



NOTES:

- SCOPE: This Standard Drawing provides details of cast insitu roadway type gully for maximum depth of 3000, for use with Type 28 channel, channel lip in line. Pit sizes greater than those shown on this drawing shall be a project specific design. Constructability and accessibility of deeper pits shall be considered in the design. Refer Note 11 for additional design requirements for pits deeper than 5000.
- CONCRETE ROADWAY TYPE GULLIES shall be in accordance with MRTS03.
- DESIGN LIFE: 50 years
- DESIGN OF CONCRETE COMPONENTS for all pit sizes and depths:
 - Traffic loads and traffic load surcharge shall be in accordance with AS 5100.
 - Load factors and load combinations shall be in accordance with AS 5100.
 - Structural design shall be in accordance with AS 3600.
- CONCRETE shall be in accordance with MRTS70. Concrete pit S32/20. Concrete channel S32/10. Exposure classification B1 to AS 3600. Minimum cover to reinforcement shall be 45 unless shown otherwise. All exposed edges shall have 19 x 19 chamfers unless shown otherwise.
- REINFORCING STEEL shall be in accordance with Standard Drawing 1044. Reinforcing steel shall be in accordance with MRTS71 and AS/NZS 4671. Deformed bars Grade D500N. Round bars R250N. Reinforcing Mesh Grade D500L. All reinforcing steel shall be ACRS certified.
- STEELWORK shall be fabricated to the requirements of MRTS78. Equal angle shall be Grade 300 to AS/NZS 3679.1. All steelwork shall be hot dip galvanized to AS/NZS 4680.
- WELDING: Structural Steel welding shall be to AS/NZS 1554.1. All welds, except location tack welds, shall be SP category. Welding consumables shall be controlled hydrogen type: G493 to AS/NZS ISO 14341-B or T493 to AS/NZS ISO 17632-B. Reinforcing Steel welding shall be in accordance with Standard Drawing 1044.
- GRATES AND FRAMES shall be Class D to AS 3996. Bicycle safety testing of grates and covers shall be in accordance with AS 3996. Hinged grates are to be provided with a positive mechanical retainer to secure them firmly in place when in the open position. Double hinge system shall be provided for grates designed to accept flow from one direction. Approved grates and frames shall be used.
- SUBSOIL DRAIN OUTLETS: Where a subsoil drain is discharged into a gully pit, the outlet of the subsoil drain shall be located above the level of the overtop of the stormwater pipes/culverts unless otherwise approved by the Administrator. The subsoil drain outlets shall be provided with pest-proof flaps.
- DESIGN REQUIREMENTS for pits deeper than 5000:
 - Design life 100 years;
 - Minimum exposure classification B2 to AS 5100;
 - Minimum concrete strength S40/20 for pit; and S32/10 for channel;
 - Cover to reinforcement to AS 5100.
 Concrete components shall be designed for loading as specified in Note 4.
- DIMENSIONS are in millimetres unless shown otherwise.

ASSOCIATED DEPARTMENTAL DOCUMENTS:

- Design Criteria for Bridges and Other Structures
- Road Drainage Manual

REFERENCED DOCUMENTS:

- Departmental Standard Drawings:
 - 1033 Kerb and Channel - Kerbs, Channels and Ramped Vehicular Crossing
 - 1044 Reinforcing Steel - Lap Lengths

Departmental Specifications:

- MRTS03 Drainage, Retaining Structures and Protective Treatments
- MRTS70 Concrete
- MRTS71 Reinforcing Steel
- MRTS78 Fabrication of Structural Steelwork

Department of Transport and Main Roads			
CONCRETE GULLY			
ROADWAY TYPE FOR TYPE 28 CHANNEL		A3	Standard Drawing No
		Not to Scale	1445
			Date 7/16
A	B		