

HUB ARCHITECTS

FLOOD RISK ASSESSMENT

11 Holmdale Road, NW6 1BE

16th January 2012

Proposals

The proposals are to construct two new residential dwellings with a basement level on the site of existing garages at the rear of the property. The proposed basement is located entirely within the boundary of the site and is proposed to be constructed using a traditional underpinning method of construction with in-situ reinforced concrete walls and floor slabs. The basement ceiling height is 2.4m.

In accordance with the Institute of Civil Engineers recommendations and Building Regulations two methods of water proofing will be provided to the basement walls and floor. A bentonite sheet will be installed between the ground and retaining floor and walls, then a second layer of drained cavity membrane linked to a sump with standby and duty pumps will be installed.

Site

The site falls outside the flood plain identified by the environment agency. The likelihood of flooding is considered to be 0.1% or 1 in 1000 or less.

Levels

Ordnance Survey data shows the road level for Inglewood road to be 56.3m AOD, this is considerably higher than the level used for the 1:200 year flood of 5.32m AOD.

Risk Limitation

Low level upstands will be formed around any lightwells and the escape route stairs in order to reduce the risk of localised flooding.

Basement spaces will be drained by a sump pump. This will be fitted with a high level alarm with battery backup to warn in the even of pump failure. A further battery back up system is available in high risk areas to ensure the pumps continue to operate in the event of mains failure.

We are proposing non-return valves will be fitted to drains and water inlet and outlet pipes.

A green roof will be fitted and reduce surface water run off,

Cavity walls will be specially drained using a proprietary cavity drainage system.

Proposing to use doors specifically designed to cope with flooding, such as Flash Flood Doors (<http://www.flashfloodoors.co.uk/>).

Conclusion

As a result of the flood risk limitation measures we have proposed to introduce we believe the risk of flooding to be minimal.

Prepared by: HUB Architects and Designers Ltd