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DOCUMENT 1 - SITE APPRAISAL



Doddinghurst Road, Brentwood

Site appraisal
March 2016



Rummey *design*

A landscape - led approach to development that sits perfectly with national aspirations to create places and developments of distinction ...

... a prestigious residential development at Doddinghurst Road, Brentwood ...

This document considers an indicative proposal for residential development on a site on the eastern fringe of the town of Doddinghurst Road, Brentwood, Essex. It explains how a new residential community could be integrated into the existing built form.

The themes of enclosure, visual connection and landscape character have been considered at a strategic level to consider the capacity of the land for development as well as the nature of the landscape setting for that development.

We have included a landscape led option for the indicative masterplan layout.

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Design principles

a landscape-led approach

Feasibility of development is largely determined by three factors:

- planning policy
- local society and culture
- physical and environmental factors

Socio-cultural considerations include: the quality of the development as a place in which to live; the influence of the tradition and design within the neighbouring urban areas; and the need to satisfy demand for property at an appropriate quality.

Physical and environmental factors include exposure to the elements, slopes, water collection, access, distance, scale and the suitability of the site as a potential place to live and its connections to services and access. Environmental factors include exposure to the elements and sun, to noise and views, and the need to safeguard and enhance nature within development.

A landscape-led approach would create a built environment which sits comfortably with its neighbours, where people are proud to live and which contributes to the environmental, cultural and economic needs of the community. In this regard, at a strategic level, we have assessed:

- potential impacts on and capacity of the landscape to absorb development
- views, boundaries, access, vegetation, enclosure, topography, water bodies and other factors that would influence the layout
- constraints and opportunities including landscape character and views
- ways to create a new 'place' which fits easily and naturally with its social context, quality of the landscape and habitat
- how to respect, re-use and improve water management in and around the area
- respect for and incorporation of existing heritage assets

Assessment of the components of the site's landscape and urban context follows. This includes evaluation of:

- geology
- topography
- orientation
- wind direction
- vegetation and land use
- access
- noise sources
- historical setting
- statutory designations
- urban context
- character
- views

Design principles

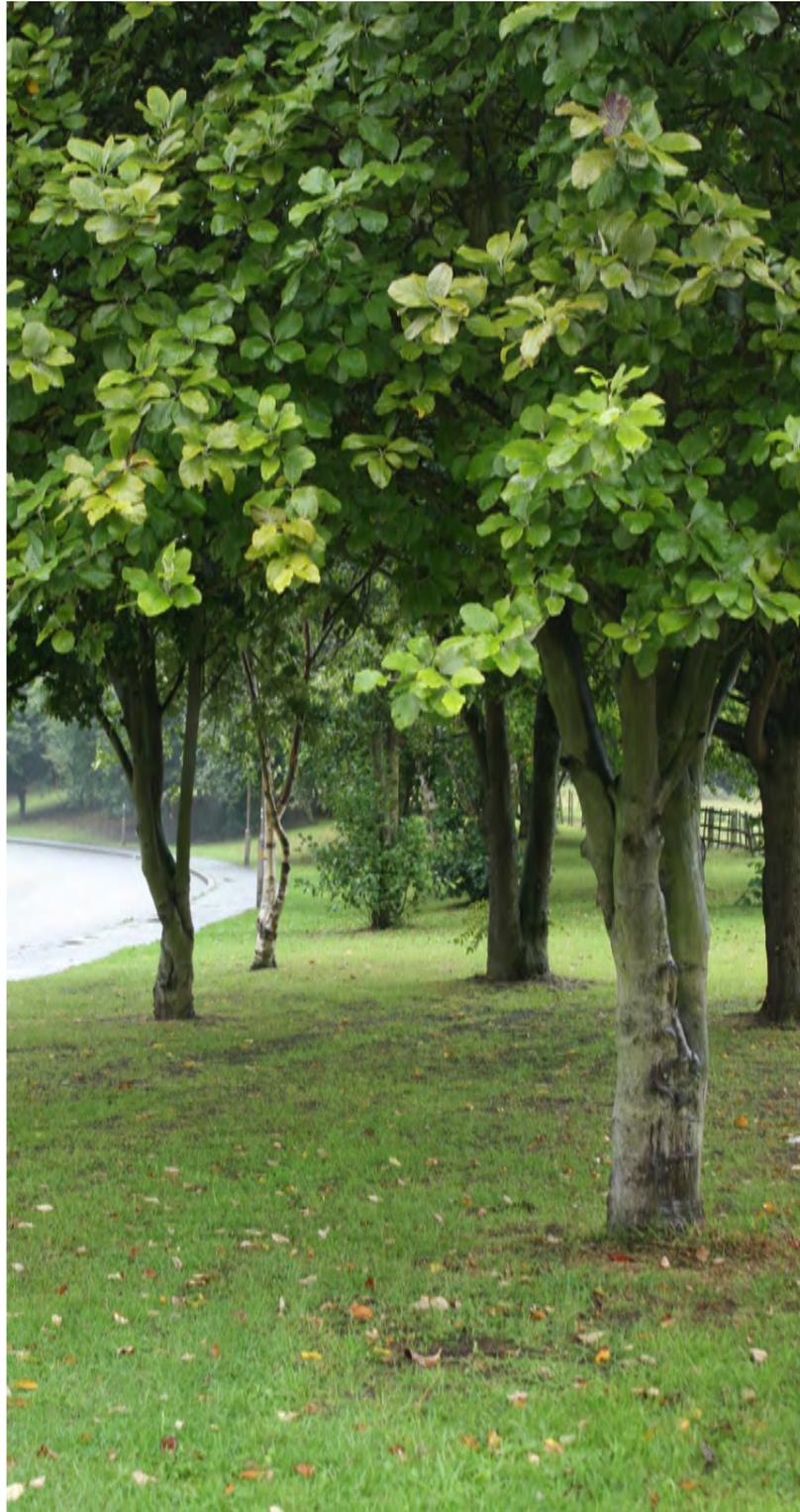


Figure 1 - existing trees on Doddinghurst Road embankment

Design drivers for this development include factors such as:

- strengthening the existing green infrastructure to enhance ecology and aesthetics
- fit with the existing built and natural environments
- fulfilment of the Green Belt policy tests, demonstrating clearly that the scheme would not result in sprawl, coalescence, or encroachment on the countryside
- determination of what shape, mass and density the development layout should be
- provision of effective and convenient vehicular and pedestrian access
- noise abatement and/or visual screening

Such design drivers, once combined or 'synthesised', can be evaluated in terms of what are most or least important, each factor shaping the form of the proposal to a greater or lesser degree.

The analysis is then used to develop a range of options, which can be evaluated using the design driver criteria.

The site and context

The site is located within the Borough of Brentwood in Essex; it is positioned 1.25km to the north of the town centre. The site spans two areas adjacent to the A12 where the road passes through a predominantly built up area.

Weald Country Park is 1km to the west of the site and the town of Shenfield is approximately 2km to the southeast of it. The A12 passes through the site from west to east.

The site appears well defined, encompassed by low-rise residential development of a suburban character to the north, south and west of the boundary. A dense belt of vegetation is located on either side of the A12 which screens most traffic from view.

There is a clear distinction in the character of the two portions of the site. Parcel A exhibits a larger and more open character, comprising three fields which slope down gently to the north and are currently used for horse grazing. Recent thinning of vegetation has created several large cleared areas amongst mature and semi-mature trees and scrub on Parcel B.

The site covers a total area of approximately 8.2 ha (20.26 acres), with Parcel A measuring 5.7ha and Site B 2.5ha.



Key
Site boundary

All drawings are indicative only

Figure 2 - aerial of the site



... the periphery of the site
will need careful design
management ...

Historical context

local historic landscape context

The site's historic landscape (the Forest of Essex, later Epping Forest) was cleared by burning, and hence the likely origin of Brentwood's name: "brent" was the middle English for "burnt". Charcoal burning was also a major industry in the area. Additionally:

- the area was originally covered by the Great Forest as was most of Essex. It is believed that although there was a Roman road between London and Colchester that passed through what was to become Brentwood, the Saxons were the earliest settlers of the area
- Brentwood's development is due to its main road position, market, and convenient location as an administrative centre. Early industries were brewing, manufacture of bricks, textiles and clothing.
- the influence of significant parkland on the setting is apparent, as evidenced by Weald Park to the west.



Figure 2 - OS One-Inch to the mile, England and Wales, Revised New Series 1896



Figure 3 - OS Six-inch England and Wales, 1915

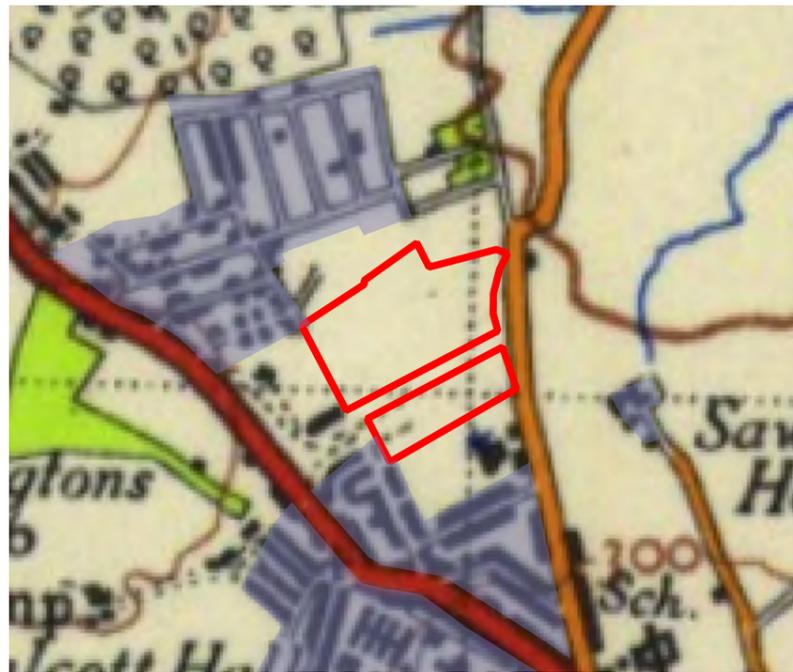


Figure 4 - OS One-inch England and Wales, New Popular Edition, 1946



Figure 5 - One-inch to the mile, 7th Series, 1960

Historical context

Historic Areas

The historic settlements are focussed on intersections; paths, roadways and river crossings. The landscape is a mosaic of weakly geometric fields that follow unplanned and historic boundaries determined by ridges, valleys, water courses and lanes, drove roads and deer park enclosures. The main roads in the area are linear; both the old A12 route passing through Brentwood (a Roman road) and new bypass are engineered, either ignoring local topography or cutting through it.



Figure 3 - cottages on Weald Road, Brentwood



Figure 4 - cottages on Weald Road, Brentwood



Figure 5 - Local mid-20th Century housing predominates



Figure 6 - heritage value of nearby South Weald village on Wigley Bush Lane

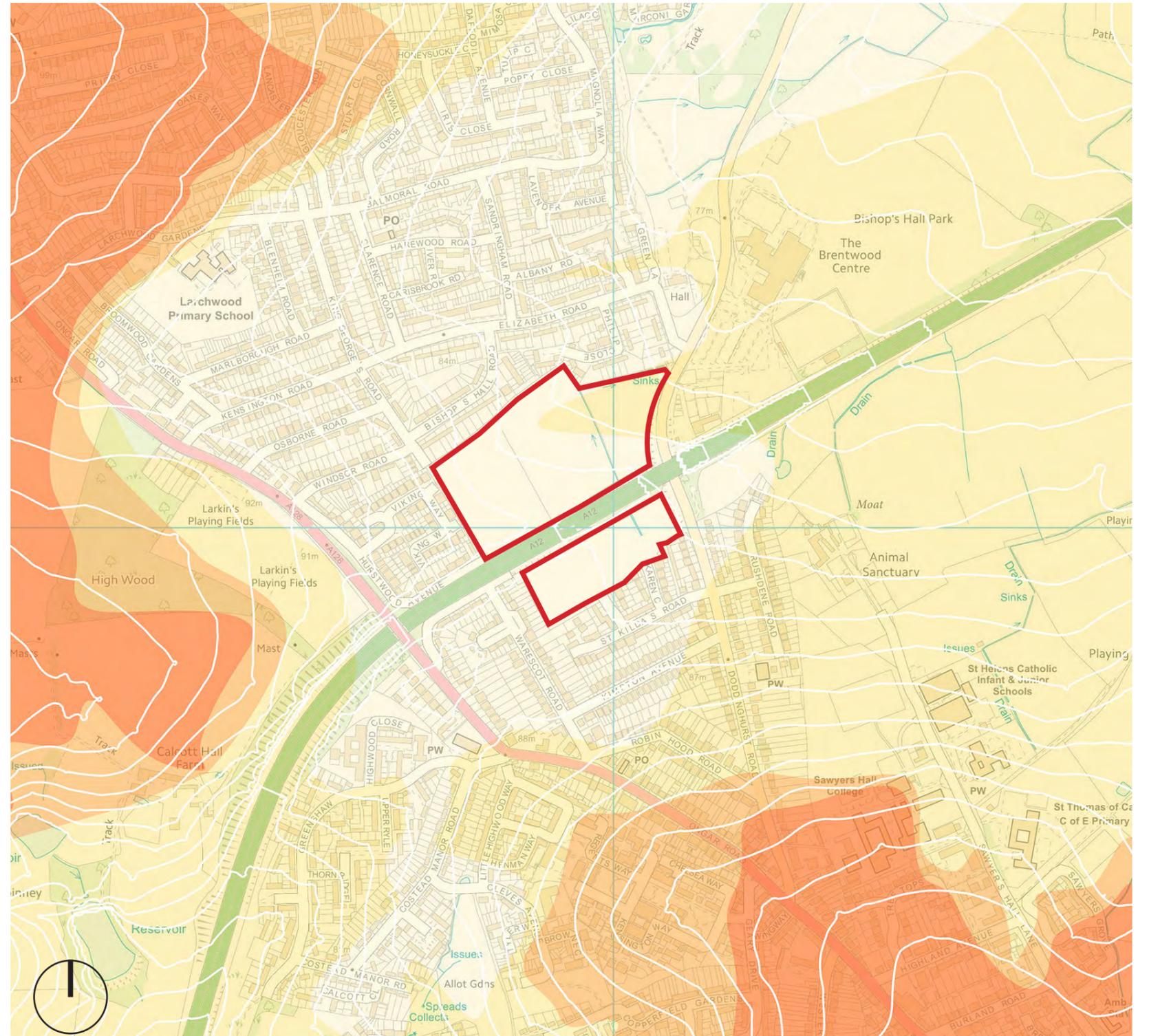
...the northern fringe of Brentwood has numerous traditionally built Essex town houses...

Geology

Geology

The land is located on a gently inclined plain underlain by clay deposits north of the Bagshot Formation, a sandstone ridge on which the majority of Brentwood is located.

The British Geological Survey 1:625 000 scale bedrock geology description of the Bagshot Formation is of sedimentary bedrock formed approximately 100 to 125 million years ago in the Cretaceous Period. The local environment was previously dominated by shallow seas.



Key

-  Site boundary
-  Lowestoft Formation - diamicton
-  Head - clay, silt, sand and gravel
-  Alluvium - clay, silt, sand and gravel
-  Stanmore Gravel Formation - sand and gravel

Figure 9 - geology data

Topography

Topography

The site is located on a gently inclined plain, north of the Brentwood urban area. The land falls at approximately 1:50 gradient from the southwest corner (86.9m AOD) to the northeast corner (79.1m AOD).

Whilst the drainage assessment is yet to be carried out, the soil is evidently well drained and there is little sign of standing water in or within the peripheral areas of the site.

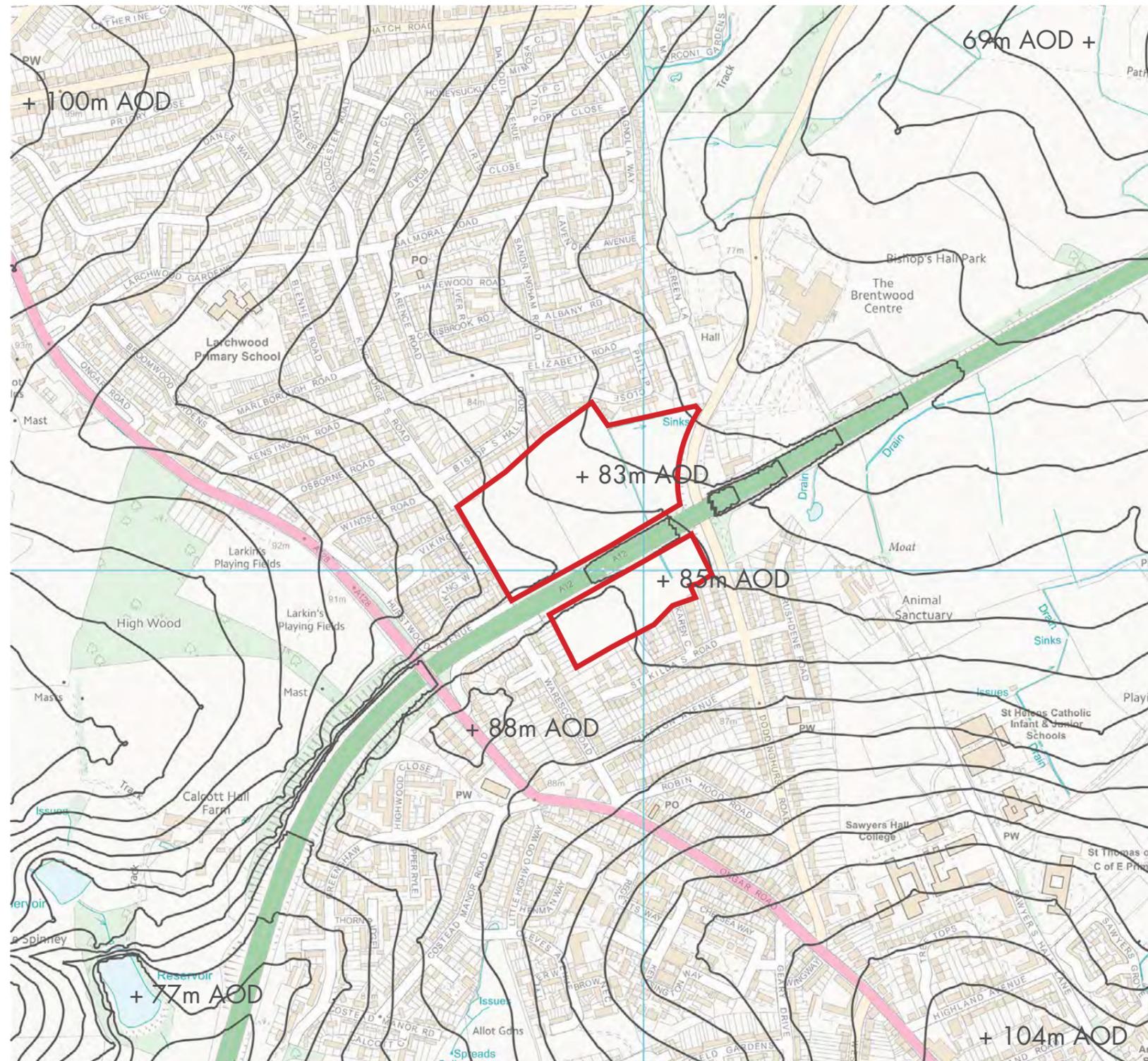


Figure 10 - topography map

- Key
- Site boundary
 - key contours

Vegetation and environmental designations

Existing vegetation

Parcel A comprises three grassland fields presently used as horse paddocks.

Parcel B appears to have been unmanaged for many years and has subsequently become overgrown, although some recent clearance of understorey scrub has taken place.

There are some larger oak trees scattered along the internal paddock boundaries.

Environmental designations

Weald Country Park, sited approximately 1km from the site, is registered by Historic England as a Historic Park and Garden. The nearest SSSI is Hart's Wood which is 2km to the south of Brentwood town centre.

In the Replacement Local Plan 2005, Brentwood Borough Council established several areas in Brentwood as "Protected Urban Spaces". The nearest of these are the sports field attached to the Larchwood Primary School and Children's centre to the north, and the allotments at the end of St. Charles road to the south.

The nearest Conservation Areas, as listed in the Local Plan 2015, are Weald Park to the west and the residential area contained within Ongar Road and Greenwich Avenue to the south.



Figure 11 - aerial image of existing site conditions, looking south

Green Belt

With reference to the Landscape and Green Belt Appraisal by The Landscape Partnership the site has an urban fringe character, strongly influenced by the surrounding existing urban areas on three sides, concluding:

“It shares few of the characteristics of the area of open countryside area to the north-east. There are also few significant visual or physical links between the site and the neighbouring areas of countryside/Green Belt.

Overall, the site’s contribution to the functioning of the Green Belt in and around Brentwood is very small. Its main role is in fulfilling a local function for north Brentwood by providing users of the public right of way on the west side of the site with views over an open undeveloped area of land. The site does not contribute towards the Green Belt function of providing a setting for historic towns and performs only a very minor role in checking unrestricted sprawl, preventing towns from merging, safeguarding the countryside and encouraging recycling.

It is considered that the site as a whole does not make a significant contribution to the performing the Green Belt functions as set out in the NPPF and the local function as set out in the current Local Plan and that development of the site could be accommodated without significantly adversely affecting the future performance of the Green Belt in the area.”

The development proposals take these considerations into account, providing a scheme that will create a defensible boundary to an amended Green Belt in this area.

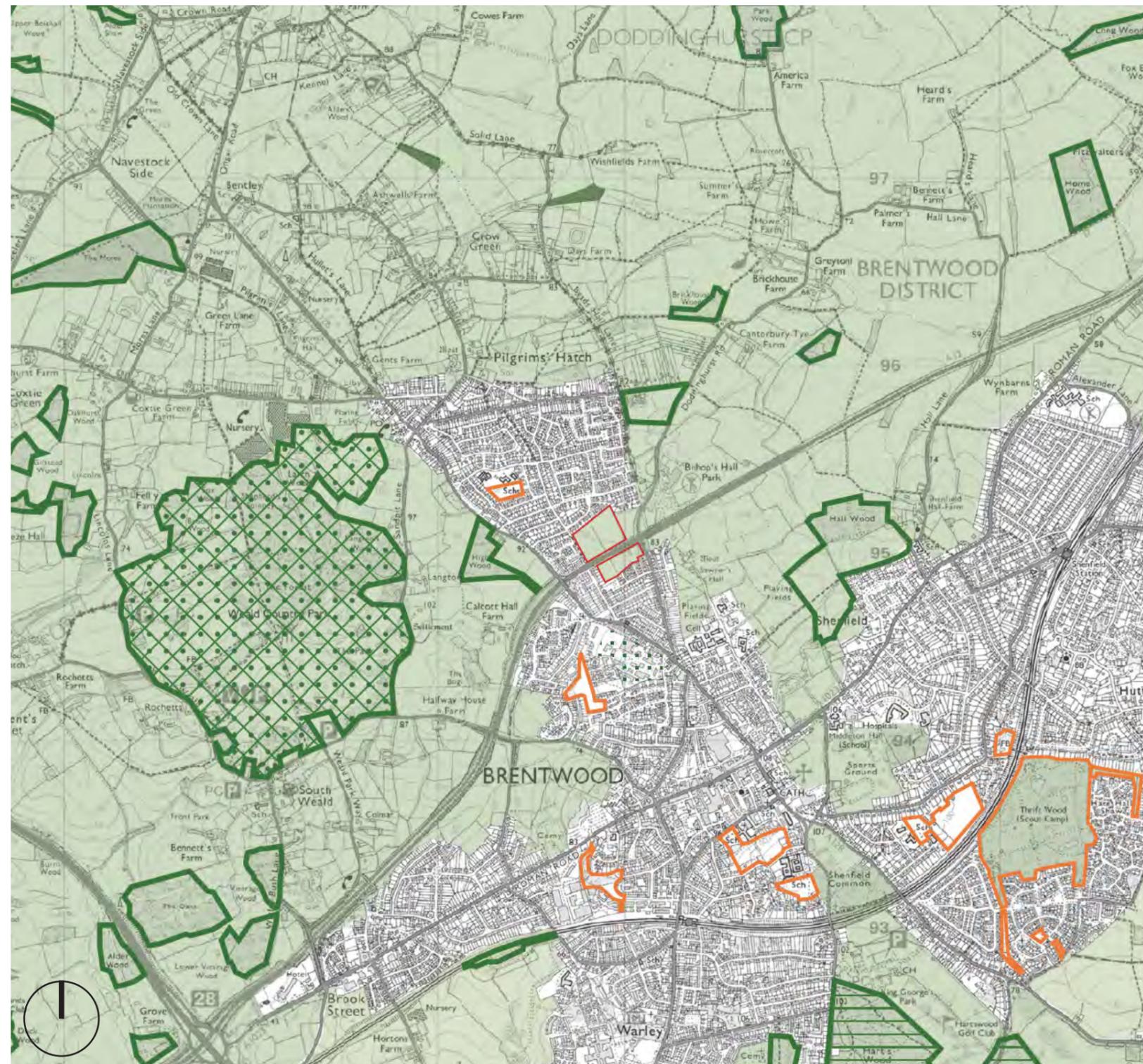


Figure 12 - environmental designations (mapping data from Landscape and Green Belt Appraisal, Jan 2015)

Key

-  site boundary
-  green belt
-  conservation area
-  site of special scientific interest
-  historic parks & gardens
-  protected urban open space
-  county wildlife site

Landscape character assessment

landscape classification

The site falls within National Character Area 111, Northern Thames Basin, a diverse area which extends from Hertfordshire in the west to the Essex coast in the east. It is predominantly agricultural, supporting mainly arable farming although the soil quality ranges from good to poor quality.

The area is rich in geodiversity, archaeology and history and diverse landscapes ranging from the wooded Hertfordshire plateaux and river valleys, to the open landscape and predominantly arable area of the Essex heathland, with areas of urbanisation interspersed throughout.

Brentwood Borough has a district landscape character assessment undertaken in 2006. The site falls within the F8 (Doddinghurst Wooded Farmland) but is contiguous with northern portion of the Brentwood urban area.

The published character assessments therefore support the perception that the site is an interface between rural and urban areas.

Key

-  F15 Weald Wooded Farmland
-  A11 Roding River Valley
-  F8 Doddinghurst Wooded Farmland
-  F7 Blackmore Wooded Farmland
-  F10 Heybridge Wooded Farmland
-  F14 Ingrave and Herongate Wooded Farmland
-  F9 Little Warley Wooded Farmland
-  G1 Horndon Fenland
-  Brentwood Urban Area

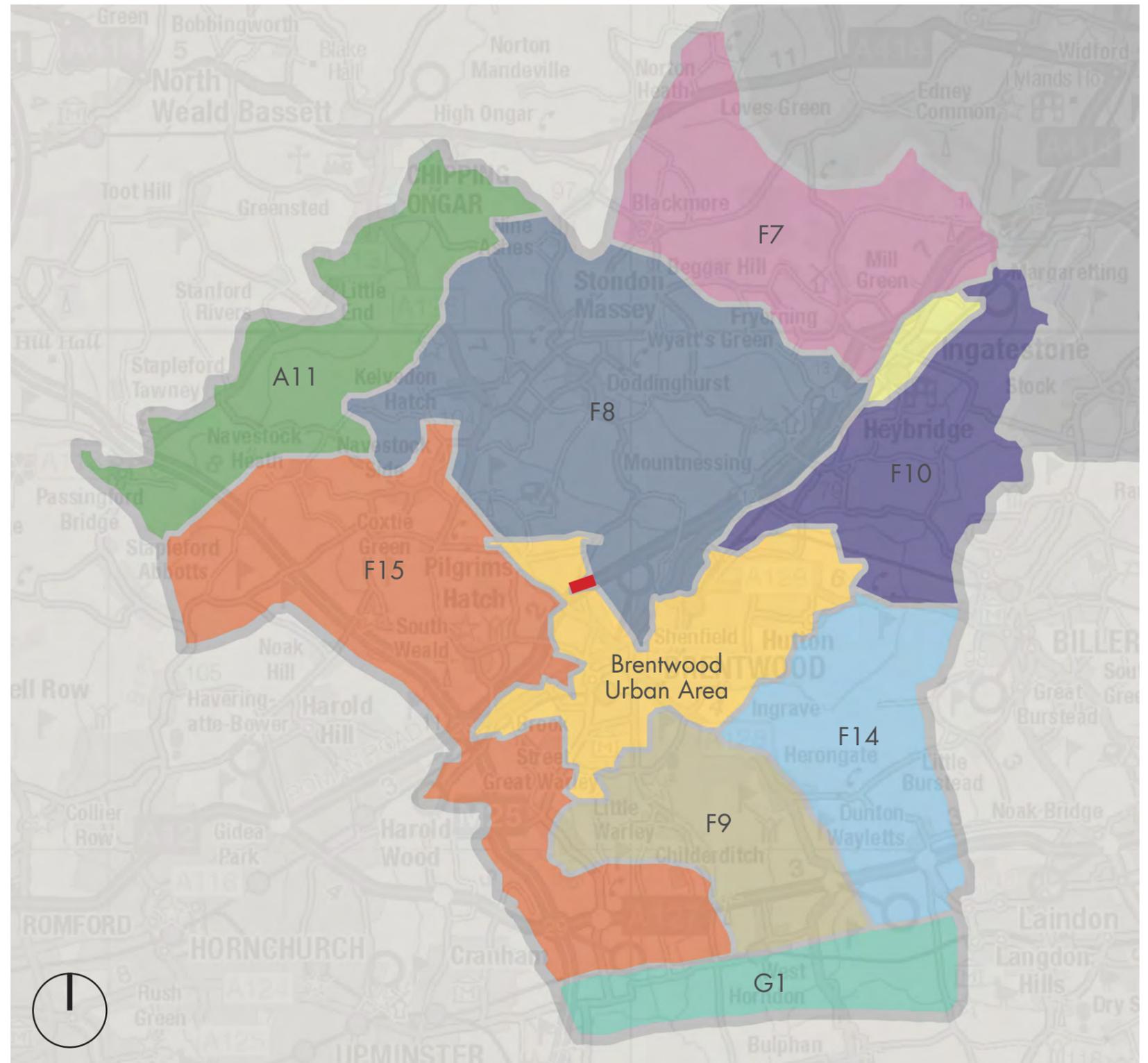


Figure 7 - regional landscape character assessment

Landuse and land cover

a mosaic of urban edge landscape

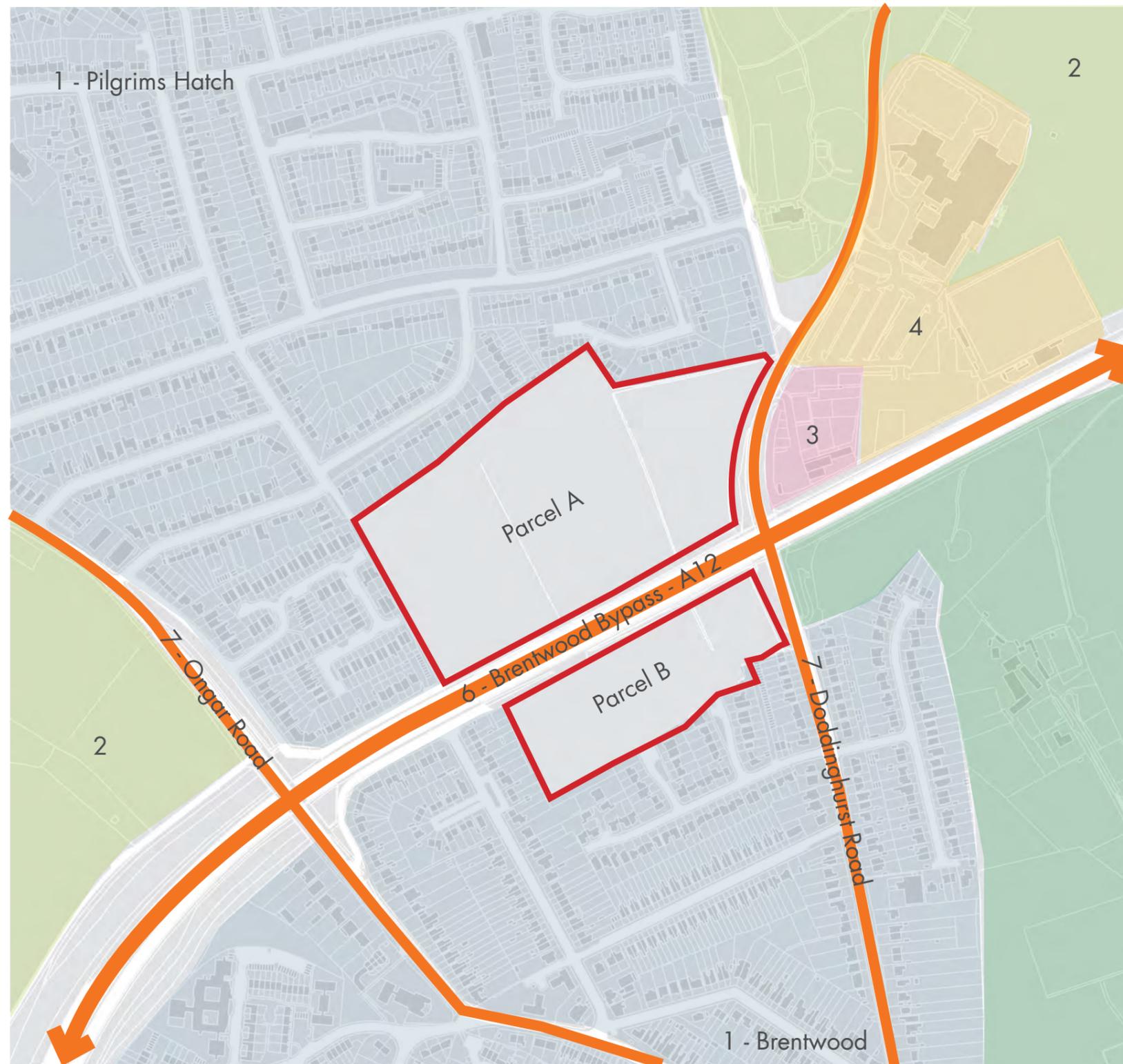
Vegetation encloses the southern and eastern boundaries of Parcel A. Mature trees and regenerating trees are scattered throughout Parcel B, most of which is also contained by mature hedgerows, particularly along the northern boundary, contiguous with the A12.

Existing built up areas abuts the western and northern boundaries of Parcel A and the western and southern boundaries of Parcel B. The eastern boundaries of both sites are bordered by the Doddinghurst Road with a dog training facility to the east of Parcel A and a wooded area and open field beyond to Parcel B's east.

The A12 Brentwood Bypass dissects the site creating a southern boundary of Parcel A and the northern boundary of Parcel B.

Key

-  proposed site boundary
-  1 built-up area
-  2 amenity grassland
-  3 dog training facility
-  4 Brentwood leisure centre
-  5 Doddinghurst Wooded Farmland F8
-  6 Brentwood Bypass - A12
-  7 Surrounding main roads



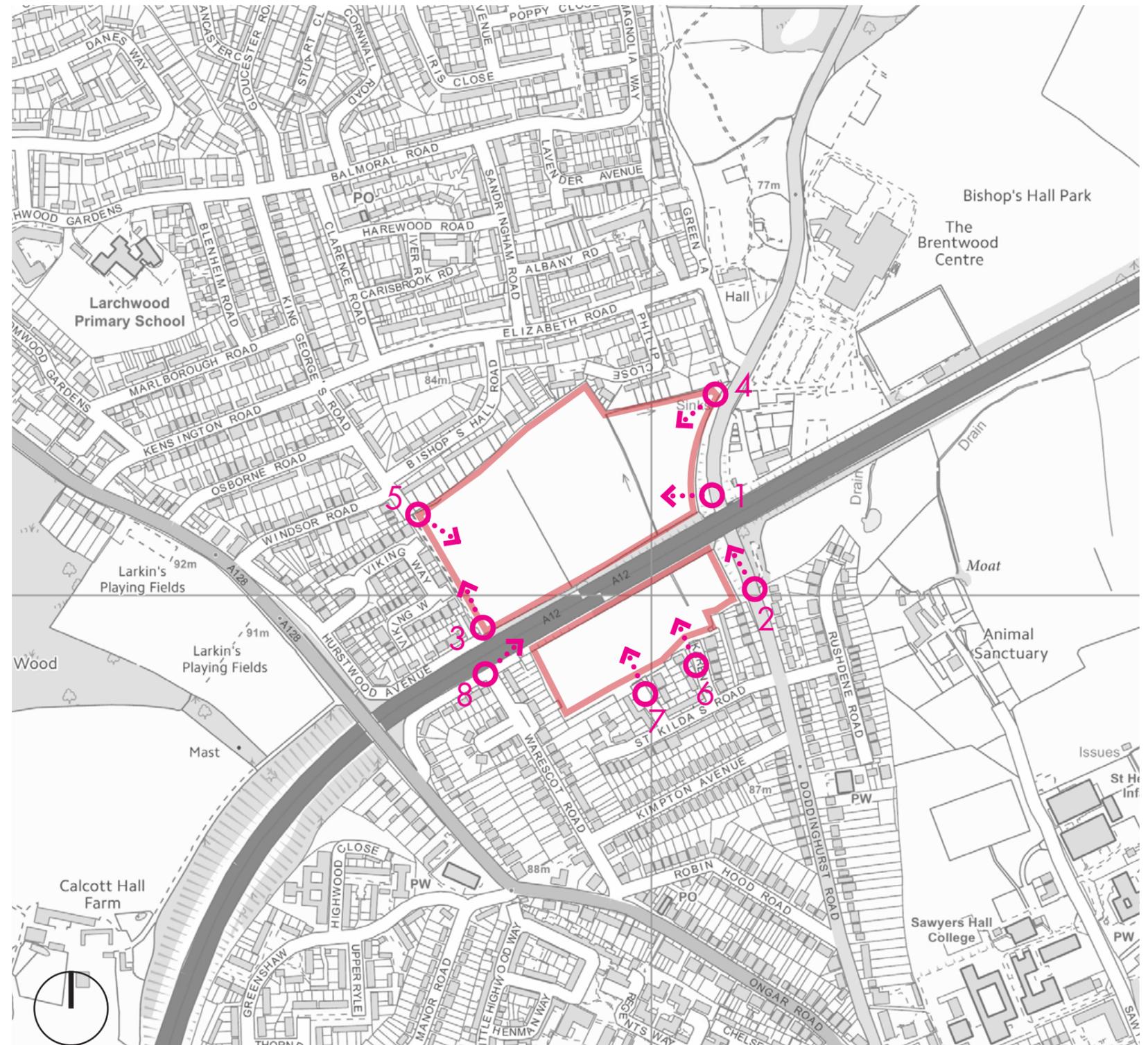
Views and enclosure

Views and enclosure

The visibility of the site is restricted due to local topography with shallow ridges located to the northeast and southwest of the A12. Surrounding vegetation and residential housing restrict views and there are no effective vantage points within public open space outside of the boundary from where any part of the site is visible. The exception to this is the Public Right of Way on the western boundary of Parcel A, from where there are open views across the western part of the site.

Viewpoints have been selected to indicate relative visibility. All views from outside of the site are located on publicly accessible areas - local roads and public footpaths.

The diagram (right) shows areas that are visible or weakly visible from outside of the site, and viewpoint locations.



Key
 Site boundary

Figure 13 - CAPTION REQUIRED

Views and enclosure



Viewpoint 1



Viewpoint 2



Viewpoint 3



Viewpoint 4



Viewpoint 5



Viewpoint 6



Viewpoint 7



Viewpoint 8

Design context

issues that shape the proposals

Referring to the preceding assessment, a number of key 'drivers' emerge from which a design brief or framework for residential development have been evolved.

These include:

- access
- topography hydrology
- green links
- landscape and townscape character
- open space
- site visibility

Each of these 'drivers' informs the evolution of a framework for development, summarised in the following diagrams.



access and noise

Vehicular access would be from Doddinghurst Road, as suggested by the transport consultant (Odyssey Markides).

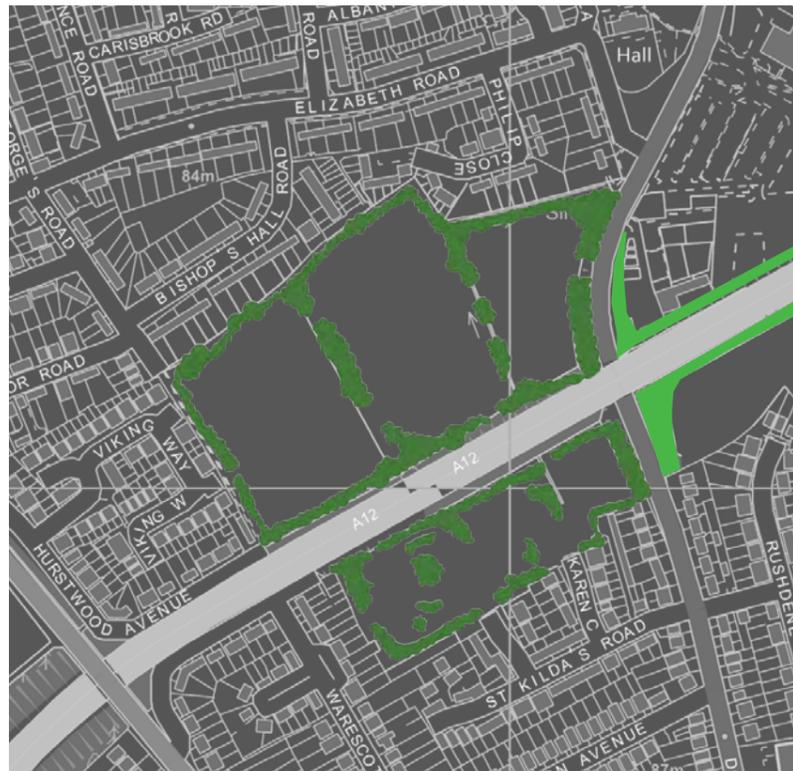
Potential noise nuisance from the A12 could be mitigated by positioning continuous frontages along the A12 boundary or using other appropriate attenuation methods, creating a barrier block to the remainder of the development.



topography and hydrology

The gently sloping landform in Parcel A could be suitable for a SUDs scheme, using a surface water collection channel discharging into a pond into the northeastern corner of the site, the lowest point of the site, which would also be a eye-catching feature.

Run-off from vehicular surfacing would need to be intercepted and treated prior to discharge, however.



green links/corridors

There are a number of potential opportunities to enhance biodiversity and habitats within the site within an integrated green infrastructure.

A series of well-managed green links and corridors will incorporate existing trees and hedgerows whilst additional vegetation will be added to increase screening.



site landscape character

The site has been severed from the regional rural landscape character area 111 and the distinct Doddinghurst wooded farmland landscape. The site's rural character has been severely eroded due to the urbanising influence of Brentwood to the south, Pilgrims Hatch to the north and the A12 intersecting the site.

When the 25m wide A12 corridor was inserted into this landscape it cut the pattern, creating a void within the site.

Development parcels and open space could be structured by existing peripheral and on-site woodland and hedgerow. Additional planting could be incorporated between land parcels to create a more contained comfortable ambiance within dwellings.



site visibility

Public views from the immediate site boundary are restricted except from the footpath running parallel to the western edge.

The principle living rooms of surrounding properties do not overlook the site.

Design synthesis

Combining parameters

The diagram to the right combines the design drivers, from which design principles have become evident, forming a framework upon which all options are based.

- Key
-  proposed site boundary
 -  stream and attenuation ponds
 -  vehicular access
 -  possible footpath links
 -  possible open space
 -  Green Infrastructure - woodland and hedgerows
 -  possible hedgerow/tree screen enhancement
 -  1350mm trunk sewer easement
 -  potential noise attenuation barrier
 -  Parcel A - East field - show homes and entrance area
 -  Parcel A - Middle field - level ground; self-contained
 -  Parcel A - West field - open to west
 -  Parcel A - South boundary - A12 influence
 -  Parcel B - Wooded pasture - contained and intimate
 -  Parcel B - East field - self-contained
 -  Parcel B - North boundary - A12 influence



Emerging design principles

In summary, the combined design drivers indicate how the landscape of the site provides a basis upon which a masterplan layout can be developed. The constraints and opportunities presented by the existing landscape will influence new design proposals.

The following summarises the design drivers and how figure to the left (design synthesis) has been used to evolve an optimum layout by considering:

- access sight lines, impact on the road capacity and on existing vegetation
- the A12 noise mitigation
- the site topography presents few issues
- drainage, led by functional requirements of flood alleviation and aesthetic benefit of water
- links to the wider pedestrian network at logical junctions and desire lines, determined by the new development access
- conservation and enhancement of green infrastructure, particularly hedgerows and mature trees
- use of development opportunity to reduce the impact of the A12 on landscape character
- control of public views of the site, as well as creation of attractive vistas into it

Design strategy

Evolving masterplan

This scheme is an opportunity to bring a new, enhanced landscape identity to the site after being compromised by the A12 and adjacent post war housing development, which has negated the site's status as Green Belt land. The proposals would not replicate the original landscape; rather it would create a much stronger green infrastructure with a new and distinctive character.

The broad layout principles of the evolving landscape-led masterplan are indicated in the figure to the right. The layout is divided into 'cells' or enclosed areas, defined by existing on-site and adjacent hedgerows, woodland and the housing which, together with new planting and potential water features, help to organise the site.

The following figure illustrates the evolution of a landscape-led masterplan concept further.



Figure 8 - initial masterplan concept - using the landscape to create development "cells"

Design strategy



design principles

The masterplanning process is supported by the baseline analysis, explaining how the importance of individual issues influence the layout. The analysis has led to evolution of principles based on the creation of a series of development 'cells' using hedgerows, woodland and water, integrating movement patterns with the existing adjacent development. The green grid is an organising feature central to the scheme. The figures to the left show the broad principles of the masterplan layout. The open space, the water attenuation system, adjacent housing and hedgerows contain the proposed development in loose cells.

The principles are:

- a new settlement which physically, socially and visually sits comfortably where the Doddinghurst Wooded Farmland, Pilgrims Hatch and the green fringe of Brentwood
- a residential environment with a strong sense of place and history
- a development layout with transport and pedestrian movement links between Doddinghurst Road, Pilgrims Hatch and Brentwood
- an informal landscape framework, sympathetic to the area, sheltering and containing the site and its development
- a green grid that follows that respects the existing farmland character, creating an park-like open space structure
- integration of hedgerows, pedestrian access and public amenity space in green links within and outside the site
- use of Essex design guide layout principles to shape development within the site
- links between the traditional built form of the area and more contemporary urban design

Emerging masterplan

A balanced development

Based on the design synthesis plan, a scheme for residential development, the key features of which are set out below.

The vehicular access to the scheme would be located along Doddinghurst Road for Parcel A and Karen and Russell Courts for Parcel B, as advised by Odyssey Markides Transport Planners. The character of Doddinghurst Road would be relatively unchanged apart from the new bell-mouth and cutting required to access Parcel A.

Circulation within the Parcel A scheme would be via a loose loop with a series of minor branches that serve the development parcels. In Parcel B, the road access would be effectively an extension of Karen and Russell Courts, again, with minor branches serving courtyard style development. In both schemes, minor branches would also sever the linear frontage of dwellings parallel with the A12.

The approach, entrance and arrival sequence provides clarity and legibility within the setting.

The Parcel A development focuses on maintaining an effective green screen between the development and the A12, enhancing the health and vitality of the existing hedgerows and adding additional wooded greenspace and hedgerows to the north, east and west boundaries, contiguous with the existing residential development. This green structure will contain and shelter the proposed housing.

Orchards and ponds have been incorporated into the layout; attenuation ponds for SUD's drainage will also provide scenic benefits as well as increasing biodiversity.

The development plots have been sited to enjoy views focussed on distinct character areas within the site.

Open space for amenity purposes would be combined with the green links; particularly on the western boundary of Parcel A. In

this area there would be natural play areas, an enhanced public right of way footpath and orchard trees and seating areas. This would also help to buffer views of and from adjacent existing properties on this boundary.

The open and uncluttered layout allows creation of a series of internal vistas that alternate between open space and streetscapes.

The character of each area is identified on the plan opposite, as follows: