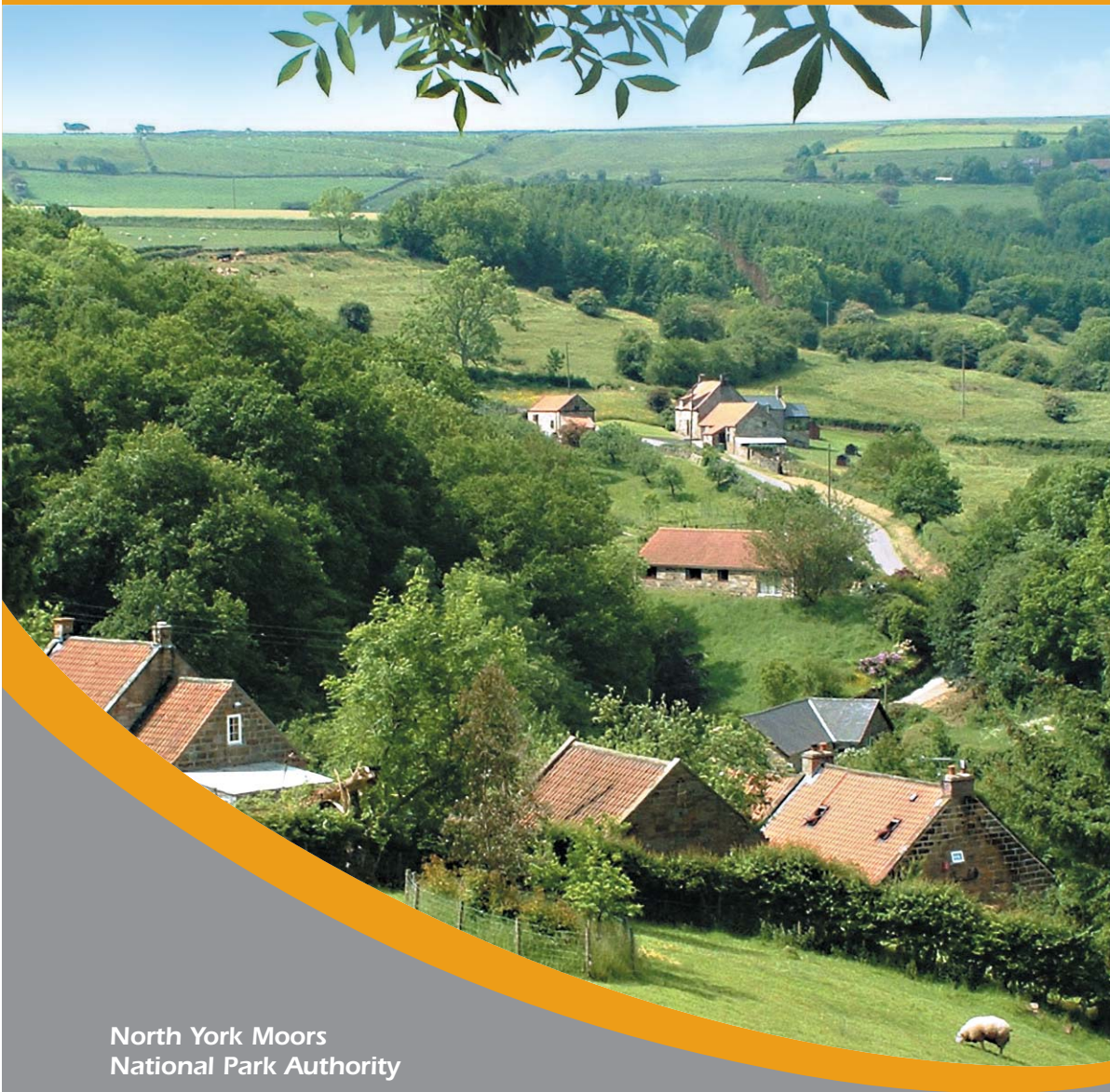


**APPENDIX 7.4**

**NORTH YORK MOORS NATIONAL PARK DESIGN GUIDE**



North York Moors  
National Park Authority  
Local Development Framework

# Design Guide

## Part 3: Trees and Landscape Supplementary Planning Document



Planting should be used to enhance good design rather than screen poor quality development



Locally collected acorns

### 2.6.1 Soft Landscaping

Soft landscaping refers to all 'growing' landscape features including earth modelling, soil and grass, trees and shrubs but also extends to streams, ponds, ditches and wetlands.

Soft landscaping can be employed to fulfil a number of functions including the definition of spaces and boundaries, creating 'soft edges' to development to integrate it into the surrounding landscape, providing green corridors and habitat links, encouraging biodiversity and enhancing the streetscape and road corridors.

In simple terms the choice of plants used for soft landscaping purposes should reflect its function, purpose and location.

Planting should be sympathetic and make a positive contribution to the existing local landscape character. It should also compliment the surrounding vegetation pattern and be used to encourage biodiversity on the site. **Proposed planting should never be used as a tool to mitigate or remedy poor design.**



When developing planting proposals, consideration should be given to the following points:

#### Species Choice

The use of locally native tree and shrub species can be important in some situations. They often reflect the native woodland types of the North York Moors and if used with care, can help to maintain local distinctiveness and enhance the landscape of the National Park. Local wildlife populations may be better adapted to native tree species and they are usually considered to have a higher wildlife value than other species. Generally, the planting of native trees and shrubs will be encouraged in planting proposals, particularly those that are situated outside of settlements or in the wider countryside.

Where possible, planting stock should be from local seed sources. Although our knowledge is still developing (and climate change may be a factor to consider in the future), local provenance trees and shrubs, which are growing well in the area, will usually be better adapted to the local environment and be preferred in a new landscape scheme. Using local origin stock (trees and shrubs which originated in the area) might be important for some of the less widely planted or more localised species to help conserve unique local characteristics (genotypes). For example, small-leaved lime, field maple, dogwood, spindle or juniper, particularly when sourced from ancient woodlands or trees, could have locally distinct populations. Planting local origin stock for some species such as these should be considered.

Many species of tree are now well established in the landscape and some, such as the spruces and larches, have been widely planted for timber and are important to the local economy. Where non-native tree species are to be used they should respect and enhance the surrounding landscape. Purple leaf plants such as copper beech, or some conifers can draw attention to the development and may increase the visual impact. Species such as Scot's pine and beech are not considered native to the area but if used with care can enhance a well designed scheme. Sycamore has been present in the North York Moors for centuries and can be a traditional and valued landscape feature, for example when planted around farmsteads (although its use near to some native woodlands might be discouraged if it is not already present).

### Scale of Planting

The scale of planting is an important factor in determining how successfully a development integrates into and becomes part of the landscape and the surrounding vegetation pattern. Where large areas of woodland are a key feature of the landscape, larger planting schemes might be more appropriate.

In landscape character types where the landscape is made up of simple large scale components where the landform dominates (rather than the field pattern), small scale planting can be inappropriate. For example, large arable fields or where large coniferous woodlands are present a more bold approach would build on the existing landscape character. Conversely in more intimate landscapes where the field pattern is the dominant feature, woodland planting should reflect this scale.

There is a misconception that new development can be 'hidden' by planting belts of trees and shrubs to create a screen. However, caution should be exercised as the resultant screen can often be as intrusive in the landscape as the original development. In these instances, clumps of trees can often be more effective in reducing the visual impact of buildings.

Clumps of trees can be effective in reducing the visual impact of buildings



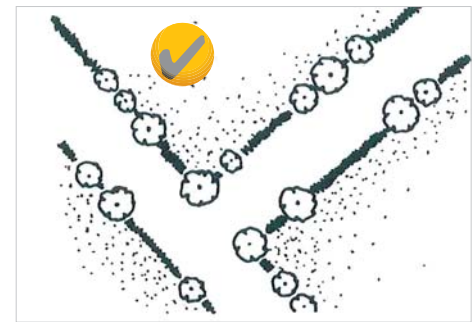
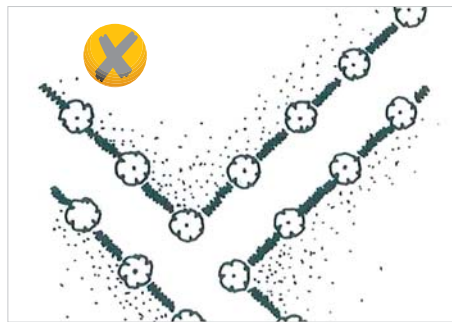
### Planting Design

The way in which new vegetation is planted and the species chosen will have a strong influence on how a development fits into the landscape. Considering the existing vegetation pattern can provide clues about how to proceed.

Figure 4:  
Planting Styles

Right: Regimented and formal style of tree planting along boundaries

Far Right: Irregular spacing for tree planting along boundaries



Observing which trees and shrubs already grow well in an area can indicate which species will grow well together in the local environment. For larger planting proposals, species choice can reflect natural groupings found in native woodland types and design might include variations of species across the site to reflect changes in soils and topography. Planting patterns can also introduce diversity and open spaces to increase 'naturalness' as the wood develops<sup>7</sup>.

Although innovative planting schemes will be encouraged in certain circumstances, generally formal styles of planting within open areas (outside of settlement boundaries and wider countryside) such as avenue planting along farm access tracks will be inappropriate (see Figure 4). Over-elaborate gardens are not features of farmsteads/buildings within these locations.

### Areas of Grass and Lawns

Areas of grass can offer a variety of suitable habitats for animals as well as supporting wildflowers. Areas of long grass with a mowing regime around the traditional hay making calendar can provide suitable growing conditions for native wildflowers and grasses. For larger areas of grass/lawn, consideration should be given to setting aside areas for these purposes.

Native grassland with wild flowers can provide a wealth of colour and texture



#### Footnote:

<sup>7</sup> Further information can be found in Rodwell and Patterson, 'Creating New Native Woodlands' or contact the National Park Authority's Conservation Officers for further advice.

### Rivers, Streams and Ponds

The choice of plant species should reflect the underlying soil conditions. Where sites are adjacent to rivers, streams or ponds a selection of plant species more suitable for wet conditions will relate more successfully to the surrounding riparian vegetation pattern. Care should be taken to ensure important wetland habitats are not affected by planting and that the right balance of open and shaded habitats are maintained near to water.

### Boundaries

Boundaries can provide a link with the surrounding landscape character and vegetation pattern. If hedgerows are characteristic of the surrounding landscape, they may be appropriate as a form of boundary treatment. Where boundary hedgerows exist, their retention and incorporation into a scheme is encouraged.

Sufficient space must be left for boundaries which are in keeping with the surrounding landscape. For example, it would be out of character to have a wooden close boarded fence as a boundary treatment for housing adjacent to an area of open countryside where a hedgerow or a belt of native tree and shrub planting might be more acceptable.

Additional information relating to boundary treatment can be found in Section 2.6.2 and Part 2 of the Design Guide – ‘Extensions and Alterations to Dwellings’.

### Restoration and Management

All new planting should maintain and where necessary strengthen the diversity of habitats by encouraging restoration of native grassland, management of hedgerows and woodland and wildlife-friendly gardening.

Although there may be a number of older trees within a development site, new trees should also be planted to offer replacements for the future.

Occasionally a site may contain trees or woodland which has a valuable screening function, even though made up of poor specimens or inappropriate species. In these cases a management plan should set out planting proposals which will seek to provide replacement trees for those to be felled in the longer term.

Replacement tree planting provides an opportunity to strengthen the diversity of habitats



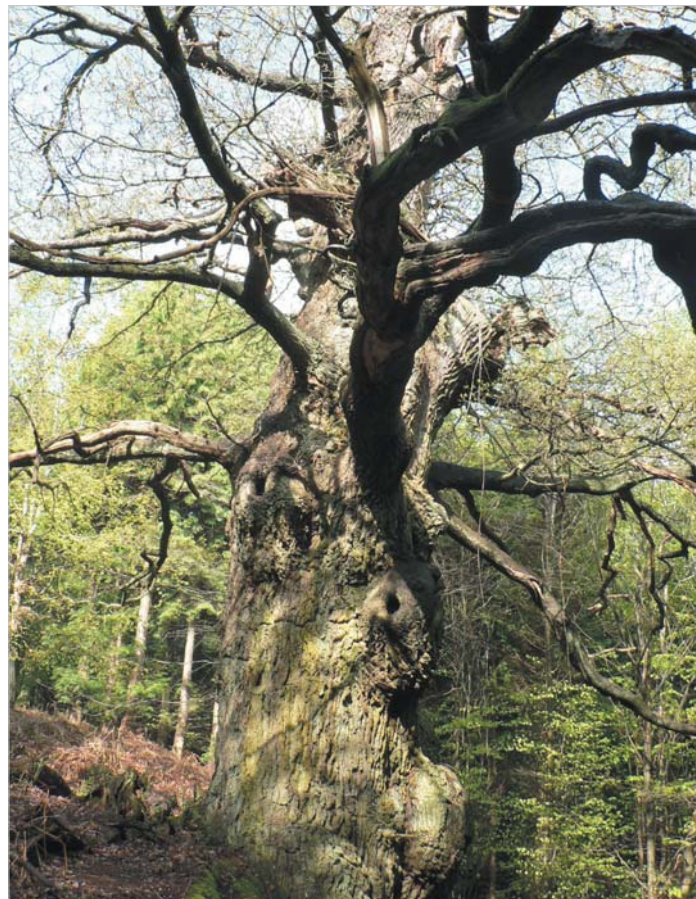
Veteran trees are implied to have 'gone through the wars'

### Veteran and Large Trees

Large trees are an important feature in some settlements within the National Park and make a significant contribution to their character. There will be a strong presumption against the felling of such trees or development which will result in pressure for their removal or replacement with smaller trees.

Veteran trees are the oldest living plants in Britain. They can be many hundreds or even thousands of years old. Veteran trees are found throughout the National Park, but there are particular concentrations in certain landscapes. Ancient woodland is a good place to find huge small-leaved lime coppice stools, one of the less common native trees. Deer parks and wood pasture will often contain many impressive old pollards, particularly oaks. Hedgerows still contain an abundance of veteran trees, and old specimens of species such as oak and field maple may be found as field trees or on village greens.

Veteran trees should always be retained and where there are no young trees nearby, trees should be planted for their replacement.



**'Aged or 'veteran' trees found outside ancient woodland are also particularly valuable for biodiversity and their loss should be avoided. Planning authorities should encourage the conservation of such trees as part of development proposals'.**

***Planning Policy Statement 9: Biodiversity and Geological Conservation (DCLG 2005)***

### Tree and Shrub Species Selection

In general, planting is likely to be more successful if a few well adapted and common species are planted. Although not exhaustive, the following list provides brief details about the more common native trees and shrubs of the North York Moors. In interpreting the list, consideration should also be given to the particular landscape character of the area within which the proposed planting is to be undertaken (see Section 2.3).

<b>Alder</b>	Has a wide distribution on neutral soils, especially wet areas near to watercourses.
<b>Ash</b>	Widespread, although prefers neutral or alkaline soils and will survive exposure quite well.
<b>Aspen</b>	Generally found in small groups on heavy neutral soils, although not particularly common in the North York Moors.
<b>Crab apple</b>	Occurs on a range of generally neutral soil types from light and dry to heavy.
<b>Downy birch</b>	Found on a range of damp, generally acidic soils (can hybridise with silver birch).
<b>Silver birch</b>	Generally prefers acidic dry soils and may establish on bare mineral soils.
<b>Blackthorn</b>	Found on a range of soil types including wet and dry (except very acidic sites) and tolerates exposed conditions. Can form dense thickets.
<b>Bird cherry</b>	Prefers generally wet, neutral sites in upland districts.
<b>Wild cherry (Gean)</b>	Favours heavy neutral to alkaline soils.
<b>Gorse</b>	Prefers light dry and acidic to neutral soils and tolerates exposure well but can be invasive once established.
<b>Elder</b>	Favours a range of neutral soil types, especially nutrient enriched soils.
<b>Hazel</b>	Prefers light dry soils although it is found in a wide range of conditions from acidic to alkaline. Present in most woodland types in the area.
<b>Holly</b>	Widespread and to be found on soils ranging from acidic to alkaline, but generally prefers lighter soils.
<b>Hawthorn</b>	Most soil types (except wet) are tolerated and can stand exposure. British provenance is preferred because European stock is less thorny and has been shown to come into leaf earlier than native stock.



<b>Sessile oak</b>	Generally prefers lighter drier soils than pedunculate oak and grows well on neutral to acidic soils as well as exposed sites. Some dale-head or moor edge woods contain pure sessile whose integrity should be preserved if planting nearby (many oaks in the North York Moors appear to be hybrid between pedunculate and sessile oaks).
<b>Pedunculate oak</b>	Found on a wide range of soil types from neutral to acidic and damp to dry and will survive some exposure.
<b>Small-leaved lime</b>	Has a localised distribution and is rarely planted so is generally a good indicator of ancient woodland (only plant if stock of local origin is available).
<b>Field maple</b>	Is at the northern edge of its range in the North York Moors and is locally distributed, usually on alkaline soils in ancient woodland and old hedgerows. Stock of local origin should be preferred.
<b>Guelder rose</b>	Prefers wet or heavy neutral to alkaline soils.
<b>Rowan</b>	Likes light, dry acidic soils and is resistant to exposure.
<b>Goat willow</b>	Prefers wet or damp, heavy neutral soils (although tolerates drier sites than other willows) and tolerates exposure well.
<b>Grey willow</b>	Generally as goat willow but prefers more acidic conditions.
<b>Crack willow</b>	Prefers neutral or alkaline wet sites, usually near to a watercourse. It can dominate wet sites and this should be considered before planting.

### Plants to Avoid

Avoid planting invasive plant species, such as sea buckthorn in coastal grassland areas or *Rhododendron ponticum*. Where conditions are suitable, the latter will out-compete most native plants allowing very little light to penetrate through its thick leaf canopy eliminating other native plant species. This in turn can lead to the consequent loss of the associated native animals.

The planting of some tree species, such as *Leylandii*, is not recommended as a form of screening or hedge outside of villages (although within villages it can also be visually intrusive if not maintained properly). Alternatives such as a beech hedge, which if trimmed, will retain its leaves throughout the winter months and offer a semi-screen are more appropriate.

*Rhododendron ponticum* –  
invasive species



### Woodland Planting

New woodland planting should link with the surrounding vegetation pattern, reflect the landform and be suitable for the underlying soil conditions.

Where timber production is not a major objective, planting trees close together and uniformly across a site will be less important. In general, to provide successful establishment, trees should be planted at 2-3 metre spacing (2,500 to 1,100 per hectare). The closer spacing will help early canopy closure and weed suppression whereas wider spacing will allow trees to develop a spreading branch structure but will take longer for woodland conditions to be created. If trees are clumped in groups of one or two well-suited species they will not out-compete each other and glades and open space between groups will help provide stand diversity. Shrubs can be used to good effect if planted in groups or at the edges of plantations to create interest.

In some cases dense screen planting might be appropriate, although this should not be seen as a remedy for bad siting and poor design of a development. Generally an area of native planting will need to be 20m wide before it can offer all year screening. Species such as Scot's pine or holly can help provide winter cover.

Generally smaller plants will establish more quickly than larger plants. Therefore for instant effect and good long term success a number of larger trees (feathered, standards/semi-mature) could be planted at key locations, with smaller plants (such as transplants, undercuts or cell grown stock) making up the bulk in the planting.

### Suggested Natural Woodland Groups

The following are general suggestions for species to plant in small woodlands as variations in soils, drainage and altitude will vary with each site.

#### 1 Neutral brown earths sites (most farmland and other sites where soils are deep and relatively well drained)

<i>Main canopy trees</i>	Pedunculate oak Silver birch Ash
<i>Other trees and shrubs</i>	Hazel Hawthorn Rowan Holly Crab apple Wild cherry

**2 Free draining calcareous soils (usually derived from limestone, shale or glacial drift).**

<i>Main canopy trees</i>	Ash Sessile oak
<i>Other trees and shrubs</i>	Field maple Hazel Goat willow Hawthorn Rowan Birch ( <i>both species</i> ) Holly Crab apple Wild cherry Aspen

**3 Acidic, upland sites (generally where sandstones underlie peaty or sandy soils).**

<i>Main canopy trees</i>	Sessile oak
<i>Other trees and shrubs</i>	Silver birch Rowan Holly
<i>Occasionally present</i>	Downy birch Hawthorn Ash Bird cherry

**4 Wet sites or wet areas within sites (care should be taken not to plant on sites of existing conservation interest).**

<i>Main canopy trees</i>	Alder Downy birch Goat willow
<i>Other trees and shrubs</i>	Grey willow Bird cherry Blackthorn Guelder rose

**5 Very exposed or coastal situations**

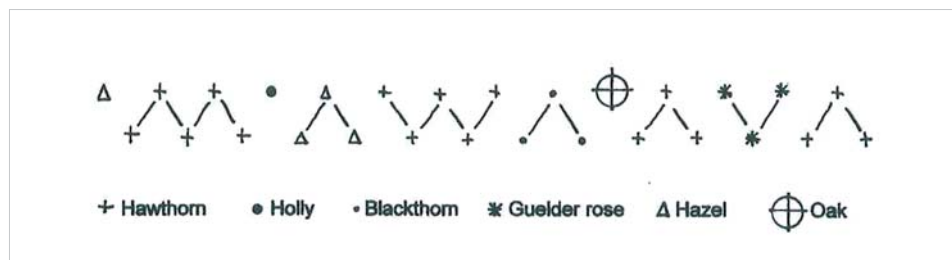
<i>Main trees and shrubs</i>	Sycamore Hawthorn Blackthorn Gorse ( <i>although can be difficult to get established</i> )
<i>Other species to consider</i>	Ash Holly Hazel Rowan

### Hedgerow Planting

As a boundary treatment, good hedgerows should be planted with small stock (for example 45-60cm) such as 'transplants' in two staggered rows at 30-50cm centres (6 plants per metre) (Refer to Figure 5). The closer the shrubs are planted the quicker they will establish and grow. In the North York Moors hawthorn should be the major species interspersed with two or three others planted in groups of 3-5. If holly is included it should be container grown and planted singly within the hedge.

Hedgerow trees should be planted at irregular intervals to avoid a formal design developing.

Figure 5:  
Hedgerow  
Planting Plan  
for a Rural  
Setting



New hedgerow  
planting with stock  
proof fencing as an  
additional measure





The future growth of a tree should be considered when planting close to buildings

### Planting Near Buildings and Building Near Trees

Trees, hedgerows and shrubs take moisture from the ground. In cohesive soils such as clays found within areas covered with glacial till (clays) this can cause volume changes resulting in ground movement and possible subsequent damage to buildings and structures.

The relationship between trees and buildings is inherently complex. The depth of foundations, the angle of slope of the land and the choice of plant species will all contribute to the site-specific circumstances. Where a complex situation arises, professional advice from an engineer and a specialist arboriculturist should be sought.

When planting trees close to buildings or other structures, consideration should be given to their future growth to avoid any direct damage or nuisance. Further advice is given in Section 3.

### Topsoil and growing conditions

Plants need to be given enough space, both above and below ground to establish and perform their intended function. New planting requires sufficient soil to provide food and moisture to support healthy growth and planting should be on soils which have been protected during the development phase. Within farm sites or redundant industrial sites the underlying soil might be contaminated by oil, diesel fuel and/or toxic waste. Where contamination is apparent, the soils will need to be analysed for structure and content by an expert. If soils have been badly contaminated it is possible that they will need to be removed to the full planting depth and replaced with new soils.

### Storage of topsoil

The re-use of topsoil from a site can be less expensive and more sustainable than importing topsoil.

Topsoil and subsoils should be carefully stripped and stockpiled in reasonably dry conditions to avoid unnecessary compaction and damage to soil structure. They should be stacked separately and strict precautions taken to prevent the mixing of subsoil and topsoil.

Topsoil heaps should not exceed 3m in height, including topsoil existing on site and should be used within 12 months. If greater time is required for stacking, special precautions and remedial procedures may be necessary.

Poor storage of topsoil can lead to a loss of the 'crumb' structure, usually as a result of compaction of wet topsoil when put into store, loss of aeration, waterlogging and anaerobic decay of organic matter.

Recommended topsoil depths for planting are as follows:

- 150mm for grass areas after firming
- 400mm for shrubs and small trees after firming

## 2.6.2 Hard Landscaping

Hard landscaping encompasses all hard surfaces to be retained or formed within the site including paved areas, car parking surfaces, driveways, steps, boundary walls, fences, contouring, remodeling of the ground and pathways.

The visual character and quality of a place is significantly affected by the nature of the surface materials, their longevity and the characteristics they develop with age. Natural materials such as stone, gravel and brick often last longer, weather better and suit localities more than artificial materials. Natural materials can be recycled and are more likely to be reused.

As a general rule, simple designs using a limited range of good quality and robust materials that suit the character of the locality and reflect local styles and traditions look and work better.

Where it is practical to do so, the re-use or retention of existing original features such as walls, fences and hedges – all of which contribute to local rural landscape character, is encouraged.

Hard landscape design should also take full account of the security and safety of all users and in particular, those of the disabled.

Where possible, all development sites should minimise areas of hard surfacing to reduce the rate of water run-off and the consequent need for drainage systems.

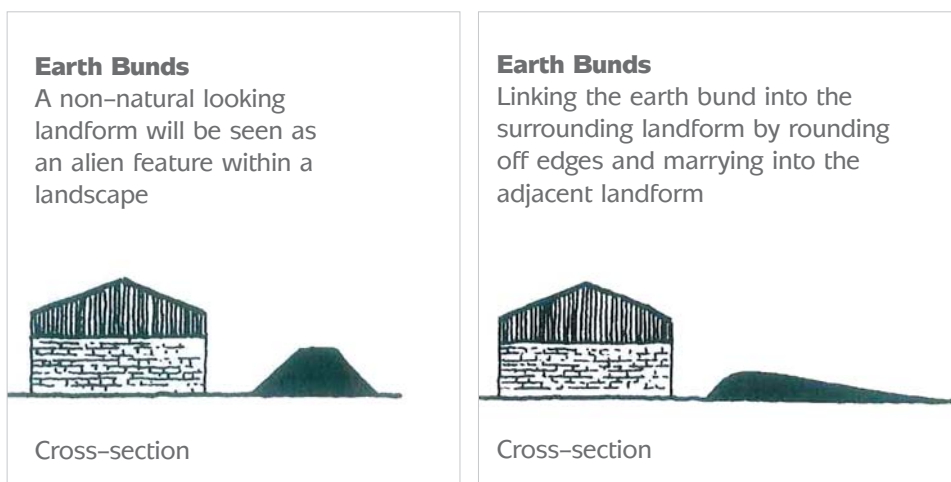
### Landform

Landform features give a site its character. Attention should therefore be paid to the proposed scale of a development and the extent of remodelling of the existing levels that might be required.

A change in the landform may require the use of high retaining walls which have the potential to be visually intrusive in the wider landscape. Similarly, remodelling of the ground might produce excess fill, which will then need to be deposited elsewhere. It is important to consider issues like this at an early stage to address how excess can be dealt with.

If required, earth mounds (which historically have been used for screening) should 'marry' into the surrounding landform and avoid appearing as an alien or discordant feature in themselves (see Figure 6).

Figure 6:  
Earth Bunds



## Boundaries

Boundary features such as walls, fences and hedges can significantly contribute to the character of the wider landscape and should, where practical to do so, be retained or reinstated.

At a local level, poorly designed and sited boundaries can potentially detract from the overall qualities of a development, so it is important that the same time and effort is applied to the choice of boundary as to the design of the remainder of the scheme.

Boundaries should be sensitively designed to help the new development fit into the surrounding landscape. Their function must also be considered and can range from delineating the extent of land ownership, creating shelter and defining spaces to providing security and privacy. Boundaries should be sufficiently high to screen storage, parking areas, clutter, domestic sheds and other garden paraphernalia.

Within villages and towns, a lack of coordination and too many styles can fragment the unity of the streetscape. Conversely, too little variety and long lengths of unrelieved walling or fencing can lead to monotony.

## Stone Walls

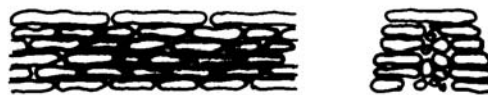
The availability of suitable building stone has led to dry stone boundary walls being a locally distinctive feature both within the landscape and the streetscape of many of the settlements within the Park. They often make a significant contribution to the unique character of the environment and can also have important historic significance.

Stone wall designs vary in style and intricacy, but generally include the following:

### 'FLAT'

The simplest type of coping is a flat top, which uses through-stones placed side by side along the entire length of the top of the wall.

Flat top coping is found within villages, where looks are important and disturbance minimal.



### 'TILTED'

The top stones vary at different angles, often responding to changes in slope.

Tilted coping is most commonly used as a field boundary and on walls associated with farmsteads.

