

Installation Guidelines

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1. Excavation

- a. Sufficient material should be excavated to accommodate traffic drain Top and Base Units, concrete bedding and concrete haunch.
- b. Any 'soft spots' or poorly compacted formation should be made good.

2. Setting Out

- a. Setting out pins should be accurately located to the correct line and level with a string line level with the top front corners of the Base Units.
- b. It may be advantageous to locate setting out pins to the rear of the Units to avoid having to lift the Units over the string line.
- c. Sufficient setting out pins should be inserted where Traffic Drain base blocks* are laid on horizontal curves.

* Traffic drain base components same as mini beany

3. Outfalls

- a. Traffic Drain outfalls* should be installed first.
- * Traffic drain outfall units same as mini beany
- b. Sufficient material should be excavated to accommodate the required Traffic Drain outfall unit
 - i. Inline Side Outfall Unit
 - ii. Inline End Outfall Unit
 - iii. High Capacity Outfall
 - c. 125mm of ST4 mix (BS 8500-1&2) concrete of the appropriate mix is placed in the bottom of the excavation
 - d. The bottom section of the required traffic drain outfall is lowered into position
 - e. Sufficient M-Flex sealant is gunned onto the top horizontal surface of the bottom section of the two part traffic drain outfall so as to provide a seal between the top and bottom sections
 - f. The top section of the two part traffic drain outfall is lowered into position
 - g. The bedding concrete should be laid and brought up flush to the top of the traffic drain outfall
 - h. The traffic drain Cast iron Access Cover & Frame Unit is located on top of the top section of the outfall unit and should be set directly onto a liberal quantity of stiff, cement mortar to completely fill the whole of the joint.
 - i. Traffic Drain Access Covers and Frames are hinged and handed to the direction of the traffic, specified "nearside" and "offside".



Guidelines continued overleaf...

Installation Guidelines Continued...

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4. Base Unit/Channel Installation

- a. When used in conjunction with the Mini Beany system, Traffic Drain base channels are the same as Mini Beany base channels.
- b. Base Units shall be laid onto the freshly mixed bedding concrete, starting at the outfall, i.e. working uphill
- c. C20/25 concrete to BS 8500-1&2 and BS EN 206-1 for applications up to load classification C250 to BS EN 1433
- d. A C25/30 concrete to BS 8500-1&2 and BS EN 206-1 for applications up to load classification F900 to BS EN 1433
- e. Alternatively, the Base Units may be bedded on to a layer of 10 to 40mm cement mortar (M12 mortar to BS EN 998-2) on a previously prepared concrete foundation.

5. Channel Joint Sealant

- a. Sufficient M-Seal bituminous mastic jointing compound should be trowelled on to one end face of the Base Unit so that the joint will be well sealed when the next Unit is tamped into position.
- b. Surplus sealant shall be removed from the inner surface of the Units as work proceeds.

6. Traffic DrainTop Unit Installation

- a. The string line should be set to the level of the top corner of Units.
- b. Again, starting at the Outfall, the Units should be set directly onto a liberal quantity of stiff, cement mortar to completely fill the whole of the joint.
- c. Traffic drain top units should be bed on the following materials
- d. A Mortar class 12 cement mortar to BS EN 998-2 for bedding of the Cast Iron Top Units for applications up to Load Classification D400 to BS EN 1433
- e. Marshall's M-Bond epoxy mortar for bedding of Cast Iron Top Units for applications E600 and F900 to BS EN 1433
- f. The top units should be tamped into position close to previously laid Units and the alignment checked.
- g. The levels should be checked using the string line and a spirit level.
- h. In addition, the general alignment should be checked from all directions as each unit is laid. Any Unit deviating by more than 3mm in 3m from line and level shall be made good by lifting and relaying.
- i. Top units shall be laid with the top of the unit 5mm below the final pavement level.
- j. The inside and outside of the joints between Base and Top Units should be pointed and cleaned out with a brush or rag as work proceeds.
- k. It is not necessary for Top Block and Base Unit vertical joints to line up
- l. When installed, the minimum depth of construction above the top of the base unit to the drained area surface level shall be not less than 125mm.



Guidelines continued overleaf...

7. Cover Plates

- a. Cover Plates, when used, should be bedded on cement mortar to the specified thickness, pointed inside and outside of the joints with the inside of the Base Units being cleaned out as work proceeds.
- b. The Cover Plates should be close jointed and the joints sealed with 50mm wide M-Tape.
- c. Cover Plates shall be suitably protected before and during installation in order that the protective coating is not damaged.
- d. An ST4 mix concrete should be used for the bed and haunch of Base Units where cover plates are used.

8. Traffic Drain End Caps

- a. Where the traffic drain run does not terminate at an outfall, the base unit shall be sealed using the Traffic Drain End Cap of required depth.
- b. The End Cap shall be securely placed against the vertical end of the base unit and haunched with fresh concrete (ST1 mix to BS 8500-1&2).

9. Pavement Installation

- a. Where Traffic Drain is laid on or adjacent to existing or proposed concrete slabs, transverse joints shall be formed within the units and haunching adjacent to the slab joints and also longitudinal movement joints between the haunching and the slabs.
- b. Where necessary, top unit drainage apertures shall be protected against the ingress of material during concreting operations.

In accordance with the Health and Safety at Work etc Act 1974, the Manual Handling Operation Regulations 1992 (as amended 2004) and the Construction (Design and Management) Regulations 2007, risk assessments should be carried out to protect workers from risks associated with musculoskeletal disorders and work related upper limb disorders.

This may require the use of lifting aids to assist installation.

