Design Supplementary Planning Document

January 2020

Charnwood

Foreword

Good design goes beyond aesthetics. It represents a skilful response to a site's character and form, relating well to the existing context whilst also producing attractive, well-connected places that people want to live in or visit.

Achieving good design on new developments requires strong partnership action, involving built environment professionals working within a variety of disciplines, as well as the local community.

Developments built to a high standard of design quality will successfully demonstrate a variety of positive attributes – they will respond well to local character, impact positively upon the environment, be adaptable to meet future needs and provide spaces and buildings that help improve people's quality of life.

This Design Supplementary Planning Document communicates what the Council considers to be high quality design in Charnwood and, in doing so, provides applicants greater clarity on how their proposals can meet the policy requirements in the adopted Charnwood Local Plan Core Strategy.

Chapter 1: Introduction

1.1 Achieving a high standard of design quality forms an integral part in achieving sustainable development. To help with this, the National Planning Policy Framework (NPPF) encourages local planning authorities to be clear on design expectations and how they can be achieved, using tools such as guidance documents to clearly communicate these expectations to applicants.

1.2 The Charnwood Local Plan Core Strategy 2011-2028 was adopted in November 2015. It forms a key part of the development plan for the Borough alongside the saved policies in the Borough of Charnwood Local Plan 2004. The Core Strategy sets out the Council's vision for high quality design.

1.3 This Supplementary Planning Document (SPD) provides guidance on how a high standard of design can be met and supplements adopted Core Strategy and saved policies covering high quality design, open space requirements and measures to adapt to climate change:

- Policy CS2: 'High Quality Design'
- Policy CS15: 'Open Spaces, Sport and Recreation'
- Policy CS16 'Sustainable Construction and Energy'
- Policy EV/1 'Design'
- Policy H/17 'House Extensions'

1.4 The following documents that have been adopted by the Council also provide design guidance:

- Conservation Area Character Appraisals and Management Plans
- Adopted Masterplans for Loughborough and Shepshed
- Village Design Statements

1.5 On relevant sites, these documents should be read in conjunction with the Design SPD.

1.6 The guidance provided within this SPD and the above documents shall be used as material considerations in the determination of planning applications.

1.7 This SPD supersedes the Leading in Design SPD from 2005.

1.8 Neighbourhood Plans (when made) form part of the development plan and may contain design policies which would need to be considered as part of the determination of a planning application.

How to use this SP

1.9 The Design SPD starts by providing an overview of the design process and then is structured around a series of key principles set out in Core Strategy Policy CS2, summarised below:

Charnwood's Design Principles
1. Respecting and enhancing the local character The Design SPD provides guidance on appropriate development scaling and density, building heights and massing, impact upon the street-scene and the landscape and the choice of materials. These are design elements that fundamentally impact the character of a proposal.
2. Providing attractive public and private spaces The Design SPD provides guidance on the different types of open space provision and how they can be made more attractive for people to use fully.
3. Well connected and legible streets and spaces The Design SPD provides guidance on how developers can deliver streets rather than roads, establishing route hierarchies, maximising connectivity, accommodating street furniture and installing traffic calming measures. This section also provides guidance on shopfront design, as they often interact with streets and provide vitality to spaces.
4. Creating multi-functional, safe and inclusive places The Design SPD provides guidance on how developments can perform multiple roles and become valued additions to the community as places. The guidance includes information on how to make developments secure, adaptable, inclusive, and accessible.
5. Adapting to climate change The Design SPD provides guidance on how new developments can reduce their impacts upon and adapt to the changing climate, through provision of trees, maximising biodiversity creation, considering layouts of buildings to improve energy efficiency and renewable energy, and promoting more modern forms of construction. ***6. Protecting the amenity of existing and future occupiers*** The Design SPD provides guidance on maintaining privacy of residents, limiting the impacts of overshadowing and addressing external factors such as noise insulation.

1.10 The Council encourages all applicants to consider the guidance contained within this SPD when preparing their development proposals. However, not all proposals will necessarily need to address all the guidance in the document. Some of the guidance will be more

relevant for certain proposals than others. The matrix below provides direction for applicants on what design guidance will be more relevant for each scale of development proposal.

Figure 1 - Relevance of the Guidance to Different Scales of Development

Charnwood Design Principle	Householder/ small-scale non residential	Minor development (1-9 dwellings)	Major development (10+ dwellings)
Respecting and enhancing the local character	√	√	√
Providing attractive public and private spaces		√	√
Well connected and legible streets and spaces		√	√
Creating multi-functional, safe and inclusive places			√
Adapting to climate change	√	√	√
Protecting the amenity of existing and future occupiers	√	√	√

1.11 The SPD does not provide 'ideal' design solutions which are guaranteed to be acceptable to secure planning permission. Ultimately, the design of new development should be closely informed by, and respond to, the context of the site and its surroundings, as each site is unique in terms of its characteristics.

1.12 The SPD provides information on how to deliver well-designed places in order to meet policy requirements in the Core Strategy; however it should also be recognised that the guidance is not exhaustive. Appendix II of the SPD provides a reference list of various guidance documents which have helped inform the SPD and applicants are encouraged to utilise these resources in the preparation of proposals.

Chapter 2: The Design Process

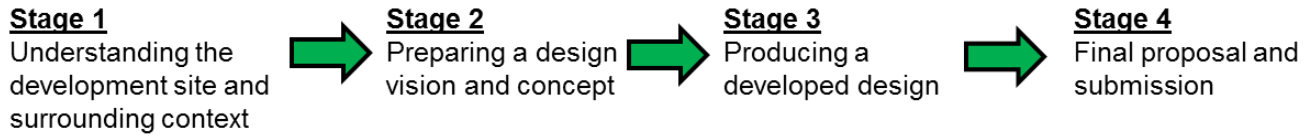
2.1 **Achieving good design is a collaborative exercise that includes a wide variety of professionals involved in the built and natural environment, as well as members of the local community.**

Approaching design – analysis, visioning and final proposal

2.2 To ensure that proposals consider the principles of good design from the outset, it is a good idea for applicants to follow a **design process**. This SPD provides a four step process, which is set out and explained below.

2.3 The process is intended as a guide only; it is not a mandatory requirement for all development proposals to follow. However, the Council expects to see evidence in submitted planning applications of how the design of a proposal has been formulated and justified. Following the steps in the process set out below is a good way of achieving this.

Figure 2 - The Design Process



Stage 1 – Understanding the development site and its surrounding context

2.4 A well-designed development proposal is one that responds appropriately to the context of its site and its surroundings.

2.5 Typically the site evaluation will involve a site visit to identify key visible features, including the topography, key views, nearby footpaths, neighbouring buildings/land uses, heritage assets and significant landscape features such as mature trees, hedgerows and watercourses. Site visits can help to establish the basic features/constraints of the site however, for larger or more sensitive schemes, a comprehensive evaluation may need to be undertaken; these could appraise the wider settlement pattern and character or involve the local community in discussions to gain knowledge on the history of the area.

2.6 **Carrying out a thorough assessment of the site and local areas will help provide additional clarity on the key design criteria and identify opportunities that may enhance the proposal.**

2.7 **The Checklist provided below may be a useful starting point in helping to assess a development site and its surrounding context:**

Figure 3 - Checklist for site assessment

Physical and natural features	Built & human features	Connections and movement	Conservation and local history
Landscape and vegetation, including trees and hedgerows Topography Boundary features Watercourses Wildlife and habitats Microclimate conditions Views and vistas into and out of the site	Existing buildings and structures on site and adjacent to the site Height, scale, mass, form of the buildings Materials used for walls, windows, doors, roofs Uses of the buildings and structures, including neighbouring land uses Utilities and infrastructure	Existing routes and pathways across and around the site Access points Potential desire lines Barriers to movement Proximity to public transportation services (e.g. bus, railways) and the frequency of these services Use of mental maps	Statutory designations – conservation areas, listed building status Non-statutory designations – locally listed buildings, areas of special landscape character Natural designations – protected trees and wildlife sites Past patterns of development – e.g. how the settlement/area has grown over time

Stage 2 – Preparing a design vision and concept

2.8 Following evaluation of the site and its surrounding context, applicants should prepare a design vision or concept plan for their proposal.

2.9 The vision can be presented as a textual explanation describing what the proposed development will be like once it is built. It should provide a clear goal on what the development aims to achieve as a place and not just describe how it will meet economic, environmental and social objectives. In short, a vision statement should describe what the development will feel like to people who live, work or visit there.

2.10 **Preparing a vision can help provide all stakeholders a shared goal to work towards when designing a proposal.**

2.11 A design concept should be sufficiently detailed to communicate the vision and how this will be delivered.

2.12 The design vision and concept of the proposal should respond positively to the issues and opportunities identified during the site analysis stage. The applicant may want to produce a series of design options, responding to the results of the site analysis in alternative ways.

This may prove useful if the applicant opts to engage in pre-application discussions with the Council and wishes to present a number of options for the authority to consider against the design principles in this SPD, in addition to any other adopted planning policies.

2.13 For large or significant developments, applicants may also wish to engage with the local residents on the vision and concept, in order to give the community an opportunity to view or comment on the early stages of a proposal, which may allow them to influence the developed design.

Stage 3 – Producing a developed design

2.14 The design concept or vision should focus primarily upon the key design priorities of a proposal. This should inform the next stage of the design and be sufficiently detailed, giving regard to the outcome of any engagement that has taken place with local residents or the local planning authority (if pre-application discussions have taken place at Stage 2 of the Design Process or earlier).

2.15 Developing design proposals may raise issues that were unforeseen earlier in the process and may be require changes to the initial concept design. This could significantly alter the design proposal in order to address these issues.

Stage 4 – Final proposal and submission

2.16 Once a preferred design vision has been fully agreed, the applicant should prepare the final design of the proposal, having addressed the issues raised during the design process.

2.17 The Council encourages applicants to submit information that provides evidence on how the design of their proposal has responded to the site analysis. Design and Access Statements (DAS) are commonly used by applicants to describe how their proposals are suitable for the site and demonstrate that it can be adequately accessed by its users. It may also be used to describe design choices and demonstrate compliance with the policy requirements relating to design.

2.18 DAS are formally required to accompany applications for major developments,[1] proposals within conservation areas and proposals impacting upon listed buildings. However, applicants can prepare them to accompany other kinds of planning applications, including applications for house extensions, to explain their design process.

1 See planning practice guidance note 'Making an application' for what is considered 'major development' in planning terms

Design and Access Statements: How to write, read and use them (2007 publication)

Design Council CABE published a best practice guide for producing design and access statements in 2007. The guidance contains relevant advice on how applicants can produce better design and access statements to accompany proposals.

The document can be found here.

Pre-application discussion

2.19 Pre-application discussions with the Council are useful for seeking mutual agreement on the design of proposals. Pre-application discussions can help identify issues with the design of development proposals and help formulate solutions prior to the formal application being submitted.

2.20 Pre-application discussions can also be beneficial for:

- Providing information on site constraints and other issues relating to the site which could impact upon the design of future schemes.
- Identifying which specialist bodies/organisations may be required to be consulted on a design option or contacted to help influence a design option.
- Evaluating whether engagement with local community would be beneficial for either the setting of design principles or realising a design concept.

2.21 For more information on the pre-application service provided by Charnwood Borough Council, including a breakdown of the cost of seeking pre-application advice, please follow this link – Pre Application Planning Advice

Design Review

2.22 The NPPF encourages local planning authorities to make effective use of design advice and review arrangements and Policy CS2 of the Core Strategy requires independent design review for major or sensitive development proposals.

2.23 Design review is useful in forming an additional perspective on a particular proposal and helping to resolve outstanding issues. Some examples of recent proposals in the Borough which have been subject to design review have been the sustainable urban extensions (SUEs) and the Loughborough University Science and Enterprise Park. Design review will be required on proposals which the Council identifies as being sensitive. Applicants will be informed by the Council when an independent design review is required for their development proposal.

Building for Life 12 (BfL12)

2.24 Building for Life 12 is recognised nationally as the standardised process for helping create well designed homes and neighbourhoods. BfL12 asks a series of 12 questions relating to the common indicators and goals of well-designed places.

2.25 Policy CS2 of the Core Strategy states that national design assessments will be used to determine design quality and supporting text recognises that our approach will be based upon Building for Life 12 (BfL12).The Council will also use BfL12 during pre-application discussions to help identify any design issues with received proposals and for monitoring purposes.

Chapter 3: Design Principles for Charnwood

3.1 This chapter of the SPD sets out the principles which relate to the achievement of well-designed places in Charnwood. The principles reflect those identified in Policy CS2 of the Core Strategy and are set out below:

Charnwood Design Principles

1. Respecting and enhancing the local character
2. Providing attractive and well managed public and private spaces
3. Legible streets and spaces
4. Creating multi-functional, safe and inclusive places
5. Adapting to climate change
6. Protecting the amenity of existing and future occupiers

3.2 Each design principle has been afforded its own section to provide ease of use in navigating the SPD. However, some elements of one principle may relate with others – when this occurs, the document will provide signposting to the inter-related guidance.

Principle 1: Respecting and enhancing the local character

3.3 New development of all scales should respond appropriately to its site and its surroundings. Applicants are encouraged to undertake a thorough site analysis prior to drawing up plans, in order to fully understand the site's character and its context.

3.4 An important aspect of good design is the ability to contribute to the **distinctiveness** of an are – distinctiveness refers to the positive features of a place and its communities, which contribute to its special character and sense of place [(2)]

3.5 Policy CS2 requires new development make a positive contribution to the character of the area and the idea of 'distinctiveness' is linked with this. Ensuring new development appears 'distinctive' and makes a positive contribution to an area is a challenging element of good design– to help achieve it, a good understanding of the individual site context and its surroundings is vital, as is a broader understanding of what makes the wider local area special.

3.6 New development should take inspiration from existing features that are identified in the local architecture or within the natural environment. This does not necessarily mean replicating traditional or historic building styles. Successful designs are often able to incorporate existing architectural characteristics into more contemporary design and form a strong link between the past and present.

2 Cowan R (2005) 'Dictionary of Urbanism'

Scale, mass, proportion and height of new buildings

3.7 **These elements are universal design considerations, relevant to the vast majority of development proposals. All new development should be of a scale, mass and height which respect its surrounding context.**

3.8 *Scale* is the impression of a building when seen in relation to its surroundings and in relation to the size of a person. Development should have elements which relate well in size to an individual human being.

3.9 The starting point for understanding the most appropriate scale for new buildings on a site is the size, height and form of the neighbouring ones, as well as the scale of any adjacent public or private spaces.

3.10 *Proportion* refers to the magnitude of each part of a building, and of each part of a building to another.. New buildings should feature common components, such as windows and doors, as well as any other architectural details, which are in proportion with one another and with the features on neighbouring buildings.

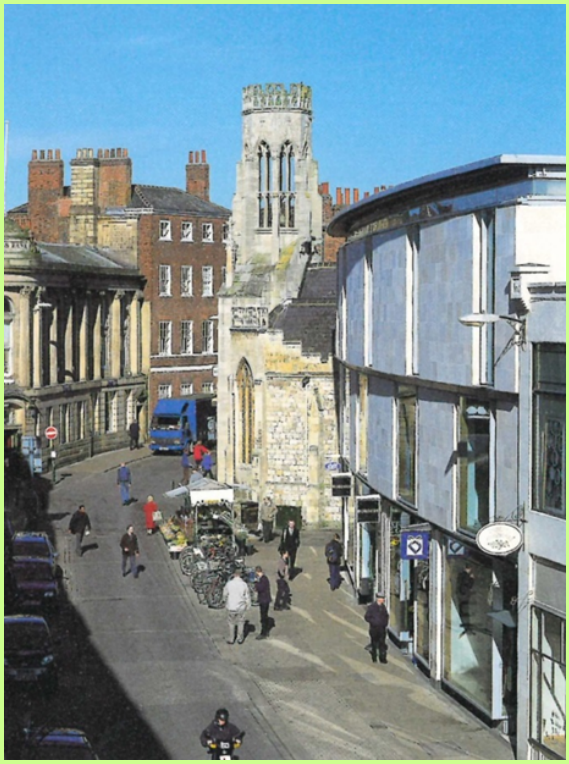
3.11 *Mass* refers to the impact of a building's volume, shape and arrangement on the street scene. It is commonly referred to as 'bulk'. Good massing should consider the relationship between the proposed development and existing buildings and spaces, as well as the character of the street-scene . Inappropriate development massing may lead to an assortment of problems beyond aesthetics, such as overbearing impact. .

3.12 *Height* is often expressed in terms of a number of floors. This can be misleading as floor heights differ considerably by the type of development (i.e. commercial premises often have higher individual storey heights than dwellings). The overall height of a building can also be interpreted by the height of certain building features such as parapets or the natural level of the land, the latter of which may have to be borne in mind when determining the placement of individual buildings on more undulating sites, to ensure that overlooking or overshadowing does not occur.

Design in Context – An Example

Above: Davey Gate, York

The building in the image above is set out on a shallow curve, echoing the curve of the 1930s building on the other side of the street and slightly opens up views of the church tower along Davygate. The same stone found on the church is used as a key component on the street elevation. A strong horizontal emphasis is provided by the exposed frame of the building and the slightly projecting cornice at eaves level. At the same time, the non-structural nature of the stone is emphasised by holding it in the exposed metal frame of the building and stepping out the upper floors slightly over the street. This device echoes the form of traditional timber framed buildings providing a visual continuity with historic precedence, as well as emphasising modernity. Window apertures reflect the proportion of those on other buildings, with the exception of the principal historic church.



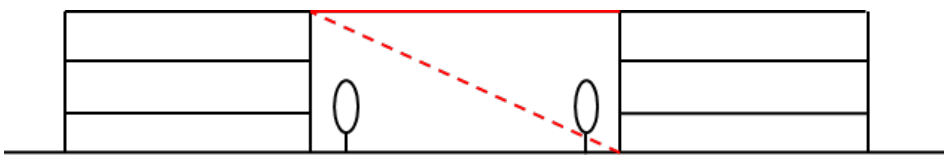
Source for images: Historic England/CABE, 2001

Good Practice Advice Note 3: The Setting of Heritage Assets (Historic England)

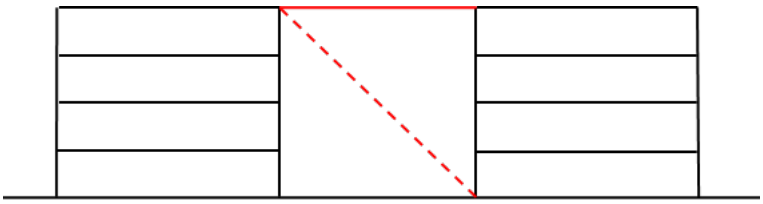
The Setting of Heritage Assets

Building height, street width ratio

3.13 A good way of determining an appropriate scale, height and massing of a proposal is to measure the building height to street width ratio. This concept is explained by the diagrams below:

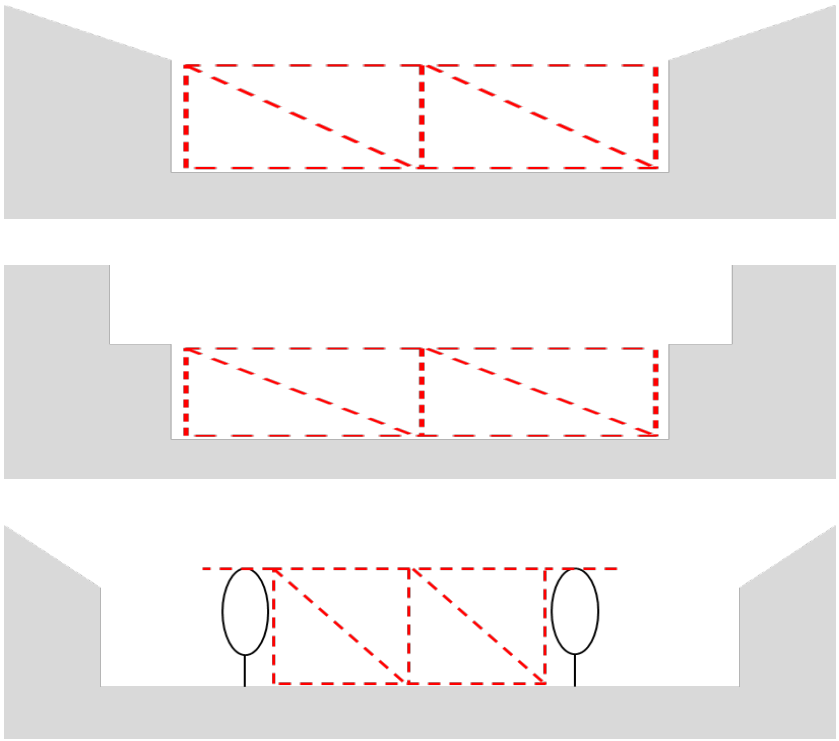


Street width x2 the height of buildings fronting it; creates a balanced sense of enclosure and spaciousness



Street width smaller than adjacent building heights; leads to greater sense of enclosure, which may be unduly narrow given the context

3.14 The impact of building heights upon public spaces can be softened by the treatment of front elevations. Reversely, the sense of enclosure along streets can be increased by the placement of trees.



Spatial definition by tree canopy height

Height to Width Ratio		
	Maximum	**Minimum**
Mews	1:1.5	1:1
Street	1:3	1:1.5
Squares	1:5	1:4

Townscape character

3.15 Development proposals should consider how they can respond positively to the wider townscape. Townscape is defined by urban form and its visual appearance, the appearance of streets, including the way the components of a street combine in a way that is distinctive to a particular locality.

3.16 Some streets in the Borough are lined by buildings of very similar heights and plot positioning while others, particularly in the Borough's villages, exhibit a greater variety of these elements, as well as buildings that utilise different materials and boundary treatments. The way in which different buildings and structures relate to each other along a street can contribute significantly to the quality of the townscape.

3.17 In existing built-up areas or in villages, development proposals should respond positively to the layout of buildings aligning streets. Where there is a relatively uniform streetscape, new development should generally not break the common alignment as this may create an inharmonious street scene. In more varied streetscapes, new buildings should contribute towards the visual interest that exists, in terms of the different combinations of design elements, such as differing scales, mass, heights and the materials used. Significant views or vistas should be maintained or enhanced in new development proposals.

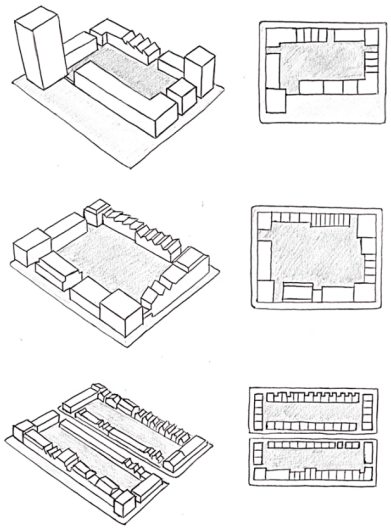
Above: A residential street in Birstall, featuring harmonious dwellings of similar scale, mass, height and plot positioning.

Above: Church Street in Seagrave, which demonstrates a relatively discordant street rhythm with a mixture of building placements, materials and a landmark building more prominent than adjacent buildings

Density and form

3.18 Density refers to the amount of development relative to the size of a site. The need to deliver a particular density in a proposal should not pre-determine the form of the development. The same density can be expressed through different building types and layouts. The diagrams below exhibit different approaches to density on one site.

Figure 4 - Three different combinations of building forms, layouts and densities on a single site



3.19 Density is not a determinant of design quality. Indicators of development capacity, such as the 'dwelling per hectare' calculation, should only be used as a starting point to understand the broad development potential of a site. Ultimately, the appropriate development density for a proposal will be determined by an assessment of the site and surrounding context.

3.20 Town centres and other locations well served by public transport provide an opportunity to increase the density of developments. In these circumstances, development proposals may benefit from reduced car parking provision, giving them the opportunity to provide spaces that can benefit the amenity of residents, such as landscaping and open space for interaction.

Development in the landscape

3.21 For new developments within more natural landscapes, responding to the natural character will contribute greatly to the scheme achieving a strong sense of place. For major schemes, the prevailing landscape character should be considered first, to provide the greatest prospect for the overall design and layout to respond appropriately to its context.

3.22 For developments within smaller villages in the Borough, siting is an important design consideration. Proposals in these areas should not appear out of place amongst skylines viewed from open countryside, respecting the existing building scales, mass, rooflines and materials.

3.23 Many recent residential developments in the Borough have been built to the edge of towns and larger villages. When designing these types of developments, a crucial consideration is making sure that the new built form represents a harmonious extension to the existing settlement edge. This can be achieved by:

- Avoiding private amenity space backing directly onto open countryside.
- Providing open amenity space or other green spaces, e.g. wildlife corridors, creating a transition between the countryside and the development.
- Retaining existing mature trees, hedgerows and other planting throughout the development and at the boundary with the countryside.
- Using building materials on dwellings that assimilate to the colour palette and texture of the open countryside and the sensitive use of street lighting at the settlement edge.

Above: Development at the settlement edge in Sileby, where a large park forms a buffer between the houses and the countryside. This helps create a softer boundary between the built and natural environment

In certain circumstances, development may need to mitigate its impact upon the countryside. This can be achieved through:

- The planting and placement of appropriate trees
- Creating a network with a variety of open spaces
- Responding creatively to topographical changes in the land (e.g. contours)
- Using materials and surfacing complementary with natural landscape features
- Creating biodiversity to attract wildlife and habitat formation.

Materials and detailing

3.24 The choice of materials for new development will have a significant effect upon the character and distinctiveness of the surrounding area.

3.25 Development proposals in conservation areas should refer to the respective conservation area appraisal for that area in order to determine what materials and exterior features are important characteristics and provide visual clues as to what maybe appropriate in safeguarding the area's character.

3.26 **Village Design Statements have been adopted for several villages in the Borough and serve as useful starting points for determining the types of materials, detailing and boundary features that best identify the village's character.**

Above: Common traditional building materials in Charnwood Forest (source for images: Newtown Linford Village Design Guide, 2008 and Woodhouse Eaves Village Design Guide, 2014)

3.27 Red brick for walls and clay pantiles or grey slate are the most frequent types of traditional building materials in many of the Borough's settlements, particularly ones within the Wolds.

3.28 In Charnwood Forest, stone is a common traditional building material, however, this is harder to replicate, as access to stone for building purposes is limited. Emphasis should be placed on choosing the type of stones that strongly complement the traditional stonework present on many historic buildings in the Forest Area.

3.29 Exposing timber on elevations could enhance the relationship between new development and the woodland character of Charnwood Forest. However, care should be given to the use of timber as a building material – exposed timber upon dwellings is often low quality and weathers poorly. The Council will encourage new outbuildings to display timber in their elevations to enhance the forest character in Charnwood.

3.30 In certain locations, the use of contrasting building materials can be a beneficial way of enhancing the character of a street and introducing a level of variety (see image below).

Above: This contemporary building in London contrasts greatly with the surrounding character in terms of detailing and exterior materials however it respects the street scape by way of its scale, mass and height, and it respects the common building line (image source: Historic England/CABE, 2001)

3.31 Detailing can enhance the aesthetic quality of new development. Details added to buildings can also provide subtle links to the surrounding area's history. Whilst blank elevations and structures fronting the street scene should generally be avoided on new developments, in exceptional circumstances this is unavoidable and the use of detailing to break monotony should be pursued. This can take the form of patterned brick motifs or, for boundary walls fronting the street, combining a mixture of fence panelling or iron bars and brick columns.

3.32 Detailing should respond to local character, communicating the architectural distinctiveness of the surrounding built form. It should also be kept to a minimum, to avoid cluttering elevations with unnecessary features.

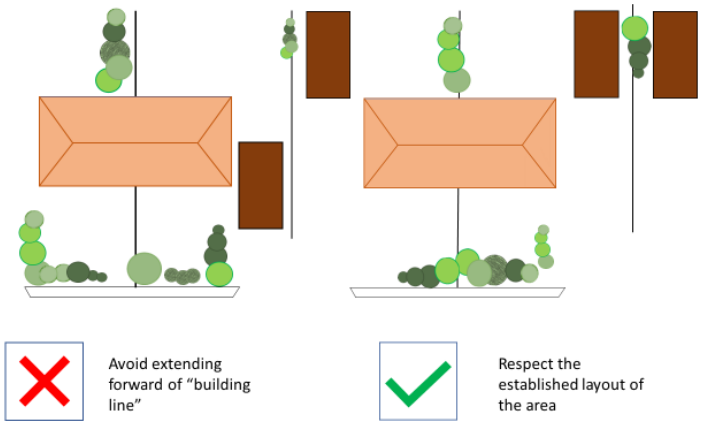
3.33 The choice of materials which do not deteriorate in their attractiveness over time is important in maintaining the quality of a development throughout its lifetime.

House extensions

3.34 The spaces between and around buildings can be important. Extensions which fill the gaps between houses can change the whole character of the area.

3.35 One example is where extensions to semi-detached houses creates a “terracing effect”. Setting back an extension from the front line of the house and/or using a different roof form can be ways to overcome this effect House extensions can affect the appearance and character of both the property being extended and the surrounding area.

3.36 Some streets have a well-defined “building line” and this can be important to the character and appearance of the area. A new building which does not follow this line can break up the street scene and change the fundamental character of an area. For example, building a garage in front of the main wall of the house is likely to look out of place where there is a line of houses and where garages are generally sited in rear gardens. What is important is that any new buildings should relate to the form and appearance of existing buildings.

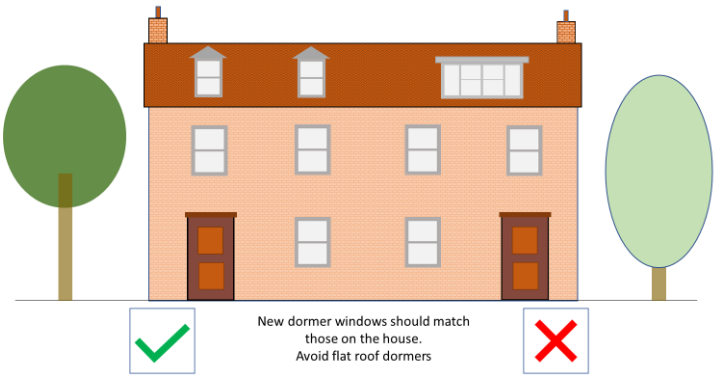


3.37 It is important that any extension respects the basic shape, proportions and size of the existing property. The shape, pitch and style of roof will be of particular importance.

3.38 Extensions should be designed so that the main property is still the dominant building. The roof and eave lines should be lower than the existing house. Setting back the extension behind the front wall of the existing house can often help to achieve a satisfactory design.

3.39 The size, style and proportion of new doors and windows are important consideration in the design of new extensions. If too many openings are included, the balance of the building may be upset, as there may be too much window area compared to brick work. Windows with different proportions and patterns of panes on the same wall create an unsettling and unbalanced appearance.

3.40 Windows in the roof can be one useful way of opening up extra floor space. Unless there are existing dormers in the area, new dormers are likely to be out of character with its surroundings. Rooflights provide an alternative. If dormers are used, they should be as small as possible. They should match the window style and roof pitch of the existing property. Dormers should be kept as low as possible. Dormers which are higher than the ridge line are likely to be unacceptable particularly in prominent or sensitive locations. In general dormers or rooflights should be kept to those areas which are most difficult to see.



3.41 The Impact of any House Extension on Neighbours.

3.42 House extensions can have an impact on the daylight and sunlight of neighbours. Separate sections of the Design SPD sets out methods to understand the impact of loss of daylight and sunlight.

Principle 2: Providing attractive and well managed public and private spaces

3.43 Some development proposals will be required to provide a level of open amenity space on site. The design of this provision should be closely considered in accordance with the development layout, the existing site context and the likely end users of the space, to make sure that the amenity provision is more likely to be well used by future residents.

Open Space Typology

Open space provision takes many forms, performing different roles. Please refer to the Open Space Strategy 2013-2028 (and any superseding strategy) for more details regarding open space typology.

3.44 **This SPD outlines the three key forms of open space (public, private and communal) and their specific design considerations.**

Public open space

3.45 Public open space that is attractive, inviting and safe to use can enable opportunities for social interaction and help facilitate more active lifestyles, both of which are key contributors towards building a strong sense of place.

3.46 Streets should function as public spaces and proposals looking to promote a diversity of activity within new streets shall be encouraged. Streets can be made more attractive and multi-functional by introducing planting and landscaping as well as street furniture.

3.47 Squares or courtyards are common forms of public open space, particularly in urban locations. Proposals for new squares or publically accessible courtyards should be clearly identified as part of the street scene, be well defined spaces in their own right and provide for the variety of activity that is likely to take place within them.

3.48 Public spaces featuring strong landmark features or characteristic styling (for example, different paving patterns) can help make them more legible as areas for public congregation. In addition, providing an appropriate level of greenery, such as in the form of trees and shrubs can help make them more relaxing and tranquil environments, as well as help towards biodiversity gain on new developments. Successful public squares are also easily adaptable to accommodate a range of functions.

3.49 For large development schemes, individual public open spaces that are part of an interconnected network can help support more sustainable movement patterns across the development, accommodating pedestrian and cycling routes as well as serving as spaces for people to participate in activities and sports.

3.50 For new public spaces it is important that long term maintenance strategies are considered at an early stage in the design process, and this should involve discussions with key stakeholders such as the Local Highway Authority.

Private amenity space

3.51 On residential schemes, private amenity space is often provided in the form of gardens, usually located to the rear of properties. Private amenity space may also be located to the front of properties, though this is usually to a limited degree. It is important to provide an adequate level of private amenity space so that future residents can maintain more active lifestyles.

3.52 Any private amenity space provided on new development should provide an identifiable demarcation from neighbouring public space, without compromising the aesthetic quality of new development.

3.53 The implementation of roof gardens may also be appropriate, though would only be limited in providing private amenity space for top-floor flats and apartments.

3.54 For flats or apartment-based schemes, private amenity space can be accommodated through the use of balconies which provide convenient external spaces. However since they are usually very visible features on elevations, they need to be designed as an integral part of the building as a whole. Balconies may suit the more urban areas of the Borough but need to be of a size that is fit for purpose.

Communal open space

3.55 Communal open space provides groups of residents' a form of amenity space in lieu of individual plot of private amenity space. Communal open space should be provided with

some sense of enclosure in the interests of maintaining privacy and security, whilst being reasonably overlooked by the surrounding residences that it caters to.

3.56 Opportunities in providing direct access from ground floor dwellings or apartments fronting onto communal amenity space should be balanced with the need to preserve the private amenity value of those dwellings through clearly defined boundaries.

Boundaries

3.57 Boundaries to new development or new individual buildings help provide a sense of enclosure and are important in providing a visible distinction between private and public space.

3.58 In considering the design and siting of boundary treatments, a balance should be struck between privacy, safety and aesthetics. Boundaries should respond positively to the character of the buildings and spaces they surround. Existing, well-established boundaries in the form of hedgerows or low wooden fencing should generally be preserved, particularly in the countryside where they often will contribute towards the rural character.

3.59 **More contemporary and unique boundary treatments can be appropriate within their context if they are able to demonstrate elements of traditional boundary features within their design.**

Above: Traditional boundary treatment examples in the Borough (source: Newtown Linford Village Design Statement, 2008)

Children's play areas

3.60 When they are required on new development, children's and young people's play space should be located in parts of the development where natural and passive surveillance can be maximised, for instance surrounded by homes fronting onto the play space. There should, however, be an appropriate separation between any neighbouring dwellings and the play space in the interests of reducing any noise and disturbance. Any streets surrounding the play space should be traffic-calmed and routes to and from the space

should be as safe as possible and overlooked by properties.

3.61 **Play spaces are usually required to be surrounded by low height fencing. However, in some circumstances, it may be acceptable to partly 'open up' formal play spaces to encompass parts of other open space typology – for instance, combining equipped play space with traditional parks rather not having them strictly segregated from each other.**

Above: Great Central Play Area, Loughborough – the formal play provision has been partly integrated with the surrounding park, encouraging young children to play in a more natural environment.

3.62 Alongside providing equipped play space, opportunities can be explored by developers to provide 'incidental' spaces for play – these spaces should not be limited to residential development but in other types such as town centre development, retail schemes and the public realm in general. Incidental play opportunities can help accommodate the needs of young children in the built environment.

Above: Examples in London (Left) and Stockholm (Right) of 'incidental' opportunities for play being provided within the built environment

(3)

3.63 Examples of 'incidental' play space are provided below:

- Well-overlooked pathways between dwellings or private amenity space also provide space for children to ride bicycles along – combined with paths in front of houses, these can help increase connected and attractive areas of play that are assimilated into the wider street environment.
- Placement of amenity space at junctions with existing streets or close to convenience shops – more children may utilise the space for play if it is in a prominent position within the street scene or is located close to amenities.

Green infrastructure

3.64 Green infrastructure is a strategic approach to the creation and management of a wide range of open spaces, ranging from parks to playing fields to woodland. The aim of green infrastructure is to provide a multi-functional network of green open space that are of high quality, help support environmental benefits, facilitate sustainable transportation (through provision of attractive walking and cycling routes) and improve the quality of life of local communities.

3.65 Development of all scales should consider their ability to enhance the wider green infrastructure network in Charnwood. It is important to note that certain development features such as green roofs and walls, street trees and green verges can contribute to enhancing the green infrastructure network, particularly in built-up areas.

3 Image source : Shaping Neighbourhoods: Play and Informal Recreation SPG September 2012 (London Plan 2011)Shaping Neighbourhoods

Existing Green Infrastructure in Charnwood

Further information relating to the green infrastructure networks present in Charnwood can be found in the Open Space Assessment Study 2017 and Playing Pitch Strategy 2018

Public art

3.66 Public art is an artistic contribution to the public realm or built environment. It can help to reinforce the distinctiveness of new development, providing a stronger sense of place.

3.67 The best public art is:

- Reflective of local context
- Easy to maintain
- Designed to minimise risk from vandalism but promote interaction.
- Safe to passers-by
- Illuminated to help improve its status at night

3.68 There are numerous ways that public art can be installed in developments; it can be a piece of commissioned artwork such as a sculpture, mural or statue or it can embed into something functional that enhances the artistic value of the place.

3.69 When providing public art on development schemes, applicants should demonstrate how the art being installed relates to the site context and how it responds to engagement with the local community – this can be included within a design and access statement or similar document.

Above: Public art in Charnwood (Sundial, Millennium Park, Barrow upon Soar)

Principle 3: Well-connected and legible streets and spaces

3.70 Well-designed streets are a crucial factor in allowing developments to function properly but should also provide high quality public space. Good design is about ensuring that new streets connect well with one another, are legible to the people that use them and are able to safely accommodate all users of the street. While the primary function of streets is to provide a route the layout and arrangement of the streetscape should provide for a diversity of activity and opportunities for other uses. New streets may remove vehicular traffic altogether and this allows greater opportunity for them to provide high quality public realm.

Connectivity, legibility and permeability

3.71 New networks of streets should demonstrate three core principles – **connectivity, legibility and permeability.**

- **Connectivity** is the degree to which a place is connected by routes to other places and to which its own parts are connected to each other.

- **Legibility** refers to the ease that residents and visitors in a place can navigate through and around it, as well as how easy it is to interpret its purpose.
- **Permeability** is the extent to which an environment allows a choice of routes both through and within it.

3.72 The connectivity, legibility and permeability of streets and other routes in new development will closely dictate how that development functions. For residential schemes creating new streets, developers are encouraged to think about how each street is designed to treat future traffic flows. A useful starting tool is to establish a network with a **route hierarchy** – this is especially important for major development proposals.

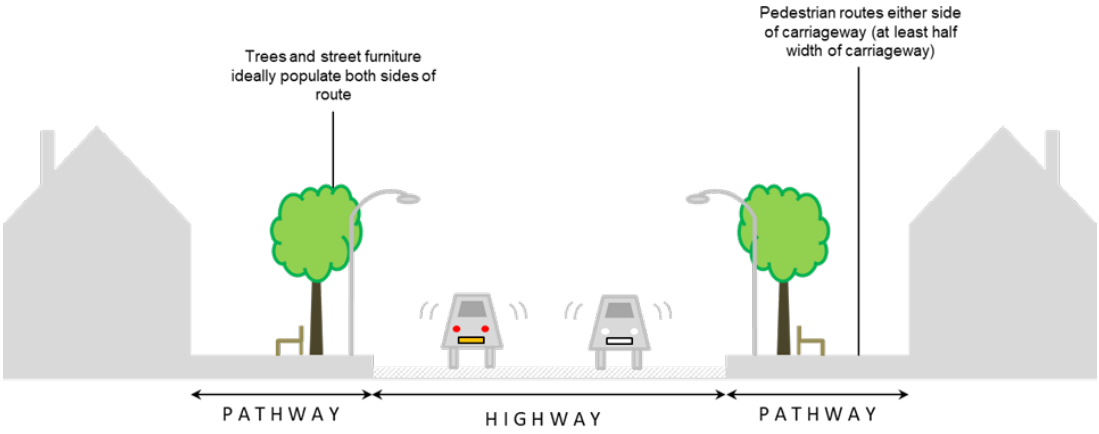
Route hierarchy

3.73 For large developments proposing a network of new streets, the streets should be organised in essence by primary, secondary and minor routes.

3.74 **Primary routes** form the main connections through the development. They will usually be the widest routes in the scheme, accommodating vehicle, pedestrian and cycle flows in equal measure.

3.75 On primary routes, the inclusion of street trees (ideally larger species), planting and street furniture such as benches can help to avoid the dominance of hard surfaces within the highway corridor.

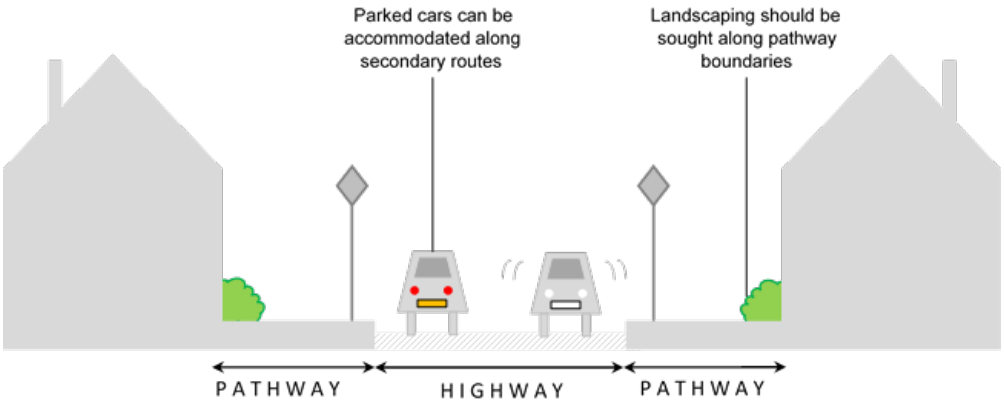
Figure 5 - Primary route cross section



3.76 **Secondary routes** are narrower than primary routes and should be designed to ensure vehicles are required to travel at lower speeds. The priority should not be on providing efficient traffic flows but in creating quiet street environments in the interests of resident amenity. Street parking is more suited to secondary routes and should be embedded within their design, though it should not overly dominate the street-scene and ideally should be located on one side and not both.

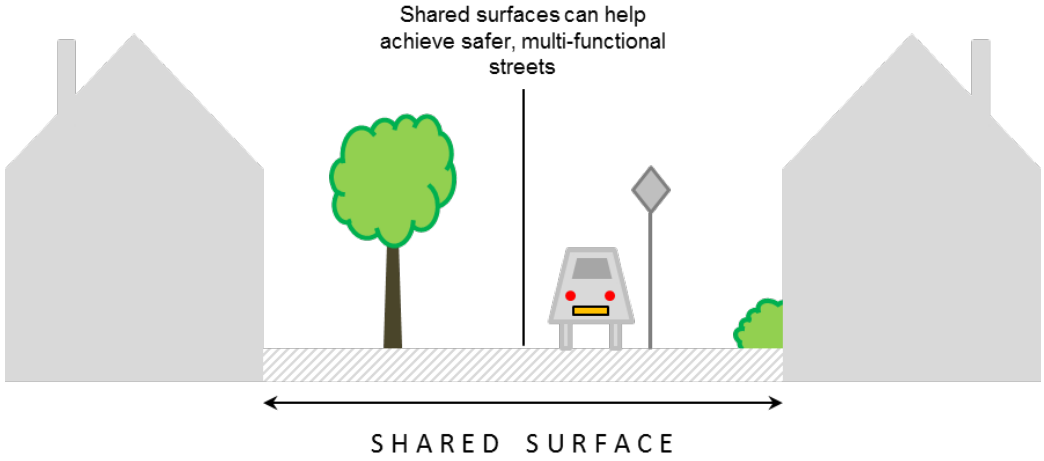
3.77 Secondary routes can also incorporate a well-defined and attractive public realm, by providing planting and street furniture, albeit to a lower degree than primary routes. They have narrower widths so, in terms of street tree provision, smaller species of trees may be more appropriate.

Figure 6 - Secondary routes cross section



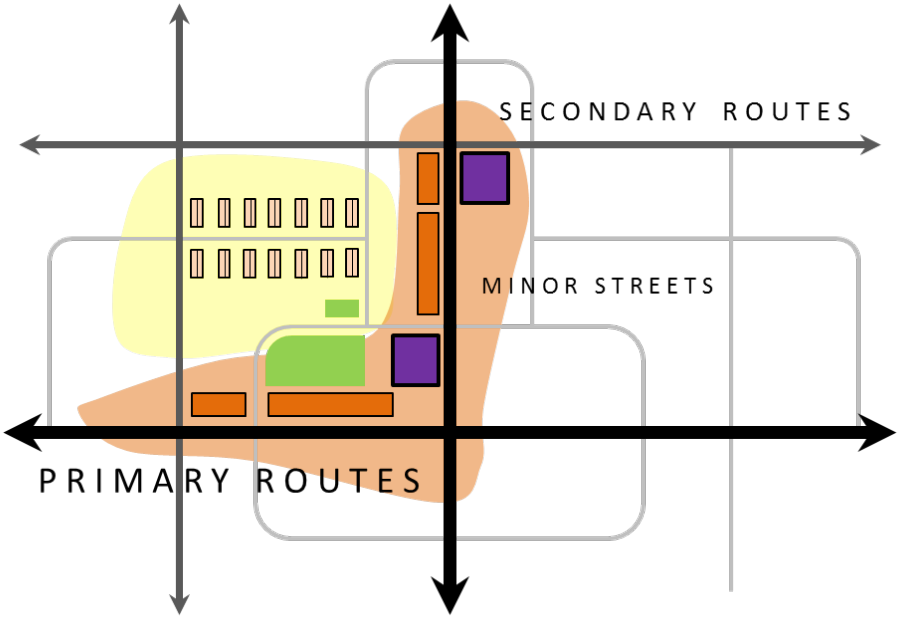
3.78 **Minor routes** are pedestrian and cyclist focused and should include measures in place to minimise the speed of vehicular traffic. These routes should be well connected like other routes but, ideally, they should create a sense of seclusion and calm from busier routes – street trees and planting can help encourage this, as well as consideration of creating shared surface.

Figure 7 - Minor routes cross section



3.79 **Establishing a route hierarchy can improve legibility and appropriately manage levels of permeability, by allocating streets to accommodate certain transport modes, lower amounts of traffic and more intensive land uses.**

Figure 8 - Larger developments should adopt a route hierarchy – the black routes on the diagram above indicate streets providing key connections (primary routes) and the light grey routes indicate quieter and more secluded streets (secondary routes and minor routes).



Street design

3.80 Streets should be viewed as places in their own right and not merely designed to meet highways standards; developers should pursue opportunities to make them attractive and multi-functional, which may mean performing roles that are often associated with well-designed public space.

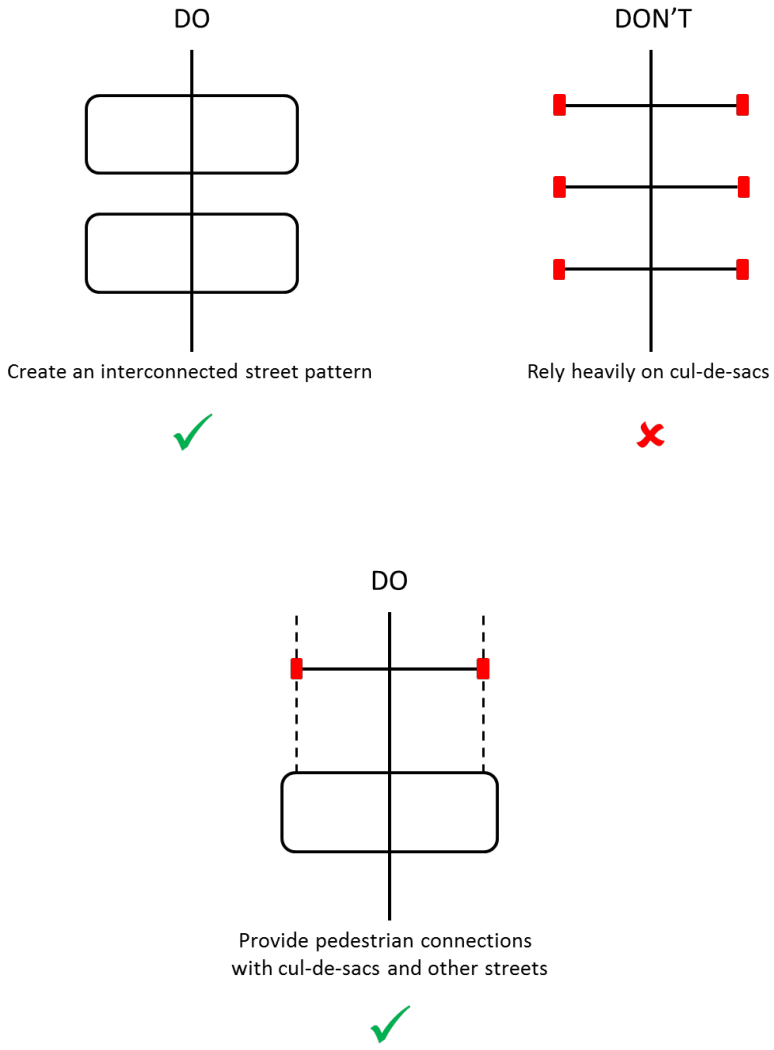
3.81 In approaching the design of new streets, developers should consider the needs of the most vulnerable road users first – pedestrians, then cyclists, then public transport users. This approach can help minimise conflict between good design principles and the requirement for streets to be safe environments.

3.82 Developers may also want to consider the need for all proposed streets to provide some level of vehicular accessibility. Restricting some streets to pedestrians and cyclists only can actually increase the amount of connections within a development, in turn creating better connectivity across the whole community and help encourage people to pursue healthier lifestyles.

3.83 When designing residential development, developers should ensure that the network of individual streets are interconnected with one another, as this will improve the sustainability of the development by allowing residents and visitors quicker and more varied routes to facilities or public transportation nodes. Streets that are closed off from neighbouring ones

or an over-reliance on 'cul-de-sacs' should be avoided as they do not make the best use of land. However, there is value in implementing cul-de-sacs in residential development to provide safer environments, reduce traffic flows and create quieter street environments. Linking cul-de-sacs to other streets via pedestrian connections is a recommended approach (see diagrams below) however these linkages should be of sufficient quality and attractive to use:

Figure 9 - Streets should maximise connections with each other



Manual for Streets 2

The Manual for Streets 2 guidance (2010) provides the national guidance on designing and delivering high quality streets and spaces. It is fundamentally based around the following design principles:

1. Designing by collaboration
2. Enabling walking and cycling
3. Providing welcoming public spaces
4. Supporting safety and security
5. Designing for all
6. Responding to local context
7. Increasing resilience for the future
8. Supporting innovation

Cycle and walking routes

3.84 When providing attractive and safe walking and cycling routes on proposals, developers should:

- Prioritise connections to important community buildings such as schools, leisure centres and shops and ensure that they are more direct than roads, to help encourage modal shift from cars and introduce signage where appropriate.
- Accommodate buildings with active frontages along pedestrian and cycle priority routes, to provide adequate natural surveillance and encourage vitality.
- Avoid providing routes that pass to the rear of buildings, as these may not be able to provide adequate natural surveillance and can become underutilised as a result.
- Ensure that pedestrian and cycle routes are mostly straight and continuous and not curve round in ways which may hide people from view.
- Ensure that pedestrian and cycle routes are well lit, via the provision of street lamps or feature lighting that is built into the public realm.
- Give attention to the amount of landscaping that aligns pathways, particularly hedges, which when fully grown can provide hiding spots for criminals.

Above: Pedestrian and cycling paths on this development in Anstey are overlooked from neighbouring dwellings, as well as green buffers serving as amenity space with newly planted trees (Groby Road, Anstey)

3.85 Further best practice examples of cycle/walking paths may be required.

Street furniture

3.86 The provision of street furniture can accentuate the role of streets as public space, increasing their functionality as places facilitating social interaction as well as providing a sense of character to streets.

3.87 Street furniture should be provided proportionate to the width of the street, so as not to unnecessarily clutter the street-scene and potentially detract from the character of the area. It should also be aligned in a linear manner, to minimise obstruction to traffic flows.

3.88 Lighting is a particularly important type of street furniture and a good lighting scheme can encourage the use of streets throughout the evening and at night-time. Lighting which illuminates buildings can be a useful means of highlighting a certain building's status within the street scene, providing visual interest and legibility at night. Lighting placed in paving can also aid with wayfinding and increase the visual interest of streets, space and pathways.

3.89 Well-designed street furniture should be a principal consideration when designing the street itself, to ensure that the type of furniture is in keeping with the character of the street. Details of street furniture should be included as part of a planning application, ideally within a design and access statement or similar accompanying document.

Highway safety and traffic calming

3.90 New roads and streets must be safe to use for all road users in order for them to be adopted by the local highways authority. However, fulfilling this requirement should not come at the expense of providing and delivering high quality street environments.

3.91 Notwithstanding this, the following key principles should be considered when designing streets serving new development:

- The majority of new residential streets should be designed so that vehicular traffic is encouraged to go slowly and carefully – i.e. at speeds at or less than 20mph.
- Designing streets to even lower speeds (at or less than 10mph) shall be supported – often referred to as 'home zones', this may also allow for opportunities in providing shared surfaces, accommodating all road users without the need to install kerbs. It may be more appropriate to provide these types of streets on residential schemes with higher densities, or schemes with a more enclosed street network.
- Consider the role of certain design concepts in encouraging lower traffic speeds less directly – for example, through building height to street width ratios, the presence of street trees and the placement of buildings at corners.
- Traffic calming measures including speed humps, raised surfacing and signage should only be relied on as additional measures to control traffic – they tend to be inappropriate for buses and may prove hazardous to cyclists.

Shopfront, shutters and signage

3.92 Well-designed shopfronts can contribute significantly to the character of streets in town or local centres. Whether a shopfront proposal is appropriate for its setting will be dependent upon the existing context, established by the host building and any adjacent buildings. The design stylings of the more traditional shopfront types are useful in helping to

understand important elements of a high quality and functional shopfront. The Council encourages the innovative application of these elements in final designs for new or existing shopfronts.

3.93 Security shutters are common features on shopfronts, providing the shop protection from vandalism and theft. The most common type of security shutters are externally affixed to the fascia. These types of shutters can often diminish the character of a shopfront and, if repeated on adjacent shopfronts, may lead to negative perceptions of the safety of an area, particularly at night.

3.94 Internally mounted security shutters or shutters that allow for a small amount of visibility into the shop are generally less harmful to the street-scene.

3.95 Signage or advertisements that are placed upon shopfronts may require a separate form of consent from the local authority, considering impacts on amenity and public safety. Poorly placed signage on shopfronts can diminish the character of the wider street scene.

3.96 Signage for shopfronts should be considered as an integral part of the shopfront overall. The use of standard sign types or corporate imagery may not be wholly sympathetic to the building or street scene and modifications may have to be made in certain locations. Signage lettering should be proportionately sized to fit the fascia, as oversized lettering can have detrimental to the character of the street scene by way of scale.

Principle 4: Creating multi-functional, safe and inclusive places

3.97 Encouraging good design in new developments has a major role in improving the quality of life for local communities, bringing about positive change by inspiring civic pride, which will contribute towards developments establishing a strong sense of place and being valued by the people who use them.

3.98 The Core Strategy requires new development to function well and add to the quality of the area for the lifetime of the development. The most successful developments are able to perform a range of social functions and roles, being easily accessible to all types of people. When designed well, new developments can also help minimise the occurrence of crime and facilitate people in the pursuit of more active lifestyles.

3.99 This section of the SPD provides explanations on some of the wider objectives of good design quality – the importance in providing a mix of uses, the ways in which development can help reduce crime and create safe environments, being adaptable to socio-economic change and accommodating more vulnerable groups of people.

Mix of uses

3.100 Most forms of development will often incorporate only one type of land use, not including the streets/paths or any open space provision they provide. Large scale schemes will often incorporate a mix of land uses – the goal of a well-designed mixed use scheme is to ensure

that these uses are able to complement each other sustainably.

3.101 When designing mixed use schemes, a key consideration should be to recognise opportunities to improve site accessibility, by accommodating complementary uses that are within easy reach of each other – for instance, locating local shops or children's play areas next to schools and other community uses such as libraries. Uses which would interact with streets the least should be generally located away from them, for example service entrances to retail and commercial uses.

3.102 Developers may also want to explore opportunities for mixed use development schemes to expand choice for the wider community, particularly if they are located near well-connected areas like town centres. Apartment blocks, for instance, can accommodate active frontages on the ground floor (serving shops and leisure uses like gyms, for example) which can increase footfall within a development or along an existing street and improve vitality in the area.

3.103 Mixing certain uses on new development can also help encourage healthier lifestyles. For instance, on major schemes, the allocation of leisure uses within a new local centre can provide residents within walking distance of businesses such as gyms or health clubs. Also, grouping multiple sports and recreational facilities together enables people to have a wider choice of physical activities to participate in within one location.

Active Design by Sports England

Active Design is about designing and adapting where we live to encourage activity in our everyday lives; it's a combination of 10 principles that promote activity, health and stronger communities through the way we design and build our towns and cities.

The 10 principles of active design are:

1. Activity for all.
2. Walkable communities.
3. Connected walking and cycling routes
4. Co-location of community facilities
5. Network of multi-functional open space
6. High quality streets and spaces
7. Appropriate infrastructure
8. Active buildings
9. Management, maintenance, monitoring and evaluation
10. Activity promotions and local champion

Developers can employ these principles to help inform the design and layout of their proposals, which can help them meet a range of overlapping planning, transport and health objectives in a more co-ordinated manner.

To access the comprehensive Active Design guidance, please follow this link:
https://www.sportengland.org/media/3426/spe003-active-design-published-october-2015-email-2.pdf

Adaptability

3.104 New developments that are adaptable are able to accommodate new uses to meet changing demands and circumstances in the future. Developers should consider building in adaptability within new development can help save money in the future on expensive renovation which may compromise design quality.

3.105 Some types of new development will be more likely to alter or change their functions over time than others. As such, retail-focused development schemes may want to demonstrate how they can adapt to changing circumstance like being able to accommodate other types of land uses without requiring large-scale redevelopment. This could be through the subdividing of large units into smaller ones or designing elevations in such a way that can be easily adapted to be fit for new purposes without compromising the overall design quality of the development.

3.106 Developers should explore ways of making homes more adaptable. In making them so, people may be less inclined to move house often when their circumstances change. For example, interventions to make homes more adaptable to the needs of elderly people could include providing wider doorway widths or toilets and washrooms on ground floors. Opportunities to allow new rooms to be created more easily in dwellings shall be encouraged – for instance, the use of open roof truss construction methods over pre-formed roof trusses can more easily allow for loft conversions at a later date.

3.107 The layout of streets and spaces can also help in improve the adaptability of new places. When considering the layout of their schemes, developers may want to create streets and spaces which can easily adapt to support new uses – an example can be designing public spaces to be able to accommodate temporary or 'pop-up' uses, which in turn can provide further vitality to spaces.

Crime prevention

3.108 Design plays a key role in ensuring that development is safe and secure and in the best cases can actively contribute towards reducing the occurrence of crime.

3.109 Many inter-related design factors can help influence how a development is able to reduce risk from criminal activity, such as movement patterns, the physical form of buildings, the development's vitality and amount of activity it can accommodate. Surveillance is a very important factor when considering the design of new developments – the levels of surveillance an individual place contains has a direct impact upon how people perceive the space in terms of safety and security.

3.110 The use of hard surveillance features such as security barriers and CCTV should not be relied upon to provide security measures, unless those means are appropriate to the principle function of the development. For residential schemes, the concept of 'natural surveillance' is an important design consideration.

3.111 Natural surveillance provides effective security measures without resorting to hard surveillance features, primarily through the placement and layout of new buildings and open amenity space, and enabling buildings to overlook onto public realm and open space through the placement of windows and building entrances.

Above: The houses overlooking this children's play area provide natural surveillance onto the open space on this development in Quorn

3.112 In considering the relationship between new buildings and amenity space, whether it is public or private in function, natural surveillance of the open space provision should ideally be maximised. Entrances to buildings should open upon streets or spaces; if an entrance is hidden from the public view, it could be perceived as unsafe. Elevations of buildings that face the public realm should feature principal windows.

Secure by Design

Section 1 of the Secure by Design – Homes (March 2019) design guidance covers overall development design measures, such as layouts and streets. This is likely to be the most relevant guidance for many developers.

Inclusivity

3.113 Public space should be as inclusive as possible.. By considering the most vulnerable groups (see below), new development proposals can be accommodating and inviting to everyone.

3.114 The principles of good urban design identified within this document can significantly contribute to environments that address the needs of vulnerable groups, such as elderly people, disabled people and children. Good design principles can also benefit people

suffering from certain diseases, such as Alzheimer's. Further interventions that can make public spaces more inclusive are listed below:

- Minimising reflective or shiny surfaces and utilise contrasting colour schemes to highlight important safety features, to accommodate the needs of visually impaired people.
- Ramps and avoiding excessive level changes to cater for wheelchair users and parents with prams and pushchairs.
- Consider providing quiet or tranquil spaces or areas (an example being sensory gardens) on new developments, particularly those which are designed to accommodate elderly people.

Principle 5: Adapting to Climate Change

3.115 Good design plays a significant role in helping to create environments which are able to adapt to the changing climate, from supporting natural ecosystems, providing more sustainable forms of drainage, using sustainable construction methods and providing more energy efficient homes.

Trees

3.116 The planting of new trees can achieve a wide range of environmental benefits, such as helping to improve air quality, providing shade and reducing overheating, supporting wildlife and habitats and improving visual amenity.

Tree planting and landscape character areas

Tree planting on new proposals should reflect the identified landscape character of the site's surroundings. Layouts like planting belts may not be appropriate in certain areas. Refer to the Charnwood Landscape Character Assessment (July 2012) for guidance on how tree planting should be approached, as well as information on native species.

3.117 Trees can be particularly important features along streets - proposals that are providing networks of new streets should consider the planting of trees along key routes.

3.118 Trees that bear fruits such as berries or apples can be placed in appropriate areas of a development (e.g. public open space) to encourage a level of interaction and increase availability of healthy food in the built environment.

3.119 Developers should consider what type of species of tree are most appropriate in the street environment and consider their potential impact once they have reached maturity – for instance, large species will grow and encompass large canopies and consist of equally large root structures underground. This should include considering native trees and shrubs where appropriate. Highway corridors may be required to be widened in places to

accommodate larger species of trees, without interfering with underground utilities. Smaller species of trees may be more appropriate on green verges.

3.120 The placement of new trees in development proposals may require liaison with arboriculture consultants, landscape officers at the local planning authority and the local highway authority. These professionals can help select suitable tree types for each part of a proposal, as well as provide advice on their future maintenance and protection.

Delivering new trees in development proposals

Further guidance on how to deliver new trees in development proposals can be found at the following resources:

- (TDAG, 2014) Trees in Hard Landscapes: A Guide for Delivery
- (TDAG, 2012) Trees in the Townscape: A Guide for Decision Makers

Managing existing trees

3.121 The presence of existing trees on or adjacent to a site should be closely considered in the design of new development schemes. Developers will need to incorporate as many existing trees as possible within their development proposals.

3.122 Solitary existing trees in particular can become important and distinctive landmarks on new developments, contributing to the character of a place. Existing groups of trees can also serve as attractive natural buffers that can soften the impact new development can have on adjacent buildings and spaces.

Above: Retaining the mature trees on this development in Quorn has helped create a strong

natural buffer between the main road and the play space, reinforcing a sense of enclosure

3.123 Mature trees should be retained when designing proposals. Any work planned to a protected tree will require prior consent from the local planning authority and carrying out unauthorised work to a protected tree may result in prosecution.

Tree Preservation Orders (TPOs)

- https://www.charnwood.gov.uk/pages/tree_preservation_and_hedgesTree Preservation (Charnwood Borough Council)
- https://www.gov.uk/guidance/tree-preservation-orders-and-trees-in-conservation-areas Tree Preservation Orders and trees in conservation areas (Planning Practice Guidance)

Biodiversity

3.124 Good design should be capable of demonstrating how biodiversity has been incorporated on proposals at an early stage. This can be achieved when a scheme has been informed by a robust and proportionate ecological assessment and then follows the mitigation hierarchy – this prioritises the avoidance of harm, then mitigation of harm and makes compensation for the loss of biodiversity a 'last resort'.

3.125 Making sure that the ecological mitigation that is proposed relates as closely as possible to the impacts have been identified will help avoid the need for offsite compensation.

3.126 Charnwood Local Plan Core Strategy Policy CS15 sets out requirements for open space provision as part of new development, and for larger proposals, this can result in significant areas of public open space. Some of these areas can be managed as semi-natural habitats. Providing space of this kind can by itself be sufficient to avoid biodiversity loss, although it may not always be the most efficient approach.

3.127 For small developments, providing areas of open space is often not a viable or effective way of mitigating biodiversity loss; therefore a more creative approach should be considered. Such a creative response will recognise that buildings can make a contribution to biodiversity, for example through green roofs and green walls.

3.128 The Government has recognised that conserving biodiversity can have wider environmental benefits by helping to build natural capital and provide ecosystem services. Providing space for wildlife, either as part of open space or the built environment can help to contribute to the wider sustainability of development. Some examples are the following:

- Well placed linear vegetation can provide habitat and connectivity for wildlife and can also form a part of pedestrian and cycle routes, which can help to reduce car use and improve people's welfare.
- With careful planning, trees in the public realm can benefit wildlife, can contribute to the desirability of a development, contribute to urban cooling and help to reduce runoff.
- Green roofs provide wildlife habitat, help to reduce runoff, help with urban cooling and provide insultation whilst requiring no additional land beyond the footprint of buildings.

3.129 Applicants should seek appropriate professional advice to help understand how to avoid ecological impacts and, where they are unavoidable, identify the most appropriate and efficient approach to mitigate and compensate for those impacts within the boundaries of the proposed development.

Sustainable drainage systems

3.130 This section sets out the reasons for considering Sustainable Drainage Systems (SuDS) at an early stage in the design process, regardless of the scale of the proposal.

3.131 New development usually results in an increase in hard surfacing which, in the absence of control measures, tends to increase surface water runoff. SuDS include a range of approaches which are designed to maximise the opportunities and benefits that can be secured from surface water management'. In this case surface water management should be understood to mean control of the rate, volume and contaminant load of surface water runoff.

3.132 The Flooding and Water Management Act 2010 (S3:2) sets out the concept of Sustainable Drainage Systems:

3.133 *Sustainable drainage means managing rainwater (including snow and other precipitation) with the aim of:*

3.134
(a) reducing damage from flooding,
(b) improving water quality,
(c) protecting and improving the environment
(d) protecting health and safety, and
(e) ensuring the stability and durability of drainage systems.

CIRIA SuDs Manual (2017)

The SuDS Manual by CIRIA is widely acknowledged to provide comprehensive best practice guidance for the design of SuDS.

3.135 The Lead Local Flood Authority, as the statutory consultee for matters relating to drainage management on new development, typically comments on major applications and provides advice consistent with the Government's Non-Statutory Technical Standards for SuDS [4] However it remains the responsibility of the local planning authority to assess impacts upon water quality, offsite ecological impacts associated with runoff and cumulative increase in flood risk associated with smaller developments.

3.136 Even small developments can be shown to have adverse ecological impacts on the water environment and lead to small increases in flood risk and so in most cases, applicants should consider the benefit of including SuDS within their schemes, regardless of size.

3.137 Considering SuDS early in the design process can have a number a benefits for the developer, for the end user and for the wider environment, including:

- Making effective use of land by designing features that have multiple benefits through the incorporation of measures designed to intercept rainfall within the built development (such as permeable paving, tree pits, rain gardens, rain water harvesting and green roofs) can help to reduce the amount of land required for drainage basins, contribute to the wider sustainability of your development;
- urban cooling;
- Providing permanent and relatively high value features within the footprint of development with measurable biodiversity value;
- Providing attractive public amenity space, and;
- Helping to reduce water bills and heating costs for residents.

Energy efficiency

3.138 Reducing carbon emissions is a national priority and building regulations require all individual new homes to meet certain standards of energy efficiency. The Charnwood Core Strategy formally requires only major development proposals to demonstrate how the need to reduce emissions has influenced the design and layout of the scheme but smaller proposals in the Borough are encouraged to consider their ability in reducing emissions as well.

3.139 There are ways to make any form of residential development more energy-efficient which can be achieved through designs which support more natural forms of cooling, heating and lighting. Fundamental elements of a development's design such as the orientation of buildings and the placement of windows can help future residents reduce their carbon footprint.

4 https://www.gov.uk/government/publications/sustainable-drainage-systems-non-statutory-technical-standards.

Energy efficiency through sunlight gain

3.140 The positioning of buildings relative to the sun's position in the sky can be taken into account to improve their energy efficiency.

3.141 The concept of ***passive solar gain*** is about increasing the amount of sunlight captured within buildings to provide a more natural heating and lighting source. Buildings should maximise their ability to capture sunlight by being oriented to face within 30 degrees due south – **the diagram** below demonstrates that this positioning will optimise the amount of solar gain throughout the day, ensuring natural forms of heating can be provided for longer periods of time.

3.142 **Excessive heat capture during the summer months, when the sun is highest in the sky, can be avoided by the use of shading (through deciduous planting/trees) in the path of sunlight, which will block some light from entering through south facing windows.**

3.143 **Figure 10 - Rear of buildings facing within 30 degrees due south, increasing passive solar gain for longer periods in both winter and summer months.**

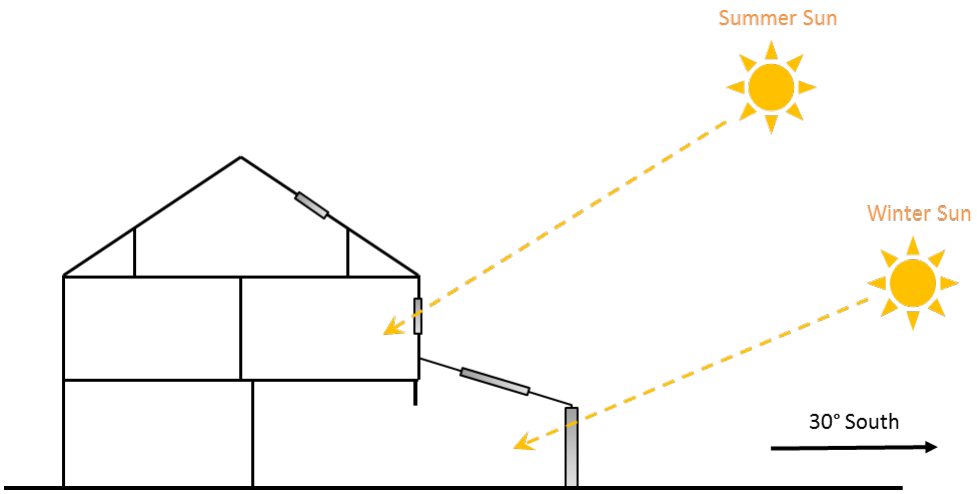
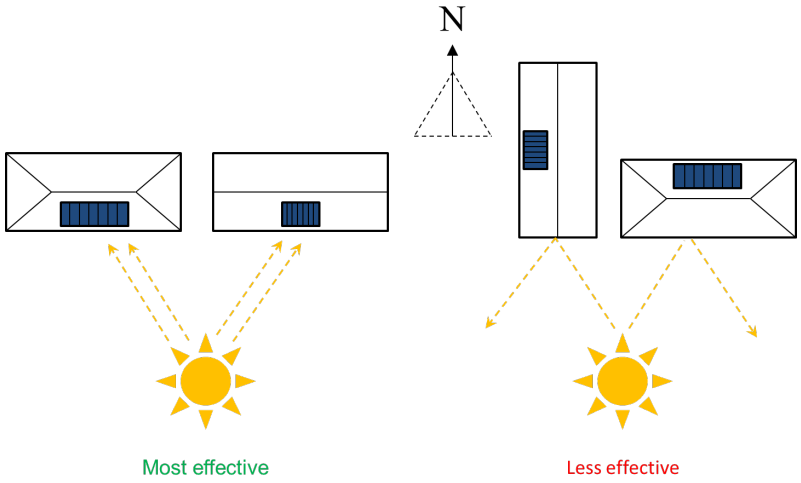


Figure 10 above: Rear of buildings facing within 30 degrees due south, increasing passive solar gain for longer periods in both winter and summer months

3.144 More ***active solar gain*** techniques include the installation of photovoltaic panels, often placed upon the roofs of buildings.

3.145 When determining the placement of solar panels, consideration should be given to the orientation of the panels. Panels facing within 30 degrees of due south are more likely to maximise the amount of solar gain than those which are placed on other aspects. However, the placement of any solar panels should also respond appropriately to the local character so this shouldn't be seen as a universal standard.

3.146 Figure 11 - When considering solar panel installation for dwellings, roof slopes facing due south (within 30 degrees) are considered the best positions for the panels



Energy efficiency through natural ventilation

3.147 The air flowing around a building can help provide more natural forms of ventilation and cooling within rooms. This can be achieved through the positioning of windows on opposite walls, so fresh air can be drawn through the building. In winter, cold winds can increase the loss of heat in buildings so consideration may want to be given to installing forms of insulation, particularly on parts of dwellings that tend to feature more glazing such as porches and atriums.

3.148 For larger developments, the layout and mix of building types can influence wind patterns around the site and may create wind funnelling effects, which can adversely affect spaces between buildings and lead to them being uncomfortable places in which to spend time. To combat this issue, developers can investigate grouping low density buildings together so that wind passes over them rather than between them. Tall buildings and higher densities can provide shelter from cold winds in winter if they are placed in northern parts of larger sites.

Modern methods of construction

3.149 Modern methods of construction can contribute to carbon reduction and the application of these methods will be encouraged on new development schemes.

Principle 6: Protecting the amenity of existing and future occupiers

3.150 Good design ensures the relationship between neighbouring buildings and land uses is compatible and harmonious and would not cause unacceptable harm to or loss of amenity enjoyed by either occupier.

3.151 The following are key amenity factors that design of new development plays a large part in influencing:

- Protecting occupier privacy
- Loss of daylight
- Loss of sunlight
- Overbearing impact
- Impact of adverse noise
- The storage of bins

Protecting occupier privacy

3.152 Protecting the privacy of the occupants of dwellings is an important element of the quality of residential environments. Proposed development should seek to provide reasonable space between buildings in order to minimise overlooking. As a general rule, transparent windows should not be placed on elevations facing windows serving main habitable rooms of dwellings, such as kitchens, living rooms and bedrooms where this would give rise to overlooking of either property. The use of obscure glass or rooflight windows can offset the loss of privacy however these types of windows may not be acceptable choices to serve main habitable rooms if they create poor standards of amenity for future occupiers. Obscured or roof mounted windows will usually be acceptable serving ancillary rooms in a home, such as hallways and bathrooms.

3.153 For dormer windows, restricting the size of the window and setting back from the eaves can be a possible solution to protect neighbouring privacy.

Overshadowing and loss of light

3.154 Sunlight refers to light directly from the sun whereas daylight is diffuse or reflected light. Access to sunlight and daylight is beneficial for reducing the need for artificial lighting consumption and providing more natural forms of heating. New development which significantly reduces the level of sunlight or daylight enjoyed by neighbouring buildings is likely to result in a loss of amenity to the occupiers of neighbouring buildings.

Daylight

3.155 Where proposed building is close to a facing habitable room window (less than 3 times the height of the proposed building above the centre of the existing window), the 25 degree guideline, (set out in figure 12), should be used to establish if a material loss of daylight is possible.

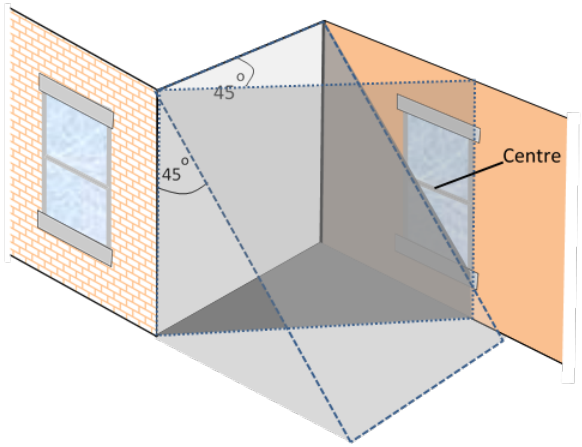
3.156 Figure 11 shows the application of the 45° guideline, and is explained as follows: Take the elevation of the window wall and draw diagonally down at an angle of 45° away from the near top corner of the extension. If the extension has a pitched roof, then the top of the extension can be taken as the height of its roof halfway along its slope. Then take the

plan and draw diagonally back at an angle of 45° towards the window wall from the extension.

3.157 For house extensions, the **45° degree line** is a helpful measure for considering whether development (particularly extensions) would cause a loss of daylight to a window. It is not valid for windows which directly face the extension, or for windows opposite. For these cases, the 25° degree guideline below should be used.

3.158 A significant amount of light is likely to be blocked if the centre of the window lies within 45° angle of the elevation. For patio doors the vertical midpoint of the window is usually taken to be a point 1.6m above ground level. Here the centre of the window lies outside the 45° angle on the elevation, so the impact of the extension is likely to be small.

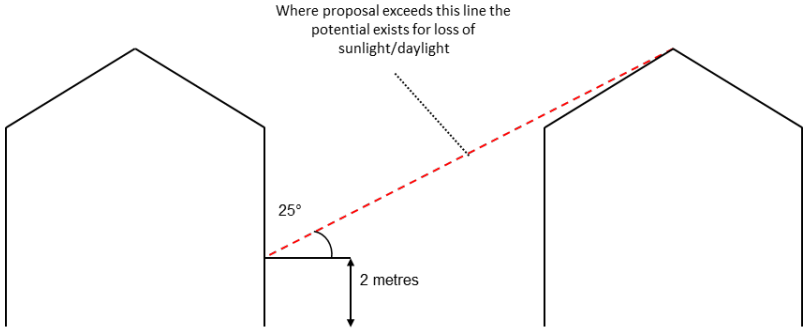
Figure 12 - The 45 degree approach for extensions



Sunlight

3.159 A material loss of sunlight can occur when part of the proposed development is within 90 degrees of a south facing window on an adjacent property and where the height exceeds the 25 degree angle as indicated below:

Figure 13 - The 25 degree guideline (impact of building height on sunlight gain)

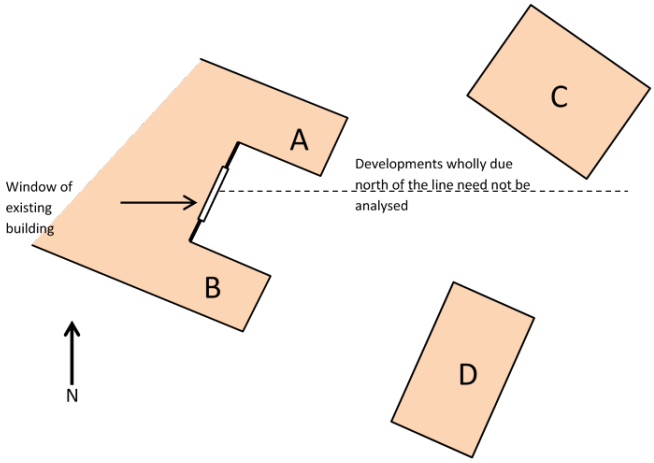


3.160 Figure 13 below illustrates the circumstances where there is a possible material impact upon sun lighting. In analysing the sunlight impact on the existing window no check will need to be made for proposed extension A and new building C, as they lie within 90° of due north of the window.

3.161 Proposed extension B should be checked, as should new building D, if the building is above the 25° line identified in figure 12.

3.162 Main living rooms and conservatories may be particularly sensitive to a significant reduction in sunlight but each case should be looked at carefully as existing obstructions and the presence of other windows are all important considerations in reaching an overall conclusion.

Figure 14 - The impact upon sun lighting



3.163 Further guidance on planning for daylight and sunlight can be found from the Building Research Establishment [(5)] and the Council will use this guidance in assessing potential loss of sunlight and daylight particularly in cases where the loss of either sunlight or daylight is marginal.

Separation Distances Between Dwellings

3.164 When considering the layout of dwellings on a site, developers should consider the distance that separates rear elevations of individual dwellings in the interest of protecting the privacy and avoiding overbearing impact for both existing and future residents.

3.165 The guidance measurements for separation distances are provided below. It is important to note that these do not serve as strict requirements. The distances will be applied having regard to the wider design issues and site context but will generally be more important considerations when developing sites that are close to existing buildings.

5 Site Layout Planning for Daylight and Sunlight A Guide to Good Practice Second Edition 2011

Separation Distances Between Dwellings For Privacy

Where rear building elevations containing main habitable room windows, the following distances provide a guide to protect the loss of privacy:

- 21 metres for 2 storey dwellings;
- 27.5m for 3 storey dwellings and above; and
- 27.5m where main habitable room windows above ground floor level would overlook existing conventional dwellings.

The separation distance should be increased by 1m for every 0.4m difference in floor levels between dwellings.

Single storey back to back development is not so critical in terms of overlooking although differences in ground levels should be taken into account.

Separation Distances Between Dwellings to Avoid Overbearing Impact

Where elevations containing main ground floor habitable room windows would face windowless flank walls, the following distances provide a guide to avoid over dominance:

- 9.5m minimum distance between the two elevations where a flank wall is single storey;
- 12.5m for 2 storey flank walls; and
- 15.5m for 3 storey flank walls.

Single storey flank walls can be sited closer where a hipped roof form is proposed.

Where there is a difference in ground levels the separation distance should be adjusted by 1m for every 1m level variation.

Note: Main habitable rooms are primarily occupied during the day (i.e. lounges, dining rooms and kitchens).

Protection against adverse noise

3.166 Existing noise and smells that are present on a development site are planning considerations when they are deemed adverse enough to negatively impact upon the amenity of future occupiers.

3.167 Certain neighbouring land uses to proposal sites can generate a large amount of noise due to the operations taking place upon them. Noise becomes a planning matter once it causes people to make small changes in their common behaviour or attitude. Some development proposals may be sensitive to adverse noise and may require an appropriate level of mitigation in order to protect future residents or workers.

3.168 For development schemes located adjacent to major roads such as dual carriageways, mitigation measures will likely be required to reduce noise levels so that future residents are able to live in a quiet and peaceful environment. Infrastructure in the form of acoustic fencing is a common method of minimising noise from nearby fast roads or railway lines. Open space or planted tree belts can serve as a noise-reducing buffer between dwellings and neighbouring major roads or railways.

3.169 Other methods of mitigating noise impacts include the placement of buildings themselves, to optimise the distance between the source of noise and sensitive receptors, and using features of the natural landscape and contours as sound barriers.

Waste and bin storage

3.170 Bin storage areas should be seen as an important design consideration on new developments. Both storage and collection points for bins need to be considered as part of the overall design in order to reduce amenity issues relating to residents access to bins and the problem of 'bin blight' which can diminish quality of spaces within the development. With regards to bin storage, development should demonstrate three key needs – to provide convenience for both residents and waste collectors, to be safe to use and avoid being a detracting feature of the area character and the development's architectural quality.

3.171 Ideally, the storage of domestic waste in wheelie bins is best located to the rear of dwellings and away from the main frontage. However, this may not always be feasible or practical so in these circumstances, waste storage areas should effectively mask or screen wheelie bins from building frontages, ideally within purpose built structures embedded into the design of the development.

3.172 For commercial or mixed use developments, larger communal bins will tend to be used. Storage of these bins should be secure if located to the rear of buildings, as they could be prone to vandalism and arson. For the latter, communal bins should be located away from windows or ventilation outlets.

Appendix 1: Additional parking guidance

.1 Poorly-thought out parking can be detrimental to the street character, make places function less well as inclusive spaces and cause obstructions to pedestrian and cycle movements and larger vehicles which may need to access the development, such as emergency vehicles and waste collectors.

.2 When designing the layout of schemes, developers should know the amount of parking required by the County Council's guidance in relation to the scale of their proposal and the type of development. As such, accommodating parking should be a fundamental design consideration at the start of designing schemes.

Adopted residential parking standards in Charnwood

For general parking standards, in regards to the number of spaces required for different types of residential development, please refer to the Leicestershire Highways Design Guide – Section DG14: Vehicle parking and making provision for service vehicles. These are the adopted parking standards which apply to new development in the Borough.

.3 Many residential developments can accommodate a degree of parking provision on the street but this needs to be limited to prevent parked vehicles dominating the street scene. Generally, a mix of on-street and a variety of off-street provision can often be the best approach to successfully managing parking, particularly on larger schemes.

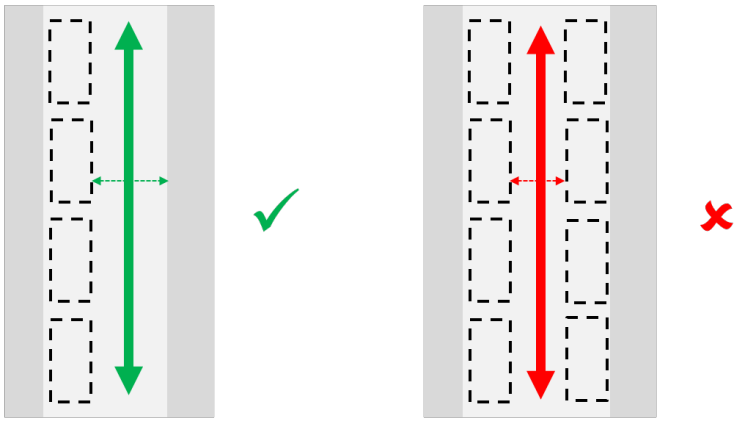
.4 This SPD provides guidance on design approaches and considerations for both **on street parking provision** and **off street parking provision** (including **garages**).

On street parking

.5 With close consideration at an early stage of the design process, the potential dominance of on-street parking on the character of development can be reduced.

.6 **Parking provision on streets should ensure that traffic is able to pass parked cars with adequate room. For this reason, on-street parking which is not accommodated in parking bays should only be provided on one side of the street.**

.7 **Figure 14 - On street parallel parking should be located on one side of the street**



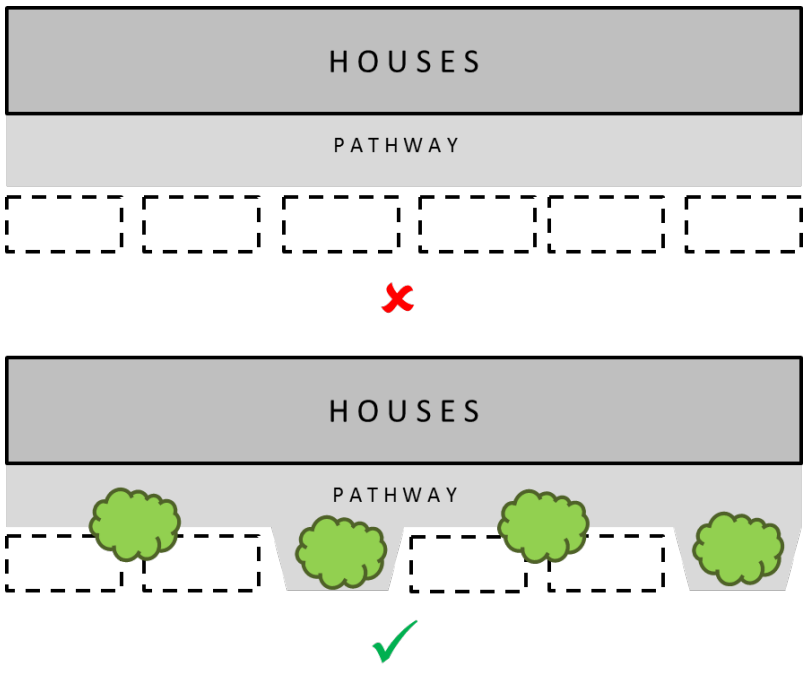
Parallel parking allocated on one side of street – allows for adequate width for larger vehicles to pass

Parallel parking for both sides of the street should be avoided, as larger vehicles will have to squeeze through narrow gaps

On street parking bays

.8 Parallel parking can be visually intrusive upon the street-scene but with the use of recessed parking bays incorporating appropriate landscaping and street trees, the impact of vehicles on the character of building frontages can be softened.

.9 **Figure 15 - On street parking punctuated with street trees and wider pathways, subduing the impact of vehicles parked in front of dwellings.**



Parking squares

.10 Parking squares can remove parked vehicles off streets and away from dwelling frontages, reducing the visual impact of parked cars. However, they still need to be in convenient locations. Landscaping in the form of street trees or planting beds can help break up monotony caused by expanses of tarmac or paving. Different styles of paving patterns and materials can also help provide a degree of variation in the street-scene character when providing parking squares, as well as help easily distinguish them from other street functions.

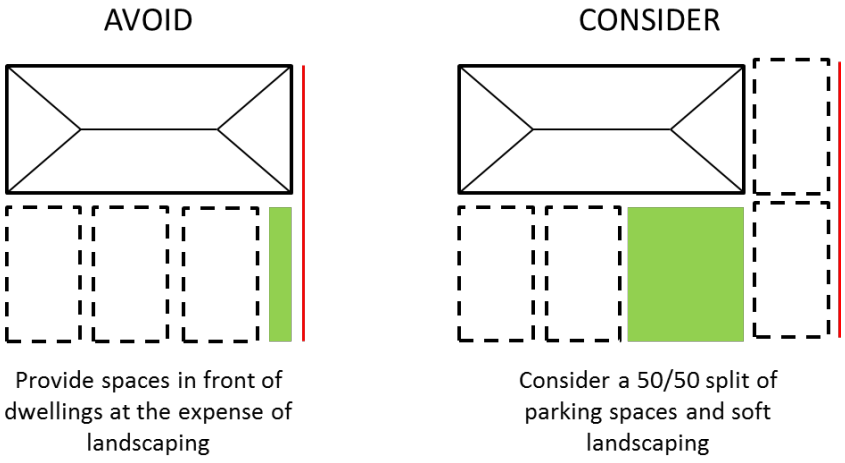
Off street parking

.11 Parking provision located off the street should generally be maximised wherever possible. There are several key methods of accommodating provision off the street.

Facing dwellings

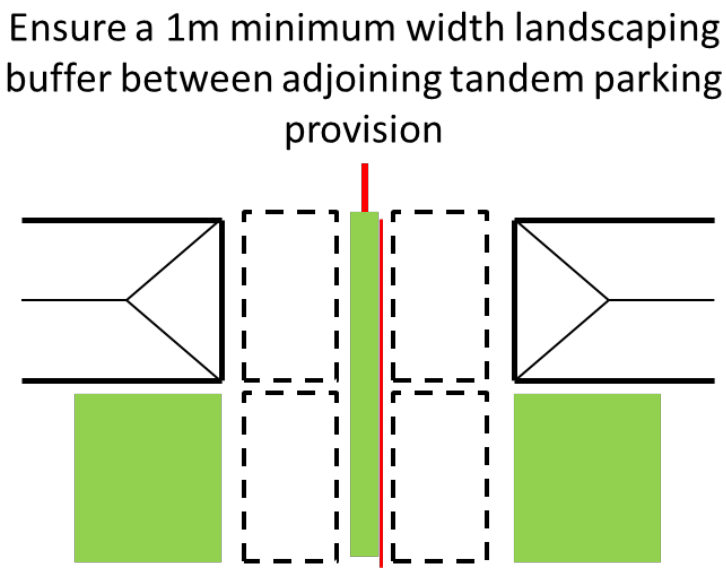
.12 This approach to parking provision is more likely to be used by residents to park their cars because they will be visible from within their homes. The provision of spaces in front of new dwellings should be balanced by appropriate quantities of landscaping so that the frontages are not dominated by large expanses of tarmac or paving. To help measure this, developers may want to consider applying a 50/50 approach for larger dwellings in balancing parking spaces with landscaping:

.13 **Figure 16 - A 50/50 approach to providing parking spaces and landscaping in front of new dwellings**



.14 Tandem parking spaces serving two neighbouring properties should ideally be separated by landscaping strips at least a metre in width. These landscaping strips can increase permeability and reduce large expanses of hard surfacing. Any landscaping strip should serve a clear purpose such as provide planting or serve as part of a SuDs scheme.

.15 **Figure 17 - Landscape buffers can be provided between adjoining tandem parking arrangements, to avoid excessive amounts of tarmac/paving**



Parking courtyards

.16 Parking courtyards can effectively remove vehicles from obstructing the street however they need to be afforded adequate levels of surveillance in order for them to be perceived as safe and therefore more likely to be used by residents. Simply adding parking areas behind houses without consideration of whether they will be well overlooked should be avoided.

.17 When providing rear parking courtyards on residential schemes, developers should carefully consider the layout of the dwellings that surrounds them and make sure dwellings are able to provide both natural surveillance upon the courtyard and positively contribute to its character.

.18 Although located away from the street itself, rear parking courts can still be afforded characterful street features such as landscaping, trees and appropriate street furniture. Parking courts should be afforded similar design considerations to public realm, so that they can be attractive spaces in their own right.

Garages

.19 The placement of detached garages should positively respond to the wider layout of adjacent buildings and the neighbouring street scene – in particular, detached garages

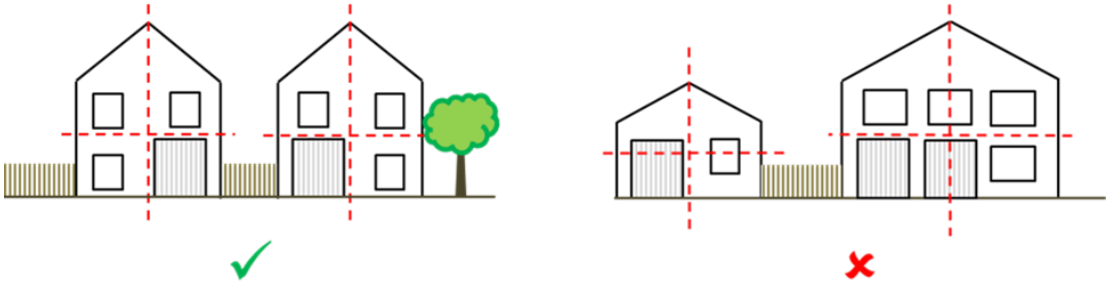
serving dwellings should not extend beyond the building line.

Garages as parking spaces

For a garage to be counted as a parking space, the Leicestershire Highways Design Guide requires them to meet the following internal specifications [6]

.20 Integral garages can be a better use of space than detached ones but should be designed appropriately so that they do not serve to overly dominate the host dwelling or wider street-scene. Integral garages should not take up more than a quarter of the principal or front elevation of a dwelling. For this reason, integral garages would generally not be acceptable for single storey dwellings unless a sensitive design solution can be demonstrated.

.21 **Figure 18 - Garages integral to a dwelling exceeding more than a quarter of the principal elevation may have negative implications upon the character of the dwelling and the surrounding area**



Additional principles for well-designed parking

- Where there are a number of parking spaces, covered parking spaces can contribute to the continuity of built form and improve the design quality within parking courtyards.
- The use of permeable paving for parking spaces that would not create excess surface runoff should be explored, particularly in areas which suffer from surface water flooding.
- Electric car charging points should be discreetly installed and should avoid being placed on principal elevations. If they are installed in parking areas or to the front of properties, consideration should be given to their appearance so that they not appear incongruous with the character of the surrounding area.
- The storage of bicycles on schemes should not be ignored, especially where car ownership/use is likely to be lower. Access to cycle parking facilities should be convenient, secure and adequately provide for visitors. Scope for designated space within the home to store bicycles should also be explored.

6 https://resources.leicestershire.gov.uk/sites/resource/files/field/pdf/faq/2019/2/6/Part-3-design-guidance.pdf

Appendix 2 - Further References

.1 This SPD has been informed by a wide variety of sources to help produce its guidance, including best practice in urban design endorsed by government organisations and academic textbooks cited by the urban design profession.

.2 This appendix provides a comprehensive list of further sources for developers to utilise when preparing their proposals.

.3 A key intention of this SPD is to provide a reference point to the wealth of guidance concerning and related to achieving good design, providing developers and developers easier access to it through one document. The Council will support the use of design concepts featured in these referenced documents even when they have not been described in this guide, when they would be relevant and beneficial to the design of a proposal.

- Charnwood Core Strategy 2015 (Charnwood Borough Council) - Adopted Charnwood Core Strategy 2011-2028
- Planning practice guidance – Design - https://www.gov.uk/guidance/design