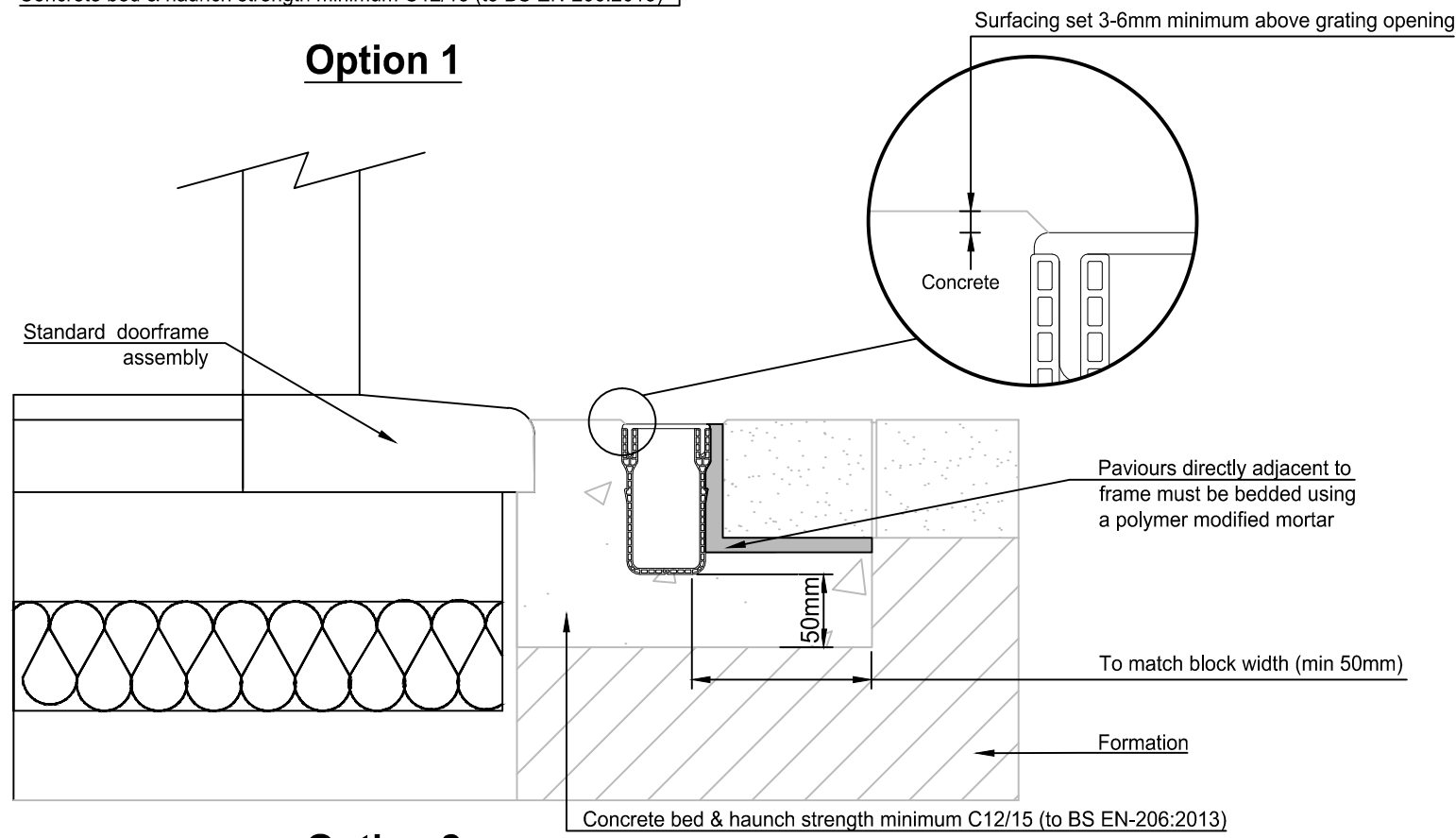


**Option 1**



**Option 2**

**NBS Specification:**  
 ACO Threshold Drain should be specified in section Q10:180. Assistance in completing this clause can be found in ACO Technologies product entries in NBS Plus, or a model specification can be downloaded from [www.aco.co.uk](http://www.aco.co.uk). For further assistance, contact the ACO Water Management Design Services Team.

**Best Practice and Workmanship:**  
 ACO can give guidance with respect to the most suitable methods of installation for each of the products in the ACO Threshold Drain range. ACO Threshold Drain should be installed using levels of workmanship that accord with the National Code of Practice (UK: BS8000-0:2014) and in keeping with BS EN 1433:2002 (Drainage channels for vehicular and pedestrian areas).

Detailed installation statements and methodologies will vary for all sites as each will have different aspects deserving particular consideration, consequently the relevant approvals should be sought from the consulting engineer and/or the installer.

**1.0 Load Class**  
 Installation recommendations shown are ACO minimum recommendations for BS EN 1433:2002 load class requirements.

**2.0 Ground Conditions**  
 The long term performance of a channel installation to sustain vertical and lateral loads depends upon A) ground conditions B) stability of the adjacent pavement and C) a durable concrete bed and surround. The recommended installation detail may require the minimum dimensions to be revised to achieve site specific load class requirements (referred to in 1.0 above).

**3.0 Installation into in-situ Slab**  
 Where a channel is to be installed into an existing concrete slab it is necessary to cut a suitably sized pocket in the slab. The channel will then need to be bedded in polymer modified mortar of 25mm minimum thickness (this may vary depending on the type of mortar used). Engineering advice may be necessary.


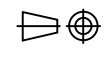
**4.0 Temporary Installation**  
 A channel installation is not complete until the final surfacing is laid. In any temporary condition, i.e. with the channel walls projecting above adjacent ground, site traffic should not cross channels. Loose boards, stone fill or cover plates will not protect the channel walls or grating. A temporary channel crossing should be formed by raising the ground level locally, to 3 - 6mm above top of ACO channel, either side of a channel for a distance of 750 to 1000mm, to form ramps. Note that the channel load class should be adequate to carry the site traffic.

**5.0 Block Pavements**  
 The channel must be supported laterally. Blocks laid directly against a channel must be restrained from movement by bedding securely on the concrete haunch e.g. by using a polymer modified mortar for bed and perpendicular joints (e.g. RONAFIX mortar mix C or similar). Blocks or slabs bedded on sand remote from the channel should be set at a higher level to compensate for possible settlement of the paving in service.

**6.0 Channel Protection**  
 Avoid contact between compaction equipment and top of ACO channel. The installer must ensure that the finished surface level lies above the top of the channel (by at least 3-6mm). Covering or protecting the grating, before concreting the haunch or laying blocks, removes the time and cost associated with cleaning the channel and grating of cement material and embedded stones. (Please note that ACO channels must be installed with the grating in place to prevent deformation of the channel).

**7.0 Watertight Installation to BS EN 1433:2002**  
 Where ACO channel joints/fittings and channel/pavement interfaces are to be sealed, an appropriate sealant should be used. Guidance on the necessary surface preparation and/or priming should be sought from the sealant manufacturer.

- For Guidance a typical method of application follows:**
- The end faces of the channels are to be sound and free from dust, oil, and grease, with any loose material or dirt removed, e.g. by mechanical wire brush. No water drops should be evident.
  - Using a standard cartridge gun, apply the sealant evenly and with no flaws. The detail on the ends of a channel varies from one product to another:
  - Products with a basically flat face - apply the sealant in a layer approximately 5mm thick to one face of the joint.
  - Products with a sealing groove within the end face - apply the sealant in a bead of approximately 10mm diameter into the sealing groove.
  - Products with a sealing groove following the inside shape of the channel - apply the sealant to the end face of the channel and to the sealant groove, such that when the joint is completed, the sealant will both cover the end face and fill the groove.
  - The channel unit should be placed on the prepared concrete bedding and pressed against the previously placed channel unit. A sealed joint of approximately 1-2mm width should be formed between adjacent channel units.
  - Excess sealant should be wiped from the inside face of the channel to leave a smooth finish.
  - The sealant is to be left to cure for 24 hours, during which time the sealant should be kept as dry as possible.

B	29/01/2018	Misc Changes	WBP
A	19/01/2018	Title Block	WBP
Version	Date	Description	Name
		Drawing Number: 24125	Revision: B
ACO Business Park Hitchin Road Shefford Bedfordshire SG17 5TE, UK Tel: 01462 816666 www.aco.co.uk		<b>ACO THRESHOLD DRAIN          INSTALLATION DETAIL DRAWING</b>	
Created by: WBP	Released by: WBP	Projection: ISO-A 	Units: mm
Created at: 09/11/2017	Released at: 19/01/2018		Format: A3
Replacement for:	Replaced by:		Scale: 1 : 5
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