JOHN SWIFT HOMES LTD.

PHASE 4, THE MOUNT, WHITEHAVEN

DRAINAGE STRATEGY
DOC. REF: 15/10/863 – D.S

ALPHA DESIGN
MAY 2020

INTRODUCTION

The current furlough situation has prevented the appointed drainage engineers from completing the detailed foul and surface water designs for phase 4.

This Drainage Strategy has therefore been prepared in order to set out the drainage principles and allow the LPA to apply appropriately worded planning conditions to any approval documents. The detailed designs can then be completed when restrictions are lifted.

THE SITE

The planning application seeks approval for a phase 4 extension of an existing executive residential development at The Mount.

Phase 4 will comprise a further 8 detached dwellings with associated infrastructure and landscaping.

The Environment Agency flood map confirms the site as being in Flood Zone 1.

The site is a greenfield extension to the three previously approved phases which lie to the south east of phase 4. There is an even gradient from north east to south west across the phase 4 site. There are no significant falls or topographical variations.

The previously approved attenuation pond serving phase 3 lies to the south west and is lower than the phase 4 development.

FOUL DRAINAGE STRATEGY AND SOLUTION.

The foul drainage from phase 4 will connect to the foul drainage system installed in phase 3. In turn, this links to phase 1 and 2 with the final outfall point to the public combined sewer in Victoria Road.

As with the earlier phases, the mains foul sewer system on site will remain private and will be maintained by a management company in perpetuity on completion of the development.

The foul sewer system will be designed to meet the requirements of Approved Document H of the Building Regulations.

SURFACE WATER STRATEGY AND SOLUTION.

As stated above, the Environment Agency flood map confirms the site as being in Flood Zone 1. As the phase 4 site area is less than 1 hectare, a flood risk assessment specific to phase 4 is not required.

Using the same principles approved as part of the earlier phases, infiltration drainage is considered to remain unsuitable for phase 4.

The surface water solution for phase 4 will therefore be a discharge to a watercourse and will utilise the attenuation pond, outfall pipe and discharge rate approved as part of phase 3, all of which is now constructed. If required, reference can be made to the previously approved phase 3 Flood Risk and Drainage Strategy prepared by Fairhurst (ref: D/I/D/124826/01; dated May 2018).

The outfall pipe from the approved attenuation pond connects to an existing watercourse to the west via the discharge rate approved as part of the phase 3 development. An Ordinary Watercourse Consent was obtained post-planning approval (Consent Number CCC1402; dated 03/12/2018) and as sated above, the outfall pipe has now been installed.

As the approved discharge rate will remain as existing, it is proposed to increase the size of the attenuation pond as required to accommodate the increased impermeable areas from the phase 4 development. The attenuation pond and discharge route to the watercourse are included within the application red line boundary.

As with the earlier phases, the mains surface water sewer system on site will remain private and will be maintained by a management company in perpetuity on completion of the development.

The surface water system will be designed to meet the requirements of the LLFA and Approved Document H of the Building Regulations.

The applicant will accept an appropriately worded planning condition controlling the submission of a detailed drainage scheme to be designed in accordance with current guidelines.

As with the earlier phases, existing surface water run-off will be considered. Cut-off drains will be installed as required in order to intercept any existing over-land flows from the north and direct them towards the attenuation pond. The location of the cut-off drains will be determined during the detailed drainage design process.

Silty run-off during the construction phase will also be considered. In order to mitigate against these problems, measures such as temporary swales connecting to the attenuation pond could be introduced.

CONCLUSION.

This assessment has considered both foul sewer and surface water discharges from the proposed development.

A solution has been proposed for each system that is logical and that will be designed to meet the requirements of the LLFA and Approved Document H of the Building Regulations where applicable.

With regard to surface water, the applicant will accept appropriately worded planning condition/s controlling the submission of a detailed surface water drainage scheme.

Alpha Design
09/05/2020