KERBS, FOOTWAYS AND PAVED AREAS

Contents

Kerbs, Footways and Paved Areas

1101 Precast Concrete Kerbs, Channels, Edgings and Quadrants

1 Precast concrete kerbs, channels, edgings and quadrants shall be hydraulically pressed complying with BS 7263: Part 1. They shall be laid and bedded in accordance with BS 7263: Part 2 on the concrete pavement slab, a mortar bed, the roadbase, or on a mix ST4 concrete foundation, whilst it is still plastic or after it has set. All precast units shall be backed with mix ST4 concrete.

2 Joints shall be provided in kerbs, channels, edgings and backing, which are laid on or adjacent to a concrete pavement to coincide with the pavement transverse contraction, warping and expansion joints. The joints shall be the same width as the joint sealing grooves of the pavement and shall be caulked and sealed as described in Clauses 1016 and 1017. Concrete foundations to kerbs, channels and edgings laid adjacent to a concrete pavement shall be provided with joint filler board complying with Clause 1015 placed vertically through the full extent of the concrete foundation at positions coinciding with the pavement joints. At expansion joints in bridge decks, the kerb joints shall be as described in Appendix 11/1. Where the details of bridge expansion joints are proposed by the Contractor, such details shall include the intended treatment at kerbs and footways.

3 For curves of radius 12 m or less, kerbs of appropriate radius shall be used.

4 The surface level of units of kerb, channel, edging and quadrant shall not deviate from the design level ±6 mm, nor shall the longitudinal surface regularity deviate more than 3 mm in 3 m when checked with a 3 m straight edge. Horizontal alignment shall comply with Clause 702.

1102 In Situ Asphalt Kerbs

1 The materials for, and making and placing of in situ asphalt kerbs shall comply with the recommendations of BS 5931. In addition, a tack coat shall be used and they shall be laid by a machine capable of producing a dense, smooth-surfaced kerb to true line and level.

2 Kerbs shall be constructed to the dimensions described in Appendix 11/1.

3 Vertical expansion and contraction joints shall be formed in kerbs laid on unreinforced concrete slabs and jointed reinforced concrete slabs to coincide with the pavement transverse expansion and contraction joints. All joints shall be sealed in compliance with Clauses 1016 and 1017.

4 The vertical alignment of the top of the kerb shall not depart from the design level by more than ± 6 mm and at any point the maximum deviation of the top of the kerb under a straight edge shall be not greater than 3 mm in 3 m.

5 The horizontal alignment shall not depart from that described in the Contract by more than ±13 mm nor deviate from the straight by more than 3 mm in 3 m.

1103 In Situ Concrete Kerbs, Channels and Edge Details

1 In situ concrete kerbs, channels and edge details shall comply with the recommendations of BS 5931 and shall be laid by a machine capable of forming dense kerbs or surface water channels or edge details with regular sides, arrises and chamfers, finished to a fine surface free from blow holes and dragging to true line and level and constructed to the dimensions described in Appendix 11/1.

2 The concrete shall be Grade C40 complying with Clause 1001. Coarse aggregate used in kerbs and channels shall be partially crushed or crushed materials.

3 The concrete shall be cured by one of the methods specified in Clause 1027 unless otherwise described in Appendix 11/1.

4 Kerbs, channels and edge details shall be firmly secured to the surface on which they are laid. Vertical expansion and contraction joints shall be formed in kerbs, channels and edge details laid on or adjacent to unreinforced concrete slabs and jointed reinforced concrete slabs to coincide with the pavement transverse expansion, warping and contraction joints. Vertical expansion joints at 40 m spacings and intermediate contraction joints at 5 m spacings shall be formed in kerbs, channels and edge details laid on or adjacent to other types of

concrete and flexible pavement. Expansion joints may be replaced by contraction joints during the summer period in accordance with Clause 1009. All joints in kerbs, channels and edge details shall be sealed in compliance with Clauses 1016 and 1017.

5 The vertical alignment of the finished kerb shall not depart from the design level by more than ±6 mm and, at any point, the maximum deviation of the top of the kerb under a straight edge shall be not greater than 3 mm in 3 m.

6 The horizontal alignment shall not depart from that shown in the Contract by more than ±13 mm, nor deviate from the straight by more than 3 mm in 3m.

1104 Footways and Paved Areas (Precast Concrete Flags)

1 Precast concrete flags shall be hydraulically pressed, complying with BS 7263: Part 1.

2 Flags shall be laid in accordance with BS 7263: Part 2, to the required cross falls with a bond as described in Appendix 11/1 and with joints at right angles to the kerb. Flags shall be bedded on a layer of mortar not less than 10 mm and not more than 40mm thick. Where permitted by the Engineer as an alternative, flags 450 mm x 450 mm and smaller may be bedded on a layer of clean sharp sand complying with BS 882 Grading C or M, 25 mm ± 10 mm thick.

3 On circular work where the radius is 12 m or less all flags shall be radially cut on both edges to the required line.

1105 Footways and Paved Areas (Flexible Surfacing)

1 Flexible surfacing for footways and paved areas shall be 10 mm size open graded bitumen macadam wearing course made and laid in compliance with Clause 916, or other material described in Appendix 11/1. The colour of the surfacing shall be as described in Appendix 11/1.

2 Surfacing shall be laid to design levels and crossfalls, and be of 50 mm nominal layer thickness or as otherwise described in Appendix 11/1.

3 Surfacing shall be laid on a sub-base of 150 mm nominal thickness of granular material complying with Clause 804, laid and compacted to Clause 802, or as otherwise described in Appendix 11/1.

4 The vertical alignment of the finished surface shall not depart from the design level by more than ± 10 mm and at any point the maximum deviation of the surface under a straight edge shall not be greater than 5 mm in 3 m.

1106 Footways and Paved Areas (In Situ Concrete)

1 In situ concrete for footways and paved areas shall be Grade C30. It shall be made, laid and cured in accordance with the requirements of Series 1000 or as otherwise described in Appendix 11/1. It shall be finished by floating with a wooden trowel and while still "green" lightly brushed with a bass broom to produce a slight roughness, or as otherwise described in Appendix 11/1.

2 In situ concrete shall be laid to design levels and crossfalls, and be of 100 mm nominal thickness or as described in Appendix 11/1.

3 Expansion joints shall be neatly formed in straight lines, at not greater than 3m centres, and so arranged as to coincide with the joints in the kerb. Joints shall be formed by inserting a double layer of roofing felt or other approved material, which shall extend for the full depth of the slab and be finished off neatly at the surface.

4 In situ concrete shall be laid on a sub-base of 100 mm nominal thickness of granular material complying with Clause 803 or 804, laid and compacted in compliance with Clause 802, or as otherwise described in Appendix 11/1.

5 The vertical alignment of the finished surface shall not depart from the design level by more than ±10 mm and at any point the maximum deviation of the surface under a straight edge shall not be greater than 5 mm in 3m.

1107 Footways and Paved Areas (Concrete Block Paving)

1 Precast concrete paving blocks shall be chamfered and shall comply with BS 6717 : Part 1 and conform to the shapes, dimensions and colours described in Appendix 11/1.

2 Precast paving blocks shall be laid in accordance with BS 6717 : Part 3.

3 The layout of blocks and details at edges, chamber covers, gullies and other openings shall be as described in Appendix 11/1 or, where not so described, subject to the approval of the Engineer prior to laying.

4 The vertical alignment of the finished surface shall not depart from the design level by more than ± 10 mm and at any point the maximum deviation of the surface under a straight edge shall not be greater than 5 mm in 3 m.

1108 Not Used

1109 Not Used