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SHEPWAY DISTRICT LOCAL PLAN
SITE 9: BERWICK LANE, LYMPNE
AGRICULTURAL LAND CLASSIFICATION
ALC MAP & REPORT
JULY 1993

**SHEPWAY DISTRICT LOCAL PLAN
SITE 9: BERWICK LANE, LYMPNE
AGRICULTURAL LAND CLASSIFICATION REPORT**

1.0 Summary

1.1 In June 1993, a detailed Agricultural Land Classification (ALC) survey was made on approximately 1 hectare of land at Berwick Lane in Lympe, Kent.

1.2 The work was conducted by members of the Resource Planning Team in the Guildford Statutory Group of ADAS in response to a commission by MAFF's Land Use Planning Unit to provide information on the quality of agricultural land under consideration for inclusion in the Shepway District local Plan.

1.3 The classification has been made using MAFF's revised guidelines and criteria for grading the quality of agricultural land (MAFF 1988). These guidelines provide a framework for classifying land according to the extent to which its physical or chemical characteristics impose long-term limitations on its use for agriculture.

1.4 The fieldwork was carried out with an observation density of approximately one per hectare. A total of 2 borings and 1 soil pit were examined.

1.5 The table below provides the details of the grades found across the site. The majority of the land is classified as Subgrade 3A. The key limitation is wetness.

Table 1 : Distribution of Grades and Sub-grades

<u>Grade</u>	<u>Area (ha)</u>	<u>%of Site</u>	<u>% of Agricultural Area</u>
3A	0.35	35	100
Non-Agricultural	0.53	53	
Urban	0.12	12	
Total area of site	<u>1.00ha.</u>		

1.6 The distribution of the ALC grades is shown on the attached map. The information is presented at a scale of 1:5000 ; it is accurate at this level but any enlargement would be misleading. This map supercedes any previous ALC information for this site.

1.7 At the time of survey the agricultural land use on the site was permanent pasture, although on inspection it was apparent that a large proportion of the site was in fact not agricultural land.

1.8 A general description of the grades and sub-grades is provided as an appendix. The main classes are described in terms of the type of limitation that can occur, the typical cropping range and the expected level and consistency of yield.

2.0 Climate

2.1 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.

2.2 The main parameters used in the assessment of the overall climatic limitation are average annual rainfall, as a measure of overall wetness, and accumulated temperature, as a measure of the relative warmth of a locality.

2.3 A detailed assessment of the prevailing climate was made by interpolation from a 5km gridpoint dataset (Met. Office, 1989). The details are given in the table below and these show that there is no overall climatic limitation affecting the site.

2.4 No local climatic factors such as exposure or frost risk affect the site.

Table 2 : Climatic Interpolation

Grid Reference :	TR124 352
Altitude (m) :	95
Accumulated Temperature (days) :	1399
Average Annual Rainfall (mm) :	765
Field Capacity (days) :	158
Moisture Deficit, Wheat (mm) :	112
Moisture Deficit, Potatoes (mm) :	106
Overall Climatic Grade :	1

3.0 Relief

3.1

The altitude of the site ranges between 80-95 m A.O.D. falling gently towards the north-east. Altitude and relief are not a limiting factor for agricultural land at this site.

4.0 Geology and Soil

4.1 The published geological sheet (BGS, 1966, sheet 305/306 Folkestone and Dover) for the site shows the underlying geology to be Folkestone Beds.

4.2 The main soil type that occurs on the site is of the Hook series as shown by the soil map of S.E England (SSEW, 1983). These are described as typically silty non-calcareous wet soils with a distinctly mottled layer. Detailed field examination of the soils on the site broadly confirms this although the soils were not found to be silty but they were gleyed and slowly permeable at variable depths.

5.0 Agricultural Land Classification

5.1 Table 1 provides the details of the area measurements for each grade and the distribution of each grade is shown on the attached ALC map.

5.2 The location of the soil observation points is shown on the attached sample point map.

5.3 Subgrade 3a: The agricultural land on the site has been graded 3a, good quality land. Soils typically comprise medium or occasionally heavy clay loam topsoils overlying similar textures or more usually clay in the immediate subsoil. Profiles show evidence of imperfect drainage in the form of gleying in the subsoil. This arises as a result of the presence of a slowly permeable clay horizon which impedes the movement of soil water through the profile. These drainage characteristics (Wetness Class III) combine with climatic factors as detailed in table 2 to give rise to a soil wetness limitation such that grade 3a is appropriate.

5.5 The areas marked as Urban include private houses and gardens.

5.6 The areas marked as Non-agricultural include a field in the south-east of the site.

ADAS REFERENCE :2010/78/93
MAFF REFERENCE : EL 20/00109

Resource Planning Team
Guildford Statutory Group

(ALC MAP)

(ASP MAP)

APPENDIX I

DESCRIPTION OF THE GRADES AND SUB-GRADES

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 on the 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.

Grade 3 : Good To Moderate Quality Agricultural Land

Land with moderate limitations which affect the choice of crops, 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.

Sub-grade 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.

Sub-grade 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 which 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 very severe limitations which restrict use to permanent pasture or rough grazing, except for occasional pioneer forage crops.

Urban

Built-up or 'hard' uses with relatively little potential for a return to agriculture : housing, industry, commerce, education, transport, religious buildings, cemeteries. Also, hard-surfaced sports facilities, permanent caravan sites and vacant land; all types of derelict land, including mineral workings which are only likely to be re-claimed using derelict land grants.

Non-agricultural

'Soft' uses where most of the land could be returned relatively easily to agriculture, including : private parkland, public open spaces, sports fields, allotments and soft-surfaced areas on airports/airfields. Also active mineral workings and refuse tips where restoration conditions to 'soft' after-uses may apply.

Woodland

Includes commercial and non-commercial woodland.

Agricultural Buildings

Includes the normal range of agricultural buildings as well as other relatively permanent structures such as glasshouses. Temporary structures (eg. polythene tunnels erected for lambing) may be ignored.

Open Water

Includes lakes, ponds and rivers as map scale permits.

Land Not Surveyed

Agricultural land which has not been surveyed.

Where the land use includes more than one of the above, eg. buildings in large grounds, and where map scale permits, the cover types may be shown separately. Otherwise, the most extensive cover type will be shown.

APPENDIX II

REFERENCES

- * Soil Survey of England and Wales (1983) Sheet 6, Soils of South-East England (1:250,00).
- * MAFF (1988), Agricultural Land Classification of England And Wales : revised guidelines and criteria for grading the quality of agricultural land.
- * Meteorological Office (1989), Climatological Data for Agricultural Land Classification.
- * British Geological Survey (19), Sheet No. , Location, 1:50,000

APPENDIX III

DEFINITION OF SOIL WETNESS CLASSES

Wetness Class I

The soil profile is not wet within 70cm depth for more than 30 days in most years.

Wetness Class II

The soil profile is wet within 70cm depth for 31-90 days in most years or, if there is no slowly permeable layer within 80cm depth, it is wet within 70cm for more than 90 days, but not wet within 40cm depth for more than 30 days in most years.

Wetness Class III

The soil profile is wet within 70cm depth for 91-180 days in most years or, if there is no slowly permeable layer within 80cm depth, it is wet within 70cm for more than 180 days, but only wet within 40cm depth for 31-90 days in most years.

Wetness Class IV

The soil profile is wet within 70cm depth for more than 180 days but not wet within 40cm depth for more than 210 days in most years or, if there is no slowly permeable layer within 80cm depth, it is wet within 40cm depth for 91-210 days in most years.

Wetness Class V

The soil profile is wet within 40cm depth for 211-335 days in most years.

Wetness Class VI

The soil profile is wet within 40cm depth for more than 335 days in most years.

(The number of days is not necessarily a continuous period. 'In most years' is defined as more than 10 out of 20 years.)

APPENDIX IV

SOIL PIT AND SOIL BORING DESCRIPTIONS

- Contents :
- * Soil Abbreviations : Explanatory Note
 - * Soil Pit Descriptions
 - * Database Printout : Boring Level Information
 - * Database Printout : Horizon Level Information

(SOIL ABBREVIATIONS : EXPLANATORY NOTE)

(SOIL PIT DESCRIPTIONS : A4)

(DATABASE PRINTOUT : BORING LEVEL INFORMATION)

(DATABASE PRINTOUT : HORIZON LEVEL INFORMATION)