HARROGATE DISTRICT LOCAL PLAN (REFERENCE R6, EAST OF LEEDS ROAD, PANNAL)

Agricultural Land Classification (ALC) Map and Report

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AGRICULTURAL LAND CLASSIFICATION REPORT

HARROGATE DISTRICT LOCAL PLAN (REFERENCE R6, EAST OF LEEDS ROAD, PANNAL)

INTRODUCTION

1. This report presents the findings of a detailed Agricultural Land Classification (ALC) survey of 20.2 ha of land lying between Pannal and Harrogate, on the east side of the A61.

2. The survey was carried out by the Farming and Rural Conservation Agency (FRCA) for the Ministry of Agriculture, Fisheries and Food (MAFF), in connection with the proposal to include this land in the Harrogate District Local Plan.

3. The work was conducted by members of the Resource Planning Team in the Northern Region of FRCA . The land has been graded in accordance with the published MAFF ALC guidelines and criteria (MAFF, 1988). A description of the ALC grades and subgrades is given in Appendix I.

4. At the time of survey the land on the site was mainly in ley and permanent grass. A small area in the north of the site is not in agricultural use and has been subject to fly-tipping in recent years.

SUMMARY

5. The findings of the survey are shown on the enclosed ALC map. The map has been drawn at a scale of 1:5,000. It is accurate at this scale but any enlargement would be misleading.

6. The area and proportions of the ALC grades and subgrades on the surveyed land are summarised in Table 1.

Table 1: Area of grades and other land

Grade/Other land	Area (hectares)	% surveyed area	% site area
1			
2			
3a			
3b	11.9	65.4	58.9
4	6.3	34.6	31.2
5			
Agricultural land not surveyed		N/A	
Other land	2.0	N/A	9.9
Total surveyed area	18.2	100	-
Total site area	20.2	-	100

7. The fieldwork was conducted at an average density of one boring per hectare. A total of eighteen borings and one soil pit were described.

8. Most of the site falls in Subgrade 3b, moderate quality agricultural land. The soils are poorly drained and consist of medium clay loam topsoils overlying heavy clay loam or clay subsoils at between 20 cm and 30 cm depth. The subsoils are gleyed and slowly permeable and the ALC grade of the land is limited by soil wetness.

9. The remainder of the agricultural land falls in Grade 4, poor quality land. The soils are similar to those on the Subgrade 3b land but heavy clay loam topsoils make this land less workable at critical times of year. This additional topsoil workability limitation further restricts the ALC grade of this land to Grade 4.

10. Other, non-agricultural, land on this site occurs in the north. This area is not in agricultural use and contains the remains of the demolished Carr Farm and other refuse and rubble which have apparently been fly-tipped.

FACTORS INFLUENCING ALC GRADE

Climate

11. Climate affects the grading of land through the assessment of an overall climatic limitation and also through interactions with soil characteristics.

12. The key climatic variables used for grading this site are given in Table 2 and were obtained from the published 5 km grid datasets using the standard interpolation procedures (Met. Office, 1989).

Table 2: Climatic and altitude data

Factor	Units	Values
Grid reference	N/A	SE 313 520
Altitude	m, AOD	85
Accumulated Temperature	day°C (Jan-June)	1313
Average Annual Rainfall	mm	783
Field Capacity Days	days	196
Moisture Deficit, Wheat	mm	87
Moisture Deficit, Potatoes	mm	73
Overall climatic grade	N/A	Grade 2

13. The climatic criteria are considered first when classifying land as climate can be overriding in the sense that severe limitations will restrict land to low grades irrespective of favourable site or soil conditions.

14. The main parameters used in the assessment of an overall climatic limitation are average annual rainfall (AAR), as a measure of overall wetness, and accumulated temperature (ATO, January to June), as a measure of the relative warmth of a locality.

15. The combination of rainfall and temperature at this site means that there is an overall climatic limitation of Grade 2.

Site

16. This site is level to gently sloping (0-3°) with a northerly aspect. Neither gradient, flood risk nor microrelief limit ALC grade at any point on the site.

Geology and soils

17. The site is underlain by Carboniferous Millstone Grit over which lie deep deposits of till (BGS, Sheet 62).

18. The soil on the site have been mapped as belonging to the Dunkeswick association (Soils of England and Wales, Sheet 1).

AGRICULTURAL LAND CLASSIFICATION

19. The details of the classification of the site are shown on the attached ALC map and the area statistics of each grade are given in Table 1, page 1.

Subgrade 3b

20. Most of the site has been mapped as Subgrade 3b, moderate quality agricultural land. The soils are poorly drained (Wetness Class IV) and consist of medium clay loam topsoils overlying gleyed and slowly permeable heavy clay loam or, more often, clay subsoils. The ALC grade of this land is limited by significant soil wetness restrictions.

Grade 4

21. The remainder of the agricultural land falls in Grade 4, poor quality land. The soils are similar to those on the Subgrade 3b land but the topsoils consist of heavy clay loam. The higher clay content of these topsoils makes the land less workable when wet, and this further limits the ALC grade of this land to Grade 4.

Other land

22. Other land on this site occurs in the north. It includes the remains of the demolished Carr Farm and some areas of scrub which have apparently been subject to the tipping of rubble and other debris in recent years.

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SOURCES OF REFERENCE

British Geological Survey (1987) *Sheet No. 62, Harrogate. 1:50,000 scale.* BGS: London.

Ministry of Agriculture, Fisheries and Food (1988) *Agricultural Land Classification of England and Wales: Revised guidelines and criteria for grading the quality of agricultural land.* MAFF: London.

Met. Office (1989) *Climatological Data for Agricultural Land Classification.* Met. Office: Bracknell.

Soil Survey of England and Wales (1983) *Sheet 1, Soils of Northern England, 1:250,000 scale.* SSEW: Harpenden.

Soil Survey of England and Wales (1984) *Soils and their Use in Northern England* SSEW: Harpenden

APPENDIX I

DESCRIPTIONS OF THE GRADES AND SUBGRADES

Grade 1: Excellent Quality Agricultural Land

Land with no or very minor limitations to agricultural use. A very wide range of agricultural and horticultural crops can be grown and commonly includes top fruit, soft fruit, salad crops and winter harvested vegetables. Yields are high and less variable than on land of lower quality.

Grade 2: Very Good Quality Agricultural Land

Land with minor limitations which affect crop yield, cultivations or harvesting. A wide range of agricultural or horticultural crops can usually be grown but on some land of this grade there may be reduced flexibility due to difficulties with the production of the more demanding crops such as winter harvested vegetables and arable root crops. The level of yield is generally high but may be lower or more variable than Grade 1 land.

Grade 3: Good to Moderate Quality Land

Land with moderate limitations which affect the choice of crops, the timing and type of cultivation, harvesting or the level of yield. When more demanding crops are grown, yields are generally lower or more variable than on land in Grades 1 and 2.

Subgrade 3a: Good Quality Agricultural Land

Land capable of consistently producing moderate to high yields of a narrow range of arable crops, especially cereals, or moderate yields of a wide range of crops including cereals, grass, oilseed rape, potatoes, sugar beet and the less demanding horticultural crops.

Subgrade 3b: Moderate Quality Agricultural Land

Land capable of producing moderate yields of a narrow range of crops, principally cereals and grass, or lower yields of a wider range of crops or high yields of grass which can be grazed or harvested over most of the year.

Grade 4: Poor Quality Agricultural Land

Land with severe limitations which significantly restrict the range of crops and/or the level of yields. It is mainly suited to grass with occasional arable crops (e.g. cereals and forage crops) the yields of which are variable. In moist climates, yields of grass may be moderate to high but there may be difficulties in utilisation. The grade also includes very droughty arable land.

Grade 5: Very Poor Quality Agricultural Land

Land with severe limitations which restrict use to permanent pasture or rough grazing, except for occasional pioneer forage crops.