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Flood Risk Assessment

Prepared on behalf of: Mr Patrick Cloherty

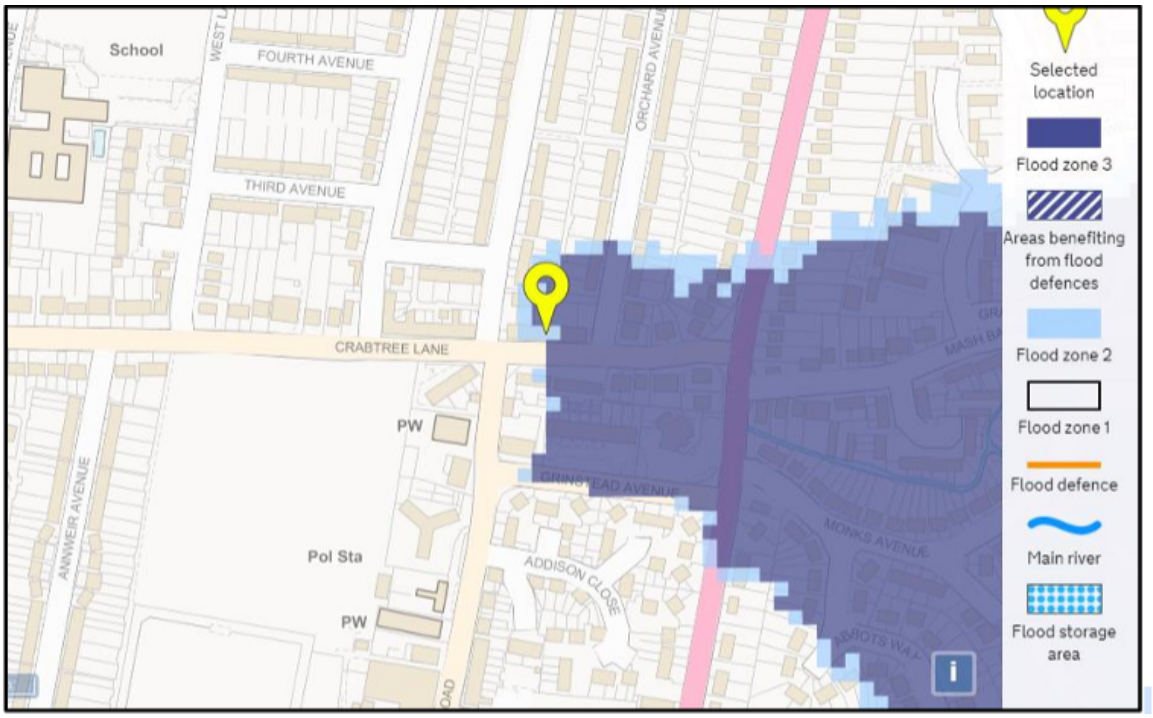
Site At: 34 Crabtree Lane, Lancing, BN15 9PQ

Proposal:
Erection of single-storey rear extension to create 1no one-bedroom dwelling (C3) incorporating part change of use from E(a) ground floor shop. Loft conversion with rear dormer to create (C4) a 5-bedroom homes in multiple occupation**.**

Introduction

This statement confirms the flood proofing and resistance techniques that will be used in the construction of the proposed extension at 38 Crabtree Lane, Lancing.

The site is located to the north of Lancing village centre within the local shopping parade Crabtree Lane. The Environment Agency Flood Risk Map (relevant extract below) indicates that the site is in Flood Zone 2.



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Development proposed.

The proposed extension would create approximately 25sqm of additional ground floor space at the building. This floor space will be an extended residential living space. The small area of new internal floorspace will incorporate the following features and recommendations from the guidance:

Flood prevention strategy.
It is generally accepted that total prevention of water ingress or 'dry proofing' to a building is very difficult to achieve.
As the site is on the very cusp of flood zone 2 and the flood water depths would be less than 0.3m this application proposes a Water Exclusion Strategy – where emphasis is placed on minimising water entry whilst maintaining structural integrity, and on using materials and construction techniques to facilitate drying and cleaning. This strategy is favoured when low flood water depths are involved (not more than 0.3m).

According to the definitions adopted in the Guidance, this strategy can be considered as a resistance measure, but it is part of the aim to achieve overall building resilience.

Flood prevention measures proposed:

Building materials

In accordance with the published guidance the proposed extensions will be constructed with Engineering Bricks to the first 300mm plus 1 course from ground level.

Foundations

Because of the local ground conditions, a raft foundation is proposed. This type of foundation is inherently more resilient to flooding than strip foundations, in accordance with the guidance, any blocks used in the foundations will be encased in concrete to prevent water movement from the ground to the wall construction.

Floors

In accordance with the best practice set out in the guidance, the floor of the extension will be a concrete slab of at least 150mm thickness to resist uplift forces, and with a 1200-gauge impermeable polythene membrane.

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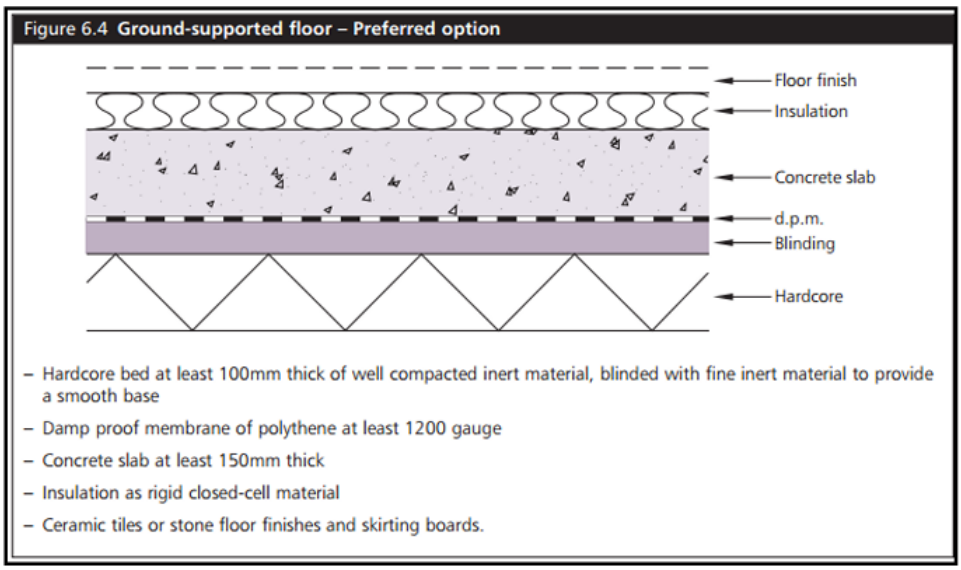
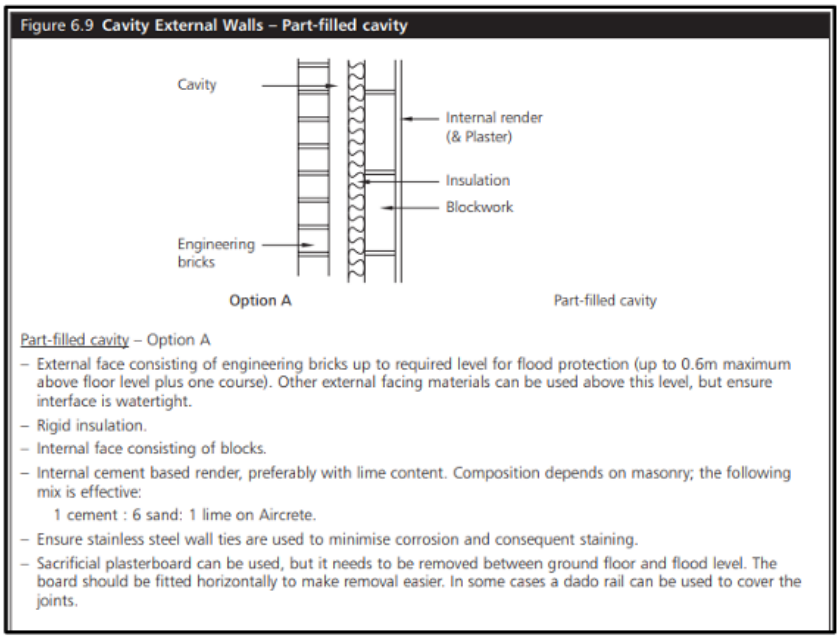


Above: Proposed floor construction as recommended by Environment Agency.

Walls

In accordance with the recommendations of the Environment Agency, the external walls will be a part-filled cavity.



Above: Proposed wall construction as recommended by Environment Agency.

Doors and windows

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In accordance with the published guidance, the proposed scheme would use a sealed UPVC external front door and windows. Air vents will in the top of the door and window frames.

Fittings and services

All electrical sockets and wiring will be a minimum of 500mm above F.F.L. The sealed wet central heating system would not be affected in the event of a flood.

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