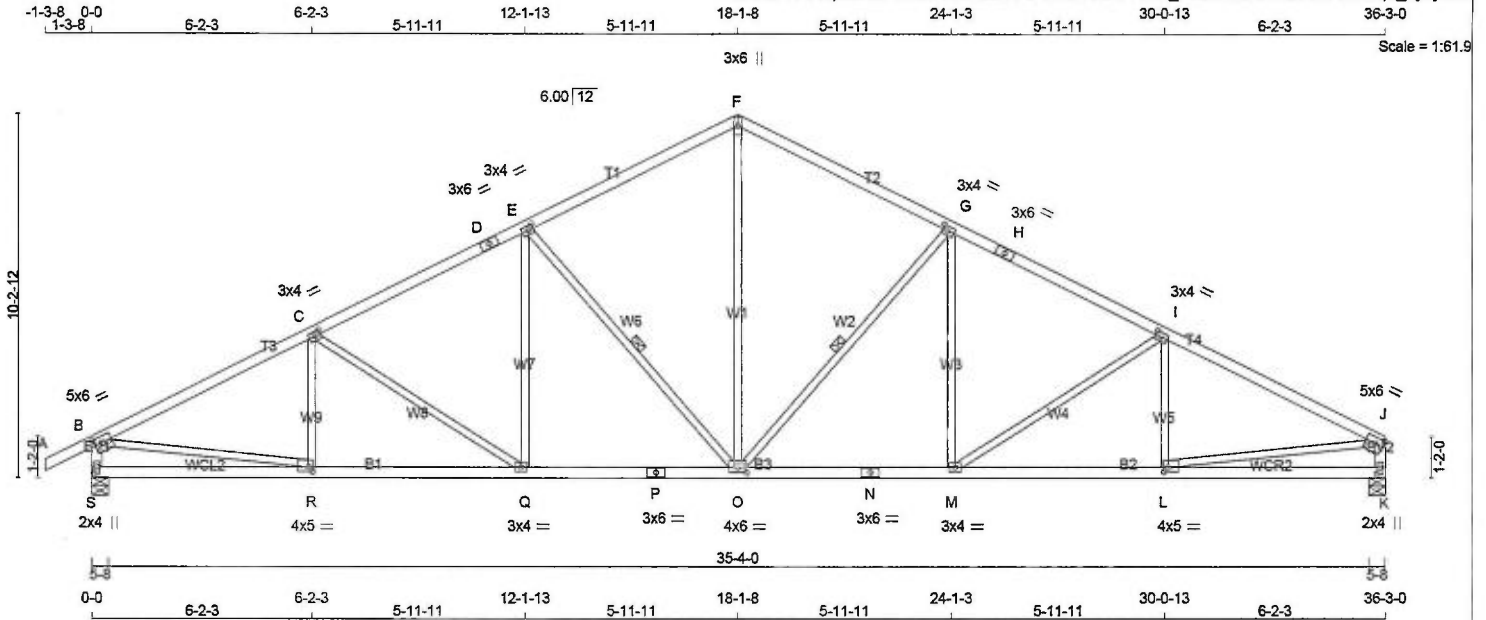




TOTAL WEIGHT = 12 X 151 = 1812 lb [M/F]

LUMBER

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

DRY: SEASONED LUMBER.

PLATES (table is in inches)

JT TYPE	PLATES	W	LEN	Y	X
B TMWV4	MT20	5.0	6.0	2.00	2.75
C E, G, I					
C TMWV4	MT20	3.0	4.0	1.50	1.75
D TS4	MT20	3.0	6.0		
F TTW+p	MT20	3.0	6.0		
H TS4	MT20	3.0	6.0		
J TMWV4	MT20	5.0	6.0	2.00	2.75
K BMV1+p	MT20	2.0	4.0	2.25	1.00
L BMWV4	MT20	4.0	5.0	1.50	1.50
M BMWV4	MT20	3.0	4.0		
N BS4	MT20	3.0	6.0		
O BMWV4	MT20	4.0	6.0	1.75	3.00
P BS4	MT20	3.0	6.0		
Q BMWV4	MT20	3.0	4.0		
R BMWV4	MT20	4.0	5.0	1.50	1.50
S BMV1+p	MT20	2.0	4.0	2.25	1.00

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

JT	FACTORED GROSS REACTION		MAXIMUM FACTORED GROSS REACTION		INPUT BRG	REQD BRG
	VERT	HORZ	DOWN	HORZ		
S	1824	0	1824	0	5-8	3-2
K	1719	0	1719	0	5-8	2-15

UNFACTORED REACTIONS

JT	1ST LCASE		MAX/MIN COMPONENT REACTIONS		WIND	DEAD	SOIL
	COMBINED	SNOW	LIVE	PERM.LIVE			
S	1278	907 / 0	0 / 0	0 / 0	0 / 0	371 / 0	0 / 0
K	1207	844 / 0	0 / 0	0 / 0	0 / 0	363 / 0	0 / 0

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

BRACING
TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 3.89 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 - 1x4 LATERAL BRACE(S) AT 1/2 LENGTH OF G-O, E-O, DBS = 20-0-0. CBF = 90 LBS.

DBS = DIAGONAL BRACE SPACING (MAX), CBF = CUMULATIVE BRACING FORCE (PER BRACE). FASTEN LATERAL BRACE(S) USING (0.122"x3") SPIRAL NAILS: 1 NAIL FOR 2x3 BRACE(S), 2 FOR 1x4, 2x4, 2x5, 3 FOR 2x6, 4 FOR 2x8, 5 FOR 2x10, AND 6 FOR 2x12.

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)

MEMB.	CHORDS		FACTORED VERT. LOAD (PLF)	MAX. UNBRACED LENGTH (LC)	MAX. MEMB. FORCE (LBS)	WEBS	
	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)				MAX. MEMB. FORCE (LBS)	FACTORED VERT. LOAD (PLF)
FR-TO							
A-B	0 / 23	-77.4	-77.4	0.10 (1)	10.00	C-F	0 / 1203
B-C	-2568 / 0	-77.4	-77.4	0.50 (1)	3.89	C-G	-722 / 0
C-D	-2289 / 0	-77.4	-77.4	0.40 (1)	4.19	M-G	0 / 276
D-E	-2289 / 0	-77.4	-77.4	0.40 (1)	4.19	M-I	-318 / 0
E-F	-1782 / 0	-77.4	-77.4	0.38 (1)	4.63	L-I	-207 / 39
F-G	-1782 / 0	-77.4	-77.4	0.38 (1)	4.63	E-O	-722 / 0
G-H	-2289 / 0	-77.4	-77.4	0.40 (1)	4.19	Q-E	0 / 276
H-I	-2289 / 0	-77.4	-77.4	0.40 (1)	4.19	C-Q	-318 / 0
I-J	-2568 / 0	-77.4	-77.4	0.50 (1)	3.89	R-C	-207 / 39
J-K	-1778 / 0	0.0	0.0	0.18 (1)	6.25	B-R	0 / 2334
K-L	-1673 / 0	0.0	0.0	0.17 (1)	6.42	L-J	0 / 2334
S-R	0 / 0	-17.5	-17.5	0.15 (4)	10.00		
R-Q	0 / 2312	-17.5	-17.5	0.43 (1)	10.00		
Q-P	0 / 2047	-17.5	-17.5	0.41 (1)	10.00		
P-O	0 / 2047	-17.5	-17.5	0.41 (1)	10.00		
O-N	0 / 2047	-17.5	-17.5	0.41 (1)	10.00		
N-M	0 / 2047	-17.5	-17.5	0.41 (1)	10.00		
M-L	0 / 2312	-17.5	-17.5	0.43 (1)	10.00		
L-K	0 / 0	-17.5	-17.5	0.15 (4)	10.00		

DESIGN CRITERIA

SPECIFIED LOADS:
TOP CH. LL = 23.3 PSF
DL = 3.0 PSF
BOT CH. LL = 0.0 PSF
DL = 7.0 PSF
TOTAL LOAD = 33.3 PSF

SPACING = 24.0 IN. C/C

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

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

(55 % OF 27.2 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 23.3 P.S.F. SPECIFIED ROOF LIVE LOAD

ALLOWABLE DEFL.(LL) = L/360 (1.21")
CALCULATED VERT. DEFL.(LL) = L/999 (0.14")
ALLOWABLE DEFL.(TL) = L/360 (1.21")
CALCULATED VERT. DEFL.(TL) = L/999 (0.26")

CSI: TC=0.50/1.00 (I-J:1), BC=0.43/1.00 (L-M:1), WB=0.53/1.00 (J-L:1), SS=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 = 0.50

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

NAIL VALUES

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

PLATE PLACEMENT TOL = 0.250 inches

PLATE ROTATION TOL = 5.0 Deg.

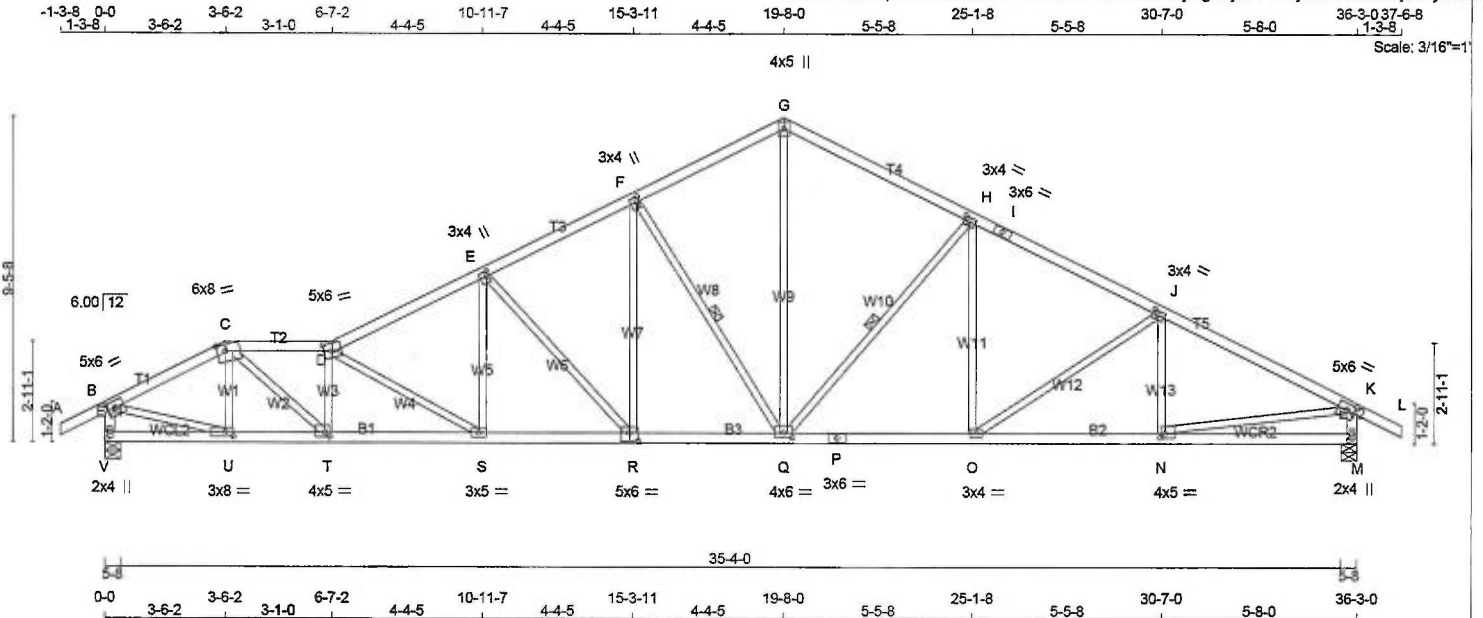
JSI GRIP= 0.90 (O) (INPUT = 0.90)
JSI METAL= 0.69 (R) (INPUT = 1.00)



September 17, 2018

READ ALL NOTES ON THIS PAGE AND ON THE ENGINEERING NOTE PAGE ENP-1. THE NOTE PAGE IS AN INTEGRAL PART OF THIS DRAWING AS IT CONTAINS SPECIFICATIONS AND CRITERIA USED IN THE DESIGN OF THIS COMPONENT.





TOTAL WEIGHT = 157 lb
[M/F]

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

DRY: SEASONED LUMBER.

PLATES (table is in inches)				
JT	TYPE	PLATES	W	LEN Y X
B	TTWW-I	MT20	5.0	6.0 2.25 2.75
C	TTWW-m	MT20	6.0	8.0 2.25 3.00
D	TTWW-m	MT20	5.0	6.0 2.75 2.75
E	TTWW-t	MT20	3.0	4.0 1.75 0.75
F	TTWW-t	MT20	3.0	4.0 1.75 0.75
G	TTWW-p	MT20	4.0	5.0
H	TTWW-t	MT20	3.0	4.0 1.50 1.75
I	TS-t	MT20	3.0	6.0
J	TTWW-t	MT20	3.0	4.0 1.50 1.75
K	TTWW-t	MT20	5.0	6.0 2.25 2.75
M	BMV1-p	MT20	2.0	4.0 2.25 1.00
N	BMWW-I	MT20	4.0	5.0 1.50 1.50
O	BMWW-I	MT20	3.0	4.0
P	BS-t	MT20	3.0	6.0
Q	BMWW-t	MT20	4.0	6.0 1.50 3.00
R	BSWW-I	MT20	5.0	6.0 3.00 3.00
S	BMWW-I	MT20	3.0	5.0 1.50 1.75
T	BMWW-I	MT20	4.0	5.0 1.50 1.75
U	BMWW-I	MT20	3.0	8.0 1.50 2.75
V	BMV1-p	MT20	2.0	4.0 2.25 1.00

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

DESIGNER BEARINGS		FACTORED GROSS REACTION		MAXIMUM FACTORED GROSS REACTION		INPUT BRG		REQRD BRG	
JT	VERT	HORZ	DOWN	HORZ	UPLIFT	IN-SX	IN-SX	IN-SX	IN-SX
V	1824	0	1824	0	0	5-8	3-2		
M	1824	0	1824	0	0	5-8	3-2		

UNFACTORED REACTIONS							
JT	COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
V	1278	907 / 0	0 / 0	0 / 0	0 / 0	371 / 0	0 / 0
M	1278	907 / 0	0 / 0	0 / 0	0 / 0	371 / 0	0 / 0

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

BRACING
TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 3.61 FT.
MAX. UNBRACED BOTTOM CHORD LENGTH = 10.00 FT OR RIGID CEILING DIRECTLY APPLIED.

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

1 - 1x4 LATERAL BRACE(S) AT 1/2 LENGTH OF F-Q, H-Q. DBS = 20-0-0, CBF = 119 LBS.

DBS = DIAGONAL BRACE SPACING (MAX), CBF = CUMULATIVE BRACING FORCE (PER BRACE), FASTEN LATERAL BRACE(S) USING (0.122"x3") SPIRAL NAILS: 1 NAIL FOR 2x3 BRACE(S), 2 FOR 1x4, 2x4, 2x5, 3 FOR 2x6, 4 FOR 2x8, 5 FOR 2x10, AND 6 FOR 2x12.

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

CHORDS				WEBS			
MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	MAX. UNBRACED LENGTH (LC)	MEMB.	MAX. FACTORED FORCE (LBS)	MAX. UNBRACED LENGTH (LC)	
FR-TO				FR-TO			
A-B	0 / 23	-77.4	-77.4 0.10 (1)	U-C	-424 / 0	0.07 (1)	
B-C	-2354 / 0	-77.4	-77.4 0.19 (1)	C-T	0 / 1855	0.42 (1)	
C-D	-3479 / 0	-77.4	-77.4 0.23 (1)	T-D	-1189 / 0	0.21 (1)	
D-E	-3087 / 0	-77.4	-77.4 0.29 (1)	D-S	-876 / 0	0.39 (1)	
E-F	-2482 / 0	-77.4	-77.4 0.22 (1)	S-E	0 / 544	0.12 (1)	
F-G	-1910 / 0	-77.4	-77.4 0.21 (1)	E-R	-852 / 0	0.84 (1)	
G-H	-1914 / 0	-77.4	-77.4 0.33 (1)	R-F	0 / 895	0.16 (1)	
H-I	-2353 / 0	-77.4	-77.4 0.34 (1)	F-Q	-955 / 0	0.44 (1)	
I-J	-2353 / 0	-77.4	-77.4 0.34 (1)	Q-G	0 / 1387	0.31 (1)	
J-K	-2549 / 0	-77.4	-77.4 0.41 (1)	G-H	-531 / 0	0.30 (1)	
K-L	0 / 23	-77.4	-77.4 0.10 (1)	H-Q	0 / 223	0.05 (1)	
V-B	-1797 / 0	0.0	0.0 0.18 (1)	Q-J	-232 / 0	0.18 (1)	
M-K	-1781 / 0	0.0	0.0 0.18 (1)	N-J	-244 / 19	0.06 (1)	
				B-U	0 / 2162	0.49 (1)	
				N-K	0 / 2322	0.52 (1)	
V-U	0 / 0	-17.5	-17.5 0.05 (4)				
U-T	0 / 2087	-17.5	-17.5 0.38 (1)				
T-S	0 / 3526	-17.5	-17.5 0.63 (1)				
S-R	0 / 2775	-17.5	-17.5 0.48 (1)				
R-Q	0 / 2202	-17.5	-17.5 0.42 (1)				
Q-P	0 / 2104	-17.5	-17.5 0.40 (1)				
P-O	0 / 2104	-17.5	-17.5 0.40 (1)				
O-N	0 / 2296	-17.5	-17.5 0.41 (1)				
N-M	0 / 0	-17.5	-17.5 0.12 (4)				

DESIGN CRITERIA

SPECIFIED LOADS:
TOP CH. LL = 23.3 PSF
DL = 3.0 PSF
BOT CH. LL = 0.0 PSF
DL = 7.0 PSF
TOTAL LOAD = 33.3 PSF

SPACING = 24.0 IN. C/C

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

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

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

(55 % OF 27.2 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 23.3 P.S.F. SPECIFIED ROOF LIVE LOAD

ALLOWABLE DEFL.(LL) = L/360 (1.21")
CALCULATED VERT. DEFL.(LL) = L/999 (0.20")
ALLOWABLE DEFL.(TL) = L/360 (1.21")
CALCULATED VERT. DEFL.(TL) = L/999 (0.36")

CSL: TC=0.41/1.00 (J-K:1), BC=0.63/1.00 (S-T:1), WB=0.64/1.00 (E-R:1), SSI=0.18/1.00 (J-K:1)

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

COMPANION LIVE LOAD FACTOR = 0.50

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 616 354 1567 822 2284 1656

PLATE PLACEMENT TOL = 0.250 inches

PLATE ROTATION TOL = 5.0 Deg.

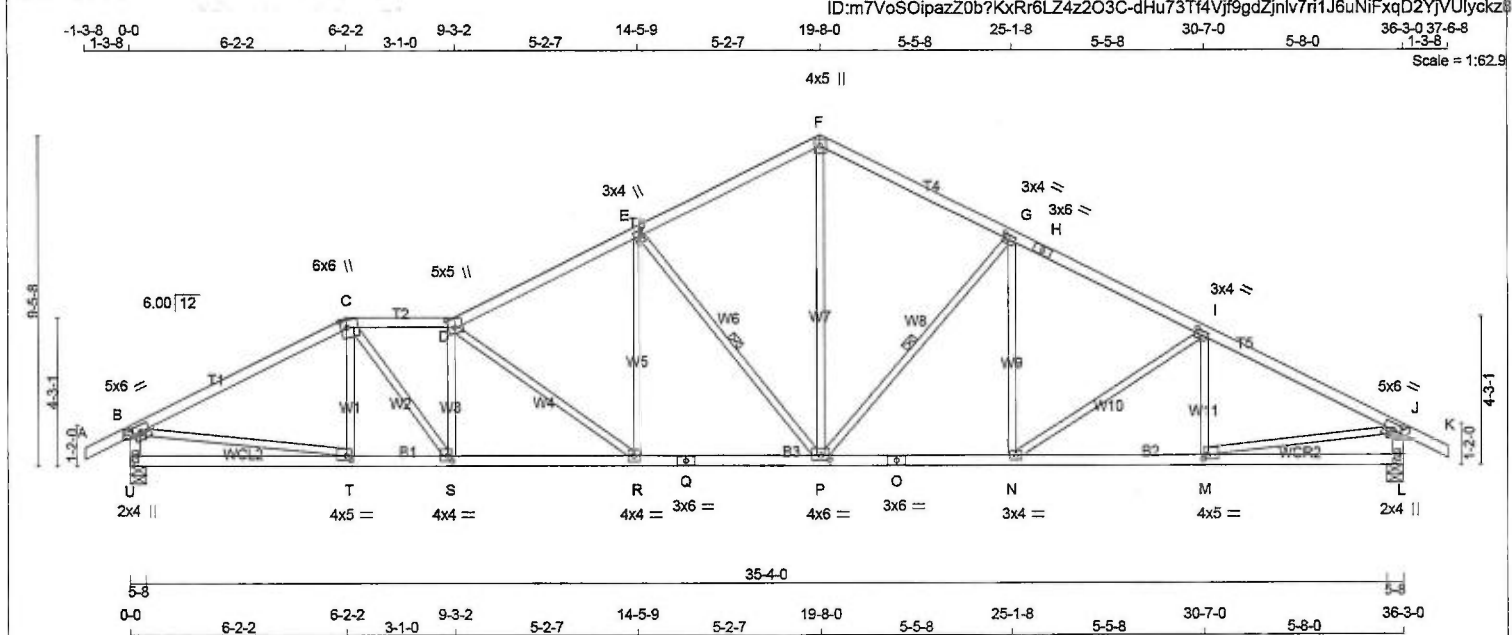
JSI GRIP= 0.90 (K) (INPUT = 0.90)
JSI METAL= 0.69 (N) (INPUT = 1.00)



September 17, 2018

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LUMBER

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

DRY: SEASONED LUMBER.

PLATES (table is in inches)

JT	TYPE	PLATES	W	LEN	Y	X
B	TMVW-t	MT20	5.0	6.0	2.25	2.75
C	TTWW-m	MT20	5.0	6.0	2.50	2.00
D	TTWW-m	MT20	5.0	5.0	3.00	2.25
E	TMVW-t	MT20	3.0	4.0	1.75	0.75
F	TTW-p	MT20	4.0	5.0		
G	TMVW-t	MT20	3.0	4.0	1.50	1.75
H	TS-t	MT20	3.0	6.0		
I	TMVW-t	MT20	3.0	4.0	1.50	1.75
J	TMVW-t	MT20	5.0	6.0	2.25	2.75
L	BMV-t	MT20	2.0	4.0	2.25	1.00
M	BMVW-t	MT20	4.0	5.0	1.50	1.50
N	BMVW-t	MT20	3.0	4.0		
O	BS-t	MT20	3.0	6.0		
P	BMVW-t	MT20	4.0	6.0	1.50	3.00
Q	BS-t	MT20	3.0	6.0		
R	BMVW-t	MT20	4.0	4.0		
S	BMVW-t	MT20	4.0	4.0	1.75	1.50
T	BMVW-t	MT20	4.0	5.0	1.50	1.50
U	BMV-t	MT20	2.0	4.0	2.25	1.00

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

BEARINGS

JT	VERT	HORZ	DOWN	HORZ	UPLIFT	IN-SX	REQD BRG
U	1824	0	1824	0	0	5-8	3-2
L	1824	0	1824	0	0	5-8	3-2

UNFACTORED REACTIONS

JT	COMBINED	SNOW	LIVE	PERM. LIVE	WIND	DEAD	SOIL
U	1278	907 / 0	0 / 0	0 / 0	0 / 0	371 / 0	0 / 0
L	1278	907 / 0	0 / 0	0 / 0	0 / 0	371 / 0	0 / 0

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

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

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

1 - 1x4 LATERAL BRACE(S) AT 1/2 LENGTH OF E-P, G-P, DBS = 20-0-0, CBF = 126 LBS.

DBS = DIAGONAL BRACE SPACING (MAX), CBF = CUMULATIVE BRACING FORCE (PER BRACE), FASTEN LATERAL BRACE(S) USING (0.122"x3") SPIRAL NAILS: 1 NAIL FOR 2x3 BRACE(S), 2 FOR 1x4, 2x4, 2x5, 3 FOR 2x6, 4 FOR 2x8, 5 FOR 2x10, AND 6 FOR 2x12.

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)

MEMB.	CHORDS				WEBS			
	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	MAX. FACTORED VERT. LOAD (LC1)	MAX. FACTORED VERT. LOAD (LC)	MEMB.	MAX. FACTORED FORCE (LBS)	MAX. FACTORED VERT. LOAD (LC1)	MAX. FACTORED VERT. LOAD (LC)
FR-TO	0 / 23	-77.4	-77.4	0.10 (1)	10.00	T-C	-202 / 24	0.05 (1)
A-B	-2513 / 0	-77.4	-77.4	0.52 (1)	3.58	C-S	0 / 1214	0.27 (1)
B-C	-2971 / 0	-77.4	-77.4	0.19 (1)	3.91	S-D	-923 / 0	0.25 (1)
C-D	-2577 / 0	-77.4	-77.4	0.37 (1)	4.00	D-R	-842 / 0	0.67 (1)
D-E	-1917 / 0	-77.4	-77.4	0.32 (1)	4.57	R-E	0 / 606	0.14 (1)
E-F	-1914 / 0	-77.4	-77.4	0.33 (1)	4.57	E-P	-1012 / 0	0.48 (1)
F-G	-2353 / 0	-77.4	-77.4	0.34 (1)	4.21	P-F	0 / 1371	0.31 (1)
G-H	-2353 / 0	-77.4	-77.4	0.34 (1)	4.21	P-G	-630 / 0	0.30 (1)
H-I	-2549 / 0	-77.4	-77.4	0.41 (1)	3.99	N-G	0 / 223	0.05 (1)
I-J	-2549 / 0	-77.4	-77.4	0.10 (1)	10.00	N-I	-232 / 0	0.18 (1)
J-K	0 / 23	0.0	0.0	0.18 (1)	6.26	M-I	-244 / 19	0.06 (1)
K-L	-1777 / 0	0.0	0.0	0.18 (1)	6.26	B-T	0 / 2267	0.51 (1)
L-J	-1781 / 0	0.0	0.0	0.18 (1)	6.26	M-J	0 / 2322	0.52 (1)
U-T	0 / 0	-17.5	-17.5	0.14 (4)	10.00			
T-S	0 / 2241	-17.5	-17.5	0.42 (1)	10.00			
S-R	0 / 2998	-17.5	-17.5	0.55 (1)	10.00			
R-Q	0 / 2325	-17.5	-17.5	0.44 (1)	10.00			
Q-P	0 / 2325	-17.5	-17.5	0.44 (1)	10.00			
P-O	0 / 2104	-17.5	-17.5	0.40 (1)	10.00			
O-N	0 / 2104	-17.5	-17.5	0.40 (1)	10.00			
N-M	0 / 2296	-17.5	-17.5	0.41 (1)	10.00			
M-L	0 / 0	-17.5	-17.5	0.12 (4)	10.00			

DESIGN CRITERIA

SPECIFIED LOADS:
TOP CH. LL = 23.3 PSF
BOT CH. LL = 0.0 PSF
TOTAL LOAD = 33.3 PSF

SPACING = 24.0 IN. C/C

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

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

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

(55% OF 27.2 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 23.3 P.S.F. SPECIFIED ROOF LIVE LOAD

ALLOWABLE DEFL.(LL) = L/360 (1.21")
CALCULATED VERT. DEFL.(LL) = L/999 (0.18")
ALLOWABLE DEFL.(TL) = L/360 (1.21")
CALCULATED VERT. DEFL.(TL) = L/999 (0.33")

CSI: TC=0.52/1.00 (B-C:1), BC=0.55/1.00 (R-S:1), WB=0.67/1.00 (D-R:1), SSI=0.18/1.00 (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 = 0.50

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

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

PLATE PLACEMENT TOL. = 0.250 inches

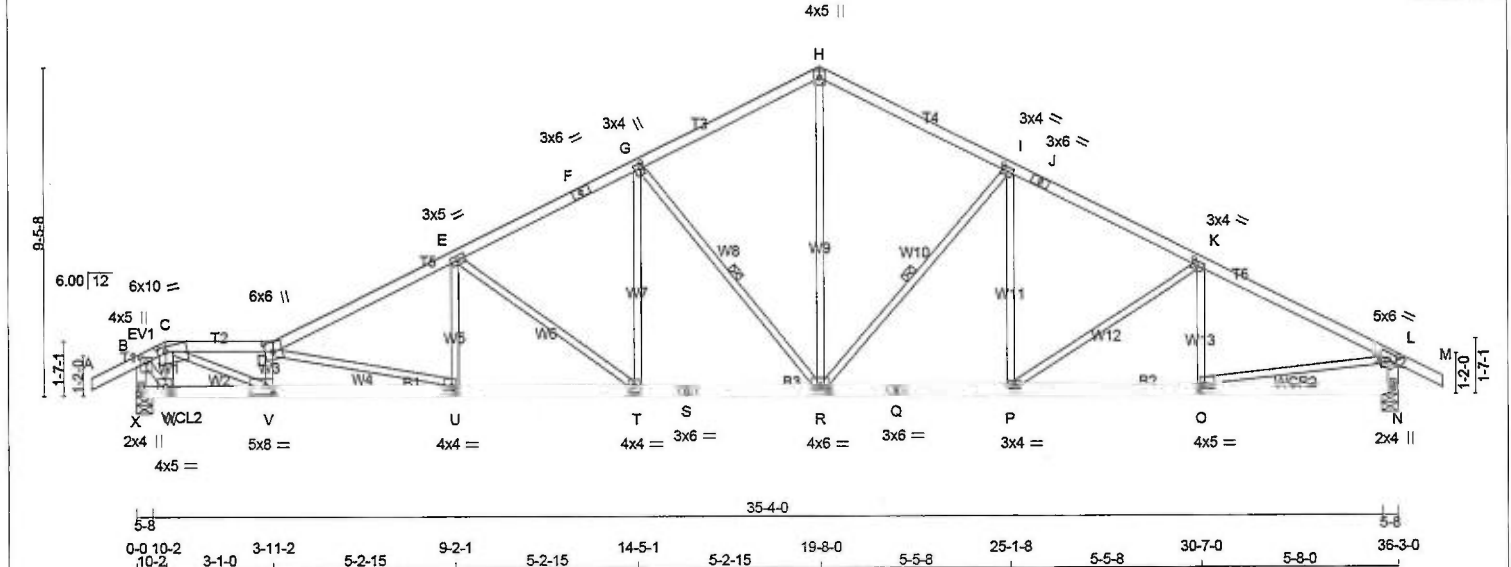
PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.90 (J) (INPUT = 0.90)
JSI METAL= 0.69 (M) (INPUT = 1.00)



READ ALL NOTES ON THIS PAGE AND ON THE ENGINEERING NOTE PAGE ENP-1. THE NOTE PAGE IS AN INTEGRAL PART OF THIS DRAWING AS IT CONTAINS SPECIFICATIONS AND CRITERIA USED IN THE DESIGN OF THIS COMPONENT.





TOTAL WEIGHT = 152 lb
[MIL]

LUMBER			
N.L.G.A. RULES	CHORDS	SIZE	LUMBER
A - C	2x4	DRY	No.2
C - D	2x4	DRY	No.2
D - F	2x4	DRY	No.2
F - H	2x4	DRY	No.2
H - J	2x4	DRY	No.2
J - M	2x4	DRY	No.2
X - B	2x4	DRY	No.2
N - L	2x4	DRY	No.2
X - S	2x4	DRY	No.2
S - Q	2x4	DRY	No.2
Q - N	2x4	DRY	No.2
ALL WEBS	2x3	DRY	No.2
EXCEPT			
DRY: SEASONED LUMBER.			

PLATES (table is in inches)				
JT TYPE	PLATES	W	LEN	Y X
B	TMVW+p	MT20	4.0	5.0 1.75 2.00
C	TTWV+m	MT20	5.0	10.0 1.75 2.75
D	TTWV+m	MT20	5.0	6.0 3.25 2.75
E	TMWV+t	MT20	3.0	5.0
F	TS-t	MT20	3.0	6.0
G	TMWV+t	MT20	3.0	4.0 1.75 0.75
H	TTWV+p	MT20	4.0	5.0
I	TMWV+t	MT20	3.0	4.0 1.50 1.75
J	TS-t	MT20	3.0	6.0
K	TMWV+t	MT20	3.0	4.0 1.50 1.75
L	TMWV+t	MT20	5.0	6.0 2.25 2.75
N	BMV1+p	MT20	2.0	4.0 2.25 1.00
O	BMWV+t	MT20	4.0	5.0 1.50 1.50
P	BMWV+t	MT20	3.0	4.0
Q	BS-t	MT20	3.0	6.0
R	BMWVW+t	MT20	4.0	6.0 1.50 3.00
S	BS-t	MT20	3.0	6.0
T	BMWVW+t	MT20	4.0	4.0
U	BMWVW+t	MT20	4.0	4.0 1.50 1.50
V	BMWVW+t	MT20	5.0	8.0 2.50 2.50
W	BMWVW+t	MT20	4.0	5.0 1.50 2.00
X	BMV1+p	MT20	2.0	4.0 2.25 1.00

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

FACTORED GROSS REACTION		MAXIMUM FACTORED GROSS REACTION		INPUT BRG		REQRD BRG	
JT	VERT	HORZ	DOWN	HORZ	UPLIFT	IN-SX	IN-SX
X	1826	0	1826	0	0	5-8	3-2
N	1822	0	1822	0	0	5-8	3-2

UNFACTORED REACTIONS		MAX/MIN COMPONENT REACTIONS		WIND		DEAD		SOIL	
JT	COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL	COMBINED	SOIL
X	1279	909 / 0	0 / 0	0 / 0	0 / 0	371 / 0	0 / 0	0 / 0	0 / 0
N	1277	906 / 0	0 / 0	0 / 0	0 / 0	370 / 0	0 / 0	0 / 0	0 / 0

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

BRACING
TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 3.16 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 - 1x4 LATERAL BRACE(S) AT 1/2 LENGTH OF G-R, I-R. DBS = 20-0-0. CBF = 124 LBS.

DBS = DIAGONAL BRACE SPACING (MAX). CBF = CUMULATIVE BRACING FORCE (PER BRACE). FASTEN LATERAL BRACE(S) USING (0.122"x3") SPIRAL NAILS: 1 NAIL FOR 2x3 BRACE(S), 2 FOR 1x4, 2x4, 2x5, 3 FOR 2x6, 4 FOR 2x8, 5 FOR 2x10, AND 6 FOR 2x12.

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

LOADING
TOTAL LOAD CASES: (4)

CHORDS		FACTORED		WEBS		FACTORED	
MEMB.	MAX. FACTORED FORCE (LBS)	VERT. LOAD (PLF)	MAX. FACTORED (LC)	MEMB.	MAX. FACTORED FORCE (LBS)	MAX. FACTORED (LC)	MAX. FACTORED (LC)
FR-TO		FROM	TO	FR-TO		FROM	TO
A-B	0 / 23	-77.4	-77.4 0.10 (1)	10.00	W-C	-873 / 0	0.12 (1)
B-C	-1389 / 0	-77.4	-77.4 0.09 (1)	5.44	C-V	0 / 3568	0.80 (1)
C-D	-4407 / 0	-77.4	-77.4 0.30 (1)	3.16	V-D	-1464 / 0	0.21 (1)
D-E	-3416 / 0	-77.4	-77.4 0.44 (1)	3.48	D-U	-1496 / 0	0.78 (1)
E-F	-2588 / 0	-77.4	-77.4 0.33 (1)	4.05	E-U	0 / 495	0.11 (1)
F-G	-2588 / 0	-77.4	-77.4 0.33 (1)	4.05	E-T	-944 / 0	0.73 (1)
G-H	-1910 / 0	-77.4	-77.4 0.30 (1)	4.60	T-G	0 / 640	0.14 (1)
H-I	-1910 / 0	-77.4	-77.4 0.33 (1)	4.57	G-R	-993 / 0	0.47 (1)
I-J	-2349 / 0	-77.4	-77.4 0.34 (1)	4.21	R-H	0 / 1357	0.31 (1)
J-K	-2349 / 0	-77.4	-77.4 0.34 (1)	4.21	R-I	-630 / 0	0.30 (1)
K-L	-2548 / 0	-77.4	-77.4 0.41 (1)	3.99	P-I	0 / 222	0.05 (1)
L-M	0 / 23	-77.4	-77.4 0.10 (1)	10.00	P-K	-232 / 0	0.18 (1)
X-B	-1924 / 0	0.0	0.0 0.19 (1)	6.06	O-K	-244 / 19	0.06 (1)
N-L	-1779 / 0	0.0	0.0 0.18 (1)	6.26	B-W	0 / 1622	0.37 (1)
					O-L	0 / 2319	0.52 (1)
X-W	0 / 0	-17.5	-17.5 0.14 (1)	10.00			
W-V	0 / 1132	-17.5	-17.5 0.35 (1)	10.00			
V-U	0 / 4525	-17.5	-17.5 0.90 (1)	10.00			
U-T	0 / 3072	-17.5	-17.5 0.58 (1)	10.00			
T-S	0 / 2315	-17.5	-17.5 0.44 (1)	10.00			
S-R	0 / 2315	-17.5	-17.5 0.44 (1)	10.00			
R-Q	0 / 2100	-17.5	-17.5 0.41 (1)	10.00			
Q-P	0 / 2100	-17.5	-17.5 0.41 (1)	10.00			
P-O	0 / 2293	-17.5	-17.5 0.41 (1)	10.00			
O-N	0 / 0	-17.5	-17.5 0.12 (1)	10.00			

READ ALL NOTES ON THIS PAGE AND ON THE ENGINEERING NOTE PAGE ENP-1. THE NOTE PAGE IS AN INTEGRAL PART OF THIS DRAWING AS IT CONTAINS SPECIFICATIONS AND CRITERIA USED IN THE DESIGN OF THIS COMPONENT.

DESIGN CRITERIA

SPECIFIED LOADS:
TOP CH. LL = 23.3 PSF
DL = 3.0 PSF
BOT CH. LL = 0.0 PSF
DL = 7.0 PSF
TOTAL LOAD = 33.3 PSF

SPACING = 24.0 IN./C/C

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

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

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

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

(55% OF 27.2 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 23.3 P.S.F. SPECIFIED ROOF LIVE LOAD

ALLOWABLE DEFL.(LL) = L/360 (1.21")
CALCULATED VERT. DEFL.(LL) = L/999 (0.24")
ALLOWABLE DEFL.(TL) = L/360 (1.21")
CALCULATED VERT. DEFL.(TL) = L/981 (0.44")

CSI: TC=0.44/1.00 (D-E-1), BC=0.90/1.00 (U-V-1), WB=0.80/1.00 (C-V-1), SSI=0.18/1.00 (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 = 0.50

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

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

PLATE PLACEMENT TOL. = 0.250 inches

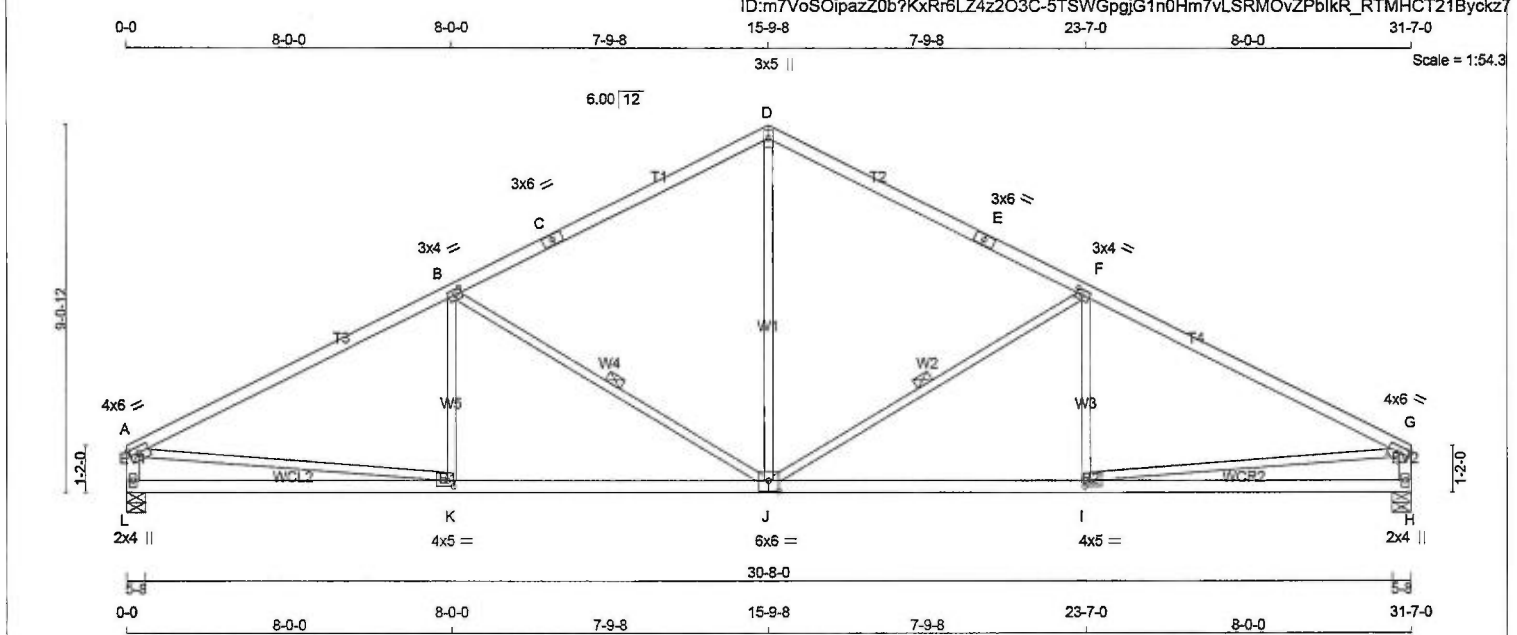
PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.90 (W) (INPUT = 0.90)
JSI METAL = 0.69 (O) (INPUT = 1.00)



September 17, 2018





LUMBER

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

DRY: SEASONED LUMBER.

PLATES (table is in inches)

JT	TYPE	PLATES	W	LEN	Y	X
A	TMVW-t	MT20	4.0	6.0	1.75	2.75
B	TMVW-t	MT20	3.0	4.0	1.50	1.75
C	TS-t	MT20	3.0	6.0		
D	TTW+p	MT20	3.0	5.0		
E	TS-t	MT20	3.0	6.0		
F	TMVW-t	MT20	3.0	4.0	1.50	1.75
G	TMVW-t	MT20	4.0	6.0	1.75	2.75
H	BMV1+p	MT20	2.0	4.0		
I	BMVW-t	MT20	4.0	5.0	1.75	1.75
J	BSVWV-t	MT20	6.0	6.0	3.25	3.00
K	BMVW-t	MT20	4.0	5.0	1.75	1.75
L	BMV1+p	MT20	2.0	4.0		

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

BEARINGS

JT	FACTORED GROSS REACTION		MAXIMUM FACTORED GROSS REACTION		INPUT BRG IN-SX	REQRD BRG IN-SX
	VERT	HORZ	DOWN	HORZ		
L	1498	0	1498	0	5-8	2-9
H	1498	0	1498	0	5-8	2-9

UNFACTORED REACTIONS

JT	1ST CASE		MAX/MIN COMPONENT REACTIONS		WIND	DEAD	SOIL
	COMBINED	SNOW	LIVE	PERM.LIVE			
L	1051	735 / 0	0 / 0	0 / 0	0 / 0	316 / 0	0 / 0
H	1051	735 / 0	0 / 0	0 / 0	0 / 0	316 / 0	0 / 0

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

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

ALL PITCH BREAKS AND PERIMETER CORNER JOINTS MUST BE Laterally RESTRAINED.
1 - 1x4 LATERAL BRACE(S) AT 1/2 LENGTH OF F-J, B-J. DBS = 20-0-0. CBF = 92 LBS.

DBS = DIAGONAL BRACE SPACING (MAX). CBF = CUMULATIVE BRACING FORCE (PER BRACE). FASTEN LATERAL BRACE(S) USING (0.122"x3") SPIRAL NAILS: 1 NAIL FOR 2x3 BRACE(S), 2 FOR 1x4, 2x4, 2x5, 3 FOR 2x6, 4 FOR 2x8, 5 FOR 2x10, AND 6 FOR 2x12.

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

LOADING
TOTAL LOAD CASES: (4)

CHORDS				WEBS				
MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	MAX. CSI (LC)	MAX. UNBRACED LENGTH	MEMB.	MAX. FACTORED FORCE (LBS)	MAX. CSI (LC)	
FR-TO		FROM	TO		FR-TO			
A-B	-2184 / 0	-77.4	-77.4	0.85 (1)	3.63	J-D	0 / 908	0.20 (1)
B-C	-1555 / 0	-77.4	-77.4	0.73 (1)	4.31	J-F	-733 / 0	0.43 (1)
C-D	-1555 / 0	-77.4	-77.4	0.73 (1)	4.31	I-F	-60 / 113	0.04 (4)
D-E	-1555 / 0	-77.4	-77.4	0.73 (1)	4.31	B-J	-733 / 0	0.43 (1)
E-F	-1555 / 0	-77.4	-77.4	0.73 (1)	4.31	K-B	-60 / 113	0.04 (4)
F-G	-2184 / 0	-77.4	-77.4	0.85 (1)	3.63	A-K	0 / 1994	0.45 (1)
L-A	-1440 / 0	0.0	0.0	0.15 (1)	6.81	I-G	0 / 1994	0.45 (1)
H-G	-1440 / 0	0.0	0.0	0.15 (1)	6.81			
L-K	0 / 0	-17.5	-17.5	0.26 (4)	10.00			
K-J	0 / 1982	-17.5	-17.5	0.45 (1)	10.00			
J-I	0 / 1982	-17.5	-17.5	0.45 (1)	10.00			
I-H	0 / 0	-17.5	-17.5	0.26 (4)	10.00			

DESIGN CRITERIA

SPECIFIED LOADS:
TOP CH. LL = 23.3 PSF
DL = 3.0 PSF
BOT CH. LL = 0.0 PSF
DL = 7.0 PSF
TOTAL LOAD = 33.3 PSF

SPACING = 24.0 IN. C/C

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

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

(55% OF 27.2 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 23.3 P.S.F. SPECIFIED ROOF LIVE LOAD

ALLOWABLE DEFL.(LL) = L/360 (1.05")
CALCULATED VERT. DEFL.(LL) = L/999 (0.11")
ALLOWABLE DEFL.(TL) = L/360 (1.05")
CALCULATED VERT. DEFL.(TL) = L/999 (0.22")

CSI: TC=0.85/1.00 (F-G:1), SC=0.45/1.00 (J-K:1),
WB=0.45/1.00 (G-I:1), SSI=0.27/1.00 (A-B:1)

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

COMPANION LIVE LOAD FACTOR = 0.50

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

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

PLATE PLACEMENT TOL. = 0.250 inches

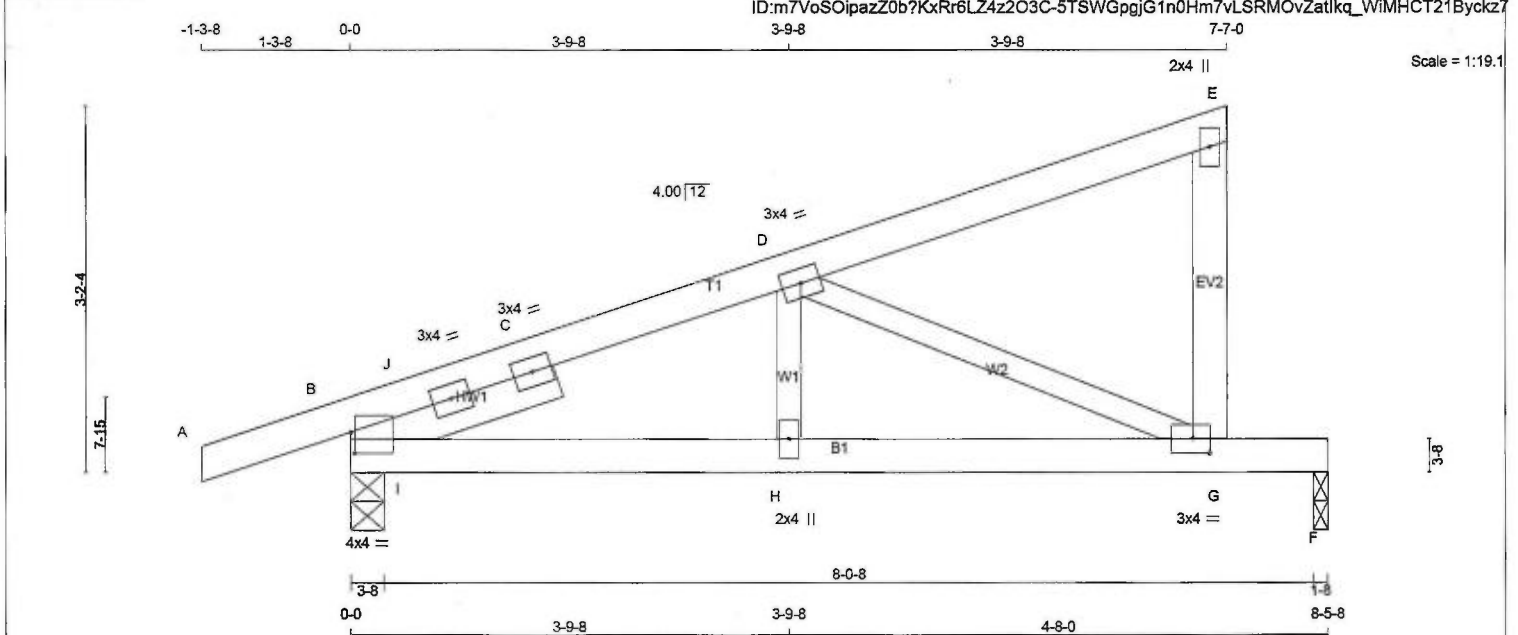
PLATE ROTATION TOL. = 5.0 Deg.

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



READ ALL NOTES ON THIS PAGE AND ON THE ENGINEERING NOTE PAGE ENP-1. THE NOTE PAGE IS AN INTEGRAL PART OF THIS DRAWING AS IT CONTAINS SPECIFICATIONS AND CRITERIA USED IN THE DESIGN OF THIS COMPONENT.





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

PLATES (table is in inches)

JT	TYPE	PLATES	W	LEN	Y	X
B	TMBMR14	MT20	4.0	4.0	2.25	0.50
B	RT-1	MT20	3.0	4.0		
B	RT-1	MT20	3.0	4.0		
D	TMVW-1	MT20	3.0	4.0		
E	TMV+P	MT20	2.0	4.0		
G	BMVW-1	MT20	3.0	4.0	1.50	1.75
H	BMVW+P	MT20	2.0	4.0		

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

JT	FACTORED GROSS REACTION		MAXIMUM FACTORED GROSS REACTION		INPUT BRG	REQRD BRG
	VERT	HORZ	DOWN	HORZ		
B	501	0	501	0	3-8	1-8
F	337	0	337	0	3-8	1-8

UNFACTORED REACTIONS

JT	MAX/MIN COMPONENT REACTIONS						
	COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
B	350	257 / 0	0 / 0	0 / 0	0 / 0	92 / 0	0 / 0
F	238	158 / 0	0 / 0	0 / 0	0 / 0	80 / 0	0 / 0

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

MEMB.	CHORDS		FACTORED		MAX. UNBRACED LENGTH	MEMB.	WEBS		MAX. UNBRACED LENGTH
	MAX. FACTORED FORCE (LBS)	VERT. LOAD (PLF)	LC1	MAX. (LC)			MAX. FACTORED FORCE (LBS)	MAX. (LC)	
FR-TO		FROM	TO			FR-TO		FROM	TO
A-B	0 / 3	-77.4	-77.4	0.09 (1)	10.00	H-D	0 / 190	0.04 (1)	
B-J	-495 / 0	-77.4	-77.4	0.01 (1)	6.25	D-G	-860 / 0	0.18 (1)	
J-C	-487 / 0	-77.4	-77.4	0.08 (1)	6.25	I-J	0 / 210	0.00 (1)	
C-D	-487 / 0	-77.4	-77.4	0.08 (1)	6.25	I-C	-343 / 0	0.04 (1)	
D-E	-6 / 0	-77.4	-77.4	0.13 (1)	10.00				
G-E	-127 / 0	0.0	0.0	0.02 (1)	7.81				
B-I	0 / 348	-17.5	-17.5	0.07 (1)	10.00				
I-H	0 / 606	-17.5	-17.5	0.21 (1)	10.00				
H-G	0 / 606	-17.5	-17.5	0.49 (1)	10.00				
G-F	0 / 0	-17.5	-17.5	0.39 (1)	10.00				

DESIGN CRITERIA

SPECIFIED LOADS:

TOP CH.	LL	PSF
LL	23.3	PSF
BOT CH.	LL	PSF
LL	0.0	PSF
LL	7.0	PSF
TOTAL LOAD	33.3	PSF

SPACING = 24.0 IN. C/C

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

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

(55% OF 27.2 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 23.3 P.S.F. SPECIFIED ROOF LIVE LOAD

ALLOWABLE DEFL.(LL) = $L/360$ (0.28")
CALCULATED VERT. DEFL.(LL) = $L/999$ (0.06")
ALLOWABLE DEFL.(TL) = $L/360$ (0.28")
CALCULATED VERT. DEFL.(TL) = $L/884$ (0.11")

CSI: TC=0.13/1.00 (D-E:1), BC=0.49/1.00 (G-H:1), WB=0.18/1.00 (D-G:1), SSI=0.28/1.00 (F-G:1)

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

COMPANION LIVE LOAD FACTOR = 0.50

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

NAIL VALUES

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

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.77 (G) (INPUT = 0.90)
JSI METAL= 0.23 (B) (INPUT = 1.00)

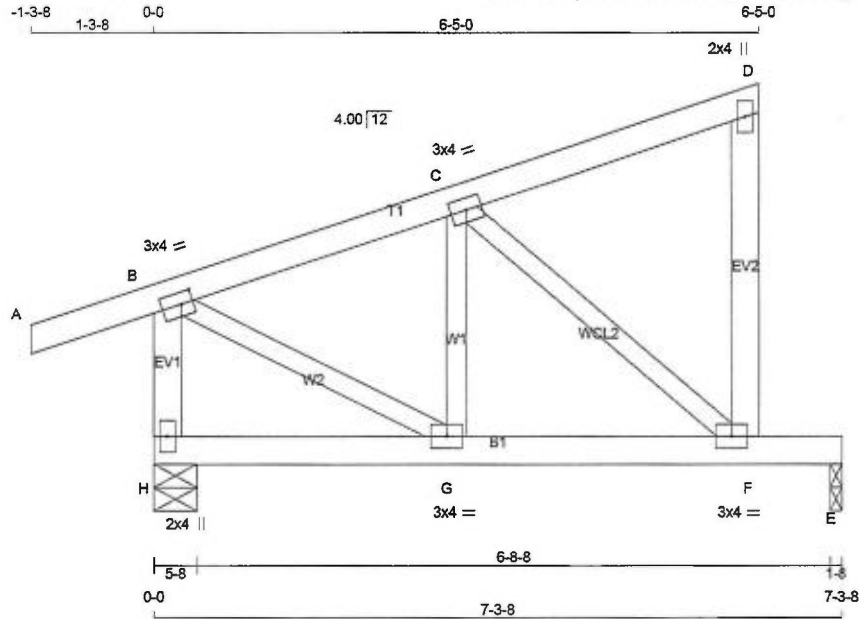


September 17, 2018

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Scale = 1:23.4

TOTAL WEIGHT = 7 X 31 = 215 lb [M/P]

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

PLATES (table is in inches)					
JT	TYPE	PLATES	W	LEN	X
B	TMVW-4	MT20	3.0	4.0	1.50
C	TMVW-4	MT20	3.0	4.0	
D	TMV-4	MT20	2.0	4.0	
F	BMVW-4	MT20	3.0	4.0	
G	BMVW-4	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

DESCR.	FACTORED GROSS REACTION		MAXIMUM FACTORED GROSS REACTION		INPUT BRG	REQD BRG
	VERT	HORZ	DOWN	HORZ		
JT	445	0	445	0	5-8	1-8
H	282	0	282	0	1-8	1-8

UNFACTORED REACTIONS

JT	1ST CASE		MAX./MIN. COMPONENT REACTIONS				
	COMBINED	SNOW	LIVE	PERM. LIVE	WIND	DEAD	SOIL
H	310	230 / 0	0 / 0	0 / 0	0 / 0	81 / 0	0 / 0
E	199	131 / 0	0 / 0	0 / 0	0 / 0	68 / 0	0 / 0

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

BRACING

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

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

LOADING

TOTAL LOAD CASES: (4)

MEMB.	CHORDS			WEBS		
	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	MAX. UNBRACED LENGTH (LC)	MEMB.	MAX. FACTORED FORCE (LBS)	MAX. UNBRACED LENGTH (LC)
FR-TO		FROM TO		FR-TO		
A-B	0 / 16	-77.4 -77.4	0.10 (1)	10.00	C-F	-376 / 0
B-C	-295 / 0	-77.4 -77.4	0.10 (1)	6.25	G-C	0 / 89
C-D	-9 / 0	-77.4 -77.4	0.10 (1)	10.00	B-G	0 / 323
F-D	-85 / 0	0.0	0.02 (1)	7.81		
H-B	-440 / 0	0.0	0.05 (1)	7.81		
H-G	0 / 0	-17.5 -17.5	0.10 (1)	10.00		
G-F	0 / 289	-17.5 -17.5	0.37 (1)	10.00		
F-E	0 / 0	-17.5 -17.5	0.33 (1)	10.00		

DESIGN CRITERIA

SPECIFIED LOADS:
TOP CH. LL = 23.3 PSF
DL = 3.0 PSF
BOT CH. LL = 0.0 PSF
DL = 7.0 PSF
TOTAL LOAD = 33.3 PSF

SPACING = 24.0 IN./C/C

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

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

(55 % OF 27.2 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 23.3 P.S.F. SPECIFIED ROOF LIVE LOAD

ALLOWABLE DEFL.(LL) = $L/360$ (0.24")
CALCULATED VERT. DEFL.(LL) = $L/999$ (0.04")
ALLOWABLE DEFL.(TL) = $L/360$ (0.24")
CALCULATED VERT. DEFL.(TL) = $L/999$ (0.07")

CSI: TC=0.10/1.00 (B-C:1), BC=0.37/1.00 (F-G:1), WB=0.10/1.00 (C-F:1), SSI=0.22/1.00 (E-F:1)

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

COMPANION LIVE LOAD FACTOR = 0.50

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 618 354 1967 822 2284 1656

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.69 (B) (INPUT = 0.90)
JSI METAL= 0.14 (B) (INPUT = 1.00)

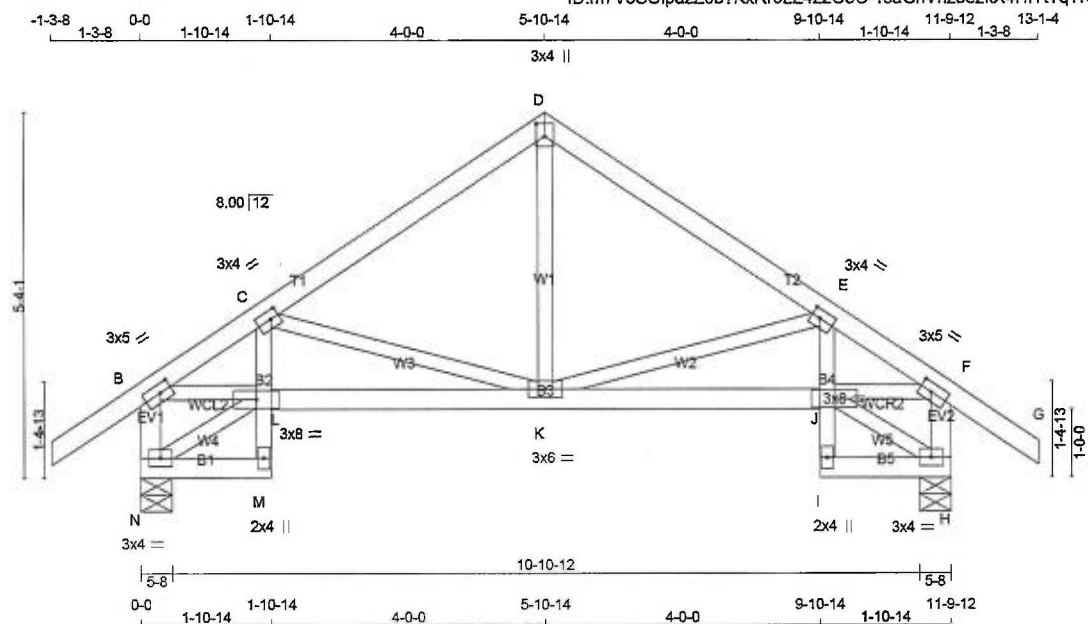


September 17, 2018

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LUMBER

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

DRY: SEASONED LUMBER.

PLATES (table is in inches)

PLATE	TYPE	SIZE	W	LEN	Y	X
B	TMVW-1	MT20	3.0	5.0	1.50	2.00
C	TMVW-1	MT20	3.0	4.0	1.50	1.50
D	TTW-1	MT20	3.0	4.0	2.25	1.50
E	TMVW-1	MT20	3.0	4.0	1.50	1.50
F	TMVW-1	MT20	3.0	5.0	1.50	2.00
H	BMVW-1	MT20	3.0	4.0		
I	BMV-1	MT20	2.0	4.0		
J	BMVW-1	MT20	3.0	8.0		
K	BMVW-1	MT20	3.0	8.0		
L	BMVW-1	MT20	3.0	8.0		
M	BMV-1	MT20	2.0	4.0		
N	BMVW-1	MT20	3.0	4.0		

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

JT	FACTORED GROSS REACTION		MAXIMUM FACTORED GROSS REACTION		INPUT BRG IN-SX	REQD BRG IN-SX
	VERT	HORZ	DOWN	HORZ		
N	666	0	666	0	5-8	1-8
H	666	0	666	0	5-8	1-8

UNFACTORED REACTIONS

JT	1ST LCASE		MAX / MIN COMPONENT REACTIONS		WIND	DEAD	SOIL
	COMBINED	SNOW	LIVE	PERM. LIVE			
N	465	339 / 0	0 / 0	0 / 0	0 / 0	126 / 0	0 / 0
H	465	339 / 0	0 / 0	0 / 0	0 / 0	126 / 0	0 / 0

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

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

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

LOADING
TOTAL LOAD CASES: (4)

CHORDS					WEBS				
MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	LC1 MAX. CSI (LC)	MAX. UNBRAC LENGTH	MEMB.	MAX. FACTORED FORCE (LBS)	MAX. CSI (LC)		
FR-TO		FROM TO			FR-TO				
A-B	0 / 29	-77.4	-77.4	0.10 (1)	10.00	K-D	0 / 262	0.06 (1)	
B-C	-871 / 0	-77.4	-77.4	0.10 (1)	6.25	K-E	-353 / 0	0.11 (1)	
C-D	-495 / 0	-77.4	-77.4	0.16 (1)	6.25	C-K	-353 / 0	0.11 (1)	
D-E	-495 / 0	-77.4	-77.4	0.16 (1)	6.25	B-L	0 / 728	0.16 (1)	
E-F	-871 / 0	-77.4	-77.4	0.10 (1)	6.25	J-F	0 / 728	0.16 (1)	
F-G	0 / 29	-77.4	-77.4	0.10 (1)	10.00	N-L	-14 / 0	0.00 (1)	
N-B	-643 / 0	0.0	0.0	0.07 (1)	7.81	J-H	-14 / 0	0.00 (1)	
H-F	-643 / 0	0.0	0.0	0.07 (1)	7.81				
N-M	0 / 12	-17.5	-17.5	0.02 (4)	10.00				
M-L	0 / 18	0.0	0.0	0.04 (1)	10.00				
L-C	0 / 65	0.0	0.0	0.05 (1)	10.00				
L-K	0 / 740	-17.5	-17.5	0.17 (1)	10.00				
K-J	0 / 740	-17.5	-17.5	0.17 (1)	10.00				
I-J	0 / 18	0.0	0.0	0.04 (1)	10.00				
J-E	0 / 65	0.0	0.0	0.05 (1)	10.00				
I-H	0 / 12	-17.5	-17.5	0.02 (4)	10.00				

DESIGN CRITERIA

SPECIFIED LOADS:
TOP CH. LL = 23.3 PSF
DL = 3.0 PSF
BOT CH. LL = 0.0 PSF
DL = 7.0 PSF
TOTAL LOAD = 33.3 PSF

SPACING = 24.0 IN./C/G

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

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

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

(55 % OF 27.2 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 23.3 P.S.F. SPECIFIED ROOF LIVE LOAD

ALLOWABLE DEFL.(LL) = L/360 (0.39")
CALCULATED VERT. DEFL.(LL) = L/999 (0.01")
ALLOWABLE DEFL.(TL) = L/360 (0.39")
CALCULATED VERT. DEFL.(TL) = L/999 (0.03")

CSI: TC=0.16/1.00 (C-D:1), EC=0.17/1.00 (J-K:1), WB=0.16/1.00 (F-J:1), SSI=0.12/1.00 (C-D:1)

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

COMPANION LIVE LOAD FACTOR = 0.50

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)
MAX MIN MAX MIN MAX MIN
MT20 618 354 1667 622 2284 1656

PLATE PLACEMENT TOL. = 0.250 inches

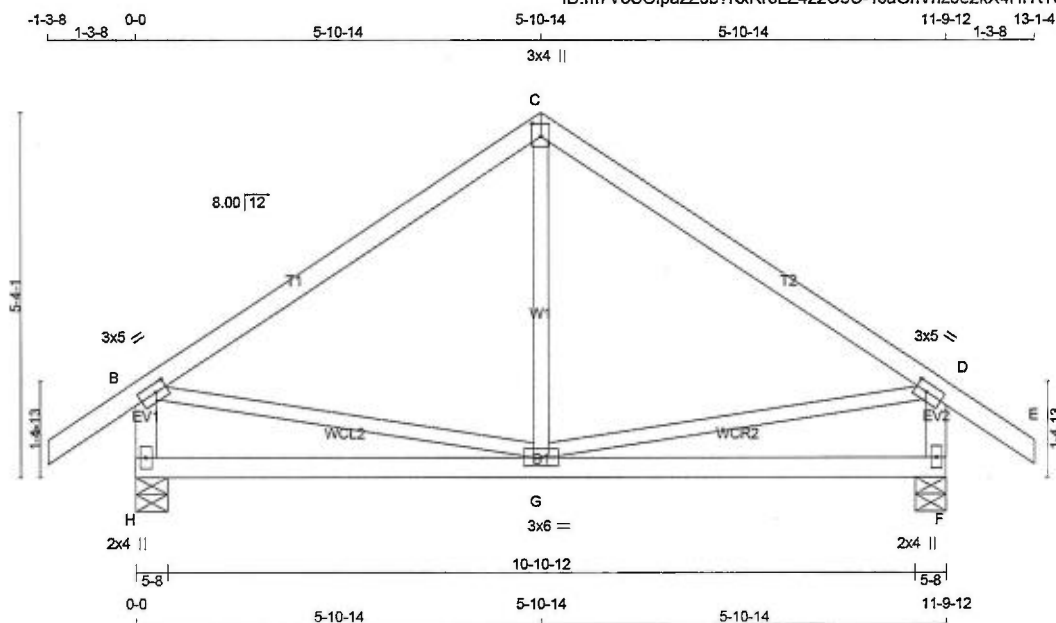
PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.89 (F) (INPUT = 0.90)
JSI METAL= 0.29 (B) (INPUT = 1.00)



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Scale: 3/8"=1'

TOTAL WEIGHT = 2 X 49 = 98 lb

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

ALL WEBS 2x3 DRY No.2 EXCEPT

DRY: SEASONED LUMBER.

PLATES (table is in inches)

JT	TYPE	PLATES	W	LEN	Y	X
B	TMVW-t	MT20	3.0	5.0	1.50	2.00
C	TTW+p	MT20	3.0	4.0	2.25	1.50
D	TMVW-t	MT20	3.0	5.0	1.50	2.00
F	BMV1+p	MT20	2.0	4.0		
G	BMVW-t	MT20	3.0	6.0		
H	BMV1+p	MT20	2.0	4.0		

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

BEARINGS

JT	FACTORED GROSS REACTION	MAXIMUM FACTORED GROSS REACTION	INPUT BRG IN-SX	REQD BRG IN-SX
H	VERT 666	DOWN 666	0	5-8
F	HORZ 0	HORZ 0	0	1-8

UNFACTORED REACTIONS

JT	1ST LCASE COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
H	465	339 / 0	0 / 0	0 / 0	0 / 0	126 / 0	0 / 0
F	465	339 / 0	0 / 0	0 / 0	0 / 0	126 / 0	0 / 0

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

BRACING

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

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

LOADING

TOTAL LOAD CASES: (4)

CHORDS				WEBS			
MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	MAX. UNBRACED LENGTH (LC)	MEMB.	MAX. FACTORED FORCE (LBS)	MAX. UNBRACED LENGTH (LC)	
FR-TO		FROM TO		FR-TO			
A-B	0 / 29	-77.4 -77.4	0.10 (1)	10.00	G-C	0 / 102	0.04 (4)
B-C	-413 / 0	-77.4 -77.4	0.35 (1)	6.25	B-G	0 / 350	0.08 (1)
C-D	-413 / 0	-77.4 -77.4	0.35 (1)	6.25	G-D	0 / 350	0.08 (1)
D-E	0 / 29	-77.4 -77.4	0.10 (1)	10.00			
H-B	-627 / 0	0.0 0.0	0.06 (1)	7.81			
F-D	-627 / 0	0.0 0.0	0.06 (1)	7.81			
H-G	0 / 0	-17.5 -17.5	0.17 (4)	10.00			
G-F	0 / 0	-17.5 -17.5	0.17 (4)	10.00			

DESIGN CRITERIA

SPECIFIED LOADS:

TOP CH. LL	=	23.3 PSF
DL	=	3.0 PSF
BOT CH. LL	=	0.0 PSF
DL	=	7.0 PSF
TOTAL LOAD	=	33.3 PSF

SPACING = 24.0 IN./C

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

THIS DESIGN COMPLIES WITH:

- PART 9 OF OSC 2012, CBC 2012, ABC 2014
- CSA 086-09
- TPIC 2011

(55 % OF 27.2 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 23.3 P.S.F. SPECIFIED ROOF LIVE LOAD

ALLOWABLE DEFL.(LL) = $L/360$ (0.39")
CALCULATED VERT. DEFL.(LL) = $L/999$ (0.01")
ALLOWABLE DEFL.(TL) = $L/360$ (0.39")
CALCULATED VERT. DEFL.(TL) = $L/999$ (0.03")

CSI: TC=0.35/1.00 (C-D:1), BC=0.17/1.00 (G-H:4), WB=0.08/1.00 (D-G:1), SI=0.15/1.00 (C-D:1)

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

COMPANION LIVE LOAD FACTOR = 0.50

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	618 354	1867 822	2284 1656

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.75 (G) (INPUT = 0.90)
JSI METAL= 0.18 (B) (INPUT = 1.00)



September 17, 2018

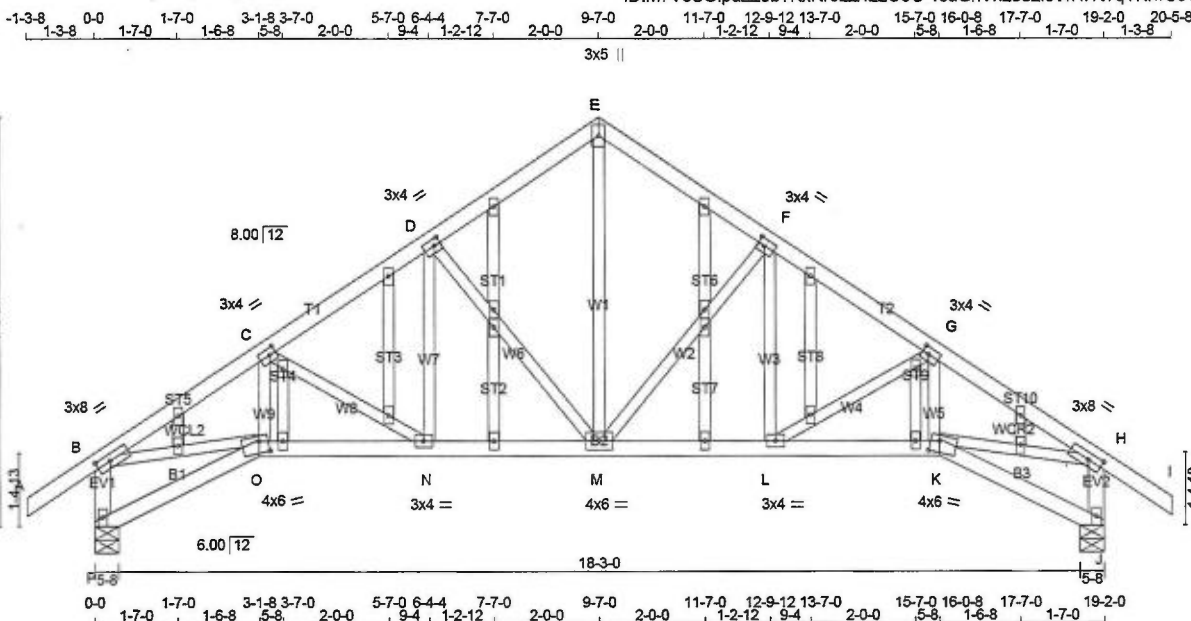
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Scale = 1:41.9

LUMBER	CHORDS	SIZE	LUMBER	DESCR.
N. L. G. A. RULES				
A - E	2x4	DRY	No.2	SPF
E - I	2x4	DRY	No.2	SPF
P - B	2x4	DRY	No.2	SPF
J - H	2x4	DRY	No.2	SPF
P - O	2x4	DRY	No.2	SPF
O - K	2x4	DRY	No.2	SPF
K - J	2x4	DRY	No.2	SPF
ALL WEBS	2x3	DRY	No.2	SPF
EXCEPT				
ALL GABLE WEBS	2x3	DRY	No.2	SPF
DRY: SEASONED LUMBER.				
GABLE STUDS SPACED AT	2-0-0	OC.		

PLATES (table in inches)	JT TYPE	PLATES	W	LEN	Y	X
B TMVW-t	MT20	3.0	8.0	1.50	3.25	
C, D, F, G						
C TMVW-t	MT20	3.0	4.0	1.50	1.50	
E TMVW-t	MT20	3.0	5.0			
H TMVW-t	MT20	3.0	8.0	1.50	3.25	
J BMV1-p	MT20	2.0	4.0			
K BBVW-m	MT20	4.0	6.0	2.75	2.00	
L BMVW-t	MT20	3.0	4.0			
M BMVW-t	MT20	4.0	6.0			
N BMVW-t	MT20	3.0	4.0			
O BBVW-m	MT20	4.0	6.0	2.75	2.00	
P BMV1-p	MT20	2.0	4.0			
Q, R, S, T, U, V, W, X, Y, Z, AA, AB, AC, AD, AE, AF, AG, AH						
NP-w	MT20	2.0	4.0			

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	1015	0	0	5-8
J	HORZ	0	1015	0	1-9

UNFACTORED REACTIONS	1ST LCASE	MAX/MIN	COMPONENT REACTIONS
JT	COMBINED	SNOW	LIVE
P	710	510/0	0/0
J	710	510/0	0/0

BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S) P, J
TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 5.14 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	CHORDS	WEBS
TOTAL LOAD CASES: (4)	MEMB. MAX. FACTORED FORCE (LBS)	MEMB. MAX. FACTORED FORCE (LBS)
	FR-TO	FR-TO
	A-B	0/29
	B-C	-1584/0
	C-D	-1185/0
	D-E	-870/0
	E-F	-870/0
	F-G	-1185/0
	G-H	-1584/0
	H-I	0/29
	I-J	-988/0
	J-K	-988/0
	P-O	0/0
	O-N	0/1316
	N-M	0/990
	M-L	0/990
	L-K	0/1316
	K-J	0/0

DESIGN CRITERIA

SPECIFIED LOADS:
TOP CH. LL = 23.3 PSF
DL = 3.0 PSF
BOT CH. LL = 0.0 PSF
DL = 7.0 PSF
TOTAL LOAD = 33.3 PSF

SPACING = 24.0 IN. C/C

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

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

(55 % OF 27.2 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 23.3 P.S.F. SPECIFIED ROOF LIVE LOAD

ALLOWABLE DEFL.(LL) = L/360 (0.64")
CALCULATED VERT. DEFL.(LL) = L/999 (0.05")
ALLOWABLE DEFL.(TL) = L/360 (0.64")
CALCULATED VERT. DEFL.(TL) = L/999 (0.05")

CSI: TC=0.13/1.00 (B-C:1), BC=0.24/1.00 (N-O:1), WB=0.30/1.00 (B-C:1), SSI=0.10/1.00 (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 = 0.50

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 616 354 1967 822 2284 1656

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.84 (O) (INPUT = 0.90)
JSI METAL = 0.32 (O) (INPUT = 1.00)



September 17, 2018

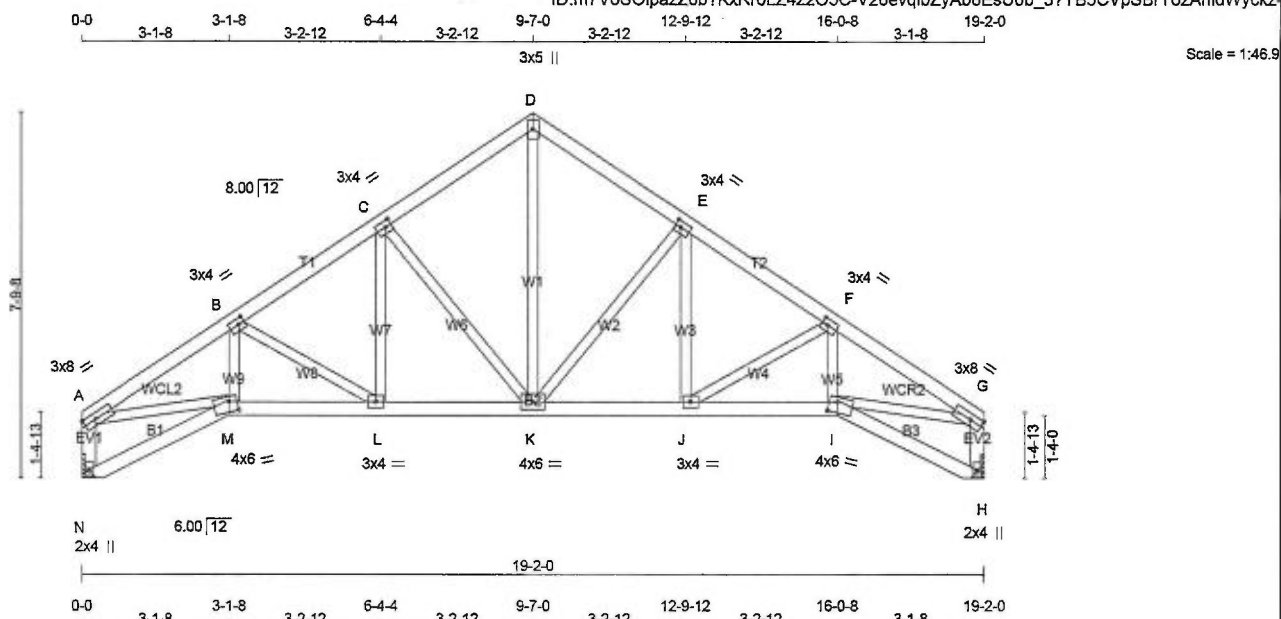
READ ALL NOTES ON THIS PAGE AND ON THE ENGINEERING NOTE PAGE ENP-1. THE NOTE PAGE IS AN INTEGRAL PART OF THIS DRAWING AS IT CONTAINS SPECIFICATIONS AND CRITERIA USED IN THE DESIGN OF THIS COMPONENT.



Kott, Ottawa, Ontario, IM

Version 8.210 S Mar 12 2018 MITek Industries, Inc. Mon Sep 17 12:13:45 2018 Page 1

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TOTAL WEIGHT = 84 lb [M/F]

LUMBER			
N. L. G. A. RULES	SIZE	LUMBER	DESCR.
CHORDS			
A - D	2x4 DRY	No.2	SPF
D - G	2x4 DRY	No.2	SPF
N - A	2x4 DRY	No.2	SPF
H - G	2x4 DRY	No.2	SPF
N - M	2x4 DRY	No.2	SPF
M - I	2x4 DRY	No.2	SPF
I - H	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	TMWW-t	MT20	3.0	8.0		Edge
B, C, E, F						
B	TMWW-t	MT20	3.0	4.0	1.50	1.50
D	TTWp	MT20	3.0	5.0		
G	TMWW-t	MT20	3.0	8.0		Edge
H	BMV1+p	MT20	2.0	4.0		
I	BBWW-m	MT20	4.0	6.0	2.75	2.00
J	BMWW-t	MT20	3.0	4.0		
K	BMWW-t	MT20	3.0	4.0		
L	BMWW-t	MT20	3.0	4.0		
M	BBWW-m	MT20	4.0	6.0	2.75	2.00
N	BMV1+p	MT20	2.0	4.0		

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

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

FACTORED GROSS REACTION		MAXIMUM FACTORED GROSS REACTION		INPUT BRG		REQRD BRG	
JT	VERT	HORZ	DOWN	HORZ	UPLIFT	IN-SX	IN-SX
N	909	0	909	0	0	MECHANICAL	MECHANICAL
H	909	0	909	0	0	MECHANICAL	MECHANICAL

A SUITABLE MECHANICAL CONNECTION IS REQUIRED AT JOINT N, H TO RESIST THE MAX FACTORED REACTIONS.

UNFACTORED REACTIONS

1ST CASE	COMBINED	SNOW	MAX/MIN. LIVE	PERM. LIVE	WIND	DEAD	SOIL
N	638	446 / 0	0 / 0	0 / 0	0 / 0	192 / 0	0 / 0
H	638	446 / 0	0 / 0	0 / 0	0 / 0	192 / 0	0 / 0

BRACING

TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 5.14 FT.
MAX. UNBRACED BOTTOM CHORD LENGTH = 10.00 FT OR RIGID CEILING DIRECTLY APPLIED.

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

LOADING

TOTAL LOAD CASES: (4)

CHORDS				WEBS			
MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	MAX. FACTORED LENGTH (LC)	MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	MAX. FACTORED LENGTH (LC)
FR-TO				FR-TO			
A-B	-1584 / 0	-77.4	-77.4 0.13 (1)	5.14	K-D	0 / 746	0.17 (1)
B-C	-1185 / 0	-77.4	-77.4 0.09 (1)	5.78	K-E	-439 / 0	0.19 (1)
C-D	-870 / 0	-77.4	-77.4 0.09 (1)	6.25	J-E	0 / 250	0.06 (1)
D-E	-870 / 0	-77.4	-77.4 0.09 (1)	6.25	J-F	-382 / 0	0.09 (1)
E-F	-1185 / 0	-77.4	-77.4 0.09 (1)	5.78	I-F	0 / 168	0.04 (1)
F-G	-1584 / 0	-77.4	-77.4 0.13 (1)	5.14	C-K	-439 / 0	0.19 (1)
N-A	-882 / 0	0.0	0.0 0.09 (1)	7.81	L-C	0 / 250	0.06 (1)
H-G	-882 / 0	0.0	0.0 0.09 (1)	7.81	B-L	-382 / 0	0.09 (1)
					M-B	0 / 168	0.04 (1)
N-M	0 / 0	-17.5	-17.5 0.05 (4)	10.00	A-M	0 / 1330	0.30 (1)
M-L	0 / 1316	-17.5	-17.5 0.24 (1)	10.00	I-G	0 / 1330	0.30 (1)
L-K	0 / 990	-17.5	-17.5 0.18 (1)	10.00			
K-J	0 / 990	-17.5	-17.5 0.18 (1)	10.00			
J-I	0 / 1316	-17.5	-17.5 0.24 (1)	10.00			
I-H	0 / 0	-17.5	-17.5 0.05 (4)	10.00			

DESIGN CRITERIA

SPECIFIED LOADS:	
TOP CH. LL	= 23.3 PSF
DL	= 3.0 PSF
BOT CH. LL	= 0.0 PSF
DL	= 7.0 PSF
TOTAL LOAD	= 33.3 PSF

SPACING = 24.0 IN. C/C

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

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

(55% OF 27.2 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 23.3 P.S.F. SPECIFIED ROOF LIVE LOAD

ALLOWABLE DEFL.(LL) = $L/360$ (0.64")
CALCULATED VERT. DEFL.(LL) = $L/999$ (0.05")
ALLOWABLE DEFL.(TL) = $L/360$ (0.64")
CALCULATED VERT. DEFL.(TL) = $L/999$ (0.09")

CSI: TC=0.13/1.00 (A-B:1), BC=0.24/1.00 (I-J:1), WB=0.30/1.00 (G-I:1), SS=0.10/1.00 (D-E:1)

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

COMPANION LIVE LOAD FACTOR = 0.50

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	618 354	1667 822	2284 1656

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

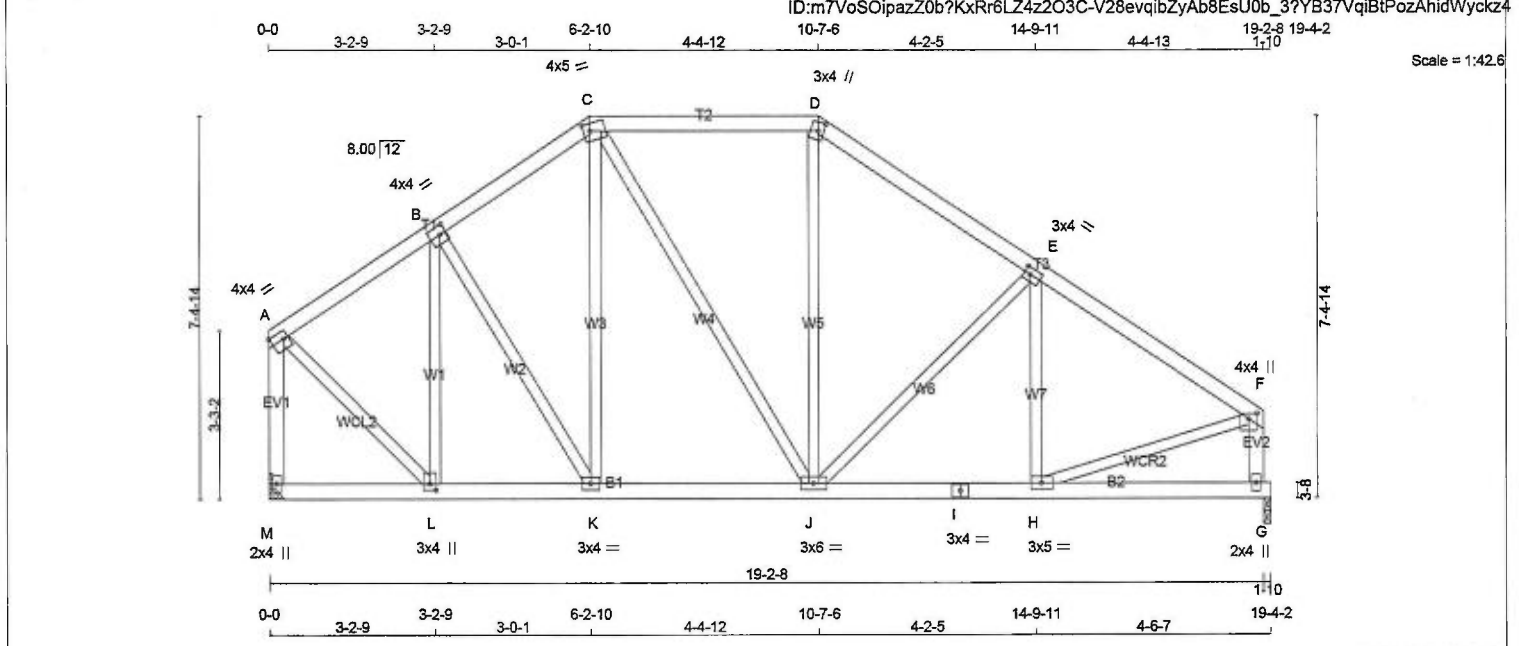
JSI GRIP= 0.84 (M) (INPUT = 0.90)
JSI METAL= 0.32 (M) (INPUT = 1.00)



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LUMBER

N.L.G.A. RULES

CHORDS

SIZE

LUMBER

DESCR.

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-1	MT20	4.0	4.0	1.75 Edge
B	TMVW-1	MT20	4.0	4.0	2.00 1.50
C	TMVW-m	MT20	4.0	5.0	1.75 1.50
D	TMVW-m	MT20	3.0	4.0	2.00 1.25
E	TMVW-t	MT20	3.0	4.0	1.50 1.50
F	TMVW-p	MT20	4.0	4.0	1.25 2.00
G	BMV1-p	MT20	2.0	4.0	
H	BMVW-1	MT20	3.0	5.0	
I	BS-t	MT20	3.0	4.0	
J	BMVW-1	MT20	3.0	6.0	
K	BMVW-1	MT20	3.0	4.0	
L	BMVW-t	MT20	3.0	4.0	1.50 1.50
M	BMV1-p	MT20	2.0	4.0	

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

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

DESIGNER BEARINGS

JT	VERT	HORZ	DOWN	HORZ	UPLIFT	IN-SX	IN-SX
M	911	0	911	0	0	MECHANICAL	
G	911	0	911	0	0	1-10	1-8

A SUITABLE MECHANICAL CONNECTION IS REQUIRED AT JOINT M TO RESIST THE MAX FACTORED REACTIONS.

UNFACTORED REACTIONS

JT	1ST LCASE	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
M	639	447 / 0	0 / 0	0 / 0	0 / 0	192 / 0	0 / 0
G	639	447 / 0	0 / 0	0 / 0	0 / 0	192 / 0	0 / 0

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

BRACING

TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 6.25 FT.

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

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

LOADING

TOTAL LOAD CASES: (4)

CHORDS				WEBS			
MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	MAX. UNBRACED LENGTH	MEMB.	MAX. FACTORED FORCE (LBS)	MAX. UNBRACED LENGTH	MEMB.
FR-TO				FR-TO			
A-B	-585 / 0	-77.4	-77.4 0.10 (1)	6.25	L-B	-399 / 0	0.17 (1)
B-C	-670 / 0	-77.4	-77.4 0.10 (1)	6.25	B-K	0 / 82	0.02 (1)
C-D	-612 / 0	-77.4	-77.4 0.20 (1)	6.25	K-C	-7 / 45	0.02 (4)
D-E	-757 / 0	-77.4	-77.4 0.19 (1)	6.25	C-J	0 / 134	0.03 (1)
E-F	-899 / 0	-77.4	-77.4 0.19 (1)	6.25	J-D	0 / 117	0.03 (4)
M-A	-887 / 0	0.0	0.0 0.16 (1)	7.81	J-E	-220 / 0	0.14 (1)
G-F	-878 / 0	0.0	0.0 0.09 (1)	7.81	H-E	-154 / 26	0.05 (1)
					A-L	0 / 677	0.15 (1)
					H-F	0 / 801	0.18 (1)
M-L	0 / 0	-17.5	-17.5 0.04 (4)	10.00			
L-K	0 / 499	-17.5	-17.5 0.10 (1)	10.00			
K-J	0 / 542	-17.5	-17.5 0.12 (1)	10.00			
J-I	0 / 766	-17.5	-17.5 0.16 (1)	10.00			
I-H	0 / 766	-17.5	-17.5 0.16 (1)	10.00			
H-G	0 / 0	-17.5	-17.5 0.08 (4)	10.00			

DESIGN CRITERIA

SPECIFIED LOADS:

TOP CH.	LL	=	23.3	PSF
BOT CH.	LL	=	3.0	PSF
	LL	=	0.0	PSF
	DL	=	7.0	PSF
TOTAL LOAD	=	33.3	PSF	

SPACING = 24.0 IN./C.G.

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

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

THIS DESIGN COMPLIES WITH:

- PART 9 OF OBC 2012, BCBC 2012, ABC 2014
- CSA 086-09
- TPIC 2011

(55 % OF 27.2 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 23.3 P.S.F. SPECIFIED ROOF LIVE LOAD

ALLOWABLE DEFL.(LL)= L/360 (0.64")

CALCULATED VERT. DEFL.(LL) = L/999 (0.02")

ALLOWABLE DEFL.(TL)= L/360 (0.64")

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

CSI: TC=0.20/1.00 (C-D:1), BC=0.16/1.00 (H-J:1), WB=0.18/1.00 (F-H:1), SSI=0.14/1.00 (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 = 0.50

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

NAIL VALUES

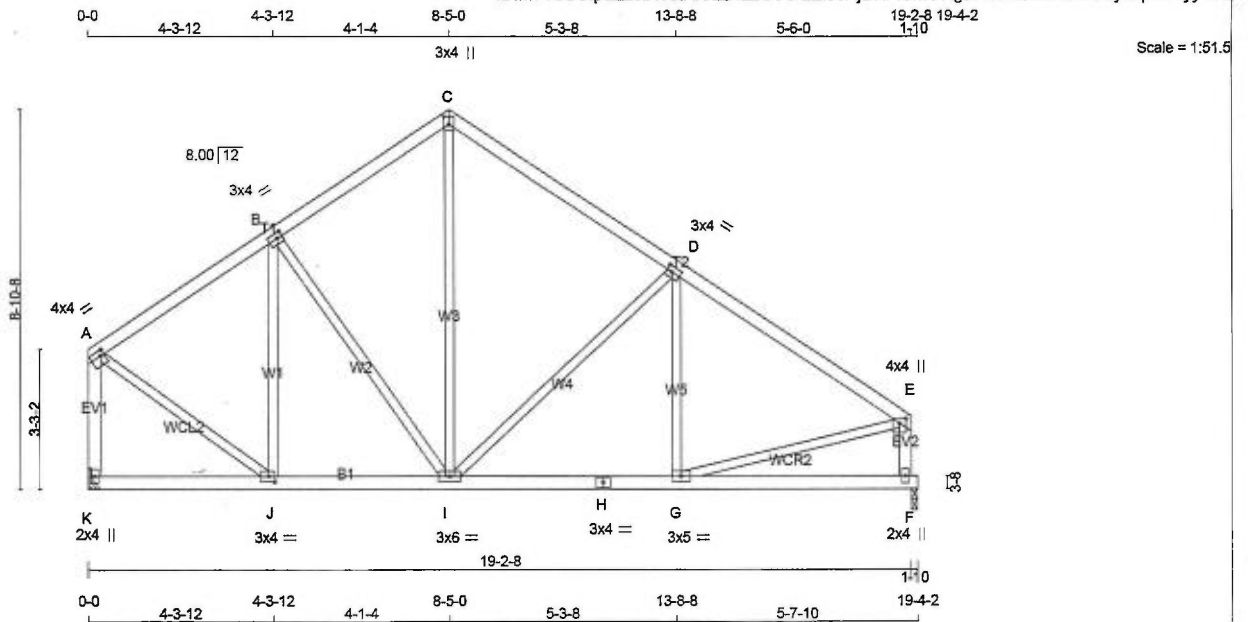
PLATE	GRIP(DRY)	SHEAR	SECTION
(PSI)	(PLI)	(PLI)	(PLI)
MAX MIN	MAX MIN	MAX MIN	MAX MIN
MT20	618	354	1667
	622	2284	1656

PLATE PLACEMENT TOL = 0.250 inches

PLATE ROTATION TOL = 5.0 Deg.

JSI GRIP= 0.88 (J) (INPUT = 0.90)

JSI METAL= 0.25 (A) (INPUT = 1.00)



TOTAL WEIGHT = 3 X 88 = 264 lb

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

DRY: SEASONED LUMBER.

PLATES (table is in inches)

JT TYPE	PLATES	W	LEN	Y	X
A	TMVW-1	MT20	4.0	4.0	1.50 1.00
B	TMVW-1	MT20	3.0	4.0	1.50 1.50
C	TTW+p	MT20	3.0	4.0	2.25 1.50
D	TMVW-1	MT20	3.0	4.0	1.50 1.50
E	TMVW+p	MT20	4.0	4.0	1.25 2.00
F	BMV1+p	MT20	2.0	4.0	
G	BMVW-1	MT20	3.0	5.0	
H	BS-1	MT20	3.0	4.0	
I	BMVW-1	MT20	3.0	6.0	
J	BMVW-1	MT20	3.0	4.0	1.50 1.75
K	BMV1+p	MT20	2.0	4.0	

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

DESIGNER

BEARINGS

DESCR.	FACTORED	GROSS REACTION	MAXIMUM FACTORED	INPUT	REQRD
SPF	VERT	HORZ	DOWN	HORZ	UPLIFT
K	911	0	911	0	0
F	911	0	911	0	0

A SUITABLE MECHANICAL CONNECTION IS REQUIRED AT JOINT K TO RESIST THE MAX FACTORED REACTIONS.

UNFACTORED REACTIONS

JT	1ST CASE	MAX/MIN. COMPONENT REACTIONS
K	COMBINED	SNOW LIVE PERM. LIVE WIND DEAD SOIL
K	639	447 / 0 0 / 0 0 / 0 0 / 0 192 / 0 0 / 0
F	639	447 / 0 0 / 0 0 / 0 0 / 0 192 / 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 = 6.10 FT.
MAX. UNBRACED BOTTOM CHORD LENGTH = 10.00 FT OR RIGID CEILING DIRECTLY APPLIED.

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

LOADING

TOTAL LOAD CASES: (4)

CHORDS	MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	MAX. FACTORED VERT. LOAD (PLF)	MAX. FACTORED VERT. LOAD (PLF)	MAX. FACTORED VERT. LOAD (PLF)	MAX. FACTORED VERT. LOAD (PLF)	MAX. FACTORED VERT. LOAD (PLF)	MAX. FACTORED VERT. LOAD (PLF)
FR-TO									
A-B	-648 / 0	-77.4	-77.4	0.18 (1)	6.25	J-B	-300 / 0	0.18 (1)	
B-C	-631 / 0	-77.4	-77.4	0.18 (1)	6.25	B-I	-86 / 0	0.08 (1)	
C-D	-638 / 0	-77.4	-77.4	0.28 (1)	6.25	I-C	0 / 404	0.09 (1)	
D-E	-805 / 0	-77.4	-77.4	0.30 (1)	6.10	I-D	-371 / 0	0.38 (1)	
K-A	-880 / 0	0.0	0.0	0.16 (1)	7.81	G-D	-84 / 66	0.04 (1)	
F-E	-872 / 0	0.0	0.0	0.08 (1)	7.81	A-J	0 / 674	0.15 (1)	
						G-E	0 / 799	0.18 (1)	
K-J	0 / 0	-17.5	-17.5	0.07 (4)	10.00				
J-I	0 / 557	-17.5	-17.5	0.13 (1)	10.00				
I-H	0 / 776	-17.5	-17.5	0.19 (1)	10.00				
H-G	0 / 776	-17.5	-17.5	0.19 (1)	10.00				
G-F	0 / 0	-17.5	-17.5	0.13 (4)	10.00				

DESIGN CRITERIA

SPECIFIED LOADS:

TOP CH. LL	=	23.3	PSF
DL	=	3.0	PSF
BOT CH. LL	=	0.0	PSF
DL	=	7.0	PSF
TOTAL LOAD	=	33.3	PSF

SPACING = 24.0 IN. C/C

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

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

(55 % OF 27.2 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 23.3 P.S.F. SPECIFIED ROOF LIVE LOAD

ALLOWABLE DEFL. (LL) = $L/360$ (0.64")
CALCULATED VERT. DEFL. (LL) = $L/999$ (0.02")
ALLOWABLE DEFL. (TL) = $L/360$ (0.64")
CALCULATED VERT. DEFL. (TL) = $L/999$ (0.04")

CSI: TC=0.30/1.00 (D-E:1), BC=0.19/1.00 (G-H:1), WB=0.38/1.00 (D-I:1), SSI=0.17/1.00 (D-E:1)

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

COMPANION LIVE LOAD FACTOR = 0.50

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

NAIL VALUES

PLATE	GRIP(DRY)	SHEAR	PLI	PLJ	SEU
	(PSI)	(PLI)	(PLI)	(PLI)	(PLI)
MT20	618	354	1667	822	2284

PLATE PLACEMENT TOL. = 0.25 inches

PLATE ROTATION TOL. = 5.0 Deg.

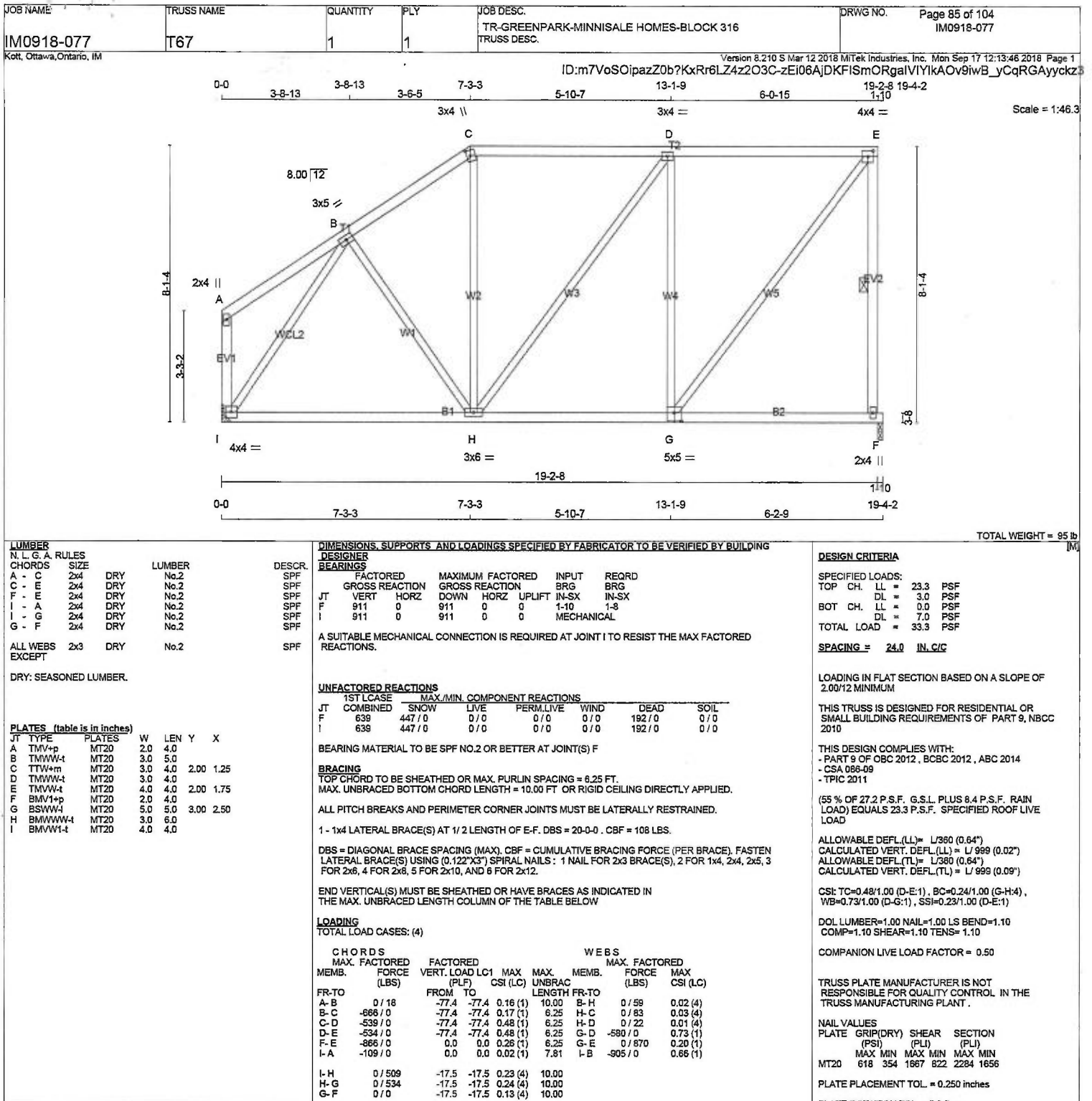
JSI GRIP= 0.90 (J) (INPUT = 0.90)
JSI METAL= 0.28 (A) (INPUT = 1.00)



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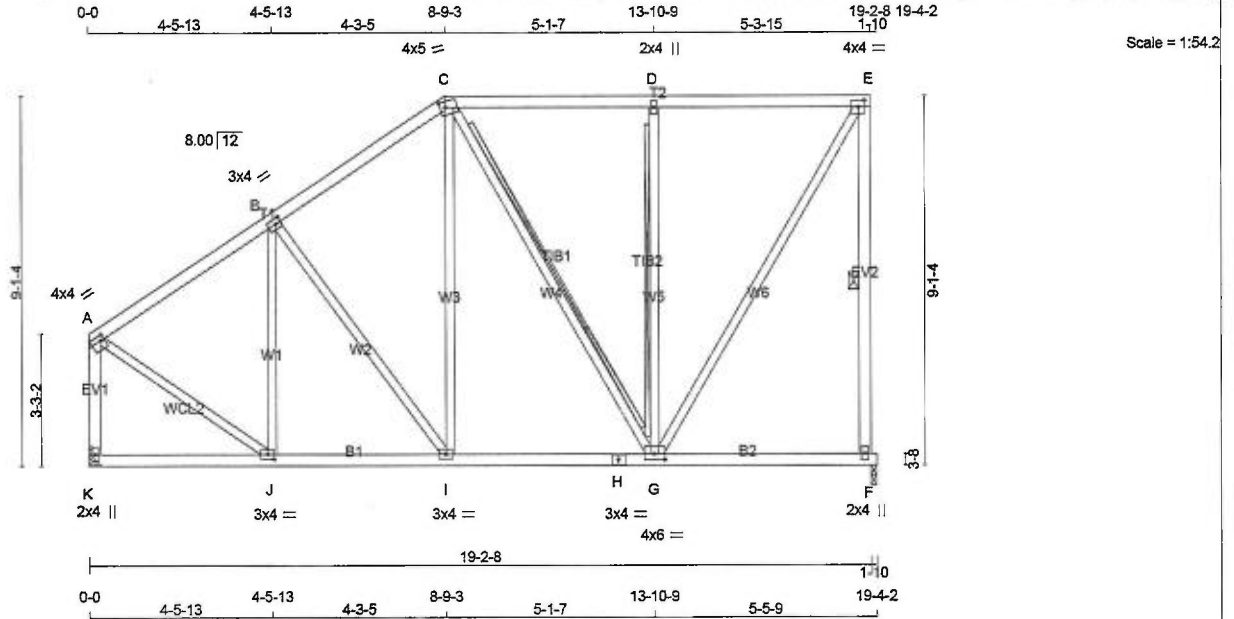




September 17, 2018

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TOTAL WEIGHT = 103 lb

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

PLATES (table is in inches)	JT TYPE	PLATES	W	LEN	Y	X
A	TMVW-t	MT20	4.0	4.0	1.50	1.00
B	TMVW-t	MT20	3.0	4.0	1.50	1.50
C	TTWW-m	MT20	4.0	5.0	1.75	1.50
D	TMVW-w	MT20	2.0	4.0		
E	TMVW-t	MT20	4.0	4.0	2.00	1.75
F	BMV1+p	MT20	2.0	4.0		
G	BMVWW-t	MT20	4.0	6.0	1.75	3.00
H	BS-t	MT20	3.0	4.0		
I	BMVW-t	MT20	3.0	4.0		
J	BMVW-t	MT20	3.0	4.0	1.50	1.75
K	BMV1+p	MT20	2.0	4.0		

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

DESIGNER	FACTORED	MAXIMUM FACTORED	INPUT	REQD
BEARINGS	GROSS REACTION	DOWN	BRG	BRG
JT	VERT	HORZ	UPLIFT	IN-SX
F	911	0	0	1-8
K	911	0	0	MECHANICAL

A SUITABLE MECHANICAL CONNECTION IS REQUIRED AT JOINT K TO RESIST THE MAX FACTORED REACTIONS.

UNFACTORED REACTIONS

1ST LCASE		MAX/MIN COMPONENT REACTIONS					
JT	COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
F	639	447 / 0	0 / 0	0 / 0	0 / 0	192 / 0	0 / 0
K	639	447 / 0	0 / 0	0 / 0	0 / 0	192 / 0	0 / 0

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

BRACING

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

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

1 - 1x4 LATERAL BRACE(S) AT 1/2 LENGTH OF E-F. DBS = 20-0-0. CBF = 109 LBS.
2x4 DRY SPF No.2 T-BRACE AT C-G, D-G

DBS = DIAGONAL BRACE SPACING (MAX). CBF = CUMULATIVE BRACING FORCE (PER BRACE). FASTEN LATERAL BRACE(S) USING (0.122"x3") SPIRAL NAILS: 1 NAIL FOR 2x3 BRACE(S), 2 FOR 1x4, 2x4, 2x5, 3 FOR 2x6, 4 FOR 2x8, 5 FOR 2x10, AND 6 FOR 2x12.

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

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

LOADING

TOTAL LOAD CASES: (4)

CHORDS	MAX. FACTORED	FACTORED	W E B S	MAX. FACTORED
MEMB.	FORCE (LBS)	VERT. LOAD LC1	MEMB.	FORCE (LBS)
FR-TO		FROM TO	FR-TO	
A-B	-655 / 0	-77.4 -77.4 0.26 (1)	J-B	-284 / 0
B-C	-619 / 0	-77.4 -77.4 0.26 (1)	B-I	-116 / 0
C-D	-432 / 0	-77.4 -77.4 0.36 (1)	I-C	0 / 170
D-E	-432 / 0	-77.4 -77.4 0.36 (1)	C-G	-129 / 0
F-E	-873 / 0	0.0 0.0 0.34 (1)	G-D	-500 / 0
K-A	-879 / 0	0.0 0.0 0.16 (1)	G-E	0 / 835
			A-J	0 / 674
K-J	0 / 0	-17.5 -17.5 0.08 (4)		
J-I	0 / 564	-17.5 -17.5 0.13 (1)		
I-H	0 / 497	-17.5 -17.5 0.16 (4)		
H-G	0 / 497	-17.5 -17.5 0.16 (4)		
G-F	0 / 0	-17.5 -17.5 0.12 (4)		

DESIGN CRITERIA

SPECIFIED LOADS:	TOP CH.	LL	PSF
	DL	3.0	PSF
	LL	0.0	PSF
	DL	7.0	PSF
TOTAL LOAD		33.3	PSF

SPACING = 24.0 IN. C/C

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

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

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

(55 % OF 27.2 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 23.3 P.S.F. SPECIFIED ROOF LIVE LOAD

ALLOWABLE DEFL.(LL) = L/360 (0.64")
CALCULATED VERT. DEFL.(LL) = L/999 (0.02")
ALLOWABLE DEFL.(TL) = L/360 (0.64")
CALCULATED VERT. DEFL.(TL) = L/999 (0.04")

CSL: TC=0.36/1.00 (D-E:1), BC=0.16/1.00 (G-I:4), WB=0.30/1.00 (D-G:1), SSI=0.20/1.00 (D-E:1)

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

COMPANION LIVE LOAD FACTOR = 0.50

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

NAIL VALUES	PLATE GRIP(DRY)	SHEAR (PSI)	SECTION (PLI)
	MAX MIN	MAX MIN	MAX MIN
MT20	616	354	1667

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

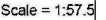
JSI GRIP= 0.90 (J) (INPUT = 0.90)
JSI METAL= 0.28 (A) (INPUT = 1.00)



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READ ALL NOTES ON THIS PAGE AND ON THE ENGINEERING NOTE PAGE ENP-1. THE NOTE PAGE IS AN INTEGRAL PART OF THIS DRAWING AS IT CONTAINS SPECIFICATIONS AND CRITERIA USED IN THE DESIGN OF THIS COMPONENT.





TOTAL WEIGHT = 116 lb

DRY; SEASONED LUMBER.

PLATES (table is in inches)

**DESIGNER
BEARINGS**

A SUITABLE MECHANICAL CONNECTION IS REQUIRED AT JOINT K TO RESIST THE MAX FACTORED REACTIONS.

UNFACTORED REACTIONS

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

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

DBS = DIAGONAL BRACE SPACING (MAX). CBF = CUMULATIVE BRACING FORCE (PER BRACE). FASTEN LATERAL BRACE(S) USING (0.122"X3") SPIRAL NAILS: 1 NAIL FOR 2x3 BRACE(S), 2 FOR 1x4, 2x4, 2x5, 3 FOR 2x6, 4 FOR 2x8, 5 FOR 2x10, AND 6 FOR 2x12.

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)

K-J	0/0	-17.5	-17.5	0.12 (4)	10.00
J-I	0/585	-17.5	-17.5	0.16 (4)	10.00
I-H	0/447	-17.5	-17.5	0.12 (4)	10.00
H-G	0/447	-17.5	-17.5	0.12 (4)	10.00
G-F	0/0	-17.5	-17.5	0.08 (4)	10.00

WEBS

DESIGN CRITERIA

SPECIFIED LOADS:

SPACING = 24.0 IN. C/C

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

(55 % OF 27.2 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 23.3 P.S.F. SPECIFIED ROOF LIVE LOAD

CSI: TC=0.44/1.00 (E-F:1), BC=0.16/1.00 (I-J:4),
WB=0.34/1.00 (D-G:1), SSI=0.17/1.00 (D-E:1)

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

COMPANION LIVE LOAD FACTOR = 0.50

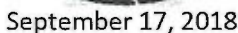
TRUSS PLATE MANUFACTURER IS NOT RESPONSIBLE FOR QUALITY CONTROL IN THE TRUSS MANUFACTURING PLANT .

NAIL VALUES

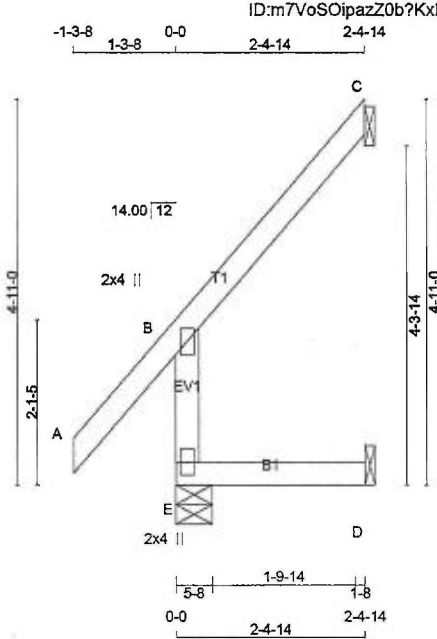
PLATE PLACEMENT TOL = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.90 (J) (INPUT = 0.90)



KOTT



Scale = 1:28.0

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

PLATES (table in inches)

JT	TYPE	PLATES	W	LEN	Y	X
B	TMV+p	MT20	2.0	4.0		
E	BMV1+p	MT20	2.0	4.0		

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

JT	FACTORED GROSS REACTION		MAXIMUM FACTORED GROSS REACTION		INPUT BRG IN-SX	REQD BRG IN-SX
	VERT	HORZ	DOWN	HORZ		
E	247	0	247	0	5-8	1-8
C	70	0	70	0	1-8	1-8
D	19	0	22	0	1-8	1-8

SEE MITEK STANDARD DETAIL B37579H FOR CONNECTION TO JOINT(S) C, D

UNFACTORED REACTIONS

JT	1ST CASE COMBINED	MAX./MIN. COMPONENT REACTIONS					
		SNOW	LIVE	PERM. LIVE	WIND	DEAD	SOIL
E	171	135/0	0/0	0/0	0/0	36/0	0/0
C	48	42/0	0/0	0/0	0/0	5/0	0/0
D	16	0/0	0/0	0/0	0/0	16/0	0/0

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

BRACING

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

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

LOADING

TOTAL LOAD CASES: (5)

MEMB.	CHORDS		FACTORED		WEBS	
	MAX. FORCE (LBS)	VERT. LOAD (PLF)	MAX. (PLF)	MAX. (LC)	MAX. MEMB. FORCE (LBS)	MAX. FACTORED (LC)
FR-TO						
E-B	-224/0	0.0	0.0	0.01 (4)	7.81	
A-B	0/41	-77.4	-77.4	0.11 (1)	10.00	
B-C	-17/0	-77.4	-77.4	0.07 (1)	6.25	
E-D	0/0	-17.5	-17.5	0.03 (4)	10.00	

CANTILEVER ANALYSIS HAS BEEN CONSIDERED IN THIS DESIGN

DESIGN CRITERIA

SPECIFIED LOADS:
TOP CH. LL = 23.3 PSF
DL = 3.0 PSF
BOT CH. LL = 0.0 PSF
DL = 7.0 PSF
TOTAL LOAD = 33.3 PSF

SPACING = 24.0 IN. CG

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

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

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

(55 % OF 27.2 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 23.3 P.S.F. SPECIFIED ROOF LIVE LOAD

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

CSI: TC=0.11/1.00 (A-B:1), BC=0.03/1.00 (D-E:4),
WB=0.00/1.00 (n/a:0), SSI=0.06/1.00 (B-C:1)

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

COMPANION LIVE LOAD FACTOR = 0.50

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

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

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

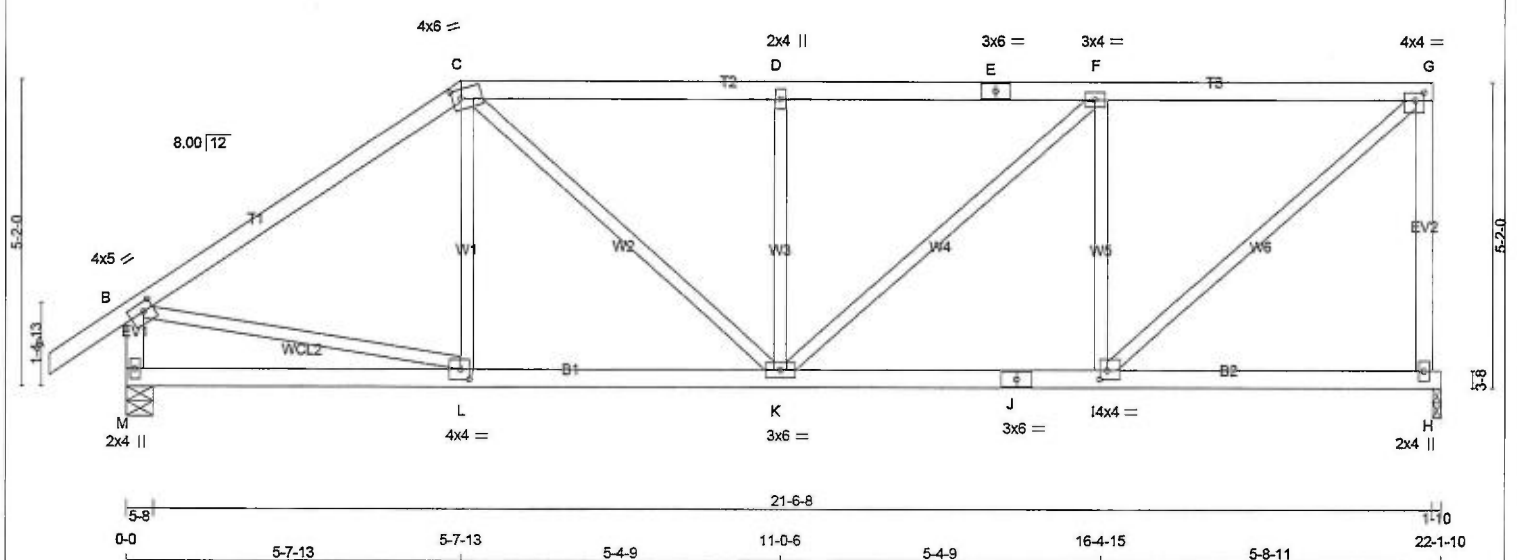
JSI GRIP= 0.19 (B) (INPUT = 0.90)
JSI METAL = 0.07 (B) (INPUT = 1.00)



September 17, 2018

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LUMBER

N. L. G. A. RULES

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

DRY: SEASONED LUMBER.

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

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

DESIGNER BEARINGS

JT	FACTORED GROSS REACTION	MAXIMUM FACTORED GROSS REACTION	INPUT BRG	REQRD BRG
H	1043	1043	0	0
M	1150	1150	0	0

UNFACTORED REACTIONS

JT	1ST LCASE	MAX/MIN COMPONENT REACTIONS
H	732	512 / 0
M	804	576 / 0

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

BRACING

TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 5.34 FT.

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

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

LOADING											
TOTAL LOAD CASES: (4)											
CHORDS						WEBS					
MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	LC1	MAX. FACTORED FORCE (LBS)	MAX. UNBRAC LENGTH	MEMB.	MAX. FACTORED FORCE (LBS)	MAX. FACTORED FORCE (LBS)	MAX. FACTORED FORCE (LBS)	MAX. FACTORED FORCE (LBS)	MAX. FACTORED FORCE (LBS)
FR-TO		FROM TO		CS1 (LC)		FR-TO					
A-B	0 / 29	-77.4	-77.4	0.10 (1)	10.00	L-C	-60 / 72	0.03 (4)			
B-C	-1101 / 0	-77.4	-77.4	0.49 (1)	5.38	C-K	0 / 420	0.09 (1)			
C-D	-1225 / 0	-77.4	-77.4	0.33 (1)	5.38	K-D	-448 / 0	0.18 (1)			
D-E	-1225 / 0	-77.4	-77.4	0.36 (1)	5.34	K-F	0 / 371	0.08 (1)			
E-F	-1225 / 0	-77.4	-77.4	0.36 (1)	5.34	I-F	-718 / 0	0.28 (1)			
F-G	-950 / 0	-77.4	-77.4	0.35 (1)	5.88	I-G	0 / 1261	0.28 (1)			
H-G	-1004 / 0	0.0	0.0	0.46 (1)	7.80	B-L	0 / 931	0.21 (1)			
M-B	-1109 / 0	0.0	0.0	0.11 (1)	7.52						
M-L	0 / 0	-17.5	-17.5	0.13 (4)	10.00						
L-K	0 / 914	-17.5	-17.5	0.22 (1)	10.00						
K-J	0 / 950	-17.5	-17.5	0.22 (1)	10.00						
J-I	0 / 950	-17.5	-17.5	0.22 (1)	10.00						
I-H	0 / 0	-17.5	-17.5	0.13 (4)	10.00						

DESIGN CRITERIA

SPECIFIED LOADS:

TOP CH. LL = 23.3 PSF

DL = 3.0 PSF

BOT CH. LL = 0.0 PSF

DL = 7.0 PSF

TOTAL LOAD = 33.3 PSF

SPACING = 24.0 IN. C/C

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

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

THIS DESIGN COMPLIES WITH:

- PART 9 OF NBC 2012, BCBC 2012, ABC 2014
- CSA 086-09
- TPIC 2011

(55% OF 27.2 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 23.3 P.S.F. SPECIFIED ROOF LIVE LOAD

ALLOWABLE DEFL.(LL) = L/360 (0.73")

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

ALLOWABLE DEFL.(TL) = L/360 (0.73")

CALCULATED VERT. DEFL.(TL) = L/999 (0.08")

CS1: TC=0.49/1.00 (B-C:1), BC=0.22/1.00 (I-K:1), WB=0.28/1.00 (G-I:1), SS=0.20/1.00 (F-G:1)

DOL LUMBER=1.00 NAIL=1.00 LS BEND=1.10

COMP=1.10 SHEAR=1.10 TENS=1.10

COMPANION LIVE LOAD FACTOR = 0.50

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 618 354 1067 622 2284 1656

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

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

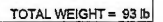
JSI METAL= 0.38 (B) (INPUT = 1.00)



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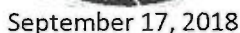




PLATES (table is in inches)						
JT	PLATE	PLATES	W	LEN	Y	X
B	TMV+p	MT20	2.0	4.0		
C	TMVW-t	MT20	4.0	4.0	1.75	1.75
D	TTW+m	MT20	3.0	4.0	2.00	1.25
E	TMVW-t	MT20	3.0	4.0		
F	TMVW-t	MT20	4.0	4.0	1.50	1.75
G	BMV1+p	MT20	2.0	4.0		
H	BS-t	MT20	3.0	4.0		
I	BMVW-t	MT20	4.0	4.0	1.75	1.50
J	BMVWW-t	MT20	3.0	6.0		
K	BMVW1-t	MT20	4.0	4.0	1.75	1.75

K-J	0/911	-17.5	-17.5	0.27 (4)	10.00
J-I	0/984	-17.5	-17.5	0.29 (4)	10.00
I-H	0/0	-17.5	-17.5	0.22 (4)	10.00
H-G	0/0	-17.5	-17.5	0.22 (4)	10.00

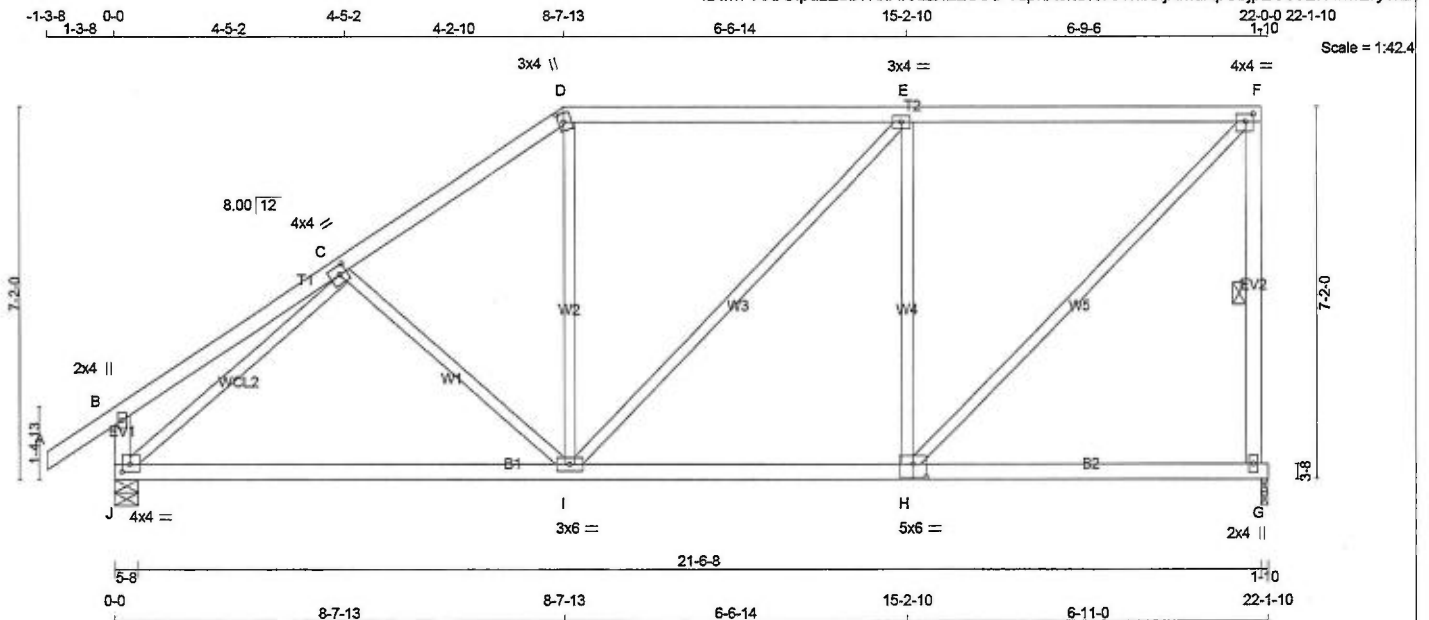
JSI GRIP= 0.88 (J) (INPUT = 0.90)
JSI METAL= 0.46 (C) (INPUT = 1.00)


KOTT

Kott, Ottawa, Ontario, IM

Version 8.210 S Mar 12 2018 MiTek Industries, Inc. Mon Sep 17 12:13:48 2018 Page 1

ID:m7VoSOipazZ0b?KxRr6LZ4z2O3C-vdpnXskUrtY9?hb3ijXmdApUbjpZO5eEf8wMEryckz



TOTAL WEIGHT = 98 lb

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

DRY: SEASONED LUMBER.

PLATES (table is in inches)

JT	TYPE	PLATES	W	LEN	Y	X
B	TMV+p	MT20	2.0	4.0		
C	TMWW-t	MT20	4.0	4.0	2.00	1.75
D	TTW+m	MT20	3.0	4.0	2.00	1.25
E	TMWW-t	MT20	3.0	4.0		
F	TMWW-t	MT20	4.0	4.0	1.75	1.75
G	BMV/1+p	MT20	2.0	4.0		
H	BSWW-t	MT20	5.0	6.0	3.00	3.00
I	BMWW-t	MT20	3.0	6.0		
J	BMWW-t	MT20	4.0	4.0	1.75	1.75

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

DESIGNER	FACTORED GROSS REACTION	MAXIMUM FACTORED GROSS REACTION	INPUT	REQD
BEARINGS	VERT	HORZ	DOWN	HORZ
JT	1043	0	1043	0
G	1150	0	1150	0
J	1150	0	1150	0

UNFACTORED REACTIONS	1ST LCASE	MAX/MIN COMPONENT REACTIONS
COMBINED	SNOW	LIVE
JT	732	512 / 0
G	804	576 / 0
J	804	576 / 0

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

BRACING

TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 5.64 FT.
MAX. UNBRACED BOTTOM CHORD LENGTH = 10.00 FT. OR RIGID CEILING DIRECTLY APPLIED.

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

1 - 1x4 LATERAL BRACE(S) AT 1/2 LENGTH OF F-G, DBS = 20'-0" . CBF = 124 LBS.

DBS = DIAGONAL BRACE SPACING (MAX). CBF = CUMULATIVE BRACING FORCE (PER BRACE). FASTEN LATERAL BRACE(S) USING (0.122"x3") SPIRAL NAILS : 1 NAIL FOR 2x3 BRACE(S), 2 FOR 1x4, 2x4, 2x5, 3 FOR 2x6, 4 FOR 2x8, 5 FOR 2x10, AND 6 FOR 2x12.

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

LOADING

TOTAL LOAD CASES: (4)

CHORDS	MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	MAX. FACTORED UNBRACED LENGTH (LC)	WEBS	MEMB.	MAX. FACTORED FORCE (LBS)	MAX. FACTORED UNBRACED LENGTH (LC)
FR-TO					FR-TO			
A-B	0 / 29	-77.4	-77.4	0.10 (1)	C-I	-156 / 14	0.10 (1)	
B-C	0 / 21	-77.4	-77.4	0.23 (1)	I-D	0 / 223	0.05 (1)	
C-D	-999 / 0	-77.4	-77.4	0.25 (1)	D-E	0 / 49	0.01 (4)	
D-E	-815 / 0	-77.4	-77.4	0.63 (1)	E-F	-678 / 0	0.61 (1)	
E-F	-782 / 0	-77.4	-77.4	0.63 (1)	F-G	0 / 1114	0.25 (1)	
F-G	-993 / 0	0.0	0.0	0.23 (1)	G-H	-1260 / 0	0.72 (1)	
G-H	-235 / 0	0.0	0.0	0.02 (1)	H-I			
I-J	0 / 929	-17.5	-17.5	0.34 (4)				
J-I	0 / 782	-17.5	-17.5	0.34 (4)				
H-G	0 / 0	-17.5	-17.5	0.17 (4)				

DESIGN CRITERIA

SPECIFIED LOADS:
TOP CH. LL = 23.3 PSF
DL = 3.0 PSF
BOT CH. LL = 0.0 PSF
DL = 7.0 PSF
TOTAL LOAD = 33.3 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 2010

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

(55 % OF 27.2 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 23.3 P.S.F. SPECIFIED ROOF LIVE LOAD

ALLOWABLE DEFL.(LL) = L/360 (0.73")
CALCULATED VERT. DEFL.(LL) = L/999 (0.04")
ALLOWABLE DEFL.(TL) = L/360 (0.73")
CALCULATED VERT. DEFL.(TL) = L/999 (0.18")

CSI: TC=0.63/1.00 (E-F:1), BC=0.34/1.00 (I-J:4), WB=0.72/1.00 (C-J:1), SSI=0.25/1.00 (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 = 0.50

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 618 354 1667 822 2284 1656

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

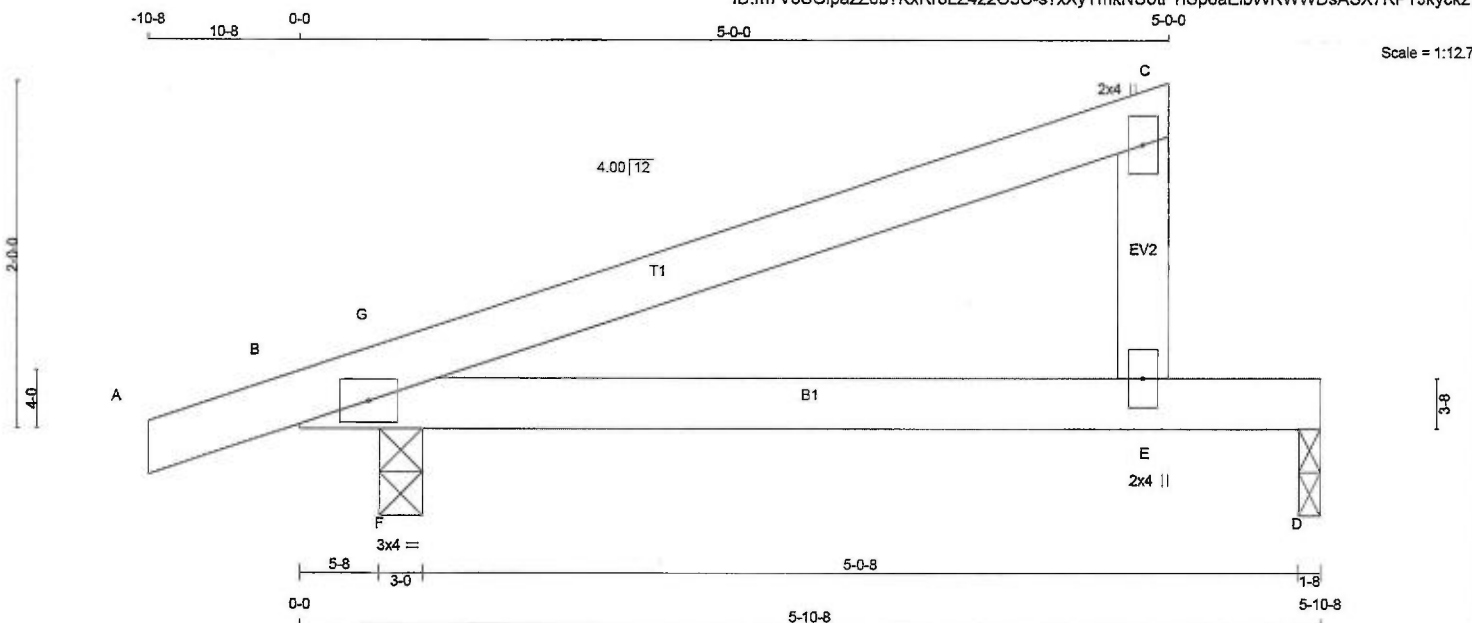
JSI GRIP= 0.90 (C) (INPUT = 0.90)
JSI METAL= 0.45 (C) (INPUT = 1.00)

READ ALL NOTES ON THIS PAGE AND ON THE ENGINEERING NOTE PAGE ENP-1. THE NOTE PAGE IS AN INTEGRAL PART OF THIS DRAWING AS IT CONTAINS SPECIFICATIONS AND CRITERIA USED IN THE DESIGN OF THIS COMPONENT.



September 17, 2018





TOTAL WEIGHT = 9 X 15 = 139 lb

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

DRY: SEASONED LUMBER.

PLATES (table is in inches)

JT TYPE	PLATES	W	LEN	Y	X
B	TM81-I	MT20	3.0	4.0	
C	TMV+p	MT20	2.0	4.0	
E	BMV+p	MT20	2.0	4.0	

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

DESIGNER BEARINGS

JT	FACTORED GROSS REACTION		MAXIMUM FACTORED GROSS REACTION		INPUT BRG IN-SX	REQD BRG IN-SX
	VERT	HORZ	DOWN	HORZ		
D	216	0	216	0	1-8	1-8
B	345	0	345	0	3-0	1-8

UNFACTORED REACTIONS

1ST LCASE		MAX/MIN COMPONENT REACTIONS					
JT	COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
D	153	99 / 0	0 / 0	0 / 0	0 / 0	54 / 0	0 / 0
B	241	177 / 0	0 / 0	0 / 0	0 / 0	64 / 0	0 / 0

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

BRACING

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

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

LOADING

TOTAL LOAD CASES: (4)

CHORDS				WEBS			
MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	MAX. FACTORED CSI (LC)	MEMB.	MAX. FACTORED FORCE (LBS)	MAX. FACTORED CSI (LC)	
FR-TO		FROM TO		FR-TO			
A-B	0 / 10	-77.4 -77.4	0.05 (1)	10.00	F-G	-110 / 64	
B-G	-27 / 0	-77.4 -77.4	0.07 (4)	6.25			
G-C	0 / 3	-77.4 -77.4	0.29 (1)	10.00			
E-C	-180 / 0	0.0 0.0	0.02 (1)	7.81			
B-F	0 / 0	-17.5 -17.5	0.14 (1)	10.00			
F-E	0 / 0	-17.5 -17.5	0.26 (1)	10.00			
E-D	0 / 0	-17.5 -17.5	0.25 (1)	10.00			

DESIGN CRITERIA

SPECIFIED LOADS:

TOP CH. LL	= 23.3 PSF
DL	= 3.0 PSF
BOT CH. LL	= 0.0 PSF
DL	= 7.0 PSF
TOTAL LOAD	= 33.3 PSF

SPACING = 24.0 IN. C/C

THIS TRUSS IS DESIGNED FOR RESIDENTIAL OR SMALL BUILDING REQUIREMENTS OF PART 9, NBC0 2010

THIS DESIGN COMPLIES WITH:

- PART 9 OF OBC 2012, BCBC 2012, ABC 2014
- CSA 086-09
- TPIC 2011

(55% OF 27.2 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 23.3 P.S.F. SPECIFIED ROOF LIVE LOAD

ALLOWABLE DEFL.(LL) = $L/360$ (0.20")
CALCULATED VERT. DEFL.(LL) = $L/910$ (0.08")
ALLOWABLE DEFL.(TL) = $L/360$ (0.20")
CALCULATED VERT. DEFL.(TL) = $L/472$ (0.15")

CSI: TC=0.29/1.00 (C-G:1), BC=0.28/1.00 (E-F:1),
WB=0.00/1.00 (F-G:1), SS=0.17/1.00 (D-E:1)

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

COMPANION LIVE LOAD FACTOR = 0.50

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

NAIL VALUES

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

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.17 (B) (INPUT = 0.90)
JSI METAL= 0.05 (B) (INPUT = 1.00)



September 17, 2018

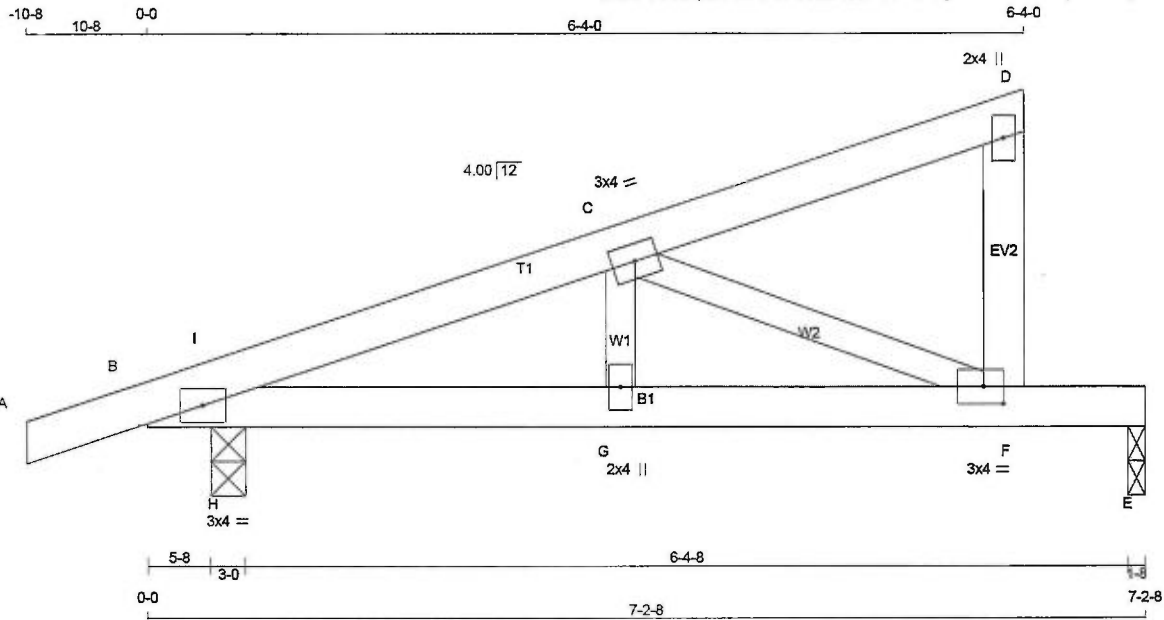
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Kott, Ottawa, Ontario, IM

Version 8.210 S Mar 12 2018 MiTek Industries, Inc. Mon Sep 17 12:13:50 2018 Page 1

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Scale: 3/4"=1'

TOTAL WEIGHT = 6 X 22 = 132 lb

LUMBER			
N. L. G. A. RULES	SIZE	DRY	NO.2
CHORDS	2x4	DRY	No.2
A - D	2x4	DRY	No.2
F - D	2x4	DRY	No.2
B - E	2x4	DRY	No.2
ALL WEBS 2x3 DRY SEASONED LUMBER.			

PLATES (table is in inches)				
JT	TYPE	PLATES	W	LEN
B	TMB1-J	MT20	3.0	4.0
C	TMVW-t	MT20	3.0	4.0
D	TMV-w	MT20	2.0	4.0
F	BMVW-t	MT20	3.0	4.0
G	BMV-w	MT20	2.0	4.0

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

JT	FACTORED GROSS REACTION		MAXIMUM FACTORED GROSS REACTION		INPUT BRG IN-SX	REQD BRG IN-SX
	VERT	HORZ	DOWN	HORZ		
E	278	0	278	0	1-8	1-8
B	409	0	409	0	3-0	1-8

UNFACTORED REACTIONS

JT	COMBINED	MAX./MIN. COMPONENT REACTIONS				
		1ST CASE	SNOW	LIVE	PERM. LIVE	WIND
E	197	130 / 0	0 / 0	0 / 0	0 / 0	67 / 0
B	286	208 / 0	0 / 0	0 / 0	0 / 0	77 / 0

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

BRACING

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

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

LOADING

TOTAL LOAD CASES: (4)

CHORDS						WEBS				
MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	LC1	MAX. CSI (LC)	MAX. UNBRAC LENGTH	MEMB.	MAX. FACTORED FORCE (LBS)	MAX. CSI (LC)		
FR-TO		FROM	TO		FR-TO					
A-B	0 / 10	-77.4	-77.4	0.05 (1)	10.00	C-F	-561 / 0	0.13 (1)		
B-I	-654 / 0	-77.4	-77.4	0.01 (1)	6.25	G-C	0 / 193	0.04 (1)		
I-C	-640 / 0	-77.4	-77.4	0.06 (1)	6.25	H-I	-91 / 6	0.00 (1)		
C-D	-6 / 0	-77.4	-77.4	0.07 (1)	10.00					
F-D	-94 / 0	0.0	0.0	0.01 (1)	7.81					
B-H	0 / 613	-17.5	-17.5	0.16 (1)	10.00					
H-G	0 / 613	-17.5	-17.5	0.19 (1)	10.00					
G-F	0 / 613	-17.5	-17.5	0.42 (1)	10.00					
F-E	0 / 0	-17.5	-17.5	0.32 (1)	10.00					

DESIGN CRITERIA

SPECIFIED LOADS:
TOP CH. LL = 23.3 PSF
DL = 3.0 PSF
BOT CH. LL = 0.0 PSF
DL = 7.0 PSF
TOTAL LOAD = 33.3 PSF

SPACING = 24.0 IN. C/C

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

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

(55 % OF 27.2 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 23.3 P.S.F. SPECIFIED ROOF LIVE LOAD

ALLOWABLE DEFL.(LL) = L/360 (0.24")
CALCULATED VERT. DEFL.(LL) = L/999 (0.04")
ALLOWABLE DEFL.(TL) = L/360 (0.24")
CALCULATED VERT. DEFL.(TL) = L/999 (0.07")

CSI: TC=0.07/1.00 (C-D:1), BC=0.42/1.00 (F-G:1), WB=0.13/1.00 (C-F:1), SSI=0.22/1.00 (E-F:1)

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

COMPANION LIVE LOAD FACTOR = 0.50

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

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

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

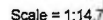
JSI GRIP= 0.77 (F) (INPUT = 0.90)
JSI METAL= 0.23 (F) (INPUT = 1.00)



September 17, 2018

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TOTAL WEIGHT = $3 \times 17 = 50$ lb

DRY: SEASONED LUMBER.

DESCR.
SPF
SPF
SPF

DESIGNER

UNFACTORED REACTIONS

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

BRACING

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

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

LOADING

TOTAL LOAD CASES: (4)

CHORDS					WEBS				
MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	LC1	MAX CSI (LC)	MAX. UNBRAC LENGTH	MEMB. FR-TO	MAX. FACTORED FORCE (LBS)	MAX CSI (LC)	
FR-TO		FROM	TO						
A-B	0/10	-77.4	-77.4	0.05 (1)	10.00	F-G	-140 / 73	0.00 (1)	
B-G	-31/0	-77.4	-77.4	0.08 (4)	8.25				
G-C	0/3	-77.4	-77.4	0.34 (1)	10.00				
E-C	-198/0	0.0	0.0	0.02 (1)	7.81				
B-F	0/0	-17.5	-17.5	0.17 (1)	10.00				
F-E	0/0	-17.5	-17.5	0.30 (1)	10.00				
E-D	0/0	-17.5	-17.5	0.28 (1)	10.00				

DESIGN CRITERIA

SPECIFIED LOADS:

SPACING = 24.0 IN. C/C

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

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

(55 % OF 27.2 P.S.F. G.S.L PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 23.3 P.S.F. SPECIFIED ROOF LIVE LOAD

ALLOWABLE DEFL.(LL)= $L/360$ (0.21")
CALCULATED VERT. DEFL.(LL) = $L/725$ (0.11")
ALLOWABLE DEFL.(TL)= $L/360$ (0.21")
CALCULATED VERT. DEFL.(TL) = $L/375$ (0.20")

CSI: TC=0.34/1.00 (C-G:1), BC=0.30/1.00 (E-F:1),
WB=0.00/1.00 (F-G:1), SSI=0.19/1.00 (D-E:1)

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

COMPANION LIVE LOAD FACTOR = 0.50

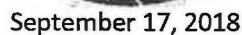
TRUSS PLATE MANUFACTURER IS NOT RESPONSIBLE FOR QUALITY CONTROL IN THE TRUSS MANUFACTURING PLANT.

NAIL VALUES					
PLATE	GRIP(DRY)		SHEAR		SECTION
	(PSI)		(PLI)		(PLI)
	MAX	MIN	MAX	MIN	MAX MIN
MT20	618	354	1867	822	2284 1656

PLATE PLACEMENT TOL. = 0.250 inches

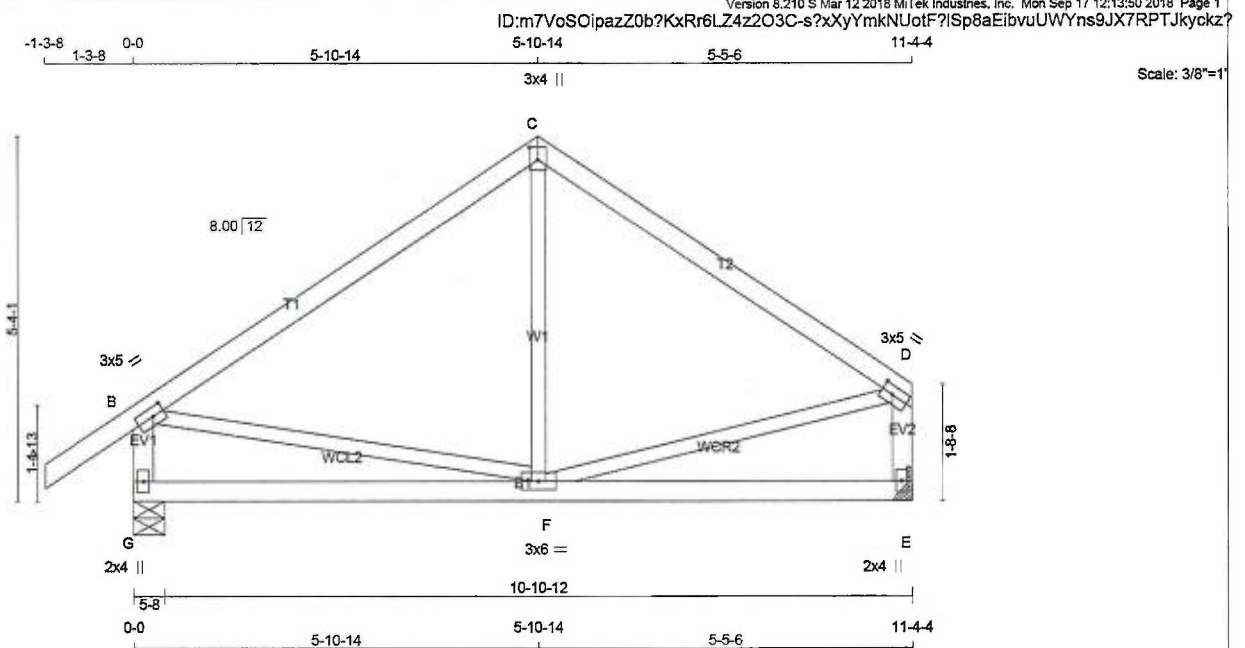
PLATE ROTATION TOL = 5.0 Deg

JSI GRIP= 0.18 (B) (INPUT = 0.90)
JSI METAL= 0.06 (B) (INPUT = 1.00)



**READ ALL NOTES ON THIS PAGE AND ON THE
ENGINEERING NOTE PAGE ENP-1. THE NOTE PAGE
IS AN INTEGRAL PART OF THIS DRAWING AS IT
CONTAINS SPECIFICATIONS AND CRITERIA USED
IN THE DESIGN OF THIS COMPONENT.**





TOTAL WEIGHT = 2 X 46 = 92 lb (M.F.)

LUMBER

N. L. G. A. RULES

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

ALL WEBS 2x3 DRY No.2
EXCEPT

DRY: SEASONED LUMBER.

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

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

DESCR.	SPF	FACTORED GROSS REACTION	MAXIMUM FACTORED GROSS REACTION	INPUT BRG	REQRD BRG
JT	VERT	HORZ	DOWN	HORZ	UPLIFT
G	845	0	845	0	5-8
E	539	0	539	0	0

A SUITABLE MECHANICAL CONNECTION IS REQUIRED AT JOINT E TO RESIST THE MAX FACTORED REACTIONS.

UNFACTORED REACTIONS

1ST LOASE	MAX./MIN. COMPONENT REACTIONS
JT	COMBINED SNOW LIVE PERM.LIVE WIND DEAD SOIL
G	450 328 / 0 0 / 0 0 / 0 122 / 0 0 / 0
E	378 264 / 0 0 / 0 0 / 0 114 / 0 0 / 0

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

BRACING

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

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

LOADING

TOTAL LOAD CASES: (4)

CHORDS				WEBS			
MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	MAX. UNBRACED LENGTH (FT)	MEMB.	MAX. FACTORED FORCE (LBS)	MAX. UNBRACED LENGTH (FT)	FACTORED VERT. LOAD (PLF)
FR-TO				FR-TO			
A-B	0 / 29	-77.4	-77.4 0.10 (1)	10.00	F-C	-17 / 93	0.03 (4)
B-C	-381 / 0	-77.4	-77.4 0.35 (1)	6.25	B-F	0 / 322	0.07 (1)
C-D	-380 / 0	-77.4	-77.4 0.30 (1)	6.25	F-D	0 / 327	0.07 (1)
G-B	-802 / 0	0.0	0.0 0.05 (1)	7.81			
E-D	-506 / 0	0.0	0.0 0.05 (1)	7.81			
G-F	0 / 0	-17.5	-17.5 0.16 (4)	10.00			
F-E	0 / 0	-17.5	-17.5 0.16 (4)	10.00			

DESIGN CRITERIA

SPECIFIED LOADS:
TOP CH. LL = 23.3 PSF
DL = 3.0 PSF
BOT CH. LL = 0.0 PSF
DL = 7.0 PSF
TOTAL LOAD = 33.3 PSF

SPACING = 24.0 IN. C/C

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

THIS DESIGN COMPLIES WITH:

- PART 9 OF OBC 2012, CBC 2012, ABC 2014
- CSA 086-09
- TPIC 2011

(55% OF 27.2 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 23.3 P.S.F. SPECIFIED ROOF LIVE LOAD

ALLOWABLE DEFL. (LL) = $L/360$ (0.38")
CALCULATED VERT. DEFL. (LL) = $L/899$ (0.01")
ALLOWABLE DEFL. (TL) = $L/360$ (0.38")
CALCULATED VERT. DEFL. (TL) = $L/999$ (0.04")

CSI: TC=0.35/1.00 (B-C:1), BC=0.16/1.00 (F-G:4), WB=0.07/1.00 (D-F:1), SSI=0.15/1.00 (B-C:1)

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

COMPANION LIVE LOAD FACTOR = 0.50

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

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

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.70 (F) (INPUT = 0.90)
JSI METAL= 0.17 (B) (INPUT = 1.00)



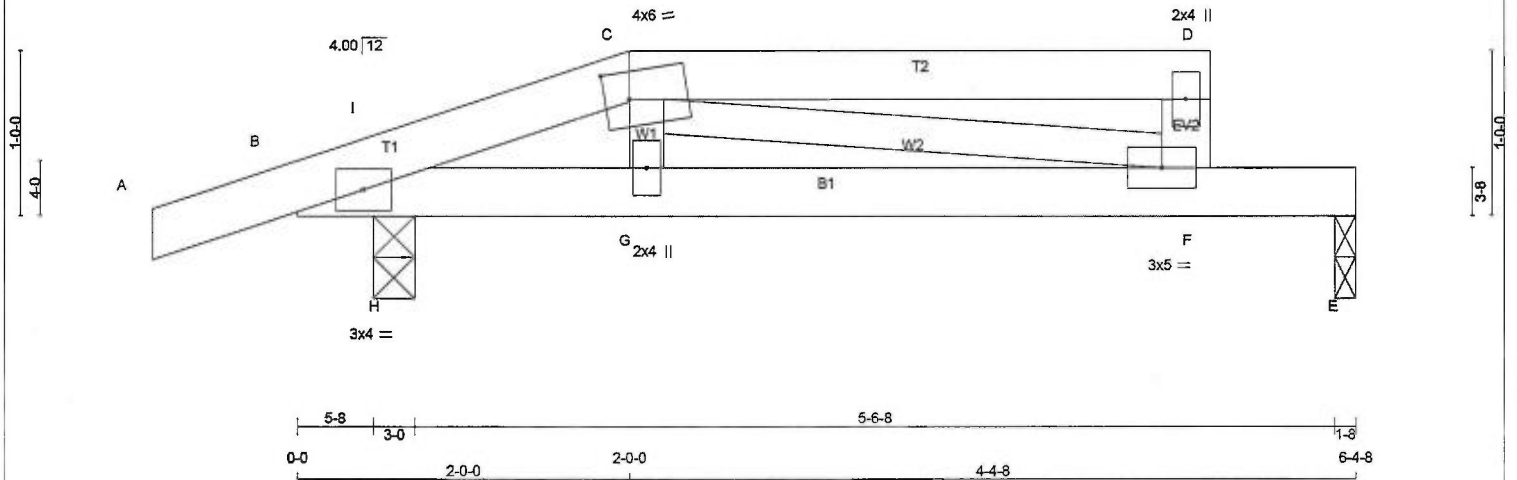
September 17, 2018

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-10-8 10-8 0-0 2-0-0 2-0-0 3-6-0 5-6-0

Scale = 1:13.3



TOTAL WEIGHT = 18 lb

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

PLATES (table is in inches)					
JT TYPE	PLATES	W	LEN	Y	X
B	TMB1-I	MT20	3.0	4.0	
C	TTWW-m	MT20	4.0	6.0	2.00 1.75
D	TMV-p	MT20	2.0	4.0	
F	BMVW-I	MT20	3.0	5.0	
G	BMVW-w	MT20	2.0	4.0	

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

DESIGNER BEARINGS							
	FACTORED GROSS REACTION		MAXIMUM FACTORED GROSS REACTION		INPUT BRG	REQRD BRG	
JT	VERT	HORZ	DOWN	HORZ	UPLIFT	IN-SX	IN-SX
E	302	0	302	0	0	1-8	1-8
B	374	0	374	0	0	3-0	1-8

UNFACTORED REACTIONS							
JT	COMBINED	SNOW	LIVE	PERM. LIVE	WIND	DEAD	SOIL
E	212	148 / 0	0 / 0	0 / 0	0 / 0	64 / 0	0 / 0
B	261	191 / 0	0 / 0	0 / 0	0 / 0	69 / 0	0 / 0

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

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

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

LOADING
TOTAL LOAD CASES: (4)

CHORDS				WEBS			
MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	MAX. LC1 MAX CSI (LC)	MAX. UNBRACED LENGTH	MEMB.	MAX. FACTORED FORCE (LBS)	MAX. CSI (LC)
FR-TO		FROM	TO		FR-TO		
A-B	0 / 10	-77.4	-77.4 0.05 (1)	10.00	G-C	0 / 172	0.04 (1)
B-I	-691 / 0	-77.4	-77.4 0.02 (1)	6.25	C-F	-687 / 0	0.15 (1)
I-C	-888 / 0	-77.4	-77.4 0.03 (1)	6.25	H-I	-62 / 0	0.00 (1)
C-D	0 / 0	-77.4	-77.4 0.16 (1)	10.00			
F-D	-135 / 0	0.0	0.0 0.01 (1)	7.81			
B-H	0 / 649	-17.5	-17.5 0.13 (1)	10.00			
H-G	0 / 649	-17.5	-17.5 0.17 (1)	10.00			
G-F	0 / 674	-17.5	-17.5 0.42 (1)	10.00			
F-E	0 / 0	-94.9	-94.9 0.31 (1)	10.00			

DESIGN CRITERIA

SPECIFIED LOADS:
TOP CH. LL = 23.3 PSF
DL = 3.0 PSF
BOT CH. LL = 0.0 PSF
DL = 7.0 PSF
TOTAL LOAD = 33.3 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 2010

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

(55 % OF 27.2 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 23.3 P.S.F. SPECIFIED ROOF LIVE LOAD

ALLOWABLE DEFL. (LL) = 1/360 (0.21")
CALCULATED VERT. DEFL. (LL) = 1/999 (0.04")
ALLOWABLE DEFL. (TL) = 1/360 (0.21")
CALCULATED VERT. DEFL. (TL) = 1/906 (0.08")

CSI: TO=0.16/1.00 (C-D:1), BC=0.42/1.00 (F-G:1), WB=0.15/1.00 (C-F:1), SS=0.24/1.00 (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 = 0.50

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

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

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

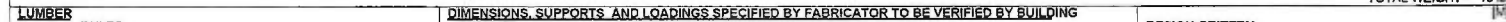
JSI GRIP= 0.86 (C) (INPUT = 0.90)
JSI METAL= 0.23 (B) (INPUT = 1.00)



September 17, 2018

READ ALL NOTES ON THIS PAGE AND ON THE ENGINEERING NOTE PAGE ENP-1. THE NOTE PAGE IS AN INTEGRAL PART OF THIS DRAWING AS IT CONTAINS SPECIFICATIONS AND CRITERIA USED IN THE DESIGN OF THIS COMPONENT.





	2012/13	2013/14	2014/15	2015/16
1.1	1.1	1.1	1.1	1.1
1.2	1.2	1.2	1.2	1.2
1.3	1.3	1.3	1.3	1.3
1.4	1.4	1.4	1.4	1.4
1.5	1.5	1.5	1.5	1.5
1.6	1.6	1.6	1.6	1.6
1.7	1.7	1.7	1.7	1.7
1.8	1.8	1.8	1.8	1.8
1.9	1.9	1.9	1.9	1.9
1.10	1.10	1.10	1.10	1.10
1.11	1.11	1.11	1.11	1.11
1.12	1.12	1.12	1.12	1.12
1.13	1.13	1.13	1.13	1.13
1.14	1.14	1.14	1.14	1.14
1.15	1.15	1.15	1.15	1.15
1.16	1.16	1.16	1.16	1.16
1.17	1.17	1.17	1.17	1.17
1.18	1.18	1.18	1.18	1.18
1.19	1.19	1.19	1.19	1.19
1.20	1.20	1.20	1.20	1.20
1.21	1.21	1.21	1.21	1.21
1.22	1.22	1.22	1.22	1.22
1.23	1.23	1.23	1.23	1.23
1.24	1.24	1.24	1.24	1.24
1.25	1.25	1.25	1.25	1.25
1.26	1.26	1.26	1.26	1.26
1.27	1.27	1.27	1.27	1.27
1.28	1.28	1.28	1.28	1.28
1.29	1.29	1.29	1.29	1.29
1.30	1.30	1.30	1.30	1.30
1.31	1.31	1.31	1.31	1.31
1.32	1.32	1.32	1.32	1.32
1.33	1.33	1.33	1.33	1.33
1.34	1.34	1.34	1.34	1.34
1.35	1.35	1.35	1.35	1.35
1.36	1.36	1.36	1.36	1.36
1.37	1.37	1.37	1.37	1.37
1.38	1.38	1.38	1.38	1.38
1.39	1.39	1.39	1.39	1.39
1.40	1.40	1.40	1.40	1.40
1.41	1.41	1.41	1.41	1.41
1.42	1.42	1.42	1.42	1.42
1.43	1.43	1.43	1.43	1.43
1.44	1.44	1.44	1.44	1.44
1.45	1.45	1.45	1.45	1.45
1.46	1.46	1.46	1.46	1.46
1.47	1.47	1.47	1.47	1.47
1.48	1.48	1.48	1.48	1.48
1.49	1.49	1.49	1.49	1.49
1.50	1.50	1.50	1.50	1.50
1.51	1.51	1.51	1.51	1.51
1.52	1.52	1.52	1.52	1.52
1.53	1.53	1.53	1.53	1.53
1.54	1.54	1.54	1.54	1.54
1.55	1.55	1.55	1.55	1.55
1.56	1.56	1.56	1.56	1.56
1.57	1.57	1.57	1.57	1.57
1.58	1.58	1.58	1.58	1.58
1.59	1.59	1.59	1.59	1.59
1.60	1.60	1.60	1.60	1.60
1.61	1.61	1.61	1.61	1.61
1.62	1.62	1.62	1.62	1.62
1.63	1.63	1.63	1.63	1.63
1.64	1.64	1.64	1.64	1.64
1.65	1.65	1.65	1.65	1.65
1.66	1.66	1.66	1.66	1.66
1.67	1.67	1.67	1.67	1.67
1.68	1.68	1.68	1.68	1.68
1.69	1.69	1.69	1.69	1.69
1.70	1.70	1.70	1.70	1.70
1.71	1.71	1.71	1.71	1.71
1.72	1.72	1.72	1.72	1.72

BEARINGS	FACTORED	MAXIMUM FACTORED	INPUT	REQRD
----------	----------	------------------	-------	-------

READING MATERIAL TO BE GRADING 2 OR BETTER AT JOINT(S) 5, 8

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

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

ALL RATCH BREAKS AND PERIMETER CORNER JOINTS MUST BE LATERALLY RESTRAINED

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

TOTAL LOAD CASES: (4)

SPECIFIED LOADS:

SPRING - 210 - 11/03

SPACING = 24.0 IN. C/C

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

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

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

(55 % OF 27.2 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 23.3 P.S.F. SPECIFIED ROOF LIVE LOAD

ALLOWABLE DEFL.(LL)= $L/360$ (0.21")
 CALCULATED VERT. DEFL.(LL) = $L/999$ (0.02")
 ALLOWABLE DEFL.(TL)= $L/360$ (0.21")
 CALCULATED VERT. DEFL.(TL) = $L/999$ (0.03")

CSI: TC=0.15/1.00 (C-I:1), BC=0.37/1.00 (F-G:1),
WB=0.08/1.00 (C-F:1), SSI=0.24/1.00 (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 = 0.50

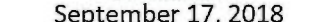
TRUSS PLATE MANUFACTURER IS NOT RESPONSIBLE FOR QUALITY CONTROL IN THE TRUSS MANUFACTURING PLANT.

NAIL VALUES	GRIP(DRY)		SHEAR		SECTION	
	(PSI)	(PLI)	(PSI)	(PLI)	(PSI)	(PLI)
MT20	618	354	1667	822	2284	1656

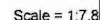
PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL = 5.0 Deg.

JSI GRIP= 0.76 (C) (INPUT = 0.90)
JSI METAL= 0.20 (C) (INPUT = 1.00)



Journal of Management Inquiry 22(1) 3-17
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DOI: 10.1177/1056492613505111



TOTAL WEIGHT = $2 \times 6 = 12$ lb

DESCR
SPF
SPF

DRY: SEASONED LUMBER.

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

BEAKINGS		FACTORED		MAXIMUM FACTORED		INPUT	REQRD
GROSS REACTION		GROSS REACTION		BRG		BRG	BRG
JT	VERT	HORZ	DOWN	HORZ	UPLIFT	IN-SX	IN-SX
C	64	0	64	0	0	1-8	1-8
D	31	0	31	0	0	1-8	1-8
B	166	0	166	0	0	3-0	1-8

SEE MITEK STANDARD DETAIL B37579H FOR CONNECTION TO JOINT(S) C . D

UNFACTORED REACTIONS

1ST LCASE		MAX./MIN. COMPONENT REACTIONS					
JT	COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
C	44	36/0	0/0	0/0	0/0	8/0	0/0
D	23	10/0	0/0	0/0	0/0	12/0	0/0
B	115	89/0	0/0	0/0	0/0	26/0	0/0

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

BRACING

TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 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

LOADING
TOTAL LOAD CASES: (5)

CHORDS				WEBS			
MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	MAX. LOAD LC1 CSI (LC)	MAX. UNBRAC LENGTH	MEMB.	MAX. FACTORED FORCE (LBS)	MAX. CSI (LC)
FR-TO		FROM TO			FR-TO		
A-B	0/10	-77.4	-77.4	0.05 (1)	10.00	E-F	-45/7
B-F	-8/0	-77.4	-77.4	0.02 (1)	10.00		0.00 (1)
F-C	0/3	-77.4	-77.4	0.04 (1)	10.00		
B-E	0/0	-17.5	-17.5	0.04 (1)	10.00		
E-D	0/0	-17.5	-17.5	0.04 (1)	10.00		

CANTILEVER ANALYSIS HAS BEEN CONSIDERED IN THIS DESIGN

DESIGN CRITERIA

SPECIFIED LOADS:

SPECIFIED LOADS:			
TOP CH.	LL =	23.3	PSF
	DL =	3.0	PSF
BOT CH.	LL =	0.0	PSF
	DL =	7.0	PSF
TOTAL LOAD =		33.3	PSF

SPACING = 24.0 IN. C/C

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

THIS DESIGN COMPLIES WITH:

- PART 9 OF OBC 2012 , BCBC 2012 , ABC 2014
- CSA 086-09
- TPIC 2011

(55 % OF 27.2 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 23.3 P.S.F. SPECIFIED ROOF LIVE LOAD

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

CSI: TC=0.05/1.00 (A-B:1), BC=0.04/1.00 (B-E:1),
WB=0.00/1.00 (E-F:1), SSf=0.05/1.00 (A-B:1)

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

COMPANION LIVE LOAD FACTOR = 0.50

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

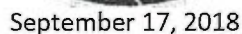
NAIL VALUES

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

PLATE PLACEMENT TOL. = 0.250 inches

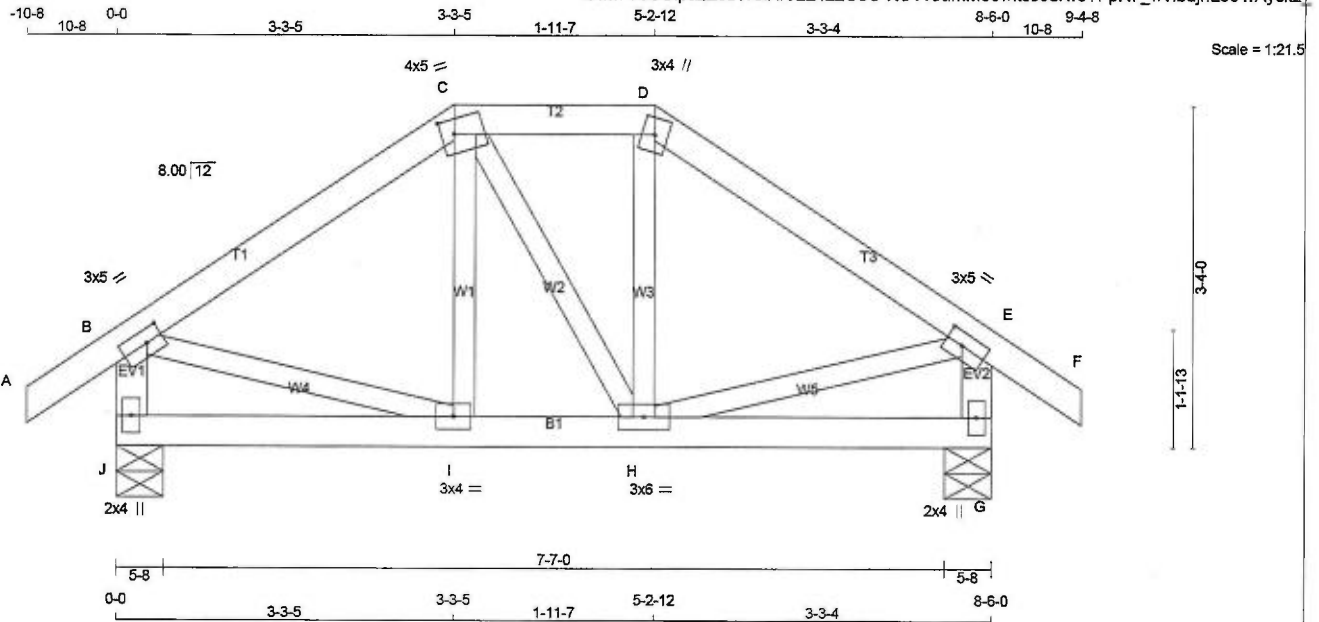
PLATE ROTATION TOL = 5.0 Deg

JSI GRIP= 0.08 (B) (INPUT = 0.90)
JSI METAL= 0.02 (B) (INPUT = 1.00)



**READ ALL NOTES ON THIS PAGE AND ON THE
ENGINEERING NOTE PAGE ENP-1. THE NOTE PAGE
IS AN INTEGRAL PART OF THIS DRAWING AS IT
CONTAINS SPECIFICATIONS AND CRITERIA USED
IN THE DESIGN OF THIS COMPONENT.**





TOTAL WEIGHT = 37 lb [MJP]

LUMBER

N. L. G. A. RULES	CHORDS	SIZE	LUMBER
A - C	2x4	DRY	No.2
C - D	2x4	DRY	No.2
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 EXCEPT	2x3	DRY	No.2

DRY: SEASONED LUMBER.

PLATES (table is in inches)

JT	TYPE	PLATES	W	LEN	Y	X
B	TMVW-4	MT20	3.0	5.0	1.50	2.00
C	TTWW-m	MT20	4.0	5.0	1.75	1.50
D	TTWW+m	MT20	3.0	4.0		
E	TMVW-4	MT20	3.0	5.0	1.50	2.00
G	BMV1+p	MT20	2.0	4.0		
H	BMVW-4	MT20	3.0	6.0		
I	BMVW-4	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 BEARINGS

FACTORED GROSS REACTION	MAXIMUM FACTORED GROSS REACTION	INPUT BRG IN-SX	REQD BRG IN-SX
JT VERT	DOWN	UPLIFT	
J 477	0	5-8	1-8
G 477	0	5-8	1-8

UNFACTORED REACTIONS

1ST LCASE	MAX/MIN COMPONENT REACTIONS
JT COMBINED	SNOW LIVE PERM.LIVE WIND DEAD SOIL
J 333	242 / 0 0 / 0 0 / 0 0 / 0 91 / 0 0 / 0
G 333	242 / 0 0 / 0 0 / 0 0 / 0 91 / 0 0 / 0

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

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

LOADING
TOTAL LOAD CASES: (4)

CHORDS				WEBS			
MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	LC1 MAX CSI (LC)	MEMB.	MAX. FACTORED FORCE (LBS)	MAX. FACTORED CSI (LC)	
FR-TO		FROM	TO	FR-TO			
A-B	0 / 21	-77.4	-77.4 0.05 (1)	10.00	I-C	-19 / 34	0.01 (4)
B-C	-329 / 0	-77.4	-77.4 0.11 (1)	6.25	C-H	0 / 0	0.00 (1)
C-D	-272 / 0	-77.4	-77.4 0.04 (1)	6.25	H-D	-19 / 35	0.01 (4)
D-E	-325 / 0	-77.4	-77.4 0.11 (1)	6.25	B-I	0 / 281	0.06 (1)
E-F	0 / 21	-77.4	-77.4 0.05 (1)	10.00	H-E	0 / 281	0.06 (1)
J-B	-451 / 0	0.0	0.0 0.05 (1)	7.81			
G-E	-451 / 0	0.0	0.0 0.05 (1)	7.81			
J-I	0 / 0	-17.5	-17.5 0.04 (4)	10.00			
I-H	0 / 273	-17.5	-17.5 0.06 (1)	10.00			
H-G	0 / 0	-17.5	-17.5 0.04 (4)	10.00			

DESIGN CRITERIA

SPECIFIED LOADS:
TOP CH. LL = 23.3 PSF
DL = 3.0 PSF
BOT CH. LL = 0.0 PSF
DL = 7.0 PSF
TOTAL LOAD = 33.3 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 2010

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

(55 % OF 27.2 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 23.3 P.S.F. SPECIFIED ROOF LIVE LOAD

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

CSI: TC=0.11/1.00 (B-C:1), BC=0.06/1.00 (H-I:1), WB=0.06/1.00 (B-I:1), SI=0.08/1.00 (B-C:1)

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

COMPANION LIVE LOAD FACTOR = 0.50

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 618 354 1667 822 2284 1656

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.51 (H) (INPUT = 0.90)
JSI METAL = 0.13 (B) (INPUT = 1.00)



September 17, 2018

READ ALL NOTES ON THIS PAGE AND ON THE ENGINEERING NOTE PAGE ENP-1. THE NOTE PAGE IS AN INTEGRAL PART OF THIS DRAWING AS IT CONTAINS SPECIFICATIONS AND CRITERIA USED IN THE DESIGN OF THIS COMPONENT.



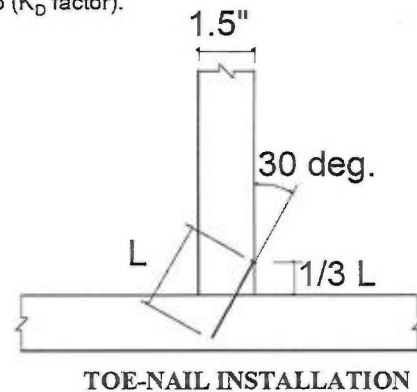
BEARING ANCHORAGE BY TOE-NAILS FOR LATERAL CAPACITY

B37579H1

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

NOTES:

1. Rafter and ceiling members may be anchored to top and bottom chords of girder truss by toe-nailing rafter and ceiling members to girder chords provided the reaction does not exceed the lateral capacities in the table. Hangers (specified by others) are required for reactions higher than the maximum toe-nail capacity. Reactions are based on factored loads.
2. Toe nail capacities shown in the table are for **one** toe-nail. For additional toe-nails multiply values in table by the number of toe-nails used. Toe-nail capacities take into account toe-nailing factor J_A in CSA O86-09, section 10.9.4.1.
3. For 9- 3/4 gauge 3.25" common wire gun nails (diameter = 0.120") use 3" common spiral nail values.
4. Maximum number of toe-nails allowed depends on the lumber size & species to be toe-nailed to supporting member and nail diameter, as shown in tables below.
5. Nail values in table are based on the following relative lumber densities: G = 0.42 (SPF), G = 0.49 (D. Fir).
6. Toe-nails shall be driven at approximately 1/3 the nail length from the edge of the joist/truss chord and driven at an angle of 30° to the grain of the member (See next page for nailing on bearing plate).
7. For loads due to wind the nail lateral capacity in this table may be multiplied by 1.15 (K_D factor).
8. Lumber must be dry (< 19% moisture content) at the time of nail installation.
9. Nail values in this table comply with CSA O86-09, section 10.9.4
10. This design is not valid after April 30, 2019.



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



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Certificate No. 10889485



April 26, 2017

BEARING ANCHORAGE BY TOE-NAILS FOR WIND LOADING

B37579H2

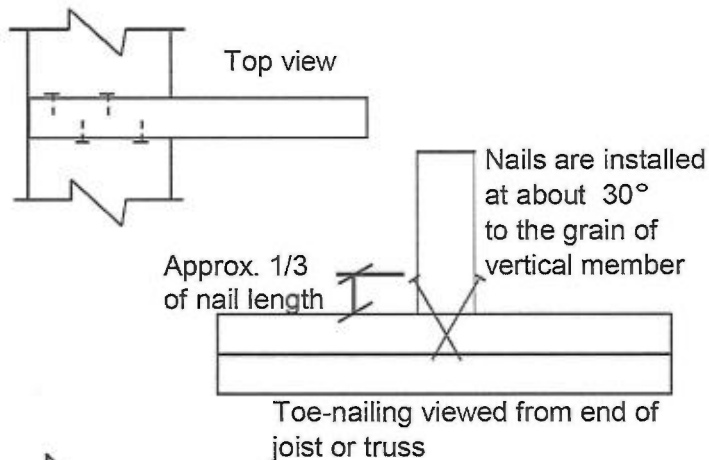
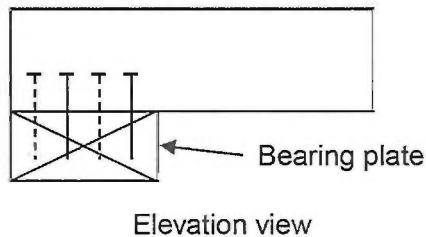
NAIL TYPE	LENGTH (IN)	DIAMETER (IN)	NAIL WITHDRAWAL CAPACITY (LB)	
			S-P-F	D. FIR
COMMON WIRE	3.00	0.144	30	42
	3.25	0.144	32	45
	3.50	0.160	38	52

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

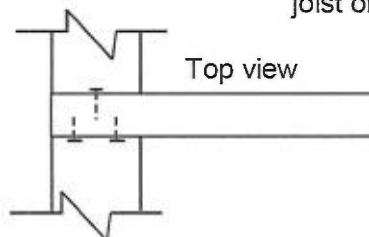
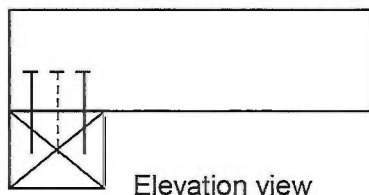
NOTES:

1. Truss chord, rafter, or ceiling members may be anchored to bearing plate by toe-nails, provided that the actual factored uplift force due to **wind or earthquake** load does not exceed the withdrawal capacities in the table. Hangers (specified by others) are required for uplift forces that are higher than the maximum toe-nail withdrawal capacity.
2. Toe nail capacities shown in the table are for **one** toe-nail. For additional toe-nails multiply values in table by the number of toe-nails used. Toe-nail capacities take into account toe-nailing factor J_A in CSA O86-09, section 10.9.5.2.
3. For 9- 3/4 gauge 3.25" common wire gun nails (diameter = 0.120") use 3" common spiral nail values.
4. Maximum number of toe-nails allowed depends on the lumber size & species to be toe-nailed to supporting member and nail diameter, as shown in table above.
5. Nail values in table are based on the following relative lumber densities: $G = 0.42$ (SPF), $G = 0.49$ (D. Fir).
6. Toe-nails shall be driven at approximately 1/3 the nail length from the edge of the joist/truss chord and driven at an angle of 30° to the grain of the member (See drawing on detail B37579H1).
7. Lumber must be dry (< 19% moisture content) at the time of nail installation.
8. Nail values in this table comply with CSA O86-09, section 10.9.5
9. This design is not valid after April 30, 2019

Toe-nailing on 2x6 Bearing Plate



Toe-nailing on 2x4 Bearing Plate



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