

Flood Risk Assessment (FRA)

**Land Adjacent to Dilworth Lane
Longridge
Preston**

**REC Report: 43926p2r0
Issued: April 2011**

320110541P

Prepared for:

Rowland Homes



Osprey House, Pacific Quay, Broadway, Manchester, M50 2UE
Tel – 0161 868 1300 Fax – 0161 868 1301
www.recltd.co.uk

Doc Ref – QR2-1 Issued – December 2010 By – A Edgar

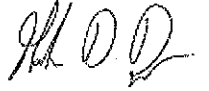


National Consultancy, Locally Delivered



QUALITY ASSURANCE

320110541 D

Issue/revision	Issue 1	Revision 2	Revision 3
Remarks	Interim		
Date	April 2011		
Prepared by	D Cox		
Signature			
Checked by	M. Dyer		
Signature			
Authorised by	A. Edgar		
Signature			
Project number	43926		

320110541P

TABLE OF CONTENTS

QUALITY ASSURANCE	I
TABLE OF CONTENTS	II
1.0 INTRODUCTION	1
1.1 Background	1
1.2 Objectives	1
1.3 Sources of Information	1
1.4 Limitations	1
2.0 SITE SETTING	2
2.1 Site Description	2
2.2 Current Site Description	2
2.3 Surrounding Area	2
2.4 Ground Conditions	2
2.5 Proposed Development	3
3.0 INFORMATION ON FLOODING	1
3.1 Environment Agency	1
3.2 Strategic Flood Risk Assessment	2
3.3 Pluvial Flooding	2
3.4 GroundSure Flood Insight Report	3
4.0 ASSESSMENT AND RECOMMENDATIONS	4
4.1 Assessment of Risk	4
4.1.1 Groundwater Flooding	4
4.1.2 Pluvial Flooding	4
4.1.3 Sewer Flooding	4
4.1.4 Reservoirs, Canals and Other Artificial Sources	4
4.1.5 Fluvial Flooding	4
4.1.6 Historical Flood Outlines	5
4.2 Drainage	5
APPENDICES	
Appendix I Drawings	
Appendix II GroundSure Flood Insight Report	
Appendix III Plates – I-V	

320110541P
April 2011
4392602r0

1.0 INTRODUCTION

1.1 Background

Resource and Environmental Consultants Ltd (REC) have been commissioned by Rowland Homes to undertake a Phase I Flood Risk Assessment on the site of a proposed residential development at land to the south of Dilworth Lane in Longridge, Lancashire

1.2 Objectives

Planning Policy Statement (PPS) 25 requires that an appropriate flood risk assessment is undertaken for sites located in Flood Zone 3 (High Probability) and Flood Zone 2 (Medium Probability). In addition a flood risk assessment is required for any development site greater than 1 hectare, as is the case with the proposed development at Dilworth Lane

The objectives of the flood risk assessment are to:

- Review information on flooding data available within the timescale for delivery of the report;
- Review of the Strategic Flood Risk Assessment (SFRA), where available;
- Review information on other forms of flooding which are available within the timescale;
- Undertake a preliminary assessment of risk; and,
- Provide recommendations on mitigation measures or further work;

Drainage requirements for the site are outlined but no calculations of runoff and balancing have been given in this report. This will be addressed as part of the detailed drainage assessment by the consulting civil engineer.

1.3 Sources of Information

Background information was sought from the following sources:

- Environment Agency Flood Maps;
- Topographical information of the site;
- Strategic Flood Risk Assessment;
- Geological Information; and
- GroundSure Flood Insight Report.

1.4 Limitations

This report is limited to the information available and is intended as a Phase I assessment only, reflective of the size of development.

320110541P
April 2011
43926p1r0

2.0 SITE SETTING

2.1 Site Description

Site Address	Land located between Dilworth Lane and Lower Lane, Longridge, Preston
National Grid Reference	E361150 N437210
Site Area	2.02ha

A site location map and site layout plans are presented within Figures 1 included within Appendix I.

2.2 Current Site Description

A review of the site survey plan (Appendix I) and Site Location Plan shows the site to be occupied by open land with sporadic trees at all site boundaries. This is supported by an inspection of an available aerial photograph.

The site falls in elevation from Dilworth Lane, which forms the northern site boundary towards Lower Lane to the south of the site. A localised depression is present within the central sector of the site in the shape of a small valley transecting north south (see Plates I-V included as Appendix III).

A small drain is shown crossing the lower third of the site leading from the localised depression to a small pipe flowing beneath Lower Lane to an outfall within a small ditch.

A small sewer transects east to west through the lower third of the subject site.

With the exception of the drainage ditch, no notable surface water features are present within influencing distance of the subject site.

Based on the Topographical Survey (included in Appendix I) the site slopes gently from a level of approximately 117m AOD in the north to 110 m AOD in the south.

2.3 Surrounding Area

Land to the east and west of the site is occupied by residential developments of Longridge to the north and to the south by predominantly agricultural land.

2.4 Ground Conditions

An intrusive site investigation completed by REC and documented within our report (43926p1r0) dated March 2011 confirmed that ground conditions comprise Top Soil (virgin & re-worked) overlying stiff, high strength sandy, gravelly clay at a very shallow depth (circa 0.30m bgl). No evidence of any visual or olfactory signs of potential contamination have been observed to date.

A small channel / depression is located in the centre of the site with a watercourse flowing through the centre of the site with deposits of sand and gravel on either side.

320110541P

2.5 Proposed Development

At the time of preparing this report, the proposed development layout is in its infancy. However it is understood that it will comprise residential dwellings with associated infrastructure, gardens and parking areas. Communal open space will also be incorporated within the development.

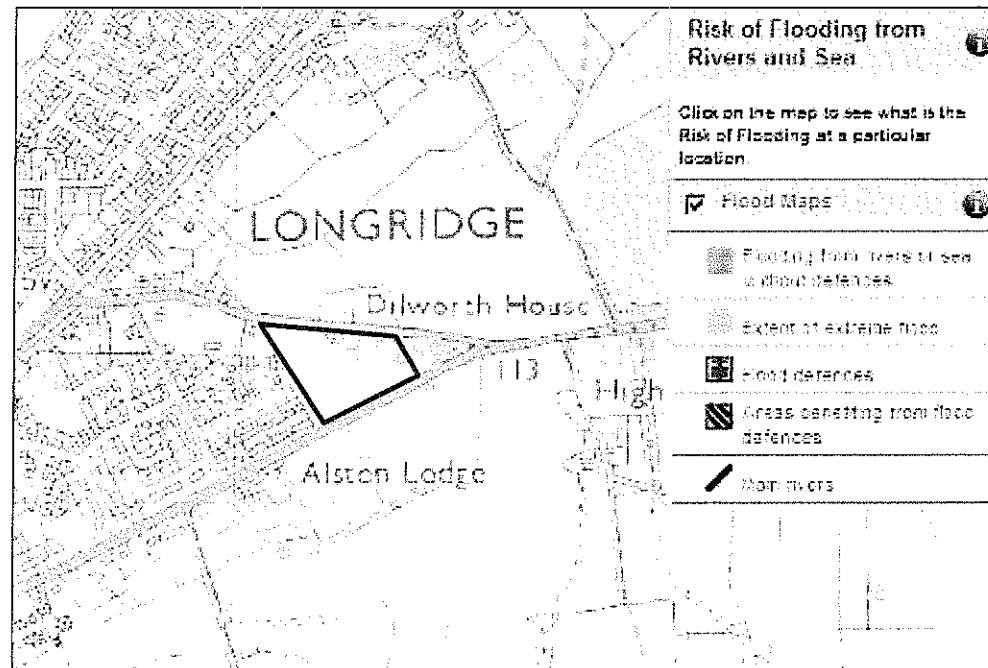
The existing access on Dilworth Lane will be improved with the construction of a new junction, subject to the transport consultants design.

320110541P

3.0 Information on Flooding

3.1 Environment Agency

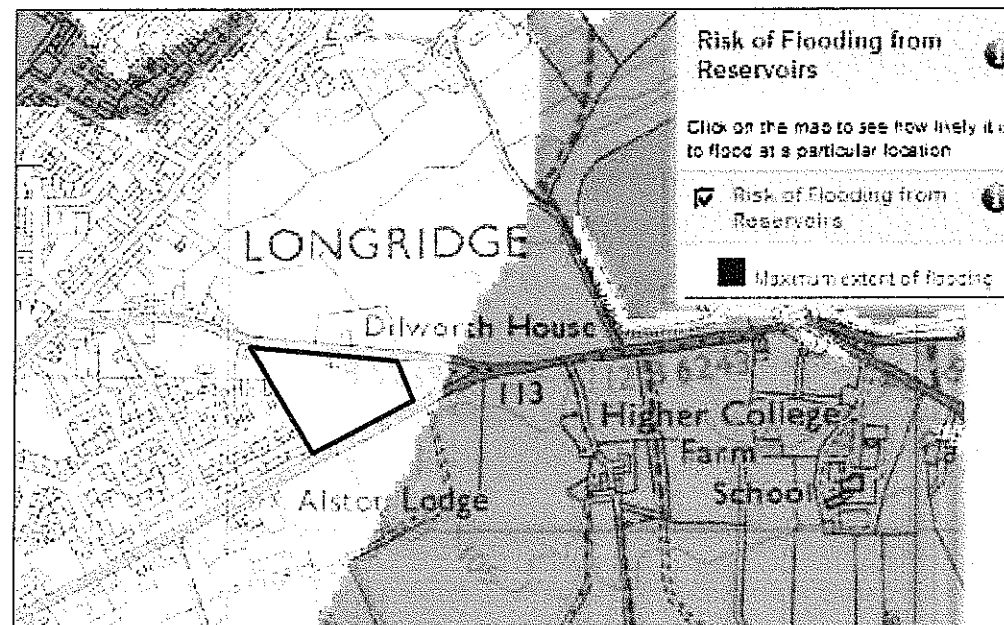
A review of the Environment Agency (EA) flood map shows the site to be located outside any pre-defined flood risk area and as such is located in an area with a Low Probability of Flooding (greater than 1 in 1000 year event) from fluvial source (Zone 1); an extract of the EA Flood Risk Mapping is presented below:



This Environment Agency map indicates that the area to the east of the site is at risk of flooding if the reservoir (circa 500m northeast) was to fail and release the water it holds.

This map displays a worst case scenario and is only intended as a guide. It is not a prediction of what will happen. It is noted that flooding from a reservoir breach is extremely unlikely. There has been no loss of life in the UK from reservoir flooding since 1925 (EA data). The relevant extract from the EA mapping is included overleaf.

320110541P



3.2 Strategic Flood Risk Assessment

The Strategic Flood Risk Assessment (SFRA) prepared for Central Lancashire has been examined. This provided the following pertinent information:

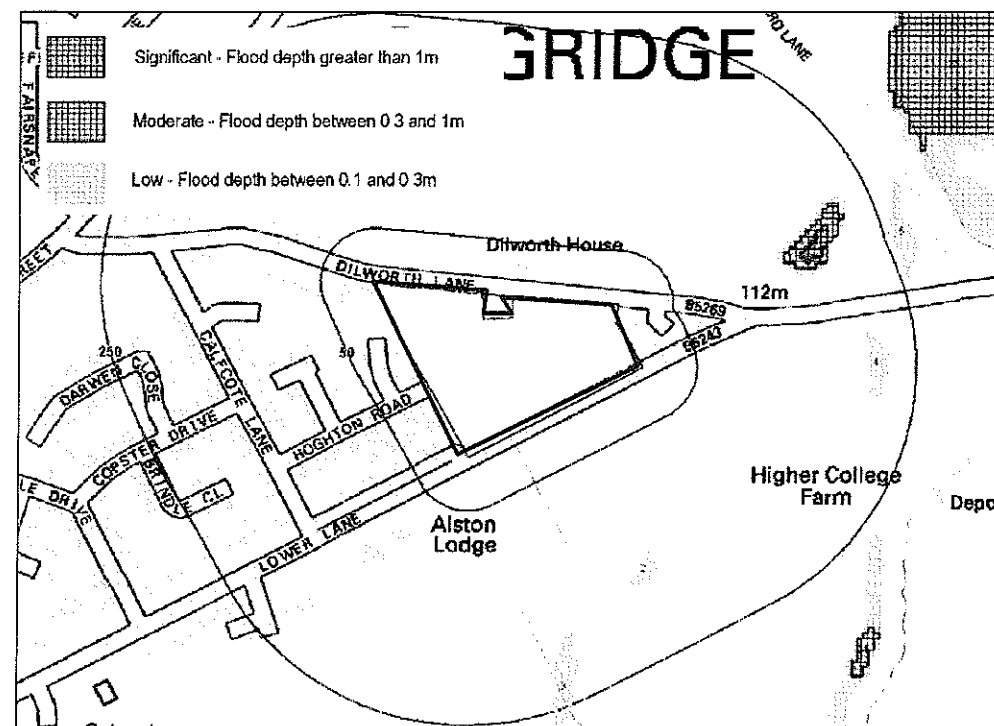
- The SFRA only addresses allocation sites and not windfall sites and as such limited information is provided;
- Information provided by United Utilities and Lancashire Fire Services on sewer flooding did not identify any strategic concerns; and,
- Groundwater flooding is not widespread with the geology being un-responsive to rainfall

3.3 Pluvial Flooding

Surface Water (Pluvial) flooding will usually be a result of extreme rainfall events, though may also occur when lesser amounts of rain falls on land which has low permeability and/or is already saturated, frozen or developed. In such cases overland flow and 'ponding' in topographical depressions may occur. The data within this report is based upon a modelled 1 in 200 year rainfall event, and indicates the depths to which an area may expect to be flooded in such an event. The Pluvial Flood risk at the subject site has been assessed as negligible and the JBA Pluvial Flood Risk Map is presented below:

320110541P
 April 2011
 43926p2r0

Phase I Flood Risk Assessment
 Dilworth Lane, Longridge



3.4 GroundSure Flood Insight Report

The Flood Insight Report gives the following pertinent information:

- The site is not located within any Environment Agency (EA) floodplains;
- There are no EA floodplains within 250m of the subject site;
- The National Flood Risk Assessment (NaFRA) determined that the site is located within an area deemed to be at negligible risk from flooding;
- The site is not located within an area that has been subject to historical flooding;
- The site is not within an area at potential risk from reservoir flooding

320110541P
Apr 2011
43926p10

4.0 Assessment and Recommendations

4.1 Assessment of Risk

4.1.1 Groundwater Flooding

The site is deemed to be located within an area that is at 'low' risk from groundwater flooding. The British Geological Survey mapping supported by the REC Site Investigation confirmed that the geology of the site appears to be Glacial Till over Sandstone which would not normally support substantial groundwater flooding. Whilst it is possible that localised sand and gravel lenses may be present within the Till giving rise to localised groundwater issues, there are no springs noted on the site survey or site location base map to indicate these being present. Any springs which were present would give rise to limited water discharge and would have limited re-charge capacity.

Therefore it is considered that there is a negligible risk from groundwater flooding at the site.

4.1.2 Pluvial Flooding

This has been assessed by JBA using a 2D overland flow model and LiDar data to provide flood maps showing areas of inundation from surface water runoff. The proposed development site is not shown as being affected by areas of pluvial flooding and corresponding risk is classified as negligible.

This assessment is based on a modelled 1 in 200 year rainfall event.

4.1.3 Sewer Flooding

There is no identified strategic risk from flooding of sewers and therefore this is dismissed. Any risk from the site development will be addressed as part of the design, as outlined in Section 4.3.

4.1.4 Reservoirs, Canals and Other Artificial Sources

No reservoirs, canals or other artificial sources are deemed to be within influencing distance of the site which could cause flooding. This risk is therefore dismissed.

4.1.5 Fluvial Flooding

The site is not located within any predefined fluvial flood risk area and so is not considered to be from fluvial flooding.

The proposed development is for residential houses, which are classed as More Vulnerable under Table D.2 of PPS25.

The Environment Agency NaFRA database provides an indication of Flood River and coastal risk at a national level on a 50m grid with the flood rating at the centre of the grid calculated as being negligible for the above mentioned site. The data considers the probability that the flood defences will overtop or breach, and the distance from the river or the sea.

320110541P
Apr 2011
4392 pp2.9

4.1.6 Historical Flood Outlines

The site is not located on or within 250m of an area that would be deemed to be at risk from historic flooding as recorded by the Environment Agency

4.2 Drainage

Design of the drainage system will be provided by the drainage engineer. This will take account of increased rainfall predictions resulting from climatic change and also consider the use of Sustainable Drainage Systems (SuDS) where feasible.

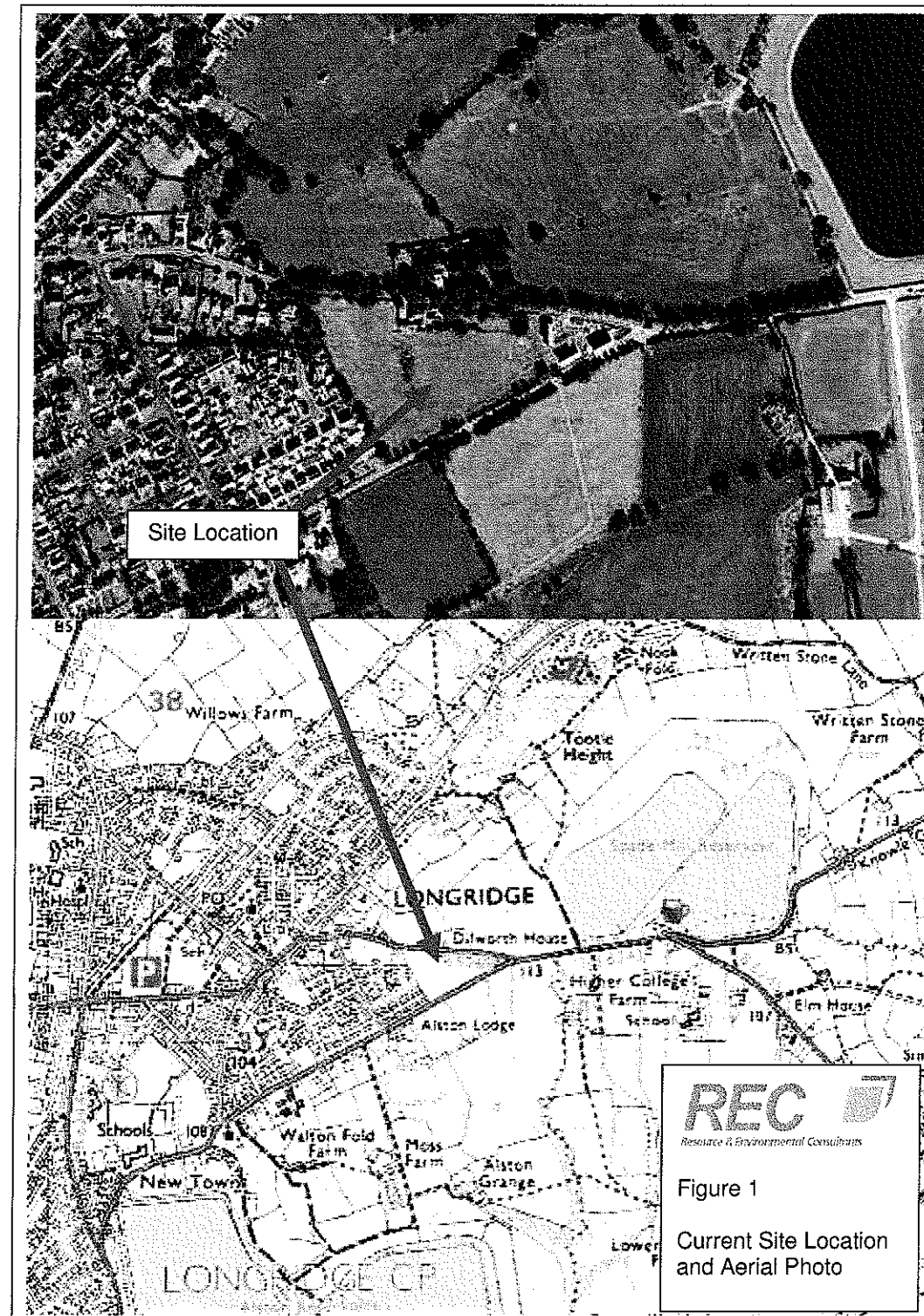
The drainage design for the scheme will include attenuation for the increased surface water runoff associated with climatic change and will also be designed to meet any existing capacity restrictions. Where possible the use of soakaways will be employed for roof drainage and hardstandings, subject to the detailed drainage assessment and design and ground investigation.

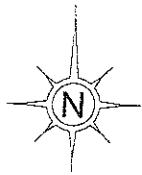
Site drainage will be designed to address any un-acceptable pluvial flood risk.

320110541P
April 2011
43926p2r0

APPENDIX I FIGURES

320110541P
Apr 2011
43926p20





Legend:

- CBR
- CORE
- CABLE_PERCUSSIVE
- DCP
- HAND_AUGER
- HAND_PIT
- Hotspot
- MEXE_PROBE
- ROTARY_BORED
- PILE_RIG
- SOAKAWAY
- SONIC
- TRIAL PIT
- WINDOW SAMPLE

The client must not amend any drawing, design or other intellectual property produced by REC Ltd, without permission in writing from REC Ltd in advance of any amendments being made.

In the event that such written permission is not obtained in advance of the amendments being made, REC Ltd shall not be liable for any damage and/or losses occurring as a result of the amended drawing, design or other intellectual property.

REC

Resource & Environmental Consultants Ltd



Resource and Environmental Consultants Ltd
Osprey House
Pacific Quay Manchester
M50 2UE
Tel: 0161 868 1300
Fax: 0161 868 1301
E-mail: sales@recltd.co.uk Website:
www.recltd.co.uk

Job Title

Dilworth Lane

Client

Rowland Homes

Job No: 43926

Drawn by: S.Howard

Approved by: S. Howard

Scale: 1:500@ A1

DATE
04/04/11

Notes:

Survey Grid And Orientation Derived From **APPROXIMATE** OS Coordinates From Landmark Drawings.

OSBM (111.78m) On Lower Lane Used For Datum

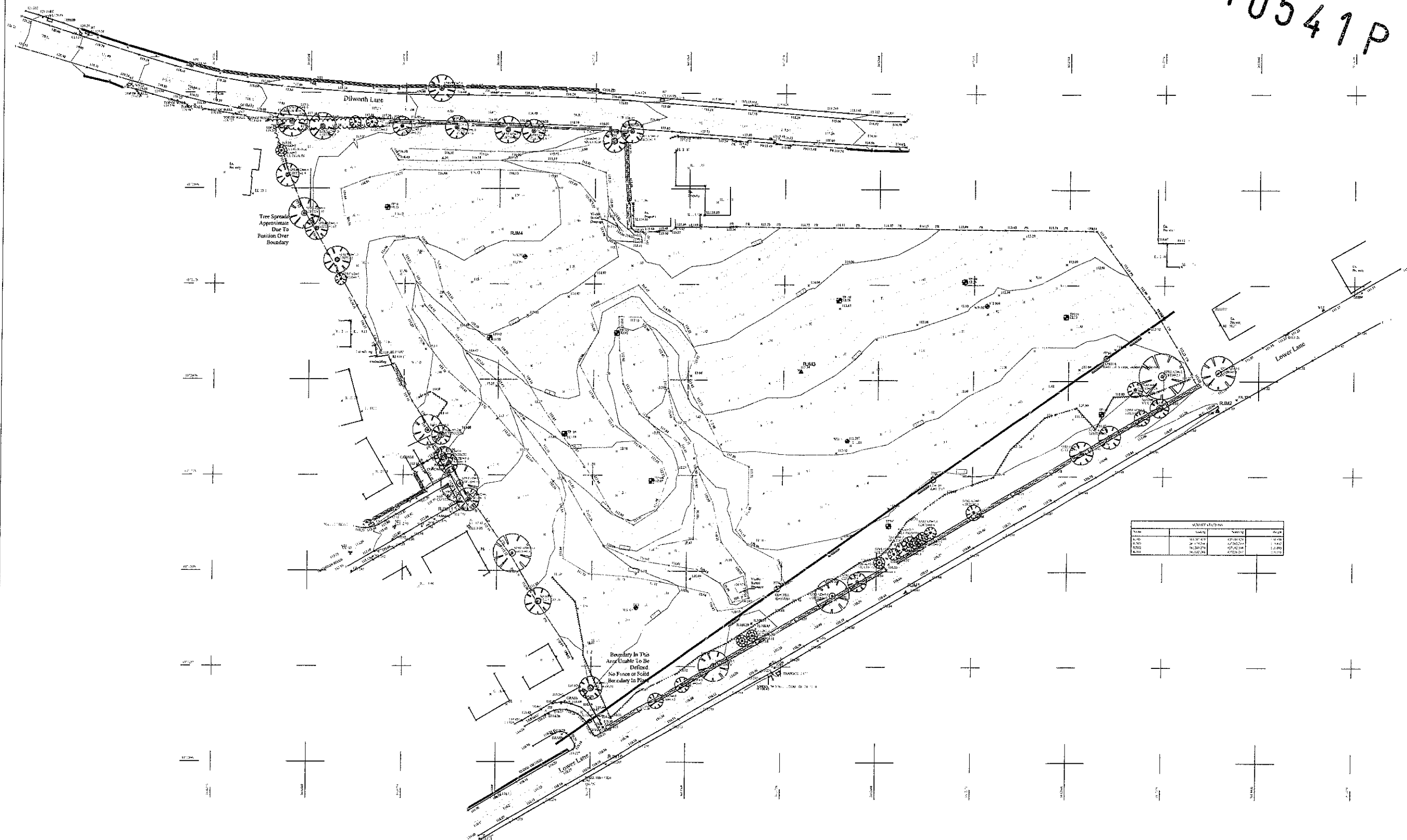
Revision Notes:-

- Additional Survey On Dilworth Road At Clients Request
- Additional Tree Information

Drawing Title

Topographical Survey
Dilworth Lane / Lower Lane
Longridge Preston

320110541P



320110541P
April 2011
43926p1r0

APPENDIX II GROUNDSURE FLOOD INSIGHT REPORT

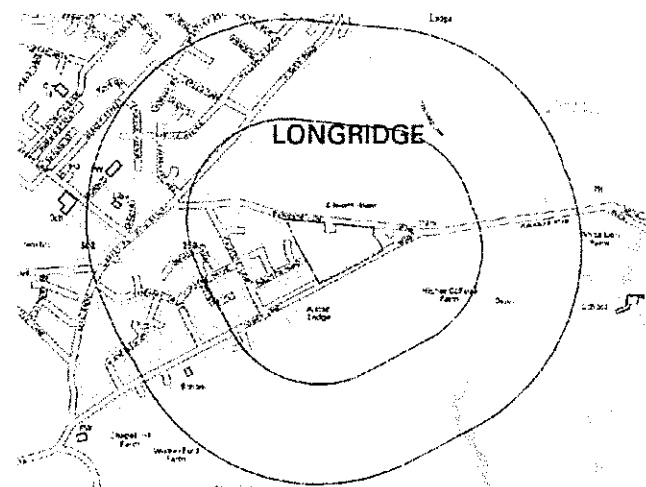
320110541P

GroundSure FloodInsight

Address:

Client Reference: 43926

Client: Resource & Environmental Consultants Ltd (REC)



Brought to you by GroundSure

Report Reference: HMD-065804

Brought to you by GroundSure

If you would like any further assistance regarding this report then please contact
GroundSure on (T) 08444 159 000, [F] 01273 763569, email: info@groundsuresure.com

320110541P



Aerial Photograph of Study Site



Aerial photography supplied by Getmapping PLC.
© Copyright Getmapping PLC 2003 All Rights Reserved

Site Name:

Grid Reference: 361150,437310

Size of Site: 2.23 ha

Report Reference: HMD-065804

Brought to you by GroundSure

If you would like any further assistance regarding this report then please contact
GroundSure on (T) 08444 159 000, [F] 01273 763569, email: info@groundsure.com

Page 3

Overview of Findings

For further details on each dataset, please refer to each individual section in the main report as listed.

Report Section	
1. Environment Agency Flood Zones	
1.1 Are there any Environment Agency indicative Zone 2 floodplains within 250m of the study site?	No
1.2 Are there any Environment Agency indicative Zone 3 floodplains within 250m of the study site?	No
1.3 Are there any Flood Defences within 250m of the study site?	No
1.4 Are there any areas benefiting from Flood Defences within 250m of the study site?	No
1.5 Are there any areas used for Flood Storage within 250m of the study site?	No
2. National Flood Risk Assessment (NaFRA)	
2.1 What is the National Flood Risk Assessment (NaFRA) Flood Rating for the study site?	Negligible
3. Historic Flood Events	
3.1 Has the site been subject to past flooding as recorded by the Environment Agency?	No
4. Surface Water Floods	
4.1 Is the site or any area within 50m at risk of Surface Water (Pluvial) Flooding?	No
5. Groundwater Flooding	
5.1 What is the maximum BGS Groundwater Flooding susceptibility within 50m of the study site?	Low
5.2 What is the BGS confidence rating for the Groundwater Flooding susceptibility areas?	Low
6. BGS Geological Indicators of historic flooding	
6.1 Are there any geological indicators of historic flooding within 250m of the study site?	No
7. JBA Reservoir failure	
7. Is the property located in an area identified as being at potential risk in the event of a reservoir failure?	No

320110541P

Additional Matters

Riparian ownership	If your land abuts a river, stream or ditch, you may have responsibility to maintain this watercourse, even if Title Deeds show the property boundary to be adjacent to the watercourse. This includes the responsibility for clearing debris and obstructions which may impede the free passage of water and fish, and also includes the responsibilities to accept flood flows through your land, even if these are caused by inadequate capacity downstream. There is no duty in common law for a landowner to improve the drainage capacity of a watercourse. Please contact GroundSure if you need further advice on riparian ownership issues relating to this property.
Sewerage Flooding	Extreme rainfall events may overwhelm sewerage systems and cause local flooding. The water and sewerage companies within the UK are required to maintain 'DG5 - At Risk Registers' which record properties that have flooded from sewers and/or are considered to be at risk of flooding from sewers in the future. If your property is on the 'At Risk' Register, this may be recorded within a standard CON29 Drainage and Water search.

Using this Report

The following report is designed by Environmental Consultants for Environmental Professionals bringing together the most up-to-date market leading environmental data. This report is provided under and subject to the Terms & Conditions agreed between GroundSure and the Client.

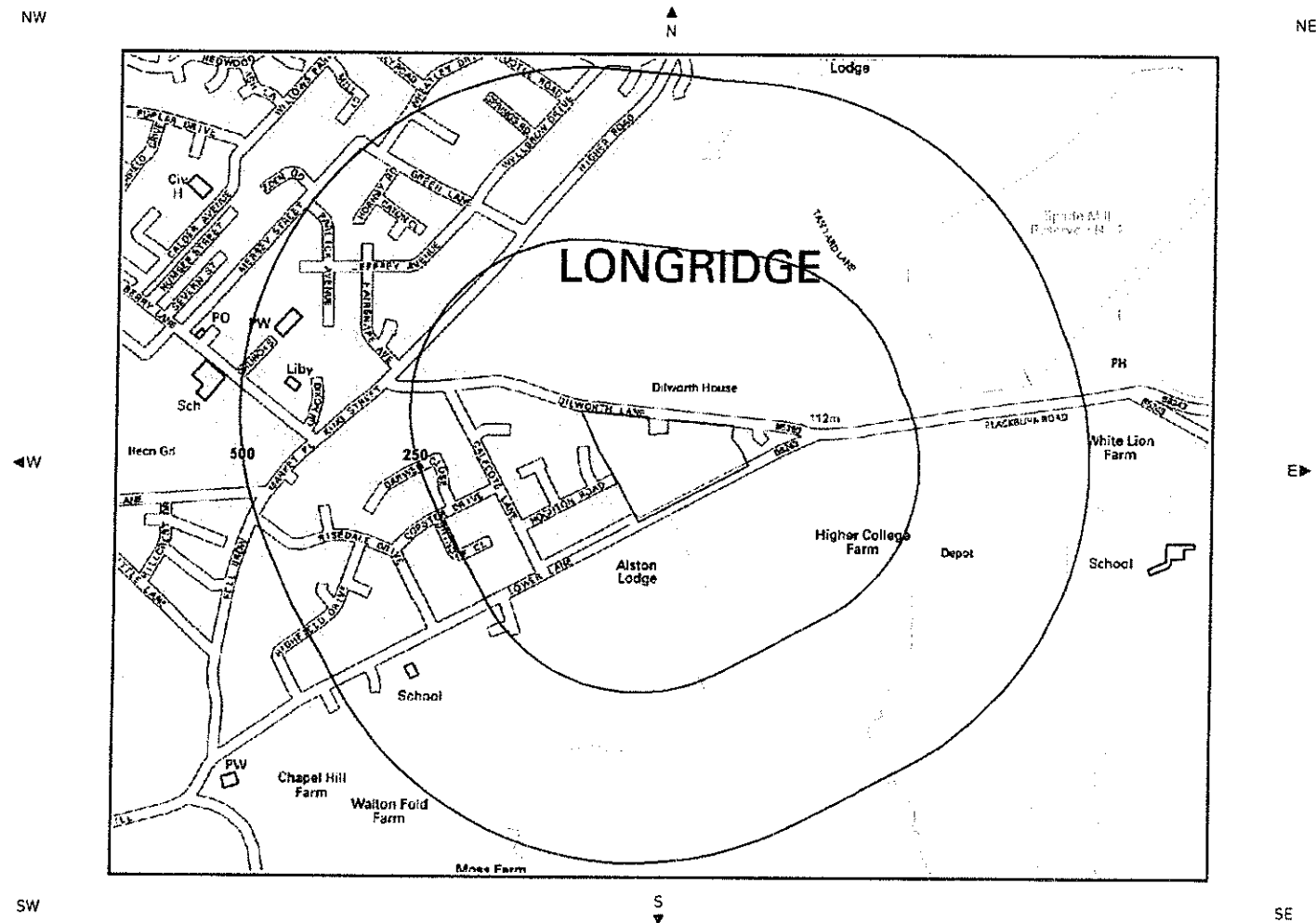
Note: Maps

Only certain features are placed on the maps within the report. All features represented on maps found within this search are given an identification number. This number identifies the feature on the mapping and correlates it to the additional information provided below. This identification number precedes all other information and takes the following format -Id: 1, Id: 2, etc. Where numerous features on the same map are in such close proximity that the numbers would obscure each other a letter identifier is used instead to represent the features (e.g. Three features which overlap may be given the identifier "A" on the map and would be identified separately as features 1A, 3A, 10A on the data tables provided).

Where a feature is reported in the data tables to a distance greater than the map area, it is noted in the data table as "Not Shown"

All distances given in this report are in Metres (m). Directions are given as compass headings such as N: North, E: East, NE: North East from the nearest point of the study site boundary.

1. River and Coastal Flood Map



River and Coastal Flood Legend

Enabled by
OS Ordnance Survey

Crown Copyright. All Rights Reserved
Licence Number: 100035207

- Site Outline
- Search Buffers (m)
250
500
- Zone 2 Floodplain
- Zone 3 Floodplain
- Flood Storage Area
- Area Benefiting from Flood Defences
- Flood Defences

Report Reference: HMD-065804

Brought to you by GroundSure

If you would like any further assistance regarding this report then please contact
GroundSure on (T) 08444 159 000, [F] 01273 763569, email: info@groundsurre.com

Page 7

1. Environment Agency Flood Zones

1.1 River and Coastal Zone 2 Flooding

Is the site within 250m of an Environment Agency indicative Zone 2 floodplain? **No**

Zone 2 floodplain estimates the annual probability of flooding as one in one thousand (0.1%) or greater from rivers and the sea but less than 1% from rivers or 0.5% from the sea. Alternatively, where information is available they may show the highest known flood level. Any relevant data is represented on Map 1 – River and Coastal Flooding: Database searched and no data found.

1.2 River and Coastal Zone 3 Flooding

Is the site within 250m of an Environment Agency indicative Zone 3 floodplain? **No**

Zone 3 estimates the annual probability of flooding as one in one hundred (1%) or greater from rivers and a one in two hundred (0.5%) or greater from the sea. Alternatively, where information is available they may show the highest known flood level. Any relevant data is represented on Map 1 – River and Coastal Flooding. Database searched and no data found.

1.3 River and Coastal Flood Defences

Are there any Flood Defences within 250m of the study site ? **No**

Only flood defences constructed within the last five years to Environment Agency standards are likely to be shown within this dataset. Any relevant data is represented on Map 1 – River and Coastal Flooding.

1.4 Areas benefiting from Flood Defences

Are there any areas benefiting from Flood Defences within 250m of the study site? **No**

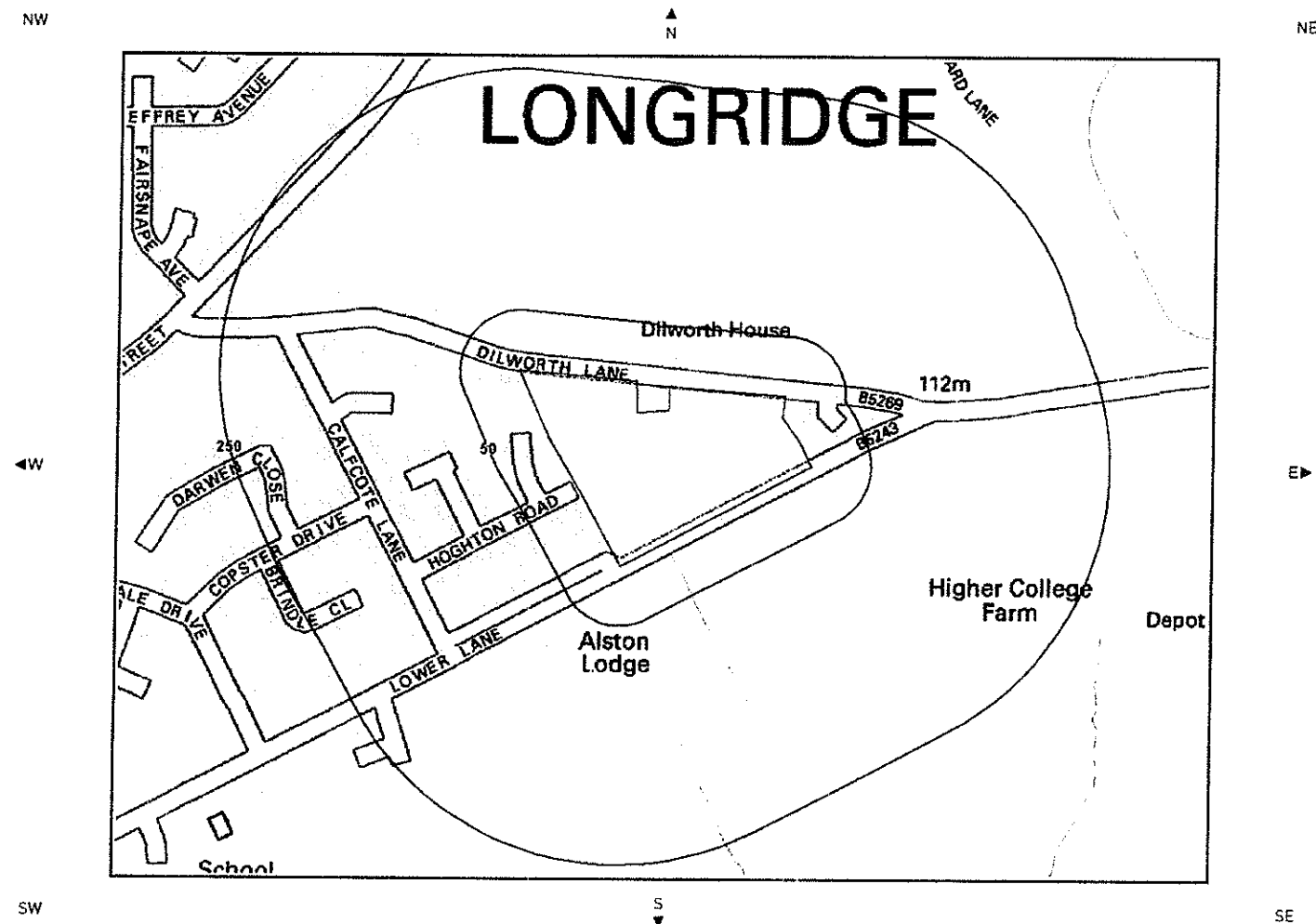
Any relevant data is represented on Map 1 – River and Coastal Flooding.

1.5 Areas used for Flood Storage

Are there any areas used for Flood Storage within 250m of the study site? **No**

Flood Storage Areas are considered part of the functional floodplain, and are areas where water has to flow or be stored in times of flood. *Planning Policy Statement (PPS) 25: Development and Flood Risk* states that only water-compatible development and essential infrastructure should be permitted within flood storage areas, and existing development within this area should be relocated to an area with a lower risk of flooding. Any relevant data is represented on Map 1 – River and Coastal Flooding.

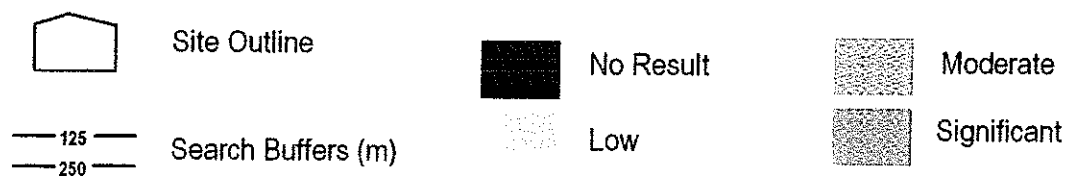
2. NaFRA 2008 Flooding Map



NaFRA 2008 Flood Legend

Enabled by
Ordnance Survey

Crown Copyright All Rights Reserved
Licence Number: 100035207



2.1 National Flood Risk Assessment (NaFRA 2008) Flood Rating (River and Coastal)

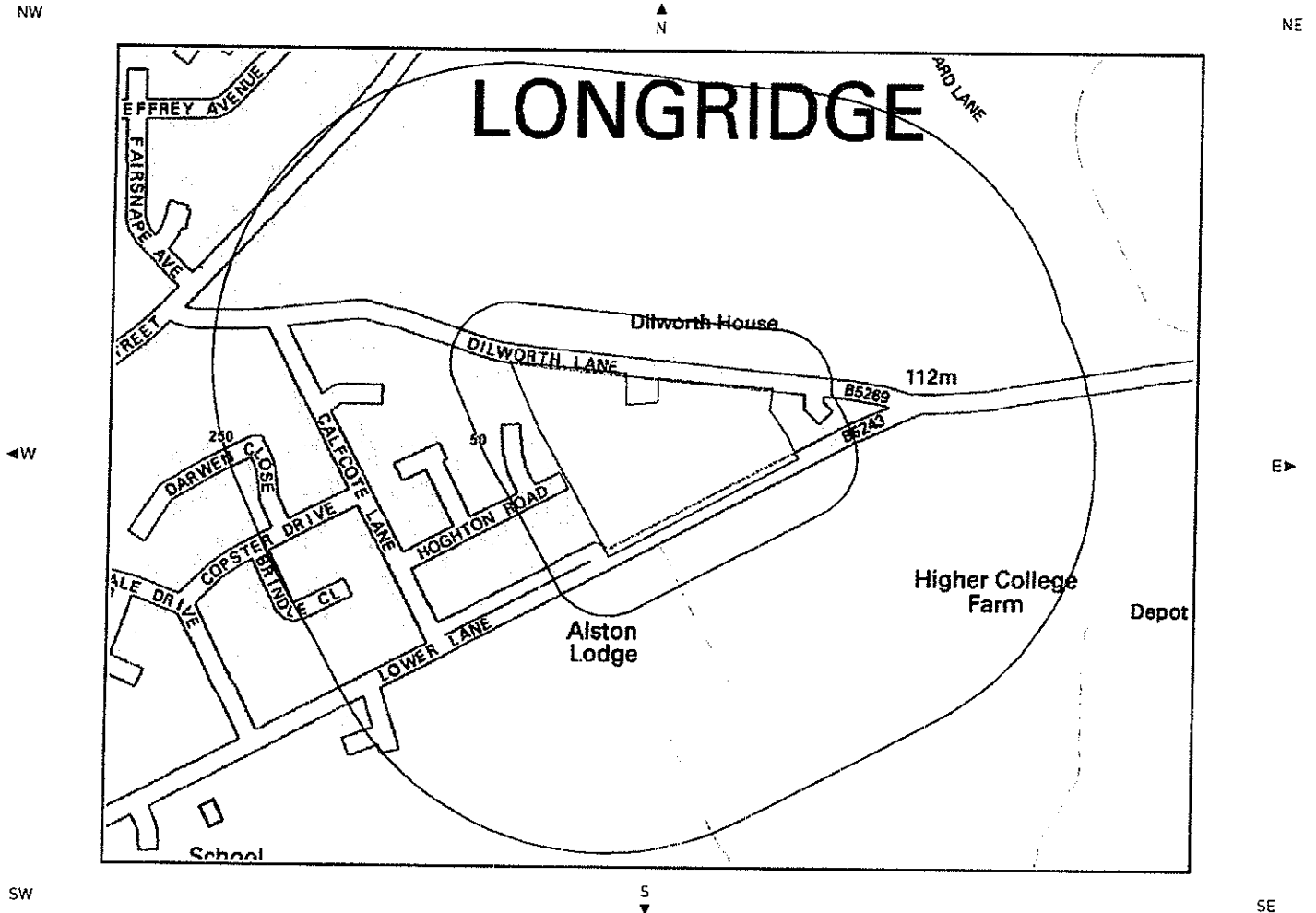
What is the highest risk of flooding onsite?

Negligible

The Environment Agency NaFRA database provides an indication of flood river and coastal risk at a national level on a 50m grid with the flood rating at the centre of the grid calculated and given above. The data considers the probability that the flood defences will overtop or breach, and the distance from the river or the sea.

Most insurance companies providing cover for flood risk use this data as the basis of their risk model, although they may also utilise additional information such as claims histories, which may further influence their decision. Where a significant risk of flooding is identified flood risk insurance may be difficult to obtain without further work being undertaken. Property owners of sites within Low and Moderate risk areas are still considered to be at risk of flooding and insurance premiums may be increased as a result. Owners of properties within Low, Moderate and Significant risk areas, as well as areas yet to receive a full assessment are advised to sign up to the Environment Agency's Floodline Warning scheme.

3. Historic Flooding Events

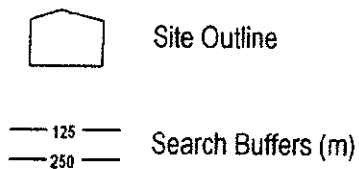


Historic Flooding Legend

Enabled by

Ordnance Survey

Crown Copyright: All Rights Reserved
Licence Number: 100035207



Report Reference: HMD-065804

Brought to you by GroundSure

If you would like any further assistance regarding this report then please contact GroundSure on (T) 08444 159 000, [F] 01273 763569, email: info@groundsure.com

Page 11

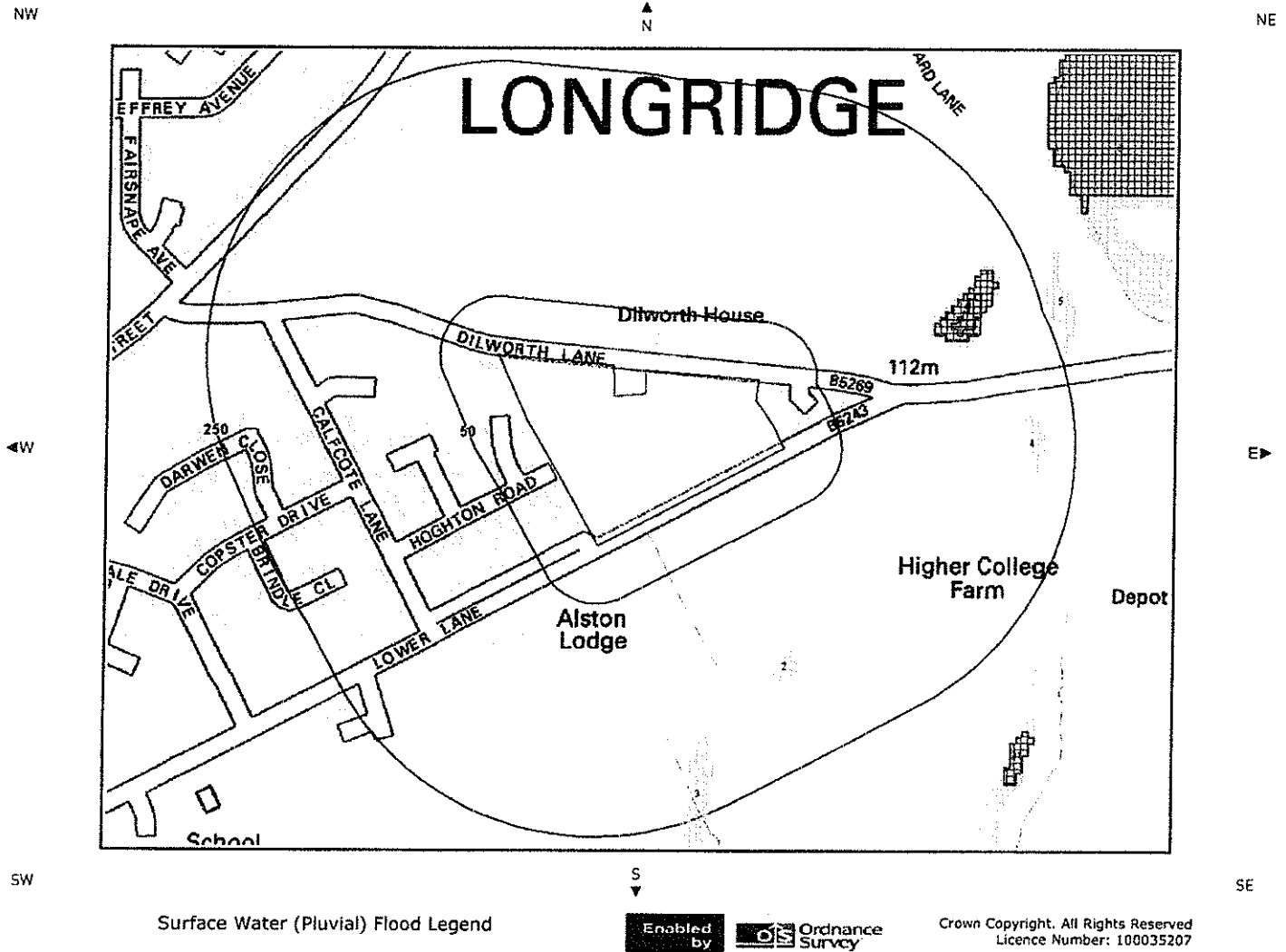
3.1 Historic Flood Outlines

Has the site or any area within 250m been subject to historic flooding as recorded by the Environment Agency? **No**

This database shows the individual footprint of every flood event recorded by the Environment Agency and previous bodies. This data is used to understand where flooding has occurred in the past and provides details as available. Absence of a historic flood event for an area does not mean that the area has never flooded, but only that the Environment Agency do not currently have records of flooding within the area. Equally, a record of a flood footprint in previous years does not mean that an area will flood again, and this information does not take account of flood management schemes and improved flood defences.

Any records found within the search radius are displayed on Map 3 – Historic Flooding Events.

4. JBA Surface Water (Pluvial) Flood Map



This data is provided by JBA Consulting, © Jeremy Benn Associates Limited 2008/2009

4.1 JBA Surface Water (Pluvial) Flood Risk

What is the maximum Surface Water (Pluvial) Flood risk at the study site as provided by JBA Consulting?

Negligible

Surface Water (Pluvial) flooding is defined as flooding caused by rainfall-generated overland flow before the runoff enters a watercourse or sewer. In such events, sewerage and drainage systems and surface watercourses may be entirely overwhelmed. The map was produced by simulating a 1 in 200 year rainfall event over a 6.5 hour duration. JBA's 2D hydraulic modelling techniques were used to identify overland flow routes and areas where surface water will pond.

Surface Water (Pluvial) flooding will usually be a result of extreme rainfall events, though may also occur when lesser amounts of rain falls on land which has low permeability and/or is already saturated, frozen or developed. In such cases overland flow and 'ponding' in topographical depressions may occur. The data within this report is based upon a modelled 1 in 200 year rainfall event, and indicates the depths to which an area may expect to be flooded in such an event. Data relating to surface water (pluvial) flooding is represented on Map 4 - JBA Surface Water (Pluvial) Flood Map.

This data is provided by JBA Consulting, © Jeremy Benn Associates Limited 2008/2009



5. Groundwater flooding

5.1 Groundwater Flooding Susceptibility Areas

Are there any British Geological Survey groundwater flooding susceptibility flood areas within 50m of the boundary of the study site?

Yes

What is the highest susceptibility to groundwater flooding in the search area based on the underlying geological conditions?

Low

Where low groundwater flooding susceptibility is indicated, this means that given the geological conditions there may be a groundwater flooding hazard. Unless other relevant information, e.g. records of previous flooding, suggests groundwater flooding has occurred before in this area you need take no further action in relation to groundwater flooding hazard. If there are records of previous incidences of groundwater flooding, then it is recommended that other information e.g. rainfall history, property type, and land drainage information in addition to previous records of flooding be investigated in order to establish relative, but not absolute, risk of groundwater flooding.

5.2 Groundwater Flooding Confidence Areas

What is the British Geological Survey confidence rating in this result?

Low

Groundwater flooding is defined as the emergence of groundwater at the ground surface or the rising of groundwater into man-made ground under conditions where the normal range of groundwater levels is exceeded.

The **confidence rating** is on a threefold scale - Low, Moderate and High. This provides a relative indication of the BGS confidence in the accuracy of the susceptibility result for groundwater flooding. This is based on the amount and precision of the information used in the assessment. In areas with a relatively lower level of confidence the susceptibility result should be treated with more caution. In other areas with higher levels of confidence the susceptibility result can be used with more confidence.



6. BGS Geological Indicators of Flooding

Are there any geological indicators of flooding within 250m of the study site?

No

This dataset identifies the presence of superficial geological deposits which indicate that the site may be, or have been in the past, vulnerable to inland and/or coastal flooding. This assessment does not take account of any man-made factors such as flood protection schemes, and the data behind the report are purely geological.

7. JBA Reservoir Failure Impact Modelling

Is the property located in an area identified as being at potential risk in the event of a reservoir failure?

No

JBA consulting have modelled the flooding impact from 1,700 reservoirs in England and Wales, should there be a catastrophic failure of a reservoir wall or embankment.

Guidance: None required



8. Contacts

GroundSure Helpline

Telephone: 08444 159 000
info@groundsure.com

GroundSure
ENVIRONMENTAL INSIGHT

British Geological Survey (England & Wales)

Kingsley Dunham Centre
Keyworth, Nottingham NG12 5GG
Tel: 0115 936 3143. Fax: 0115 936 3276. Email:
enquiries@bgs.ac.uk
Web: www.bgs.ac.uk
BGS Geological Hazards Reports and general geological
enquiries

British
Geological Survey
NATURAL ENVIRONMENT RESEARCH COUNCIL

Environment Agency

Floodline tel: 0845 988 1188
General enquiry tel: 08708 506 506
Web: www.environment-agency.gov.uk
Email: enquiries@environment-agency.gov.uk

Environment
Agency

JBA Consulting

South Barn,
Broughton Hall,
Skipton
BD23 3AE
01756 799919



Ordnance Survey

Romsey Road
Southampton SO16 4GU
Tel: 08456 050505

Enabled
byOrdnance
Survey

Local Authority

Authority: Ribble Valley Borough Council
Phone: 01200 425111
Web: www.ribblevalley.gov.uk
Address: Council Offices, Church Walk, Clitheroe,
Lancashire, BB7 2RA

Get Mapping PLC

Virginia Villas, High Street, Hartley Witney, Hampshire RG27
8NW
Tel: 01252 845444



getmapping®

Acknowledgements

Ordnance Survey © Crown Copyright and/or Database Right. All Rights Reserved Licence Number [03421028].

This report has been prepared in accordance with the GroundSure Ltd standard Terms and Conditions of business for work of this nature

320110541P



Standard Terms and Conditions

1 Definitions

In these conditions unless the context otherwise requires:
"Beneficiary" means the Client or the customer of the Client for whom the Client has procured the Services.
"Commercial" means any building which is not Residential.
"Commission" means an order for Consultancy Services submitted by a Client.
"Consultancy Services" mean consultancy services provided by GroundSure including, without limitation, carrying out interpretation of third party and in-house environmental data, provision of environmental consultancy advice, undertaking environmental audits and assessments, Site investigation, Site monitoring and related items
"Content" means any data, database or other information contained in a Report or Mapping which is provided to GroundSure by a Data Provider.
"Contract" means the contract between GroundSure and the Client for the performance of the Services which arises upon GroundSure's acceptance of an Order or Commission and which shall incorporate these conditions: the relevant GroundSure User Guide proposal by GroundSure and the content of any subsequent report and any agreed amendments in accordance with clause 11.
"Client" means the party that submits an Order or Commission.
"Data Provider" means any third party providing Content to GroundSure.
"Data Report" means reports comprising factual data with no professional interpretation in respect of the level of likely risk and/or liability available from GroundSure.
"GroundSure" means GroundSure Limited, a company registered in England and Wales under number 03421028 and whose registered office is at Greater London House, Hampstead Road, London NW1 7EJ.
"Intellectual Property" means any patent, copyright, design rights, service marks, moral rights, data protection rights, know-how, trademark or any other intellectual property rights.
"Mapping" an historical map or a combination of historical maps of various ages, time periods and scales available from GroundSure
"Order" means an order form submitted by the Client requiring Services from GroundSure in respect of a specified Site
"Order Website" means online platform via which Orders may be placed.
"Report" means a Risk Screening Report or Data Report for commercial or residential property available from GroundSure relating to the Site prepared in accordance with the specifications set out in the relevant User Guide.
"Residential" means any building used as or suitable for use as an individual dwelling.
"Risk Screening Report" means one of GroundSure's risk screening reports, comprising factual data with interpretation in respect of the level of likely risk and/or liability excluding "Consultancy Services".
"Services" means the provision of any Report, Mapping or Consultancy Services which GroundSure has agreed to carry out for the Client/Beneficiary on these terms and conditions in respect of the Site
"Site" means the land site in respect of which GroundSure provides the Services.
"User Guide" means the relevant current version of the user guide, available upon request from GroundSure.

2 Scope of Services

2.1 GroundSure agrees to carry out the Services in accordance with the Contract and to the extent set out therein.
 2.2 GroundSure shall exercise all the reasonable skill, care and diligence to be expected of experienced environmental consultants in the performance of the Services.
 2.3 The Client acknowledges that it has not relied on any statement or representation made by or on behalf of GroundSure which is not set out and expressly agreed in the Contract.
 2.4 Terms and conditions appearing on a Client's order form, printed stationery or other communication, including invoices, to GroundSure, its employees, servants, agents or other representatives or any terms implied by custom, practice or course of dealing shall be of no effect and these terms and conditions shall prevail over all others
 2.5 In the event that a Client/Beneficiary opts to take out insurance in conjunction with or as a result of the Services, such insurance shall be subject solely to the terms of any policy issued to it in that respect and GroundSure will have no liability therefore
 2.6 GroundSure's quotations/proposals are valid for a period of 30 days only. GroundSure reserves the right to withdraw any quotation at any time before GroundSure accepts an Order or Commission. GroundSure's acceptance of an Order or Commission shall be effective only where such acceptance is in writing and signed by GroundSure's authorised representative or where accepted via GroundSure's Order Website.

3 The Client's obligations

3.1 The Client shall ensure the Beneficiary complies with and is bound by the terms and conditions set out in the Contract and shall provide that GroundSure may in its own right enforce such terms and conditions against the Beneficiary pursuant to the Contracts (Rights of Third Parties) Act 1999. The Client shall be liable for all breaches of the Contract by the Beneficiary as if they were breaches by the Client. The Client shall be solely responsible for ensuring that the Report/Mapping ordered is appropriate and suitable for the Beneficiary's needs.
 3.2 The Client shall (or shall procure that the Beneficiary shall) supply to GroundSure as soon as practicable and without charge all information necessary and accurate relevant data including any specific and/or unusual environmental information relating to the Site known to the Client/Beneficiary which may pertain to the Services and shall give such assistance as GroundSure shall reasonably require in the performance of the Services (including, without limitation, access to a Site, facilities and equipment as agreed in the Contract).
 3.3 Where Client/Beneficiary approval or decision is required, such approval or decision shall be given or procured in reasonable time as not to delay or disrupt the performance of any other part of the Services.
 3.4 The Client shall not and shall not knowingly permit the Beneficiary to, save as expressly permitted by these terms and conditions, re-sell, alter, add to, amend or use out of context the content of any Report, Mapping or, in respect of any Services, information given by GroundSure. For the avoidance of doubt, the Client and Beneficiary may make the Report, Mapping or GroundSure's findings available to a third party who is considering acquiring the whole or part of the Site or providing funding in relation to the Site but such third party cannot rely on the same unless expressly permitted under clause 4.
 3.5 The Client is responsible for maintaining the confidentiality of its user name and password if using GroundSure's internet ordering service and accepts responsibility for all activity that occurs under such account and password

4 Reliance

4.1 Upon full payment of all relevant fees and subject to the provisions of these terms and conditions the Client and Beneficiary are granted an irrevocable royalty-free licence to access the information contained in a Report, Mapping or in a report prepared by GroundSure in respect of or arising out of Consultancy Services. The Services may only be used for the benefit of the Client and those persons listed in clauses 4.2 and 4.3.
 4.2 In relation to Data Reports, Mapping and Risk Screening Reports, the Client shall be entitled to make Reports available to (i) the Beneficiary, (ii) the Beneficiary's professional advisers, (iii) any person providing funding to the Beneficiary in relation to the Site (whether directly or as part of a lending syndicate), (iv) the first purchaser or first tenant of the Site (v) the professional advisers and lenders of the first purchaser or tenant of the Site. Accordingly GroundSure shall have the same duties and obligations to those persons in respect of the Services as it has to the Client and those persons shall have the benefit of any of the Client's rights under the Contract as if those persons were parties to the Contract. For the avoidance of doubt, the limitations of GroundSure's liability as set out in clauses 7 and 11.6 shall apply.
 4.3 In relation to Consultancy Services, reliance shall be limited to the Client, Beneficiary and named parties on the Report.
 4.4 Save as set out in clauses 4.2 and 4.3 and unless otherwise agreed in writing with GroundSure, any other party considering the information supplied by GroundSure as part of the Services, including (but not limited to) insurance underwriters, does so at their own risk and GroundSure has no legal obligations to such party unless otherwise agreed in writing.
 4.5 The Client shall not and shall not knowingly permit any person (including the Beneficiary) who is provided with a copy of any Report, (except as permitted herein or by separate agreement with GroundSure) to: (a) remove, suppress or modify any trade mark, copyright or other proprietary marking from the Report or Mapping; (b) create any product which is derived directly or indirectly from the data contained in the Report or Mapping; (c) combine the Report or Mapping with, or incorporate the Report or Mapping into any other information data or service; or (d) re-format or otherwise change (whether by modification, addition or enhancement) data or images contained in the Report or Mapping.
 4.6 Notwithstanding clause 4.5, if the Client acts in a professional capacity, it may make reasonable use of a Report and/or findings made as a result of Consultancy Services to advise Beneficiaries. However, GroundSure shall have no liability in respect of any opinion or report given to such Beneficiaries by the Client or a third party.

5 Fees and Disbursements

5.1 GroundSure shall charge the Client fees at the rate and frequency specified in the Contract together, in the case of Consultancy Services, with all proper disbursements incurred by GroundSure in performing the Services. For the avoidance of doubt, the fees payable for the Services are as set out in GroundSure's written proposal, Order Website or Order acknowledgement form. The Client shall in addition pay all value added tax or other tax payable on such fees and disbursements in relation to the provision of the Services.
 5.2 Unless GroundSure requires prepayment, the Client shall promptly pay all fees disbursements and other monies due to GroundSure in full without deduction, counterclaim or set off together with such value added tax or other tax as may be required within 30 days from the date of GroundSure's invoice or such other period as may be agreed in writing between GroundSure and the Client ("Payment Date"). GroundSure reserves the right to charge interest which shall accrue on a daily basis from 30 days after the date of Payment Date until the date of payment (whether before or after judgment) at the rate of five per cent per annum above the Bank of England base rate from time to time.
 5.3 In the event that the Client disputes the amount payable in respect of GroundSure's invoice it shall notify GroundSure no later than 28 days after the date thereof that it is in dispute. In default of such notification the Client shall be deemed to have agreed the amount thereof. As soon as reasonably practicable following receipt of a notification in respect of any disputed invoice, a member of the management team at GroundSure shall contact the Client and the parties shall use all reasonable endeavours to resolve the dispute

6 Intellectual Property

6.1 Subject to the provisions of clause 4.1, the Client and the Beneficiary hereby acknowledge that all Intellectual Property in the Services and Content are and shall remain owned by either GroundSure or the Data Providers and nothing in these terms purports to transfer or assign any rights to the Client or the Beneficiary in respect of the Intellectual Property.
 6.2 The Client shall acknowledge the ownership of the Content where such Content is incorporated or used in the Client's own documents, reports, systems or services whether or not these are supplied to a third party.
 6.3 Data Providers may enforce any breach of clauses 6.1 and 6.2 against the Client or Beneficiary.
 6.4 The Client acknowledges that the proprietary rights subsisting in copyright, database rights and any other intellectual property rights in respect of any data and information contained in any Report are and shall remain (subject to clause 11.1) the property of GroundSure and/or any third party that has supplied data or information used to create a Report, and that these conditions do not purport to grant, assign or transfer any such rights in respect thereof to a Client and/or a Beneficiary.
 6.5 The Client and each of the parties set out in clause 4.2 are permitted to make up to 8 (commercial) or 2 (residential) printed copies of the Report only. Further copies of the Report may not be made in whole or in part without the prior written permission of GroundSure who shall be entitled to make a charge for each additional copy
 6.6 The Client shall (and shall procure that any recipients of the Report as permitted under clause 4.2 shall):
 (i) not remove, suppress or modify any trademark, copyright or other proprietary marking belonging to GroundSure or any third party from the Services;
 (ii) use the information obtained as part of the Services in respect of the subject Site only, and shall not store or reuse any information obtained as part of the Services provided in respect of adjacent or nearby sites;

Report Reference: HMD-065804

Brought to you by GroundSure

If you would like any further assistance regarding this report then please contact GroundSure on (T) 08444 159 000, [F] 01273 763569, email: info@groundsure.com

320110541P


GroundSure
 ENVIRONMENTAL INSIGHT

(iii) not create any product or report which is derived directly or indirectly from the data contained in the Services (save that those acting in a professional capacity to the Beneficiary may provide advice based upon the Services);

(iv) not combine the Services with or incorporate such Services into any other information data or service; and

(v) not reformat or otherwise change (whether by modification, addition or enhancement), data contained in the Services (save that those acting in a professional capacity to the Beneficiary shall not be in breach of this clause 6.6(v) where such reformatting is in the normal course of providing advice based upon the Services) in each case of parts (iii) to (v) inclusive, whether or not such product or report is produced for commercial profit or not.

6.7 The Client and/or Beneficiary shall and shall procure that any party to whom the Services are made available shall notify GroundSure of any request or requirement to disclose, publish or disseminate any information contained in the Services in accordance with the Freedom of Information Act 2000, the Environmental Information Regulations 2004 or any associated legislation or regulations in force from time to time.

7. Liability

7.1 Nothing in these terms and conditions shall limit GroundSure's liability for causing death or personal injury through negligence or wilful default.

7.2 Save as otherwise set out in these conditions, any information provided by one party ("Disclosing Party") to the other party ("Receiving Party") shall be treated as confidential except so far as authorised by the Disclosing Party to provide such information in whole or in part to a third party.

7.3 Nothing in these conditions shall affect the statutory rights of a consumer under the applicable consumer protection legislation from time to time.

7.4 In relation to Data Reports, Mapping and Risk Screening Reports, GroundSure's liability under the Contract shall cease upon the expiry of six years from the date when the Beneficiary became aware that it may have a claim against GroundSure in respect of the Services provided always that there shall be no liability at the expiration of twelve years from the completion of the Contract. For the avoidance of doubt, any claims in respect of which proceedings are notified to GroundSure in writing prior to the expiry of the time periods referred to in this clause shall survive the expiry of those time periods provided any such claim is actually commenced within six months of notification.

7.5 In relation to Consultancy Services GroundSure's liability under the Contract shall cease upon the expiry of six years from the date the Services were completed.

7.6 GroundSure shall not be liable to the Client or any person to whom the Client provides a copy of a Data Report, Mapping or Risk Screening Report in any circumstances whatsoever unless arising out of a breach on its part of the obligations set out in the Contract.

7.7 GroundSure shall not be liable if the Data Reports, Mapping or Risk Screening Report are used otherwise than as provided or referred to in these conditions and the relevant User Guide.

7.8 Subject to the provisions of clause 7.3, GroundSure makes no representation, warranties, express or implied, as to the accuracy, reliability, completeness, validity or fitness for purpose of any Content and shall not be liable for any omission, error or inaccuracy in relation thereto unless GroundSure should reasonably have been alerted to any omission, error or inaccuracy in the Content.

7.9 Subject to the provisions of clause 7.1 and irrespective of whether multiple parties make use of the same Services the total liability of GroundSure under or in connection with the Contract whether in contract in tort for breach of statutory duty or otherwise shall not exceed £10 million per claim or series of connected claims.

7.10 Whilst GroundSure will use all reasonable endeavours to maintain operability of its internet ordering service it will not be liable for any loss or damages caused by a delay or loss of use of such service. The Client shall use GroundSure's internet ordering service at its own risk. GroundSure shall not be responsible for any damage to a Client or permitted assignee's computer, software, modem, telephone or other property resulting from the use of GroundSure's internet ordering service.

7.11 The Client accepts, and shall use all reasonable endeavours to procure that anyone who is provided with a copy of the Report accepts, that it has no claim or recourse to any Data Provider or to GroundSure in respect of the acts or omissions of such Data Providers including Content supplied by them.

7.12 GroundSure shall provide the Services using reasonable skill and care, however, GroundSure shall not be liable for any inaccurate statement or risk rating in a Report which resulted from a reasonable interpretation of the Content.

7.13 Subject to clause 7.1 GroundSure shall not be liable to the Client, the Beneficiary or any third party in contract, tort (including, without limitation, negligence) or for misrepresentation or breach of statutory duty or otherwise in respect of any loss of profits, goodwill, revenue or opportunity, or any indirect or consequential loss (even if such loss was reasonably foreseeable).

7.14 GroundSure undertakes for the duration of the liability periods referred to in clauses 7.4 and 7.5 to maintain professional indemnity insurance in respect of its liabilities under this Contract. GroundSure shall produce evidence of such insurance if requested by the Client. A greater level of cover may be available upon request and agreement with the Client.

8. GroundSure right to suspend or terminate

8.1 In the event that GroundSure reasonably believes that the Client or Beneficiary as applicable has not provided the information or assistance required to enable the proper performance of the Services, GroundSure shall be entitled on fourteen days written notice to suspend all further performance of the Services until such time as any such deficiency has been made good.

8.2 GroundSure may additionally terminate the Contract immediately on written notice in the event that:

(i) the Client shall fail to pay any sum due to GroundSure within 28 days of the Payment Date; or

(ii) the Client (being an individual) has a bankruptcy order made against him or (being a company) shall enter into liquidation whether compulsory or voluntary or have an Administration Order made against it or if a Receiver shall be appointed over the whole or any part of its property assets or undertaking or if the Client is struck off the Register of Companies or dissolved; or

(iii) the Client being a company is unable to pay its debts within the meaning of Section 123 of the Insolvency Act 1986 or being an individual appears unable to pay his debts within the meaning of Section 268 of the Insolvency Act 1986 or if the Client shall enter into a composition or arrangement with the Client's creditors or shall suffer distress or execution to be levied on his goods; or

(iv) the Client or the Beneficiary breaches any material term of the Contract (including but not limited to, the obligations in clause 4) incapable of remedy or if remediable is not remedied within 14 days of notice of the breach.

9. Client's Right to Terminate and Suspend

9.1 Subject to clause 10.2, the Client may at any time after commencement of the Services by notice in writing to GroundSure require GroundSure to terminate or suspend immediately performance of all or any of the Services.

9.2 The Client waives all and any right of cancellation it may have under the Consumer Protection (Distance Selling) Regulations 2000 (as amended) in respect of the Order of a Report/Mapping. This does not affect the Beneficiary's statutory rights.

10. Consequences of Withdrawal, Termination or Suspension

10.1 Upon termination or any suspension of the Services, GroundSure shall take steps to bring to an end the Services in an orderly manner vacate any Site with all reasonable speed and shall deliver to the Client/Beneficiary any property of the Client/Beneficiary in GroundSure's possession or control.

10.2 In the event of termination/suspension of the Contract under clauses 8 or 9, the Client shall pay to GroundSure all and any fees payable in respect of the performance of the Services up to the date of termination/suspension. In respect of any Consultancy Services provided, the Client shall also pay GroundSure any additional costs incurred in relation to the termination/suspension of the Contract.

11. General

11.1 The mapping contained in the Services is protected by Crown copyright and must not be used for any purpose outside the context of the Services or as specifically provided in these terms.

11.2 GroundSure reserves the right to amend these terms and conditions. No variation to these terms shall be valid unless signed by an authorised representative of GroundSure.

11.3 No failure on the part of GroundSure to exercise and no delay in exercising, any right, power or provision under these terms and conditions shall operate as a waiver thereof.

11.4 Save as expressly provided in clauses 4.2, 4.3, 6.3 and 11.5, no person other than the persons set out therein shall have any right under the Contract (Rights of Third Parties) Act 1999 to enforce any terms of the Contract.

11.5 The Secretary of State for Communities and Local Government acting through Ordnance Survey may enforce breach of clause 6.1 of these terms and conditions against the Client in accordance with the provisions of the Contracts (Rights of Third Parties) Act 1999.

11.6 GroundSure shall not be liable to the Client if the provision of the Services is delayed or prevented by one or more of the following circumstances:

(i) the Client or Beneficiary's failure to provide facilities, access or information;

(ii) fire, storm, flood, pest or epidemic;

(iii) Acts of God or the public enemy;

(iv) riot, civil commotion or war;

(v) strikes, labour disputes or industrial action;

(vi) acts or regulations of any governmental or other agency;

(vii) suspension or delay of services at public registries by Data Providers; or

(viii) changes in law.

11.7 Any notice provided shall be in writing and shall be deemed to be properly given if delivered by hand or sent by first class post, facsimile or by email to the address, facsimile number or email address of the relevant party as may have been notified by each party to the other for such purpose or in the absence of such notification the last known address.

11.8 Such notice shall be deemed to have been received on the day of delivery if delivered by hand, facsimile or email and on the second working day after the day of posting if sent by first class post.

11.9 The Contract constitutes the entire contract between the parties and shall supersede all previous arrangements between the parties.

11.10 Each of the provisions of the Contract is severable and distinct from the others and if one or more provisions is or should become invalid, illegal or unenforceable, the validity and enforceability of the remaining provisions shall not in any way be tainted or impaired.

11.11 These terms and conditions shall be governed by and construed in accordance with English law and any proceedings arising out of or connected with these terms and conditions shall be subject to the exclusive jurisdiction of the English courts.

11.12 If the Client or Beneficiary has a complaint about the Services, notice can be given in any format eg writing, phone, email to the Compliance Officer at GroundSure who will respond in a timely manner.

©GroundSure Limited – January 2011

320110541P

Phase I Flood Risk Assessment
Dilworth Lane, Longridge

April 2011
43926p1r0

APPENDIX III PLATES I-V

320110541P



Plate I – View to North West Boundary



Plate II – View to North West Boundary

320110541P



Plate III – View to East



Plate IV – Outfall at southern site of Lower Lane