RUSHCLIFFE

Residential Design Guide

Supplementary Planning Document

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RUSHCLIFFE
Residential Design Guide

Contents

SECTION A

Introduction, Objectives and Policy Context

COMMITMENT TO QUALITY

One of the challenges facing us today is making better and safer places in which to live. It is essential that any future development is sustainable and designed to the highest standards.

Bland and unimaginative new housing will not be accepted. Our aims are high quality sustainable homes and well designed places.

This guide sets out design principles and approaches to ensure the delivery of appropriately designed residential development across the Borough. The overriding aims of the document are to clarify, for all those involved in the design and construction process, what the Council expects of new housing and to inspire excellence in our residential environments.

It is intended for use by anyone proposing a building project, however small, as well as developers, architects and designers, politicians and community bodies.

It does not set out rigid or prescriptive standards that must be adhered to. Rather, it encourages innovation and creativity and establishes a clear set of principles against which planning applications will be assessed to ensure they provide excellent residential design for the 21st century.

Developers should demonstrate through the Design & Access Statement (where required) how they have achieved or responded to the relevant design objectives and principles outlined in the guide.

The guide provides a basis for consideration of the design of new residential development of all types and scales. It applies equally to major new development areas, individual dwellings, conversions or extensions. It also covers issues of sustainability and energy conservation and the design of the public realm.

STATUS OF THE GUIDE

The Rushcliffe Residential Design Guide is a Supplementary Planning Document (SPD) that forms part of the Borough Council's emerging Local Development Framework (LDF). On adoption the SPD will be a material consideration when assessing planning applications within the Borough. Information relating to the Local Development Framework is available at www.rushcliffe.gov.uk.

This Supplementary Planning Document (SPD) was prepared in the context of national and regional planning policy, responding to Planning Policy Statement 1 (PPS1) which states that planning authorities plan positively for the achievement of high quality and inclusive design for all development . It also responds to sustainable development policy 1/1 of the Nottinghamshire and Nottingham Joint Structure Plan and policy 4 of the East Midlands Regional Plan (RSS8).

A Sustainability Appraisal (SA) has been prepared alongside this draft SPD. This is required under the Planning and Compulsory Purchase Act 2004 and ensures that potential economic, social and environmental impacts of the SPD are identified and that steps are taken to reduce any harmful effects.

The guide also needs to be considered in relation to other relevant best practice and design requirements . Currently these include:

- "Code for Sustainable Homes" (ODPM, 2004),
- "Safer Places: The Planning System and Crime Prevention" (ODPM, 2004)
- "Secured by Design" (ACPO CPI, 2004)
- "The Urban Design Compendium" (English Partnerships and the Housing Corporation, 2000)
- "Inclusive Mobility" (Dtp, 2002)
- Technical standards such as the "Building Regulations".

STRUCTURE OF THE GUIDE

The guide is divided into three sections. Section A outlines its objectives, role and policy context. Section B describes the character of the Borough and Section C is the main section, setting out the design principles and guidelines to be applied to residential development.

OBJECTIVES

The overall objectives of the Residential Design Guide SPD are to:

- Provide guidance on good design principles to achieve the highest quality of development, which respects local distinctiveness, throughout the Borough. It is applicable to all scales of development, from domestic extensions to large housing areas.
- To provide consistency and continuity in decision making.

It includes advice on:

- Urban design, including the relationship between static and dynamic spaces, the use of landmarks, legibility, permeability and the definition of private space and the public domain.
- Preserving and enhancing local character.
- Techniques which ensure adequate standards of privacy on higher density developments.
- Hard and soft landscaping.
- Development in historic settings.
- Planning for motor vehicles.
- Sustainability and energy efficiency.

GOVERNMENT GUIDANCE

Central government guidance for all Local Planning Authorities on planning matters is set out in Planning Policy Statements (PPS's), or previously Planning Policy Guidance (PPG's). The most relevant PPS's for Rushcliffe's Residential Design Guide are PPS 1 and PPS 3. If the development has any impact on a Listed Building or is in a Conservation Area then PPG 15 is of particular importance.

Planning Policy Statement 1 (PPS1 - Delivering Sustainable Development:
Http://www.communities.gov.uk/documents/planningandbuilding/pdf/planningpolicystatement1.pdf

This sets out the Government's principles on sustainable development. It is the Government's contention that good design is essential to improve the quality of the existing environment and reinforce a 'Sense of Place'.

(Paragraph 33)
"Good design ensures attractive, usable, durable and adaptable places and is a key element in achieving sustainable development.....good design should contribute positively to making places better for people."

This Rushcliffe Residential Design Guide also takes account of guidance contained in PPS 1 whereby,

(Paragraph 38)
"Design policies should avoid unnecessary prescription or detail ..... Local Planning Authorities should not attempt to impose architectural styles or particular tastes and should not stifle innovation, originality or initiative through unsubstantiated requirements to conform to certain development forms or styles. It is, however, proper to seek to promote or reinforce local distinctiveness....."

Planning Policy Statement 3: Housing (PPS 3):
Http://www.communities.gov.uk/documents/planningandbuilding/pdf/planningpolicystatement3.pdf
PPS 3 states that new housing should:

- be of the highest quality;
- make the best and most efficient use of land available;
- promote sustainable patterns of development.

"...Places, streets and spaces which meet the needs of people, are visually attractive, safe, accessible, functional, inclusive, have their own distinctive identity and maintain and improve Local Character. Promoting designs and layouts which make efficient and effective use of land, including encouraging innovative approaches to help deliver high quality outcomes."

The Government also provides further guidance through its agencies, departments and other recognised bodies such as English Heritage, CABE (Commission for the Built Environment) and the Department of Transport. For example, PPG 3 is supported by a companion guide

"By Design - Better Places to Live" (DTLR, 2001)
Http://www.communities.gov.uk/archived/publications/planningandbuilding/betterplaces

This design guide focuses on urban design principles and approaches that underlie successful residential developments. It is not prescriptive and does not constrain creativity but makes it clear that to deliver fundamental changes and improvements in the quality and layout of our new residential environment will require a greater investment in design.

The following documents complement the companion guide :

'By Design" (DETR, 2000)
http://www.cabe.org.uk/AssetLibrary/1818.pdf

"Places, Streets and Movement" (DETR, 1998)
http://www.communities.gov.uk/documents/planningandbuilding/pdf/151558.pdf

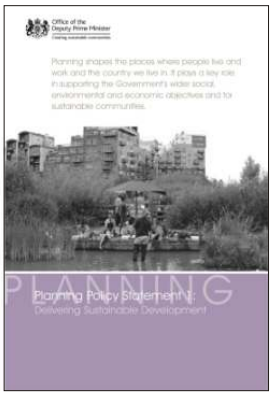
"Manual for Streets"
http://www.dft.gov.uk/pgr/sustainable/manforstreets/

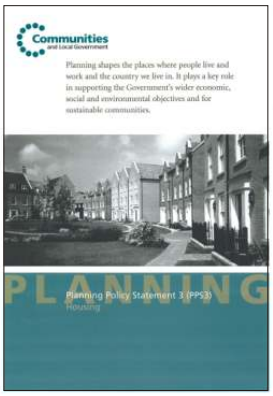
Planning Policy Guidance 15 (PPG 15 - Planning and the Historical Environment)
http://www.communities.gov.uk/documents/planningandbuilding/pdf/142838.pdf

(Paragraph 2.14)
"In general, it is better that old buildings are woven into the fabric of the living and working community. This can be done……, follow fundamental architectural principles of scale, height, massing and alignment.....This does not mean that new buildings have to copy their older neighbours in detail: some of the most interesting streets in our towns and villages include a variety of building styles, materials and forms of construction, of many different periods, but together form a harmonious group"

This guide supports and applies the best practice aims and principles of national and regional guidance at a Borough wide level. It complements the Development Plan context and policies and other relevant supplementary planning and related documents, notably the Sustainability Appraisal, Conservation Area Appraisals, Conservation Area Management Plans and Village Design Statements.

Relevant planning and related documents can be viewed at www.rushcliffe.gov.uk or by clicking on the images below:





BEST PRACTICE GUIDANCE

The guide also needs to be considered in relation to other relevant best practice and design requirements such as:

- "Code for Sustainable Homes" (ODPM, 2004);
- "Safer Places: The Planning System and Crime Prevention" (ODPM, 2004);
- "Secured by Design" (ACPO CPI, 2004);
- "The Urban Design Compendium'" (English Partnerships and the Housing Corporation, 2000)
- "Inclusive Mobility" (Dtp, 2002) and to technical standards such as the "Building Regulations";
- "Manual For Streets" (Dtp, 2007);
- "Building in Context - New Development in Historic Areas" (English Heritage and CABE). http://www.cabe.org.uk/AssetLibrary/1799.pdf
- "Draft Regional Spatial Strategy for the East Midlands (Chapter 2)" (Government Office for the East Midlands - 2008)
- "The Sustainable Developer Guide for Nottinghamshire"
- "Building a better environment - a guide for developers" (Environment Agency)

There is a considerable wealth of relevant best practice and design guidance relating to residential development. This is continually evolving and provides a valuable resource for all those involved in the design of residential developments. Relevant up to date guidance should be considered alongside this guide.

"Building for Life"

http://www.buildingforlife.org/buildingforlife.aspx?home=true&refid=

'Building for Life' has been developed by CABE in partnership with other bodies, such as the National Homebuilders Federation, as the national benchmark for well-designed housing and neighbourhoods in England. It comprises of a series of 20 questions covering character, roads and movement, design and construction and environment and community to assist in making an objective assessment of the quality of a housing scheme.

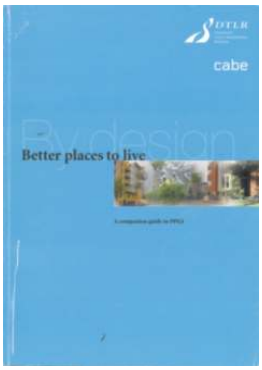
Building for Life is being used by a number of public bodies such as the Housing Corporation and English Partnerships and the government now require Councils to use it as a measure of housing quality when submitting their annual monitoring reports.

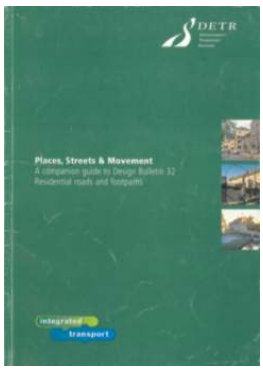
This Council expects all applicants for housing developments to include a Building for Life evaluation as an essential part of their submissions, within the Design and Access Statement. The Council will use the Building for Life criteria as one of its tools in assessing whether a scheme is of sufficient quality to be granted planning permission.

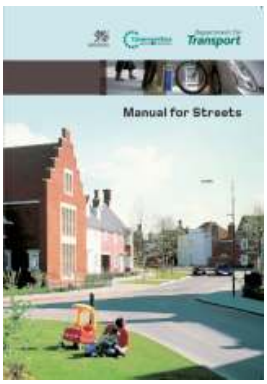
For more about Building For Life visit the CABE website, where you will be able to find guidance to the 20 questions, further references and publications, examples of good schemes and a scorecard template:

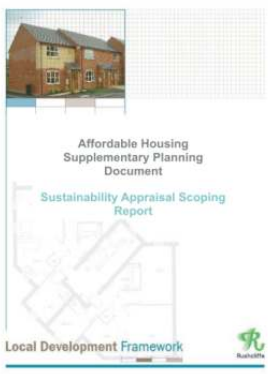
Useful websites:

www.cabe.org.uk
www.designforhomes.org
www.housingcorp.gov.uk
www.englishpartnerships.co.uk
www.manualforstreets.org.uk
www.helm.org.uk









THE DESIGN PROCESS

The design process is not a straightforward sequential one; ultimately the design must be underpinned by a robust analytical and contextual base. This requires a thorough understanding of a site, no matter how small, and its surroundings together with an appreciation of all of the relevant design issues.

This understanding and appreciation combined with creative flair and innovation produces the highest quality schemes.

The best residential developments are the results of careful consideration and attention to the detailed design of the buildings and spaces between them.

The design process should include the following stages :

- Survey and Appraisal of the site and its context;
- Concept and Design;
- Scheme Design;
- Detailed Design.

Each of the stages provides the opportunity to evaluate different ideas and proposals. Again, it is not a straightforward sequential process but the final design needs to be shown to respond to the site and its context and the relevant design issues outlined in this guide.

On larger schemes multi disciplinary design teams should work together to achieve successful solutions. In these situations all of the technical issues and components need to be considered and designed with the character and quality of the overall development in mind. This will achieve a cohesive design, rather than a collection of separate parts such as roads, landscape, buildings.

Where considered appropriate, for example large scale developments or sensitive sites, CABE may be invited to comment on the proposals.

PLANNING APPLICATIONS

1. PRE APPLICATION DISCUSSION

For larger or more important applications, pre-application discussions should be held with the Borough Council. This will enable key design issues to be discussed, any likely constraints to be identified and the policy context to be addressed. The need for additional information or involvement of specialists in fields such as archaeology, ecology, landscape or land drainage will also be identified at this stage.

2. PLANNING SUBMISSION REQUIREMENTS

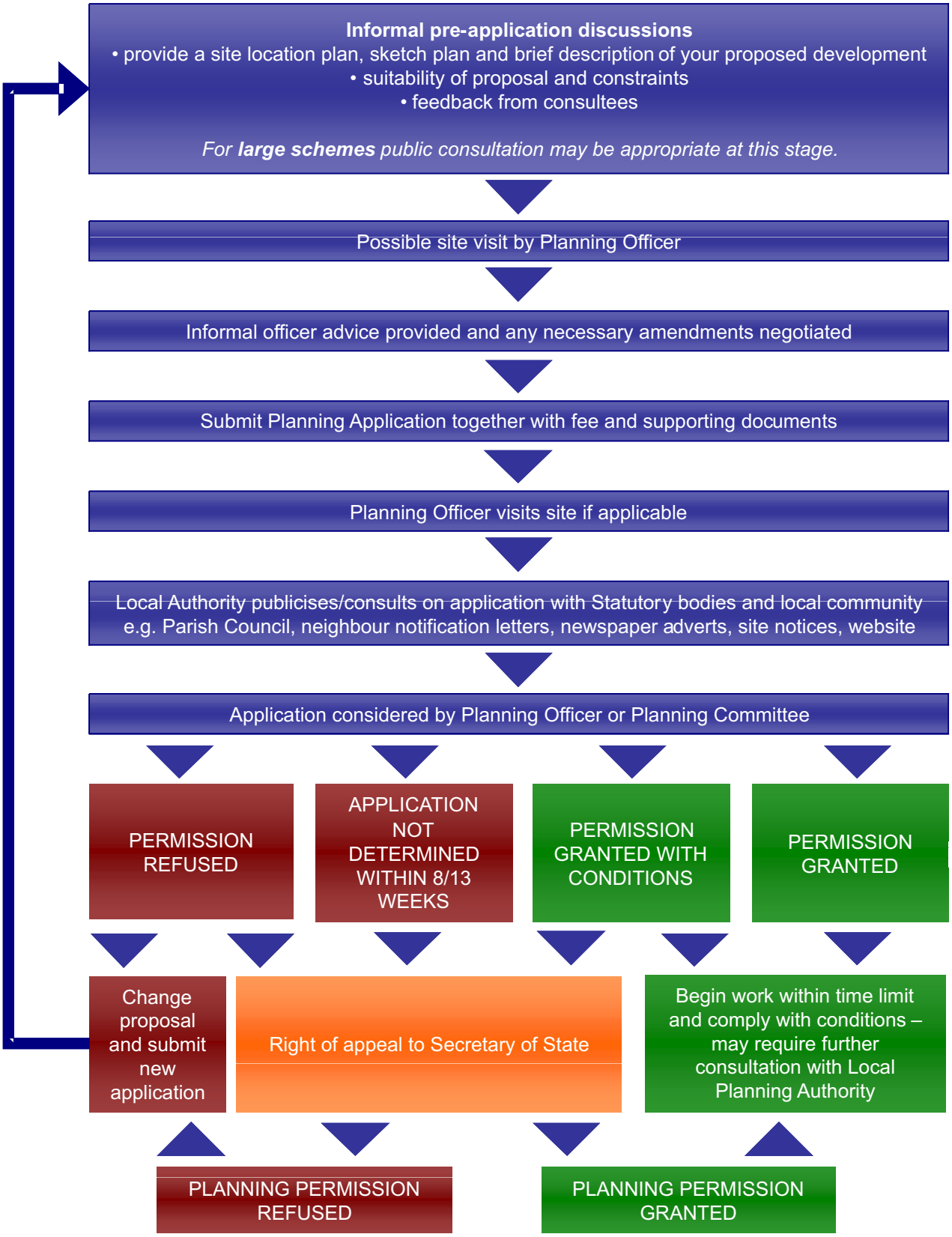
RBC has a "Developers Checklist" which covers the requirements for all planning applications (other than household development). This must be adhered to in any submission.

For household development, please refer to the "Household Planning Application Guidance Notes". Both documents can be viewed at www.rushcliffe.gov.uk or at the Council offices.

3. BUILDING CONTROL REQUIREMENTS

Building Control at RBC deal with the Building Regulations. They are responsible for checking and inspecting plans and building works in the interest of health and safety. All new development has to comply with the Building Regulations, which cover technical matters, including: access, building structure and foundations, drainage, insulation and energy efficiency and ventilation. Early consultation with RBC Building Control to discuss a design proposal is recommended.

PLANNING APPLICATION PROCESS



SECTION B

Context and Character

RUSHCLIFFE - THE PLACE

The need to build "in context" is a recurrent theme throughout this document. This is not just the immediate neighbouring buildings or streets but also the context of the Borough as a whole. Geology, climate, soil types, river drainage patterns and topography influence the way in which places have developed - from the use of materials and the layouts of villages to the pitches of roofs and the shapes of buildings; from the development of businesses and industries to the construction of railways, roads and canals.

Rushcliffe lies immediately to the south of the River Trent, adjoining the City of Nottingham. It extends from Flintham in the north east to Stanford on Soar in the south west. It is predominantly a rural Borough but contains the urban edge of Nottingham on it north western edge alongside the River Trent. It is more varied than may be initially apparent and it retains many of its historic features and buildings.

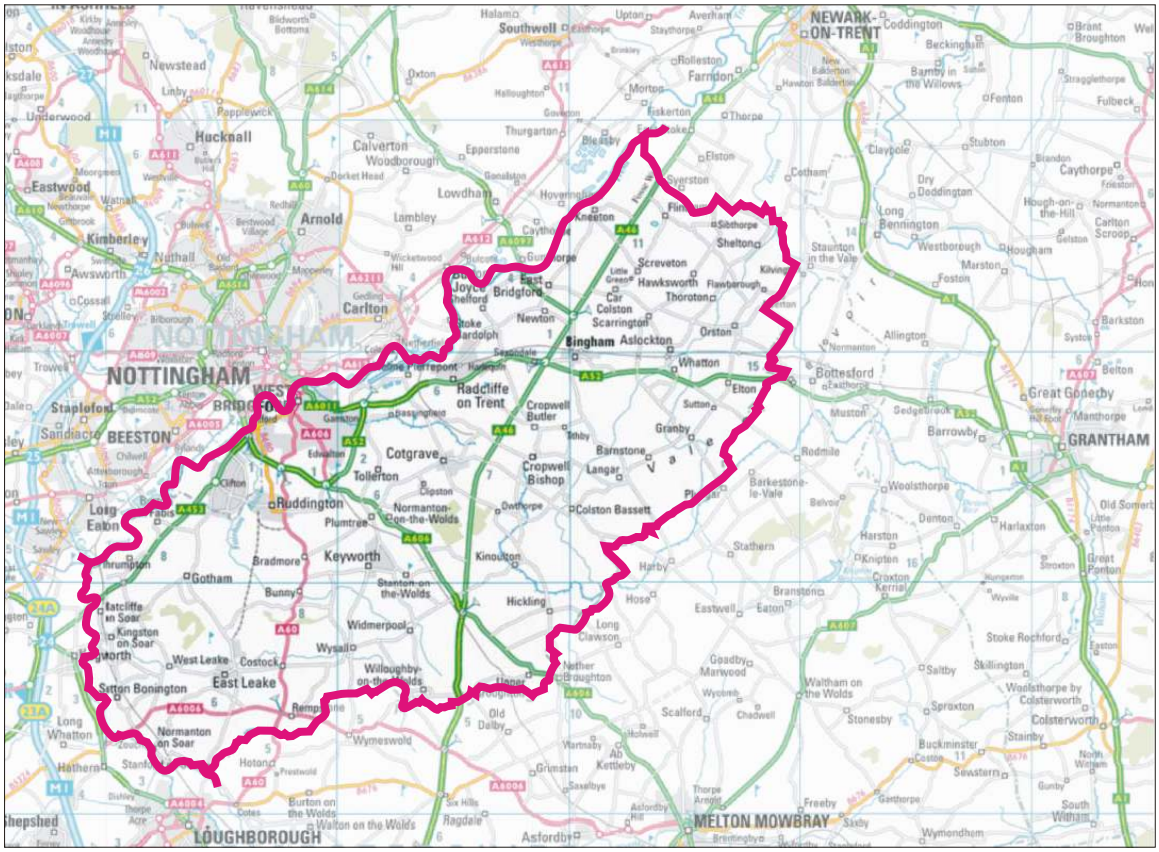
The landscape generally comprises rolling lowland farmland but includes the higher land of the Nottinghamshire Wolds , the edges of the Vale of Belvoir and parts of the Trent Valley which provide variations in landscape character (See Section 5).

Most of its villages and the centres of small towns are historically important as well as visually attractive. As a result many are designated Conservation Areas.

West Bridgford, Compton Acres, Gamston and Edwalton form the largest built-up area within the Borough. The bridge over the River Trent at West Bridgford links the settlement with the city of Nottingham and has been an important crossing point for centuries.




Map of Rushcliffe Borough



LANDSCAPE CHARACTER

Natural England have produced a Character Map of England. This provides a picture of the differences in landscape character at the national scale and defines Joint Character Areas. The bulk of Rushcliffe falls within area 48, Trent and Belvoir Vales, although parts are also within 69, Trent Valley Washlands and 74, Leicestershire and Nottinghamshire Wolds. For details see:

http://www.countryside.gov.uk/LAR/Landscape/CC/east_midlands/index.asp

A more detailed landscape character assessment for Nottinghamshire has been produced by the County Council. This can be found at:

http://www.nottinghamshire.gov.uk/home/environment/countryside/nature_conservation/countrysideappraisal.htm

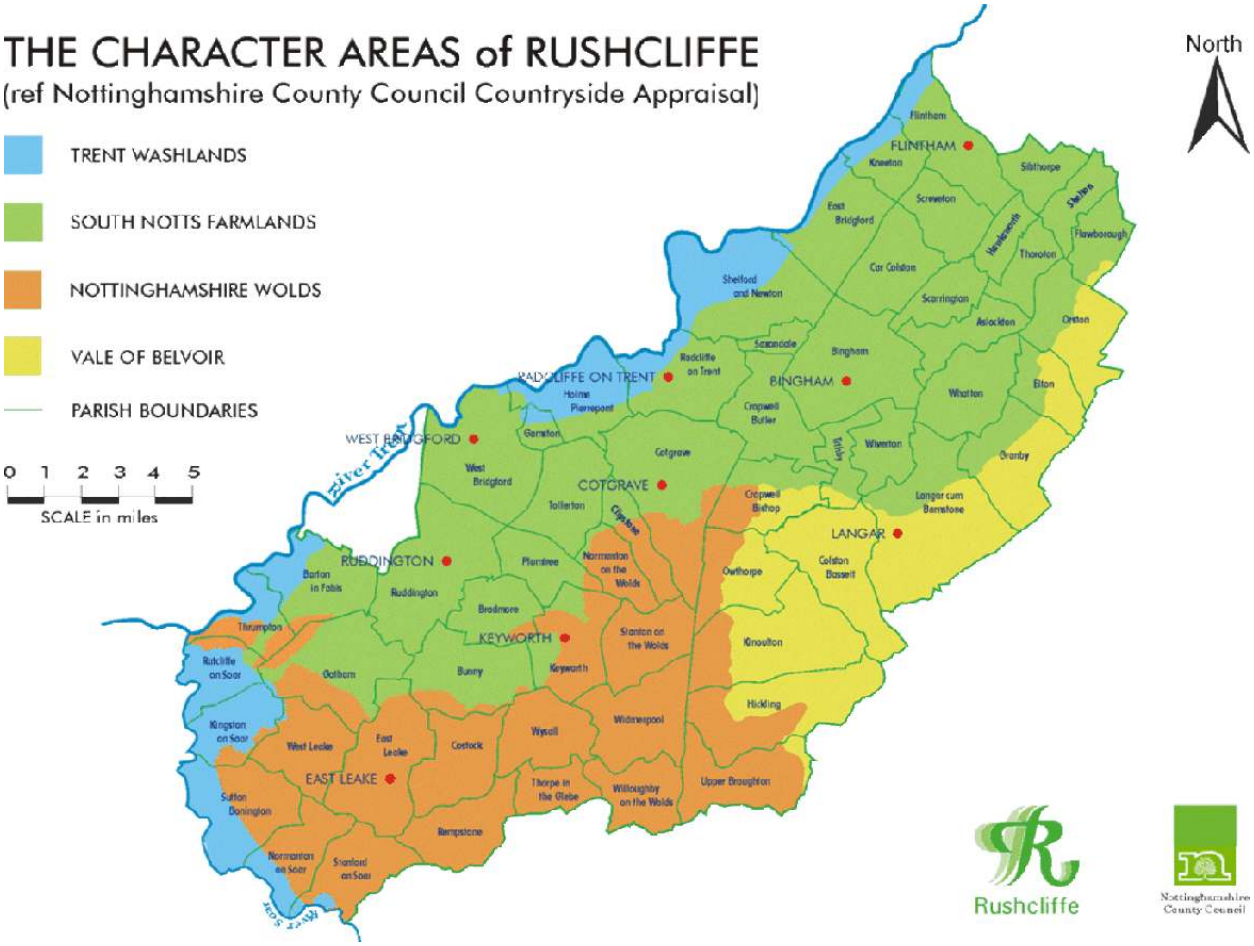
This Countryside Appraisal includes Rushcliffe in four different regional landscape character areas :

Trent Washlands :

Settlement and land use pattern has historically been linked to the physical character of the valley, with settlements along the Trent and Soar, situated on the margins of the valley and the raised river terraces. Beyond the urban areas, the settlement pattern is characterised by a nucleated pattern of villages and isolated farmsteads. Arable cultivation now dominates much of the Trent Valley whilst extensive meadows and pasture remain in the Soar Valley in the south west of the Borough.

South Nottinghamshire Farmlands :

A rolling lowland landscape dominated by arable farmland. The settlement pattern has a strong influence on the landscape character, with larger 'commuter' villages and towns introducing more suburban characteristics and a mix of housing styles to a rural landscape. The smaller villages retain the traditional brick and tile building characteristics with smaller scale pastoral landscapes around them. There is a relatively low level of woodland cover.



Nottinghamshire Wolds:

A more sparsely settled landscape character area with a clear and distinct character derived from the rolling clay wolds, the mixed farmland and the rich historical and cultural associations of the landscape. Small villages, isolated farmsteads, narrow country lanes, medieval sites, extensive ridge and furrow grassland, historic parkland and species rich hedgerows combine to emphasise the distinctiveness of this more elevated landscape. East Leake and the industrial influences of the gypsum mining industry and power station at Ratcliffe on Soar impact upon the rural character of the landscape in the west of the area. Cotgrave and Keyworth form larger commuter settlements on its northern edge.

The smaller villages and hamlets are generally more dispersed across this landscape. These settlements include some more modern building styles yet their historic pattern and red brick vernacular have been retained and add to the positive rural characteristics of the landscape.

Vale of Belvoir :

A lower lying medium to large scale landscape characterised by the gently undulating landform, extensive areas of pasture and land for grazing, the nucleated settlement pattern and interconnecting country lanes. The most extensive pastoral landscape tract occurs between Colston Basset and the Hickling and Kinoulton area.

The settlement comprises vernacular style red brick farmsteads and small villages. Buildings with more modern architectural styles do exist in most of the settlements, although no villages have expanded to a degree that compromises their intrinsic character. A smaller scale pastoral landscape generally exists immediately around many of these villages. Woodland is sparse with hedgerows and hedgerow trees forming the principal planting components.

The Nottinghamshire Landscape Guidelines include further details on the history and evolution of the landscape and strategies and recommendations for its future. It is a useful resource, particularly relevant to the contextual understanding of a proposed development. It should be referred to in the initial design stages of any significant development project.

In addition to its value as a contextual base these landscape guidelines also include lists of appropriate locally native plants and trees particular to each of the character areas. These can be found at http://www.rushcliffe.gov.uk/doc.asp?cat=9605 or at the link to the guidelines on the previous page.

Rushcliffe's Heritage

Rushcliffe has 29 Conservation Areas, 3 Registered Parks and Gardens, 25 Scheduled Monuments and over 650 Listed buildings and structures.

SETTLEMENT PATTERNS

Beyond the urban fringe of West Bridgford, there are six larger settlements - Ruddington, Bingham, Keyworth, Radcliffe on Trent, Cotgrave and East Leake. The growth of these was stimulated partly by their proximity to major roads and later, railways which provide access to Nottingham, Grantham, Newark, Melton Mowbray or Loughborough.

In addition, Ruddington and to a lesser extent East Leake were predominantly working villages influenced by the rapid growth of the Framework Knitting industry in the late 1800's. East Leake also grew in the 20th century as a result of gypsum mining and Bingham was a Market Town close to major transport links.

Cotgrave expanded rapidly from a small rural village into a mining community suburb when the coal mine opened in the 1960's whilst Keyworth's growth after World War II is largely the result of a planning policy decision to allow expansion there.

These different causes of growth have resulted in settlements of widely varying character. New developments should seek to retain the positive elements of this all important local identity of "place".

In common with the settlement pattern across the majority of the country, the smaller villages and hamlets are interspersed at three to five mile intervals between these larger places. Even so, their reason for existence, form and shape are influenced by a number of factors each resulting in a particular character. Note, for example, the contrast between the enclosed, almost urban Main Street of Flintham and the open Commons of Car Colston or the linear agricultural settlement of Hickling and the wooded village of Colston Bassett (see also photos on page15).

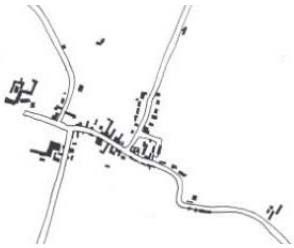
Again, a clear analysis of what makes "place" is necessary if new development is to sit comfortably in a particular environment.

In many instances these villages are Conservation Areas and further guidance on the important elements of each will soon be available in Conservation Area Appraisals and Management Plans currently being prepared for public consultation for each Conservation Area.

Some villages include areas of open green space within the settlement. These occur within the village centres or as breaks or corridors of green space running into the villages from the surrounding countryside and is more prevalent within those settlements in the Trent Washlands landscape character area.

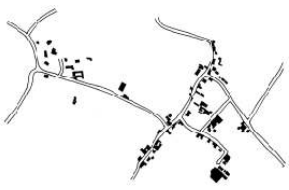
These open and green spaces create irregular settlement forms and edges that relate well to the surrounding smaller scale field patterns where these exist. The irregular village outlines contribute much to the character and sense of place of the settlements.

Green spaces linking into and through the villages of Sutton Bonington (left) and Kingston on Soar (right) .



Flintham

Car Colston



Colston Bassett

Hickling

TRADITIONAL BUILDING MATERIALS

Traditional buildings constructed from local materials for local needs are important contributors to the characteristics and distinctiveness of a place. The historic settlement pattern of red/orange brick villages and scattered isolated farms is an important part of the rural character of Rushcliffe. The core and centre to most existing settlements comprise a mix of buildings of this local vernacular that sit naturally and comfortably within the landscape.

The use of Swithland , or later, Welsh slate or small plain tiles in villages is generally limited to larger, more affluent buildings such as manors and large farmhouses whilst clay pantiles are common for cottages, farm buildings or outbuildings to manors.

It should be noted that the bricks and tiles were made from clay obtained from local clay pits and that every village has a slight variation of the clay colour particular to that village. In the vast majority of cases this is more orange than red with occasional darker tones where the brick was closer to the centre of the kiln. Very light tones, especially the grey white of imitation reclaimed bricks must be avoided as should darker reds especially of a purple tinge. Similarly pantiles are invariably orange rather than red.

Reclaimed materials are generally desirable for immediate repairs to structures where a precise match is required, such as infilling a window opening. However, reclaimed materials are generally inappropriate for larger scale projects such as extensions. More detailed guidance on the use of reclaimed materials is provided in the General Management Plan for Conservation Areas in Rushcliffe.

Although infrequent, some original examples of timber framed buildings and a very few mud houses, still exist in the Borough and there are examples of the use of the local blue lias stone in walls and buildings. This stone is now virtually unobtainable locally. Other local materials include dark timber cladding to barns, white painted brickwork and render (plain grey or white painted). Occasionally render is painted other colours but these are restricted to buffs, ochres, and pale greys.

It is often appropriate to use these contrasting materials or even a browner brick to ensure that existing buildings which define the local character remain dominant in the street scene.

Where the building is not visible or is only glimpsed from the public domain a complete change in materials or even design style may be acceptable. In special cases Autumn hues such as pale orange are used.

Boundaries have a strong impact on the character of a place, and include simple brick walls, locally native hedges and picket fences to farms and cottages in villages with more ornate brick walls and railings to larger houses. In urban areas such as West Bridgford, comparatively low brick walls, Bulwell stone walls or Privet hedges define the public realm.

Introduction of high steel railings, ornamental metal gates, horizontal ranch style fencing, high ornate brick walls or even the use of ornamental hedging plants can result in adverse change to the character of the street scene.

LOCAL CHARACTER AND DISTINCTIVENESS

Development proposals should relate to and respect the character of their context.

This is influenced by many factors including how buildings are arranged within their plot and relationship to the street (the "grain" of development), building depths, forms and roof pitches, landscape and topography, materials, street pattern and boundary details.

Although it is important that developments respect local character, pastiche designs, incorporating poor imitations of other styles should be avoided.

It is often not appropriate or necessary to attempt to include all locally distinctive elements in a new scheme. This approach invariably jeopardises the "legibility" of the scheme and stifles the innovative ideas and creative flair of the designer (PPS 1 Para 38). It is more important to determine which elements matter most and incorporate these into the scheme.

Contemporary and imaginative solutions combining individuality and variety can, when related to local character, make a positive contribution to the place.

A sufficiently detailed appraisal of the surrounding area should be undertaken to consider these aspects. Typically, this should cover the following:

- Local landscape and topography;
- Historical development and settlement pattern;
- Layout and form of buildings and spaces (plan form, scale, height, density);
- Building character (i.e. detached or linked) facades, roofscapes, materials, fenestration, colour;
- Boundary details (private frontages, side details, rear boundaries);
- Local views and visual appraisal.

Small scale and infill development sites may not require an extensive appraisal yet these aspects should be considered.

Although there was probably a settlement at West Bridgford before the Norman conquest & the church dates from the 12th century, it remained a small village until the end of 19th century. By the beginning of the First World War, Lady Bay and the area between Trent Bridge, Loughborough Road and Melton road as far south as Devonshire Road had been substantially developed although Central Avenue was still incomplete. There were a few large houses in Edwalton, around the railway station. West Bridgford has continued to grow ever since. The late Victorian and Edwardian villas on mainly tree lined streets have a distinct and valuable character, as do some of the later inter-war and early post war developments.

Relate and Integrate - Draw upon the existing characteristics and form of the surrounding settlement

Historic map from circa. 1885 (www.old-maps.co.uk)

Sutton Bonington - a linear village structure

Bingham - the historic centre of the Market town has a grid structure

The Suburbs of West Bridgford

The enclosed main street of Flintham

The open common of Car Colston

The wooded village environment in Colston Bassett

THE SITE AND SURROUNDINGS

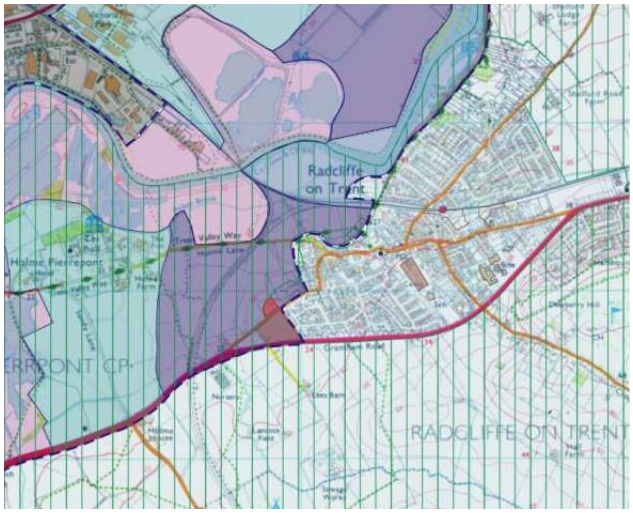
A site appraisal should be carried out at the outset of the design process to enable the opportunities and constraints of the site and its context to be fully understood. This should include consideration of the following:

- Landscape and existing planting (including any mature trees and hedgerows);
- Relationship to existing buildings and structures (uses, building heights, form of building and orientation to the street);
- Views into and out of the site;
- Movement corridors and 'desire lines', public rights of way;
- Water courses, drainage and flood risk;
- Topography and Microclimate;
- Wildlife;
- Site boundaries (character and condition);
- Physical constraints including power lines, services, contaminated land, steep slopes etc;
- Historic character and features and existing buildings or structures.

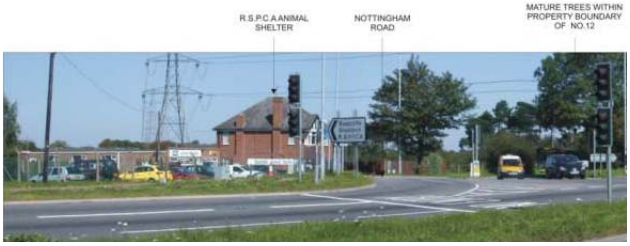
The extent to which each of these issues and any other matters need to be considered will depend upon the scale, location and sensitivity of the site and its surroundings. In some instances an Environmental Impact Assessment will be required as part of the planning submission (this should be identified early in the design process).

The site appraisal is essential to ensuring that the subsequent design proposals can successfully relate to and integrate with its context.

It is also a very valuable tool in being able to demonstrate to a wide range of people the reasoning behind the design approach adopted.



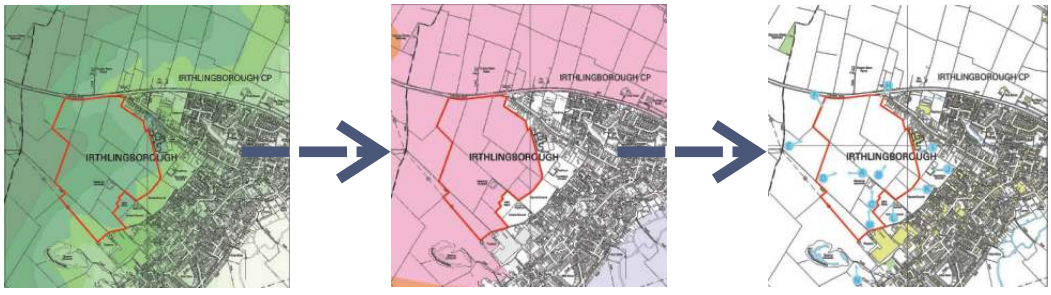
Identifying the landscape character context of a site in Radcliffe on Trent



Panoramic photograph used to assess visual impact of proposed development on A52 Grantham Road

Panoramic photograph illustrating rural landscape character within Rushcliffe. It is also a very valuable tool in being able to demonstrate to a wide range of people the reasoning behind the design approach adopted.

A diagram demonstrating some of the steps involved in site analysis



Step 1: Topography Plan **Step 2: Landscape Character Areas Plan** **Step 3: Photo Viewpoint Plan**

SECTION C1

Movement and Connections

MOVEMENT NETWORK

Any new development should be integrated with the surrounding network of roads, footpaths, cycleways, bridleways and any other means of access. Maximising connectivity and providing choice for all forms of movement in a balanced manner will help to link people with their surroundings and facilities. This is fundamental to the success of any new development.

The design of the movement network needs to respond to the context of the site in terms of settlement pattern, and local street character, and should be devised as part of the overall design process. As well as being the means by which people move around, the movement network is crucial to creating the nature of the places in which we live and work. The network should be conceived and designed as a series of multi functional routes and spaces.

The overall design of a development should not be led by highway design issues.

The starting point for considering the movement and connectivity of a new development is the character and pattern of existing roads, streets, lanes and footways within the surrounding settlement or context of the site.

Determining how people will move through an area in order to reach local services and facilities will also help to establish the movement network for a site. Pedestrian movement and desire lines as well as transport routes should be considered. This can be used as the basis for establishing a hierarchy of routes and spaces.

Clear, safe and legible connections should be established. Provision for all, including the mobility of the disabled and visually impaired people should be fully addressed.

Easy and convenient access to public transport should be provided wherever this is achievable. Routes should be easy to find, attractive, well lit and safe; being well overlooked by properties.

This can be achieved by creating an active street frontage with buildings facing the street.

STREETS AND SPACES

Residential streets and spaces are multi functional. As well as providing access and means of servicing, they provide for people to walk, cycle, play, meet and socially interact. The location and character of the streets and spaces should be established early in the design process as part of an overall landscape framework. They should relate to the movement network and blocks of built development and establish a series of streets and spaces of different character. The successful design of streets and spaces effectively combines the movement network, buildings and intervening spaces to create a wide variety of forms. These include avenues, squares, mews and courtyards.

The designs of the streets and spaces should be based on the levels of pedestrian and vehicle use.

However, the design should not be dominated by the needs of traffic.

The arrangement of the buildings and enclosure and the answer to “what will happen in this street or space” should be the starting point for the design. An appropriate network of spaces of different scales and uses should be designed.

Examples of how street scenes with varied age and character can imporve the visual quality of the space.

Streets and spaces should be designed to provide ease of access for all and shared surfaces (for pedestrian and vehicles) should be used wherever they are appropriate. The 'Home Zone' principle ("a residential street in which the living environment clearly predominates over any provision for traffic") should be adopted where practicable as a means of encouraging activity and social interaction.

Trees, planting and other public realm elements should be incorporated to add character, and influence the scale, enclosure and visual quality of the space. Materials should be of a high quality, durable and with minimal maintenance requirements.

Where it is considered that multiple use of the street may result in undue noise for residents, additional mitigating measures may be required.

Shared Surface

Shared surfaces give priority to the pedestrian, provide natural traffic calming, and help to create a better living environment.

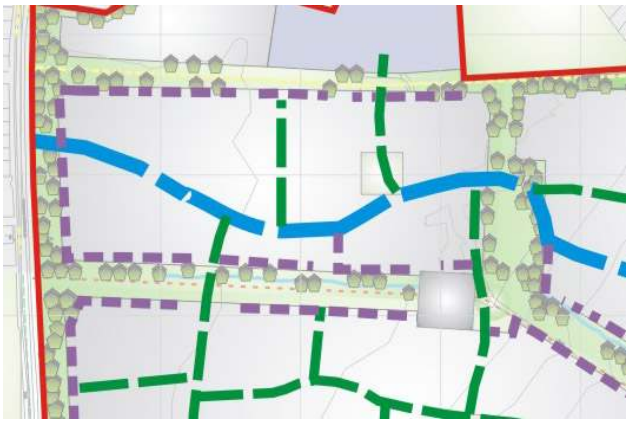
"Home Zones" encourage activity by all ages.

Caution and Control - people will always introduce their own measures where they feel they are required. This generally reflects some responsibility for the particular street or space .

Existing Street Pattern - Examine the layout and geometry of the existing settlement pattern. Relate the development to the network of existing streets and connecting routes.

Structure and Permeability

Structure: A well designed development structure will have a network of connected spaces and routes. Focal features (as denoted by the star) and key vistas (as denoted by the arrow) should help to define the structure.



Permeability: New development should have a variety of pleasant, convenient and safe routes through it.

Views

The composition of views within a development layout can add character to a place, and help to reinforce legibility and a sense of place. Streets and blocks should be designed to establish a varied sequence of connecting views (short or long), which lead or draw the eye from one feature to another. Subtle variations in building line, scale, height and mass can also be used to create visual interest along streets.

Landmark Features

Landmark features or points of focus will allow all residents and users to orientate themselves, forming a navigable and distinctive environment.

Points of focus include public squares, areas of green space, prominent buildings, street trees, public art, and smaller items such as street furniture. New development should be designed to fully maximise the opportunities for landmark features. Public squares can be formed around the intersection of routes and framed by building groups with development blocks forming a central public space and streets can lead to spaces and features. Landmark buildings can be distinctive by a combination of things. It may be their position within the layout, i.e terminating a view, a projection or gable end onto the street, or as a corner building. Subtle variations through the use of height and contrasting materials can also create important landmark buildings. This can be achieved, for example by a three storey townhouse, with a rendered elevation set within a row of brick dwellings.

THE PEDESTRIAN AND CYCLIST

New pedestrian and cycle routes should be clear, safe and convenient and free from barriers and dead ends. Streets designed for low vehicular speeds (typically 20 mph (30 kph) or less) encourage safe walking as well as cycling and social interaction.

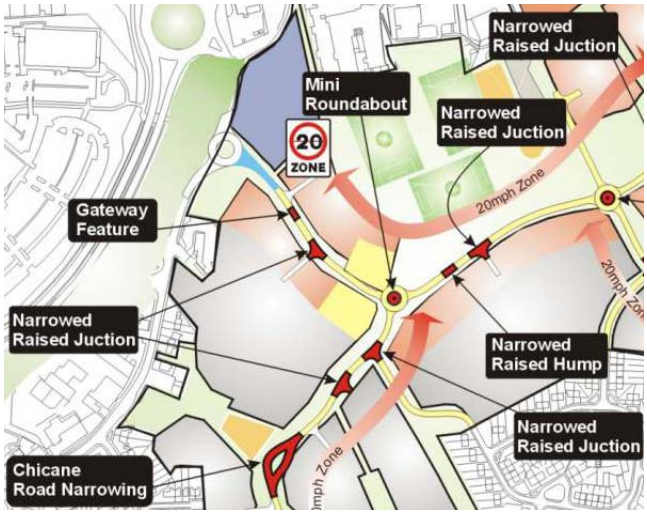
People prefer to walk or cycle along routes where drivers, residents and other people can see them. Where pedestrians and cyclists share the same surface as vehicles, the priority needs to be given to the pedestrians and cyclists through appropriate measures, including signage where necessary. Well designed shared surfaces can avoid conflicts of movement, help to calm vehicular speed and encourage pedestrian friendly environment.

Where necessary some direct links for cyclists and pedestrians, which are not open to motor vehicles, may be provided subject to there being good natural surveillance and adequate lighting.

Clear, direct and safe pedestrian crossings over streets should be designed and provided. At road junctions and corners the use of raised surfaces and tight radii can make it easier for pedestrians to cross.

Shared pedestrian/cycleways can be used to provide connections to and between existing rights of way, therefore increasing access to the routes. The segregation of routes from the wider street scene should be avoided. Where they are created they should be short, well connected and overlooked. Separate cycle lanes or tracks should be clearly defined and provided on streets with traffic speeds generally above 20 mph (30 kph).

Cycle parking will be a requirement in all apartment schemes.



Streets specifically designed with low vehicular speeds and traffic calming create a safer environment for the pedestrian and cyclist.

Raised crossings give the cyclist and pedestrian priority when crossing the road, and cycle paths and walkways are clearly defined without degrading the quality of the surrounding environment.

Cycle path design can often lead to excessive use of coloured surfacing and road paint which can detract from the quality of the development.

CALMING TRAFFIC

Within the residential environment, the design aim should be to encourage drivers to restrict their speed to less than 20 mph.

Traffic should be slowed through the design of the buildings, spaces and activities. The layout of building frontages and the sight lines created, the scale and proportions of the street, the use of planting and surface materials should all encourage drivers to slow down and emphasise the importance of the pedestrian and other activities.

Standard solutions to traffic calming (e.g. road humps) should be avoided. A best practice technique is to design streets by 'tracking', whereby the arrangement of developing blocks (housing) have priority and then the carriageway is 'plotted' through the space. This design technique ensures that the buildings, rather than the roads, take priority in design.

The following design solutions should be considered;

- Projecting buildings;
- Change in sufaces;
- Frequent changes of directions and connecting routes;
- Tight corners;
- Restricted forward visibility;
- Intermittent on-street parking and street trees.

These examples all help to reduce speed and convey to users the need to drive with caution.

PARKING

The parking of vehicles is important as it affects the character and quality of the place. The following series of 'parking' solutions is based predominantly on local and best practice examples. Generally, it is preferable to avoid the dominance of garages and private drives along street frontages but rather encourage high natural surveillance from properties as well as good accessibility for users.

Street Parking

On street parking is a characteristic of linked dwellings, terraces and higher density arrangements. It can positively assist in traffic calming and provide activity within the street but if this "car parking" approach is to be deliberately designed into a scheme it must be carefully thought through. For example, the use of street trees within a wide footway can help to define parking areas and to soften the view of parked vehicles. It is important that owners should be able to readily survey and easily access their vehicles.

As part of the design criteria, accessibility and safety for pedestrians and cyclists is paramount.

Shared Courtyard Parking

Internal parking within development blocks, in the form of small courtyards, is a standard parking principle. They are predominantly designed as enclosed shared courts with a single access. In some cases it may be possible to include a secondary pedestrian access to reinforce accessibility to nearby streets. Where through route courtyards are proposed, they should be well overlooked, with some dwellings facing the space to provide security and natural surveillance.

Courtyards should be accessed through the building line, typically by the use of a narrow gap, and usually serve a group of dwellings. Cars can be stored either in bays or linked garages. The detailed design of a development using courtyards will need to address the arrangement of plots (garden, dwellings, boundary) and how they relate to the

courtyard, as well as the treatment of enclosure, privacy, security and safety. It is important that these are designed as intimate well considered spaces, rather than uniform parking areas.

Again, good visual surveillance and accessibility to parked cars and the courtyard for owners and residents should be addressed as part of the design.

On - Plot Parking

On plot parking can generally be located to the side or rear of a dwelling, within a garage or parking bay. This maintains good surveillance from properties and avoids the dominance of vehicles in the more public street frontage. It also enables motorists to safely "pull in" off the carriageway. This approach can be used where development plots are deeper and larger.

On plot parking can have a negative impact in the street-scene as the street boundary, and therefore enclosure, is inevitably "punctured". The visibility splays and sight lines demanded for such accesses are often excessive and can have a negative visual impact especially in Conservation Areas resulting from the loss of hedgerows, walls or fences so important in the street-scene.

PUBLIC TRANSPORT

Public transport should be an early consideration in the design of a new development. In addition to providing good access to existing routes, new, extended or diverted routes should be established where this would benefit the movement framework. Early discussions with the local authority and bus operators should identify which kind of service can be provided and whether the development should contribute financially to the establishment of this service. The form of contribution will depend on a number of factors, including the size and location of the site. It could include a contribution to the enhancement of an existing service or the provision of new bus stops, shelters or related pedestrian crossings.

Typically, a new development of over 100 dwellings may justify an extension to an existing service and with over 500 dwellings it may justify a new route. The key to the success of the service will be its frequency, quality and convenience for users.

Clear and direct routes to bus stops, with well placed crossings on major roads should be provided. They should be located near places of activity (such as shops or a street junction) and within a 5 minute walk (typically 400m) of all dwellings.

The commencement or phasing of any new service is important and it should be established as early as possible in the implementation process.

Integrated Transport System - Defined routes using good quality materials which reflect the built development ensures the transport system is integral to the overall development.

SECTION C2

Layout, Form and Space

GENERAL GUIDELINES

USES, DENSITIES AND MIXES

Good residential design is about responding to peoples needs and providing a framework within which new and existing communities can thrive. It is also about the need to be environmentally responsible and to make the best and most sustainable use of land resources. Mixed use developments and mixed residential environments (comprising a range of tenures, housing types, community facilities and services etc) create more successful and inclusive communities.

Where appropriate to local context, the scale and nature of the proposed development should include a balanced mix of house types, forms, tenures and densities. On larger scale developments, this should include compatible uses and the provision of community facilities and services such as open space, shops and employment. The design should ensure that as part of the wider residential environment, there are good transport connections and access to a balanced range of services.

Combining living and working supports a greater variety of secondary activities, which in turn adds vitality. Determining appropriate levels of density for a site or for different areas within a larger site should be informed by :

- The existing characteristics of the site and its surrounding area;
- Accessibility;
- Service Provision and Facilities;
- Environmental Effects;
- Broader Planning Policy and Spatial Strategy.

All development proposals will be reviewed in the context of these criteria. Achieving a compatible scale, massing and layout with the surrounding settlement is a key design objective which influences density. This applies particularly to Conservation Areas and areas with distinctive character where the densities below may be inappropriate. On very large schemes, involving the inclusion of district centres, schools and businesses, a range of densities will be expected, with the higher densities close to centres and to routes served by robust and regular public transport.

Subject to all other design criteria, the following average density range should normally be achieved:

Location	Dwellings per net hectare
Urban	40 - 75
Suburban	35 - 55
Rural	30 - 40

Urban

In Rushcliffe, the higher urban densities will only be appropriate in central West Bridgford & possibly on some landmark sites in other larger settlements. Residential development is likely to consist of high density units such as apartment blocks or town houses and terraces but even here every site has to be considered on its merits in terms of its particular location and relationship to employment and retail use and to existing residential development.

Suburban

Suburban areas within Rushcliffe can be found to the south and south west of West Bridgford and some of the larger settlements such as Ruddington, Bingham, Radcliffe on Trent, East Leake and Keyworth. New residential development will be likely to consist of some higher density apartments with terraces and semi detached or detached houses with gardens.

Rural

Rural settlements consist of cottages and houses with farms and few or no local facilities. Densities vary widely from single detached manors with extensive grounds to terraced rows of cottages. This category includes most of Rushcliffe's villages and hamlets.

Planning Policy Statement 3 - Housing defines the 'Net dwelling density' as follows;

(Page 26, Paragraph 6)

'Net dwelling density is calculated by including only those site areas which will be developed for housing and directly associated uses, including access roads within the site, private garden space, car parking areas, incidental open space and landscaping and children's play areas, where these are provided.'

The Net density therefore excludes major roads and spine roads, structural or buffer landscaping and large areas of public open space.

Development should aim to meet the densities required by Government but also respect the site, its context and the place which will be the overriding considerations in determining the most suitable density for the site. If the required densities are not possible, the proposal should have a robust site assessment which demonstrates why this is the case.

Development Block Design

A block is a group of buildings defined by the roads which serve it. It may take on a predominantly linear form or be more of a grouped arrangement, it may be formal or it may be more random and informal. The way in which houses and cottages line our village streets, whether they face onto the street or run at right angles to it, is a form of block design. It determines the "grain" of the village.

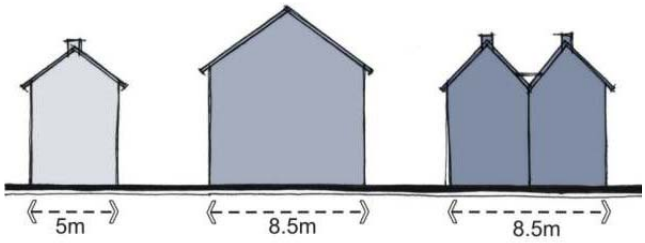
With infill development it is important to recognise and understand that the "grain" of any new development must relate to the existing context.

In new development sites, the form and size of blocks will be largely determined by the "type" of settlement to be established, i.e. an organic layout or a more regular grid pattern. Much depends on the relationship of the setting, its connectivity to any existing settlement and the designers vision for the scheme.

Plot Arrangement

The arrangement of buildings within a block is defined largely by the plan form of buildings, and their height, scale and mass. Wide plan dwellings allow for a greater variation in street character, and usually lower density groupings. However, best practice guidance to maximise the use of land is for individual plot widths to be narrow as possible. This not only uses land efficiently it also provides greater number of dwellings within the street. Unfortunately, it also invariably results in higher ridges than the local vernacular, and as a result frequently conflicts with the height of buildings found in our historic villages.

The plot arrangement should however reflect the existing pattern. Within Rushcliffe there will inevitably be a mix of block arrangements. Even within a street there may be variety, which adds character and individuality to a place. It is important however, that new blocks fit with the predominant pattern.



The scale of a wide fronted village cottage, with lower ridges

The scale of a new narrow fronted dwelling, with a higher ridge, making it too large to fit comfortably in its surroundings

A possible solution

An example of development block design

In the context of plot arrangement the following should be considered and given careful treatment:

- The depth of setback/private frontage from the carriageway/footway;
- The plan form of the dwelling;
- Orientation to the street; predominantly parallel, or slightly offset, or gable ends;
- Size of rear garden;
- Dwelling type, its scale, height and mass;
- Attached garages or outbuildings to the site.

During the detailed design, the following should also be addressed;

- Sustainable design and construction;
- Privacy, security;
- Light penetration and shading;
- Solar orientation;
- Parking provision and space for cycle storage;
- Space for on-plot refuse/recycling stores, composting and water butts;
- Emergency /refuse vehicle access.

SCALE, MASSING AND HEIGHT

The scale and massing of a new building should be considered in relation to its context. Adjoining settlement and buildings, the local topography, microclimate, existing views and landmarks should all influence the positioning, enclosure and relationship of buildings within the plot and to the street (See also Local Character and Distinctiveness)

The design should create appropriate and positive relationships between the buildings, the street and the spaces around them. It should establish varying levels of spatial enclosure, related to the height and massing of the buildings and to the use of the adjacent streets and spaces. The buildings should consider and respect the nature of the spaces being overlooked.

Buildings should be arranged to create visual interest which can be achieved by subtle variations in the building line (set back from the footway) and by the considered use of height. The scale and massing of any development is greatly influenced by the building plan form i.e. narrow plan frontage and wide plan frontage.

The building designs should contribute to an active and attractive street environment. The design of enclosure to the street or space and its ratio to building height should achieve a 'human scale' and create a comfortable pedestrian environment.

The three-dimensional form of buildings and street width should be carefully considered in order to achieve a suitable sense of enclosure, and to avoid ill defined spaces.

Streets are predominantly places of linear movement where that movement is clearly defined by the buildings, structures and planting along its edges. That definition is lost when the sense of enclosure breaks down. Opportunities for relief from that enclosure arise at junctions of streets where changes of direction occur.

These are nodal points which provide an opportunity for change in spatial proportions but even here a sense of enclosure is important together with a clear definition of entrances and exits into and out of the space. It is here that opportunities arise for landmarks, focal points, green spaces and even a change in building scales and proportions which define the space.

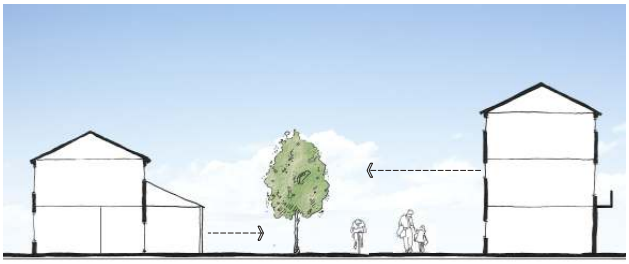
Responding to Context
The scale, mass and height of this contemporary solution takes its lead from its neighbour. The balance and proportions of the new dwelling also relate well to those of the traditional building.

The proportions of the spaces between the buildings are as important, if not more important, as the buildings themselves.

Enclosure can be achieved by providing minimal private frontages, linked buildings and a limited set back of the building line, setback from the carriageway. Dwellings should face onto streets and public areas to provide natural surveillance and also to encourage an interaction with the public realm. These are general best practice principles for street character. However, frequent street connections and occasional deeper setbacks of the building line can provide relief and provide an opportunity for the building form to create attractive, well enclosed public spaces.

The large building at the end of the line of cottages (top) fits well with the local vernacular, as the size and pattern of the windows match the adjacent cottages. The sketch shows how pattern and size of windows can make a building appear far larger and more overbearing, therefore making it out of place within the street scene. Although the building is exactly the same size, the window proportion and signage change the perceived scale of it.

Active and attractive frontage to recent development at Bunny. These houses relate well to the existing street scene and line of properties beyond.



Dwellings facing onto the street provide natural surveillance

Slight variations in the frontage line helps to create interest

MATERIALS AND DETAILING

Local and Historical Context

Building materials invariably define the historic character of place. Buildings constructed of materials derived from the local area, for the most part, weather in such a way that they reflect the topographical landscape and even the climate.

In Rushcliffe, the soft mottled oranges and reds of the local clays and the clay tiles (once thatch) soon weather to become part of the soft rolling landscape of the countryside. Mud cottages and wattle and daub walls were lime-washed white and occasionally the brickwork itself was painted white. Even the only available local Blue Lias stone, now almost impossible to obtain locally, weathers quickly to a softer, rounded profile. Timber cladding and corrugated iron curved sheet roofs also play a small part in the rural scene.

Developments in transport enabled the use of a broader range of materials. The canals and subsequently the railways transported slate and non-local stone for the grander properties such as rectories and manor houses.

Later still the move towards the use of heavy lorries enabled the use of bricks and roof materials from almost anywhere in the country. This trend, coupled with the adherence to planning policies for the layout of residential areas has resulted in the loss of local identity countrywide.

Today materials of many different styles and design are available. Detailing was also originally a reflection of practicalities and need. Almost without exception, our village cottages face south or southwest with only larder windows on the north side. As certain sectors of the community became more affluent, social standing became more important than such practical considerations. The architectural gems of the big cities strongly influenced development in our villages and suburbs particularly during the Georgian, Victorian and Edwardian eras. Examples of each of these architectural trends can be found in most villages, hamlets, towns and suburbs throughout the Borough. The rapidly growing population of the early to mid 1900's saw the rapid expansion of housing for the general population. As a result, every village and town and particularly West Bridgford, contain examples of pre-war, and inter-war housing through to the private suburban housing and Council housing of the 1950's and 1960's.

The various architectural trends affected the shape of the house, the roof pitch, the quantity and quality of ornamental detail and particularly the shape, size and proportions of windows and their detailed design.

There are a few high quality examples of influential design styles contemporary to particular periods in the Borough such as the Arts and Crafts Movement and the Art-deco period.




Today's Approach

It is rarely possible and often not desirable to mimic either the materials or architectural style of a bygone age.

When selecting materials from the enormous palette now available it is most important to attempt to provide a link to the local identity with Rushcliffe and to select materials which reflect the character of place which local materials once naturally did.

To reflect the low rolling countryside or river plains of Rushcliffe there is a colour palette range which should be considered for even the most modern of materials. This can briefly be summarised as pale oranges and rust colours through ochres, buffs and the full range of oak browns with white being used at key focal points or as punctuation in the street scene.

Brickwork of even a slight mauve or purple tinge should be avoided as should brickwork with sporadic white faced bricks in amongst them. Other neutral colours such as greys may be acceptable for very occasional points of interest.

Roof colours should similarly reflect local character as well as the status of the building. Pantiles should be orange rather than red. Plain "Rosemary" or similar could be plain reds, browns or pale to mid greys. Greys should be of the softer grey rather than the blue greys typical of Wales or any very dark, almost, black greys. The same principles should be used for slate roofs or even roofs of modern profiled steel.

Where heritage issues are important, such as in Conservation Areas, any new buildings constructed in association with old buildings of historic merit should be such that the colours of the old are highlighted rather than the new building becoming the dominant element. A similar approach should be applied to extensions.

Where buildings are intended to be key landmark buildings, a contrasting approach can be used to highlight the building. Detailing can vary dramatically but generally it should attempt to convey the purpose of the building.

For example :

- If it has to fit in with a local street scene, the design should concentrate on proportions rather than matters of fine detail. If the street scene is of value the detail should be downplayed so that the new does not dominate the old.
- Detailing on extensions should not seek to dominate or even match the existing house but rather be subservient to it, unless the house is of such poor architectural quality that it warrants a completely fresh architectural approach.
- If the dwelling is a small family house, the detail should not attempt to elevate it to a country mansion.
- Despite public demand, architectural styles and detailing which attempt to imitate "the Georgian house" or the country cottage" or the "grand Manor" are usually inappropriate and invariably unsuccessful unless carried out to the very highest standard.

DESIGN AND INNOVATION

In seeking high quality design solutions, innovative approaches will be encouraged where these show respect for and an understanding of context and will positively contribute to the character and identity of an area. A positive design approach to the local context does not mean a repetition of what went before. A high quality design solution founded on a thorough site appraisal and satisfying the relevant design criteria can integrate with and enrich a place.

The imaginative use of design, details and materials can positively assimilate a new building and provide variety, and at the same time, individuality. We recognise that design approaches, sustainable materials, building technology and the aspiration of residents are continually evolving and it is not the aim of this guide to constrain this process.

We also recognise the importance of flexibility and adaptability in residential design and encourage solutions that can demonstrate how a household can evolve to the changing needs of the occupiers.

The incorporation of IT and 'smart' technology and sustainability and the design of homes to allow for home working contribute to this increasingly important aspect of residential design.

PRIVACY

Privacy for houses and garden is very important and requires careful consideration. At the same time natural surveillance of the street and public areas must be achieved.

Private areas should not be excessively overlooked from either public areas or adjoining properties. This is more difficult to achieve for developments of higher density, apartments in existing settlements or backland sites.

In the past, the principal means of addressing privacy for dwellings was by the application of minimum distances between habitable room windows. This did not always adequately address privacy, especially of external private spaces, and made it difficult to achieve other design objectives.

In Rushcliffe, it has been previously accepted that 30m between habitable room windows across rear gardens, for one and two storey dwellings, does maintain privacy where distance is the sole determining factor. It is considered that an additional 3m for each additional floor (up to 4 storeys) or equivalent height distance created by changes in ground level e.g. On a sloping site would provide satisfactory privacy. However, in line with Government guidance, it is recognised that privacy can be achieved in many different ways and the use of alternative techniques for achieving privacy can lead to substantial improvments in the form and layout of development.

Developers will be required to demonstrate how they have achieved privacy for existing and new residents, amenity for occupiers of new dwellings and the other design objectives set out in this guide if adequate seperation distances are not met. It should be noted that Permitted Development rights for loft conversions, dormers, extensions and window replacements may be removed by Condition in any development where it is apparent that such rights may compromise the privacy of neighbours.

Defining privacy need in terms of the “habitable” status of rooms is also a partly subjective matter. Kitchen windows or first floor lounge windows in some houses but more particularly in apartments or flats provide far greater opportunities for overlooking than living rooms at ground floor level. There is generally less concern where first or even second floor bedroom windows overlook private spaces.

Similarly, a kitchen window overlooking a busy street may be considered an asset by some or an invasion of privacy by others. However, at least a proportion of windows overlooking the public domain is important to provide natural surveillance.

The design statement accompanying the application should explain how privacy has been achieved especially where this relies on means other than distance. It should also highlight the benefits to the quality of urban design resulting from these measures such as the creation of enclosed human scale spaces.

Obscure glazing, although a useful method of securing privacy, can have a negative impact on the external appearance of the building as well as the internal environment of the dwelling and will be discouraged where there is considered to be over-reliance on this method of achieving privacy.

Rear Privacy

There are many means of addressing rear privacy. These can include :

- Staggered facing windows or windows facing in opposite directions.
- Using projecting rear wings or intervening buildings or structures to block views.
- Window design, shape, proportion and positioning.
- The use of obscure, reflective, angled high and low level windows.
- The use of louvres and screens including glass brick walls.

Front Privacy

Internal privacy at the front of a dwelling can be achieved in a number of ways :

- Provision of a front garden or threshold zone. As a guide this should not usually exceed 5 metres in order to retain good natural surveillance. It can combine walls, railings, fences, planting and window design the detail of which will be dependant on the character of the area.
- Changes in level. A raised internal ground floor level can provide views out but restrict views in
- Through other innovative design solutions.

In certain circumstances, where the retention of local character is an issue, it may be desirable to build new dwellings to the back of pavement. Here window widths play an important role. For example, tall, narrow windows limit the opportunity for passers by to look into rooms.

Conversely, much greater distances may be essential where the existing local character is one of large landscaped front gardens.

GARDEN SIZE, PRIVACY AND ORIENTATION

In Rushcliffe, it has been accepted under previously established guidelines that there should be rear gardens with a depth of 10m to the boundary and garden sizes of 110sq m for detached properties, 90sq m for semi-detached properties, 90sq m for semi detached and terraced properties and 55sq m for 1 and 2 bed properties. However, it is accepted that, in line with Government Guidance, a variety of housing is required, and this should include a variety of garden sizes too. Developers should aim to meet the above guidelines whilst providing a variety of sizes.

Where these guidelines are not met, developers will be required to demonstrate why smaller gardens are acceptable and explain how they meet the overall objectives of the Design Guide. Gardens smaller than the footprint of the dwelling excluding the garage are unlikely to be acceptable. Larger sizes will be necessary where gardens are overshadowed, overlooked, narrow or irregular in shape or include significant changes in level.

Availability of two or more of the following will help in demonstrating why smaller gardens should be allowed:

- The close proximity to public open space or accessible countryside
- The development provides for a range of garden sizes including a proportion which are in excess of the reference size requirement.
- Views of landscaped open space and sky from within the dwellings
- The overriding need to develop the site in such a way as to maintain or enhance the street scene particularly in conservation areas
- The assurance that at least 50% of the garden offers total privacy which is orientated to receive afternoon or evening sun

Planting at the base of buildings helps to soften the 'join' between the building and the pavement. Compare the above left image with the one above right where the hard surfacing runs directly to the base of the building.

Apartments and Communal Gardens and Balconies

Private or communal garden/outdoor amenity space for apartments is desirable and should be provided where practicable. However, much will depend on the nature of the scheme and the character of the surrounding area and every case will be treated on its merits.

All gardens should be capable of having a private sitting out area. Boundary screens and walls should be provided. Walls or fences in excess of 1800mm can be overly dominating.

At least a part of all gardens should allow for sitting out, in sunshine, during some of the day, preferably afternoon or evenings.

Boundary Details

Fences, walls, hedges, railings and other means of enclosure to front gardens have a very significant impact on the character of the street scene. As these features define the public and private space, they are often the most important elements in the street scene and the different forms invariably determine the character of the street.

Where planning consent is required the local authority will seek to maintain or improve the street scene, avoiding adverse features such as the following:

- The removal of locally native hedgerows and the introduction of fast growing plant species such as 'Leylandii';

- The introduction of inappropriate design features such as ornate metal railings and gates in a rural village street scene and brick walls or railings in a generally green hedged street;
- The removal of a strong boundary to create an open plan front garden where other properties are generally enclosed;
- The introduction of excessively high walls or fences. (Generally boundary walls or fence height should not exceed 1.8m including any piers). Anything in excess of this height may be obtrusive.

Occasionally, the Council may require a new wall or fence to be set back from the boundary to allow for planting to the street side and maintain the green appearance of the street.

DAYLIGHT AND SUNLIGHT

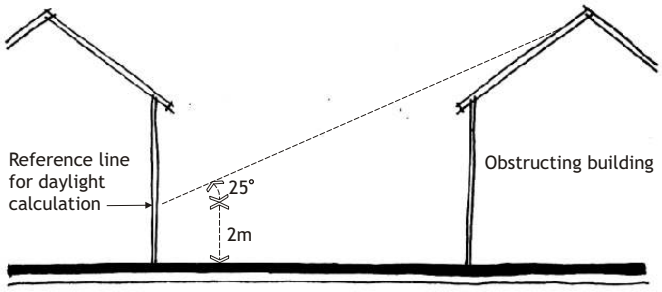
Central Government provides guidance on minimum densities and best use of land (PPS 3). In combination with developer aspirations, this guidance can encourage the development of 3 storey terraced housing and apartments which make loss of daylight or sunlight to existing or proposed dwellings a more distinct possibility.

Loss of daylight and or sunlight can make a development appear overbearing or dominate existing properties.

The quality of an outdoor space may be reduced if it is too wide and long compared to the height of the buildings around it. It may lack human scale and a sense of enclosure. There is a fine balance to be drawn between the need to create the all important 'sense of place' and the feeling of claustrophobia which can result from overbearing buildings. It is not merely a matter of spacing buildings further apart but rather a matter of ensuring that all buildings and the spaces between them receive good natural daylight as well as adequate sunlight throughout the year.

Where there is doubt that this has been adequately achieved, the Buildings Research Establishment's publication Site layout planning for daylight and sunlight : A guide to good practice by P J Littlefair, will be used to test the adequacy of available daylight and sunlight for buildings and spaces throughout the scheme. Where necessary developers will be required to produce cross sections to demonstrate this.

As a rule of thumb, the guide provides for unobstructed views of the sky from a window above a 25 degree angle measured from 2m above ground level. The angle may be increased if the obstruction is a continuous block.



NOISE

Activity around a site, such as railways, aircraft, major roads, sports and leisure facilities as well as some industrial processes can generate obtrusive levels of noise. Various design solutions can be used to reduce these problems although care should be taken to ensure that they do not conflict with the other design principles in this guide. Where properties are built under an airport flight path, appropriate noise attenuation measures should be incorporated to ensure the building meets applicable national guidance limits.

Distance is the obvious noise attenuation measure and some can be built into the houses themselves, others include:

- Orientation of buildings so that blank gables face the noise source.
- Use of single aspect designs
- Siting of garages or outbuildings to create a barrier
- Provision of acoustic screens, walls or earth mounds
- Locating play areas near family housing rather than accommodation for the elderly

Planting has little effect on noise attenuation. Typically, a 10 metre deep belt of planting is required to produce a barely discernible reduction of 3 Decibels.

WASTE STORAGE

Rushcliffe Borough Council operates an alternate weekly refuse and recycling service. Residual waste collection takes place one week and green waste plus dry recyclables takes place the next.

Properties have 3 wheeled bins to assist in the separation of waste for recycling/composting and disposal unless there is no need for the green (garden waste) bin.

Housing Developments

In all housing developments, space for three wheeled bins plus one for a possible additional bin should be allocated for each dwelling.

All properties should have rear or side access allowing removal of wheeled bins from the property frontage after collections have taken place. If no access can be gained, an individual lockable bin store will be required at the front of each property.

If a property has steps or a steep slope, or is designed for elderly or disabled people, bin storage at the front of the property will be required.

Where a road is not to be adopted by the highway authority, a wheeled bin collection point with appropriate signage should be Provided

Bin Collection Points

Where access to properties is restricted, because of flats above ground or archways, a lockable bin collection point will be required at a kerbside location near to where the refuse collection vehicle passes.

Such bin collection points should be carefully designed to be an integral part of the development rather than an afterthought.

Flats and Apartments

In larger developments of flats and apartments, industrial sized bulk containers are used. Calculate the number and size of containers required is using the following formula:

No. of properties x size of a wheeled bin / size of bulk container

Example: (based on 40 properties in a complex)

40 x 240 litre = 9600 (litre of space required) /1100 = 8.7 Containers required. This would be rounded up to a total of 9 x 1100 litre containers required.

The calculation is the same for both residual waste and dry recyclable waste.

This is to ensure that those who reside in this type of housing get an equitable service in comparison to a normal residential property. The same calculation is used for both residual waste and recyclables.

Bulk Bin Store Design

Bin stores should be placed nearest to the entrance enabling straight-line access for refuse collection vehicles and should be constructed of a material that is designed to withstand the rigors of heavy container usage. A drop kerb is also required to allow containers to be moved over level ground without the need to lift or drop to a different ground level. The access for vehicles collecting bins and bulk containers must be designed to carry a fully laden 32 tonne refuse collection vehicle.

Further design advice is available by contacting a waste adviser at The Environment and Waste Management Department on 0115 9148396 or 0115 9148373 where the team will be happy to respond to any queries prior to submission of a planning application.

CRIME AND SECURITY

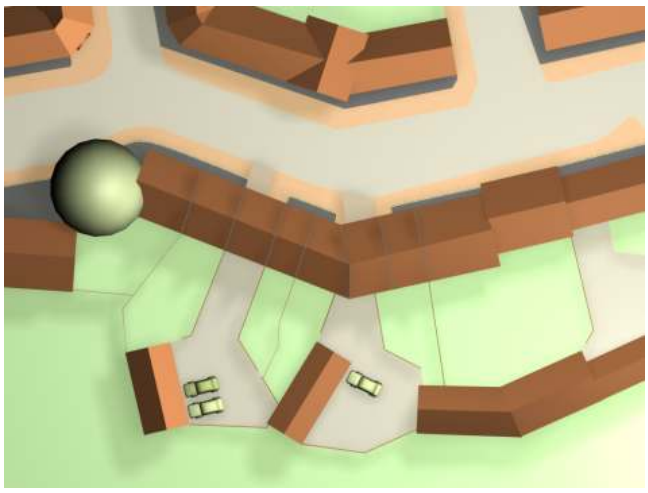
Residential areas should feel safe and secure. The application of good design principles combined with effective management, policing and community involvement is vital in achieving safe and secure environments.

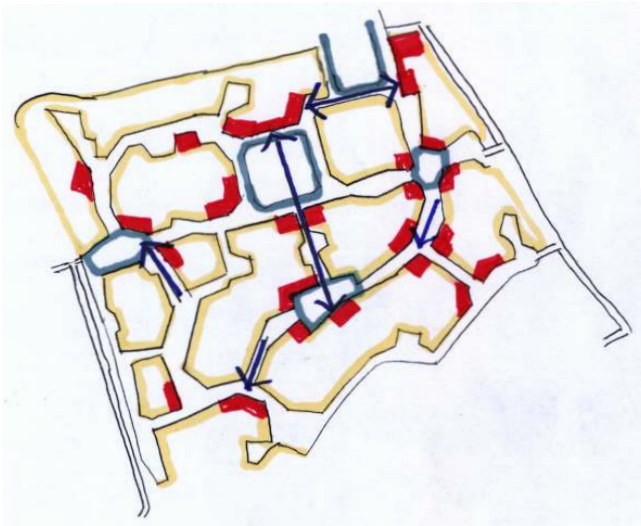
Buildings should be orientated to largely front onto and overlook streets. This provides natural surveillance and enlivens the street. Dwellings with their backs to the street should be avoided, although gable ends onto the street would be appropriate in some instances. By mixing uses, activities and household types, the period of natural surveillance can be extended throughout the day. 'Active' windows (i.e. living rooms and kitchens) on the street are the most effective, although this also requires careful attention to maintain privacy (See also Privacy section). Higher densities and the use of linked dwelling provides "eyes on the street".

The design of building set backs, facades, threshold zones (private and semi private space to the front of a building) and street planting should enliven the street and promote activity without prejudicing the balance of natural surveillance and privacy and without creating places of concealment. All movement corridors should benefit from natural surveillance.

Building backs, blank facades, long boundary side walls including blank corners, bin stores and service yards fronting onto the street should all be avoided. Primary access to dwellings should be from the street and should be clearly visible.

Public, private and communal spaces should be clearly defined and recognisable. Public open space, play areas and parking areas should be overlooked or effectively supervised. Parking areas should be located in front of buildings, on streets or in private courtyards. Good lighting design should instil confidence in the use of the streets yet without unnecessary light pollution.





These bungalows front onto the public open space and play area, providing natural surveillance and improving safety. The consistent low fences effectively define public and private space without creating too much enclosure to the front gardens or adjacent path. See also page 34 for Privacy section.

DEVELOPMENT TYPE GUIDELINES

APARTMENTS

There are a number of specific guidelines and points that relate to the design of apartments. These are in addition to all other relevant design principles, notably those addressing privacy and building form. New developments of this nature are usually proposed within existing urban and suburban locations, and most frequently within West Bridgford and its environs.

Apartment developments should not adversely affect the existing character of a street or area. Scale, height and massing of the development will require careful attention to ensure that it respects its immediate context. Any development should not be significantly higher than the existing adjacent houses unless the site warrants a landmark feature.

The integration of apartment developments into an existing traditional street scene will require the design to be well articulated. The use of building projections, set backs, bays and gables, together with variations in roof heights, materials, colours and fenestration should enable the development to reflect the character of its context and provide a positive design contribution.

The habitable use of the roof space can be one means of reducing the mass of an apartment development. By their very nature they provide high density development. The site layout, however, should provide sufficient external space for private or communal amenity areas, storage space for bicycles and bins. Where practicable, ground floor flats should have an enclosed private garden or courtyard spine and for other occupiers a communal garden should be provided wherever possible.

Privacy for ground floor residents should be achieved. Where it is not possible to include any private space as part of the frontage, creative solutions must be provided e.g. raising the internal finished floor level above the street level (See also page 34 for Privacy section)

Re-using existing factory and warehouse buildings and converting them to flats and apartments helps to retain historic character in certain locations.

Both contempory and traditional solutions should demonstrate a responsiveness to their context. See also bottom image on page 29.

New buildings should also relate to existing buildings in scale and massing

INFILL DEVELOPMENT

Infill development usually occurs in existing built up areas. The design and layout of this type of development requires very careful attention to relate to its existing settlement context and character. Although the general design principles set out in this guide apply equally to infill development, the following additional guidelines are particularly relevant.

Infill development should respect the existing massing, building form and heights of buildings within their immediate locality.

Front and rear building lines should be continued where these are well established and clearly defined as part of the existing settlement pattern. Although in exceptional circumstances a relaxation of the front building line may be acceptable, where the streetscene warrants a landmark feature or focal point.

The side spacing to neighbouring properties should be maintained where a consistent and regular arrangement already exists.

Fenestration, the proportions of the building and the use of related materials are all design matters that should take their lead from the neighbouring properties.

Contemporary and innovative solutions which successfully address all of these issues are to be encouraged.

Overshadowing or overlooking of both new and existing dwellings should be avoided or minimised through careful attention to design privacy (See also Privacy section). There should be a clear distinction between public and private areas.

This cul-de-sac development in East Leake has large buildings in close proximity to each other which appear over-bearing.

This line of cottages includes some refurbished existing properties and some brand new infill buildings but it is hard to tell the difference.

BACKLAND DEVELOPMENT

Opportunities for backland or 'tandem' development are limited because of the impact on neighbours, through loss of privacy or noise.

Where these issues can be overcome, the design of any new building must also take into account :

- Access and good connectivity to the surrounding settlement.
- Existing landscape features, particularly boundary hedges and trees. These should be integrated into a proposed scheme and not be considered as obstacles to development. These established features often provide good opportunities for reinforcing the individual character and quality of a scheme, with resultant benefits in terms of the desirability of the particular development. Possible damage to existing trees and hedges in the ownership of adjoining properties will be taken into account.
- Generally such development is not visible from the public domain, offering an opportunity for innovative contemporary architecture which can mitigate any adverse effects on neighbours

CONVERSIONS

Conversion of Redundant Buildings

Any building conversion for residential use should be sympathetic to the existing character of the building or structure and of a high design quality. This is particularly important where it is located within a Conservation Area or the building is listed or of architectural or historic value. The landscape settings should also be acknowledged with important hedges and trees protected wherever possible. Where removal is unavoidable, trees should be replaced with suitable species.

Barn Conversions

The construction of new dwellings in the countryside is generally not permitted in the local plan. It is generally accepted, that barns and other agricultural buildings may be converted to residential use under certain circumstances, particularly where:

- The barn is of significant historic, architectural or visual value and is in keeping with it surroundings by virtue of its bulk, form and general design;
- The building is capable of being converted without need for major rebuilding or extension. For this purpose a structural survey is generally required;
- The building is redundant as an agricultural unit.

Beyond these requirements, the acceptability of any design for conversion should seek to:

- Use existing openings wherever possible;
- Limit the introduction of new openings and ensure any new openings are of barn proportions and construction;
- Retain special features of interest;
- Discourage the introduction of chimneys;
- Discourage the use of dormers or roof-lights;
- Limit the amount of agricultural land to be used as private garden space.

Because of these limitations, barns are often more suited for conversion to craft workshops, offices, light industrial units or galleries which do not require excessive window space or subdivision, or the use of land for gardens.

In Rushcliffe, barn conversions are accepted as a means of conserving the Borough's agricultural heritage and the landscape qualities of the countryside but, if such a policy is to succeed, it is important that these buildings retain their agricultural qualities. They should not be converted into standard dwellings.

It is vital that any prospective owner recognises that “Barn-style living” will not be the same as living in a new house. Ceilings may be low, rooms may be dark and windows may be at different heights to those normally found in new houses. The occupants may not be able to take advantage of the best views across the countryside, and despite the large areas of open space around the building, may have a very limited garden area.

Any prospective developer should be aware that permission will not necessarily be forthcoming for unnecessary extensions, the raising of roofs or the introduction of dormer windows or roof-lights to increase accommodation. They should also note the requirement to submit a protected species survey and structural survey with a planning application.

General Design Considerations

By their very nature and purpose, barns are generally simple , large celled units to house livestock or store grain, animal feed or machinery. In contrast, houses tend to be multi-celled with each cell serving a different purpose with different design requirements; kitchens, bathrooms, living rooms etc. A number of the cells are relatively small such as bathrooms and bedrooms.

It is essential that an assessment is made of the barn to determine its orientation, its overall form and particularly its cells and the role these play in the value of the structure as part of the Borough's agricultural heritage. Some elements will play a very important part in the street scene or rural landscape and will be extremely sensitive to change, whilst others will be less important as part of the public domain where limited changes may be permissible.

It is also important to note any features of special interest such as beams, trusses, feeding troughs, paving details and the like.

The assessment can then be used to determine the optimum design solutions which take advantage of opportunities for change, whilst retaining the external appearance, the characteristics of important internal cells and any important features.

Design details and materials

It is important that buildings should be able to "read" in terms of historic change. This is known as ensuring "legibility". It will not generally be appropriate to imitate architectural details of the past which only serve to mask what is old and what is new.

For example, despite popular demand, it would not be appropriate to insert new floors using reclaimed beams or to use reclaimed roof trusses to attempt to impart a sense of age into the property. It is far better to use contemporary design and techniques so that the original construction is still recognisable and visible as a unit.

- It is not appropriate to insert "house" windows into barn conversions. Agricultural openings are generally either extremely small or extremely large and invariable simple in form. They are often of different proportions to house windows and are rarely broken into small panes by glazing bars. The design of any opening doors or windows should follow this agricultural vernacular.
- Chimneys are not generally found on barns unless in their simplest form for a blacksmiths forge or for boiling stock feed. Unless they already exist, they are not appropriate for barn conversions.
- Dormer windows are not generally appropriate. However, where elevations are regarded as acceptable for limited change (see analysis) then simple dormers of single pitched form may be acceptable. Similarly, roof-lights are not generally appropriate unless on an elevation which has been identified as one where limited change is acceptable.
- Porches are not generally acceptable unless on an elevation which has been identified as and where limited change is acceptable. Ornamental detailing to gables or eaves or the introduction of feature panelling is not acceptable unless these are a deliberate reflection of the architectural style of the particular building or group of buildings.
- It is not necessarily appropriate to use reclaimed materials for any conversion unless this is for a repair.
- The subdivision of farm courtyards as private garden space will be discouraged unless more sensitive elevations will be adversely affected as a result of this constraint.
- Outside, dividing or boundary walls should be of simple construction with no ornamental detailing or unnecessary piers, scallops or stone capping.
- Dividing or boundary fences should be limited to simple timber post and rail or, in certain circumstances, metal estate railings.
- Generally close boarded fences or decorative metal railings are not acceptable.
- Permitted development rights will be removed in the case of all barn conversions.

Loft Conversions

Where feasible, conversion of roof spaces can offer a more appropriate and easier design solution for increasing habitable space. Beyond the practical considerations of addressing structural issues, providing adequate height and access and overcoming any existing roofspace constraints (e.g. water tanks and pipes), the principle external design issue is likely to be the provision of natural light. Roof lights or dormer windows in proportion to the building and not dominating the roofspace should be provided. Typically, these are more appropriately sited on the rear roof plane. Dormer windows may not be acceptable in those Conservation Areas where dormers are generally not a feature of the architectural heritage of that area.

Dormer window design should generally reflect the character of the building in terms of roof form. They should not dominate the roof slope and should therefore generally be smaller in scale and proportion than the first floor windows in the house. They should not reach the ridge line nor should they extend vertically from the wall of the house.

Flat roofs should generally be avoided as they are not likely to be typical of the existing building .

Privacy can be an issue where new loft conservation windows overlook new windows overlook existing gardens or other buildings. The orientation of windows should therefore be considered as well as the location of balconies. Obscure glazing or the use of roof lights can resolve privacy issues but is not generally acceptable in habitable rooms.

Stricter controls over the design of loft conversions may be applied to Listed Buildings or properties in Conservation Areas where these need consent. It should be noted that Permitted Development rights for loft conversions, dormers, and window replacements may be removed by Condition in any development where it is apparent that such rights may compromise the privacy of neighbours.

EXTENSIONS

Important note : The guidance provided in the previous section on Privacy and Amenity applies equally to proposals for extensions.

Extensions Generally

Extensions to existing dwellings need to adhere to many of the design principles set out in this guide, notably those addressing scale, proportion, building and roof lines and privacy. Extensions should be designed so that they are not readily perceived as being merely "add-ons" to the original building and therefore scale, proportion and roof form are very important. However, as a general rule the style and design of the original dwelling should remain the dominant element with the extension subordinate to it.

The extension should never dominate the original dwelling unless there are exceptional circumstances.

Generally the design and materials used for the extension should reflect those of the existing property unless it can be shown that alternatives would be beneficial, for instance a building of heritage value where the materials can no longer be obtained or which is built in such a way that its brick pattern or coursings cannot be faithfully followed. In these instances an alternative may be a carefully selected render to ensure the original dwelling remains the dominant structure.

Existing site amenities should also be considered especially where any new extension is likely to result in an inadequate garden or parking facilities.

Stricter controls may be applied to extensions to Listed Buildings or to properties in Conservation Areas where these need consent. It should be noted that Permitted Development rights for extensions and window replacements may be removed by Condition in any development where it is apparent that such rights may compromise the privacy of neighbours.

Front Extensions

Front extensions should complement the existing street character in terms of building lines and building presence. Proximity to the highway and public realm should respect existing distances. Existing landscape features of particular importance to the public realm should be protected wherever possible and replacement trees may be required for any lost through the construction of the extension.

Side Extensions

The impact of side extensions on the street character must be taken into account in the same way as for front extensions described above. Where there is a consistent rhythm to the street scene and building spaces, this should not be interrupted. Extensions above existing garages can work successfully where these continue roof form and pitches and where they maintain visual "spacing" to the neighbouring property.

However, even the construction of a first floor over a garage can have a detrimental effect on the street scene as the sense of light created by views of the sky between the buildings, over the garages, is lost.

Issues can also arise where side extensions infill spaces and create a terracing effect where this is not an original characteristic of the street. Such terracing effect may be minimised by :

- Setting back the extensions from the front wall of the dwelling, especially at first floor level by as much as 2 metres;
- Reducing the ridge height whilst retaining the pitch of the roof to match the existing dwelling;
- Using hipped roofs where this is the appropriate to the existing building style or street scene;
- Setting the building in from the boundary by a minimum of 900mm. Where gaps between buildings in the street scene are more spacious, a greater distance will be required;
- Reducing the first floor ceiling height of the extension through the use of the roof space with dormer windows or roof lights;
- Choosing an alternative location for the extension such as to the rear, or using the existing loft space.

In all cases it will be necessary to consider the precedent set by the approval of any front or side extension and what impact this will have on the street scene if adjacent properties extend in a similar manner.

Rear Extensions

Overshadowing, loss of privacy, loss of light and any overbearing impact are the key issues when determining applications for rear extensions. In certain circumstances these also apply to front and side extensions.

The extension should respect the residential amenity of neighbours by ensuring it is not overbearing and does not overshadow their windows or gardens. It is vital to consider the scale of the extension and how it will appear from the neighbours house or garden.

It may be overbearing if :

- The extension wall is too high or too close to the boundary or;
- If the extension projects a long way beyond the neighbour's dwelling

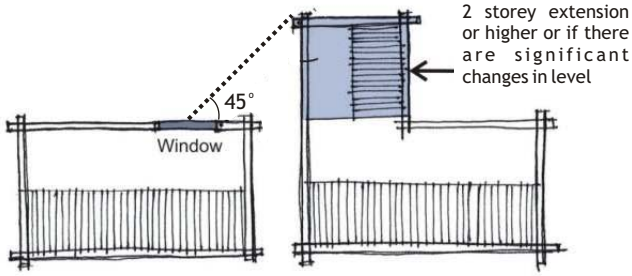
It may be considered to overshadow if :

- It results in loss of daylight or sunlight to windows or garden.

(a 45 degree guideline is used to assess the potential impact on daylight to a neighbour's window - See diagram right)

The extension should ensure that the neighbour's privacy is not affected. Habitable room windows should be located to comply with the distances set out in the table on page 34 so as to prevent unacceptable overlooking of houses or gardens (particularly patio areas). Invariably, an extension brings the property closer to the rear boundary and the impact this has on the privacy of neighbours at the rear of the site must also be considered.

Balconies will not be acceptable where these result in loss of privacy. If the introduction of a new extension results in the change of the use of rooms in the dwelling, such as the introduction of a first floor living room, then the impact this has on the residential amenity of neighbouring properties will also need to be considered.



The "45 Degree" Guide

SECTION C3

Environment, Energy and Management

Landscape and the Public Realm

Wildlife

Water, Drainage and Flood Risk

Energy Conservation and Sustainability

Management and Maintenance

LANDSCAPE AND THE PUBLIC REALM

A high quality landscape and public realm is an essential part of any successful residential development. The basic approach to creating, enhancing or conserving landscape as part of a development starts with a good understanding of the existing situation. This should involve landscape analysis or appraisal in the early stages of the project. Understanding the existing landscape character, sensitivity and features of interest both within a site and its context should inform the design process. Working with and valuing those landscape characteristics and features of interest will ultimately create a stronger sense of place.

Larger development projects may require the production of a Landscape and / or Public Realm Strategy, whereas smaller development schemes will still need to demonstrate how the proposals have responded to the existing landscape and used it positively to influence the proposals.

On larger projects this may mean that good hedgerows, mature trees and ponds are conserved and used as the basis for the new landscape structure. Similarly, important views and vista`s could be maintained or emphasised through the arrangement of the development blocks and open spaces. On smaller projects and sites, the conservation of a single mature tree can form a focus and provide instant maturity.

Hard and soft landscapes contribute to the quality of a place. The design and specification of materials should demonstrate high standards of attractiveness, environmental performance and durability. The selection of materials has a strong influence on how people perceive and use a space.

Where appropriate the use of native and indigenous planting species has positive benefits in strengthening local identity and biodiversity. Trees, shrubs, hedgerows, herbaceous and seasonal flowers can all be used to enhance a sense of place and reinforce identity and legibility within a development.

A proposed layout plan incorporating existing conserved and proposed planting and showing where views and pedestrian access will be created or maintained as part of the development.

New development sensitively sited within a mature landscape setting.

Low maintenance meadows or grasslands can benefit wildlife and minimise aftercare requirements.

Many different types of landscape and public realm areas may be required within a large development site; from formal parks and sports areas, to quiet nature conservation orientated areas. On smaller sites, the landscape and public realm may only relate to the immediate frontage of a property. In this instance there may be very limited space but nevertheless, how this is designed and the types of features, planting and materials used will have a significant bearing on the overall impression of the development.

Where street furniture, lighting and signage are required the approach should generally be to avoid unnecessary features and clutter and to achieve a co-ordinated solution with attractive and durable products. Public art may not be appropriate for the majority of smaller scale residential projects but where it is considered it can make marked difference to the character and identity of a place.

The future management and maintenance of the landscape and public realm needs to be considered from the outset of the design process and not as an afterthought. How these areas are looked after and who by will be critical to their ultimate success. It is essential that a high quality of design and specification is matched by an equivalent aftercare regime.

Private landscape areas are covered in the section on Gardens and Boundaries elsewhere in this document.

High quality detailing and materials can have a positive effect accross a large or small scale development.

Public art need not be costly or always readily apparent. Often small and site specific features can add an extra layer of quality.

WILDLIFE

Rushcliffe is home to a wide variety of species and habitats, and it is important that these are retained for their own sake, as well as to create a more desirable environment that can help to improve quality of life. Many species, including bats, badgers, newts and birds are protected by legislation.

Development should adhere to the following principles:

- An ecological assessment of the site of any new development or building for conversion should be carried out at an early stage to establish existing habitats and the presence of protected species (both green and brown field sites will contain features that are worth retaining).
- The emphasis should be on avoiding harm to protected species, maintaining and enhancing habitats, as well as creating new habitats appropriate for local wildlife. Native species should be used to encourage biodiversity.
- Wherever possible, green spaces should connect to each other to provide green corridors for wildlife.
- Biodiversity initiatives such as the installation of green roofs or the use of bird bricks, bat bricks and bug boxes will generally be encouraged.

Many species are protected by legislation. Bats in particular can be found in existing buildings where conversions or extensions are being proposed. Early identification of any protected species can avoid complications and delays later in the development process.

WATER, DRAINAGE AND FLOOD RISK

Existing or new water bodies or features can enhance a residential development and offer significant practical and environmental benefits. Retaining surface water reduces the need for drainage infrastructure and energy for pumping. Sustainable Drainage Systems (SuDS) should be incorporated into the design wherever practicable. Although this is often an engineering led aspect of a development, other professionals (notably landscape and ecological consultants) should be part of this design process to ensure that any potential biodiversity opportunities are maximised and that the features provide a positive and sympathetic response to their landscape context.

The design statement/environmental impact study/ drainage design must identify any watercourse within the site, draining to the site, running from the site, and detail how they are to be incorporated within the development.

Where it is possible to discharge surface water into a watercourse, the condition of that watercourse both upstream and down and its ability to cope with the additional flows must be considered. If necessary additional balancing /suds may be required.

Where open channel / swales are proposed within residential areas their depth must not exceed 1.5m with side slopes no steeper than 30 degrees above the horizontal. A variety of channel profiles should be encouraged as this maximises the wildlife benefits of open water.

Where existing or proposed water features are to be incorporated within a residential development the following principles should be adopted:

- Sympathetic integration of the water feature should be ensured.
- Existing sensitive habitats and margins should be conserved.
- Safe and balanced access to the waterside should be provided (limiting access for biodiversity benefits should be considered).
- Where retaining walls or revetments are required, ensure that these reflect design character of the landscape and development and utilise sympathetic materials.
- A diversity of waterside planting and habitats, using native species should be provided.
- Appropriate and safe access for management and routine maintenance should be provided.

It is important to ensure that appropriate levels of flood resilience and resistance are incorporated into the design and construction of developments in areas of high flood risk. More innovative and bespoke design solutions to mitigate against the risk of flooding to new houses are to be encouraged and may be a requirement in areas of particular risk. Further guidance is available in : "Improving the Flood Performance of New Buildings" DCLG and "Preparing for floods" ODPM.

The future ownership / adoption, management and maintenance of any open watercourses of SuDS features should be discussed and resolved at the design stage.

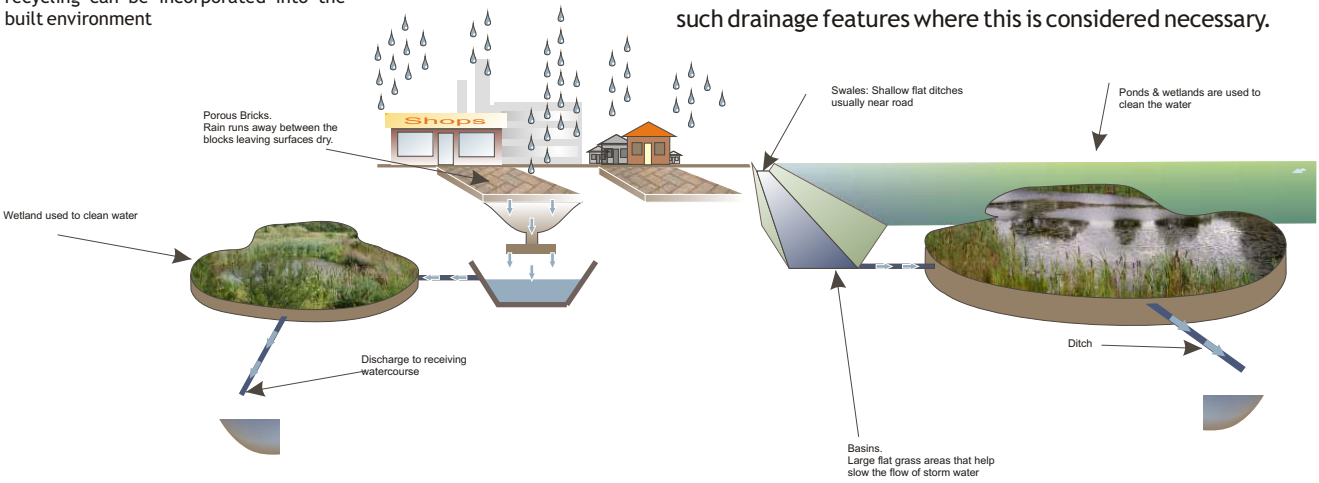
All new residential development must adhere to flood risk management measures as set out in Planning Policy Statement 25 and Practice Guide. Further guidance on this issue can be provided by the Environmental Agency.

Swales can be incorporated into landscape schemes to provide open space and green frontages.

The efficient use and of water (including recycling rainwater) should be encouraged in any development. Reducing levels of water consumption and outflow can be achieved in many ways, including the provision of:

- Grey water collection from baths and basins for toilet flushing;
- Low water consumption toilets;
- Showers and spray taps;
- Rainwater butts for green water recycling;
- Reed beds to filter and 'clean' waste water;
- Porous paving and open drainage channels and swales to allow surface water to permeate into the ground below
- Rainwater harvesting and storage for wide range of residential uses.

The diagram below illustrates how water recycling can be incorporated into the built environment



Hard Surfaces and Drainage

Hard surfaces prevent rainfall being absorbed naturally into the soil. When drains cannot cope with torrential rain, localised flooding can occur and climate predictions suggest this could happen more frequently in the future. In addition, pollutants such as oil residues may be washed off into drains and carried into watercourses where they can damage wildlife.

The government has introduced new controls, which mean that impermeable driveways or hardstandings of over 5 square metres in front of dwellings now need planning permission. Permeable surfaces do not fall under this control but the Environment Agency have produced good practice guidance on recommended surfacing materials and construction techniques. These include gravel and types of hard surfacing such as porous asphalt, porous concrete blocks, or permeable paving which allow water to soak through it. The guidance document can be viewed and downloaded from the following site;

Http://www.communities.gov.uk/publications/planningandbuilding/pavingfrontgardens

In larger developments these potential problems will be multiplied but there is greater scope to introduce Sustainable Drainage Systems (SuDS). See:

Http://www.environment-agency.gov.uk/business/444304/502508/464710/

Drainage feature such as porous pavements, swales, storage basins and soakaways contribute to recharging local groundwater reserves. In all cases developers will be required to design suitable water cleansing features into such drainage features where this is considered necessary.

ENERGY CONSERVATION AND SUSTAINABILITY

Measures to control heat loss, reduce fuel consumption, make the best use of renewable sources of energy and minimise waste should all be incorporated into the residential design.

Solar Design: Early attention should be paid to the orientation and layout of a site. Daylight reduces the need for artificial lighting and passive solar gain reduces the need for heating. Windows and living spaces should be orientated to benefit from passive solar gain and avoid over shading where possible.

More careful attention to window design, sizing and location may be required in areas of higher densities. In simple terms, where there may be more restricted solar access to ground and lower floors, this can be compensated for through use of larger windows.

Active solar design involving the capture and transfer of the sun's heat to either heat water (solar water panels) or generate electricity (photovoltaic panels) is encouraged. These components should be integrated into the overall design of the
dwelling.

Where there is less opportunity to maximise solar gain (due to site aspect or other constraints), highly effective insulation (and super insulation) should be pursued. This can include :-

- 300mm insulation to walls and roofs;
- Under floor insulation;
- Controlled ventilation;
- Triple glazed windows;
- Air tight construction (reliant upon good detailing and workmanship).

Wind: The layout and orientation of buildings and landscape proposals should avoid wind channelling and turbulence (by decreasing wind speeds, loss from buildings will be reduced). Wind could be harnessed for natural ventilation within the building design and also be considered as a potential energy source.

Below Ground: Consider the potential for underground energy sources for both heating and cooling.

Energy Efficient Appliances :

- Condensing gas fired boilers;
- Efficient heating systems and controls, including thermostatic radiator valves;
- Energy efficient white goods;
- Low energy bulbs.

Sustainable Development

All new residential development should aspire to the guidance for the "Code for Sustainable Homes"(2006). In particular the use of UPVC should be carefully considered, as its adverse effects on the environment are greater than many alternative window/door materials.

MANAGEMENT AND MAINTENANCE

Management and maintenance must always be considered at the beginning of any new development, as this can determine how successful it is in the long term.

The guidelines below outline the basic principles:

- Planting for public spaces should require minimal maintenance. Species should not be too vigorous (reducing the need to be constantly cut back), and be both hardy and robust. The planting of large species and trees should be carefully considered to minimise the need for interference in the future (for example, trees planted near buildings may cause obstruction or root problems).
- In cases where higher maintenance planted schemes are suggested, a detailed management and maintenance plan must be written to ensure the long term success of the scheme.
- For smaller scale development, creating a sense of ownership over shared spaces can help to encourage residents to take responsibility for maintenance. However, the difference between public and private spaces should be clearly defined, so that there is no confusion over who is maintaining the space.
- All open spaces will require access for maintenance vehicles.
- New street furniture should be robust enough to withstand vandalism and general wear and tear.

SECTION D

Appendices

Site Appraisal Checklist

Glossary

Typology

Useful References

Useful Addresses

SITE APPRAISAL CHECKLIST

LARGER MULTI UNIT DEVELOPMENT SITE

Prior to producing development proposals, the site should be fully appraised based on the following;

- Surrounding landscape character
- Topography
- Historic character and setting of site, including designated features such as listed buildings and scheduled monuments, as well as wider archaeological and landscape features
- Local Authority designations e.g Conservation Area
- Site boundary treatment
- Location of any hedgerows or trees which should be retained
- Ecological constraints and designations
- Infrastructure constraints, location of services etc.
- Settlement pattern
- Layout and form of buildings and spaces
- Views and visual appraisal
- Location of existing facilities and links to existing development
- Existing circulation patterns and rights of way
- Location of any watercourses
- Building details, facades, roofscapes, materials
- Flood risk

SINGLE UNIT DEVELOPMENT / CONVERSIONS / EXTENSIONS

As well as applying the items on the previous checklist, these items are more relevant to small scale developments;

- Location of neighbouring windows
- Aspect of plot
- Existing building line
- Existing roofline
- Scale and form of adjacent buildings
- Parking provision

GLOSSARY

Access - The means of transport or route taken or method of entering a building or place.

Access for All - A design concept which aims to provide suitable access to both buildings and the countryside to all people, regardless of age or mobility.

Active Frontage - The land at the front of a building between the building and the street where there is interaction between the building and the public realm.

Appearance - Visual appearance and form of buildings, such as architecture, materials and colours.

Backland Development - The comprehensive development of a site behind existing properties generally using one or more parts of large rear gardens.

Brownfield Site - Also known as Previously Developed Land: Land that was developed but is now vacant or derelict, and land currently in use with known potential for redevelopment.

Building Line - The predominant line which marks the front edge of a line of buildings not including bay windows or garages which may cause slight variation.

Character - The distinct and recognisable pattern of elements that occurs consistently to give something an identity.

Context - The surrounding landscape and built environment within which a development will be located.

Conservation Areas - An area considered worthy of preservation or enhancement because of its special architectural or historic interest.

Curtilage - The area, usually enclosed, immediately surrounding a home that is used in the daily activities of domestic life.

Density - The number of dwellings or people per hectare. The Net Density only includes areas used exclusively for residential development and ancillary land uses such as access, whereas the Gross Density includes mixed use developments and landscape areas etc.

Diversity - A place with variety and choice in terms of housing, community facilities and leisure opportunities.

Enclosure - The arrangement of buildings, walls, trees etc to provide different levels of containment of a space.

Footprint - The shape of a building or group of buildings as it appears at ground level.

Greenfield Site - Land that has not been previously developed.

Hierarchy - A logical sequence of spaces, streets or building forms, increasing or decreasing in size or density throughout a development, often related to importance or frequency of use.

Legibility - A place that has a strong image and a layout which are easy to understand.

Landscaping - Treatment and design of public and private spaces, through hard and soft landscaping.

Local Distinctiveness - See Vernacular

Listed Buildings - A building or other structure officially designated as being of special architectural, historical or cultural significance.

Massing - The three dimensional arrangement of the volume of a building

Permeability - The ease and ability to pass from one area of a development to another by foot or vehicle and the connectivity of the development to adjacent areas or developments.

Public Realm - Areas adjacent to or between buildings which are accessed and used by the public.

Roofline - The predominant line of roof height.

Roofscape - The pattern of roofs and chimneys formed by different pitches, sizes and materials.

Scale - An indication of the height, width and length of buildings in relation to streets and surrounding spaces.

Sustainable Development - Development that meets the needs of the present without compromising the ability of future generations to meet their needs.

Tandem development - The placing of one dwelling behind another within a single plot and generally using the same access.

Townscape - The urban equivalent of landscape; the configuration of buildings and the spaces between them.

Vernacular - The style typical of an area which makes it locally distinctive and different to another area.

TYPOLOGY

To define your building typology, assess the following data;

Plot Width - the typical width of each plot although variations should be highlighted.

Building Line - do building frontages follow a regular line or are there variations.

Building Line Build Up - the percentage of each plot width that is built up, ignoring any side extensions.

Building Set Back - the distance of the front boundary to the building line, consider in relation to width of the pavement or verge.

Front Boundary - what forms the boundary, note materials and height as well any planting and the species.

Landscape Setting and Features - note the main landscape features which constitute the landscape context such as trees and planting and the presence or absence of lawns and hedges.

Plot Format - are properties detached, semi-detached, terraced or flats etc.

Parking - is there provision for off-street parking, are there drives and hardstanding or garages etc.

Plot Access - how is the plot accessed, where are the vehicle and pedestrian access points in relation to the plot and the building.

Building Format - are there patterns in the relationship between elements of the building which make up its mass.

Key Dimensions - Eaves height, ridge height and roof pitch.

Key Features - such as bay windows, dormer windows, porches, gables etc.

Roofing Materials - including details of ridge/bays/canopies etc.

Wall Materials - note the main materials used ie brick, stone, render as well as any detailing.

Window Format - what are the shape and size of the windows, sliding, sash, top hung, are they subdivided into smaller panes.

Typical Details - note any other details such window and door surrounds, arches, chimneys etc.

USEFUL REFERENCES

Documents available from the local authority.

- www.rushcliffe.gov.uk

Rushcliffe Borough Council

- Rushcliffe Borough Local Plan (June 1996)
- Rushcliffe Borough Local Development Framework (to be issued)
- Sustainability Appraisal
- Conservation Area Appraisals
- Village Design Statements (to be produced)
- Building Safer Places in Rushcliffe Good Practice Guide (July 2004)

OTHER REFERENCES

National planning guidance

- Planning Policy Statement 1 - Delivering Sustainable Development
- Planning Policy Statement 3 - Housing
- Planning Policy Guidance 15 - Planning and the Historic Environment
- Planning Policy Statement 25 - Development and Flood Risk

Other guidance documents

- By Design - Better Plces to Live (DTLR, 2001)
- By Design (DETR, 2000)
- Places, Streets and Movement (DETR, 1998)
- Code for Sustainable Homes (ODPM, 2004)
- Safer Places: The Planning System and Crime Prevention (ODPM, 2004)
- Secured by Design (ACPO CPI, 2004)
- The Urban Design Compendium (English Partnerships and the Housing Corporation, 2000)
- Inclusive Mobility (Dtp, 2002)
- Building Regulations
- Guidance on Tall Buildings (2007)
- www.building-in-context.org
- www.cabe.org.uk
- www.english-heritage.org.uk
- English Heritage and CABE, Building in Context: New development in historic areas, 2001.
- English Heritage and CABE, Guidance on Tall Buildings, 2007.
- English Heritage and the Department for Transport, Streets for all East Midlands, 2005.
- English Heritage, Energy Conservation in Traditional Buildings, 2008.
- English Heritage, Microgeneration in the Historic Environment, 2008.
- English Heritage, Suburbs and the Historic Environment, 2007.
- English Heritage, Enabling Development and the Conservation of Significant Places, 2008.
- English Partnerships and the Housing Corporation, Urban Design Compendium 1&2, 2007.
- English Heritage, Historic Environment Local Management, at: www.helm.org.uk, 2009.
- Nottinghamshire County Council, The Character of Nottinghamshire's Historic Landscape, 2000.
- Nottinghamshire County Council, Bingham Extensive Urban Survey Archaeological Assessment, 2002.
- Nottinghamshire County Council, East Leake Extensive Urban Survey Archaeological Assessment, 2001.

USEFUL ADDRESSES

Local Authorities

Nottinghamshire County Council

County Hall
West Bridgford
Nottingham
NG2 7QP

Trent Bridge House
Fox Road
West Bridgford
Nottingham
NG2 6BJ

Rushcliffe Borough Council

Civic Centre,
Pavilion Road,
West Bridgford,
Nottingham
NG2 5FE.