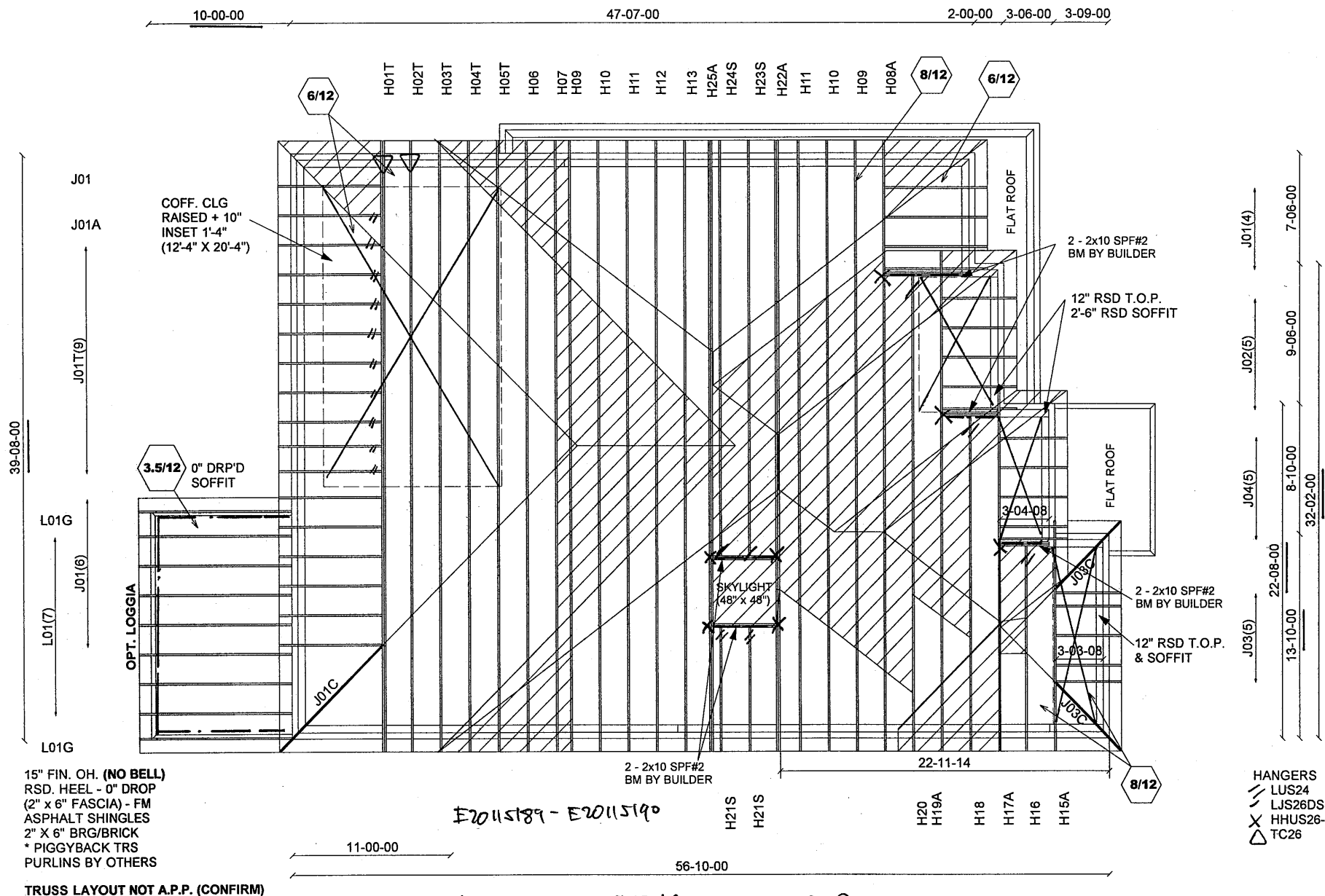




E20115215 - E20115244

ASPER

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

CONVENTIONAL
FRAMING BY
OTHERS



Job Track: 45147

Layout ID: 324088

Plan Log: 106926

Builder / Location:

GOLD PARK HOMES / VAUGHAN

Project: PINE VALLEY

Date: 2020-09-24

Designer: emozes

Model / Elevation:

5009

/ C SKYLIGHT

OR OPT LOGGIA

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.

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

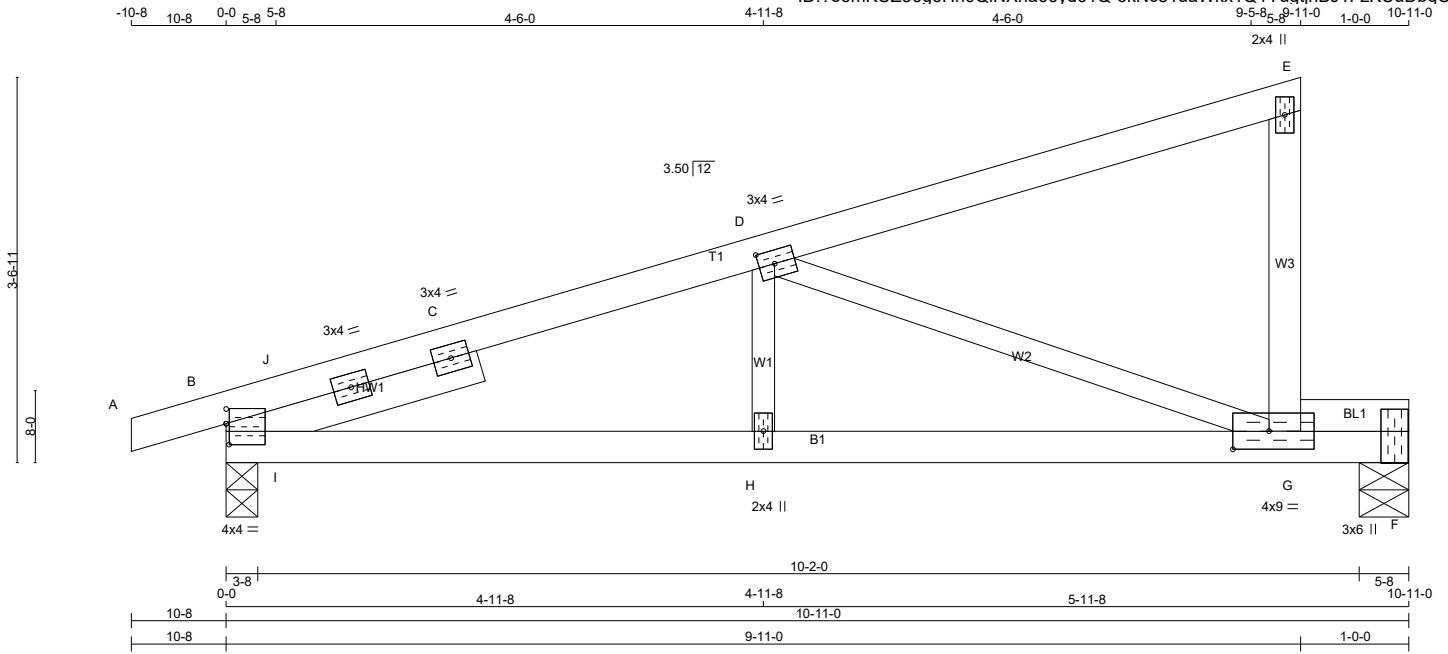
1. Trusses designed by EWP DESIGN INC. conform to the relevant section of the Ontario Building Code of Canada (Part 9 or Part 4) or to the Canadian code for farm buildings, whichever applies to the building type, as indicated on the EWP DESIGN INC. drawings, and conform to the design procedures established 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.

Alpa Roof Truss, Maple

Version 8.330 S May 6 2020 MiTek Industries, Inc. Fri Nov 20 13:44:30 2020 Page 1
ID:?e6mKUZ36g6Hh0QiNXna66yd61Q-6kNc81uaWkx1Q1YugtjnBJ1FzKUuDbqC4ctH0tyHHfl

Scale = 1:21.3



TOTAL WEIGHT = 7 X 38 = 265 lb

 $\overline{M}[F]$

N. L. G. A. RULES				
CHORDS	SIZE		LUMBER	DESCR
A - E	2x4	DRY	No.2	SPF
G - E	2x4	DRY	No.2	SPF
B - F	2x4	DRY	No.2	SPF
REINFORCING MEMBERS				
HW1	2x4	DRY	No.2	SPF
BEARING BLOCKS				
BL1	2x4	DRY	No.2	SPF
ALL WEBS	2x3	DRY	No.2	SPF
DRY: SEASONED LUMBER.				

JT	TYPE	PLATES	W	LEN	Y	X
B	TMBMR-1	MT20	4.0	4.0	2.25	0.25
B	RT-t	MT20	3.0	4.0		
B	RT-t	MT20	3.0	4.0		
B	TP+p	MT20	3.0	6.0	1.50	
D	TMWW-t	MT20	3.0	4.0	1.50	1.75
E	TMV+p	MT20	2.0	4.0		
G	BMVVK-t	MT20	4.0	9.0	2.00	4.00
H	BMW+w	MT20	2.0	4.0		

	FACTORED GROSS REACTION		MAXIMUM FACTORED GROSS REACTION			INPUT BRG	REQRD
JT	VERT	HORZ	DOWN	HORZ	UPLIFT	IN-SX	IN-SX
B	594	0	594	0	0	3-8	1-8
F	452	0	452	0	0	5-8	1-8

1ST LCASE		MAX./MIN. COMPONENT REACTIONS					
JT	COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
B	422	266 / 0	0 / 0	0 / 0	0 / 0	157 / 0	0 / 0
F	324	189 / 0	0 / 0	0 / 0	0 / 0	135 / 0	0 / 0

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

TOTAL LOAD CASES: (4)

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)	FACTORED MAX CSI (LC)		
FR-TO		FROM TO			FR-TO				
A-B	-4 / 0	-78.0	-78.0 0.03 (1)	10.00	H-D	0 / 243	0.06 (4)		
B-J	-684 / 0	-78.0	-78.0 0.01 (4)	6.25	D-G	-994 / 0	0.43 (1)		
J-C	-735 / 0	-78.0	-78.0 0.15 (1)	6.25	I-J	0 / 250	0.00 (1)		
C-D	-735 / 0	-78.0	-78.0 0.15 (1)	6.25	I-C	-509 / 0	0.06 (1)		
D-E	-8 / 0	-78.0	-78.0 0.23 (1)	10.00					
G-E	-165 / 0	0.0	0.0 0.03 (1)	7.81					
B-I	0 / 507	-18.5	-18.5 0.11 (1)	10.00					
I-H	0 / 934	-18.5	-18.5 0.35 (1)	10.00					
H-G	0 / 934	-18.5	-18.5 0.75 (1)	10.00					
G-F	0 / 0	-18.5	-18.5 0.60 (1)	10.00					

SPECIFIED LOADS:

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

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

(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=0.23/1.00 (D-E:1), BC=0.75/1.00 (G-H:1),
WB=0.43/1.00 (D-G:1), SSI=0.35/1.00 (F-G:1)

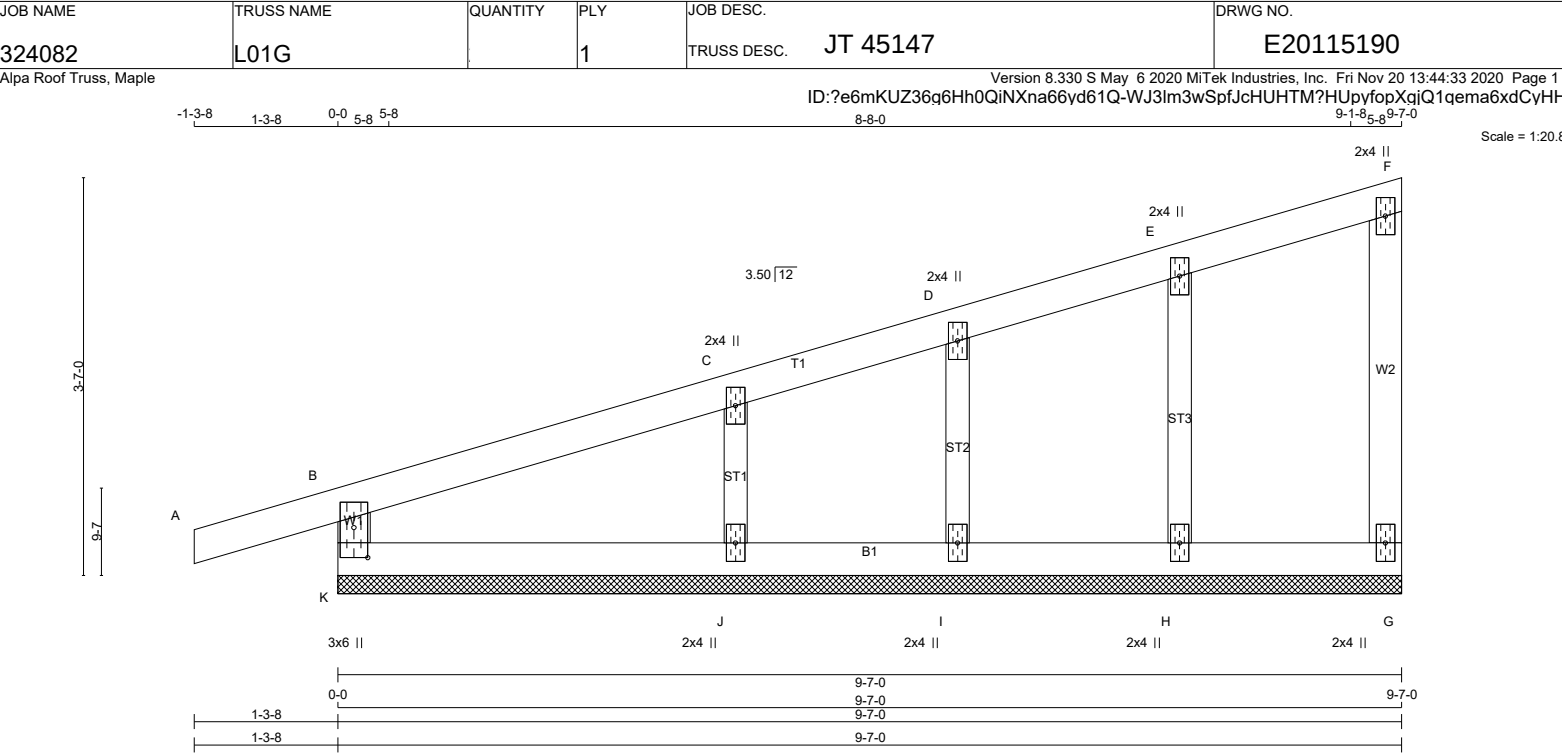
COMPANION LIVE LOAD FACTOR = 1.00

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

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.86 (D) (INPUT = 0.90)
JSI METAL= 0.32 (B) (INPUT = 1.00)



LUMBER N. L. G. A. RULES CHORDS SIZE LUMBER DESCR. K - B 2x4 DRY No.2 SPF A - F 2x4 DRY No.2 SPF G - F 2x4 DRY No.2 SPF K - G 2x4 DRY No.2 SPF ALL WEBS 2x3 DRY No.2 SPF ALL GABLE WEBS 2x3 DRY No.2 SPF DRY: SEASONED LUMBER. GABLE STUDS SPACED AT 2-0-0 OC.					DIMENSIONS, SUPPORTS AND LOADINGS SPECIFIED BY FABRICATOR TO BE VERIFIED BY BUILDING DESIGNER BEARINGS THIS TRUSS DESIGNED FOR CONTINUOUS BEARINGS. THIS TRUSS REQUIRES RIGID SHEATHING ON EXPOSED FACE. BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S) BRACING TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 6.25 FT. MAX. UNBRACED BOTTOM CHORD LENGTH = 10.00 FT OR RIGID CEILING DIRECTLY APPLIED. ALL PITCH BREAKS AND PERIMETER CORNER JOINTS MUST BE Laterally RESTRAINED. LOADING TOTAL LOAD CASES: (4)					DESIGN CRITERIA SPECIFIED LOADS: TOP CH. LL = 21.0 PSF DL = 6.0 PSF BOT CH. LL = 0.0 PSF DL = 7.4 PSF TOTAL LOAD = 34.4 PSF SPACING = 24.0 IN. C/C THIS TRUSS IS DESIGNED FOR RESIDENTIAL OR SMALL BUILDING REQUIREMENTS OF PART 9, NBCC 2015 THIS DESIGN COMPLIES WITH: - PART 9 OF BCBC 2018 , ABC 2019 - PART 9 OF OBC 2012 (2019 AMENDMENT) - CSA 086-14 - TPIC 2014 DESIGN ASSUMPTIONS -OVERHANG NOT TO BE ALTERED OR CUT OFF. (55 % OF 23.0 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 21.0 P.S.F. SPECIFIED ROOF LIVE LOAD CSI: TC=0.13/1.00 (B-C:1) , BC=0.04/1.00 (J-K:4) , WB=0.03/1.00 (C-J: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																																																																																																																																											
PLATES (table is in inches) JT TYPE PLATES W LEN Y X B C, D, E C TMW+w MT20 2.0 4.0 F TMV+p MT20 2.0 4.0 G BMV1+p MT20 2.0 4.0 H, I, J H BMW1+w MT20 2.0 4.0 K K TMBMV1+p MT20 3.0 6.0 3.25 1.50					<table><tr><th colspan="5">CHORDS</th><th colspan="5">WEBS</th></tr><tr><th>MEMB.</th><th>MAX. FACTORED FORCE (LBS)</th><th>FACTORED VERT. LOAD (PLF)</th><th>LC1 MAX CSI (LC)</th><th>MAX. UNBRACED LENGTH</th><th>MEMB.</th><th>MAX. FACTORED FORCE (LBS)</th><th>MAX CSI (LC)</th><th></th><th></th></tr><tr><td>FR-TO</td><td></td><td>FROM TO</td><td></td><td></td><td>FR-TO</td><td></td><td></td><td></td><td></td></tr><tr><td>K- B</td><td>-257 / 0</td><td>0.0 0.0</td><td>0.04 (4)</td><td>7.81</td><td>H- E</td><td>-172 / 0</td><td>0.03 (1)</td><td></td><td></td></tr><tr><td>A- B</td><td>0 / 15</td><td>-78.0 -78.0</td><td>0.10 (1)</td><td>10.00</td><td>I- D</td><td>-128 / 0</td><td>0.02 (1)</td><td></td><td></td></tr><tr><td>B- C</td><td>-20 / 0</td><td>-78.0 -78.0</td><td>0.13 (1)</td><td>6.25</td><td>J- C</td><td>-225 / 0</td><td>0.03 (1)</td><td></td><td></td></tr><tr><td>C- D</td><td>-17 / 0</td><td>-78.0 -78.0</td><td>0.08 (1)</td><td>6.25</td><td></td><td></td><td></td><td></td><td></td></tr><tr><td>D- E</td><td>-7 / 0</td><td>-78.0 -78.0</td><td>0.04 (1)</td><td>10.00</td><td></td><td></td><td></td><td></td><td></td></tr><tr><td>E- F</td><td>-8 / 0</td><td>-78.0 -78.0</td><td>0.04 (1)</td><td>10.00</td><td></td><td></td><td></td><td></td><td></td></tr><tr><td>G- F</td><td>-69 / 0</td><td>0.0 0.0</td><td>0.02 (1)</td><td>7.81</td><td></td><td></td><td></td><td></td><td></td></tr><tr><td>K- J</td><td>0 / 17</td><td>-18.5 -18.5</td><td>0.04 (4)</td><td>10.00</td><td></td><td></td><td></td><td></td><td></td></tr><tr><td>J- I</td><td>0 / 11</td><td>-18.5 -18.5</td><td>0.04 (4)</td><td>10.00</td><td></td><td></td><td></td><td></td><td></td></tr><tr><td>I- H</td><td>0 / 8</td><td>-18.5 -18.5</td><td>0.02 (4)</td><td>10.00</td><td></td><td></td><td></td><td></td><td></td></tr><tr><td>H- G</td><td>0 / 6</td><td>-18.5 -18.5</td><td>0.02 (4)</td><td>10.00</td><td></td><td></td><td></td><td></td><td></td></tr></table>					CHORDS					WEBS					MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	LC1 MAX CSI (LC)	MAX. UNBRACED LENGTH	MEMB.	MAX. FACTORED FORCE (LBS)	MAX CSI (LC)			FR-TO		FROM TO			FR-TO					K- B	-257 / 0	0.0 0.0	0.04 (4)	7.81	H- E	-172 / 0	0.03 (1)			A- B	0 / 15	-78.0 -78.0	0.10 (1)	10.00	I- D	-128 / 0	0.02 (1)			B- C	-20 / 0	-78.0 -78.0	0.13 (1)	6.25	J- C	-225 / 0	0.03 (1)			C- D	-17 / 0	-78.0 -78.0	0.08 (1)	6.25						D- E	-7 / 0	-78.0 -78.0	0.04 (1)	10.00						E- F	-8 / 0	-78.0 -78.0	0.04 (1)	10.00						G- F	-69 / 0	0.0 0.0	0.02 (1)	7.81						K- J	0 / 17	-18.5 -18.5	0.04 (4)	10.00						J- I	0 / 11	-18.5 -18.5	0.04 (4)	10.00						I- H	0 / 8	-18.5 -18.5	0.02 (4)	10.00						H- G	0 / 6	-18.5 -18.5	0.02 (4)	10.00					
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LATERAL BRACE(S) SHOWN SHALL BE 2X4 SPF#2



JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
324088	H01T		2	TRUSS DESC. JT 45147	E20115215(2)

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

PLATES (table is in inches)

JT	TYPE	PLATES	W	LEN	Y	X
B	TMVW-p	MT20	4.0	9.0	1.00	5.00
C	TMVW-t	MT20	3.0	5.0	1.50	2.25
D	TTWW+m	MT20	5.0	8.0	Edge	
E	TMWW-t	MT20	4.0	4.0	2.00	1.50
F	TMWW-t	MT20	4.0	4.0		
G	TMWW-t	MT20	4.0	4.0		
H	TS-t	MT20	4.0	6.0		
I	TMV+p	MT20	2.0	4.0		
J	TMWW-t	MT20	5.0	6.0	2.50	2.25
K	TTWW+m	MT20	5.0	8.0	Edge	
L	TMWW-t	MT20	4.0	6.0	1.75	2.25
M	TMV+p	MT20	2.0	4.0		
O	BMVW1-t	MT20	5.0	8.0		
P, U, Y						
P	BMWW-t	MT20	4.0	4.0		
Q	BS-t	MT20	4.0	6.0		
R	BMWWW-t	MT20	5.0	10.0	2.00	4.50
S	BMV+p	MT20	2.0	4.0		
T	BVMWWW-I	MT20	7.0	12.0	4.75	4.00
V	BMWW-t	MT20	4.0	4.0	2.00	1.50
W	BS-t	MT20	5.0	6.0		
X	BMWW-t	MT20	4.0	6.0	2.00	2.50
Z	BVMWWW-I	MT20	5.0	14.0		
AA	BMV+p	MT20	2.0	4.0		
AB	BMVW1-t	MT20	4.0	6.0		

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

CONNECTION REQUIREMENTS

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

COMPANION LIVE LOAD FACTOR = 1.00

AUTOSOLVE HEELS OFF

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

NAIL VALUES

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

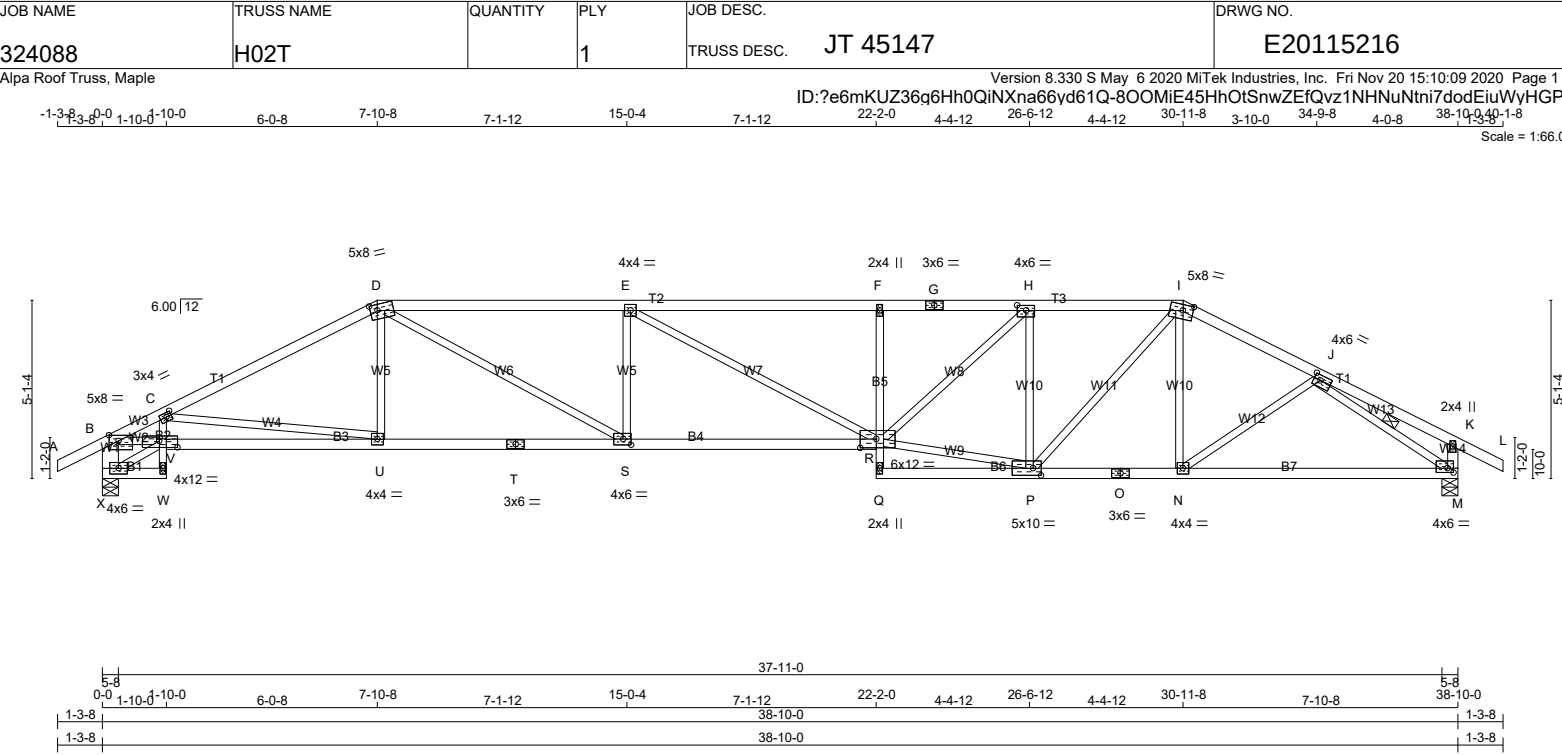
PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.90 (B) (INPUT = 0.90)
JSI METAL= 0.96 (W) (INPUT = 1.00)

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



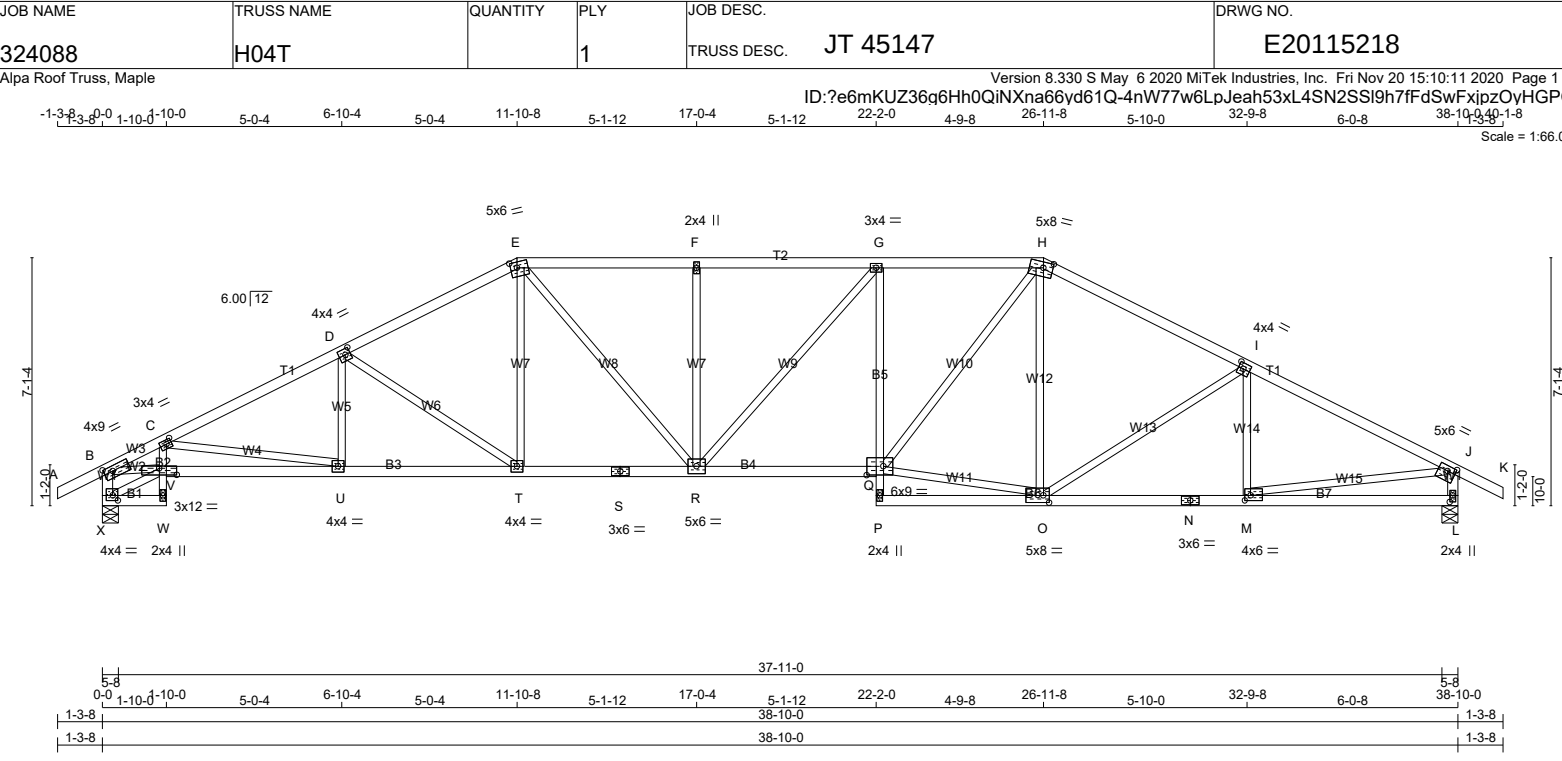


LUMBER N. L. G. A. RULES CHORDS SIZE LUMBER DESCR. A - D 2x4 DRY No.2 SPF D - G 2x4 DRY 1650F 1.5E SPF G - I 2x4 DRY 1650F 1.5E SPF I - L 2x4 DRY No.2 SPF X - B 2x6 DRY No.2 SPF M - K 2x4 DRY No.2 SPF X - W 2x4 DRY No.2 SPF W - C 2x3 DRY No.2 SPF V - T 2x4 DRY No.2 SPF T - R 2x4 DRY No.2 SPF Q - F 2x3 DRY No.2 SPF Q - O 2x4 DRY No.2 SPF O - M 2x4 DRY No.2 SPF ALL WEBS 2x3 DRY No.2 SPF EXCEPT DRY: SEASONED LUMBER.				DIMENSIONS, SUPPORTS AND LOADINGS SPECIFIED BY FABRICATOR TO BE VERIFIED BY BUILDING DESIGNER BEARINGS FACTORED GROSS REACTION MAXIMUM FACTORED GROSS REACTION INPUT REQ'D JT VERT HORZ DOWN HORZ UPLIFT IN-SX BRG M 1977 0 1977 0 0 5-8 2-2 X 1981 0 1981 0 0 5-8 2-2 <u>ALLOW FOR 0.3" OF HORIZONTAL MOVEMENT DUE TO TOTAL LOAD</u> UNFACTORED REACTIONS 1ST LCASE MAX./MIN. COMPONENT REACTIONS JT COMBINED SNOW LIVE PERM.LIVE WIND DEAD SOIL M 1407 871 / 0 0 / 0 0 / 0 536 / 0 0 / 0 X 1410 873 / 0 0 / 0 0 / 0 537 / 0 0 / 0 BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S) M, X BRACING TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 3.15 FT. MAX. UNBRACED BOTTOM CHORD LENGTH = 7.81 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-M. 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) UNBRAC LENGTH FR-TO MEMB. MAX. FACTORED FORCE (LBS) MAX. CSI (LC) FR-TO A-B 0 / 24 -78.0 -78.0 0.10 (1) 10.00 C-U -758 / 0 0.56 (1) B-C -4011 / 0 -78.0 -78.0 0.38 (1) 3.18 U-D 0 / 224 0.06 (4) C-D -3325 / 0 -78.0 -78.0 0.81 (1) 3.23 D-S 0 / 1692 0.38 (1) D-E -4448 / 0 -78.0 -78.0 0.95 (1) 3.17 S-E -681 / 0 0.19 (1) E-F -4514 / 0 -78.0 -78.0 0.98 (1) 3.15 E-R 0 / 75 0.02 (1) F-G -4499 / 0 -78.0 -78.0 0.38 (1) 3.56 R-P 0 / 3284 0.74 (1) G-H -4499 / 0 -78.0 -78.0 0.38 (1) 3.56 R-H 0 / 1642 0.37 (1) H-I -3274 / 0 -78.0 -78.0 0.24 (1) 4.22 P-H -1453 / 0 0.56 (1) I-J -2770 / 0 -78.0 -78.0 0.27 (1) 3.96 P-I 0 / 1209 0.27 (1) J-K 0 / 12 -78.0 -78.0 0.15 (1) 10.00 N-I 0 / 0 0.03 (4) L 04 (4) M 58 (1) N 02 (1) O 81 (1) A-W 0 / 100 -10.0 -10.0 0.03 (1) 10.00 V-V 0 / 18 0.0 0.0 0.25 (1) 10.00 W-C 0 / 63 0.0 0.0 0.25 (1) 10.00 V-U 0 / 3713 -18.5 -18.5 0.70 (1) 10.00 U-T 0 / 2969 -18.5 -18.5 0.58 (1) 10.00 T-S 0 / 2969 -18.5 -18.5 0.58 (1) 10.00 S-R 0 / 4448 -18.5 -18.5 0.84 (1) 10.00 Q-R 0 / 42 0.0 0.0 0.16 (1) 10.00 R-F -440 / 0 0.0 0.0 0.20 (1) 7.81 Q-P 0 / 69 -18.5 -18.5 0.09 (4) 10.00 P-O 0 / 2466 -18.5 -18.5 0.52 (1) 10.00 O-N 0 / 2466 -18.5 -18.5 0.52 (1) 10.00 N-M 0 / 2348 -18.5 -18.5 0.52 (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 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 (1.29") CALCULATED VERT. DEFL.(LL) = L/ 999 (0.33") ALLOWABLE DEFL.(TL)= L/360 (1.29") CALCULATED VERT. DEFL.(TL) = L/ 648 (0.72") CSI: TC=0.98/1.00 (E-F:1) , BC=0.84/1.00 (R-S:1) , WB=0.81/1.00 (B-V:1) , SSI=0.26/1.00 (D-E:1) , DOL LUMBER=1.00 NAIL=1.00 LS BEND=1.10 COMP=1.10 SHEAR=1.10 TENS= 1.10 COMPANION LIVE LOAD FACTOR = 1.00 AUTOSOLVE RIGHT HEEL ONLY TRUSS PLATE MANUFACTURER IS NOT RESPONSIBLE FOR QUALITY CONTROL IN THE TRUSS MANUFACTURING PLANT . NAIL VALUES PLATE GRIP(DRY) SHEAR SECTION (PSI) (PLI) (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 (V) (INPUT = 0.90) JSI METAL= 0.94 (T) (INPUT = 1.00)			
PLATES (table is in inches) JT TYPE PLATES W LEN Y X B TMVW-p MT20 5.0 8.0 2.00 3.25 C TMVW-t MT20 3.0 4.0 1.50 1.75 D TTWW-m MT20 5.0 8.0 2.00 2.50 E TMVW-t MT20 4.0 4.0 F TMV+p MT20 2.0 4.0 G TS-t MT20 3.0 6.0 H TMVW-t MT20 4.0 6.0 1.75 3.00 I TTWW-m MT20 5.0 8.0 2.00 3.50 J TMVW-t MT20 4.0 6.0 1.75 2.25 K TMV+p MT20 2.0 4.0 M BMVW-t MT20 4.0 6.0 1.50 2.00 N BMVW-t MT20 4.0 4.0 O BS-t MT20 3.0 6.0 P BMVW-t MT20 5.0 10.0 2.50 2.75 Q BMV+p MT20 2.0 4.0 R BVMW-t MT20 6.0 12.0 3.00 5.50 S BMVW-t MT20 4.0 6.0 2.00 2.75 T BS-t MT20 3.0 6.0 U BMVW-t MT20 4.0 4.0 V BVMW-t MT20 4.0 12.0 2.25 6.25 W BMV+p MT20 2.0 4.0				TOTAL WEIGHT = 155 lb [M]							
LATERAL BRACE(S) SHOWN SHALL BE 2X4 SPF#2				CONTINUED ON PAGE 2							





Scale = 1:66.0CONTINUED ON PAGE 2



LUMBER			
N. L. G. A. RULES			
CHORDS	SIZE	LUMBER	DESCR.
A - E	2x4	DRY	No.2
E - H	2x4	DRY	No.2
H - K	2x4	DRY	No.2
X - B	2x4	DRY	No.2
L - J	2x4	DRY	No.2
X - W	2x4	DRY	No.2
W - C	2x3	DRY	No.2
V - S	2x4	DRY	No.2
S - Q	2x4	DRY	No.2
P - G	2x3	DRY	No.2
P - N	2x4	DRY	No.2
N - L	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-t	MT20	4.0	9.0	1.75 3.00
C	TMVW-t	MT20	3.0	4.0	1.50 1.75
D	TMVW-t	MT20	4.0	4.0	2.00 1.75
E	TTWW-m	MT20	5.0	6.0	2.00 2.25
F	TMW+w	MT20	2.0	4.0	
G	TMVW-t	MT20	3.0	4.0	
H	TTWW-m	MT20	5.0	8.0	2.00 3.25
I	TMVW-t	MT20	4.0	4.0	2.00 1.75
J	TMVW-t	MT20	5.0	6.0	1.75 2.75
L	BMV1+p	MT20	2.0	4.0	2.25 1.00
M	BMVW-t	MT20	4.0	6.0	1.75 2.00
N	BS-t	MT20	3.0	6.0	
O	BMVWV-t	MT20	5.0	8.0	2.50 2.00
P	BMV+p	MT20	2.0	4.0	
Q	BVMVW-t	MT20	6.0	9.0	3.00 5.75
R	BMVWV-t	MT20	5.0	6.0	
S	BS-t	MT20	3.0	6.0	
T	BMVW-t	MT20	4.0	4.0	
U	BMVW-t	MT20	4.0	4.0	
V	BVMVW-t	MT20	3.0	12.0	2.25 6.00
W	BMV+p	MT20	2.0	4.0	
X	BMVW1-t	MT20	4.0	4.0	1.75 1.75

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

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

BEARINGS		FACTORED	MAXIMUM FACTORED	INPUT	REQRD
		GROSS REACTION	GROSS REACTION	BRG	BRG
JT	VERT	HORZ	DOWN	HORZ	UPLIFT
L	1977	0	1977	0	0
X	1981	0	1981	0	0

UNFACTORED REACTIONS		1ST LCASE	MAX /MIN. COMPONENT REACTIONS
JT	COMBINED	SNOW	LIVE
L	1407	871 / 0	0 / 0
X	1410	873 / 0	0 / 0

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

BRACING
TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 3.45 FT.
MAX. UNBRACED BOTTOM CHORD LENGTH = 7.81 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	FACTORED	MAX. FACTORED	MAX. FACTORED
MEMB.	FORCE (LBS)	VERT. LOAD (PLF)	CS (LC)	MAX. UNBRAC	MEMB.
FR-TO		FROM	TO	LENGTH	FR-TO
A-B	0 / 24	-78.0	-78.0	0.10 (1)	10.00
B-C	-3793 / 0	-78.0	-78.0	0.22 (1)	3.47
C-D	-3467 / 0	-78.0	-78.0	0.44 (1)	3.45
D-E	-2904 / 0	-78.0	-78.0	0.38 (1)	3.79
E-F	-3028 / 0	-78.0	-78.0	0.36 (1)	3.73
F-G	-3028 / 0	-78.0	-78.0	0.35 (1)	3.75
G-H	-3023 / 0	-78.0	-78.0	0.31 (1)	3.78
H-I	-2568 / 0	-78.0	-78.0	0.46 (1)	3.91
I-J	-2831 / 0	-78.0	-78.0	0.51 (1)	3.70
J-K	0 / 24	-78.0	-78.0	0.10 (1)	10.00
X-B	-1915 / 0	0.0	0.0	0.19 (1)	6.07
L-J	-1928 / 0	0.0	0.0	0.19 (1)	6.06
X-W	0 / 101	-18.5	-18.5	0.03 (4)	10.00
W-V	0 / 18	0.0	0.0	0.23 (1)	10.00
V-C	0 / 46	0.0	0.0	0.23 (1)	10.00
V-U	0 / 3473	-18.5	-18.5	0.62 (1)	10.00

WEBS		MAX. FACTORED	MAX. FACTORED
MEMB.	FORCE (LBS)	MAX. CS (LC)	MEMB.
C-U	-358 / 0	0.17 (1)	0.17 (1)
U-D	0 / 144	0.05 (4)	0.05 (4)
D-T	-655 / 0	0.44 (1)	0.44 (1)
T-E	0 / 462	0.10 (1)	0.10 (1)
E-R	0 / 679	0.15 (1)	0.15 (1)
R-F	-446 / 0	0.28 (1)	0.28 (1)
F-G	0 / 10	0.00 (4)	0.00 (4)
G-Q	0 / 2284	0.51 (1)	0.51 (1)
Q-H	0 / 1206	0.27 (1)	0.27 (1)
H-O	-130 / 19	0.11 (1)	0.11 (1)
O-I	-336 / 0	0.32 (1)	0.32 (1)
M-I	-248 / 0	0.07 (1)	0.07 (1)
M-J	0 / 2579	0.58 (1)	0.58 (1)
X-V	-113 / 0	0.02 (1)	0.02 (1)
B-V	0 / 3373	0.76 (1)	0.76 (1)

DESIGN CRITERIA

SPECIFIED LOADS:		TOP CH.	LL	DL
TOP CH.	LL	=	21.0	PSF
DL	DL	=	6.0	PSF
BOT CH.	LL	=	0.0	PSF
DL	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 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 (1.29")
CALCULATED VERT. DEFL.(LL) = L/999 (0.21")
ALLOWABLE DEFL.(TL)= L/360 (1.29")
CALCULATED VERT. DEFL.(TL) = L/999 (0.42")

CSI: TC=0.51/1.00 (I-J:1), BC=0.62/1.00 (U-V:1), WB=0.76/1.00 (B-V:1), SSI=0.20/1.00 (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

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= 0.90 (J) (INPUT = 0.90)
JSI METAL= 0.97 (V) (INPUT = 1.00)

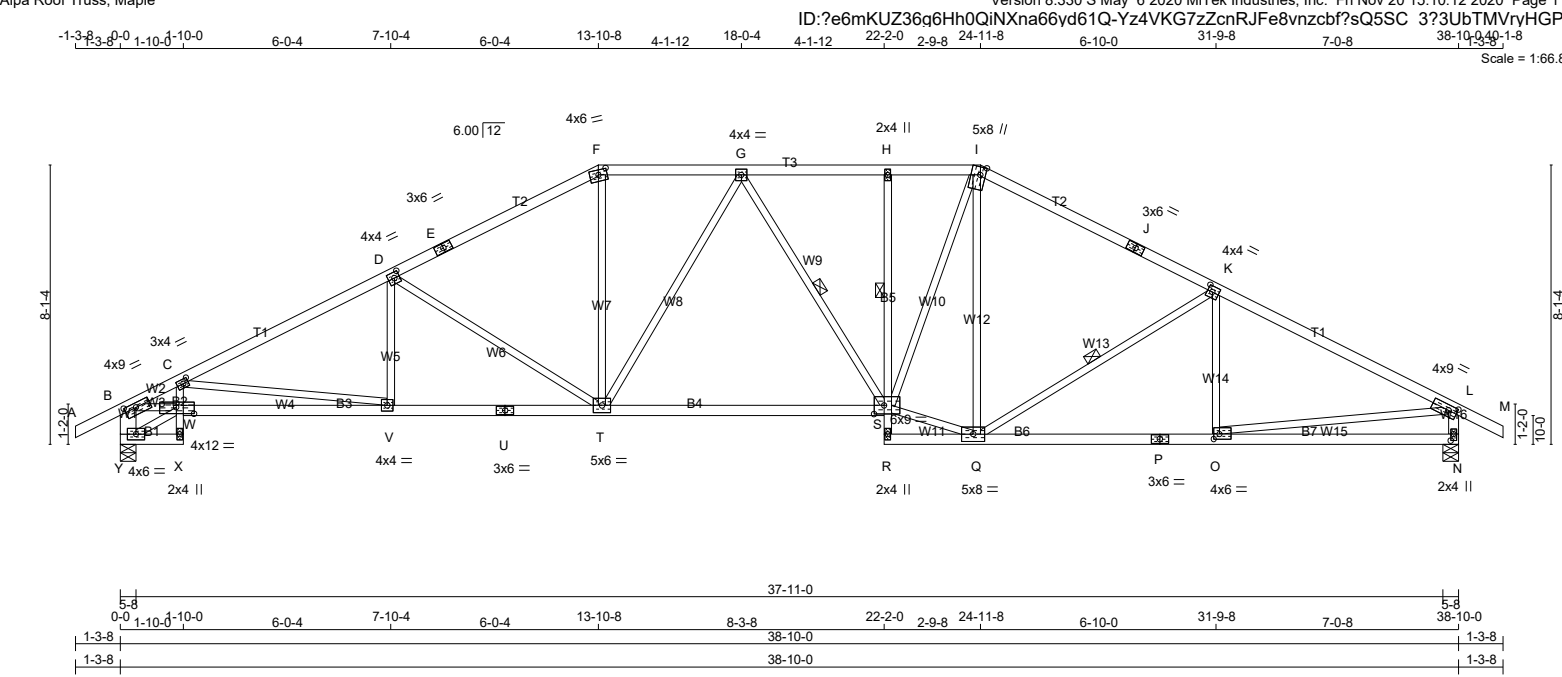
JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
324088	H05T		1	TRUSS DESC. JT 45147	E20115219

Alpa Roof Truss, Maple

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Scale = 1:66.8



LUMBER			
N. L. G. A. RULES	CHORDS	SIZE	LUMBER
A - E	2x4	DRY	No.2
E - F	2x4	DRY	No.2
F - I	2x4	DRY	No.2
I - J	2x4	DRY	No.2
J - M	2x4	DRY	No.2
Y - B	2x6	DRY	No.2
N - L	2x4	DRY	No.2
Y - X	2x4	DRY	No.2
X - C	2x3	DRY	No.2
W - U	2x4	DRY	No.2
U - S	2x4	DRY	No.2
R - H	2x3	DRY	No.2
R - P	2x4	DRY	No.2
P - N	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-t	MT20	4.0	9.0	1.50 4.00
C	TMVW-t	MT20	3.0	4.0	1.50 1.75
D	TMVW-t	MT20	4.0	4.0	2.00 1.75
E	TS-t	MT20	3.0	6.0	
F	TTW-m	MT20	4.0	6.0	1.75 3.00
G	BMVW-t	MT20	4.0	4.0	
H	TMV+p	MT20	2.0	4.0	
I	TTW+m	MT20	5.0	8.0	2.75 1.75
J	TS-t	MT20	3.0	6.0	
K	TMVW-t	MT20	4.0	4.0	2.00 1.75
L	TMVW-t	MT20	4.0	9.0	1.75 3.00
N	BMV1+p	MT20	2.0	4.0	2.25 1.00
O	BMVW-t	MT20	4.0	6.0	1.75 2.00
P	BS-t	MT20	3.0	6.0	
Q	BMVW-t	MT20	5.0	8.0	
R	BMV+p	MT20	2.0	4.0	
S	BMVW-t	MT20	6.0	9.0	3.00 3.50
T	BMVW-t	MT20	5.0	6.0	
U	BS-t	MT20	3.0	6.0	
V	BMVW-t	MT20	4.0	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
N	1977	0	1977	0	0
Y	1981	0	1981	0	0

UNFACTORED REACTIONS		1ST LCASE	MAX./MIN. COMPONENT REACTIONS
JT	COMBINED	SNOW	LIVE
N	1407	871 / 0	0 / 0
Y	1410	873 / 0	0 / 0

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

BRACING
TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 3.36 FT.
MAX. UNBRACED BOTTOM CHORD LENGTH = 6.25 FT OR RIGID CEILING DIRECTLY APPLIED.

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

1 LATERAL BRACE(S) AT 1/2 LENGTH OF H-S, G-S, K-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)			
CHORDS		WEBS	
MEMB.	MAX. FACTORED FORCE (LBS)	MEMB.	MAX. FACTORED FORCE (LBS)
FR-TO		FR-TO	
A-B	0 / 24	C-V	-528 / 0
B-C	-3888 / 0	V-D	0 / 163
C-D	-3387 / 0	D-T	-774 / 0
D-E	-2708 / 0	T-F	0 / 891
E-F	-2708 / 0	F-G	-360 / 0
F-G	-2412 / 0	G-S	-73 / 0
G-H	-2554 / 0	S-Q	0 / 2223
H-I	-2552 / 0	Q-I	-292 / 0
I-J	-2424 / 0	I-J	0 / 1153
J-K	-2424 / 0	K-Q	-521 / 0
K-L	-2858 / 0	L-Q	-175 / 43
L-M	0 / 24	M-Q	0 / 2601

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 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 (1.29")
CALCULATED VERT. DEFL.(LL) = L/ 999 (0.19")
ALLOWABLE DEFL.(TL)= L/360 (1.29")
CALCULATED VERT. DEFL.(TL) = L/ 953 (0.49")

CSI: TC=0.73/1.00 (K-L:1), BC=0.67/1.00 (V-W:1), WB=0.80/1.00 (D-T:1), SS=0.24/1.00 (K-L:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

AUTOSOLVE RIGHT HEEL ONLY

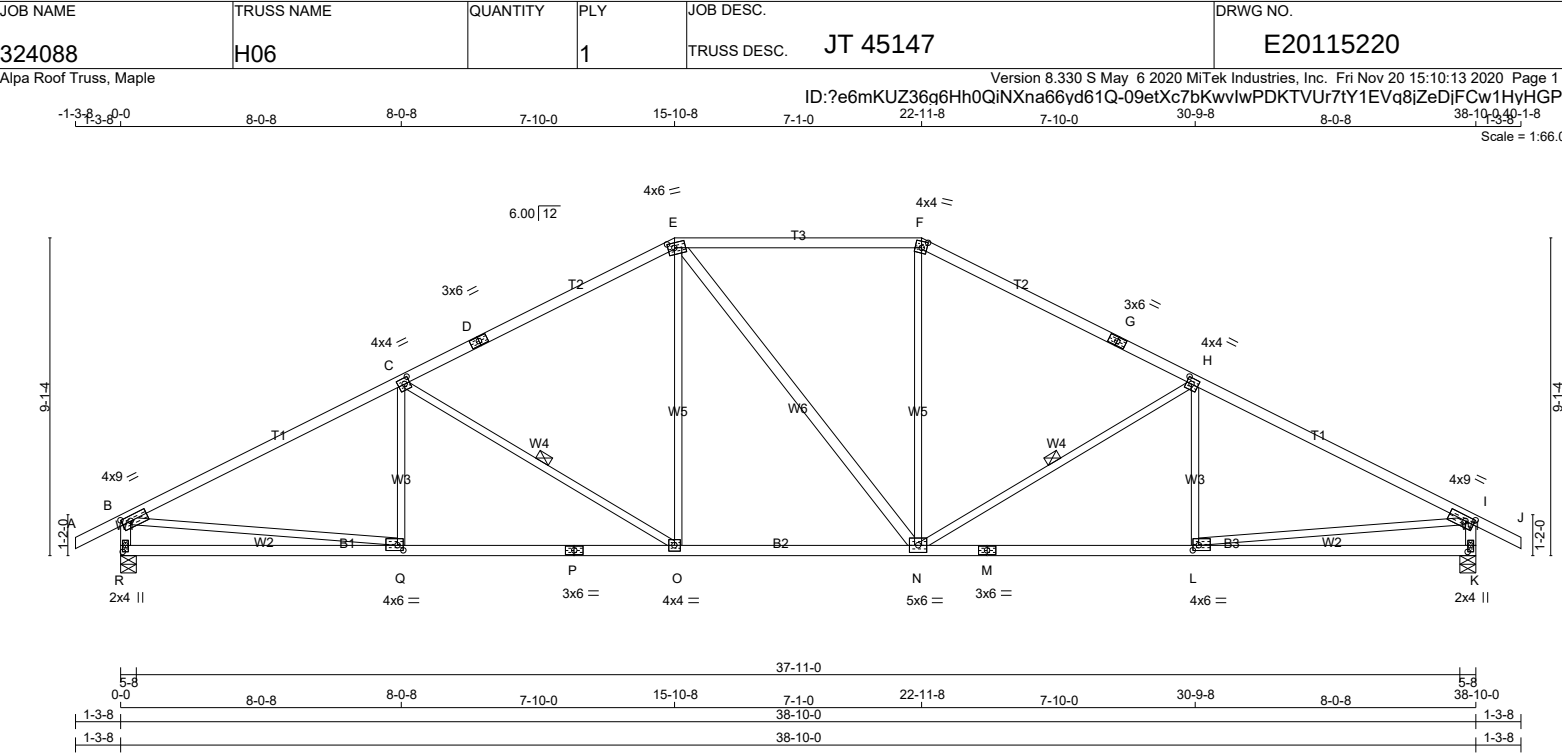
TRUSS PLATE MANUFACTURER IS NOT RESPONSIBLE FOR QUALITY CONTROL IN THE TRUSS MANUFACTURING PLANT.

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= 0.90 (B) (INPUT = 0.90)
JSI METAL= 0.87 (U) (INPUT = 1.00)



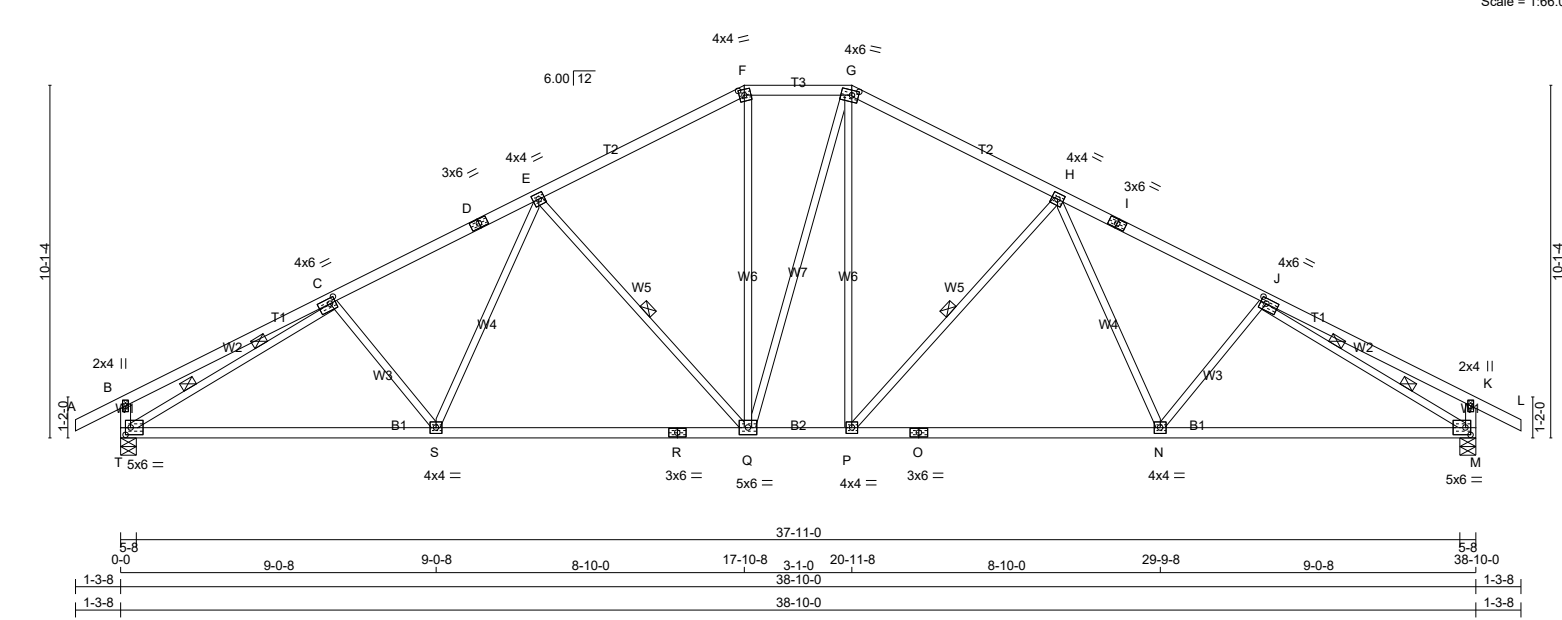
LUMBER				DIMENSIONS, SUPPORTS AND LOADINGS SPECIFIED BY FABRICATOR TO BE VERIFIED BY BUILDING DESIGNER				DESIGN CRITERIA			
N. L. G. A. RULES				BEARINGS				SPECIFIED LOADS:			
CHORDS	SIZE	LUMBER	DESCR.	FACTORED				TOP CH. LL = 21.0 PSF			
A - D	2x4	DRY	1650F 1.5E	GROSS REACTION				DL = 6.0 PSF			
E - F	2x4	DRY	1650F 1.5E	MAXIMUM FACTORED				BOT CH. LL = 0.0 PSF			
F - G	2x4	DRY	2100F 1.8E	INPUT				DL = 7.4 PSF			
G - J	2x4	DRY	1650F 1.5E	REQRD				TOTAL LOAD = 34.4 PSF			
R - B	2x4	DRY	No.2	1ST LCASE				SPACING = 24.0 IN. C/C			
K - I	2x4	DRY	No.2	MAX./MIN. COMPONENT REACTIONS				LOADING IN FLAT SECTION BASED ON A SLOPE			
R - P	2x4	DRY	No.2	JT COMBINED				OF 2.00/12 MINIMUM			
P - M	2x4	DRY	No.2	R 1409				THIS TRUSS IS DESIGNED FOR RESIDENTIAL			
M - K	2x4	DRY	No.2	K 1409				OR SMALL BUILDING REQUIREMENTS OF PART			
ALL WEBS	2x3	DRY	No.2	SNOW				9, NBCC 2015			
EXCEPT				LIVE				THIS DESIGN COMPLIES WITH:			
E - N	2x4	DRY	No.2	PERM.LIVE				- PART 9 OF BCBC 2018, ABC 2019			
DRY: SEASONED LUMBER.				WIND				- PART 9 OF OBC 2012 (2019 AMENDMENT)			
				DEAD				- CSA 086-14			
				SOIL				- TPIC 2014			
				TOTAL LOAD CASES: (4)				(55 % OF 23.0 P.S.F. G.S.L. PLUS 8.4 P.S.F.			
				MEMB. FORCE				RAIN LOAD) EQUALS 21.0 P.S.F. SPECIFIED			
				VERT. LOAD				ROOF LIVE LOAD			
				LC1 MAX				ALLOWABLE DEFL.(LL)= L/360 (1.29")			
				UNBRAC				CALCULATED VERT. DEFL.(LL) = L/ 999 (0.14")			
				LENGTH				ALLOWABLE DEFL.(TL)= L/360 (1.29")			
				FR-TO				CALCULATED VERT. DEFL.(TL) = L/ 999 (0.31")			
				A-B				CSI: TC=0.73/1.00 (B-C:1), BC=0.56/1.00 (O-Q:1),			
				B-C				WB=0.59/1.00 (B-Q:1), SI=0.27/1.00 (H-I:1)			
				C-D				DOL LUMBER=1.00 NAIL=1.00 LS BEND=1.10			
				D-E				COMP=1.10 SHEAR=1.10 TENS= 1.10			
				E-F				COMPANION LIVE LOAD FACTOR = 1.00			
				F-G				TRUSS PLATE MANUFACTURER IS NOT			
				G-H				RESPONSIBLE FOR QUALITY CONTROL IN THE			
				H-I				TRUSS MANUFACTURING PLANT .			
				I-J				NAIL VALUES			
				R-B				PLATE GRIP(DRY) SHEAR SECTION			
				K-I				(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= 0.87 (Q) (INPUT = 0.90)			
								JSI METAL= 0.86 (P) (INPUT = 1.00)			

PLATES (table is in inches)					
JT	TYPE	PLATES	W	LEN	Y X
B	TMVW-t	MT20	4.0	9.0	1.75 3.00
C	TMWW-t	MT20	4.0	4.0	2.00 1.75
D	TS-t	MT20	3.0	6.0	
E	TTWW-m	MT20	4.0	6.0	1.75 2.25
F	TTW-m	MT20	4.0	4.0	2.25 1.75
G	TS-t	MT20	3.0	6.0	
H	TMWW-t	MT20	4.0	4.0	2.00 1.75
I	TMVW-t	MT20	4.0	9.0	1.75 3.00
K	BMV1+p	MT20	2.0	4.0	2.25 1.00
L	BMWW-t	MT20	4.0	6.0	1.75 2.00
M	BS-t	MT20	3.0	6.0	
N	BMWWW-t	MT20	5.0	6.0	
O	BMWW-t	MT20	4.0	4.0	
P	BS-t	MT20	3.0	6.0	
Q	BMWW-t	MT20	4.0	6.0	1.75 2.00
R	BMV1+p	MT20	2.0	4.0	2.25 1.00

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



W - M	0 / 2391	-10.3	-10.3	0.30 (1)	10.00
M - L	0 / 2591	-18.5	-18.5	0.56 (1)	10.00
L - K	0 / 0	-18.5	-18.5	0.28 (4)	10.00

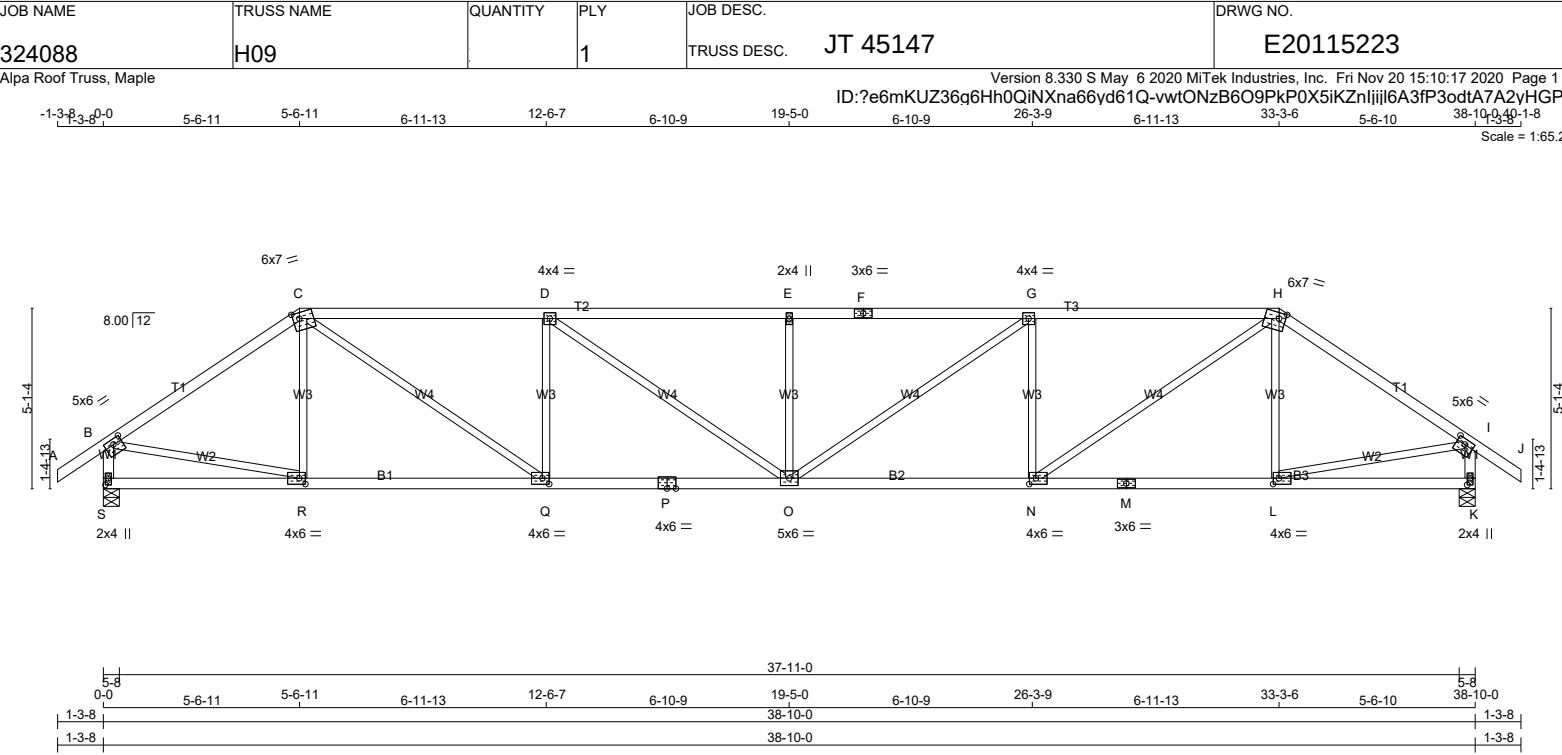


LUMBER				DIMENSIONS, SUPPORTS AND LOADINGS SPECIFIED BY FABRICATOR TO BE VERIFIED BY BUILDING DESIGNER								DESIGN CRITERIA			
N. L. G. A. RULES				BEARINGS								SPECIFIED LOADS:			
CHORDS	SIZE	LUMBER	DESCR.	FACTORED			MAXIMUM FACTORED			INPUT	REQRD	TOP CH.	LL	DL	PSF
A - D	2x4	DRY	No.2	GROSS REACTION			GROSS REACTION			BRG	BRG				
D - F	2x4	DRY	No.2	JT	VERT	HORZ	DOWN	HORZ	UPLIFT	IN-SX	IN-SX				
F - G	2x4	DRY	No.2	T	1979	0	1979	0	0	5-8	2-2				
G - I	2x4	DRY	No.2	M	1979	0	1979	0	0	5-8	2-2				
I - L	2x4	DRY	No.2												
L - M	2x4	DRY	No.2												
M - K	2x4	DRY	No.2												
T - R	2x4	DRY	No.2												
R - O	2x4	DRY	No.2												
O - M	2x4	DRY	No.2												



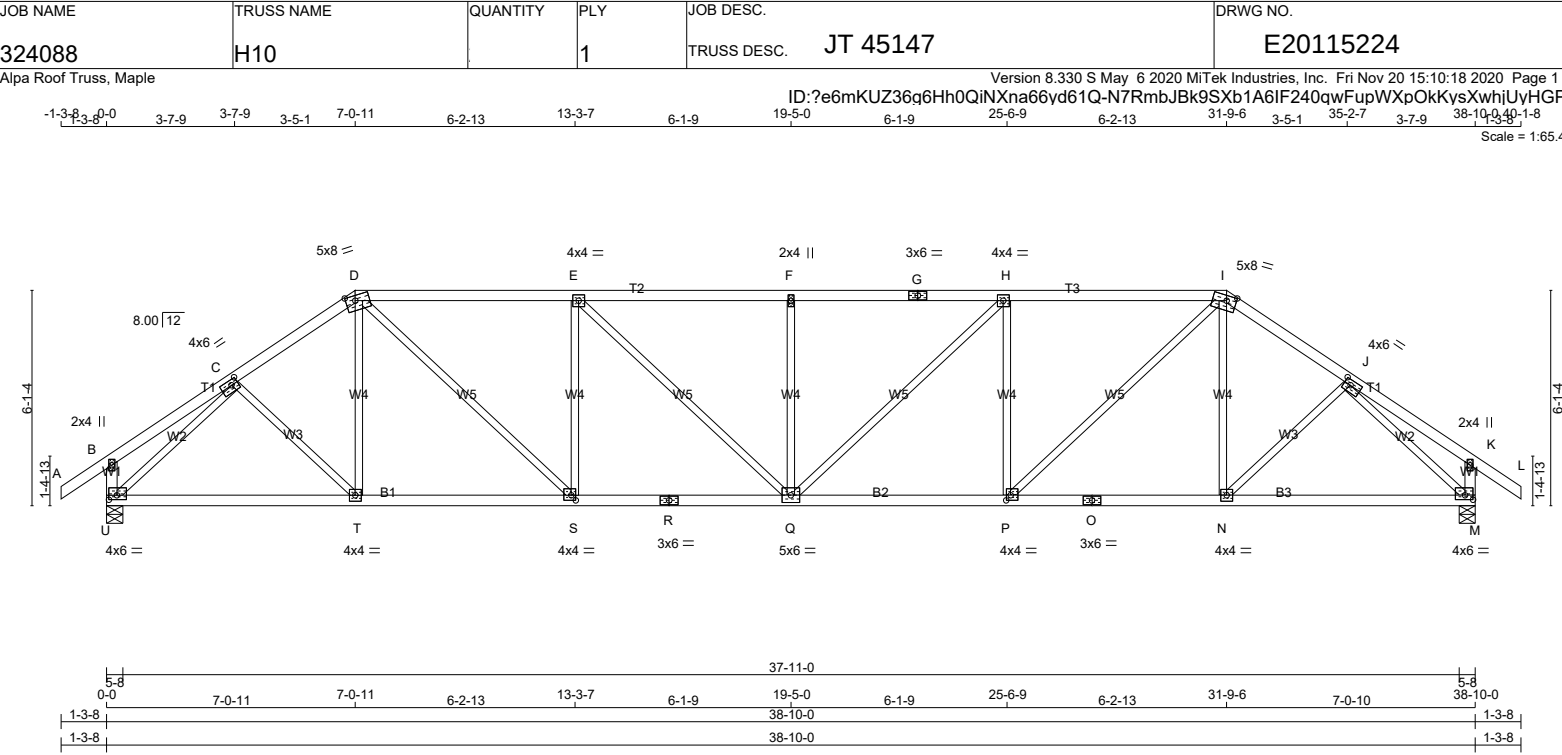
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LUMBER N. L. G. A. RULES CHORDS SIZE LUMBER DESCR. A - C 2x4 DRY No.2 SPF C - F 2x4 DRY 1650F 1.5E SPF F - H 2x4 DRY 1650F 1.5E SPF H - J 2x4 DRY No.2 SPF S - B 2x4 DRY No.2 SPF K - I 2x4 DRY No.2 SPF S - P 2x4 DRY No.2 SPF P - M 2x4 DRY No.2 SPF M - K 2x4 DRY No.2 SPF ALL WEBS 2x3 DRY No.2 SPF EXCEPT DRY: SEASONED LUMBER.				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 S 1980 0 1980 0 0 5-8 2-15 K 1980 0 1980 0 0 5-8 2-15				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			
PLATES (table is in inches) JT TYPE PLATES W LEN Y X B TMVW-t MT20 5.0 6.0 1.75 3.00 C TTWW-m MT20 6.0 7.0 2.00 2.25 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 TTWW-m MT20 6.0 7.0 2.00 2.25 I TMVW-t MT20 5.0 6.0 1.75 3.00 K BMV1+p MT20 2.0 4.0 2.25 1.00 L BMWW-t MT20 4.0 6.0 2.00 2.00 M BS-t MT20 3.0 6.0 N BMWW-t MT20 4.0 6.0 2.00 2.25 O BMWWW-t MT20 5.0 6.0 P BS-t MT20 4.0 6.0 Q BMWW-t MT20 4.0 6.0 2.00 2.25 R BMWW-t MT20 4.0 6.0 2.00 2.00 S BMV1+p MT20 2.0 4.0 2.25 1.00											





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
I - L	2x4	DRY No.2	SPF
U - B	2x4	DRY No.2	SPF
M - K	2x4	DRY No.2	SPF
U - R	2x4	DRY No.2	SPF
R - O	2x4	DRY No.2	SPF
O - M	2x4	DRY No.2	SPF

ALL WEBS 2x3 DRY No.2 SPF

EXCEPT

DRY: SEASONED LUMBER.

PLATES (table is in inches)

JT	TYPE	PLATES	W	LEN	Y	X
B	TMV+p	MT20	2.0	4.0		
C	TMWW-t	MT20	4.0	6.0	1.75	2.25
D	TTWW-m	MT20	5.0	8.0	1.75	3.25
E	TMWW-t	MT20	4.0	4.0		
F	TMW+w	MT20	2.0	4.0		
G	TS-t	MT20	3.0	6.0		
H	TMWW-t	MT20	4.0	4.0		
I	TTWW-m	MT20	5.0	8.0	1.75	3.25
J	TMWW-t	MT20	4.0	6.0	1.75	2.25
K	TMV+p	MT20	2.0	4.0		
M	BMVW1-t	MT20	4.0	6.0	1.50	2.75
N	BMWW-t	MT20	4.0	4.0		
O	BS-t	MT20	3.0	6.0		
P	BMWW-t	MT20	4.0	4.0	1.75	1.50
Q	BMWWW-t	MT20	5.0	6.0		
R	BS-t	MT20	3.0	6.0		
S	BMWW-t	MT20	4.0	4.0	1.75	1.50
T	BMWW-t	MT20	4.0	4.0		
U	BMVW1-t	MT20	4.0	6.0	1.50	2.75

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
U	1980 0	1980 0	0 5-8	2-2
M	1980 0	1980 0	0 5-8	2-2

UNFACTORED REACTIONS

JT	1ST LCASE COMBINED	MAX /MIN. SNOW	COMPONENT LIVE	PERM. LIVE	WIND	DEAD	SOIL
U	1410	873 / 0	0 / 0	0 / 0	0 / 0	537 / 0	0 / 0
M	1410	873 / 0	0 / 0	0 / 0	0 / 0	537 / 0	0 / 0

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

BRACING

TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 3.30 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.

LOADING

TOTAL LOAD CASES: (4)

CHORDS				WEBS			
MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	MAX. UNBRACED LENGTH	MEMB.	MAX. FACTORED FORCE (LBS)	MAX. UNBRACED LENGTH	MEMB.
FR-TO				FR-TO			
A-B	0 / 30	-78.0 -78.0	0.10 (1)	10.00	C-T	0 / 174	0.04 (1)
B-C	0 / 15	-78.0 -78.0	0.13 (1)	10.00	T-D	0 / 83	0.03 (4)
C-D	-2279 / 0	-78.0 -78.0	0.20 (1)	4.36	D-S	0 / 1360	0.31 (1)
D-E	-2877 / 0	-78.0 -78.0	0.70 (1)	3.48	S-E	-821 / 0	0.48 (1)
E-F	-3170 / 0	-78.0 -78.0	0.74 (1)	3.30	E-Q	0 / 404	0.09 (1)
F-G	-3170 / 0	-78.0 -78.0	0.74 (1)	3.30	Q-F	-441 / 0	0.26 (1)
G-H	-3170 / 0	-78.0 -78.0	0.74 (1)	3.30	H-Q	0 / 404	0.09 (1)
H-I	-2877 / 0	-78.0 -78.0	0.70 (1)	3.48	P-H	-821 / 0	0.48 (1)
I-J	-2279 / 0	-78.0 -78.0	0.20 (1)	4.36	P-I	0 / 1360	0.31 (1)
J-K	0 / 15	-78.0 -78.0	0.13 (1)	10.00	N-I	0 / 83	0.03 (4)
K-L	0 / 30	-78.0 -78.0	0.10 (1)	10.00	N-J	0 / 174	0.04 (1)
U-B	-218 / 0	0.0 0.0	0.02 (1)	7.81	U-C	-2448 / 0	0.94 (1)
M-K	-218 / 0	0.0 0.0	0.02 (1)	7.81	J-M	-2448 / 0	0.94 (1)
U-T	0 / 1754	-18.5 -18.5	0.40 (1)	10.00			
T-S	0 / 1881	-18.5 -18.5	0.42 (1)	10.00			
S-P	0 / 2877	-18.5 -18.5	0.53 (1)	10.00			

U-T 0 / 1754 -18.5 -18.5 0.40 (1) 10.00

T-S 0 / 1881 -18.5 -18.5 0.42 (1) 10.00

S-P 0 / 2877 -18.5 -18.5 0.53 (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

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 (1.29")

CALCULATED VERT. DEFL.(LL) = L/ 999 (0.18")

ALLOWABLE DEFL.(TL)= L/360 (1.29")

CALCULATED VERT. DEFL.(TL) = L/ 999 (0.36")

CSI: TC=0.74/1.00 (E-F:1), BC=0.53/1.00 (Q-S:1), WB=0.94/1.00 (C-U:1), SSI=0.23/1.00 (D-E:1)

DOL LUMBER=1.00 NAIL=1.00 LS BEND=1.10

COMP=1.10 SHEAR=1.10 TENS=1.10

COMPANION LIVE LOAD FACTOR = 1.00

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

NAIL VALUES

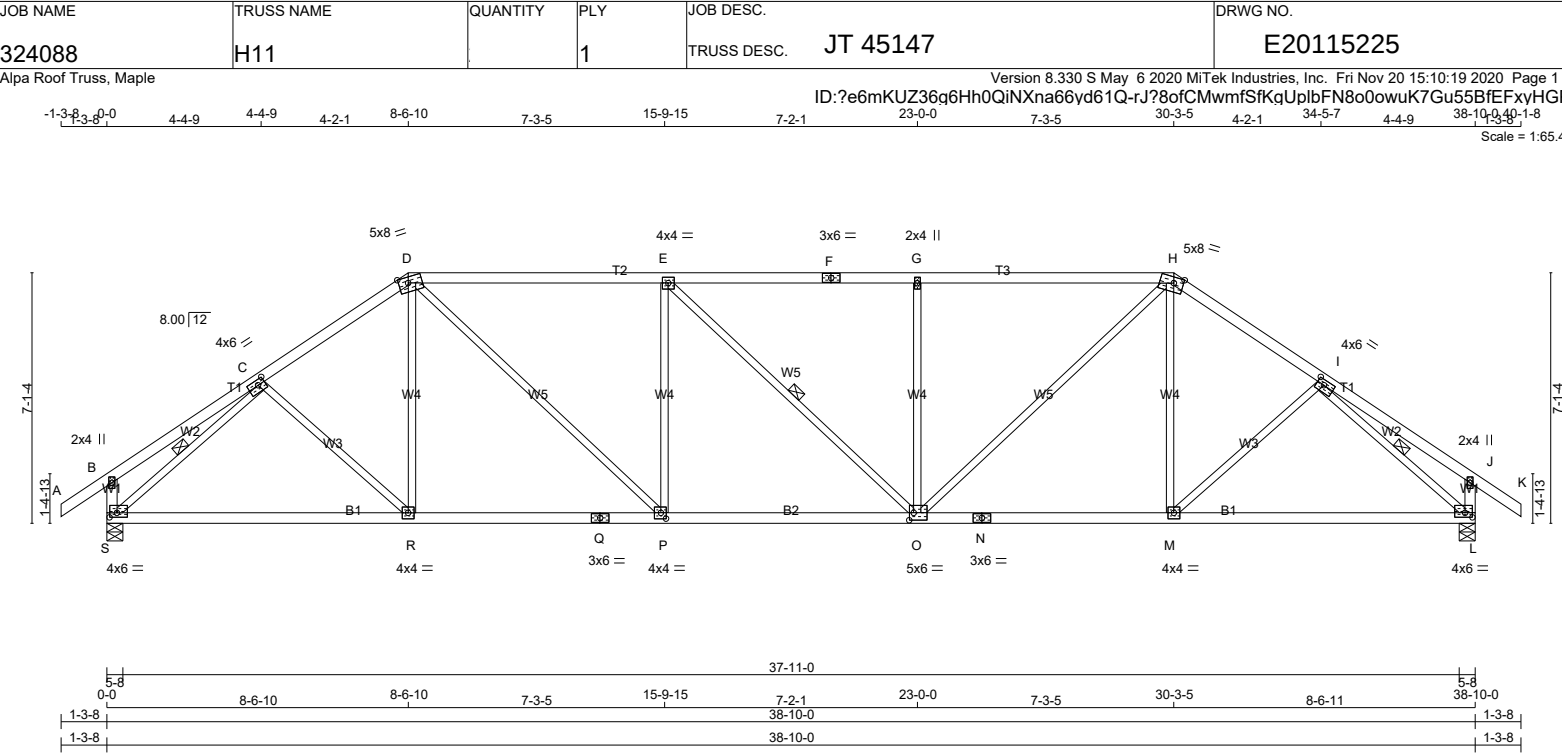
PLATE	GRIP(DRY)	SHEAR (PSI)	SECTION (PLI)
MT20	650	371	1747 788 1987 1873

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.90 (U) (INPUT = 0.90)

JSI METAL= 0.92 (R) (INPUT = 1.00)



LUMBER

N. L. G. A. RULES

CHORDS	SIZE	LUMBER	DESCR.
A - D	2x4	DRY	No.2
D - F	2x4	DRY	No.2
F - H	2x4	DRY	No.2
H - K	2x4	DRY	No.2
S - B	2x4	DRY	No.2
L - J	2x4	DRY	No.2
S - Q	2x4	DRY	No.2
Q - N	2x4	DRY	No.2
N - L	2x4	DRY	No.2

ALL WEBS 2x3 DRY No.2 SPF

EXCEPT

DRY: SEASONED LUMBER.

PLATES (table is in inches)

JT	TYPE	PLATES	W	LEN	Y	X
B	TMV+p	MT20	2.0	4.0		
C	TMWW-t	MT20	4.0	6.0	1.75	2.50
D	TTWW-m	MT20	5.0	8.0	2.00	3.25
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	5.0	8.0	2.00	3.25
I	TMWW-t	MT20	4.0	6.0	1.75	2.50
J	TMV+p	MT20	2.0	4.0		
L	BMVW1-t	MT20	4.0	6.0	1.50	2.50
M	BMWW-t	MT20	4.0	4.0		
N	BS-t	MT20	3.0	6.0		
O	BMWWW-t	MT20	5.0	6.0	2.50	1.50
P	BMWW-t	MT20	4.0	4.0	2.00	1.75
Q	BS-t	MT20	3.0	6.0		
R	BMWW-t	MT20	4.0	4.0		
S	BMVW1-t	MT20	4.0	6.0	1.50	2.50

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
	VERT	HORZ	DOWN	HORZ
JT	1980	0	1980	0
S	1980	0	1980	0
L	1980	0	1980	0

UNFACTORED REACTIONS

1ST LCASE	MAX./MIN. COMPONENT REACTIONS	DEAD	SOIL
JT	1410	873 / 0	0 / 0
S	1410	873 / 0	0 / 0
L	1410	873 / 0	0 / 0

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

BRACING
TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 3.38 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-O, C-S, I-L.

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

LOADING

TOTAL LOAD CASES: (4)

CHORDS				WEBS			
MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	MAX. FACTORED VERT. LOAD LC1 (LC)	MEMB.	MAX. FACTORED FORCE (LBS)	MAX. FACTORED VERT. LOAD LC1 (LC)	UNBRACED LENGTH
FR-TO				FR-TO			
A-B	0 / 30	-78.0	-78.0 0.10 (1)	C-R	0 / 73	0.03 (4)	10.00
B-C	0 / 20	-78.0	-78.0 0.21 (1)	R-D	0 / 142	0.05 (4)	10.00
C-D	-2253 / 0	-78.0	-78.0 0.31 (1)	D-P	0 / 1079	0.24 (1)	4.28
D-E	-2646 / 0	-78.0	-78.0 0.92 (1)	P-E	-612 / 0	0.54 (1)	3.38
E-F	-2645 / 0	-78.0	-78.0 0.90 (1)	E-O	-1 / 0	0.00 (1)	3.38
F-G	-2645 / 0	-78.0	-78.0 0.90 (1)	O-G	-612 / 0	0.53 (1)	3.38
G-H	-2645 / 0	-78.0	-78.0 0.91 (1)	H-I	0 / 1077	0.24 (1)	3.39
H-I	-2253 / 0	-78.0	-78.0 0.31 (1)	I-J	0 / 143	0.05 (4)	4.28
I-J	0 / 20	-78.0	-78.0 0.21 (1)	J-K	0 / 73	0.03 (4)	10.00
J-K	0 / 30	-78.0	-78.0 0.10 (1)	K-L	-2477 / 0	0.60 (1)	10.00
S-B	-238 / 0	0.0	0.0 0.02 (1)	B-L	-2477 / 0	0.60 (1)	7.81
L-I	-238 / 0	0.0	0.0 0.02 (1)				7.81

F-U	0 / 2040	-10.3	-10.3 0.31 (1)	10.00
O-N	0 / 1858	-18.5	-18.5 0.49 (4)	10.00
N-M	0 / 1858	-18.5	-18.5 0.49 (4)	10.00
M-L	0 / 1823	-18.5	-18.5 0.47 (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 (1.29")
CALCULATED VERT. DEFL.(LL) = L/ 999 (0.15")
ALLOWABLE DEFL.(TL)= L/360 (1.29")
CALCULATED VERT. DEFL.(TL) = L/ 999 (0.32")

CSI: TC=0.92/1.00 (D-E:1), BC=0.51/1.00 (O-P:1), WB=0.60/1.00 (I-L:1), SSI=0.26/1.00 (D-E:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

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

NAIL VALUES

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

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.90 (I) (INPUT = 0.90)
JSI METAL= 0.58 (I) (INPUT = 1.00)

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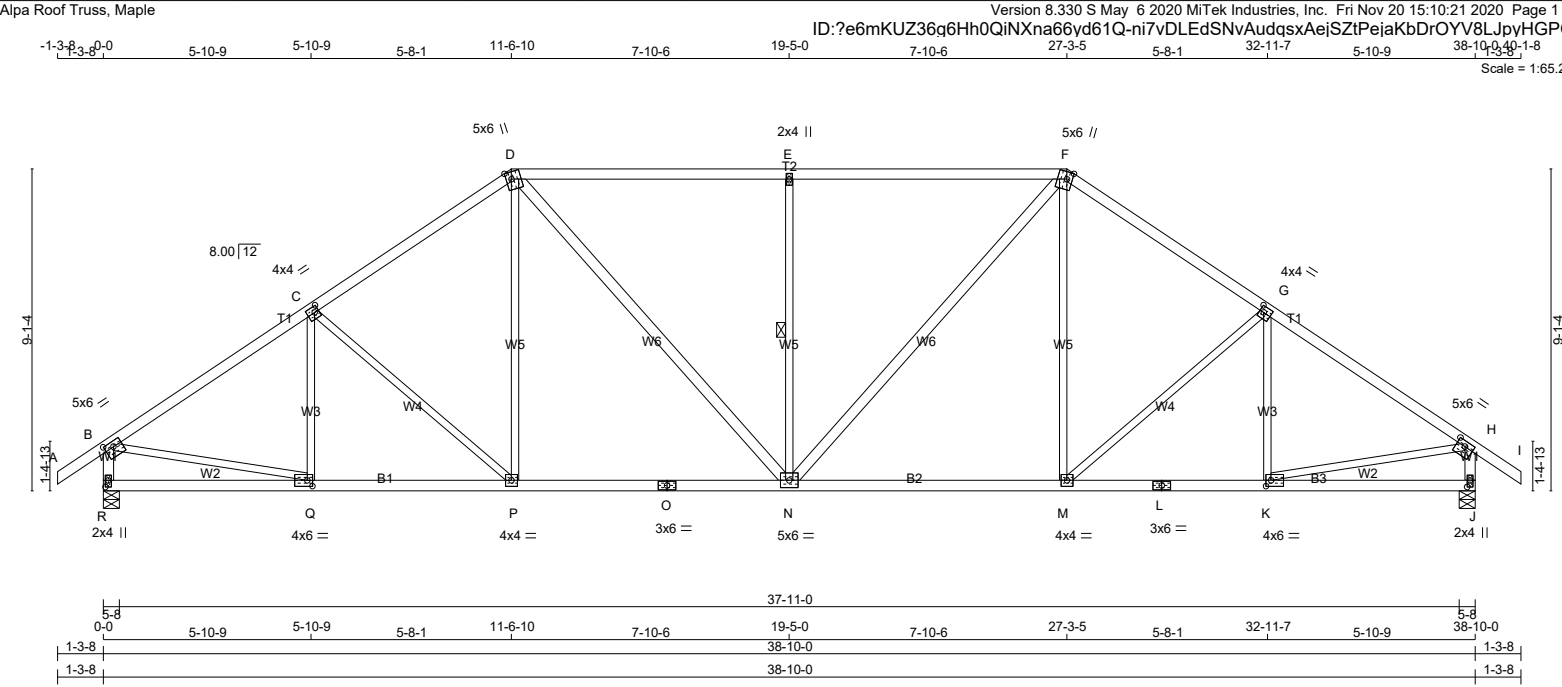


Y. WIDYA
100225448
11/20/2020
PROVINCE OF ONTARIO

R-Q	0 / 1797	-18.3	-18.3	0.36 (1)	10.00
Q-P	0 / 2314	-18.5	-18.5	0.45 (1)	10.00
P-O	0 / 1797	-18.5	-18.5	0.36 (1)	10.00
O-N	0 / 1797	-18.5	-18.5	0.36 (1)	10.00
N-M	0 / 1910	-18.5	-18.5	0.38 (1)	10.00
M-L	0 / 0	-18.5	-18.5	0.10 (4)	10.00

JSI GRIP= 0.89 (M) (INPUT = 0.90)
JSI METAL= 0.58 (J) (INPUT = 1.00)

JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
324088	H13		1	TRUSS DESC. JT 45147	E20115227



LUMBER				DIMENSIONS, SUPPORTS AND LOADINGS SPECIFIED BY FABRICATOR TO BE VERIFIED BY BUILDING DESIGNER				DESIGN CRITERIA			
N. L. G. A. RULES				BEARINGS				SPECIFIED LOADS:			
CHORDS	SIZE	LUMBER	DESCR.	FACTORED	MAXIMUM FACTORED	INPUT	REQRD	TOP CH.	LL	=	21.0 PSF
A - D	2x4	DRY	No.2	GROSS REACTION	GROSS REACTION	BRG	BRG	BOT CH.	LL	=	6.0 PSF
D - F	2x4	DRY	No.2	JT VERT	JT HORZ	DOWN	UP	IN-SX	IN-SX		
F - I	2x4	DRY	No.2	R 1980	0	1980	0	5-8	2-15		
R - B	2x4	DRY	No.2	J 1980	0	1980	0	5-8	2-15		
J - H	2x4	DRY	No.2								
R - O	2x4	DRY	No.2								
O - L	2x4	DRY	No.2								
L - J	2x4	DRY	No.2								
ALL WEBS	2x3	DRY	No.2								
EXCEPT											
D - N	2x4	DRY	No.2								
N - F	2x4	DRY	No.2								

DRY: SEASONED LUMBER.

PLATES (table is in inches)

JT	TYPE	PLATES	W	LEN	Y	X
B	TMVW-t	MT20	5.0	6.0	1.75	3.00
C	TMWW-t	MT20	4.0	4.0	2.00	1.50
D	TTWW+m	MT20	5.0	6.0	Edge	1.75
E	TMW+w	MT20	2.0	4.0		
F	TTWW+m	MT20	5.0	6.0	Edge	1.75
G	TMWW-t	MT20	4.0	4.0	2.00	1.50
H	TMVW-t	MT20	5.0	6.0	1.75	3.00
J	BMV1+p	MT20	2.0	4.0	2.25	1.00
K	BMWW-t	MT20	4.0	6.0	2.00	1.75
L	BS-t	MT20	3.0	6.0		
M	BMWW-t	MT20	4.0	4.0		
N	BMWW-t	MT20	5.0	6.0		
O	BS-t	MT20	3.0	6.0		
P	BMWW-t	MT20	4.0	4.0		
Q	BMWW-t	MT20	4.0	6.0	2.00	1.75
R	BMV1+p	MT20	2.0	4.0	2.25	1.00

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

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

BRACING

TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 3.70 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.

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 VERT. LOAD (LC1)	MEMB.	MAX. FACTORED FORCE (LBS)	MAX. FACTORED VERT. LOAD (LC1)	UNBRACED LENGTH
FR-TO		FROM	TO	FR-TO			
A-B	0 / 30	-78.0	-78.0 0.10 (1)	Q-C	-246 / 0	0.10 (1)	10.00
B-C	-2302 / 0	-78.0	-78.0 0.45 (1)	C-P	-273 / 0	0.32 (1)	4.11
C-D	-2116 / 0	-78.0	-78.0 0.42 (1)	P-D	0 / 306	0.07 (4)	4.28
D-E	-2141 / 0	-78.0	-78.0 0.77 (1)	D-N	0 / 607	0.10 (1)	3.70
E-F	-2141 / 0	-78.0	-78.0 0.77 (1)	N-E	-755 / 0	0.41 (1)	3.70
F-G	-2116 / 0	-78.0	-78.0 0.42 (1)	N-F	0 / 607	0.10 (1)	4.28
G-H	-2302 / 0	-78.0	-78.0 0.45 (1)	M-F	0 / 306	0.07 (4)	4.11
H-I	0 / 30	-78.0	-78.0 0.10 (1)	M-G	-273 / 0	0.32 (1)	10.00
R-B	-1933 / 0	0.0	0.0 0.20 (1)	K-G	-246 / 0	0.10 (1)	6.05
J-H	-1933 / 0	0.0	0.0 0.20 (1)	B-Q	0 / 1972	0.44 (1)	6.05
P-O	0 / 0	-18.5	-18.5 0.13 (4)	K-H	0 / 1972	0.44 (1)	10.00

W-L	0 / 1940	-10.3	-10.3 0.41 (1)	10.00
L-K	0 / 1940	-18.5	-18.5 0.41 (1)	10.00
K-J	0 / 0	-18.5	-18.5 0.13 (4)	10.00

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

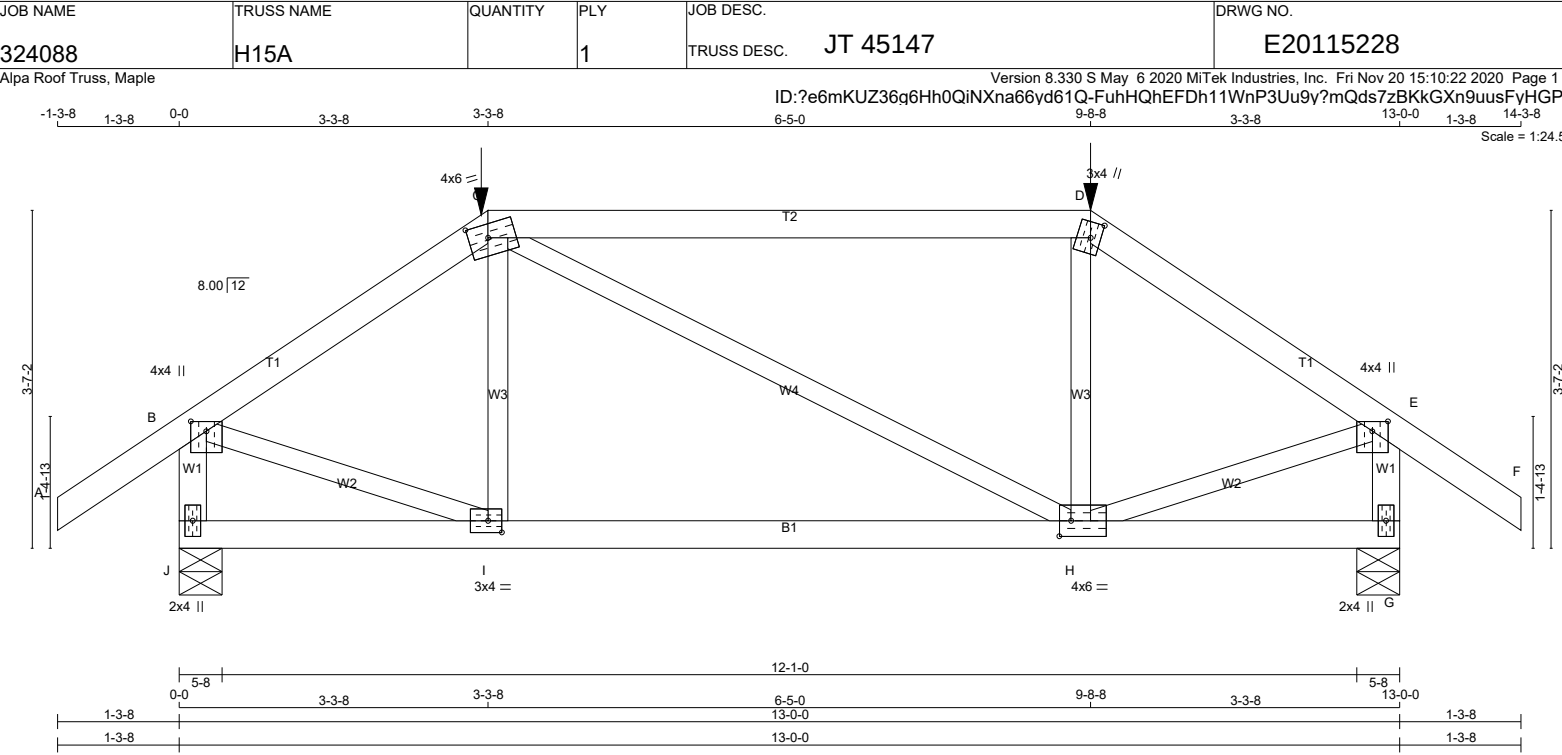


PLATE	GRIP(DRY)	SHEAR	SECTION
(PSI)	(PLI)	(PLI)	
MAX MIN	MAX MIN	MAX MIN	
MT20	650	371	1747 788 1987 1873

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.85 (K) (INPUT = 0.90)
JSI METAL= 0.63 (O) (INPUT = 1.00)



LUMBER			
N. L. G. A. RULES	CHORDS	SIZE	LUMBER
A - C	2x4	DRY	No.2
C - D	2x4	DRY	2100F 1.8E
D - F	2x4	DRY	No.2
J - B	2x4	DRY	No.2
G - E	2x4	DRY	No.2
J - G	2x4	DRY	No.2

ALL WEBS 2x3 DRY No.2 SPF
EXCEPT

DRY: SEASONED LUMBER.

PLATES (table is in inches)					
JT TYPE	PLATES	W	LEN	Y	X
B	TMVW+p	MT20	4.0	4.0	1.25 2.00
C	TTWW-m	MT20	4.0	6.0	1.75 2.50
D	TTWW+m	MT20	3.0	4.0	2.00 1.25
E	TMVW+p	MT20	4.0	4.0	1.25 2.00
G	BMV1+p	MT20	2.0	4.0	
H	BMVWW-t	MT20	4.0	6.0	2.00 1.50
I	BMVWW-t	MT20	3.0	4.0	1.50 1.75
J	BMV1+p	MT20	2.0	4.0	

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

FACTORED		MAXIMUM FACTORED		INPUT	
GROSS REACTION		GROSS REACTION		BRG	REQRD
JT	VERT	HORZ	DOWN	HORZ	UPLIFT
J	930	0	930	0	5-8
G	930	0	930	0	5-8

UNFACTORED REACTIONS						
1ST LCASE	MAX./MIN. COMPONENT REACTIONS					
JT	COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD
J	661	415 / 0	0 / 0	0 / 0	0 / 0	246 / 0
G	661	415 / 0	0 / 0	0 / 0	0 / 0	246 / 0

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

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

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

CHORDS				WEBS			
MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	MAX. LC1 (LC)	MAX. UNBRACED LENGTH	MEMB.	MAX. FACTORED FORCE (LBS)	MAX. LC1 (LC)
FR-TO		FROM	TO		FR-TO		
A-B	0 / 30	-78.0	-78.0 0.12 (1)	10.00	I-C	-81 / 67	0.03 (4)
B-C	-817 / 0	-78.0	-78.0 0.17 (1)	6.25	C-H	0 / 0	0.00 (1)
C-D	-676 / 0	-103.1	-103.1 0.55 (1)	6.25	H-D	-80 / 67	0.03 (4)
D-E	-818 / 0	-78.0	-78.0 0.17 (1)	6.25	B-I	0 / 712	0.18 (1)
E-F	0 / 30	-78.0	-78.0 0.12 (1)	10.00	H-E	0 / 712	0.18 (1)
J-B	-907 / 0	0.0	0.0 0.10 (1)	7.81			
G-E	-907 / 0	0.0	0.0 0.10 (1)	7.81			
J-I	0 / 0	-24.5	-24.5 0.17 (4)	10.00			
I-H	0 / 676	-24.5	-24.5 0.24 (4)	10.00			
H-G	0 / 0	-24.5	-24.5 0.17 (4)	10.00			

FACTORED CONCENTRATED LOADS (LBS)							
JT	LOC.	LC1	MAX-	MAX+	FACE	DIR.	TYPE
C	3-3-8	-77	-77	---	FRONT	VERT	TOTAL
D	9-8-8	-77	-77	---	FRONT	VERT	TOTAL

DESIGN CRITERIA

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

SPACING = 24.0 IN./C

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

GIRDER TYPE: CPrimeHip
SIDE SETBACK = 3-3-8
END SETBACK = 3-3-8
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 (0.43")
CALCULATED VERT. DEFL.(LL)= L/ 999 (0.01")
ALLOWABLE DEFL.(TL)= L/360 (0.43")
CALCULATED VERT. DEFL.(TL)= L/ 999 (0.05")

CSI: TC=0.55/1.00 (C-D:1) , BC=0.24/1.00 (H-I:4) , WB=0.18/1.00 (E-H:1) , SSI=0.28/1.00 (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)	(PSI)	(PLI)	(PLI)
MT20	650	371	1747
	788	1987	1873

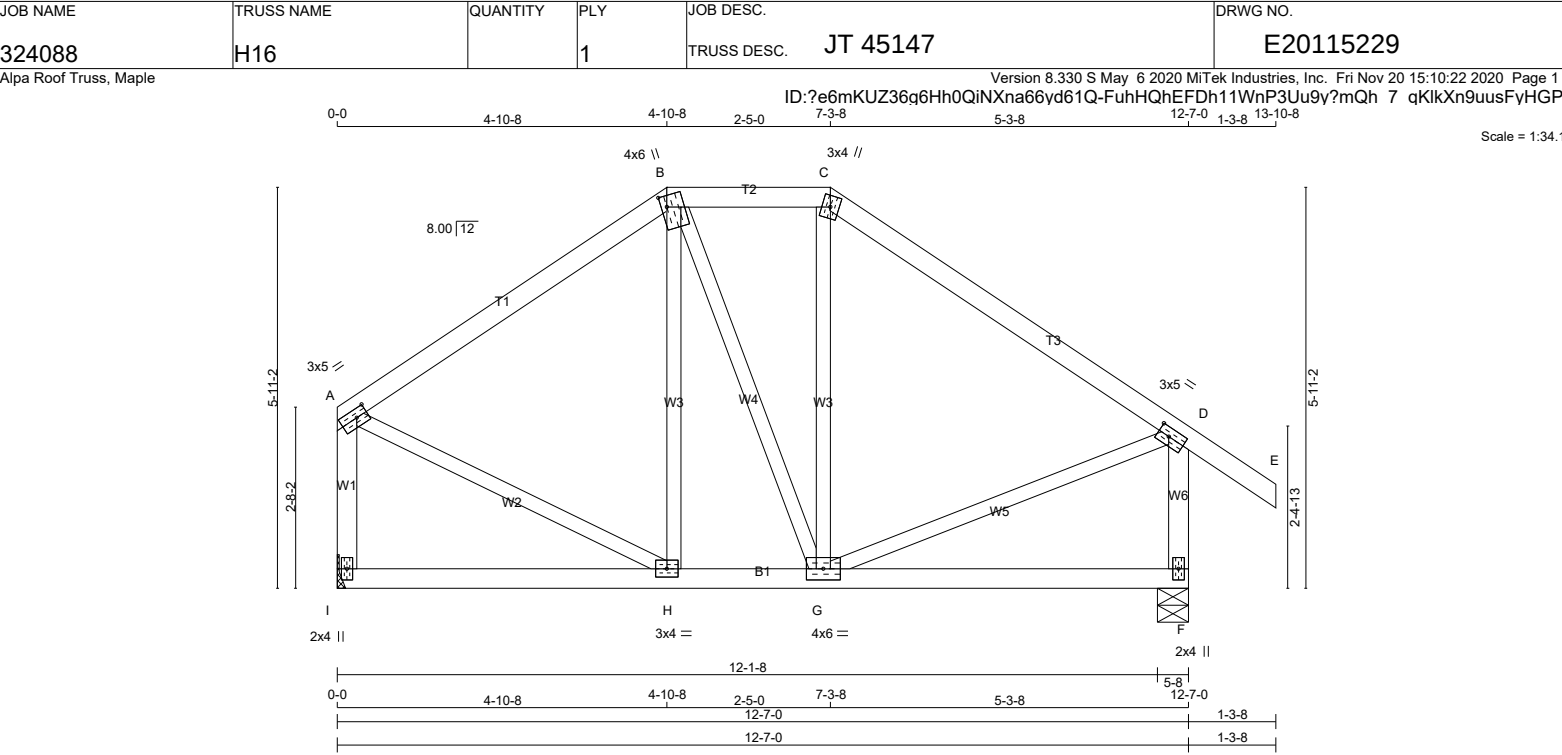
PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.86 (H) (INPUT = 0.90)
JSI METAL= 0.23 (I) (INPUT = 1.00)

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





LUMBER

N. L. G. A. RULES

CHORDS SIZE

LUMBER

DESCR.

A - B

2x4

DRY

No.2

SPF

B - C

2x4

DRY

No.2

SPF

C - E

2x4

DRY

No.2

SPF

I - A

2x4

DRY

No.2

SPF

F - D

2x4

DRY

No.2

SPF

I - F

2x4

DRY

No.2

SPF

ALL WEBS

2x3

DRY

No.2

SPF

EXCEPT

DRY: SEASONED LUMBER.

PLATES (table is in inches)

JT TYPE

PLATES

W

LEN

Y

X

A

TMVW-t

MT20

3.0

5.0

1.50

2.00

B

TTWW+m

MT20

4.0

6.0

2.00

1.00

C

TTW+m

MT20

3.0

4.0

D

TMVW-t

MT20

3.0

5.0

1.50

2.00

F

BMV1+p

MT20

2.0

4.0

G

BMWWW-t

MT20

4.0

6.0

H

BMWW-t

MT20

3.0

4.0

I

BMV1+p

MT20

2.0

4.0

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

BEARINGS

FACTORED

MAXIMUM FACTORED

INPUT

REQRD

GROSS REACTION

GROSS REACTION

BRG

BRG

JT

VERT

HORZ

DOWN

HORZ

UPLIFT

IN-SX

IN-SX

I

607

0

607

0

0

MECHANICAL

F

714

0

714

0

0

5-8

1-8

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

UNFACTORED REACTIONS

1ST LCASE

MAX./MIN. COMPONENT REACTIONS

JT

COMBINED

SNOW

LIVE

PERM.LIVE

WIND

DEAD

SOIL

I

433

264 / 0

0 / 0

0 / 0

0 / 0

169 / 0

0 / 0

F

507

322 / 0

0 / 0

0 / 0

0 / 0

185 / 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.

LOADING

TOTAL LOAD CASES: (4)

CHORDS

MEMB.

FORCE

VERT. LOAD

LC1

MAX

MAX.

MEMB.

FORCE

MAX

A-B

-398 / 0

-78.0

-78.0

0.24 (1)

6.25

H-B

-86 / 15

0.05 (1)

B-C

-338 / 0

-78.0

-78.0

0.06 (1)

6.25

B-G

0 / 25

0.01 (1)

C-D

-409 / 0

-78.0

-78.0

0.28 (1)

6.25

G-C

-73 / 27

0.04 (1)

D-E

0 / 30

-78.0

-78.0

0.10 (1)

10.00

A-H

0 / 366

0.08 (1)

I-A

-568 / 0

0.0

0.0

0.08 (1)

7.81

G-D

0 / 364

0.08 (1)

F-D

-672 / 0

0.0

0.0

0.09 (1)

7.81

I-H

0 / 0

-18.5

-18.5

0.10 (4)

10.00

H-G

0 / 329

-18.5

-18.5

0.14 (4)

10.00

G-F

0 / 0

-18.5

-18.5

0.11 (4)

10.00

WEBS

MEMB.

FORCE

MAX

A-B

-398 / 0

-78.0

-78.0

B-C

-338 / 0

-78.0

-78.0

C-D

-409 / 0

-78.0

-78.0

D-E

0 / 30

-78.0

-78.0

I-A

-568 / 0

0.0

0.0

F-D

-672 / 0

0.0

0.0

I-H

0 / 0

-18.5

-18.5

H-G

0 / 329

-18.5

-18.5

G-F

0 / 0

-18.5

-18.5

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 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 (0.42")

CALCULATED VERT. DEFL.(LL) = L/ 999 (0.01")

ALLOWABLE DEFL.(TL)= L/360 (0.42")

CALCULATED VERT. DEFL.(TL) = L/ 999 (0.03")

CSI: TC=0.28/1.00 (C-D:1), BC=0.14/1.00 (G-H:4), WB=0.08/1.00 (A-H:1), SSI=0.13/1.00 (C-D:1)

DOL LUMBER=1.00 NAIL=1.00 LS BEND=1.10

COMP=1.10 SHEAR=1.10 TENS=1.10

COMPANION LIVE LOAD FACTOR = 1.00

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

NAIL VALUES

PLATE GRIP(DRY) 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= 0.58 (D) (INPUT = 0.90)

JSI METAL= 0.17 (D) (INPUT = 1.00)

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

LICENSED PROFESSIONAL ENGINEER

Y. WIDYA

100225448

11/20/2020

PROVINCE OF ONTARIO

TOTAL WEIGHT = 120 lb

DRY: SEASONED LUMBER.

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

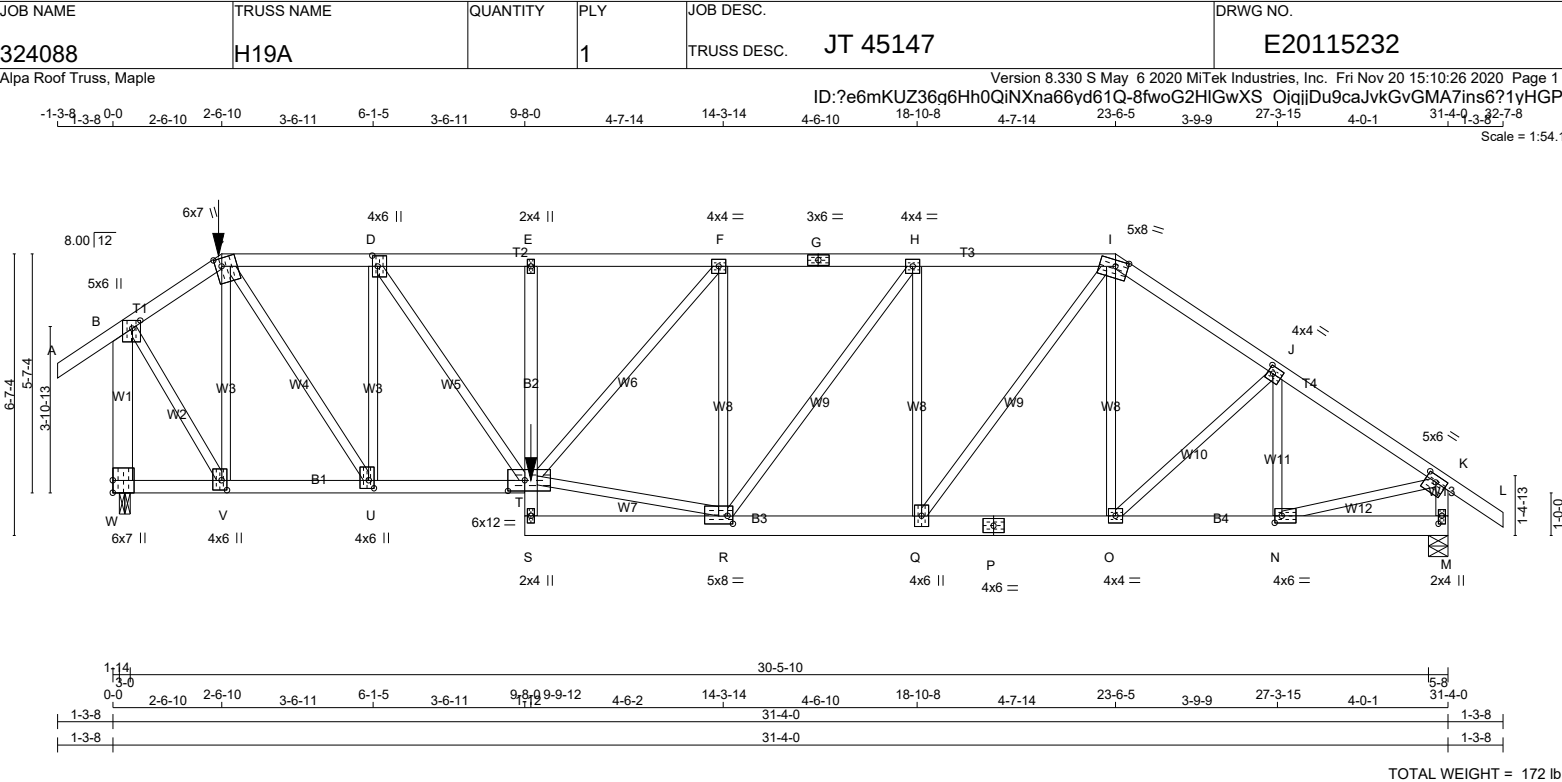
1) **C1:** A SUITABLE HANGER/MECHANICAL CONNECTION IS REQUIRED.

CONTINUED ON PAGE 2 |

Version 8.330 S May 6 2020 MiTek Industries, Inc. Fri Nov 20 15:10:24 2020 Page 1
ID: ?e6mKUZ36q6Hh0QIiNXna66vd1Q-BH01rMGVlIHk5ZBcIBQ4BVul xdWob5qETN?w8yHGPD



JSI GRIP= 0.89 (A) (INPUT = 0.90)
JSI METAL= 0.39 (G) (INPUT = 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 I - L 2x4 DRY No.2 SPF W - B 2x6 DRY No.2 SPF M - K 2x4 DRY No.2 SPF W - T 2x4 DRY No.2 SPF S - E 2x4 DRY No.2 SPF S - P 2x6 DRY No.2 SPF P - M 2x6 DRY No.2 SPF ALL WEBS 2x3 DRY No.2 SPF EXCEPT DRY: SEASONED LUMBER.			DIMENSIONS, SUPPORTS AND LOADINGS SPECIFIED BY FABRICATOR TO BE VERIFIED BY BUILDING DESIGNER BEARINGS FACTORED GROSS REACTION MAXIMUM FACTORED GROSS REACTION INPUT BRG REQ'D BRG JT VERT HORZ DOWN HORZ UPLIFT IN-SX IN-SX M 2033 0 2033 0 0 5-8 3-2 W 2727 0 2727 0 0 3-0 3-0 UNFACTORED REACTIONS 1ST LCASE MAX./MIN. COMPONENT REACTIONS JT COMBINED SNOW LIVE PERM.LIVE WIND DEAD SOIL M 1447 896 / 0 0 / 0 0 / 0 551 / 0 0 / 0 W 1942 1196 / 0 0 / 0 0 / 0 746 / 0 0 / 0 BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S) M, W BEARING SIZE FACTOR = 1.15 AT JNT(S) W (BASED ON SUPPORT DEPTH = 1-8) BRACING TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 3.31 FT. MAX. UNBRACED BOTTOM CHORD LENGTH = 7.81 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. UNBRAC LENGTH FR-TO MEMB. MAX. FACTORED FORCE (LBS) MAX. CSI (LC) FR-TO FROM TO A-B 0 / 30 -78.0 -78.0 0.12 (1) 10.00 V-C -1561 / 0 0.76 (1) B-C -1492 / 0 -78.0 -78.0 0.13 (1) 5.22 C-U 0 / 2457 0.61 (1) C-D -2577 / 0 -114.5 -114.5 0.32 (1) 3.97 U-D -1945 / 0 0.95 (1) D-E -3615 / 0 -114.5 -114.5 0.43 (1) 3.31 D-T 0 / 1816 0.45 (1) E-F -3597 / 0 -78.0 -78.0 0.42 (1) 3.36 T-R 0 / 2994 0.74 (1) F-G -3033 / 0 -78.0 -78.0 0.44 (1) 3.59 T-F 0 / 855 0.21 (1) G-H -3033 / 0 -78.0 -78.0 0.44 (1) 3.59 R-F -999 / 0 0.68 (1) H-I -2678 / 0 -78.0 -78.0 0.40 (1) 3.83 R-H 0 / 607 0.15 (1) I-J -2371 / 0 -78.0 -78.0 0.30 (1) 4.15 Q-H -889 / 0 0.61 (1) J-K -2282 / 0 -78.0 -78.0 0.30 (1) 4.22 Q-I 0 / 1206 0.30 (1) K-L 0 / 30 -78.0 -78.0 0.12 (1) 10.00 O-I 0 / 82 0.03 (4) W-B -2707 / 0 0.0 0.0 0.48 (1) 6.30 O-J 0 / 55 0.01 (1) M-K -1983 / 0 0.0 0.0 0.22 (1) 5.94 N-J -443 / 0 0.11 (1) N-K 0 / 1972 0.49 (1) W-V 0 / 0 -27.2 -27.2 0.07 (4) 10.00 B-V 0 / 2077 0.51 (1) V-U 0 / 1208 -27.2 -27.2 0.28 (1) 10.00 R-U 0 / 2070 -10.3 -10.3 0.36 (1) 10.00 Q-P 0 / 1955 -18.5 -18.5 0.29 (1) 10.00 P-O 0 / 1955 -18.5 -18.5 0.29 (1) 10.00 O-N 0 / 1914 -18.5 -18.5 0.29 (1) 10.00 N-M 0 / 0 -18.5 -18.5 0.05 (1) 10.00 FACTORED CONCENTRATED LOADS (LBS) JT LOC. LC1 MAX- MAX+ FACE DIR. TYPE HEEL CONN. C 2-6-10 -79 -79 --- FRONT VERT TOTAL --- C1 T 9-9-12 -1094 -1094 --- FRONT VERT TOTAL --- C1 CONNECTION REQUIREMENTS 1) C1: A SUITABLE HANGER/MECHANICAL CONNECTION IS REQUIRED.			DESIGN CRITERIA *** SPECIAL LOADS ANALYSIS *** GEOMETRY AND/OR BASIC LOADS CHANGED BY USER. LOADS WERE DERIVED FROM USER INPUT NO FURTHER MODIFICATIONS WERE MADE SPECIFIED LOADS: TOP CH. LL = 21.0 PSF DL = 6.0 PSF BOT CH. LL = 0.0 PSF DL = 7.4 PSF TOTAL LOAD = 34.4 PSF SPACING = 24.0 IN. C/C LOADING IN FLAT SECTION BASED ON A SLOPE OF 2.00/12 MINIMUM GIRDER TYPE: CPrimeHip LEFT SETBACK = 2-6-10 RIGHT SETBACK = 7-9-10 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. LOADS APPLIED TO FIRST 9-9-7 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, 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 (0.14") ALLOWABLE DEFL.(TL)= L/360 (1.04") CALCULATED VERT. DEFL.(TL) = L/999 (0.28") CSI: TC=0.48/1.00 (B-W:1) , BC=0.51/1.00 (T-U:1) , WB=0.95/1.00 (D-U:1) , SSI=0.21/1.00 (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 AUTOSOLVE RIGHT HEEL ONLY TRUSS PLATE MANUFACTURER IS NOT RESPONSIBLE FOR QUALITY CONTROL IN THE TRUSS MANUFACTURING PLANT .		
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LATERAL BRACE(S) SHOWN SHALL BE 2X4 SPF#2



Scale = 1:53.0



L-R	0 / 1400	-10.5	-10.5	0.50 (1)	10.00
K-J	0 / 0	-18.5	-18.5	0.09 (4)	10.00

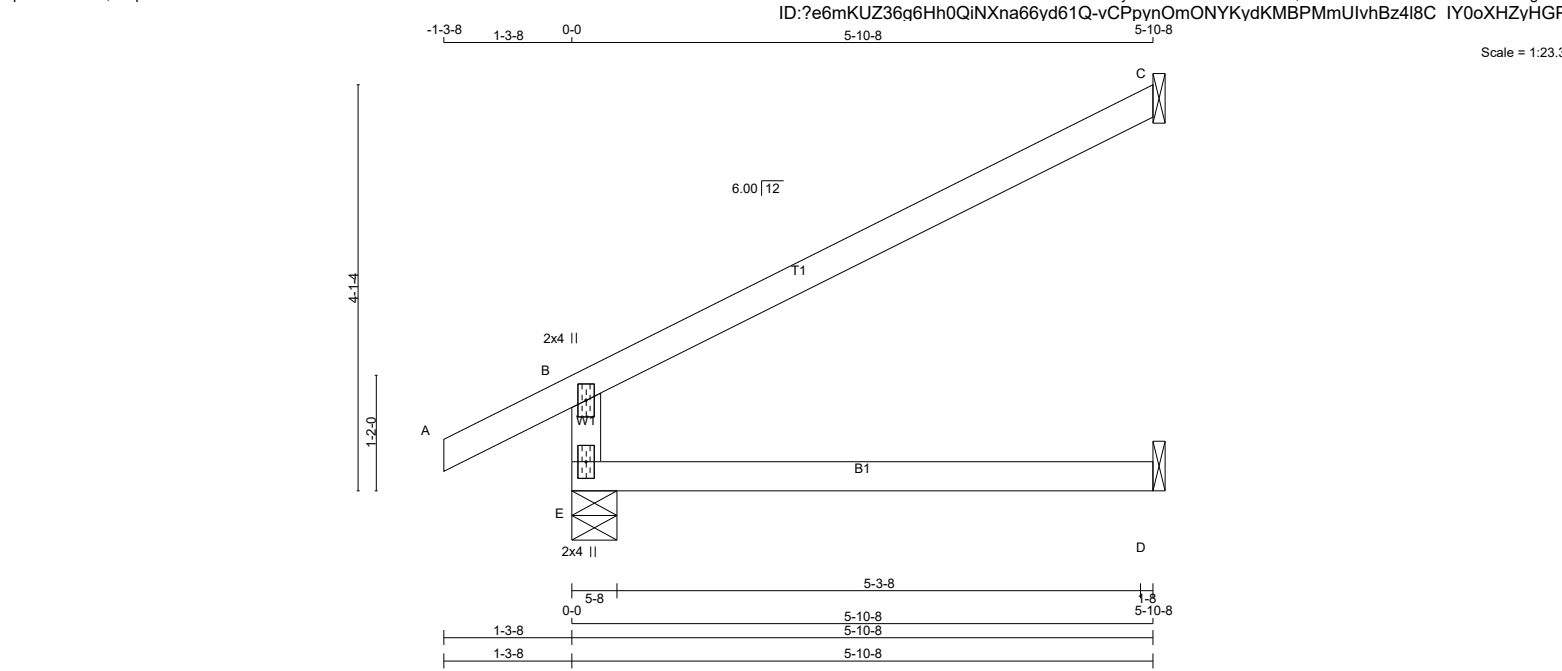
JSI GRIP= 0.89 (Q) (INPUT = 0.90)
JSI METAL= 0.47 (M) (INPUT = 1.00)

JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
324088	J01		1	TRUSS DESC. JT 45147	E20115234

Alpa Roof Truss, Maple

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ID:?e6mKUZ36q6Hh0QINXna66y6d61Q-vCPpynOmONYKydkMBPMmUlvhBz4l8C IY0oXHZyHGP3



TOTAL WEIGHT = 11 X 17 = 185 lb

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

PLATES (table is in inches)					
JT	TYPE	PLATES	W	LEN	Y X
B	TMV+p	MT20	2.0	4.0	
E	BMV1+p	MT20	2.0	4.0	

DIMENSIONS, SUPPORTS AND LOADINGS SPECIFIED BY FABRICATOR TO BE VERIFIED BY BUILDING DESIGNER							
BEARINGS							
	FACTORED		MAXIMUM	FACTORED	INPUT		REQRD
	GROSS REACTION		GROSS REACTION	DOWN	BRG		BRG
JT	VERT	HORZ	DOWN	HORZ	UPLIFT	IN-SX	IN-SX
E	456	0	456	0	0	5-8	1-8
C	172	0	172	0	0	1-8	1-8
D	45	0	50	0	0	1-8	1-8

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

UNFACTORED REACTIONS							
	1ST LCASE	MAX./MIN. COMPONENT REACTIONS					
JT	COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
E	322	211 / 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, C

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

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

LOADING
TOTAL LOAD CASES: (4)

CHORDS				WEBS			
MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	MAX LC1 (LC)	MAX. UNBRAC LENGTH	MEMB.	MAX. FACTORED FORCE (LBS)	MAX CSI (LC)
FR-TO		FROM	TO		FR-TO		
E-B	-392 / 0	0.0	0.0 0.13 (4)	7.81			
A-B	0 / 24	-78.0	-78.0 0.10 (1)	10.00			
B-C	-26 / 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/C

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

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

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

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

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

CSI: TC=0.46/1.00 (B-C:1) , BC=0.13/1.00 (D-E:4) , WB=0.00/1.00 (n/a:0) , SSI=0.20/1.00 (B-C:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

AUTOSOLVE RIGHT HEEL ONLY

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

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

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.22 (B) (INPUT = 0.90)
JSI METAL= 0.16 (B) (INPUT = 1.00)

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

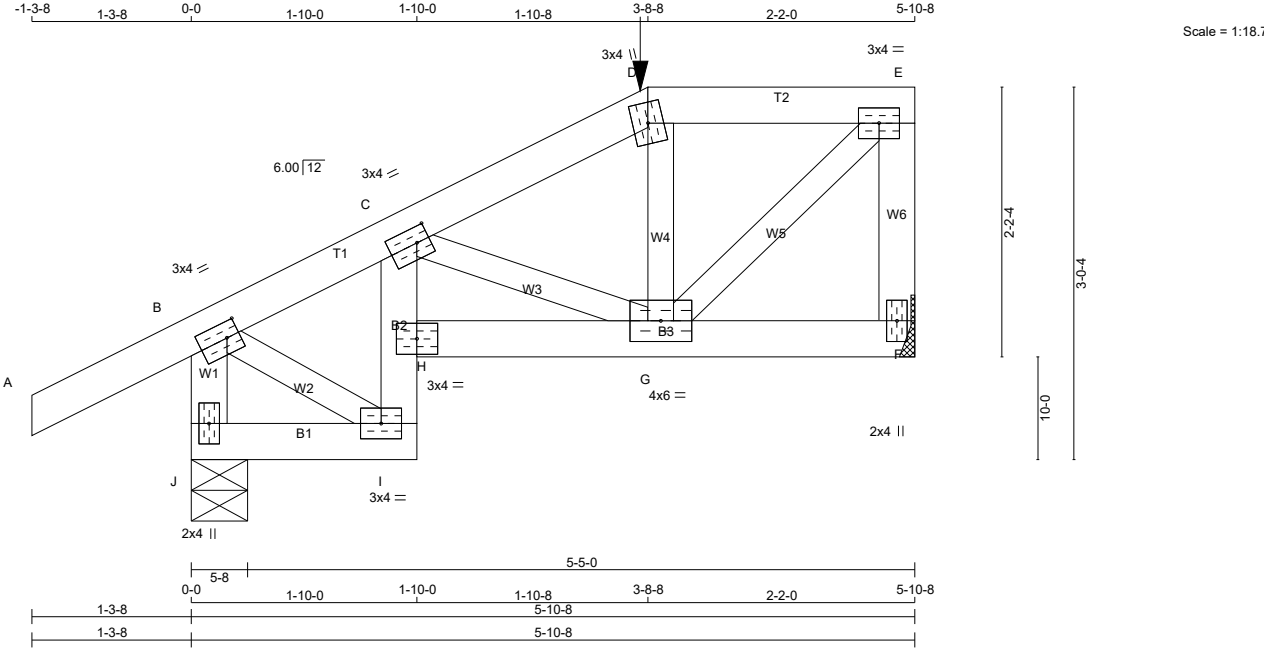


JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
324088	J01A		1	TRUSS DESC. JT 45147	E20115235

Alpa Roof Truss, Maple

ID: ?e6mKUZ36g6Hh0QINXna66yd61Q-NOzC97OP9hgAZnvZl6u?0WSyMMPetdkSmqX4p?yHGF2

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LUMBER			
N. L. G. A. RULES			
CHORDS	SIZE	LUMBER	DESCR.
A - D	2x4	DRY	No.2
D - E	2x4	DRY	No.2
F - E	2x4	DRY	No.2
J - B	2x4	DRY	No.2
J - I	2x4	DRY	No.2
I - C	2x4	DRY	No.2
H - 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-t	MT20	3.0	4.0	1.50 1.25
C	TMVW-t	MT20	3.0	4.0	1.50 1.25
D	TTW+m	MT20	3.0	4.0	
E	TMVW-t	MT20	3.0	4.0	
F	BMV1+p	MT20	2.0	4.0	
G	BMVWW-t	MT20	4.0	6.0	
H	BVM-I	MT20	3.0	4.0	
I	BMVW-t	MT20	3.0	4.0	
J	BMV1+p	MT20	2.0	4.0	

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
F	420	0	420	0	0	MECHANICAL	
J	477	0	477	0	0	5-8	1-8

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
F	299	185 / 0	0 / 0	0 / 0	0 / 0	115 / 0	0 / 0
J	339	215 / 0	0 / 0	0 / 0	0 / 0	124 / 0	0 / 0

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

BRACING

TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 6.25 FT.
MAX. UNBRACED BOTTOM CHORD LENGTH = 7.81 FT. OR RIGID CEILING DIRECTLY APPLIED.

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

LOADING

TOTAL LOAD CASES: (4)

CHORDS				WEBS			
MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	MAX. FACTORED CSI (LC)	MEMB.	MAX. FACTORED FORCE (LBS)	MAX. FACTORED CSI (LC)	
FR-TO		FROM	TO	FR-TO			
A-B	0 / 24	-78.0	-78.0 0.11 (1)	10.00	C-G	-115 / 0	0.02 (1)
B-C	-300 / 0	-78.0	-78.0 0.10 (1)	6.25	G-D	-153 / 0	0.03 (1)
C-D	-362 / 0	-78.0	-78.0 0.05 (1)	6.25	G-E	0 / 392	0.10 (1)
D-E	-320 / 0	-111.3	-111.3 0.06 (1)	6.25	B-I	0 / 279	0.07 (1)
F-E	-386 / 0	0.0	0.0 0.06 (1)	7.81			
J-B	-489 / 0	0.0	0.0 0.01 (4)	7.81			
J-I	-9 / 9	-26.4	-26.4 0.08 (1)	10.00			
I-H	-70 / 0	0.0	0.0 0.22 (1)	7.81			
H-C	-62 / 12	0.0	0.0 0.16 (1)	7.81			
H-G	0 / 434	-26.4	-26.4 0.13 (1)	10.00			
G-F	0 / 31	-26.4	-26.4 0.04 (1)	10.00			

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

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

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

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

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

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

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

ALLOWABLE DEFL.(LL)= L/360 (0.20")
CALCULATED VERT. DEFL.(LL) = L/ 999 (0.01")
ALLOWABLE DEFL.(TL)= L/360 (0.20")
CALCULATED VERT. DEFL.(TL) = L/ 999 (0.01")

CSI: TC=0.11/1.00 (A-B:1) , BC=0.22/1.00 (H-I:1) , WB=0.10/1.00 (E-G:1) , SSI=0.21/1.00 (H-I:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

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

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

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

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

L CONN.
C1

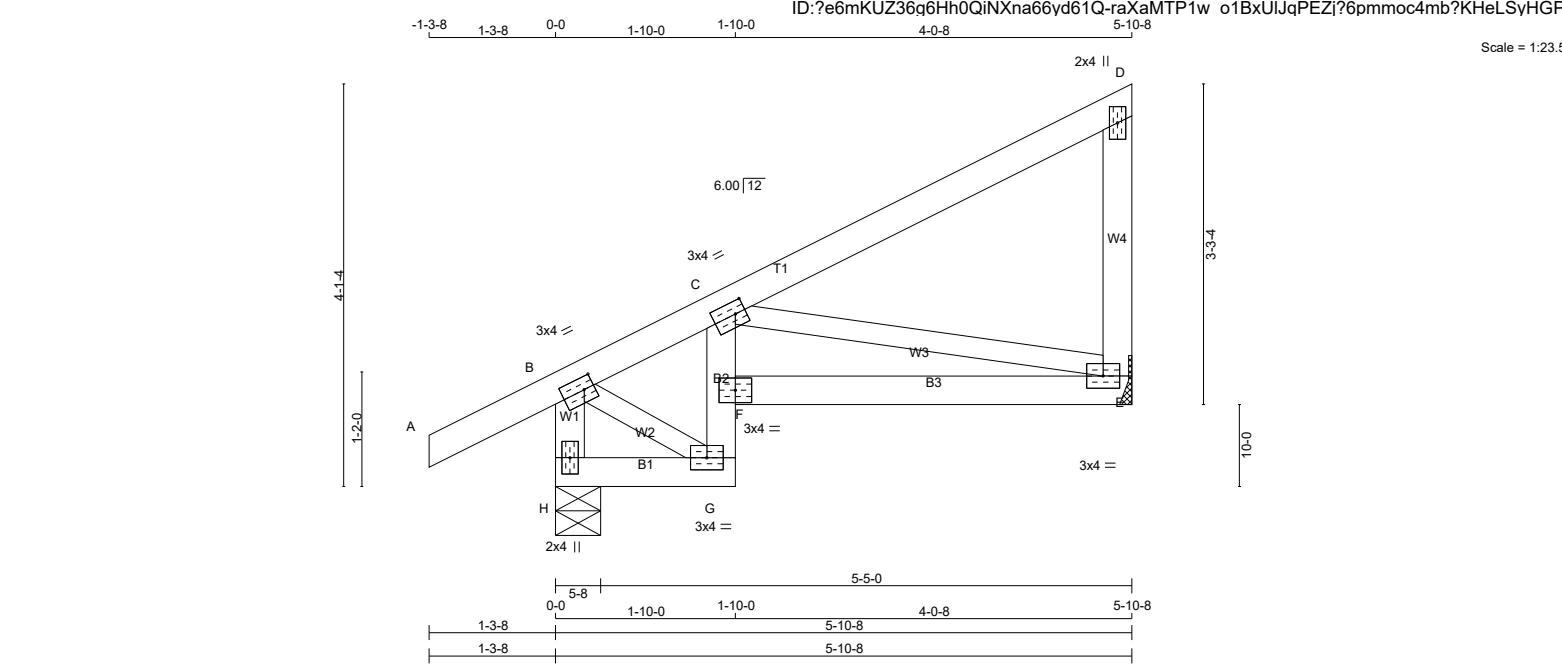


JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
324088	J01T		1	TRUSS DESC. JT 45147	E20115236

Alpa Roof Truss, Maple

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ID: ?e6mKUZ36g6Hh0QINXna66yd61Q-raXaMTP1w o1BxUIJqPEZj?6pmmoc4mb?KHeLSyHGF1



TOTAL WEIGHT = 9 X 26 = 232 lb

LUMBER				
N. L. G. A. RULES				
CHORDS	SIZE	LUMBER	DESCR.	
H - B	2x4	DRY	No.2	SPF
A - D	2x4	DRY	No.2	SPF
E - D	2x4	DRY	No.2	SPF
H - G	2x4	DRY	No.2	SPF
G - C	2x4	DRY	No.2	SPF
F - E	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 1.25
C	TMVW-t	MT20	3.0	4.0	1.50 1.25
D	TMV+p	MT20	2.0	4.0	
E	BMVW1-t	MT20	3.0	4.0	
F	BVM-I	MT20	3.0	4.0	
G	BMVW-t	MT20	3.0	4.0	
H	BMV1+p	MT20	2.0	4.0	

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

BEARINGS		FACTORED	MAXIMUM FACTORED	INPUT	REQRD
		GROSS REACTION	GROSS REACTION	BRG	BRG
JT	VERT	HORZ	DOWN	HORZ	UPLIFT
H	401	0	401	0	0
E	271	0	271	0	0

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
H	284	187 / 0	0 / 0	0 / 0	0 / 0	97 / 0	0 / 0
E	194	117 / 0	0 / 0	0 / 0	0 / 0	77 / 0	0 / 0

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

BRACING

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

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

LOADING

TOTAL LOAD CASES: (4)

CHORDS		MEMB.				WEBS			
MAX. FACTORED		FORCE		VERT. LOAD		MAX. FACTORED		FORCE	
		(LBS)		(PLF)				(LBS)	
				LC1 MAX					
				CSI (LC)					
				UNBRAC					
				LENGTH					
FR-TO		FROM TO				FR-TO			
H-B	-412 / 0	0.0	0.0	0.03 (1)	7.81	B-G	0 / 244	0.05 (1)	
A-B	0 / 24	-78.0	-78.0	0.10 (1)	10.00	C-E	-386 / 0	0.11 (1)	
B-C	-227 / 0	-78.0	-78.0	0.07 (1)	6.25				
C-D	-52 / 0	-78.0	-78.0	0.13 (1)	6.25				
E-D	-138 / 0	0.0	0.0	0.12 (1)	7.81				
H-G	-29 / 3	-18.5	-18.5	0.06 (1)	6.25				
G-F	-68 / 0	0.0	0.0	0.16 (1)	7.81				
F-C	-45 / 33	0.0	0.0	0.14 (1)	7.81				
F-E	0 / 424	-18.5	-18.5	0.13 (1)	10.00				

DESIGN CRITERIA

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

SPACING = 24.0 IN. C/C

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

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

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

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

ALLOWABLE DEFL.(LL)= L/360 (0.20")
CALCULATED VERT. DEFL.(LL) = L/ 999 (0.01")
ALLOWABLE DEFL.(TL)= L/360 (0.20")
CALCULATED VERT. DEFL.(TL) = L/ 999 (0.02")

CSI: TC=0.13/1.00 (C-D:1), BC=0.16/1.00 (F-G:1), WB=0.11/1.00 (C-E:1), SSI=0.18/1.00 (C-F:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

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

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

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.64 (E) (INPUT = 0.90)
JSI METAL= 0.14 (E) (INPUT = 1.00)

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

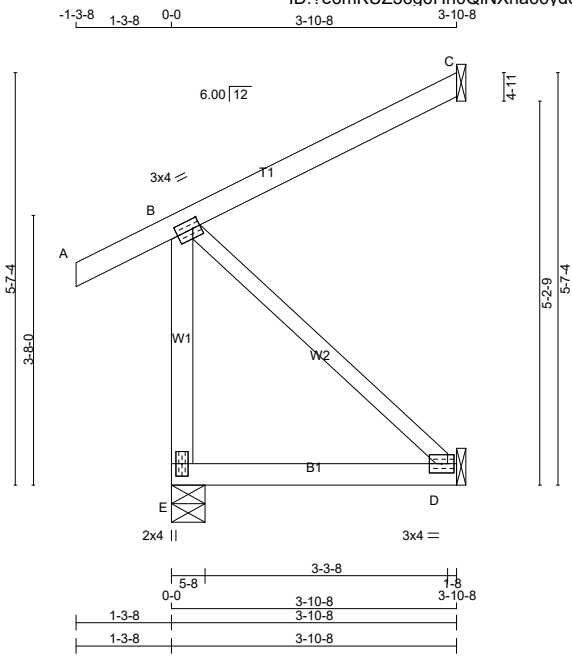


JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
324088	J02		1	TRUSS DESC. JT 45147	E20115237

Alpa Roof Truss, Maple

ID: ?e6mKUZ36q6Hh0QiNXna66yd61Q-B3TKdJP1CNNDneiAe7KdxJfUSoPJxLBAuqD5wJyHGJt

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TOTAL WEIGHT = 5 X 19 = 93 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	
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	1.25
D	BMW1-t	MT20	3.0	4.0		
E	BMV1-p	MT20	2.0	4.0		

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

BEARINGS		FACTORED		MAXIMUM FACTORED		INPUT	REQRD
		GROSS REACTION	GROSS REACTION	DOWN	HORZ	BRG	BRG
JT	VERT						
E	291	0	291	0	0	5-8	1-8
C	151	0	151	0	0	1-8	1-8
D	34	0	38	0	0	1-8	1-8

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

UNFACTORED REACTIONS

1ST LCASE		MAX./MIN. COMPONENT REACTIONS					
JT	COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
E	205	138 / 0	0 / 0	0 / 0	0 / 0	67 / 0	0 / 0
C	105	81 / 0	0 / 0	0 / 0	0 / 0	23 / 0	0 / 0
D	27	0 / 0	0 / 0	0 / 0	0 / 0	27 / 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)

CHORDS		WEBS			
MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	MAX LC1 (LC)	MAX. UNBRACED LENGTH	MEMB. MAX. FACTORED FORCE (LBS)
FR-TO		FROM	TO		FR-TO
E-B	-257 / 0	0.0	0.0	0.06 (1)	7.81
A-B	0 / 24	-78.0	-78.0	0.12 (5)	10.00
B-C	0 / 0	-78.0	-78.0	0.20 (1)	10.00
E-D	0 / 0	-18.5	-18.5	0.07 (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, 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.(TL)= L/360 (0.19")
CALCULATED VERT. DEFL.(TL) = L/ 999 (0.01")

CSI: TC=0.20/1.00 (B-C:1) , BC=0.07/1.00 (D-E:4) , WB=0.00/1.00 (B-D: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

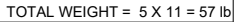
PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.23 (B) (INPUT = 0.90)
JSI METAL= 0.05 (E) (INPUT = 1.00)

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

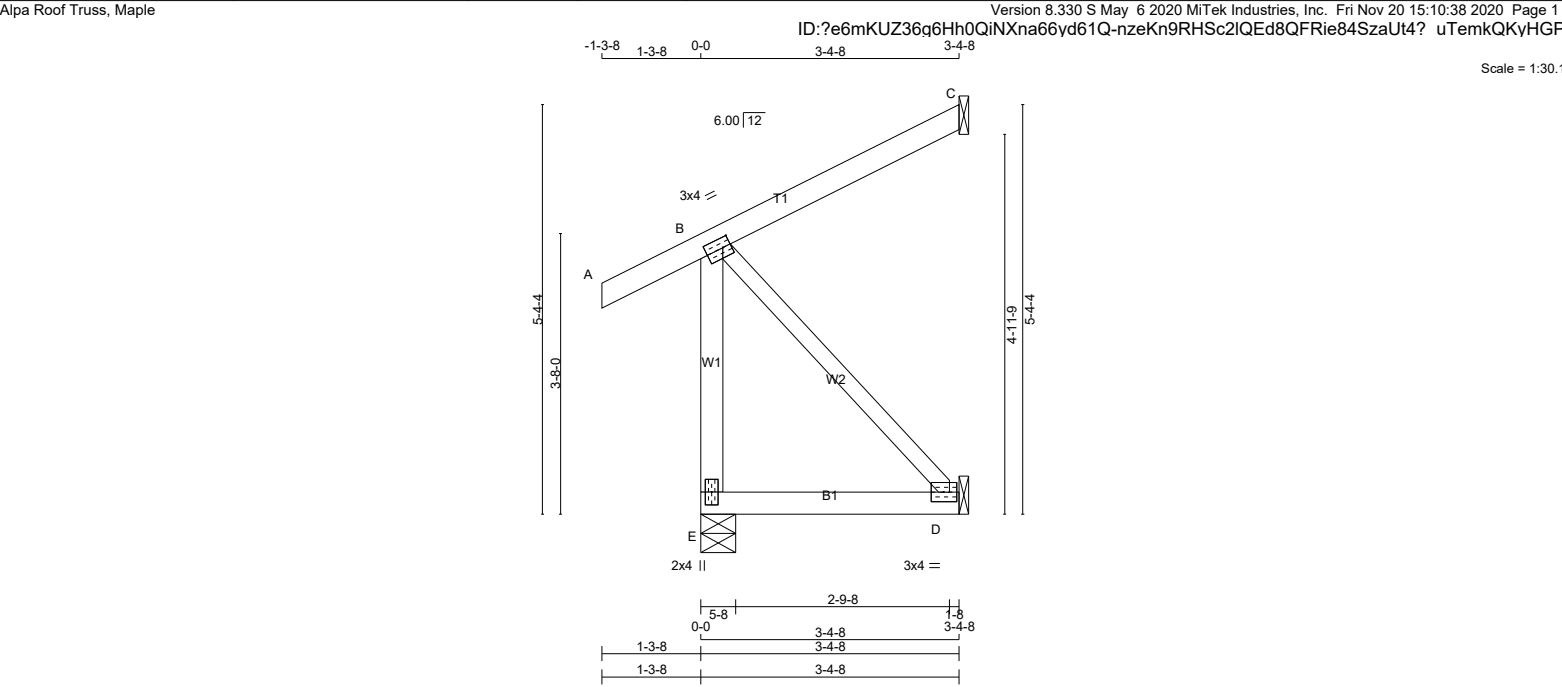


Scale = 1:21.1



JSI GRIP= 0.16 (B) (INPUT = 0.90)
JSI METAL= 0.14 (B) (INPUT = 1.00)

JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
324088	J04		1	TRUSS DESC. JT 45147	E20115239



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	
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	1.25
D	BMW1-t	MT20	3.0	4.0		
E	BMV1+p	MT20	2.0	4.0		

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

		FACTORED GROSS REACTION		MAXIMUM FACTORED GROSS REACTION		INPUT BRG	REQRD BRG
		VERT	HORZ	DOWN	HORZ	IN-SX	IN-SX
JT							
E		267	0	267	0	5-8	1-8
C		132	0	132	0	1-8	1-8
D		29	0	33	0	1-8	1-8

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

UNFACTORED REACTIONS

		1ST LCASE	MAX./MIN. COMPONENT REACTIONS			
		COMBINED	SNOW	LIVE	PERM.LIVE	WIND
JT						
E		188	128 / 0	0 / 0	0 / 0	60 / 0
C		91	71 / 0	0 / 0	0 / 0	20 / 0
D		24	0 / 0	0 / 0	0 / 0	24 / 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)

		CHORDS				WEBS			
		MAX. FACTORED	FACTORED			MAX. FACTORED	FACTORED		
		MEMB. FORCE (LBS)	VERT. LOAD (PLF)	LC1 MAX CSI (LC)	UNBRAC LENGTH	MEMB. FORCE (LBS)	MAX CSI (LC)		
FR-TO			FROM	TO		FR-TO			
E-B	-237 / 0		0.0	0.0	0.05 (1)	7.81			
A-B	0 / 24		-78.0	-78.0	0.12 (5)	10.00			
B-C	0 / 0		-78.0	-78.0	0.15 (1)	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, 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.(TL)= L/360 (0.19")
CALCULATED VERT. DEFL.(TL) = L/ 999 (0.00")

CSI: TC=0.15/1.00 (B-C:1) , BC=0.05/1.00 (D-E:4) , WB=0.00/1.00 (B-D:1) , SSI=0.09/1.00 (B-C:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

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= 0.05 (E) (INPUT = 1.00)

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



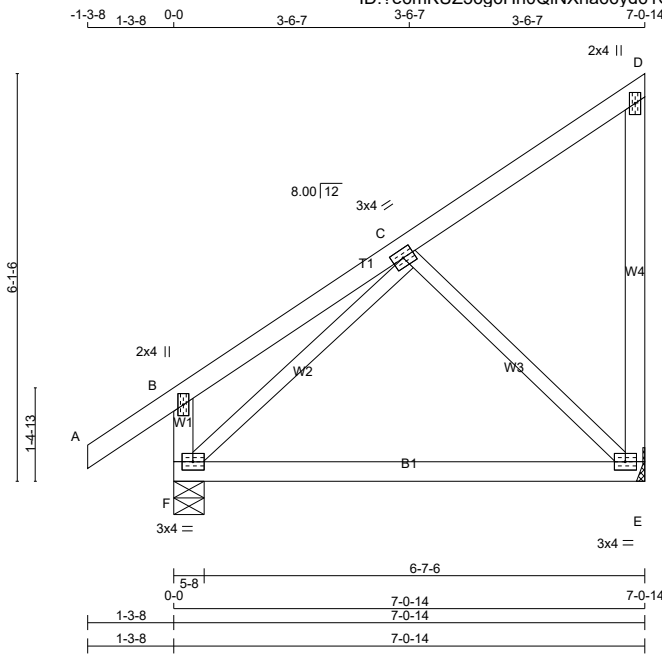
JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
324088	H21S		1	TRUSS DESC. JT 45147	E20115240

Alpa Roof Truss, Maple

ID: ?e6mKUZ36g6Hh0QiNXna66yd61Q-YEcwu4KeZrw1rsRPPsnbnFCv2yLEtwHZOI4mcMyHGP8

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Scale = 1:34.6



LUMBER N. L. G. A. RULES CHORDS SIZE LUMBER DESCR. F - B 2x4 DRY No.2 SPF A - D 2x4 DRY No.2 SPF E - D 2x4 DRY No.2 SPF F - E 2x4 DRY No.2 SPF ALL WEBS 2x3 DRY No.2 SPF DRY: SEASONED LUMBER.				DIMENSIONS, SUPPORTS AND LOADINGS SPECIFIED BY FABRICATOR TO BE VERIFIED BY BUILDING DESIGNER BEARINGS FACTORED MAXIMUM FACTORED INPUT REQD GROSS REACTION GROSS REACTION BRG BRG JT VERT HORZ DOWN HORZ UPLIFT IN-SX IN-SX F 448 0 448 0 0 5-8 1-8 E 341 0 341 0 0 MECHANICAL A SUITABLE HANGER/MECHANICAL CONNECTION IS REQUIRED AT JOINT E. MINIMUM BEARING LENGTH AT JOINT E = 1-8.				DESIGN CRITERIA SPECIFIED LOADS: TOP CH. LL = 21.0 PSF DL = 6.0 PSF BOT CH. LL = 0.0 PSF DL = 7.4 PSF TOTAL LOAD = 34.4 PSF SPACING = 24.0 IN. C/C 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.(TL)= L/360 (0.24") CALCULATED VERT. DEFL.(TL) = L/752 (0.11") CSI: TC=0.16/1.00 (B-C:1) , BC=0.28/1.00 (E-F:4) , WB=0.09/1.00 (C-E:1) , SSI=0.11/1.00 (C-D:1) DOL LUMBER=1.00 NAIL=1.00 LS BEND=1.10 COMP=1.10 SHEAR=1.10 TENS= 1.10 COMPANION LIVE LOAD FACTOR = 1.00 TRUSS PLATE MANUFACTURER IS NOT RESPONSIBLE FOR QUALITY CONTROL IN THE TRUSS MANUFACTURING PLANT . NAIL VALUES PLATE GRIP(DRY) SHEAR SECTION (PSI) (PLI) (PLI) MAX MIN MAX MIN MAX MIN MT20 650 371 1747 788 1987 1873 PLATE PLACEMENT TOL. = 0.250 inches PLATE ROTATION TOL. = 5.0 Deg. JSI GRIP= 0.31 (F) (INPUT = 0.90) JSI METAL= 0.10 (B) (INPUT = 1.00)			
---	--	--	--	--	--	--	--	---	--	--	--

PLATES (table is in inches)					
JT	TYPE	PLATES	W	LEN	Y X
B	TMV+p	MT20	2.0	4.0	
C	TMWW-t	MT20	3.0	4.0	
D	TMV+p	MT20	2.0	4.0	
E	BMVW1-t	MT20	3.0	4.0	
F	BMVW1-t	MT20	3.0	4.0	

UNFACTORED REACTIONS							
JT	1ST LCASE	MAX./MIN. COMPONENT REACTIONS					
F	COMBINED	SNOW LIVE PERM.LIVE WIND DEAD SOIL					
F	317	206 / 0	0 / 0	0 / 0	0 / 0	111 / 0	0 / 0
E	243	148 / 0	0 / 0	0 / 0	0 / 0	95 / 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.

LOADING
TOTAL LOAD CASES: (4)

CHORDS				WEBS			
MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	MAX. CSI (LC)	MEMB.	MAX. FACTORED FORCE (LBS)	MAX. CSI (LC)	
FR-TO		FROM TO		FR-TO			
F-B	-206 / 0	0.0 0.0 0.02 (1)	7.81	F-C	-252 / 0	0.09 (1)	
A-B	0 / 30	-78.0 -78.0 0.10 (1)	10.00	C-E	-245 / 0	0.09 (1)	
B-C	0 / 19	-78.0 -78.0 0.16 (1)	10.00				
C-D	-18 / 0	-78.0 -78.0 0.12 (1)	6.25				
E-D	-110 / 0	0.0 0.0 0.08 (1)	7.81				
F-E	0 / 180	-18.5 -18.5 0.28 (4)	10.00				

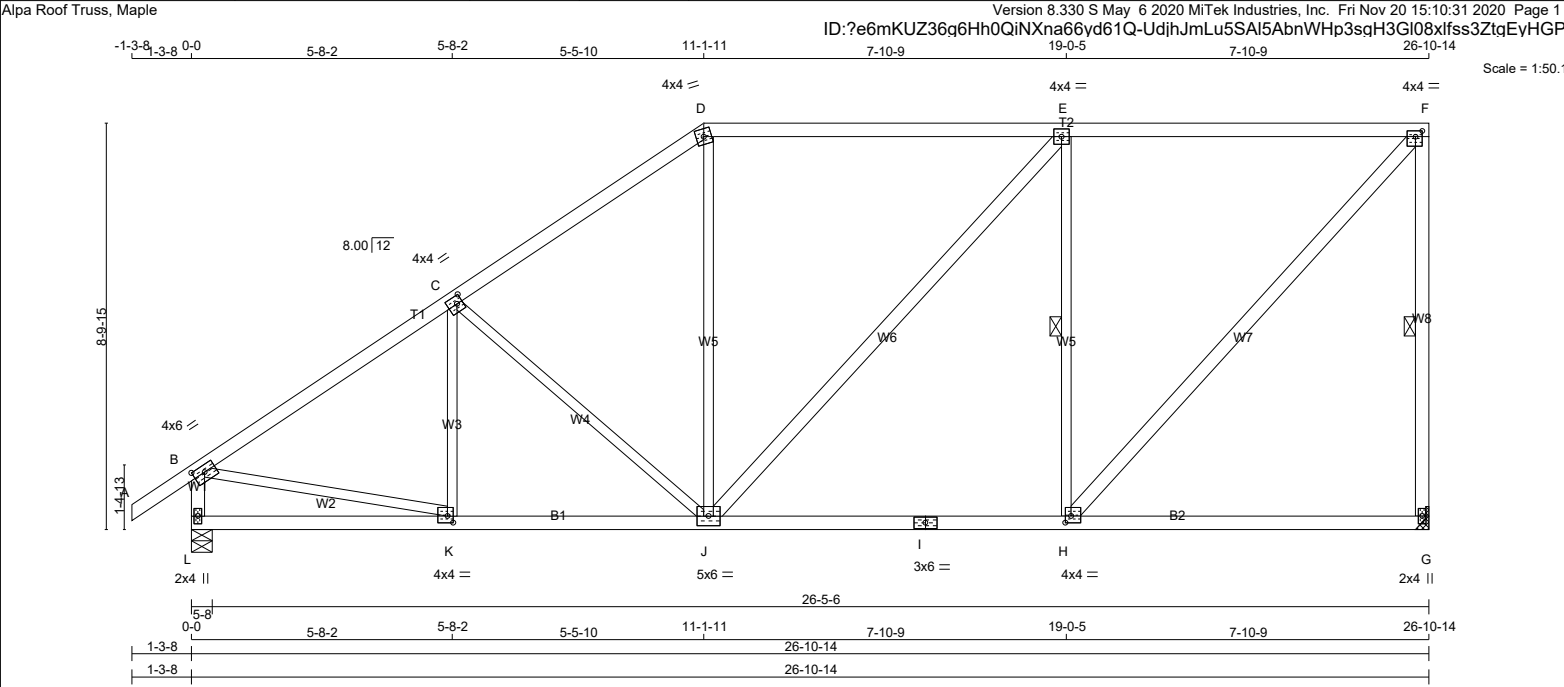
LATERAL BRACE(S) SHOWN SHALL BE 2X4 SPF#2



Scale = 1:65.2

CONTINUED ON PAGE 2

JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
324088	H23S		1	TRUSS DESC. JT 45147	E20115242



LUMBER				DIMENSIONS, SUPPORTS AND LOADINGS SPECIFIED BY FABRICATOR TO BE VERIFIED BY BUILDING DESIGNER				DESIGN CRITERIA			
N. L. G. A. RULES				BEARINGS				SPECIFIED LOADS:			
CHORDS	SIZE	LUMBER	DESCR.	FACTORED	MAXIMUM FACTORED	INPUT	REQRD	TOP CH.	LL	=	21.0 PSF
A - D	2x4	DRY	No.2	GROSS REACTION	GROSS REACTION	BRG	BRG	DL	=	6.0 PSF	
D - F	2x4	DRY	No.2	JT VERT	DOWN	UP	IN-SX	BOT CH.	LL	=	0.0 PSF
G - F	2x4	DRY	No.2	L 1298	0	1298	0	DL	=	7.4 PSF	
L - B	2x4	DRY	No.2	L 1405	0	1405	0	TOTAL LOAD	=	34.4 PSF	
L - I	2x4	DRY	No.2								
I - G	2x4	DRY	No.2								
ALL WEBS EXCEPT	2x3	DRY	No.2	A SUITABLE HANGER/MECHANICAL CONNECTION IS REQUIRED AT JOINT G. MINIMUM BEARING LENGTH AT JOINT G = 1-8.				SPACING = 24.0 IN./C			
J - E	2x4	DRY	No.2					LOADING IN FLAT SECTION BASED ON A SLOPE OF 2.00/12 MINIMUM			
H - F	2x4	DRY	No.2					THIS TRUSS IS DESIGNED FOR RESIDENTIAL OR SMALL BUILDING REQUIREMENTS OF PART 9, NBC 2015			

DRY: SEASONED LUMBER.				UNFACTORED REACTIONS				THIS DESIGN COMPLIES WITH:			
				1ST LCASE	MAX./MIN.	COMPONENT REACTIONS		- PART 9 OF CBC 2018, ABC 2019			
				JT COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL	
				G 925	565 / 0	0 / 0	0 / 0	0 / 0	361 / 0	0 / 0	
				L 999	622 / 0	0 / 0	0 / 0	0 / 0	377 / 0	0 / 0	
				BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S) L				- CSA 086-14			
				BRACING				- TPIC 2014			
				TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 4.26 FT.				(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			
				MAX. UNBRACED BOTTOM CHORD LENGTH = 10.00 FT OR RIGID CEILING DIRECTLY APPLIED.				ALLOWABLE DEFL.(LL)= L/360 (0.90")			
				ALL PITCH BREAKS AND PERIMETER CORNER JOINTS MUST BE Laterally RESTRAINED.				CALCULATED VERT. DEFL.(LL) = L/ 999 (0.04")			
				1 LATERAL BRACE(S) AT 1/2 LENGTH OF F-G, E-H.				ALLOWABLE DEFL.(TL)= L/360 (0.90")			
				END VERTICAL(S) MUST BE SHEATHED OR HAVE BRACES AS INDICATED IN THE MAX. UNBRACED LENGTH COLUMN OF THE TABLE BELOW				CALCULATED VERT. DEFL.(TL) = L/ 999 (0.12")			
				LOADING				CSI: TC=0.95/1.00 (D-E:1), BC=0.38/1.00 (H-J:4), WB=0.42/1.00 (E-H:1), SSI=0.30/1.00 (E-F:1)			
				TOTAL LOAD CASES: (4)				DOL LUMBER=1.00 NAIL=1.00 LS BEND=1.10 COMP=1.10 SHEAR=1.10 TENS= 1.10			
				CHORDS				COMPANION LIVE LOAD FACTOR = 1.00			
				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	0 / 30	-78.0	-78.0 0.10 (1)	10.00	K-C	-132 / 32	0.05 (1)
				B-C	-1491 / 0	-78.0	-78.0 0.50 (1)	4.79	C-J	-353 / 0	0.38 (1)
				C-D	-1230 / 0	-78.0	-78.0 0.47 (1)	5.18	J-D	0 / 275	0.06 (1)
				D-E	-1001 / 0	-78.0	-78.0 0.95 (1)	4.26	J-E	0 / 104	0.02 (1)
				E-F	-931 / 0	-78.0	-78.0 0.94 (1)	4.39	H-E	-841 / 0	0.42 (1)
				G-F	-1240 / 0	0.0	0.0 0.44 (1)	5.77	H-F	0 / 1373	0.22 (1)
				L-B	-1360 / 0	0.0	0.0 0.14 (1)	6.96	B-K	0 / 1287	0.29 (1)

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

Y. WIDYA
100225448
11/20/2020
PROVINCE OF ONTARIO

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

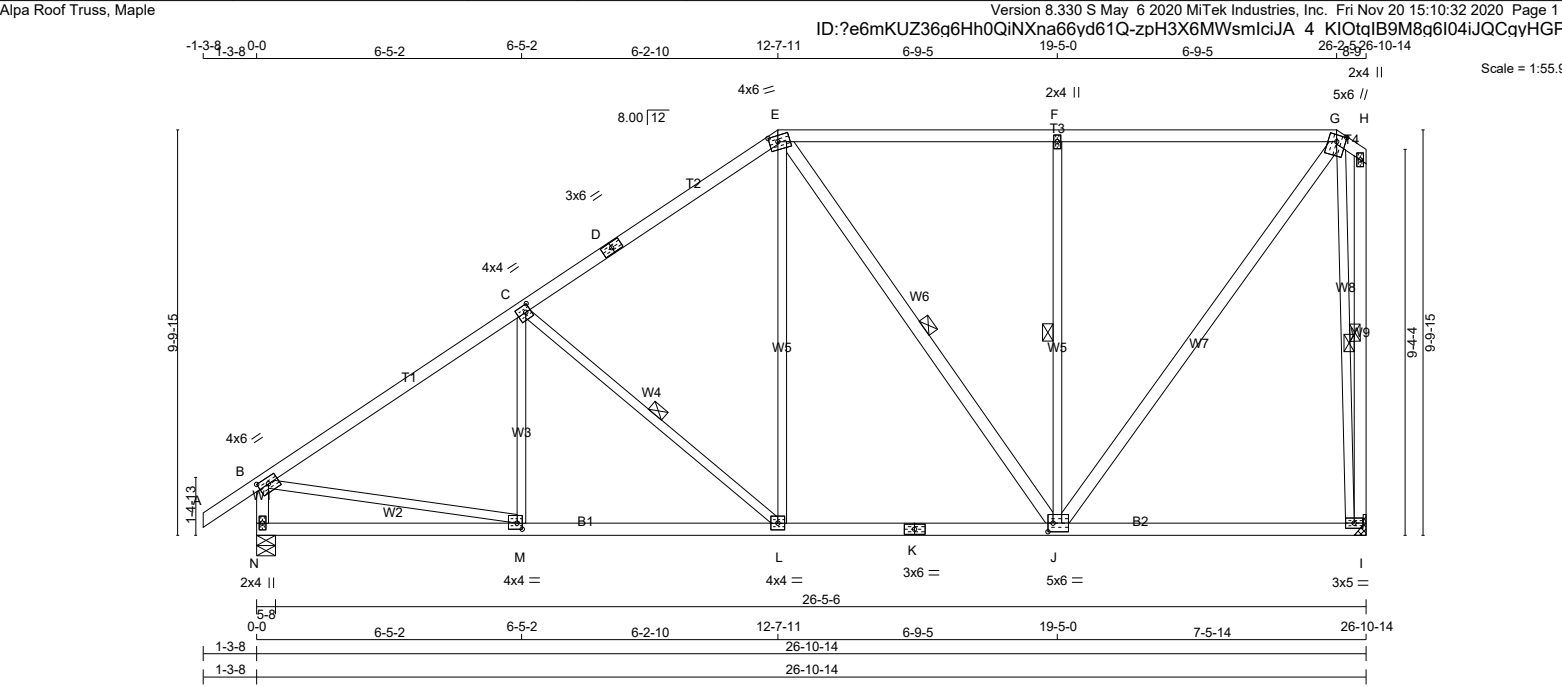
NAIL VALUES
PLATE GRIP(DRY) SHEAR SECTION (PSI) (PLI) (PLI)
MAX MIN MAX MIN MAX MIN
MT20 650 371 1747 788 1987 1873

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

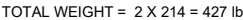
JSI GRIP= 0.84 (H) (INPUT = 0.90)
JSI METAL= 0.43 (K) (INPUT = 1.00)

JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
324088	H24S		1	TRUSS DESC. JT 45147	E20115243



LUMBER N. L. G. A. RULES CHORDS SIZE LUMBER DESCR. A - D 2x4 DRY No.2 SPF D - E 2x4 DRY No.2 SPF E - G 2x4 DRY No.2 SPF G - H 2x4 DRY No.2 SPF N - B 2x4 DRY No.2 SPF I - H 2x4 DRY No.2 SPF N - K 2x4 DRY No.2 SPF K - I 2x4 DRY No.2 SPF ALL WEBS 2x3 DRY No.2 SPF EXCEPT E - J 2x4 DRY No.2 SPF J - G 2x4 DRY No.2 SPF DRY: SEASONED LUMBER.				DIMENSIONS, SUPPORTS AND LOADINGS SPECIFIED BY FABRICATOR TO BE VERIFIED BY BUILDING DESIGNER BEARINGS FACTORED GROSS REACTION MAXIMUM FACTORED GROSS REACTION INPUT REQ'D JT VERT HORZ DOWN HORZ UPLIFT IN-SX IN-SX N 1405 0 1405 0 0 5-8 2-1 I 1298 0 1298 0 0 MECHANICAL A SUITABLE HANGER/MECHANICAL CONNECTION IS REQUIRED AT JOINT I. MINIMUM BEARING LENGTH AT JOINT I = 1-8. UNFACTORED REACTIONS 1ST LCASE MAX./MIN. COMPONENT REACTIONS JT COMBINED SNOW LIVE PERM.LIVE WIND DEAD SOIL N 999 622 / 0 0 / 0 0 / 0 0 / 0 377 / 0 0 / 0 I 925 565 / 0 0 / 0 0 / 0 0 / 0 361 / 0 0 / 0 BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S) N BRACING TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 4.54 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-L, E-J, F-J, H-I, G-I. END VERTICAL(S) MUST BE SHEATHED OR HAVE BRACES AS INDICATED IN THE MAX. UNBRACED LENGTH COLUMN OF THE TABLE BELOW LOADING TOTAL LOAD CASES: (4) C H O R D S W E B S MEMB. MAX. FACTORED FORCE (LBS) VERT. LOAD (PLF) LC1 MAX. FACTORED CSI (LC) UNBRACED LENGTH MEMB. MAX. FACTORED FORCE (LBS) MAX. FACTORED CSI (LC) FR-TO FROM TO FR-TO A-B 0 / 30 -78.0 -78.0 0.10 (1) 10.00 M-C -82 / 67 0.04 (1) B-C -1490 / 0 -78.0 -78.0 0.68 (1) 4.54 C-L -462 / 0 0.22 (1) C-D -1135 / 0 -78.0 -78.0 0.62 (1) 5.08 L-E 0 / 409 0.09 (1) D-E -1135 / 0 -78.0 -78.0 0.62 (1) 5.08 E-J -220 / 0 0.17 (1) E-F -792 / 0 -78.0 -78.0 0.65 (1) 5.64 J-F -654 / 0 0.43 (1) F-G -792 / 0 -78.0 -78.0 0.65 (1) 5.64 J-G 0 / 1209 0.19 (1) G-H 0 / 0 -78.0 -78.0 0.01 (1) 10.00 B-M 0 / 1285 0.29 (1) N-L -1356 / 0 0.0 0.0 0.14 (1) 6.97 G-I -1217 / 0 0.78 (1) L - N 0 / 919 -10.3 -10.3 0.33 (4) 10.00 K - J 0 / 919 -18.5 -18.5 0.33 (4) 10.00 J - I 0 / 91 -18.5 -18.5 0.25 (4) 10.00				DESIGN CRITERIA SPECIFIED LOADS: TOP CH. LL = 21.0 PSF DL = 6.0 PSF BOT CH. LL = 0.0 PSF DL = 7.4 PSF TOTAL LOAD = 34.4 PSF SPACING = 24.0 IN./C 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 (0.90") CALCULATED VERT. DEFL.(LL) = L/ 999 (0.04") ALLOWABLE DEFL.(TL)= L/360 (0.90") CALCULATED VERT. DEFL.(TL) = L/ 999 (0.11") CSI: TC=0.68/1.00 (B-C:1) , BC=0.33/1.00 (J-L:4) , WB=0.78/1.00 (G-I:1) , SSI=0.26/1.00 (E-F:1) DOL LUMBER=1.00 NAIL=1.00 LS BEND=1.10 COMP=1.10 SHEAR=1.10 TENS=1.10 COMPANION LIVE LOAD FACTOR = 1.00 AUTOSOLVE LEFT 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= 0.87 (J) (INPUT = 0.90) JSI METAL= 0.43 (M) (INPUT = 1.00)			
PLATES (table is in inches) JT TYPE PLATES W LEN Y X B TMVW-t MT20 4.0 6.0 1.75 3.00 C TMWW-t MT20 4.0 4.0 2.00 1.50 D TS-t MT20 3.0 6.0 E TTWW-m MT20 4.0 6.0 1.75 2.50 F TMW+w MT20 2.0 4.0 G TTWW+m MT20 5.0 6.0 2.00 2.50 H TMV+p MT20 2.0 4.0 I BMVW1-t MT20 3.0 5.0 J BMWWW-t MT20 5.0 6.0 2.50 1.50 K BS-t MT20 3.0 6.0 L BMWW-t MT20 4.0 4.0 M BMWW-t MT20 4.0 4.0 1.75 1.50 N BMV1+p MT20 2.0 4.0				LATERAL BRACE(S) SHOWN SHALL BE 2X4 SPF#2							

Scale = 1:66.0



JT	LOC.	LC1	MAX-	MAX+	FACE	DIR.	TYPE	HEEL	CONN.
W	27-0-7	-1720	-1720	---	FRONT	VERT	TOTAL	---	C1
X	31-7-9	-628	-628	---	FRONT	VERT	TOTAL	---	C1

JSI GRIP= 0.88 (E) (INPUT = 0.90)
JSI METAL= 0.61 (Q) (INPUT = 1.00)

JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
324088	H25A		2	TRUSS DESC. JT 45147	E20115244(2)

PLATES (table is in inches)

JT	TYPE	PLATES	W	LEN	Y	X
B	TMVW-t	MT20	4.0	9.0	1.50	4.50
C	TMWW-t	MT20	4.0	4.0	2.00	1.50
D	TS-t	MT20	3.0	6.0		
E	TTWW+m	MT20	5.0	8.0	4.25	1.00
F	TMW+w	MT20	2.0	4.0		
G	TTWW+m	MT20	5.0	8.0	4.25	1.00
H	TS-t	MT20	3.0	6.0		
I	TMWW-t	MT20	4.0	4.0	2.00	1.50
J	TMVW-t	MT20	4.0	9.0	1.50	4.50
L	BMV1+p	MT20	3.0	4.0		
M	BMWW-t	MT20	5.0	6.0	2.50	2.50
N	BMWW+t	MT20	4.0	4.0	2.00	1.50
O	BS-t	MT20	4.0	6.0		
P	BMWWW-t	MT20	5.0	6.0		
Q	BS-t	MT20	4.0	6.0		
R	BMWW+t	MT20	4.0	4.0	2.00	1.50
S	BMWW-t	MT20	5.0	6.0	2.50	2.50
T	BMV1+p	MT20	3.0	4.0		

CONNECTION REQUIREMENTS

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

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:

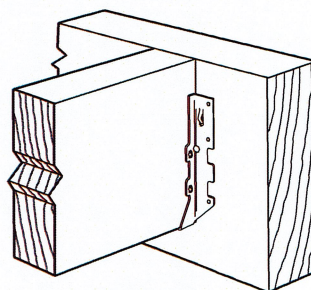
- Factored resistances are in accordance with CSA O86-14.
- Uplift resistances have been increased 15%. No further increase is permitted.
- Wood shear is not considered in the factored resistances given. The specifier must ensure that the joist and header capacities are capable of withstanding these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

Installation:

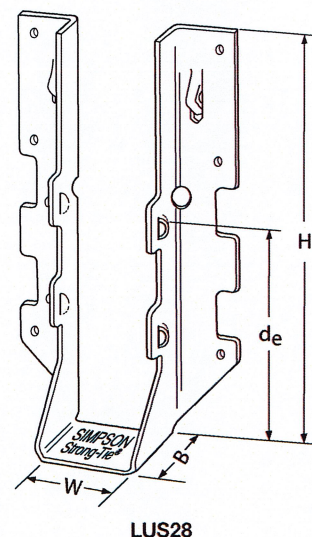
- Use all specified fasteners.
- Nails: 16d = 0.162" dia. x 3½" long common wire, 10d = 0.148" x 3" long common wire.
- Double shear nails must be driven at an angle through the joist or truss into the header to achieve the table loads.
- Not designed for welded or nailer applications.

Options:

- These hangers cannot be modified



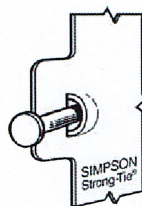
Typical LUS Installation



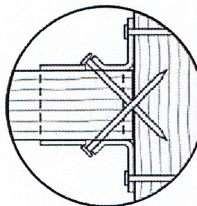
LUS28

Model No.	Ga.	Dimensions (in.)				Fasteners		Factored Resistance (lb.)			
								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)
		W	H	B	d _e ¹	Face	Joist				
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

This technical bulletin is effective until June 30, 2022, and reflects information available as of April 1, 2020. This information is updated periodically and should not be relied upon after June 30, 2022. Contact Simpson Strong-Tie for current information and limited warranty or see strongtie.com.

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T-SPECLUS20 3/20 exp. 6/22

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strongtie.com

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:

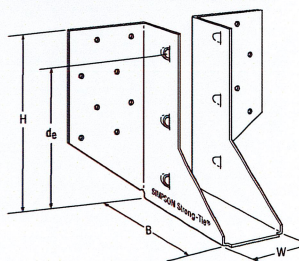
- Factored resistances are in accordance with CSA O86 -14.
- Uplift resistances have been increased 15%. No further increase is permitted.
- Wood shear is not considered in the factored resistances given. The specifier must ensure that the joist and header capacities are capable of withstanding these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

Installation:

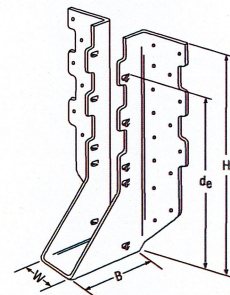
- Use all specified fasteners
- Nails: 16d = 0.162" dia. x 3½" long common wire
- Double shear nails must be driven at an angle through the joist or truss into the header to achieve the table loads
- Not designed for welded or nailer applications

Options:

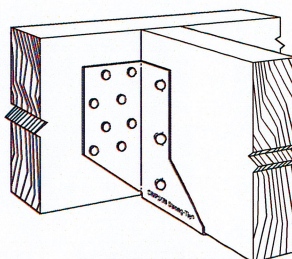
- See current catalogue for options



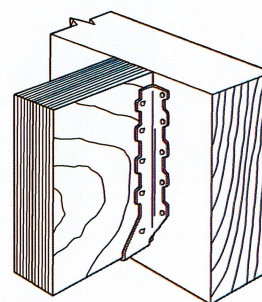
LJS26DS



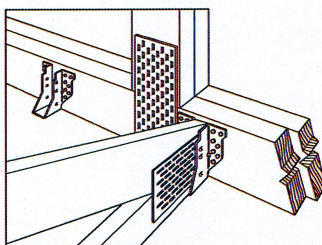
HUS210
(HUS26, HUS28, similar)



Typical LJS26DS
Installation



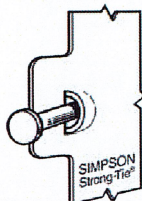
Typical HUS
Installation



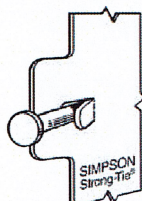
Typical HUS Installation
(Truss Designer to provide fastener
quantity for connecting multiple
members together)

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	4⅞	(16) 16d	(6) 16d	2055	4265	1460	4115
HUS26	16	1⅝	5⅞	3	3½	(14) 16d	(6) 16d	2705	4940	2065	3875
HUS28	16	1⅝	7⅜	3	6⅜	(22) 16d	(8) 16d	3605	5365	2675	4345
HUS210	16	1⅝	9⅜	3	7⅜	(30) 16d	(10) 16d	4505	5795	4010	4740
HUS1.81/10	16	1⅜	9	3	8	(30) 16d	(10) 16d	4505	6450	4010	5200

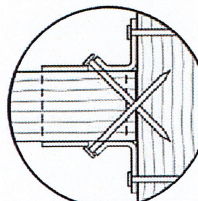
1. d_e is the distance from the seat of the hanger to the highest joist nail.



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

This technical bulletin is effective until June 30, 2022, and reflects information available as of April 1, 2020. This information is updated periodically and should not be relied upon after June 30, 2022. Contact Simpson Strong-Tie for current information and limited warranty or see strongtie.com.

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T-SPECHUS20 3/20 exp. 6/22

(800) 999-5099
strongtie.com

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:

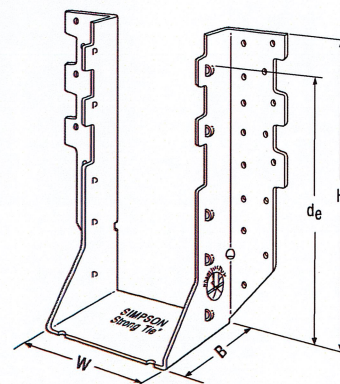
- Factored resistances are in accordance with CSA O86-14.
- Uplift resistances have been increased 15%. No further increase is permitted.
- Wood shear is not considered in the factored resistances given. The specifier must ensure that the joist and header capacities are capable of withstanding these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

Installation:

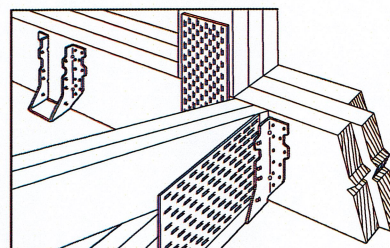
- Use all specified fasteners
- Nails: 16d = 0.162" dia. x 3½" long common wire
- Double shear nails must be driven at an angle through the joist or truss into the header to achieve the table loads
- Not designed for welded or nailer applications

Options:

- See current catalogue for options



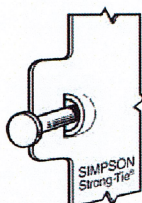
HHUS410



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

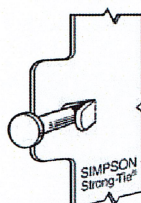
Model No.	Ga.	Dimensions (in.)				Fasteners		Factored Resistance (lb.)			
		W	H	B	d _e ¹	Face	Joist	D.Fir-L		S-P-F	
								Uplift (K _p =1.15)	Normal (K _p =1.00)	Uplift (K _p =1.15)	Normal (K _p =1.00)
HHUS26-2	14	3½	5¼	3	3¼	(14) 16d	(6) 16d	2850	7335	2065	5205
HHUS28-2	14	3½	7½	3	6½	(22) 16d	(8) 16d	3765	8940	2675	6345
HHUS210-2	14	3½	9¾	3	8	(30) 16d	(10) 16d	4670	9660	4235	7000
HHUS210-3	14	4¼	9	3	7¼	(30) 16d	(10) 16d	4670	9670	4235	6865
HHUS210-4	14	6¼	8¾	3	7¾	(30) 16d	(10) 16d	4670	10155	4235	7210
HHUS46	14	3¾	5¼	3	3¼	(14) 16d	(6) 16d	2540	7335	2065	5205
HHUS48	14	3¾	7¼	3	6¼	(22) 16d	(8) 16d	3765	8940	2675	6345
HHUS410	14	3¾	9	3	8	(30) 16d	(10) 16d	4670	9855	4235	7000
HHUS5.50/10	14	5½	9	3	8	(30) 16d	(10) 16d	4670	10155	4235	7210
HHUS7.25/10	14	7¼	9	3¾	7¾	(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.

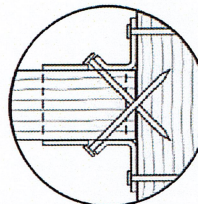


Dome Double Shear Nailing prevents tabs breaking off (available on some models).

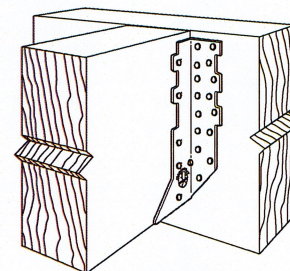
U.S. Patent
5,603,580



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



Double Shear Nailing Top View.



Typical HHUS Installation



LIMIT
STATES
DESIGN

This technical bulletin is effective until June 30, 2022, and reflects information available as of April 1, 2020. This information is updated periodically and should not be relied upon after June 30, 2022. Contact Simpson Strong-Tie for current information and limited warranty or see strongtie.com.

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T-SPECHHUS20 3/20 exp. 6/22

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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

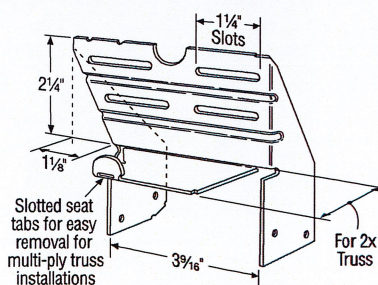
Design: Factored resistances are in accordance with CSA 086-14

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.

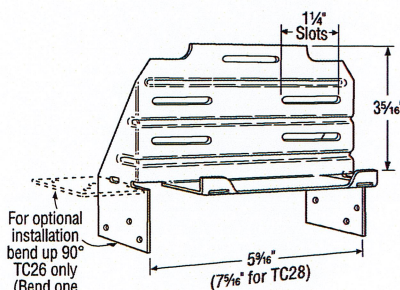
Optional TC Installation:

- 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.



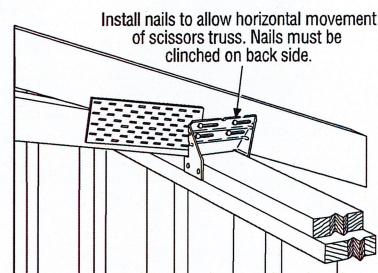
TC24

U.S. Patent 4,932,173

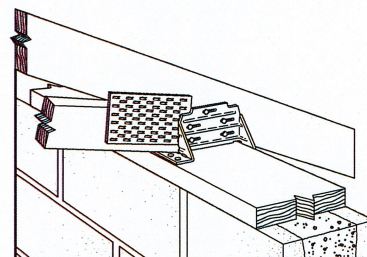


TC26

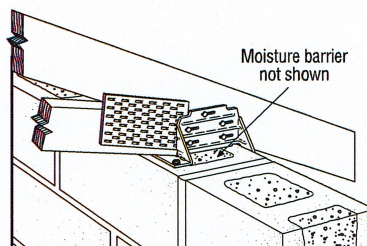
(TC28 Similar)



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**

This technical bulletin is effective until June 30, 2022, and reflects information available as of April 1, 2020. This information is updated periodically and should not be relied upon after June 30, 2022. Contact Simpson Strong-Tie for current information and limited warranty or see strongtie.com.

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T-SPECTC20 3/20 exp. 6/22

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