PROPOSED EXTENSION AT LINFIELDS, ROMAN BANK, SARACEN'S HEAD, SPALDING, PE12 8BB.

FLOOD RISK ASSESSMENT



S M Hemmings B Sc C Eng MICE MIWEM,
13 Lea Gardens,
Peterborough,
PE3 6BY
stuart.hemmings@btinternet.com

This flood risk assessment has been prepared solely to support the planning application for a proposed extension at Linfields, Roman Bank, Saracen's Head, Spalding. The author has made every effort to provide an accurate assessment of the flood risk but accepts no liability should the information be found to be incorrect or incomplete, or if it is used for any other purposes other than for which it was originally commissioned.

Introduction

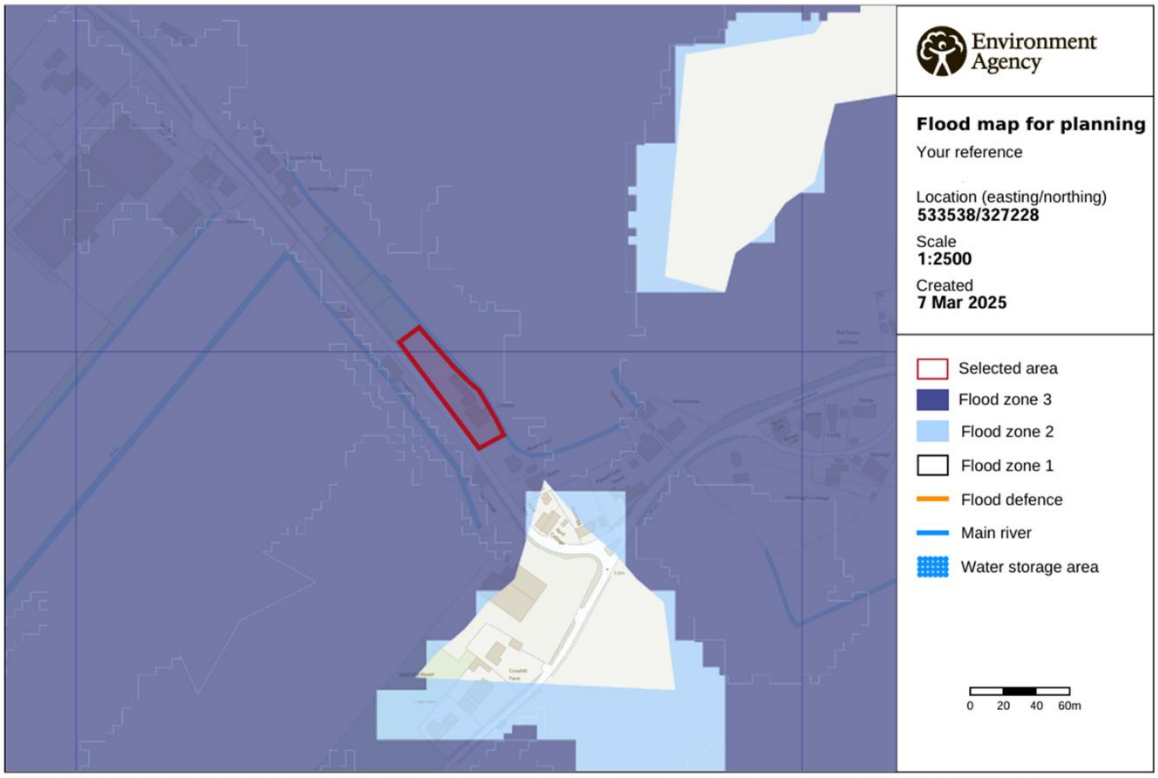
A planning application is due to be submitted to South Holland District Council for permission to demolish the existing conservatory and construct a larger extension at Linfields, Roman Bank, Saracen's Head, Spalding, PE12 8BB.

The site is within Flood Zone 3 as shown on the Environment Agency's Flood Zone Map. These maps do not take into account existing flood defences.

The site is shown within the defended area of the South Holland District Council's Strategic Flood Risk Assessment (SHDC SFRA) map and is located in the South Holland Internal Drainage Board district.

Environment Agency (EA) Flood Zones

The map below is taken from the Environment Agency website and shows the flood zones in the area.



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It can be seen that all of this area of Saracen's Head is within flood zone 3.

Application Site

Applying the flood risk vulnerability classification in Table 2 of the Guidance, an extension to an existing dwelling can be classified as "more vulnerable".

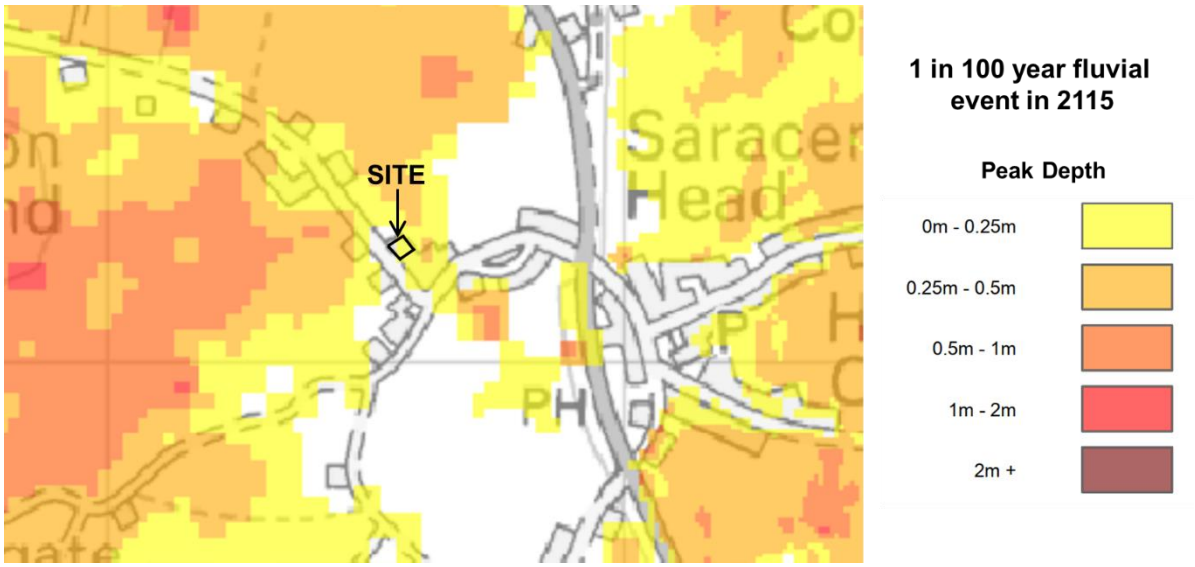
Table 3 of the Guidance is shown on the next page:

Flood Zones	Flood Risk Vulnerability Classification				
	Essential infrastructure	Highly vulnerable	More vulnerable	Less vulnerable	Water compatible
Zone 1	✓	✓	✓	✓	✓
Zone 2	✓	Exception Test required	✓	✓	✓
Zone 3a †	Exception Test required †	X	Exception Test required	✓	✓
Zone 3b *	Exception Test required *	X	X	X	✓*

The above table states that to be satisfactory the sequential and exception test should be applied to the development. However the guidelines state that these tests do not need to be applied to a development of an extension to an existing dwelling.

South East Lincolnshire Planning Website

Part of the map in the South East Lincolnshire SFRA which shows the predicted residual peak depths in 2115 for the 0.5% (1 in 200 year) tidal or the 1% (1 in 100 year) fluvial event probability is shown below and it predicts 0 – 250mm depth of flooding on the site, and in the field north east of the property.



The site slopes from the road down to the rear of the site. This does not seem to have been taken into account on the above map. The level of the road at the junction of Pipwell Gate and Roman Bank approximately 100 metres south of the property is 3.80m OD. The level of the road in front of the property is higher than 3.80m OD and the floor level of the bungalow is approximately 800mm below the level of the road. The site slopes further to the field at the rear of the property.

South Holland IDB

There is a drain maintained by South Holland IDB approximately 800 metres north of the property which flows into the Whaplode River Drain and then into the Holbeach River Drain. The latter flows north and discharges through a sluice into the tidal section of the River Welland east of Fosdyke Bridge.

Surface Water Flooding

The Environment Agency map of predicted areas of surface water flooding between 2040 And 2060 is shown below. It can be seen there is no predicted risk of surface water flooding at this site.



Conclusions and Recommendations

The predicted flood depth from the rivers and the sea in the field north east of the site in a 1 in 100 year fluvial or a 1 in 200 year tidal event in 2115 is a maximum of 250mm. The floor level of the bungalow is at least 500mm above the level of the field.

The flood risk from the South Holland IDB drainage system and from surface water is adequately mitigated.

The floor level of the proposed extension should be the same level as the floor level of the existing building.

The owner of the property should register with the Environment Agency's Floodline Warnings Direct Service to receive automatic telephone flood warnings.

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Stuart Hemmings B Sc C Eng MICE MIWEM

Tel: 01733 566966 or Mobile: 07804 189365

stuart.hemmings@btinternet.com

Appendix

Environment Agency

Householder and other minor extensions in Flood Zones 2 and 3

Applications for planning permission should be accompanied by a completed form. An electronic version can be submitted by 'printing' it to a PDF writer.

This guidance is for domestic extensions and non-domestic extensions where the additional footprint created by the development does not exceed 250 sq. metres. It should NOT be applied if an additional dwelling is being created, e.g. a self contained annex.

We recommend that:

Planning Authorities:

1) Refer the applicant to the standing advice pages on the Environment Agency website or provide them with a copy of this page for them to include as part of the planning application submission.
2) Check the planning application to ensure that one or other of the mitigation measures from the table below has been incorporated.

Applicants:

Complete the table below and include it with the planning application submission. The table, together with the supporting evidence, will form the Flood Risk Assessment (FRA) and will act as an assurance to the Local Planning Authority (LPA) that flood risk issues have been adequately addressed.

Yes

Applicant to choose one or other of the flood mitigation measures below	Applicant to provide the LPA with the supporting information detailed below as part of their FRA	Applicant to indicate their choice in the box below. Enter 'yes' or 'no'
Either ; Floor levels within the proposed development will be set no lower than existing levels AND, flood proofing of the proposed development has been incorporated where appropriate.	Details of any flood proofing / resilience and resistance techniques, to be included in accordance with *'Improving the flood performance of new buildings'* CLG (2007)	Yes
Or; Floor levels within the extension will be set 300mm above the known or modelled 1 in 100 annual probability river flood (1%) or 1 in 200 annual probability sea flood (0.5%) in any year. This flood level is the extent of the Flood Zones	This must be demonstrated by a plan that shows finished floor levels relative to the known or modelled flood level. All levels should be stated in relation to Ordnance Datum[1]	Yes

Subterranean/basement extensions

Due to the risk of rapid inundation by floodwater basements should be avoided in areas at risk of flooding. The LPA may hold additional guidance for basement extensions.

Self-contained basement dwellings are 'highly vulnerable' development and should not be permitted in Flood Zone 3. We are fundamentally opposed to these developments.

Continued...

[1] Ordnance Datum or the abbreviation 'OD' is the mean level of the sea at Newlyn in Cornwall from which heights above sea level are taken. The contour lines on Ordnance Survey maps measure heights above OD for example, though these are not accurate enough for a flood risk assessment.

Cumulative impact of minor extensions and the removal of Permitted Development rights.

PPS25 paragraph D16 highlights the potential for the cumulative impact of minor extensions to have a significant effect on flood risk. Where local knowledge (Strategic Flood Risk Assessment held by the LPA/information provided by the parish council) suggests this is the case the guidance contained in FRA guidance note 2 should be applied. FRA guidance note 2 can also be applied where permitted development rights have been removed for flood risk reasons. The Environment Agency does not usually comment on minor development in this category.

Permeable paving and changes to permitted development rights for householders

On the 1st October 2008 the General Permitted Development Order (GPDO) in England was amended by the Government (Statutory Instrument 2008 No. 2362).

One of the changes introduced by the GPDO amendment is the removal of permitted development rights for householders wishing to install hard surfacing in front gardens which exceeds 5sq. metres (i.e. 1m x 5 m) without making provision to ensure permeability. This means that use of traditional materials, such as impermeable concrete, where there is no facility in place to ensure permeability, requires an application for planning permission.
In order to help and advise householders of the options for achieving permeability and meeting the condition for permitted development status the Department for Communities and Local Government (CLG) has produced guidance on permeable paving which can be found on the following link http://www.communities.gov.uk/publications/planningandbuilding/pavingfrontgardens

The Environment Agency support this change to the GPDO as it is in line with the recommendations of the Pitt Report regarding the need to better tackle the impact of surface water flooding. However, Local Planning Authorities should determine these applications in accordance with the CLG guidance **without** consulting the Environment Agency.

End of comment