

**GILSON HALL FARM, COLESHILL
MAJOR INVESTMENT SITE PROPOSAL**

**Agricultural Land Classification Survey
ALC Map and Report
December 1996**

**Resource Planning Team
ADAS Statutory Group
ADAS Wolverhampton**

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**AGRICULTURAL LAND CLASSIFICATION REPORT
GILSON HALL FARM, COLESHILL
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INTRODUCTION

1. This report presents the findings of a detailed Agricultural Land Classification (ALC) survey on 45.1 hectares of land. The land is located to the north of Coleshill and immediately to the east of the M42 motorway. The survey was undertaken by the Resource Planning Team at Wolverhampton (Northern ADAS Statutory Centre) during November and December 1996.
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 major investment sites (MIS) study in the West Midlands. 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 grass.

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 |
|---------------------|-----------------|-------------|-----------------|
| 3a | 26.9 | 60 | 76 |
| 3b | 8.6 | 19 | 24 |
| Other Land | 9.6 | 21 | - |
| Total surveyed area | 35.5 | - | 100 |
| Total site area | 45.1 | 100 | - |

7. The agricultural land on this site has been classified as Subgrade 3a (good quality) and Subgrade 3b (moderate quality), the key limitation being soil droughtiness.

8. The area of good quality land is located on the lower lying land in the south, north and west of the site. The soils commonly comprise of sandy loam topsoils overlying sandy loam, loamy sand and sand to depth.

9. The area of moderate quality land is mapped on the high ground in the east of the site. The soils in this area comprise of a sandy loam topsoil overlying a loamy sand and sand to depth.

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

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.

Table 2: Climatic and altitude data

| Factor | Units | Values |
|----------------------------|--------|------------|
| Grid reference | N/A | SP 190 905 |
| Altitude | m, AOD | 90 |
| Accumulated Temperature | day°C | 1381 |
| Average Annual Rainfall | mm | 659 |
| Field Capacity Days | days | 154 |
| Moisture Deficit, Wheat | mm | 98 |
| Moisture Deficit, Potatoes | mm | 87 |

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 (ATO, January to June), as a measure of the relative warmth of a locality.

14. The combination of rainfall and temperature at this site mean 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

15. The site lies at an altitude ranging from 75-100m AOD. The land rises from the north, south and west of the site towards the highest point in the east of the site adjacent to Lichfield Road.

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

17. Gradient imposes a limitation on the agricultural use of a small area of land to the west of Chattle Hill.

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

Geology and soils

19. The solid geology of the area is comprised of Triassic Keuper Marl. This is overlain with deposits of glacial sands and gravels - British Geological Survey (1950).

20. The soils that have developed on this geology are generally of a sandy loam texture over loamy sand and sand.

Agricultural Land Classification

21. 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.

Subgrade 3a

22. Land of good quality occupies 26.9 hectares (60%) of the site area and extends across the north, south and west of the site.

23. The soil has a sandy loam texture over loamy sand and sand to depth with few to many stones within the profile. The moisture balance places these soils in Subgrade 3a. Where the subsoil contains sandy clay loam, sandy loam and clay, the soils are of Grade 2 quality. However at the scale of mapping used these soils cannot be illustrated separately.

24. At the time of the survey, a small area of land to the west of Gilson Hall, had been poached by cattle.

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

Subgrade 3b

26. Land of moderate quality occupies 8.6 hectares (19%) of the site area and extends across the east of the site.

27. The soil has a sandy loam texture which lies over loamy sand and sand to depth. The soil profile is moderately to very stony. The moisture balance places these soils in Subgrade 3b.

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

Other Land

29. Other land occupies 9.6 hectares (21%) of the site area and is found as allotments, a hotel, houses, playing fields, a pond, a petrol station and scrub.

30. In the south of the site a small area is mapped as Subgrade 3b where it has been disturbed.

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SOURCES OF REFERENCE

British Geological Survey (1950) *Sheet 168, Birmingham. Solid and Drift Edition. 1:63 360 Scale.*

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