

FLOOD RISK ASSESSMENT NOTE

PLANNING APPLICATION: PA/2020/2012

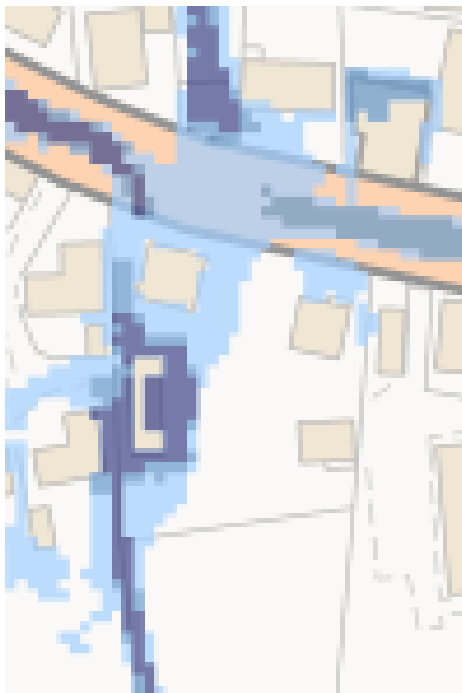
DEVELOPMENT PROPOSAL: Application for approval of reserved matters (appearance, landscaping, layout and scale) pursuant to outline application PA/2017/743 dated 17/01/2018 for a residential development of four dwellings.

1. INTRODUCTION

The aim of this note is to provide further details about flood risk that should be read in conjunction with the planning application for reserved matters of the outline permission PA/2017/743 for the erection of four dwellings.

2. FLOOD RISK ON SITE

According to Environment Agency Flood Map, the application site has a mixture of low and high flood risk from surface water. Most of the land is free from flood risk other than the area confined to the western boundary. The low risk (a chance of flooding of between 0.1% and 1%) is anticipated on the plot of No. 52 High Street whereas high risk (a chance of flooding of greater than 3.3%) is in the surroundings of the large outbuilding to the rear of No. 52.



The proposal would demolish the existing outbuilding and erect one of the four dwellings which would lie on the land with high flood risk. Therefore, the proposals should address appropriately the impact of flooding from surface water upon the intended dwellings.

3. SURFACE WATER MANAGEMENT

Planning decisions should establish the provision of Sustainable Drainage Systems (SuDS) for the management of surface water runoff, unless demonstrated to be inappropriate.

SuDS aim to mimic natural drainage and can achieve multiple objectives such as removing pollutants from urban runoff at source, controlling surface water runoff from developments, and ensuring that flood risk is not increased downstream.

In accordance with the National Planning Practice Guidance, surface water runoff should be disposed of according to the

following hierarchy:

1. Into the ground (infiltration)
2. To a surface water body
3. To a surface water sewer, highway drain, or another drainage system
4. To a combined sewer

It is of our opinion that the anticipated flood risk on the site can be appropriately addressed by the use of infiltration methods for the disposal of surface water from the site. It is known that the area has somewhat permeable soil. However, infiltration testing should be carried out in accordance with

BRE3659 to demonstrate the extent to which infiltration is suitable and set the infiltration rates. This can be subsequently applied at the drainage design stage.

The surface water drainage system must be designed so that:

- Flooding does not occur on any part of the site for a 1 in 30 annual probability rainfall event, unless an area is designed to hold and/or convey water as part of the design;
- Flooding does not occur in any part of a building during a 1 in 100 annual probability event; and
- Flows resulting from rainfall in excess of a 1 in 100 annual probability rainfall event are managed in exceedance routes that minimise the risks to people and property, so far as is reasonably practicable.

The infiltration should be sized to store the 1 in 100 annual probability rainfall events including a 20% increase in rainfall intensity in order to allow for climate change. Further analysis could be conducted for a 40% increase in rainfall intensity.

Last but not least, the surface water infiltration would be supplemented by laying on pervious materials for hard surfacing in the context of the residential scheme.

4. CONCLUSION

The drainage strategy is such that the impact of flood risk from surface water could be potentially addressed without increasing flood risk elsewhere, and, where possible, will reduce flood risk overall.