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2747-15

RESIDENTIAL DEVELOPMENT
PLOT 2
CROSSGATE FARM YARD
MILESTONE LANE
PINCHBECK
SPALDING
LINCS
PE11 3XX

4 BEDROOM HOUSE & ATTACHED DOUBLE GARAGE

FOR

MR & MRS P BARROWCLIFF



PLANNING, DESIGN & ACCESS STATEMENT

VAT No. 552 6200 69
Registered in England No: 5667107
Registered Address: Bank House, Broad Street, Spalding, PE11 1TB

RESIDENTIAL DEVELOPMENT
PLOT 2
CROSSGATE FARM YARD
MILESTONE LANE
PINCHBECK
SPALDING
LINCS
PE11 3XX

4 BEDROOM HOUSE & ATTACHED DOUBLE GARAGE

The application is to acquire Town & Country Planning Permission to erect a four bedroom house with attached double garage on a development site at Crossgate Farm Yard, Milestone Lane, Pinchbeck for the benefit of Mr & Mrs P Barrowcliff.

The site currently has the benefit of an extant Planning Permission under reference H14-0326-14 Residential Development - Erection of 2 Dwellings (see appendix). As Mr & Mrs Barrowcliff have only acquired plot 2, therefore the need for a 'full' application.

Note – All documentation and reports associated with extant permission are included within the appendix.

All conditions associated with the extant permission have been dealt with within the application and plans.

EXTERNAL MATERIALS

Walls-	Traditional Stone & Brick Company – Audley Antique
Roofs-	Sandtoft Single Pantiles – Dark Grey
Joinery-	Cream UPVC Windows

APPLICATION PLANS

2747-15-01	Site & Location Plans - Existing
2747-15-02	Block Plan - Proposed
2747-15-03	Floor Plans & Elevations

G R Merchant
May 2015

APPENDIX

LOCATION PLAN 1/2500

LOCATION PLAN 1/1250

'GOOGLE' LOCATION & SITE PLANS

HISTORIC SITE PLAN (FOR INFORMATION)

HIGHWAYS DEFINATIVE BOUNDARY MAP

ANGLIAN WATER SEWER MAP

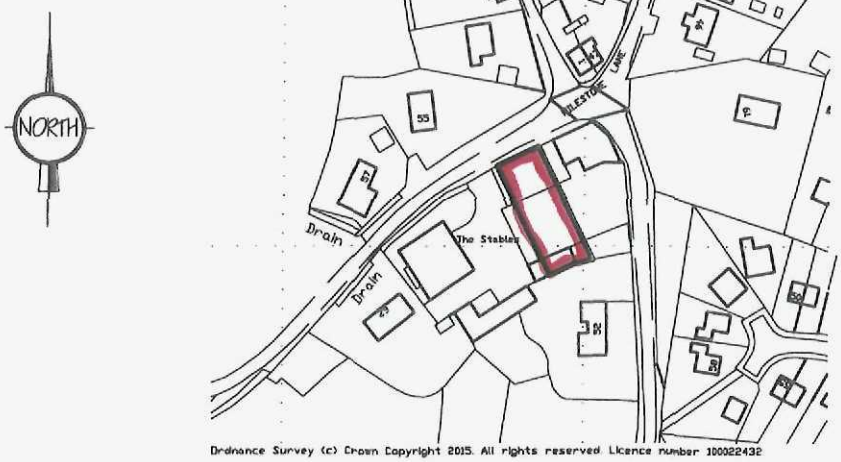
EXTANT PLANNING PERMISSION H14-0326-14

FLOOD RISK ASSESSMENT
WHICH ACCOMPANIED H14-0326-14

ENVIRONMENT AGENCY
(CONSENT LETTER)

SITE LEVEL SURVEY

CONTAMINATION REPORT



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LOCATION PLAN.
1/2500.



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LOCATION PLAN.
1/1250.



Google earth

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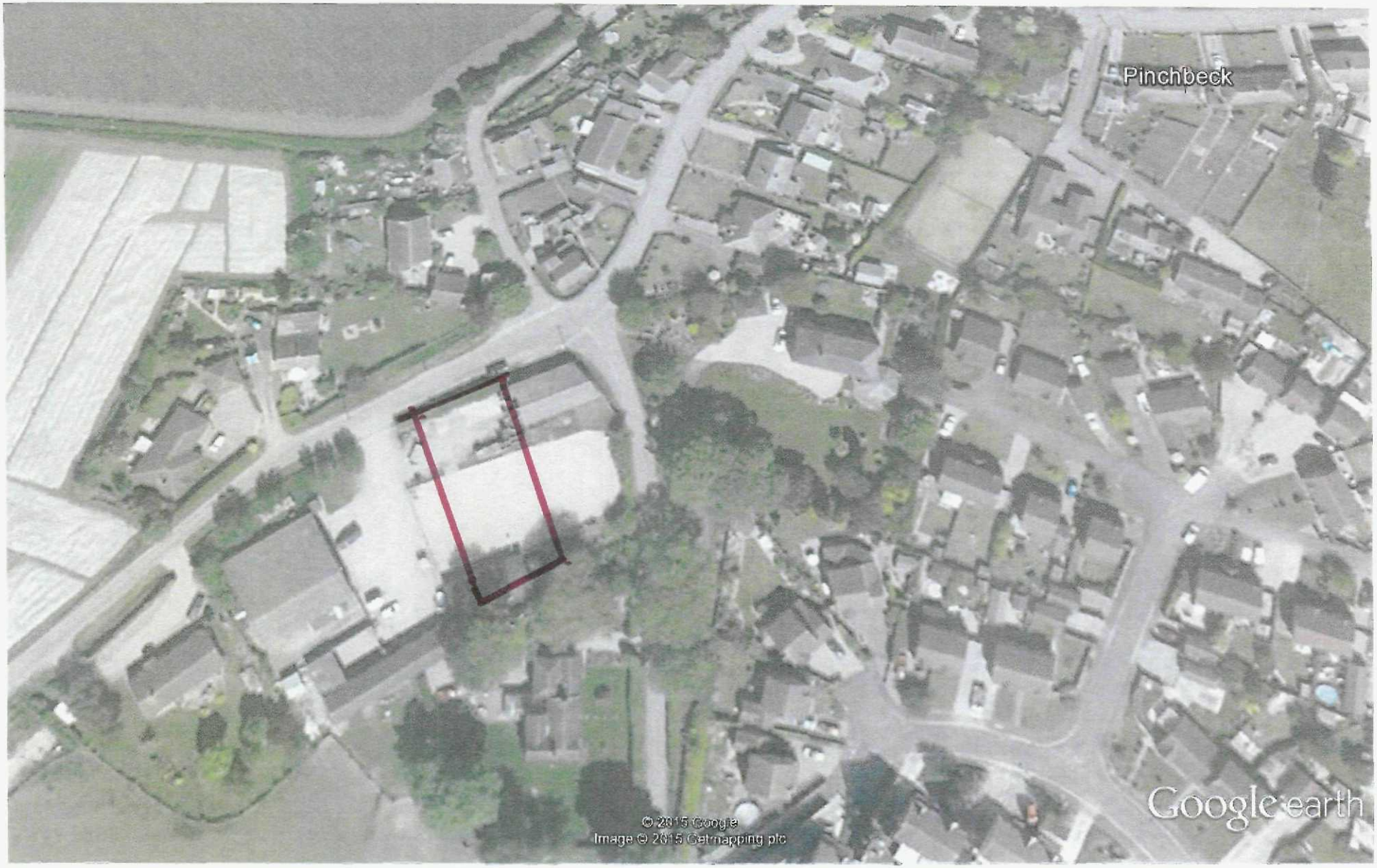
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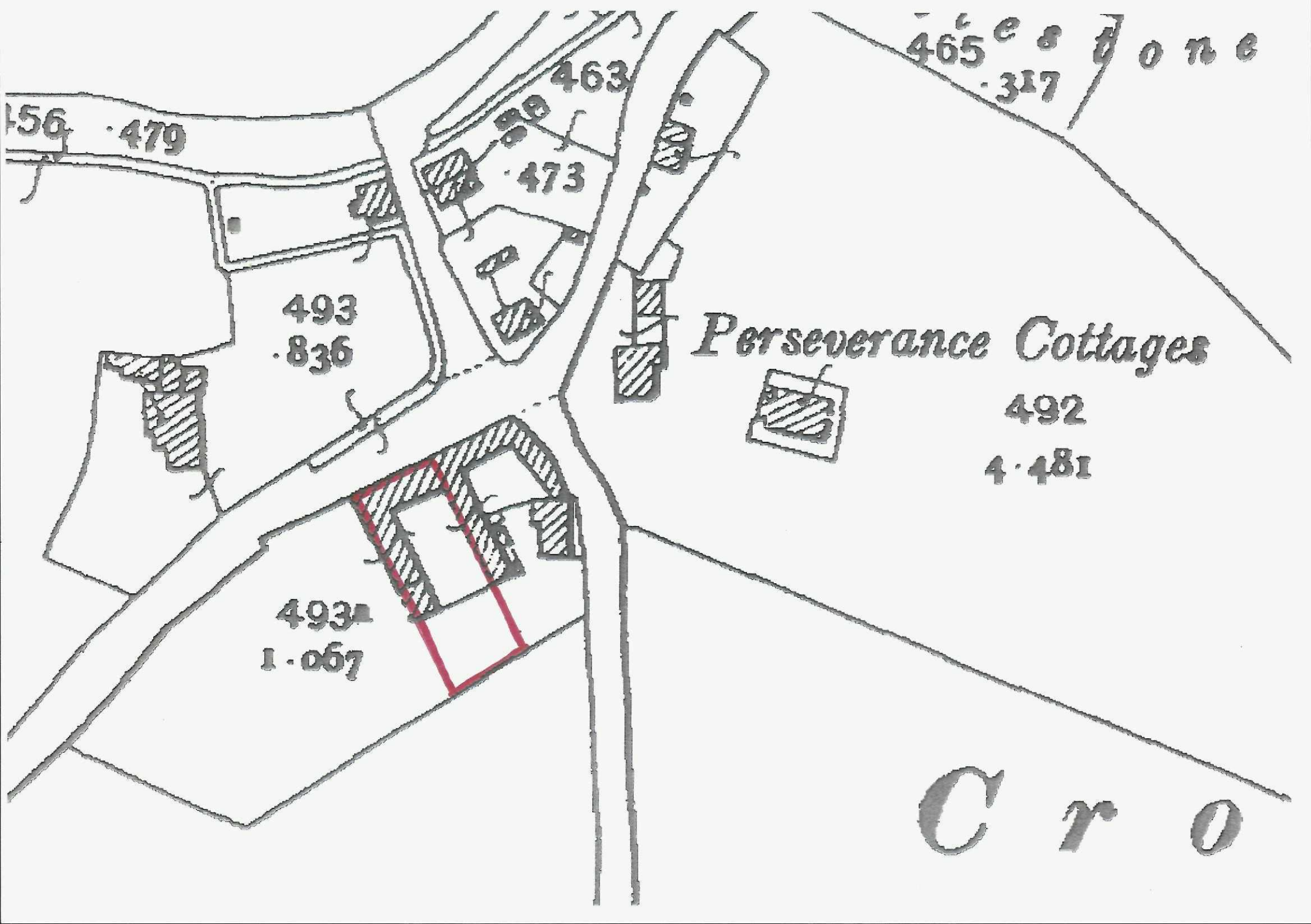
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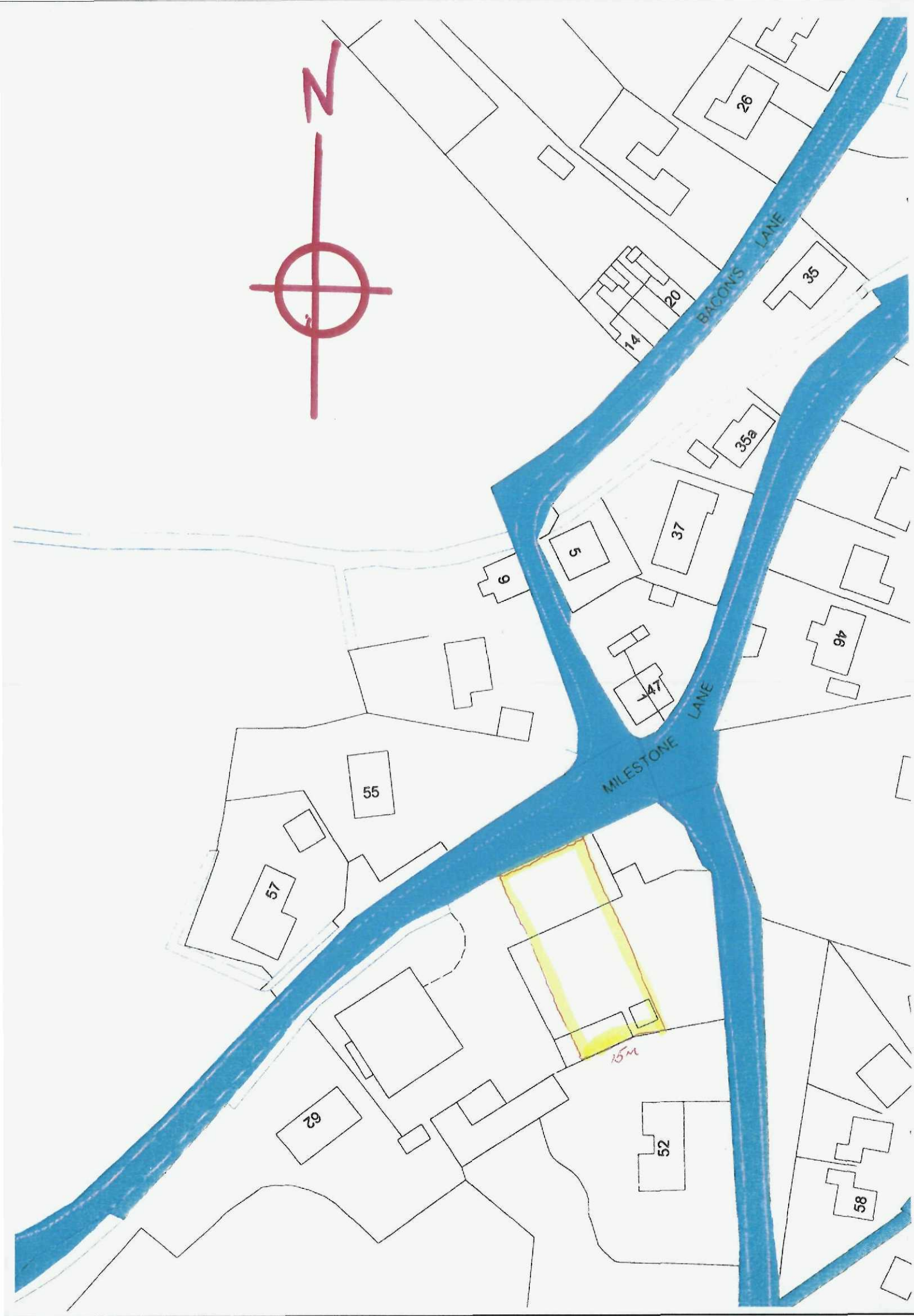
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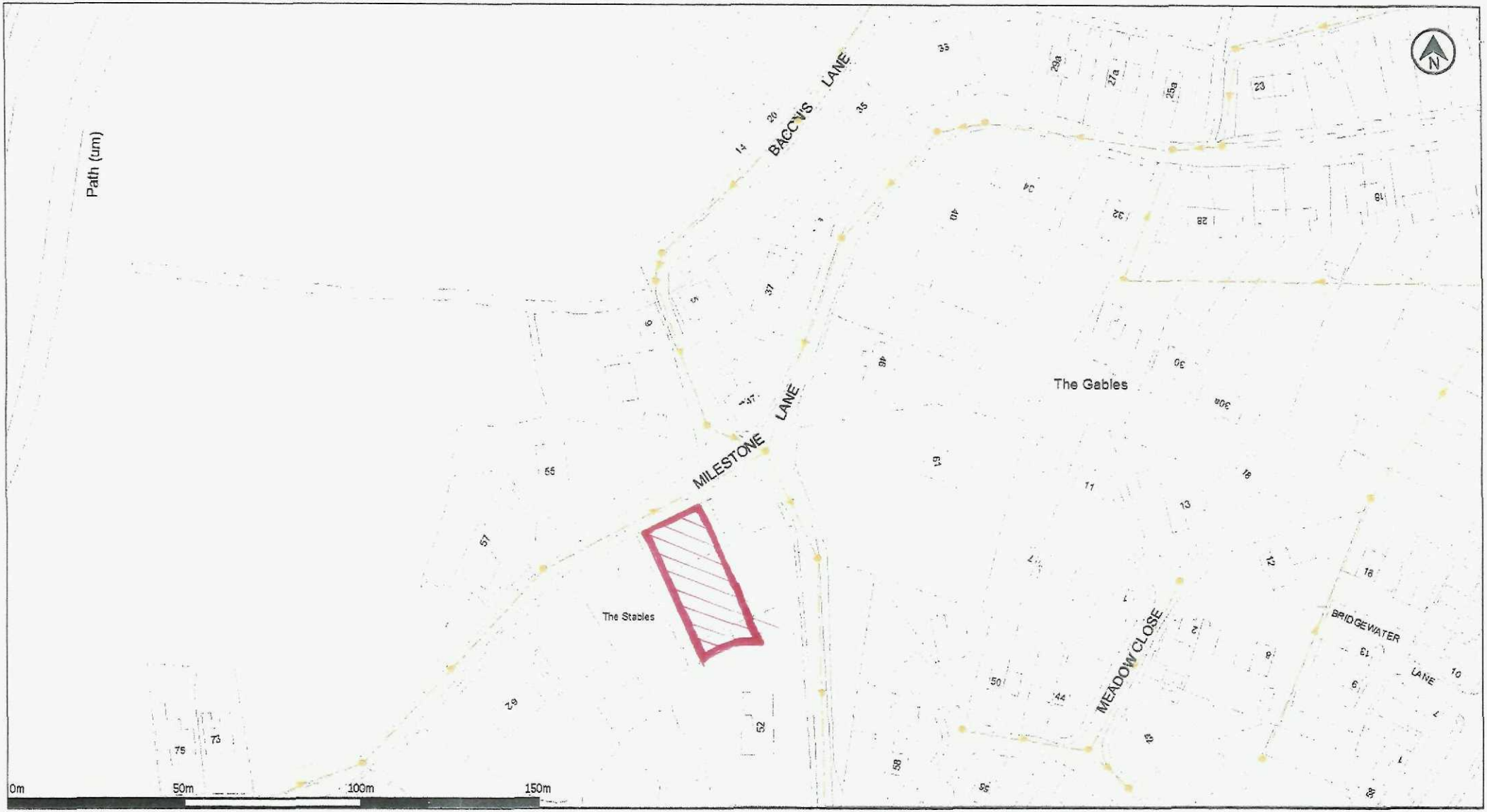


Google earth

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- Foul Sewer
- Surface Sewer
- Combined Sewer
- Final Effluent
- Rising Main (Colour denotes effluent type)
- Private Sewer (Colour denotes effluent type)
- Decommissioned Sewer (Colour denotes effluent type)
- Outfall (Colour denotes effluent type)
- Inlet (Colour denotes effluent type)
- Manhole (Colour denotes effluent type)
- Sewage Treatment Works
- Pumping Station

bburrell@sholland.gov.uk

Plot 2, Bacons Lane

love every drop
anglian water

SOUTH HOLLAND DISTRICT COUNCIL

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www.sholland.gov.uk

FILE COPY

Town and Country Planning Act 1990

Outline Planning Permission

Reference: H14-0326-14 **Received:** 22nd April 2014 **Type:** OUTLINE

Name: Mr and Mrs D Hart
The Burrells
Stockhouse Lane
Surfleet
Spalding
Lincs
PE11 4AT

Agent: A C Hornsby
35 Peak Hill
Cowbit
Spalding
Lincolnshire
PE12 6AW

Description: Residential development - erection of 2 dwellings

Location : Land at junction of Milestone Lane and Crossgate Lane
Pinchbeck Spalding

South Holland District Council hereby give notice that OUTLINE PLANNING PERMISSION HAS BEEN GRANTED for the development in accordance with the application submitted, subject to the following:

1 Application for approval of reserved matters must be made not later than three years beginning with the date of this permission, and the development must be begun before the expiration of two years from the final approval of reserved matters or in the case of approval on different dates, the final approval of the last such matter to be approved.

Reason: As required by Section 92 of the Town and Country Planning Act 1990 as amended by the Planning and Compulsory Purchase Act 2004.

2 The development hereby permitted shall be carried out in accordance with the following approved plans:
Dwg. nos. 13/22/01 and 13/22/03 received 17 April 2014.

Reason: For the avoidance of doubt and in the interests of proper planning.

3 No development shall take place without the prior written approval of the Local Planning Authority of all details of the following matters:
i) the layout, scale and external appearance of building(s), including a schedule of external materials to be used;
ii) the means of access to the site;

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iii) the landscaping of the site;
iv) the means of sewage and surface water disposal;
v) the existing and proposed site levels and floor levels of the buildings and hard surfaced areas.

Reason: The application was submitted in outline only and the above details are required to enable the Local Planning Authority to assess the detailed design, appearance and layout of the development as well as ensure that appropriate access and services are provided to serve the development.
This Condition is imposed in accordance with Policies SG12, SG13, SG14 and SG18 of the South Holland Local Plan 2006 and national guidance contained in Section 10 of the National Planning Policy Framework, 2012.

4 When application is made to the Local Planning Authority for approval of reserved matters, that application shall be accompanied by a scheme of landscaping and tree planting indicating, inter alia, the number, species, heights on planting and positions of all trees in respect of the land to which that application relates, together with details of post-planting maintenance and such a scheme shall require the approval of the Local Planning Authority before any development is commenced. Such scheme as is approved by the Local Planning Authority shall be carried out in its entirety within a period of 12 months beginning with the date on which development is commenced. All trees, shrubs and bushes shall be maintained by the owner or owners of the land on which they are situated for the period of five years beginning with the date of completion of the scheme and during that period all losses shall be made good as and when necessary.

Note: The applicant is recommended to employ a qualified and experienced landscape designer to produce a landscaping scheme for the development.

Reason: To ensure that the development is adequately landscaped, in the interests of its visual amenity and that of the area in which it is set.
This Condition is imposed in accordance with Policy SG18 of the South Holland Local Plan 2006.

5 The development hereby permitted shall not be commenced until a scheme to deal with any contamination of land or pollution of controlled waters has been submitted to and approved in writing by the Local Planning Authority (LPA) and until the measures approved in that scheme have been implemented. The scheme shall include all of the following measures.
i) a desk-top study carried out to identify and evaluate all potential sources of contamination and the impacts on land and/or controlled waters, relevant to the site. The desk-top study shall establish a 'conceptual site model' and identify all plausible pollutant linkages. Furthermore, the assessment shall set objectives for intrusive site investigation works/Quantitative Risk Assessment (or state if none required). Two full copies of the desk-top study and a non-technical summary shall be submitted to the LPA without delay upon completion.
ii) if identified as being required following the completion of the desk-top study, a site investigation

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shall be carried out to fully and effectively characterise the nature and extent of any land contamination and/or pollution of controlled waters. It shall specifically include a risk assessment that adopts the Source-Pathway-Receptor principle, in order that any potential risks are adequately assessed taking into account the sites existing status and proposed new use. Two full copies of the site investigation and findings shall be forwarded to the LPA without delay upon completion.
iii) thereafter, a written method statement detailing the remediation requirements for land contamination and/or pollution of controlled waters affecting the site shall be submitted to and approved in writing by the LPA, and all requirements shall be implemented and completed to the satisfaction of the LPA. No deviation shall be made from this scheme. If during redevelopment contamination not previously considered is identified, then the LPA shall be notified immediately and no further work shall be carried out until a method statement detailing a scheme for dealing with the suspect contamination has been submitted to and agreed in writing by the LPA.
iv) two full copies of a full closure report shall be submitted to and approved in writing by the LPA. The report shall provide verification that the required works regarding contamination have been carried out in accordance with the approved Method Statement(s). Post-remediation sampling and monitoring results shall be included in the closure report to demonstrate that the required remediation has been fully met.

Note: The applicant is advised that the phased risk assessment required by the Contaminated Land Scheme Condition should be carried out in accordance with the procedural guidance of the Environmental Protection Act 1990 Part 11A.

The applicant's attention is also drawn to the document entitled "Developing Land Within Lincolnshire - A guide to submitting planning applications to develop land that may be contaminated", which can be obtained through the Local Environmental Health Department.

Reason: To assess whether the site is polluted and to address any pollution to ensure a satisfactory development.
This Condition is imposed in accordance with Policy SG13 of the South Holland Local Plan 2006.

6 Before the commencement of development hereby granted, details of the proposed boundary treatment, including a schedule of materials, and details of the size and species of any hedging, shall be submitted to and approved in writing by the Local Planning Authority, and the details so approved shall be implemented in full before the development is first brought into use.

Reason: In the interests of the character and appearance of the development and the visual amenity of the area in which it is set.
This Condition is imposed in accordance with Policy SG14 of the South Holland Local Plan 2006.

7 When application is made for reserved matters approval, the submitted details shall include provision within the curtilage of each plot for a motor car to turn around so that the driver may be

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able to leave and anter the highway in a forward gear.

Reason: To ensure appropriate on-site vehicle parking facilities with associated access and manoeuvring areas, in the interests of highway safety and the general amenity of the development.

Reason: In the interests of Highways Safety.
This Condition is imposed in accordance with Policy SG15 of the South Holland Local Plan 2006.

8 The development hereby permitted shall be carried out in general accordance with the measures set out in the Flood Risk Assessment forming part of this planning application, unless otherwise agreed in writing by the Local Planning Authority. In particular the application will take into account the following mitigation measures:
- Finished floor levels will be set at a minimum of 4.5mAOD
- Flood resilient construction techniques shall be incorporated into the development to a minimum height of 500mm above finished floor levels

The mitigation measures shall be fully implemented prior to occupation and the applicant shall confirm completion of the approved scheme, in writing, within one month thereafter.

Reason: To ensure that the development does not increase the risk of flooding or be at risk of flooding.
This Condition is imposed in accordance with national guidance contained in Section 10 of the National Planning Policy Framework, 2012.

The Local Planning Authority has acted positively and proactively in determining this application, having engaged with the Applicant at the pre-application stage, and by assessing the subsequent application against all material considerations, including national guidance, planning policies and representations that have been received during the public consultation exercise and subsequently determining to grant planning permission within the statutory timeframe in accordance with the presumption in favour of sustainable development, as set out within the National Planning Policy Framework.

Copies of all documentation submitted in connection with this application can be viewed online at www.sholland.gov.uk/doitonline/plandev/plansearch.aspx.

Note(s):

The development hereby permitted will require the provision of a new vehicular access crossing. Applicants are requested to contact the Local Highway Authority's Divisional Office at Pode Hole - (via call centre Tel: 01522 782070) prior to the commencement of any works within the public highway.

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www.sholland.gov.uk

Paul Jackson
Planning Manager

18th June 2014 **H14-0326-14**

This decision refers only to that required for the purposes of the Town and Country Planning Acts and not for Building Regulations or any other legislation.

FLOOD RISK ASSESSMENT FOR PROPOSED RESIDENTIAL DEVELOPMENT AT JUNCTION OF MILESTONE LANE AND CROSSGATE LANE, PINCHBECK, LINCS.

FINAL REPORT

GEOFF BEEL CONSULTANCY

APRIL 2014

GCB/HORNSBY

DISCLAIMER

This document has been prepared solely as a Flood Risk Assessment in support of a planning application for proposed Residential Development at the junction of Milestone Lane and Crossgate Lane, Pinchbeck, Spalding, Lincs. "Geoff Beel Consultancy" accepts no responsibility or liability whatsoever for any use made of this document other than by the client "Mr & Mrs R Hart" for the purposes it was originally commissioned and prepared. All comments and opinions made are based upon information available to "Geoff Beel Consultancy" during the necessary investigative process, and the conclusions and recommendations could therefore, differ in the event of material subsequently being found erroneous, incomplete or misleading. "Geoff Beel Consultancy" therefore, accepts no liability should this prove to be the case.

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7.0 PROBABILITIES AND TRENDS OF FLOODING

8.0 IMPACTS OF FLOODING

9.0 RESIDUAL RISKS – EXTREME EVENTS

10.0 CONCLUSIONS AND RECOMMENDATIONS

Fig 1 - Location Plan – OS Map

Fig 2 - Existing Location Plan & Block Plan – Alan Hornsby Architectural Services Ltd drg. no. 13/22/01

Fig 3 - Proposed Location Plan & Block Plan – Alan Hornsby Architectural Services Ltd drg. no. 13/22/03

Fig 4 – Site Survey Details – Alan Hornsby Architectural Services Ltd drg. 13/22/01

Fig 5 - Environment Agency Flood Zone Map

Fig 6 - South Holland District Council Strategic Flood Risk Assessment – Actual Depths (2115)

Fig 7 - South Holland District Council Strategic Flood Risk Assessment – Residual Depths (2115)

Fig 8 - Welland & Deepings Internal Drainage Board District Plan.

1.0 INTRODUCTION

1.1 A full planning application is to be submitted by Alan Hornsby Architectural Services Ltd on behalf of Mr & Mrs R Hart for proposed residential development at the junction of Milestone Lane and Crossgate Lane, Pinchbeck, Spalding, Lincs.

1.2 Planning approval requires a Flood Risk Assessment to accompany the application to meet the requirements and general principles contained in Paragraph 9 of the Technical Guidance to the National Planning Policy Framework (NPPF) and for approval by the Environment Agency.

The site is shown within Flood Zone 3 of the Environment Agency's Flood Zone Map. The latest Flood Zone Maps have been created as a tool to raise awareness of flood risk with the public and partner organisations, such as Local Authorities, Emergency Services and Drainage Authorities. The Maps do not take into account any flood defences.

The site is also shown in Flood Zone 3 of the South Holland District Council's Strategic Flood Risk Assessment Maps (2115) and located in the Welland and Deepings Internal Drainage Board district.

1.3 Geoff Beel Consultancy was appointed on 7th April 2014 to undertake a Flood Risk Assessment.

2.0 LOCATION

2.1 The development site is two plots of land on agricultural premises at the junction of Milestone Lane and Crossgate Lane, Pinchbeck, Spalding. The National Grid Reference of the central point of the site is TF 24252665.

2.2 The position and extent of the sites are shown on Fig 3 - Proposed Location Plan and Block Plan at the end of the document.

2.3 The sites, located within the Welland and Deeping's Internal Drainage Board district are shown within Flood Zone 3 as detailed both on the Environment Agency Flood Zone Maps and the Council's Strategic Flood Risk Assessment Maps.

3.0 THE SITE AND SEQUENTIAL TEST

3.1 The sites are on agricultural premises consisting of a barn store; building and ménage all to be demolished.

3.2 The total area of development is approximately 0.16 hectare.

3.3 The proposed site layout consists the construction of 2 two-storey dwellings with vehicular access off Milestone Lane.

3.4 The Sequential Test and Exception Test will require to be applied by the Local Planning Authority but the development may be permitted as the site is protected against the 1 in 100 year fluvial event by a combination of defences, pumping stations and sluice gates meeting the requirements of NPPF.

3.5 The development with the inclusion of appropriate mitigation measures would ensure the proposals pass Part 2 of the NPPF Exception Test by ensuring that the development has an adequate water exclusion strategy for the design flood and breach event.

4.0 EXISTING FLOOD ALLEVIATION MEASURES

4.1 The site is within a defended floodplain, as defined in Appendix 1 of the Environment Agency's 'Policy and Practice for the Protection of Floodplains' and is considered to be passive until such time as a flood greater than that for which the defences were designed occurs. The likelihood of flooding due to overtopping or failure of a flood defence embankments is considered to be small.

4.2 The site is located within the Welland and Deepings Internal Drainage Board protected by the River Welland and River Glen defences to the 1 in 100 year return period flood event. Site survey shows land levels varying between 3.40m and 4.00m aOD.

4.3 The site and surrounding land drains via Old Pinchbeck Drain north of the site to the Pinchbeck Marsh and Pinchbeck Marsh - Riddington Pumping Stations which discharge into the Blue Gowt Drain and ultimately flows via gravity into the River Glen at Surfleet.

4.4 The Welland and Deepings IDB have carried out improvements to the Pinchbeck Marsh catchment over the years such that the combined pumping station capacity is nowadays 3.00 cumecs. The nearest Board watercourse is the Old Pinchbeck Drain which has a design 1 in 100 year bankfull flood level of 3.45m aOD.

4.5 Current maintenance standards within the Welland and Deepings Internal Drainage Board are generally very good.

During the operation and maintenance of its pumping stations, associated structures and channel systems, particularly those that could affect property, the Board seeks to maintain a general standard capable of providing flood protection to its district. A routine maintenance programme is in place to ensure that the Boards assets are commensurate with the standard of protection that is sought. However, bank slips, blocked culverts etc may occur from time to time and these matters are usually dealt with promptly.

4.6 The fluvial River Glen is located approximately 200m to the west of the site with a standard of protection of 1 in 100 years return period.

Defence and Flood levels of the River Glen at the site frontage are as follows:

	Present	Present + Climate Change	Defence Level
1%	4.46	4.66	5.10

4.7 Maintenance standards of the Environment Agency's main rivers and defences are well maintained and regularly inspected for their asset condition.

5.0 POTENTIAL SOURCES OF FLOODING

5.1 Four potential sources of flooding have been identified as a result of this assessment:

a) local blockages to existing IDB main drain system.
b) storm return period of 1 in 50 years being exceeded
c) failure of Pinchbeck Marsh and Pinchbeck Marsh – Riddington Pumping Stations
d) overtopping and breaching of the fluvial River Glen defences

5.2 The probability of flooding from source a) is low due to the maintenance standards already achieved and managed by the IDB.

The probability of flooding from b) is also low due to the Welland and Deepings IDB main drain design standard incorporating a minimum 900mm freeboard to the lowest land level which provides adequate storage in events greater than 1 in 50 years.

5.3 Failure of the Pinchbeck Marsh Pumping Stations may occur due to long term mechanical breakdown or power supply being disrupted. However, in these circumstances, if conditions were such to put properties and land at risk of flooding, the Internal Drainage Board would take emergency action to maintain the drainage level of service by utilising temporary pumping equipment. The probability of such an occurrence is also considered to be low.

Previous historic rainfall events of 1968 and 1978, estimated to be greater than 1 in 100 year events, caused no flooding to any residential properties at the time and the Boards policy is to provide a standard of drainage which satisfies NPPF requirements of a 1 in 100 year return period for fluvial protection inclusive of the effects of climate change and development. The Boards policy regarding the connection of future developments to the arterial system enables a flexible approach to be adopted and meet the criteria for "sustainable urban drainage". The probability of the site flooding from this potential source is also considered to be low.

5.4 The possible overtopping and breaching of the fluvial River Glen flood defences which may affect the site under extreme conditions is also considered to be low. The present standard of defence of 1 in 100 years would most probably have to be exceeded to create such conditions. The River Glen flood defences consist of concrete walls and it is estimated that the floodwaters could affect the development site, as there is insufficient freeboard above the 1 in 100 year flood level inclusive of climate change.

5.5 The South Holland District Council Strategic Flood Risk Assessment has considered the effect or breach or overtopping to the River Glen as shown in Figs 6 and 7.

An estimated depth of floodwater between 0.50m and 1.00m could be experienced and it is necessary to mitigate against such a risk by raising ground floor levels of the dwellings 500m above existing land levels at a minimum of 4.50m aOD.

It is proposed that floor levels of the development are 500mm above highest ground level at 4.50m aOD with flood resilient construction up to 500mm above finished floor level to safeguard against the remote possibility of overtopping and/or breaching of the River Glen defences.

5.6 The developer should ensure that the eventual occupiers of the properties are sufficiently aware of the risk of flooding, and the standard of the existing defences. The Environment Agency provides a Flood Warning Service which includes Flood Warning Codes and uses direct warning methods where the risks and impacts of flooding are high. Indirect warnings are provided to all flood risk areas, even those at low risk of flooding. The main method is media broadcasts via local radio and also by television.

In addition to direct and indirect flood warnings, the Environment Agency operates a 24 hour a day Floodline Service providing advice and information on flooding contacting 0845 988 1188 and the occupiers should register with the Floodline Direct Warnings Service to receive any future flood warnings.

6.0 EXTENT OF KNOWN FLOODING

6.1 During the preparation of this assessment, no evidence was discovered of the site being flooded or of any adjoining properties.

7.0 PROBABILITIES AND TRENDS OF FLOODING

7.1 The probability of this development flooding from localised drainage systems is very low. It is also intended to construct floor levels 500mm above highest land level at a minimum of 4.50m aOD.

7.2 The probability of the site flooding with water from any Welland and Deepings river system is less than 1% because of the standards of the existing flood defence systems, storage within existing drainage channels and the location of the site. Similarly the same standard is provided by the Environment Agency's main river and defences.

7.3 If under very extreme events, levels of floodwater from any Environment Agency or Welland and Deepings river or arterial systems rose to such an extent that the site was affected, the situation would not be sudden. It is very probable that sufficient time would be available to take precautionary actions to limit the extent and potential impact of flooding.

7.4 The water levels in the drainage channels will tend to rise as a result of the impacts of climate change. However the existing systems and defences together with proposed floor levels 500mm above existing highest land level at 4.50m aOD will be appropriate for the design life of the development (i.e. 100 years).

7.5 Safe and dry access to and from the site would be available onto Milestone Lane and hence in an easterly direction to land in Flood Zone 1.

8.0 IMPACTS OF FLOODING

8.1 No significant impacts of flooding are anticipated.

8.2 Floor levels of the development will be 500mm above highest land level at 4.50m aOD offering additional protection against impacts arising from any extreme short duration, localised events. Surface water drainage will be discharged to soakaway designed to BRE365 specification and Building Regulations approval.

8.3 The general location of the site within the catchment is such that if flooding occurred from any of the Environment Agency or Welland and Deepings river systems, then probably 2 to 3 days warning time would be available.

8.4 No displacement of water from the site will affect any adjoining properties and agricultural land.

9.0 RESIDUAL RISK – EXTREME EVENTS

9.1 The residual risk from extreme events is very low on this site, because of its location, within a pumped sub-catchment of the Welland and Deepings IDB area and its location 200mm from the River Glen fluvial defences consisting of concrete wall defences.

9.2 Although within Flood Zone 3 according to NPPF classification, the site actually has a very low risk of flooding due to the current standards of drainage and flood defence and land levels. The site is not located within a Functional Flood Plain of any 'main river' or 'main drain'. The Environment Agency Flood Zone Maps have been produced irrespective of existing flood defences and standards of protection.

9.3 South Holland District Council in conjunction with the Environment Agency and the local IDB's within the Council area have carried out a Strategic Flood Risk Assessment of the whole District by appointed Consulting Engineers.

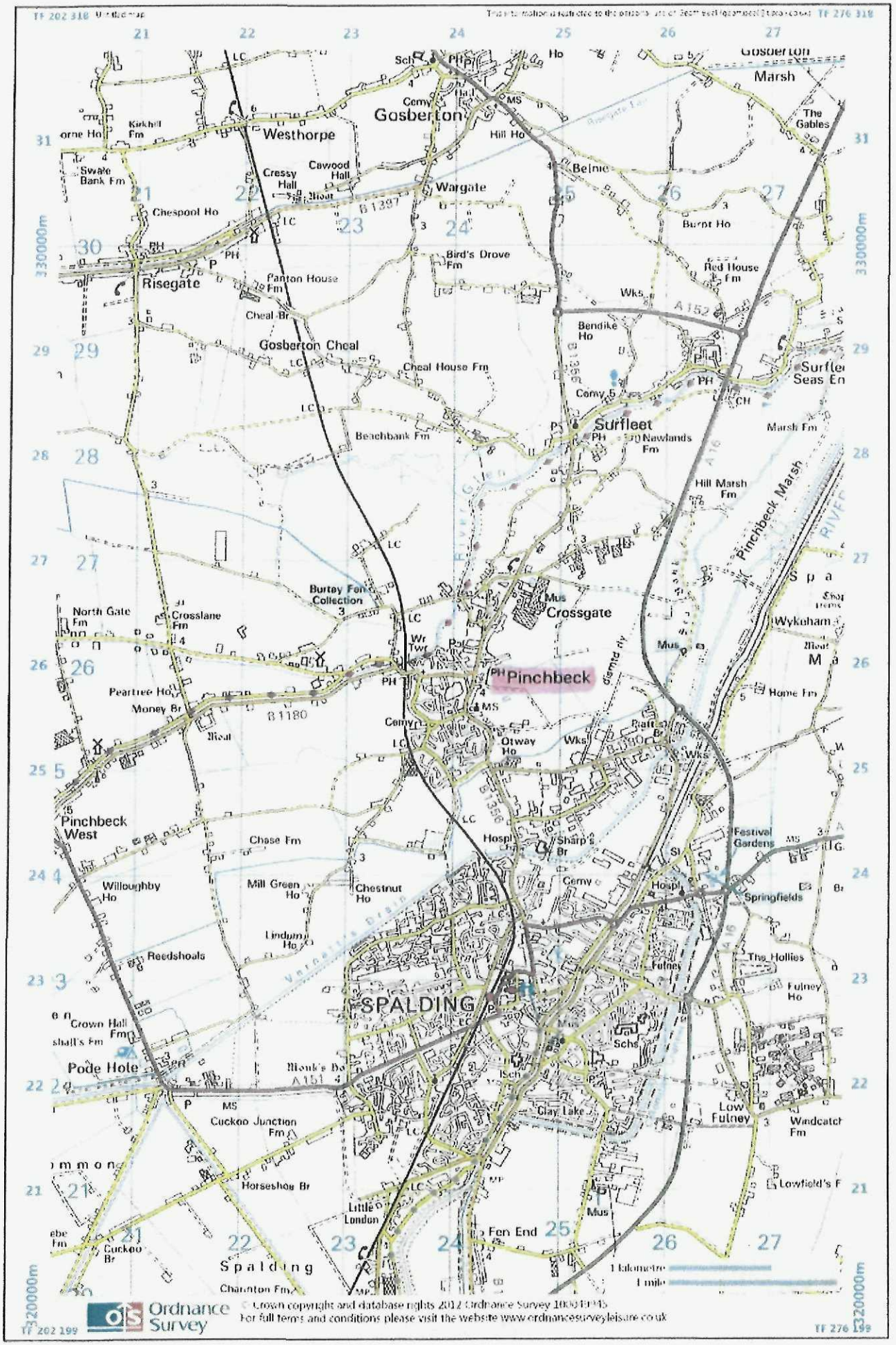
The Strategic Flood Risk Assessment has produced more definitive Flood Risk Maps than those published by the Environment Agency and at the same time has analysed flood return periods of all tidal and fluvial defences for year 2115 to account for the effects of climate change.

Breach scenarios of embankments failing and/or being overtopped have also been carried out to establish Flood Risk Zones.

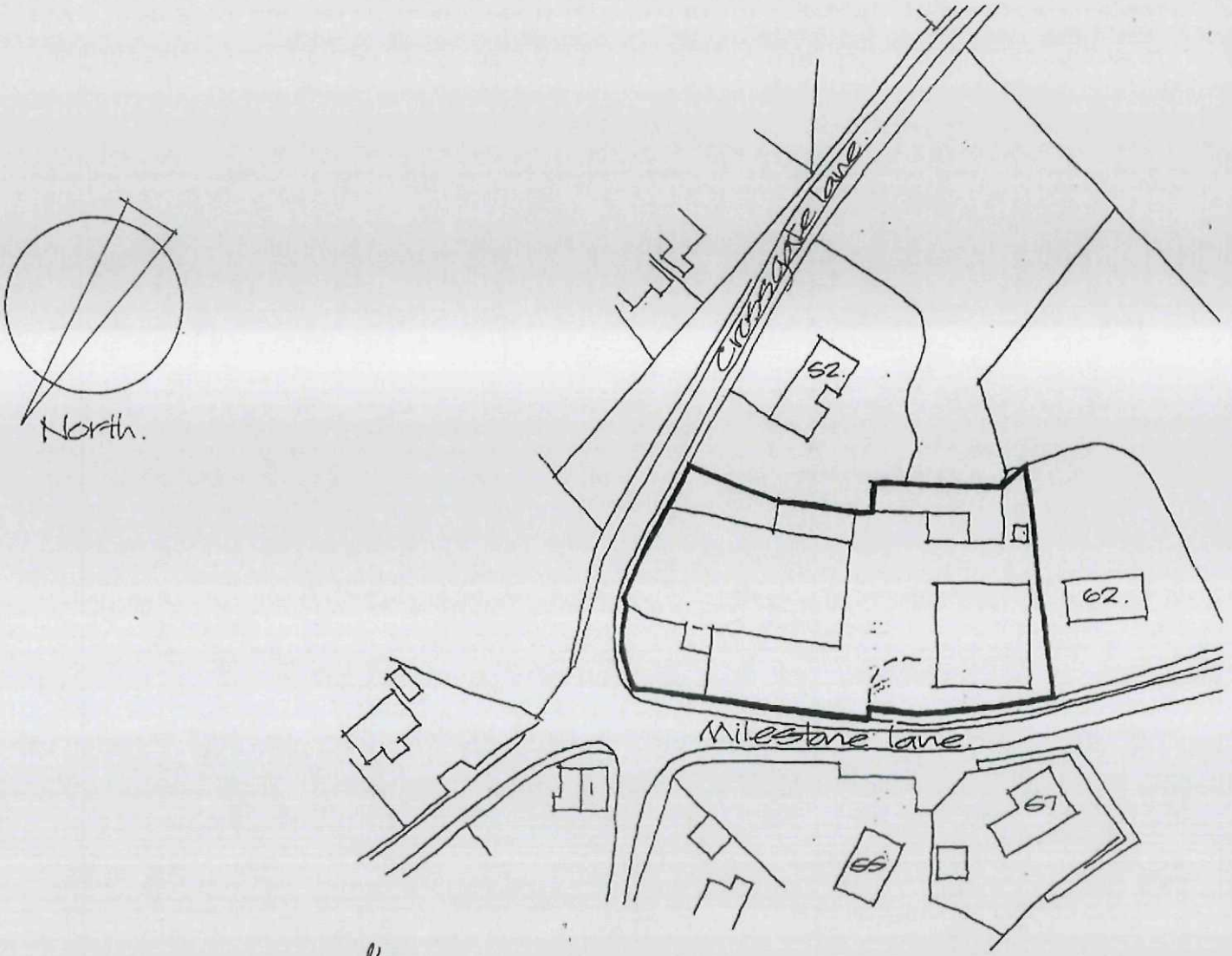
10.0 CONCLUSIONS AND RECOMMENDATIONS

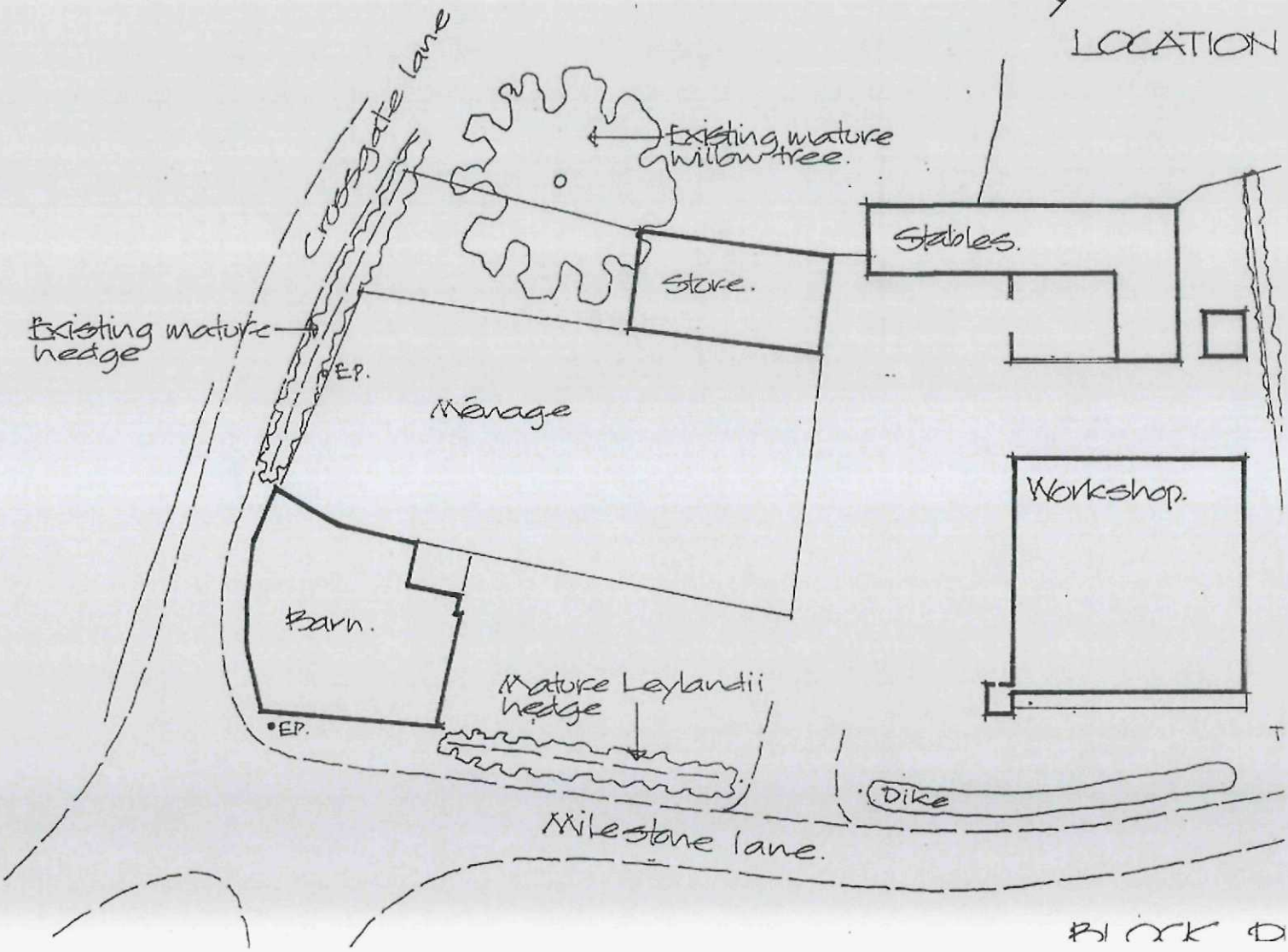
10.1 As a result of the assessment, the following conclusions have been reached:-

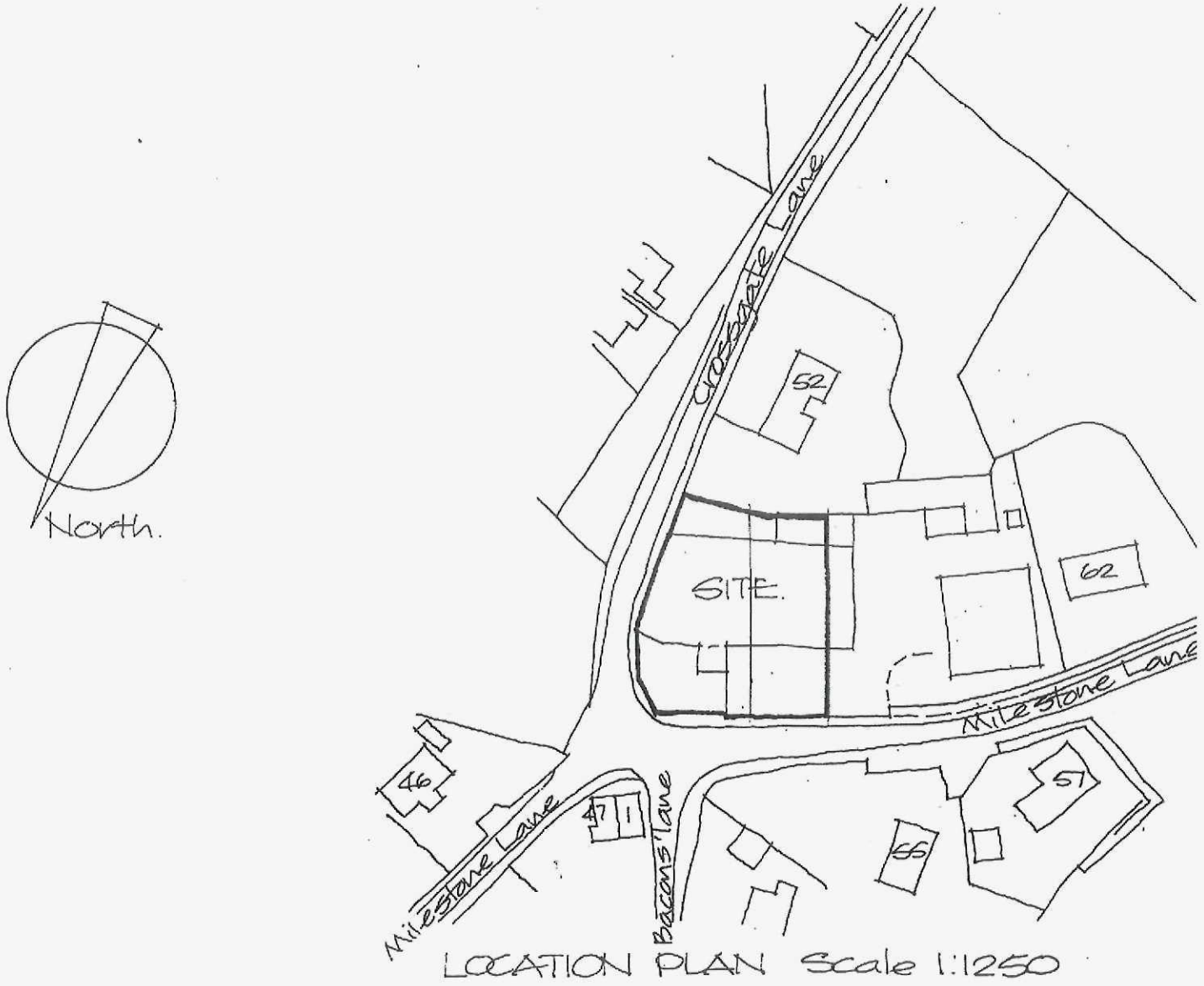
- The proposed development is not in a Functional Floodplain as defined by NPPF. It is located in the Passive Floodplain protected by River Glen defences to a 1 in 100 year return period.
- Although the site is in Flood Zone 3, the actual risk of site flooding from any Environment Agency river system is very low.
- Although the site is located within an Internal Drainage District with a minimum standard of drainage of 1 in 50 years, this accords with Defra guidelines for rural development. Freeboard to design water level of 900mm to lowest land level is available for events greater than 1 in 50 years providing further storage within the drainage channels.
- Floor levels will be 500mm above highest land levels at 4.50m aOD with flood resilient construction up to 500mm above finished floor level. Safe refuge is available at first floor level with no sleeping accommodation at ground floor level.
- On site surface water drainage will be discharged to soakaway to BRE365 specification and Building Regulations approval.



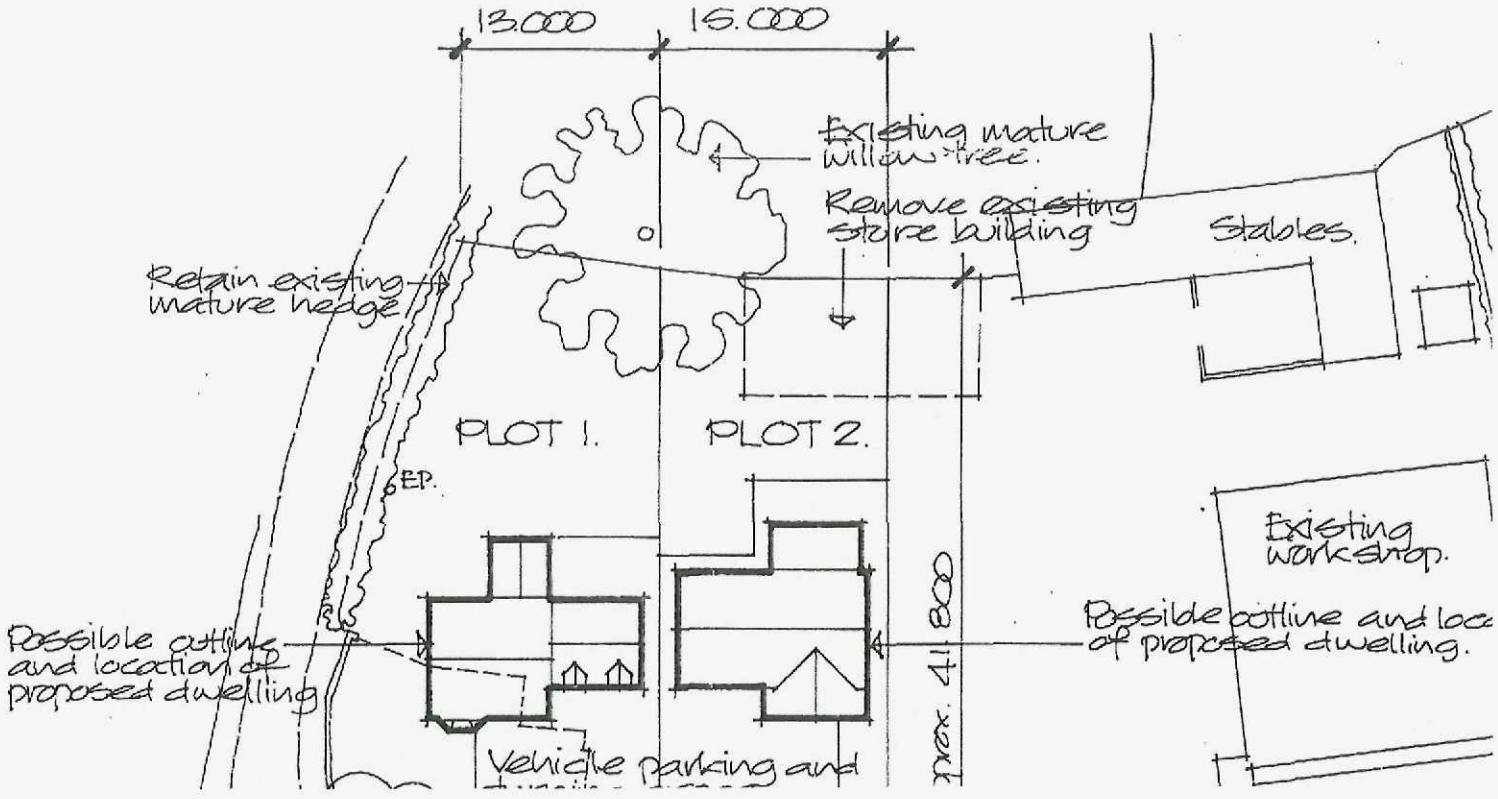
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North.
Crossgate lane.
52.
62.
Milestone lane.
67
65
LOCATION

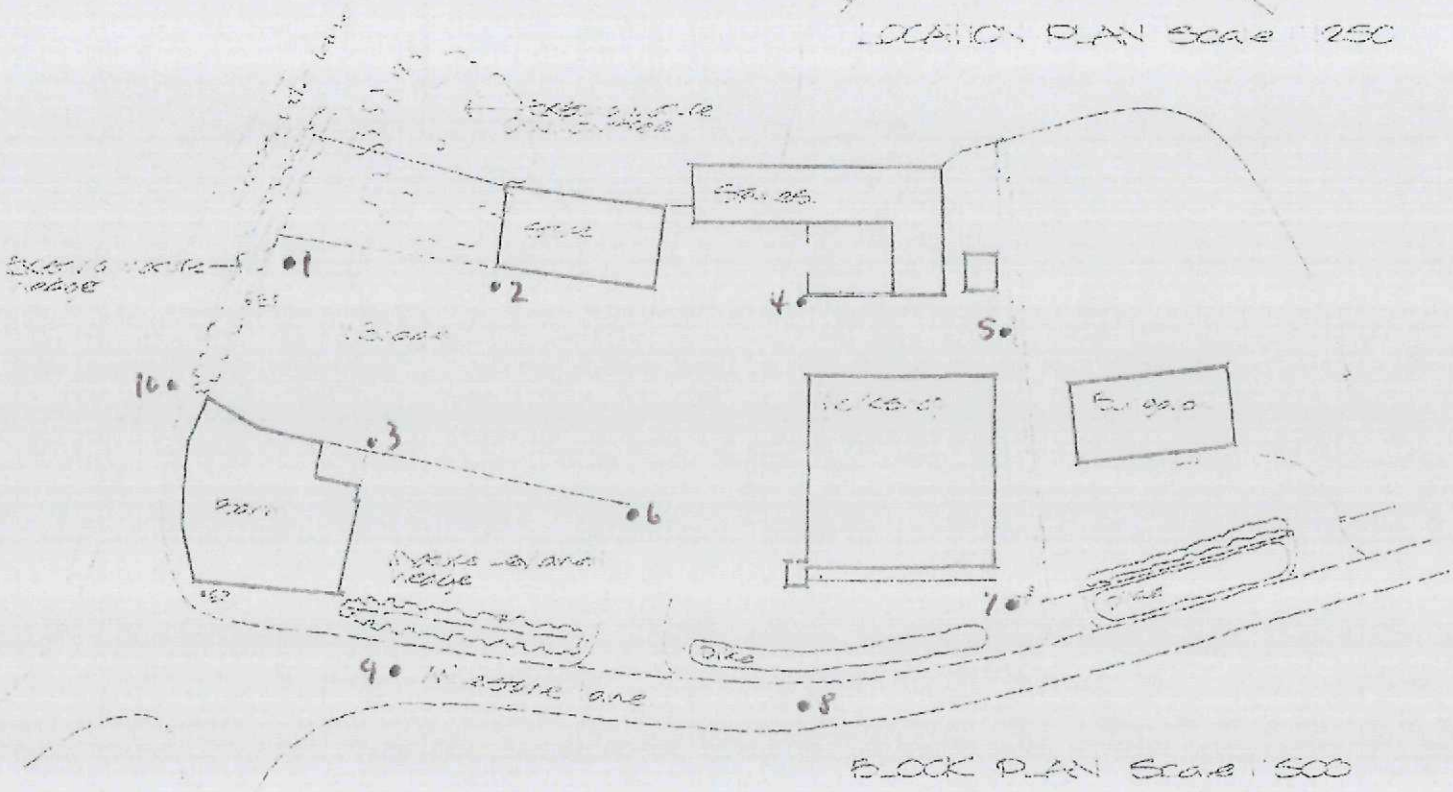

Crossgate lane
existing mature willow tree.
Stables.
Store.
Existing mature hedge
E.P.
Ménage
Workshop.
Barn.
Mature Leylandii hedge
E.P.
Dike
Milestone lane.
BLOCK



LOCATION PLAN Scale 1:1250







* • Approx location of levels.

Project PROPOSED DEVELOPMENT AT THE JUNCTION OF MILESTONE LANE AND CROSSGATE LANE, PINCHBECK, SPALDING. SITE LAYOUT AS EXISTING	ALAN HORNSBY ARCHITECTURAL SERVICES LTD "Little Acre" 35 Peak Hill, Cowbit, Spalding, Lincs PE12 6AW Tel Holbeach (01406) 380591
Client MR & MRS R HART	Scale 1:500 & 1:1250 Drg no. 13/22/01 Date September 2013

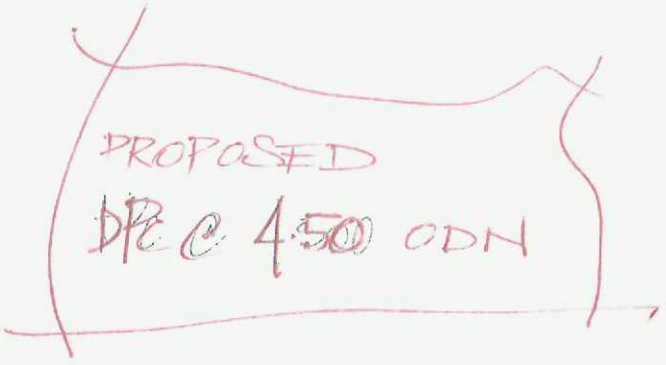
Points Co-ordinates for proposed development at the junction of:

Milestone Lane and Crossgate Lane,

Pinchbeck,

Spalding.

Pts	Easterns	Northerns	Heights
1.	524312.912	326709.515	3.879
2.	524295.368	326701.288	3.905
3.	524297.266	326719.916	3.967
4.	524270.022	326685.436	3.491
5.	524252.152	326677.165	3.748
6.	524272.576	326711.445	3.620
7.	524236.456	326696.219	3.732
8.	524248.202	326717.138	3.511
9.	524285.089	326737.957	3.403
10.	524316.650	326725.736	3.641



Please see PDF for the 10 point locations.

Enter a postcode or place name:

Pinchbeck, Lincolnshire

Go

Other topics for this area...

Flood Map for Planning (Rivers and Sea)

Flood Map for Planning (F

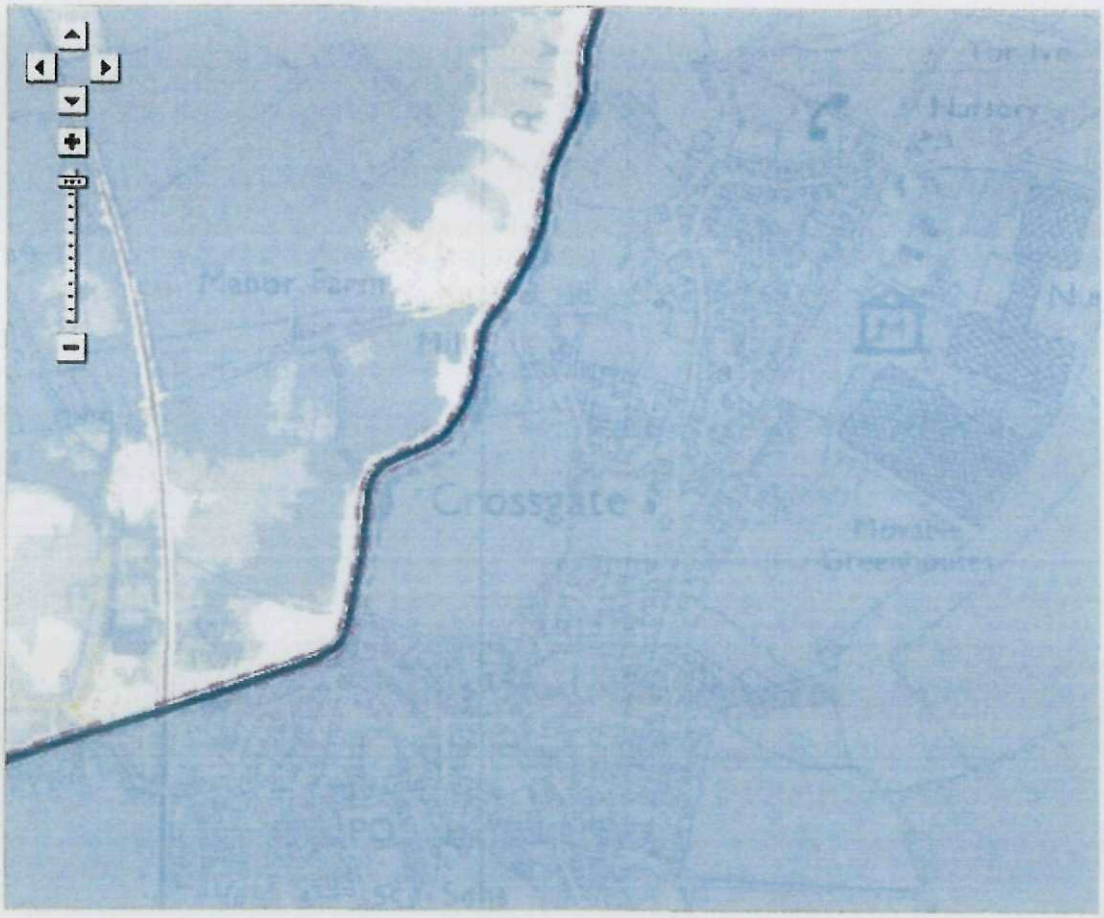
Map legend

Click on the map to see what Flood Zone (National Planning Policy Guidance definitions) the proposed development is in.

- Flood Map for Planning (Rivers and Sea)
- Flood Zone 3
- Flood Zone 2
- Flood defences (Not all may be shown*)
- Areas benefiting from flood defences (Not all may be shown*)
- Main rivers

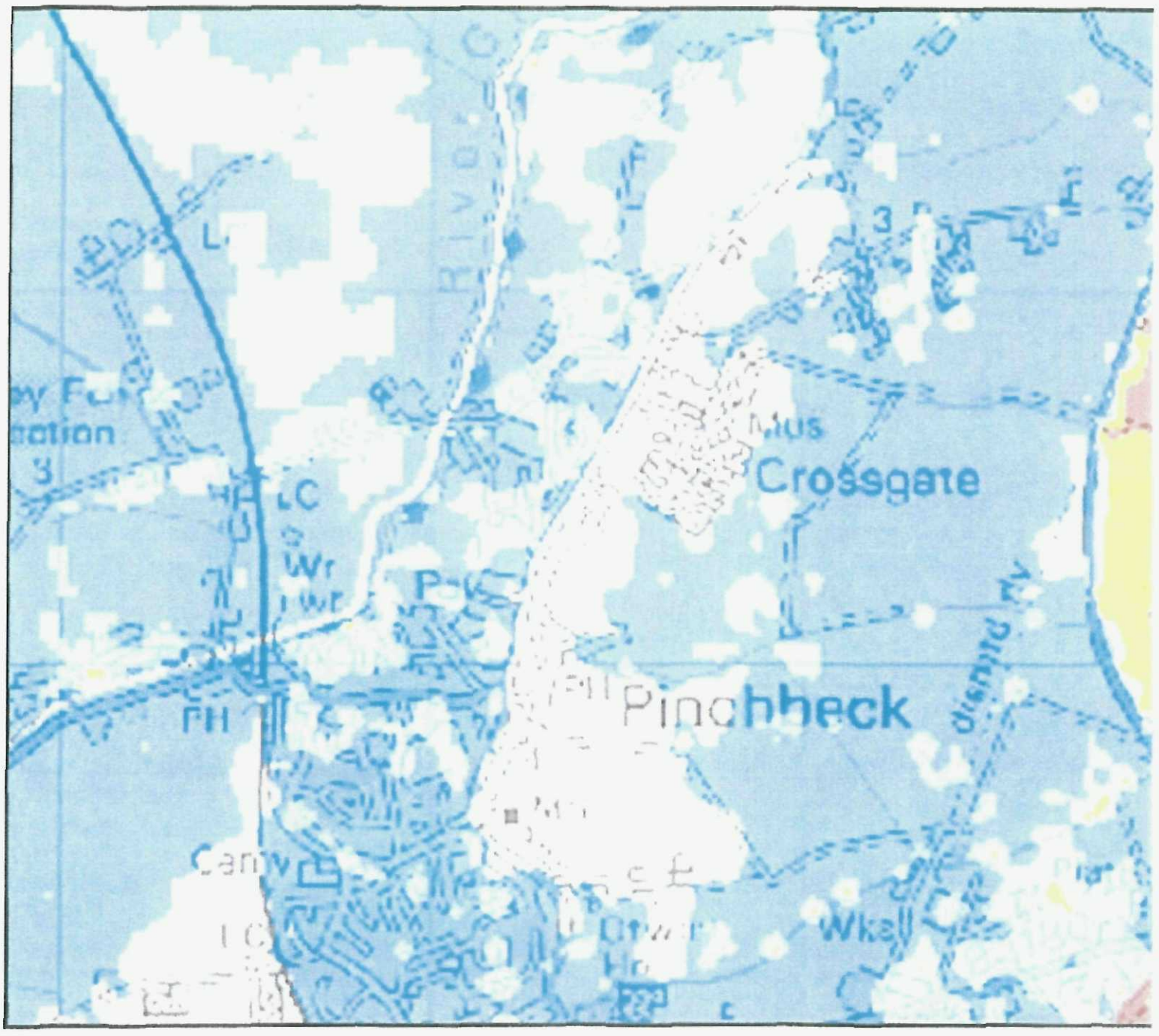
X: 524,294;Y: 326,426 at scale 1:10,000

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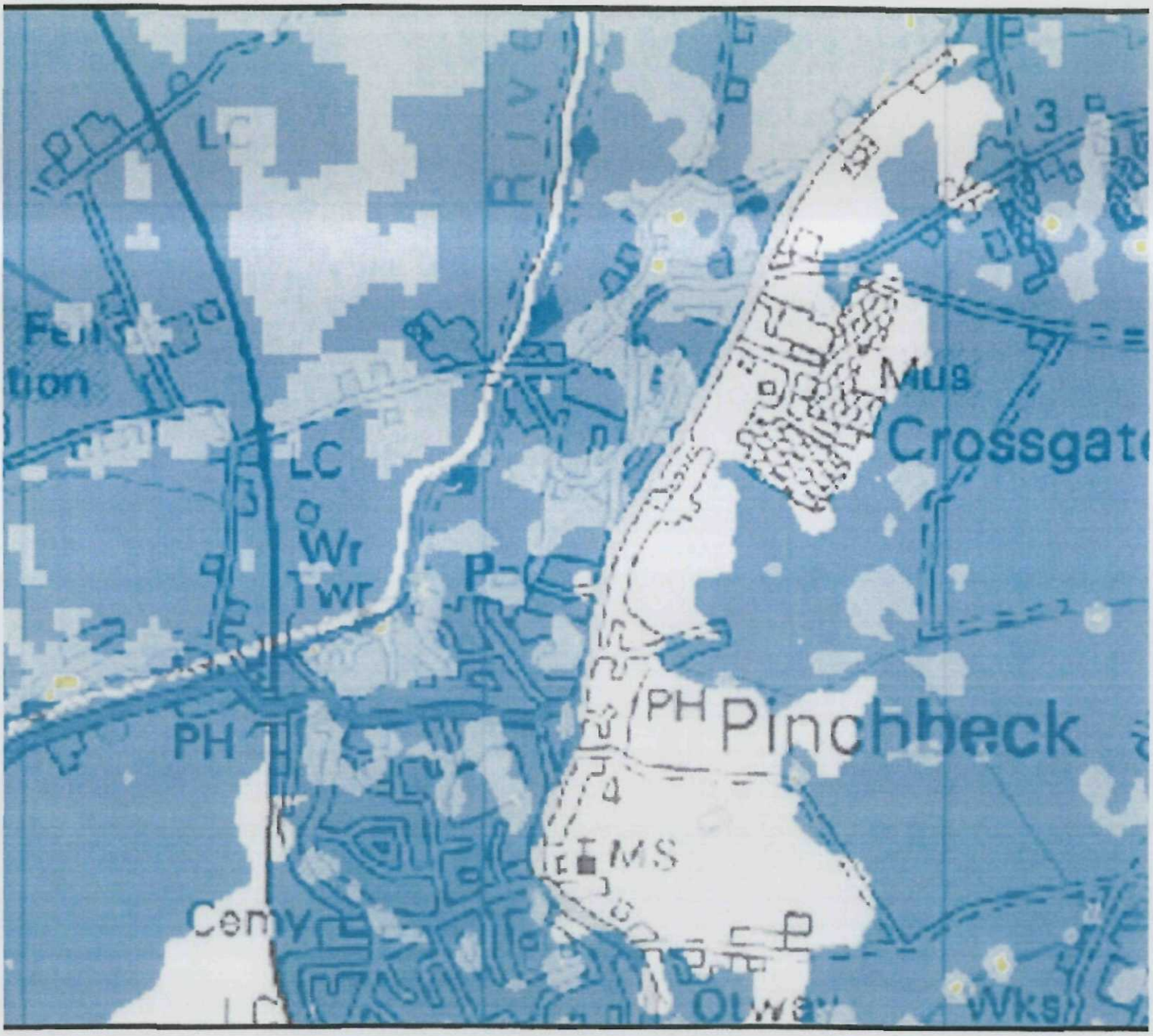


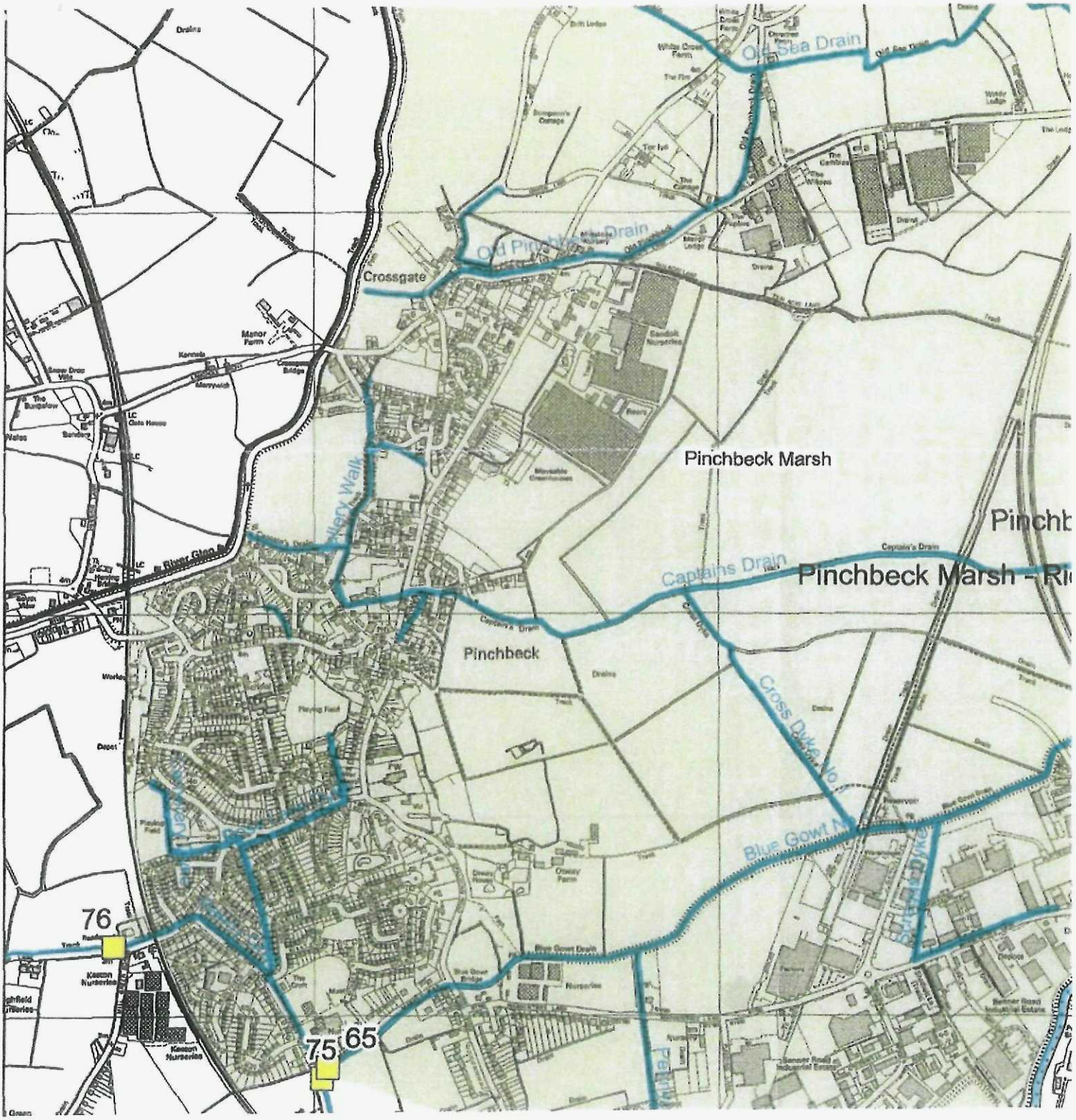
Outside Wales - From 1 April 2013 Natural Resources Wales (NRW) has taken over the responsibilities of the Environment Agency
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Actual D



Residual Dept




Old Sea Drain
Old Pinchbeck Drain
Crossgate
Pinchbeck Marsh
Captains Drain
Pinchbeck
Cross Dyke
Blue Gowt Drain
Manor Farm
River Glen
76
75
65

South Holland District Council
Housing and Planning Department
Council Offices Priory Road
Spalding
Lincolnshire
PE11 2XE

Our ref: AN/2014/119325/01-L01
Your ref: H14-0326-14

Date: 08 May 2014

FAO: Miss Hannah Albans

Dear Miss Albans

Residential development - erection of 2 dwellings
Land at junction of Milestone Lane and Crossgate Lane, Pinchbeck, Spalding, PE11 3XX

Thank you for referring the application above received 24 April 2014.

Environment Agency position
We can confirm that we have **no objection** to the proposal as submitted subject to the following mitigation measures being secured and implemented by way of a planning condition on any planning permission.

Condition
The development permitted by this planning permission shall be carried out in accordance with the approved Flood Risk Assessment (dated April 2014) and in particular the following mitigation measures detailed within:

- Finished floor levels shall be set a minimum of 4.5mAOD.
- Flood resilient construction techniques shall be incorporated into the development to a minimum height of 500mm above finished floor levels.

The mitigation measures shall be fully implemented prior to occupation and the applicant shall confirm completion of the approved scheme, in writing, within one month thereafter.

Reason
To reduce the risk of flooding to the proposed development and future occupants.

Waterside House, Waterside North, Lincoln, LN2 5HA
Customer services line: 03708 506 506
Email: PlannL.Lincoln2.AN@environment-agency.gov.uk
www.gov.uk/environment-agency

Calls to 03 numbers cost no more than national rate calls to 01 or 02 numbers and count towards any inclusive minutes in the same way. This applies to calls from any type of line including mobile.

As you are aware the discharge of planning conditions rests with your Authority. It is, therefore, essential that you are satisfied that the proposed draft condition meets the requirements of paragraph 4 of the National Planning Practice Guidance (Use of Planning Conditions, section 2). Please notify us immediately if you are unable to apply our suggested condition, as we may need to tailor our advice accordingly.

Should you require any additional information, or wish to discuss these matters further, please do not hesitate to contact me on the number below.

Yours faithfully

Mr Rob Millbank
Sustainable Places - Planning Advisor

Direct dial 01522 785868
Direct e-mail rob.millbank@environment-agency.gov.uk

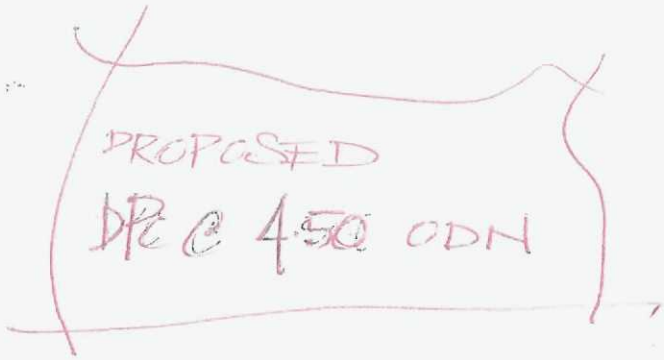
Points Co-ordinates for proposed development at the junction of:

Milestone Lane and Crossgate Lane,

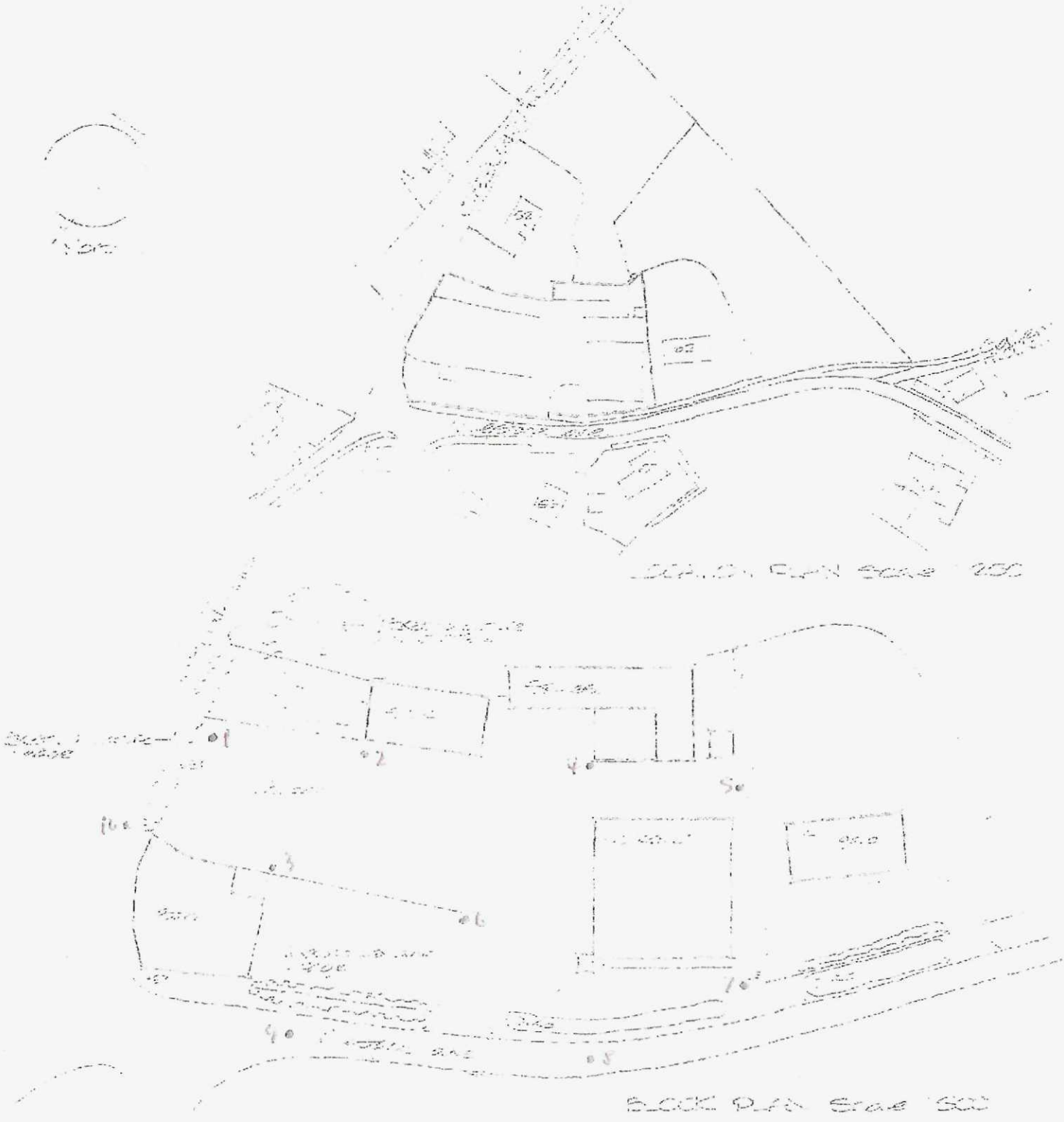
Pinchbeck,

Spalding.

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8.	524248.202	326717.138	3.511
9.	524285.089	326737.957	3.403
10.	524316.650	326725.736	3.641



Please see PDF for the 10 point locations.



Project:
PROPOSED DEVELOPMENT AT THE JUNCTION OF MILESTONE LANE AND CROSSGATE LANE, PINCHBECK, SPALDING.
SITE LAYOUT AS EXISTING

ALAN HORNSBY
ARCHITECTURAL SERVICES LTD
"Castle Acre"
35 Peak Hill Cowbit
Spalding Lincs PE12 6AW
Tel Holbeach (01406) 380791

Client
MR & MRS R HART

Scale 1:500 & 1:1250 Drg no. 13/22/01
Date September 2013

Goldfinch
ENVIRONMENTAL LTD

PROPOSED RESIDENTIAL DEVELOPMENT
LAND OFF CROSSGATE LANE & MILESTONE LANE
PINCHBECK
SPALDING
LINCOLNSHIRE

PROPOSED RESIDENTIAL DEVELOPMENT LAND AT MILESTONE LANE & CROSSGATE LANE PINCHBECK SPALDING LINCOLNSHIRE

GEOENVIRONMENTAL DESK STUDY

Report Ref.: 0265/1

Prepared by :

D Sargeant
D Sargeant

Date:

January 2015

Goldfinch Environmental Limited
2 Wrenshall Cottages, Walsham-le-Willows, Bury St Edmunds, Suffolk, IP31 3AS
Telephone 01359 258681

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2.	LIMITATIONS	4
3.	LEGISLATIVE AND REGULATORY SETTING	5
4.	SITE LOCATION AND DESCRIPTION	6
5.	SITE HISTORY	10
6.	PRELIMINARY QUALITATIVE RISK ASSESSMENT	16
7.	RECOMMENDATIONS FOLLOWING PRELIMINARY RISK ASSESSMENT	19
8.	CONCLUSIONS	20

FIGURES

- Figure 1 Site Location Plan
- Figure 2 Proposed Layout Plan

APPENDIX 1

- 'Groundsure' Report

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PROPOSED RESIDENTIAL DEVELOPMENT

LAND AT MILESTONE LANE & CROSSGATE LANE

PINCHBECK, SPALDING

LINCOLNSHIRE

1. INTRODUCTION.

1.1 General.

This Desk Study report describes the findings of a geoenvironmental desk study undertaken by Goldfinch Environmental Limited on the instruction of Mr & Mrs R Hart (the Client), for a proposed change of use and residential development at a site located to the south of the junction of Milestone and Crossgate Lanes, in the Lincolnshire village of Pinchbeck near Spalding.

A site location plan has been included as Figure 1 towards the back of this report to assist the reader.

The Desk Study was required in response to a planning condition associated with the proposed residential development for the site.

Planning Permission Reference (Outline Planning Permission) H14-0326-14 refers.

A block layout plan has been included as Figure 2 towards the back of this report. The area included in this assessment has been shaded in red for the purposes of clarity.

The proposed development comprised the establishment of two dwellings in the eastern part of the site (shaded red) under the existing application. However, it was understood that consideration was being given to possible further residential development in the western part of the site to be the subject of a future application. It was requested that the report was to cover both areas of the site

As the development for the western part (shaded orange), of the site is 'unconfirmed' and a provisional block layout is not available at the time of this report, the reader should note that the whole of the site has been assessed as shown on Figure 2 towards the back of this report. It is also advised that once a provisional block layout is available the Regulator may require that this report is updated (or amended), based upon the specific proposed development layout.

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2. LIMITATIONS

This report is for the sole reliance and use of the Client. Any Third Party coming into possession of this report relies on it at their risk, unless written permission is expressly sought from, and provided by, Goldfinch Environmental Limited. The author owes them no duty of care and skill. Goldfinch Environmental Ltd accepts no responsibility or liability for the consequences of this document being used for purposes other than that for which it was commissioned and the assessments provided herein should not be relied on as a legal opinion.

The findings and opinions expressed are relevant to the time of the site visit and information review and should not be relied upon to represent conditions at substantially later dates. The assessments and opinions given in this report are based upon information available at the time of the report. Where additional information comes available which may affect or identify a need to review our conclusions or assessments we request the opportunity (and reserve the right), to review the information and where warranted, modify our assessment / opinion in part or wholly, accordingly.

The purpose of this desk study report was to determine the historical use of the site and adjacent areas from searches of Public Registers and a review of available historical maps and included a site reconnaissance ('walkover') survey together with brief internet searches. The outcome of these activities is described below and this information was used to construct a conceptual model for the site from which a risk assessment was completed in the context of the proposed residential development of the site.

The risk assessment was based on the source-pathway-receptor framework, with respect to the geoenvironmental condition of the site in the context of various sensitive receptors. Goldfinch Environmental Ltd have based this desk study upon the sources given in this report, and believes them to be reliable but cannot and does not guarantee the authenticity or reliability of the data it has relied upon.

This desk study does not include any geotechnical considerations pertaining to the site as these were outside the agreed brief.

The recommendations given in this report are based on guidance and best practice in place at the time of issue of the report, the information available at the time of the investigation, the nature of the indicated proposed development and associated end user behaviour patterns. Should any of the foregoing change at any time, then this report should be reviewed in the context of proposed changes.

The absence of indicators in search data, or from on site observations does not rule out their presence in other parts of the site. This desk study report has been based on information supplied in the 'GroundSure' report and its component parts included at Appendix 1 towards the back of this report, discussions with the Client and in-house searches.

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3. LEGISLATIVE & REGULATORY SETTING

The Environmental Protection Act of 1990 created the framework for the identification and remediation of contaminated land. The Act defines "contaminated land" as any land, which appears by the Local Authority to be "in such a condition, by reason of substances, in, on, or under the land that significant harm is being caused or there is significant possibility of such harm being caused, or, pollution of Controlled Waters is being, or is likely to be, caused".

Land potentially affected by 'contamination' is a material consideration for planning purposes together with its relationship with 'regulatory intervention' (Part IIa), and 'voluntary' investigation (which includes redevelopment of sites which may be affected by contamination). The Model Procedures (CLR-11, Environment Agency 2004), provide a generic framework indicating key technical activities applicable in each of these contexts.

The management of land contamination broadly comprises three components that are identified as 'Risk assessment', 'Options appraisal' and 'Implementation'. These, in turn, determine if any *un*acceptable risks exist, ascertain the most appropriate remediation strategy for the site and, finally, demonstrate that the strategy will be effective.

In accordance with this and other current guidance, where a 'land quality' risk assessment is required each 'Relevant Pollutant Linkage' (RPL, formerly referred to as "source-pathway-receptor" framework), is separately identified and a level of risk attached. This is documented in the form of a 'Conceptual Model'.

The outcome of the assessment of established, plausible relevant pollutant linkages is used to determine qualitatively the need for further investigation, or remediation with ensuing mitigation of the determined unacceptable risk. (In accordance with the Model Procedures and Regulatory preference, detailed remedial measures should be provided in a separate phase).

The risk assessment takes account of the local environment, end user behaviour patterns, and the nature of the development in relation to proven 'unacceptable' risk. This is the approach advocated by current guidance (CLR-11 and BS10175 etc), and therefore has been adopted in the assessment of this site.

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4. SITE LOCATION & DESCRIPTION

A site visit was carried out during 14 January 2015 the purpose being to:-

I. Collect additional/relevant information about the site its environs and any site-specific potential contaminants, pathways and receptors.

II. Record any aspects of the site not revealed by documentary searches. (e.g. the presence of above- or belowground hydrocarbon storage tanks.).

III. Collect any information that will assist in the planning of any subsequent phases of field investigation where the Desk Study or the Regulator(s) deem this is necessary.

Approximate Grid Reference ^{5}24275, ^{3}26706 refers.

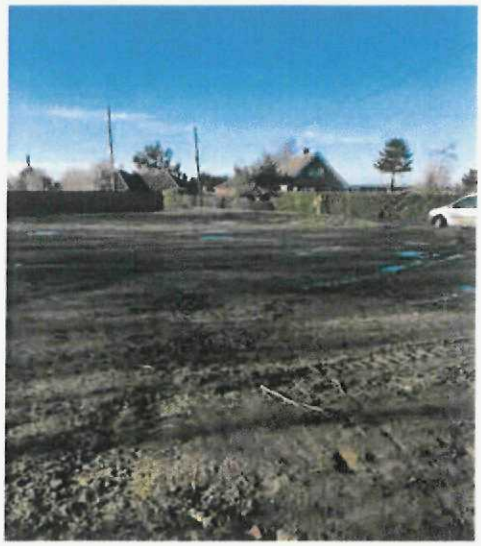
The site comprised a sub-rectangular plot of land on the south western side of the junction of Crossgate and Milestone Lanes in a rural setting.

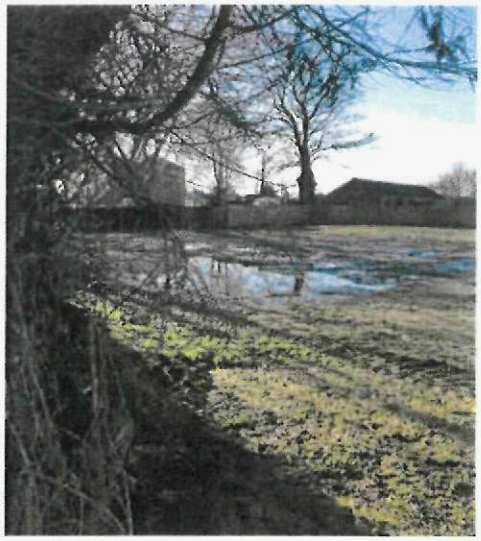
Topographic levels varied little across the site.

4.1 Area A - Proposed Development – Eastern Side of Site

The northern site boundaries were undefined. A new-looking, close-boarded, wooden fence defined the western boundary. The eastern boundary was marked by a semi mature hedge-line.

There were no buildings on site at the time of the walkover survey and no evidence of the former existence of any buildings. The site was down to a cover of bare exposed soils with occasional patches of grass as shown in Photograph 1 and 2 below.



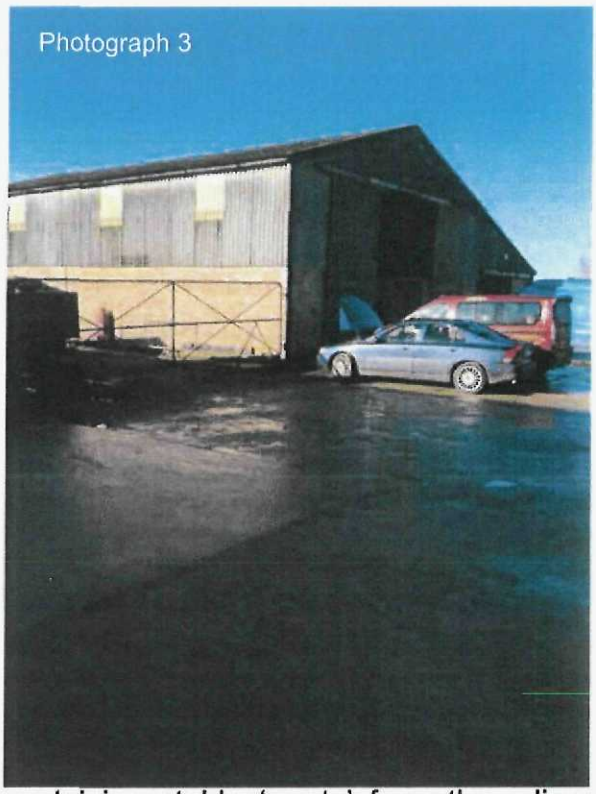


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There were no 'features of note' in relation to 'contaminated land' in this area.

4.2 Area B - Western Side of Site

As referred above there are no current proposals for development in this area. However, at the time of the walkover survey this area accommodated a number of buildings. A large building (Workshop), as shown in Photograph 3, was of brick and corrugated panel (ACM) construction over a concrete floor slab, with concrete hardstanding surrounding it, was established in the western part of the site, with small open compounds on its southern elevation.


Photograph 3

The workshop building was in use for the maintenance, testing and repair of vehicles. The concrete floor appeared to be relatively stain-free.

Discussion with the operator revealed that small quantities of waste oil from vehicle servicing was stored in a single drum of approximately 45 gallons capacity, which was collected and removed off-site on a regular basis.

This author noted that the external surfaces of the drum and the nearby floor areas were stain-free indicating or leakage of spillage.

In the left of Photograph 3, a small, grass covered, largely empty compound was noted, which was used as a storage area. Items noted here included a medium – sized propane gas cylinder, a large trailer containing stable 'waste' from the adjacent stables further to the south of the site. Occasional fence panels were also noted in this area.

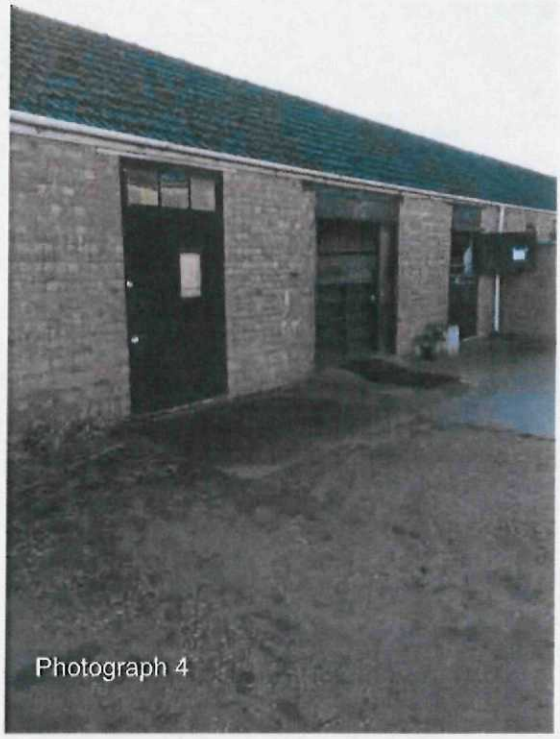
A second empty trailer was noted towards the back of this yard area together with a number of wheelbarrows and hand tools presumably employed for cleaning and maintaining the stables.

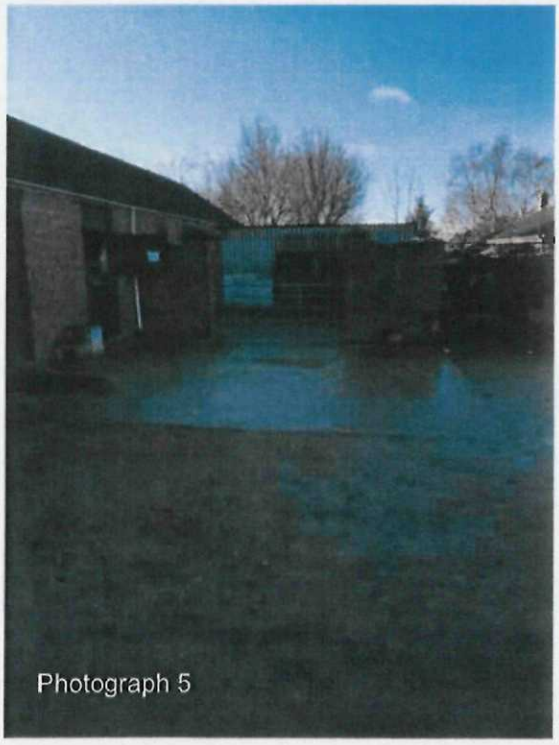
The yard area in this part of the site comprised compacted soils.

Subordinate buildings, of brick construction with tiled roofing and concrete flooring in use as stables were located adjacent to the southern boundary of the site as shown in Photograph 4 and 5 below. As can be seen, there was some concrete hardstanding in front of the stable buildings.

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Telephone 01359 258681

The eastern area of this part of the site leading to the new wooden fence was down to a cover of exposed soils, which contained made ground content of inert brick.


Photograph 4


Photograph 5

In conclusion, there were no features of note in this part of Area B.

4.3 Concluding Remarks – Area A

Following visual inspection of the site with specific regard to land contamination, there was no apparent evidence of:~

1. The presence or storage of potentially leachable materials/chemicals
2. Demolition or dispersal of *contaminated* rubble or other materials.
3. Importation of potentially contaminated fill onto the site.
4. The presence (or former presence) of hydrocarbon storage tanks (or any other tanks).
5. Staining of soil surfaces as indicators of potential contamination.

4.4 Concluding Remarks – Area B

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While this part of the site accommodated two detached buildings, which were in use as a large workshop and a 'stables' respectively. There were no apparent signs of indicators of 'contamination'.

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5. SITE HISTORY.

5.1 Historical Maps.

Where the attached maps are compiled from a composite of editions, the year of map upon which the majority of the site may be found is quoted below. These are reproduced at Appendix 1. Annotation, as it appears on the maps, is indicated by italics.

Land use in excess of 250m from the site is considered of potentially negligible to low risk to the application site and on that basis is generally excluded from the summary provided below (unless record review by this author suggests otherwise). However, should the reader require this additional detail, full disclosure records are included in Appendix 1 towards the back of this report.

1887 Edition {County Series - Scale 1:10 560}

The site was shown as a 'developed' splot of land in a rural setting in Crossgate on the northern side of pinchbeck, Spalding, Lincolnshire.

Surrounding land was sparsely developed.

1888 Edition {County Series - Scale 1:2 500}

There were no apparent changes to the site or the immediate surroundings in the context of land quality (contamination) on this map edition.

1903 Edition {County Series - Scale 1:10 560}

There were no apparent changes to the site and its surroundings in the context of land quality (contamination) on this map edition.

1903-6 Edition {County Series - Scale 1:10 560}

There were no apparent changes to the site.

There were no apparent changes to surrounding land use.

1904 Edition {County Series - Scale 1:2 500}

There were no apparent changes to the site.

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1950 Edition {County Series - Scale 1:10 560}

There were no apparent changes to the site.

There were no apparent changes to surrounding land.

1955 Edition {Provisional - Scale 1:10 560}

There were no apparent changes to the site and its surroundings in the context of land quality (contamination) on this map edition.

1965-9 Edition {National Grid - Scale 1:2 500}

The site showed signs cof further development. A large square structure was established in the western part of the site with an access road leading westwards to join Milestone Lane on the northern side of the site.

There were no apparent changes to the site or its immediate environs at this scale of mapping except that, land to the south east of the site had undergone additional development to a residential end use.

1967-71 Edition {National Grid - Scale 1:2 500}

There were no apparent changes to the site.

Land to the west of the site had undergone development as shown by establishment of a long rectangular structure.

Land adjacent to the southern corner of the site had undergone development as a possible glasshouse was now shown in that area. A small rectangular structure was established on land to the south west of the site.

1973 Edition {National Grid – Scale 1:10 000}

There were no apparent changes to the site and its surroundings in the context of land quality (contamination) on this map edition.

1986 Edition {National Grid – Scale 1:2 500}

There were no apparent changes to the site, or its immediate environs, on this map edition.

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1986-88 Edition {National Grid – Scale 1:2 500}

There were no apparent changes to the site and its surroundings in the context of land quality (contamination) on this map edition.

1989 Edition {National Grid – Scale 1:10 000}

There were no apparent changes to the site and its surroundings in the context of land quality (contamination) on this map edition.

1994 Edition {National Grid – Scale 1:2 500}

There were no apparent changes to the site and its surroundings in the context of land quality (contamination) on this map edition except that a former building located to the west of the site was no longer shown.

1994-5 Edition {National Grid – Scale 1:2 500}

There were no apparent changes to the site and its surroundings in the context of land quality (contamination) on this map.

2002 Edition {Raster - Scale 1:10 000}

The site had now undergone changes as shown by the removal of a former building(s) in the eastern part of the site.

There were no apparent changes to the surroundings of the site in the context of land quality (contamination) on this map edition.

2010 Edition {National Grid - Scale 1:10 000}

There were no further changes to the site or the surrounding environs with respect to land contamination at this scale of mapping.

2014 Edition {National Grid – Scale 1:10 000}

There were no apparent changes to the site or the surrounding environs with respect to land contamination.

5.2 Public Registers.

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A search of public register information has been made using an Internet-based system. A disclosure report is reproduced at Appendix 1. The following commentary is restricted to entries within a 250m search radius of the site. Appendix 1 should be referred to for details on entries beyond of this range.

5.2.1 Environmental Permits, Incidents and Registers.

There was one entry within this category for 'Records of Part A(2) and Part B Acitivities and Enforcements' the referred search radius. Supplied information indicated this was located approximately 178m from the site and comprised petrol vapour recovery.

5.2.2 Landfill and Other Wastes.

There was one entry within this dataset for the category 'Environment Agency Historic Landfill Sites' for the referred search radius. Supplied information indicated this was located approximately 157m to the north east of the site. It was recorded that the licence had been surrendered but no date was given.

5.2.3 Current Land Uses.

There were four entries within this category for the referred search radius. These were given as 'Foodstuffs; Infrastructure & Facilities; Industrial Products and Consumer Products' and were located between approximately 195 and 204m distant from the site.

5.2.3.1 Petrol & Fuel Sites.

There was one record within this dataset for the category 'Records of Petrol and Fuel Sites' for the referred search radius. Supplied information indicated this was located approximately 175m to the south east of the site. The status was given as 'Obsolete'.

5.2.4 Geology.

There were no records for the site within the category 'Artificial Ground and Made Ground'.

There were records for the category 'Are there any records of Superficial Ground and Drift Geology present beneath the study site'. Supplied information indicated the site was underlain by Tidal Flat Deposits (Clay and silt) which in turn rested upon Bedrock geology of Oxford Clay.

5.2.5 Hydrogeology and Hydrology.

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For the category 'Are there any records of Strata Classification in the Superficial Geology within 500m of the site' a 'Yes' response was provided. Supplied information indicated the site was underlain by an 'Unproductive' aquifer.

For the category 'Are there any records of Strata Classification in the Bedrock geology within 500m of the site' a 'Yes' response was provided. Supplied records showed that the site was underlain by an 'Unproductive' Aquifer.

There were no records in this dataset for the category 'Groundwater Abstraction Licences' within the referred search radius for the site.

There were no records for the category 'Surface Water Abstraction Licences' within the referred search radius for the site.

There were no records for the category 'Potable Water Abstraction Licences' within the referred search radius for the site.

There were no records for the category 'Source Protection Zones' within the search radius for the site.

There were no records for the category 'Groundwater Vulnerability and Soil Leaching Potential'.

There were no records of Environment Agency information on River Quality available within 500m of the site.

There was one entry for the category 'Detailed River Networks' within the search radius for the site. Supplied information indicated this was located approximately 158.0m distant from the site.

There were eight entries for the category 'Surface Water Features within 250m of the study site'. These were not represented on mapping. They were located between approximately 0.0 and 208.0m distant from the site.

5.2.6 Flooding.

There were Environment Agency Flood Risk Zones 2, and Zone 3 identified within 250m of the site.

There were Flood Defence areas within the search radius of 250m for the site.

There were no areas benefitting from Flood Defences within 250m of the site.

There were no areas used for Flood Storage within 250m of the site.

For the category 'What is the maximum BGS Groundwater Flooding Susceptibility within 50m of the study site the response 'Not Prone' was given in the supplied information.

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For the category 'What is the BGS confidence rating for the Groundwater Flooding susceptibility areas' the provided response was 'Not Applicable'.

5.2.7 Designated Environmentally Sensitive Sites.

The site was located within a 'Nitrate Vulnerable Zone'.

5.2.8 Natural Hazards.

Search records indicated there was a 'Moderate' maximum risk of natural ground subsidence.

5.2.9 Mining.

Searches indicated there were no coal mining areas within 75m of the site.

A 'Negligible' risk of 'subsidence related to shallow mining' within 150m of the site.

There are no brine affected areas within 75m of the site.

5.2.10 Radon.

Searches indicated that the site is in an area where less than 1% of properties are above the 'Action Level'. Therefore, radon protection measures are not necessary in new dwellings or extensions to existing ones.

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6. PRELIMINARY QUALITATIVE RISK ASSESSMENT.

6.1 Introduction.

There are three factors that are taken into account whilst undertaking a qualitative risk assessment. These have been described in Section 3 of this document. At the time of this report, the site had been proposed for redevelopment but to a continued residential end use upon which the following risk assessment has been based.

6.2 Conceptual Model.

Source (s) (Potential)	Pathway	Target	Risk
Soil: **Area A:** The site has been proposed for residential development comprising two plots. Map evidence indicated the site had occasional documented phase of development. Visual and olfactory indicators of potential contamination were not noted and based upon the foregoing information would not be (reasonably) anticipated to be present at the site. **Area B:** Currently accommodating two buildings, constructed over concrete floor slabs with a limited developmental history. Visual and olfactory indicators of potential contamination were not noted and based upon the foregoing information would not be (reasonably) anticipated to be present at the site.	❖ Dermal contact, ingestion and inhalation	• Present users • End users • Construction workers • General public	• Low • Low • Low • Low
	❖ Wind erosion and atmospheric dispersion	• Adjacent properties • General public • Ecological Systems • Archaeological Sites & Monuments	• Low • Low • Low • n/a
	❖ Leaching	• Adjacent properties • Shallow groundwater • Services/construction materials • Plant life • Surface water • Ecological Systems • Arch. & Monuments	• Low • Low • Low • Low • Low • Low • Low
Shallow groundwater: The site overlies 'Unproductive' Aquifers, which are not considered to be plausible pollution sources.	❖ Groundwater migration	• Adjacent properties • Deep groundwater • Services/construction materials • Plant life • Ecological Systems • Archaeological Sites & Monuments	• Low • Low • Low • n/a • Low • Low
	❖ Dermal contact, ingestion and inhalation	• Present users • End users • Construction workers • General public	• Low • Low • Low • Neg-Low
Gas: Measurable (background) concentrations of ground gas would not (reasonably) be anticipated to be present as a result of historical site use or the underlying natural geology.	❖ Direct inhalation ❖ Soil migration ❖ Services migration	• End users • Construction workers • Buildings • Ecological Systems • Arch. Sites & Monuments	• Low • Low • Low • Low • Neg

Negligible Risk	Defined as the site should be considered suitable for present or future use and environmental setting. Contaminants unlikely to be present, which might have unacceptable impact on key targets.
Low Risk	Defined as the site should be considered suitable for present or future use and environmental setting. Contaminants may be present but unlikely to have unacceptable impact on key targets.
Medium Risk	Defined as the site may not be suitable for present or future use and environmental setting. Contaminants are probably present and might have unacceptable impact on key targets.
High Risk	Defined as the site is probably or certainly not suitable for present or future use and environmental setting. Contaminants probably or certainly present and likely to have an unacceptable impact on key targets.
Notes:	n/a = not applicable

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6.3 Targets.

Potential targets, in the context of the risk assessment (based on the relevant pollutant linkage), where a plausible pathway can be proven, are discussed as follows.

At the time of this report, the proposed scheme comprised change of use to 'residential' with garden areas. A proposed layout plan has been included as Figure 2 towards the back of this report.

6.3.1 Site Users And Construction Workers (Human Health).

Area A:

The site had a limited documented developmental history.

Therefore, Made Ground would not be reasonably anticipated to be present except possibly within the immediate vicinity of the building and then it would be 'inert' potentially comprising aggregate over which the concrete floor of the building had been constructed.

Based upon the foregoing, and the final paragraph of this report, regarding 'unanticipated contamination':-

A *Low* risk has been identified until proven otherwise.

Area B:

This site had a limited developmental history and currently existed as a large Workshop and separate small building used as a Stables.

Therefore, Made Ground would not be reasonably anticipated to be present except possibly within the immediate vicinity of the building and then it would be 'inert' potentially comprising aggregate over which the concrete floor of the building had been constructed.

Based upon the foregoing, and the final paragraph of this report, regarding 'unanticipated contamination':-

A *Low* risk has been identified until proven otherwise.

6.3.2 Services and Construction Materials

6.3.2.1 Concrete & Potable water supplies.

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Adverse effects on services and construction materials may be anticipated where soils are impacted by localised raised/lowered pH values, PAH's, TPHs and metals contamination and where these are present in Made Ground materials. In this instance based on the above:-

A *Low* risk has been identified.

6.4 Landscaping & Planting

Minor soils contamination is often present where man-made fills or Made Ground are present. Where these are present at phytotoxic concentrations, adverse effects on landscaping and planting may be anticipated. Vegetation present on site showed no signs of distress or unusual staining or colouration.

On that basis a *Low* risk to this receptor has been identified.

6.5 Groundwater (Controlled Waters)

The site overlies 'Unproductive' Aquifers. However, there remains the potential for small quantities of perched groundwater in any soil fills (or Made Ground), where these are present. However, searches indicated in this instance that the presence of Made Ground would not be reasonably anticipated given the documented history of development at the site.

A *Low* risk to deeper groundwater has been identified.

6.6 Ground Gas

Measurable concentrations of soil gases (predominantly carbon dioxide) would not be reasonably anticipated to be present as a function of any made ground present. However, where present, any granular overburden would mitigate the risk of ground gas buildup via natural ventilation of ground gas to atmosphere.

On the basis of the localised presence of made ground and the foregoing:

A *Low* risk has been identified.

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7. RECOMMENDATIONS FOLLOWING PRELIMINARY RISK ASSESSMENT.

7.1 Overview.

The desk study showed the site (Area A and Area B), had a limited developmental history.

The site walkover survey and the searches carried out as part of this Desk Study indicated that there were no readily identifiable potential sources of contamination other than possible limited areas of Made Ground close to the footprint of the former/existing buildings.

On that basis the need for a Phase 2 intrusive investigation is considered *un*warranted.

At this point the readers attention is drawn to the final paragraph in this Desk Study report, in blue text, regarding 'unanticipated' contamination.

The recommendations in this section of the report are subject to the approval / agreement of the Regulator.

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8. CONCLUSIONS.

This geoenvironmental desk study prepared by Goldfinch Environmental Limited was undertaken on the instruction of Mr & Mrs R Hart (the Client), for a site at the junction of Crossgate Lane and Milestone Lane, Pinchbeck, Spalding, Lincolnshire.

The site had been proposed for 'residential' land use.

The Desk Study did not identify the presence of site-specific sources of potential contamination and the presence of extensive Made Ground would not be (reasonably) anticipated.

An *overall Low* risk is associated with the site *subject to the final paragraph in this report* and the content of Section 6 of this Desk Study.

Recommendations for the need for further work have been discussed in Section 7 of this report. In summary an intrusive survey is considered *un*warranted subject to the final paragraph in this report regarding 'unanticipated contamination'.

Also, at all times especially once groundworks have commenced, the final paragraph below applies regarding 'unanticipated' contamination. The reader should note that the opinions and recommendations in this report are subject to the agreement of the Local Authority who are the final arbiters in these matters.

Based on the foregoing, a *Low* risk to construction workers and services installations has been associated with the site until proven otherwise. Site personnel, particularly groundworkers, should follow sound health and safety welfare practices that will further mitigate this level of risk.

Should unanticipated contamination be suspected, or revealed during any groundworks, then the area should be temporarily isolated and further advice sought by a suitably independent qualified person and a management strategy for these occurrences should be submitted to the Local Authority for their approval prior to proceeding, as required by Regulatory Offices.

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FIGURES

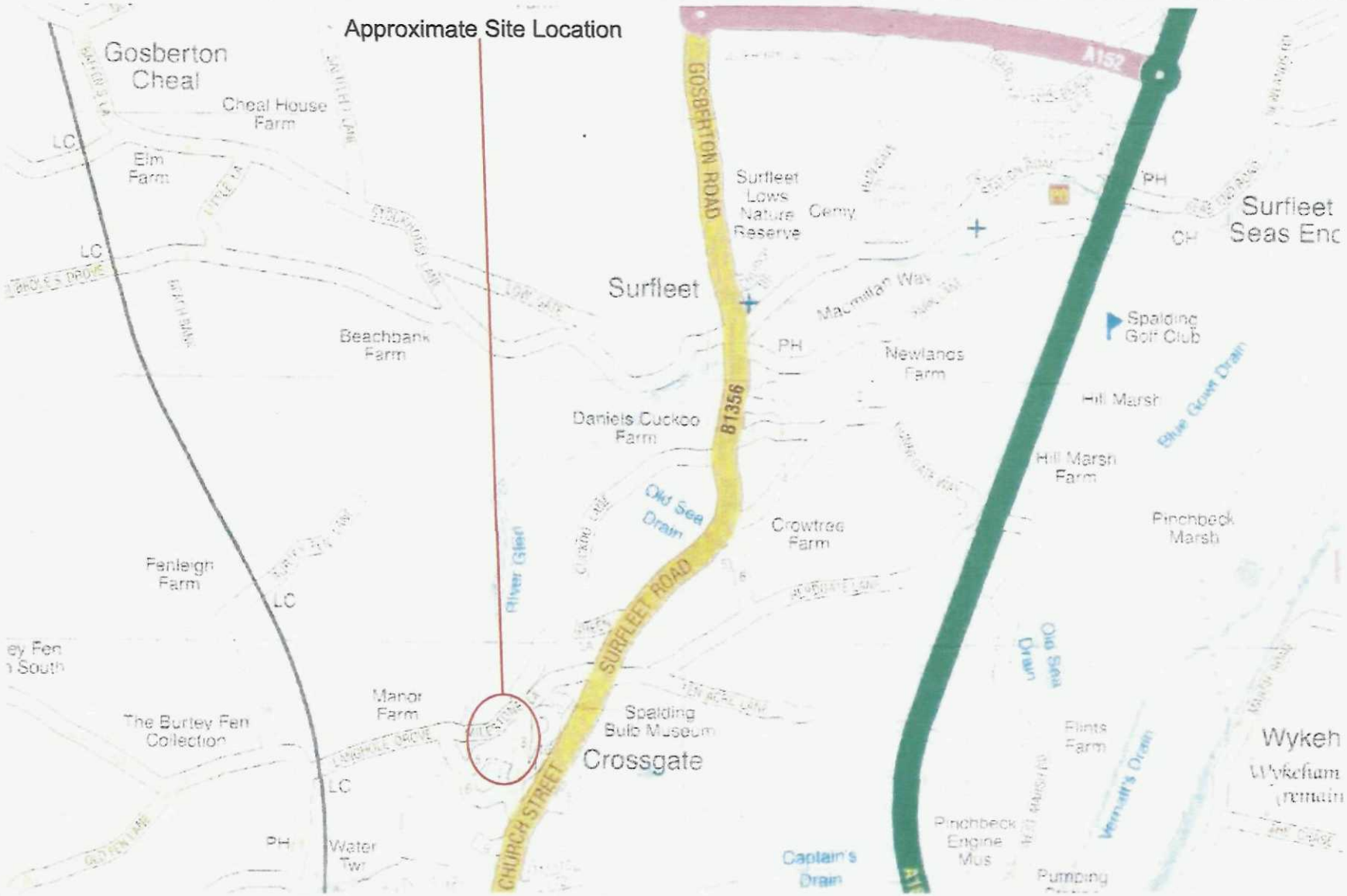


Figure 1	Site Location Plan	**Goldfinch** Environmental Limited
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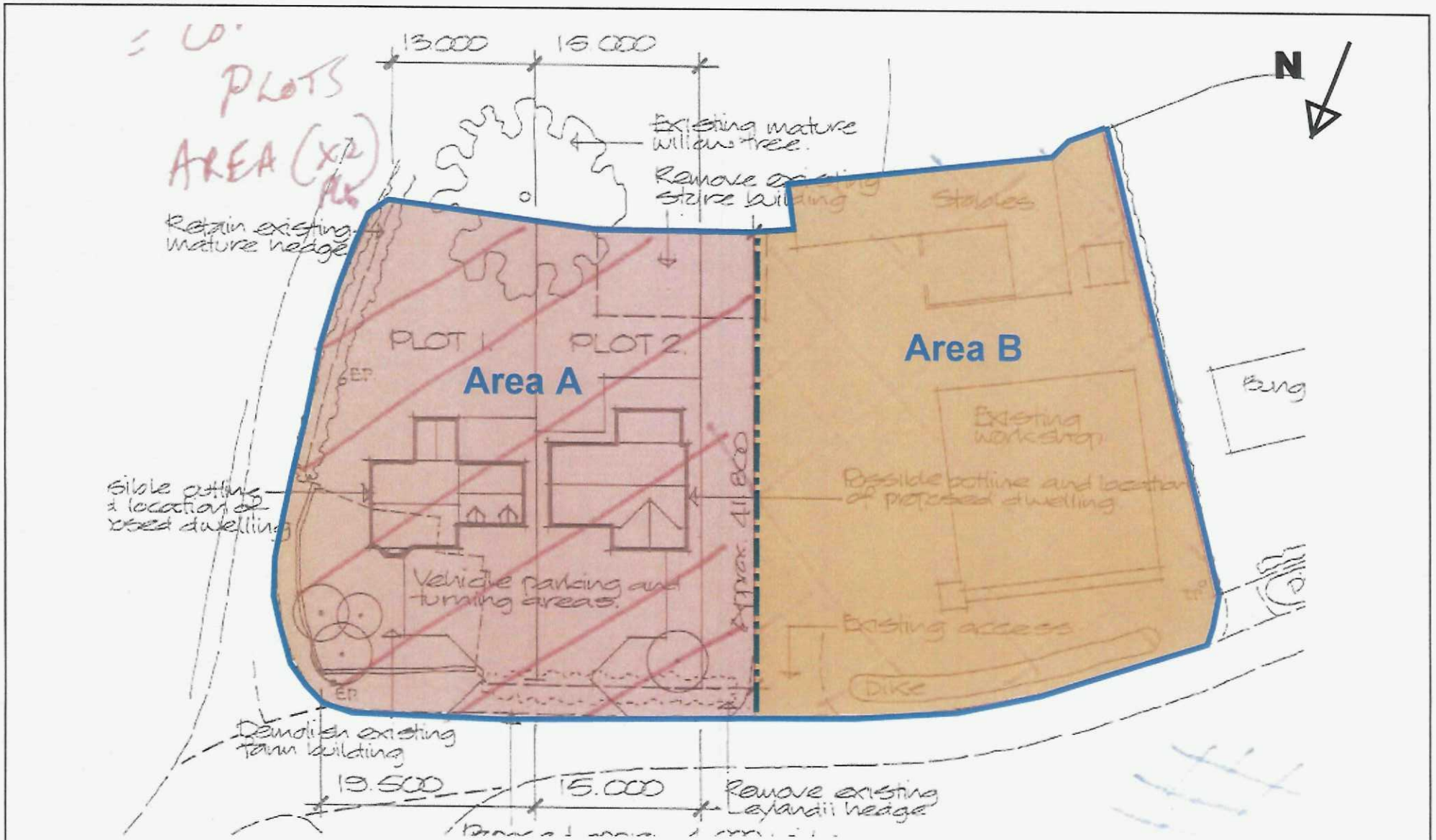


Figure 2	Proposed Layout Plan	**Goldfinch** Environmental Limited
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APPENDIX 1

'Groundsure' Report