

MR & MRS N. KAY

NEW DETACHED DWELLING,
HOLLOWDYKE,
FRIZINGTON ROAD,
FRIZINGTON

STATEMENT RE: CONDITION 4 OF APPROVAL REF: 4/21/2253/001

DOCUMENT REF: 22/06/1025 - SW

Condition 4 requires details of a surface water drainage scheme, including attenuation measures, to be submitted for approval prior to commencement of development.

The method of surface water disposal must consider the national drainage hierarchy and include a controlled discharge rate and a timetable for implementation.

The chosen method for disposal is to a watercourse because the site has a clay sub-strata and will not percolate. The information has been set out below by way of demonstrating compliance with condition 4.

SW disposal hierarchy option 1 – soakaway/ percolation.

The applicant has undertaken trial pit excavations on site which has confirmed the site is underlain with a clay sub-strata. At this point it became evident that the ground was impermeable however a percolation test was undertaken. A trial hole was excavated and then filled with water in the normal manner. The water level was monitored over a 24-hour period with no discernible change in the water level. Image 1 in appendix A refers.

On the basis of the above, option 1 (soakaway/ percolation) is dismissed as a suitable option.

SW disposal hierarchy option 2 – watercourse.

There is an existing watercourse which flows in a north: south direction along the field boundary to the west of the dwelling which, along with other fields further south, are in the ownership of the applicant.

A piped connection is proposed to the existing watercourse as shown on the SW Drainage Plan, drawing no. 22/06/1025 – 08. The SW discharge will be controlled by storm crate attenuation and a flow control device located in an inspection chamber.

The submitted details comprise greenfield run-off calculation, attenuation tank calculation and a Rainbox 3S data sheet. The storm cells and flow control chamber are to be located in the field to the west of the dwelling as shown on SW Drainage Plan, drawing no. 22/06/1025 – 08.

The SW installation will be implemented during site works and will be operational prior to occupation of the dwelling.

Condition 4 doesn't cover of surface water management and maintenance over the lifetime of the development however for completeness, a brief statement has been provided as set out below.

Given this is a single dwelling development, the management and maintenance will be undertaken by the building owner. It is anticipated there will be very little maintenance and management needed. The design of the storm cells is such that they are placed in the ground and then wrapped in a Terram geotextile membrane to prevent them from silting up. The flow control chamber will be readily accessible and inspected by the owner on an annual basis by removing the chamber cover and accessing the chamber to inspect/ check that the flow control mechanism is in working order and to de-silt as required.

Conclusion.

The method of surface water disposal has considered the drainage hierarchy. Option 1 (soakaway/percolation) has been considered and dismissed. Option 2 (watercourse) has been considered and an acceptable solution proposed. Accordingly, there is no requirement to consider the remaining options.

The surface water discharge to the existing watercourse will be controlled by storm cell attenuation and a flow control chamber all as detailed on submitted information.

Maintenance and management have been considered and appropriate measures proposed.

Taking all the above into consideration, it is considered that compliance with condition 4 of 4/21/2253/001 has been achieved.

Alpha Design
26/09/2022

APPENDIX 1



IMAGE 1