

Land at Hall Road
Rochford

Landscape and Biodiversity Management Strategy

Prepared on behalf Bellway Homes

April 2010

Land at Hall Road Rochford

Landscape and Biodiversity Management Strategy

Prepared on behalf of Bellway Homes

Barton Willmore Landscape Planning and Design
7 Soho Square
London
W1D 3QB

Tel: 0207 446 6888
446 6889
E-Mail: environmental.london@bartonwillmore.co.uk

Ref: BWLPD/18293/A5/LT Fax: 0207

COPYRIGHT

The contents of this document must not be copied or reproduced in whole or in part without the written consent of Barton Willmore LLP.

All Barton Willmore stationary is produced using recycled or FSC paper and vegetable oil based inks.

CONTENTS

1.0 INTRODUCTION..... 1

2.0 MANAGEMENT OBJECTIVES 6

3.0 LANDSCAPE INVENTORY 9

4.0 MANAGEMENT ZONE AIMS, OBJECTIVES AND PRESCRIPTIONS15

5.0 IMPLEMENTATION, MONITORING AND REVIEW.....31

ILLUSTRATIVE MATERIAL

- Figure 1: Landscape and Biodiversity Management Zone Plan

1.0 INTRODUCTION

Background to the Management Strategy

- 1.1 Barton Willmore LLP's Landscape Planning and Design team (BWLPD) were commissioned in March 2010 by Bellway Homes to prepare a Landscape and Biodiversity Management Strategy (LBMS) for the proposed development a Land at Hall Road, Rochford.
- 1.2 This Landscape and Biodiversity Management Strategy (LBMS) has been prepared to accompany the application proposal for new residential dwellings with associated car parking, pedestrian and cycleway connections, open space, and play and amenity areas, (hereinafter referred to as the 'Proposed Development').
- 1.3 This LBMS has been prepared to encompass the area for the Proposed Development (hereinafter referred to as 'the Site') and to provide a comprehensive approach to the retention and management of the existing features, hard and soft landscape proposals and the newly created habitats including woodland, hedgerows, specimen trees, wildflower meadows, amenity grassland and a sustainable urban drainage feature. It is based on Figure 4: Landscape Strategy Plan (18293 L8 April 2010).
- 1.4 The LBMS is intended to satisfy the intent of Regulation 37 of the Conservation (Natural Habitats, &c.) Regulations 1994 which seeks the implementation of planning policies which encourage landscape management.
- 1.5 In the preparation of this strategy, reference has been made to the Ecological Appraisal of the Site prepared by the ecological consultants Ecology Solutions Ltd (November 2009), to ensure accuracy of species and habitats referred to. In addition, reference has been made to The East of England Plan (2008); Rochford District Replacement Plan (2006); the Core Strategy Submission Document (2009); Supplementary Planning Document 7 (SPD7): Design, Landscaping and Access Statements; Countryside Character Map of England, Volume 7: South East and London; Area 81: Greater Thames Estuary (1999); the Essex Landscape Character Assessment: Landscape Character Area G3: South Essex Coastal Towns (February 2003); the Essex Biodiversity Plan (BAP) and the Rochford Biodiversity Action Plan (BAP) (June 2000).
- 1.6 The East of England Plan sets out the relevant Regional Spatial Strategy for this area. Policy ENV 2 of the East of England Plan relates to Landscape Conservation

and requires planning authorities and other agencies to recognise and aim to protect and enhance the diversity and local distinctiveness. Policy ENV3: Biodiversity and Earth Heritage requires planning authorities and other agencies to ensure that the region's wider biodiversity, earth heritage and natural resources are protected and enriched through the conservation, restoration and re-establishment of key resources.

- 1.7 Policy ENV 5: Woodlands relates to woodland cover that makes up the region. This policy seeks to achieve an increase in woodland cover by protecting and achieving better management of woodland and promoting new planting where consistent with landscape character.
- 1.8 Policy ENV 7: Quality of the Built Environment relates to new development. This policy directs Local Development Documents to require new development to be of high quality, which complements the distinctive character and best qualities of the local area and promote urban renaissance and regeneration.
- 1.9 Policy CS2 of the Rochford District Replacement Plan (2006) identifies the Council's aim to protect, sustain and enhance the district's natural resources and cultural heritage to ensure that new development contributes to environmental quality for future generations to enjoy. Policy CS3 seeks to encourage good quality design which is identified to include taking into account the existing form and character of the site and its surroundings, and the inclusion of landscaping arrangements which reduce the visual impact of and positively enhance the proposal and its surroundings. Policy CS8 relates to retaining a sense of place and protecting and enhancing the district's identity. Policy CS9 sets out that it is the Council's aim to ensure that when development takes place, landscaping is an integral part of the design process.
- 1.10 Policy NR8 relates to other landscape features of importance for nature conservation and requires the protection of wild fauna and flora from loss or damage. Development which would adversely affect, directly or indirectly, these landscape features will only be permitted if it can be proven that the reasons for the development outweigh the need to retain the feature and that mitigating measures can be provided for, which would reinstate the nature conservation value of the features. Appropriate management of these features will also be encouraged.

- 1.11 Supplementary Planning Document 7 (SPD7): Design, Landscaping and Access Statements includes the relevant guidance relating to biodiversity, planting design and species choice.
- 1.12 It notes that “biodiversity is an important consideration in any landscaping scheme” and set out the following with regard to planting design:
- Hard and soft landscaping measures; and
 - Buffer zones.
- 1.13 It also notes that “it is important to consider the ecological value and appearance of the surroundings in general, including those of neighbouring properties and Nature Conservation sites in particular”, and that “biodiversity is an important consideration in any landscaping scheme” and sets out the following with regard to planting design:
- “Planting design should be designed in such a way as to reflect the typical or traditional indigenous landscape character of the adjoining area. Planting should be structured to reflect and complement the landform and variation in soil types;
 - A clear structure should be created using woodland blocks, hedges, more open scrubland, grassland areas and other landscape and *habitat* types. Indigenous species of plant material should be used in mixtures and proportions which will simulate natural models; and
 - A degree of ecological diversity is also to be encouraged both to create a good range of *habitat* and provide a range of seed sources for subsequent natural *regeneration*. This diversity should be reflected in a variety of planting related to *habitat* types; Conserve the existing highly-evolved and delicately balanced mix between the natural landscape features and industrial and urban development.”

Scope and Purpose

- 1.14 In summary, this LBMS provides a strategy for:
- The adoption of a coherent and integrated approach to the management and maintenance of the landscape and ecological aspects of the Site;

- Ensuring development is appropriately softened and integrated within the surrounding landscape;
- The retention and management of existing features on the Site, including the existing tree belts, hedgerows, and other habitats;
- The maintenance of strengthened tree belts and other habitats; and
- The management of the amenity landscape.

1.15 The aim is to promote a sensitive management approach, which protects, manages and enhances the Site for the benefit of residents of the proposed development and wider community of Rochford, and provides opportunities for outdoor activity, nature conservation and visual amenity. It is a dynamic document that should be renewed on a regular basis and amended as circumstances change with the evolving development of the Site.

Landscape and Biodiversity Management Strategy Vision

1.16 The Proposed Development offers the opportunity to create an attractive setting for the residential development through the provision of a robust landscape infrastructure, which would integrate the proposed development into the local landscape in general, enhance the setting of the urban edge of Rochford, and provide a robust boundary to the Green Belt.

1.17 The landscape infrastructure will, in addition to enhancing local landscape character, provide the opportunity to enhance the existing tree belts and hedgerows of the Site, and in addition, create a variety of open space areas throughout the proposed layout, also providing the opportunity to ensure that a biodiversity of habitats is incorporated within the development.

1.18 All new developments are now subject to national and local policy guidance to incorporate benefits for landscape and biodiversity whenever possible. In addition, a high quality landscape and the opportunity to view wildlife at close quarters, is likely to be highly valued by occupiers of the Proposed Development. The existing trees and hedgerows around the Site already offer visual amenity but this will be enhanced considerably by additional planting and management measures which will encourage wild flora and fauna in close proximity to the proposed development through sensitive planting and management.

- 1.19 The delivery of the LBMS can be expressed by a clear and simple vision, which has been set out below:

To ensure the long-term management of the landscape and ecological components within the Proposed Development, and to maximise the wildlife, landscape and amenity value of the Site. Connectivity between the existing landscape features and habitats will be reinforced wherever possible and new landscape features introduced. These components will be enhanced and protected for leisure, visual amenity and nature conservation. Long term care of an attractive, sustainable environment will be promoted.

Methodology

- 1.20 Section 2.0 sets out the overarching management objectives of the LBMS. Section 3.0 provides an inventory of each of the existing landscape and biodiversity components of the Site, listing the habitats and their key species. Section 4.0 details specific management aims and objectives for these components and others to be added as part of the Proposed Development and Section 5.0 outlines the recommended framework for the implementation of the LBMS, monitoring and review. Each of the proposed landscape and biodiversity management components are illustrated in **Figure 1: Landscape and Biodiversity Management Zone Plan.**

2.0 MANAGEMENT OBJECTIVES

Management Zone Definition

- 2.1 Critical to the management process is the identification and delineation of Landscape Zones. These are areas with defined characteristics and qualities for which there are related user expectations.
- 2.2 Landscape Zones are created by the combination of various existing or proposed landscape features or components. Each component can be considered to have its own management themes and strategies specific to its contribution to each landscape zone, and the Site as a whole. Collectively the management strategies illustrate what can be delivered in practice (that is achieved 'on the ground'), and work towards achieving the Vision for the Landscape and Biodiversity Management Strategy.
- 2.3 The layout of the Proposed Development on the Site has been categorised and divided into five Landscape Zones that display specific characteristics. The existing and proposed landscape features or components that constitute each Landscape Zone are identified, and the individual management strategies for each component set out. These are discussed in more detail in **Section 4.0**.

Overarching Objectives

- 2.4 To achieve the overall vision, the LBMS identifies the objectives for each landscape feature. The detailed management and maintenance proposals have been prepared as guidance to ensure the continued upkeep of the Site in order to enhance its visual amenity and biodiversity value.
- 2.5 However, to provide an approach to overall management of the landscape and biodiversity features of the Site, the key overarching objectives of the LBMS are set out below:
 1. **To promote the conservation, protection and improvement of the physical, natural and historic environment of the landscape setting of the Site.** The environment should be seen as part of the essential infrastructure of the development.
 2. **To diversify ecological value** through the retention of existing landscape features such as trees and hedgerows, and to enhance these through

restoration and creation of diverse habitats offering greater botanical and faunal interest to the Site.

3. **To provide appropriate landscape treatment between the Proposed Development and adjacent residential properties, roads and public rights of way**, to ensure that the visual impact of development on adjacent users is minimised and the proposed development is seen to be well contained.
4. **To provide an appropriate robust landscape buffer between the proposed built forms on the Site and the open countryside** to the west, to provide a robust Green Belt boundary, thereby assimilating the proposed development into its immediate and wider context, creating a setting for the proposed development and appropriate interface with the built edge of Rochford.
5. **To provide appropriate landscape treatment to create a Gateway** into Rochford from the west.
6. **To retain important landscape features**, such as the mature individual trees subject to TPO along Hall Road, mature tree belts along the northern boundary and tree belts and substantial hedgerows along the western boundary of the Site and along public footpath 55, which currently provide physical and visual containment to the Site, and to ensure the reinforcement, enhancement, and long term management of this vegetation.
7. **To further “contain” and “soften” the Proposed Development** within belts of strategic planting, thereby reinforcing the existing boundaries between the development and the countryside areas to the west, north-west and south-west.
8. **To use native indigenous species of local provenance wherever appropriate**. Habitat restoration and creation shall be sensitive to the character of the landscape and its component habitats and species. The design and maintenance of landscape and biodiversity components aims to preserve and enhance local distinctiveness. New structural planting which links with existing habitats shall take account of species that are locally appropriate. Amenity planting within the proposed development will be of a more ornamental nature.
9. **Enhanced management of terrestrial vegetation**, especially woodland, tree belts and grassland and net creation of buffer planting using appropriate indigenous tree and shrub species that contribute to the character of the wider landscape.

10. **To create a high quality landscape setting to the Proposed Development** through the provision of a robust landscape infrastructure and open space, associated with the residential properties, pedestrian and cycleways, roads and car parking within the development. This infrastructure would include planting of street trees, hedgerows and woodland that link with existing landscape features wherever possible, and the use of appropriate hard and soft landscape features.
11. **To facilitate an integrated footpath network**, accommodating and connecting to existing public rights of way, and connecting open space, play and amenity areas for residents and incorporating sustainable 'green' routes to maximise pedestrian/cyclist permeability.
12. **To provide landscape amenity enhancement and biodiversity benefits** through the introduction and appropriate management of vegetation and open space areas, including the provision of play areas, informal recreation and amenity areas which enhance the setting of the residential properties.
13. **To provide a framework for monitoring and reviewing the LBMS.**

3.0 LANDSCAPE INVENTORY

Site Context

- 3.1 The Site extends to the north of Hall Road and lies to the west of the existing residential area of Rochford. The Site is located to the west of the Shenfield to Southend Railway Line and south of Ironwell Lane, a public right of way. It also abuts existing residential development along Oak Road to the east. To the south, detached residential dwellings set within large front gardens extend along Hall Road for approximately half the length of the southern boundary.
- 3.2 The Site, comprising 33.45 Ha, consists of a large single arable field forming a rectangular area of land abutting the western built up edge of Rochford. The Site is also surrounded by large ditches along its western, northern and eastern boundaries as well as in part along its southern boundary. The Site is enclosed and contained on its northern boundary by a tree belt and a substantial hedgerow. This double row of robust landscape features is located either side of the public footpath (Ironwell Lane), and provides physical and visual containment to the Site in views from the north and north-west. A substantial hedgerow is located along a field boundary within the western part of the Site, adjacent to a dry ditch and pond, together with some hedgerow trees. A smaller hedgerow is located along the south-western corner. Individual mature trees are also located along the north-western boundary. The south-western part of the southern boundary is defined by hedgerow, with the remaining part of the southern boundary is defined by 10 individual mature oak trees, which are covered by TPO 4/82. A number of trees covered by TPO 18/92 also surround the south-eastern corner of the Site. The eastern boundary is generally devoid of vegetation, save for boundary fencing and rear garden boundary vegetation and some individual trees.
- 3.3 The Site has an open character due to its land use. However the close proximity to local roads and existing residential areas to the south and east, as well as its robust boundary vegetation mean that it is well screened in local views and is well related and connected to the existing urban area.
- 3.4 There are a number of public rights of way (PROW) in the landscape surrounding the Site. These include PROW 19 (Ironwell Lane) which runs adjacent to the northern boundary of the Site and extends from Hawkwell south-eastwards to Rochford. PROW 55 which extends north-south towards the western boundary of the Site connecting to Hall Road and PROW 19. PROW 14 runs along the western side

of the Shenfield to Southend Railway Line connecting to PROW 31 to the north-east corner of the Site. PROW 5 extends in a south-westwards direction to the south of Hall Road midway along the southern boundary of the Site.

- 3.5 Cherry Orchard Jubilee Country Park is located approximately 1.725 kilometres to the south-west of the Site.

Nature Conservation Designations

- 3.6 There are no statutorily designated or non-statutory designated sites of nature conservation within or immediately adjacent to the promotion Site.
- 3.7 The nearest statutory site is Magnolia Field Local Nature Reserve (LNR) located approximately 1.1km to the north of the Promotion Site. This LNR is separated from the Site by existing development and agricultural land.
- 3.8 The Crouch and Roach Estuaries Site of Special Scientific Interest (SSSI) is approximately 1.9km to the east of the Site. The SSSI is also part of the Crouch and Roach Estuaries Special Protection Area (SPA) / Ramsar site and the Essex Estuaries Special Areas of Conservation (SAC). This area is also part of the Mid-Essex Coast Important Bird Area (IBA).
- 3.9 The nearest non-statutory site is listed as Potash Wood Local Wildlife Site (LoWS), which is located approximately 1km to the west of the Site. It is considered that this Local Wildlife Site is sufficiently removed as to be unaffected by any direct impacts from potential development within the site.
- 3.10 A number of additional non-statutory designated sites are present within the locality of the Site, including Primrose Local LoWS, Cottons LoWS, Sutton Ford Bridge LoSW, River Roach at Rochford LoSW and Dogetts LoWS. It is considered that, through the careful design of the Development Proposals, any potential adverse impacts on non-statutory designated sites can be fully negated.

Existing Landscape Components

- 3.11 The Site includes the following landscape and habitat components, the latter drawn from the Ecological Assessment produced by Ecology Solutions Ltd in November 2009 and based on surveys undertaken in September 2009:

- **Arable;**
- **Hedgerows;**
- **Trees;**
- **Scrub;**
- **Pond;**
- **Ditches; and**
- **Tall Ruderal Vegetation**

3.12 The characteristics of these areas and their contribution to the landscape and biodiversity assets of the Site have been briefly outlined below. Further detail is provided in the Ecology Solutions Ltd Ecological Appraisal.

Arable

3.13 The Site is dominated by large arable fields. Occasional arable weeds and grassland species are present along the field boundaries and associated with the hedgerows. Species present included Perennial Rye Grass *Lolium perenne*, False Oat Grass *Arrhenatherum elatius*, Cock's-foot *Dactylis glomerata*, Yorkshire Fog *Holcus lanatus*, Annual Meadow Grass *Poa annual*, Bristly Ox-tongue *Picris echioides*, Broad-leaved Dock *Rumex obtusifolius*, White Clover *Trifolium repens*, Common Nettle *Urtica dioica*, Creeping Thistle *Cirsium arvense*, Common Fleabane *Pulicaria dysenterica*, Redleg *Persicaria maculosa*, Creeping Buttercup *Ranunculus repens*, Ribwort Plantain *Plantago lanceolata* and Greater Plantain *Plantago major*.

Hedgerows

3.14 Hedgerows on and bounding the Site are generally fairly species poor, containing a limited assemblage of native woody species throughout their length, with the structure of the majority of the hedgerows unfavourable, with many becoming leggy and gappy in nature.

3.15 Species present include Hawthorn, Blackthorn, Hazel, Pedunculate Oak *Quercus robur*, Ash, Sycamore, Sweet Chestnut *Castanea sativa*, Elder *Sambucus nigra*, Elm *Ulmus procera*, Beech *Fagus sylvatica*, Holly *Ilex aquifolium*, Field Maple *Acer campestre*, Hornbeam *Carpinus betulus*, Spindle *Euonymus europaeus*, Dog Rose *Rosa canina*, occasional Goat Willow *Salix caprea* and Apple *Malus sp.*.

- 3.16 The hedgerow along the northern boundary of the site is likely to meet the criteria for classification as 'important' under the Hedgerow Regulations 1997 in relation to 'Wildlife and Landscape' criteria.

Trees

- 3.17 Trees are generally semi-mature to mature in nature and largely limited to the hedgerows. Tree species present within the Site include Pedunculate Oak, Walnut *Juglans regia*, Beech, Ash, Hornbeam *Carpinus betulus*, Horse Chestnut *Aesculus hippocastanum*, Sweet Chestnut, Holly and Sycamore.

Scrub

- 3.18 Scrub is present within the Site, mainly in the form of scattered scrub encroaching into field margins or forming remnants of hedgerows where the remainder of the hedgerow has been lost / failed. Species present in these areas are typically hedgerow species, predominantly in the form of Hawthorn, Blackthorn and Elder together with Bramble.

Pond

- 3.19 There is one pond, located along the western boundary of the Site. The pond was dry at the time of survey. It appears that it would probably hold water at certain times of the year, at times of prolonged and heavy precipitation, although despite the wet summer of 2009 no water was standing within the pond in September 2009. Species associated with the pond area include Amphibious Bistort *Persicaria amphibia*, Common Nettle, Bittersweet *Solanum dulcamara*, Cleavers *Galium aparine*, Broad-leaved Dock and Sweet Floating Grass *Glyceria fluitans*. The pond is fringed by a number trees and areas of hedgerows. Woody species present adjacent to the pond, and largely shading the pond, include Goat Willow *Salix caprea*, Hawthorn, Dog Rose *Rosa canina*, Blackthorn and Ash.
- 3.20 It was noted that the pond contained discarded waste including children's toys, clothes and traffic cones. It is considered that this is attributed to the accessible nature of this pond, being located adjacent to an access track.

Ditches

- 3.21 There are a number of ditches associated with the hedgerows and boundaries of the Site, all of which were dry at the time of survey and supported neither aquatic nor emergent flora species.

Tall Ruderal Vegetation

- 3.22 There is a small area of tall ruderal vegetation within the Site, associated with hedgerow on the southern boundary of the Site.

Protected/Important Species

- 3.23 The Site has been surveyed for the presence of birds, bats, badger, amphibian, reptiles, water voles and otters.

Bats

- 3.24 Several trees along the field boundaries are considered to offer features capable as offering low to medium scale opportunities to support roosting bats. The hedgerows and trees within the Site offer potential foraging and navigational opportunities for any local bat populations.

Badgers

- 3.25 There is one Badger sett within the Site, and several mammal push-throughs were recorded across the Site. The sett is a single entrance outlier Badger sett associated with the base of a mature Pedunculate Oak within the hedgerows on the western boundary of the Site. The sett was considered to be dis-used at the time of survey with an accumulation of leaf litter and woody debris within the entrance and no evidence of fresh digging. It is considered that this sett has not been used within the last 12 months.

Dormouse

- 3.26 Whilst no specific evidence for the presence of Dormouse was noted during the initial surveys, it is considered that several hedgerows within the Site are at least superficially suitable for Dormouse, with a good mix of tree / shrub and other plant species present providing a food source throughout the active season for Dormice.

Amphibians

- 3.27 There are a number of water bodies within and immediately adjacent to the Site, although these ponds are not considered to offer optimum breeding conditions for amphibians, including Great Crested Newts, they do offer some opportunities. The pond on the western boundary of the Site was dry at the time of survey but had signs that it becomes seasonally inundated and as such specific surveys at the breeding time of amphibians should be undertaken to establish any activity.
- 3.28 The Site offers limited opportunities for amphibians during their terrestrial phase, with limited opportunities at field margins, particularly where ditches and hedgerows are present.

Summary

- 3.29 The basis of landscape quality and biodiversity at the Site is formed by the vegetation of established hedgerows and woodland.
- 3.30 The hedgerows, semi-mature trees and ponds are considered to be of greater ecological value within the context of the Site as a whole. The remaining habitats are considered to be of extremely low intrinsic value and support negligible value from an ecological perspective. It is recommended that the hedgerows and trees be retained and incorporated into any Development Proposals wherever possible. It is also considered that through the sensitive design of the Development Proposal the ecological value of the Site would not only be retained but greatly increased.
- 3.31 With regard to protected species; the presence of Badger has been identified within the Site and it is considered that given the location and extent of the activity this species can be safeguarded and accommodated within the Development Proposals. Moreover through the establishment of new habitats and strengthening of existing habitats it is considered benefits for the local Badger social group can be obtained. Further specific surveys are recommended in relation to Great Crested Newt, Dormouse, common reptiles and bats as suitable opportunities are considered to be present within the Site for these species / groups. It is considered that, given the limited opportunities present, suitable mitigation strategies can be adopted where needed to off-set any adverse ecological impacts, such that net gains are achieved and the Site is enhanced for wildlife.

4.0 MANAGEMENT ZONE AIMS, OBJECTIVES AND PRESCRIPTIONS

Overview

- 4.1 Aims and objectives outlined within this section define what is to be achieved for identified existing and proposed landscape features or components which comprise the each of the Landscape Zones across the Site, in response to the overall needs of the Proposed Development. These in turn inform detailed prescriptions which enable anticipated outcomes for the individual landscape features or components to be achieved.
- 4.2 As part of establishing an effective Landscape and Biodiversity Management Strategy, a series of interlinked zones of landscape areas and open spaces have been defined throughout the Proposed Development. These provide a robust landscape framework within which the scale of the proposed built form will appear sensitively placed. Once established, the landscape features or components of the Proposed Development will offer legibility and functionality to the areas that surround the proposed built form and work towards enhancing its landscape and biodiversity value.
- 4.3 Landscape areas and open spaces have been divided into five landscape zones as illustrated on **Figure 1: Landscape and Biodiversity Management Zone Plan**. These include:
- **Zone 1: Green Belt Park**
 - **Zone 2: Western Parkland**
 - **Zone 3: Gateway to Rochford**
 - **Zone 4: Ironwell Lane Parkway**
 - **Zone 5: Residential Landscape**, including the Primary Feeder Road, Pedestrian Green Corridors, Urban-Rural Fringe and Residential-Urban Areas

4.4 Each of the landscape zones are created by the combination of various existing or proposed landscape features or components. The constituent components comprise the following:

- Existing and Proposed Woodland and Tree belts
- Existing and Proposed Hedgerows
- Existing and Proposed Specimen Trees
- Proposed Wildflower Meadow
- Proposed Amenity Grassland
- Proposed SUDs and Marginal Planting
- Proposed Ornamental Shrub Planting
- Proposed Hard Surfacing and Footpaths

Component 1: Existing and Proposed Woodland and Tree belts

Management Aim:

4.5 To enhance, reinforce and extend woodland and tree belt habitats which enclose parts of the Site and which contribute towards a larger network of green infrastructure retained throughout the Proposed Development.

Management Objectives:

- (i) **Enhance** the structure and integrity of all tree belts;
- (ii) **Maintain** the existing tree belt pattern to reinforce local landscape character and provide extended wildlife networks;
- (iii) **Enhance** the habitat value of existing tree belts, including their scrub edges; and
- (iv) **Provide** a substantial woodland buffer between the proposed development and the adjacent countryside.

Prescription:

4.6 Existing tree belts should be retained and enhanced to provide a robust vegetated enclosure to the Site. This enhancement includes the planting of a dense structural

belt of native woodland tree species inside the western boundary of the Site. This would substantially extend the woodland habitat.

- 4.7 The retention of mature trees will be secured by the continued application of “minimal safety management” rules. Any safety works affecting potential bat roost structures or nesting birds on these or any other tree, will be checked before action and if necessary further surveys carried out and appropriate licenses obtained to ensure legal compliance and/or secure appropriate or necessary mitigation. Any timber arising from safety works will be piled near trees to rot naturally. The natural future development of mature tree characteristics, such as dead wood and structures with potential for hole-nesting birds and bat roosts, will also be secured as far is compatible with safety considerations.
- 4.8 Locally-sourced indigenous tree species such as Oak and Ash with mixed native under-storey including Maple, Blackthorn, Hazel and Hawthorn should be inter-planted into existing woodland to fill gaps and provide future standard trees. These species should also be used to create new areas of woodland.
- 4.9 Best practice horticultural techniques should be used in the planting of woodland vegetation to ensure rapid early growth. Effective planting would be achieved through the use of a mix of transplants ranging from 40-60cm and 60-80cm depending on species, and standard trees ranging from 150-170cm and 200-250cm, depending on species. The ground below planting will be maintained as bare ground in the first 2 to 3 years after establishment. Once established, new planting should be subject to the same establishment maintenance work as for existing woodland and tree belts.
- 4.10 In woodland edge areas shrub species should be coppiced on 5-7 year rotation to encourage vigorous new growth. Coppice materials will be stored as woodpiles within the Site to provide an additional deadwood habitat resource.
- 4.11 Native ground flora development will be encouraged, where necessary, at the expense of introduced species. The ground flora should be maintained through annual removal of vigorous weed species.
- 4.12 Specific management operations include:
 - Standard trees should be retained and new trees selected to replace those which are dead, dying or over mature and which need to be removed for health and safety reasons, as directed by a qualified arboricultural

consultant, for example adjacent to footpaths or buildings. These specimens should be felled or lopped as appropriate to maintain safety, and in accordance with protected species constraints. Otherwise, standing deadwood habitats should be retained wherever possible, as they provide important habitats for invertebrates, bats, birds and other wildlife.

- All trees to be retained as part of the proposed development should be protected during the construction of the proposed development to the levels described in BS 5837:2005 Trees in Relation to Construction.
- Remove and dispose off-site all litter, rubbish and dumped items and relocate woodland debris from all roadways and pathways to adjoining woodland areas.
- Cut back undergrowth, overgrowing or overhanging shrubs and minor tree branches from any pathways to maintain an unobstructed width of at least 2m or the existing width of the pathway, whichever is the greater.
- Report to landscape manager, following routine maintenance visits, on the existence and location of any trees or parts of trees which are suffering from visible defects likely to cause danger, potential danger, obstruction or nuisance to users of adjoining properties, pathways and roadways.
- For planting in existing and proposed woodland and tree belts, the use of subsoil for a planting medium will reduce the fertility of the soils and thus the need for herbicide use.
- Hand weeding, where appropriate, should take precedence over the use of herbicides. However, in certain instances, herbicide may be the most effective measure to take against unwanted species.
- Where herbicide application is needed, it is recommended that an appropriate herbicide is applied in July-August in small controlled areas around the tree base.

Component 2: Existing and Proposed Hedgerows

Management Aim:

4.13 To enhance and reinforce linear habitats which contribute to the enclosure of the Site and which contribute towards a larger network of green infrastructure retained throughout the Proposed Development.

4.14 Hedgerows are also one of the UK Biodiversity Priority Habitats.

Management Objectives:

- (i) **Enhance** the structure and integrity of all hedgerows;
- (ii) **Maintain** the existing hedgerow pattern to reflect the historic landscape and local landscape character;
- (iii) **Retain** a robust 'screen' between the Proposed Development and the surrounding area;
- (iv) **Enhance** the habitat value of existing hedgerows; and
- (v) **Soften** the visual impact of the proposed development.

Prescription:

- 4.15 The existing hedgerows should be allowed to develop a tall, dense, bushy structure although they may require trimming outside the bird breeding season from March to August inclusive, to prevent encroachment over any adjacent footpaths and roadways, and to promote new growth. Existing trees within hedgerows should be encouraged to develop to full maturity.
- 4.16 Where hedges are very thin, it may be advisable to coppice shrubs to encourage vigorous new growth. Where hedges abut grass areas, the bases of the hedgerows should be managed in accordance with prescriptions for amenity and wildflower grassland management zones.
- 4.17 Best practice horticultural techniques should be used in the planting of hedgerow vegetation to ensure rapid early growth. Rapid attainment of effective screening would be achieved through the autumn planting of both hedgerow and hedgerow with trees, including a mix of 40-60cm and 60-80cm transplants of blackthorn, hazel, hawthorn and holly, depending on species, and feathered hedgerow trees of Ash, Wild Cherry and Oak of 150-175cm and 200-250cm, depending on species. The ground below planting will be maintained as bare ground in the first 2 to 3 years after establishment. Depending upon establishment of trees, these areas would then be seeded with a low-vigour native wildflower seed mix suitable for hedgerows. The ground flora should be maintained through annual cutting and manual removal of vigorous weed species. Once established, new hedgerow planting should be subject to the same maintenance work as for the rest of the existing hedgerows.
- 4.18 Specific management operations include:

- Non-desirable woody species should be removed during management operations and at other times as necessary, where this does not prejudice screening requirements.
- In order to fulfil the management objectives, each hedgerow should be managed as appropriate, i.e. by trimming, laying, coppicing, bulking up, etc.
- If managed by laying, this should be on a rotational basis. This is a traditional management technique and seeks to retain the structural integrity of hedgerows and maintain connections with other habitats. Cutting should be carried out at the end of the winter in February or March, thereby retaining berries through the winter months for wildlife, and avoiding the bird breeding season.
- Cut back undergrowth, overgrowing or overhanging shrubs and minor tree branches from any pathways to maintain an unobstructed width of at least 2m or the existing width of the pathway, whichever is the greater.
- Report to landscape manager, following routine maintenance visits, on the existence and location of any hedgerow trees or parts of trees which are suffering from visible defects likely to cause danger, potential danger, obstruction or nuisance to users of adjoining properties, pathways and roadways.
- Retain dead, over-mature or dying hedgerow trees wherever possible, but those which are considered dangerous for health and safety reasons, for example adjacent to public footpaths or residences, to be felled or lopped as appropriate to maintain safety, and in accordance with protected species constraints.
- For planting in existing and proposed hedgerows, where the objectives are orientated towards nature conservation, the use of subsoil for a planting medium will reduce the fertility of the soils and thus the need for herbicide use.
- In the interests of wildlife, hand weeding, where feasible, should take precedence over the use of herbicides in hedgerows. However, in certain instances, herbicide may be the most effective measure to take against unwanted species.
- Where herbicide application is needed, it is recommended that an appropriate herbicide is applied in July - August in small controlled areas around the tree base.

Component 3: Existing and Proposed Specimen Trees

Management Aim:

- 4.19 To reinforce local landscape character and biodiversity value and assist in softening and absorbing development into the landscape.

Management Objectives:

- (i) **Provide** a softening and screening function;
- (ii) **Develop** value as components of wildlife foraging corridors;
- (iii) **Enhance** visual amenity and to contribute to the legibility and green structure of the Site; and
- (iv) **Enhance** the biodiversity value of the proposed open spaces, play and amenity areas, as part of a mosaic of habitat units.

Prescription:

- 4.20 Areas of proposed planting of specimen trees occur throughout the Proposed Development and will include a tree planting along Hall Road, avenue planting along the feeder road, street tree planting, and groups of trees within open space, play and amenity areas. Specimen trees will enhance biodiversity opportunities as part of a mosaic of habitats and provide structural diversity, complementing trees within the woodland areas. They will contribute to the visual amenity of the landscape by defining street patterns, providing a green structure to the development and softening the built forms. Street tree planting species will include Oak, Ash, Maple, and Birch
- 4.21 Planted trees will require an intensive management regime to ensure their satisfactory establishment and development. The management action should include carrying out the following works:
- Maintenance of a 1m 80% weed-free area to the base of each tree for five years – this can be achieved through the application of a 5 - 7.5 cm mulch in this area;
 - Maintenance of rabbit guards and other forms of protection;
 - Maintenance of good levels of soil fertility;

- Maintenance of adequate levels of soil moisture which may require irrigation during dry periods. A 5-7.5 cm mulch for 1m around the base of each tree will increase retention of soil moisture;
- Maintenance of any stakes and ties;
- Removal of guards, stakes and ties at appropriate times;
- Treatment of pests and diseases and vandalism damage; and
- Formative pruning to avoid future structural problems and to remedy disease and vandalism problems.

Tree Planting and Tree Protection Strategy

- 4.22 Planting is to be in accordance with BS 4428:1989, and will commence in the first season following the commencement of the building works. Trees and understory planting are to be pit planted, with pits 100mm wider and deeper than root spread, backfilled with soil mixed with a slow release fertiliser. Stakes, ties and guards are to be fitted to protect new trees from damage.
- 4.23 All tree protection methods shall be in accordance with BS 5837:2005, Trees in Relation to Construction – Recommendations. Vertical barriers should be erected and ground protection installed before any materials or machinery are brought onto site and before any development or stripping of soil commences. Once erected barriers and ground protection should be regarded as sacrosanct, and should not be removed or altered without prior recommendation by an arboricultural consultant and approval from Rochford District Council..
- 4.24 In order to avoid compaction, there should be no vehicle or plant access within root protection areas. Where accidental compaction has occurred, advice should be sought from an arboricultural consultant on de-compaction measures, such as forking, spiking, subsoil replacement by hand-dug radial trenching or subsoil aeration using compressed air injection equipment.
- 4.25 Care should be taken when planning site operations to ensure that wide or tall loads, or plant with booms, jibs and counterweights can operate without coming into contact with retained trees. Such contact can result in serious damage to trees and might make their safe retention impossible. Material which will contaminate the soil, e.g. concrete mixings, diesel oil and vehicle washings, should not be discharged within 10m of the tree stem. Fires should not be lit in a position where their flames

can extend to within 5m of foliage, branches or trunk. Notice boards, telephone cables or other services should not be attached to any part of the tree.

- 4.26 Where any new tree planting fails to establish well or subsequently deteriorates, measures should be taken to resolve any underlying problems. In the first five years immediately following planting, all poorly established and dead trees should be replaced. After this time maintenance works may only require occasional formative pruning, and then only where necessary.
- 4.27 Weed control is the single most important activity during the establishment stage of planted trees. Weeds, particularly grasses, compete aggressively with young trees for water and nutrients, and may also compete for light.
- 4.28 Hand weeding, where appropriate, should take precedence over the use of herbicides, especially in wildlife areas (i.e. hedgerows and tree belts). However, in certain instances, herbicide may be the most effective measure to take against unwanted species.
- 4.29 Where herbicide application is needed, it is recommended that an appropriate herbicide is applied in July - August in small controlled areas around the tree base.

Component 4: Proposed Wildflower Meadow

Management Aim:

- 4.30 To create new areas of wildflower meadow grassland to increase structural diversity and species composition in a manner compatible with the needs of fauna such as reptiles, invertebrates and birds.
- 4.31 Lowland meadow is one of the UK Biodiversity Priority Habitats.

Management Objectives:

- (i) **Establish** an area of high landscape and biodiversity value open space;
- (iii) **Provide** structured mosaics varying from mown pathways to meadow grassland and interface with woodland tree groups;
- (iv) **Enhance** species composition with native and appropriate local wildflowers;
and

- (v) **Enhance** the visual amenity of the grassland by providing more diversity in terms of the type and structure of the vegetation

Prescription:

- 4.32 The Wildflower Meadow will provide areas for walking and sitting as well as visual appreciation of native wildflower species and associated fauna.
- 4.33 The Wildflower Meadow will be managed to encourage communities of high nature conservation value, both in terms of floral diversity and in the provision of habitat for reptiles and other vertebrate and invertebrate species. In order to reflect natural conditions, particular attention will be given to soil handling and site preparation as well as species mix.
- 4.34 Ecological enhancements will include seeding with a wildflower grassland mix supplemented by wildflower plugs. The seed source will be British Seed Houses mixes MG6 Grassland, which is appropriate to the local soil conditions, or equivalent lists.
- 4.35 Management actions will include:
- In the first year after planting, the meadow area will be mown short twice, once in the spring and once in the autumn, and all arisings removed. In order to encourage self-seeding and establishment of plant species however, the area will be managed in the long-term as a hay meadow. The central and most publicly accessible areas of the meadow will be mown once every year and all arisings removed. Some longer areas of grassland will be left in the periphery of the meadow habitat at interfaces with woodland and hedgerow habitats, in order to provide a gradation of habitats including long grass suitable for invertebrates, reptiles and birds. These areas will be flailed on a three-year rotation and all arisings removed.
 - If competitive grasses become prominent in the Wildflower Meadow, early spring mowing is likely to be required in order to reduce their vigour.
 - Undesirable herbaceous (ruderal) species will need to be controlled. These species include those which legally need to be controlled and those which suppress or otherwise inhibit the development of a species-rich sward. Weeds will be removed by hand pulling. Weed wiping/spot spraying will not be used, and should not be necessary.

- Where the meadow sward fails to establish or dies out, or where the level and range of wildflower species is poor, measures will be undertaken to resolve any underlying problems. Areas will be re-sown following implementation of other remedial works. It is expected that following establishment, species diversity will naturally increase with time.

4.36 The measures detailed above aim to ensure development of a species-rich wildflower flora and to control undesirable herbaceous species. If correctly implemented, they will help to ensure the visual attractiveness of the Wildflower Meadow area while enhancing its nature conservation interest.

Component 5: Proposed Amenity Grassland

Management Aim:

4.37 To create attractive green corridors, open spaces, and play and amenity areas within the proposed development.

Management Objectives:

- (i) **Provide** a strong ground plane to a high quality landscape setting for the Proposed Development;
- (ii) **Ensure** satisfactory establishment of vegetation;
- (iii) **Maintain** the new grassed areas in healthy condition; and
- (iv) **Ensure** safe pedestrian and vehicular use.

Prescription:

4.38 Areas of mown grass will be provided throughout the Proposed Development, as verges along the feeder road through the site, along proposed green corridors and in association with amenity, play or recreation areas. Seeding, with BSH A18 seed mix or similar, will begin in the first season following the commencement of the building works.

4.39 Mown grass areas will provide areas for movement and relaxation, and are designed to complement adjacent hedgerows, tree belts and proposed groups of trees. The management regime of these areas will minimise the use of herbicides and fertilisers to encourage species diversity. The open spaces will be managed as

permanent grassland and, together with the new planting, will provide a high quality landscape setting to the Site.

4.40 In order to fulfil the management objectives, the following works will be undertaken to mown grass areas:

- Mowing to a height of 50mm whenever the sward reaches a height of 100mm;
- Strimming to be carried out where grass abuts fences, walls and around other obstacles; and
- Monitor grass erosion and regularly reinstate damaged or worn areas as required.

4.41 The use of fertilisers and herbicides on the new grass areas will be limited to the spot control of invasive weeds once the grass has established.

Component 6: Proposed SUDs and Marginal Planting

Management Aim:

4.42 Management of the proposed sustainable urban drainage (SUDs) for the Site will seek to provide high quality riparian and marginal habitats whilst ensuring the surface water drainage of the Site is not compromised.

4.43 Management Objectives:

- (i) **Diversify** the vegetation and fauna of the proposed SUDs through native species planting and management;
- (ii) **Prevent** scrub encroachment to maintain landscape amenity and vitality of habitat.

Prescription:

4.44 The SUDs will be monitored annually to assess its condition in both amenity and ecological terms. Monitoring will assess the following:

- Success of aquatic plant colonisation;
- Condition and diversity of banks, including presence of scrub;
- Maintenance of open and shaded sections;
- Water quality; and

- The spread of any invasive, exotic species which will be controlled, ideally by hand, to ensure the growth of other species is not suppressed.

4.45 The SUDs on the Site will be managed to enhance its value to wildlife. This will include the management of habitat margin around the peripheries of the SUDs. The SUDS will be seeded with an appropriate seed mix such as British Seed Houses WFG9 Wetland and Pond Areas or equivalent, which will enable an appropriate interface with meadow grassland proposed for the open space in the area around the SUDs.

4.46 Specific management operations include:

- Ensure that water quality maintained;
- Diversify habitat and prevent ecological succession by removing deep bottom muck, silt or dense stands of dominant vegetation;
- Maintain landscape amenity of the SUDs; and
- Remove rubbish and pollutants, especially in the bottom sediments.

Component 7: Proposed Ornamental Shrub Planting

Management Aim:

4.47 To create attractive ornamental shrub planting within residential streets and open space, play and amenity areas within the proposed development.

4.48 **Management Objectives:**

- (v) **Provide** a high quality landscape setting to the proposed development;
- (vi) **Ensure** satisfactory establishment of vegetation; and
- (vii) **Ensure** that the new shrubs are healthy and of good form.

4.49 Proposed ornamental shrub species occupy green spaces that extend throughout the Proposed Development. This includes designed open spaces such as gardens and grassed areas and the margins of existing pathways, roadway and parking.

Prescription:

- 4.50 The topsoil should be cultivated and shrubs, ground cover and perennial plants should be pit planted. Pits should be 150mm wider and deeper than root spread, and backfilled with excavated soil.
- 4.51 The growth cycle of planting may require varying maintenance involvement at different stages and management operations should be adapted as the planting matures and conditions dictate. In subsequent years, the management may not need to be as intensive but it will be necessary to periodically rejuvenate or redevelop planting due to ageing and decline or disease in the plants.
- 4.52 The following seasonal operations should be applied in the maintenance of this vegetation:
- A) Spring Shrub Beds
 - Where appropriate clear weeds by hand and remove arisings
 - B) Summer Growing Season Shrub Beds
 - Continue hand weeding, where appropriate, until canopy of shrubs is closed (first 3 years).
 - Inspect every 8 weeks and remove weeds.
 - Prune back any badly damaged shrubs to sound growth.
 - C) Autumn/Winter Shrub Beds
 - Remove dead herbaceous vegetation, other than ornamental seed heads and stalks, and dead leaves.
 - Prune out dead wood, cut leggy shrub growth hard back to promote bushy growth.
 - Remove all arisings from Site.
 - Ensure that all shrubs are firmly bedded in the ground after strong winds, frost heave and other disturbance.
- 4.53 Weed control is the single most important activity during the establishment stage of planted shrubs and regenerating species/seedlings. Weeds, particularly grasses, compete aggressively with young shrubs for water and nutrients, and may also compete for light.

- 4.54 Hand weeding, where appropriate, should take precedence over the use of herbicides. However, for planting where visual amenity is the dominant objective, herbicide use may be the most effective measure to take against unwanted species.
- 4.55 Where herbicide application is needed, it is recommended that an appropriate herbicide is applied in July - August in small controlled areas around the tree base.

Component 8: Proposed Hard Surfacing and Footpaths

Management Aim:

- 4.56 To provide clean, safe, attractive and functional areas for pedestrian and vehicle movement within and around the proposed residential area.

4.57 Management Objectives:

- (i) **Ensure** footpaths and pedestrian routes through the Proposed Development remain clear and accessible:
- (ii) **Provide** safe and legible routes between interlinked green spaces; and
- (iii) **Maintain** high quality surfacing for all new pedestrian and vehicle surfaces.

Prescription:

- 4.58 To achieve these objectives, the following measures will be undertaken twice a year or additionally as the need arises, in addition to the routine sweeping and de-littering that would be carried out by an appointed management body:
- Cut back undergrowth, overgrowing or overhanging shrubs, hedges and minor tree branches from any pathways through the site to maintain an unobstructed width of at least 2m or the existing width of the pathway, whichever is the greater.
 - Removal of weeds by hoeing, pulling or (as a last resort) use of approved herbicide.
 - Removal of litter, grit, mud and leaf litter and plant debris by sweeping and (as a last resort) the use of a high-pressure spray.
 - Inspection of any defects and potential dangers to the surface, and undertake remedial works at the earliest opportunity.

- Keep all hard surfaces safe to walk on during prolonged freezing conditions, using grit rather than salt to achieve this objective; and
- Remove any stains, marks or discolouration of surface materials by jet spraying.

5.0 IMPLEMENTATION, MONITORING AND REVIEW

Implementation and Management Structure

- 5.1 This LBMS incorporates the objectives and prescriptions for the suggested approach to be adopted in the maintenance and management of the landscape and nature conservation associated with the Proposed Development.
- 5.2 The aim is to promote a sensitive management approach, which protects and improves the landscape and visual amenity value and biodiversity interests of the Site, and is compatible with the proposed uses. The LBMS is a dynamic document that should be reviewed regularly and developed or amended as circumstances change and the Site evolves.
- 5.3 It is recommended that a body, such as a Management Company, be formed under the terms of a planning agreement to take forward the relevant landscape and ecological components of this LBMS as construction is implemented.

Long Term Monitoring and Review

- 5.6 It is recommended that this LBMS is reviewed regularly to appraise the effectiveness of the maintenance regimes, and to establish any changes in the landscape and biodiversity conditions. Monitoring requires that some record should be made of the condition of the landscape and biodiversity components at the start of the period, the work carried out, and how well the habitats and landscape respond. This review should assess the extent to which the measures undertaken have achieved the objectives and vision of the LBMS and should identify whether the same measures should continue, or different methods be introduced, in order to achieve the objectives.

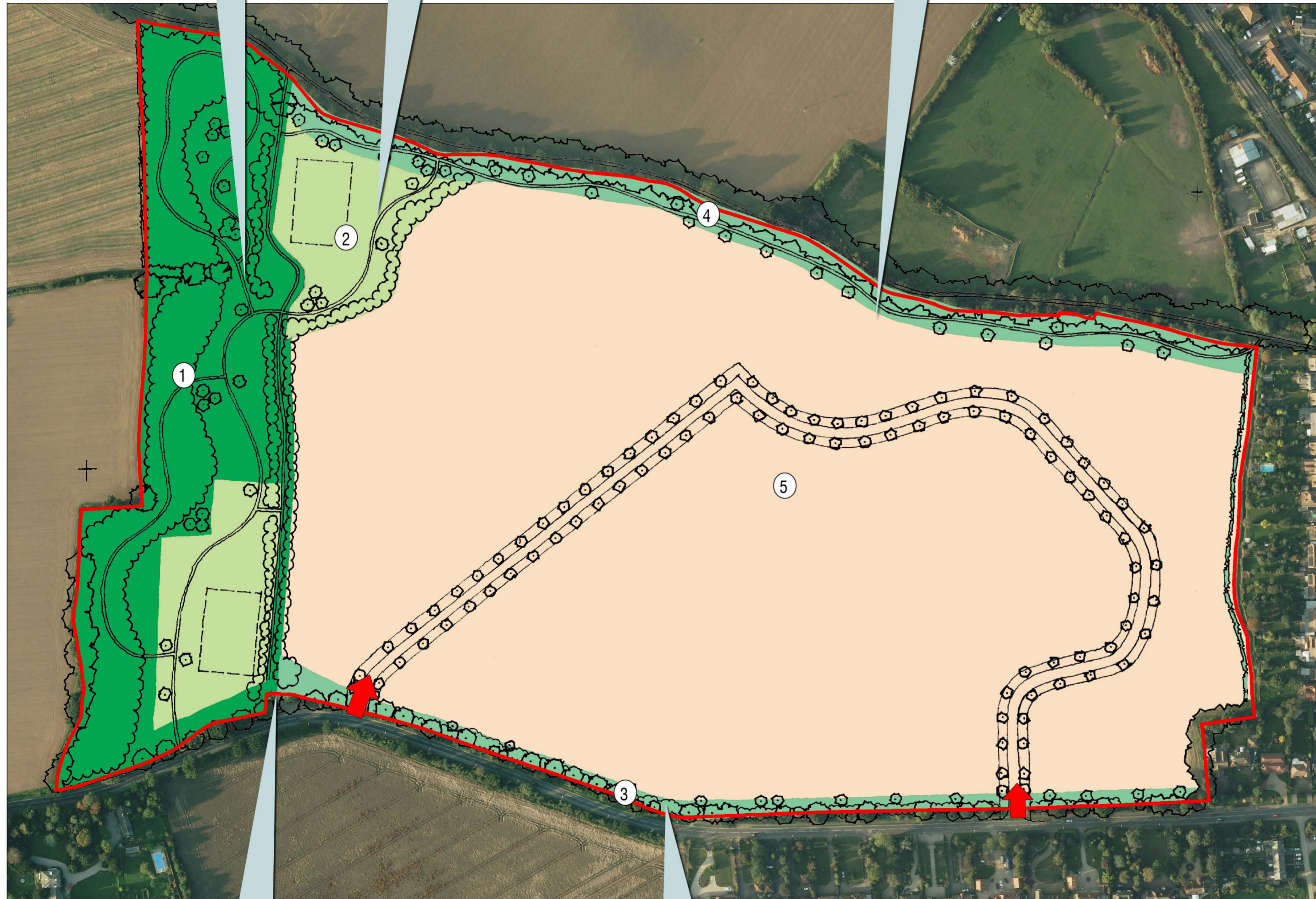
ILLUSTRATIVE MATERIAL

Figure 1: Landscape Management Zone Plan

ROBUST DEFENSIBLE GREENBELT:
 ADDITIONAL TREE PLANTING WITH SHRUB UNDERSTOREY TO REINFORCE EXISTING VEGETATION, ENCOURAGING BIODIVERSITY AND ENHANCING VISUAL AMENITY, & SOFTEN INTERFACE BETWEEN DEVELOPMENT AND COUNTRYSIDE.

WESTERN PARKLAND:
 RECREATIONAL SPACE WITH PLAY AREAS PROVIDES ENHANCED OPEN SPACE FOR BOTH LOCAL RESIDENTS AND WIDER LOCAL USE SET WITHIN NEW NATURAL PARKLAND SETTING. ALSO PROVIDES SOFTENING OF THE DEVELOPMENT EDGE

IRONWELL LANE PARKWAY:
 EXISTING TREES AND HEDGEROW RETAINED, AND SUPPLEMENTED WITH ADDITIONAL PLANTING. FORMAL PEDESTRIAN AND CYCLE PATH PROVIDING CONNECTIONS WITH THE DEVELOPMENT



EXISTING AND RETAINED FARM ACCESS

GATEWAY TO ROCHFORD:
 TPO TREES RETAINED AND SUPPLEMENTED WITH ADDITIONAL TREE PLANTING TO ACCENTUATE ENHANCED LANDSCAPE GATEWAY EXPERIENCE.

Site Boundary

Landscape Zones

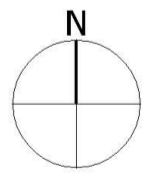
- 1 GREEN BELT PARK**
 Woodland tree and shrub mix. Hedgerow enhanced with additional planting and meadow grassland. Species to include:
 Trees: *Acer campestre* Field Maple, *Corylus avellana* Hazel, *Crataegus monogyna* Hawthorn, *Quercus robur* Pendunculate Oak
 Shrubs: *Cornus sanguinea* Dogwood, *Rosa canina* Dog Rose, *Prunus spinosa* Blackthorn
- 2 WESTERN PARKLAND**
 Amenity grassland using BSH A18 grass mix. Individual trees and tree groups to create parkland setting. Species to include:
 Trees: *Acer campestre* Field Maple, *Carpinus betulus* Hornbeam, *Quercus robur* Pendunculate Oak, *Prunus avium* Wild Cherry
- 3 GATEWAY TO ROCHFORD**
 Individual semi-mature trees forms strong tree-lined avenue. Shrub planting binds development to landscape. Species to include:
 Trees: *Acer campestre* Field Maple, *Quercus robur* Pendunculate Oak
- 4 IRONWELL LANE PARKWAY**
 Semi-mature trees aligning backlane with pedestrian access into development. Species to include:
 Trees: *Acer campestre* Field Maple, *Carpinus betulus* Hornbeam, *Quercus robur* Pendunculate Oak

5

- PRIMARY FEEDER ROAD**
 Primary access along feeder road features structural planting to form a tree-lined avenue linking development components. Public realm created using ramped shared space and signature tree planting
 Semi-mature trees aligning primary vehicular access into development.
- PEDESTRIAN GREEN CORRIDORS**
 Pedestrian and cycle routes:
 7-10 metre wide corridors with amenity grass space, small and medium sized trees and pockets of shrub planting binding the development to the landscape
 Semi-mature trees and shrub planting within linear spaces. Amenity grassland using BSH A18 or similar.
- URBAN-RURAL FRINGE**
 Views drawn out into countryside along tree-lined residential streets.
 Street trees and linear spaces comprising managed grassland and shrub planting.
- RESIDENTIAL - URBAN**
 Private open space with semi-mature street trees softening higher density development. Designed to be set back to respect relationship with existing properties south of hall road. Street trees soften routes and parking bays.

Figure 1

Project
 Land at Hall Road,
 Rochford, Essex



Drawing Title
Landscape Management Zone Plan

Date	Scale	Drawn by	Check by
09.04.2010	1:2,500 @A2	MN	LT
Project No	Drawing No	Revision	
18293	L10	B	



Planning • Master Planning & Urban Design
 Architecture • Landscape Planning & Design • Project Services
 Environmental & Sustainability Assessment • Graphic Design

bartonwillmore.co.uk



Offices at: Reading London Bristol Cambridge Edinburgh Leeds Solihull West Malling (Kent)