

2 - 19 DIA. GALV. TIMBER BOLTS (c/w ECONO DOME HEAD) AND MALLEABLE IRON WASHERS TOP AND BOTTOM (MINIMUM 75 DIAMETER)

OPTIONAL 150 x 150 GRADING STRIP CONNECTED TO RISER WITH 2 - 13 DIA. x 175 LG. LAG SCREWS/ RISER, WHERE SPECIFIED.

OPTIONAL 25 PACKING AT RISER, WHERE SPECIFIED.

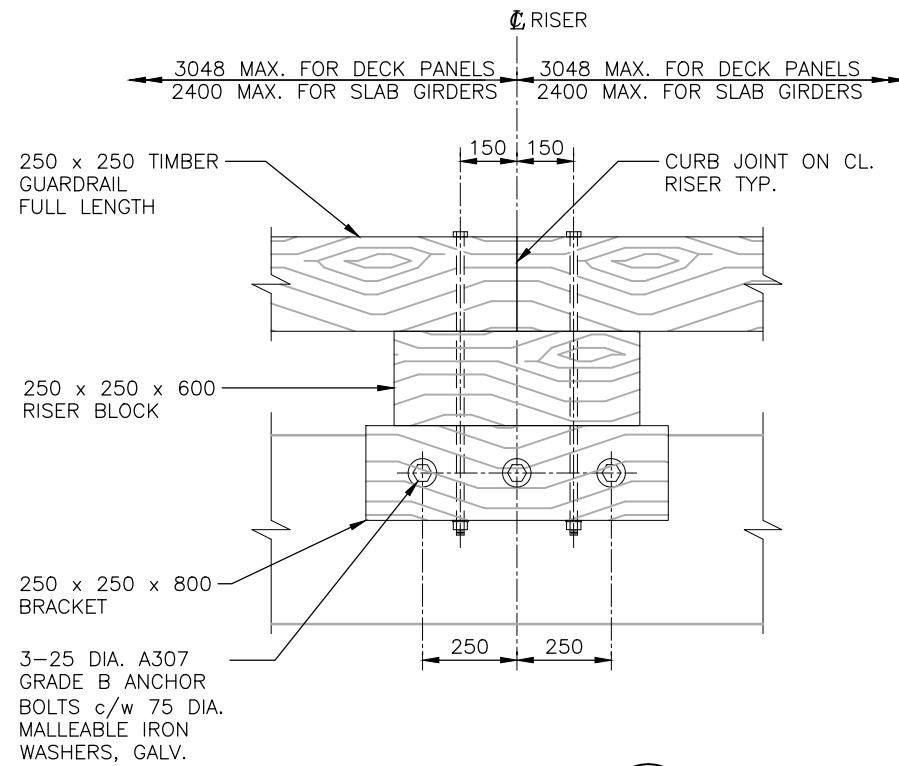
OPTIONAL 150 GRAVEL SURFACE, WHERE SPECIFIED.

CONCRETE SLAB GIRDER

BOLT
GUARDRAIL

A

110 FOR PRECAST CONCRETE SLABS
100 FOR PRECAST CONCRETE DECK PANELS



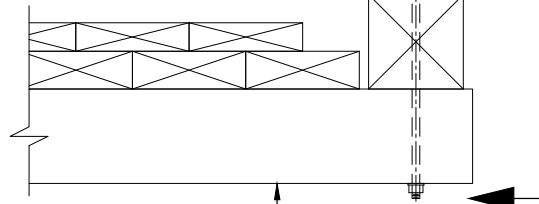
TIMBER GUARDRAIL DETAIL FOR CONCRETE SLAB GIRDER/DECK PANEL

1:20

SECTION A

1:20

2 - 19 DIA. TIMBER BOLTS (c/w ECONO DOME HEAD) AND MALLEABLE IRON WASHERS TOP AND BOTTOM, GALV. (MINIMUM 75 DIAMETER)



TIMBER GUARDRAIL DETAIL FOR TIMBER DECK

1:20

SECTION C

1:20

NOTES:

GENERAL

- GUARDRAILS HAVE BEEN DESIGNED TO MEET THE CRITERIA FOR CONTAINMENT LEVEL CL-1 AS DEFINED BY THE MINISTRY. GUARDRAILS HAVE NOT BEEN DESIGNED TO CONTAIN ERRANT VEHICLES.

- MAXIMUM POST SPACING AS SHOWN ON DRAWING.

- FOR GUARDRAIL ANCHOR DETAILS, SEE MINISTRY STANDARD DRAWINGS:
STD-EC-030-09 - COMPOSITE PRECAST DECK PANEL
STD-EC-040-08 - NON-COMPOSITE PRECAST DECK PANEL-DETAILS
STD-EC-070-03 - PRECAST CONCRETE SLAB DETAILS (SHEET 1)

MATERIALS

- TIMBER: ALLOWABLE WOOD SPECIES, LUMBER GRADES, GRADING CRITERIA AS PER MINISTRY: BRIDGE TIMBER AND LUMBER MATERIAL STANDARD :

- STEEL: POSTS PLATE TO CSA G40.21M
- TO CSA G40.21M, - GRADE 350W (COATED)
- GRADE 350A (COATED)
- GRADE 350A (UNCOATED)
- OR TO ASTM - A500 GRADE C (COATED)
- A847 (UNCOATED)

- STEEL FABRICATION: WELDING:
- SHOP WELDING IN ACCORDANCE WITH CSA W59 FABRICATOR TO BE CERTIFIED FOR DIVISION 1, 2 OR 3 IN ACCORDANCE WITH CSA W47.1.
- FIELD WELDING BY COMPANY CERTIFIED TO CSA W47.1, DIVISIONS 1, 2 OR 3.
- MIN. 6mm FILLET WELD UNLESS OTHERWISE NOTED.

GUARDRAIL BRACKETS AND POST COATING TO BE EITHER:
- GALVANIZED TO CSA G164 AS NOTED ON DRAWINGS. MINIMUM 610 g/m²; OR
- PAINTED IN ACCORDANCE WITH MINISTRY STEEL GUARDRAIL COMPONENT PAINT STANDARD.

GALVANIZING WHERE SPECIFIED, TO CSA G164, MINIMUM 610 g/m².

- HARDWARE: - ALL HARDWARE (BOLTS, NUTS, WASHERS) TO BE GALVANIZED TO CSA G164, MINIMUM 610 g/m².
- BOLTS: - ASTM A307 GRADE B GALVANIZED
- TIMBER BOLTS c/w ECONO HEAD AND MALLEABLE IRON WASHERS TOP AND BOTTOM.

ASSUME NOT TO SCALE

STEEL POST W150x22 @ 1905 C/C (MAX.)

GALV. W BEAM STEEL GUARDRAIL TO BC MINISTRY OF TRANSPORTATION AND INFRASTRUCTURE STANDARD DWG. SP312-6

STEEL BRACKET

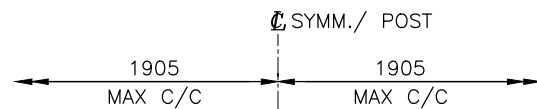
16 DIA. A307 GRADE B HEX BOLT c/w NUT & WASHER, GALV.

LESSER OF SLAB/DECK PANEL DEPTH OR 250

B

PL. 19x250x680 c/w 1-30 DIA. HOLE & 2-30x75 SLOTTED HOLES

8 TYP.



19 DIA. THRU HOLE (DECK SIDE OF POST FLANGE)

110 FOR PRECAST CONCRETE SLABS
100 FOR PRECAST CONCRETE DECK PANELS

8 TYP.

3 - 25 DIA. A307 GRADE B ANCHOR BOLTS c/w WASHERS, GALV.


W-BEAM GUARDRAIL DETAIL FOR CONCRETE SLAB GIRDER/DECK PANEL

1:20

SECTION B

1:20

Rev	Date	DESCRIPTION	Init

 MINISTRY OF FORESTS, LANDS & NATURAL RESOURCE OPERATIONS <small>The Best Place on Earth</small>	
STANDARD BRIDGE DRAWING	
STANDARD BRIDGE GUARDRAIL	
CL - 1	
ORIGINAL SIGNED and SEALED BY: JULIEN HENLEY	APPROVED BY:
DESIGN ENGINEER DATE JULIEN HENLEY	MOF ENGINEER DATE
FILE No.	DRAWING No.
	STD-EC-010-01