THESE NOTES ARE TO BE READ IN CONJUCTION WITH ACO CHANNEL INSTALLATION SKETCHES

1.0 GROUND CONDITIONS: The long term performance of a channel installation to sustain vertical and lateral wheel loads depends upon a) ground conditions b) stability of the adjacent pavement and c) a durable concrete bed and surround. NOTE that the stability of any channel/concrete surround to resist lateral loads from manoeuvring vehicles should be checked. The dimensions shown on ACO channel installation sketches are those of the laboratory test block and customers should ensure that these minimum dimensions are suitable for the existing ground and service loading conditions. Engineering advice may be necessary.

2.0 BLOCK PAVEMENTS: THE CHANNEL MUST BE SUPPORTED LATERALLY if carrying vehicular traffic and therefore blocks laid directly against a channel must be restrained from movement by bedding securely on the concrete haunch e.g. by using an Epoxy or a Polymer Modified Mortar for bed and perpendicular joints (for example RONAFIX Mortar Mix C from Ronacrete : Tel 01279 638700) or similar. Engineering advice may be required. Blocks or slabs bedded on sand remote from the channel should be set at a higher level to compensate for any possible settlement of the paving in service.

3.0 SURFACE CRACKS: Alternate crack control and movement joints transversely within an exposed concrete bed and haunch may reduce unsightly surface cracking. As the design and layout of such joints is a function of the concrete mix design, the concrete curing regime and the contractor's programme (daywork joints for example) then engineering/contractor advice may be required.

4.0 JOINT SEALANT: Where ACO Drain channel joints/fittings and channel/concrete/pavement interfaces are to be sealed (where used in foul water or chemical applications for instance) contact a sealant specialist for guidance on the appropriate compound. It should be noted that the preparation of ACO resin concrete channels to receive a sealant does not vary from that required of cement concrete. Guidance on the necessary surface preparation and/or priming should be sought from the sealant manufacturer.

5.0 SURFACE PROTECTION: With asphalt pavements avoid contact between compaction equipment and channel/grating. This may be achieved by ensuring that the finished surface level lies above the grating level (by at least 3mm). Stones should be removed from grating prior to laying/rolling wearing course. Covering or protecting the grating, before concreting the haunch or laying asphalt, removes the time, and cost, of cleaning the channel and grating of cement/asphalt material and embedded stones.

6.0 MOVEMENT JOINTS: The channel must be isolated from lateral loads resulting from thermal movement of concrete slabs. A joint may be positioned up to 1.0/1.5m from the channel (UK external installations). In internal applications where temperatures are controlled, possibly within a low range of extremes, joints may not be required. Engineering advice may be necessary. If joints are doweled then it is imperative that the dowels are aligned correctly in relation to the joint in both vertical and horizontal planes; that they are effectively debonded (with a proprietary sleeve and capping). Cutting of the joint material (to allow dowel fixing for example) must be made good to prevent the passage of concrete through a joint.

7.0 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 an asphalt base course or concrete sub-base, 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 asphalt base course locally, to 3 - 5mm above grating level, either side of a channel for a distance of 750 to 1000mm say, to form ramps. Concrete ramps should be formed in other pavements. NOTE that the channel LOAD CLASS should be adequate to carry the site traffic.

8.0 OVERLAY GRATING : The longitudinal edges of an overlay grating, which is designed to sit on top of a channel, are not protected by channel edge rails. Overlay gratings are designed principally for block or paving slab installations. Installed within a concrete or an asphalt pavement it is important to ensure that the grating edges are isolated from the concrete or asphalt to facilitate grating fixing/removal.

9.0 FURTHER ADVICE : Refer to ACO Technical and Installation Manuals for further information and advice concerning a) Handling b) Health and Safety c) Maintenance and d) Detailed installation guidance etc., etc. Advice, on any aspect of ACO channel systems, may also be obtained from ACO Drain Technical Department.

Issue	Date	Description	Name
C	7.10.04	NOTE 2 AMENDED	RJAB
B	19.6.02	NOTE 5 AMENDED	WSM
A	21.5.02	RE-DRAWN WITH NEW NUMBER	MJS

Material: n/a	Weight: n/a	ACO	ACO Business Park Hitchin Road, Shefford, Bedfordshire, SG17 5TE. Tel: 01462 816666 Web site: www.aco.co.uk
Tolerance: n/a	Surface Finish: n/a		

	Date	Name	Scale:	Unit:	Projection: ISO-E	
Drawn:	21.5.02	MJS	1:10	mm		
Checked:	21.5.02	WSM		Project No. n/a		
Update:						

Title	Drawing No.	Issue
ACO INSTALLATION NOTES	E1 | E01-003-3	C

Part No.	Replacement for: n/a
	Replaced by: n/a