AGRICULTURAL LAND CLASSIFICATION

Rillington By Pass
North Yorkshire

Proposed Southern Routes

ADAS
Leeds Regional Office

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AGRICULTURAL LAND CLASSIFICATION:
RILLINGTON BYPASS NORTH YORKSHIRE (SOUTHERN ROUTES)

SECTION 1. INTRODUCTION AND SITE CHARACTERISTICS

1.1 LOCATION

Three alternative routes on the southern side of Rillington were surveyed in December 1989. These by-pass the present A64 between Scagglethorpe (NGR SE 829726) and West Knapton (NGR SE 882754) and run between the A64 and the foot of the Wolds escarpment.

1.2 SURVEY METHODS

Survey work was carried out along a 100 metre wide corridor centred over each route. Borings were made at 100 m intervals in 2 parallel traverses along this corridor using a 1 metre hand auger. Soil profile pits were also dug to assess subsoil stoniness and soil structural conditions.

Land quality assessments were made using the methods described in Agricultural Land Classification of England and Wales: Revised Guidelines for Grading the Quality of Agricultural Land. (MAFF 1988).

1.3 LAND USE

Most Agricultural Land on the site is in arable production or grass ley. Cereals and sugar beet are the main crops along with vegetables such as carrots near Scampston Bridge and soft fruit in the Rillington Fields area.

Non Agricultural Land consists mainly of commercial forestry between West Knaptan and Scampston Park.

1.4 CLIMATE

Average Annual Rainfall (AAR) is approximately 631 mm. Accumulated temperatures above 0°C between January and June (ATO) is 1342 day degrees C and the land is at field capacity for 159 days a year. Although these figures show that there is no overall climatic restriction on ALC grade, summer moisture deficits of 102 mm for winter wheat and 91 mm for potatoes indicates a slight to moderate drought risk on the very light sandy soils which are widespread in the eastern part of the route. The coarse to fine loamy soils, commonly found around Scagglethorpe, however, are not droughty.

1.5 RELIEF

Altitude varies between 30 and 40 metres above Ordnance Datum. Slopes rarely exceed 2-3° except in a few places where the route touches the lower slopes of the Wolds escarpment. At these points gradient is often the over-riding limitation on ALC grade.

1.6 SOIL DISTRIBUTION AND GEOLOGY

Most of the survey area is covered by fluvial-glacial chalk and flint gravel overlain by a variable sandy drift which becomes lighter east of Rillington. Soils on these deposits typically consist of stoneless to very slightly stony sandy or coarse loamy topsoils and upper subsoils over calcarerous, gravelly sand.

Drift deposits are thin or absent on parts of the lower scarp face, west of Bassett House. Soils here consist mainly of stoneless coarse to fine loamy topsoils and upper subsoils over slowly permeable Kimmeridge clay.

SECTION 2. AGRICULTURAL LAND CLASSIFICATION GRADES

The ALC grades occurring along the route are as follows:

Table 1: ALC grades for the Rillington Bypass survey area (100 m width corridor)

Grade	Hectares	Percent of total survey area
1	11.7	11
2	14.7	14
3a	31.2	30.5
3b	22.5	22
4	0.2	0.5
Urban	2.8	3
Other Non Agricultural	19.4	19
Total	102.5	100

GRADE 1

Grade 1 land occurs between Scagglethorpe and Bassett House. Soils fall within wetness classes 1 or 2 and consist mainly of stoneless to very slightly stony, sandy loam topsoils and subsoils which occasionally pass into sandy clay loam at depth.

Profiles are light, easily worked and have adequate reserves of available water during the summer months. There are thus no significant limitations on ALC grade.

GRADE 2

The main areas of grade 2 land occur between Bassett House and Collinsons Lane. Most soils consist of sandy loam topsoils over similar upper subsoils which pass into gravelly loamy sand with depth. Slight summer droughtiness is the main restriction on ALC grade.

On the lower scarp slope near Bassett House, stoneless to very slightly stony sandy loam topsoils overlie slowly permeable clay at depth. These profiles fall within wetness class III and are limited by slight wetness and workability problems.

SUBGRADE 3a

Land in this subgrade occurs east of Rillington where the soil forming drift is significantly lighter.

Profiles typically consist of loamy sand topsoils over similar subsoil material that occasionally passes into gravelly sand at depth. Droughtiness is thus more restricting and forms the main limitation on ALC grade.

SUBGRADE 3b

Subgrade 3b land also has a patchy distribution east of Rillington. Profiles are marginally lighter and usually consist of loamy sand topsoils over sand or gravelly sand to depth.

Droughtiness is very limiting and forms the over-riding restriction on ALC grade.

GRADE 4

A small area of grade 4 land occurs west of Bassett House where slopes slightly in excess of 11° are the main grading limitation.

NON AGRICULTURAL

Most Non Agricultural Land consists of the commercial forestry plantations east of Rillington.

URBAN

This consists of the A64 where it runs within the survey area. Other minor roads are too narrow to show as separate grades on the route maps.

Resource Planning Group
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MAPS