

FLOOD RISK ASSESSMENT

PROPOSED VILLAGE HALL
ST. NICHOLAS WAY
DEEPING ST. NICHOLAS
SPALDING,



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November 2018 Version 1

RMA

FLOOD RISK ASSESSMENT FOR PROPOSED VILLAGE HALL ST. NICHOLAS WAY, DEEPING ST NICHOLAS, SPALDING.

INTRODUCTION

The National Planning Policy Framework 2018 (NPPF) sets out the Government's national policies on different aspects of land use planning in England in relation to flood risk. A supporting Planning Practice Guidance is also available. The guidance uses four Flood Zones to characterise flood risk which refer to the probability of river and sea flooding, ignoring the presence of defences.

This Flood Risk Assessment, (FRA), is compliant with the requirements set out in the National Planning Policy Framework, (NPPF), and the associated Planning Practice Guidance. (NPPG)

The Environment Agency's flood maps show areas that are at risk, from fluvial and tidal flooding. These maps show the limits of the flood plain of the area which could be affected by flood events, over topping or breaching of flood defences. They are based on the approximate extent of floods with a 1% annual probability of exceedance (1 in 100-year flood) for rivers and 0.5% annual probability of exceedance (1 in 200-year flood) for coastal areas under present expectations or the highest known flood. However, they do not consider of the presence of defences or the likelihood that flood return intervals will be reduced by climate change.

This Flood Risk Assessment and Drainage Statement has been prepared with reasonable skill, care and diligence, in support of a planning application and considers the risk of flooding from fluvial and tidal sources in accordance with National Planning Policy Framework (NPPF). It also considers the risks of localised flooding due to inadequate Foul and Surface Water Sewers, Failure of Reservoirs, Water Main pipe bursts, Sewer Blockages, Pump Failures or High Ground Water Table etc.

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APPLICATION SITE

The site is located at Land off St. Nicholas Way, Deeping St. Nicholas, Spalding within the administrative area of South Holland District Council. The National Grid Reference is TF21065 15259. **Plan 1**

This flood risk assessment has been prepared for a planning application for the erection of a Village Hall and car park. **Plans 2 & 3**

The Site would be classed as Non-Major Development applying the National Planning Policy Guidance (NPPG) as the site is to be developed for less than 1 hectare.

The National Planning Policy Framework Technical Guidance NPPF defines three levels of flood risk depending upon the annual probability of fluvial flooding occurring.

Zone 1 – Low Probability (<0.1%)

Zone 2 – Medium Probability (0.1 – 1.0%)

Zone 3 – High Probability (>1.0%)

The proposed development site is shown to be within Flood Zone 2 'Medium Probability' as detailed on the Environment Agency's Flood Zone Maps without defences, and as defined in Table 1 of NPPG.

Table 1: Flood Zones Definition (Ignoring the presence of defences)

Flood Zone 2- Medium Probability
Definition This zone comprises of land assessed as having between a 1 in 100 and 1 in 1000 annual probability of river flooding (1% - 0.1%) or between a 1 in 200 and 1 in 1000 annual probability of flooding from the sea (0.5% - 0.1%) in any year. Appropriate uses Essential infrastructure and the water-compatible and less vulnerable uses and more vulnerable uses, as set out in Table 2 are appropriate in this zone. The highly vulnerable uses are only permitted in this zone should not be permitted in this zone if the Exception Test is passed. Flood Risk Assessments requirements All development proposals in this zone should be accompanied by a Flood Risk Assessment. Policy aims in this zone developers and local authorities should seek opportunities to: reduce the overall level of flood risk in the area through the layout and form of the development and the appropriate application of sustainable drainage techniques.

Applying the Flood Risk Vulnerability Classification in Table 2 of NPPG the proposed village hall use is classified as Less Vulnerable", with Table 1 of NPPG stating that such uses are appropriate in this zone.

Table 2: Flood Risk Vulnerability Classification

Less vulnerable
• Police, ambulance and fire station which are not required to be operational during flooding. Buildings used for shops, financial, professional and other services, restaurants and cafes, hot food takeaways, offices, general industry, storage and distribution, non-residential institutions and not included in “more vulnerable” and assembly and leisure. • Land and buildings used for agriculture and forestry. • Waste treatment (except land fill and hazardous waste facilities). • Minerals working and processing (except sand and gravel working) • Water treatment works which do not need to remain operational during times of flood. • Sewage treatment works (if adequate measures to control pollution and manage sewage during flooding events are in place).

From the topographical survey the triangular plot is a reasonably level site with levels as high as 2.50mODN and a low level of 2.17mODN, the average site level is taken to be 2.30mODN. The road level on St Nicholas Way at the site entrance is 2.40mODN. It is proposed that the floor level for the village hall be set at 2.45mODN. **Plan 4**

The development will be designed to consider the potential flood depth at the site following a breach/ overtopping to the flood defences for the 1 in 100-year event for scenario year 2115.

DRAINAGE AUTHORITIES

Environment Agency

The Environment Agency has permissive powers for reducing the risk of flooding from designated main rivers and from the sea.

The following potential sources of flooding affecting the development site have been identified as:

- River Welland

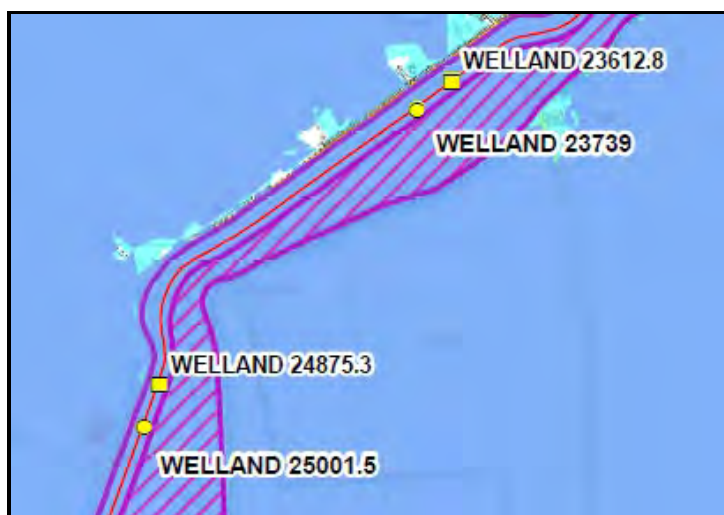
The flood zone maps indicate that the area would be flooded without flood defences. The Flood Map indicates the area at risk of flooding, **assuming no flood defences exist**, for a flood event with a 0.5% chance of occurring in any year for flooding from the sea, or a 1% chance of occurring for fluvial (river) flooding. It also shows the extent of the Extreme Flood Outline which represents the extent of a flood event with a 0.1% chance of occurring in any year, or the highest recorded historic extent if greater.

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

These maps show that the site of the proposed development is within the extreme flood outline. The maps indicate that the area would be flooded without flood defences, which are in place along the river/ coastal edge (with an annual probability of more than 0.5% i.e. return frequency of less than 1 in 200 years for tidal flooding or more than 1.33% return frequency of less than 1 in 100 years for fluvial flooding). **Map 1**

The risk of flooding from Rivers and Sea shows that the site is at a Low risk of flooding. Low means that each year this area has a chance of flooding less than 1 in 1000 (0.1%). This considers the effect of any flood defences that may be in this area. Flood defences reduce, but do not completely stop the chance of flooding as they can be overtopped or fail. **Map 2**

The flood banks for the River Welland, which both lie approximately 3.3km from the site, constitute the first line of defence against any flooding. In this area, these consist of earth banks.



Datasheet [Ref: CCN-2018-73060]

Data Model – Welland - Dated 2016

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).

Node Label	Easting	Northing	Annual Exceedance Probability - Maximum Water Levels (mODN)										
			50% (1 in 2)	20% (1 in 5)	10% (1 in 10)	5% (1 in 20)	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
WELLAND 23739	524413	314381	3.77	4.09	4.31	4.57	4.69	4.71	4.71	4.75	4.72	4.72	4.75
WELLAND 25001.5	523648	313490	3.79	4.12	4.34	4.60	4.73	4.75	4.76	4.79	4.77	4.77	4.79
WELLAND 26011.5	523285	312552	3.81	4.14	4.37	4.63	4.78	4.81	4.82	4.84	4.83	4.83	4.84

Fluvial Flood Flows (m³/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 (m³/s).

Node Label	Easting	Northing	Annual Exceedance Probability - Maximum Flows (m ³ /s)										
			50% (1 in 2)	20% (1 in 5)	10% (1 in 10)	5% (1 in 20)	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
WELLAND 23612.8	524512	314459	51.70	67.79	77.78	94.44	114.32	116.89	122.97	119.48	121.77	118.62	124.62
WELLAND 24875.3	523690	313608	49.99	66.11	75.98	94.08	117.55	121.59	125.85	124.42	125.46	124.05	127.98
WELLAND 25885.3	523331	312669	49.23	65.35	75.14	94.18	120.10	125.21	128.67	128.51	128.79	128.24	130.56

From Information requested from the Environment Agency the main risk of flooding of the site is from a breach to the River Welland / Crowland Washes which are located some 3.3Km east of the site. The flood defences of the River Welland eastern flood bank consist of earth embankments which are in good condition and the minimum crest heights are circa 5.50mODN. This provides a protected freeboard above the Central flood level.

This data is taken from the Welland model 2016 and are the most up-to date currently available. The Environment Agency aim to review the models on a regular basis.

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.

The site lies within the Anglian River Basin District, Peak River flows should be adjusted to reflect the latest climate change allowances. It must also be assumed, to provide a worst-case scenario, that flood defences have been raised during this period to cater for the rise in river level. For “Less Vulnerable” uses located in Flood Zone 2 the Central allowances should be assessed.

At NGR TF23541 13372 junction of New Road and Welland Bank Road the LH bank is at a level of 5.50mODN and the RH bank is at a much lower level of 4.80mODN, therefore this would overflow into the Crowland Washes. Also, with a roadway being on the crest of the LH bank the chances of a breach occurring and much less than that of an ordinary constructed embankment. Land levels at the toe of the LH bank are circa 1.70mODN.

Taking the precautionary approach, the Hazard Rating following a breach which in Flood Risk Assessment (FD 2320) Guidance for New Development Phase 2 R& D Technical Report these are classified as low <0.75, moderate 0.75-1.25, significant 1.25-2.50 and extreme >2.50 based upon an empirical measure of velocity and depth.

Flood Hazard Value	Degree of Flood Hazard	Description	Indicative Depth Range
<0.75	Low	Caution Flood Zone with shallow flowing water or deep standing water	Up to 0.25m
0.75 – 1.25	Moderate	Danger for Some (i.e. children) Danger; flood zone with deep or fast flowing water	Up to 0.5m
1.25 – 2.0	Severe	Danger for Most Danger Flood Zone with deep fast flowing water	0.5 -3.0m
>2.0	Extreme	Danger for All Extreme Danger; flood zone with deep fast flowing water	0.5 to over 3.0m

$$HR = d \times (v + 0.5) + DF$$

Where V = Flood flow velocity (m/sec)

D = Flood depth (m)

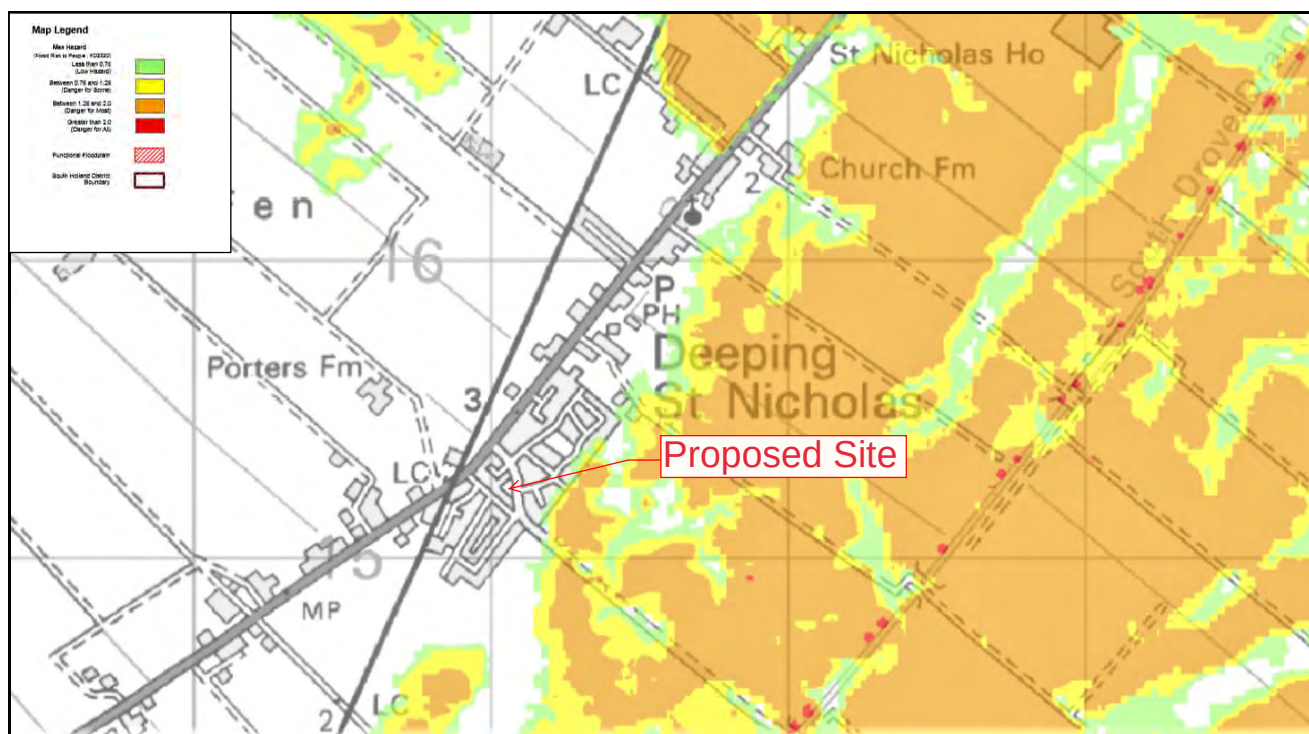
DF = A debris factor included to represent the greater damage, or risk of injury to people, that can occur if debris is swept along with the water. = 0.5 for depths <0.25 or 1.0 for depths

Flood Depth (m)	All areas (rural and urban)
<0.25	0.5
>0.25	1

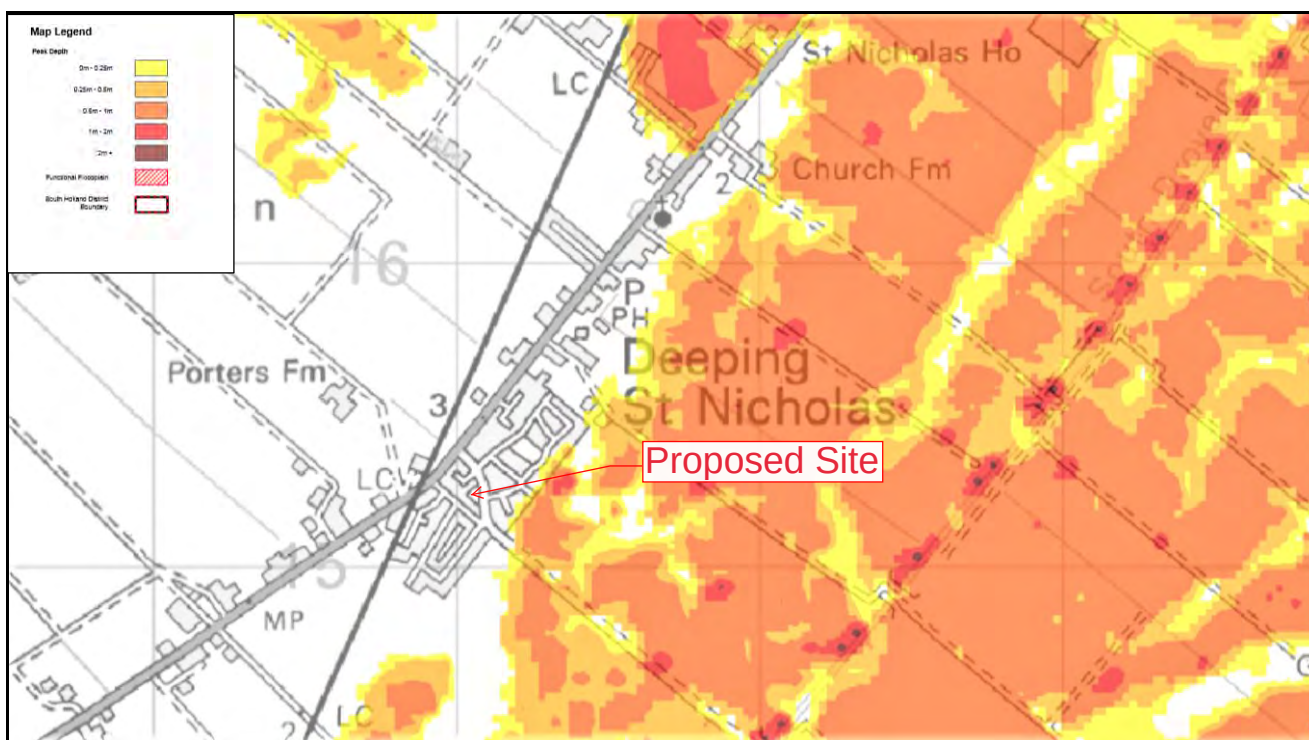
For the degree of Flood Hazard to be classified as low HR must be <0.75

The South East Lincolnshire Strategic Flood Risk Assessment (March 2017) contains Tidal Hazard Mapping for the Wash following a breach to the defences. The Tidal Hazard Maps for Scenario year 2006 for the 1 in 200-year event show that the site for the development is not within a Hazard Rating area.

With climate change, the Tidal Hazard Maps for Scenario year 2115 for the 1 in 200 event shows that the area of the site for the development is not within a Hazard Rating area.



Residual Flood Hazard South Holland District 2115 (1% fluvial/0.5% Tidal Map)



Residual Flood Depth – South Holland District 2115 (1% Fluvial/0.5% Tidal)

From the 1 in 200-year 2115 breach depth map the site is not affected by a breach to the flood defences. The ground floor for the village Hall will be raised 150mm above the ground level set at 2.45mODN.

South Holland District Council

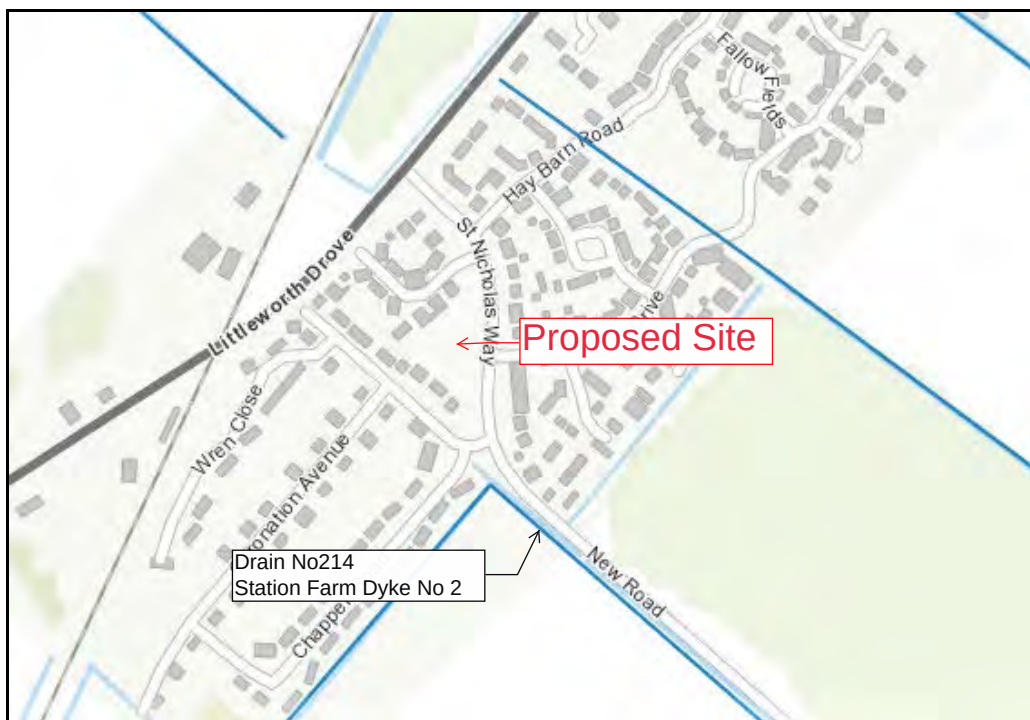
In order to inform the process of risk assessment and site selection the District Council commissioned Consultants in 2010 to prepare a Strategic Flood Risk Assessment which has recently been replaced by the South-East Lincolnshire SFRA.

The whole of the tidal flooding information has been replaced by the mapping from the latest Environment Agency Tidal Hazard mapping. Where the mapping for an area contains both fluvial and tidal components, the more severe of the two has been presented.

Welland & Deepings Internal Drainage Board

The proposed development site is located within the catchment area of Welland & Deepings Internal Drainage Board. The Board is responsible to operate and maintain the arterial fluvial system.

The site lies within Catchment area No 7 Deeping Fen and the Board's nearest maintained drain is Drain No 214 Station Farm Dyke No 2. 112m to the south of the site.



The Board do not have any record of any flooding in this area associated with the Board's system.

SURFACE WATER FLOODING

Part of the site is shown on the 1 in 1000-year Surface Water flood maps to be affected by surface water flooding with depths up to 300mm. The site is not affected by the 1 in 100-year surface water event.

Low risk means that each year this area has a chance of flooding of between 0.1% and 1%. Flooding from

surface water is difficult to predict as rainfall location and volume are difficult to forecast. In addition, local features can greatly affect the chance and severity of flooding **Map 3**

FLOODING FROM OTHER SOURCES

Flooding is a natural process and can happen at any time from sources other than watercourses and the sea.

- Flooding from land can occur from intense rainfall, often over short duration of time that is unable to soak into the ground or enter the drainage system. However, with the natural topographic nature of the ground being flat, with no high ground around the site this will not cause any rapid inundation of the site and is likely only lead to local ponding of shallow depth and low velocity following the natural land contours which fall away from the site. With the ground floor level of the building being raised 150mm above the existing ground level, flooding from this source is limited to minor isolated cases and is not of strategic significance with regards to flood risk.
- The area is not known to suffer from any groundwater problems and therefore is taken as having no strategic significance with regards to flood risk.
- Flooding from sewers can occur from over loading from heavy rainfall caused by blockages or having an inadequate capacity. The resulting back pressure could cause foul sewage to flow from manholes which would flow over areas of the carriageway at a lower level than the building which is raised 150mm above existing ground level.
- Non-natural or artificial sources of flooding such as reservoirs, lakes or canals where water is stored above natural ground level could cause flooding if the structure fails or is over topped. There are no known sources within the vicinity of the site.

RESIDUAL RISKS

There is always a possibility of a flood more than that allowed for which might conceivably cause some flooding to the properties. However, such an event would have a very low probability and the risk of flooding to the property would be extremely small. It is therefore considered that the residual risks associated with flooding are not significant.

SEQUENTIAL APPROACH

When applying the sequential approach for flood risk in accordance NPPF the site of the barn would fall into Flood Zone 3 (High Probability) as the site is shown to be within the fluvial flood plain as shown on the Environment Agency's Flood Map without defences in place.

The Environment Agency categorise land into one of three Flood Zones.

- Flood Zone 1 is land outside the 0.1% floodplain (with a chance of flooding of less than 0.1% chance in any given year);
- Flood Zone 2 is land that falls between the 1 in 100-year extent and the 1 in 1000-year extent (a chance of flooding between 1% and 0.1% in any given year);
- Flood Zone 3a is land which falls within the 1 in 100-year flood extent (has a 1% chance of a flood occurring in any given year).

Applying the Flood Risk Vulnerability Classification in Table 2 of NPPF, the proposed development for residential use is classified as, “More Vulnerable” with Table 1 of NPPF stating that such uses are appropriate in Flood Zone 2 (as summarised in Table 3 NPPF).

TABLE 3: Flood risk vulnerability and flood zones ‘compatibility’

Flood risk vulnerability classification		Essential infrastructure	Water compatible	Highly vulnerable	More vulnerable	Less vulnerable
Flood Zone	Flood Zone 1	✓	✓	✓	✓	✓
	Flood Zone 2	✓	✓	Exception Test required	✓	✓
	Flood Zone 3a	Exception Test required	✓	✗	Exception Test required	✓
	Flood Zone 3b Functional Floodplain	Exception Test required	✓	✗	✗	✗

NPPF Guidance Paragraphs 100 - 104 requires development within high areas of flood risk be determined using a sequential risk-based approach to the location of development to avoid where possible flood risk to people and property and manage any residual risk, taking account the impacts of climate change.

Sequential Test

A Sequential Test has been prepared by others and for the purpose of this report it is deemed to be compliant.

CLIMATE CHANGE

Global warming is now recognised that it is likely to affect the frequency and severity of extreme events as both tidal and fluvial flooding. The Climate change allowances in the NPPF Guidance was updated on the 19th February 2016.

The site is located within the Anglian River Basin, for sites within Flood Zone 2 and for “Less Vulnerable” land uses the Central river flow allowances figures in Table 1 should be used.

Table 1 Peak river flow allowances by river basin district (1961 to 1990 baseline)				
River basin District	Allowance category	Total potential change anticipated for '2020s' (2015 to 2039)	Total potential change anticipated for '2050s' (2040 to 2069)	Total potential change anticipated for '2080s' (2070 to 2115)
Anglian	Upper End	25%	35%	65%
	Higher central	15%	20%	35%
	Central	10%	15%	25%

The effect of global warming on peak rainfall allowances is given in Table 2

Table 2 Peak rainfall intensity allowance in small and urban catchments (1961 to 1990 baseline)			
Applies across all of England	Total potential change anticipated for 2010 to 2039	Total potential change anticipated for 2040 to 2059	Total potential change anticipated for 2060 to 2115
Upper End	10%	20%	40%
Central	5%	10%	20%

The annual sea rise due to climate change is given in NPPF and the recommended contingency allowances are stated in Table 3.

Table 3 Peak sea level allowance for each epoch in (mm) per year with cumulative sea level rise for each epoch in brackets (use 1990 baseline)					
Area of England) (Use River Basin maps	1990 to 2025	2026 to 2050	2051 to 2080	2081 to 2115	Cumulative Rise 1990 to 2115 (m)
East, Midlands, London, South East	4 (140mm)	8.5 (212.5mm)	12 (360mm)	15 (525mm)	1.24m

The site is not shown on the South Holland District 2115 (1% fluvial/0.5% Tidal Map) to be affected from a breach to the flood. defences

MANAGEMENT OF SURFACE WATER RUN-OFF

It is therefore proposed that the following principle be adopted to serve the new development. Roof water from the building will discharge to pvc crate soakaways and the car park will be constructed with permeable paving.

This statement contains schematic concept drainage proposals only. The detailed foul and surface water sewer design for the development would proceed, following receipt of planning approval and drawings and submitted under reserved matters.

In accordance with recognised guidance, National Planning Policy Framework 2012, there is a hierarchy of where surface water should discharge. This hierarchy should be followed where practicable, and is as follows:

1) Infiltration

- 2) Watercourse
- 3) Public sewer

Infiltration

It is therefore proposed that the roof water from the building will discharge to pvc crate soakaways designed in accordance with BRE 365. The private parking areas will be constructed using permeable surfacing.

Alternative Option – Discharge to Watercourse or surface water sewer

If, at detail design stage, a percolation test undertaken to BRE Digest 365 indicates that infiltration is not possible then an alternative option of onsite attenuation in underground storage units and restricted discharge of 5 litres /second to the IDB watercourse or surface water sewer will be used. When the area was developed a separate surface water sewer was provided to drain the development. The Anglian Water sewer records show that a surface water sewer is available in St. Nicholas Way. **Map 4**

Foul Water

The foul drainage will be collected in underground pipes within the domestic curtilages of the proposed development and will be connected into the foul sewer in St Nicholas Way. A Section 106 application will be made to Anglian Water for the sewer connection.

As there is a positive drainage system capable of receiving flows from the development there is no likely impact on neighbouring property.

Losses of fluvial floodplain storage volume would also be negligible, when compared to the storage that is available across the surrounding area. It is therefore concluded that the development proposal would result in no detrimental third-party flood risk impacts and no mitigation measures are required.

FLOOD PROTECTION

Any impact of damage to the properties can be foreseen and mitigated against by relatively simple design and construction techniques. There are two forms of flood protection works: -

- **Flood-resistance or proofing works:** - these try to reduce the amount of water entering a building.
- **Flood-resilient works:** - these reduce the amount of damage caused by water entering the building.

The proposed property will have the following resilient measures incorporated in the construction in accordance with “Improving the flood performance of new buildings” CLG (2007).

- The ground floor living accommodation for the Village Hall is to be raised to 2.45mODN, in accordance with the Environment Agency's recommendations.
- The ground floor to be constructed with a solid concrete floor with no voids beneath and no low-level wall vents.
- Use Close Cell cavity insulation to the ground floor level.
- External doors to be of construction not susceptible to moisture.
- Arrange for all service circuits to be routed at first floor level and fed downwards, where practical socket outlets, boilers etc. to be a minimum of 0.5m above the ground floor level.

CONCLUSION

- o The site does have the protection of both tidal and fluvial flood defences which are well maintained by the Environment Agency.
- o The site for the proposed change of use is shown to lie within the Flood Zone 2 (Medium Probability), which is land assessed as having a less than 1 in 100 annual probability of river or sea flooding in any year (1%), without defences on the Agency's flood maps.
- o The ground floor for the Village Hall is to be raised to 2.45mODN, this is in accordance with the Environment Agency's recommendations.
- o Applying the Flood Risk Vulnerability Classification in Table 2 of NPPF. The proposed use of the land and buildings falls within the 'Less Vulnerable' uses of land shown in Table 2 Flood Risk Vulnerability Classification and buildings used for all purposes are appropriate in Flood Zone 2.
- o Any impact of damage to the building can be foreseen and mitigated against by relatively simple design and construction techniques. They will be constructed using materials which are flood resilient construction as outlined in the report.
- o No obvious constraints have been identified that may impact the proposed development and the type of mitigation measures that can be used to reduce the flood risk.

APPENDIX

Map 1	Environment Agency Flood Map.
Map 2	Flooding from Rivers and Sea Map
Map 3	Surface Water Flood Map
Map 4	Anglian Water Sewer Record Map
Plan 1	Location Plan
Plan 2	Proposed Site Layout Plan
Plan 3	Proposed Ground Floor & Elevations
Plan 4	Topographical Survey

Flood map for planning

Your reference
Deeping St Ni

Location (easting/northing)
521060/315260

Created
9 Nov 2018 10:17

Your selected location is in flood zone 2, an area with a medium probability of flooding.

This means:

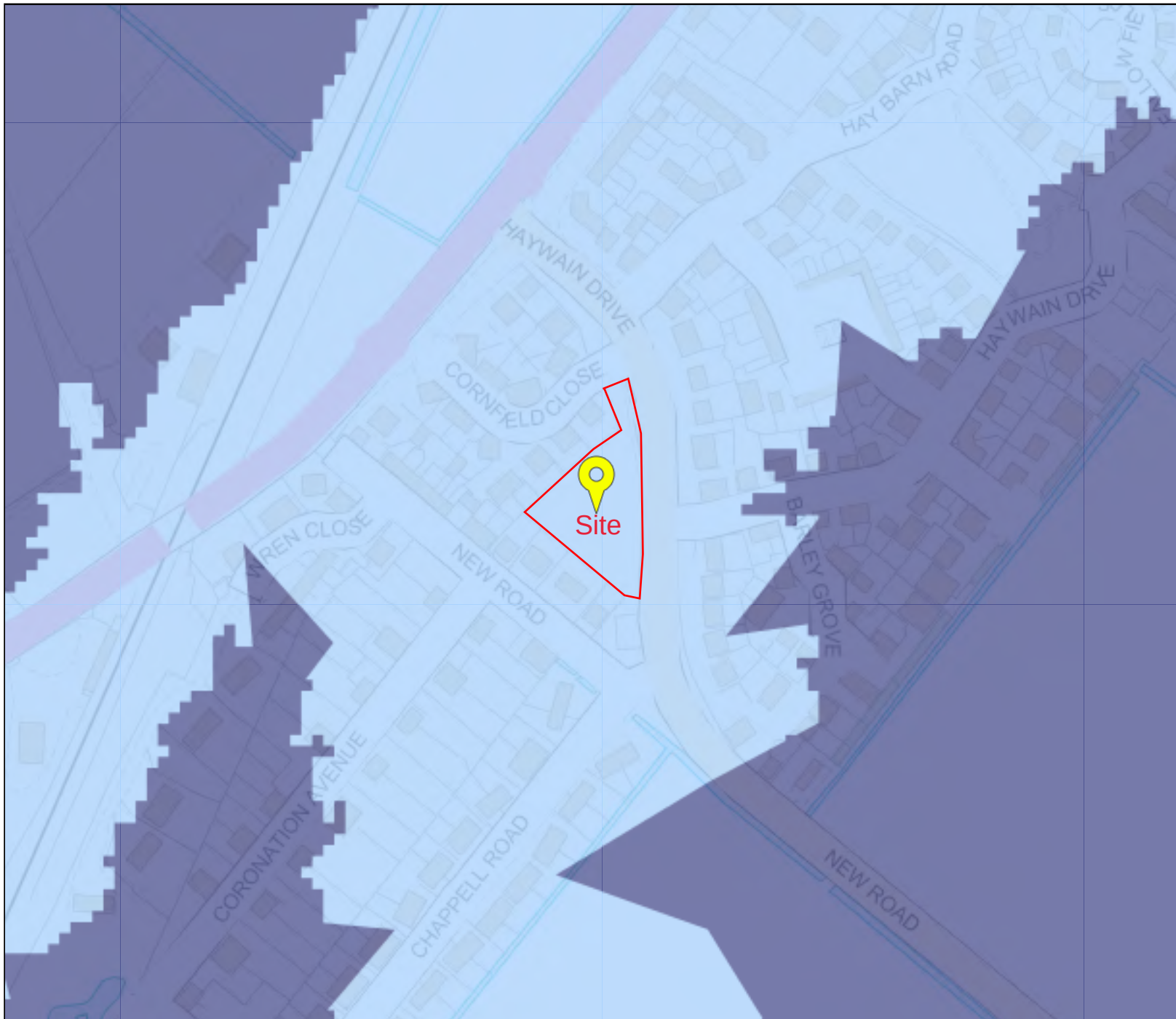
- you must complete a flood risk assessment for development in this area
- you should follow the Environment Agency's standing advice for carrying out a flood risk assessment (see www.gov.uk/guidance/flood-risk-assessment-standing-advice)

Notes

The flood map for planning shows river and sea flooding data only. It doesn't include other sources of flooding. It is for use in development planning and flood risk assessments.

This information relates to the selected location and is not specific to any property within it. The map is updated regularly and is correct at the time of printing.

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<https://www.nationalarchives.gov.uk/doc/open-government-licence/version/3/>



Flood map for planning

Your reference

Deeping St Ni

Location (easting/northing)

521060/315260

Scale

1:2500

Created

9 Nov 2018 10:17

-  Selected point
-  Flood zone 3
-  Flood zone 3: areas benefiting from flood defences
-  Flood zone 2
-  Flood zone 1
-  Flood defence
-  Main river
-  Flood storage area


 0 20 40 60m



Flood risk from rivers or the sea

☒ Extent of flooding

☐ Depth and flow estimates at monitoring stations

Flood risk from surface water

☐ Extent of flooding

☐ High risk: depth

☐ High risk: velocity

☐ Medium risk: depth

☐ Medium risk: velocity

☐ Low risk: depth

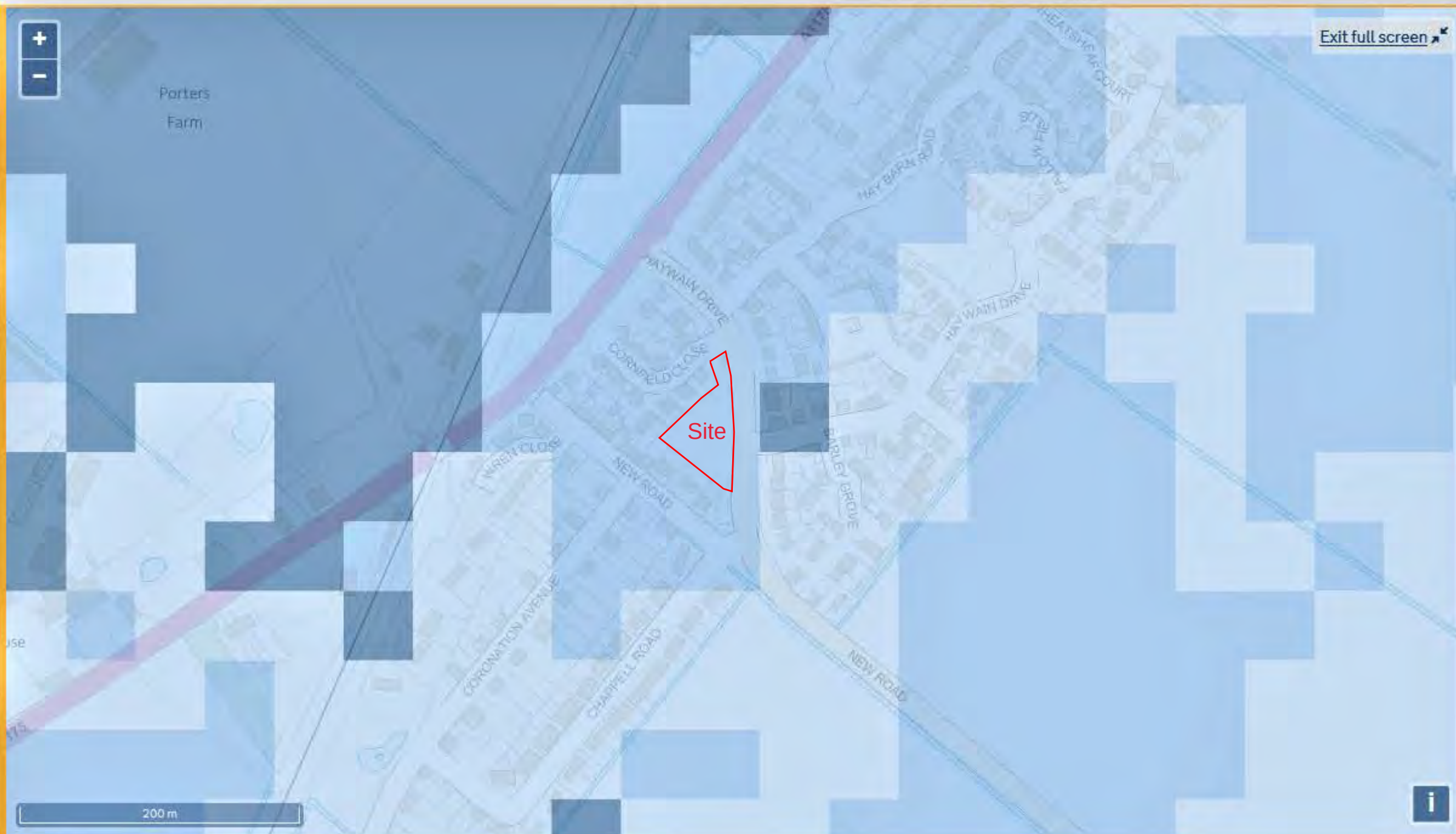
☐ Low risk: velocity

Flood risk from reservoirs

☐ Extent of flooding

☐ Flood depth

☐ Flood speed



Flood risk



High



Medium



Low



Very low



Location you selected



Flood risk from rivers or the sea

- ☐ Extent of flooding
- ☐ Depth and flow estimates at monitoring stations

Flood risk from surface water

- ☐ Extent of flooding
- ☐ High risk: depth
- ☐ High risk: velocity
- ☐ Medium risk: depth
- ☐ Medium risk: velocity
- ☒ Low risk: depth
- ☐ Low risk: velocity

Flood risk from reservoirs

- ☐ Extent of flooding
- ☐ Flood depth
- ☐ Flood speed



Low risk scenario

Flood depth (millimetres)



Over 900mm



300 to 900mm



Below 300mm



Location you selected

Plan 1

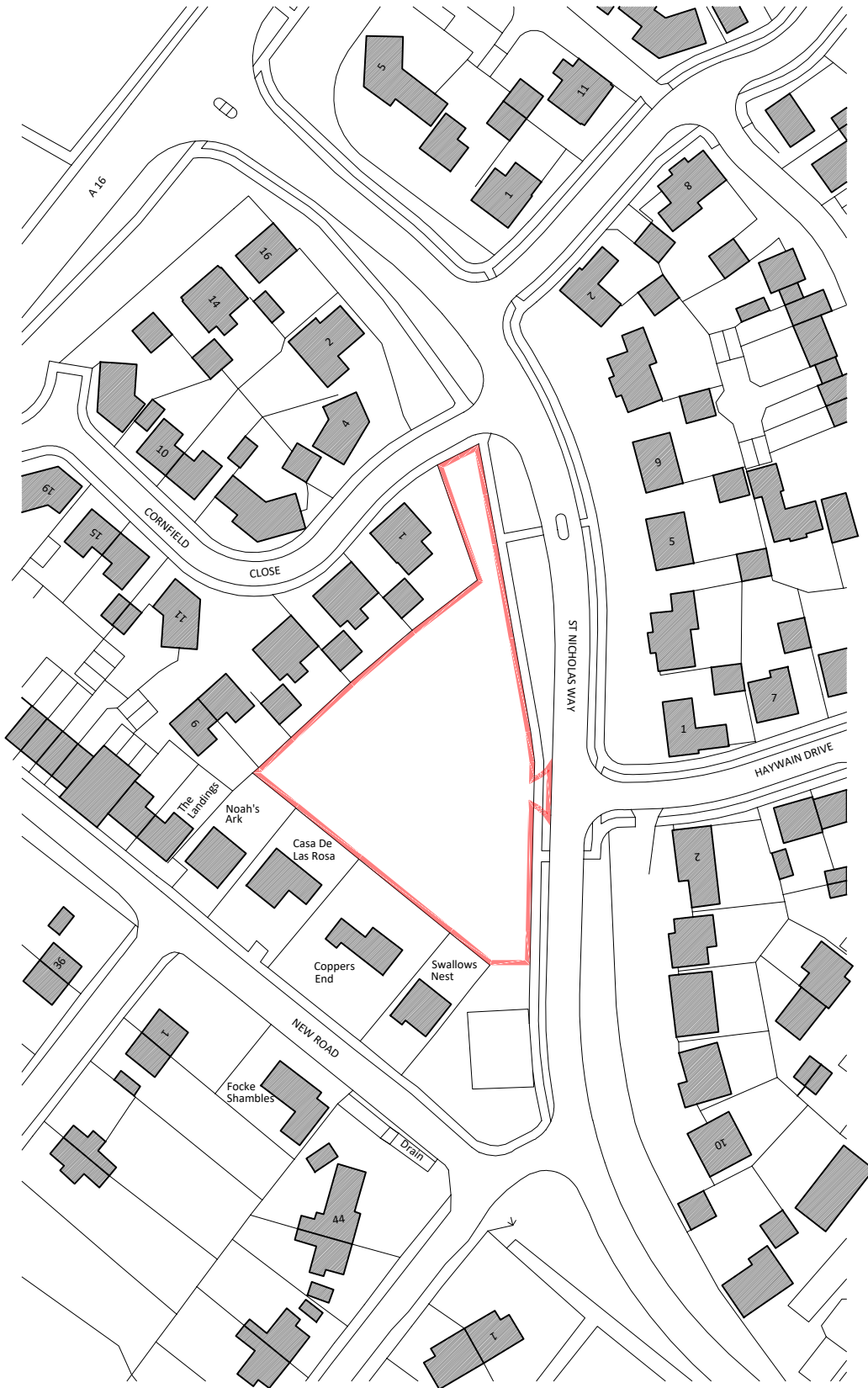
Notes

Measurements

Do not scale from this drawing.
All measurements should be checked against on site conditions and any discrepancies should be brought to the attention of the Robert Doughty Consultancy.

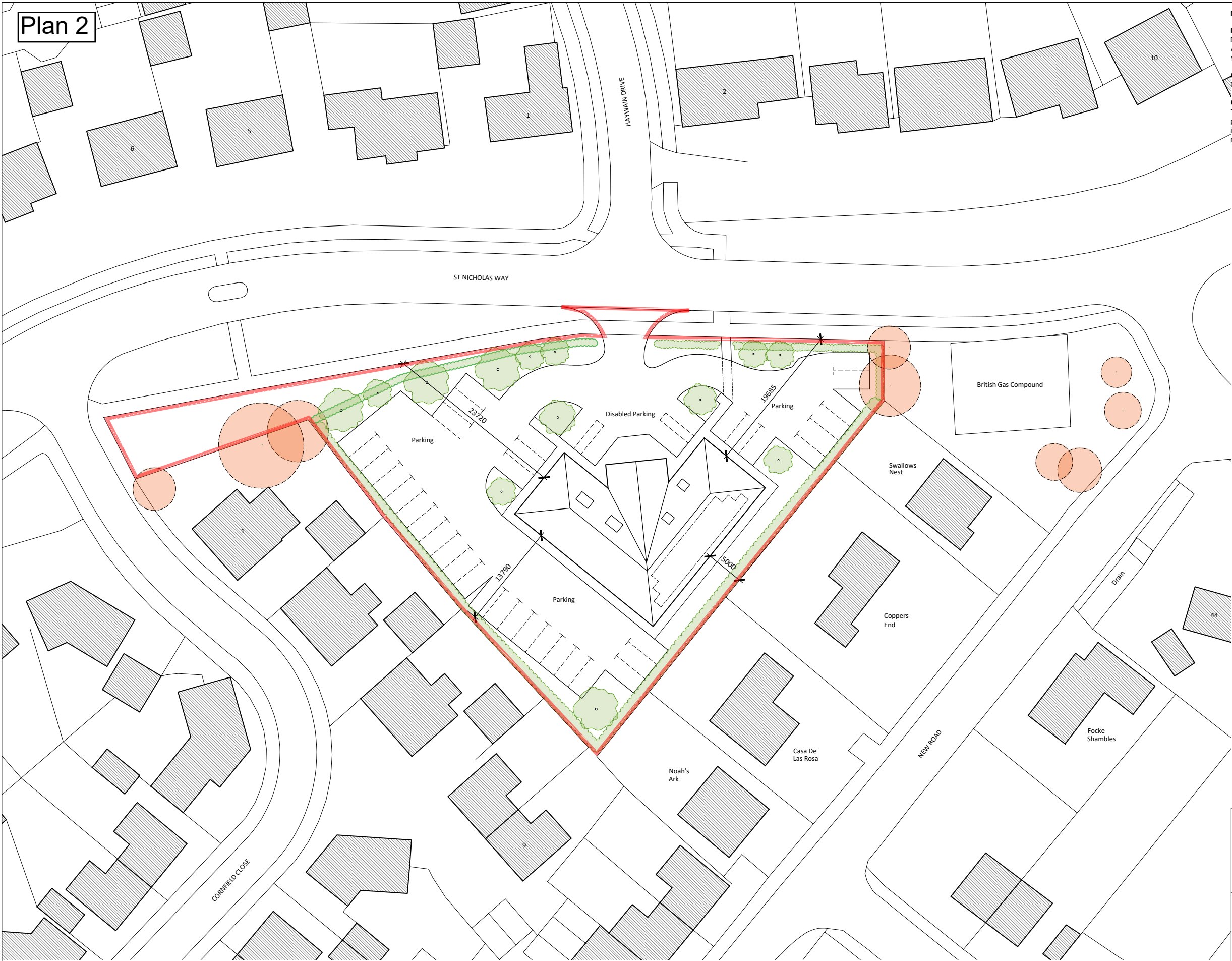
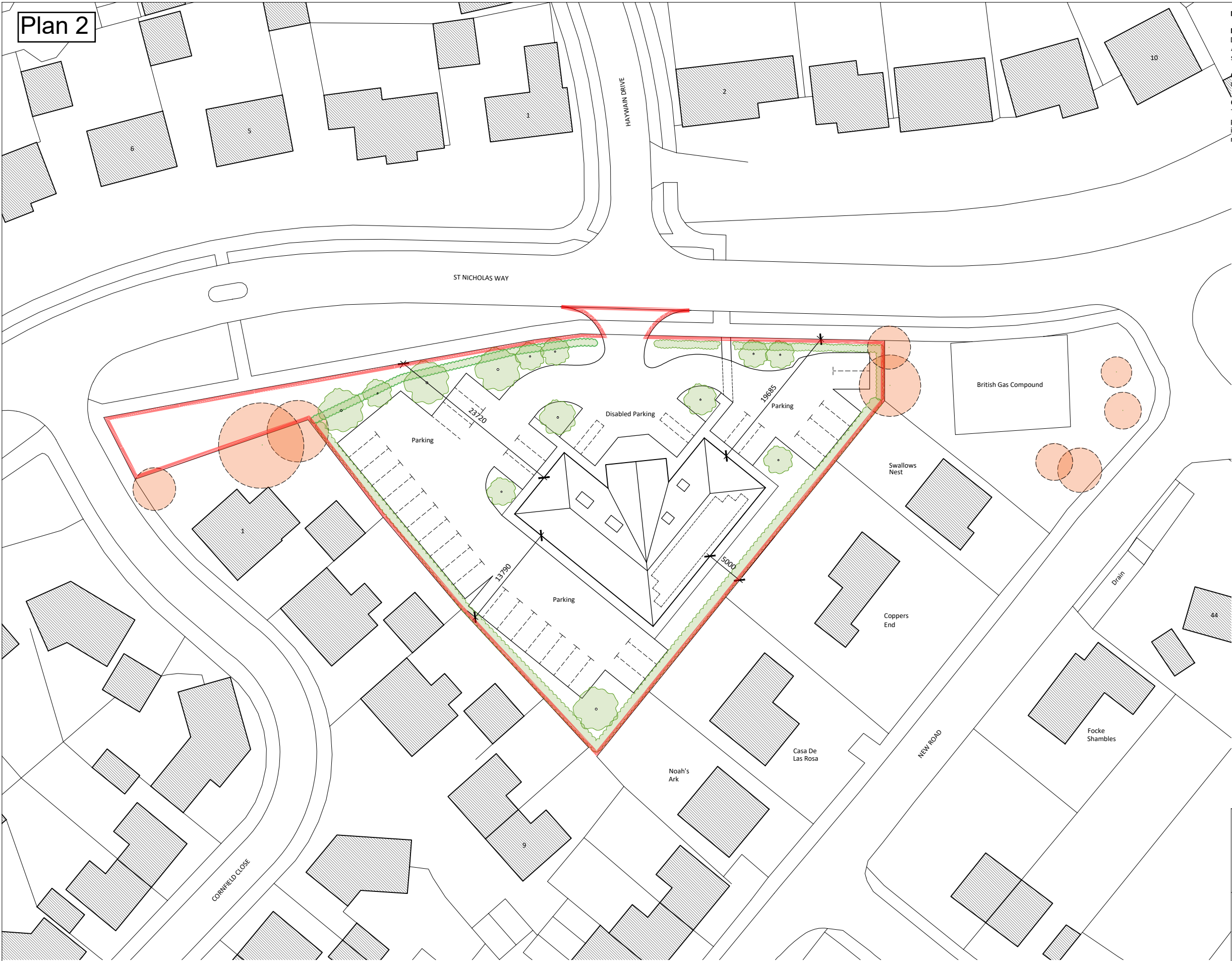
Ordnance Survey Map

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A	WW	Red line revised to show connection to highway	11.12.18
Rev	By	Notes	Date

rdc Robert Doughty Consultancy 32 High Street, Helpingham Sleaford, Lincolnshire NG34 0RA Tel: 01529 421646 Fax: 01529 421358 Email: admin@rdc-landplan.co.uk Web: www.rdc-landplan.co.uk		
Client Deeping St Nicholas Parish Council		
Project Proposed Village Hall, Deeping St Nicholas		
Drawing title Location Plan		
Drawing No 739-21_PL_LP01	Rev A	Drawn MD
Scale 1:1250 @ A4	Date 25.05.18	Checked LMS



Notes

Measurements
Do not scale from this drawing.
All measurements should be checked against on site conditions and any discrepancies should be brought to the attention of the Robert Doughty Consultancy.

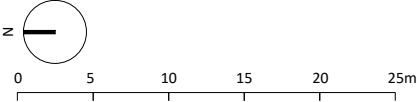
Ordnance Survey Map
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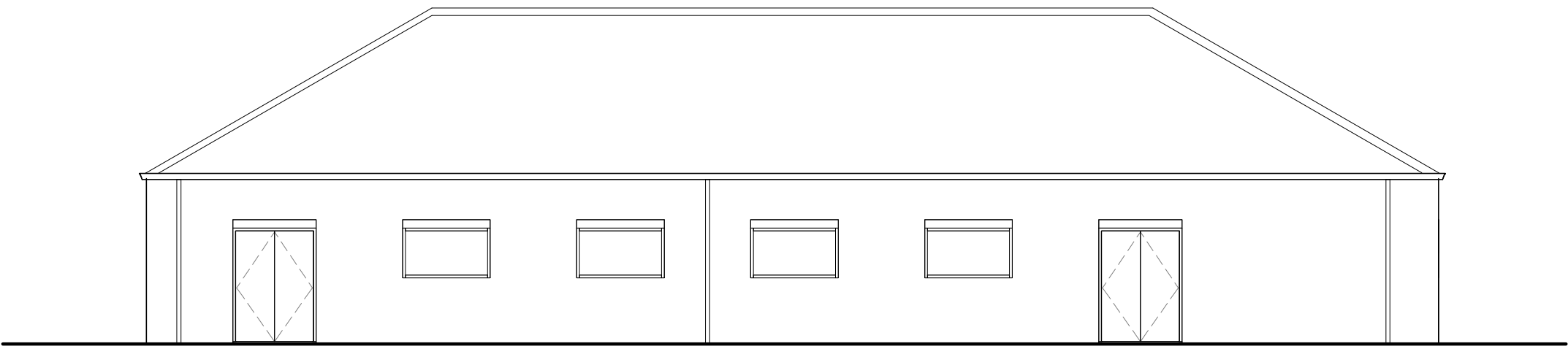
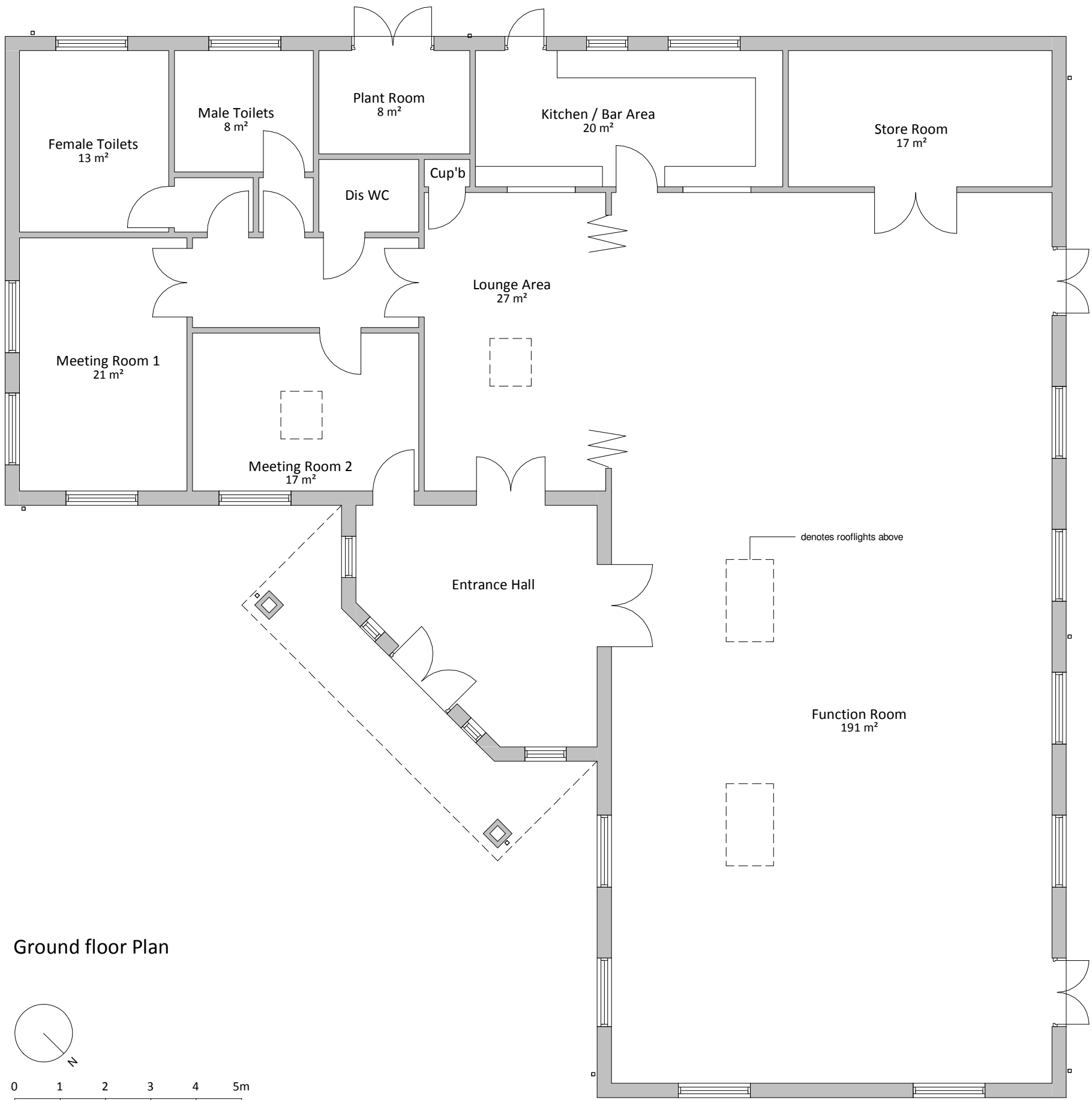
CDM 2015
This drawing is for illustrative purposes and/or obtaining the relevant planning permission only. It should not be used for construction and accordingly, risk identification under the Construction (Design & Management) Regulations 2015 has not been undertaken.

Tree / Hedge Schedule	
	Proposed hedge
	Proposed trees
	Existing tree

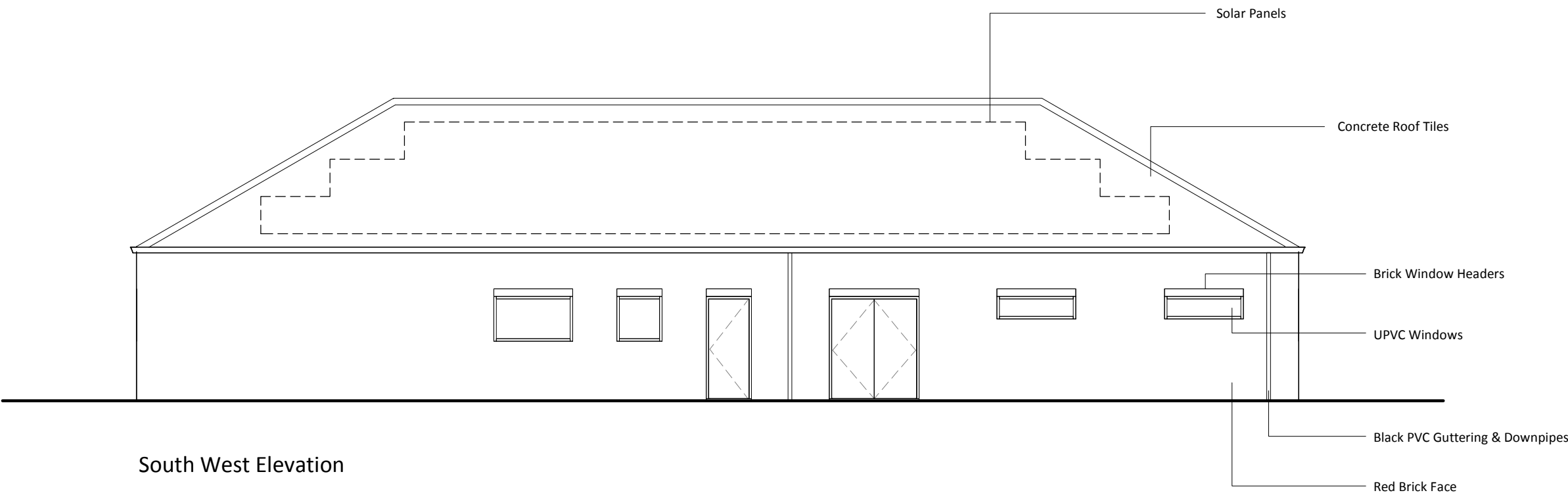
A	WW	Red line revised to show connection to highway	11.12.18
Rev	By	Notes	Date

 Robert Doughty Consultancy 32 High Street, Helpringham © Sleaford, Lincolnshire NG34 0RA Tel: 01529 421646 Fax: 01529 421358 Email: admin@rdc-landplan.co.uk Web: www.rdc-landplan.co.uk		
Client Deeping St Nicholas Parish Council		
Project Proposed Village Hall, Deeping St Nicholas		
Drawing title Proposed Block Plan		
Drawing No 739-21_PL_BP02	Rev A	Drawn MD
Scale 1:500 @ A3	Date 25.05.18	Checked LMS

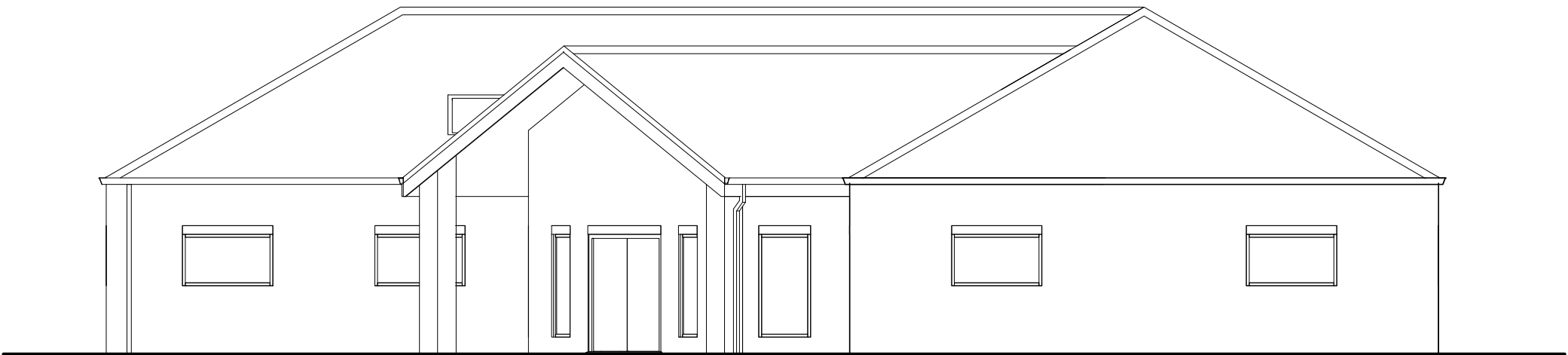




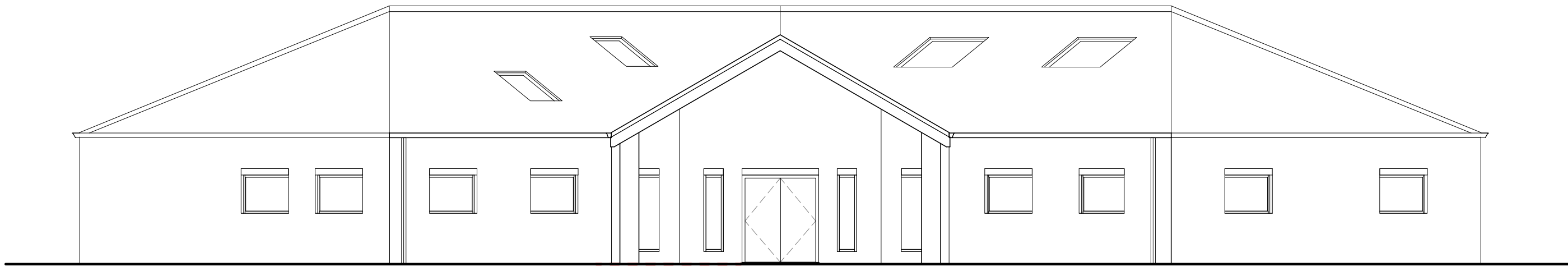
North West Elevation



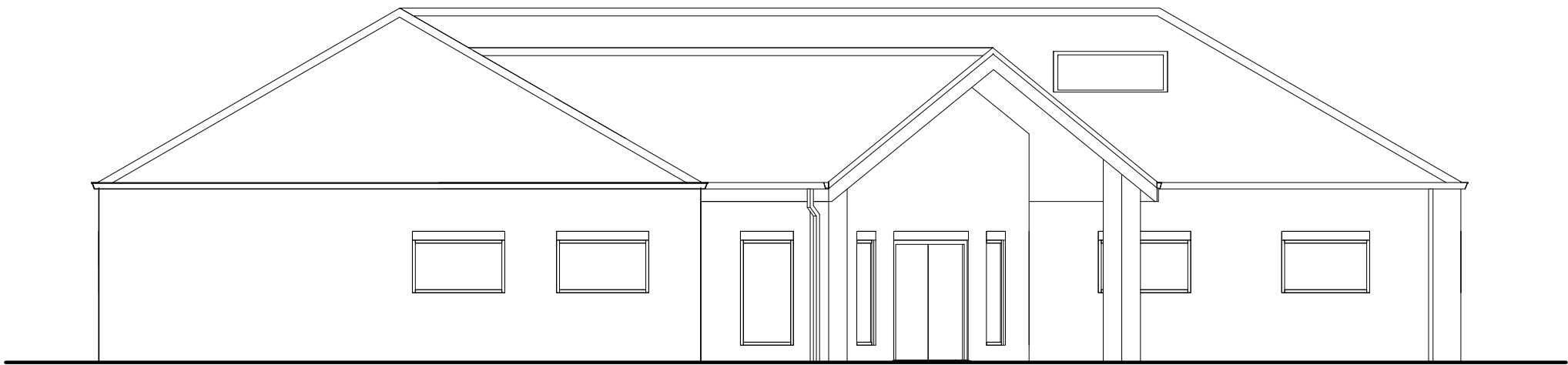
South West Elevation



North East Elevation



East Elevation



South East Elevation

Notes

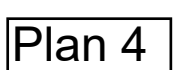
Dimensions
Use figured dimensions only. All dimensions should be checked against on site conditions and any discrepancies should be brought to the attention of Robert Doughty Consultancy Limited.

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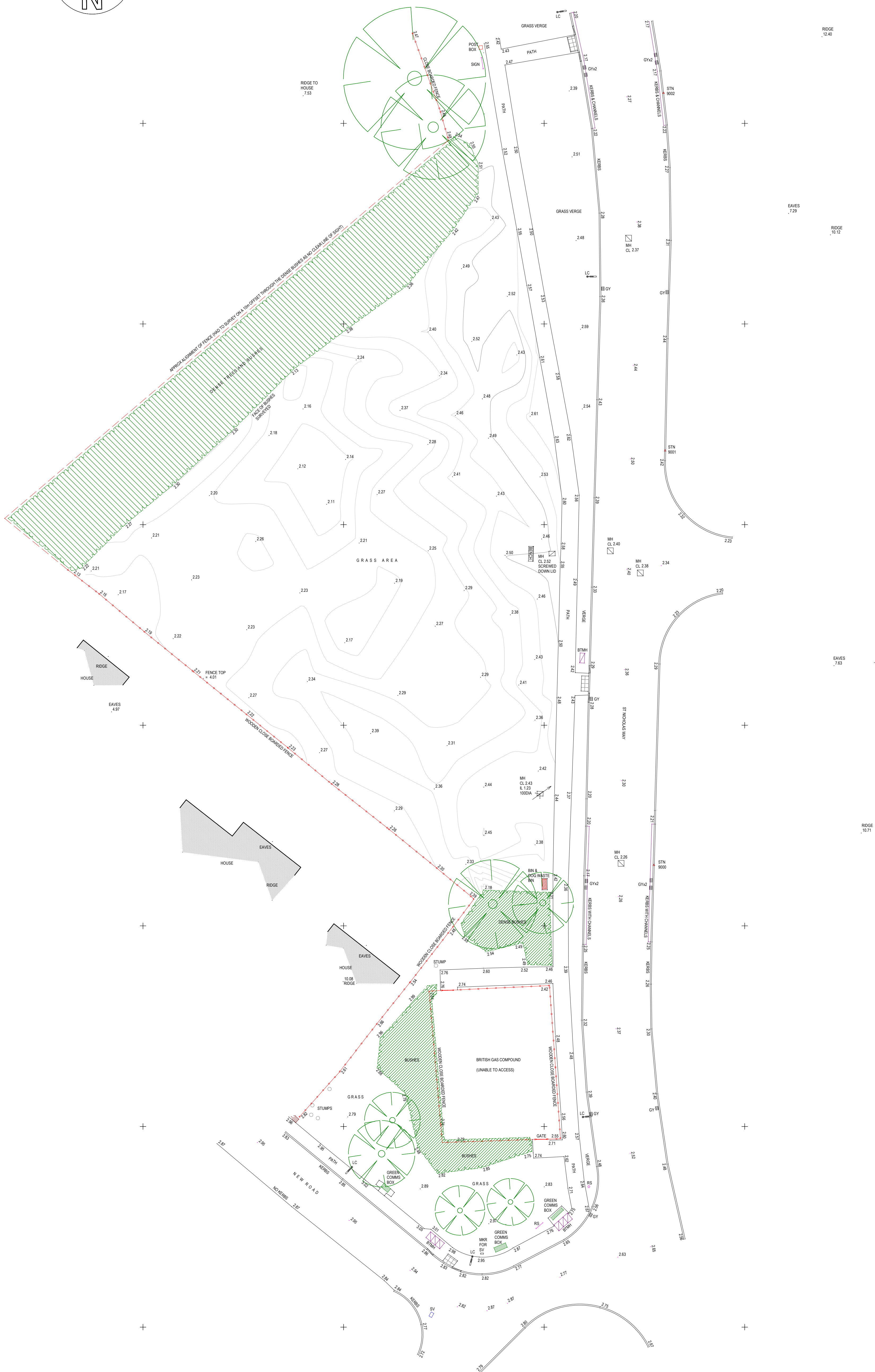
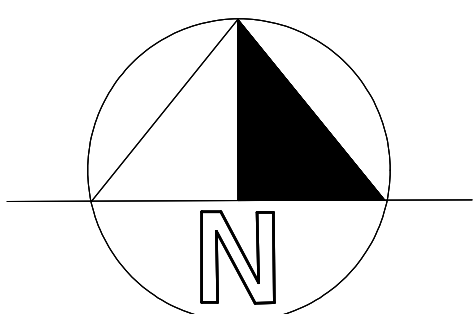
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Rev	Description	Date
rdc Robert Doughty Consultancy 32 High Street, Helpingham Sleaford, Lincolnshire, NG34 0RA Tel: 01529 421646 Email: admin@rdc-landplan.co.uk Web: www.rdc-landplan.co.uk		
Client Deeping St Nicholas Parish Council		
Project Proposed Village Hall Deeping St Nicholas		
Drawing Proposed Ground Floor Plan & Elevations		
Scale @ A1 1 : 100		Date 20/06/8
Drawn By MD		Checked By CS
Job Number 739-21	Status -	Purpose of Issue Planning
Drawing No. 739-21-PL-GA01		Rev



Plan 4



NOTES:

ABBREVIATIONS & SYMBOLS

[illegible]

	FENCE		TREE
	HEDGE		BOREHOLE
	ELECTRIC		STATION
	BANK EDGE		TBM
	STORM LINE		MANHOLE
	FOUL LINE		GULLY
	TELECOM LINE		BATTER
	GAS LINE		WATER L
	LARSON PILES		GATE
	CHANNELS		
	WATER MAIN		

1. THE POSITION OF THIS SURVEY IS BASED ON GPS OSTN15 GRID

2. ALL LEVELS RELATE TO HGTS TAKEN USING TRIMBLE VRS NOW

3. TREES SPREADS ARE DRAWN TO SCALE AND SHOW THE GENERAL/AVERAGE CANOPY SPREAD.

4. ALL BELOW GROUND LEVEL INFORMATION INCLUDING VOIDS, DRAINAGE & SERVICES HAVE BEEN IDENTIFIED FROM THE SURFACE LEVEL ONLY. THEREFORE PIPE SIZES ETC ARE ESTIMATIONS ONLY. ALL CRITICAL DIMENSIONS SHOULD BE CHECKED PRIOR TO THE COMMENCEMENT OF ANY SITE WORKS

5. EVERY EFFORT HAS BEEN MADE TO LOCATE AND SURVEY ALL VISIBLE FEATURES. IT SHOULD BE NOTED THAT SOME ITEMS MAY HAVE BEEN OBSCURED AT THE TIME OF THE SURVEY AND THEREFORE NOT SHOWN ON THIS DRAWING.

6. PHYSICAL BOUNDARY FEATURES SHOWN ON THIS DRAWING DO NOT NECESSARILY REPRESENT THE ACTUAL LEGAL BOUNDARIES. THIS INFORMATION SHOULD BE CONFIRMED WITH THE RELEVANT DOCUMENTATION.

7. THE CONTRACTOR MUST CHECK AND VERIFY ALL SITE LEVELS, DIMENSIONS, UTILITIES AND DRAINAGE DETAILS PRIOR TO THE COMMENCEMENT OF ANY SITE WORKS. ANY DISCREPANCIES MUST BE NOTIFIED TO DANIEL CHARLES SURVEYS LTD.

8. ALL SURVEY STATION CONTROL POINTS MUST BE CHECKED BY THE CONTRACTOR PRIOR TO STARTING ANY SITE WORKS.

Point	Easting	Northing	Elevation
9000	521090.939	315226.059	2.285
9001	521092.065	315267.369	2.537
9002	521091.908	315303.027	2.302
9000_1	521090.939	315226.059	2.285
9001_1	521092.065	315267.369	2.537
9002_1	521091.908	315303.027	2.302

SURVEY DATE	12-06-2018	INITIALS	SRW
-------------	------------	----------	-----

REV	AMENDMENTS	DRN	DATE

Client:

ROBERT DOUGHTY CONSULTANTS

Project Title:

ST NICHOLAS WAY
DEEPIING ST NICHOLAS

Drawing Title:

OGI SURVEY

Scale @ A1: 1 : 200	Date: 12 - 06 - 2018
------------------------	-------------------------

Drawing No:	18 - 129 - 01	Rev:
C.A.D. Title:		
rdc st nicholas way deeping st nicholas\topo (18-129-01).mjo		

Drawn By: SRW	Checked By: MJW
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