

SOIL INFILTRATION RATE TESTING BRIEF

This test method follows the procedures laid out by the BRE Digest 365 (2016)

Trial Hole Digging

- CAT scan location of proposed trial hole to check for existing buried services.
- The test hole should be typically 0.3m-1m wide and 1m-3m long, with vertical sides cut square. Make a record of the test hole dimensions.
- The base of the trial hole should be approximately the same depth as anticipated in the full size soakaway.
- Overall excavation depth is typically 1.5m-2.5m, unless otherwise instructed by drainage designer.

Test Procedure

- Fill trial hole with water – this should be done rapidly, not with a hose pipe.
- Record the time taken for the water level to fall within the trial hole from 75% to 25% full. A record sheet is provided attached to this brief.
- Repeat 3 times, allowing the trial hole to drain between tests.
- Record and photograph pit dimensions, groundwater level (if encountered) and note strata type at each location.
- At the end of testing, the pit is to be backfilled and made safe.

Calculating The Result

$$\text{Soil infiltration rate } f = \frac{V_{p75-25}}{a_{s50} \times t_{p75-25}}$$

Where:

V_{p75-25} = Effective storage volume of water in the soakage trial pit between 75% and 25% effective storage depth.

a_{s50} = Internal surface area of the soakage trial pit up to 50% effective storage depth and including the base area.

t_{p75-25} = Time for the water level to fall from 75% to 25% effective storage depth.

Alternatively contact Dixon Civils on 01249 490813, who can assist with converting the test results and assist with your Sustainable Drainage Design.

The attached test record sheet can also be sent to Enquiries@DixonCivils.Com