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Leeds and Langley By-Pass (B2163)

Agricultural Land Classification
Semi-Detailed Survey
ALC Map and Summary Report
October 1996

Resource Planning Team
Guildford Statutory Group
ADAS Reading

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AGRICULTURAL LAND CLASSIFICATION, SUMMARY REPORT

LEEDS AND LANGLEY BY-PASS (B2163)
SEMI-DETAILED SURVEY

Introduction

1. This report presents the findings of a semi-detailed Agricultural Land Classification (ALC) survey of approximately 258 ha of land at Leeds and Langley, near Maidstone, Kent. The survey was carried out during October 1996.

2. The survey was commissioned by the Ministry of Agriculture, Fisheries and Food (MAFF) from its Land Use Planning Unit in Reading, in connection with proposed routes for a by-pass of the two villages. This survey supersedes the previous ALC survey from 1990 of two previously proposed road routes running along either side of the two villages (ADAS Ref: 2007/012/90). Land on the western side of Leeds, at Ledian Farm, had previously been surveyed by the Resource Planning Team under the Revised Guidelines at a detailed level (ADAS Ref: 2007/008/95). In addition, land to the north of Langley Heath has recently been surveyed at a detailed level (ADAS Ref: 2007/162/96), in connection with the Maidstone Borough Local Plan. The findings of these surveys were taken into account during the current survey.

3. The work was conducted by members of the Resource Planning Team of the Taunton Statutory Group of ADAS. 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 use on the site was a combination of winter cereals, oil seed rape, orchards and permanent pasture. Non-agricultural land included farm tracks and buildings, residential areas and woodland.

5. Parts of the survey area at Butlers Farm and on Forge Lane were not surveyed due to access restrictions.

Summary

6. The findings of the survey are shown on the enclosed ALC map. The map has been drawn at a scale of 1:15,000. It is accurate at this scale but any enlargement would be misleading. The ALC map is overlain by the various route options.

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

8. The fieldwork was conducted at an average density of one boring per two hectares. A total of 121 borings and six soil profile pits were described.

9. Most of the site was found to consist of "best and most versatile" quality land. Due to the nature of the geology (limestone, sandstone, sand and clay beds with Head drift deposits) the quality of the land is variable. Some of the mapping units therefore include profiles of different grades where small areas could not be individually mapped at this level of survey.

Table 1: Area of grades and other land

Grade/Other land	Area (hectares)	% Total site area	% Surveyed Area
1	27.2	10.5	12.0
2	47.2	18.3	20.8
3a	110.3	42.7	48.5
3b	42.6	16.6	18.7
Agricultural land not surveyed	16.1	6.2	-
Other land	14.8	5.7	-
Total surveyed area	227.3	-	100
Total site area	258.2	100	-

10. The Grade 1 land (excellent quality) consists of deep, well drained profiles which have no limitation to their agricultural use. The areas of Grade 2 land (very good quality) and Subgrade 3a land (good quality) tend to be developed over areas of sandy limestone and calcareous sandstone (Hythe Beds) bedrock. Across these parts of the survey area, the combination of soil textures, structures and stone contents restricts the potential amount of moisture which can be held in the profile and the soil may therefore be unable to meet the potential annual crop requirements. Land quality is thereby limited to Grade 2 or Subgrade 3a, depending on the severity of the soil droughtiness restriction. Occasional profiles are also limited to these grades by slight soil wetness restrictions as a result of impeded soil drainage.

11. The Subgrade 3b land (moderate quality) is restricted to moderate yields of a narrow range of crops. The mapping units have a combination of limitations due to soil wetness, soil droughtiness and/or gradient.

APPENDIX I

DESCRIPTION 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 that 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 (eg. 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 that restricts use to permanent pasture or rough grazing, except for occasional pioneer forage crops.