
# BROOMFIELD

## Neighbourhood Plan Design Guidelines

**FINAL REPORT**

April 2020

**Quality information**

| Project role | Name | Position | Action summary | Signature | Date |
|---|---|---|---|---|---|
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# Contents

# Introduction

# 01

# 1. Introduction

## 1.1. Background

Through the Ministry for Housing, Communities and Local Government's Neighbourhood Planning Programme, led by Locality, AECOM has been commissioned to provide design support to Broomfield Parish Council.

## 1.2. Objectives

The objectives of the support which are reflected in the structure of this report are:

**Design Guidance**

The aim is to provide general design guidance that will influence the form of development in the Neighbourhood Plan Area by advising on how it can reflect local character. The guidance is based upon observations of the character of the area, as analysed in Chapter 3.

**Concept Framework**

The aim is to provide an analysis and concept framework for a specific site in North of Broomfield allocated in the emerging Chelmsford Local Plan. It is crucial to both existing and future residents of Broomfield that any new development is planned and designed in a way that makes them proud of its high quality.

## 1.3. Process

The following steps were undertaken to produce the report:

- Initial meeting and site visit;
- Urban design analysis;
- Desktop research, including review of work undertaken to inform the emerging Neighbourhood Plan and community engagement;
- Preparation of draft design guidance and site concept plans;
- Preparation of a draft report, subsequently revised in response to feedback provided by the Broomfield Parish Council; and
- Submission of a final report.

Figure 1: Listed building on Church Green Road

Figure 2: Modern development on Vellacotts Road

**KEY TO FIG.3**

Parishes

Road network

Railway route

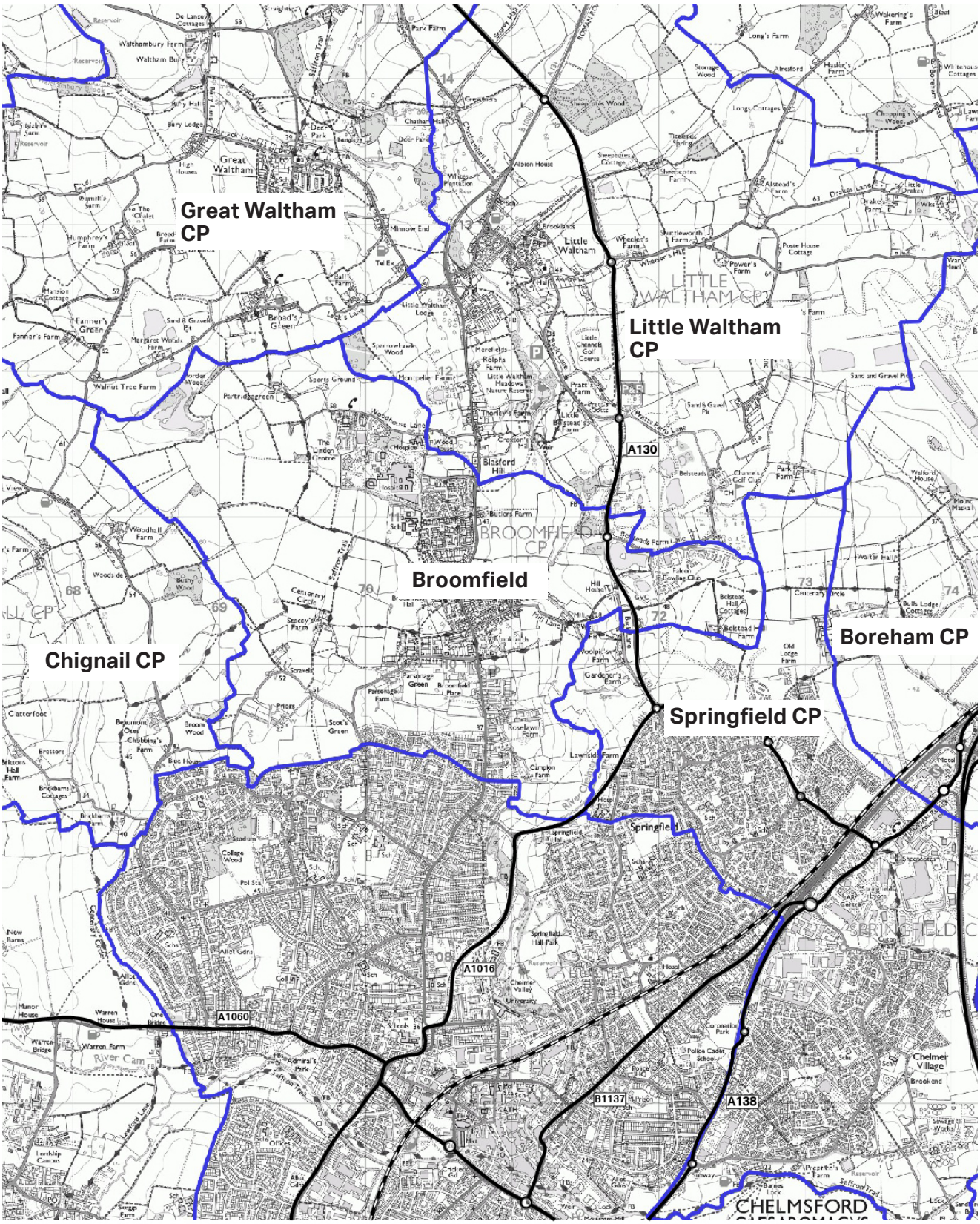



Figure 3: The parishes around Broomfield village

# 1.4. The importance of good design

As the National Planning Policy Framework (NPPF) notes, 'good design is a key aspect of sustainable development, creates better places in which to live and work and helps make development acceptable to communities' (paragraph 124).

Research, such as for the Government's Commission for Architecture and the Built Environment (now part of the Design Council; see, for example, The Value of Good Design at http://www.designcouncil.org.uk/sites/default/files/asset/document/the-value-of-good-design.pdf) has shown that good design of buildings and places can:

- Improve health and well-being;
- Increase civic pride and cultural activity;
- Reduce crime and anti-social behaviour; and
- Reduce pollution.

The NPPF goes on to root neighbourhood planning at the heart of the drive for high quality development: "Design policies should be developed with local communities so they reflect local aspirations, and are grounded in an understanding and evaluation of each area's defining characteristics. Neighbourhood plans can play an important role in identifying the special qualities of each area and explaining how this should be reflected in development" (paragraph 125).

This document helps to do just that for Broomfield, where recent consultation shows that residents appreciate high quality building environment where new development blends with the existing houses in the village. A good proportion also believe that sustainability should be encouraged into the design from the outset.

Figure 4: Open space on School Lane


Figure 5: Listed pub on Church Green

Figure 6: Vernacular cottages on School Lane

Figure 9: Modern architecture on Vellacotts Road

Figure 10: Good quality of boundary treatment

Figure 7: Green space - Parsonage Green

Figure 8: Listed buildings on Church Green

Figure 11: Angel Green

# 1.5. The area of study

Broomfield is a village and residential suburb which lies 2.5 miles north of the county town of Chelmsford, Essex with adjoining parishes of Chignal to the west, Springfield to the east and Little Waltham and Great Waltham to the north. The parish covers 747 ha and has a rural character[1]. Broomfield is a parish of 5,000 people.

The majority of housing is a linear pattern of development, along and off the B1008, Main Road, which runs north-south. The land to the east and west is mostly agricultural.

Broomfield has a long history, the earliest evidence of which is the Roman Road and reused Roman bricks in the Church.[2] These elements have shaped the development of the settlement, along with its agricultural setting and evolution in the 18th century. Church Green is an important public space, the grounds of the Church and Hall provide significant open spaces.

From the 19th century there was extensive housing development along the Main Road, serving the expanding population of Chelmsford. In the 20th century the expansion of Chelmsford has largely consumed Broomfield through ribbon development along Main Road, both north and south of Church Green.

A village extension of 29 Ha to the North of Broomfield (SGS6) is proposed for allocation in the emerging Chelmsford Local Plan. The site spans across portions of Broomfield Parish to the south and Little Waltham Parish to the north. It is expected to deliver 450 new homes, a neighbourhood centre, a new early years and childcare nursery in the southern portion of the site and a new vehicular access road to Broomfield Hospital. As of July 2019, the emerging Plan is found sound by the Planning Inspector subject to main modifications (of which none relates to the allocation in concern). The Plan is scheduled for adoption by the end of 2019.

## Local housing sites

| Site Ref | Site Description | Dwelling Estimate |
|---|---|---|
| **Site SGS6** | Land North of Woodhouse Lane and West of Blasford Hill. The land is allocated for a high-quality landscape-led development to maximise opportunities for sustainable travel. | **450 new homes** of mixed size and type to include affordable housing |

**KEY TO FIG.12**

- Neighbourhood Plan Area
- Site (SGS6) for development
- Parishes
- Road network
- Railway route

1. Broomfield, Village Design Statement 2012.
2. Broomfield Conservation Area Appraisal , 2009

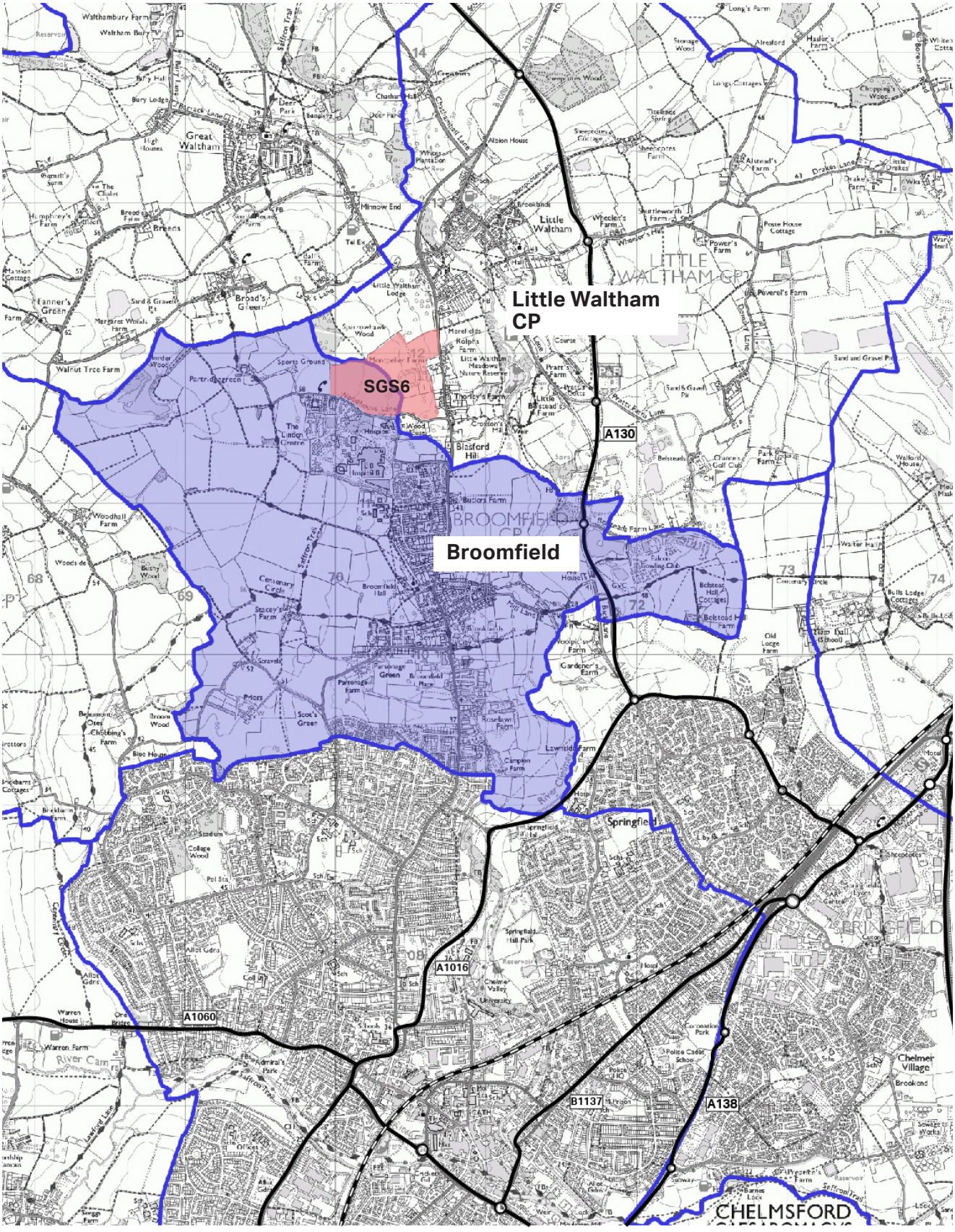



Figure 12: The Neighbourhood Plan Area of Broomfield


Baseline
02

# 2. Baseline

## 2.1. Introduction

This section outlines the broad physical, historical and contextual characteristics of Broomfield. It analyses the landscape, the pattern and layout of buildings, the green infrastructure and the land uses. Images and drawings in this section have been used to portray the character of Broomfield and emphasise its characteristics. The features outlined in this section are used as the basis for the design guidance.

## 2.2. Settlement pattern and conservation area

Broomfield village has a ribbon development creating a linear settlement along the Main Road. The main settlement area contains a great number of listed buildings and ancient monuments and it is surrounded by the open countryside. At the centre of the settlement is the Broomfield Conservation Area.

**The Church of St. Mary**

The Church of St. Mary with St. Leonard dates back to the end of the 11th century. The nave, tower and part of the chancel are Norman. The chancel was extended around 1430.

**Listed Buildings**

The main settlement area contains numerous historic buildings, twenty-nine of them listed. Reminders of Broomfield's past can be seen in many old buildings. Broomfield was an agricultural community and so it had farmhouses, several of which have been rebuilt over the ages. Some of those are Broomfield Hall, which has 15th century timbers, Priors which belongs to the 16th century, Butlers, Stacey's and Scravels[1].

**Greens**

Broomfield boasts five greens: Angel, Church, Parsonage, Partridge and Scots; the first three of which are registered as village greens[2]. The greens were probably created in the 12th and 13th centuries, as new areas were taken into cultivation to support a growing population. The Church Green, next to the ancient church and manor house, is earlier than the rest.

Parsonage Green has a pond with a tithe barn; Angel Green has a 15th century Angel public house and the backdrop of the grounds of Broomfield Place, while the buildings around Church Green span some 900 years.

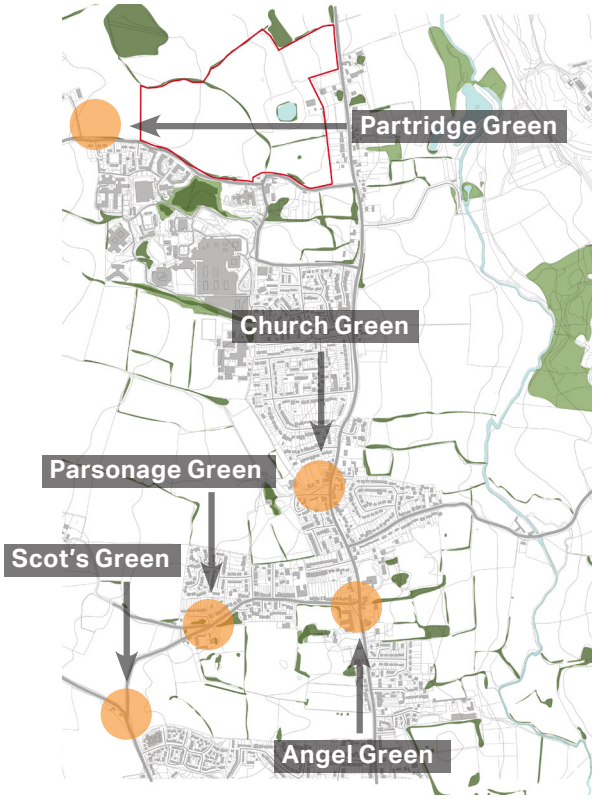



Figure 13: The 'Five Greens' in Broomfield

**KEY TO FIG.14**

- Road network
- Site SGS6
- Trees
- Deciduous Woodland
- Water feature
- Conservation area
- Listed buildings
- Ancient monument
- Preserved trees
- Angel Pub building

1. Broomfield Parish Plan 2005
2. It is suggested that the pattern of polyfocal greens in Essex dates back to Roman times and is a feature of areas where the transition from Roman Britian to Aglo-Saxon England was earlier and less disruptive.


Figure 14: The settlement pattern and the conservation area in Broomfield

# 2.3. Green infrastructure

Broomfield has always been in close association with its landscape setting, extending along shallow upper slopes of the Chelmer Valley on land farmed from the earliest times. This landscape of small, irregular fields enclosed by ancient hedges, ditches and scattered small woods and ponds was here at least a thousand years ago. The sequence of farmsteads below the Pleshey Farmland plateau edge and above the meadows of Chelmer Valley defined the village outline as it grew around its manor house and church[3].

Broomfield area contains arable fields, meadows, hedges, specimen trees, woods, the river Chelmer, several lakes and ponds, a nature reserve and the five village greens that are mentioned in the previous section.

The village's rural nature and layout facilitates the access to the open countryside. Nearly every house in the village is within a ten-minute walk of the rural footpath network, which provides more incentives for walking.

In the Chelmsford Landscape Character Assessment, Broomfield is consisted of three landscape areas:

**Pleshey Farmland Plateau**

- Irregular field pattern of mainly medium size fields, marked by sinuous hedgerows and ditches;
- Small woods and copses provide structure and edges in the landscape;
- Scattered settlement pattern, with frequent small hamlets, typically with greens and occasionally ponds;
- Comprehensive network of narrow lanes; and
- Strong sense of tranquillity.

**Boreham Farmland Plateau**

- Irregular field pattern of mainly medium size arable and pastoral fields, marked by hedgerows, banks and ditches;
- Small woods and copses provide structure and edges in the landscape;
- Scattered settlement pattern, with frequent small hamlets;
- A concentration of isolated farmsteads;
- Network of narrow lanes; and
- Sense of tranquility reduced by traffic noise.

**Upper Chelmer River Valley**

- Narrow valley, with a restricted valley floor;
- Small meandering river channel;
- Dense riverside trees;
- Arable valley sides with a fairly open character;
- Small linear settlements occupy the upper valley sides or straggle down to a few bridging points;
- Historic watermills and Second War pillboxes are distinctive features;
- Mostly tranquil away from Chelmsford; and
- Introduces an important green corridor into Chelmsford.

Figure 15: View from the land East of Main Road

Figure 16: View from the site North of Broomfield

**KEY TO FIG.17**

- Site SGS6
- Deciduous Woodland
- Trees
- Arable fields & meadows
- Playing field
- Water features
- Allotments
- Important views

3. Reference to Broomfield Community Landscape Character Assessment

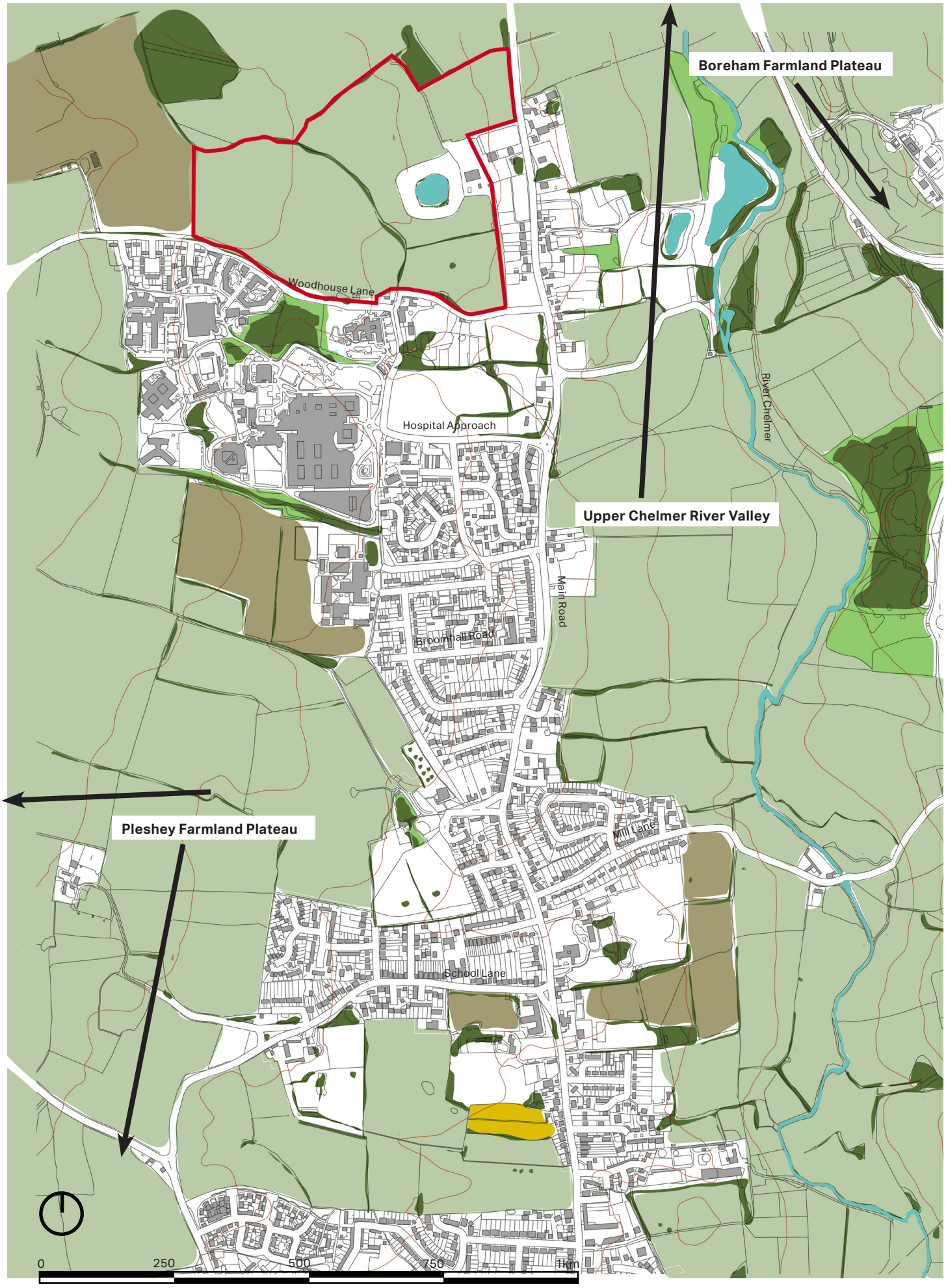



Figure 17: The green infrastructure in Broomfield

# 2.4. Housing

Most of Broomfield's housing dates from the 20th century. During this time, the parish has contracted as the urban area of Chelmsford has advanced northwards. Along Broomfield Road only a field interrupts the apparent 'urban sprawl' from Chelmsford into Broomfield.

In the last 15 years, there has been some development on the edge of the settlement areas, for instance the extension to Vellacotts, Roselawn Fields and more recently the extension to Berwick Avenue. There has also been some intensification within the settlement, for instance, Little Orchards and the Square.

## 2.4.1. Building Typology

The map opposite shows that the most frequent typologies are detached, semi-detached, terraced houses and bungalows.

Figure 20: Example of terraced houses on Broomhall Road

Figure 18: Example of bungalows on Main Road

Figure 21: Example of a semi-detached house on Saxon Way

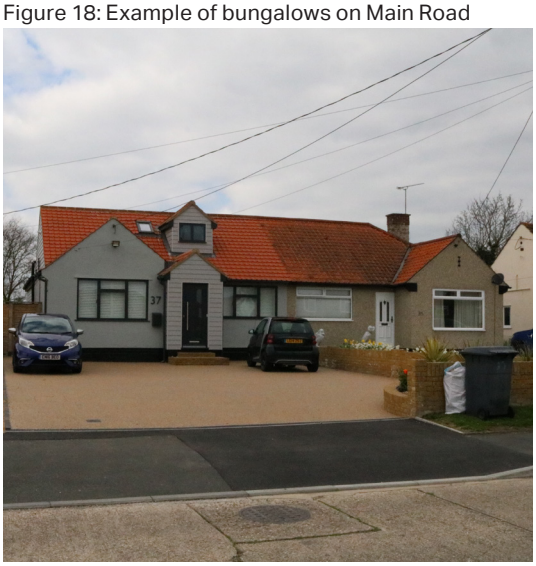


Figure 19: Example of semi-detached house on Jubilee Avenue

**KEY TO FIG.22**

- Site SGS6
- Detached houses
- Semi-detached houses
- Terraced houses
- Bungalows
- Flats

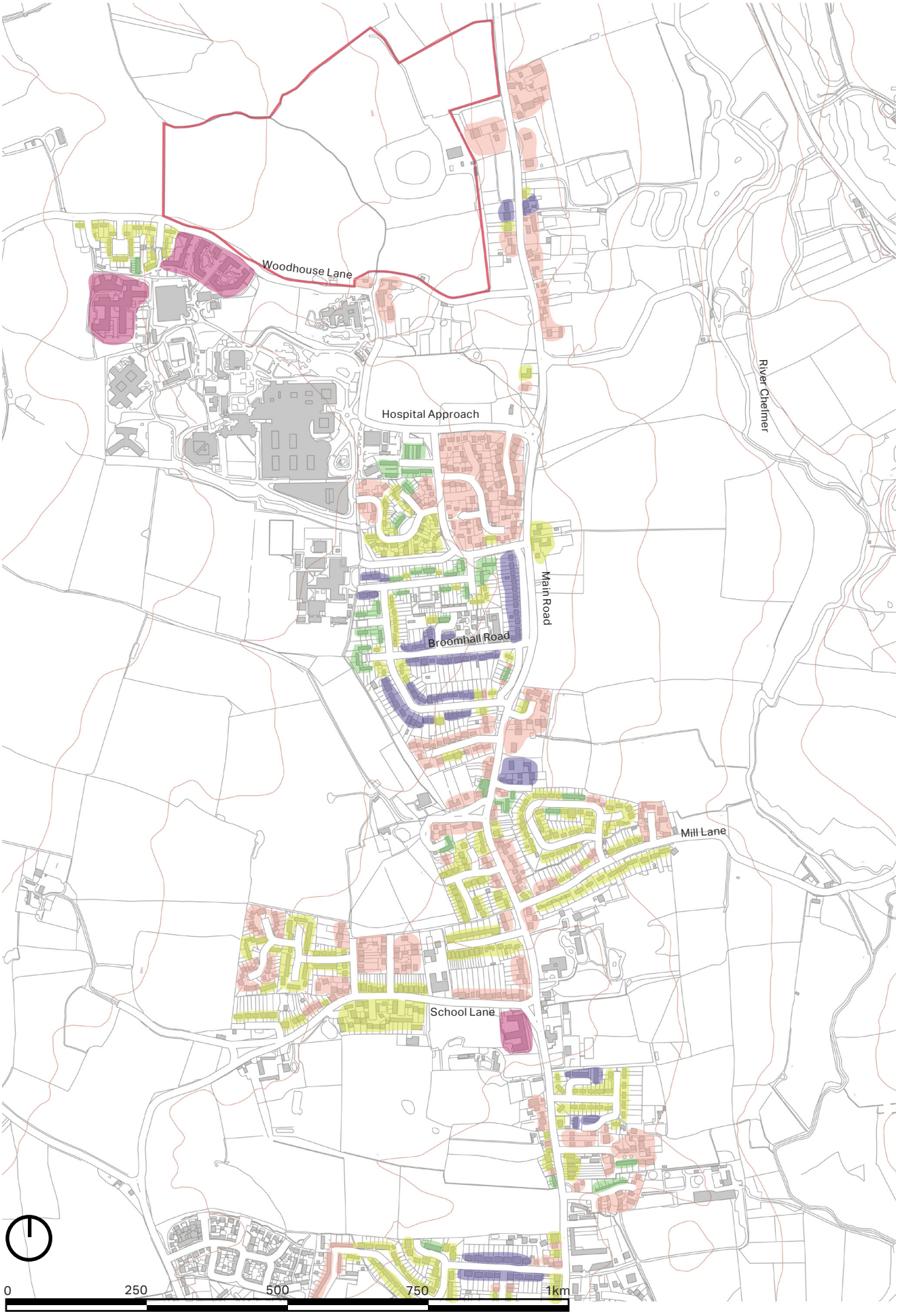



Figure 22: The building typologies in Broomfield

# 2.4.2. Building Density

Using residential density is a measure by which the intensity of land use within a given area can be quantified. It is typically applied to residential contexts.

There are different ways to measure housing density. A standard measure, used in this document, is simply the number of units (dwellings) per hectare (dph).

The plan opposite illustrates a range of densities found across Broomfield. It can be seen that there is a variety of densities around the settlement.

**KEY TO FIG.23**

- Site SGS6
- 36 dph and under
- 37 - 45 dph
- 46 - 60 dph
- 61 dph and above

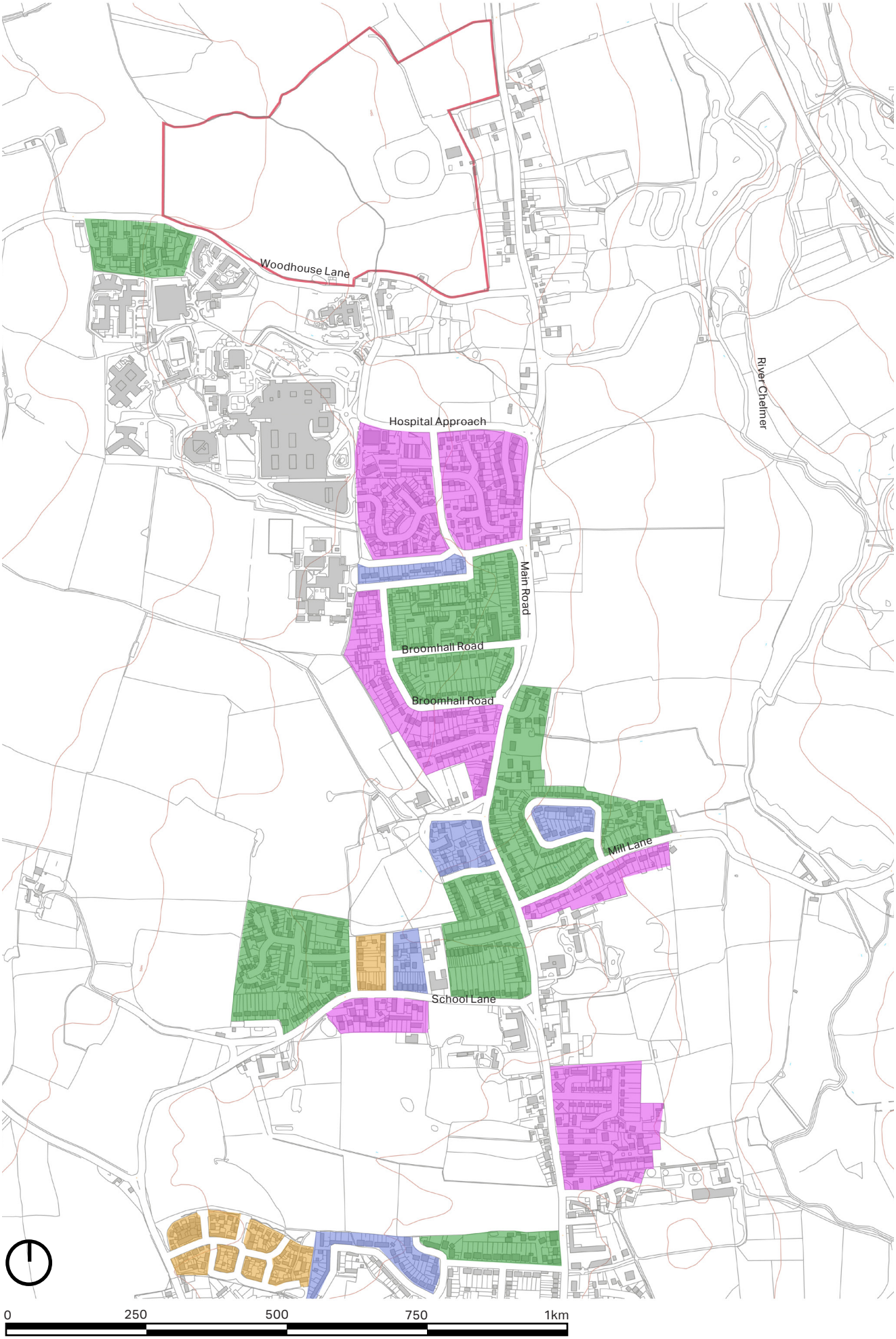



Figure 23: The building densities in Broomfield

# 2.5. Access and movement

### Bus

Broomfield is well-served by buses, mainly routes 42, 47 and 352. However, in the recent Neighbourhood Plan consultation, some people suggested cheaper fares, better information on the bus routes, greater reliability and more evening services.

### Cycling

Cycle access to Broomfield is facilitated by cycle lanes from Springfield and Chelmsford town centre. However, till recently the cycle lanes stopped before the Broomfield parish boundary. However, in 2017 following the consultation[1] on the overall Chelmsford City Growth Package, Essex County Council is now progressing the first phases of a scheme which will provide a cycle route connection between Chelmsford City Centre and Great Waltham. This scheme will start on Broomfield Road and will link with the planned hybrid cycle route along the corridor. On the opposite map the indicative cycle route can be seen.

Figure 24: Cycle route on Hospital Approach Road

Figure 25: Main Road

1. https://www.essexhighways.org/highway-schemes/chelmsford-city-growth-package/great-waltham-to-city-centre-cycle-route.aspx

### Footpaths

The parish is criss-crossed by a network of footpaths, bridleways and other rights of way. These natural features and access points are combined to offer a pleasant walking experience with views across open countryside; an aspect valued by the residents in Broomfield.

### Facilities

Broomfield provides a variety of community services such as the Village Hall, library, football club, Scout hut, cricket club, several shops, two historic pubs, two churches and garden allotments. It also includes four residential facilities for the elderly: Madelayne Court, Ayletts, Broomfield Grange and Glovershots. The Community Centre and two church halls are used by a number of village clubs and organisations throughout the year.

For its size, it supports a wide range of active local clubs and societies including the Broomfield Footpath Society, Cottage Garden Society, Darby and Joan, church-related activities, as well as local branches of national institutions such as the Royal British Legion, the Women's Institute, Scouts Guides and U3A.

Healthcare provision in Chelmsford includes Broomfield Hospital and a range of private and NHS healthcare providers.

**KEY TO FIG.26**

- Site SGS6
- Public Right of Way
- Great Waltham cycle route
- Road Network
- Trees
- Deciduous Woodland
- Water feature
- Bus Stops

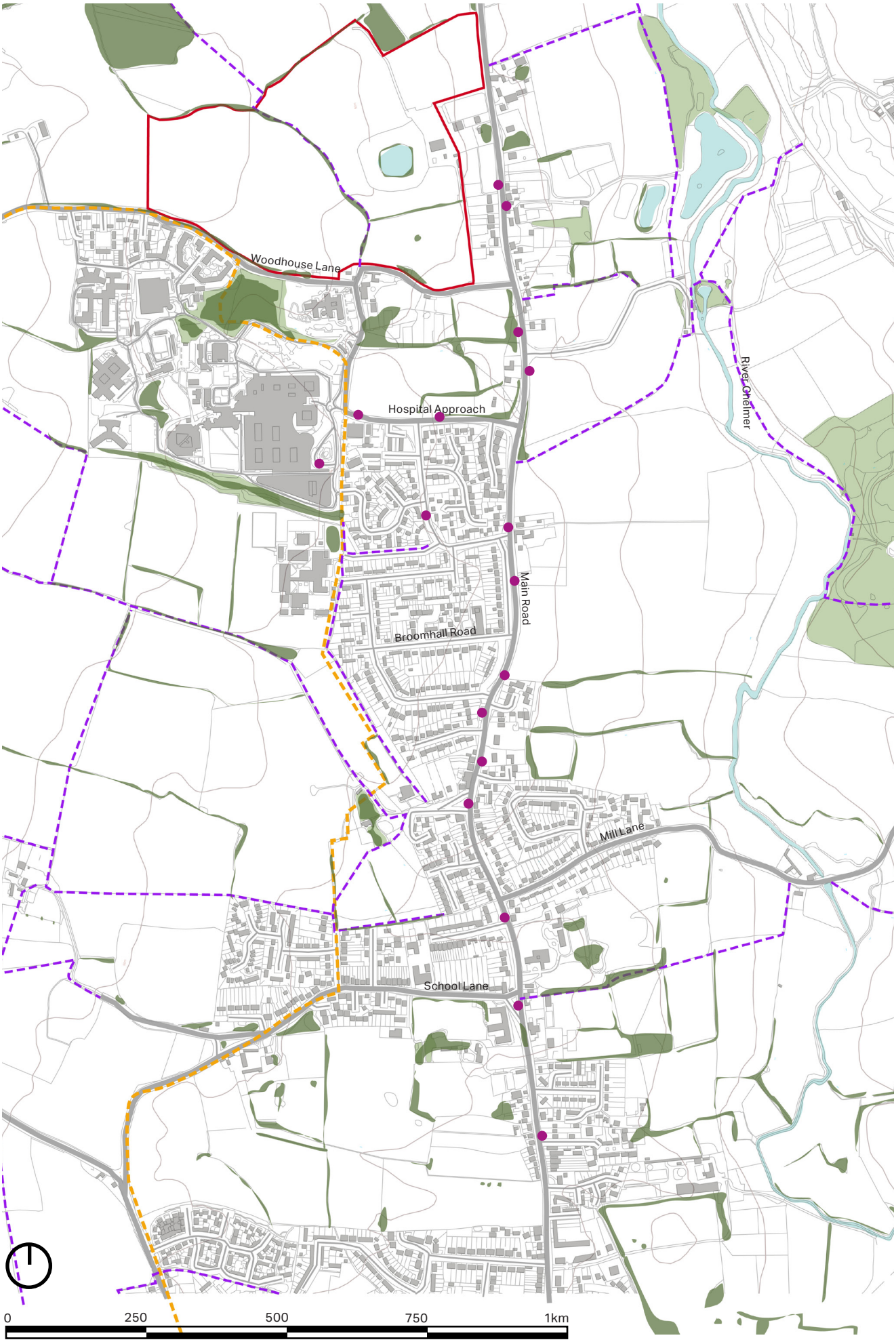
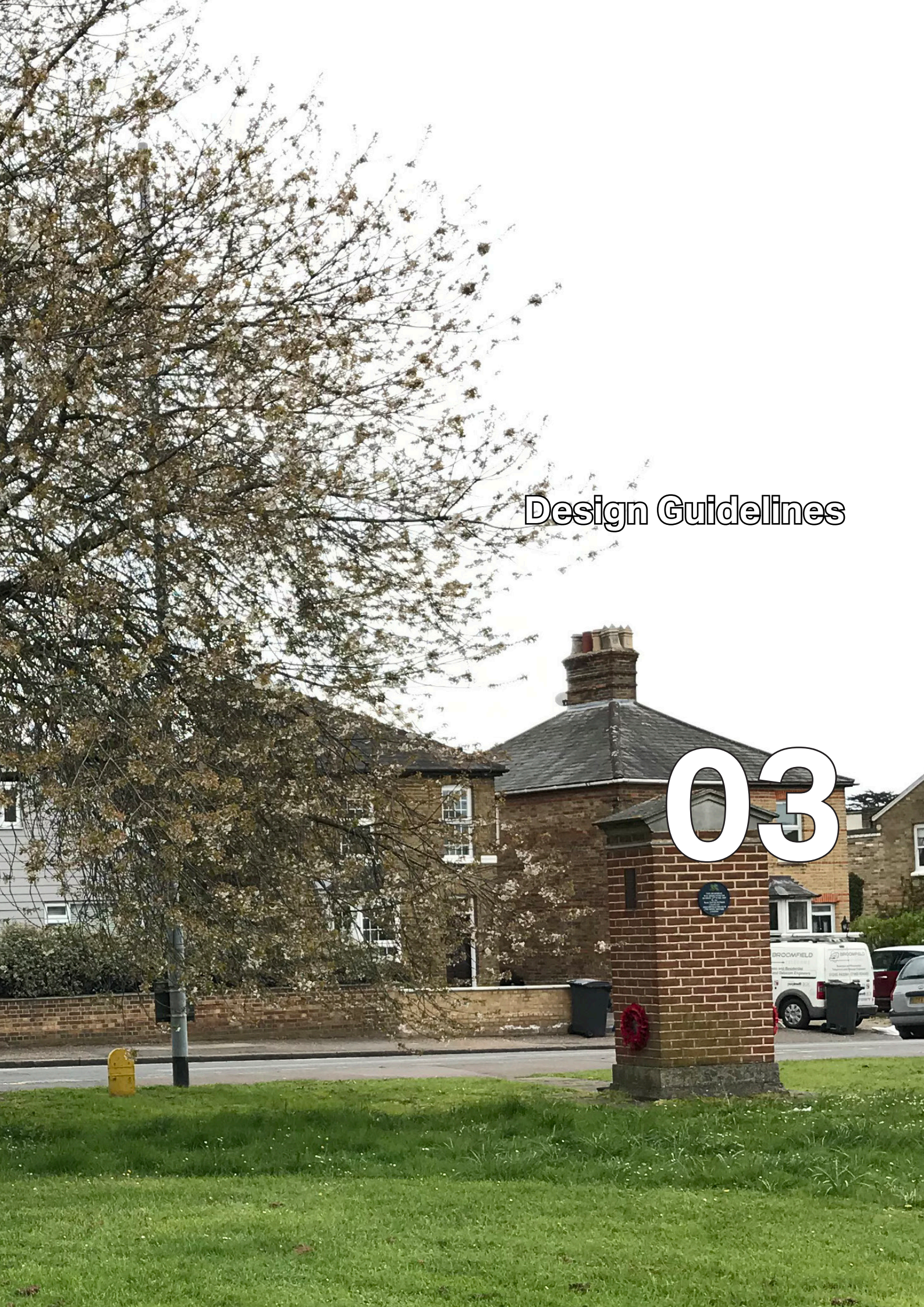



Figure 26: The connectivity network in Broomfield



# Design Guidelines

# 03

# 3. Design Guidelines

## 3.1. Introduction

The aim of this Design Guidance is to ensure that future developments consider local character and can enhance local distinctiveness by creating good quality developments, thriving communities and prosperous places to live.

This chapter provides a set of solid principles that can be applied to all new development. The place-making principles that are considered to be fundamentally important to guide any development in Broomfield are listed below:

- Future Growth
- Community Provisions
- Green Infrastructure
- Biodiversity and Landscape
- Views and Vistas
- Legibility and Wayfinding
- Landmarks and Focal Points
- Perimeter Blocks
- Edges
- Fronts and Backs
- Active Frontages
- Enclosure
- Eco design
- Rainwater Harvesting
- Solar Roof Panels
- Housing
- Housing Extensions
- Servicing
- Parking Typology
- Bicycle Typology
- Architectural Style
- Architecture Details

# 3.2. Future Growth

Broomfield's population has increased dramatically in recent years[1] and will likely to continue to rise. Therefore, the heritage of the countryside and village greens are to be considered as important assets for the area.

New development should respect the existing settlement pattern in order to preserve its character. A vision for the sustainable development of the parish was published by the Parish Council in May 2000, entitled 'Broomfield into the 21st Century: a future vision for survival'. This was followed by the Parish Plan in 2005, the Community Landscape Character Statement in 2010 and the Village Design Statement in 2012.

Any type of development proposals should match the community's preferences and should whenever possible include the types of 'planning gain' supported by the local community in Broomfield. Where developments are too small to contribute to planning gain by themselves, contributions could be pooled to achieve a more significant gain.

Figure 27: The ribbon development in Broomfield village and its relationship with the countryside.

1. There were 36 tenants on the Broomfield manors in 1066, possibly giving a total population of around 150 people. By the 16th century the number of entries in the parish register suggests a population of 300-400 and by 1801 it had risen to 467. The 1891 census put the figure at just under 900 and in 1991 it had reached 3,911.

# 3.3. Green Infrastructure

The objectives for the Green Infrastructure are:

- Access and recreation;
- Biodiversity;
- Communities and health;
- Economy;
- Heritage, landscape and townspace; and
- Water management[1].

'Closeness to open countryside' is the most popular thing about living in Broomfield, based on the responses in the consultation. Broomfield area is virtually surrounded by open countryside. This contains arable fields, meadows, hedges, woods, river and a lake. It also forms a barrier between Broomfield and other settlements and helps to define the community geographically.

New development should respect this vital aspect and improve it where possible. Footpath network should be identified again and enhanced in its weak points. Thus, the access to the countryside will be improved and people will be in closer relationship with nature.

In addition, new development should plan for an open space system, aiming for spaces for play, leisure and recreation. It should not be provided in a random manner and it has to have a specific purpose. Consideration must also be given at the design stage to the effectiveness for purpose and long-term maintenance of the space.

Figure 28: Existing footpath network will facilitate the access to the countryside.

1. Chelmsford Green Infrastructure Strategic Plan

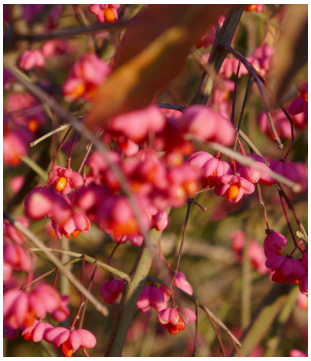
# 3.4. Biodiversity and landscape

When planning for new development it is important to preserve the landscape of the area. Broomfield village has a variety of areas with landscape interest and sensitivity which are mentioned in section 2.3 Green Infrastructure. Biodiversity and woodland should be protected and enhanced where possible. Hedges, fields, orchards, the natural green verges in the streets should all be taken into consideration when new development comes.

The landscape can be also benefited if opportunities are identified clearly. The footpath network has a potential of improving the links and therefore the connectivity around the village. In addition, the quality of the existing pavements should be improved to enhance walkability and safety in a way that does not alter the rural character of the village.

**Wildlife friendly environment**

- New developments and building extensions should aim to strengthen biodiversity and the natural environment;
- Existing habitats and biodiversity, particularly local birds and bats, should be protected and enhanced; and
- New development proposals should include the creation of new habitats and wildlife corridors. This could be by aligning back and front gardens or installing bird boxes or bricks in walls. Wildlife corridors should be included to enable wildlife to travel to and from foraging areas and their dwelling areas.



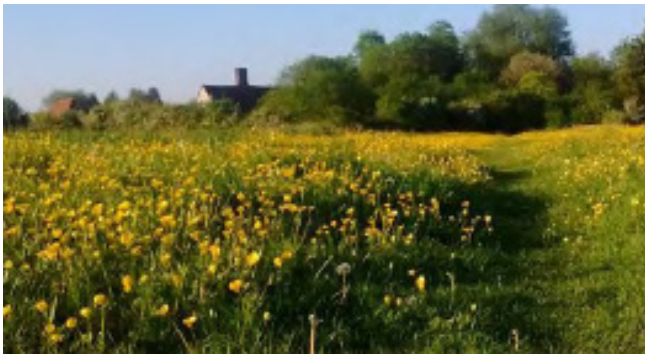


Figure 29: Buttercup meadows and veteran trees in Night Pasture and Broom Pightle.

# 3.5. Views and Vistas

Creating short-distance views broken by buildings, trees or landmarks helps to create memorable routes. Creating views and vistas allows easily usable links between places.

Unbroken views to the countryside are characteristic of Broomfield. New houses should aim to maximise the opportunities for those views and also preserve the existing ones.

The public footpaths, official and unofficial ones, also play an important role in enhancing those picturesque views.

Figure 30: View to the West from Partridge Green

Figure 31: View across River Chelmer, Butlers farmhouse

# 3.6. Legibility and Wayfinding

When places are legible and well signposted, they are easier for the public to comprehend and likely to both function well and be pleasant to live in or visit. People feel safer when they can easily memorise places and navigate around them. It is easier for people to orientate themselves when the routes are direct, and visual articulations and landmarks clearly emphasise the hierarchy of the place.

A clear wayfinding system should be established throughout the whole village, especially along the pedestrian and cycle routes, that is designed to complement and not clutter the public realm. A range of signposts and public realm elements such as street furniture and lampposts also should be introduced. This can be achieved by widening the public realm so as to facilitate the adding of benches, signage and wayfinding.

The five Greens are playing an important role in the wayfinding as they are a significant characteristic of the area. In that way, people can navigate themselves easily around the area.

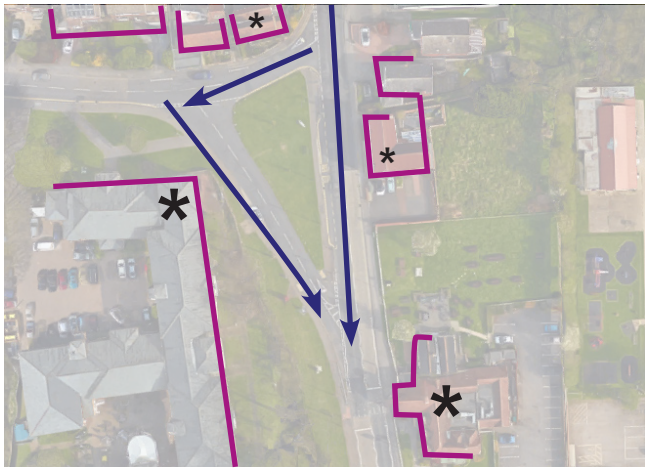


Figure 32: Angel Green open space enhances legibility providing a clear view

# 3.7. Landmarks and focal points

Well-designed streets, open spaces and public realm together with building forms are crucial for places to create a narrative. Landmarks and focal points are the tools to achieve this and therefore, allow users to easily orientate themselves.

### Landmarks

Landmarks create a visual guide to help users navigate through places and reinforce the sense of identity. They are also used to emphasise the hierarchy of a place. Landmarks do not have to be high-rises or large scale buildings. A piece of public art, a tree with a distinctive quality, an architectural element or an ornament on a building can be a landmark.

### Focal points

Creating rhythm in the urban structure with sequences of spaces is an important element in designing attractive and interesting places. This can be done by creating a number of focal points and gateways with landmarks, squares and other landscaping features, or simply by pulling back the building line and increasing the green.

Figure 34: Saint Mary's Church helps people to navigate

Figure 33: Angel Green and its relation to the focal buildings

# 3.8. Permeable and interconnected street network

Permeability describes the extent to which urban forms permit, or restrict, movement of people or vehicles in different directions. A permeable and interconnected street network provides people with a choice of different routes allowing traffic to be distributed more evenly across the network. A permeable layout generates a higher level of pedestrian activity, which makes social interactions more likely, and increases the level of security. Gates and barriers must be avoided throughout the whole settlement.

There are some exemplars of permeable street network in Broomfield village in the form of perimeter blocks. However, the principal settlement pattern contains more examples of cul-de-sacs which creates opposite results than the ones mentioned above.

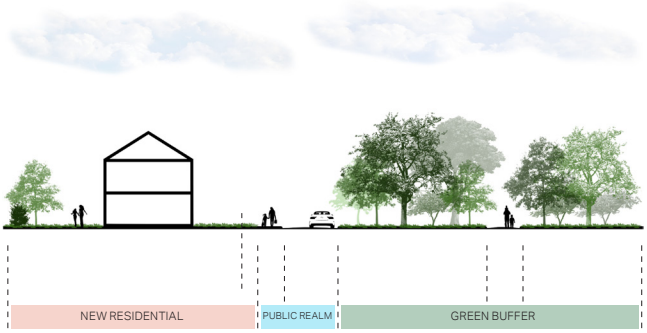
Figure 35: A typical back to back garden perimeter block on Broomhall Road, Broomfield

# 3.9. Edges

The interface of development edges to countryside, open space, routes or the boundaries of the site has a critical role in defining the character and quality of the place. The settlement in Broomfield area is close to the countryside and therefore this principle should be applied here.

Below sets out some general guidelines that should be considered at different types of edges. The identified types of edges are:

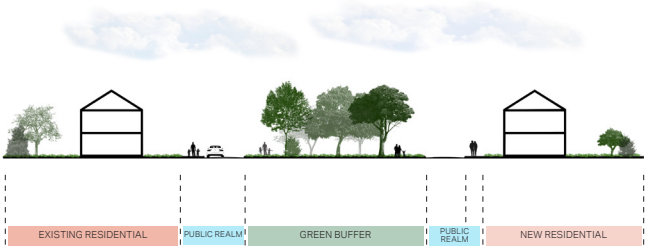
- With open countryside;
- With existing residential areas; and
- With the Main Road/ B1008.




## Edges facing sensitive green space

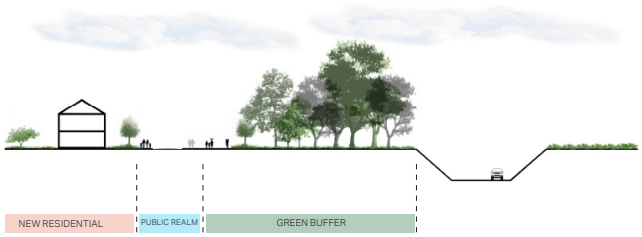
- Back fences should not border the countryside in order to avoid a harsh and unattractive edge to new development;
- New development should provide a positive edge which has a clear and well defined external image;
- Frontages should have strong architectural forms and careful detailing, in view of their prominence;
- Planting should be used to soften the mass of the built form. For example, a 'semi-natural' strip of planting of around 50 metres would be adequate for 2 rows of trees with a woodland footpath between; and
- The transition from urban to rural will need to be gradual and green.

## Edges facing existing residential areas



- New buildings should respect the character, height and mass of adjacent homes;
- Green buffers can be a satisfactory transition between old and new neighbourhoods. This could take the form of a 'semi-natural' woodland strip, as above, or more formal open space like playing fields. This is particularly important where new residential buildings will face existing residential properties that until now back onto open fields.
- It may be appropriate for the back gardens of new homes to back onto existing back gardens. In these cases, there should be a minimum distance of 20 metres between the back wall of dwellings; and
- Bramber needs to be recognised as a distinctive community with its own character. Development proposals would need to avoid the village from being subsumed into adjacent neighbourhoods of Steyning and Upper Beeding.

## Edges facing the bypass




- The impact of traffic noise will need to be addressed in development proposals, ensuring there will not be an adverse effect after mitigation;
- Site promoters will be expected to provide suitable noise mitigation, which could include, for example, barriers, bunds, planting or non-residential buildings;
- The edge should be softened with planting, avoiding a harsh fence, given that this edge will be so prominent.

# 3.10. Front and backs

Designing development blocks with a clear distinction between the front and back of the property is crucial in order to achieve best practice in place-making, and to create secure and coherent streets and places.

In Broomfield village there are some examples of houses with a clear distinction between public fronts and private/ semi-private backs. The primary accesses of the buildings should align with the public spaces to create activity. Fronting the public space with blank walls, high fences and hedges which block the view of the public spaces must be avoided. Ambiguous spaces that are neither fully public nor fully private should also be avoided.

Blocks that contain narrow lanes and pedestrian and cycle routes should ensure that they are overlooked in order to create natural surveillance and a sense of security.

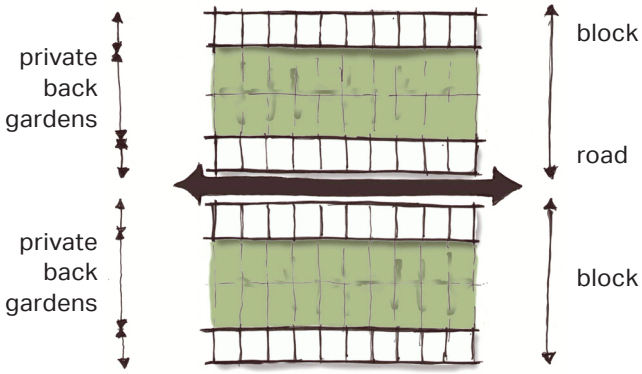



Figure 36: A traditional typology for fronts and backs

Figure 37: A clear distinction between the road and the property

# 3.11. Active frontages

Active frontages bring life and vitality to streets and public spaces. Introducing regular doors, windows, front gardens and front parking can stimulate activity and social interactions. Narrow frontages with a vertical rhythm can create a more attractive and interesting streetscape, while articulation on façades and use of bays and porches can create a welcoming feeling.


Figure 38: An example of active frontage on Main Road, Broomfield

# 3.12. Enclosure

Focal points and public squares and spaces in new developments should be designed in good proportions and provide continuous walls. Clearly defined spaces help in achieving cohesive and attractive urban form, and help in creating an appropriate sense of enclosure.

The following principles serve as general guidelines that should be considered towards achieving satisfactory sense of enclosure:

- In case of building set back, façades should have an appropriate ratio between the width of the street and the building height (see diagram opposite).
- Buildings should be designed to turn corners and terminate views.
- Generally, building façades should front onto streets. Variation to the building line can be introduced to create an informal character.
- In case of terraced buildings, it is recommended that a variety of plot widths, land use and façade depth should be considered during the design process to create an attractive townscape.

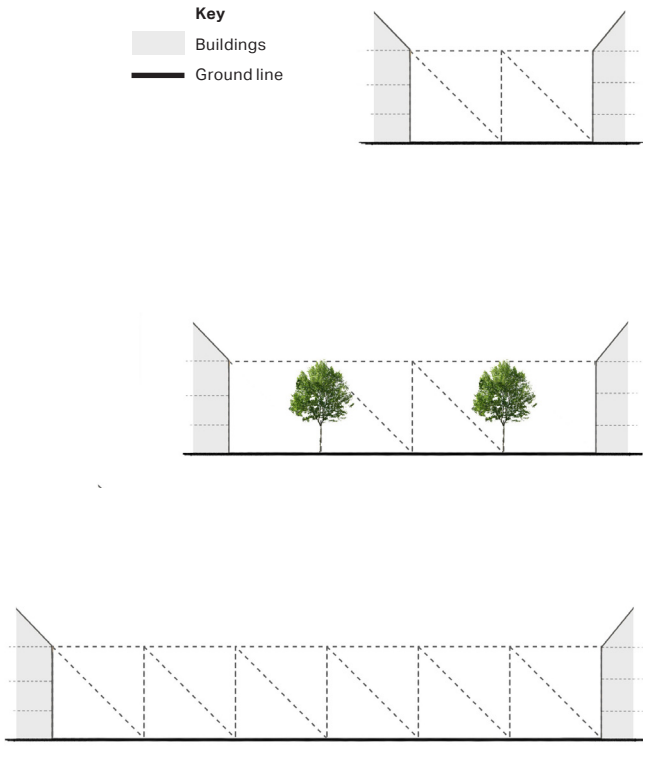



Figure 39: Images from Urban Design Compendium (Homes England)

# 3.13. Eco design

Energy efficient or eco design combine all around energy efficient construction, appliances, and lighting with commercially available renewable energy systems, such as solar water heating and solar electricity.

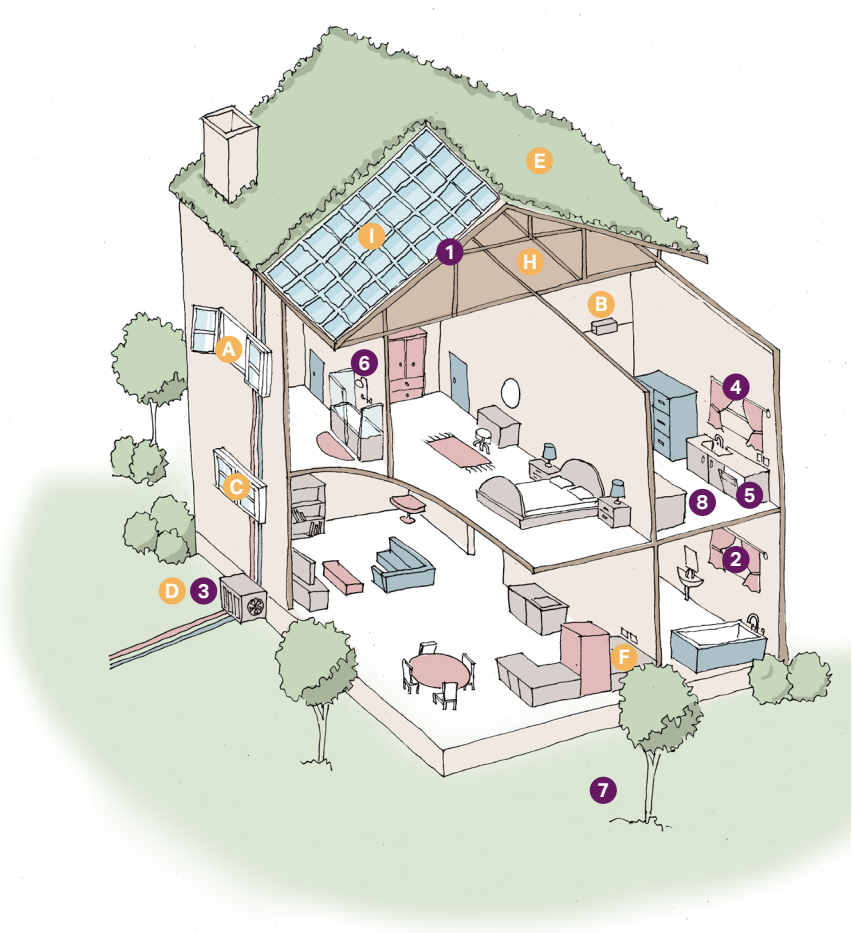
Starting from the design stage there are strategies that can be incorporated towards passive solar heating, cooling and energy efficient landscaping which are determined by local climate and site conditions.

The aim of these interventions is to reduce overall home energy use as cost effectively as the circumstances allow for. Whereas, the final step towards a high performance building would consist of other on site measures towards renewable energy systems.

New development in Broomfield should aim for innovative design and eco friendly buildings. The challenge is to respect at the same time the heritage of the village. This can be achieved by using traditional materials in the new buildings so as to preserve the existing architectural style and by introducing at the same time sustainable techniques.

**NEW BUILD HOMES**

- A **High levels of airtightness**
- B **More fresh air** with the mechanical ventilation and heat recovery, and passive cooling
- C **Triple glazed windows and external shading** especially on south and west faces
- D **Low-carbon heating** and no new homes on the gas grid by 2025 at the latest
- E **Water management and cooling** more ambitious water efficiency standards, green roofs and reflective walls
- F **Flood resilience and resistance** e.g. raised electrical, concrete floors and greening your garden
- H **Construction and site planning** timber frames, sustainable transport options (such as cycling)
- I **Solar panel**




**EXISTING HOMES**

1. **Insulation** in lofts and walls (cavity and solid)
2. **Double or triple glazing with shading** (e.g. tinted window film, blinds, curtains and trees outside)
3. **Low- carbon heating** with heat pumps or connections to district heat network
4. **Draught proofing** of floors, windows and doors
5. **Highly energy- efficient appliances** (e.g. A++ and A+++ rating)
6. **Highly waste- efficient devices** with low-flow showers and taps, insulated tanks and hot water thermostats
7. **Green space (e.g. gardens and trees)** to help reduce the risks and impacts of flooding and overheating
8. **Flood resilience and resistance** with removable air back covers, relocated appliances (e.g. installing washing machines upstairs), treated wooden floors

Figure 40: Diagram showing low-carbon homes in both existing and new build conditions

# 3.14. Solar Roof Panels

The aesthetics of solar panels over a rooftop can be a matter of concern for many homeowners. Some hesitate to incorporate them because they believe these diminish the home aesthetics in a context where looks are often a matter of pride among the owners. This is especially acute in the case of historic buildings and conservation areas, where there has been a lot of objection for setting up solar panels on visible roof areas. Thus, some solutions are suggested as follows:

On new builds:

- Design solar panel features from the start, forming part of the design concept. Some attractive options are solar shingles and photovoltaic slates; and
- Use the solar panels as a material in their own right.

On retrofits:

- Analyse the proportions of the building and roof surface in order to identify the best location and sizing of panels;
- Aim to conceal wiring and other necessary installations;
- Consider introducing other tile or slate colours to create a composition with the solar panel materials; and
- Conversely, aim to introduce contrast and boldness with proportion. For example, there has been increased interest in black panels due to their more attractive appearance. Black solar panels with black mounting systems and frames can be an appealing alternative to blue panels.

Figure 41: Example of an approach to solar roof panels aiming to make a positive appearance in the area.

# 3.15. Rainwater Harvesting

Rainwater harvesting refers to the systems allowing to capture and store rainwater as well as those enabling the reuse in-situ of grey water. These systems involve pipes and storage devices that could be unsightly if added without an integral vision for design. Therefore, some design recommendation would be to:

- Conceal tanks by cladding them in complementary materials;
- Use attractive materials or finishing for pipes;
- Combine landscape/planters with water capture systems;
- Underground tanks; and
- Utilise water bodies for storage.

Figure 42: Examples of tanks used for rainwater harvesting

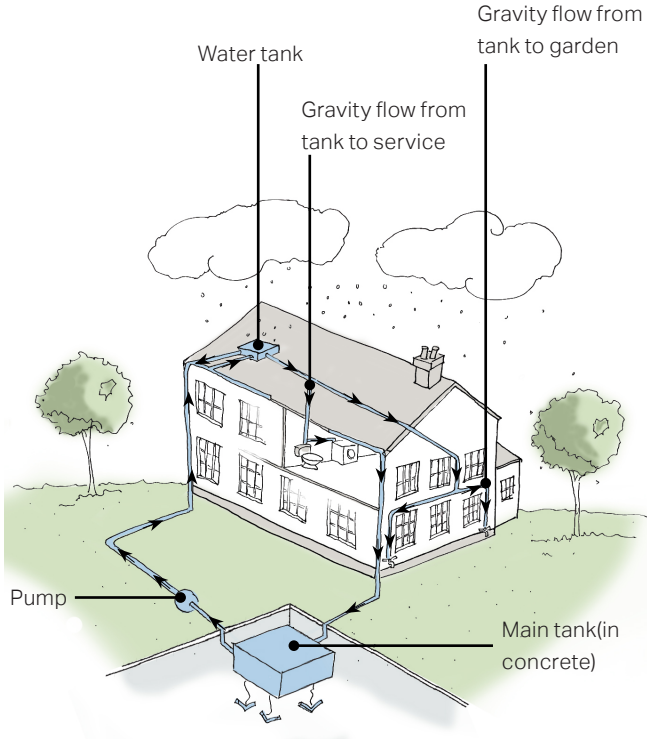



Figure 43: Diagram showing the rain harvesting process.

# 3.16. Housing

It is important that all newly developed areas should provide a mixture of housing to allow for a variety of options that enhances flexibility to its users and attracts more people in the area.

There is some support amongst residents for the view that Broomfield needs more housing, but only certain types. In particular, small family homes, affordable homes (i.e. rented or shared equity); starter homes, homes for the active retired and bungalows.

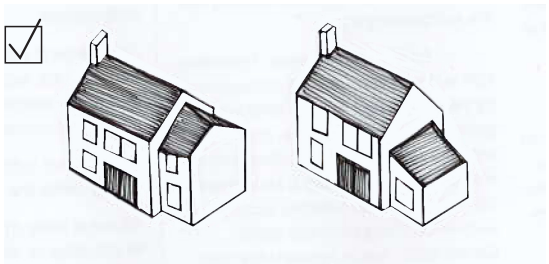
The most acceptable forms of development were to replace some existing commercial accommodation, small sites (up to 50 dwellings on the edge of the current settlement. The least acceptable form was large greenfield sites.

Figure 44: Example of detached housing in Angel Green

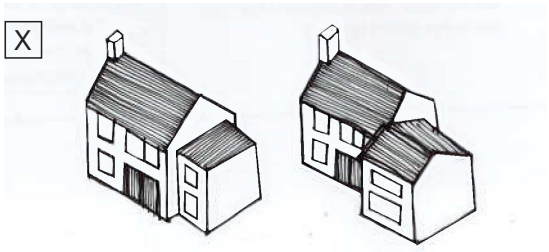
Figure 45: Example of modern housing which fits the surroundings, Vellacotts

# 3.17. Housing Extensions[1]

- The original building should remain the dominant element of the property regardless the amount of extensions. The newly built extension should not overwhelm the building from any given point.
- Extensions should not result in a significant loss to the private amenity area of the dwelling.
- Designs that wrap around the existing building and involve overly complicated roof forms should be avoided.
- The pitch and form of the roof used on the building adds to its character and extensions should respond to this where appropriate.
- Extensions should consider the materials, architectural features, window sizes, and proportions of the existing building and recreate this style to design an extension that matches and complements the existing building.
- In case of side extensions, the new part should be set back from the front of the main building and retain the proportions of the original building. This is in order to reduce any visual impact of the join between existing and new.
- In case of rear extensions, the new part should not have a harmful effect on neighbouring properties in terms of overshadowing, overbearing or privacy issues.



Good example for side extensions, respecting existing building scale, massing and building line.

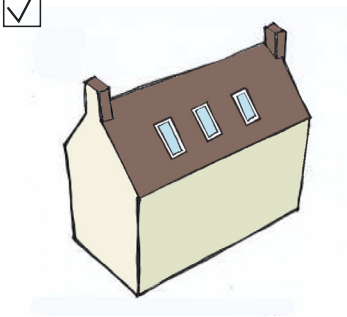


Both extensions present a negative approach when considering how it fits to the existing building. Major issues regarding roofline and building line.

1. Reference for the diagrams from the Essex Design Guide.

## Design treatment in case of loft conversion:

☑



Loft conversion incorporating skylights.

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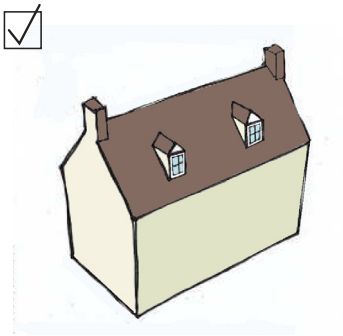

Loft conversion incorporating gabled dormers.

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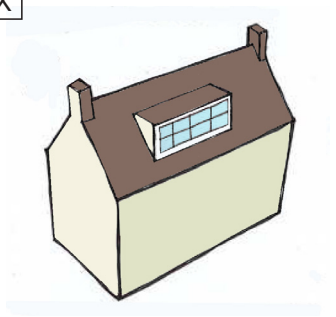

Loft conversion incorporating a long shed dormer which is out of scale with the original building.

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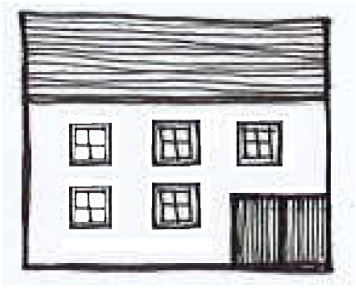
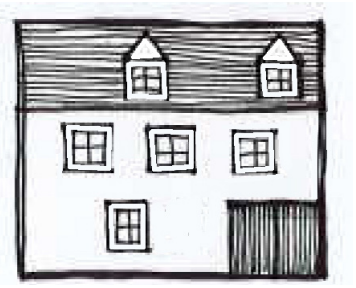


Original roofline of an existing building.

☑

Loft conversion incorporating gabled dormers.

X



Loft conversion incorporating gabled dormers which are out of scale and do not consider existing window rhythm nor frequency.

# 3.18. Servicing

With modern requirements for waste separation and recycling, the number and size of household have increased. The issue poses a problem in relation to the aesthetics of the property if bins are left without a design solution.

Waste and cycle storage, if placed on the property boundary, must be integrated with the overall design of the boundary design. A range of hard and soft landscaping treatments such as hedges, trees, flower beds, low walls, and high-quality paving materials could be used to minimise the visual impact of bins and recycling containers. Provision for parcels to be left and for electric charging should also be integrated with overall design.

The images on this page illustrate design solutions for servicing units within the plot.

Figure 46: Example of bin storage using a palette similar to the building

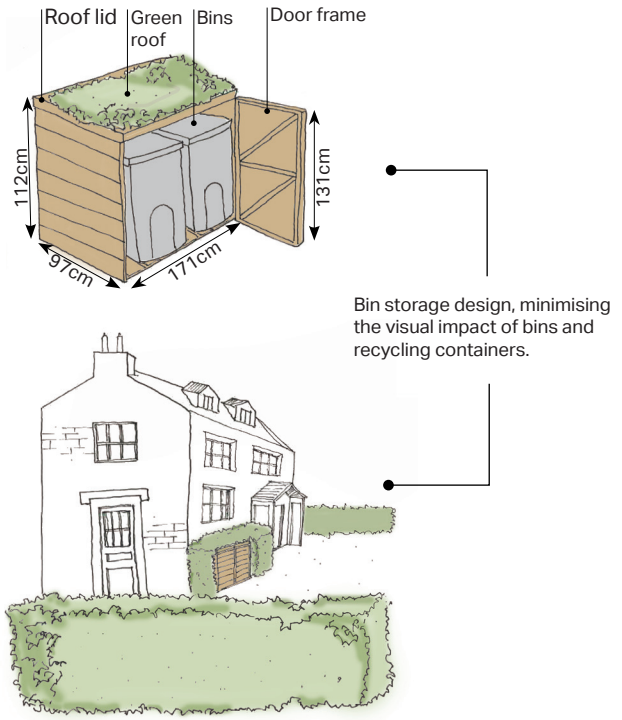



Figure 47: Bin storage design solution

# 3.19. Parking typology

When needed, residential car parking can be a mix of on-plot side, front, garage, and courtyard parking, and complemented by on-street parking.

### On-street Parking

As we move forward into a future of electric vehicles, every opportunity must be taken to integrate charging technologies into the fabric of road and street furniture, including induction plate technologies and street lamp hook ups alongside independent charging posts as standard street furniture.

- On-street parking can be arranged either perpendicular or parallel to the carriageway.
- On-street parking must be designed to avoid impeding the flow of pedestrians, cyclists, and other vehicles, and can serve a useful informal traffic calming function.
- Parking bays can be inset between kerb build outs or street trees. Kerb build outs between parking bays can shorten pedestrian crossing distances and can host street furniture or green infrastructure. They must be sufficiently wide to shelter the entire parking bay in order to avoid impeding traffic.

### Parking Courts

Communal parking courts to be located at the front or side of dwellings to provide natural surveillance. Car parking courts should not be more than 8 spaces at one side. Soft landscaping and tree planting should be used to break up the dominance of the vehicles. Parking barns can also be used to help with the visual impact.

Figure 48: Parking Court on Windmills

### Tandem Parking

This arrangement means that two parking spots are assigned, configured like a single, double-length perpendicular parking spot. One space is in front of the other, such as one car will have to pull out in order to access the second one.

On tandem parking there must be no more than 2 spaces and no more than 3 rows allowed.

### On-plot frontage parking

This arrangement should be used for terraces and town houses on lane type streets. Only 1 car parking space should be provided per dwelling. In the case of town houses an additional space could be created at the back (e.g. in a court) to allow for more than one car. There should be equal amount of landscape and car parking space provided within an enclosed landscaped front garden in order to avoid parked cars dominating the street frontage. Spaces should be overlooked by front windows of the property.

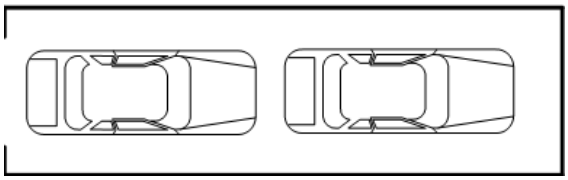


Figure 49: Example of tandem parking

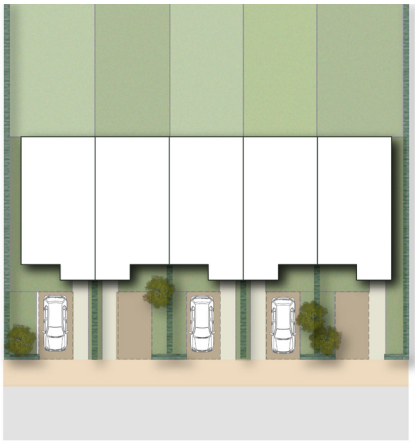


Figure 50: Illustrative diagram showing an indicative layout of on-plot front parking.

Figure 51: On-plot frontage parking on Mandeville Way

# 3.20. Bicycle Parking

A straightforward way to encourage cycling is to provide secured covered cycle parking within all new residential developments and publicly available cycle parking in the public realm.

For residential units, where there is no garage on plot, covered and secured cycle parking should be provided within the domestic cartilage. The use of planting and smaller trees alongside cycle parking can be used to mitigate any visual impact on adjacent spaces or buildings.

New development should aim for promoting this lifestyle by providing more cycle routes and monitor the condition of the existing ones.

### Storage

To encourage cycling the cycle storage must be provided at a convenient location with an easy access. If it is located in rear gardens, a clear access route should be provided and car parking should not block it. The design of the storage should be well integrated into the streetscape if it is allocated at the front of the house and designed for flexible use. The storage structure can be either standing alone or part of the main building. In addition, the amount of bike storage should relate to the size of each house.

Figure 52: On-plot bicycle storage space

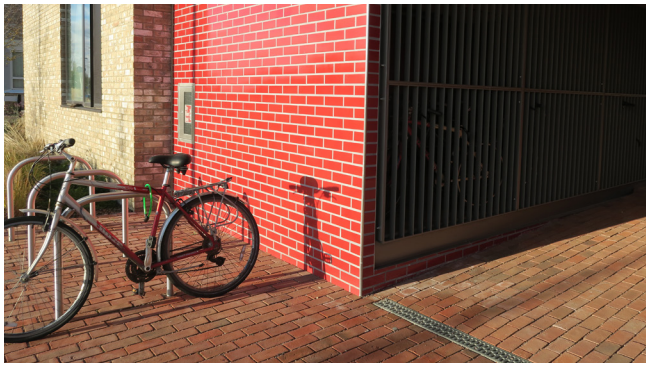


Figure 53: Example of public cycle parking (left) and sheltered cycle parking garage (right) in Cambridge

For apartment buildings, cycle parking must be at a convernient location with an easy access. It should be located within the footprint of the building.

Visitor cycle parking within residential areas should be provided within the close vicinity of the buildings and it should be a suitable stand or  a wall bar.

For employment, shops and all other non-residential uses there must be sufficient open short-term and covered long-term cycle parking provided in convenient locations, such as close to main entrances where the parking will be overlooked for both staff and visitors. Short-term cycle parking should be located within 30 m walking distance of the main building entrance and can accommodate at least 2.5% of peak visitors (minimum of four spaces). Long-term cycle parking should be located within 30 m [100 ft] walking distance of the main building entrance and can accommodate at least 5% of regular building occupants (minimum of four spaces). The cycle parking, especially at the Neighbourhood Centre's, should be integrated into the public realm.

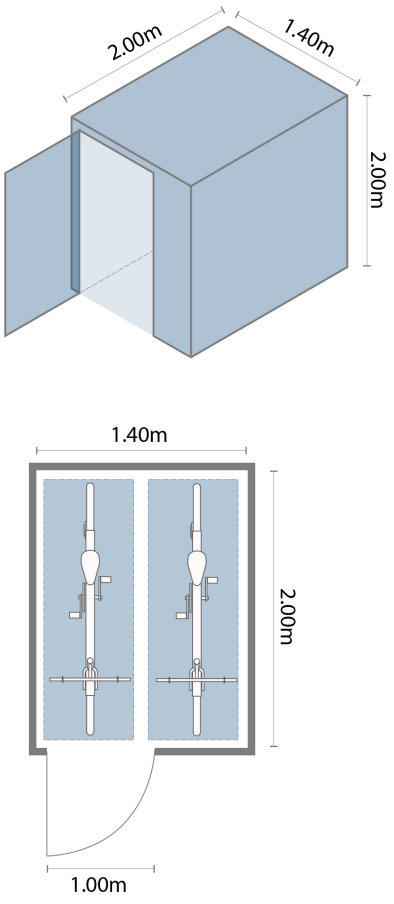



Figure 54: Secure covered cycle store for two cycle storage illustration

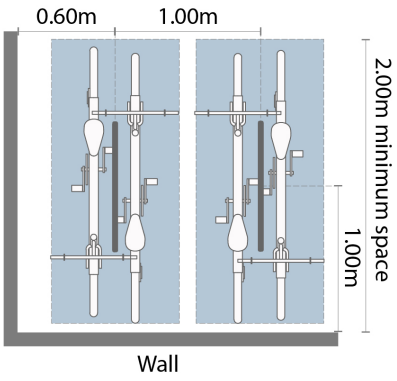



Figure 55: Sheffield cycle stands for visitors and cycle parking illustration

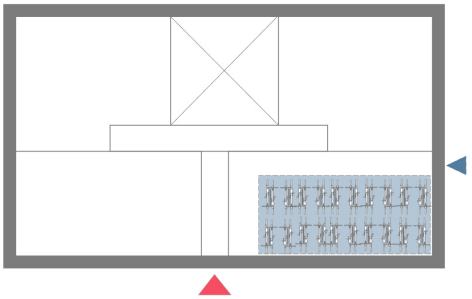


Figure 56: Cycle store in an apartment building illustration

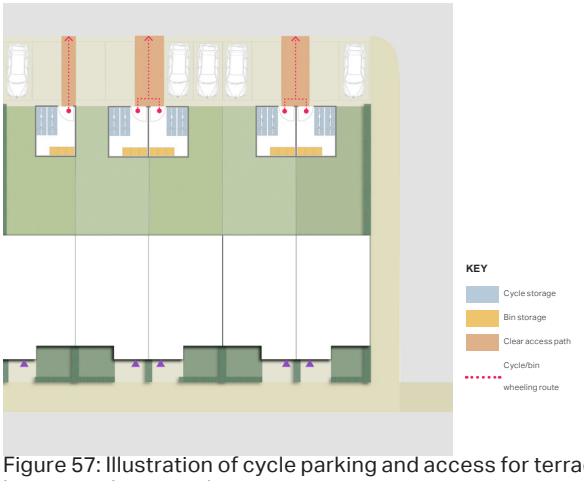



Figure 57: Illustration of cycle parking and access for terraced houses with rear parking

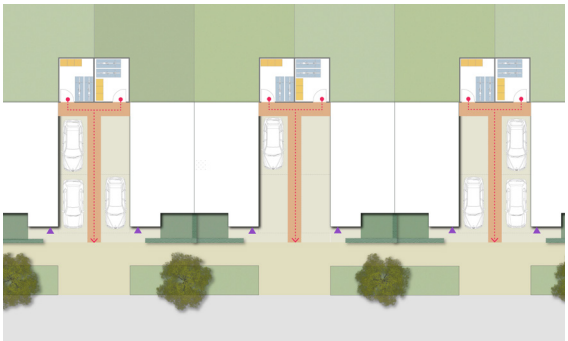


Figure 58: Illustration of cycle parking and access for semi-detached houses with on-plot parking

# 3.21. Architecture Details

Having presented, in the previous chapter, the design guidelines that new development should follow, this section is a showcase of a good amount of architecture detailing and building materials that contribute to the local distinctive character of Broomfield and are considered as positive exemplars.

New development can draw inspiration from the varied details of Broomfield's existing architecture that is presented in the next pages.

Some of those key characteristics[1] are summarised below and also illustrated in some photos on the opposite page:

- Size and heights of the buildings are sympathetic with the surroundings and the wider landscape;
- Traditional materials to be used for exterior walls, fencing, e.g., Essex or London stock brick, plain or pargetted rendering, flint, decorative brick coursing;
- Boundary treatments should be sympathetic to the environment;
- There is a variety of public green spaces in the area that could be improved and designed for a purpose as for example to be play areas;
- Cycling should be encouraged in the area by introducing cycle paths and bicycle parking and storage; and
- There are good examples of new developments and housing extensions that could be used to guide future development. Those examples are designed respecting the architecture of the area, the materials used, the size and the height.

The Broomfield Village Design Statement is a good reference to guide future developments both village wide and in particular areas.

1. Reference to Broomfield Village Design Statement 2012

Figure 59: Cycle infrastructure to encourage cycling in the area

Figure 60: Cycle parking and storage to encourage cycling in the area

Figure 61: Fencing to respect the soft landscaping of the area and maintain the same style

Figure 62: Traditional and sympathetic contemporary materials

Figure 63: High quality boundary treatment in new development in Vellacotts

Figure 64: Public spaces close to landmarks to be improved as open, play areas

RED BRICK

ROOF DETAILS

HIGH QUALITY PUBLIC REALM

VARIETY OF COLOURS

WOOD MATERIAL FOR BOUNDARY TREATMENT

ROCKS FOR BOUNDARY TREATMENT

DIFFERENT PAVING MATERIALS

WELL MAINTAINED GARDENS

# 3.22. General questions to ask and issues to consider when presented with a development proposal

This section states a general design principle followed by a number of questions against which the design proposal should be judged. The aim is to assess all proposals by objectively answering the questions below.

Not all the questions will apply to every development. The relevant ones, however, should provide an assessment overview as to whether the design proposal has taken into account the context and provided an adequate design solution.

The Design Proposal should:

**A. Harmonise and enhance existing settlement in terms of physical form pattern or movement and land use.**

- What are the particular characteristics of this area which have been taken into account in the design?
- Is the proposal within a conservation area?
- Does the proposal affect or change the setting of a listed building or listed landscape?

**B. Relate well to local topography and landscape features, including prominent ridge lines.**

- Does the proposal harmonise with the adjacent properties?
- Has careful attention been paid to height, form, massing and scale?
- If a proposal is an extension, is it subsidiary to the existing property so as not to compromise its character?
- Does the proposal maintain or enhance the existing landscape features?
- How does the proposal affect the trees on or adjacent to the site?
- How does the proposal affect on the character of a rural location?

**C. Reinforce or enhance the established urban character of streets, squares and other spaces.**

- What is the character of the adjacent streets and does this have implications for the new proposals?
- Does the new proposal respect or enhance the existing area or adversely change its character?
- Does the proposal positively contribute to the quality of the public realm/streetscape and existing pedestrian access?
- How does the proposal impact on existing views which are important to the area?
- Can any new views be created?

**D. Reflect, respect and reinforce local architecture and historic distinctiveness.**

- What is the local architectural character and has this been demonstrated in the proposals?
- If the proposal is a contemporary design, are the details and materials of a sufficiently high enough quality and does it relate specifically to the architectural characteristics and scale of the site?

**E. Retain and incorporate important existing features into the development.**

- What are the important features surrounding the site?
- What effect would the proposal have on the streetscape?
- How can the important existing features including trees be incorporated into the site?
- How does the development relate to any important links both physical and visual that currently exist on the site?

**F. Respect surrounding buildings in terms of scale, height, form and massing.**

- Is the scale of adjacent buildings appropriate to the area?
- Should the adjacent scale be reflected?
- What would be the reason for making the development higher?
- Would a higher development improve the scale of the overall area?
- If the proposal is an extension, is it subsidiary to the existing house?
- Does the proposed development compromise the amenity of adjoining properties?
- Does the proposal overlook any adjacent properties or gardens?

**G. Adopt appropriate materials and details.**

- What is the distinctive material in the area, if any?
- Does the proposed material harmonise with the local material?
- Does the proposal use high quality materials?
- Have the details of the windows, doors, eaves and roof details been addressed in the context of the overall design?

**H. Integrate with existing paths, streets, circulation networks and patterns of activity.**

- What are the essential characteristics of the existing street pattern?
- How will the new design or extension integrate with the existing arrangement?
- Are the new points of access appropriate in terms of patterns of movement?
- Do the points of access conform to the statutory technical requirements?
- Do the new points of access have regard for all users of the development (including those with disabilities)?

- How can the cycle network be integrated into the existing street network?
- How can bicycle parking be integrated into the new design?

**I. Provide adequate open space for the development in terms of both quantity and quality.**

- Is there adequate amenity space for the development?
- Does the new development respect and enhance existing amenity space?
- Have opportunities for enhancing existing amenity spaces been explored?
- Are there existing trees to consider?
- Will any communal amenity space be created? If so, how will this be used by the new owners and how will it be managed?

**J. Incorporate necessary services and drainage infrastructure without causing unacceptable harm to retained features.**

- What visual impact will services have on the scheme as a whole?
- Can the effect of services be integrated at the planning design stage, or mitigated if harmful?
- Has the lighting scheme been designed to avoid light pollution?

**K. Ensure all components e.g. buildings, landscapes, access routes, parking and open space are well related to each other, to provide a safe and attractive environment.**

- Has the proposal been considered in its widest context?
- Is the landscaping to be hard or soft?
- What are the landscape qualities of the area?
- Have all aspects of security been fully considered and integrated into the design of the building and open spaces?
- Has the impact on the landscape quality of the area been taken into account?
- Have the appropriateness of the boundary treatments been considered in the context of the site?
- In rural locations has the impact of the development on the tranquillity of the area been fully considered?

**L. Make sufficient provision for sustainable waste management (including facilities for kerbside collection, waste separation and minimisation where appropriate) without adverse impact on the street scene, the local landscape or the amenities of neighbours.**

- Has adequate provision been made for bin storage?
- Has adequate provision been made for waste separation and relevant recycling facilities?
- Has the location of the bin storage facilities been considered relative to the travel distance from the collection vehicle?
- Has the impact of the design and location of the bin storage facilities been considered in the context of the whole development?
- Could additional measures, such as landscaping be used to help integrate the bin storage facilities into the development?
- Has any provision been made for the need to enlarge the bin storage in the future without adversely affecting the development in other ways?

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# Site Analysis

# 04

# 4. Site Analysis

## 4.1. Introduction and background

The study area which is subject to this section is an allocated site in the emerging Chelmsford Local Plan. The site (Land to North of Woodhouse Lane and West of Blasford Hill) is situated to the immediate west of the B1008 and to the north of the regionally significant Broomfield Hospital. It benefits from a close connection to existing employment areas and community facilities, and is supported by frequent bus services via the B1008 connecting into Chelmsford City Centre.

This chapter explores the main development constraints at a high level through a site analysis and a concept masterplan to create a better understanding over the criteria defined by the relevant policies.

The process undertaken to inform these studies was:

- Site visits to understand the spatial context;
- Urban design analysis of opportunities and constraints;
- Review of policies relating to the site;
- Desk-based analysis; and
- Preparation of the concept plan, based on urban design best practice and local context.

The following development principles from the policies have guided the analysis and recommendations:

**Movement and Access**

- Main vehicular access to the site will be from Blasford Hill (B1008);
- Provide a new vehicular access road to serve the development and provide access to Broomfield Hospital and Fairleigh Hospice;
- Provide pedestrian and cycle connections; and
- Provide a well-connected internal road layout which allows for buses.

**Historic and Natural Environment**

- Protecting the setting of historic properties and the scheduled monument surrounding the site;
- Mitigate the visual impact of the development;
- Enhance the historic environment;
- Create an network of green infrastructure;
- Provide suitable SuDs and flood risk management;
- Ensure appropriate habitat mitigation and creation is provided;
- Undertake a Minerals Resources Assessment; and
- Undertake an Archaeological Assessment.

**Design and Layout**

- Provide a coherent network of public open space, formal and informal sport, recreation and community space within the site.

**Site Infrastructure Requirements**

- Land (circa 0.13 hectares) for a stand-alone early years and childcare nursery (Use Class D1) and the total cost of physical scheme provision with delivery through the Local Education Authority;
- Appropriate improvements to the local and strategic road networks as required by the local Highways Authority;
- Appropriate measures to promote and enhance sustainable modes of transport; and
- New and enhanced cycle routes, footpaths, Public Rights of Way and bridleways where appropriate.

Development proposals should accord with these masterplanning principles stated in the draft Local Plan.

Figure 65: View from the site North of Broomfield

**KEY TO FIG.66**

Site SGS6

Road Network

Trees

Deciduous Woodland

Water feature


Figure 66: Map showing the site analysis at the land north of Broomfield

# 4.2. Site analysis for development site

The site analysis plan opposite presents the key site analysis information associated with the development site and those immediately around them. The analysis has been informed by desktop baseline and analysis, and the site visits.

The site currently consists of three greenfields framed by hedgerows and trees, and a water filled gravel pit to the east of the site.

The area surrounding the site are ancient woodlands to the northwest (Sparrowhawk Wood) and immediate south (Pudding Wood), as well as open and vast agricultural fields. To the east of the site are 8 Grade II listed residential dwellings.

The site's landscape sensitivity and potential for sustainable travel is recognized in the draft allocation policy as the key guiding principles for development.

Views and vistas are important to be preserved in the area, since the site provides great panoramic views to the East and West.

The footpath network in the area provides access to the countryside and opportunities for better connections around the village. The new cycle path is a first step to continue the improvements in the connectivity in the area.

**KEY TO FIG.67**

- Site SGS6
- Public Right of Way
- Cycle route
- Vehicular route
- Pedestrian route
- Trees
- Decidious Woodland
- Water feature
- Listed buildings
- Views
- Bus stops

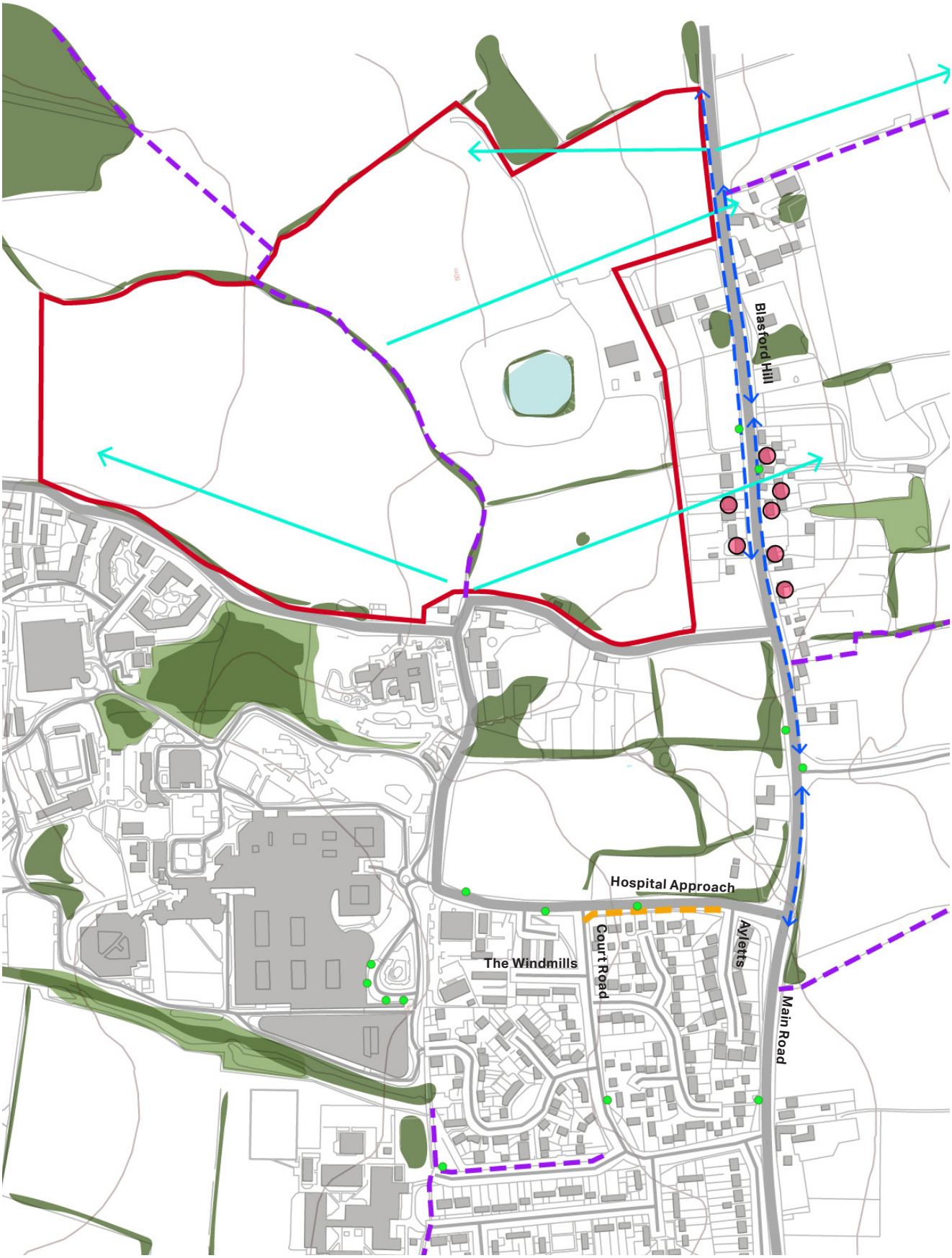


Figure 67: Map showing the site analysis at the land north of Broomfield

# 4.3. Concept masterplan

The map opposite presents the concept plan for the development site. It provides the basic structural elements - development land, green spaces, buffer zones, connections, access, views, land uses - that can equally be attributed to individual sites as they come forward for development.

Some of the conceptual design principles are:

### Views

1. Views to the East and West to be preserved, mitigating any visual impact of new development;
2. Create buffer zones to the south of the site to mitigate the visual impact of the hospital and its extension.

### Access

3. Provide vehicular access to the site from the Main Road to regulate the traffic on the rural lane network with a view to downgrade Woodhouse Lane and North Court Road to routes for local access only. It will also help to ease wider congestion on the Main Road, Broomfield corridor;
4. Create an additional access road from the southern border which serves the development but also provides access to Broomfield Hospital, Fairleigh Hospice and King Edward VI Grammar School playing fields.

### Connectivity

5. Improve the road layout to allow for bus priority measures;
6. Add more bus stops and regulate the bus routes;
7. Sustainable transport modes to be used to create neighbourhoods where alternative forms of transport to the private car are prioritised;
8. Improve the footpath network to better the access to the green spaces and countryside;
9. Provide more cycle and pedestrian connections in and out of the site to connect it with Broomfield Hospital, Chelmer Valley High School, Little Waltham Primary School, Broomfield Primary School, City Centre, the Green Wedge and surrounding countryside.

### Land Uses

10. Create a Neighbourhood Centre around the pond to allow for a vibrant place where open space activities, informal sports and recreation activities will take place; and
11. Provision for a stand-alone early years and childcare nursery located to the southern portion of the site.

### Green Infrastructure

12. Plant trees to be used as buffer zones around the site boundaries where necessary to protect the amenities of neighbours including adjoining residential properties, Fairleigh Hospice and King Edwards Grammar School playing field;
13. The nature conservation value of Puddings Wood Local Wildlife Site to the south of the development must be considered and form part of a strategic approach to conserve the natural environment and mitigate the impacts of any development;
14. Green corridors inside the site boundaries stretching also outside of it to connect with the existing green infrastructure; and
15. A critical Drainage Area (CDA) has been identified in the Broomfield area. This site may have the potential to impact on the CDA in respect of surface water flooding.

Any new development should aim for 'high-quality sustainable urban extension'[1]. The site is well-located in relation to the existing community and educational facilities and areas of employment. As such, the allocation represents an opportunity for a landscape-led development.

1 Emerging Chelmsford Local Plan

**KEY TO FIG.68**

- Site Boundary
- Development Parcels
- Open Space
- Hedgerows & Woodland
- Water Features
- Primary Routes
- Secondary Routes
- Key Pedestrian Routes
- Community Hub
- Landmark Buildings


Figure 68: Map showing the concept plan for the site North of Broomfield


TAXI
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# Implementation

# 05

# 5. Implementation

## 5.1. Delivery

The design guidelines will be a valuable tool for securing context-driven, high quality development in Broomfield. They will be used in different ways by different actors in the planning and development process, as summarised in the table below:

| Actor | How they will use the design guidelines |
|---|---|
| Applicants, developers and landowners | As a guide to the community and Local Planning Authority expectations on design, allowing a degree of certainty – they will be expected to follow the Guidelines as planning consent is sought. Where planning applications require a Design and Access Statement, the Statement should explain how the Design Guidelines have been followed. |
| Local Planning Authority | As a reference point, embedded in policy, against which to assess planning applications. The Design Guidelines should be discussed with applicants during any pre-application discussions. |
| Parish Council | As a guide when commenting on planning applications, ensuring that the Design Guidelines are followed. |
| Community organisations | As a tool to promote community-backed development and to inform comments on planning applications. |
| Statutory consultees | As a reference point when commenting on planning applications |

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