

DATE ISSUED  
JULY 1, 2005

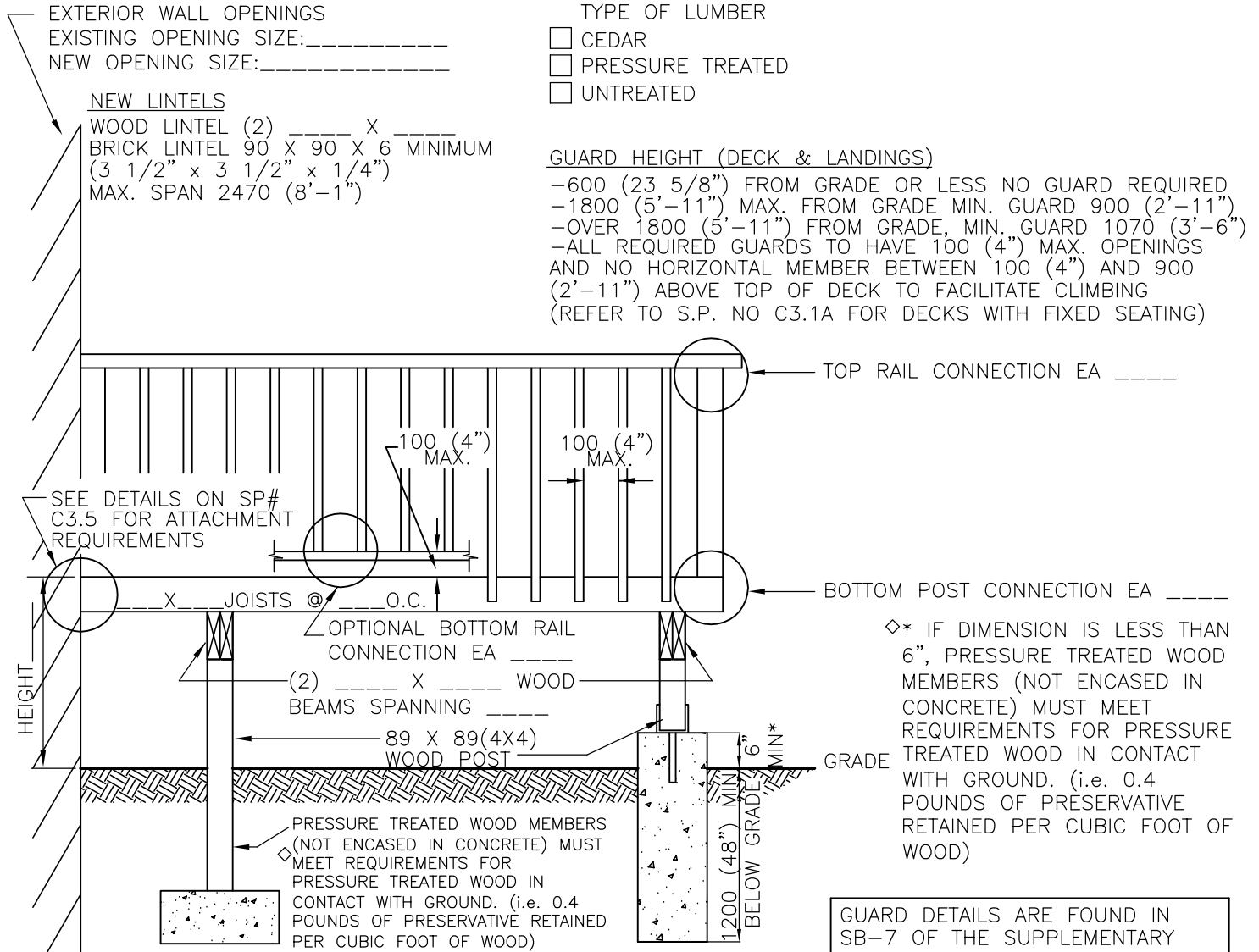
# ONTARIO BUILDING CODE CONSTRUCTION DESIGN INFORMATION

C.D.I. NO.  
C3.1

REVISIONS

## SINGLE LEVEL RESIDENTIAL DECK FRAMING

O.B.C. REFERENCE  
PART  
9.8 9.15 9.23



GUARD DETAILS ARE FOUND IN SB-7 OF THE SUPPLEMENTARY GUIDELINES TO THE 1997 ONTARIO BUILDING CODE.

DECK FOUNDATION DETAILS FOUND ON S.P. NO. C3.2  
DECK STAIR DETAILS FOUND ON S.P. NO. C3.3 & C3.4

2 PLY BEAM SPAN	
SIZE	SPAN
2-38X140 (2X6)	1.7m (5'-6")
2-38X184 (2X8)	2.0m (6'-8")
2-38X235 (2X10)	2.5m (8'-2")
2-38X286 (2X12)	2.9m (9'-6")

SIZE	JOIST SPAN			MAX. CANTILEVER BEYOND BEAM
	300(12") O.C.	400(16") O.C.	600(24") O.C.	SEE NOTE BELOW
38X184 (2X8)	3.76(12'-4")	3.53(11'-7")	3.28(10'-9")	0.91 (3'-0")
38X235 (2X10)	4.42(14'-6")	4.17(13'-8")	3.94(12'-11")	1.22 (4'-0")

NOTE: JOIST TO EXTEND BACK 3 TIMES THE LENGTH OF CANTILEVER

ADDITIONAL DESIGN INFORMATION SHEETS WHICH MAY BE USED TO COMPLETE STANDARD PRACTICE SHEETS :

- SP. NO. C3.1A
- SP. NO. C3.2
- SP. NO. C3.3
- SP. NO. C3.4
- SP. NO. C3.5

NAME: \_\_\_\_\_

ADDRESS: \_\_\_\_\_

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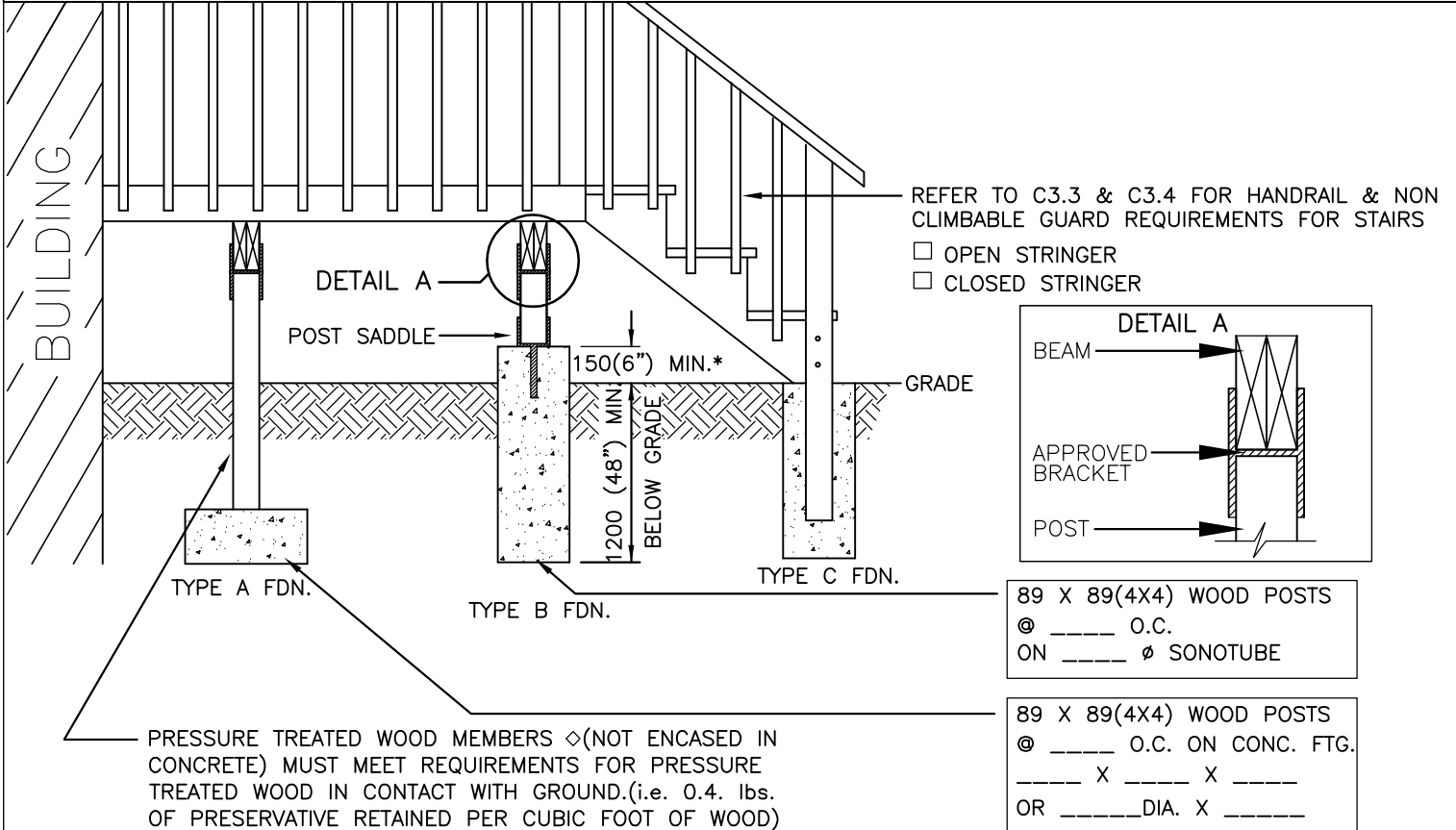
# ONTARIO BUILDING CODE CONSTRUCTION DESIGN INFORMATION

C.D.I. NO.  
C3.2

REVISIONS  
FEBRUARY 11, 2008

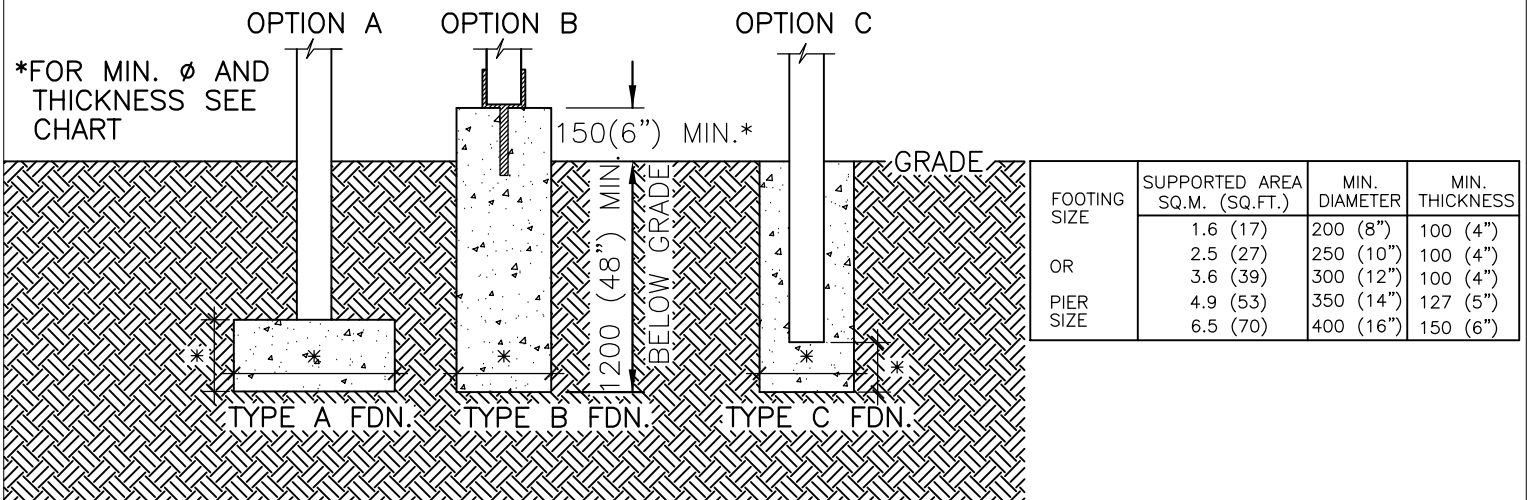
## DECK FOOTING AND FOUNDATION DETAILS

O.B.C. REFERENCE  
PART 9



PRESSURE TREATED WOOD MEMBERS (NOT ENCASED IN CONCRETE) MUST MEET REQUIREMENTS FOR PRESSURE TREATED WOOD IN CONTACT WITH GROUND. (i.e. 0.4 lbs. OF PRESERVATIVE RETAINED PER CUBIC FOOT OF WOOD)

◇\* IF DIMENSION IS LESS THAN 6", PRESSURE TREATED WOOD MEMBERS (NOT ENCASED IN CONCRETE) MUST MEET REQUIREMENTS FOR PRESSURE TREATED WOOD IN CONTACT WITH GROUND. (i.e. 0.4 POUNDS OF PRESERVATIVE RETAINED PER CUBIC FOOT OF WOOD)



SEE CDI C3.1 FOR DECK FRAMING DETAILS  
SEE CDI C3.3 & C3.4 FOR DECK STAIR DETAILS  
SEE SB-7 OF THE SUPPLEMENTARY GUIDELINES BOOK  
TO THE ONTARIO BUILDING CODE FOR GUARD DETAILS

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# ONTARIO BUILDING CODE CONSTRUCTION DESIGN INFORMATION

C.D.I. NO.  
C3.1A

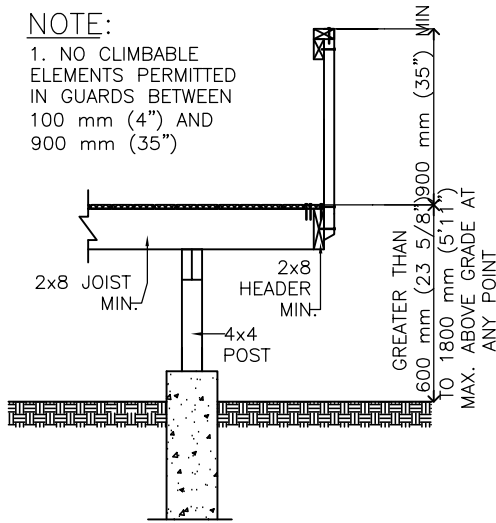
REVISIONS

## NON – CLIMBABLE REQUIREMENTS DECK WITH FIXED SEATS

O.B.C. REFERENCE  
9.8 9.15 9.23

**NOTE:**

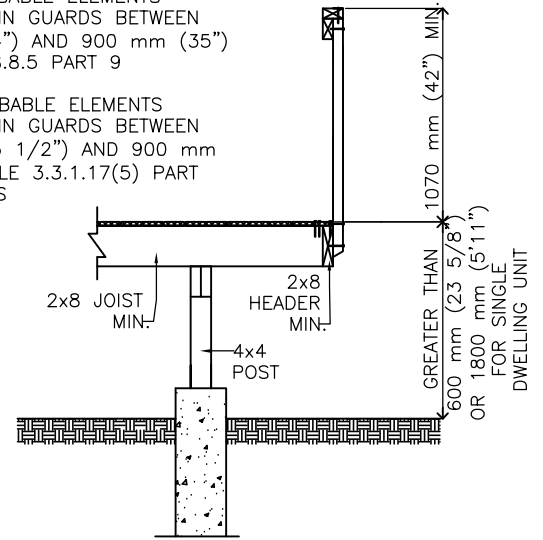
1. NO CLIMBABLE ELEMENTS PERMITTED IN GUARDS BETWEEN 100 mm (4") AND 900 mm (35")



SERVING SINGLE DWELLING UNIT

**NOTES:**

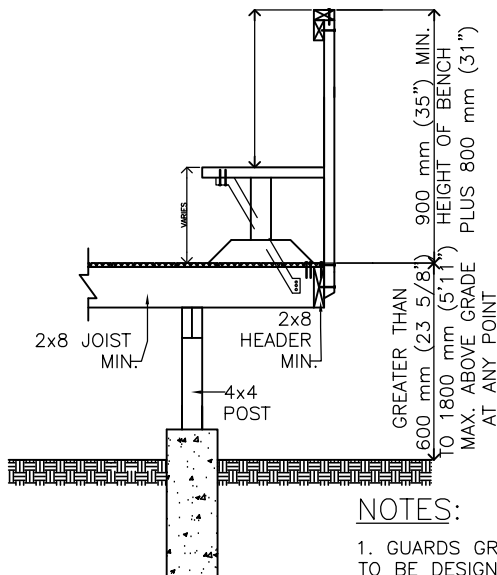
1. NO CLIMBABLE ELEMENTS PERMITTED IN GUARDS BETWEEN 100 mm (4") AND 900 mm (35") ARTICLE 9.8.8.5 PART 9 BUILDINGS
2. NO CLIMBABLE ELEMENTS PERMITTED IN GUARDS BETWEEN 140 mm (5 1/2") AND 900 mm (35") ARTICLE 3.3.1.17(5) PART 3 BUILDINGS



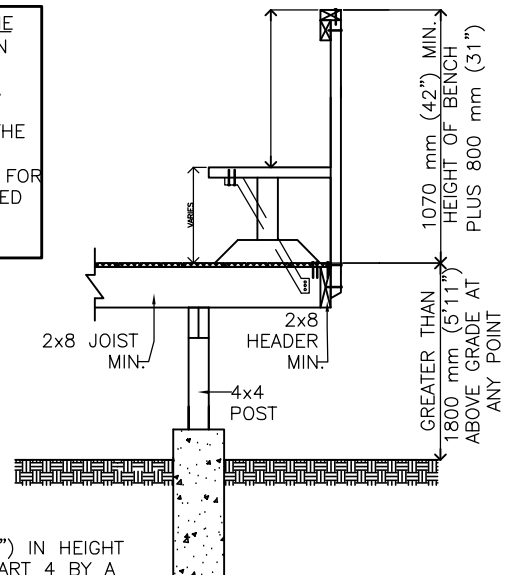
SERVING A SINGLE DWELLING UNIT WHEN GREATER THAN 1800 mm (5'11") ABOVE GRADE AND ALL OTHER TYPE OCCUPANCIES WHEN GREATER THAN 600 mm (23 5/8")

### DECK GUARD REQUIREMENTS WITHOUT FIXED BENCH SEATS

### DECK GUARD REQUIREMENTS WITH FIXED BENCH SEATS



**NON-CLIMBABLE ZONE**  
800 mm (31") WHEN SERVING A SINGLE DWELLING UNIT OR A BUILDING REGULATED UNDER PART 9 OF THE O.B.C.  
760 mm (29 1/2") FOR A BUILDING REGULATED BY PART 3 OF THE O.B.C.



**NOTES:**

1. GUARDS GREATER THAN 1070 mm (42") IN HEIGHT TO BE DESIGNED IN ACCORDANCE WITH PART 4 BY A PROFESSIONAL ENGINEER
2. MIN. 800 mm (31") NON-CLIMBABLE ZONE TO BE PROVIDED ABOVE FIXED BENCH SEATS

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# ONTARIO BUILDING CODE CONSTRUCTION DESIGN INFORMATION

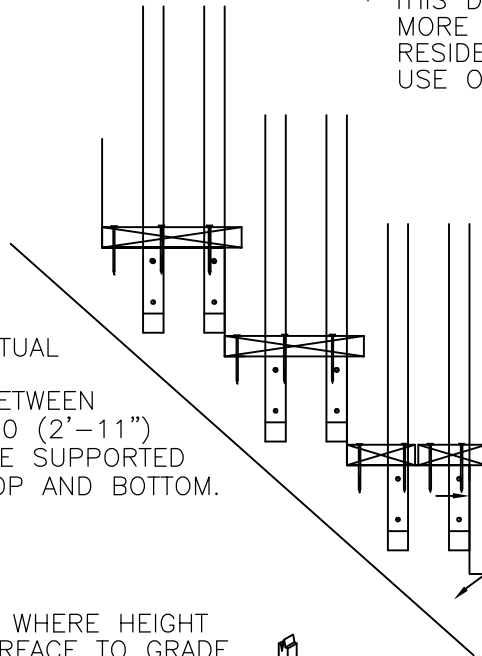
C.D.I. NO.  
C3.4

REVISIONS  
FEBRUARY 11, 2008

## RESIDENTIAL EXTERIOR STAIR OPEN STRINGER

O.B.C. REFERENCE  
SB-7, PART 4

\* THIS DESIGN IS PROVIDED FOR STAIRS WITH MORE THAN 6 RISERS AND SERVING A SINGLE RESIDENTIAL UNIT ONLY. ANY VARIATION TO THE USE OR DESIGN REQUIRES AN ENGINEERED DESIGN.



TREAD THICKNESS  
-MIN. 25 (1") ACTUAL

-MAX. SPACING BETWEEN STRINGERS IS 900 (2'-11")  
-STRINGERS TO BE SUPPORTED AND SECURED TOP AND BOTTOM.

FASTEN TREADS TO STRINGERS WITH 3 1/2" NAILS OR MINIMUM 3" #8 DECK SCREWS

USE 3 FASTENERS EACH END FOR SINGLE MEMBER TREADS AND 2 FASTENERS EACH END OF EACH DOUBLE MEMBER TREAD

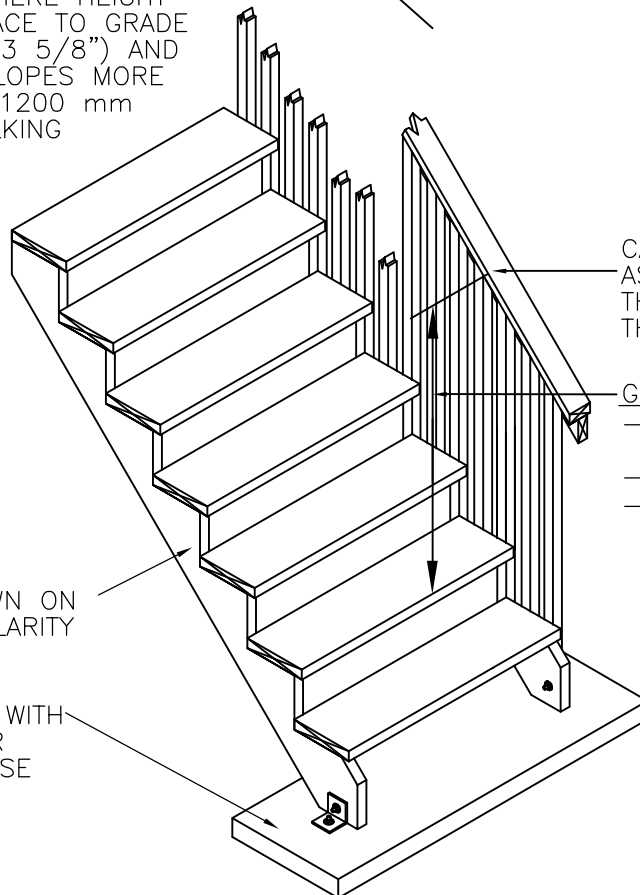
MAXIMUM 25 (1") OVERHANG

MINIMUM 2 X 10 STRINGER  
MINIMUM 3 1/2" REMAINING AFTER NOTCHING STRINGER FOR TREADS

GUARDS REQUIRED WHERE HEIGHT FROM WALKING SURFACE TO GRADE EXCEEDS 600 mm (23 5/8") AND WHERE THE GRADE SLOPES MORE THAN 1 IN 2 WITHIN 1200 mm (3'-11") OF THE WALKING SURFACE

STAIRS		
	MINIMUM	MAXIMUM
RISE	125 (4 7/8")	200 (7 7/8")
RUN	210 (8 1/4")	355 (14")
TREAD	235 (9 1/4")	355 (14")

MAINTAIN UNIFORM RISE AND RUN THROUGHOUT ENTIRE FLIGHT OF STAIRS



CANTILEVERED PICKET GUARD SYSTEM AS PER DETAIL ED-1 OF SB-7 IN THE SUPPLEMENTARY GUIDELINES TO THE 2006 ONTARIO BUILDING CODE

GUARD HEIGHT FOR STAIRS

-MEASURE VERTICALLY FROM TOP FRONT EDGE OF NOSINGS  
-MIN. 900 mm (2'-11")  
-MIN. STAIR WIDTH = 860mm (2'-10") MEASURED BETWEEN THE GUARD FACES.

GUARD NOT SHOWN ON THIS SIDE FOR CLARITY

SET BASE FLUSH WITH GRADE & ANCHOR STRINGERS TO BASE

SAWN LUMBER MIN. GRADE #2 NORTHERN SPECIES

DECK FRAMING DETAILS FOUND ON S.P. NO. C3.1  
DECK FOUNDATION DETAILS FOUND ON S.P. NO. C3.2

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# ONTARIO BUILDING CODE CONSTRUCTION DESIGN INFORMATION

C.D.I. NO.  
C3.3

REVISIONS  
FEBRUARY 11, 2008

## RESIDENTIAL EXTERIOR STAIR CLOSED STRINGER

O.B.C. REFERENCE  
SB-7, PART 4

\* THIS DESIGN IS PROVIDED FOR STAIRS WITH MORE THAN 6 RISERS AND SERVING A SINGLE RESIDENTIAL UNIT ONLY. ANY VARIATION TO THE USE OR DESIGN REQUIRES AN ENGINEERED DESIGN. WHERE THE STAIR CONTAINS 4 TO 6 RISERS, THE BLOCKING AND THROUGH-BOLTING OF THE STAIR IS NOT REQUIRED.

STAIRS		
	MINIMUM	MAXIMUM
RISE	125 (4 7/8")	200 (7 7/8")
RUN	210 (8 1/4")	355 (14")
TREAD	235 (9 1/4")	355 (14")

MAINTAIN UNIFORM RISE AND RUN THROUGHOUT ENTIRE FLIGHT OF STAIRS

MIN. STAIR WIDTH = 860 mm (2'-10") MEASURED BETWEEN THE GUARD FACES.

### TREAD THICKNESS

- MIN. 25 mm (1") ACTUAL THICKNESS
- WHERE THE SPAN BETWEEN STRINGERS EXCEEDS 750 mm (2'-6") THE TREAD THICKNESS IS MIN. 38 mm (1 1/2") IN ACTUAL THICKNESS
- WOODEN STAIR STRINGERS
- MAX. SPACING BETWEEN STRINGERS = 900 mm (2'-11") O.C.
- STRINGERS TO BE SUPPORTED AND SECURED TOP AND BOTTOM

MIN. 38 x 235 (2 x 10) STRINGERS  
FULL SECTION REQUIRED ON STAIRS WITH MORE THAN 6 RISERS (NO NOTCHES)  
TREADS SUPPORTED WITH WOOD CLEATS  
STEEL ANGLES

INSTALL 1/2" THREADED ROD AND MINIMUM 2 X 4 BLOCKING  
BOTTOM OF STAIR RUN AND AT EVERY THIRD TREAD

GUARDS REQUIRED WHERE HEIGHT FROM WALKING SURFACE TO GRADE EXCEEDS 600 mm (23 5/8") AND WHERE THE GRADE SLOPES MORE THAN 1 IN 2 WITHIN 1200 mm (3'-11") OF WALKING SURFACE.

CANTILEVERED PICKET GUARD SYSTEM AS PER DETAIL ED-1 OF SB-7 IN THE SUPPLEMENTARY GUIDELINES TO THE 2006 ONTARIO BUILDING CODE

### GUARD HEIGHT FOR STAIRS

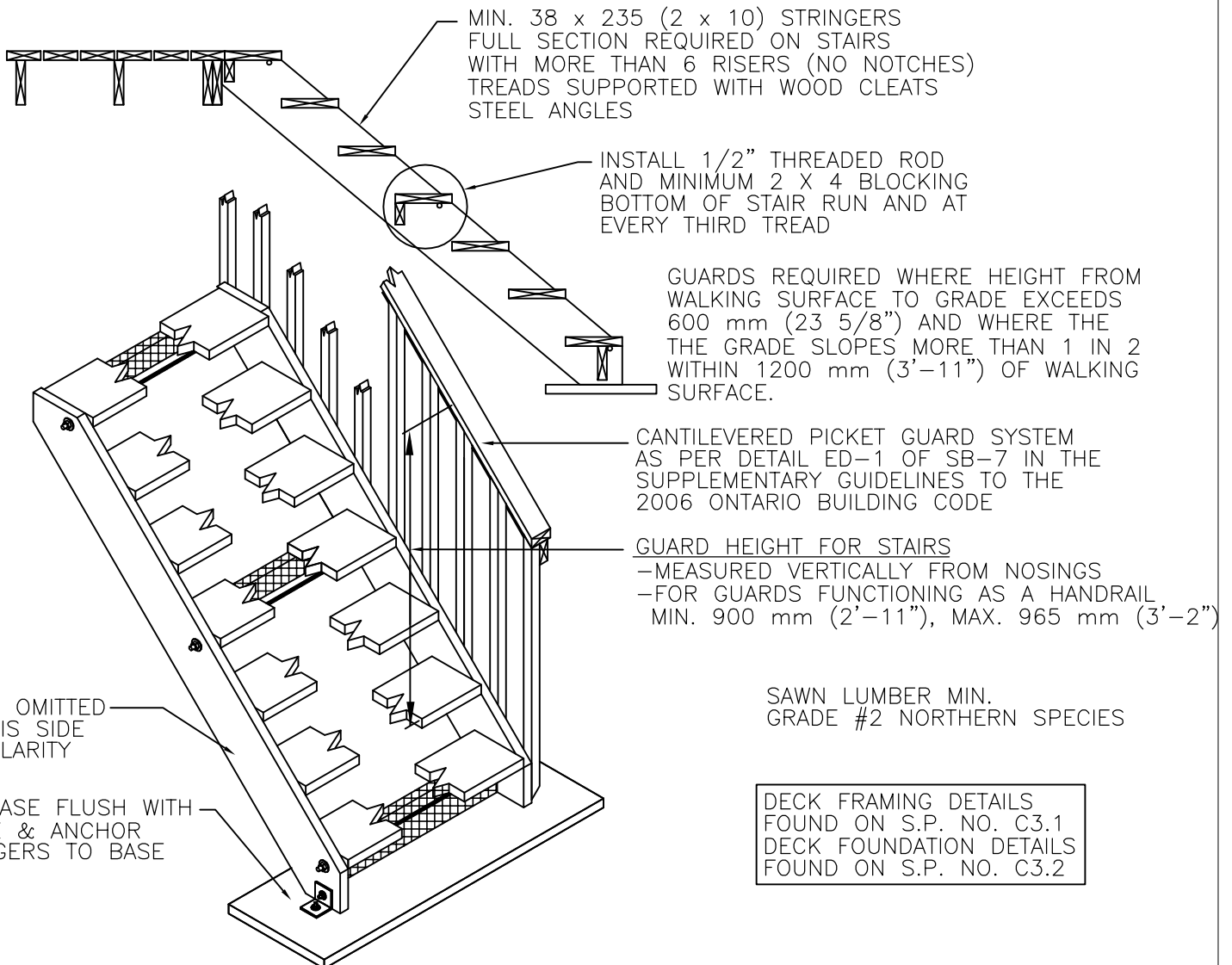
- MEASURED VERTICALLY FROM NOSINGS
- FOR GUARDS FUNCTIONING AS A HANDRAIL, MIN. 900 mm (2'-11"), MAX. 965 mm (3'-2")

GUARD OMITTED ON THIS SIDE FOR CLARITY

SET BASE FLUSH WITH GRADE & ANCHOR STRINGERS TO BASE

SAWN LUMBER MIN. GRADE #2 NORTHERN SPECIES

DECK FRAMING DETAILS FOUND ON S.P. NO. C3.1  
DECK FOUNDATION DETAILS FOUND ON S.P. NO. C3.2



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# ONTARIO BUILDING CODE CONSTRUCTION DESIGN INFORMATION

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C3.5

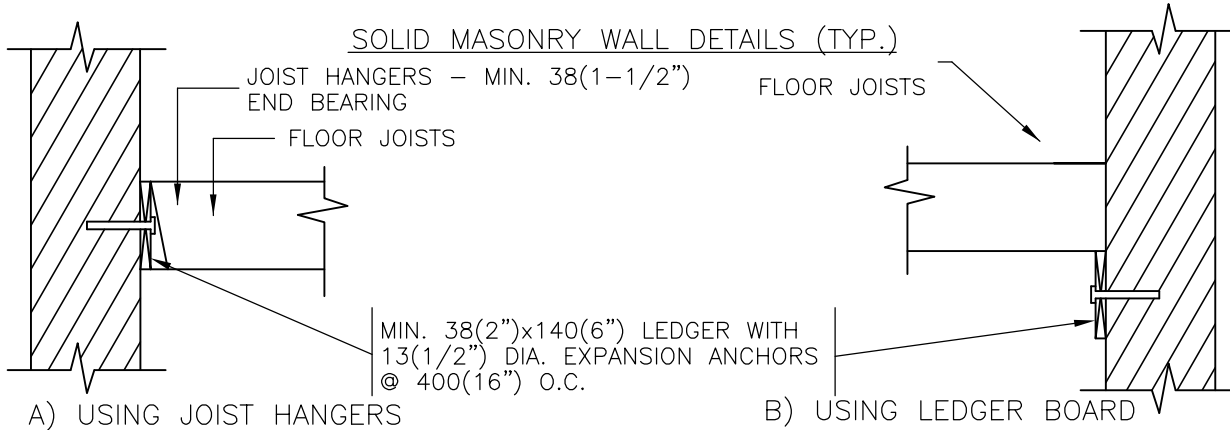
REVISIONS

## WALL ANCHORAGE DETAILS FOR DECKS (SERVING NOT MORE THAN ONE DWELLING UNIT)

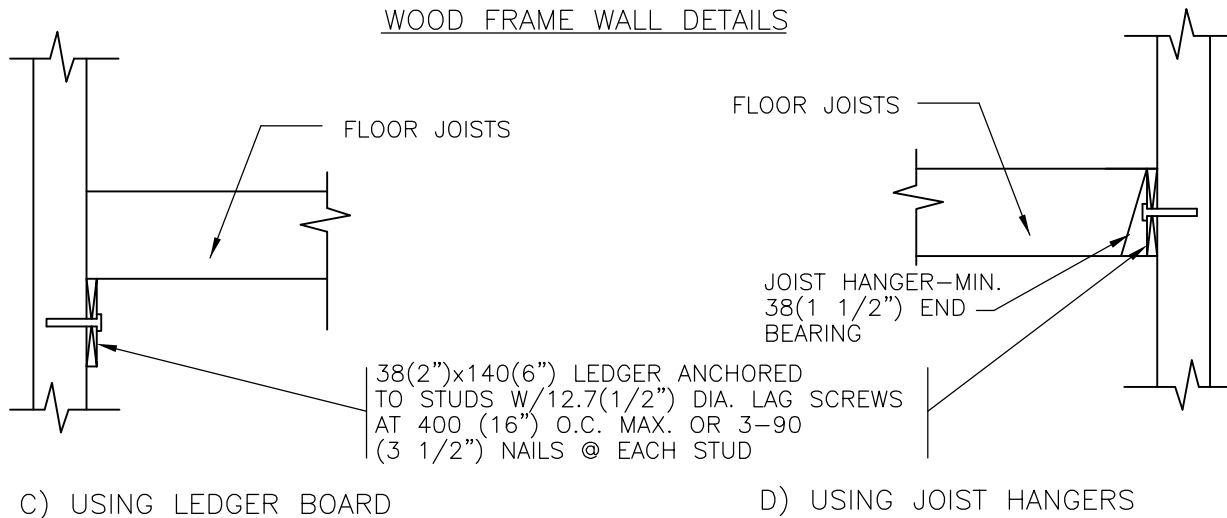
O.B.C. REFERENCE

### IDENTIFY WALL CONNECTION

#### SOLID MASONRY WALL DETAILS (TYP.)



#### WOOD FRAME WALL DETAILS



#### BRICK VENEER WALL DETAILS

