Indigo Architecture

Performing Arts Block, Spalding Academy, Spalding
Flood Risk Assessment

May 2022



Revision Schedule

Performing Arts Block, Spalding Academy, Spalding

Flood Risk Assessment

May 2022
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P1	27 May 2022	Final Version	Stephen Riley BSc CEng MICE MCIHT	Lee Barnes BSc (Hons) MCIHT	Lee Barnes BSc (Hons) MCIHT

Inspire Design & Development Ltd
Unit 2A
Church View Business Park
Coney Green Road
Chesterfield
Derbyshire
S45 9HA

Tel: 01246 864467

www.inspiredesigngroup.co.uk

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1 INTRODUCTION

1.1 Instructions

1.1.1 This report is prepared in accordance with instructions from Indigo Architecture to support a planning application to South Holland District Council (SHDC) for a Performing Arts Block at Spalding Academy, Neville Avenue, Spalding, PE11 2EJ.

1.1.2 The purpose of the report is to assess flood risk in accordance with the National Planning Policy Framework (NPPF) and other current guidelines at the site. It does not purport to be design for construction purposes.

1.2 Planning Background

1.2.1 Several similar planning permissions have been granted for new buildings at Spalding Academy (previously Sir John Gleed School) over the past few years which provide useful guidance for this Flood Risk Assessment.

1.2.2 Reference H16-0459-21 was granted permission on 25 June 2021 by Lincolnshire County Council for the erection of a two-storey teaching block. A Flood Risk Assessment was referred to in the supporting documentation and in the planning conditions, but not made available on the SHDC planning portal. The Design and Access Statement stated that: *The finished ground floor level to the proposed classroom block should be set at the same as the existing nearby buildings, with a minimum finished ground floor level of 3.00m.* An EA informative advises use of the *Floodline Warnings Direct* service.

1.2.3 Reference H16-1052-20 was granted permission on 12 January 2021 by SHDC for the erection of a single-storey PE changing room block. No FRA was submitted and the drawings show the floor level set just above ground level. The Case Officer Assessment stated: *The site is in Flood Zone 3 and in a "Danger for All" hazard, with a maximum predicted flood depth of over 2 metres. Finished floor levels will not be sited any lower than that of the existing building.*

1.2.4 Reference H16-0878-20 was granted permission on 3 December 2020 by SHDC for the erection of a single-storey extension to the music block. No FRA was submitted and the drawings show the floor level set just above ground level. As with H16-1052-20, the Case Officer Assessment stated: *The site is in Flood Zone 3 and in a "Danger for All" hazard, with a maximum predicted flood depth of over 2 metres. Finished floor levels will not be sited any lower than that of the existing building.*

1.2.5 Reference H16-0733-13 was granted permission on 20 November 2013 by SHDC for the erection of a sports hall with its floor level set at existing ground level. The

accompanying FRA, which was prepared prior to the SFRA 2016 Update, proposed: *Floor level set not lower than existing, flood resilient techniques applied* and *register for the EA early warning service*.

1.2.6 Reference H16-0297-13 was granted permission on 22 May 2013 by SHDC for the erection of a bus garage and equipment store with its floor level set at existing ground level. The accompanying FRA, is similar that submitted with H16-0733-13.

1.2.7 These permissions demonstrate the acceptability of maintaining floor levels the same as existing and a similar approach has been taken in the preparation of this FRA.

1.3 Technical Information

National Planning Policy Framework

1.3.1 The National Planning Policy Framework and associated Planning Practice Guidance explains how flood risk should be taken into consideration during the planning and development process. It categorises flood risk by *flood zone* and defines the types of development *appropriate* to each flood zone according to *vulnerability*. The flood zones are defined as:

- Zone 1: Areas with a Low Probability of flooding (annual probability less than 0.1% or 1 in 1000 years).
- Zone 2: Areas with a Medium Probability of flooding (annual probability between 0.1% (1 in 1000 years) and 1.0% (1in 100 years) for rivers, 0.1 – 0.5% (1 in 1000 to 1 in 200 years) for coastal areas.
- Zone 3a: Areas with a High Probability of flooding (annual probability greater than 1.0% (1 in 100 years) for rivers, 0.5% (1 in 200 years) for coastal areas).
- Zone 3b: The Functional Floodplain (probability as Zone 3a).

Environment Agency Flood Maps

1.3.2 The Environment Agency (EA) predicts the likelihood of flooding via a national series of indicative flood maps, available via the GOV.UK website.

1.3.3 The *Flood Map for Planning* shows the flood zones, described above, coloured in different shades of blue. In areas protected by flood defences, this flood map deliberately neglects their presence so as to present a worst-case scenario. Although it does not represent realistic risk, the *Flood Map for Planning* is the

authoritative guidance on flood risk for use in the preparation of flood risk assessments for planning applications.

1.3.4 The *Long Term Flood Risk* maps cover the following topics:

- *Flood Risk from Rivers and the Sea*. This map (previously known as the NaFRA map) shows the risk of fluvial and tidal flooding in a similar manner to the *Flood Map for Planning*, except that, where they exist, defences are recognised. The resulting realistic risk presentation provides useful data for insurance assessors.

- *Flood Risk from Surface Water.* This map shows potential overland flow routes and accumulation of runoff resulting from rainstorm events based on topography, divided into low, medium and high risk scenarios.

- *Flood Risk from Reservoirs*. This map shows areas which may be subject to flooding from the failure of reservoirs and other water retaining infrastructure, the risk of which is very low.

Environment Agency Flood Data

1.3.5 Site-specific flood data, known as Products 1 to 8, including the results of river modelling, are available from the EA on request.

South Holland District Council Strategic Flood Risk Assessment

1.3.6 Local planning authorities are required to produce a Strategic Flood Risk Assessment (SFRA) which sets the scene for flood risk in their areas. South Holland District Council published its original SFRA, now superseded, in January 2010.

South East Lincolnshire Local Plan

1.3.7 The South East Lincolnshire Local Plan, prepared jointly by South Holland District Council, Boston Borough Council and Lincolnshire County Council, was adopted in March 2019. The South East Lincolnshire SFRA and the 2016 Update of the South Holland District Council SFRA, which includes Spalding, form part of this Local Plan.

Lincolnshire County Council Preliminary Flood Risk Assessment

1.3.8 Lead Local Flood Authorities (LLFAs) are required to produce a Preliminary Flood Risk Assessment (PFRA) to identify areas where there is significant flood risk from ordinary watercourses and surface water run-off, but not from main rivers or the sea, or from sewers. Lincolnshire County Council, as the LLFA, published its PFRA in June 2011.

South Holland Internal Drainage Board

1.3.9 Drainage of the site and surrounding area is administered by the South Holland IDB. The site is located in the Clay Lake Catchment, the built-up area of Spalding between the Spalding Channel and the Coronation Channel of the River Welland.

2 SITE INFORMATION

2.1 Existing Site

Location

2.1.1 The site comprises the southern part of the school car park, some 40m by 37m, an area of about 1500 m^2 (0.15 ha), situated adjacent to the school Main Building. The school is located in the Clay Lake district, about 0.5 km to the east of Spalding town centre. The site location is shown on the attached Drawing No IA-1610-01-GA-001 *Location Plan*.

Watercourses

2.1.2 The River Welland, a Main River, flows between flood banks from south to north via the Spalding Channel through Spalding town centre and the Coronation Channel around the east side of the town. The two channels join to the north of the town, after which the River Welland is tidal and outflows to The Wash about 15 km to the north-east.

2.1.3 The site is located in the Clay Lake Catchment No A-CMT192P in the built-up area of Spalding between the two channels of the River Welland - see SHIDB Catchment Map at Appendix 4.

2.1.4 The area is drained by the Exeter Drain, High Priority Watercourse DRN192P0505, which runs towards the south along the west side of the school and High Priority Watercourse DRN192P0206, which runs towards the south along the back of the Coronation Channel flood bank on the east side of the school. These, and other drains, converge at the Clay Lake Pumping Station from where the flows are lifted up into the Coronation Channel of the River Welland.

Topography

2.1.5 The site comprises generally level ground with an average level of +2.95m AOD. The ground levels around the school, varying between +2.5m and +3.1m AOD, are typical of those on the eastern side of Clay Lake. On the western side of Clay Lake and in the town centre west of the Spalding Channel, ground levels are higher, generally ranging between +3.5m and +5.5m AOD. Topographical details around the site are shown on the attached Drawing No TSA-20-0839/202B *Topographical Survey*.

Ground Conditions

2.1.6 The site is situated on relatively impermeable Tidal Flat superficial deposits of Clay and Silt overlying Oxford Clay Formation Mudstone bedrock.

2.2 Proposed Development

2.2.1 It is proposed to develop the site as a Performing Arts Block as shown on Drawing No 0384-02-08-03-P2 *Footprint of Plan on Site.*

2.2.2 The ground floor level (FFL) of the new building will be set at +3.1m AOD, i.e. 0.15m higher than the existing ground level. This is consistent with the practice approved via the recent permissions for similar developments at the school, as listed in Section 1.2 above.

2.2.3 According to Table 2 of the Planning Practice Guidance *Flood Risk and Coastal Change*, this non-residential educational usage is classified as *More Vulnerable*.

3 FLOODING INFORMATION

3.1 Flood History

3.1.1 According to the web-based EA *Historic Flood Map* and the EA Flood Data provided, there have been no flood events recorded at the site.

3.1.2 Neither the South Holland SFRA nor the Lincolnshire County Council PFRA, make any reference to flood history at the site.

3.2 Potential for Tidal Flooding

3.2.1 According to the EA Flood Data provided, the site is not considered to be at risk from tidal flooding.

3.3 Potential for Fluvial Flooding

EA Flood Map for Planning

3.3.1 A copy of the *Flood Map for Planning* has been obtained from the GOV.UK website - see Appendix 1. This shows undefended Flood Zone 3 extending for several kilometres in all directions around the site with the nearest substantial area of Flood Zone 1 (Low Probability) being at Bourne, about 15 km to the west.

3.3.2 The *Flood Map for Planning,* which assumes that no flood defences exist, shows the site to be located in Flood Zone 3 (High Probability), associated with the potential failure of defences.

EA Long Term Flood Map – Flood Risk from Rivers or the Sea

3.3.3 *Long Term Flood Risk* maps, including *Flood Risk from Rivers or the Sea, Flood Risk from Surface Water*, and *Flood Risk from Reservoirs* have also been obtained from the GOV.UK website - see Appendix 1.

3.3.4 The *Flood Risk from Rivers or the Sea* map, which acknowledges the presence of flood defences, shows the site to be located partly in an area of Medium flood risk, the equivalent of Flood Zone 3.

EA Flood Data

3.3.5 Flood risk data from the Welland Catchment Strategic Model, provided by the Environment Agency on 18 November 2021, indicates modelled flood levels for the Spalding and Coronation Channels of the River Welland, contained within their flood banks, of +4.68m AOD for both the 1 in 100 year event and the 1 in 1000 year event, both with allowance for climate change. These levels are at least 1.7m higher than the existing ground levels at the site.

3.3.6 Flood defence bank crest levels for the Coronation Channel were requested from the EA on 4 January 2022, but these have not yet been provided. The *Modelled Flood Extents (with Defences)* map, provided by the EA, shows no flooding outside of the river channel flood banks for all events up to and including the 1 in 1000 year plus climate change, so the school site should only flood if there is a breach of the defences. However, as the EA response also states that the fluvial defences only offer protection against a 1 in 50 year event, it is considered prudent to plan for flood depths of 1.7 to 2.0m in any event greater than a frequency of 1 in 50 years.

South East Lincolnshire SFRA

3.3.7 As can be seen from the *Flood Map for Planning* at Appendix 1, almost the entire area of South East Lincolnshire is in Flood Zone 3. Strict adherence to the EA guidelines would consequently result in no development being permitted across a very large area, which is clearly impracticable. The South East Lincolnshire SFRA has therefore been developed to ensure that there is a consistent evidence base against which to take development decisions, particularly with respect to mitigation requirements.

South Holland SFRA 2016 Update Maps

3.3.8 The *Residual Peak Depth Spalding 2115 1% Fluvial/0.5% Tidal Event Probability* map and the *Residual Peak Depth Spalding 2115 0.1% Event Probability* map have been obtained from the web-based South Holland SFRA 2016 Update, together with the corresponding *Residual Flood Hazard* maps – see Appendix 3.

3.3.9 Whereas the *Flood Map for Planning* at Appendix 1 simply assumes that defences are non-existent, the SFRA 2016 Update maps are based on modelling a theoretical series of breaches in the flood defences. The map generally referred to in assessing development applications in Spalding is the *Residual Peak Depth Spalding 2115 1% Fluvial/0.5% Tidal Event Probability* map which not only forecasts the consequences of a defences breach but also the effect of climate change over the next 100 years. With single-storey *More Vulnerable* proposals, as in this case, the defined reference map is the *Residual Peak Depth Spalding 2115 0.1% Event Probability* map. This map shows flood depths in excess of 2m at the site for the 1 in 1000 year event, while the corresponding *Residual Flood Hazard Spalding 2115 0.1% Event Probability* map gives a rating of >2, i.e. *Danger for All* – see Appendix 3.

3.4 Potential for Surface Water Flooding

EA Flood Risk from Surface Water Map

3.4.1 The EA *Flood Risk from Surface Water* map shows no risk of surface water flooding at the site.

LincoInshire County Council PFRA

3.4.2 There is no specific mention of flood risk at the site in the LCC *Preliminary Flood Risk Assessment* (PFRA).

South Holland IDB

3.4.3 The area is drained by a system of High Priority Watercourses connected to the Clay Lake Pumping Station, thereby effectively alleviating surface water flooding.

3.5 Potential for Flooding from Reservoirs

3.5.1 The EA *Flood Risk from Reservoirs* map shows no risk of reservoir flooding at the site.

3.6 Potential for Flooding from Groundwater or Sewers

3.6.1 Flood risk from other sources such as groundwater or sewers is considered to be negligible in comparison with that for fluvial at this site. Consequently, they are not addressed further in this assessment.

4 FLOOD RISK ASSESSMENT

4.1 Approach to Development

4.1.1 As can be seen from the *Flood Map for Planning* at Appendix 1, the urban area of Spalding is entirely situated in Flood Zone 3.

4.1.2 It is generally considered that the contingency scenario represented by the *Residual Peak Depth Spalding 2115 Probability* maps from the SFRA provide appropriate guidance which generally requires that finished floor levels (FFLs) be set in accordance with the recommendations of Appendix C of the SFRA.

4.1.3 In terms of existing ground levels and the setting of FFLs with respect to flood risk, the proposed development is very similar to those granted planning permission as listed in Section 1.2 above. Setting the FFL of the new building at +3.1m AOD, i.e. 0.15m higher than the existing ground level, is consistent with the practice approved via the recent permissions referred to for similar developments at the school.

4.2 Fluvial Flooding

Predicted Flood Levels

4.2.1 The EA *Long Term Flood Risk from Rivers or the Sea map* (previously known as the NaFRA map), represents the current defended state of the site and is used by insurers to assess the actual likelihood of a flood occurring. This map shows part of the site to be at 'Medium' flood risk, the equivalent of Flood Zone 3 and consistent with the *Flood Map for Planning*.

4.2.2 Modelled flood levels from the Welland Catchment Strategic Model relate to the River Welland channels where the river is constrained between flood banks and the 1 in 1000 year plus climate change water levels are estimated to be +4.68m AOD. As this figure is the highest probable fluvial flood level and there is no likelihood of tidal flooding, the maximum flood depth at the site, where the ground level is +2.95m AOD, would be 1.73m.

4.2.3 The South Holland SFRA Depths and Hazard maps are based on modelling the theoretical breaching of flood defences; however, based on the historical records over the past 50+ years, the chances of this happening in the foreseeable future must be regarded as extremely low.

4.2.4 The defined reference map, the *Residual Peak Depth Spalding 2115 0.1% Event Probability* map, shows depths in excess of 2m at the site for this conjectured 1 in 1000 year event, while the corresponding *Residual Flood Hazard Spalding 2115*

0.1% Event Probability map gives a rating of >2, i.e. *Danger for All* – see Appendix 3.

4.2.5 The flood depth with climate change of 1.73m derived from the Welland Catchment Strategic Model indicates that the residual peak flood depth at the site in 2115 is unlikely to be greater than 2m.

4.2.6 Reference to the Standing Advice Matrix in Appendix C of the SFRA shows that *More Vulnerable* uses on sites less than 0.5 ha in area but with a *Danger for All* hazard rating fall into Cell C8, where following recommendations apply:

- Buildings should have a minimum of 2-stories. Although the proposed Performing Arts Block will be single storey, the adjacent 2-storey Main Building, less than 30m away, will provide safe refuge at first floor level. The school has confirmed that there is adequate space there to accommodate the number of students and staff involved.

- Flood resilience should be incorporated into the building. Flood resilient materials will be used for the full height of the walls so as to protect the fabric from the potential effects of water inundation.

4.2.7 Furthermore, the school will develop and operate a Flood Management Plan so as to assure the safety of students and staff in an extreme event – see Section 5 below.

4.3 Surface Water Flooding

4.3.1 As stated in 3.4.1 above, there is no significant risk of surface water flooding at the site. This is because the site is surrounded by deep open drains which collect runoff from the site and discharge it to the Coronation Channel via the Clay Lake Pumping Station.

4.3.2 As the proposed development will effectively replace existing surfaced car parking with a building, there will consequently be no significant increase in impermeable area and no corresponding increase in surface water flood risk.

5 FLOOD MANAGEMENT

5.1 Flood Management

5.1.1 As the Performing Arts Block will be at risk of flooding in a residual risk breach event, even though the risk is very low risk, a Flood Management Plan containing the following robust flood management provisions will be prepared and implemented.

5.2 Warnings and Evacuation

5.2.1 The school will register for the EA's *Floodline Warnings Direct* service which is available for the site. Should a flood warning be received or a flood event be otherwise predicted, occupants will evacuate in good time before any local flooding occurs along the Lincolnshire County Council signed Emergency Evacuation Route via the A151 to dry ground at Bourne, about 15 km to the west.

5.2.2 Alternatively, occupants might remain on site and ascend to safe refuge on the first floor of the Main Building so as to remain well clear of any floodwater.

5.2.3 In neither case would the occupants be exposed to danger.

5.3 Sequential Test

5.3.1 As there are no sites available outside the flood zones in Spalding or the surrounding area, there is generally no alternative but to build in the flood zones, as recognised by the South Holland SFRA. This has been the case for some years and the established practice is to mitigate the flood risk by providing safe refuge and/or evacuation.

5.3.2 In this specific case, as the proposed Performing Arts Block is inextricably linked to the existing school, there is no question of seeking an alternative site elsewhere, even if there were any nearby land outside of the flood zones.

5.3.3 Consequently, the Sequential Test is considered to be satisfied.

5.4 Exception Test

5.4.1 Notwithstanding the above, in order to ensure the safety of the occupants it is necessary to satisfy the NPPF Exception Test. The following points are relevant:

5.4.2 The development of educational facilities with easy access to the existing urban facilities will provide significant sustainability benefits to Spalding.

5.4.3 The proposed building will be made safe by adopting of a Flood Management Plan which includes early warning from the EA *Floodline Warnings Direct* service and the options of evacuation, either to dry ground in Bourne or safe refuge on the first floor of the Main Building.

5.4.4 Furthermore, as a result of there being no increase in impermeable area, there will be no increase in surface water flood risk either on the site or elsewhere as a result of the development

5.4.5 Consequently, the Exception Test is considered to be satisfied.

5.5 Flood Resilience

5.5.1 So as to protect the building fabric from the potential effects of water inundation, flood resilient materials will be used for the full height of the walls.

6 CONCLUSIONS

6.1.1 The EA *Flood Map for Planning* shows the site to located in Flood Zone 3, High Probability of flooding.

6.1.2 Estimated flood levels from the Welland Catchment Strategic Model indicate a maximum fluvial flood depth at the site in breach conditions of 1.73m.

6.1.3 The SFRA map *Residual Peak Depth Spalding 2115 0.1% Event Probability* indicates a maximum residual risk flood depth in breach conditions in 2115 of at least 2m.

6.1.4 The *Residual Flood Hazard Spalding 2115 0.1% Event Probability* map gives a hazard rating at the site of >2, i.e. *Danger for All.*

6.1.5 The FFL of the proposed single-storey building will be set at +3.1m AOD, i.e. 0.15m higher than the existing ground level. This is consistent with the practice approved via several recent planning permissions for similar developments at the school.

6.1.6 In compliance with the Standing Advice Matrix in Appendix C of the SFRA, the adjacent 2-storey Main Building will provide safe refuge at first floor level for the occupants of the proposed building. Furthermore, flood resilient materials will be used for the full height of the walls.

6.1.7 The EA *Flood Risk from Surface Water* map shows no risk of surface water flooding at the site. As there will be no increase in impermeable area, there will be no increase in surface water flood risk.

6.1.8 A Flood Management Plan will be prepared for the safety of occupants, involving early warning and either evacuation to dry ground or refuge on an upper floor, as required.

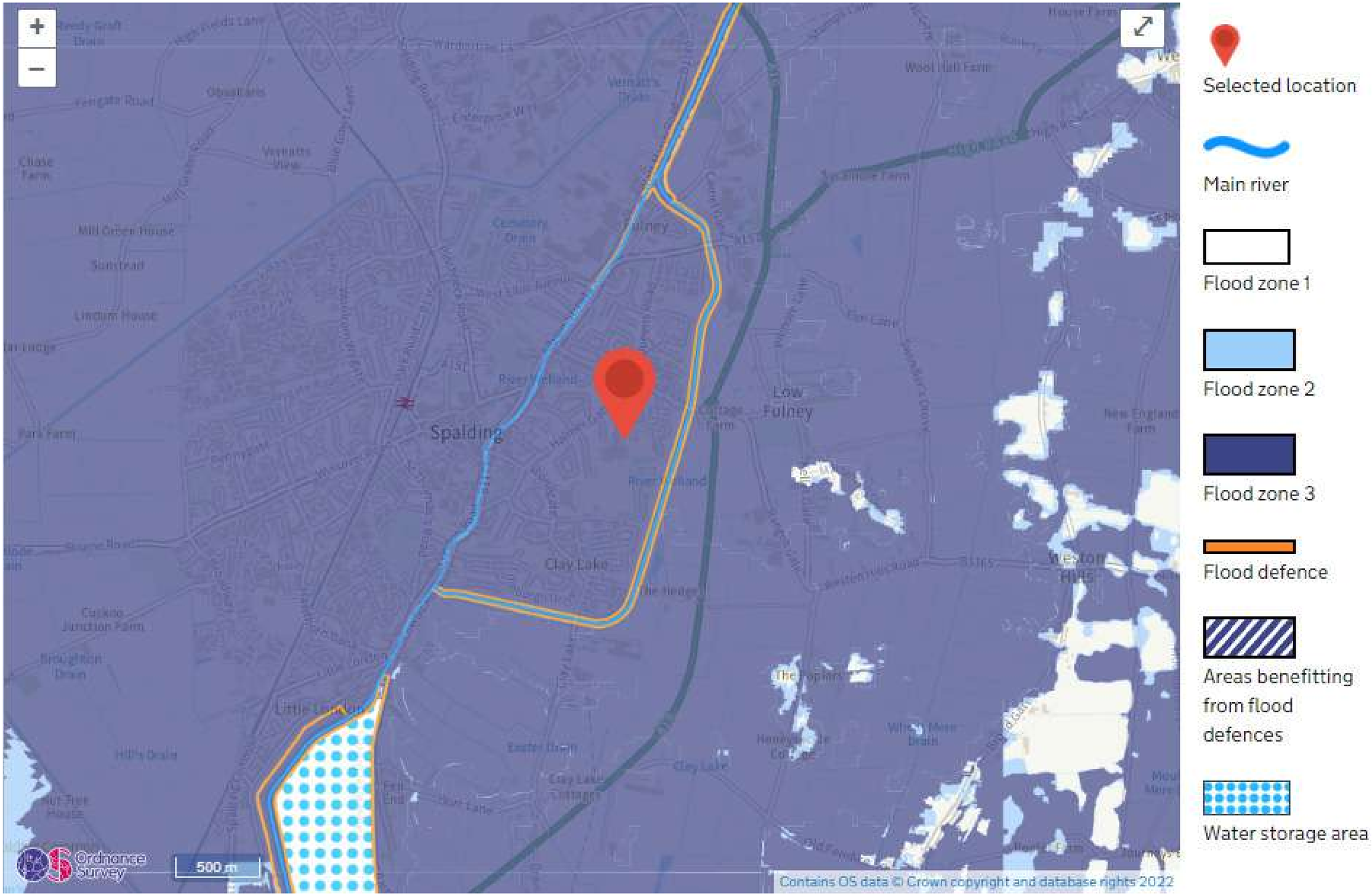
6.1.9 As the proposed development is inextricably linked to the existing school, the NPPF Sequential Test is considered to be satisfied.

6.1.10 As the proposed building will be made safe by adopting of a Flood Management Plan which includes early warning from the EA and options of evacuation, the NPPF Exception Test is considered to be satisfied.

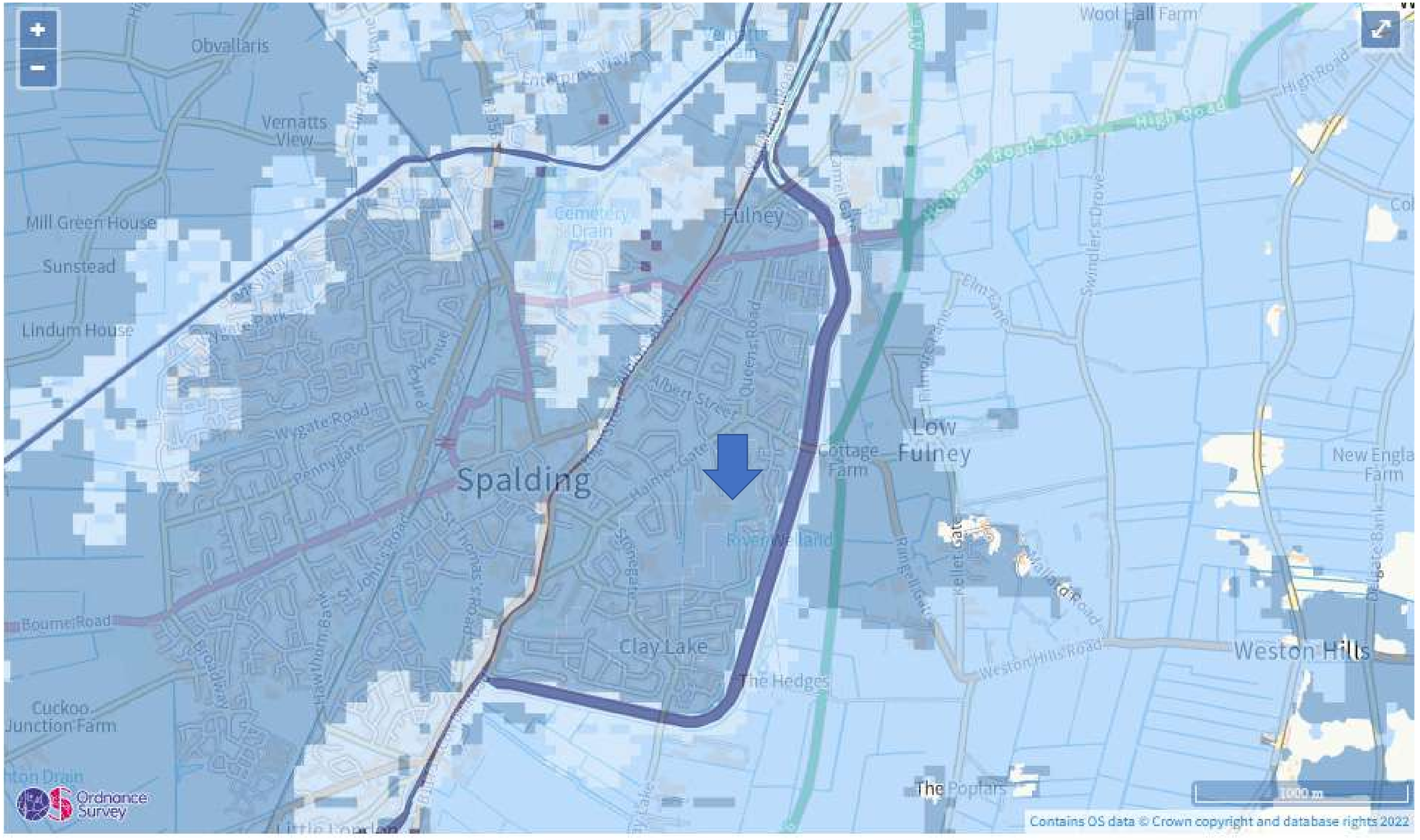
7.1.10 With regard to flood risk and drainage, therefore, the site is suitable for the proposed use. The development may be occupied safely without increasing flood risk.

APPENDIX 1

EA FLOOD MAPS



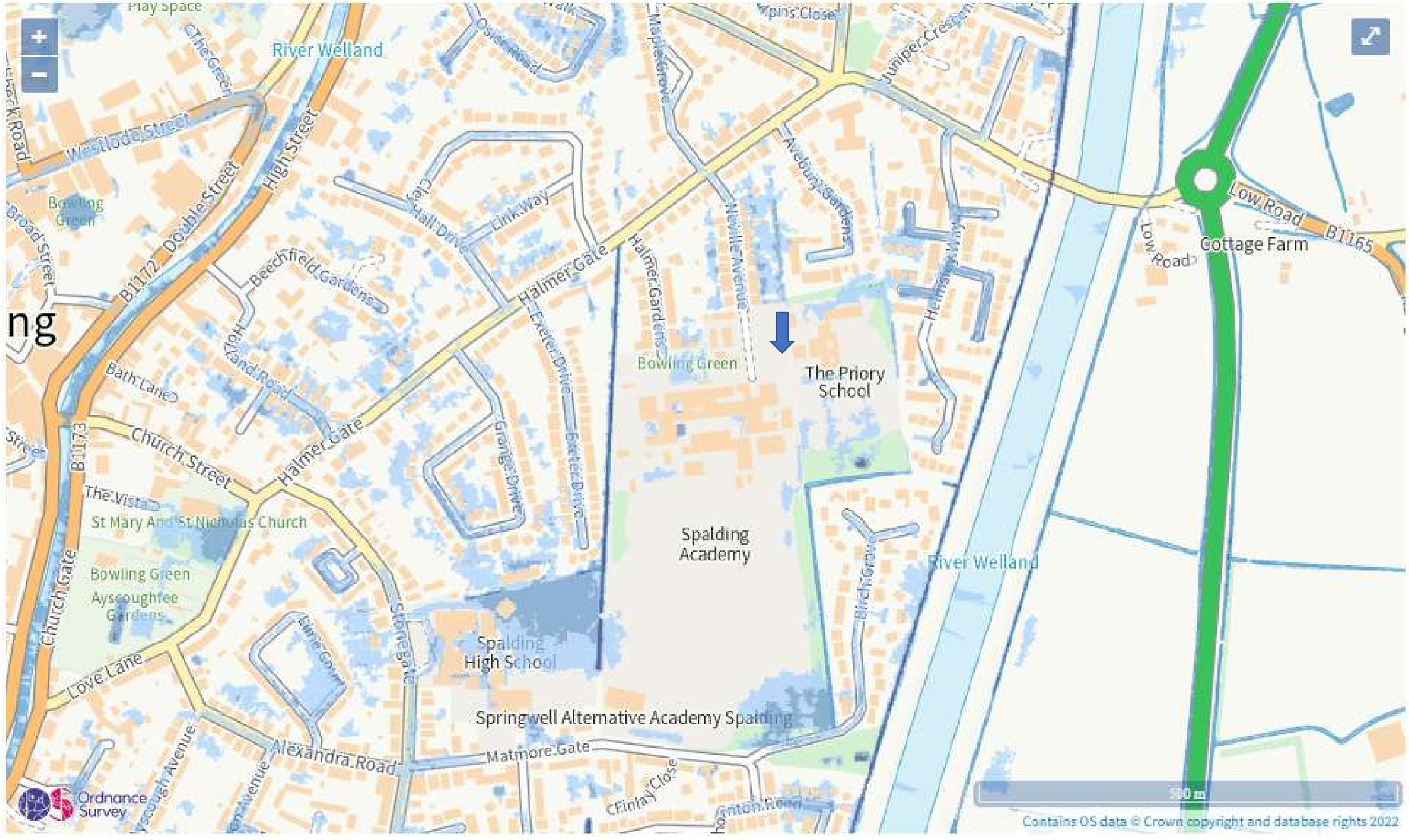
Flood Map for Planning



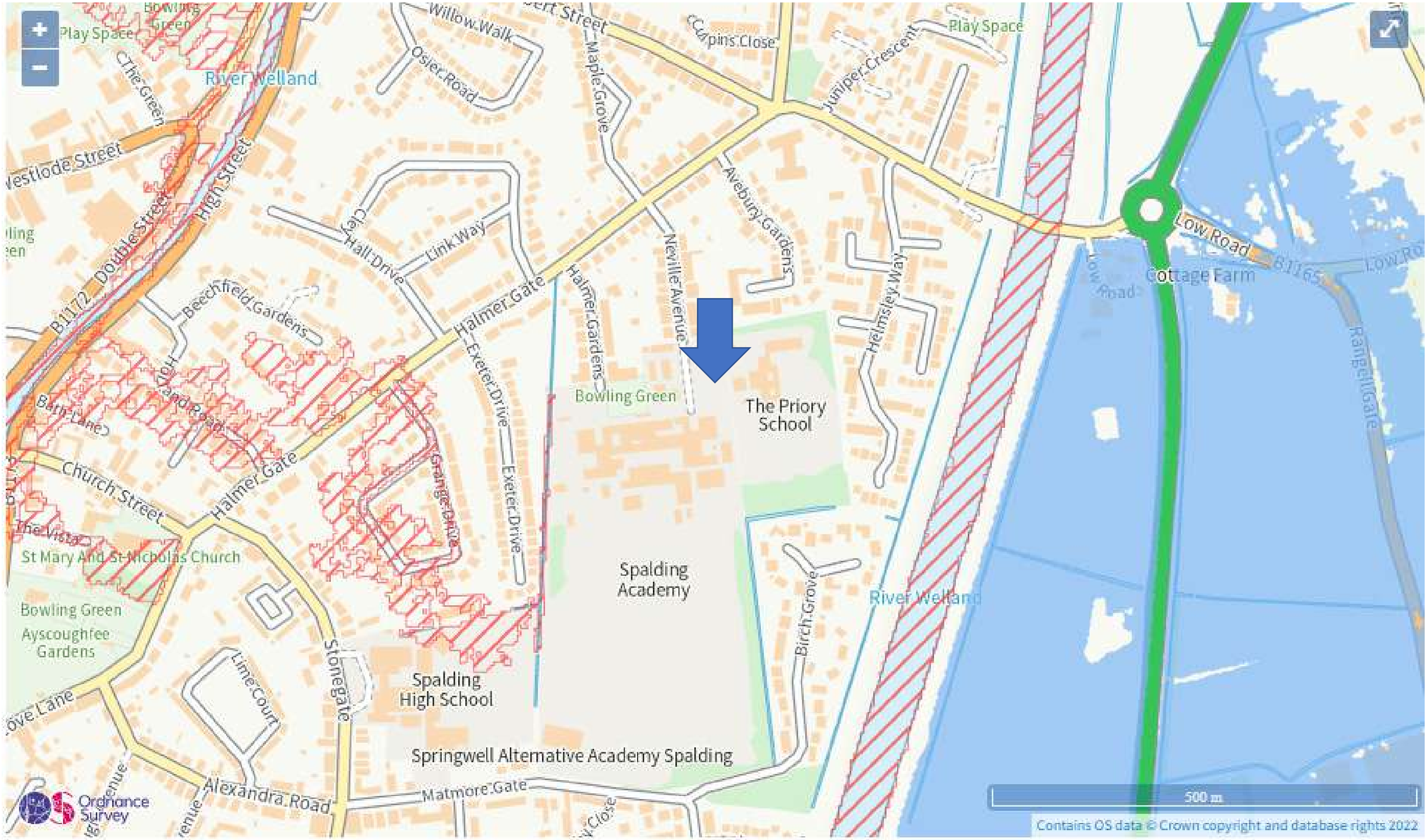
Extent of flooding from rivers or the sea

High Medium Low Very low

Flood Risk from Rivers and the Sea



Surface Water Flood Risk Map



Maximum extent of flooding from reservoirs:

when river levels are normal when there is also flooding from rivers

Flood Risk from Reservoirs

APPENDIX 2

EA FLOOD DATA

steve@inspiredesigngroup.co.uk

Our ref: CCN-2021-241296

Date: 18/11/2021

Dear Stephen

Provision of Flood Risk Information for Neville Avenue, Spalding.

Thank you for your request to use our flood risk information for the above site. The information is set out below and attached. It is important you read any contextual notes on the maps provided.

If you are preparing a Flood Risk Assessment (FRA) for this site, please note this information may not be sufficient by itself to produce an adequate FRA to demonstrate the development is safe over its lifetime. Additional information may be required to carry out an appropriate assessment of all risk, such as consequence of a breach in defences.

We aim to review our information on a regular basis, so if you are using this data more than twelve months from the date of this letter, please contact us again to check it is still valid.

1. Flood Map

The attached map includes the current Flood Map for your area. The Flood Map indicates the area at risk of flooding, **assuming no flood defences exist**, for a flood with a 0.5% chance of occurring in any year for flooding from the sea, or a 1% chance of occurring for fluvial (river) flooding. It also shows the extent of the Extreme Flood Outline which represents the extent of a flood with a 0.1% chance of occurring in any year, or the highest recorded historic extent if greater.

In some locations, such as around the fens and the large coastal floodplains, showing the area at risk of flooding assuming no defences may give a slightly misleading picture in that if there were no flood defences, water would spread out across these large floodplains. This flooding could cover large areas of land but to relatively shallow depths and could leave pockets of locally slightly higher land as isolated dry islands. It is important to understand the actual risk of the flooding to these dry islands, particularly in the event of defence failure.

The Flood Map also shows the location of formal raised flood defences and flood storage reservoirs. It represents areas at risk of flooding for present day only and does not take account of climate change.

The Flood Map only indicates the extent and likelihood of flooding from rivers or the sea. It should also be remembered flooding may occur from other sources such as surface water sewers, road drainage, etc.

2. Historic Flood Event Outlines

With regards to the history of flooding I can advise we do not have any records of flooding in this area. It is possible recent flooding may have occurred which we are currently investigating, therefore this information may be subject to change. It is possible other flooding may have occurred which other risk management authorities, such as the Lead Local Flood Authority (ie top tier council) or Internal Drainage Board (where they exist) have responsibility.

3. Schemes in the area

There are no ongoing capital projects to reduce or sustain the current flood risk to this site.

4. Fluvial Flood Risk Information

4.1 Fluvial Defence Information

The existing fluvial defences reducing the risk of flooding to this site consist of earth embankments. They are in fair condition and reduce the risk of flooding (at the defence) to a 2% (1 in 50) chance of occurring in any year.

A flood storage reservoir also reduces the risk of flooding to this site. We inspect these defences routinely to ensure potential defects are identified.

Refer to paragraph 3 for details of any ongoing capital projects to reduce the flood risk to this site.

4.2 Fluvial Modelled Levels and Flows

Available modelled fluvial flood levels and flows for the model nodes shown on the attached map are set out in the data table attached. This data is taken from the model named on the data table, which is the most up-to-date model currently available.

Please note these levels are “in-channel” levels and therefore may not represent the flood level on the floodplain, particularly where the channel is embanked or has raised defences.

Our models may not have the most up to date climate change allowances. In time we will update our models for the latest allowances. You should refer to 'Flood risk assessments: climate change allowances' to check if the allowances modelled are appropriate for the type of development you are proposing and its location. You may need to undertake further assessment of future flood risk using different allowances to ensure your assessment of future flood risk is based on best available evidence.

4.3 Fluvial Modelled Flood Extents

Please find attached a map showing available modelled flood extents, taking into account flood defences, for your area. This data is taken from the model named on the map, which is the most up-to-date model currently available.

4.4 Fluvial Hazard Mapping

For certain locations we have carried out modelling to map the maximum values of flood depth, velocity and hazard rating (danger to people) resulting from overtopping and / or breaching of defences at specific locations for a number of scenarios.

At present this information is available for fluvial flood risk in Northampton, Lincoln, Wainfleet and some isolated rural locations.

The number of locations we have this information for is expected to increase in time.

Detailed Hazard Mapping is available within the 2017 Update of South Holland Strategic Flood Risk Assessment. This can be downloaded via the following link:
http://www.southeastlincslocalplan.org/water/

5. Tidal Flood Risk Information

This site is not considered to be at risk from tidal flooding.

6. Development Planning

If you would like local guidance on preparing a flood risk assessment for a planning application, please contact our Sustainable Places team at lnplanning@environment-agency.gov.uk. It will help if you mention this data request and attach your site location plan.

We provide free preliminary advice; additional/detailed advice, review of draft FRAs and meetings are chargeable at a rate set to cover our costs, currently £100 (plus VAT) per hour of staff time. Further details are available on our website at https://www.gov.uk/guidance/developers-get-environmental-advice-on-your-planning-proposals.

General advice on flood risk assessment for planning applications can be found on GOV.UK at https://www.gov.uk/guidance/flood-risk-assessment-for-planning-applications

Climate change will increase flood risk due to overtopping of defences. Please note, unless specified otherwise, the climate change data included has an allowance for 20% increase in flow. Updated guidance on how climate change could affect flood risk to new development - 'Flood risk assessments: climate change allowances' was published on GOV.UK in **July 2021**. The appropriate updated climate change allowance should be applied in a Flood Risk Assessment.

You should also consult the Strategic Flood Risk Assessment produced by your local planning authority.

7. Data Licence and Other Supporting Information

We respond to requests for recorded information we hold under the Freedom of Information Act 2000 (FOIA) and the associated Environmental Information Regulations 2004 (EIR).

This information is provided in accordance with the Open Government Licence which can be found here: http://www.nationalarchives.gov.uk/doc/open-government-licence/version/3/

Further information on flood risk can be found on the GOV.UK website at:
https://www.gov.uk/browse/environment-countryside/flooding-extreme-weather

8. Other Flood Risk Management Authorities

The information provided with this letter relates to flood risk from main river or the sea. Additional information may be available from other risk management authorities, such as the Lead Local Flood Authority (ie top tier council) or Internal Drainage Board (where they exist).

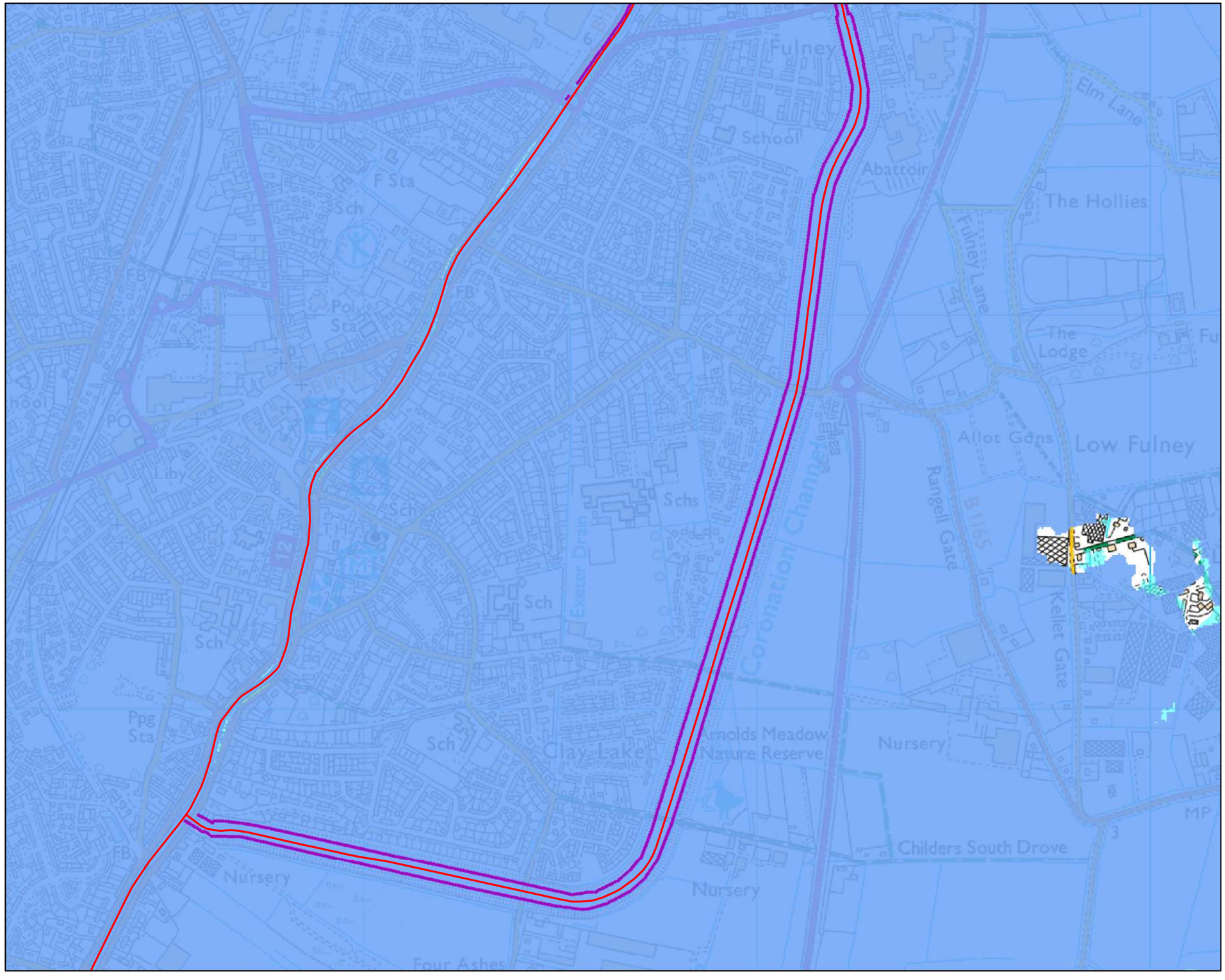
I hope we have correctly interpreted your request. If you have any queries or would like to discuss the content of this letter further please contact Frederic Stuhldreer using the email address below.

Yours sincerely,

for Alastair Windler
Weland and Nene Partnerships and Strategic Overview Team Leader
e-mail PSOWN@environment-agency.gov.uk

Enc.
Flood Map
Historic Flood Event Outlines Map
Modelled Node Points Map
Modelled Fluvial Levels and Flows Data Sheet
Modelled Flood Extent Maps

Flood Map centred on TF 25635 22562 - created November 2021 [Ref: CCN-2021-241296]



Environment Agency

Scale 1:10,000

N

Legend

- Main River
- Raised Defences
- Flood Storage Areas
- Area at Risk of Flooding from Rivers or The Sea
- Extreme Flood Outline

Dark blue shows the area that could be affected by flooding, either from rivers or the sea, if there were no flood defences. This area could be flooded:

- from the sea by a flood that has a 0.5% (1 in 200) or greater chance of happening each year.

- or from a river by a flood that has a 1% (1 in 100) or greater chance of happening each year.

Light blue shows the extent of the Extreme Flood Outline, which represents the extent of a flood event with a 0.1% chance of occurring in any year, or the highest recorded historic extent if greater.

These two colours show the extent of the natural floodplain if there were no flood defences or certain other manmade structures and channel improvements. Sites outside the two extents, but behind raised defences, may be affected by flooding if the defences are overtopped or fail.

Created by the Partnerships and Strategic Overview Team, Kettering

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Contact Us: National Customer Contact Centre, PO Box 544, Rotherham, S60 1BY. Tel: 03708 506 506 (Mon-Fri 8-6). Email: enquiries@environment-agency.gov.uk

Modelled Node Point Map centred on TF 25635 22562 - created November 2021 [Ref: CCN-2021-241296]



Environment Agency

Scale 1:10,000

N

Legend

- Node points (Levels)
- Node points (Flows)
- Main River

Created by the Partnerships and Strategic Overview Team, Kettering

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Fluvial Flood Levels (mODN)

The fluvial flood levels for the model nodes shown on the attached map are set out in the table below. They are measured in metres above Ordnance Datum Newlyn (mODN).

			Annual Exceedance Probability - Maximum Water Levels (mODN)											
Node Label	**Easting**	**Northing**	**50% (1 in 2)**	**20% (1 in 5)**	**10% (1 in 10)**	**5% (1 in 20)**	**3.33% (1 in 30)**	**2% (1 in 50)**	**1.33% (1 in 75)**	**1% (1 in 100)**	**1% (1 in 100) inc 20% Climate Change**	**0.5% (1 in 200)**	**0.1% (1 in 1000)**	**0.1% (1 in 1000) inc 20% Climate Change**
SPALDING_CHANNEL 1258	525242	323157	3.70	3.99	4.17	4.45	4.50	4.51	4.52	4.52	4.67	4.53	4.67	4.68
SPALDING_CHANNEL 2190	524844	322350	3.69	3.97	4.17	4.43	4.49	4.50	4.51	4.51	4.67	4.52	4.67	4.67
WELLAND 11616.7	526165	323266	3.66	3.92	4.11	4.36	4.40	4.41	4.42	4.45	4.68	4.46	4.68	4.68
WELLAND 12571.1	525957	322337	3.66	3.94	4.11	4.36	4.42	4.42	4.43	4.45	4.68	4.47	4.68	4.68

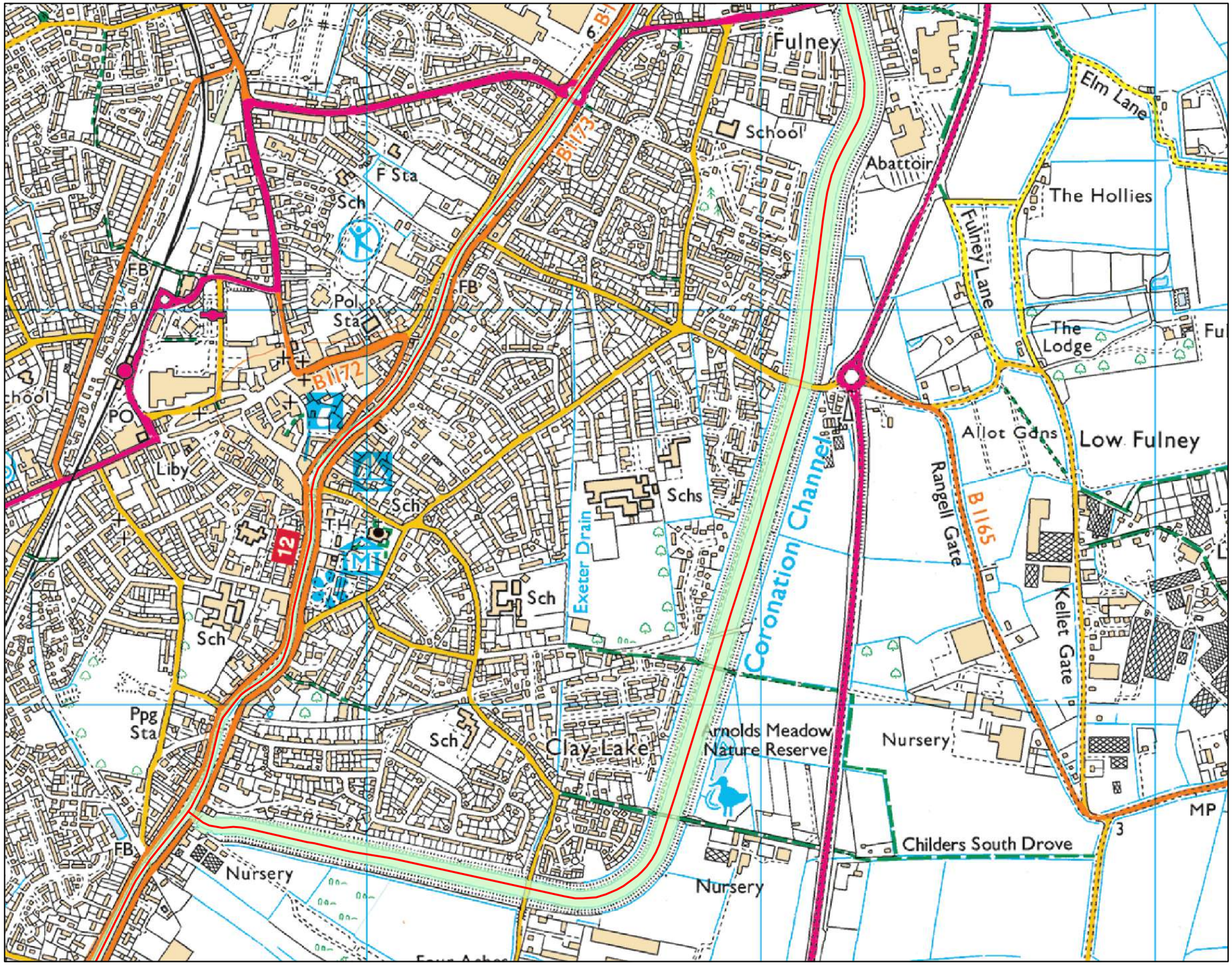
Fluvial Flood Flows (m^3/s)

The fluvial flood flows for the model nodes shown on the attached map are set out in the table below. They are measured in metres cubed per second (m^3/s).

			Annual Exceedance Probability - Maximum Flows (m^3/s)											
Node Label	**Easting**	**Northing**	**50% (1 in 2)**	**20% (1 in 5)**	**10% (1 in 10)**	**5% (1 in 20)**	**3.33% (1 in 30)**	**2% (1 in 50)**	**1.33% (1 in 75)**	**1% (1 in 100)**	**1% (1 in 100) inc 20% Climate Change**	**0.5% (1 in 200)**	**0.1% (1 in 1000)**	**0.1% (1 in 1000) inc 20% Climate Change**
SPALDING_CHANNEL 1602.5	525104	322844	3.30	4.61	5.03	5.75	5.85	5.51	6.12	6.48	8.63	6.34	5.83	8.54
SPALDING_CHANNEL 2504	524741	322062	4.52	6.70	7.54	8.64	9.10	8.47	8.88	9.38	11.84	9.66	9.13	11.85
WELLAND 11852.5	526134	323032	71.70	86.88	98.22	113.15	114.96	116.37	117.40	118.90	119.52	118.10	118.11	117.34
WELLAND 12826	525884	322093	68.62	84.03	95.35	108.49	112.37	114.21	115.84	117.32	116.58	116.69	116.51	115.99

Modelled Flood Extents (with defences)

Map centred on TF 25635 22562 - created November 2021 [Ref: CCN-2021-241296]



Environment Agency

Scale 1:10,000

N W E S

Modelled Flood Extents (with defences)

- Main River
- 5% (1 in 20) Fluvial Event
- 1% (1 in 100) Fluvial Event
- 1% (1 in 100) Fluvial Event inc Climate Change
- 0.1% (1 in 1000) Fluvial Event
- 0.1% (1 in 1000) Fluvial Event inc Climate Change

Created by the Partnerships & Strategic Overview Team, Kettering

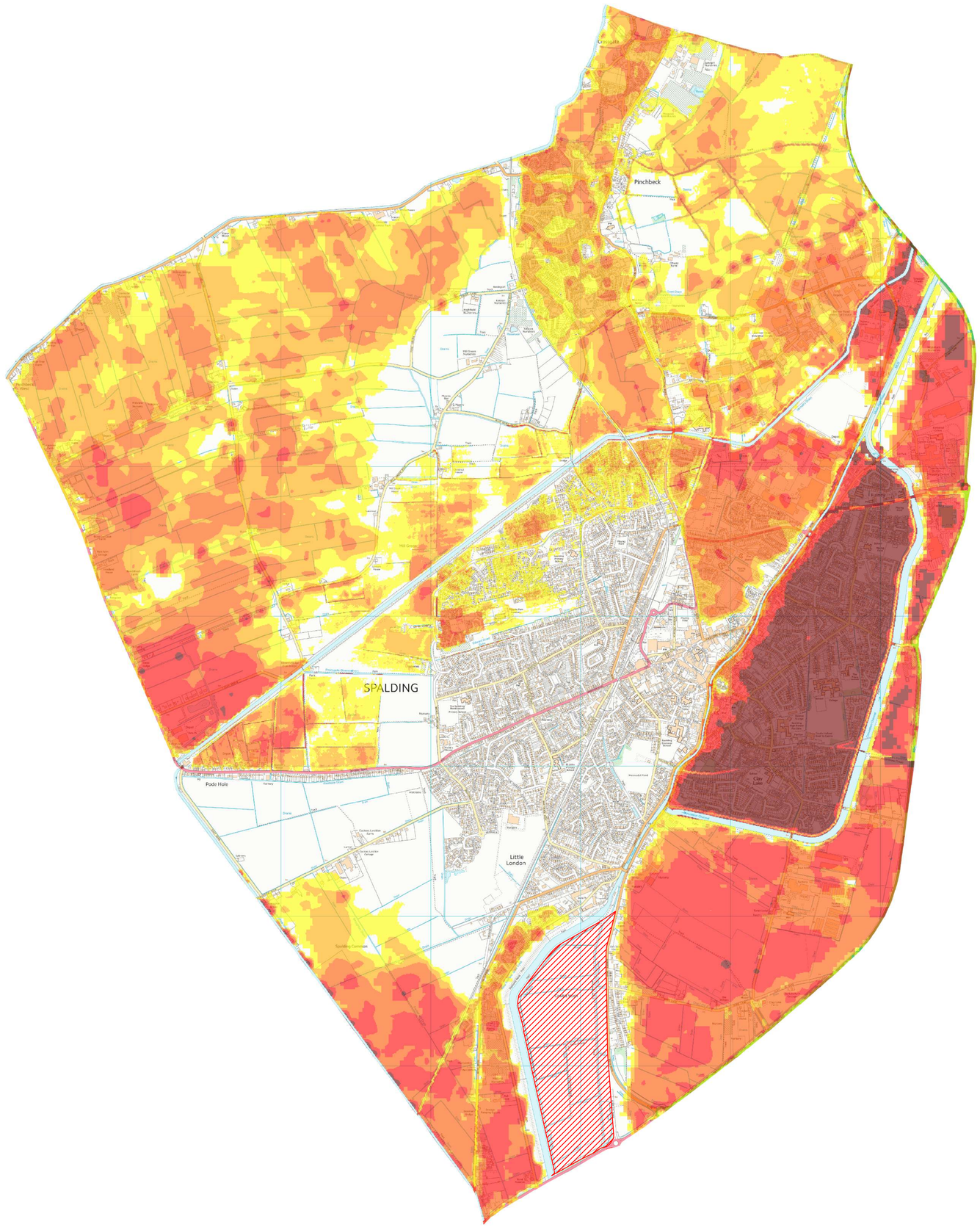
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APPENDIX 3

SFRA DEPTH AND HAZARD MAPS

N



NOTES

1. The potential flooding consequences shown on this map primarily relate to flooding from the sea and main rivers taking into account the presence of current flood risk management measures such as flood defences.

2. This update only included new flood risk information from River Welland (Fluvial), River Glen (Fluvial) and Tidal hazard mapping (River Welland, River Nene and the Wash sea defences). No new information from the Internal Drainage Boards and associated systems was used for this update.

3. In addition to the potential flood extents shown on this map, there may be shallow flooding in low-lying rural areas

4. The consequences designated as being a Residual Risk arise from direct overtopping of defences, where this would occur, together with breach failure which is assumed could occur at any point along the defences.

5. Functional Floodplain encompasses areas where water is intended to flow or be stored in times of flood.

6. Land outside South Holland District is not considered.

7. This map shows the extents only of the flooding probability bands relevant to the map Title

Map Legend

Peak Depth

- 0m - 0.25m
- 0.25m - 0.5m
- 0.5m - 1m
- 1m - 2m
- 2m +
- Functional Floodplain
- South Holland District Boundary

REV	DATE	REMARKS
2	Feb 17	Modelling and Mapping Update
1	Dec 16	Modelling and Mapping Update

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Royal HaskoningDHV
Enhancing Society Together

ROYAL HASKONINGDHV
RIGHTWELL HOUSE
BRETTON
PETERBOROUGH
PE3 8DW
TEL +44 (0)1733 334455
FAX +44 (0)1733 262243

SOUTH HOLLAND DISTRICT COUNCIL
COUNCIL OFFICES
PRIORY ROAD
SPALDING
LINCOLNSHIRE
PE11 2XE

UPDATE OF STRATEGIC FLOOD RISK ASSESSMENT

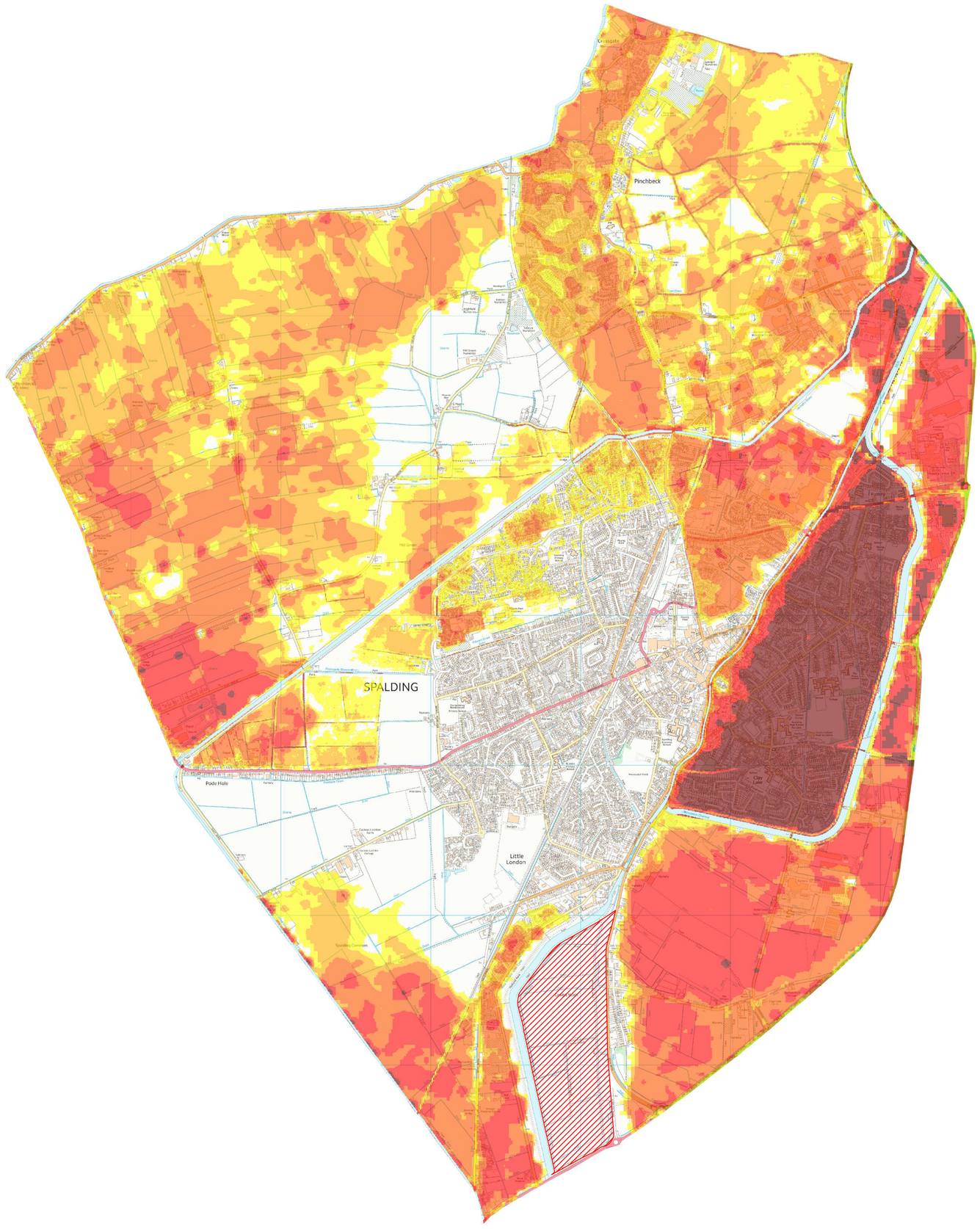
Residual Peak Depth
Spalding - Year 2115
1% Fluvial / 0.5% Tidal Event Probability

DATE OF ISSUE: Feb 2017 **REV NO:** 2

SCALE: 1 : 15,000 @ A1

MAP NO:

N



NOTES

1. The potential flooding consequences shown on this map primarily relate to flooding from the sea and main rivers taking into account the presence of current flood risk management measures such as flood defences.

2. This update only included new flood risk information from River Welland (Fluvial), River Glen (Fluvial) and Tidal hazard mapping (River Welland, River Nene and the Wash sea defences). No new information from the Internal Drainage Boards and associated systems was used for this update.

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7. This map shows the extents only of the flooding probability bands relevant to the map Title

Map Legend

Peak Depth

- 0m - 0.25m
- 0.25m - 0.5m
- 0.5m - 1m
- 1m - 2m
- 2m +
- Functional Floodplain
- South Holland District Boundary

REV	DATE	REMARKS
2	Feb 17	Modelling and Mapping Update
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PE11 2XE

UPDATE OF STRATEGIC FLOOD RISK ASSESSMENT

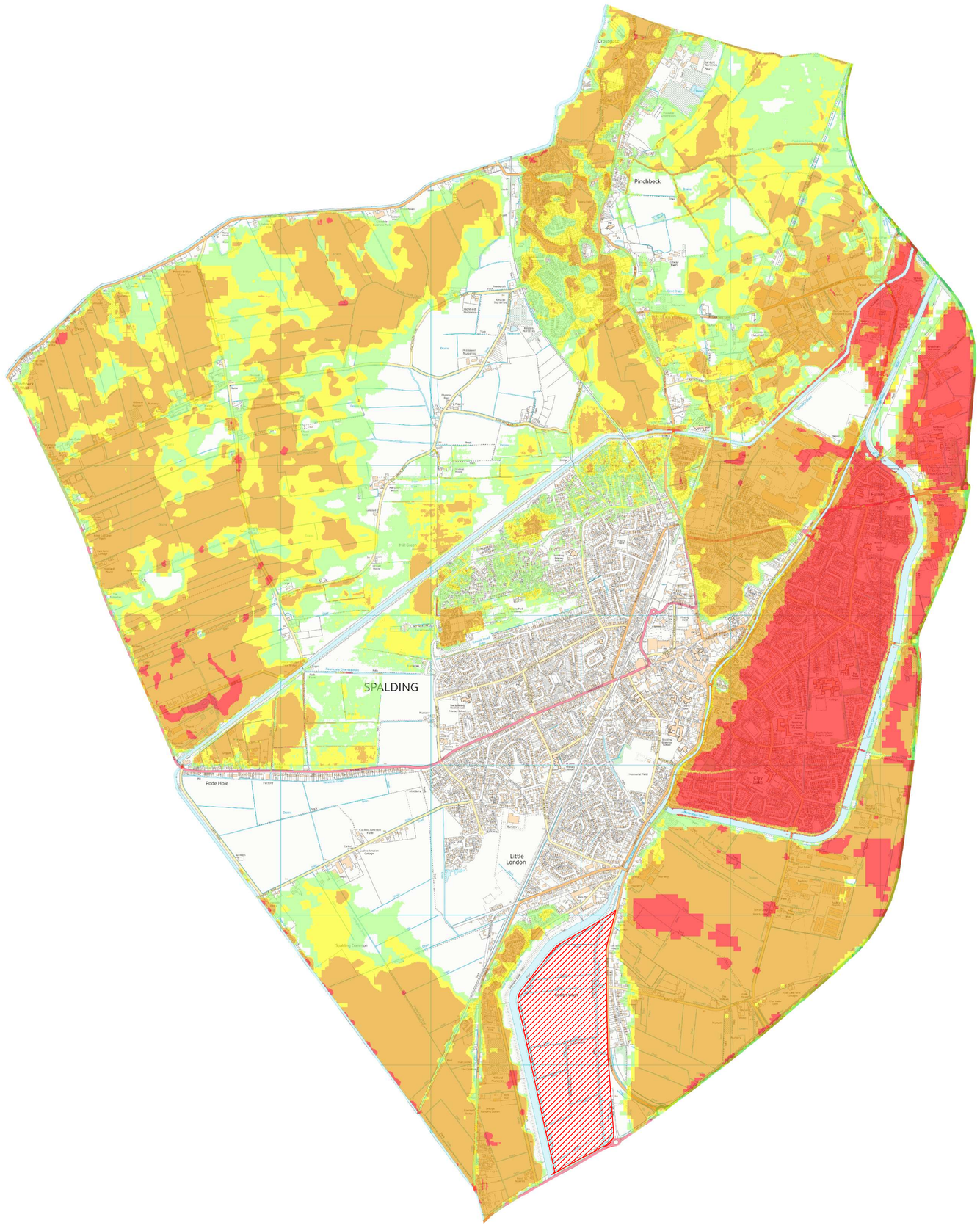
Residual Peak Depth
Spalding - Year 2115
0.1% Event Probability

DATE OF ISSUE: Feb 2017 **REV NO:** 2

SCALE: 1 : 15,000 @ A1

MAP NO:

N



NOTES

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2. This update only included new flood risk information from River Welland (Fluvial), River Glen (Fluvial) and Tidal hazard mapping (River Welland, River Nene and the Wash sea defences). No new information from the Internal Drainage Boards and associated systems was used for this update.

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5. Functional Floodplain encompasses areas where water is intended to flow or be stored in times of flood.

6. Land outside South Holland District is not considered.

7. This map shows the extents only of the flooding probability bands relevant to the map Title

Map Legend

Max Hazard
(Flood Risk to People : FD2320)

- Less than 0.75 (Low Hazard)
- Between 0.75 and 1.25 (Danger for Some)
- Between 1.25 and 2.0 (Danger for Most)
- Greater than 2.0 (Danger for All)
- Functional Floodplain
- South Holland District Boundary

REV	DATE	REMARKS
2	Feb 17	Modelling and Mapping Update
1	Dec 16	Modelling and Mapping Update

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ROYAL HASKONINGDHV
RIGHTWELL HOUSE
BRETTON
PETERBOROUGH
PE3 8DW
TEL +44 (0)1733 334455
FAX +44 (0)1733 262243

SOUTH HOLLAND DISTRICT COUNCIL
COUNCIL OFFICES
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SPALDING
LINCOLNSHIRE
PE11 2XE

UPDATE OF STRATEGIC FLOOD RISK ASSESSMENT

Residual Flood Hazard
Spalding - Year 2115
1% Fluvial / 0.5% Tidal Event Probability

DATE OF ISSUE: Feb 2017 **REV NO:** 2

SCALE: 1 : 16,000 @ A1

MAP NO:

N



NOTES

1. The potential flooding consequences shown on this map primarily relate to flooding from the sea and main rivers taking into account the presence of current flood risk management measures such as flood defences.

2. This update only included new flood risk information from River Welland (Fluvial), River Glen (Fluvial) and Tidal hazard mapping (River Welland, River Nene and the Wash sea defences). No new information from the Internal Drainage Boards and associated systems was used for this update.

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5. Functional Floodplain encompasses areas where water is intended to flow or be stored in times of flood.

6. Land outside South Holland District is not considered.

7. This map shows the extents only of the flooding probability bands relevant to the map Title

Map Legend

Max Hazard
(Flood Risk to People : FD2320)

- Less than 0.75 (Low Hazard)
- Between 0.75 and 1.25 (Danger for Some)
- Between 1.25 and 2.0 (Danger for Most)
- Greater than 2.0 (Danger for All)
- Functional Floodplain
- South Holland District Boundary

REV	DATE	REMARKS
2	Feb 17	Modelling and Mapping Update
1	Dec 16	Modelling and Mapping Update

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UPDATE OF STRATEGIC FLOOD RISK ASSESSMENT

Residual Flood Hazard
Spalding - Year 2115
0.1% Event Probability

DATE OF ISSUE: Feb 2017 **REV NO:** 2

SCALE: 1 : 16,000 @ A1

MAP NO:

APPENDIX 4

SOUTH HOLLAND IDB CATCHMENT MAP

522000 524000 526000 528000

324000 322000 320000

DRN192P0209 DRN192P0208 DRN192P0207 DRN192P0206 DRN192P0205 DRN192P0204 DRN192P0203 DRN192P0202 DRN192P0201

DRN192P0506 DRN192P0505 DRN192P0504 DRN192P0602 DRN192P0601 DRN192P0701 DRN192P0503 DRN192P0502 DRN192P0501

DRN192P0401 DRN192P0101 DRN192P0102 DRN192P0301 DRN192P0801 DRN192P0802

Clay Lake

SPALDING WESTON CP

Blue Gowt Drain Vernatt's Drain Westlode Drain Exeter Drain Clay Lake (Drain) Clay Lake Bank Clowacre Drain Delgate Drain Delgate Bank Broad Gate Fulney Drove Mill Drove Swingler's Drove Elm Lane Fulney Lane Kellet Gate Rangell Gate Meadow Nature Reserve Childers South Drove Old Fendike Road Fengate Drove Weston Hills Road Red Hills Long Lane Moulton Mere Bank West Cob Gate

A151 A16 A1175 B1172 B1165 M1

Chase Farm Chestnut House Two Plank Bridge Mill Green House Mill Green Lindum House Cedar Lodge Park Farm Nurseries Jobson's Bridge (FB) Branton's Bridge Monk's House Cuckoo Junction Farm Horseshoe Road Horseshoe Bridge Little London Spalding Common Locks Farm Fen End Burtlane House Burr Lane Clay Lake Farm Cowbit Wash Charlton Farm Sly Farm Luck's Bridge Bridge House Bowman's Bridge Ash Holt Ash Tree Farm Ashtree House Stennett's Farm Gate House Holly House Cowbit Spearpoint Bijou The Bungalow The Poplars Greylands Bridge Farm Sycamore Farm Springfields Pomona House Abattoir The Hollies The Lodge Fulney House Low Fulney Allot Gdns Low Fulney Estate Broadgate House Wood Farm Hollytree Farm New England Farm Blenheim House Whittington House Ashgrove Farm Oldmere Bridge Windcatch Farm Lowfield's Farm Greenacres Nursery West View Farm Halgarth Farm Weston Hills Poplar Farm Mereside Decoy Farm Floraton House Swanpens Farm Sewage Works Valentines Farm The Sycamores West Gate Ebenezer Farm Elmtree Farm Moulton Chapel Pebble Ho

22 23 24 25 26 27 28 29

Meters 500 0 500 1000 1:24535

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B - Wiseman

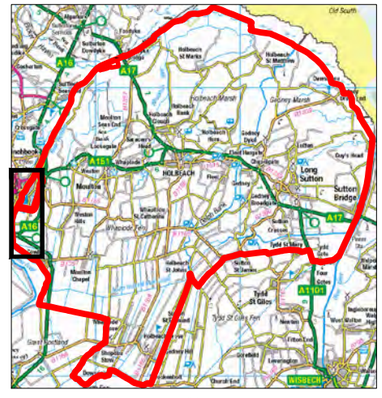
Clay Lake

South Holland Drainage Board

LEGEND

- Catchment Boundary
- High Priority Watercourse
- IDB Ordinary Watercourse
- High Priority Pipeline
- Ordinary Pipeline
- Water Control Structure
- Pumping Station
- Inland Sluice
- Tidal Sluice

KEY MAP



N

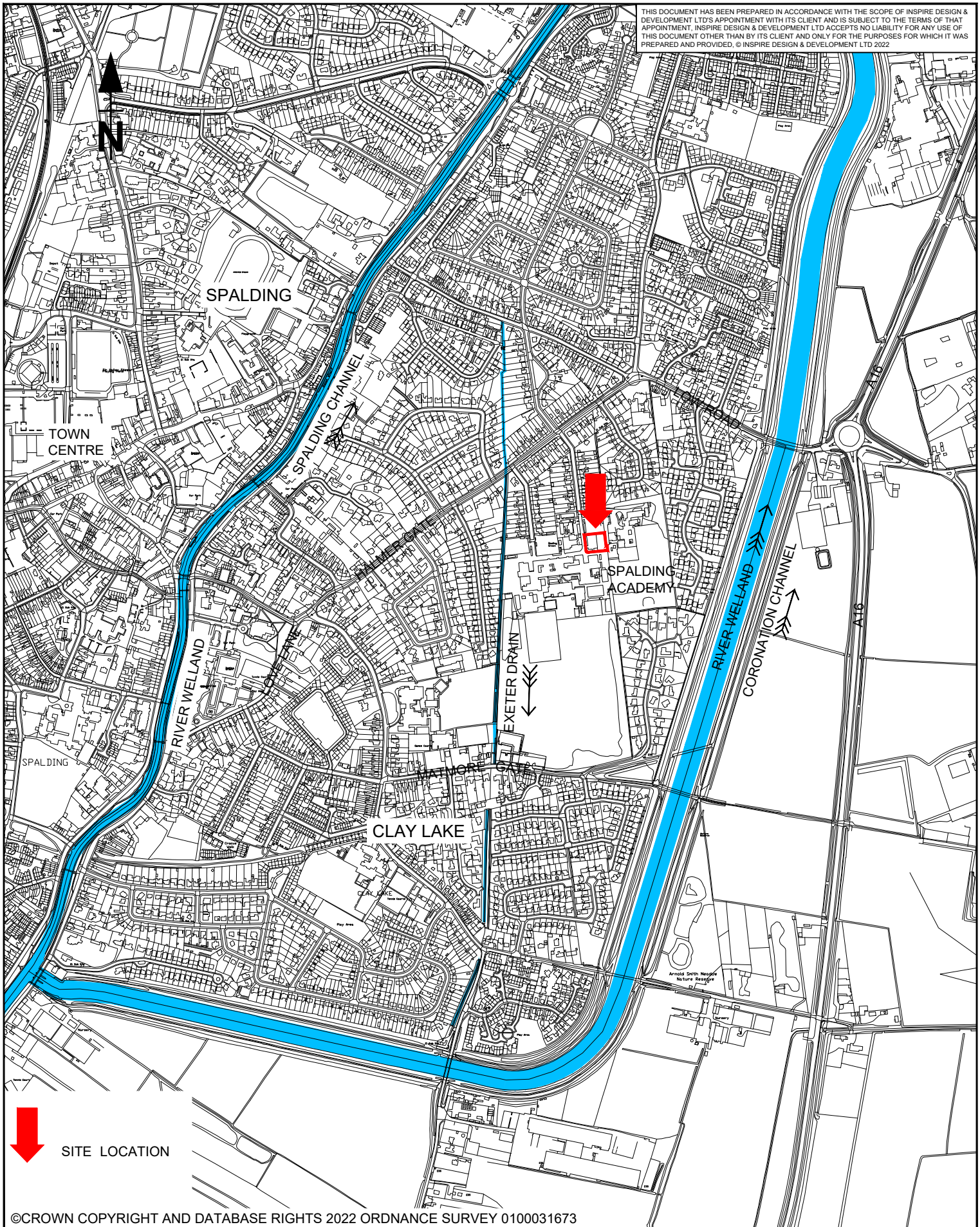
SCALE	SHEET NUMBER
Best fit	CMT192P
PLOT DATE	
05/01/2016	

FILE NAME

SHIDB_webmap2013.dwg

DRAWINGS

THIS DOCUMENT HAS BEEN PREPARED IN ACCORDANCE WITH THE SCOPE OF INSPIRE DESIGN & DEVELOPMENT LTD'S APPOINTMENT WITH ITS CLIENT AND IS SUBJECT TO THE TERMS OF THAT APPOINTMENT, INSPIRE DESIGN & DEVELOPMENT LTD ACCEPTS NO LIABILITY FOR ANY USE OF THIS DOCUMENT OTHER THAN BY ITS CLIENT AND ONLY FOR THE PURPOSES FOR WHICH IT WAS PREPARED AND PROVIDED, © INSPIRE DESIGN & DEVELOPMENT LTD 2022



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DATE: 25/05/22	DRAWING TITLE: LOCATION PLAN		REV	DATE	NAME	CHECK	NOTES
DRAWN: NGP							
CHECKED: SR			DRAWING STATUS: FOR INFORMATION				
APPROVED: SR	PROJECT: SPALDING ACADEMY PERFORMING ARTS BLOCK	CLIENT: INDIGO ARCHITECTS	DRAWING No: IA-1610-01-GA-001			REVISION No:	
SCALE @ A4: 1:10000							

A0

GRID NORTH

0 20 METRES

Neville Avenue

Halmer Gardens

Staff Car Park

Playground

Buildings and general topography only within The Priory School grounds

Buildings and general topography only within The Priory School grounds

NOTES

1. SURVEY CONTROL

A) SURVEY GRID (HORIZONTAL):

THIS SURVEY IS ORIENTATED TO ORDNANCE SURVEY GRID NORTH. THE SURVEY IS TO A PLANE GRID. HORIZONTAL MEASUREMENTS TAKEN FROM THIS SURVEY WILL BE GROUND DISTANCE.

FULL ORDNANCE SURVEY CO-ORDINATES CAN BE CALCULATED SCALING THE SURVEY ABOUT THE GIVEN SITE CENTRE POINT, WITH CO-ORDINATES E 525650.000 N 322400.000 AS FOLLOWS:

SHIFT: NOT REQUIRED
LSF = 0.999795
ROTATION: NOT REQUIRED.

THE LOCAL SCALE FACTOR (LSF) APPLICABLE TO THIS SITE IS 0.999795, CALCULATED USING STANDARD TABULATED DATA.

THE CONTROL HAS BEEN ESTABLISHED BY TYING INTO THE ACTIVE ORDNANCE SURVEY CONTROL NETWORK. SEE NOTE C. BELOW.

(FOR THIS RELATIVELY LOW LEVEL SITE, MEAN SEA LEVEL CORRECTIONS (MSL) ARE DEEMED TO BE INSIGNIFICANT AND HAVE THEREFORE NOT BEEN APPLIED.)

B) VERTICAL DATUM:

ALTITUDES FOR THE CONTROL HAVE BEEN CALCULATED FROM GPS DERIVED ELLIPSOIDAL HEIGHTS CONVERTED TO ORTHOMETRIC HEIGHTS (ORDNANCE DATUM NEWLYN - ODN) NEW OS NET USING OSGM15 TRANSFORMATION PARAMETERS.

C) GPS CONTROL:

THE CO-ORDINATE SYSTEM USED FOR THE PRIMARY CONTROL IS OSGB36. THIS HAS BEEN CALCULATED FROM ETRS89 NEW OS NET USING OSTN15 TRANSFORMATION PARAMETERS.

FOR THIS PARTICULAR PROJECT, THE "TRIMBLE VRS NOW" NETWORK HAS BEEN USED. OBSERVATIONS HAVE BEEN TAKEN ON: 20/10/2020

MANUFACTURERS QUOTED ACCURACY IS RMSE 10 – 20 mm IN PLAN AND 20 – 30 mm IN HEIGHT. HOWEVER, RESULTS MAY VARY DURING THE DAY AND CERTAIN CONDITIONS COULD CAUSE DEGRADATION TO THE FINAL SOLUTIONS. FOR SALIENT CONTROL AND DETAIL WHERE POSSIBLE AND PRACTICAL, TOWER SURVEYS ASE HAVE USED AN OPEN-SKY WITH GOOD SATELLITE GEOMETRY SO AS TO MAINTAIN THE HIGHEST ACCURACY POSSIBLE

2. THIS DRAWING IS TO BE READ IN CONJUNCTION WITH ALL OTHER RELEVANT DRAWINGS/DOCUMENTATION.

3. CHECK SCALE BAR AND GRID BEFORE TAKING NON-FIGURED DIMENSIONS FROM THIS DRAWING.

4. IF IN DOUBT ASK.

LEGEND

30.28	SPOT LEVEL		BANKING
30.28	ROOF LEVEL		GATE
	SURVEY STATION		OVERHEAD CABLE
	TREE (INDICATIVE ONLY)		FENCE WITH DESCRIPTION
	HEDGE	CB	CLOSE BOARDED
	BUILDING	CL	CHAIN LINK
30.00	CONTOUR	PAL	PALISADE
	RETAINING WALL	PR	POST AND RAIL
		PW	POST AND WIRE
		WM	WIRE MESH

ABBREVIATIONS

ABP	APEX ROOF LEVEL	MH	MANHOLE
B	BOLLARD	MP	MILE POST
BB	BELISHA BEACON	OHC	OVERHEAD CABLE
BL	BED LEVEL	OSBM	ORDNANCE BENCHMARK
BOP	BACK OF PATH	PB	POST BOX
BP	BOUNDARY POST	PE	PYLON
BS	BUS STOP	PM	PARKING METER
BT	BRITISH TELECOM IC	P	POST
CATV	CABLE TELEVISION IC	PYL	ELECTRIC PYLON
CC	CONTROL CABINET	RE	RODDING EYE
CCTV	CLOSED CIRCUIT TELEVISION	RP/RS	ROOF RIDGE LEVEL
CL	CABLE LEVEL	RWP	RAINWATER PATE
COL	COLUMN	RS	ROAD SIGN
CP	CATCH PIT	RWP	RAINWATER PIPE
CTV	CABLE TELEVISION POINT	SC	STOP COCK
DK	DROP KERB	SFL	SOFFIT LEVEL
EASN	EASTING	SHV	STOP VALVE
EC	ELECTRICITY CONTROL BOX	SP	SIGN POST/BOARD
ECB	ELECTRICITY CABLE	ST	STOP TAP
EV	EAVES LEVEL	STN	SURVEY STATION
EP	ELECTRICITY POLE	SV	STOP VALVE
FB	FLOWER BED	TC	TRAFFIC CONTROL
FFL	FINISHED FLOOR LEVEL	TAP	WATER TAP
FH	FIRE HYDRANT	TBM	TEMPORARY BENCHMARK
FL	FLOOD LIGHT	TCB	TELEPHONE CALL BOX
FW	FOUL WATER	THL	THRESHOLD LEVEL
G	GULLY	TKL	TANKING LEVEL
GV	GAS VALVE	TOF	TOP OF FENCE
GP	GATE POST	TP	TELEPHONE POLE
IC	INSPECTION COVER	TWL	TOP OF WALL
IL	INVERT LEVEL	VP	VENT PIPE
KC	KERB AND INLET GULLY	WLV	WATER LEVEL
LB	LITTER BIN	WM	WATER METER
LP	LAMP POST	WO	WASH OUT
MKR	MARKER POST	WP	WASTE/SOIL PIPE

TREE NOTES

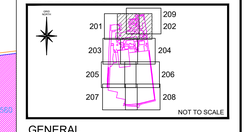
A) MB "X" NO – MULTIPLE BOLES FOLLOWED BY NUMBER OF
B) DIA – TRUNK DIAMETER MEASURED AT APPROX 1.5M ABOVE GROUND LEVEL
C) SPREAD – DIAMETER OF CANOPY. (TREE SPREADS ARE INDICATIVE ONLY AND ARE REPRESENTATIVE OF THE GENERALISED CANOPY SIZE, AND MAY NOT REPRESENT THE TRUE CANOPY POSITION AS OUTLINED ON SITE – TREE BOLES MAY NOT SIT CENTRALLY TO THE CANOPY)
D) HEIGHT – APPROXIMATE HEIGHT TO TOP OF CANOPY – ESTIMATED FROM GROUND LEVEL
E) ATTENTION SHOULD BE PAID TO THE ORIGINAL TOPOGRAPHICAL BRIEF AS TO WHAT TREES HAVE ACTUALLY BEEN SCHEDULED, I.E. THOSE "TREES LARGER THAN DIAMETER "X" OR "ONLY TREES WITHIN THE IMMEDIATE SURVEY LIMITS" (THIS IS NORMALLY THE CASE UNLESS OTHERWISE SPECIFIED AS INCLUDING "OFF SITE" TREES).

STATION CO-ORDINATES

STATION	EASTING	NORTHING	LEVEL	DESCRIPTION
STN1	525690.55	322592.66	2.94	SURVEY NAIL
STN2	525646.60	322588.02	3.00	SURVEY NAIL
STN3	525584.56	322578.95	3.10	SURVEY NAIL
STN4	525584.56	322578.95	3.10	SURVEY NAIL
STN5	525664.47	322590.94	2.89	SURVEY NAIL
STN6	525687.06	322633.86	3.10	SURVEY NAIL
STN7	525721.01	322588.54	2.87	SURVEY NAIL
STN8	525675.21	322656.13	3.07	SURVEY NAIL
STN9	525675.21	322656.13	3.07	SURVEY NAIL
STN10	525693.42	322627.94	3.08	SURVEY NAIL
STN11	525706.49	322661.95	2.96	SURVEY NAIL
STN12	525738.32	322557.32	2.79	SURVEY NAIL
STN13	525721.48	322527.30	2.72	SURVEY NAIL
STN14	525736.91	322503.74	2.79	SURVEY NAIL
STN15	525736.91	322503.74	2.79	SURVEY NAIL
STN16	525736.04	322462.88	2.86	SURVEY NAIL
STN17	525696.00	322460.07	2.76	SURVEY NAIL
STN18	525630.73	322475.82	3.05	SURVEY NAIL
STN19	525630.73	322475.82	3.04	SURVEY NAIL
STN20	525661.16	322502.77	2.90	SURVEY NAIL
STN21	525666.25	322561.49	2.92	SURVEY NAIL
STN22	525637.38	322526.74	3.17	SURVEY NAIL
STN23	525651.83	322563.72	2.88	SURVEY NAIL
STN24	525683.42	322606.42	3.21	SURVEY NAIL
STN25	525562.89	322509.43	3.09	SURVEY NAIL
STN26	525562.89	322509.43	3.09	SURVEY NAIL
STN27	525539.36	322593.15	3.06	SURVEY NAIL
STN28	525663.85	322655.54	3.14	SURVEY NAIL
STN29	525566.39	322464.57	3.05	SURVEY NAIL
STN30	525641.84	322486.56	4.55	PEG & NAIL
STN31	525557.17	322538.39	3.02	SURVEY NAIL
STN32	525568.88	322522.77	3.05	SURVEY NAIL
STN33	525591.22	322509.06	2.99	SURVEY NAIL
STN34	525605.75	322512.21	3.07	SURVEY NAIL
STN35	525618.12	322495.09	3.03	SURVEY NAIL
STN36	525595.62	322495.09	3.03	SURVEY NAIL
STN37	525630.78	322499.85	3.03	SURVEY NAIL
STN38	525572.53	322532.33	2.96	SURVEY NAIL
STN39	525641.84	322486.56	4.55	PEG & NAIL
STN40	525618.12	322495.09	3.03	SURVEY NAIL
STN41	525666.25	322561.49	2.92	SURVEY NAIL
STN42	525666.25	322522.21	3.00	SURVEY NAIL
STN43	525719.73	322558.92	2.80	SURVEY NAIL
STN44	525677.85	322477.04	2.89	PEG & NAIL
STN45	525579.99	322458.98	3.33	PEG & NAIL
STN46	525579.99	322458.98	3.33	PEG & NAIL
STN47	525602.21	322128.54	3.25	SURVEY NAIL
STN48	525718.33	322152.55	2.42	SURVEY NAIL

UNLESS OTHERWISE STATED THE SURVEY STATIONS LISTED ABOVE ARE ONLY INTENDED TO BE USED FOR TOPOGRAPHICAL SURVEYS AT THE STATED SCALE. DUE CONSIDERATION SHOULD BE GIVEN TO LONG-TERM STABILITY OF SURVEY STATION MARKERS.

SHEET LAYOUT



GENERAL

- NO ALLOWANCE HAS BEEN MADE FOR SUB SURFACE ENTRY INTO MANHOLES OR OTHER CHAMBERS OR VOIDS BELOW GROUND LEVEL. THEREFORE ANY DETAILS RELATING TO DEPTHS, SIZES ETC. ARE TAKEN FROM ABOVE GROUND AND AS SUCH WILL BE APPROXIMATE ONLY.
- THE CONTRACTOR IS TO CHECK AND VERIFY ALL CRITICAL DIMENSIONS AND LEVELS BEFORE ANY WORK BEGINS.
- BURIED SERVICES SHOWN ON THIS DRAWING MAY BE ASSUMED ROUTES AND WILL NORMALLY BE OF UNKNOWN CONDITION. CONTRACTORS SHOULD UNDERTAKE SUITABLE VALIDATION AND EXERCISE REASONABLE CARE DURING EXCAVATION WORK. SAFE DIGGING PRACTICES SHOULD BE FOLLOWED.
- SHOULD THERE BE ANY CONFLICT BETWEEN THE DETAILS INDICATED ON THIS DRAWING AND, THOSE INDICATED ON OTHER DRAWINGS, THEN TOWER SURVEYS ASE SHOULD BE INFORMED PRIOR TO CONSTRUCTION ON SITE.
- THE GRAPHICAL ACCURACIES AND THE SAME ACCURACIES IMPLIED BY THE PLOTTING SCALE ARE EQUALLY APPLICABLE TO DIGITAL DATA SUPPLIED FOR CAD.
- EVERY EFFORT IS MADE TO IDENTIFY ALL VISIBLE ABOVE GROUND FEATURES. HOWEVER, IT CANNOT BE GUARANTEED THAT ALL FEATURES WERE VISIBLE AT THE TIME OF SURVEY.
- VISIBLE FEATURES IN THE VICINITY OF THE BOUNDARIES, AS SHOWN ON THIS SURVEY, MAY NOT REPRESENT THE EXTENT OF LEGALLY CONVEYED OWNERSHIP.
- UNLESS OTHERWISE SPECIFIED FEATURES SHOWN USING LINE STYLES OR HATCHING ARE INDICATIVE ONLY, SUCH AS: ROAD MARKINGS, HEDGE CENTRELINES, BRICK HATCHING AND GLAZING DETAIL.

ADDITIONAL SURVEY WORK WITHIN RED BOUNDARY ON BEHALF OF INDIGO ARCHITECTURE	B	12/01/22	NJR	EPB	JWH
BT COVER ADDED	A	25/11/20	EPB	JWH	JWH
DESCRIPTION	REV	DATE	DRWN	CHKD	APPR

DRAWING STATUS

INFORMATION

Tower Surveys Associates
Chartered Surveyors
Geomatics, Land, Utilities, Engineering & Building

RICS Regulated by RICS

18 - 20
THE ROPEWALK
NOTTINGHAM
NG1 5DT
TEL: +44 (0)7766 602 005
info@towersurveys.biz
www.towersurveys.associates

CLIENT

LINCOLNSHIRE COUNTY COUNCIL

PROJECT TITLE

SPALDING ACADEMY
NEVILLE AVENUE, SPALDING, PE11 2EJ

DRAWING DETAIL

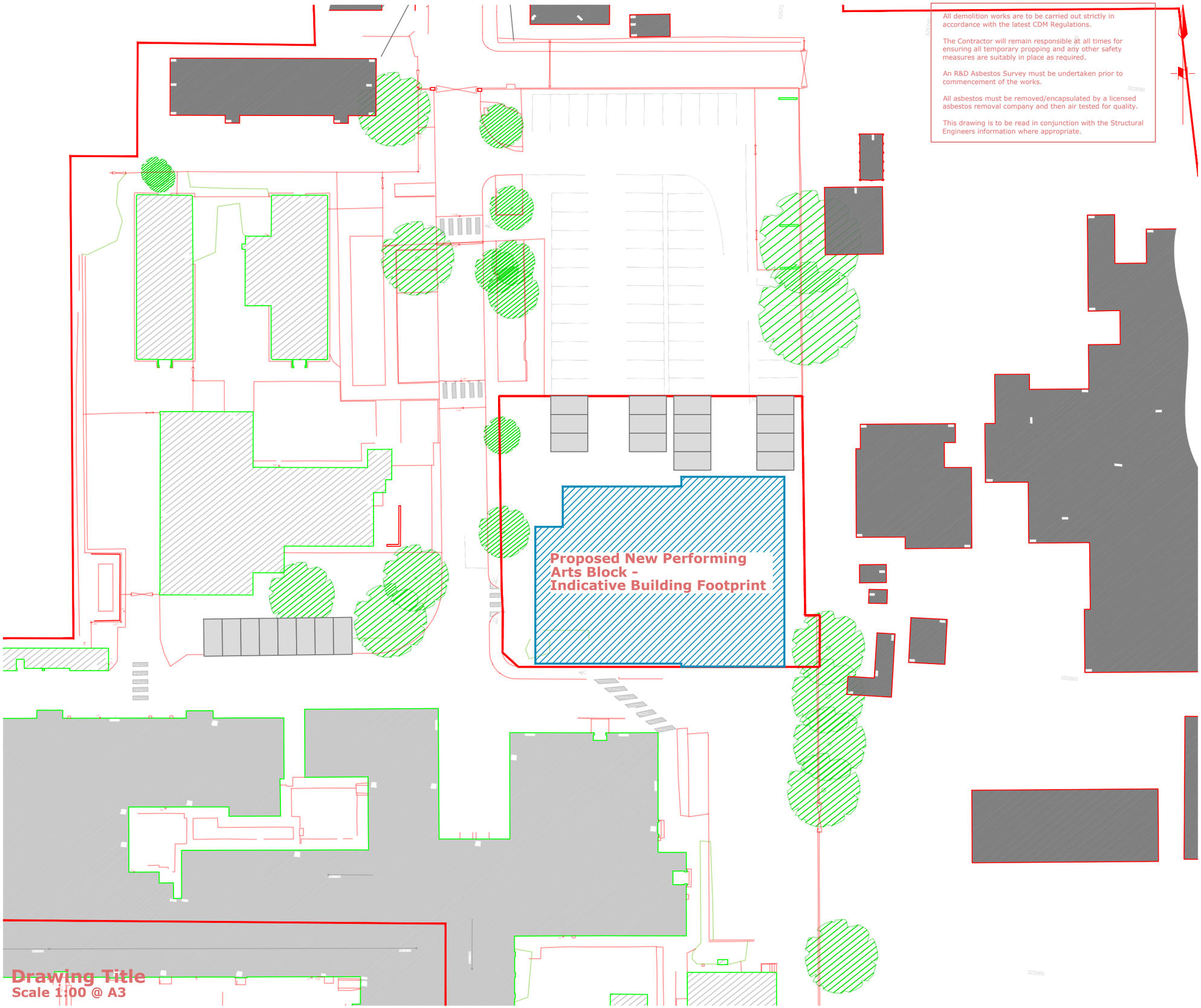
TOPOGRAPHICAL SURVEY AS OF 01/11/2020
(SHEET 2 OF 9)

DRAWN	EPB	DATE	NOVEMBER 2020
PROJECT ENGINEER	JWH		
CHECKED	NJR	SCALE	1:200 (WHEN PLOTTED @ A0)
APPROVED	JWH		
DRAWING NUMBER	TSA-20-0839/202	REVISION	B

CAD REFERENCE
\\2020\Projects\TSA-20-0839\TSA-20-0839_201-209_Issue03

CTB REFERENCE
\\CTB-files\TS-Topo-v01.ctb

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All demolition works are to be carried out strictly in accordance with the latest CDM Regulations.

The Contractor will remain responsible at all times for ensuring all temporary propping and any other safety measures are suitably in place as required.

An R&D Asbestos Survey must be undertaken prior to commencement of the works.

All asbestos must be removed/encapsulated by a licensed asbestos removal company and then air tested for quality.

This drawing is to be read in conjunction with the Structural Engineers information where appropriate.

Notes:

1. Do not under any circumstances scale from this drawing for the purpose of tender or construction, use figured dimensions only.
2. All dimensions are in mm unless otherwise stated and are, unless otherwise stated, to the face of unfinished plasterboard or similar (ie. does not include final skim and/or other decoration).
3. This drawing is not to be used for the purposes of Tender or Construction except where specifically identified for such use in the Drawing Status section of this drawing.
4. All existing dimensions are to be verified on site by the contractor before any work commences.
5. All existing wall construction and other hidden elements are assumed and are to be verified on site by the contractor before any work commences.
6. Any ambiguities, omissions or errors on this drawing are to be notified immediately to Indigo Architecture before work commences on site.
7. This drawing is to be read in conjunction with all other relevant Architectural, Structural, Civils, M&E Services and any other specialist supplier drawings and specifications.
8. All existing services are to be checked and confirmed on site by the contractor before any work commences.
9. The contractor is not to commence any works on site until seeking and obtaining confirmation that all relevant pre-commencement conditions have been discharged appropriately.
10. This drawing is the property of Indigo Architecture Ltd. and is issued strictly for use on the project for which it is provided and is issued on the condition that it is not copied, reproduced, retained or disclosed to any unauthorised person, either wholly or in part, without the express written consent of Indigo Architecture Ltd.

Key:

Site outline.

Land not under the sole ownership of the Applicant but used to connect to the highway network.

Rev:	Description:	By:	Date:

Indigo Architecture
Darley Abbey Stables, Abbey Yard, Darley Abbey, DE22 1DS
t: 0133 254 1691
e: hello@indigo-architecture.co.uk

Project Title:
Spalding Academy, PE11 2EJ
New Performing Arts Block

Drawing Title:
Footprint of Plan on Site
Option 1 - Single Storey
FOR DISCUSSION

Drawing No:	Revision:
0384-02-08-03	P2

Scale:	Designed by:	Stage:
1:500	KC	02

Sheet Size:	Checked by:	Date:
A3	-	16.03.22

Drawing Status:
FEASIBILITY STUDY