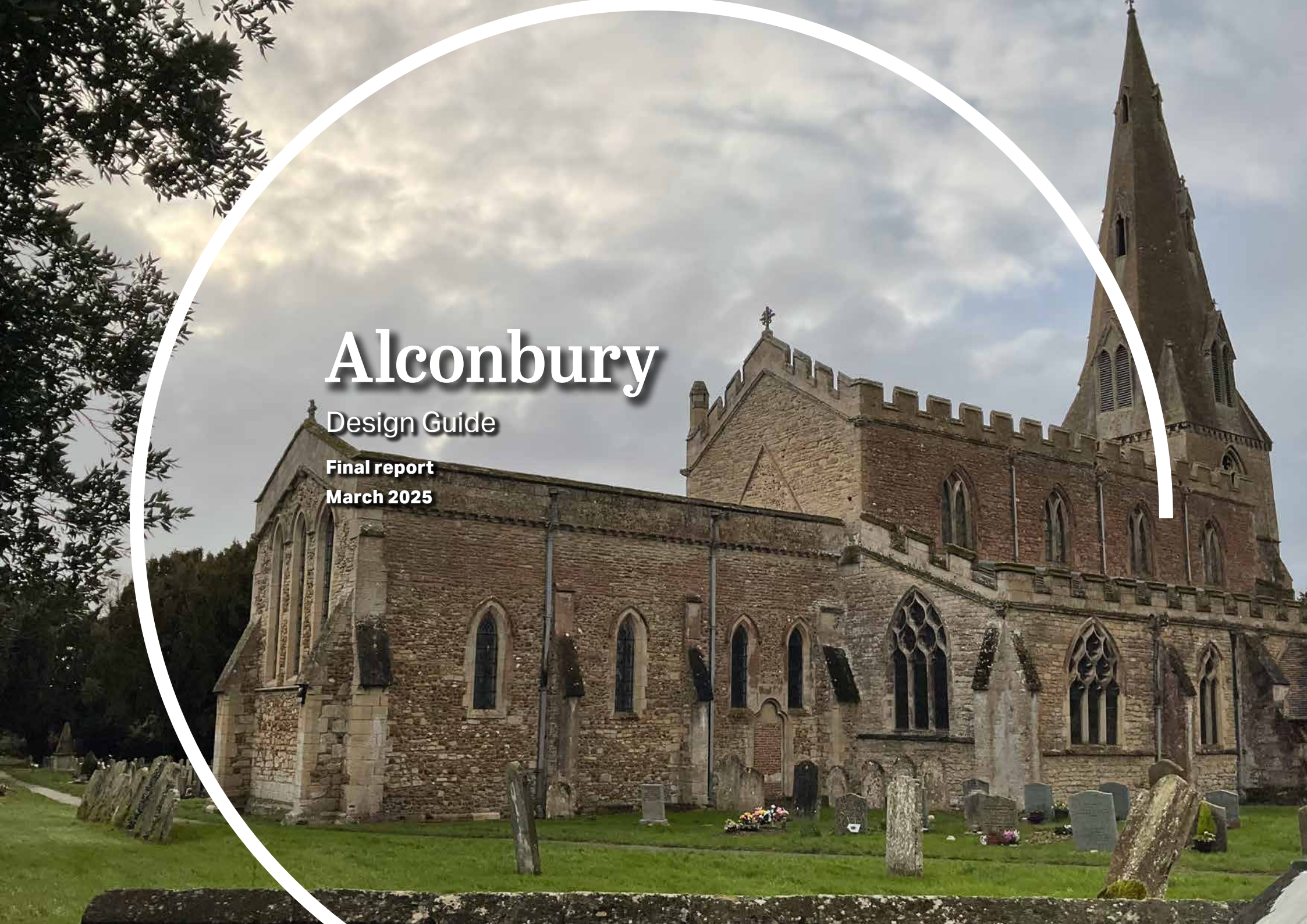


Alconbury

Design Guide

Final report

March 2025

Quality information

Prepared by	Checked by	Approved by
Daniel Mather **Urban Designer Consultant**	Ben Castell **Director**	Ben Castell **Director**
Giuseppe Verdone **Associate Director**		

Revision History

Issue no.	Issue date	Details	Issued by	Position	Comments	Issued by	Position
3	11/03/2025	Final report	Daniel Mather	Consultant Urban Designer			
2	25/02/2025	Second draft	Giuseppe Verdone	Assocciate Director	03/09/2025	Tracy Gilbert	Alconbury Parish Council
1	25/01/2025	First draft	Giuseppe Verdone	Assocciate Director	14/02/2025	Tracey Gilbert	Alconbury Parish Council
	22/01/2025	Internal draft	Giuseppe Verdone	Assocciate Director	25/01/2025	Ben Castell	Director

This document has been prepared by AECOM Limited ("AECOM") in accordance with its contract with Locality (the "Client") and in accordance with generally accepted consultancy principles, the budget for fees and the terms of reference agreed between AECOM and the Client. Any information provided by third parties and referred to herein has not been checked or verified by AECOM, unless otherwise expressly stated in the document. AECOM shall have no liability to any third party that makes use of or relies upon this document.

Contents

1. Introduction **5**

1.1 Purpose of this document 5
1.2 Area of study 6
1.3 Planning policy context 8
1.4 Local planning policy and guidance 10
1.5 Process and engagement 14
1.6 How to use this document 15
1.7 Reading guidance 16

2. Neighbourhood Area context analysis **18**

2.1 Layout 18
2.2 History 19
2.3 Conservation Area and heritage assets 20
2.4 Access and movement 22
2.5 Green and blue infrastructure 23
2.4 Assets and challenges 25

3. Character areas appraisal **28**

3.1 Understanding place 28
3.2 Identifying Alconbury's character areas 29

4. Design opportunities **34**

4.1 Rural village 34
4.2 Healthy streets 34
4.2 Sustainable design 34

4. Area wide design guidance **36**

4.1 Guidance themes 36
4.2 Rural village 37
4.3 Healthy design 48
4.3 Sustainable design 53

5. Checklist **61**

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 Alconbury Parish 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 the Neighbourhood Area (NA), 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 Alconbury should follow in order to comply with this parish-wide design guidance document.

1.1 Purpose of this document

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

Figure 01: The Church of St Peter and St Paul.

Figure 02: Alconbury Recreation Ground.

1.2 Area of study

The Parish of Alconbury, situated in Cambridgeshire, lies approximately 5 miles northwest of Huntingdon and 17 miles south of Peterborough. Known for its historic village atmosphere and scenic rural surroundings, it is well-connected via major transport routes, including the A1(M), A14, and Huntingdon Railway Station. These links enhance its appeal to both residents and visitors.

The parish features a blend of historic and modern architecture, including thatched cottages, Georgian homes, and newer developments. Alconbury Brook meanders through the countryside and village, supporting wildlife and enhancing the natural beauty of hedgerows, woodlands, and farmland. Public footpaths and bridleways provide access to outdoor activities and encourage exploration of the area's tranquil landscape.

Community facilities include the Alconbury Sports and Social Club, a primary school, and The Manor House pub.

8 km
to Huntingdon

1,464
RESIDENTS
2021 CENSUS

Figure 03: County context of the Neighbourhood Area.

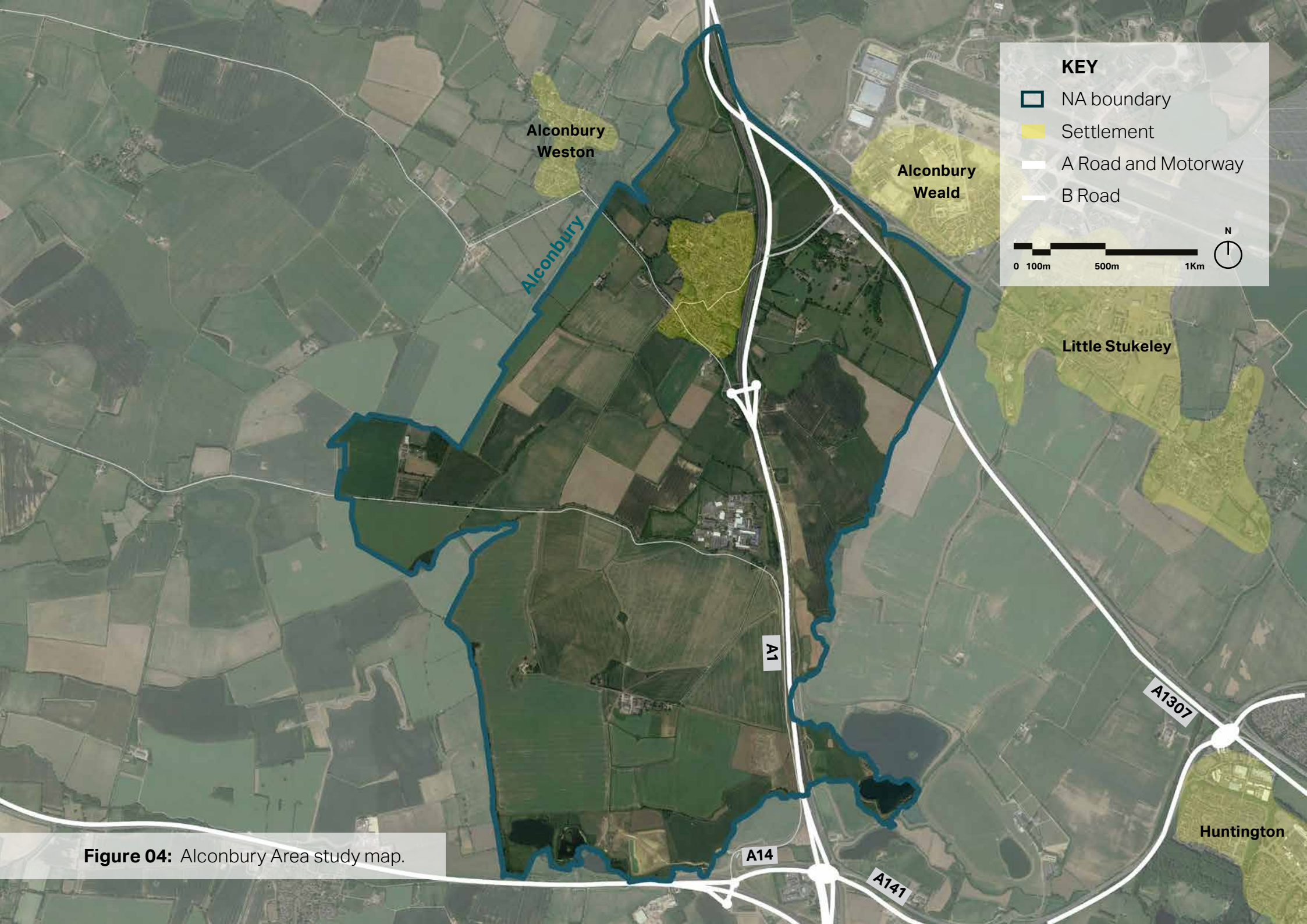


Figure 04: Alconbury Area study map.

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 guidelines to sit alongside the Neighbourhood Plan to inform design proposals within Alconbury 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 Alconbury's overall character into any future development.

Additionally, these following documents have informed the design guidance 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

2024 - National Planning Policy & Guidance
MHCLG

The National Planning Policy Framework (NPPF) outlines the Government's overarching economic, environmental, and social planning policies for England. The policies within the NPPF apply to the preparation of Local and Neighbourhood Plan areas, and act as a framework against which decisions are made on planning applications.

The sections of the NPPF that are of particular relevance to this Design Guide are:

Part 2: Achieving sustainable development;

Part 5: Delivering a sufficient supply of homes;

Part 8: Promoting healthy and safe communities;

Part 12: Achieving well-designed places, emphasises the need to create high-quality buildings and places as fundamental to what the planning and development process should achieve.

Part 15: Conserving and enhancing the natural environment; and

Part 16: Conserving and enhancing the historic environment.

The NPPF notes that, 'development that is not well designed should be refused, especially where it fails to reflect local design policies and government guidance on design, taking into account any local design guidance and supplementary planning documents such as design guides and codes'.

National Model Design Code (2021)
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.

The NMDC and NDG are companion documents setting out characteristics of well-designed places. They support the ambitions of the National Planning Policy Framework (NPPF) to utilise the planning and development process in the creation of high-quality place-making. The NDG states that "specific, detailed and measurable criteria for good design are most appropriately set at the local level".

The guides are expected to be used by local authorities, applicants and local communities to establish further design codes and guidance (such as this document) that can deliver in line with local objectives.

National Design Guide (updated January 2021)
MHCLG

The National Design Guide (NDG) sets the 10 characteristics of a well-designed place and demonstrates what good design is in practice. As a companion document, it supports the ambitions of the NPPF to utilise the planning and development process in the creation of high-quality places.

The NDG should be used as an overarching reference for new development where topics are not covered in local guidance. The NDG characteristics were used in the initial analysis to understand local demands and challenges.

The NDG notes that a well-designed place is unlikely to be achieved by focusing only on the appearance, materials and detailing of buildings.

Manual for Streets (2007)
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 pedestrians and cyclists first.

Building for a Healthy Life (2020)
Homes England

Building for a Healthy Life (BHL) is the Government-endorsed industry standard for well-designed homes and neighbourhoods. The name reflects the key role that the built environment has in promoting wellbeing. The BHL toolkit sets out principles to help guide discussions on planning applications and to help local planning authorities to assess the quality of proposed (and completed) developments. It also provides useful prompts and questions for planning applicants to consider during the different stages of the design process.

Future Homes Standard (2025)
MHCLG

The Future Homes Standard will require new build homes to be future-proofed with low carbon heating and world-leading levels of energy efficiency; it will be introduced by 2025.

All homes will be 'zero carbon ready', becoming zero carbon homes over time as the electricity grid decarbonises, without the need for further costly retrofitting work.

From 2025, new homes built to the Future Homes Standard should have carbon dioxide emissions at least 75% lower than those built to current Building Regulations standards.

The Future Homes Standard is yet to become effective into law, but once adopted - any new development will be expected to comply with (or exceed) the standards set out.

1.4 Local planning policy & guidance

Alconbury is a civil parish, overseen by Huntingdonshire District Council as the Local Planning Authority (LPA) and situated in the County of Cambridgeshire.

The following planning and design documents (showed also in the table opposite) were reviewed to understand the policy context under which this document has been produced. Although not an exhaustive list, the reviewed documents are particularly relevant to design policies and include the area's Local Plan and Supplementary Planning Documents (SPD).

Huntingdonshire Dirstrict Council guidance	Adoption date
Huntingdonshire Local Plan	May 2019
Huntingdonshire Design Guide SPD	2017
Cambridgeshire Flood and Water SPD	2017
Landscape and Townscape SPD	2022
Developer Contributions SPD	2011

Huntingdonshire District Council

Huntingdonshire Local Plan

Section 5 of the Huntingdonshire Local Plan is titled 'Requiring Good Design', highlighting its importance to future development in the area. Policies LP11, LP12, LP13, LP14, LP15, LP16 and LP17 create a framework for creating well designed places. These policies cover topics such as responding to local context; ease of getting around; well designed public spaces; sustainable design and construction method; placemaking; amenity; surface water; and parking.

Supplementary Planning Documents (SPDs)

To help deliver policies within the

Huntingdonshire Development Plan, there are several supporting Supplementary Planning Documents (SPDs) that have been adopted. SPDs do not have 'development plan' status but are subject to public consultation and are 'material considerations' in the determination of planning applications. These include:

- Landscape and Townscape SPD
- Cambridgeshire Flood and Water SPD
- Huntingdonshire Design Guide SPD
- Developer Contributions SPD

Huntingdonshire Design Guide SPD

The purpose of the Design Guide is to influence and raise the quality of design and layout of new development in Huntingdonshire, by providing practical advice to all those involved in the design and planning process on what the Council considers to be good, environmentally friendly and sensitive design. It does not differentiate between conservation areas and other areas, as it sets out key principles that should be applied to all development, wherever it may be located.

The Design Guide sets out design principles based on recognised best practice and explains key requirements that the Council will take into consideration when assessing planning proposals.

The Design Guide promotes locally distinctive design which respects and enhances the character of Huntingdonshire. The Council also values innovation and encourages contemporary approaches to new development where evidence arising from appraisal of the site and its context demonstrates that such an approach is appropriate. The guidance is applicable to all new development, from large strategic developments to house extensions, from housing to commercial development.

Cambridgeshire Flood and Water SPD

The aim of this SPD is to provide guidance on the approach that should be taken to manage flood risk and the water environment as part of new development proposals. The SPD will highlight the documents that will be required to accompany planning applications, including:

- Sequential Test, and where appropriate Exception Test, reports
- Site specific Flood Risk Assessments (FRAs) and Drainage Strategies (incorporating the approach to surface water drainage)

A significant amount of new development will occur in Cambridgeshire in the next 20 years and beyond. In order to reduce the impact upon the water environment, development must be appropriately located, well designed, managed and take account of the impacts of climate change.

Each of the chapters contained within the SPD details guidance for applicants on managing flood risk and the water environment in and around new developments within Cambridgeshire.

Landscape and Townscape SPD

Adopted in 2022 the aim of the Landscape and Townscape SPD is to support the delivery of the Huntingdonshire local plan by:

- Providing information on the existing landscape character of the district.

- Providing information on the existing townscape character of the settlements in the spatial planning.
- Areas and key service centres identified in the Local Plan.
- Helping developers in their submission of planning applications by providing guidance on landscape.
- Townscape issues to be considered as part of any development proposal to guide the location.
- Integration of new development within the existing landscape and townscape.
- Encouraging comprehensive consideration of landscape and townscape issues and their interrelationship with development.
- Informing neighbourhood plan preparation.

Developer Contributions SPD

- This Supplementary Planning Document (SPD) sets out Huntingdonshire District Council's policy for securing developer contributions from new developments that require planning permission.

1.5 Process and engagement

A one-day site visit took place on the 9th of December 2024 commencing with an in-person meeting between AECOM and representatives of the Alconbury 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 the parish, via car 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.

This document has resulted from a collaborative effort between the Alconbury Neighbourhood Plan Steering Group and AECOM, reflecting the priorities of local residents. The design process includes the following steps:

Figure 05: A brief chronological breakdown of the key elements and milestones used throughout the duration of the production of this document.

1.6 How to use this document

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

A valuable way 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 guidance can help to facilitate conversations to help align expectations, aid understanding, and identify key local issues.

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

Design 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.

Potential users	How they will use the design guidance
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 should be discussed with applicants during any pre application discussions.
Alconbury Parish Council	As a guide when commenting on planning applications, ensuring that the guidance 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.

1.7 Reading guidance

This design guide for Alconbury serves as a practical tool to guide the design of future development within the parish. It is intended to ensure that any new proposals are in keeping with the area's character while addressing local challenges such as flooding, connectivity, and sustainability. The design guide complements and integrates with broader planning guidance, particularly the Huntingdonshire Design Guide SPD, which provides overarching principles for development across the district.

The Huntingdonshire Design Guide SPD outlines key considerations such as context-sensitive design, sustainable development, and enhancing the natural and built environment. These principles alongside this report aim to address Alconbury's unique characteristics, including its historic village core, rural setting, and existing infrastructure.

Please note:

Design guidelines are contained within this document, highlighted within boxes as shown here.

- Guidelines: Design guidance refers to recommendations and best practices that help designers make informed decisions during the design process. It is often flexible and can be adapted to suit specific project needs or contexts. Design guidelines are in this document expressed with one of two words:
    - **SHOULD** reflects design principles that are strongly encouraged.
    - **COULD** reflects design principles that are suggestions.

Neighbourhood Area context analysis

02

2. Neighbourhood Area 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.

2.1 Layout

The village is centred around its historic core, where winding streets and traditional buildings cluster near the Church of St Peter and St Paul, a dominant feature of the skyline.

The Alconbury Brook runs through the heart of the village, shaping the layout and acting as a central feature. Surrounding the built area are arable farmlands, hedgerows, and patches of mature and deciduous woodland, which integrate the village into its natural setting. The topography, defined by a valley, directs surface runoff towards the brook, adding to the distinctive landscape that influences building placement and development patterns.

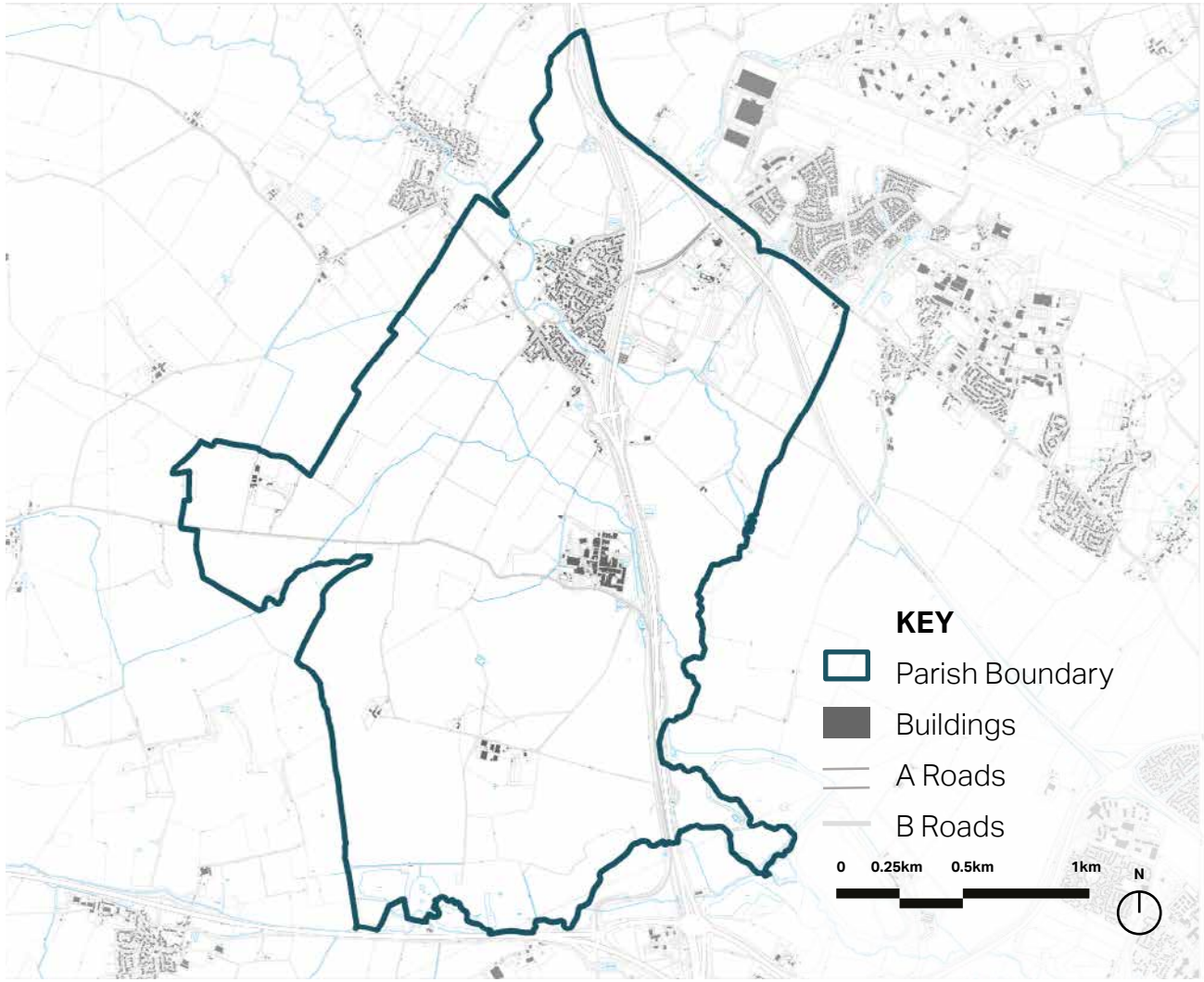


Figure 06: Base map for Alconbury Parish.

2.2 History

Alconbury has a rich history, with evidence of habitation dating back to the Middle Bronze Age. Archaeological finds reveal Iron Age settlements and a Romano-British field system, highlighting its long-standing significance. The village was recorded in the Domesday Book of 1086 as "Acumesberie" and "Almundeburie," reflecting its early prominence.

The medieval period saw the establishment of key landmarks, including the Church of St Peter and St Paul, a Grade I listed building that remains a focal point of the village.

More recently, Alconbury's history is tied to RAF Alconbury, a key airfield during World War II and the Cold War (although outside the parish). Today, the village retains its historical identity through 27 listed buildings and its Conservation Area, preserving its architectural and cultural heritage.

2.3 Conservation Area and heritage features

As mentioned above, Alconbury is rich in heritage, with 27 listed buildings, as showed in the opposite plan, that reflect the village's historical and architectural significance. At its heart lies the Grade I listed Church of St Peter and St Paul (Fig. 11), a prominent medieval structure that commands the skyline and serves as a focal point for the community. Other listed buildings include traditional cottages, farmhouses, and stone-built properties that showcase the village's evolving architectural styles over the centuries.

The Alconbury Conservation Area protects the historical core of the village, preserving its unique character and charm. This designation ensures that the winding streets, historic buildings, and key features such as the Alconbury Brook are maintained in a manner that respects the village's identity.

Figure 07: The Grade I listed building of Church of St Peter and St Paul, Church Way.

Figure 08: The Grade II listed bridge crossing Alconbury Brook.

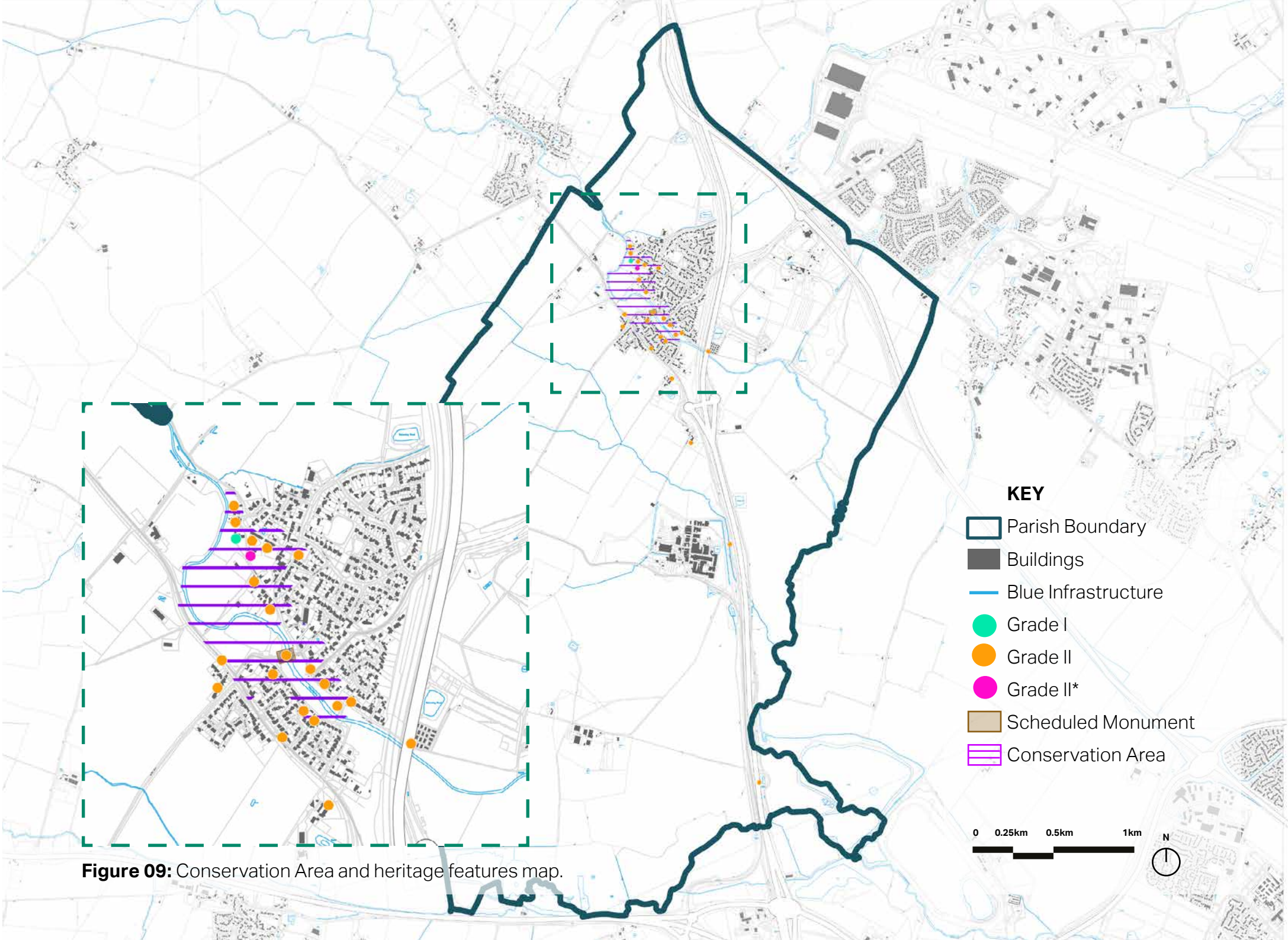


Figure 09: Conservation Area and heritage features map.

2.4 Access and movement

Alconbury benefits from a strategic location with strong transport links that connect the parish to surrounding towns and cities. The A1 runs along the parish's eastern edge, providing direct routes to Peterborough, London, and the North, while the nearby A14 offers east-west connections to Cambridge, the Midlands, and beyond.

Public transport options include Huntingdon Railway Station, approximately 5 miles from the village, offering regular Thameslink services to London and other destinations. Peterborough Station, located further north, provides an even wider network of routes, including services to the Midlands and the North East. However, like many rural settlements, infrequent bus services mean residents often rely on private vehicles for local and regional travel.

Within the village winding streets and a network of public footpaths offer safe routes for pedestrians and cyclists, connecting Alconbury with its surrounding countryside although not all in the parish have access to these.

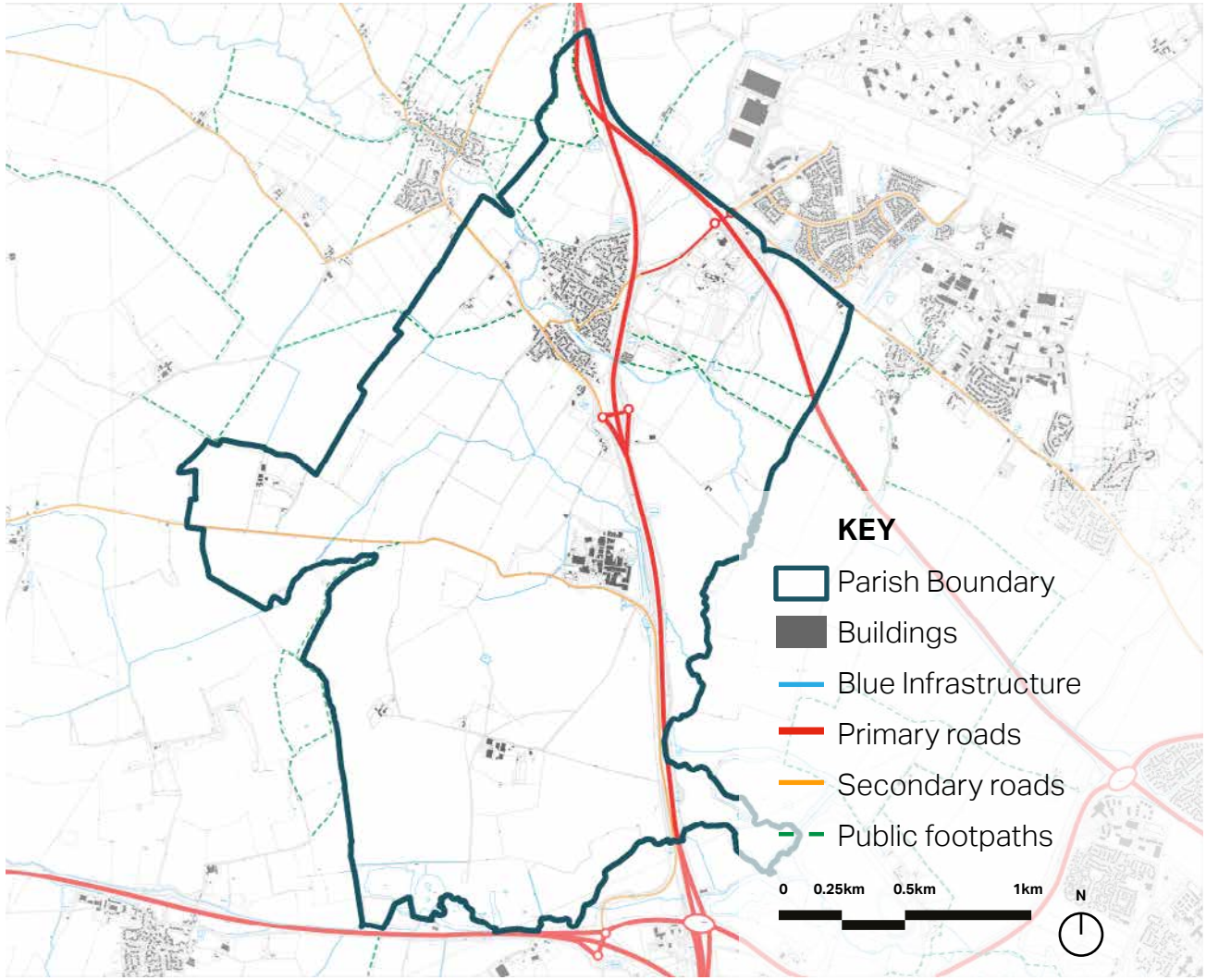


Figure 10: Movement map for Alconbury Parish.

2.5 Green and blue infrastructure

Green infrastructure

Alconbury is set within a picturesque rural landscape, defined by its valley location and the meandering Alconbury Brook, which flows through the village. This natural feature shapes the character of the parish, providing a scenic centrepiece while supporting diverse wildlife habitats.

The surrounding countryside consists of rolling arable farmland interspersed with mature hedgerows and pockets of deciduous woodland, which create a sense of enclosure and connection to nature. These elements not only enhance the visual appeal of the village but also integrate it seamlessly into its rural surroundings. The topography, with its gentle slopes, adds to the charm while also influencing the settlement's layout and drainage patterns.

Public footpaths extend outward from the village, linking it to the wider landscape and offering residents and visitors access to tranquil countryside views. The A1 and the Great North Road are both barriers to active movement due to the large volume of traffic on them.

Blue infrastructure

Flooding is a significant concern in Alconbury, primarily due to the Alconbury Brook (flood risk zone 3 as showed by the plan opposite), which runs through the centre of the village. While the brook contributes to the area's character and natural appeal, it frequently poses a flood risk, particularly during periods of heavy rainfall.

Alconbury Brook is 20km long with a hilly catchment of 82km2. After heavy rain surface run-off from upstream agricultural land is rapid, all running through the centre of the village. This leaves many properties vulnerable to recurrent in-property flooding.

The existing drainage network is already under strain, making it essential that any new development considers its potential impact on water management and flood mitigation.

Figure 11: Open green space framing Alconbury Brook.

Figure 12: Play ground and sport pitches of the Alconbury Sports and Social Club.

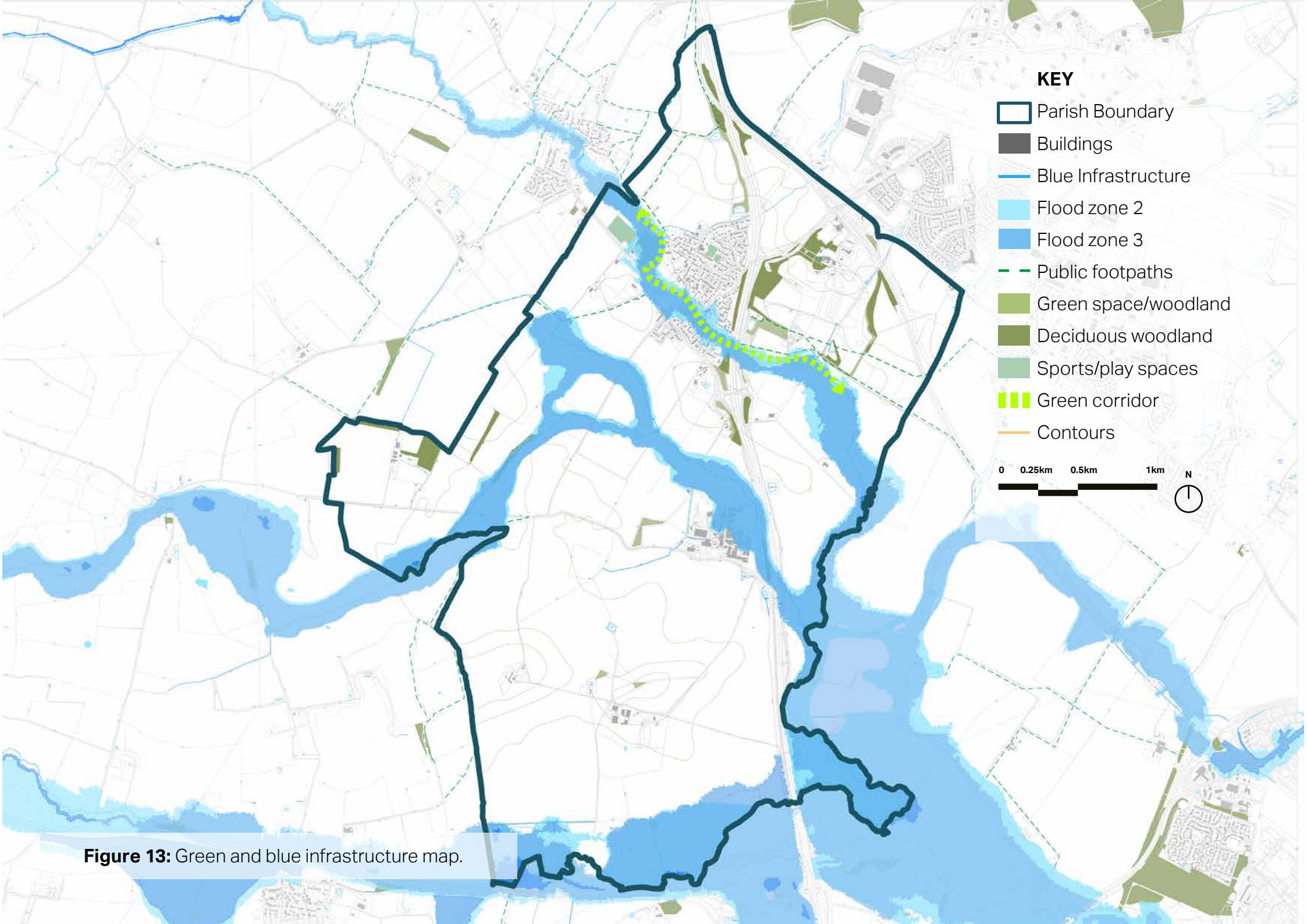


Figure 13: Green and blue infrastructure map.

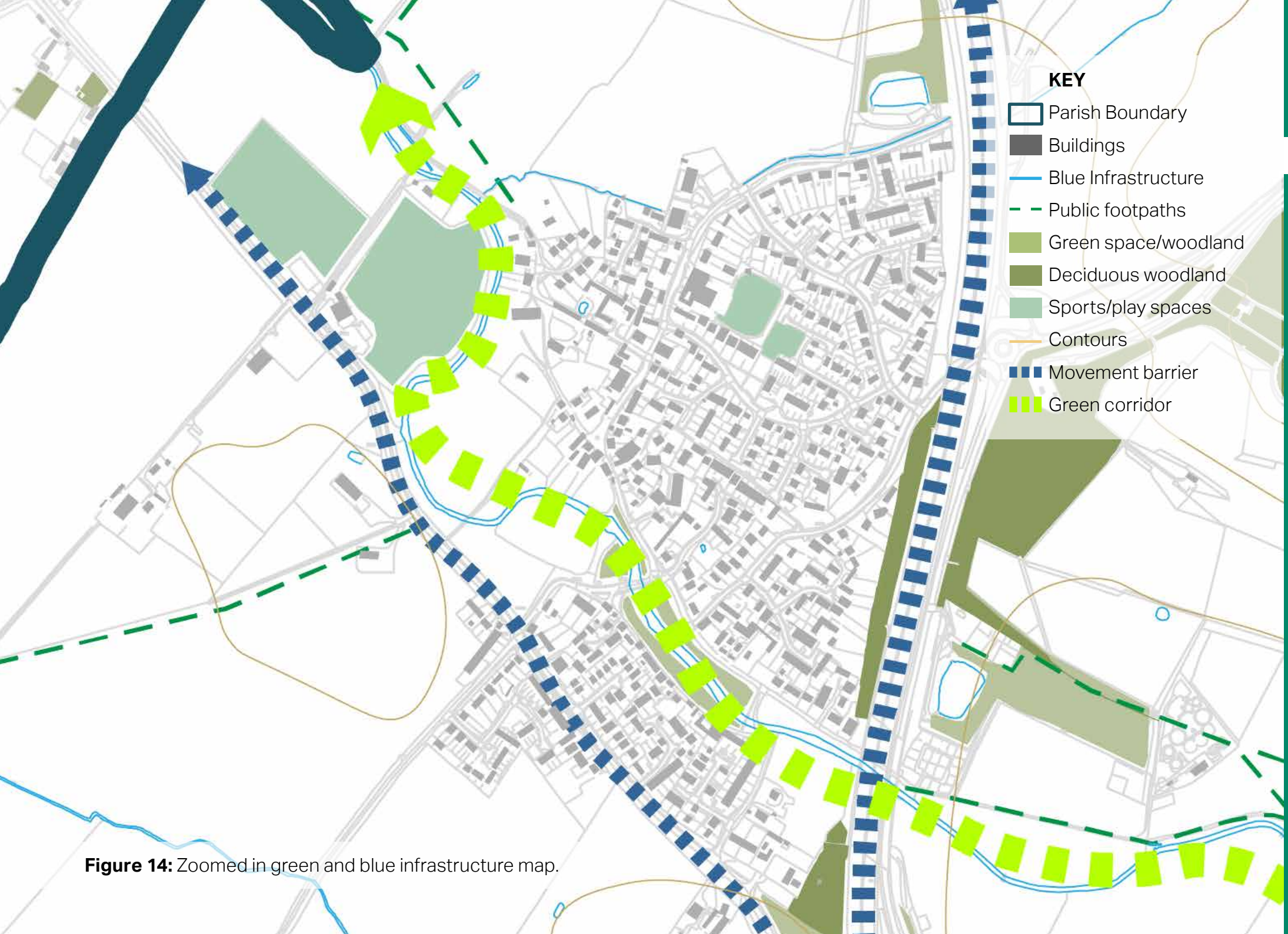


Figure 14: Zoomed in green and blue infrastructure map.

2.6 Assets and challenges

The analysis in this section highlights several important assets and challenges that are integral to the unique character of Alconbury parish.

These assets collectively paint a picture of some of the neighbourhood area's most valuable features and areas for improvement. Preserving the assets and tackling the challenges is key in maintaining Alconbury's distinctiveness and ensuring it remains a desirable place for residents, businesses and visitors alike.

By safeguarding the assets and making sure that current constraints are considered, the essence of Alconbury can be protected, fostering and environment that continues to attract people and support a thriving community. The preservation of these assets will help ensure that the area retains its identity and continues to flourish.

Active transport/walkability

- Alconbury has a compact village layout and an extensive network of public footpaths, making walking and cycling popular for both daily activities and recreation.
- Narrow and winding roads lack dedicated cycle lanes or pavements in some areas, limiting active transport options.
- The A1(M) and the Great North Road both cut through the neighbourhood area, wrapping around much of the settlement area and are close to the historic core. These are both barriers that limit the movement of pedestrians and cyclists.

Well built, characterful housing

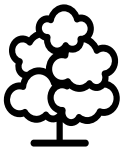
- Alconbury has areas of differing character within it: the historic core, the mid 20th century cul de sac developments and the linear development along School Lane. While the building design and plot layout is different in each of these areas, the rural village feel is present throughout the village.
- Alconbury's identity is shaped by its rich history, architectural form and low rise housing.
- Subtle variation in styles, setbacks and heights helps create an interesting rural streetscape and an identity for the area.

Appropriate density and spacing

- Development in the historic centre of the village is slightly denser creating a sense of enclosure. When moving out towards the edge of the settlement, spacing between buildings increase, leaving gaps for views towards the countryside and creating a more open feel.

Provision of car parking

- Throughout the parish there is a lack of on-plot car parking leading to people parking on the street. This creates a cluttered street scene that is sometimes dangerous for both drivers and pedestrians.



Strong rural character with close connection to the countryside

- Many parts of the village itself have strong rural and distinctive characteristics. The include: the northern edge of School Lane, the Conservation Area surrounding the brook, and the Maltings which is a non-motorised route providing direct access between Alconbury village and Alconbury Weston (a route to school for children/carers living in Alconbury Weston).
- Close proximity to the countryside allows people to have a feeling of tranquility as well as access to rural walking routes.
- Green and blue infrastructure helps create a rural streetscape as well as giving the village a valuable identity.

Historic character

- There is a strong sense of heritage in and around Alconbury. The centre of this is within the Conservation Area and the area surrounding the brook. It gives a real sense of arrival when coming into the village over the bridge from the Great North Road and is still somewhere where people congregate today.
- The Grade I listed Church of St Peter and St Paul is visually dominant in the skyline of Alconbury. The views towards it from within the village and on the hills looking down into Alconbury are important to the local character and should be protected.

Character area appraisal

03

3. Character areas appraisal

This chapter presents a place analysis of the Alconbury Neighbourhood Area, 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.

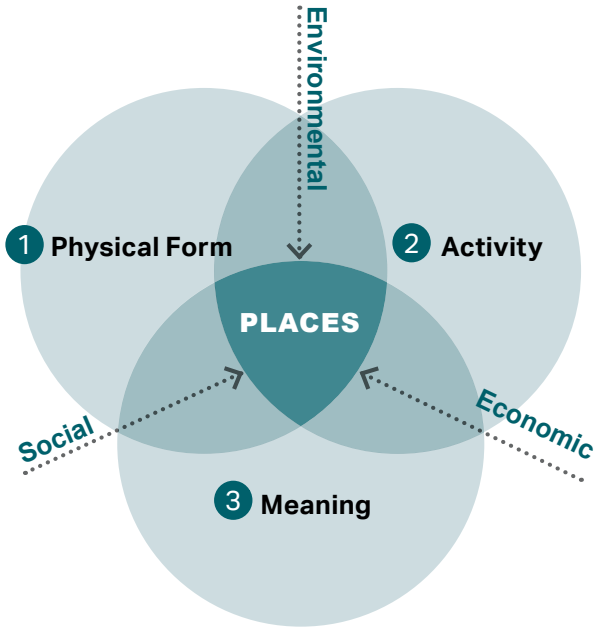
3.1 Understanding place

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.

The analysis within Chapter 2 established NA-wide characteristics. The analysis contained within this chapter helps to illustrate the variation in character, and thus, the sense of place across the NA.

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



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 15: Diagram illustrating the components of placemaking.

3.2 Identifying Alconbury'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 guidance and to support future development. Character areas are a method of dividing the Neighbourhood Area into portions so that the description of the areas' features are documented.

For the purposes of this design guide, The Neighbourhood Area has been divided into three Settlement Focus Areas (SFAs), which are described further and analysed in the following pages. This is where future development is most likely to occur.

Character areas within Alconbury:

SFAs
- Conservation Area
- Linear development
- Mid/late 20th C. residential

Surrounding countryside

As the bulk of existing residential development within the NA is contained within the development boundary, the following place analysis is focused on the SFAs.

The following analysis is based on a NA-wide study (see Chapter 2) and site visit with the Alconbury Parish Neighbourhood Plan Steering Group (NPSG). 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 (Area-wide design guidance) and will refer to the assigned character area to understand the applicable guidance relating to the location and development type.

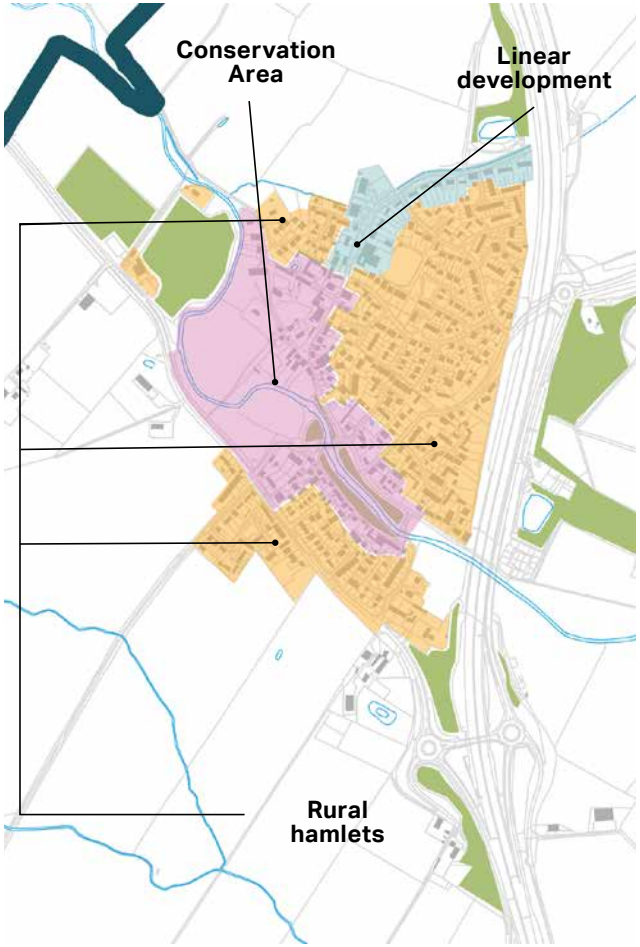


Figure 16: Alconbury character areas map.

1 Conservation Area

Topic	Written analysis
Connections	The Conservation Area historically has developed along the High Street and Brookside, facing onto the Book and the green area surrounding it. Other roads include Church Lane, the bottom of Chapel Street and the Maltings where the historic farm buildings are located. There are also public footpaths from The Maltings and Church Way towards the countryside.
Urban form	The Conservation Area exhibits a tight urban grain which makes for an active village centre. There is a combination of detached, semi-detached and terrace typologies within the area, many of these developed over different eras. Building frontages are generally continuous and follow the street line.
Block and plot sizes	Blocks and plots are of narrow form, typical for medieval settlements. Block sizes are constrained by the linear lanes dividing the area.
Boundary treatments and setbacks	Boundary treatments are mixed - low level brick walls, and vegetation in the form of hedges are all common across the Conservation Area. Setbacks are often short with many houses almost fronting directly onto the pavement.
Building size, scale, and type	There are mostly 2 storey houses both detached and semi-detached but also a significant amount of bungalows with the majority being semi-detached and a few chalet style bungalows.
Green and blue assets	Alconbury Brook runs through the centre of the Conservation Area and is a key part of the villages identity. The Brook and the greenery that surrounds it helps soften the feel of the area and brings a sense of rurality to the Conservation Area.

Table 02: Conservation Area characteristics table.

2 Linear development

Topic	Written analysis
Connections	The linear character area runs along School Lane starting on the edge of the Conservation Area and winds in a north easterly direction to the edge of the settlement. School Lane is a relatively narrow road with grass verges on either side.
Urban form	Semi-detached and detached houses from the mid to the late 20th century.
Block and plot sizes	Plots are large along School Lane with large front and back gardens.
Boundary treatments and setbacks	Buildings along School Lane have large setbacks allowing for front gardens and on-plot car parking. This in combination with the grass verges along the road creates an open and rural streetscape. The soft, green boundary treatments add to this character.
Building size, scale	Buildings are a maximum of 2 storeys in height and have a fairly standard footprint size. They overlook the open countryside to the north of School Lane but do not impede viewing corridors towards the church and other local landmarks.
Green and blue assets	Large grass verges, hedgerows and mature trees (along vehicular routes and within front gardens) make a key contribution to the green infrastructure network in this area.

Table 03: Linear development characteristics table.

3 Mid/late 20th C. residential

Topic	Written analysis
Connections	Most of the village is made up of winding residential streets and cul-de-sacs. This creates a tranquil street scene which is safe for people of all ages. There are also cut-throughs for pedestrians which provide onward connectivity at the end of many of the cul-de-sacs.
Urban form	There is a relatively tight grain and a curvilinear form. Curvilinear urban design features streets that follow curved or irregular paths, influenced by natural topography or historical development.
Block and plot sizes	Blocks and plots are relatively small in scale. They are typically organised with the building in the middle of the plot with front and back gardens.
Boundary treatments and setbacks	Grass verges and other forms of planting typically define the boundary of the properties in these areas of Alconbury. Low brick walls and timber fencing are also used in some cases. Buildings are set back from the road to allow space for short front gardens and on-plot car parking.
Building size, scale, and type	Building heights range between 1 and 2.5 storeys, although street trees area allowed to dominate the skyline which helps create a rural feel.
Green and blue assets	The urban design of the mid to late 20th century housing developments in Alconbury has grass verges to soften the streetscape. Alconbury play area is a space for young children and located on Bramble End.

Table 04: Mid/late 20th C. residential characteristics table.

Design opportunities

04

4. Design objectives

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

The three design objectives provide holistic and high level guidance and apply to development in the whole Neighbourhood Area. The design guides in the next chapter, are broken into topics based on the design objectives and provide specific guidance for Alconbury parish.

Based on the contextual analysis in Chapter 2 the three key topics that the design guidance will fall under are 'Rural character', 'Healthy street design' and 'Sustainability'.

4.1 Rural character

Alconbury retains its historic rural character, with narrow winding streets that reflect its centuries-old origins. The village's buildings, particularly in the historic core, feature varied setbacks and orientations, adding a sense of charm and informality to the streetscape. Grass verges, mature trees, and hedgerows are integral to the streets, softening the built environment and reinforcing the rural feel.

The Alconbury Brook, flowing through the heart of the village, enhances this picturesque setting, contributing to a tranquil and distinctly rural atmosphere.

4.2 Healthy street design

In Alconbury street design and layout is key in creating the rural feel that creates such a strong connection to the surrounding countryside. It is also important for streets to be safe for all users. This can be achieved both by allowing for natural surveillance, encouraging appropriate boundary treatments, designing for appropriate pavement widths and traffic calming.

4.3 Sustainability

Alconbury Parish recognises the importance of integrating modern technologies into new developments to reduce its environmental footprint and adapt to the increasing challenges of climate change. With surface water flooding being a recurring issue, particularly in the low-lying areas of the village, sustainable drainage solutions (SuDS) are a priority. Encouraging these measures in future designs will help manage water runoff effectively while supporting the parish's commitment to sustainability and resilience against climate extremes.

Area wide guidance

05

5. Area wide guidance

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

5.1 Guidance themes

This section identifies design guidance for development in the Neighbourhood Area. These are organised under the design objectives for the Neighbourhood Area.

The design guidance apply to the whole Neighbourhood Area. In some instances, guidance may be more relevant to certain areas of the parish than to others.

As a result, different guidance will apply to each area type, with the application of specific guidelines depending on the unique characteristics of each area.

To facilitate easy reference, each design guide page in this chapter includes a box in the top corner, as shown below, allowing applicants to be easily directed to the relevant area type.

Design guidance	Page number
A1 - Countryside views and vistas	38
A2 - Tree planting and green infrastructure	39
A3 - Rural streets	40
A4 - Landscape setting and settlement edge	41
A5 - Housing variety	42
A6 - Architectural materials and details	45
A7 - Parking	46
A8 - Repurposing of agricultural buildings	47
B1 - Enclosure	48
B2 - Plot layout	50
B3 - Feeling of safety and surveillance	50
B4 - Boundary treatments	51
B5 - Traffic calming	52
C1 - Permeable paving	54
C2 - SuDS	55
C3 - Water and slow release	56
C4 - Eco-friendly features for dwellings	57

5.2 Rural Character

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

Connection and access to the rural landscape, open countryside and the Public Rights of Way, are an important and highly valued part of the neighbourhood area. The variety in building styles creates an interesting non-uniform street scene, which is further complimented by well kept front gardens, hedgerows and street trees.

The design guides in this section will ensure that this character is preserved and enhanced as far as possible.

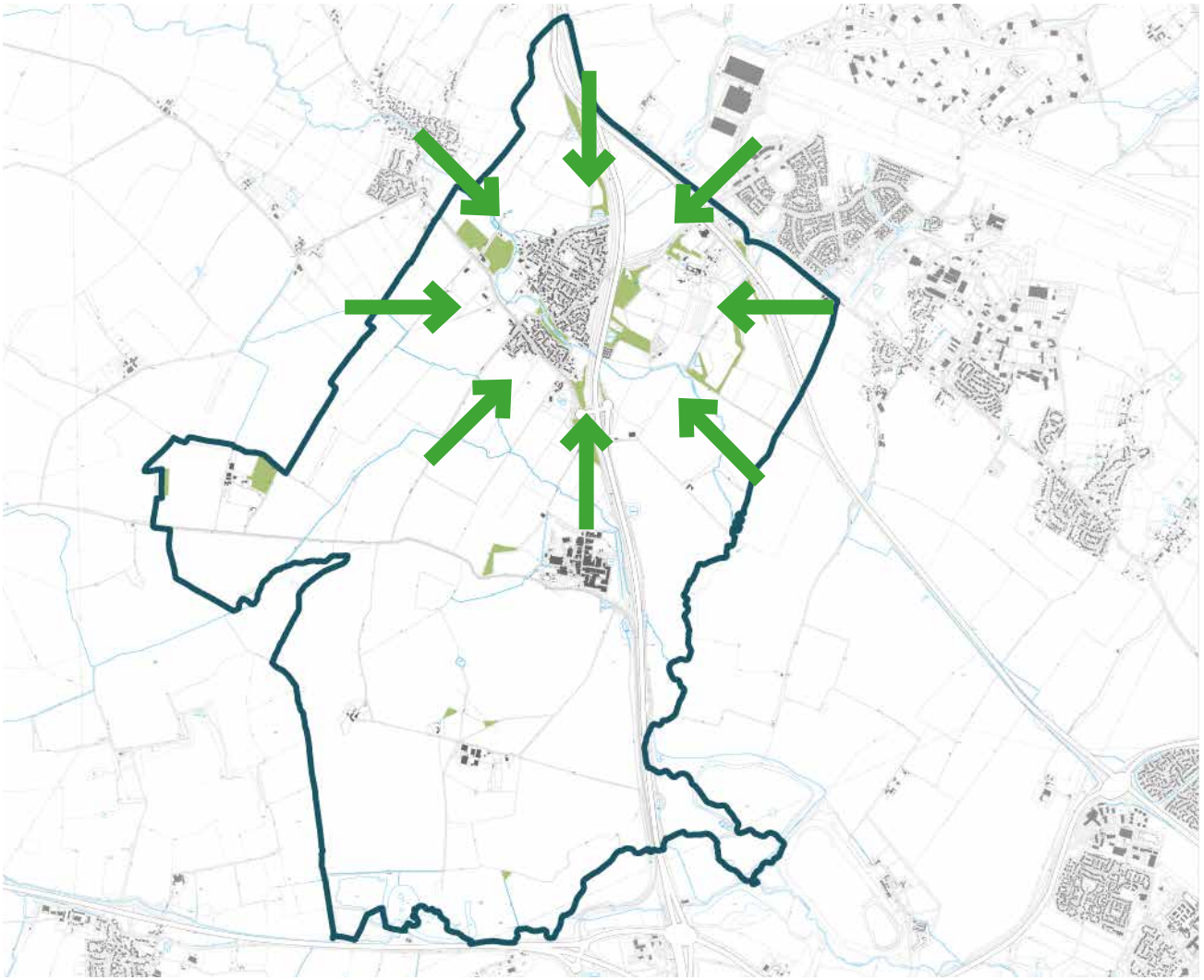


Figure 17: Indicative diagram showing the green space surrounding Alconbury.

Applicable to:

For district wide guidance, please see the Huntington Design Guide (sections 3.3 and 3.4: huntingdonshire-design-guide-2017.pdf

A1: Countryside views and vistas

Views and vistas towards the countryside from and to the village and landmarks within Alconbury are fundamental to the village's landscape and historic setting. One such example of this is the Church, as displayed in the figure on this page. It along with other landmarks should be preserved in alignment with the following guidance:

- Ensure the scale and design of development, and including landscape screening where appropriate, is not visually intrusive;
- Respect the existing elements of the village by protecting and enhancing the setting and views of notable and listed buildings and features;
- Where appropriate, incorporate landscape and built features to create and strengthen views and vistas or create landmarks, helping with legibility. For example, mature trees and other landscape features at entrances to the development provide visual sequences of experience for pedestrians;
- Maintain existing visual connections to the surrounding countryside and long views out of the settlement; and
- Create short-distance views broken by buildings, trees or landmarks to help create memorable routes and places, and easily intelligible links between places. Orientate buildings to maximise the opportunities for memorable views and visual connectivity from the public realm.

Figure 18: View of the church from School Lane.

Applicable to:

For district wide guidance, please see the Huntington Design Guide: huntingdonshire-design-guide-2017.pdf and the Huntingdonshire Tree Strategy 2020–2030: https://www.huntingdonshire.gov.uk/environmental-issues/trees/tree-strategy/

A2: Tree planting and green infrastructure

The abundance of trees is one of the parish's greatest assets. The following guidelines focus on the design aspects and appearance of planting and trees in private gardens as well as public open spaces and streets.

- Aim to preserve existing mature trees, incorporating them into the new landscape design and using them as accents and landmarks, where appropriate;
- Consider canopy size when locating trees; reducing the overall number of trees but increasing the size of trees is likely to have the greatest positive long-term impact;
- Size of tree pits should allow sufficient soil around the tree. Ensure tree stems are in the centre of the verge to provide a 1m clearance of the footway or carriageway;
- Tree root zones should be protected to ensure that trees can grow to their mature size. Root barriers must be installed where there is a risk of damaging foundations, walls and underground utilities;
- New trees should be integrated into the design of new developments from the outset rather than left as an afterthought to avoid conflicts with above- and below-ground utilities; and
- To ensure resilience and increase visual interest, a variety of tree species is preferred over a single one. Tree species should be chosen to reflect the prevailing character of the landscape, soil conditions and the associated mix of native species, but should also have regard to climate change, environmental/habitat benefits, size at maturity and ornamental qualities.

Figure 19: Planting in the front garden of a properties in Alconbury.

Figure 20: The use of grass verges and planting creating a rural character.

Applicable to:

For district wide guidance, please see the Huntington Design Guide (section 3.3): huntingdonshire-design-guide-2017.pdf

A3: Rural streets

The leafy streetscapes within the parish are a reoccurring characteristic and create the canvas for the rural identity of the settlements. Overhanging trees, hedges and grass verges, in particular alongside the Brook, make for a pleasant experience when travelling through the village that is distinctive to the parish. The following guidelines should be considered by developers to ensure that streets are locally distinctive.

- Ensure streets are laid out to encourage connectivity, including direct access to key destinations such as the church of St Peter & St Paul and the Alconbury Memorial Hall. Designers should collaborate with adjacent landowners and provide connections to existing and future development areas, particularly via walking and cycling routes;
- Encourage public access to community facilities, green space and the countryside by ensuring publicly accessible streets are adjacent, and provide direct access and views, to these places;
- The grass verges along the Brook are vital components of Alconbury's character and therefore should not be impacted by any future development;
- Streets should be designed to have the appearance of a rural village by incorporating:
  - *Narrow geometric street layouts that encourage active frontages, slow traffic and avoid large impervious areas; and*
  - *Minimal street furniture and road markings. The limited use of timber bollards and wayfinding signs that are already present in the Neighbourhood Area may be appropriate.*

Figure 21: Grass verges and drain creating a distinctive character along the Brook.

Figure 22: Grass verges and vegetation creating a rural feel to the edge of the settlement.

Applicable to:

For district wide guidance, please see the Huntington Design Guide: huntingdonshire-design-guide-2017.pdf and the Huntingdonshire Landscape and Townscape SPD 2022: https://www.huntingdonshire.gov.uk/planning/planning-policy-documents/landscape-and-townscape-spd-2022/

A4: Landscape setting and settlement edge

The neighbourhood area features well preserved green gaps, hedgerows and arable farm fields. As well as this the main part of Alconbury is set in a valley. These features play a significant role in shaping how the built up area interacts and creates a seamless relationship with the surrounding countryside. The following guidance will help ensure that this continues.

- Abrupt edges with minimal vegetation or open landscaping at the development's perimeter should be avoided. Instead, new developments should incorporate dense vegetation to create a seamless transition from urban areas to the rural landscape. Most of the existing built environment within the parish upholds and maintains this feature, as numerous properties have generously sized rear gardens surrounded by sizable trees and abundant vegetation;
- Any new development should aim to preserve the green gaps as far as possible.

Figure 23: View from the northern edge of Alconbury across arable farmland.

Figure 24: Image from Great North Road showing the settlement edge.

Applicable to:

For district wide guidance, please see the Huntington Design Guide (section 3.8): huntingdonshire-design-guide-2017.pdf

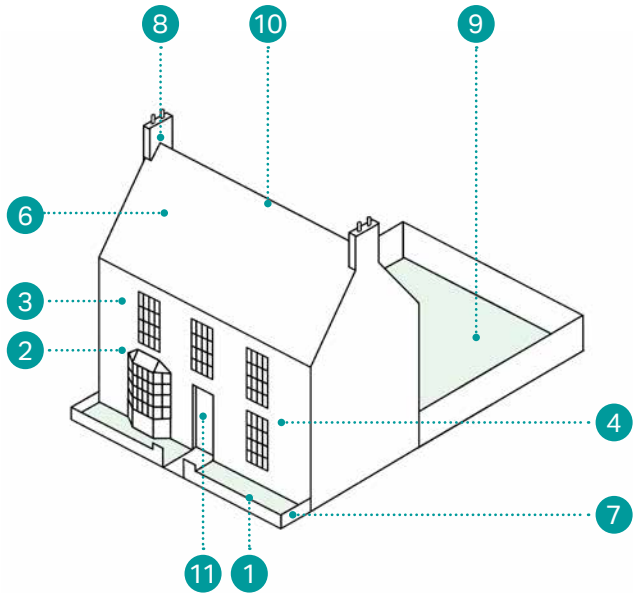
A5: Housing variety

One of the characteristics of Alconbury is the vibrant mix of building types which helps create an interesting street scene. The images on the following pages show some of the types typically found in the parish along with some general features associated with them.

The following guidance should be considered by developers:

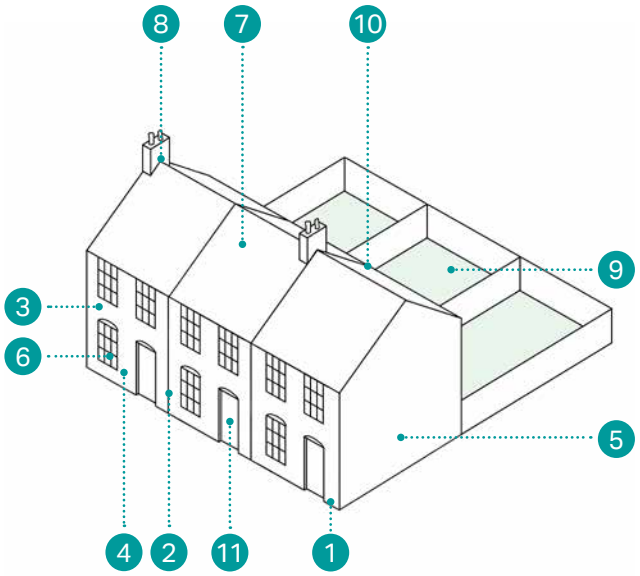
- Any new development should reflect the built form of any surrounding properties.
- Subtle variation in building setback is encouraged.
- Contemporary design may be acceptable if it still follows the rules set by the existing typologies as shown opposite.

Georgian/Victorian detached



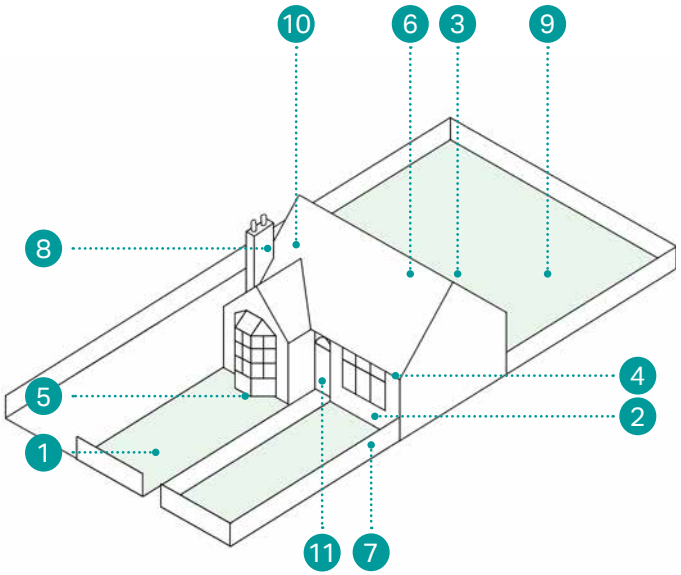
1. Small or no setback / front garden.
2. Painted render / red brick frontage.
3. Two-storey detached house.
4. Symmetrical fenestration / facade.
5. Sash or bay windows.
6. Red pantiles or grey slate tiles.
7. Low stone / brick wall boundary.
8. Chimney stack on both ends.
9. Medium back garden.
10. Pitched gable roof of varying heights.
11. Double pane timber door.

Terraced



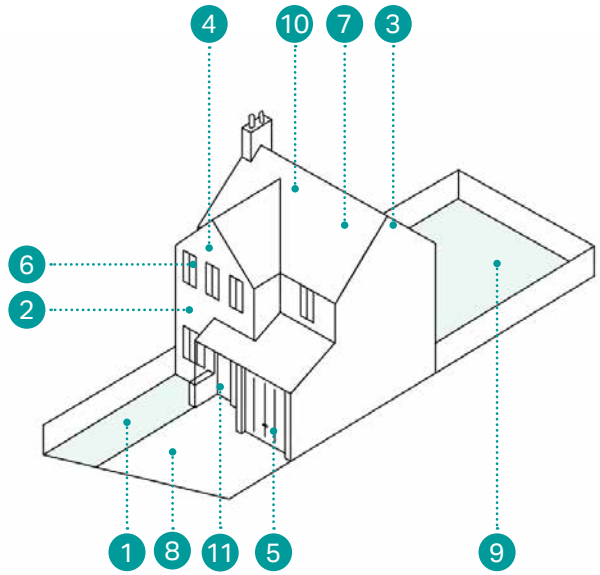
1. No setback .
2. Painted render / red brick frontage.
3. Two-storey terraced houses.
4. Repetitive fenestration / facade.
5. Rows of 3-8 houses.
6. Sash windows.
7. Red pantiles or grey slate tiles.
8. Chimney stack per house.
9. Small to medium back gardens.
10. Pitched gable roof.
11. Double pane timber door.

Bungalow



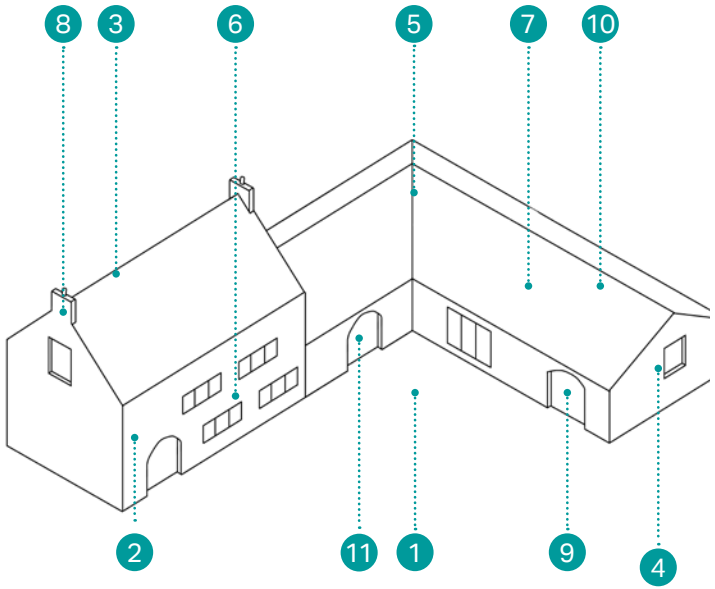
1. Small to large front garden.
2. Render or brick frontage.
3. One-storey bungalow.
4. Asymmetric fenestration / facade
5. Casement or bay windows.
6. Red pantiles or grey slate tiles.
7. Stone or brick wall / hedgerow boundary.
8. Chimney stack on one end.
9. Medium to large back garden.
10. L-shaped pitched roof.
11. Various style of door.

20th Century detached



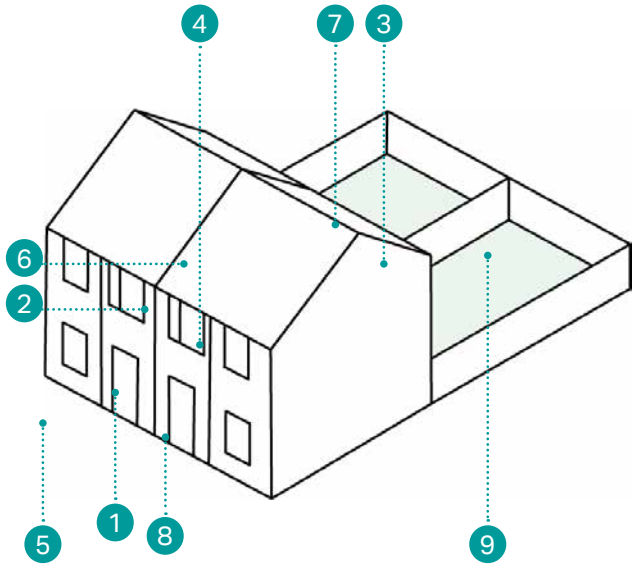
1. Irregular shaped front garden.
2. Various colour brick frontage.
3. Two-storey house.
4.Symmetrical fenestration / facade.
5. On-plot parking.
6. Neo-Georgian/Victorian features.
7. Various roof-tiles.
8. Driveway in front of house.
9. Medium to large back garden.
10. L-shaped pitched roof.
11. Georgian/Victorian style door.

Farmstead



1. Courtyard arrangement.
2. Brick and timber frontage.
3. Height ranging between 1 and 2 storeys.
4. Outbuildings / garages.
5. L-shaped building footprint.
6. Informal window arrangement.
7. Red pantiles or grey slate tiles.
8. Chimney stacks.
9. Stable entrances.
10. L-shaped pitched roof.
11. Wooden farmhouse doors.

20th Century semi-detached



1. Mixed brick and clad/render frontage.
2. Differing window sizes.
3. Two-storey house.
4. Symmetrical fenestration / facade.
5. On-plot parking.
6. Pitched, hipped or gable roofline.
7. typically s-tiles.
8. Regular flat faced facade.
9. Medium to large back garden.

Figure 25: 20th century detached house example.

Figure 26: 20th century semi-detached house example.

Applicable to:

For district wide guidance, please see the Huntington Design Guide (section 3.8): huntingdonshire-design-guide-2017.pdf

A6: Architectural details and materials

Future constructions must demonstrate respect for existing architectural styles and utilise materials that are considerate of those employed in nearby residences. Key materials and finishes found across the villages are listed on the following page.

- 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 rural character of the village.
- New development should ensure that it puts forward a comparable level of greenery, incorporating native and context-appropriate plant species, to establish a cohesive setting that aligns with the existing natural environment.

Architecture features

	Alconbury
Roof	
Pitched roof	✓
Gabled roof	✓
Hipped roof	✓
Clay tiles	✓
Grey slate tiles	✓
Brick chimney	✓
Gabled dormers	✓
Facade	
Red brick	✓
Yellow brick	✓
Render	✓
Weatherboarding	✓
Tile hanging	✓
Windows	
Casement windows	✓
Sash windows	✓
Brick detailing around	✓

Colour Palette

Red clay

Cream render

White render

Green (vegetation)

Black

Applicable to:

For district wide guidance, please see the Huntington Design Guide (section 3.5): huntingdonshire-design-guide-2017.pdf

A7: Parking

Due to the remote location of the parish, the demand for private cars and car parking remains high. Car parking typologies across villages include on-plot parking (front and side), on-street parking, and garages. Therefore, the design guidelines on the next pages will focus on the prevailing typologies.

On-plot parking

- On-plot parking should be sufficient to the local residents' needs to avoid issues of parking overflow along the narrow rural lanes. The level of car parking provision should be in accordance with current district guidance.
- As a general rule, a third of the front garden space should be dedicated to parking, while two-thirds of the front garden should remain as green space.
- Parking should be well integrated into design so as not to dominate the public realm. Especially, high-quality and well-designed soft landscaping, hedges, hedgerows, and trees, should be used to increase the visual appeal of the parking, at the same time increasing local biodiversity and enhancing the natural character of the Parish.

Garages

- Garages must not dominate the appearance of dwellings and must not reduce the amount of active frontage to the street.
- The design of any garage enclosure should integrate well with the surroundings in terms of visual and physical impact.

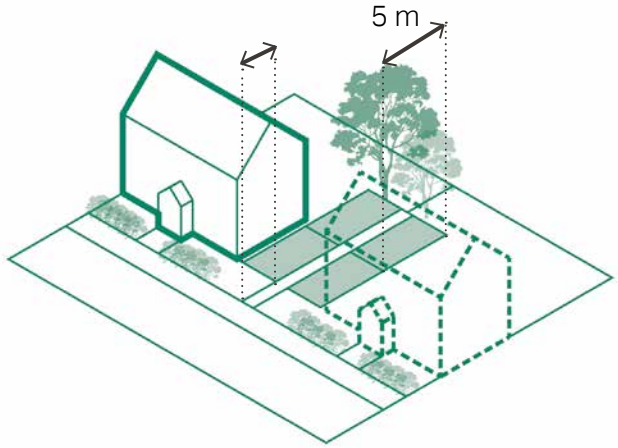


Figure 27: An illustrative diagram showing the indicative layout of on-plot parking.

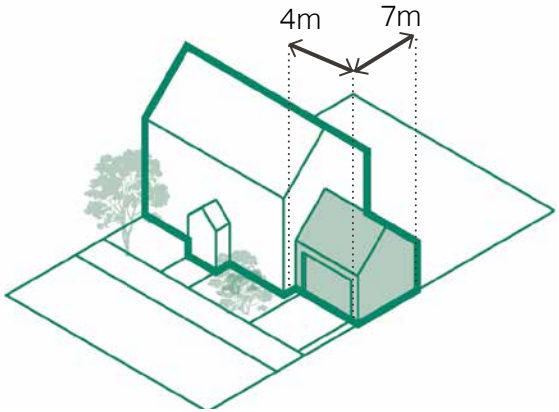


Figure 28: Illustrative diagram showing recommended measurements of garage parking.

Applicable to: ● ○

A8: Re-purposing agricultural buildings

The parish's agricultural legacy is evident through the good number of historic farmhouses and barns spread across the Parish area. Many of these structures will provide opportunities for modification and reuse.

Extensions should be designed to an appropriate scale and be secondary to the original building. As well as this detailing and materials should be in keeping with that of the host building.

Future conversions and modifications will be controlled by the following guidance:

- External additions should be subordinate in scale to the original or primary form of the building.
- Extensions should be designed to match or complement the existing façade material of the structure.
- Modifications must retain evidence of a structure's previous use where possible.
- Modifications must respect or enhance the appearance of the original building and the wider scene.
- External add-ons should be designed unobtrusively or fitting with the surrounding context and should not detract from the surrounding character.
- Security systems, external lighting and satellite additions should be placed discretely to minimise their impact on the street scene.

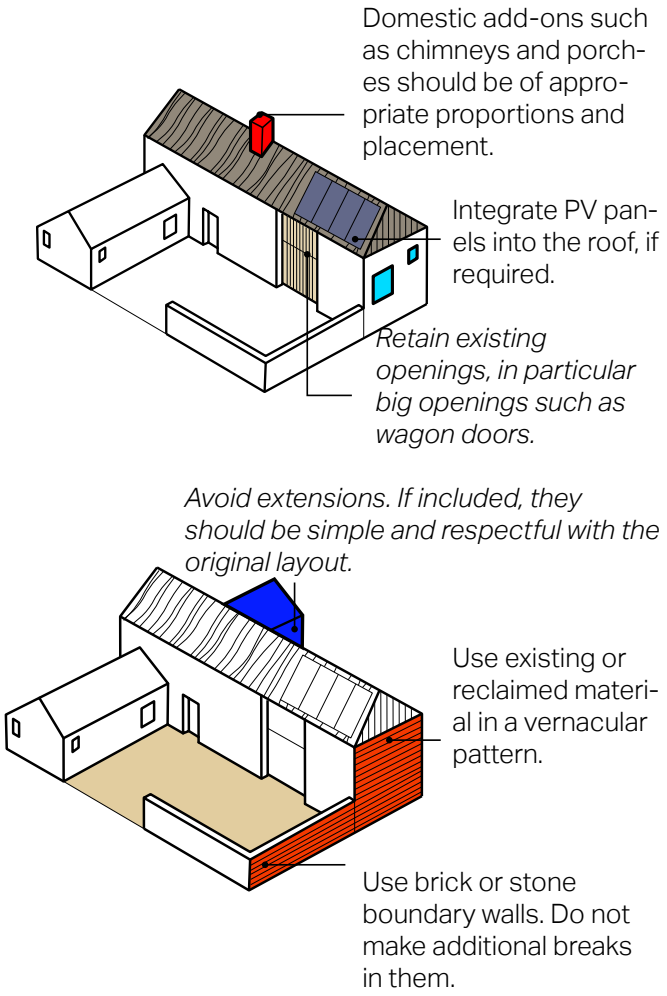


Figure 29: Indicative diagram and principles for barn conversions.

Applicable to:

5.3 Healthy street design

A key part of the makeup of the parish is the quaint and leafy feel of the streetscape. This is created by the rural layout of the streets which include overhanging trees and grass verges. The built form, density and plot layouts also plays a part in adding to the rural feel of the settlements.

The following guidance provides a blueprint of measures future development can take to enhance the experience of those moving through the parish while retaining the rural character of the settlements.

B1: Enclosure

Focal points and the public realm in new developments should be designed in good proportions and delineated with clarity. Clearly defined spaces help in achieving a cohesive and attractive built form. They also create an appropriate sense enclosure. Enclosure describes the relationship between a given space and the vertical boundary elements, whether that be building façades or vegetation. The enclosure level of new developments should reflect that of their surrounding built environment. The following principles serve as a general guide that should be considered for achieving a proportioned sense of enclosure:

- When designing building setbacks, there must be an appropriate ratio between the width of the street and the building height (see page 41).
- Trees, hedges, and other landscaping features can help create a more enclosed streetscape in addition to providing shading and protection from heat, wind, and rain.
- 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.
- Walls, landscaping and paving could achieve visual continuity and well-defined open spaces to link buildings together and define public and private spaces.

Local examples of enclosure

When designing building setbacks, there must be an appropriate ratio between the width of the street and the building height. The National Model Design Code (2021) suggests that spaces will feel most comfortable with boundaries at half the width of the space between them - an enclosure ratio of approximately 1:2.

In Alconbury there are different levels of enclosure which creates an interesting streetscape. One example of this is along Church Lane where vegetation and high walls creates a feeling of enclosure then opens up into the Brook area of the Alconbury High Street, projecting a sense of arrival.

There are also instances of larger building setbacks, and therefore more common instances of large front gardens and grass verges. The prominent ratio of 1:2 and 1:3 throughout the village displays a very open form with low enclosure from both buildings and vegetation, with long distance views across the village.

The illustrations and images highlight the existing variety in sense of enclosure across the Neighbourhood Area.

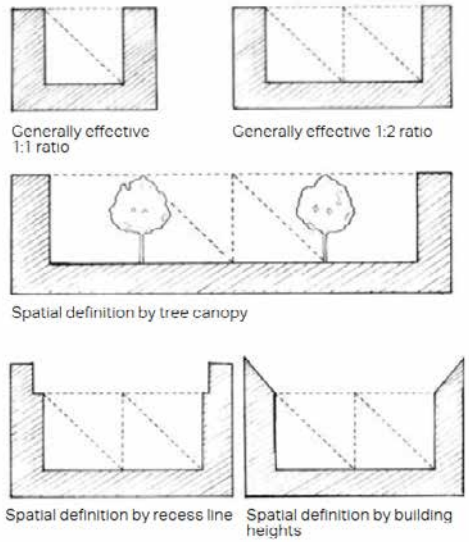


Figure 30: Enclosure diagram.

Figure 31: Local example of 1:2 enclosure

Figure 32: Local example of 1:1 enclosure

Applicable to:

B2 – Plot layout

Throughout the Neighbourhood Area the plots are defined by building set-backs, varying in depth. The buildings themselves are typically generous in size and tend to have large private gardens with off-street parking. These features, along with the grass verges and street trees contribute to the rural village character of the area.

- Buildings should ordinarily front onto streets. The building line can have subtle variations in the form of recesses and protrusions, but will generally follow a consistent line.
- Buildings should reflect the set-back of surrounding buildings also leaving space for grass verges.
- Any form of new development should be well spaced out to avoid inappropriate overlooking into back gardens and house windows.

Figure 33: Aerial image of a property in Alconbury which shows what a general plot arrangement looks like in the parish.

B3 – Feelings of safety and surveillance

Passive surveillance is one method of improving safety along streets, protecting residents and creating improved levels of personal comfort.

- 90% of buildings should have a primary frontage which faces the street to encourage overlooking and passive surveillance.
- Where setbacks are less than 12m, boundaries should generally be less than 1m in height in line with guidance provide within the, to prevent them obstructing natural surveillance onto the street. Exceptions include where set-backs are larger than 12m, where boundary treatments are used to enhance enclosure, or where boundary treatments help to intermittently screen front-of-plot parking from view.

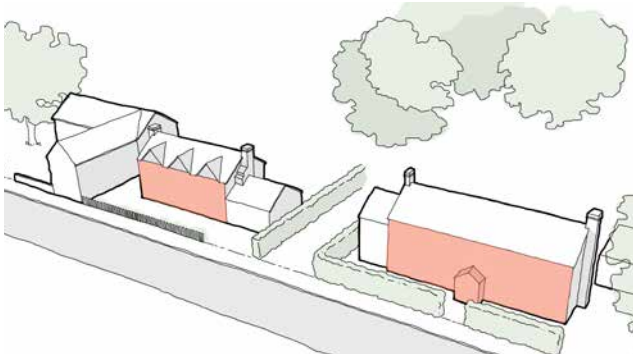


Figure 34: Sketch showing buildings with main facades which face the street.

B4: Boundary treatments

- 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 continuous hedges and low walls, as appropriate, made of traditional materials found elsewhere in the parish.
- Locally distinctive landscape features and planting, such as low wall boundary and hedges of native species should be used in new development to define boundaries. Any material that is not in keeping with the local character should be avoided.
- If placed on the property boundary, waste storage should be integrated as part of the overall landscaping and design of the property.

Figure 35: Example of vegetation and timber fence boundary treatment in the parish.

Figure 36: Example of vegetation and brick low rise wall in the parish, creating a rural villagey identity.

Figure 37: Example of green hedgerows boundary treatment in the parish.

B5 - Traffic calming

Alconbury has high levels of traffic moving through the parish on both the A1 and the Great North Road, and this is only increasing with the growth at Alconbury Weald. The traffic often travels through the village too quickly to be safe for pedestrians and cyclists. The design of the highway needs to be rebalanced in their favour. Through traffic that does not need to pass through the village should also be discouraged. Imaginative solutions to the traffic problems – ones that do not detract from Alconbury's special character and allow agricultural vehicles to pass – need to be explored.

The Huntingdonshire Design Guide puts importance on traffic calming and suggest that carefully considered urban design (such as the above-mentioned arrangements of buildings and enclosure) will provide natural traffic calming. Having said that some speed control options the developments could use include:

- Reduced visibility at junctions
- Narrow carriageway widths
- Shared surfaces
- Encouraging walking and cycling. The Netherlands leads the field in this area. Common techniques for slowing traffic include narrowing street widths, changes in texture (such as pavers and cobblestones) and introducing friction.

Alconbury is a working agricultural farming village with many local businesses relying on farm machinery which should still be able to pass freely through the village.

Figure 38: Rural road in Netherlands with a low cost traffic solution for pedestrians and cyclists.

5.4 Sustainable design

This section elaborates on energy efficient technologies that could be incorporated in buildings. Use of such principles and design tools should be encouraged in order to contribute towards a more sustainable environment. In addition to this sustainable drainage techniques are considered due to the fact that the village of Alconbury Brook has a large flashy catchment, and there is significant surface run-off directly through the village. The village is highly susceptible to flooding with up to 110 properties at risk in the parish.

Energy efficient or eco design combines all around energy efficient appliances and lighting with commercially available renewable energy systems.

Figure 39: Example of solar pannels that have been fitted to an existng building in Alconbury.

Applicable to:

For district wide guidance, please see the Huntington Design Guide (section 3.6): huntingdonshire-design-guide-2017.pdf

C1: Permemable paving

In Alconbury flooding is a key issue and therefore any development that is likely to add to the drainage network will need to carefully consider how it tackles drainage and the local flood risk.

It is recommended that the majority of the unbuilt areas in the plot (i.e. gardens) are permeable by means of landscape such as grass or earth as well as permeable and filtrating pavements.

- Green roofs could be used to reduce the rate of run-off from new buildings.

As a rule of thumb the % permeable area should be between 30% to 70% of the unbuilt areas.
Permeable pavement must also comply with:

- Regulations, standards, and guidelines relevant to permeable paving and sustainable drainage are listed below:
- Sustainable Drainage Systems - non-statutory technical standards for sustainable drainage systems;
- The SuDS Manual (C753);
- BS 8582:2013 Code of practice for surface water management for development sites;
- BS 7533-13:2009 Pavements constructed with clay, natural stone or concrete pavers; and
- Guidance on the Permeable Surfacing of Front Gardens.

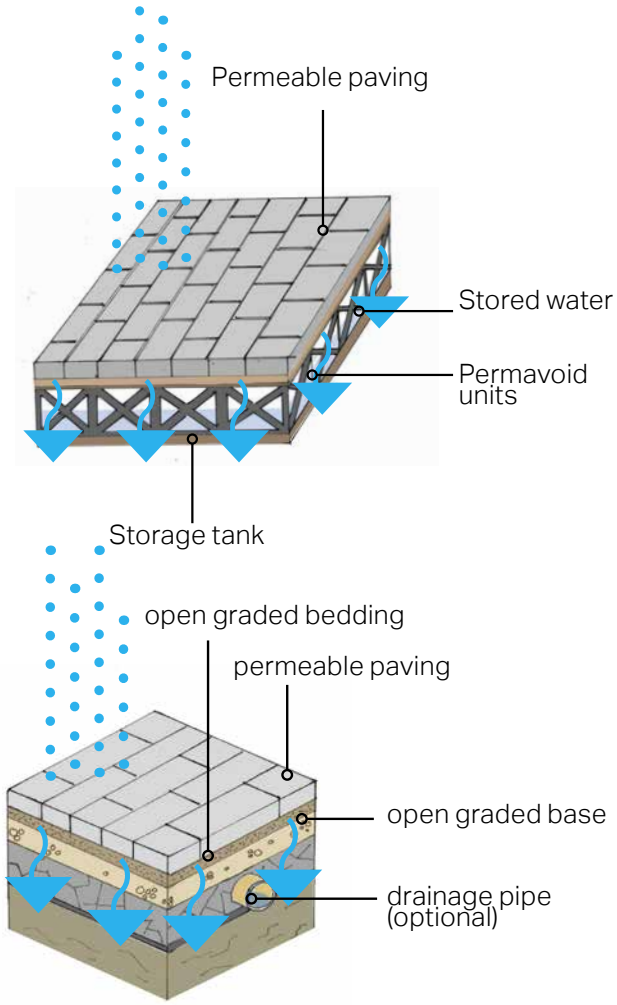


Figure 40: Diagrams illustrating the functioning of a soakaway.

Applicable to:

For district wide guidance, please see the Huntington Design Guide (section 3.6): huntingdonshire-design-guide-2017.pdf

C2: SuDS

It is a general consensus that the risk of flooding is a major concern in the parish 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 the village.

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:

- Surface water should be managed as close to where it originates as possible;
- Runoff rates should be reduced by providing attenuation that stores water to help slow its flow down;
- Water quality could be improved by filtering pollutants to help avoid environ mental contamination;
- Given Alconbury's rural setting natural SuDS such as swales, ponds and wide ditches could be more appropriate;
- Peak flood flows occur about 30hours after heavy rain so retention structures are ideal. These should have controlled flow using hydrobrakes and stop valves which should have the minimum practical capacity;
- Best practice SuDS schemes link the water cycle to make the most efficient use of water resources by reusing surface water.
- Sediment release should be reduced where possible to avoid the flow of the brook being blocked.
- Where the right mix of plants is used, hedging could be used as barriers to surface runoff while also contributing to local biodiversity.

Figure 41: Example of a small pond in Alconbury which provides drainage relief.

Figure 42: Example of planting that can be used to reduce surface runoff.

For district wide guidance, please see the Huntington Design Guide (section 3.6): huntingdonshire-design-guide-2017.pdf

C3: Water and slow release

Simple storage solutions, such as water butts, can help provide significant attenuation. However, other solutions can also include underground tanks or alternatively overground gravity fed rainwater systems that can have multiple application areas like toilets, washing, irrigation. Some design guidelines to well integrate water storage systems are:

- Consider any solution prior to design to appropriately integrate them into the vision;
- Conceal tanks by cladding them in complementary materials;
- Use attractive materials or finishing for pipes;
- Combine landscape/planters with water capture systems;
- Soak-aways and rainwater gardens are another way of retaining and controlling rainwater. They need to be strategically positioned for maximum effect and should be designed to retain most water for 30 hours or more.

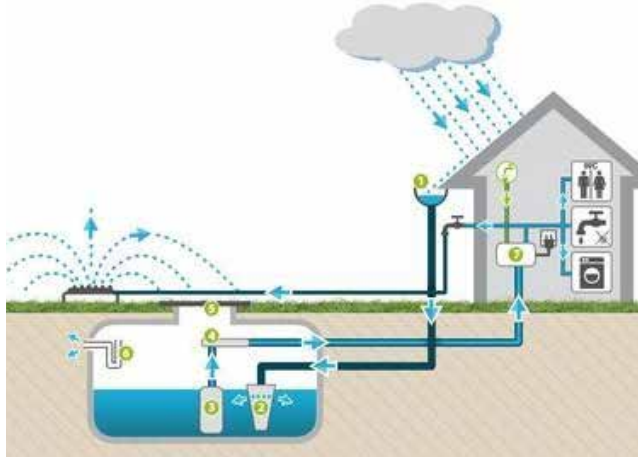


Figure 43: Diagram illustrating rainwater harvesting systems that could be integrated into open space and residential developments.

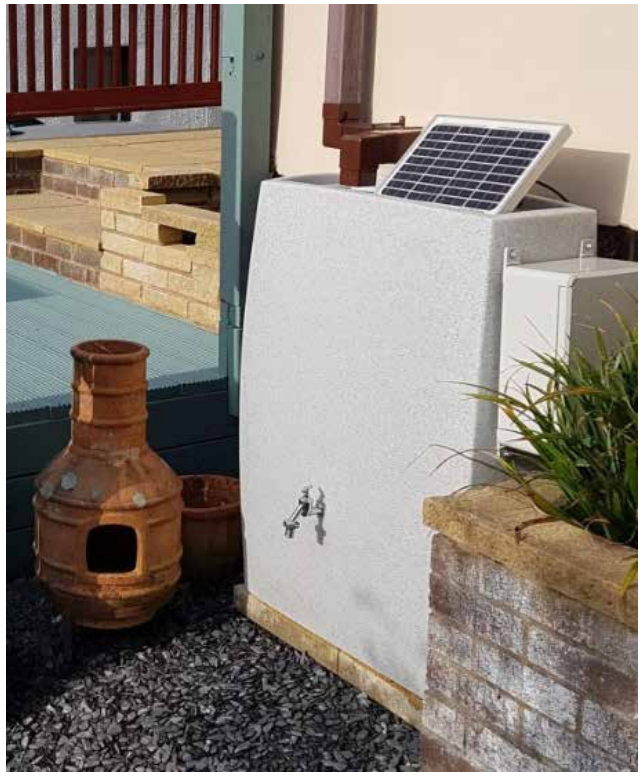


Figure 44: Example of domestic water storage that can be used in the gardens of houses in Alconbury.

C4: Eco Design

Buildings contribute almost half (46%) of carbon dioxide (CO2) emissions in the UK. The government has set rigorous targets for the reduction of CO2 emissions and minimising fossil fuel energy use.

Given the acknowledged urgency of responding to climate change a universal commitment needs to be made by communities and developers to achieve carbon net zero by designing houses and environments that would be adaptable to the climate.

Alconbury Neighbourhood Plan aspires to have a positive impact to the environment. Any future development should aim to minimise energy use and contribute to biodiversity.

There are a good number of energy efficient technologies that could be incorporated in buildings. The use of such principles and design tools is strongly encouraged to futureproof buildings and avoid the necessity of retrofitting.

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

Figure 45 features an array of sustainable design features, where the top ones are strongly encouraged to be implemented into existing homes, while those on the bottom show additional features that new build homes should be encouraged to incorporate from the onset.

Lifetime homes

The fastest route to building a functional, supportive, neighbourly community is to build homes that people can and want to live in for most of their lives instead of having to move every time domestic circumstances change.

'Lifetime' homes means designing in the flexibility and adaptability needed to allow for easy incorporation of wheelchair accessibility, addition/removal of internal walls, and ease of extension - both vertically and horizontally. This is particularly important for the aged, infirm or expanding/contracting families who may be dependent on nearby friends and family for emotional and physical support.

Building fabric - thermal mass

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

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

Insulation

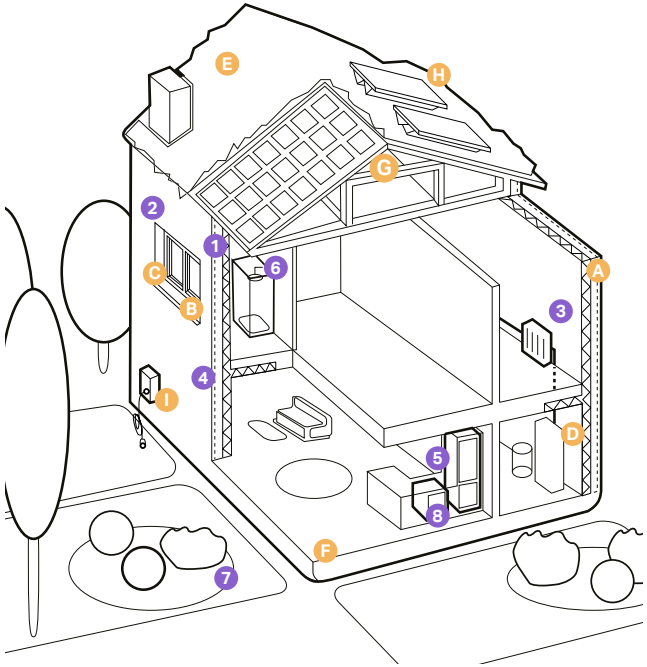
Thermal insulation can be provided for any wall or roof on the exterior of a building to prevent heat loss. Particular attention should be paid to heat bridges around corners and openings at the design stage.

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

Airtightness

Airtight constructions help reduce heat loss, improving comfort and protecting the building fabric.

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



Existing homes

1. Insulation
2. Double or triple glazing with shading
3. Low- carbon heating
4. Draught proofing
5. Highly energy-efficient appliances
6. Highly waste-efficient devices
7. Green space (e.g. gardens and trees)
8. Flood resilience and resistance

Additional features for new build homes

A. High levels of airtightness
B. Triple glazed windows and external shading
C. Low-carbon heating
D. More fresh air
E. Water management and cooling
F. Flood resilience and resistance
G. Construction and site planning
H. Solar panel
H. Electric car charging point

Figure 45: Diagram showing low-carbon homes.

Checklist

06

6. 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 rural locations, has the impact of the development on the tranquillity of the area been fully considered?
- How does the proposal impact on existing views which are important to the area and how are these views incorporated in the design?
- Can any new views be created?
- Is there adequate amenity space for the development?
- Does the new development respect and enhance existing amenity space?

Local green spaces, views & character:

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

Gateway and access features:

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

Flooding and drainage treatment:

- Has a thorough site assessment been conducted to identify possible flood risk?
- What type of drainage systems have been implemented to manage surface water runoff?
- Are buildings designed with elevated foundations to reduce flood risk?

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?

aecom.com

©2024 AECOM. All Rights Reserved.