

NOTE:  
RAIL JOINT TO BE  
600mm MAXIMUM  
FROM POST CENTERLINE.

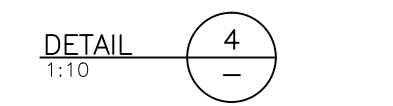
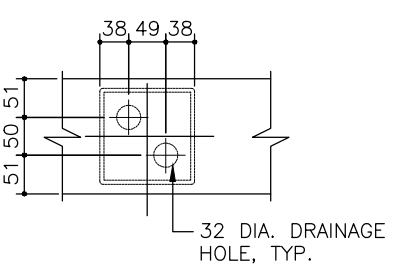
**NOTES:**

**GENERAL**

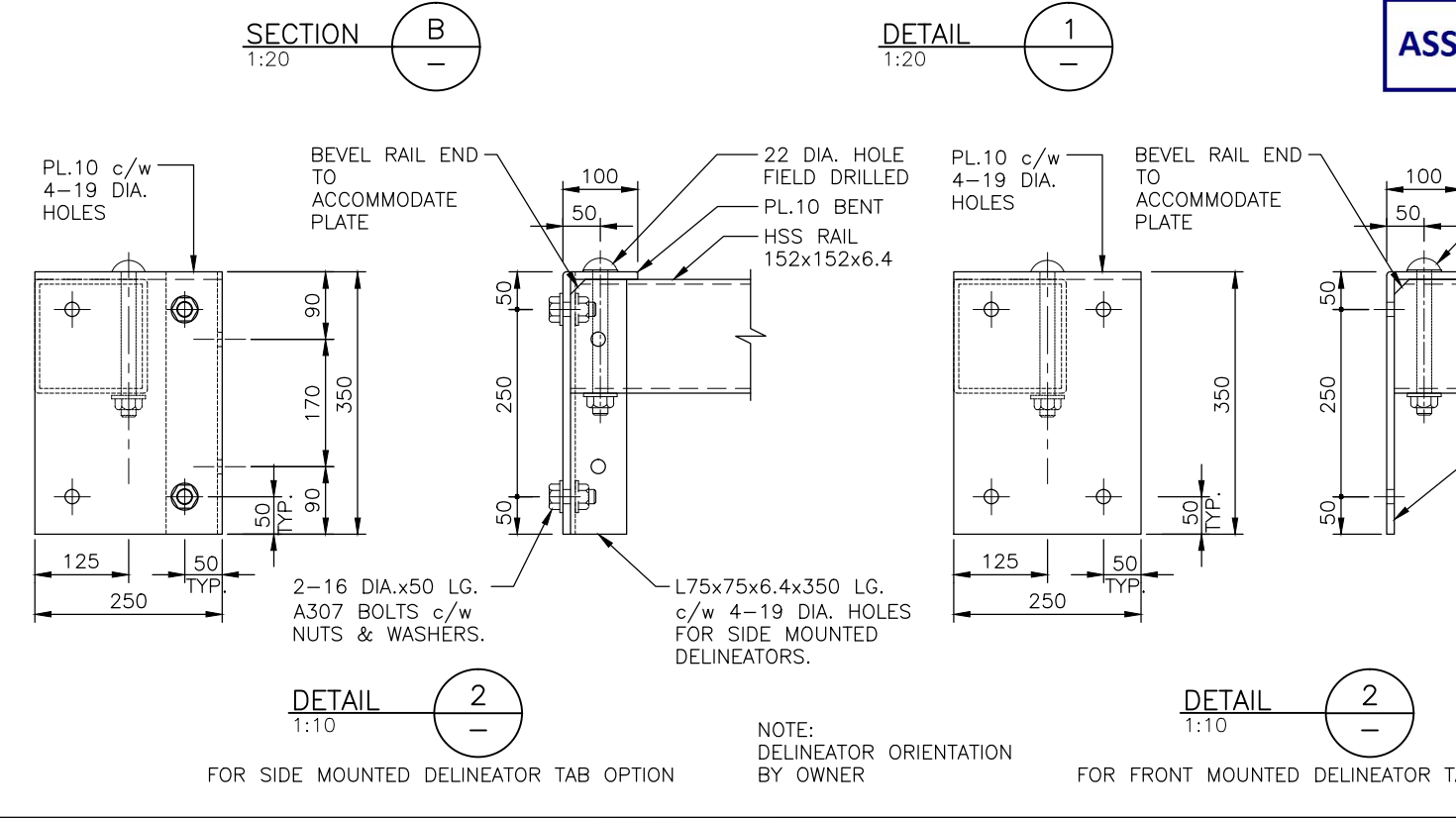
- GUARDRAILS HAVE BEEN DESIGNED TO MEET THE CRITERIA FOR CONTAINMENT LEVEL CL-2 AS DEFINED BY THE MINISTRY. GUARDRAILS HAVE NOT BEEN DESIGNED TO CONTAIN ERRANT VEHICLES.
- MAXIMUM POST SPACING = 3048 C/C.
- FOR GUARDRAIL ANCHOR DETAILS, SEE MINISTRY STANDARD DRAWINGS:  
STD-EC-030-09 - COMPOSITE PRECAST DECK PANEL  
STD-EC-040-08 - NON-COMPOSITE PRECAST DECK PANEL-DETAILS  
STD-EC-070-03 - PRECAST CONCRETE SLAB DETAILS (SHEET 1)

**MATERIALS**

- STEEL:
  - RAILS AND POSTS
  - TO CSA G40.21M,
    - GRADE 350W (COATED)
    - GRADE 350A (UNCOATED)
  - OR TO ASTM
    - A500 GRADE C (COATED)
    - A847 (UNCOATED)
- PLATE TO CSA G40.21M
  - GRADE 350W (COATED)
  - GRADE 350A (UNCOATED)
  - GRADE 300W (COATED)
- 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/m<sup>2</sup>; OR
    - PAINTED IN ACCORDANCE WITH MINISTRY STEEL GUARDRAIL COMPONENT PAINT STANDARD:
    - HSS RAIL TO BE PAINTED SAFETY YELLOW IN ACCORDANCE WITH MINISTRY STEEL GUARDRAIL COMPONENT PAINT STANDARD:
    - GALVANIZING WHERE SPECIFIED, TO CSA G164, MINIMUM 610 g/m<sup>2</sup>.
- HARDWARE:
  - ALL HARDWARE (BOLTS, NUTS, WASHERS) TO BE GALVANIZED TO CSA G164, MINIMUM 610 g/m<sup>2</sup>.
  - BOLTS TO ASTM A307 GRADE B GALVANIZED.



**ASSUME NOT TO SCALE**



NOTE:  
DELINEATOR ORIENTATION  
BY OWNER

**STANDARD BRIDGE DRAWING**

**STANDARD BRIDGE GUARDRAIL - HSS RAIL**  
CL - 2

ORIGINAL SIGNED and SEALED BY: <b>JULIEN HENLEY</b>	APPROVED BY:
DESIGN ENGINEER	MOF ENGINEER
DATE <b>JULIEN HENLEY</b>	DATE
FILE No.	DRAWING No.

Rev	Date	DESCRIPTION	Init
1	2012/09/06	REVISED DIMENSIONS	
2	2015/12/01	CHANGE PLATE LENGTH FROM 35 TO 350	
3	2016/01/06	REVISED DIMENSIONS; REDUCED GAP DISTANCE & PLATE SIZE	
4	2016/10/15	CHANGE TO SUIT STEEL GIRDER & SLAB BRIDGES; REVISED DIMENSIONS	

REVISIONS