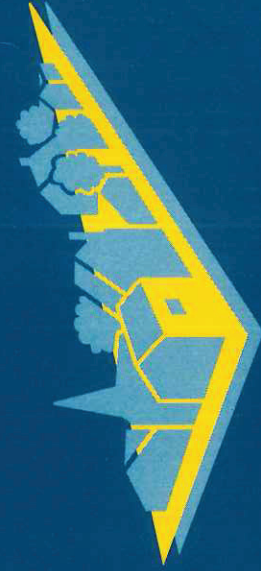


appendix C

DETAILS TO BE SUBMITTED WITH A PLANNING APPLICATION

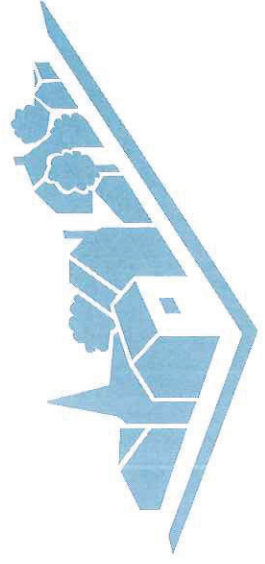


This revised Appendix replaces
the original Appendix C

appendix C

DETAILS TO BE SUBMITTED WITH A PLANNING APPLICATION

<i>contents</i>	<i>page</i>
details to be submitted with a planning application	C1



APPENDIX C - DETAILS TO BE SUBMITTED WITH A PLANNING APPLICATION

Outline Planning Applications and Renewals of Outline Permissions

1. Apart from the usual forms, certificates and appropriate fee, outline planning applications should be accompanied by a Development Appraisal as described in Appendix B. The following is a checklist of details which may be relevant in establishing the principles of development:

- *Site Survey and Analysis setting out the constraints and opportunities and key considerations referred to on pages B2 and B3. This information should be shown on a map base to a scale of 1:500 or, on very large sites, 1:1250. Smaller urban sites may justify site survey and analysis on a 1:200 scale map base, given the likely proximity of surrounding development;*

- *A Design Appraisal to establish the main principles for the future development of the site, as referred to on Page B3.*

- *In some instances a Master Plan and a Development Brief for large estates or sensitive sites to a scale of 1:1250, accompanied by a brief written statement outlining the developer's design philosophy. Whilst not definitive the following list indicates the general content of a Master Plan/Development Brief:*

- *Retained site features;*

- *Infrastructure, especially key elements of the road/cycleway/footpath network and how it relates to the surrounding circulation pattern;*

- *Phasing and density of areas to be developed for housing;*

- *Landscaping (predominantly structural and formal open space provision);*

- *Community facilities, including public open spaces*

- *Associated non-housing provision such as local shops/employment sites.*

Reserved Matter Applications

2. Reserved Matter applications which are submitted in pursuance of an outline permission will be expected to contain all the details required by the local planning authority to determine the merits of the total housing environment proposed, not already resolved through the outline application. Where appropriate these details will demonstrate how all those matters submitted and agreed in the Development Appraisal at outline stage have been dealt with in the detailed proposals and will expand that Development Appraisal if necessary. Normally such details should be shown at a minimum of 1:500 scale for layout plans, 1:200 scale for landscape details and 1:100 scale for building elevations and floor plans. Details to be submitted should include:-

- *The position of all buildings, their design and method of construction/materials;*

- *Details of road and footpath/cycleway layout, materials, construction if the road is not to be adopted; when road to be adopted, see Section 6.5;*



- *Hard surfaces, walls, fences, gates and play equipment;*
- *Landscape details eg location, species, size, density, site preparation;*
- *Amenity and informal landscaped areas;*
- *Services eg routeing, substations, bus stops, lighting, telephone boxes, pumping stations;*
- *Provision for car parking and assignment of spaces, if not within domestic curtilages;*
- *Details of maintenance proposals for all communal areas, parking areas, roads, footpaths and open spaces, with a clear indication of who will maintain them. In the case of roads and footways/footpaths, this is likely to be covered by the subsequent adoption procedures under the Highways Act.*

It will be necessary in some cases to submit a Development Appraisal more detailed than that submitted at the outline stage.

Full Planning Applications and Renewals of Full Permissions

3. Applications seeking a full planning permission from the outset, or for renewal of a full permission should contain all the detail referred to above.

appendix D

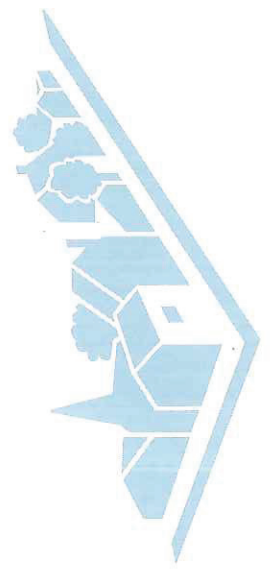
LANDSCAPE



appendix D

LANDSCAPE

<i>contents</i>	<i>page</i>
landscape	104
annex 1 : brief description of landscape character areas & their trees and hedges	112



APPENDIX D

NB. All BS/NHBC publications referred to are listed in the Bibliography at Appendix J.

Submission of Landscape Scheme

1. From the landscape design process detailed in paragraphs 3.8.1-3.10.8 a Landscape Scheme should be prepared for the site. **The landscape scheme should be prepared in conjunction with the site layout as the design process evolves, and should take into account all site constraints and opportunities and the relation of the site to its surrounding landscape. The desirability of employing a qualified Landscape Architect is stressed . Appendix I gives a contact address**

Contents of the Landscape Scheme

2. A Landscape Scheme is likely to be required for all large housing developments and many smaller ones, by a condition of the planning permission.

The scheme should include:-

A landscape plan (ideally at 1:200 scale) based on the site layout

showing:

- *all constraints (services etc)*
- *any existing planting on site (ie all trees, shrubs and hedges)*
- *all proposed planting.*

A schedule of works to include:-

- *Description of all new plants/trees.*
- *Quantity of all new plants/trees.*
- *Planting density/spacing.*
- *Remarks/size/specification of plants (standard, feathered whip, transplant, bareroot, rootballed, container size).*

- *Botanical name of plants - species and genera*
- *Common name of plants.*

Soil Compaction

3. Soil compaction caused through mechanical activity is very common on development sites. This destroys the soil structure and makes the proper movement of air and moisture through the soil impossible. Plants will fail to establish and grow in these conditions, so measures to alleviate compaction should form part of any landscape scheme.

These measures could include:-

- *Protection of planting areas to exclude mechanical activity or storage of materials.*
- *Breaking up sub-soil to relieve compaction, particularly on heavy soils.*
- *Excavation and replacement of compacted soil.*

Topsoil

4. Where topsoil is to be imported or replaced on a site which has been stripped of its topsoil during the course of development, replacement soil must be graded and freed from rubbish such as stones and building materials. Topsoil should be inspected and its quality agreed before it is installed on site - See BS 3882 for guidance. - " Recommendations and Clarification for Topsoil."

Methods of Planting and Establishment

5. Generally all trees should be barerooted or rootballed and should be either feathered whips, transplants, or standard trees, depending upon the initial effect required of the planting. The use of containerised plants is only advocated where summer planting is unavoidable.



In certain circumstances larger trees might be specified where the location requires a more rapid landscape effect.

In relation to trees and proximity to buildings, due regard should be given to the NHBC Standards - 'Buildings Near Trees' - Chapter 4.2 (1992) which provides appropriate building foundation depths in relation to distance from trees and their root systems.

Planting of trees and shrubs should be in accordance with BS 4428: 1989 and Amendment No 1 (1991). "Code of Practice for General Landscaping Operations excluding Hard Surfaces"

Stakes for standard trees should penetrate at least 0.6m below the base of the planting pit and should extend above ground level to a maximum of one-third the total tree height.

Remedial works to existing and proposed trees will conform to BS 3998: 1989. "Recommendations for Tree Works".

Aids to Establishment

6. The following considerations apply to all landscape schemes:
 - *Trees and shrubs are often more vigorous and healthy if grown together instead of being isolated within grassed areas. Such mass planting schemes also suffer less from the effects of vandalism.*
 - *Feathered whips and transplanted trees, in order to achieve satisfactory establishment, should generally be planted with 1.2m high tree shelters or where necessary, spiral rabbit guards.*
 - *Mulching: To reduce weed competition and water loss from the soil, the following methods can be used:- Bark or wood chippings, bitumen or polythene mats or polythene sheeting.*
 - *On all open ground or for bare root trees, peat free tree and*

shrub planting compost should be incorporated into the backfill for each tree hole.

- *The roots of all trees and shrubs should be kept moist at all times during handling and planting, and be well watered after firming in.*
- *A top dressing of suitable fertiliser should be applied to all landscaped areas following planting.*

Weed Control

7. It is especially important with hedges and shrub beds to ensure that weeds are adequately controlled:
 - *the bases of trees and shrubs in grass areas should always be kept clear for at least half a metre from the trunk of the tree.*
 - *mulching cuts down the cost of weed control.*
 - *in addition to mulching, a suitable granular herbicide, might be applied to all areas after planting.*

Grass Seeding

8. Grass areas will only be regarded as acceptable where:
 - *the soil level has been cultivated to a minimum depth of 15cms, left even, well compressed and free from stones and other materials and raked to a fine tilth.*
 - *the seed has germinated evenly over the entire soil surface.*
 - *Sowing has been at the minimum rate of 30gms per metre (dependent on the seed mixture which should be indicated on the scheme).*
 - *the soil surface is left slightly proud of edging stones and other hard surfacing, to permit acceptable grass cutting.*
 - *narrow corners are not grassed*
 - *service access points such as manholes are not left proud of the final soil level.*
- All grass seeding shall be in accordance with BS 4428: 1989.**



Tree Works

9. **Work to trees must conform to the BS 3998: 1989 and Amendment No 1 (1991).** - "Recommendations for Tree Works."

Choice of Plant Species

Purpose of Planting

10. New development within Lincolnshire is often found at the edge of towns and villages. Tree and shrub planting and the retention of existing vegetation, can help new development blend into its surroundings, enhancing overall appearance and contributing towards a 'sense of place.'

Existing Landscape

11. Lincolnshire is a relatively poorly wooded county, especially in the fenland and marsh areas. Parts of the Lindsey and Kesteven areas though, contain extensive groupings of ancient woodland, with an associated high diversity of tree and shrub species. Lincolnshire's landscapes are dominated by an arable agricultural character, of large field size with recent, enclosing hedgerows. Many such hedgerows are now fragmented or have been grubbed out. The extensive, open landscapes might suggest that individual trees would be sparse. However, alongside roads and watercourses as well as within the older hedgerows there are numerous trees. These, coupled with the generally flat or subdued topography, which gives rise to extensive, low horizons, mean that the visual contribution trees make to the landscape, albeit sometimes a distant one, is considerable.

Recent Trends

12. The Department of the Environment's 'Trees in Towns' (HMSO 1993 - see Bibliography) reviews amenity tree populations and planting in built up areas and points to several trends in the composition of urban tree populations. Some reflect planting fashions over the last 100 years, and many are clearly applicable to Lincolnshire. For example, there has been increased planting of small native broadleaves (rowan, whitebeam, apple etc) and columnar 'cypress' types and decreased planting of flowering cherries, or larger trees such as horse chestnut, lime, oak, plane or pine. These trends probably reflect experience with structural damage, and disease as well as encouragement to select native species.

Possible Planting Styles

13. Planting within new developments tends towards two styles:-
 - *close to buildings, within 'hard landscaped' areas with specimens for architectural effect. A range of smaller trees, shrubs and ground cover plants are often used, many being introduced species/varieties chosen for particular colour effects.*
 - *'naturalistic' design, using native species, as individual plants or massed planting. These may provide food for wildlife and greater compatibility with the wider landscape.*

Native/Introduced Species

14. Lincolnshire's Local Authorities are signatories to the Local Authority Association's Sustainable Development Commitment and are thereby promoting the 1992 Biodiversity Convention (Rio Summit). Encouraging the greater use of native species in new planting is one example of this, and this Appendix shows how such advice can be applied to the different parts of Lincolnshire.

15. Some introduced species do not fit easily into the county's landscapes, most of which have developed over centuries of rural land management largely in response to agricultural practices. However, there may still be justification for planting them for commercial or ornamental purposes. In the latter case, their effect may be heightened because they are unusual.

16. The purpose of this part of the Guide is to refine the advice on planting of native species to take account of local landscape character. In many recent housing areas rowan, whitebeam or bird cherry, have been selected as token front garden trees. This has not taken into account the quite limited semi-natural distribution of these particular trees in Lincolnshire.

Table 1

17. This summarises useful information regarding existing trees in Lincolnshire and those recommended for planting. It classifies landscape character by drawing on the different topography of parts of the county, especially soils, and landscape history as reflected in the characteristic trees of those areas. Annex 1 also provides brief descriptions of the landscape character areas and their trees; the boundaries of the areas being shown on Plan 1.

18. Table 1 indicates:-

- if a species is native, what its medium and long term sizes are;
- if it is associated with relatively ancient habitats (and should therefore be retained wherever it occurs);
- if it is an important component of hedgerows; (✓ more so than ✓)
- the perceived importance of a species within the individual landscapes (+ symbols); (++ more so than ++ and +)
- the most characteristic landscapes in which that species occurs;
- advice on any preferred soil conditions;
- the native species recommended for planting (with asterisk); (particular suited to the growing conditions and less likely to interfere with natural/semi-natural distributions)
- species associated with ancient habitats (eg wild service, lime) which are not recommended for widespread planting;

Table 1 is not a comprehensive list of all trees and shrubs, native or otherwise, which are found in Lincolnshire.

19. It should be noted that the landscape character areas are not static in terms of the numbers of trees and diversity of species they contain. Many have seen a dramatic decline in elms since the 1970s (although there are now signs of recovery) and in relatively young areas such as reclaimed fen and marsh the numbers and types of trees can be expected to steadily increase.



Table 1 : CHARACTERISTIC TREES AND SHRUBS IN THE LINCOLNSHIRE LANDSCAPE
PREFERRED NATIVE SPECIES FOR PLANTING *

SCIENTIFIC NAME	COMMON NAME	OCCURRENCE WITHIN LANDSCAPE CHARACTER AREA ⁴													REMARKS ⁵
		STATUS (NOTE 1)	ULTIMATE (NOTE 2) SIZE (S/M/L)	EVERGREEN (NOTE 3)	CLAYLANDS	GRAVELS	LIMESTONE HEATH AND CLIFF	KESTVEN (BOULDER CLAY) UPLANDS	COVERSANDS	SOUTH AND WEST WOLD VALLEYS	CHALK WOLDS	FENLAND AND RECLAIMED MARSH	OUTMARSH AND TOWNLANDS	ASSOCIATED WITH OLD HABITATS	
*Acer campestre	Field Maple	N	M		+++	+	++	+++		+	+	+		✓✓	avoid acid sands
Acer pseudoplatanus	Sycamore	I	L		+	+	+	+		++	+	+			fairly rapid growth
Aesculus hippocastanum	Horse Chestnut	I	L		+		+			++	+	+			
*Alnus glutinosa	Common Alder	N	L		+	++	++	+		+++	+	+	✓		marshy ground and waterside
*Betula pendula	Silver Birch	N	L		+	+++	+	++		+	+	+			
*Betula pubescens	Downy Birch	N	L		+	++	+	++		++	+	+			damp soils and humid microclimates
Buxus sempervirens	Box	n	S	E			+								calcareous soils
Carpinus betulus	Hornbeam	n	L												
Castanea sativa	Sweet Chestnut	I	L					+							better on acid soils
*Cornus sanguinea	Dogwood	N	S		++		+			+			✓✓		better on moister soils
*Corylus avellana	Hazel	N	M		++	+	++	++		++	+		✓✓		
Crataegus laevigata	Midland Hawthorn	N	M		++			+					✓✓		
*Crataegus monogyna	Hawthorn	N	M		+++	+	++	++		+	++	++		✓✓	
Cytisus scoparius	Broom	N	S	E		+									acid soils
Euonymus europaeus	Spindle	N	S		+		+						✓		
Fagus sylvatica	Beech	n	L				++	+					✓		better on mature soils
Frangula alnus	Alder Buckthorn	N	S		+		+			+	++		✓		acid, moist, peaty soils

SCIENTIFIC NAME	COMMON NAME	OCCURRENCE WITHIN LANDSCAPE CHARACTER AREA ⁴													REMARKS ⁵
		STATUS (NOTE 1)	ULTIMATE (NOTE 2) SIZE (S/M/L)	EVERGREEN (NOTE 3)	CLAYLANDS	GRAVELS	LIMESTONE HEATH AND CLIFF	KESTVEN (BOULDER CLAY) UPLANDS	COVERSANDS	SOUTH AND WEST WOLD VALLEYS	CHALK WOLDS	FENLAND AND RECLAIMED MARSH	OUTMARSH AND TOWNLANDS	ASSOCIATED WITH OLD HABITATS	
*Prunus spinosa	Blackthorn	N	S		+++	+	++	+++		+	++	+	+	✓	
Pyrus communis	Pear	N	M		+				+						
Rhamnus cathartica	Buckthorn	N	S		+		+							✓	drier calcareous & fenland soils
Rosa arvensis	Field Rose	N	S		+	+	+								
*Rosa canina	Dog Rose	N	S		+++	+	++	++	+	++	+	+	+	✓	
Quercus cerris	Turkey Oak	I	L				+								better drained soils
Quercus ilex	Holm Oak	I	L	E											
Quercus petraea	Sessile Oak	N	L				+		+						
*Quercus robur	Pedunculate Oak	N	L		++	+++	+	+++	++	++	+	+	+		
*Salix alba	White Willow	N	L		+				+		++	+			moist soils, rapid growth
*Salix caprea	Goat Willow	N	M		++	++	+	++	+	+	+	+	+	✓	
*Salix cinera	Grey Sallow	N	S		+	++	++	+	+	+	+				waterside
*Salix fragilis	Crack Willow	N	L		+	+			+	+	++	+			waterside, rapid growth
*Salix viminalis	Common Osier	N	S		+						+	+	✓		waterside
Sambucus nigra	Elder	N	M		+	+	+	+	+	+	+	++		✓	
Sorbus aria	White Beam	n	M												
*Sorbus aucuparia	Rowan, Mountain Ash	N	L			+		++							



SCIENTIFIC NAME	COMMON NAME	OCCURRENCE WITHIN LANDSCAPE CHARACTER AREA ⁴											REMARKS ⁵	
		STATUS (NOTE 1)	ULTIMATE (NOTE 2) SIZE (S/M/L)	EVERGREEN (NOTE 3)	CLAYLANDS	GRAVELS	LIMESTONE HEATH AND CLIFF	KESTVEN (BOULDER CLAY) UPLANDS	COVERSANDS	SOUTH AND WEST WOLD VALLEYS	CHALK WOLDS	FENLAND AND RECLAIMED MARSH OUTMARSH AND TOWNLANDS		ASSOCIATED WITH OLD HABITATS
<i>Sorbus torminalis</i>	Wild Service Tree	N	L		+		+	++				✓✓		
* <i>Taxus baccata</i>	Yew	N	L	E					+			✓		slow growth
<i>Tilia cordata</i>	Small-Leaved Lime	N	L		+							✓✓		
<i>Tilia platyphyllos</i>	Large-Leaved Lime	n	L											
<i>Tilia x vulgaris</i>	Common Lime	n	L							+				
<i>Ulex europaeus</i>	Gorse, Furze	N	S	E		++		++	++					sandy soils
<i>Ulmus glabra</i>	Wych Elm	N	L		+		++	++	+			✓		avoid areas with visible Dutch Elm Disease
<i>Ulmus minor</i> agg	Smooth-Leaved Elm	N	L		+		+							
<i>Ulmus procera</i>	English Elm	N	L		+		+							
<i>Viburnum lantana</i>	Wayfaring Tree	N	S								+			
* <i>Viburnum opulus</i>	Guellder Rose	N	S		++		+	++	+				✓	moist & calcareous soils

NOTES: 1. Status: N = locally native; n = native to Britain; I = introduced

2. Ultimate size: Small, Medium or Large - Small up to 3m, Medium up to 10m, Large above 10m

3. Evergreen: 'Semi-evergreen' in brackets










4. Landscape Character Areas: See Plan 1 and Annex 1

5. 'Remarks' provides additional advice on choice of planting site

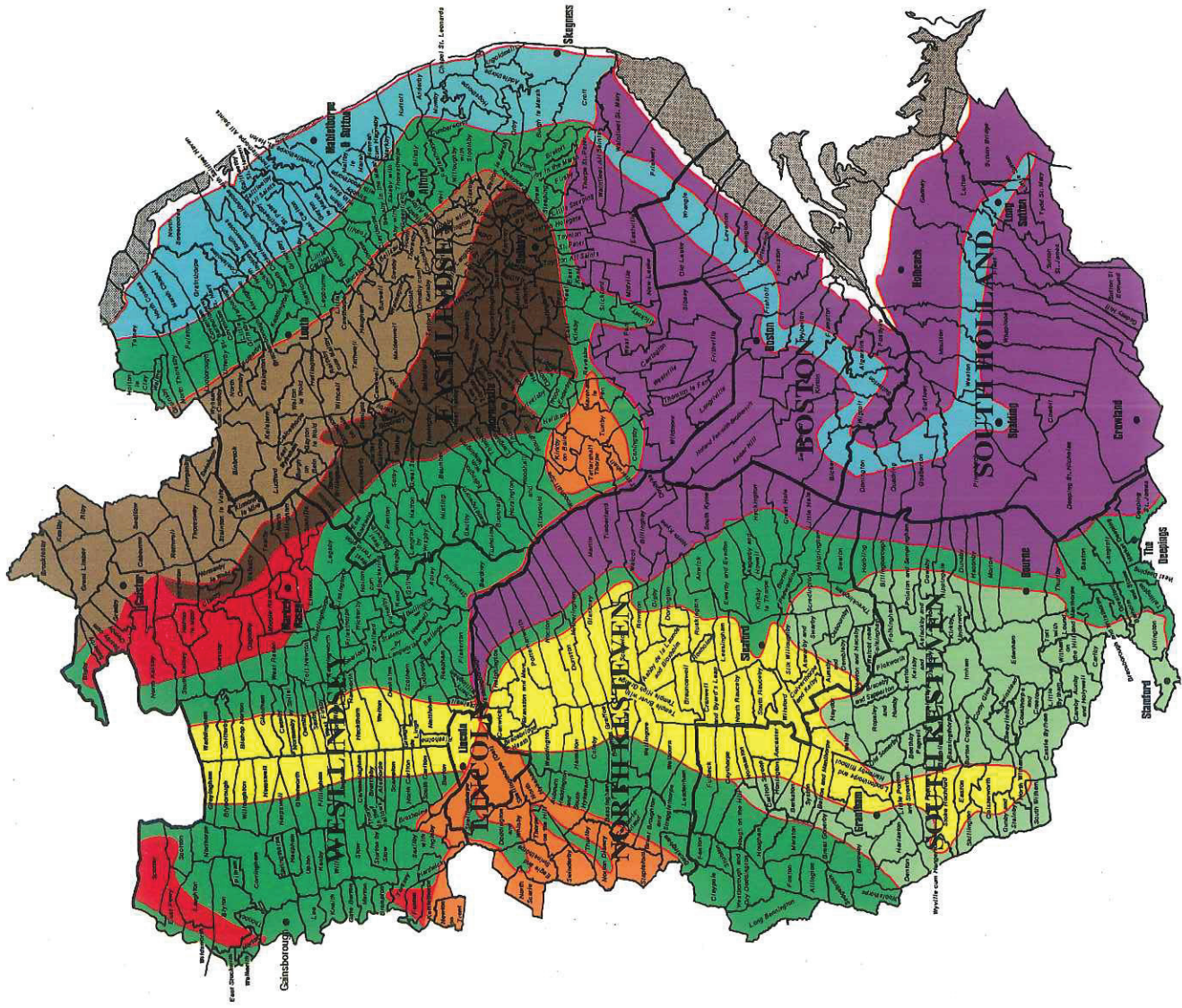


PLAN 1

Landscape Character Areas (With Reference to Trees and Shrubs)

-  Claylands
-  Gravel
-  Limestone Heath and Cliff
-  Western (Boulder Clay) Uplands
-  Coversands
-  South and West Wolds Valleys
-  Chalk Wolds
-  Fenland and Reclaimed Marsh
-  Outmarsh and Townlands

In order that the new planting might reflect the semi-natural distributions of individual species within Lincolnshire, Plan 1 shows the distribution of the Landscape Character Areas shown in Table 1. These areas are defined principally on soil types, water availability and land-use history.



Annex 1

General Description of the Landscape Character Areas and their Trees and Hedges

Claylands

Clay soils derived from Jurassic and Cretaceous strata, glacial boulder clay and more recent estuarine and marine sediments cover a large part of Lincolnshire. These 'claylands' have a long history of settlement and farming. They have a network of older sinuous lanes between villages and local areas of younger well hedged, rectilinear fields still in use as pasture. There are local concentrations of ancient woodland. The hedges are particularly diverse; hawthorn while abundant may be subordinate to blackthorn, while field maple's abundance is revealed by its colours in autumn. Maple also grows into a tree. Privet, goat willow and dog rose are frequent components; hazel more in the vicinity of ancient woodlands. As in most of Lincolnshire, ash is the main tree of roadsides and hedgerows; oak is also important. Watercourses and pondsides support willows. This area includes loams over gravel which have a long history of cultivation (eg the Baston-Tallington area).

Gravels

Separate sand and gravel deposits from an old course of the River Trent through the Lincoln Gap and a glacial outwash fan at the foot of the Wolds contain areas that have been woodland or 'moor' in recent centuries. Woodland cover is mainly oak and birch with rowan, hazel and honeysuckle. Mixed hedges, as in the claylands, occur often with aspen and guelder rose. There are also localities with characteristic hedges of oak and birch and sometimes small willows.

Limestone Heath and Cliff

This western 'upland zone' of limestone scarp, plateau and shallow dry valley, supports extensive arable farming. Road networks are rectilinear. Woodlands include recent shelterbelts and colonisation by trees following disuse of quarries and rabbit warrens. The hedges are mostly recent and relatively species-poor, of hawthorn and some blackthorn but also calcareous soil species such as buckthorn, privet etc. There are also dry limestone walls. Ash is the main large tree, some individuals being of 'grotesque' shape following storm damage. In this area there are signs of recovery of elms from disease. Pine, beech and sycamore are associated with shelterbelts and large gardens.

Boulder Clay Uplands

Calcareous clays are spread across the south of the western upland area. These support watercourses. Ancient woodland and well wooded parkland estates are found here. Its characteristics combine elements of the claylands and limestone heath. Species diversity is high in hedges of blackthorn, hawthorn, hazel, field maple and other. Ash is again the main large tree, but oak is also important. Alders line the banks of rivers and streams.

Coversands

This very gently undulating area has both areas of high water table with ash, aspen, willow, black poplar, and dry, sandy areas with oak, birch, rowan and pine. Extensive areas have been planted with conifers.

South and West Wolds Valleys

This is a more undulating landform, but similar to parts of the claylands especially around settlements and extensive areas of arable. Ash remains the most important large tree and alders are particularly characteristic of the watercourses. Species-rich hedgerows are less widespread. There has been more recent planting of sycamore, beech, cherry and pine.



Chalk Wolds

The eastern 'upland' area of the county has a history like the western limestone of open ground traversed by long distance roads. However, unlike the Limestone Heath, the Wolds were formerly more densely settled than at present. Extensive arable land was converted to sheep pasture and warren in late medieval times and has since been returned to arable. The open tops and sweeping dry valleys are often devoid of even hawthorn hedges. Occasional mature ash trees and clumps of beech and (dying) elms grow along roadsides and on prehistoric burial mounds. This landscape is changing with new planting sometimes following valleys, but also crossing them. The drove roads are typically hedged with hawthorn and rose and dotted with ash trees.

Fenland and Reclaimed Marsh

In this relatively new landscape of flat arable fields and linear drains, trees are few and hedgerows are fewer. Where they occur trees are ash, willow and poplar and the hedges usually only of hawthorn. There is some new planting, sometimes of spruce and pine. Recent planting for shelter around buildings often includes cypresses or poplars.

Outmarsh and Townlands

The Townlands have an older landscape than the surrounding fens, with a settlement pattern amongst the oldest in the county. The villages contain sycamore, poplar, lime, pine, horse chestnut, weeping willows etc usually as amenity planting, rather than the oak and ash which in other areas were probably grown within hedges for timber and fuel. The outmarsh has similar characteristics to the claylands, but species diversity is lower, probably because there has been only limited colonisation from areas of historical woodland.