

# Flood Risk Assessment & Drainage Strategy

Full Planning Application for erection of up to 9  
Dwellings.

at

Land at Hayle Place Cripple Street Maidstone  
Kent. ME15 6D

## **Introduction**

We have been commissioned by the applicant to prepare a scheme showing details for the disposal of foul and surface water for a nine unit residential development proposal on land off Hayle Place Cripple Street Maidstone Kent (ME15 6DW).

Reference to the Environment Agency flood maps show that the site is currently located within Flood Zone 1.

This FRA has been carried out in accordance with the National Planning Policy Framework (NPPF). The NPPF requires an FRA to be prepared for all developments located in Flood Zone 1.

The proposal is classed as minor development and as such this report has been prepared to outline the surface water drainage for the site to support an outline planning application.

## **Summary of existing development Location**

The site is located on land off Hayle Place Cripple Street Maidstone Kent (ME15 6DW) consists of previously developed land (PDL).

## **Existing Site**

A topographical survey of the site is submitted with this application.

## **Existing Drainage regime and surface water run-off**

There is no positive surface water outfall from the site so any rainfall will infiltrate to ground with any residual surface water flowing overland from south to north following the existing topography.

## **Surface Water**

The Southern Water asset plans confirm there are no surface water sewers on the site itself.

## **Foul Water**

The Southern Water asset plans show there to be a 225mm diameter foul water pipe running from South to North along the access road to the site.

## **Geology and Hydrogeology**

The online British Geological Survey maps indicate that the site is underlain by the Hythe Bed Formation. This geology is considered suitable for the use of an infiltration-based SuDS system. Detailed site investigation will be carried out at the detailed design stage to determine the most appropriate method of infiltration to be used on the site. This will be dependent on the infiltration rates.

## **Site Specific Flood Risk Assessment**

The National Planning Policy Framework provides guidance on assessing flood risk and seeks to guide development away from areas at risk of flooding from all sources. Planning Practice Guidance defines several Flood Zones based on the probability of flooding and provides guidance on the most appropriate form of development within each zone.

All forms of development are considered appropriate in Flood Zone 1 and as such the development is considered to pass the Sequential Test.

An Exception test is not required for the development.

The National Planning Policy Framework states that change of use applications should not be subject an Exception Test.

Reference has also been made to the Environment Agency online mapping. There is no evidence of surface water flooding on the site or the access road the site itself is in at a very low risk of surface water flooding.

Groundwater flooding occurs as excess water emerges at the ground surface. Reference has also been made to the Environment Agency online mapping which indicate that flooding from groundwater in this area is in the local area when groundwater levels is low.

## **Historic Flooding**

The Strategic Flood Risk Assessment show no records of historic flooding on the site.

## **Proposed Development**

The proposals consist of the construction of for a 9 unit residential development on Land off Hayle Place, Maidstone The proposals are currently in outline form; however a masterplan has been prepared to demonstrate how a development of this scale can be incorporated onto the site.

Sustainable Urban Drainage (SuDS) techniques will be used to deal with the surface water generated by the development. This will replicate the existing drainage regime by dealing with the surface water at source, to prevent increasing the risk of downstream flooding.

A SUDS infiltration system is also considered a suitable method for the disposal of surface water, a site investigation will need to be carried out at the detailed design stage to determine the most appropriate type. It is proposed that the area of hardstanding will be constructed as a permeable paving. The proposed roofs will drain into porous paving to the north and cellular soakaways.

Onsite testing will be carried out prior to the preparation of the detailed design and the final scheme will be adjusted as necessary.

Given the proposed development is to have a design life beyond 2100, a 45% allowance for climate change needs to be considered in the design of the surface water drainage system.

### **Maintenance**

All the onsite surface water will remain under the control of the site owners who will be responsible for the ongoing maintenance. The proposed foul water drainage will be designed and constructed in accordance with Sewers for Adoption 7th Edition and will be offered to Southern Water who will maintain them in perpetuity.