

AGRICULTURAL LAND CLASSIFICATION
EAST YORKSHIRE BOROUGH
WIDE LOCAL PLAN
BRIDLINGTON AREA
NOVEMBER 1994

ADAS
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SUMMARY

A total area of 39.9 ha of land, on four separate sites, was surveyed in detail for the Bridlington part of the East Yorkshire Borough Local Plan in November 1994.

On the land adjoining Easton Road on the north western edge of the town (site BRID 11) 12.5 fall within Grade 2 and 2.4 ha within Subgrade 3a. The remainder of this area is in various non agricultural uses. Soils on this site are mostly well or moderately well drained, medium to light textured and limited by slight droughtiness or occasionally slight wetness.

The site to the west of Bempton Lane (BRID 9) contains 3.4 ha of Grade 2 land and 1.1 ha of Subgrade 3a. Soils are generally moderately well drained and consist of medium textured topsoils over similar or heavier subsoils some of which pass into chalk at depth. Slight droughtiness is the main limiting factor.

To the east of Bempton Lane (BRID 8) all of the area surveyed (3.3 ha) falls within Subgrade 3a. The remainder of this site was not surveyed because of access problems. Soils consist of medium textured topsoils over heavier subsoils which become mottled and slowly permeable at depth. They are imperfectly drained and limited by wetness.

At Hilderthorpe (BRID 10) on the southern edge of the town 10.0 ha were surveyed on a site between the A165 on the railway. 6.2 ha of this falls within Grade 2 and 2.6 ha within Subgrade 3a. The remainder 1.2 ha consists of urban land. Soils are generally light or medium textured and overlie chalk gravel at depth. Droughtiness is the main limitation especially on the higher part of this site.

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AGRICULTURAL LAND CLASSIFICATION: EAST YORKSHIRE BOROUGH WIDE
LOCAL PLAN, BRIDLINGTON AREA

1. INTRODUCTION AND SITE CHARACTERISTICS

1.1 Location and Survey Methods

Land covering approximately 35.1 ha was surveyed at four locations around Bridlington. The agricultural land quality of each of these sites is described the following section of this report. Survey work was carried out in November 1994 when soils were examined by hand auger borings at a density of one boring per ha at points predetermined by the National Grid. Soil profile pits were also dug on each site to examine soil characteristics in greater detail. All assessments were made using the methods described in "Agricultural Land Classification of England and Wales, Revised guidelines and criteria for grading the quality of agricultural land". (MAFF 1988).

1.2 EASTON ROAD (SITE BRID 11)

2.1.1 Location

This site lies on the north western edge of the town north of Easton Road (B1253) around National Grid reference TA 164 680. It covers 17.3 ha.

1.2 Land Use and Relief

Except for one field of oil seed rape north of New Pasture Lane, all agricultural land on the site is under grass. Altitude ranges from 35m on the northern edge of the site down to 20m on Easton Road, with an overall gently undulating southerly aspect.

2.1.3 Climate

Grid Reference	: TA 164 680
Altitude (m)	: 28
Accumulated Temperature above 0°C (January - June)	: 1351 day °C
Average Annual Rainfall (mm)	: 701
Climatic Grade	: 1
Field Capacity Days	: 173
Moisture Deficit (mm) Wheat	: 103
Moisture Deficit (mm) Potatoes	: 93

2.1.4 Geology Soils and Drainage

Chalk underlies the whole area but is generally covered with a thin layer of boulder clay or loamy drift. The drift is thin on the northern edge of the site where chalk occurs at a depth of around 60-70cm. Soils over most of the site are well drained (Wetness Class I) and consist of medium clay loam or medium silty clay loam topsoils over similarly textured upper subsoils. Lower subsoils are often heavier and, in a few places in the centre of the site, are slowly permeable. The drainage is imperfect and profiles fall within Wetness Class III. In the south western part of the site where the drift is lighter textured profiles consist of deep well drained fine or medium sandy loam topsoils over similar subsoils.

2.1.5 AGRICULTURAL LAND CLASSIFICATION GRADES
AT EASTERN ROAD (BRID 11)

The ALC grades occurring on this site are as follows:

<u>Grade/Subgrade</u>	<u>Hectares</u>	<u>Percentage of Total Area</u>
1		
2	12.5	72.2
3a	2.4	13.9
3b		
4		
5		
(Sub total)	(14.9)	(86.1)
Urban	1.2	6.9
Non Agricultural	1.0	5.8
Woodland		
Agricultural Buildings	0.2	1.2
Open Water		
Land not surveyed		
(Sub total)	(2.4)	13.9
TOTAL	<u>17.3</u>	<u>100</u>

2.1.6 Grade 2

Grade 2 land occurs over most of this site. Soils consist of moderately well drained (Wetness Class II) medium clay loam, medium silty clay loam or in the south west fine or medium sandy loam topsoils over similar textured upper subsoils. Except in the south west, lower subsoils often consist of mottled heavy clay loam and may be slowly permeable at about 65cm depth. Weathering chalk bedrock occurs below 60-70 cm depth in the north. All soils are limited to Grade 2 by slight wetness or droughtiness.

2.1.7 Subgrade 3a

This Subgrade occurs in a small flat lying area in the centre of the site. Soils consist of medium clay loam topsoils over heavier subsoils which are gleyed and slowly permeable below about 60 cm depth. Profiles are thus imperfectly drained (Wetness Class III) and are limited to Subgrade 3a by Wetness.

2.1.8 Urban

This consists of gardens and housing adjoining the Easton Road.

2.1.9 Non Agricultural

This consists of amenity grassland and paddocks on the eastern edge of the site.

2.1.10 Farm Buildings

Stables adjoining the Urban Land are placed within this category.

2.2 BEMPTON LANE WEST (BRID 9)

2.2.1 Location

The site lies on the northern edge of Bridlington on the western side of Bempton Lane, around National Grid reference TA 179 693. It covers 4.5 ha.

2.2.2 Land Use and Relief

The site is in arable use. Altitude ranges from 54m on Bempton Lane down to 45m on the western edge, with an overall gentle westerley aspect.

2.2.3 Climate

Grid Reference	: TA 179 693
Altitude (m)	: 45
Accumulated Temperature above 0°C (January - June)	: 1331 day °C
Average Annual Rainfall (mm)	: 706
Climatic Grade	: 1
Field Capacity Days	: 174
Moisture Deficit (mm) Wheat	: 100
Moisture Deficit (mm) Potatoes	: 89

2.2.4 Geology, Soils and Drainage

Chalk underlies the whole area, but over most of the site is covered with a thin layer of boulder clay or loamy drift. The drift is thin in the north eastern corner of the site where, in places, chalk occurs at a depth of 45-50 cm. Soils over the whole site are well or moderately well drained (Wetness Classes I and II) and consist of medium clay loam or medium silty clay loam topsoils over similar upper subsoils which pass into slightly mottled heavy clay loam at depth.

2.2.5. AGRICULTURAL LAND CLASSIFICATION GRADES
AT BEMPTON LANE WEST

The ALC grades occurring on this site are as follows:

<u>Grade/Subgrade</u>	<u>Hectares</u>	<u>Percentage of Total Area</u>
1		
2	3.4	75.6
3a	1.1	24.4
3b		
4		
5		
(Sub total)	(4.5)	(100)
Urban		
Non Agricultural		
Woodland - Farm		
- Commercial		
Agricultural Buildings		
Open Water		
Land not surveyed		Land not surveyed
(Sub total)		(0%)
TOTAL	<u>4.5</u>	<u>100 %</u>

2.2.6 Grade 2

All of the site except the north east corner falls within the subgrade. Soils consist of moderately well drained (Wetness Class II) medium clay loam or medium silty clay loam topsoils over similar textured upper subsoils. Lower subsoils consist of slightly mottled heavy clay loam which is often slowly permeable below about 65 cm depth. The land is limited to Grade 2 by slight wetness.

2.2.7 Subgrade 3a

This subgrade occurs in the north eastern corner of the site. Soils consist of well drained (Wetness Class I) medium silty clay loam topsoils over heavy silty clay loam subsoils which pass into weathering chalk at 45-50 cm depth. This land is limited to Subgrade 3a by slight droughtiness.

2.3 BEMPTON LANE EAST (BRID 8)

2.3.1 Location

The site lies on the northern edge of Bridlington on the eastern side of Bempton Lane, around National Grid reference TA 182 693. Of the total area 8.1 ha, 4.8 ha could not be surveyed because of access permission problems.

2.3.2 Land Use and Relief

The site consists of two adjoining fields. Access was possible only to the eastern field which was under grass at the time for survey. The site as a whole is gently undulating with the lowest land (45m altitude) forming a shallow dry valley running north-south through the centre of the site. On each side of this valley the land rises gently to an altitude of around 50cm. There are also a few moderate slopes of 4-5° on the south western edge of the eastern field.

1.3 Climate

Grid Reference	: TA 182 693
Altitude (m)	: 45
Accumulated Temperature above 0°C (January - June)	: 1331 day °C
Average Annual Rainfall (mm)	: 706
Climatic Grade	: 1
Field Capacity Days	: 174
Moisture Deficit (mm) Wheat	: 100
Moisture Deficit (mm) Potatoes	: 89

2.3.4 Geology, Soils and Drainage

Chalk underlies the whole area, but on this site is covered by at least 1m of boulder clay. Soils consists of sandy clay loam or medium clay topsoils over medium or heavy clay loam subsoils which are often slowly permeable at 50-60cm depth. Profiles are thus imperfectly drained (Wetness Class III) and limited to Subgrade 3a by wetness.

2.3.5 AGRICULTURAL LAND CLASSIFICATION GRADES
AT BEMPTON LANE EAST

The ALC grades occurring on this site are as follows:

<u>Grade/Subgrade</u>	<u>Hectares</u>	<u>Percentage of Total Area</u>
1		
2		
3a	3.3	40.7
3b		
4		
5		
(Sub total)	(3.3)	(40.7)
Urban		
Non Agricultural		
Woodland - Farm		
- Commercial		
Agricultural Buildings		
Open Water		
Land not surveyed	4.8	59.3
(Sub total)	(4.8)	(59.3)
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TOTAL	8.1	100
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2.3.6 Subgrade 3a

All of the surveyed area falls within this Subgrade. Soils consist of sandy clay loam or medium clay loam topsoils and heavy clay loam subsoils which are slowly permeable at depth and thus limited to Subgrade by wetness.

2.3.7 Not Surveyed

The western part of the site was not surveyed because of access permission problems.

2.4 KINGSGATE, HILDERTHORPE (BRID 10)

2.4.1 Location

The site lies on the southern edge of the town between the A165 road and the railway, around National Grid reference TA168 657.

2.4.2 Land Use and Relief

All agricultural land on the site is in arable use. The site is gently undulating at an altitude of 9-10 m with the lowest land occurring in the north along Bessingby Beck.

2.4.3 Climate

Grid Reference	: TA 168 657
Altitude (m)	: 9
Accumulated Temperature above 0°C (January - June)	: 1374 day °C
Average Annual Rainfall (mm)	: 691
Climatic Grade	: 1
Field Capacity Days	: 170
Moisture Deficit (mm) Wheat	: 108
Moisture Deficit (mm) Potatoes	: 100

2.4.4 Geology Soils and Drainage

Soils are formed on alluvial chalk gravel and loamy glaciofluvial drift which forms a thick cover over the underlying chalk. Chalky gravel is widespread in the lower northern part of the site around Bessingby Beck. Here profiles consist of medium silty clay loam topsoils contain small chalk stones over similar or sandy upper subsoils which pass into chalk gravel at about 45-50 cm depth. Although subject to fluctuating ground water these soils are essentially free draining and fall within Wetness Class I. On the higher ground adjoining the Broadacres public house soils are formed on loamy flint and chalk gravel deposits and consist of sandy loam topsoils over similar or lighter subsoils with a very variable stone content. Profiles are all well drained and fall within Wetness Class I.

2.4.5 AGRICULTURAL LAND CLASSIFICATION
 LAND AT KINGSGATE, HILDERTHORPE

The ALC grades occurring on this site are as follows:

<u>Grade/Subgrade</u>	<u>Hectares</u>	<u>Percentage of Total Area</u>
1		
2	6.2	62
3a	2.6	26
3b		
4		
5		
(Sub total)	(8.8)	(88)
Urban	1.2	12
Non Agricultural		
Woodland - Farm		
- Commercial		
Agricultural Buildings		
Open Water		
Land not surveyed		
(Sub total)	(1.2)	(12)
TOTAL	10.0	100

2.4.6 Grade 2

Most of the site falls within this Grade. In the north, especially between the railway and Bessingby Beck soils are formed of slightly stony medium silty clay loam topsoils over silty or sandy upper subsoils which pass into chalk gravel at 45-50 m depth. Profiles are well drained (Wetness Class I) and the land is limited to Grade 2 by slight droughtiness. On the slightly higher ground soils consist of well drained deep slightly stony sandy loam which are again limited to Grade 2 by slight droughtiness.

2.4.7 Subgrade 3a

Land within this subgrade consist of well drained (Wetness Class I) sandy loam topsoils over loamy sand and gravel subsoils. They are limited to Subgrade 3a by droughtiness.

2.4.8 Urban

This consists of the Broadacres pub garden and on the eastern edge of the site, a new housing development.

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MAPS