

2.3	Design for durability	2
2.3.2	Durability requirements	2
2.3.2.5	Bridge joints.....	2
2.3.2.5.1	Expansion and/or fixed joints in decks	2
2.3.2.5.2	Joints in abutments, retaining walls, and buried structures.....	2
2.3.2.6	Drainage.....	3
2.3.2.7	Utilities.....	3
2.4	Aluminum	3
2.4.2	Detailing for durability	3
2.4.2.2	Inert separators	3
2.7	Waterproofing membranes	3
2.8	Backfill material.....	3
2.9	Soil and rock anchors	4
2.10	Other materials	4

2.3 Design for durability**2.3.2 Durability requirements****2.3.2.5 Bridge joints****2.3.2.5.1 Expansion and/or fixed joints in decks**

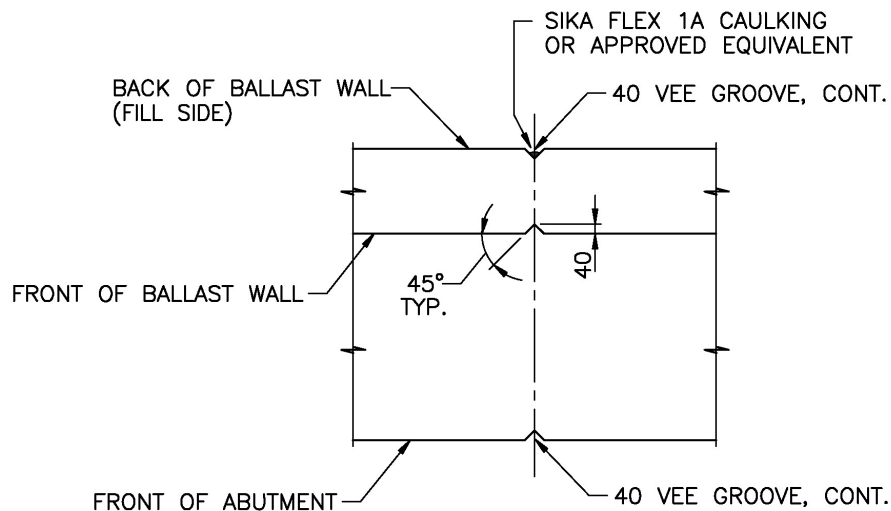
Joints shall be designed such that they can be easily accessed for flushing, maintenance, inspection and repair.

Commentary: Joint seals shall be assessed for serviceability throughout the full temperature range at the site. Only products listed in the Ministry Recognized Product List, or as Approved otherwise, shall be incorporated into the work. Refer to <http://www.gov.bc.ca/> and click sequentially on "Ministry and Organizations", "Transportation", "Report and Publications", "Engineering Publications", "Geotechnical and Pavement Engineering Publications", and "Recognized Product List".

2.3.2.5.2 Joints in abutments, retaining walls, and buried structures

Typical details for concrete control joints are shown in Figure 2.4.2.5.2.

**Figure 2.3.2.5.2
Typical control joint**

**NOTES:**

1. ABUTMENT/BALLAST WALL SHOWN OTHER WALLS SIMILAR.
2. MAXIMUM SPACING OF CONTROL JOINTS = 3.0m
3. JOINTS TO BE LOCATED AT HORIZONTAL DRAINS THRU WALL AND AT ABRUPT ABUTMENT OR WALL SECTION CHANGES. INTERMEDIATE JOINTS TO BE LOCATED TO MEET MAX. SPACING OF 3.0m
4. CONTROL JOINTS (AND HORIZONTAL DRAINS) ARE TO BE LOCATED TO AVOID BEARING SEATS.
5. LOCATIONS OF CONTROL JOINTS ARE TO BE SHOWN ON ABUTMENT OR WALL ELEVATION.

2.3.2.6 Drainage

Amend the second sentence in the second paragraph as follows:

Downspouts shall extend a minimum of 500 mm below adjacent members, except where prohibited by vertical clearance requirements.

2.3.2.7 Utilities

The Ministry's "Utility Policy Manual" shall be followed for procedures and guidelines regarding the installation of utilities on or near bridges.

2.4 Aluminum

2.4.2 Detailing for durability

2.4.2.2 Inert separators

Aluminum railing post surfaces in contact with concrete shall be coated with an alkali resistant bituminous paint, and anchor bolt projections and washers shall be coated with an aluminum impregnated caulking.

2.7 Waterproofing membranes

Unless otherwise consented to by the Ministry, all bridges in the South Coast Region shall have waterproofing membrane and 100 thick asphalt overlay on top of the bridge deck in accordance with SS419.

Only products listed in the Ministry Recognized Products List, or as Approved otherwise, shall be incorporated into the work.

Commentary: Refer to <http://www.gov.bc.ca/> and click sequentially on "Ministry and Organizations", "Transportation", "Report and Publications", "Engineering Publications", "Geotechnical and Pavement Engineering Publications", and "Recognized Product List".

2.8 Backfill material

A drainage course shall be provided along the backside of all foundation walls located in cut providing positive drainage through 100 mm weep holes provided a minimum 3.0 m spacing along the footing line. Drains are not required for abutments located on compacted standard granular bridge end fills.

The gradation of drainage course material shall be as follows:

Sieve Size (mm)	Passing Per Nominal Maximum Size
40	100
20	0 - 100
10	0

2.9 Soil and rock anchors

Soil and rock anchors permanently incorporated into the structure shall be provided with a double corrosion protection system.

2.10 Other materials

Premoulded joint fillers on bridge structures shall consist of minimum 25 thick Evazote 50, or equal as consented to by the Ministry, and shall be applied in accordance with the manufacturer's instructions.