

12" FIN. OH.
RSD HEEL-0"DROP
(2"x6" FASCIA)-FM
ASPHALT SHINGLES
2"x6"BRG./BRK.& STUCCO

PARTYWALL:
2-2"x4" STUD WALL
w/1-2"x4" STUD WALL
(G.T. = 3 1/2" BEARING
w/ MIN. 4" STAGGER)

PIGGYBACK TRS
PURLINS BY OTHERS

TRAY CLG
RSD 16"
@8/12 I.P
INSET 16"
14'-4"x13'-4"

TRAY CLG
RSD 16"
@8/12 I.P
INSET 16"
14'-4"x13'-4"

TRAY CLG
RSD 16"
@8/12 I.P
INSET 16"
14'-4"x13'-4"

TRAY CLG
RSD 16"
@8/12 I.P
INSET 16"
13'-4"x14'-0"

8/12

14/12

H71T

H72T

H73T

H74T

H75T

H76(4)

H75

H74

H73

H72

H71

H78

H77

2 - 2x10 SPF #2 BM
BY BLDR

3.5/12
0" DROP

BARREL VAULT
CLG BY OTHERS

2 - 2x10 SPF #2 BM
BY BLDR

BARREL VAULT
CLG BY OTHERS

2 - 2x10 SPF #2 BM
BY BLDR

BARREL VAULT
CLG BY OTHERS

2 - 2x10 SPF #2 BM
BY BLDR

FLAT ROOF
BARREL VAULT
CLG BY OTHERS

BEARING SCAB REQ'D
SEE SHOP DRAWINGS.

BARREL
VAULT
CLG BY
OTHERS

HANGERS

// LUS24

/ LJS26DS

X HHUS26-2

▲ TC26

1 UNIT 3102-END 2
ELEV. 'B'- REV

2 UNIT 3102
ELEV. 'B'- REV

3 UNIT 3102
ELEV. 'B'- REV

4 UNIT 3103- CORNER
ELEV. 'B'- REV

E21104239 - E21104304

PL: 111206(TYP.), 114170E



Job Track: 45147

Layout ID: 336322

Plan Log: 113123

Builder / Location:

GOLD PARK HOMES / VAUGHAN

Project: PINE VALLEY

Date: 9/28/2021

Designer: JBURROWS/C

Model / Elevation:

BLOCK 2 / UNIT 1-4

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

ALL CONVENTIONAL FRAMING TO CONFORM WITH PART 9 O.B.C. LATEST EDITION. ROOF RAFTERS THAT CROSS OVER TRUSSES TO BE 2X4 SPF #2 @ 24" O.C WITH A VERT. POST TO THE TRUSS UNDERNEATH AT EACH CROSS POINT. VERT. POSTS LONGER THAN 6' TO HAVE LATERAL BRACING SO THAT THE DISTANCE BETWEEN END POINTS & BETWEEN ROWS OF BRACING DOES NOT EXCEED 6'

Mitek V. 8.2.0

CONVEN
FRAMING
OTHERS

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.

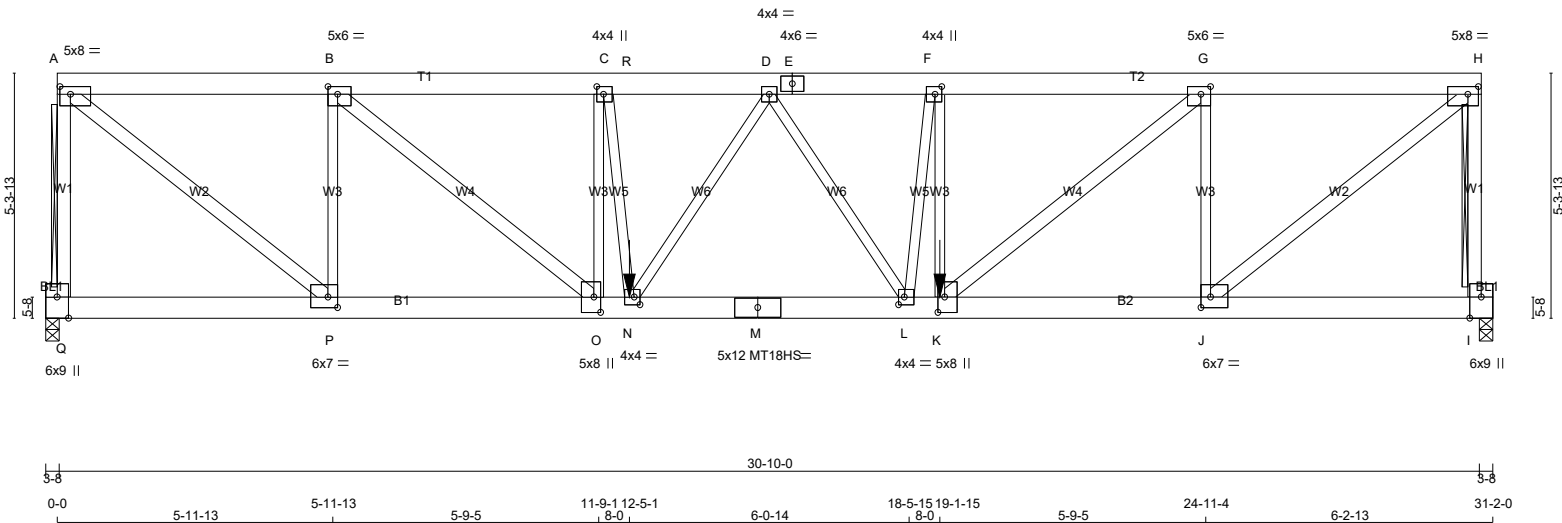
JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
336322	H21		1	TRUSS DESC. JT 45147	E21104239

Alpa Roof Truss, Maple

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Scale = 1:50.0



LUMBER				
N. L. G. A. RULES				
CHORDS	SIZE	LUMBER	DESCR.	
Q - A	2x4	DRY	No.2	SPF
A - E	2x6	DRY	No.2	SPF
E - H	2x6	DRY	No.2	SPF
I - H	2x4	DRY	No.2	SPF
Q - M	2x6	DRY	No.2	SPF
M - I	2x6	DRY	No.2	SPF
BEARING BLOCKS				
BL1	2 - 2x4	DRY	No.2	SPF
ALL WEBS EXCEPT				
A - P	2x4	DRY	No.2	SPF
B - O	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
A	TMVW-t	MT20	5.0	8.0 2.00 2.75
B	TMWW-t	MT20	5.0	6.0 2.00 2.50
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	TMWW-t	MT20	4.0	4.0 2.00 1.75
G	TMWW-t	MT20	5.0	6.0 2.00 2.50
H	TMVW-t	MT20	5.0	8.0 2.00 2.75
I	BMVK1-t	MT20	6.0	9.0 Edge 3.00
J	BMWW-t	MT20	6.0	7.0 2.75 2.50
K	BMWW-t	MT20	5.0	8.0 4.00 1.75
L	BMWW-t	MT20	4.0	4.0 2.00 1.50
M	BS-t	MT18HS	5.0	12.0
N	BMWW-t	MT20	4.0	4.0 2.00 1.50
O	BMWW-t	MT20	5.0	8.0 4.00 1.75
P	BMWW-t	MT20	6.0	7.0 2.75 2.50
Q	BMVK1-t	MT20	6.0	9.0 Edge 3.00

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	HORZ	DOWN	HORZ	UPLIFT
Q	2872	0	2872	0	3-8
I	2975	0	2975	0	3-8

UNFACTORED REACTIONS		1ST LCASE	MAX./MIN. COMPONENT REACTIONS					
JT	COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL	
Q	2048	1250 / 0	0 / 0	0 / 0	0 / 0	798 / 0	0 / 0	
I	2121	1294 / 0	0 / 0	0 / 0	0 / 0	826 / 0	0 / 0	

BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S) Q, I
BEARING SIZE FACTOR = 1.15 AT JNT(S) Q, I (BASED ON SUPPORT DEPTH = 1-8)

BRACING
TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 3.32 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 A-Q, 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.	MAX.	MAX.	MAX. FACTORED	MAX.	MAX.	MAX.	MAX.
		MEMB.	FORCE (LBS)	VERT. LOAD (PLF)	LC1 (CSI (LC)	UNBRAC	MEMB.	FORCE (LBS)	MAX	CSI (LC)	
FR-TO				FROM	TO	LENGTH	FR-TO				
Q-A	-2817 / 0			0.0	0.0	0.70 (1)	6.68	A-P	0 / 4165	0.74 (1)	
A-B	-3148 / 0			-78.0	-78.0	0.28 (1)	4.50	P-B	-2558 / 0	0.97 (1)	
B-C	-5551 / 0			-78.0	-78.0	0.45 (1)	3.39	B-O	0 / 3141	0.56 (1)	
C-R	-5696 / 0			-78.0	-78.0	0.34 (1)	3.44	O-C	-1352 / 0	0.51 (1)	
R-D	-5696 / 0			-156.0	-156.0	0.34 (1)	3.44	K-F	-830 / 0	0.31 (1)	
D-E	-5825 / 0			-156.0	-156.0	0.35 (1)	3.39	K-G	0 / 3241	0.57 (1)	
E-F	-5825 / 0			-156.0	-156.0	0.35 (1)	3.39	J-G	-2622 / 0	1.00 (1)	
F-G	-5758 / 0			-78.0	-78.0	0.46 (1)	3.32	J-H	0 / 4337	0.77 (1)	
G-H	-3278 / 0			-78.0	-78.0	0.28 (1)	4.43	C-N	0 / 902	0.22 (1)	
I-H	-2926 / 0			0.0	0.0	0.72 (1)	6.56	N-D	-436 / 0	0.24 (1)	
								D-L	-190 / 0	0.10 (1)	
								L-F	0 / 345	0.09 (1)	
Q-P	-84 / 0			-18.5	-18.5	0.08 (4)	6.25				
P-O	0 / 3148			-18.5	-18.5	0.55 (1)	10.00				
O-N	0 / 5602			-18.5	-18.5	0.88 (1)	10.00				
N-M	0 / 5926			-37.3	-37.3	0.97 (1)	10.00				
M-L	0 / 5926			-37.3	-37.3	0.97 (1)	10.00				
L-K	0 / 5790			-37.3	-37.3	0.78 (1)	10.00				
K-J	0 / 3278			-18.5	-18.5	0.47 (1)	10.00				
J-I	-88 / 0			-18.5	-18.5	0.07 (4)	6.25				

FACTORED CONCENTRATED LOADS (LBS)									
JT	LOC.	LC1	MAX-	MAX+	FACE	DIR.	TYPE	HEEL	CONN.
K	19-1-15	-1210	-1210	---	FRONT	VERT	TOTAL	---	C1
N	12-5-1	-1022	-1022	---	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

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

*** 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 (0.22")
ALLOWABLE DEFL.(TL)= L/360 (1.02")
CALCULATED VERT. DEFL.(TL) = L/ 814 (0.45")

CSI: TC=0.72/1.00 (H-I:1), BC=0.97/1.00 (L-N:1), WB=1.00/1.00 (G-J:1), SSI=0.39/1.00 (N-O: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

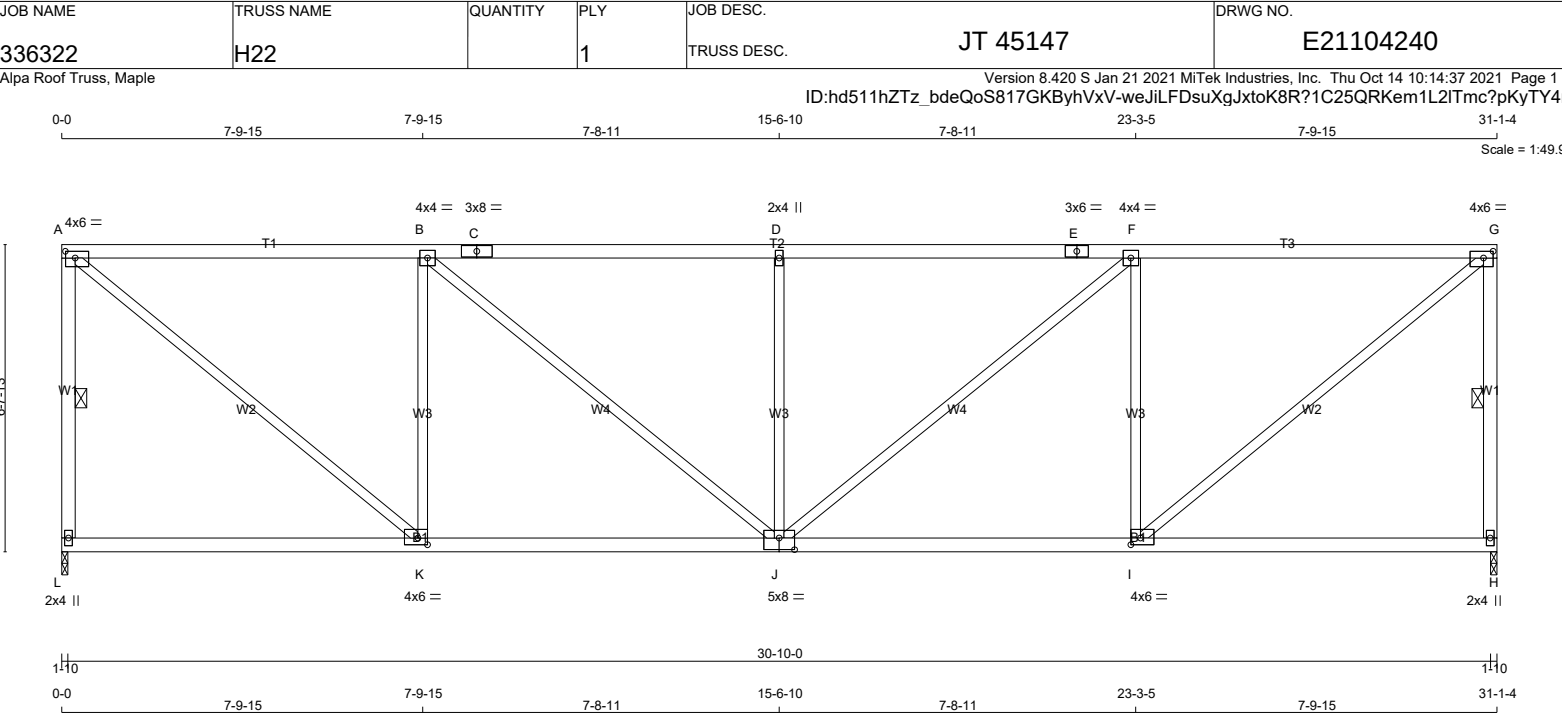
TRUSS PLATE MANUFACTURER IS NOT RESPONSIBLE FOR QUALITY CONTROL IN THE TRUSS MANUFACTURING PLANT .

NAIL VALUES				
PLATE	GRIP(DRY)	SHEAR	SECTION	
	(PSI)	(PLI)	(PLI)	
	MAX MIN	MAX MIN	MAX MIN	
MT20	650	371	1747	788
MT18HS	586	403	2455	1382

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.90 (B) (INPUT = 0.90)
JSI METAL= 0.91 (O) (INPUT = 1.00)



LUMBER

N. L. G. A. RULES

CHORDS SIZE

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.

DESCR.

SPF

SPF

SPF

SPF

SPF

SPF

SPF

SPF

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

BEARINGS

	FACTORED GROSS REACTION	MAXIMUM FACTORED GROSS REACTION	INPUT BRG	REQRD BRG
JT	VERT	HORZ	DOWN	HORZ
L	1500	0	1500	0
H	1500	0	1500	0

UNFACTORED REACTIONS

1ST LCASE	MAX./MIN.	COMPONENT REACTIONS		
JT	COMBINED	SNOW	LIVE	PERM.LIVE
L	1070	653 / 0	0 / 0	0 / 0
H	1070	653 / 0	0 / 0	0 / 0

TOTAL WEIGHT = 131 lb

[M]

PLATES (table is in inches)

JT	TYPE	PLATES	W	LEN	Y	X
A	TMVW-t	MT20	4.0	6.0	1.75	2.50
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	2.50
H	BMV1+p	MT20	2.0	4.0		
I	BMWW-t	MT20	4.0	6.0	1.75	2.50
J	BSWWW-l	MT20	5.0	8.0	3.00	4.00
K	BMWW-t	MT20	4.0	6.0	1.75	2.50
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 = 3.64 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-L, G-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)	MAX. LC1 CSI (LC)	MEMB.	MAX. FACTORED FORCE (LBS)	MAX. UNBRAC LENGTH	MEMB. MAX. FACTORED FORCE (LBS)
FR-TO		FROM TO		FR-TO			
L- A	-1444 / 0	0.0	0.0 0.29 (1)	5.44	A- K	0 / 1908	0.43 (1)
A- B	-1481 / 0	-78.0	-78.0 0.89 (1)	4.10	K- B	-1026 / 0	0.75 (1)
B- C	-1885 / 0	-78.0	-78.0 0.97 (1)	3.64	B- J	0 / 523	0.12 (1)
C- D	-1885 / 0	-78.0	-78.0 0.97 (1)	3.64	J- D	-556 / 0	0.41 (1)
D- E	-1885 / 0	-78.0	-78.0 0.97 (1)	3.64	J- F	0 / 523	0.12 (1)
E- F	-1885 / 0	-78.0	-78.0 0.97 (1)	3.64	I- F	-1026 / 0	0.75 (1)
F- G	-1481 / 0	-78.0	-78.0 0.89 (1)	4.10	I- G	0 / 1908	0.43 (1)
H- G	-1444 / 0	0.0	0.0 0.29 (1)	5.44			
L- K	0 / 0	-18.5	-18.5 0.32 (4)	10.00			
K- J	0 / 1481	-18.5	-18.5 0.46 (4)	10.00			
J- I	0 / 1481	-18.5	-18.5 0.46 (4)	10.00			
I- H	0 / 0	-18.5	-18.5 0.32 (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 (0.10")
ALLOWABLE DEFL.(TL)= L/360 (1.04")
CALCULATED VERT. DEFL.(TL) = L/ 999 (0.25")

CSI: TC=0.97/1.00 (D-F:1) , BC=0.46/1.00 (I-J:4) , WB=0.75/1.00 (B-K:1) , SSI=0.29/1.00 (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.

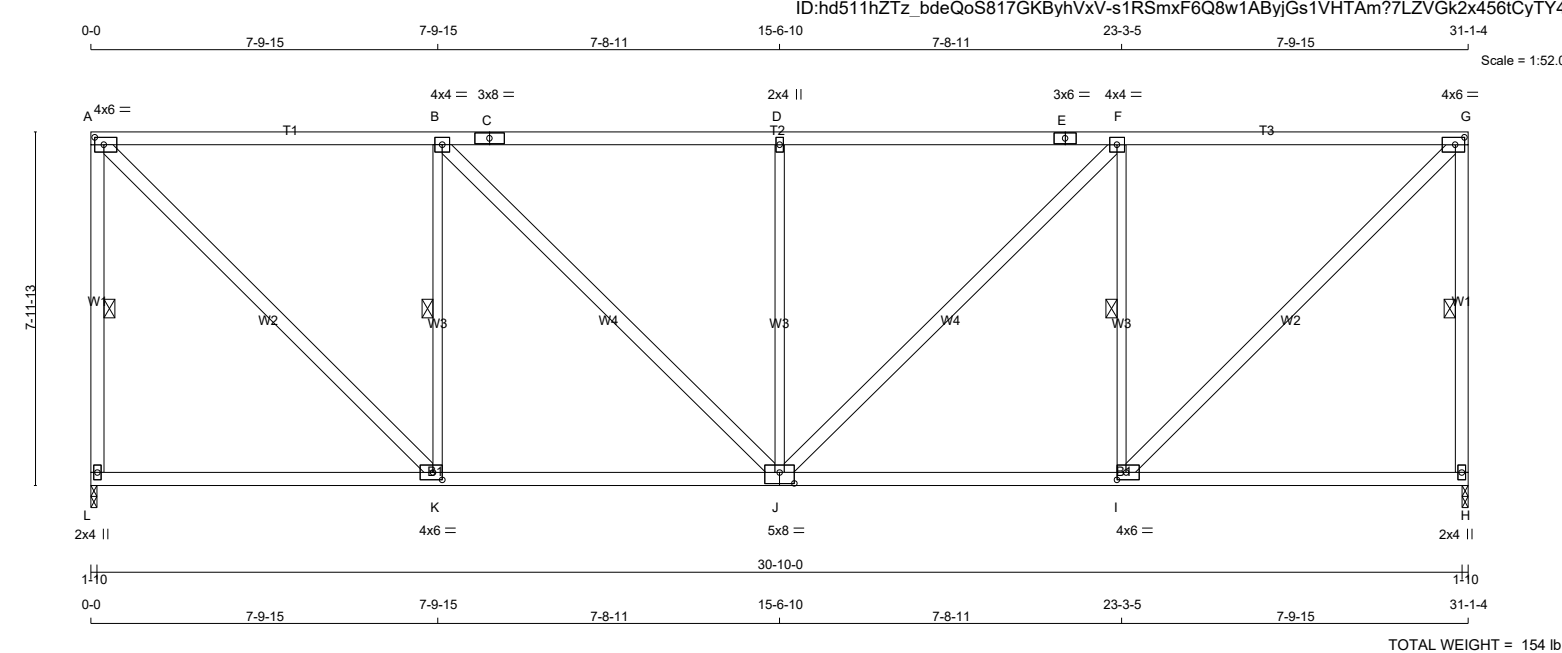
JSI GRIP= 0.88 (K) (INPUT = 0.90)
JSI METAL= 0.36 (G) (INPUT = 1.00)

JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
336322	H23		1	TRUSS DESC. JT 45147	E21104241

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								DESIGN CRITERIA			
				BEARINGS											
L - A	2x4	DRY	No.2	SPF	FACTORED GROSS REACTION		MAXIMUM FACTORED GROSS REACTION		INPUT BRG		REQRD BRG		SPECIFIED LOADS:		
A - C	2x4	DRY	No.2	SPF	JT	VERT	HORZ	DOWN	HORZ	UPLIFT	IN-SX	IN-SX	TOP CH. LL = 21.0 PSF		
C - E	2x4	DRY	No.2	SPF	L	1500	0	1500	0	0	1-10	1-10	DL = 6.0 PSF		
E - G	2x4	DRY	No.2	SPF	H	1500	0	1500	0	0	1-10	1-10	BOT CH. LL = 0.0 PSF		
H - G	2x4	DRY	No.2	SPF									DL = 7.4 PSF		
L - J	2x4	DRY	No.2	SPF									TOTAL LOAD = 34.4 PSF		
J - H	2x4	DRY	No.2	SPF											
				UNFACTORED REACTIONS								SPACING = 24.0 IN. C/C			
ALL WEBS 2x4 DRY No.2 SPF				1ST LCASE				MAX./MIN. COMPONENT REACTIONS							
EXCEPT				JT	COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL				
K - B 2x3 DRY No.2 SPF				L	1070	653 / 0	0 / 0	0 / 0	0 / 0	417 / 0	0 / 0				
J - D 2x3 DRY No.2 SPF				H	1070	653 / 0	0 / 0	0 / 0	0 / 0	417 / 0	0 / 0				
I - F 2x3 DRY No.2 SPF												LOADING IN FLAT SECTION BASED ON A SLOPE OF 2.00/12 MINIMUM			
												THIS TRUSS IS DESIGNED FOR RESIDENTIAL			

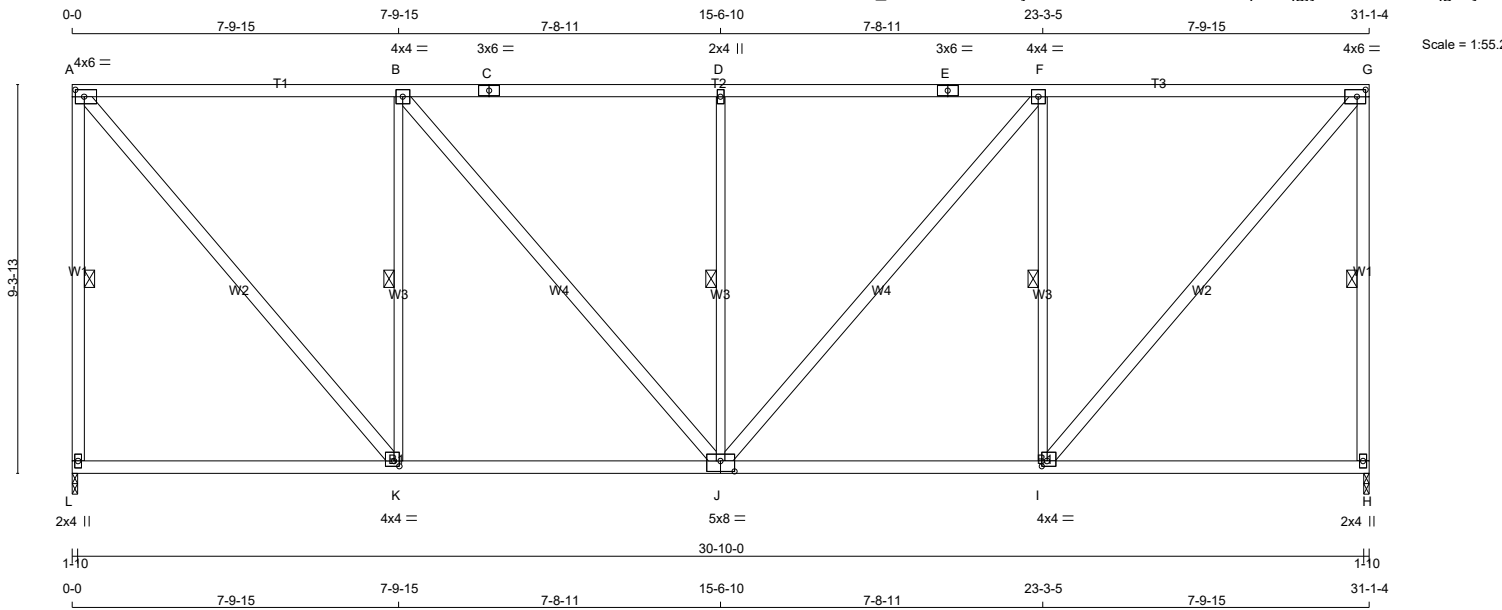
DRY: SEASONED LUMBER.

PLATES (table is in inches)

JT	TYPE	PLATES	W	LEN	Y	X
A	TMVW-t	MT20	4.0	6.0	2.00	2.50
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	2.00	2.50
H	BMV1+p	MT20	2.0	4.0		
I	BMWW-t	MT20	4.0	6.0	2.00	2.50
J	BSWWW-I	MT20	5.0	8.0	3.00	4.00
K	BMWW-t	MT20	4.0	6.0	2.00	2.50
L	BMV1+p	MT20	2.0	4.0		

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





TOTAL WEIGHT = 165 lb

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 EXCEPT	2x4	DRY	No.2	SPF
K - B	2x3	DRY	No.2	SPF
J - D	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
A	TMVW-t	MT20	4.0	6.0	2.00	2.50
B	TMVW-t	MT20	4.0	4.0		
C	TS-t	MT20	3.0	6.0		
D	TMVW+w	MT20	2.0	4.0		
E	TS-t	MT20	3.0	6.0		
F	TMVW-t	MT20	4.0	4.0		
G	TMVW-t	MT20	4.0	6.0	2.00	2.50
H	BMV1+p	MT20	2.0	4.0		
I	BMVW-t	MT20	4.0	4.0	1.50	1.50
J	BSWWWW-I	MT20	5.0	8.0	3.00	4.00
K	BMVW-t	MT20	4.0	4.0	1.50	1.50
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

	FACTORED		MAXIMUM FACTORED			INPUT	REQRD
	GROSS REACTION		GROSS REACTION			BRG	BRG
JT	VERT	HORZ	DOWN	HORZ	UPLIFT	IN-SX	IN-SX
L	1500	0	1500	0	0	1-10	1-10
H	1500	0	1500	0	0	1-10	1-10

UNFACTORED REACTIONS

1ST LCASE		MAX./MIN. COMPONENT REACTIONS					
JT	COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
L	1070	653 / 0	0 / 0	0 / 0	0 / 0	417 / 0	0 / 0
H	1070	653 / 0	0 / 0	0 / 0	0 / 0	417 / 0	0 / 0

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

BRACING

TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 4.30 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-L, G-H, B-K, D-J, 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)

C H O R D S					W E B S				
MAX. FACTORED		FACTORED			MAX. FACTORED				
MEMB.	FORCE	VERT. LOAD	LC1	MAX.	MAX.	MEMB.	FORCE	MAX.	
	(LBS)	(PLF)	CSI (LC)	UNBRAC			(LBS)	CSI (LC)	
FR-TO		FROM	TO	LENGTH	FR-TO				
L-A	-1445 / 0	0.0	0.0	0.59 (1)	5.44	A-K	0 / 1594	0.26 (1)	
A-B	-1044 / 0	-78.0	-78.0	0.81 (1)	4.76	K-B	-1026 / 0	0.59 (1)	
B-C	-1328 / 0	-78.0	-78.0	0.86 (1)	4.30	B-J	0 / 437	0.07 (1)	
C-D	-1328 / 0	-78.0	-78.0	0.86 (1)	4.30	J-D	-555 / 0	0.32 (1)	
D-E	-1328 / 0	-78.0	-78.0	0.86 (1)	4.30	J-F	0 / 437	0.07 (1)	
E-F	-1328 / 0	-78.0	-78.0	0.86 (1)	4.30	I-F	-1026 / 0	0.59 (1)	
F-G	-1044 / 0	-78.0	-78.0	0.81 (1)	4.76	I-G	0 / 1594	0.26 (1)	
H-G	-1445 / 0	0.0	0.0	0.59 (1)	5.44				
L-K	0 / 0	-18.5	-18.5	0.32 (4)	10.00				
K-J	0 / 1044	-18.5	-18.5	0.42 (4)	10.00				
J-I	0 / 1044	-18.5	-18.5	0.42 (4)	10.00				
I-H	0 / 0	-18.5	-18.5	0.32 (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

ALLOWABLE DEFL.(LL)= L/360 (1.04")
CALCULATED VERT. DEFL.(LL) = L/ 999 (0.07")
ALLOWABLE DEFL.(TL)= L/360 (1.04")
CALCULATED VERT. DEFL.(TL) = L/ 999 (0.18")

CSI: TC=0.86/1.00 (D-F:1), BC=0.42/1.00 (I-J:4),
WB=0.59/1.00 (B-K:1), SSI=0.29/1.00 (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	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 (G) (INPUT = 0.90)
JSI METAL= 0.36 (K) (INPUT = 1.00)

TOTAL WEIGHT = 185 lb

JSI GRIP= 0.89 (A) (INPUT = 0.90)
JSI METAL= 0.40 (A) (INPUT = 1.00)

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

- Dimensions:**
 - Horizontal dimensions (top and bottom): 0-0, 7-9-15, 7-9-15, 7-8-11, 15-6-10, 7-8-11, 23-3-5, 7-9-15, 31-1-4.
 - Vertical dimension (left): 11-11-13.
- Truss Members:**
 - Top Chords: T1, T2, T3.
 - Bottom Chords: L, K, J, I, H.
 - Vertical Members: W1, W2, W3, W4, W8.
 - Diagonal Members: W2, W4, W4, W2.
- Labels and Notes:**
 - Top Left: A 4x6 =
 - Top Middle: 4x4 = B, 3x6 = C, 2x4 II D, 3x6 = E, 4x4 = F, 4x6 = G.
 - Bottom Left: 2x4 II L, 4x4 = K, 5x8 = J, 4x4 = I, 2x4 II H.
 - Bottom Right: 30-10-0.

Scale = 1:69.2

TOTAL WEIGHT = 2 X 213 = 425 lb

N. L. G. A. RULES			
CHORDS	SIZE	LUMBER	DESCR.
L - A	2x6	DRY	No.2
A - C	2x4	DRY	No.2
C - E	2x4	DRY	No.2
E - G	2x4	DRY	No.2
H - G	2x6	DRY	No.2
L - J	2x4	DRY	No.2
J - H	2x4	DRY	No.2
ALL WEBS	2x4	DRY	No.2
DRY: SEASONED LUMBER.			

JT	FACTORED GROSS REACTION		MAXIMUM FACTORED GROSS REACTION		INPUT BRG	REQ'D BRG
	VERT	HORZ	DOWN	HORZ	UPLIFT IN-SX	IN-SX
L	1500	0	1500	0	0	1-10
H	1500	0	1500	0	0	1-10

1ST LCASE		MAX./MIN. COMPONENT REACTIONS					
JT	COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
L	1070	653 / 0	0 / 0	0 / 0	0 / 0	417 / 0	0 / 0
H	1070	653 / 0	0 / 0	0 / 0	0 / 0	417 / 0	0 / 0

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

TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 4.80 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-L, G-H, A-K, B-K, B-J, D-J, F-J, F-I, 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	MEMB.	MAX. FACTORED FORCE (LBS)	MAX. CSI (LC)		
FR-TO		FROM TO		LENGTH	FR-TO				
L-A	-1445 / 0	0.0	0.0	0.72 (1)	6.25	A-K	0 / 1449 0.23 (1)		
A-B	-806 / 0	-78.0	-78.0	0.78 (1)	5.30	K-B	-1026 / 0 0.80 (1)		
B-C	-1025 / 0	-78.0	-78.0	0.81 (1)	4.80	B-J	0 / 397 0.06 (1)		
C-D	-1025 / 0	-78.0	-78.0	0.81 (1)	4.80	J-D	-555 / 0 0.44 (1)		
D-E	-1025 / 0	-78.0	-78.0	0.81 (1)	4.80	J-F	0 / 397 0.06 (1)		
E-F	-1025 / 0	-78.0	-78.0	0.81 (1)	4.80	I-F	-1026 / 0 0.80 (1)		
F-G	-806 / 0	-78.0	-78.0	0.78 (1)	5.30	I-G	0 / 1449 0.23 (1)		
H-G	-1445 / 0	0.0	0.0	0.72 (1)	6.25				
L-K	0 / 0	-18.5	-18.5	0.32 (4)	10.00				
K-J	0 / 806	-18.5	-18.5	0.40 (4)	10.00				
J-I	0 / 806	-18.5	-18.5	0.40 (4)	10.00				
I-H	0 / 0	-18.5	-18.5	0.32 (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)= $L/360$ (1.04")
 CALCULATED VERT. DEFL.(LL) = $L/999$ (0.05")
 ALLOWABLE DEFL.(TL)= $L/360$ (1.04")
 CALCULATED VERT. DEFL.(TL) = $L/999$ (0.16")

CSI: TC=0.81/1.00 (B-D:1), BC=0.40/1.00 (J-K:4), WB=0.80/1.00 (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 .

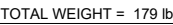
NAIL VALUES						
PLATE	GRIP(DRY)		SHEAR		SECTION	
	(PSI)		(PLI)		(PLI)	
	MAX	MIN	MAX	MIN	MAX	MIN
MT20	650	371	1747	788	1987	1873

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.90 (K) (INPUT = 0.90)
JSI METAL= 0.35 (K) (INPUT = 1.00)

Version 8.420 S Jan 21 2021 MiTek Industries, Inc. Thu Oct 14 10:14:48 2021 Page 1
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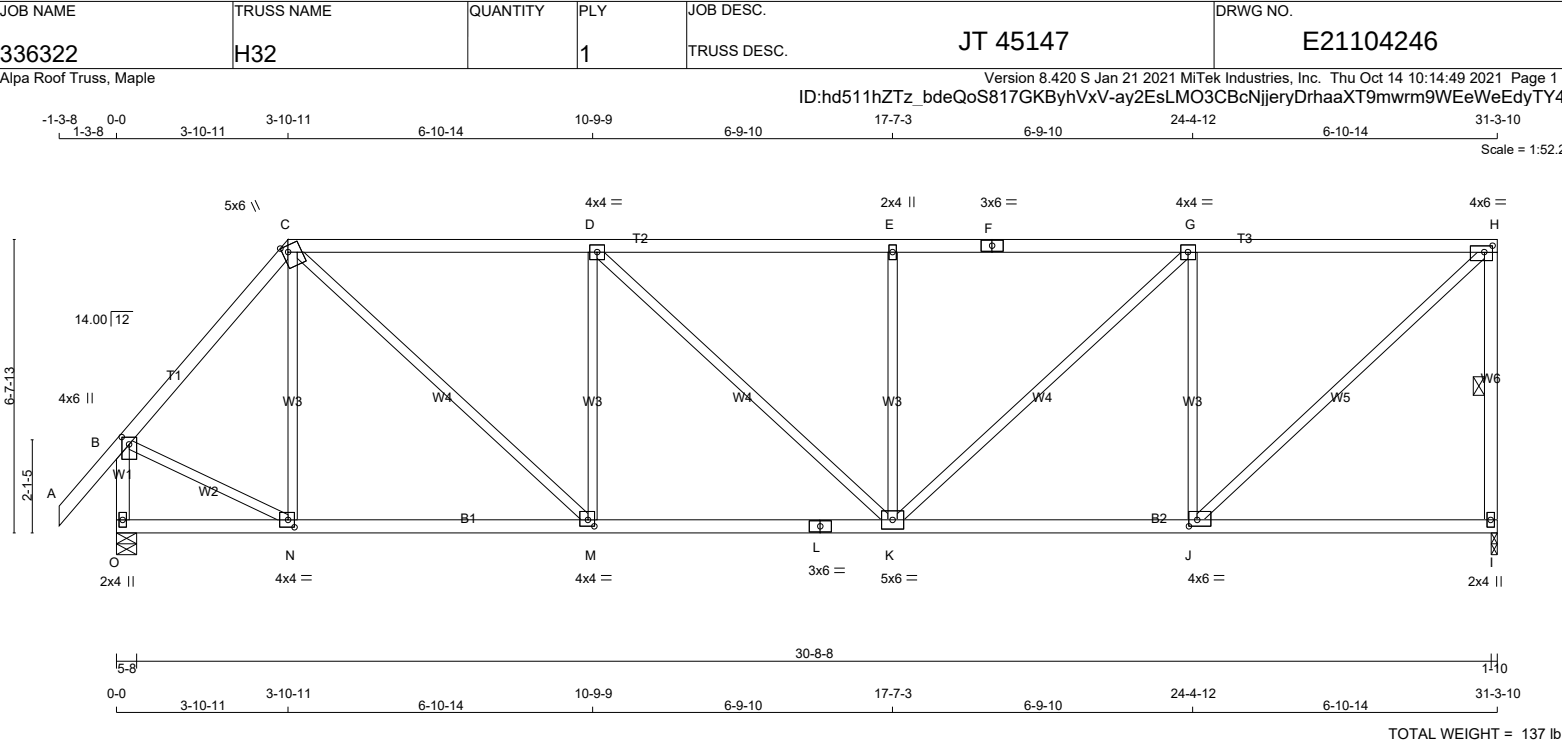
DRY: SEASONED LUMBER.

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

Y. WIDYA
100225448
10/14/2021

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

CONTINUED ON PAGE 2



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

PLATES (table is in inches)					
JT	TYPE	PLATES	W	LEN	Y X
B	TMVW+p	MT20	4.0	6.0	2.00 2.00
C	TTWW+m	MT20	5.0	6.0	1.75 1.50
D	TMWW-t	MT20	4.0	4.0	
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	4.0	6.0	1.75 2.25
I	BMV1+p	MT20	2.0	4.0	
J	BMWW-t	MT20	4.0	6.0	1.75 2.25
K	BMWWW-t	MT20	5.0	6.0	
L	BS-t	MT20	3.0	6.0	
M	BMWW-t	MT20	4.0	4.0	1.75 1.75
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	UPLIFT	IN-SX	IN-SX	
I	1510	0		1510	0	0	1-10	1-10	
O	1619	0		1619	0	0	5-8	1-12	

UNFACTORED REACTIONS		1ST LCASE		MAX./MIN. COMPONENT REACTIONS					
JT	COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL		
I	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 = 4.07 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.

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

LOADING

CHORDS				WEBS			
MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	MAX. LC1 CSI (LC)	MEMB.	MAX. FACTORED FORCE (LBS)	MAX. UNBRAC LENGTH	FR-TO
FR-TO		FROM	TO	FR-TO			
A-B	0 / 42	-78.0	-78.0 0.11 (1)	10.00	N-C	-247 / 0	0.18 (1)
B-C	-1280 / 0	-78.0	-78.0 0.25 (1)	5.43	C-M	0 / 1255	0.28 (1)
C-D	-1750 / 0	-78.0	-78.0 0.70 (1)	4.21	M-D	-718 / 0	0.53 (1)
D-E	-1876 / 0	-78.0	-78.0 0.71 (1)	4.08	D-K	0 / 172	0.04 (1)
E-F	-1876 / 0	-78.0	-78.0 0.71 (1)	4.07	K-E	-489 / 0	0.36 (1)
F-G	-1876 / 0	-78.0	-78.0 0.71 (1)	4.07	K-G	0 / 718	0.16 (1)
G-H	-1352 / 0	-78.0	-78.0 0.64 (1)	4.71	J-G	-1101 / 0	0.81 (1)
H-I	-1458 / 0	0.0	0.0 0.30 (1)	5.42	J-H	0 / 1838	0.41 (1)
O-B	-1597 / 0	0.0	0.0 0.19 (1)	6.54	B-N	0 / 904	0.20 (1)
O-N	0 / 0	-18.5	-18.5 0.13 (4)	10.00			
N-M	0 / 825	-18.5	-18.5 0.25 (4)	10.00			
M-L	0 / 1751	-18.5	-18.5 0.38 (1)	10.00			
L-K	0 / 1751	-18.5	-18.5 0.38 (1)	10.00			
K-J	0 / 1352	-18.5	-18.5 0.34 (4)	10.00			
J-I	0 / 0	-18.5	-18.5 0.21 (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

ALLOWABLE DEFL.(LL)= L/360 (1.04")
 CALCULATED VERT. DEFL.(LL) = L/ 999 (0.09")
 ALLOWABLE DEFL.(TL)= L/360 (1.04")
 CALCULATED VERT. DEFL.(TL) = L/ 999 (0.19")

CSI: TC=0.71/1.00 (E-G:1) , BC=0.38/1.00 (K-M:1) , WB=0.81/1.00 (G-J:1) , SSI=0.25/1.00 (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

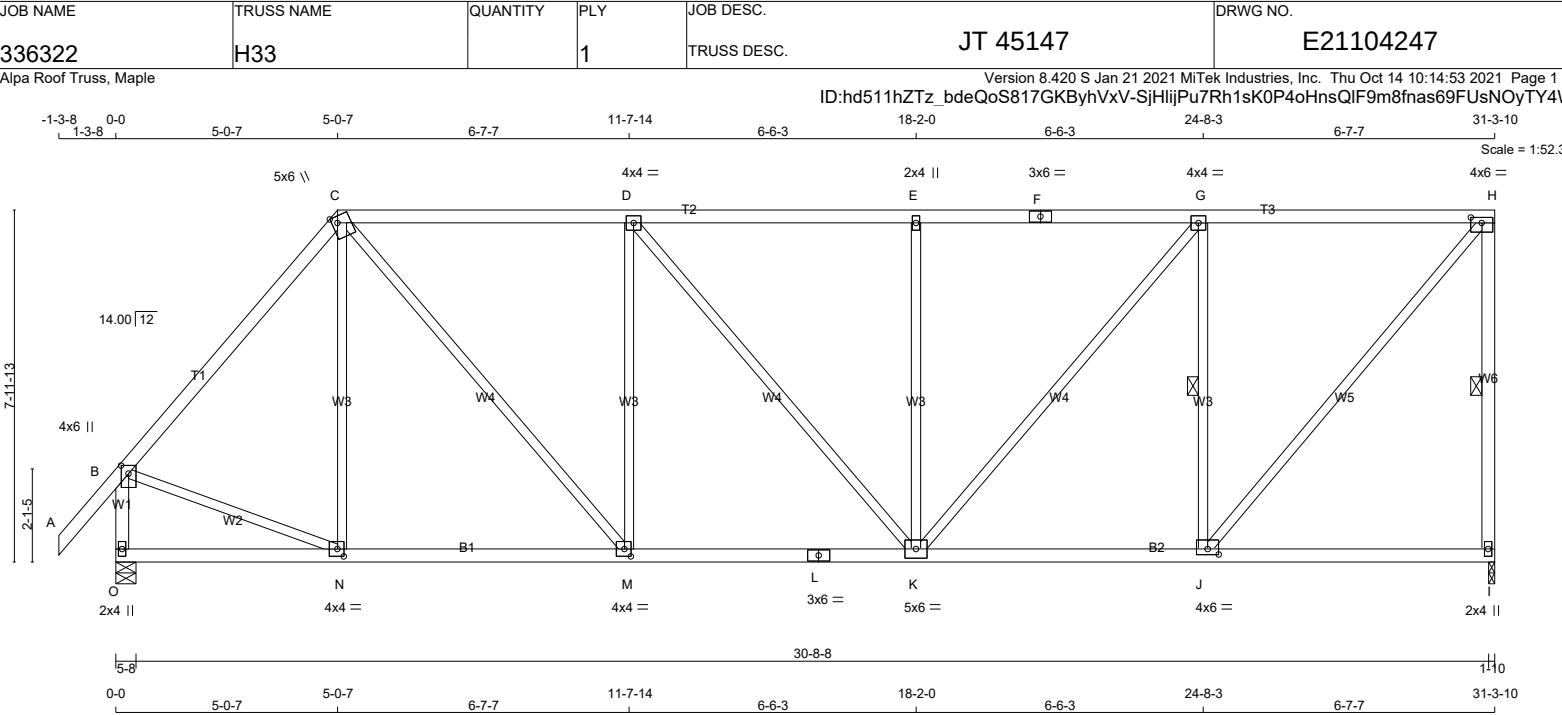
TRUSS PLATE MANUFACTURER IS NOT RESPONSIBLE FOR QUALITY CONTROL IN THE TRUSS MANUFACTURING PLANT .

NAIL VALUES					
PLATE	GRIP(DRY)	SHEAR	SECTION		
(PSI)	(PLI)	(PLI)	(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= 0.54 (L) (INPUT = 1.00)



LUMBER			
N. L. G. A. RULES			
CHORDS	SIZE	LUMBER	DESCR.
A - C	2x4	DRY No.2	SPF
B - 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
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	TMWW-t	MT20	4.0	4.0	
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	4.0	6.0	1.50 3.00
I	BMV1+p	MT20	2.0	4.0	
J	BMWW-t	MT20	4.0	6.0	1.50 3.00
K	BMWWW-t	MT20	5.0	6.0	
L	BS-t	MT20	3.0	6.0	
M	BMWW-t	MT20	4.0	4.0	2.00 1.75
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	UPLIFT
I	1510	0	1510	0	0
O	1619	0	1619	0	0

UNFACTORED REACTIONS		1ST LCASE	MAX./MIN. COMPONENT REACTIONS
JT	COMBINED	SNOW	LIVE
I	1076	657 / 0	0 / 0
O	1152	716 / 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 = 4.55 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, 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		MAX. FACTORED				FACTORED				WEBS	
MEMB.	FORCE (LBS)	VERT.	LOAD	LC1	MAX	VERT.	LOAD	LC1	MAX	MEMB.	FORCE (LBS)
FR-TO		FROM	TO	CS1 (LC)	UNBRAC LENGTH	FR-TO		FROM	TO	CS1 (LC)	UNBRAC LENGTH
A-B	0 / 42	-78.0	-78.0	0.11 (1)	10.00	N-C	-166 / 21	0.20 (1)			
B-C	-1303 / 0	-78.0	-78.0	0.44 (1)	5.17	C-M	0 / 990	0.22 (1)			
C-D	-1490 / 0	-78.0	-78.0	0.60 (1)	4.61	M-D	-626 / 0	0.76 (1)			
D-E	-1532 / 0	-78.0	-78.0	0.60 (1)	4.55	D-K	0 / 65	0.01 (1)			
E-F	-1532 / 0	-78.0	-78.0	0.60 (1)	4.56	K-E	-468 / 0	0.57 (1)			
F-G	-1532 / 0	-78.0	-78.0	0.60 (1)	4.56	K-G	0 / 698	0.16 (1)			
G-H	-1081 / 0	-78.0	-78.0	0.56 (1)	5.27	J-G	-1118 / 0	0.45 (1)			
H-I	-1461 / 0	0.0	0.0	0.42 (1)	5.41	J-H	0 / 1657	0.37 (1)			
O-B	-1584 / 0	0.0	0.0	0.19 (1)	6.56	B-N	0 / 892	0.20 (1)			
O-N	0 / 0	-18.5	-18.5	0.15 (4)	10.00						
N-M	0 / 843	-18.5	-18.5	0.24 (4)	10.00						
M-L	0 / 1490	-18.5	-18.5	0.32 (1)	10.00						
L-K	0 / 1490	-18.5	-18.5	0.32 (1)	10.00						
K-J	0 / 1081	-18.5	-18.5	0.30 (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, 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 (1.04")
CALCULATED VERT. DEFL.(LL)= L/ 999 (0.07")
ALLOWABLE DEFL.(TL)= L/360 (1.04")
CALCULATED VERT. DEFL.(TL)= L/ 999 (0.16")

CSI: TC=0.60/1.00 (D-E:1) , BC=0.32/1.00 (K-M:1) , WB=0.76/1.00 (D-M:1) , SSI=0.24/1.00 (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)		
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 (B) (INPUT = 0.90)
JSI METAL= 0.51 (B) (INPUT = 1.00)

Scale = 1:53.1

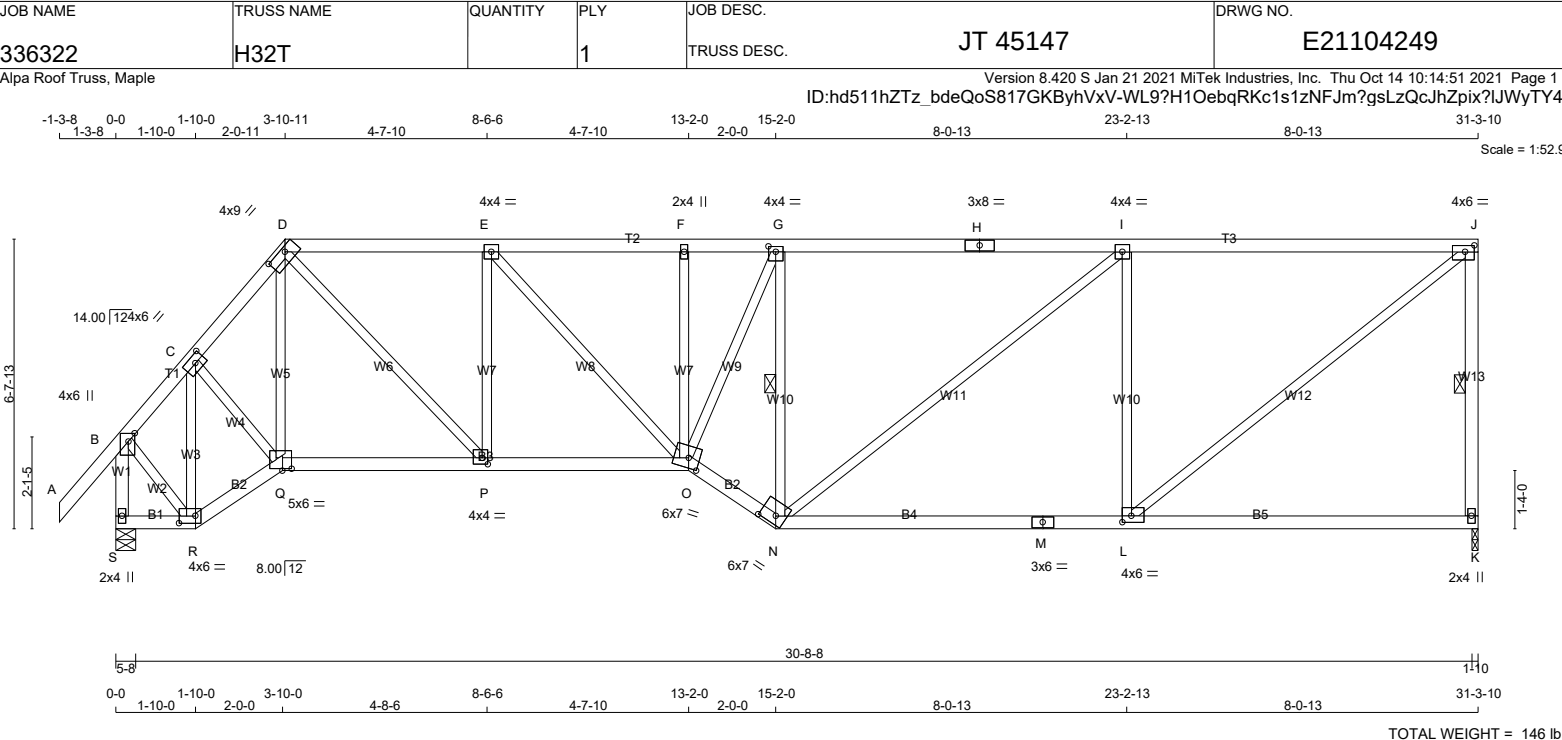
DRY: SEASONED LUMBER.

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



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

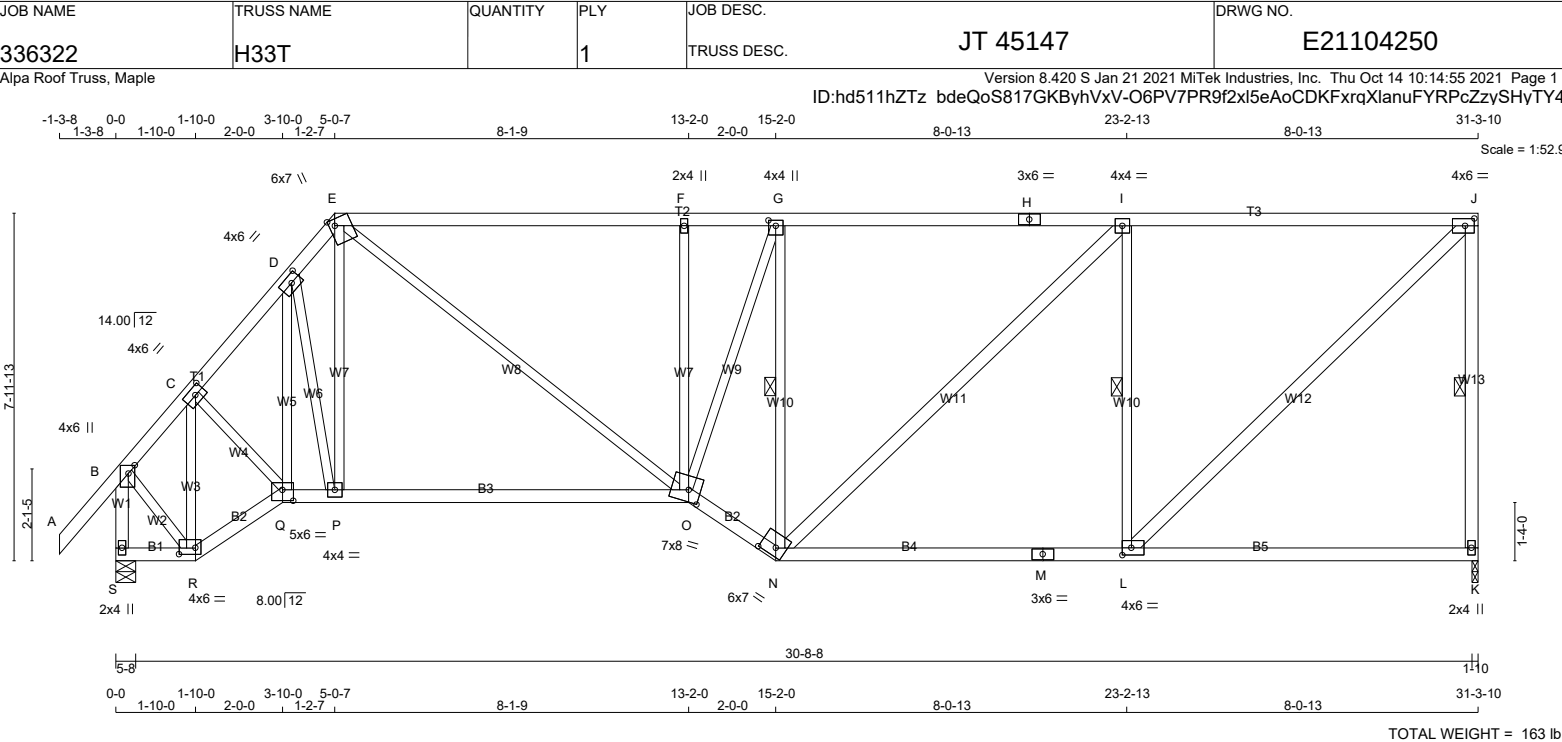
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LUMBER			DIMENSIONS, SUPPORTS AND LOADINGS SPECIFIED BY FABRICATOR TO BE VERIFIED BY BUILDING DESIGNER			DESIGN CRITERIA		
N. L. G. A. RULES			BEARINGS			SPECIFIED LOADS:		
CHORDS	SIZE	LUMBER	DESCR.	FACTORED	MAXIMUM FACTORED	INPUT	REQRD	
A - D	2x4	DRY	No.2	SPF	GROSS REACTION	BRG	BRG	
D - H	2x4	DRY	1650F 1.5E	SPF	DOWN	HORZ	UPLIFT	IN-SX
H - J	2x4	DRY	1650F 1.5E	SPF	1507	0	0	1-10
K - J	2x4	DRY	No.2	SPF	1622	0	0	5-8
S - B	2x4	DRY	No.2	SPF				1-12
S - R	2x4	DRY	No.2	SPF				
R - Q	2x4	DRY	No.2	SPF				
Q - O	2x4	DRY	No.2	SPF				
O - N	2x4	DRY	No.2	SPF				
N - M	2x4	DRY	No.2	SPF				
M - K	2x4	DRY	No.2	SPF				
ALL WEBS EXCEPT	2x3	DRY	No.2	SPF				
DRY: SEASONED LUMBER.			BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S) K, S			LOADING IN FLAT SECTION BASED ON A SLOPE OF 2.00/12 MINIMUM		
PLATES (table is in inches)			BRACING			THIS TRUSS IS DESIGNED FOR RESIDENTIAL OR SMALL BUILDING REQUIREMENTS OF PART 9, NBCS 2015		
JT	TYPE	PLATES	W	LEN	Y	X	THIS DESIGN COMPLIES WITH:	
B	TMVW+p	MT20	4.0	6.0	2.25	1.75	- PART 9 OF CBC 2018 , ABC 2019	
C	TMWW-t	MT20	4.0	6.0	2.00	2.75	- PART 9 OF OBC 2012 (2019 AMENDMENT)	
D	TTWW-h	MT20	4.0	9.0	1.25	5.50	- CSA 086-14	
E	TMWW-t	MT20	4.0	4.0			- TPIC 2014	
F	TMW+w	MT20	2.0	4.0			DESIGN ASSUMPTIONS	
G	TMWW-t	MT20	4.0	4.0	1.50	2.00	-OVERHANG NOT TO BE ALTERED OR CUT OFF.	
H	TS-t	MT20	3.0	8.0			(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	
I	TMWW-t	MT20	4.0	4.0			ALLOWABLE DEFL.(LL)= L/360 (1.04")	
J	TMVW-t	MT20	4.0	6.0	1.75	2.50	CALCULATED VERT. DEFL.(LL) = L/ 999 (0.12")	
K	BMV1+p	MT20	2.0	4.0			ALLOWABLE DEFL.(TL)= L/360 (1.04")	
L	BMWW-t	MT20	4.0	6.0	1.75	2.50	CALCULATED VERT. DEFL.(TL) = L/ 999 (0.27")	
M	BS-t	MT20	3.0	6.0			CSI: TC=0.82/1.00 (G-I:1) , BC=0.49/1.00 (L-N:4) , WB=0.75/1.00 (I-L:1) , SSI=0.30/1.00 (I-J:1)	
N	BBWW-h	MT20	6.0	7.0	2.25	4.25	DOL LUMBER=1.00 NAIL=1.00 LS BEND=1.10	
O	BBWWW-m	MT20	6.0	7.0	2.75	3.00	COMP=1.10 SHEAR=1.10 TENS= 1.10	
P	BMWW-t	MT20	4.0	4.0	1.75	1.50	COMPANION LIVE LOAD FACTOR = 1.00	
Q	BBWW-I	MT20	5.0	6.0	0.50	2.50	TRUSS PLATE MANUFACTURER IS NOT RESPONSIBLE FOR QUALITY CONTROL IN THE TRUSS MANUFACTURING PLANT .	
R	BBWW-I	MT20	4.0	6.0	2.00	4.50	NAIL VALUES	
S	BMV1+p	MT20	2.0	4.0			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 (R) (INPUT = 0.90)	
							JSI METAL= 0.44 (N) (INPUT = 1.00)	

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

Y. WIDYA
100225448
10/14/2021
PROVINCE OF ONTARIO



LUMBER N. L. G. A. RULES CHORDS SIZE				DIMENSIONS, SUPPORTS AND LOADINGS SPECIFIED BY FABRICATOR TO BE VERIFIED BY BUILDING DESIGNER										DESIGN CRITERIA					
LUMBER				DESCR.		BEARINGS										SPECIFIED LOADS:			
A - E	2x4	DRY	No.2	SPF	FACTORED GROSS REACTION		MAXIMUM FACTORED GROSS REACTION		INPUT		REQRD		TOP CH. LL = 21.0 PSF						
E - H	2x4	DRY	1650F 1.5E	SPF	JT	VERT	HORZ	DOWN	HORZ	UPLIFT	BRG	BRG	DL = 6.0 PSF						
H - J	2x4	DRY	1650F 1.5E	SPF	K	1507	0	1507	0	0	1-10	1-10	BOT CH. LL = 0.0 PSF						
K - J	2x4	DRY	No.2	SPF	S	1622	0	1622	0	0	5-8	1-12	DL = 7.4 PSF						
S - B	2x4	DRY	No.2	SPF	UNFACTORED REACTIONS										TOTAL LOAD = 34.4 PSF				
S - R	2x4	DRY	No.2	SPF											SPACING = 24.0 IN. C/C				
R - Q	2x4	DRY	No.2	SPF	LOADING IN FLAT SECTION BASED ON A SLOPE OF 2.00/12 MINIMUM														
Q - O	2x4	DRY	No.2	SPF											THIS TRUSS IS DESIGNED FOR RESIDENTIAL OR SMALL BUILDING REQUIREMENTS OF PART 9, NBC2015				
O - N	2x4	DRY	No.2	SPF	BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S) K, S														
N - M	2x4	DRY	No.2	SPF											BRACING				
M - K	2x4	DRY	No.2	SPF															
ALL WEBS EXCEPT	2x3	DRY	No.2	SPF															
N - I	2x4	DRY	No.2	SPF															
L - J	2x4	DRY	No.2	SPF															

DRY: SEASONED LUMBER.							TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 4.68 FT. MAX. UNBRACED BOTTOM CHORD LENGTH = 10.00 FT OR RIGID CEILING DIRECTLY APPLIED.							THIS DESIGN COMPLIES WITH: - PART 9 OF BCBC 2018 , ABC 2019 - PART 9 OF OBC 2012 (2019 AMENDMENT) - CSA 086-14 - TPIC 2014						
							ALL PITCH BREAKS AND PERIMETER CORNER JOINTS MUST BE Laterally RESTRAINED.													
							1 LATERAL BRACE(S) AT 1/2 LENGTH OF J-K, G-N, I-L.													
PLATES (table is in inches)							END VERTICAL(S) MUST BE SHEATHED OR HAVE BRACES AS INDICATED IN THE MAX. UNBRACED LENGTH COLUMN OF THE TABLE BELOW							DESIGN ASSUMPTIONS -OVERHANG NOT TO BE ALTERED OR CUT OFF.						
JT	TYPE	PLATES	W	LEN	Y	X	LOADING TOTAL LOAD CASES: (4)							(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						
B	TMVW+p	MT20	4.0	6.0	2.25	1.75	CHORDS							WEBS						
C	TMWW-t	MT20	4.0	6.0	2.00	2.75	MAX. FACTORED							MAX. FACTORED						
D	TMWW-t	MT20	4.0	6.0	2.00	2.75	MEMB.	FORCE	VERT. LOAD	MAX	MAX.	MEMB.	FORCE	MAX						
E	TTWW+m	MT20	6.0	7.0	Edge	1.50		(LBS)	(PLF)	CSI (LC)	UNBRAC		(LBS)	CSI (LC)						
F	TMW+w	MT20	2.0	4.0			FR-TO		FROM TO		LENGTH	FR-TO								
G	TMWW+t	MT20	4.0	4.0	1.50	2.00	A-B	0 / 42	-78.0	-78.0	0.11 (1)	10.00	R-C	-1005 / 0						
H	TS-t	MT20	3.0	6.0			B-C	-1042 / 0	-78.0	-78.0	0.12 (1)	6.02	C-Q	0 / 605						
I	TMWW-t	MT20	4.0	4.0			C-D	-1579 / 0	-78.0	-78.0	0.09 (1)	5.18	Q-D	-92 / 0						
J	TMVW-t	MT20	4.0	6.0	2.00	2.50	D-E	-1606 / 0	-78.0	-78.0	0.04 (1)	5.19	D-P	-84 / 29						
K	BMV1+p	MT20	2.0	4.0			E-F	-1885 / 0	-78.0	-78.0	0.68 (1)	4.68	P-E	0 / 271						
L	BMWW-t	MT20	4.0	6.0	2.00	2.50	F-G	-1876 / 0	-78.0	-78.0	0.54 (1)	4.68	E-O	0 / 1093						
M	BS-t	MT20	3.0	6.0			G-H	-1565 / 0	-78.0	-78.0	0.79 (1)	4.69	O-F	-547 / 0						
N	BBWW-h	MT20	6.0	7.0	2.25	4.25	H-I	-1565 / 0	-78.0	-78.0	0.79 (1)	4.69	O-G	0 / 1041						
O	BBWWW-m	MT20	7.0	8.0	3.25	3.25	I-J	-1264 / 0	-78.0	-78.0	0.76 (1)	5.10	N-G	-1241 / 0						
P	BMWW-t	MT20	4.0	4.0			K-J	-1450 / 0	0.0	0.0	0.42 (1)	5.43	N-I	0 / 415						
Q	BBWW-l	MT20	5.0	6.0	3.00	3.00	S-B	-1605 / 0	0.0	0.0	0.19 (1)	6.52	L-I	-1024 / 0						
R	BBWW-l	MT20	4.0	6.0	1.75	4.50							L-J	0 / 1747						
S	BMV1+p	MT20	2.0	4.0									B-R	0 / 904						
Edge - INDICATES REFERENCE CORNER OF PLATE TOUCHES EDGE OF CHORD.							S-R 0 / 0							-18.5 -18.5 0.02 (4) 10.00						
							R-Q 0 / 758							-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, 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

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 (1.04")
CALCULATED VERT. DEFL.(LL) = L/ 999 (0.09")
ALLOWABLE DEFL.(TL)= L/360 (1.04")
CALCULATED VERT. DEFL.(TL) = L/ 999 (0.23")

CSI: TC=0.79/1.00 (G-I:1) , BC=0.47/1.00 (L-N:4) , WB=0.50/1.00 (G-N:1) , SSI=0.30/1.00 (I-J: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 (E) (INPUT = 0.90)
JSI METAL= 0.40 (R) (INPUT = 1.00)

Scale = 1:59.4

JT	TYPE	PLATES	W	LEN	Y	X
B	TMVW+p	MT20	4.0	6.0	2.25	1.75
C	TMVW-t	MT20	4.0	6.0	2.00	2.75
D	TMVW-t	MT20	4.0	6.0	2.00	2.75
E	TTVW+m	MT20	5.0	6.0	1.75	1.50
F	TMVW+w	MT20	2.0	4.0		
G	TMVW-t	MT20	4.0	4.0	1.50	2.00
H	TS-t	MT20	3.0	8.0		
I	TMVW-t	MT20	4.0	4.0		
J	TMVW-t	MT20	4.0	6.0	2.00	2.50
K	BMV1+p	MT20	2.0	4.0		
L	BMVW-t	MT20	4.0	4.0	1.50	1.50
M	BS-t	MT20	3.0	6.0		
N	BBVW-h	MT20	6.0	7.0	2.25	4.25
O	BBVWW-m	MT20	6.0	7.0	3.00	2.75
P	BMVW-t	MT20	4.0	4.0		
Q	BBVW-l	MT20	5.0	6.0	3.00	3.00
R	BBVW-l	MT20	4.0	6.0	2.00	4.50
S	BMV1+p	MT20	2.0	4.0		

CHORDS					WEBS				
MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	LOA CSI (LC)	MAX. UNBRAC MAX (LC)	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	-1000 / 0	0.25 (1)	
B-C	-1043 / 0	-78.0	-78.0	0.12 (1)	6.02	C-Q	0 / 620	0.14 (1)	
C-D	-1578 / 0	-78.0	-78.0	0.08 (1)	5.19	Q-D	-35 / 0	0.01 (1)	
D-E	-1529 / 0	-78.0	-78.0	0.08 (1)	5.26	D-P	-135 / 0	0.07 (1)	
E-F	-1538 / 0	-78.0	-78.0	0.56 (1)	4.64	P-E	0 / 247	0.06 (4)	
F-G	-1533 / 0	-78.0	-78.0	0.45 (1)	4.69	E-O	0 / 824	0.19 (1)	
G-H	-1336 / 0	-78.0	-78.0	0.96 (1)	3.97	O-F	-419 / 0	0.51 (1)	
H-I	-1336 / 0	-78.0	-78.0	0.96 (1)	3.97	O-G	0 / 793	0.18 (1)	
I-J	-1077 / 0	-78.0	-78.0	0.92 (1)	4.38	N-G	-1093 / 0	0.62 (1)	
K-J	-1450 / 0	0.0	0.0	0.59 (1)	5.43	N-I	0 / 387	0.06 (1)	
S-B	-1605 / 0	0.0	0.0	0.19 (1)	6.52	L-I	-1023 / 0	0.58 (1)	
						L-J	0 / 1617	0.26 (1)	
						B-R	0 / 900	0.20 (1)	
S-R	0 / 0	-18.5	-18.5	0.02 (4)	10.00				
R-Q	0 / 754	-18.5	-18.5	0.13 (1)	10.00				
P-Q	0 / 1036	-18.5	-18.5	0.30 (4)	10.00				
Q-O	0 / 982	-18.5	-18.5	0.29 (4)	10.00				
O-N	0 / 1590	-18.5	-18.5	0.27 (1)	10.00				
N-M	0 / 1078	-18.5	-18.5	0.45 (4)	10.00				
M-L	0 / 1078	-18.5	-18.5	0.45 (4)	10.00				
L-K	0 / 0	-18.5	-18.5	0.35 (4)	10.00				

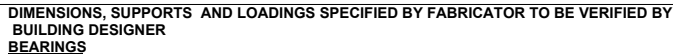
JSI GRIP= 0.90 (O) (INPUT = 0.90)
JSI METAL= 0.40 (R) (INPUT = 1.00)

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DRY: SEASONED LUMBER.

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



UNFACTORED REACTIONS

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

BRACING

TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 4.26 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 J-K, F-O, G-N, I-N, I-L, J-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)

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

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 (1.04")
CALCULATED VERT. DEFL.(LL) = L/ 999 (0.07")
ALLOWABLE DEFL.(TL)= L/360 (1.04")
CALCULATED VERT. DEFL.(TL) = L/ 999 (0.18")

CSI: TC=0.92/1.00 (G-I:1) , BC=0.44/1.00 (L-N:4)
WB=0.58/1.00 (I-L:1) , SSI=0.30/1.00 (I-J: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

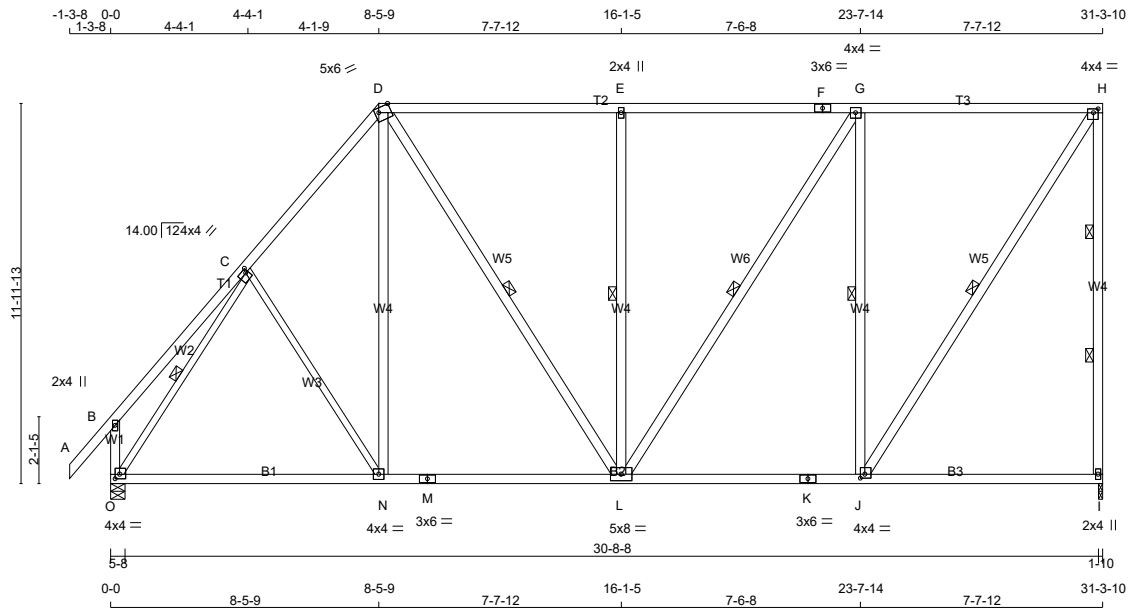
TRUSS PLATE MANUFACTURER IS NOT RESPONSIBLE FOR QUALITY CONTROL IN THE TRUSS MANUFACTURING PLANT .

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 (R) (INPUT = 0.90)
JSI METAL= 0.40 (R) (INPUT = 1.00)



TOTAL WEIGHT = 192 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
I - H	2x4	DRY	No.2	SPF
O - B	2x4	DRY	No.2	SPF
O - M	2x4	DRY	No.2	SPF
M - K	2x4	DRY	No.2	SPF
K - I	2x4	DRY	No.2	SPF
ALL WEBS EXCEPT	2x4	DRY	No.2	SPF
C - N	2x3	DRY	No.2	SPF
O - C	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	TMWV-t	MT20	4.0	4.0	1.50	1.50
D	TTWV-m	MT20	5.0	6.0	Edge	4.00
E	TMW+w	MT20	2.0	4.0		
F	TS-t	MT20	3.0	6.0		
G	TMWV-t	MT20	4.0	4.0		
H	TMVW-t	MT20	4.0	4.0	1.50	1.75
I	BMV1+p	MT20	2.0	4.0		
J	BMWV-t	MT20	4.0	4.0	1.50	1.75
K	BS-t	MT20	3.0	6.0		
L	BMWVW-t	MT20	5.0	8.0		
M	BS-t	MT20	3.0	6.0		
N	BMWV-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



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

BEARINGS		FACTORED		MAXIMUM FACTORED		INPUT	REQ'D
JT	GROSS REACTION		GROSS REACTION		UPLIFT	BRG IN-SX	BRG IN-SX
	VERT	HORZ	DOWN	HORZ			
I	1510	0	1510	0	0	1-10	1-10
O	1619	0	1619	0	0	5-8	1-12

UNFACTORED REACTIONS

1ST LCASE		MAX./MIN. COMPONENT REACTIONS					
JT	COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
I	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 = 4.99 FT.
MAX. UNBRACED BOTTOM CHORD LENGTH = 10.00 FT OR RIGID CEILING DIRECTLY APPLIED.

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

2 LATERAL BRACE(S) AT 1/3 LENGTH OF H-I.

1 LATERAL BRACE(S) AT 1/ 2 LENGTH OF D-L, E-L, G-L, G-J, H-J, C-O.

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 LOCLC1 (CSI (LC)	MAX. FACTORED UNBRAC LENGTH	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-N	-45 / 26 0.06 (1)
B-C	0 / 29	-78.0	-78.0	0.22 (1)	10.00	N-D	0 / 211 0.04 (4)
C-D	-1279 / 0	-78.0	-78.0	0.28 (1)	5.40	D-L	0 / 438 0.07 (1)
D-E	-1053 / 0	-78.0	-78.0	0.71 (1)	5.00	L-E	-644 / 0 0.51 (1)
E-F	-1053 / 0	-78.0	-78.0	0.72 (1)	4.99	L-G	0 / 478 0.08 (1)
F-G	-1053 / 0	-78.0	-78.0	0.72 (1)	4.99	J-G	-1052 / 0 0.83 (1)
G-H	-794 / 0	-78.0	-78.0	0.68 (1)	5.59	J-H	0 / 1451 0.23 (1)
I-H	-1454 / 0	0.0	0.0	0.48 (1)	5.43	O-C	-1563 / 0 0.64 (1)
O-B	-234 / 0	0.0	0.0	0.03 (1)	7.81		
O-N	0 / 835	-18.5	-18.5	0.39 (4)	10.00		
N-M	0 / 812	-18.5	-18.5	0.40 (4)	10.00		
M-L	0 / 812	-18.5	-18.5	0.40 (4)	10.00		
L-K	0 / 794	-18.5	-18.5	0.35 (4)	10.00		
K-J	0 / 794	-18.5	-18.5	0.35 (4)	10.00		
J-I	0 / 0	-18.5	-18.5	0.27 (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

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 (0.17")

CSI: TC=0.72/1.00 (E-G:1), BC=0.40/1.00 (L-N:4),
WB=0.83/1.00 (G-J:1), SSI=0.28/1.00 (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.

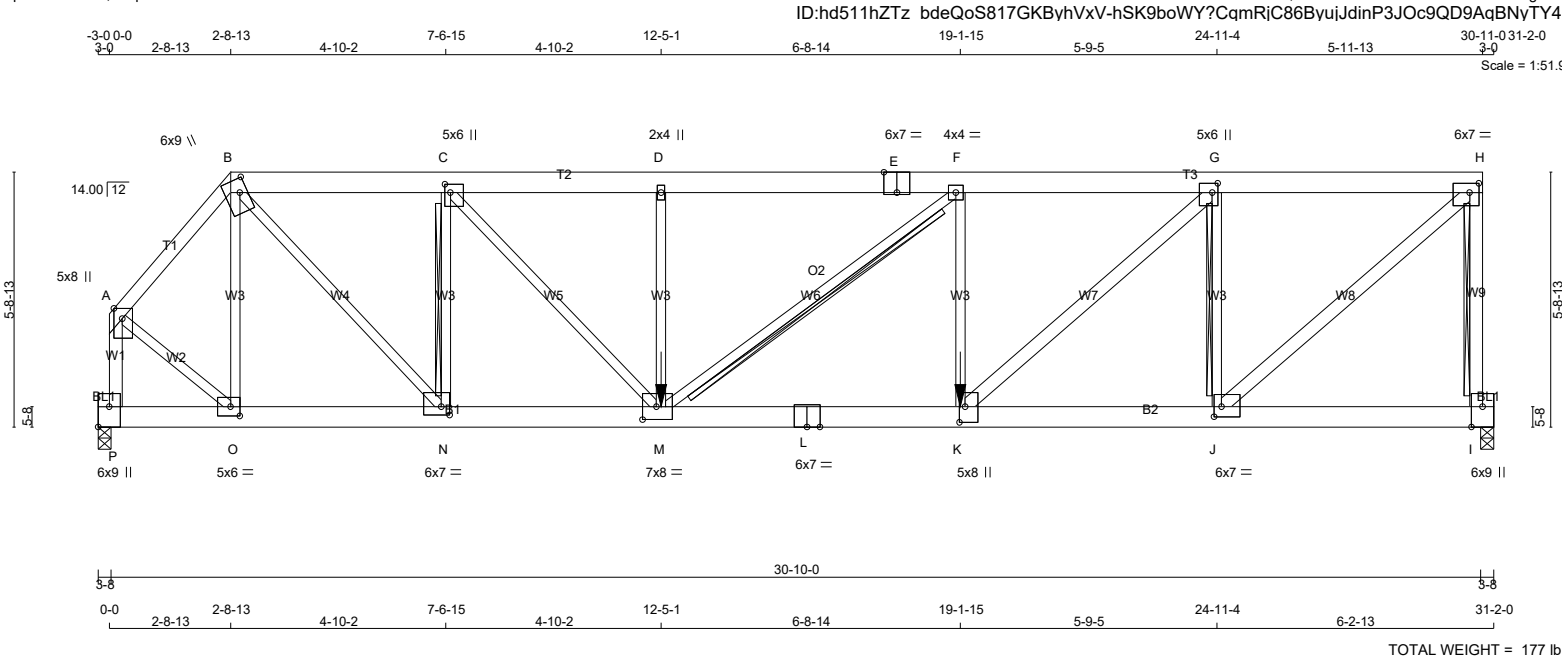
JSI GRIP= 0.90 (J) (INPUT = 0.90)
JSI METAL= 0.53 (C) (INPUT = 1.00)

JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
336322	H40		1	TRUSS DESC. JT 45147	E21104254

Alpa Roof Truss, Maple

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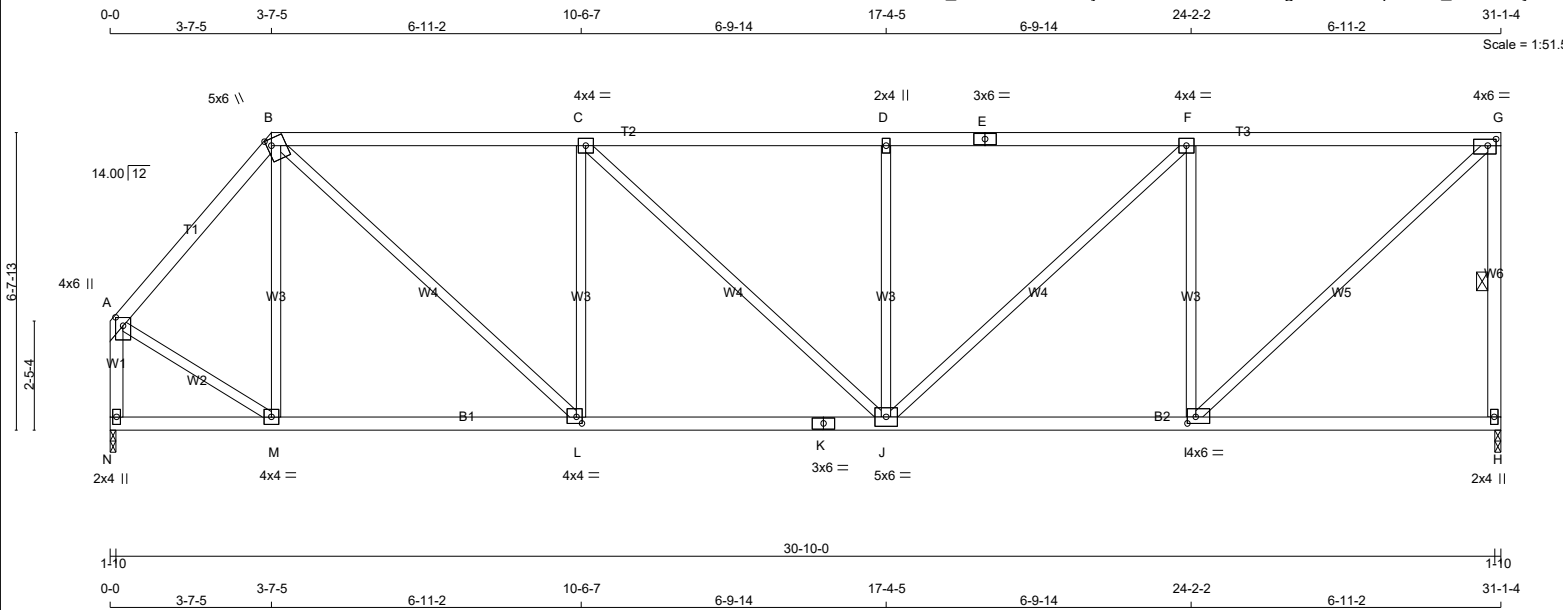
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TOTAL WEIGHT = 177 lb [M]

G. A. RULES										BUILDING DESIGNER										DESIGN CRITERIA																													
CHORDS					SIZE					LUMBER					DESCR.																																		
A - B					2x4					DRY					No.2					SPF																													
B - E					2x6					DRY					No.2					SPF																													
E - H					2x6					DRY					No.2					SPF																													
I - H					2x4					DRY					No.2					SPF																													
P - A					2x4					DRY					No.2					SPF																													
P - L					2x6					DRY					No.2					SPF																													
L - I					2x6					DRY					No.2					SPF																													
BEARING BLOCKS																																																	
BL1					2 - 2x4					DRY					No.2					SPF																													
ALL WEBS EXCEPT																																																	
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																																					
A		TMVW+p		MT20		5.0		8.0		2.75		Edge																																					
B		TTWW+m		MT20		6.0		9.0		3.75		2.00																																					
C		TMWW+t		MT20		5.0		6.0		2.25		1.50																																					
D		TMW+w		MT20		2.0		4.0																																									
E		TS-t		MT20		6.0		7.0		Edge		3.50																																					
F		TMWW-t		MT20		4.0		4.0																																									
G		TMWW+t		MT20		5.0		6.0		2.50		1.50																																					
H		TMVW-t		MT20		6.0		7.0		2.50		2.50																																					
I		BMVK1+t		MT20		6.0		9.0		Edge		3.00																																					
J		BMWW-t		MT20		6.0		7.0		2.75		2.00																																					
K		BMWW+t		MT20		5.0		8.0		4.25		1.50																																					
L		BS-t		MT20		6.0		7.0																																									
M		BMWWW-t		MT20		7.0		8.0		3.50		3.75																																					
N		BMWW-t		MT20		6.0		7.0		2.25		2.25																																					
O		BMWW-t		MT20		5.0		6.0		2.50		2.50																																					
P		BMVK1+t		MT20		6.0		9.0		5.50		Edge																																					
Edge - INDICATES REFERENCE CORNER OF PLATE TOUCHES EDGE OF CHORD.																																																	
LATERAL BRACE(S) SHOWN SHALL BE 2X4 SPF#2																																																	
																																																	
FACTORED																				MAXIMUM FACTORED										INPUT										REQRD									
GROSS REACTION																				GROSS REACTION										BRG										BRG									
JT VERT HORZ																				DOWN HORZ UPLIFT										IN-SX										IN-SX									
I 3255 0																				3255 0 0										3-8										3-8									
P 3084 0																				3084 0 0										3-8										3-8									
UNFACTORED REACTIONS																																																	
1ST LCASE																				MAX./MIN. COMPONENT REACTIONS																													
JT COMBINED SNOW LIVE PERM.LIVE WIND DEAD SOIL																																																	
I 2321 1417 / 0 0 / 0 0 / 0 0 / 0 903 / 0 0 / 0																																																	
P 2198 1343 / 0 0 / 0 0 / 0 0 / 0 856 / 0 0 / 0																																																	
BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S) I, P																																																	
BEARING SIZE FACTOR = 1.15 AT JNT(S) I, P (BASED ON SUPPORT DEPTH = 1-8)																																																	
BRACING																																																	
TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 3.01 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, C-N, F-M																																																	
2x4 DRY SPF No.2 T-BRACE AT G-J																																																	
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																				MAX. FACTORED										MAX. FACTORED																			
MEMB. FORCE (LBS)																				VERT. LOAD (PLF)										MEMB. FORCE (LBS)										MAX. FACTORED									
FR-TO																				FROM TO										FR-TO										CSI (LC)									
A-B -2282 / 0																				-78.0 -78.0 0.19 (1)										4.34										O-B -1131 / 0 0.51 (1)									
B-C -3834 / 0																				-78.0 -78.0 0.26 (1)										4.17										B-N 0 / 3505 0.87 (1)									
C-D -5838 / 0																				-78.0 -78.0 0.52 (1)										3.19										N-C -2515 / 0 0.95 (1)									
D-E -5838 / 0																				-156.0 -156.0 0.70 (1)										3.01										C-M 0 / 2964 0.73 (1)									
E-F -5838 / 0																				-156.0 -156.0 0.70 (1)										3.01										M-D -772 / 0 0.35 (1)									
F-G -5979 / 0																				-78.0 -78.0 0.57 (1)										3.12										M-F -179 / 0 0.22 (1)									
G-H -3316 / 0																				-78.0 -78.0 0.29 (1)										4.40										K-F -678 / 0 0.30 (1)									
I-H -3208 / 0																				0.0 0.0 0.93 (1)										6.27										K-G 0 / 3607 0.64 (1)									
P-A -3102 / 0																				0.0 0.0 0.43 (1)										4.84										J-G -2887 / 0 0.69 (1)									
																																								J-H 0 / 4540 0.80 (1)									
																																								A-O 0 / 2115 0.52 (1)									
P-O -216 / 0																				-18.5 -18.5 0.07 (1)										6.25																			
O-N 0 / 1463																				-18.5 -18.5 0.26 (1)										10.00																			
N-M 0 / 3834																				-18.5 -18.5 0.54 (1)										10.00																			
M-L 0 / 5979																				-37.3 -37.3 0.93 (1)										10.00																			
L-K 0 / 5979																				-37.3 -37.3 0.93 (1)										10.00																			
K-J 0 / 3316																				-18.5 -18.5 0.47 (1)										10.00																			
J-I -89 / 0																				-18.5 -18.5 0.07 (4)										6.25																			
FACTORED CONCENTRATED LOADS (LBS)																																																	
JT LOC. LC1 MAX- MAX+ FACE DIR. TYPE HEEL CONN.																																																	
K 19-1-15 -1578 -1578 --- FRONT VERT TOTAL --- C1																																																	
M 12-5-1 -1132 -1132 --- FRONT VERT TOTAL --- C1																																																	
CONNECTION REQUIREMENTS																																																	
1) C1: A SUITABLE HANGER/MECHANICAL CONNECTION IS REQUIRED.																																																	
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																																																	
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, NBC 2015																																																	
THIS DESIGN COMPLIES WITH:																																																	
- PART 9 OF CBC 2018 , ABC 2019																																																	
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(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 (0.21")																																																	
ALLOWABLE DEFL.(TL)= L/360 (1.02")																																																	
CALCULATED VERT. DEFL.(TL) = L/ 856 (0.43")																																																	
CSI: TC=0.93/1.00 (H-I:1), BC=0.93/1.00 (K-M:1), WB=0.95/1.00 (C-N:1), SSI=0.35/1.00 (D-F: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= 0.90 (G) (INPUT = 0.90)																																																	
JSI METAL= 0.99 (L) (INPUT = 1.00)																																																	





TOTAL WEIGHT = 135 lb

LUMBER

N. L. G. A. RULES			
CHORDS	SIZE	LUMBER	DESCR
A - B	2x4	DRY No.2	SPF
B - E	2x4	DRY No.2	SPF
E - G	2x4	DRY No.2	SPF
H - G	2x4	DRY No.2	SPF
N - A	2x4	DRY No.2	SPF
N - K	2x4	DRY No.2	SPF
K - H	2x4	DRY No.2	SPF

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

DRY: SEASONED LUMBER.

PLATES (table is in inches)

J	T	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	1.25
C		CTMWV-t	MT20	4.0	4.0		
D		TMVW+w	MT20	2.0	4.0		
E		TS-t	MT20	3.0	6.0		
F		TMVWV-t	MT20	4.0	4.0		
G		TMVW-t	MT20	4.0	6.0	1.75	2.25
H		BMV1+p	MT20	2.0	4.0		
I		BMVWV-t	MT20	4.0	6.0	1.75	2.25
J		BMVWVW-t	MT20	5.0	6.0		
K		BS-t	MT20	3.0	6.0		
L		BMVWV-t	MT20	4.0	4.0	1.75	1.50
M		BMVWV-t	MT20	4.0	4.0		
N		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
H	1500	0	1500	0	0	1-10	1-10
N	1500	0	1500	0	0	1-10	1-10

UNFACTORED REACTIONS

1ST LCASE		MAX./MIN. COMPONENT REACTIONS					
JT	COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
H	1070	653 / 0	0 / 0	0 / 0	0 / 0	417 / 0	0 / 0
N	1070	653 / 0	0 / 0	0 / 0	0 / 0	417 / 0	0 / 0

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

BRACING

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

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

1 LATERAL BRACE(S) AT 1/2 LENGTH OF G-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 (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	-1195 / 0	-78.0	-78.0	0.21 (1)	5.62	M-B	-318 / 0	0.23 (1)
B-C	-1715 / 0	-78.0	-78.0	0.70 (1)	4.24	B-L	0 / 1283	0.29 (1)
C-D	-1857 / 0	-78.0	-78.0	0.71 (1)	4.09	L-C	-735 / 0	0.54 (1)
D-E	-1857 / 0	-78.0	-78.0	0.71 (1)	4.08	C-J	0 / 194	0.04 (1)
E-F	-1857 / 0	-78.0	-78.0	0.71 (1)	4.08	J-D	-490 / 0	0.36 (1)
F-G	-1345 / 0	-78.0	-78.0	0.65 (1)	4.71	J-F	0 / 701	0.16 (1)
H-G	-1449 / 0	0.0	0.0	0.29 (1)	5.43	I-F	-1091 / 0	0.80 (1)
N-A	-1482 / 0	0.0	0.0	0.19 (1)	6.73	I-G	0 / 1826	0.41 (1)
						A-M	0 / 885	0.20 (1)
N-M	0 / 0	-18.5	-18.5	0.13 (4)	10.00			
M-L	0 / 768	-18.5	-18.5	0.25 (4)	10.00			
L-K	0 / 1716	-18.5	-18.5	0.37 (1)	10.00			
K-J	0 / 1716	-18.5	-18.5	0.37 (1)	10.00			
J-I	0 / 1345	-18.5	-18.5	0.34 (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

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 (1.04")
CALCULATED VERT. DEFL.(LL) = L/ 999 (0.09")
ALLOWABLE DEFL.(TL)= L/360 (1.04")
CALCULATED VERT. DEFL.(TL) = L/ 999 (0.19")

CSI: TC=0.71/1.00 (D-F:1) , BC=0.37/1.00 (J-L:1) ,
WB=0.80/1.00 (F-I:1) , SSI=0.25/1.00 (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= 0.89 (G) (INPUT = 0.90)
JSI METAL= 0.51 (K) (INPUT = 1.00)

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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	TTWV+m	MT20	5.0	6.0	1.75	1.50
C	TMVW-t	MT20	4.0	4.0		
D	TMW+w	MT20	2.0	4.0		
E	TS-t	MT20	3.0	6.0		
F	TMVW-t	MT20	4.0	4.0		
G	TMVW-t	MT20	4.0	6.0	1.50	3.00
H	BMV1+p	MT20	2.0	4.0		
I	BMVW-t	MT20	4.0	6.0	1.50	3.00
J	BMVWWW-t	MT20	5.0	6.0		
K	BS-t	MT20	3.0	6.0		
L	BMVW-t	MT20	4.0	4.0	2.00	1.75
M	BMVW-t	MT20	4.0	4.0		
N	BMV1+p	MT20	2.0	4.0		

	FACTORED GROSS REACTION		MAXIMUM FACTORED GROSS REACTION		INPUT BRG	REQRD BRG
	VERT	HORZ	DOWN	HORZ	UPLIFT	IN-SX
JT						
H	1500	0	1500	0	0	1-10
N	1500	0	1500	0	0	1-10

UNFACTORED REACTIONS							
JT	1ST LCASE	MAX./MIN. COMPONENT REACTIONS					
	COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
H	1070	653 / 0	0 / 0	0 / 0	0 / 0	417 / 0	0 / 0
N	1070	653 / 0	0 / 0	0 / 0	0 / 0	417 / 0	0 / 0

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

BRACING

TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 4.57 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, 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				WEBS			
MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	MAX. CS1 (LC)	MAX. UNBRAC	MEMB.	MAX. FACTORED FORCE (LBS)	MAX. CS1 (LC)
FR-TO		FROM	TO	LENGTH	FR-TO		
A-B	-1236 / 0	-78.0	-78.0 0.38 (1)	5.35	M-B	-224 / 0	0.27 (1)
B-C	-1463 / 0	-78.0	-78.0 0.60 (1)	4.64	B-L	0 / 1014	0.23 (1)
C-D	-1517 / 0	-78.0	-78.0 0.61 (1)	4.57	L-C	-643 / 0	0.78 (1)
D-E	-1517 / 0	-78.0	-78.0 0.60 (1)	4.57	C-J	0 / 84	0.02 (1)
E-F	-1517 / 0	-78.0	-78.0 0.60 (1)	4.57	J-D	-470 / 0	0.57 (1)
F-G	-1075 / 0	-78.0	-78.0 0.56 (1)	5.27	J-F	0 / 682	0.15 (1)
H-G	-1451 / 0	0.0	0.0 0.42 (1)	5.43	I-F	-1107 / 0	0.44 (1)
N-A	-1468 / 0	0.0	0.0 0.19 (1)	6.76	I-G	0 / 1646	0.37 (1)
					A-M	0 / 871	0.20 (1)
N-M	0 / 0	-18.5	-18.5 0.14 (4)	10.00			
M-L	0 / 798	-18.5	-18.5 0.24 (4)	10.00			
L-K	0 / 1463	-18.5	-18.5 0.32 (1)	10.00			
K-J	0 / 1463	-18.5	-18.5 0.32 (1)	10.00			
J-I	0 / 1075	-18.5	-18.5 0.30 (4)	10.00			
I-H	0 / 0	-18.5	-18.5 0.20 (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, 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) = $L/999$ (0.07")
 ALLOWABLE DEFL.(TL)= $L/360$ (1.04")
 CALCULATED VERT. DEFL.(TL) = $L/999$ (0.15")

CSI: TC=0.61/1.00 (C-D:1), BC=0.32/1.00 (J-L:1),
WB=0.78/1.00 (C-L:1), SSI=0.24/1.00 (B-C:1)

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

COMPANION LIVE LOAD FACTOR = 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 (M) (INPUT = 0.90)
JSI METAL= 0.49 (K) (INPUT = 1.00)

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DRY: SEASONED LUMBER.

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

UNFACTORED REACTIONS

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

BRACING

TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 5.00 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 G-H, B-M, C-L, C-J, D-J, 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)

N-M	0 / 0	-18.5	-18.5	0.17 (4)	10.00
M-L	0 / 806	-18.5	-18.5	0.24 (4)	10.00
L-K	0 / 1277	-18.5	-18.5	0.28 (1)	10.00
K-J	0 / 1277	-18.5	-18.5	0.28 (1)	10.00
J-I	0 / 885	-18.5	-18.5	0.27 (4)	10.00
I-H	0 / 0	-18.5	-18.5	0.18 (4)	10.00

DESIGN CRITERIA

SPECIFIED LOADS:

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)= $L/360$ (1.04")
 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=0.64/1.00 (A-B:1) , BC=0.28/1.00 (J-L:1) ,
WB=0.64/1.00 (F-I:1) , SSI=0.23/1.00 (B-C:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

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

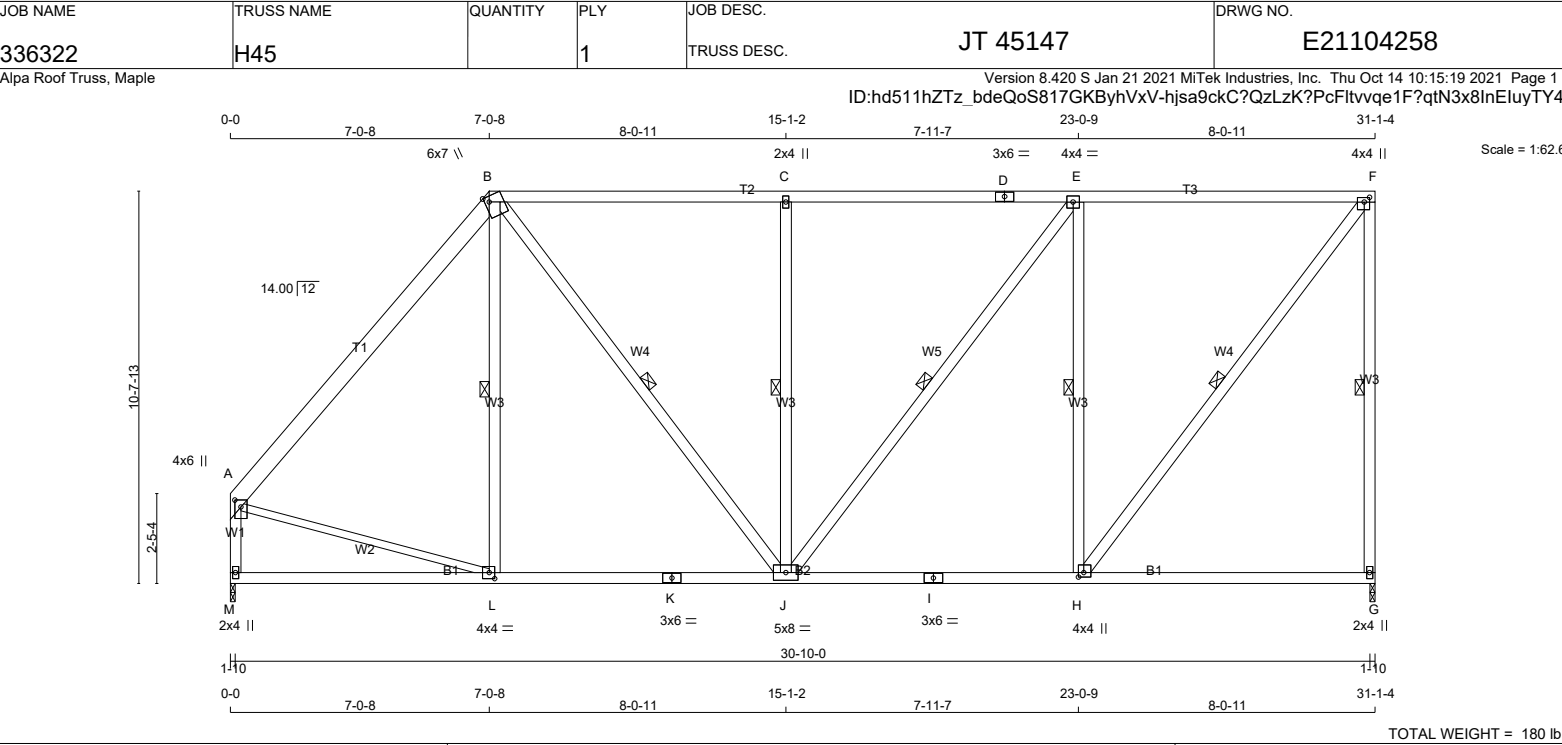
NAIL VALUES						
PLATE	GRIP(DRY)		SHEAR		SECTION	
	(PSI)		(PLI)		(PLI)	
	MAX	MIN	MAX	MIN	MAX	MIN
MT20	650	371	1747	788	1987	1873

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.84 (B) (INPUT = 0.90)
JSI METAL= 0.47 (A) (INPUT = 1.00)

Y. WIDYA
100225448
10/14/2021
PROVINCE OF ONTARIO



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TOTAL WEIGHT = 6 X 189 = 1136 lb

DRY: SEASONED LUMBER.

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

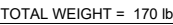
LATERAL BRACE(S) SHOWN SHALL BE
2X4 SPF#2



C H O R D S				W E B S			
MAX. FACTORED		FACTORED		MAX. FACTORED			
MEMB.	FORCE	VERT. LOAD	LC1	MAX.	MAX.	MEMB.	FORCE
	(LBS)	(PLF)	CSI (LC)	UNBRAC			CSI (LC)
FR-TO		FROM	TO	LENGTH	FR-TO		
A-B	0 / 28	-78.0	-78.0	0.21 (1)	10.00	B-K	0 / 43
B-C	-1243 / 0	-78.0	-78.0	0.26 (1)	5.49	K-C	0 / 181
C-D	-1035 / 0	-78.0	-78.0	0.72 (1)	5.03	C-J	0 / 447
D-E	-1036 / 0	-78.0	-78.0	0.72 (1)	5.02	J-D	-647 / 0
E-F	-1036 / 0	-78.0	-78.0	0.72 (1)	5.02	J-F	0 / 449
F-G	-791 / 0	-78.0	-78.0	0.69 (1)	5.59	I-F	-1031 / 0
H-G	-1446 / 0	0.0	0.0	0.47 (1)	5.44	I-G	0 / 1442
L-A	-120 / 0	0.0	0.0	0.02 (1)	7.81	L-B	-1537 / 0
L-K	0 / 786	-18.5	-18.5	0.41 (4)	10.00		
K-J	0 / 790	-18.5	-18.5	0.42 (4)	10.00		
J-I	0 / 791	-18.5	-18.5	0.39 (4)	10.00		
I-H	0 / 0	-18.5	-18.5	0.31 (4)	10.00		

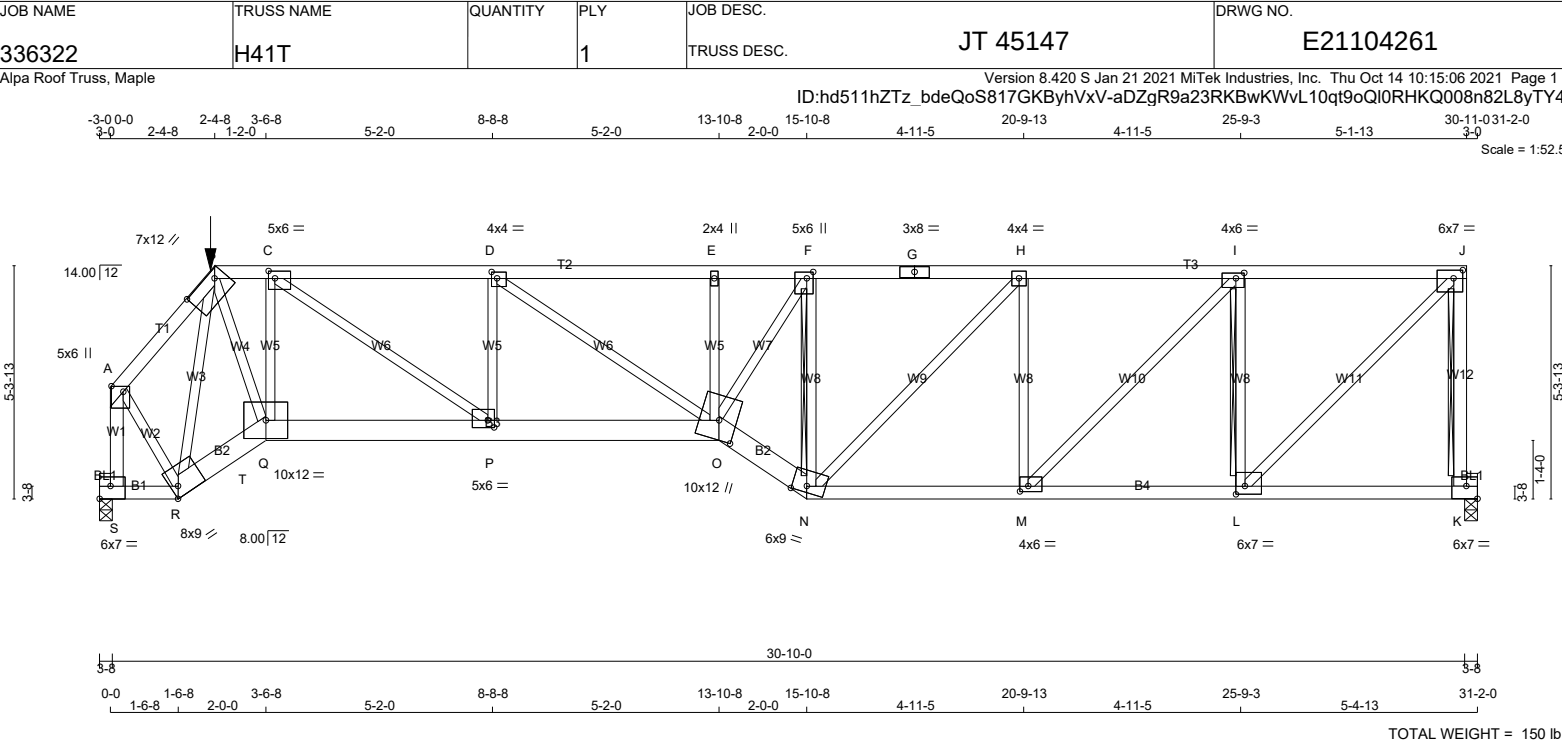
JSI GRIP= 0.89 (I) (INPUT = 0.90)
JSI METAL= 0.52 (B) (INPUT = 1.00)

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COMPANION LIVE LOAD FACTOR = 1.00





LUMBER

N. L. G. A. RULES

CHORDS	SIZE	LUMBER	DESCR.
A - B	2x4	DRY No.2	SPF
B - G	2x4	DRY 1650F 1.5E	SPF
G - J	2x4	DRY 1650F 1.5E	SPF
K - J	2x4	DRY No.2	SPF
S - A	2x4	DRY No.2	SPF
S - R	2x4	DRY No.2	SPF
R - Q	2x6	DRY No.2	SPF
Q - O	2x6	DRY No.2	SPF
O - N	2x6	DRY No.2	SPF
N - K	2x4	DRY No.2	SPF

BEARING BLOCKS

BL1	2 - 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	5.0	6.0	1.50	3.25
B	TTWW-h	MT20	7.0	12.0	2.00	9.25
C	TMWW-h	MT20	5.0	6.0	2.00	1.75
D	TMWW-t	MT20	4.0	4.0	1.75	1.50
E	TMW+w	MT20	2.0	4.0		
F	TMWW+t	MT20	5.0	6.0	1.75	1.75
G	TS-t	MT20	3.0	8.0		
H	TMWW-t	MT20	4.0	4.0		
I	TMWW-t	MT20	4.0	6.0	1.50	2.25
J	TMVW-t	MT20	6.0	7.0	2.25	2.50
K	BMVK1-t	MT20	6.0	7.0	3.50	Edge
L	BMWW-t	MT20	6.0	7.0	2.25	2.50
M	BMWW-t	MT20	4.0	6.0	1.50	2.25
N	BBWW-m	MT20	6.0	9.0	1.75	4.00
O	BBWWW+m	MT20	10.0	12.0	5.25	4.75
P	BMWW-t	MT20	5.0	6.0	2.00	1.75
Q	BBWW-t	MT20	10.0	12.0		
R	BBWW-h	MT20	8.0	9.0	3.00	Edge
S	BMVK1-t	MT20	6.0	7.0	3.50	Edge

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	HORZ	DOWN	HORZ
K	2936	0	2936	0
S	2969	0	2969	0

UNFACTORED REACTIONS

	1ST LCASE	MAX./MIN.	COMPONENT REACTIONS			
JT	COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD
K	2093	1280 / 0	0 / 0	0 / 0	0 / 0	813 / 0
S	2118	1289 / 0	0 / 0	0 / 0	0 / 0	829 / 0

BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S) K, S
BEARING SIZE FACTOR = 1.15 AT JNT(S) K, S (BASED ON SUPPORT DEPTH = 1-8)

BRACING
TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 2.90 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 J-K, I-L
2x4 DRY SPF No.2 T-BRACE AT F-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)

CHORDS				WEBS			
MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	MAX. VERT. LOAD LC1 (LC)	MEMB.	MAX. FACTORED FORCE (LBS)	MAX. VERT. LOAD LC1 (LC)	UNBRACED LENGTH
FR-TO		FROM	TO	FR-TO			
A-B	-1560 / 0	-78.0	-78.0 0.12 (1)	5.15	R-B	-2525 / 0	0.96 (1)
B-C	-2536 / 0	-78.0	-78.0 0.13 (1)	4.75	B-Q	0 / 3545	0.88 (1)
C-D	-5137 / 0	-78.0	-78.0 0.51 (1)	3.25	Q-C	-2014 / 0	0.49 (1)
D-E	-6181 / 0	-78.0	-78.0 0.63 (1)	2.90	C-P	0 / 3122	0.77 (1)
E-F	-6176 / 0	-78.0	-78.0 0.48 (1)	2.90	P-D	-1178 / 0	0.29 (1)
F-G	-4547 / 0	-153.5	-153.5 0.60 (1)	3.27	D-O	0 / 1270	0.31 (1)
G-H	-4547 / 0	-153.5	-153.5 0.60 (1)	3.27	O-E	-166 / 0	0.04 (1)
H-I	-3969 / 0	-153.5	-153.5 0.70 (1)	3.29	O-F	0 / 3360	0.83 (1)
I-J	-2522 / 0	-153.5	-153.5 0.60 (1)	4.13	N-F	-3416 / 0	0.80 (1)
K-J	-2862 / 0	0.0	0.0 0.80 (1)	6.64	N-H	0 / 818	0.20 (1)
S-A	-2941 / 0	0.0	0.0 0.43 (1)	4.96	M-H	-1332 / 0	0.58 (1)
					M-I	0 / 2063	0.51 (1)
S-R	-197 / 0	-36.4	-36.4 0.02 (4)	6.25	L-I	-2342 / 0	0.86 (1)
R-T	0 / 1730	-129.9	-129.9 0.27 (1)	10.00	L-J	0 / 3640	0.90 (1)
T-Q	0 / 1730	-112.0	-112.0 0.27 (1)	10.00	A-R	0 / 2043	0.51 (1)
Q-P	0 / 2595	-112.0	-112.0 0.53 (1)	10.00			
P-O	0 / 5137	-112.0	-112.0 0.86 (1)	10.00			
O-N	0 / 5431	-112.0	-112.0 0.75 (1)	10.00			
N-M	0 / 3970	-36.4	-36.4 0.82 (1)	10.00			
M-L	0 / 2522	-36.4	-36.4 0.56 (1)	10.00			
L-K	-83 / 0	-36.4	-36.4 0.22 (4)	6.25			

FACTORED CONCENTRATED LOADS (LBS)

JT	LOC.	LC1	MAX-	MAX+	FACE	DIR.	TYPE	HEEL	CONN.
B	2-4-8	-149	-149	---	FRONT	VERT	TOTAL	---	C1

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

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 = 2-7-8
RIGHT 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
- ADDT'L LOADS BASED ON 55 % OF GSL.
LOADS APPLIED TO FIRST 2-7-8 OF SPAN MEASURED FROM THE LEFT.

GIRDER TYPE: CStdGirder
START DISTANCE = 1-6-8
START SPAN CARRIED = 5-10-8
END DISTANCE = 15-10-8
END SPAN CARRIED = 5-10-8
END WALL WIDTH = 0-0
APPLIED TO FRONT SIDE OF BOTTOM CHORD.
- ADDT'L LOADS BASED ON 55 % OF GSL.

GIRDER TYPE: CPrimeHip
LEFT SETBACK = 2-7-8
RIGHT 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
- ADDT'L LOADS BASED ON 55 % OF GSL.
LOADS APPLIED TO FIRST 15-3-8 OF SPAN MEASURED FROM THE RIGHT.

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

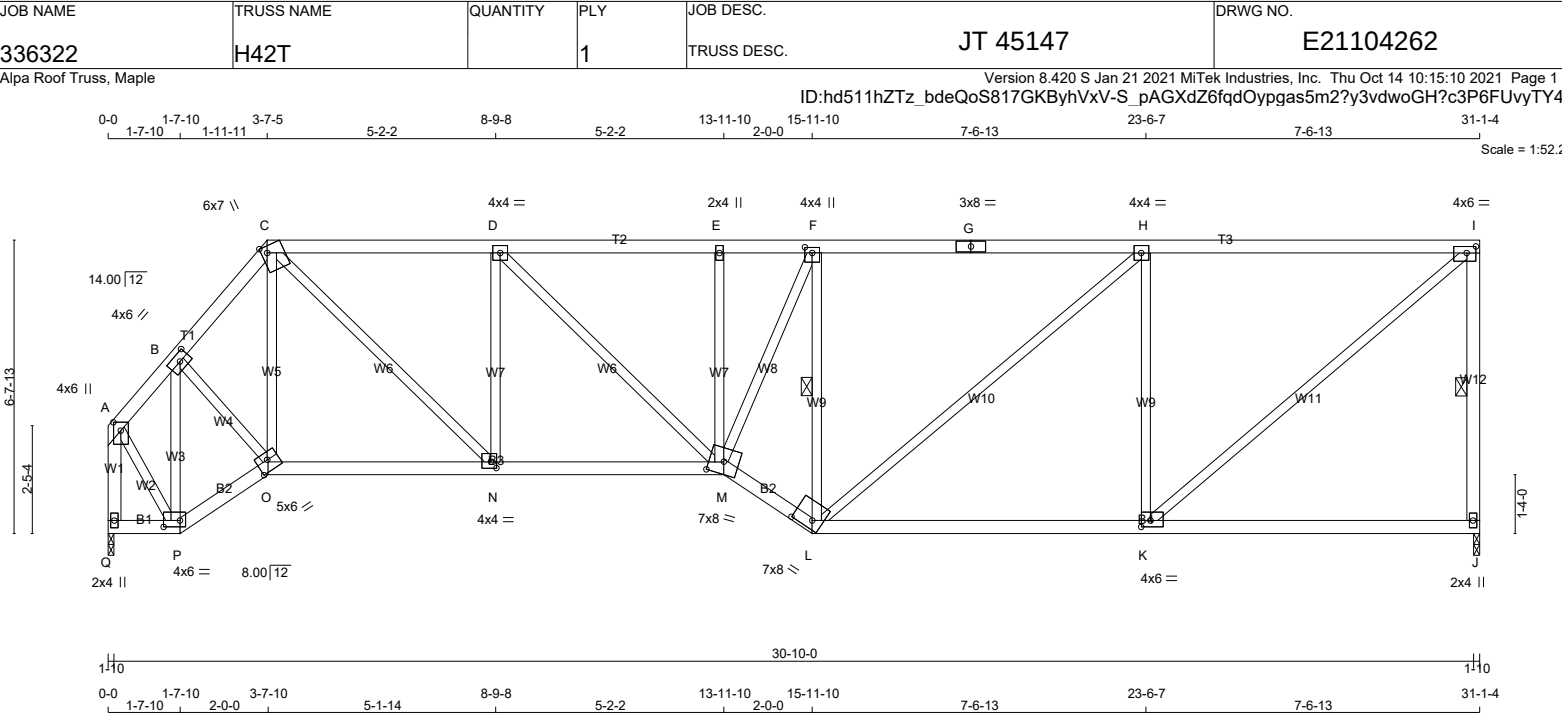
(55 % OF 23.0 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 21.0 P.S.F. SPECIFIED ROOF LIVE LOAD

ALLOWABLE DEFL.(LL)= L/360 (1.02")
CALCULATED VERT. DEFL.(LL)= L/ 999 (0.31")
ALLOWABLE DEFL.(TL)= L/360 (1.02")
CALCULATED VERT. DEFL.(TL)= L/ 596 (0.62")

CSI: TC=0.80/1.00 (J-K:1), BC=0.86/1.00 (O-P:1), WB=0.96/1.00 (B-R:1), SSI=0.41/1.00 (I-J:1)

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

COMPANION LIVE LOAD FACTOR = 1.00



LUMBER

N. L. G. A. RULES

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

DRY: SEASONED LUMBER.

PLATES (table is in inches)

JT TYPE	PLATES	W	LEN	Y	X
A TMVW+p	MT20	4.0	6.0	2.25	2.00
B TMWW-t	MT20	4.0	6.0	2.00	2.75
C TTWW+m	MT20	6.0	7.0	Edge	1.50
D TMWW-t	MT20	4.0	4.0		
E TMW+w	MT20	2.0	4.0		
F TMWW+t	MT20	4.0	4.0	1.50	2.00
H TMWW-t	MT20	4.0	4.0		
I TMVW-t	MT20	4.0	6.0	1.75	2.50
J BMV1+p	MT20	2.0	4.0		
K BMWW-t	MT20	4.0	6.0	1.75	2.50
L BBWW-h	MT20	7.0	8.0	2.25	5.25
M BBWWW-m	MT20	7.0	8.0	3.25	4.00
N BMWW-t	MT20	4.0	4.0	1.75	1.50
O BBWW-h	MT20	5.0	6.0	3.00	3.00
P BBWW-l	MT20	4.0	6.0	1.75	4.50
Q 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	REQRD
JT	VERT	HORZ	DOWN	HORZ
J	1500	0	1500	0
Q	1500	0	1500	0

UNFACTORED REACTIONS

JT	1ST LCASE	MAX./MIN. COMPONENT REACTIONS	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
J	1070	653 / 0	0 / 0	0 / 0	0 / 0	0 / 0	417 / 0	0 / 0
Q	1070	653 / 0	0 / 0	0 / 0	0 / 0	0 / 0	417 / 0	0 / 0

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

BRACING
TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 3.71 FT.
MAX. UNBRACED BOTTOM CHORD LENGTH = 10.00 FT OR RIGID CEILING DIRECTLY APPLIED.

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

1 LATERAL BRACE(S) AT 1 / 2 LENGTH OF I-J, F-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	MAX. FACTORED	FACTORED	WEBS	MAX. FACTORED
MEMB.	FORCE (LBS)	VERT. LOAD (PLF)	MAX. UNBRAC LENGTH	MEMB. FORCE (LBS)
FR-TO		FROM TO		FR-TO
A-B	-903 / 0	-78.0 -78.0 0.03 (1)	6.25	P-B -1086 / 0
B-C	-1499 / 0	-78.0 -78.0 0.07 (1)	5.30	B-O 0 / 623
C-D	-1938 / 0	-78.0 -78.0 0.41 (1)	4.41	O-C -43 / 21
D-E	-2316 / 0	-78.0 -78.0 0.44 (1)	4.07	C-N 0 / 1354
E-F	-2313 / 0	-78.0 -78.0 0.38 (1)	4.08	N-D -832 / 0
F-G	-1878 / 0	-78.0 -78.0 0.92 (1)	3.71	D-M 0 / 526
G-H	-1878 / 0	-78.0 -78.0 0.92 (1)	3.71	M-E -164 / 0
H-I	-1446 / 0	-78.0 -78.0 0.84 (1)	4.21	M-F 0 / 1188
J-I	-1446 / 0	0.0 0.0 0.29 (1)	5.43	L-F -1522 / 0
Q-A	-1485 / 0	0.0 0.0 0.19 (1)	6.73	L-H 0 / 563
				K-H -1046 / 0
Q-P	0 / 0	-18.5 -18.5 0.01 (4)	10.00	K-I 0 / 1889
P-O	0 / 676	-18.5 -18.5 0.12 (1)	10.00	A-P 0 / 951
O-N	0 / 963	-18.5 -18.5 0.23 (4)	10.00	
N-M	0 / 1938	-18.5 -18.5 0.38 (1)	10.00	
M-L	0 / 2227	-18.5 -18.5 0.37 (1)	10.00	
L-K	0 / 1446	-18.5 -18.5 0.44 (4)	10.00	
K-J	0 / 0	-18.5 -18.5 0.30 (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, 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 (0.12")
ALLOWABLE DEFL.(TL)= L/360 (1.04")
CALCULATED VERT. DEFL.(TL) = L/ 999 (0.25")

CSI: TC=0.92/1.00 (F-H:1) , BC=0.44/1.00 (K-L:4) , WB=0.76/1.00 (H-K:1) , SSI=0.28/1.00 (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

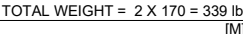
PLATE	GRIP(DRY)	SHEAR	SECTION
	(PSI)	(PLI)	(PLI)
MT20	650	371	1747 788 1987 1873

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.89 (K) (INPUT = 0.90)
JSI METAL= 0.35 (K) (INPUT = 1.00)

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

CHORDS					WEBBS				
MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	MAX. CS1 (LBS)	MAX. CS1 (LBS)	MEMB.	MAX. FACTORED FORCE (LBS)	MAX. CS1 (LBS)		
FR-TO		FROM TO		LENGTH	FR-TO				
A-B	-902 / 0	-78.0	-78.0	0.03 (1)	6.25	R-B	-1088 / 0	0.29 (1)	
B-C	-1491 / 0	-78.0	-78.0	0.08 (1)	5.31	B-Q	0 / 630	0.14 (1)	
C-D	-1520 / 0	-78.0	-78.0	0.04 (1)	5.31	Q-C	-89 / 0	0.04 (1)	
D-E	-1578 / 0	-78.0	-78.0	0.31 (1)	4.92	C-P	-85 / 0	0.04 (1)	
E-F	-1826 / 0	-78.0	-78.0	0.32 (1)	4.63	P-D	0 / 147	0.03 (1)	
F-G	-1823 / 0	-78.0	-78.0	0.36 (1)	4.52	D-O	0 / 1048	0.24 (1)	
G-H	-1552 / 0	-78.0	-78.0	0.86 (1)	4.06	O-E	-758 / 0	0.55 (1)	
H-I	-1552 / 0	-78.0	-78.0	0.86 (1)	4.06	E-N	0 / 421	0.09 (1)	
I-J	-1196 / 0	-78.0	-78.0	0.80 (1)	4.58	N-F	-130 / 0	0.09 (1)	
K-J	-1447 / 0	0.0	0.0	0.42 (1)	5.43	N-G	0 / 918	0.21 (1)	
S-A	-1485 / 0	0.0	0.0	0.19 (1)	6.73	M-G	-1310 / 0	0.53 (1)	
						M-I	0 / 507	0.08 (1)	
S-R	0 / 0	-18.5	-18.5	0.01 (4)	10.00	L-I	-1045 / 0	0.42 (1)	
R-Q	0 / 678	-18.5	-18.5	0.12 (1)	10.00	L-J	0 / 1706	0.27 (1)	
Q-P	0 / 973	-18.5	-18.5	0.20 (1)	10.00	A-R	0 / 953	0.21 (1)	
P-O	0 / 961	-18.5	-18.5	0.20 (1)	10.00				
O-N	0 / 1578	-18.5	-18.5	0.30 (1)	10.00				
N-M	0 / 1844	-18.5	-18.5	0.31 (1)	10.00				
M-L	0 / 1196	-18.5	-18.5	0.42 (4)	10.00				
L-K	0 / 0	-18.5	-18.5	0.30 (4)	10.00				

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



[illegible]

C H O R D S					W E B S			
MEMB.	MAX.	FACTORED	FACTORED		MAX.	MAX.	FACTORED	
	FORCE	VERT. LOAD	LC1	MAX		MEMB.	FORCE	MAX
	(LBS)	(PLF)	CSI (LC)	UNBRAC		(LBS)	CSI (LC)	
FR-TO		FROM	TO	LENGTH	FR-TO			
A-B	-903 / 0	-78.0	-78.0	0.03 (1)	6.25	P-B	-1083 / 0	0.29 (1)
B-C	-1491 / 0	-78.0	-78.0	0.07 (1)	5.32	B-O	0 / 643	0.14 (1)
C-D	-1483 / 0	-78.0	-78.0	0.07 (1)	5.33	O-C	-120 / 0	0.05 (1)
D-E	-1567 / 0	-78.0	-78.0	0.83 (1)	4.20	N-C	-68 / 3	0.04 (1)
E-F	-1559 / 0	-78.0	-78.0	0.65 (1)	4.21	N-D	0 / 212	0.06 (4)
F-G	-1318 / 0	-78.0	-78.0	0.83 (1)	4.33	D-M	0 / 846	0.14 (1)
G-H	-1318 / 0	-78.0	-78.0	0.83 (1)	4.33	M-E	-563 / 0	0.68 (1)
H-I	-1021 / 0	-78.0	-78.0	0.79 (1)	4.83	M-F	0 / 965	0.22 (1)
J-I	-1447 / 0	0.0	0.0	0.59 (1)	5.43	L-F	-1149 / 0	0.66 (1)
Q-A	-1485 / 0	0.0	0.0	0.19 (1)	6.73	L-H	0 / 461	0.07 (1)
						K-H	-1046 / 0	0.60 (1)
Q-P	0 / 0	-18.5	-18.5	0.01 (4)	10.00	K-I	0 / 1589	0.26 (1)
P-O	0 / 675	-18.5	-18.5	0.12 (1)	10.00	A-P	0 / 949	0.21 (1)
O-N	0 / 977	-18.5	-18.5	0.36 (4)	10.00			
N-M	0 / 953	-18.5	-18.5	0.36 (4)	10.00			
M-L	0 / 1568	-18.5	-18.5	0.26 (1)	10.00			
L-K	0 / 1021	-18.5	-18.5	0.40 (4)	10.00			
K-J	0 / 0	-18.5	-18.5	0.31 (4)	10.00			

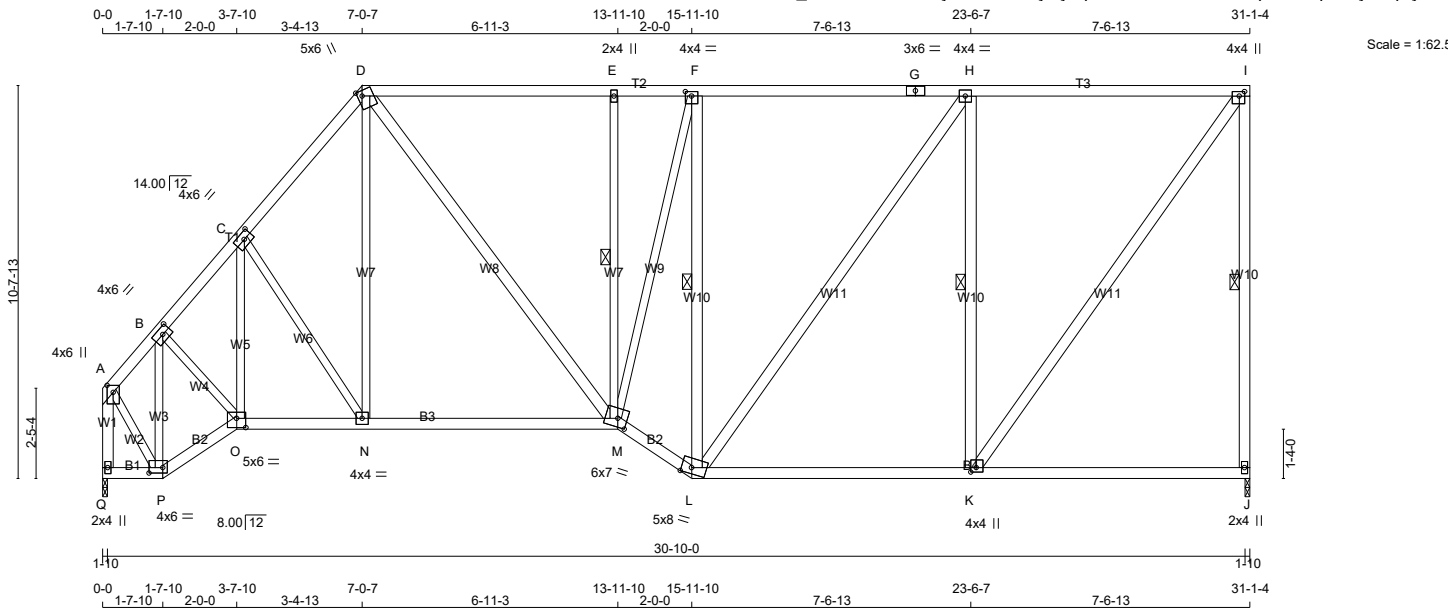
JSI GRIP= 0.90 (I) (INPUT = 0.90)
JSI METAL= 0.35 (K) (INPUT = 1.00)

JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
336322	H45T		1	TRUSS DESC. JT 45147	E21104265

Alpa Roof Truss, Maple

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ID:hd511hZTz_bdeQoS817GKByhVxV-AwQyNykqmk5CbUabAzG6S6NprfKwcq54MyXnqKyTY45



TOTAL WEIGHT = 2 X 192 = 384 lb

[M]

LUMBER			
N. L. G. A. RULES			
CHORDS	SIZE	LUMBER	DESCR.
A - D	2x4	DRY No.2	SPF
D - G	2x4	DRY No.2	SPF
G - I	2x4	DRY No.2	SPF
J - I	2x4	DRY No.2	SPF
Q - A	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
M - L	2x4	DRY No.2	SPF
L - J	2x4	DRY No.2	SPF
ALL WEBS EXCEPT	2x3	DRY No.2	SPF
D - M	2x4	DRY No.2	SPF
L - F	2x4	DRY No.2	SPF
L - H	2x4	DRY No.2	SPF
K - H	2x4	DRY No.2	SPF
K - I	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	TMWW-t	MT20	4.0	6.0	2.00 2.75
C	TMWW-t	MT20	4.0	6.0	2.00 2.75
D	TTWW+m	MT20	5.0	6.0	1.75 1.50
E	TMW+w	MT20	2.0	4.0	
F	TMWW-t	MT20	4.0	4.0	1.50 2.00
G	TS-t	MT20	3.0	6.0	
H	TMWW-t	MT20	4.0	4.0	
I	TMVW+p	MT20	4.0	4.0	1.50 1.75
J	BMV1+p	MT20	2.0	4.0	
K	BMWW+t	MT20	4.0	4.0	1.50 1.75
L	BBWW-m	MT20	5.0	8.0	2.00 3.25
M	BBWW-m	MT20	6.0	7.0	2.75 3.00
N	BMWW-t	MT20	4.0	4.0	
O	BBWW-l	MT20	5.0	6.0	3.00 3.00
P	BBWW-l	MT20	4.0	6.0	1.75 4.50
Q	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 DOWN		INPUT UPLIFT		REQRD BRG IN-SX	
JT	VERT	HORZ		HORZ		IN-SX		IN-SX	
J	1500	0	1500	0	0	1-10	1-10		
Q	1500	0	1500	0	0	1-10	1-10		

UNFACTORED REACTIONS							
JT	COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
J	1070	653 / 0	0 / 0	0 / 0	0 / 0	417 / 0	0 / 0
Q	1070	653 / 0	0 / 0	0 / 0	0 / 0	417 / 0	0 / 0

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

LOADING									
TOTAL LOAD CASES: (4)									
CHORDS									
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	-904 / 0	-78.0	-78.0	0.04 (1)	6.25	P-B	-1077 / 0	0.28 (1)	
B-C	-1484 / 0	-78.0	-78.0	0.13 (1)	5.26	B-O	0 / 660	0.15 (1)	
C-D	-1433 / 0	-78.0	-78.0	0.14 (1)	5.33	O-C	-101 / 0	0.04 (1)	
D-E	-1318 / 0	-78.0	-78.0	0.52 (1)	4.97	C-N	-124 / 0	0.08 (1)	
E-F	-1313 / 0	-78.0	-78.0	0.44 (1)	5.01	N-D	0 / 226	0.06 (4)	
F-G	-1150 / 0	-78.0	-78.0	0.80 (1)	4.63	D-M	0 / 654	0.11 (1)	
G-H	-1150 / 0	-78.0	-78.0	0.80 (1)	4.63	M-E	-435 / 0	0.25 (1)	
H-I	-889 / 0	-78.0	-78.0	0.76 (1)	5.15	M-F	0 / 768	0.17 (1)	
J-I	-1447 / 0	0.0	0.0	0.83 (1)	5.43	L-F	-1041 / 0	0.59 (1)	
Q-A	-1485 / 0	0.0	0.0	0.19 (1)	6.73	L-H	0 / 442	0.07 (1)	
Q-P	0 / 0	-18.5	-18.5	0.01 (4)	10.00	K-H	-1045 / 0	0.60 (1)	
P-O	0 / 671	-18.5	-18.5	0.12 (1)	10.00	K-I	0 / 1507	0.24 (1)	
O-N	0 / 985	-18.5	-18.5	0.28 (4)	10.00	A-P	0 / 943	0.21 (1)	
N-M	0 / 919	-18.5	-18.5	0.28 (4)	10.00				
M-L	0 / 1365	-18.5	-18.5	0.23 (1)	10.00				
L-K	0 / 889	-18.5	-18.5	0.39 (4)	10.00				
K-J	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 A SLOPE OF 2.00/12 MINIMUM

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

(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 (0.07")
ALLOWABLE DEFL.(TL)= L/360 (1.04")
CALCULATED VERT. DEFL.(TL) = L/999 (0.17")

CSI: TC=0.83/1.00 (I-J:1), BC=0.39/1.00 (K-L:4), WB=0.60/1.00 (H-K:1), SSI=0.28/1.00 (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= 0.89 (I) (INPUT = 0.90)
JSI METAL= 0.39 (I) (INPUT = 1.00)

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

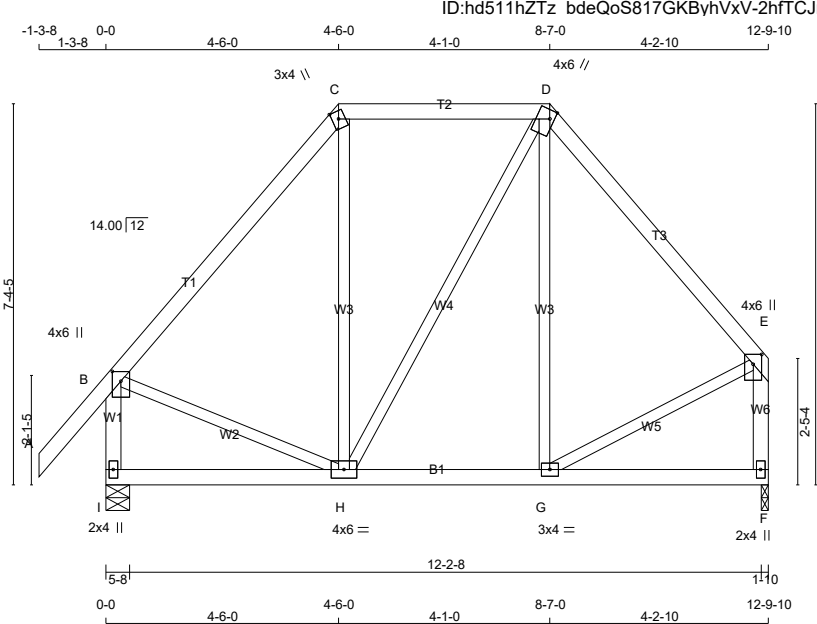


JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
336322	H65S		1	TRUSS DESC. JT 45147	E21104266

Alpa Roof Truss, Maple

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ID:hd511hZTz bdeQoS817GKByhVxV-2hfTCJnLpzbe45uMPpL2cyXeYGnJYnQgHaV?z5yTY41



TOTAL WEIGHT = 3 X 66 = 199 lb

[M][F]

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
I - B	2x4	DRY	No.2
F - E	2x4	DRY	No.2
I - F	2x4	DRY	No.2
ALL WEBS	2x3	DRY	No.2
EXCEPT			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	TTW+m	MT20	3.0	4.0	Edge
D	TTWW+m	MT20	4.0	6.0	2.00 1.00
E	TMVW+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	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

		FACTORED GROSS REACTION		MAXIMUM FACTORED GROSS REACTION		INPUT BRG IN-SX		REQRD BRG IN-SX	
JT		VERT	HORZ	DOWN	HORZ	UPLIFT	IN-SX	IN-SX	
I		727	0	727	0	5-8	1-8	1-8	
F		618	0	618	0	1-10	1-8	1-8	

UNFACTORED REACTIONS							
JT	1ST LCASE	MAX.	MIN.	COMPONENT	REACTIONS		
I	516	328 / 0	0 / 0	SNOW	LIVE	PERM.LIVE	WIND
F	440	269 / 0	0 / 0	SNOW	LIVE	PERM.LIVE	WIND

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

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

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

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	0 / 42	-78.0	-78.0 0.11 (1)	H-C	-27 / 51	0.03 (1)	
B-C	-404 / 0	-78.0	-78.0 0.21 (1)	H-D	0 / 17	0.00 (1)	
C-D	-261 / 0	-78.0	-78.0 0.17 (1)	G-D	-40 / 43	0.04 (1)	
D-E	-392 / 0	-78.0	-78.0 0.18 (1)	B-H	0 / 280	0.06 (1)	
I-B	-691 / 0	0.0	0.0 0.08 (1)	G-E	0 / 281	0.06 (1)	
F-E	-584 / 0	0.0	0.0 0.08 (1)				
I-H	0 / 0	-18.5	-18.5 0.08 (4)				
H-G	0 / 253	-18.5	-18.5 0.11 (4)				
G-F	0 / 0	-18.5	-18.5 0.07 (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, 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 (0.43")
CALCULATED VERT. DEFL.(LL)= L/ 999 (0.00")
ALLOWABLE DEFL.(TL)= L/360 (0.43")
CALCULATED VERT. DEFL.(TL)= L/ 999 (0.02")

CSI: TC=0.21/1.00 (B-C:1) , BC=0.11/1.00 (G-H:4) , WB=0.06/1.00 (E-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)	SHEAR	SECTION		
	(PSI)	(PLI)	(PLI)		
MT20	650	371	1747	788	1987 1873

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.73 (C) (INPUT = 0.90)
JSI METAL= 0.21 (B) (INPUT = 1.00)

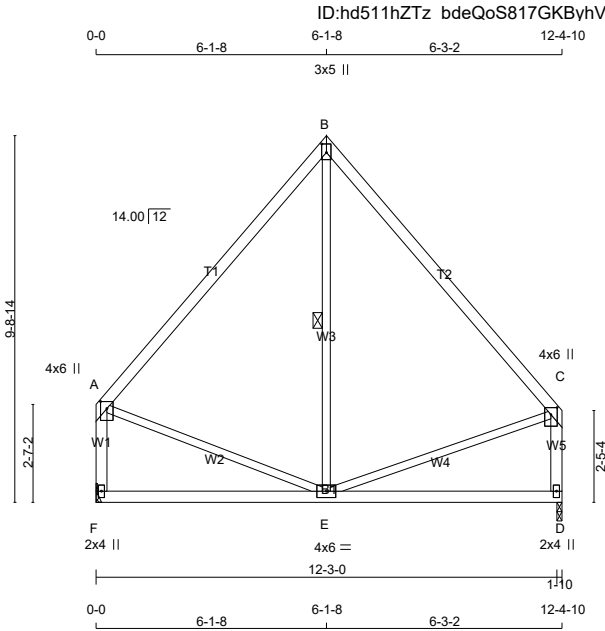
LATERAL BRACE(S) SHOWN SHALL BE 2X4 SPF#2



JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
336322	H66		1	TRUSS DESC. JT 45147	E21104267

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Scale = 1:61.2

TOTAL WEIGHT = 9 X 59 = 529 lb

LUMBER				
N. L. G. A. RULES				
CHORDS	SIZE	LUMBER	DESCR.	
A - B	2x4	DRY	2100F 1.8E	SPF
B - C	2x4	DRY	2100F 1.8E	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	3.0	5.0	2.75	1.50
C	TMVW+p	MT20	4.0	6.0	2.25	2.00
D	BMV1+p	MT20	2.0	4.0		
E	BMWW-t	MT20	4.0	6.0		
F	BMV1+p	MT20	2.0	4.0		

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

JT	VERT	HORZ	FACTORED GROSS REACTION		DOWN	HORZ	UPLIFT	IN-SX	REQD BRG	IN-SX
			FACTORED	MAXIMUM FACTORED						
F	597	0	597	0	597	0	0	MECHANICAL		
D	597	0	597	0	597	0	0	1-10	1-8	

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

UNFACTORED REACTIONS

JT	COMBINED	MAX./MIN. COMPONENT REACTIONS					
		1ST LCASE	SNOW	LIVE	PERM.LIVE	WIND	DEAD
F	426	260 / 0	0 / 0	0 / 0	0 / 0	0 / 0	166 / 0
D	426	260 / 0	0 / 0	0 / 0	0 / 0	0 / 0	166 / 0

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

BRACING

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

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

1 LATERAL BRACE(S) AT 1/2 LENGTH OF B-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)

FR-TO	CHORDS		VERT. LOAD	LC1	MAX	UNBRAC	LENGTH	FR-TO	WEBS		VERT. LOAD	LC1	MAX	UNBRAC	LENGTH	FR-TO
	MEMB.	FORCE (LBS)							MEMB.	FORCE (LBS)						
A-B		-317 / 0	-78.0	-78.0	0.25 (1)	6.25	E-B	0 / 99		0 / 99	0.03 (4)					
B-C		-317 / 0	-78.0	-78.0	0.26 (1)	6.25	A-E	0 / 220		0 / 220	0.05 (1)					
F-A		-555 / 0	0.0	0.0	0.08 (1)	7.81	E-C	0 / 218		0 / 218	0.05 (1)					
D-C		-553 / 0	0.0	0.0	0.07 (1)	7.81										
F-E		0 / 0	-18.5	-18.5	0.20 (4)	10.00										
E-D		0 / 0	-18.5	-18.5	0.20 (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 (0.41")
CALCULATED VERT. DEFL.(LL)= L/ 999 (0.00")
ALLOWABLE DEFL.(TL)= L/360 (0.41")
CALCULATED VERT. DEFL.(TL)= L/ 999 (0.03")

CSI: TC=0.26/1.00 (B-C:1), BC=0.20/1.00 (E-F:4),
WB=0.05/1.00 (A-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)		
MT20	650	371	1747	788	1987

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.33 (E) (INPUT = 0.90)
JSI METAL= 0.17 (C) (INPUT = 1.00)

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

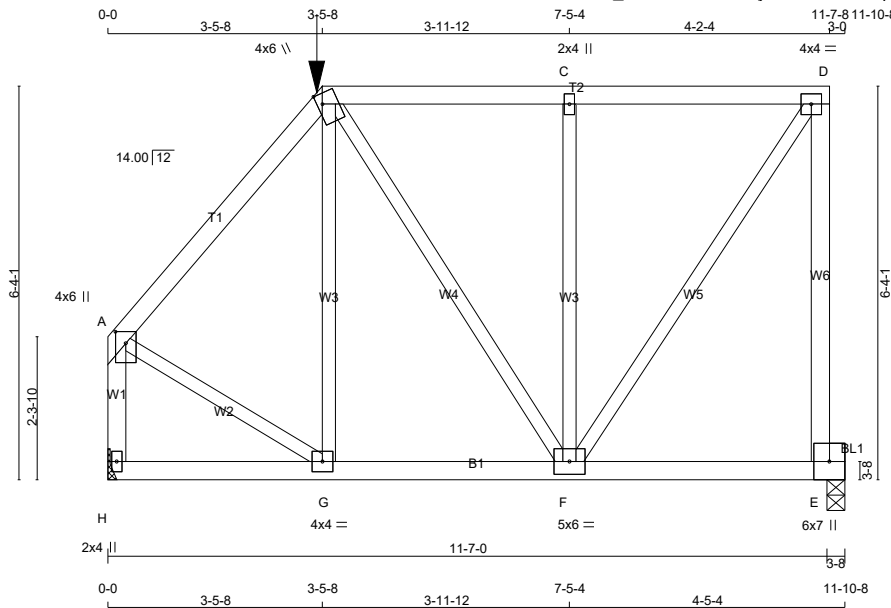


JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
336322	H67		1	TRUSS DESC. JT 45147	E21104268

Alpa Roof Truss, Maple

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LUMBER			
N. L. G. A. RULES			
CHORDS	SIZE	LUMBER	DESCR.
A - B	2x4	DRY	No.2
B - D	2x4	DRY	No.2
E - D	2x4	DRY	No.2
H - A	2x4	DRY	No.2
H - E	2x4	DRY	No.2
BEARING BLOCKS			
BL1	2x4	DRY	No.2
ALL WEBS 2x3 DRY No.2			
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	TMW+w	MT20	2.0	4.0	
D	TMVW-t	MT20	4.0	4.0	
E	BMVK1+p	MT20	6.0	7.0	
F	BMWWW-t	MT20	5.0	6.0	
G	BMWW-t	MT20	4.0	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		MAXIMUM FACTORED		INPUT	REQRD	
	GROSS REACTION		GROSS REACTION		BRG	BRG	
	VERT	HORZ	DOWN	HORZ	UPLIFT	IN-SX	IN-SX
JT	843	0	843	0	0	3-8	2-8
E	780	0	780	0	0	MECHANICAL	

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

UNFACTORED REACTIONS							
JT	1ST LCASE	MAX./MIN. COMPONENT REACTIONS					
E	COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
E	601	370 / 0	0 / 0	0 / 0	0 / 0	231 / 0	0 / 0
H	557	336 / 0	0 / 0	0 / 0	0 / 0	221 / 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)	LC1 MAX CSI (LC)	MEMB.	MAX. FACTORED FORCE (LBS)	MAX CSI (LC)	
FR-TO		FROM TO		FR-TO			
A-B	-545 / 0	-78.0 -78.0	0.18 (1)	6.25	G-B	-80 / 47	0.05 (1)
B-C	-403 / 0	-114.5 -114.5	0.34 (1)	6.25	B-F	0 / 94	0.02 (1)
C-D	-403 / 0	-114.5 -114.5	0.34 (1)	6.25	F-C	-574 / 0	0.38 (1)
E-D	-797 / 0	0.0 0.0	0.65 (1)	7.81	F-D	0 / 742	0.18 (1)
H-A	-742 / 0	0.0 0.0	0.10 (1)	7.81	A-G	0 / 401	0.10 (1)
H-G	0 / 0	-27.2 -27.2	0.09 (4)	10.00			
G-F	0 / 351	-27.2 -27.2	0.14 (4)	10.00			
F-E	-19 / 0	-27.2 -27.2	0.11 (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

CONNECTION REQUIREMENTS

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

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 = 0-0
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, 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 (0.38")
CALCULATED VERT. DEFL.(LL) = L/ 999 (0.01")
ALLOWABLE DEFL.(TL)= L/360 (0.38")
CALCULATED VERT. DEFL.(TL) = L/ 999 (0.02")

CSI: TC=0.65/1.00 (D-E:1), BC=0.14/1.00 (F-G:4), WB=0.38/1.00 (C-F:1), SSI=0.25/1.00 (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)
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= 0.76 (D) (INPUT = 0.90)
JSI METAL= 0.22 (A) (INPUT = 1.00)

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

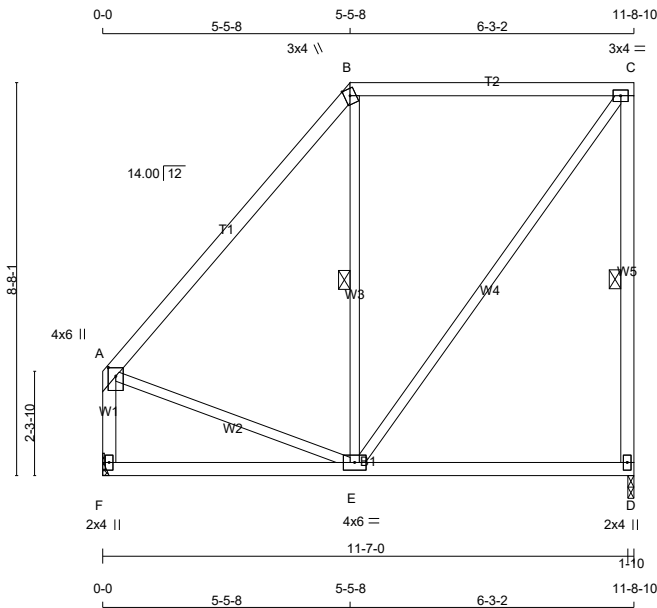


JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
336322	H68		1	TRUSS DESC. JT 45147	E21104269

Alpa Roof Truss, Maple

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ID:hd511hZTz bdeQoS817GKByhVxV-xSu 2hrtrB54ZjB8eeP moiEUt72UanFCCTC5tyTY3z



TOTAL WEIGHT = 2 X 61 = 122 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
D - C	2x4	DRY	No.2	SPF
F - A	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+m	MT20	3.0	4.0	Edge	
C	TMVW-t	MT20	3.0	4.0		
D	BMV1+p	MT20	2.0	4.0		
E	BMVWW-t	MT20	4.0	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							
<u>BEARINGS</u>							
	FACTORED GROSS REACTION		MAXIMUM FACTORED GROSS REACTION		INPUT BRG	REQRD BRG	
	VERT	HORZ	DOWN	HORZ	UPLIFT	IN-SX	IN-SX
JT	565	0	565	0	0	1-10	1-8
D	565	0	565	0	0	MECHANICAL	
F	565	0	565	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	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
D	403	246 / 0	0 / 0	0 / 0	0 / 0	157 / 0	0 / 0
F	403	246 / 0	0 / 0	0 / 0	0 / 0	157 / 0	0 / 0

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

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

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

1 LATERAL BRACE(S) AT 1/2 LENGTH OF C-D, B-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)									
C H O R D S									
MEMB. MAX. FACTORED FORCE (LBS)									
FACTORED VERT. LOAD (PLF)									
MAX. UNBRACED LENGTH (LC)									
W E B S									
MEMB. MAX. FACTORED FORCE (LBS)									
MAX. UNBRACED LENGTH (LC)									
FR-TO		FROM	TO		FR-TO		FROM	TO	
A-B	-319 / 0	-78.0	-78.0	0.42 (1)	6.25	E-B	-215 / 3	0.10 (1)	
B-C	-204 / 0	-78.0	-78.0	0.53 (1)	6.25	E-C	0 / 345	0.08 (1)	
D-C	-521 / 0	0.0	0.0	0.18 (1)	6.25	A-E	0 / 219	0.05 (1)	
F-A	-527 / 0	0.0	0.0	0.07 (1)	7.81				
F-E	0 / 0	-18.5	-18.5	0.18 (4)	10.00				
E-D	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 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 (0.04")

CSI: TC=0.53/1.00 (B-C:1) , BC=0.18/1.00 (D-E:4) , WB=0.10/1.00 (B-E: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) (PSI)	SHEAR (PLI)	SECTION (PLI)	MAX MIN	MAX MIN
MT20	650	371	1747	788	1987 1873

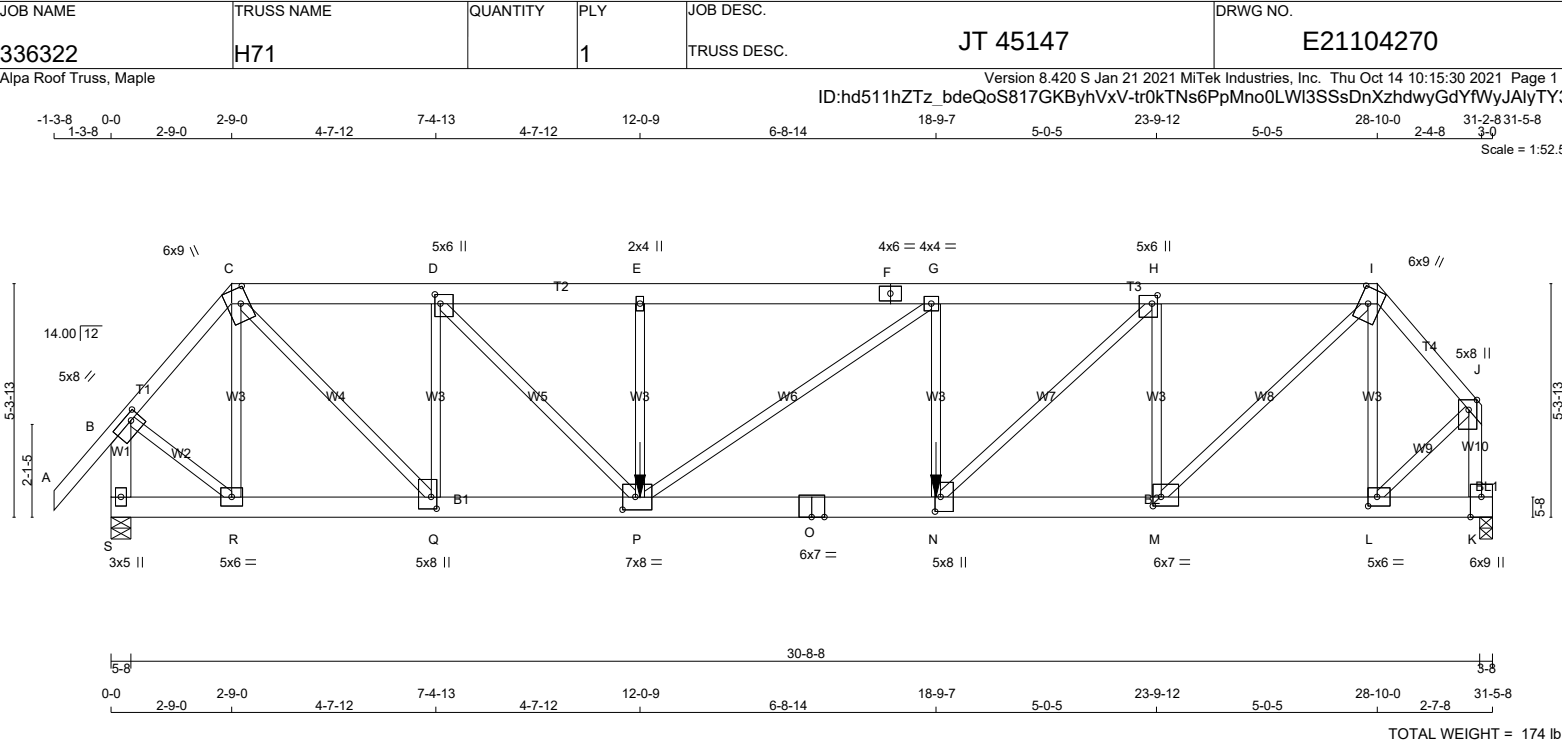
PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.64 (B) (INPUT = 0.90)
JSI METAL= 0.16 (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 - F	2x6	DRY	No.2
F - I	2x6	DRY	No.2
I - J	2x4	DRY	No.2
S - B	2x6	DRY	No.2
K - J	2x4	DRY	No.2
S - O	2x6	DRY	No.2
O - K	2x6	DRY	No.2
BEARING BLOCKS			
BL1	2x4	DRY	No.2
ALL WEBS EXCEPT			
	2x3	DRY	No.2
DRY: SEASONED LUMBER.			

PLATES (table is in inches)						
JT	TYPE	PLATES	W	LEN	Y	X
B	TMVW-t	MT20	5.0	8.0	1.75	2.50
C	TTWW+m	MT20	6.0	9.0	4.25	2.25
D	TMWW+t	MT20	5.0	6.0	2.50	1.50
E	TMW+w	MT20	2.0	4.0		
F	TS-t	MT20	4.0	6.0		
G	TMWW-t	MT20	4.0	4.0		
H	TMWW+t	MT20	5.0	6.0	2.25	1.50
I	TTWW+m	MT20	6.0	9.0	4.25	2.50
J	TMVW+p	MT20	5.0	8.0	2.75	Edge
K	BMVK1+t	MT20	6.0	9.0	Edge	3.00
L	BMWW-t	MT20	5.0	6.0	2.50	2.50
M	BMWW-t	MT20	6.0	7.0	2.50	2.25
N	BMWW+t	MT20	5.0	8.0	4.00	1.50
O	BS-t	MT20	6.0	7.0		
P	BMWWW-t	MT20	7.0	8.0	3.50	3.50
Q	BMWW+t	MT20	5.0	8.0	3.25	1.50
R	BMWW-t	MT20	5.0	6.0		
S	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 BRG	
JT	VERT	HORZ		DOWN	HORZ	UPLIFT	IN-SX	IN-SX	
S	3082	0		3082	0	0	5-8	4-8	
K	2922	0		2922	0	0	3-8	3-8	

UNFACTORED REACTIONS		1ST LCASE		MAX./MIN. COMPONENT REACTIONS					
JT	COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL		
S	2195	1352 / 0	0 / 0	0 / 0	0 / 0	843 / 0	0 / 0		
K	2083	1272 / 0	0 / 0	0 / 0	0 / 0	811 / 0	0 / 0		

BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S) S, K
 BEARING SIZE FACTOR = 1.15 AT JNT(S) K (BASED ON SUPPORT DEPTH = 1-8)

BRACING
 TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 2.94 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		MAX. FACTORED FORCE (LBS)		FACTORED VERT. LOAD (PLF)		MAX. FACTORED LC1 MAX (LC)		WEB S		MAX. FACTORED FORCE (LBS)		MAX. FACTORED LC1 MAX (LC)	
MEMB.								MEMB.					
FR-TO				FROM	TO			FR-TO					
A-B	0 / 42			-78.0	-78.0	0.12 (1)	10.00	R-C	-831 / 0			0.32 (1)	
B-C	-2526 / 0			-78.0	-78.0	0.21 (1)	4.14	C-Q	0 / 3419			0.85 (1)	
C-D	-3990 / 0			-78.0	-78.0	0.25 (1)	4.10	Q-D	-2408 / 0			0.91 (1)	
D-E	-5998 / 0			-78.0	-78.0	0.52 (1)	3.14	D-P	0 / 2905			0.72 (1)	
E-F	-5998 / 0			-156.0	-156.0	0.72 (1)	2.94	P-E	-770 / 0			0.29 (1)	
F-G	-5998 / 0			-156.0	-156.0	0.72 (1)	2.94	P-G	0 / 76			0.02 (1)	
G-H	-5936 / 0			-78.0	-78.0	0.54 (1)	3.14	N-G	-827 / 0			0.31 (1)	
H-I	-3834 / 0			-78.0	-78.0	0.26 (1)	4.17	N-H	0 / 2924			0.72 (1)	
I-J	-2047 / 0			-78.0	-78.0	0.14 (1)	4.59	M-H	-2385 / 0			0.90 (1)	
S-B	-3089 / 0			0.0	0.0	0.25 (1)	5.96	M-I	0 / 3516			0.87 (1)	
K-J	-2952 / 0			0.0	0.0	0.41 (1)	4.95	L-I	-1163 / 0			0.44 (1)	
								B-R	0 / 1902			0.47 (1)	
								L-J	0 / 2013			0.50 (1)	
S-R	0 / 0			-18.5	-18.5	0.07 (1)	10.00						
R-Q	0 / 1627			-18.5	-18.5	0.28 (1)	10.00						
Q-P	0 / 3990			-18.5	-18.5	0.56 (1)	10.00						
P-O	0 / 5936			-37.3	-37.3	0.93 (1)	10.00						
O-N	0 / 5936			-37.3	-37.3	0.93 (1)	10.00						
N-M	0 / 3834			-18.5	-18.5	0.54 (1)	10.00						
M-L	0 / 1308			-18.5	-18.5	0.25 (1)	10.00						
L-K	-205 / 0			-18.5	-18.5	0.08 (1)	6.25						

FACTORED CONCENTRATED LOADS (LBS)		LOC.		MAX-		MAX+		FACE		DIR.		TYPE		HEEL		CONN.	
JT																	
N	18-9-7	-1022	-1022					FRONT	VERT			TOTAL				C1	
P	12-0-9	-1212	-1212					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

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

*** 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 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 (0.21")
 ALLOWABLE DEFL.(TL)= L/360 (1.04")
 CALCULATED VERT. DEFL.(TL)= L/ 851 (0.44")

CSI: TC=0.72/1.00 (E-G:1), BC=0.93/1.00 (N-P:1),
 WB=0.91/1.00 (D-Q:1), SSI=0.35/1.00 (E-G:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

AUTOSOLVE RIGHT HEEL ONLY

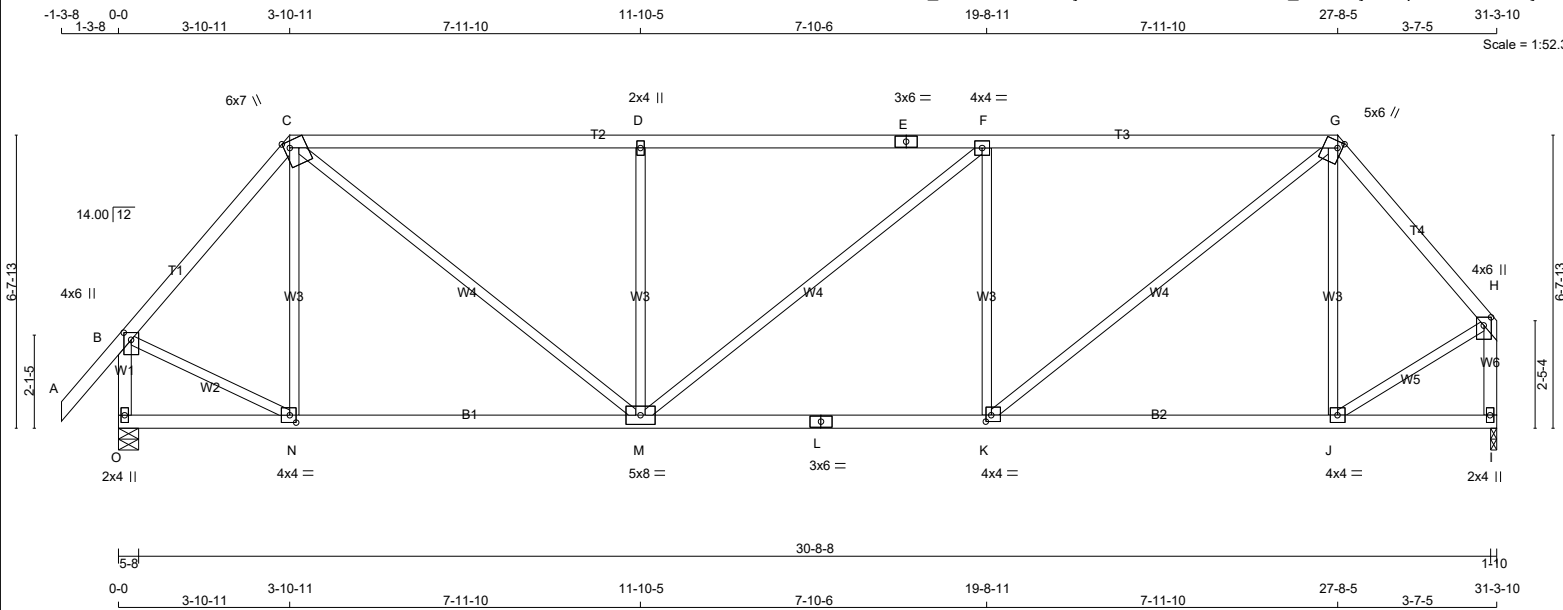
TRUSS PLATE MANUFACTURER IS NOT RESPONSIBLE FOR QUALITY CONTROL IN THE TRUSS MANUFACTURING PLANT .

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= 0.89 (M) (INPUT = 0.90)
 JSI METAL= 0.98 (O) (INPUT = 1.00)



TOTAL WEIGHT = 133 lb

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
G - H	2x4	DRY	No.2
O - B	2x4	DRY	No.2
I - H	2x4	DRY	No.2
O - L	2x4	DRY	No.2
L - I	2x4	DRY	No.2

ALL WEBS 2x3 DRY
EXCEPT
DRY: SEASONED LUMBER.

PLATES (table is in inches)

J	T	TYPE	PLATES	W	LEN	Y	X
B	TMVW+p	MT20	4.0	6.0	2.00	2.00	
C	TTWW+m	MT20	6.0	7.0	Edge	1.50	
D	TMVW+	MT20	2.0	4.0			
E	TS-t	MT20	3.0	6.0			
F	BMVW-t	MT20	4.0	4.0			
G	TTWW+m	MT20	5.0	6.0	1.75	1.25	
H	TMVW+p	MT20	4.0	6.0	2.25	2.00	
I	BMV1+p	MT20	2.0	4.0			
J	BMVW-t	MT20	4.0	4.0			
K	BMVW-t	MT20	4.0	4.0	1.75	1.50	
L	BS-t	MT20	3.0	6.0			
M	BMVWW-t	MT20	5.0	8.0			
N	BMVW-t	MT20	4.0	4.0	2.00	1.75	
O	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

JT	FACTORED GROSS REACTION		MAXIMUM FACTORED GROSS REACTION			INPUT BRG	REQD BRG
	VERT	HORZ	DOWN	HORZ	UPLIFT	IN-SX	IN-SX
O	1619	0	1619	0	0	5-8	1-12
I	1510	0	1510	0	0	1-10	1-10

UNFACTORED REACTIONS

1ST LCASE		MAX./MIN. COMPONENT REACTIONS					
JT	COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
O	1152	716 / 0	0 / 0	0 / 0	0 / 0	436 / 0	0 / 0
I	1076	657 / 0	0 / 0	0 / 0	0 / 0	419 / 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 = 3.77 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			
MAX. FACTORED		FACTORED		MAX. FACTORED			
MEMB.	FORCE	VERT. LOAD	LC1	MAX	MAX.	MEMB.	FORCE
	(LBS)	(PLF)	CSI (L)	UNBRAC			CSI (L)
FR-TO		FROM	TO	LENGTH	FR-TO		
A-B	0 / 42	-78.0	-78.0	0.11 (1)	10.00	N-C	-234 / 0
B-C	-1284 / 0	-78.0	-78.0	0.25 (1)	5.42	C-M	0 / 1289
C-D	-1838 / 0	-78.0	-78.0	0.94 (1)	3.78	M-D	-668 / 0
D-E	-1838 / 0	-78.0	-78.0	0.94 (1)	3.77	M-F	0 / 20
E-F	-1838 / 0	-78.0	-78.0	0.94 (1)	3.77	K-F	-682 / 0
F-G	-1822 / 0	-78.0	-78.0	0.94 (1)	3.78	K-G	0 / 1334
G-H	-1208 / 0	-78.0	-78.0	0.21 (1)	5.59	J-G	-309 / 0
O-B	-1602 / 0	0.0	0.0	0.19 (1)	6.53	B-N	0 / 907
I-H	-1496 / 0	0.0	0.0	0.20 (1)	6.71	J-H	0 / 895
O-N	0 / 0	-18.5	-18.5	0.18 (4)	10.00		
N-M	0 / 828	-18.5	-18.5	0.31 (4)	10.00		
M-L	0 / 1822	-18.5	-18.5	0.42 (1)	10.00		
L-K	0 / 1822	-18.5	-18.5	0.42 (1)	10.00		
K-J	0 / 777	-18.5	-18.5	0.30 (4)	10.00		
J-I	0 / 0	-18.5	-18.5	0.17 (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

ALLOWABLE DEFL.(LL)= L/360 (1.04")
CALCULATED VERT. DEFL.(LL) = L/ 999 (0.08")
ALLOWABLE DEFL.(TL)= L/360 (1.04")
CALCULATED VERT. DEFL.(TL) = L/ 999 (0.19")

CSI: TC=0.94/1.00 (F-G:1), BC=0.42/1.00 (K-M:1),
WB=0.50/1.00 (F-K:1), SSI=0.29/1.00 (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

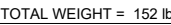
PLATE	GRIP(DRY) (PSI)		SHEAR (PLI)		SECTION (PLI)	
	MAX	MIN	MAX	MIN	MAX	MIN
MT20	650	371	1747	788	1987	1873

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.90 (G) (INPUT = 0.90)
JSI METAL= 0.65 (L) (INPUT = 1.00)

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DRY: SEASONED LUMBER.

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

UNFACTORED REACTIONS

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

BRACING

TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 4.45 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)

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

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=0.69/1.00 (F-G:1), BC=0.35/1.00 (K-M:1),
WB=0.75/1.00 (F-K: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 .

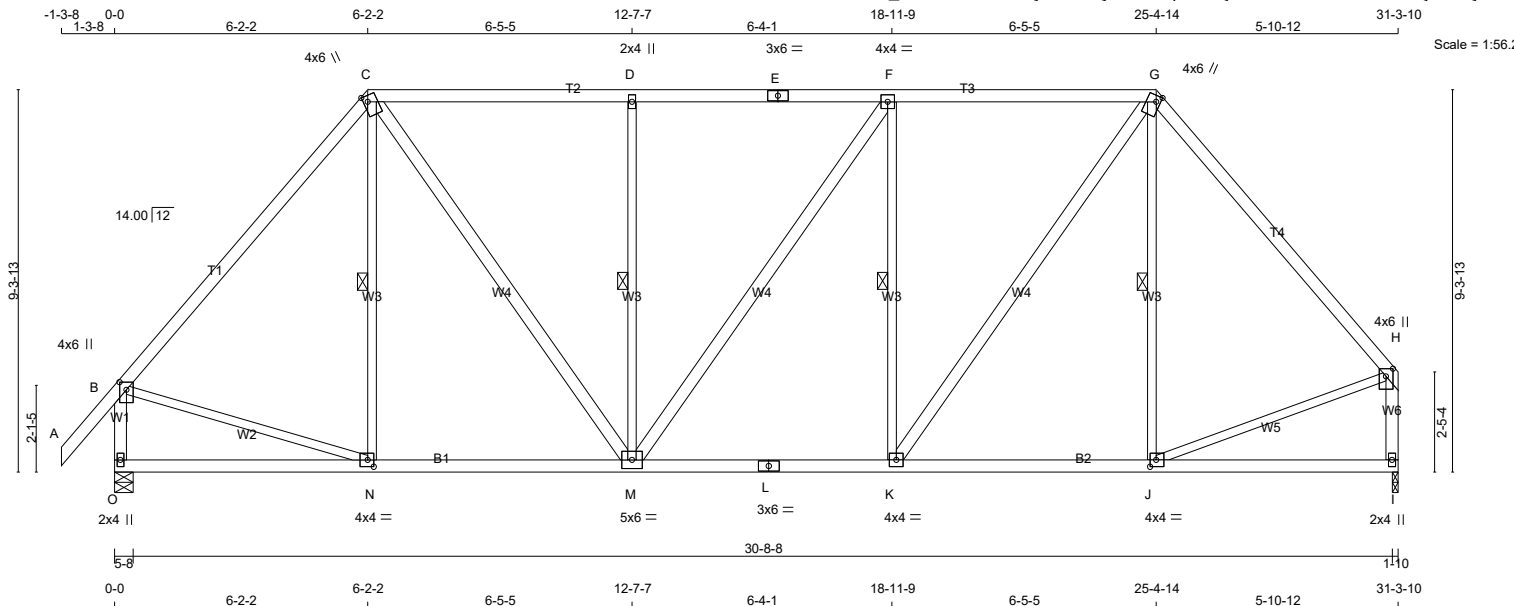
NAIL VALUES

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= 0.90 (B) (INPUT = 0.90)
JSI METAL= 0.54 (L) (INPUT = 1.00)



TOTAL WEIGHT = 161 lb

LUMBER					
N. L. G. A. RULES					
CHORDS	SIZE		LUMBER		DESCR
A - C	2x4	DRY	2100F 1.8E		SPF
C - E	2x4	DRY	No.2		SPF
E - G	2x4	DRY	No.2		SPF
G - H	2x4	DRY	No.2		SPF
O - B	2x4	DRY	No.2		SPF
I - H	2x4	DRY	No.2		SPF
O - L	2x4	DRY	No.2		SPF
L - I	2x4	DRY	No.2		SPF
ALL WEBS EXCEPT	2x3	DRY	No.2		SPF
C - M	2x4	DRY	No.2		SPF
M - F	2x4	DRY	No.2		SPF
K - 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	4.0	6.0	1.75 1.25
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	4.0	6.0	1.75 1.25
H	TMVW+p	MT20	4.0	6.0	2.25 2.00
I	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	

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	IN-SX	IN-SX
O	1619	0	1619	0	0	5-8	1-12
I	1510	0	1510	0	0	1-10	1-10

UNFACTORED REACTIONS

1ST LCASE		MAX./MIN. COMPONENT REACTIONS					
JT	COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
O	1152	716 / 0	0 / 0	0 / 0	0 / 0	436 / 0	0 / 0
I	1076	657 / 0	0 / 0	0 / 0	0 / 0	419 / 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 = 5.00 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 C-N, D-M, F-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)	LC1 MAX. UNBRAC. CSI (LC)	MAX. UNBRAC. LENGTH	MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED CSI (LC)	
FR-TO		FROM TO		FR-TO				
A-B	0 / 42	-78.0	-78.0	0.07 (1)	10.00	N-C	-101 / 55	0.06 (1)
B-C	-1300 / 0	-78.0	-78.0	0.42 (1)	6.18	C-M	0 / 785	0.13 (1)
C-D	-1300 / 0	-78.0	-78.0	0.50 (1)	5.02	M-D	-538 / 0	0.31 (1)
D-E	-1300 / 0	-78.0	-78.0	0.51 (1)	5.00	M-F	0 / 14	0.00 (1)
E-F	-1300 / 0	-78.0	-78.0	0.51 (1)	5.00	K-F	-552 / 0	0.31 (1)
F-G	-1292 / 0	-78.0	-78.0	0.51 (1)	5.02	K-G	0 / 822	0.13 (1)
G-H	-1256 / 0	-78.0	-78.0	0.64 (1)	5.00	J-G	-153 / 32	0.09 (1)
O-B	-1573 / 0	0.0	0.0	0.19 (1)	6.58	B-N	0 / 875	0.20 (1)
I-H	-1466 / 0	0.0	0.0	0.19 (1)	6.76	J-H	0 / 861	0.19 (1)
O-N	0 / 0	-18.5	-18.5	0.18 (4)	10.00			
N-M	0 / 842	-18.5	-18.5	0.26 (4)	10.00			
M-L	0 / 1292	-18.5	-18.5	0.29 (1)	10.00			
L-K	0 / 1292	-18.5	-18.5	0.29 (1)	10.00			
K-J	0 / 813	-18.5	-18.5	0.25 (4)	10.00			
J-I	0 / 0	-18.5	-18.5	0.17 (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

ALLOWABLE DEFL.(LL)= L/360 (1.04")
CALCULATED VERT. DEFL.(LL) = L/ 999 (0.04")
ALLOWABLE DEFL.(TL)= L/360 (1.04")
CALCULATED VERT. DEFL.(TL) = L/ 999 (0.10")

CSI: TC=0.64/1.00 (G-H:1) , BC=0.29/1.00 (K-M:1) ,
WB=0.31/1.00 (F-K:1) , SSI=0.23/1.00 (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

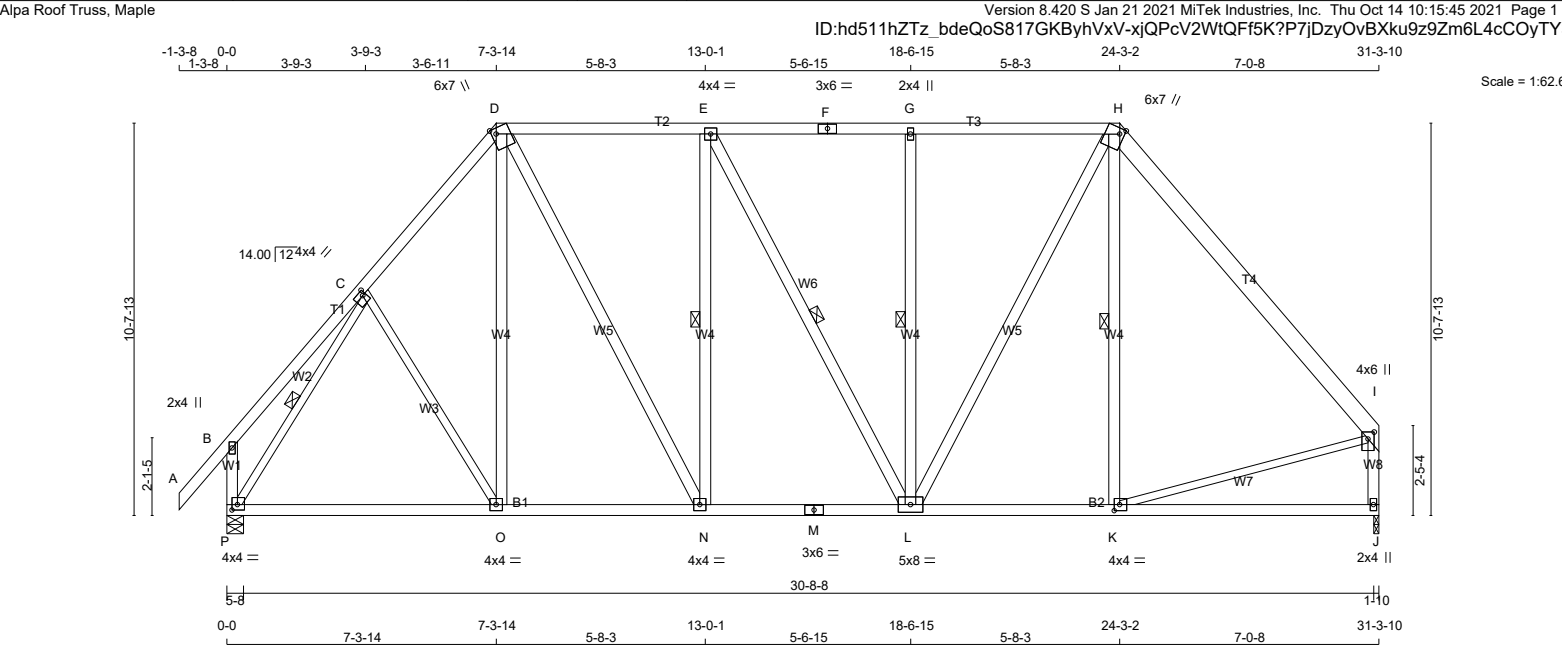
PLATE	GRIP(DRY) (PSI)		SHEAR (PLI)		SECTION (PLI)	
	MAX	MIN	MAX	MIN	MAX	MIN
MT20	650	371	1747	788	1987	1873

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.
336322	H75		1	TRUSS DESC. JT 45147	E21104274



LUMBER			
N. L. G. A. RULES			
CHORDS	SIZE	LUMBER	DESCR.
A - D	2x4	DRY No.2	SPF
D - F	2x4	DRY No.2	SPF
F - H	2x4	DRY No.2	SPF
H - I	2x6	DRY No.2	SPF
P - B	2x4	DRY No.2	SPF
J - I	2x4	DRY No.2	SPF
P - M	2x4	DRY No.2	SPF
M - J	2x4	DRY No.2	SPF
ALL WEBS	2x4	DRY No.2	SPF
EXCEPT			
C - O	2x3	DRY No.2	SPF
P - C	2x3	DRY No.2	SPF
K - I	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	6.0	7.0	Edge 1.50
E	TMWW-t	MT20	4.0	4.0	
F	TS-t	MT20	3.0	6.0	
G	TMW+w	MT20	2.0	4.0	
H	TTWW+m	MT20	6.0	7.0	Edge 1.50
I	TMVW+p	MT20	4.0	6.0	2.25 2.00
J	BMV1+p	MT20	2.0	4.0	
K	BMWW-t	MT20	4.0	4.0	2.00 1.75
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	BMWW-t	MT20	4.0	4.0	
P	BMVW1-t	MT20	4.0	4.0	1.75 1.75

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

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

BEARINGS

JT	FACTORED GROSS REACTION		MAXIMUM FACTORED GROSS REACTION		INPUT BRG		REQRD BRG	
	VERT	HORZ	DOWN	HORZ	UPLIFT	IN-SX	IN-SX	
P	1619	0	1619	0	0	5-8	1-12	
J	1510	0	1510	0	0	1-10	1-10	

UNFACTORED REACTIONS

JT	1ST LCASE COMBINED		MAX./MIN. SNOW		MIN. LIVE		PERM. LIVE		WIND		DEAD		SOIL	
	P	J	1152	716 / 0	0 / 0	0 / 0	0 / 0	0 / 0	0 / 0	436 / 0	0 / 0	419 / 0	0 / 0	0 / 0

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

BRACING

TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 5.45 FT.
MAX. UNBRACED BOTTOM CHORD LENGTH = 10.00 FT OR RIGID CEILING DIRECTLY APPLIED.

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

1 LATERAL BRACE(S) AT 1/2 LENGTH OF E-N, E-L, G-L, H-K, C-P.

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)		MEMB.		MAX. FACTORED FORCE (LBS)	
FR-TO		FACTORED VERT. LOAD (PLF)		FR-TO		FACTORED VERT. LOAD (PLF)	
		FROM	TO			FROM	TO
A-B	0 / 42	-78.0	-78.0 0.11 (1)	10.00	C-O	0 / 47	0.02 (4)
B-C	0 / 24	-78.0	-78.0 0.16 (1)	10.00	O-D	0 / 122	0.03 (4)
C-D	-1304 / 0	-78.0	-78.0 0.20 (1)	5.45	D-N	0 / 632	0.10 (1)
D-E	-1135 / 0	-78.0	-78.0 0.38 (1)	5.47	N-E	-460 / 0	0.26 (1)
E-F	-1127 / 0	-78.0	-78.0 0.38 (1)	5.48	E-L	-17 / 0	0.01 (1)
F-G	-1127 / 0	-78.0	-78.0 0.38 (1)	5.48	L-G	-460 / 0	0.26 (1)
G-H	-1126 / 0	-78.0	-78.0 0.37 (1)	5.49	L-H	0 / 648	0.10 (1)
H-I	-1260 / 0	-78.0	-78.0 0.36 (1)	6.25	K-H	-79 / 69	0.05 (1)
P-B	-218 / 0	0.0	0.0 0.03 (1)	7.81	P-C	-1573 / 0	0.51 (1)
J-I	-1456 / 0	0.0	0.0 0.18 (1)	6.77	K-I	0 / 843	0.19 (1)
P-O	0 / 815	-18.5	-18.5 0.30 (4)	10.00			
O-N	0 / 830	-18.5	-18.5 0.30 (4)	10.00			
N-M	0 / 1135	-18.5	-18.5 0.23 (1)	10.00			
M-L	0 / 1135	-18.5	-18.5 0.23 (1)	10.00			
L-K	0 / 813	-18.5	-18.5 0.29 (4)	10.00			
K-J	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

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 (1.04")
CALCULATED VERT. DEFL.(LL)= L/ 999 (0.04")
ALLOWABLE DEFL.(TL)= L/360 (1.04")
CALCULATED VERT. DEFL.(TL)= L/ 999 (0.11")

CSI: TC=0.38/1.00 (D-E:1) , BC=0.30/1.00 (N-O:4) , WB=0.51/1.00 (C-P:1) , SSI=0.21/1.00 (D-E:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

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

NAIL VALUES
PLATE GRIP(DRY) 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 (K) (INPUT = 0.90)
JSI METAL= 0.53 (C) (INPUT = 1.00)

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

- Members:**
 - Top Chords: 2x4 || (left), 5x6 // (middle), 2x4 || (right)
 - Bottom Chords: 4x4 = (left), 4x4 = (middle), 5x8 = (center), 4x4 = (right)
 - Verticals: W1, W2, W3, W4, W5, W6, W7
 - Diagonals: W8, W9, W10, W11, W12, W13, W14, W15, W16, W17, W18, W19, W20, W21, W22, W23, W24, W25, W26, W27, W28, W29, W30, W31, W32, W33, W34, W35, W36, W37, W38, W39, W40, W41, W42, W43, W44, W45, W46, W47, W48, W49, W50, W51, W52, W53, W54, W55, W56, W57, W58, W59, W60, W61, W62, W63, W64, W65, W66, W67, W68, W69, W70, W71, W72, W73, W74, W75, W76, W77, W78, W79, W80, W81, W82, W83, W84, W85, W86, W87, W88, W89, W90, W91, W92, W93, W94, W95, W96, W97, W98, W99, W100
- Joints:** 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
- Dimensions:**
 - Horizontal: 1-3-8, 0-0, 4-4-1, 4-1-9, 8-5-9, 7-3-15, 15-9-8, 7-3-15, 23-1-7, 4-1-9, 27-2-15, 4-0-11, 31-3-10
 - Vertical: 11-11-13, 2-1-5, 2-5-4

TOTAL WEIGHT = 4 X 183 = 731 lb

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

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 LC1 (C/L)	MAX UNBRAC (C/L)	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	C-L	-45 / 27	0.06 (1)
B-C	0 / 29	-78.0	-78.0 0.22 (1)	10.00	L-D	0 / 219	0.05 (4)
C-D	-1280 / 0	-78.0	-78.0 0.21 (1)	5.50	D-K	0 / 453	0.07 (1)
D-E	-1054 / 0	-78.0	-78.0 0.57 (1)	5.29	K-E	-701 / 0	0.55 (1)
E-F	-1054 / 0	-78.0	-78.0 0.57 (1)	5.29	K-F	0 / 486	0.08 (1)
F-G	-1252 / 0	-78.0	-78.0 0.20 (1)	5.55	J-F	0 / 169	0.04 (4)
G-H	0 / 29	-78.0	-78.0 0.21 (1)	10.00	J-G	0 / 46	0.02 (4)
M-B	-234 / 0	0.0	0.0 0.03 (1)	7.81	M-C	-1564 / 0	0.64 (1)
I-H	-113 / 0	0.0	0.0 0.01 (1)	7.81	G-I	-1551 / 0	0.61 (1)
M-L	0 / 835	-18.5	-18.5 0.42 (4)	10.00			
L-K	0 / 813	-18.5	-18.5 0.42 (4)	10.00			
K-J	0 / 796	-18.5	-18.5 0.41 (4)	10.00			
J-I	0 / 787	-18.5	-18.5 0.40 (4)	10.00			

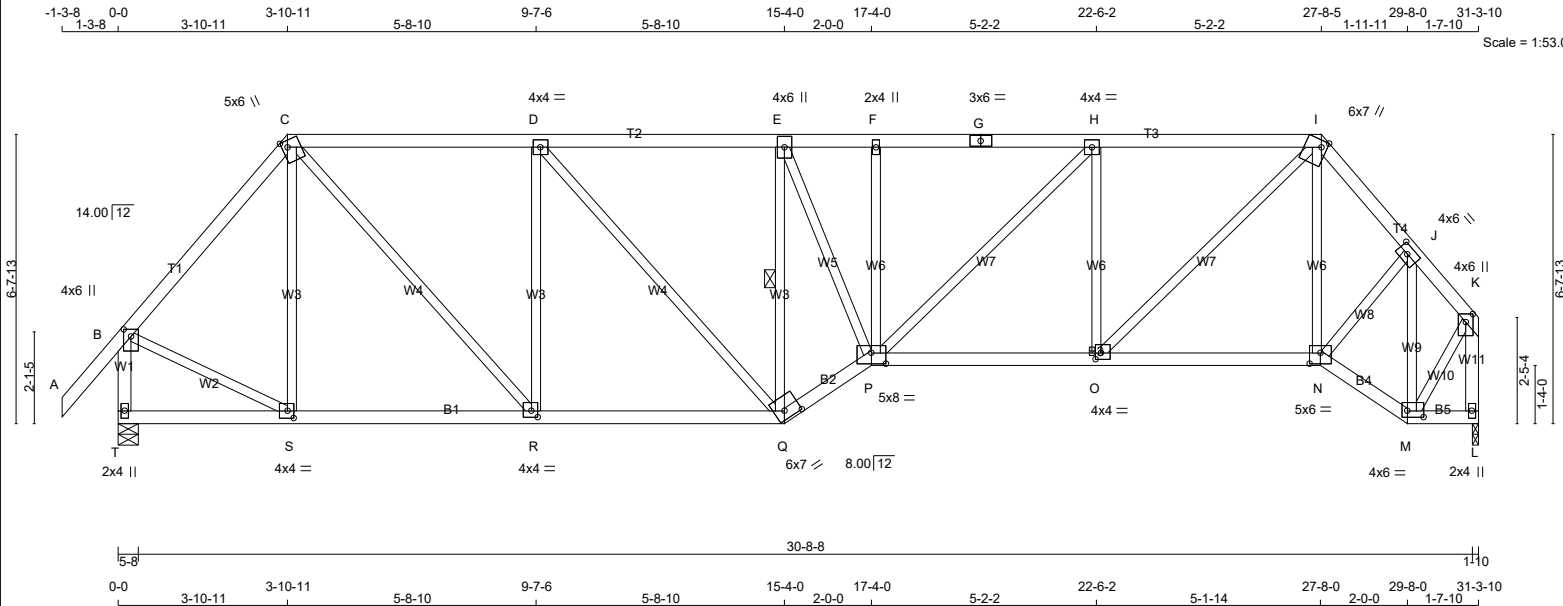
JSI GRIP= 0.89 (D) (INPUT = 0.90)
JSI METAL= 0.53 (C) (INPUT = 1.00)

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

CONTINUED ON PAGE 2



TOTAL WEIGHT = 150 lb

LUMBER				
N. L. G. A. RULES				
CHORDS		SIZE	LUMBER	DESCR
A - C	2x4	DRY	No.2	SPF
C - G	2x4	DRY	No.2	SPF
G - I	2x4	DRY	No.2	SPF
I - K	2x4	DRY	No.2	SPF
T - B	2x4	DRY	No.2	SPF
L - K	2x4	DRY	No.2	SPF
T - Q	2x4	DRY	No.2	SPF
Q - P	2x4	DRY	No.2	SPF
P - N	2x4	DRY	No.2	SPF
N - M	2x4	DRY	No.2	SPF
M - L	2x4	DRY	No.2	SPF
ALL WEBS EXCEPT	2x3	DRY	No.2	SPF

DRY: SEASONED LUMBER.

PLATES (table is in inches)					
JT	TYPE	PLATES	W	LEN	Y X
B	TMVW+p	MT20	4.0	6.0	2.00 2.00
C	TTWV+m	MT20	5.0	6.0	1.75 1.50
D	TMVW-t	MT20	4.0	4.0	
E	TMVW+t	MT20	4.0	6.0	
F	TMVW+w	MT20	2.0	4.0	
G	TS-t	MT20	3.0	6.0	
H	TMVW-t	MT20	4.0	4.0	
I	TTWV+m	MT20	6.0	7.0	Edge 1.50
J	TMVW-t	MT20	4.0	6.0	2.00 2.75
K	TMVW+p	MT20	4.0	6.0	2.25 2.00
L	BMV1+p	MT20	2.0	4.0	
M	BBVW-l	MT20	4.0	6.0	1.75 4.50
N	BBVW-l	MT20	5.0	6.0	3.00 3.00
O	BMVW-t	MT20	4.0	4.0	1.75 1.50
P	BBVWVW-p	MT20	5.0	8.0	3.00 4.00
Q	BBVW-h	MT20	6.0	7.0	2.25 4.25
R	BMVW-t	MT20	4.0	4.0	1.75 1.75
S	BMVW-t	MT20	4.0	4.0	2.00 1.75
T	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

	FACTORED GROSS REACTION		MAXIMUM FACTORED GROSS REACTION			INPUT BRG	REQD BRG
JT	VERT	HORZ	DOWN	HORZ	UPLIFT	IN-SX	IN-SX
T	1619	0	1619	0	0	5-8	1-12
L	1510	0	1510	0	0	1-10	1-10

UNFACTORED REACTIONS

1ST LCASE		MAX./MIN. COMPONENT REACTIONS					
JT	COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
	1152	716 / 0	0 / 0	0 / 0	0 / 0	436 / 0	0 / 0
L	1076	657 / 0	0 / 0	0 / 0	0 / 0	419 / 0	0 / 0

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

BRACING

TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 4.05 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-Q.

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					W E B S				
MAX. FACTORED		FACTORED			MAX. FACTORED				
MEMB.	FORCE (LBS)	VERT. LOAD (PLF)	LC1	MAX. CSI (LC)	MAX. UNBRAC	MEMB.	FORCE (LBS)	MAX. CSI (LC)	
FR-TO		FROM	TO	LENGTH		FR-TO			
A-B	0 / 42	-78.0	-78.0	0.11 (1)	10.03	S-C	-263 / 0	0.19 (1)	
B-C	-1276 / 0	-78.0	-78.0	0.25 (1)	5.43	C-R	0 / 1210	0.27 (1)	
C-D	-1633 / 0	-78.0	-78.0	0.47 (1)	4.64	R-D	-784 / 0	0.57 (1)	
D-E	-1883 / 0	-78.0	-78.0	0.49 (1)	4.36	D-Q	0 / 373	0.08 (1)	
E-F	-2342 / 0	-78.0	-78.0	0.23 (1)	4.27	Q-E	-1451 / 0	0.41 (1)	
F-G	-2346 / 0	-78.0	-78.0	0.44 (1)	4.05	E-P	0 / 1245	0.28 (1)	
G-H	-2346 / 0	-78.0	-78.0	0.44 (1)	4.05	P-F	-226 / 0	0.10 (1)	
H-I	-1954 / 0	-78.0	-78.0	0.40 (1)	4.41	P-H	0 / 546	0.12 (1)	
I-J	-1510 / 0	-78.0	-78.0	0.07 (1)	5.29	O-H	-841 / 0	0.35 (1)	
J-K	-909 / 0	-78.0	-78.0	0.03 (1)	6.25	O-I	0 / 1366	0.31 (1)	
T-B	-1593 / 0	0.0	0.0	0.19 (1)	6.55	N-I	-45 / 20	0.02 (1)	
L-K	-1495 / 0	0.0	0.0	0.20 (1)	6.71	N-J	0 / 628	0.14 (1)	
						M-J	-1093 / 0	0.29 (1)	
T-S	0 / 0	-18.5	-18.5	0.09 (4)	10.00	B-S	0 / 901	0.20 (1)	
S-R	0 / 822	-18.5	-18.5	0.22 (4)	10.00	M-K	0 / 957	0.22 (1)	
R-Q	0 / 1634	-18.5	-18.5	0.34 (1)	10.00				
Q-P	0 / 2235	-18.5	-18.5	0.37 (1)	10.00				
P-O	0 / 1954	-18.5	-18.5	0.38 (1)	10.00				
O-N	0 / 970	-18.5	-18.5	0.23 (4)	10.00				
N-M	0 / 681	-18.5	-18.5	0.12 (1)	10.00				
M-L	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 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) = $L/999$ (0.11")
 ALLOWABLE DEFL.(TL)= $L/360$ (1.04")
 CALCULATED VERT. DEFL.(TL) = $L/999$ (0.22")

CSI: TC=0.49/1.00 (D-E:1), BC=0.38/1.00 (O-P:1),
WB=0.57/1.00 (D-R:1), SSI=0.21/1.00 (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

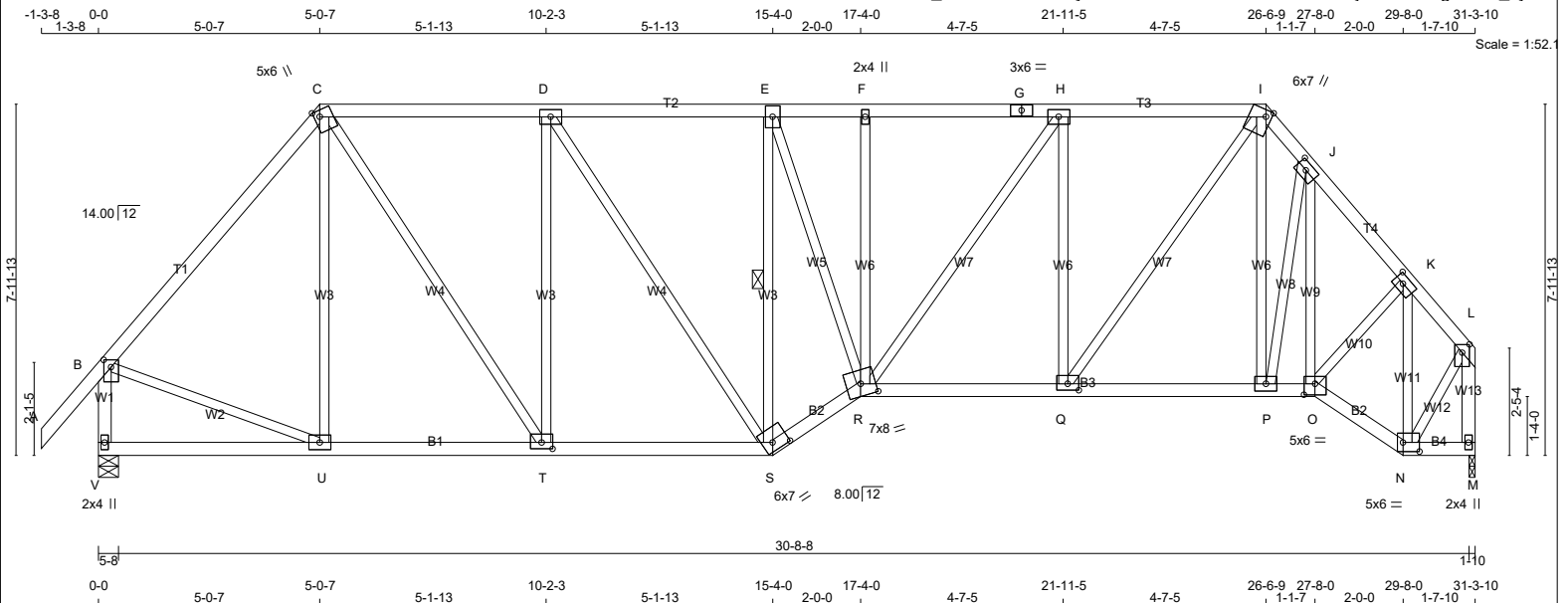
TRUSS PLATE MANUFACTURER IS NOT RESPONSIBLE FOR QUALITY CONTROL IN THE TRUSS MANUFACTURING PLANT .

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= 0.90 (P) (INPUT = 0.90)
JSI METAL= 0.60 (P) (INPUT = 1.00)



TOTAL WEIGHT = 170 lb

LUMBER

N. L. G. A. RULES				
CHORDS	SIZE		LUMBER	DESCR
A - C	2x4	DRY	No.2	SPF
C - G	2x4	DRY	No.2	SPF
G - I	2x4	DRY	No.2	SPF
I - L	2x4	DRY	No.2	SPF
V - B	2x4	DRY	No.2	SPF
M - L	2x4	DRY	No.2	SPF
V - S	2x4	DRY	No.2	SPF
S - R	2x4	DRY	No.2	SPF
R - O	2x4	DRY	No.2	SPF
O - N	2x4	DRY	No.2	SPF
N - 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	TMWV+p	MT20	4.0	6.0	2.00	2.00
C	TTWW+m	MT20	5.0	6.0	1.75	1.50
D	TMWV-t	MT20	4.0	6.0		
E	TMWV+t	MT20	4.0	6.0		
F	TMW+h	MT20	2.0	4.0		
G	TS-t	MT20	3.0	6.0		
H	TMWV-t	MT20	4.0	6.0		
I	TTWW+m	MT20	6.0	7.0	Edge	1.50
J	TMWV-t	MT20	4.0	6.0	2.00	2.75
K	TMWV-t	MT20	4.0	6.0	2.00	2.50
L	TMWV+p	MT20	4.0	6.0	2.25	2.00
M	BMV1+p	MT20	2.0	4.0		
N	BBWV-I	MT20	5.0	6.0	2.50	4.50
O	BBWV-I	MT20	5.0	6.0	3.00	3.00
P	BMWV-t	MT20	4.0	6.0		
Q	BMWV-t	MT20	4.0	6.0	1.75	3.00
R	BBWVW-m	MT20	7.0	8.0	3.25	4.00
S	BBWV-h	MT20	6.0	7.0	2.25	4.25
T	BMWV-t	MT20	4.0	6.0	1.75	3.00
U	BMWV-t	MT20	4.0	6.0		
V	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

JT	FACTORED GROSS REACTION		MAXIMUM FACTORED GROSS REACTION			INPUT BRG	REQD BRG
	VERT	HORZ	DOWN	HORZ	UPLIFT	IN-SX	IN-SX
V	1619	0	1619	0	0	5-8	1-12
M	1510	0	1510	0	0	1-10	1-10

UNFACTORED REACTIONS

1ST LCASE		MAX./MIN. COMPONENT REACTIONS					
JT	COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
V	1152	716 / 0	0 / 0	0 / 0	0 / 0	436 / 0	0 / 0
M	1076	657 / 0	0 / 0	0 / 0	0 / 0	419 / 0	0 / 0

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

BRACING

TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 4.61 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-S.

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

LOADING

TOTAL LOAD CASES: (4)

CHORDS					WEBS				
MAX. FACTORED		FACTORED			MAX. FACTORED				
MEMB.	FORCE (LBS)	VERT. LOAD (PLF)	LOA CSI (LC)	MAX. UNBRAC	MEMB.	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	U-C	-180 / 4 0.22 (1)		
B-C	-1300 / 0	-78.0	-78.0	0.44 (1)	5.18	C-T	0 / 972 0.22 (1)		
C-D	-1383 / 0	-78.0	-78.0	0.36 (1)	5.10	T-D	-709 / 0 0.86 (1)		
D-E	-1553 / 0	-78.0	-78.0	0.37 (1)	4.86	D-S	0 / 305 0.07 (1)		
E-F	-1847 / 0	-78.0	-78.0	0.17 (1)	4.77	S-E	-1216 / 0 0.49 (1)		
F-G	-1850 / 0	-78.0	-78.0	0.31 (1)	4.61	E-R	0 / 985 0.22 (1)		
G-H	-1850 / 0	-78.0	-78.0	0.31 (1)	4.61	R-F	-208 / 0 0.15 (1)		
H-I	-1592 / 0	-78.0	-78.0	0.30 (1)	4.91	R-H	0 / 439 0.10 (1)		
I-J	-1526 / 0	-78.0	-78.0	0.04 (1)	5.30	Q-H	-766 / 0 0.56 (1)		
J-K	-1504 / 0	-78.0	-78.0	0.07 (1)	5.30	Q-I	0 / 1060 0.24 (1)		
K-L	-909 / 0	-78.0	-78.0	0.03 (1)	6.25	P-I	0 / 129 0.03 (1)		
V-B	-1581 / 0	0.0	0.0	0.19 (1)	6.56	P-J	-63 / 0 0.03 (1)		
M-L	-1495 / 0	0.0	0.0	0.20 (1)	6.71	Q-J	-100 / 0 0.04 (1)		
						Q-K	0 / 640 0.14 (1)		
V-U	0 / 0	-18.5	-18.5	0.11 (4)	10.00	N-K	-1094 / 0 0.29 (1)		
U-T	0 / 841	-18.5	-18.5	0.20 (1)	10.00	B-U	0 / 890 0.20 (1)		
T-S	0 / 1383	-18.5	-18.5	0.28 (1)	10.00	N-L	0 / 957 0.22 (1)		
S-R	0 / 1847	-18.5	-18.5	0.31 (1)	10.00				
R-Q	0 / 1592	-18.5	-18.5	0.31 (1)	10.00				
Q-P	0 / 967	-18.5	-18.5	0.21 (1)	10.00				
P-O	0 / 980	-18.5	-18.5	0.20 (1)	10.00				
O-N	0 / 681	-18.5	-18.5	0.12 (1)	10.00				
N-M	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 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 (0.09")
ALLOWABLE DEFL.(TL)= L/360 (1.04")
CALCULATED VERT. DEFL.(TL) = L/ 999 (0.17")

CSI: TC=0.44/1.00 (B-C:1), BC=0.31/1.00 (R-S:1),
WB=0.86/1.00 (D-T:1), SSI=0.19/1.00 (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	MIN
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= 0.51 (B) (INPUT = 1.00)

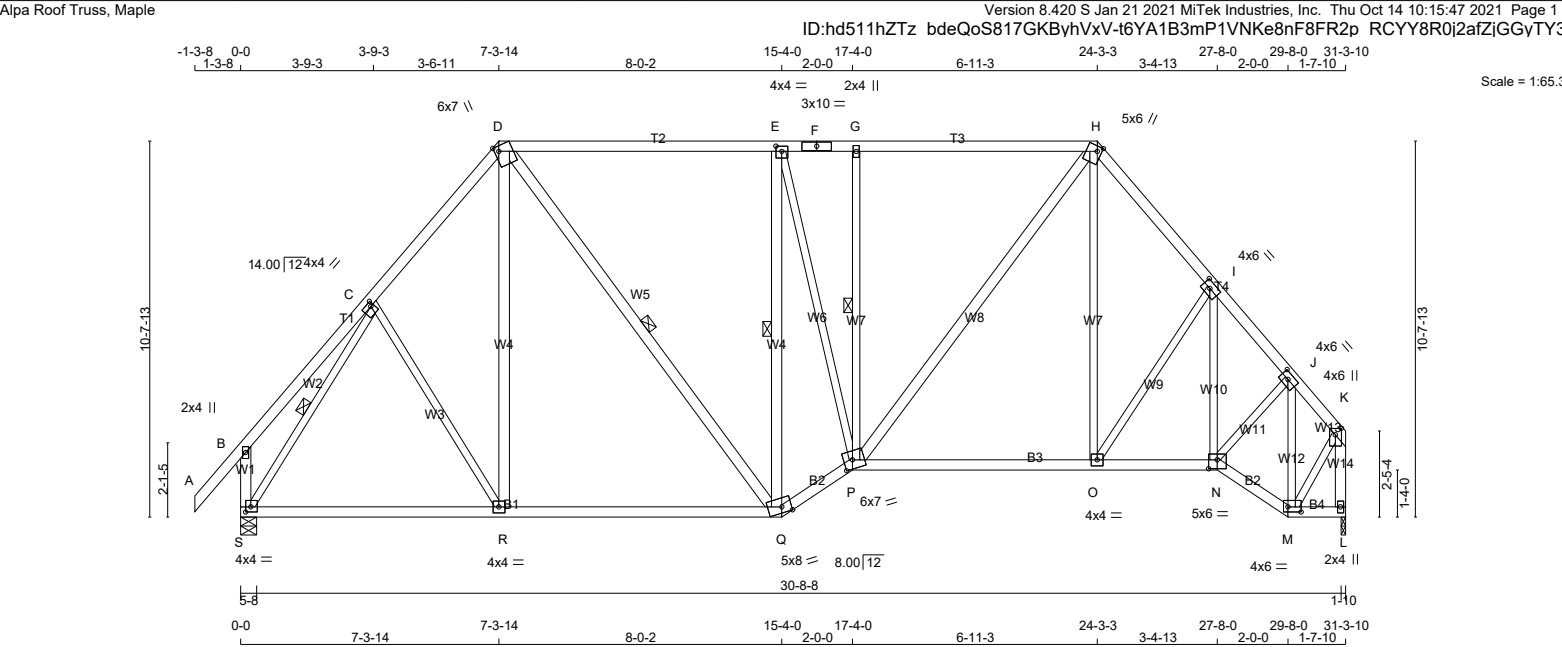
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[M]

JSI GRIP= 0.90 (R) (INPUT = 0.90)
JSI METAL= 0.52 (B) (INPUT = 1.00)

JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
336322	H75T		1	TRUSS DESC. JT 45147	E21104280



LUMBER				DIMENSIONS, SUPPORTS AND LOADINGS SPECIFIED BY FABRICATOR TO BE VERIFIED BY BUILDING DESIGNER							DESIGN CRITERIA			
N. L. G. A. RULES											SPECIFIED LOADS:			
CHORDS		SIZE	LUMBER	DESCR.	BEARINGS		FACTORED		MAXIMUM FACTORED		INPUT		REQRD	
					GROSS REACTION		GROSS REACTION		BRG		BRG		TOP CH. LL = 21.0 PSF	
A - D	2x4	DRY	No.2	SPF	JT	VERT	HORZ	DOWN	HORZ	UPLIFT	IN-SX	IN-SX	DL = 6.0 PSF	
D - F	2x4	DRY	No.2	SPF	L	1510	0	1510	0	0	1-10	1-10	BOT CH. LL = 0.0 PSF	
F - H	2x4	DRY	No.2	SPF	S	1619	0	1619	0	0	5-8	1-12	DL = 7.4 PSF	
H - K	2x4	DRY	No.2	SPF	UNFACTORED REACTIONS							TOTAL LOAD = 34.4 PSF		
S - B	2x4	DRY	No.2	SPF	1ST LCASE							SPACING = 24.0 IN. C/C		
L - K	2x4	DRY	No.2	SPF	MAX./MIN. COMPONENT REACTIONS									
S - Q	2x4	DRY	No.2	SPF	JT	COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL	LOADING IN FLAT SECTION BASED ON A SLOPE OF 2.00/12 MINIMUM	
Q - P	2x4	DRY	No.2	SPF	L	1076	657 / 0	0 / 0	0 / 0	0 / 0	419 / 0	0 / 0	THIS TRUSS IS DESIGNED FOR RESIDENTIAL OR SMALL BUILDING REQUIREMENTS OF PART 9, NBCC 2015	
P - N	2x4	DRY	No.2	SPF	S	1152	716 / 0	0 / 0	0 / 0	0 / 0	436 / 0	0 / 0	THIS DESIGN COMPLIES WITH:	
N - M	2x4	DRY	No.2	SPF	BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S) L, S									
M - L	2x4	DRY	No.2	SPF	BRACING									
ALL WEBS EXCEPT		2x3	DRY	No.2	TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 4.52 FT.									
R - D	2x4	DRY	No.2	SPF	MAX. UNBRACED BOTTOM CHORD LENGTH = 10.00 FT OR RIGID CEILING DIRECTLY APPLIED.									
D - Q	2x4	DRY	No.2	SPF										
Q - E	2x4	DRY	No.2	SPF										
P - H	2x4	DRY	No.2	SPF										

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	TMWW-t	MT20	4.0	4.0	1.75 2.00
F	TS-t	MT20	3.0	10.0	
G	TMW+w	MT20	2.0	4.0	
H	TTWW+m	MT20	5.0	6.0	1.75 1.50
I	TMWW-t	MT20	4.0	6.0	2.00 2.75
J	TMWW-t	MT20	4.0	6.0	2.00 2.75
K	TMVW+p	MT20	4.0	6.0	2.25 2.00
L	BMV1+p	MT20	2.0	4.0	
M	BBWW-l	MT20	4.0	6.0	1.75 4.50
N	BBWW-l	MT20	5.0	6.0	3.00 3.00
O	BMWW-t	MT20	4.0	4.0	
P	BBWWW-m	MT20	6.0	7.0	3.00 3.00
Q	BBWW-m	MT20	5.0	8.0	2.00 3.25
R	BMWW-t	MT20	4.0	4.0	
S	BMVW1-t	MT20	4.0	4.0	1.75 1.75
Edge - INDICATES REFERENCE CORNER OF PLATE TOUCHES EDGE OF CHORD.					

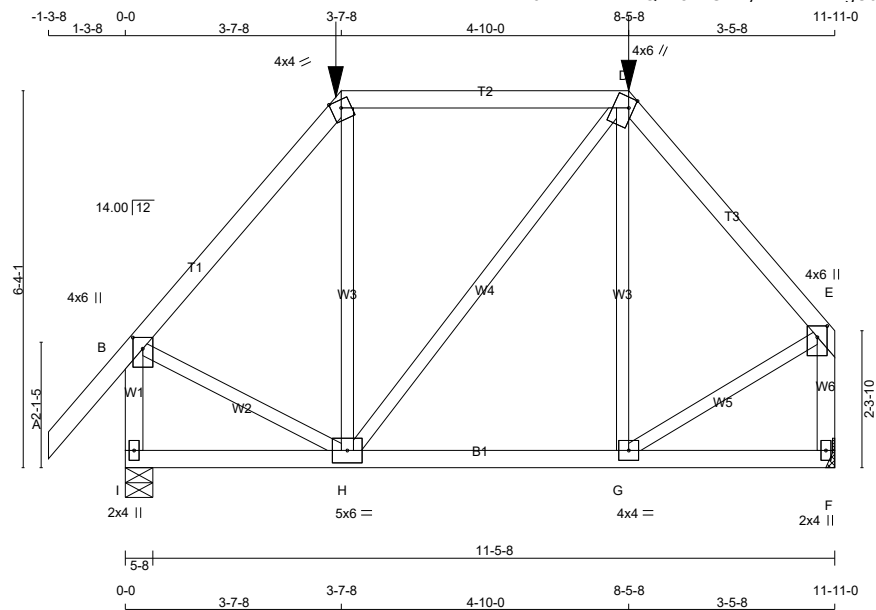
LATERAL BRACE(S) SHOWN SHALL BE 2X4 SPF#2



CHORDS				WEBS			
MEMB.	FORCE (LBS)	FACTORED VERT. LOAD (PLF)	MAX. FACTORED (LC1)	MEMB.	FORCE (LBS)	FACTORED VERT. LOAD (PLF)	MAX. FACTORED (LC1)
FR-TO		FROM	TO	FR-TO		FROM	TO
A-B	0 / 42	-78.0	-78.0 0.11 (1)	C-R	0 / 48	0.02 (4)	
B-C	0 / 24	-78.0	-78.0 0.16 (1)	R-D	0 / 157	0.04 (4)	
C-D	-1309 / 0	-78.0	-78.0 0.20 (1)	D-Q	0 / 580	0.09 (1)	
D-E	-1190 / 0	-78.0	-78.0 0.75 (1)	Q-E	-1164 / 0	0.66 (1)	
E-F	-1327 / 0	-78.0	-78.0 0.64 (1)	E-P	0 / 660	0.15 (1)	
F-G	-1327 / 0	-78.0	-78.0 0.64 (1)	P-G	-310 / 0	0.18 (1)	
G-H	-1330 / 0	-78.0	-78.0 0.54 (1)	H-P	0 / 661	0.11 (1)	
H-I	-1444 / 0	-78.0	-78.0 0.14 (1)	O-H	0 / 225	0.06 (4)	
I-J	-1495 / 0	-78.0	-78.0 0.13 (1)	O-I	-123 / 0	0.08 (1)	
J-K	-910 / 0	-78.0	-78.0 0.04 (1)	N-I	-102 / 0	0.05 (1)	
S-B	-218 / 0	0.0	0.0 0.03 (1)	N-J	0 / 665	0.15 (1)	
L-K	-1495 / 0	0.0	0.0 0.20 (1)	M-J	-1085 / 0	0.29 (1)	
S-R	0 / 819	-18.5	-18.5 0.39 (4)	S-C	-1579 / 0	0.52 (1)	
R-Q	0 / 835	-18.5	-18.5 0.40 (4)	M-K	0 / 950	0.21 (1)	
Q-P	0 / 1411	-18.5	-18.5 0.24 (1)				
P-O	0 / 926	-18.5	-18.5 0.28 (4)				
O-N	0 / 992	-18.5	-18.5 0.28 (4)				
N-M	0 / 676	-18.5	-18.5 0.12 (1)				
M-L	0 / 0	-18.5	-18.5 0.01 (4)				

Alpa Roof Truss, Maple

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Scale = 1:38.7

TOTAL WEIGHT = 60 lb

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

ALL WEBS EXCEPT	2x3	DRY	No.2
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DRY: SEASONED LUMBER.

JT	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	TTVW+m	MT20	4.0	6.0	2.00 1.00
E	TMVW+p	MT20	4.0	6.0	2.25 2.00
F	BMV1+p	MT20	2.0	4.0	
G	BMWW-t	MT20	4.0	4.0	
H	BMWWW-t	MT20	5.0	6.0	
I	BMV1+p	MT20	2.0	4.0	

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

JT	FACTORED GROSS REACTION		MAXIMUM FACTORED GROSS REACTION			INPUT BRG	REQRD BRG
	VERT	HORZ	DOWN	HORZ	UPLIFT	IN-SX	IN-SX
I	932	0	932	0	0	5-8	1-8
F	826	0	826	0	0	MECHANICAL	

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

1ST LCASE		MAX./MIN. COMPONENT REACTIONS					
JT	COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
I	662	414 / 0	0 / 0	0 / 0	0 / 0	248 / 0	0 / 0
F	589	357 / 0	0 / 0	0 / 0	0 / 0	232 / 0	0 / 0

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

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			
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	0 / 42	-78.0	-78.0	0.12 (1)	10.00	H - C	-70 / 65 0.05 (1)	
B - C	-603 / 0	-78.0	-78.0	0.21 (1)	6.25	H - D	0 / 17 0.00 (1)	
C - D	-389 / 0	-114.5	-114.5	0.51 (1)	6.25	G - D	-83 / 57 0.05 (1)	
D - E	-588 / 0	-78.0	-78.0	0.19 (1)	6.25	B - H	0 / 431 0.11 (1)	
I - B	-893 / 0	0.0	0.0	0.11 (1)	7.81	G - E	0 / 433 0.11 (1)	
F - E	-790 / 0	0.0	0.0	0.11 (1)	7.81			
I - H	0 / 0	-27.2	-27.2	0.12 (4)	10.00			
H - G	0 / 379	-27.2	-27.2	0.16 (4)	10.00			
G - F	0 / 0	-27.2	-27.2	0.11 (4)	10.00			

JT	LOC.	LC1	MAX-	MAX+	FACE	DIR.	TYPE	HEEL	CONN.
C	3-7-8	-112	-112	---	FRONT	VERT	TOTAL	---	C1
D	8-5-8	-107	-107	---	FRONT	VERT	TOTAL	---	C1

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

GIRDER TYPE: CPrimeHip
LEFT SETBACK = 3-7-8
RIGHT SETBACK = 3-5-8
END SETBACK = 3-10-8
END WALL WIDTH = 0-0
CORNER FRAMING TYPE: CONVENTIONAL
END JACK TYPE: CONVENTIONAL
APPLIED TO FRONT SIDE
- ADD'T'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 (0.40")
CALCULATED VERT. DEFL.(LL) = L/ 999 (0.01")
ALLOWABLE DEFL.(TL)= L/360 (0.40")
CALCULATED VERT. DEFL.(TL) = L/ 999 (0.02")

CSI: TC=0.51/1.00 (C-D:1) , BC=0.16/1.00 (G-H:4) ,
WB=0.11/1.00 (E-G:1) , SSI=0.24/1.00 (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.

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.

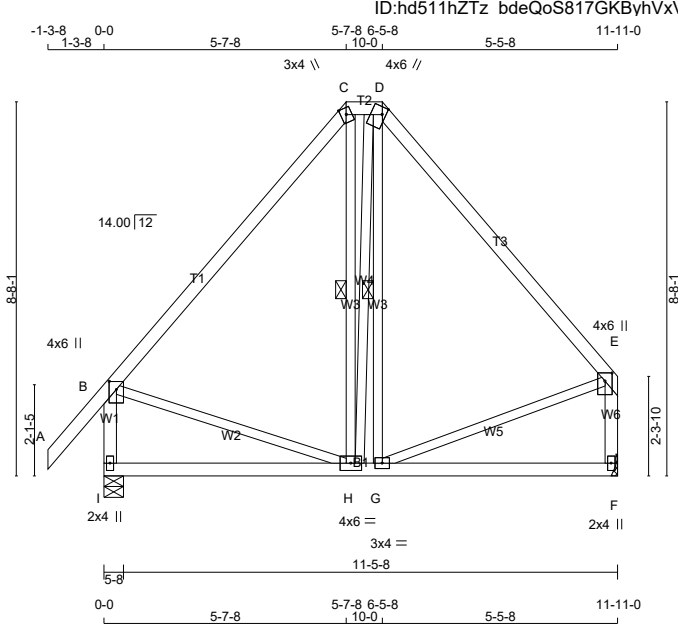
JSI GRIP= 0.56 (C) (INPUT = 0.90)
JSI METAL= 0.27 (B) (INPUT = 1.00)

JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
336322	H78		1	TRUSS DESC. JT 45147	E21104282

Alpa Roof Truss, Maple

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TOTAL WEIGHT = 70 lb

[M][F]

LUMBER			
N. L. G. A. RULES			
CHORDS	SIZE	LUMBER	DESCR.
A - C	2x4	DRY	No.2
A - D	2x4	DRY	No.2
D - E	2x4	DRY	No.2
I - B	2x4	DRY	No.2
F - E	2x4	DRY	No.2
I - F	2x4	DRY	No.2
ALL WEBS	2x3	DRY	No.2
EXCEPT			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	TTW+m	MT20	3.0	4.0	Edge
D	TTWW+m	MT20	4.0	6.0	2.00 1.00
E	TMVW+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	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		MAXIMUM FACTORED		INPUT		REQRD		
	GROSS REACTION		GROSS REACTION		BRG		BRG		
JT	VERT	HORZ	DOWN	HORZ	UPLIFT	IN-SX	IN-SX		
I	684	0	684	0	5-8	1-8			
F	575	0	575	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	486	309 / 0	0 / 0	0 / 0	0 / 0	177 / 0	0 / 0
F	410	250 / 0	0 / 0	0 / 0	0 / 0	160 / 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 C-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)									
C H O R D S									
MAX. FACTORED									
MEMB.	FORCE (LBS)	VERT. LOAD	LC1	MAX	MAX.	MEMB.	FORCE (LBS)	MAX	
		(PLF)	CSI (LC)		UNBRAC			CSI (LC)	
FR-TO		FROM	TO		LENGTH	FR-TO			
A-B	0 / 42	-78.0	-78.0	0.11 (1)	10.00	H-C	-3 / 49	0.02 (4)	
B-C	-327 / 0	-78.0	-78.0	0.32 (1)	6.25	H-D	0 / 15	0.01 (4)	
C-D	-212 / 0	-78.0	-78.0	0.01 (1)	6.25	G-D	-8 / 34	0.01 (4)	
D-E	-326 / 0	-78.0	-78.0	0.30 (1)	6.25	B-H	0 / 222	0.05 (1)	
I-B	-642 / 0	0.0	0.0	0.08 (1)	7.81	G-E	0 / 224	0.05 (1)	
F-E	-534 / 0	0.0	0.0	0.07 (1)	7.81				
I-H	0 / 0	-18.5	-18.5	0.15 (4)	10.00				
H-G	0 / 211	-18.5	-18.5	0.17 (4)	10.00				
G-F	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

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

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 (B-C:1) , BC=0.17/1.00 (G-H:4) , WB=0.05/1.00 (E-G:1) , SSI=0.11/1.00 (B-C:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

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

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

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.37 (C) (INPUT = 0.90)
JSI METAL= 0.19 (B) (INPUT = 1.00)

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

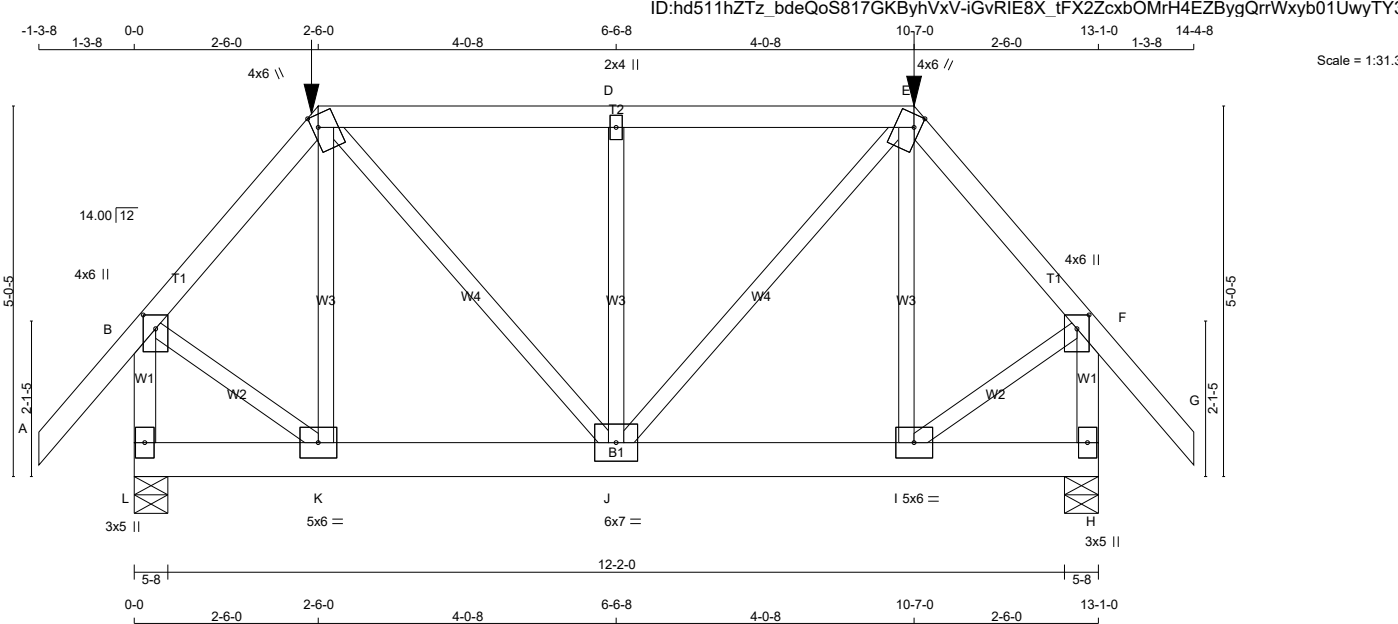


JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
336322	H79		1	TRUSS DESC. JT 45147	E21104283

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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
L - B	2x4	DRY	No.2	SPF
H - F	2x4	DRY	No.2	SPF
L - H	2x6	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	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	TMVW+p	MT20	4.0	6.0	2.25 2.00
H	BMV1+p	MT20	3.0	5.0	
I	BMWW-t	MT20	5.0	6.0	
J	BMWW-t	MT20	6.0	7.0	
K	BMWW-t	MT20	5.0	6.0	
L	BMV1+p	MT20	3.0	5.0	

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	IN-SX	BRG	IN-SX
JT	1004	0	1004	0	0	5-8	1-8	
L	1004	0	1004	0	0	5-8	1-8	
H	1004	0	1004	0	0	5-8	1-8	

	1ST LCASE		MAX./MIN. COMPONENT REACTIONS		WIND	DEAD	SOIL
	COMBINED	SNOW	LIVE	PERM.LIVE			
JT	714	447 / 0	0 / 0	0 / 0	0 / 0	267 / 0	0 / 0
H	714	447 / 0	0 / 0	0 / 0	0 / 0	267 / 0	0 / 0

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

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

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

CHORDS				WEBS			
MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	LC1 MAX (LC)	MEMB. UNBRAC LENGTH	MAX. FACTORED FORCE (LBS)	MAX. FACTORED CSI (LC)	
FR-TO		FROM TO		FR-TO			
A-B	0 / 42	-78.0 -78.0	0.12 (1)	10.00	K-C	-159 / 4	0.06 (1)
B-C	-662 / 0	-78.0 -78.0	0.10 (1)	6.25	C-J	0 / 417	0.10 (1)
C-D	-698 / 0	-112.1 -112.1	0.34 (1)	6.25	J-D	-546 / 0	0.20 (1)
D-E	-698 / 0	-112.1 -112.1	0.34 (1)	6.25	J-E	0 / 417	0.10 (1)
E-F	-662 / 0	-78.0 -78.0	0.10 (1)	6.25	I-E	-159 / 4	0.06 (1)
F-G	0 / 42	-78.0 -78.0	0.12 (1)	10.00	B-K	0 / 506	0.13 (1)
L-B	-984 / 0	0.0 0.0	0.12 (1)	7.81	I-F	0 / 506	0.13 (1)
H-F	-984 / 0	0.0 0.0	0.12 (1)	7.81			
L-K	0 / 0	-26.6 -26.6	0.04 (4)	10.00			
K-J	0 / 424	-26.6 -26.6	0.09 (1)	10.00			
J-I	0 / 424	-26.6 -26.6	0.09 (1)	10.00			
I-H	0 / 0	-26.6 -26.6	0.04 (4)	10.00			

FACTORED CONCENTRATED LOADS (LBS)				FACE	DIR.	TYPE	HEEL	CONN.
JT	LOC.	LC1	MAX- MAX+					
C	2-6-0	-73	-73	---	FRONT	VERT	---	C1
E	10-7-0	-73	-73	---	FRONT	VERT	---	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 = 2-6-0
END SETBACK = 3-9-0
END WALL WIDTH = 0-0
CORNER FRAMING TYPE: CONVENTIONAL
END JACK TYPE: CONVENTIONAL
APPLIED TO FRONT SIDE
- ADDTL LOADS BASED ON 55 % OF GSL.

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

CSI: TC=0.34/1.00 (D-E:1) , BC=0.09/1.00 (I-J:1) , WB=0.20/1.00 (D-J:1) , SSI=0.24/1.00 (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

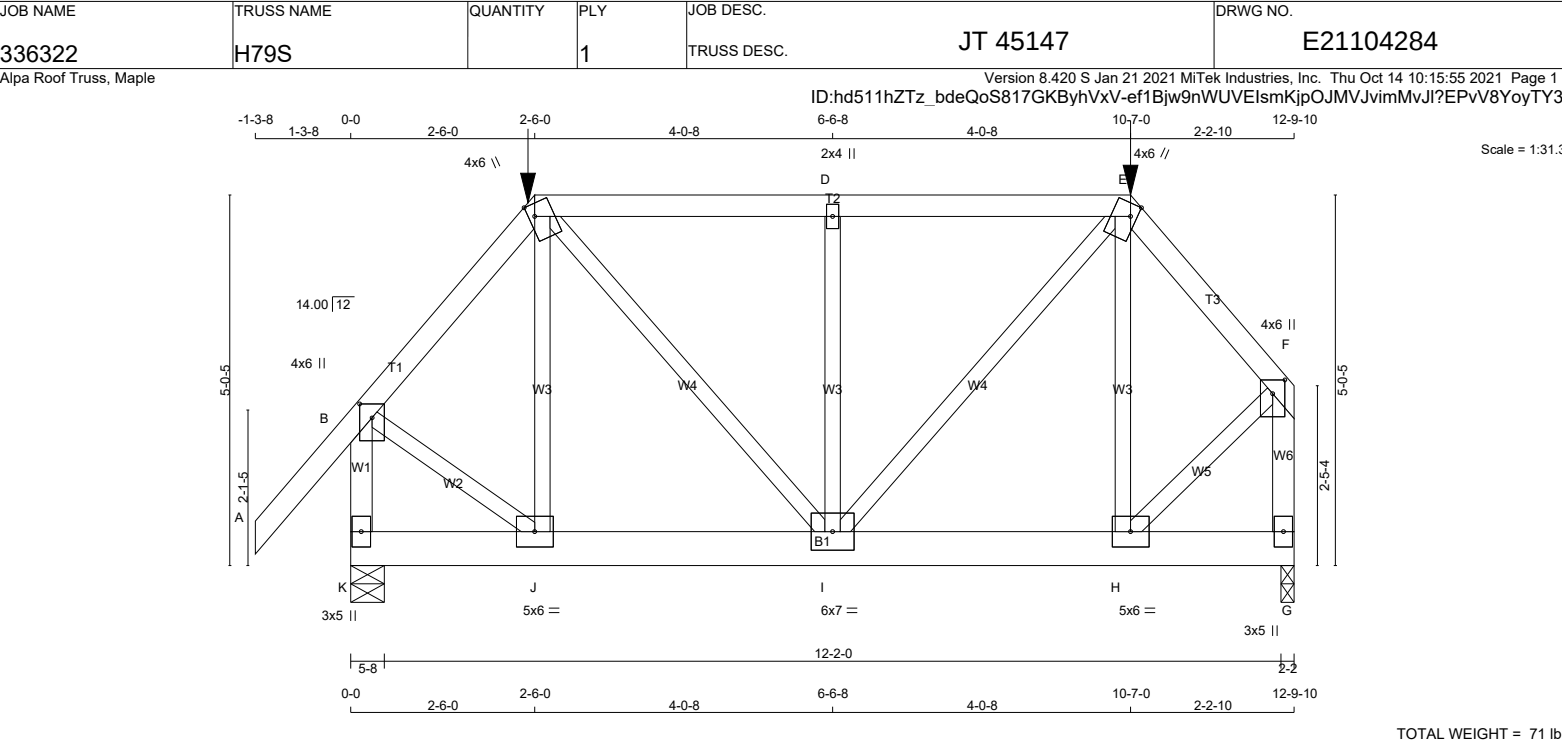
PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.56 (B) (INPUT = 0.90)
JSI METAL= 0.27 (B) (INPUT = 1.00)

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

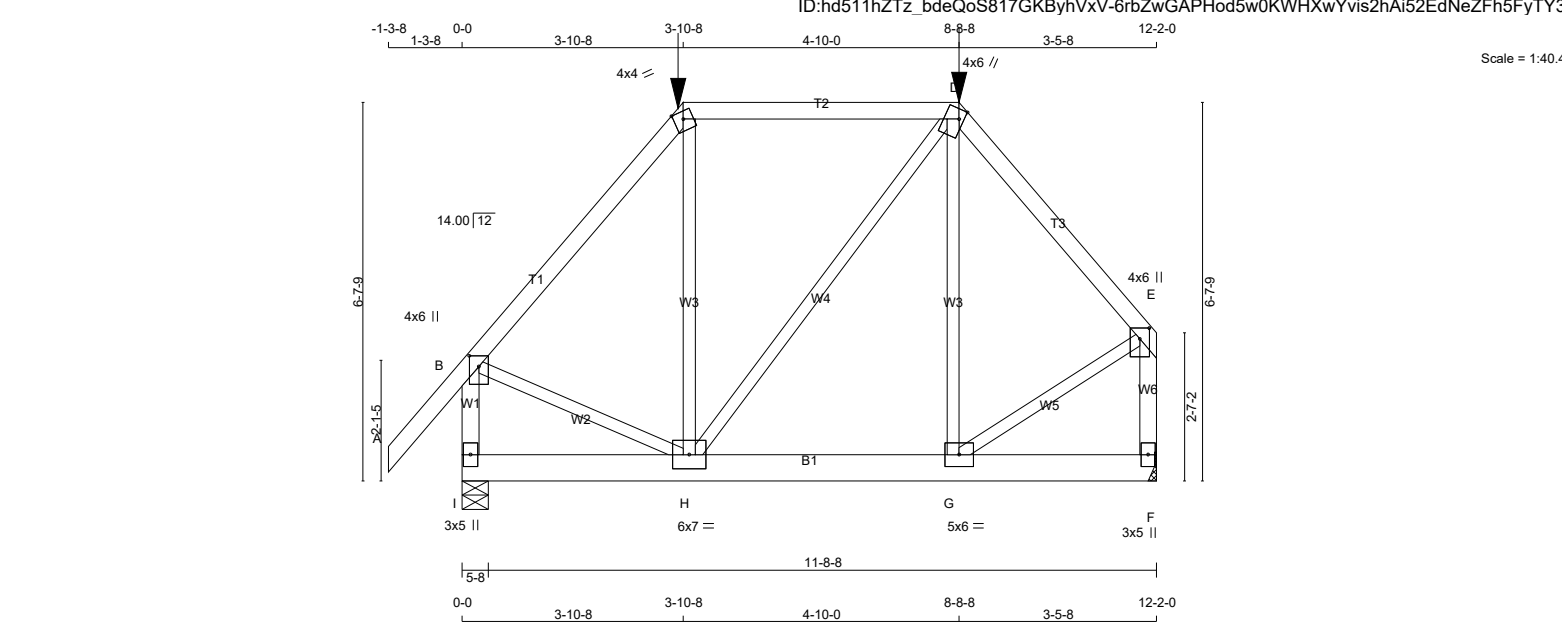




JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
336322	H151		1	TRUSS DESC. JT 45147	E21104285

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LUMBER			
N. L. G. A. RULES			
CHORDS	SIZE	LUMBER	DESCR.
A - C	2x4	DRY	No.2
A - D	2x4	DRY	No.2
C - E	2x4	DRY	No.2
I - B	2x4	DRY	No.2
F - E	2x4	DRY	No.2
I - F	2x6	DRY	No.2
ALL WEBS	2x3	DRY	No.2
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	TTWW+m	MT20	4.0	6.0	2.00 1.00
E	TMVW+p	MT20	4.0	6.0	2.25 2.00
F	BMV1+p	MT20	3.0	5.0	
G	BMWW-t	MT20	5.0	6.0	
H	BMWWW-t	MT20	6.0	7.0	
I	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	1-8	IN-SX	1-8
I	946	0	946	0	0	5-8	1-8		
F	845	0	845	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	673	420 / 0	0 / 0	0 / 0	0 / 0	252 / 0	0 / 0	
F	603	366 / 0	0 / 0	0 / 0	0 / 0	237 / 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)	MAX. LOAD LC1 (LC)	MAX. UNBRACED LENGTH	MEMB.	MAX. FACTORED FORCE (LBS)	MAX. LOAD LC1 (LC)
FR-TO		FROM	TO		FR-TO		
A-B	0 / 42	-78.0	-78.0 0.12 (1)	10.00	H-C	-75 / 67	0.05 (1)
B-C	-620 / 0	-78.0	-78.0 0.24 (1)	6.25	H-D	0 / 40	0.01 (1)
C-D	-400 / 0	-114.5	-114.5 0.51 (1)	6.25	G-D	-105 / 47	0.07 (1)
D-E	-584 / 0	-78.0	-78.0 0.19 (1)	6.25	B-H	0 / 435	0.11 (1)
I-B	-900 / 0	0.0	0.0 0.11 (1)	7.81	G-E	0 / 441	0.11 (1)
F-E	-807 / 0	0.0	0.0 0.11 (1)	7.81			
I-H	0 / 0	-27.2	-27.2 0.06 (4)	10.00			
H-G	0 / 376	-27.2	-27.2 0.09 (4)	10.00			
G-F	0 / 0	-27.2	-27.2 0.05 (4)	10.00			

FACTORED CONCENTRATED LOADS (LBS)

JT	LOC.	LC1	MAX-	MAX+	FACE	DIR.	TYPE	HEEL	CONN.
C	3-10-8	-120	-120	---	FRONT	VERT	TOTAL	---	C1
D	8-8-8	-107	-107	---	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

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

GIRDER TYPE: CPrimeHip
LEFT SETBACK = 3-10-8
RIGHT SETBACK = 3-5-8
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, 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 (0.41")
CALCULATED VERT. DEFL.(LL) = L/ 999 (0.01")
ALLOWABLE DEFL.(TL)= L/360 (0.41")
CALCULATED VERT. DEFL.(TL) = L/ 999 (0.01")

CSI: TC=0.51/1.00 (C-D:1) , BC=0.09/1.00 (G-H:4) , WB=0.11/1.00 (E-G:1) , SSI=0.24/1.00 (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= 0.56 (C) (INPUT = 0.90)
JSI METAL= 0.27 (B) (INPUT = 1.00)

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

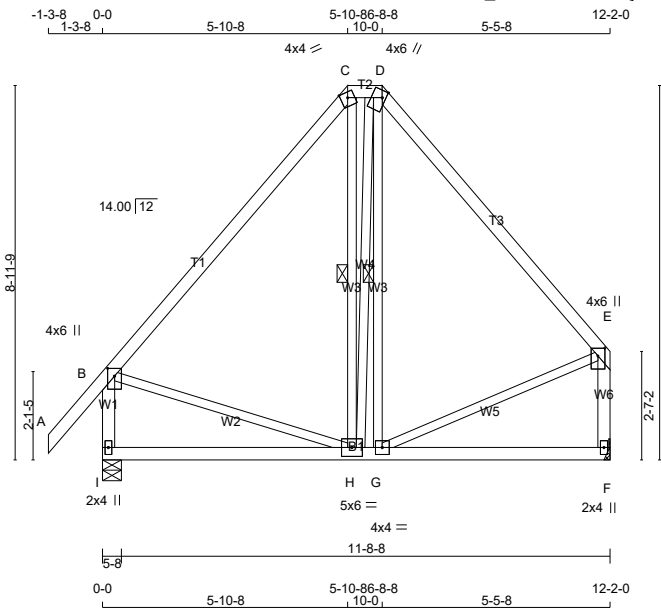


JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
336322	H152		1	TRUSS DESC. JT 45147	E21104286

Alpa Roof Truss, Maple

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Scale = 1:55.2

TOTAL WEIGHT = 72 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
D - E	2x4	DRY No.2	SPF
I - B	2x4	DRY No.2	SPF
F - E	2x4	DRY No.2	SPF
I - F	2x4	DRY No.2	SPF
ALL WEBS EXCEPT	2x3	DRY No.2	SPF

DRY: SEASONED LUMBER.

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

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

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

JT	FACTORED GROSS REACTION		MAXIMUM FACTORED GROSS REACTION		INPUT BRG IN-SX	REQD BRG IN-SX
	VERT	HORZ	DOWN	HORZ		
I	696	0	696	0	5-8	1-8
F	587	0	587	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				DEAD	SOIL
	SNOW	LIVE	PERM.LIVE	WIND				
I	494	314 / 0	0 / 0	0 / 0	0 / 0	180 / 0	0 / 0	0 / 0
F	418	255 / 0	0 / 0	0 / 0	0 / 0	163 / 0	0 / 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 C-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			
MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)		MAX. UNBRAC LENGTH	MEMB.	MAX. FACTORED FORCE (LBS)	MAX. CSI (LC)
		FROM	TO				
FR-TO							
A-B	0 / 42	-78.0	-78.0 0.11 (1)	10.00	H-C	-10 / 48	0.02 (4)
B-C	-330 / 0	-78.0	-78.0 0.35 (1)	6.25	H-D	0 / 27	0.01 (4)
C-D	-214 / 0	-78.0	-78.0 0.01 (1)	6.25	G-D	-24 / 22	0.01 (1)
D-E	-327 / 0	-78.0	-78.0 0.30 (1)	6.25	B-H	0 / 223	0.05 (1)
I-B	-652 / 0	0.0	0.0 0.08 (1)	7.81	G-E	0 / 228	0.05 (1)
F-E	-546 / 0	0.0	0.0 0.08 (1)	7.81			
I-H	0 / 0	-18.5	-18.5 0.17 (4)	10.00			
H-G	0 / 212	-18.5	-18.5 0.19 (4)	10.00			
G-F	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

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

ALLOWABLE DEFL.(LL)= L/360 (0.41")
CALCULATED VERT. DEFL.(LL)= L/ 999 (0.00")
ALLOWABLE DEFL.(TL)= L/360 (0.41")
CALCULATED VERT. DEFL.(TL)= L/ 999 (0.03")

CSI: TC=0.35/1.00 (B-C:1) , BC=0.19/1.00 (G-H:4) , WB=0.05/1.00 (E-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= 0.37 (B) (INPUT = 0.90)
JSI METAL= 0.20 (B) (INPUT = 1.00)

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

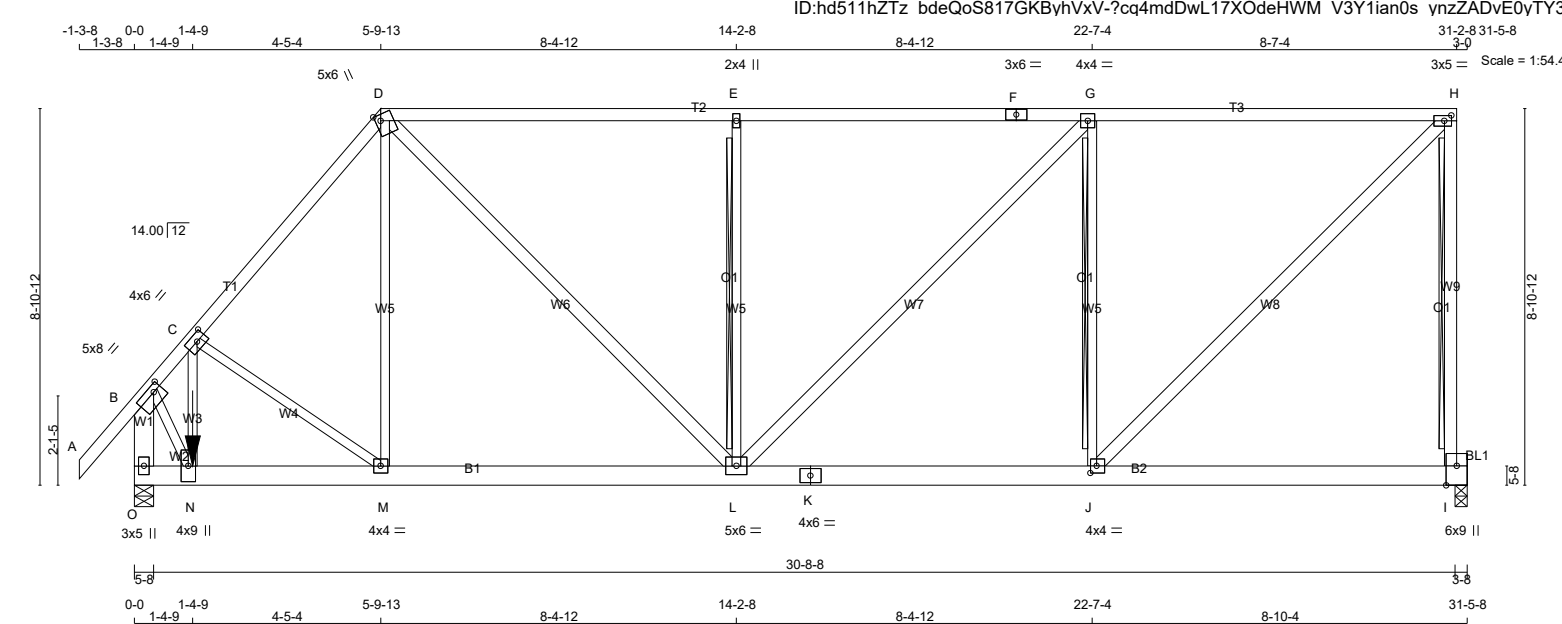


JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
336322	H153		2	TRUSS DESC. JT 45147	E21104287

Alpa Roof Truss, Maple

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ID:hd511hZTz bdeQoS817GKByhVxV-?cq4mdDwL17XOdeHWM V3Y1ian0s ynzZADvE0yTY3T



TOTAL WEIGHT = 2 X 178 = 357 lb [M]

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

BEARING BLOCKS			
BL1	2x4	DRY	No.2 SPF
ALL WEBS EXCEPT			
D - L	2x4	DRY	No.2 SPF
L - G	2x4	DRY	No.2 SPF
J - H	2x4	DRY	No.2 SPF

DRY: SEASONED LUMBER.

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

CHORDS #ROWS	SURFACE SPACING (IN)	LOAD(PLF)
TOP CHORDS : (0.122"x3") SPIRAL NAILS		
A - D	1 12	SIDE(62.4)
D - F	1 12	TOP
F - H	1 12	TOP
H - I	1 12	TOP
O - B	2 12	TOP
BOTTOM CHORDS : (0.122"x3") SPIRAL NAILS		
O - K	2 5	SIDE(526.7)
K - I	2 12	TOP
WEBS : (0.122"x3") SPIRAL NAILS		
C - N	1 2	SIDE(712.6)
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.

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 BRG IN-SX	
JT	VERT	HORZ	DOWN	HORZ	UPLIFT	IN-SX	IN-SX	2-8	5-0
I	1726	0	1726	0	0	3-8	2-8		
O	6470	0	6470	0	0	5-8	5-0		

UNFACTORED REACTIONS		1ST LCASE		MAX./MIN. COMPONENT REACTIONS	
JT	COMBINED	SNOW	LIVE	PERM.LIVE	WIND
I	1230	752 / 0	0 / 0	0 / 0	478 / 0
O	4610	2827 / 0	0 / 0	0 / 0	1783 / 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 = 4.72 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, E-L, G-J

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)	MEMB.	MAX. FACTORED FORCE (LBS)
FR-TO	FACTORED VERT. LOAD (PLF)	FR-TO	FACTORED VERT. LOAD (PLF)
A - B	0 / 42	A - B	0 / 1480
B - C	-3813 / 0	B - C	-1248 / 0
C - D	-2311 / 0	C - D	0 / 966
D - E	-1853 / 0	D - E	0 / 508
E - F	-1853 / 0	E - F	-706 / 0
F - G	-1853 / 0	F - G	0 / 677
G - H	-1378 / 0	G - H	-1214 / 0
H - I	-1662 / 0	H - I	0 / 1979
O - B	-6173 / 0	O - B	0 / 3900
O - N	0 / 0	O - N	-64.0 / 0.13 (1)
N - M	0 / 2497	N - M	-18.5 / 0.29 (1)
M - L	0 / 1496	M - L	-18.5 / 0.15 (1)
L - K	0 / 1378	L - K	-18.5 / 0.14 (4)
K - J	0 / 1378	K - J	-18.5 / 0.14 (4)
J - I	-28 / 0	J - I	-18.5 / 0.08 (4)

FACTORED CONCENTRATED LOADS (LBS)		FACE		DIR.		TYPE		HEEL		CONN.	
JT	LOC.	LC1	MAX-	MAX+	FRONT	VERT	TOTAL	---	---	C1	
N	1-4-9	-4751	-4751	---							

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: CPrimeHip
SIDE SETBACK = 0-0
END SETBACK = 11-10-0
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 1-4-9 OF SPAN MEASURED FROM THE LEFT.

*** 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, 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 (1.04")
CALCULATED VERT. DEFL.(LL) = L/ 999 (0.04")
ALLOWABLE DEFL.(TL)= L/360 (1.04")
CALCULATED VERT. DEFL.(TL) = L/ 999 (0.07")

CSI: TC=0.52/1.00 (E-G:1) , BC=0.29/1.00 (M-N:1) , WB=0.48/1.00 (B-N:1) , SSI=0.17/1.00 (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

AUTOSOLVE RIGHT HEEL ONLY

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

JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
336322	H153		2	JT 45147	E21104287(2)

Alpa Roof Truss, Maple

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PLATES (table is in inches)

JT	TYPE	PLATES	W	LEN	Y	X
B	TMVW-t	MT20	5.0	8.0	1.75	2.50
C	TMWW-t	MT20	4.0	6.0	2.00	2.75
D	TTWW+m	MT20	5.0	6.0	1.75	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-t	MT20	3.0	5.0	1.50	2.00
I	BMVK1+p	MT20	6.0	9.0	Edge	3.00
J	BMWW-t	MT20	4.0	4.0	2.00	1.75
K	BS-t	MT20	4.0	6.0		
L	BMWWW-t	MT20	5.0	6.0		
M	BMWW-t	MT20	4.0	4.0		
N	BMWW+t	MT20	4.0	9.0		
O	BMV1+p	MT20	3.0	5.0		

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

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)

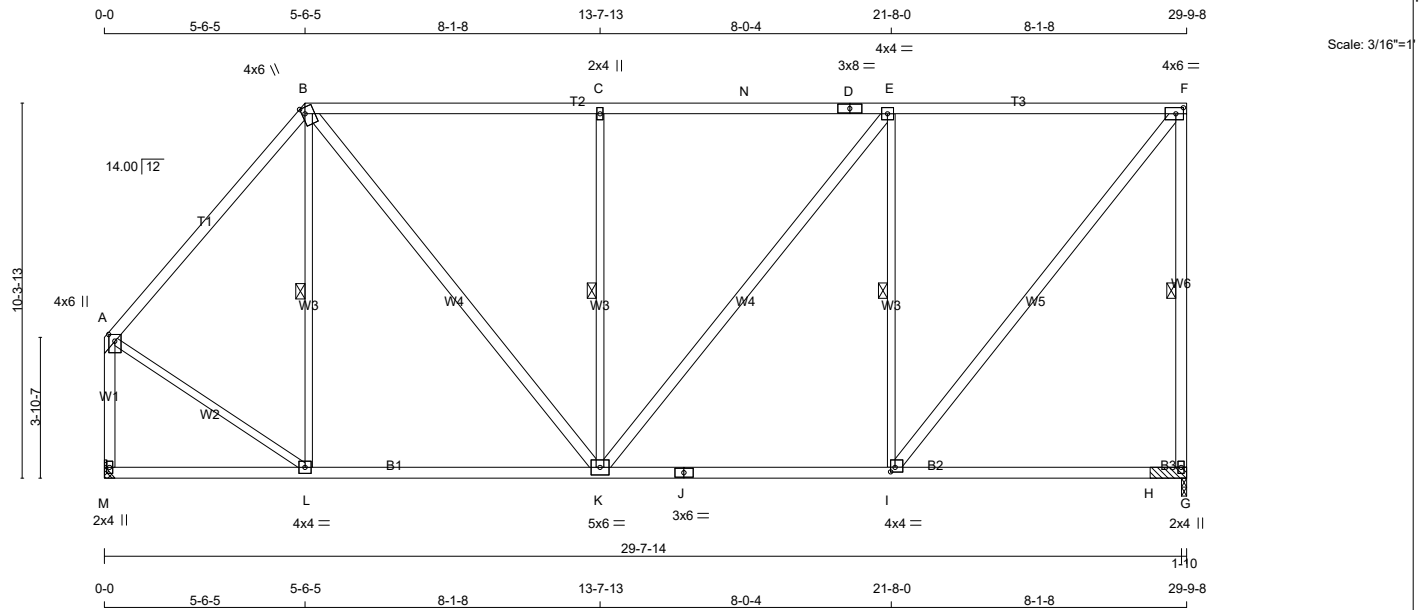
JSI METAL= 0.73 (N) (INPUT = 1.00)

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



Alpa Roof Truss, Maple

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ID:hd511hZTz bdeQoS817GKByhVxV-W3eZjDB bclK4Q3ITIRKaPTwt6d0q 5JnoNLC?yTY4



TOTAL WEIGHT = 5 X 159 = 797 lb

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

PLATES (table is in inches)

JT	TYPE	PLATES	W	LEN	Y	X
A	TMWV+p	MT20	4.0	6.0	2.25	2.00
B	TTWV+m	MT20	4.0	6.0	2.00	1.00
C	TMW+w	MT20	2.0	4.0		
D	TS-t	MT20	3.0	8.0		
E	TMWV-t	MT20	4.0	4.0		
F	TMVW-t	MT20	4.0	6.0	2.00	2.50
G	BMV1+p	MT20	2.0	4.0		
I	BMWV-t	MT20	4.0	4.0	1.50	1.50
J	BS-t	MT20	3.0	6.0		
K	BMWVWV-t	MT20	5.0	6.0		
L	BMWV-t	MT20	4.0	4.0		
M	BMV1+p	MT20	2.0	4.0		

	FACTORED GROSS REACTION		MAXIMUM FACTORED GROSS REACTION			INPUT BRG	REQRD BRG
JT	VERT	HORZ	DOWN	HORZ	UPLIFT	IN-SX	IN-SX
G	1545	0	1545	0	0	1-10	1-10 & BLOCK
M	1511	0	1511	0	0	MECHANICAL	

UNFACTORED REACTIONS

1ST LCASE		MAX./MIN. COMPONENT REACTIONS					
JT	COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
G	1111	625 / 0	0 / 0	0 / 0	0 / 0	486 / 0	0 / 0
M	1084	625 / 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.

FOR SECTION B-F, MAX. PURLIN SPACING = 2.00 FT.
FOR OTHER SECTIONS, TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 5.43 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

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 LENGTH	MEMB.	MAX. FACTORED FORCE (LBS)	MAX CSI (LC)	
FR-TO		FROM TO			FR-TO			
A-B	-1082 / 0	-78.0	-78.0	0.52 (1)	5.43	L-B	-294 / 0	0.22 (1)
B-C	-1199 / 0	-85.5	-85.5	0.93 (1)	2.00	B-K	0 / 794	0.13 (1)
C-N	-1200 / 0	-85.5	-85.5	0.93 (1)	2.00	K-C	-751 / 0	0.55 (1)
N-D	-1200 / 0	-85.5	-85.5	0.93 (1)	2.00	K-E	0 / 356	0.06 (1)
D-E	-1200 / 0	-85.5	-85.5	0.93 (1)	2.00	E-E	-1037 / 0	0.76 (1)
E-F	-977 / 0	-85.5	-85.5	0.89 (1)	2.00	F-F	0 / 1552	0.25 (1)
G-F	-1485 / 0	0.0	0.0	0.78 (1)	5.38	A-L	0 / 826	0.19 (1)
M-A	-1475 / 0	0.0	0.0	0.38 (1)	6.74			
M-L	0 / 0	-18.5	-18.5	0.21 (4)	10.00			
L-K	0 / 698	-18.5	-18.5	0.29 (4)	10.00			
K-J	0 / 977	-18.5	-18.5	0.40 (4)	10.00			
J-I	0 / 977	-18.5	-18.5	0.40 (4)	10.00			
I-H	0 / 0	-18.5	-18.5	0.29 (4)	10.00			
H-G	0 / 0	-18.5	-18.5	0.29 (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
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 (0.99")
CALCULATED VERT. DEFL.(LL) = L/ 999 (0.05")
ALLOWABLE DEFL.(TL)= L/360 (0.99")
CALCULATED VERT. DEFL.(TL) = L/ 999 (0.14")

CSI: TC=0.93/1.00 (C-E:1), BC=0.40/1.00 (I-K:4),
WB=0.76/1.00 (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 .

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= 0.90 (F) (INPUT = 0.90)
JSI METAL= 0.42 (A) (INPUT = 1.00)

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

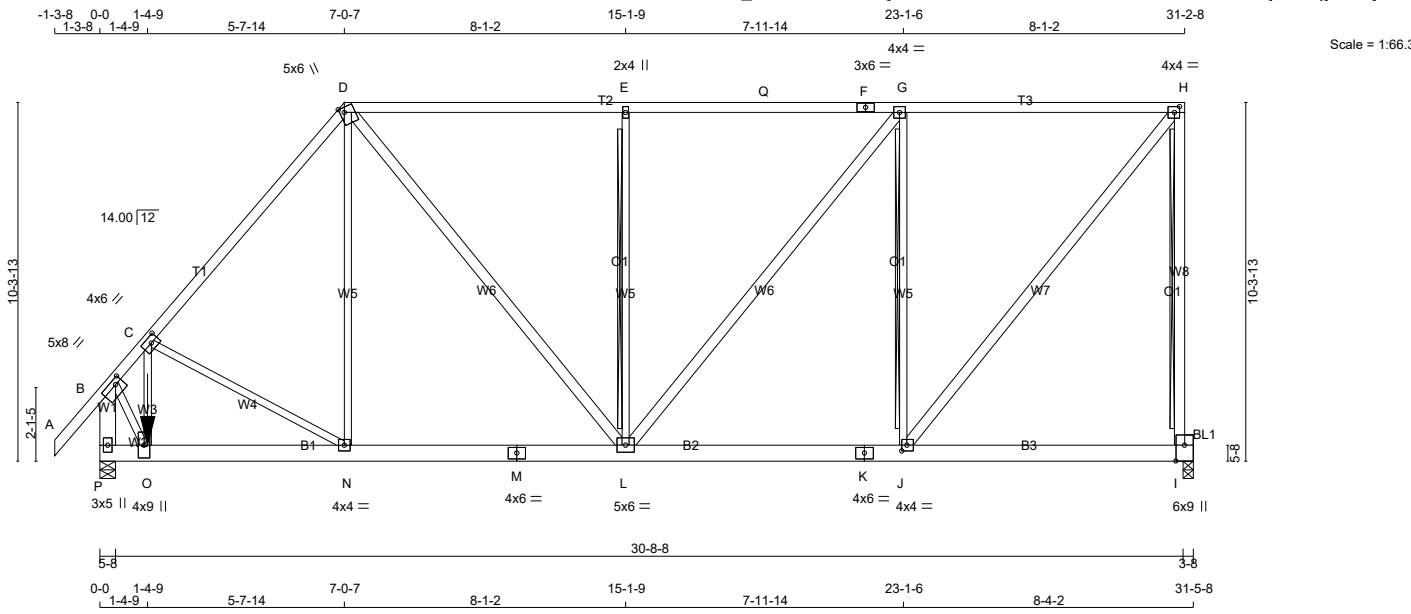


JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
336322	H155		2	TRUSS DESC. JT 45147	E21104289

Alpa Roof Truss, Maple

ID:hd511hZTz_bdeQoS817GKByhVxV-ToOSzzEY6KGO0nDU34VkcmmZoOBMNjL46oqySmSYTY3S

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TOTAL WEIGHT = 2 X 188 = 376 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
I - H	2x4	DRY No.2	SPF
P - B	2x6	DRY No.2	SPF
P - M	2x6	DRY No.2	SPF
M - K	2x6	DRY No.2	SPF
K - I	2x6	DRY No.2	SPF
BEARING BLOCKS			
BL1	2x4	DRY No.2	SPF
ALL WEBS EXCEPT			
D - L	2x4	DRY No.2	SPF
L - G	2x4	DRY No.2	SPF
J - H	2x4	DRY No.2	SPF
DRY: SEASONED LUMBER.			
DESIGN CONSISTS OF <u>2</u> TRUSSES BUILT SEPARATELY THEN FASTENED TOGETHER AS FOLLOWS:			
CHORDS #ROWS	SURFACE SPACING (IN)	LOAD(PLF)	
TOP CHORDS : (0.122"x3") SPIRAL NAILS			
A - D	1	12	SIDE(62.4)
D - F	1	12	TOP
F - H	1	12	TOP
H - I	1	12	TOP
P - B	2	12	TOP
BOTTOM CHORDS : (0.122"x3") SPIRAL NAILS			
P - M	2	5	SIDE(526.7)
M - K	2	12	TOP
K - I	2	12	TOP
WEBS : (0.122"x3") SPIRAL NAILS			
C - O	1	2	SIDE(712.6)
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.			

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	REQD
JT	VERT	HORZ	DOWN	HORZ	UPLIFT
I	1837	0	1837	0	3-8
P	6539	0	6539	0	5-8

UNFACTORED REACTIONS		1ST LCASE	MAX./MIN. COMPONENT REACTIONS		
JT	COMBINED	SNOW	LIVE	PERM.LIVE	WIND
I	1319	752 / 0	0 / 0	0 / 0	0 / 0
P	4666	2827 / 0	0 / 0	0 / 0	0 / 0

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

BRACING
FOR SECTION D-H, MAX. PURLIN SPACING = 2.00 FT.
FOR OTHER SECTIONS, TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 4.58 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, E-L, G-J

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		CHORDS		WEBS	
TOTAL LOAD CASES: (4)		MAX. FACTORED	FACTORED	MAX. FACTORED	FACTORED
		MEMB. FORCE (LBS)	VERT. LOAD (PLF)	MEMB. FORCE (LBS)	MAX. CSI (LC)
FR-TO			FROM TO	FR-TO	
A-B		0 / 42	-78.0 -78.0 0.06 (1)	10.00	O-C 0 / 1473
B-C		-3879 / 0	-269.6 -269.6 0.22 (1)	4.58	C-N -1351 / 0
C-D		-2193 / 0	-78.0 -78.0 0.25 (1)	5.78	N-D 0 / 879
D-E		-1657 / 0	-85.5 -85.5 0.48 (1)	2.00	D-L 0 / 387
E-Q		-1657 / 0	-85.5 -85.5 0.48 (1)	2.00	L-E -746 / 0
Q-F		-1657 / 0	-85.5 -85.5 0.48 (1)	2.00	L-G 0 / 738
F-G		-1657 / 0	-85.5 -85.5 0.48 (1)	2.00	J-G -1331 / 0
G-H		-1195 / 0	-85.5 -85.5 0.46 (1)	2.00	J-H 0 / 1934
H-I		-1778 / 0	0.0 0.0 0.83 (1)	7.81	B-O 0 / 4027
P-B		-6288 / 0	0.0 0.0 0.26 (1)	5.91	
P-O		0 / 0	-64.0 -64.0 0.11 (1)	10.00	
O-N		0 / 2578	-18.5 -18.5 0.27 (1)	10.00	
N-M		0 / 1412	-18.5 -18.5 0.14 (1)	10.00	
M-L		0 / 1412	-18.5 -18.5 0.14 (1)	10.00	
L-K		0 / 1195	-18.5 -18.5 0.13 (4)	10.00	
K-J		0 / 1195	-18.5 -18.5 0.13 (4)	10.00	
J-I		-26 / 0	-18.5 -18.5 0.07 (4)	6.25	

FACTORED CONCENTRATED LOADS (LBS)		JT	LOC.	LC1	MAX-	MAX+	FACE	DIR.	TYPE	HEEL	CONN.
		O	1-4-9	-4751	-4751	---	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

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.

GIRDER TYPE: CPrimeHip
SIDE SETBACK = 0-0
END SETBACK = 11-10-0
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 1-4-9 OF SPAN MEASURED FROM THE LEFT.

*** 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, 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 (1.04")
CALCULATED VERT. DEFL.(LL) = L/ 999 (0.03")
ALLOWABLE DEFL.(TL)= L/360 (1.04")
CALCULATED VERT. DEFL.(TL) = L/ 999 (0.06")

CSI: TC=0.83/1.00 (H-I:1), BC=0.27/1.00 (N-O:1), WB=0.74/1.00 (G-J:1), SSI=0.18/1.00 (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

AUTOSOLVE RIGHT HEEL ONLY

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

JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
336322	H155		2	JT 45147	E21104289(2)

Alpa Roof Truss, Maple

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ID:hd511hZTz_bdeQoS817GKByhVxV-ToOSzzEY6KGO0nDU34VkcmZoOBMNjL46oqySmSyTY3S

PLATES (table is in inches)

JT	TYPE	PLATES	W	LEN	Y	X
B	TMVW-t	MT20	5.0	8.0	1.75	2.50
C	TMWW-t	MT20	4.0	6.0	2.00	2.75
D	TTWW+m	MT20	5.0	6.0	1.75	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-t	MT20	4.0	4.0	2.00	1.75
I	BMVK1+p	MT20	6.0	9.0	Edge	3.00
J	BMWW-t	MT20	4.0	4.0	2.00	1.75
K	BS-t	MT20	4.0	6.0		
L	BMWWW-t	MT20	5.0	6.0		
M	BS-t	MT20	4.0	6.0		
N	BMWW-t	MT20	4.0	4.0		
O	BMWW+t	MT20	4.0	9.0		
P	BMV1+p	MT20	3.0	5.0		

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

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

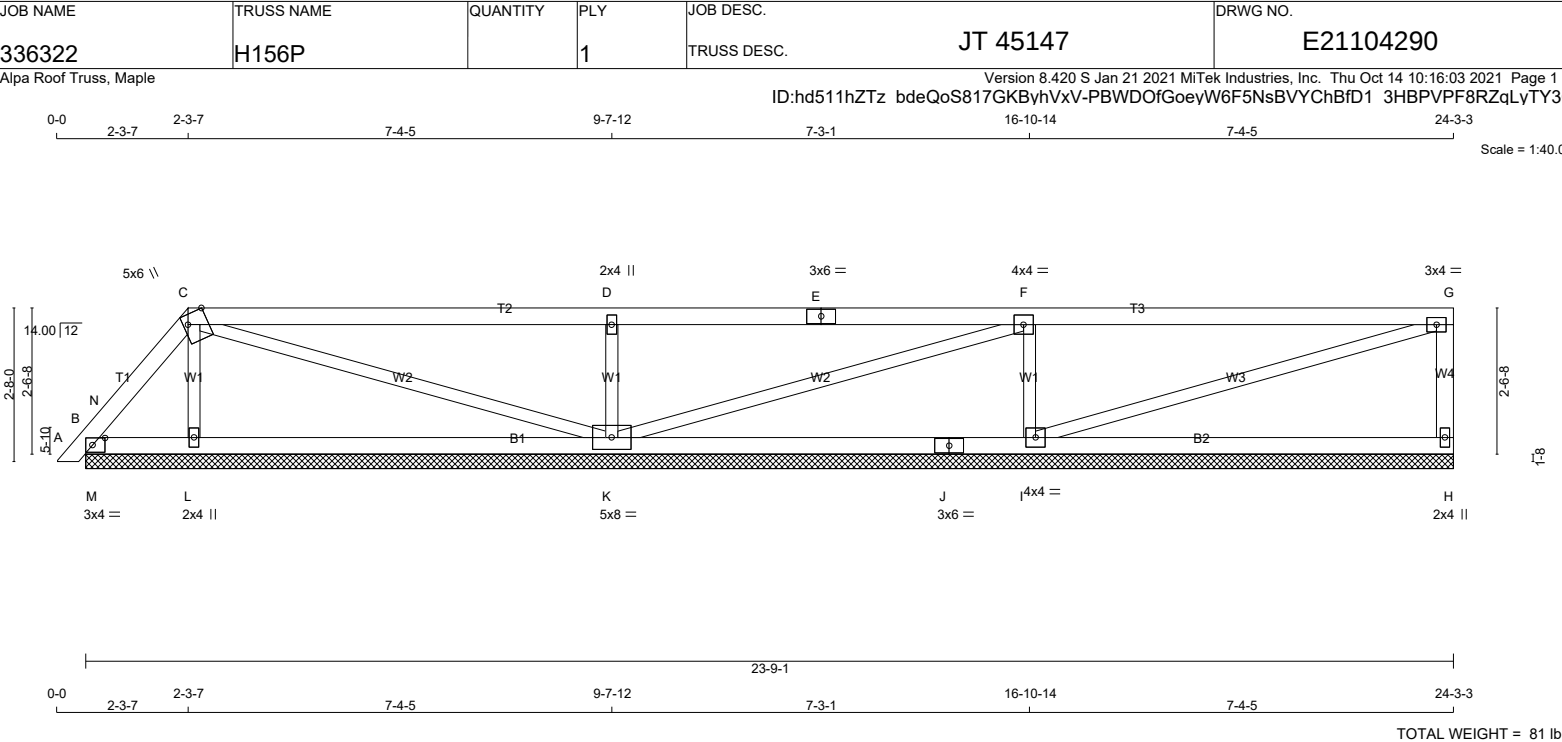
PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.86 (B) (INPUT = 0.90)
JSI METAL= 0.74 (O) (INPUT = 1.00)

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





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 - C	2x4	DRY	No.2	GROSS REACTION	GROSS REACTION	BRG	BRG	DL	=	6.0 PSF	
C - E	2x4	DRY	No.2	VERT	HORZ	DOWN	HORZ	BOT CH.	LL	=	0.0 PSF
E - G	2x4	DRY	No.2	JT				DL	=	7.4 PSF	
H - G	2x4	DRY	No.2	H	287	0	287	0	0	23-9-1 (8-9-1) 1-8	
B - J	2x4	DRY	No.2	B	131	0	131	0	0	23-9-1 (8-9-1) 1-8	
J - H	2x4	DRY	No.2	L	358	0	358	0	0	23-9-1 (8-9-1) 1-8	
ALL WEBS	2x3	DRY	No.2	K	776	0	776	0	0	23-9-1 (8-9-1) 1-8	
DRY: SEASONED LUMBER.			SPF	I	771	0	771	0	0	23-9-1 (8-9-1) 1-8	

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	8.0	
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



LOADING				TOTAL LOAD CASES: (4)			
CHORDS				WEBS			
MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	LC1 MAX	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	L-C	-220 / 0	0.04 (1)
B-N	0 / 60	-78.0 -78.0	0.04 (4)	10.00	C-K	-41 / 0	0.05 (1)
N-C	-73 / 0	-78.0 -78.0	0.03 (1)	6.25	K-D	-627 / 0	0.10 (1)
C-D	0 / 9	-78.0 -78.0	0.57 (1)	10.00	K-F	-19 / 0	0.02 (1)
D-E	0 / 9	-78.0 -78.0	0.57 (1)	10.00	I-F	-621 / 0	0.10 (1)
E-F	0 / 9	-78.0 -78.0	0.57 (1)	10.00	I-G	0 / 9	0.00 (1)
F-G	-9 / 0	-78.0 -78.0	0.57 (1)	10.00	M-N	-186 / 0	0.00 (1)
H-G	-233 / 0	0.0	0.0	0.03 (1)			
B-M	0 / 40	-18.5 -18.5	0.04 (1)	10.00			
M-L	0 / 40	-18.5 -18.5	0.16 (4)	10.00			
L-K	0 / 30	-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			

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 (C-D:1) , BC=0.24/1.00 (I-K:4) , WB=0.10/1.00 (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

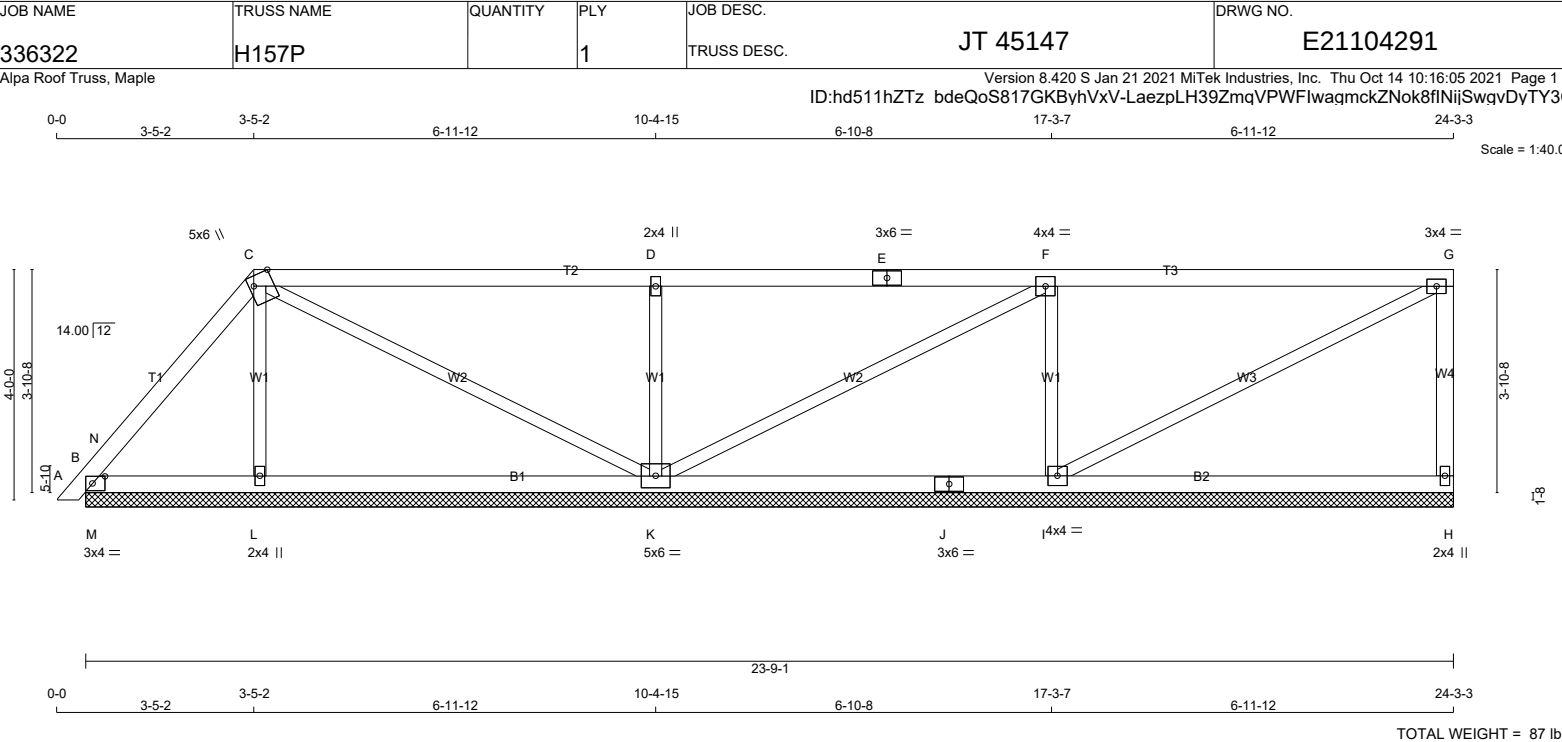
TRUSS PLATE MANUFACTURER IS NOT RESPONSIBLE FOR QUALITY CONTROL IN THE TRUSS MANUFACTURING PLANT .

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

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.84 (G) (INPUT = 0.90)
JSI METAL= 0.26 (E) (INPUT = 1.00)



LUMBER

N. L. G. A. RULES

CHORDS

SIZE

DRY

No.2

SPF

DESCR.

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

JT	FACTORED GROSS REACTION		MAXIMUM FACTORED GROSS REACTION		INPUT BRG	REQRD BRG
	VERT	HORZ	DOWN	HORZ		
H	279	0	279	0	23-9-1 (8-9-1)	1-8
B	222	0	222	0	23-9-1 (8-9-1)	1-8
L	334	0	334	0	23-9-1 (8-9-1)	1-8
K	779	0	779	0	23-9-1 (8-9-1)	1-8
I	708	0	708	0	23-9-1 (8-9-1)	1-8

VALUE IN PARENTHESIS INDICATES EFFECTIVE BEARING LENGTH

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=0.51/1.00 (D-F:1) , BC=0.22/1.00 (I-K:4) , WB=0.14/1.00 (D-K:1) , SSI=0.25/1.00 (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)

GRIP(DRY) (PLI)

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= 0.78 (G) (INPUT = 0.90)

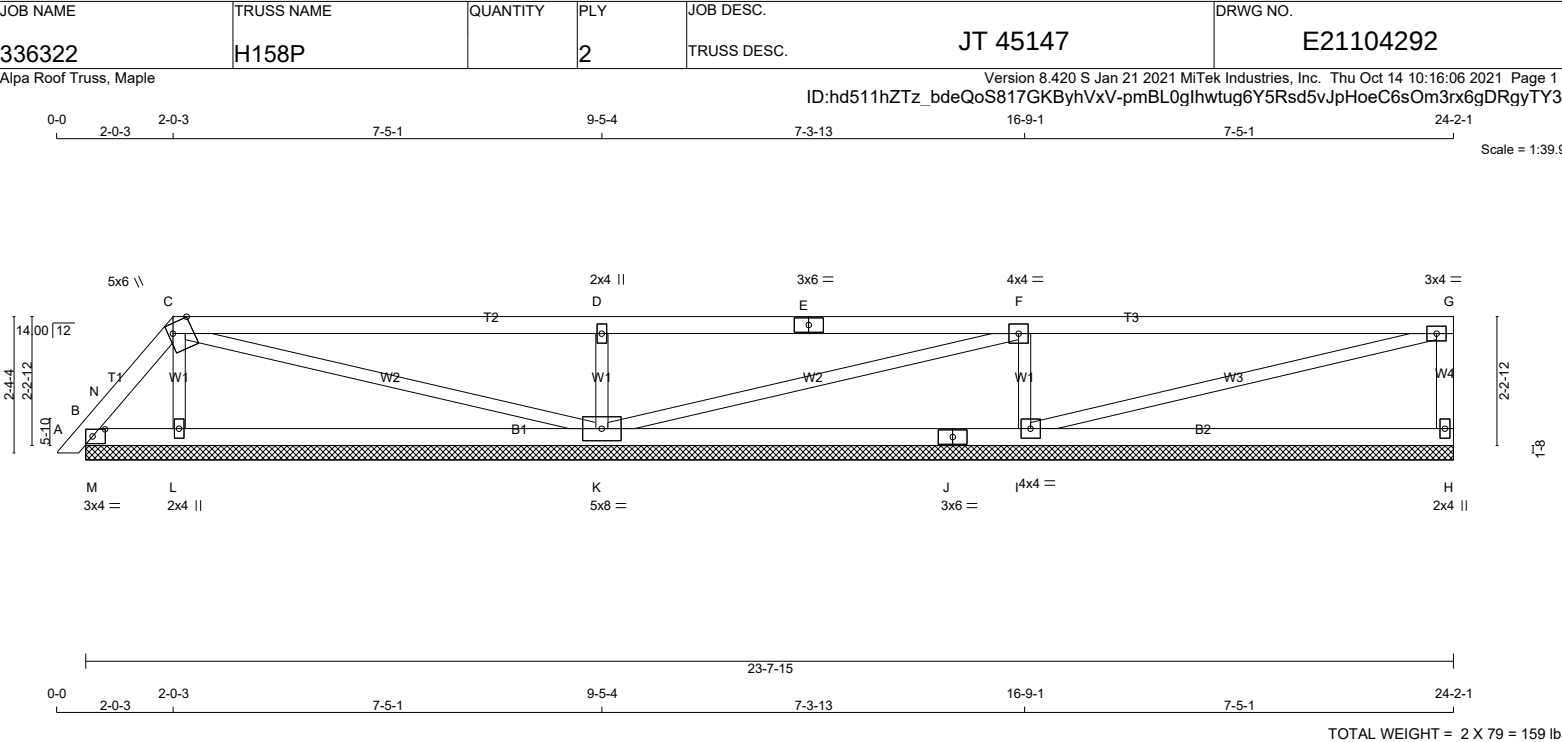
JSI METAL= 0.20 (E) (INPUT = 1.00)

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



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.

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
E- G	1 12	TOP
G- H	1 12	TOP
BOTTOM CHORDS : (0.122"x3") SPIRAL NAILS		
B- J	1 12	TOP
J- H	1 12	TOP
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.

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	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	8.0		
L	BMW1+w	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

JT	FACTORED GROSS REACTION	MAXIMUM FACTORED GROSS REACTION	INPUT BRG	REQRD BRG
H	288 0	288 0	23-7-15 (8-7-15)	
B	107 0	107 0	23-7-15 (8-7-15)	
L	362 0	362 0	23-7-15 (8-7-15)	
K	776 0	776 0	23-7-15 (8-7-15)	
I	780 0	780 0	23-7-15 (8-7-15)	

VALUE IN PARENTHESIS INDICATES EFFECTIVE BEARING LENGTH

PROVIDE ANCHORAGE AT BEARING JOINT B FOR 150 LBS FACTORED UPLIFT

UNFACTORED REACTIONS

JT	1ST LCASE COMBINED	MAX./MIN. COMPONENT REACTIONS	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
H	205	126 / 0	0 / 0	0 / 0	0 / 0	0 / 0	79 / 0	0 / 0
B	70	76 / 0	0 / 0	0 / 0	0 / 0	0 / 0	0 / -6	0 / 0
L	265	124 / 0	0 / 0	0 / 0	0 / 0	0 / 0	140 / 0	0 / 0
K	551	346 / 0	0 / 0	0 / 0	0 / 0	0 / 0	205 / 0	0 / 0
I	557	337 / 0	0 / 0	0 / 0	0 / 0	0 / 0	220 / 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			
MAX. FACTORED		FACTORED		MAX. FACTORED		FACTORED	
MEMB.	FORCE (LBS)	VERT. LOAD (PLF)	LC1 MAX CSI (LC)	MEMB.	FORCE (LBS)	MAX CSI (LC)	
FR-TO				LENGTH FR-TO			
A- B	0 / 10	-78.0	-78.0 0.00 (1)	10.00	L- C	-218 / 0	0.02 (1)
B- N	0 / 60	-78.0	-78.0 0.02 (4)	10.00	C- K	-32 / 0	0.02 (1)
N- C	-68 / 0	-78.0	-78.0 0.01 (4)	6.25	K- D	-632 / 0	0.05 (1)
C- D	0 / 6	-78.0	-78.0 0.29 (1)	10.00	K- F	-13 / 0	0.01 (1)
D- E	0 / 6	-78.0	-78.0 0.29 (1)	10.00	I- F	-628 / 0	0.05 (1)
E- F	0 / 6	-78.0	-78.0 0.29 (1)	10.00	I- G	0 / 7	0.00 (1)
F- G	-7 / 0	-78.0	-78.0 0.29 (1)	10.00	M- N	-158 / 0	0.00 (1)
H- G	-234 / 0	0.0	0.0 0.01 (1)	7.81			
B- M	0 / 37	-18.5	-18.5 0.02 (1)	10.00			
M- L	0 / 37	-18.5	-18.5 0.08 (4)	10.00			
L- K	0 / 25	-18.5	-18.5 0.09 (4)	10.00			
K- J	0 / 7	-18.5	-18.5 0.12 (4)	10.00			
J- I	0 / 7	-18.5	-18.5 0.12 (4)	10.00			
I- H	0 / 0	-18.5	-18.5 0.12 (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=0.29/1.00 (C-D:1) , BC=0.12/1.00 (I-K:4) , WB=0.05/1.00 (D-K:1) , SSI=0.14/1.00 (F-G:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

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

NAIL VALUES

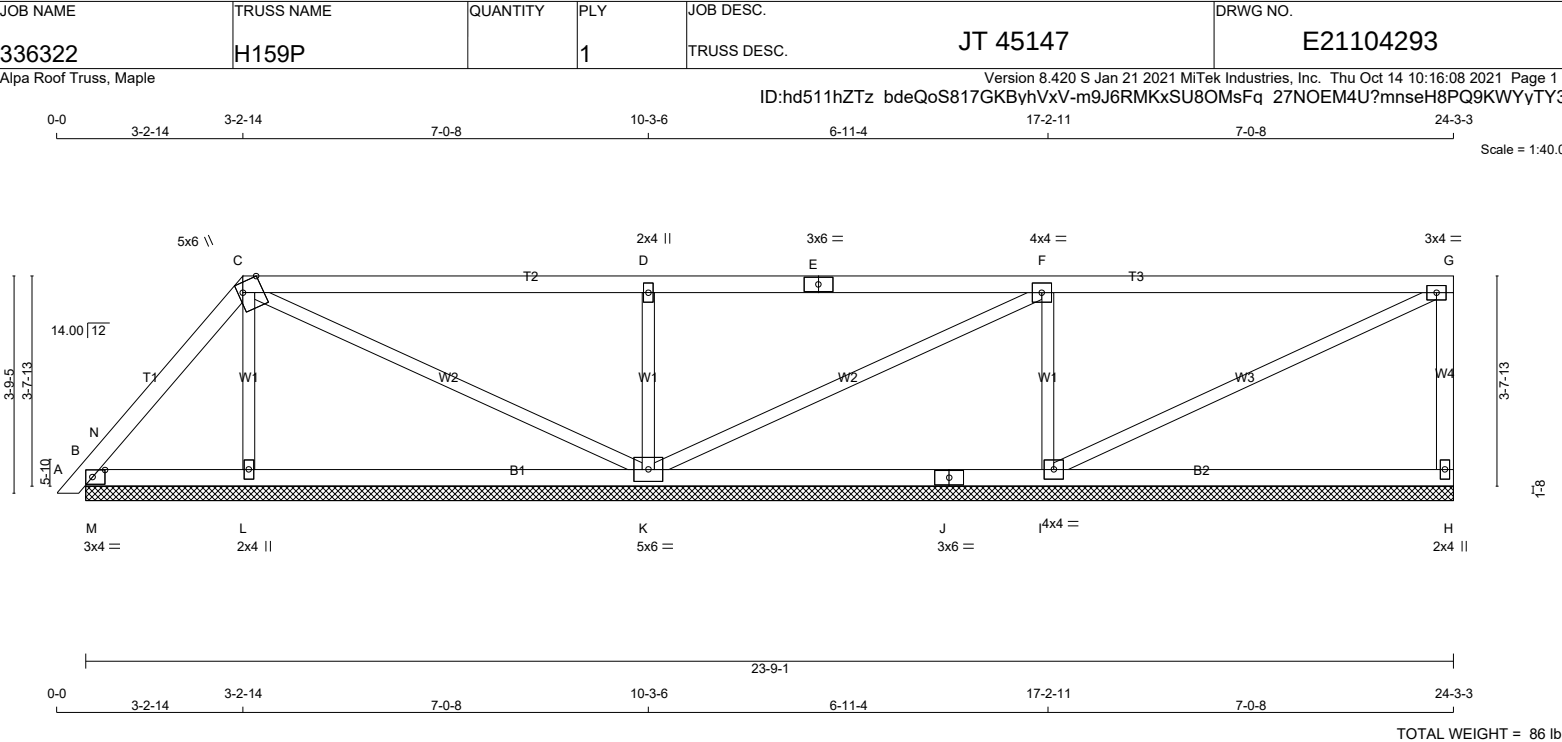
PLATE	GRIP(DRY)	SHEAR (PSI)	SECTION (PLI)
MT20	650	371	1747
	788	1987	1873

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

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

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



LUMBER				DIMENSIONS, SUPPORTS AND LOADINGS SPECIFIED BY FABRICATOR TO BE VERIFIED BY BUILDING DESIGNER										DESIGN CRITERIA				[M]				
N. L. G. A. RULES				BEARINGS										SPECIFIED LOADS:								
CHORDS	SIZE		LUMBER	DESCR.	FACTORED GROSS REACTION		MAXIMUM FACTORED GROSS REACTION		INPUT		REQRD		TOP	CH.	LL	=	PSF					
A - C	2x4	DRY	No.2	SPF	JT	VERT	HORZ	DOWN	HORZ	UPLIFT	BRG	IN-SX	BRG	IN-SX	BOT	CH.	LL	=	PSF			
C - E	2x4	DRY	No.2	SPF	H <td>280</td> <td>0</td> <td>280</td> <td>0</td> <td>0</td> <td>23-9-1</td> <td>(8-9-1)</td> <td>1-8</td> <td></td> <th></th> <th></th> <th></th> <th></th> <th></th>	280	0	280	0	0	23-9-1	(8-9-1)	1-8									
E - G	2x4	DRY	No.2	SPF	B <td>208</td> <td>0</td> <td>208</td> <td>0</td> <td>0</td> <td>23-9-1</td> <td>(8-9-1)</td> <td>1-8</td> <td></td> <th></th> <th></th> <th></th> <th></th> <th></th>	208	0	208	0	0	23-9-1	(8-9-1)	1-8									
H - G	2x4	DRY	No.2	SPF	L <td>338</td> <td>0</td> <td>338</td> <td>0</td> <td>0</td> <td>23-9-1</td> <td>(8-9-1)</td> <td>1-8</td> <td></td> <th></th> <th></th> <th></th> <th></th> <th></th>	338	0	338	0	0	23-9-1	(8-9-1)	1-8									
B - J	2x4	DRY	No.2	SPF	K <td>777</td> <td>0</td> <td>777</td> <td>0</td> <td>0</td> <td>23-9-1</td> <td>(8-9-1)</td> <td>1-8</td> <td></td> <th></th> <th></th> <th></th> <th></th> <th></th>	777	0	777	0	0	23-9-1	(8-9-1)	1-8									
J - H	2x4	DRY	No.2	SPF	I <td>720</td> <td>0</td> <td>720</td> <td>0</td> <td>0</td> <td>23-9-1</td> <td>(8-9-1)</td> <td>1-8</td> <td></td> <th></th> <th></th> <th></th> <th></th> <th></th>	720	0	720	0	0	23-9-1	(8-9-1)	1-8									
ALL WEBS 2x3 DRY: SEASONED LUMBER.				SPF																		
																			SPACING =	24.0	IN. C/C	

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	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



UNFACTORED REACTIONS		MAX./MIN. COMPONENT REACTIONS					
JT	1ST LCASE	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
H	199	123 / 0	0 / 0	0 / 0	0 / 0	76 / 0	0 / 0
B	144	110 / 0	0 / 0	0 / 0	0 / 0	34 / 0	0 / 0
L	246	122 / 0	0 / 0	0 / 0	0 / 0	125 / 0	0 / 0
K	551	350 / 0	0 / 0	0 / 0	0 / 0	201 / 0	0 / 0
I	514	309 / 0	0 / 0	0 / 0	0 / 0	205 / 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)	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	L-C	-207 / 0	0.04 (1)
B-N	0 / 65	-78.0	-78.0 0.06 (1)	10.00	C-K	-78 / 0	0.09 (1)
N-C	-97 / 0	-78.0	-78.0 0.06 (1)	6.25	K-D	-599 / 0	0.13 (1)
C-D	0 / 22	-78.0	-78.0 0.52 (1)	10.00	K-F	-42 / 0	0.05 (1)
D-E	0 / 22	-78.0	-78.0 0.52 (1)	10.00	I-F	-581 / 0	0.13 (1)
E-F	0 / 22	-78.0	-78.0 0.52 (1)	10.00	I-G	0 / 18	0.00 (1)
F-G	-16 / 0	-78.0	-78.0 0.52 (1)	6.25	M-N	-293 / 0	0.00 (1)
H-G	-228 / 0	0.0	0.0 0.05 (1)	7.81			
B-M	0 / 56	-18.5	-18.5 0.07 (1)	10.00			
M-L	0 / 56	-18.5	-18.5 0.14 (4)	10.00			
L-K	0 / 49	-18.5	-18.5 0.17 (4)	10.00			
K-J	0 / 16	-18.5	-18.5 0.22 (4)	10.00			
J-I	0 / 16	-18.5	-18.5 0.22 (4)	10.00			
I-H	0 / 0	-18.5	-18.5 0.22 (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=0.52/1.00 (C-D:1) , BC=0.22/1.00 (I-K:4) , WB=0.13/1.00 (D-K: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

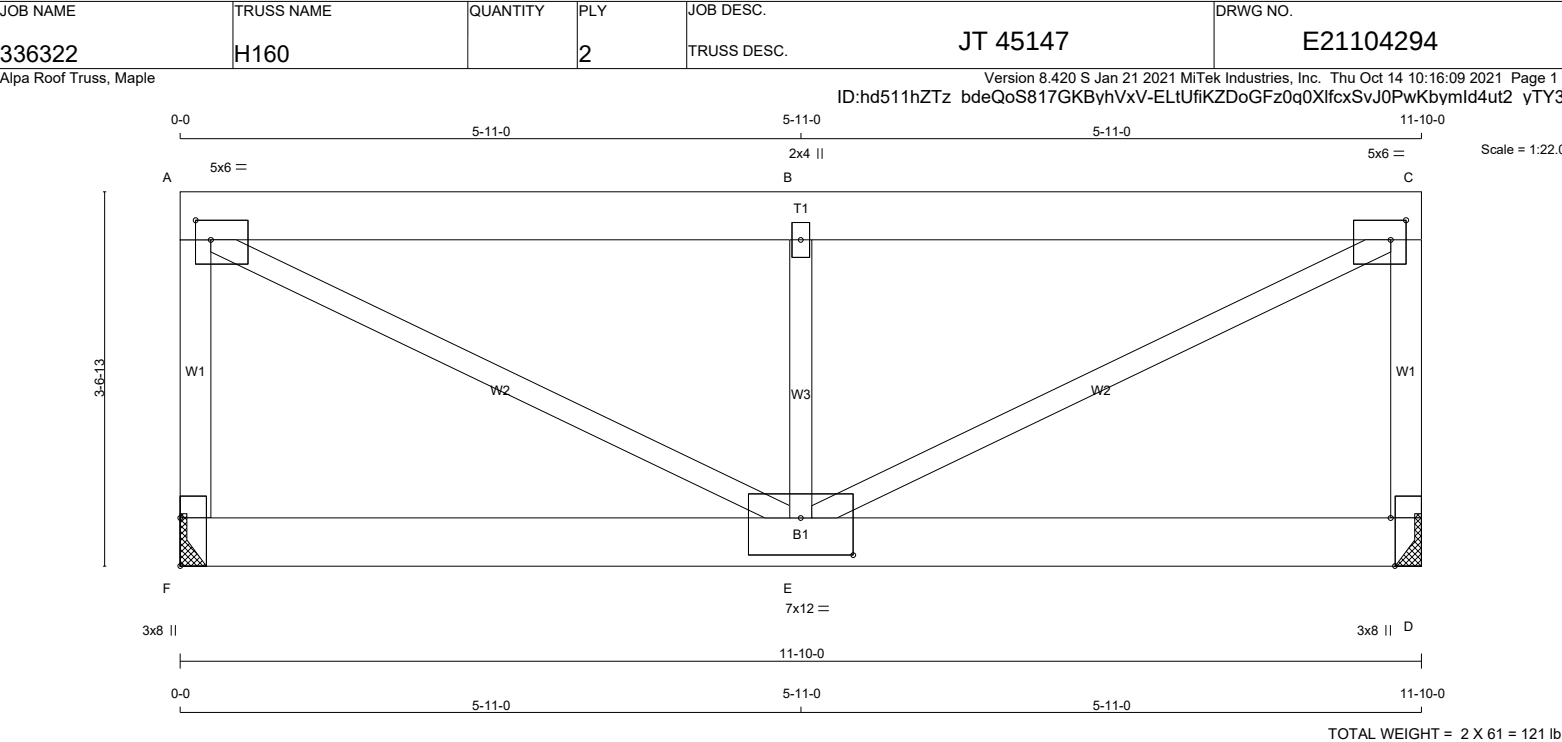
TRUSS PLATE MANUFACTURER IS NOT RESPONSIBLE FOR QUALITY CONTROL IN THE TRUSS MANUFACTURING PLANT .

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= 0.79 (G) (INPUT = 0.90)
JSI METAL= 0.21 (E) (INPUT = 1.00)



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

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

CHORDS #ROWS	SURFACE SPACING (IN)	LOAD(PLF)
TOP CHORDS : (0.122"x3") SPIRAL NAILS		
F- A	12	TOP
C- D	12	TOP
A- C	12	SIDE(14.6)
BOTTOM CHORDS : (0.122"x3") SPIRAL NAILS		
F- D	8	SIDE(335.1)
WEBS : (0.122"x3") SPIRAL NAILS		
2x3	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
A	TMVW-t	MT20	5.0	6.0	2.25 1.75
B	TMW+w	MT20	2.0	4.0	
C	TMVW-t	MT20	5.0	6.0	2.25 1.75
D	BMV1+t	MT20	3.0	8.0	Edge 0.50
E	BMWWW-t	MT20	7.0	12.0	4.25 6.00
F	BMV1+t	MT20	3.0	8.0	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 GROSS REACTION		MAXIMUM FACTORED GROSS REACTION		INPUT BRG		REQRD BRG	
JT	VERT	HORZ	DOWN	HORZ	UPLIFT	IN-SX	IN-SX	IN-SX	IN-SX
F	4750	0	4750	0	0	MECHANICAL			
D	4750	0	4750	0	0	MECHANICAL			

A SUITABLE HANGER/MECHANICAL CONNECTION IS REQUIRED AT JOINT F, D. MINIMUM BEARING LENGTH AT JOINT F = 3-0, JOINT D = 3-0.

UNFACTORED REACTIONS		1ST LCASE		MAX./MIN. COMPONENT REACTIONS		WIND		DEAD		SOIL	
JT	COMBINED	SNOW	LIVE	PERM.	LIVE	WIND	DEAD	SOIL	DEAD	SOIL	DEAD
F	3387	2067 / 0	0 / 0	0 / 0	0 / 0	0 / 0	1320 / 0	0 / 0	1320 / 0	0 / 0	0 / 0
D	3387	2067 / 0	0 / 0	0 / 0	0 / 0	0 / 0	1320 / 0	0 / 0	1320 / 0	0 / 0	0 / 0

BRACING
TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 4.86 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		MAX. FACTORED FORCE (LBS)		FACTORED VERT. LOAD (PLF)		MAX. FACTORED FORCE (LBS)		WEB S. MAX. FACTORED FORCE (LBS)	
MEMB.	FORCE (LBS)	VERT. LOAD (PLF)	LC1	MAX	CSI (LC)	MEMB.	FORCE (LBS)	MAX	CSI (LC)
FR-TO	FROM	TO				FR-TO	FROM	TO	
F- A	-3139 / 0	0.0	0.0	0.28 (1)	6.54	A- E	0 / 6095	0.75 (1)	
A- B	-5396 / 0	-107.2	-107.2	0.21 (1)	4.86	E- B	-662 / 0	0.07 (1)	
B- C	-5396 / 0	-107.2	-107.2	0.21 (1)	4.86	E- C	0 / 6095	0.75 (1)	
D- C	-3139 / 0	0.0	0.0	0.28 (1)	6.54				
F- E	0 / 0	-695.7	-695.7	0.97 (1)	10.00				
E- D	0 / 0	-695.7	-695.7	0.97 (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

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

GIRDER TYPE: CStdGirder
START DISTANCE = 0-0
START SPAN CARRIED = 29-9-8
END DISTANCE = 11-10-0
END SPAN CARRIED = 29-9-8
END WALL WIDTH = 0-0
APPLIED TO FRONT SIDE OF BOTTOM CHORD.
- ADDTL LOADS BASED ON 55 % OF GSL.

GIRDER TYPE: CPrimeHip
SIDE SETBACK = 0-0
END SETBACK = 3-6-0
END WALL WIDTH = 0-0
CORNER FRAMING TYPE: CONVENTIONAL
END JACK TYPE: CONVENTIONAL
APPLIED TO BACK SIDE
- ADDTL LOADS BASED ON 55 % OF GSL.

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

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

(55 % OF 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 (0.10")
ALLOWABLE DEFL.(TL)= L/360 (0.39")
CALCULATED VERT. DEFL.(TL)= L/ 716 (0.20")

CSI: TC=0.28/1.00 (A-F:1) , BC=0.97/1.00 (E-F:1) , WB=0.75/1.00 (A-E:1) , SSI=0.83/1.00 (E-F: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 (PSI)		SECTION (PLI)	
		MAX MIN		MAX MIN	
MT20		650 371		1747 788	

PLATE PLACEMENT TOL. = 0.250 inches

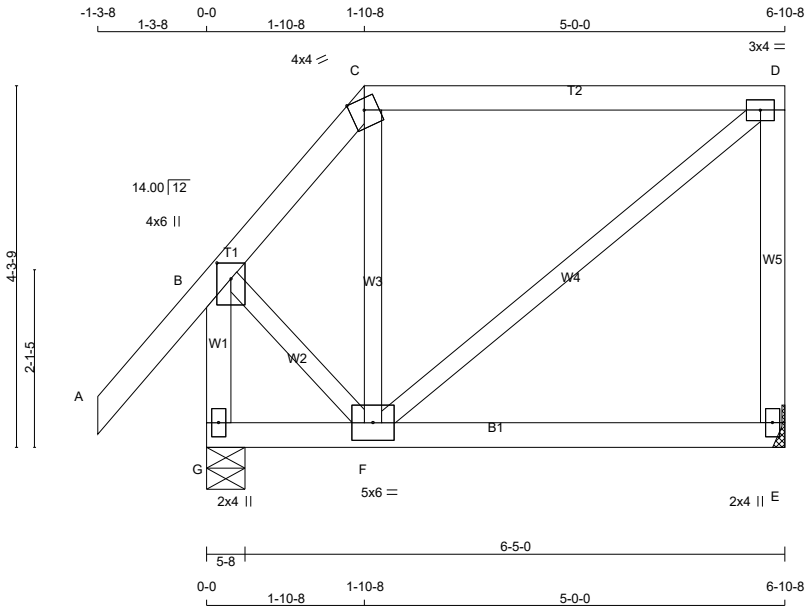
PLATE ROTATION TOL. = 5.0 Deg.

JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
336322	H161		1	TRUSS DESC. JT 45147	E21104295

Alpa Roof Truss, Maple

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Scale = 1:27.4

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	BMVWW-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 CSI (LC)	MAX. UNBRAC LENGTH	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	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			

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 1873

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

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

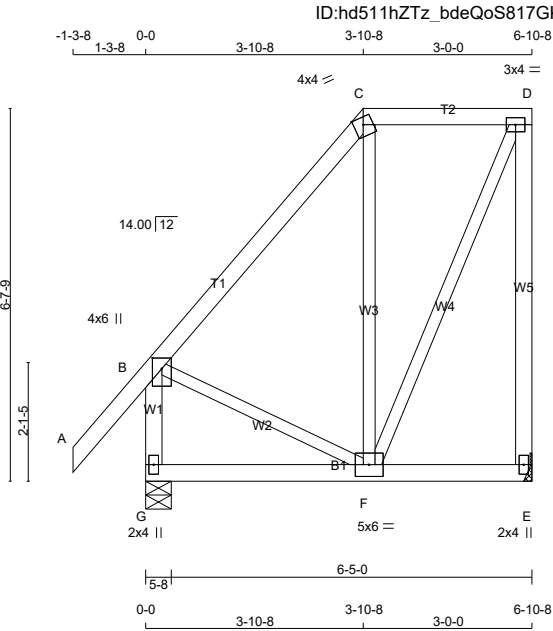
LATERAL BRACE(S) SHOWN SHALL BE 2X4 SPF#2



JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
336322	H162		1	TRUSS DESC. JT 45147	E21104296

Alpa Roof Truss, Maple

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TOTAL WEIGHT = 43 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
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	BMVWW-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

	FACTORED GROSS REACTION		MAXIMUM FACTORED GROSS REACTION		INPUT	REQRD
	VERT	HORZ	DOWN	HORZ	BRG	BRG
JT					IN-SX	IN-SX
E	332	0	332	0	MECHANICAL	
G	441	0	441	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	236	144 / 0	0 / 0	0 / 0	0 / 0	92 / 0	0 / 0
G	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) 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 CSI (LC)	MAX. UNBRAC LENGTH	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	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			

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 (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)

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

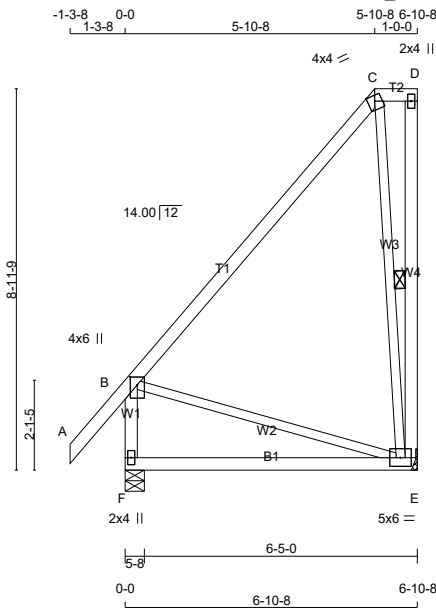


JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
336322	H163		1	TRUSS DESC. JT 45147	E21104297

Alpa Roof Truss, Maple

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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

	FACTORED GROSS REACTION		MAXIMUM FACTORED GROSS REACTION		INPUT BRG	REQD BRG
	VERT	HORZ	DOWN	HORZ		
JT	332	0	332	0	0/0	0/0
E	332	0	332	0	0/0	0/0
F	441	0	441	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 COMBINED	MAX./MIN. COMPONENT REACTIONS					
		SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
JT	236	144 / 0	0 / 0	0 / 0	0 / 0	92 / 0	0 / 0
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, 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

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

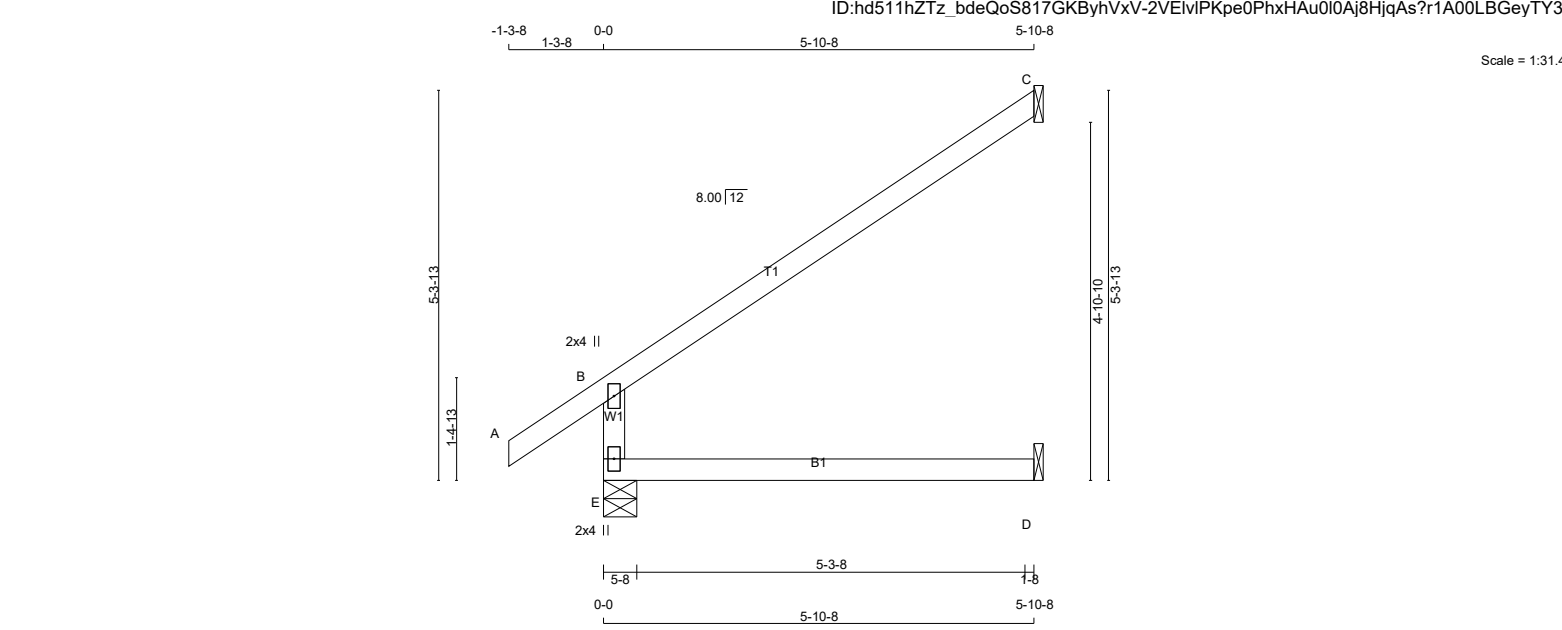
PLATE PLACEMENT TOL. = 0.250 inches

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





TOTAL WEIGHT = 36 X 18 = 642 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	456	0	456	0	5-8	1-8
C	172	0	172	0	1-8	1-8
D	46	0	51	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	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

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)	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 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 (0.20")
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)	(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= 0.24 (B) (INPUT = 0.90)
JSI METAL= 0.20 (B) (INPUT = 1.00)

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

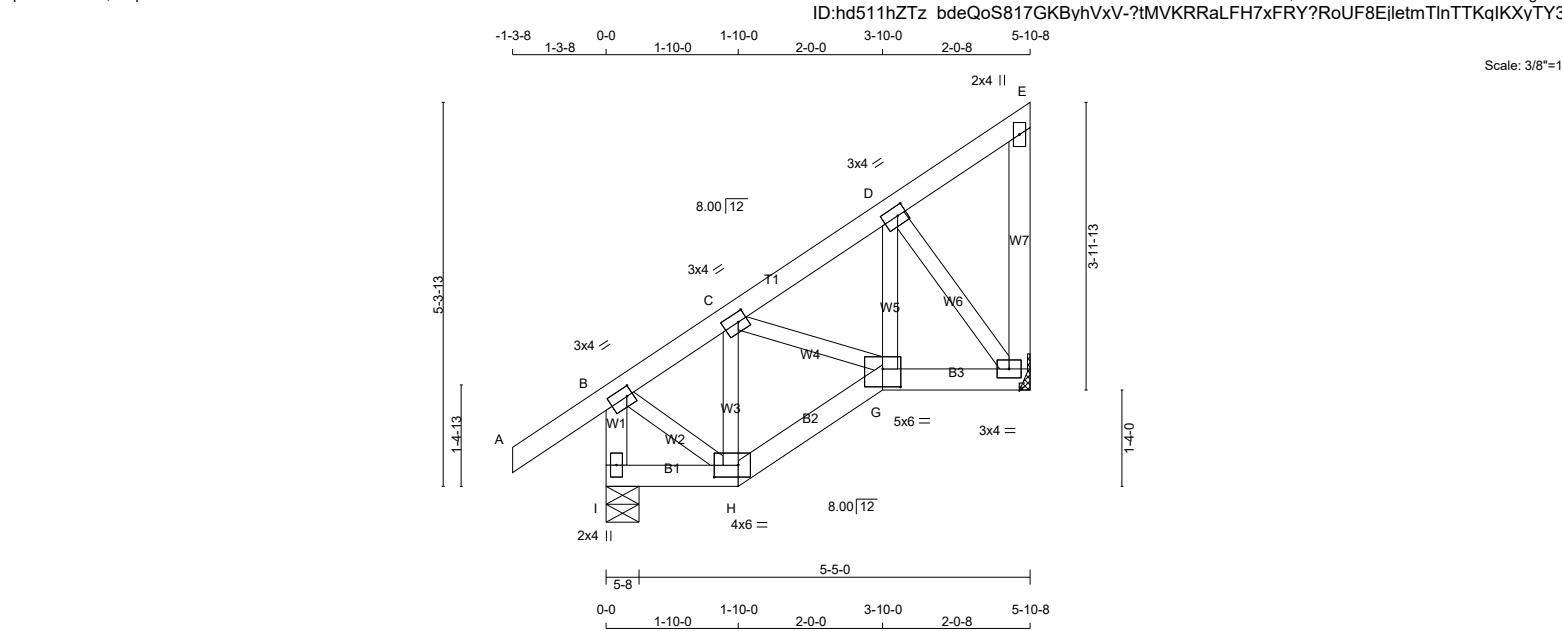


JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
336322	J04T		1	TRUSS DESC. JT 45147	E21104299

Alpa Roof Truss, Maple

ID:hd511hZTz bdeQoS817GKByhVxV-?iMVKRRaLFH7xFRY?RoUF8EjletmTlnTTKqIKXyTY3C

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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				[M]			
I - B	2x4	DRY	No.2	SPF	FACTORED GROSS REACTION	MAXIMUM FACTORED GROSS REACTION	INPUT BRG	REQRD BRG	SPECIFIED LOADS:								
A - E	2x4	DRY	No.2	SPF	JT VERT	HORZ	DOWN	HORZ	UPLIFT	IN-SX	IN-SX	TOP CH.	LL = 21.0	PSF			
F - E	2x4	DRY	No.2	SPF	I	403	0	403	0	0	5-8	1-8	DL = 6.0	PSF			
I - H	2x4	DRY	No.2	SPF	F	271	0	271	0	0	MECHANICAL	BOT CH.	LL = 0.0	PSF			
H - G	2x4	DRY	No.2	SPF											DL = 7.4	PSF	
G - F	2x4	DRY	No.2	SPF											TOTAL LOAD = 34.4	PSF	
ALL WEBS 2x3 DRY: SEASONED LUMBER.				No.2	SPF	A SUITABLE HANGER/MECHANICAL CONNECTION IS REQUIRED AT JOINT F. MINIMUM BEARING LENGTH AT JOINT F = 1-8.						SPACING = 24.0 IN. C/C					

PLATES (table is in inches)					
JT	TYPE	PLATES	W	LEN	Y X
B	TMVW-t	MT20	3.0	4.0	1.50 1.00
C	TMWW-t	MT20	3.0	4.0	1.50 1.50
D	TMWW-t	MT20	3.0	4.0	1.50 1.50
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	

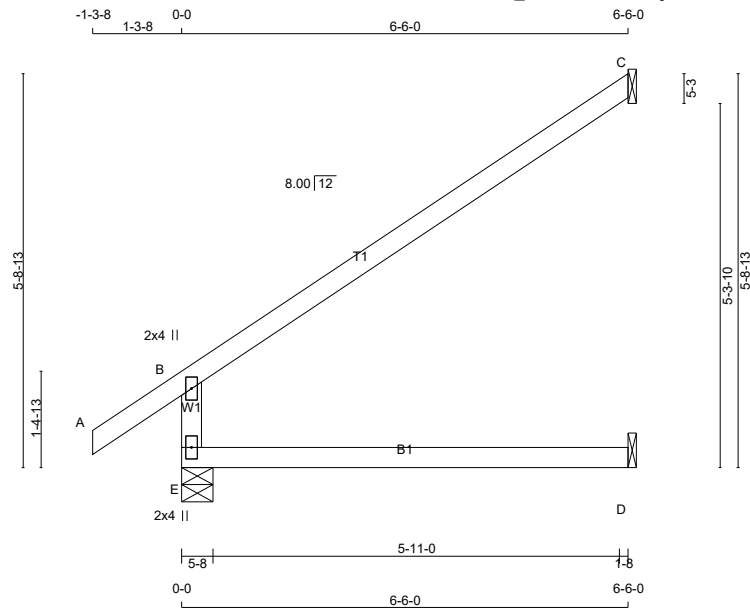
LATERAL BRACE(S) SHOWN SHALL BE 2X4 SPF#2



Alpa Roof Truss, Maple

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Scale = 1:33.5



TOTAL WEIGHT = 24 X 19 = 466 lb

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		

JT	FACTORED GROSS REACTION		MAXIMUM FACTORED GROSS REACTION		INPUT BRG	REQRD BRG
	VERT	HORZ	DOWN	HORZ UPLIFT	IN-SX	IN-SX
E	494	0	494	0 0	5-8	1-8
C	190	0	190	0 0	1-8	1-8
D	50	0	56	0 0	1-8	1-8

1ST LCASE		MAX MIN. COMPONENT REACTIONS					
JT	COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
E	349	228 / 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	40	0 / 0	0 / 0	0 / 0	0 / 0	40 / 0	0 / 0

TOTAL LOAD CASES: (4)

CHORDS				WEB S				
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	-424 / 0	0.0	0.0	0.13 (4)	7.81			
A-B	0 / 30	-78.0	-78.0	0.10 (1)	10.00			
B-C	-35 / 0	-78.0	-78.0	0.44 (1)	6.25			
E-D	0 / 0	-18.5	-18.5	0.16 (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

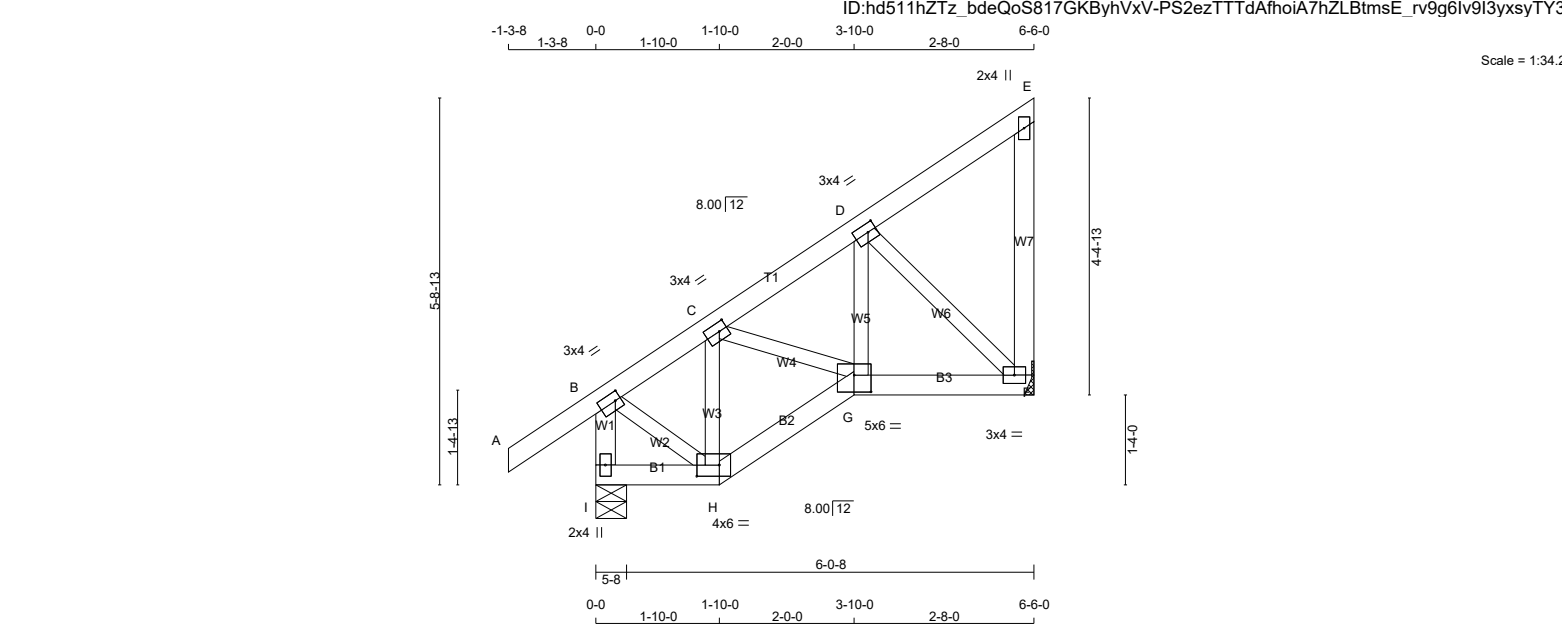
JSI GRIP= 0.26 (B) (INPUT = 0.90)
JSI METAL= 0.22 (B) (INPUT = 1.00)

JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
336322	J05T		1	TRUSS DESC. JT 45147	E21104301

Alpa Roof Truss, Maple

ID:hd511hZTz_bdeQoS817GKByhVxV-PS2ezTTTTdAfhoiA7hZLBtmsE_rv9g6lv9I3yxsyTY39

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TOTAL WEIGHT = 13 X 33 = 432 lb

[M][F]

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	4.0	1.50 1.00
C	TMWW-t	MT20	3.0	4.0	1.50 1.50
D	TMWW-t	MT20	3.0	4.0	1.50 1.50
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

BEARINGS

JT	FACTORED GROSS REACTION		MAXIMUM FACTORED GROSS REACTION		INPUT BRG IN-SX	REQRD BRG IN-SX
	VERT	HORZ	DOWN	HORZ		
I	432	0	432	0	5-8	1-8
F	302	0	302	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		WIND	DEAD	SOIL
	SNOW	LIVE	PERM.LIVE				
I	305	200 / 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)	MAX LC1 CSI (LC)	MAX. UNBRAC LENGTH	MEMB.	MAX. FACTORED FORCE (LBS)	MAX CSI (LC)
FR-TO		FROM TO			FR-TO		
I-B	-415 / 0	0.0	0.0 0.04 (1)	7.81	B-H	0 / 185	0.04 (1)
A-B	0 / 30	-78.0	-78.0 0.10 (1)	10.00	H-C	-160 / 0	0.03 (1)
B-C	-215 / 0	-78.0	-78.0 0.08 (1)	6.25	C-G	0 / 73	0.02 (1)
C-D	-253 / 0	-78.0	-78.0 0.05 (1)	6.25	G-D	0 / 118	0.03 (4)
D-E	-11 / 0	-78.0	-78.0 0.05 (1)	6.25	D-F	-293 / 0	0.06 (1)
F-E	-80 / 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 / 184	-18.5	-18.5 0.04 (1)	10.00			
G-F	0 / 215	-18.5	-18.5 0.06 (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 (0.22")
CALCULATED VERT. DEFL.(LL) = L/ 999 (0.00")
ALLOWABLE DEFL.(TL)= L/360 (0.22")
CALCULATED VERT. DEFL.(TL) = L/ 999 (0.01")

CSI: TC=0.10/1.00 (A-B:1) , BC=0.06/1.00 (F-G:4) , WB=0.06/1.00 (D-F:1) , SSI=0.08/1.00 (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	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= 0.57 (B) (INPUT = 0.90)
JSI METAL= 0.11 (B) (INPUT = 1.00)

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

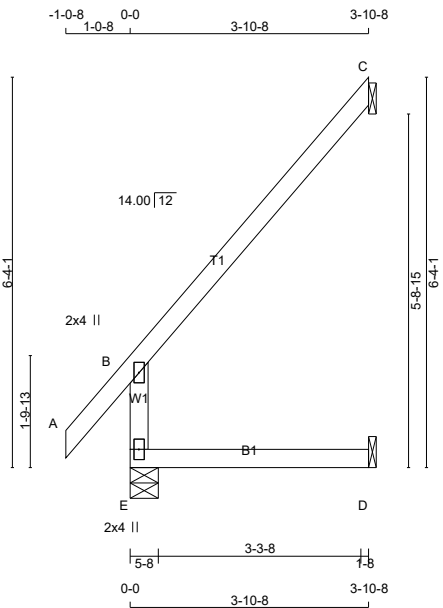


JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
336322	J07		1	TRUSS DESC. JT 45147	E21104302

Alpa Roof Truss, Maple

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ID:hd511hZTz bdeQoS817GKByhVxV-Lr9ON9Uj9nvP10KWw NfyBxY0fbY80mCdcY3?kyTY37



TOTAL WEIGHT = 14 X 15 = 211 lb

LUMBER				
N. L. G. A. RULES				
CHORDS	SIZE	LUMBER	DESCR.	SPF
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	REQD BRG IN-SX
	VERT	HORZ	DOWN	HORZ		
E	319	0	319	0	5-8	1-8
C	113	0	113	0	1-8	1-8
D	32	0	35	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	225	150 / 0	0 / 0	0 / 0	0 / 0	75 / 0
C	79	61 / 0	0 / 0	0 / 0	0 / 0	17 / 0
D	25	0 / 0	0 / 0	0 / 0	0 / 0	25 / 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)	MAX UNBRAC LENGTH	MEMB. FR-TO	WEBS MAX. FACTORED FORCE (LBS)		MAX CSI (LC)
	FROM	TO	FROM	TO				FROM	TO	
E-B	-279 / 0	0.0	0.0	0.0	0.04 (4)	7.81				
A-B	0 / 34	-78.0	-78.0	0.08 (1)	10.00					
B-C	-29 / 0	-78.0	-78.0	0.20 (1)	6.25					
E-D	0 / 0	-18.5	-18.5	0.06 (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 (0.19")
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=0.20/1.00 (B-C:1) , BC=0.06/1.00 (D-E:4) , WB=0.00/1.00 (n/a:0) , SSI=0.10/1.00 (B-C:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

AUTOSOLVE RIGHT HEEL ONLY

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

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

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

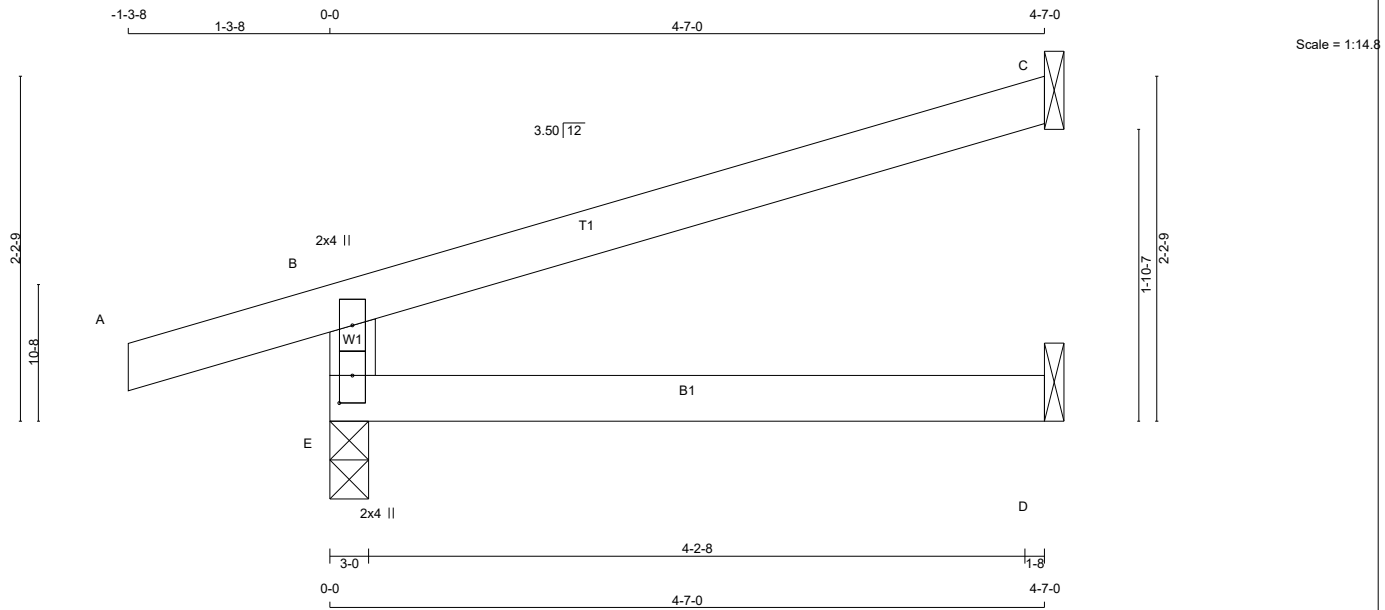
JSI GRIP= 0.22 (B) (INPUT = 0.90)
JSI METAL= 0.14 (B) (INPUT = 1.00)

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



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ID:hd511hZTz bdeQoS817GKByhVxV-IEH9oqWzhP97GJTvwPQ72c0tGSFjcvFV4v1A4dyTY35



TOTAL WEIGHT = $12 \times 13 = 153 \text{ lb}$

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	2.00	1.00

	FACTORED GROSS REACTION		MAXIMUM FACTORED GROSS REACTION			INPUT BRG	REQD BRG
JT	VERT	HORZ	DOWN	HORZ	UPLIFT	IN-SX	IN-SX
E	377	0	377	0	0	3-0	1-8
C	134	0	134	0	0	1-8	1-8
D	35	0	39	0	0	1-8	1-8

JT	1ST LCASE COMBINED	MAX./MIN. COMPONENT REACTIONS					
		SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
E	267	176 / 0	0 / 0	0 / 0	0 / 0	90 / 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

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.

CHORDS				WEBS			
MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	MAX. FACTORED LOAD (LC)	MAX. UNBRAC. CSI (LC)	MEMB.	MAX. FACTORED FORCE (LBS)	MAX. FACTORED CSI (LC)
FR-TO		FROM TO		LENGTH	FR-TO		
E-B	-327 / 0	0.0	0.0	0.08 (4)	7.81		
A-B	0 / 15	-78.0	-78.0	0.10 (1)	10.00		
B-C	-12 / 0	-78.0	-78.0	0.28 (1)	6.25		
E-D	0 / 0	-18.5	-18.5	0.08 (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

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 (0.01")

CSI: TC=0.28/1.00 (B-C:1), BC=0.08/1.00 (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 .

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= 0.17 (B) (INPUT = 0.90)
JSI METAL= 0.09 (B) (INPUT = 1.00)

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

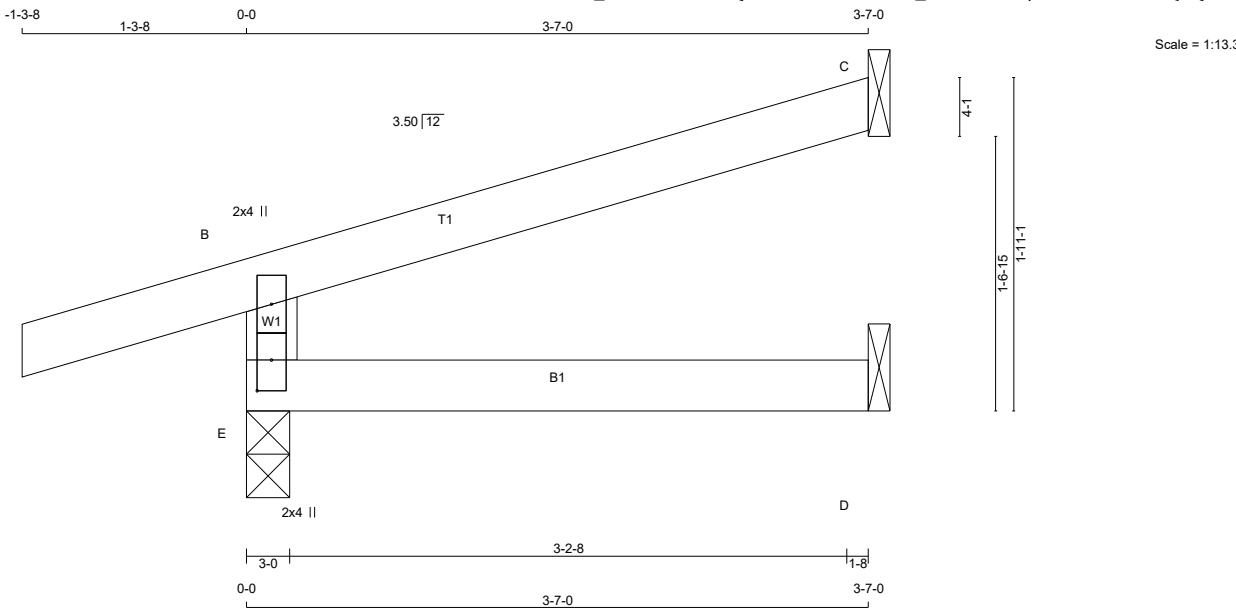


JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
336322	P06		1	TRUSS DESC. JT 45147	E21104304

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ID:hd511hZTz_bdeQoS817GKByhVxV-mQrX0AXcSiH_uT25T6xMaqZ4hscULMVeJZmjc3yTY34



TOTAL WEIGHT = 12 X 10 = 125 lb

[M]

LUMBER

N. L. G. A. RULES

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

SPF

SPF

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	2.00	1.00

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

BEARINGS

JT	FACTORED GROSS REACTION		MAXIMUM FACTORED GROSS REACTION		INPUT BRG	REQRD BRG
	VERT	HORZ	DOWN	HORZ	IN-SX	IN-SX
E	317	0	317	0	3-0	1-8
C	105	0	105	0	1-8	1-8
D	28	0	31	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	224	150 / 0	0 / 0	0 / 0	0 / 0	74 / 0	0 / 0
C	73	56 / 0	0 / 0	0 / 0	0 / 0	16 / 0	0 / 0
D	22	0 / 0	0 / 0	0 / 0	0 / 0	22 / 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 = 10.00 FT.

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

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

LOADING

TOTAL LOAD CASES: (7)

MEMB.	CHORDS		WEBS			
	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	LC1 MAX CSI (LC)	MAX. UNBRAC LENGTH	MEMB. FR-TO	MAX. FACTORED FORCE (LBS)
FR-TO		FROM	TO			
E-B	-278 / 0	0.0	0.0	0.05 (4)	7.81	
A-B	0 / 15	-78.0	-78.0	0.11 (5)	10.00	
B-C	-10 / 0	-78.0	-78.0	0.17 (6)	10.00	
E-D	0 / 0	-18.5	-18.5	0.05 (4)	10.00	

CANTILEVER ANALYSIS HAS BEEN CONSIDERED IN THIS DESIGN

PATTERN-LOADING CHECK APPLIED TO THIS TRUSS.

DESIGN CRITERIA

SPECIFIED LOADS:

TOP CH.	LL	=	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, 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

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 (0.00")

CSI: TC=0.17/1.00 (B-C:6) , BC=0.05/1.00 (D-E:4) , WB=0.00/1.00 (n/a:0) , SSI=0.13/1.00 (B-C:6)

DOL LUMBER=1.00 NAIL=1.00 LS BEND=1.10

COMP=1.10 SHEAR=1.10 TENS= 1.10

COMPANION LIVE LOAD FACTOR = 1.00

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

NAIL VALUES

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

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.15 (B) (INPUT = 0.90)

JSI METAL= 0.07 (B) (INPUT = 1.00)

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



LUS – Double Shear Joist Hangers



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

Material: 18 gauge

Finish: G90 galvanized

Design:

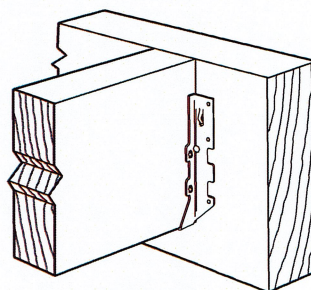
- Factored resistances are in accordance with CSA O86-14.
- Uplift resistances have been increased 15%. No further increase is permitted.
- Wood shear is not considered in the factored resistances given. The specifier must ensure that the joist and header capacities are capable of withstanding these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

Installation:

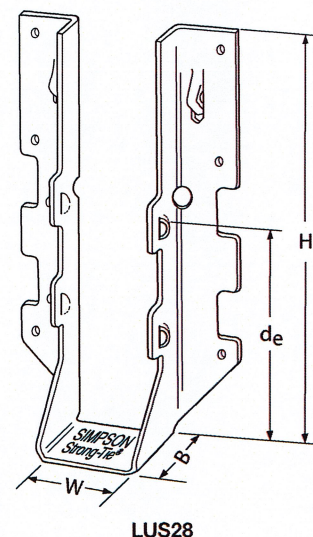
- Use all specified fasteners.
- Nails: 16d = 0.162" dia. x 3½" long common wire, 10d = 0.148" x 3" long common wire.
- Double shear nails must be driven at an angle through the joist or truss into the header to achieve the table loads.
- Not designed for welded or nailer applications.

Options:

- These hangers cannot be modified



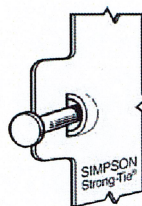
Typical LUS Installation



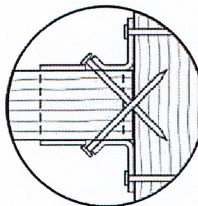
LUS28

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 _p =1.15)	Normal (K _p =1.00)	Uplift (K _p =1.15)	Normal (K _p =1.00)
LUS24	18	1½	3½	1¾	1 15/16	(4) 10d	(2) 10d	710	1630	645	1155
LUS24-2	18	3½	3½	2	1 13/16	(4) 16d	(2) 16d	835	2020	590	1435
LUS26	18	1½	4¾	1¾	3½	(4) 10d	(4) 10d	1420	2170	1290	1630
LUS26-2	18	3½	4¾	2	4	(4) 16d	(4) 16d	1720	2595	1545	1920
LUS26-3	18	4½	4¾	2	3¼	(4) 16d	(4) 16d	1720	2595	1545	2340
LUS28	18	1½	6½	1¾	3¾	(6) 10d	(6) 10d	1420	2520	1290	1790
LUS28-2	18	3½	7	2	4	(6) 16d	(4) 16d	1720	3325	1545	2575
LUS28-3	18	4½	6¼	2	3¼	(6) 16d	(4) 16d	1720	3325	1545	2375
LUS210	18	1½	7 15/16	1¾	3¾	(8) 10d	(4) 10d	1420	2785	1290	2210
LUS210-2	18	3½	9	2	6	(8) 16d	(6) 16d	2580	4500	2320	3195
LUS210-3	18	4½	8¾	2	5¼	(8) 16d	(6) 16d	2580	3345	2320	2375

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



Dome Double Shear Nailing prevents tabs breaking off (available on some models).
U.S. Patent 5,603,580



Double Shear Nailing Top View.



LIMIT STATES DESIGN

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HUS/LJS – Double Shear Joist Hangers

SIMPSON
Strong-Tie

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

Material: See table

Finish: G90 galvanized

Design:

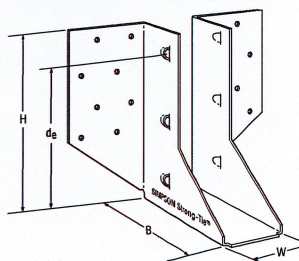
- Factored resistances are in accordance with CSA O86 -14.
- Uplift resistances have been increased 15%. No further increase is permitted.
- Wood shear is not considered in the factored resistances given. The specifier must ensure that the joist and header capacities are capable of withstanding these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

Installation:

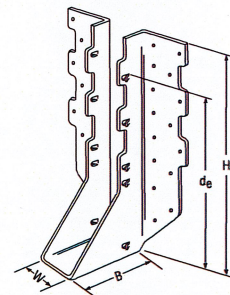
- Use all specified fasteners
- Nails: 16d = 0.162" dia. x 3½" long common wire
- Double shear nails must be driven at an angle through the joist or truss into the header to achieve the table loads
- Not designed for welded or nailer applications

Options:

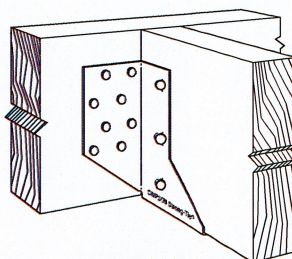
- See current catalogue for options



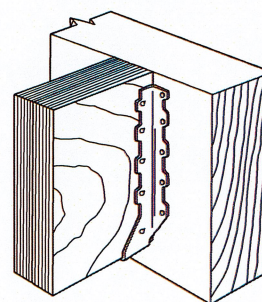
LJS26DS



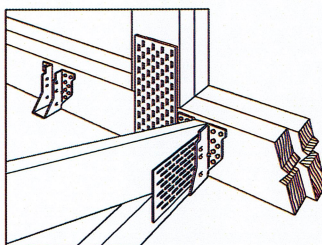
HUS210
(HUS26, HUS28, similar)



Typical LJS26DS
Installation



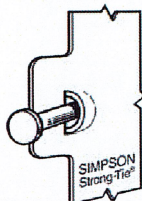
Typical HUS
Installation



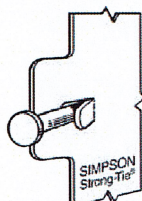
Typical HUS Installation
(Truss Designer to provide fastener
quantity for connecting multiple
members together)

Model No.	Ga.	Dimensions (in.)				Fasteners		Factored Resistance (lb.)			
		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	1½	5	3½	4⅝	(16) 16d	(6) 16d	2055	4265	1460	4115
HUS26	16	1⅝	5⅝	3	3½	(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	1⅝	9	3	8	(30) 16d	(10) 16d	4505	6450	4010	5200

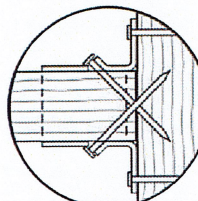
1. d_e is the distance from the seat of the hanger to the highest joist nail.



Dome Double Shear Nailing prevents tabs breaking off (available on some models).
U.S. Patent 5,603,580



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



Double Shear Nailing Top View.



LIMIT
STATES
DESIGN

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HHUS – Double Shear Joist Hangers

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:

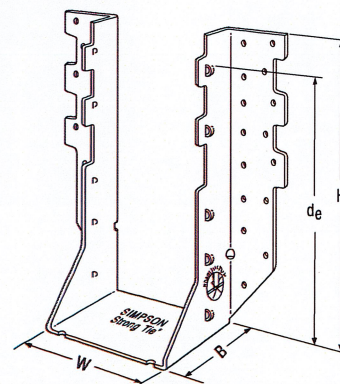
- Factored resistances are in accordance with CSA O86-14.
- Uplift resistances have been increased 15%. No further increase is permitted.
- Wood shear is not considered in the factored resistances given. The specifier must ensure that the joist and header capacities are capable of withstanding these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

Installation:

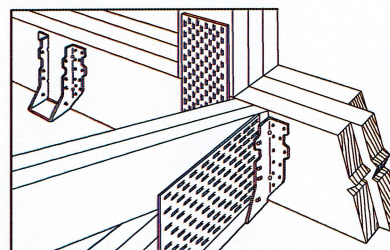
- Use all specified fasteners
- Nails: 16d = 0.162" dia. x 3½" long common wire
- Double shear nails must be driven at an angle through the joist or truss into the header to achieve the table loads
- Not designed for welded or nailer applications

Options:

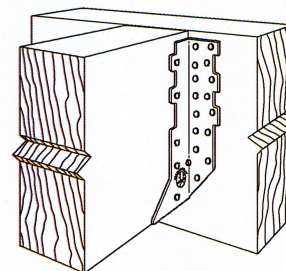
- See current catalogue for options



HHUS410



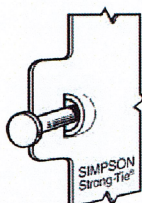
Typical HHUS Installation
(Truss Designer to provide fastener quantity for connecting multiple members together)



Typical HHUS Installation

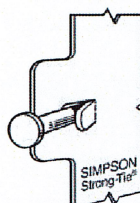
Model No.	Ga.	Dimensions (in.)				Fasteners		Factored Resistance (lb.)			
		W	H	B	d _e ¹	Face	Joist	D.Fir-L		S-P-F	
								Uplift (K ₀ =1.15)	Normal (K ₀ =1.00)	Uplift (K ₀ =1.15)	Normal (K ₀ =1.00)
HHUS26-2	14	3 5/16	5 13/16	3	3 15/16	(14) 16d	(6) 16d	2850	7335	2065	5205
HHUS28-2	14	3 5/16	7 1/2	3	6 5/32	(22) 16d	(8) 16d	3765	8940	2675	6345
HHUS210-2	14	3 5/16	9 3/32	3	8	(30) 16d	(10) 16d	4670	9660	4235	7000
HHUS210-3	14	4 11/16	9	3	7 15/16	(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 3/8	5 13/32	3	3 15/16	(14) 16d	(6) 16d	2540	7335	2065	5205
HHUS48	14	3 3/8	7 1/8	3	6 1/8	(22) 16d	(8) 16d	3765	8940	2675	6345
HHUS410	14	3 3/8	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 3/8	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.

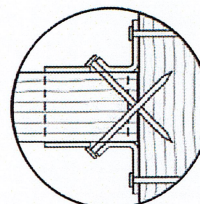


Dome Double Shear Nailing prevents tabs breaking off (available on some models).

U.S. Patent
5,603,580



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



Double Shear Nailing Top View.



LIMIT
STATES
DESIGN

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TC – Truss Connectors

SIMPSON
Strong-Tie

The TC truss connector is an ideal connector for scissor trusses and can allow horizontal movement up to 1¼". The TC also attaches plated trusses to top plates or sill plates to resist uplift forces. Typically used on one or both ends of truss as determined by the building designer.

Material: 16 gauge

Finish: G90 galvanized

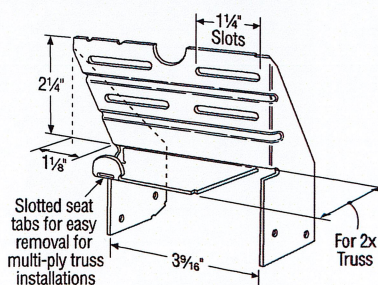
Design: Factored resistances are in accordance with CSA 086-14

Installation:

- Use all specified fasteners.
- Nails: 10d = 0.148" dia. x 3" long common wire, 10d x 1½" = 0.148" dia. x 1½" long.
- Drive 10d nails into the truss at the inside end of the slotted holes (inside end is towards the centre of the truss) and clinch on the back side. Do not seat these nails into the truss—allow room under the nail head for movement of the truss with respect to the wall.

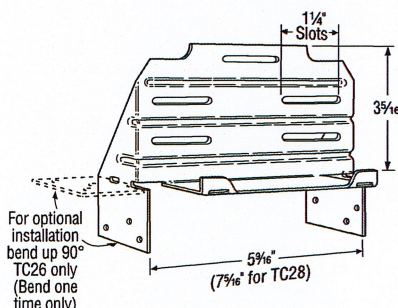
Optional TC Installation:

- Bend one flange up 90°. Drive specified nails into the top and face of the top plates or install Titen® screws into the top and face of masonry wall. See optional load tables and installation details.



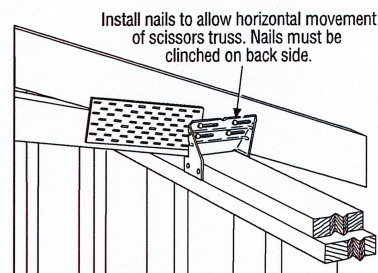
TC24

U.S. Patent 4,932,173

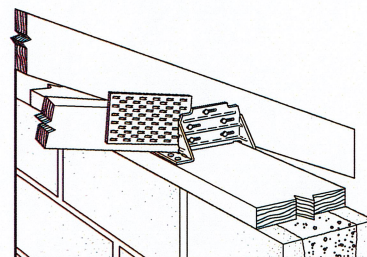


TC26

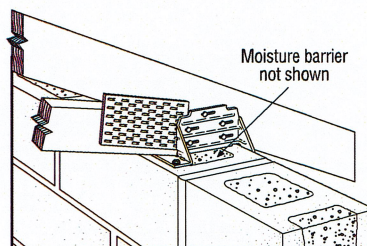
(TC28 Similar)



Typical TC24 Installation



Optional TC26 Installation for Grouted Concrete Block using a Wood Nailer
(8", 10", 12" Wall Installation Similar)



Optional TC26 Installation for Grouted Concrete Block using Titen Screws

Model No.	Fasteners		Factored Resistance	
	Truss	Wall Plates	D.Fir-L	S-P-F
			Uplift (K ₀ =1.15)	Uplift (K ₀ =1.15)
TC24	(4) 10d	(4) 10d	605	430
TC26	(5) 10d	(6) 10d	1015	720
TC28	(5) 10d	(6) 10d	1015	720

Optional TC Installation Table

Model No.	Fasteners		Factored Resistance	
	Truss	Wall Plates	D.Fir-L	S-P-F
			Uplift (K ₀ =1.15)	Uplift (K ₀ =1.15)
TC26	(5) 10d	(6) 10d x 1½"	810	660
	(5) 10d	(6) 10d	930	660

1. Factored resistances have been increased 15% for earthquake or wind loading; no further increase allowed; reduce where other loads govern.
2. Grout strength is 15 MPa minimum.
3. Optional TC26 installation with 10d nails requires minimum 3" top plate thickness.
4. TC26 fastened to grouted concrete block with (6) – ¾" x 2¼" Titen screws has a factored uplift resistance of 275 lb.



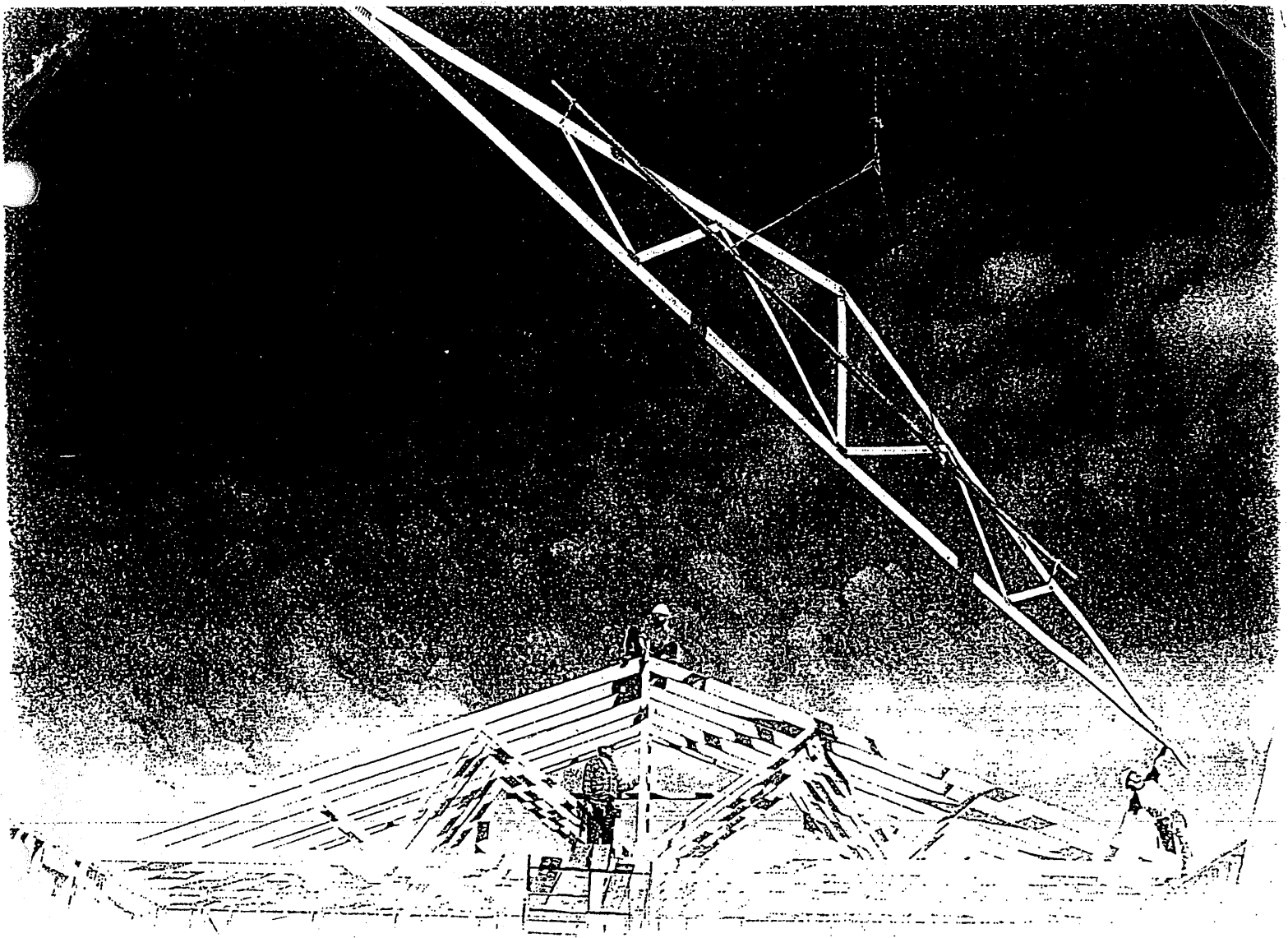
**LIMIT
STATES
DESIGN**

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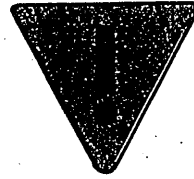
Wood Truss Installation

**A Guide to proper handling, erecting and bracing
metal plate connected wood trusses**

Table of Content

Warning.....	4
1 Unloading & Lifting.....	5
2 Job Site Handling.....	5
3 Hoisting.....	6
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5 Erection Tolerance.....	8
6 Bracing.....	8
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

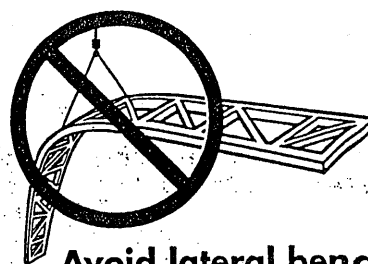
Special design requirements, such as wind bracing, portal bracing, seismic bracing, diaphragms, shear walls, or other load transfer elements and their connections to wood trusses must be considered separately by the building designer, who shall determine size, location, and method of connections for 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.

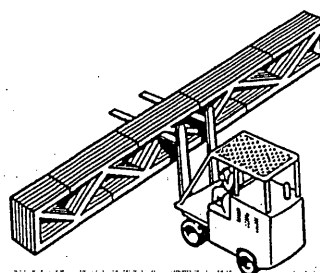
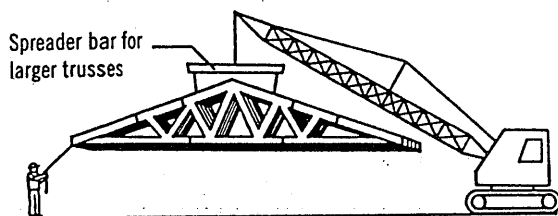


Avoid lateral bending

- 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.

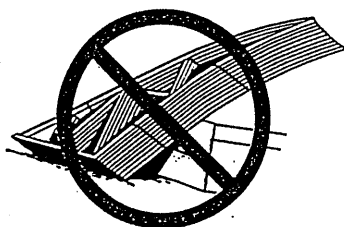
2

Job Site Handling



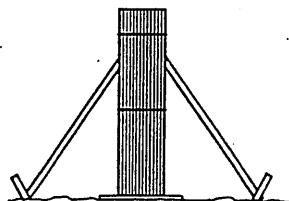
All trusses should be picked up at the top chords in a vertical position only

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.



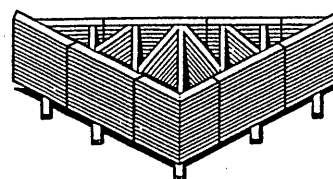
Do not store unbraced bundles upright

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.

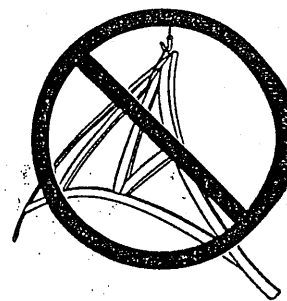


Care should be exercised when removing banding to avoid damaging trusses.

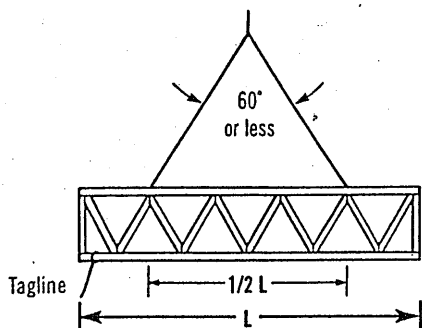
During long term storage, trusses shall be protected from the environment in a manner that provides for adequate ventilation of the trusses. If tarpaulins or other material is used, the ends shall be left open for ventilation. Plastic is not recommended, since it can trap moisture.

3 Hoisting

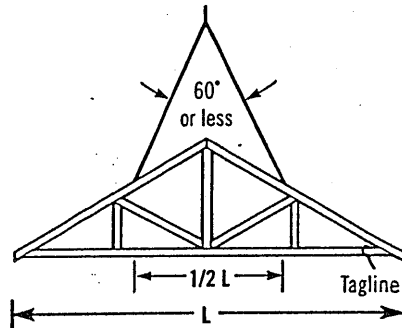
All trusses that are erected one at a time shall be held safely in position by the erection equipment until such time as all necessary bracing has been installed and the ends of the trusses are securely fastened to the building.



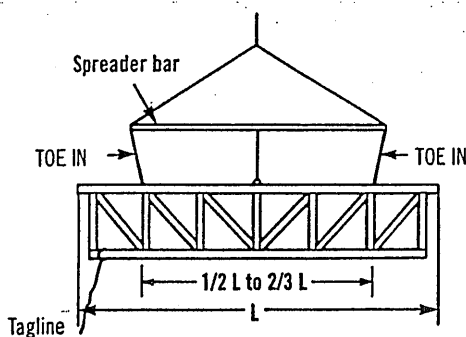
Avoid lateral bending



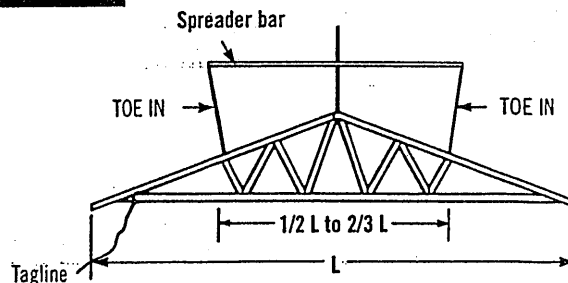
$L \leq 30'$



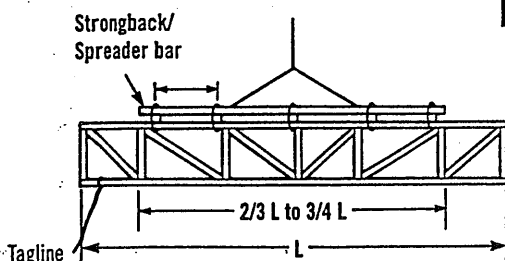
Truss sling is acceptable where these criteria are met.



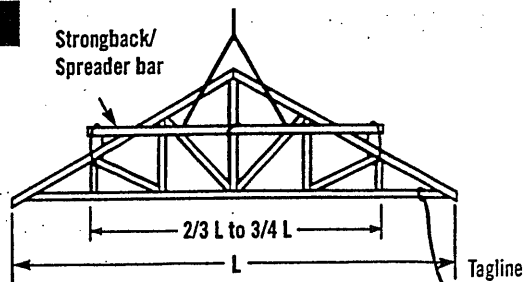
$30' < L \leq 60'$



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.



$L > 60'$



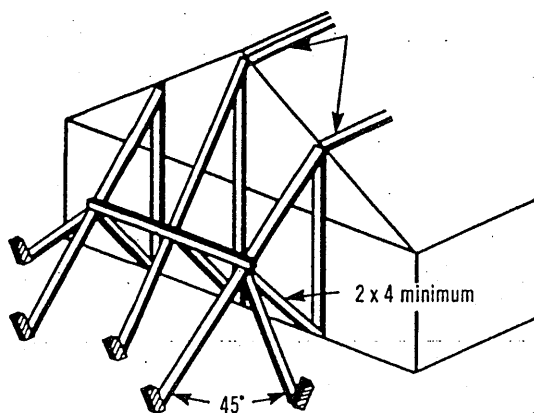
For lifting trusses with spans in excess of 60 feet, it is recommended that a strongback/spreader bar be used as illustrated. The strongback/spreader bar should be attached to the top chord and web members at intervals of approximately 10 feet. Further, the strongback/spreader bar should be at or above 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

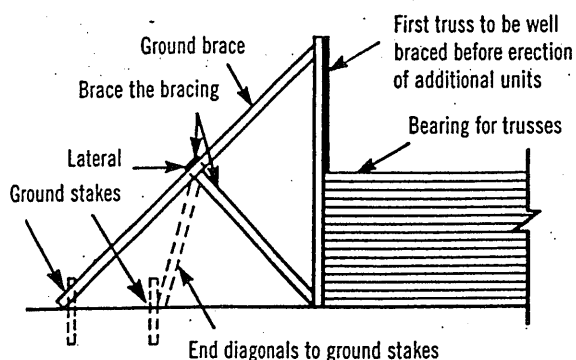
It is important for the builder or erection contractor to provide substantial bracing for the first truss erected. The two or more trusses making up the rest of the first set are tied to and rely upon the first truss for stability. Likewise, after this first set of trusses is adequately cross-braced, 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.

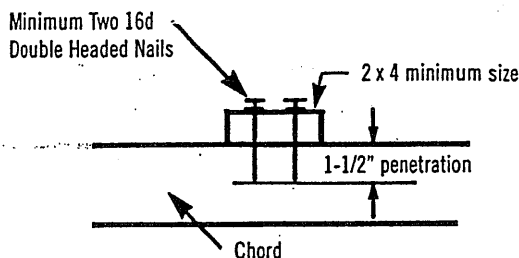
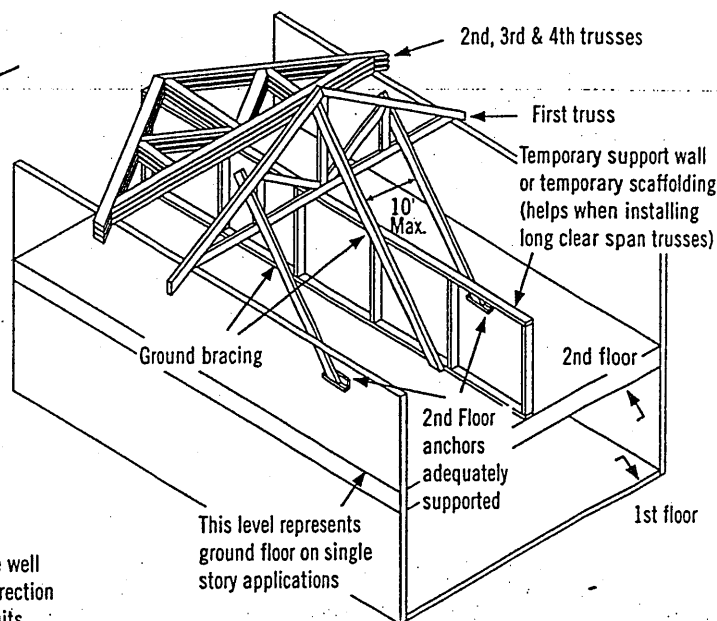


Note: Locate ground braces for first truss directly in line with all rows of top chord continuous lateral bracing (either temporary or permanent).



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.

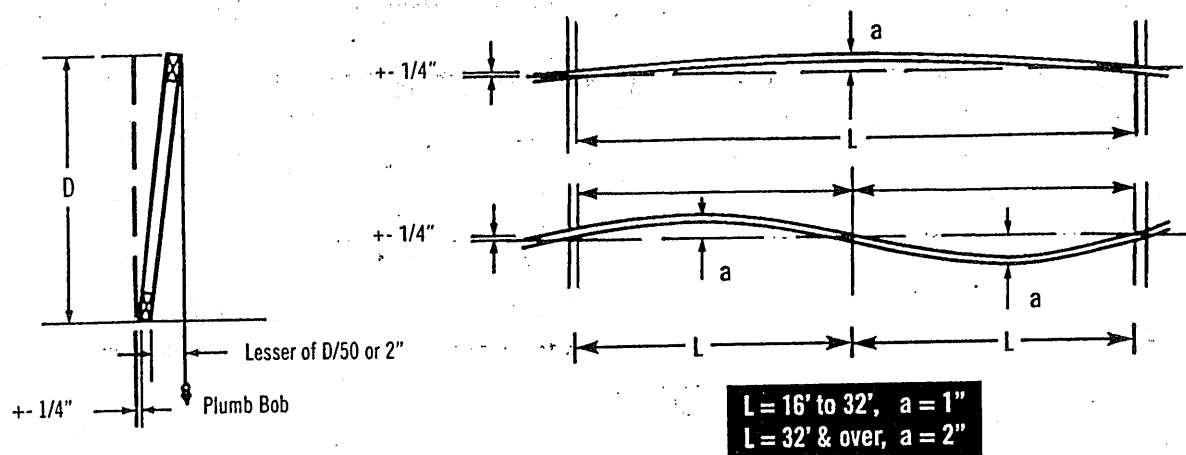


Inadequate size of bracing material or inadequate fastening is a major cause of erection dominoing.

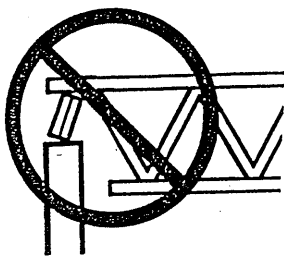
5 Erection Tolerance

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.

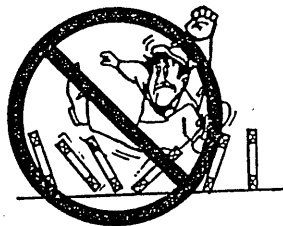
When sheathing, make sure nails are driven into the top chord of the trusses.



6 Bracing



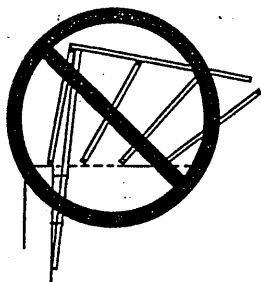
Do not install trusses on temporarily connected supports



Do not walk on unbraced trusses



Do not walk on trusses or gable ends lying flat

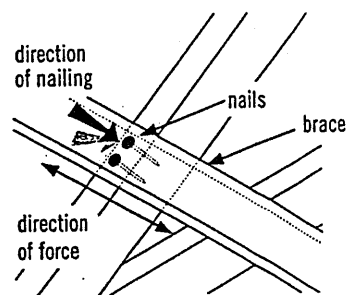


Nails in withdrawal (parallel to force)

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.



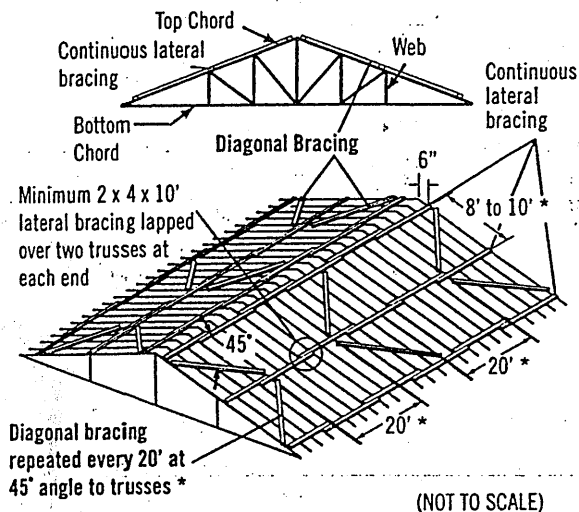
Well nailed (perpendicular to force)

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.

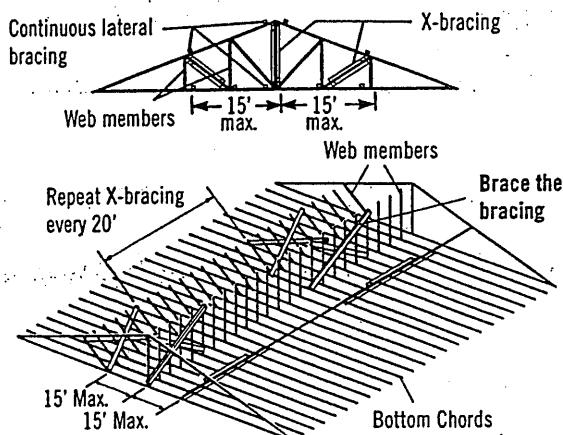


Exact spacing between trusses should be maintained as bracing is installed to avoid the hazardous practice of removing bracing to adjust spacing. This act of "adjusting spacing" can cause trusses to topple if connections are removed at the wrong time.

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.

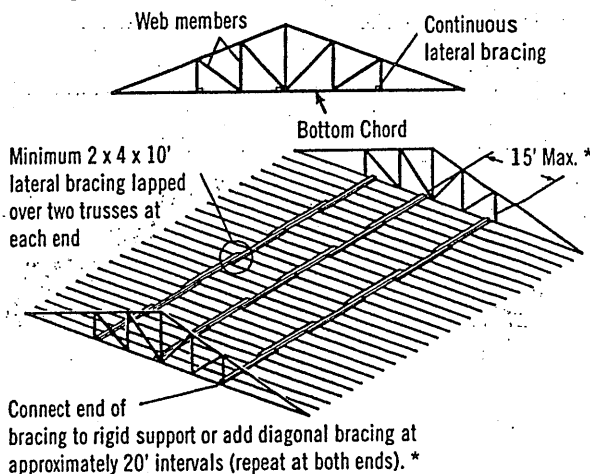
X-bracing should be installed on vertical web members wherever possible, at or near lateral bracing. Plywood or OSB may be substituted for X-bracing.



Note: Top chords and some web members are not shown, in order to make drawings more readable.

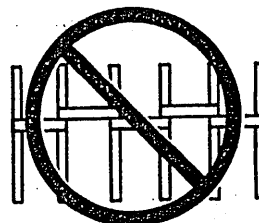
2) Bottom Chord Plane

In order to hold proper spacing on the bottom chord, temporary bracing is recommended on the top of the bottom chord.

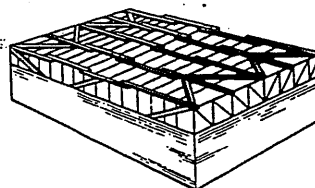


* Long spans, heavy loads or other spacing configurations may require closer spacing between lateral bracing and closer intervals between diagonals. Consult the building designer or HIB and DSB (Recommended Design Specification for Temporary Bracing of Metal-Plate Connected Wood Trusses) for details.

Diagonal or cross-bracing is very important!



Do not use short blocks to brace individual trusses without a specific bracing plan detailing their use

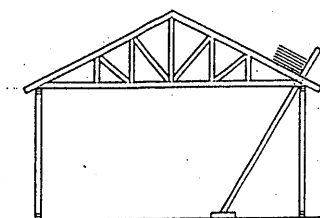
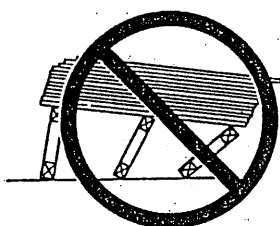


Bracing requirements using the same principles apply to parallel chord trusses

8 Stacking Materials

Do not proceed with building completion until all bracing is securely and properly in place

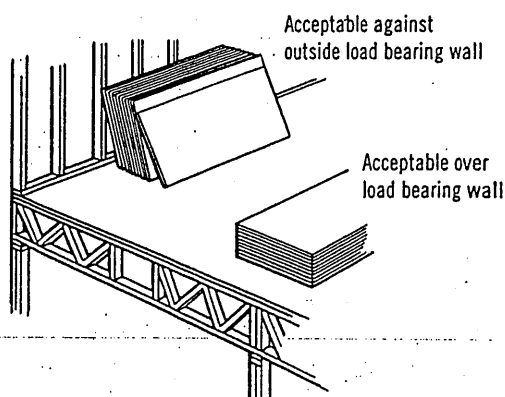
Never stack materials on unbraced or inadequately braced trusses



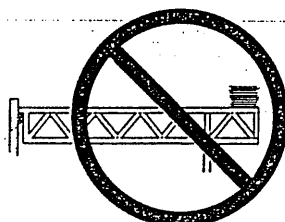
Platform must be rigidly braced

Proper distribution of construction materials is a must during construction.

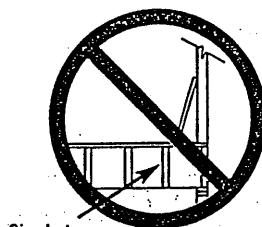
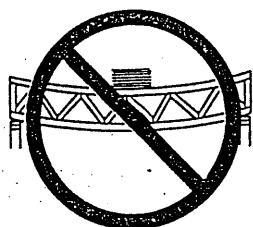
Never stack materials near a peak



Never stack materials on the cantilever of a truss

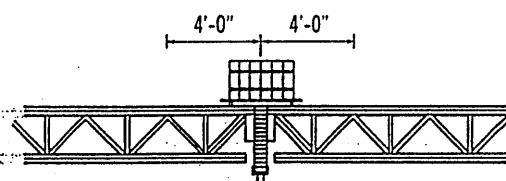


Always stack materials over two or more trusses.



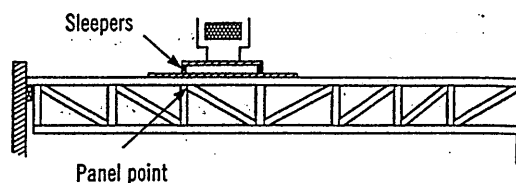
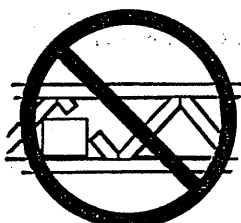
Single truss

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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