

# Alpine Systems Corporation

1701 Creditstone Road, Ontario L4K 5V6

Page 1 of 1 Document ID: I:\TIF9275\20217153436  
URL: <http://www.alpinesys.com/Canada/GardenRiver.nsf/CND/09EF65E0B63195968525746A00515141>

Truss Fabricator: Garden River Truss  
Job Identification: ML08218R-FRED & JEANNE BROHART -- SALO RD., NAIRN CENTRE, ON (WEBBWOOD, ON)  
Truss Count: 5  
Model Code: National Building Code Of Canada  
Truss Criteria: RESIDENTIAL  
Engineering Software: Alpine Software, Version 7.35.  
Minimum Design Loads: Roof - 57.1 PSF @ 1.00 Duration  
Floor - N/A  
Wind - No Wind

## Notes:

- Determination as to the suitability of these truss components for the structure is the responsibility of the Authority having jurisdiction and/or the Project Engineer of Record.  
Seal Date: 06/17/2008  
-Truss Design Engineer-  
Gus Vertolli
- Alpine Systems Corporation [BCIN 29642] is registered with the Ontario Ministry of Housing to provide Design Activities to the Public under conditions set out in Article 2.17.4.7 of the Ontario Building Code. The scope of work undertaken by Alpine Systems Corporation is to only provide for the design of Metal Plate Connected Wood Trusses. Alpine Systems is not responsible for truss geometry, i.e. span, pitch, height.  
1701 Creditstone Road  
Concord, Ontario L4K 5V6
- As shown on attached drawings; the drawing number is preceded by: ONUSR9275

Details: A1002003-A1012003-CNBRGBK2-

Submitted by AV 15:34:32 06-17-2008 Reviewer: DS

#	Ref	Description	Drawing#	Date
1	83910--GE1		08169001	06/17/08
2	83911--T1		08169002	06/17/08
3	83912--S1		08169003	06/17/08
4	83913--T2		08169004	06/17/08
5	83914--T3		08169005	06/17/08

TOP CHORD 2x4 SPF No. 1/No. 2  
 BOT CHORD 2x4 SPF No. 1/No. 2  
 WEBS 2x3 SPF No. 1/No. 2  
 :Lt Studded Wedge 2x4 SPF No. 1/No. 2:  
 :Rt Studded Wedge 2x4 SPF No. 1/No. 2:

MAX CSI: TC = 0.11, BC = 0.07.

SEE A-101, NOTE 3 FOR STANDARD PLATE POSITIONING.

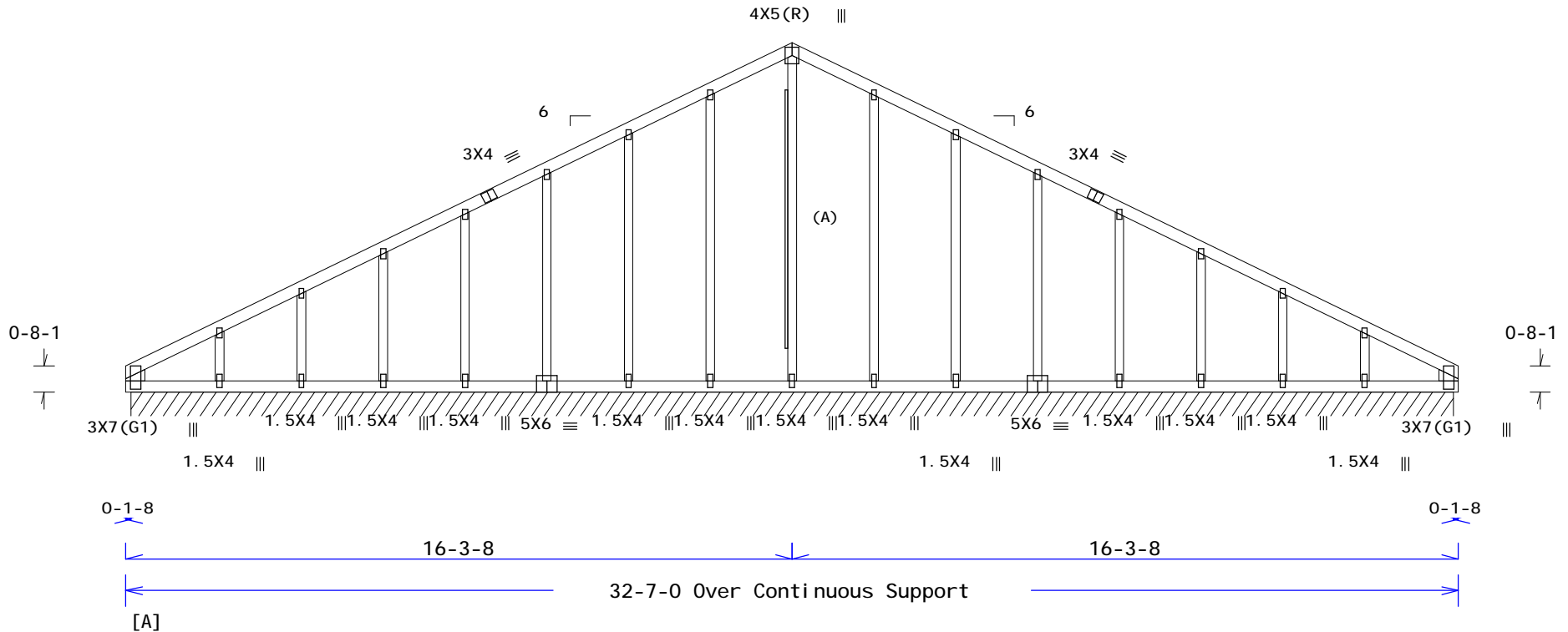
PLATES DESIGNED FOR FABRICATION USING SEASONED LUMBER.

Loc	H	W	S	L	D	F	Hz
A 1"8	8'	32' 4"	2415	5155	1005	6386	0

LOADING SPEC' D BY AUTH. HAVING JURISDICTION @ TIME OF DESIGN.

4sx PLATE POSITIONING TOLERANCE.

(A) 2X4 #3 OR BETTER "L" BRACE. 80% LENGTH OF WEB MEMBER. ATTACH W/3.0" NAILS @ 6" OC. BRACING MATERIAL SUPPLIED BY ERECTION CONTRACTOR.



Note: All Plates Are 1.5X3 Except As Shown.

PLT TYP. Wave-Canada

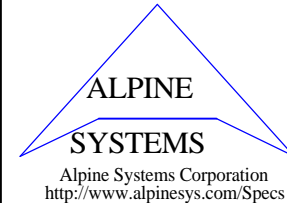
Design Crit: RESIDENTIAL

7.35.0313.22

QTY: 2 ON/-/1/-/-/-/-

Scale = .25"/Ft.

Garden River Truss (705) 942-6774  
 177 Hwy #17 East, Garden River ON



THIS DRAWING MUST BE APPROVED BY THE BUILDING DESIGNER AND REVIEWED BY THE TRUSS INSTALLER BEFORE USE. VISIT <http://alpinesys.com/Specs> FOR THE LATEST INFORMATION AND WARNINGS AND SEE A100 FOR GENERAL NOTES, IMPORTANT SPECIFICATIONS AND WARNINGS CCMC #12182-L 12802-L 13124-L CONFORMS TO NBCC 2005 PART 9, HOUSING AND SMALL BUILDINGS. (LSD)

Ground Snow Load = 52.2 psf OR LESS

Rain Load = 8.4 psf OR LESS

Cb = 0.55 Cw = 1.00 Cs = 1.00 Importance Factor = 1.00



TC LL	37.1 PSF	REF R9275- 83910
TC DL	3.0 PSF	DATE 06/17/08
BC DL	7.0 PSF	DRW ONUSR9275 08169001
BC LL	10.0 PSF	ON-ENG DS/AV
TOT. LD.	57.1 PSF	SEQN- 43416
DUR. FAC.	1.00	
SPACING	24.0"	JREF- 1TIF9275Z02

http://www.alpinesys.com/Canada/GardenRt.ver.nsf/CND/09EF65E0B63195968525746A00515141

TOP CHORD 2x4 SPF No.1/No.2  
 BOT CHORD 2x4 SPF 2100F-1.8E : BC2 2x4 SPF No.1/No.2:  
 WEBS 2x3 SPF No.1/No.2 : WB2, WB10 2x3 SPF 1650F-1.5E:

Loc	H	W	S	L	D	F	Hz
A 1"8	8'	5"8	1321	325	335	2564	0
B 32'	8'	5"8	1321	325	335	2564	0

MAX CSI: TC = 0.56, BC = 0.65, WEBS = 0.77.

DEFLECTION MEETS L/360.00 TOTAL LOAD.

SEE A-101, NOTE 3 FOR STANDARD PLATE POSITIONING.

(A) 1X4 SPF #3 OR BETTER CONTINUOUS LATERAL BRACING TO BE EQ. SPACED. ATTACH W/(2) 2.5" NAILS. BRACING MATERIAL SUPPLIED & ATTACHED @ BOTH ENDS TO A SUITABLE SUPPORT BY ERECTION CONTRACTOR.

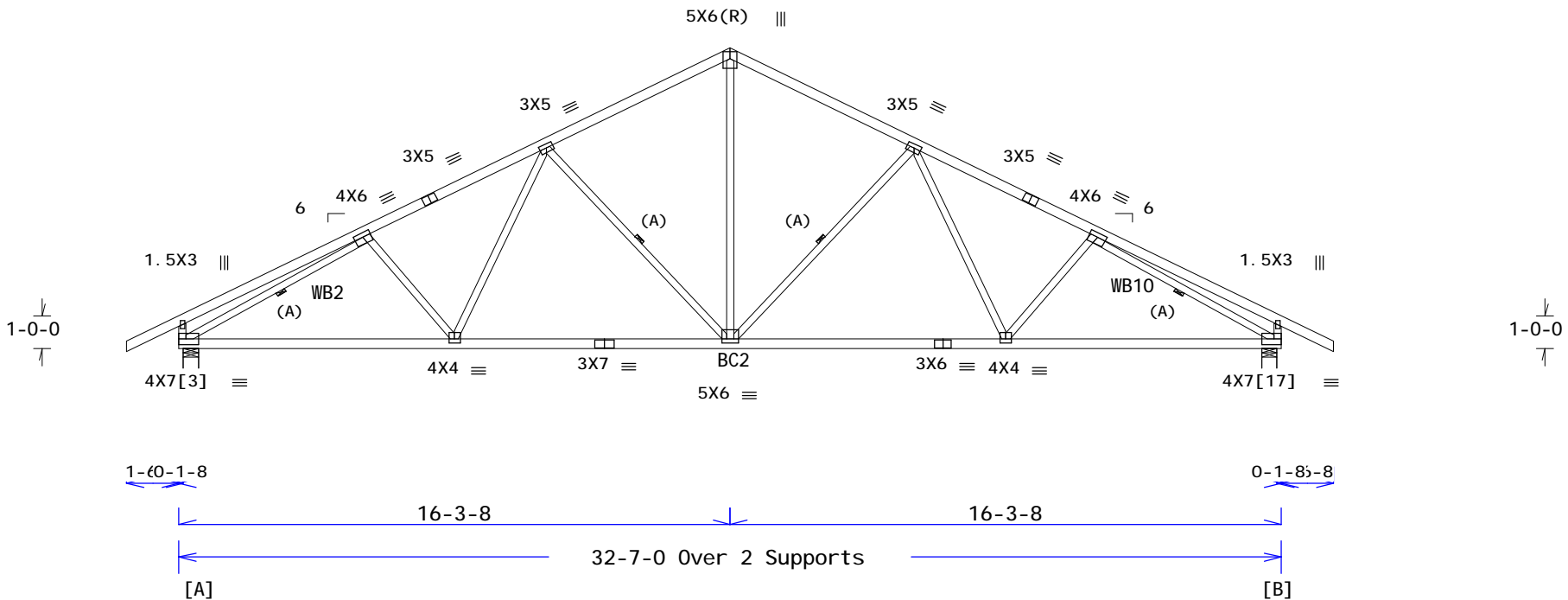
NIE AS PER CLAUSE 5.5.13.5 OF CSA-086-01 FOR TRUSS DESIGN.

LOADING SPEC'D BY AUTH. HAVING JURISDICTION @ TIME OF DESIGN.

PLATES DESIGNED FOR FABRICATION USING SEASONED LUMBER.

JT No	PLATE SIZE	LATERAL SHIFT	CHORD BITE
[ 3 ]	4X7	2.50 L	2.00
[ 17 ]	4X7	2.50 R	2.00

4sx PLATE POSITIONING TOLERANCE.



PLT TYP. Wave-Canada

Design Crit: RESIDENTIAL

7.35.0313.22

QTY: 22 ON/-/1/-/-/-/-

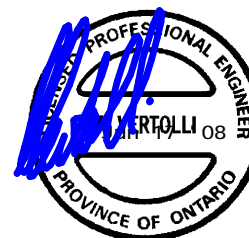
Scale = .2"/Ft.

Garden River Truss (705) 942-6774  
 177 Hwy #17 East, Garden River ON

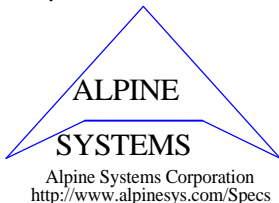
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Ground Snow Load = 52.2 psf OR LESS  
 Rain Load = 8.4 psf OR LESS

Cb = 0.55 Cw = 1.00 Cs = 1.00 Importance Factor = 1.00



TC LL	37.1 PSF	REF R9275- 83911
TC DL	3.0 PSF	DATE 06/17/08
BC DL	7.0 PSF	DRW ONUSR9275 08169002
BC LL	10.0 PSF	ON-ENG DS/AV
TOT. LD.	57.1 PSF	SEQN- 43406
DUR. FAC.	1.00	
SPACING	24.0"	JREF- 1TIF9275Z02



TOP CHORD 2x4 SPF 1650F-1.5E  
 BOT CHORD 2x6 SPF No. 1/No. 2  
 WEBS 2x4 SPF No. 1/No. 2  
 :Lt Slider 2x6 SPF No. 1/No. 2: BLOCK LENGTH = 3.127'  
 :Rt Slider 2x6 SPF No. 1/No. 2: BLOCK LENGTH = 3.127'

MAX CSI: TC = 0.70, BC = 0.92, WEBS = 0.77.

SEE A-101, NOTE 3 FOR STANDARD PLATE POSITIONING.

NIE AS PER CLAUSE 5.5.13.5 OF CSA-086-01 FOR TRUSS DESIGN.

PLATES DESIGNED FOR FABRICATION USING SEASONED LUMBER.

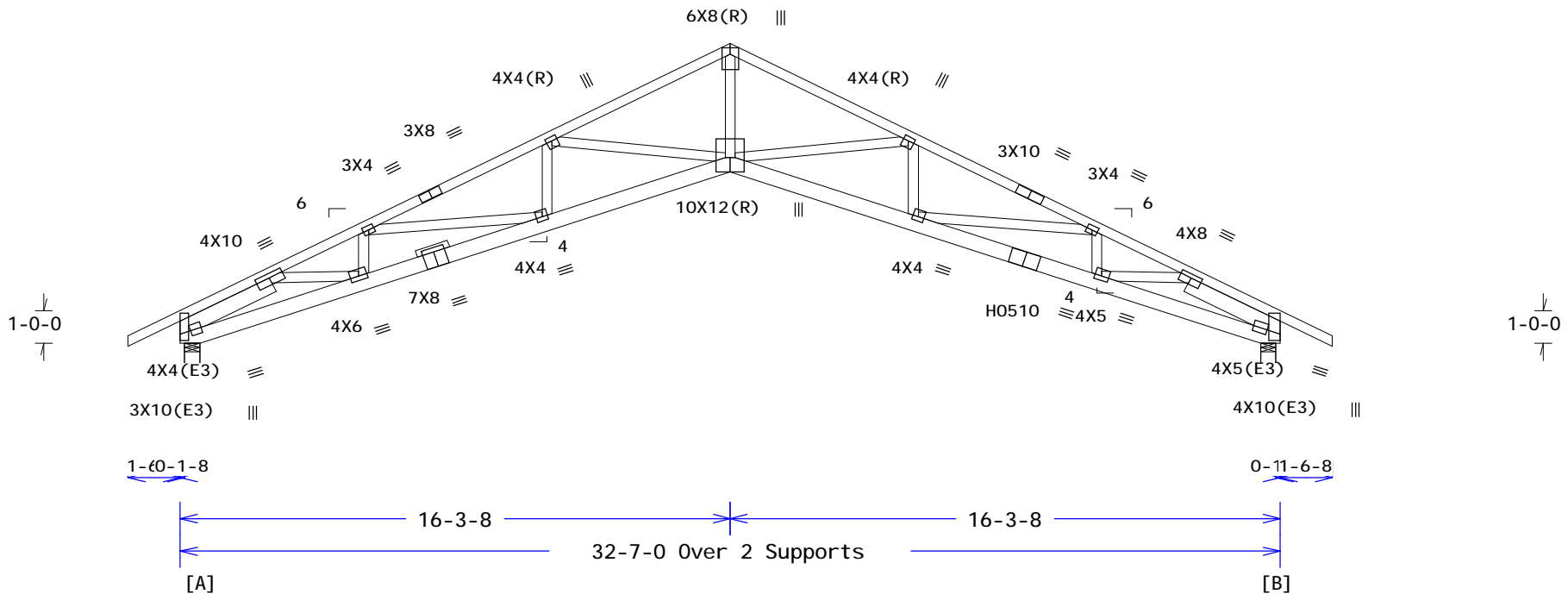
Loc	H	W	S	L	D	F	Hz
A 1"8	8'	5"8	1345	331	341	2610	0
B 32'	8'	5"8	1298	320	329	2518	0

CALCULATED HORIZONTAL DEFLECTION OF 0.50" DUE TO LIVE LOAD AND 0.13" DUE TO DEAD LOAD AT ONE SUPPORT.

DEFLECTION MEETS L/360.00 TOTAL LOAD.

LOADING SPEC'D BY AUTH. HAVING JURISDICTION @ TIME OF DESIGN.

4sx PLATE POSITIONING TOLERANCE.



PLT TYP. HSCanada, Wave-Canada

Design Crit: RESIDENTIAL

7.35.0313.22

QTY: 11 ON/-/1/-/-/-/-

Scale = .2"/Ft.

Garden River Truss (705) 942-6774  
 177 Hwy #17 East, Garden River ON

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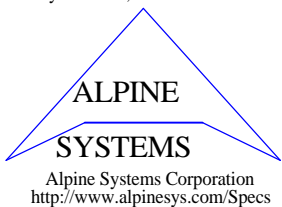
Ground Snow Load = 52.2 psf OR LESS

Rain Load = 8.4 psf OR LESS

Cb = 0.55 Cw = 1.00 Cs = 1.00 Importance Factor = 1.00



TC LL	37.1 PSF	REF R9275- 83912
TC DL	3.0 PSF	DATE 06/17/08
BC DL	7.0 PSF	DRW ONUSR9275 08169003
BC LL	10.0 PSF	ON-ENG DS/AV
TOT. LD.	57.1 PSF	SEQN- 43422
DUR. FAC.	1.00	
SPACING	24.0"	JREF- 1TIF9275Z02



TOP CHORD 2x4 SPF No. 1/No. 2  
 BOT CHORD 2x4 SPF No. 1/No. 2 : BC1 2x4 SPF 2100F-1.8E:  
 WEBS 2x3 SPF No. 1/No. 2

Loc	H	W	S	L	D	F	Hz
A 1"8	8'	5"8	1067	263	270	2071	0
B 27'	8'	5"8	1575	388	399	3057	0

MAX CSI: TC = 0.66, BC = 0.56, WEBS = 0.82.

SEE A-101, NOTE 3 FOR STANDARD PLATE POSITIONING.

NIE AS PER CLAUSE 5.5.13.5 OF CSA-086-01 FOR TRUSS DESIGN.

PLATES DESIGNED FOR FABRICATION USING SEASONED LUMBER.

(A) 1X4 SPF #3 OR BETTER CONTINUOUS LATERAL BRACING TO BE EQ. SPACED. ATTACH W/(2) 2.5" NAILS. BRACING MATERIAL SUPPLIED & ATTACHED @ BOTH ENDS TO A SUITABLE SUPPORT BY ERECTION CONTRACTOR.

Bearing blocks: Nail type: 2.5" common nails  
 BRG X-LOC #BLOCKS LENGTH/BLK #NAILS/BLK  
 2 27.000' 1 12" 12

Bearing block to be same size and species as bottom chord.  
 Refer to drawing CNBRGblk0207 for additional information.

DEFLECTION MEETS L/360.00 TOTAL LOAD.

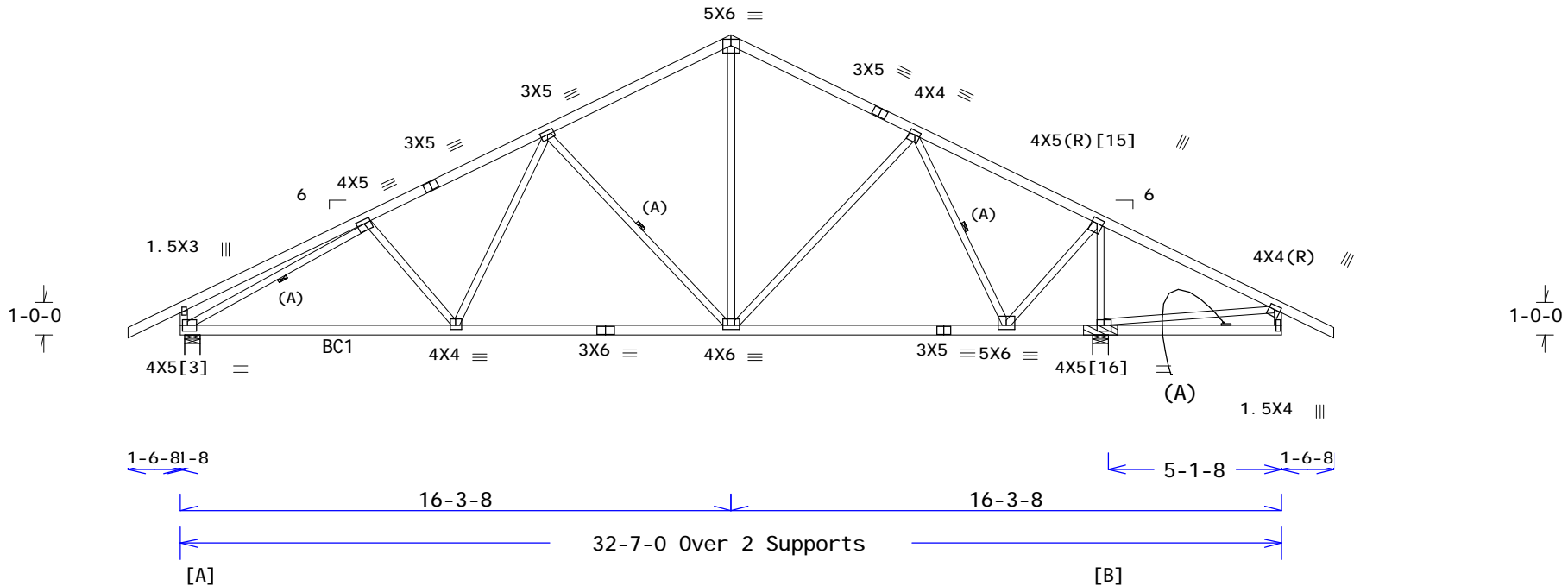
LOADING SPEC'D BY AUTH. HAVING JURISDICTION @ TIME OF DESIGN.

WARNING: TRUSS IS DESIGNED TO BEAR AT SPECIFIC LOCATIONS.

4sx PLATE POSITIONING TOLERANCE.

JT No	PLATE SIZE	LATERAL SHIFT	CHORD BITE
[ 3]	4X5	1.75 L	2.00
[15]	4X5(R)	S	1.75
[16]	4X5	2.50 L	2.00

NOTE: THIS TRUSS DESIGN IS NOT SYMMETRICAL



PLT TYP. Wave-Canada

Design Crit: RESIDENTIAL

7.35.0313.22

CITY: 3 ON/-/1/-/-/-/-

Scale = .2"/Ft.

Garden River Truss (705) 942-6774  
 177 Hwy #17 East, Garden River ON

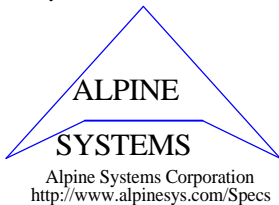
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Ground Snow Load = 52.2 psf OR LESS  
 Rain Load = 8.4 psf OR LESS

Cb = 0.55 Cw = 1.00 Cs = 1.00 Importance Factor = 1.00



TC LL	37.1 PSF	REF R9275- 83913
TC DL	3.0 PSF	DATE 06/17/08
BC DL	7.0 PSF	DRW ONUSR9275 08169004
BC LL	10.0 PSF	ON-ENG DS/AV
TOT. LD.	57.1 PSF	SEQN- 43411
DUR. FAC.	1.00	
SPACING	24.0"	JREF- 1TIF9275Z02



TOP CHORD 2x4 SPF No. 1/No. 2  
 BOT CHORD 2x4 SPF No. 1/No. 2 : BC1 2x4 SPF 2100F-1.8E:  
 WEBS 2x3 SPF No. 1/No. 2

Loc	H	W	S	L	D	F	Hz
A 1"8	8'	5"8	1304	308	321	2513	0
B 27'	8'	5'5"8	1338	342	348	479	0

MAX CSI: TC = 0.55, BC = 0.85, WEBS = 1.00.

DEFLECTION MEETS L/360.00 TOTAL LOAD.

SEE A-101, NOTE 3 FOR STANDARD PLATE POSITIONING.

(A) 1X4 SPF #3 OR BETTER CONTINUOUS LATERAL BRACING TO BE EQ. SPACED. ATTACH W/(2) 2.5" NAILS. BRACING MATERIAL SUPPLIED & ATTACHED @ BOTH ENDS TO A SUITABLE SUPPORT BY ERECTION CONTRACTOR.

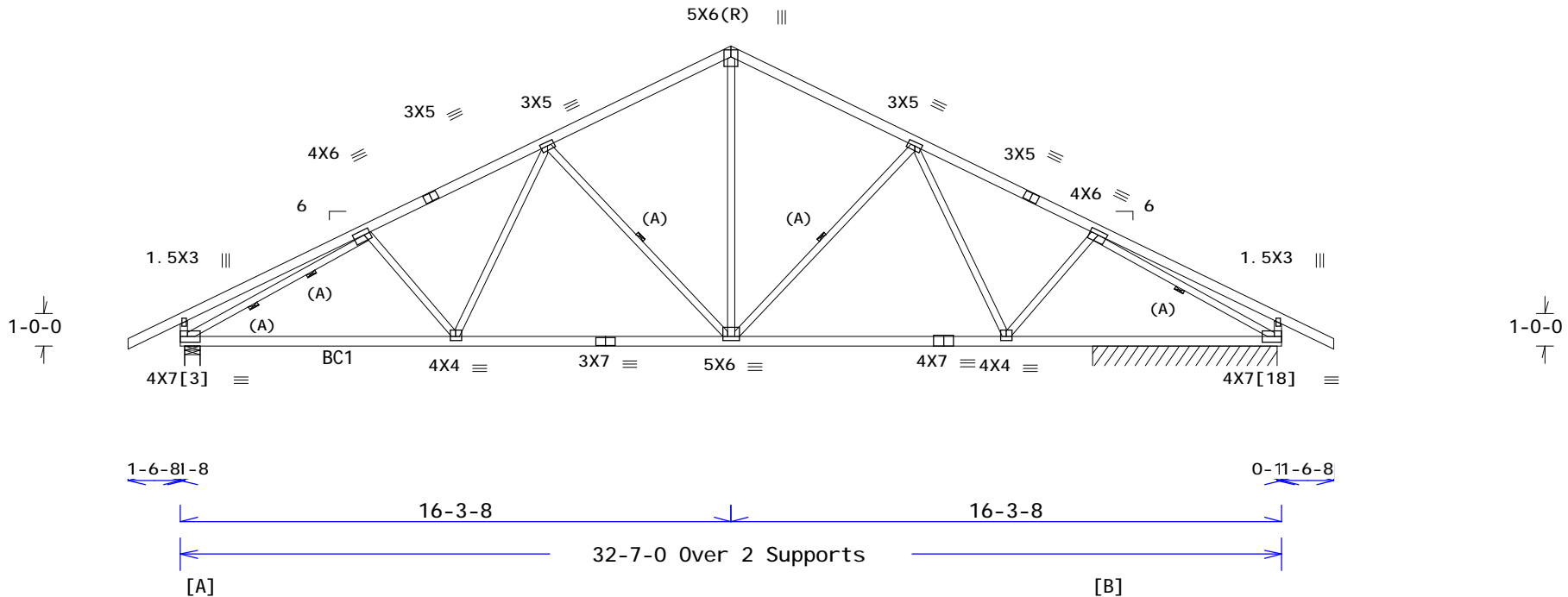
NIE AS PER CLAUSE 5.5.13.5 OF CSA-086-01 FOR TRUSS DESIGN.

LOADING SPEC'D BY AUTH. HAVING JURISDICTION @ TIME OF DESIGN.

PLATES DESIGNED FOR FABRICATION USING SEASONED LUMBER.

4sx PLATE POSITIONING TOLERANCE.

JT No	PLATE SIZE	LATERAL SHIFT	CHORD BITE
[ 3]	4X7	2.50 L	2.00
[18]	4X7	2.50 R	2.00



PLT TYP. Wave-Canada

Design Crit: RESIDENTIAL

7.35.0313.22

QTY: 1 ON/-/1/-/-/-/-

Scale = .2"/Ft.

Garden River Truss (705) 942-6774  
 177 Hwy #17 East, Garden River ON

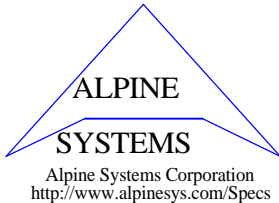
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Ground Snow Load = 52.2 psf OR LESS  
 Rain Load = 8.4 psf OR LESS

Cb = 0.55 Cw = 1.00 Cs = 1.00 Importance Factor = 1.00



TC LL	37.1 PSF	REF R9275- 83914
TC DL	3.0 PSF	DATE 06/17/08
BC DL	7.0 PSF	DRW ONUSR9275 08169005
BC LL	10.0 PSF	ON-ENG DS/AV
TOT. LD.	57.1 PSF	SEQN- 43429
DUR. FAC.	1.00	
SPACING	24.0"	JREF- 1TIF9275Z02



**SPECIFICATIONS:**

Design standards conform with applicable provisions of TPIC, CSA 086-01 and NBCC (Latest edition)

Alpine Systems Corporation certifies that trusses manufactured to its design are suitable for the use specifically indicated provided that:

1. The truss loading, as well as load transfer mechanism, is indicated on the drawing.
2. The building matches the type of building requested by the manufacturer, which is indicated on the drawing.
3. Compression chords, typically Top Chords, are braced using a continuous rigid diaphragm sheathing, or are braced at intervals not exceeding 12.5 times their thickness [18.75" o.c.], or as specified on the individual design. Tension chords, typically Bottom Chords, are braced using a continuous rigid diaphragm sheathing, or are braced at intervals not exceeding 80 times their thickness, 10' -0" o.c. maximum, or as specified on the individual design. All other members are to be braced as indicated by the individual design. Bracing that is referred to here is to be securely anchored to prevent overall movement of the structures as a whole.
4. A properly designed bracing system, maintaining the trusses in a plumb position and providing resistance to wind and sway is installed. Bracing appearing on Alpine drawings is used as a component of the truss and forms an integral part of the truss component design.
5. Proper care and handling of trusses during fabrication, shipping and erection are the responsibilities of the fabricator and the erectors respectively. Procedures consistent with good workmanship and good building practices are the responsibility of the building contractor.
6. Trusses are supported where indicated on the design sheet and anchored where considered necessary by the designer of the overall structure. Bearing sizes and bearing details shown on the design are adequate or more than adequate to prevent crushing of the truss member. This does not, however, take into account the overall stability of the supporting structure. Alpine does not design supporting structures.
7. Plates used by the fabricator are supplied by Alpine and are of that type, size and gauge as indicated on the drawings and placed on both faces of the truss. The truss is manufactured by an authorized fabricator in accordance with a design approved by a registered professional engineer authorized by Alpine.
8. Dimensions and geometry of the installed truss match that of the design sheet.
9. Brace Locations and Lengths:
  - (a) One(1) continuous lateral brace, (CLB) to be placed at the center of the web length.
  - (b) Two(2) CLB's to be placed at third points of web length.
  - (c) Three(3) CLB's to be placed at quarter points of web length.
  - (d) T-Brace, Scab Brace & L-Braces are to be a minimum of 80% of the length of the web.

**10. MINIMUM DEFLECTION REQUIREMENTS:**

Maximum truss deflection shall be based on the greater of live or dead load deflection for trusses; 1-1/3 live plus dead load deflection for HSB and Sectional/Mobile home roof trusses; live load deflection for LHO farm trusses and live load deflection for HSB floor trusses.

MAXIMUM DEFLECTION shall be limited as follows:

- a) With plaster or gypsum board ceiling finish:  
Part 4: LL= L/360 TL= L/240  
Part 9: TL= L/360
- b) Other than plaster or gypsum board ceiling finish:  
Part 4 including Low Human Occupancy: LL= L/240 TL= L/180  
part 9: TL= L/360
- c) Part 4 floor truss design:  
With plaster or gypsum board ceiling: LL= L/360 TL= L/240  
Other than plaster or gypsum board ceiling: LL= L/240 TL= L/180
- d) Cantilever deflection shall be limited to length of cantilever/120.
- e) Overhang Deflection - Maximum overhang deflection shall be based on total load and shall be limited to overhang length/120.
- f) Top Chord Panel Deflection - Maximum top chord panel deflection shall be based on total load and shall be limited to panel length/180.
- g) Bottom Chord Panel Deflection - Maximum bottom chord panel deflection shall be based on total load and shall be limited to panel length/360.
- h) Horizontal Deflection at Supports - Maximum horizontal total load deflection shall not exceed 25 mm.

11. For lumber sizes 2x10 and 2x12 MSR Grades, the assigned tension design values are based on those as listed in Table 5.3.2 in CSA 086, latest edition, provided the lumber is subject to the appropriate level of qualification and daily quality control testing for tension strength, as specified in NLGA SPS 2.

- \* TPIC-96 Truss Design Procedures and Specifications for Light Metal Plate Connected Wood Trusses, Limit States Design, 1996 Edition. Truss Plate Institute Of Canada.
- \* TPIC-2007 Truss Design Procedures and Specifications for Light Metal Plate Connected Wood Trusses, Limit States Design, 2007 Edition. Truss Plate Institute Of Canada.
- \*\* CSA 086-01 CSA Standard 086-01 Engineering Design in Wood (Limit States Design)
- + NBCC - The National Building Code Of Canada, 1995 Edition.
- + NBCC - The National Building Code Of Canada, 2005 Edition.
- + BCBC - The British Columbia Building Code, 2006 Edition.
- + ABC - The Alberta Building Code, 2006 Edition.
- + OBC - The Ontario Building Code, 2006 Edition.

Maximum overhang deflection for HSB trusses and Sectional/Mobile home trusses shall be based on 1-1/3 live plus dead load and shall be limited to overhang length/120.

Visit <http://www.alpinesys.com/Specs> for the latest information and warnings



**\*\*WARNING\*\*** TRUSSES REQUIRE EXTREME CARE IN FABRICATING, HANDLING, SHIPPING, INSTALLING AND BRACING. REFER TO BCSI 1-03 (HANDLING, INSTALLING AND BRACING), PUBLISHED BY TPI (TRUSS PLATE INSTITUTE, 583 DUNDAS DR., SUITE 200, MADISON, WI. 53719) FOR SAFETY PRACTICES PRIOR TO PERFORMING THESE FUNCTIONS. UNLESS OTHERWISE INDICATED, TOP CHORD SHALL HAVE PROPERLY ATTACHED STRUCTURAL PANELS AND BOTTOM CHORD SHALL HAVE A PROPERLY ATTACHED RIGID CEILING.  
**\*\*IMPORTANT\*\*** FURNISH A COPY OF THIS DESIGN TO THE INSTALLATION CONTRACTOR. ALPINE SYSTEMS CORPORATION SHALL NOT BE RESPONSIBLE FOR ANY DEVIATION FROM THIS DESIGN; ANY FAILURE TO BUILD THE TRUSSES IN CONFORMANCE WITH TPIC; OR FABRICATING, HANDLING, SHIPPING, INSTALLING AND BRACING OF TRUSSES. DESIGN CONFORMS WITH APPLICABLE PROVISIONS OF CSA 086-01 (CANADIAN STANDARDS ASSOCIATION), NBCC (LATEST EDITION), AND TPIC. ALPINE CONNECTORS ARE MADE OF 20GA ASTM A653 GR40 GALV. STEEL EXCEPT AS NOTED. APPLY CONNECTORS TO EACH FACE OF TRUSS AND, UNLESS OTHERWISE LOCATED ON THIS DESIGN, POSITION CONNECTORS PER DRAWINGS 160 A-Z. THE SEAL ON THIS DRAWING INDICATES ACCEPTANCE OF PROFESSIONAL ENGINEERING RESPONSIBILITY SOLELY FOR THE TRUSS COMPONENT DESIGN SHOWN. THE SUITABILITY AND USE OF THIS COMPONENT FOR ANY PARTICULAR BUILDING IS THE RESPONSIBILITY OF THE BUILDING DESIGNER, PER TPIC 96.



REF
DATE 09/20/07
-ENG TB/AV
A-100



SPECIAL ENGINEERING NOTES:

1. Plate positioning: Laterally centered on the joint left to right. Chord bite according to lumber size: 2x6 or smaller 1.5", 2x8 - 2", 2x10 - 2.5", 2x12 - 3". Unless otherwise specified on plate positioning table or when shown on truss drawing.
2. Plate positioning: Laterally centered on the joint left to right. Chord bite according to table 5.1.(7), TPIC' 96/2007. Unless otherwise specified on plate positioning table or when shown on truss drawing.
3. Plate positioning: Laterally centered on the joint left to right. Chord and web member bites according to Table 5.1.(7), TPIC' 96/2007. Unless otherwise specified on plate positioning table or when shown on truss drawing.

- \* TPIC-96 Truss Design Procedures and Specifications for Light Metal Plate Connected Wood Trusses, Limit States Design, 1996 Edition. Truss Plate Institute Of Canada.
- \* TPIC-2007 Truss Design Procedures and Specifications for Light Metal Plate Connected Wood Trusses, Limit States Design, 2007 Edition. Truss Plate Institute Of Canada.
- \*\* CSA 086-01 CSA Standard 086-01 Engineering Design in Wood (Limit States Design)
  - + NBCC - The National Building Code Of Canada, 1995 Edition.
  - + NBCC - The National Building Code Of Canada, 2005 Edition.
  - + BCBC - The British Columbia Building Code, 2006 Edition.
  - + ABC - The Alberta Building Code, 2006 Edition.
  - + OBC - The Ontario Building Code, 2006 Edition.

Visit <http://www.alpinesys.com/Specs> for the latest information and warnings



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**\*\*IMPORTANT\*\* FURNISH A COPY OF THIS DESIGN TO THE INSTALLATION CONTRACTOR. ALPINE SYSTEMS CORPORATION SHALL NOT BE RESPONSIBLE FOR ANY DEVIATION FROM THIS DESIGN; ANY FAILURE TO BUILD THE TRUSSES IN CONFORMANCE WITH TPIC; OR FABRICATING, HANDLING, SHIPPING, INSTALLING AND BRACING OF TRUSSES. DESIGN CONFORMS WITH APPLICABLE PROVISIONS OF CSA 086-01 (CANADIAN STANDARDS ASSOCIATION), NBCC (LATEST EDITION), AND TPIC. ALPINE CONNECTORS ARE MADE OF 20GA ASTM A653 GR40 GALV. STEEL EXCEPT AS NOTED. APPLY CONNECTORS TO EACH FACE OF TRUSS AND, UNLESS OTHERWISE LOCATED ON THIS DESIGN, POSITION CONNECTORS PER DRAWINGS 160 A-Z. THE SEAL ON THIS DRAWING INDICATES ACCEPTANCE OF PROFESSIONAL ENGINEERING RESPONSIBILITY SOLELY FOR THE TRUSS COMPONENT DESIGN SHOWN. THE SUITABILITY AND USE OF THIS COMPONENT FOR ANY PARTICULAR BUILDING IS THE RESPONSIBILITY OF THE BUILDING DESIGNER, PER TPIC 96.**



REF
DATE 02/22/08
-ENG TB/AV
A-101



# BEARING BLOCK NAIL SPACING DETAIL

(SPF & NORTHERN SPECIES LUMBER)

\*\*VALUES FROM CSA 086-01 ENGINEERING DESIGN IN WOOD\*\*

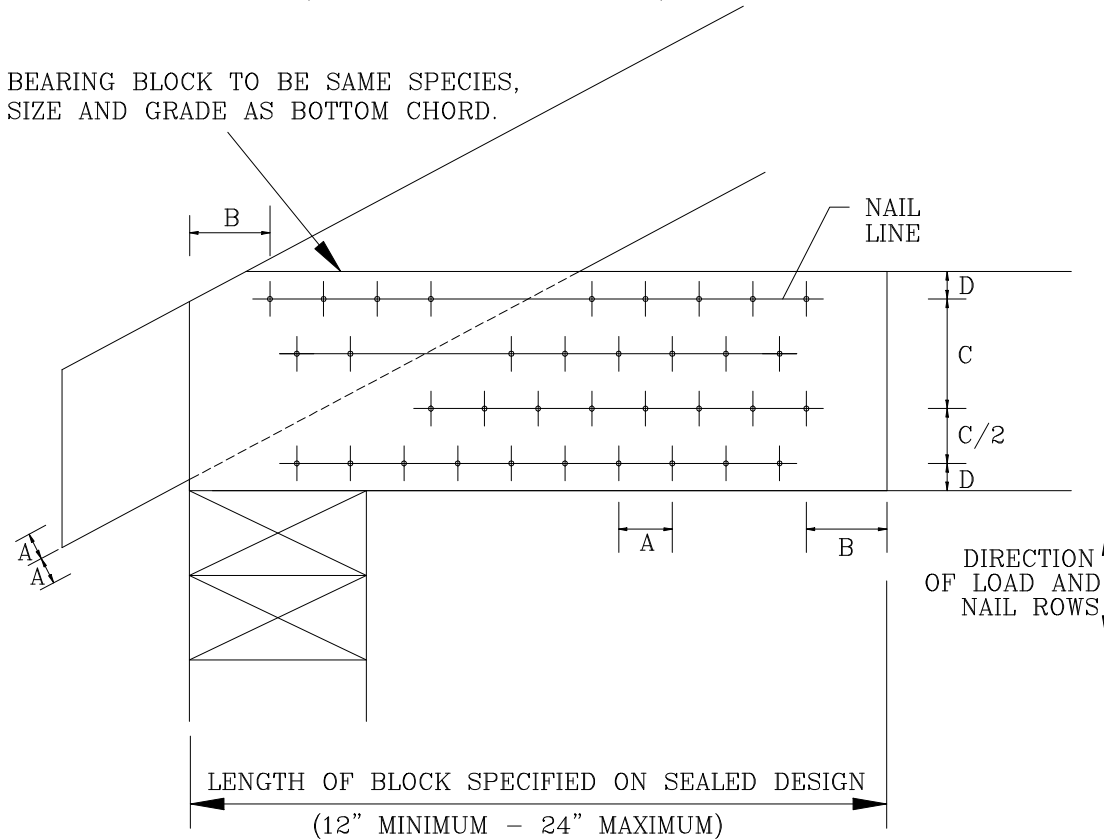
MAXIMUM NUMBER OF NAIL LINES PARALLEL TO GRAIN

NAIL TYPE	DIAM.	CHORD SIZE				
		2X4	2X6	2X8	2X10	2X12
2.5" COMMON NAIL	0.128"	5	8	11	15	18
3.0" COMMON NAIL	0.144"	4	7	10	13	17
3.5" COMMON NAIL	0.160"	3	6	9	12	15
2.5" SPIRAL NAIL	0.109"	6	11	15	19	24
3.0" SPIRAL NAIL	0.122"	6	10	13	17	21
3.5" SPIRAL NAIL	0.152"	4	7	10	13	17
3.25" GUN NAIL	0.128"	5	8	11	15	18

MINIMUM SPACING FOR SINGLE BEARING BLOCK IS SHOWN. DOUBLE NAIL SPACINGS AND STAGGER NAILING FOR TWO BLOCKS. GREATER SPACING MAY BE REQUIRED TO AVOID SPLITTING.

- A - SPACING PARALLEL TO GRAIN (16 NAIL DIAMETERS - MIN.)
- B - END DISTANCE (12 NAIL DIAMETERS - MIN.)
- C - SPACING OF NAILS IN A ROW (8 NAIL DIAMETERS - MIN.)
- D - EDGE DISTANCE (4 NAIL DIAMETERS - MIN.)

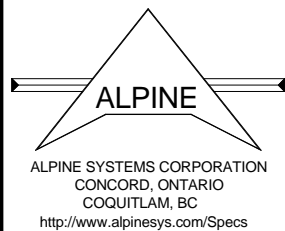
BEARING BLOCK TO BE SAME SPECIES, SIZE AND GRADE AS BOTTOM CHORD.



MINIMUM NAIL SPACING DISTANCES ++

NAIL TYPE	DIAM.	DISTANCES			
		A	B	C	D
2.5" COMMON NAIL	0.128"	2-1/8"	1-5/8"	1-1/8"	5/8"
3.0" COMMON NAIL	0.144"	2-3/8"	1-3/4"	1-1/4"	5/8"
3.5" COMMON NAIL	0.160"	2-5/8"	2"	1-3/8"	3/4"
2.5" SPIRAL NAIL	0.109"	1-3/4"	1-3/8"	7/8"	1/2"
3.0" SPIRAL NAIL	0.122"	2"	1-1/2"	1"	1/2"
3.5" SPIRAL NAIL	0.152"	2-1/2"	1-7/8"	1-1/4"	5/8"
3.25" GUN NAIL	0.128"	2-1/8"	1-5/8"	1-1/8"	5/8"

++ - CSA 086-01 ALLOWABLES ROUNDED UP TO NEAREST 1/8'



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REF	BEARING BLOCK
DATE	12/04/03
DRWG	CNBRGBLK1103
-ENG	TB/AV