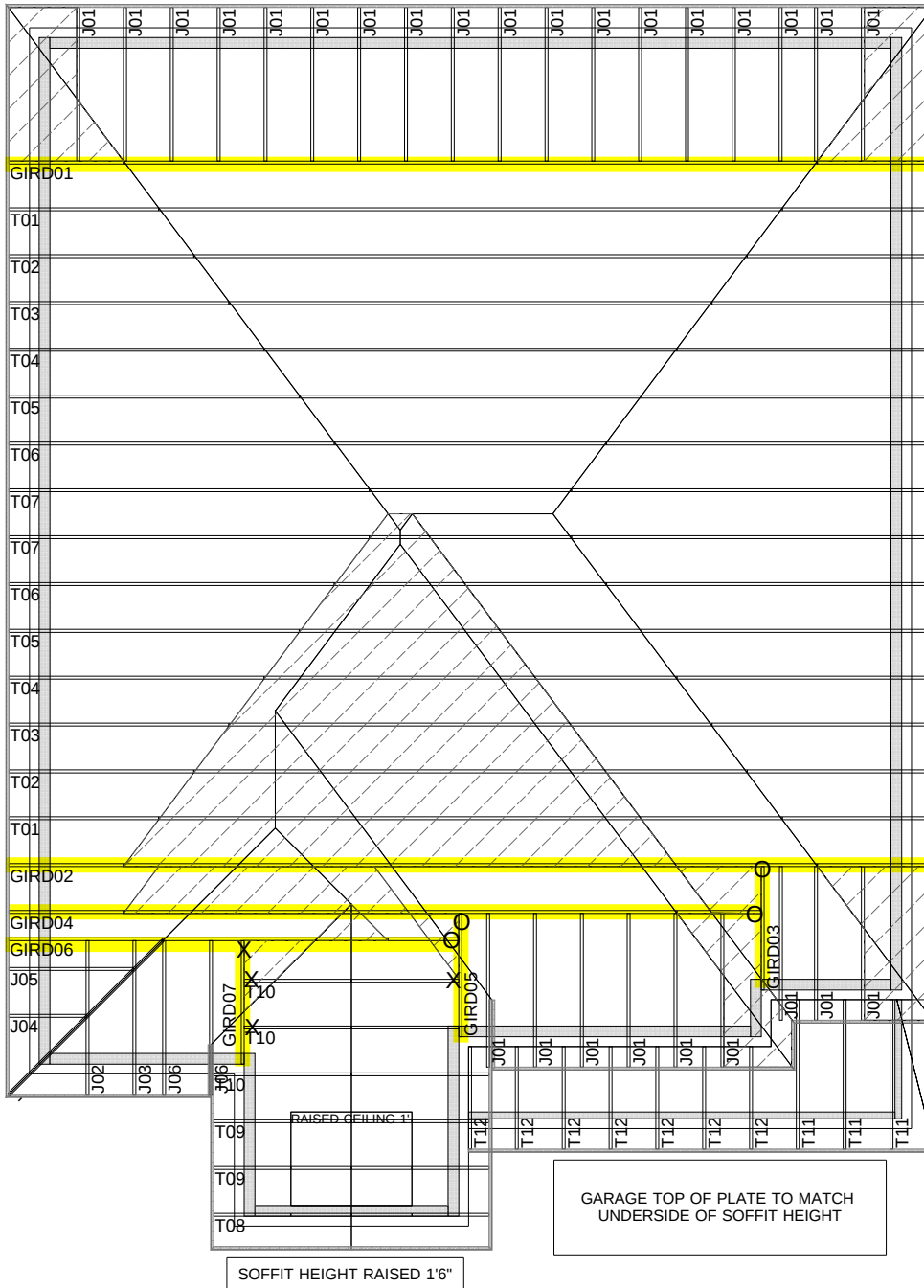




RECEIVED
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MAR 29, 2017
JUNIPER 6
BUILDING DIVISION

 **TOWN OF MILTON**
PLANNING AND DEVELOPMENT
JUNIPER 6 MODEL

BUILDING: REVIEWED
SCOTT SHERRIFFS MAR 30, 2017
PLANS EXAMINER DATE

Neither the issuance of a permit nor carrying out of inspections by the Town of Milton relieves the owner from full responsibility for compliance with the provisions of the Ontario Building Code Act and the Ontario Building Code, both as amended, as well as other applicable statutes and regulations of the Province of Ontario, By-laws of the Region of Halton and Town of Milton

ROOF TRUSS LAYOUT



CONVENTIONAL FRAMING BY OTHERS

HANGER LEGEND

X - LUS24
- HGUS26

O - LJS26DS
% - HGUS26-2

SIZE AND LOCATION OF CONVENTIONAL FRAMING IS APPROXIMATE. ALL AREAS MAY NOT BE SHOWN. REFER TO ARCHITECTURAL PLANS FOR DETAILS.

ALL CONVENTIONAL FRAMING TO CONFORM WITH PART 9 OF THE O.B.C RAFTER THAT CROSS MEET OVER TRUSSES TO BE 2X4 SPF @ 24" O/C WITH 2X4 VERT POST TO THE TRUSS BELOW EA CROSS PT. VERT POS. THAN 6' TO HAVE A LATERAL BRACING SO THAT THE DISTANCE BETEN PT & VERT ROWS OF BRACING DOES NOT EXCEED 6'

Model:	JUNIPER 6 EL 1
Customer:	GREENPARK HOMES
Project:	LECCO RIDGE
Location:	MILTON, ON
Drawn By:	DM
Date:	10/13/2016

ENGINEERING NOTE PAGE (ENP-1)
PLEASE READ PRIOR TO INSTALLATION

RESPONSIBILITIES

THIS DESIGN IS FOR AN INDIVIDUAL BUILDING COMPONENT AND HAS BEEN BASED ON INFORMATION PROVIDED BY THE DESIGN OFFICE OF KOTT LUMBER. THE UNDERSIGNED ENGINEER DISCLAIMS ANY RESPONSIBILITY FOR DAMAGES AS A RESULT OF FAULTY OR INCORRECT INFORMATION, SPECIFICATION AND/OR DESIGNS FURNISHED TO THE ENGINEER. THE UNDERSIGNED ENGINEER IS ONLY RESPONSIBLE FOR THE STRUCTURAL INTEGRITY OF THIS BUILDING COMPONENT FOR THE CONDITIONS AND LOADS SHOWN ON THIS DRAWING. THE STRUCTURAL INTEGRITY OF THE BUILDING AND THE VERIFICATION OF THE DIMENSIONS AND THE DESIGN LOADS USED ARE THE RESPONSIBILITY OF THE BUILDING DESIGNER.

TRUSSES ARE DESIGNED IN CONFORMANCE WITH THE RELEVANT SECTIONS OF THE NATIONAL BUILDING CODE OF CANADA OR THE CANADIAN CODE FOR FARM BUILDINGS, WHICHEVER APPLIES TO THE BUILDING TYPE INDICATED ON THE DRAWING

IT IS THE RESPONSIBILITY OF KOTT LUMBER TO ENSURE THAT TRUSSES ARE MANUFACTURED IN CONFORMANCE WITH THESE DESIGNS AND WITH THE SPECIFICATIONS OUTLINED BELOW. THE UNDERSIGNED ENGINEER IS NOT RESPONSIBLE FOR QUALITY CONTROL IN THE TRUSS MANUFACTURING PLANT.

USE AND OCCUPANCY

- The building is of the type indicated on the drawing

LOADING

- The truss loading intensity and distribution as well as load transfer mechanism is that indicated on the drawing
- No buildings, trees, parapets or other projections higher than the roof for which the trusses are used are located within a distance less than ten (10) times the difference in height, or five metres (16 ft) whichever is greater, unless the drawing indicates that the snow drifting has been taken into account

HANDLING, INSTALLATION AND BRACING

- The trusses must be handled and installed by a qualified professional as per the supplied document titled *Information for Truss Installers* and the BCSI-B1 and BCSI-B3 Summary Sheets
- The compression chords are laterally braced by continuous rigid diaphragm sheathing or as specified on the drawing
- Temporary and permanent bracing must be installed as indicated on the truss drawing and according to the BCSI-B1 and BCSI-B3 Summary Sheets. Bracing for the lateral stability of the truss is to be provided by the building designer
- **It is recommended that a Professional Engineer's advice be obtained for the bracing of trusses spanning more than 12.37m (40'-7")**

SUPPORTS

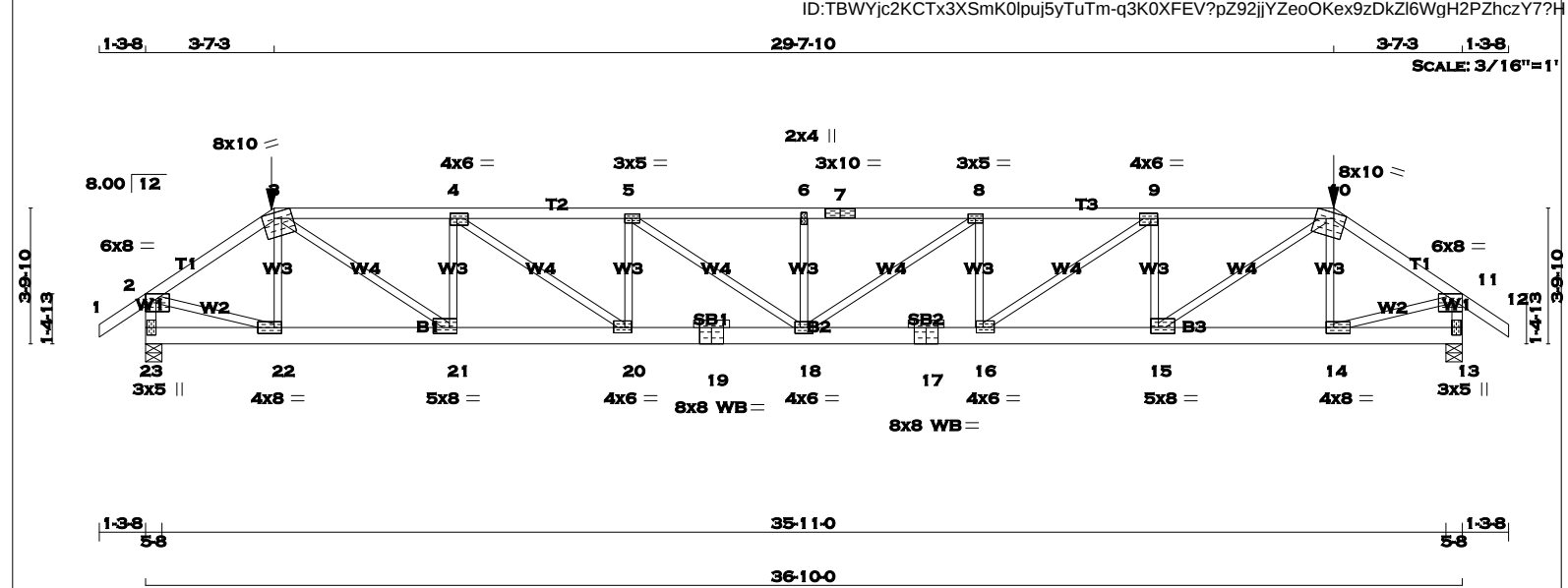
- The trusses are to be supported at the bearing points indicated and anchored to the supports where considered necessary by the designer of the overall structure
- Bearing sizes shown are the minimum required to prevent crushing of the truss members and do not necessarily take into account stability of the overall building structure
- Elevation of bearings must be carefully checked and shimmed to alignment for solid bearings
- Adequate wood truss bearing is the responsibility of the building designer.

DIMENSIONS

- Geometry of the truss and dimensions indicated on the drawing are identical to those of the installed truss.



01/29/2013



LUMBER

N. L. G. A. RULES

CHORDS

SIZE

LUMBER

DESCR.

DRY: SEASONED LUMBER.

TOTAL WEIGHT = 167 lb

[M]

CHORDS	SIZE	LUMBER	DESCR.
1 - 3	2x4	No.2	SPF
3 - 7	2x4	1650F 1.5E	SPF
7 - 10	2x4	1650F 1.5E	SPF
10 - 12	2x4	No.2	SPF
23 - 2	2x4	No.2	SPF
13 - 11	2x4	No.2	SPF
23 - 19	2x6	2100F 1.8E	SPF
19 - 17	2x6	2100F 1.8E	SPF
17 - 13	2x6	2100F 1.8E	SPF
ALL WEBS EXCEPT	2x3	No.2	SPF

DRY: SEASONED LUMBER.

PLATES (table is in inches)	W	LEN	Y	X
2 TMVW-p MT20	6.0	8.0	Edge	3.50
3 TTWW-m MT20	8.0	10.0	Edge	4.00
4 TMWW-t MT20	4.0	6.0	1.75	2.25
5 TMWW-t MT20	3.0	5.0		
6 TMW-w MT20	2.0	4.0		
7 TS-t MT20	3.0	10.0		
8 TMWW-t MT20	3.0	5.0		
9 TMWW-t MT20	4.0	6.0	1.75	2.25
10 TTWW-m MT20	8.0	10.0	Edge	4.00
11 TMVW-p MT20	6.0	8.0	Edge	3.50
13 BMV1+p MT20	3.0	5.0	2.50	
14 BMWW-t MT20	4.0	8.0	2.00	2.50
15 BMWW-t MT20	5.0	8.0	2.00	2.50
16 BMWW-t MT20	4.0	6.0	1.75	2.25
17 BS-t MT20	8.0	8.0		
18 BMWW-t MT20	4.0	6.0		
19 BS-t MT20	8.0	8.0		
20 BMWW-t MT20	4.0	6.0	1.75	2.25
21 BMWW-t MT20	5.0	8.0	2.00	2.50
22 BMWW-t MT20	4.0	8.0	2.00	2.50
23 BMV1+p MT20	3.0	5.0	2.50	0.50

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

A SIZE FOR SIZE SUBSTITUTION OF MITEK MII20 WITH TEE-LOK TL20 PLATES IS ALLOWED.

WB - INDICATES BLOCKING REQUIRED



March 23, 2017

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

BEARINGS		FACTORED		MAXIMUM FACTORED		INPUT		REQRD	
GROSS REACTION		GROSS REACTION		GROSS REACTION		BRG		BRG	
JT	VERT	JT	HORZ	JT	HORZ	JT	UPLIFT	JT	IN-SX
23	3060	0	3060	0	0	5-8	5-8	5-8	5-8
13	3060	0	3060	0	0	5-8	5-8	5-8	5-8

UNFACTORED REACTIONS							
	1ST LCASE	MAX./MIN. COMPONENT REACTIONS					
JT	COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
23	2146	1512 / 0	0 / 0	0 / 0	0 / 0	634 / 0	0 / 0
13	2146	1512 / 0	0 / 0	0 / 0	0 / 0	634 / 0	0 / 0

BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S) 23, 13

BRACING
TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 2.22 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: (3)

CHORDS		MAX. FACTORED		FACTORED		W E B S		MAX. FACTORED	
MEMB.	FORCE (LBS)	VERT. LOAD (LBS)	LC1 MAX (PLF)	LC1 MAX (PLF)	UNBRAC LENGTH	MEMB.	FORCE (LBS)	MAX (LBS)	MAX (LBS)
FR-TO		FROM	TO			FR-TO			
1-2	0 / 29	-77.3	-77.3	0.11 (1)	10.00	22-3	-613 / 0	0.14 (1)	
2-3	-3563 / 0	-77.3	-77.3	0.40 (1)	3.36	3-21	0 / 3549	0.88 (1)	
3-4	-5873 / 0	-131.7	-131.7	0.78 (1)	2.75	21-4	-1890 / 0	0.43 (1)	
4-5	-7551 / 0	-131.7	-131.7	0.99 (1)	2.22	4-20	0 / 2047	0.51 (1)	
5-6	-8089 / 0	-131.7	-131.7	0.93 (1)	2.27	20-5	-1001 / 0	0.23 (1)	
6-7	-8089 / 0	-131.7	-131.7	0.93 (1)	2.27	5-18	0 / 657	0.16 (1)	
7-8	-8089 / 0	-131.7	-131.7	0.93 (1)	2.27	18-6	-650 / 0	0.15 (1)	
8-9	-7551 / 0	-131.7	-131.7	0.99 (1)	2.22	18-8	0 / 657	0.16 (1)	
9-10	-5873 / 0	-131.7	-131.7	0.78 (1)	2.75	16-8	-1001 / 0	0.23 (1)	
10-11	-3563 / 0	-77.3	-77.3	0.40 (1)	3.36	16-9	0 / 2047	0.51 (1)	
11-12	0 / 29	-77.3	-77.3	0.11 (1)	10.00	15-9	-1890 / 0	0.43 (1)	
23-2	-3028 / 0	0.0	0.0	0.34 (1)	4.89	15-10	0 / 3549	0.88 (1)	
13-11	-3028 / 0	0.0	0.0	0.34 (1)	4.89	14-10	-613 / 0	0.14 (1)	
						2-22	0 / 3064	0.76 (1)	
						14-11	0 / 3064	0.76 (1)	
23-22	0 / 0	-29.8	-29.8	0.04 (3)	10.00				
22-21	0 / 2940	-29.8	-29.8	0.20 (1)	10.00				
21-20	0 / 5873	-29.8	-29.8	0.37 (1)	10.00				
20-19	0 / 7551	-29.8	-29.8	0.48 (1)	10.00				
19-18	0 / 7551	-29.8	-29.8	0.48 (1)	10.00				
18-17	0 / 7551	-29.8	-29.8	0.48 (1)	10.00				
17-16	0 / 7551	-29.8	-29.8	0.48 (1)	10.00				
16-15	0 / 5873	-29.8	-29.8	0.37 (1)	10.00				
15-14	0 / 2940	-29.8	-29.8	0.20 (1)	10.00				
14-13	0 / 0	-29.8	-29.8	0.04 (3)	10.00				

FACTORED CONCENTRATED LOADS (LBS)		MAX.		MAX.		FACE		DIR.		TYPE	
JT	LOC.	JT	LOC.	JT	LOC.	JT	LOC.	JT	LOC.	JT	LOC.
3	3-7-3	-175	-175	---	---	BACK	VERT	TOTAL	TOTAL	TOTAL	TOTAL
10	33-2-13	-175	-175	---	---	BACK	VERT	TOTAL	TOTAL	TOTAL	TOTAL

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

GIRDER TYPE: CPrimeHip
SIDE SETBACK = 3-7-3
END SETBACK = 5-3-4
END WALL WIDTH = 5-8
CORNER FRAMING TYPE: CONVENTIONAL
END JACK TYPE: CONVENTIONAL
APPLIED TO BACK SIDE
- ADDTL LOADS BASED ON 55 % OF GSL.

THIS TRUSS IS DESIGNED FOR RESIDENTIAL OR SMALL BUILDING REQUIREMENTS OF PART 9, NBCC 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 (1.23")
CALCULATED VERT. DEFL.(LL) = L/ 816 (0.54")
ALLOWABLE DEFL.(TL)= L/360 (1.23")
CALCULATED VERT. DEFL.(TL) = L/ 465 (0.95")

CSI: TC=0.99 (4-5:1), BC=0.48 (18-20:1), WB=0.88 (10-15:1), SSI=0.34 (9-10:1)

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

COMPANION LIVE LOAD FACTOR = 0.50

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

NAIL VALUES	PLATE	GRIP(DRY)	SHEAR	SECTION
(PSI)	(PSI)	(PLI)	(PLI)	(PLI)
	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= 0.89 (22) (INPUT = 0.90)
JSI METAL= 0.94 (19) (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.

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ID:TBWYjc2KCTx3XSmK0lpuj5yTuTm-q3K0XFEV?pZ92jjYZeoOKex9zDkZl6WgH2PZhczY7?H

HANGERS NOTES
1) SPECIAL HANGER(S) OR CONNECTION(S) REQUIRED TO SUPPORT CONCENTRATED LOAD(S) 175.0 lbs FACTORED DOWN AT 33-2-13, AND 175.0 lbs FACTORED DOWN AT 3-7-3 ON TOP CHORD. DESIGN FOR UNSPECIFIED CONNECTION(S) IS DELEGATED TO THE BUILDING DESIGNER.



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.

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HANGERS NOTES

1) SPECIAL HANGER(S) OR CONNECTION(S) REQUIRED TO SUPPORT CONCENTRATED LOAD(S) 175.0 lbs FACTORED DOWN AT 33-2-13 ON TOP CHORD, AND 2100.3 lbs FACTORED DOWN AT 30-10-12 ON BOTTOM CHORD. DESIGN FOR UNSPECIFIED CONNECTION(S) IS DELEGATED TO THE BUILDING DESIGNER.

JSI GRIP= 0.90 (22) (INPUT = 0.90)
JSI METAL= 0.99 (19) (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.

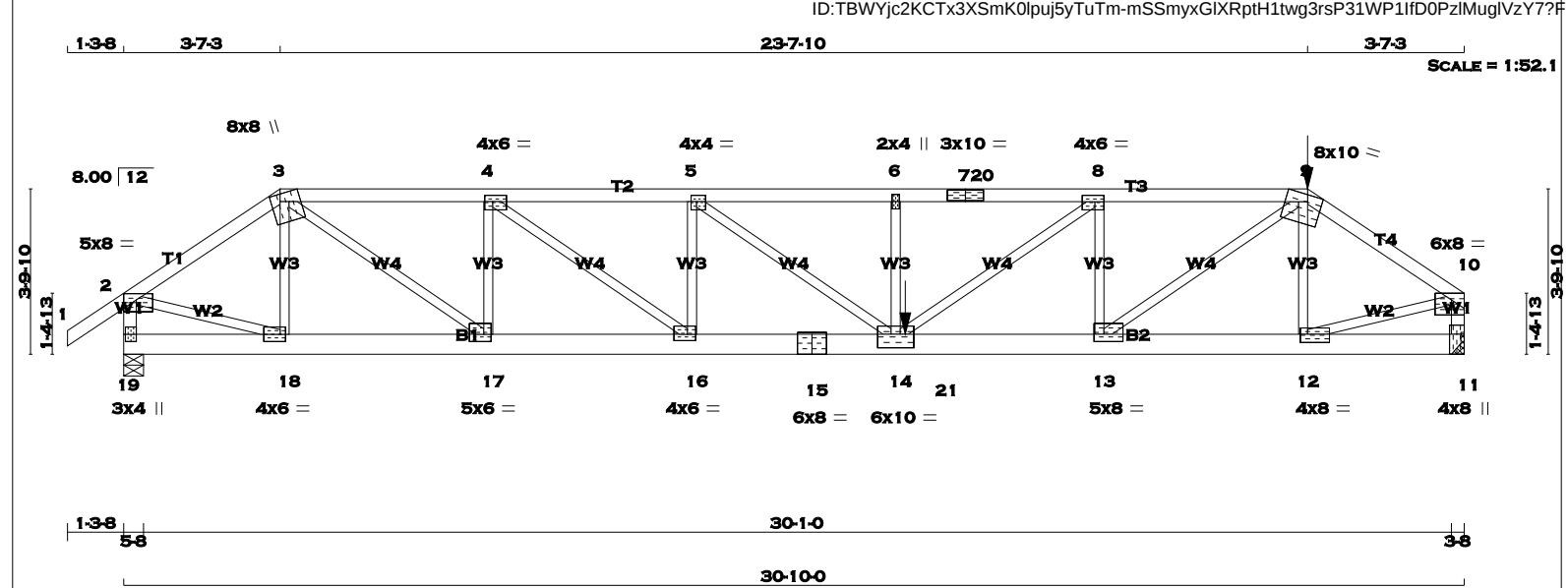
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TOTAL WEIGHT = 26 lb

JSI GRIP= 0.86 (1) (INPUT = 0.90)
JSI METAL= 0.49 (4) (INPUT = 1.00)





HANGERS NOTES

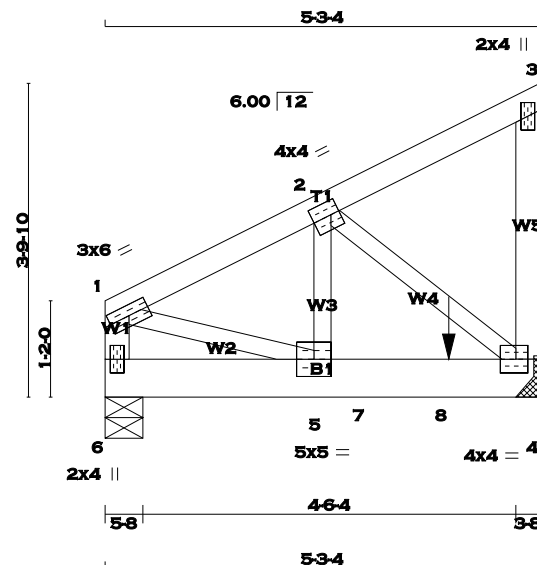
1) SPECIAL HANGER(S) OR CONNECTION(S) REQUIRED TO SUPPORT CONCENTRATED LOAD(S) 175.0 lbs FACTORED DOWN AT 27-2-13 ON TOP CHORD, AND 1470.5 lbs FACTORED DOWN AT 17-11-12 ON BOTTOM CHORD. DESIGN FOR UNSPECIFIED CONNECTION(S) IS DELEGATED TO THE BUILDING DESIGNER.

JSI GRIP= 0.90 (17) (INPUT = 0.90)
JSI METAL= 0.87 (15) (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.

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SCALE = 1:27.9

TOTAL WEIGHT = 26 lb [M]

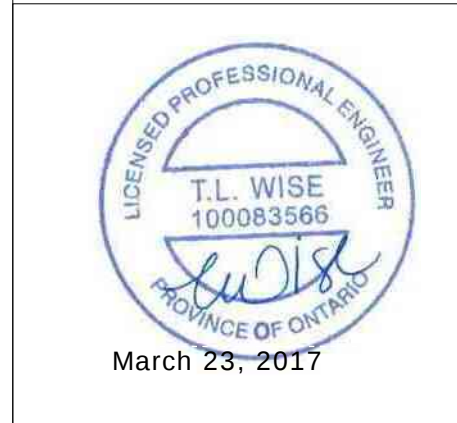
LUMBER					DESCR.
N. L. G. A. RULES	CHORDS	SIZE	LUMBER		
1 - 3	2x4	DRY	No.2		SPF
4 - 3	2x4	DRY	No.2		SPF
6 - 1	2x4	DRY	No.2		SPF
6 - 4	2x6	DRY	No.2		SPF
ALL WEBS EXCEPT	2x3	DRY	No.2		SPF

DRY: SEASONED LUMBER.

PLATES (table is in inches)					
JT	TYPE	PLATES	W	LEN	Y X
1	TMWV-t	MT20	3.0	6.0	
2	TMWV-t	MT20	4.0	4.0	2.00 1.25
3	TMV+p	MT20	2.0	4.0	
4	BMVW1-t	MT20	4.0	4.0	2.00 1.75
5	BMWV-t	MT20	5.0	5.0	
6	BMV1+p	MT20	2.0	4.0	

A SIZE FOR SIZE SUBSTITUTION OF MITEK MII20 WITH TEE-LOK TL20 PLATES IS ALLOWED.

HANGERS NOTES
1) SPECIAL HANGER(S) OR CONNECTION(S) REQUIRED TO SUPPORT CONCENTRATED LOAD(S) 1339.4 lbs. FACTORED DOWN AT 4-2-0 ON BOTTOM CHORD. DESIGN FOR UNSPECIFIED CONNECTION(S) IS DELEGATED TO THE BUILDING DESIGNER.



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

BEARINGS					
FACTORED GROSS REACTION			MAXIMUM FACTORED GROSS REACTION		
JT	VERT	HORZ	DOWN	HORZ	UPLIFT
4	1471	0	1471	0	0
6	907	0	907	0	0

UNFACTORED REACTIONS							
1ST LCASE		MAX./MIN. COMPONENT REACTIONS					
JT	COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
4	1032	722 / 0	0 / 0	0 / 0	0 / 0	310 / 0	0 / 0
6	637	445 / 0	0 / 0	0 / 0	0 / 0	191 / 0	0 / 0

BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S) 6

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: (3)

CHORDS					WEBS				
MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	MAX. LC1 (LC)	MAX. UNBRACED LENGTH	MEMB.	MAX. FACTORED FORCE (LBS)	MAX. LC1 (LC)		
FR-TO		FROM TO			FR-TO				
1-2	-945 / 0	-77.3 -77.3	0.08 (1)	6.25	5-2	0 / 864	0.21 (1)		
2-3	-8 / 0	-77.3 -77.3	0.07 (1)	10.00	2-4	-1087 / 0	0.23 (1)		
4-3	-85 / 0	0.0 0.0	0.02 (1)	7.81	1-5	0 / 888	0.22 (1)		
6-1	-761 / 0	0.0 0.0	0.08 (1)	7.81					
6-5	0 / 0	-187.4 -187.4	0.20 (1)	10.00					
5-7	0 / 852	-187.4 -187.4	0.68 (1)	10.00					
7-8	0 / 852	-17.5 -17.5	0.68 (1)	10.00					
8-4	0 / 852	-17.5 -17.5	0.68 (1)	10.00					

FACTORED CONCENTRATED LOADS (LBS)					
JT	LOC.	LC1	MAX-	MAX+	FACE DIR. TYPE
8	4-2-0	-1339	-1339	---	BACK VERT TOTAL

DESIGN CRITERIA

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

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

SPACING = 24.0 IN./C

GIRDER TYPE: CStdGirder
START DISTANCE = 0-0
START SPAN CARRIED = 9-2-0
END DISTANCE = 3-2-0
END SPAN CARRIED = 9-2-0
END WALL WIDTH = 0-0
APPLIED TO BACK SIDE OF BOTTOM CHORD.
- ADDT'L LOADS BASED ON 55 % OF GSL.

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

THIS TRUSS IS DESIGNED FOR RESIDENTIAL OR SMALL BUILDING REQUIREMENTS OF PART 9, NBCC 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 (0.02")
ALLOWABLE DEFL.(TL)= L/360 (0.19")
CALCULATED VERT. DEFL.(TL) = L/999 (0.03")

CSI: TC=0.08 (1-6:1) , BC=0.68 (4-5:1) , WB=0.23 (2-4:1) , SSI=0.51 (4-5:1)

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

COMPANION LIVE LOAD FACTOR = 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

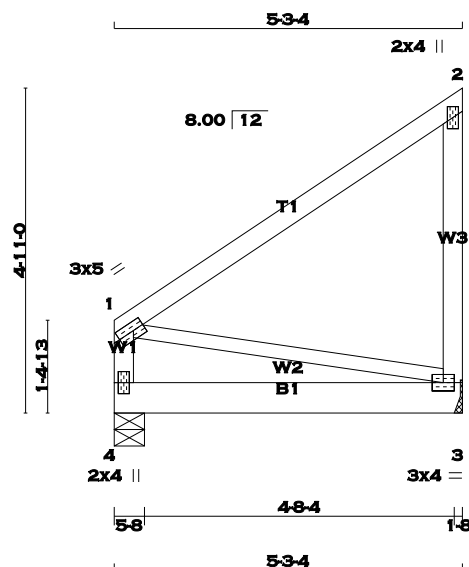
PLATE ROTATION

JSI GRIP= 0.88 (2)
JSI METAL= 0.32 (2)

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SCALE = 1:34.9

TOTAL WEIGHT = 26 lb [M]

LUMBER

N. L. G. A. RULES	CHORDS	SIZE	LUMBER	DESCR.
1 - 2	2x4	DRY	No.2	SPF
3 - 2	2x4	DRY	No.2	SPF
4 - 1	2x4	DRY	No.2	SPF
4 - 3	2x6	DRY	No.2	SPF

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

PLATES (table is in inches)

JT	TYPE	PLATES	W	LEN	Y	X
1	TMVW-t	MT20	3.0	5.0	1.50	2.00
2	TMV+p	MT20	2.0	4.0		
3	BMVW1-t	MT20	3.0	4.0		
4	BMV1+p	MT20	2.0	4.0		

A SIZE FOR SIZE SUBSTITUTION OF MITEK MII20 WITH TEE-LOK TL20 PLATES IS ALLOWED.

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

BEARINGS

JT	FACTORED GROSS REACTION	MAXIMUM FACTORED GROSS REACTION	INPUT BRG	REQRD BRG
	VERT	HORZ	DOWN	HORZ
3	698	0	698	0
4	698	0	698	0

MIN. SEAT SIZE: 1-8

UNFACTORED REACTIONS

JT	1ST LCASE	MAX./MIN. SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
3	490	343 / 0	0 / 0	0 / 0	0 / 0	147 / 0	0 / 0
4	490	343 / 0	0 / 0	0 / 0	0 / 0	147 / 0	0 / 0

BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S) 4

BRACING

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

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

LOADING

TOTAL LOAD CASES: (3)

CHORDS				WEBS			
MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	MAX. FACTORED VERT. LOAD (LC)	MEMB.	MAX. FACTORED FORCE (LBS)	MAX. FACTORED VERT. LOAD (LC)	
FR-TO		FROM	TO	FR-TO			
1-2	0 / 0	-77.3	-77.3 0.40 (1)	1-3	0 / 0	0.00 (1)	
3-2	-204 / 0	0.0	0.0 0.07 (1)				
4-1	-204 / 0	0.0	0.0 0.02 (1)				
4-3	0 / 0	-187.4	-187.4 0.48 (1)				

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

GIRDER TYPE: CStdGirder
START DISTANCE = 0-0
START SPAN CARRIED = 9-2-0
END DISTANCE = 5-3-4
END SPAN CARRIED = 9-2-0
END WALL WIDTH = 0-0
APPLIED TO FRONT SIDE OF BOTTOM CHORD.
- ADDTL LOADS BASED ON 55 % OF GSL.

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 (0.05")
ALLOWABLE DEFL.(TL)= L/360 (0.19")
CALCULATED VERT. DEFL.(TL) = L/648 (0.10")

CSI: TC=0.40 (1-2:1), BC=0.48 (3-4:1), WB=0.00 (1-3:1), SSI=0.33 (3-4:1)

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

COMPANION LIVE LOAD FACTOR = 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= 0.20 (3) (INPUT = 0.90)
JSI METAL= 0.05 (2) (INPUT = 1.00)

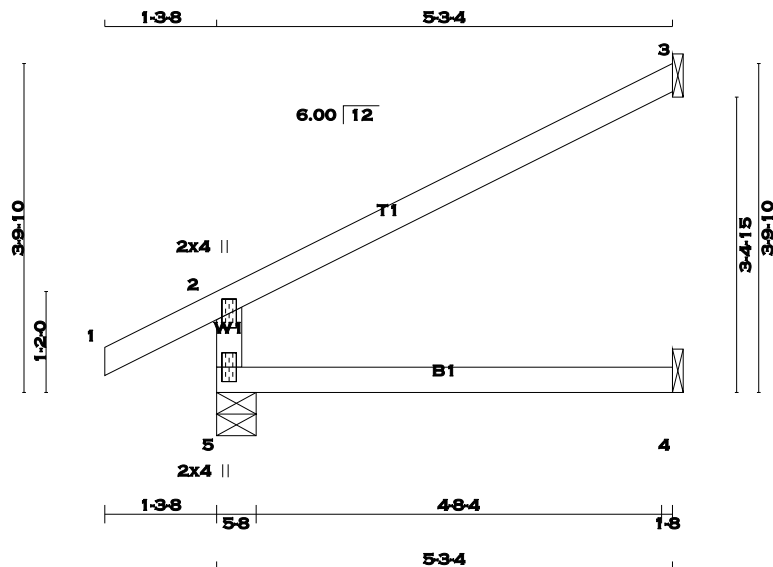


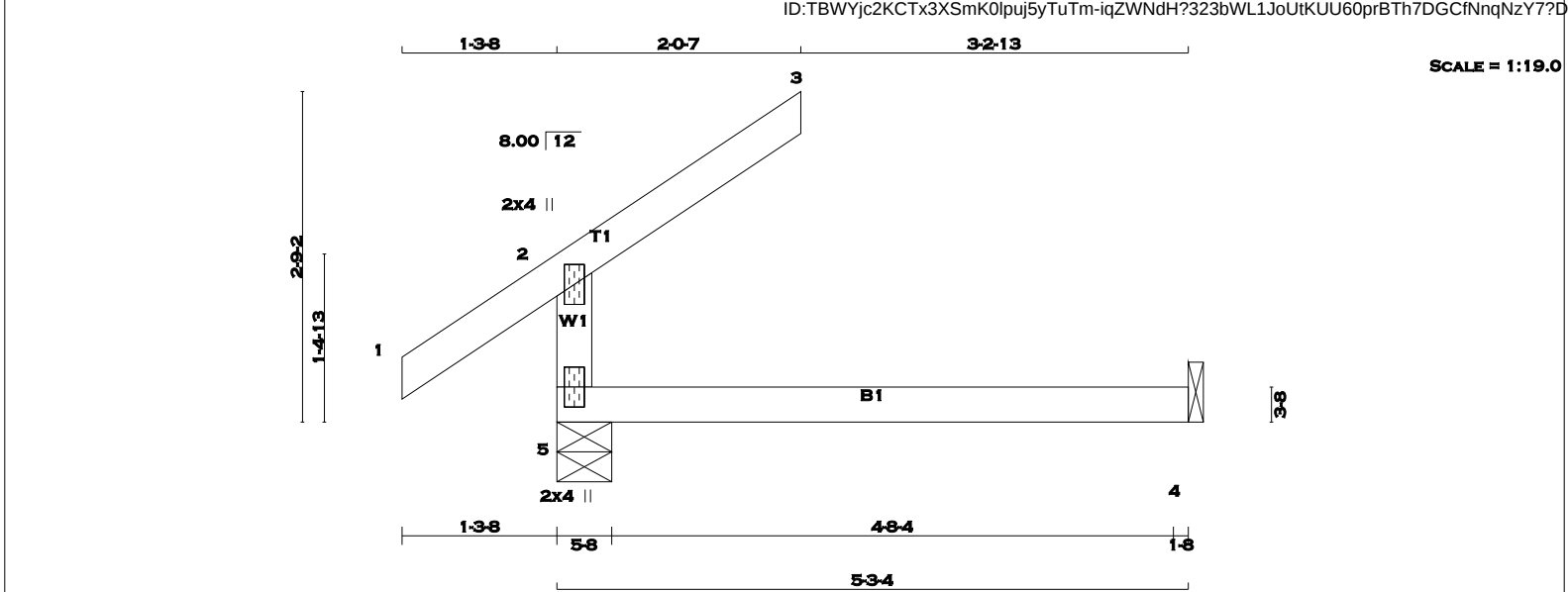
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LUMBER

N. L. G. A. RULES

CHORDS

SIZE

DRY

No.2

DESCR.

SPF

SPF

SPF

5 - 2

2x4

DRY

No.2

1 - 3

2x4

DRY

No.2

5 - 4

2x4

DRY

No.2

DRY: SEASONED LUMBER.

TOTAL WEIGHT = 12 lb

[M]

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	TYPE	VERT	HORZ	DOWN	HORZ	UPLIFT	IN-SX	IN-SX	
5		323	0	323	0	0	5-8	5-8	
4		39	0	44	0	0	1-8	1-8	

SEE MITEK STANDARD DETAIL B37579H FOR CONNECTION TO JOINT(S) 4

UNFACTORED REACTIONS									
		1ST LCASE		MAX./MIN. COMPONENT REACTIONS					
JT	TYPE	COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL	
5		226	163 / 0	0 / 0	0 / 0	0 / 0	64 / 0	0 / 0	
4		31	0 / 0	0 / 0	0 / 0	0 / 0	31 / 0	0 / 0	

BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S) 5

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: (3)

CHORDS				WEBS			
MEMB.		MAX. FACTORED FORCE (LBS)		MAX. FACTORED FORCE (LBS)		MAX. FACTORED FORCE (LBS)	
		VERT. LOAD		LC1 MAX		LC1 MAX	
		FROM TO		UNBRAC LENGTH		FR-TO	
5-2		-270 / 0	0.0	0.0	0.09 (3)	7.81	
1-2		0 / 29	-77.3	-77.3	0.10 (1)	10.00	
2-3		-45 / 0	-77.3	-77.3	0.24 (1)	6.25	
5-4		0 / 0	-17.5	-17.5	0.10 (3)	10.00	

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 (0.02")

CSI: TC=0.24 (2-3:1) , BC=0.10 (4-5:3) , WB=0.00 (n/a:0) , SSI=0.11 (2-3:1)

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 1667 822 2284 1656

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.17 (2) (INPUT = 0.90)

JSI METAL= 0.07 (2) (INPUT = 1.00)

March 23, 2017

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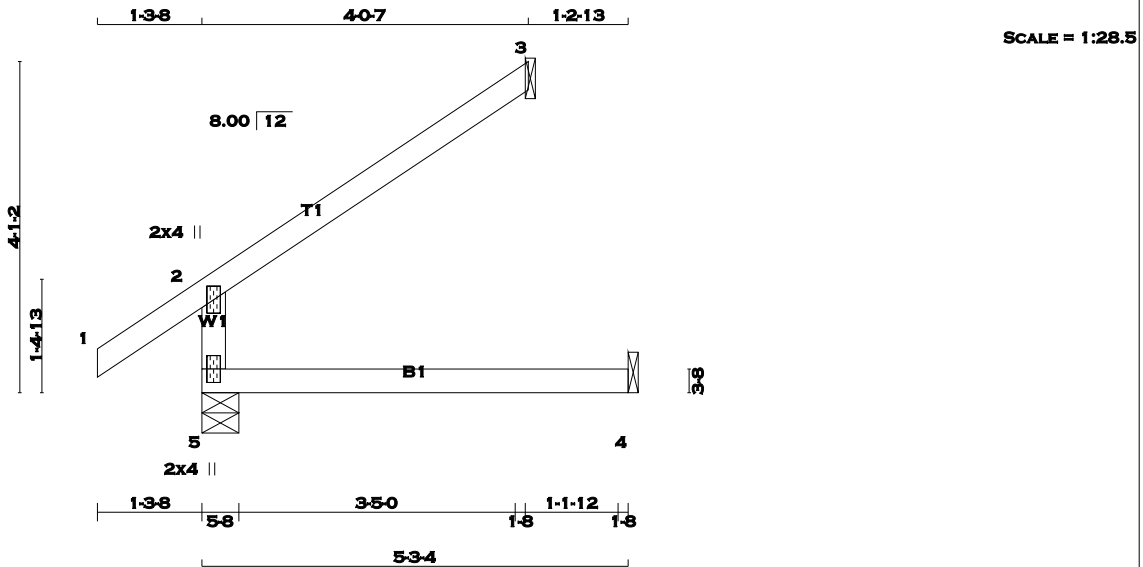
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LUMBER

N. L. G. A. RULES

CHORDS

SIZE

DRY

No.2

DESCR.

SPF

5 - 2

2x4

DRY

No.2

SPF

1 - 3

2x4

DRY

No.2

SPF

5 - 4

2x4

DRY

No.2

SPF

DRY: SEASONED LUMBER.

PLATES (table is in inches)

JT

TYPE

PLATES

W

LEN

Y

X

2

TMV+p

MT20

2.0

4.0

5

BMV1+p

MT20

2.0

4.0

A SIZE FOR SIZE SUBSTITUTION OF MITEK MII20 WITH TEE-LOK TL20 PLATES IS ALLOWED.

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

BEARINGS

FACTORED

MAXIMUM FACTORED

INPUT

REQRD

GROSS REACTION

GROSS REACTION

BRG

BRG

JT

VERT

HORZ

DOWN

HORZ

UPLIFT

IN-SX

IN-SX

5

354

0

354

0

0

5-8

5-8

3

117

0

117

0

0

1-8

1-8

4

39

0

44

0

0

1-8

1-8

SEE MITEK STANDARD DETAIL B37579H FOR CONNECTION TO JOINT(S) 3 , 4

UNFACTORED REACTIONS

1ST LCASE

MAX./MIN. COMPONENT REACTIONS

JT

COMBINED

SNOW

LIVE

PERM.LIVE

WIND

DEAD

SOIL

5

247

181 / 0

0 / 0

0 / 0

0 / 0

66 / 0

0 / 0

3

80

71 / 0

0 / 0

0 / 0

0 / 0

9 / 0

0 / 0

4

31

0 / 0

0 / 0

0 / 0

0 / 0

31 / 0

0 / 0

BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S) 5, 3

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: (3)

CHORDS

MEMB.

MAX. FACTORED

FORCE

(LBS)

FACTORED

VERT. LOAD

LC1

MAX

MAX.

MEMB.

MAX. FACTORED

FORCE

(LBS)

MAX

MEMB.

MAX. FACTORED

FORCE

(LBS)

MAX

FR-TO

5-2

-301 / 0

0.0

0.0

0.09 (3)

7.81

FR-TO

1-2

0 / 29

-77.3

-77.3

0.10 (1)

10.00

FR-TO

2-3

-22 / 0

-77.3

-77.3

0.21 (1)

6.25

5-4

0 / 0

-17.5

-17.5

0.10 (3)

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

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 (0.02")

CSI: TC=0.21 (2-3:1) , BC=0.10 (4-5:3) , WB=0.00 (n/a:0) , SSI=0.13 (2-3:1)

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 1667 822 2284 1656

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.19 (2) (INPUT = 0.90)
JSI METAL= 0.07 (2) (INPUT = 1.00)

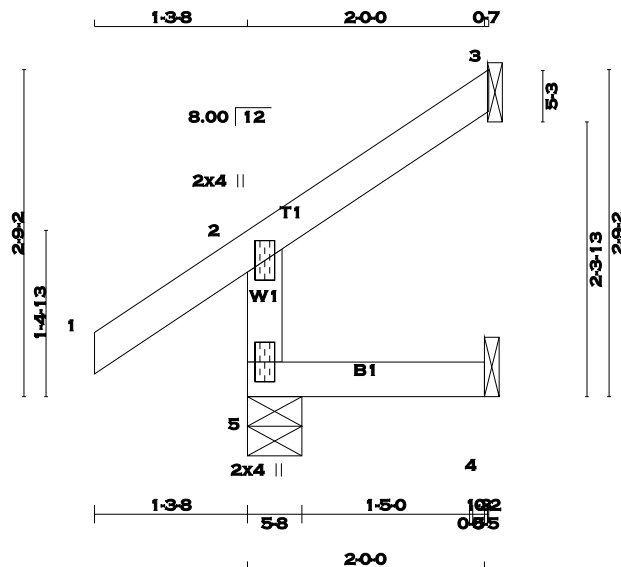


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SCALE = 1:19.5

TOTAL WEIGHT = 8 lb [M]

LUMBER					DESCR.
N. L. G. A. RULES	CHORDS	SIZE	LUMBER	SPF	
5 - 2	2x4	DRY	No.2	SPF	
1 - 3	2x4	DRY	No.2	SPF	
5 - 4	2x4	DRY	No.2	SPF	

DRY: SEASONED LUMBER.

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

A SIZE FOR SIZE SUBSTITUTION OF MITEK MII20 WITH TEE-LOK TL20 PLATES IS ALLOWED.

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	
5	223	0	223	0	0	5-8		5-8	
3	60	0	60	0	0	1-8		1-8	
4	16	0	18	0	0	1-8		1-8	

SEE MITEK STANDARD DETAIL B37579H FOR CONNECTION TO JOINT(S) 3 , 4

UNFACTORED REACTIONS							
1ST LCASE		MAX./MIN. COMPONENT REACTIONS					
JT	COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
5	154	123 / 0	0 / 0	0 / 0	0 / 0	31 / 0	0 / 0
3	40	36 / 0	0 / 0	0 / 0	0 / 0	5 / 0	0 / 0
4	13	0 / 0	0 / 0	0 / 0	0 / 0	13 / 0	0 / 0

BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S) 5

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 UNBRACED LENGTH FR-TO	MEMB. MAX. FACTORED FORCE (LBS)
FR-TO		FROM TO		
5-2	-204 / 0	0.0 0.0 0.01 (3)	7.81	
1-2	0 / 29	-77.3 -77.3 0.10 (1)	10.00	
2-3	-11 / 0	-77.3 -77.3 0.05 (1)	6.25	
5-4	0 / 0	-17.5 -17.5 0.02 (3)	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. 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

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=0.10 (1-2:1) , BC=0.02 (4-5:3) , WB=0.00 (n/a:0) , SSI=0.07 (1-2:1)

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
MT20	618	354	1667	822 2284 1656

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.13 (2) (INPUT = 0.90)
JSI METAL= 0.05 (2) (INPUT = 1.00)

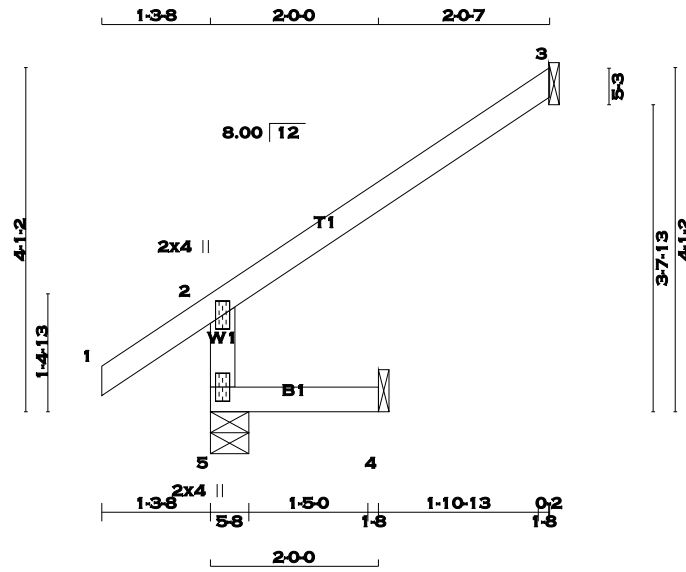


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SCALE = 1:27.4

TOTAL WEIGHT = 11 lb [M]

LUMBER
N. L. G. A. RULES

CHORDS	SIZE	LUMBER	DESCR.
5 - 2	2x4	DRY	No.2
1 - 3	2x4	DRY	No.2
5 - 4	2x4	DRY	No.2

SPF
SPF
SPF

DRY: SEASONED LUMBER.

PLATES (table is in inches)

JT	TYPE	PLATES	W	LEN	Y	X
2	TMV+p	MT20	2.0	4.0		
5	BMV1+p	MT20	2.0	4.0		

A SIZE FOR SIZE SUBSTITUTION OF MITEK MII20 WITH TEE-LOK TL20 PLATES IS ALLOWED.

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

BEARINGS

JT	FACTORED GROSS REACTION		MAXIMUM FACTORED GROSS REACTION		INPUT BRG	REQRD BRG
	VERT	HORZ	DOWN	HORZ		
5	320	0	320	0	5-8	5-8
3	117	0	117	0	1-8	1-8
4	16	0	18	0	1-8	1-8

SEE MITEK STANDARD DETAIL B37579H FOR CONNECTION TO JOINT(S) 3 , 4

UNFACTORED REACTIONS

JT	1ST LCASE		MAX./MIN. COMPONENT REACTIONS				
	COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
5	220	181 / 0	0 / 0	0 / 0	0 / 0	39 / 0	0 / 0
3	80	71 / 0	0 / 0	0 / 0	0 / 0	9 / 0	0 / 0
4	13	0 / 0	0 / 0	0 / 0	0 / 0	13 / 0	0 / 0

BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S) 5

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: (3)									
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				
5- 2	-301 / 0	0.0	0.0	0.01 (3)		7.81			
1- 2	0 / 29	-77.3	-77.3	0.10 (1)		10.00			
2- 3	-22 / 0	-77.3	-77.3	0.21 (1)		6.25			
5- 4	0 / 0	-17.5	-17.5	0.02 (3)		10.00			

DESIGN CRITERIA

SPECIFIED LOADS:

TOP CH.	LL	PSF
DL	23.3	PSF
BOT CH.	LL	PSF
DL	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

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=0.21 (2-3:1) , BC=0.02 (4-5:3) , WB=0.00 (n/a:0) , SSI=0.13 (2-3:1)

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)	(PL)	(PL)	(PL)
MAX MIN	MAX MIN	MAX MIN	MAX MIN
MT20	618	354	1667

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.19 (2) (INPUT = 0.90)
JSI METAL= 0.07 (2) (INPUT = 1.00)

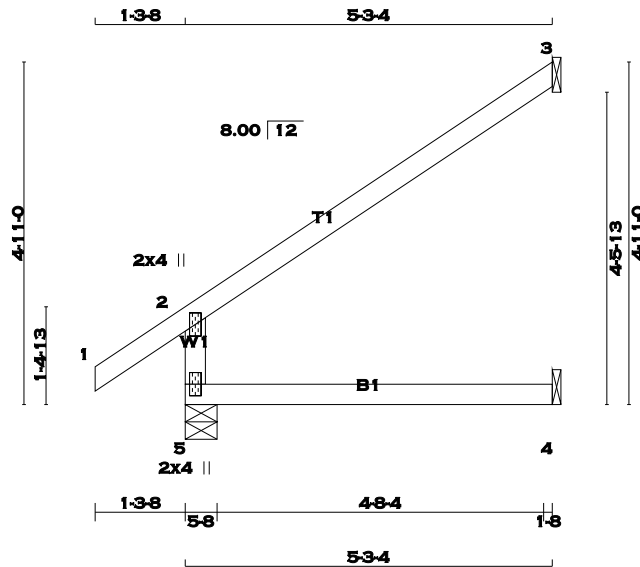


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SCALE = 1:33.1

TOTAL WEIGHT = 2 X 16 = 33 lb [M]

LUMBER					DESCR.	SPF
N. L. G. A. RULES	CHORDS	SIZE	LUMBER			
5 - 2	2x4	DRY	No.2		SPF	
1 - 3	2x4	DRY	No.2		SPF	
5 - 4	2x4	DRY	No.2		SPF	

DRY: SEASONED LUMBER.

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

A SIZE FOR SIZE SUBSTITUTION OF MITEK MII20 WITH TEE-LOK TL20 PLATES IS ALLOWED.

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	UPLIFT	IN-SX	IN-SX	
5	414	0	414	0	0	5-8	5-8	
3	153	0	153	0	0	1-8	1-8	
4	39	0	44	0	0	1-8	1-8	

SEE MITEK STANDARD DETAIL B37579H FOR CONNECTION TO JOINT(S) 3 , 4

UNFACTORED REACTIONS

JT	1ST LCASE		MAX./MIN. COMPONENT REACTIONS		LIVE	PERM.LIVE	WIND	DEAD	SOIL
	COMBINED	SNOW	SNOW	SNOW					
5	288	217 / 0	0 / 0	0 / 0	0 / 0	0 / 0	71 / 0	0 / 0	0 / 0
3	104	92 / 0	0 / 0	0 / 0	0 / 0	0 / 0	12 / 0	0 / 0	0 / 0
4	31	0 / 0	0 / 0	0 / 0	0 / 0	0 / 0	31 / 0	0 / 0	0 / 0

BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S) 5

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: (3)

MEMB.	CHORDS		FACTORED		WEBS		FACTORED	
	MAX. FORCE (LBS)	VERT. LOAD (PLF)	MAX. FORCE (LBS)	VERT. LOAD (PLF)	MAX. FORCE (LBS)	VERT. LOAD (PLF)	MAX. FORCE (LBS)	VERT. LOAD (PLF)
FR-TO								
5-2	-361 / 0	0.0	0.0	0.09 (3)	7.81			
1-2	0 / 29	-77.3	-77.3	0.10 (1)	10.00			
2-3	-28 / 0	-77.3	-77.3	0.37 (1)	6.25			
5-4	0 / 0	-17.5	-17.5	0.10 (3)	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

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 (0.02")

CSI: TC=0.37 (2-3:1) , BC=0.10 (4-5:3) , WB=0.00 (n/a:0) , SSI=0.17 (2-3:1)

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 1667 822 2284 1656

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.23 (2) (INPUT = 0.90)
JSI METAL= 0.09 (2) (INPUT = 1.00)

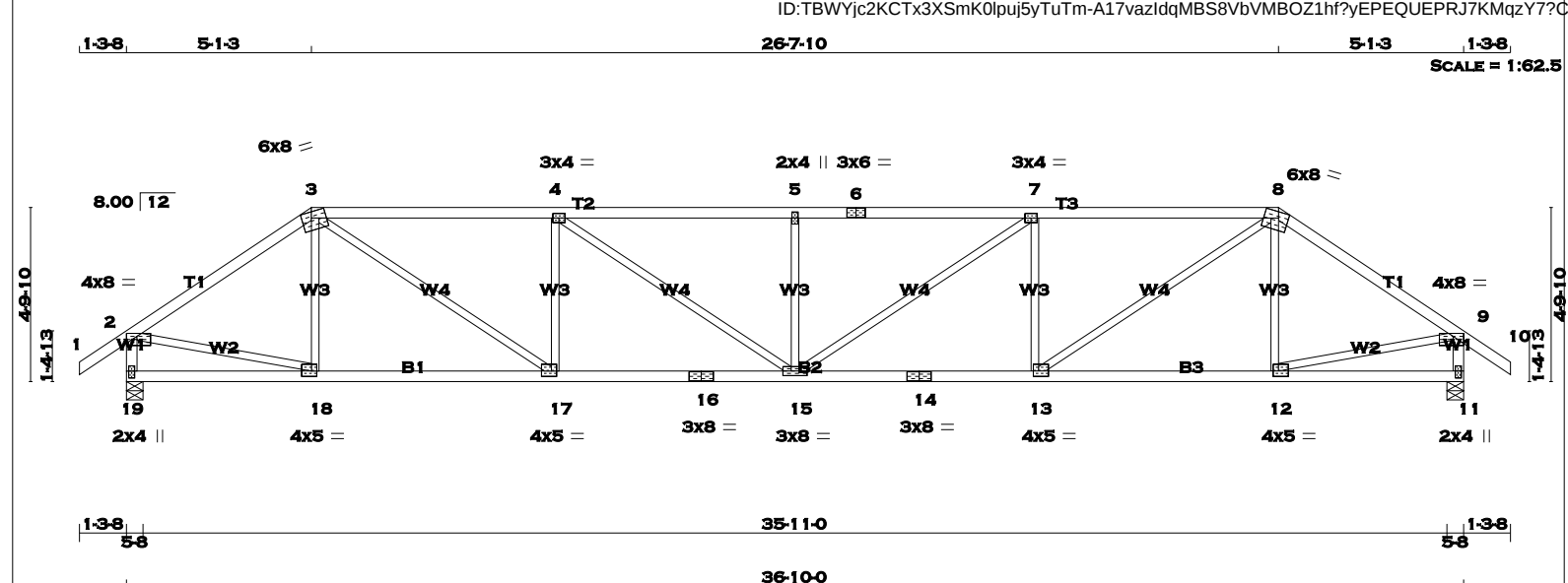


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LUMBER

N. L. G. A. RULES

CHORDS

SIZE

LUMBER

DESCR.

1 - 3

2x4

DRY

No.2

SPF

3 - 6

2x4

DRY

No.2

SPF

6 - 8

2x4

DRY

No.2

SPF

8 - 10

2x4

DRY

No.2

SPF

19 - 2

2x4

DRY

No.2

SPF

11 - 9

2x4

DRY

No.2

SPF

19 - 16

2x4

DRY

No.2

SPF

16 - 14

2x4

DRY

No.2

SPF

14 - 11

2x4

DRY

No.2

SPF

ALL WEBS

2x3

DRY

No.2

SPF

EXCEPT

DRY: SEASONED LUMBER.

TOTAL WEIGHT = 2 X 143 = 285 lb

[M]

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	
19		1853	0	1853	0	0	5-8	5-8	
11		1853	0	1853	0	0	5-8	5-8	
UNFACTORED REACTIONS									
		1ST LCASE		MAX/MIN. COMPONENT REACTIONS					
JT		COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL	
19		1298	921 / 0	0 / 0	0 / 0	0 / 0	377 / 0	0 / 0	
11		1298	921 / 0	0 / 0	0 / 0	0 / 0	377 / 0	0 / 0	

BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S) 19, 11

BRACING
TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 2.92 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: (3)

CHORDS									
		MAX. FACTORED		FACTORED		WEBS		MAX. FACTORED	
MEMB.		FORCE	VERT. LOAD	LC1 MAX	MAX.	MEMB.	FORCE	MAX	
		(LBS)	(PLF)	CSI (LC)	UNBRAC		(LBS)	CSI (LC)	
FR-TO			FROM	TO	LENGTH	FR-TO			
1-2		0 / 29	-77.3	-77.3	0.10 (1)	10.00	18-3	-243 / 21	0.08 (1)
2-3		-2079 / 0	-77.3	-77.3	0.48 (1)	4.23	3-17	0 / 1775	0.40 (1)
3-4		-3196 / 0	-77.3	-77.3	0.89 (1)	3.16	17-4	-873 / 0	0.30 (1)
4-5		-3626 / 0	-77.3	-77.3	0.98 (1)	2.92	4-15	0 / 520	0.12 (1)
5-6		-3626 / 0	-77.3	-77.3	0.98 (1)	2.92	15-5	-472 / 0	0.16 (1)
6-7		-3626 / 0	-77.3	-77.3	0.98 (1)	2.92	15-7	0 / 520	0.12 (1)
7-8		-3196 / 0	-77.3	-77.3	0.89 (1)	3.16	13-7	-873 / 0	0.30 (1)
8-9		-2079 / 0	-77.3	-77.3	0.48 (1)	4.23	13-8	0 / 1775	0.40 (1)
9-10		0 / 29	-77.3	-77.3	0.10 (1)	10.00	12-8	-243 / 21	0.08 (1)
19-2		-1819 / 0	0.0	0.0	0.19 (1)	6.20	2-18	0 / 1764	0.40 (1)
11-9		-1819 / 0	0.0	0.0	0.19 (1)	6.20	12-9	0 / 1764	0.40 (1)
19-18		0 / 0	-17.5	-17.5	0.14 (3)	10.00			
18-17		0 / 1722	-17.5	-17.5	0.36 (1)	10.00			
17-16		0 / 3196	-17.5	-17.5	0.58 (1)	10.00			
16-15		0 / 3196	-17.5	-17.5	0.58 (1)	10.00			
15-14		0 / 3196	-17.5	-17.5	0.58 (1)	10.00			
14-13		0 / 3196	-17.5	-17.5	0.58 (1)	10.00			
13-12		0 / 1722	-17.5	-17.5	0.36 (1)	10.00			
12-11		0 / 0	-17.5	-17.5	0.14 (3)	10.00			

ALLOWABLE DEFL.(LL)= L/360 (1.23")

CALCULATED VERT. DEFL.(LL) = L/ 999 (0.25")

ALLOWABLE DEFL.(TL)= L/360 (1.23")

CALCULATED VERT. DEFL.(TL) = L/ 986 (0.45")

CSI: TC=0.98 (4-5:1), BC=0.58 (15-17:1), WB=0.40 (3-17:1), SSI=0.24 (7-8:1)

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.

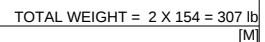
JSI GRIP= 0.90 (12) (INPUT = 0.90)

JSI METAL= 0.90 (14) (INPUT = 1.00)



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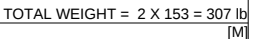
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JSI GRIP= 0.88 (17) (INPUT = 0.90)
JSI METAL= 0.75 (18) (INPUT = 1.00)

A SIZE FOR SIZE SUBSTITUTION OF MITEK MII20 WITH TEE-LOK TL20 PLATES IS ALLOWED.





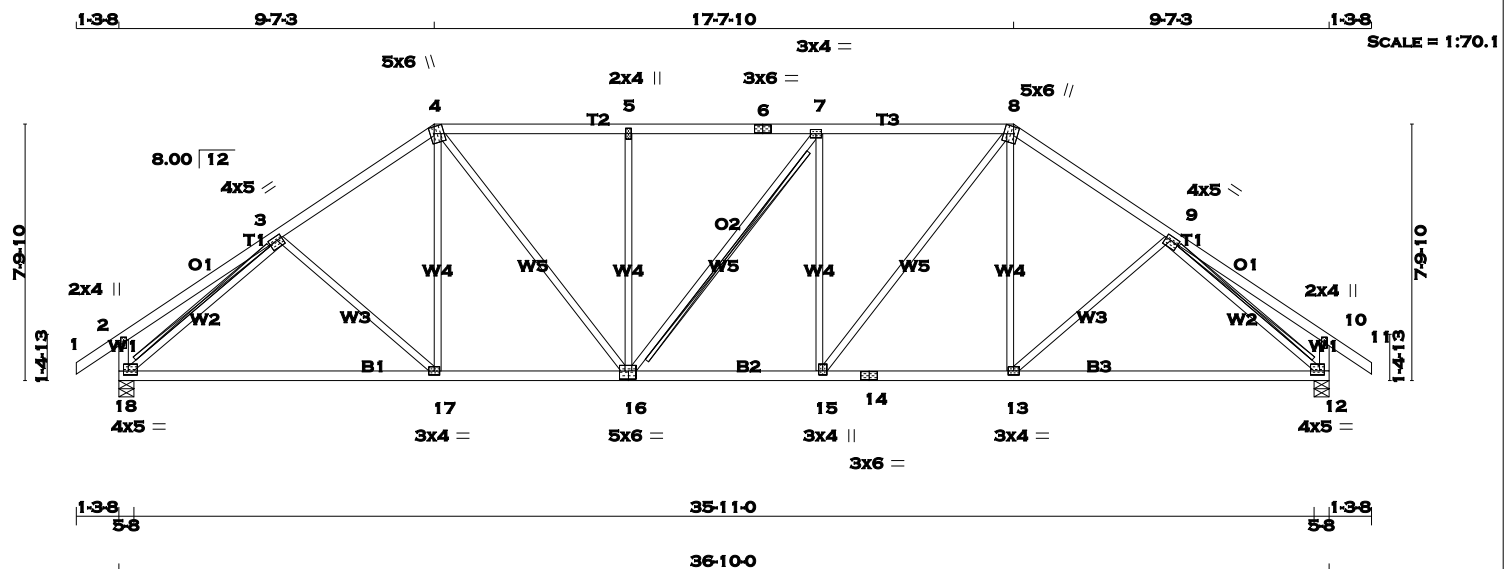
JSI GRIP= 0.88 (3) (INPUT = 0.90)
JSI METAL= 0.68 (3) (INPUT = 1.00)

17-16	0 / 1675	-17.5	-17.5	0.41 (1)	10.00
16-15	0 / 1717	-17.5	-17.5	0.42 (1)	10.00
15-14	0 / 2448	-17.5	-17.5	0.46 (1)	10.00
14-13	0 / 1716	-17.5	-17.5	0.42 (1)	10.00
13-12	0 / 1675	-17.5	-17.5	0.41 (1)	10.00



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TOTAL WEIGHT = 2 X 160 = 321 lb

<u>LUMBER</u>			
N. L. G. A. RULES			
CHORDS	SIZE	LUMBER	DESCR.
1 - 4	2x4	DRY No.2	SPF
4 - 6	2x4	DRY No.2	SPF
6 - 8	2x4	DRY No.2	SPF
8 - 11	2x4	DRY No.2	SPF
18 - 2	2x4	DRY No.2	SPF
12 - 10	2x4	DRY No.2	SPF
18 - 16	2x4	DRY No.2	SPF
16 - 14	2x4	DRY No.2	SPF
14 - 12	2x4	DRY No.2	SPF

DRY: SEASONED LUMBER.

JT	TYPE	PLATES	W	LEN	Y	X
2	TMV+p	MT20	2.0	4.0		
3	TMVW-t	MT20	4.0	5.0	1.50	2.00
4	TTWW+m	MT20	5.0	6.0	2.50	1.50
5	TMW+w	MT20	2.0	4.0		
6	TS-t	MT20	3.0	6.0		
7	TMVW-t	MT20	3.0	4.0		
8	TTWW+m	MT20	5.0	6.0	2.50	1.50
9	TMVW-t	MT20	4.0	5.0	1.50	2.00
10	TMV+p	MT20	2.0	4.0		
12	BMVW1-t	MT20	4.0	5.0	1.50	1.75
13	BMVW-t	MT20	3.0	4.0		
14	BS-t	MT20	3.0	6.0		
15	BMVW+t	MT20	3.0	4.0	1.50	1.50
16	BSVWWW-I	MT20	5.0	6.0	3.00	2.75
17	BMVW-t	MT20	3.0	4.0		
18	BMVW1-t	MT20	4.0	5.0	1.50	1.75

A SIZE FOR SIZE SUBSTITUTION OF MITEK MII20 WITH TEE-LOK TL20 PLATES IS ALLOWED.

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

FACTORED GROSS REACTION			MAXIMUM FACTORED GROSS REACTION			INPUT BRG	REQ'D BRG
JT	VERT	HORZ	DOWN	HORZ	UPLIFT	IN-SX	IN-SX
18	1853	0	1853	0	0	5-8	5-8
12	1853	0	1853	0	0	5-8	5-8

UNFACTORED REACTIONS

1ST LCASE		MAX./MIN. COMPONENT REACTIONS					
JT	COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
18	1298	921 / 0	0 / 0	0 / 0	0 / 0	377 / 0	0 / 0
12	1298	921 / 0	0 / 0	0 / 0	0 / 0	377 / 0	0 / 0

BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S) 18, 12

BRACING

TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 4.31 FT.
MAX. UNBRACED BOTTOM CHORD LENGTH = 10.00 FT. OR RIGID CEILING DIRECTLY
APPLIED.

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

2x4 DRY SPF No.2 T-BRACE AT 7-16, 3-18, 9-12

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: (3)

C H O R D S				W E B S			
MAX. FACTORED		FACTORED		MEMB.		MAX. FACTORED	
MEMB.	FORCE (LBS)	VERT. LOAD (PLF)	LC1 MAX CSI (LC)	MAX. UNBRAC LENGTH	MEMB.	FORCE (LBS)	MAX CSI (LC)
FR-TO		FROM TO			FR-TO		
1-2	0 / 29	-77.3	-77.3 0.10 (1)	10.00	3-17	-62 / 49	0.05 (1)
2-3	0 / 23	-77.3	-77.3 0.28 (1)	10.00	17-4	0 / 212	0.06 (3)
3-4	-2034 / 0	-77.3	-77.3 0.28 (1)	4.51	4-16	0 / 728	0.16 (1)
4-5	-2125 / 0	-77.3	-77.3 0.38 (1)	4.31	16-5	-490 / 0	0.56 (1)
5-6	-2125 / 0	-77.3	-77.3 0.35 (1)	4.35	16-7	-2 / 0	0.00 (1)
6-7	-2125 / 0	-77.3	-77.3 0.35 (1)	4.35	15-7	-491 / 0	0.56 (1)
7-8	-2126 / 0	-77.3	-77.3 0.38 (1)	4.31	15-8	0 / 730	0.16 (1)
8-9	-2034 / 0	-77.3	-77.3 0.28 (1)	4.51	13-8	0 / 211	0.06 (3)
9-10	0 / 23	-77.3	-77.3 0.28 (1)	10.00	13-9	-62 / 49	0.05 (1)
10-11	0 / 29	-77.3	-77.3 0.10 (1)	10.00	18-3	-2303 / 0	0.71 (1)
18-2	-250 / 0	0.0	0.0 0.03 (1)	7.81	9-12	-2302 / 0	0.71 (1)
12-10	-250 / 0	0.0	0.0 0.03 (1)	7.81			

18-17	0 / 1718	-17.5	-17.5	0.47 (1)	10.00
17-16	0 / 1674	-17.5	-17.5	0.47 (3)	10.00
16-15	0 / 2126	-17.5	-17.5	0.41 (1)	10.00
15-14	0 / 1674	-17.5	-17.5	0.47 (3)	10.00
14-13	0 / 1674	-17.5	-17.5	0.47 (3)	10.00
13-12	0 / 1718	-17.5	-17.5	0.47 (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, 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 (1.23")
CALCULATED VERT. DEFL.(LL) = L/ 999 (0.12")
ALLOWABLE DEFL.(TL)= L/360 (1.23")
CALCULATED VERT. DEFL.(TL) = L/ 999 (0.30")

CSI: TC=0.38 (7-8:1) , BC=0.47 (16-17:3) ,
WB=0.71 (3-18:1) , SSI=0.21 (7-8:1)

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= 0.89 (4) (INPUT = 0.90)
JSI METAL= 0.68 (3) (INPUT = 1.00)

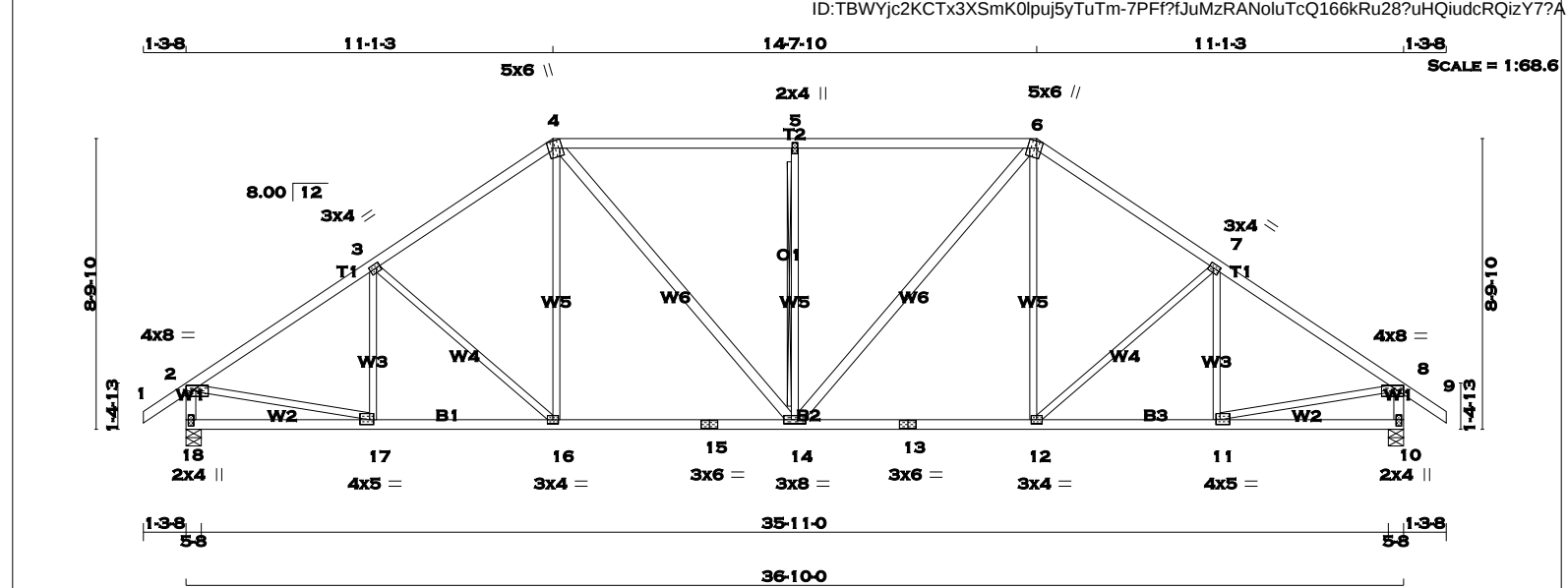


March 23, 2017



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LUMBER

N. L. G. A. RULES

CHORDS

SIZE

LUMBER

DESCR.

1 - 4

2x4

DRY

No.2

SPF

4 - 6

2x4

DRY

No.2

SPF

6 - 9

2x4

DRY

No.2

SPF

18 - 2

2x4

DRY

No.2

SPF

10 - 8

2x4

DRY

No.2

SPF

18 - 15

2x4

DRY

No.2

SPF

15 - 13

2x4

DRY

No.2

SPF

13 - 10

2x4

DRY

No.2

SPF

ALL WEBS

2x3

DRY

No.2

SPF

EXCEPT

4 - 14

2x4

DRY

No.2

SPF

14 - 6

2x4

DRY

No.2

SPF

DRY: SEASONED LUMBER.

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

BEARINGS

FACTORED

MAXIMUM FACTORED

INPUT

REQRD

JT

GROSS REACTION

GROSS REACTION

DOWN

HORZ

UPLIFT

IN-SX

IN-SX

18

1853

0

1853

0

0

5-8

5-8

10

1853

0

1853

0

0

5-8

5-8

UNFACTORED REACTIONS

1ST LCASE

MAX/MIN. COMPONENT REACTIONS

JT

COMBINED

SNOW

LIVE

PERM.LIVE

WIND

DEAD

SOIL

18

1298

921 / 0

0 / 0

0 / 0

0 / 0

377 / 0

0 / 0

10

1298

921 / 0

0 / 0

0 / 0

0 / 0

377 / 0

0 / 0

BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S) 18, 10

BRACING

TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 4.08 FT.

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

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

2x3 DRY SPF No.2 T-BRACE AT 5-14

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: (3)

CHORDS

MAX. FACTORED

FACTORED

WEBS

MAX. FACTORED

MEMB.

FORCE

VERT. LOAD

LC1 MAX

MAX.

MEMB.

FORCE

MAX.

FR-TO

(LBS)

(PLF)

CSI (LC)

UNBRAC

LENGTH

FR-TO

(LBS)

CSI (LC)

1-2

0 / 29

-77.3

-77.3

0.10 (1)

10.00

17-3

-242 / 17

0.10 (1)

2-3

-2123 / 0

-77.3

-77.3

0.40 (1)

4.31

3-16

-253 / 0

0.27 (1)

3-4

-1953 / 0

-77.3

-77.3

0.37 (1)

4.48

16-4

0 / 280

0.06 (1)

4-5

-1958 / 0

-77.3

-77.3

0.63 (1)

4.08

4-14

0 / 546

0.09 (1)

5-6

-1958 / 0

-77.3

-77.3

0.63 (1)

4.08

14-5

-697 / 0

0.87 (1)

6-7

-1953 / 0

-77.3

-77.3

0.37 (1)

4.48

14-6

0 / 546

0.09 (1)

7-8

-2123 / 0

-77.3

-77.3

0.40 (1)

4.31

12-6

0 / 280

0.06 (1)

8-9

0 / 29

-77.3

-77.3

0.10 (1)

10.00

12-7

-253 / 0

0.27 (1)

18-2

-1810 / 0

0.0

0.0

0.19 (1)

6.22

11-7

-242 / 17

0.10 (1)

10-8

-1810 / 0

0.0

0.0

0.19 (1)

6.22

2-17

0 / 1822

0.41 (1)

18-17

0 / 0

-17.5

-17.5

0.12 (3)

10.00

11-8

0 / 1822

0.41 (1)

17-16

0 / 1789

-17.5

-17.5

0.37 (1)

10.00

16-15

0 / 1602

-17.5

-17.5

0.36 (1)

10.00

15-14

0 / 1602

-17.5

-17.5

0.36 (1)

10.00

14-13

0 / 1602

-17.5

-17.5

0.36 (1)

10.00

13-12

0 / 1602

-17.5

-17.5

0.36 (1)

10.00

12-11

0 / 1789

-17.5

-17.5

0.37 (1)

10.00

11-10

0 / 0

-17.5

-17.5

0.12 (3)

10.00

DESIGN CRITERIA

SPECIFIED LOADS:

TOP CH. LL = 23.3 PSF

DL = 3.0 PSF

BOT CH. LL = 0.0 PSF

DL = 23.3 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 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 (1.23")

CALCULATED VERT. DEFL.(LL) = L/999 (0.10")

ALLOWABLE DEFL.(TL)= L/360 (1.23")

CALCULATED VERT. DEFL.(TL) = L/999 (0.20")

CSI: TC=0.63 (4-5-1), BC=0.37 (16-17-1), WB=0.87 (5-14-1), SSI=0.27 (4-5-1)

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

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

A SIZE FOR SIZE SUBSTITUTION OF MITEK MII20 WITH TEE-LOK TL20 PLATES IS ALLOWED.

PLATES (table is in inches)

JT

TYPE

PLATES

W

LEN

Y

X

2

TMVW-p

MT20

4.0

8.0

1.00

3.50

3

TMWW-t

MT20

3.0

4.0

1.50

1.50

4

TTWW+m

MT20

5.0

6.0

Edge

1.75

5

TMW+w

MT20

2.0

4.0

6

TTWW+m

MT20

5.0

6.0

Edge

1.75

7

TMWW-t

MT20

3.0

4.0

1.50

1.50

8

TMVW-p

MT20

4.0

8.0

1.00

3.50

10

BMV1+p

MT20

2.0

4.0

2.25

1.00

11

BMWW-t

MT20

4.0

5.0

1.75

1.50

12

BMWW-t

MT20

3.0

4.0

13

BS-t

MT20

3.0

6.0

14

BMWWW-t

MT20

3.0

8.0

15

BS-t

MT20

3.0

6.0

16

BMWW-t

MT20

3.0

4.0

17

BMWW-t

MT20

4.0

5.0

1.75

1.50

18

BMV1+p

MT20

2.0

4.0

2.25

1.00

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

A SIZE FOR SIZE SUBSTITUTION OF MITEK MII20 WITH TEE-LOK TL20 PLATES IS ALLOWED.

CHORDS

MAX. FACTORED

FACTORED

WEBS

MAX. FACTORED

MEMB.

FORCE

VERT. LOAD

LC1 MAX

MAX.

MEMB.

FORCE

MAX.

FR-TO

(LBS)

(PLF)

CSI (LC)

UNBRAC

LENGTH

FR-TO

(LBS)

CSI (LC)

1-2

0 / 29

-77.3

-77.3

0.10 (1)

10.00

17-3

-242 / 17

0.10 (1)

2-3

-2123 / 0

-77.3

-77.3

0.40 (1)

4.31

3-16

-253 / 0

0.27 (1)

3-4

-1953 / 0

-77.3

-77.3

0.37 (1)

4.48

16-4

0 / 280

0.06 (1)

4-5

-1958 / 0

-77.3

-77.3

0.63 (1)

4.08

4-14

0 / 546

0.09 (1)

5-6

-1958 / 0

-77.3

-77.3

0.63 (1)

4.08

14-5

-697 / 0

0.87 (1)

6-7

-1953 / 0

-77.3

-77.3

0.37 (1)

4.48

14-6

0 / 546

0.09 (1)

7-8

-2123 / 0

-77.3

-77.3

0.40 (1)

4.31

12-6

0 / 280

0.06 (1)

8-9

0 / 29

-77.3

-77.3

0.10 (1)

10.00

12-7

-253 / 0

0.27 (1)

18-2

-1810 / 0

0.0

0.0

0.19 (1)

6.22

11-7

-242 / 17

0.10 (1)

10-8

-1810 / 0

0.0

0.0

0.19 (1)

6.22

2-17

0 / 1822

0.41 (1)

18-17

0 / 0

-17.5

-17.5

0.12 (3)

10.00

11-8

0 / 1822

0.41 (1)

17-16

0 / 1789

-17.5

-17.5

0.37 (1)

10.00

16-15

0 / 1602

-17.5

-17.5

0.36 (1)

10.00

15-14

0 / 1602

-17.5

-17.5

0.36 (1)

10.00

14-13

0 / 1602

-17.5

-17.5

0.36 (1)

10.00

13-12

0 / 1602

-17.5

-17.5

0.36 (1)

10.00

12-11

0 / 1789

-17.5

-17.5

0.37 (1)

10.00

11-10

0 / 0

-17.5

-17.5

0.12 (3)

10.00

CHORDS

MAX. FACTORED

FACTORED

WEBS

MAX. FACTORED

MEMB.

FORCE

VERT. LOAD

LC1 MAX

MAX.

MEMB.

FORCE

MAX.

FR-TO

(LBS)

(PLF)

CSI (LC)

UNBRAC

LENGTH

FR-TO

(LBS)

CSI (LC)

1-2

0 / 29

-77.3

-77.3

0.10 (1)

10.00

17-3

-242 / 17

0.10 (1)

2-3

-2123 / 0

-77.3

-77.3

0.40 (1)

4.31

3-16

-253 / 0

0.27 (1)

3-4

-1953 / 0

-77.3

-77.3

0.37 (1)

4.48

16-4

0 / 280

0.06 (1)

4-5

-1958 / 0

-77.3

-77.3

0.63 (1)

4.08

4-14

0 / 546

0.09 (1)

5-6

-1958 / 0

-77.3

-77.3

0.63 (1)

4.08

14-5

-697 / 0

0.87 (1)

6-7

-1953 / 0

-77.3

-77.3

0.37 (1)

4.48

14-6

0 / 546

0.09 (1)

7-8

-2123 / 0

-77.3

-77.3

0.40 (1)

4.31

12-6

0 / 280

0.06 (1)

8-9

0 / 29

-77.3

-77.3

0.10 (1)

10.00

12-7

-253 / 0

0.27 (1)

18-2

-1810 / 0

0.0

0.0

0.19 (1)

6.22

11-7

-242 / 17

0.10 (1)

10-8

-1810 / 0

0.0

0.0

0.19 (1)

6.22

2-17

0 / 1822

0.41 (1)

18-17

0 / 0

-17.5

-17.5

0.12 (3)

10.00

11-8

0 / 1822

0.41 (1)

17-16

0 / 1789

-17.5

-17.5

0.37 (1)

10.00

16-15

0 / 1602

-17.5

-17.5

0.36 (1)

10.00

15-14

0 / 1602

-17.5

-17.5

0.36 (1)

10.00

14-13

0 / 1602

-17.5

-17.5

0.36 (1)

10.00

13-12

0 / 1602

-17.5

-17.5

0.36 (1)

10.00

12-11

0 / 1789

-17.5

-17.5

0.37 (1)

10.00

11-10

0 / 0

-17.5

-17.5

0.12 (3)

10.00

CHORDS

MAX. FACTORED

FACTORED

WEBS

MAX. FACTORED

MEMB.

FORCE

VERT. LOAD

LC1 MAX

MAX.

MEMB.

FORCE

MAX.

FR-TO

(LBS)

(PLF)

CSI (LC)

UNBRAC

LENGTH

FR-TO

(LBS)

CSI (LC)

1-2

0 / 29

-77.3

-77.3

0.10 (1)

10.00

17-3

-242 / 17

0.10 (1)

2-3

-2123 / 0

-77.3

-77.3

0.40 (1)

4.31

3-16

-253 / 0

0.27 (1)

3-4

-1953 / 0

-77.3

-77.3

0.37 (1)

4.48

16-4

0 / 280

0.06 (1)

4-5

-1958 / 0

-77.3

-77.3

0.63 (1)

4.08

4-14

0 / 546

0.09 (1)

5-6

-1958 / 0

-77.3

-77.3

0.63 (1)

4.08

14-5

-697 / 0

0.87 (1)

6-7

-1953 / 0

-77.3

-77.3

0.37 (1)

4.48

14-6

0 / 546

0.09 (1)

7-8

-2123 / 0

-77.3

-77.3

0.40 (1)

4.31

12-6

0 / 280

0.06 (1)

8-9

0 / 29

-77.3

-77.3

0.10 (1)

10.00

12-7

-253 / 0

0.27 (1)

18-2

-1810 / 0

0.0

0.0

0.19 (1)

6.22

11-7

-242 / 17

0.10 (1)

10-8

-1810 / 0

0.0

0.0

0.19 (1)

6.22

2-17

0 / 1822

0.41 (1)

18-17

0 / 0

-17.5

-17.5

0.12 (3)

10.00

11-8

0 / 1822

0.41 (1)

17-16

0 / 1789

-17.5

-17.5

0.37 (1)

10.00

16-15

0 / 1602

-17.5

-17.5

0.36 (1)

10.00

15-14

0 / 1602

-17.5

-17.5

0.36 (1)

10.00

14-13

0 / 1602

-17.5

-17.5

0.36 (1)

10.00

13-12

0 / 1602

-17.5

-17.5

0.36 (1)

10.00

12-11

0 / 1789

-17.5

-17.5

0.37 (1)

10.00

11-10

0 / 0

-17.5

-17.5

0.12 (3)

10.00

CHORDS

MAX. FACTORED

FACTORED

WEBS

MAX. FACTORED

MEMB.

FORCE

VERT. LOAD

LC1 MAX

MAX.

MEMB.

FORCE

MAX.

FR-TO

(LBS)

(PLF)

CSI (LC)

UNBRAC

LENGTH

FR-TO

(LBS)

CSI (LC)

1-2

0 / 29

-77.3

-77.3

0.10 (1)

10.00

17-3

-242 / 17

0.10 (1)

2-3

-2123 / 0

-77.3

-77.3

0.40 (1)

4.31

3-16

-253 / 0

0.27 (1)

3-4

-1953 / 0

-77.3

-77.3

0.37 (1)

4.48

16-4

0 / 280

0.06 (1)

4-5

-1958 / 0

-77.3

-77.3

0.63 (1)

4.08

4-14

0 / 546

0.09 (1)

5-6

-1958 / 0

-77.3

-77.3

0.63 (1)

4.08

14-5

-697 / 0

0.87 (1)

6-7

-1953 / 0

-77.3

-77.3

0.37 (1)

4.48

14-6

0 / 546

0.09 (1)

7-8

-2123 / 0

-77.3

-77.3

0.40 (1)

4.31

12-6

0 / 280

0.06 (1)

8-9

0 / 29

-77.3

-77.3

0.10 (1)

10.00

12-7

-253 / 0

0.27 (1)

18-2

-1810 / 0

0.0

0.0

0.19 (1)

6.22

11-7

-242 / 17

0.10 (1)

10-8

-1810 / 0

0.0

0.0

0.19 (1)

6.22

2-17

0 / 1822

0.41 (1)

18-17

0 / 0

-17.5

-17.5

0.12 (3)

10.00

11-8

0 / 1822

0.41 (1)

17-16

0 / 1789

-17.5

-17.5

0.37 (1)

10.00

16-15

0 / 1602

-17.5

-17.5

0.36 (1)

10.00

15-14

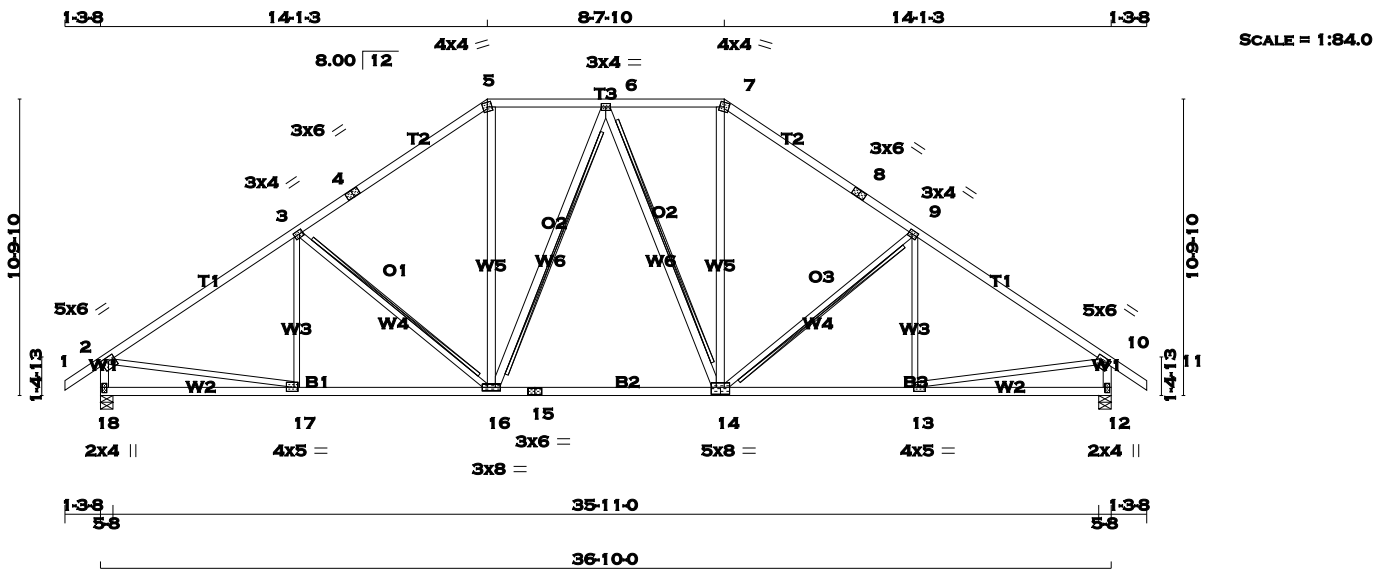
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-17

Kott Lumber Uxbridge, Stouffville, ON, TW

Version 8.100 S Feb 9 2017 MiTek Industries, Inc. Thu Mar 23 08:38:12 2017 Page 1

ID:TBWYjc2KCTx3XSmK0lpuj5yTuTm-bcp1C_KW7HZ1?yK41KxGeKHbSTZdqnr7HM_z9zY7?9



TOTAL WEIGHT = 2 X 180 = 359 lb

[M][F]

LUMBER		N. L. G. A. RULES		LUMBER	DESCR.
CHORDS	SIZE				
1 - 4	2x4	DRY	No.2	SPF	SPF
4 - 5	2x4	DRY	No.2		
5 - 7	2x4	DRY	No.2		
7 - 8	2x4	DRY	No.2		
8 - 11	2x4	DRY	No.2		
18 - 2	2x4	DRY	No.2		
12 - 10	2x4	DRY	No.2		
18 - 15	2x4	DRY	No.2		
15 - 14	2x4	DRY	No.2		
14 - 12	2x4	DRY	No.2		
ALL WEBS EXCEPT	2x3	DRY	No.2		
16 - 5	2x4	DRY	No.2		
16 - 6	2x4	DRY	No.2		
6 - 14	2x4	DRY	No.2		
14 - 7	2x4	DRY	No.2		

DRY: SEASONED LUMBER.

PLATES (table is in inches)						
JT	TYPE	PLATES	W	LEN	Y	X
2	TMVW-t	MT20	5.0	6.0	1.75	3.00
3	TMWW-t	MT20	3.0	4.0	1.50	1.50
4	TS-t	MT20	3.0	6.0		
5	TTW-m	MT20	4.0	4.0		
6	TMWW-t	MT20	3.0	4.0		
7	TTW-m	MT20	4.0	4.0		
8	TS-t	MT20	3.0	6.0		
9	TMWW-t	MT20	3.0	4.0	1.50	1.50
10	TMVW-t	MT20	5.0	6.0	1.75	3.00
12	BMV1+p	MT20	2.0	4.0	2.25	1.00
13	BMWW-t	MT20	4.0	5.0	1.75	1.75
14	BSWW-t	MT20	5.0	8.0	3.00	4.00
15	BS-t	MT20	3.0	6.0		
16	BMWW-t	MT20	3.0	8.0		
17	BMWW-t	MT20	4.0	5.0	1.75	1.75
18	BMV1+p	MT20	2.0	4.0	2.25	1.00

A SIZE FOR SIZE SUBSTITUTION OF MI TEK MII20 WITH TEE-LOK TL20 PLATES IS ALLOWED.

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

BEARINGS

JT	FACTORED GROSS REACTION		MAXIMUM FACTORED GROSS REACTION		INPUT BRG		REQRD BRG	
	VERT	HORZ	DOWN	HORZ	UPLIFT	IN-SX	IN-SX	
18	1853	0	1853	0	0	5-8	5-8	
12	1853	0	1853	0	0	5-8	5-8	

UNFACTORED REACTIONS

JT	1ST LCASE COMBINED		MAX/MIN. SNOW		LIVE		PERM.LIVE		WIND		DEAD		SOIL	
18	1298	921 / 0	0 / 0	0 / 0	0 / 0	0 / 0	0 / 0	0 / 0	377 / 0	0 / 0	377 / 0	0 / 0	0 / 0	0 / 0
12	1298	921 / 0	0 / 0	0 / 0	0 / 0	0 / 0	0 / 0	0 / 0	377 / 0	0 / 0	377 / 0	0 / 0	0 / 0	0 / 0

BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S) 18, 12

BRACING

TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 3.96 FT.
MAX. UNBRACED BOTTOM CHORD LENGTH = 10.00 FT. OR RIGID CEILING DIRECTLY APPLIED.

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

2x4 DRY SPF No.2 T-BRACE AT 3-16, 6-16, 6-14, 9-14

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: (3)

CHORDS				WEBS			
MEMB.	MAX. FACTORED	FORCE (LBS)	FACTORED VERT. LOAD (PLF)	LC1 MAX	MAX. UNBRAC LENGTH	MEMB.	MAX. FACTORED
FR-TO			FROM TO			FR-TO	
1-2	0 / 29	-77.3	-77.3	0.10 (1)	10.00	17-3	-141 / 72
2-3	-2143 / 0	-77.3	-77.3	0.69 (1)	3.96	3-16	-469 / 0
3-4	-1784 / 0	-77.3	-77.3	0.62 (1)	4.32	16-5	0 / 637
4-5	-1784 / 0	-77.3	-77.3	0.62 (1)	4.32	16-6	-216 / 0
5-6	-1460 / 0	-77.3	-77.3	0.20 (1)	5.22	6-14	-216 / 0
6-7	-1460 / 0	-77.3	-77.3	0.20 (1)	5.22	14-7	0 / 637
7-8	-1784 / 0	-77.3	-77.3	0.62 (1)	4.32	14-9	-469 / 0
8-9	-1784 / 0	-77.3	-77.3	0.62 (1)	4.32	13-9	-142 / 72
9-10	-2143 / 0	-77.3	-77.3	0.69 (1)	3.96	2-17	0 / 1834
10-11	0 / 29	-77.3	-77.3	0.10 (1)	10.00	13-10	0 / 1834
18-2	-1801 / 0	0.0	0.0	0.19 (1)	6.23		
12-10	-1801 / 0	0.0	0.0	0.19 (1)	6.23		
18-17	0 / 0	-17.5	-17.5	0.20 (3)	10.00		
17-16	0 / 1814	-17.5	-17.5	0.41 (1)	10.00		
16-15	0 / 1540	-17.5	-17.5	0.37 (1)	10.00		
15-14	0 / 1540	-17.5	-17.5	0.37 (1)	10.00		
14-13	0 / 1814	-17.5	-17.5	0.41 (1)	10.00		
13-12	0 / 0	-17.5	-17.5	0.20 (3)	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 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 (1.23")
CALCULATED VERT. DEFL.(LL) = L/999 (0.09")
ALLOWABLE DEFL.(TL)= L/360 (1.23")
CALCULATED VERT. DEFL.(TL) = L/999 (0.23")

CSI: TC=0.69 (2-3:1), BC=0.41 (16-17:1), WB=0.41 (2-17:1), SSI=0.22 (2-3:1)

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)
	MAX	MIN	MAX	MIN	MAX
MT20	618	354	1667	822	2284

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.88 (13) (INPUT = 0.90)
JSI METAL= 0.59 (2) (INPUT = 1.00)



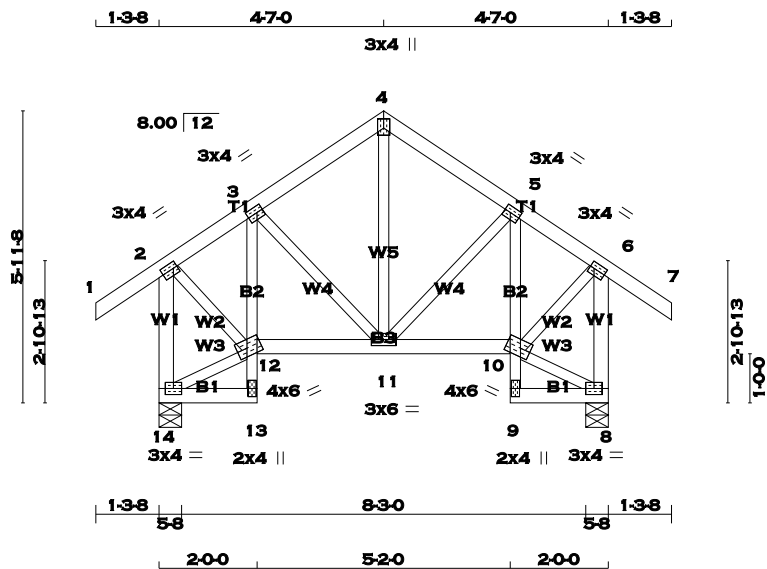
March 23, 2017



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.

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TOTAL WEIGHT = 2 X 54 = 108 lb

LUMBER		N. L. G. A. RULES		LUMBER	DESCR.
CHORDS	SIZE				
1 - 4	2x4	DRY	No.2	SPF	SPF
4 - 7	2x4	DRY	No.2		
14 - 2	2x4	DRY	No.2	SPF	SPF
8 - 6	2x4	DRY	No.2		
14 - 13	2x4	DRY	No.2	SPF	SPF
13 - 3	2x3	DRY	No.2		
12 - 10	2x4	DRY	No.2	SPF	SPF
9 - 5	2x3	DRY	No.2		
9 - 8	2x4	DRY	No.2	SPF	SPF
ALL WEBS EXCEPT	2x3	DRY	No.2		

DRY: SEASONED LUMBER.

PLATES (table is in inches)					
JT	TYPE	PLATES	W	LEN	Y X
2	TMVW-t	MT20	3.0	4.0	1.50 1.00
3	TMVW-t	MT20	3.0	4.0	1.50 1.50
4	TTW+p	MT20	3.0	4.0	2.25 1.50
5	TMVW-t	MT20	3.0	4.0	1.50 1.50
6	TMVW-t	MT20	3.0	4.0	1.50 1.00
8	BMVW1-t	MT20	3.0	4.0	
9	BMV+p	MT20	2.0	4.0	
10	BVMWW+w	MT20	4.0	6.0	3.50 2.00
11	BVMWW-t	MT20	3.0	6.0	
12	BVMWW+w	MT20	4.0	6.0	3.50 2.00
13	BMV+p	MT20	2.0	4.0	
14	BMVW1-t	MT20	3.0	4.0	

A SIZE FOR SIZE SUBSTITUTION OF MIITEK MII20 WITH TEE-LOK TL20 PLATES IS ALLOWED.

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

BEARINGS		FACTORED		MAXIMUM FACTORED		INPUT		REQRD	
JT	GROSS REACTION	DOWN	HORZ	DOWN	HORZ	UPLIFT	IN-SX	BRG	IN-SX
14	541	0	541	0	0	5-8	5-8	5-8	5-8
8	541	0	541	0	0	5-8	5-8	5-8	5-8

UNFACTORED REACTIONS		1ST LCASE		MAX./MIN. COMPONENT REACTIONS		LIVE		PERM.LIVE		WIND		DEAD		SOIL	
JT	COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL	JT	COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
14	377	277 / 0	0 / 0	0 / 0	0 / 0	100 / 0	0 / 0	8	377	277 / 0	0 / 0	0 / 0	100 / 0	0 / 0	0 / 0

BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S) 14, 8

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

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

LOADING		TOTAL LOAD CASES: (3)		CHORDS		WEBS	
MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (LBS)	MAX. FACTORED HORIZ. LOAD (LBS)	MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (LBS)	MAX. FACTORED HORIZ. LOAD (LBS)
FR-TO		FROM	TO	FR-TO		FROM	TO
1-2	0 / 29	-77.3	-77.3 0.10 (1)	10.00	11-4	0 / 87	0.02 (3)
2-3	-262 / 0	-77.3	-77.3 0.08 (1)	6.25	11-5	-11 / 2	0.00 (1)
3-4	-250 / 0	-77.3	-77.3 0.07 (1)	6.25	3-11	-11 / 2	0.00 (1)
4-5	-250 / 0	-77.3	-77.3 0.07 (1)	6.25	14-12	-3 / 0	0.00 (1)
5-6	-262 / 0	-77.3	-77.3 0.08 (1)	6.25	2-12	0 / 279	0.06 (1)
6-7	0 / 29	-77.3	-77.3 0.10 (1)	10.00	10-8	-3 / 0	0.00 (1)
14-2	-523 / 0	0.0	0.0 0.08 (1)	7.81	10-6	0 / 279	0.06 (1)
8-6	-523 / 0	0.0	0.0 0.08 (1)	7.81			
14-13	0 / 3	-17.5	-17.5 0.02 (3)	10.00			
13-12	0 / 19	0.0	0.0 0.01 (1)	10.00			
12-3	-158 / 0	0.0	0.0 0.01 (1)	7.81			
12-11	0 / 210	-17.5	-17.5 0.05 (3)	10.00			
11-10	0 / 210	-17.5	-17.5 0.05 (3)	10.00			
9-10	0 / 19	0.0	0.0 0.01 (1)	10.00			
10-5	-158 / 0	0.0	0.0 0.01 (1)	7.81			
9-8	0 / 3	-17.5	-17.5 0.02 (3)	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, 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 (0.31")
CALCULATED VERT. DEFL.(LL) = L/ 999 (0.00")
ALLOWABLE DEFL.(TL)= L/360 (0.31")
CALCULATED VERT. DEFL.(TL) = L/ 999 (0.01")

CSI: TC=0.10 (6-7:1), BC=0.05 (11-12:3), WB=0.06 (2-12:1), SSI=0.08 (3-4:1)

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

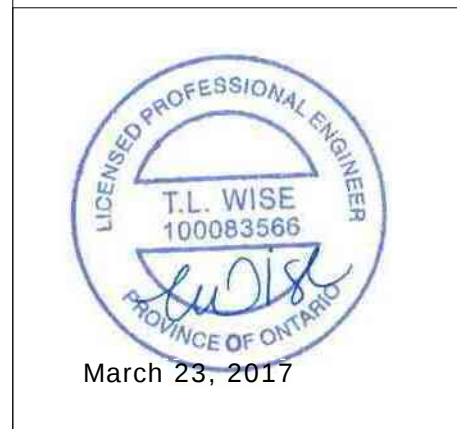
TRUSS PLATE MANUFACTURER IS NOT RESPONSIBLE FOR QUALITY CONTROL IN THE TRUSS MANUFACTURING PLANT .

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

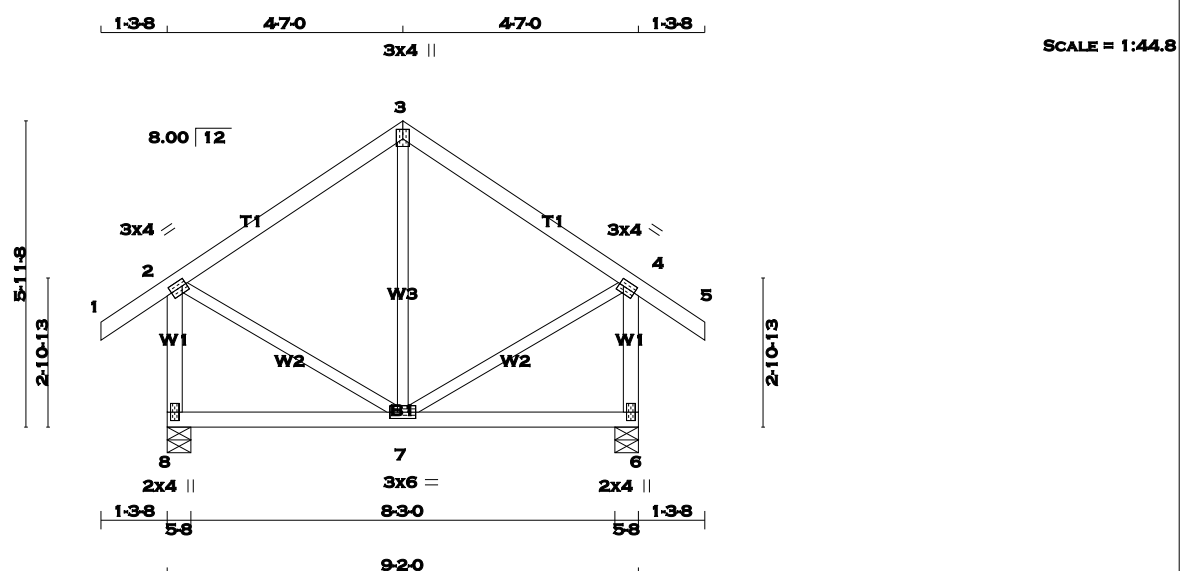
PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.87 (2) (INPUT = 0.90)
JSI METAL= 0.14 (6) (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.

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TOTAL WEIGHT = 3 X 45 = 134 lb
[M][F]

LUMBER					DESCR.
N. L. G. A. RULES	CHORDS	SIZE	LUMBER		
1 - 3	2x4	DRY	No.2		SPF
3 - 5	2x4	DRY	No.2		SPF
8 - 2	2x4	DRY	No.2		SPF
6 - 4	2x4	DRY	No.2		SPF
8 - 6	2x4	DRY	No.2		SPF
ALL WEBS 2x3 DRY No.2 EXCEPT					SPF
DRY: SEASONED LUMBER.					

PLATES (table is in inches)						
JT	TYPE	PLATES	W	LEN	Y	X
2	TMVW-t	MT20	3.0	4.0	1.50	1.00
3	TTW+p	MT20	3.0	4.0	2.25	1.50
4	TMVW-t	MT20	3.0	4.0	1.50	1.00
6	BMV1+p	MT20	2.0	4.0		
7	BMVWW-t	MT20	3.0	6.0		
8	BMV1+p	MT20	2.0	4.0		

A SIZE FOR SIZE SUBSTITUTION OF MITEK MII20 WITH TEE-LOK TL20 PLATES IS ALLOWED.

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

BEARINGS		FACTORED		MAXIMUM FACTORED		INPUT		REQRD	
		GROSS	REACTION	GROSS	REACTION	BRG		BRG	
JT		VERT	HORZ	DOWN	HORZ	UPLIFT	IN-SX	IN-SX	
8		541	0	541	0	0	5-8	5-8	
6		541	0	541	0	0	5-8	5-8	

UNFACTORED REACTIONS							
JT	1ST LCASE	MAX/MIN.	SNOW	LIVE	PERM.LIVE	WIND	DEAD
8	377	277 / 0	0 / 0	0 / 0	0 / 0	0 / 0	100 / 0
6	377	277 / 0	0 / 0	0 / 0	0 / 0	0 / 0	100 / 0

BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S) 8, 6

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: (3)									
CHORDS					WEBS				
MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	LC1 MAX	MAX. UNBRAC LENGTH	MEMB.	MAX. FACTORED FORCE (LBS)	MAX. UNBRAC LENGTH	MEMB.	MAX. FACTORED FORCE (LBS)
FR-TO		FROM TO			FR-TO			FR-TO	
1-2	0 / 29	-77.3	-77.3	0.10 (1)	10.00	7-3	-109 / 43	0.06 (1)	
2-3	-222 / 0	-77.3	-77.3	0.21 (1)	6.25	2-7	0 / 211	0.05 (1)	
3-4	-222 / 0	-77.3	-77.3	0.21 (1)	6.25	7-4	0 / 211	0.05 (1)	
4-5	0 / 29	-77.3	-77.3	0.10 (1)	10.00				
8-2	-510 / 0	0.0	0.0	0.08 (1)	7.81				
6-4	-510 / 0	0.0	0.0	0.08 (1)	7.81				
8-7	0 / 0	-17.5	-17.5	0.10 (3)	10.00				
7-6	0 / 0	-17.5	-17.5	0.10 (3)	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 (0.31")
CALCULATED VERT. DEFL.(LL) = L/ 999 (0.00")
ALLOWABLE DEFL.(TL)= L/360 (0.31")
CALCULATED VERT. DEFL.(TL) = L/ 999 (0.01")

CSI: TC=0.21 (2-3:1) , BC=0.10 (6-7:3) , WB=0.06 (3-7:1) , SSI=0.12 (2-3:1)

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= 0.69 (2) (INPUT = 0.90)
JSI METAL= 0.14 (4) (INPUT = 1.00)

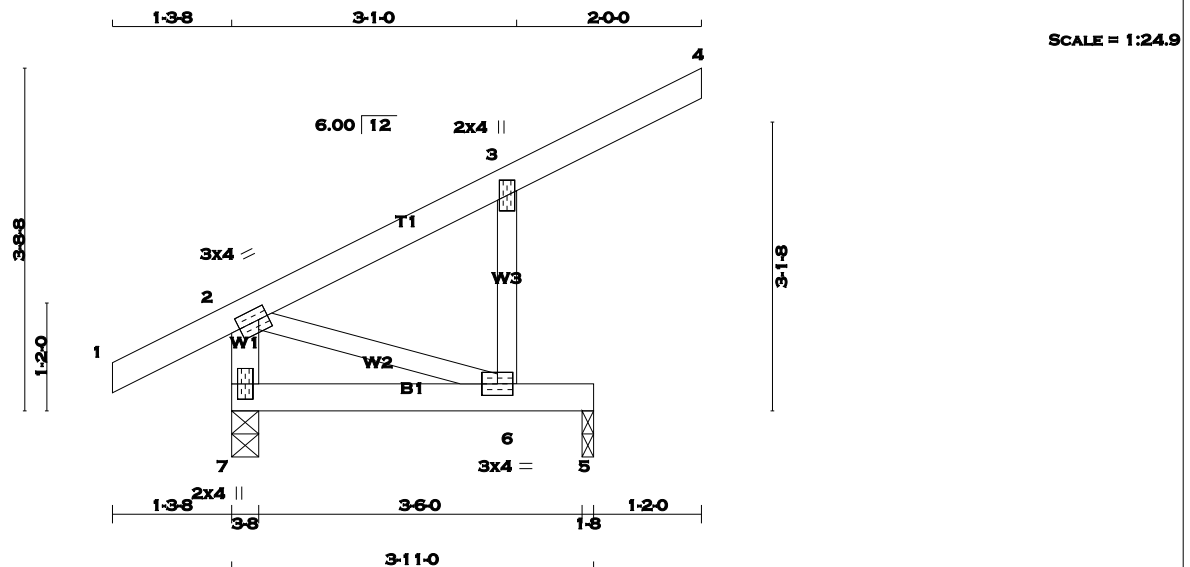


March 23, 2017



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TOTAL WEIGHT = 3 X 17 = 52 lb [M]

LUMBER					DESCR.
N. L. G. A. RULES	CHORDS	SIZE	LUMBER		
1 - 4	2x4	DRY	No.2		SPF
6 - 3	2x3	DRY	No.2		SPF
7 - 2	2x4	DRY	No.2		SPF
7 - 5	2x4	DRY	No.2		SPF
ALL WEBS 2x3 DRY No.2					SPF
DRY: SEASONED LUMBER.					

PLATES (table is in inches)						
JT	TYPE	PLATES	W	LEN	Y	X
2	TMVW-t	MT20	3.0	4.0	1.50	1.25
3	TMV+p	MT20	2.0	4.0		
6	BMVW-t	MT20	3.0	4.0		
7	BMV1+p	MT20	2.0	4.0		

A SIZE FOR SIZE SUBSTITUTION OF MITEK MII20 WITH TEE-LOK TL20 PLATES IS ALLOWED.

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	
7		318	0	318	0	0	3-8	3-8	
5		254	0	254	0	0	1-8	1-8	

UNFACTORED REACTIONS

JT	1ST LCASE COMBINED	MAX/MIN. SNOW	MAX/MIN. LIVE	MAX/MIN. PERM. LIVE	MAX/MIN. WIND	MAX/MIN. DEAD	MAX/MIN. SOIL
7	220	171 / 0	0 / 0	0 / 0	0 / 0	49 / 0	0 / 0
5	177	132 / 0	0 / 0	0 / 0	0 / 0	44 / 0	0 / 0

BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S) 7, 5

BRACING

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

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

LOADING

TOTAL LOAD CASES: (4)

		CHORDS				WEBS			
		MAX. FACTORED	FACTORED	VERT. LOAD	LC1 MAX	MAX. MEMB.	MAX. FACTORED	FACTORED	
		FORCE (LBS)	FORCE (PLF)	CSF (LC)	UNBRAC LENGTH	FR-TO	FORCE (LBS)	MAX CSF (LC)	
1-2	0 / 23	-77.3	-77.3	0.10 (1)	10.00	2-6	0 / 0	0.00 (1)	
2-3	0 / 0	-77.3	-77.3	0.13 (1)	10.00				
3-4	-36 / 0	-77.3	-77.3	0.22 (1)	6.25				
6-3	-279 / 0	0.0	0.0	0.05 (1)	7.81				
7-2	-224 / 0	0.0	0.0	0.02 (1)	7.81				
7-6	0 / 0	-17.5	-17.5	0.28 (1)	10.00				
6-5	0 / 0	-17.5	-17.5	0.28 (1)	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. 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 (0.03")
ALLOWABLE DEFL.(TL)= L/360 (0.19")
CALCULATED VERT. DEFL.(TL) = L/ 873 (0.05")

CSI: TC=0.22 (3-4:1) , BC=0.28 (6-7:1) , WB=0.00 (2-6:1) , SSI=0.20 (5-6:1)

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)		
MT20	618	354	1667	822	2284 1656

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.28 (6) (INPUT = 0.90)
JSI METAL= 0.06 (3) (INPUT = 1.00)



March 23, 2017



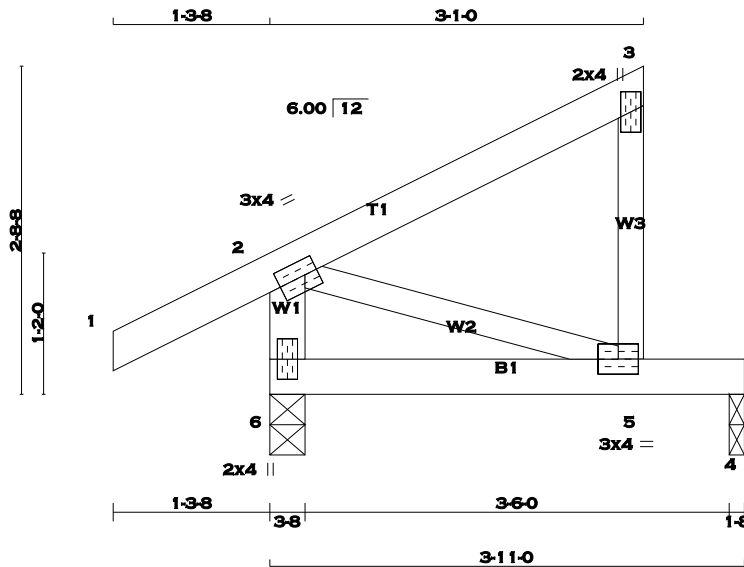
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Kott Lumber Uxbridge, Stouffville, ON, TW

Version 8.100 S Feb 9 2017 MiTek Industries, Inc. Thu Mar 23 08:38:14 2017 Page 1

ID:TBWYjc2KCTx3XSmK0lpj5yTuTm-X_xodgMmfuplEGUT8l_kklM41FDJ5qi8bbr511zY7???



SCALE = 1:19.0

TOTAL WEIGHT = 7 X 15 = 104 lb

LUMBER

N. L. G. A. RULES

CHORDS	SIZE	LUMBER	DESCR.
1 - 3	2x4	DRY	No.2
5 - 3	2x3	DRY	No.2
6 - 2	2x4	DRY	No.2
6 - 4	2x4	DRY	No.2

ALL WEBS 2x3 DRY

DRY: SEASONED LUMBER.

No.2

SPF

PLATES (table is in inches)

JT	TYPE	PLATES	W	LEN	Y	X
2	TMVW-t	MT20	3.0	4.0	1.50	1.25
3	TMV+p	MT20	2.0	4.0		
5	BMVW-t	MT20	3.0	4.0		
6	BMV1+p	MT20	2.0	4.0		

A SIZE FOR SIZE SUBSTITUTION OF MITEK MII20 WITH

TEE-LOK TL20 PLATES IS ALLOWED.

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

BUILDING DESIGNER

BEARINGS

JT	FACTORED GROSS REACTION		MAXIMUM FACTORED GROSS REACTION		INPUT BRG		REQRD BRG	
	VERT	HORZ	DOWN	HORZ	UPLIFT	IN-SX	IN-SX	
6	284	0	284	0	0	3-8	3-8	
4	128	0	128	0	0	1-8	1-8	

UNFACTORED REACTIONS

JT	1ST LCASE COMBINED		MAX./MIN. SNOW		LIVE		PERM.LIVE		WIND		DEAD		SOIL	
	VERT	HORZ	DOWN	HORZ	UPLIFT	IN-SX	IN-SX							
6	197	150 / 0	0 / 0	0 / 0	0 / 0	0 / 0	0 / 0	47 / 0	0 / 0	35 / 0	0 / 0	0 / 0	0 / 0	0 / 0
4	91	57 / 0	0 / 0	0 / 0	0 / 0	0 / 0	0 / 0	35 / 0	0 / 0	0 / 0	0 / 0	0 / 0	0 / 0	0 / 0

BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S) 6, 4

BRACING

TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 10.00 FT.

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

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

LOADING

TOTAL LOAD CASES: (4)

MEMB.	CHORDS MAX. FACTORED		FACTORED		WEBS MAX. FACTORED		FACTORED	
	FORCE (LBS)	VERT. LOAD (LBS)	LC1 MAX (PLF)	LC1 MAX (LC)	MEMB. FORCE (LBS)	VERT. LOAD (LBS)	LC1 MAX (PLF)	LC1 MAX (LC)
FR-TO			FROM	TO	FR-TO		FROM	TO
1-2	0 / 23	-77.3	-77.3	0.10 (1)	10.00	2-5	0 / 0	0.00 (1)
2-3	0 / 0	-77.3	-77.3	0.13 (1)	10.00			
5-3	-119 / 0	0.0	0.0	0.02 (1)	7.81			
6-2	-224 / 0	0.0	0.0	0.02 (1)	7.81			
6-5	0 / 0	-17.5	-17.5	0.14 (1)	10.00			
5-4	0 / 0	-17.5	-17.5	0.14 (1)	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./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 (0.01")

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

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

CSI: TC=0.13 (2-3:1), BC=0.14 (5-6:1), WB=0.00 (2-5:1), SSI=0.10 (4-5:1)

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
MT20	618	354	1667
	822	2284	1656

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.21 (2) (INPUT = 0.90)

JSI METAL= 0.04 (6) (INPUT = 1.00)



March 23, 2017



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.

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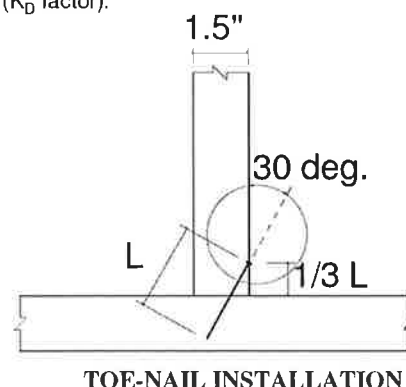
BEARING ANCHORAGE BY TOE-NAILS FOR LATERAL CAPACITY

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
COMMON SPIRAL	3.00	0.122	97	108
	3.25	0.122	97	108
	3.50	0.152	145	162

NOTES:

1. Rafter and ceiling members may be anchored to top and bottom chords of girder truss by toe-nailing rafter and ceiling members to girder chords provided the reaction does not exceed the lateral capacities in the table. Hangers (specified by others) are required for reactions higher than the maximum toe-nail capacity. Reactions are based on factored loads.
2. Toe nail capacities shown in the table are for **one** toe-nail. For additional toe-nails multiply values in table by the number of toe-nails used. Toe-nail capacities take into account toe-nailing factor J_A in CSA O86-09, 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, 2017.



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



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BEARING ANCHORAGE BY TOE-NAILS FOR WIND LOADING

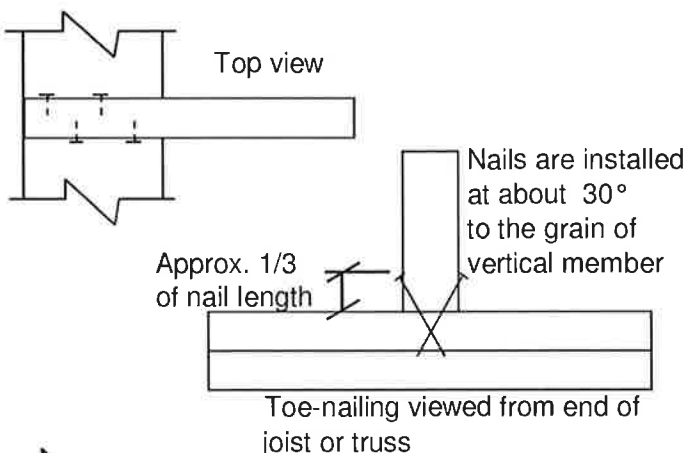
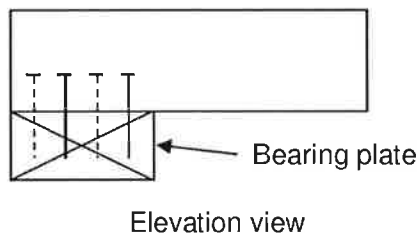
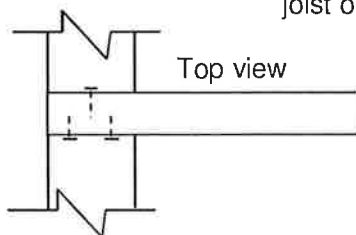
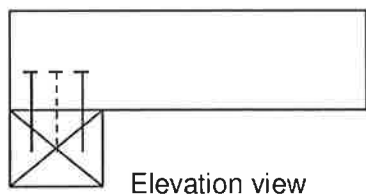
B37579H2

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
COMMON SPIRAL	3.00	0.122	26	36
	3.25	0.122	28	40
	3.50	0.152	36	50

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

NOTES:

1. Truss chord, rafter, or ceiling members may be anchored to bearing plate by toe-nails, provided that the actual factored uplift force due to **wind** or **earthquake** load does not exceed the withdrawal capacities in the table. Hangers (specified by others) are required for uplift forces that are higher than the maximum toe-nail withdrawal capacity.
2. Toe nail capacities shown in the table are for **one** toe-nail. For additional toe-nails multiply values in table by the number of toe-nails used. Toe-nail capacities take into account toe-nailing factor J_A in CSA O86-09, 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, 2017

Toe-nailing on 2x6 Bearing Plate**Toe-nailing on 2x4 Bearing Plate**

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