SEFTON UNITARY DEVELOPMENT PLAN
SITE BB, MAGHULL

Agricultural Land Classification
ALC Map and Report
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AGRICULTURAL LAND CLASSIFICATION REPORT
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INTRODUCTION

1. This report presents the findings of a detailed Agricultural Land Classification (ALC) survey on 86.2 hectares of land. The results of this survey supersede any previous ALC information for this land. The land is located to the east of Maghull, Merseyside. The survey was in connection with the Sefton Unitary Development Plan.

2. The survey was undertaken on behalf of the Ministry of Agriculture, Fisheries and Food (MAFF) in September 1998 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 majority of the agricultural land on this site was fallow (cereal and pea stubble and ploughed land) with a small area under leeks.

SUMMARY

5. The findings of the survey are shown on the enclosed ALC map. The map has been drawn at a scale of 1:10000 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	9.3	12	11
3a	69.3	88	80
3b	-	-	-
4	-	-	-
5	-	-	-
Agricultural land not surveyed	-	N/A	-
Other land	7.6	N/A	9
Total surveyed area	78.6	100	-
Total site area	86.2	-	100

7. The agricultural land on this site has been classified as Grade 2 (very good quality) and Subgrade 3a (good quality). The key limitations to the agricultural use of this land are soil wetness and soil droughtiness.

8. The area of very good quality land is located in the west of the site adjacent to Poverty Lane and along Whinny Brook. The soils have either a sandy loam or a loamy sand topsoil overlying sandy loam, loamy sand and sand.

9. The area of good quality land is mapped across the majority of the site. There are two typical soil profiles in this area. Firstly, there are the soils that have a loamy sand topsoil texture over loamy sand and sand to depth and secondly there are the soils that have a loamy sand topsoil texture over loamy sand, sand and clay to depth. Within this grade of land there are isolated auger borings of Grade 2 and Subgrade 3b quality which cannot be shown separately at this scale of mapping.

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).

Table 2: Climatic and altitude data

Factor	Units	Values	
Grid reference	N/A	SD 392 020	SD 396 024
Altitude	m, AOD	22	27
Accumulated Temperature	day°C (Jan-June)	1428	1422
Average Annual Rainfall	mm	831	847
Field Capacity Days	days	195	197
Moisture Deficit, Wheat	mm	86	84
Moisture Deficit, Potatoes	mm	72	70
Overall climatic grade	N/A	Grade 1	Grade 1

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 22 to 27 metres AOD. The land within the site is relatively flat with only a few minor undulations. The lowest lying land is associated with the Whinny Brook.

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 drift deposits of Blown Sand - British Geological Survey (1950, 1974, 1976, 1977).

19. The soils the have developed on this geology are generally of a loamy sand texture over sand, with occasional lenses of clay within the subsoil.

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 9.3 hectares (11%) of the site area and is found in two areas in the west of the site, adjacent to Poverty Lane and along the Whinny Brook.

22. Adjacent to Poverty Lane the soil has either an organic sandy loam or a loamy sand topsoil texture over loamy sand and sand to depth, with few or no stones within the profile. The moisture balance places these soils in Grade 2.

23. On the flanks of the Whinny Brook the soil has either an organic sandy loam or an organic loamy sand topsoil texture over organic sandy loam, loamy sand and sand, with few or no stones within the soil profile.

24. Within this grade of land there are isolated auger borings of Grade 1 quality where there are deep organic sandy loam topsoils or organic mineral subsoils. These isolated borings cannot be shown separately at this scale of mapping.

25. The main limitation to the agricultural use of this land is soil droughtiness.

Subgrade 3a

26. Land of good quality occupies 69.3 hectares (88%) of the site area and extends across the majority of the site. There are two types of soils in this grade of land.

27. Across a large part of this unit the soil has a loamy sand topsoil texture, overlying loamy sand and sand to depth, with few or no stones within the profile. The moisture balance places these soils in Subgrade 3a.

28. The main limitation to the agricultural use of this land is soil doughtiness.

29. To the south of Whinny Brook and around Bradley's Farm the soil has a loamy sand topsoil texture overlying loamy sand and sand to a depth of between 53 and 70cm. Below this depth a thin band of stones marks a sharp change in texture to clay. The depths to gleying and the slowly permeable layer place these soils in Wetness Class III.

30. The main limitation to the agricultural use of this land is soil wetness.

31. Occasionally the soil profiles described within this grade of agricultural land have sandy loam topsoil textures and subsoils with organic mineral horizons or clay. The presence of such textures within this unit of land results in there being isolated auger borings of Grade 2 and Subgrade 3b quality which cannot be shown separately at this scale of mapping.

Other Land

32. Other land occupies 7.6 hectares (9%) of the site area and includes Bradley's Farm, Bridge Farm, Summerhill Farm, trackways, scrub and derelict glasshouses.

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SOURCES OF REFERENCE

British Geological Survey (1976) Sheet 83, Formby Solid Edition.
1:50 000 Scale.
BGS: London.

British Geological Survey (1974) Sheet 83, Formby Drift Edition.
1:50 000 Scale.
BGS: London.

British Geological Survey (1977) Sheet 84, Wigan Solid Edition.
1:50 000 Scale.
BGS: London.

British Geological Survey (1950) Sheet 84, Wigan Drift Edition.
1:63 360 Scale.
BGS: London.

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

Soil Survey of England and Wales (1987) Soils of the Liverpool District.
SSEW: Harpenden.