

BETS LANE, STANNINGTON, NORTHUMBERLAND, PROPOSED OCCS EXTENSION.
VALIDATION OF SOILS AND AGRICULTURAL LAND CLASSIFICATION REPORT
PREPARED BY ADAS CONSULTANCY FOR ANDREW GOLIGHTLY LIMITED.

1.0 INTRODUCTION

The site lies 4km south south west of Morpeth between the A1 and the site of the former Stannington Children's Hospital around National Grid Reference NZ 194818. It covers a total of 39.1 hectares.

A survey to validate the report prepared by ADAS Consultancy was carried out in September 1993. The north western part of the site had previously been assessed by the Resource Planning Team in October 1990 for other development proposals centred on the nearby St Mary's Hospital. The present survey was therefore limited mainly to the eastern half of the site. Soils were examined by hand auger borings at a density of one boring per 2 hectares at points predetermined by the National Grid. Some additional borings were made in the previously surveyed area to determine the extent of an area of Subgrade 3a identified by ADAS Consultancy. Soil pits were also dug to examine structure in the main soil types occurring on the site.

1.1 Climate and Relief

Grid Reference	: NZ 194818
Altitude (m)	: 90m
Accumulated temperature above 0°C (January-June)	: 1253 day°C
Average Annual Rainfall (mm)	: 742
Climatic Grade	: 2
Field Capacity Days	: 189
Moisture Deficit (mm) Wheat	: 83
Moisture Deficit (mm) Potatoes	: 66

The above rainfall, accumulated temperature and field capacity days are identical to those contained in the ADAS Consultancy report and confirm that the highest possible land quality in the area is Grade 2.

1.2 Geology and Soils

The area is underlain by Coal Measure Shales over which there is a thick covering of boulder clay on which the soils are formed. The descriptions of soil types and their distribution including the restored land given on pages 29 and 30 of the applicant's report and on the map in Appendix 4, was confirmed by our field survey. Thicknesses of topsoil and subsoil horizons were virtually identical to those described in the Consultancy report. The variation in topsoil thickness in the Rigg and Furrow field on the eastern edge of the site was also confirmed.

The soil stripping and storage proposals take variations in horizon thicknesses and texture into account and should be adequate to ensure restoration to a similar quality. Stripping depths given in paragraph 9.7 (pages 32-33) and in Appendix 7, however, are too precise and give a false sense of accuracy. In each case, with the exception of the Rigg and Furrow field, it would be preferable to round stripping depths to the nearest 5cm. In the case of the Rigg and Furrow field the proposal to strip 35cm from the riggs and 25cm from the furrows should enable the optimum amount of topsoil to be recovered.

2.0 AGRICULTURAL LAND CLASSIFICATION

The validation survey confirmed that most of the site falls within Subgrade 3b. Soils within this subgrade consist largely of medium clay loam topsoils over poorly drained (Wetness Class IV) slowly permeable heavy clay loam or clay subsoils. They are limited to Subgrade 3b by wetness and workability problems.

The ADAS Consultancy report also identified an area of Subgrade 3a to the north east of North Whitehouse Farm. This land falls within an area classified as Subgrade 3b during the less detailed 1990 RPT survey. Further more detailed examination of this area has confirmed the presence of the Subgrade 3a identified by ADAS Consultancy. Soils within this area consist of medium clay loam or sandy clay loam topsoils and upper subsoils over lower subsoils formed of heavy clay loam or clay. Drainage is somewhat better than on the adjoining Subgrade 3b land and most profiles are imperfectly drained (Wetness Class III).

The small area of Grade 4 land identified by ADAS consists of heavy textured restored soils containing compacted subsoil horizons. Wetness and workability problems are likely to be severe on soils of this type.

3.0 CONCLUSION

The validation survey carried out in September 1993 confirmed that the land classification soils data and maps in the ADAS Consultancy report are a fair representation of the soils and land quality on the Bets Lane extension site.

RPT File: 2 FCS 6652
Leeds Statutory Group