APPENDIX 11/1: Kerbs, Footways and Paved Areas

The information in this appendix shall be read in conjunction with the Kerbs, Footways and Paved Areas plan drawing (DCS20109-ARUP-DC-01-XX-DR-C-98211) and construction details drawing (DCS20109-ARUP-DC-01-LP-DR-C-98510).

Precast Concrete Kerbs, Channels, Edgings and Quadrants

1. Kerbing, channelling, quadrants, edgings and safety kerbs shall be laid in accordance with Clause 1101 of the Specification. Kerb, channel and edging unit dimensions are to be as shown on the drawings. Quadrant profiles shall match that of the adjacent kerb type. The bedding and backing details shall be in accordance with the Contract drawings for the adjacent kerb type.

2. Units shall be laid with close, dry joints unless described in the Contract; the colour of the mortar shall match the colour of the kerb.

3. Pre-cast concrete kerbs and edgings shall be as listed in the table below:

Type		Designation	BS EN 1340 Table NA.1 Reference
Kerb	Bull Nosed Kerb (Used as dropped)	K2/BN	Figure NA.1a
	Half Battered Kerb	K1/HB2	Figure NA.1d
	Square Channel	K3/CS2	Figure NA.1g
	Transition Kerb	DL2/DL2	Figure NA.2b
	Safety Kerb	K4	-
	Safety Kerb Transitions	-	-
Edging	Flat Top Edging	E1	Figure NA.3b

4. The performances and classes of pre-cast concrete kerbs, edgings and quadrants shall be as listed in the table below:

Performance	BS EN 1340 Clause 5.3 Table Number	Classification
Weather Resistance	2.2	Class 3
Bending Strength	3	Class 3
Abrasion Resistance	4	Class 3

5. No pre-cast concrete kerb unit less than 300mm in length shall be incorporated into the Works. Kerbs are to be mitred at junctions between kerb lines or angle kerbs used.

6. Where kerbs are to be lifted on the same alignment. The resulting void is to be filled with class ST4 concrete.

7. All kerbing should be laid by mechanical means.

8. Concrete curing shall be as per Clause 1027.

Footways & Paved Areas

9. For locations of footways and paved areas, refer to drawing DCS20109-ARUP-DC-01-XX-DR-C-98211 and for details refer to drawing DCS20109-ARUP-DC-01-XX-DR-C-98510.

10. The dimensions, type designations, performance classes and construction of footway and paved areas shall be in accordance with the table below.

Block Paving Footway Type 1 shall be as follows:

Material	Dims (mm)	Thickness (mm)	Description	Requirements
Block Paving	200 x 100	80	Block Paved Footway. Laid Stretch bond in line with kerb unless otherwise stated on the drawings	Natural coloured Marshall's 'Keyblok' or equivalent. BS EN 1338 Jointing sand to comply with BS882 (Marshall's 'Joint Filling Sand' or equivalent). Blocks to be sealed with a sealant approved by the Engineer (Marshall's 'Keybond Jointing Sand Stabilizer' or equivalent).
Bedding		50	Sand Bedding	BS EN 7533-10:2021, Clause 5.3
Sub Base		150	Granular Type 1 sub base	Clause 803 *Minimum subgrade CBR 15%

* It may be necessary to stabilise subgrade or replace with granular capping, if CBR <2.5%. To be confirmed with the Engineer following CBR test results.

Permeable Block Paving Footway Type 2 shall be as follows:

Material	Dims (mm)	Thickness (mm)	Description	Requirements
Block Paving	200 x 100	80	Block Paved permeable footway. Laid Stretch bond in line with kerb unless otherwise stated on the drawings	Natural coloured Marshall's 'Priora' or equivalent. BS EN 1338 Jointing sand to comply with BS 7533-13:2009
Bedding		50	Sand Bedding	In accordance with BS 7533-13:2009
Sub Base		150	Granular Type 3 sub base	In accordance with BS 7533-13:2009, A.1

* It may be necessary to stabilise subgrade or replace with granular capping, if CBR <5%. To be confirmed with the Engineer following CBR test results.

Flexible Footway Construction Type 3 shall be as follows:

Pavement Course	Clause	Material	Binder Grade	Thickness (mm)	Additional Requirements
Surface Course	909	Dense Asphalt Concrete	100/150 Pen	20	BS 4987: Part 1: Clause 7.5 Aggregate types: Crushed rock or slag Nominal size: 6mm Minimum PSV: 50 Maximum AAV: 10
Binder Course	929	Dense Asphalt Concrete	160/220 Pen	50	BS 4987: Part 1: Clause 6.5 Nominal size: 20mm
Sub-Base	803	Granular Type 1	N/A	150	*Minimum subgrade CBR 15%

* It may be necessary to stabilise subgrade or replace with granular capping, if CBR <5%. To be confirmed with the Engineer following CBR test results.

Flexible Footway Construction Type 4 shall be as follows:

Pavement Course	Clause	Material	Binder Grade	Thickness (mm)	Additional Requirements
Surface Course	909	Dense Asphalt Concrete	100/150 Pen	20	BS 4987: Part 1: Clause 7.5 Aggregate types: Crushed rock or slag Nominal size: 6mm Minimum PSV: 50 Maximum AAV: 10
Binder Course	929	Dense Asphalt Concrete	160/220 Pen	As required for regulating	BS 4987: Part 1: Clause 6.5 Nominal size: 20mm

Crossing tactile blister paving shall be as follows:

Material	Dims (mm)	Thickness (mm)	Description	Requirements
Blister Tactile paving	400 x 400	65	Buff coloured precast concrete tactile blister paving	Marshalls 'Blister' tactile paving or equivalent. Reference: FL6101000. Clause 1104 Desirable ramp gradient: 1:20 Maximum ramp gradient: 1:12
Bedding		25	Designation (ii) or (iii) mortar	Clause 2404
Sub Base		150	Granular Type 1 sub base	Clause 803 *Minimum subgrade CBR 15%

* It may be necessary to stabilise subgrade or replace with granular capping, if CBR <5%. To be confirmed with the Engineer following CBR test results.

Crossing tactile hazard warning paving shall be as follows:

Material	Dims (mm)	Thickness (mm)	Description	Requirements
Hazard Warning Tactile paving	400 x 400	50	Buff coloured precast concrete tactile hazard warning paving	Marshalls 'Hazard Warning' tactile paving or equivalent. Reference: FL6181050 Clause 1104 Desirable ramp gradient: 1:20 Maximum ramp gradient: 1:12
Bedding		25	Designation (ii) or (iii) mortar	Clause 2404
Sub Base		150	Granular Type 1 sub base	Clause 803 *Minimum subgrade CBR 15%

* It may be necessary to stabilise subgrade or replace with granular capping, if CBR <5%. To be confirmed with the Engineer following CBR test results.

11. Prepared formation shall be treated with non-toxic weed-killer prior to the placing of sub-base.

12. Grid for checking surface levels of pavement courses (Clause 702.4 refers) shall be 10m between edging / kerbs for both longitudinal and transverse dimensions.

13. Existing bituminous footway and cycleway that is to be resurfaced/regulated shall be broken out to achieve minimum 20mm thickness surface course.