

The purpose of This Standard Drawing is to provide typical standard details. The fitness for purpose of these details for a specific project shall be designed and certified by an RPEQ. The details specific to the project location shall be shown on the project specific drawings.

NOTES:

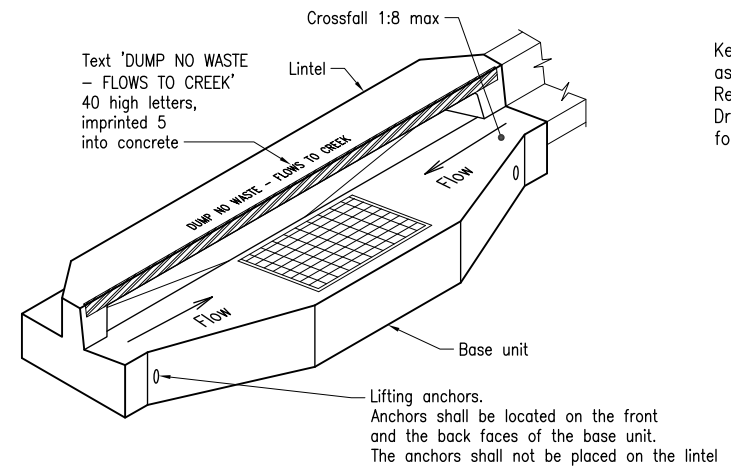
- SCOPE: This Standard Drawing provides details of precast roadway type inlet units.
- PRECAST COMPONENTS shall be in accordance with MRTS72. Precast concrete inlet units shall be approved by the Administrator before use in accordance with MRTS72. Precast components shall be made in a TMR registered casting yard.
- CONCRETE ROADWAY TYPE GULLIES shall be in accordance with MRTS03.
- DESIGN LIFE shall be 50 years minimum.
- CONCRETE shall be in accordance with MRTS70 with rigid formwork and intense vibration. In lieu of intense vibration, approved super workable concrete may be used. Exposure classification and cover to reinforcement shall be in accordance with AS 3600. Concrete to be N50/20. 20 cover for B1 exposure classification.
- REINFORCING STEEL shall be in accordance with MRTS71 and AS/NZS 4671. All reinforcing steel shall be ACRS certified. Reinforcement shall be provided by the designer to obtain the strength required to pass the specified test criteria. Precast gully shall be an approved design in accordance with MRTS72. Design shall be proved by load testing. The load detailed in Table A shall be applied with separate tests at each location as marked. Acceptance criteria and method for load testing shall be as per AS1597.1. The lintel unit shall be placed on a compacted confined sand bed (400mm depth max) during test for base. Sand bed is not required for test on lintel.
- A single casting for the Lintel and Base Unit is preferred. If separate components of lintel and base unit with dowel connection is proposed, the dowel connection shall be designed by precaster's designer and pass the test criteria. Minimum of 5-M16 class 8.8 bolts shall be provided for this connection. Ferrules in the supporting structure shall have 100 minimum embedment and 45 kN minimum anchor design capacity. These minimum anchor requirements are to meet the kerb horizontal design loads in accordance with Clause 11.1 of AS 5100.2.
- STEELWORK shall be fabricated to the requirements of MRTS78. Steel plate to Grade 250 UNO to AS/NZS 3678. All steelwork shall be hot dip galvanised 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 Drawings 1043 and 1044.
- LIFTING ANCHORS shall be designed and installed in accordance with MRTS72. Lifting anchors shall be an approved product.
- GRATES, COVERS AND FRAMES shall be Class D to AS 3996 and comply with MRTS03. Grates and covers shall be tested for BTPR to AS3996. Hinged grates are to be provided with a positive mechanical retainer to secure them firmly in place when in the open position.
- Provide 10mm mortar (1 cement: 3 fine sand) joint between gully pit and precast inlet units.
- Dimensions are in millimetres unless shown otherwise.

ASSOCIATED DEPARTMENTAL DOCUMENTS:

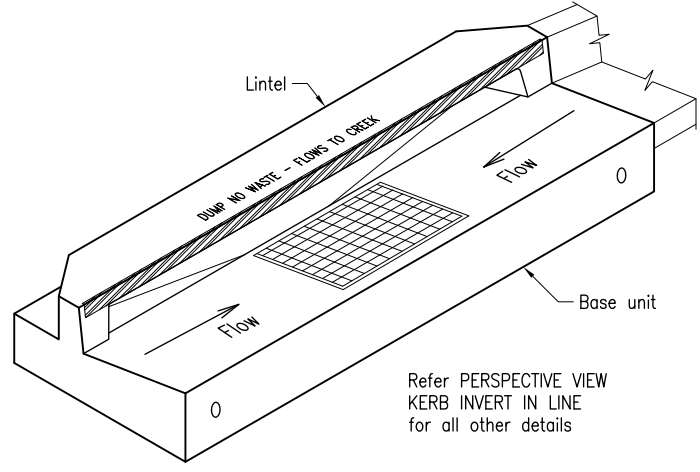
- Design Criteria for Bridges and Other Structures
- Road Drainage Manual

REFERENCED DOCUMENTS:

- Departmental Specifications:
- MRTS03 Drainage, Retaining Structures and Protective Treatments
 - MRTS70 Concrete
 - MRTS71 Reinforcing Steel
 - MRTS72 Manufacture of Precast Concrete Elements
 - MRTS78 Fabrication of Structural Steelwork

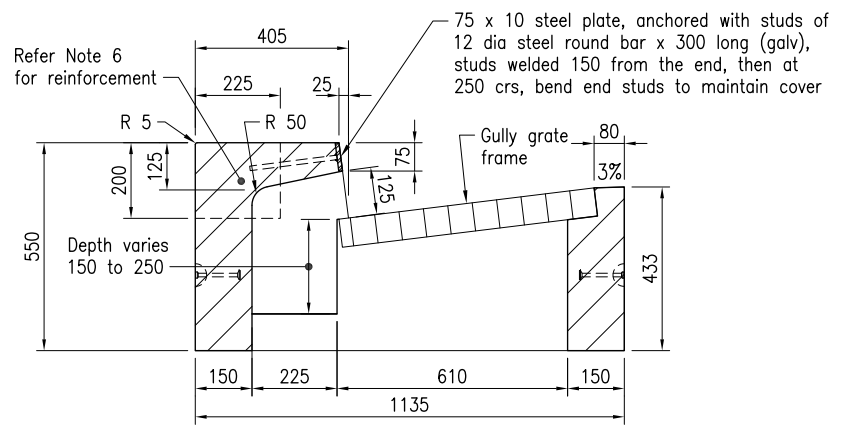


**PERSPECTIVE VIEW
KERB INVERT IN LINE**



**PERSPECTIVE VIEW
CHANNEL LIP IN LINE**

Refer PERSPECTIVE VIEW
KERB INVERT IN LINE
for all other details



**SECTION B - SINGLE CASTING
Refer Note 7**

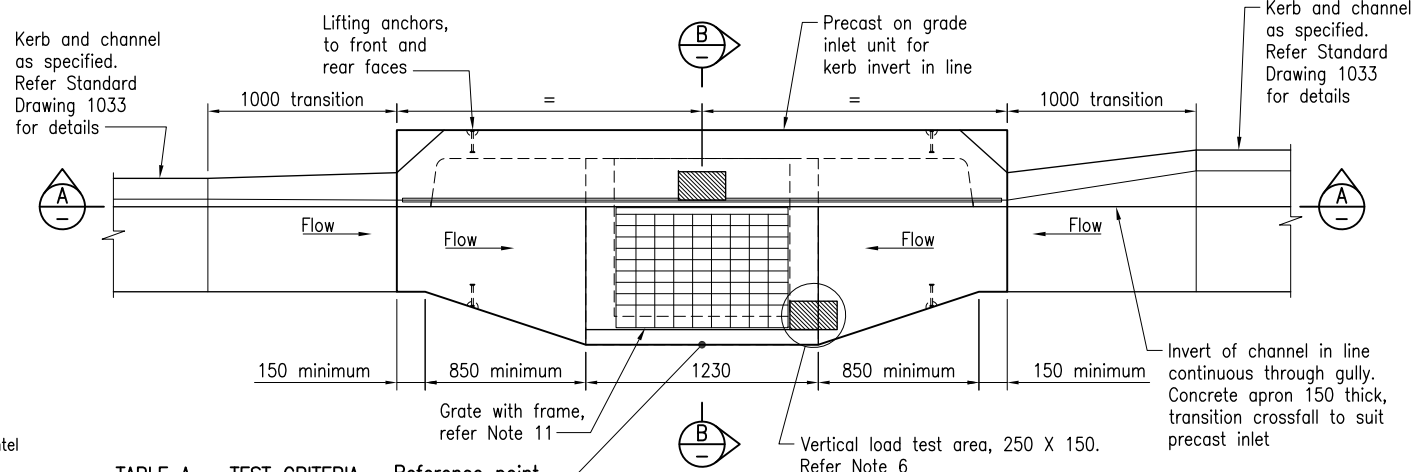
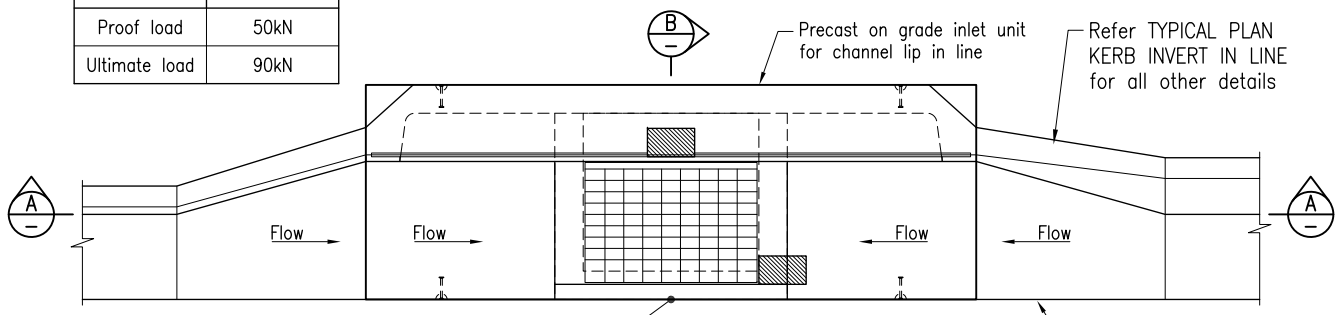


TABLE A - TEST CRITERIA
Refer Note 6

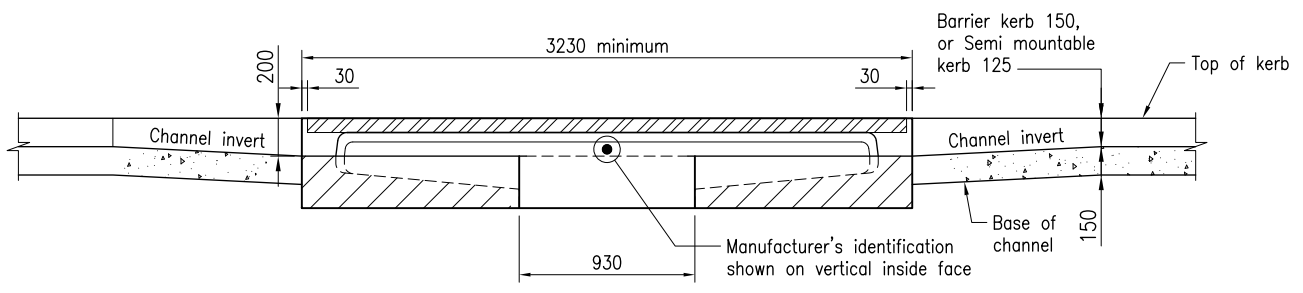
Criteria	Vertical test load
Proof load	50kN
Ultimate load	90kN

**Reference point
(line and height)**

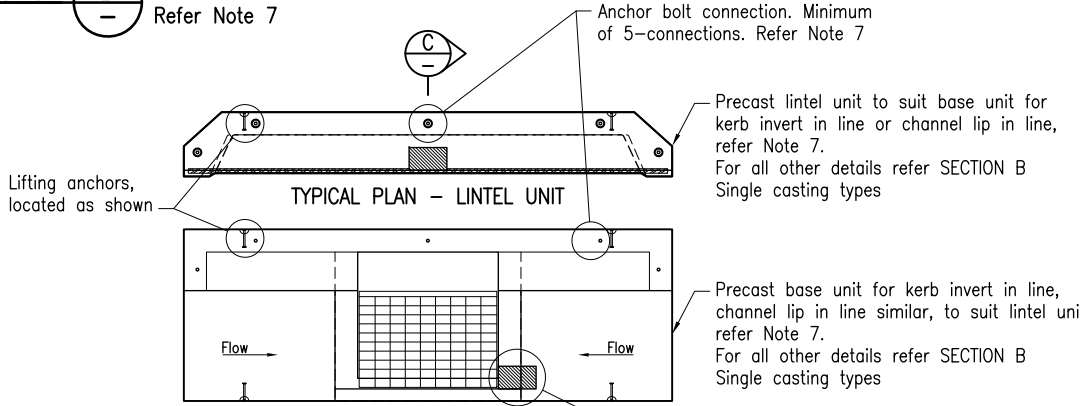
**TYPICAL PLAN
KERB INVERT IN LINE**



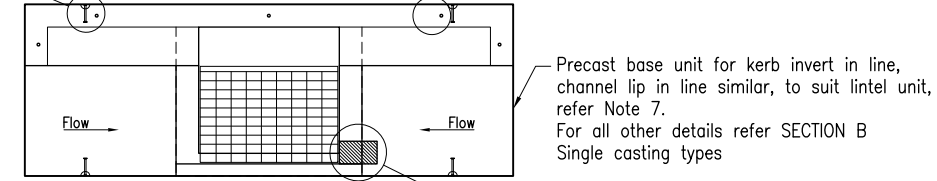
**TYPICAL PLAN
CHANNEL LIP IN LINE**



SECTION A - ALONG CHANNEL INVERT

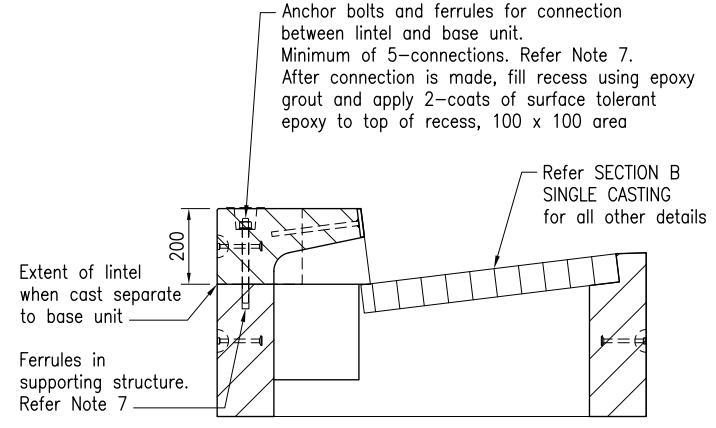


TYPICAL PLAN - LINTEL UNIT



TYPICAL PLAN - BASE UNIT

ALTERNATIVE DETAIL FOR SEPARATE LINTEL AND BASE UNIT



**SECTION C - ALTERNATIVE DETAIL FOR SEPARATE LINTEL AND BASE UNIT
Refer Note 7**

Department of Transport and Main Roads			
CONCRETE GULLY			
ROADWAY TYPE PRECAST INLET UNITS IN SAG		A3	Standard Drawing No
		Not to Scale	1444
			Date 7/2024