WEST LANCASHIRE LOCAL PLAN Objection 0583/3 **Agricultural Land Classification** ALC Map and Report July 1997

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AGRICULTURAL LAND CLASSIFICATION REPORT WEST LANCASHIRE LOCAL PLAN Objection 0583/3

INTRODUCTION

- 1. This report presents the findings of a detailed Agricultural Land Classification (ALC) survey on 8.6 hectares of land. The results of this survey supersede any previous ALC information for this land. The land is located to the east of Burscough Bridge, Ormskirk. The survey was in connection with the West Lancashire Local Plan.
- 2. The survey was undertaken on behalf of the Ministry of Agriculture, Fisheries and Food (MAFF) in June 1997 by the Resource Planning Team of the Farming and Rural Conservation Agency (FRCA)- Northern region of FRCA.
- 3. The land has been graded in accordance with the publication "Agricultural Land Classification of England and Wales Revised guidelines and criteria for grading the quality of agricultural land" (MAFF 1988).
- 4. At the time of survey the agricultural land on this site was under barley in the west and flowers in the centre and east of the site.

SUMMARY

- 5. The findings of the survey are shown on the enclosed ALC map. The map has been drawn at a scale of 1:10 000 with an average auger boring density of 1 per hectare. The ALC map is only accurate at this base map scale and 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 | 2.9 | 40 | 34 |
| 3a | - | - | - |
| 3b | 4.4 | 60 | 51 |
| 4 | - | - 1 | - |
| 5 | - | l - i | - |
| Agricultural land not | | N/A | |
| surveyed | - | | - |
| Other land | 1.3 | N/A | 15 |
| Total surveyed area | 7.3 | 100 | · _ |
| Total site area | 8.6 | - | 100 |

- 7. The agricultural land on this site has been classified as Grade 2 (very good quality) and Subgrade 3b (moderate quality). The key limitation to the agricultural use of this land is soil wetness.
- 8. The area of good quality land is located in the centre of the site. The soils have a sandy loam topsoil overlying loamy sand and sand, with clay below 85 cm.
- 9. The area of moderate quality land is mapped in the west and east of the site. The soils in this area have a sandy clay loam topsoil overlying sandy clay loam and a gleyed and slowly permeable clay lower subsoil.

FACTORS INFLUENCING ALC GRADE

Climate

- 10. Climate affects the grading of land through the assessment of an overall climatic limitation and also through interactions with soil characteristics.
- 11. The key climatic variables used for grading this site are given in Table 2 and were obtained from the published 5km grid datasets using standard interpolation procedures (Meteorological Office, 1989).

Factor Units Values N/A SD 451 111 Grid reference Altitude m, AOD 20 Accumulated Temperature day°C (Jan-June) 1425 937 Average Annual Rainfall mm 214 Field Capacity Days days Moisture Deficit, Wheat 79 mm Moisture Deficit, Potatoes 64 mm N/A Grade I Overall climatic grade

Table 2: Climatic and altitude data

- 12. 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.
- 13. 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 (AT0, January to June), as a measure of the relative warmth of a locality.
- 14. The combination of rainfall and temperature at this site means that there is no overall climatic limitation. The site is climatically Grade 1.

Site

- 15. The site lies at an altitude of 15 to 25 metres AOD. The land rises from Briars Mill in the east of the site towards Glovers Bridge in the north west of the site.
- 16. The three site factors of gradient, microrelief and flooding are considered when classifying the land.
- 17. These factors do not impose any limitations on the agricultural use of this land.

Geology and Soils

- 18. The solid geology of the area is comprised of Bunter Sandstone. This is overlain with deposits of boulder clay British Geological Survey (1977).
- 19. The soils that have developed on this geology are either of a sandy clay loam texture or a sandy loam texture over sand and clay at depth.

Agricultural Land Classification

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

Grade 2

- 21. Land of very good quality occupies 2.9 hectares (34%) of the site area and is found in the centre of the site.
- 22. The soil has a sandy loam texture over loamy sand and sand to depth of at least 90 cm with clay below this depth. A thin band of stones marks the sharp change in texture between the sand and the clay in the lower subsoil. The depth to gleying place these soils in Wetness Class II.
- 23. The main limitation to the agricultural use of this land is soil wetness.

Subgrade 3b

- 24. Land of moderate quality occupies 4.4 hectares (51%) of the site area and is found in the west and the east of the site.
- 25. The soil has a sandy clay loam texture overlying sandy clay loam and clay. The depths to gleying and the slowly permeable layer place these soils in Wetness Class IV.
- 26. The main limitation to the agricultural use of this land is soil wetness.

Other Land

27. Other land occupies 1.3 hectares (15%) of the site area and includes a pond, trackway and woodland in the south and east of the site.

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SOURCES OF REFERENCE

British Geological Survey (1977) Sheet 84, Wigan Solid and Drift Edition. 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.

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