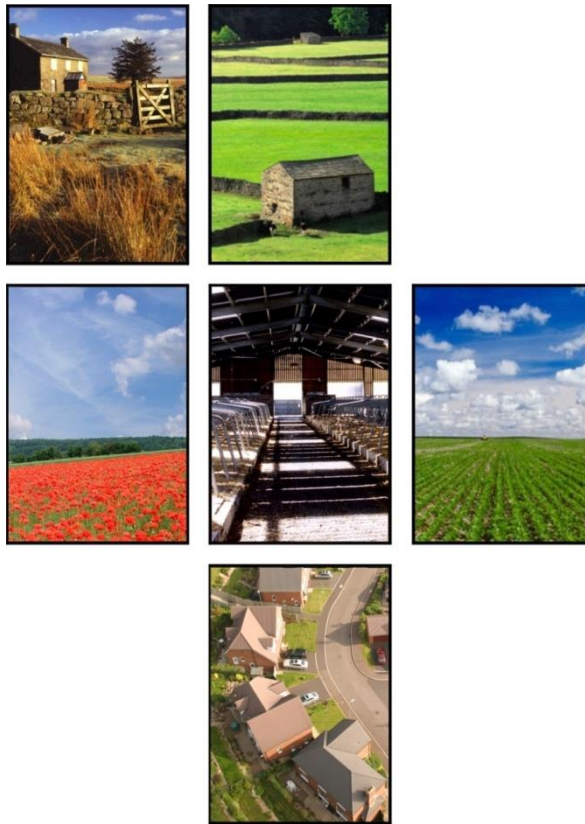


CHARTERED SURVEYORS & PLANNING CONSULTANTS  
BURY ST EDMUNDS – EXETER – WOLVERHAMPTON

## Agricultural Land Use Assessment

**'PHASE 2' LAND AT CARDWELL FARM, GARSTANG ROAD, BARTON,  
PRESTON, LANCASHIRE**



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**May 2018**

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Appendix 1 – Site Location Plan

## **1. INTRODUCTION**

- 1.1 This report has been prepared to inform a planning application for residential development on approximately 8.7 ha (21.5 acres) of mainly agricultural land located east of Cardwell Farm, Garstang Road, Barton, Preston, Lancashire.
- 1.2 Acorus Rural Property Services Limited (Acorus) was instructed by Wainhomes (North West) Limited to undertake a site specific desk study of the subject fields, east of the A6 Garstang Road, in the south-eastern part of the village of Barton.
- 1.3 A site location plan is included at Appendix 1. The land assessed for this report is shown hatched black and outlined in red on the plan and includes a copse on the southern boundary, known as 'Black Fir Wood'.
- 1.4 A site reconnaissance survey was undertaken on 11 May 2018 to inform the desktop study, which was completed on 29 May.

## **2. THE ALC SYSTEM**

- 2.1 Land quality varies across the country and the Agricultural Land Classification (ALC) of England & Wales was developed by Government in the 1960s to inform decisions about future use of land within the planning system<sup>i</sup>.
- 2.2 The ALC assigns land into one of five grades (from Grade 1, excellent, to Grade 5, very poor) based on soil and site factors which affect the long term potential of the land for agricultural use. These factors include climate, site and soil and the interactions between them.
- 2.3 The relationship between climate and soil determines soil wetness and susceptibility to drought, which in turn affect the range of crops, level and consistency of yield and the cost of obtaining the crop.
- 2.4 The whole of the country was given a Provisional ALC grade in the 1960's-1970's and the results produced at a scale of one inch to one mile (1:63,630). These maps are no longer available but the information is reproduced on 1:250,000 scale maps available on the Government's Magic website<sup>ii</sup>.

2.5 The ALC considers climate, geology, soil and site limitations when assessing land quality and these factors are discussed below for the subject land east of Cardwell Farm, Garstang Road, Barton.

### **3. CARDWELL FARM 'PHASE 2' SITE**

#### **3.1 Site Description**

3.1.1 The proposed development site comprises five small fields, part of a sixth field plus a copse, totalling approximately 8.7 ha. The land is located in the south east of Barton, east of the A6 Garstang Road.

3.1.2 The gardens of houses east of Garstang Road and the Woodlands Crescent residential development adjoin to the north-west and south-west respectively. The premises of Barton Grange Landscapes are located at Cardwell Farm, immediately to the west. The grass field immediately south of Cardwell Farm has planning consent for the 'Phase 1' residential development. Fields in the same ownership adjoin to the north east, east and south.

3.1.3 The land is accessed from Garstang Road via a gateway from Cardwell Farm. There are hedgerows with mature trees on most of the field boundaries with stockproof fencing to most boundaries and adjacent to the residential properties. The north-east site boundary cuts across a field and part of the south-east boundary is open.

3.1.4 The northern fields are in grassland use for mowing for hay/silage with subsequent livestock grazing. The southern two fields are in long-term pasture for livestock grazing. At the time of the walkover, livestock were grazing the southern fields and the land appeared well managed.

3.1.5 Most of the land slopes gently (1-2% fall) from the north-east corner towards the south west. The north-west field appears flat but slopes very gently from east to west. These gradients are not considered to be a limitation on agricultural use.

- 3.1.6 The southern fields and Black Fir Wood have much steeper slopes on the southern margins (12-15% falls) from the north-west to the south-east boundary. These gradients are a limitation to agricultural use because of safety and environmental factors.
- 3.1.7 There are drainage ditches alongside most of the north-south hedge boundaries, flowing southwards. Most of the ditches are relatively shallow and were not running at the time of the site inspection. A land drain outfall was noted in the south-west corner and was running at the time of the site inspection. There are two ponds within the fields and two on the boundary of the land; all the ponds were full at the time of the site inspection.
- 3.1.8 During the site inspection, which followed a period of approximately nine months of high rainfall, standing water indicative of poor drainage was noted in several areas in the northern, flatter part of the site. Areas near some of the field access gateways were rutted from recent tractor access.

### 3.2 Climate

- 3.2.1 The climatological data (see Table 1) for the area indicates the site has slightly below average temperature, average rainfall and an average number of field capacity days for the region.

<b>Table 1. Climatological information<sup>iii</sup></b>	
<b>Factor</b>	<b>Value</b>
Altitude AOD	36.5 m
Accumulated temperature	1368.5 Day°C (Jan-June)
Average Annual Rainfall	1053.7 mm
Field Capacity Days	237.2 days
Moisture Deficit Wheat	67.7 mm
Moisture Deficit Potatoes	50.4 mm

- 3.2.2 Climate does not restrict land quality on this site. Soil wetness is likely to be the most limiting factor to the classification of this land.

### **3.3 Geology and Soils**

- 3.3.1 The geology map shows that the site is underlain by a solid geology of Sherwood Sandstones Group overlain by glacial drift. The resulting soils around Barton are mapped as Salop soil association on the regional soil map<sup>iv</sup>.
- 3.3.2 The Salop association consists of soils which have formed in reddish till (glacial drift material). These soils are slowly permeable seasonally waterlogged reddish fine loamy over clayey, fine loamy and clayey soils with slowly permeable subsoils.
- 3.3.3 Salop soils are waterlogged for long periods in winter and are generally classified as Wetness Class IV – poorly drained.
- 3.3.4 The predominant agricultural land use of these soils in Lancashire is short term and permanent grassland, often to support dairy farming.

### **3.4 Flood Risk**

- 3.4.1 The topographical survey provided by Wainhomes<sup>v</sup> shows general falls from the north east boundary (39.5 m) to the south west corner (25.5 m), with the main falls (35.0 m to 25.5 m) being on the southern margin of the site.
- 3.4.2 The land is not on a floodplain and the land is not designated floodplain as shown on the Gov.UK flood maps<sup>vi</sup>. The Barton area is in Flood Zone 1, i.e. an area which is at low risk (1:1000 year) of flooding. Therefore, flood risk does not influence the agricultural land quality of this land.

### **3.5 Provisional ALC Grade**

- 3.5.1 The Provisional ALC map<sup>vii</sup> showed the land at Garstang Road as Grade 3, i.e. good to moderate quality agricultural land. This general grading is also indicated on the 1:250,000 scale mapping on the MAGIC.GOV website.
- 3.5.2 These maps provide a good indication of land quality but cannot be relied on to give a site specific grade.

#### **4. POTENTIAL ALC GRADE OF SITE**

- 4.1 A search of the Government's 'Magic' database indicates no local detailed surveys have been undertaken using the MAFF 'post 1988' ALC criteria<sup>viii</sup> which could be used to give an indication of the accuracy of the Provisional ALC maps in this area.
- 4.2 The potential ALC grade has therefore been determined from the geology and soils maps, a knowledge of the soil types and the results of the walkover survey.
- 4.3 The description of Salop soil association as Wetness Class IV is supported by the evidence of standing water seen in places during the site inspection on 11 May 2018.
- 4.4 Taking into account the known information about the site as outlined above, and so long as the soils maps are accurate at this scale, in my opinion the land quality of this site is likely to be predominantly **Subgrade 3b**, i.e. moderate quality agricultural land. Small areas of Grade 4 are likely to be included, for example the steeper sloping land on the southern margin of the site.
- 4.5 A site specific survey of the land would need to be undertaken to determine the definitive grade in this area.

**E A ROGERS FRICS IEng MIAgrE**

Senior Consultant

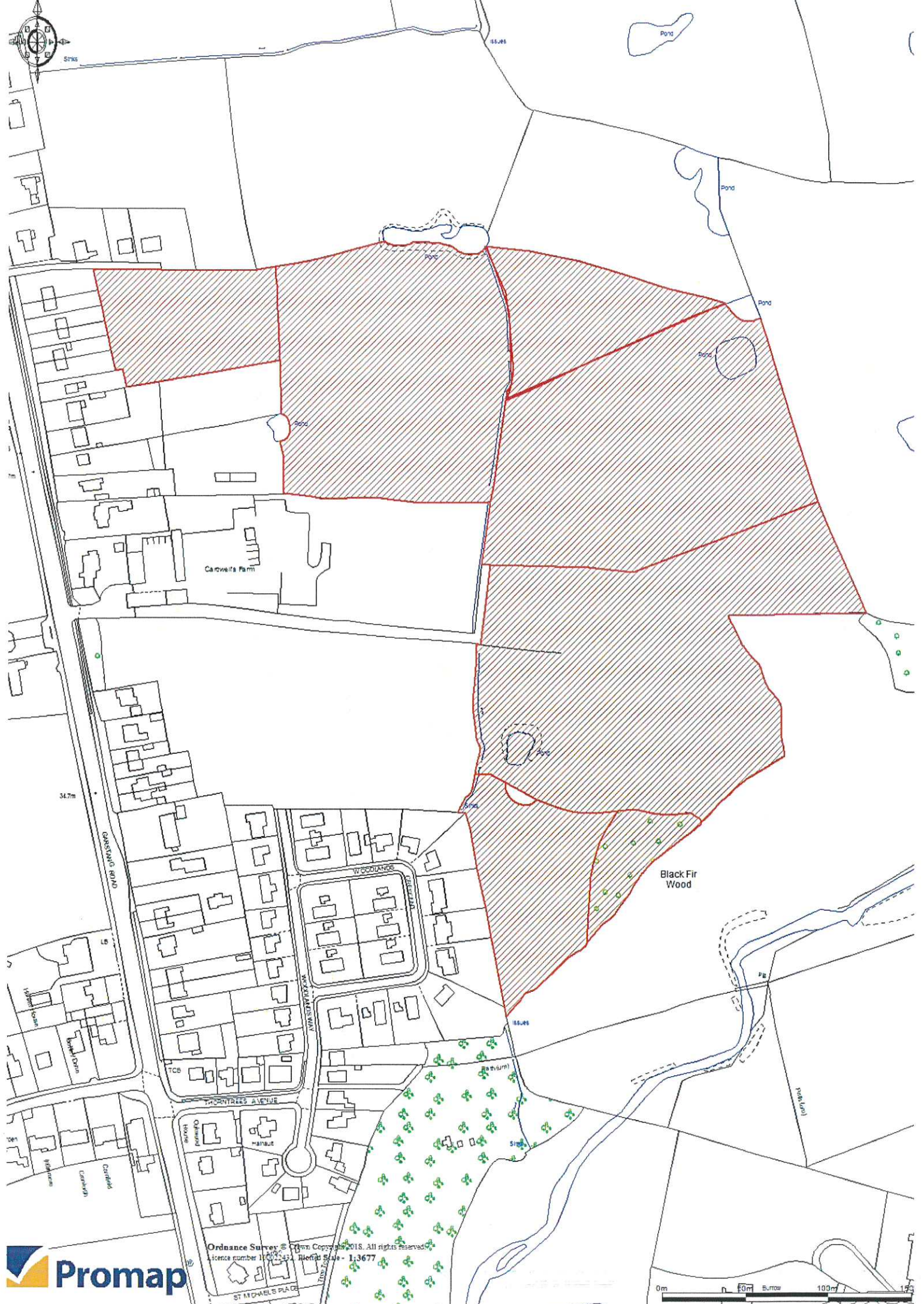
May 2018

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- <sup>ii</sup> <http://magic.defra.gov.uk/>, accessed 29.05.18
- <sup>iii</sup> Climatological Data for Agricultural Land Classification, The Meteorological Office, 1989
- <sup>iv</sup> Soils of England and Wales map, Sheet 3, Midlands and Western England, SSEW, 1;250,000, 1983
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- <sup>vi</sup> <https://flood-map-for-planning.service.gov.uk> accessed 29.05.18
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- <sup>viii</sup> Revised guidelines and criteria for grading the quality of agricultural land, MAFF, 1988



**SITE LOCATION PLAN**



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