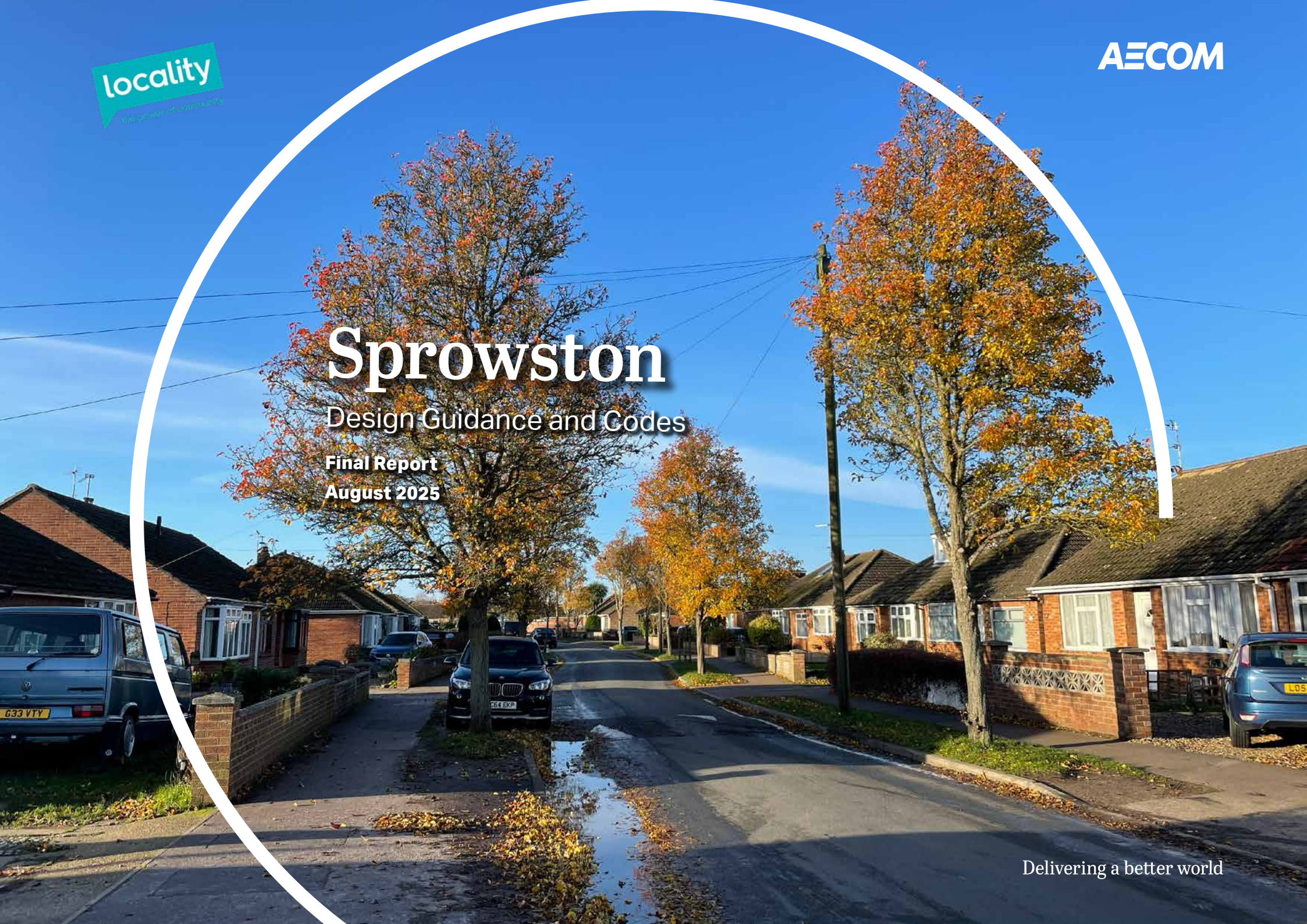

Sprowston

Design Guidance and Codes

Final Report

August 2025

Delivering a better world

Quality information

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Revision History

Issue no.	Issue date	Details	Issued by
1	09/04/2025	V1	Daniel Mather **Consultant Urban Designer**
	16/05/2025	Comments	Rachel Legget **Sprowston Steering Group**
2	20/06/2025	V2	Daniel Mather **Consultant Urban Designer**
	02/07/2025	Comments	Rachel Legget **Sprowston Steering Group**
3	04/07/2025	V3	Daniel Mather **Consultant Urban Designer**

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Introduction

01

1. Introduction

Through the Ministry of Housing, Communities and Local Government (MHCLG) Neighbourhood Planning Support Programme led by Locality, AECOM was commissioned to provide design support to Sprowston Town Council.

As the National Planning Policy Framework (NPPF) (paragraph 131) 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' (see **page 8**).

Following an analysis of Sprowston, a set of architectural and design qualities will be identified. This set of qualities, combined with good design practice, will form the design guidelines that development within Sprowston should follow in order to comply with this Spowston wide design guidance and codes document.

1.1 Purpose of this document

This document sets out design guidance and codes based on the existing features of Sprowston. The document is intended to sit alongside the Neighbourhood Plan to provide guidance for applicants preparing proposals in Sprowston and as a guide for Broadland District Council and the Town Council when considering planning applications.

1.1.1 What is Guidance versus Codes?

Design guidance identifies how development can be carried out in accordance with good design practice. Design codes are requirements that provide specific, detailed parameters for development. Proposals for development within Sprowston should demonstrate how the guidance has informed the design and how the design codes have been complied with. Where a proposal cannot comply with a code (or several) a justification should be provided.



Figure 01: St Mary and St Margaret's Church and churchyard.



Figure 02: Drainage design feature to the new development at Sycamore Avenue.

1.2 Area of study

Sprowston sits on the edge of Norwich and acts as a gateway between the Broadland countryside and the built up urban area.

The A1270, known a the Broadland Northway, runs along the northern edge of Sprowston which links the area with other major routes such as the A11, A47, A140 and the A146 which connect Norwich with the rest of the country. Salhouse Road, Wroxham Road and North Walsham Road are the arterial roads which run through Sprowston directly towards the city centre. This means that the area of Sprowston is only a 10-minute drive from the centre of Norwich. The city centre is equally accessible by public transport with plenty of bus stops and several routes providing a regular service to the area.

In the city centre there is Norwich Railway Station which has services going to London, Cambridge and Stansted Airport.

The suburban character of the area mainly comprises 20th century semi-detached and detached properties often set in large plots with mature planting. The most historic building in Sprowston is the St Mary & St Margaret's Church which is Grade I Listed. However, recent development in the last 5 years has been of a higher density and does not reflect that of what has been built previously in Sprowston.

In addition to its proximity to Norwich city centre, the community of Sprowston benefits from a range of amenities. The focal point for these is the retail area at Blue Boar Lane and also the retail park on Salhouse Road/Mousehold Lane junction. There are also smaller parades of shops on the Wroxham Road and Cannerby Lane, as well as a cafe, garage, shops and community centre off Tills Road.



Figure 03: Recent higher density development on Egyptian Goose Road.

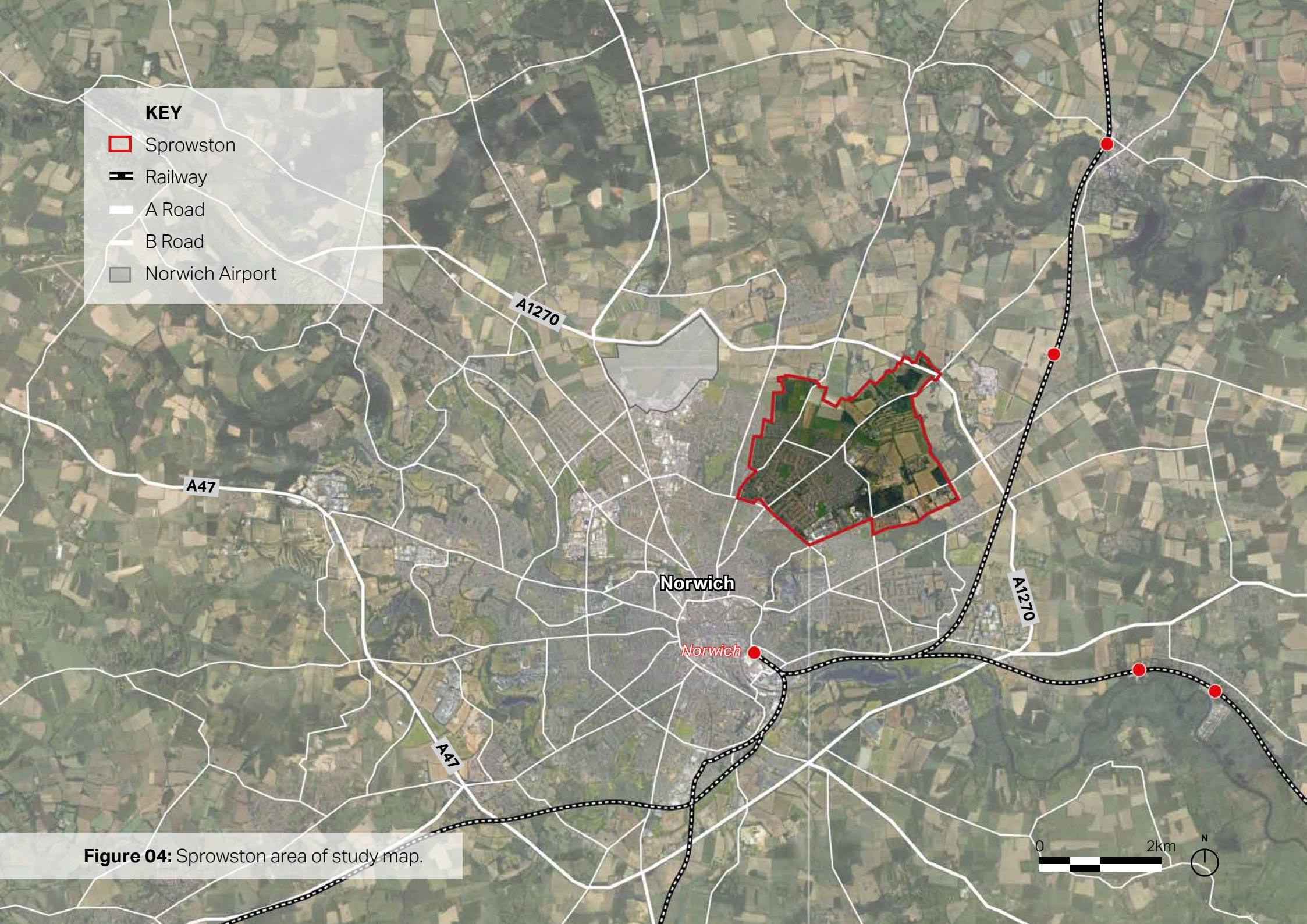


Figure 04: Sprowston area of study map.

1.3 Planning policy context

The NPPF 2024, paragraph 132 states that:

'Plans should… set out a clear design vision and expectations, so that applicants have as much certainty as possible about what is likely to be acceptable. 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…'

The Government is placing significant importance on the development of design guidance in order to set standards for design upfront and provide key principles regarding how sites should be developed.

Therefore this report's main objective is to develop design codes to sit alongside the Neighbourhood Plan to inform design proposals within Sprowston and ensure that they remain sympathetic to the character.

Other 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*[1]) 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.

Therefore this document seeks to harness an understanding of how quality design can sensitively incorporate the best aspects of Sprowston's overall character into any future development.

Additionally, these following documents have informed the design guidance and codes within this report to ensure they are best aligned with the needs and opportunities identified for the NA:

1. Available at: https://www.designcouncil.org.uk/our-resources/archive/reports-resources/value-good-design/

National planning documents

2007 - Manual for Streets
Department for Transport

The Manual for Streets is the Government's guidance on how to design, construct, adopt and maintain new and existing residential streets. It promotes developments that avoid car dominated layouts and place the needs of public transport, pedestrians and cyclists first.

2019 - National Design Guide
MHCLG

The National Design Guide (Ministry of Housing, Communities and Local Government 2019) illustrates how well-designed places that are beautiful, enduring and successful can be achieved in practice.

2021 - National Model Design Code
MHCLG

The National Model Design Code (NMDC) sets a baseline standard of quality and practice. The NMDC provides detailed guidance on the production of design codes and the outlining of character areas. It expands on 10 characteristics of good design set out in the NDG.

District planning documents

Adopted Broadland Local Plan
Broadland District Council

Broadland's current local plan is made up of several documents as set out below. These documents set out the general and specific planning policies and also contain detailed local policies. They aim to help planning officers and applicants to achieve high standard of development in the district and they are the main guide to determining planning applications.

2024 - Greater Norwich Local Plan (GNLP)

Broadland District and South Norfolk Councils have worked with Norwich City Council and Norfolk County Council to prepare the Greater Norwich Local Plan (GNLP). The GNLP plans for the housing and job needs of the area to 2038 and builds on the long-established joint working arrangement for Greater Norwich. It includes strategic policies to guide future development and plans to protect the environment.

2015 - Development Management DPD
Broadland District Council

The Development Management DPD is a local planning document that sets out generic policies that are to be applied throughout the Broadland planning authority area. The Development Management DPD (DM DPD) was adopted in August 2015 to further the objectives set out in the National Planning Policy Framework (NPPF) and the Joint Core Strategy (Broadland, Norwich and South Norfolk).

2016 - Growth Triangle Area Action Plan
Broadland District Council

The Growth Triangle Area Action Plan (GT AAP) was adopted July 2016 and it specifically applies to the areas of Rackheath, Old Catton, Sprowston, Thorpe St Andrew and other parishes which were not covered by the Site Allocations DPD.

The GT AAP has not been superseded following the adoption of the Greater Norwich Local Plan and is to be carried forward and used in conjunction with the adopted plan.

A large amount of the development planned for the Growth Triangle is already approved with planning permissions. This includes:

A new urban extension, called Beeston Park, made up of 3,520 homes, 18,800 square metres of employment space and a wide range of services/facilities and open space in North Sprowston and Old Catton.

2025 - Broadland District Council and South Norfolk Council Design Code

Broadland District Council and South Norfolk Council

At the time of writing, a Design Code is being prepared for Broadland and South Norfolk. Its aim will be to strengthen the design quality and consistency of new residential developments across the area. It is expected that it will provide straightforward guidance to ensure high quality and appropriate development, covering themes such as the height of buildings, their design and materials, landscaping, the design of bin stores, and the design of parking spaces. It is anticipated that the Design Code will be applicable to all new development.

1.3.1 Growth triangle and development sites that this guide can influence

The Norwich Growth Triangle was developed as part of the Greater Norwich Local Plan (GNLP) which was established to guide strategic growth and development within the region. The development began in the early 2010s, following its designation in the Joint Core Strategy for Broadland, Norwich and South Norfolk, adopted in 2011.

The Triangle was identified as a strategic initiative to drive expansion in the greater Norwich area. Encompassing a large-scale urban extension, it's focus is to provide housing, employment opportunities and infrastructure to enhance the Norwich area.

Sprowston, is a pivotal area within the development, playing a crucial role in meeting the triangle's objectives. It serves as a focal point for significant housing and infrastructure development, including transport lines, schools, retail and public spaces.

Much of the large-scale, allocated development in Sprowston is already built or has planning permission, and so there is limited opportunity to apply a new design code to forthcoming schemes. This includes Beeston Park because, although development is yet to substantially advance, an existing design code is already approved.

Of the remaining large-scale allocations, some opportunity exists for this design guide to influence sites at White House Farm which will provide approximately a further 1650 homes to the area. Proposals are yet to come forward for site STR10, and opportunity to influence the design of allocation GT20 (Local Plan allocations) may still exist.

As well as providing guidance and codes for the growth areas in the north, this document also provides design advice for infill and other redevelopment schemes in the existing settlement of Sprowston.

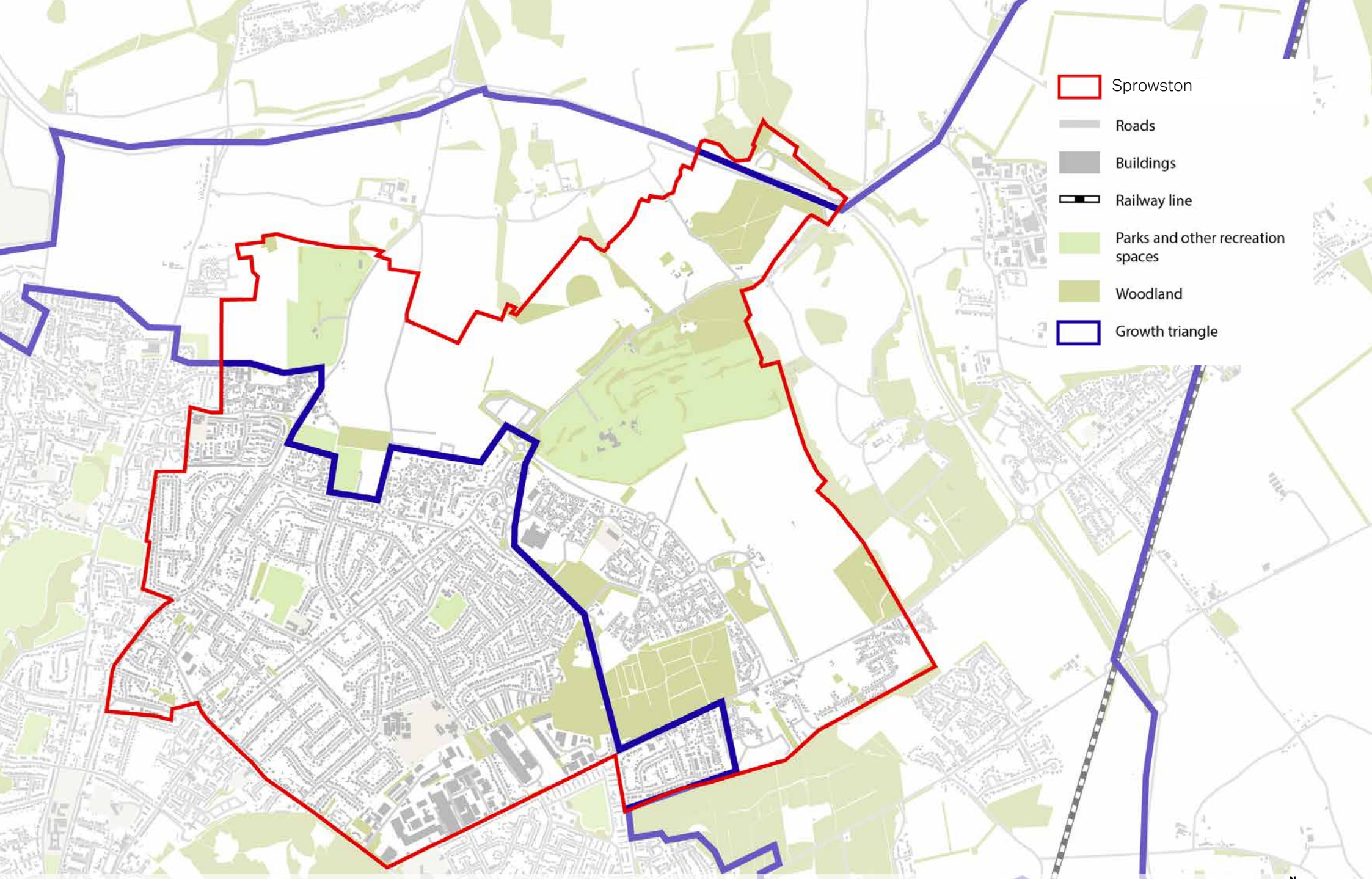


Figure 05: Map showing the growth triangle in relation to Sprowston NA.

1.3.2 Site GT20 (450 homes)

This policy specifically identifies the Site, known as White House Farm Phase 2, as 'a site of approximately 20ha is allocated for mixed use development west of Salhouse Road' and requires development to include residential development of approximately 450 homes including 33% affordable housing.

1.3.3 Site STR10 (1,000-1,200 homes)

This policy within the Greater Norwich Local Plan identifies the site, known as White House Farm Phase 3, as one for strategic greenfield development. The site encompasses approximately 67 hectares and is slated for residential development, including around 1,200 homes, open space, and a new school.

1.3.4 Beeston Park (3,520 homes)

A new large urban extension with residential development, as well as 18,800 square metres of employment space and a wide range of services/facilities.

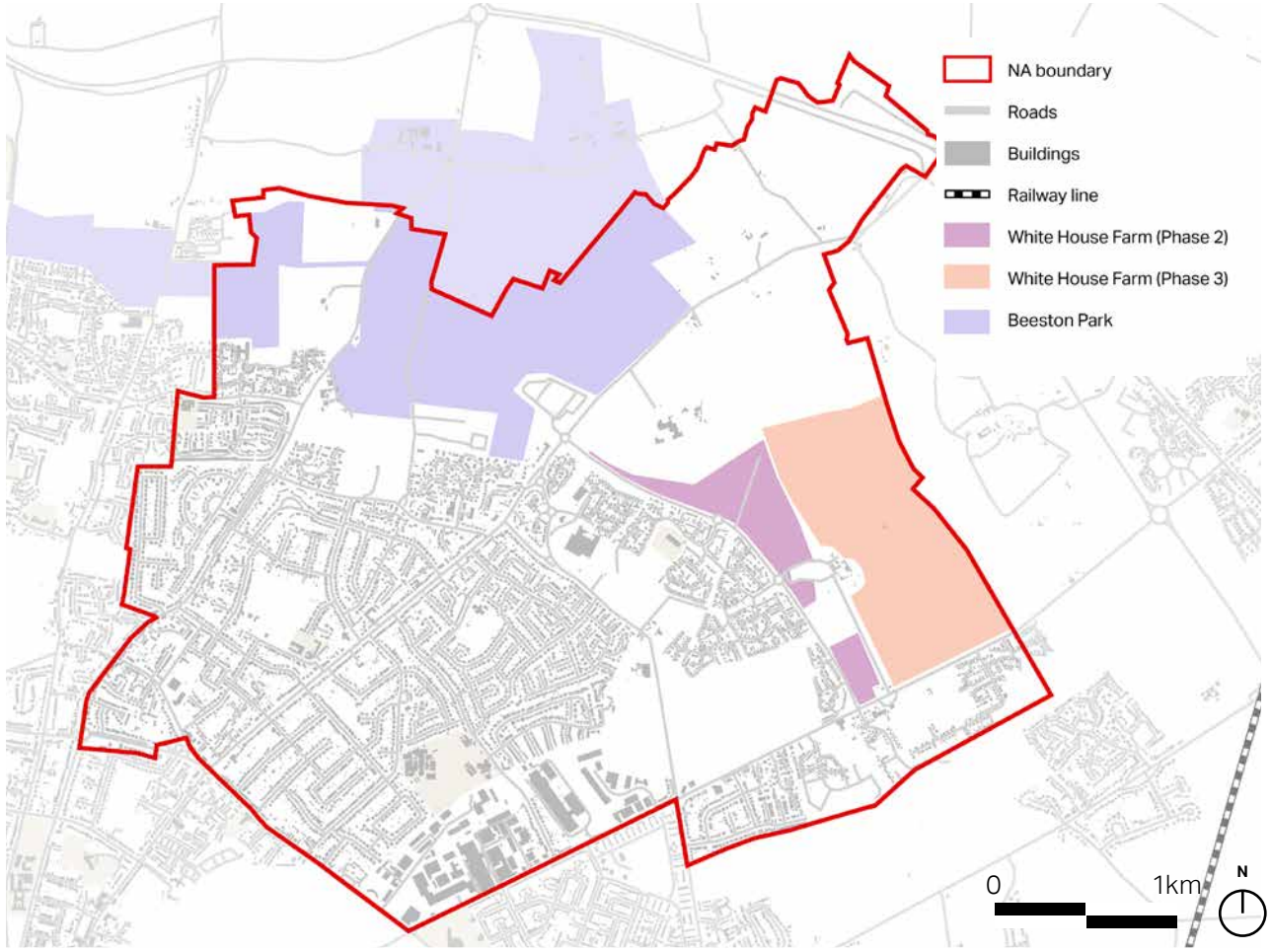


Figure 06: Map showing development plans within Sprowston Parish.

1.4 Process and engagement

A one-day site visit took place on 09/01/2025 commencing with an in-person meeting between AECOM and representatives of the Sprowston Neighbourhood Plan Steering Group to explore the group's key aims and objectives and to address any initial concerns.

This was followed by a tour of Sprowston, via minibus and on foot. This activity allowed consultants to appraise local character and the features informing its sense of place, such as heritage and landscape features. The exercise also provided valuable local insight into the area's pertinent design issues and opportunities, good and bad practice, as well the overall context for which the evidence-base of the Neighbourhood Plan will reflect.

In addition to this in March 2025 the Sprowston Steering Group conducted a household survey, the results of which were passed on to AECOM. These have been used in addition to a desktop study and communication with the Steering Group to produce the following design guidance and codes which are bespoke to Sprowston and the sort of the development that is expected there.

This document has resulted from a collaborative effort between the Neighbourhood Plan Steering Group and AECOM, reflecting the priorities of local residents.



Figure 07: Image from a workshop day with the Sprowston Steering Group.

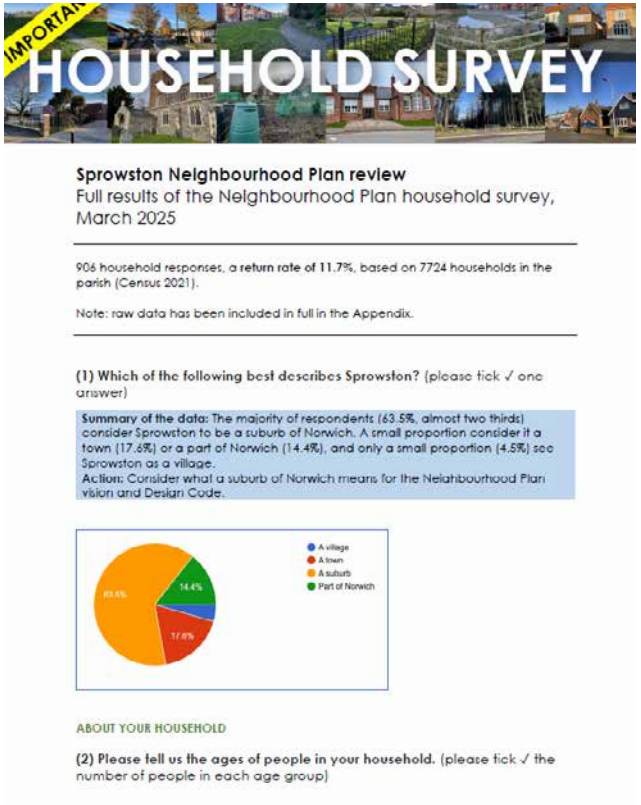


Figure 08: Screenshot from Sprowston Household Survey results document.

1.5 How to use this document

This document will be used differently by different people in the planning and development process.

A valuable way codes and guidance can be used is as part of a process of co-design and involvement that seeks to understand and takes account of local preferences for design quality. As such the codes and guidance can help to facilitate conversations to help align expectations, aid understanding, and identify key local issues.

The resulting design guidance and codes can then set out how to adequately respond to these issues in future development.

Design codes and guidance alone will not automatically secure quality design outcomes, but they will help to prevent poor outcomes by creating a rigorous process that establishes expectations for design quality.

What follows is a list of actors and how they will use the design guidelines:

Potential users	How they will use the design guidance and codes
Applicants, developers, & landowners	As a guide to the community's and the Local Planning Authority's expectations on design, allowing a degree of certainty – they will be expected to follow the Guidelines as planning consent is sought.
Local planning authority	As a reference point, embedded in policy, against which to assess planning applications. The guidance and codes should be discussed with applicants during any pre application discussions.
Sprowston Town Council	As a guide when commenting on planning applications, ensuring that the guidance and codes are complied with.
Local community organisations	As a tool to promote community-backed development and to inform comments on planning applications.

Table 01: A list of potential users of this documents and how they will apply the design guidance and codes.



Context analysis

02

2. Context analysis

Achieving quality development starts with a comprehensive understanding of place. Places have a clear and strong identity and character. They are a combination of their physical form, their activities and their meaning to people.



Figure 09: Sprowston recreation play ground.

2.1 Identity

The name Sprow is Scandinavian and Sprows-ton ('ton' meaning town or village) was likely founded in the 9th century Danish invasion. Since then the area has grown significantly and is now a heavily populated residential area on the edge of Norwich.

The first recorded reference of Sprowston is in the Doomsday Book of 1086 and was then a rather run down village with two holdings. These holdings (also known as manors) dominated the identity of Sprowston until the late 19th century.

While the industrial revolution brought about significant change to the wider area of Norwich, Sprowston managed to retain much of its character. This did not stop the population rise in the area from less that 200 in the 18th century to 2,359 by the time 1901 came around.

In the 20th century, Sprowston transitioned from a village to a more urban fringe area as Norwich expanded. The area was in fact a big supplier of red brciks to the growing city suburbs up until the 1950s. This period saw significant housing development and the establishment of many new residential areas.

2.1.1 Historic assets

Sprowston is a settlement with rich history. The six listed buildings are below:

- 2nd World War Memorial Cottages (Europe, Bates, Gristock, Knowland, Randle and Asia).
- 88, 90, 92, Wroxham Road
- Oak Lodge Farm House
- Church of St Mary and St Margaret
- Sprowston St Cuthbert War Memorial
- Wall, Gates and Gatepiers of Churchyard of Church of St Mary and St Margaret

1km

2.1.2 Historical timeline

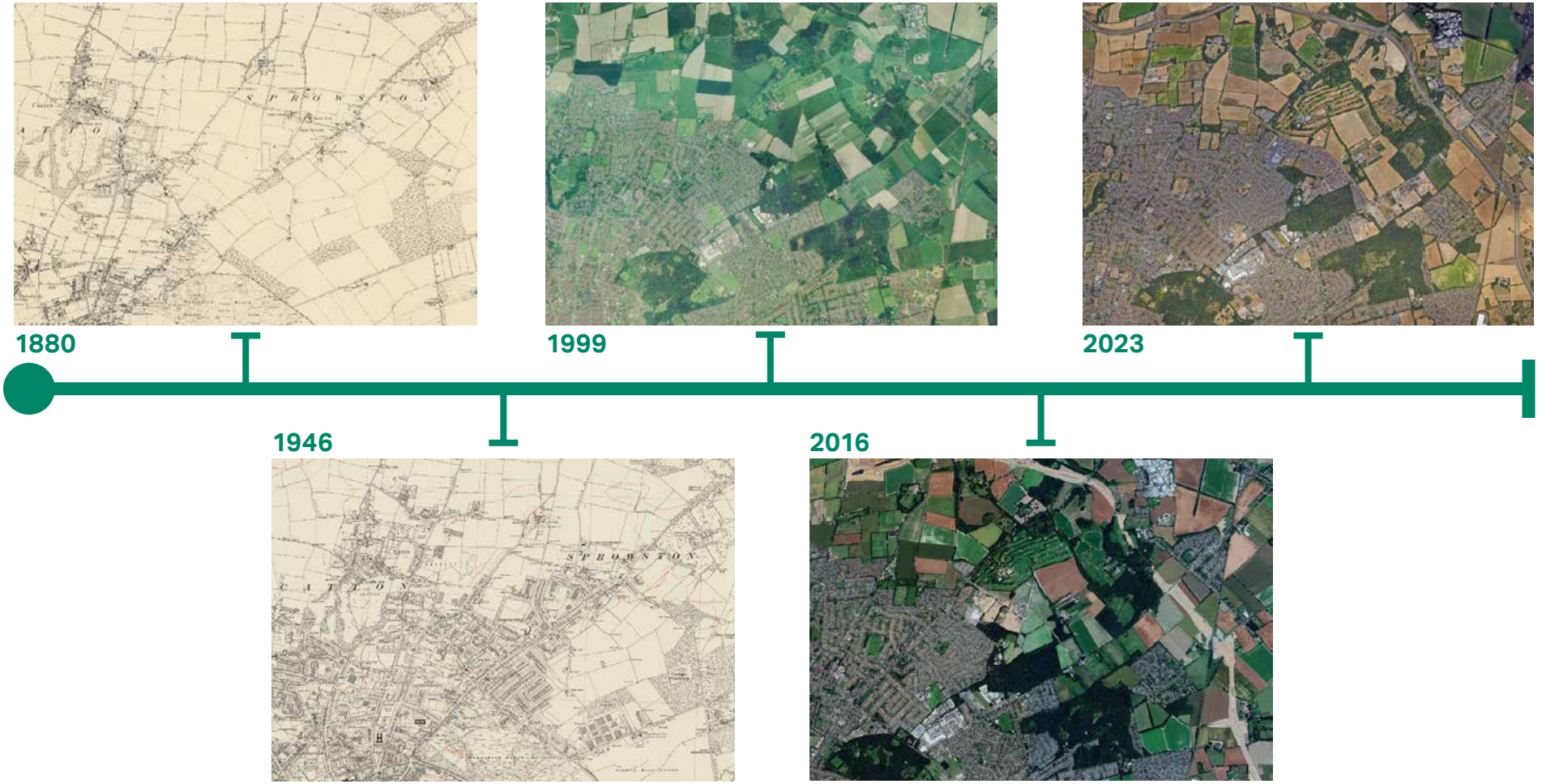


Figure 10: Timeline showing Sprowston's growth over time.

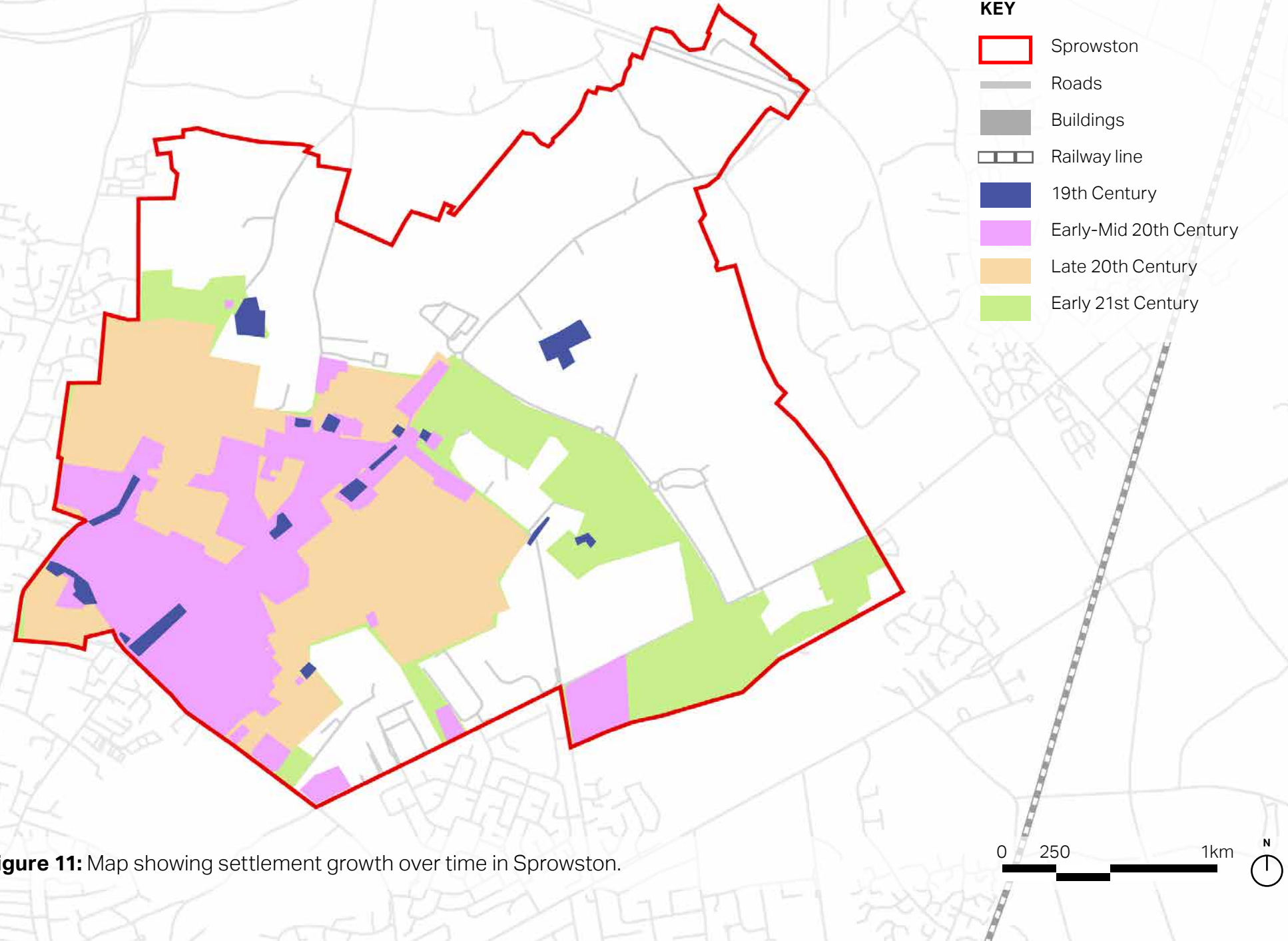


Figure 11: Map showing settlement growth over time in Sprowston.

2.2 Morphology

In urban design, 'morphology' refers to the study of how urban spaces are structured. It encompasses the physical arrangement of elements within an urban area, including buildings, streets and open spaces. This analysis was a key factor to informing the area types in Section 3.

Figure 15 shows areas that exhibit similar patterns of urban form in Sprowston.

Formal or Informal

Formal design follows a structured, planned approach guided by regulations. Formal areas often feature regularity, symmetry, and a clear spatial hierarchy. Informal urban design emerges spontaneously or incrementally without strict adherence to formal planning regulations, evolving based on local needs and initiatives.

Linear or Curvilinear

Linear urban design is characterised by straight, grid-like street patterns where streets intersect at sharp angles, creating a geometric layout. Curvilinear urban design features streets that follow curved or irregular paths, influenced by natural topography or historical development.

Fine or Coarse Grain

Fine grain describes a dense network of buildings within a confined area, enhancing pedestrian interaction and diversity. Coarse grain refers to larger, more spaced-out elements like buildings and streets, often prioritising vehicular circulation and efficiency.

Structured or Irregular Blocks

Structured blocks have a regular, often uniform shape such as square or rectangular. Irregular blocks exhibit varied shapes and sizes, reflecting natural or historical influences with polygonal, curvilinear, or uneven boundaries.



Figure 12: Example of the uniform straight streetscape in the mid-to-late 20th century part of Sprowston.



Figure 13: Curvlinear streetscape with a pocket park, along Overstrand Way, in White House Farm.

2.3 Green and blue infrastructure

Sprowston is the gateway between the countryside and the city of Norwich and therefore green infrastructure is present throughout the NA. Woodland is integrated into the street scene of the urban areas to create a leafy feel. Outside of the built up area there are scatterings of both deciduous and ancient woodland, highlighting the value of the green infrastructure in the area.

A key asset of Sprowston is the 18 hole golf course which not only secures a large area of green space, but also provides outdoor amenity space for members of the club. Other public open spaces include Sprowston Recreation Ground, Sparhawk Park and the Cricket Club. The surrounding woodland space is also open space for the community to enjoy.

There is also a large area of allotments at Church Lane. It is both a positive asset from an environmental standpoint and in terms of supporting social cohesion, and are something the community wish to have more of.



Figure 14: Sprowston allotments.



Figure 15: Public footpath cutting through woodland.



Figure 16: Drain that forms a part of the green network running from Atlantic Avenue to Harrisons Wood.

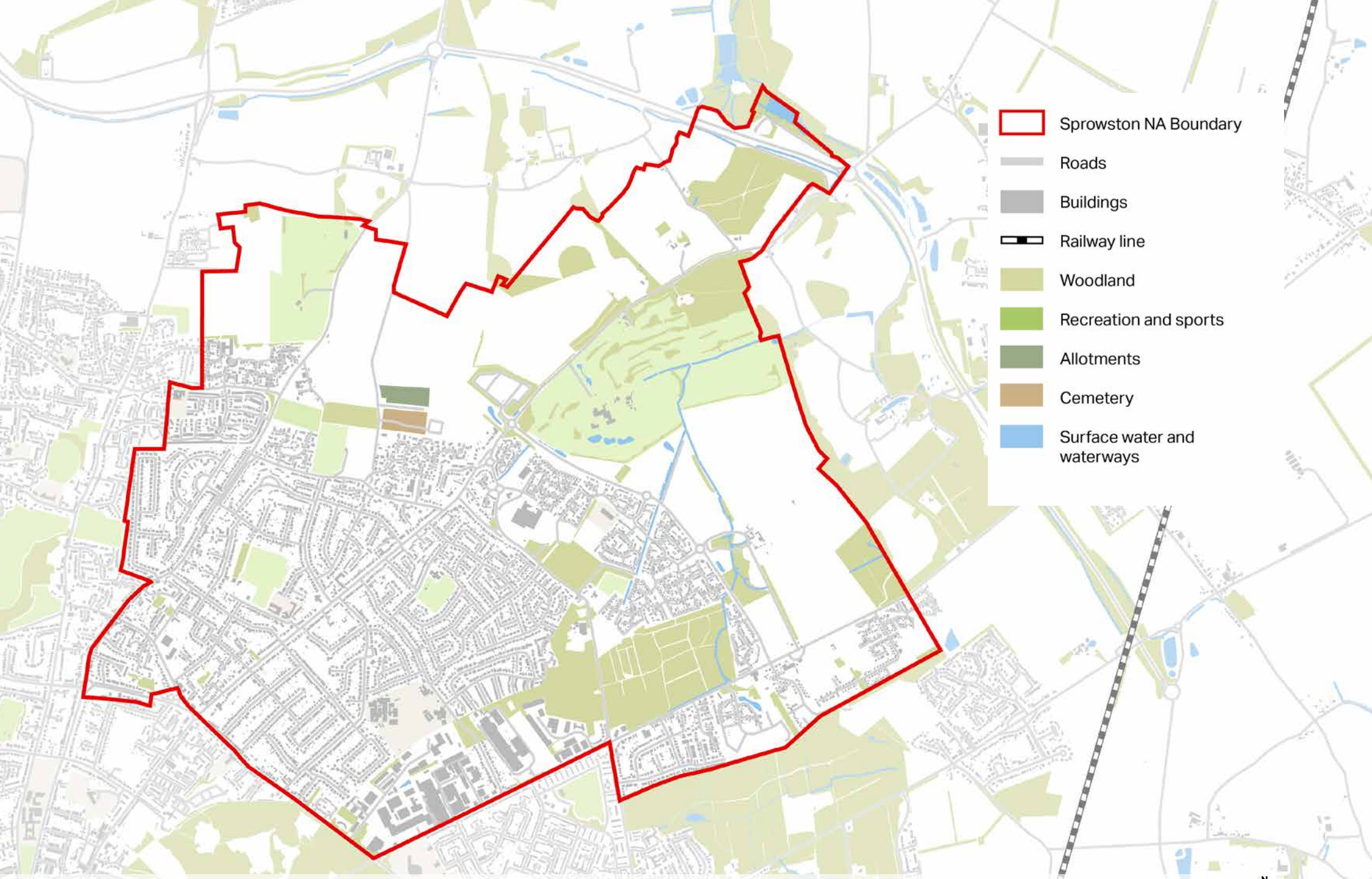


Figure 17: Green and blue infrastructure map of Sprowston.



Local character assessment

03

3. Local character assessment

This chapter presents a place analysis of Sprowston, setting out four character areas. This helps to inform a series of design guidance that are both sensitive and responsive to local context, landscape setting, and character.

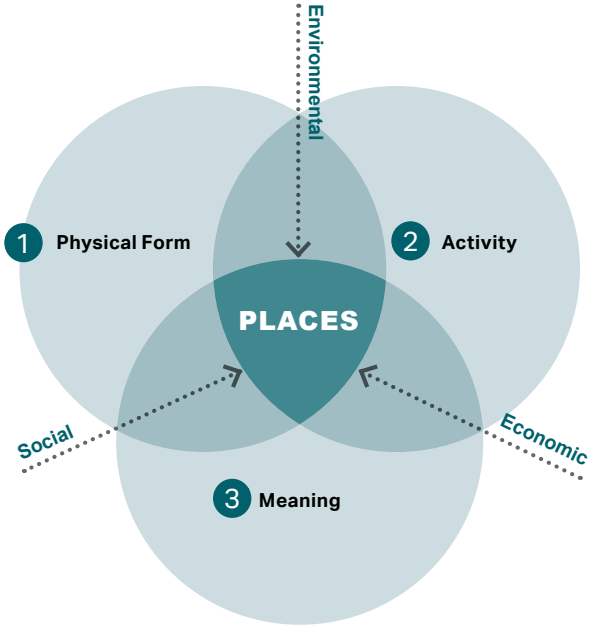
3.1 Understanding place

Achieving quality development starts with a comprehensive understanding of place. Places have a clear and strong identity and character. They are a combination of their physical form, their activities and their meaning to people. The adjacent diagram shows how these factors come together to create a successful place.

All new development must undertake its own comprehensive analysis of place to understand a proposals broader context and establish aspirations and place-specific responses to the location, siting and design of new development.

For the purposes of this document, the analysis contained within Chapter 2 helps to illustrate the variation in character, and thus, the sense of place across the NA.

A series of five 'character areas' have been identified with further analysis showcasing what makes each location special and distinctive. New developments should take note of the area type in which it is located or is adjacent to, as each design proposal will require a tailored response based on its specific location within Sprowston. Each chapter of analysis concludes with a set of design guidance specific to the area type.



1. Physical conditions of existing built development including layout, form, scale, appearance, landscape character, waterways and flood risk.
2. Use, vitality and diversity, including community facilities and local services.
3. How a place is perceived, including local heritage, views inwards and outwards and social histories.

Figure 18: Diagram illustrating the components of placemaking.

3.2 Identifying Sprowston's character areas

Defining 'character areas' and establishing what the key features or distinctive attributes are in each area helps to determine the appropriate design codes and to support future development. Character areas are a method of dividing Sprowston into portions so that the description of the areas' features are documented.

For the purposes of this Design Code, Sprowston has been divided into 5 character areas.

Character areas within Sprowston:

- Pre-2000s suburban development
- Post-2000s growth
- Industrial / Large retail
- Areas of note
- Settlement edge

The following analysis is based on a desktop study, engagement with the Sprowston Neighbourhood Plan Steering Group and site visit with the Steering Group. This analysis was crosschecked on site as part of the walking tour and photographic study.

Proposals must adhere to all guidance detailed in Chapter 5 (Design codes and guidance) and will refer to the assigned character areas to understand how the development should best fit in with the existing character that it is set in or is adjacent to.

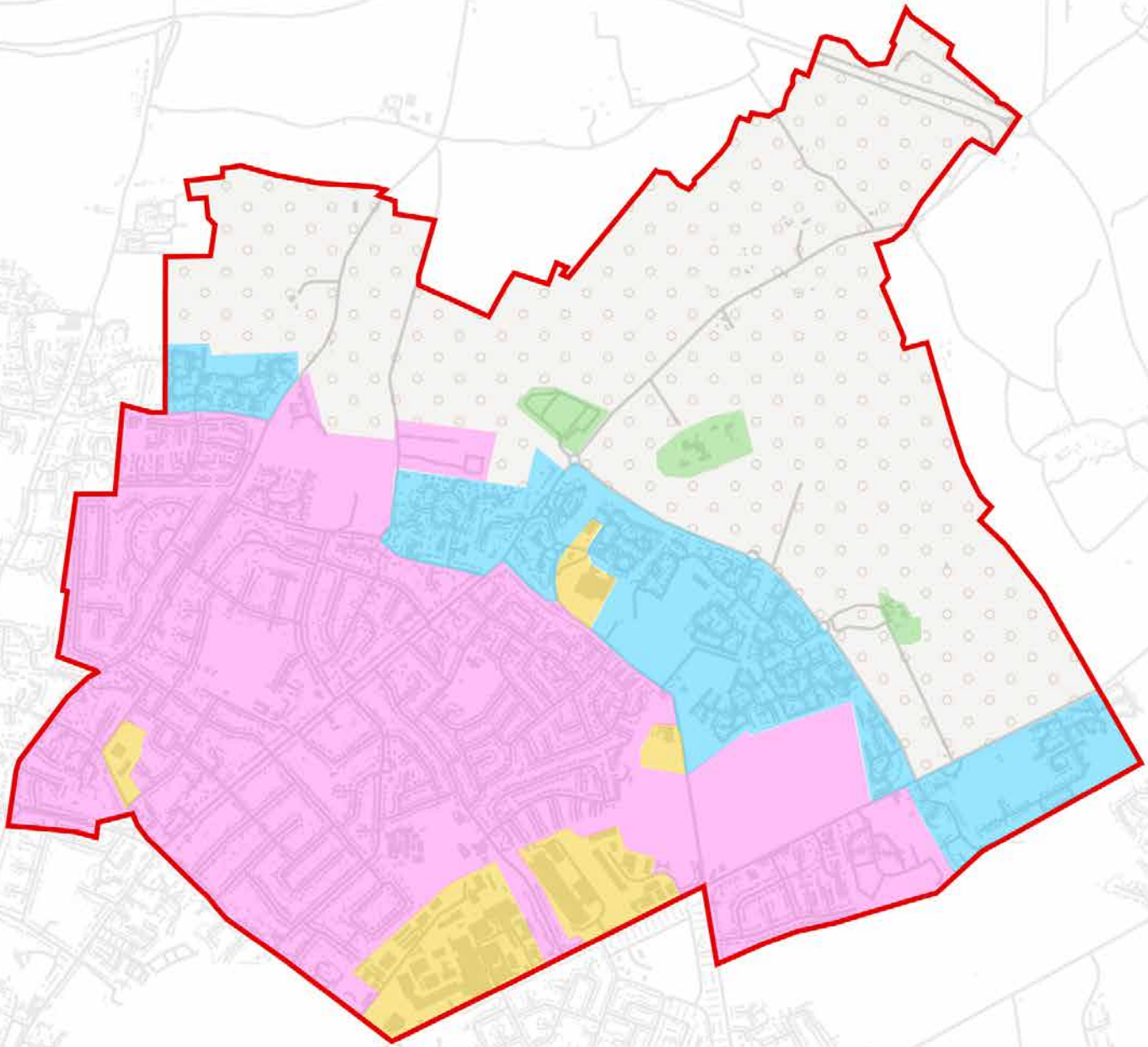


Figure 19: Map showing the character areas in Sprowston.

3.2.1 Pre-2000s suburban development

In the mid to late 20th century Sprowston experienced significant housing development, with a notable emphasis on bungalows.

These developments primarily offer single-story living that is both practical and accessible. The housing from this era often feature spacious plots, detached or semi-detached layouts, and a blend of traditional and modern architectural styles.

Most of these homes have generous gardens and off-road parking, reflecting the suburban ideal of the time they were built. As well as this, the area has several large outdoor spaces for communal recreation. This period of development has left Sprowston with a cohesive suburban, leafy character.

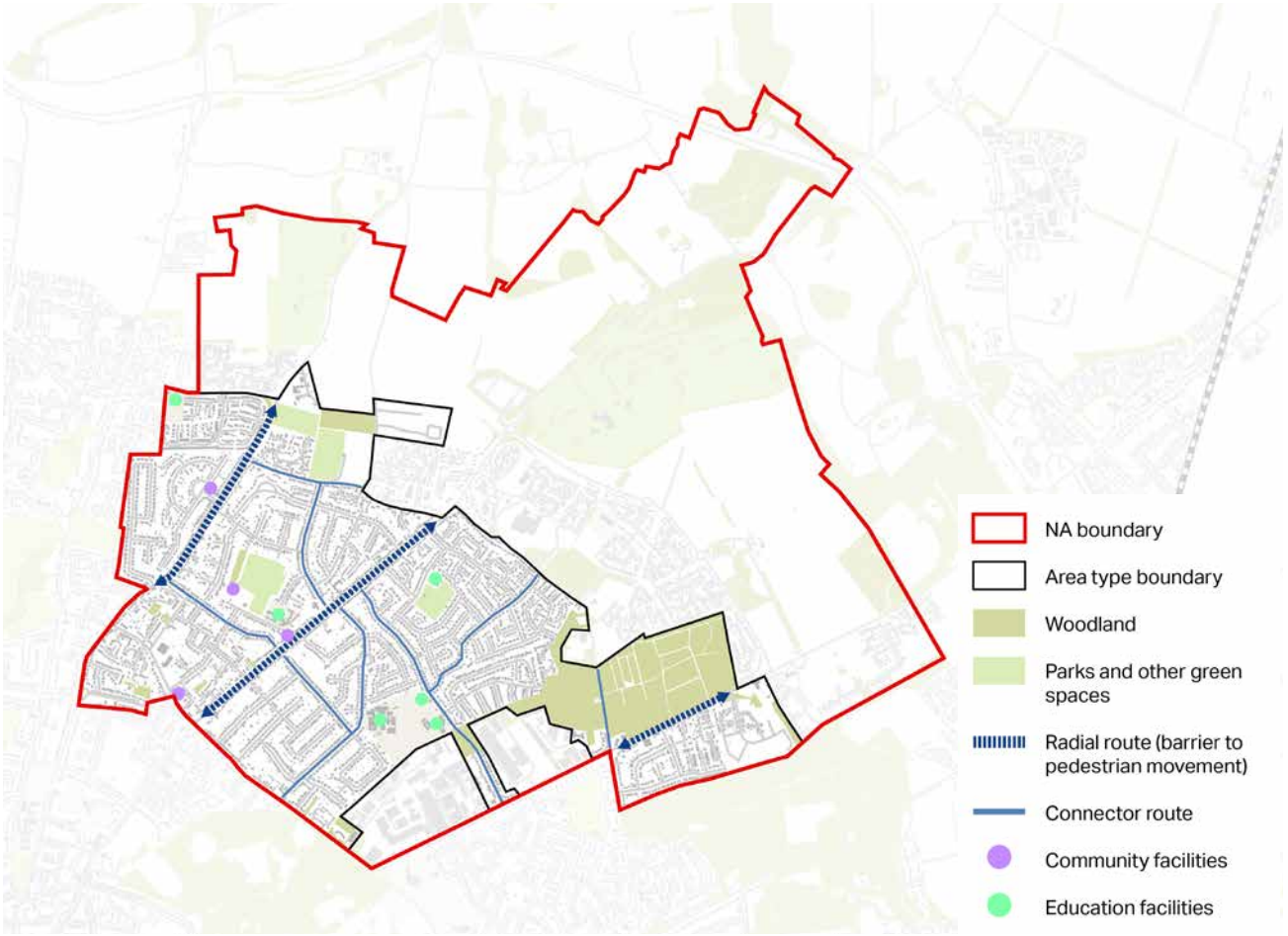


Figure 20: Map of the Pre-2000s suburban developmet character area.

Topic	Sub-topic	Written analysis
Connections	**Movement networks**	Well-connected streets with good width, making navigation easy. Junctions are well designed and generally simple to negotiate. Developments include interconnecting pedestrian pathways. Public transport is fairly good during the daytime on main roads but is more limited in the evenings and on Sundays.
Built form	**Urban form and density**	Mostly fairly low density: all low rise, none more than three storeys. Many properties have been extended.
	Block and plot sizes	Plot sizes are reasonably sized, each property has a spacious back garden and space at the front of the property for on-plot parking and/or a front garden.
	Boundary treatments	There is a consistent set back throughout the character area, but the boundary treatments vary. There are low brick walls and also small grass verges, setting the road away from the houses.
	Building size, scale, and type	Mainly semi-detached, a few detached, a few short terraces. Chalets plus upper conversions of bungalows. Mostly built after 1950, all have formal front and rear gardens.
	Design	Within each phase of development there is a consistency of design. In the central and eastern parts of the area there is a good level of interconnectedness; in the west side, there are no road interconnections between the different phases.
Nature	**Green and blue infrastructure**	Good provision of a mixture of formal and informal open spaces within a fairly short walk. Initially many verges had trees, but many died and have not been replaced. Some areas do have a flooding risk.
Activity	**Uses and community**	West and central areas are served by community buildings. In the east the church complex is on the edge of housing. There is a small chapel in the centre of the east. A good spread of primary schools and a centrally placed secondary school. All of which cause parking problems at peak times. A few groups of shops.

Table 02: Pre-2000s suburban developmet character area appraisal table.

1 Pre-2000s suburban development



Figure 21: View of the predominantly low rise housing in the pre 2000 housing area, with the High School in the background.



Figure 24: Side of plot car parking in the area.



Figure 22: Zebra crossing and school markings on residential street.



Figure 23: Example of 2 storey housing with grass verges integrated into the streetscape.



Figure 25: Street trees on a winding residential road creating a suburban feel to Sprowston.

3.2.2 Post-2000s development

During the last decade, as a part of strategic growth in the Norwich Growth Triangle, Sprowston has had a large quantity of housing developed along its northern edge.

The housing has been delivered by several different developers in different phases which has led to some of it feeling a little like 'patchwork' as a place. As well as this, in some cases, it does not blend very well with the existing pre-2000s development in Sprowston.

On the other hand, something that the new developments have done well is integrating green links from the countryside and retained important local assets such as Harrison's Wood.

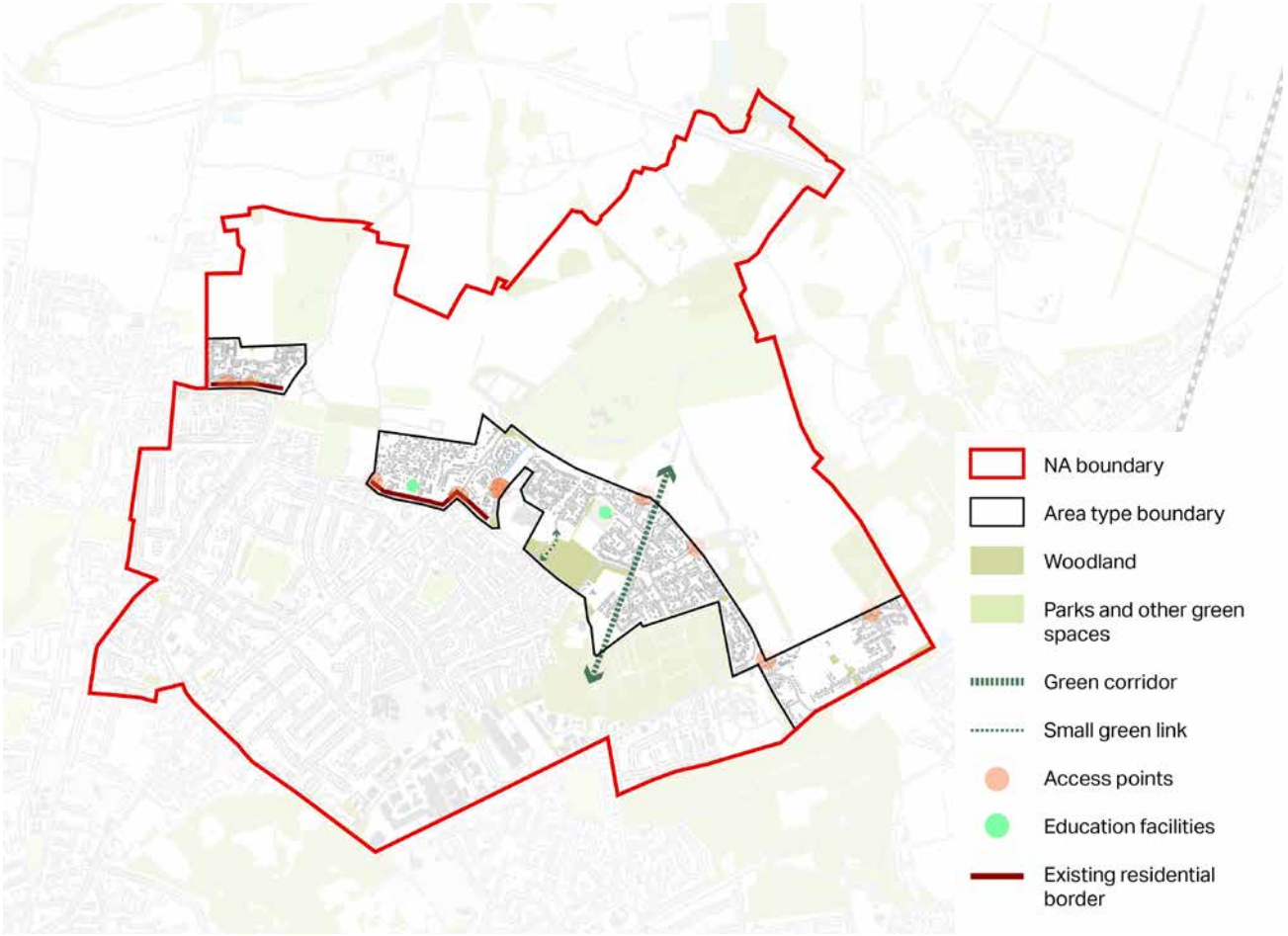


Figure 26: Map of Post-2000s development character area.

Topic	Sub-topic	Written analysis
Connections	**Movement network**	The perimeter road is wide with large verges designed to promote fast car travel, with ill-defined pavements, making pedestrian and cycle movement more challenging. Parking is provided in most communal spaces, with private driveways available only for larger properties; however, on the whole, parking provision is seen to be inadequate for the area's current needs, leading to cluttered streets.
Built form	**Urban form and density**	Higher density than pre-2000 developments with mostly 2 storey with some 3 storey flats next to road junctions. Even the larger homes typically have very small back gardens.
	Block and plot sizes	Plot sizes are more varied throughout this character area, depending on the size of the property and so are therefore have less consistently sized back and front gardens.
	Boundary treatments	Plot line and setbacks are relatively informal and vary between different pockets of the character area. Boundary treatments also vary, but a predominantly grass verges, or low hedgerows, coupled with contemporary metal fencing.
	Building size, scale, and type	Mostly 2-3 storeys from 2 bed flats to 4/5 bed town houses tightly packed. Very small back gardens which are often overlooked offering little true privacy.
	Design	Varied building designs as the estate is built from a consortium of builders each with their own style. The quality of the homes and the fittings within also vary greatly between developers.
Nature	**Green and blue infrastructure**	There are large areas of well maintained grass between blocks of housing. Whilst the area is very green, the biodiversity is poor with very little native flora. However wherever areas of woodland exists they have largely been retained. Due to the nature of the land and the water table there are extensive drainage ditches and water courses to prevent flooding and satisfy SUDS regulations.
Activity	**Use and community**	Mostly higher density housing with few community assets. Houses close to the road with little private space to front. The only community buildings are the schools.

Table 03: Post-2000s development character area appraisal table.

2 Post-2000s development



Figure 27: Green space in the development to the south of Atlantic Avenue.



Figure 30: Different forms of housing throughout this character area.



Figure 28: Example of edge lane in a recent development.



Figure 29: High density housing creating a feeling of enclosure.



Figure 31: New school built as part of the recent development along Mallard Way.

3.2.3 Industrial / Large retail

Sprowston has employment areas scattered in several places across the NA, although the main industrial zone is found in the south along Salhouse Road. This area is made up of a combination of outlet retail uses, depots and more industrial style uses.

These areas are important to Sprowston and they provide jobs and amenities for local people, meaning that they do not have to travel far to get what they need.

There is also a small number of businesses along School Lane, to the south-west of the NA, that has the potential to become housing in the future.

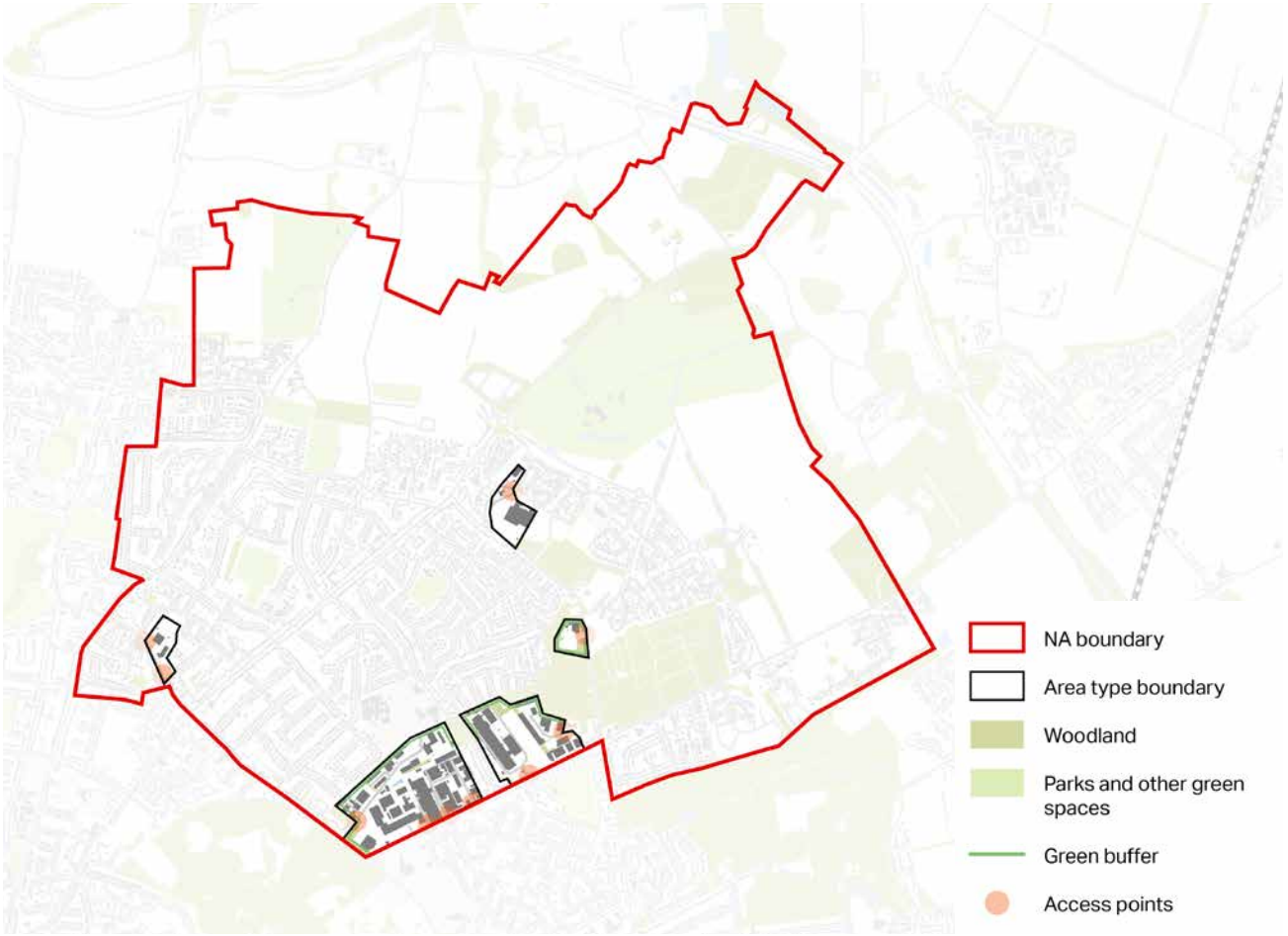


Figure 32: Map of Industrial / Large retail character area.

Topic	Sub-topic	Written analysis
Connections	**Movement network**	Surrounding roads are designed for industrial use, featuring wide lanes to accommodate HGVs. Parking provision is generally good in retail areas, but while there are designated spaces for employees, visitor parking remains an issue.
Built form	**Urban form, height and density**	Tall buildings with large footprints are found in these areas due to the businesses requiring storage facilities, delivery bays and office/shopfloor space. Typical of industrial style employment areas, some of the area has a coarse urban grain. This means that there are large buildings with generous spacing between them.
	Block and plot sizes	Due to the requirements of the uses of the businesses in these area types plots and blocks are larger than those found elsewhere in the NA.
	Boundary treatments	the edges of the retail parks are planted with established shrubs. However, some of this has been removed in recent years to provide parking, with leftover areas not cared for sufficiently to become re-established.
	Building size, scale, and type	The south eastern Industrial area has a retail park on its edge. It also has a bus depot with electrical charging for 62 buses, a retail warehouse. Sprowston Retail Park is made up of smaller industrial /supply businesses, and also has food outlets. These buildings were constructed in second half of the 20th century. On Roundtree Way, next to Salhouse Road Retail Park is an industrial area developed after WWII.
	Design	Industrial buildings of their time. Surrounding roads are wide for HGV access and parking provision.
Nature	**Green and blue infrastructure**	Some areas back onto woodland and there are some hedges on the edge where the area abuts residential. No formal greenery or open space.
Activity	**Use and community**	In the predominantly employment areas, there is very little residential. There are 3 major retail/Industrial areas. Two on the South/ Eastern boundary and the third retail area (2 major retailers) to the north on the edge of the post 2000 White House Farm development.

Table 04: Industrial / Large retail character area appraisal table.

3 Industrial / Large retail



Figure 33: View of the retail area off Blue Boar Lane.



Figure 34: View of industrial area along School Lane.



Figure 35: View of large retail area off Roundtree way.



Figure 36: View of industrial Salhouse Road off Pinetrees Road.



Figure 37: View of the industrial area on Roundtree Way.

3.2.4 Areas of note

To the north of the main developed area of Sprowston has three areas that the community highlights as 'areas of note'. Firstly there is White House Farm which is a historic farmstead which has now been split into several small business units. This has both preserved the historic agricultural character of the area and created a vibrant business scene.

Also highlighted is the Golf Club and Sprowston Park and Ride. The Golf Club is on the grounds of the 19th century manor which is one of the most historically significant buildings in the NA. The Park and Ride is also an area of note as this is a well used asset which provides links to the city centre and reduces congestion in and around Sprowston. It could become a future transport hub for the future growth expected.

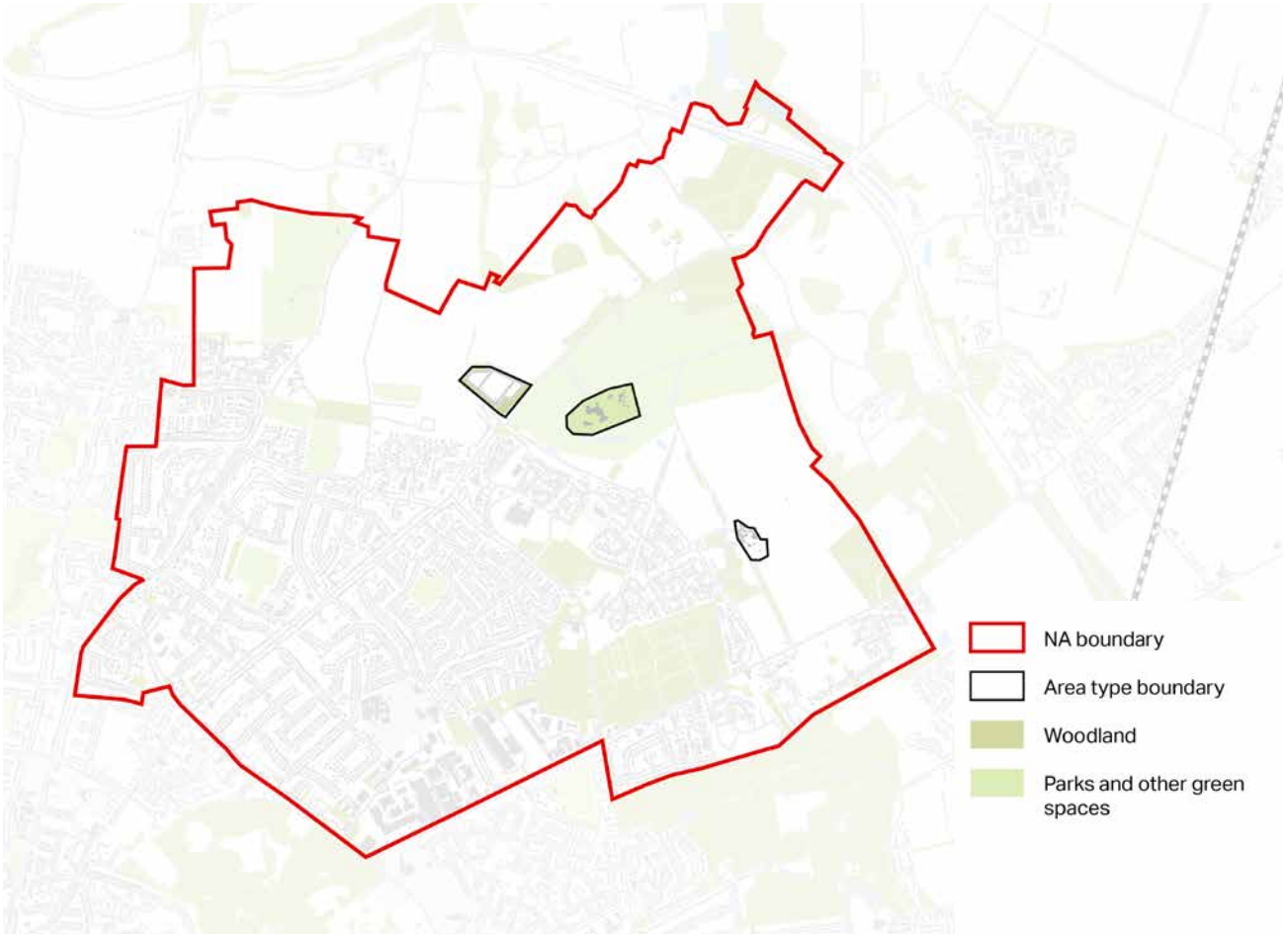


Figure 38: Map of areas of note character area.



Figure 39: Image of Sprowston's park and ride.



Figure 40: Sprowston Manor Hotel, Golf and Country Club.



Figure 41: View of part of the Sprowston Golf Course.

3.2.5 Settlement edge

This area is currently a large spans of predominantly open farm land, making up part of the surrounding green, rural countryside.

This area has a few large scale developments sites encompassed within it: White House Farm (Phase 2), White House Farm (Phase 3) and also a large portion of Beeston Park. However, it should be noted that Beeston Park extends past the Sprowston boundary, into Beeston St Andrew and Old Catton.

New developments that come in these areas will need to be well integrated with the existing settlement and its movement network. 'Island developments' where developments have poor connectivity or a character that is starkly different to adjoining parts of Sprowston is obviously undesirable.

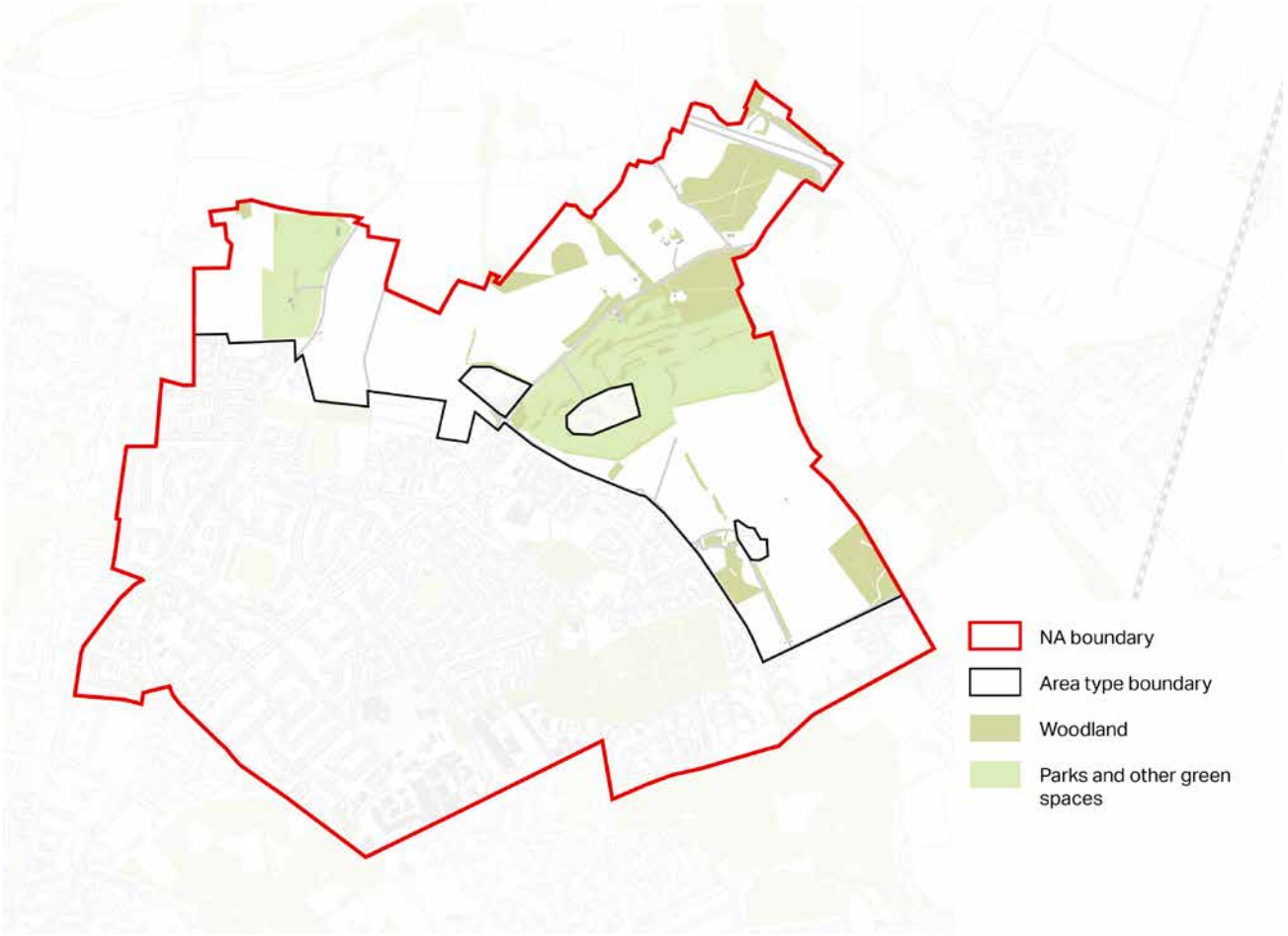


Figure 42: Map of Settlement edge character area.



Figure 43: View looking east from Church Lane, north of the allotments.



Figure 44: View looking north showing the tree belt that runs along Church Lane.



Figure 46: View looking north from Atlantic Avenue west off White House Farm drive.



Figure 45: View along Atlantic Avenue looking west, highlighting tree belt along the edge of the Sprowston Golf Course.



Design guidance and codes

04

4. Design guidance and codes

This chapter provides guidance on the design of development, setting out the expectations that applicants for planning permission in Sprowston will be expected to follow.

The guidance and codes in this chapter are split into two sections. The first section addresses any development in the strategic growth sites which make up the majority of the development expected in the NA. The second section of this chapter includes guidance for any small infill or redevelopment in the existing settlement area of Sprowston.



Figure 47: View along the green corridor in on of the new developments.

4.1 Guidance and codes for strategic growth sites (SG)

Due to Sprowston being within the Growth Triangle, much of the development that is expected in the next 10 years is large scale greenfield development.

The guidance and codes in this section help ensure that these developments are designed to retain the leafy suburban character of Sprowston, encourage active travel, prioritise safety and promote sustainable approaches while meeting the housing targets of the Growth Triangle.

Design guidance and codes
SG1: Development setting and settlement edge
SG2: Accessible and attractive footpaths/access to the countryside
SG3: Prioritise walking and cycling
SG4: People friendly streets
SG5: Parking and servicing
SG6: Green networks
SG7: Open spaces
SG8: Central community spaces
SG9: Legibility and wayfinding
SG10: Development layout
SG11: Building heights
SG12: Density
SG13: Continuity and enclosure
SG14: Materials and architectural details
SG15: Street lighting
SG16: SuDS
SG17: Eco design
SG18: Minimising construction waste
SG19: Electric vehicle charging
SG20: Biodiversity

Table 05: Table showing the guidance and codes topics for strategic growth sites in Sprowston.

SG1: Development setting and settlement edges

The way that the strategic sites interact with the either adjacent existing development or the countryside will define how the new neighbourhoods settle into their context. Some design guidelines on how new development should treat development edges are:

- **GUIDE**: Development adjoining public open spaces and important gaps **should** either face onto them to improve natural surveillance or have a soft landscaped edge;
- **CODE**: New development **must** wherever possible conserve existing native trees and shrubs along the roads such as Church Lane. Any unnecessary loss of flora should be avoided.
- **CODE**: Abrupt edges to development with little vegetation or landscape on the edge of the development **must** be avoided;
- **CODE**: Biodiversity and woodlands such as Bulmer Coppice **must** be protected and **should** be enhanced.
- **CODE**: Edges **must** be designed to link rather than segregate existing and new neighbourhoods. Green corridors can provide additional pedestrian and cycle links that will contribute to the successful integration with the Sprowston.



Figure 48: Example of an edge lane elsewhere in UK, where buildings front the landscaped area, while shared surfaces allow different users to co-exist peacefully.



Figure 49: A positive local example of where pre-existing woodland has been preserved at the development edge.

SG2: Accessible and attractive footpath network

Footpaths allow people to get closer to nature, enjoy a tranquil environment and do physical exercise. Therefore, protection, improvement and design of existing and new footpaths should be considered in new developments and some design guidelines are:

- **CODE**: Where possible, newly developed areas **must** retain or provide direct and attractive footpaths between neighbouring streets and local facilities. Establishing a robust pedestrian network across new developments and among new and existing development is key in achieving good levels of connectivity and promoting walking and cycling;
- **GUIDE**: Where possible, new proposed footpaths **should** link up green spaces and woodlands to create a network of green walking routes and promote biodiversity;
- **GUIDE**: Strategically placed signposts can assist pedestrians and cyclists with orientation and increase awareness of publicly accessible paths beyond the NA. However, new signposts **should** respect the suburban character of Sprowston and avoid creating visual clutter; and
- **CODE**: Prior to the first occupation of houses on a new development site, the footpath network **must** be in place.

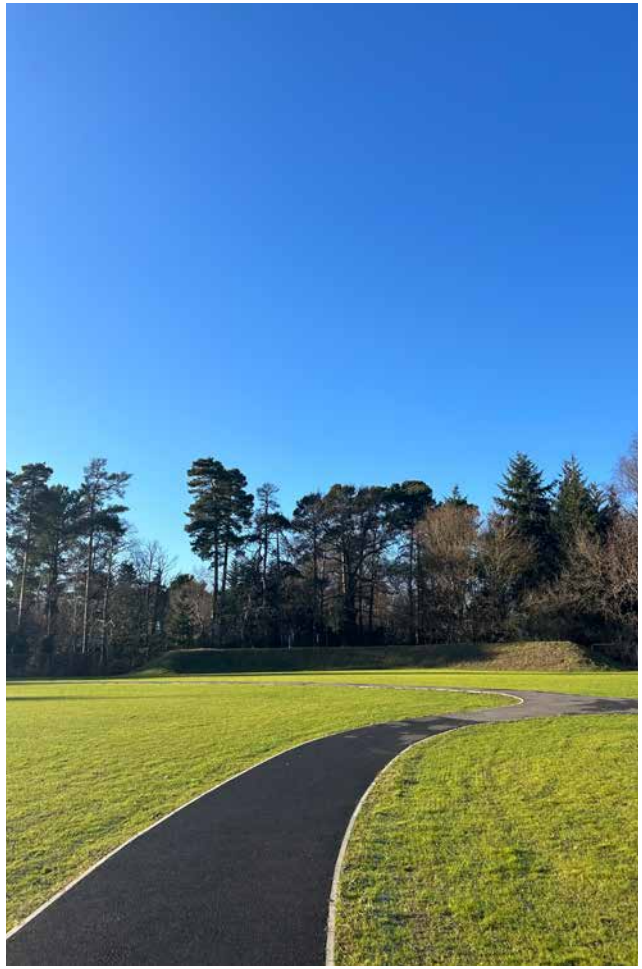


Figure 50: Local public green space along Blue Boar Lane.

SG3: Prioritise walking and cycling

New developments **should** introduce well connected and attractive pedestrian and cycling routes to encourage residents to walk and cycle. Some guidelines for future development are:

- **GUIDE**: Varied links **should** be enabled and created to favour pedestrian and cycle movement. These routes **should** be always overlooked by properties to create natural surveillance and offer good sightlines and unrestricted views to make people feel safer;
- **GUIDE**: Walking and cycling **should** be prioritised through a network of well linked together paths, and therefore any cul-de-sac development **should** be designed with onward pedestrian and cycle connections.
- **GUIDE**: Design features such as barriers to vehicle movement, gates to new developments, or footpaths between high fences **must** be avoided;
- **GUIDE**: All newly developed areas **must** provide direct and attractive footpaths between neighbouring streets and local facilities. Streets **must** be designed to prioritise the needs of pedestrians and cyclists;
- **GUIDE**: Footpaths and cycleways should be well connected to both existing and proposed new amenities; and
- **GUIDE**: Footpaths and cycleways where possible **should** be well connected to new and existing open spaces such as the park at Windsor Park Gardens.



Figure 51: Safe and attractive illuminated shared foot and cycle way in Sprowston.

SG4: People friendly streets

It is essential that the design of new development includes streets and junctions that incorporate the needs of pedestrians, cyclists, and, if applicable, public transport users. Some guidelines for future development are:

- **CODE**: Streets **must** meet the technical highways requirements as well as also being a space that is welcoming and safe for pedestrians;
- **GUIDE**: On-street parking, where introduced, **should not** impede the access of pedestrians and other vehicles;
- **GUIDE**: Within the development boundaries, streets **should not** be built to maximise vehicle speed or capacity. A range of design measures to slow traffic could be introduced;
- **GUIDE**: New streets **should** be predominantly linear with gentle meandering, while also providing views to the surrounding countryside;
- **GUIDE**: Routes **should** be laid out in a permeable pattern, allowing for multiple choices of routes, particularly on foot.
- **CODE**: Streets **must** respect the existing vegetation, while also incorporating new opportunities for landscaping, green infrastructure, and sustainable drainage; and
- **GUIDE**: Any medium or major development **should** provide well-connected streets of varied character. A legible street hierarchy **should** include primary, secondary, tertiary roads and edge lanes. The next pages present illustrations examples of those street typologies.

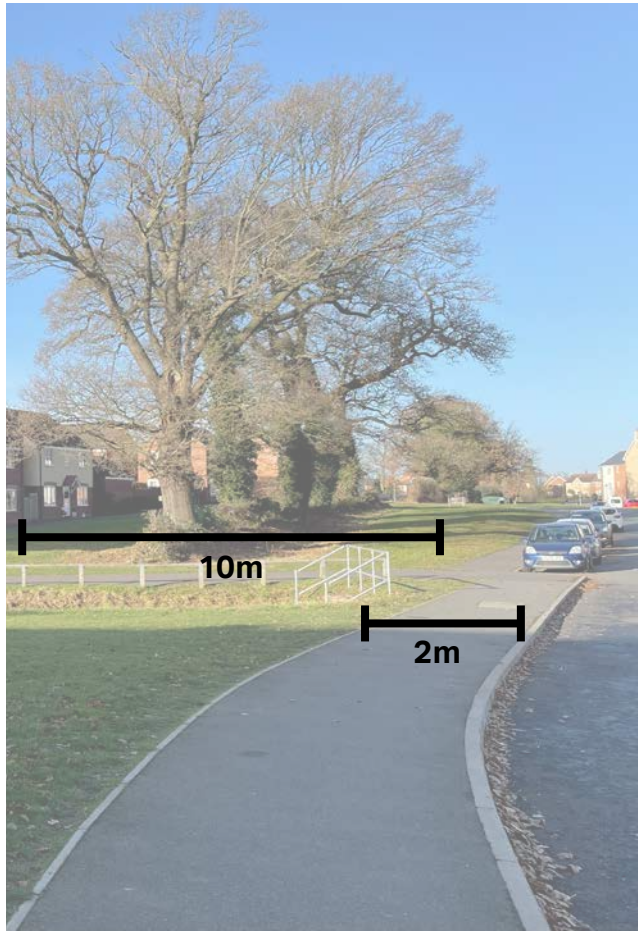


Figure 52: Diagram showing a street in Sprowston that displays 'generous' pedestrian space and inset parking arrangements.

Primary streets

Primary streets are the widest neighbourhood roads and they are also the main routes used for utility and emergency vehicles, as well as buses. Buildings in Sprowston are often taller in these areas creating a balanced feel street scene;

- **CODE**: Primary streets **must** be defined by strong building lines. Primary frontages alongside the road may include taller and more dense developments;
- **GUIDE**: Building heights **could** be higher along primary streets to maximise density in these areas; and
- **CODE**: Street trees and/or green verges along the road **must** be provided to contribute to local biodiversity, and provide cooling and shading.

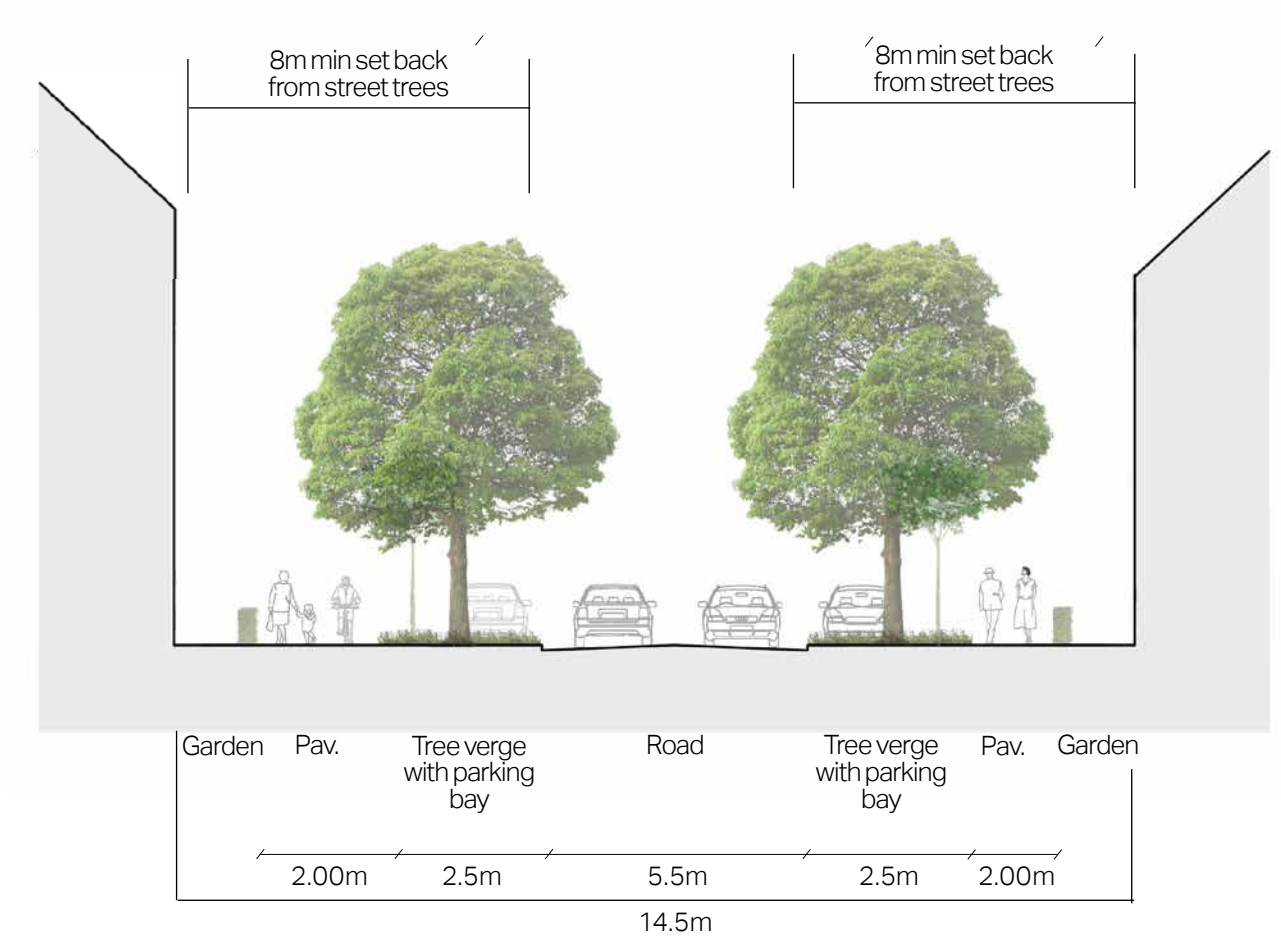


Figure 53: Cross section showing the minimum proportions of a primary street.

Secondary streets

Secondary streets have more of a quiet residential feel to them compared to primary streets.

- **GUIDE**: Secondary streets **should** accommodate carriageways wide enough for two-way traffic. On-street parking may should be properly designed into schemes and inset into green verges (see Figure 68);
- **CODE**: Householders **must** be able to access their property from the street;
- **GUIDE**: Carriageways **should** be designed to be shared between motor vehicles and cyclists. Vertical traffic calming features such as raised tables **could** be introduced; and

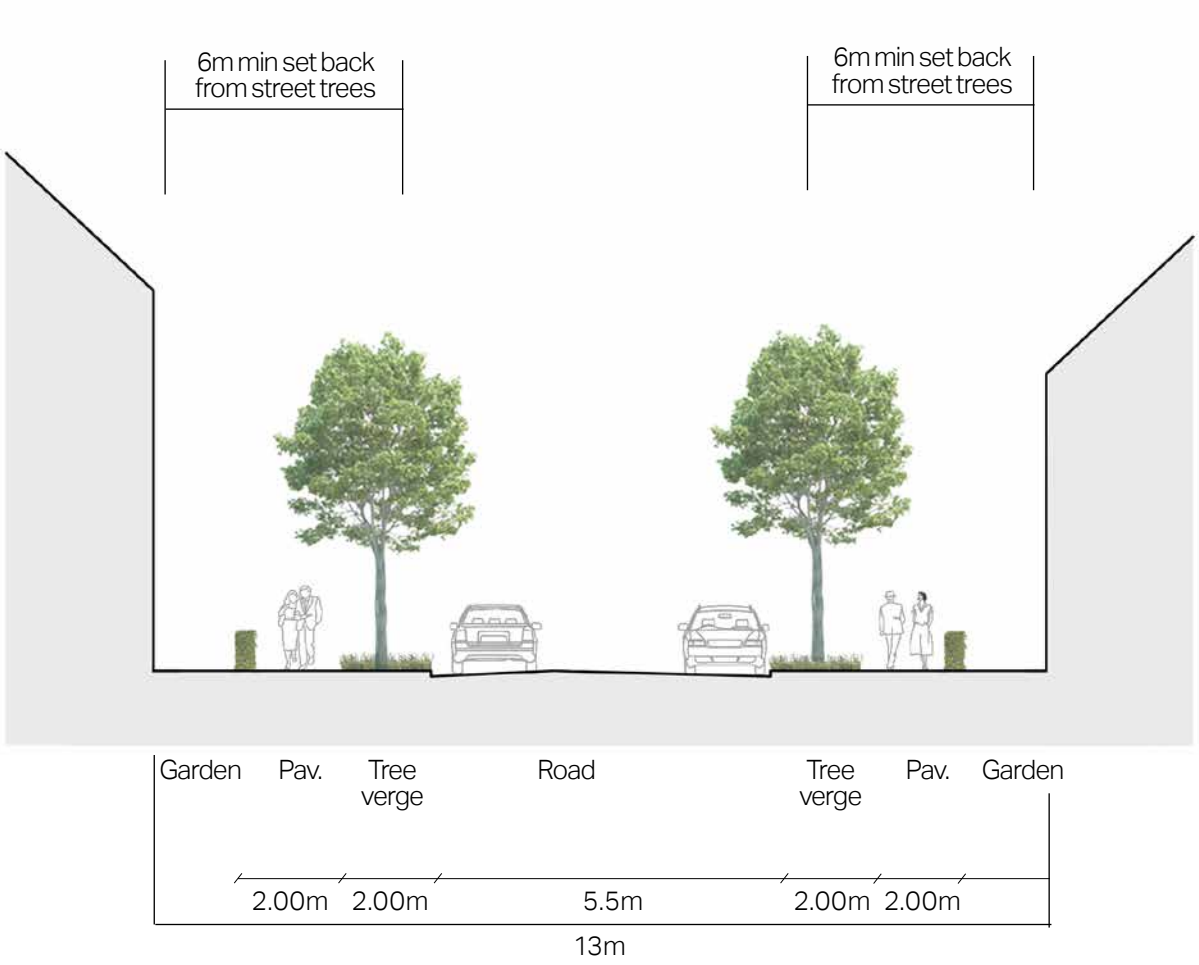


Figure 54: Cross section showing the minimum proportions of a secondary street.

Tertiary streets

- **GUIDE**: Tertiary streets have a strong residential character and they **should** be designed for low traffic volumes and low speeds, ideally less than 20mph;
- **CODE**: These streets **must** be designed for cyclists to mix with motor vehicles. Traffic calming features such as raised tables **could** used to prevent speeding;
- **GUIDE**: Tertiary streets **should** be formed with consistent building lines and setbacks; and
- **GUIDE**: Street trees **should** be provided on left over green spaces and grass verges to help soften the residential streetscape.

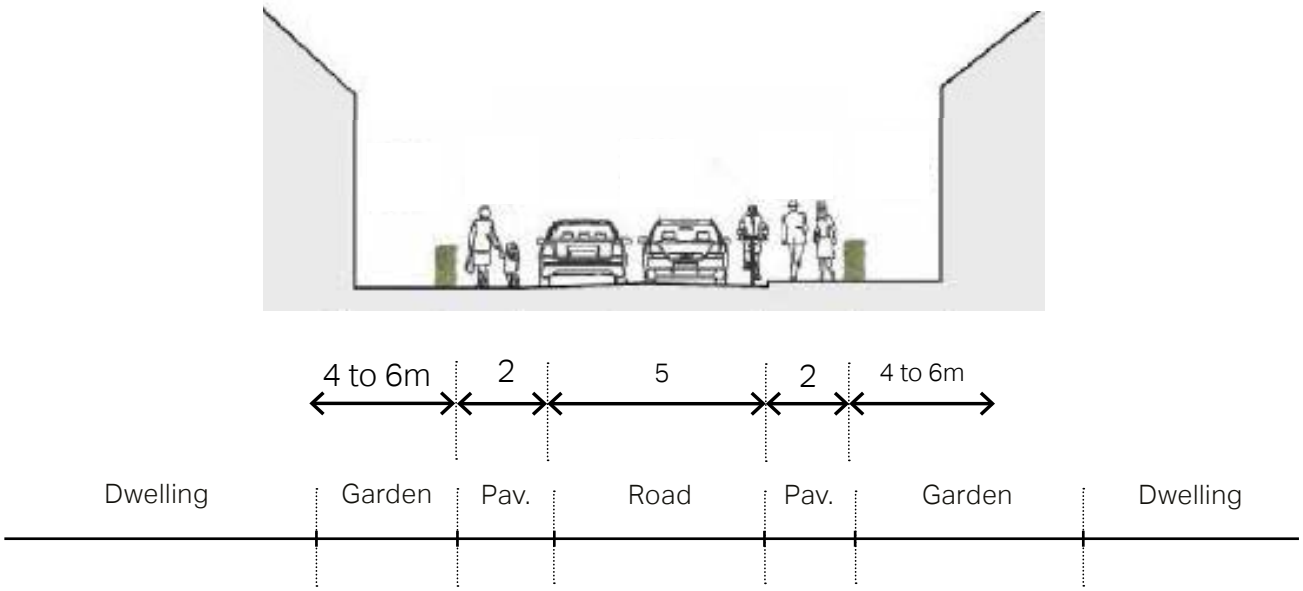


Figure 55: Cross section showing the minimum proportions of a residential street.

SG5: Parking and servicing

Although, the aim to create a good network of walking and cycling routes within Sprowston is a priority, the demand for private cars still remains high, at the time of writing, and therefore car parking has to be carefully integrated into the design.

The car parking typologies found in Sprowston are mainly on-plot parking; however, there are also cases of parking courts, on-plot garage parking and on-street parking. Therefore, the design guidelines on the next pages will focus on the above mentioned typologies.

Guidelines for on-plot or on front car parking

- **CODE**: Parking **must** be well integrated into design so as not to dominate the public realm;
- **GUIDE**: High-quality and well-designed soft landscaping, hedges, hedgerows, and trees, **should** be used to increase the visual attractiveness of the parking and enhance the suburban character of the NA; and
- **CODE**: Hard standing and driveways **must** be constructed from porous materials, to minimise surface water run-off and therefore, help mitigate potential flooding.

Guidelines for parking courts

- **GUIDE**: Parking courts **could** be acceptable for small building clusters;
- **CODE**: Parking courts **must** be overlooked by properties to increase natural surveillance;
- **GUIDE**: Planting and vegetation **should** be integrated into design and EV charging **must** also be implemented where possible; and
- **GUIDE**: Where possible parking courts and the buildings adjoining them **should** be designed in a way that allows EV charging ports to be linked up the household meter. This will help encourage the use of EVs by minimising the charging costs for those using parking courts.



Figure 56: Example of housing in Sprowston with clear on-plot car parking.

Guidelines for on-street car parking

- **CODE**: The streetscape **must** not be dominated by continuous on-street parking spaces. Where possible, tree planting and grass areas **should** be incorporated between parking bays to improve aesthetics;
- **GUIDE**: On-street parking **could** be parallel, perpendicular, or echelon in relation with the traffic speed and the traffic volume;
- **CODE**: On-street parking **must** be designed to avoid impeding the flow of pedestrians, cyclists and other vehicles; and
- **GUIDE**: On-street parking **should** be wired and where possible connected to the household meter to allow each bay to charge electric vehicles.

Guidelines for garages

- **CODE**: Garages **must not** dominate the appearance of dwellings and **must not** reduce the amount of active frontage to the street; and
- **GUIDE**: They **should** provide minimum 3m x 7m internal space to park a car and provide space for storage to avoid the garage to be used for storage purposes only.
- **GUIDE**: Garages **should** be integrated into the main building.

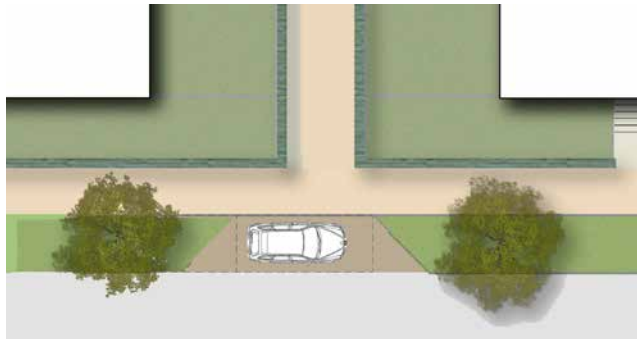


Figure 57: Illustrative diagram showing an indicative layout of on-street inset parking.



Figure 58: Example of on-street parking with parking bays and street trees to mitigate the impact of the cars on the streetscape, Poundbury.



Figure 59: Example of on-plot garage parking, Cambridge.

Cycle Parking

Houses without garages

- **CODE**: For residential units, where there is no on-plot garage, covered and secured cycle storage **must** be provided within the domestic curtilage;
- **CODE**: **Must** have lighting and facilitates for electric bike/ motorcycle charging;
- **GUIDE**: When provided within the footprint of the dwelling or as a free standing shed, cycle parking **should** be accessed by means of a door at least 900mm and the structure **should** be at least 2m deep; and
- **GUIDE**: The use of planting and smaller trees alongside cycle parking **could** be used.

Houses with garages

- **GUIDE**: The minimum garage size **should** be 7m x 3m to allow space for cycle storage;
- **CODE**: Garages **must** have lighting and EV charging opportunities;
- **GUIDE**: Where possible, cycle parking **should** be accessed from the front of the building either in a specially constructed enclosure or easily accessible garage;
- **GUIDE**: The design of any enclosure **should** integrate well with the surroundings; and
- **CODE**: The bicycle **must** be removed easily without having to move the vehicle.

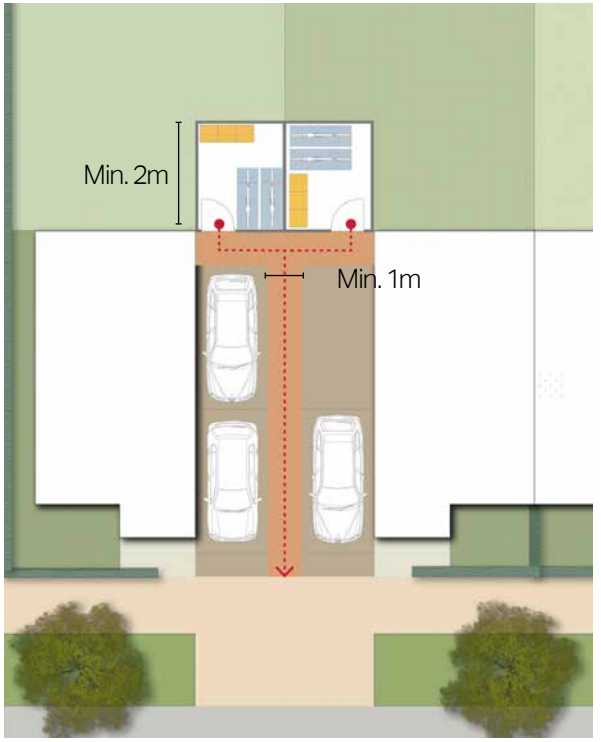


Figure 60: Indicative layout of a bicycle and bin storage area at the back of semi-detached properties.

SG6: Green networks

A well connected and accessible green network **should** be created throughout the new developments to provide links to the countryside for people as well as wildlife. Opportunities **should** be sought to introduce green assets into design and contribute to biodiversity. Some design guidelines on green networks are:

- **GUIDE**: Green networks **should** link existing and newly proposed street trees, green verges, open spaces, to and the countryside together;
- **GUIDE**: New development **should** front onto green assets and access should be granted for all;
- **GUIDE**: Green networks **could** contain some formal provision, such as a Neighbourhood Equipped Area of Play (NEAP), playing fields and an area for active recreation. Their many benefits include the improvement of the health and well-being of individuals and promotion of the development of inclusive communities.
- **GUIDE**: Green infrastructure that is designed into new developments **should** be well integrated into the existing green network in Sprowston.
- **CODE**: due to the flight path of the nearby Norwich Airport, developments in Sprowston must carefully consider the sorts of green and blue infrastructure proposals to avoid risks such as bird strike.



Figure 62: Image showing green link in Sprowston.

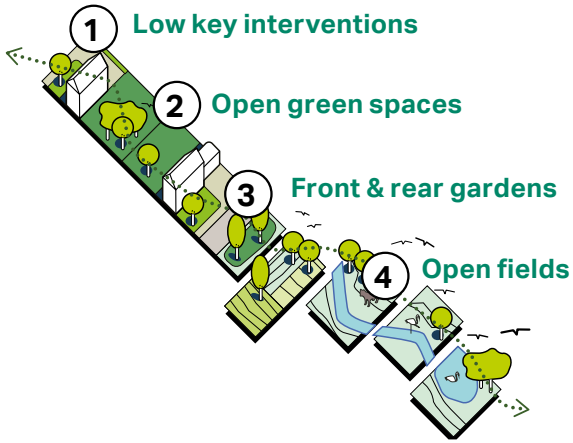


Figure 61: Diagram to illustrate the green assets that can play an important role as wildlife corridors.

SG7: Open spaces

Open spaces play a vital role in creating a positive environment. These are places fostering community and gathering, thus creating lively places in neighbourhoods. Therefore, new development **should** prioritise the design of open spaces and some design guidelines are:

- **GUIDE**: The location of new open spaces within new development **should** be decided based on the location of the existing ones considering the existing population's needs too;
- **GUIDE**: All recreational spaces **should** be designed to link up with each other and also link up with existing adjoining sites through walking or cycling routes;
- **GUIDE**: Substantial recreational space **should** be provided to include woodland walks, lake walks, sport pitches and play areas;
- **GUIDE**: Surrounding buildings **should** overlook play areas and public spaces, providing natural surveillance and encouraging feelings of safety. In addition safe crossings should link open spaces to housing areas;
- **GUIDE**: Open spaces **should** be equipped with good quality of street furniture to create pleasant seating areas, shaded spaces avoiding hidden spots;
- **GUIDE**: The materials and style of any street furniture in the open spaces **should** be consistent throughout Sprowston and aim to proudly represent the local character;
- **GUIDE**: Green open spaces **should** be complected before the housing so that residents have the open spaces promised to them when they move in or shortly after; and
- **GUIDE**: Open spaces **should** be cleared of all underlying debris which is liable to surface.



Figure 63: Small play park that is overlooked by housing.

SG8: Central community spaces

Well thought out, accessible for all central community spaces, or centres, are important locations as they are often the most vibrant part of built-up areas. If well planned they will be: areas where the community congregate, areas where local businesses will thrive off footfall, and areas where public transport points can be successfully located.

- **GUIDE**: Central community spaces in new development **should** integrate retail spaces within the community node to support local businesses such as cafes, shops, and services. This creates a vibrant and self-sustaining community;
- **GUIDE**: Adaptable spaces **should** be designed so that they can accommodate various types of businesses and community activities, allowing for future growth and changes in demand;
- **GUIDE**: Spaces **should** combine residential, retail, and recreational spaces to reduce the need for long commutes and promote local activity;
- **GUIDE**: Central community spaces **should** be accessible for everyone;
- **GUIDE**: The routes that lead towards the community nodes **should** have effective street lighting as well as being adequetly overlooked, to promote an element of safety;
- **GUIDE**: Speed bumps, raised pavements, and narrow streets **should** be implemented to slow down traffic and enhance pedestrian safety;
- **GUIDE**: The environment **should** be attractive at a human scale. This **could** be done through use of high-quality trees, green walls and planters;
- **GUIDE**: A '15 minute neighbourhood' model **should** be implemented by developers. This will mean that most daily necessities and services such as work, shopping, education, healthcare and leisure will be easily reached by no more than a 15 minute walk;
- **GUIDE**: Spaces **should** be adaptable by implementing things such as flexible/mobile street furniture with shade and shelter; and
- **GUIDE**: Spaces **should** have the ability to become spaces that can host events, such as markets, to allow people to dwell.



Figure 64: Flexible benches in Bristol with planters (Source: https://www.furnitubes.com/projects/streetscene-public-realm-1).



Figure 66: Contrasting paving materials used for delineating in Preston.



Figure 67: Potential feature paving for Sprowston developments that is pedestrian friendly.



Figure 65: Benches with green space in the middle (Source: https://www.furnitubes.com/projects/streetscene-public-realm-1).



Figure 68: The planned Welbourne Village Centre, which offers a high quality community space that provides amenity for local people and allows local businesses to thrive.

SG9: Legibility and wayfinding

When places are legible and well signposted, they 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. Some design guidelines are:

- **GUIDE**: A familiar and recognisable environment makes it easier for people to find their way around, therefore obvious and unambiguous features **should** be designed in new development;
- **GUIDE**: Buildings which are located at corners, crossroads or along a main road could play a significant role in navigation. For that reason, the architectural style of those buildings **could** be slightly differentiated from the rest;
- **GUIDE**: Landmark elements **could** also be a public art, historic signage totem or even a sizeable tree; and
- **GUIDE**: New signage design **should** be easy to read. Elements likes languages, fonts, text sizes, colours and symbols should be clear and concise, and avoid confusion.

Signage can also help highlight existing and newly proposed footpaths and cycle lanes, encouraging people to use them more.

- **GUIDE**: It **could** be strategically located along walking and cycling routes to highlight the locations of local and heritage assets raising people's awareness; and
- **CODE**: There **must** be provision for people with visual impairment, for instance tactile paving or tactile lettering on signs.



Figure 69: Example of timber signage in Sprowston.



Figure 70: Example of tactile paving to facilitate movement for people with visual impairments.

SG10: Development layout

Any new development within Sprowston **should** preserve its suburban qualities and close relationship with the countryside, while also respecting the existing building layouts and patterns of growth. Therefore, some design guidelines are:

- **GUIDE**: New development **should** create a smooth transition, in terms of density and vegetation.
- **GUIDE**: Physical boundaries such as hedgerows, **could** enclose and define each street along the back edge of the pavement, adhering to a clear building line that can allow minor variations for each development group;
- **GUIDE**: New development **should** propose routes laid out in a permeable pattern, allowing for multiple connections and choice of routes, particularly on foot. Any cul-de-sacs **should** be relatively short and provide onward pedestrian links where it makes sense;
- **CODE**: Perimeter blocks **must** be employed consistently throughout the new developments in Sprowston. Their sizes and shapes **should** respond to the uses, existing landscape features, topography and residential density. Mews and courtyards **should** be used within large blocks to create interesting and efficient arrangements;
- **CODE**: New developments **must** demonstrate an understanding of the scale, building orientation, enclosure, and façade rhythm of the neighbourhing settlements to respect their character;
- **GUIDE**: New development **should** create good street rhythm by keeping regular plot widths;
- **GUIDE**: Properties **should** maintain an adequate distance between building face to building face at the rear of dwellings to provide residential privacy. Garden sizes should reflect the local context;
- **CODE**: The layout of new development **must** optimise the benefits of daylighting, through the use of solar panels, and passive solar gains, through building orientation, as this can significantly reduce energy consumption. However care **should** be taken to avoid too much solar gain and overheat houses; and
- **CODE**: New developments **must** have regard to the future climate change implications.

SG11: Building heights

Building heights vary throughout Sprowston. In the Pre-2000s area they are between 1 and 2 storeys whereas in the more recent developments there are taller buildings reaching up to 3 storeys.

Therefore, some design guidelines are:

- **GUIDE**: New residential development **should** respond to its surrounding context;
- **GUIDE**: Monotonous building elevations **should** be avoided, therefore subtle changes in roofline **should** be ensured during the design process;
- **GUIDE**: The design of new roofs **should** reflect the shape and pitch of existing roofs, which are dominated by pitched roofs with gables and some hipped examples;
- **CODE**: Roof shapes and pitches **must** employ a restrained palette on a given building; overly complex roofs **must** be avoided.



Figure 71: Image showing a consistent roofline in Sprowston.



Figure 72: Example of a semi-detached bungalow in the pre-2000 area of Sprowston.

SG12: Density

The concept of density is important to planning and design as it affects the vitality and viability of the place. The density within Sprowston is medium which makes sense considering its proximity to Norwich. Therefore, some guidelines for new development are needed to ensure that the existing housing density numbers are respected.

- **GUIDE**: Slightly higher densities **could** be proposed around key movement intersections or along main roads. In addition, higher densities **could** support the viability of potential local services and facilities in the NA;
- **GUIDE**: Density **should** be appropriate to the location of any new development and its surroundings and enhance the character of the existing settlement;
- **GUIDE**: Housing densities **should** be reduced towards development edges and along suburban/rural edges in order to create a gradual transition towards the countryside;
- **GUIDE**: Pedestrian and cycle movement **should** be a priority and taken into account in larger development schemes. Housing density **should** support a 'human scale' development; and
- **CODE**: New developments **must** consider their position within the context of the overall Growth Triangle area when proposing densities.
- **GUIDE**: The minimum and maximum densities in Table 06 **should** be reflected by development within the relevant different areas of development.

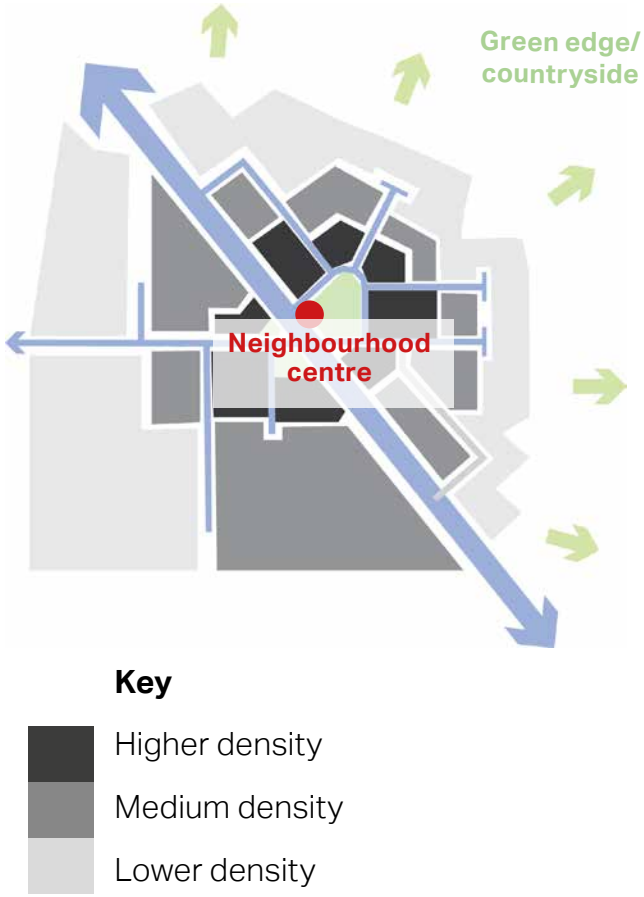


Figure 73: Diagram showing how building density should be organised within the urban fabric.

	Central community spaces	General urban	Sub urban	Edge
Profile	Located in the very centres and is of the greatest density and height, with the greatest variety of uses.	Medium density urban residential area, mainly adjacent to central zones and along primary routes.	Low to medium density housing along tertiary streets with varying setbacks and landscaping.	Quiet residential area with a high proportion of family housing bordering parks, and public footpaths into the surrounding countryside.
Min density	45 DPH	35 DPH	25 DPH	15 DPH
Max density	65 DPH	50 DPH	40 DPH	30 DPH

Table 06: Table explaining the profile and appropriate densities for the different areas of development.

SG13: Continuity and enclosure

Clearly defined spaces help to achieve a cohesive and attractive built form. They also create an appropriate sense of enclosure. Enclosure describes the relationship between a given space and the vertical boundary elements, whether that be building façades or vegetation. The following principles should be considered for achieving a proportioned sense of enclosure:

- **GUIDE**: Focal points and the public realm in new developments **should** be designed in good proportions and delineated with clarity;
- **GUIDE**: The enclosure level of new developments **should** reflect that of their surrounding built environment.
- **GUIDE**: When designing building setbacks, there **should** be an appropriate ratio between the width of the street and the building height;
- **GUIDE**: Trees, hedges, and other landscaping features **should** be used to help create a more enclosed streetscape in addition to providing shading and protection from heat, wind, and rain;
- **GUIDE**: In the case of terraced and adjoining buildings, a variety of plot widths, building heights, and façade depths **should** be considered during the design process to create an attractive streetscape and break the monotony; and
- **GUIDE**: Walls, landscaping and paving **could** be used to achieve visual continuity and well-defined open spaces to link buildings together and define public and private spaces.



Figure 74: Narrow residential lane creating a sense of enclosure in Sprowston.



Figure 75: A green open space in Sprowston that has a sense of arrival due to the relative enclosure on the streets surrounding it.

SG14: Materials and architectural details

- **GUIDE**: New developments **should** draw inspiration from the high-quality local design references. It is essential for these designs to make a meaningful contribution to preserving the suburban character of the town;
- **CODE**: New developments **must** demonstrate respect for existing architectural styles and utilise materials that are considerate of those employed in nearby residences;
- **GUIDE**: New developments **should** ensure that it puts forward a comparable level of greenery, incorporating draught resistant native and contextually-appropriate plant species where possible, to establish a setting that aligns with the existing natural environment.

Key materials and finishes found across Sprowston:

Walling


Red brick


Cream brick


Render


Timber

Fenestration (windows)


Casement


Velux style


Dormer


Sash


Corner

Roofing


Pitched


Hipped


Gable


Grey tiles


Red tiles

Colour palette


Red

Cream

White


Grey


Black

More guidance can be found in the **Street Lighting Policy** by *Sprowston Town Council*.

SG15: Street lighting

Artificial light provides valuable benefits and it makes areas feel more welcoming on a night-time. Street lighting needs to be sensitive to the surroundings and issues of light pollution must be avoided. Therefore, any new development should minimise impact of lighting within the area and reduce light pollution that disrupts the natural habitat and human health. The following guidelines aim to ensure there is enough consideration given at the design stage:

- **GUIDE**: Lighting schemes **should** not cause unacceptable levels of light pollution particularly in intrinsically dark areas. These **could** be areas very close to the countryside or where dark skies are enjoyed;
- **GUIDE**: Developers **should** consider lighting schemes that can be turned off when not needed ('part-night lighting') to reduce any potential adverse effects;
- **GUIDE**: Foot/cycle path light **should** be in harmony with surrounding rural landscape. Lightings, such as solar cat's-eye lighting, reflective paint and ground-based lighting **could** be introduced;
- **CODE**: Lighting **must** integrate into the existing Sprowston Wide Management System;
- **GUIDE**: Choice of lighting **should** be energy-efficient and sustainable; and
- **GUIDE**: Any new developments and house extensions designs **should** encourage to use natural light sources.



Figure 76: Upgraded lighting in the civic area of Rickmansworth. The area in front of destinations has an opportunity to provide a landmark and civic space for the community.



Figure 77: Example of a low level lighting solution.

SG16: Sustainable drainage systems (SuDS) and anti-flood measures

It is a general consensus that the risk of flooding is a concern within Sprowston and the majority of the residents would want to see some improvements to the surface water drainage. Therefore, the introduction of some sustainable drainage systems, known as SuDS, would be beneficial for Sprowston.

The most effective type or design of SuDS would depend on site-specific conditions such as underlying ground conditions, infiltration rate, slope, or presence of ground contamination. However, a number of overarching principles that could be applied in new development are:

- **GUIDE**: Surface water **should** be managed as close to where it originates;
- **GUIDE**: Run off rates **could** be reduced by facilitating infiltration into the ground or by providing attenuation that stores water to help slow its flow down;
- **GUIDE**: SuDS **should** be integrated into new development through early consideration in design stages of the development process;
- **GUIDE**: To be even more effective SuDS **could** be vegetated, using natural processes which then slow and clean the water, whilst also increasing the biodiversity value of the area; and
- **GUIDE**: Best practice SuDS schemes **should** link the water cycle to make the most efficient use of water resources by reusing surface water.



Figure 78: Example of attenuation solution designed into the scheme at Sycamore Avenue.



Figure 79: Example of rain gardens elsewhere in the UK.

SuDS response for developments in the Norwich Airport flight path

Areas of Spowston are within the Norwich City Airport flight path meaning that SuDS and any other blue infrastructure will need to be designed in a manner which avoids potential hazards for airport traffic. Below are design guides and codes for developments that are located within the Norwich Airport flight path, that minimise the attraction of hazardous wildlife near Norwich Airport, based on UK Civil Aviation Authority guidance (CAP 772) and biodiversity safeguarding principles:

- **GUIDE**: SuDS with permanent open water bodies (e.g., ponds, wetlands) which attract birds, especially large flocking species like gulls and geese **should** be avoided.
- **GUIDE**: Underground attenuation tanks, permeable paving, or covered swales **should** be used where appropriate to reduce surface water exposure and wildlife attraction.
- **GUIDE**: Basins **should** be designed to drain quickly after rainfall, avoiding standing water that could attract birds or amphibians.
- **GUIDE**: Low-growing, non-seeding, and non-fruiting vegetation **should** be utilised to discourage nesting and feeding. Avoid berry-producing shrubs and tall grasses.
- **GUIDE**: Fish or aquatic plants that could support a food chain attractive to predatory birds **should** be avoided.
- **GUIDE**: Developers **should** engage with Norwich Airport during the design phase to ensure alignment with their wildlife hazard assessments.
- **CODE**: Developers **must** adhere to the UK CAA's CAP 772 guidance and any local planning conditions related to aerodrome safeguarding.

SG17: Eco Design

By default, new development in Sprowston should adopt a fabric first approach in line with the governments Future Homes Standard, to attain higher standards of insulation and energy conservation.

- **GUIDE**: Reducing energy demand further by employing passive design principles for homes is desirable and **could** make some forms of development more acceptable to the community (window orientation, solar gain, solar shading, increased insulation, ventilation with heat-recovery);
- **GUIDE**: All homes and business properties **should** have solar panels incorporated;
- **GUIDE**: On-site renewable energy regeneration (solar, ground source, air source and wind driven) **should** be maximised; and
- **GUIDE**: Developments **should** consider building form and thermal efficiency: terraced, semi-detached and detached houses all have different energy efficiency profiles. This should be balanced with local design preference and character considerations to ease acceptance for development.

Passivhaus

Passivhaus is a rigorous voluntary energy based standard in the design and construction industry today. The result is to require 90% less heating and cooling energy than conventional buildings and it is applicable to most building types and designs. The Passivhaus high performance building standard is internationally recognized, evidence-based and scientifically proven and achieves unique results.

It is very important that some of features of the passive house such as Solar panels be designed in from the outset. In addition good quality, long life and sustainably sourced materials are also important. The following five principles are central to Passivhaus design and construction, determining the energy efficiency of the buildings:

- Super-insulated envelopes;
- Airtight construction;
- High-performance glazing;
- Thermal-bridge-free detailing; and
- Heat recovery ventilation.



Figure 80: Buildings in Sprowston that have been retrofitted with solar panels.



Figure 81: Example of an air source heat pump.

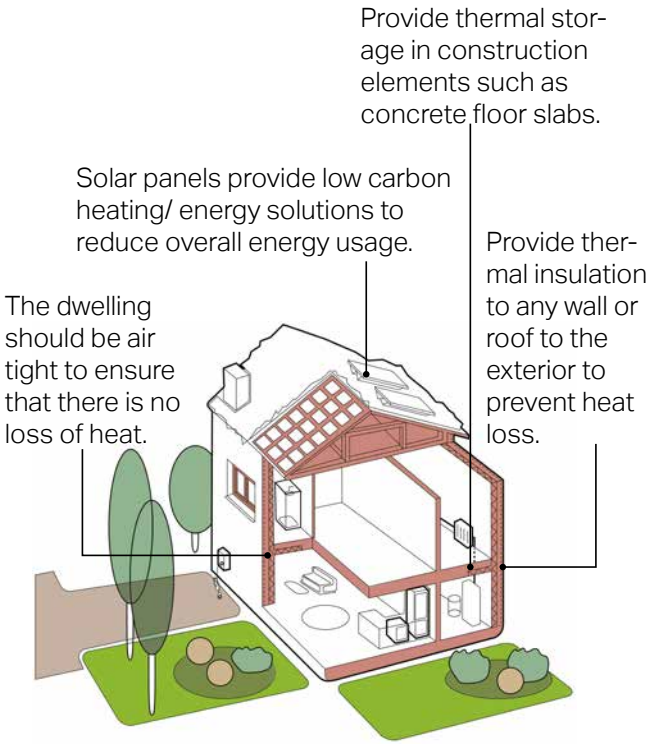


Figure 82: Diagram showing some elements of the building fabric to be considered.



Figure 83: Example of a passivhaus elsewhere in the UK.

SG18: Minimising construction waste

As part of the environmental management system it is important that the waste generated during construction is minimised, reused within the site or recycled. Guidance to follow includes:

- **GUIDE**: Developers **should** plan to re-use materials by detailing their intentions for waste minimisation and re-use in Site Waste Management Plans. The actions that this plan will include are:
- **CODE**: Before work commences, the waste volumes to be generated and the recycling and disposal of the materials **must** be described;
- **CODE**: On completion of the construction works, volumes of recycled content purchased, recycled and landfilled materials **must** be collated;

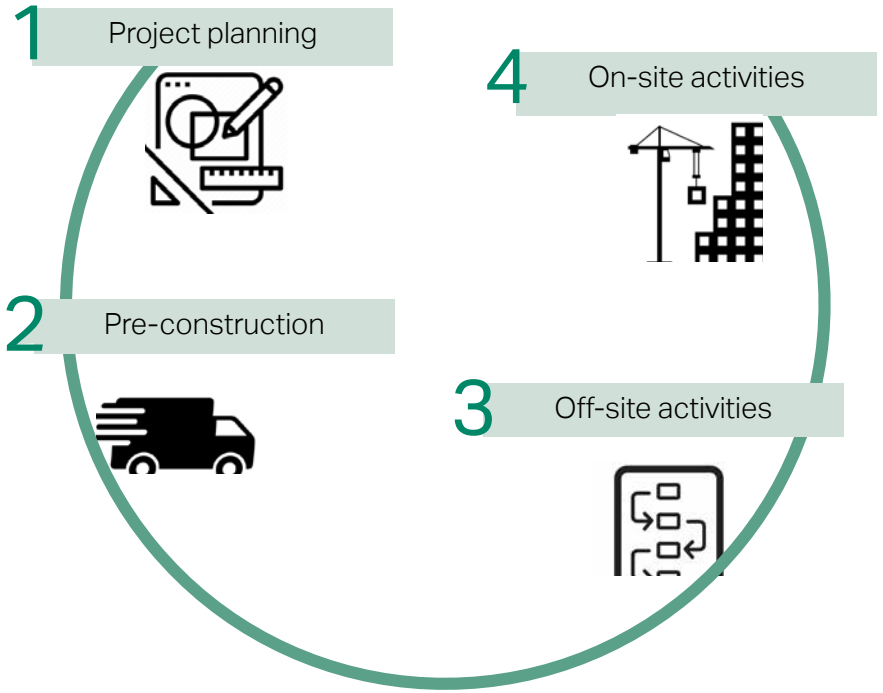


Figure 84: Diagram to illustrate the 4 main stages where waste management practices can be implemented.

- **GUIDE**: The workforce **should** be properly trained and competent to make sure storage and installation practices of the materials is done under high standards.

SG19: EV charging points

Sprowston strongly supports proposals for private transport using electrically and other non fossil fuel powered vehicles. Electric vehicle charging can be integrated both on and off street. Some design guidelines on how new development should design for electric vehicle charging points are:

On-street car parking or parking courts

- **GUIDE**: Car charging points **should** always be provided adjacent public open spaces. Street trees and vegetation **could** be used to minimise any visual contact with the charging points;
- **CODE**: Where charging points are located on the footpath, a clear footway width of 1.5m **must** be required next to the charging point to avoid obstructing pedestrian flow; and
- **GUIDE**: Car charging points within parking courts are highly supported and therefore **should** be implemented, since they can serve more than one vehicles.

Off-street car parking

- **GUIDE**: Mounted charging points and associated services **should** be integrated into the design of new developments, if possible with each house that provides off-street parking; and
- **GUIDE**: Cluttering elevations, especially main façades and front elevations, **should** be avoided.



Figure 85: Example of off-street electric vehicle car charging point.



Figure 86: Example of electric vehicle charging points in a parking court.

SG20: Biodiversity

- **GUIDE**: Existing biodiversity features such as wildlife corridors, ponds, and orchards, **should** be preserved and enhanced by development. This **could** include making connections to these features more accessible and ensuring that development overlooks these areas, has street furniture readily available, and provides appropriate wayfinding signs;
- **GUIDE**: Landscaping design **should** be layered with a variety of native species suitable for the local wildlife, soil conditions, and climate. Development should avoid low maintenance, hard landscaped gardens, which are harmful to wildlife and reduce biodiversity; and
- **GUIDE**: Open spaces and gardens **should** be designed with wildlife in mind by incorporating a range of small-scale biodiversity improvements, which **could** include: nest boxes, bird feeders, bug hotels, hedgehog holes, bat boxes, log piles, pollinator nest sites, and wildflower planting. These improvements **should** be carefully planned to support native flora and fauna species.



Figure 87: Small scale biodiversity improvements such as mounted swift next boxes (*left*) and bug hotels (*right*).

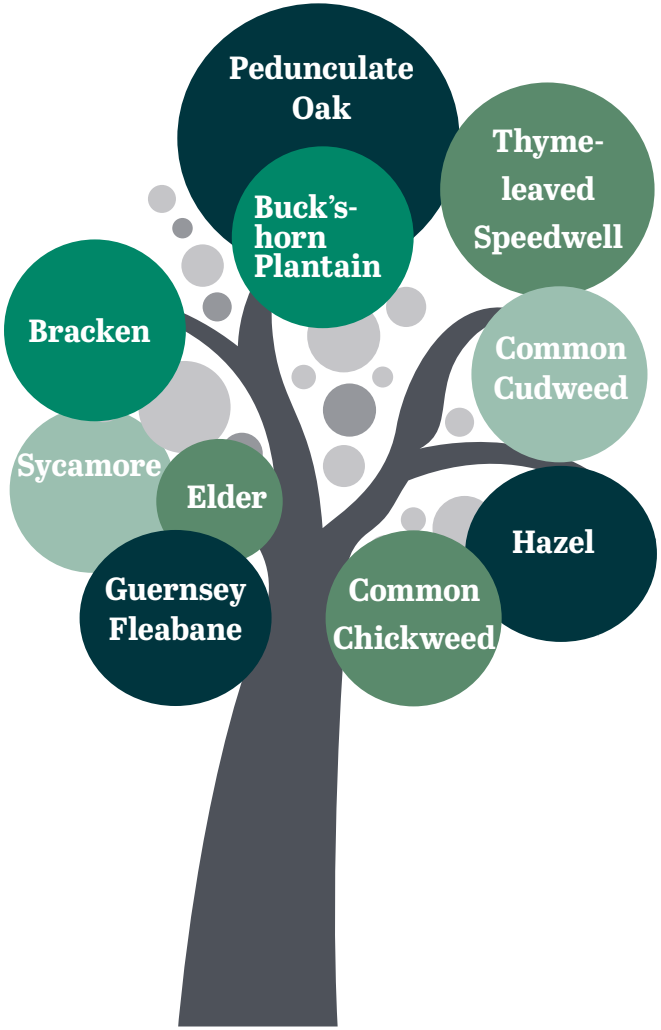


Figure 88: Native plant species within Sprowston (Source: National Biodiversity Network Atlas).

4.2 Guidance and codes development in the existing settlement (ES)

While to a lesser scale compared to the growth to the north of the existing settlement, there is still the possibility for development in the form of small infill and backland development, extensions and redevelopments of existing buildings in Sprowston.

The guidance in this section helps ensure that any development in the existing built up area of Sprowston (primarily within the pre-2000 character area) is both responsive to the existing character of the town while meeting the Town Council's sustainability goals.

Design guidance and codes
ES1: Infill and backland development
ES2: Extensions
ES3: Boundary treatments and setbacks
ES4: Local vernacular
ES5: Solar panels

Table 07: Table showing the guidance and codes topics for existing settlement of Sprowston.



Figure 89: Typical residential streetscape in the pre-2000s area of Sprowston.

ES1: Infill and backland development

- **GUIDE**: Infill development **should** complement the street scene into which it will be inserted. It does not need to mimic the existing styles but its scale, massing and layout need to be in general conformity with the existing (this is particularly ridge/eave heights, especially for terraced or dense groupings of buildings);
- **GUIDE**: Where there are opportunities for infill development, proposals **should** demonstrate that existing views and vistas between buildings and along view corridors have been considered and the aim **should** be that they are retained, wherever possible;
- **GUIDE**: The building line of new development **should** be in conformity with that of the existing surrounding buildings; and
- **GUIDE**: The terracing of existing detached and semi-detached areas **should** be avoided.



Figure 90: Example of a recent roof extension in Sprowston that is proportionate to the exisiting dwelling.

ES2: Extensions

There are a number of principles that residential extensions and conversions should follow to maintain character, and it should be noted that many household extensions are covered by permitted development rights and therefore do not need planning permission.

- **GUIDE**: 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.
- **GUIDE**: Designs that wrap around the existing building and involve overly complicated roof forms **should** be avoided unless they enhance the existing building and are supported by a reasoned and well argued supporting design statement.

ES3: Boundary treatment

Three more crucial aspects of a successful streetscape and urban form is the issue of corners, boundary lines and boundary treatments. Therefore, the following guidelines should be applied in new development.

- **GUIDE**: Buildings **should** front onto streets. The building line should have subtle variations in the form of recesses and protrusions but **should** generally form a unified whole;
- **GUIDE**: Buildings **should** be designed to ensure that streets and/or public spaces have good levels of natural surveillance from buildings. This can be ensured by placing ground floor habitable rooms and upper floor windows facing the street;
- **GUIDE**: Natural boundary treatments **should** reinforce the sense of continuity of the building line and help define the street, appropriate to the character of the area. They **should** be mainly low continuous hedges and low walls, as appropriate, made of traditional materials found elsewhere in Sprowston such as local bricks;
- **GUIDE**: Vegetated boundaries **should** be well managed and maintained;
- **GUIDE**:In the case of edge lanes, natural boundary treatments **could** be used to act as buffer zones between the site and the countryside and offer a level of protection to the natural environment;
- **GUIDE**: The form of corner buildings **should** respect the local architectural character. Doing so improves the street scene and generates local pride; and
- **GUIDE**: All the façades overlooking the street or public space **should** be treated as primary façades.



Figure 91: Low walls, fencing and hedging used as boundary treatment in Sprowston.

ES4: Local vernacular

- **GUIDE**: New development **should** complement Sprowston's existing architectural character and materiality (see Page 67), and fit well within the surrounding area it is located in;
- **GUIDE**: New development **should** harmonise with the detailing and fenestration abundant within the NA, considering the proportion, symmetry and rhythm.



Figure 92: Example of 1.5 storey chalet style buildings in Sprowston.



Figure 93: Example of 2 storey semi-detached houses in Sprowston.

ES5: Solar panels

Installing solar panels is a tried and tested way of adapting existing dwellings to make them more environmentally friendly. The following guidelines explain how solar panels can be added to existing dwellings while minimising the impact on the character of the street:

- **GUIDE**: Solar panels that blend with the roof colour and style **should** be selected. Black or dark blue panels often integrate well with traditional roofing materials;
- **GUIDE**: Low-profile mounting systems **should** be used to keep the panels close to the roof surface, reducing their visual prominence;
- **GUIDE**: Panels **should** be installed in a symmetrical pattern that aligns with the roof's lines and angles to maintain a harmonious appearance; and
- **GUIDE**: Developers **could** consider using solar shingles (see Figure 94) or tiles that mimic traditional roofing materials for a more seamless look.



Figure 94: Use of shingle-like solar panels on a slate roof, with the design and colour of the solar panels matching those of the adjacent slate tiles. [Example from elsewhere in UK].



Figure 95: Positive example of implementing solar panels since the design stage. [Example from elsewhere in UK].



Checklist

05

5. Checklist

This section sets out a general list of design considerations by topic for use as a quick reference guide in design workshops and discussions.

General design guidelines for new development:

- Integrate with existing paths, streets, circulation networks and patterns of activity;
- Reinforce or enhance the character of streets, greens, and other spaces;
- 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;
- Positively integrate energy efficient technologies;
- 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;
- 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.

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?

Local green spaces, views and 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?
- 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 suburban 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?

Local green spaces, views & character:

- Have opportunities for enhancing existing amenity spaces been explored?
- Will any communal amenity space be created? If so, how will this 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)?

Gateway and access features:

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

Buildings layout and grouping:

- What are the typical groupings 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?

Buildings layout and grouping:

- 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?

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?

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?

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?

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?
- Do 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?

Building materials & surface treatment:

- 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?

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?

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