

12th March 2020

RE: 200077 – 30 SOUTH VIEW AVENUE, CAVERSHAM, READING, RG4 5AJ - FLOOD RISK ASSESSMENT

Introduction

This Flood Risk Assessment Report has been prepared in support of a Planning Application (ref-200077) for a single storey rear extension and the conversion of an existing garage at 30 South View Avenue, Caversham, Reading, RG4 5AJ.

This Flood Risk Assessment has been carried out in accordance with Appendix F of the Department of Transport Local Government Regions (DTLR) Planning Policy Guidance Note 25 (PPG25) 'Development and Flood Risk'. The Appendix gives a number of requirements a flood risk assessment should address and also states that the detail given in the assessment is dependent upon the scale and potential impact of the project.

Site Location

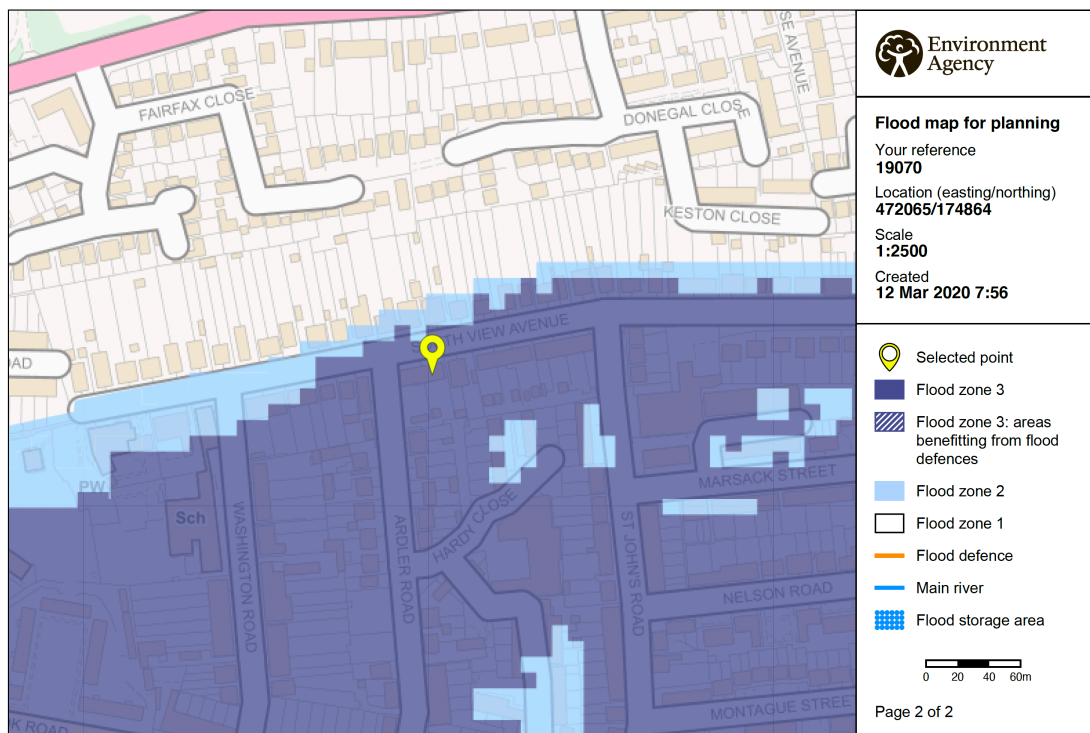


Fig 1 > Flood Map

Flood Risk Analysis

30 South View Avenue is located in **Flood Zone 3**.



The flood risk from rivers or the sea is high.

What this means >

Land having a 1 in 100 or greater annual probability of river flooding; or Land having a 1 in 200 or greater annual probability of sea flooding (land shown in dark blue on Fig 1 > Flood Map).

This takes into account the effect of any flood defences in the area. These defences reduce, but do not completely stop the chance of flooding as they can be overtopped or fail.

The flood risk from surface water is high.

What this means >

High risk means that each year this area has a chance of flooding of greater than 3.3%.

Flooding from surface water is difficult to predict as rainfall location and volume are difficult to forecast. In addition, local features can greatly affect the chance and severity of flooding.

Surface water flood risk information is not suitable for identifying whether an individual property will flood. It gives an indication of the broad areas likely to be affected but is imprecise due to national assumptions made about rainfall, surface water run-off, topography and the stormwater drainage network. Because of this, we report the highest risk within 20m of a specific location, such as an individual property. This means reports for neighbouring properties may show different levels of risk.



Flood Resilience Design & Construction

The main contractor will refer to the EA guidance document 'Improving the flood performance of new buildings – flood resilient construction' and specifically undertake the following measures to restrict impact on flood levels and flood damage.



- Grounds floor construction for the extension to be suspended (beam & block).
- The proposed new floor levels (in the garage conversion) will be raised by 150mm (higher than existing levels) and will be built off of existing concrete slab.
- The ground floor will be protected by an impermeable polythene membrane (DPC & DPM).
- Good quality bricks and impermeable render on blockwork will be used for external leaves of the new cavity walls.
- Mortar joints are thoroughly filled to reduce the risk of water penetration.
- Insulation will be closed-cell type to minimise the impact of flooding.
- Threshold levels into a property are above the above predicted flood level.
- There is no low-level ventilation for water ingress into the building.
- Floor finishes: consideration will be made to the selection suitable floor finishes.
- Sand/cement screeds. All tiles should be bedded on a cement-based adhesive/bedding compound and water resistant grout should be used.
- Suitable materials for skirting boards include MDF, ceramic tiles and PVC.
- Paint to all new external walls with a waterproof coating to assist with flood proofing
- All new electrical fittings to be fitted at a minimum of 450mm above floor level. We recommend that they are fitted slightly higher than 450mm to account for any future climate change.
- Electric ring mains should be installed at first floor level with drops to ground floor sockets and switches.
- Utility meters to be located above predicted flood level.
- All electrical points to be located above floodwater level with no underfloor heating proposed.
- Under floor services using ferrous materials should be avoided.
- Surface water to be redirected towards a soak away.

Conclusion

With the above points being taken into consideration we do not consider the proposed plans to be at risk of flooding.

