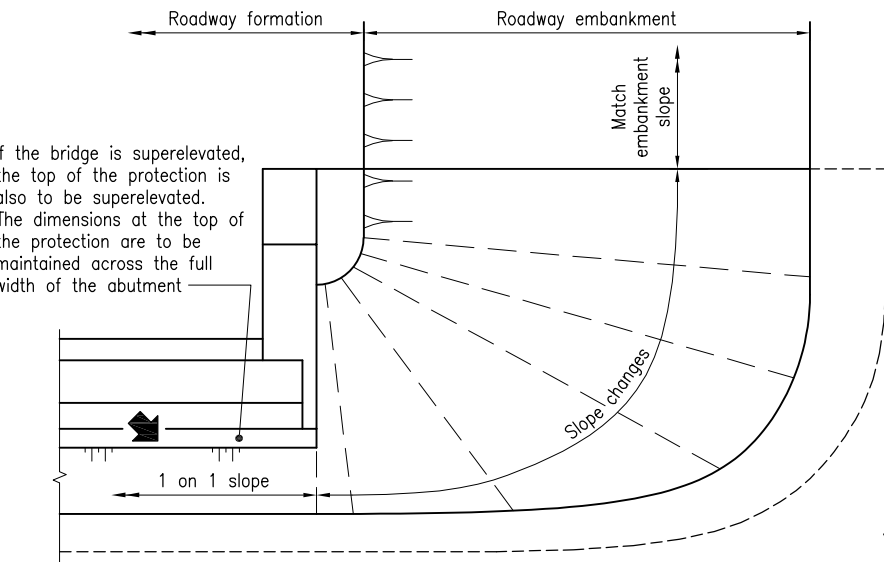


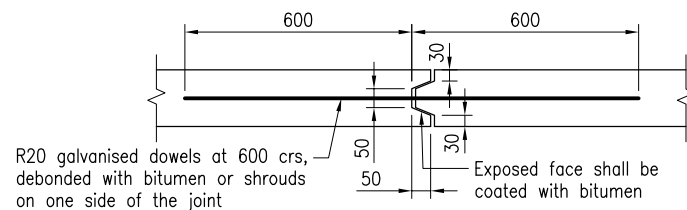
If the bridge is superelevated, the top of the protection is also to be superelevated. The dimensions at the top of the protection are to be maintained across the full width of the abutment

PLAN
GENERAL LAYOUT - SKEWED BRIDGE



If the bridge is superelevated, the top of the protection is also to be superelevated. The dimensions at the top of the protection are to be maintained across the full width of the abutment

PLAN
ELEVATION
GENERAL LAYOUT - SQUARE BRIDGE

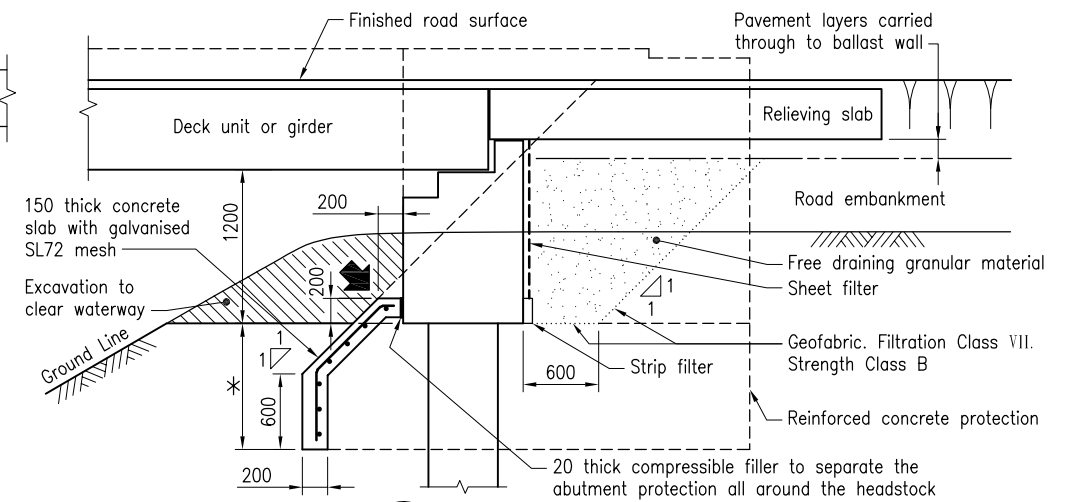


R20 galvanised dowels at 600 crs, debonded with bitumen or shrouds on one side of the joint

Exposed face shall be coated with bitumen

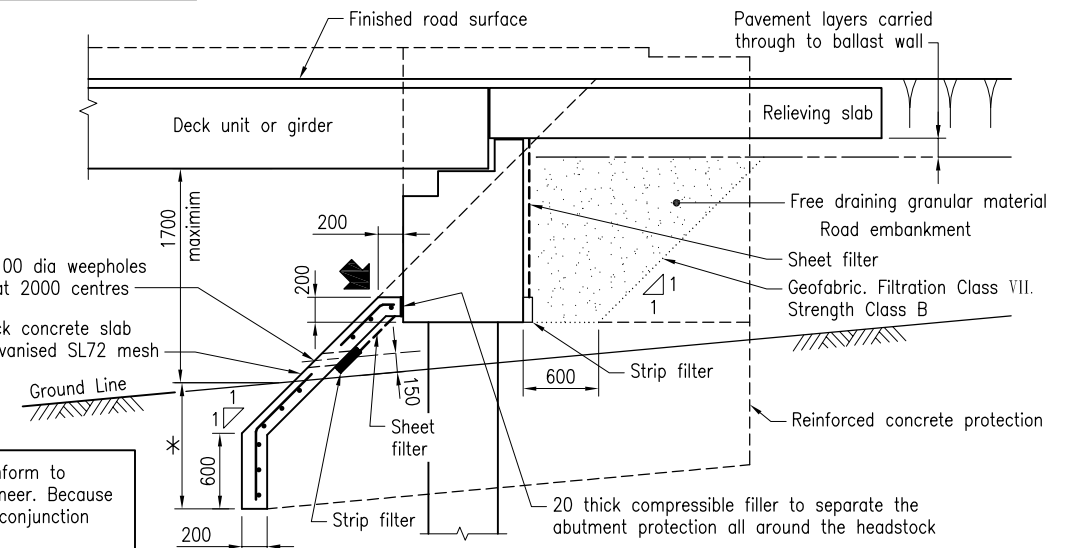
Contraction joints shall be provided at 5000 crs maximum. A minimum of 24 hours is to be allowed prior to placement of adjacent concrete

CONCRETE SLAB CONTRACTION JOINT



* Refer to the project specific drawings for actual dimensions

SECTION A
EXCAVATION TO PROVIDE 1200 CLEARANCE



* Refer to the project specific drawings for actual dimensions

SECTION A
CLEARANCE BETWEEN 1200 AND 1700

DESIGN CRITERIA

The purpose of this drawing is to provide standard details only and fitness for purpose shall conform to AS 5100. The project specific details shall be determined and certified by the bridge design engineer. Because every abutment protection is designed to suit its specific location, this drawing shall be read in conjunction with the project specific drawings.

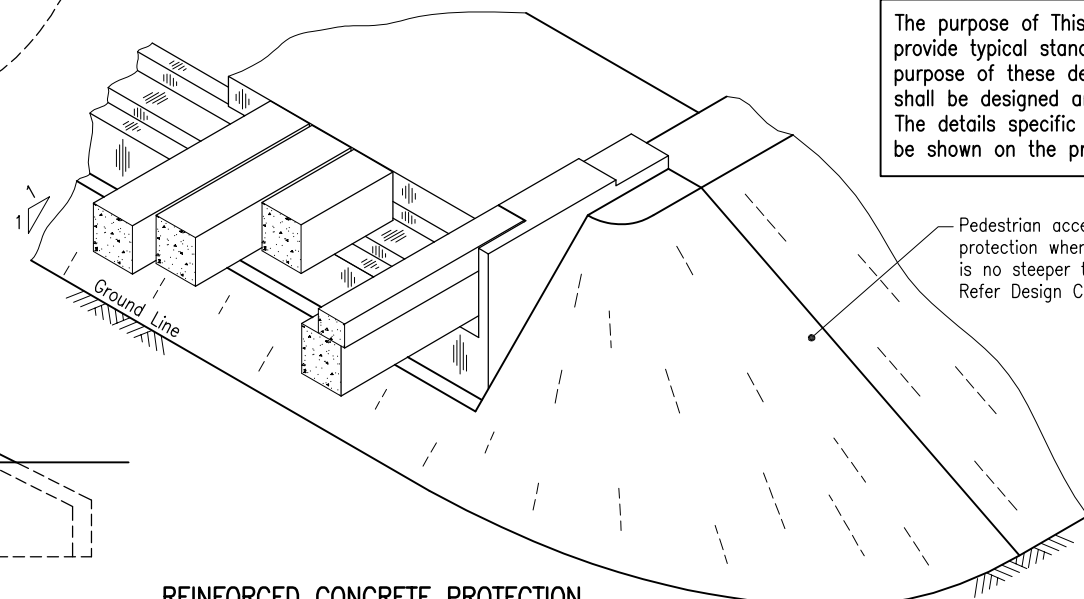
In accordance with Workplace Health and Safety requirements, abutment headstocks must be easily accessible to allow them to be inspected and maintained. Where the clearance is no greater than 1700 high, this can be done by walking around the base of the protection. If the clearance is greater than 1700, a platform shall be provided 1700 from the underside of the bridge (refer to Standard Drawing 2235).

Provided that the roadway embankment is no steeper than 1 on 2, access to the underside of the bridge shall be by walking down the side of the protection. If the embankment is steeper than 1 on 2, a risk assessment shall determine the best method of accessing the underside of the bridge. This may be by walking down the road embankment where it is not too steep, or by connecting a safety harness to a guardrail post for access down the protection. Roadway embankments steeper than 1 on 2 must be protected.

When designing abutment protection, consideration must be given to the strength of the subgrade material. The protection shall be constructed before the deck units/girders are erected on the end span.

The possibility of scour at the protection must be assessed at each abutment. The toe walls shown are only suitable for low scour situations. The protection may need to be modified in high scour situations.

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.



REINFORCED CONCRETE PROTECTION
SQUARE BRIDGE SHOWN - SKEWED BRIDGE SIMILAR

NOTES:

- Refer Design Criteria for Bridges and Other Structures for the abutment protection type selection criteria. Construction of abutment protection shall be in accordance with MRTS03.
- CONCRETE shall be in accordance with MRTS70. Design life 50 years. Concrete class S32/20, exposure classification B2, to AS 5100.
- REINFORCING STEEL shall be read in conjunction with Standard Drawing 1044, shall be in accordance with MRTS71 and to AS/NZS 4671, and ACRS certified. Round bars Grade R250N. Mesh Grade D500L. Cover shall be 75 to the embankment face and 55 minimum to the sides of the slab and the weepholes. Reinforcement shall be hot dip galvanised to AS/NZS 4680 where shown. Reinforcing Steel welding shall be in accordance with Standard Drawing 1044.
- DIMENSIONS are in millimetres unless shown otherwise.
- SETTING OUT POINTS shown thus

ASSOCIATED DEPARTMENTAL DOCUMENTS:

Bridge Scour Manual; Design Criteria for Bridges and Other Structures

REFERENCED DOCUMENTS:

Departmental Standard Drawings and Specifications:

- 1044 Reinforcing Steel - Lap Lengths
- 2235 Abutment Protection - Type 2 - Reinforced Concrete Over Spillthrough - Greater Than 1700 Clearance

MRTS03 Drainage, Retaining Structures and Protective Treatments

MRTS70 Concrete; MRTS71 Reinforcing Steel

Legislation: Work Health and Safety Act 2011; Work Health and Safety Regulations 2011

Department of Transport and Main Roads			
ABUTMENT PROTECTION			
TYPE 2 - REINFORCED CONCRETE OVER SPILLTHROUGH - UP TO 1700 CLEARANCE		A3	Standard Drawing No
		Not to Scale	2234
		A B	Date 11/19