BROMSGROVE DISTRICT LOCAL PLAN : SITE 9
STOKE PRIOR

Agricultural Land Classification Survey
ALC Map and Report
January 1997

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ADAS Reference: 073/96 25/RPT/0389B
MAFF Reference: EL 17/11323
LUPU Commission: WO2057

AGRICULTURAL LAND CLASSIFICATION REPORT
BROMSGROVE DISTRICT LOCAL PLAN : SITE 9
STOKE PRIOR

INTRODUCTION

1. This report presents the findings of a detailed Agricultural Land Classification (ALC) survey on 96.6 hectares of land. The land is located south of Stoke Prior, adjacent to the Worcester and Birmingham Canal and Stoke Works. The survey was undertaken by the Resource Planning Team at Wolverhampton (Northern ADAS Statutory Centre) during January 1997.

2. The survey was commissioned by the Ministry of Agriculture, Fisheries and Food (MAFF) from its Land Use Planning Unit in Crewe. The survey was in connection with the Bromsgrove Local Plan. The results of this survey supersede any previous ALC information for this land.

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 permanent grassland and cereals.

SUMMARY

5. The findings of the survey are shown on the attached ALC map. At the request of the Land Use Planning Unit this was a detailed grid survey at a scale of 1:10 000 with a minimum auger boring density of 1 per hectare. The ALC map is only accurate at the 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 below.

Table 1: Area of grades and other land

Grade/Other land	Area (hectares)	% site area	% surveyed area
2	3.7	3.9	4.4
3a	46.2	47.8	55.1
3b	34.0	35.2	40.5
Other Land	12.7	13.1	-
Total surveyed area	83.9	-	100.0
Total site area	96.6	100.0	-

7. The agricultural land on this site has been classified as Grade 2 (very good quality), Subgrade 3a (good quality), and Subgrade 3b (moderate quality), the main limitation being soil wetness.

8. The area of very good quality land is located in the west of the site. The soils commonly comprise a medium clay loam topsoil overlying either a medium or heavy clay loam upper subsoil onto clay at depth.

9. Areas of good quality land are found throughout the site. These soils comprise a medium clay loam topsoil overlying a heavy clay loam and clay subsoils.

10. Areas of moderate quality land are found mainly in the north and east of the site and soils comprise either a medium or heavy clay loam topsoil over heavy clay loam and clay subsoils.

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 below and were obtained from the published 5km grid datasets using standard interpolation procedures (Met. Office, 1989).

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.

Table 2: Climatic and altitude data

Factor	Units	Values
Grid reference	N/A	SO 945 660
Altitude	m, AOD	71
Accumulated Temperature	day°C	1419
Average Annual Rainfall	mm	656
Field Capacity Days	days	143
Moisture Deficit, Wheat	mm	106
Moisture Deficit, Potatoes	mm	97

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 no overall climatic limitation. Local climatic factors, such as exposure and frost risk, are not believed to significantly affect the site. The site is climatically Grade 1.

Site

16. The site lies between 60-90m AOD. The land rises from the west of the site towards a hill top north east of New Elms Farm. In the south of the site a spur of higher land occurs (from Malvern View to Elms Farm) with a dry valley to the west, and flatter land to the east.

17. Three site factors of gradient, microrelief and flooding are considered when classifying the land.

18. Three areas in the east of the site were identified with a gradient of between seven and eleven degrees, placing the land in subgrade 3b.

19. Microrelief and flooding do not impose any limitations on the agricultural use of this land.

Geology and soils

20. The solid geology of the area is comprised of Triassic Keuper Marl. No drift deposits overlie this.

21 The soils that have developed on this geology are generally either of a slightly stony clay loam or silty clay loam texture overlying clay.

Agricultural Land Classification

22. 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.

Grade 2

23. Land of very good quality occupies 3.7 hectares (3.9%) of the site area and occurs along the eastern boundary of the site.

24. The soil has a medium clay loam topsoil texture over either medium or heavy clay loam subsoils overlying clay at depth. The moisture balance places these soils in Grade 2.

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

Subgrade 3a

26 Land of good quality occupies 46.2 hectares (47.8%) of the site area and is found throughout the site, especially in the west.

27. The soil has a medium clay loam texture over heavy clay loam and clay. The depth to gleying and the slowly permeable layer place these soils in Wetness Class III.

28. Areas mapped as Subgrade 3a contain isolated borings of Grade 2 and 3b quality. However, these ares are too small to be mapped separately.

29 The main limitation to the agriculture use of this land is soil wetness.

Subgrade 3b

30. Land of moderate quality occupies 34.0 hectares (35.2%) of the site area and occurs mainly on the higher ground, particularly in the north east of the site.

31. The soils typically have either a medium or heavy clay loam texture over heavy clay loam and clay. The depth to gleying and the slowly permeable layer place these soils in Wetness Class IV.

32. Gradients of between seven and eleven degrees were identified on three slopes, placing the land in subgrade 3b.

33. The main limitations to the agricultural use of this land are soil wetness and gradient.

Other Land

34. Other land occupies 12.7 hectares (13.1%) of the site area and includes farm buildings, woodland, a sports ground, urban land, an area of rubble and scrub and a road.

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SOURCES OF REFERENCE

British Geological Survey (1976) *Sheet 182, Droitwich 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.*
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