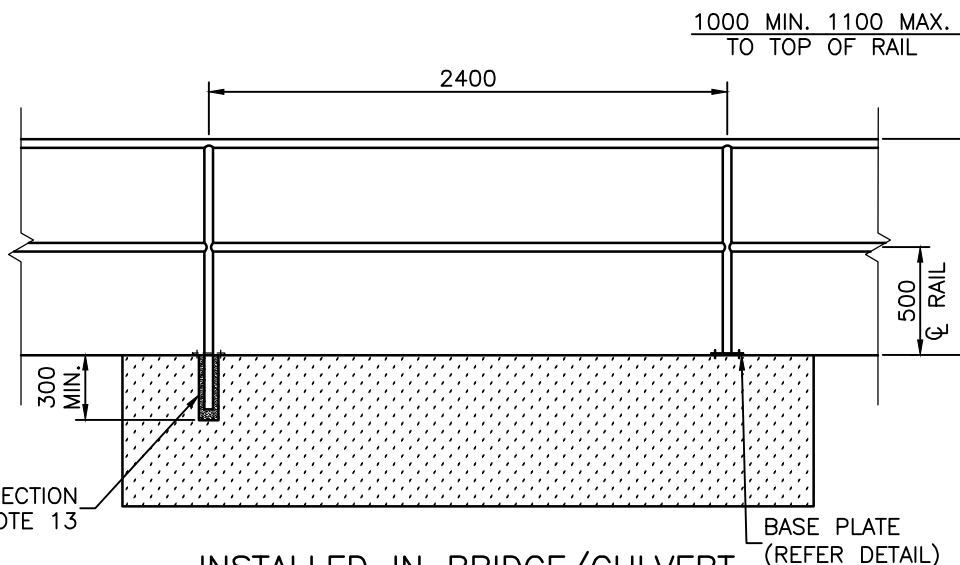
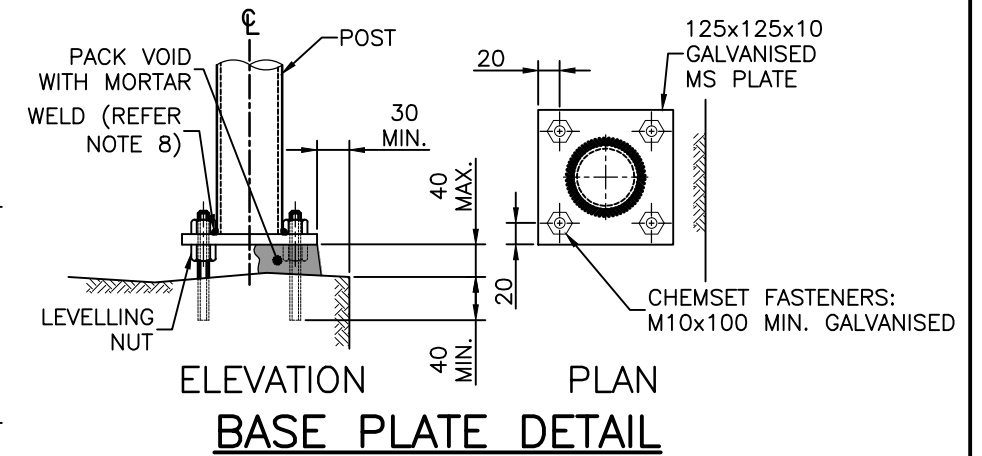


INSTALLED IN GROUND



INSTALLED IN BRIDGE/CULVERT
CONCRETE HEADWALL
(REFER SPECIAL NOTE)

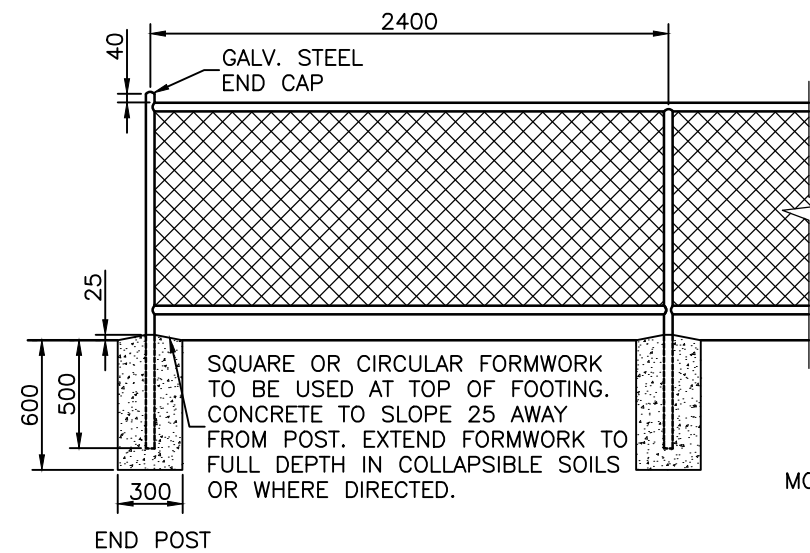
**GENERAL PURPOSE
GALVANISED TUBULAR HANDRAIL**



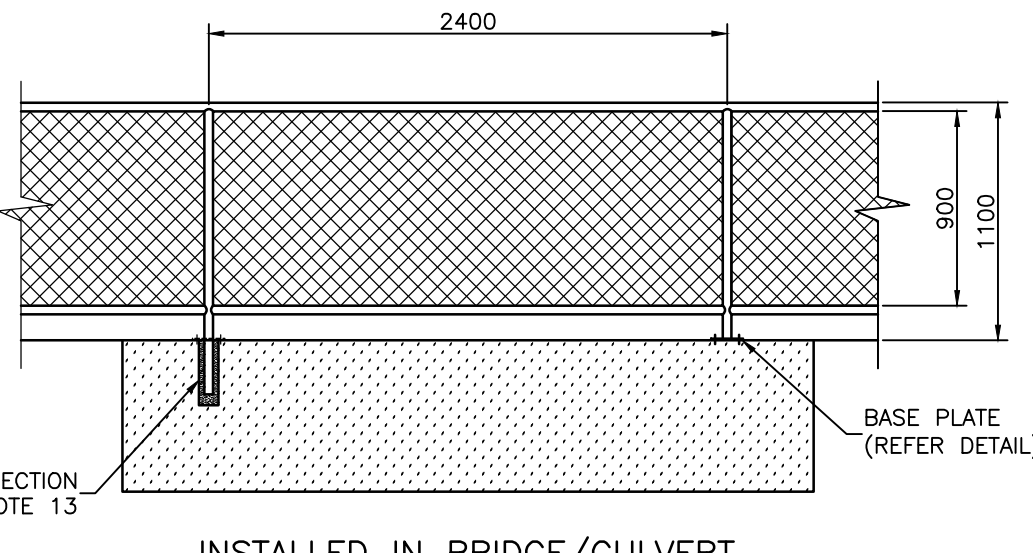
**ELEVATION
PLAN
BASE PLATE DETAIL**

NOTES:

- THIS STANDARD IS NOT FOR USE IN A MARINE ENVIRONMENT. THE MARINE ENVIRONMENT COULD EXTEND UP TO 1 km FROM THE FORESHORE.
- WHERE STANDARD IS REQUIRED FOR USE WITH MARINE ENVIRONMENT, THE FOLLOWING PROTECTION TREATMENT IS REQUIRED:
 - STEELWORK HOT DIP GALVANISING: 85 MICRONS (600g/m²) MIN;
 - SWEEP ABRASIVE BLAST;
 - STEELWORK FIRST COAT: EPOXY PRIMER 75 MICRONS MIN;
 - STEELWORK SECOND COAT: TWO PACK ACRYLIC OR POLYURETHANE GLOSS 75 MICRONS MIN;
 - WIRE MESH AND WIRE TIES TO BE PVC COATED.
- PAINT SYSTEMS TO BE IN ACCORDANCE WITH AS 2312 AND DESIGNATED HDG600P6 AND HDG600P
- GATE AND END POSTS TO BE 50 NB (60.3 OD, 3.6 THICK) GALVANISED STEEL TUBE TO AS/NZS1163.
- INTERMEDIATE POSTS TO BE 40 NB (48.3 OD, 3.2 THICK) GALVANISED STEEL TUBE TO AS/NZS1163.
- RAILS TO BE 40 NB (48.3 OD, 3.2 THICK) GALVANISED STEEL TUBE TO AS/NZS1163.
- STANDARD COUPLINGS (DOWN-EE FITTINGS, MONOWILLS, SENTAUR JOINTS, KEE-KLAMP, SWAGED JOINTS OR SIMILAR) MAY BE USED AS AN ALTERNATIVE TO WELDS.
- ALL WELDS TO BE 5 THICK C.F.W. (CONTINUOUS FILLET WELDS) TO AS 1554.1 WITH COLD GALVANISING TREATMENT TO COMPLETED WELDS, EXCEPT FOR POST/BASE PLATE WHICH SHALL BE HOT-DIP GALVANISED.
- CHAIN WIRE TO BE 900 HIGH x 3.15 THICK x 50 MESH TO AS 2423.
- CHAIN WIRE TO BE FIXED USING 1.6 THICK WIRE, TIED TO POSTS AT 2 LOCATIONS AND CONTINUOUSLY LACED TO RAILS.
- POSTS TO BE VERTICAL.
- ALL CONCRETE TO BE GRADE N25.
- POSTS, INSTALLED IN EXISTING BRIDGE/CULVERT CONCRETE HEADWALL, TO BE GROUTED INTO 90 DIAMETER HOLE WITH 1:3 CEMENT MORTAR BY VOLUME AFTER THEY HAVE BEEN CAREFULLY ALIGNED.
- GALVANISED TUBULAR HANDRAILS TO BE USED ONLY IN SITUATIONS CLEAR OF LONGITUDINAL VEHICLE IMPACT OR NOT WITHIN THE CLEAR ZONE SO AS NOT TO BE A SPEARING HAZARD TO VEHICLES.
- GALVANISED TUBULAR HANDRAILS WITH CHAIN WIRE ARE GENERALLY USED ON BRIDGE APPROACHES AND ON RETAINING WALLS.
- THESE FENCES ARE INTENDED AS A PEDESTRIAN BARRIER AND ARE NOT TO BE USED IN SITUATIONS WHERE MOTOR VEHICLES REQUIRE RESTRAINT.
- STEEL WORK MAY BE POWDER COATED TO AS 4506 TO MATCH COLOUR COORDINATION IN THE AREA (IN ACCORDANCE WITH BCC CORPORATE COLOUR PALETTE - REFER BSD-1003).
- HOT DIP GALVANISING: FERROUS OPEN SECTIONS TO AS 4791, FERROUS HOLLOW SECTIONS TO AS 4792.
- DIMENSIONS IN MILLIMETRES (UNO).



INSTALLED IN GROUND



INSTALLED IN BRIDGE/CULVERT
CONCRETE HEADWALL
(REFER SPECIAL NOTE)

**GALVANISED TUBULAR HANDRAIL
WITH CHAIN WIRE**

SPECIAL NOTE

THE PURPOSE OF THIS STANDARD IS TO PROVIDE A BARRIER RESTRICTING ACCESS. IT IS NOT APPLICABLE FOR PROVIDING EDGE PROTECTION WHERE THERE IS RISK OF INJURY FROM A FALL GREATER THAN 1m. THIS INCLUDES LOCATIONS SUCH AS CULVERTS, BRIDGE CROSSINGS AND LARGE RETAINING WALLS.

ISSUE	AMENDMENT	DRAWN DATE	CHK'D DATE	APPR'D DATE
C	Note 14 Amended - Not to Be Used Within Clear Zone	MAY '17	MAY '17	MAY '17
B	Drawing Title Amended	FEB '16	JUL '16	JUL '16
A	Drawing Converted from UMS Series April 2014	APR '14	APR '14	APR '14

DRAWING AUTHORISED FOR PUBLICATION
B. BALL SIGNATURE ON ORIGINAL
DATED 29/6/01 R.P.E.Q: 3852
ASSET ENGINEERING MANAGER
STRATEGIC ASSET MANAGEMENT
DESIGN APPROVED
B. HANSEN SIGNATURE ON ORIGINAL
DATED 27/6/01
PRINCIPAL ASSET OFFICER
ROADS & DRAINAGE

DESIGN	Std Dwg Group	DATE	APRIL '01
DRAWN	CITY DESIGN	DATE	MAY '01
CHECKED	M. STEER	DATE	MAY '01
DRAWING FILENAME	BSD-7001 (B) Fence - Galvanised tubular handrail.dwg		
ASSOCIATED PLANS	SUPERSEDES UMS-241		



BRISBANE CITY COUNCIL STANDARD DRAWING	
FENCE GALVANISED TUBULAR HANDRAIL	
SCALE	NOT TO SCALE
DWG No.	BSD-7001
ORIGINAL SIZE	A3
REVISION	C