

SITE LAYOUT, EXCAVATIONS AND URINE AND RAINWATER SOAKAWAYS

The drawings and instructions included with this guide show:-

1. The **Site Layout for the COMPUS TWIN COMPOSTING TOILETS**
2. The required **Excavations for Urine and Rainwater Soakaways**
3. The method of installing or constructing these.

As levels of use, site conditions and local regulations will vary considerably, **NatSol** is unable to provide site-specific design advice on disposal of urine from the toilet or rain from the roof. These notes are provided as an illustration of typical requirements to allow the planning of an installation but do not guarantee compliance or adequate performance for a given site. Whilst the volumes discharged are generally too small to cause concern, Building Control and the Environment Agency should have been consulted prior to installation.

Although volumes of urine or roof run-off are small under-sized soakaways in heavy soil or where there is a high water table will fail. This could result in surface water backing up and flowing into the compost chamber via the urine outlet. **It is essential that this toilet is not installed on sites which may become waterlogged or flooded at any time during the year without first consulting NatSol to discuss possible solutions.**

Roofwater

Ideally this should be collected in a water butt. However any overflow must be directed away from the building foundations. It is recommended that the roof water is kept out of the urine soakaway and directed to a separate soakaway.

The soakaway required for rain could be a pit 600mm square by about 600mm deep filled with broken bricks, or similar, to a depth of 500mm. this should suffice in all but the heaviest soil. See fig 1. A layer of geotextile excludes soil and the pipe enters just beneath this.

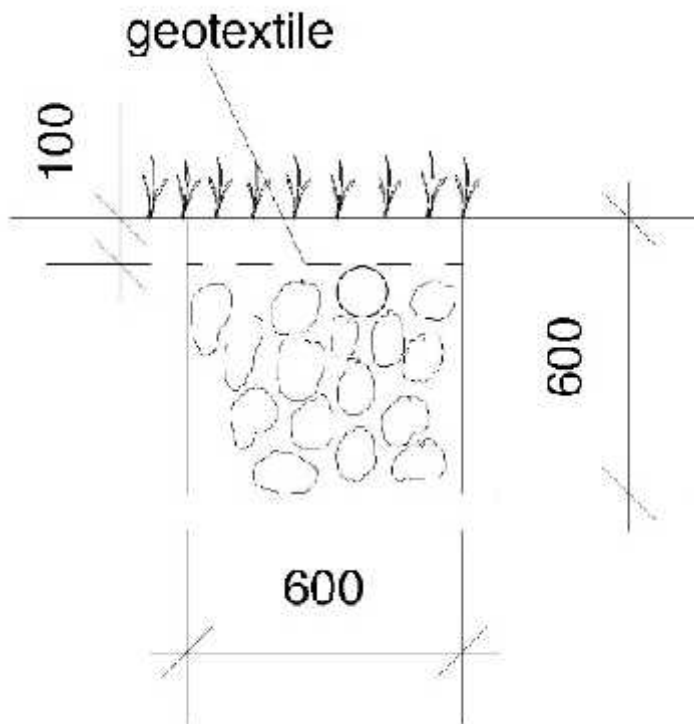


Figure 1. Rainwater soakaway.

Urine

For most toilets we now supply this ready made GRC soakaway for urine.



Please examine these photographs and see the excavation drawings before installing.



Excavate an area of ground measuring 1.5 m by 1.5m and 380mm deep. It should be no closer than **1m** from the side of the vaults and in a position that the urine exit pipe [usually on the RHS of the vaults looking from the front] can be connected easily to the soakaway unit. It should be at least 1m from the rainwater soakaway. If there is no room on the RHS then make the excavation behind the toilet vaults. To have sufficient gradient on the pipe the soakaway should be no further than **3m** away on a flat site.

You will have to judge the precise excavation depth so that when you eventually cover the membrane with soil the finished ground level is just beneath the aluminium cover on the gully. The pipe from the vaults should fall at not less than 1:60. See **Vault Installation** for pipe connection details.

Position the unit in the centre of the hole so that a 110mm underground pipe from the vaults can connect to the brown 110mm pipe stub projecting through the near end of the unit shown above. Place **clean hardcore or stone** (no sand) to each side of the unit where the slots occur. Cover the whole unit and the hardcore or stone with the geo-textile provided and cover with earth.

Site constructed urine soakaway

On some sites a urine soakaway constructed on site purely from hardcore may be more appropriate – figure 2. **This will have been agreed before supply of goods.** If constructed it should be shallow to allow dispersal and treatment in the biologically active topsoil.

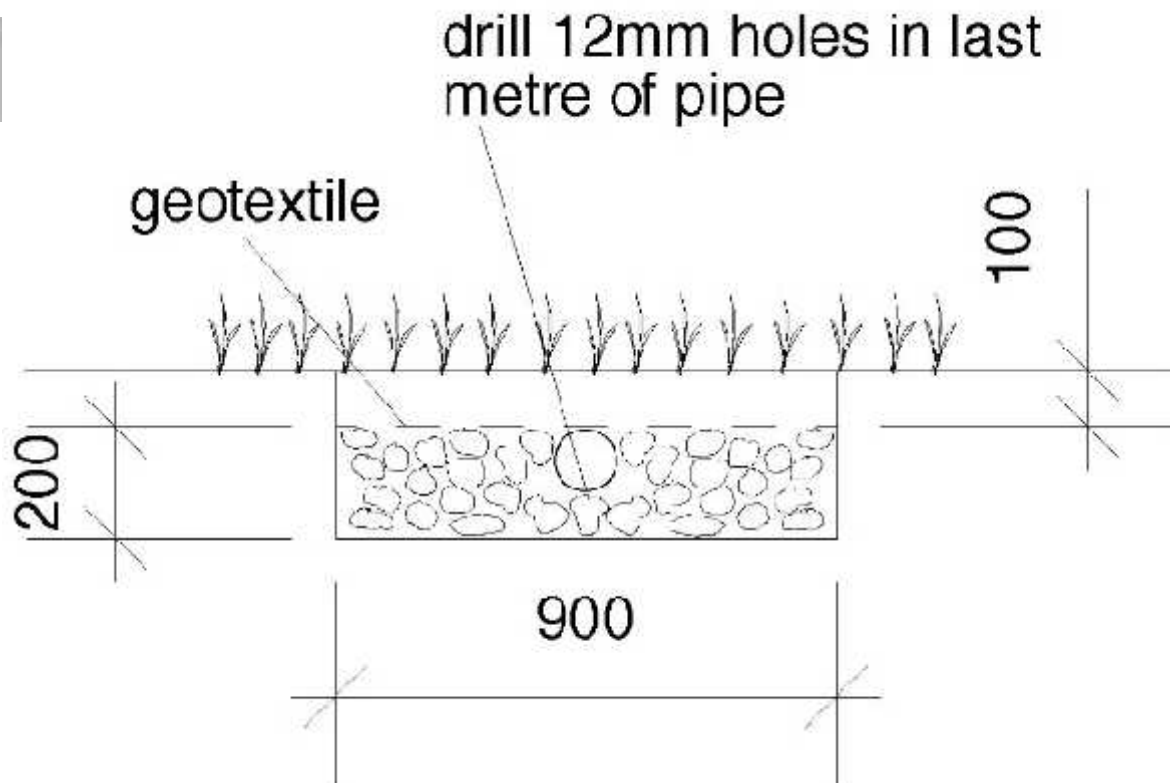
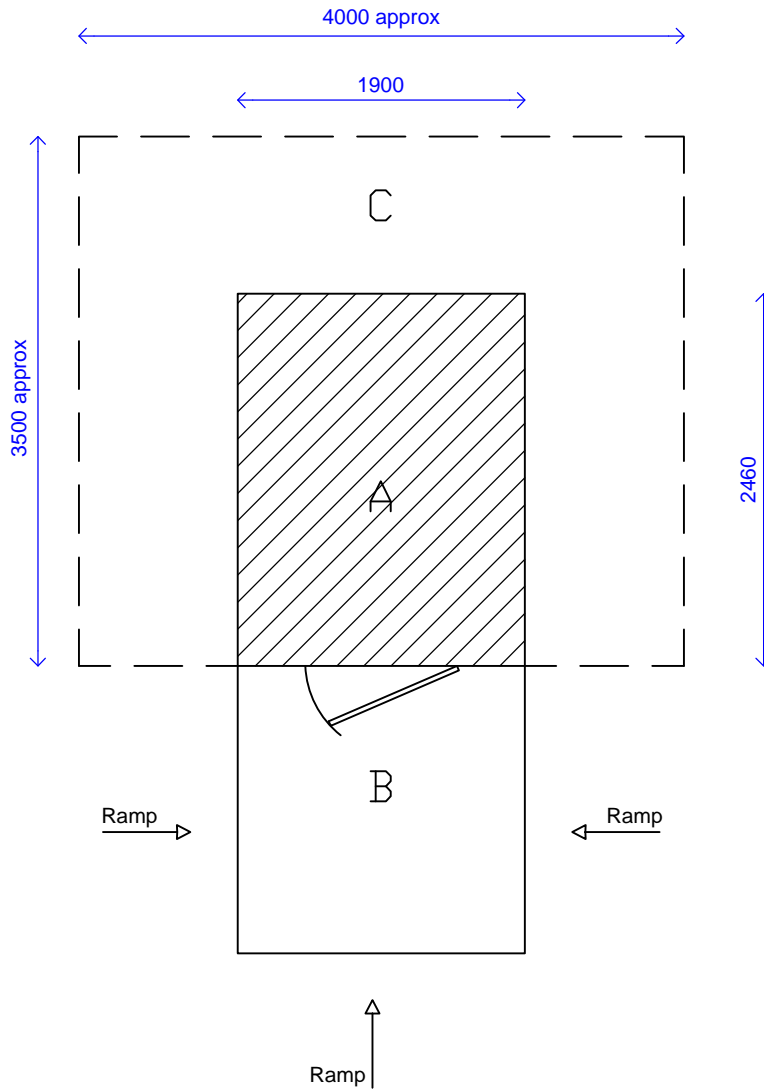
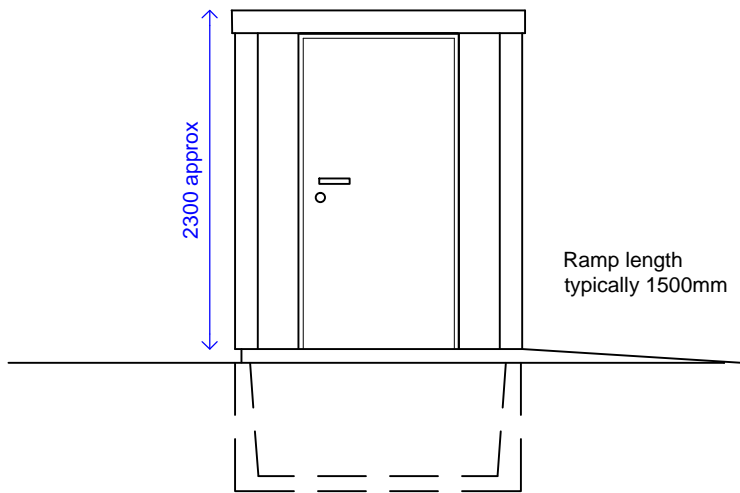


Fig2. Site urine soakaway

T:01686 412653



KEY

Hatched area 'A' is building footprint and excavation area. Excavations approx 2m x 2.5m. Depth as agreed for each site with Natsol in advance but usually between 750mm and 850mm.

'B' is level area in front door about 150mm above surrounding ground level and a minimum 2200mm front to back.

'C' is clear space of approximately 1m wide all round for erection and maintenance

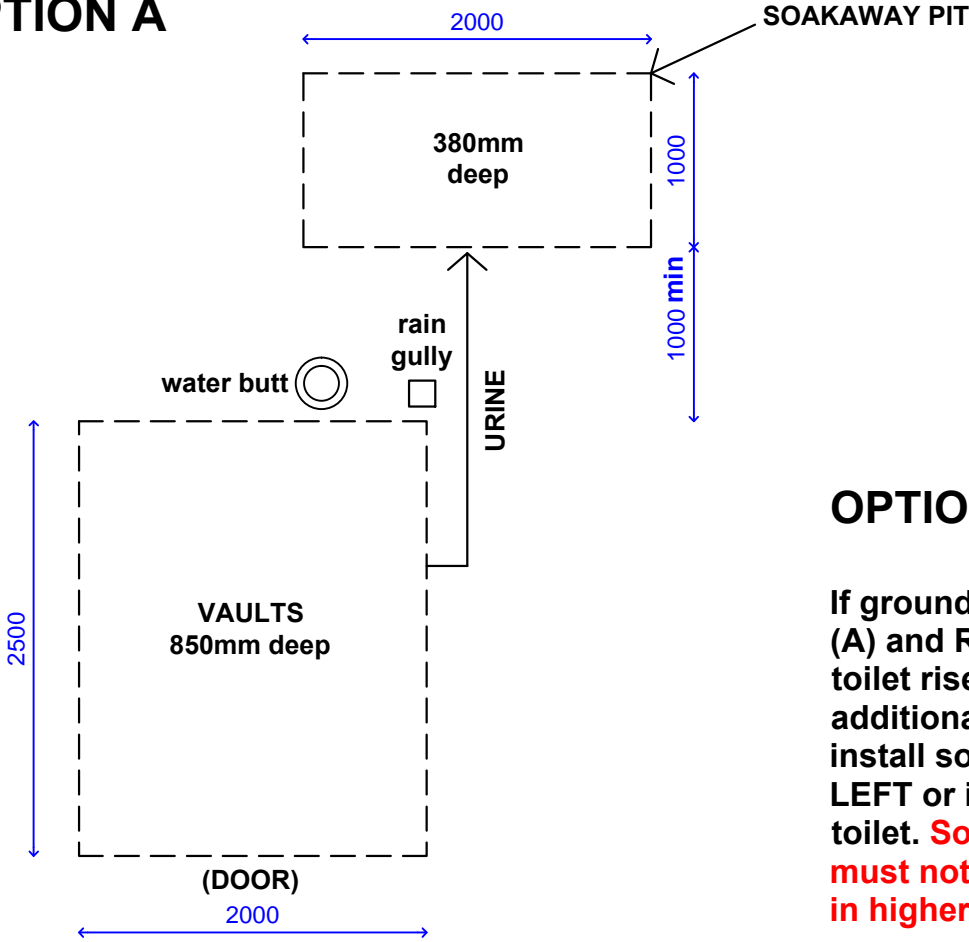
NOTES

1. Door opens out.
2. Ramp from any direction at maximum of 1:12



 THE COMPOST TOILET SPECIALISTS	Compus Twin - Full Access	
	Site dimensions	
	Date 15.9.14	Scale 1:50
Natsol Ltd Tel: 01686 412653 www.natsol.co.uk		Drg. No. 002
		Drn.M.Waterfield

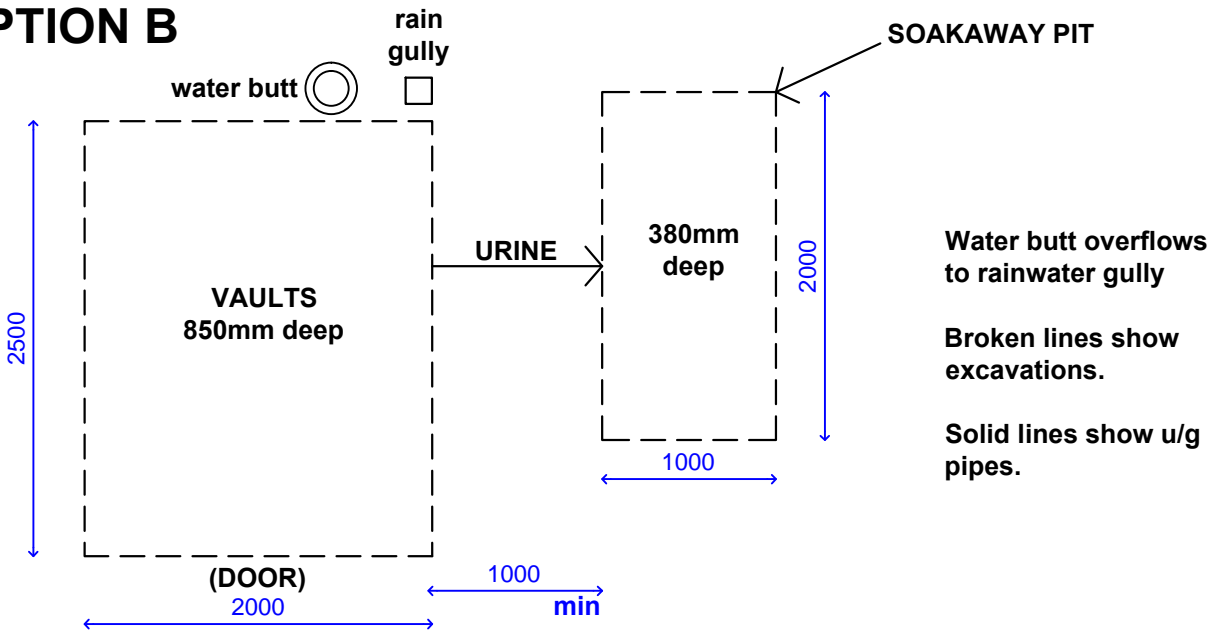
OPTION A



OPTION C

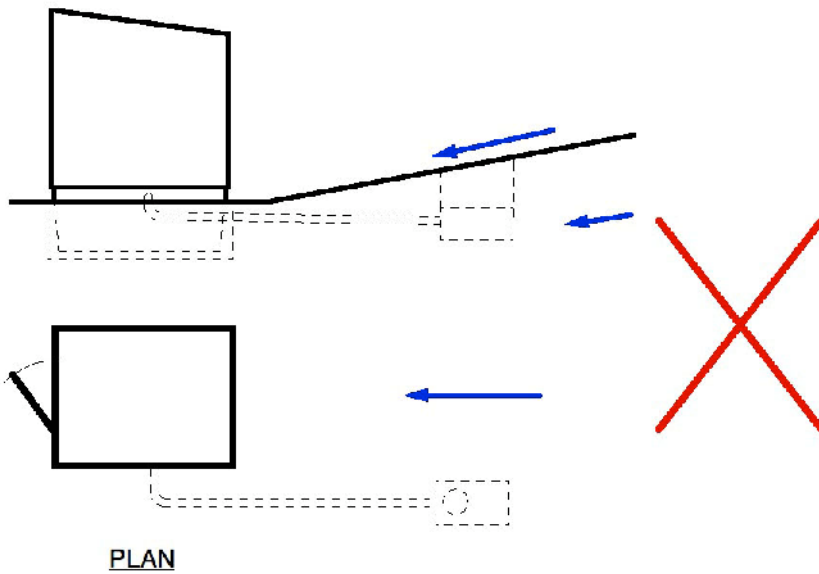
If ground to REAR (A) and RIGHT (B) of toilet rises then use additional pipe and install soakaway to LEFT or in FRONT of toilet. **Soakaway must not be installed in higher ground!**

OPTION B

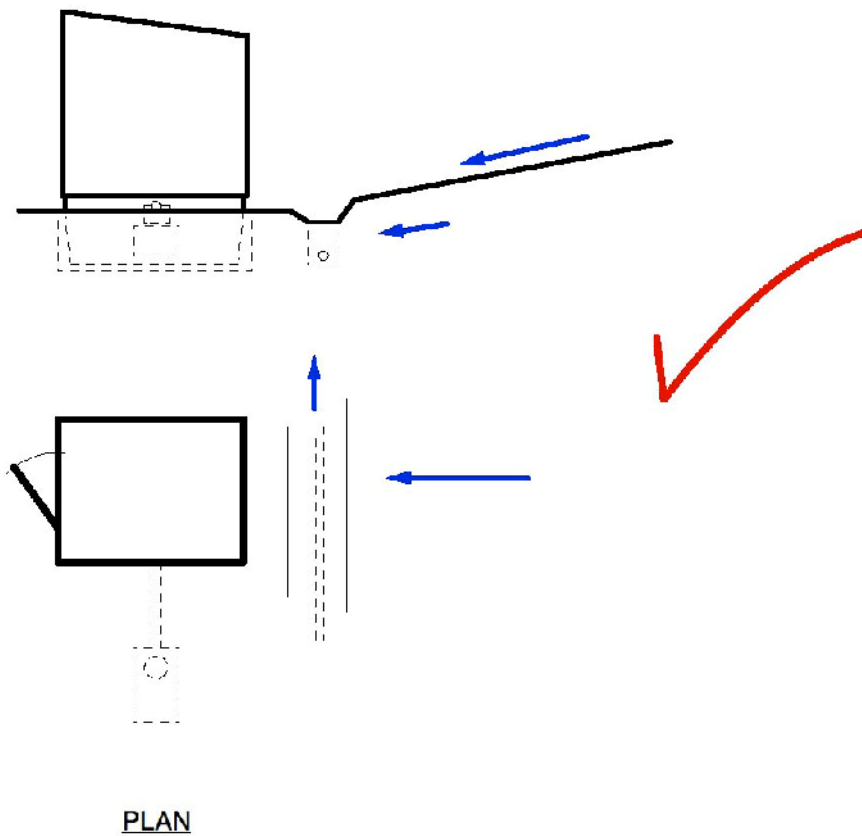


 THE COMPOST TOILET SPECIALISTS	Compus Twin full access	
	Excavations	
Natsol Ltd Tel: 01686 412653 www.natsol.co.uk	Date 20.12.12	Scaled to fit
	Drg. No.	
	Drm. B.Wade	

SOAKAWAYS AND FLOODING RISK – SLOPING SITES



Ground water around the soakaway could cause vaults to flood!!



Install a land-drain to prevent flooding of soakaway area.