

AGRICULTURAL LAND CLASSIFICATION

A65 MANOR PARK TO DENTON BRIDGE
BYPASS

MAFF
Leeds Regional Office

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lds.AL4.Manor.Prk

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1. AGRICULTURAL LAND CLASSIFICATION

AGRICULTURAL LAND CLASSIFICATION REPORT: LAND AROUND THE
PROPOSED A65 MANOR PARK TO DENTON BRIDGE BYPASS, ILKLEY

1.0 Introduction and Site Characteristics

1.1 Location

National Grid Reference:-

SE 15004720.

Location Details:-

The area is located
between Denton Bridge,
Ilkley and
Burley in Wharfedale,
adjacent to the A65.

Site Size:-

110 ha.

1.2 Survey Methods

Date Surveyed:-

21 June 1991

Boring Density and Spacing Basis:-

One boring per hectare
at 100 m intervals
based on the National
Grid.

Sampling Method:-

Hand auger borings to
1 metre using Dutch
auger.

Number of Borings:-

110.

All land quality assessments were made using the methods described in "Agricultural Land Classification of England and Wales: Revised Guidelines and Criteria for grading the quality of agricultural land (MAFF 1988)".

1.3 Land Use:-

Permanent pasture,
sporting grounds,
residential, sewage
works, vehicle garage.

1.4 Climate and Relief

Average Annual Rainfall (AAR):-

835 mm

Accumulated Temperature above
0°C (January-June):-

1336 day °C

Field Capacity Days:-

209 days

Altitude average:-

70 m a.o.d.

maximum:-

100 m a.o.d.

minimum:-

65 m a.o.d.

Climatic limitation (based on
interaction of rainfall and
temperature values:-

Grade 2

Relief:-	River terrace, floodplain and valley side.
Slopes (°):-	Less than 7°.
Gradient Limitations:-	
Limiting gradient(s):-	No gradient limitations.
Grade(s)/subgrade(s):-	
Occurrence on site:-	

1.5 Geology and Soil

Solid Strata:-	Carboniferous shales and sandstones.
Depth of solid rock from surface:-	More than 1 m.
Drift types:-	Alluvium and boulder clay.
Thickness of drift and distribution:-	Greater than 1 m. Alluvium is adjacent to River Wharfe. Boulder clay occurs elsewhere.

Soil Types and Distribution:-	Alluvial soils adjoin the River Wharfe. Boulder clay soils occur on the footslopes of Ilkley Moor.
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Soil Textures (topsoils and subsoils):-	Alluvial soils consist of sandy loam topsoils and subsoils. Boulder clay soils consist of medium clay loam topsoils over heavy clay loam subsoils.
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Soil Series/Associations:-

On 1/250000 map:-

Alun and Dunkeswick associations.

Identified on site:-

Alun and Dunkeswick associations.

Soil Limitations and type:-

Slight soil droughtiness and flood risk on the alluvial soils. Soil wetness on the boulder clays.

1.6 Drainage

Soil type and Wetness Class:-

Alluvial soils:- Wetness Class I. Boulder clay soils: Wetness Classes III or IV.

Drainage Limitations:-

Slowly permeable subsoils on the boulder clays.

2.0 Agricultural Land Classification Grades

The ALC grades occurring on the site are as follows:-

<u>Grade/Subgrade</u>	<u>Hectares</u>	<u>Percentage of Agricultural Area</u>	<u>Percentage of Total Area</u>
2	23.80	30.3	22.3
3a	8.21	10.4	7.7
3b	36.86	47.0	34.5
4	9.63	12.3	9.0
Non Agricultural	16.96	-	16.0
Urban	11.30	-	10.5
Other			
Total	<u>106.76</u>	<u>100</u>	<u>100</u>

Grade 2

Distribution on site:-

Widespread on the flat land adjoining the River Wharfe.

Soil Type(s) and Texture(s):-

Alluvial soils, consisting of brown sandy loam topsoils over similar subsoils.

Depth to Slowly Permeable Layers:-

Greater than 1 m.

Wetness and Drainage Class:-

Wetness Class I, well drained.

Stone Percentage and Type:-

None.

Grade Limiting Factors:-

Slight droughtiness.

Other Limiting Factor(s):-

Flooding, especially close to the river.

Subgrade 3a

Distribution on site:-

Around Greystone Manor.

Soil Type(s) and Texture(s):-

Boulder clay soils consisting of medium clay loam topsoils over similar upper subsoils with slowly permeable heavy clay loam lower subsoils.

Depth to Slowly Permeable Layers:-

55 to 80 cm.

Wetness and Drainage Class:-

Wetness Class III, imperfectly drained.

Stone Percentage and Type:-

None.

Grade Limiting Factors:-

Slight soil wetness and workability problems.

Subgrade 3b

Distribution on site:-

Land in this subgrade is dominant on the footslope of Ilkley Moor and near Burley in Wharfedale.

Soil Type(s) and Texture(s):-

Boulder clay soils, consisting of medium clay loam topsoils over slowly permeable lower subsoils.

Depth to Slowly Permeable Layers:-

Less than 55 cm.

Wetness and Drainage Class:-

Wetness Class IV, poorly drained.

Stone Percentage and Type:-

None.

Grade Limiting Factors:-

Soil wetness and workability problems.

Grade 4

Distribution on site:- Main occurrences are adjoining the railway at Riversdale and south west of Black Bull Farm.

Soil Type(s) and Texture(s):- Boulder clay, consisting of heavy clay loam topsoils over similar slowly permeable subsoils.

Depth to Slowly Permeable Layers:- Less than 55 cm.

Wetness and Drainage Class:- Wetness Class IV, poorly drained.

Stone Percentage and Type:- None.

Grade Limiting Factors:- Soil wetness and workability.

Other Limiting Factor(s):- A small low lying area of Grade 4 on the river floodplain north of Riverside is subject to frequent ponding in winter, caused probably by high ground water levels controlled by the river. This area is limited to Grade 4 by frequent flood risk.

Non Agricultural

Type and location of land included:-

Ben Rhydding Sports
Ground, woodland and
derelict grassland.

Urban

Type of land use included:-

Sewage works, A65, farm
tracks, vehicle garage,
Greystone Manor,
Esscroft and Blackbull
Farms.

Resource Planning Group
Leeds Regional Office
July 1991

MAP