AGRICULTURAL LAND CLASSIFICATION

RAWCLIFFE ROAD, GOOLE

(Proposed Business and Leisure Park)

MAFF

LEEDS REGIONAL OFFICE

October 1989

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AGRICULTURAL LAND CLASSIFICATION REPORT

ON LAND AT RAWCLIFFE ROAD, GOOLE

INTRODUCTION

The site is located at National Grid Reference NZ 725235 immediately south of Junction 36 on the M62 motorway, approximately 2 km west of Goole town centre.

It covers an area of approximately 53 hectares all of which is in agricultural use.

Survey work was carried out in October 1989 when soils were examined by hand auger borings at points predetermined by the National Grid at a density of one boring per hectare. In addition profile pits were dug to examine soil morphology in more detail and to collect samples for laboratory analysis. Information collected on previous surveys of parts of the site (during 1988, 1987 and 1982) was also re-interpreted.

Climatic interpolations were made using new data published by the meteorological office in 1989 and land quality assessments were made in accordance with the "Revised guidelines and criteria for grading the quality of Agricultural Land" (MAFF 1988).

LAND USE

All of the land is in arable use.

CLIMATE AND RELIEF

Mean annual rainfall is approximately 592 mm and the accumulated temperature (above 0°C) January to June is 1409 day^{o}C. The land is at field capacity for about 125 days a year. There is thus no overall climatic limitation on ALC grade. Summer droughtiness will, however, be slightly limiting on some light textured soils.

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The area is level at an altitude of 3m a.o.d.

GEOLOGY AND SOILS

Soils over most of the site are formed on recent, calcareous, silty clay loam or silty clay marine alluvium (warp), which forms a cover of variable thickness over the underlying lacustrine clays. The boundary between these two deposits is often marked by a buried topsoil which occurs at an average depth of 55 cm in the northern part of the site. Glacio fluvial sand lenses and patches are also common, especially towards the middle and western edge of the area where they vary in thickness from over a metre to just a few centimetres on top of the lacustrine clay.

Topsoils on the warp consist of calcareous medium and heavy silty clay loams or silty clays over similarly textured upper subsoils. Lower subsoils are often formed on the buried lacustrine clay. The patches of sandy soil have a medium sandy loam or loamy medium sand topsoil over loamy medium sand or medium sand upper subsoils, again followed by lacustrine day at depths of between 40 and 100 cm.

DRAINAGE

The warp soils although heavy in texture do not contain slowly permeable layers even though they are often gleyed between 35 and 50 cm depth. The lower subsoil of lacustrine clay, however, is slowly permeable and this places most profiles within soil Wetness Classes II or occasionally III. Where the clay is absent profiles fall within wetness class I. The sand soils are also free from any drainage impediment above the lacustrine clay and fall within wetness classes I or II.

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AGRICULTURAL LAND CLASSIFICATION

The ALC grades on the site are as follows:-

Grade	Hectares	% of site area
2	~~43.4~~ 45.1	82
3a	9.6	18
Total	~~53.0~~ 54.7	100

Grade 2

This grade is widespread across the whole site. Heavy textured topsoils combined with slight soil wetness restrictions are the main limitations on ALC grade.

Subgrade 3a

This subgrade is restricted to two areas in the centre of the site where warp is absent and sandy or clayey soils occur in adjoining patches. The main limitation is droughtiness for crops such as wheat and potatoes, but where clay occurs close to the surface, soil wetness will also be a problem. This land will be difficult to manage because of sudden changes in topsoil texture.

References

Meteorological Office (1989) Climatic data for agricultural land classification.

MAFF (1988) Agricultural Land Classification of England and Wales.

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