

## ADDENDUM TO FLOOD RISK ASSESSMENT

### RESIDENTIAL DEVELOPMENT BAPTIST FARM & HERON WAY BOSTON

## 1.0 INTRODUCTION

- 1.1 This addendum is to be read in conjunction with a Flood Risk Assessment, reference RLC-/0015/FRA01/1 dated 15<sup>th</sup> November 2017, produced on behalf of Chestnut Homes Ltd in respect of a planning application for a residential development at Heron Way, Boston.
- 1.2 Chestnut Homes Ltd have subsequently submitted Reserved Matters Applications for;
  - Baptist Farm (B/20/0511)
  - Phase 3 Heron Way (B/21/0039)
- 1.3 This addendum is to provided confirmation of the finished floor levels and mitigation measures for the above applications.
- 1.4 Although the original FRA was produced in November 2017 the flood risk information has not changed and an extract from the tidal flood risk section, (Section 4), of the FRA is given below. Please note that the **Figure Numbers** refer to those in the original FRA.

### Tidal

The site is over 5km from the east coast and the risk of flooding is reduced by raised defences. However, if those defences were to be overtopped or breached then flooding could occur.

The EA have produced hazard mapping and **Figure 4.2** below shows the results of a breach for the 0.5% (1:200) 2115 climate change event and **Figure 4.3** below shows the results of a breach for the 0.1% (1:1000) 2115 climate change event.

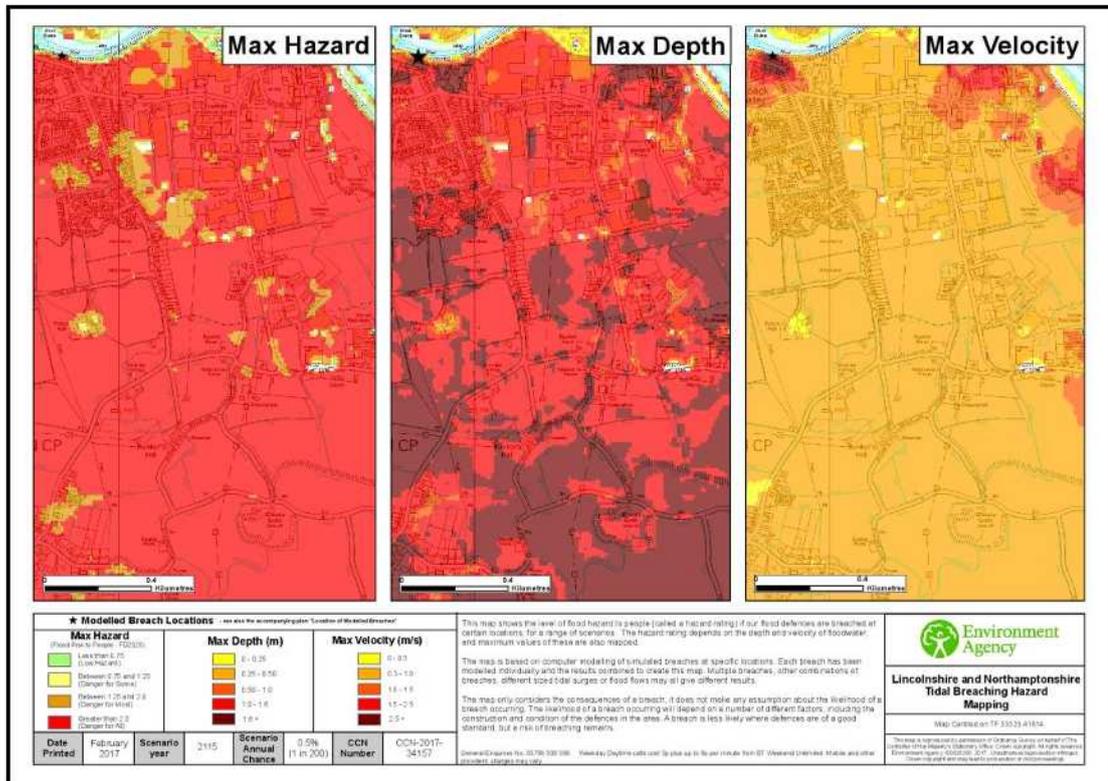


Figure 4.2 Hazard Mapping for 0.5% (1:200) 2115 Climate Change Event

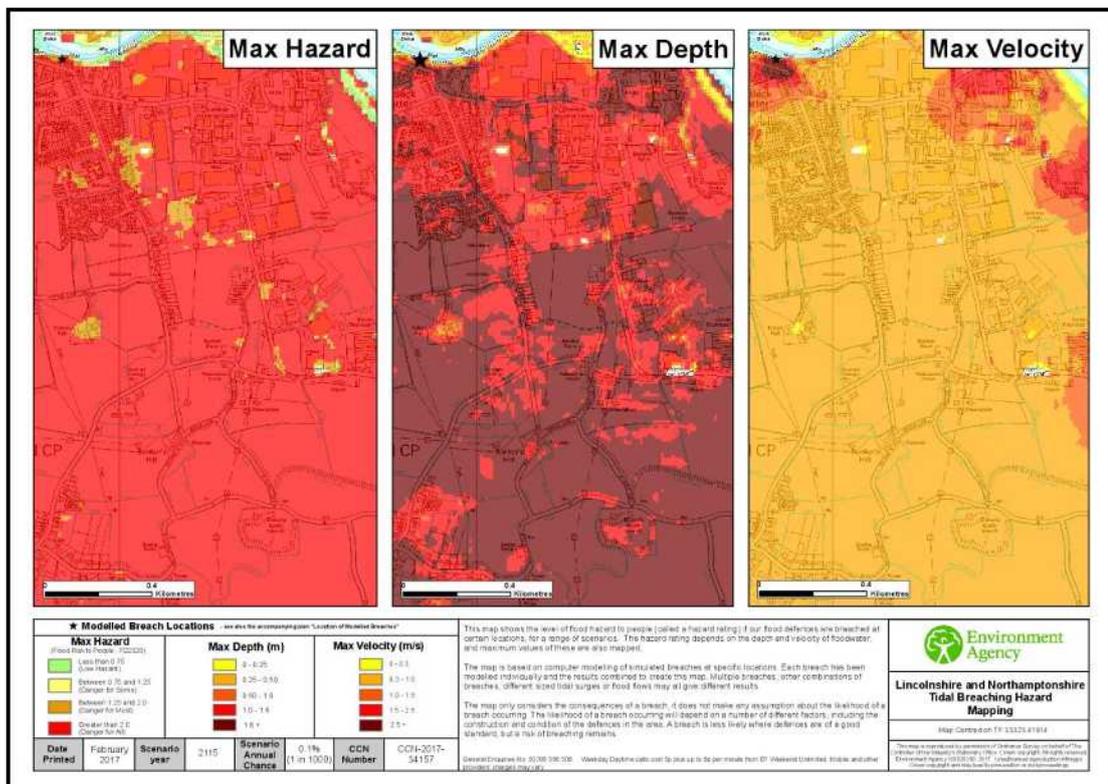


Figure 4.3 Hazard Mapping for 0.1% (1:1000) 2115 Climate Change Event

In both events the hazard rating is "Danger for All" due to the deep flood depths.

Figures 4.4 and 4.5 below show the range of flood depths on, and adjacent to, the site.

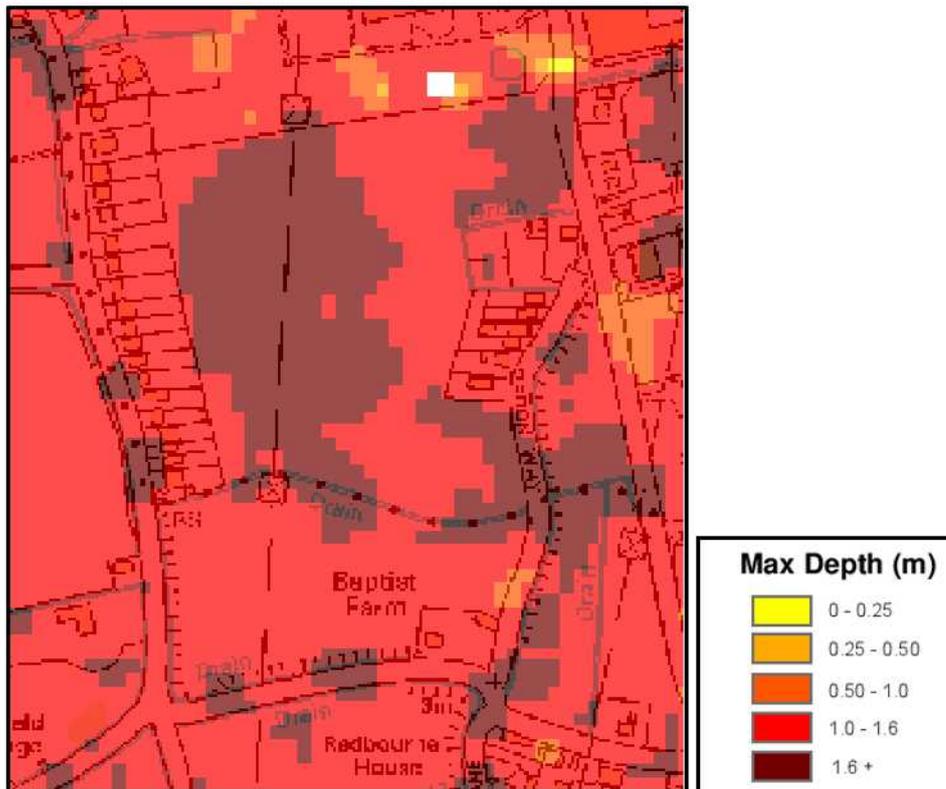


Figure 4.4 Depth of Flooding for 0.5% (1:200) 2115 Climate Change Event

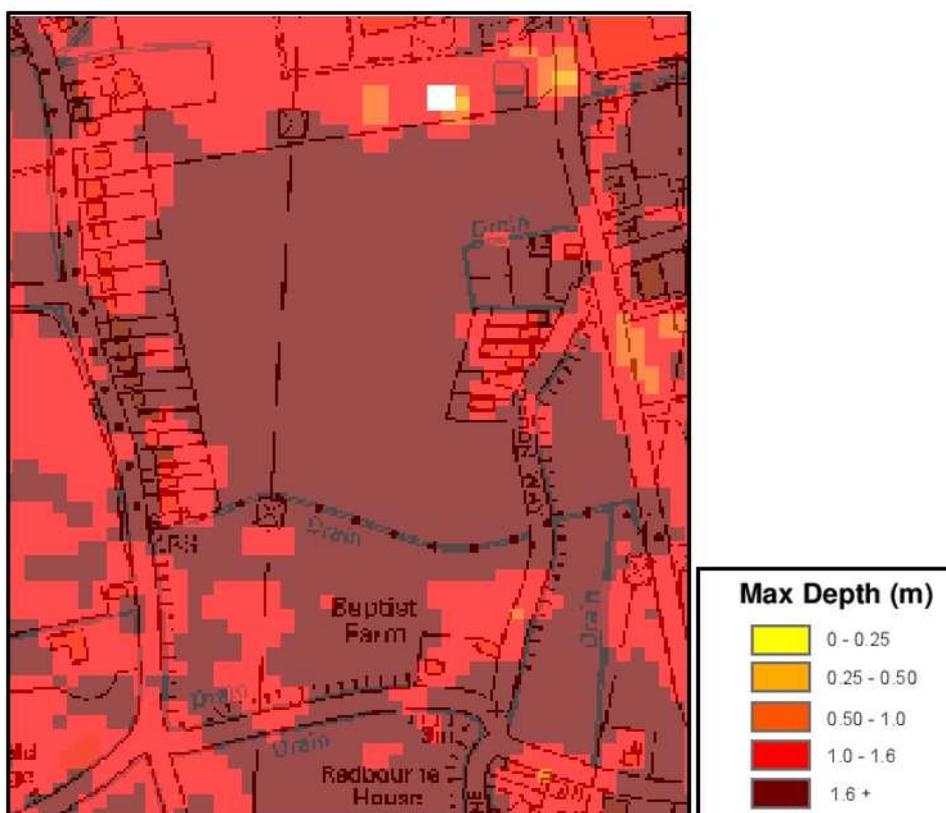


Figure 4.5 Depth of Flooding for 0.1% (1:1000) 2115 Climate Change Event

By comparing the range of flood depths to the land levels from the topographic survey in **Appendix 1**, (of the FRA) gives the following range of results;

Location	Flood Depth 1.0m – 1.6m			
	Land Levels (m AOD)		Possible Flood Level (m AOD)	
	Lowest	Highest	Lowest	Highest
NW Corner	2.4	2.5	3.5	4.0
East	2.4	2.6	3.6	4.0
South	2.4	2.9	3.9	4.0
Location	Flood Depth > 1.6m			
	Land Levels (m AOD)		Possible Flood Level (m AOD)	
	Lowest	Highest	Lowest	Highest
NW Corner	2.2	2.3	3.9	>3.9
West	2.2	2.3	3.7	>3.9

**Table 1.1 Range of 0.5% + CC Breach Flood Levels**

Location	Flood Depth 1.0m – 1.6m			
	Land Levels (m AOD)		Possible Flood Level (m AOD)	
	Lowest	Highest	Lowest	Highest
SW Corner	2.6	2.9	3.9	4.2
SE Corner	2.5	2.7	3.7	4.1
Location	Flood Depth > 1.6m			
	Land Levels (m AOD)		Possible Flood Level (m AOD)	
	Lowest	Highest	Lowest	Highest
North	2.2	2.5	4.1	>4.1
South	2.4	2.5	4.1	>4.1

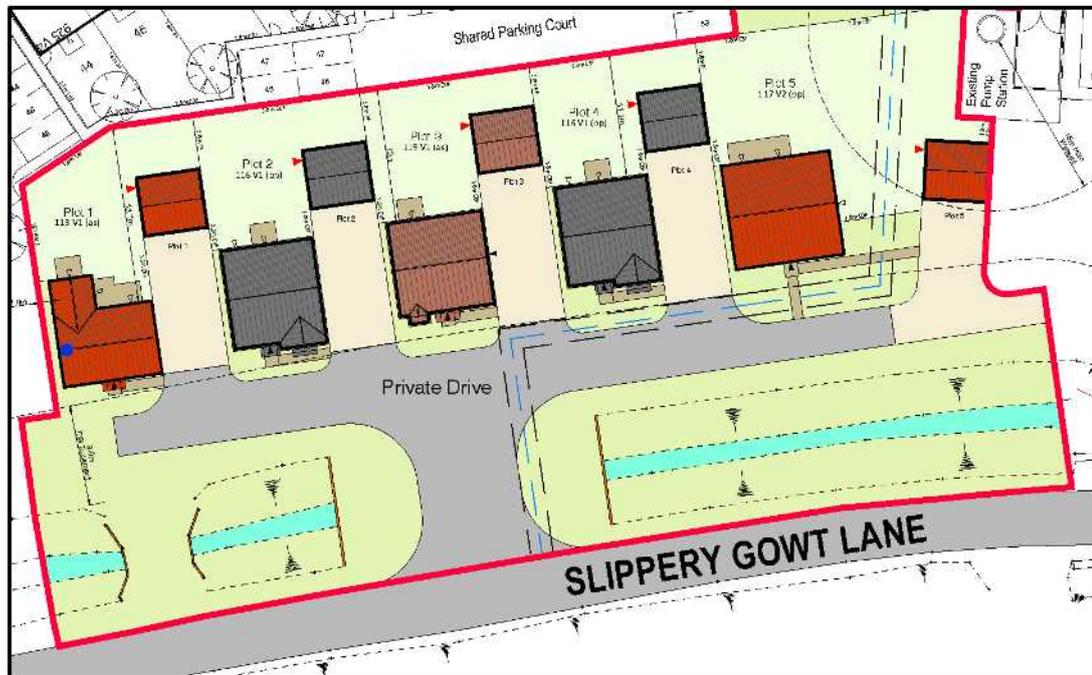
**Table 1.2 Range of 0.1% + CC Breach Flood Levels**

From the above results, it can be concluded that the only flood levels that fit within the ranges are;

- 0.5% + Climate Change Flood Level 4.00m AOD
- 0.1% + Climate Change Flood Level 4.10m AOD

## 2.0 BAPTIST FARM LAYOUT

2.1 An extract from the proposed Baptist Farm layout is shown below in **Figure 2.1**.



**Figure 2.1 Proposed Baptist Farm Layout**

2.2 The proposed development includes the following dwelling types;

<b>House Type Schedule - Plots 1-5</b>			
Baptist Farm, Slippery Gowt Lane, Boston			
House	Type	Beds	No
113	House	4	1
115	House	4	1
116	House	4	2
117	House	4	1
<b>Total</b>			<b>5</b>

## Mitigation

- 2.3 The mitigation will be based on the proposed mitigation in the original FRA and is confirmed as follows:

### Houses

These are traditional two-storey dwellings with all bedrooms on the first floor.

- Finished Floor Level to be minimum 3.40m AOD.
- Water resistant external doors to 4.00m AOD.
- Water resisting airbricks, backwater valves, non-return valves and all electrical installation to be above 4.00m AOD.

## 3.0 PHASE 3 LAYOUT

- 3.1 An extract from the proposed phase 3 layout is shown below in **Figure 3.1**.



**Figure 3.1 Proposed Phase 3 Layout**

- 3.2 The proposed development includes the following dwelling types;

Heron Park, Boston				
House Type	No. of Bedrooms	Nr	House Sq Ft	Total Sq Ft
909	1 Bedroom Maisonette	12	530	6,360
912	2 Bedroom Semi Detached	13	755	9,815
913	2 Bedroom Semi Detached	16	654	10,464
927	3 Bedroom Semi Detached	8	825	6,600
925	3 Bedroom Semi Detached	10	824	8,240
950	2 Bedroom Bungalow	2	581	1,162
920	3 Bedroom Semi Detached	9	925	8,325
<b>Total</b>		<b>70</b>		<b>50,966</b>

## Mitigation

- 3.3 The mitigation for the various dwelling types will be based on the proposed mitigation in the original FRA and is confirmed as follows:

### Maisonette

These have a single bedroom on the first floor.

- Finished Floor Level to be minimum 3.40m AOD.
- Water resistant external doors to 4.00m AOD.
- Water resisting airbricks, backwater valves, non-return valves and all electrical installation to be above 4.00m AOD.

### Semi Detached

These are traditional two-storey dwellings with all bedrooms on the first floor.

- Finished Floor Level to be minimum 3.40m AOD.
- Water resistant external doors to 4.00m AOD.
- Water resisting airbricks, backwater valves, non-return valves and all electrical installation to be above 4.00m AOD.

### Bungalow

- Finished Floor Level to be minimum 4.10m AOD.

## 4.0 DOCUMENT ISSUE RECORD

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Revision		Date of Issue
1	Issued	01/03/2021

### Author



Roy Lobley

### Limitations

The conclusions drawn by Roy Lobley Consulting are based on information supplied and could differ if the information is found to be inaccurate or misleading. In which case Roy Lobley Consulting accepts no liability should additional information exist or becomes available with respect to this project.

The information in this report is based on statistical data and qualitative analysis which are for guidance purposes only. This study provides no guarantee against flooding or of the absolute accuracy of water levels, flows and associated probabilities.

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