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Registered in England No. 01602629
Part of Mayglothing Waste Ltd

Client CS Birks Associates Ltd
Site Address Old Downton Lodge and Farm, Downton on the rock, Ludlow, SY8 2HU.
Ref 0164511
SO 4277973456

Site Investigation

Date 29/11/2018

Engineer James Price

Description

Carry out soil infiltration test ref BRE DG365/2016. Depth 1.7m. 1 test hole. 3 Fills.

Conditions Wet weather, ground fairly dry.

Overview

Client is required to plan SUDS drainage for storm water from 3 buildings on site.

- Impervious area 245m²
- Preferred option to soak away with attenuation. (Crates)

Site Investigation and testing

One test hole dug

- 1.7m deep x 0.6m wide x 2.0m long
- Filled to ground level 3 times and allowed to drain.
- Slowest soil infiltration rate at relevant depths $f = 8.6 \times 10^{-5}$ m/sec. (From second fill).

Design Rainfall

- Design Rainfall Calculated from $r1=0.30$
- Various Durations of 5min-24Hr, 10 and 100yr events.
- Final Calculation based on M100-24Hr = 110mm x 245m² = 27m³ Daily Rainfall Captured.
- Allowance for 40% CC increase. M100-24Hrcc=38m³Daily Rainfall.

Soak Away Design Revised 23/1/19

- Wavin, Aquacell Prime, 1m x 0.5 x 0.4. Depth 0.9-1.7m, light traffic and landscaping.
- Base depth 1.7m below ground.
- Attenuation tank 12m long x 2m wide x 0.8m deep.
- Total Storage Volume 18m³ (allowing 95% of crate volume as free space)
- Total Inflow managed up to 38m³ in 24Hrs
- Soak away discharge from full to ½ empty by <10Hrs