-D	-315 / 0	-78.0	-78.0	0.32 (1)	6.25	F-C	-2 / 46	0.02 (4)	
H-A	-536 / 0	0.0	0.0	0.07 (1)	7.81	A-G	0 / 220	0.05 (1)	
E-D	-535 / 0	0.0	0.0	0.07 (1)	7.81	F-D	0 / 219	0.05 (1)	
H-G	0 / 0	-18.5	-18.5	0.13 (4)	10.00				
G-F	0 / 205	-18.5	-18.5	0.16 (4)	10.00				
F-E	0 / 0	-18.5	-18.5	0.13 (4)	10.00				

DESIGN CRITERIA

SPECIFIED LOADS:
TOP CH. LL = 21.0 PSF
DL = 6.0 PSF
BOT CH. LL = 0.0 PSF
DL = 7.4 PSF
TOTAL LOAD = 34.4 PSF

SPACING = 24.0 IN. C/C

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

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

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

(55 % OF 23.0 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 21.0 P.S.F. SPECIFIED ROOF LIVE LOAD

ALLOWABLE DEFL.(LL)= L/360 (0.40")
CALCULATED VERT. DEFL.(LL)= L/ 999 (0.00")
ALLOWABLE DEFL.(TL)= L/360 (0.40")
CALCULATED VERT. DEFL.(TL)= L/ 999 (0.03")

CSI: TC=0.32/1.00 (C-D:1) , BC=0.16/1.00 (F-G:4) , WB=0.05/1.00 (A-G:1) , SSI=0.11/1.00 (C-D:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

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

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

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.31 (F) (INPUT = 0.90)
JSI METAL= 0.16 (D) (INPUT = 1.00)

LATERAL BRACE(S) SHOWN SHALL BE 2X4 SPF#2



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TOTAL WEIGHT = 71 lb



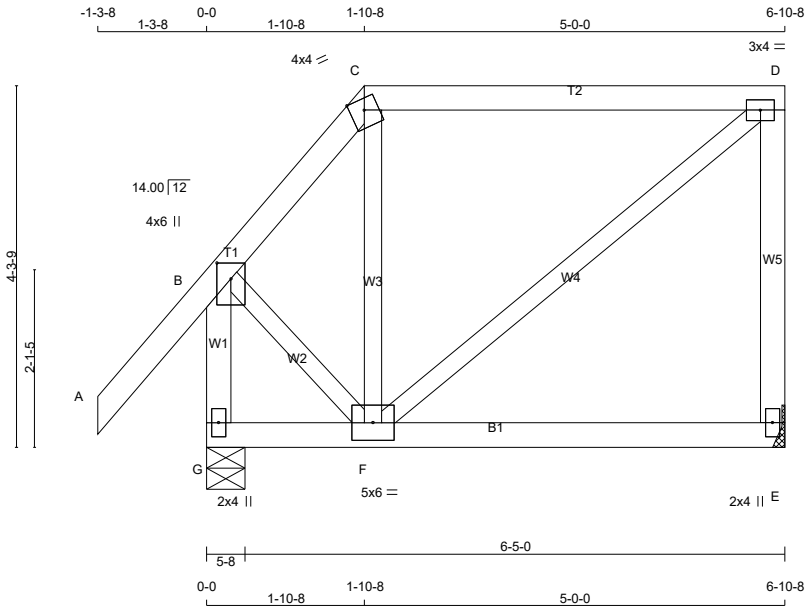
JSI GRIP= 0.61 (D) (INPUT = 0.90)
JSI METAL= 0.12 (D) (INPUT = 1.00)

JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
336335	H161		1	TRUSS DESC. JT 45147	E21104171

Alpa Roof Truss, Maple

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ID:hd511hZTz bdeQoS817GKByhVxV-9VjKdV0HySKQ14p7Z1ErxQUZzK6?q0BhZqa87tyTZHC



TOTAL WEIGHT = 35 lb

LUMBER				
N. L. G. A. RULES				
CHORDS	SIZE	LUMBER	DESCR.	
A - C	2x4	DRY	No.2	SPF
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	2x3	DRY	No.2	SPF
EXCEPT				
DRY: SEASONED LUMBER.				

PLATES (table is in inches)					
JT	TYPE	PLATES	W	LEN	Y X
B	TMVW+p	MT20	4.0	6.0	2.25 2.00
C	TTW-m	MT20	4.0	4.0	Edge
D	TMVW-t	MT20	3.0	4.0	
E	BMV1+p	MT20	2.0	4.0	
F	BMWWW-t	MT20	5.0	6.0	
G	BMV1+p	MT20	2.0	4.0	

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

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

BEARINGS		FACTORED GROSS REACTION		MAXIMUM FACTORED GROSS REACTION		INPUT BRG		REQRD BRG	
JT	VERT	HORZ		DOWN	HORZ	UPLIFT	IN-SX	IN-SX	
E	320	0		320	0	0	MECHANICAL		
G	452	0		452	0	0	5-8	1-8	

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

UNFACTORED REACTIONS

1ST LCASE		MAX./MIN. COMPONENT REACTIONS						
JT	COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL	
E	229	138 / 0	0 / 0	0 / 0	0 / 0	90 / 0	0 / 0	
G	320	209 / 0	0 / 0	0 / 0	0 / 0	111 / 0	0 / 0	

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

BRACING

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

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

LOADING

TOTAL LOAD CASES: (4)

CHORDS				WEBS			
MEMB.		MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	MAX. LC1 (LC)	MEMB.		MAX. FACTORED FORCE (LBS)
FR-TO			FROM TO	MAX. UNBRAC LENGTH	FR-TO		MAX. CSI (LC)
A-B	0 / 42	-78.0	-78.0 0.11 (1)	10.00	F-C	-96 / 13	0.03 (1)
B-C	-204 / 0	-78.0	-78.0 0.11 (1)	6.25	F-D	0 / 140	0.03 (1)
C-D	-109 / 0	-78.0	-78.0 0.33 (1)	6.25	B-F	0 / 148	0.03 (1)
E-D	-283 / 0	0.0	0.0 0.08 (1)	7.81			
G-B	-453 / 0	0.0	0.0 0.05 (1)	7.81			
G-F	0 / 0	-18.5	-18.5 0.09 (4)	10.00			
F-E	0 / 0	-18.5	-18.5 0.09 (4)	10.00			

LATERAL BRACE(S) SHOWN SHALL BE 2X4 SPF#2



DESIGN CRITERIA

SPECIFIED LOADS:
TOP CH. LL = 21.0 PSF
DL = 6.0 PSF
BOT CH. LL = 0.0 PSF
DL = 7.4 PSF
TOTAL LOAD = 34.4 PSF

SPACING = 24.0 IN. C/C

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

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

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

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

(55 % OF 23.0 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 21.0 P.S.F. SPECIFIED ROOF LIVE LOAD

ALLOWABLE DEFL.(LL)= L/360 (0.23")
CALCULATED VERT. DEFL.(LL) = L/ 999 (0.00")
ALLOWABLE DEFL.(TL)= L/360 (0.23")
CALCULATED VERT. DEFL.(TL) = L/ 999 (0.02")

CSI: TC=0.33/1.00 (C-D:1) , BC=0.09/1.00 (F-G:4) , WB=0.03/1.00 (B-F: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)	SHEAR	SECTION		
	(PSI)	(PLI)	(PLI)		
	MAX	MIN	MAX	MIN	MAX
MT20	650	371	1747	788	1987

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

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

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TOTAL WEIGHT = 43 lb

DRY: SEASONED LUMBER.

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

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

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.

TOTAL LOAD CASES: (4)

CHORDS					WEBS			
MAX. FACTORED		FACTORED				MAX. FACTORED		
MEMB.	FORCE (LBS)	VERT. LOAD (PLF)	LC1	MAX CSI (LC)	MAX. UNBRAC LENGTH	MEMB.	FORCE (LBS)	MAX CSI (LC)
FR-TO		FROM	TO			FR-TO		
A-B	0 / 42	-78.0	-78.0	0.11 (1)	10.00	F- C	-160 / 0	0.12 (1)
B- C	-143 / 0	-78.0	-78.0	0.15 (1)	6.25	F- D	0 / 217	0.05 (1)
C- D	-90 / 0	-78.0	-78.0	0.09 (1)	6.25	B- F	0 / 101	0.02 (1)
E- D	-313 / 0	0.0	0.0	0.29 (1)	7.81			
G- B	-410 / 0	0.0	0.0	0.05 (1)	7.81			
G- F	0 / 0	-18.5	-18.5	0.06 (4)	10.00			
F- E	0 / 0	-18.5	-18.5	0.06 (4)	10.00			

SPECIFIED LOADS:

TOP	CH.	LL	=	21.0	PSF
		DL	=	6.0	PSF
BOT	CH.	LL	=	0.0	PSF
		DL	=	7.4	PSF
TOTAL LOAD				=	34.4 PSF

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 23.0 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 21.0 P.S.F. SPECIFIED ROOF LIVE LOAD

ALLOWABLE DEFL.(LL)= L/360 (0.23")
CALCULATED VERT. DEFL.(LL) = L/ 999 (0.00")
ALLOWABLE DEFL.(TL)= L/360 (0.23")
CALCULATED VERT. DEFL.(TL) = L/ 999 (0.01")

CSI: TC=0.29/1.00 (D-E:1), BC=0.06/1.00 (F-G:4),
WB=0.12/1.00 (C-F:1), SSI=0.09/1.00 (C-D:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

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

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

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

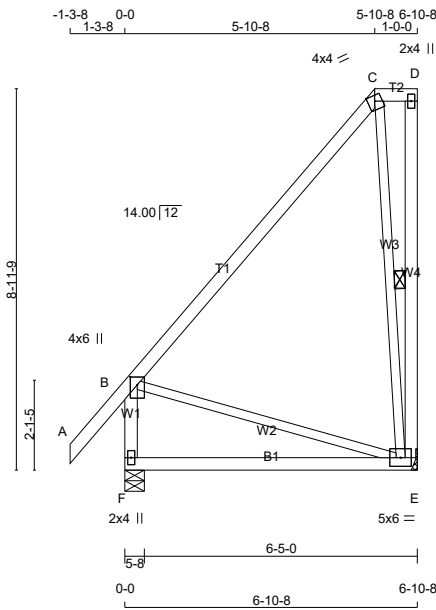
JSI GRIP= 0.47 (D) (INPUT = 0.90)
JSI METAL= 0.11 (B) (INPUT = 1.00)

JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
336335	H163		1	TRUSS DESC. JT 45147	E21104173

Alpa Roof Truss, Maple

ID:hd511hZTz bdeQoS817GKBhVxV-5ur42B2XU4b8HOzWhSGJ0rZvJ8kxlvF 0 3FBlyTZHA

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Scale = 1:54.2

TOTAL WEIGHT = 45 lb
[M][F]

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

PLATES (table is in inches)						
JT	TYPE	PLATES	W	LEN	Y	X
B	TMVW+p	MT20	4.0	6.0	2.25	2.00
C	TTW-m	MT20	4.0	4.0	Edge	
D	TMV+p	MT20	2.0	4.0		
E	BMVWW1-t	MT20	5.0	6.0		
F	BMV1+p	MT20	2.0	4.0		

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

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

JT	VERT	HORZ	FACTORED GROSS REACTION		MAXIMUM FACTORED GROSS REACTION		INPUT IN-SX	REQD BRG IN-SX
			DOWN	HORZ	DOWN	HORZ		
E	332	0	332	0	0	0	MECHANICAL	
F	441	0	441	0	0	0	5-8	1-8

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

UNFACTORED REACTIONS

JT	1ST LCASE COMBINED	MAX./MIN. COMPONENT REACTIONS					
		SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
E	236	144 / 0	0 / 0	0 / 0	0 / 0	92 / 0	0 / 0
F	312	203 / 0	0 / 0	0 / 0	0 / 0	109 / 0	0 / 0

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

BRACING

TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 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, C-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				WEBS			
MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	LC1 MAX CSI (LC)	MAX. UNBRAC LENGTH FR-TO	MEMB.	MAX. FACTORED FORCE (LBS)	MAX CSI (LC)
FR-TO		FROM TO					
A-B	0 / 42	-78.0 -78.0	0.11 (1)	10.00	C-E	-238 / 0	0.12 (1)
B-C	-42 / 0	-78.0 -78.0	0.34 (1)	6.25	B-E	0 / 28	0.01 (1)
C-D	0 / 0	-78.0 -78.0	0.01 (1)	10.00			
E-D	-39 / 0	0.0 0.0	0.01 (1)	6.25			
F-B	-377 / 0	0.0 0.0	0.04 (1)	7.81			
F-E	0 / 0	-18.5 -18.5	0.26 (4)	10.00			

DESIGN CRITERIA

SPECIFIED LOADS:
TOP CH. LL = 21.0 PSF
DL = 6.0 PSF
BOT CH. LL = 0.0 PSF
DL = 7.4 PSF
TOTAL LOAD = 34.4 PSF

SPACING = 24.0 IN./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, NBCS 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 23.0 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 21.0 P.S.F. SPECIFIED ROOF LIVE LOAD

ALLOWABLE DEFL.(TL)= L/360 (0.23")
CALCULATED VERT. DEFL.(TL) = L/ 819 (0.10")

CSI: TC=0.34/1.00 (B-C:1) , BC=0.26/1.00 (E-F:4) ,
WB=0.12/1.00 (C-E:1) , SSI=0.12/1.00 (B-C:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

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

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

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

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

LATERAL BRACE(S) SHOWN SHALL BE
2X4 SPF#2

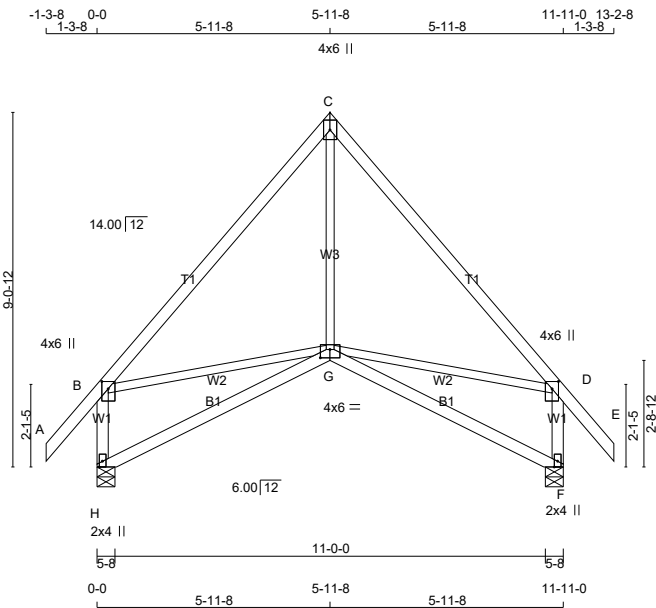


JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
336335	H200		1	TRUSS DESC. JT 45147	E21104174

Alpa Roof Truss, Maple

ID:hd511hZTz bdeQoS817GKByhVxV-2GzrSt3n0hrsWi7vosln5GeGTxRPmpgHUIYMGeYtZH8

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Scale = 1:58.9

TOTAL WEIGHT = 60 lb

[M][F]

LUMBER				
N. L. G. A. RULES				
CHORDS	SIZE	LUMBER	DESCR.	
A - C	2x4	DRY 1650F 1.5E	SPF	
C - E	2x4	DRY 1650F 1.5E	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	2x3	DRY No.2	SPF	
EXCEPT				
DRY: SEASONED LUMBER.				

PLATES (table is in inches)					
JT	TYPE	PLATES	W	LEN	Y X
B	TMVW+p	MT20	4.0	6.0	2.25 2.00
C	TTW+p	MT20	4.0	6.0	
D	TMVW+p	MT20	4.0	6.0	2.25 2.00
F	BMV1+p	MT20	2.0	4.0	Edge
G	BBWW+p	MT20	4.0	6.0	2.50 3.00
H	BMV1+p	MT20	2.0	4.0	Edge

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

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

FACTORED GROSS REACTION		MAXIMUM FACTORED GROSS REACTION		INPUT BRG		REQRD BRG	
JT	VERT	HORZ	DOWN	HORZ	UPLIFT	IN-SX	IN-SX
H	684	0	684	0	0	5-8	1-8
F	684	0	684	0	0	5-8	1-8

UNFACTORED REACTIONS		1ST LCASE		MAX./MIN. COMPONENT REACTIONS			
JT	COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
H	486	309 / 0	0 / 0	0 / 0	0 / 0	177 / 0	0 / 0
F	486	309 / 0	0 / 0	0 / 0	0 / 0	177 / 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.

CHORDS				WEBS			
MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	LC1 MAX CSI (LC)	MEMB.	MAX. FACTORED FORCE (LBS)	MAX. UNBRACED LENGTH	FR-TO
FR-TO		FROM	TO	FR-TO			
A-B	0 / 42	-78.0	-78.0 0.09 (1)	G-C	0 / 208	10.00	0.06 (4)
B-C	-443 / 0	-78.0	-78.0 0.30 (1)	B-G	0 / 292	6.25	0.07 (1)
C-D	-443 / 0	-78.0	-78.0 0.30 (1)	G-D	0 / 292	6.25	0.07 (1)
D-E	0 / 42	-78.0	-78.0 0.09 (1)			10.00	
H-B	-629 / 0	0.0	0.0 0.08 (1)			7.81	
F-D	-629 / 0	0.0	0.0 0.08 (1)			7.81	
H-G	0 / 0	-18.5	-18.5 0.19 (4)			10.00	
G-F	0 / 0	-18.5	-18.5 0.19 (4)			10.00	

DESIGN CRITERIA

SPECIFIED LOADS:
TOP CH. LL = 21.0 PSF
DL = 6.0 PSF
BOT CH. LL = 0.0 PSF
DL = 7.4 PSF
TOTAL LOAD = 34.4 PSF

SPACING = 24.0 IN./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 23.0 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 21.0 P.S.F. SPECIFIED ROOF LIVE LOAD

ALLOWABLE DEFL.(LL)= L/360 (0.40")
CALCULATED VERT. DEFL.(LL) = L/ 999 (0.01")
ALLOWABLE DEFL.(TL)= L/360 (0.40")
CALCULATED VERT. DEFL.(TL) = L/ 999 (0.07")

CSI: TC=0.30/1.00 (C-D:1) , BC=0.19/1.00 (G-H:4) , WB=0.07/1.00 (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) SHEAR SECTION
(PSI) (PLI) (PLI)
MAX MIN MAX MIN MAX MIN
MT20 650 371 1747 788 1987 1873

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.48 (G) (INPUT = 0.90)
JSI METAL= 0.26 (H) (INPUT = 1.00)

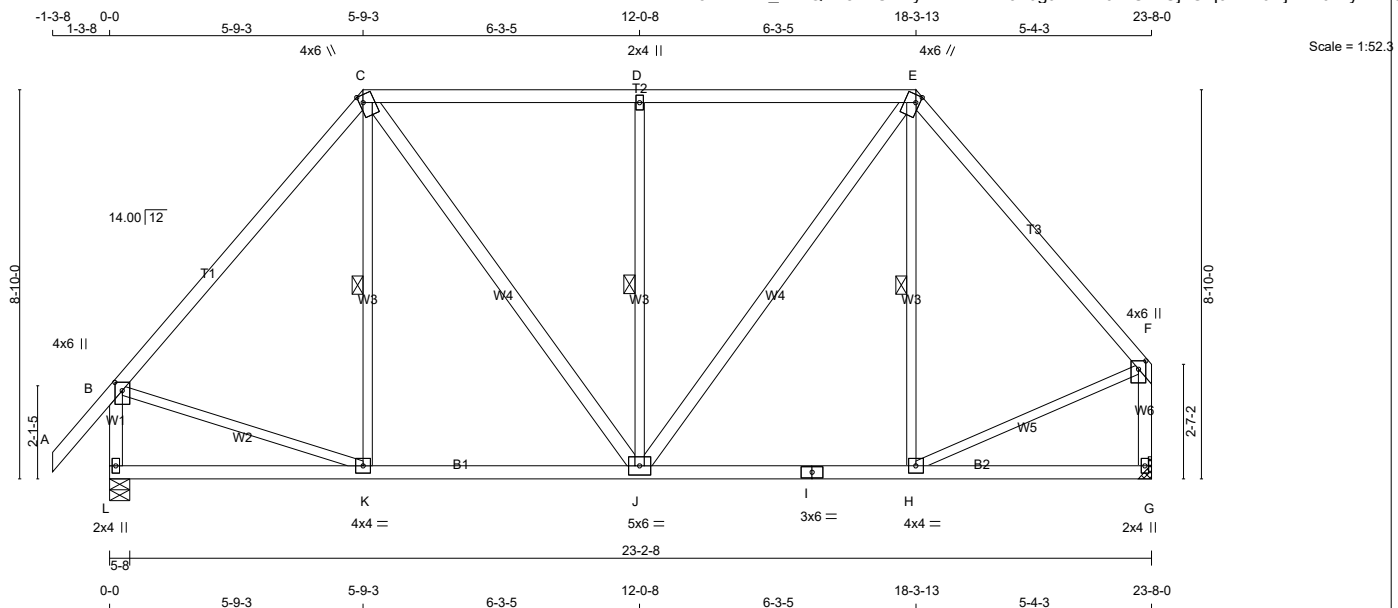
LATERAL BRACE(S) SHOWN SHALL BE 2X4 SPF#2



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JSI GRIP= 0.80 (B) (INPUT = 0.90)
JSI METAL= 0.53 (B) (INPUT = 1.00)



TOTAL WEIGHT = 2 X 121 = 242 lb

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

DRY: SEASONED LUMBER.

PLATES (table is in inches)						
JT	TYPE	PLATES	W	LEN	Y	X
B	TMWV+p	MT20	4.0	6.0	2.25	2.00
C	TTWW+m	MT20	4.0	6.0	2.00	1.00
D	TMW+w	MT20	2.0	4.0		
E	TTWW+m	MT20	4.0	6.0	2.00	1.00
F	TMWV+p	MT20	4.0	6.0	2.25	2.00
G	BMV1+p	MT20	2.0	4.0		
H	BMWVW-t	MT20	4.0	4.0		
I	BS-t	MT20	3.0	6.0		
J	BMWVWVW-t	MT20	5.0	6.0		
K	BMWVW-t	MT20	4.0	4.0		
L	BMV1+p	MT20	2.0	4.0		

LATERAL BRACE(S) SHOWN SHALL BE
2X4 SPF#2



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

BEARINGS		FACTORED		MAXIMUM FACTORED			INPUT	REQ'D
	GROSS REACTION		GROSS REACTION			BRG		BRG
JT	VERT	HORZ	DOWN	HORZ	UPLIFT	IN-SX	IN-SX	
L	1297	0	1297	0	0	5-8	1-8	
G	1189	0	1189	0	0	MECHANICAL		

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

UNFACTORED REACTIONS

1ST LCASE		MAX./MIN. COMPONENT REACTIONS					
JT	COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
L	927	556 / 0	0 / 0	0 / 0	0 / 0	371 / 0	0 / 0
G	852	497 / 0	0 / 0	0 / 0	0 / 0	355 / 0	0 / 0

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

BRACING

FOR SECTION C-E, MAX. PURLIN SPACING = 2.00 FT.
FOR OTHER SECTIONS, TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 5.60 FT.
MAX. UNBRACED BOTTOM CHORD LENGTH = 10.00 FT OR RIGID CEILING DIRECTLY APPLIED.

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

1 LATERAL BRACE(S) AT 1/2 LENGTH OF C-K, D-J, 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					WEBS				
MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	LC1	MAX. CSI (LC)	MAX. UNBRAC	MEMB.	MAX. FACTORED FORCE (LBS)	MAX. CSI (LC)	
FR-TO		FROM TO			LENGTH	FR-TO			
A-B	0 / 42	-78.0	-78.0	0.11 (1)	10.00	K-C	-60 / 60	0.03 (1)	
B-C	-965 / 0	-78.0	-78.0	0.55 (1)	5.60	C-J	0 / 449	0.07 (1)	
C-D	-892 / 0	-85.5	-85.5	0.61 (1)	2.00	J-D	-657 / 0	0.33 (1)	
D-E	-892 / 0	-85.5	-85.5	0.61 (1)	2.00	J-E	0 / 502	0.08 (1)	
E-F	-918 / 0	-78.0	-78.0	0.46 (1)	5.84	H-E	-122 / 30	0.06 (1)	
L-B	-1254 / 0	0.0	0.0	0.15 (1)	7.18	B-K	0 / 653	0.15 (1)	
G-F	-1151 / 0	0.0	0.0	0.16 (1)	7.42	H-F	0 / 643	0.14 (1)	
L-K	0 / 0	-18.5	-18.5	0.16 (4)	10.00				
K-J	0 / 625	-18.5	-18.5	0.23 (4)	10.00				
J-I	0 / 594	-18.5	-18.5	0.21 (4)	10.00				
I-H	0 / 594	-18.5	-18.5	0.21 (4)	10.00				
H-G	0 / 0	-18.5	-18.5	0.15 (4)	10.00				

DESIGN CRITERIA

SPECIFIED LOADS:

TOP	CH.	LL	=	21.0	PSF
		DL	=	6.0	PSF
BOT	CH.	LL	=	0.0	PSF
		DL	=	7.4	PSF
TOTAL LOAD			=	34.4	PSF

SPACING = 24.0 IN. C/C

LOADING IN FLAT SECTION BASED ON
PIGGYBACK TRUSS WITH SLOPES OF 6.00/12
AND -6.00/12 AND RESPECTIVE HEEL HEIGHTS
OF 0-0 AND 0-0 AND AN ADDITIONAL DEAD
LOAD OF 3.0 P.S.F.

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 23.0 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 21.0 P.S.F. SPECIFIED ROOF LIVE LOAD

ALLOWABLE DEFL.(LL)= L/360 (0.79")
CALCULATED VERT. DEFL.(LL) = L/ 999 (0.02")
ALLOWABLE DEFL.(TL)= L/360 (0.79")
CALCULATED VERT. DEFL.(TL) = L/ 999 (0.05")

CSI: TC=0.61/1.00 (D-E:1), BC=0.23/1.00 (J-K:4),
WB=0.33/1.00 (D-J:1), SSI=0.26/1.00 (C-D:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

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

NAIL VALUES

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

PLATE PLACEMENT TOL. = 0.250 inches

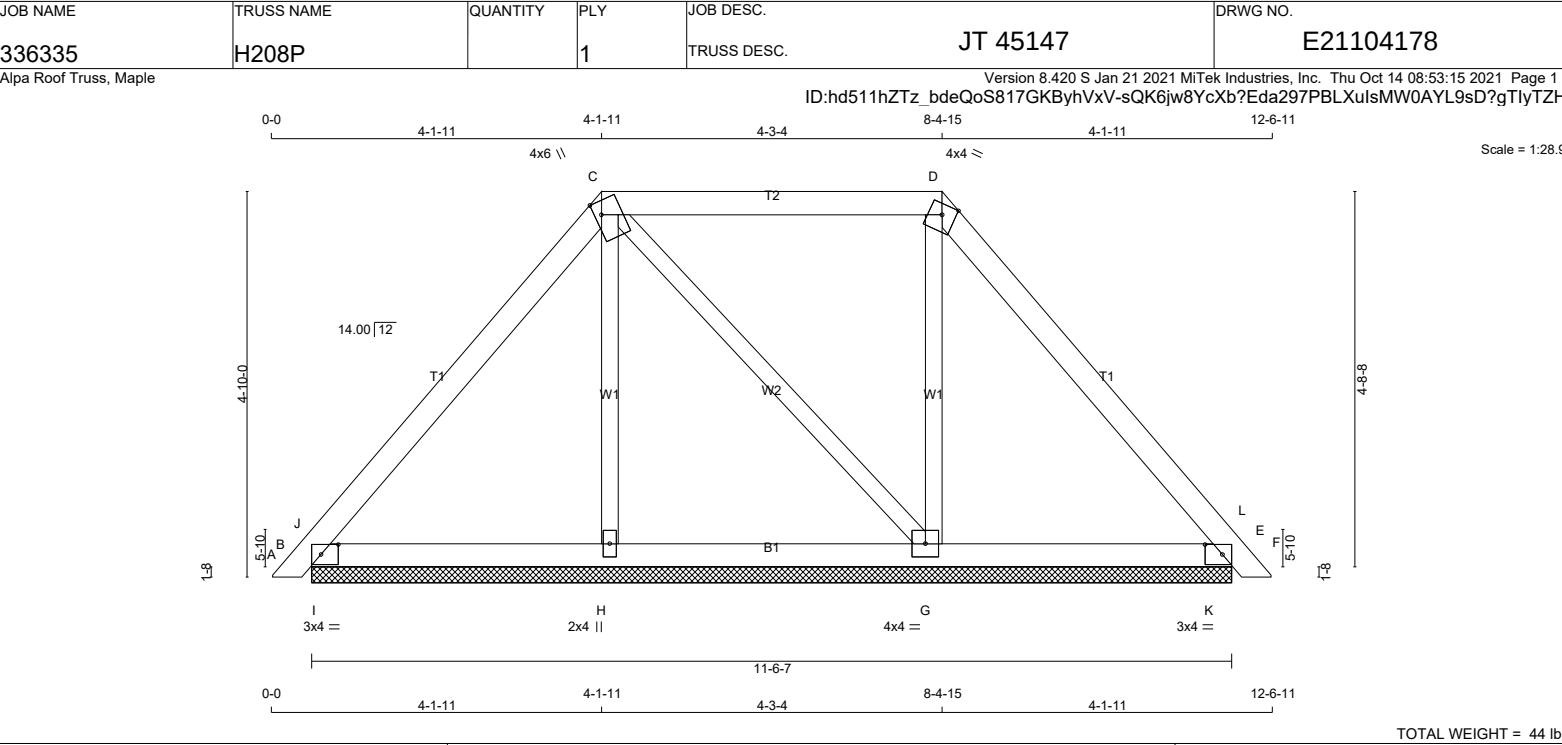
PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.80 (K) (INPUT = 0.90)
JSI METAL= 0.41 (B) (INPUT = 1.00)

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JSI GRIP= 0.12 (B) (INPUT = 0.90)
JSI METAL= 0.04 (D) (INPUT = 1.00)



Alpa Roof Truss, Maple

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TOTAL WEIGHT = 40 lb

PLATES (table is in inches)						
JT	TYPE	PLATES	W	LEN	Y	X
B	TMB1-I	MT20	3.0	4.0	1.50	2.50
C	TTW-p	MT20	4.0	4.0		
D	TMB1-I	MT20	3.0	4.0	1.50	2.50
F	BMW1+w	MT20	2.0	4.0		

JT	FACTORED GROSS REACTION		MAXIMUM FACTORED GROSS REACTION			INPUT BRG	REQD BRG
	VERT	HORZ	DOWN	HORZ	UPLIFT	IN-SX	IN-SX
B	485	0	485	0	0	11-6-7	1-8
D	485	0	485	0	0	11-6-7	1-8
F	203	0	203	0	0	11-6-7	1-8

1ST LCASE		MAX./MIN. COMPONENT REACTIONS					
JT	COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
B	342	230 / 0	0 / 0	0 / 0	0 / 0	112 / 0	0 / 0
D	342	230 / 0	0 / 0	0 / 0	0 / 0	112 / 0	0 / 0
F	151	56 / 0	0 / 0	0 / 0	0 / 0	95 / 0	0 / 0

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

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.

TOTAL LOAD CASES: (4)

CHORDS					WEBS				
MAX. FACTORED		FACTORED			MAX. FACTORED				
MEMB.	FORCE (LBS)	VERT. LOAD (PLF)	LC1	MAX CSI (LC)	MAX. UNBRAC LENGTH	MEMB.	FORCE (LBS)	MAX CSI (LC)	
FR-TO		FROM	TO			FR-TO			
A-B	0 / 10	-78.0	-78.0	0.01 (1)	10.00	F-C	0 / 32	0.01 (4)	
B-H	0 / 494	-78.0	-78.0	0.31 (1)	10.00	G-H	-1130 / 0	0.00 (1)	
H-C	-292 / 0	-78.0	-78.0	0.32 (1)	6.25	I-J	-1130 / 0	0.00 (1)	
C-J	-292 / 0	-78.0	-78.0	0.32 (1)	6.25				
J-D	0 / 494	-78.0	-78.0	0.31 (1)	10.00				
D-E	0 / 10	-78.0	-78.0	0.01 (1)	10.00				
B-G	0 / 175	-18.5	-18.5	0.29 (1)	10.00				
G-F	0 / 175	-18.5	-18.5	0.29 (1)	10.00				
F-I	0 / 175	-18.5	-18.5	0.29 (1)	10.00				
I-D	0 / 175	-18.5	-18.5	0.29 (1)	10.00				

SPECIFIED LOADS:

TOP	CH.	LL	=	21.0	PSF
		DL	=	6.0	PSF
BOT	CH.	LL	=	0.0	PSF
		DL	=	7.4	PSF
TOTAL LOAD				=	34.4 PSF

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 23.0 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 21.0 P.S.F. SPECIFIED ROOF LIVE LOAD

CSI: TC=0.32/1.00 (C-J:1), BC=0.29/1.00 (F-I:1),
WB=0.01/1.00 (C-F:4), SSI=0.87/1.00 (D-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)		SHEAR		SECTION	
	(PSI)		(PLI)		(PLI)	
	MAX	MIN	MAX	MIN	MAX	MIN
MT20	650	371	1747	788	1987	1873

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

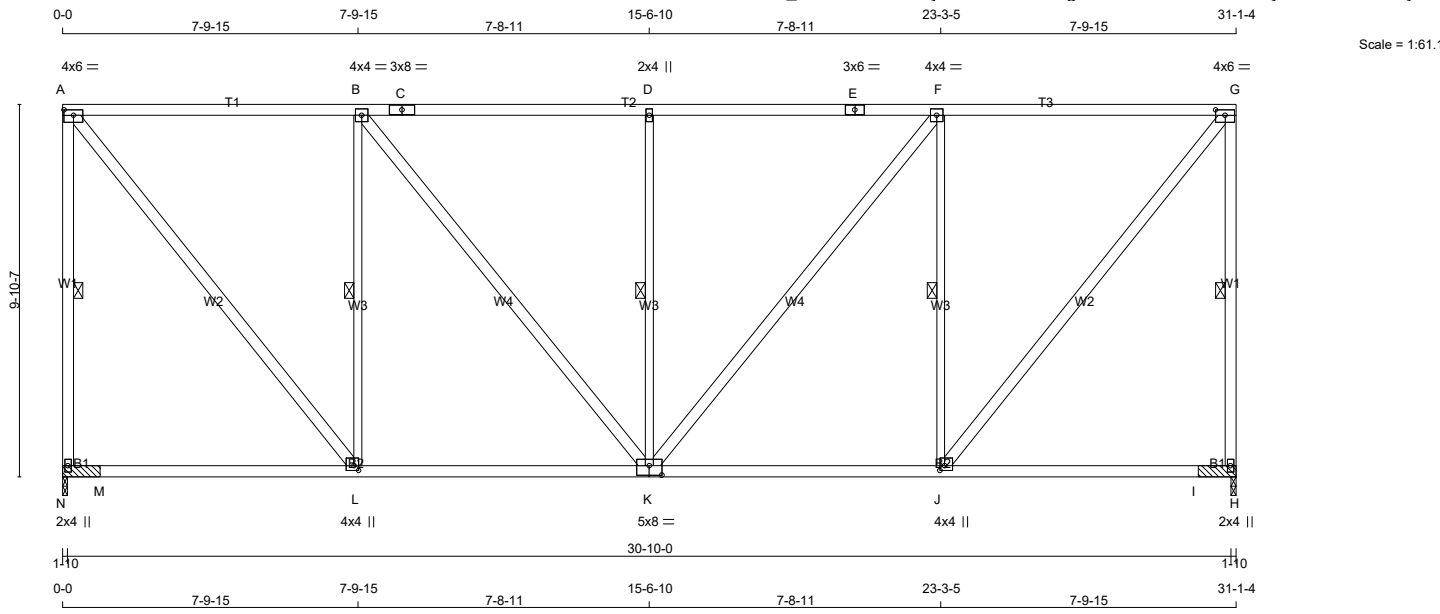
JSI GRIP= 0.59 (D) (INPUT = 0.90)
JSI METAL= 0.13 (B) (INPUT = 1.00)

JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
336335	H223		1	TRUSS DESC. JT 45147	E21104180

Alpa Roof Truss, Maple

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TOTAL WEIGHT = 2 X 171 = 343 lb

LUMBER				
N. L. G. A. RULES				
CHORDS	SIZE	LUMBER		DESCR.
N - A	2x4	DRY	No.2	SPF
A - C	2x4	DRY	1650F 1.5E	SPF
C - E	2x4	DRY	1650F 1.5E	SPF
E - G	2x4	DRY	1650F 1.5E	SPF
H - G	2x4	DRY	No.2	SPF
N - K	2x4	DRY	No.2	SPF
K - H	2x4	DRY	No.2	SPF
ALL WEBS	2x4	DRY	No.2	SPF
EXCEPT				
L - B	2x3	DRY	No.2	SPF
K - D	2x3	DRY	No.2	SPF
J - F	2x3	DRY	No.2	SPF

DRY: SEASONED LUMBER.

PLATES (table is in inches)					
JT	TYPE	PLATES	W	LEN	Y X
A	TMVW-t	MT20	4.0	6.0	1.75 3.00
B	TMWW-t	MT20	4.0	4.0	
C	TS-t	MT20	3.0	8.0	
D	TMW+w	MT20	2.0	4.0	
E	TS-t	MT20	3.0	6.0	
F	TMWW-t	MT20	4.0	4.0	
G	TMVW-t	MT20	4.0	6.0	1.75 3.00
H	BMV1+p	MT20	2.0	4.0	
J	BMWW-t	MT20	4.0	4.0	1.50 1.50
K	BSWWW-l	MT20	5.0	8.0	3.00 4.00
L	BMWW-t	MT20	4.0	4.0	1.50 1.50
N	BMV1+p	MT20	2.0	4.0	

LATERAL BRACE(S) SHOWN SHALL BE 2X4 SPF#2



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

BEARINGS		FACTORED GROSS REACTION		MAXIMUM FACTORED GROSS REACTION		INPUT BRG UPLIFT		REQRD IN-SX	
JT	VERT	HORZ		DOWN	HORZ				
N	1617	0		1617	0	0	1-10	1-10 & BLOCK	
H	1617	0		1617	0	0	1-10	1-10 & BLOCK	

UNFACTORED REACTIONS		1ST LCASE COMBINED		MAX./MIN. LIVE		PERM. LIVE		WIND		DEAD		SOIL	
JT													
N	1163	653 / 0		0 / 0		0 / 0	0 / 0	0 / 0		510 / 0		0 / 0	
H	1163	653 / 0		0 / 0		0 / 0	0 / 0	0 / 0		510 / 0		0 / 0	

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

2x4 DRY SPF No.2 BEARING BLOCK 12" LONG AT JT. N ATTACHED TO FRONT SIDE WITH 2 ROWS OF (0.122"x3") SPIRAL NAILS SPACED 3" C.C. 8 NAILS TOTAL.

2x4 DRY SPF No.2 BEARING BLOCK 12" LONG AT JT. H ATTACHED TO FRONT SIDE WITH 2 ROWS OF (0.122"x3") SPIRAL NAILS SPACED 3" C.C. 8 NAILS TOTAL.

BRACING
FOR SECTION A-G, MAX. PURLIN SPACING = 2.00 FT.
FOR OTHER SECTIONS, TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 0.00 FT.
MAX. UNBRACED BOTTOM CHORD LENGTH = 10.00 FT. OR RIGID CEILING DIRECTLY APPLIED.

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

1 LATERAL BRACE(S) AT 1/2 LENGTH OF A-N, G-H, B-L, D-K, F-J.

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)

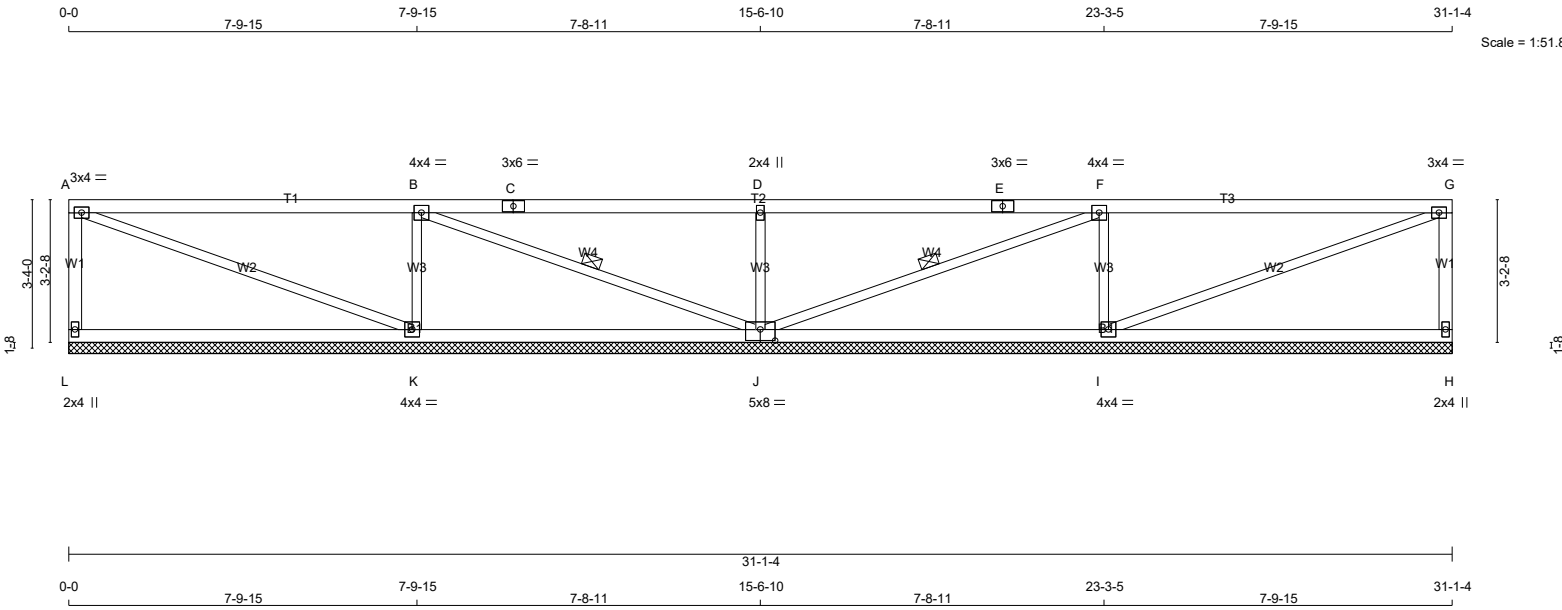
CHORDS				WEBS			
MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	MAX LC1 CSI (LC)	MEMB.	MAX. FACTORED FORCE (LBS)	MAX LC1 CSI (LC)	
FR-TO		FROM TO		FR-TO			
N-A	-1562 / 0	0.0 0.0	0.73 (1)	5.27	A-L	0 / 1676	0.27 (1)
A-B	-1060 / 0	-85.5 -85.5	0.71 (1)	2.00	L-B	-1119 / 0	0.74 (1)
B-C	-1350 / 0	-85.5 -85.5	0.74 (1)	2.00	B-K	0 / 461	0.07 (1)
C-D	-1350 / 0	-85.5 -85.5	0.74 (1)	2.00	K-D	-609 / 0	0.40 (1)
D-E	-1350 / 0	-85.5 -85.5	0.74 (1)	2.00	K-F	0 / 461	0.07 (1)
E-F	-1350 / 0	-85.5 -85.5	0.74 (1)	2.00	J-F	-1119 / 0	0.74 (1)
F-G	-1060 / 0	-85.5 -85.5	0.71 (1)	2.00	J-G	0 / 1676	0.27 (1)
H-G	-1562 / 0	0.0 0.0	0.73 (1)	5.27			
N-M	0 / 0	-18.5 -18.5	0.32 (4)	10.00			
M-L	0 / 0	-18.5 -18.5	0.32 (4)	10.00			
L-K	0 / 1060	-18.5 -18.5	0.44 (4)	10.00			
K-J	0 / 1060	-18.5 -18.5	0.44 (4)	10.00			
J-I	0 / 0	-18.5 -18.5	0.32 (4)	10.00			
I-H	0 / 0	-18.5 -18.5	0.32 (4)	10.00			

JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
336335	H224P		1	TRUSS DESC. JT 45147	E21104184

Alpa Roof Truss, Maple

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LUMBER N. L. G. A. RULES CHORDS SIZE LUMBER DESCR. L - A 2x4 DRY No.2 SPF A - C 2x4 DRY No.2 SPF C - E 2x4 DRY No.2 SPF E - G 2x4 DRY No.2 SPF H - G 2x4 DRY No.2 SPF L - J 2x4 DRY No.2 SPF J - H 2x4 DRY No.2 SPF ALL WEBS 2x3 DRY No.2 SPF DRY: SEASONED LUMBER.					DIMENSIONS, SUPPORTS AND LOADINGS SPECIFIED BY FABRICATOR TO BE VERIFIED BY BUILDING DESIGNER BEARINGS <table><tr><th></th><th colspan="2">FACTORED GROSS REACTION</th><th colspan="2">MAXIMUM FACTORED GROSS REACTION</th><th>INPUT BRG</th><th>REQRD BRG</th></tr><tr><th></th><th>VERT</th><th>HORZ</th><th>DOWN</th><th>HORZ</th><th>UPLIFT</th><th>IN-SX</th><th>IN-SX</th></tr><tr><td>JT</td><td>296</td><td>0</td><td>296</td><td>0</td><td>0</td><td>31-1-4</td><td>(15-6-109)</td></tr><tr><td>L</td><td>296</td><td>0</td><td>296</td><td>0</td><td>0</td><td>31-1-4</td><td>(15-6-109)</td></tr><tr><td>H</td><td>296</td><td>0</td><td>296</td><td>0</td><td>0</td><td>31-1-4</td><td>(15-6-109)</td></tr><tr><td>K</td><td>854</td><td>0</td><td>854</td><td>0</td><td>0</td><td>31-1-4</td><td>(15-6-109)</td></tr><tr><td>J</td><td>701</td><td>0</td><td>701</td><td>0</td><td>0</td><td>31-1-4</td><td>(15-6-109)</td></tr><tr><td>I</td><td>854</td><td>0</td><td>854</td><td>0</td><td>0</td><td>31-1-4</td><td>(15-6-109)</td></tr></table> <u>VALUE IN PARENTHESIS INDICATES EFFECTIVE BEARING LENGTH</u>											FACTORED GROSS REACTION		MAXIMUM FACTORED GROSS REACTION		INPUT BRG	REQRD BRG		VERT	HORZ	DOWN	HORZ	UPLIFT	IN-SX	IN-SX	JT	296	0	296	0	0	31-1-4	(15-6-109)	L	296	0	296	0	0	31-1-4	(15-6-109)	H	296	0	296	0	0	31-1-4	(15-6-109)	K	854	0	854	0	0	31-1-4	(15-6-109)	J	701	0	701	0	0	31-1-4	(15-6-109)	I	854	0	854	0	0	31-1-4	(15-6-109)	DESIGN CRITERIA SPECIFIED LOADS: TOP CH. LL = 21.0 PSF DL = 6.0 PSF BOT CH. LL = 0.0 PSF DL = 7.4 PSF TOTAL LOAD = 34.4 PSF SPACING = 24.0 IN. C/C				
	FACTORED GROSS REACTION		MAXIMUM FACTORED GROSS REACTION		INPUT BRG	REQRD BRG																																																																												
	VERT	HORZ	DOWN	HORZ	UPLIFT	IN-SX	IN-SX																																																																											
JT	296	0	296	0	0	31-1-4	(15-6-109)																																																																											
L	296	0	296	0	0	31-1-4	(15-6-109)																																																																											
H	296	0	296	0	0	31-1-4	(15-6-109)																																																																											
K	854	0	854	0	0	31-1-4	(15-6-109)																																																																											
J	701	0	701	0	0	31-1-4	(15-6-109)																																																																											
I	854	0	854	0	0	31-1-4	(15-6-109)																																																																											

PLATES (table is in inches)					
JT	TYPE	PLATES	W	LEN	Y X
A	TMVW-t	MT20	3.0	4.0	
B	TMWW-t	MT20	4.0	4.0	
C	TS-t	MT20	3.0	6.0	
D	TMW+w	MT20	2.0	4.0	
E	TS-t	MT20	3.0	6.0	
F	TMWW-t	MT20	4.0	4.0	
G	TMVW-t	MT20	3.0	4.0	
H	BMV1+p	MT20	2.0	4.0	
I	BMWW1-t	MT20	4.0	4.0	
J	BSWW1-t	MT20	5.0	8.0	3.00 4.00
K	BMWW1-t	MT20	4.0	4.0	
L	BMV1+p	MT20	2.0	4.0	

LATERAL BRACE(S) SHOWN SHALL BE 2X4 SPF#2

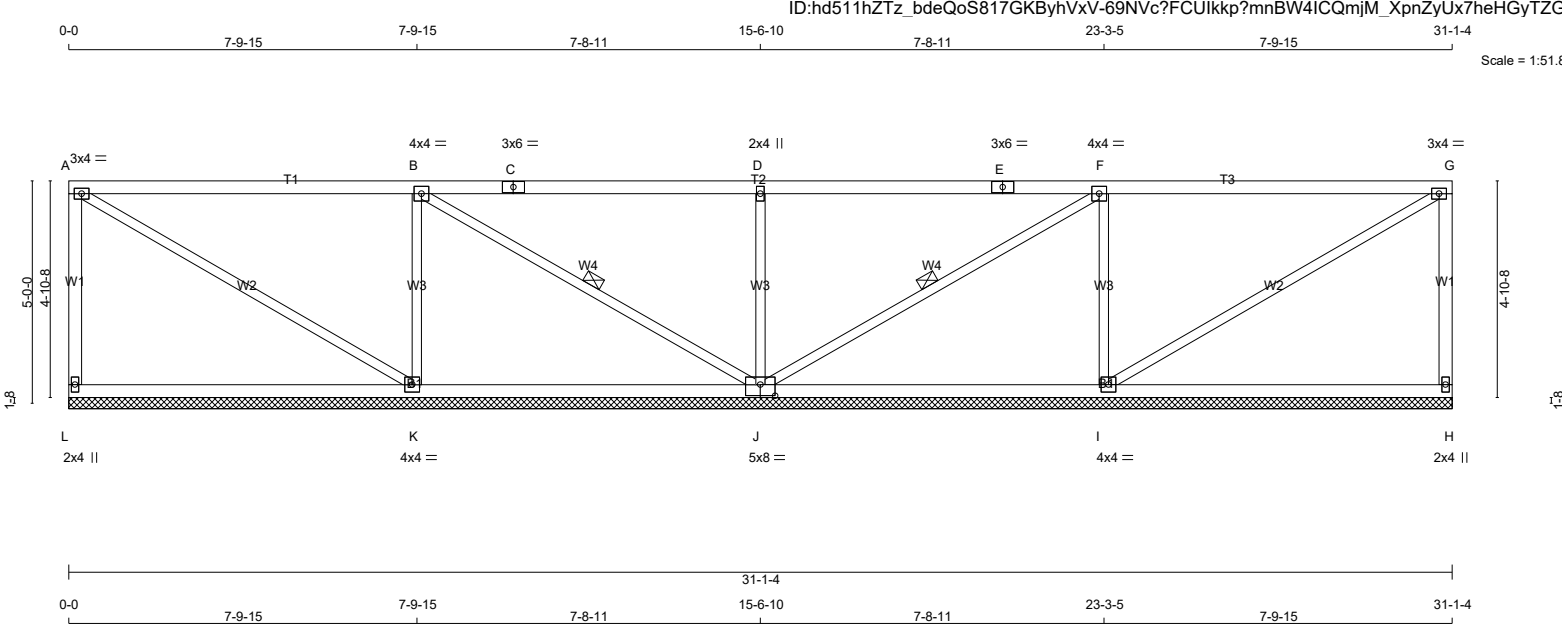


JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
336335	H225P		1	TRUSS DESC. JT 45147	E21104185

Alpa Roof Truss, Maple

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LUMBER N. L. G. A. RULES CHORDS SIZE LUMBER DESCR. L - A 2x4 DRY No.2 SPF A - C 2x4 DRY No.2 SPF C - E 2x4 DRY No.2 SPF E - G 2x4 DRY No.2 SPF H - G 2x4 DRY No.2 SPF L - J 2x4 DRY No.2 SPF J - H 2x4 DRY No.2 SPF ALL WEBS 2x3 DRY No.2 SPF DRY: SEASONED LUMBER.					DIMENSIONS, SUPPORTS AND LOADINGS SPECIFIED BY FABRICATOR TO BE VERIFIED BY BUILDING DESIGNER BEARINGS <table><tr><th></th><th colspan="2">FACTORED GROSS REACTION</th><th colspan="2">MAXIMUM FACTORED GROSS REACTION</th><th>INPUT BRG</th><th>REQRD BRG</th></tr><tr><th>JT</th><th>VERT</th><th>HORZ</th><th>DOWN</th><th>HORZ</th><th>UPLIFT</th><th>IN-SX</th><th>IN-SX</th></tr><tr><td>L</td><td>297</td><td>0</td><td>297</td><td>0</td><td>0</td><td>31-1-4 (15-6-109)</td><td>31-1-4 (15-6-109)</td></tr><tr><td>H</td><td>297</td><td>0</td><td>297</td><td>0</td><td>0</td><td>31-1-4 (15-6-109)</td><td>31-1-4 (15-6-109)</td></tr><tr><td>K</td><td>814</td><td>0</td><td>814</td><td>0</td><td>0</td><td>31-1-4 (15-6-109)</td><td>31-1-4 (15-6-109)</td></tr><tr><td>J</td><td>780</td><td>0</td><td>780</td><td>0</td><td>0</td><td>31-1-4 (15-6-109)</td><td>31-1-4 (15-6-109)</td></tr><tr><td>I</td><td>814</td><td>0</td><td>814</td><td>0</td><td>0</td><td>31-1-4 (15-6-109)</td><td>31-1-4 (15-6-109)</td></tr></table> <u>VALUE IN PARENTHESIS INDICATES EFFECTIVE BEARING LENGTH</u>											FACTORED GROSS REACTION		MAXIMUM FACTORED GROSS REACTION		INPUT BRG	REQRD BRG	JT	VERT	HORZ	DOWN	HORZ	UPLIFT	IN-SX	IN-SX	L	297	0	297	0	0	31-1-4 (15-6-109)	31-1-4 (15-6-109)	H	297	0	297	0	0	31-1-4 (15-6-109)	31-1-4 (15-6-109)	K	814	0	814	0	0	31-1-4 (15-6-109)	31-1-4 (15-6-109)	J	780	0	780	0	0	31-1-4 (15-6-109)	31-1-4 (15-6-109)	I	814	0	814	0	0	31-1-4 (15-6-109)	31-1-4 (15-6-109)	DESIGN CRITERIA SPECIFIED LOADS: TOP CH. LL = 21.0 PSF DL = 6.0 PSF BOT CH. LL = 0.0 PSF DL = 7.4 PSF TOTAL LOAD = 34.4 PSF SPACING = 24.0 IN. C/C				
	FACTORED GROSS REACTION		MAXIMUM FACTORED GROSS REACTION		INPUT BRG	REQRD BRG																																																																				
JT	VERT	HORZ	DOWN	HORZ	UPLIFT	IN-SX	IN-SX																																																																			
L	297	0	297	0	0	31-1-4 (15-6-109)	31-1-4 (15-6-109)																																																																			
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J	780	0	780	0	0	31-1-4 (15-6-109)	31-1-4 (15-6-109)																																																																			
I	814	0	814	0	0	31-1-4 (15-6-109)	31-1-4 (15-6-109)																																																																			

PLATES (table is in inches)						
JT	TYPE	PLATES	W	LEN	Y	X
A	TMVW-t	MT20	3.0	4.0		
B	TMWW-t	MT20	4.0	4.0		
C	TS-t	MT20	3.0	6.0		
D	TMW+w	MT20	2.0	4.0		
E	TS-t	MT20	3.0	6.0		
F	TMWW-t	MT20	4.0	4.0		
G	TMVW-t	MT20	3.0	4.0		
H	BMV1+p	MT20	2.0	4.0		
I	BMWW1-t	MT20	4.0	4.0		
J	BSWW1-t	MT20	5.0	8.0	3.00	4.00
K	BMWW1-t	MT20	4.0	4.0		
L	BMV1+p	MT20	2.0	4.0		

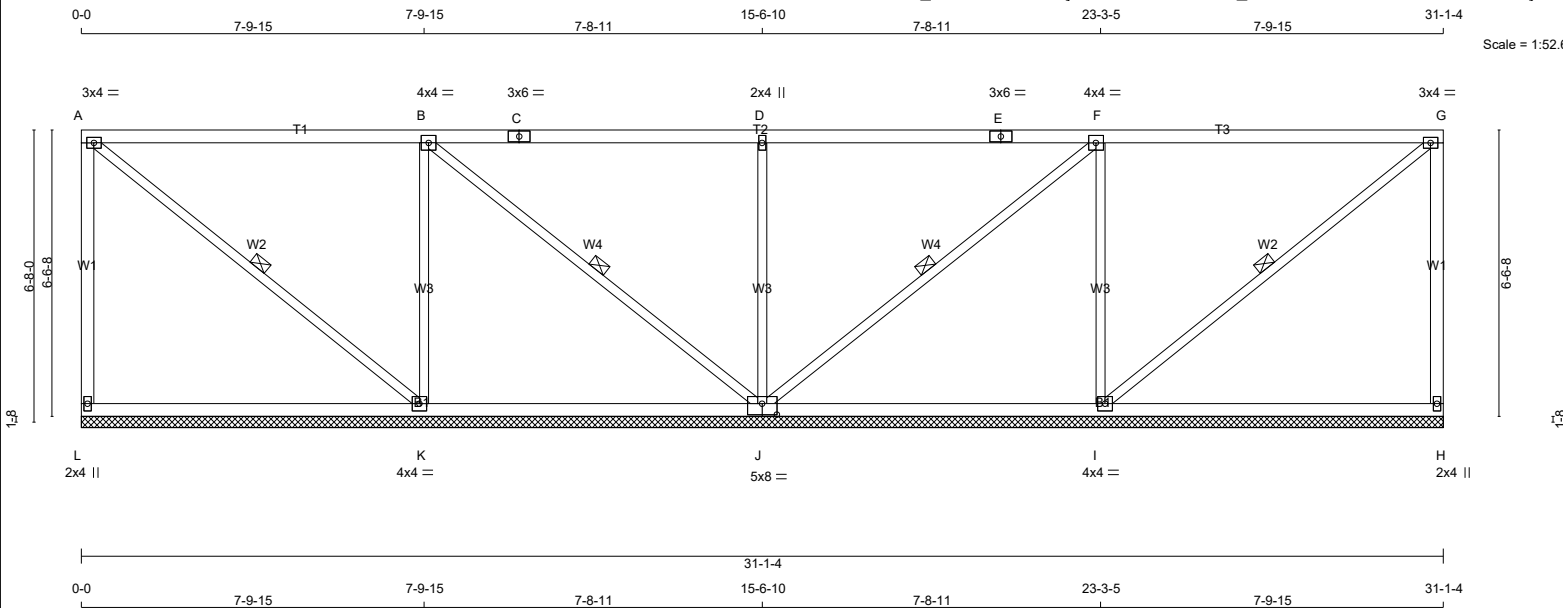
LATERAL BRACE(S) SHOWN SHALL BE 2X4 SPF#2



Alpa Roof Truss, Maple

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TOTAL WEIGHT = 130 lb

N. L. G. A. RULES			
CHORDS	SIZE	LUMBER	DESCR.
L - A	2x4	DRY	No.2
A - C	2x4	DRY	No.2
C - E	2x4	DRY	No.2
E - G	2x4	DRY	No.2
H - G	2x4	DRY	No.2
L - J	2x4	DRY	No.2
J - H	2x4	DRY	No.2
ALL WEBS	2x3	DRY	No.2
DRY: SEASONED LUMBER.			

	FACTORED GROSS REACTION		MAXIMUM FACTORED GROSS REACTION			INPUT BRG	REQD BRG
	VERT	HORZ	DOWN	HORZ	UPLIFT	IN-SX	IN-SX
JT	292	0	292	0	0	31-1-4	15-6-108
K	292	0	292	0	0	31-1-4	15-6-108
H	768	0	768	0	0	31-1-4	15-6-108
J	879	0	879	0	0	31-1-4	15-6-108
I	768	0	768	0	0	31-1-4	15-6-108

VALUE IN PARENTHESIS INDICATES EFFECTIVE BEARING LENGTH

1ST LCASE		MAX./MIN. COMPONENT REACTIONS					
JT	COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
L	208	128 / 0	0 / 0	0 / 0	0 / 0	80 / 0	0 / 0
H	208	128 / 0	0 / 0	0 / 0	0 / 0	80 / 0	0 / 0
K	551	317 / 0	0 / 0	0 / 0	0 / 0	234 / 0	0 / 0
J	620	416 / 0	0 / 0	0 / 0	0 / 0	204 / 0	0 / 0
I	551	317 / 0	0 / 0	0 / 0	0 / 0	234 / 0	0 / 0

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

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

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

1 LATERAL BRACE(S) AT 1/2 LENGTH OF A-K, B-J, F-J, G-I.

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

TOTAL LOAD CASES: (4)

CHORDS					WEBS				
MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	LC1 MAX CSI (LC)	MAX. UNBRAC LENGTH	MEMB.	MAX. FACTORED FORCE (LBS)	MAX FACTORED CSI (LC)		
FR-TO		FROM TO			FR-TO				
L-A	-238 / 0	0.0	0.0	0.21 (1)	7.81	A-K	-4 / 0 0.00 (1)		
A-B	0 / 3	-78.0	-78.0	0.69 (1)	10.00	K-B	-586 / 0 0.41 (1)		
B-C	0 / 137	-78.0	-78.0	0.71 (1)	10.00	B-J	-173 / 0 0.12 (1)		
C-D	0 / 137	-78.0	-78.0	0.71 (1)	10.00	J-D	-556 / 0 0.39 (1)		
D-E	0 / 137	-78.0	-78.0	0.71 (1)	10.00	J-F	-173 / 0 0.12 (1)		
E-F	0 / 137	-78.0	-78.0	0.71 (1)	10.00	I-F	-586 / 0 0.41 (1)		
F-G	0 / 3	-78.0	-78.0	0.69 (1)	10.00	I-G	-4 / 0 0.00 (1)		
H-G	-238 / 0	0.0	0.0	0.21 (1)	7.81				
L-K	0 / 0	-18.5	-18.5	0.33 (4)	10.00				
K-J	-3 / 0	-18.5	-18.5	0.33 (4)	10.00				
J-I	-3 / 0	-18.5	-18.5	0.33 (4)	10.00				
I-H	0 / 0	-18.5	-18.5	0.33 (4)	10.00				

LATERAL BRACE(S) SHOWN SHALL BE
2X4 SPF#2



SPECIFIED LOADS:				
TOP	CH.	LL =	21.0	PSF
		DL =	6.0	PSF
BOT	CH.	LL =	0.0	PSF
		DL =	7.4	PSF
TOTAL LOAD		=	34.4	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 23.0 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 21.0 P.S.F. SPECIFIED ROOF LIVE LOAD

CSI: TC=0.71/1.00 (B-D:1), BC=0.33/1.00 (K-L:4), WB=0.41/1.00 (B-K:1), SSI=0.29/1.00 (A-B:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

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

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

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

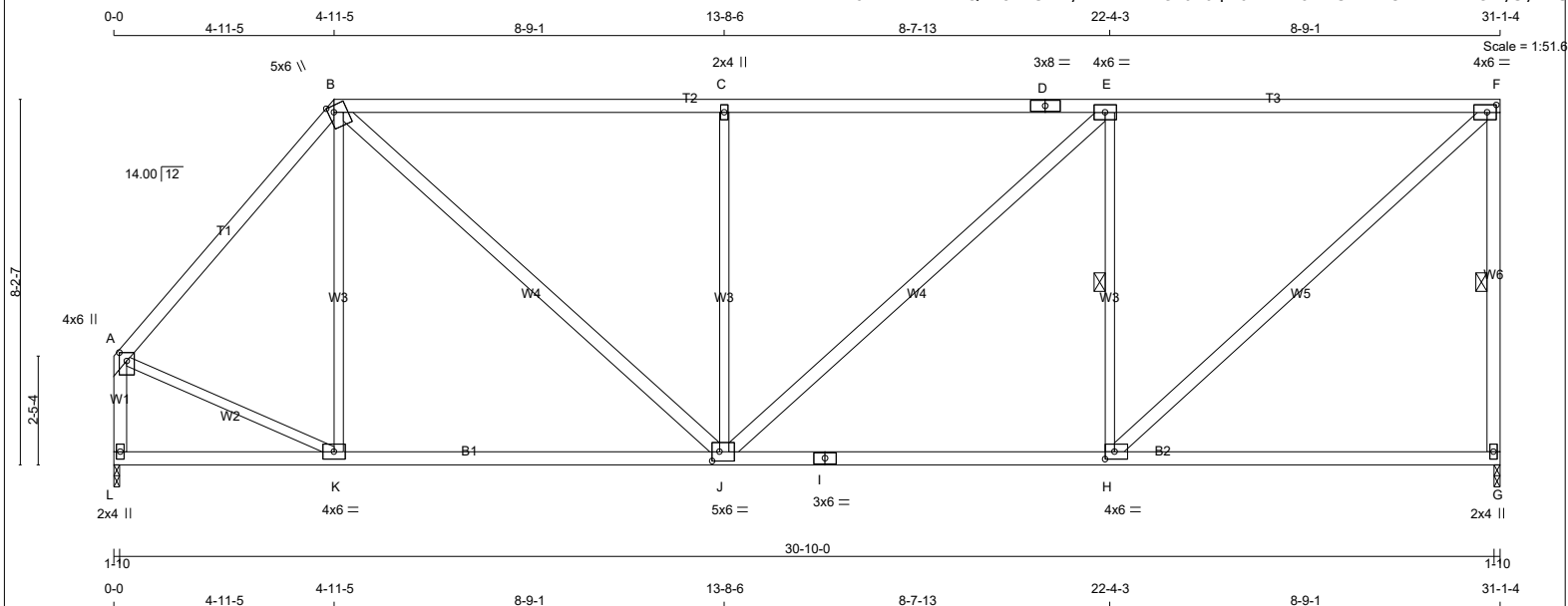
JSI GRIP= 0.75 (A) (INPUT = 0.90)
JSI METAL= 0.38 (J) (INPUT = 1.00)

Technical drawing of a roof truss structure. The drawing shows a side elevation of the truss with various components labeled. The top chord is labeled with dimensions: 3-0, 3-10-6, 3-10-6, 8-1-11, 12-0-1, 6-2-13, 18-2-14, 6-2-13, 24-5-11, 6-5-5, 30-11-0, 31-2-0. The bottom chord is labeled with dimensions: 3-8, 0-0, 3-10-6, 3-10-6, 8-1-11, 12-0-1, 6-2-13, 18-2-14, 6-2-13, 24-5-11, 6-8-5, 31-2-0. The height of the truss is indicated as 7'-0-11. The scale is 1:51.1. The truss consists of several members: top chord (T1, T2, T3), bottom chord (B1, B2), vertical members (W1, W2, W3, W4, W5, W6, W7), and diagonal members (D1, D2, D3). The truss is supported by a foundation (N) and has a roof slope of 12/12. The drawing also shows the connection details between the members, including gusset plates and bolts.

CONTINUED ON PAGE 2

Alpa Roof Truss, Maple

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ID:hd511hZTz bdeQoS817GKByhVxV-S7AOfiJKJqM0wmlz3fTvUtB2?CrSeXD4POPpyUyTZG



TOTAL WEIGHT = 147 lb	[M]
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DRY: SEASONED LUMBER.

J	T	PLATES	W	LEN	Y	X
A	TMVW+p	MT20	4.0	6.0	2.25	2.00
B	TTVW+m	MT20	5.0	6.0	1.75	1.50
C	TMVW+w	MT20	2.0	4.0		
D	TS-t	MT20	3.0	8.0		
E	MMVW-t	MT20	4.0	6.0		
F	TMVW-t	MT20	4.0	6.0	2.00	2.50
G	BMV1+p	MT20	2.0	4.0		
H	BMVW-t	MT20	4.0	6.0	2.00	2.50
I	BS-t	MT20	3.0	6.0		
J	BMVWWW-t	MT20	5.0	6.0	2.50	2.00
K	BMVW-t	MT20	4.0	6.0		
L	BMV1+p	MT20	2.0	4.0		

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

TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 5.29 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, E-H.

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

TOTAL LOAD CASES: (4)

CHORDS					WEBS				
MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	LC1 MAX CSI (LC)	MAX. UNBRAC LENGTH	MEMB.	MAX. FACTORED FORCE (LBS)	MAX FACTORED CSI (LC)		
FR-TO		FROM TO			FR-TO				
A-B	-1246 / 0	-78.0	-78.0	0.42 (1)	5.29	K-B	-187 / 29 0.24 (1)		
B-C	-1540 / 0	-78.0	-78.0	0.64 (1)	5.40	B-J	0 / 989 0.16 (1)		
C-D	-1540 / 0	-78.0	-78.0	0.64 (1)	5.40	J-C	-738 / 0 0.97 (1)		
D-E	-1540 / 0	-78.0	-78.0	0.64 (1)	5.40	J-E	0 / 346 0.06 (1)		
E-F	-1285 / 0	-78.0	-78.0	0.62 (1)	5.79	H-E	-979 / 0 0.42 (1)		
G-F	-1436 / 0	0.0	0.0	0.44 (1)	5.45	H-F	0 / 1732 0.28 (1)		
L-A	-1472 / 0	0.0	0.0	0.19 (1)	6.74	A-K	0 / 873 0.20 (1)		
L-K	0 / 0	-18.5	-18.5	0.22 (4)	10.00				
K-J	0 / 805	-18.5	-18.5	0.34 (4)	10.00				
J-I	0 / 1285	-18.5	-18.5	0.46 (4)	10.00				
I-H	0 / 1285	-18.5	-18.5	0.46 (4)	10.00				
H-G	0 / 0	-18.5	-18.5	0.34 (4)	10.00				

SPECIFIED LOADS:				
TOP	CH.	LL =	21.0	PSF
		DL =	6.0	PSF
BOT	CH.	LL =	0.0	PSF
		DL =	7.4	PSF
TOTAL LOAD		=	34.4	PSF

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 23.0 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 21.0 P.S.F. SPECIFIED ROOF LIVE LOAD

ALLOWABLE DEFL.(LL)= L/360 (1.04")
CALCULATED VERT. DEFL.(LL) = L/ 999 (0.06")
ALLOWABLE DEFL.(TL)= L/360 (1.04")
CALCULATED VERT. DEFL.(TL) = L/ 999 (0.18")

CSI: TC=0.64/1.00 (B-C:1), BC=0.46/1.00 (H-J:4),
WB=0.97/1.00 (C-I:1), SS=0.32/1.00 (E-F:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

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

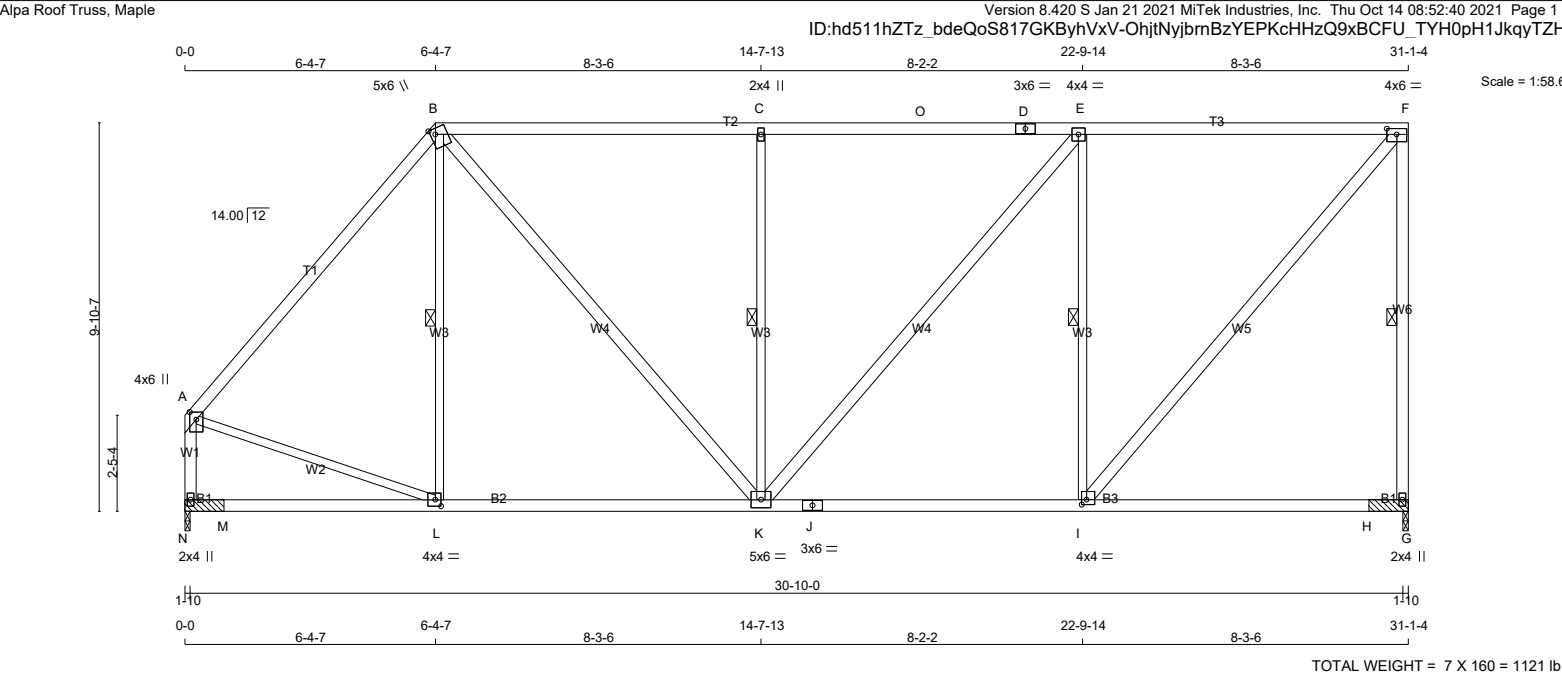
NAIL VALUES						
PLATE	GRIP(DRY)		SHEAR		SECTION	
	(PSI)		(PLI)		(PLI)	
	MAX	MIN	MAX	MIN	MAX	MIN
MT20	650	371	1747	788	1987	1873

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.84 (H) (INPUT = 0.90)
JSI METAL= 0.46 (A) (INPUT = 1.00)

JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
336335	H243		1	TRUSS DESC. JT 45147	E21104189



LUMBER				
N. L. G. A. RULES				
CHORDS	SIZE	LUMBER	DESCR.	
A - B	2x4	DRY	2100F 1.8E	SPF
B - D	2x4	DRY	1650F 1.5E	SPF
D - F	2x4	DRY	1650F 1.5E	SPF
G - F	2x4	DRY	No.2	SPF
N - A	2x4	DRY	No.2	SPF
N - J	2x4	DRY	No.2	SPF
J - G	2x4	DRY	No.2	SPF
ALL WEBS	2x3	DRY	No.2	SPF
EXCEPT				
B - K	2x4	DRY	No.2	SPF
K - E	2x4	DRY	No.2	SPF
I - F	2x4	DRY	No.2	SPF

DRY: SEASONED LUMBER.

PLATES (table is in inches)				
JT	TYPE	PLATES	W	LEN Y X
A	TMVW+p	MT20	4.0	6.0 2.25 2.00
B	TTWW+m	MT20	5.0	6.0 1.75 1.50
C	TMW+w	MT20	2.0	4.0
D	TS-t	MT20	3.0	6.0
E	TMWW-t	MT20	4.0	4.0
F	TMVW-t	MT20	4.0	6.0 1.75 3.00
G	BMV1+p	MT20	2.0	4.0
I	BMWW-t	MT20	4.0	4.0 1.50 1.50
J	BS-t	MT20	3.0	6.0
K	BMWWW-t	MT20	5.0	6.0
L	BMWW-t	MT20	4.0	4.0 2.00 1.75
N	BMV1+p	MT20	2.0	4.0

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

		FACTORED GROSS REACTION		MAXIMUM FACTORED GROSS REACTION		INPUT BRG UPLIFT		REQRD BRG IN-SX	
JT	VERT	HORZ		DOWN	HORZ				
G	1612	0		1612	0	0	1-10	1-10 & BLOCK	
N	1574	0		1574	0	0	1-10	1-10 & BLOCK	

		1ST LCASE		MAX./MIN. COMPONENT REACTIONS			
JT	COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
G	1159	653 / 0	0 / 0	0 / 0	0 / 0	506 / 0	0 / 0
N	1129	653 / 0	0 / 0	0 / 0	0 / 0	476 / 0	0 / 0

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

2x4 DRY SPF No.2 BEARING BLOCK 12" LONG AT JT. G ATTACHED TO FRONT SIDE WITH 2 ROWS OF (0.122"x3") SPIRAL NAILS SPACED 3" C.C. 8 NAILS TOTAL.

2x4 DRY SPF No.2 BEARING BLOCK 12" LONG AT JT. N ATTACHED TO FRONT SIDE WITH 2 ROWS OF (0.122"x3") SPIRAL NAILS SPACED 3" C.C. 8 NAILS TOTAL.

BRACING

FOR SECTION B-F, MAX. PURLIN SPACING = 2.00 FT.

FOR OTHER SECTIONS, TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 6.10 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, B-L, C-K, E-I.

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		FACTORED		MAX. FACTORED		WEBS		MAX. FACTORED	
MEMB.	FORCE (LBS)	VERT. LOAD (PLF)	LC1	MAX	CS1 (LC)	UNBRAC	LENGTH	MEMB.	FORCE (LBS)	MAX	CS1 (LC)
FR-TO		FROM	TO					FR-TO			
A-B	-1324 / 0	-78.0	-78.0	0.46 (1)	6.10	L-B	-121 / 50	0.08 (1)			
B-C	-1368 / 0	-85.5	-85.5	0.79 (1)	2.00	B-K	0 / 780	0.13 (1)			
C-O	-1369 / 0	-85.5	-85.5	0.79 (1)	2.00	K-C	-765 / 0	0.50 (1)			
O-D	-1369 / 0	-85.5	-85.5	0.79 (1)	2.00	K-E	0 / 422	0.07 (1)			
D-E	-1369 / 0	-85.5	-85.5	0.79 (1)	2.00	I-E	-1094 / 0	0.72 (1)			
E-F	-1095 / 0	-85.5	-85.5	0.76 (1)	2.00	I-F	0 / 1674	0.27 (1)			
G-F	-1551 / 0	0.0	0.0	0.73 (1)	5.29	A-L	0 / 902	0.20 (1)			
N-A	-1530 / 0	0.0	0.0	0.20 (1)	6.65						
N-M	0 / 0	-18.5	-18.5	0.24 (4)	10.00						
M-L	0 / 0	-18.5	-18.5	0.24 (4)	10.00						
L-K	0 / 858	-18.5	-18.5	0.33 (4)	10.00						
K-J	0 / 1095	-18.5	-18.5	0.43 (4)	10.00						
J-I	0 / 1095	-18.5	-18.5	0.43 (4)	10.00						
I-H	0 / 0	-18.5	-18.5	0.31 (4)	10.00						
H-G	0 / 0	-18.5	-18.5	0.31 (4)	10.00						

DESIGN CRITERIA

SPECIFIED LOADS:

TOP CH. LL = 21.0 PSF

DL = 6.0 PSF

BOT CH. LL = 0.0 PSF

DL = 7.4 PSF

TOTAL LOAD = 34.4 PSF

SPACING = 24.0 IN. C/C

LOADING IN FLAT SECTION BASED ON PIGGYBACK TRUSS WITH SLOPES OF 6.00/12 AND -6.00/12 AND RESPECTIVE HEEL HEIGHTS OF 0-0 AND 0-0 AND AN ADDITIONAL DEAD LOAD OF 3.0 P.S.F.

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 23.0 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 21.0 P.S.F. SPECIFIED ROOF LIVE LOAD

ALLOWABLE DEFL.(LL)= L/360 (1.04")

CALCULATED VERT. DEFL.(LL) = L/ 999 (0.05")

ALLOWABLE DEFL.(TL)= L/360 (1.04")

CALCULATED VERT. DEFL.(TL) = L/ 999 (0.15")

CSI: TC=0.79/1.00 (C-E:1), BC=0.43/1.00 (I-K:4), WB=0.72/1.00 (E-I:1), SSI=0.33/1.00 (E-F:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

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

NAIL VALUES

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

PLATE PLACEMENT TOL. = 0.250 inches

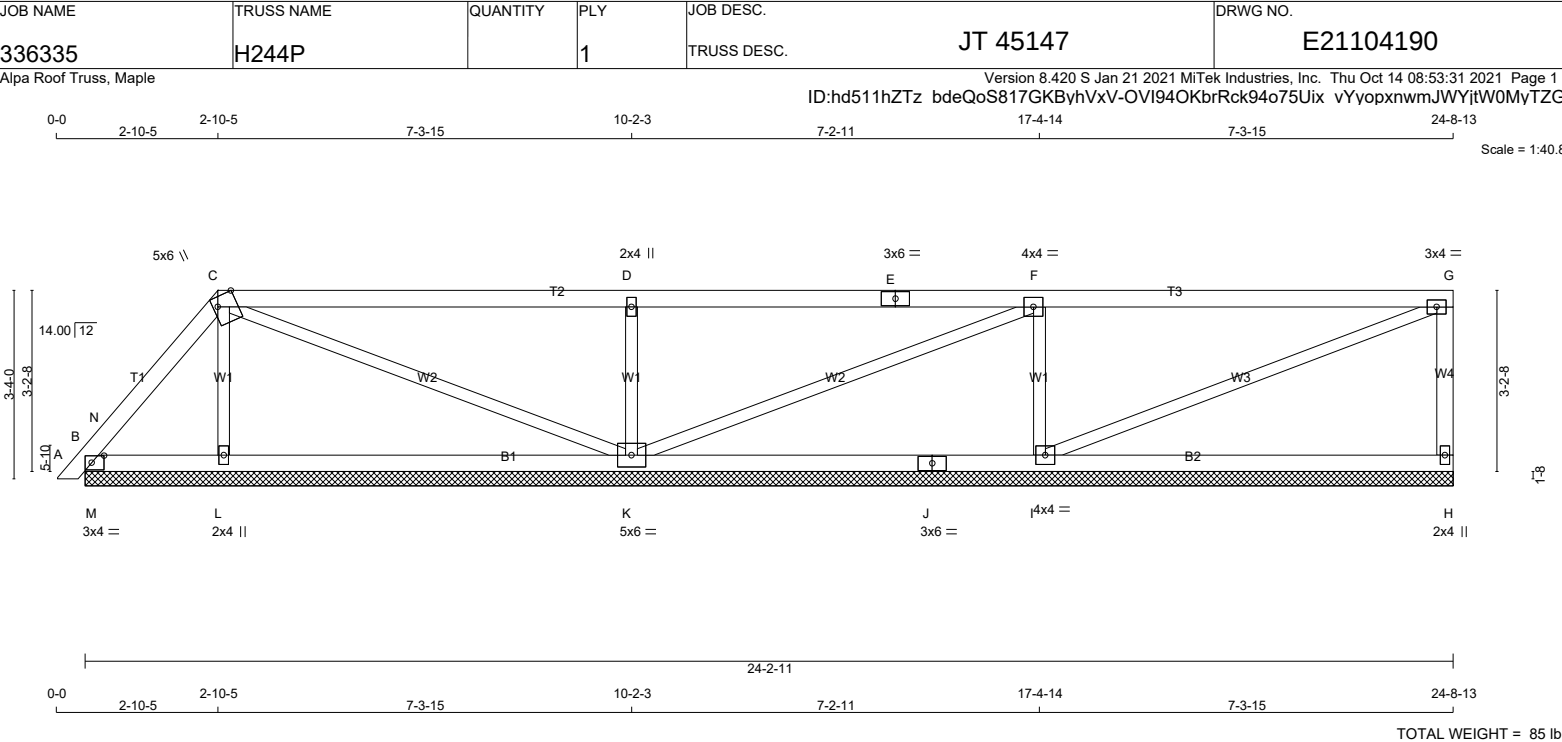
PLATE ROTATION TOL. = 5.0 Deg.

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

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

LATERAL BRACE(S) SHOWN SHALL BE 2X4 SPF#2





LUMBER

N. L. G. A. RULES

CHORDS	SIZE	LUMBER	DESCR.
A - C	2x4	DRY	No.2
C - E	2x4	DRY	No.2
E - G	2x4	DRY	No.2
H - G	2x4	DRY	No.2
B - J	2x4	DRY	No.2
J - H	2x4	DRY	No.2
ALL WEBS	2x3	DRY	No.2
DRY: SEASONED LUMBER.			

PLATES (table is in inches)

JT	TYPE	PLATES	W	LEN	Y	X
B	TMB1-l	MT20	3.0	4.0	1.50	2.50
C	TTWW+m	MT20	5.0	6.0	Edge	4.00
D	TMW+w	MT20	2.0	4.0		
E	TS-t	MT20	3.0	6.0		
F	TMWW-t	MT20	4.0	4.0		
G	TMVW-t	MT20	3.0	4.0		
H	BMV1+p	MT20	2.0	4.0		
I	BMWW1-t	MT20	4.0	4.0		
J	BS-t	MT20	3.0	6.0		
K	BMWWW1-t	MT20	5.0	6.0		
L	BMW1+w	MT20	2.0	4.0		

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

LATERAL BRACE(S) SHOWN SHALL BE 2X4 SPF#2



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

BEARINGS

JT	FACTORED GROSS REACTION	MAXIMUM FACTORED GROSS REACTION	INPUT BRG	REQRD BRG
H	288	0	288	0
B	177	0	177	0
L	354	0	354	0
K	789	0	789	0
I	759	0	759	0

VALUE IN PARENTHESIS INDICATES EFFECTIVE BEARING LENGTH

UNFACTORED REACTIONS

JT	1ST LCASE	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
H	205	126 / 0	0 / 0	0 / 0	0 / 0	79 / 0	0 / 0
B	122	100 / 0	0 / 0	0 / 0	0 / 0	22 / 0	0 / 0
L	258	126 / 0	0 / 0	0 / 0	0 / 0	132 / 0	0 / 0
K	560	354 / 0	0 / 0	0 / 0	0 / 0	206 / 0	0 / 0
I	542	327 / 0	0 / 0	0 / 0	0 / 0	215 / 0	0 / 0

BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S) H, B, L, K, 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				WEBS			
MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	MAX. FACTORED CSI (LC)	MEMB.	MAX. FACTORED FORCE (LBS)	MAX. FACTORED CSI (LC)	
FR-TO		FROM TO		FR-TO			
A-B	0 / 10	-78.0 -78.0	0.01 (1)	L-C	-220 / 0	0.04 (1)	
B-N	0 / 49	-78.0 -78.0	0.05 (1)	C-K	-62 / 0	0.08 (1)	
N-C	-87 / 0	-78.0 -78.0	0.04 (1)	K-D	-624 / 0	0.12 (1)	
C-D	0 / 16	-78.0 -78.0	0.56 (1)	K-F	-32 / 0	0.04 (1)	
D-E	0 / 16	-78.0 -78.0	0.56 (1)	I-F	-612 / 0	0.11 (1)	
E-F	0 / 16	-78.0 -78.0	0.56 (1)	I-G	0 / 14	0.00 (1)	
F-G	-13 / 0	-78.0 -78.0	0.56 (1)	M-N	-245 / 0	0.00 (1)	
H-G	-235 / 0	0.0 0.0	0.04 (1)				
B-M	0 / 49	-18.5 -18.5	0.06 (1)				
M-L	0 / 49	-18.5 -18.5	0.16 (4)				
L-K	0 / 41	-18.5 -18.5	0.19 (4)				
K-J	0 / 13	-18.5 -18.5	0.24 (4)				
J-I	0 / 13	-18.5 -18.5	0.24 (4)				
I-H	0 / 0	-18.5 -18.5	0.24 (4)				

DESIGN CRITERIA

SPECIFIED LOADS:
TOP CH. LL = 21.0 PSF
DL = 6.0 PSF
BOT CH. LL = 0.0 PSF
DL = 7.4 PSF
TOTAL LOAD = 34.4 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 23.0 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 21.0 P.S.F. SPECIFIED ROOF LIVE LOAD

CSI: TC=0.56/1.00 (C-D:1) , BC=0.24/1.00 (I-K:4) , WB=0.12/1.00 (D-K:1) , SSI=0.27/1.00 (F-G:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

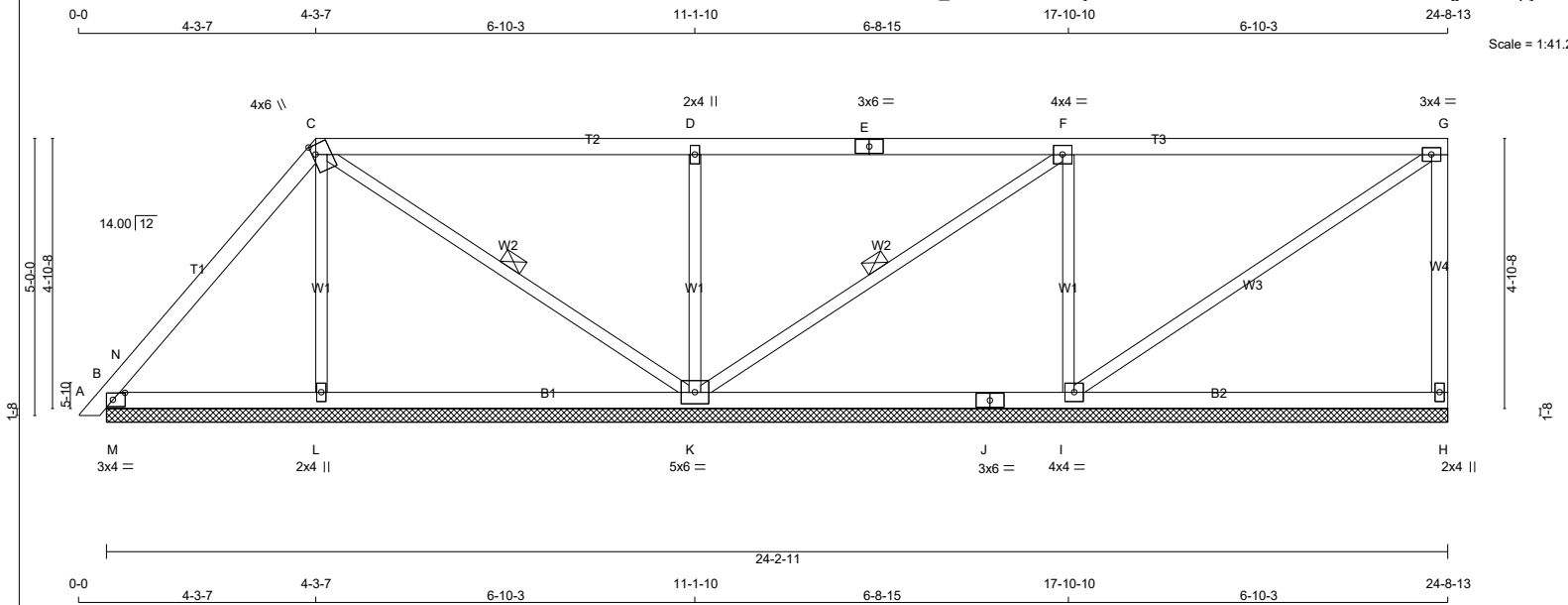
TRUSS PLATE MANUFACTURER IS NOT RESPONSIBLE FOR QUALITY CONTROL IN THE TRUSS MANUFACTURING PLANT .

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

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.85 (K) (INPUT = 0.90)
JSI METAL= 0.14 (E) (INPUT = 1.00)



TOTAL WEIGHT = 93 lb

LUMBER

N. L. G. A. RULES

CHORDS		SIZE	LUMBER	DESCR.
A - C	2x4	DRY	No.2	SPF
C - E	2x4	DRY	No.2	SPF
E - G	2x4	DRY	No.2	SPF
H - G	2x4	DRY	No.2	SPF
B - J	2x4	DRY	No.2	SPF
J - H	2x4	DRY	No.2	SPF
ALL WEBS	2x3	DRY	No.2	SPF
DRY: SEASONED LUMBER.				

ALL WEBS 2x3 DRY
 DRY: SEASONED LUMBER.

PLATES (table is in inches)

J	T	PLATES	W	LEN	Y	X
B	TM21-l	MT20	3.0	4.0	1.50	2.50
C	TTWW+m	MT20	4.0	6.0	2.00	0.75
D	TMW+w	MT20	2.0	4.0		
E	TS-t	MT20	3.0	6.0		
F	TMWW-t	MT20	4.0	4.0		
G	TMV-t	MT20	3.0	4.0		
H	BMV1+p	MT20	2.0	4.0		
I	BMWW1-t	MT20	4.0	4.0		
J	BS-t	MT20	3.0	6.0		
K	BMWWV1-t	MT20	5.0	6.0		
L	BMW1+w	MT20	2.0	4.0		

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

BEARINGS

	FACTORED GROSS REACTION		MAXIMUM FACTORED GROSS REACTION		INPUT BRG	REQ'D BRG
	VERT	HORZ	DOWN	HORZ	UPLIFT IN-SX	IN-SX
JT	280	0	280	0	0	24-2-11 (8-3-3)8
B	285	0	285	0	0	24-2-11 (8-3-3)8
L	322	0	322	0	0	24-2-11 (8-3-3)8
K	809	0	809	0	0	24-2-11 (8-3-3)8
I	672	0	672	0	0	24-2-11 (8-3-3)8

VALUE IN PARENTHESIS INDICATES EFFECTIVE BEARING LENGTH

UNFACTORED REACTIONS

1ST LCASE		MAX MIN. COMPONENT REACTIONS					
JT	COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
H	200	124 / 0	0 / 0	0 / 0	0 / 0	76 / 0	0 / 0
B	200	141 / 0	0 / 0	0 / 0	0 / 0	58 / 0	0 / 0
L	235	114 / 0	0 / 0	0 / 0	0 / 0	120 / 0	0 / 0
K	573	369 / 0	0 / 0	0 / 0	0 / 0	204 / 0	0 / 0
I	480	285 / 0	0 / 0	0 / 0	0 / 0	195 / 0	0 / 0

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

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

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

LOADING

TOTAL LOAD CASES: (4)

CHORDS				WEBS			
MAX. FACTORED		FACTORED		MAX. FACTORED		MAX. FACTORED	
MEMB.	FORCE (LBS)	VERT. LOAD (PLF)	MAX CSI (LC)	MAX. UNBRAC LENGTH	MEMB.	FORCE (LBS)	MAX CSI (LC)
FR-TO		FROM TO			FR-TO		
A-B	0 / 10	-78.0	-78.0 0.01 (1)	10.00	L- C	-181 / 0	0.06 (1)
B-N	0 / 167	-78.0	-78.0 0.11 (1)	10.00	C- K	-124 / 0	0.06 (1)
N- C	-129 / 0	-78.0	-78.0 0.13 (1)	6.25	K- D	-583 / 0	0.20 (1)
C- D	0 / 33	-78.0	-78.0 0.50 (1)	10.00	K- F	-68 / 0	0.03 (1)
D- E	0 / 33	-78.0	-78.0 0.50 (1)	10.00	I- F	-544 / 0	0.19 (1)
E- F	0 / 33	-78.0	-78.0 0.50 (1)	10.00	I- G	0 / 29	0.01 (1)
F- G	-24 / 0	-78.0	-78.0 0.49 (1)	6.25	M- N	-489 / 0	0.00 (1)
H- G	-230 / 0	0.0	0.0 0.09 (1)	7.81			
B- M	0 / 75	-18.5	-18.5 0.13 (1)	10.00			
M- L	0 / 75	-18.5	-18.5 0.15 (4)	10.00			
L- K	0 / 71	-18.5	-18.5 0.16 (4)	10.00			
K- J	0 / 24	-18.5	-18.5 0.21 (4)	10.00			
J- I	0 / 24	-18.5	-18.5 0.21 (4)	10.00			
I- H	0 / 0	-18.5	-18.5 0.21 (4)	10.00			

LATERAL BRACE(S) SHOWN SHALL BE
2X4 SPF#2



DESIGN CRITERIA

SPECIFIED LOADS:

TOP	CH.	LL	=	21.0	PSF
		DL	=	6.0	PSF
BOT	CH.	LL	=	0.0	PSF
		DL	=	7.4	PSF
TOTAL LOAD				=	34.4 PSF

TOTAL LOAD = 34.4 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 23.0 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 21.0 P.S.F. SPECIFIED ROOF LIVE LOAD

CSI: TC=0.50/1.00 (D-F:1), BC=0.21/1.00 (I-K:4),
WB=0.20/1.00 (D-K:1), SSI=0.38/1.00 (B-M:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

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

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

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

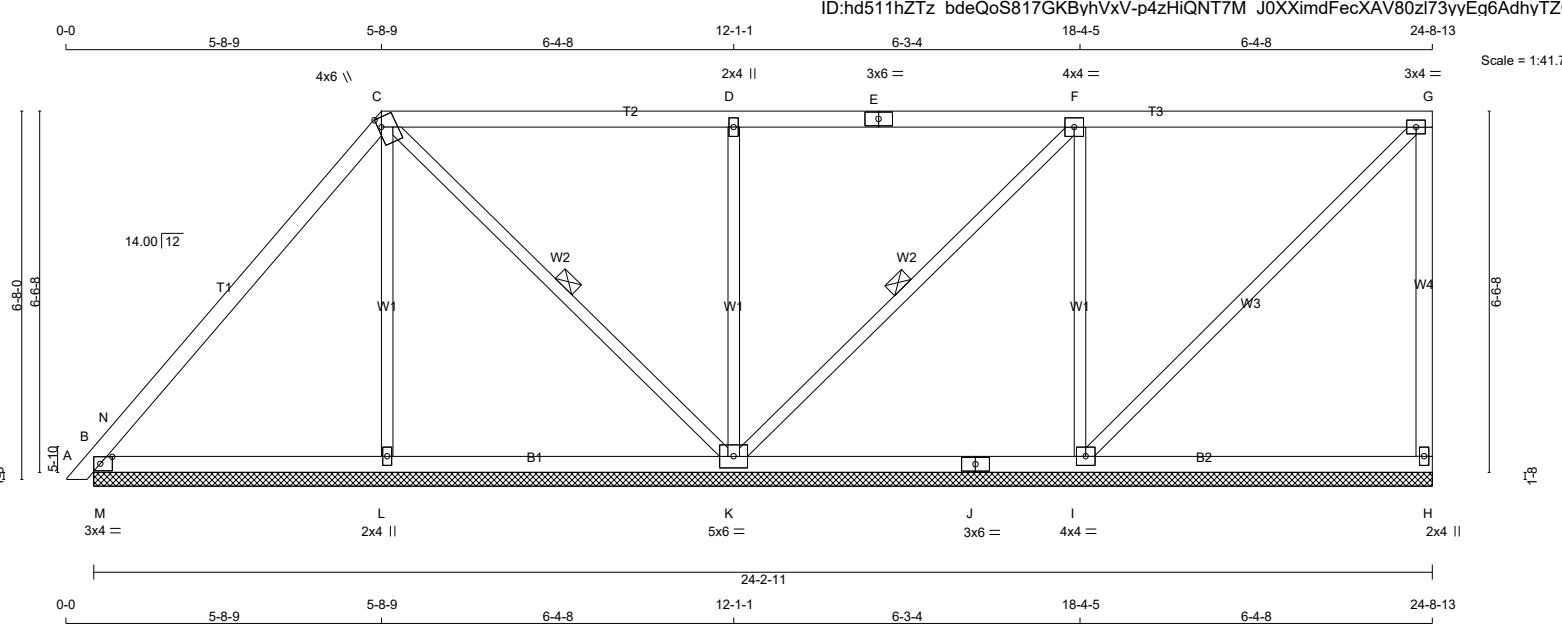
JSI GRIP= 0.89 (C) (INPUT = 0.90)
JSI METAL= 0.23 (E) (INPUT = 1.00)

JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
336335	H246P		1	TRUSS DESC.	E21104192

Alpa Roof Truss, Maple

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ID:hd511hZTz bdeQoS817GKByhVxV-p4zHiQNT7M J0XXimdFecXAV80zi73yyEq6AdhyTZG



LUMBER N. L. G. A. RULES CHORDS SIZE LUMBER DESCR. A - C 2x4 DRY No.2 SPF C - E 2x4 DRY No.2 SPF E - G 2x4 DRY No.2 SPF H - G 2x4 DRY No.2 SPF B - J 2x4 DRY No.2 SPF J - H 2x4 DRY No.2 SPF ALL WEBS 2x3 DRY No.2 SPF DRY: SEASONED LUMBER.				DIMENSIONS, SUPPORTS AND LOADINGS SPECIFIED BY FABRICATOR TO BE VERIFIED BY BUILDING DESIGNER BEARINGS FACTORED GROSS REACTION MAXIMUM FACTORED GROSS REACTION INPUT REQRD JT VERT HORZ DOWN HORZ UPLIFT IN-SX IN-SX H 277 0 277 0 0 24-2-11 (8-3-3)8 B 386 0 386 0 0 24-2-11 (8-3-3)8 L 287 0 287 0 0 24-2-11 (8-3-3)8 K 834 0 834 0 0 24-2-11 (8-3-3)8 I 583 0 583 0 0 24-2-11 (8-3-3)8				DESIGN CRITERIA SPECIFIED LOADS: TOP CH. LL = 21.0 PSF DL = 6.0 PSF BOT CH. LL = 0.0 PSF DL = 7.4 PSF TOTAL LOAD = 34.4 PSF SPACING = 24.0 IN. C/C			
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PLATES (table is in inches)					
JT	TYPE	PLATES	W	LEN	Y X
B	TMB1-I	MT20	3.0	4.0	1.50 2.50
C	TTWW+m	MT20	4.0	6.0	2.00 0.75
D	TMW+w	MT20	2.0	4.0	
E	TS-t	MT20	3.0	6.0	
F	TMWW-t	MT20	4.0	4.0	
G	TMVW-t	MT20	3.0	4.0	
H	BMV1+p	MT20	2.0	4.0	
I	BMWW1-t	MT20	4.0	4.0	
J	BS-t	MT20	3.0	6.0	
K	BMWWW1-t	MT20	5.0	6.0	
L	BMW1+w	MT20	2.0	4.0	

LATERAL BRACE(S) SHOWN SHALL BE 2X4 SPF#2



UNFACTORED REACTIONS							
JT	1ST LCASE	MAX./MIN. COMPONENT REACTIONS					
	COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
H	197	123 / 0	0 / 0	0 / 0	0 / 0	74 / 0	0 / 0
B	272	183 / 0	0 / 0	0 / 0	0 / 0	89 / 0	0 / 0
L	210	97 / 0	0 / 0	0 / 0	0 / 0	114 / 0	0 / 0
K	590	389 / 0	0 / 0	0 / 0	0 / 0	201 / 0	0 / 0
I	418	242 / 0	0 / 0	0 / 0	0 / 0	176 / 0	0 / 0
BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S) H, B, L, K, 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.							
1 LATERAL BRACE(S) AT 1/2 LENGTH OF C-K, F-K.							
END VERTICAL(S) MUST BE SHEATHED OR HAVE BRACES AS INDICATED IN THE MAX. UNBRACED LENGTH COLUMN OF THE TABLE BELOW							
LOADING							
TOTAL LOAD CASES: (4)							
C H O R D S							
MAX. FACTORED		FACTORED			W E B S		
MEMB.	FORCE (LBS)	VERT. LOAD (PLF)	LC1	MAX CSI (LC)	MEMB.	MAX. FACTORED FORCE (LBS)	MAX CSI (LC)
FR-TO		FROM TO			FR-TO		
A-B	0 / 10	-78.0	-78.0	0.01 (1)	10.00	L-C	-123 / 0 0.09 (1)
B-N	0 / 410	-78.0	-78.0	0.23 (1)	10.00	C-K	-183 / 0 0.10 (1)
N-C	-176 / 0	-78.0	-78.0	0.26 (1)	6.25	K-D	-542 / 0 0.38 (1)
C-D	0 / 31	-78.0	-78.0	0.43 (1)	10.00	K-F	-89 / 0 0.05 (1)
D-E	0 / 31	-78.0	-78.0	0.43 (1)	10.00	I-F	-479 / 0 0.34 (1)
E-F	0 / 31	-78.0	-78.0	0.43 (1)	10.00	I-G	0 / 45 0.01 (1)
F-G	-32 / 0	-78.0	-78.0	0.43 (1)	6.25	M-N	-879 / 0 0.00 (1)
H-G	-231 / 0	0.0	0.0	0.20 (1)	7.81		
B-M	0 / 102	-18.5	-18.5	0.22 (1)	10.00		
M-L	0 / 102	-18.5	-18.5	0.22 (1)	10.00		
L-K	0 / 100	-18.5	-18.5	0.17 (4)	10.00		
K-J	0 / 32	-18.5	-18.5	0.19 (4)	10.00		
J-I	0 / 32	-18.5	-18.5	0.19 (4)	10.00		
I-H	0 / 0	-18.5	-18.5	0.19 (4)	10.00		

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 23.0 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 21.0 P.S.F. SPECIFIED ROOF LIVE LOAD

CSI: TC=0.43/1.00 (D-F:1) , BC=0.22/1.00 (B-M:1) ,
WB=0.38/1.00 (D-K:1) , SSI=0.69/1.00 (B-M:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

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

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

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

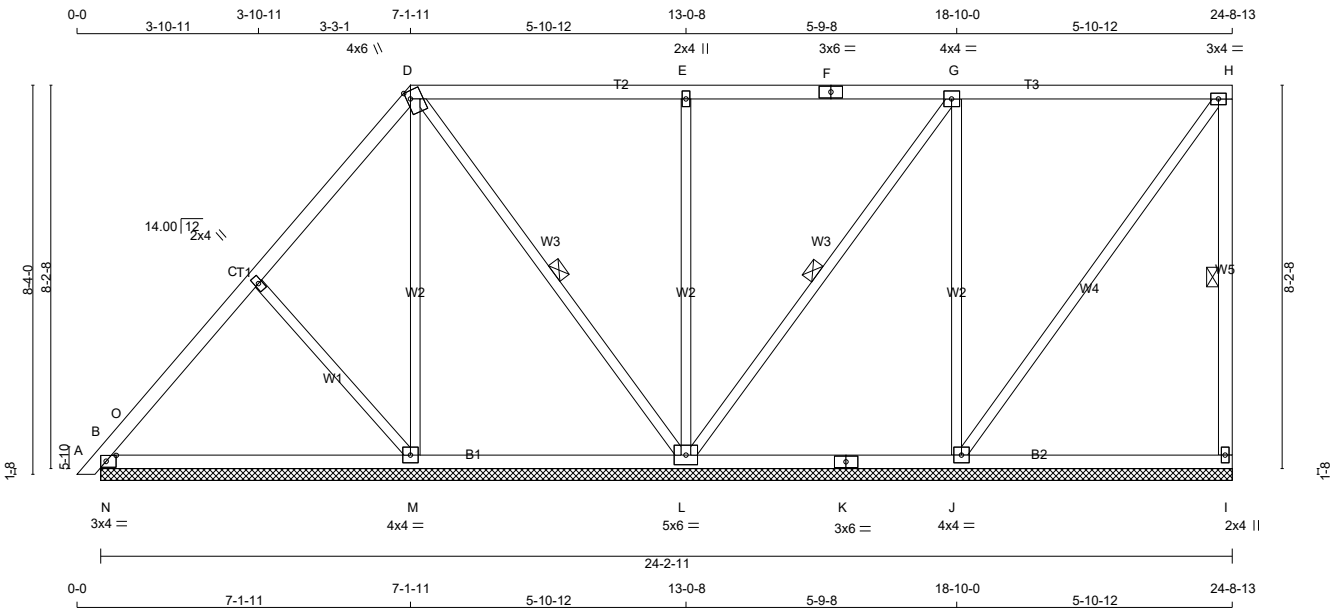
JSI GRIP= 0.89 (C) (INPUT = 0.90)
JSI METAL= 0.17 (E) (INPUT = 1.00)

JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
336335	H247P		1	TRUSS DESC.	E21104193

Alpa Roof Truss, Maple

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LUMBER
N. L. G. A. RULES
CHORDS SIZE
A - D 2x4 DRY No.2 SPF
D - F 2x4 DRY No.2 SPF
F - H 2x4 DRY No.2 SPF
I - H 2x4 DRY No.2 SPF
B - K 2x4 DRY No.2 SPF
K - I 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 1.50 2.50
C TMW+w MT20 2.0 4.0
D TTWW+m MT20 4.0 6.0 2.00 1.00
E TMW+w MT20 2.0 4.0
F TS-t MT20 3.0 6.0
G TMWW-t MT20 4.0 4.0
H TMVW-t MT20 3.0 4.0
I BMV1+p MT20 2.0 4.0
J BMWW1-t MT20 4.0 4.0
K BS-t MT20 3.0 6.0
L BMWWW1-t MT20 5.0 6.0
M BMWW1-t MT20 4.0 4.0

DIMENSIONS, SUPPORTS AND LOADINGS SPECIFIED BY FABRICATOR TO BE VERIFIED BY BUILDING DESIGNER
BEARINGS
FACTORED GROSS REACTION MAXIMUM FACTORED GROSS REACTION INPUT REQRD
JT VERT HORZ DOWN HORZ UPLIFT IN-SX IN-SX
I 228 0 228 0 0 24-2-11 (8-3-3)8
B 340 0 340 0 0 24-2-11 (8-3-3)8
M 460 0 460 0 0 24-2-11 (8-3-3)8
L 842 0 842 0 0 24-2-11 (8-3-3)8
J 498 0 498 0 0 24-2-11 (8-3-3)8

VALUE IN PARENTHESIS INDICATES EFFECTIVE BEARING LENGTH

UNFACTORED REACTIONS
1ST LCASE MAX./MIN. COMPONENT REACTIONS
JT COMBINED SNOW LIVE PERM.LIVE WIND DEAD SOIL
I 163 98 / 0 0 / 0 0 / 0 65 / 0 0 / 0
B 242 151 / 0 0 / 0 0 / 0 0 / 0 90 / 0
M 332 181 / 0 0 / 0 0 / 0 0 / 0 150 / 0
L 593 402 / 0 0 / 0 0 / 0 0 / 0 191 / 0
J 358 201 / 0 0 / 0 0 / 0 0 / 0 157 / 0

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

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 H-I, D-L, G-L.

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

LOADING
TOTAL LOAD CASES: (4)

CHORDS				WEBS			
MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	MAX. LC1 (LC)	MEMB.	MAX. FACTORED FORCE (LBS)	MAX. LC1 (LC)	
FR-TO		FROM TO		FR-TO			
A-B	0 / 11	-78.0 -78.0	0.01 (1)	C-M	-215 / 0	0.10 (1)	
B-O	-393 / 0	-78.0 -78.0	0.09 (4)	M-D	-169 / 0	0.22 (1)	
O-C	-183 / 0	-78.0 -78.0	0.15 (1)	D-L	-146 / 0	0.10 (1)	
C-D	-21 / 0	-78.0 -78.0	0.15 (1)	L-E	-501 / 0	0.66 (1)	
D-E	0 / 93	-78.0 -78.0	0.38 (1)	E-G	-158 / 0	0.11 (1)	
E-F	0 / 93	-78.0 -78.0	0.38 (1)	F-G	-374 / 0	0.49 (1)	
F-G	0 / 93	-78.0 -78.0	0.38 (1)	G-H	0 / 4	0.00 (4)	
G-H	-2 / 0	-78.0 -78.0	0.36 (1)	H-I	0 / 257	0.00 (1)	
I-H	-185 / 0	0.0 0.0	0.06 (1)				
B-N	0 / 140	-18.5 -18.5	0.08 (4)				
N-M	0 / 140	-18.5 -18.5	0.18 (4)				
M-L	-5 / 4	-18.5 -18.5	0.17 (4)				
L-K	0 / 2	-18.5 -18.5	0.16 (4)				
K-J	0 / 2	-18.5 -18.5	0.16 (4)				
J-I	0 / 0	-18.5 -18.5	0.16 (4)				

DESIGN CRITERIA

SPECIFIED LOADS:
TOP CH. LL = 21.0 PSF
DL = 6.0 PSF
BOT CH. LL = 0.0 PSF
DL = 7.4 PSF
TOTAL LOAD = 34.4 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 23.0 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 21.0 P.S.F. SPECIFIED ROOF LIVE LOAD

CSI: TC=0.38/1.00 (E-G:1) , BC=0.18/1.00 (M-N:4) , WB=0.66/1.00 (E-L:1) , SSI=0.24/1.00 (B-N:4)

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

COMPANION LIVE LOAD FACTOR = 1.00

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

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

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.75 (H) (INPUT = 0.90)
JSI METAL= 0.18 (F) (INPUT = 1.00)

LATERAL BRACE(S) SHOWN SHALL BE 2X4 SPF#2

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CONTINUED ON PAGE 2

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TOTAL WEIGHT = 164 lb

DRY: SEASONED LUMBER.

J	T	TYPE	PLATES	W	LEN	Y	X
B	T	TMWV+p	MT20	4.0	6.0	2.25	2.00
C	D	TTWW+m	MT20	4.0	6.0	1.75	1.25
D	B	TMWV+t	MT20	4.0	6.0		
E	F	TMW+w	MT20	2.0	4.0		
F	E	TMWV-t	MT20	4.0	4.0		
G	H	TMW+w	MT20	2.0	4.0		
H	G	TS-t	MT20	3.0	6.0		
I	J	TMWV+t	MT20	4.0	6.0		
J	I	TTWW+m	MT20	4.0	6.0	1.75	1.25
K	L	TMWV+p	MT20	4.0	6.0	2.25	2.00
L	K	BMV1+p	MT20	2.0	4.0		
M	N	BBWV-t	MT20	4.0	4.0		
N	O	BBWV-h	MT20	7.0	8.0	2.50	5.50
O	N	BBWVW-m	MT20	7.0	8.0	3.00	4.00
P	Q	BBWVW-m	MT20	7.0	8.0	3.25	4.00
Q	P	BBWV-h	MT20	7.0	8.0	2.50	5.50
R	S	BMWV-t	MT20	4.0	4.0	2.00	1.75
S	R	BMV1+p	MT20	2.0	4.0		

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

TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 4.95 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-Q, I-N.

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

TOTAL LOAD CASES: (4)

CHORDS					WEBS			
MEMB.	FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	MAX CS1 (LC)	MAX. UNBRAC	MEMB.	MAX. FACTORED FORCE (LBS)	MAX CSI (LC)	
FR-TO		FROM	TO	LENGTH	FR-TO			
A-B	0 / 42	-78.0	-78.0	0.11 (1)	10.00	R-C	-160 / 17	0.21 (1)
B-C	-1261 / 0	-78.0	-78.0	0.48 (1)	5.19	C-Q	0 / 872	0.20 (1)
C-D	-1226 / 0	-78.0	-78.0	0.18 (1)	5.58	Q-D	-1528 / 0	0.65 (1)
D-E	-1604 / 0	-78.0	-78.0	0.17 (1)	5.05	D-P	0 / 1304	0.29 (1)
E-F	-1607 / 0	-78.0	-78.0	0.25 (1)	4.95	P-E	-201 / 0	0.16 (1)
F-G	-1531 / 0	-78.0	-78.0	0.25 (1)	5.05	P-F	-164 / 0	0.21 (1)
G-H	-1527 / 0	-78.0	-78.0	0.10 (1)	5.24	F-O	-300 / 0	0.39 (1)
H-I	-1527 / 0	-78.0	-78.0	0.10 (1)	5.24	O-G	-233 / 0	0.19 (1)
I-J	-1124 / 0	-78.0	-78.0	0.12 (1)	5.85	O-I	0 / 1384	0.31 (1)
J-K	-1207 / 0	-78.0	-78.0	0.41 (1)	5.35	N-I	-1527 / 0	0.65 (1)
S-B	-1540 / 0	0.0	0.0	0.18 (1)	6.63	N-J	0 / 896	0.20 (1)
L-K	-1433 / 0	0.0	0.0	0.19 (1)	6.82	M-J	-223 / 0	0.29 (1)
						B-R	0 / 860	0.19 (1)
S-R	0 / 0	-18.5	-18.5	0.12 (4)	10.00	M-K	0 / 846	0.19 (1)
R-Q	0 / 815	-18.5	-18.5	0.20 (1)	10.00			
Q-P	0 / 1449	-18.5	-18.5	0.25 (1)	10.00			
P-O	0 / 1699	-18.5	-18.5	0.58 (4)	10.00			
O-N	0 / 1327	-18.5	-18.5	0.23 (1)	10.00			
N-M	0 / 780	-18.5	-18.5	0.19 (1)	10.00			
M-L	0 / 0	-18.5	-18.5	0.11 (4)	10.00			

LATERAL BRACE(S) SHOWN SHALL BE
2X4 SPF#2



SPECIFIED LOADS:

TOP	CH.	LL	=	21.0	PSF
		DL	=	6.0	PSF
BOT	CH.	LL	=	0.0	PSF
		DL	=	7.4	PSF
TOTAL LOAD				=	34.4 PSF

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 23.0 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 21.0 P.S.F. SPECIFIED ROOF LIVE LOAD

ALLOWABLE DEFL.(LL)= $L/360$ (1.02")
 CALCULATED VERT. DEFL.(LL) = $L/999$ (0.09")
 ALLOWABLE DEFL.(TL)= $L/360$ (1.02")
 CALCULATED VERT. DEFL.(TL) = $L/815$ (0.45")

CSI: TC=0.48/1.00 (B-C:1), BC=0.58/1.00 (O-P:4),
WB=0.65/1.00 (D-Q:1), SSI=0.15/1.00 (E-F:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

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

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

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

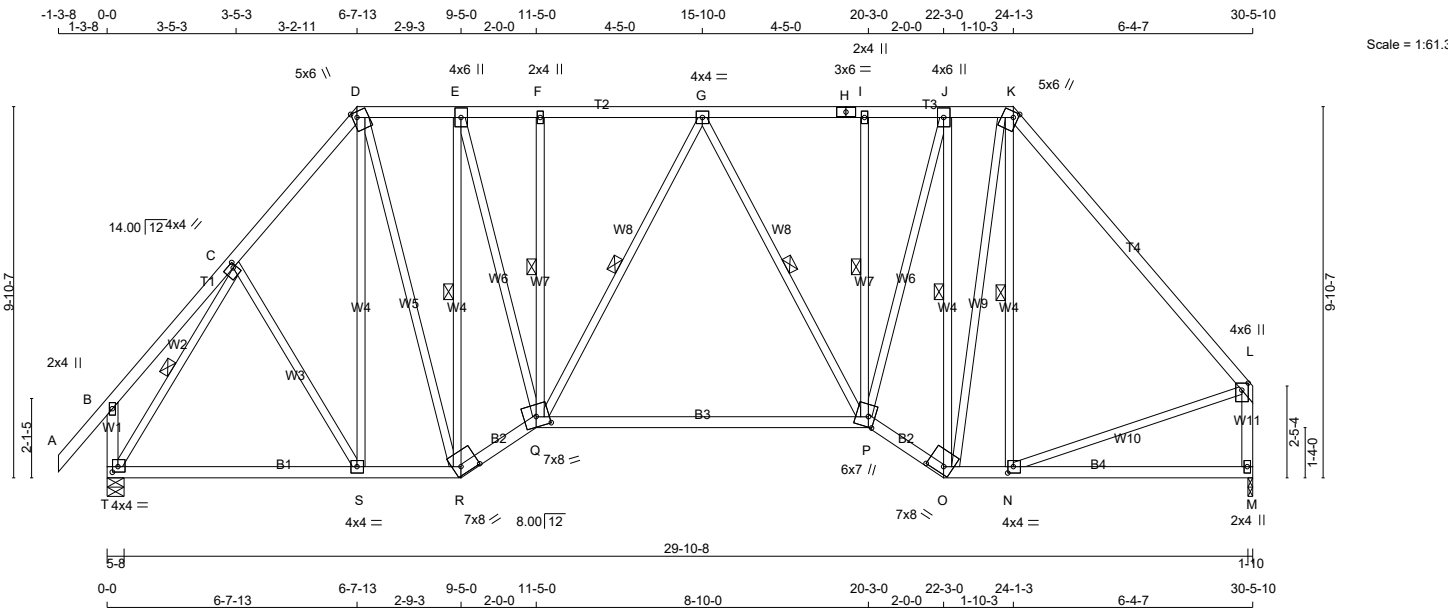
JSI GRIP= 0.89 (P) (INPUT = 0.90)
JSI METAL= 0.50 (B) (INPUT = 1.00)

JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
336335	H263T		1	TRUSS DESC. JT 45147	E21104196

Alpa Roof Truss, Maple

ID:hd511hZTz bdeQoS817GKByhVxV-adSJO9TUFq?A m8EEIOWxWDWtFdZ?YQ84w2bvEvTZGd

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TOTAL WEIGHT = 2 X 188 = 376 lb [M]

LUMBER			
N. L. G. A. RULES			
CHORDS	SIZE	LUMBER	DESCR.
A - D	2x4	DRY No.2	SPF
D - H	2x4	DRY No.2	SPF
H - K	2x4	DRY No.2	SPF
K - L	2x4	DRY 2100F 1.8E	SPF
T - B	2x4	DRY No.2	SPF
M - L	2x4	DRY No.2	SPF
T - R	2x4	DRY No.2	SPF
R - Q	2x4	DRY No.2	SPF
Q - P	2x4	DRY No.2	SPF
P - O	2x4	DRY No.2	SPF
O - M	2x4	DRY No.2	SPF
ALL WEBS EXCEPT	2x3	DRY No.2	SPF

DRY: SEASONED LUMBER.

PLATES (table is in inches)					
JT	TYPE	PLATES	W	LEN	Y X
B	TMV+p	MT20	2.0	4.0	
C	TMWW-t	MT20	4.0	4.0	1.50 1.00
D	TTWW+m	MT20	5.0	6.0	1.75 1.50
E	TMWW+t	MT20	4.0	6.0	
F	TMW+w	MT20	2.0	4.0	
G	TMWW-t	MT20	4.0	4.0	
H	TS-t	MT20	3.0	6.0	
I	TMW+w	MT20	2.0	4.0	
J	TMWW+t	MT20	4.0	6.0	
K	TTWW+m	MT20	5.0	6.0	1.75 1.50
L	TMVW+p	MT20	4.0	6.0	2.25 2.00
M	BMV1+p	MT20	2.0	4.0	
N	BMWW-t	MT20	4.0	4.0	2.00 1.75
O	BBWW-h	MT20	7.0	8.0	2.25 5.25
P	BBWWW+m	MT20	6.0	7.0	3.25 2.00
Q	BBWWW-m	MT20	7.0	8.0	3.25 4.00
R	BBWW-h	MT20	7.0	8.0	2.50 5.50
S	BMWW-t	MT20	4.0	4.0	
T	BMVW1-t	MT20	4.0	4.0	1.75 1.75

LATERAL BRACE(S) SHOWN SHALL BE 2X4 SPF#2



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

	FACTORED GROSS REACTION		MAXIMUM FACTORED GROSS REACTION		INPUT BRG UPLIFT		REQRD BRG IN-SX	
	VERT	HORZ	DOWN	HORZ	IN-SX	IN-SX	IN-SX	IN-SX
JT	1470	0	1470	0	1-10	1-9		
M	1470	0	1470	0	5-8	1-11		

UNFACTORED REACTIONS							
JT	COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
M	1048	640 / 0	0 / 0	0 / 0	0 / 0	408 / 0	0 / 0
T	1124	698 / 0	0 / 0	0 / 0	0 / 0	425 / 0	0 / 0

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

BRACING
TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 5.42 FT.
MAX. UNBRACED BOTTOM CHORD LENGTH = 10.00 FT OR RIGID CEILING DIRECTLY APPLIED.

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

1 LATERAL BRACE(S) AT 1/2 LENGTH OF E-R, F-Q, G-Q, G-P, I-P, J-O, K-N, C-T.

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

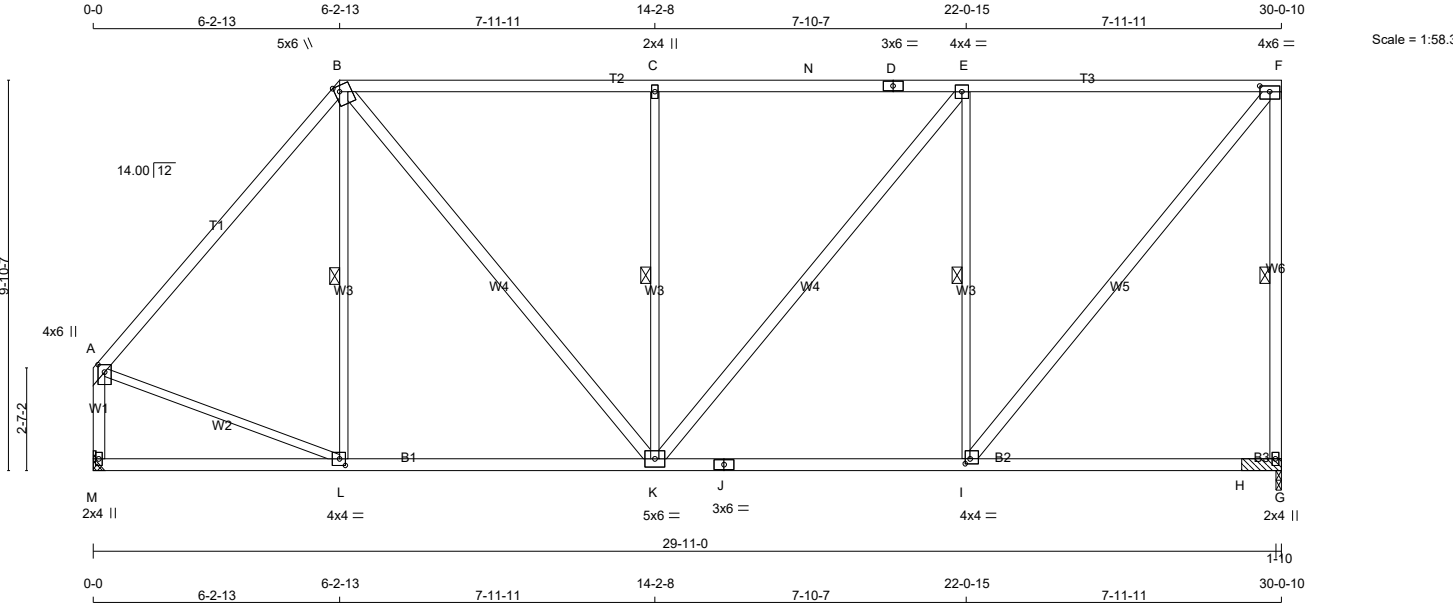
CHORDS				WEBS			
MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	MAX. FACTORED CSI (LC)	MEMB.	MAX. FACTORED FORCE (LBS)	MAX. FACTORED CSI (LC)	
FR-TO		FROM TO		FR-TO			
A-B	0 / 42	-78.0 -78.0	0.11 (1)	10.00	C-S	0 / 61	0.02 (4)
B-C	0 / 22	-78.0 -78.0	0.13 (1)	10.00	S-D	0 / 93	0.03 (4)
C-D	-1271 / 0	-78.0 -78.0	0.16 (1)	5.55	D-R	0 / 694	0.16 (1)
D-E	-1003 / 0	-78.0 -78.0	0.09 (1)	6.14	R-E	-1308 / 0	0.86 (1)
E-F	-1280 / 0	-78.0 -78.0	0.09 (1)	5.61	E-Q	0 / 1174	0.26 (1)
F-G	-1283 / 0	-78.0 -78.0	0.23 (1)	5.42	Q-F	-246 / 0	0.11 (1)
G-H	-1222 / 0	-78.0 -78.0	0.23 (1)	5.52	Q-G	-150 / 0	0.09 (1)
H-I	-1222 / 0	-78.0 -78.0	0.23 (1)	5.52	G-P	-279 / 0	0.17 (1)
I-J	-1219 / 0	-78.0 -78.0	0.10 (1)	5.70	P-I	-276 / 0	0.13 (1)
J-K	-920 / 0	-78.0 -78.0	0.07 (1)	6.25	P-J	0 / 1265	0.28 (1)
K-L	-1214 / 0	-78.0 -78.0	0.45 (1)	6.25	O-J	-1300 / 0	0.85 (1)
T-B	-208 / 0	0.0 0.0	0.02 (1)	7.81	O-K	0 / 700	0.16 (1)
M-L	-1423 / 0	0.0 0.0	0.19 (1)	6.84	N-K	-118 / 47	0.08 (1)
					T-C	-1531 / 0	0.44 (1)
					N-L	0 / 827	0.19 (1)
T-S	0 / 777	-18.5 -18.5	0.26 (4)	10.00			
S-R	0 / 810	-18.5 -18.5	0.26 (4)	10.00			
R-Q	0 / 1189	-18.5 -18.5	0.20 (1)	10.00			
Q-P	0 / 1354	-18.5 -18.5	0.55 (4)	10.00			
P-O	0 / 1088	-18.5 -18.5	0.19 (1)	10.00			
O-N	0 / 786	-18.5 -18.5	0.26 (4)	10.00			
N-M	0 / 0	-18.5 -18.5	0.18 (4)	10.00			

JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
336335	H263A		1	TRUSS DESC. JT 45147	E21104197

Alpa Roof Truss, Maple

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ID:hd511hZTz_bdeQoS817GKByhVxV-oGO??_JU8iZYPi7vHPrg2nZidSW9gwOSVFF_L8yTZHY



LUMBER				
N. L. G. A. RULES				
CHORDS	SIZE	LUMBER	DESCR.	
A - B	2x4	DRY	2100F 1.8E	SPF
B - D	2x4	DRY	1650F 1.5E	SPF
D - F	2x4	DRY	1650F 1.5E	SPF
G - F	2x4	DRY	No.2	SPF
M - A	2x4	DRY	No.2	SPF
M - J	2x4	DRY	No.2	SPF
J - G	2x4	DRY	No.2	SPF
ALL WEBS EXCEPT	2x3	DRY	No.2	SPF
B - K	2x4	DRY	No.2	SPF
K - E	2x4	DRY	No.2	SPF
I - F	2x4	DRY	No.2	SPF

DRY: SEASONED LUMBER.

PLATES (table is in inches)					
JT	TYPE	PLATES	W	LEN	Y X
A	TMVW+p	MT20	4.0	6.0	2.25 2.00
B	TTWW+m	MT20	5.0	6.0	1.75 1.50
C	TMW+w	MT20	2.0	4.0	
D	TS-t	MT20	3.0	6.0	
E	TMWW-t	MT20	4.0	4.0	
F	TMVW-t	MT20	4.0	6.0	1.75 3.00
G	BMV1+p	MT20	2.0	4.0	
I	BMWW-t	MT20	4.0	4.0	1.50 1.50
J	BS-t	MT20	3.0	6.0	
K	BMWWW-t	MT20	5.0	6.0	
L	BMWW-t	MT20	4.0	4.0	2.00 1.75
M	BMV1+p	MT20	2.0	4.0	

DIMENSIONS, SUPPORTS AND LOADINGS SPECIFIED BY FABRICATOR TO BE VERIFIED BY BUILDING DESIGNER									
BEARINGS									
		FACTORED GROSS REACTION		MAXIMUM FACTORED GROSS REACTION		INPUT BRG		REQD BRG	
JT	VERT	HORZ	DOWN	HORZ	UPLIFT	IN-SX	IN-SX	1-10	& BLOCK MECHANICAL
G	1557	0	1557	0	0	1-10	1-10		
M	1520	0	1520	0	0				

A SUITABLE HANGER/MECHANICAL CONNECTION IS REQUIRED AT JOINT M. MINIMUM BEARING LENGTH AT JOINT M = 1-10.

UNFACTORED REACTIONS							
JT	COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
G	1120	631 / 0	0 / 0	0 / 0	0 / 0	489 / 0	0 / 0
M	1090	631 / 0	0 / 0	0 / 0	0 / 0	459 / 0	0 / 0

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

2x4 DRY SPF No.2 BEARING BLOCK 12" LONG AT JT. G ATTACHED TO FRONT SIDE WITH 2 ROWS OF (0.122"x3") SPIRAL NAILS SPACED 3" C.C. 8 NAILS TOTAL.

BRACING

FOR SECTION B-F, MAX. PURLIN SPACING = 2.00 FT.

FOR OTHER SECTIONS, 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, B-L, C-K, E-I.

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					WEBS				
MEMB.	FORCE (LBS)	FACTORED VERT. LOAD (PLF)	MAX LC1 (LC)	MAX UNBRAC LENGTH	MEMB.	FORCE (LBS)	FACTORED VERT. LOAD (PLF)	MAX LC1 (LC)	MAX UNBRAC LENGTH
FR-TO		FROM	TO		FR-TO		FROM	TO	
A-B	-1248 / 0	-78.0	-78.0	0.43 (1)	6.25	L-B	-136 / 41	0.09 (1)	0.12 (1)
B-C	-1277 / 0	-85.5	-85.5	0.71 (1)	2.00	B-K	0 / 732	0.48 (1)	0.07 (1)
C-N	-1277 / 0	-85.5	-85.5	0.71 (1)	2.00	K-C	-737 / 0	0.70 (1)	0.26 (1)
N-D	-1277 / 0	-85.5	-85.5	0.71 (1)	2.00	K-E	0 / 406	0.70 (1)	0.26 (1)
D-E	-1277 / 0	-85.5	-85.5	0.71 (1)	2.00	I-E	-1058 / 0	0.26 (1)	0.19 (1)
E-F	-1020 / 0	-85.5	-85.5	0.69 (1)	2.00	I-F	0 / 1594		
G-F	-1499 / 0	0.0	0.0	0.70 (1)	5.36	A-L	0 / 858		
M-A	-1477 / 0	0.0	0.0	0.21 (1)	6.74				
M-L	0 / 0	-18.5	-18.5	0.22 (4)	10.00				
L-K	0 / 808	-18.5	-18.5	0.31 (4)	10.00				
K-J	0 / 1020	-18.5	-18.5	0.40 (4)	10.00				
J-I	0 / 1020	-18.5	-18.5	0.40 (4)	10.00				
I-H	0 / 0	-18.5	-18.5	0.28 (4)	10.00				
H-G	0 / 0	-18.5	-18.5	0.28 (4)	10.00				

DESIGN CRITERIA			
SPECIFIED LOADS:			
TOP CH.	LL	= 21.0	PSF
	DL	= 6.0	PSF
BOT CH.	LL	= 0.0	PSF
	DL	= 7.4	PSF
TOTAL LOAD = 34.4 PSF			
SPACING = 24.0 IN. C/C			

LOADING IN FLAT SECTION BASED ON PIGGYBACK TRUSS WITH SLOPES OF 6.00/12 AND -6.00/12 AND RESPECTIVE HEEL HEIGHTS OF 0-0 AND 0-0 AND AN ADDITIONAL DEAD LOAD OF 3.0 P.S.F.

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 23.0 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 21.0 P.S.F. SPECIFIED ROOF LIVE LOAD

ALLOWABLE DEFL.(LL)= L/360 (1.00")

CALCULATED VERT. DEFL.(LL) = L/ 999 (0.05")

ALLOWABLE DEFL.(TL)= L/360 (1.00")

CALCULATED VERT. DEFL.(TL) = L/ 999 (0.13")

CSI: TC=0.71/1.00 (C-E:1) , BC=0.40/1.00 (I-K:4) , WB=0.70/1.00 (E-I:1) , SSI=0.32/1.00 (E-F:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

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

NAIL VALUES

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

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.85 (I) (INPUT = 0.90)

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

LATERAL BRACE(S) SHOWN SHALL BE 2X4 SPF#2

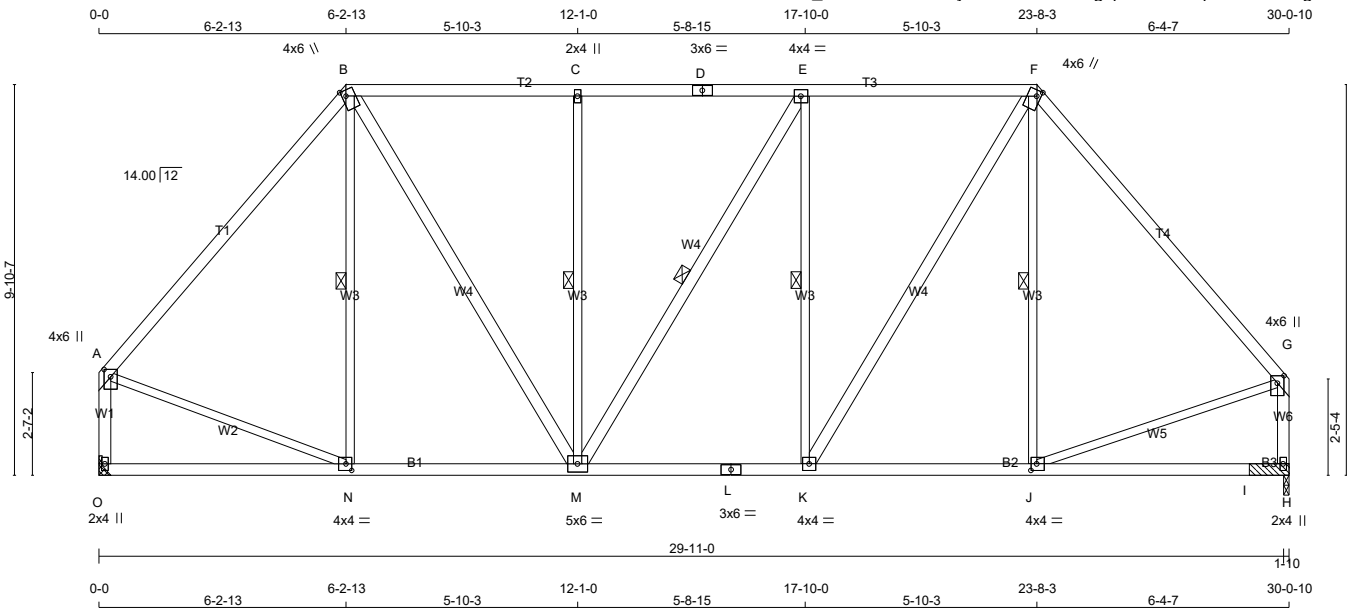


JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
336335	H263S		1	TRUSS DESC. JT 45147	E21104198

Alpa Roof Truss, Maple

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TOTAL WEIGHT = 3 X 161 = 482 lb

LUMBER			
N. L. G. A. RULES			
CHORDS	SIZE	LUMBER	DESCR.
A - B	2x4	DRY 2100F 1.8E	SPF
B - D	2x4	DRY No.2	SPF
D - F	2x4	DRY No.2	SPF
F - G	2x4	DRY 2100F 1.8E	SPF
O - A	2x4	DRY No.2	SPF
H - G	2x4	DRY No.2	SPF
O - L	2x4	DRY No.2	SPF
L - H	2x4	DRY No.2	SPF
ALL WEBS EXCEPT	2x3	DRY No.2	SPF
B - M	2x4	DRY No.2	SPF
M - E	2x4	DRY No.2	SPF
K - F	2x4	DRY No.2	SPF
DRY: SEASONED LUMBER.			

PLATES (table is in inches)					
JT	TYPE	PLATES	W	LEN	Y X
A	TMVW+p	MT20	4.0	6.0	2.25 2.00
B	TTWW+m	MT20	4.0	6.0	1.75 1.25
C	TMW+w	MT20	2.0	4.0	
D	TS-t	MT20	3.0	6.0	
E	TMWW-t	MT20	4.0	4.0	
F	TTWW+m	MT20	4.0	6.0	1.75 1.25
G	TMVW+p	MT20	4.0	6.0	2.25 2.00
H	BMV1+p	MT20	2.0	4.0	
J	BMWW-t	MT20	4.0	4.0	2.00 1.75
K	BMWW-t	MT20	4.0	4.0	
L	BS-t	MT20	3.0	6.0	
M	BMWWW-t	MT20	5.0	6.0	
N	BMWW-t	MT20	4.0	4.0	2.00 1.75
O	BMV1+p	MT20	2.0	4.0	

DIMENSIONS, SUPPORTS AND LOADINGS SPECIFIED BY FABRICATOR TO BE VERIFIED BY BUILDING DESIGNER									
BEARINGS									
		FACTORED GROSS REACTION		MAXIMUM FACTORED GROSS REACTION		INPUT		REQRD	
JT	VERT	HORZ	DOWN	HORZ	UPLIFT	IN-SX	BRG	IN-SX	BRG
O	1515	0	1515	0	0	MECHANICAL			
H	1515	0	1515	0	0	1-10	1-10	& BLOCK	
A SUITABLE HANGER/MECHANICAL CONNECTION IS REQUIRED AT JOINT O. MINIMUM BEARING LENGTH AT JOINT O = 1-10.									

UNFACTORED REACTIONS							
JT	1ST LCASE	COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD
O	1086	631 / 0	0 / 0	0 / 0	0 / 0	0 / 0	455 / 0
H	1086	631 / 0	0 / 0	0 / 0	0 / 0	0 / 0	455 / 0

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

2x4 DRY SPF No.2 BEARING BLOCK 12" LONG AT JT. H ATTACHED TO FRONT SIDE WITH 2 ROWS OF (0.122"x3") SPIRAL NAILS SPACED 3" C.C. 8 NAILS TOTAL.

BRACING

FOR SECTION B-F, MAX. PURLIN SPACING = 2.00 FT.

FOR OTHER SECTIONS, TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 6.21 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 B-N, C-M, E-M, E-K, F-J.

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				WEBS			
MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	MAX LC1 CSI (LC)	MEMB.	MAX. FACTORED FORCE (LBS)	MAX LC1 CSI (LC)	
FR-TO		FROM TO		FR-TO			
A-B	-1239 / 0	-78.0 -78.0	0.43 (1)	6.25	N-B	-152 / 21	0.10 (1)
B-C	-1196 / 0	-85.5 -85.5	0.44 (1)	2.00	B-M	0 / 753	0.12 (1)
C-D	-1196 / 0	-85.5 -85.5	0.44 (1)	2.00	M-C	-534 / 0	0.35 (1)
D-E	-1196 / 0	-85.5 -85.5	0.44 (1)	2.00	M-E	-10 / 0	0.01 (1)
E-F	-1201 / 0	-85.5 -85.5	0.44 (1)	2.00	K-E	-528 / 0	0.35 (1)
F-G	-1258 / 0	-78.0 -78.0	0.45 (1)	6.21	K-F	0 / 739	0.12 (1)
O-A	-1468 / 0	0.0 0.0	0.20 (1)	6.76	J-F	-131 / 32	0.09 (1)
H-G	-1466 / 0	0.0 0.0	0.19 (1)	6.76	A-N	0 / 852	0.19 (1)
					J-G	0 / 857	0.19 (1)
O-N	0 / 0	-18.5 -18.5	0.17 (4)	10.00			
N-M	0 / 802	-18.5 -18.5	0.26 (4)	10.00			
M-L	0 / 1201	-18.5 -18.5	0.25 (1)	10.00			
L-K	0 / 1201	-18.5 -18.5	0.25 (1)	10.00			
K-J	0 / 815	-18.5 -18.5	0.26 (4)	10.00			
J-I	0 / 0	-18.5 -18.5	0.18 (4)	10.00			
I-H	0 / 0	-18.5 -18.5	0.18 (4)	10.00			

DESIGN CRITERIA			
SPECIFIED LOADS:			
TOP CH.	LL	= 21.0	PSF
	DL	= 6.0	PSF
BOT CH.	LL	= 0.0	PSF
	DL	= 7.4	PSF
TOTAL LOAD = 34.4 PSF			

SPACING = 24.0 IN. C/C

LOADING IN FLAT SECTION BASED ON PIGGYBACK TRUSS WITH SLOPES OF 6.00/12 AND -6.00/12 AND RESPECTIVE HEEL HEIGHTS OF 0-0 AND 0-0 AND AN ADDITIONAL DEAD LOAD OF 3.0 P.S.F.

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 23.0 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 21.0 P.S.F. SPECIFIED ROOF LIVE LOAD

ALLOWABLE DEFL.(LL)= L/360 (1.00")

CALCULATED VERT. DEFL.(LL) = L/ 999 (0.04")

ALLOWABLE DEFL.(TL)= L/360 (1.00")

CALCULATED VERT. DEFL.(TL) = L/ 999 (0.09")

CSI: TC=0.45/1.00 (F-G:1) , BC=0.26/1.00 (J-K:4) , WB=0.35/1.00 (C-M: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)	SHEAR	SECTION		
	(PSI)	(PLI)	(PLI)		
	MAX	MIN	MAX	MIN	MAX
MT20	650	371	1747	788	1987 1873

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

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

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

LATERAL BRACE(S) SHOWN SHALL BE 2X4 SPF#2



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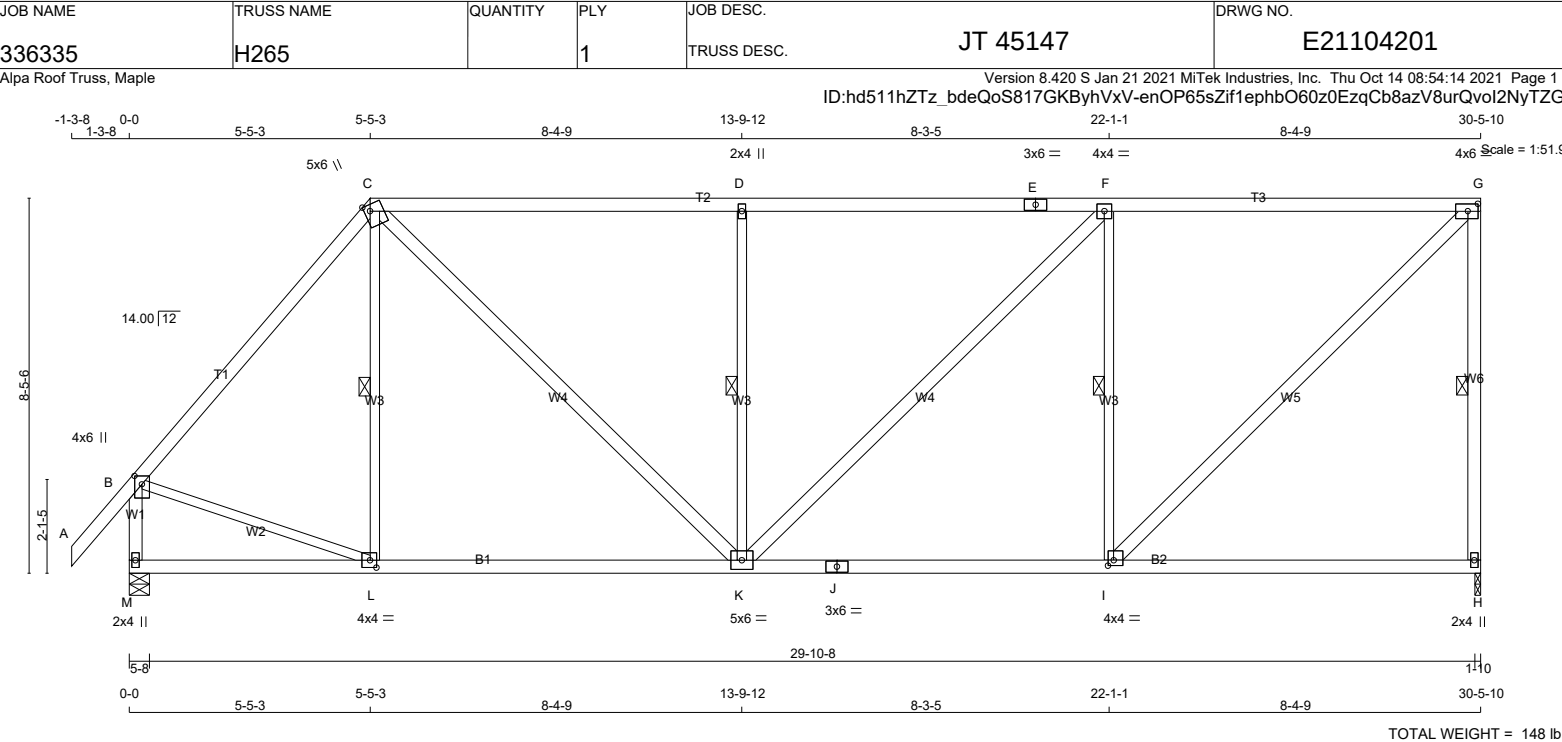


DRY: SEASONED LUMBER.

JSI GRIP= 0.90 (C) (INPUT = 0.90)
JSI METAL= 0.53 (C) (INPUT = 1.00)

The diagram illustrates a roof truss system with the following details:

- Dimensions:**
 - Horizontal dimensions (top and bottom): 1-3-8, 3-8-10, 3-8-10, 6-8-5, 10-4-15, 6-8-5, 17-1-4, 6-8-5, 23-9-9, 6-6-15, 3-0, 30-4-8, 30-7-8.
 - Vertical dimensions: 14.00' (12' height), 6'-4.6' (total height), 5'-9" (lower height).
 - Overall horizontal span: 29-10-8.
- Members and Connections:**
 - Top Chords:** T1, T2, T3.
 - Bottom Chords:** B1, B2.
 - Vertical Members:** W1, W2, W3, W4, W5, W6, W7.
 - Diagonal Members:** W1, W2, W4, W5, W6.
 - Connections:** A, B, C, D, E, F, G, H, I, J, K, L, M, N, O, P, Q, R, S, T, U, V, W, X, Y, Z.
- Labels and Notes:**
 - Labels: 5x8, 4x4, 2x4, 4x6, 4x4, 6x7, 4x9, 3x4, 4x4, 4x6, 5x6, 6x9, 6x9.
 - Notes: 14.00' (12'), 6'-4.6', 5'-9", 29-10-8.



LUMBER				
N. L. G. A. RULES				
CHORDS	SIZE	LUMBER	DESCR.	
A - C	2x4	DRY	No.2	SPF
C - E	2x4	DRY	No.2	SPF
E - G	2x4	DRY	No.2	SPF
H - G	2x4	DRY	No.2	SPF
M - B	2x4	DRY	No.2	SPF
M - J	2x4	DRY	No.2	SPF
J - H	2x4	DRY	No.2	SPF
ALL WEBS	2x3	DRY	No.2	SPF
EXCEPT				
C - K	2x4	DRY	No.2	SPF
K - F	2x4	DRY	No.2	SPF
I - G	2x4	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	2.25 2.00
C TTWW+m	MT20	5.0	6.0	1.75 1.50
D TMW+w	MT20	2.0	4.0	
E TS-t	MT20	3.0	6.0	
F TMWW-t	MT20	4.0	4.0	
G TMVW-t	MT20	4.0	6.0	2.00 2.75
H BMV1+p	MT20	2.0	4.0	
I BMWW-t	MT20	4.0	4.0	1.50 1.50
J BS-t	MT20	3.0	6.0	
K BMWWW-t	MT20	5.0	6.0	
L BMWW-t	MT20	4.0	4.0	2.00 1.75
M BMV1+p	MT20	2.0	4.0	

LATERAL BRACE(S) SHOWN SHALL BE
 2X4 SPF#2



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

BEARINGS		FACTORED GROSS REACTION		MAXIMUM FACTORED GROSS REACTION		INPUT		REQRD	
JT	VERT	HORZ		DOWN	HORZ	UPLIFT	IN-SX	BRG	IN-SX
H	1470	0		1470	0	0	1-10	1-9	
M	1579	0		1579	0	0	5-8	1-11	

UNFACTORED REACTIONS		1ST LCASE		MAX./MIN. COMPONENT REACTIONS	
JT	COMBINED	SNOW	LIVE	PERM.LIVE	WIND
H	1048	640 / 0	0 / 0	0 / 0	0 / 0
M	1124	698 / 0	0 / 0	0 / 0	0 / 0

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

BRACING
 TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 3.97 FT.
 MAX. UNBRACED BOTTOM CHORD LENGTH = 10.00 FT OR RIGID CEILING DIRECTLY APPLIED.

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

1 LATERAL BRACE(S) AT 1 / 2 LENGTH OF G-H, C-L, D-K, F-I.

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		FACTORED		WEBS	
MEMB.	FORCE (LBS)	VERT. LOAD (PLF)	MAX. CSI (LC)	MEMB.	FORCE (LBS)
FR-TO		FROM TO		FR-TO	
A- B	0 / 42	-78.0 -78.0	0.11 (1)	L- C	-114 / 58
B- C	-1268 / 0	-78.0 -78.0	0.53 (1)	C- K	0 / 859
C- D	-1437 / 0	-78.0 -78.0	0.97 (1)	K- D	-706 / 0
D- E	-1437 / 0	-78.0 -78.0	0.97 (1)	K- F	0 / 366
E- F	-1437 / 0	-78.0 -78.0	0.97 (1)	I- F	-971 / 0
F- G	-1177 / 0	-78.0 -78.0	0.91 (1)	I- G	0 / 1642
H- G	-1408 / 0	0.0 0.0	0.46 (1)	B- L	0 / 862
M- B	-1544 / 0	0.0 0.0	0.18 (1)		
M- L	0 / 0	-18.5 -18.5	0.22 (4)		
L- K	0 / 821	-18.5 -18.5	0.31 (4)		
K- J	0 / 1177	-18.5 -18.5	0.43 (4)		
J- I	0 / 1177	-18.5 -18.5	0.43 (4)		
I- H	0 / 0	-18.5 -18.5	0.31 (4)		

DESIGN CRITERIA

SPECIFIED LOADS:		
TOP CH.	LL = 21.0	PSF
	DL = 6.0	PSF
BOT CH.	LL = 0.0	PSF
	DL = 7.4	PSF
TOTAL LOAD = 34.4 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 23.0 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 21.0 P.S.F. SPECIFIED ROOF LIVE LOAD

ALLOWABLE DEFL.(LL)= L/360 (1.02")
 CALCULATED VERT. DEFL.(LL)= L/ 999 (0.06")
 ALLOWABLE DEFL.(TL)= L/360 (1.02")
 CALCULATED VERT. DEFL.(TL)= L/ 999 (0.16")

CSI: TC=0.97/1.00 (C-D:1) , BC=0.43/1.00 (I-K:4) ,
 WB=0.44/1.00 (F-I:1) , SSI=0.30/1.00 (F-G:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

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

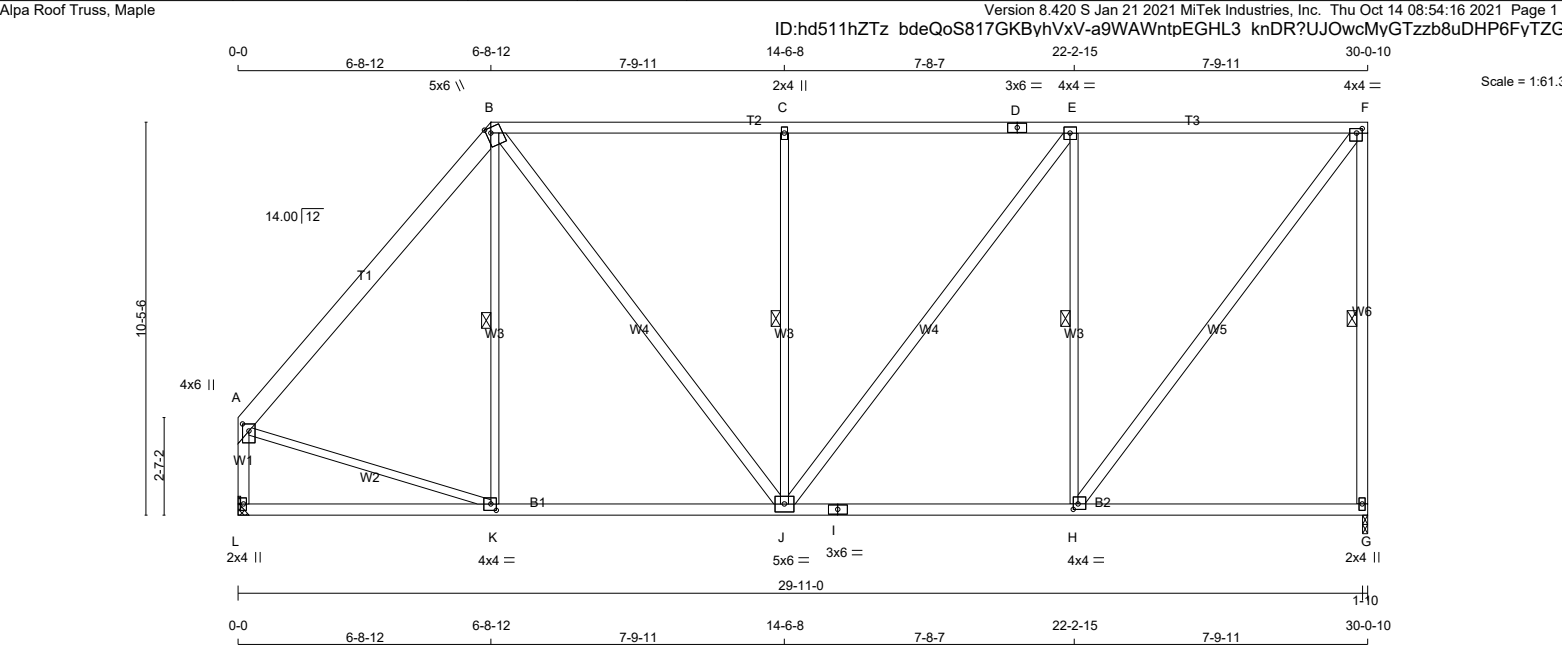
NAIL VALUES				
PLATE	GRIP(DRY) (PSI)	SHEAR (PLI)	SECTION (PLI)	
	MAX	MIN	MAX	MIN
MT20	650	371	1747	788 1987 1873

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

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

JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
336335	H266S		1	TRUSS DESC. JT 45147	E21104202



LUMBER			DIMENSIONS, SUPPORTS AND LOADINGS SPECIFIED BY FABRICATOR TO BE VERIFIED BY BUILDING DESIGNER			DESIGN CRITERIA		
N. L. G. A. RULES			BEARINGS			SPECIFIED LOADS:		
CHORDS	SIZE	LUMBER	DESCR.	FACTORED GROSS REACTION	MAXIMUM FACTORED GROSS REACTION	INPUT BRG	REQD BRG	TOP CH. LL = 21.0 PSF
A - B	2x6	DRY	No.2	SPF	VERT	HORZ	DOWN	DL = 6.0 PSF
B - D	2x4	DRY	No.2	SPF	G	1450	0	BOT CH. LL = 0.0 PSF
D - F	2x4	DRY	No.2	SPF	L	1450	0	DL = 7.4 PSF
G - F	2x4	DRY	No.2	SPF	MECHANICAL			TOTAL LOAD = 34.4 PSF
L - A	2x4	DRY	No.2	SPF	A SUITABLE HANGER/MECHANICAL CONNECTION IS REQUIRED AT JOINT L. MINIMUM BEARING LENGTH AT JOINT L = 1-9.			
L - I	2x4	DRY	No.2	SPF				
I - G	2x4	DRY	No.2	SPF				
ALL WEBS EXCEPT	2x3	DRY	No.2	SPF				
B - J	2x4	DRY	No.2	SPF				
J - E	2x4	DRY	No.2	SPF				
H - F	2x4	DRY	No.2	SPF				
DRY: SEASONED LUMBER.								

PLATES (table is in inches)

JT	TYPE	PLATES	W	LEN	Y	X
A	TMVW+p	MT20	4.0	6.0	2.25	2.00
B	TTWW+m	MT20	5.0	6.0	1.75	1.50
C	TMW+w	MT20	2.0	4.0		
D	TS-t	MT20	3.0	6.0		
E	TMWW-t	MT20	4.0	4.0		
F	TMVW-t	MT20	4.0	4.0	1.50	1.75
G	BMV1+p	MT20	2.0	4.0		
H	BMWW-t	MT20	4.0	4.0	1.75	1.50
I	BS-t	MT20	3.0	6.0		
J	BMWWW-t	MT20	5.0	6.0		
K	BMWW-t	MT20	4.0	4.0	2.00	1.75
L	BMV1+p	MT20	2.0	4.0		

LATERAL BRACE(S) SHOWN SHALL BE 2X4 SPF#2



BRACING

TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 4.79 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, B-K, C-J, 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				WEBS			
MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD LC1 (PLF)	MAX UNBRACED LENGTH CSI (LC)	MEMB.	MAX. FACTORED FORCE (LBS)	MAX UNBRACED LENGTH CSI (LC)	
FR-TO		FROM TO		FR-TO			
A-B	-1184 / 0	-78.0 -78.0	0.33 (1)	6.25	K-B	-82 / 77	0.06 (1)
B-C	-1123 / 0	-78.0 -78.0	0.76 (1)	4.80	B-J	0 / 587	0.09 (1)
C-D	-1124 / 0	-78.0 -78.0	0.76 (1)	4.79	J-C	-649 / 0	0.49 (1)
D-E	-1124 / 0	-78.0 -78.0	0.76 (1)	4.79	J-E	0 / 400	0.06 (1)
E-F	-882 / 0	-78.0 -78.0	0.73 (1)	5.29	H-E	-984 / 0	0.75 (1)
G-F	-1392 / 0	0.0 0.0	0.76 (1)	5.52	H-F	0 / 1447	0.23 (1)
L-A	-1401 / 0	0.0 0.0	0.18 (1)	6.88	A-K	0 / 800	0.18 (1)
L-K	0 / 0	-18.5 -18.5	0.24 (4)	10.00			
K-J	0 / 764	-18.5 -18.5	0.31 (4)	10.00			
J-I	0 / 882	-18.5 -18.5	0.36 (4)	10.00			
I-H	0 / 882	-18.5 -18.5	0.36 (4)	10.00			
H-G	0 / 0	-18.5 -18.5	0.27 (4)	10.00			

(55 % OF 23.0 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 21.0 P.S.F. SPECIFIED ROOF LIVE LOAD

ALLOWABLE DEFL.(LL)= L/360 (1.00")
CALCULATED VERT. DEFL.(LL)= L/ 999 (0.05")
ALLOWABLE DEFL.(TL)= L/360 (1.00")
CALCULATED VERT. DEFL.(TL)= L/ 999 (0.12")

CSI: TC=0.76/1.00 (C-E:1), BC=0.36/1.00 (H-J:4), WB=0.75/1.00 (E-H:1), SSI=0.28/1.00 (E-F:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

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

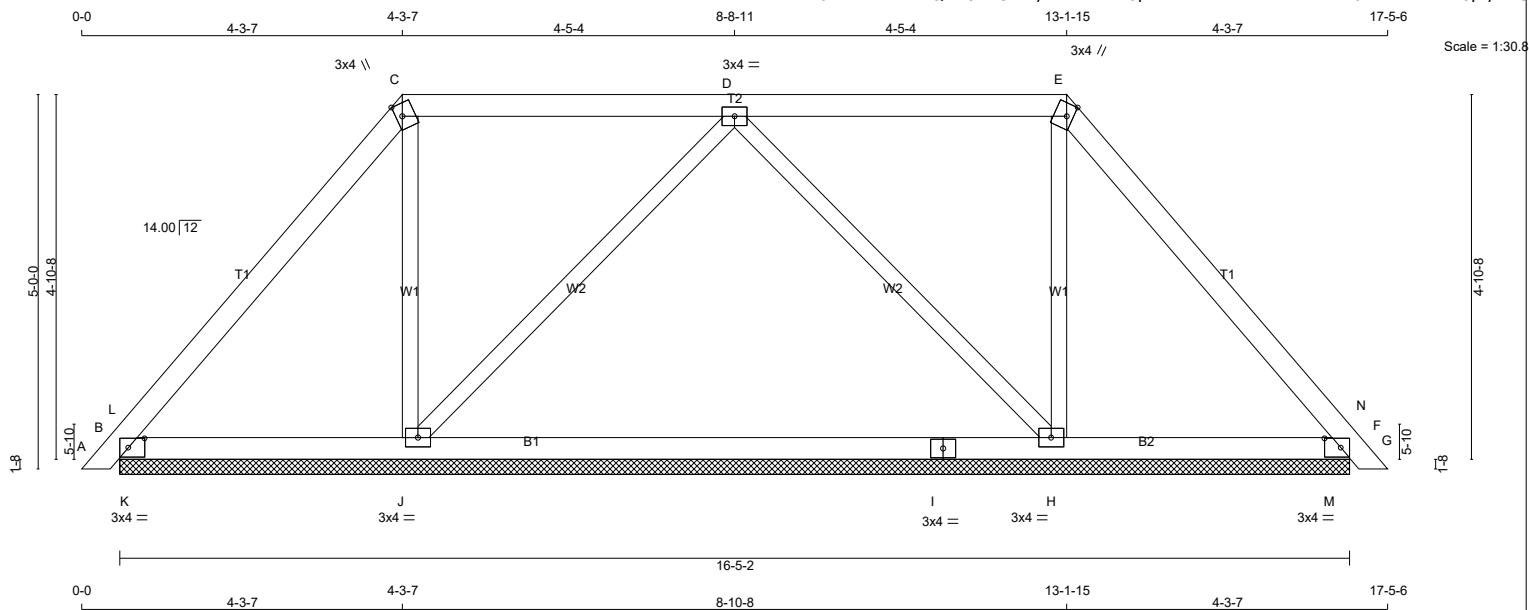
NAIL VALUES
PLATE GRIP(DRY) SHEAR SECTION (PSI) (PLI) (PLI)
MAX MIN MAX MIN MAX MIN
MT20 650 371 1747 788 1987 1873

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.90 (H) (INPUT = 0.90)
JSI METAL= 0.46 (A) (INPUT = 1.00)

JSI GRIP= 0.74 (J) (INPUT = 0.90)
JSI METAL= 0.12 (D) (INPUT = 1.00)



TOTAL WEIGHT = 61 lb

LUMBER

N. L. G. A. RULES

CHORDS	SIZE	LUMBER	DESCR.
A - C	2x4	DRY No.2	SPF
C - E	2x4	DRY No.2	SPF
E - G	2x4	DRY No.2	SPF
B - I	2x4	DRY No.2	SPF
I - F	2x4	DRY No.2	SPF

ALL WEBS 2x3 DRY
 DRY: SEASONED LUMBER.

PLATES (table is in inches)

JT	TYPE	PLATES	W	LEN	Y	X
B	TMB1-I	MT20	3.0	4.0	1.50	2.50
C	TTW+m	MT20	3.0	4.0	2.00	1.00
D	TMWV-t	MT20	3.0	4.0		
E	TTW+m	MT20	3.0	4.0	2.00	1.00
F	TMB1-I	MT20	3.0	4.0	1.50	2.50
H	BMWV1-t	MT20	3.0	4.0		
I	BS-t	MT20	3.0	4.0		
J	BMWV1-t	MT20	3.0	4.0		

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

BEARINGS

JT	FACTORED GROSS REACTION		MAXIMUM FACTORED GROSS REACTION		INPUT BRG	REQD BRG
	VERT	HORZ	DOWN	HORZ	UPLIFT IN-SX	IN-SX
B	267	0	267	0	0	16-5-2 (5-5-2) 1-8
J	556	0	556	0	0	16-5-2 (5-5-2) 1-8
H	556	0	556	0	0	16-5-2 (5-5-2) 1-8
F	267	0	267	0	0	16-5-2 (5-5-2) 1-8

VALUE IN PARENTHESIS INDICATES EFFECTIVE BEARING LENGTH

UNFACTORED REACTIONS

1ST LCASE		MAX./MIN. COMPONENT REACTIONS					
JT	COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
B	186	141 / 0	0 / 0	0 / 0	0 / 0	45 / 0	0 / 0
J	401	221 / 0	0 / 0	0 / 0	0 / 0	180 / 0	0 / 0
H	401	221 / 0	0 / 0	0 / 0	0 / 0	180 / 0	0 / 0
F	186	141 / 0	0 / 0	0 / 0	0 / 0	45 / 0	0 / 0

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

C H O R D S				W E B S				
MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	LC1	MAX CSI (LC)	MAX. UNBRAC	MEMB.	MAX. FACTORED FORCE (LBS)	MAX CSI (LC)
FR-TO		FROM	TO		LENGTH	FR-TO		
A-B	0 / 11	-78.0	-78.0	0.01 (1)	10.00	J-C	-174 / 0	0.06 (1)
B-L	0 / 215	-78.0	-78.0	0.13 (1)	10.00	D-H	-296 / 0	0.21 (1)
L-C	-118 / 0	-78.0	-78.0	0.13 (1)	6.25	J-D	-296 / 0	0.21 (1)
C-D	-62 / 0	-78.0	-78.0	0.26 (1)	6.25	H-E	-174 / 0	0.06 (1)
D-E	-62 / 0	-78.0	-78.0	0.26 (1)	6.25	K-L	-531 / 0	0.00 (1)
E-N	-118 / 0	-78.0	-78.0	0.13 (1)	6.25	M-N	-531 / 0	0.00 (1)
N-F	0 / 215	-78.0	-78.0	0.13 (1)	10.00			
F-G	0 / 11	-78.0	-78.0	0.01 (1)	10.00			
B-K	0 / 66	-18.5	-18.5	0.13 (1)	10.00			
K-J	0 / 66	-18.5	-18.5	0.24 (4)	10.00			
J-I	0 / 266	-18.5	-18.5	0.25 (4)	10.00			
I-H	0 / 266	-18.5	-18.5	0.25 (4)	10.00			
H-M	0 / 66	-18.5	-18.5	0.24 (4)	10.00			
M-F	0 / 66	-18.5	-18.5	0.13 (1)	10.00			

LATERAL BRACE(S) SHOWN SHALL BE
2X4 SPF#2



DESIGN CRITERIA

SPECIFIED LOADS:

TOP	CH.	LL =	21.0	PSF
		DL =	6.0	PSF
BOT	CH.	LL =	0.0	PSF
		DL =	7.4	PSF
TOTAL LOAD			=	34.4 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 23.0 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 21.0 P.S.F. SPECIFIED ROOF LIVE LOAD

CSI: TC=0.26/1.00 (C-D:1), BC=0.25/1.00 (H-J:4), WB=0.21/1.00 (D-J:1), SSI=0.40/1.00 (B-K:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

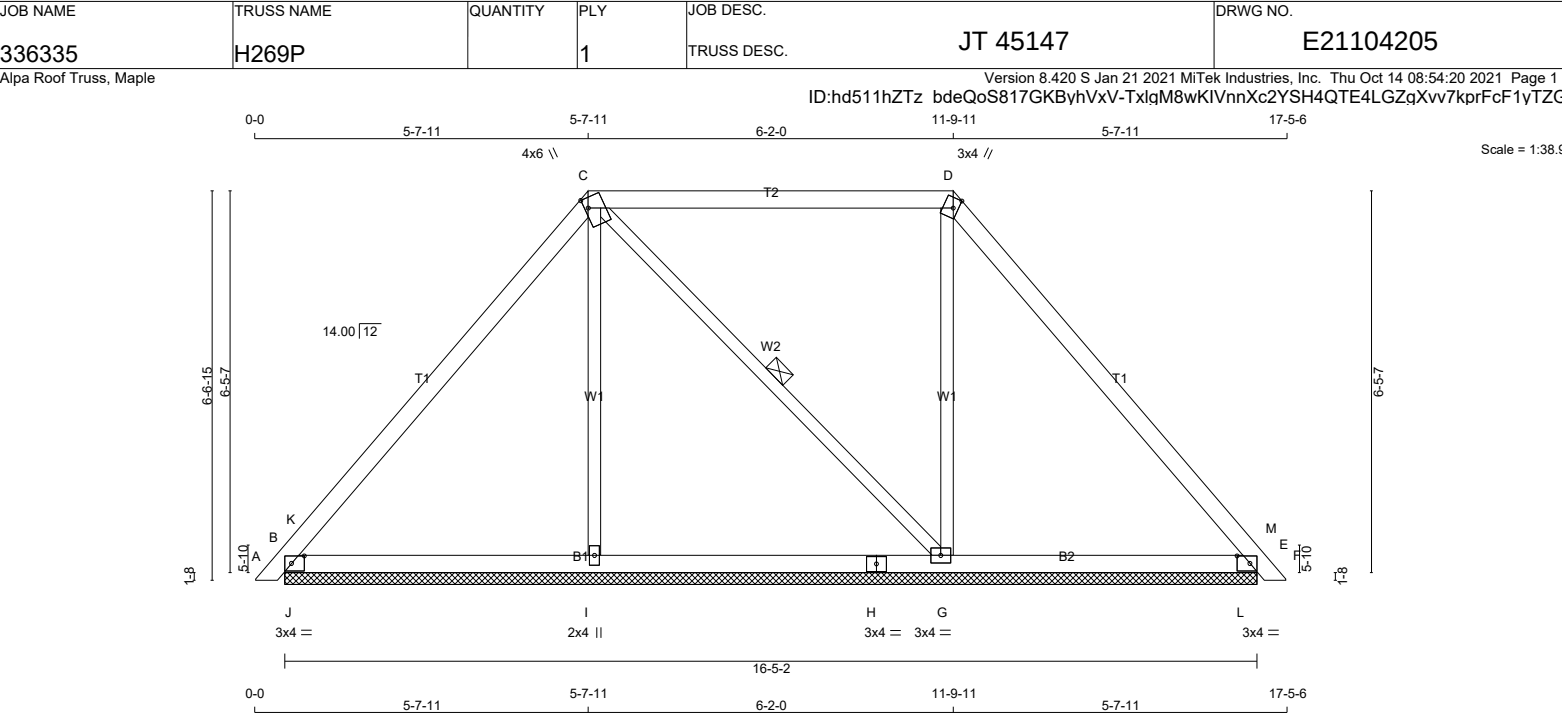
TRUSS PLATE MANUFACTURER IS NOT RESPONSIBLE FOR QUALITY CONTROL IN THE TRUSS MANUFACTURING PLANT .

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

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.75 (J) (INPUT = 0.90)
JSI METAL= 0.09 (I) (INPUT = 1.00)



LUMBER

N. L. G. A. RULES

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

PLATES (table is in inches)

JT	TYPE	PLATES	W	LEN	Y	X
B	TMB1-I	MT20	3.0	4.0	1.50	2.50
C	TTWW+m	MT20	4.0	6.0	2.00	0.75
D	TTW+m	MT20	3.0	4.0	2.00	1.00
E	TMB1-I	MT20	3.0	4.0	1.50	2.50
G	BMWw1-t	MT20	3.0	4.0		
H	BS-t	MT20	3.0	4.0		
I	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	MAXIMUM FACTORED GROSS REACTION	INPUT BRG	REQRD BRG
JT	VERT	HORZ	DOWN	HORZ
B	502	0	502	0
I	295	0	295	0
G	377	0	377	0
E	472	0	472	0

VALUE IN PARENTHESIS INDICATES EFFECTIVE BEARING LENGTH

UNFACTORED REACTIONS							
	1ST LCASE	MAX./MIN. COMPONENT REACTIONS					
JT	COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
B	353	243 / 0	0 / 0	0 / 0	0 / 0	110 / 0	0 / 0
I	215	104 / 0	0 / 0	0 / 0	0 / 0	111 / 0	0 / 0
G	271	150 / 0	0 / 0	0 / 0	0 / 0	121 / 0	0 / 0
E	333	226 / 0	0 / 0	0 / 0	0 / 0	107 / 0	0 / 0

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

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

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

1 LATERAL BRACE(S) AT 1/2 LENGTH OF C-G.

LOADING

TOTAL LOAD CASES: (4)

CHORDS					WEBS				
MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	LC1 MAX CSI (LC)	MAX. UNBRAC LENGTH	MEMB.	MAX. FACTORED FORCE (LBS)	MAX. CSI (LC)		
FR-TO		FROM TO			FR-TO				
A-B	0 / 10	-78.0 -78.0	0.01 (1)	10.00	I-C	-149 / 0	0.10 (1)		
B-K	-39 / 200	-78.0 -78.0	0.20 (1)	6.25	C-G	-37 / 0	0.02 (1)		
K-C	-327 / 0	-78.0 -78.0	0.26 (1)	6.25	G-D	-204 / 0	0.14 (1)		
C-D	-172 / 0	-78.0 -78.0	0.51 (1)	6.25	J-K	-805 / 0	0.00 (1)		
D-M	-288 / 0	-78.0 -78.0	0.26 (1)	6.25	L-M	-814 / 0	0.00 (1)		
M-E	-32 / 246	-78.0 -78.0	0.20 (1)	6.25					
E-F	0 / 10	-78.0 -78.0	0.01 (1)	10.00					
B-J	0 / 200	-18.5 -18.5	0.22 (1)	10.00					
J-I	0 / 200	-18.5 -18.5	0.22 (1)	10.00					
I-H	0 / 197	-18.5 -18.5	0.16 (4)	10.00					
H-G	0 / 197	-18.5 -18.5	0.16 (4)	10.00					
G-L	0 / 175	-18.5 -18.5	0.22 (1)	10.00					
L-E	0 / 175	-18.5 -18.5	0.22 (1)	10.00					

DESIGN CRITERIA

SPECIFIED LOADS:
TOP CH. LL = 21.0 PSF
DL = 6.0 PSF
BOT CH. LL = 0.0 PSF
DL = 7.4 PSF
TOTAL LOAD = 34.4 PSF

SPACING = 24.0 IN. C/C

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

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

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

(55 % OF 23.0 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 21.0 P.S.F. SPECIFIED ROOF LIVE LOAD

CSI: TC=0.51/1.00 (C-D:1) , BC=0.22/1.00 (I-J:1) , WB=0.14/1.00 (D-G:1) , SSI=0.64/1.00 (E-L:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

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

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

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.89 (C) (INPUT = 0.90)
JSI METAL= 0.14 (H) (INPUT = 1.00)

LATERAL BRACE(S) SHOWN SHALL BE 2X4 SPF#2



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JSI GRIP= 0.84 (G) (INPUT = 0.90)
JSI METAL= 0.25 (E) (INPUT = 1.00)

CHORDS				WEBS			
MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	MAX LC1 (CI)	MAX. UNBRAC (LC)	MEMB.	MAX. FACTORED FORCE (LBS)	MAX. CSI (LC)
FR-TO		FROM	TO	LENGTH	FR-TO		
A-B	0 / 10	-78.0	-78.0	0.01 (1)	10.00	L-C	-216 / 0
B-N	0 / 58	-78.0	-78.0	0.04 (4)	10.00	C-K	-38 / 0
N-C	-71 / 0	-78.0	-78.0	0.03 (4)	6.25	K-D	-616 / 0
C-D	0 / 9	-78.0	-78.0	0.55 (1)	10.00	K-F	-18 / 0
D-E	0 / 8	-78.0	-78.0	0.55 (1)	10.00	I-F	-611 / 0
E-F	0 / 8	-78.0	-78.0	0.55 (1)	10.00	I-G	0 / 9
F-G	-9 / 0	-78.0	-78.0	0.55 (1)	10.00	M-N	-176 / 0
H-G	-229 / 0	0.0	0.0	0.03 (1)	7.81		
B-M	0 / 39	-18.5	-18.5	0.04 (1)	10.00		
M-L	0 / 39	-18.5	-18.5	0.16 (4)	10.00		
L-K	0 / 28	-18.5	-18.5	0.18 (4)	10.00		
K-J	0 / 9	-18.5	-18.5	0.24 (4)	10.00		
J-I	0 / 9	-18.5	-18.5	0.24 (4)	10.00		
I-H	0 / 0	-18.5	-18.5	0.24 (4)	10.00		

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JSI GRIP= 0.89 (C) (INPUT = 0.90)
JSI METAL= 0.22 (E) (INPUT = 1.00)

C H O R D S			W E B S					
MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	LOAD LC1	MAX. CSI (LC)	MAX. UNBRAC	MEMB.	MAX. FACTORED FORCE (LBS)	MAX. CSI (LC)
FR-TO		FROM TO			LENGTH	FR-TO		
A-B	0 / 10	-78.0	-78.0	0.01 (1)	10.00	L-C	-183 / 0	0.05 (1)
B-N	0 / 123	-78.0	-78.0	0.09 (1)	10.00	C-K	-109 / 0	0.13 (1)
N-C	-116 / 0	-78.0	-78.0	0.11 (1)	6.25	K-D	-567 / 0	0.17 (1)
C-D	0 / 31	-78.0	-78.0	0.47 (1)	10.00	K-F	-61 / 0	0.08 (1)
D-E	0 / 30	-78.0	-78.0	0.47 (1)	10.00	I-F	-534 / 0	0.16 (1)
E-F	0 / 30	-78.0	-78.0	0.47 (1)	10.00	I-G	0 / 25	0.01 (1)
F-G	-21 / 0	-78.0	-78.0	0.47 (1)	6.25	M-N	-408 / 0	0.00 (1)
H-G	-222 / 0	0.0	0.0	0.07 (1)	7.81			
B-M	0 / 67	-18.5	-18.5	0.11 (1)	10.00			
M-L	0 / 67	-18.5	-18.5	0.14 (4)	10.00			
L-K	0 / 62	-18.5	-18.5	0.15 (4)	10.00			
K-J	0 / 21	-18.5	-18.5	0.20 (4)	10.00			
J-I	0 / 21	-18.5	-18.5	0.20 (4)	10.00			
I-H	0 / 0	-18.5	-18.5	0.20 (4)	10.00			

Scale = 1:40.9

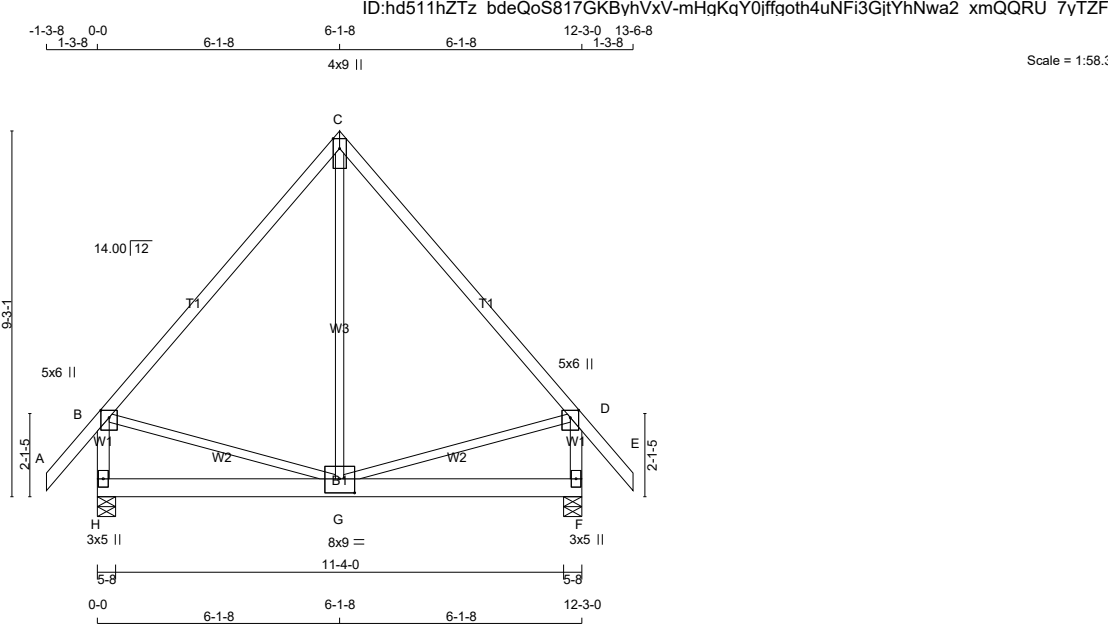
TOTAL WEIGHT = 98 lb

JSI GRIP= 0.89 (C) (INPUT = 0.90)
JSI METAL= 0.18 (E) (INPUT = 1.00)

JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
336335	H273		2	TRUSS DESC. JT 45147	E21104209

Alpa Roof Truss, Maple

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TOTAL WEIGHT = 2 X 69 = 137 lb

LUMBER				
N. L. G. A. RULES				
CHORDS	SIZE	LUMBER	DESCR.	
A - C	2x4	DRY No.2	SPF	
A - E	2x4	DRY No.2	SPF	
H - B	2x4	DRY No.2	SPF	
F - D	2x4	DRY No.2	SPF	
H - F	2x6	DRY 1650F 1.5E	SPF	
ALL WEBS	2x3	DRY No.2	SPF	
EXCEPT				

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	TOP
C - E	1 12	TOP
H - B	1 12	TOP
F - D	1 12	TOP
BOTTOM CHORDS : (0.122"x3") SPIRAL NAILS		
H - F	2 8	SIDE(338.3)
WEBS : (0.122"x3") SPIRAL NAILS		
2x3	1 6	

NAILS TO BE DRIVEN FROM ONE SIDE ONLY.

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

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

PLATES (table is in inches)						
JT	TYPE	PLATES	W	LEN	Y	X
B	TMVW+p	MT20	5.0	6.0	2.25	2.50
C	TTW+p	MT20	4.0	9.0	3.00	Edge
D	TMVW+p	MT20	5.0	6.0	2.25	2.50
F	BMV1+p	MT20	3.0	5.0		
G	BMWWW-t	MT20	8.0	9.0	4.25	4.50

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

		FACTORED		MAXIMUM FACTORED		INPUT		REQRD	
		GROSS REACTION		GROSS REACTION		BRG		BRG	
JT	VERT	HORZ		DOWN	HORZ	UPLIFT	IN-SX	IN-SX	
H	4844	0		4844	0	0	5-8	4-6	
F	4844	0		4844	0	0	5-8	4-6	

UNFACTORED REACTIONS

		1ST LCASE		MAX./MIN. COMPONENT REACTIONS					
JT	COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL		
H	3451	2119 / 0	0 / 0	0 / 0	0 / 0	1332 / 0	0 / 0		
F	3451	2119 / 0	0 / 0	0 / 0	0 / 0	1332 / 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 = 4.91 FT. MAX. UNBRACED BOTTOM CHORD LENGTH = 10.00 FT OR RIGID CEILING DIRECTLY APPLIED.

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

LOADING

TOTAL LOAD CASES: (4)

CHORDS				WEBS			
MEMB.		MAX. FACTORED	FACTORED	MEMB.		MAX. FACTORED	FACTORED
		FORCE	VERT. LOAD LC1			FORCE	MAX
		(LBS)	(PLF)			(LBS)	CSI (LC)
FR-TO			FROM TO	FR-TO			LENGTH
A-B	0 / 42		-78.0 -78.0 0.06 (1)	G-C	0 / 4173	0.52 (1)	10.00
B-C	-3062 / 0		-78.0 -78.0 0.50 (1)	B-G	0 / 2065	0.26 (1)	4.91
C-D	-3062 / 0		-78.0 -78.0 0.50 (1)	G-D	0 / 2065	0.26 (1)	4.91
D-E	0 / 42		-78.0 -78.0 0.06 (1)				10.00
H-B	-3212 / 0		0.0 0.0 0.20 (1)				6.48
F-D	-3212 / 0		0.0 0.0 0.20 (1)				6.48
H-G	0 / 0		-695.0 -695.0 0.77 (1)				10.00
G-F	0 / 0		-695.0 -695.0 0.77 (1)				10.00

DESIGN CRITERIA

SPECIFIED LOADS:

TOP CH.	LL	=	21.0	PSF
	DL	=	6.0	PSF
BOT CH.	LL	=	0.0	PSF
	DL	=	7.4	PSF
TOTAL LOAD	=	34.4	PSF	

SPACING = 24.0 IN./C

GIRDER TYPE: CStdGirder
START DISTANCE = 0-0
START SPAN CARRIED = 30-0-10
END DISTANCE = 12-3-0
END SPAN CARRIED = 30-0-10
END WALL WIDTH = 0-0
APPLIED TO FRONT SIDE OF BOTTOM CHORD.
- ADDT'L LOADS BASED ON 55 % OF GSL.

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

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

(55 % OF 23.0 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 21.0 P.S.F. SPECIFIED ROOF LIVE LOAD

ALLOWABLE DEFL.(LL)= L/360 (0.41")
CALCULATED VERT. DEFL.(LL) = L/ 999 (0.08")
ALLOWABLE DEFL.(TL)= L/360 (0.41")
CALCULATED VERT. DEFL.(TL) = L/ 882 (0.17")

CSI: TC=0.50/1.00 (B-C:1) , BC=0.77/1.00 (G-H:1) , WB=0.52/1.00 (C-G:1) , SSI=0.87/1.00 (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)	SHEAR	SECTION		
	(PSI)	(PLI)	(PLI)		
	MAX	MIN	MAX	MIN	MAX
MT20	650	371	1747	788	1987 1873

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.81 (B) (INPUT = 0.90)
JSI METAL= 0.44 (D) (INPUT = 1.00)

LATERAL BRACE(S) SHOWN SHALL BE 2X4 SPF#2

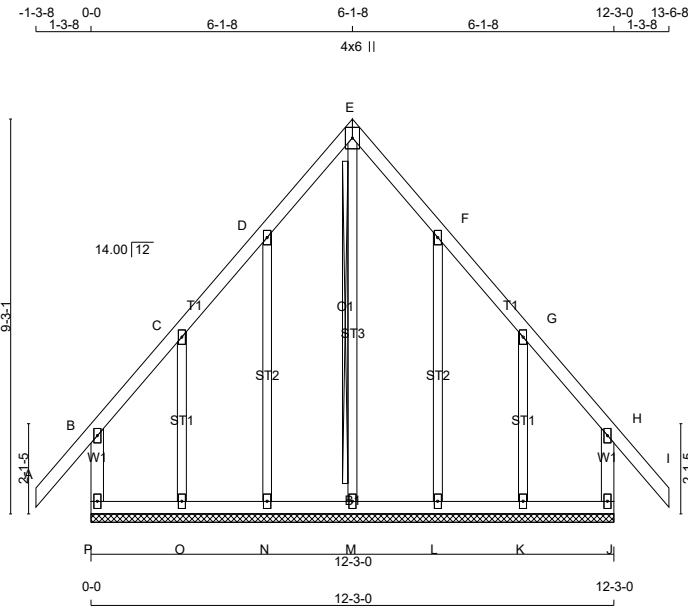


JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
336335	H273G		1	TRUSS DESC. JT 45147	E21104210

Alpa Roof Truss, Maple

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Scale = 1:54.0

TOTAL WEIGHT = 68 lb [M]

LUMBER				DESCR.
N. L. G. A. RULES	CHORDS	SIZE	LUMBER	
P - B	2x4	DRY	No.2	SPF
A - E	2x4	DRY	No.2	SPF
E - I	2x4	DRY	No.2	SPF
J - H	2x4	DRY	No.2	SPF
P - J	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" O.C.				

PLATES (table is in inches)					
JT	TYPE	PLATES	W	LEN	Y X
B	TMV+p	MT20	2.0	4.0	
C, D, F, G					
C	TMW+w	MT20	2.0	4.0	
E	TTW+p	MT20	4.0	6.0	
H	TMV+p	MT20	2.0	4.0	
J	BMV1+p	MT20	2.0	4.0	
K, L, M, N, O					
K	BMW1+w	MT20	2.0	4.0	
P	BMV1+p	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.

2x3 DRY SPF No.2 T-BRACE AT E-M

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

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

LOADING

TOTAL LOAD CASES: (4)

CHORDS				WEBS			
MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	MAX. FACTORED LC1 CSI (LC)	MEMB.	MAX. FACTORED FORCE (LBS)	MAX. FACTORED LC1 CSI (LC)	
FR-TO		FROM TO		FR-TO			
P-B	-208 / 0	0.0 0.0	0.02 (1)	M-E	-145 / 0	0.20 (1)	
A-B	0 / 42	-78.0 -78.0	0.11 (1)	N-D	-158 / 0	0.13 (1)	
B-C	-25 / 0	-78.0 -78.0	0.04 (1)	O-C	-149 / 0	0.05 (1)	
C-D	-17 / 0	-78.0 -78.0	0.04 (1)	L-F	-158 / 0	0.13 (1)	
D-E	-13 / 0	-78.0 -78.0	0.04 (1)	K-G	-149 / 0	0.05 (1)	
E-F	-13 / 0	-78.0 -78.0	0.04 (1)				
F-G	-17 / 0	-78.0 -78.0	0.04 (1)				
G-H	-25 / 0	-78.0 -78.0	0.04 (1)				
H-I	0 / 42	-78.0 -78.0	0.11 (1)				
J-H	-208 / 0	0.0 0.0	0.02 (1)				
P-O	0 / 16	-18.5 -18.5	0.02 (1)				
O-N	0 / 12	-18.5 -18.5	0.02 (4)				
N-M	0 / 9	-18.5 -18.5	0.02 (4)				
M-L	0 / 9	-18.5 -18.5	0.02 (4)				
L-K	0 / 12	-18.5 -18.5	0.02 (4)				
K-J	0 / 16	-18.5 -18.5	0.02 (1)				

DESIGN CRITERIA

SPECIFIED LOADS:

TOP CH. LL = 21.0 PSF

DL = 6.0 PSF

BOT CH. LL = 0.0 PSF

DL = 7.4 PSF

TOTAL LOAD = 34.4 PSF

SPACING = 24.0 IN./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 23.0 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 21.0 P.S.F. SPECIFIED ROOF LIVE LOAD

CSI: TC=0.11/1.00 (H-I:1) , BC=0.02/1.00 (J-K:1) , WB=0.20/1.00 (E-M:1) , SSI=0.06/1.00 (H-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)	SHEAR	SECTION
	(PSI)	(PLI)	(PLI)
	MAX MIN	MAX MIN	MAX MIN
MT20	650 371	1747 788	1987 1873

PLATE PLACEMENT TOL. = 0.250 inches

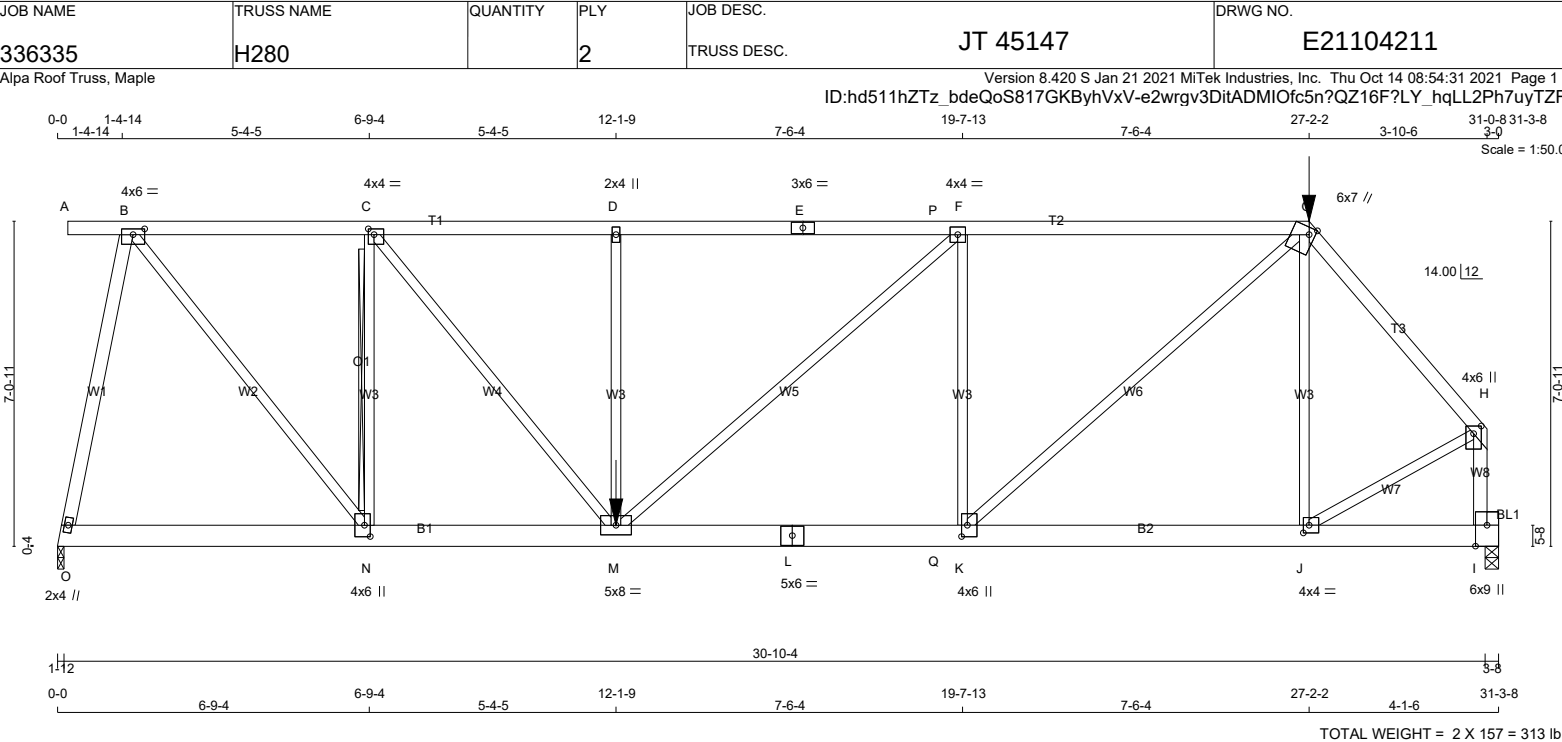
PLATE ROTATION TOL. = 5.0 Deg.

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

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

LATERAL BRACE(S) SHOWN SHALL BE 2X4 SPF#2





LUMBER			
N. L. G. A. RULES			
CHORDS	SIZE	LUMBER	DESCR.
A - E	2x4	DRY No.2	SPF
E - G	2x4	DRY No.2	SPF
G - H	2x4	DRY No.2	SPF
I - H	2x4	DRY No.2	SPF
O - L	2x6	DRY No.2	SPF
L - I	2x6	DRY No.2	SPF

BEARING BLOCKS			
BL1	2x4	DRY No.2	SPF
ALL WEBS EXCEPT			
O - B	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 - E	12	TOP
E - G	12	SIDE(43.9)
G - H	12	SIDE(61.0)
I - H	12	TOP
BOTTOM CHORDS : (0.122"X3") SPIRAL NAILS		
O - L	12	SIDE(131.2)
L - I	12	SIDE(66.3)
WEBS : (0.122"X3") SPIRAL NAILS		
J - G	6	SIDE(25.9)
D - M	6	SIDE(269.2)
2x3	6	
2x4	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.

LATERAL BRACE(S) SHOWN SHALL BE 2X4 SPF#2



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

BEARINGS		FACTORED GROSS REACTION	MAXIMUM FACTORED GROSS REACTION	INPUT BRG	REQD BRG
JT	VERT	HORZ	DOWN	HORZ	UPLIFT
O	3102	0	3102	0	1-12
I	3492	0	3492	0	3-8

UNFACTORED REACTIONS		1ST LCASE	MAX./MIN. COMPONENT REACTIONS
JT	COMBINED	SNOW	LIVE
O	2212	1351 / 0	0 / 0
I	2491	1514 / 0	0 / 0

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

BRACING
TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 3.42 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.

2x4 DRY SPF No.2 T-BRACE AT C-N

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

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

LOADING		TOTAL LOAD CASES: (4)			
C H O R D S		M E M B.		W E B S	
MAX. FACTORED	FACTORED	MAX. FACTORED	FACTORED	MAX. FACTORED	FACTORED
FORCE (LBS)	VERT. LOAD (PLF)	FORCE (LBS)	VERT. LOAD (PLF)	FORCE (LBS)	VERT. LOAD (PLF)
FR-TO	FROM TO	FR-TO	FROM TO	FR-TO	FROM TO
A - B	0 / 0	-78.0	-78.0	0.05 (1)	10.00
B - C	-2766 / 0	-78.0	-78.0	0.22 (1)	5.28
C - D	-4581 / 0	-78.0	-78.0	0.30 (1)	4.25
D - E	-4581 / 0	-78.0	-78.0	0.97 (1)	3.42
E - P	-4581 / 0	-78.0	-78.0	0.97 (1)	3.42
P - F	-4581 / 0	-165.7	-165.7	0.97 (1)	3.42
F - G	-4267 / 0	-165.7	-165.7	0.93 (1)	3.56
G - H	-2860 / 0	-78.0	-78.0	0.16 (1)	5.29
I - H	-3441 / 0	0.0	0.0	0.24 (1)	6.30
O - N	0 / 587	-18.5	-18.5	0.08 (1)	10.00
N - M	0 / 2766	-18.5	-18.5	0.31 (1)	10.00
M - L	0 / 4268	-151.1	-151.1	0.52 (1)	10.00
L - Q	0 / 4268	-151.1	-151.1	0.52 (1)	10.00
Q - K	0 / 4268	-39.3	-39.3	0.52 (1)	10.00
K - J	0 / 1838	-39.3	-39.3	0.29 (1)	10.00
J - I	-239 / 0	-39.3	-39.3	0.07 (4)	6.25

FACTORED CONCENTRATED LOADS (LBS)		LOC.	LC1	MAX-	MAX+	FACE	DIR.	TYPE	HEEL	CONN.
G	27-2-2	-267	-267	---	---	FRONT	VERT	TOTAL	---	C1
M	12-1-9	-1480	-1480	---	---	FRONT	VERT	TOTAL	---	C1

CONNECTION REQUIREMENTS

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

DESIGN CRITERIA

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

SPECIFIED LOADS:				
TOP	CH.	LL	=	21.0 PSF
		DL	=	6.0 PSF
BOT	CH.	LL	=	0.0 PSF
		DL	=	7.4 PSF
TOTAL LOAD			=	34.4 PSF

SPACING = 24.0 IN./C/C

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

GIRDER TYPE: CStdGirder
START DISTANCE = 12-1-9
START SPAN CARRIED = 7-6-0
END DISTANCE = 19-1-0
END SPAN CARRIED = 7-6-0
END WALL WIDTH = 0-0
APPLIED TO FRONT SIDE OF BOTTOM CHORD.
- ADDTL LOADS BASED ON 55 % OF GSL.

GIRDER TYPE: CPrimeHip
LEFT SETBACK = 1-4-14
RIGHT SETBACK = 4-1-6
END SETBACK = 6-6-0
END WALL WIDTH = 0-0
CORNER FRAMING TYPE: CONVENTIONAL
END JACK TYPE: CONVENTIONAL
APPLIED TO FRONT SIDE
- ADDTL LOADS BASED ON 55 % OF GSL.
LOADS APPLIED TO FIRST 12-2-8 OF SPAN MEASURED FROM THE RIGHT.

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

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

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

(55 % OF 23.0 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 21.0 P.S.F. SPECIFIED ROOF LIVE LOAD

ALLOWABLE DEFL.(LL)= L/360 (1.02")
CALCULATED VERT. DEFL.(LL) = L/999 (0.13")
ALLOWABLE DEFL.(TL)= L/360 (1.02")
CALCULATED VERT. DEFL.(TL) = L/999 (0.25")

CSI: TC=0.97/1.00 (D-F:1), BC=0.52/1.00 (K-M:1), WB=0.97/1.00 (B-O:1), SSI=0.31/1.00 (F-G:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
336335	H280		2	JT 45147	E21104211(2)

Alpa Roof Truss, Maple

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PLATES (table is in inches)

JT	TYPE	PLATES	W	LEN	Y	X
B	TMWW-t	MT20	4.0	6.0	1.50	3.00
C	TMWW-t	MT20	4.0	4.0	1.50	1.50
D	TMW+w	MT20	2.0	4.0		
E	TS-t	MT20	3.0	6.0		
F	TMWW-t	MT20	4.0	4.0		
G	TTWW+m	MT20	6.0	7.0	Edge	1.50
H	TMVW+p	MT20	4.0	6.0	2.00	2.00
I	BMVK1+p	MT20	6.0	9.0	Edge	3.00
J	BMWW-t	MT20	4.0	4.0	2.00	1.50
K	BMWW+t	MT20	4.0	6.0	3.00	1.50
L	BS-t	MT20	5.0	6.0		
M	BMWWW-t	MT20	5.0	8.0		
N	BMWW+t	MT20	4.0	6.0	3.00	1.50
O	BMW1+w	MT20	2.0	4.0		

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

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

NAIL VALUES

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

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.89 (H) (INPUT = 0.90)
JSI METAL= 0.67 (L) (INPUT = 1.00)

LATERAL BRACE(S) SHOWN SHALL BE
2X4 SPF#2

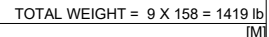


The diagram illustrates a roof truss system with the following components and dimensions:

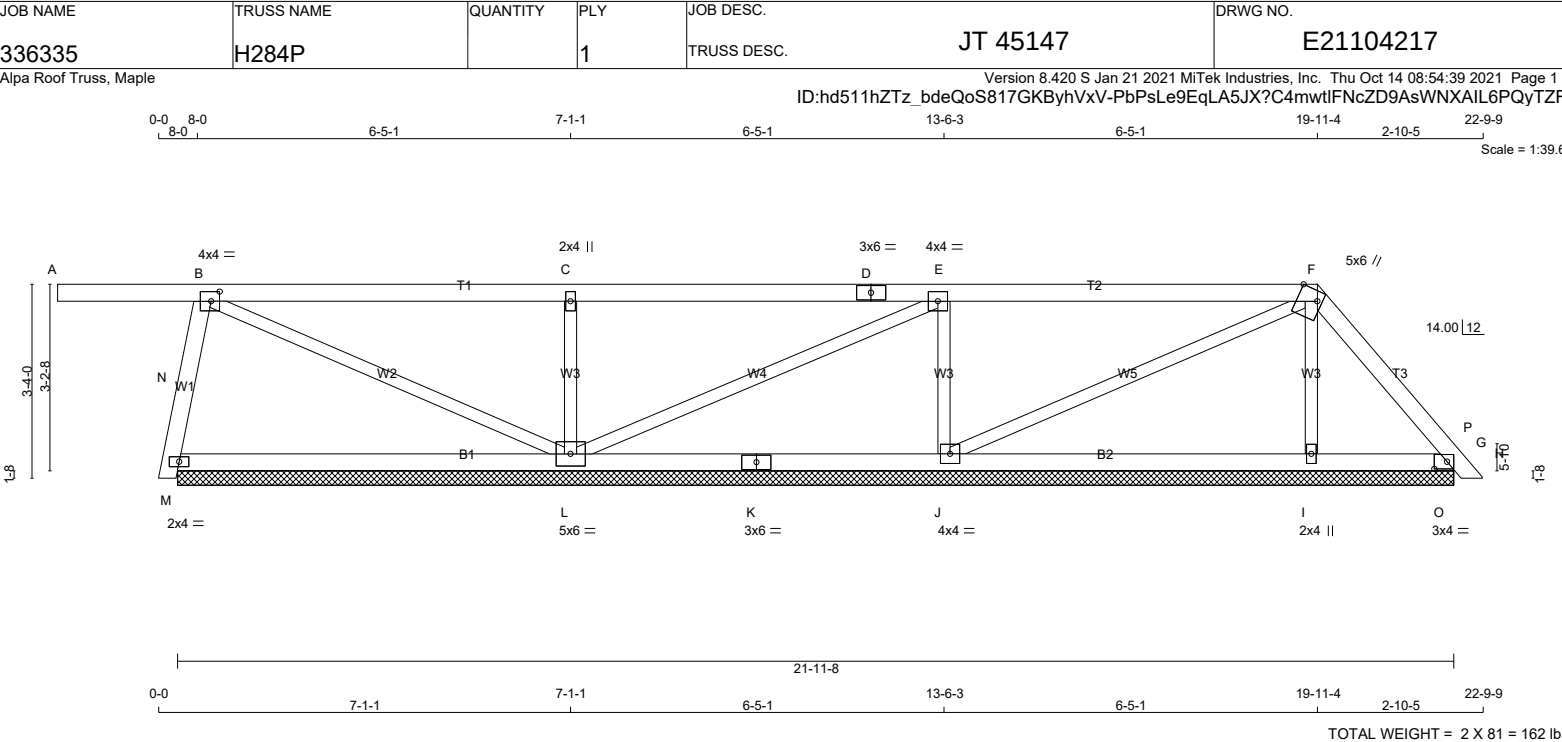
- Members:**
 - Top Chords: T1, T2, T3
 - Bottom Chords: B1, B2
 - Verticals: W1, W3, W5, W6
 - Diagonals: W2, W4
- Joints:** A, B, C, D, E, F, G, H, I, J, K, L, M
- Dimensions:**
 - Horizontal: 1-7-10, 8-2-10, 9-10-5, 8-1-6, 17-11-11, 8-2-10, 26-2-5, 4-11-5, 31-1-10
 - Vertical: 14.00, 12, 8-2-7, 2-5-4
- Scale:** 1:50

JSI GRIP= 0.85 (J) (INPUT = 0.90)
JSI METAL= 0.46 (G) (INPUT = 1.00)

Scale = 1:62.6



JSI GRIP= 0.87 (M) (INPUT = 0.90)
JSI METAL= 0.50 (G) (INPUT = 1.00)



LUMBER

N. L. G. A. RULES

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

DRY: SEASONED LUMBER.

PLATES (table is in inches)

JT	TYPE	PLATES	W	LEN	Y	X
B	TMWW-t	MT20	4.0	4.0	2.00	1.75
C	TMW+w	MT20	2.0	4.0		
D	TS-t	MT20	3.0	6.0		
E	TMWW-t	MT20	4.0	4.0		
F	TTWW+m	MT20	5.0	6.0	Edge 4.00	
G	TMB1-l	MT20	3.0	4.0	1.50	2.50
I	BMW1+w	MT20	2.0	4.0		
J	BMW1-t	MT20	4.0	4.0		
K	BS-t	MT20	3.0	6.0		
L	BMW1-t	MT20	5.0	6.0		
M	BWM1-l	MT20	2.0	4.0		

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

LATERAL BRACE(S) SHOWN SHALL BE 2X4 SPF#2



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

BEARINGS

JT	FACTORED GROSS REACTION	MAXIMUM FACTORED GROSS REACTION	INPUT BRG	REQRD BRG
M	407 0	407 0	21-11-8 (12-0-0)	21-11-8 (12-0-0)
L	742 0	742 0	21-11-8 (12-0-0)	21-11-8 (12-0-0)
J	658 0	658 0	21-11-8 (12-0-0)	21-11-8 (12-0-0)
I	301 0	301 0	21-11-8 (12-0-0)	21-11-8 (12-0-0)
G	205 0	205 0	21-11-8 (12-0-0)	21-11-8 (12-0-0)

VALUE IN PARENTHESIS INDICATES EFFECTIVE BEARING LENGTH

UNFACTORED REACTIONS

JT	1ST LCASE COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
M	287	192 / 0	0 / 0	0 / 0	0 / 0	95 / 0	0 / 0
L	529	324 / 0	0 / 0	0 / 0	0 / 0	205 / 0	0 / 0
J	468	292 / 0	0 / 0	0 / 0	0 / 0	175 / 0	0 / 0
I	219	107 / 0	0 / 0	0 / 0	0 / 0	113 / 0	0 / 0
G	142	110 / 0	0 / 0	0 / 0	0 / 0	31 / 0	0 / 0

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

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

MAX. UNBRACED INTERIOR CHORD LENGTH = 7.81 FT

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

LOADING
TOTAL LOAD CASES: (4)

CHORDS					WEBS				
MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	FACTORED LC1 MAX CSI (LC)	MAX. UNBRAC LENGTH	MEMB.	MAX. FACTORED FORCE (LBS)	MAX. UNBRAC LENGTH	MEMB.	MAX. FACTORED FORCE (LBS)
FR-TO		FROM	TO		FR-TO				
A-B	0 / 0	-78.0	-78.0	0.34 (1)	10.00	N-M	0 / 0	0.00 (1)	
B-C	0 / 9	-78.0	-78.0	0.43 (1)	10.00	M-B	-363 / 0	0.05 (1)	
C-D	0 / 9	-78.0	-78.0	0.44 (1)	10.00	B-L	-88 / 0	0.08 (1)	
D-E	0 / 9	-78.0	-78.0	0.44 (1)	10.00	L-C	-544 / 0	0.10 (1)	
E-F	-35 / 0	-78.0	-78.0	0.44 (1)	6.25	L-E	-48 / 0	0.05 (1)	
F-P	-113 / 0	-78.0	-78.0	0.05 (1)	6.25	J-E	-533 / 0	0.10 (1)	
P-G	-1 / 23	-78.0	-78.0	0.04 (1)	10.00	J-F	-28 / 0	0.03 (1)	
G-H	0 / 10	-78.0	-78.0	0.01 (1)	10.00	I-F	-182 / 0	0.03 (1)	
					O-P	-220 / 0	0.00 (1)		
M-L	0 / 71	-18.5	-18.5	0.21 (4)	10.00				
L-K	0 / 35	-18.5	-18.5	0.21 (4)	10.00				
K-J	0 / 35	-18.5	-18.5	0.21 (4)	10.00				
J-I	0 / 60	-18.5	-18.5	0.14 (4)	10.00				
I-O	0 / 67	-18.5	-18.5	0.12 (4)	10.00				
O-G	0 / 67	-18.5	-18.5	0.06 (1)	10.00				

DESIGN CRITERIA

SPECIFIED LOADS:
TOP CH. LL = 21.0 PSF
DL = 6.0 PSF
BOT CH. LL = 0.0 PSF
DL = 7.4 PSF
TOTAL LOAD = 34.4 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 23.0 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 21.0 P.S.F. SPECIFIED ROOF LIVE LOAD

CSI: TC=0.44/1.00 (C-E:1) , BC=0.21/1.00 (L-M:4) , WB=0.10/1.00 (C-L: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

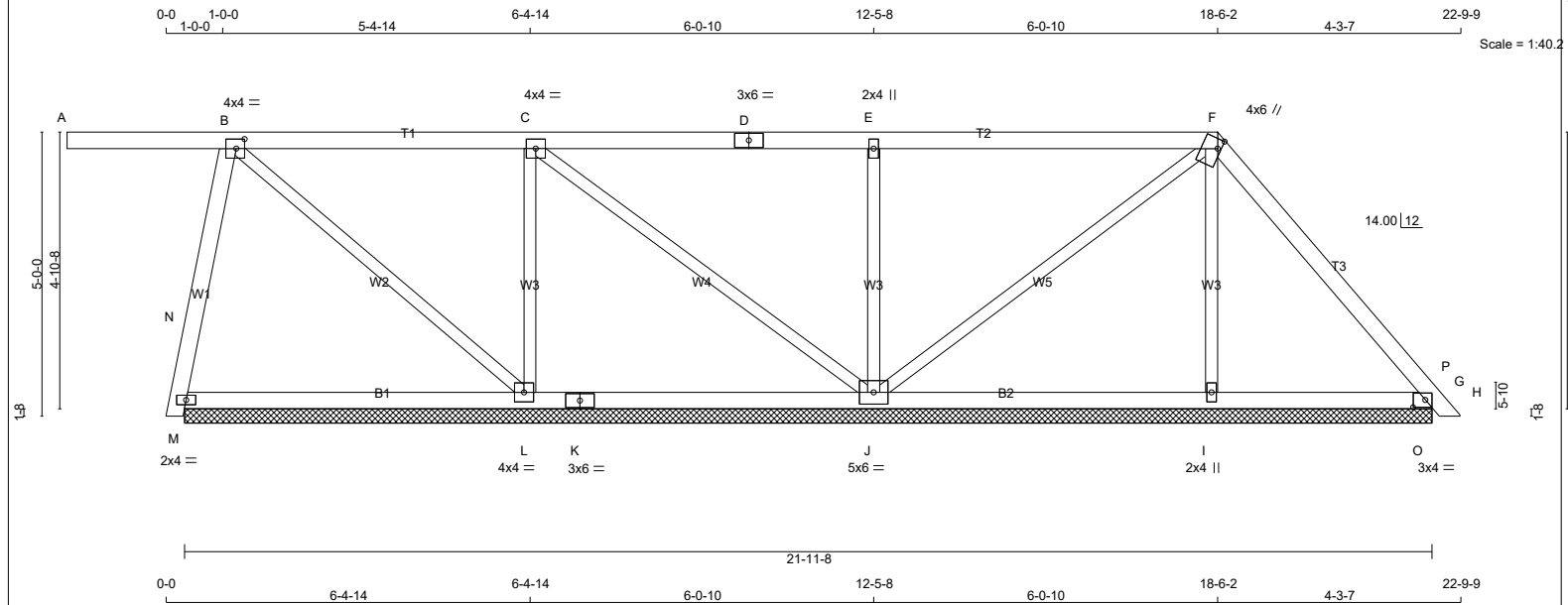
TRUSS PLATE MANUFACTURER IS NOT RESPONSIBLE FOR QUALITY CONTROL IN THE TRUSS MANUFACTURING PLANT .

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

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.79 (L) (INPUT = 0.90)
JSI METAL= 0.27 (M) (INPUT = 1.00)



TOTAL WEIGHT = 2 X 89 = 178 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
F - H	2x4	DRY	No.2	SPF
M - K	2x4	DRY	No.2	SPF
K - G	2x4	DRY	No.2	SPF
ALL WEBS EXCEPT	2x4	DRY	No.2	SPF
B - L	2x3	DRY	No.2	SPF
L - C	2x3	DRY	No.2	SPF
C - J	2x3	DRY	No.2	SPF
J - E	2x3	DRY	No.2	SPF
J - F	2x3	DRY	No.2	SPF
I - F	2x3	DRY	No.2	SPF

DRY: SEASONED LUMBER.

PLATES (table is in inches)

J	T	TYPE	PLATES	W	LEN	Y	X
B	T	TMWW-t	MT20	4.0	4.0	2.00	1.75
C	D	TMWW-t	MT20	4.0	4.0		
B	D	TS-t	MT20	3.0	6.0		
E	F	TMW+w	MT20	2.0	4.0		
F	F	TTWW+m	MT20	4.0	6.0	2.00	0.75
G	I	TMB1-l	MT20	3.0	4.0	1.50	2.50
I	I	BMW1+w	MT20	2.0	4.0		
J	K	BMWWWW1-t	MT20	5.0	6.0		
K	J	BS-t	MT20	3.0	6.0		
L	K	BMWWW1-t	MT20	4.0	4.0		
M	L	BWM1-l	MT20	2.0	4.0		

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

BEARINGS

	FACTORED GROSS REACTION		MAXIMUM FACTORED GROSS REACTION		INPUT BRG	REQ'D BRG
	VERT	HORZ	DOWN	HORZ	UPLIFT IN-SX	IN-SX
JT	397	0	397	0	0	21-11-8 (15-048)
L	597	0	597	0	0	21-11-8 (15-048)
J	748	0	748	0	0	21-11-8 (15-048)
I	283	0	283	0	0	21-11-8 (15-048)
G	287	0	287	0	0	21-11-8 (15-048)

VALUE IN PARENTHESIS INDICATES EFFECTIVE BEARING LENGTH

UNFACTORED REACTIONS

JT	1ST LCASE	MAX./MIN. COMPONENT REACTIONS					
	COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
M	280	189 / 0	0 / 0	0 / 0	0 / 0	91 / 0	0 / 0
L	427	252 / 0	0 / 0	0 / 0	0 / 0	175 / 0	0 / 0
J	530	344 / 0	0 / 0	0 / 0	0 / 0	186 / 0	0 / 0
I	207	100 / 0	0 / 0	0 / 0	0 / 0	107 / 0	0 / 0
G	202	140 / 0	0 / 0	0 / 0	0 / 0	62 / 0	0 / 0

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

BRACING

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

MAX. UNBRACED INTERIOR CHORD LENGTH = 7.81 FT

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

LOADING

TOTAL LOAD CASES: (4)

CHORDS				WEBS				
MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	MAX FACTORED LOADING (LC)	MAX. UNBRAC LENGTH	MEMB.	MAX. FACTORED FORCE (LBS)	MAX FACTORED CSI (LC)	
FR-TO		FROM TO			FR-TO			
A-B	0 / 0	-78.0	-78.0	0.43 (1)	10.00	N-M	0 / 0	0.00 (1)
B-C	-33 / 0	-78.0	-78.0	0.32 (1)	6.25	M-B	-359 / 0	0.11 (1)
C-D	0 / 23	-78.0	-78.0	0.41 (1)	10.00	B-L	-49 / 0	0.04 (1)
D-E	0 / 23	-78.0	-78.0	0.41 (1)	10.00	L-C	-435 / 0	0.15 (1)
E-F	0 / 24	-78.0	-78.0	0.41 (1)	10.00	C-J	-71 / 0	0.08 (1)
F-P	-128 / 0	-78.0	-78.0	0.13 (1)	6.25	J-E	-531 / 0	0.19 (1)
P-G	0 / 158	-78.0	-78.0	0.11 (1)	10.00	F-J	-118 / 0	0.13 (1)
G-H	0 / 10	-78.0	-78.0	0.01 (1)	10.00	I-F	-152 / 0	0.05 (1)
						O-P	-477 / 0	0.00 (1)
M-L	0 / 70	-18.5	-18.5	0.18 (4)	10.00			
L-K	0 / 33	-18.5	-18.5	0.18 (4)	10.00			
K-J	0 / 33	-18.5	-18.5	0.18 (4)	10.00			
J-I	0 / 71	-18.5	-18.5	0.13 (4)	10.00			
I-O	0 / 74	-18.5	-18.5	0.12 (1)	10.00			
O-G	0 / 74	-18.5	-18.5	0.12 (1)	10.00			

LATERAL BRACE(S) SHOWN SHALL BE
2X4 SPF#2



DESIGN CRITERIA

SPECIFIED LOADS:

TOP	CH.	LL	=	21.0	PSF
		DL	=	6.0	PSF
BOT	CH.	LL	=	0.0	PSF
		DL	=	7.4	PSF
TOTAL LOAD				=	34.4 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 23.0 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 21.0 P.S.F. SPECIFIED ROOF LIVE LOAD

CSI: TC=0.43/1.00 (A-B:1) , BC=0.18/1.00 (L-M:4) ,
WB=0.19/1.00 (E-J:1) , SSI=0.37/1.00 (G-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)		SHEAR		SECTION	
	(PSI)		(PLI)		(PLI)	
	MAX	MIN	MAX	MIN	MAX	MIN
MT20	650	371	1747	788	1987	1873

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.89 (F) (INPUT = 0.90)
JSI METAL= 0.27 (M) (INPUT = 1.00)

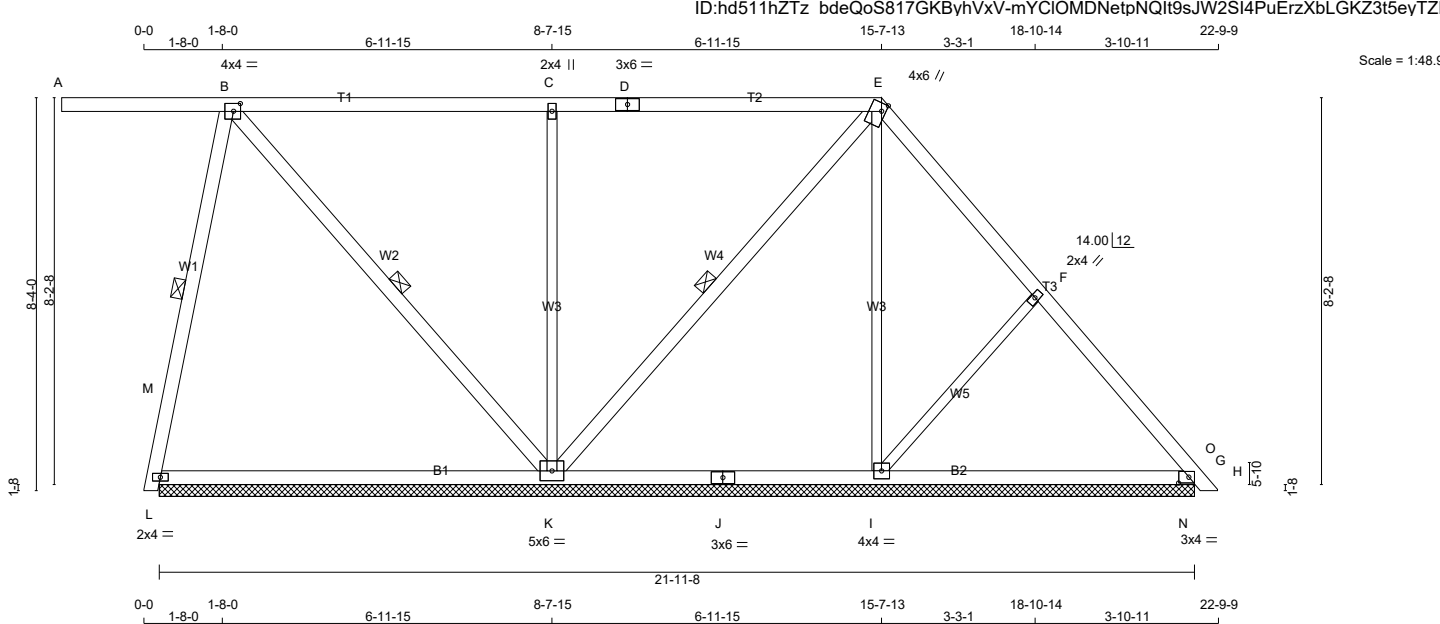


JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
336335	H287P		1	TRUSS DESC. JT 45147	E21104220

Alpa Roof Truss, Maple

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

DRY: SEASONED LUMBER.

PLATES (table is in inches)					
JT	TYPE	PLATES	W	LEN	Y X
B	TMWW-t	MT20	4.0	4.0	2.00 1.75
C	TMW+w	MT20	2.0	4.0	
D	TS-t	MT20	3.0	6.0	
E	TTWW+m	MT20	4.0	6.0	2.00 1.00
F	TMW+w	MT20	2.0	4.0	
G	TMB1-l	MT20	3.0	4.0	1.50 2.50
I	BMWW1-t	MT20	4.0	4.0	
J	BS-t	MT20	3.0	6.0	
K	BMWWW1-t	MT20	5.0	6.0	
L	BWM1-l	MT20	2.0	4.0	

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

BEARINGS							
		FACTORED GROSS REACTION		MAXIMUM FACTORED GROSS REACTION		INPUT BRG	
JT	VERT	HORZ	DOWN	HORZ	UPLIFT	IN-SX	IN-SX
L	410	0	410	0	0	21-11-8 (10-0-0)	
K	1053	0	1053	0	0	21-11-8 (10-0-0)	
I	464	0	464	0	0	21-11-8 (10-0-0)	
G	386	0	386	0	0	21-11-8 (10-0-0)	

VALUE IN PARENTHESIS INDICATES EFFECTIVE BEARING LENGTH

UNFACTORED REACTIONS							
		1ST LCASE MAX./MIN. COMPONENT REACTIONS					
JT	COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
L	291	184 / 0	0 / 0	0 / 0	0 / 0	107 / 0	0 / 0
K	747	479 / 0	0 / 0	0 / 0	0 / 0	267 / 0	0 / 0
I	334	187 / 0	0 / 0	0 / 0	0 / 0	147 / 0	0 / 0
G	273	175 / 0	0 / 0	0 / 0	0 / 0	98 / 0	0 / 0

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

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

MAX. UNBRACED INTERIOR CHORD LENGTH = 6.25 FT

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

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

LOADING
TOTAL LOAD CASES: (4)

CHORDS				WEBS			
MEMB.		MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	MAX. FACTORED UNBRAC LENGTH	MEMB.		MAX. FACTORED FORCE (LBS)
FR-TO	FROM	TO	TO	TO	FR-TO	FROM	TO
A-B	0 / 0	-78.0	-78.0 0.66 (1)	10.00	M-L	0 / 0	0.00 (1)
B-C	0 / 42	-78.0	-78.0 0.64 (1)	10.00	L-B	-354 / 0	0.12 (1)
C-D	0 / 41	-78.0	-78.0 0.64 (1)	10.00	B-K	-170 / 0	0.10 (1)
D-E	0 / 41	-78.0	-78.0 0.64 (1)	10.00	K-C	-675 / 0	0.89 (1)
E-F	-79 / 0	-78.0	-78.0 0.15 (1)	6.25	K-E	-113 / 0	0.07 (1)
F-O	-241 / 0	-78.0	-78.0 0.15 (1)	6.25	I-E	-178 / 0	0.23 (1)
O-G	-467 / 0	-78.0	-78.0 0.09 (4)	6.25	I-F	-215 / 0	0.10 (1)
G-H	0 / 10	-78.0	-78.0 0.01 (1)	10.00	N-O	0 / 272	0.00 (1)
L-K	0 / 69	-18.5	-18.5 0.30 (4)	10.00			
K-J	0 / 33	-18.5	-18.5 0.30 (4)	10.00			
J-I	0 / 33	-18.5	-18.5 0.30 (4)	10.00			
I-N	0 / 178	-18.5	-18.5 0.17 (4)	10.00			
N-G	0 / 178	-18.5	-18.5 0.09 (4)	10.00			

LATERAL BRACE(S) SHOWN SHALL BE 2X4 SPF#2



DESIGN CRITERIA

SPECIFIED LOADS:			
TOP CH.	LL	=	21.0 PSF
	DL	=	6.0 PSF
BOT CH.	LL	=	0.0 PSF
	DL	=	7.4 PSF
TOTAL LOAD		=	34.4 PSF

SPACING = 24.0 IN. C/C

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

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

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

(55 % OF 23.0 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 21.0 P.S.F. SPECIFIED ROOF LIVE LOAD

CSI: TC=0.66/1.00 (A-B:1) , BC=0.30/1.00 (K-L:4) , WB=0.89/1.00 (C-K:1) , SSI=0.26/1.00 (C-E:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

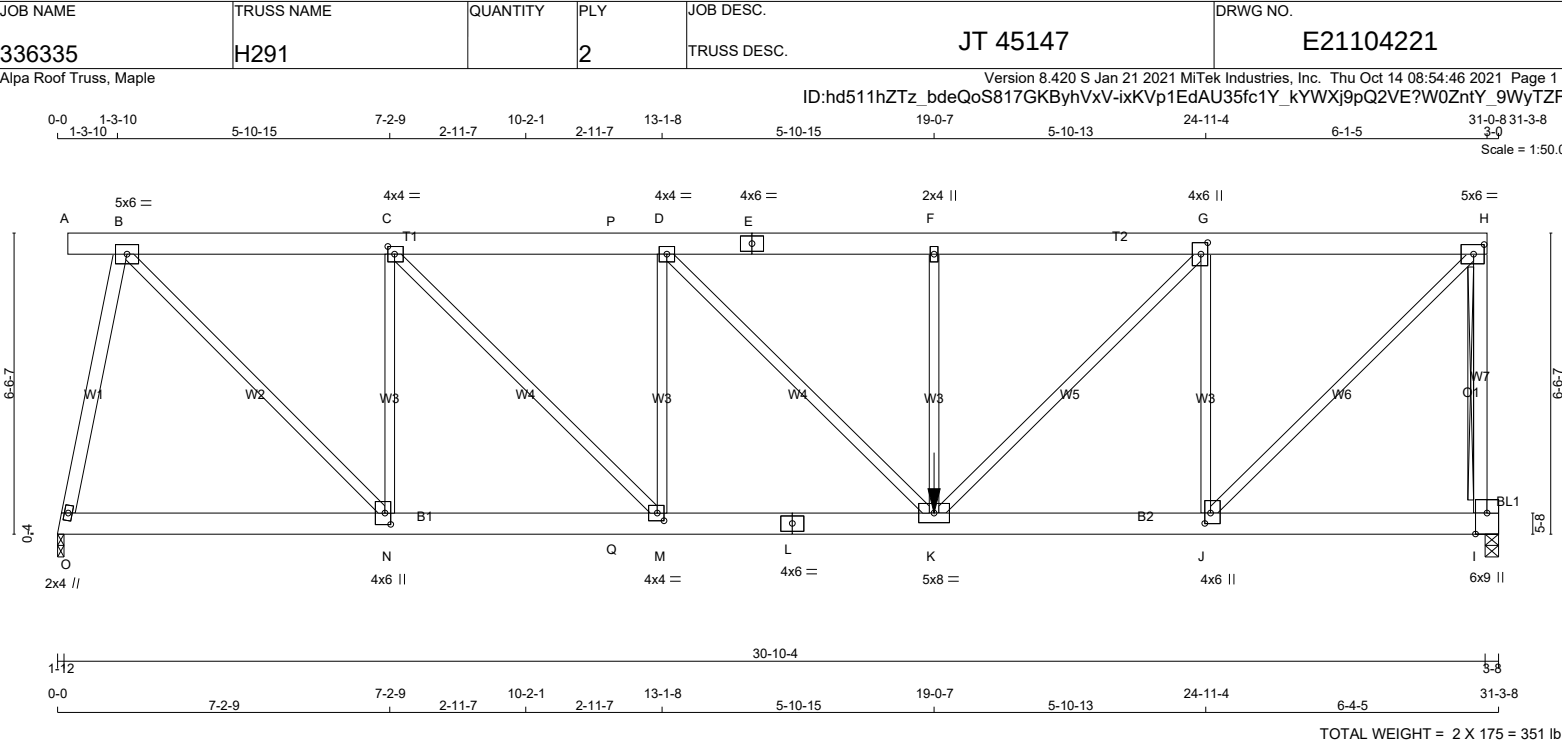
TRUSS PLATE MANUFACTURER IS NOT RESPONSIBLE FOR QUALITY CONTROL IN THE TRUSS MANUFACTURING PLANT .

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

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.55 (E) (INPUT = 0.90)
JSI METAL= 0.26 (L) (INPUT = 1.00)



LUMBER				
N. L. G. A. RULES				
CHORDS	SIZE	LUMBER	DESCR.	
A - E	2x6	DRY	No.2	SPF
E - H	2x6	DRY	No.2	SPF
I - H	2x4	DRY	No.2	SPF
O - L	2x6	DRY	No.2	SPF
L - I	2x6	DRY	No.2	SPF

BEARING BLOCKS				
BL1	2x4	DRY	No.2	SPF
ALL WEBS EXCEPT				
O - B	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- E	2 12	SIDE(37.8)
E- H	2 12	TOP
H- I	1 12	TOP
BOTTOM CHORDS : (0.122"x3") SPIRAL NAILS		
O- L	2 12	SIDE(58.8)
L- I	2 12	SIDE(137.1)
WEBS : (0.122"x3") SPIRAL NAILS		
F- K	1 6	SIDE(229.1)
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.

LATERAL BRACE(S) SHOWN SHALL BE 2X4 SPF#2



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

BEARINGS		FACTORED GROSS REACTION	MAXIMUM FACTORED GROSS REACTION	INPUT BRG	REQRD BRG
JT	VERT	HORZ	DOWN	HORZ	UPLIFT
O	3217	0	3217	0	1-12
I	2944	0	2944	0	3-8

UNFACTORED REACTIONS							
1ST LCASE		MAX./MIN. COMPONENT REACTIONS					
JT	COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
O	2296	1391 / 0	0 / 0	0 / 0	0 / 0	905 / 0	0 / 0
I	2098	1282 / 0	0 / 0	0 / 0	0 / 0	816 / 0	0 / 0

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

BRACING TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 5.20 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.

2x4 DRY SPF No.2 T-BRACE AT H-I

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

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

LOADING TOTAL LOAD CASES: (4)

CHORDS		MAX. FACTORED	FACTORED	VERT. LOAD	LC1	MAX	MAX.	MEMB.	MAX. FACTORED	MAX
MEMB.	FORCE (LBS)	VERT. LOAD (PLF)	CSI (LC)	UNBRAC	LENGTH	FR-TO	MEMB.	FORCE (LBS)	MAX	CSI (LC)
FR-TO		FROM	TO				FR-TO			
A- B	0 / 0	-78.0	-78.0	0.02 (1)	10.00	O- B	-3163 / 0	0.75 (1)		
B- C	-3135 / 0	-153.5	-153.5	0.21 (1)	5.99	K- F	-405 / 0	0.13 (1)		
C- P	-4495 / 0	-153.5	-153.5	0.23 (1)	5.20	K- G	0 / 2880	0.36 (1)		
P- D	-4495 / 0	-78.0	-78.0	0.23 (1)	5.20	J- G	-2606 / 0	0.81 (1)		
D- E	-4644 / 0	-78.0	-78.0	0.14 (1)	5.25	J- H	0 / 3821	0.47 (1)		
E- F	-4644 / 0	-78.0	-78.0	0.14 (1)	5.25	B- N	0 / 3672	0.45 (1)		
F- G	-4644 / 0	-78.0	-78.0	0.14 (1)	5.25	N- C	-2419 / 0	0.75 (1)		
G- H	-2639 / 0	-78.0	-78.0	0.11 (1)	6.25	C- M	0 / 1951	0.24 (1)		
I- H	-2891 / 0	0.0	0.0	0.40 (1)	7.81	M- D	-752 / 0	0.23 (1)		
						D- K	0 / 214	0.03 (1)		
O- N	0 / 598	-36.4	-36.4	0.12 (4)	10.00					
N- Q	0 / 3135	-36.4	-36.4	0.29 (1)	10.00					
Q- M	0 / 3135	-136.1	-136.1	0.29 (1)	10.00					
M- L	0 / 4495	-136.1	-136.1	0.44 (1)	10.00					
L- K	0 / 4495	-136.1	-136.1	0.44 (1)	10.00					
K- J	0 / 2639	-18.5	-18.5	0.22 (1)	10.00					
J- I	-69 / 0	-18.5	-18.5	0.04 (4)	6.25					

FACTORED CONCENTRATED LOADS (LBS)		JT	LOC.	LC1	MAX-	MAX+	FACE	DIR.	TYPE	HEEL	CONN.
K	19-0-7	-1355	-1355	---	FRONT	VERT	TOTAL	---	C1		

CONNECTION REQUIREMENTS

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

DESIGN CRITERIA

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

SPECIFIED LOADS:		
TOP CH.	LL = 21.0	PSF
	DL = 6.0	PSF
BOT CH.	LL = 0.0	PSF
	DL = 7.4	PSF
TOTAL LOAD	= 34.4	PSF

SPACING = 24.0 IN./C/C

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

GIRDER TYPE: CPrimeHip SIDE SETBACK = 0-0 END SETBACK = 5-10-8 END WALL WIDTH = 0-0 CORNER FRAMING TYPE: CONVENTIONAL END JACK TYPE: CONVENTIONAL APPLIED TO FRONT SIDE - ADDTL LOADS BASED ON 55 % OF GSL. LOADS APPLIED TO FIRST 12-1-0 OF SPAN MEASURED FROM THE LEFT.

GIRDER TYPE: CStdGirder START DISTANCE = 12-1-0 START SPAN CARRIED = 6-10-8 END DISTANCE = 19-0-7 END SPAN CARRIED = 6-10-8 END WALL WIDTH = 0-0 APPLIED TO FRONT SIDE OF BOTTOM CHORD. - ADDTL LOADS BASED ON 55 % OF GSL.

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

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

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

(55 % OF 23.0 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 21.0 P.S.F. SPECIFIED ROOF LIVE LOAD

ALLOWABLE DEFL.(LL)= L/360 (1.02") CALCULATED VERT. DEFL.(LL) = L/ 999 (0.10") ALLOWABLE DEFL.(TL)= L/360 (1.02") CALCULATED VERT. DEFL.(TL) = L/ 999 (0.20")

CSI: TC=0.40/1.00 (H-I:1) , BC=0.44/1.00 (K-M:1) , WB=0.81/1.00 (G-J:1) , SSI=0.18/1.00 (B-C:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
336335	H291		2	JT 45147	E21104221(2)

Alpa Roof Truss, Maple

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PLATES (table is in inches)

JT	TYPE	PLATES	W	LEN	Y	X
B	TMWW-t	MT20	5.0	6.0		
C	TMWW-t	MT20	4.0	4.0	2.00	1.75
D	TMWW-t	MT20	4.0	4.0		
E	TS-t	MT20	4.0	6.0		
F	TMW+w	MT20	2.0	4.0		
G	TMWW+t	MT20	4.0	6.0	3.00	1.75
H	TMVW-t	MT20	5.0	6.0	2.50	2.75
I	BMVK1+p	MT20	6.0	9.0	Edge	3.00
J	BMWW+t	MT20	4.0	6.0	2.75	1.50
K	BMWWWW-t	MT20	5.0	8.0		
L	BS-t	MT20	4.0	6.0		
M	BMWW-t	MT20	4.0	4.0	2.00	1.75
N	BMWW+t	MT20	4.0	6.0	3.00	1.50
O	BMW1+w	MT20	2.0	4.0		

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

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

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

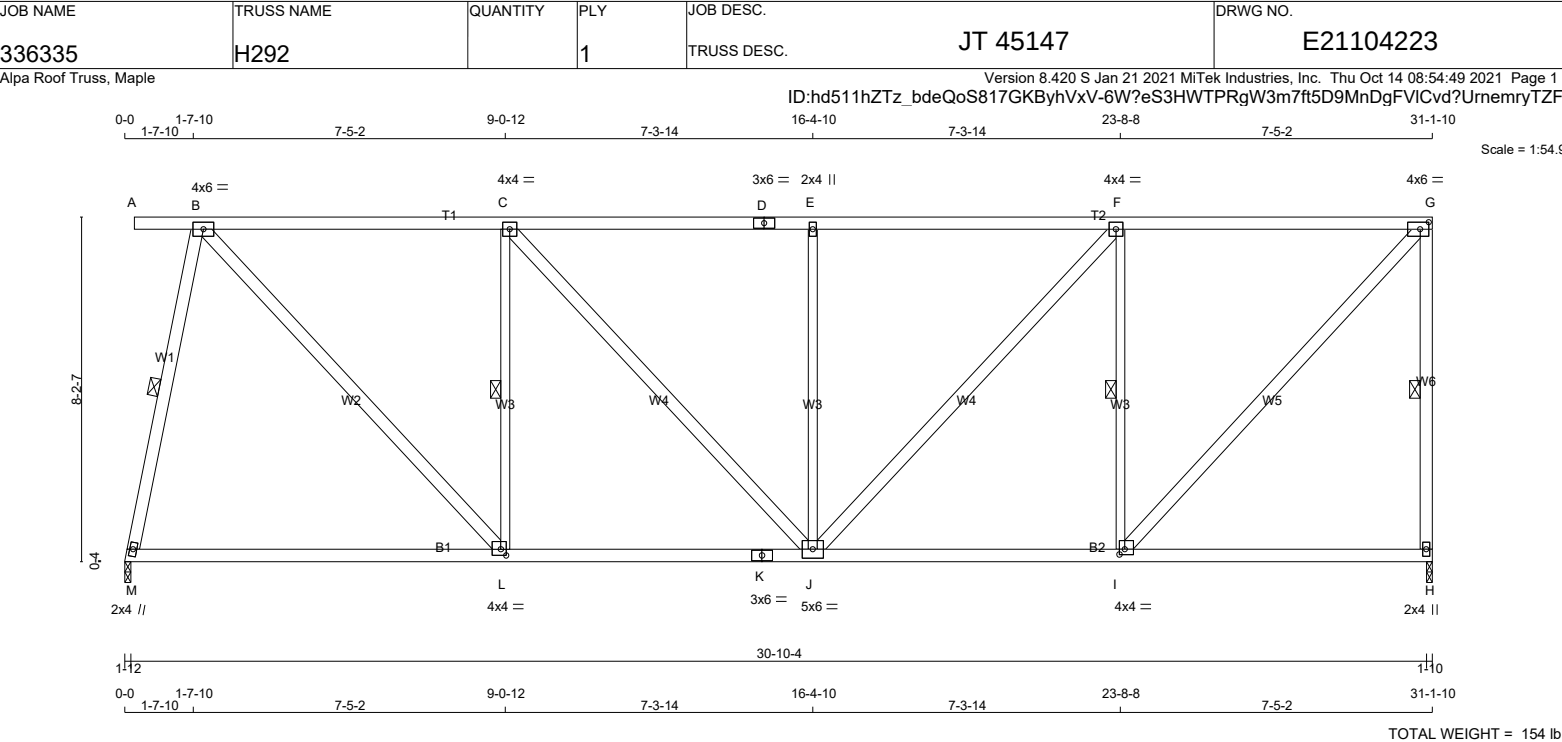
PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

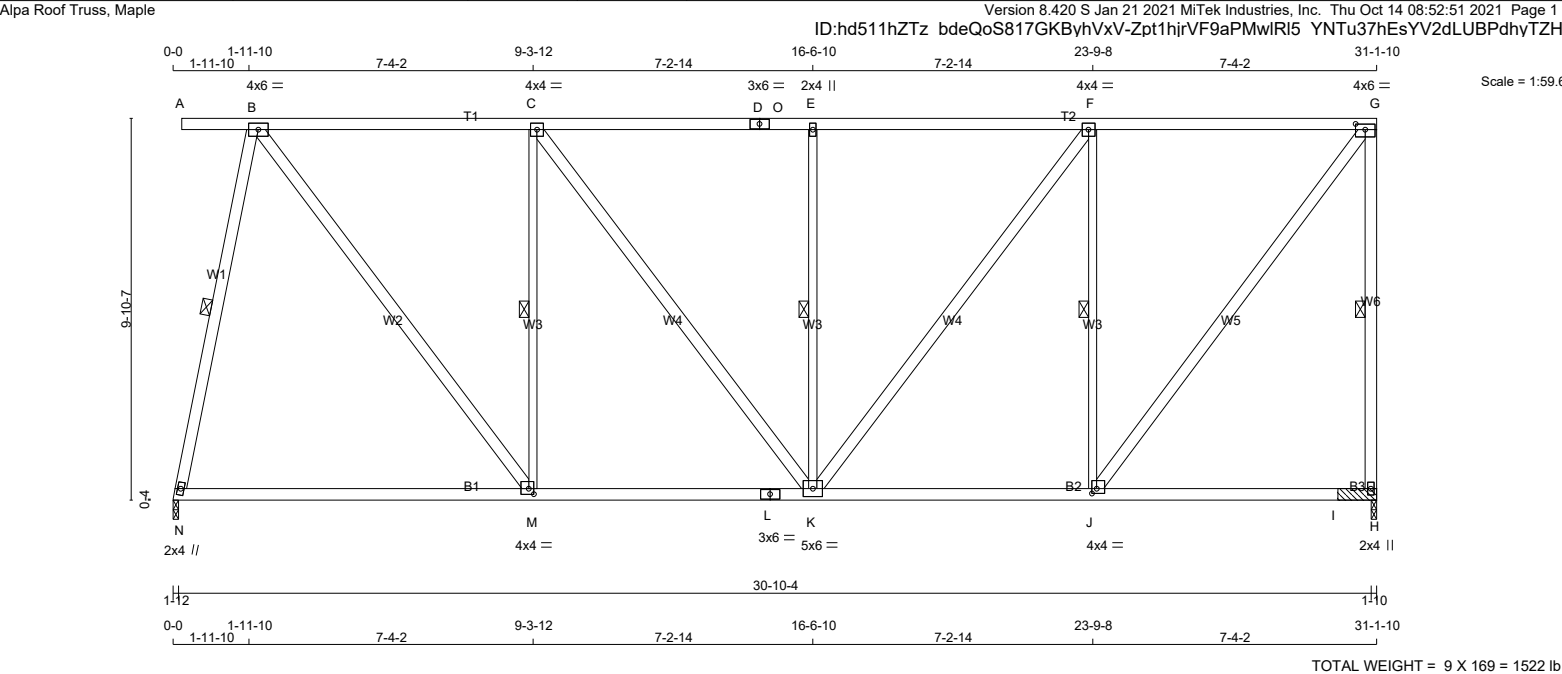
JSI GRIP= 0.88 (N) (INPUT = 0.90)
JSI METAL= 0.77 (L) (INPUT = 1.00)

LATERAL BRACE(S) SHOWN SHALL BE
2X4 SPF#2



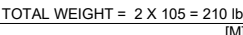


JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
336335	H293		1	TRUSS DESC. JT 45147	E21104226



LUMBER										DIMENSIONS, SUPPORTS AND LOADINGS SPECIFIED BY FABRICATOR TO BE VERIFIED BY BUILDING DESIGNER										DESIGN CRITERIA									
N. L. G. A. RULES										BEARINGS										SPECIFIED LOADS:									
CHORDS SIZE LUMBER DESCR.										FACTORED MAXIMUM FACTORED INPUT REQRD										TOP CH. LL = 21.0 PSF									
A - D 2x4 DRY No.2 SPF										GROSS REACTION GROSS REACTION BRG BRG										DL = 6.0 PSF									
D - G 2x4 DRY No.2 SPF										DOWN HORZ UPLIFT IN-SX IN-SX										BOT CH. LL = 0.0 PSF									
H - G 2x4 DRY No.2 SPF										N 1601 0 1601 0 0 1-12 1-12										DL = 7.4 PSF									
N - L 2x4 DRY No.2 SPF										H 1613 0 1613 0 0 1-10 1-10 & BLOCK										TOTAL LOAD = 34.4 PSF									
L - H 2x4 DRY No.2 SPF																													
ALL WEBS 2x4 DRY No.2 SPF										UNFACTORED REACTIONS										SPACING = 24.0 IN. C/C									
EXCEPT										1ST LCASE MAX./MIN. COMPONENT REACTIONS																			
M - C 2x3 DRY No.2 SPF										JT COMBINED SNOW LIVE PERM.LIVE WIND DEAD SOIL																			
K - E 2x3 DRY No.2 SPF										N 1152 646 / 0 0 / 0 0 / 0 0 / 0 506 / 0 0 / 0																			
J - F 2x3 DRY No.2 SPF										H 1160 652 / 0 0 / 0 0 / 0 0 / 0 508 / 0 0 / 0																			
DRY: SEASONED LUMBER.										BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S) N, H										LOADING IN FLAT SECTION BASED ON PIGGYBACK TRUSS WITH SLOPES OF 6.00/12 AND -6.00/12 AND RESPECTIVE HEEL HEIGHTS OF 0-0 AND 0-0 AND AN ADDITIONAL DEAD LOAD OF 3.0 P.S.F.									
										2x4 DRY SPF No.2 BEARING BLOCK 12" LONG AT JT. H ATTACHED TO FRONT SIDE WITH 2 ROWS OF (0.122"x3") SPIRAL NAILS SPACED 3" C.C. 8 NAILS TOTAL.										THIS TRUSS IS DESIGNED FOR RESIDENTIAL OR SMALL BUILDING REQUIREMENTS OF PART 9, NBCC 2015									
PLATES (table is in inches)										BRACING										THIS DESIGN COMPLIES WITH:									
JT TYPE PLATES W LEN Y X										FOR SECTION A-G, MAX. PURLIN SPACING = 2.00 FT.										- PART 9 OF BCBC 2018 , ABC 2019									
B TMWW-t MT20 4.0 6.0										FOR OTHER SECTIONS, TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 10.00 FT.										- PART 9 OF OBC 2012 (2019 AMENDMENT)									
C TMWW-t MT20 4.0 4.0										MAX. UNBRACED BOTTOM CHORD LENGTH = 10.00 FT OR RIGID CEILING DIRECTLY APPLIED.										- CSA 086-14									
D TS-t MT20 3.0 6.0										ALL PITCH BREAKS AND PERIMETER CORNER JOINTS MUST BE Laterally RESTRAINED.										- TPIC 2014									
E TMW+w MT20 2.0 4.0										1 LATERAL BRACE(S) AT 1/2 LENGTH OF B-N, G-H, C-M, E-K, F-J.																			
F TMWW-t MT20 4.0 4.0										END VERTICAL(S) MUST BE SHEATHED OR HAVE BRACES AS INDICATED IN THE MAX. UNBRACED LENGTH COLUMN OF THE TABLE BELOW										(55 % OF 23.0 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 21.0 P.S.F. SPECIFIED ROOF LIVE LOAD									
G TMVW-t MT20 4.0 6.0 1.75 3.00																				ALLOWABLE DEFL.(LL)= L/360 (1.03")									
H BMV1+p MT20 2.0 4.0																				CALCULATED VERT. DEFL.(LL) = L/ 999 (0.06")									
J BMWW-t MT20 4.0 4.0 1.50 1.50																				ALLOWABLE DEFL.(TL)= L/360 (1.03")									
K BMWWW-t MT20 5.0 6.0																				CALCULATED VERT. DEFL.(TL) = L/ 999 (0.21")									
L BS-t MT20 3.0 6.0																				CSI: TC=0.81/1.00 (E-F:1) , BC=0.47/1.00 (K-M:4) ,									
M BMWW-t MT20 4.0 4.0 1.75 1.50																				WB=0.78/1.00 (B-N:1) , SSI=0.30/1.00 (F-G:1)									
N BMW1+w MT20 2.0 4.0																				DOL LUMBER=1.00 NAIL=1.00 LS BEND=1.10 COMP=1.10 SHEAR=1.10 TENS= 1.10									
										CHORDS WEBS										COMPANION LIVE LOAD FACTOR = 1.00									
										MEMB. MAX. FACTORED FORCE (LBS) FACTORED VERT. LOAD LC1 MAX. FACTORED CSI (LC) UNBRAC LENGTH FR-TO										TRUSS PLATE MANUFACTURER IS NOT RESPONSIBLE FOR QUALITY CONTROL IN THE TRUSS MANUFACTURING PLANT .									
										FR-TO FROM TO										NAIL VALUES									
										A-B 0 / 0 -85.5 -85.5 0.20 (1) 10.00 N-B -1562 / 0 0.78 (1)										PLATE GRIP(DRY) SHEAR SECTION									
										B-C -1155 / 0 -85.5 -85.5 0.76 (1) 2.00 B-M 0 / 1416 0.23 (1)										(PSI) (PLI) (PLI)									
										C-D -1339 / 0 -85.5 -85.5 0.79 (1) 2.00 M-C -950 / 0 0.62 (1)										MAX MIN MAX MIN MAX MIN									
										D-O -1339 / 0 -85.5 -85.5 0.79 (1) 2.00 C-K 0 / 305 0.05 (1)										MT20 650 371 1747 788 1987 1873									
										O-E -1339 / 0 -85.5 -85.5 0.79 (1) 2.00 K-E -573 / 0 0.38 (1)										PLATE PLACEMENT TOL. = 0.250 inches									
										E-F -1339 / 0 -85.5 -85.5 0.81 (1) 2.00 K-F 0 / 553 0.09 (1)										PLATE ROTATION TOL. = 5.0 Deg.									
										F-G -1005 / 0 -85.5 -85.5 0.76 (1) 2.00 J-F -1154 / 0 0.76 (1)										JSI GRIP= 0.89 (J) (INPUT = 0.90)									
										H-G -1559 / 0 0.0 0.0 0.73 (1) 5.28 J-G 0 / 1652 0.27 (1)										JSI METAL= 0.37 (J) (INPUT = 1.00)									
										N-M 0 / 302 -18.5 -18.5 0.37 (4) 10.00																			
										M-L 0 / 1155 -18.5 -18.5 0.47 (4) 10.00																			
										L-K 0 / 1155 -18.5 -18.5 0.47 (4) 10.00																			
										K-J 0 / 1005 -18.5 -18.5 0.36 (4) 10.00																			
										J-I 0 / 0 -18.5 -18.5 0.25 (4) 10.00																			
										I-H 0 / 0 -18.5 -18.5 0.25 (4) 10.00																			
LATERAL BRACE(S) SHOWN SHALL BE 2X4 SPF#2																													

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PLATES (table is in inches)						
JT	TYPE	PLATES	W	LEN	Y	X
B	TMWW-t	MT20	4.0	4.0	2.00	1.75
C	TMWW-t	MT20	4.0	4.0		
D	TS-t	MT20	3.0	6.0		
E	TMW-w	MT20	2.0	4.0		
F	TMWW-t	MT20	4.0	4.0		
G	TMW-w	MT20	3.0	4.0		
H	BMV1+p	MT20	2.0	4.0		
I	BMWW1-t	MT20	4.0	4.0		
J	BMWWWW1-t	MT20	5.0	6.0		
K	BS-t	MT20	3.0	6.0		
L	BMWW1-t	MT20	4.0	4.0		
M	BWM1-l	MT20	2.0	4.0		

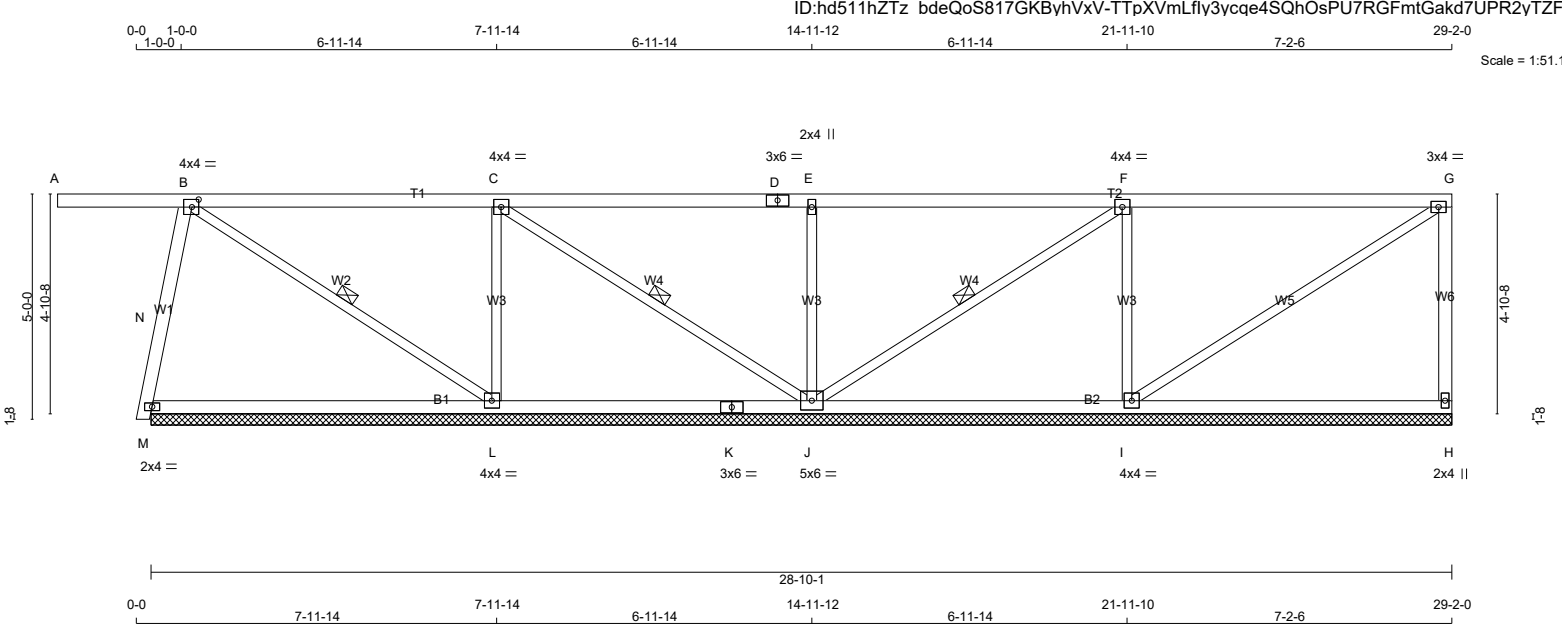
CHORDS					WEBS				
MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	LC1 MAX. CSI (LC)	MAX. UNBRAC	MEMB.	MAX. FACTORED FORCE (LBS)	MAX. CSI (LC)		
FR-TO		FROM TO		LENGTH	FR-TO				
A-B	0 / 0	-78.0	-78.0 0.34 (1)	10.00	N-M	0 / 0	0.00 (1)		
B-C	-22 / 0	-78.0	-78.0 0.56 (1)	6.25	M-B	-394 / 0	0.06 (1)		
C-D	0 / 43	-78.0	-78.0 0.56 (1)	10.00	B-L	-60 / 0	0.07 (1)		
D-E	0 / 43	-78.0	-78.0 0.56 (1)	10.00	L-C	-597 / 0	0.11 (1)		
E-F	0 / 43	-78.0	-78.0 0.60 (1)	10.00	C-J	-71 / 0	0.08 (1)		
F-G	-6 / 0	-78.0	-78.0 0.59 (1)	10.00	J-E	-511 / 0	0.10 (1)		
H-G	-227 / 0	0.0	0.0 0.04 (1)	7.81	J-F	-53 / 0	0.06 (1)		
					I-F	-621 / 0	0.12 (1)		
M-L	0 / 77	-18.5	-18.5 0.26 (4)	10.00	I-G	0 / 6	0.00 (1)		
L-K	0 / 22	-18.5	-18.5 0.26 (4)	10.00					
K-J	0 / 22	-18.5	-18.5 0.26 (4)	10.00					
J-I	0 / 6	-18.5	-18.5 0.24 (4)	10.00					
I-H	0 / 0	-18.5	-18.5 0.24 (4)	10.00					

JSI GRIP= 0.84 (J) (INPUT = 0.90)
JSI METAL= 0.29 (M) (INPUT = 1.00)

JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
336335	H295P		1	TRUSS DESC. JT 45147	E21104228

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

DRY: SEASONED LUMBER.

PLATES (table is in inches)					
JT	TYPE	PLATES	W	LEN	Y X
B	TMWW-t	MT20	4.0	4.0	2.00 1.75
C	TMWW-t	MT20	4.0	4.0	
D	TS-t	MT20	3.0	6.0	
E	TMW+w	MT20	2.0	4.0	
F	TMWW-t	MT20	4.0	4.0	
G	TMVW-t	MT20	3.0	4.0	
H	BMV1+p	MT20	2.0	4.0	
I	BMWW1-t	MT20	4.0	4.0	
J	BMWW1-t	MT20	5.0	6.0	
K	BS-t	MT20	3.0	6.0	
L	BMWW1-t	MT20	4.0	4.0	
M	BWM1-t	MT20	2.0	4.0	

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

BEARINGS		FACTORED		MAXIMUM FACTORED		INPUT		REQRD	
		GROSS REACTION		GROSS REACTION		BRG		BRG	
JT	VERT	HORZ	DOWN	HORZ	UPLIFT	IN-SX	IN-SX	IN-SX	IN-SX
H	277	0	277	0	0	28-10-1 (15-11-8)			
M	449	0	449	0	0	28-10-1 (15-11-8)			
L	747	0	747	0	0	28-10-1 (15-11-8)			
J	754	0	754	0	0	28-10-1 (15-11-8)			
I	719	0	719	0	0	28-10-1 (15-11-8)			

VALUE IN PARENTHESIS INDICATES EFFECTIVE BEARING LENGTH

UNFACTORED REACTIONS

1ST LCASE		MAX./MIN. COMPONENT REACTIONS						
JT	COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL	
H	197	121 / 0	0 / 0	0 / 0	0 / 0	77 / 0	0 / 0	
M	317	211 / 0	0 / 0	0 / 0	0 / 0	106 / 0	0 / 0	
L	534	316 / 0	0 / 0	0 / 0	0 / 0	218 / 0	0 / 0	
J	534	344 / 0	0 / 0	0 / 0	0 / 0	191 / 0	0 / 0	
I	514	306 / 0	0 / 0	0 / 0	0 / 0	209 / 0	0 / 0	

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

MAX. UNBRACED INTERIOR CHORD LENGTH = 7.81 FT

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

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

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		WEBS	
MAX. FACTORED		MAX. FACTORED	
MEMB.	FORCE	MEMB.	FORCE
	(LBS)		(LBS)
FACTORED		FACTORED	
VERT. LOAD LC1		VERT. LOAD LC1	
MAX		MAX	
CSF (LC)		CSF (LC)	
UNBRAC		UNBRAC	
LENGTH FR-TO		LENGTH FR-TO	
FR-TO		FR-TO	
A-B	0 / 0	N-M	0 / 0
B-C	-16 / 0	M-B	-399 / 0
C-D	0 / 92	B-L	-75 / 0
D-E	0 / 92	L-C	-546 / 0
E-F	0 / 92	C-J	-129 / 0
F-G	-4 / 0	J-E	-505 / 0
H-G	-225 / 0	J-F	-115 / 0
		I-F	-571 / 0
		I-G	0 / 5
M-L	0 / 78		
L-K	0 / 16		
K-J	0 / 16		
J-I	0 / 4		
I-H	0 / 0		

DESIGN CRITERIA

SPECIFIED LOADS:

TOP CH.	LL	=	21.0	PSF
	DL	=	6.0	PSF
BOT CH.	LL	=	0.0	PSF
	DL	=	7.4	PSF
TOTAL LOAD		=	34.4	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 23.0 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 21.0 P.S.F. SPECIFIED ROOF LIVE LOAD

CSI: TC=0.59/1.00 (E-F:1) , BC=0.27/1.00 (L-M:4) , WB=0.20/1.00 (F-I:1) , SSI=0.26/1.00 (F-G:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

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

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

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.76 (G) (INPUT = 0.90)
JSI METAL= 0.30 (D) (INPUT = 1.00)

LATERAL BRACE(S) SHOWN SHALL BE 2X4 SPF#2

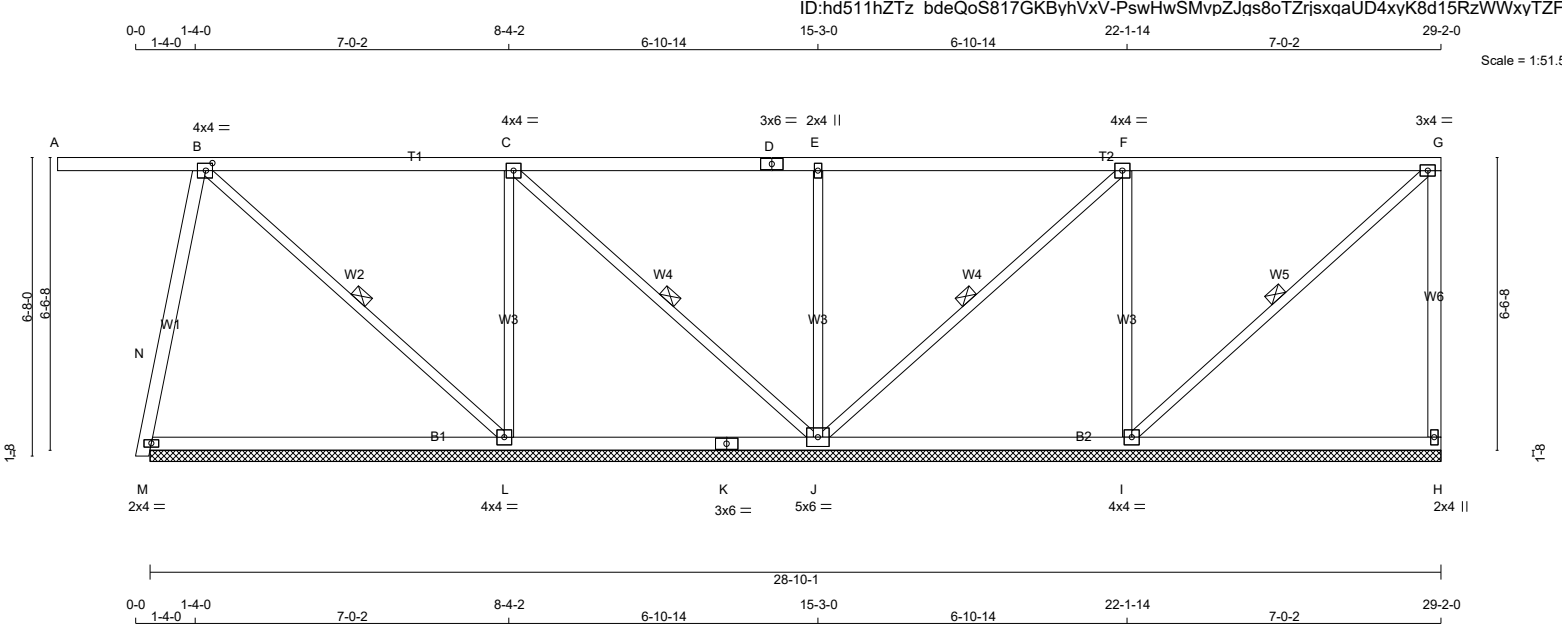


JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
336335	H296P		1	TRUSS DESC. JT 45147	E21104229

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ID:hd511hZTz bdeQoS817GKBvhVxV-PswHwSMvpZJgs8oTZrjsxqaUD4xyK8d15RzVWwxyTZFT



TOTAL WEIGHT = 2 X 126 = 252 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
H - G	2x4	DRY	No.2	SPF
M - K	2x4	DRY	No.2	SPF
K - H	2x4	DRY	No.2	SPF
ALL WEBS	2x3	DRY	No.2	SPF
EXCEPT				
N - B	2x4	DRY	No.2	SPF
DRY: SEASONED LUMBER.				

PLATES (table is in inches)					
JT	TYPE	PLATES	W	LEN	Y X
B	TMWW-t	MT20	4.0	4.0	2.00 1.75
C	TMWW-t	MT20	4.0	4.0	
D	TS-t	MT20	3.0	6.0	
E	TMW+w	MT20	2.0	4.0	
F	TMWW-t	MT20	4.0	4.0	
G	TMVW-t	MT20	3.0	4.0	
H	BMV1+p	MT20	2.0	4.0	
I	BMWW1-t	MT20	4.0	4.0	
J	BMWW1-t	MT20	5.0	6.0	
K	BS-t	MT20	3.0	6.0	
L	BMWW1-t	MT20	4.0	4.0	
M	BWM1-t	MT20	2.0	4.0	

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

		FACTORED GROSS REACTION		MAXIMUM FACTORED GROSS REACTION		INPUT	REQRD
		VERT	HORZ	DOWN	HORZ	UPLIFT	BRG IN-SX
JT	H	263	0	263	0	0	28-10-1 (15-11-8)
M	L	454	0	454	0	0	28-10-1 (15-11-8)
L	J	723	0	723	0	0	28-10-1 (15-11-8)
J	I	846	0	846	0	0	28-10-1 (15-11-8)
I	H	660	0	660	0	0	28-10-1 (15-11-8)

VALUE IN PARENTHESIS INDICATES EFFECTIVE BEARING LENGTH

		1ST LCASE	MAX./MIN. COMPONENT REACTIONS				
		COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD
JT	H	188	114 / 0	0 / 0	0 / 0	0 / 0	73 / 0
M	L	321	212 / 0	0 / 0	0 / 0	0 / 0	109 / 0
L	J	518	301 / 0	0 / 0	0 / 0	0 / 0	217 / 0
J	I	597	395 / 0	0 / 0	0 / 0	0 / 0	203 / 0
I	H	473	275 / 0	0 / 0	0 / 0	0 / 0	198 / 0

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

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

MAX. UNBRACED INTERIOR CHORD LENGTH = 7.81 FT

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

1 LATERAL BRACE(S) AT 1/2 LENGTH OF B-L, C-J, F-J, G-I.

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			WEBS		
		MAX. FACTORED	FACTORED	MAX.	MAX. FACTORED	FACTORED	MAX.
		MEMB. FORCE (LBS)	VERT. LOAD (PLF)	LC1 MAX CSI (LC)	MEMB. FORCE (LBS)	VERT. LOAD (PLF)	LC1 MAX CSI (LC)
			FROM TO				
FR-TO							
A-B	0 / 0	-78.0	-78.0 0.54 (1)	10.00	N-M	0 / 0	0.00 (1)
B-C	-6 / 0	-78.0	-78.0 0.54 (1)	10.00	M-B	-402 / 0	0.24 (1)
C-D	0 / 128	-78.0	-78.0 0.56 (1)	10.00	B-L	-98 / 0	0.06 (1)
D-E	0 / 128	-78.0	-78.0 0.56 (1)	10.00	L-C	-493 / 0	0.35 (1)
E-F	0 / 128	-78.0	-78.0 0.57 (1)	10.00	C-J	-181 / 0	0.11 (1)
F-G	0 / 3	-78.0	-78.0 0.55 (1)	10.00	J-E	-499 / 0	0.35 (1)
H-G	-212 / 0	0.0	0.0 0.19 (1)	7.81	J-F	-169 / 0	0.10 (1)
					I-F	-508 / 0	0.36 (1)
M-L	0 / 79	-18.5	-18.5 0.29 (4)	10.00	I-G	-5 / 0	0.00 (1)
L-K	0 / 6	-18.5	-18.5 0.28 (4)	10.00			
K-J	0 / 6	-18.5	-18.5 0.28 (4)	10.00			
J-I	-3 / 0	-18.5	-18.5 0.23 (4)	10.00			
I-H	0 / 0	-18.5	-18.5 0.23 (4)	10.00			

DESIGN CRITERIA

SPECIFIED LOADS:
TOP CH. LL = 21.0 PSF
DL = 6.0 PSF
BOT CH. LL = 0.0 PSF
DL = 7.4 PSF
TOTAL LOAD = 34.4 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 23.0 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 21.0 P.S.F. SPECIFIED ROOF LIVE LOAD

CSI: TC=0.57/1.00 (E-F:1) , BC=0.29/1.00 (L-M:4) , WB=0.36/1.00 (F-I:1) , SSI=0.26/1.00 (F-G:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

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

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

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.75 (G) (INPUT = 0.90)
JSI METAL= 0.30 (M) (INPUT = 1.00)

LATERAL BRACE(S) SHOWN SHALL BE 2X4 SPF#2

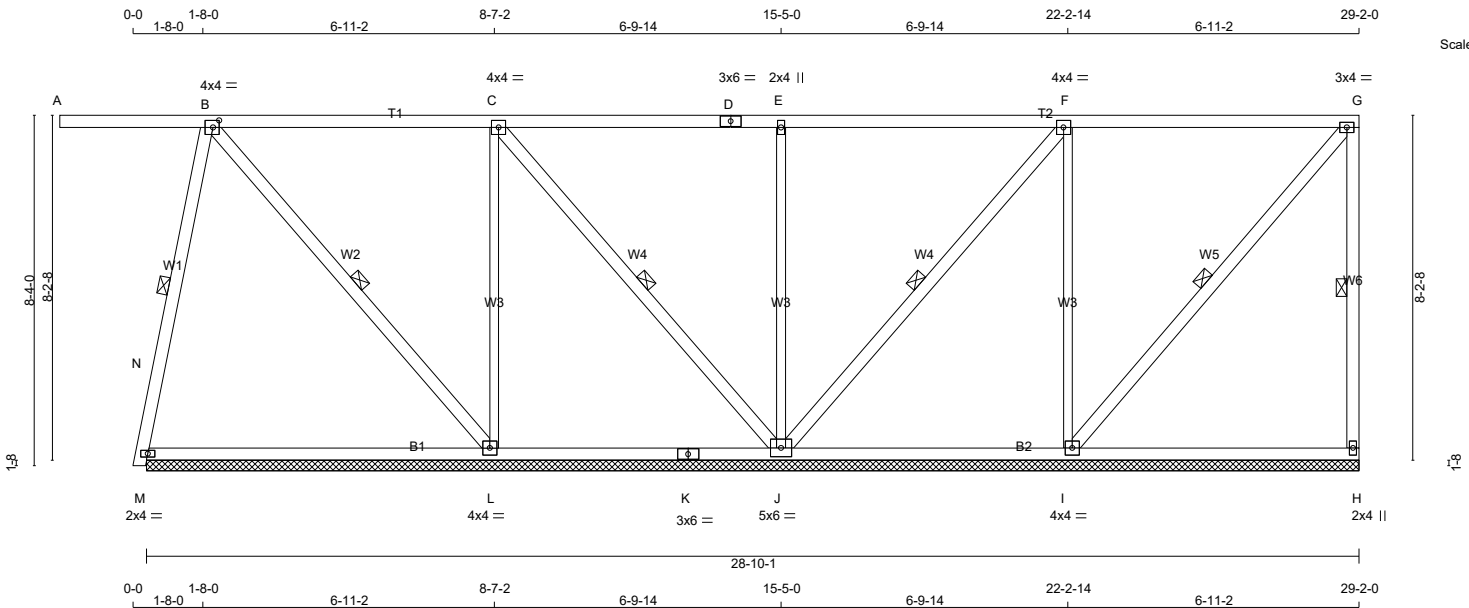


JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
336335	H297P		1	TRUSS DESC. JT 45147	E21104230

Alpa Roof Truss, Maple

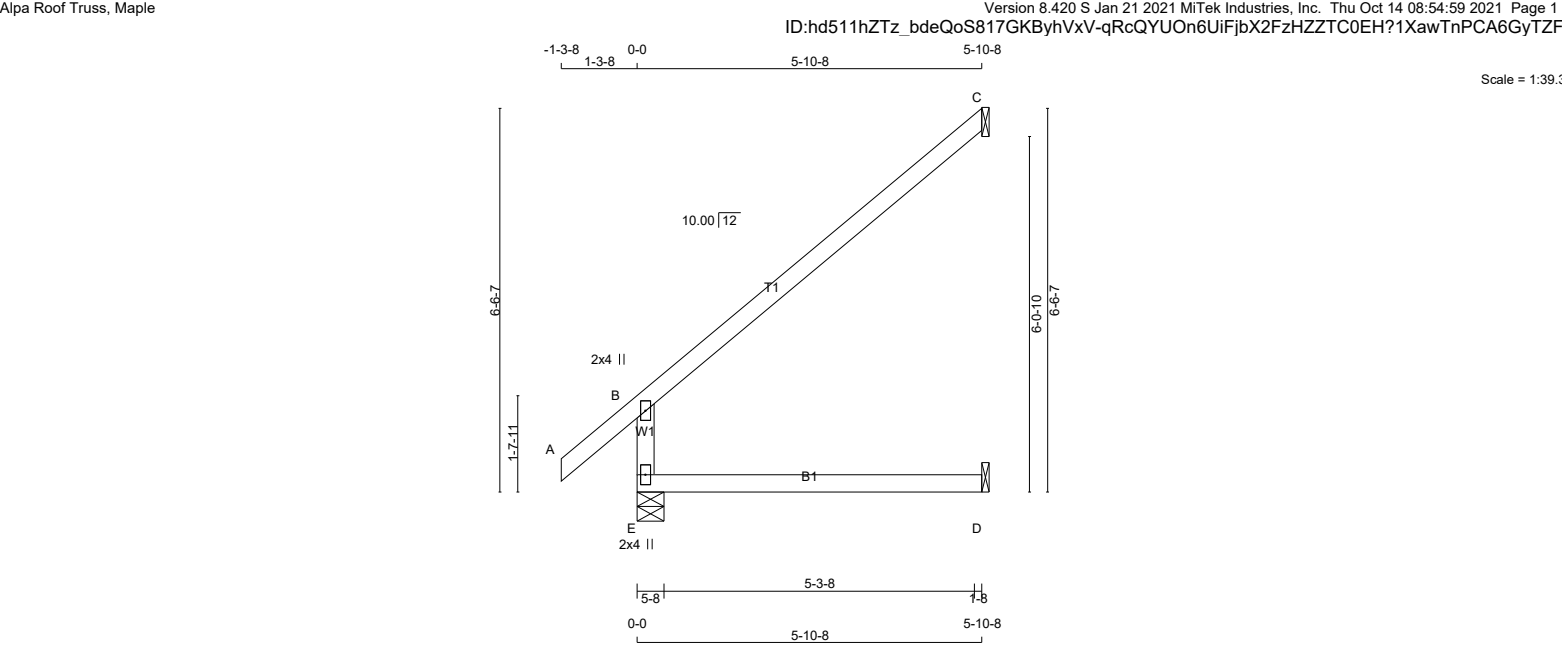
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LUMBER N. L. G. A. RULES CHORDS SIZE LUMBER DESCR.							DIMENSIONS, SUPPORTS AND LOADINGS SPECIFIED BY FABRICATOR TO BE VERIFIED BY BUILDING DESIGNER BEARINGS							DESIGN CRITERIA																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																						
A - D	2x4	DRY	No.2	SPF																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																</

JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
336335	J01		1	TRUSS DESC. JT 45147	E21104231



TOTAL WEIGHT = 28 X 19 = 532 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	2.0	4.0		
E	BMV1+p	MT20	2.0	4.0		

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

JT	FACTORED GROSS REACTION		MAXIMUM FACTORED GROSS REACTION		INPUT BRG IN-SX	REQRD BRG IN-SX
	VERT	HORZ	DOWN	HORZ		
E	457	0	457	0	5-8	1-8
C	172	0	172	0	1-8	1-8
D	46	0	52	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		WIND	DEAD	SOIL
	SNOW	LIVE	PERM.LIVE				
E	323	212 / 0	0 / 0	0 / 0	0 / 0	111 / 0	0 / 0
C	119	93 / 0	0 / 0	0 / 0	0 / 0	26 / 0	0 / 0
D	37	0 / 0	0 / 0	0 / 0	0 / 0	37 / 0	0 / 0

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

BRACING

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

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

LOADING

TOTAL LOAD CASES: (4)

MEMB.	CHORDS MAX. FACTORED FORCE (LBS)		FACTORED VERT. LOAD (PLF)		LC1 MAX (LC)	WEBS MAX. FACTORED FORCE (LBS)		MAX (LC)
	FR-TO		FROM	TO		FR-TO		
E-B	-394 / 0		0.0	0.0	0.11 (4)	7.81		
A-B	0 / 35		-78.0	-78.0	0.11 (1)	10.00		
B-C	-37 / 0		-78.0	-78.0	0.46 (1)	6.25		
E-D	0 / 0		-18.5	-18.5	0.14 (4)	10.00		

DESIGN CRITERIA

SPECIFIED LOADS:

TOP CH.	LL =	21.0	PSF
	DL =	6.0	PSF
BOT CH.	LL =	0.0	PSF
	DL =	7.4	PSF
TOTAL LOAD	=	34.4	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 23.0 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 21.0 P.S.F. SPECIFIED ROOF LIVE LOAD

ALLOWABLE DEFL.(LL)= L/360 (0.02")
CALCULATED VERT. DEFL.(LL) = L/ 999 (0.00")
ALLOWABLE DEFL.(TL)= L/360 (0.02")
CALCULATED VERT. DEFL.(TL) = L/ 999 (0.03")

CSI: TC=0.46/1.00 (B-C:1) , BC=0.14/1.00 (D-E:4) ,
WB=0.00/1.00 (n/a:0) , SSI=0.17/1.00 (B-C:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

AUTOSOLVE RIGHT HEEL ONLY

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

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

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.27 (B) (INPUT = 0.90)
JSI METAL= 0.21 (B) (INPUT = 1.00)

LATERAL BRACE(S) SHOWN SHALL BE 2X4 SPF#2

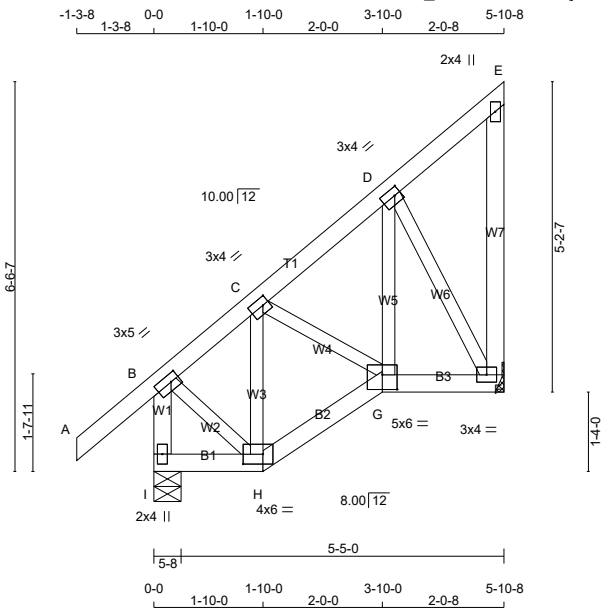


JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
336335	J01T		1	TRUSS DESC. JT 45147	E21104232

Alpa Roof Truss, Maple

ID:hd511hZTz_bdeQoS817GKByhVxV-mpkAzAQ2e5yzyvhQMOJ1euHSD5i3?UZmEjhHB9yTZFO

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TOTAL WEIGHT = 12 X 35 = 425 lb

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

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

JT	FACTORED GROSS REACTION		MAXIMUM FACTORED GROSS REACTION		INPUT BRG IN-SX	REQD BRG IN-SX
	VERT	HORZ	DOWN	HORZ		
I	404	0	404	0	5-8	1-8
F	271	0	271	0	0	MECHANICAL

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

UNFACTORED REACTIONS

JT	1ST LCASE COMBINED	MAX./MIN. COMPONENT REACTIONS					
		SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
I	286	188 / 0	0 / 0	0 / 0	0 / 0	97 / 0	0 / 0
F	193	116 / 0	0 / 0	0 / 0	0 / 0	77 / 0	0 / 0

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

BRACING

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

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

LOADING

TOTAL LOAD CASES: (4)

CHORDS					WEBS				
MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	LC1 MAX	CS1 (LC)	MAX. UNBRAC LENGTH	MEMB.	MAX. FACTORED FORCE (LBS)	MAX CS1 (LC)	
FR-TO		FROM TO				FR-TO			
I-B	-387 / 0	0.0	0.0	0.04 (1)	7.81	B-H	0 / 138	0.03 (1)	
A-B	0 / 35	-78.0	-78.0	0.11 (1)	10.00	H-C	-116 / 0	0.02 (1)	
B-C	-171 / 0	-78.0	-78.0	0.10 (1)	6.25	C-G	0 / 14	0.00 (1)	
C-D	-148 / 0	-78.0	-78.0	0.05 (1)	6.25	G-D	0 / 103	0.02 (4)	
D-E	-12 / 0	-78.0	-78.0	0.05 (1)	6.25	D-F	-229 / 0	0.06 (1)	
F-E	-56 / 0	0.0	0.0	0.02 (1)	7.81				
I-H	0 / 0	-18.5	-18.5	0.02 (4)	10.00				
H-G	0 / 130	-18.5	-18.5	0.04 (4)	10.00				
G-F	0 / 117	-18.5	-18.5	0.03 (4)	10.00				

DESIGN CRITERIA

SPECIFIED LOADS:

TOP	CH.	LL	=	21.0	PSF
		DL	=	6.0	PSF
BOT	CH.	LL	=	0.0	PSF
		DL	=	7.4	PSF
TOTAL LOAD					= 34.4 PSF

SPACING = 24.0 IN./C

THIS TRUSS IS DESIGNED FOR RESIDENTIAL OR SMALL BUILDING REQUIREMENTS OF PART 9, NBC2015

THIS DESIGN COMPLIES WITH:

- PART 9 OF CBC2018 , 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 23.0 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 21.0 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 (0.00")

CSI: TC=0.11/1.00 (A-B:1) , BC=0.04/1.00 (G-H:4) , WB=0.06/1.00 (D-F:1) , SSI=0.06/1.00 (A-B:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

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

NAIL VALUES

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

PLATE PLACEMENT TOL. = 0.250 inches

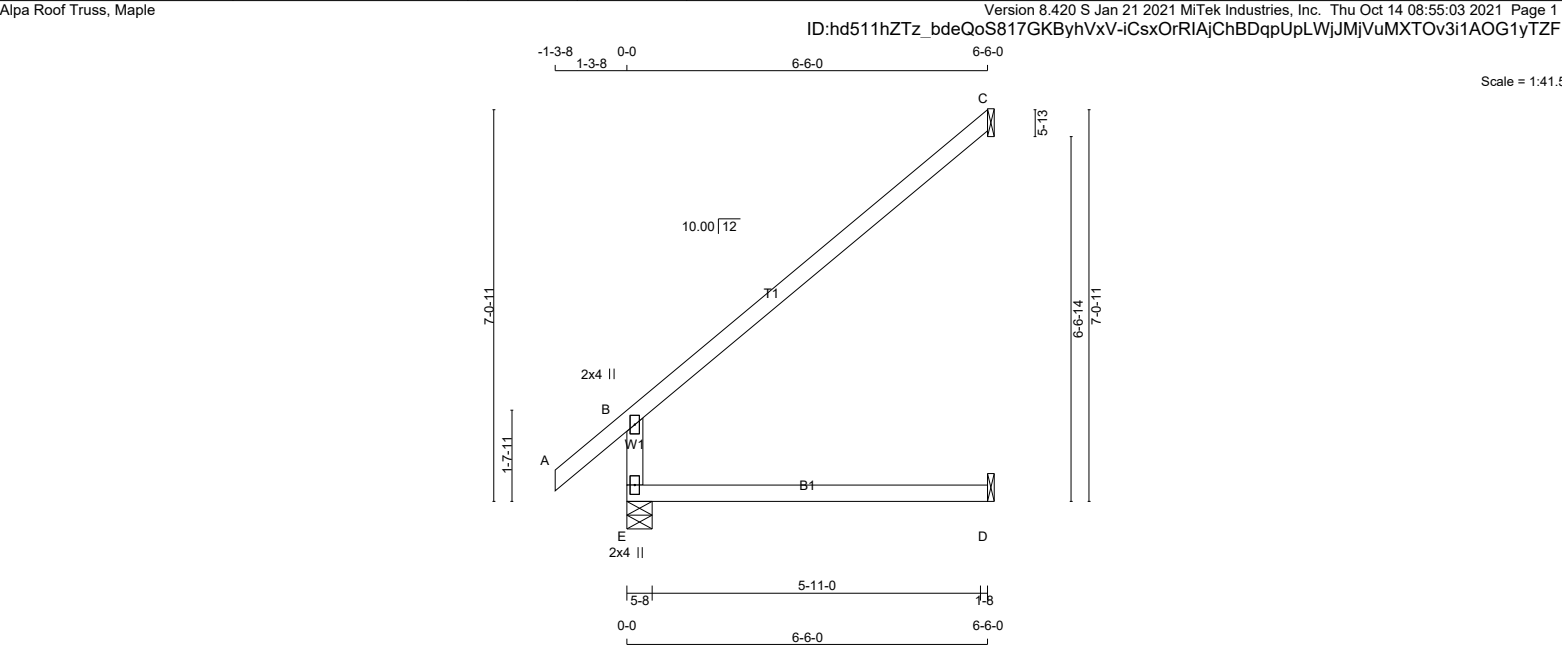
PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.33 (B) (INPUT = 0.90)
JSI METAL= 0.08 (I) (INPUT = 1.00)

LATERAL BRACE(S) SHOWN SHALL BE 2X4 SPF#2



JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
336335	J02		1	TRUSS DESC. JT 45147	E21104233



TOTAL WEIGHT = 36 X 21 = 743 lb

[M][F]

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

DRY: SEASONED LUMBER.

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

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

JT	FACTORED GROSS REACTION		MAXIMUM FACTORED GROSS REACTION		INPUT BRG	REQRD BRG
	VERT	HORZ	DOWN	HORZ		
E	494	0	494	0	5-8	1-8
C	190	0	190	0	1-8	1-8
D	51	0	57	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				DEAD	SOIL
	SNOW	LIVE	PERM.LIVE	WIND				
E	350	229 / 0	0 / 0	0 / 0	0 / 0	121 / 0	0 / 0	
C	132	102 / 0	0 / 0	0 / 0	0 / 0	29 / 0	0 / 0	
D	41	0 / 0	0 / 0	0 / 0	0 / 0	41 / 0	0 / 0	

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

BRACING

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

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

LOADING

TOTAL LOAD CASES: (4)

CHORDS				WEBS			
MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)		MAX. UNBRAC LENGTH	MEMB. FR-TO	MAX. FACTORED FORCE (LBS)	MAX. CSI (LC)
		FROM	TO				
E- B	-425 / 0	0.0	0.0	0.13 (4)	7.81		
A- B	0 / 35	-78.0	-78.0	0.11 (1)	10.00		
B- C	-41 / 0	-78.0	-78.0	0.44 (1)	6.25		
E- D	0 / 0	-18.5	-18.5	0.16 (4)	10.00		

DESIGN CRITERIA

SPECIFIED LOADS:

TOP CH.	LL = 21.0	PSF
	DL = 6.0	PSF
BOT CH.	LL = 0.0	PSF
	DL = 7.4	PSF
TOTAL LOAD	= 34.4	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 CBC 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 23.0 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 21.0 P.S.F. SPECIFIED ROOF LIVE LOAD

ALLOWABLE DEFL.(LL)= L/360 (0.22")
CALCULATED VERT. DEFL.(LL) = L/ 999 (0.00")
ALLOWABLE DEFL.(TL)= L/360 (0.22")
CALCULATED VERT. DEFL.(TL) = L/ 999 (0.05")

CSI: TC=0.44/1.00 (B-C:1) , BC=0.16/1.00 (D-E:4) , WB=0.00/1.00 (n/a:0) , SSI=0.19/1.00 (B-C:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

AUTOSOLVE RIGHT HEEL ONLY

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

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

PLATE PLACEMENT TOL. = 0.250 inches

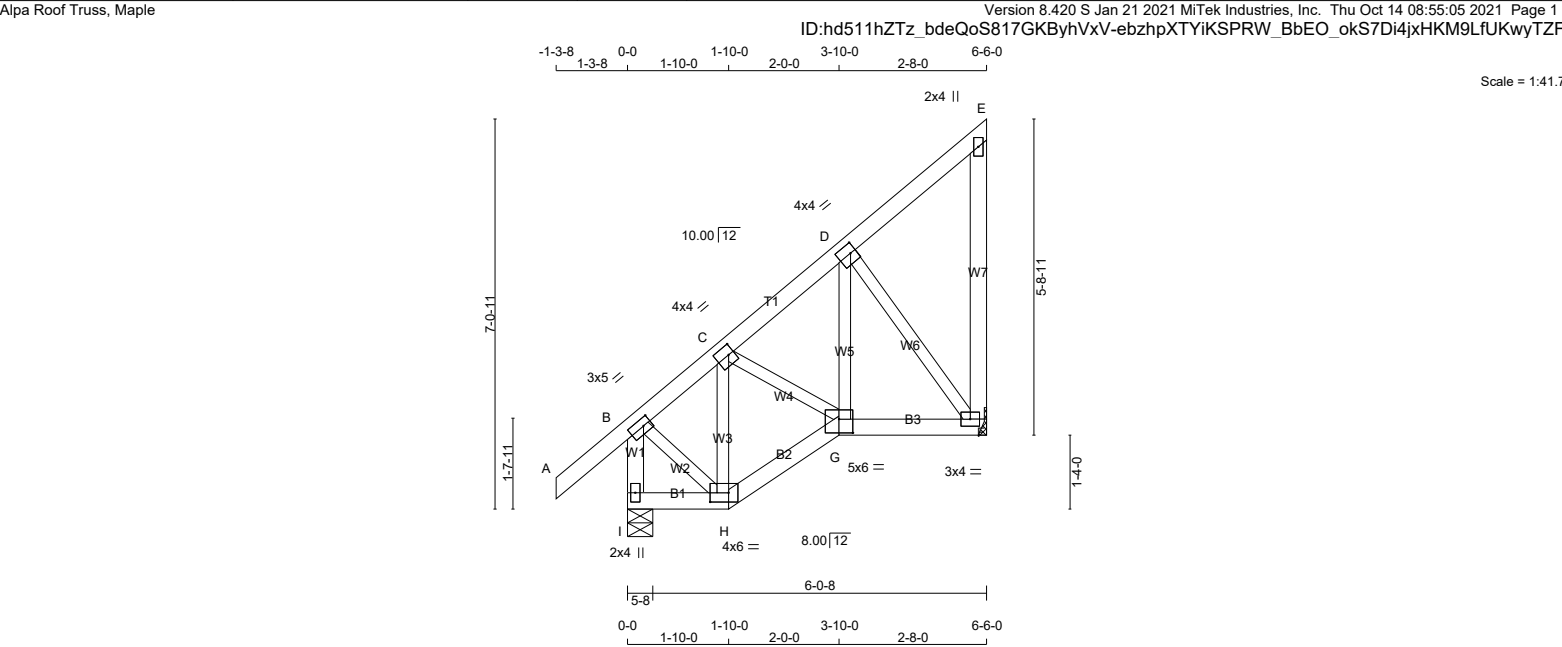
PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.29 (B) (INPUT = 0.90)
JSI METAL= 0.23 (B) (INPUT = 1.00)

LATERAL BRACE(S) SHOWN SHALL BE 2X4 SPF#2



JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
336335	J02T		1	TRUSS DESC. JT 45147	E21104234



LUMBER				
N. L. G. A. RULES				
CHORDS	SIZE	LUMBER	DESCR.	
I - B	2x4	DRY No.2	SPF	
A - E	2x4	DRY No.2	SPF	
F - E	2x4	DRY No.2	SPF	
I - H	2x4	DRY No.2	SPF	
H - G	2x4	DRY No.2	SPF	
G - 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	TMVW-t	MT20	3.0	5.0	1.50 1.75
C	TMWW-t	MT20	4.0	4.0	2.00 1.25
D	TMWW-t	MT20	4.0	4.0	2.00 1.25
E	TMV+p	MT20	2.0	4.0	
F	BMVW1-t	MT20	3.0	4.0	
G	BBWW-I	MT20	5.0	6.0	3.00 3.00
H	BBWW-I	MT20	4.0	6.0	2.00 4.00
I	BMV1+p	MT20	2.0	4.0	

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

	FACTORED GROSS REACTION		MAXIMUM FACTORED GROSS REACTION		INPUT BRG IN-SX	REQD BRG IN-SX
	VERT	HORZ	DOWN	HORZ		
JT	433	0	433	0	5-8	1-8
F	302	0	302	0	MECHANICAL	

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

UNFACTORED REACTIONS

	1ST LCASE MAX./MIN. COMPONENT REACTIONS						
	COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
JT	306	201 / 0	0 / 0	0 / 0	0 / 0	105 / 0	0 / 0
F	216	130 / 0	0 / 0	0 / 0	0 / 0	85 / 0	0 / 0

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

BRACING

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

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

LOADING

TOTAL LOAD CASES: (4)

CHORDS				WEBS			
MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	LC1 MAX CSI (LC)	MAX. UNBRACED LENGTH	MEMB.	MAX. FACTORED FORCE (LBS)	MAX CSI (LC)
FR-TO		FROM TO		FR-TO			
I-B	-416 / 0	0.0	0.0 0.04 (1)	7.81	B-H	0 / 159	0.04 (1)
A-B	0 / 35	-78.0	-78.0 0.11 (1)	10.00	H-C	-139 / 0	0.03 (1)
B-C	-195 / 0	-78.0	-78.0 0.08 (1)	6.25	C-G	0 / 43	0.01 (1)
C-D	-194 / 0	-78.0	-78.0 0.06 (1)	6.25	G-D	0 / 104	0.03 (4)
D-E	-13 / 0	-78.0	-78.0 0.06 (1)	6.25	D-F	-253 / 0	0.07 (1)
F-E	-79 / 0	0.0	0.0 0.05 (1)	7.81			
I-H	0 / 0	-18.5	-18.5 0.02 (4)	10.00			
H-G	0 / 150	-18.5	-18.5 0.04 (4)	10.00			
G-F	0 / 157	-18.5	-18.5 0.05 (4)	10.00			

DESIGN CRITERIA

SPECIFIED LOADS:

TOP CH.	LL = 21.0	PSF
	DL = 6.0	PSF
BOT CH.	LL = 0.0	PSF
	DL = 7.4	PSF
TOTAL LOAD	= 34.4	PSF

SPACING = 24.0 IN./C

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

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

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

(55 % OF 23.0 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 21.0 P.S.F. SPECIFIED ROOF LIVE LOAD

ALLOWABLE DEFL.(LL)= L/360 (0.22")
CALCULATED VERT. DEFL.(LL) = L/999 (0.00")
ALLOWABLE DEFL.(TL)= L/360 (0.22")
CALCULATED VERT. DEFL.(TL) = L/999 (0.00")

CSI: TC=0.11/1.00 (A-B:1), BC=0.05/1.00 (F-G:4), WB=0.07/1.00 (D-F:1), SSI=0.07/1.00 (D-E:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

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

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

PLATE PLACEMENT TOL. = 0.250 inches

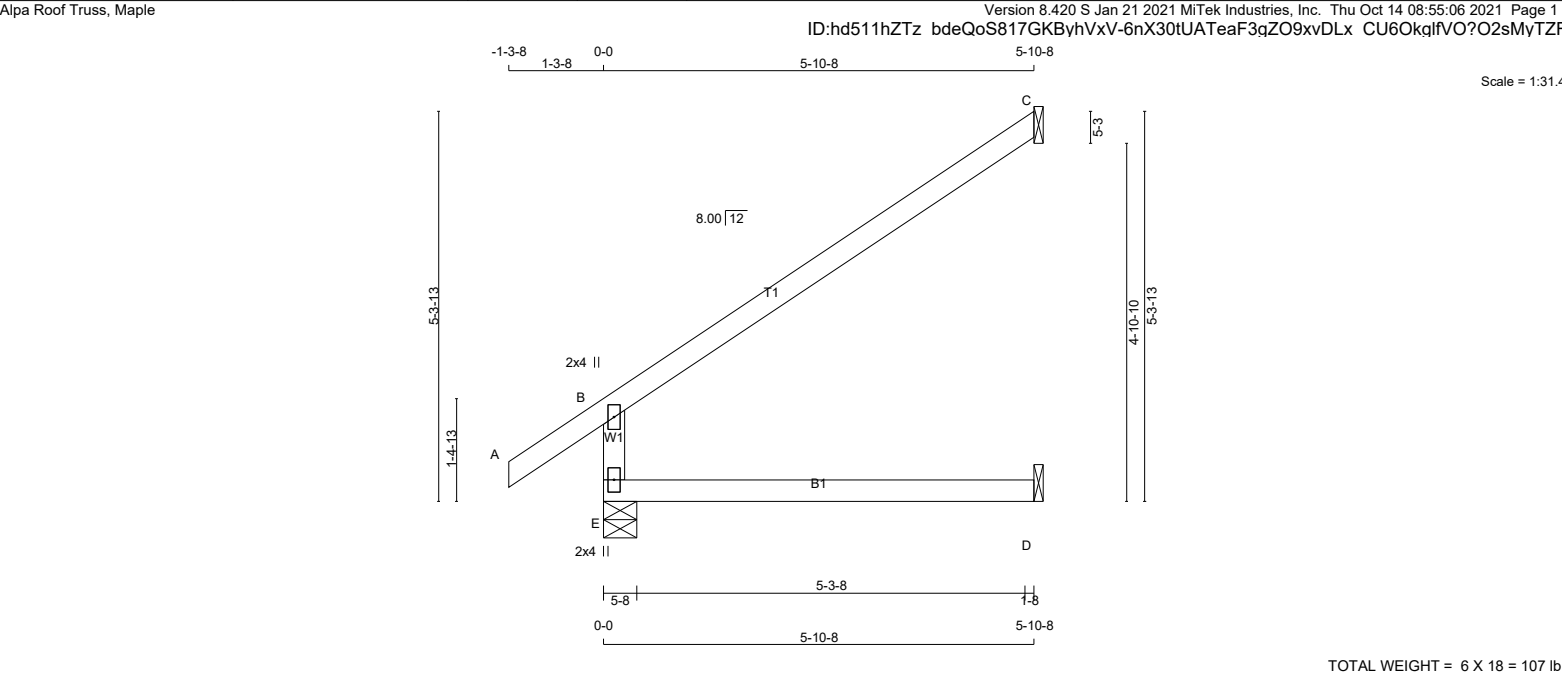
PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.35 (B) (INPUT = 0.90)
JSI METAL= 0.09 (B) (INPUT = 1.00)

LATERAL BRACE(S) SHOWN SHALL BE 2X4 SPF#2



JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
336335	J04		1	TRUSS DESC. JT 45147	E21104235

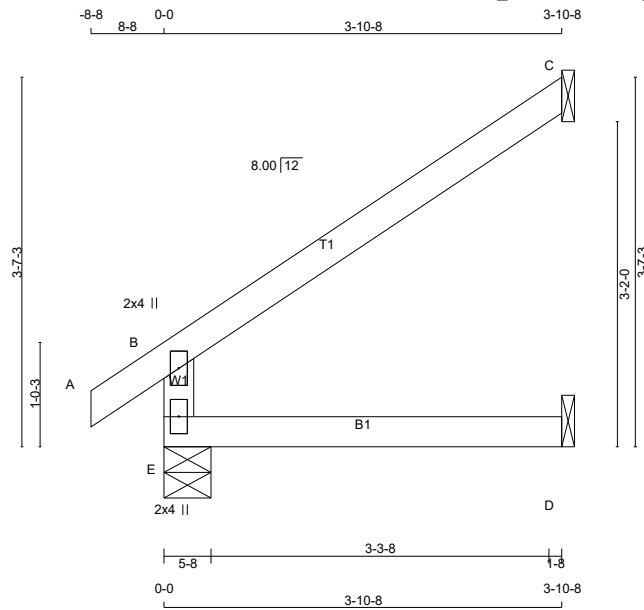


LUMBER N. L. G. A. RULES CHORDS SIZE LUMBER DESCR. E - B 2x4 DRY No.2 SPF A - C 2x4 DRY No.2 SPF E - D 2x4 DRY No.2 SPF DRY: SEASONED LUMBER.							DIMENSIONS, SUPPORTS AND LOADINGS SPECIFIED BY FABRICATOR TO BE VERIFIED BY BUILDING DESIGNER BEARINGS <table><tr><th></th><th colspan="2">FACTORED GROSS REACTION</th><th colspan="2">MAXIMUM FACTORED GROSS REACTION</th><th colspan="2">INPUT BRG</th><th colspan="2">REQRD BRG</th></tr><tr><th>JT</th><th>VERT</th><th>HORZ</th><th>DOWN</th><th>HORZ</th><th>UPLIFT</th><th>IN-SX</th><th>IN-SX</th><th></th></tr><tr><td>E</td><td>456</td><td>0</td><td>456</td><td>0</td><td>0</td><td>5-8</td><td>1-8</td><td></td></tr><tr><td>C</td><td>172</td><td>0</td><td>172</td><td>0</td><td>0</td><td>1-8</td><td>1-8</td><td></td></tr><tr><td>D</td><td>46</td><td>0</td><td>51</td><td>0</td><td>0</td><td>1-8</td><td>1-8</td><td></td></tr></table> SEE MITEK STANDARD DETAIL B97791H FOR CONNECTION TO JOINT(S) C , D UNFACTORED REACTIONS <table><tr><th>JT</th><th>1ST LCASE</th><th colspan="6">MAX./MIN. COMPONENT REACTIONS</th></tr><tr><th>JT</th><th>COMBINED</th><th>SNOW</th><th>LIVE</th><th>PERM.LIVE</th><th>WIND</th><th>DEAD</th><th>SOIL</th></tr><tr><td>E</td><td>323</td><td>212 / 0</td><td>0 / 0</td><td>0 / 0</td><td>0 / 0</td><td>111 / 0</td><td>0 / 0</td></tr><tr><td>C</td><td>119</td><td>93 / 0</td><td>0 / 0</td><td>0 / 0</td><td>0 / 0</td><td>26 / 0</td><td>0 / 0</td></tr><tr><td>D</td><td>36</td><td>0 / 0</td><td>0 / 0</td><td>0 / 0</td><td>0 / 0</td><td>36 / 0</td><td>0 / 0</td></tr></table> BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S) E BRACING TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 6.25 FT. MAX. UNBRACED BOTTOM CHORD LENGTH = 10.00 FT OR RIGID CEILING DIRECTLY APPLIED. ALL PITCH BREAKS AND PERIMETER CORNER JOINTS MUST BE Laterally RESTRAINED. LOADING TOTAL LOAD CASES: (4) <table><tr><th colspan="4">CHORDS</th><th colspan="4">WEBS</th></tr><tr><th>MEMB.</th><th>MAX. FACTORED FORCE (LBS)</th><th>FACTORED VERT. LOAD (PLF)</th><th>LC1 MAX (LC)</th><th>MAX. UNBRAC LENGTH</th><th>MEMB.</th><th>MAX. FACTORED FORCE (LBS)</th><th>MAX (LC)</th></tr><tr><td>FR-TO</td><td></td><td>FROM</td><td>TO</td><td></td><td>FR-TO</td><td></td><td></td></tr><tr><td>E- B</td><td>-393 / 0</td><td>0.0</td><td>0.0</td><td>0.12 (4)</td><td>7.81</td><td></td><td></td></tr><tr><td>A- B</td><td>0 / 30</td><td>-78.0</td><td>-78.0</td><td>0.10 (1)</td><td>10.00</td><td></td><td></td></tr><tr><td>B- C</td><td>-32 / 0</td><td>-78.0</td><td>-78.0</td><td>0.46 (1)</td><td>6.25</td><td></td><td></td></tr><tr><td>E- D</td><td>0 / 0</td><td>-18.5</td><td>-18.5</td><td>0.13 (4)</td><td>10.00</td><td></td><td></td></tr></table>											FACTORED GROSS REACTION		MAXIMUM FACTORED GROSS REACTION		INPUT BRG		REQRD BRG		JT	VERT	HORZ	DOWN	HORZ	UPLIFT	IN-SX	IN-SX		E	456	0	456	0	0	5-8	1-8		C	172	0	172	0	0	1-8	1-8		D	46	0	51	0	0	1-8	1-8		JT	1ST LCASE	MAX./MIN. COMPONENT REACTIONS						JT	COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL	E	323	212 / 0	0 / 0	0 / 0	0 / 0	111 / 0	0 / 0	C	119	93 / 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	CHORDS				WEBS				MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	LC1 MAX (LC)	MAX. UNBRAC LENGTH	MEMB.	MAX. FACTORED FORCE (LBS)	MAX (LC)	FR-TO		FROM	TO		FR-TO			E- B	-393 / 0	0.0	0.0	0.12 (4)	7.81			A- B	0 / 30	-78.0	-78.0	0.10 (1)	10.00			B- C	-32 / 0	-78.0	-78.0	0.46 (1)	6.25			E- D	0 / 0	-18.5	-18.5	0.13 (4)	10.00			DESIGN CRITERIA SPECIFIED LOADS: TOP CH. LL = 21.0 PSF DL = 6.0 PSF BOT CH. LL = 0.0 PSF DL = 7.4 PSF TOTAL LOAD = 34.4 PSF SPACING = 24.0 IN./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 23.0 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 21.0 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=0.46/1.00 (B-C:1) , BC=0.13/1.00 (D-E:4) , WB=0.00/1.00 (n/a:0) , SSI=0.19/1.00 (B-C:1) DOL LUMBER=1.00 NAIL=1.00 LS BEND=1.10 COMP=1.10 SHEAR=1.10 TENS= 1.10 COMPANION LIVE LOAD FACTOR = 1.00 AUTOSOLVE RIGHT HEEL ONLY TRUSS PLATE MANUFACTURER IS NOT RESPONSIBLE FOR QUALITY CONTROL IN THE TRUSS MANUFACTURING PLANT . NAIL VALUES PLATE GRIP(DRY) SHEAR SECTION (PSI) (PLI) (PLI) MAX MIN MAX MIN MAX MIN MT20 650 371 1747 788 1987 1873 PLATE PLACEMENT TOL. = 0.250 inches PLATE ROTATION TOL. = 5.0 Deg. JSI GRIP= 0.24 (B) (INPUT = 0.90) JSI METAL= 0.20 (B) (INPUT = 1.00)						
	FACTORED GROSS REACTION		MAXIMUM FACTORED GROSS REACTION		INPUT BRG		REQRD BRG																																																																																																																																																													
JT	VERT	HORZ	DOWN	HORZ	UPLIFT	IN-SX	IN-SX																																																																																																																																																													
E	456	0	456	0	0	5-8	1-8																																																																																																																																																													
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CHORDS				WEBS																																																																																																																																																																
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FR-TO		FROM	TO		FR-TO																																																																																																																																																															
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PLATES (table is in inches) <table><tr><th>JT</th><th>TYPE</th><th>PLATES</th><th>W</th><th>LEN</th><th>Y</th><th>X</th></tr><tr><td>B</td><td>TMV+p</td><td>MT20</td><td>2.0</td><td>4.0</td><td></td><td></td></tr><tr><td>E</td><td>BMV1+p</td><td>MT20</td><td>2.0</td><td>4.0</td><td></td><td></td></tr></table>							JT	TYPE	PLATES	W	LEN	Y	X	B	TMV+p	MT20	2.0	4.0			E	BMV1+p	MT20	2.0	4.0			LATERAL BRACE(S) SHOWN SHALL BE 2X4 SPF#2 																																																																																																																																								
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Alpa Roof Truss, Maple

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Scale = 1:22.4



TOTAL WEIGHT = 2 X 12 = 23 lb

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.

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

	FACTORED GROSS REACTION		MAXIMUM FACTORED GROSS REACTION			INPUT BRG	REQD BRG
JT	VERT	HORZ	DOWN	HORZ	UPLIFT	IN-SX	IN-SX
E	292	0	292	0	0	5-8	1-8
C	113	0	113	0	0	1-8	1-8
D	30	0	34	0	0	1-8	1-8

JT	1ST LCASE COMBINED	MAX./MIN. COMPONENT REACTIONS					
		SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
E	207	135 / 0	0 / 0	0 / 0	0 / 0	72 / 0	0 / 0
C	78	61 / 0	0 / 0	0 / 0	0 / 0	17 / 0	0 / 0
D	24	0 / 0	0 / 0	0 / 0	0 / 0	24 / 0	0 / 0

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.

TOTAL LOAD CASES: (4)

CHORDS				WEBS				
MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	LC1	MAX CSI (LC)	MAX. UNBRAC LENGTH	MEMB. FR-TO	MAX. FACTORED FORCE (LBS)	MAX CSI (LC)
FR-TO		FROM	TO					
E-B	-250 / 0	0.0	0.0	0.04 (4)	7.81			
A-B	0 / 17	-78.0	-78.0	0.04 (1)	10.00			
B-C	-21 / 0	-78.0	-78.0	0.15 (1)	6.25			
E-D	0 / 0	-18.5	-18.5	0.06 (4)	10.00			

LATERAL BRACE(S) SHOWN SHALL BE
2X4 SPF#2



SPECIFIED LOADS:

TOP	CH.	LL	=	21.0	PSF
		DL	=	6.0	PSF
BOT	CH.	LL	=	0.0	PSF
		DL	=	7.4	PSF
TOTAL LOAD				=	34.4 PSF

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

-OVERHANG NOT TO BE ALTERED OR CUT OFF.

(55 % OF 23.0 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 21.0 P.S.F. SPECIFIED ROOF LIVE LOAD

ALLOWABLE DEFL.(LL)= L/360 (0.19")
CALCULATED VERT. DEFL.(LL) = L/ 999 (0.00")
ALLOWABLE DEFL.(TL)= L/360 (0.19")
CALCULATED VERT. DEFL.(TL) = L/ 999 (0.01")

CSI: TC=0.15/1.00 (B-C:1) , BC=0.06/1.00 (D-E:4) ,
WB=0.00/1.00 (n/a:0) , SSI=0.12/1.00 (B-C:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

AUTOSOLVE RIGHT HEEL ONLY

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

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

PLATE PLACEMENT TOL. = 0.250 inches

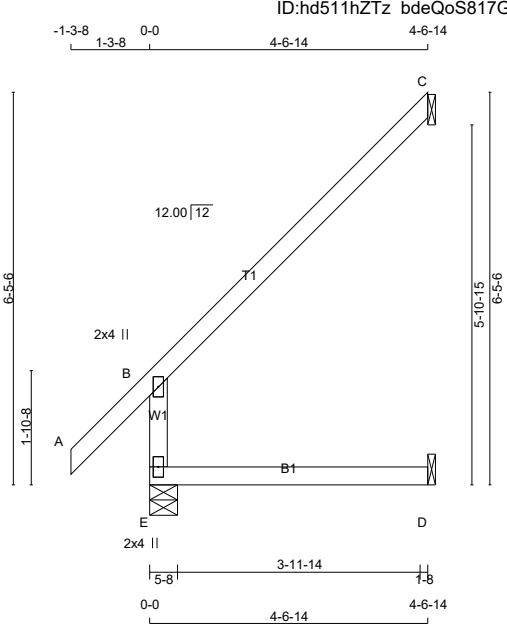
PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.15 (B) (INPUT = 0.90)
JSI METAL= 0.13 (B) (INPUT = 1.00)

JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
336335	J09		1	TRUSS DESC. JT 45147	E21104237

Alpa Roof Truss, Maple

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TOTAL WEIGHT = 4 X 17 = 67 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	2.0	4.0	
E	BMV1+p	MT20	2.0	4.0	

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

JT	FACTORED GROSS REACTION		MAXIMUM FACTORED GROSS REACTION		INPUT BRG IN-SX	REQRD BRG IN-SX
	VERT	HORZ	DOWN	HORZ		
E	379	0	379	0	5-8	1-8
C	134	0	134	0	1-8	1-8
D	37	0	41	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
E	268	178 / 0	0 / 0	0 / 0	0 / 0	89 / 0
C	93	72 / 0	0 / 0	0 / 0	0 / 0	21 / 0
D	30	0 / 0	0 / 0	0 / 0	0 / 0	30 / 0

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

BRACING

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

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

LOADING

TOTAL LOAD CASES: (4)

MEMB.	CHORDS MAX. FACTORED FORCE (LBS)		FACTORED VERT. LOAD (PLF)		MAX LC1 (LC)	MAX UNBRAC LENGTH	WEBS MAX. FACTORED FORCE (LBS)	
	FR-TO		FROM	TO			FR-TO	
E-B	-331 / 0		0.0	0.0	0.06 (4)	7.81		
A-B	0 / 38		-78.0	-78.0	0.11 (1)	10.00		
B-C	-31 / 0		-78.0	-78.0	0.28 (1)	6.25		
E-D	0 / 0		-18.5	-18.5	0.09 (4)	10.00		

DESIGN CRITERIA

SPECIFIED LOADS:

TOP CH.	LL = 21.0	PSF
	DL = 6.0	PSF
BOT CH.	LL = 0.0	PSF
	DL = 7.4	PSF
TOTAL LOAD	= 34.4	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 23.0 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 21.0 P.S.F. SPECIFIED ROOF LIVE LOAD

ALLOWABLE DEFL.(LL)= L/360 (0.19")
CALCULATED VERT. DEFL.(LL) = L/ 999 (0.00")
ALLOWABLE DEFL.(TL)= L/360 (0.19")
CALCULATED VERT. DEFL.(TL) = L/ 999 (0.01")

CSI: TC=0.28/1.00 (B-C:1) , BC=0.09/1.00 (D-E:4) ,
WB=0.00/1.00 (n/a:0) , 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)	SHEAR (PSI)	SECTION (PLI)			
	MAX	MIN	MAX	MIN	MAX
MT20	650	371	1747	788	1987

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.25 (B) (INPUT = 0.90)
JSI METAL= 0.17 (B) (INPUT = 1.00)

LATERAL BRACE(S) SHOWN SHALL BE 2X4 SPF#2

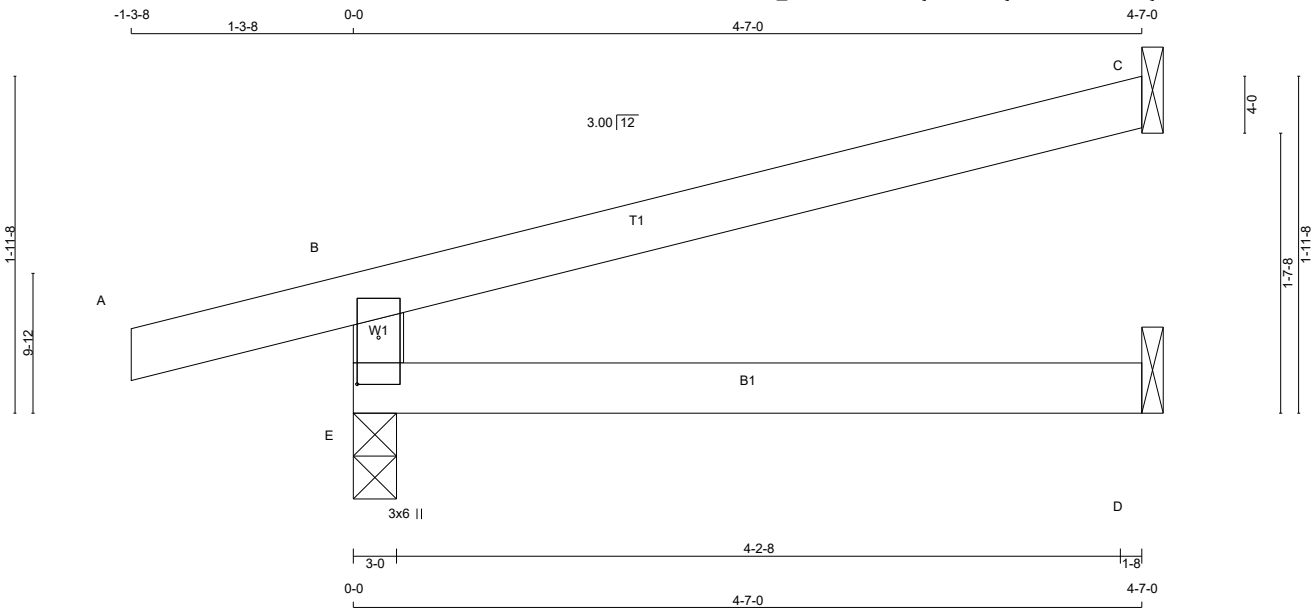


JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
336335	P04		1	TRUSS DESC. JT 45147	E21104238

Alpa Roof Truss, Maple

Version 8.420 S Jan 21 2021 MiTek Industries, Inc. Thu Oct 14 08:55:11 2021 Page 1

ID:hd511hZTz_bdeQoS817GKByhVxV-TILy3aYJHACY9RSLyUVO2?h6176dL0uEXG6pYZyTZFE



TOTAL WEIGHT = 9 X 13 = 113 lb [M]

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

PLATES (table is in inches)						
JT	TYPE	PLATES	W	LEN	Y	X
B						
E	TMBMV1+p	MT20	3.0	6.0	3.25	1.50

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

JT	FACTORED GROSS REACTION		MAXIMUM FACTORED GROSS REACTION		INPUT BRG	REQRD BRG
	VERT	HORZ	DOWN	HORZ	IN-SX	IN-SX
E	377	0	377	0	3-0	1-8
C	134	0	134	0	1-8	1-8
D	34	0	39	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	266	176 / 0	0 / 0	0 / 0	0 / 0	91 / 0	0 / 0
C	93	72 / 0	0 / 0	0 / 0	0 / 0	21 / 0	0 / 0
D	28	0 / 0	0 / 0	0 / 0	0 / 0	28 / 0	0 / 0

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

BRACING

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

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

LOADING

TOTAL LOAD CASES: (4)

MEMB.	CHORDS MAX. FACTORED FORCE (LBS)		FACTORED VERT. LOAD (PLF)		MAX LC1 CSI (LC)	WEBS MAX. FACTORED FORCE (LBS)	
	FR-TO		FROM	TO		FR-TO	MAX CSI (LC)
E-B	-327 / 0	0.0	0.0	0.09 (4)	7.81		
A-B	0 / 13	-78.0	-78.0	0.10 (1)	10.00		
B-C	-11 / 0	-78.0	-78.0	0.28 (1)	6.25		
E-D	0 / 0	-18.5	-18.5	0.09 (4)	10.00		

DESIGN CRITERIA

SPECIFIED LOADS:

TOP CH.	LL =	21.0	PSF
	DL =	6.0	PSF
BOT CH.	LL =	0.0	PSF
	DL =	7.4	PSF
TOTAL LOAD	=	34.4	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 CBC 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 23.0 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 21.0 P.S.F. SPECIFIED ROOF LIVE LOAD

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CALCULATED VERT. DEFL.(LL) = L/ 999 (0.00")
ALLOWABLE DEFL.(TL)= L/360 (0.19")
CALCULATED VERT. DEFL.(TL) = L/ 999 (0.01")

CSI: TC=0.28/1.00 (B-C:1) , BC=0.09/1.00 (D-E:4) ,
WB=0.00/1.00 (n/a:0) , SSI=0.17/1.00 (B-C:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

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

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

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

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

LATERAL BRACE(S) SHOWN SHALL BE 2X4 SPF#2



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:

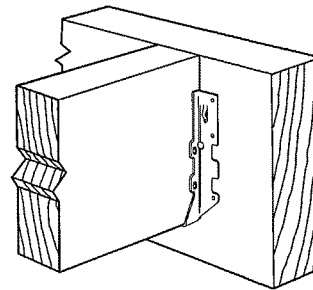
- Factored resistances are in accordance with CSA O86-14 and CSA O86:19.
- Uplift resistances have been increased 15%. No further increase is permitted.
- Wood shear is not considered in the factored resistances given. The specifier must ensure that the joist and header capacities are capable of withstanding these loads.

Installation:

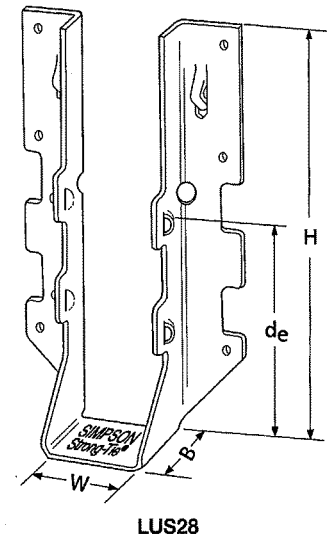
- Use all specified fasteners
- Nails: 16d = 0.162" dia. x 3½" long common wire,
10d = 0.148" x 3" long common wire
- Double-shear nails must be driven at an angle through the joist or truss into the header to achieve the table loads
- Not designed for welded or nailer applications

Options:

- These hangers cannot be modified

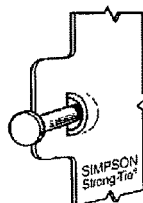


Typical LUS
Installation



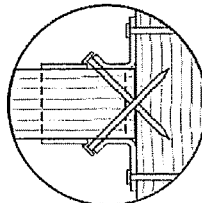
Model No.	Ga.	Dimensions (in.)				Fasteners		Factored Resistance (lb.)			
								D-Fir-L		S-P-F	
		W	H	B	d ₁ ¹	Face	Joist	Uplift (K ₀ =1.15)	Normal (K ₀ =1.00)	Uplift (K ₀ =1.15)	Normal (K ₀ =1.00)
LUS24	18	1⅞	3⅞	1¼	1⅞	(4) 10d	(2) 10d	710	1630	645	1155
LUS24-2	18	3⅞	3⅞	2	1⅞	(4) 16d	(2) 16d	835	2020	590	1435
LUS26	18	1⅞	4¾	1¼	3⅞	(4) 10d	(4) 10d	1420	2170	1290	1630
LUS26-2	18	3⅞	4¾	2	4	(4) 16d	(4) 16d	1720	2595	1545	1920
LUS26-3	18	4⅞	4¾	2	3¼	(4) 16d	(4) 16d	1720	2595	1545	2340
LUS28	18	1⅞	6⅞	1¼	3¾	(6) 10d	(6) 10d	1420	2520	1290	1790
LUS28-2	18	3⅞	7	2	4	(6) 16d	(4) 16d	1720	3325	1545	2575
LUS28-3	18	4⅞	6¼	2	3¼	(6) 16d	(4) 16d	1720	3325	1545	2375
LUS210	18	1⅞	7⅞	1¼	3⅞	(8) 10d	(4) 10d	1420	2785	1290	2210
LUS210-2	18	3⅞	9	2	6	(8) 16d	(6) 16d	2580	4500	2320	3195
LUS210-3	18	4⅞	8⅞	2	5¼	(8) 16d	(6) 16d	2580	3345	2320	2375

1. d₁ is the distance from the seat of the hanger to the highest joist nail.

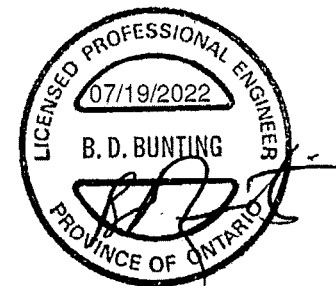


Dome double-shear nailing prevents tabs breaking off (available on some models).

US Patent
5,603,580



Double-shear nailing top view.



This technical bulletin is effective until December 31, 2024, and reflects information available as of July 1, 2022. This information is updated periodically and should not be relied upon after December 31, 2024. Contact Simpson Strong-Tie for current information and limited warranty or see strongtie.com.

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T-SPECLUS22 7/22 exp. 12/24

(800) 999-5099
strongtie.com

HUS/LJS — Double-Shear Joist Hangers

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

Material: See table

Finish: G90 galvanized

Design:

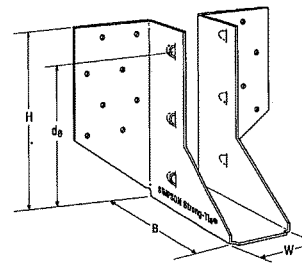
- Factored resistances are in accordance with CSA O86-14 and CSA O86:19.
- Uplift resistances have been increased 15%. No further increase is permitted.
- Wood shear is not considered in the factored resistances given. The specifier must ensure that the joist and header capacities are capable of withstanding these loads.

Installation:

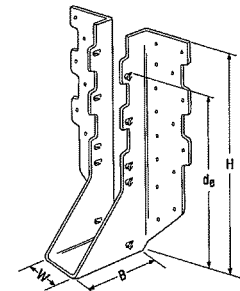
- Use all specified fasteners
- Nails: 16d = 0.162" dia. x 3½" long common wire
- Double-shear nails must be driven at an angle through the joist or truss into the header to achieve the table loads
- Not designed for welded or nailer applications

Options:

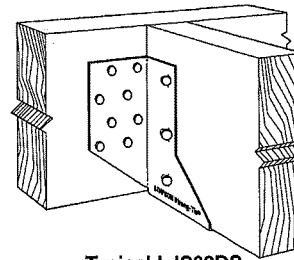
- See current catalogue for options



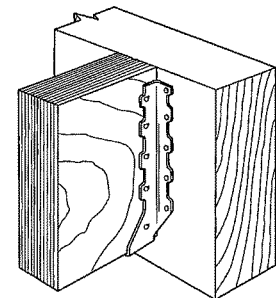
LJS26DS



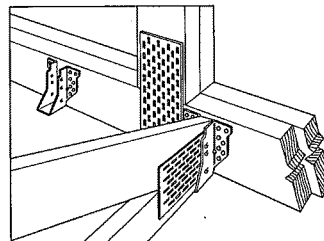
HUS210
(HUS26, HUS28, similar)



Typical LJS26DS
Installation



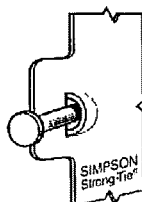
Typical HUS
Installation



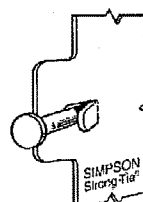
Typical HUS Installation
(Truss designer to provide fastener quantity for connecting multiple members together)

Model No.	Ga.	Dimensions (in.)				Fasteners		Factored Resistance (lb.)			
		W	H	B	d _e ¹	Face	Joist	D.Fir-L		S-P-F	
								Uplift (K ₀ =1.15) lb.	Normal (K ₀ =1.00) lb.	Uplift (K ₀ =1.15) lb.	Normal (K ₀ =1.00) lb.
LJS26DS	18	1⅞	5	3½	4⅝	(16) 16d	(6) 16d	2055	4265	1460	4115
HUS26	16	1⅝	5⅝	3	3⅞	(14) 16d	(6) 16d	2705	4940	2065	3875
HUS28	16	1⅝	7⅝	3	6⅝	(22) 16d	(8) 16d	3605	5365	2675	4345
HUS210	16	1⅝	9⅝	3	7⅝	(30) 16d	(10) 16d	4505	5795	4010	4740
HUS1.81/10	16	1⅞	9	3	8	(30) 16d	(10) 16d	4505	6450	4010	5200

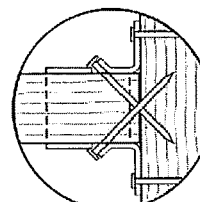
1. d_e is the distance from the seat of the hanger to the highest joist nail.



Dome double-shear nailing prevents tabs breaking off (available on some models).
US Patent 5,603,580



Double-shear nailing side view. Do not bend tab back.



Double-shear nailing top view.



This technical bulletin is effective until December 31, 2024, and reflects information available as of July 1, 2022. This information is updated periodically and should not be relied upon after December 31, 2024. Contact Simpson Strong-Tie for current information and limited warranty or see strongtie.com.

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strongtie.com

HHUS — Double-Shear Joist Hangers

SIMPSON
Strong-Tie

All HHUS 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: 14 gauge

Finish: G90 galvanized

Design:

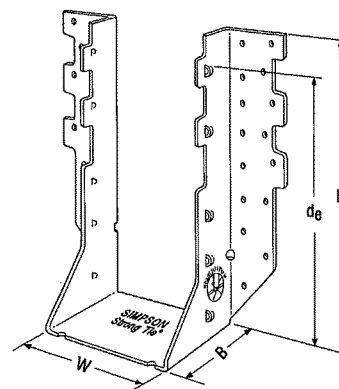
- Factored resistances are in accordance with CSA O86-14 and CSA O86:19.
- Uplift resistances have been increased 15%. No further increase is permitted.
- Wood shear is not considered in the factored resistances given. The specifier must ensure that the joist and header capacities are capable of withstanding these loads.

Installation:

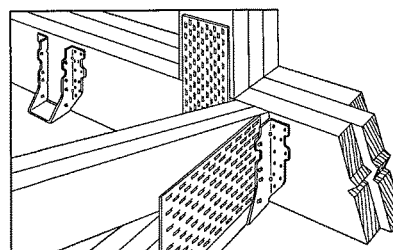
- Use all specified fasteners
- Nails: 16d = 0.162" dia. x 3½" long common wire
- Double-shear nails must be driven at an angle through the joist or truss into the header to achieve the table loads
- Not designed for welded or nailer applications

Options:

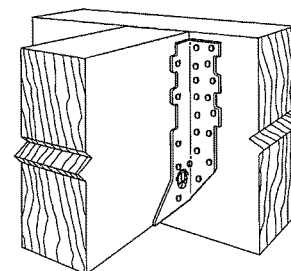
- See current catalogue for options



HHUS410



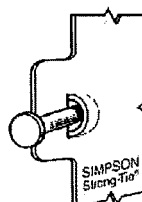
Typical HHUS Installation
(Truss designer to provide fastener quantity for connecting multiple members together)



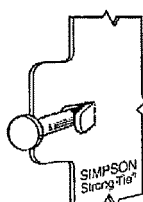
Typical HHUS Installation

Model No.	Ga.	Dimensions (in.)				Fasteners		Factored Resistance (lb.)			
		W	H	B	d _e ¹	Face	Joist	D.Fir-L		S-P-F	
								Uplift (K _o =1.15)	Normal (K _o =1.00)	Uplift (K _o =1.15)	Normal (K _o =1.00)
HHUS26-2	14	3 1/16	5 1/16	3	3 1/16	(14) 16d	(6) 16d	2850	7335	2065	5205
HHUS28-2	14	3 1/16	7 1/32	3	6 3/32	(22) 16d	(8) 16d	3765	8940	2675	6345
HHUS210-2	14	3 1/16	9 3/32	3	8	(30) 16d	(10) 16d	4670	9660	4235	7000
HHUS210-3	14	4 1/16	9	3	7 1/16	(30) 16d	(10) 16d	4670	9670	4235	6865
HHUS210-4	14	6 1/8	8 29/32	3	7 27/32	(30) 16d	(10) 16d	4670	10155	4235	7210
HHUS46	14	3 5/8	5 19/32	3	3 1/16	(14) 16d	(6) 16d	2540	7335	2065	5205
HHUS48	14	3 5/8	7 1/8	3	6 1/8	(22) 16d	(8) 16d	3765	8945	2267	6345
HHUS410	14	3 5/8	9	3	8	(30) 16d	(10) 16d	4670	9855	4235	7000
HHUS5.50/10	14	5 1/2	9	3	8	(30) 16d	(10) 16d	4670	10155	4235	7210
HHUS7.25/10	14	7 1/4	9	3 5/16	7 29/32	(30) 16d	(10) 16d	4670	10155	3370	7210

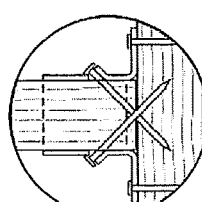
1. d_e is the distance from the seat of the hanger to the highest joist nail.



Double-shear nailing prevents tabs breaking off (available on some models).
US Patent 5,603,580



Double-shear nailing side view. Do not bend tab back.



Double-shear nailing top view.

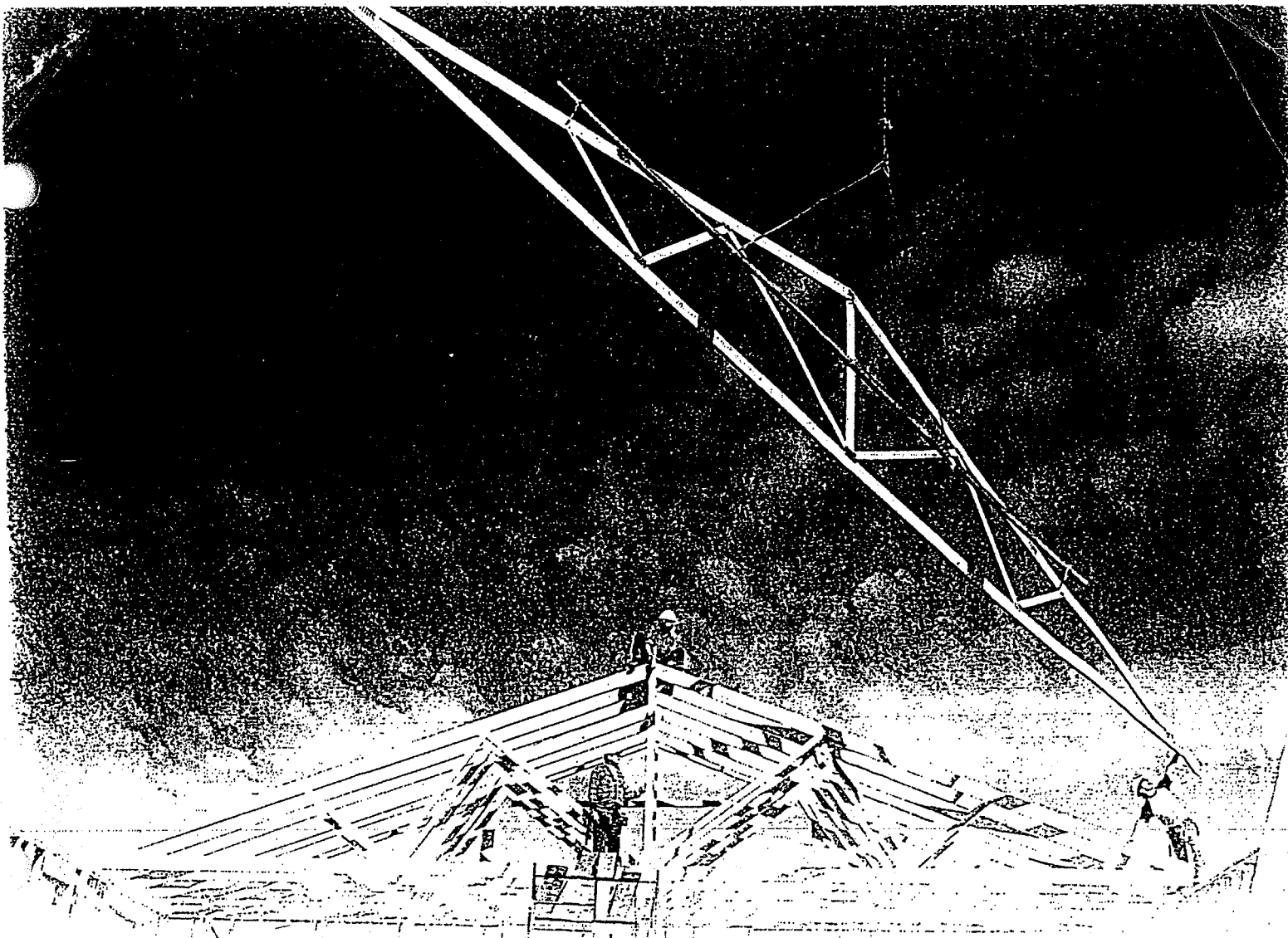


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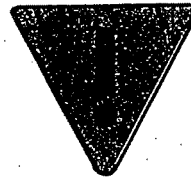
Wood Truss Installation

**A Guide to proper handling, erecting and bracing
metal plate connected wood trusses**

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Warning.....	4
1 Unloading & Lifting.....	5
2 Job Site Handling.....	5
3 Hoisting.....	6
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5 Erection Tolerance.....	8
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7 Bracing Requirements for 3 Planes of Roof.....	9
8 Stacking Materials.....	10
Caution Notes.....	11

Warning



General

Familiarity with the Construction Design Documents, the Truss Design Drawings, and Truss Placement Plans (if required by the Construction Design Documents) is required to properly erect, brace, and connect the trusses to the building system.

All of the care and quality involved in the design and manufacture of wood trusses can be jeopardized if the trusses are not properly handled, erected, and braced.

The consequences of improper handling, erecting, and bracing may be a collapse of the structure, which at best is a substantial loss of time and materials, and at worst is a loss of life. The majority of truss accidents occur during truss installation and not as a result of improper design or manufacture.

Prior to truss erection, the builder/erector shall meet with the erection crew for a safety and planning meeting, making sure each crew member understands his or her roles and responsibilities during the erection process.

Temporary Erection Bracing

Trusses are not marked in any way to identify the frequency, or location of temporary erection bracing.

All temporary bracing shall comply with the latest edition of *Commentary and Recommendations for Handling, Installing & Bracing Metal Plate Connected Wood Trusses* (HIB), published by the Truss Plate Institute, and/or as specified in the Construction Design Documents prepared by the building designer.

Permanent Truss Bracing

Permanent bracing for the roof or floor trusses is the responsibility of the building designer and should be shown on the Construction Design Documents. Permanent bracing locations for individual compression members of a wood truss are shown on the Truss Design Drawings, and shall be installed by the building or erection contractor. This bracing is needed for the proper performance of individual trusses within the roof or floor system. The design and connection of the bracing to the truss and then to the overall building system is the responsibility of the building designer, and is in addition to the permanent bracing plan, which is also specified by the building designer.

Special Design Requirements

Special design requirements, such as wind bracing, portal bracing, seismic bracing, diaphragms, shear walls, or other load transfer elements and their connections to wood trusses must be considered separately by the building designer, who shall determine size, location, and method of connections for all bracing as needed to resist these forces.

1 Unloading & Lifting

Never handle trusses flat

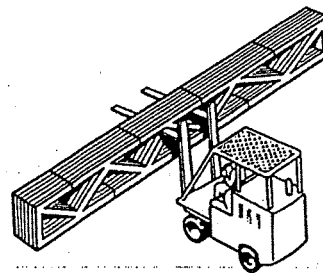
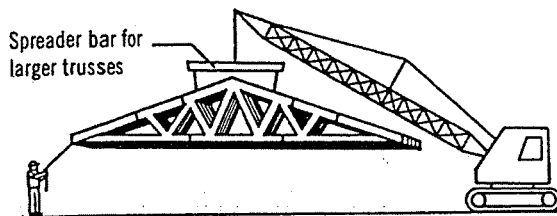
Beginning with the unloading process, and throughout all phases of construction, care must be taken to avoid lateral bending of trusses, which can cause damage to the lumber and metal connector plates at the joints.



Avoid lateral bending

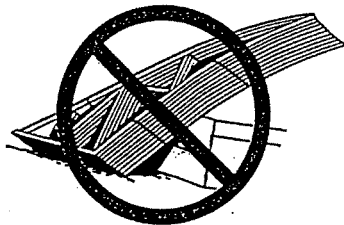
- Use special care in windy weather.
- If using a crane within 10 feet of an electric line, contact the local power company.
- If using a crane within 5 miles of an airport, contact the airport 30 days prior to erection to learn about any safety regulations that must be followed.

2 Job Site Handling



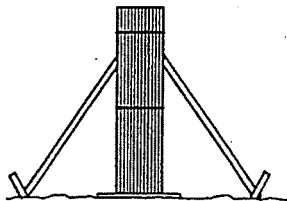
All trusses should be picked up at the top chords in a vertical position only

Proper banding and smooth ground allow for unloading of trusses without damage. This should be done as close to the building site as possible to minimize handling. Do not break banding until installation begins. Hand erection of trusses is allowed, provided excessive lateral bending is prevented.



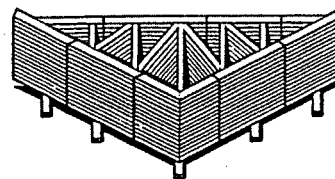
Do not store unbraced bundles upright

If trusses are stored vertically they shall be braced in a manner that will prevent tipping or topping. Generally cutting of the banding is done just prior to installation.



Do not store on uneven ground

If trusses are stored horizontally, blocking should be used on eight to ten foot centers, or as required, to minimize lateral bending and moisture gain.

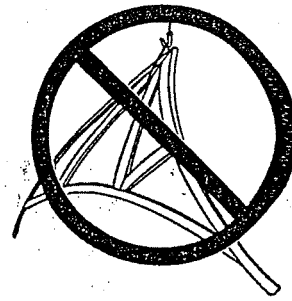


Care should be exercised when removing banding to avoid damaging trusses.

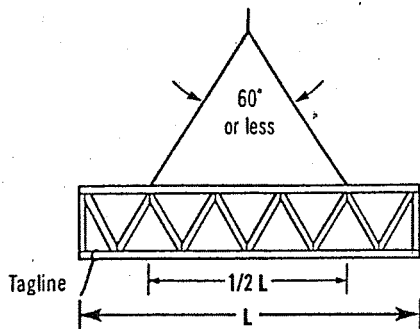
During long term storage, trusses shall be protected from the environment in a manner that provides for adequate ventilation of the trusses. If tarpaulins or other material is used, the ends shall be left open for ventilation. Plastic is not recommended, since it can trap moisture.

3 Hoisting

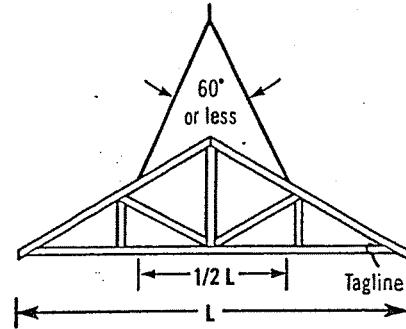
All trusses that are erected one at a time shall be held safely in position by the erection equipment until such time as all necessary bracing has been installed and the ends of the trusses are securely fastened to the building.



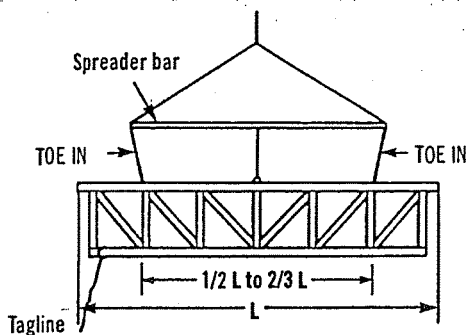
Avoid lateral bending



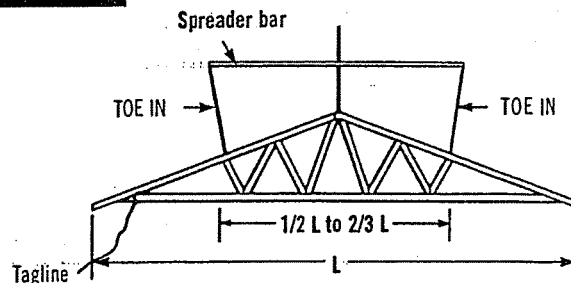
$L \leq 30'$



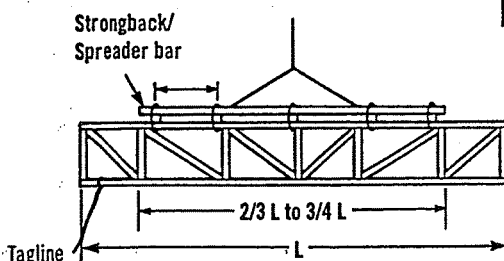
Truss sling is acceptable where these criteria are met.



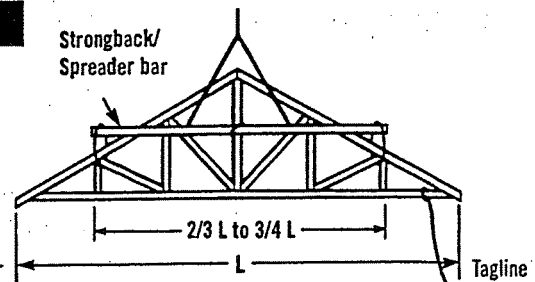
$30' < L \leq 60'$



Use spreader bar in all other cases. It should be noted that the lines from the ends of the spreader bar "TOE IN"; if these lines should "TOE OUT" the truss may fold in half.



$L > 60'$



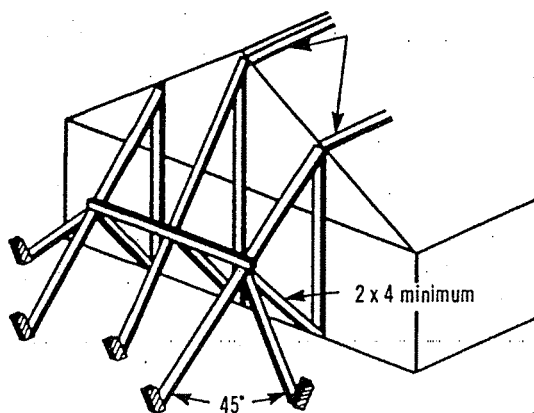
For lifting trusses with spans in excess of 60 feet, it is recommended that a strongback/spreader bar be used as illustrated. The strongback/spreader bar should be attached to the top chord and web members at intervals of approximately 10 feet. Further, the strongback/spreader bar should be at or above the mid-height of the truss to prevent overturning. The strongback/spreader bar can be of any material with sufficient strength to safely carry the weight of the truss and sufficient rigidity to adequately resist bending of the truss.

4 Beginning the Erection Process

It is important for the builder or erection contractor to provide substantial bracing for the first truss erected. The two or more trusses making up the rest of the first set are tied to and rely upon the first truss for stability. Likewise, after this first set of trusses is adequately cross-braced, the remaining trusses installed rely upon this first set for stability. Thus, the performance of the truss bracing system depends to a great extent on how well the first group of trusses is braced.

Ground Brace - Exterior

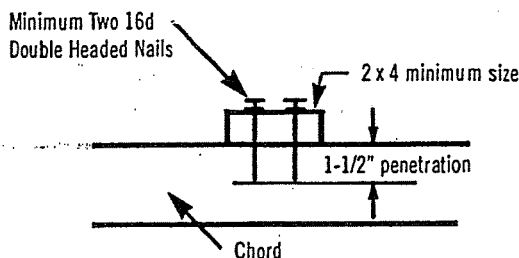
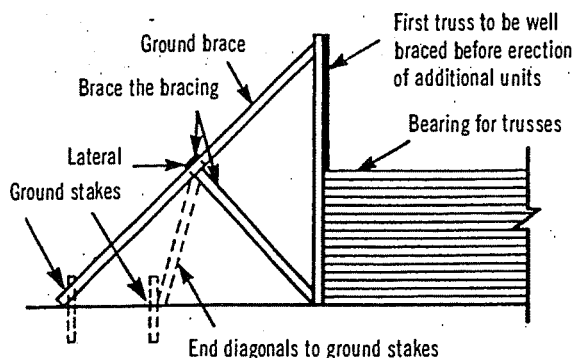
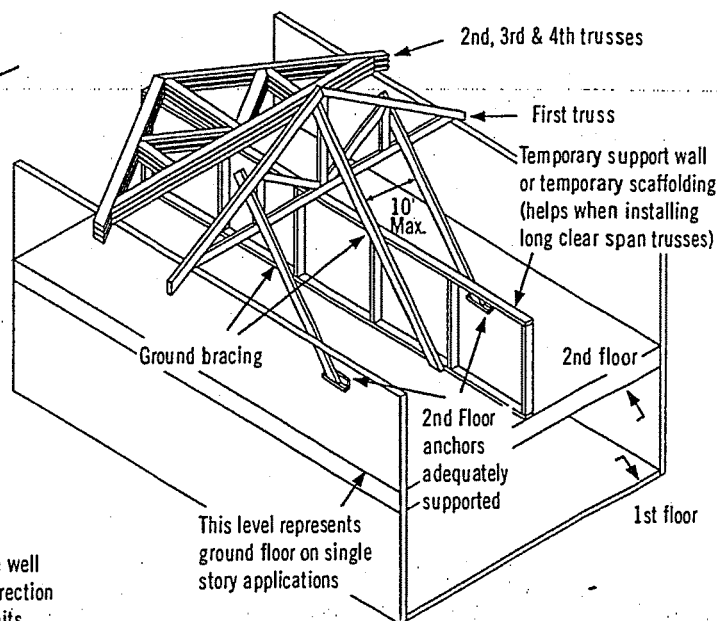
One satisfactory method ties the first unit of trusses off to a series of braces that are attached to a stake driven into the ground and securely anchored. The ground brace itself should be supported as shown below or it is apt to buckle. Additional ground braces in the opposite direction, inside the building, are also recommended.



Note: Locate ground braces for first truss directly in line with all rows of top chord continuous lateral bracing (either temporary or permanent).

Ground Brace - Interior

Another satisfactory method where height of building or ground conditions prohibit bracing from the exterior is to tie the first truss rigidly in place from the interior at the floor level, provided the floor is substantially completed and capable of supporting the ground bracing forces. Securely fasten the first truss to the middle of the building. Brace the bracing similar to exterior ground bracing shown at left. Set trusses from the middle toward the end of the building. Properly cross-brace the first set of trusses before removing floor braces and setting remaining trusses.

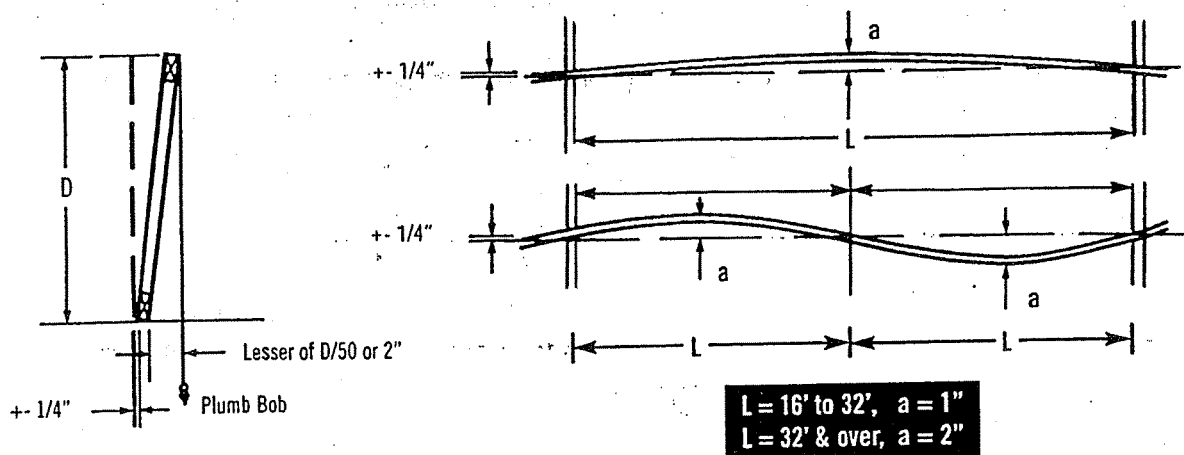


Inadequate size of bracing material or inadequate fastening is a major cause of erection dominoing.

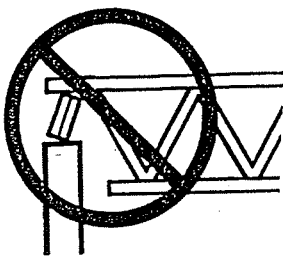
5 Erection Tolerance

Complying with erection tolerances is critical to achieving an acceptable roof or floor line, and to accomplishing effective bracing. Setting trusses within tolerance the first time will prevent the need for the hazardous practice of respacing or adjusting trusses when roof sheathing or roof purlins are installed. Trusses leaning or bowing can cause nails to miss the top chords when sheathing is applied, and create cumulative stresses on the bracing, which is a frequent cause of dominoing.

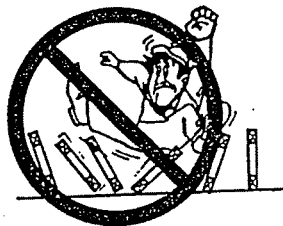
When sheathing, make sure nails are driven into the top chord of the trusses.



6 Bracing



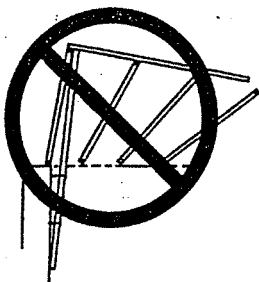
Do not install trusses on temporarily connected supports



Do not walk on unbraced trusses



Do not walk on trusses or gable ends lying flat

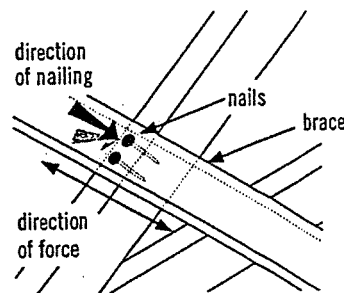


Nails in withdrawal (parallel to force)

All anchors, hangers, tie-downs, seats, bearing ledgers, etc., that are part of the supporting structure shall be accurately and properly placed and permanently attached before truss installation begins. No trusses shall ever be installed on anchors or ties that have temporary connections to the supporting structure.

Nailing scabs to the end of the building to brace the first truss is not recommended.

All nailing of bracing should be done so that nails are driven perpendicular to the direction of force, as shown at right.



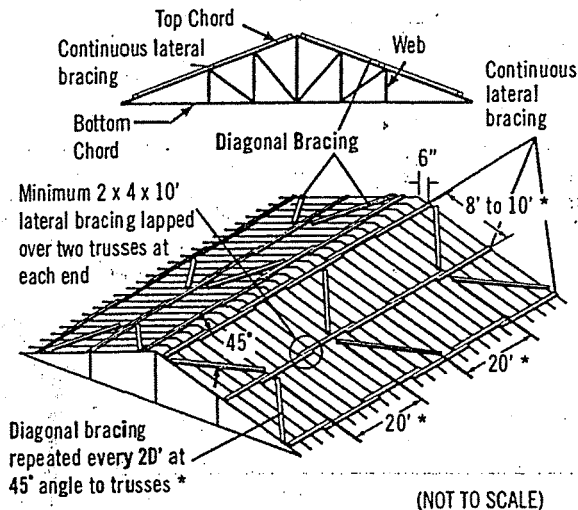
Well nailed (perpendicular to force)

7 Bracing Requirements for 3 Planes of Roof

Temporary erection bracing must be applied to three planes of the roof system to ensure stability: Plane 1) Top Chord (sheathing), Plane 2) Bottom Chord (ceiling plane), and Plane 3) Web Member plane or vertical plane perpendicular to trusses.

1) Top Chord Plane

Most important to the builder or erection contractor is bracing in the plane of the top chord. Truss top chords are susceptible to lateral buckling before they are braced or sheathed.

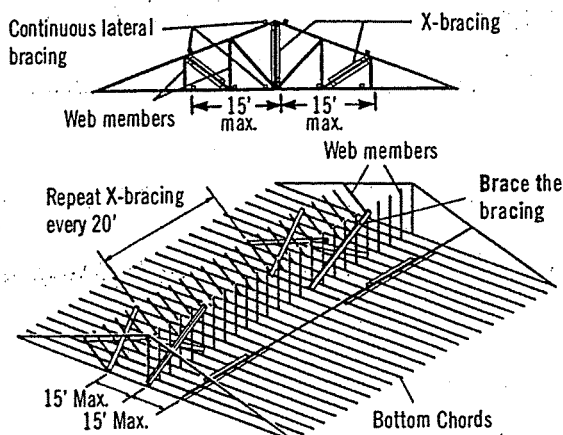


Exact spacing between trusses should be maintained as bracing is installed to avoid the hazardous practice of removing bracing to adjust spacing. This act of "adjusting spacing" can cause trusses to topple if connections are removed at the wrong time.

3) Web Member Plane

"X" bracing, as shown, is critical in preventing trusses from leaning or dominoing. Repeat as shown to create a succession of rigid units.

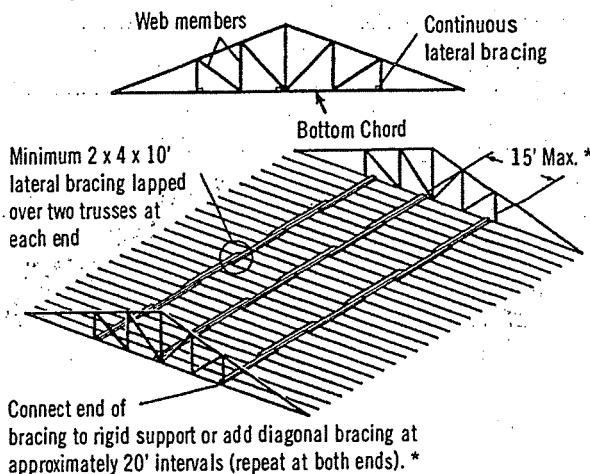
X-bracing should be installed on vertical web members wherever possible, at or near lateral bracing. Plywood or OSB may be substituted for X-bracing.



Note: Top chords and some web members are not shown, in order to make drawings more readable.

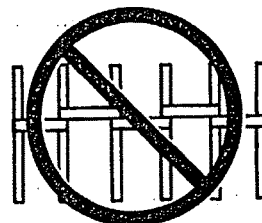
2) Bottom Chord Plane

In order to hold proper spacing on the bottom chord, temporary bracing is recommended on the top of the bottom chord.

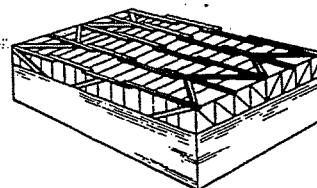


* Long spans, heavy loads or other spacing configurations may require closer spacing between lateral bracing and closer intervals between diagonals. Consult the building designer or HIB and DSB (Recommended Design Specification for Temporary Bracing of Metal-Plate Connected Wood Trusses) for details.

Diagonal or cross-bracing is very important!



Do not use short blocks to brace individual trusses without a specific bracing plan detailing their use

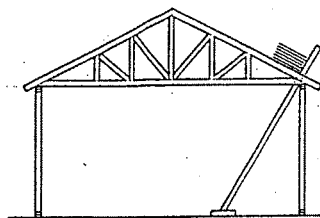
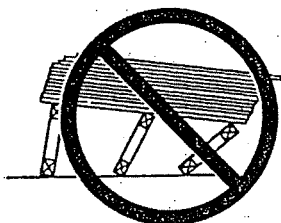


Bracing requirements using the same principles apply to parallel chord trusses

8 Stacking Materials

Do not proceed with building completion until all bracing is securely and properly in place

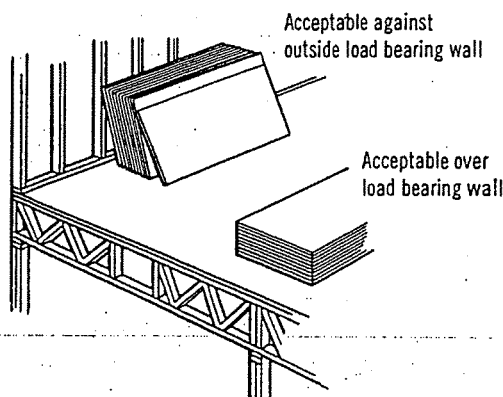
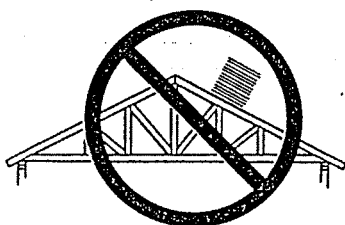
Never stack materials on unbraced or inadequately braced trusses



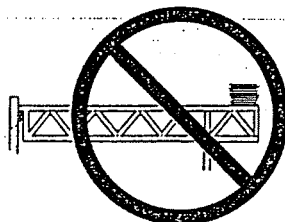
Platform must be rigidly braced

Proper distribution of construction materials is a must during construction.

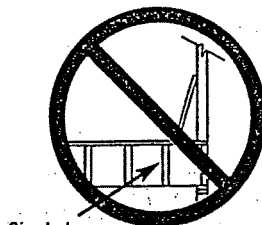
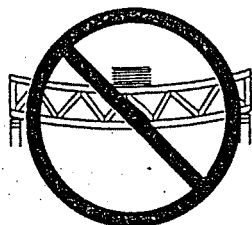
Never stack materials near a peak



Never stack materials on the cantilever of a truss

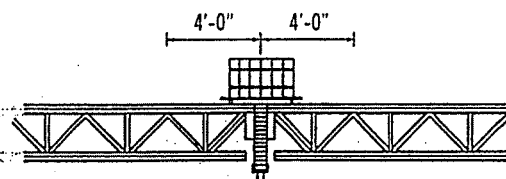


Always stack materials over two or more trusses.



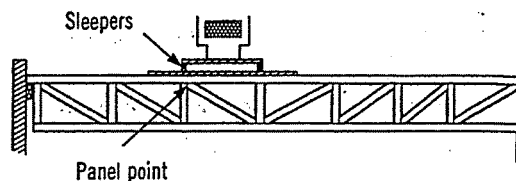
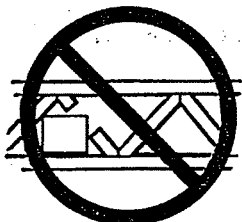
Single truss

Never overload small groups or single trusses. Position load over as many trusses as possible.



Roofing and mechanical contractors are cautioned to stack materials only along outside supporting members or directly over inside supporting members. Trusses are not designed for dynamic loads (i.e., moving vehicles). Extreme care should be taken when loading and stacking construction materials (rolled roofing, mechanical equipment, etc.) on the roof or floor system.

Never cut any structural member of a truss.



Sleepers for mechanical equipment should be located at panel points (joints) or over main supporting members, and only on trusses that have been designed for such loads.

Caution Notes

Errors in building lines and/or dimensions, or errors by others shall be corrected by the contractor or responsible construction trade subcontractor or supplier **before** erection of trusses begins.

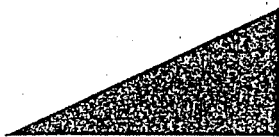
Cutting of nonstructural overhangs is considered a part of normal erection and shall be done by the builder or erection contractor.

Any field modification that involves the cutting, drilling, or relocation of any structural truss member or connector plate shall not be done without the approval of the truss manufacturer or a licensed design professional.

The methods and procedures outlined are intended to ensure that the overall construction techniques employed will put floor and roof trusses safely in place in a completed structure. These recommendations for bracing wood trusses originate from the collective experience of leading technical personnel in the wood truss industry, but must, due to the nature of responsibilities involved, be presented only as a guide for use by a qualified building designer, builder, or erection contractor. Thus, the Wood Truss Council of America expressly disclaims any responsibility for damages arising from the use, application, or reliance on the recommendations and information contained herein.

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