



01 DRAWING REFERENCES SHOWING LOCATIONS, SPECIFICATION, ETC

The Bridge Deck Drainage Kerbs (BDK) shall comprise of Marshalls one-piece Bridge Beany® or alternative with equal hydraulic and loading performance. BDK to be manufactured from ductile iron (spheroidal graphite), with the exception of certain fittings such as expansion joints, end caps etc. BDK manufactured in 2 pieces and bonded together or joined with mechanical fixings during the manufacturing process shall not be used. Additionally, BDK made of non-metallic materials such as polymer bound materials, recycled plastic, polyester resin and SMC shall not be used. The selected products must be BSI Kitemark Certified, comply with BS EN 1433 and manufactured in the UK.

The BDK shall be installed to the manufacturer’s guidance and clause 516 of the SHW. The locations of all BDK, including access points, expansion joints and outfalls are shown on the contract drawing numbers:

[Insert drawing numbers]

Typical construction details are shown on drawing numbers:

[Insert drawing numbers]

02 LIMITING DIMENSIONS

Maximum width [Insert info], excluding haunching requirements). Maximum depth below finished road level to be [Insert info], excluding any bedding requirements. See Note 1 for Guidance on available size information.

Kerb upstand	[Insert info]
Kerb profile	[Insert info]

03 STRENGTH REQUIREMENTS

The units shall be Type 'I' (product achieves the required loading without the support of any haunching and bedding) and meet a minimum load class of E600 when tested in accordance with BSEN 1433 as per Clause 516.6 Specification of Highways Works. BDU that are tested and certified as Type 'M' (requires additional support to accommodate the vertical and horizontal loads in service) shall not be used. The selected products must be BSI Kitemark Certified.

04 HYDRAULIC DESIGN PARAMETERS

Design flows shall be accommodated without surcharge within the main bridge deck drainage kerb section and beneath the underside of any surface inlet apertures. The design has been based on Marshalls Bridge Beany®, any alternative system proposed by the Contractor should provide equal or greater capacity along with meeting the other requirements in this specification. The water inlet apertures shall be of equal size and shape with a total of 5No. surface apertures and 3No. sub-surface apertures per 500mm unit.

[Insert design criteria including any climate change or individual run requirements here, including run number, length]

05 SPECIAL FITTINGS REQUIRED

All accessories shall be designed to match and be fully compatible with the system used.

Joints shall be sealed with Marshalls M-Flex and shall be watertight.

Access covers to be installed at the head of the run and at a maximum of 50m spacings.

BDK to discharge via a prefabricated spigot outfall with access cover.

Access covers shall be hinged and installed to the direction of traffic. They shall be designed so as not to reduce the effective waterway area of the system.

The lengths of the units shall be selected to ensure horizontal and vertical curves can be achieved as shown in the drawings. For curves of radii 50m or less, the Contractor will need to check with the Manufacturer whether special units with appropriate splayed ends shall be used.

Expansion joint units are to be sleeved rather than a piped system and maintain the hydraulic cross section where available width allows.

06 SURVEYING REQUIREMENTS WITH PRE-CLEANSING REQUIREMENTS

[Insert info]

07 ALIGNMENT

The units, when installed, shall not deviate by more than 3mm in 3 metres from line and level.

08 GENERAL

The units shall consist of materials that are 100% recyclable.

The units shall be resistant to fire.

The units shall be UV resistant.

[Insert further info]

NOTES FOR GUIDANCE

Marshalls standard Bridge Beany® range consists of units that are 150mm, 175mm, 240mm, 300mm, 350mm and 450mm wide in half battered and 45° splayed profile. Standard half battered profile is available with 100mm upstand (200mm total depth). 45° splayed profile is available in both 75mm upstand (175mm total depth) and 100mm upstand (200mm total depth). A wide range of non-standard units are available with widths ranging from 150mm to 600mm, depths ranging from 125mm to 240mm and upstands ranging from 50mm to 180mm.

