Technical Note – Drainage Statement
Taylor Wimpey – Land at North Road, Glossop

Introduction

Taylor Wimpey has commissioned Rodgers Leask Ltd to produce a Drainage Statement to support a planning application for the proposed Residential Development at land off North Road, Glossop, Derbyshire.

This technical note should be read in conjunction with Rodgers Leask drawing P14-289-205 – Preliminary Drainage Strategy Plan.

Existing Site Description

The existing site is located off North Road, Glossop, and consists of three fields of pasture land. Therefore, for the purpose of this drainage strategy, the site is considered to be Greenfield (see Figure 1 below).

Figure 1: Site Location Plan

The site covers an area of approximately 5.75ha and is noted to fall at an average gradient of 1 in 15 from the highest point of the site at the northeast corner, to the lowest point in south east corner.

The site is bounded to the North and East by existing farm land and an existing reservoir, to the West by North Road and the South by existing residential properties.

Existing Surface Water Runoff

The existing Greenfield Runoff has been calculated by Lees Roxburgh Limited and is outlined in their Flood Risk Assessment Ref: 5598/R1 which was submitted as part of the approved outline planning application.

Lees Roxburgh Limited has calculated a 100 year Greenfield Runoff rate of 151.7l/s.

Existing Foul Water Drainage

The existing site is currently Greenfield, and therefore the site is not currently connected to a foul water sewer.

Proposed Drainage Connections

It is proposed to form a new storm water connection to the existing 600mm dia culverted watercourse located at the southwest corner of the site as shown on Rodgers Leask drawing P14-289-205 – Preliminary Drainage Strategy Plan. The new connection will be limited to existing Greenfield run off rates, thus mimicking the existing runoff in accordance with NPPF.

It is proposed to form a new foul water connection onto United Utilities Public Foul Sewer located in North Road, as shown on Rodgers Leask drawing P14-289-205 – Preliminary Drainage Strategy Plan.

Proposed Surface Water Runoff

A new Adoptable storm water drainage network will be constructed for the disposal of surface water flows from the residential development.

In accordance with the calculations previously mentioned, a total allowable discharge rate for the site of 151.7 l/sec is proposed.

Surface water attenuation will be provided on the site in the form of 2no. linked attenuation ponds, to ensure that no surface water flooding occurs for storms up to and including the 1 in 100 year plus 30% Climate Change event. Based upon preliminary calculations undertaken using MicroDrainage it is anticipated that approximately 650cu.m of surface water attenuation will be required, although this should be confirmed at detailed design stage via detailed MicroDrainage simulations.

SUDS

The inclusion of SUDS features has been allowed for as shown on Rodgers Leask drawing P14-289-205 – Preliminary Drainage Strategy Plan.

Proposed Foul Water Drainage

It is proposed to discharge foul water flows generated by the residential site to the existing public foul sewer in North Road via a new adoptable foul drainage network as shown on Rodgers Leask drawing P14-289-205 – Preliminary Drainage Strategy Plan.

Conclusions

By adhering to the drainage strategy outlined above, suitable drainage outfalls can be provided to cater for both the surface and foul water generated by the proposed development.

The surface water drainage strategy will ensure that following redevelopment of the site, there will be no significant adverse impact on flood risk in the local area due to surface water runoff.