NOAK BRIDGE Design Code

to support the Noak Bridge Neighbourhood Plan

Prepared by Bluestone Planning LLP

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BP Bluestone Planning

Noak Bridge Design Code

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1.0 Introduction

Why Do we Need a Design Code?

The National Planning Policy Framework (NPPF) sets out that we must create high quality buildings and places. It is considered fundamental to what the planning and development process should achieve.

To put this into practise, the Government has published a series of guidance documents, highlighting how well-designed places should be beautiful, healthy, greener, enduring and successful can be achieved in practice.

The main objective of this document is to provide a local response to the national guidance, and produce a Design Code for the Noak Bridge Neighbourhood Plan Area.

What is a Design Code?

"A design code is a set of simple, concise, illustrated design requirements that are visual and numerical wherever possible to provide specific, detailed parameters for the physical development of a site or area." *National Model Design Code 2021 (see page 5)*

Character Appraisal and Neighbourhood Plan

It is intended that this document will be appended to the Neighbourhood Plan and follows on from the Character Appraisal work previously published. It will form the criteria for the design based policies and used as a reference for any minor or major housing or mixed use allocation or planning applications in the future.

View from Gate Lodge Way into Saling Green - the layout and scale of properties provide an intimate village character

How do we use a Design Code?

Who Will Use it?

The Code will set out a clear framework for everyone, as set out in the diagram below.

Prior to Application

Applicants and / or landowners (and their agents) -

to understand what is required prior to making a planning application.

They will be able to enter into pre-application discussions with the Local Planning Authority (LPA) in a meaningful manner as required.

When Making an Application

Applicants and / or landowners (and their agents) -

will submit applications with the appropriate level of detail and have a better understanding of what is considered acceptable in the parish.

The LPA and statutory consultees - will have locally specific details by which they can examine the application.

During the Application Process

The Parish Council -

will be able to use the document to ensure that proposals are Design Code compliant and will be able highlight to the LPA where there are issues.

The community -

will also be able to easily provide the LPA with well informed comments relating to material design issues.

Officers and Planning Committee members -

can use the document determine whether the proposal meets the requirements of the Code.

Following Permission

The Parish Council and the LPA -

can see how well the Code is working and whether or not further changes need to be made in the future.

The community -

can report any issues based on the Code.

Enforcement Officers - Where there are potential planning enforcement concerns, the Code will make these matters easy to identify and remedy.

How does the Code Work?

National Level -

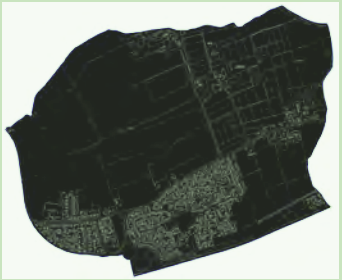
National Design Guide and Model Design Code
elements of the code are based on national guidance

County Level -

Essex Design Guide
elements of the code are based on County wide guidance

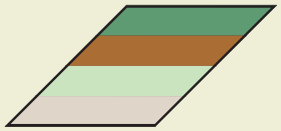
Local Level -

District / Borough Design Code
There is presently no Local Authority Design Code and this code is locally specific to Noak Bridge and its different character areas



Parish Level -

Development Sites
Parts of the code can relate specifically to major development sites such as urban extensions, new settlements and other large scale sites within a parish where the code may be guided by masterplans.



Individual Level -

Specific Plots
Parts of the code can be used to guide individual building plots, for example relating to a single house or block of flats, whether they located in existing urban areas or new development

2.0 Putting the Code into Practise

Coding Process

There are a number of steps in the coding process, which are broken up as shown below. These are expanded upon in the subsequent pages.

ANALYSIS

Coverage:

The geographical area to be covered by the code and the policy areas relates to the entire Noak Bridge Parish.

It covers individual properties, small scale development of less than 10 dwellings

Major development of 10 or more dwellings

Mixed use proposals

Content:

It contains those matters set out in the ten headings of the National Design Guide as shown overleaf.

It is based on a detailed contextual analysis as set out in the Character Appraisal, in addition to the evidence base documents supporting the Neighbourhood Plan.

A specific Design Code Table is listed on page x, which shows all of the codes and to which type of development they relate.

VISION

Design Vision:

The National Model Design Code (as set out overleaf), states:

"Design codes need to be based on a vision for how a place will develop in the future.... This vision needs to be developed with the local community and is likely to be an important part of the community engagement process."

In this regard, the Neighbourhood Plan process has included extensive community involvement with a variety of different methods including walking workshops, visual preference surveys, online questionnaires, sustainability assessments and other technical work. The vision and objectives are derived as a result of this process.

The vision relates to an analysis of the existing area, its natural biodiversity and green spaces / infrastructure, topographical, historical and heritage features. Its character and appearance, alongside mix of uses, services and facilities. Traffic and parking issue, public transport, walking and cycling.

Coding Plan:

The coding plan which identifies area types is set out on page 12.

Master Planning:

As no sites are currently proposed in the Local Plan, a masterplan has not been prepared as part of the design coding exercise. Instead, developers should establish their own masterplan based on the Design Code.

CODE

Guidance for Area Types and for Individual Sites:

Each of the area types is highlighted adjacent to each Code, so that it is easy to identify, which codes relate to each area.

There are general Parish wide codes, as well as those which may relate to the development of small scale development and major development sites, should an application be submitted to Basildon Council in the future.

These cover those elements set out in the National Design Guide overleaf.

National Design Guide and Model Design Code

The National Design Guide was published in 2019 and sets out the characteristics of well-designed places and demonstrates what good design means in principle and practice. It supports the NPPF and is intended to be used by local authorities, applicants and local communities to establish the design expectations of the Government.

The National Model Design Code (NMDC) was published in June 2021, with its purpose to provide detailed guidance on the production of design codes, guides and policies to promote successful design.

It expands on the 10 principles as shown along the bottom of the page, to create well-designed places. These principles work together to create the physical character, contribute to a sense of community and respond to environmental issues affecting climate.

These principles are true of creating well-design places irrespective of location.

This document will draw on the principle of the National Design Guidance to help inform the recommendations.

Essex County Council are the forerunners of design guides and have produced design guidance which is more specific to the County. More information on this can be found both in the Character Appraisal and overleaf. Where applicable, direct reference is made within Design Codes.

The intention of this document is to draw upon national and county specific design guidance, in addition to the local character analysis & community aspirations. This will result in Codes that are locally relevant to Noak Bridge, which will ensure that new development will become as successful as the original planned development.

CONTEXT	MOVEMENT	NATURE	PUBLIC SPACES	IDENTITY	BUILT FORM	USES	HOMES & BUILDINGS	RESOURCES	LIFESPAN
Enhances the Surroundings	Accessible & Easy to Move Around	Enhanced & Optimised	Safe,Social & Inclusive	Attractive & Distinctive	A Coherent Pattern of Development	Mixed & Integrated	Functional, Healthy & Sustainable	Efficient & Resilient	Made to Last

The Essex Design Guide

The introduction to the Essex Design Guide is contained within the Character Appraisal to the Neighbourhood Plan.

In relation to the Design Code specifically, the Essex Design guide should be read in regard to matters which are more strategic in nature rather than locally specific.

Detailed technical guidance for road design, drainage and lighting are also matters for the overarching Essex Design Guide.

The aim of this document is to create a design code which is locally specific to Noak Bridge, however the reader should be aware of the overall themes and design details in the Essex design guide, and this Code should work in tandem with the EDG and be followed in any new development within Noak Bridge.

Overall, the combined approach of both documents is to:

- Promote sustainable development by encouraging new development that is environmentally friendly, energy-efficient, and well-connected to public transportation.
- Create attractive and liveable places by designing streets, buildings, and open spaces that are safe, comfortable, and inviting.
- Respect the character of existing communities by ensuring that new development fits in with the local context and does not harm the character of historic towns and villages.
- Provide for a variety of housing types and tenures to meet the needs of a diverse population.
- Encourage active lifestyles by creating walkable communities with a network of safe and accessible walking and cycling routes.
- Improve the quality of life for all residents by designing places that are vibrant, healthy, and inclusive.

For more information visit the Essex design guide website and the following documents as relevant. These will be highlighted again in the applicable sections of the Design Code.

- Essex Design Guide
- Essex Design Guide - Highways Technical Manual in particular, Streets and Roads and Parking and Manual for Streets for advice and examples of good practice to guide new development on the best use of street materials.
- Sustainable Drainage System (SuDS) Design Guide for Essex
- ECC Developers' Guide for Infrastructure Contributions

Noak Bridge Neighbourhood Design Code Vision and Objectives

Community Consultation Results & Character Appraisal Findings

The community raised the following issues within the current urban area as a whole:

Issue: - Insufficient car parking causing overcrowding of the streets from parked cars.

The community would like to see greater use of off-street parking in overlooked locations. These should be more attractive parking solutions and than those which currently exist and integrate well into the 'traditional English village' fabric.

An alternative solution would be to increase accessibility to local services and facilities, to be less reliant on vehicles.

Issue: - The character of existing housing is cherished by the residents, but there are a number of important architectural elements that have been altered by residents over time, resulting in a cumulative loss of character and features.

- There have been numerous replacements of features with substandard materials and designs which are not in keeping with the planned character.
- These include proliferation of satellite dishes, low quality UPVC windows, removal or original signage and lighting, erection of close board fences along the public realm.
- Residents would like to halt the erosion of the character and seek to readdress these issues where possible.
- This also sets a precedent that new development can be of a lower standard.

Basildon Council has put in place what is known as an Article 4 Direction within the Conservation Area. This limits the scope of what can be undertaken by residents and landowners through permitted development rights. The reason for the Direction is to control works that could threaten the character of an area.

Although this Direction is in place, many residents do not realise that they need planning permission for the works they are proposing.

It therefore needs to be made clear to land owners and residents that permitted development rights have been removed. Whilst this covers many changes (see Neighbourhood Plan Appendix for full extent), of note for this document are that the following need permission:

- Installation of satellite dishes
- Replacement of windows with that of a different style, design or material (including timber to UPVC)
- Replacement of external doors with that of a different style, design or material
- Cladding to the exterior of the building
- Building of porches
- Removal of original signage from buildings
- Alteration or removal of original architectural features.

Noak Bridge Neighbourhood Design Code Vision and Objectives

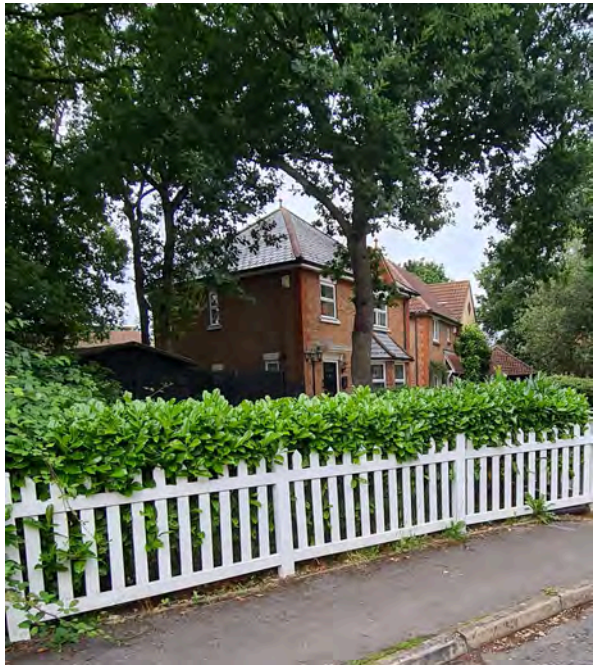
Issue: - There are several green spaces which are treasured by the local community including the nature reserve, village green and Durban Lane duck pond, as well as many others, the community would like these to continue to be well maintained and to add further similar spaces in future development.

The protection, maintenance and enhancement of such green spaces are paramount. This can be achieved the Neighbourhood Plan designation as Local Green Spaces as appropriate.

The community would like to see these areas maintained and installation of seating such as picnic benches.

Future development must incorporate similar spaces with appropriate future management and maintenance.

Issue: - The area contains a substantial amount of trees and landscaping within the street scene. Unfortunately more modern development has provided significantly less and this has resulted in a hard urban form.



New development should be landscape led, with the inclusion of street trees and planting.

Issue: - The community would like to see an increase to the Nature Reserve and greater accessibility from new access points.

Solution: - Expansion could be achieved by adding adjacent land in the future. Where this is achieved as part of new development, new points of access should be provided and linked to the existing network of paths.

Issue: - Improve safety and security around existing green space

A balance has to be struck between ensuring that a public open space is sufficiently well used, overlooked and lit, with that of providing an appropriate habitat and biodiversity opportunities.

Noak Bridge Neighbourhood Design Code Vision and Objectives

The conservation area has been designed to create a series of leading, interesting and varied street views. This element has not been continued through into the adjacent character areas.

New development should be based on a considered approach looking at how new development frames the view and the positioning of landmarks and focal points.

The existing settlement is well connected through a series of paths. Although new development has been based around the needs of the car, to the detriment of walkers and cyclists. Prioritise pedestrian connectivity & legibility and enable and enhance safe cycling routes

Ensure new development follows the route hierarchy approach in the Design Code, to give pedestrian priority.

Buildings have been designed as an individual response to the location, with an understanding of traditional, local Essex vernacular. New development has often been more generic in its design, with less landscaping, fewer architectural details and lower quality materials. Such properties can be found anywhere in Southern England and do not have a local identity.

Design buildings in response to the local context, following the Codes in this document.

3.0 Parish Wide Design Codes

Local Context

The National Design Guide states that "*an understanding of the context, history and character of an area must influence the siting and design of new development.*

This context includes the immediate surroundings of the site, the neighbourhood in which it sits and the wider setting. This includes:

C.1: An understanding of how the scheme relates to the site and its local and wider context.

C.2: The value of the environment, heritage, history and culture."

The character area appraisal describes the individual areas within Noak Bridge.

Although the areas have a number of differences, there are common factors shared across them. Many of which are also specific to the wider area and can also be spotted throughout this part of Essex. In particular, the historic colour palette and type of materials.

The understanding of such factors is key to successful new development.

Throughout Noak Bridge each element is put together to create a place that is visually attractive and is highly regarded by the community.

The fact that the Parish contains one of only very few modern conservation areas, highlights how successful a well planned and designed new development can be.

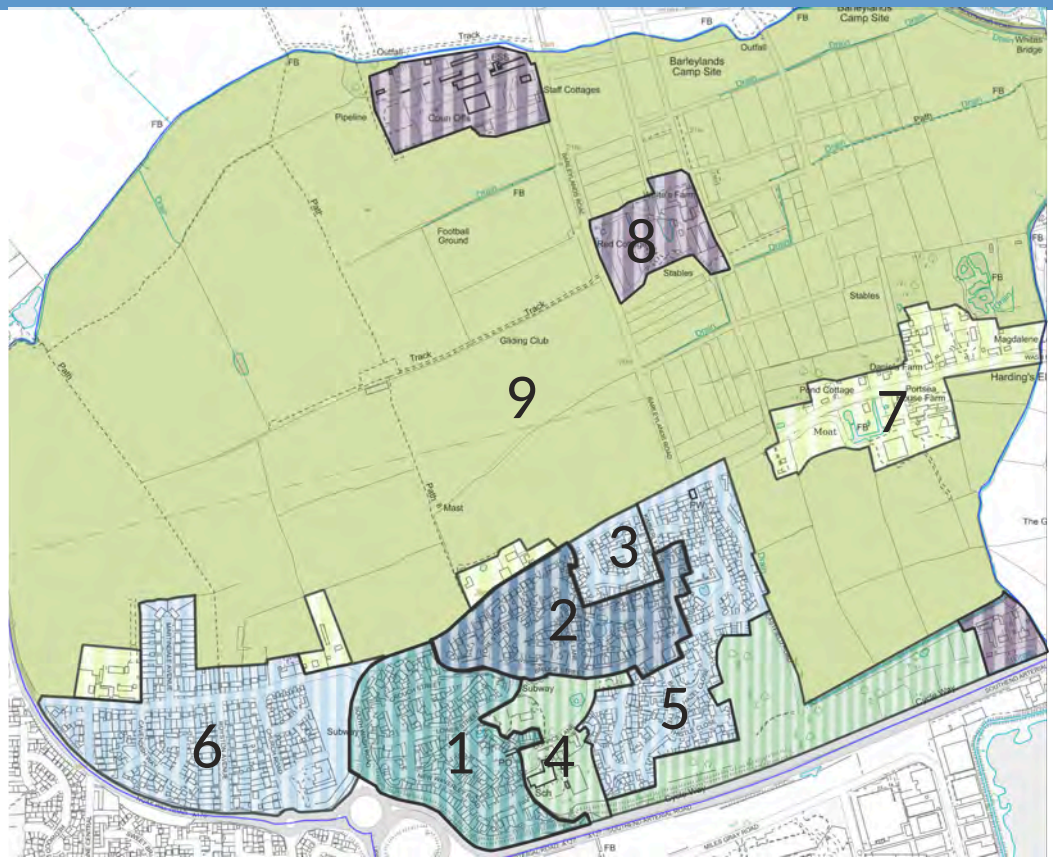
The aim for any new development is to avoid generic house types and standard layouts, which can be found in any village or town across England. Instead, the focus is upon a locally specific response.

Area Types

The existing built-up area covered by the code has been analysed by area type / mixture of area types as illustrated in the figure adjacent.

Each area type may contain other elements which do not conform, but primarily as per that identified. The principle being that non conforming use or site came up for development, then it would be appropriate to be guided by the identified area type.

This section will be later referred back to with regard to identity and density.

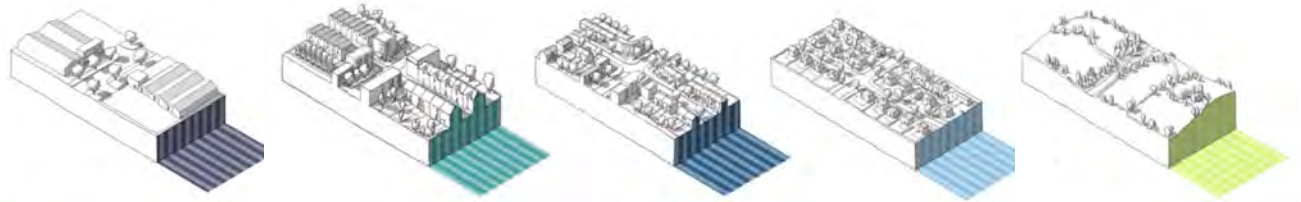


This plan shows the area to be covered by the code and divides this up into a series of area types as described below. Most places will not include all of these area types, and some may include types that fall outside all of these examples

- Town Centre
- Local Centre
- High Density Urban Village
- Medium Density Village Suburb
- Lower Density Village Suburb
- Industrial / Commercial
- Urban Green Space
- Rural
- Open Countryside

1- Southwest of Bridge Street
2- North of Bridge Street
3- Gatelodge Estate
4- The School and Green
5- East of the village
6- West of South Wash Road
7- Pre-1900 farmsteads and historic buildings
8- Recreation / commercial buildings
9- Open Countryside recreation and equestrian uses

Area Types found within the Plan Area



Industrial and Small Scale Commercial

Low key industrial, commercial and storage uses. Often found in converted farm buildings and pre-fabricated units

High Density Urban Village

Also contains some village facilities and services.

Higher density with numbers of Apartments and terraces

Medium Density Urban Village

Residential areas with medium housing densities. Fewer apartments, short terraces and semi-detached properties

Lower Density Urban Village

Residential areas with lower housing densities.

More semi-detached and some detached properties

Rural

Areas of scattered development with older pre 1950s properties and farm buildings

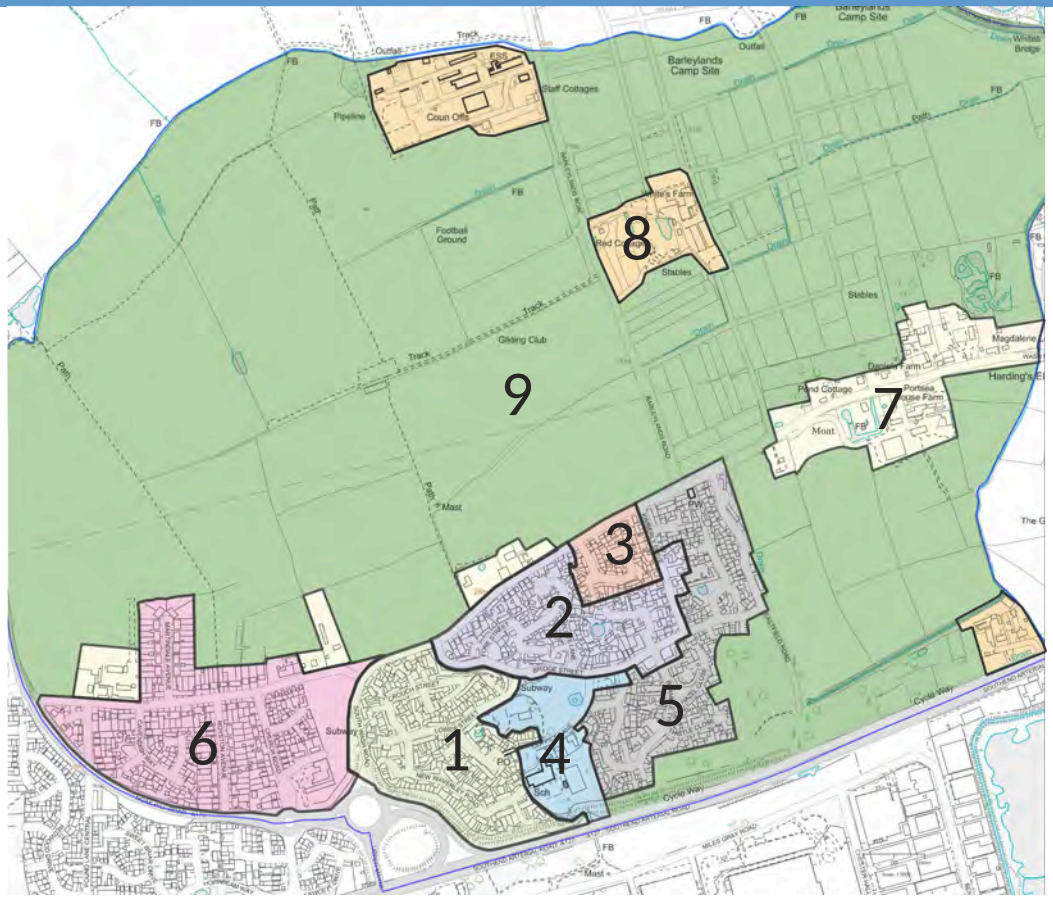
Character Areas for Coding

The area types have been broken down further into character areas as highlighted within the Character Appraisal. The document refers to both area types and their character in the creation of Design Codes.

Applicants should assess the Codes and criteria within. By following this process, the applicant will be more likely to secure a well designed scheme, which is in keeping with the character of the surrounding area.

The guidelines in this document focus largely on residential development. However, many of these principles are relevant to all new development.

Considerations of design and layout must be informed by the wider context considering not only the immediate neighbouring buildings but also the townscape and landscape of the wider locality.



Each area will be shown in the following format and corresponding with the table below.

This includes minor and major development as defined.

1- Southwest of Bridge Street
2- North of Bridge Street
3- Gatelodge Estate
4- The School and Green
5- East of the village
6- West of South Wash Road
7- Pre-1900 farmsteads and historic buildings
8- Recreation / commercial buildings
9- Open Countryside recreation and equestrian uses

Context - Design Codes

Each of the Design Codes in this context section is set out below and has a key highlighting which of the Character Areas and Type of Development the code refers to.

Analysis & General Principles

CODE NB1 - Contextual Analysis and Expectations

Major	Minor	1	2	3	4	5	6	7	8	9

CODE NB2 - Design and Access Statement

Major	Minor	1	2	3	4	5	6	7	8	9

Heritage

CODE IH01.1 - Listed Buildings

Major	Minor							7		9

CODE IH01.2 - Conservation Areas

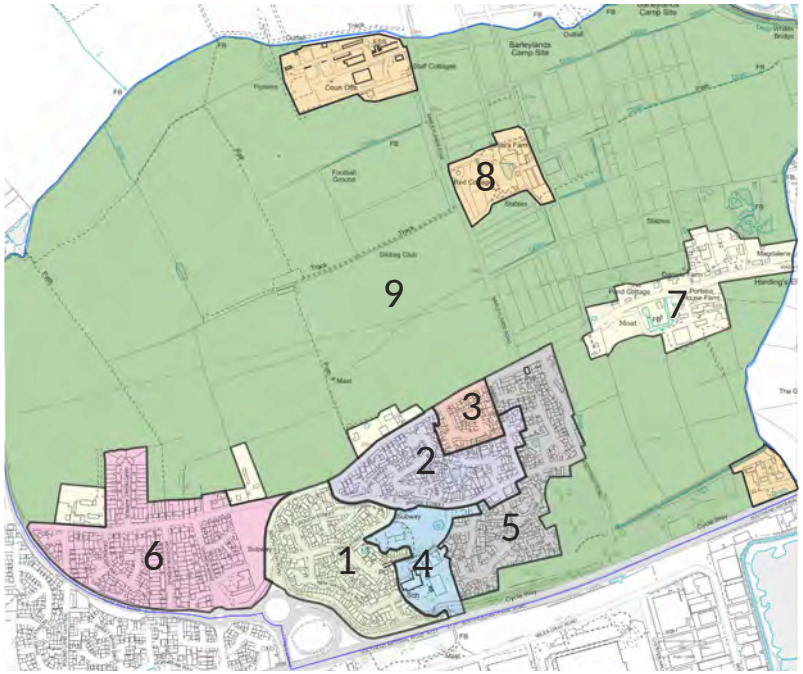
Major	Minor	1	2	3	4	5	6	7		9

CODE IH01.3 - Non Designated Heritage Assets

Major	Minor	1	2	3	4	5	6	7		9

Where the proposed scheme falls within the defined minor or major development the applicant should refer to the relevant design codes which are highlighted by the key below.

MAJOR	MINOR
Major Developments 10 & above dwellings and mixed use or other large scale schemes on a site of 0.5 hectares or more	Minor Developments of 2-9 dwellings or other development on small sites of 0.5 hectares or more



Character Areas for Reference

Noak Bridge Design Code: Sustainability Objectives

The Noak Bridge Design Code aligns with the overarching goal of Basildon Council in achieving carbon neutrality by 2030. This Design Code outlines key sustainability objectives below that will guide development within the neighbourhood and then embeds this information into each relevant section:

Reduced Demand:

The Design Code will encourage efficient use of resources and energy within new developments. This can be achieved through:

- Promoting compact and low-energy building design principles.
- Encouraging efficient water and waste management strategies.
- Supporting the creation of walkable and cyclable neighbourhoods that reduce reliance on private car use.

Enhanced Natural Carbon Sequestration:

The Design Code will advocate for measures that increase the capacity of the local environment to absorb carbon dioxide. This may involve:

- Protection and enhancement of existing green spaces and natural habitats.
- Integration of landscaping features that promote carbon sequestration, such as trees and bioswales.
- Encouragement of sustainable land management practices that improve soil health.

Climate-Resilient Development:

The Design Code will ensure new development is built to withstand the potential impacts of climate change. This can be achieved through:

- Flood risk assessments and implementation of appropriate mitigation measures.
- Promotion of sustainable urban drainage systems (SUDS) to manage rainwater runoff.
- Use of robust and climate-adapted building materials and construction techniques.

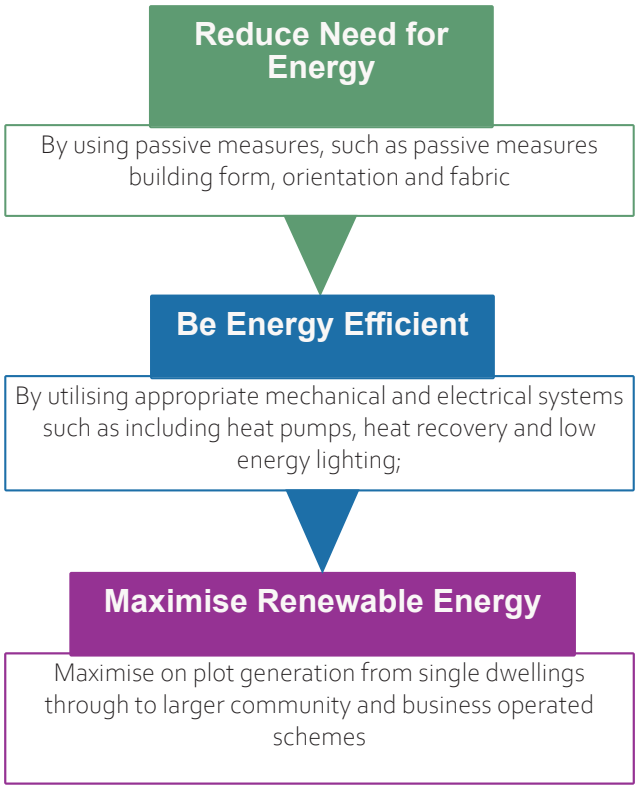
Whole-System Approach:

The Design Code will take a holistic approach to sustainability, considering the interrelationships between different aspects of development. This may involve:

- Integrating energy-efficient technologies with building design.
- Promoting active travel infrastructure that encourages walking and cycling.
- Encouraging the use of low-carbon construction materials and minimising waste generation.

By implementing these objectives, the Noak Bridge Design Code will contribute to a more sustainable future for the neighbourhood and Basildon area as a whole. This focus on sustainability will not only mitigate climate change but also generate co-benefits for resident health and well-being, economic resilience, and environmental quality.

Energy Hierarchy



Contextual Analysis & General Principles

A thorough contextual analysis is essential for all proposals to highlight how the design has taken into account the characteristics of the site and its surroundings.

CODE NB.01 - *Contextual Analysis*

Proposals for new development, redevelopment, infill development and replacement dwellings must be based on an understanding of Noak Bridge.

All new development should be based on a full and detailed contextual analysis of the specific site and the wider area, with justification for the proposal and how it has been designed to integrate with the wider community.

The degree of information provided should be proportionate to the scale and nature of a development proposal.

Major	Minor	1	2	3	4	5	6	7	8	9

There are a number of general key principles and objectives which should be considered to in any development proposal. These include:

CODE NB.02 - *General Principles*

1. **Settlement Pattern - development should respect the existing form of development, particularly within the conservation area in order to preserve the highly regarded character;**

2. **Streets and Public Spaces - development should preserve or enhance the established well landscaped character and distinctive features relating to the public realm. Ensure that biodiversity opportunities are maximised;**

3. **Layout- proposals must highlight how all components e.g. buildings, parking and open space are well related to each other. These should respect the existing layout and be designed to accommodate climate change;**

1. **Built Form - development should respect the existing settlement in terms of physical form and architecture. Utilise high quality locally specific materials, which are sustainable;**

2. **Scale, Height, Form and Massing - development should respect the locally specific building forms;**

3. **Materials, Appearance and Details- proposals must adopt a contextually appropriate palette of materials and colours. This should cover not only the buildings, but also hard landscaping;**

4. **Infrastructure- all utilities and drainage infrastructure must be designed from outset to be integrated without causing unacceptable harm to retain features.**

Major	Minor	1	2	3	4	5	6	7	8	9

Heritage

The history of the Parish is set out in the Character Appraisal.

In summary, the area to the east of South Wash Road was originally planned in 1975 with the objective of creating a typical an English Village with its own local identity and character. In this regard, architects were Maurice Naunton and George Garrard designed houses and gardens which intended to be large enough to promote and encourage family activities. These were located among community facilities and areas of public open space.

Noak Bridge has also set precedent as an early example of successful "place-making".

Despite its fairly recent history, there are parts of the Parish which remain in existence prior to the 1900s.

Currently only two listed buildings exists in the Parish; Laindon Ponds and Daniels Farm. Both are Grade II listed and are located along Wash Road towards the east of the Parish.

Location of Listed Buildings

CODE IH01.1 - Listed Buildings

New development within the setting of listed buildings must preserve and enhance the significant of the asset.

Proposals must maintain the integrity of the original building and its setting. This can include maintaining views into and out of the site.

Schemes should maintain the character and balance historical design and material choices with the creation of a modern response with the appropriate use of contemporary and complementary materials, finishes and architectural features.

Landscaping could be used to frame key aspects of the listed building itself through view cones or increase the aesthetics of the setting.

Major	Minor						6	7	8	9

Laindon Ponds - Grade II Listed Building

Conservation Area

The Conservation Area (CA) in Noak Bridge was designated in 1996. A revised Conservation Area Appraisal and Management Plan is currently being prepared (at the time of writing), with a small extension to the current area being proposed (as shown adjacent).

Any development proposals within the CA and its setting must refer to the Appraisal and Management Plan.

A summary of salient points and requirements are set out below.

The Noak Bridge Article 4 Direction, covers the entire Conservation Area and removes permitted development rights. This makes it necessary to obtain planning permission for works, including:

- Erection, alterations, or removal of chimneys
- Enlargement, improvement, or other alterations of a dwelling house including doors and windows
- Alterations to roof of dwelling house
- Erection of a porch
- Construction of pool or pool building
- Installation, alteration, or replacement of a satellite antenna
- Erection, construction, maintenance, improvement or alteration of a gate, fence, or wall
- Painting of exterior of any building
- Demolition of any boundary treatment

All measures should be taken to preserve and maintain vegetation and prune when necessary. Features such as vegetative islands like in Sailing Green should benefit from regular maintenance to preserve the intended aesthetic.

Unsympathetic additions such as air conditioning units, extraction flues,and TV aerials/satellites to street facades, sides and rears of buildings must be avoided as they cause harm to the character and appearance of the Conservation Area.

It should be noted that all such features require planning permission, due to the fact that permitted development rights have been removed.

The loss of original features such as the timber windows, five bar gates and spherical street lamps and their replacement with modern features harms from the character, especially the addition of uPVC windows.

CODE IH.02 - *Conservation Areas*

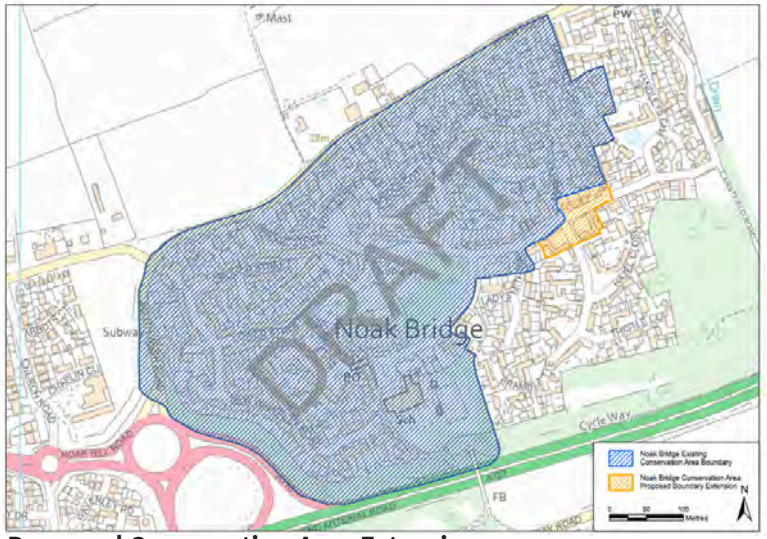
Within the Conservation Area and its setting, poor-quality and generic design proposals, which are based on 'standard house types' are not acceptable. Such designs do not successfully integrate with the originally planned and built form.

Major development schemes must not create a 'pastiche' of the existing Conservation Area or other suburban developments in the wider area.

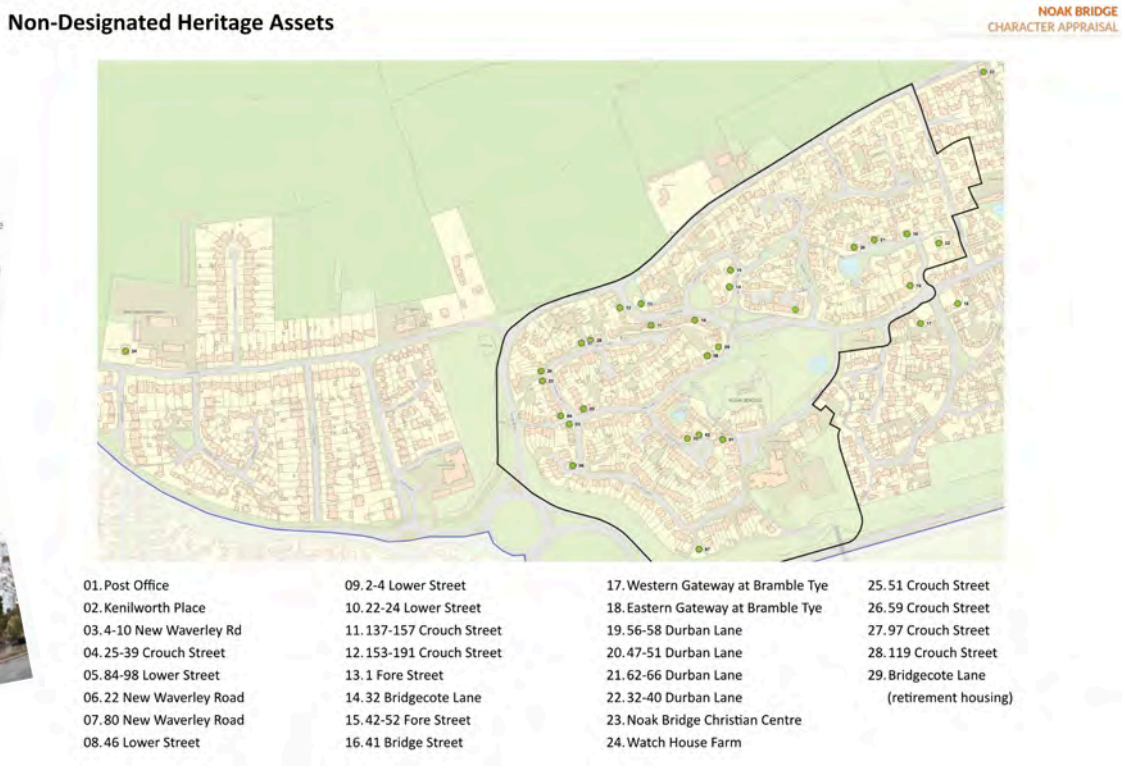
New development should seek to incorporate elements of the local vernacular to create a cohesive and contemporary approach. Levels of detailing, high quality materials and appropriate fenestration and their proportions are key.

Where proposals seek to remove unsympathetic elements or additions, such as poor quality UPVC windows and doors, satellite dishes, suburban fencing, these aspects will be supported.

Major	Minor	1	2	3	4			7	8	9



Proposed Conservation Area Extension



Location of Potential Non-Designated Heritage Assets

CODE IH.03 -

Other Designated and Non Designated Heritage Assets

Any new development on undeveloped land may have potential for archaeology. Applicants must be aware of this and where relevant an archaeological assessment and or survey should be undertaken as appropriate.

Any proposals which affect the Locally Important Building /non-designated heritage asset and their setting should justify how the proposed scheme sustains and enhances the significance of the asset.

Major	Minor						6	7	8	9

Other designated heritage assets include but not limited to scheduled monuments, registered Parks, Gardens and Battlefields and archaeological sites.

There are no such identified assets, but there have been some medieval and Bronze Age finds in the area, with numerous Roman artefacts and remains to the north in Billericay, which may indicate further finds are likely.

Non-designated heritage assets have a degree of heritage significance but do not meet the requirements for designated heritage assets. Non-designated heritage assets can include buildings, monuments, sites, places or landscapes.

Currently there are no formally identified non-designated heritage assets however within the conservation area there are several landmark buildings listed to have special architectural and aesthetic interest, it is recommended that the Neighbourhood Plan considers these to be formally identified as such or noted as Locally Important Buildings (see Character Appraisal Appendix iii).

These are mapped above.

Further information on such assets is found on the Historic England website

https://historicengland.org.uk/listing/the-list/non-listed-sites/

Movement - Introduction

The National Design Guide states that *"A well-designed and connected network gives people the maximum choice in how to make their journeys. This includes by rail, other public transport, walking, cycling and by car."*

This can be achieved through:

M1 Providing a connected network of routes for all modes of transport

M2 Promoting Active travel

M3 Creating well-considered parking, servicing and utilities infrastructure for all users

A movement network is a system of streets, paths, and other transport links that allow people and goods to move around an area.

There are many different types of movement networks, but they all share some common characteristics. They should be:

- **Efficient**: The network should allow people and goods to move around quickly and easily.
- **Safe**: The network should be safe for all users, including pedestrians, cyclists, and motorists.
- **Inclusive**: The network should be accessible to everyone, regardless of their age, ability, or means of transportation.
- **Sustainable**: The network should be designed to reduce car dependency and promote active travel.

Movement networks are often designed to achieve specific objectives, such as:

- Reducing traffic congestion
- Improving air quality
- Promoting economic development
- Creating a more liveable and sustainable environment

Noak Bridge is an example of a well connected location, with an excellent network of paths and a movement network that creates a liveable and sustainable environment.

The following are considered key elements of a movement network:

Streets: Streets are the main arteries of the movement network. They should be designed to accommodate a variety of traffic modes, including pedestrians, cyclists, and motorists.

Paths: Paths provide a safe and convenient way for pedestrians and cyclists to move around. They should be connected to the street network and should be well-maintained.

The Gate Lodge Square area is well connected with cyclists and pedestrian links, but suffers from on pavement parking problems

Public transport: Public transport is an important part of the movement network, especially in urban areas. It should be accessible, affordable, and reliable.

Parking: Parking is an important consideration in the design of movement networks. It should be provided in a way that does not encourage car or vehicle dependency.

The following section focus on these aspects and how they should be considered in new development.

Each of the Design Codes in this Movement section is set out below and has a key highlighting which of the Character Areas and Type of Development the code refers to.

It should be noted that within the built up Character Areas (1-8), it is unlikely that there will be any major development which would warrant the setting out of entirely new roads or to facilitate new public transport routes.

Movement

CODE MS.01 - Route Hierarchy

Major	Minor									9

CODE MS.02 - Village Streets, Shared Surfaces & Home zones

Major	Minor									9

CODE MS.03 - Mews, Squares & Courts

Major	Minor									9

CODE MS.04 - Private Drives

Major	Minor									9

CODE MS.05 - Public Transport

Major	Minor									9

CODE MS.06 - Walking & Cycling

Major	Minor	1	2	3	4	5	6	7	8	9

CODE MS.06.1 - Cycle Parking

Major	Minor	1	2	3	4	5	6	7	8	9

CODE MS.07 - Car Parking

Major	Minor	1	2	3	4	5	6	7	8	9

CODE MS.07.1 - Car Parking

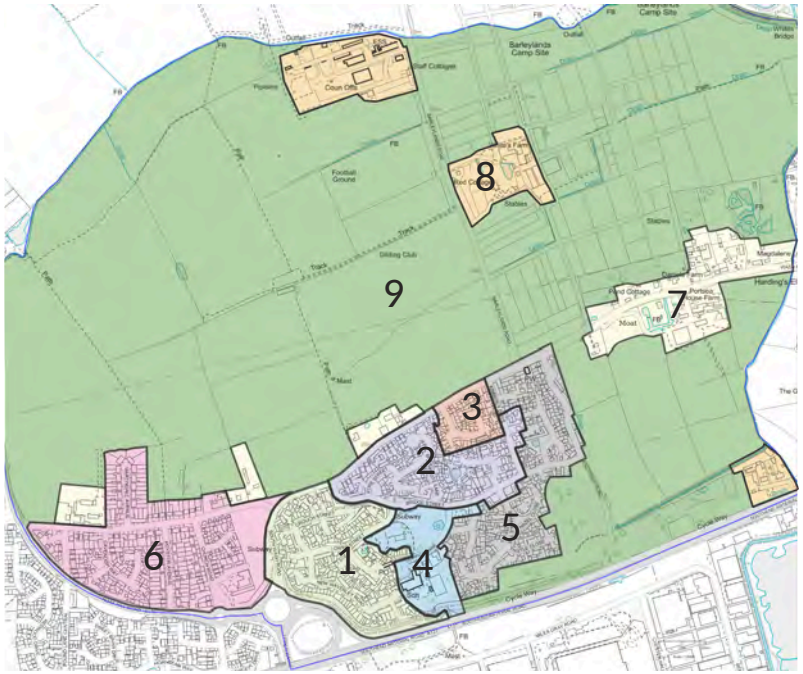
Major	Minor	1	2	3	4	5	6	7	8	9

CODE MS.08 - Services & Utilities

Major	Minor	1	2	3	4	5	6	7	8	9

Where the proposed scheme falls within the defined minor or major development the applicant should refer to the relevant design codes which are highlighted by the key below.

MAJOR	MINOR
Major Developments 10 & above dwellings and mixed use or other large scale schemes on a site of 0.5 hectares or more	Minor Developments of 2-9 dwellings or other development on small sites of 0.5 hectares or more



Character Areas for Reference

Movement & Services

Any new development should be well connected to the existing network of streets and routes and where possible enhance existing connections.

The movement network should enhance the mobility of non-vehicular journeys and prioritise pedestrians and cyclists (active travel).

The street design should relate to its status in the hierarchy and function for the proposed used. The street hierarchy within Noak Bridge is highlighted overleaf and conforms to that set out in the adjacent diagram.

The design of the movement network influences how people travel and is key to sustainable development.

The aim is to discourage the use of the car for local trips with a higher connectivity level for pedestrians and cyclists to reduce travel time.

It is vital that the new streets are connected legibly to existing streets and are designed around the existing street hierarchy.

The relationship between building heights and scale and the width and design of the street influences how people use the space and and their movement patterns as a result. This will be discussed in further detail in the built form section.

This section sets out principles and codes relating to movement when developing within Noak Bridge Parish.

CODE MS.01 - *Route Hierarchy*

Developers of major development sites must provide a route hierarchy which maximises opportunities for pedestrians and cyclists. It should focus upon providing an attractive public realm, which draws influence from the landscape led setting of Noak Bridge.

New streets and paths should be designed specifically to accommodate the type of traffic flow, that is set out in the route hierarchy.

Sites should be accessed via sensitively designed junctions or roundabouts as appropriate to the scale of the development and traffic volume.

Paths

Pedestrian and cycle movements are critical to the successful integration of any new development. Any scheme should start with how these users are to move within the site and connect to existing developed areas.

Primary Streets & Routes

The arterial through routes which should be multi-functional and be mixed-use

Secondary Streets

The connectors to the primary streets and are often predominately residential in nature

Village & Local Streets

Village Streets service a smaller number of homes and as such have much lower traffic flows. Shared street spaces or Home Zones are designed to focus on creating space for people with priority over vehicle movements

Squares, Mews, Courtyards and Private Drives

Specifically designed to serve a small number of homes, usually between 3 - 15, depending on the type. These areas create quiet and neighbourly spaces.

The codes apply to the provision of major development proposals, which may be submitted by a developer.

Such codes will apply to all areas of the village and are not specific to one character area.

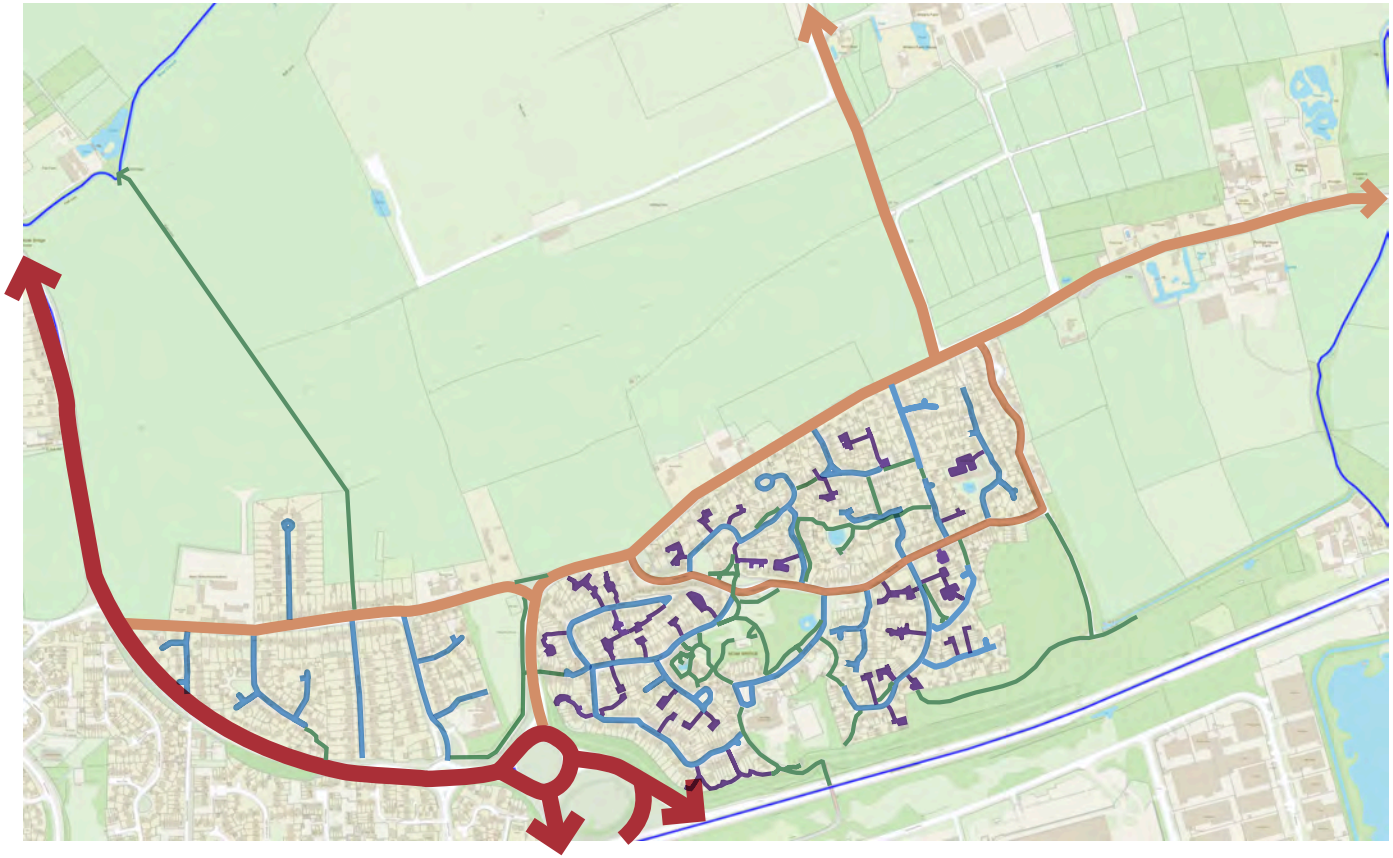
The following street typologies contain general guidance for new development and should be read alongside the Essex Highways Technical Manual found at https://www.essexdesignguide.co.uk/design-details/highways-technical-manual/

At present the street hierarchy in Noak Bridge is show on the adjacent diagram. It also highlights the difference between the development area to the west, which is less connected on foot, compared to the Conservation Area. Equally, the latter development to the east has poor accessibility via the path network. Development on the eastern and northern edges of the Parish are hampered both by a lack of paths and high vehicle volumes and speeds.

In any new development, the larger primary and secondary road are unlikely to be implemented in any new proposal due to the scale. Where such roads are proposed, the Essex Design Guide should be the reference point.

It is likely that new 'Village Streets' will be proposed along with 'Squares, Courtyards and Private Drives'. The focus of the next section is primarily on these routes.

Network of Streets & Street Hierarchy within Noak Bridge Parish



Existing Route Network

- Paths
- Primary Routes
- Secondary Routes
- Village Streets
- Squares, Courtyards and Private Drives

→ See Essex Design Guide and Technical Manual

→ See Design Codes overleaf and Essex Design Guide and Technical Manual

CODE MS.02 - Village Streets & Home Zones

Village streets should be low speed, less than 20mph zones.

Traffic calming should be designed into the scheme from the outset through careful landscaping and building layout, not engineered measures.

The street should be able to accommodate cyclists as well as vehicles, or a shared cycle path and footway can be included.

Shared Surfaces and Home zones should be specifically designed to deter unnecessary motorised traffic by using features and measures which prioritise pedestrian use.

All street types should include trees and appropriate planting where space is available.

A shared surface street or home zone must be clearly identified with a 'gateway' feature such as a change in surface pattern and raised table or a kerb extension.

It must be surfaced in the same material, with the exception for areas which may be marked out for parking, play or seating. In which case this may be undertaken through a carefully chosen palette of materials, rather than road markings.

It is important that public and private land must be clearly identifiable.

Please note that any tree planting would require commuted sum for maintenance associated with street tree planting. These must be planted clear of visibility splays[1]. Consultation with highways officers must take place to ensure that the right trees are planted in the right places.

Village Streets

Village streets are usually equivalent to access roads (type E in the Essex Design Guide), which give direct access to dwellings. They should accommodate two way traffic either with or without on-street parking. With appropriate design, traffic speeds should be low without the need for engineered traffic calming measures such as humps, cushions and chicanes.

If designed to be a cul de sac (which is not preferable), the maximum number of dwellings should be 200 units.

A proposed route which has more than one access, may serve up to 400 units. Both are to be designed as per the village street example.

Shared Streets and Home Zones

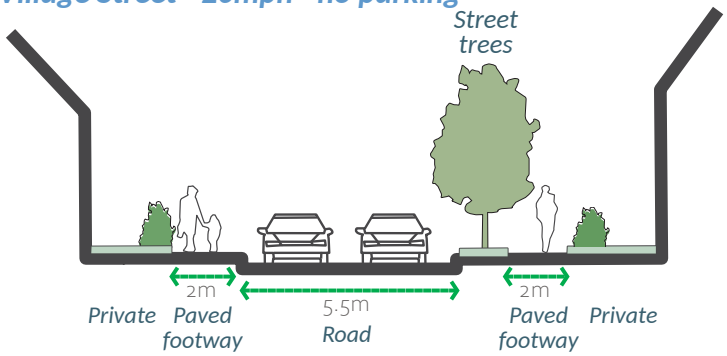
A shared street (larger than a small court or mews overleaf), but usually lower than 25 dwellings.

The aim of a home zone is to make the traffic speed equal to that of a pedestrian.

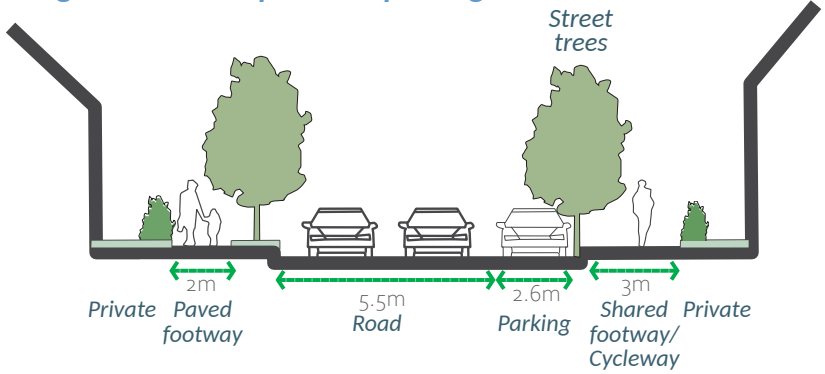
They should be focused around encouraging social interaction between neighbours and provision of pocket parks, meeting places and landscaping . Measures must be taken to maintain pedestrian safety by reducing traffic speed, ensuring pedestrian visibility.

[1]. Please see the EDG: Highways Technical Manual - Planting in sight splays and Street Trees

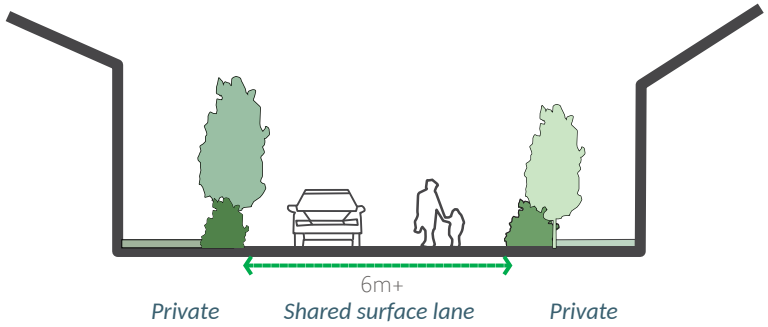
Village Street - 20mph - no parking



Village Street - 20mph - with parking



Shared Streets and Home Zones - 20mph



Mews, Squares & Courtyards

Squares, Courtyards and Private Drives are commonplace in Noak Bridge and present opportunities for successful place making. These are smaller spaces than above and again must have pedestrian priority. Well designed spaces have potential to increase social interaction and cohesion when planned as a meeting space. They must follow the route hierarchy as set out in the Essex Design Guide to ensure that they meet appropriate standards.

These spaces should allow for vehicles at extremely low speeds. Drivers should be visually aware of a change of priority. There is the potential to provide an entrance feature at the junction or a change in surface pattern and raised table or a kerb extension to signify the change.

The length from the main highway to the end of the area should be no more than 30m, to reduce the distance to serviced areas. Attractive, sheltered communal refuge storage should be provided close to the entrance, which can be wheeled to the road on collection day.

The design of such areas must demonstrate they can accommodate sufficient parking and turning space.

To create a more intimate and pedestrian friendly space, where people are encouraged to interact, the space should be enclosed by the buildings and vegetation, proportionate to the width of the open area, providing natural surveillance and enhancing safety. There should ideally be enough space for children to safely play and the area should be attractively landscaped.

Where a square or courtyard forms part of the neighbourhood centre it should be fully pedestrianised and accommodate active frontages on the ground floor of buildings.

The palette of surface materials can substantially improve the appearance of an area. These could include:

- **bound pea shingle**
- **high quality and permeable block paving**
- **granite or concrete setts**
- **stable blocks and**
- **cobbled edges.**

CODE MS.03 - Mews, Squares & Courts

Mews, Squares and Courts are smaller and more intimate urban, shared spaces, where speeds must be 20mph or less.

The distances between building frontages should be reduced

Dwellings often abut the street, with small personalisation strips or minimal front gardens space..

Vehicle parking is generally perpendicular to the carriageway through the square or court, there must be a minimum of 6m between opposite parking bays to allow for safe manoeuvring.

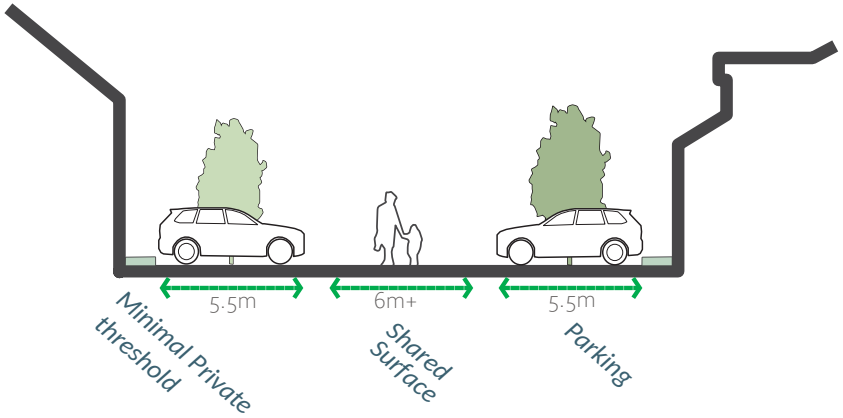
Windows or doors must not open directly onto any parking bay. A small threshold, allows for a buffer in this instance.

The size of the entrance carriageway to a court or square should be in accordance with the Essex Design Guide - Highways Technical Manual

Appropriate tree and shrub planting should be utilised to soften the appearance and reduce the size of any larger scale parking courts.

Major	Minor									9

Mews, Squares and Courtyards



CODE MS.04 - Private Drives

A shared private drive, should provide access to no more than 5 individual dwellings.

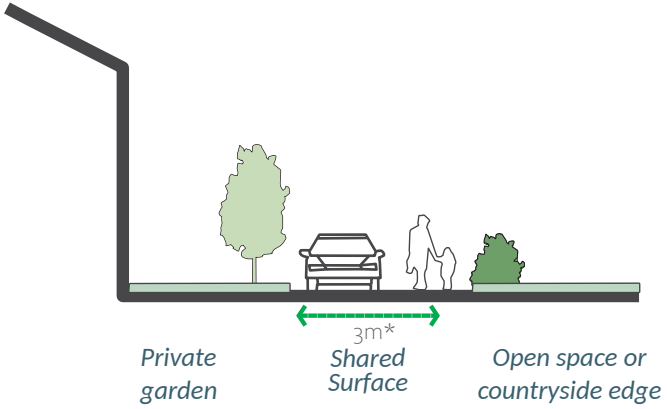
- Where they are accessible from a primary or secondary street, the vehicle must be able to enter and leave the site in forward gear. Reversing onto such roads is not acceptable.
- Detailed guidance within the Essex Design Guide - Highways Technical Manual must be adhered to
- The maximum gradient of inclines should be 8%.
- Steeper gradients may be considered where the retention of existing topography is desirable, subject to the use of a special surface finish that affords better adhesion.

Parking on shared private drives

- All parking spaces must be located clear of the shared drive area, turning space, passing bays, and other common areas
- Adequate manoeuvring space must be provided to allow vehicles to enter and leave all garages and parking spaces when all other available parking spaces are full.
- Vehicle and pedestrian sight-splays of 1.5m x 1.5m from the rear of any footway should be provided on each side of a drive.
- No obstruction over 600mm high should be placed within any vehicle or pedestrian sight-splays. Where there is planting, this must be maintained below 600mm to allow good visibility.

Major	Minor									9

Shared Private Drive



1See Essex Design Guide Technical Manual

https://www.essexdesignguide.co.uk/design-details/highways-technical-manual/turning-heads/

2 See Essex Design Guide Technical Manual for Type H Shared Private Drive - https://www.essexdesignguide.co.uk/design-details/highways-technical-manual/street-type-description/

Existing Public and School Bus Routes

Public transport is an essential part of a sustainable and liveable community. By making it easier for people to use public transport, we can reduce traffic congestion, improve air quality, and make our communities healthier and more attractive.

Noak Bridge has a number of different bus services connecting the Parish with Basildon, Billericay and Chelmsford, as well as school services. The routes and bus stops are highlighted on the plan above

CODE MS.05 - Public Transport

Streets which are likely to used by public transport should be identified in the design phase and link into the existing services and community facilities within the Parish.

The siting of bus stops should be carefully considered as to connect people to key areas and be accessible by a large number of people. Ideally bus stops should be within a 5-10 minute walk from every home.

Whether to include a bus layby is on a case by case basis, as in high volume trafficked areas, it can prevent the bus's ability to rejoin the main carriageway when pulling out of a stop.

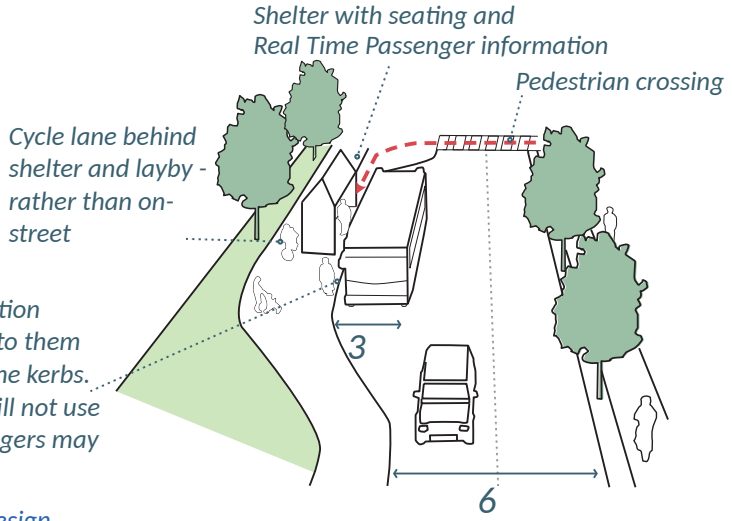
Where a layby is included, stops should be positioned adjacent to laybys sufficiently sized to fully accommodate the vehicle off the main carriageway. The bus stop should be fully integrated into the road design.

All bus stops must provide seating and shelter, and designed such that it is in keeping with the character of the area in which it is sited.

Major	Minor									9

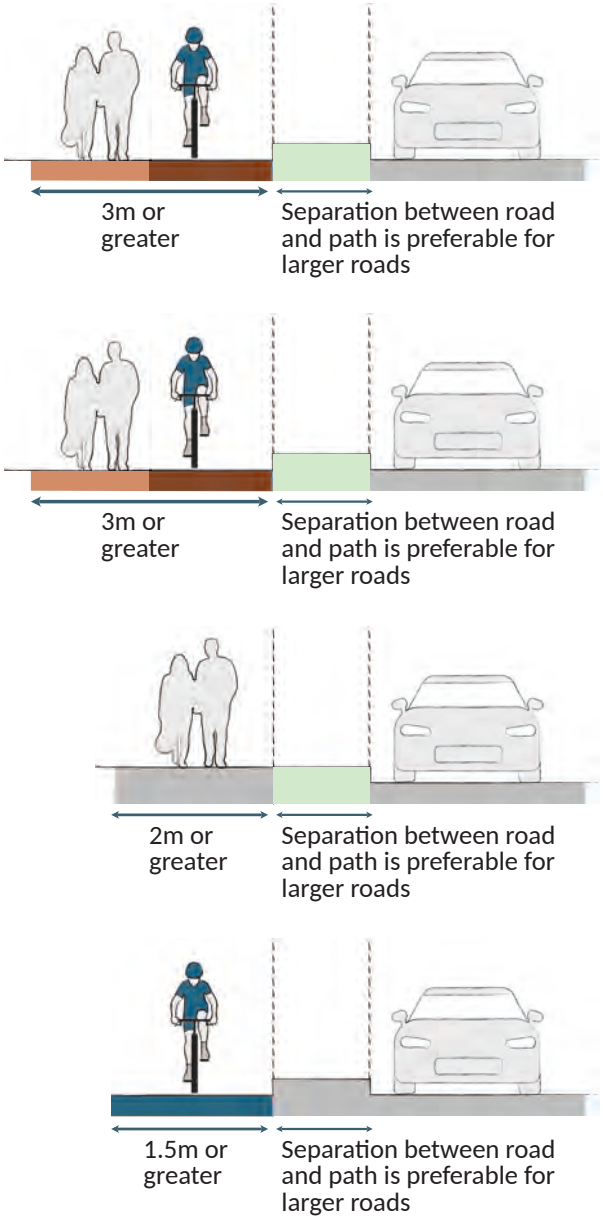
Raised kerbs should be in a position which allows the bus to pull up to them easily, with the bus parallel to the kerbs. If this does not happen buses will not use the kerbs effectively and passengers may struggle to board the bus.

See Technical Manual for Bus Design



Highlighting how Buses can Accommodated in new Streets

CODE MS.06 - *Walking & Cycling*



Dimensions for shared or single footpaths and cycle paths

Where any major development is proposed, submitted information must demonstrate how the scheme is compliant with the walking and cycling guidance as set out below and as befits the site and its circumstances.

To encourage walking and cycling:

- Pedestrian and cycle routes **must** be convenient, well connected with existing paths, and directed towards both existing and other newly created community facilities;
- The route hierarchy **must** prioritise the pedestrian over vehicles;
- Direct connections **must** be provided, taking the most convenient routes, with a wide choice of available routes;
- Paths **should** be attractive and safe with street lighting and benefit from natural surveillance.
- Any new local centre, **should** provide a multi-functional space designed around people and promote social interaction. Such a space should be designed with both summer and winter use in mind and provide shelter from inclement weather.
- Shared cycle and footpaths are preferred rather than individual footpaths. Such paths **should** be 3 metres in diameter as shown.
- On smaller village streets with public open space on one side, a pavement **could** be proposed only on one side of the street.
- Junctions and crossings **must** be well designed to allow a safe movement network for people and vehicles.
- All junctions **must** maintain good visibility - splays must be kept clear from obstructions such as street trees, furniture and parked cars.
- Crossings **should** be placed in regular intervals in convenient places which follow pedestrian desire lines.
- Traffic calming measures **should** be designed in at crossings, for example reducing the road width or introducing raised platforms.
- Consideration **should** be given to the most appropriate type of crossing depending on the road hierarchy and traffic volume.
- In low traffic areas, crossings **could** be informal for example through tactile paving.
- Footpaths without cycle routes in urban areas, **should** be at least 2m and more depending on the type and level of activity. In open countryside this will depend on individual circumstances.
- Where cycle routes are proposed on the busier elements of the road network, reference **must** be made to:

https://www.essexdesignguide.co.uk/design-details/streets-and-roads/pedestrian-and-cycle-movement/

Major | Minor | 9

CODE MS.06.1 - Cycle Parking

Cycle parking provision is essential to encourage people to cycle and increase their activity level whilst reducing carbon emissions.

To do so, appropriate infrastructure must be designed into the fabric of the development and the basic starts with cycle parking provision in key destinations.

Secure covered cycle parking should be provided with all new residential developments within the domestic curtilage. Provision may be made within a designated cycle parking shed or integrated into the car port or by other appropriate means. The use of planting can help mitigate any visual impact which distracts from the overall character. Enough space should be designated with regard to the number of bedrooms and likely number of occupiers.

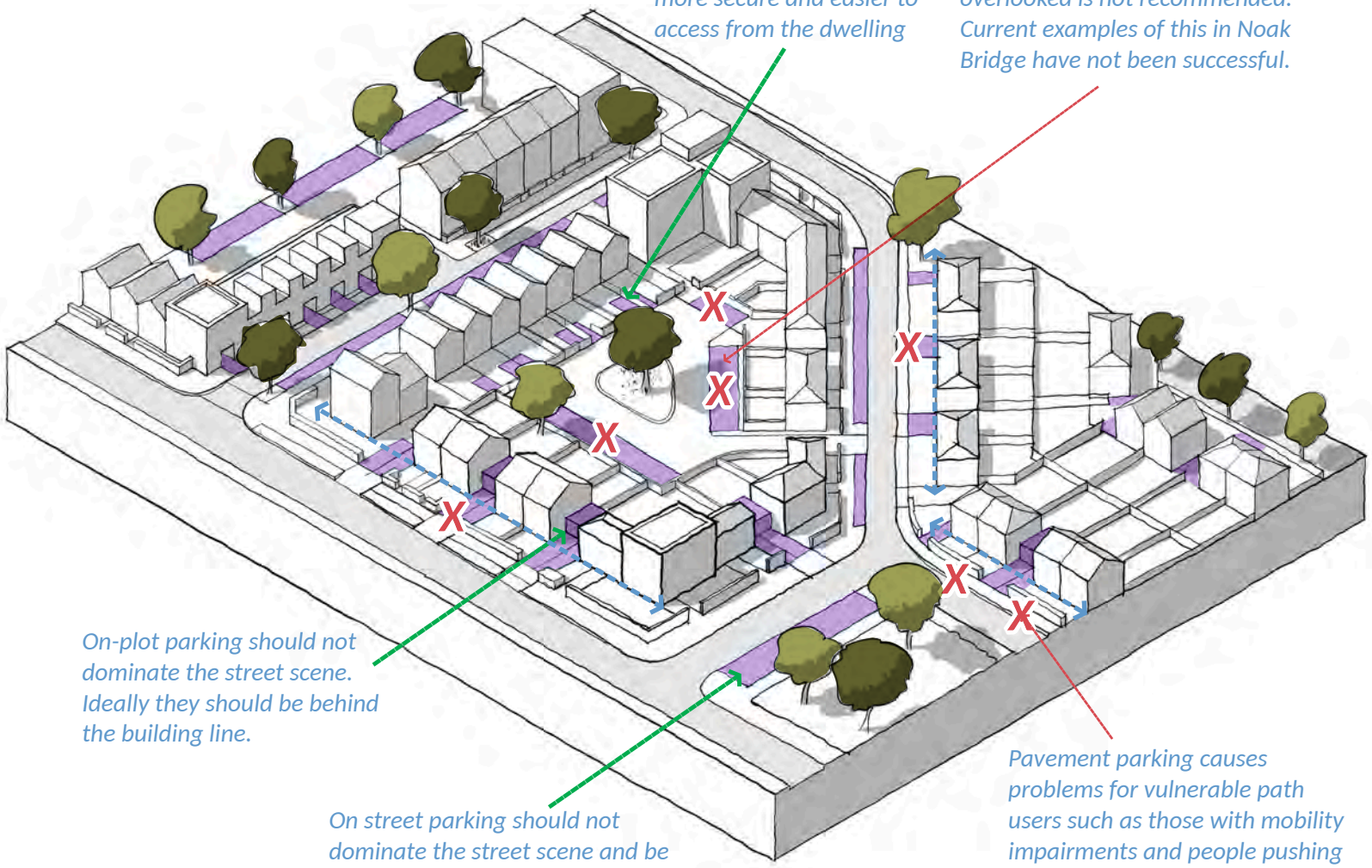
Cycle provision should also be located near community facilities and services, leisure spaces and places of employment. Cycle parking in the public realm should not impede other activities and be in a designated area which benefits from natural surveillance.

Overnight and long-term cycle storage

- **Cycle storage facilities must be secure, under cover, clearly identifiable, and accessible to people of all ages and a range of physical and mental abilities.**
- **Dwellings should have their own cycle parking - where provided, a garage should be designed to include secure cycle storage.**
- **Secure, enclosed cycle parking must be provided for all dwellings without a garage, such as a shed to the side or rear garden. If appropriately designed, front garden storage may also be acceptable, but should be low level and not dominate the street scene.**
- **The cycle parking must be accessible without wheeling a bicycle through the dwelling.**
- **Cycle storage facilities should be located in a variety of places to connect into the public transport network.**
- **They should also be site so as to be near ground-floor entrances to buildings.**
- **In apartment blocks, cycle storage facilities should be positioned close to the ground-floor entrances and sufficient cycle parking should be available for all residents.**
- **Communal cycle storage facilities should be well-lit, especially at night, and designed in such a way that they discourage vandalism and theft.**
- **Where cycle facilities are being planned adjacent to community facilities or cafes, consideration should be given to opportunities for bike repair hubs, bike share or other facilities to make cycling more attractive.**
- **A proportion of the cycle parking (typically 5%) should be provided for non-standard cycles to accommodate people with mobility impairments and cargo bikes.**
- **For cycling parking requirements, please see:**

https://www.essexactivetraveldesignportal.co.uk/cycle-parking/

Major	Minor	1	2	3	4	5	6	7	8	9



Car Parking

There are a number of areas within Noak Bridge which are subject to excessive on-street parking and pavement parking. These cause difficulties for both pedestrians, particularly where cars are parked on pavements, and for moving traffic, where vehicles block the carriageway.

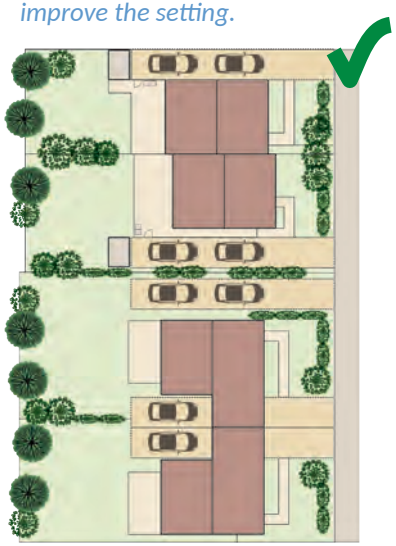
The earlier designed rear courtyard parking areas, have generally not been considered successful and are poorly used. In general, such areas where not well overlooked by existing dwellings or public spaces and have become wasted and ill maintained areas.

Such problems should be taken into consideration when designing any new minor or major development proposals.

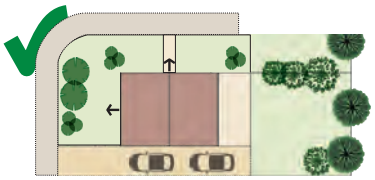
Examples of good practice for the parking of cars is found overleaf.

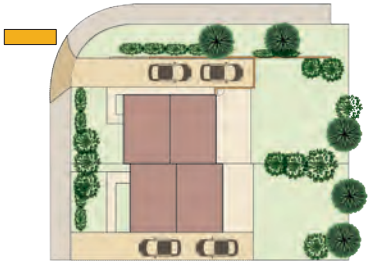
CODE MS.07 - Car Parking

On-plot parking to the front of a property can often dominate the street scene. Ideally the drive should accommodate all vehicles behind the building line. Alternatively, front gardens should be at least 2m deep in front of the parking to allow for further landscaping to improve the setting.



Here, parking is shown behind the building line. Carriageway arches are commonplace and provide shelter to parked vehicles underneath.





Ideally, a corner plot should be dual aspect

Where this is not possible, parking should be contained behind walls and vegetation rather than be visible. Sufficient visibility however must be maintained. Any planting, fence or wall must be set back from the highway and lower than 600mm to ensure good visibility. Such heights may be increased further back into the plot beyond 2.4m from the edge of the carriageway.

To deter pavement parking - consider tree planting, street furniture or other planting within the verge or extended paved areas

Car parking must be functional and have regard to guidance set out in Manual For Streets and the Essex Design Guide (or successor documents).

The number of car parking spaces must meet the requirements for the development type and number of bedrooms as set out by the Highways and Transportation Authority, having regard to the EPOA Parking Guidance or successor documents.

On plot parking is the preferable and where possible should be located to the side of the property (behind the building frontage).

Car ports are preferable to a garage, as often garages are either converted or used for personal storage rather than parking. This loss of parking then exacerbates the current parking issues.

Where garages are proposed, it should be considered whether a condition limiting its use and conversion may be appropriate.

Communal parking should be provide for apartments that is well overlooked, directly accessible and is laid out attractively and functionally.

Where rear courtyard or mews court parking is proposed, this must only be where homes directly overlook and front the parking areas. They should be landscaped, secure, well overlooked and lit, whilst being in close proximity to the dwellings it serves.Where possible these spaces should be directly accessible from the dwelling or any associated amenity space to minimise walking distance.

On-street parking should not dominate the street scene. It should be broken up with vegetation which should be place so as not to adversely affect visibility. Planting should be in keeping with the wider character of the area and offer biodiversity benefit. Choice of plants and hard landscaping should also be functional and attractive chosen from a co-ordinating materials palette to add visual excitement to the streetscene.

All development should have regard to the EPOA Essex Parking Standards Guidance and successor documents as endorsed by ECC as the Highway and Transport Authority and BBC; and the design principles established in the Essex Design Guide. Departures from the Essex Parking Standards (EPS) will require the submission of supporting evidence.

CODE MS.07.1 - *Car Parking*

A parking space must be at least 5.5m x 2.9m, but ideally further space should be allowed on a driveway to walk alongside a car

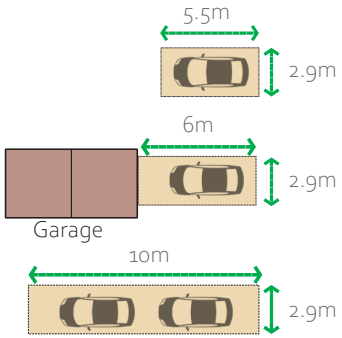
A parking space in front of a garage or dwelling should be at least 6m in length to allow for the door to be opened without moving the vehicle, or placing the vehicle overhanging the footway

A tandem parking space should be at least 10m x 2.9m with additional space if located in front of a garage

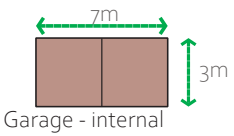
A garage must have an internal dimension of at least 7m x 3m

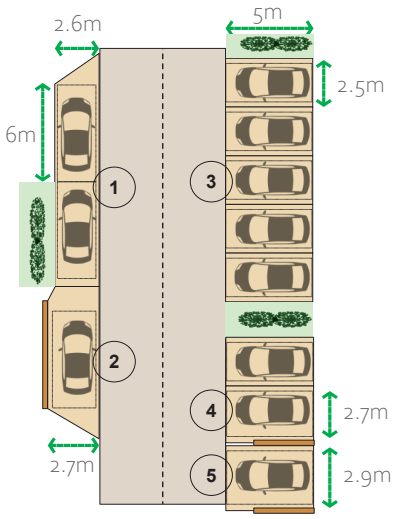
1. **Parallel parking should be 6m long and 2.5m wide as doors can open into street or footway.**
2. **Parallel parking spaces which are restricted by a fence or wall etc must be wider than standard and 2.7m is recommended.**
3. **Perpendicular spaces must be 5m long and 2.5m wide if next to another parking space or open space.**
4. **If constrained along one edge then the width must increase to at least 2.7m.**
5. **If constrained on both sides the width must increase to 2.9m**

All houses with on-plot parking should have a dedicated (Electric Vehicle) EV charging point in accordance with the Essex Electric Vehicle Charge Point Strategy (or any successor document). For off plot details, please see above strategy.



Tandem Parking (two cars parked one behind the other) is acceptable on-plot, within the curtilage of a dwelling but not allowed in areas which also offer communal access, e.g. parking courts. They are effective in reducing vehicle dominance at building frontages, but can reduce the uptake of spaces, often used instead for bin storage in rear parking courts, and their provision can encourage on-street parking.





Parking Examples

On street Parking in Coppice Lane - planting exists, but is being undermined by excessive parking demands

Tudor Court is an example of a well overlooked parking court. Whilst one side includes planting, the other is lacking and the creates an uncomfortable asymmetrical appearance.

Within communal Parking Courts, parking spaces should be at least 5.5m x 2.9m. The rows should be separated by at least 6m to allow ease of manoeuvring.

At least 5% of spaces should be suitable for use by disabled people.

A courtyard should be designed with sufficient planting and landscaping in front of properties to soften the hard urban streetscape.

ECC is preparing an Essex Electric Vehicle Charge Point Strategy to help improve access to EV charging infrastructure to help achieve the net carbon zero objectives set out by the ECAC.

Utilities

Utility companies and other service providers should be consulted as soon as possible to ensure that all necessary services are available and to avoid any conflicts during construction.

Services should be located under footways or service strips rather than under carriageways and preferably in shared ducts.

Designers should consider the future by allowing additional space within the ducting for future technologies.

Ducting should be provided to a point at the property boundary where it can be connected at a future date as required.

Utility related street furniture should be minimised where possible.

Services must not be located within landscaping strips where tree roots may cause an adverse impact.

Larger areas of public open space could be more suitable for services, where such spaces remain free of planting.

Lighting

Not all streets or buildings require lighting, a strategy for the wider area must be considered. There are many instances where the provision of lighting may be detrimental, this can include the edge of Noak Bridge or the nature reserve in particular. Such dark areas are important for ecology, especially bat flight corridors.

A compromise for example may be more suitable, such covered downlighters or sensor lighting.

Lighting design should be in keeping with that of the surrounding area.

Replacement of original lighting columns, should be like for like, with the exception of the upgrade of lower energy lamps.

Any development proposal should consider the individual location in detail.

Bin-collection points

Bin-collection points must be provided within 25 meters of any dwelling that is more than 25 meters from the highway.

Residents should not have to carry a bin more than 30 meters (excluding vertical distances) to the bin-collection point.

Drop kerbs must be provided to facilitate wheelie bin collection.

Fire tender access

Any dwelling that is more than 45 meters from the highway must have a driveway that is wide enough (at least 3.7 meters) and strong enough (capable of carrying a 12.5-tonne vehicle) to accommodate fire tenders.

The street network must accommodate the mobility of all emergency vehicles and service vehicles and refuge collection services.

CODE MS.08 -
Services & Utilities

To avoid adverse impacts, co-ordinated utilities should be considered early on in the design process to enable discreet and convenient delivery and maintenance.

Considering the economic use of space for services are likely to be provided underground below roads and footpaths. It is important to consider the desired placement of new planting and existing trees and shrubs.

All services and utilities must be easily accessible for future maintenance and locations should be considered which causes the least disruption.

Detailed advice on providing for utilities in new developments can be found in Street Works UK Guidance. http://streetworks.org.uk/

Guidance on spacing and turning requirements is provided in Manual for Streets - https://www.gov.uk/government/publications/manual-for-streets.

Natural Assets & Biodiversity

The National Design Guide states that "*Nature contributes to the quality of a place, and to people's quality of life, and it is a critical component of well designed places. Natural features are integrated into well designed development. They include natural and designed landscapes, high quality public open spaces, street trees, and other trees, grass, planting and water*"

This can be achieved through:

N1 Provide a network of high quality, green open spaces with a variety of landscapes and activities, including play

N2 Improve and enhance water management

N3 Support rich and varied biodiversity

Natural assets & Biodiversity play a major role in place making and creating attractive environments people want to spend time in.

Many studies have suggested that people are drawn to nature through our ancestral need to be in resource-rich environment, which has developed an innate tendency for people to seek out nature, particularly in busy and urban environments.

A connection to nature reduces stress, boosts moral and improves productivity, improving mental health. It also contributes to improving physical health through the provision of attractive spaces encouraging active movement.

Natural assets and increased biodiversity also offer ecosystem benefits which contribute to human well-being. These services among other benefits provide, food, pollination, water treatment, local climate and air quality and recreational uses.

This section sets out the design parameters for conserving and enhancing the existing natural assets in Noak Bridge.

Well-designed places should integrate existing natural spaces, and incorporate new features into a wider multi-functional network. Consideration must be given not only to biodiversity, but also to water management, and addresses how good design can work with climate change mitigation and resilience.

We must prioritise nature in new development, so that diverse ecosystems can flourish to ensure a healthy natural environment that supports and enhances biodiversity.

Although there a number of high quality open spaces at present in the Parish. The community would like to see additional attractive open spaces in locations that are easy to access, with activities for all to enjoy, such as play, food production, recreation and sport, so as to encourage physical activity and promote health, well-being and social inclusion.

Nature - Design Codes

Each of the Design Codes in this nature section is set out below and has a key highlighting which of the Character Areas and Type of Development the code refers to.

Natural Assets and Biodiversity

Code NB.01.1 - Biodiversity

Major	Minor	1	2	3	4	5	6	7	8	9

Code NB.01.2 - Network of Green Spaces & Green Infrastructure

Major	Minor	1	2	3	4	5	6	7	8	9

Code NB.01.3 - Trees

Major	Minor	1	2	3	4	5	6	7	8	9

Code NB.01.4 - Hedgerows

Major	Minor	1	2	3	4	5	6	7	8	9

Code NB.02.1 - Watercourses & Bodies of Water

Major	Minor	1	2	3	4	5	6	7	8	9

Code NB.02.2 - SuDS & Flood Resilience

Major	Minor	1	2	3	4	5	6	7	8	9

Code NB.03.1 - Nature Reserves & Other Designations

Major	Minor	1	2	3	4	5	6	7	8	9

Code NB.04.1 - Green Roof & Walls

Major	Minor	1	2	3	4	5	6	7	8	9

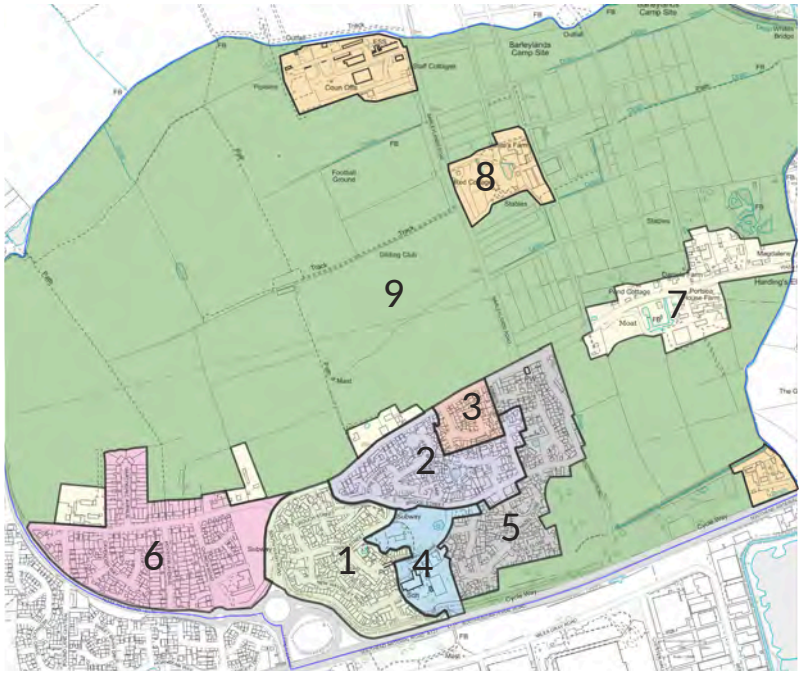
Where the proposed scheme falls within the defined minor or major development the applicant should refer to the relevant design codes which are highlighted by the key below.

MAJOR

Major Developments 10 & above dwellings and mixed use or other large scale schemes on a site of 0.5 hectares or more

MINOR

Minor Developments of 2-9 dwellings or other development on small sites of 0.5 hectares or more



Character Areas for Reference

The Parish comprises a network of various green spaces, water bodies, biodiversity habitats and other natural elements as set out in the Character Appraisal and Neighbourhood Plan. The parish has an active group of volunteers, but these places need to be continually well maintained to ensure they continue to meet the needs of the local people.

Noak Bridge has a distinct landscape with the majority of the parish located within the Green Belt. It contains a designated nature reserve to the south of the parish. This 20 acre nature reserve is a valued community asset that consists of woodland, grassland, scrubs, and ponds.

New developments must avoid the loss of mature and veteran trees of good quality and other important vegetation, such as hedgerows, to maintain local habitats and wildlife corridors.

Site design must seek to connect existing ecological zones and enhance biodiversity through the planting of local tree and plant species, the creation of habitats, and the incorporation of SuDS and rain gardens.

Bug hotels at the Nature Reserve

CODE NB01.1 - *Biodiversity*

Smaller developments such as extensions, and conversions, should provide a minimum net gain of 10% increase in biodiversity (or any higher percentage mandated by national policy/ legislation).

Any development must enhance biodiversity and the natural landscape. Where there is unavoidable loss or damage to habitats, sites or features because of exceptional overriding circumstances, mitigation and compensation will be required.

Development schemes should seek to restore and increase the total area of natural habitats as well as the variety of planting and landscape features provided as appropriate to the scale proposed.

The provision of owl, bird, and bat boxes should be installed as appropriate on all new developments.

Where lighting is proposed in close proximity to the nature reserve and any identified bat foraging routes, bat friendly lighting must be installed (see Institution of Lighting Professionals (ILP) Guidance Note GN08/23).

Major	Minor	1	2	3	4	5	6	7	8	9

CODE NB01.2 - Network of Green Spaces & Green Infrastructure

The network of paths in and around the Conservation Area

The planned settlement of Noak Bridge was designed around an extensive network of green spaces and paths, as highlighted above.

Linking green spaces, wildlife corridors, bodies of water etc, should be an early design consideration. It also key to determine whether such spaces should be publicly accessible.

The network should combine the needs of people and nature and incorporate multi-functional spaces and different types of spaces.

It is vital for mental health to be connected and close to nature as such the built environment should be intertwined with natural and green spaces.

These can include may different types of spaces, often with a shared function. Community orchards, fruit and vegetable gardens, raingardens with play features, natural play areas etc. These enhance the local environment and increase opportunities for social interaction.

Major	Minor	1	2	3	4	5	6	7	8	9

All development proposals within Noak Bridge must prioritise the creation of a multifunctional green infrastructure network. This network should:

- **Enhance permeability: Ensure the site is permeable for wildlife movement and pedestrian/cyclist access.**
- **Connect existing features: Utilise and enhance existing natural features like trees, hedgerows, wetlands, etc., as the foundation for the network.**
- **Linear connections: Integrate linear green features (e.g., green corridors, swales) to establish robust ecological connections.**
- **Distinctive places: Create unique and permeable boundaries that reflect the local environment.**

Must ensure that green spaces are inclusive and accessible with:

- **Universal accessibility - to ensure high accessibility levels in public areas to promote inclusivity.**
- **Health and Wellbeing - to design green spaces that encourage physical activity, social interaction, and community cohesion.**

Green infrastructure must be designed to be resilient to climate change impacts by demonstrating how a development's environmental footprint has been minimised by promoting water quality, healthier soil, and improved air quality.

Schemes must use pollinator-friendly planting with native species and at least 50% pollinator-friendly plants in all landscaping schemes.

Street greening must be considered. Developers should seek to integrate street trees and other greenery into street design and public spaces, while considering potential impacts on the historic environment.

Schemes must ensure that the proposed design maintains green infrastructure in a way that conserves and enhances the historic environment, contributing to local distinctiveness.

CODE NB01.3 - *Trees*

Noak Bridge is set in mature landscaping and has made the most of its natural environment setting.

Trees have an important role to play in the natural and man made environment. They provide shelter and contribute to reducing carbon emissions and cleaning the air.

The ecological benefits and connections should be maximised. Tree planting and maintenance of existing trees can increase biodiversity. Consideration should also be given to planting the correct trees in right location, to ensure that any placement does not result in a loss of biodiversity units

Tree density can be used as landmarks and signposts. For example avenues of trees leading to a destination, such as towards green spaces or as a focal feature for the purposes of legibility.

Trees can play a role in screening and noise reduction and should be utilised to reduce noise or visual impacts where necessary.

Applicants must demonstrate how that have complied with the tree guidance as set out below and include a justification for the potential benefits of the trees proposed with regard to use potential, size, crown form, density and appropriateness to habitat as befits their site and its circumstances.

When choosing a species, designers must consider the following:

Use potential - park, paved area, compatible with drainage, garden size, compatible with road type

Mature size - small <10m up to extra large >25m - As well as height, think about root protection areas and to avoid issues with utilities and services

Crown form - the shape of the crown can be aesthetic but also determine planting distances and the effect of the canopy on the space below, would the planting overcrowd the street scene, would it create unacceptable shade? Or would it assist to reduce temperatures in summer?

Crown Density - as above, look at whether a dense canopy provides the level of enclosure required or whether a light, open crown would be preferable

Natural habitat & Environmental tolerance - choose the right tree for the location, given the soil type, levels of sunlight, water and potential for drought etc.

Aesthetic and Ornamental Qualities - Does the tree flower or fruit in a way which does not cause a nuisance? Does the tree introduce a valuable aesthetic to the area? Does the seasonal variation add further interest?

Mix: A diverse mix of species should be sought to reduce the risk of passing on inter-species diseases.

New development must be designed around existing trees wherever possible. Where it is unavoidable that trees are lost, they should be replaced at a rate of 2:1 and by native species.

A consideration of the urban forest 3:30:300 approach would be beneficial:

- 3 trees visible from your home;

- 30% tree canopy cover in your neighbourhood;

- 300 meters to a public park or green space

[See https://iucnurbanalliance.org/promoting-health-and-wellbeing-through-urban-forests-introducing-the-3-30-300-rule/](https://iucnurbanalliance.org/promoting-health-and-wellbeing-through-urban-forests-introducing-the-3-30-300-rule/)

Choosing the correct tree for the location is important.

Major	Minor	1	2	3	4	5	6	7	8	9

List of Native Trees

- Acer campestre - Field Maple - *(M) (D) (Clay, Loam, Sandy)*
- Alnus glutinosa - Alder - *(M) (D) (Clay, Loam, Sandy)*
- Betula pendula - Silver Birch - *(L) (D) (Clay, Loam, Sandy)*
- Betula pubescens - Downy or White birch - *(M) (D) (Clay, Loam, Sandy)*
- Carpinus betulus - Hornbeam - *(L) (D) (Loam, Sandy)*
- Corylus avellana - Hazel - *(S) (D) (Loam, Sandy)*
- Crataegus laevigata - Hawthorn (Midland) - *(S) (D) (Loam, Sandy)*
- Crataegus monogyna - Hawthorn (common) - *(S) (D) (Clay, Loam, Sandy)*
- Fagus sylvatica - Beech (common) - *(L) (D) (Loam, Sandy)*
- Ilex aquifolium - Holly - *(S) (D) (Loam, Sandy)*
- Juniperus communis - Juniper (common) - *(S) (C) (Clay, Loam, Sandy)*
- Malus sylvestris - Crab Apple - *(S) (D) (Loam, Sandy)*
- Pinus sylvestris - Scots Pine - *(L) (D) (Clay, Loam, Sandy)*
- Populus nigra - Black Poplar - *(L) (D) (Clay, Loam, Sandy)*
- Populus tremula - Aspen - *(L) (D) (Clay, Loam, Sandy)*
- Prunus avium - Sweet Cherry *(M) (D) (Clay, Loam, Sandy)*
- Prunus padus - Bird Cherry *(M) (D) (Clay, Loam, Sandy)*
- Quercus petraea - Sessile Oak - *(L) (D) (Clay, Loam, Sandy)*
- Quercus robur - English Oak - *(L) (D) (Clay, Loam, Sandy)*
- Salix caprea - Goat Willow - *(S) (D) (Clay, Loam, Sandy)*
- Salix pentandra - Bay Willow - *(S) (D) (Clay, Loam, Sandy)*
- Sorbus aria - Whitebeam - *(M) (D) (Clay, Loam, Sandy)*
- Sorbus aucuparia - Rowan - *(S) (D) (Loam, Sandy)*
- Sorbus torminalis - Wild Service Tree - *(M) (D) (Clay, Loam, Sandy)*
- Taxus baccata - English Yew - *(M) (C) (Clay, Loam, Sandy)*
- Tilia cordata - Lime, small-leaved - *(L) (D) (Clay, Loam, Sandy)*
- Tilia platyphyllos - Lime, large-leaved - *(L) (D) (Clay, Loam, Sandy)*
- Tilia x europaea - Lime, common - *(L) (D) (Clay, Loam, Sandy)*

(L) - Large >25m
(M) - Large >25m
(S) - small <10m
(D) - Deciduous
(C) - Coniferous
(Clay, Loam, Sandy) - Soil type

CODE NB01.4 - *Hedgerows*

Existing hedges, particularly where of native species should be maintained and enhanced where necessary.

Minor and major development sites which abut the open countryside and green spaces must incorporate hedgerows and native vegetation.

Native boundary treatments should be planted to help transition from the built to the natural environment and to act as a wildlife corridor.

Dwellings which abut the open countryside and green spaces must incorporate hedgerows and native vegetation as a boundary treatments to help transition from the built to the natural environment and to act as a wildlife corridor.

Major	Minor	1	2	3	4	5	6	7	8	9

Hedgerows make a significant contribution to the character of Noak Bridge. The retention of a good degree of hedgerows in the character areas makes for a verdant feel in a medium to high density area.

Hedgerows are commonly used around Noak Bridge to define property boundaries and more so along frontages. This should be continued in any new development to maintain the level of vegetation that contributes to the character of the parish and help create habitats for small species.

High levels of vegetation is important to incorporate with new development and especially in areas surrounding the nature reserve.

Trees and hedges soften the buildings and native planting is essential for promoting biodiversity

CODE NB02.1 - *Watercourses & Bodies of Water*

New major development should maximise opportunities to create ponds, watercourses and other water bodies to connect biodiversity with leisure.

Buildings should be designed to incorporate views of existing or new water courses or bodies.

Buildings should be sited to leave a sufficient buffer zone for bank maintenance and allow for appropriate flood works where necessary.

Opportunities could be explored to add to the green infrastructure network create walking and cycling paths along / around these water features.

Major	Minor	1	2	3	4	5	6	7	8	9

Sites must manage water in order to respond well to nature. The parish has a number of ponds throughout and the River Crouch runs along the north and east borders of the parish.

New development adjacent to these features has an important role to play in enhancing their value as public realm, habitat, ecological corridors and natural assets.

Watercourses at the Nature Reserve

Ponds are a key feature of Noak Bridge

SUDS & Flood Resilience

The fluvial and surface water flood map for the Parish (see above), highlights that flooding is a key issue for many parts of the area. With the darker blue colours highlighting areas which have the most severe risk.

New development should seek to avoid Flood Zone 3 where possible, in particular avoiding areas of functional floodplain. In this regard, the Sequential and Exception Tests should be referred to, and development sited as prescribed in the NPPF.

Proposals should not result in an increase to flood risk to either on the a development site or to surrounding properties.

Sustainable drainage is designed to reduce the rainwater run-off rate. This reduces the risk of flooding and increases the biodiversity, water quality and amenity.

CODE NB02.2 - *SUDS & Flood Resilience*

New development, especially major development schemes, should seek to capture rainwater for use on site. This can be used for irrigation and non-potable uses.

If capturing is not possible, schemes should aim for water to infiltrate into the ground or gradually release into a body of water. This can be done through:

- Green roofs
- Permeable surfacing
- Swales
- Planting and rain gardens

ECC are the Lead Local Flood Authority and regard is to be made to the SuDS Design Guide for Essex

Drainage should be considered early in the development planning and design process, particularly where surface water and fluvial flood risk is identified. The drainage scheme should be designed along with other key considerations.

Existing watercourses, existing surface water flow routes across the site, and existing drainage systems, must be taken into consideration and the drainage strategy should mimic natural drainage patterns as closely as possible.

Adoption of permeable paving solutions instead of tarmac is supported. Gravel is a widely used surface in the Parish, but suitable containment strips or materials should be used to ensure that there is limited spillage onto the highway.

Permeable pavements reduce flood risk by allowing water to filter through. They should:

- **Respect the material palette;**
- **Help to frame the building;**
- **Be easy to navigate by people with mobility aids;**
- **Be in harmony with the landscape treatment of the property; and**
- **Help define the property boundary.**

Gardens and soft landscaping and the use of appropriate planting should be maximised to reduce the overall area of impermeable hard surfacing. The introduction of non-porous hard surfaces is likely to increase surface water volumes and increase local flood risk.

Green space could be incorporated for natural flood protection e.g. permeable landscaping, swales etc.

The collection of water within new development is encouraged to collect rainwater from roofs and reduce the overall rainwater runoff impact of any development. This can take the form of a water butt on an individual property, to a large scale water tank on larger sites with rainwater and grey water will stored and reused to reduce the demand on mains supply.

Where flood water currently adversely affects a property, any new proposals to reduce the impact or to improve matters, would be supported, subject to design and effect on biodiversity.

SuDS design should have regard to the SuDS Design Guide for Essex (and successor documents)

Major	Minor	1	2	3	4	5	6	7	8	9

CODE NB.03 -
Noak Bridge Nature Reserve

The Noak Bridge Nature Reserve is considered to be a highly regarded 'green oasis' by residents. It is extremely well used with regular working parties maintaining the 20 acre site.

Development proposals which will cause harm to the current or future operation of the nature reserve will not be supported.

Only development which is essential to the operation of the reserve should take place within the site. For example, this could pertain to flood management or path maintenance or as a low key information centre.

Supporting and creating wildlife corridors is key in urban environments. New opportunities should be sought to link the nature reserve to the open countryside to ensure it does not become landlocked in perpetuity.

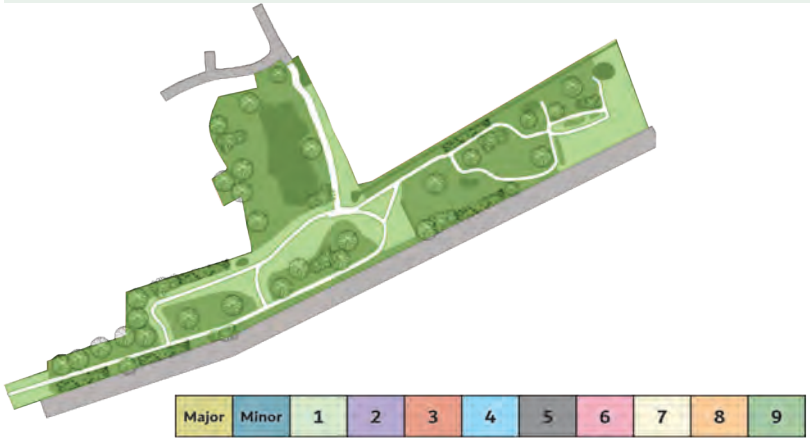
New development should preserve and enhance the nature reserve and offer (where possible) to expand the site and or increase ecological connectivity through wildlife buffers and corridors, with appropriately designed SuDs schemes.

Development should not lead to any form of pollution or contamination which would adversely impact the reserve.

Any development within close proximity of the nature reserve should include a sufficient buffer to prevent adverse impact upon the area and species therein.

A wildlife corridor must be provided through any new adjacent development from the nature reserve to open countryside beyond.

A construction management plan should be sought for all new development within close proximity to the site, which will set out how harm will be avoided.



CODE NB.04 - Green Roof & Walls

Green roofs or walls should be considered on new development, particularly on sites around the Noak Bridge Nature Reserve. Existing buildings could also be retrofitted where appropriate. This approach could enhance the effectiveness of wildlife corridors and development edges which borders open countryside or open space.

New structures such as bus shelters could seek to include sedum roofs or other types of green roofs.

Major	Minor	1	2	3	4	5	6	7	8	9

Green roofs and walls can create habitats for smaller animals and insects. The offer the opportunity for pollinator plants to be included in the designs.

They should be incorporated wherever possible in new developments. This will aid in the enhancement of biodiversity, the creation of wildlife corridors, and the improvement of air quality.

Green roofs also offer additional benefits to drainage systems by reducing water run-off.

Public Spaces

The National Design Guide states that "*The quality of the spaces between buildings is as important as the buildings themselves. Public spaces are streets, squares, and other spaces that are open to all. They are the setting for most movement. The design of a public space encompasses its siting and integration into the wider network of routes as well as its various elements. These include areas allocated to different users – cars, cyclists and pedestrians – for different purposes such as movement or parking, hard and soft surfaces, street furniture, lighting, signage and public art.*"

This can be achieved through:

P1 Creating well-located, high quality and attractive public spaces

P2 Providing well-designed spaces that are safe

P3 Making sure public spaces support social interaction

The public realm covers a variety of different spaces including the street / road network, public squares and parking areas, parks, play areas and other publicly accessible open space.

The plan overleaf highlights the current network of open spaces, public squares and other areas of important public realm.

Well-designed public spaces can be beneficial to the community in many ways. It is essential that appropriate improvements to existing spaces are supported and that new spaces are effectively linked to existing.

Improvements could include:

- Upgraded pavements and paths (widened and resurfaced) which encourage people to walk or cycle.
- Providing frequent bus services with sheltered bus stops with seating and integrated service information, will encourage people to take public transportation instead of driving, which can help to reduce air pollution and traffic congestion.
- New or improved play facilities
- Sports pitches
- New seating and meeting areas
- Repairs, maintenance and appropriate replacement of other street furniture / signage

If designed well, public spaces can also provide safe and accessible areas for people of all ages and abilities to socialise, play, and exercise, which can improve physical and mental health.

Good urban design can also help to create a sense of community and belonging by bringing people together, which can make people feel more connected to their surroundings.

This section sets out the design parameters for public realm design within Noak Bridge, with the aspiration to achieve well integrated and functional public spaces. There is much overlap in this section between the other sections, particularly Movement and Nature. The entire document should be read as a whole.

Public Spaces - Design Codes

Each of the Design Codes in this Public Spaces section is set out below and has a key highlighting which of the Character Areas and Type of Development the code refers to.

Public Realm and Open Spaces

Code PS.01 - Open Space Provision

Major	Minor	1	2	3	4	5	6	7	8	9

Code PS.02 - Multi Functional Spaces

Major	Minor	1	2	3	4	5	6	7	8	9

Code PS.03 - Green Space Design

Major	Minor	1	2	3	4	5	6	7	8	9

Code PS.04 - Street Furniture

Major	Minor	1	2	3	4	5	6	7	8	9

Code PS.05 - Surfacing

Major	Minor	1	2	3	4	5	6	7	8	9

Code PS.06 - Public Realm - Secured by Design

Major	Minor	1	2	3	4	5	6	7	8	9

Code PS.07 - Accessibility & Inclusivity

Major	Minor	1	2	3	4	5	6	7	8	9

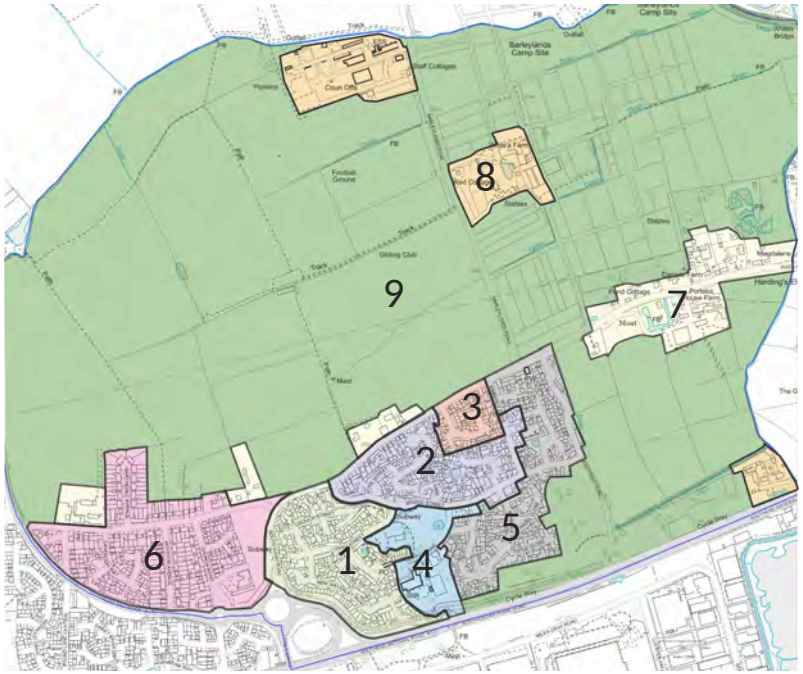
Where the proposed scheme falls within the defined minor or major development the applicant should refer to the relevant design codes which are highlighted by the key below.

MAJOR

Major Developments 10 & above dwellings and mixed use or other large scale schemes on a site of 0.5 hectares or more

MINOR

Minor Developments of 2-9 dwellings or other development on small sites of 0.5 hectares or more



Character Areas for Reference

The current network of open space within the Parish is shown above. There is a varied network of urban squares such as on Kenilworth Place and Coppice Lane, in additional to the wide variety of green spaces.

The plan above also highlights the current services and facilities in the Parish to demonstrate how these relate to the current provision.

Each of the above highlighted sites offers a different opportunity for social interaction, recreation, quiet contemplation or the chance to observe nature.

CODE PS.01 -
Open Space Provision

New development should not result in the lost of existing open space (as shown on the adjacent plan), especially where it has community value and contributes to the character of the area.

Open space provision must be delivered in a variety of sizes which can accommodate different uses to offer choice, and appeal to a wider range of people.

Provision should be made for spaces which have lower activity and noise levels to provide tranquil spaces, in addition to spaces with higher activity levels for increased social interaction.

The spaces should not be considered in isolation, instead they should be thought of as a network of spaces integrated into green infrastructure and movement routes' which function simultaneously and offer choice. I.e existing spaces should be integrated with new spaces or expanded where appropriate.

Public Realm Examples from the Essex Design Guide - Village Green (top) and Village Square (bottom)

CODE PS.02 - *Multi Functional Spaces*

Applicants must demonstrate that they have carefully considered the following when designing new public realm spaces:

- **The relationship of the new space to the surrounding streets, pavements, and buildings.**
- **The way that the new space will be used by pedestrians, cyclists, and other users.**
- **The need to create a safe and comfortable environment for all users.**
- **The need to take into account the natural features of the surrounding environment, such as trees and vegetation.**
- **The need to create a space that is visually appealing and enhances the character of the area.**

When laying out new spaces and developments, such proposals must include direct and desirable routes for pedestrian and other wheeled path users (pushchairs, prams, wheelchairs, mobility devices etc). These are known as desire lines.

Pedestrian desire lines are the paths that people naturally take when walking, and wheeling desire lines are the paths that people naturally take when using wheelchairs or other mobility devices. By taking into account these desire lines, applicants can create spaces that are more efficient and accessible for everyone.

The most effective spaces are those which have multi-purpose and are multi-functional.

Different groups of people have different needs for open space, through the provision of multi functional space needs can be met in the same space. By doing so, it increases social interaction between a diverse group of people, providing more space for residents to interact, share and engage with each other.

Multi functional spaces should be designed to meet social, cultural, economic and ecological needs, however care should be taken to carefully define spaces.

For example siting compatible uses adjacent to each other or focused around larger public area such as a square, a green or even along a street with wider paved areas, can generate activity.

Such uses may include a community hall with adjacent community cafe, a networking hub for home workers, studio spaces or start up units for new business.

This could be on new sites or potentially existing sites, if space permits on the latter.

Spaces which have a range of activities are more likely to be used and create greater likelihood of social interaction.

Smaller spaces which are less formal in nature but not lesser in quality, can still deliver multi functions and must still be easily and directly accessible and legible for all users irrespective of ability.

The may include on street seating and meeting places or even play opportunities.

Green space should have a purpose and be so designed for the intended use in terms of size, location and form.

Public green spaces must not be a result of "left over" space as a consequence of poor urban design.

Green space provision is fundamental to achieving healthy, well-designed and attractive places. A persons ability to access green space plays a pivotal role in their mental and physical well being as such open space provision is necessary.

Such spaces should be integrated into residential areas and in close proximity to the range of community uses.

Play spaces are important to encourage social interaction in children and contribute to their developing social skills.

The area is current lacking in additional equipped areas for play, particularly on the west and eastern sides of the village.

The importance of fostering a sense of ownership and responsibility within the future community for the success of shared amenities, such as halls and gardens is key. To achieve this, the Design Code encourages:

- **Early Community Input:** Involving the the residents of Noak Bridge in the design process for shared amenities from the outset.
- **User-Centric Design:** Designing shared amenities that cater to the diverse needs and interests of the anticipated residents. By incorporating their input, the design can promote a stronger sense of community ownership and encourage responsible use.
- **Opportunities for Co-Management:** Exploring potential models for shared management of the amenities by residents. This could involve the creation of resident committees or volunteer groups responsible for maintaining and programming the spaces.

Including natural play areas as multifunctional spaces, can also promote biodiversity, aid drainage and can ensure that a green space integrates sensitively into an area

Currently there is only one equipped play area in the village

CODE PS.03 - *Green Space Design*

The design of public green spaces should be easily accessible from homes and work places, functional and legible and appropriate for the diverse needs and interests of the community and for a range of abilities.

They must be safe and secure with buildings looking onto them to provide natural surveillance and should follow the codes set out in PS06.

Green space design should incorporate nature opportunities at a level proportionate to its size, whilst being functional for the proposed use.

Within larger areas of green space, there should be areas which provide higher levels of enclosure and shelter, both naturally occurring and built. Any such area should be designed to contain seating areas, potential areas for picnic or lunch and areas to promote social interaction. Sheltered areas should be designed to deter anti-social behaviour.

The design must be attractive and encourage people to stop and rest in the space rather than becoming an area to simply travel through

Areas of play and recreation must be inviting, inclusive, imaginative and stimulating for all ages. It must also be sensitively designed to complement and enhance the corresponding character area.

Existing sports facilities must not be lost, unless replaced by a new facility of an equal standard or higher and in a sustainable location.

Management and future maintenance must be considered and incorporated into the development proposals.

Major | Minor | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9

The village contains many notable elements of street furniture, such as finger post signage and bespoke lighting columns. Removal of these elements has had an adverse impact on the character of the area.

Street furniture is the final touch to a public space, and includes objects like street signs, posts, lights, seats, post boxes, litter bins, cycle racks, bollards etc.

To various degrees all these elements play a part in establishing the character. Items such as seating, bus shelters, street lights and street signs will have a greater impact on the character than some others.

Noak Bridge is known for its co-ordinated street furniture which contains a mix of traditional elements, with modern lighting and well designed signage.

Street furniture must make a positive contribution to the public realm and be designed to be aesthetically pleasing and functional.

It should be well-proportioned and in scale with the surrounding buildings and spaces. It should also be comfortable and inviting to use.

Using a limited palette of materials will help to create a cohesive and unified look for the streetscape. It will also make it easier to maintain the street furniture over time.

Street furniture should be designed to be simple and easy to use. It should also be durable and able to withstand the elements. In addition, it should be easy to maintain and repair.

Street furniture should not be so large or numerous that it creates visual clutter or impedes access to the public realm. It should be placed in a way that does not obstruct pedestrians or traffic.

CODE PS.04 - Street Furniture

Street furniture must make a positive contribution to the public realm and reflect and enhance the specific character area of Noak Bridge.

Within the conservation area, the original street furniture should not be replaced by substandard or poor quality alternatives. Replacement should be on a like for like basis to ensure that the original design is maintained for the future.

A restricted palette of materials must be used for street furniture and as part of an overall pack of materials for the wider area.

Street furniture must be simple, usable, durable, and easy to maintain.

Street furniture must not create visual clutter or impede access.

A range of seating should be placed along key pedestrian routes (ideally every 50m as per WHO recommendations) and in leisure spaces.

CODE PS.05 - *Surfacing*

Having a more limited palette of surface materials is preferable than numerous different types. Combining too many can be distracting and confusing.

Paved areas should be broken up by landscaping to soften the harsh appearance

Gaps between paving allow water to permeate

Poor quality tarmac does little to enhance the quality of an area

Surface materials used within public realm must be high quality, durable and complement the local context, in addition to satisfying technical requirements and offering a long term, sustainable solution.

Materials should be chosen from a limited colour palette appropriate to the scheme to avoid, clutter, confusion and disorientation.

When replacing existing surfaces, original high quality surfaces should not be replaced by tarmac or cheaper concrete alternatives.

The route hierarchy should be surfaced to reflect the nature of the use and the location.

Major | Minor | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9

Surface materials are extremely important. They can be used in a number of ways, for example to:

- define different road types and speed limits; or
- highlight pedestrian or cycle usage; or
- contain green spaces, or simply to indicate the character of an area.

In Noak Bridge some of the originally designed surfaces have been replaced by tarmac, concrete or other inappropriate poor quality surfaces.

Block paving and cobbles are commonplace and often are used on raised platforms, entrances to cul-de-sac, squares and junctions.

Surface materials are an integral element of creating areas of public realm, ensuring cohesion and continuity. In order to achieve this, a limited palette with materials that are attractive, simple, durable, appropriate to the local character and capable of withstanding their intended use should be chosen.

Steps for example, should be highlighted in a contrasting material appropriate to assist those who are visually impaired to reduce the likelihood of a trip or fall.

Private spaces must be defined by a change in material or physical barrier such as vegetation, fencing or walls.

Tarmac paths are generally suitable for all users, but can crack and raise near tree roots

The original surface has been repaired with tarmac, which provides good colour difference between the brick edges, but is not visually pleasing

The area now contains many different types of surfaces, with a number of the original surfaces having been replaced or patched with tarmac on concrete for cost saving reasons. This has had an adverse impact on the character of the area.

The original gravel driveways are more reflective of the rural village character as originally proposed in the initial plans for the area. It is also a locally sustainable material

The principal of secure design is to ensure that public realm users and building occupiers feeling safe without fear of crime.

Buildings and spaces should be accessible and welcoming to all users. Spaces which are safe and attractive will encourage users to spend more time in such locations and increase use and vitality.

It is encouraged that play areas are well overlooked by buildings , however this can cause conflicts between residents and users of the play areas. Where dwellings face onto areas of play there should be a buffer such as a front garden and footpath.

For security and safety, play spaces should be enclosed by fencing with a single entrance and exit point which, if possible, should be secured at night.

Consideration should be given to the provision of informal spaces for different members of the community, who may have different needs, particularly young people and adolescents. These areas must be overlooked and reduce possible noise pollution through location and vegetation.

All spaces must be located where it is suitable for it proposed used and be suitably managed. There should be no access for unauthorised vehicles.

Boundaries between public and private space must be clearly defined.

Public routes which follow around the rear of, and provide access to gardens or rear parking courtyards have been proven to generate crime. People are also more reluctant to use such paths.

Where for example an existing footpath route must be followed,designers should consider making the footpath a focus of the the proposed scheme. In this regard, the route should be:

- Straight and direct, to stop users deviating to another shorter route; and
- Wide enough and surfaces appropriately to accommodate all users;
- Well lit, with a form of lighting appropriate to the surroundings;
- Overlooked by windows from surrounding buildings or by users for as much of the day and night as possible;
- well maintained and visible, with no places for people to hide. This does not mean no provision of landscaping, but to design the landscape such that it does not encourage people to use it inappropriately, so as to enable natural surveillance along the path and its borders

CODE PS.06 - Public Realm - Secured by Design

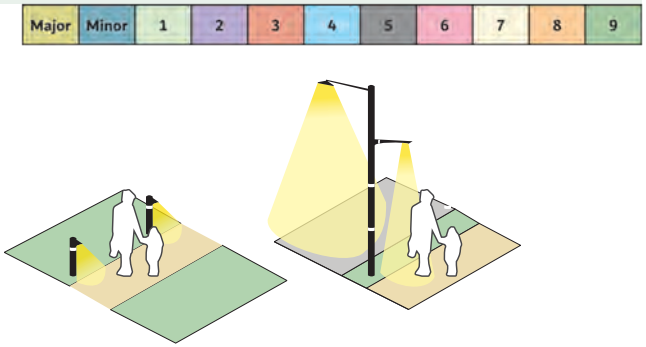
Proposals must contain appropriate information to demonstrate that safety and security have been considered.

This is particularly of importance for public realm and street design, where spaces should be safe and well overlooked, without the need for additional security measures.

Information should be proportionate to the proposal and could be addressed in a Design and Access Statement, a site layout plan, landscape strategy or Crime Impact Statement.

Reference to the Secured By Design website, Design Guidance is recommended:

https://www.securedbydesign.com/guidance/design-guides



Lighting should be designed according to the needs of the user and balanced with the effect on biodiversity and impact on natural resources.

CODE PS.07 - *Accessibility & Inclusivity*

Accessibility means designing public spaces, buildings, structures and elements, so that everyone can use them easily and independently, regardless of their abilities.

It means creating places that are barrier-free and inclusive, so that people with disabilities can ideally do the same as those without disabilities in the same amount of time and with the same effort.

It is essential to offer choice and flexibility to understand the needs of the intended users of the space.

Where problems currently exist, it may be beneficial to seek further advice to provide appropriate solutions.

The key to designing inclusively is to engage with stakeholders including the existing community and consult both users and non user of the space to find out what people want to see.

Creating adaptable dwellings is a key priority and is dealt with in the final section 'Lifespan'.

Designers and developers must recognise different requirements from the outset and remove barriers which create separation and undue effort.

The main barriers are:

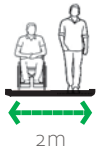
- **Physical barriers such as steps, lack of toilets, lack of seating and lack of accessible parking etc.**
- **Psychological barriers such as fears over safety and lack of encouragement.**
- **Organisational ie lack of legibility and information.**

Applicants should aim to remove all of the above barriers and offer flexibility of use of space or use multiple design solution to accommodate all needs.

Major	Minor	1	2	3	4	5	6	7	8	9

Examples of how issues may affect people - although the examples below highlight those people with mobility problems, considerations must be given to all disabilities and the range of diverse needs that the community may have.

Paved footway



At least 2m to allow wheelchairs and other mobility aids to pass

Obstructions

A path should be free of obstacles which narrow the path.

Colours of street furniture should be considered to allow ease of identification

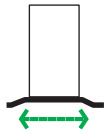
Signage and other obstacles at height should be over 2.1m

Surfaces

The surface material should be smooth and even and coloured such that it contrasts with that of any adjacent road.

Any surface change should be easy to understand and denote a specific reason, such as a crossing point

Entrances



Allow a space of least 900mm x 900mm should be provided as a flat area, at the same level of the door threshold at an entrance to a building

Steps

Offer a ramped alternative to steps.

The treads and risers should be clearly visible and easy to differentiate

Slopes and Gradients

Any slope should be not greater than 1:60 along its entire length.

If there are level landing areas, the gradient can be increased to 1:20 maximum. Landings should be located for each rise of 500mm

Any cross fall gradient should be no steeper than 1:40

Identity - Introduction

The National Design Guide states that "*The identity or character of a place comes from the way that buildings, streets and spaces, landscape and infrastructure combine together and how people experience them. It is not just about the buildings or how a place looks, but how it engages with all of the senses. Local character makes places distinctive and memorable and helps people to find their way around. Well-designed, sustainable places with a strong identity give their users, occupiers and owners a sense of pride, helping to create and sustain communities and neighbourhoods.*"

This can be achieved through:

I1 Responding to existing local character and identity

I2 Providing well-designed, high quality and attractive places and buildings

I3 Creating character and identity

The character area appraisal describes the individual areas within Noak Bridge and their specific identity. These are summarised in the display overleaf.

The following section provides a brief summary all of those elements highlighted in the character appraisal, and which are considered particularly successful in regard to adding local identity in the Parish. Relevant Codes ensure new development adds to that unique design and sense of place, which is so well loved by its residents and visitors alike.

Identity - Design Codes

Each of the Design Codes in this Identity section is set out below and has a key highlighting which of the Character Areas and Type of Development the code refers to.

Character and Local Identity

Code I.01 - Local Character and Identity

Major	Minor	1	2	3	4	5	6	7	8	9

Code I.02 - Materials & Colour Palette

Major	Minor	1	2	3	4	5	6	7	8	9

Code I.03 - Windows and Doors

Major	Minor	1	2	3	4	5	6	7	8	9

Code I.04 - Locally Specific Architectural Details and Design Features

Major	Minor	1	2	3	4	5	6	7	8	9

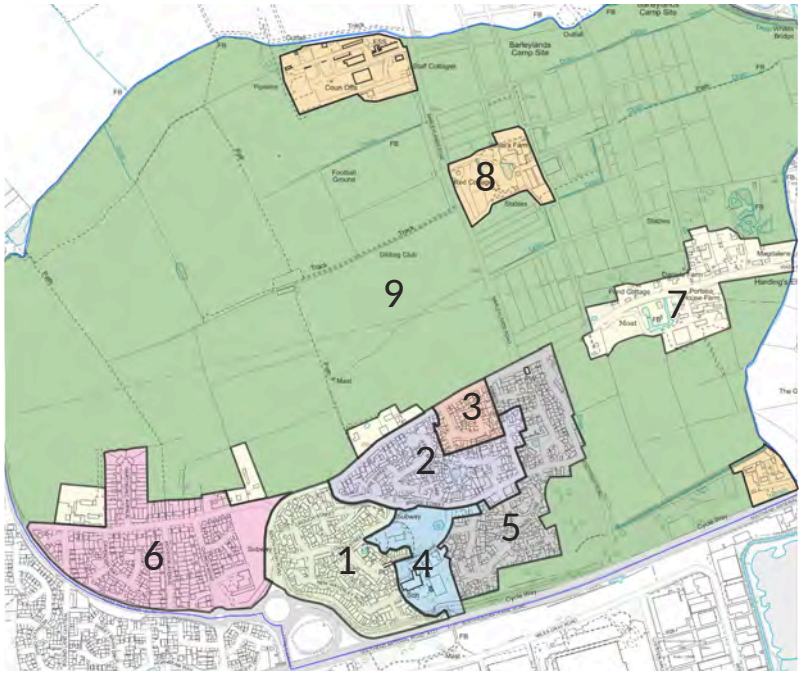
Where the proposed scheme falls within the defined minor or major development the applicant should refer to the relevant design codes which are highlighted by the key below.

MAJOR

Major Developments 10 & above dwellings and mixed use or other large scale schemes on a site of 0.5 hectares or more

MINOR

Minor Developments of 2-9 dwellings or other development on small sites of 0.5 hectares or more



Character Areas for Reference

CODE I01 - *Local Character and Identity*

Local character and identity are important in design codes because they help to create places that are unique and distinctive.

The National Design Guide states that well-designed places, buildings and spaces should:

- *"have a positive and coherent identity that everyone can identify with, including residents and local communities, so contributing towards health and well-being, inclusion and cohesion;*
- *have a character that suits the context, its history, how we live today and how we are likely to live in the future; and*
- *are visually attractive, to delight their occupants and other users. "*

It is key that new development provides a unique sense of place with characteristics that make it different to a neighbouring village or town.

These qualities are those things, which give its residents a degree of attachment and enable a place to become a home, with surroundings which are important to maintain and a sense of community.

All efforts to maintain and enhance current local character should be sought, especially within the conservation area.

Minor and major developments are likely to have significant impact and present opportunities to enhance the local character. These must design buildings and spaces which respond and successfully integrate to enhance place identity

Major development proposals must be based upon an understanding of the local context. They will need to be accompanied by sufficient information to highlight that the development has a positive and cohesive identity. Such development must integrate with existing wider area.

Development schemes should not copy their surroundings or create a pastiche. Each major scheme should have its own identity or character and sense of place. This should be based on landscape character, urban grain, patterns of built form and the local vernacular, which when combined together create a cohesive scheme.

This is particularly important for development adjacent to or within the setting of the Noak Bridge Conservation Area, where proposals should reinforce the character of the area and not dilute the original planned development.

Equally, smaller development proposals should not undermine the character of the area either in a piecemeal or cumulative approach. Original features should be retained or replaced with appropriate quality equivalents.

Major Minor 1 2 3 4 5 6 7 8 9

Main Settlement Character Areas

Character Area 1

This is the highest density area, with 2 to 3 storey buildings predominating and a number of apartment blocks.

Roofs tend to be high pitched gabled roofs, covered with clay pantiles and more limited plain tiles. Some roofs feature a catslide dormers and other catslide roof features from the first to ground floor.

Many of the eaves feature decorative bargeboard designs.

There are a number of landmark buildings incorporating a hexagonal shape design emulating a toll house. Buildings often contain protruding elements or are jettied at the first/ second floor creating small overhanging elements. These are frequently a contrasting material such as render on an otherwise brick facing.

Sliding sash and casement windows were designed to be white painted timber framed, with generally rectangular proportions. Some feature contrasting surrounding brick quoins.There are a number of bay windows and often projecting cills.

Small tiled porch canopies are common place.

See materials palette overleaf.

Character Area 2

This area was designed to be more rural nature and less dense than Area 1, with larger plot sizes.

Buildings are often 1.5 storey cottages interspersed with 2 storey dwellings.

There is a greater degree of landscaping, with many original trees and hedgerows being retained. New planting has now, given the passage of time, also become well established

Roofs tend to be high pitched gabled roofs, covered with clay pantiles and more limited plain tiles. Some roofs feature a catslide dormers and other catslide roof features from the first to ground floor.

Buildings are less decorative and resemble a more simple 'cottage' style

There are a number of unique landmark buildings, such as the apartment building on Bridgecote Lane, featuring Dutch Gables.

Cottage casement windows were designed to be white painted timber framed, with generally rectangular proportions.

See materials palette overleaf.

Character Area 3

The Gate Lodge Estate differs from the previous character areas and were designed not to emulate the previous developments.

Roof heights are more uniform here, with a predominance of 2 storey dwellings, interspersed with 1.5 storey houses and single storey outbuildings.

The buildings reflect less of the local Essex vernacular in a traditional form.

Many buildings feature the use of weatherboarding or faux half-timbered designs, often combined with red brick or painted render.

The timber framed windows are often stained dark brown, rather than painted white.

There is less mature vegetation here, with more ornamental planting.

See materials palette overleaf.

Main Settlement Character Areas

Character Area 4

These community buildings have been designed around their function, but also to harmonise with the surrounding residential development.

The medical centre in particular is a landmark building which utilises different materials and design features to good effect. The hipped slate roof with contrasting ridge tile details and projecting eaves.

The buildings are set in mature landscaped grounds and bounded by hedgerow planting.

See materials palette overleaf.

Character Area 5

The area to the east of the village is more modern, with a successive number of smaller developments.

The latter developments have diluted the features found in the Conservation Area and the appearance and design of buildings is more generic and contains standard house types rather than locally specific forms.

There area is much lower density, with numerous semi-detached properties and detached dwellings, particularly on the settlement edges.

There are pockets of well landscaped areas and mature trees, but the appearance is more urban, with small, often surfaced front gardens, dominated by driveways and parking.

See materials palette overleaf.

Character Area 6

This area to the west of the Conservation Area is the older part of the Parish, with properties generally dating from the 1930s onwards.

Between the 1930s and 1960s a large area was formed by plotlands.The former plotlands were replaced, by many of the modern houses standing to date.

These are generally reflective of their time, with a range of dwellings including the original low key bungalows, many of which have now been heavily modernised and extended. These often include dominant front and rear box dormers.

A range of 1960s and 70s two storey housing often semi-detached, square plan form, with a mix of brick and render.

Later 90s dwellings are more individual in style, but do not relate to the Essex vernacular.

See materials palette overleaf.

CODE I.02 - Materials & Colour Palette

Brick


Yellow Gault Brick

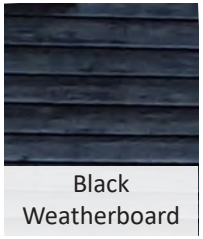

London Stock Brick


Yellow/ Multi Brick


Essex Red Brick Multi


Essex Red Brick

(As main facing brick or mixed for subordinate detailing / contrasting quoins around windows, doors or corners)


Black Weatherboard


White Weatherboard

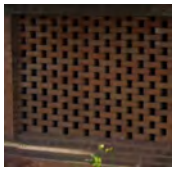
Painted / Stained Weatherboard
(natural not cement fibre or PVC)


Pink (Suffolk)


Cream


White

Painted Render (preferably coloured through rather than painted)



Brick Detailing (particularly around doors and windows but also contrasting panels)

Timber Detailing
(natural not cement fibre or PVC)

Clay Pantiles

Plain clay tiles

Grey Slate (not imitation or concrete substitutes)

Applicants must demonstrate how that have complied with the materials palette as set out below and adjacent, as befits their site and its circumstances.

The Conservation Area Appraisal and Management Plan (CAAMP, 2023) provides a detailed list and explanation of the range of materials found throughout the Conservation Area (CA), but the palette is not limited to buildings inside the CA and must be used to guide development within the Parish unless justified.

These being:

- Essex red brick, London Stock brick, Gault Brick
- Render (as a through colour rather than painted)
- White or black horizontal timber boarding
- Clay pantiles - limited plain tiles
- There are limited amounts of slate, usually found on landmark buildings

CAAMP states:

"Predominantly there are two types of brickwork, plain red and stock yellow. Many of the red and yellow bricks came from the Milton Hall works at Rochford and Great Wakering.

A pigmented mortar was used to avoid the typical contrast between the bricks and the grey cement pointing seen in many other developments."

Cottages generally have little detailing whereas larger buildings often have a range of brick and or timber detailing. Projecting string courses and plinths, dentilation and other brick details are found throughout.

The majority of roofs are finished with clay pantiles.

Where dormer windows are present, these are catslide rather than gabled, so they do not interrupt the general roof form.

All the dwellings in Noak bridge have chimneys, these have a positive contribution to the roofscape.

CODE I.03 - *Windows & Dormer Windows*

To achieve visually pleasing fenestration windows should be composed as per the diagram adjacent with regular pane sizes and slim frames. A variation in the pattern may be used to accentuate particular areas of the elevation and add character.

In the Conservation Area:

Timber sash or casement windows should be used. The lights should be well proportioned such that the top and bottom lights are of similar sizes, the window panes should be asymmetrical.

The casement of the windows should be white timber or a material of similar quality, the width of the muntin must be no more than 15 mm and the mullion should be no more than 30 mm.

Window cills should be constructed preferable of red roof tiles or of brick in a similar colour to the main building material or a contrasting colour, concrete may also be used, where already in place.

Vertical brick lintels with segmental arches above the windows are encouraged.

Contrasting brick quoins around the window frame are supported.

Bay windows are commonplace and can extend upwards to the first floor.

Dormer windows must not dominate the roofscape but be used to add character, they should be pitched or catslide and use black timber cladding with a roof material matching the main roof.

Flat roof dormers should be avoided.

Outside of the Conservation Area:

It is preferable to use timber windows where possible.

Where UPVC is used, these should be of a slim profile design.

Flat roof dormer windows are supported where they are part of a contemporary scheme and designed from the outset rather than a later addition.

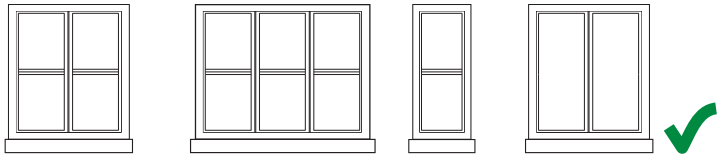
Cotage casement windows should be side and not top hung

Dormer windows should sit on the eaves line. Generally, timber should be painted white or muted colours.

Where sash windows are proposed, these should take a traditional, working, sliding sash approach

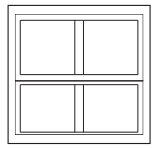
Existing window design and proportions

Potential options for new / additional window designs. Below are options for increasing and decreasing the width, whilst maintaining proportions. The far right options is contemporary response



The designs and proportions of the windows (right) do not reflect that of the original style.

A) Is a square design with a top hung opener rather than rectangular
B) Is rectangular, but with a chunky frame as often found in poor quality uPVC designs.
C) Is a large rectangular single pane of glass with no glazing bars, and whilst this may work on a large scale in a contemporary in a new extension for example, it is unlikely to be appropriate for simple replacement



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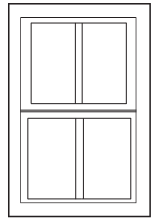

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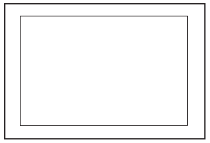


C

CODE I.04 - *Doors, Gates and Porches*

In the Conservation Area:

Doors should be solid timber with preferably four glazed planes and solid, single lower plane or be stable doors (as highlighted in the photos).

Modern UPVC, composite or similar doors of a different style should be avoided.

Where a porch is required either a canopy porch or segmental arches. Doors which are set back into the building should be highlighted by a segmental arch.

Canopy porches should be pitched and supported by a timber frame with an open or closed gable, flat roof canopies with white timber corbels are less preferable.

Closed porches are less preferable but should be pitched to the building or gabled and should reflect the pitch and material of the main roof.

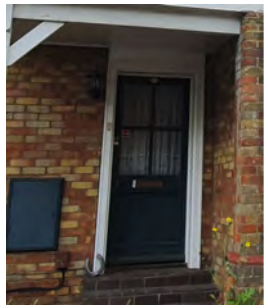
Gates and Garage doors should be timber and stained / painted black, white or neutral colours.

Outside of the Conservation Area:

Porches should be contextually referenced and high-quality

Doors should be in keeping with the original style of the property, with attention being paid to the proportions of any original glazing design.

Where UPVC or other composite materials are used, these should be high quality with slim profiles.


Good examples of timber doors with small central glazed panels or half glazed, painted in muted colours or stained naturally.




Porch designs should be proportionate to the size of the building and either in the form of a canopy or form part of the wider roof design.
The level of detailing should reflect that of the dwelling - i.e. ornate designs to match a higher level of decoration on buildings.

Gates should be plain timber and unobtrusive

Garage doors should be painted timber or stained naturally.
The level of detailing should reflect that of the dwelling

CODE I.05 -

Locally Specific Architectural Details and Design Features

The architectural detailing of both new buildings, extensions or renovations to existing properties must be informed by analysis of the local context. Further details can be found below.

Extensions to existing buildings should include the key architectural detailing of the main dwelling as appropriate.

Where contrasting extensions are proposed, these should be adequately justified in supporting information.

Detailing should be used to highlight parts of the building adding interest and variety.

Architectural detailing incorporated into new buildings should be based on analysis of the locality, some commonly found around Noak bridge include:

- Jettied floors which are a different facing material to the rest of the building, white or black timber clad, rendered or less commonly false half timber framing
- Front projecting gables that are upper story only should be white or black timber clad and supported by timber pillars on brick plinths.
- Front projections that span all stories should be a different material to the rest of the dwelling .
- Window below a raised section of roof either as pitched or gable.
- Subtle or contrasting brick detail for example to separate upper and ground floor, to highlight windows, doors and corners with quoined detailing.
- Pitched or catslide dormers with black or white timber cladding and roof material the same as the main roof
- Where upper and ground floor are different materials, the change should be transitioned though brick work or a jettied floor.
- Poorly design pastiche is unacceptable, the facade details must demonstrate that they have been designed from an understanding of local character.
- The high quality of architectural detailing is one of the most important characteristics of Noak Bridge

Built Form - Introduction

The National Design Guide states that *"Built form is the three-dimensional pattern or arrangement of development blocks, streets, buildings and open spaces. It is the interrelationship between all these elements that creates an attractive place to live, work and visit, rather than their individual characteristics. Together they create the built environment and contribute to its character and sense of place.*

It is relevant to city and town centres, suburbs, villages and rural settlements. It creates a coherent framework that forms a basis for the design of individual developments within a place"

This can be achieved through:

B1 Designing a compact form of development

B2 Providing appropriate building types and forms

B3 Creating destinations

The character area appraisal describes the individual areas within Noak Bridge and the existing built form. These are summarised in the display overleaf.

The following section provides a brief summary all of those elements of locally specific built form highlighted in the character appraisal. Relevant Codes ensure new development continues those aspects into new built form.

Built Form - Design Codes

Each of the Design Codes in this Built Form section is set out below and has a key highlighting which of the Character Areas and Type of Development the code refers to.

Design and Layout of Buildings

Code BF.01 - Density and Layout

Major	Minor	1	2	3	4	5	6	7	8	9

Code BF.02 - Edge of Settlement

Major	Minor	1	2	3	4	5	6	7	8	9

Code BF.03 - Landmarks, Features, Legibility & Wayfinding

Major	Minor	1	2	3	4	5	6	7	8	9

Code BF.04 - Building Lines and Set back

Major	Minor	1	2	3	4	5	6	7	8	9

Code BF.05 - Scale, Form and Massing

Major	Minor	1	2	3	4	5	6	7	8	9

Code BF.06 - Height and Enclosure

Major	Minor	1	2	3	4	5	6	7	8	9

Code BF.07 - Views and Vistas

Major	Minor	1	2	3	4	5	6	7	8	9

Code BF.08 - Building and Roof Forms

Major	Minor	1	2	3	4	5	6	7	8	9

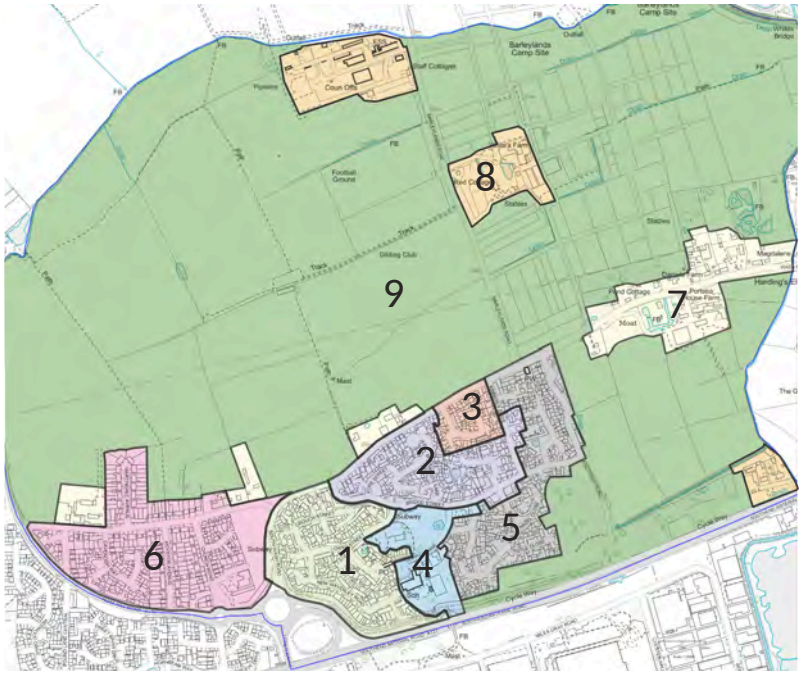
Where the proposed scheme falls within the defined minor or major development the applicant should refer to the relevant design codes which are highlighted by the key below.

MAJOR

Major Developments 10 & above dwellings and mixed use or other large scale schemes on a site of 0.5 hectares or more

MINOR

Minor Developments of 2-9 dwellings or other development on small sites of 0.5 hectares or more



Character Areas for Reference

Density

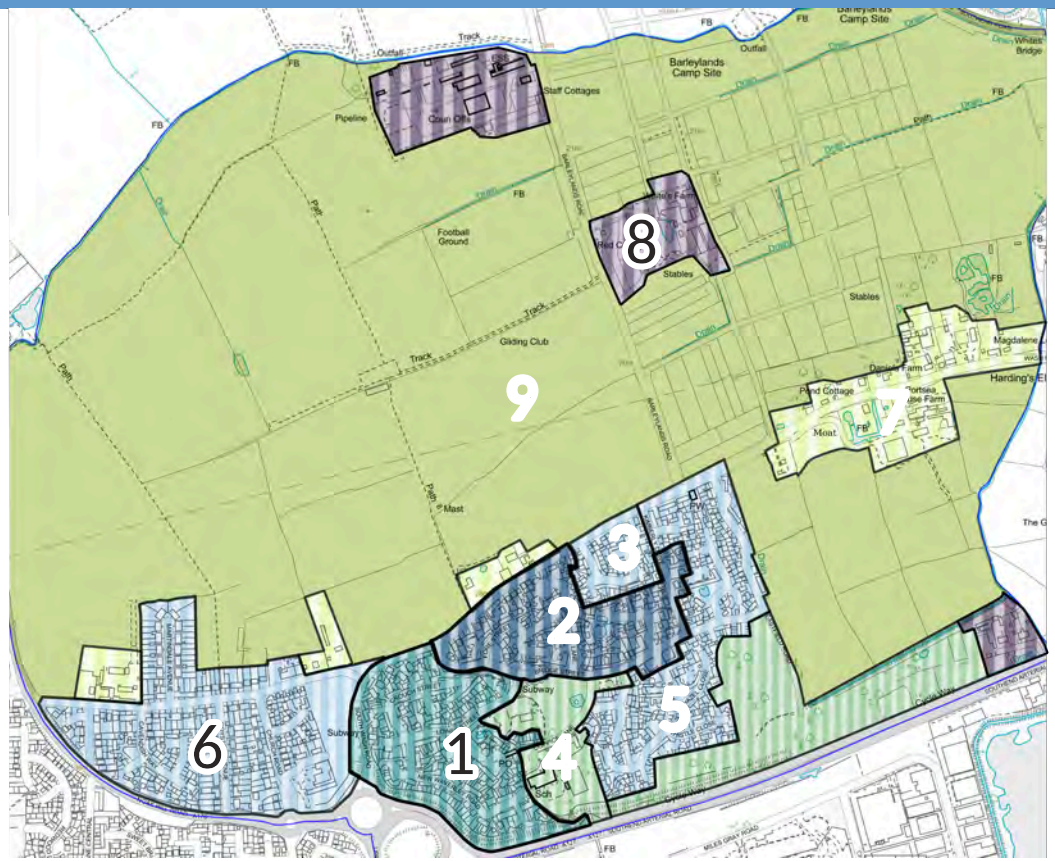
The density of new development should be sympathetic to the immediate local context, overall character of Noak Bridge and intended character of the new development.

The density of an area helps to determine the character and activities taking place on the street. For example where there is a higher density there is higher footfall as such higher density units should be located along primary routes of which where there should be community facilities, business and retail uses.

The density should gradually increase away from settlement edges towards the centre of the village. The lowest densities to be found on the edge of development facing open countryside.

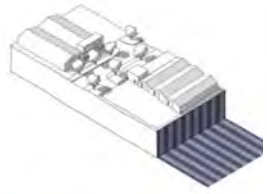
These areas create a more rural appearance and form a gradual change from countryside edge, to landscape buffer, to hard urban environment.

When designing a new development on the existing low density edge of settlement a gradual density change should take place between the existing context and the new.



- Town Centre
- Local Centre
- High Density Urban Village
- Medium Density Village Suburb
- Lower Density Village Suburb
- Industrial / Commercial
- Urban Green Space
- Rural
- Open Countryside

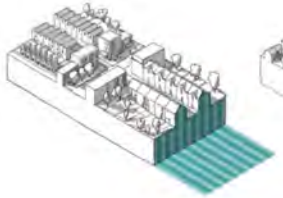
Table of Densities by Area Type



Industrial and Small Scale Commercial

Area 8

Low key, low density industrial, commercial and storage uses.

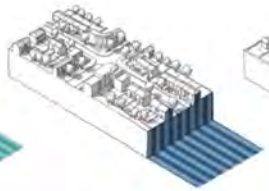


High Density Urban Village

Area 1

Higher numbers of apartments and terraces

Residential densities ranging from 35 dph for houses to 60dph for apartments.

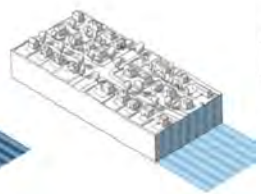


Medium Density Urban Village

Area 2

Fewer apartments, short terraces and semi-detached properties.

Residential densities ranging from 26dph-36 but with pockets of 50dph around apartments



Lower Density Urban Village

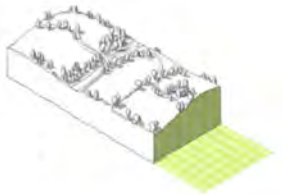
More semi-detached and some detached properties

Residential densities

Area 3 - 40dph

Area 5 - 30-35dph (44dph around Handleys Court)

Area 6 - 15dph to 20dph, with a pocket of modern 30dph



Rural

Areas of scattered development with older pre 1950s properties and farm buildings.

Residential Densities

Very low density - less than 15dph

Comparison between the planned organic layout within the Conservation Area and the more formal layout of the older part of the settlement to the wast of South Wash Road

CODE BF.01 - *Density & Layout*

Major development schemes must allow for a mix of densities within a development in keeping with the Table of Densities by Area Type above. Higher densities should be focused around any local centre and areas which are more sustainable.

Rural or countryside edges should be lower density and well integrated into the landscape setting of the Parish, to effect a gradual change from countryside to village.

Noak Bridge was designed as a 'typical' English village and new development should follow this approach, rather than creating standard suburban housing developments.

The layout must include a range of building types and plots to reflect different occupiers and to be adaptable over time. These should include a mix of buildings that are suitable for a range of ages and lifestyles including high quality homes for those people looking to downsize.

Density should be mixed to protect amenity of neighbours, emphasise key views, support facilities and use density to increase public transport use whenever possible

A suitable balance must be struck between the amount of:

- built form covering plots
- landscaping
- amenity space and
- public realm provision;

The layout should reflect the existing pattern of development, in addition to passive environmental design and maximise opportunities for natural day lighting and solar gain.

Major	Minor	1	2	3	4	5	6	7	8	9

CODE BF02 - *Edge of Settlement*

The edges of the built up area of Noak Bridge should provide a gentle transition from the built environment to the surrounding countryside.

When new development is proposed the following approach should be undertaken:

Between any new development and the open countryside, a buffer should be provided in the form of hedgerow, small pockets of woodland planting, ponds, and meadows (as appropriate to the surroundings). The latter two are of particular importance for areas prone to flood. Regard should be had to the SuDS Design Guide for Essex, and the requirements set out in Design Code R0.2

Such buffer areas should be planted and maintained as multi-functional green infrastructure including to contribute to a network of biodiversity corridors.

Proposed streets on the edge of the development should be designed to be in keeping with rural lanes with minimal road geometry, signage, kerbs and other urban clutter.

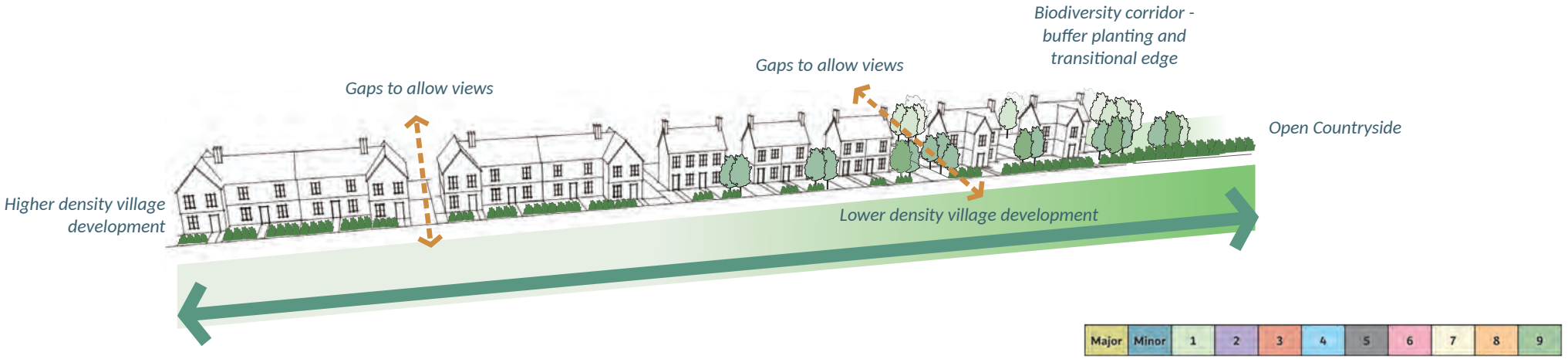
New buildings should face outwards towards the countryside to create a positive outlook. This should be balanced with planting levels to create glimpses of buildings.

Where development is exposed to open countryside, development should be lower density, with lower roof heights, and greater integration with native planting species, rather than ornamental.

Rear gardens which are adjacent to the open countryside must not be bounded by tall suburban fences, as this creates a hard edge. Instead a mix of hedgerow planting onto a field edge with fencing set behind is preferred.

Where possible, rear gardens should not be on display to the public realm, back garden to back garden development should be planned for.

Gaps between buildings should be placed to allow for filtered views to and from countryside to any landmarks and features, and establish visual links with public open spaces.



Landmarks and significant focal features are vital to place making and the legibility of places.

Noak bridge has a number of landmark buildings which are located at key junctions or nodal points in the layout. They make use of distinctive forms such as hexagonal shapes or use an an individual, striking architectural style. They tend to be higher than the surrounding development at 2½ to 3 storeys in height.

New landmarks and features should draw the eye through the development and show you the direction in which you should travel. In this regard, these elements should be located at junctions, bends or places of interest as successfully demonstrated throughout the Conservation Area.

It is vital that new major development introduces individual and contemporary landmarks which respond positively to existing development.

Noak Bridge has many distinctive and high quality buildings which give a sense of place, character and identity.

The above examples highlight the distinct building and roof forms, the level of architectural detail and their scale. All of which make them instantly identifiable, they allow a person to easily understand where they are in an area and how to get to the next location.

CODE BF.03 -

Landmarks, Features, Legibility & Wayfinding

Any new development should seek to maximise opportunities for features and landmarks to ensure that each part of the development is visually distinct and recognisable. These can include identifying appropriate corners and junctions, gateways and focal points, where such elements can be located.

These should incorporate distinctive and characterful architectural elements which reflect the character of the area.

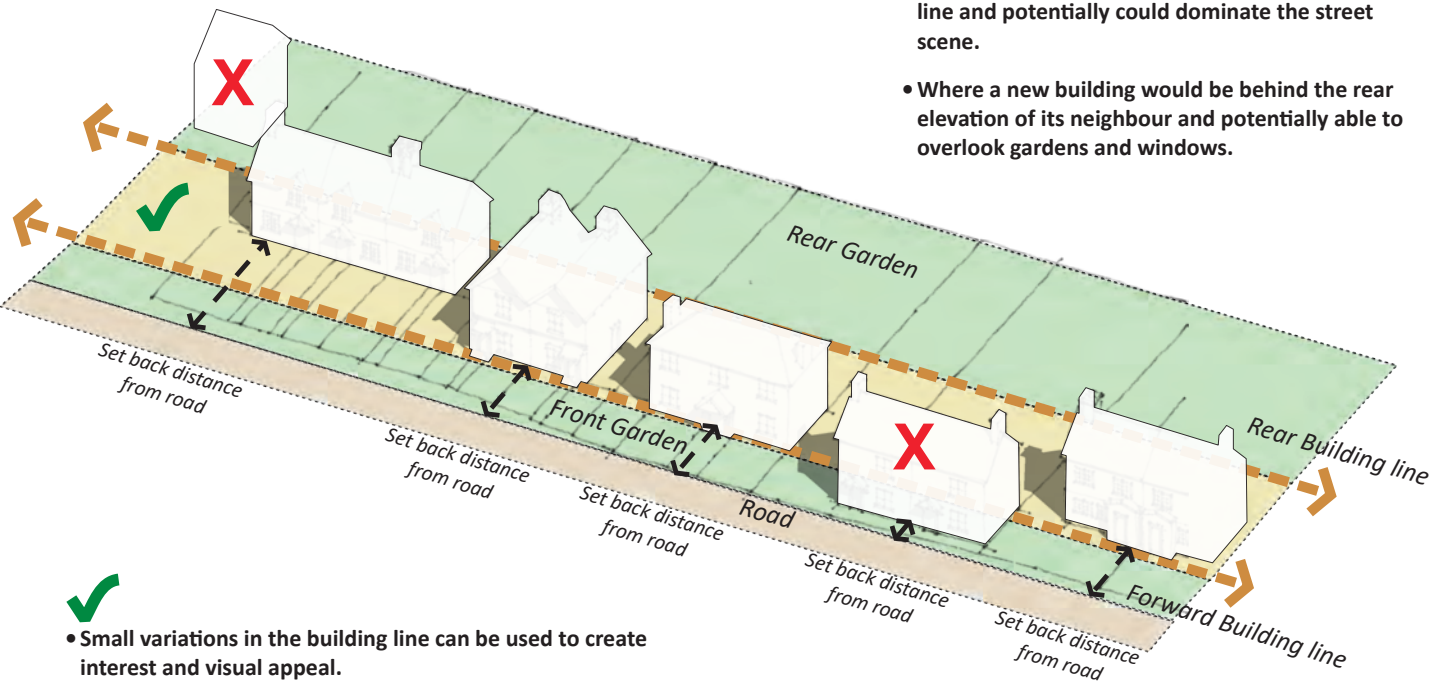
Designs which solely include tall buildings of low architectural merit are not to be supported.

Development which includes new landmarks should assess the impact on existing views and the creation of new views and vistas to clearly lead the user from one space to another and aid legibility.

New developments should examine the relationship with each of the distinct character areas and encourage a contiguous sense of place for each.

New signage should follow the form of the original attractive and distinct signs in the village.

Cluttering the public spaces with excessive and uncoordinated signage should be avoided.



- **Where a proposed new building would be closer to the street than the general forward building line and potentially could dominate the street scene.**
- **Where a new building would be behind the rear elevation of its neighbour and potentially able to overlook gardens and windows.**

- **Small variations in the building line can be used to create interest and visual appeal.**
- **Buildings can be set back slightly from the property line to create a sense of space, or they can be projected slightly forward to create a sense of enclosure.**

Within the Conservation Area there is a strongly designed, but varied building line along the street. This is also true of Character Area 6, which was planned with a more uniform building line. Both reinforce continuity in different ways and helps to define the character of each area. The later residential areas of the village tend to have more variations in the building line creating a more informal open character.

The building line along a street should generally be consistent and present a unified whole for each character area, allowing for subtle variations with recesses and protrusions. Some areas within Noak Bridge should have more variations than others depending on the design and function. This provides variety and movement along the street and is successful at drawing your eye along and leading one to a destination.

Additional guidance for building lines are highlighted in the diagram above.

CODE BF.04 - *Building Lines and Set back*

New development (including extensions to existing buildings) should be no further back than the general building line of the street, allowing for a degree of variance and highlighted in the diagram.

Designers should consider:

- **the set back of the opposite property so as not to create an inappropriate level of openness or overlooking.**
- **Where plots are set back more than 5m from the edge of any pavement or carriageway on both sides of the street, a higher degree of soft landscaping should be used to provide an appropriate degree of enclosure.**
- **The placement and orientation of buildings in a way that creates a consistent building line along the street. There should be an allowance made for small variations, in the form of depressions and protrusions can be used to create variety and interest.**
- **Where building lines include front gardens which are more limited or there is a minimal personalisation strip, small planters and low level planting can be included to offer some softening to the otherwise hard urban fabric. The placing of planting can also assist with reinforcing the building line.**

Example of the varied building heights in a street adding interest to the street scene. Note that the changes in height are proportionate and one building does not dominate another or cause problems with overlooking and loss of privacy through careful placement of windows and utilising the correct building forms and typologies.

The size, shape, and overall form of buildings has a significant impact on the character of a place and can help to distinguish between different areas within a settlement or parish.

The massing of a building refers to its perceived shape, form, and size, and is determined by the way in which the building is arranged on its site. This is especially important for larger buildings or those with entrances on more than one side.

In Noak Bridge, the scale, form, and massing of buildings varies between different character areas. For example, the Conservation Area was specifically designed to represent the variety of a typical English village with more complex forms and utilising a number of different typologies. This planned form provides an environment with a wider variety of different buildings and more closely spaced lanes and footways, particularly when compared to the older development to the west.

Other development in the Parish contain more buildings with simpler and latterly more generic forms, which do not relate to the local vernacular.

When designing new buildings, it is important to consider the scale, form, and massing of the surrounding buildings.

New buildings should be designed in a way that creates a harmonious relationship with neighbouring buildings, spaces, and streets.

Designers should also seek to embody and enhance the most celebrated characteristics of the different character areas in the Parish.

CODE BF.05 - *Scale, Form and Massing*

New development and redevelopment should:

- **Be of a scale and massing that is consistent with the surrounding buildings and enhances existing features, landmarks and other focal points.**
- **Use simple forms that are similar to the surrounding buildings.**
- **Consider pedestrian scale and enclosure and set back larger buildings from the road to reduce their impact on the street.**
- **Use materials and colours that complement the surrounding buildings.**
- **Examine how the scale, form and massing within a street should be varied along its length to create visual interest.**
- **Be mindful of where changes are being made to an existing street, consider the impact not only on the exist building, but also the wider street scene. Many buildings in Noak Bridge have been specifically designed to correspond to their neighbouring property, and a single change could have an adverse impact on this.**
- **Consider how the specific mix of houses and other uses required in an area can be accommodated, with the typologies used (including terraced, semi-detached and detached dwellings, as well as commercial and community buildings), to good effect with appropriate scale form and mass adding variety.**

Height

The majority of buildings in Noak Bridge are 1.5 or 2 storey, although there are lower numbers of both 1 and 3 story buildings present, they are the exception to the prevailing built form. The latter are usually landmark buildings of unique character, or services and facilities buildings.

A varied and visually interesting roofscape is a characteristic of Noak Bridge and is key in any new development. Buildings may be subtly different in height to add character or be the same height but slightly set back, creating a varied roofline.

Taller buildings can be placed at the end of a road or junction to terminate a vista, which helps to enclose the space and identify the end point or junction.

The introduction of taller buildings without a specific justification is not appropriate. Tall buildings should be focal features, terminations to long vistas, buildings of importance such as services, facilities and commercial properties.

Equally a development of solely 2 storey buildings of the same ridge height, will also likely be inappropriate, as this does not represent the successful variation found within the Conservation Area.

Enclosure

Enclosure refers to the relationship between public spaces and the buildings and other features such as trees and landscaping that surround them.

Within Noak Bridge the level of enclosure varies throughout the different character areas.

For example in Area 6 to the west of South Wash Road, the buildings are generally lower in height and the roads are wide and straight, with few street trees or tall vegetation.

Within Area 1 Southwest of Bridge Street, there is a much higher level of enclosure as was originally planned. It provides a comparably more cohesive and attractive urban form, with higher density, but achieves an appropriate ratio of built form to open space.

Reduced level of openness between buildings and landscaping leading to a more intimate space appropriate to pedestrian priority due to lower traffic speeds

The same street here have been combined with an increased level of openness between buildings and landscaping leading to a more a wide public square - this would encourage increased traffic speeds and even with lower speed limits, pedestrians and cyclists would not feel comfortable in this space as vehicles have the potential to speed around them.

There is also potential for such an area to be dominated by on-street parking, with this becoming the main focus of the street.

The varied building heights, roof forms and degree of enclosure make this an intimate space for pedestrians and cyclists. The removal of cars from this space allows for a reduction in width between the frontage of buildings.

Careful placement of windows and doors ensures residents have adequate privacy

CODE BF.06 -*Height & Enclosure*

Buildings should be sympathetic in height and proportions, offering the appropriate degree of enclosure to the surrounding context.

In Character Area 1, buildings range up to 3 storeys in height. In other locations, 3 storey buildings are rare and usually only found in Areas 2 and 5. In remaining areas, 1.5 and 2 storey buildings predominate.

On major developments, a varied roofline should be provided as part of a wider masterplan approach, which considers building typologies across a site. These should also be based on the needs of the Parish.

Where new development or extensions are proposed to be greater than the height of surrounding buildings, sufficient justification must be provided to explain the rationale behind this.

Tall buildings in excess of that found in the wider area should be focal features / landmark buildings. Such buildings could act as terminations to long vistas, buildings of importance such as services, facilities and commercial properties. These must be of high quality in both appearance and materials to justify their inclusion as a focal feature.

New development should avoid overshadowing of neighbouring properties and ensure adequate privacy through the careful placement of fenestration, and natural light for the occupants of both new and existing dwellings.

Variety in the building heights should be achieved by providing a range of different ridge heights.

Utilising roof space in many areas is appropriate - 1.5 storey and low 2.5 storey buildings with rooms in the roof utilising traditional dormer windows are commonplace and supported.

Key Views are important to protect the existing character and retain a sense of place.

The following views have been identified from Appendix ii of the Character Appraisal for the Neighbourhood Plan.

The are shown on the maps below.

Views can be long distance and open, enclosed, glimpsed, directed through building placement and orientation. In all circumstances, development should respect these views, which provide significant benefit to the character of the area.

Vista terminated by a landmark building

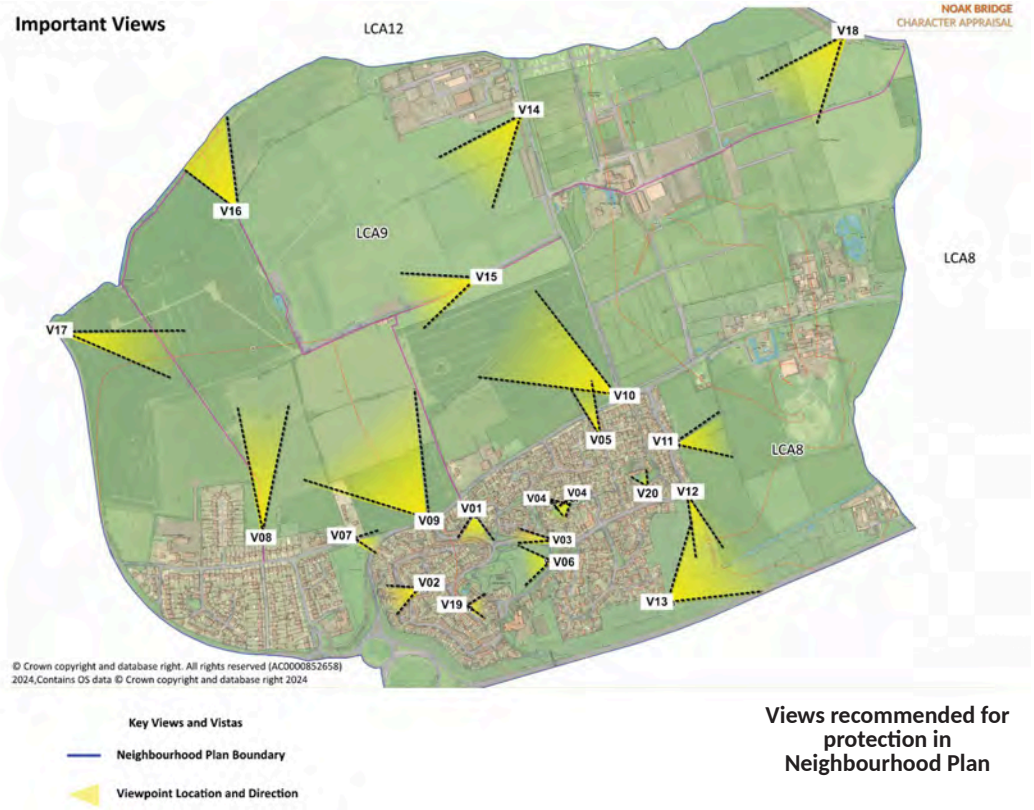
CODE BF.07 - *Views and Vistas*

The identified key views must be protected from inappropriate development and maintain the key characteristics in the view as well as maintain openness.

New development should not cause an adverse impact to long-distant views to the countryside beyond.

The design and layout of major and minor development should be informed by the existing views.

Where proportionate, a viewscape analysis relating to the impact of the proposed development should be undertaken.



Views recommended for protection in Neighbourhood Plan

Long distance views over land to the north

Building Forms

The Essex Design Guide highlights that "traditional buildings are typically made up of rectangular rather than square plan forms, with pitched roofs spanning the narrower plan dimension". New buildings should be designed with this in mind.

This however should not stifle design opportunities, as interest can be added to the street scene by combining different forms and dwellings to create 'L' or 'T' plans as shown adjacent.

The preference is to combine buildings rather than make a single dwelling unnecessarily complex.

The use of small scale projecting elements such as porches or by making use of jettied or recessed elements would be supported.

Detached or semi-detached, narrow, deep-plan forms should be avoided where possible as they often result in narrow gardens and create difficulty in achieving internal natural light.

The new building form should take into account natural light and overshadowing.

Habitable rooms should be located at the front of the building facing public space to provide natural surveillance in addition to upper floor windows.

Roof Forms

The roof forms are generally simple, with the span following the narrow span.

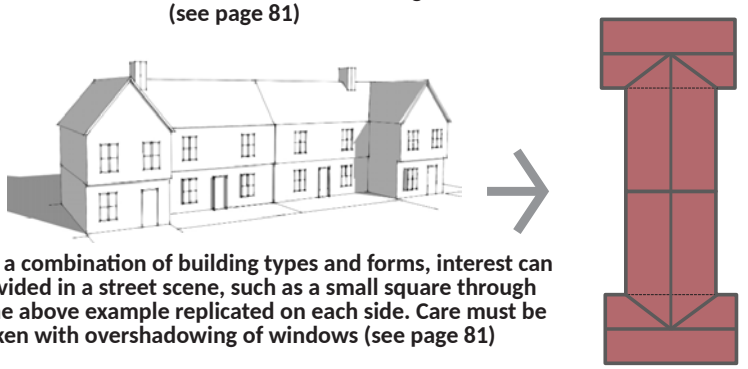
Gable ends predominate with limited use of other types. The pitch should be approximately 50°. Flat roofs should be avoided, unless an integral part of a contemporary design.

Brick chimneys are characteristic of Noak bridge and should be incorporated into traditional dwellings to add visual interest to the rooflines, chimneys should be positioned along the ridge at the edge of the dwelling or along the ridge in the centre of the dwelling's roof.

Noak Bridge has a number of buildings which draw on the wider local vernacular of farm and other functional buildings, resulting in protruding first floor elements. These along with full height elements can be combined to result in a 'T' shape

Simple cottage designs are predominant. A typical span is rarely greater than 6.5m in width, and usually around 5m.

Rather than create plan forms which are not in keeping with the local vernacular, buildings can be grouped together to form an 'L' shape. Care must be taken with overshadowing of windows (see page 81)



By using a combination of building types and forms, interest can be provided in a street scene, such as a small square through using the above example replicated on each side. Care must be taken with overshadowing of windows (see page 81)

Traditional farmhouses are another example of 'T' shaped buildings. Attention should be paid to symmetry and proportions

CODE BF.08 - *Building & Roof Forms*

Building Forms

New buildings should be designed with a rectangular plan form and a pitched roof spanning the narrower plan dimension, as is typical of traditional buildings in Essex.

The new building form should take into account natural light and overshadowing.

Interest could be added to the street scene by the use of contrasting materials, through projected elements, and by combining dwellings to create "L" or "T" plans.

Detached, narrow, deep-plan forms should be avoided where possible (particularly over 2 storeys in height), as they often result in narrow, overlooked gardens and make it difficult to achieve internal natural light. These forms may be more appropriate however when forming part of a larger terrace.

Habitable rooms should be located at the front of the building facing public space to provide natural surveillance in addition to upper floor windows.

Roof type

Pitched roofs with gable ends predominate with more limited use of hipped and half-hipped details.

Flat roofs should be avoided, unless an integral part of a contemporary design.

Roof pitch

On traditional buildings, the roof pitch should reflect that of the local vernacular (usually not over 50°, with some variation on other elements of detailing.

Chimneys

Brick chimneys are characteristic of Noak Bridge and should be incorporated into traditional dwellings to add visual interest to the rooflines.

Chimneys should be positioned along the ridge at the edge of the dwelling or along the ridge in the centre of the dwelling's roof.

Ridge detailing

Decorative ridge detailing is commonplace. Ridge tiles are usually the same colour as the roof tiles.

Homes and Buildings - Introduction

The National Design Guide states that "*Well-designed homes and buildings are functional, accessible and sustainable. They provide internal environments and associated external spaces that support the health and well-being of their users and all who experience them.*

They meet the needs of a diverse range of users, taking into account factors such as the ageing population and cultural differences. They are adequate in size, fit for purpose and are adaptable to the changing needs of their occupants over time"

This can be achieved through:

H1 Healthy, comfortable and safe internal and external environment

H2 Well-related to external amenity and public spaces

H3 Attention to detail: storage, waste, servicing and utilities

The following section looks in more detail at both internal and external standards for dwellings and how to create a positive environment and promote health and well-being.

This includes space standards, enabling accessibility and maximising natural light whilst maintaining privacy and secure and discreet refuge storage.

It is important that new housing is design to accommodate the needs of a wide range of people.

In this regard, housing should be accessible and adaptable as lifelong homes.

New housing should aim to be in excess of the requirements set out in current Building Regulations or at least be easily adaptable to do so. This Design Code however does not seek to duplicate current Building Regulations and this should be reviewed separately.

Homes and Buildings - Design Codes

Each of the Design Codes in this Homes and Buildings section is set out below and has a key highlighting which of the Character Areas and Type of Development the code refers to.

Housing

Code HB.01 - Space Standards

Major	Minor	1	2	3	4	5	6	7	8	9

Code HB.02 - Typologies

Major	Minor	1	2	3	4	5	6	7	8	9

Code HB.03 - Security & Privacy

Major	Minor	1	2	3	4	5	6	7	8	9

Code HB.04 - Amenity Space & Balconies

Major	Minor	1	2	3	4	5	6	7	8	9

Code HB.05 - Light & Aspect

Major	Minor	1	2	3	4	5	6	7	8	9

Code HB.06 - Boundaries & Means of Enclosure

Major	Minor	1	2	3	4	5	6	7	8	9

Code HB.07 - Storage, Waste & Recycling

Major	Minor	1	2	3	4	5	6	7	8	9

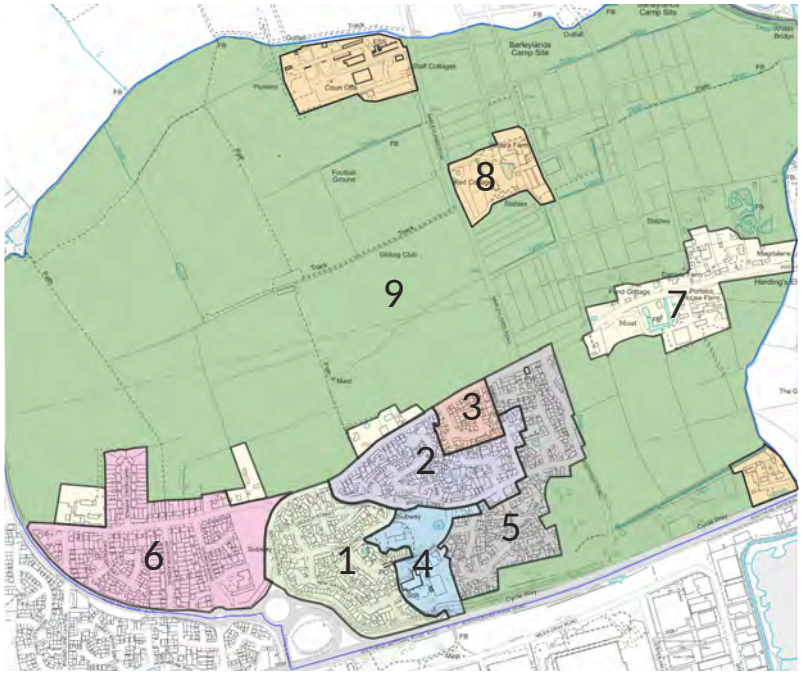
Where the proposed scheme falls within the defined minor or major development the applicant should refer to the relevant design codes which are highlighted by the key below.

MAJOR

Major Developments 10 & above dwellings and mixed use or other large scale schemes on a site of 0.5 hectares or more

MINOR

Minor Developments of 2-9 dwellings or other development on small sites of 0.5 hectares or more



Character Areas for Reference

CODE HO.01 - *Housing Space Standards*

Housing is must at least meet the minimum space standards as set out in Table 1 (adjacent) of the Technical Housing Standards – Nationally Described Space Standard.

This shows the amount of Gross internal Area (GIA) of floor space required. As well as meeting the space standards, developers must show on plans that built in storage accommodated in the design.

https://www.gov.uk/government/publications/technical-housing-standards-nationally-described-space-standard

Developers must have regard to the Essex Design Guide and the design principles for the ageing population embedded throughout; and seek new housing to be designed to Part M standards, to be inclusive for all age groups.

Table 1 - Minimum gross internal floor areas and storage (m^2)

Number of bedrooms(b)	Number of bed spaces (persons)	1 storey dwellings	2 storey dwellings	3 storey dwellings	Built-in storage
1b	1p	39 (37) *			1.0
	2p	50	58		1.5
2b	3p	61	70		2.0
	4p	70	79		
3b	4p	74	84	90	2.5
	5p	86	93	99	
	6p	95	102	108	
4b	5p	90	97	103	3.0
	6p	99	106	112	
	7p	108	115	121	
	8p	117	124	130	
5b	6p	103	110	116	3.5
	7p	112	119	125	
	8p	121	128	134	
6b	7p	116	123	129	4.0
	8p	125	132	138	

Technical Housing Standards – Nationally Described Space Standard

The standard requires that:

a. the dwelling provides at least the gross internal floor area and built-in storage area set out in Table 1 below

b. a dwelling with 2 or more bedspaces has at least 1 double (or twin) bedroom

c. in order to provide 1 bedspace, a single bedroom has a floor area of at least 7.5m2 and is at least 2.15m wide

d. in order to provide 2 bedspaces, a double (or twin bedroom) has a floor area of at least 11.5m2

e. 1 double (or twin bedroom) is at least 2.75m wide and every other double (or twin) bedroom is at least 2.55m wide

f. any area with a headroom of less than 1.5m is not counted within the Gross Internal Area unless used solely for storage (if the area under the stairs is to be used for storage, assume a general floor area of 1m2 within the Gross Internal Area)

g. any other area that is used solely for storage and has a headroom of 900-1500mm (such as under eaves) is counted at 50% of its floor area, and any area lower than 900mm is not counted at all

h. a built-in wardrobe counts towards the Gross Internal Area and bedroom floor area requirements, but should not reduce the effective width of the room below the minimum widths set out above. The built-in area in excess of 0.72m2 in a double bedroom and 0.36m2 in a single bedroom counts towards the built-in storage requirement

i. the minimum floor to ceiling height is 2.3m for at least 75% of the Gross Internal Area

The document also requires:

- a dwelling with two or more bedspaces to have at least one double (or twin) bedroom
- in order to provide one bedspace, a single bedroom must have a floor area of at least 7.5m2 and is at least 2.15m wide
- in order to provide two bedspaces, a double (or twin bedroom) must have a floor area of at least 11.5m2
- one double (or twin bedroom) to be at least 2.75m wide and every other double (or twin) bedroom is at least 2.55m wide
- any area with a headroom of less than 1.5m is not counted within the Gross Internal Area unless used solely for storage (if the area under the stairs is to be used for storage, assume a general floor area of 1m2 within the Gross Internal Area)
- any other area that is used solely for storage and has a headroom of 900-1500mm (such as under eaves) is counted at 50% of its floor area, and any area lower than 900mm is not counted at all
- a built-in wardrobe counts towards the Gross Internal Area and bedroom floor area requirements, but should not reduce the effective width of the room below the minimum widths set out above. The built-in area in excess of 0.72m2 in a double bedroom and 0.36m2 in a single bedroom counts towards the built-in storage requirement
- the minimum floor to ceiling height is 2.3m for at least 75% of the Gross Internal Area

CODE HO.02 Building Typologies

When designing new major development proposals in Noak Bridge, a variety of approaches to housing typologies and the layout of buildings should be explored. The key considerations for each typology should be followed.

The key consideration is how to make best use of land, whilst creating high quality homes which are in keeping with the original planned vision for the settlement.

New development should continue the 'typical' English village approach and add to the distinctive character of Noak Bridge.

Opportunities exist to provide a range of terraced, semi-detached, detached and higher density apartments as highlighted on the following pages.

In particular, there is an identified need from the community for smaller family homes, as well as high quality housing for those looking to downsize from their larger 4+ bedroom family houses into single storey buildings or apartments.

Major development proposals should look at how they propose to meet the needs of the local community.

Major | Minor | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9

Terraced Housing

Mainly 1.5 - 2 Storeys, with 3 storey for prominent or identified key buildings.

Key Considerations:

1. Height / scale of buildings dependent on which type of streetscape being designed - see BF.06 above
2. Use typical and simple traditional forms effectively - see building and roof forms examples BF.08. When combined with landscaping, this can raise density without a suburban appearance.
3. Create variety and interest through design and architectural features, which should be co-ordinated across the site, see I.02 - I.05
4. Consider corner articulation and how to avoid blank facades at junctions.
5. Create a co-ordinated materials palette based on local materials. To be high quality, durable and sustainable - see materials palette I.02 above.
6. Buildings should front the street and ensure that setbacks are consistent, with only a small variation between buildings (see BF.04) to provide a unified street composition, but appropriate variety.
7. Sufficient outdoor amenity space should be provided which meets the needs of the occupants - see HO.04) and particularly in terraces, should be accessible to pedestrians and cyclists (for cycle storage).

Semi-Detached Housing

Largely occurring outside of the Conservation Area. Mainly 2 Storeys, with 2.5 storey for prominent or identified key buildings.

Much of the semi-detached housing stock does not accord with the original Noak Bridge design principles, utilising incorrect plan and roof forms, lower quality materials and lack the level of architectural detail. This should not be replicated in future developments.

Semi-detached dwellings in general can often be mirror images of each other in terms of fenestration and door placement. They may also present through small changes in materials or detailing from that adjacent.

In a some cases the semi-detached dwellings may appear as a single, larger property, with entrances placed to the side of the dwelling, but still visible from the public realm.

Key Considerations:

1. Height / scale of buildings dependent on which type of streetscape being designed - see BF.06 above
2. Use typical and simple traditional forms effectively - see building and roof forms examples BF.08. When combined with landscaping, this can raise density without a suburban appearance.
3. Create variety and interest through design and architectural features, which should be co-ordinated across the site, see I.02 - I.05
4. Consider corner articulation and how not to present blank facades at junctions.
5. Create a co-ordinated materials palette based on local materials. To be high quality, durable and sustainable - see materials palette I.02 above.
6. Buildings should front the street and ensure that setbacks are consistent, with only a small variation between buildings (see BF.04) to provide a unified street composition, but appropriate variety.
7. Sufficient outdoor amenity space should be provided which meets the needs of the occupants - see HB.04). Paths to the rear of a property must be accessible to pedestrians and cyclists (for cycle storage), unless housed within a garage.
8. Taller buildings should be in locations away from edge of settlement or key views.

Detached Housing

Detached housing is found throughout the Parish.

Such dwellings are generally found towards the edge of the development, close to open countryside or dispersed among other building typologies, but within heavily landscaped settings. They vary in characterisation but respond to the individual character of that area.

They are largely 2 Storeys, with up to 2.5 storey for key building locations.

Key Considerations:

1. Height / scale of buildings dependent on which type of streetscape being designed - see BF.06 above
2. Use typical and simple traditional forms effectively - see building and roof forms examples BF.08. When combined with landscaping, this can raise density without a suburban appearance.
3. Create variety and interest through design and architectural features, which should be co-ordinated across the site, see I.02 - I.05
4. Consider corner articulation and how not to present blank facades at junctions.
5. Create a co-ordinated materials palette based on local materials. To be high quality, durable and sustainable - see materials palette I.02 above.
6. Buildings should front the street and ensure that setbacks are consistent, with only a small variation between buildings (see BF.04) to provide a unified street composition, but appropriate variety.
7. Sufficient outdoor amenity space should be provided which meets the needs of the occupants - see HB.04). Paths to the rear of a property must be accessible to pedestrians and cyclists (for cycle storage), unless housed within a garage.
8. A need for high quality, single storey dwellings has been identified for those seeking to downsize. This need not be restricted to an over 55s age limit, but be designed with this flexibility in mind, and adaptable to people's requirements as they age. New developments should respond to this need in their proposals.
9. Taller buildings should be in locations away from edge of settlement or key views.

Apartments

Apartments are found throughout the Conservation Area and immediately adjacent areas. These vary from 2 storey to 3 storey buildings often with rooms within the roof space.

Where apartments are 3 stories, they are designed as landmark buildings, with striking architectural style and detailing., Setting them apart from adjacent dwellings.

In some developments, there has been a lesser quality of materials and features and it is solely a tall and bulky building within the settlement. A change in height alone is not enough to justify the building as a landmark.

Key Considerations:

1. Height / scale of buildings dependent on which type of streetscape being designed - see BF.06 above
2. Apartment buildings offer the opportunity for a landmark building and the ability to create a striking design, given their scale. It may also be appropriate to give the appearance of a single large country home and sub-divide internally.This, when combined with sufficient amenity space and landscaping, can significantly raise density without a suburban appearance.
3. Apartment blocks are often poorly designed and articulated. Create variety and interest through design and architectural features, which should be co-ordinated across the site, see I.02 - I.05
4. Consider corner articulation and how not to present blank facades at junctions.
5. Create a co-ordinated materials palette based on local materials. To be high quality, durable and sustainable - see materials palette I.02 above.
6. Buildings should front the street and ensure that setbacks are consistent, with only a small variation between buildings (see BF.04) to provide a unified street composition, but appropriate variety.
7. Sufficient outdoor amenity space should be provided which meets the needs of the occupants - see HB.04). Paths to the rear of a property must be accessible to pedestrians and cyclists (for cycle storage), unless housed within a garage.
8. A need for high quality, housing has been identified for those seeking to downsize. Apartments should not be solely for those starting on the housing ladder and can be designed as luxury apartments for this market.This need not be restricted to an over 55s age limit, but be designed with this flexibility in mind, and adaptable to people's requirements as they age. New developments should respond to this need in their proposals.
9. Large scale buildings should be in locations away from edge of settlement or key views as shown in BF.07 Views and Vistas.

Natural Light, Aspect & Privacy

Light & Aspect

Among other benefits, natural daylight is important to peoples mental health and productivity levels, with an increase in people working from home, it is necessary to seek a design which maximises internal natural daylight.

Where appropriate, such as proposing a new tall building or any building which could be overshadowed by existing tall buildings or trees, the design should be informed by a sunlight and daylight study.

The objective being, that it will demonstrate that a proposal will not overshadow neighbouring buildings and vice versa.

Maximising daylight begins with the orientation and form of buildings and avoiding obstructions to windows.

Designers should refer to the Building Research Establishment's (BRE) Report Site layout planning for daylight and sunlight: a guide to good practice (BR209), which advises on how to maximise good access to daylight and sunlight. It is a document that is widely used by local authorities during planning permission to help determine the impacts of new developments.

The following diagrams and text set out many of the good practice requirements.

Orientation

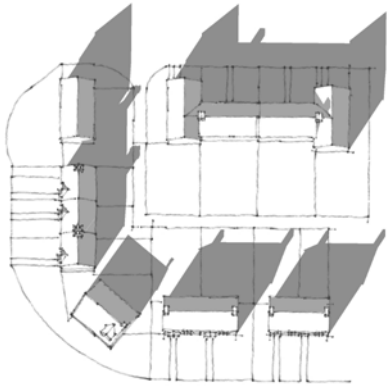
The orientation of buildings and passive solar gain should be considered in the early design stages.

To maximise solar gain in the winter, buildings should be within 30° of due south, where ever possible.

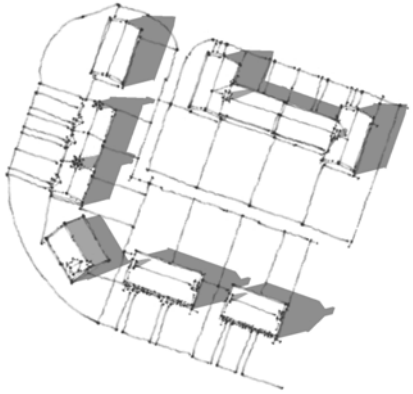
Maximising the number of building within his range should help inform the layout. in addition the north side may have a higher ratio of wall to windows to minimise heat loss.

This however needs to be balanced with existing building lines and patterns of development

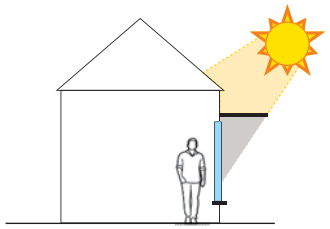
Deciduous trees can be strategically placed to provide summer shading and avoid overheating, as can louvre windows and other shading detailing such as a Brise soleil (see example).

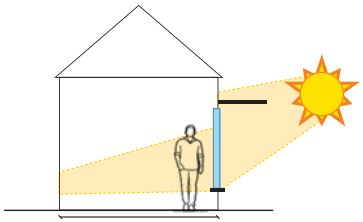


The two examples here highlight the difference orientation makes to a scheme. In example 1, there are a number of dwellings with north facing gardens and areas which are completely overshadowed.



The second example is orientated such that there are due north facing gardens. This means both gardens and dwellings receive direct sunlight for more hours of the day.





Depth of daylight into a room - 2.5 x the height of the top of the window

Summer Sunlight

In the summer the intense summer sun can cause overheating, particularly on any large expanse of glass, whether it is on doors or windows.

Winter Sunlight

In the winter the sun is not as intense and is set at a lower level in the sky. A shading does not block the sun in the same way, and the natural warmth can still be appreciated.

Irrespective of season, the maximum distance daylight can penetrate into a room is usually 2.5 times the height of the top of the window.

Natural Light, Aspect & Privacy

To achieve adequate internal daylight within a room, there should be no obstruction to sunlight at a 25˚ from a point 2m above floor level.

In some situations, designers can compensate for obstructions by making windows larger, or altering a room layout to suit. However, where symmetry and continuity are important, this often results in small windows throughout (even on ground floors, where light may be limited). Where ground floor units may be occupied by disabled persons for ease of access, this may result in a poor quality of light, aspect and outlook than for a two storey or higher floor unit.

A typical street width in Noak Bridge from plot boundary to plot boundary is between 8m -13m depending on the route type.

To achieve the 25˚ angle buildings may need to be set back in the plot and should consider the siting and scale of opposite buildings.

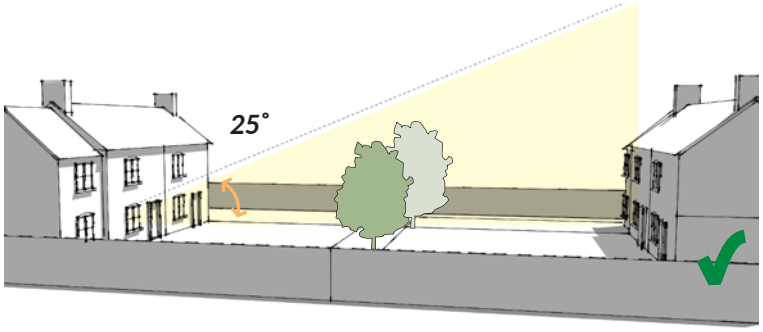
Where this will result in adverse impacts such as loss of human-scale, or rear amenity space and loss of light to neighbouring buildings, measures should be taken to increase internal daylight through other means. This could be through dual aspect windows and shallow- plan buildings.

Ideally new flats or single storey units, should have the living area facing within 90 degrees of due south.

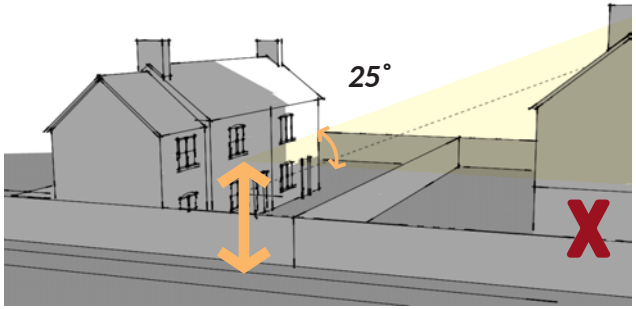
Designers should refer to the Building Research Establishment's (BRE) Report Site layout planning for daylight and sunlight: a guide to good practice (BR209), which advises on how to maximise good access to daylight and sunlight. It is a document that is widely used by local authorities during planning permission to help determine the impacts of new developments.

The following diagrams and text set out many of the good practice requirements.

Achieving Adequate Daylight - The 25˚ Rule

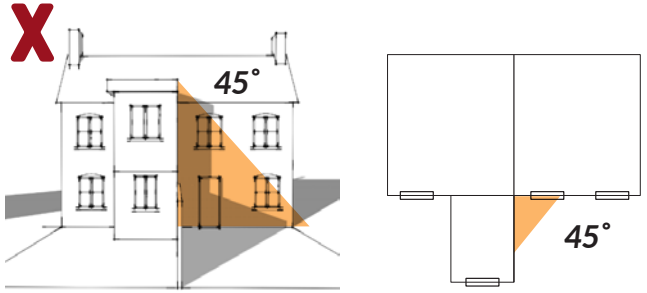


Here, the centre of lowest window is open to the sky. The nearby trees, buildings and fences are sufficiently low enough to allow for an uninterrupted view allowing sufficient daylight. It is worth noting that tree growth in the future may need to be controlled to ensure adequate daylight is not blocked.



Here, the centre of lowest window is blocked by the building to the rear being too close. By re-siting the buildings, you would be able to get an uninterrupted view allowing sufficient daylight.

Achieving Adequate Daylight - The 45˚ Rule

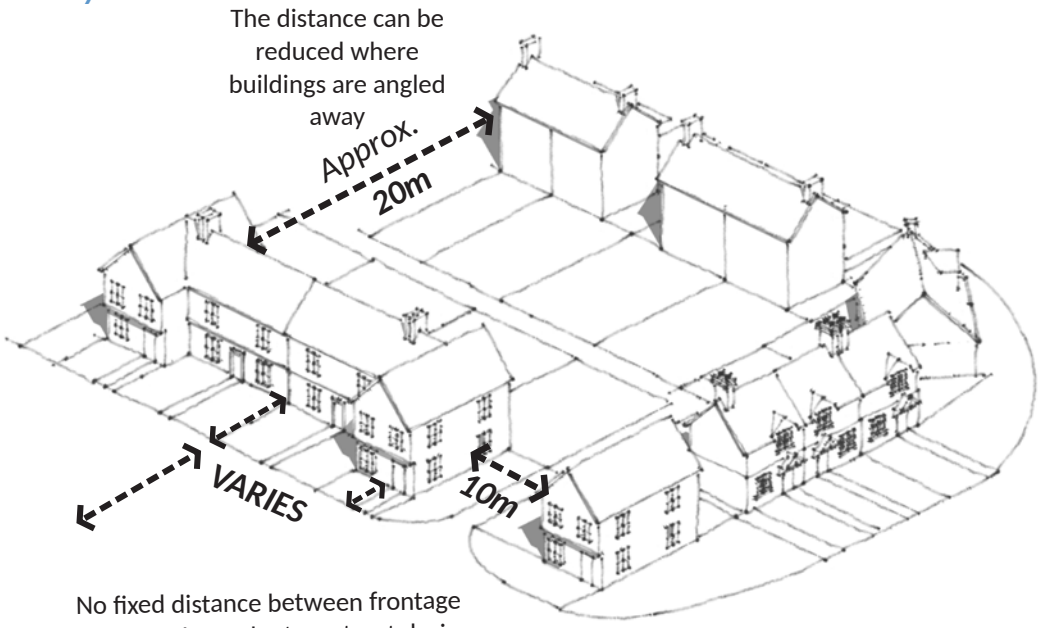


Here, the position of an extension would overshadow the neighbouring dwelling from both depth and height. Any projection or extensions to a building, should not exceed a 45˚ line taken from the centre of the nearest ground floor window of a habitable room.

The health benefits of adequate daylight and sunlight in rooms:

- Circadian rhythms - Exposure to right light during the day helps regulate daily rhythms of sleep and alertness
- Contact with the outside - social interaction, contact with nature and the landscape, recovery from illness
- Sunlight can give illuminance of 10000-50000 lux indoors. This adds warmth in winter months, may enhance mood.
- Exposure to sunlight allows synthesis of Vitamin D, essential for healthy bones, and probably beneficial to the cardiovascular system, and mood
- Appropriately sized windows and doors also allow adequate ventilation

Privacy



No fixed distance between frontage windows, dependent on street design

Mews streets for example will have frontages which are much closer together

CODE HO.03 - Natural Light, Aspect & Privacy

Sunlight and Daylight / Solar Gain

a. **When designing new housing, consideration must be given to fenestration design and siting with regard to:**
   - **Passive solar gain**
   - **Providing adequate levels of natural light and sunlight in winter and summer**
   - **Prevention of overheating**
   - **Effective ventilation**
   - **Minimising noise impact.**

b. **Single aspect apartments should not face due north, as this will be the sole source of sunlight.**

Privacy

c. **The privacy of occupants should be maintained in relation to the overlooking of amenity space and into the property.**

d. **Within Noak Bridge, it is expected that a direct back to back distance between habitable room windows, should be approximately 20m. This can be reduced where windows are angled away from direct view.**

e. **Side to rear distances should be at least 10m.**

f. **Where roof windows are proposed, which may overlook private garden areas or into other windows, these must be placed above 1.7m in height or if lower, fixed shut and provided with opaque glazing.**

g. **Other windows in rear and side elevations which may cause overlooking must be obscure glazed or non-opening as appropriate.**

CODE HO.04.1 - Private Amenity Space

Rear Gardens

a. All houses should have access to a private garden space.

b. The garden should be of a size suitable for the intended number of occupants.

c. The space should be usable and not overshadowed by buildings, structures or trees for the majority of the area.

d. A minimum rear garden area of 100m² is required for 3 + bedroom dwellings unless justified.

e. Where not already included within a garage or other purpose built structure, a lockable shed should be sited within the garden to store bicycles.

f. Gardens should not be awkwardly shaped, significantly overshadowed or difficult to access.

g. Access should not be solely through a dwelling and a separate gated accessway should be provided. Such an access should be able to accommodate a bicycle.

h. Extensions to properties, should not result in a substandard garden space.

Front Gardens

i. Front garden may vary in size in accordance with the street design. However all houses, should at least have a minimal personalisation strip, which could accommodate planters or pots etc, which separates the public realm from their property.

j. The space should not be dominated by cycle parking, car parking or refuse and recycling storage. Ideally, car parking should be securely behind the building line, within carriage arches or in garages and car ports. If not possible, sufficient landscaping should be provided to screen adequately.

k. Purposely designed cycle and refuse storage can be accommodated, if low key and in keeping with the street scene.

l. Consideration should be given to the ultimate size of any planting, as this could impact upon natural daylight and the potential for natural surveillance of the street.

m. Where planting is key to forming the boundary and to maintain privacy, it must be of a reasonably mature size from the outset.

Rear Gardens

All dwellings require access to a suitable private amenity space. For houses, a garden must be provided.

Garden spaces should be usable - sunlight should not be blocked by buildings, walls or fences ideally on a quarter of the garden, this should certainly be no more than two fifths.

Mature trees within or overhanging a garden can also cause problems (depending on species), with regard to shading, roots protruding from the ground, branches and leaf drop etc. Tree species should be factored in to the 'usable' garden area.

The Essex Design guide requires a minimum of 100m² rear garden for 3 + bedroom dwellings. This will accommodate storage (in the form of a shed) and space for refuse and recycling, as well as allow sufficient space to undertake general household activities whilst still receiving sunlight.

When allocating new housing garden space designers should consider future extensions and loss of garden which may occur. The Essex design guide states permitted development rights will be withdrawn from dwellings with gardens less than 50m².

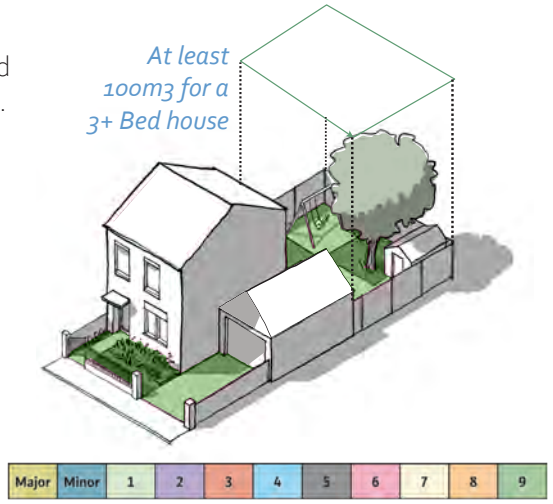
Front Gardens

Front garden may vary in size in accordance with the street design. They should provide security and a degree of privacy for the dwelling.

The street scene should not be dominated by cycle parking, car parking or refuse and recycling storage.

Planting in the front gardens should not obstruct windows and restrict natural light or reduce support natural surveillance.

All dwellings should provide an area for planting to the front of the property, irrespective of the set back to allow residence a sense of ownership over their space and include provisions for soft landscaping.



Communal Garden

CODE HO.04.2 - Private and Communal Amenity Space

Balconies and Terraces

a. Apartments should have access to a private terrace or balcony and communal private amenity space.

b. Such spaces should be large enough to accommodate a table and number of chairs relevant to the likely number of people occupying the dwelling.

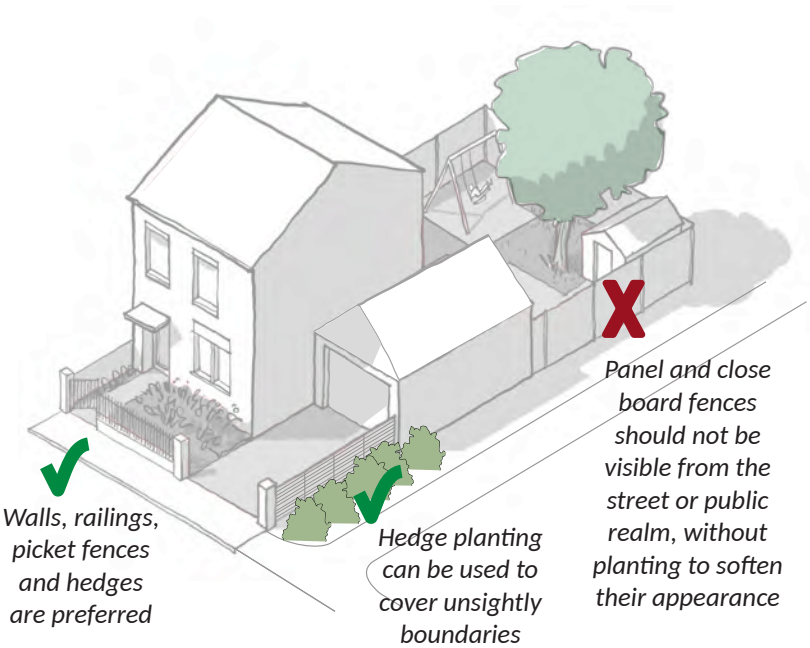
c. The space should receive some sunlight and provide some shelter or be large enough to accommodate temporary shelter such as sun umbrellas. They should be positioned away from sources of noise and air pollution and avoid overlooking into neighbouring residential private amenity space.

Communal Gardens

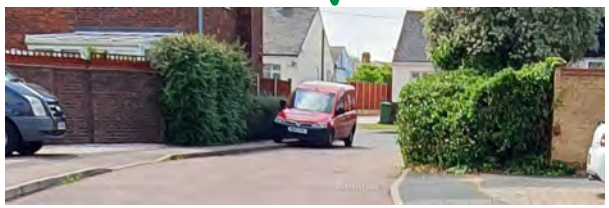
d. Communal amenity spaces should be:

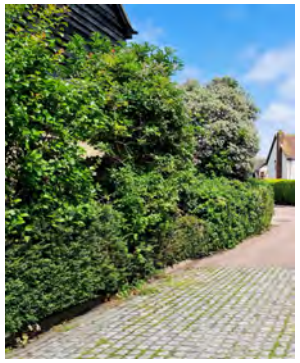
- Functional & safe and secure
- Natural surveilled
- Appropriately lit
- Protected from external sources of noise
- Provide shelter and seating
- Receive sufficient sunlight
- Accessible to people of all ages and abilities.
- Suitable for use in all weather conditions

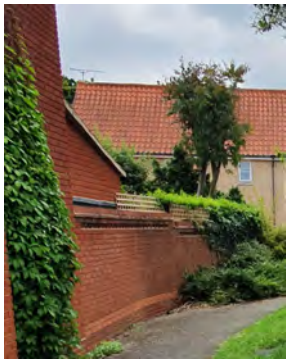
Major | Minor | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9



Side & Rear Boundaries ✓







Front Boundaries ✓

CODE HO.05 - *Boundaries & Means of Enclosure*

Property Boundaries

a. Close board or panel fences should not be visible from the public realm and should be avoided. Planted boundaries, railings, picket fences and brick walls are more characteristic of the area.

b. Where side & rear boundaries which abut public space and require secure fencing rather than a wall, this should be combined with a hedge to soften the appearance.

c. The replacement of walls and hedges with alternative fencing is not supported.

d. Native hedgerows and trees should not be replaced by ornamental planting.

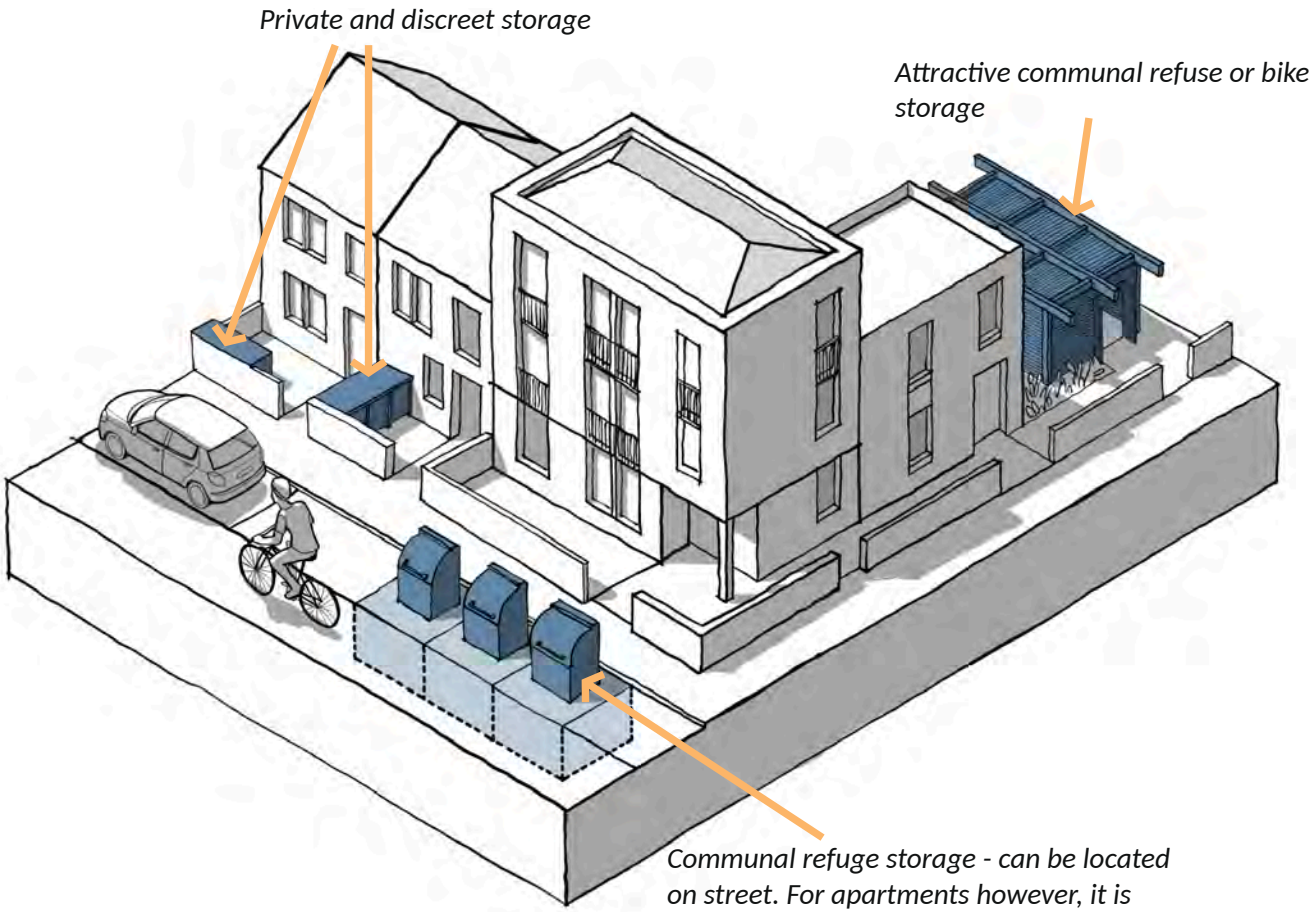
e. Where there is sufficient space for a front garden, this should be enclosed by an appropriate boundary treatment.

f. Where only a small personalisation strip fronts the street, a formal boundary is unlikely to be appropriate. Instead the different between public and private space could be marked by surface treatment, such as gravel or cobbled edging for example.

g. Front boundary treatments must not obscure the vision from any driveway or cause road safety issues.

Major	Minor	1	2	3	4	5	6	7	8	9

CODE HO.06 - Storage, Waste & Recycling



Communal refuge storage - can be located on street. For apartments however, it is typically better when integrated into the building fabric, as there is less adverse impact on the street scene and likelihood of misuse is reduced.

Property Boundaries

a. **Waste and recycling provision should be made at the rear of houses, which can be brought to the street via a carriage way, gated access or private path. Service alleys should service no more than 5 houses and be lockable.**

b. **Communal waste and recycling storage areas or buildings should be used for apartments. These should be attractively designed to complement the apartment building.**

c. **For private and communal waste and recycling storage there should be a covered hard standing surface area, which can accommodate food waste, garden waste, recycling and non-recyclable waste of suitable sizes. The structure should have a neutral or positive impact on the public realm.**

d. **Utility boxes must not be detrimental to the public realm and must be well designed**

e. **Provision of cycle storage must be provided as either a secure covered enclosure at the rear of the dwelling or apartments, or as an additional area within a garage (where proposed).**

f. **Bins stores, cycle stores and car ports should be securely designed so as not to enable unauthorised access into a dwelling.**

Major	Minor	1	2	3	4	5	6	7	8	9

CODE HO.07 - *Replacement Dwellings*

Any replacement dwelling **should**:

a. not be disproportionate in size to the dwelling being replaced;

b. be of a high standard and appropriate to the character of the area;

c. based on a contextual analysis of the site and wider context and incorporate or complement other existing buildings or features in the locality;

d. be appropriate and sympathetic in scale, design, materials, building and roof form,

e. be sited and oriented with both the character and setting of adjoining buildings and spaces balanced with potential for passive solar gain;

f. be located on the site of the existing dwelling it is to replace. Although, there may be some circumstances where it would be more a positive to relocate a building, such as environmental gain or road safety benefit, in which case, relocation to an adjacent or nearby position within the established curtilage, would be supported;

g. retain native trees and hedgerows as part of an overall landscape scheme;

h. seek to improve the the locality, where appropriate;

i. not dominate the neighbouring property or wider street scene;

j. not result in a significant loss of private amenity space or important gaps between buildings;

k. retain sufficient space for planting to soften boundary treatments;

l. follow Codes set out, in the Homes and Buildings and Resources sections; and

m. Seek to achieve greater thermal efficiency and reduce use of natural resources in excess of Building Regulation requirements (where possible).

CODE HO.08 - *Household Extensions, Renovations & Conversions*

a. An extension **must** be subordinate the main dwelling in scale and design (see overleaf).

b. It **should not** dominate the existing building, neighbouring property or wider street scene. A slight set back of the extension from the frontage of the original dwelling can help reduce the visual impact.

c. Extensions **should** not result in a significant loss of private amenity space.

d. An extension **should** demonstrate that analysis of the character of the main dwelling has be incorporated in the design of the extension through form, composition and architectural detailing.

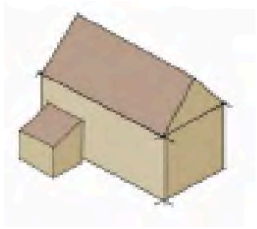
e. Native trees and hedgerows **should** be retained as part of an overall landscape scheme.

f. There **should** not be a significant loss of private amenity space or important gaps between buildings.

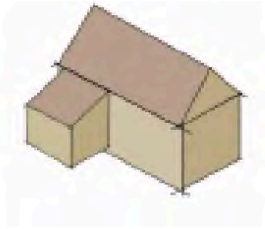
g. Sufficient space **must** be retained for planting to soften boundary treatments.

h. All extensions, renovations and conversation **should** also incorporate the details on resources in the next section.

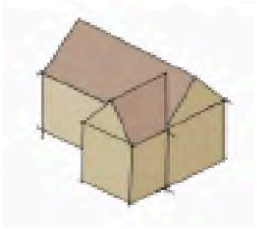
Extensions, Renovations & Conversions



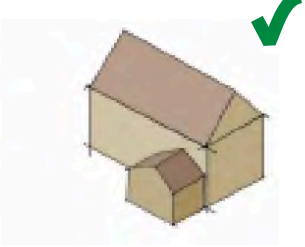
Lean-to extension with a slightly shallower roof pitch to the existing house. The extension is set back from the end gable. Its minor scale makes the shallower roof less noticeable



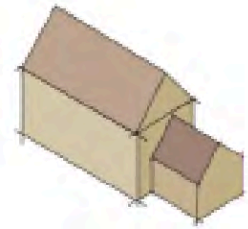
Single storey catslide-roofed extension matches the slope of the existing roof and, like the existing house, is wider than it is deep. The result is visual harmony even though the two are differently shaped.



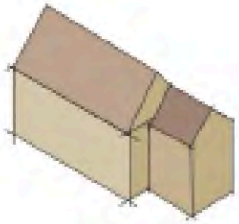
This two-storey extension has a similar shape, but differently proportioned gable compared to the existing house. It achieves subservience by having slightly lower ridge and eaves heights and being set back from the gable wall.



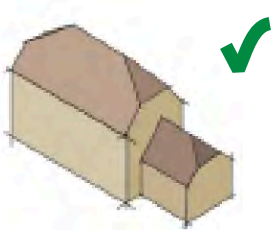
The proportion of the gable of the single storey extension should match the proportion of the gable of the existing house. It is also set slightly back from the gable wall.



Side extensions should be based on the proportions of the roof form and end elevation and the ratio of the length of the eaves wall to the depth of the gable wall.



A two storey extension can compete with the original dwelling if it is not subservient. Whilst elongating the main house can be possible, this may result in a disproportionate building form. Here the extension is subservient to the proportion but being inset and lower than the ridge. The shape of the gable of the existing house and therefore complements the design of the existing house.



Here a half-hipped roof is carried through in this single storey extension. It achieves the same balance as the main roof form.

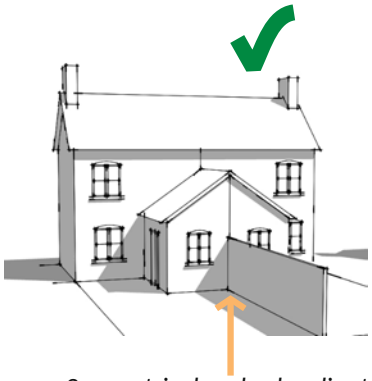
Before and after pictures of a former single storey bungalow, now with converted roof space and box dormers as well as a side extension.

New roofing in the form of replacement slates has retained the original character of the property.

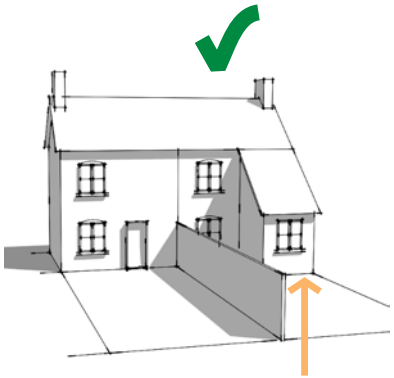
Replacement windows (centre) has successfully retained the original design and proportions

Care must be taken with new extensions including porches, such that they are not too large or dominant with respect to the original property. Here the roof pitch reflects the existing house, with the scale of the porch at the limit of acceptability

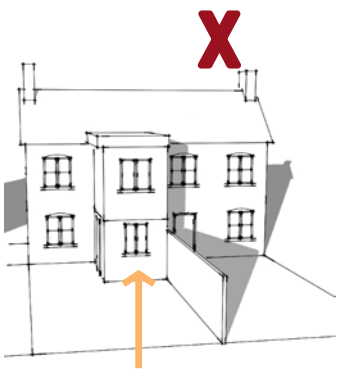
Household Extensions, Renovations & Conversions



Symmetrical and subordinate rear extension



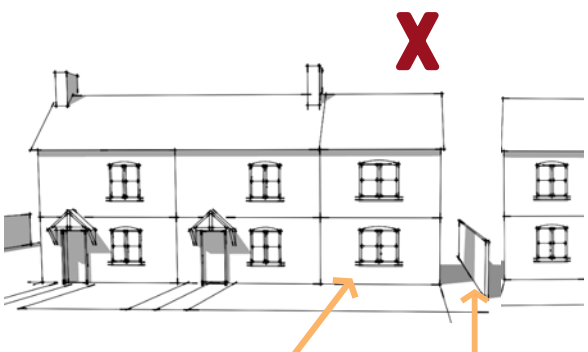
Rear catslide roof following existing pitch. Positioned not to overshadow neighbouring property



Inappropriate flat roof extension, not in keeping with the dwelling and overshadowing neighbouring property

Subordinate side extension. Proportions in keeping with main dwelling

Extension allows sufficient space for landscaping



Side extension competes with main dwelling. Window proportions are incorrect

Extension too close to boundary with insufficient space for landscaping

Here, a 1970s dwelling has been extended and refurbished with high quality materials.

The previous dark cladding and brick has been replaced and traditional casement windows have been installed which are proportionate and well detailed

An example of a sub-ordinate extension with matching materials

The ridge line is lower, as are the eaves and it is set back from the main body of the dwelling. It successfully complements the dwelling without competing

CODE HO.09 - *Renovation and Conversions of Rural Buildings (non-domestic)*

a. **The restoration of existing buildings of age in the Parish is preferable to the demolition and replacement of buildings.**

b. **Where buildings are modernised, existing proportions of doors and windows should be retained as set out on page 59 and 60.**

c. **Use appropriate materials and techniques for extensions. A mix of modern and traditional materials can be appropriate and allows for greater innovation in design.**

d. **Link extensions can be a way of joining two buildings together. It is important for the link to have a much small footprint and height than the buildings that it connects. This can be particularly helpful when joining two outbuildings or former agricultural buildings together.**

e. **It is essential that the key features of the building must be retained in any development proposal. The introduction of urbanising features would not be appropriate, as would the loss of key vegetation.**

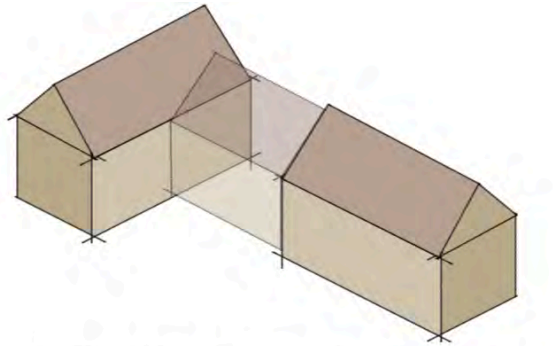
f. **Agricultural buildings contribute to the rural setting, the character and appearance of countryside around Noak Bridge and conversions to these buildings should reference age, design, form, materials used, roof structure and the presence of any architectural detailing.**

g. **The introduction of overtly domestic features should not be included and additional window or door openings tend to be out of character.**

h. **Existing features should be retained and a simple design approach is usually most appropriate.**

i. **Large extensions or ancillary buildings should not be added as they are not usually appropriate for conversions.**

j. **Landscaping and boundary treatments should be given careful attention and should be designed to be as informal and simple as possible.**



Linking two existing buildings through the use of a small, subservient structure

Example of the conversion of a rural building into a modern home. Here the new dwelling has lost any resemblance to a barn and is effectively viewed as a new dwelling.

RESOURCES

Efficient and Resilient

Resources - Introduction

The National Design Guide states that *"Well-designed places and buildings conserve natural resources including land, water, energy and materials.*

Their design responds to the impacts of climate change by being energy efficient and minimising carbon emissions to meet net zero by 2050. It identifies measures to achieve:

- *mitigation, primarily by reducing greenhouse gas emissions and minimising embodied energy; and*
- *adaptation to anticipated events, such as rising temperatures and the increasing risk of flooding."*

This can be achieved through:

R1 Following the energy hierarchy

R2 Careful selection of materials and construction techniques

R3 Maximising resilience

The following section looks in more detail at reducing the amount of resources used both in construction and future use by occupants. This is not only in materials, but for land, water and energy.

New building should aim to be in excess of the requirements set out in current Building Regulations or at least be easily adaptable to do so. This Design Code however does not seek to duplicate current Building Regulations and this should be reviewed separately.

LIFESPAN

Made to Last

Lifespan - Introduction

The National Design Guide states that:

"Well-designed places sustain their beauty over the long term. They add to the quality of life of their users and as a result, people are more likely to care for them over their lifespan."

It goes on to state that such spaces are

- *"designed and planned for long-term stewardship by landowners, communities and local authorities from the earliest stages;*
- *robust, easy to use and look after, and enable their users to establish a sense of ownership and belonging, ensuring places and buildings age gracefully;*
- *adaptable to their users' changing needs and evolving technologies; and*
- *well-managed and maintained by their users, owners, landlords and public agencies."*

This can be achieved through ensuring that places:

L1 Are well-managed and maintained

L2 Are adaptable to changing needs and evolving technologies

L3 Have a sense of ownership

These two aspects are, as with many of the others very much interlinked.

The future maintenance and lifespan has been referred to in many of the Design Codes above and therefore this document should be read as a whole.

In particular, please see the section on creating a sense of place and identity, adaptable buildings, public open space and future maintenance.

Resources & Lifespan - Design Codes

Each of the Design Codes in this Resources section is set out below and has a key highlighting which of the Character Areas and Type of Development the code refers to.

It should be noted that many of the previous Design Codes also address the use of natural resources including layout and orientation of buildings, promoting active travel, reducing waste etc. Therefore the document should be read as a whole to understand how each aspect is linked.

Energy Efficiency & Renewables

Code R.01 - Low Carbon Buildings

Major	Minor	1	2	3	4	5	6	7	8	9

Code R.02 - Water Usage & Recycling

Major	Minor	1	2	3	4	5	6	7	8	9

Code R.03 - Sustainable Constructions & Materials

Major	Minor	1	2	3	4	5	6	7	8	9

Code R.04 - Renewable Energy

Major	Minor	1	2	3	4	5	6	7	8	9

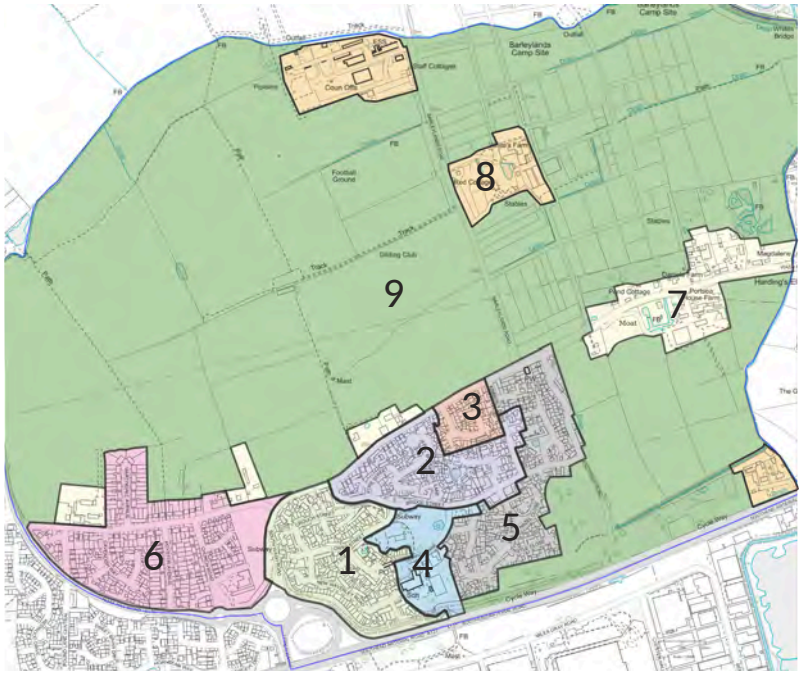
Where the proposed scheme falls within the defined minor or major development the applicant should refer to the relevant design codes which are highlighted by the key below.

MAJOR

Major Developments 10 & above dwellings and mixed use or other large scale schemes on a site of 0.5 hectares or more

MINOR

Minor Developments of 2-9 dwellings or other development on small sites of 0.5 hectares or more



Character Areas for Reference

The Noak Bridge Design Code prioritises a holistic approach to sustainable development, considering both environmental and socio-economic factors. It is essential that all new development minimises energy demand and carbon emissions by adopting the energy hierarchy (as described on page 16). The key overaching principles are set out in the Design Codes below, with more detailed codes for each aspect:

By adhering to these principles, the Noak Bridge Design Code will play a crucial role in creating a sustainable, low-carbon, and resilient future.

Essex County Council is the Minerals and Waste Planning Authority for the Plan area and is responsible for the production of mineral and waste local plans. The Development Plan in Noak Bridge comprises the Essex Minerals Local Plan 2014 (MLP) and the Essex and Southend-on-Sea Waste Local Plan 2017 (WLP).
These documents also contain policies which seek to reduce mineral use and promote sustainable construction techniques.

In particular, MLP Policy S4 Reducing the use of mineral resources - seeks to promote sustainable construction techniques and sustainable use of minerals resources on site to reduce the levels of mineral waste, construction, demolition and excavation waste going to landfill, and this policy also applies to non-minerals and waste related developments.

CODE R.01 -

Energy Hierarchy and Efficiency

Developers must highlight how they have considered a fabric-first approach to energy efficiency, prioritising (in order):

1. **Improved building envelope standards (walls, roof, windows) to minimize heat loss;**
2. **Incorporation of energy-efficient building design principles and technologies;**
3. **Minimisation of space heating requirements through optimized building design;**
4. **Renewable energy sources (these are encouraged as a secondary strategy; and**
5. **Offsetting of any remaining residual energy needs.**

This approach not only promotes environmental sustainability but can also contribute to:

Fuel poverty reduction: by lowering energy consumption needs, the burden of energy costs on residents is reduced.

Improved social equity: Ensuring all residents have access to energy-efficient housing promotes a more equitable and inclusive community.

The following Design Code enforces a life cycle perspective on all development proposals.

CODE R.02 -

Life Cycle Approach to Sustainable Construction

Developers must highlight how they have considered the environmental impact of a building throughout its entire lifespan, encompassing:

- **Location: selection of development sites that minimise environmental impact and promote efficient use of land.**
- **Design: Sustainable design principles that optimise energy efficiency, resource use, and integration with the natural environment.**
- **Materials: Selection of low-carbon and environmentally friendly building materials with a focus on durability and recyclability.**
- **Construction Management: Sustainable construction practices that minimise waste generation and pollution during the building process.**
- **Operational Efficiency: Design and construction that promote energy and resource efficiency throughout the building's operational life.**
- **Long-Term Stewardship: A plan for the ongoing maintenance and potential future adaptation of the development to ensure continued sustainability.**

Energy Performance Certificates in the Parish

The plan adjacent highlights those properties which have had a Energy Performance Certificate since they were introduced.

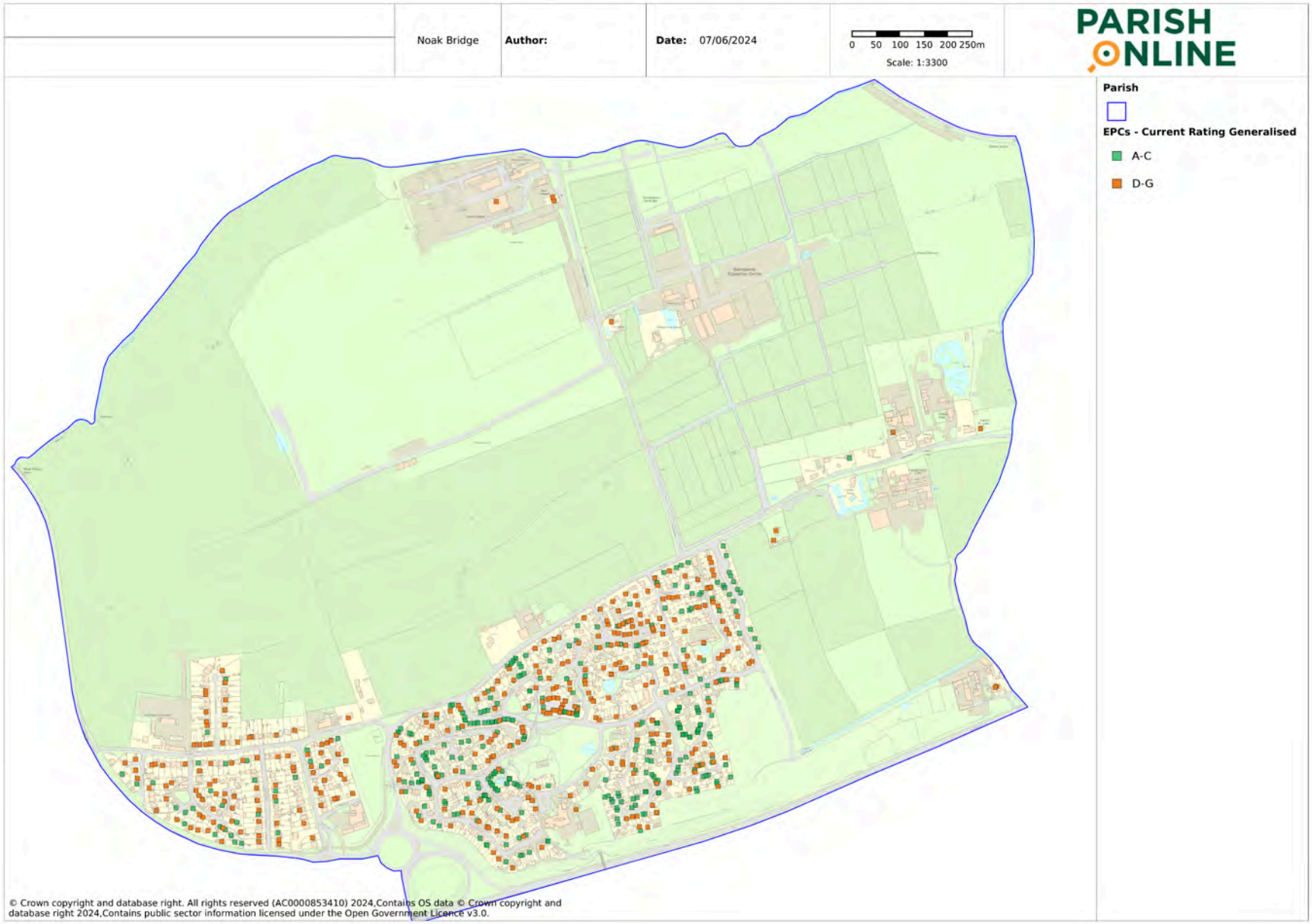
Rather than individual ratings, these have been aggregated in bands A-C (the highest performing categories) and D-G, the ones where greatest improvements could be made.

The plan clearly shows that there are many properties in the Parish which would benefit from retrofitting as detailed overleaf.

This is a dataset generated by the Parish Online (Geoxphere) team by modifying and combining two datasets:

- OS Open UPRN (locations of properties)
- The Department for Levelling Up, Housing and Communities database of EPC Registers.

It is updated every year based on the EPC data from each September.



In recognition of the Climate Emergency and the very real need to meet net zero as soon as possible, Noak Bridge is keen to ensure that all new buildings should work towards achieving net zero carbon (subject to viability considerations), and for major non-residential development to achieve BREEAM 'Excellent' (again subject to viability considerations).

Carbon can be reduced in the design process through reducing the amount of materials needed through structural design and building form, in addition to choosing lower carbon materials.

Developers must seek to reduce carbon emissions during the construction phase. This can be achieved through employing local contractors and reusing and recycling building materials and reducing site waste.

The standard to which buildings are constructed will effect total embodied carbon for the lifetime of the building. New development must be sufficiently insulated and air tight.

Renewable energy & low carbon appliances should be installed in new properties.

At the design and construction stages consideration for the 'end of life' of the building should be considered as to reduce carbon emissions from demolition and ensuring materials are reusable.

Existing buildings should seek to be retrofitted.

Sustainability in Existing Buildings

While this Design Code primarily focuses on new development within Noak Bridge, it acknowledges the importance of addressing emissions from existing buildings to achieve overall sustainability goals.

Opportunities for Existing Building Upgrades:

The Design Code sets out that there are extensive opportunities exist to improve the energy efficiency of existing residential buildings within the neighbourhood area. Whilst many are permitted development, these are opportunities that may arise during planning applications for change of use, conversions, extensions, etc, which do require permission.

CODE R.03 - *Low and Zero Carbon Buildings*

The following matters should be considered in new development and for retrofits as appropriate. Whilst new building will be required to follow Building Regulations, it may also be possible to retrofit energy efficiency measures to the existing buildings

Low and Zero Carbon Buildings

a. **Insulation - greater levels of insulation to be provided in lofts and walls (both for cavity and solid walls)**

b. **Air tightness and minimsation of draughts. Doors and windows are the most common source of problems, however floors particularly suspended floors can be easily insulated.**

c. **New windows in existing should be replaced by double or triple glazing. All new windows should follow the guidance on page 59, particularly in the conservation area. South facing windows may need to be shaded and north facing windows should avoid larger panes of glass, which would enable greater heat loss.**

d. **Low carbon heating alternatives to gas or oil boilers must be sought. Solar panels are encouraged outside of the Conservation Area. Permission must be sought within the Conservation Area.**

e. **Water and electricity usage can be reduced by using more efficient products.**

f. **Where possible, materials should be re-used in situ to reduce waste and embodied carbon.**

g. **Maximise green space, green roofs and walls to reducing effects of flooding and overheating.**

h. **In areas prone to river and surface water flooding particularly, consider floor levels and the position of items sensitive to water ingress. Design gardens and boundary treatments to allow water to move through without obstruction.**

This Design Code encourages the implementation of energy efficiency measures for all development (even where permission is not required), as described for new development where feasible and appropriate.

Renewable Energy

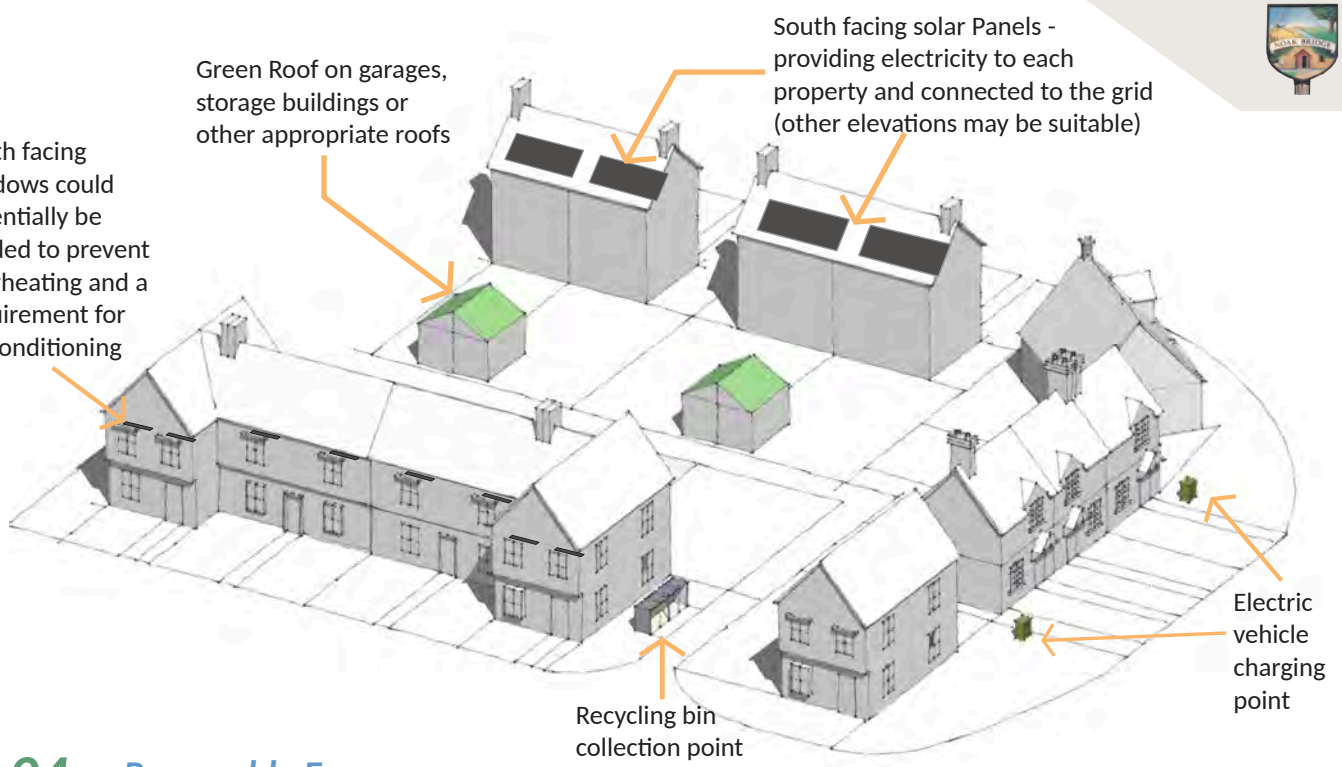
Renewable options are increasing in number, availability and price. Following on from the Energy Hierarchy on p16 and orientation of buildings for sunlight and daylight on p82, buildings should also be optimised in terms of layout for renewable energy. With consideration given to locations for such technology.

Balancing Energy Efficiency and Historic Preservation

The Design Code acknowledges the potential conflict between energy efficiency measures and the preservation of Noak Bridge's conservation area. However, it is emphasised that:

Retaining, reusing, refurbishing, and retrofitting existing buildings remain fundamental strategies for achieving net-zero carbon targets.

Developers and homeowners are encouraged to find creative solutions that balance energy efficiency improvements with the protection of the historic environment.



CODE R.04 - *Renewable Energy*

1. **The site layout must be designed to optimise renewable energy use.**
2. **The site layout and individual building design affects energy consumption. Improving energy efficiency can be achieved through solar passive gain (ee p82) and efficient form, as well as construction and materials. Optimisation of such can only be achieved if renewable energy are consider early in the design process.**
3. **Types of renewable energy technologies include; solar power, wind electric systems, hydro power systems, biomass and a variety of heat pumps.**
4. **With accurate design energy-positive buildings may be developable, in which the building produces more energy than it consumes. Where possible, new development should be designed to achieve and equal or greater level of energy generation to consumption.**
5. **Where viable renewable energy systems should be connected to the grid to enable energy supply if requirements are not met or an energy surplus can be fed back into the grid.**

Major	Minor	1	2	3	4	5	6	7	8	9

Sustainable Drainage

Sustainable drainage systems (SuDS) are a way of managing rainwater that mimics natural drainage processes. Further details on locally specific details are found on pages 41 and 42.

The implementation of SuDS can help to reduce flooding, improve water quality, and create more attractive and biodiverse spaces.

Green SuDS use vegetation and other natural materials to manage rainwater and run off. Examples include green roofs, rain gardens, and swales.

Natural flood resilience features are elements of the landscape that can help to slow down and divert floodwaters. Examples include wetlands, woodlands, and floodplains.

Flood resistance measures help to prevent buildings from being damaged by floodwaters. Examples include raising the ground level around buildings, installing flood barriers, and using waterproof materials.

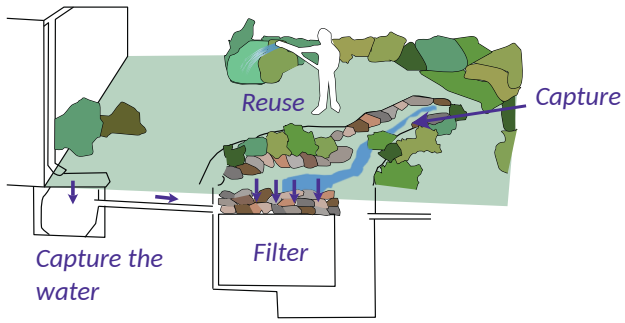
Flood resilience measures help buildings to recover quickly from flooding. Examples include designing buildings so that they can be easily dried out and repairing any damage caused by floodwaters.

Water-saving measures can help to reduce the amount of water that is used. Examples include installing water-efficient appliances, planting drought-tolerant plants, and taking shorter showers.

Rainwater harvesting is the collection and storage of rainwater for reuse. Greywater harvesting is the collection and reuse of household wastewater from sinks, showers, and baths.

More information can be found at: https://www.essexdesignguide.co.uk/suds/discharge-locations/rainwater-re-use/

The SuDS Design Guide for Essex (and National Standards) strongly prioritises local needs and use of SuDS covering the four key pillars of water quantity, quality, biodiversity and amenity in SUDS design. Promoting SuDS within the development and features natural drainage with natural solutions to slow the flow and mitigate flood risk should be reflected and SuDs should promote multifunctional benefits to the environment and community in accordance with the NPPF and PPG.



CODE R.05 - *Water Usage & Recycling*

1. **Rainwater can be utilised for a range of daily activities including cleaning and flushing toilets. New development should employ rainwater & storm water harvesting wherever possible. Any such system should have 4 main components:**
   - **collection**
   - **treatment**
   - **storage and**
   - **distribution.**
2. **The system should consider the local rainfall pattern and the size & material of the collection surface for optimal operation and economic viability.**
3. **Rainwater must not flow into open gullies due to potential risk of contamination.**
4. **Potential overflows should be accounted for in design to avoid flooding.**
5. **Storage devices should be protected against extreme weather conditions.**
6. **The design of SUDS should have regard to the SuDS Design Guide for Essex for Essex and successor documents.**

Major	Minor	1	2	3	4	5	6	7	8	9

4.0 Delivering High Quality Development

Design Checklist for Development Proposals

General questions and issues to consider when presented with a development proposal

There are a number of locally specific principles which should be demonstrated in the proposals:

- Connecting and strengthening the existing green network to enhance ecological corridors and the provision of quality open space including green spaces.
- Integration with the existing movement network with regard to street hierarchy, pedestrian priority and ecological corridors.
- Strengthening of the existing local character including appearance of buildings and spaces and integration with the physical form.
- Respecting existing context and buildings in terms if scale, height form and massing and considering loss of light and privacy.
- Relation to topography and existing land form whilst respecting important views and gaps.
- Reinforcing local distinctiveness and place identity and retention of significant existing features and using appropriate materials
- Sufficient provision of sustainable waste management, flood mitigation and renewable energy technologies and energy efficient design.

1. **Does the proposal constitute a high quality and sustainable site specific solution?**
2. **Does the proposal meet requirements set out in this document? If not are the reasons justified?**
3. **Is it suited to the local context and does it enhance local character?**
4. **Will the proposal optimise efficient use?**
5. **Does the proposal encourage active travel and provide sufficient parking solutions?**
6. **Has innovative or locally specific, high quality building form and architectural detailing been used to create interest and enhance place identity?**
7. **Does the proposal consider the most efficient use of resources for the site?**

B|P
Bluestone Planning

13 THE BLACK BARN
MANOR FARM
MANOR ROAD
WANTAGE
OXON
OX12 8NE

T: 01235 766 825
E: info@bluestoneplanning.co.uk
W: www.bluestoneplanning.co.uk