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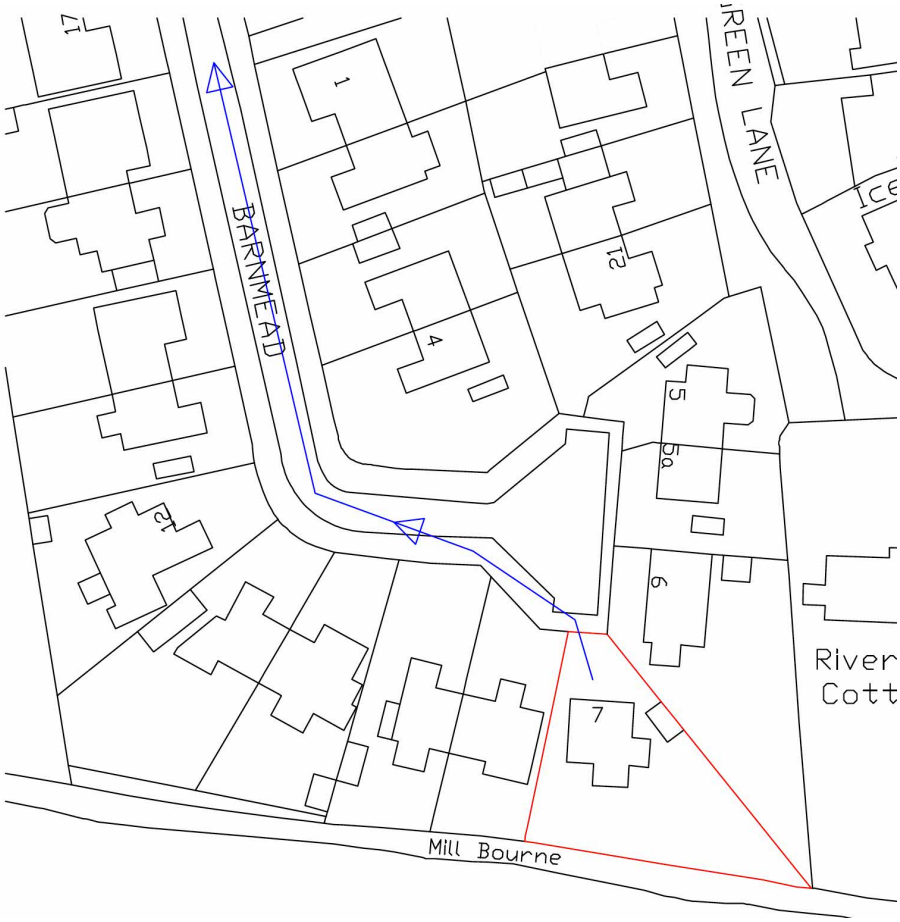
Flood Risk Assessment

7 Barnmead,
Chobham
GU24 8PB

December 2023

1. DEVELOPMENT DESCRIPTION AND LOCATION

The proposed development site is located at 7 Barnmead, Chobham and is a detached single dwelling bungalow.



Location map - Not to scale

The plot is approximately 580 sq.m and lies within Flood Zone 3 (High probability of flooding).

The blue line indicates the proposed evacuation route in the event of flooding.

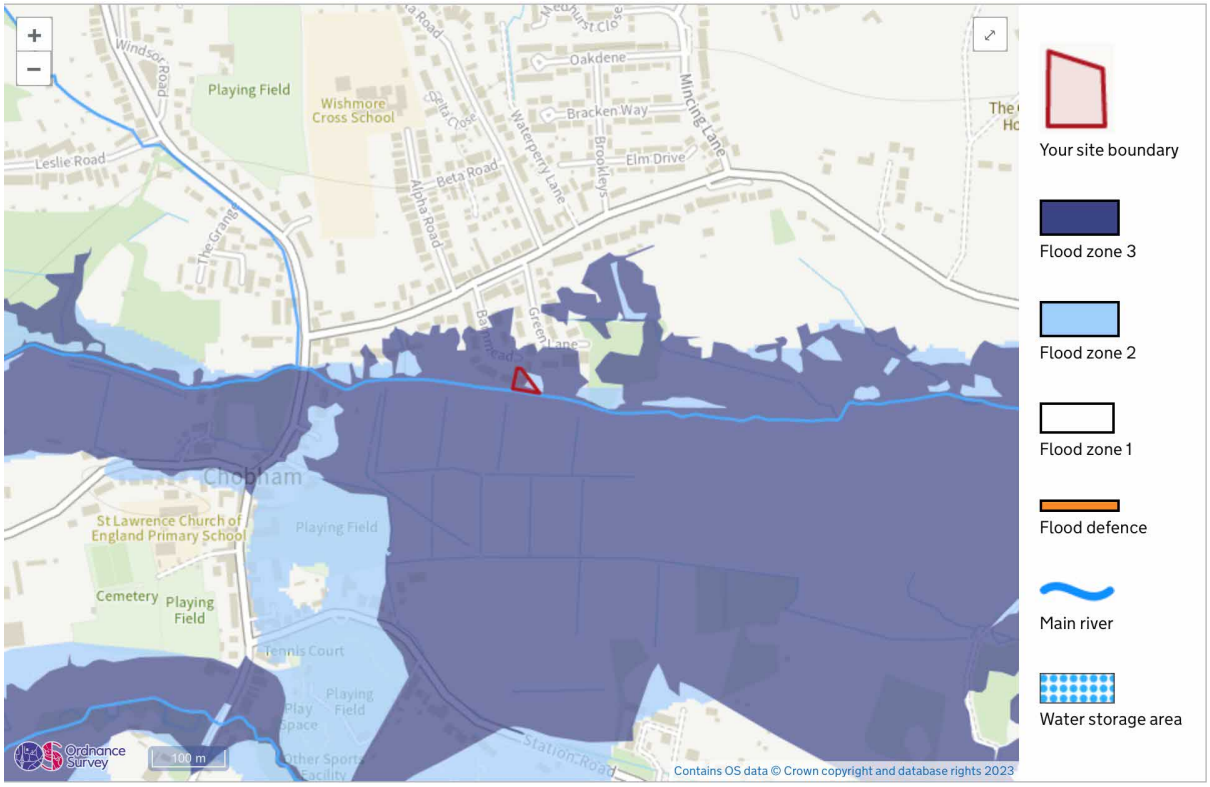
2. PROPOSED DEVELOPMENT

The proposal is for a minor domestic extension to a bungalow within an existing developed area, it includes a ground floor rear extension and an extension to the existing garage store including removal of existing garage and conservatory.

The proposal will increase the buildings footprint by approx 13.5 sq.m.

The new roof over the extensions will be connected to existing guttering.

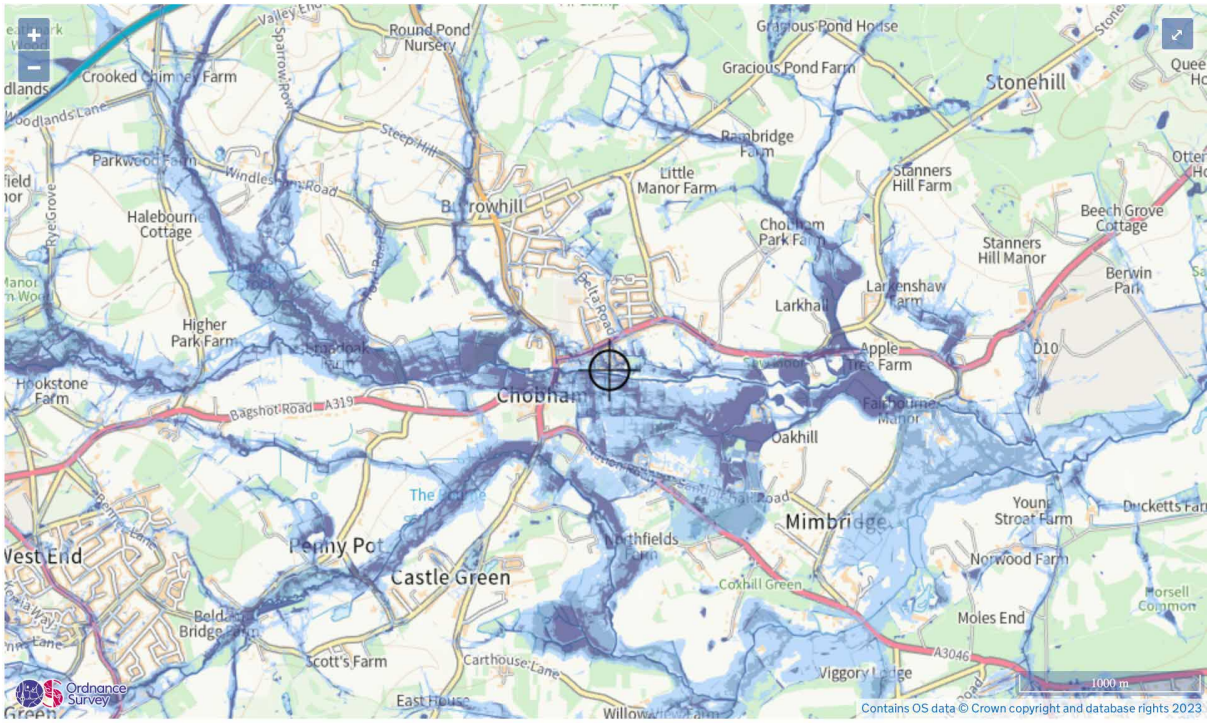
The ground floor of the existing property is approximately 150mm above the garden level, that slopes downwards to Mill Bourne to the rear of the site.



3. DEFINITION OF THE FLOOD HAZARD

The Flood Map above shows that the site lies within Flood Zone 3.

There is a high risk of flooding from rivers and surface water, according to the Environment Agency.



Extent of flooding from surface water

High Medium Low Very low Location you selected

The Map above shows the risk of flooding from surface water.

Surface water flooding happens when rainwater cannot drain away through the normal drainage systems. Instead, it lies on or flows over the ground. Surface water flooding is sometimes known as flash flooding. It can:

- be difficult to predict as it depends on rainfall volume and location
- happen up hills and away from rivers and other bodies of water
- affect areas with harder surfaces, like concrete, more severely.

4. HISTORICAL FLOOD EVENTS

The following is taken from Wikipedia.

During 12–14 August 2006, much of the civil parish of Chobham suffered from severe floods due to the River Bourne and the Mill Bourne bursting their banks. The floods were caused by heavy rainfall and thunderstorms across the region that resulted in flooded homes and businesses, power cuts and road closures. This caused the rainfall to run across the land to local watercourses and low-lying areas. Two months' rainfall fell in one night and local watercourses were unable to cope with the run off so flooded adjacent land, buildings and roads.[5][6]

Concerns were express by residents to the parish council that the flooding in Chobham was exacerbated on a small scale by the use of Field 0081, Pennypot Lane, Chobham as a site for travellers who have covered that area with hardcore to support their mobile homes. This area used to be a water meadow absorbing some floodwater from the River Bourne adjacent to the site. Planning permission for the site was refused as this land was seen as providing a river corridor for the River Bourne.

6. FLOOD RISK MANAGEMENT MEASURES

Surrey Heath County Council published a Strategic Flood Risk Assessment in October 2015. The document includes the descriptions and locations of the main flood defences within Surrey Heath.

The report can be found using the following link.

https://www.surreyheath.gov.uk/sites/default/files/2023-05/Surrey Heath Strategic Flood Risk Assessment 2015 Volume 2 Technical Report.pdf

The rainwater pipes from the existing roof of the dwelling drain to the existing mains drainage. The existing air bricks are anti flood type.

To protect the dwelling from flooding the following measures will be applied:

- The ground floor level of the extension be set no lower than that of the existing dwelling.
- The ground floor extension be of concrete construction with rigid board insulation and lapped DPC & DPM.
- Internal ground floor partitions will be dry lined using horizontal plasterboard.
- The external masonry cavity walls be insulated with rigid board insulation, with no air bricks at low level
- Electrical services be run through the ceiling and the walls rather than the floor at ground floor level, and also be on a different circuit to the existing.
- Any timber skirtings and doors be specified as solid timber.
- Internal finishes be of a sufficient specification to reduce any damage that may be caused by flood waters.
- No additional bedrooms are being added to the ground floor
- Waterproof plaster should be considered to new areas of plaster.
- Rainwater harvesting measures will be implemented, to collect and re-use water to reduce run off volumes from the new roofs, and will be used for external uses.
- The banks adjoining Mill Bourne will be maintained, water flow will not be obstructed and wildlife will be protected.

Further to the above, the applicant will consider the use of door guards and airbrick covers, and flood gates with waterproof seals. Also, any landscaping to the perimeter of the proposed extension will be with the use of porous land surfaces materials and filter strip, enabling excess rainwater to dissipate through the ground.

FLOOD WARNING AND EVACUATION PLAN (FWEP)

A FWEP is not required for this site as it is considered small scale development, however the occupants have subscribed to the EAs flood warning service, and will be told how to turn off gas, water and electricity supplies in the event of flooding.

https://www.fws.environment-agency.gov.uk/app/olr/register

The evacuation route has been identified and marked on the location plan above as a blue arrow.

DEFENCE DETAILS

There are no formal defence measures owned or maintained by the Environment Agency in the area of this site, however there are defences in place to the North on Chertsey Road and to the South on Station road.

Details of these defences can be found within the SHCC Strategic Flood Risk Assessment.