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HARSTON

Design guidance and codes

Final report

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Delivering a better world

Quality information

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CONTENTS

INTRODUCTION

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1. INTRODUCTION

1.1 PURPOSE

This design guide supports the design policies of the Neighbourhood Plan. It contains contextual information and guidance and codes, which demonstrate how development may reflect the design policies of the Neighbourhood Plan.

The guidance and codes should be considered when designing development alongside other national and local policies and guidance.

1.2 PROCESS TO PREPARE THIS DESIGN GUIDE

The Harston Neighbourhood Plan Working Group (HNPWG) are preparing the Neighbourhood Plan for Harston.

Through the Department for Levelling Up, Housing and Communities (DLUHC) Neighbourhood Planning Programme led by Locality, AECOM was commissioned to provide design guidance to support the HNPWG.

To ensure this design guide accurately reflects Harston's community aspirations, the HNPWG provided AECOM with guidance and local knowledge. Figure 1 provides a brief overview of the key milestones for the design guides preparation.

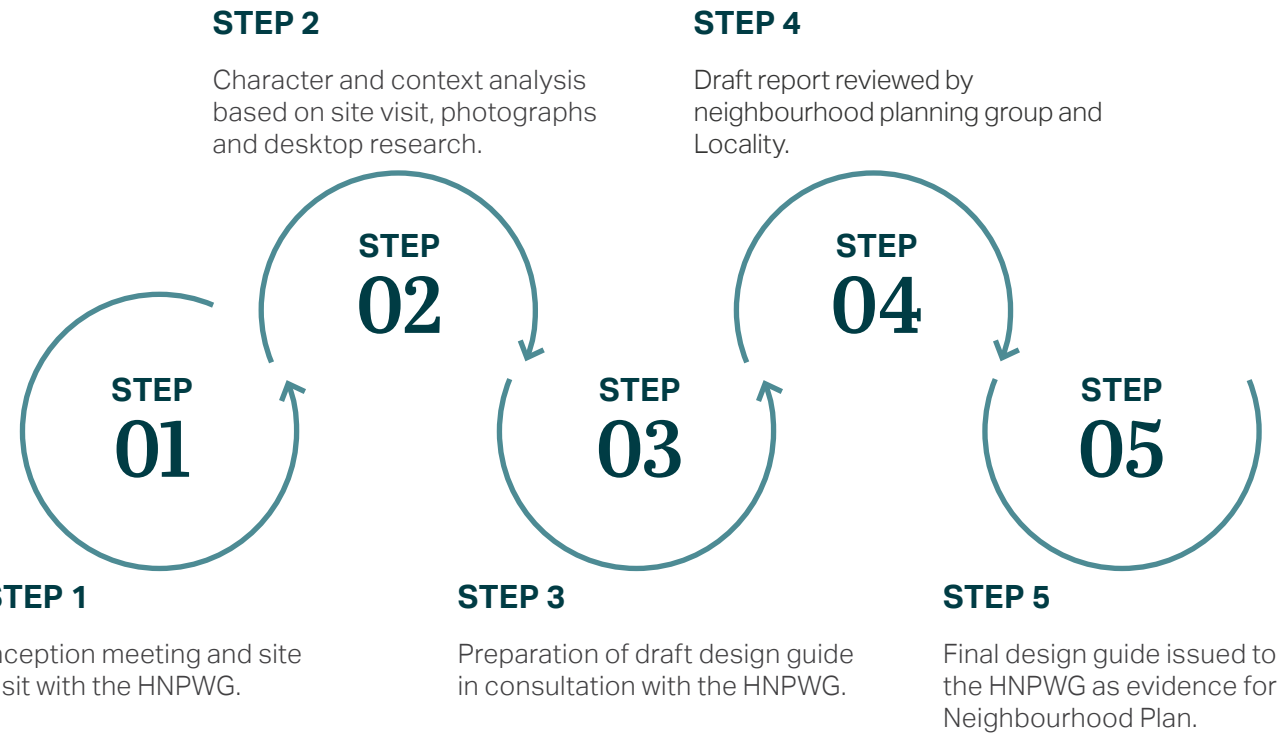


Figure 01: Diagram illustrating the process to preparing this design guide

1.3 AREA OF STUDY

Harston is a village and civil parish in South Cambridgeshire, England, located around 5 miles (8 km) south of Cambridge. It is set within the Cambridge Green Belt and bound by the famous River Rhee/Cam to the west.

The A10 runs through the centre of the village and has heavily influenced the pattern of development over the years. It is a busy road as it is the link between Cambridge and Royston, thus making the parish very well connected. Also, just on the border of the parish is the M11 which heads south towards Stansted Airport and London. In terms of public transport, the closest railway station is Foxton. However, Harston is also close to Cambridge which provides a variety of regular trains towards places such as London, Ipswich, Kings Lynn and Norwich. Finally, there is the 26 bus which runs between Cambridge and Royston, stopping in Harston at 2 hourly intervals, Monday to Saturday only.

Harston is an area that is rich in history which is supported by the 16 listed buildings, over 45 other local heritage assets and the Manor Farm settlement site which is a scheduled monument. As well as this Harston is listed in the Domesday Book under the hundred of Thriplow and had 29 households. In 2021 census it has a population of approximately 1831 people.

Figure 02: Map showing the context of the Neighbourhood Area

1.4 HOW TO USE THIS DESIGN GUIDE

This design guide should be a valuable tool in securing locally distinctive, high quality development in Harston. It may be used differently by various stakeholders in the planning and development process, as summarised in Table 1.

A valuable way the design guide can be used is as part of a process of co-design and involvement that seeks to understand and take account of local preferences and expectation for design quality. As such, the design guidelines and codes (refer to Section 4) can help to facilitate conversations on the various topics to align expectation and aid understanding on key local issues. The design guide is an evidence based document informing the Neighbourhood Plan and providing further detail for the policies contained therein.

Stakeholders	How they may use this design guide
Applicants, developers and landowners	As a guide to community and Local Planning Authority expectations on design, allowing a degree of certainty – they will be expected to follow the Design Guidance and Codes as planning consent is sought.
Local Planning Authority	As a guide when assessing whether the design of planning applications reflect Neighbourhood Plan policies. The Design Guidance and Codes should be discussed with applicants during any pre-application engagement.
Parish Council	As a guide when commenting on planning applications, ensuring that the Design Guidelines and Codes are complied with.
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.

Table 01: How stakeholders may use this design guide

1.5 PLANNING POLICY AND GUIDANCE

This section outlines the national and local planning policy and guidance documents that have informed, and should be read in conjunction with, this design guide.

1.5.1 NATIONAL POLICY AND GUIDANCE

2023 - National Planning Policy Framework

Development should comply with national level planning policy guidance as set out in the National Planning Policy Framework 2021 (NPPF) and the associated Planning Practice Guidance (PPG). In particular, the NPPF Chapter 12: Achieving well-designed places stresses the creation of high-quality buildings and places as being fundamental to what the planning and development process should achieve. It sets out a number of principles that planning policies and decisions should consider ensuring that new developments are well-designed and focus on quality.

2021 - National Model Design Code

The National Model Design Code 2021 provides detailed guidance on the production of design codes, guides and policies to promote successful design. It expands on 10 characteristics of good design set out in the National Design Guide. This guide should be used as reference for new development.

2021 - National Design Guide

The National Design Guide 2019 illustrates how well-designed places that are beautiful, enduring and successful can be achieved in practice.

2020 - Building for a Healthy Life

Building for a Healthy Life (BHL) is the Government-endorsed industry standard for well-designed homes and neighbourhoods. The BHL toolkit sets out principles to help guide discussions on planning applications and to help local planning authorities to assess the quality of proposed (and completed) developments, but can also provide useful prompts and questions for planning applicants to consider during the different stages of the design process.

BHL is supported by Streets for a Healthy Life, which demonstrates what can be achieved in creating streets as places for people.

2007 - Manual for Streets

Development is expected to respond positively to the Manual for Streets 2007 and subsequent updates, the Government's guidance on how to design, construct, adopt and maintain new and existing residential streets. It promotes streets and wider development that avoid car dominated layouts but that do place the needs of pedestrians and cyclists first.

1.5.2 SOUTH CAMBRIDGESHIRE DISTRICT COUNCIL POLICY AND GUIDANCE

2018 - South Cambridgeshire Local Plan

Adopted in September 2018, the South Cambridgeshire Local Plan forms part of the development plan for the district. The Local Plan provides a strategic framework for the period 2011-2031. It includes a spatial strategy for the district and sets out the vision, objectives, policies and development needs for South Cambridgeshire up to 2031. The Local Plan policies cover the following themes: spatial strategy, climate change, delivering high quality places, protecting and enhancing the historic built and natural environment, delivering high quality homes, building a strong and competitive economy and promoting successful communities.

Policy S/10 identifies Harston as a Group Village, meaning that development above an indicative size of 8 dwellings on a site is not expected, or, exceptionally, 15 dwellings on a brownfield site.

2020 - Greater Cambridge Sustainable Design and Construction Supplementary Planning Document

The Sustainable Design and Construction SPD sets out the standards required to meet the vision, objectives and policies of the South Cambridgeshire Local Plan in a sustainable manner.

The SPD offers guidance on the implementation of the adopted local plan and provides design considerations to improve the quality and design of new developments while reducing their environmental impact. This SPD is a material consideration when determining planning applications.

2010 - South Cambridgeshire District Design Guide SPD

South Cambridgeshire District Council

The South Cambridgeshire District Design Guide SPD sets out important design principles based on recognised best practice and explains the key requirements of the District Council that will be taken into account when considering planning proposals. This SPD was adopted to support previously adopted development plan documents which have since been superseded by the South Cambridgeshire Local Plan. However, the SPD remains a material planning consideration.

NEIGHBOURHOOD AREA CONTEXT

02

2. NEIGHBOURHOOD AREA CONTEXT

This section presents a snapshot of the Neighbourhood Area today to inform the design objectives of the design guidance and codes. It provides an overview of Harston's heritage, landscape, movement network and built form.

2.1 HERITAGE

2.1.1 HISTORIC ORIGINS AND PATTERN OF SETTLEMENT

Harston lies five miles from Cambridge, in the valley of the Cam, or Rhee. The name of the village has evolved from different spellings, the closest to present day usage is Hares-town. Harston and other surrounding villages are said to have been the hunting ground of Queen Elizabeth I.

Evidence of settlement at Harston reveals Bronze Age, Iron Age and Anglo-Saxon settlements in the vicinity of Harston Mill where settlers took advantage of flat land overlaid with alluvium by the River Rhee, drier chalk lands to the east and a river crossing point. At this time, the main routeway ran east-west linking the important prehistoric Mare Way to the west with villages to the east. In medieval times the village spread along what is now Church Street forming the old historic core. At the west end of Church St was the mill, church, rectory and manor house and then several large and small farms were strung along the route with small labourer's cottages in-between.

The north-south route through the village (now the High Street/ A10) came much later and crossed the east-west route at The (Swan) Green which had become the centre of the village. The A10 was always bustling with travellers from Cambridge to London in wagons, carts and coaches and the inns catered for passengers and traders of all kinds. The Swan Inn was the main coaching Inn by The Green but burnt down in 1928. Other services (saddlers, bakers, butchers, Post Office) were found around the Green and War Memorial Green until early-mid C20th by which time shops and pubs were largely centred in southern half of High St near the Village Hall which had been erected in 1920.

Building on the east side of the High St happened only after enclosure of fields (1802) with initially a few large detached houses followed by later ribbon development to the north, and estates or cul-de-sacs to the east. Many of the large residences set back from the High St on the west side were on long plots, once small farms or small holdings with chickens and orchards until mid C20th. By the end of C19th the northern extent of the village was marked by a (Brickfield) lane, just past the present day petrol station. After 1900 the land beyond the petrol station was divided into 1 acre plots and sold off for detached houses for the better off – sometimes for people moving out of Cambridge in retirement.

This historic character is supported by the 16 listed buildings and over 45 buildings of local interest (local heritage assets).

2.1.2 DESIGNATED HERITAGE ASSETS

As before mentioned, the parish is home to 16 listed buildings, which are detailed below and pointed out on the next page. Many of the designated assets and local heritage assets are found along Church Street, the historic core, and around Park House on the High Street.

- CHURCH OF ALL SAINTS. Listing Grade: II*. List UID: 1331060
- OLD VICARAGE. Renamed Rhee House. Listing Grade: II. List UID: 1331078
- MANOR HOUSE. Listing Grade: II*. List UID: 1127877
- 41, CHURCH STREET. Listing Grade: II. List UID: 1164608
- 53, HIGH STREET, Listing Grade: II. List UID: 1127836
- MILESTONE ON THE GREEN. Listing Grade: II. List UID: 1127835
- THE OLD BAKEHOUSE. Listing Grade: II. List UID: 1127876
- HARSTON HOUSE AND PART OF GARDEN WALL. Listing Grade: II*. List UID: 1317695
- WAR MEMORIAL. Listing Grade: II. List UID: 1392385
- BAGGOT HALL. Listing Grade: II. List UID: 1331081
- COACH HOUSE AND STABLE BLOCK TO NORTH OF PARK HOUSE. Listing Grade: II. List UID: 1272419

Figure 03: Harston House and Part of Garden Wall, Grade II* listed building.

Figure 04: Hope Cottage, listed building Grade II.

- HOPE COTTAGE. Listing Grade: II. List UID: 1472164
- YEW TREE COTTAGE. Listing Grade: II. List UID: 1127837
- PARK HOUSE STABLES. Listing Grade: II. List UID: 1331079
- MILESTONE OUTSIDE No 60. Listing Grade: II. List UID: 1331080
- PARK HOUSE. Listing Grade: II. List UID: 1390071

2.2 GREEN INFRASTRUCTURE AND VIEWS

2.2.1 LANDSCAPE CHARACTER AND STATUTORY DESIGNATIONS

Harston is a village that is surrounded by arable farmland in the gentle rolling hills of the south Cambridgeshire countryside. Historic maps suggest that the land surrounding Harston has been farmed for centuries. As well as this, much of the land surrounding the settlement lies within the Cambridge Green Belt. The purpose of a Green Belt is to retain areas of undeveloped, wild, or agricultural land surrounding urban areas.

There are two County Wildlife Sites within the parish as well as a scattering of deciduous woodland which further highlights the value of the green infrastructure surrounding Harston. As well as this the primary school field is designated as a Protected Village Amenity Area.

Many of the roads and streets are tree-lined with grass verges. There is a considerable number of single and groups of Tree Preservation Orders along the High St and The Limes as well as many significant tree groups that occur elsewhere, particularly round listed Harston House and Baggot Hall.

2.2.2 VIEWS AND VISTAS

There are a variety of important views in the parish of Harston. These views may be valuable because they contain a distinctive building or land feature.

Harston village lies below a chalk ridge to the southeast and is approached from all directions.

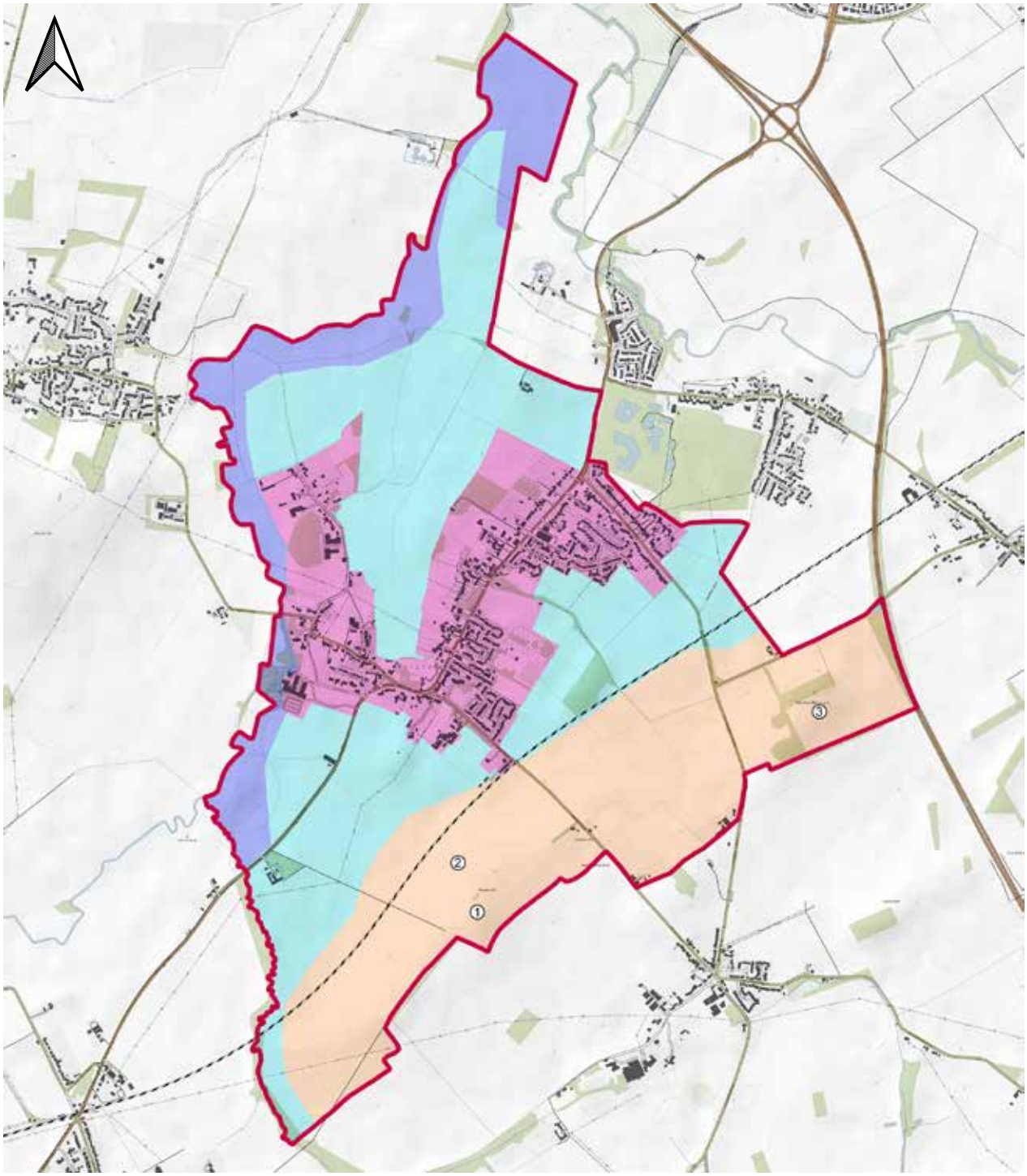
LANDSCAPE CHARACTER

Harston parish has three different landscape character areas:

Harston chalklands are largely east of the village, beyond the railway, containing a series of gently rolling hills. It has a low point of 15m AOD in the north, 43m at St Margarets Mount and a high point of 50m AOD at Rowley's Hill to south east. Harston village can be viewed from the chalklands.

Harston farmlands area is largely to the north and south of the village and has an open character, often with extensive views. It is a productive, intensively farmed, predominantly arable landscape comprising medium to large, generally rectangular fields. These are enclosed by a fragmented network of low, mature hedgerows or straight ditches with few trees. Small scale fields found at the edge of village, including pastures to east, south and west, with fragments of orchards east of Harston, give a localised intimate character and visual enclosure.

Harston meadow lands (in west) are found along the River Rhee Valley which has a narrow flat floodplain. Riparian trees (including willow and poplar) are found along the river courses and these combine with grazing meadow and infrequent blocks of scattered woodland to create a simple, small scale landscape which is largely visually enclosed by trees, so views are generally short.



Basemap data: © OpenStreetMap contributors, SRTM; Basemap cartography: © OpenTopoMap (CC-BY-SA). Harston Character Areas adapted from regional landscape character typology data from Greater Cambridge Landscape Character Assessment © Chris Blandford Associates 2021.

Figure 05: Harston Landscape Character Areas

2.3 MOVEMENT NETWORK

Just on the edge of the parish is the M11 which is a major route connecting Cambridgeshire with London and is one example why the area is popular for commuters.

The A10 is a route that has dominated the pattern of development over the years in Harston. The road itself is a primary route connecting Cambridge and Royston, with a linear streetscape. Over the years the village has began to grow out from the A10 into small housing estates, an example of which being the Queens Close area. Church Street and London Road, while not as busy, are also key roads that connect Harston with neighbouring parishes.

There are wide pavements on the side of the A10 which are shared pedestrian and cycle spaces. This encourages active transport and people to cycle into Cambridge as opposed to driving and adding to the already busy A10. Two short alley ways connect the A10 to parts of the housing estates on east side of High Street.

Six well-used public footpaths link the village to the surrounding countryside and to the villages of Barrington, Haslingfield, Hauxton and Newton. Some are also used by local horse riders.

The Footpath provides an invaluable short cut between Church St and Button End.

Figure 06: View from the A10 going into the Old Core.

Figure 07: Example of a small alleyway to allow for greater pedestrian flow.

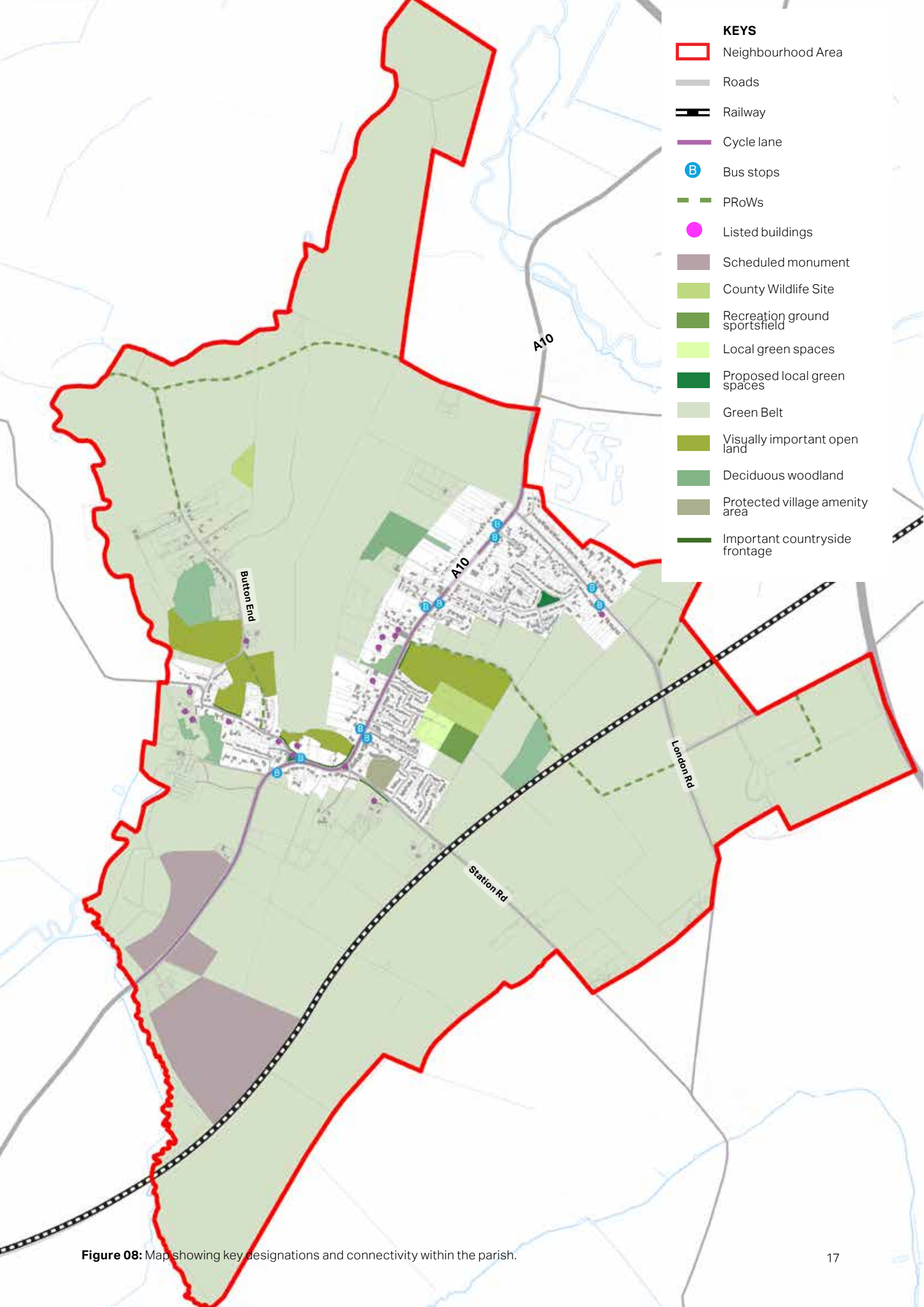


Figure 08: Map showing key designations and connectivity within the parish.

2.4 BUILT FORM AND LAND USE

2.4.1 LAND USE, FACILITIES AND SERVICES

Development takes the form of clusters, estates, cul-de-sacs, and linear development along roads such as the A10. However, there is a scattering of other uses throughout the parish, mostly along the A10. Some of these include: The Queens Head, BP, Porsche Centre Cambridge, and the Village Hall. Elsewhere in the village there is the Primary School, the Parish Church and the Baptist Church which now runs a Food Hub.

On the outskirts of the village, in Button End, there is a small industrial site and just off Royston Road there is the Sagentia site, which both provide job opportunities. Finally, there are two main farms within the parish, but several other smallholdings.

2.4.2 BUILT FORM

Harston's built form varies significantly by character area. From the large setbacks of the High Street with deep plot sizes and large overhanging trees to the more tightly packed houses within the 1970s estates, which are much closer to the street. The exact typologies of each area are shown in Figure 12 and explored in more details in Chapter 3.

Figure 09: The Queens Head pub, principally a Thai restaurant

Figure 10: Porsche Centre Cambridge.

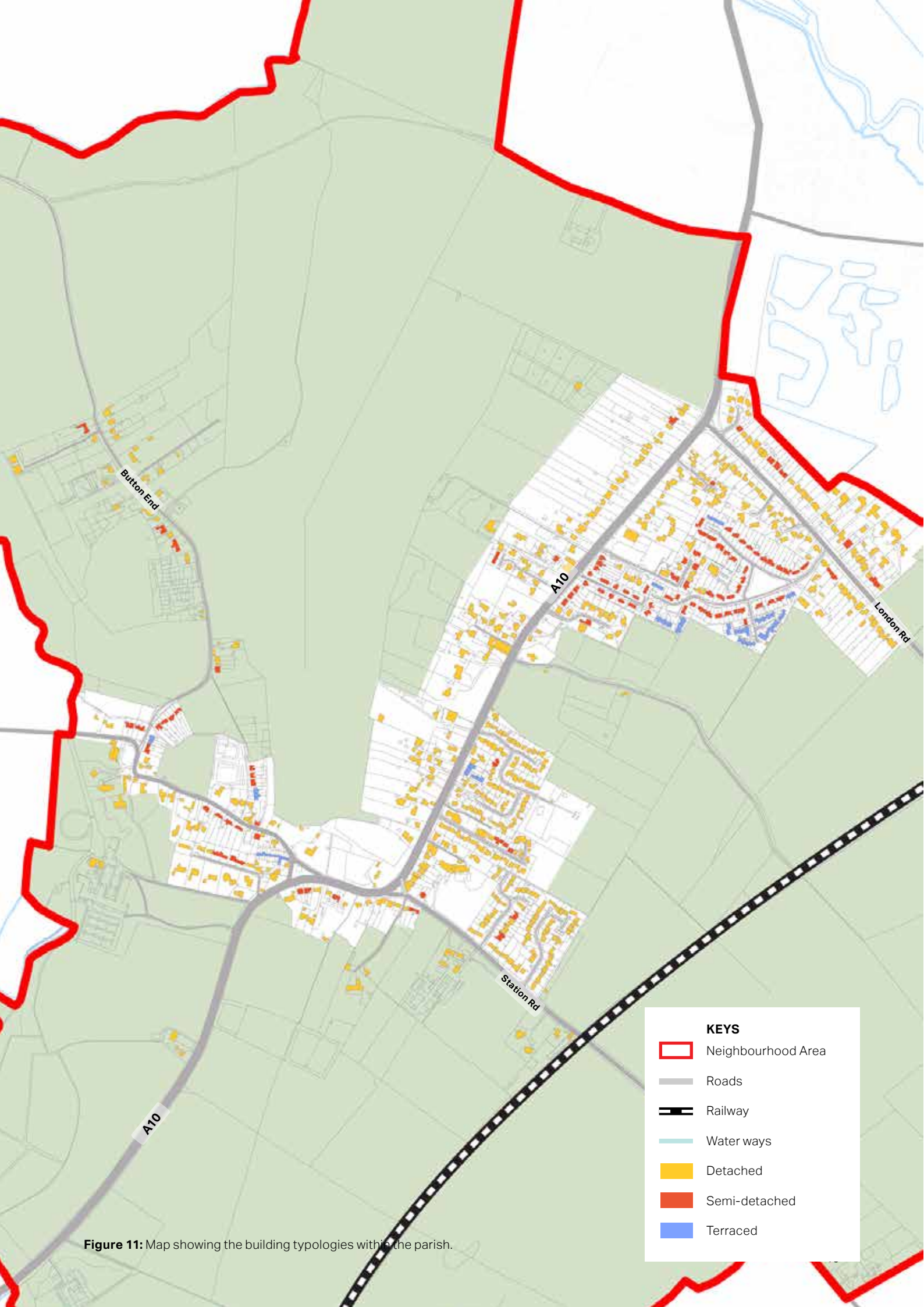


Figure 11: Map showing the building typologies within the parish.


CHARACTER STUDY
03

3. CHARACTER STUDY

This section outlines the character areas of Harston. These areas vary in character primarily due to their location, setting and period of development.

3.1 DEFINING THE CHARACTER AREAS

There are eight character areas in the Neighbourhood Area. These character areas have been listed and illustrated on the plan, overleaf.

The character areas were informed by the context of the Neighbourhood Area, and represent underlying characteristics which are influenced by the location and period of development. The community also helped shape the character areas, through guidance and feedback from the HNPWG.

1 BUTTON END

2 OLD CORE

3 MILL ROAD

4 HIGH STREET SOUTH

5 HIGH STREET NORTH

6 20TH CENTURY HOUSING

7 LONDON ROAD

8 1930'S - 1950'S HOUSING

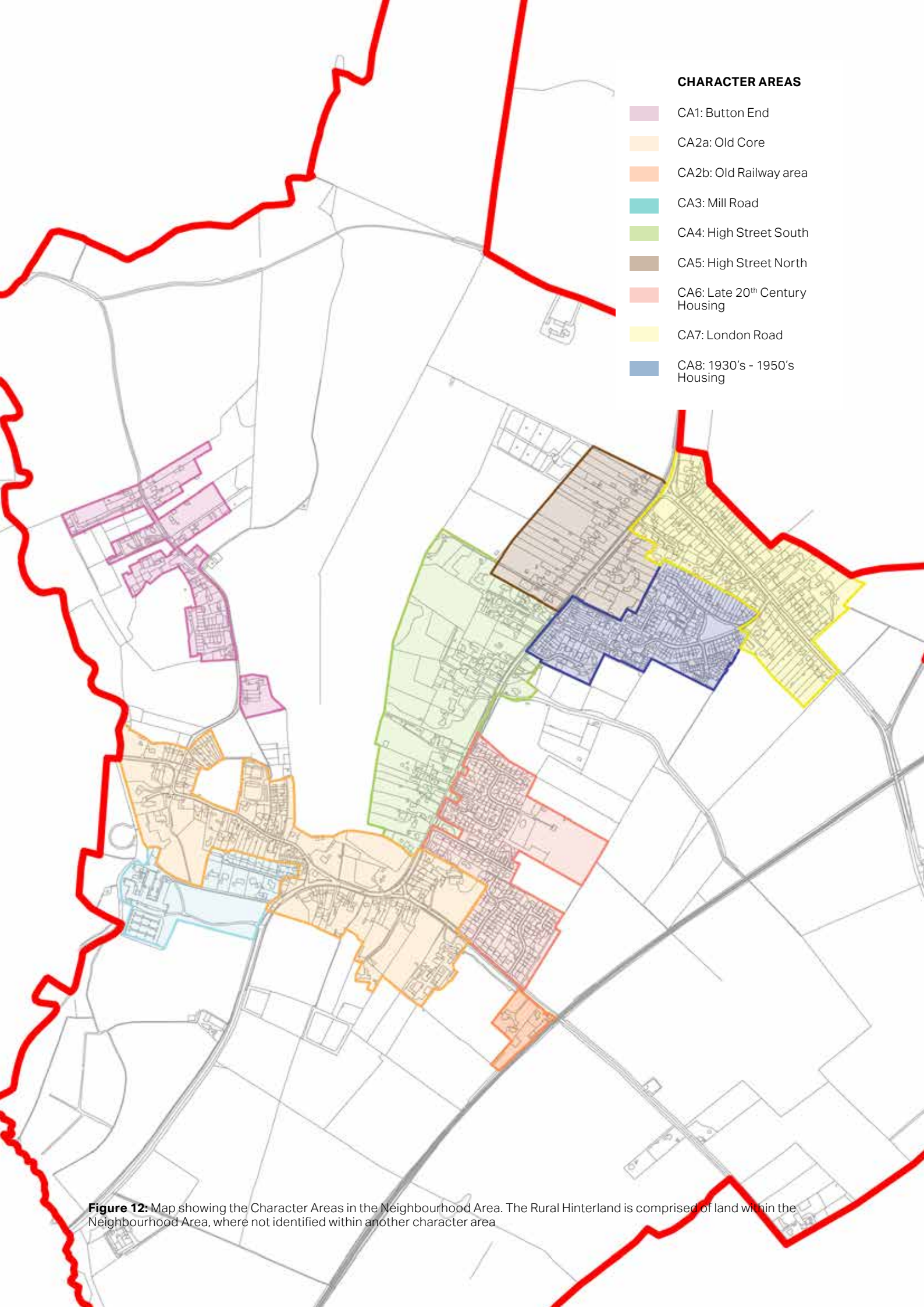


Figure 12: Map showing the Character Areas in the Neighbourhood Area. The Rural Hinterland is comprised of land within the Neighbourhood Area, where not identified within another character area

1

3.2 CA1: BUTTON END

Button End is a rural road located on the western edge of the parish. It is a road that transitions between the settlement and the Cambridge Green Belt. As a result of this there is a rural feel to the character area.

There is a mix of linear residential development, small traveller community site and commercial estates that provide job opportunities.

Land Use	Along the road there is a mix of residential and some commercial uses providing employment; the latter on land of former gravel pit workings.
Layout of Streets, Buildings and Plots	It was originally an old route linking Harston and Haslingfield. A rural lane (unclassified road) within the green belt. It winds along to the North rising gently towards its end with little definition to the road. There is only kerbing and a footpath on a very small stretch of the road. On either side of the bitumen strip there are at intervals grass verges with boundaries of tall hedges and scattered trees.
Built Form Scale, Height and Roofline	The houses vary from older 2 storey terraced and semi-detached largely at its southern end to detached houses or bungalows with pitched roofs moving northwards, mostly set apart in large gardens with soft boundaries of hedges and trees. Many 1-1.5 storeys have been built on subdivided farm land since 1930s.
Boundary Treatment	The boundary of properties on Button End is dominated by heavy vegetation in the form of high hedgerows and trees, which adds to the rural character of the area.
Architectural Vernacular	There are a variety of residential homes, some built with Cambridge brick, some with wood or rendered. A number have been extended.
Public Realm	The openness of Green Belt can be seen from numerous places along Button End and at its end there is an expansive 180 degree panoramic view of the countryside from Haslingfield on the North West swinging round to the North East. Button End is used by walkers, cyclists and horse riders to access the network of paths beyond the gate at its end. A well-used footpath links Button End to eastern end of Church St.

Figure 13: Hope Cottage, 2 storeys with thatched roof

Figure 16: Rose Cottage, 2 storeys with casement windows and pitched roof

Figure 14: Kenterl, single storey semi-detached

Figure 17: Parkfield converted commercial building

Figure 15: Honeybet, still original design built in late 20s/early 30s

Figure 18: Industrial units along Button End

2

3.3 CA2A & B: OLD CORE

Harston is a village with a rich history and that is supported by the number of listed properties that are scattered throughout the village. Historic maps suggest that there is a core area that has been settled in for centuries. Located on the south eastern edge of the village along Station Road is the old railway station area (CA2b). Since it became disused the area now contains mainly industrial units. The industrial area is well screened by trees and other vegetation in order to not detract from the view towards Harston from the countryside to the east.

As well as this there are two large detached houses set back from the road in a similar manner to those situated in the High Street.

Land Use	Primary residential area of Harston containing a mix of dwelling typologies. Other land uses include All Saints Parish Church, the cemetery, The Queen's Head pub/ restaurant and the Harston Surgery.
Layout of Streets, Buildings and Plots	Church Street is the main route from Harston to Haslingfield leading from The Green to the church and then over the river. It runs past the surgery and to the church before meandering around the old vicarage to the river. It has pathways and one alleyway linking residential pockets. Royston Road is wider and a lot busier as it is the main road connecting Cambridge with Royston. It has a very linear feel to it with buildings lining either side of the road. Church Street, however, suffers from traffic problems due to parking by the surgery and overlarge lorries using an inadequate width road. The streetscape has a very leafy feel to it with overhanding trees, hedgerows and grass verges lining Church Street and Royston Road. In places the tall hedges and overhanging trees create a sense of enclosure which makes for a more dramatic approach to the All Saints Parish Church and the triangular green. The layout of houses ranges from terraced houses by the Green to detached houses with large gardens by the river with houses set back from the road but with limited drives at the front and infilling at the back.
Built Form Scale, Height and Roofline	Buildings are most often 2 storeys in height with the exception of the Church. This allows the upper canopy of the trees to dominate the skyline, thus creating a rural feel to the character area. There is a mix of large detached and semi-detached properties throughout the Old Core area, as well as a scattering of terraced properties. Many of the historic listed buildings in this area are listed in the heritage section of the previous chapter.
Boundary Treatment	Low brick walls and timber fences are frequently used as a boundary treatment throughout the Old Core, however most prominent is vegetation in form of hedgerows which are often tall.
Architectural Vernacular	The houses are typically two storeys and the older buildings are timber framed; most are red brick or Cambridge brick. Fenestration ranges from horizontal sashes to vertical sashes to casement windows with roofs mainly tiled or slate.
Public Realm	Wide footpaths and grass verges in Royston Road create an environment that feels welcoming to pedestrians.

Figure 19: Hill View Cottage, white render with black sash window frames

Figure 22: Dove Cottage

Figure 20: Detached house in white render with a central porch and sash windows

Figure 23: Semi-detached 2 storey buildings with deep front gardens

Figure 21: The Queens Head, local restaurant. 2 storeys building with sash windows and a slated roof

Figure 24: Melbourn House, 40 Royston road. 3 storeys house with dormer windows; Cambridge brick with some ornate brickwork from 1870s and bay windows

Figure 25: White building with timber structure and hipped roof

Figure 28: White rendered building with timber structure and pitched roof

Figure 26: To the left: now a private dwelling, it was originally a post office. Originally detached, extended to No 7, once a butcher.

Figure 29: Semi-detached in buff brick with decorative elements in red brick

Figure 27: Terraced houses with coloured render frontages

Figure 30: Cottage with pitched roof, covered porch, sash windows and dormers

3

3.5 CA3: MILL ROAD

Mill Road and Pightle Close are two narrow cul-de-sacs located at the southern edge of the village. The area is home to the Sagentia business park which provides employment opportunities for the wider local area.

Land Use	Most of the buildings in the character area are of a residential land use. Cambridge Interactive Systems took over the derelict Mill in 1987 and restored it. Two more phases of modern buildings were added to create a courtyard focused on the Mill in a campus within 15 acres of countryside with trees and ponds. The group was called Scientific Generics, later on Sagentia. Further expansion in 2003/4 provided more laboratory & office space for R & D firms with over 400 jobs & parking spaces.
Layout of Streets, Buildings and Plots	Both Mill Road and Pightle Close are small cul-de-sacs that are located in the west of the parish adjoining Royston Road. Both streets have a rural feel to them and are characterised by forward facing large, detached properties. These properties are often well set back, with large front gardens and heavy vegetation as the boundary treatment. This further adds to the rural feel of the area. Mill Road houses used to look over open arable fields on the edge of the village, but when The Mill offices expanded and built a large car park and new road entrance, the soil was used to create a landscaped mound which was planted with trees to landscape the view to the south and soften the southern edge into the village.
Built Form Scale, Height and Roofline	Large detached houses are the most used building type within the character area. The land on which Pightle Close was built in 1960s was once an orchard abutting the parkland associated with Manor House, listed at grade II* to the west. Similar design 2 storey detached houses of Cambridge and red brick, with pitched roofs. The large 3 storey red brick 6/7 bedroom country houses on Mill Road, with gables and dormer windows in roofs, with triple garages, on half acre plots give a different character to that of the dwellings of Pightle Close.
Boundary Treatment	Properties are hidden behind tall hedges which creates an element of privacy for the large houses within the character area.
Architectural Vernacular	Buildings are mainly red brick with pitched roofs on Pightle Close and gable roofs with dormers on Mill Road.
Public Realm	Both of the roads are narrow and lined with heavy vegetation, with a pavement only in Pightle close.

Figure 31: Typical detached house with red brick, pitched roof and wide front garden along Mill Road

Figure 32: Detached house in red brick with a wide front garden

Figure 33: Pightle Close 2 storey detached house with garage. Well balanced hard and soft landscaped front garden

Figure 34: Detached house with central entrance and sash windows along Mill Road

Figure 35: Lane leading to Sagentia business park with hedgerows both sides

Figure 36: Pightle Close detached house in red brick with solar panel

4

3.6 CA4: HIGH STREET SOUTH

The High Street is located at the heart of the village and provides north to south connectivity along the A10 both towards Cambridge and Royston. It has a more diverse mix of uses compared to the residential nature of the rest of Harston.

Land Use	Whilst many of the buildings in the High Street are residential, there is also an array of other uses scattered along the road. These include the village hall, post office/ shop, a petrol station as well as other small business use buildings.
Layout of Streets, Buildings and Plots	The High Street runs straight North (NE) - South (SW), with the west side characterised by low density detached houses set in long narrow ancient C13th & C14th closes that may have been enclosed from ancient strips and used to face the Green field to the east (enclosed in 1802). This creates a linear feel to the character area. This is balanced by varying setbacks and street trees which provide interest to the street scene. The heavy vegetation also provides a buffer between the houses and the busy A10.
Built Form Scale, Height and Roofline	Buildings along the High Street are typically large and detached. While many of the buildings are 2/2.5 storeys in height with pitched roofs, the roofline is broken up by large trees, hedgerows and varying setbacks.
Boundary Treatment	Heavy shrubbery and mature trees border the A10 to both provide a buffer between properties and the busy road, as well as softening the feel of the streetscape.
Architectural Vernacular	There are a variety of materials used on the High Street including brick, wood and render. Some buildings have decorative brickwork around the window and door frames.
Public Realm	Despite the fact that the A10 is a road that is often busy with traffic, the High Street in Harston has wide footpaths on either side of the road that are designated for both pedestrians and cyclists. This encourages active transport in the area.

Figure 37: Detached building with buff brick and manicured front garden

Figure 40: Detached house with white render facade and decorative basement fascia in brick painted black

Figure 38: Detached house in buff Cambridge brick with side extension in timber

Figure 41: Well set back semi-detached houses with wide front gardens and tall hedgerows

Figure 39: Detached house with varied roofline in white render and decorative elements with buff brick

Figure 42: Well set back detached house with wide front garden and tall hedgerow

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3.7 CA5: HIGH STREET NORTH

The High Street North area is located on the western side of the northern end of the High Street and part of the east side where detached properties are set back with long gardens.

Land Use	All of the buildings in this part of Harston are residential.
Layout of Streets, Buildings and Plots	The main route running through the High Street North area is the A10 which, as mentioned before, is a very straight linear road with properties on either side. The buildings are well set back in long narrow plots of approximately 1 acre in size and well guarded by vegetation on the boundary. The soft edges creates a leafy feel to the A10 on the High Street in Harston despite the fact that it is a major route connecting Cambridge and Royston.
Built Form Scale, Height and Roofline	Properties in the area are most prominently 2 storeys in height and detached on large plots. There are a couple of bungalows located at the southern end of the character area and a pair of semi-detached houses further north. The relatively low building heights allows for the surrounding woodland in the character area to dominate the skyline and create buffers both between the houses and the A10 as well as the rear gardens and the open countryside.
Boundary Treatment	Heavy shrubbery and mature trees border the A10 to both provide a buffer between properties and the busy road, as well as softening the feel of the streetscape.
Architectural Vernacular	A mixture of buildings materials have been used, pale and red brick, the latter sometimes for ornamentation as with wood.
Public Realm	The public realm is dominated by the A10 which is a busy road. However, wide pavements provide safe passage for both pedestrians and cyclists away from the A10, although the large number of driveways adjacent to the pavement, that lack good sight-lines, can create a hazard for those using the cycleway.

Figure 43: Well set back detached house with well kept front garden

Figure 44: Well set back detached houses separated by a low hedgerow

Figure 45: Well set back detached house with high hedgerow to the right and a landscaped front garden

Figure 46: Well set back house with high hedgerow to the left

Figure 47: Semi-detached houses in brick and render with deep front gardens both extended to the sides.

Figure 48: Detached house with pitched roof

6

3.8 CA6: LATE 20 CENTURY HOUSING

At the eastern end of Station Rd, The Paddock long cul-de-sac (1969) and Lawrance Lea (1971) were constructed over a couple of years, a mixture of semi-detached and detached housing.

The Limes estate was built mid-70s off the eastern side of High Street, with Orchard Close built in 1990s and added to after 2011.

Land Use	Residential is the only land use within the 1970's estate area.
Layout of Streets, Buildings and Plots	Streets stem off from the High Street and typically have an estate style layout. The land is flat. The roads in the estates twist around several bends to eventually end in cul-de-sacs. The roads are bounded by pavements throughout with open mainly small landscaped front gardens behind the pavements, with off-street parking. There is an alleyway between The Limes and the High Street near the shop, and an alleyway between the Paddock and Lawrance Lea for ease of pedestrian movement. Although Orchard Close backs on to The Paddock no alleyway was provided to connect them. A ditch bounds the eastern edge of Lawrance Lea, the northern edge of the Paddock and goes along the southern boundary of Orchard Close.
Built Form Scale, Height and Roofline	There is a low-medium density of 2 storey houses which are set back a little and mostly have fenced back gardens with mature trees and shrubs on reasonable regular size plots. The majority of houses are 4 bed detached with a row of semi-detached 3 bed houses in the Paddock. All are 2 storey. Lawrance Lea and The Paddock had a scattering of 5-6 house designs, all with garages- single or double. The Limes has a little less variety although it retains some large trees along its streets. A number of houses have been extended over time creating a greater variety of styles.
Boundary Treatment	In the 1970's estates the property boundaries are typically defined by low hedges and front gardens. There are also low walls and timber fences used in places.
Architectural Vernacular	Materials vary from red to Cambridge brick, with weatherboarding and some rendering. Original large windows down to floor level typical of 1970s have often had the lower part bricked in. Roofs are pitched, although there are some flat roofs above single garages. Orchard Close has different designs as it was built much later and some houses are larger. Later ones include semi-detached and a small block of 3 apartments - built in brick rather than half rendered.
Public Realm	The public realm is dominated by the winding estate roads with pavements on either side of the road, grass verges and front gardens. Generous on-plot car parking provision means that the roads remain clear of vehicle clutter.

Figure 49: Typical house with white weatherboarding and pitched roof

Figure 50: The Limes: detached with red brick and painted render facade

Figure 51: Detached with ground floor in red brick and white render first floor

Figure 52: The Paddock: detached with white weatherboarding and red bricks. Well balanced soft and hard surfaced front garden

Figure 53: Red brick detached house with side extension and on-plot car parking

Figure 54: Detached houses with buff brick. The one to the left presents a side and front extension

7

3.9 CA7: LONDON ROAD

London Road is located to the north of the village adjoining the top of the High Street and connecting Harston with the nearby settlement of Newton.

High Meadow, located to the east of the High Street, has a similar layout to London Road. Large detached houses are arranged along a meandering lane with triple garages and large front gardens. Built with a combination of brick, timber and render and bounded by pasture fields with scattered tree boundary and a wooded bridleway to the south. The relatively recent development of the Pastures east off High St has similar if more dense layout to High Meadow.

Land Use	Predominantly large residential units, with some run-from-home businesses.
Layout of Streets, Buildings and Plots	There is a very linear feel to the London Road area with buildings lining either side of the road facing each other, creating a feeling of natural surveillance. There is a consistent building line which makes London Road feel slightly more uniform than the High Street. Plots in this area are very large and properties have generous gardens on either side of the building.
Built Form Scale, Height and Roofline	The predominant typology is 2 storey detached buildings, however there are a couple of semi-detached houses and bungalows scattered along London Road. The fact that the plots go very deep on the north-east side of the road means that in more recent years backland development has been a common occurrence in the character area. Here the gardens back onto a tree nursery/ private nature reserve which acts as a buffer between Harston and Hauxton.
Boundary Treatment	There is a range of boundary treatments including walls, fences, low and high hedges as well as mature trees. The Grass verges also help soften the landscape of London Road.
Architectural Vernacular	There is a wide mix of styles in the London Road character area due to development happening over different time periods. Typical building materials include: render, Cambridge brick, modern yellow bricks, slate tiles and concrete tiles. There is a combination of pitched and hipped roofs integrated into the streetscape.
Public Realm	London Road is a relatively wide road, however it has pavement on either side to aid the movement of pedestrians. As well as this, grass verges soften the feel of the overall streetscape.

Figure 55: Detached house with bay, casement and sash windows

Figure 58: Large size detached house in red brick and render with decorative timber elements and dormer

Figure 56: Single storey with hipped roof and chimneys

Figure 59: Detached house in buff brick with casement windows and solar panels

Figure 57: Well set back semi-detached housings, 2 storeys with hipped roofs

Figure 60: The Pastures. New development using traditional materials

8

3.10 CA8: 1930'S - 1950'S HOUSING

Historic maps show that throughout the 1930's and 1950's various infill developments between the High Street and London Road occurred. This has led to a slightly higher density residential area compared to the rest of the parish.

Land Use	The area is predominantly residential, with most of the other uses in the village being located on the High Street and the old core.
Layout of Streets, Buildings and Plots	This area is flat and almost totally residential with estates built mainly in 1930s and 1950s, with later C20th additions. Green Belt abuts these areas to the south/south east. The roads in the residential area are typically quite narrow with pavements on either side which encourages slow vehicle movement. Buildings are typically well set back creating an open feeling to the streetscape, however an exception to this is Meadow Way which has been built later at a much higher density than anything else in the village. Queen's Close was built around a triangular Green which gives a more open feel.
Built Form Scale, Height and Roofline	There is a mix of typologies within the character area. The most predominant is semi-detached, however there is a scattering of detached properties and a concentration of terraces in the Meadow Way area. The buildings are often 2 storeys in height with pitched roofs and similar setbacks, which creates a consistent roofline.
Boundary Treatment	There is a range of boundary treatments including walls, fences, low and high hedges as well as other mature plants. The grass verges also help soften the landscape of the area.
Architectural Vernacular	The architectural styles are synonymous of the 1930s and the 1950s using material such as red brick, Cambridge brick and render. Roofs are typically pitched using concrete tiles.
Public Realm	Footpaths in the area are narrow and there is a small green at the crossroads on Queens Close. There is a small alleyway that links Queen's Close to the High Street via Manor Close encouraging active travel between the areas. Meadow Way has parking areas away from the residences with walkways and green spaces between groups of houses.

Figure 61: Semi-detached houses with narrow landscaped front gardens

Figure 64: Semi-detached houses with hipped roof and small front gardens

Figure 62: 2 storey semi-detached houses with narrow front garden

Figure 65: 2 storey semi-detached houses with buff brick

Figure 63: Terraced houses with pitched roof and solar panel overlooking a local green space

Figure 66: 2 storey terraced houses in a higher density arrangement

DESIGN OBJECTIVES

04

4. DESIGN OBJECTIVES

This section outlines the design objectives, which were influenced by the contextual analysis, character study and community engagement process.

The three design objectives provide holistic and high level guidance and apply to development in the whole Neighbourhood Area. The design codes in the next chapter, are classified into the design objectives and set out more specific design guidance.

4.1 INTEGRATE DEVELOPMENT WITH THE HISTORICAL ARCHITECTURE

The historic features of Harston's built character, including rooflines, windows and doors, are varied, contributing to a quaint village feel. This variation also provides architectural interest along the High Street as well as Church Street and the residential streets. There are certain unifying elements, such as the consistent material palette, roofline, building line and building scale, which combine to create a varied but complementary built character. Some newer developments consist of uniform buildings with a limited architectural material palette, which is not characteristic of Harston as a whole.

4.2 CONTRIBUTE TO THE RURAL VILLAGE CHARACTER AND LIFESTYLE

The historic, rural settlement layout of Harston is defined by narrow and deep plots with varied building types along Church Street and the majority of the High Street. Church Street has continuous frontages creating an enclosed built form, which becomes dispersed creating a rural sense of character when approaching Button End. The edges of the settlement are more dispersed, where buildings behind hedgerows, hedges and trees blend in with the surrounding landscape in the Green Belt. London Road, with mainly detached and semi-detached housing, is also defined by a continuous frontage with deep front gardens.

The village expanded mainly eastwards, where cul-de-sac developments were introduced from the 30s.

Enclosed pastures surrounding the village provide home to local horses and promote riding in the local area. Access to these green spaces, particularly the open countryside and the Public Rights of Ways, are a part of the Harston lifestyle.

4.3 PROTECT AND ENHANCE THE LANDSCAPE SETTING

Harston's landscape setting is formed by open countryside, mature trees and hedgerows, which provide a sense of enclosure and a rural character.

Views to these open spaces and landscape features, and roads confined by hedgerows, make an important contribution to the landscape setting of Harston.

DESIGN GUIDANCE AND CODES

05

5. DESIGN GUIDANCE AND CODES

This section sets out the design guidance and codes that should be used to improve the design quality of development coming forwards in the Neigbourhood Area. This design guide supplements the Neighbourhood Plan, local and national planning policy and guidance on design.

Development in the Neighbourhood Area should demonstrate how best practice design guidance contained in national and local policy and guidance documents, including this design guide, has been considered in the layout, architectural and landscape design.

5.1 INTRODUCTION

This section identifies design guidance and codes for development in the Neighbourhood Area to have regard to. They are organised under the four design objectives for the Neighbourhood Area.

- **LA:** Local Architecture
- **RV:** Rural Village
- **LD**: Landscape Design
- **SU:** Sustainable Design

The design guidance and codes apply to the whole Neighbourhood Area. In some instances, guidance and codes may be more relevant to certain character areas.

5.1.2.1 WHEN TO USE THE CODES

The table overleaf identifies when guidance and codes for each theme should be considered by those promoting development. A prefix has been created for each theme to allow simple application and referencing of the design guidance and codes.

Code	Prefix	When to use the code
Local Architecture (LA01)	LA01.1	**Building height, scale and roofscape.** Code to be applied when determining the height and roofscape of development in the Neighbourhood Area.
	LA01.2	**Fenestration and architectural details.** Code to be applied when determining the fenestration and architectural details of development in the Neighbourhood Area.
	LA01.3	**Architectural materials and colour palette.** Code to be applied when determining the architectural materials and colour palette of development in the Neighbourhood Area.
	LA01.4	**Building modifications, extensions, and plot infills.** Code to be applied when determining the building of infills, modifications and extensions in the Neighbourhood Area.
Rural Village (RV02)	RV02.1	**Village streets.** Code to be applied to development that proposes new streets in the Neighbourhood Area.
	RV02.2	**Plot and building layout.** Code to be applied to development that proposes new plots, new buildings or extensions in the Neighbourhood Area.
Landscape Design (LD03)	LD03.1	**Landscaping.** Code to be applied to development in the Neighbourhood Area to ensure locally distinctive and wildlife friendly landscape design.
	LD03.2	**Boundary treatments.** Code to be applied to development in the Neighbourhood Area to ensure locally distinctive boundary treatments.
Sustainability (SU04)	SU04.1	**Building fabric thermal mass**. Code to be applied when determining the thermal mass of development in the Neighbourhood Area.
	SU04.2	**Insulation.** Code to be applied when determining the insulation of development in the Neighbourhood Area.
	SU04.3	**Airtightness.** Code to be applied to ensure airtightness of development in the Neighbourhood Area.
	SU04.4	**Permeable pavement.** Code to be applied to ensure permeable pavement for development in the Neighbourhood Area.

Table 03: Application of design guidance and codes to development

LA01. LOCAL ARCHITECTURE

The District Design Guide notes that South Cambridgeshire consists of villages within the open countryside and the aim is to identify important design criteria for new development in rural context. Development may take a contemporary or traditional approach. However, pastiche designs that incorporate a poor-quality mix of historic styles and detailing should not be supported.

Development, whether traditional or contemporary, should integrate well with Harston's historical architectural character areas. All designs should be of a high-quality and sustainable.

Development proposals should provide specification on the architectural design, including materials, fenestration and detailing. Proposals should also demonstrate how the character of the local context, as defined by this design guide, has been considered.

LA01.1 BUILDING HEIGHT, SCALE AND ROOFSCAPE

Creating variety and interest in the roofscape is an important element in the design of attractive buildings and places.

Rooflines in Harston are varied, with maximum two storeys and a mix of gable and hipped roofs. There are some small clusters of consistent roofline, but this is not commonplace.

Roof materials and detailing features are also varied, and include stone tiles, clay and concrete pantiles. Chimneys create a consistent feature of the skyline, but they are simple in form.

The varied building height and roof elements make an important contribution to defining the character of the Neighbourhood Area. Guiding principles for development to consider in order to achieve a well-designed roofscape include:

01. Ensure the height of development responds to the surrounding buildings, street width and sense of enclosure, topography and mature vegetation;
02. The heights of buildings should follow the existing heights and be lower than the mature tall trees;
03. Ensure the roof design integrates with the surrounding development or creates a new roofscape;
04. Design the scale and pitch of the roof to be in proportion with the dimensions of the building.

05. Deliver a locally distinctive roof design by including:

05.01. Variety in form along the street, including hipped and front facing gable roofs, and dormers;

05.02. Simple chimneys and decorative features for visual interest;

05.03. Subtle changes in rooflines, avoiding stark transitions; and

05.04. Locally distinctive roof materials (refer to **Figure 81**).

Figure 67: Example of varied pitched roofs on the High Street

Figure 68: Example of hipped roofs along London Road

Figure 69: Example of pitched roofline along Royston Road

LA01.2. FENESTRATION AND ARCHITECTURAL DETAILS

There are a range of architectural features and detailing in the Neighbourhood Area. For example, sash and casements windows, decorative lead flashing, porches and bay windows.

The intricacies of the architectural features and detailing in the Neighbourhood Area are locally distinctive. They provide visual interest and reduce the scale and bulk of buildings. The use of architectural features and detailing is of particular importance given the discrete architectural material palette that is distinctive of the Neighbourhood Area.

Guiding principles for development to consider to achieve locally distinctive design include:

01. Locally distinctive fenestration and detailing in the design of new development, drawing on examples of listed buildings within the Neighbourhood Area. However, avoid mixing historic styles;
02. Development involving multiple houses should ensure a variety of detailing is utilised across the development to provide visual interest along the street and avoid homogeneous building designs; and
03. Detailing on roofs and facades to minimise the bulk and scale of buildings, for example ornate brickwork around fenestration and across walls.

Figure 70: Well proportioned sash windows and centred protruded porch painted in olive green on a cream painted brick frontage

Figure 71: Mix of casement and sash windows with a bay window at the ground floor.

Figure 72: Traditional porch with piched roof covered with pantiles

Figure 73: Solid and decorative porch

Figure 74: Porch, sash, bay windows and dormers

Figure 75: Variety of sash windows

Figure 76: Recessed porch and casement bay windows with dormers

LA01.3 ARCHITECTURAL MATERIALS AND COLOUR PALETTE

There are a range of materials used within the Neighbourhood Area. However, the historical palette is fairly restrained, with strong roots in the typical Cambridgeshire architectural vernacular.

Common wall materials in the Neighbourhood Area are red and buff brick, white, light grey and creamy-white render, some of which have exposed timber frames. More recent development utilises a creamy-white render, which has less visual glare in the sunlight compared to white render. Some buildings have used more colourful tone of render, especially along Church Street. Some timber weatherboard, usually white or light grey, is also notable in the parish, particularly in development from the 70s and 80s.

Fenestration is generally timber painted white. However, there are examples of black, light grey, red and olive green accents.

The discrete material palette, alongside locally distinctive landscape designs that employ hedgerows and open countryside, is locally distinctive.

Guiding principles for development to respond to the local character include:

01. Demonstrate that the material palette reflects the local character of the Neighbourhood Area (refer to Figure 81).

Figure 77: White render and black sash window frames. Protruding enclosed porch.

Figure 78: Creamy render facade with recessed porch in olive green. Sash and bay windows with olive green painted frames.

Figure 79: Brown brick and weatherboarding timber painted white facade.

Roof Materials

Dark stone tiles

Stone tiles

Reconstituted stone tiles

Clay roof tiles in muted brown-red

Concrete tiles

Thatched roof

Stonework and Wall Materials

Cambridge buff brick

Red brick

Render

Pebbledash render

Weatherboarding timber painted white

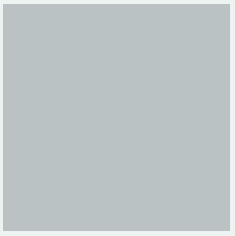
Wooden frame

Painted Wood Colours

White

Olive green

Black



Grey

Figure 80: Locally distinctive materials and colour palette

LA01.4 BUILDING MODIFICATIONS, EXTENSIONS, AND PLOT INFILLS

There are a number of principles that residential extensions and conversions should follow to maintain character:

01. Certain additions and/or alterations can be carried out without needing to obtain formal planning permission. They benefit from deemed consent, more commonly known as permitted development.
02. The original building should remain the dominant element of the property regardless of the scale or number of extensions. The newly built extension should not overwhelm the building from any given viewpoint;
03. Extensions should not result in a significant loss to the private amenity area of the dwelling or neighbouring dwellings;
04. Designs that wrap around the existing building and involve overly complicated roof forms should be avoided;
05. The pitch and form of the roof used on the building adds to its character and extensions should respond to this where appropriate.

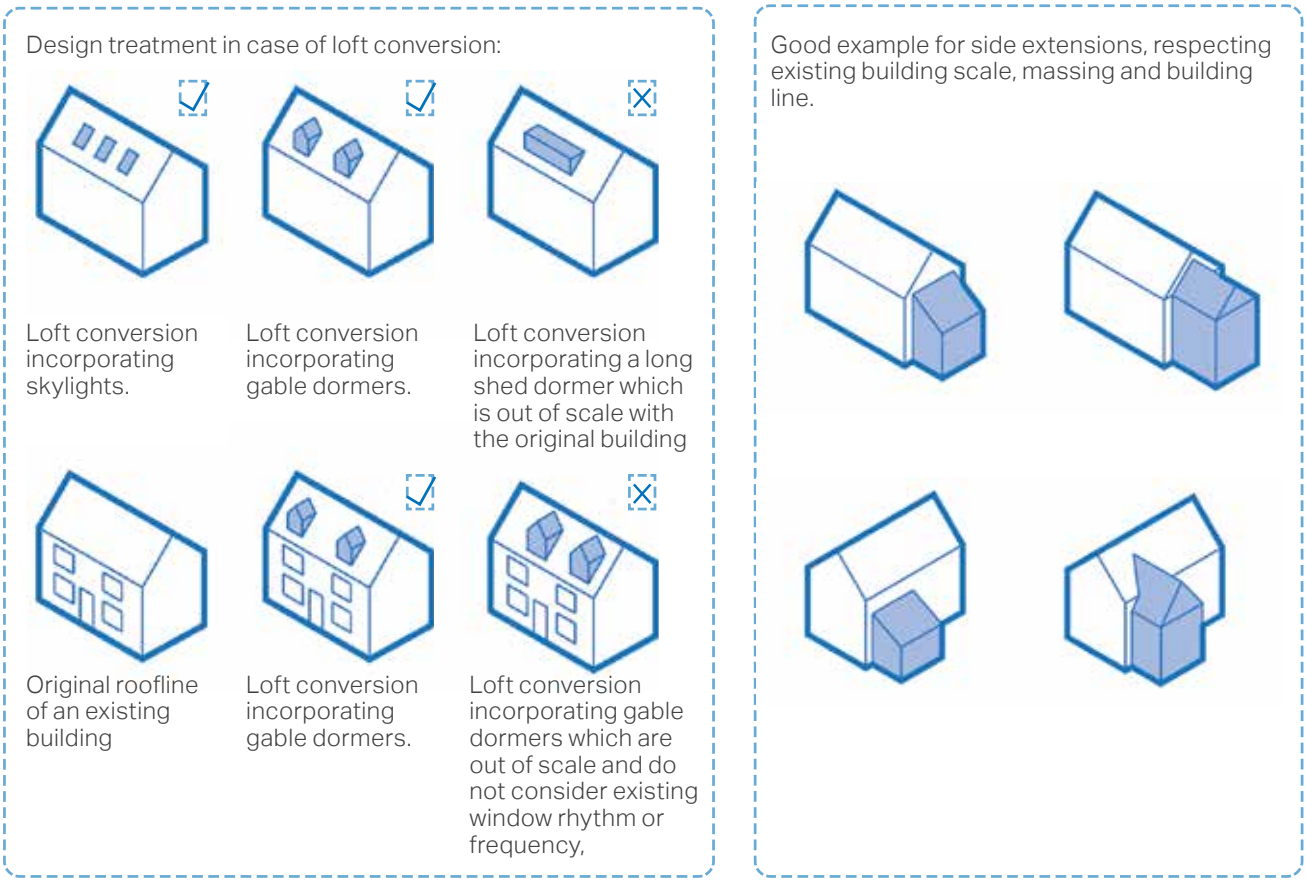


Figure 81: Some examples for different type of building extensions

06. Extensions should consider the materials, architectural features, window sizes and proportions of the existing building and respect these elements to design an extension that matches and complements the existing building;

07. In the 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;

08. In the case of rear extensions, the new part should not have a harmful effect on neighbouring properties in terms of overshadowing, overlooking or privacy issues;

09. Any housing conversions should respect and preserve the building's original form and character;

10. Where possible, reuse as much of the original materials as possible, or alternatively, use like-for-like materials. Any new materials should be sustainable and be used on less prominent building parts;

11. Any new infill development should ensure that the spacing requirements set out within this code are met and that the density, scale and appearance of the development reflects its immediate context and reduces impacts to the amenity of existing properties;

12. Infill developments within Character Areas 2 (The Old Core) and 4 & 5 (High Street) should carefully consider setback distances and building lines to ensure that there is no overlook between the existing property and the new infill;

RV02. RURAL VILLAGE

The layout of new development should maintain the rural character of Harston, which contributes to its friendly, village feel.

Connection and access to the rural landscape, particularly Harston open countryside and the Public Rights of Ways, are an important and highly valued part of the Harston setting and lifestyle.

Figure 82: View of the High Street (A10)

RV02.1 VILLAGE STREETS

Safe, attractive and integrated movement networks are based on streets that are permeable, legible, accessible and comfortable. Development should deliver a street network that demonstrates best practice design principles in addition to considering how to enhance Harston's rural lifestyle.

Royston Road and the High Street (A10) are more urban in nature, incorporating footpath(s), raised kerbs, road markings and tarmac surface material.

Streets and lanes within the Character Areas vary from more informal layout with open drains and swales, and tarmac or gravel surface material (CA4 & CA5) to a typical secondary connection and or with cul-de-sac, characterised by tarmac and footpaths (CA6 & CA8). Church Street and Button End have narrow carriageway and lack continuous footpath.

The following principles should be considered by development to ensure streets are locally distinctive:

01. Ensure streets are laid out to encourage connectivity, including direct access to key destinations such

as the High Street, school or recreation ground. Designers should collaborate with adjacent landowners and provide connections to existing and future development areas, particularly via walking and cycling routes;

02. Encourage public access to community facilities, green space and the countryside by ensuring publicly accessible streets are adjacent, and provide direct access and views, to these places;

03. Design streets to have the appearance of a rural village by incorporating:

    03.01. Gently, curving network of streets rather than rigid layouts;

    03.02. Narrow geometric street layouts that encourage active frontages, slow traffic and avoid large impervious areas;

    03.03. Minimal street furniture and road markings. The limited use of timber bollards and wayfinding signs that are already present in the Neighbourhood Area may be appropriate;

04. Landscaping along streets in the Neighbourhood Area, particularly with woodland, hedges and hedgerows, is a defining characteristic. Refer to Section LS03 Landscaping for guidance.

Figure 83: Secondary street with footpath both sides

Figure 84: Informal lane with gravel surface close to the High Street

Figure 85: Narrow lane in tarmac

RV02.2 PLOT AND BUILDING LAYOUT

Part of Harston's unique charm is the varied plot size, deep front gardens and building types, creating a diverse street scene. Harston presents quite distinct and varied Character Areas. The Old Core Character Area has sections of continuous, active frontages with narrow plot widths and enclosed layout. The High Street encompasses large front gardens with buildings set back and deep back gardens. Similarly, London Road is defined by semi and detached houses with generous front gardens and medium to deep back gardens. The north-east and south-east of Harston include development from the 30s until early 20 century. These two areas have a denser layout and smaller front and back gardens, usually served by secondary streets or cul-de-sacs.

The edges of the settlement, including Button End are more dispersed, where buildings behind hedgerows, hedges and trees blend in with the surrounding landscape. Open countrysides separate areas of development, which dilutes the density of the Neighbourhood Area. Views to these open spaces and landscape features make an important contribution to the sense of place.

The following principles should be considered by development to ensure the layout of plots and buildings are locally distinctive:

01. Layout plots and buildings to reinforce the small scale, historic character that provides the village feel of Harston;
02. Vary plot widths to allow for a mix of housing types along the street, which encourages a diverse community and creates visual interest;
03. Orientate buildings generally parallel to and overlooking the street and/or public space;
04. Establish a consistent building line, with subtle variations for visual interest. Infill development should be consistent with the existing prevailing building line of the street;
05. Maintain gaps between buildings for areas of landscaping and views to the rural landscape. These important green spaces maintain the balance between the rural areas and village;
06. Plot and building layouts, especially in CA4, CA5 and CA7 should provide deep front and back gardens. Front gardens should be of a depth that can support mature, large hedgerows while maintaining the solar access and visual aspect of the dwellings;
07. Plot and building layouts should allow for large spacious gardens that feature mature landscaping to filter buildings and car parking;
08. New development should reflect the

diversity and informality of the village taking inspiration form the Character Areas avoiding pastiche and replica;

09. New development should be contemporary and sympathetic to the character of the village in terms of scale, density, form, siting and proportion;

10. New development should incorporate open views from and to the countryside and local landmarks;

11. Soft edges should be incorporated at the interface with the countryside;

12. Front gardens should include tall trees, hedgerows and boundary treatment that are in line with Harston Character Areas. When hard surfaced areas are used, permeable materials are preferable to align with sustainable drainage and control surface water flooding;

13. Buildings should follow the alignment typical of the Character Areas they are located within. Linear or informal alignments are preferable over perimeter blocks[1], which are not typical of Harston.

Figure 86: Zoomed in map showing the range of typologies and plot parcels in Harston.

1 Perimeter block are successful layout applied in medium to high density area. They provide clarity between the front and the back of buildings, between public and private spaces and are very efficient in terms of development density.

LD03. LANDSCAPE DESIGN

Harston's landscape setting is formed by open countryside, mature trees, hedges and hedgerows, which provide a sense of enclosure and a rural character to the Neighbourhood Area.

The relationship between the village and the countryside is of a great value for the community and it is based on the following main aspects:

- The views to the countryside from east and west of the village as well as from Button End and south;

- The landscape setting of Harston, visually separated from the surrounding villages and Cambridge. Harston is surrounded by the open countryside and the majority of it sits in the Green Belt;

- The presence of tall mature trees, hedgerows and planting within the built environment of the village;

The landscape setting has an important visual relationship with the built environment and help the transition from the village to the countryside.

LD03.1 LANDSCAPING

Landscaping should be considered at the outset of development to ensure planting areas and species achieve good development outcomes.

The following principles are recommended for the landscape design of development:

01. Provide landscape areas of a sufficient size to support the establishment and growth of healthy vegetation. Avoid an over reliance on planting strips;
02. Utilise landscaping to mitigate impacts of development (i.e. visual, noise, urban heat island) on adjacent areas;
03. Encourage planting of new large trees and hedgerows in new development to contribute to the richness of the rural village;
04. Preserve existing vegetation (i.e. mature tall trees, hedges and hedgerows) as part of the landscape design to reinforce Harston's rural landscape character. If any trees are removed they should be replaced within new development;
05. Incorporate wildlife friendly features that support movement and habitat, particularly for hedgehogs. For example, holes in fencings/walls, gaps beneath gates, temporary houses and native planting;
06. Limit night pollution and protect night darkness, especially at the fringes of the built up area as well as within the Green Belt to protect wildlife;
07. Consider how the development layout can create wildlife corridors. For example, the layout of roads, ditches, front and back gardens, and green spaces;

08. Enhance road verges within residential areas by planting large tree species and hedgerows;

09. Encourage the use of trees, hedgerows and rural shrubs to frame a soft transition between the built environment and the open countryside;

10. Consider climate change and promote use of local species to ensure that new trees are selected to be resilient in a long term;

11. Protect and enhance the existing views from within the village to the open countryside (refer to 'Harston Locally valued views' report and maps for more details);

12. New development should retain existing boundary ditches, hedgerows and trees and include a buffer area around the existing development to ensure the countryside feeling is maintained.

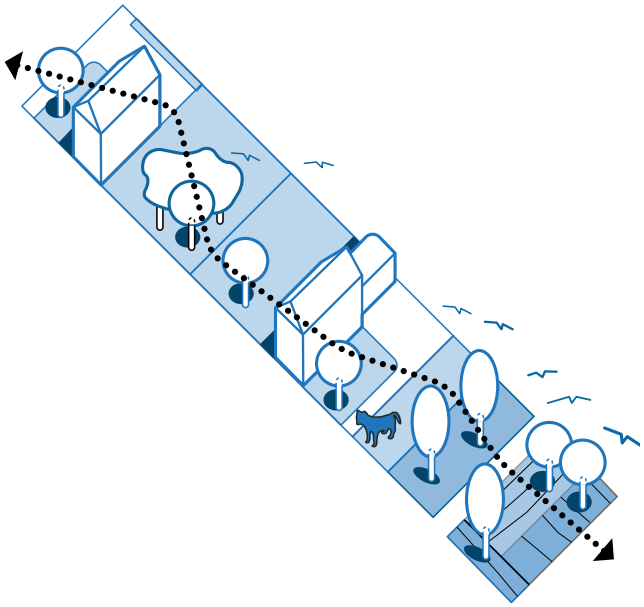


Figure 87: Diagram demonstrating how connected front and back gardens can enhance ecological connectivity for wildlife. Accompanying layout considerations with wildlife friendly features supports wildlife movement and habitat creation

Figure 88: Landscaped front garden with trees and low hedgerow

Figure 89: Landscaped front garden with trees, low hedgerow to the left and high hedgerow to the right

Figure 90: Low hedgerow along the High Street

LD03.2 BOUNDARY TREATMENTS

Hedgerow boundary treatments are a significant feature in Harston. Mature hedgerows provide spatial enclosure and screening as well as enhance privacy. They vary from tall to medium heights. The rural landscapes of the Neighbourhood Area incorporate hedgerows alongside the front gardens of some of the property as well as large mature trees where the front gardens are wide enough to incorporate them.

The following principles are recommended for the boundary treatment of development:

01. Boundary treatments should primarily consist of hedgerows. Some brick low walls with hedges as boundary treatments may be acceptable if they align with the prevailing character of the street and Character Area;

02. Landscaping of front and back gardens should be in accordance with the Character Area:

02.01. CA6 and CA8 contain lower hedgerows that maintain the connection between housing and the street, and reduce the dominance of vehicle access and parking areas. Some boundary treatments also incorporate low fences/walls;

02.02. CA4, CA5 and CA7 contains tall, large hedgerows that conceal housing and car parking areas from the street; and

02.03. CA1, CA4, CA5 and CA7 contains large landscaped gardens with hedgerows and trees that conceal buildings and car parking areas from the street.

Figure 91: Large landscaped garden with tall hedgerows and trees that conceal the building in CA1.

Figure 92: Example of tall and hedgerow that conceal housing and car parking areas from the street.

SU04. SUSTAINABILITY

The following section elaborates on energy efficient technologies that could be incorporated in buildings. Use of such principles and design tools should be encouraged in order to contribute towards a more sustainable environment.

Energy efficient or eco design combines all around energy efficient appliances and lighting with commercially available renewable energy systems, such as solar electricity and/or solar/ water heating and electric charging points.

SU04.1 BUILDING FABRIC THERMAL MASS

Thermal mass describes the ability of a material to absorb, store and release heat energy. Thermal mass can be used to even out variations in internal and external conditions, absorbing heat as temperatures rise and releasing it as they fall. Thermal mass can be used to store high thermal loads by absorbing heat introduced by external conditions, such as solar radiation, or by internal sources such as appliances and lighting, to be released when conditions are cooler. This can be beneficial both during the summer and the winter.

Thermal storage in construction elements can be provided, such as a trombe wall placed in front of a south facing window or concrete floor slabs that will absorb solar radiation and then slowly re-release it into the enclosed space. Mass can be combined with suitable ventilation strategies.

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 water-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

Existing and new build homes

A. **High levels of airtightness**

B. **Triple glazed windows and external shading** especially on south and west faces

C. **Low-carbon heating** and no new homes on the gas grid by 2025 at the latest

D. **More fresh air** with mechanical ventilation and heat recovery, and passive cooling

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

G. **Construction and site planning** timber frames, sustainable transport options (such as cycling)

H. **Solar panels**

I. **Electric car charging point**

Figure 93: Diagram showing low-carbon homes in both existing and new build conditions.

SU04.2 INSULATION

Thermal insulation can be provided for any wall or roof on the exterior of a building to prevent heat loss. Particular attention should be paid to heat bridges around corners and openings at the design stage.

Provide acoustic insulation to prevent the transmission of sound between active (i.e. living room) and passive spaces (i.e. bedroom). Provide insulation and electrical insulation to prevent the passage of fire between spaces or components and to contain and separate electrical conductors.

SU04.3 AIRTIGHTNESS

Airtight constructions help reduce heat loss, improving comfort and protecting the building fabric. Airtightness is achieved by sealing a building to reduce infiltration- which is sometimes called uncontrolled ventilation. Simplicity is key for airtight design. The fewer junctions the simpler and more efficient the airtightness design will be.

An airtight layer should be formed in the floor, walls and roof. Doors, windows and roof lights to the adjacent walls or roof should be sealed. Interfaces between walls and floor and between walls and roof, including around the perimeter of any intermediate floor should be linked. Water pipes and soil pipes, ventilation ducts, incoming water, gas, oil, electricity, data and district heating, chimneys and flues, including air supplies to wood burning stoves, connections to external services, such as entry phones, outside lights, external taps and sockets, security cameras and satellite dishes should be considered.

The diagram below illustrates some of these key considerations.

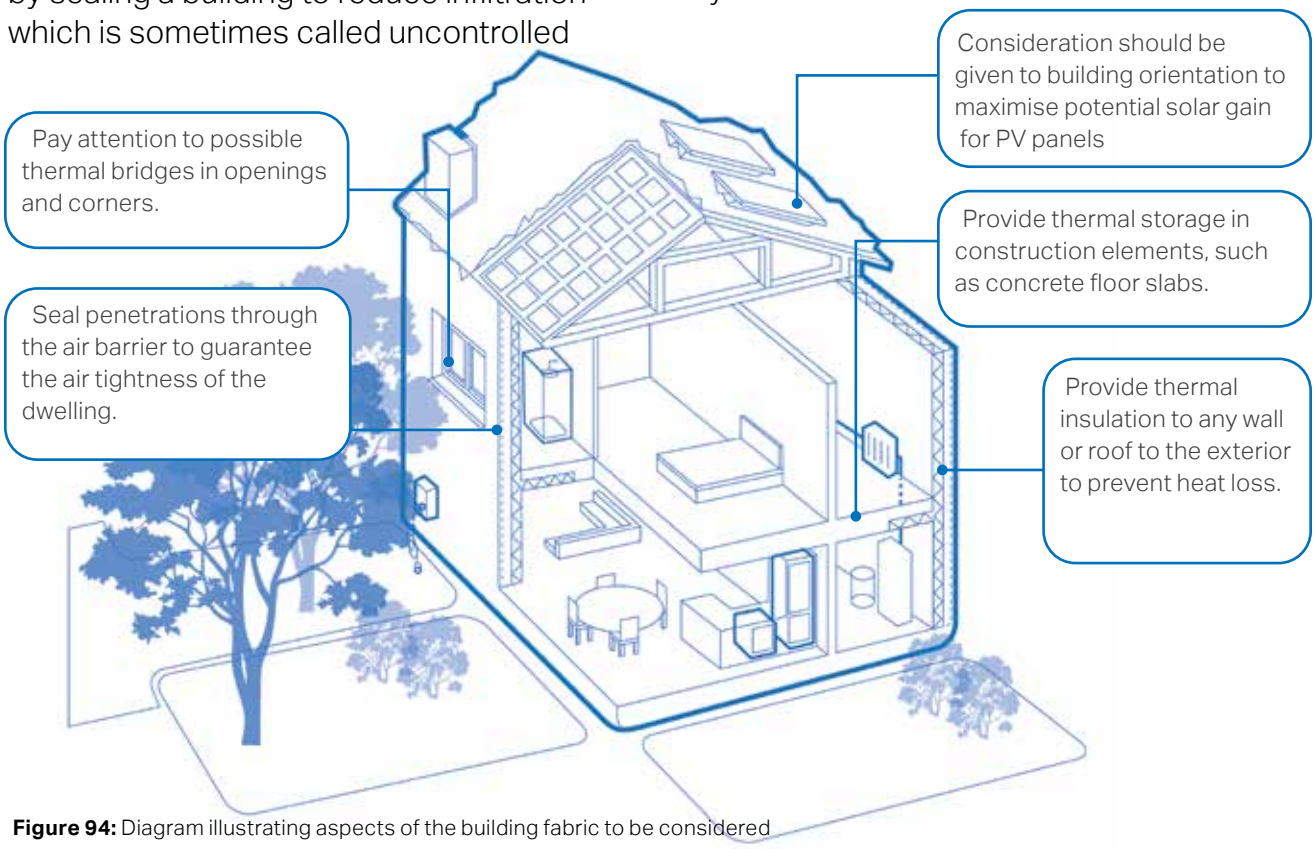


Figure 94: Diagram illustrating aspects of the building fabric to be considered

SU04.4 PERMEABLE PAVEMENTS

Most built-up areas, including roads and driveways, increase impervious surfaces and reduce the capacity of the ground to absorb runoff water. This in turn increases the risks of surface water flooding. Permeable pavements offer a solution to maintain soil permeability while performing the function of conventional paving. The choice of permeable paving units must be made depending on the local context; the units may take the form of unbound gravel, clay pavers, or stone setts.

Permeable paving can be used where appropriate on footpaths, public squares, private access roads, driveways, and private areas within the individual development boundaries.

It is recommended that the majority of the unbuilt areas in the plot (i.e. gardens) are permeable by means of landscape such as grass or earth as well as permeable and filtrating pavements. As a rule of thumb the % permeable area should be between 30% to 70% of the unbuilt areas.

In addition, permeable pavement must also comply with:

i. Flood and Water Management Act 2010, Schedule 3;

ii. The Building Regulations Part H – Drainage and Waste Disposal;

iii. Town and Country Planning (General Permitted Development) (England) Order 2015;

Regulations, standards, and guidelines relevant to permeable paving and sustainable drainage are listed below:

iv. Sustainable Drainage Systems - non-statutory technical standards for sustainable drainage systems;

v. The SuDS Manual (C753);

vi. BS 8582:2013 Code of practice for surface water management for development sites;

vii. BS 7533-13:2009 Pavements constructed with clay, natural stone or concrete pavers; and

viii. Guidance on the Permeable Surfacing of Front Gardens.

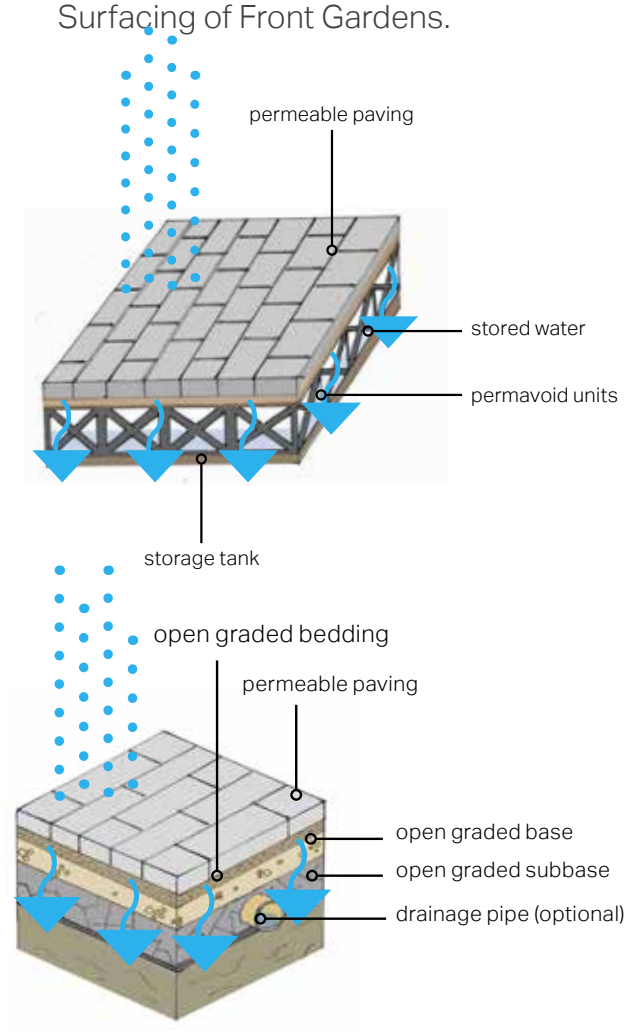


Figure 95: Diagrams illustrating the functioning of a soak away

6. CHECKLIST

As the design Guidelines and Codes in this section cannot cover all development scenarios, this concluding section provides a number of questions based on established good practice against which the design proposal should be evaluated.

The checklist can be used 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 as to whether the design proposal has taken into account the context and provided an adequate design solution.

As a first step there are a number of ideas or principles that should be present in all proposals. These are listed under 'General design guidelines for new development'. Following these ideas and principles, a number of questions are listed for more specific topics.

1

General design guidelines for new development:

- Integrate with existing paths, streets, circulation networks and patterns of activity;
- Reinforce or enhance the established settlement character of streets, greens, and other spaces;
- Harmonise and enhance existing settlement in terms of physical form, architecture and land use;
- Relate well to local topography and landscape features, including prominent ridge lines and long-distance views;
- Reflect, respect, and reinforce local architecture and historic distinctiveness;
- Retain and incorporate important existing features into the development;
- Respect surrounding buildings in terms of scale, height, form and massing;
- Adopt contextually appropriate materials and details;
- Provide adequate open space for the development in terms of both quantity and quality;
- Incorporate necessary services and drainage infrastructure without causing unacceptable harm to retained features;
- Ensure all components e.g. buildings, landscapes, access routes, parking and open space are well related to each other;
- 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;
- Positively integrate energy efficient technologies;
- Positively integrate green infrastructure in accordance with national design guidance to positively contribute to liveability, biodiversity and climate change resilience;
- Ensure that places are designed with management, maintenance and the upkeep of utilities in mind; and
- Seek to implement passive environmental design principles by, firstly, considering how the site layout can optimise beneficial solar gain and reduce energy demands (e.g. insulation), before specification of energy efficient building services and finally incorporate renewable energy sources.

2

Street grid and layout:

- Does it favour accessibility and connectivity? If not, why?
- Do the new points of access and street layout have regard for all users of the development; in particular pedestrians, cyclists and those with disabilities?
- What are the essential characteristics of the existing street pattern; are these reflected in the proposal?
- How will the new design or extension integrate with the existing street 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?

3

Local green spaces, views & character:

- What are the particular characteristics of this area which have been taken into account in the design; i.e. what are the landscape qualities of the area?
- Does the proposal maintain or enhance any identified views or views in general?

3

Local green spaces, views & character:

- How does the proposal affect the trees on or adjacent to the site?
- Can trees be used to provide natural shading from unwanted solar gain? i.e. deciduous trees can limit solar gains in summer, while maximising them in winter.
- Has the proposal been considered within its wider physical context?
- Has the impact on the landscape quality of the area been taken into account?
- In rural locations, has the impact of the development on the tranquillity of the area been fully considered?
- How does the proposal impact on existing views which are important to the area and how are these views incorporated in the design?
- Can any new views be created?
- 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?

3

Local green spaces, views & character:

- Will any communal amenity space be created? If so, how this will be used by the new owners and how will it be managed?
- Is there opportunity to increase the local area biodiversity?
- Can green space be used for natural flood prevention e.g. permeable landscaping, swales etc.?
- Can water bodies be used to provide evaporative cooling?
- Is there space to consider a ground source heat pump array, either horizontal ground loop or borehole (if excavation is required)?

4

Gateway and access features:

- What is the arrival point, how is it designed?
- Does the proposal maintain or enhance the existing gaps between settlements?
- Does the proposal affect or change the setting of a listed building or listed landscape?
- Is the landscaping to be hard or soft?

5

Buildings layout and grouping:

- What is the typical built pattern of buildings?
- How have the existing groupings been reflected in the proposal?
- Are proposed groups of buildings offering variety and texture to the townscape?
- What effect would the proposal have on the streetscape?
- Does the proposal maintain the character of dwelling clusters stemming from the main road?
- Does the proposal overlook any adjacent properties or gardens? How is this mitigated?
- Subject to topography and the clustering of existing buildings, are new buildings oriented to incorporate passive solar design principles, with, for example, one of the main glazed elevations within 30° due south, whilst also minimising overheating risk?
- Can buildings with complementary energy profiles be clustered together such that a communal low carbon energy source could be used to supply multiple buildings that might require energy at different times of day or night? This is to reduce peak loads. And/or can waste heat from one building be extracted to provide cooling to that building as well as heat to another building?

6

Building line and boundary treatment:

- What are the characteristics of the building line?
- How has the building line been respected in the proposals?
- Has the appropriateness of the boundary treatments been considered in the context of the site?

7

Building heights and roofline:

- What are the characteristics of the roofline?
- Have the proposals paid careful attention to height, form, massing and scale?
- If a higher than average building(s) is proposed, what would be the reason for making the development higher?
- Will the roof structure be capable of supporting a photovoltaic or solar thermal array either now, or in the future?
- Will the inclusion of roof mounted renewable technologies be an issue from a visual or planning perspective? If so, can they be screened from view, being careful not to cause over shading?

8

Household extensions:

- Does the proposed design respect the character of the area and the immediate neighbourhood, and does it have an adverse impact on neighbouring properties in relation to privacy, overbearing or overshadowing impact?
- Is the roof form of the extension appropriate to the original dwelling (considering angle of pitch)?
- Do the proposed materials match those of the existing dwelling?
- In case of side extensions, does it retain important gaps within the street scene and avoid a 'terracing effect'?
- Are there any proposed dormer roof extensions set within the roof slope?
- Does the proposed extension respond to the existing pattern of window and door openings?
- Is the side extension set back from the front of the house?
- Does the extension offer the opportunity to retrofit energy efficiency measures to the existing building?
- Can any materials be re-used in situ to reduce waste and embodied carbon?

9

Building materials & surface treatment:

- What is the distinctive material in the area?
- Does the proposed material harmonise with the local materials?
- 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?
- Does the new proposed materials respect or enhance the existing area or adversely change its character?
- Are recycled materials, or those with high recycled content proposed?
- Has the embodied carbon of the materials been considered and are there options which can reduce the embodied carbon of the design? For example, wood structures and concrete alternatives.
- Can the proposed materials be locally and/or responsibly sourced? E.g. FSC timber, or certified under BES 6001, ISO 14001 Environmental Management Systems?

10

Car parking:

- What parking solutions have been considered?
- Are the car spaces located and arranged in a way that is not dominant or detrimental to the sense of place?
- Has planting been considered to soften the presence of cars?
- Does the proposed car parking compromise the amenity of adjoining properties?
- Have the needs of wheelchair users been considered?
- Can electric vehicle charging points be provided?
- Can secure cycle storage be provided at an individual building level or through a central/ communal facility where appropriate?
- If covered car ports or cycle storage is included, can it incorporate roof mounted photovoltaic panels or a biodiverse roof in its design?

7. GLOSSARY

Building line: The line formed by the frontages of buildings along a street.

Built form: Buildings and structures.

Enclosure: The use of buildings and structures to create a sense of defined space.

Gateway: The design of a building, site or landscape to symbolise an entrance or arrival to a specific location.

Land Cover: The surface cover of the land, usually expressed in terms of vegetation cover or lack of it. Related to but not the same as land use.

Land Use: What land is used for, based on broad categories of functional land cover, such as urban and industrial use and the different types of agriculture and forestry.

Landscape: An area, as perceived by people, the character of which is the result of the action and interaction of natural and/ or human factors.

Landscape Character: A distinct, recognisable and consistent pattern of elements in the landscape that makes one landscape different from another, rather than better or worse.

Listed Building: A listed building is one that has been placed on the Statutory List of Buildings of Special Architectural or Historic Interest. There are three categories of listed buildings in the United Kingdom:

Grade I buildings, which are of exceptional interest and make up 2.5% of all listed buildings in the United Kingdom.

Grade II* buildings, which are particularly important buildings of more than special interest and make up 5.5% of all listed buildings in the United Kingdom.

Grade II buildings, which are of special interest and make up 92% of all listed buildings in the United Kingdom.

Rural: Relating to, or characteristic of the countryside rather than the town.

Setting: The context or environment in which something sits.

SuDS: Sustainable urban drainage. Used to slowdown the passage of water and often improve water quality.

Vernacular: The way in which ordinary buildings were built in a particular place, making use of local styles, techniques and materials and responding to local economic and social conditions.

Views: Views that can be seen from an observation point to an object (s) particularly a landscape or building.

Permeability: The 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.

Legibility: legible and well signposted places are easier for the public to understand, therefore likely to both function well and be pleasant to live in or visit. It is easier for people to orient themselves when the routes are direct and visual landmarks clearly emphasise the hierarchy of the place.

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