Wealden Design Guide Supplementary Planning Document Vol 1 : Narrative November 2008

Wealden Design Guide

Supplementary Planning Document



November 2008

Wealden
District Council



Councillor Roy Galley
Portfolio Holder for Strategic Planning and Housing Delivery

Wealden is a very special area. It has overall an almost unique local distinctiveness containing within it parts of the High Weald Area of Outstanding Natural Beauty, the Low Weald, the Pevensey Levels and the South Downs. It is not one cohesive distinctiveness but a variety of different landscapes and architectural styles. For these reasons we need to take steps to preserve and enhance this special environment.

The Quality of what is built and the surroundings in which we live and work are important to us all and for future generations. The Design Guide is intended to retain and enhance that quality. It is available to help developers and individual homeowners when framing their planning applications.

It is a guide. It is not prescriptive or meant to be inflexible. It is not intended to stifle initiative. Without the new ideas of our forebears we would not have the exciting variety of built environment that we do.

Many people have worked very hard to put this Design Guide together and I would like to thank them all. Many Council staff have been involved as have Town and Parish Councils, amenity groups, architects and agents. Their contributions are highly valued. Several workshops have been held to shape this document and I'm very grateful for the efforts made by a lot of people.

In particular, I would like to thank my predecessor as portfolio holder, Councillor Keith Whitehead, whose dedication and hard work have been invaluable in completing this important piece of work.



Councillor Keith Whitehead
Formerly Portfolio Member for Planning and Development

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Introduction

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1 The purpose of the Guide
2 The status of the Guide

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1 The purpose of the Guide

1.1 The content of the Guide is intended to encourage a higher standard of design for development within the District than has often proved the case in the recent past.

1.2 Wealden District is larger than most and encompasses a number of well-defined areas whose character is drawn from the local landscape and building materials.

1.3 These elements contribute to the 'local distinctiveness' which helps to differentiate Wealden's character areas from those found elsewhere in the country. It is important to ensure that new development – in particular the larger schemes – does not dilute this essential distinctiveness.

1.4 In the past, developers have preferred to use 'standard' house types of a kind found throughout Britain, merely paying lip-service to local distinctiveness through the change of a house type's name and the inclusion of some Wealden-specific materials and details.

1.5 In order to address this perceived shortcoming, the Guide's content is aimed at providing prospective developers, and any organisation or individual with an interest in the built environment, with a clear understanding of what it is about Wealden that makes it 'special'. The incorporation of such elements into future proposals would ensure that the District's essential character is not only maintained but enhanced. The Guide can also be used by those wishing to comment on submitted proposals, offering an insight into good practice and the local architectural character. This latter use could apply equally well to Parish and Town Councils as to interested individuals.

1.6 To achieve this, the Guide not only deals with the identification of the various local character areas within Wealden and what makes them distinctive, but also how to assess sites, identify and address landscape and biodiversity issues, and prepare a Design and Access Statement where necessary.

1.7 Other sections deal with the preparation of new-build residential schemes (from large developments to small, infill sites) and proposals for the alteration and extension of existing buildings.

1.8 Specific consideration will also be given to dealing with proposals for works to listed buildings, traditional rural buildings, shops and new agricultural and industrial buildings, where special care is required.

1.9 It is intended that each section will be self-contained, but the content of other sections should not be ignored as relevance will be dependent on the site, its location and the proposal. However, where it is considered of assistance to the design process, Technical Guidance Notes dealing with specific issues will be produced separately as freestanding 'appendices' which can be updated as necessary to reflect changing circumstances. These will cover topics such as information on native plant and tree species appropriate for use in planting schemes locally, details of historical mortar mixes and finishes.

1.10 The Guide should not be regarded as prescriptive but rather as a reference to establish basic design principles considered appropriate for use in the District, taking account of all relevant issues relating to context and form. It should be considered a useful resource and source of information.

1.11 Although much of the Guide's focus is on 'traditional' architectural solutions, it should not be viewed as restricting the use of creative and innovative contemporary designs. Indeed, some aspects of sustainable and eco-friendly building practice will invariably lead to the adoption of 'non-traditional' materials, design and detailing.

1.12 Where a particular proposed development can justify the use of contemporary solutions these could be supported, subject to their design being sympathetic to both their immediate and wider settings, rather than physically or visually discordant.

1.13 The Guide incorporates extensive illustration, some of which is clearly marked to indicate what is considered to be good and bad practice within Wealden. A third indicator has also been used for those examples where component parts may not all be of an ideal type but the overall impression is neutral rather than negative; in such instances it is suggested that a more appropriate solution could have been found. However, the approach to design and the creation of new places now requires new development to make a 'positive' contribution (Planning Policy Statement PPS1 'Delivering Sustainable Development')

1.14 It must be emphasised that, although this publication's content is wide-ranging, it should not be seen as a definitive statement as it cannot cover all possible planning and design issues. Circumstances alter cases and, as such, it is recognised that flexibility will normally need to be applied where it can be demonstrated that particular elements indicated as 'good practice' in the Guide would be inappropriate given particular circumstances.

1.15 It must also be borne in mind that the Guide is not intended to replace any site-specific advice that may be provided by Planning, Conservation and Landscape Officers (as appropriate), prior to the submission of an application.

1.16 Particularly in those instances where larger-scale development or development likely to affect "sensitive" buildings and landscapes are concerned, it is recommended that pre-application consultations should take place. These should be requested at the earliest possible stage to avoid applicants progressing too far on an approach which may not be acceptable to the Council. Please contact the Council regarding the arrangements for such consultations

1.17 The Council's Officers can only respond to the information provided by the potential applicants and their agents. Whilst suggestions can be made by Officers to facilitate the design process, they cannot be expected to design a specific solution.

2 The status of the Guide

2.1 The final version of the Wealden Design Guide has been derived from extensive discussions with the community and potential end-users. It was subject to statutory consultation for the requisite period of six weeks as a Consultation Document in draft form. Following presentation to Committee, it has been amended to take account of comments that arose during the consultation process before being adopted by the Council.

2.2 The Wealden Design Guide is formally adopted as a Supplementary Planning Document (SPD) as part of the Council's Local Development Framework (LDF) and provides further detailed guidance in the interpretation of saved policies EN1 and EN27 from the adopted Local Plan. These deal particularly with matters relating to layout, design and sustainability. As such, the content of this SPD will be an important material consideration in the determination of planning applications and appeals. It will supersede Supplementary Planning Guidance 'Housing Estate Design' (2004).

2.3 The Council will expect every planning applications to demonstrate how these guidelines have been taken into account. Where appropriate, this should be included in the Design and Access Statement submitted with the application.

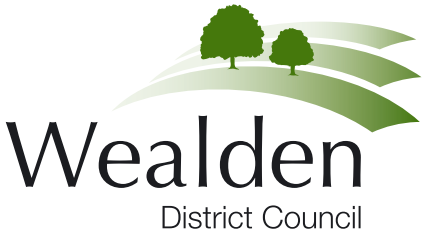
2.4 Without detailed, relevant justification, those proposals for development which do not reflect the guidelines set down in this document, are unlikely to be acceptable to the Council.

2.5 The Guide should be read in conjunction with the following documents and any additional or revised documents which may supersede them :

- Existing and emerging national Planning Policy Statements, design codes, good practice and guidance
- Existing and emerging local and regional planning policy
- Advice and standards set down in the Building Regulations

It does not seek to replace or replicate any policies contained in these documents. Rather, it is intended to supplement them with those 'good practice' standards that Wealden District Council would wish to see employed in all development proposals.

2.6 As the Guide does not intend to reiterate the standards set out in these documents, developers and their agents should refer to the relevant regulations and good practice guides as a matter of course as part of their initial preparations for preparing to discuss or submit their proposals.


Wealden
District Council



Character zones and local distinctiveness

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1 Background

1.1 The diverse character of the District's natural environment is apparent from the number, size and range of the various sites and areas singled out over time for special designation. Such designations are made in accordance with local, national and international criteria and have to be given due weight as part of the planning process.

1.2 Other forms of designation are used to ensure that special consideration is given to various aspects of Wealden's historic built environment, where they would be affected by development proposals.

1.3 Historically, in Wealden, the design and character of buildings in the landscape was directly influenced by the sustainable use of local materials. This meant that buildings of the same type, constructed within a few miles of one another, could have a totally different appearance because of changes in the materials available.

1.4 Geography and the geological changes within the District largely determine which materials are available where. Areas where significant change occurs tend to have their own particular character. The types of buildings found within these character zones, and their particular design and appearance, provides local distinctiveness.

1.5 The desire to remain 'fashionable' often led to older, timber-framed buildings being remodelled using 'expensive' alternative materials and incorporating the latest stylistic details. Those parts of a building which were in public view tended to make use of the best materials and detailing, even where they might technically be 'minor' side or rear elevations.

1.6 There is a significant difference in appearance between handmade and machine-made clay products and concrete and artificial alternatives. Originally, bricks and tiles were very expensive and their size, colour and finish varied enormously as they were being produced in small batches. These materials therefore tended to be used as an indication of social standing - or aspirations. With industrial production techniques and cheap transport, bricks and tiles of a more uniform character became readily available and, together with slate, became the materials of choice for most building work.

1.7 The traditional steeply-pitched roofs were originally likely to have been thatched, although relatively few have survived to the present day. Such roofs invariably had deeply-projecting eaves which helped to shed the water runoff some distance from the wall. The increased availability of 'fireproof' clay roofing tiles led to their widespread adoption and the general introduction of gutters, normally spiked onto the end of the projecting rafter feet, and downpipes (originally lead, later cast metal). Highly decorative bargeboards were often used with clay-tiled roofs but fascias and soffits are a relatively recent addition. Although there was some use of Horsham stone for roofing, this was very costly and required substantial support. Slate only became generally used as an alternative to clay tiles with the arrival of the railways.

1.8 The quality and range of detailing used historically on buildings is also, to some extent, dependent on the materials available. Original window openings tend to be fairly squat, occupied by leaded-light casements. These were gradually superseded by small-paned timber casements or, in rare cases, horizontally-sliding ('Yorkshire') sliding sashes.

1.9 With increasing room heights from the seventeenth century on, vertical sliding sashes were more common, becoming a particular feature of buildings of the Georgian, Victorian and Edwardian eras. Constant improvements in the manufacture of glass led to these window types having fewer and fewer subdivisions although, perversely, metal-framed, leaded-light, windows were often fitted between the 1930's to the 1950's, largely thanks to the marketing efforts of the Crittal Company.

1.10 Both windows and hearths were taxed in past centuries and this had a direct effect on the appearance of houses during these periods as a person's relative wealth might be judged by the number of windows and chimneys on display.

1.11 The original high cost of the bricks used in their construction meant that the size and decorative detail of original chimney stacks was often emphasised. Throughout the District, this practice contributes to the character of the built environment in general, and certain individual buildings in particular.

1.12 The availability of materials also influenced the type of boundary treatment used as alternatives to hedgerows within different rural areas, with timber paling fences giving way to masonry and metal 'estate' fencing as costs reduced. Again, the type of boundary treatment often reflected the social status of the landholder.

1.13 Unfortunately, the ready availability of standardised timber fence panels and the desire on the part of owners and developers for prominent entrances and 'containment' is resulting in an inappropriate urban character being imposed on what is, essentially, a rural District.

1.14 The need for new development to respect established landscape character and preserve local distinctiveness is emphasised in both local and national policy and guidance.

1.15 Within Wealden there are four main character zones:

- The High Weald
- The Low Weald
- The South Downs
- The Coastal Levels

[Not to be confused with designated Areas of Natural Beauty (AONBs) which have clearly defined boundaries.]

These zones incorporate subtle local variations and do not have sharply defined boundaries. However, the information in the following paragraphs provides the essential details about the significant differences between each zone, including potential constraints.

1.16 This information, together with a detailed study of the site and its setting, should be used as the basis for preparing a 'bespoke' scheme tailored to the specific site. The study of the site will be expected to clearly demonstrate an understanding of those elements of the local landscape setting, building design and use of materials that contribute to the area's local distinctiveness.

1.17 Officer support is unlikely to be given where proposals for new development fail to relate to the established landscape character. Similarly, 'localising' the names and the range of materials and details for use with 'standard' building designs of the sort found throughout the country, is not considered acceptable.

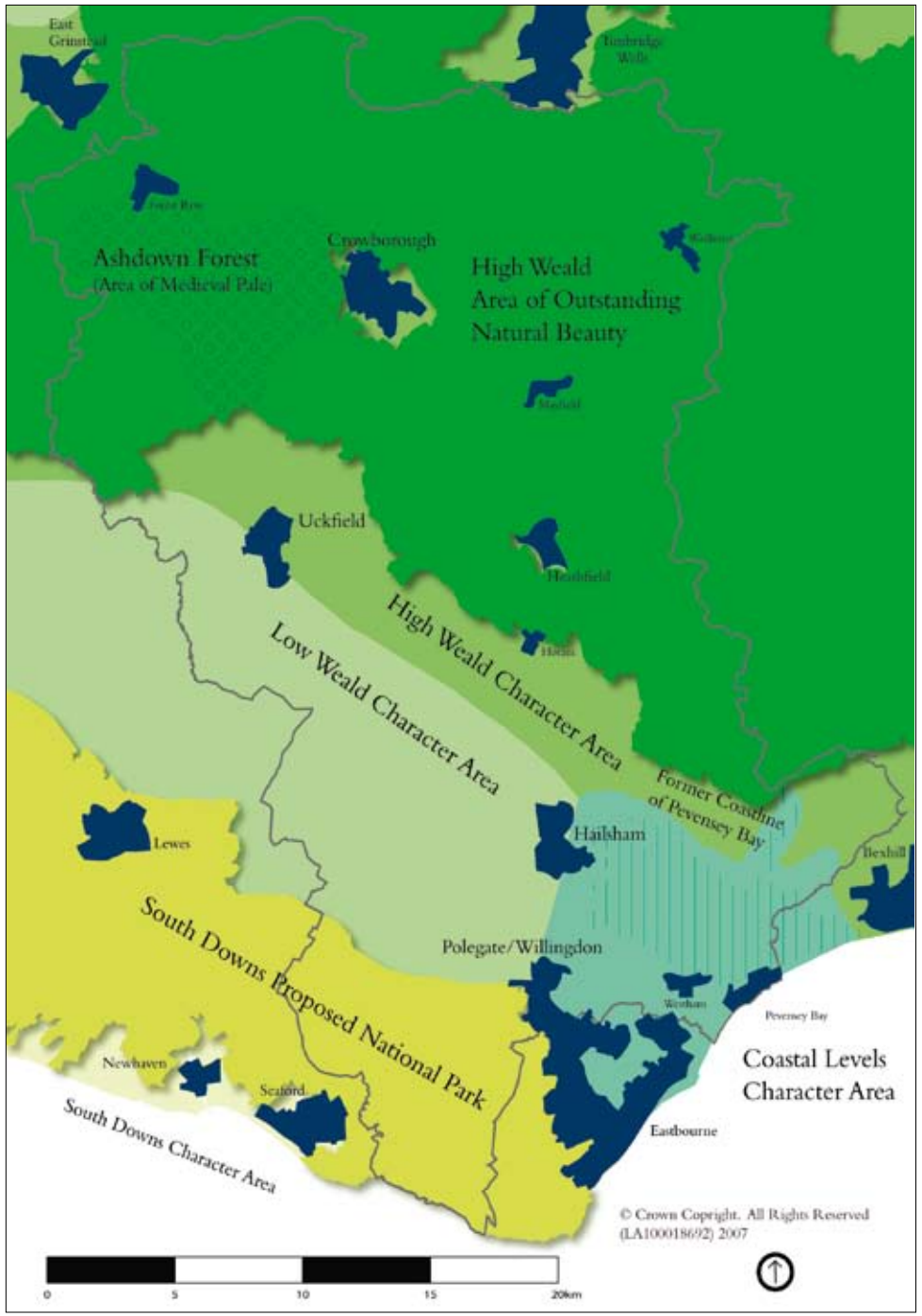


Fig 1.1 Schematic map showing the various character areas within Wealden District

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Fig 2.1



Fig 2.1 Cultivation on the south-facing slopes of the High Weald

Fig 2.2



Fig 2.2 The hedgerow-dominated mediæval landscape of the High Weald

Fig 2.3



Fig 2.3 The sandstone outcrops which underpin the High Weald

2 The High Weald

2.1 Elements of this character zone can be seen in the High Weald AONB which was designated in 1983 and extends over a number of Districts, from Horsham in the west to beyond Hastings in the east. Nearly one third of it is contained within Wealden, cutting diagonally across the District from Fletching in the north-west to near Ninfield in the south-east.

2.2 With an underlying geology consisting of layers of sand, clay and sandstone, the landscape is generally hilly. Two main forest ridges, running roughly east/west, are crossed by streams and smaller ridges and valleys (ghylls). The extent of the surviving woodland cover emphasises these physical characteristics.

2.3 In addition to the larger wooded hillside areas, there are many small copses, ridgeline and roadside tree belts and hedges of varying types, many being ancient in origin. Extensive use was made of coppicing by the early iron industry, which was also responsible for the construction of the numerous characteristic 'hammer ponds' required to power the mills and forges. There is also a patchwork of small open fields and, towards the western side of the District, the broad ridges of the Ashdown Forest, which developed, through their long-term management for recreation and grazing, a distinctive heathland landscape, being kept open by grazing and management . This Forest, once a royal hunting ground, is the largest area of land in the South East which has never been under the plough. Its elevated position gives wide-ranging views towards the Sussex and Kent Downs.

2.4 The principal settlements within the High Weald occupy the higher ground, with the main lines of communication running between them, following the ridgelines. Other villages, hamlets, estates, farmsteads, houses and cottages in the area are linked to these main roads by a complex of narrow, winding lanes. There are few buildings within Ashdown Forest itself, although there are archæological remains associated with its historical uses.

2.5 Architecturally, use was made of a wide range of materials. Originally these were locally sourced, until the arrival of the railways in the mid-nineteenth century provided cheap access to alternatives from further afield. These materials include:

- Timber framing, originally with wattle-and-daub infill panels
- Stone of varying quality and colour, normally square-cut (but not always)
- Local orange/red brick, normally laid in English or Flemish bond
- Blue/grey burnt brick headers, often used to form patterns
- Lime render (limewashed), sometimes marked out to imitate stone
- Handmade orange/red clay plain tiles for roofs and vertical hanging
- Feather-edged weatherboarding, often black (pitch) for agricultural use

2.6 The following constraints relating to the High Weald should be considered as part of the preparatory process for any proposed development:

- The remote, unspoilt landscapes and secluded valleys
- The extensive ancient woodlands
- The traditional pattern of fields, shaws, hedges and woods
- The green lanes and Drove-ways crossing the landscape
- The openness of heathland ridges
- Extensive views to and from ridges
- Safeguarding rivers, streams and ponds
- Safeguarding archæological sites and elements
- Safeguarding traditional buildings, unspoilt villages and their settings
- The natural beauty of the High Weald
- The natural elements of scenic beauty
- Habitat and species of principal importance and Biodiversity Action Plan (BAP) habitats and species

2.7 The High Weald landscape is particularly vulnerable to new development on the fringes of settlements which fail to respect local distinctiveness in terms of materials, design, detailing and relationship to neighbouring buildings. Another significant issue is the erosion or loss of characteristic established landscape features. This can have a number of causes, such as inappropriate management, the fragmentation of the setting of agricultural buildings and their unsympathetic conversion.

2.8 The introduction of urban elements, such as lighting and close-boarded fencing, also has a detrimental impact on the area's essential rural character. Similarly, any development affecting the skyline, such as telecommunications masts, is likely to be visually intrusive and could encroach onto sensitive areas designated for their nature conservation and landscape value.

3 The Low Weald

3.1 The Low Weald lies between the High Weald and the South Downs. Although not covered by a national landscape designation, it is an area of generally attractive countryside. The towns of Uckfield, Hailsham and Polegate lie within its bounds.

3.2 The underlying geology is essentially the softer Wealden clays, with small sandstone ridges and outcrops on the fringes of the High Weald. The landscape is generally more open than the High Weald, becoming flatter towards the Downs. The area is well wooded and has extensive blocks of ancient coppiced woodland. Other woods tend to be small but numerous with the primarily agricultural landscape being further broken up by the dense network of boundary hedges and tree belts (shaws). There are a number of ponds, largely industrial in origin, and streams and ghylls flow south from the slopes of the High Weald to feed the Cuckmere and Uck rivers, with the latter then flowing into the river Ouse.

3.3 Uckfield lies to the north, on the edge of the High Weald, with Hailsham and Polegate to the south-east, on the edge of the Pevensey Levels. There is a scatter of villages and other settlements throughout, sustained by a network of narrow country lanes. Overall, the Low Weald retains a strong rural character which is evident in views from the higher ground to north and south. The area beneath the slopes of the South Downs is particularly exposed and therefore sensitive to change. Views within the Low Weald tend to be fairly restricted due to its well wooded nature.

3.4 As with the other character zones, buildings initially drew on local sources for their materials. This palette broadened, however, with the coming of the railways in the mid-nineteenth century which gave access to a wider range. Materials used here include:

- Timber framing, originally with wattle-and-daub infill panels
- Stone of varying quality and colour, normally square-cut (but not always)
- Local orange/red brick, normally laid in English or Flemish bond
- Blue/grey burnt brick headers, often used to form patterns
- Coursed flint (both knapped and unknapped)
- Lime render (limewashed), sometimes marked out to imitate stone
- Handmade orange/red clay plain tiles for roofs and vertical hanging
- Mathematical tiles (particularly in Uckfield) over timber framing
- Feather-edged weatherboarding, often black (pitch) for agricultural use

Fig 3.1



Fig 3.1 The Low Weald clearly shows how man has used the landscape over time

3.5 The following constraints relating to the Low Weald should be considered as part of the preparatory process for any proposed development:

- The remote, unspoilt landscapes
- The ancient woodlands
- The traditional pattern of fields, shaws, hedges and woods
- The heathland
- Safeguarding rivers, streams and ponds
- Protecting the character of rural lanes
- Safeguarding archæological sites
- Safeguarding traditional buildings, unspoilt villages and their settings

3.6 The Low Weald landscape is particularly vulnerable to pressure for the expansion of existing towns and village settlements and the erosion of their character through insensitive infilling. Another significant issue is the erosion or loss of characteristic established landscape features such as the field system, hedgerows, and associated trees. Fragmentation of agricultural land around houses, such as that which can occur with equestrian uses, and the unsympathetic conversion of agricultural buildings which potentially adds to this problem.

3.7 The use of urban elements, such as lighting and close-boarded fencing, also has a detrimental impact on the area's essential rural character, as does the introduction of telecommunications masts. These are likely to be visually intrusive and could encroach onto sensitive areas designated for their nature conservation and landscape value.

Fig 3.2



Fig 3.2 The pattern of small fields, hedgerows and woodland

Fig 3.3



Fig 3.3 The undulating nature of the Low Weald's landscape

Fig 3.4



Fig 3.4 Ancient Woodland with a carpet of wood anemone

Fig 4.1



Fig 4.1 Trees on the chalk slopes of the South Downs

4 The South Downs

4.1 Elements of this character zone can be seen in the Sussex Downs AONB which was designated in 1966 and covers parts of both East and West Sussex, traversing the south-western coastal part of the District to terminate at Beachy Head near Eastbourne. The Sussex Downs Conservation Board (now the South Downs Joint Committee) was established in 1992 to promote conservation management. At the time of writing, the plans to designate the entire South Downs as a National Park are well advanced.

4.2 Consisting of an undulating chalk ridge, the South Downs present a dramatic north-facing escarpment, overlooking the Low Weald. Dry valleys are a feature of this escarpment, which is characterised by mature woodland extending along the lower slopes.

Fig 4.2



Fig 4.2 View north from South Downs

4.3 The main river valleys, such as the Cuckmere, cut through the Downs to meet the coast in broad alluvial floodplains with wet grazing meadows, contrasting markedly with the high, exposed downlands. The open nature of the Downs accommodates large fields, mostly in arable use, and substantial areas of environmentally sensitive grassland. Woodland is present but tends to be in isolated blocks. There are few hedgerows and that do exist are normally sparse, narrow, and incorporate a few windswept trees.

4.4 The South Downs is relatively sparsely settled, scattered villages and isolated farmsteads predominating. The larger settlements tend to be found occupying sheltered sites on the lower slopes of valleys and in particular on the edge of the floodplain. Typically, villages are built around a central core with some linear development along the valleys. Although dense tree cover provides some screening for buildings, the villages are often the focus of views over and along the valleys. Traditional farmsteads and isolated barns tend to be found on the more elevated slopes with more modern farm buildings nestling in dry valleys or clustered along the floor of the escarpment.

Fig 4.3



Fig 4.3 Environmentally Sensitive Area in the South Downs

4.5 Whilst timber-framing is to be found, as the extensive survival of predominantly masonry structures indicates, the range of locally availalable building materials differs somewhat from those found in the Weald, The range of materials here includes :

- Coursed flint (knapped and un-knapped)
- Coursed cobble
- 'Bungeroosh', an irregular mix of brick, chalk and flint
- Chalk block (generally used internally)
- Stone usage tends to be limited to quoins and detailing
- Local orange/red brick, originally mainly used for quoins and detailing
- Mathematical tiling, some examples of which can be found in Alfriston
- Lime render (limewashed), sometimes marked out to imitate stone
- Handmade orange/red clay plain tiles for roofs and vertical hanging
- Weatherboarding (relatively rare)

4.6 It is extremely difficult to form sharp angles using flints or cobbles on their own so elements requiring defined edges were normally constructed in brick or, more rarely, stone. Flint and cobble walls also make use of brick 'lacing' courses to help in tying them together. Flint and cobble construction generally results in thicker walls, often gently tapering with height, which gives a very specific character to both the exterior and interior of buildings.

4.7 The following constraints relating to the South Downs should be considered as part of the preparatory process for any proposed development :

- The open nature of the landscape
- Remote, unspoilt areas
- Safeguarding nature conservation designations
- Safeguarding archæological sites
- Safeguarding building character, unspoilt villages and their settings

4.8 The open character of the South Downs landscape makes it highly vulnerable to change as there is little capacity for it to absorb further residential development, even around existing settlements. The erection of new, large scale, agricultural buildings of modern construction is also impacting on the character of the area, as is the loss of traditional boundary types such as hedgerows and flint walls. Increasing pressure for telecommunications masts, many of which are likely to prove visually intrusive, also has the potential to compromise this important landscape. Finally, attention must be drawn to the difficulties involved in maintaining local distinctiveness when craftsmen with the traditional skills required are becoming more and more scarce.

5 The Coastal Levels

5.1 The Coastal Levels describes an area of wetlands, largely reclaimed, with pockets of raised land. Its importance to biodiversity and the natural environment is recognised by means of a variety of designations, both national and international The area is bounded to the north and east by the High Weald and to the south-west by the South Downs.

5.2 Together with some arable fields, extensive, exposed, wet meadows used for grazing characterise this area. The openness of the landscape is emphasised by the limited presence of trees and hedgerows, the main internal subdivisions taking the form of an irregular network of reeded drainage channels and ditches along which some willows and hawthorns occur. Woodland tends to be associated with settlements on the higher ground. The coastline is shingley and virtually undeveloped. Some sporadic ribbon development has grown up along parts of this coastline in a haphazard and unsympathetic fashion, with no reflection of local distinctiveness or respect for the character of the coast.

5.3 Scattered settlements and farmsteads are to be found on the high ground, linked by open roads, often raised above the surrounding land. The southern part is more developed as a result of encroachment from existing settlements on the fringes of the Levels and the coast. In terms of the built form, churches and fortifications of various ages tend to provide the strongest historic visual focuses, although the presence of power lines and pylons is marked in the relatively flat and open landscape.

5.4 Again, architecturally, wider use was made of masonry for construction here than in the Weald. The character of the built form in this area thus has a deal in common with that found in the South Downs drawing, as it does, on a similar range of materials. These include:

- Coursed flint (both knapped and un-knapped)
- Coursed cobble
- 'Bungeroosh', an irregular mix of brick, chalk and flint
- Local orange/red brick, originally mainly used for quoins and detailing
- Lime render (limewashed), sometimes marked out to imitate stone
- Handmade orange/red clay plain tiles for roofs and vertical hanging
- Weatherboarding

5.5 As noted for the South Downs, it is extremely difficult to form sharp angles using flints or cobbles on their own so elements requiring defined edges were normally constructed in brick. Flint and cobble walls also make use of brick 'lacing' courses to help in tying them together. Flint and cobble construction generally results in thicker walls, often gently tapering with height, which gives a very specific character to both the exterior and interior of buildings.

5.6 The following constraints relating to the Coastal Levels should be considered as part of the preparatory process for any proposed development :

- The open nature of the landscape
- Large expanses of remote, unspoilt areas
- Safeguarding nature conservation designations
- Maintaining and conserving the network of drainage channels
- Protecting the undeveloped coastline
- Safeguarding archæological sites
- Safeguarding building character, unspoilt villages and their settings

5.7 The open character of the Coastal Levels, in particular the Pevensey Levels, makes the area highly vulnerable to change. The limited high ground means that there is little capacity for it to absorb further residential development, even around existing settlements, and the loss of the area's characteristic dyke, wetland and wet meadow vegetation will be resisted. Again, attention must be drawn to the problems of maintaining local distinctiveness when the traditional skills required are becoming increasingly scarce. Technical guidance notes on specific topics will be issued and updated from time to time by the Council. Please check the Council's website or contact the Planning department for up-to-date details.

Fig 5.1



Fig 5.1 View south over the Levels towards the Channel

Fig 5.2



Fig 5.2 Drainage ditch & evidence of traditional grazing regime

Fig 5.3



Fig 5.3 Cuckmere Valley flood-plain near Alfriston

6 Local distinctiveness

6.1 By Design: Urban Design in the planning system: towards better practice (DETR/Cabe 2000) states that 'local distinctiveness' refers to:

"The positive features of a place and its communities which contribute to its special character and sense of place."

6.2 As indicated by Planning Policy Statement PPS1 'Delivering Sustainable Development', it is a requirement for new development to make a 'positive' contribution to the character and identity of a place. Wealden District Council sees this as an opportunity to draw upon that established built form and its relationship with the landscape to contribute to the area's overall quality. This includes the way in which materials, traditional styles, construction and detailing are correctly employed, avoiding the introduction of 'pastiche' designs.

6.3 Due to its varied landscape and geology, the Wealden District has a wealth of building styles ranging from the medieval to the present day. The Visual Glossary attached as Appendix A provides examples of components, materials, finishes and details that are used in the District than can positively influence or inspire a scheme. Where distinctiveness is ignored or used incorrectly, the results are often visually inharmonious and discordant.

6.4 In providing this comprehensive Visual Glossary, the District Council is not intending that it should be used to justify the 'pastiche' approach to design, merely 'bolting on' elements as a means of providing 'local character'. Designing for local distinctiveness is not a 'shopping basket' approach to design but requires a creative input to the process of reconciling local practices and traditions with the latest technologies, building types and needs.

6.5 By identifying that which is distinctive about Wealden, it is the intention that developers, applicants and decision-makers have an understanding of the environment in which they are working. By Design clearly states that

"Development that responds sensitively to the site and its setting, by contrast is likely to create a place that is valued and most pleasing to the eye."

Fig 6.1



Fig 6.1 Timber-framed 'Wealden' house

Fig 6.2



Fig 6.2 Thatched timber-framed house

Fig 6.3



Fig 6.3 Stone-built, parallel-range house

Fig 6.4



Fig 6.4 Burnt brick symmetrical façade

Fig 6.5



Fig 6.5 Raised verandah to front of house

Fig 6.6



Fig 6.6 Mid-C18 formality

Fig 6.7



Fig 6.7 C19 'Gothic' gatehouse

Fig 6.8



Fig 6.8 Special agricultural requirements

Fig 6.9



Fig 6.9 Box-framed house and thatched, weatherboarded barn

Fig 6.10



Fig 6.10 The new local distinctiveness ?

7 Buildings of local importance

7.1 In addition to those buildings and structures which appear within the current "List of Buildings of Special Architectural or Historic Interest", there are a number of other properties which are considered by local communities to contribute to the character and quality of the built environment within their particular settlements and areas.

7.2 Often such buildings embody materials and architectural detailing relating to the specific character areas in which they are located. They may, however, be buildings of a generic type, such as hospitals or railway structures, which tend to relate more to 'national' standardisation in terms of design and materials.

7.3 During the course of the last listed building resurvey in Wealden (carried out in the late 1970s/early 1980s) these buildings were not considered to merit statutory protection through inclusion in the List. There has, however, been a long-standing recognition that (for instance, in the designation of Conservation Areas) certain non-listed buildings are of considerable visual, historical or social importance, both in their own right and taken in context. The Council is generally supportive of organisations who wish to approach English Heritage to consider adding a building to the current Statutory List.

7.4 English Heritage and others encourage communities, with the guidance of their Local Authority, to compile their own 'local lists' in line with agreed criteria.

7.5 Although those buildings featured in such local lists do not enjoy the statutory protection given to entries in the national List, their inclusion is a material consideration for planning purposes and has been taken into account at Appeal.

7.6 In recent years, a number of Parish Councils have taken the opportunity to produce their own 'Village Design Statements', each of which identifies those aspects of a locality that contribute to its special character.

7.7 These include the style, materials and detailing of the local architecture which are considered to define historic built form within the Parish. They are described with a view to their serving as models for any future development.

7.8 Such work can also provide a useful basis for the identification, by individual communities, of those unlisted local buildings which they consider to be of most importance to them.

7.9 Wealden District Council has held workshops on the subject of local listing and been encouraged by the response. As a result, draft criteria have been drawn up and sent to each Parish/Town Council with an invitation to consult with their communities to see whether they wish to put any buildings forward for inclusion in a local list.

7.10 Although, at the time of writing, buildings included in such local lists have no statutory protection, the Council will respect local opinion when considering any planning applications relating to their immediate locality.

7.11 There is no specific timescale for suggestions to be submitted to the District Council as the principal requirement is that they should be prepared as a result of community involvement.

Fig 7.1



Fig 7.1 East Dean Conservation Area

Fig 7.2



Fig 7.2 Frant Village Green

The pictures below give an idea of the types of buildings which could be considered to be of local importance in terms of their architectural character or history

2

Fig 7.3



Fig 7.3 Unusual corner building in Uckfield

Fig 7.5



Fig 7.5 The prominently sited former Rush's butcher's shop in Crowborough

Fig 7.7



Fig 7.7 Terracotta 'Aesthetic' date panel on the Rush's building in Crowborough

Fig 7.8



Fig 7.8 Part of the Hellingly Hospital site

Fig 7.4



Fig 7.4 Former flour mill at Horsebridge

Fig 7.6



Fig 7.6 Faience tiling and stained glass at the former butcher's shop

Fig 7.9



Fig 7.9 Former Uckfield signal box now used as Taxi office

8 Summary

8.1 Much of the development in Wealden has been influenced by the diverse character of the natural environment. The use of local materials is a typical example of how such variations occur, although changing fashions and access to mass-produced materials have led to urbanisation and standardisation.

8.2 The need for new development to respect established landscape character and preserve local distinctiveness is emphasised in both local and national policy and guidance.

8.3 Within Wealden there are four main character zones

- The High Weald
- The Low Weald
- The South Downs
- The Coastal Levels

8.4 These zones do not have sharply defined boundaries but, within them, encompass subtle local variations in terms of their landscape and architectural character.

8.5 Wealden District also contains a large number of buildings of special architectural or historic interest. Some of these are listed and thereby recognised as being of national importance. Others may be included in local lists prepared by town or parish councils and/ or of importance within a designated Conservation Area

8.6 The Council is keen to support all efforts to maintain and enhance buildings which are of visual, historical or social significance and which contribute to local distinctiveness, including the preparation of local lists and village design statements.



Landscape, trees and wildlife

3

1 Background
2 Key principles
3 Historic Parks and Gardens
4 Allotments and gardens
5 Wetlands
6 Trees, hedgerows and wooded areas
7 Ancient and veteran trees
8 Hedgerows
9 Ancient woodland
10 Mixed broadleaf woodland
11 Woodland restoration
12 Heathland
13 Chalk downland
14 Designated wildlife sites
15 Wildlife, conservation and enhancements
16 Boundaries
17 Hard and soft landscape
18 The impact of lighting
19 Summary

Where appropriate, the following symbols are used :

- Practice or Example generally acceptable
- Aspects of Practice or Example may be acceptable in specific circumstances
- Practice or Example not recommended

Fig 1.1

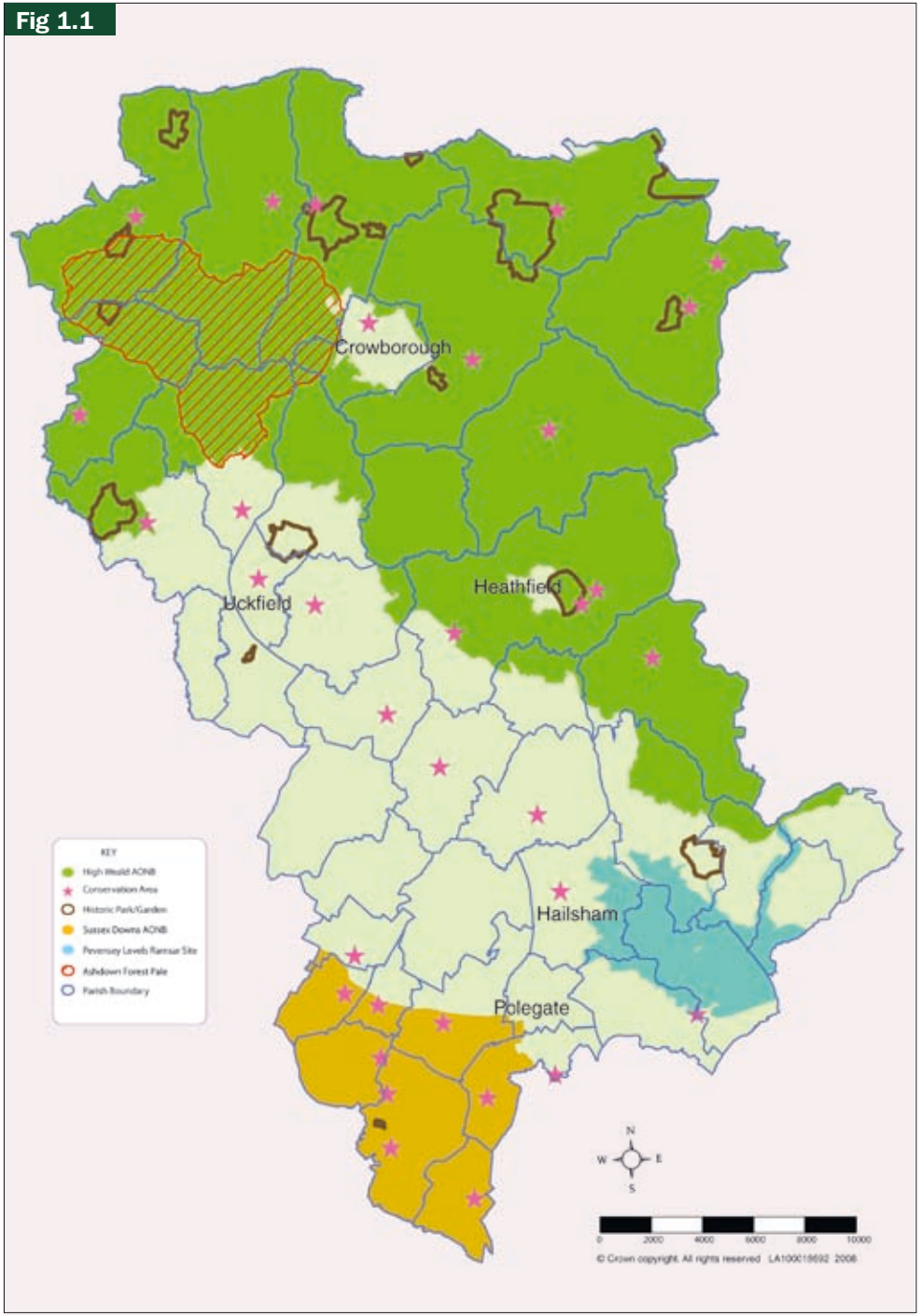


Fig 1.1 Map of Wealden District Showing Designated Areas

Landscape, trees and wildlife

1 Background

1.1 Over two-thirds of Wealden is designated as being of national or international importance because of its character, quality or wildlife value. In addition to the High Weald and South Downs Areas of Outstanding Natural Beauty, the District includes such internationally important wildlife habitats as the heathland of the Ashdown Forest Special Conservation Areas and the wetlands of the Coastal and Pevensey Levels Ramsar Site, both of which are also Special Protection Areas.

1.2 In addition to such 'natural' elements, the District shows ample evidence of its landscape having been shaped by man over many thousands of years. This evidence includes:

- The wealth of ancient woodland and hedges
- Established parks and gardens, many of them registered
- Sites and areas of archæological interest
- Designated Conservation Areas within the towns and villages
- Listed buildings and their settings, both rural and within settlements

1.3 Such sensitive landscapes are easily affected by development. It is all too easy for new development to have an adverse effect on what is still, essentially, tranquil countryside. This is particularly likely to be the case where 'standard' solutions, which fail to address the specific issues of the site and its setting, are imposed.

1.4 However, there is the potential for well-designed development to contribute to the conservation and enhancement of the District's essential character.

1.5 To this end, the Council seeks to ensure that new developments should enhance both landscapes and wildlife habitats within the District. Where appropriate, this will require the preparation and implementation of long-term management plans to accompany proposals. Conditions and planning agreements attached to approvals will be used to ensure that schemes are implemented to an acceptable standard.

1.6 Whilst the detail of new landscaping works will vary with the type and function of the associated development, landscape design should be considered as an integral and iterative part of the development process. A development and its landscape should form part of the same integrated approach to design. Consideration must be given to the present and proposed character, quality and uses of all spaces from the earliest stage of development.

1.7 The nature of landscapes and provision and responsibility for the future long-term management and maintenance, is expected to be an important factor in development design. The Council will expect landscape restoration, enhancement and management plans to accompany planning applications for major developments with unadopted or public space, or those proposed in particularly sensitive locations, such as historic parks and gardens or areas of wildlife importance.

1.8 Good planning is crucial for the protection of the natural and historic character of the environment we enjoy. It will influence what is passed down to future generations as part of their own historic environment.

1.9 In the Summary to its 2002 *State of the Historic Environment* report, English Heritage comments that:

"Maintaining and protecting the historic environment is necessary to ensure that future generations are able to continue to enjoy the quality and variety of life we have today. Change is inevitable, but needs to be managed constructively." and goes on to note that:

"In many places, poor decisions and unregulated development – and the need to cope with increased traffic – are degrading the quality of the historic environment and eroding its significance… Insensitive new design blights the historic environment and diminishes its character and distinctiveness."

1.9 The potential for the planning system to be used to encourage and ensure the preservation, conservation and enhancement of the District's cultural heritage will be a major consideration for the Council in determining planning applications. This is especially true in areas of culturally important landscape types found within the District such as Historic Parks and Gardens, Conservation Areas and the settings of Listed Buildings and Scheduled Ancient Monuments.

2 Key principles

2.1 As part of the submitted development proposal, it must be demonstrated that the design has addressed all of the following issues which relate to the landscape and wildlife associated with the site itself and its immediate setting:

- Early and appropriate surveys of the assets associated with the site and its immediate environs
- The implications of the site's intended use(s) and the intensity of such use(s) for the landscape and wildlife
- The scale, massing and design detail of the proposed scheme
- The use of practical and innovative design which reflects both local distinctiveness, landscape quality and sustainability
- The integration of the proposals and enhancements into the existing landscape setting
- Linking between sites to achieve an ecological green network/chain/wildlife corridors wherever possible
- The potential for sustainable enhancements to the landscape and wildlife of the site and its surroundings in both local and regional contexts
- The provision of necessary facilities for public amenity
- The use of appropriate boundary treatments
- The long-term management and maintenance of the site's landscape and wildlife



Fig 2.1 Historically, man has drawn on the produce of his environs to provide shelter and sustenance



Fig 2.2 Over the centuries, man has continually reshaped Wealden's landscape to best suit changing agricultural needs



Fig 2.3 In more recent times, social aspirations have also impacted on the way we interact with the landscape



Fig 3.1 The historic garden at Sheffield Park

3 Historic Parks and Gardens

3.1 In the past, the quality and historic importance of many parks and gardens have often gone unrecognised. As a result, uninformed development has often been allowed to take place which has compromised their integrity. To help address this problem the Council, working in partnership with the Sussex Gardens Trust and English Heritage, undertook the Wealden Historic Parks and Gardens Survey (WHiGS) which was completed in 2005.

3.2 Parks and gardens not currently included on the National Register were surveyed and assessed according to English Heritage's criteria. Some were recognised as being of probable national importance (and are being considered for inclusion in the Register) whilst others were found to be of local significance. A list of these is included in Wealden's Non-Statutory Local Plan and can be accessed on the Wealden website.

3.3 It was recognised, however, that all of these sites make an important contribution to the local distinctiveness and character of the District and are also an important resource for education, informal recreation or more formal events.

3.4 Those parks and gardens included within the Register of Parks and Gardens of Special Historic Interest are considered to be of national importance. Where development is proposed which would have an impact on such designated areas, attention to detail is essential in preparing the layout and design. This includes works that relate to the landscape outside the defining boundaries where they are considered to affect important views in or out of such areas.

3.5 Similarly, development proposals in, or affecting views from, parks and gardens that are not yet registered but which have been shown to be of potentially national or even local interest will be the subject of more intense scrutiny, consultation and design critique than other parks and gardens in the District.

3.6 As a general point, the Council will resist the subdivision of nationally or locally important parks and gardens of historic interest.

3.7 The submission of a conservation/ restoration management plan will be expected in cases where major development is in or affects such sites. This approach is seen as the key to ensuring appropriate protection, conservation and enhancement of these nationally important parks and gardens.

The Register is viewable under 'Research & Conservation' on English Heritage's website : http://www.english-heritage.org.uk/

Fig 3.2



Fig 3.2 Work in progress on restoring the stepping stones designed by Jekyll

Fig 3.3



Fig 3.3 The completed stepping stones

Fig 3.4



Fig 3.4 Jekyll's steps re-set to improve their safety and stability

Frant Court

As part of an approval for the subdivision of the listed building and the construction of new residential units within the grounds, the garden, which was extensively overgrown, was to be restored. A number of features from the original early C20 design by Gertrude Jekyll were found during the course of the work and these have been restored or repaired as appropriate.

The garden remains in private hands and is now included in the Register of Parks and Gardens of Special Historic Interest.

4 Allotments and gardens

4.1 Parks, gardens and allotments are amongst the more obvious 'manufactured' instances of human intervention in the landscape. In providing cultivatable green space open to a range of uses, allotments are becoming of increasing importance, not only for local people, but also for a variety of wildlife.

4.2 Many allotments have cultural value, both in terms of their own long social history and also because of the 'fossilised' landscapes they contain. Some present-day allotment hedges date back to the medieval period and many contain trees which were there when the land was open countryside.

4.3 Wildlife also benefits, especially where allotment associations promote organic gardening and the retention of valuable habitats such as ditches, hedges and trees as part of the green infrastructure of the site.

4.4 High density modern development has resulted in relatively small gardens with limited space for new residents to grow their own vegetables in the traditional manner. Existing allotments are therefore becoming sought after, with long waiting-lists. Their retention is therefore increasingly important for existing, and future, communities.

4.5 Allotments are being incorporated into newer, eco-friendly housing schemes as it is recognised that they can help to reduce the carbon footprint of those households which grow their own produce. This process not only helps to reduce 'food miles' but also impacts on waste generation by providing space for composting. Additionally, the District's rarer, protected reptiles, such as the grass snake and slow-worm, can take advantage of such facilities for their nests.

4.6 Allotments also provide good focal points for communities, putting people in direct contact with the processes whereby life is sustained. This is especially important for city-dwellers moving to a country town or village.

4.7 Although there have been many recorded instances of conflict between the site requirements for proposed housing development and established allotments, this Council seeks to retain allotments in sustainable locations where there is a local need. This is because it is considered that allotments, and the associations that run them, provide a valuable service to the District, offering wide-ranging opportunities for education, recreation, exercise and community building.

Fig 4.1



Fig 4.1 In todays 'sustainable' world, the demand for allotments is high

Fig 4.2



Fig 4.2 Private gardens provide significant opportunities for biodiversity where natural habitat is under increasing threat

Fig 4.3



Fig 4.3 Increasing agricultural diversification can have physical, and visual implications for the wider landscape

Fig 4.4



Fig 4.4 Intensive forms of animal rearing can have a distinct impact on the landscape

5 Wetlands

5.1 Existing and new wetlands in a variety of forms can contribute to a sense of place and are also good for wildlife.

5.2 Rivers and streams: Development proposals should integrate existing natural networks of ditches, ponds and streams in the landscape by ensuring that:

- Where permitted, development within the floodplain of rivers and streams should incorporate flood risk measures
- Avoiding the disruption of bodies of water and their ecosystems where possible, restoring and encouraging natural flow rather than introducing 'engineered' solutions such as culverting and canalisation
- Drainage to watercourses does not adversely affect their functioning or ecosystems, with volumes kept low and water quality high
- The vegetation is conserved and enhanced through appropriate bank profiling, planting and management
- All wetlands of wildlife value are conserved and enhanced
- Imaginative, managed solutions are used to ensure appropriate access for river maintenance, retention of existing landscape and wildlife features

5.3 Ponds and lakes: Wealden has one of the highest concentrations of ponds in the South-East. Most are associated with the District's industrial past and are the result of stone quarrying, dams, hammer ponds or livestock ponds.

5.4 Whilst many of these are now redundant, they are key features of the landscape, forming valuable wildlife habitats and having cultural and recreational value. The Council will seek their retention and enhancement in development schemes. Ponds are threatened by:

- Neglect, natural succession and infilling with excessive leaf litter
- Water pollution from pesticides or run-off
- Inappropriate management, over-zealous dredging or excessive tree clearance
- Abstraction or drainage affecting the water supply.
- Active infilling because of safety concerns

5.5 The Council will encourage the introduction of new ponds where these can be integrated into the landscape, particularly where early survey work can demonstrate that they will enhance the value of the sites for wildlife.

The integration of new ponds and pond aggregations for Great Crested Newts will be required as on-site or off-site mitigation and enhancement where this European protected Species is present on, or adjacent to, development sites.

5.6 Development in the region will increase the need for new reservoirs. The Council will seek to maximise benefits for wildlife and the peaceful enjoyment of the landscape in such developments.

5.7 Other wetlands: Such areas as coastal floodplains, grazing marsh, lakes, ponds, open water and the inter-tidal zone feature as regional biodiversity target habitats in the current South-East Plan. They are often of high scenic and recreational value in addition to providing a diverse range of habitats for rare and protected wildlife. Development on or adjacent to such sites will need to ensure certain measures are in place, including:

- Appropriate surveys carried out at an early stage to assess the landscape, trees and wildlife on and immediately adjoining the site
- Careful protection of these areas during any construction
- Sensitive integration of such areas into the new landscape framework
- Maintenance of the delicate hydrology and ecology of the site and surroundings
- Careful incorporation and control of access for wildlife and people.

Fig 5.1



Fig 5.1 Careful management of water meadows not only provides potential flood relief, but also encourages biodiversity

6 Trees, hedgerows and wooded areas

6.1 Trees, hedgerows and wooded areas form an important natural network across the District. They are visually significant and of high wildlife and recreational value, providing habitat for over 50% of the District's protected species. Insofar as they define the Wealden landscape, the Council will seek their retention and enhancement as part of any development proposals.

6.2 Appropriate consideration of trees, hedgerows and woodland is essential to good design and should be reflected in planning applications. Proposals should clearly demonstrate both how the development takes account of existing woodland, trees and hedgerows on and adjacent to the site and how appropriate protection, mitigation and enhancement measures will be achieved.

6.3 Where appropriate consideration has not been given to such issues any felling, clearance or work prejudicial to their safe and viable retention and/or the ecology, will be resisted.

6.4 The retention of trees of particular interest, such as ancient or veteran trees or native elms and black poplars, is considered to be essential (except where, for example, this might conflict with disease control).

6.5 The Council will encourage the contribution made by existing trees, hedgerows and woodland to be enhanced through good design, by imposing conditions and securing planning agreements. These could encompass the restoration and management of existing landscape features or new planting.

6.6 The most up to date British Standards [BS 5837 (2005) at the time of writing] will always be the *minimum* standard that should be applied when considering trees and woodland. These principles are also relevant to hedgerows.

6.7 In applying British Standards to design proposals, the aim should be to ensure a sustainable relationship between the existing/proposed built form and existing/proposed trees, hedgerows and woodland, on and adjacent to any property or site. Amenity and safety should similarly be addressed.

6.8 Space should always be allowed for the management of hedgerows, growth of trees to maturity, new planting to diversify planting age structures and to avoid overshadowing, and over-dominance.

6.9 The criteria in the relevant British Standards should be applied from the earliest stages of the design process and should include:

- A Land/Topographical Survey
  – to show all relevant site features
- A Tree Survey and Constraints Plan
  - to plot and assess trees, hedges and woodland and indicate all above and below-ground constraints in order to inform the proposal
- An Arboricultural Impact Assessment
  – to assess the likely implications of the evolving design proposals, in terms of the interrelationships between people, buildings trees and hedgerows, in order to ensure the long-term sustainability of the final scheme
- An Arboricultural Method Statement
  – this will be informed by all of the above and will be expected to ensure that all appropriate tree protection measures, including monitoring/supervision during and after any development, are provided

Potentially damaging operations for trees and hedges include excavation of service runs, proximity of construction working areas, materials storage, logistics, site huts, tree pruning/felling landscape operations.

6.10 Biodiversity issues relating to trees, hedgerows and woodland must be appropriately addressed throughout the development process. This is particularly important where protected species and habitats or designated sites are involved. A suitably qualified and experienced ecologist will be needed to provide appropriate advice. Measures to reduce impacts and enhance biodiversity in the long-term will be expected, to include wide buffer zones protecting Veteran trees and woodland.

6.11 Such a sustainable approach should be incorporated into all planning applications where trees, hedgerows and woodland are involved. Their retention helps to ensure that the essential quality and character of the landscape is not further eroded. The potential design benefits include:

- A mature landscape setting for the development
- Enhancements to enclosure, privacy, shelter and the streetscape
- Visual interest through contrast, colour and seasonal variation
- Increased shade
- Established wildlife habitats

Fig 6.1



Fig 6.1 Established woodland gives way to enable approved development to proceed

Fig 6.2



Fig 6.2 Where an extension to an existing property threatens established trees, it is essential that workable solutions are found

Fig 6.3



Fig 6.3 New development alongside established woodland requires good design if they are to coexist and thrive

Fig 6.4



Fig 6.4 Where successful action is taken over the carrying out of unlawful works to protected trees or woodlands, those responsible can find this costly

Fig 6.5



Fig 6.5 Adequate protection for established trees during, and after, construction is normally a condition of any approval and should be appropriately implemented

7 Ancient and veteran trees

7.1 Ancient and Veteran Trees have great landscape value in their own right, quite apart from their high value for wildlife. The old gnarled trunks and twisted branches create natural sculptural forms in the countryside and they are particularly important features where they have persisted in towns and villages. Such trees act as landmarks, adding an air of antiquity to urban landscape and can create a valuable ecological habitat.

7.2 Ancient trees often serve as markers in the landscape, sometimes on the line of parish boundaries which date back to Saxon times. They may also have an archæological importance in marking the routes of former streets to mediæval villages long since abandoned. Ancient and Veteran trees are also a feature of the boundary banks and ditches which often surround ancient woodland. Such trees are especially vulnerable because of their isolation, which means there are no buffers between them and development or insensitive agricultural management.

7.3 As our towns and villages expand, where ancient trees are retained, they become subsumed in the urban landscape. As isolated specimens and street trees in what has effectively become a hostile environment, their ecological value is undermined although their cultural significance may remain,

7.4 Wildlife Conservation Bodies have therefore focused their efforts on Ancient and Veteran Trees in rural areas, leaving the conservation of isolated single trees or street trees to other bodies.

7.5 Accordingly, the Council will require developers to provide for the conservation and sensitive management of Ancient and Veteran street trees on their sites, ensuring that suitable buffer zones will be employed to protect them and other trees near to them. It will also pursue appropriate action under the relevant legislation against those who damage any such protected trees.

Fig 7.1



Fig 7.1 A veteran tree in its natural setting

8 Hedgerows

8.1 Hedgerows form an integral part of the landscape character across the District, providing valuable visual, physical and historic links. The 1997 Hedgerow Regulations protect many rural hedgerows and there is also a Habitat Action Plan for Sussex hedgerows. With these factors in mind, the Council will seek to ensure that:

- The existing pattern of hedgerows and field boundaries is retained, conserved and enhanced
- Existing breaks in hedgerows are used as a priority for access to, and movement within any site
- Where hedgerow removal is unavoidable, translocation or replanting is undertaken

8.2 The management of hedgerows is important to the successful retention of hedges in the landscape. The Council will seek to encourage provision for traditional, sustainable, long-term management of existing hedgerows and the planting of new hedgerows and hedges (clipped garden hedgerows) especially on development sites.



Fig 8.1 Typical, trimmed domestic garden hedge with associated planting - such hedges can provide valuable wildlife habitats



Fig 8.2 Regular clipping helps to encourage tight, dense growth of a formal character which can enhance property boundaries



Fig 8.3 Through human intervention, hedges can take many forms, some of which are perhaps more 'specialised'

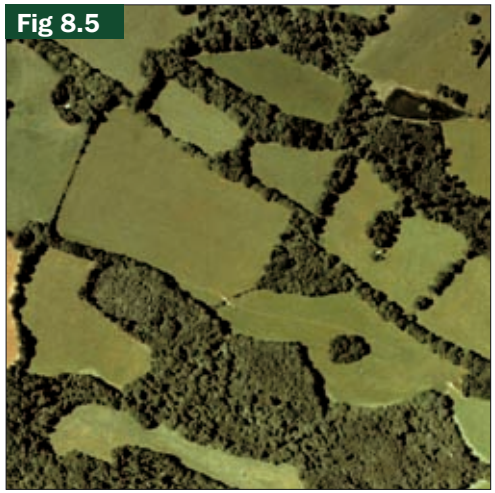


Fig 8.5 The historic pattern of small fields, hedgerows and woodland is readily visible from the air



Fig 8.6 A 'relict' hedgerow where failure to continue its management has allowed it to grow out, whilst still showing its origins



Fig 8.7 The traditional countryside craft of hedgelaying is still used to create dense, stock-proof, natural boundaries

Fig 8.4



Fig 8.4 A 2.5m well-managed lleylandii; unfortunately many are not and can grow to become a significant issue with neighbours

Fig 8.8



Fig 8.8 Hedgerows alongside roads were often associated with drainage ditches

9 Ancient woodland

9.1 The Weald is one of the most wooded areas of Britain with around 70% of its woodland being classed as 'ancient'. This means that it has been continually wooded since at least 1600 AD and is of international importance for wildlife.

9.2 Ancient semi-natural woodland, as defined by English Nature, is the closest approximation to natural broad-leafed forest in Britain. These woodlands are identified in the Wealden Ancient Woodland Survey of 2006. It may however be that where a particular woodland is not included, it is still of value to wildlife. It is possible that ancient woodland(s) survive which have yet to be identified or assessed as such. The opinion of a suitably qualified and experienced ecologist should always therefore be sought to verify the status of woodland which would be affected by proposed development.

9.3 The Council will resist development which proposes the removal, or otherwise prejudices the ecology of ancient semi-natural woodland, or plantations on ancient woodland sites. It will actively seek the sensitive conservation, enhancement and management of ancient woodland on or adjacent to development sites.

Fig 9.1



Fig 9.1 Ashdown Forest was originally managed as a mediæval hunting reserve, its boundaries known as the 'pale'

Fig 9.2



Fig 9.2 Ancient woodlands are marked by the diversity of plants which they contain

Fig 9.3



Fig 9.3 The seasons provide the woodland with carpets of many colours, ranging from bluebells to wood anemones

10 Mixed broadleaf woodland

10.1 Known as 'secondary' woodland, this has developed on sites which were previously extensively cleared and used for agricultural or industrial purposes for a considerable period before naturally regenerating.

10.2 Secondary woodland may provide important habitat in its own right. It may even be of some antiquity and thus of cultural significance.

10.3 It should be noted however, that appearances can be deceptive. Some ancient woodland may have the superficial characteristics of secondary woodland whilst some relatively new woodlands may look ancient because they incorporate fully mature, large trees of a considerable age. The opinion of a suitably skilled ecologist should therefore be sought to assess woodlands to minimise potential error.

10.4 As secondary woodland suffers from many of the same development pressures as ancient woodland, the Council will seek appropriate conservation, enhancement and management where it occurs on or adjacent to development sites.



Fig 10.1 A regenerated woodland linking two historically important settlements



Fig 11.1 Coppiced woodland demonstrates how man has helped to shape and manage the landscape within Wealden

11 Woodland restoration

11.1 Where woodland has been damaged or neglected it is possible to restore and enhance it through sensitive management by:

- Removal of inappropriate or unauthorised development
- Restoration of coppice management
- Restoration of conifer woodlands to broadleaved woodland through felling, natural regeneration or replanting
- New planting on previously un-wooded land
- Providing wildlife corridors and increasing the overall size of woods to provide a more viable habitat

11.2 It should be noted that, paradoxically, some species such as the rarer woodland bats are more common in 'neglected' woodlands, which may also conceal the remains of important structures or industries. Care should therefore be taken to ensure that any proposals do not detrimentally affect existing areas of ecological, archæological or cultural interest.



Fig 11.2 Disease and freak weather events have a direct effect on woodland ecology and biodiversity

12 Heathland

12.1 The United Kingdom's heaths are more 'Oceanic' in character than those of eastern continental Europe, supporting some species (such as bell heather and the Dartford Warbler).

12.2 East Sussex still supports significant areas of lowland heath, although this is now about 50% of that which previously existed. Most of the 2,000 ha or so remaining occurs within the specially protected area of Ashdown Forest, with relatively little found elsewhere in the District apart from around 190 ha of heathland and heathy woodland at Broadwater Forest and The Warren near Tunbridge Wells.

12.3 On the South Downs of both East and West Sussex there also remain a few small fragments of 'chalk heath' occurring where acidic soils overlie the chalk. This gives rise to interesting plant communities comprised of a mixture of characteristic chalk and heathland species. Lullington Heath National Nature Reserve is the largest example of this habitat but extends to only 25 ha.

12.4 Sussex heathlands are largely used as amenity land for informal recreational uses, such as dog-walking and horse-riding. Many people value heathlands as quiet refuges for fresh air and exercise. They are increasingly important as a nature conservation, archæological and recreational resource.

12.5 Larger heathland blocks, especially, are the nearest thing to 'wilderness' that can be found in the crowded, intensively-farmed countryside of SE England. Sites such as the Ashdown Forest, where people can wander at will across open countryside, are therefore well used by residents and visitors alike, often to the benefit of nearby towns and villages.

12.6 Although walking, riding and birdwatching in the open heathland landscapes are all popular activities, there is a degree of conflict arising from increasing public use, coupled with more overt vandalism, which results in worn out paths and damaged fences. These issues, together with the need for tree and scrub clearance, place a considerable burden on organisations which manage our heathland.

12.7 A considerable effort is therefore required to educate and inform both local people and visitors about the importance and nature of the countryside management and maintenance regimes necessary to ensure that their future enjoyment of this landscape can be assured.

12.8 Increasing development in the District will inevitably put more pressure on those areas of heathland where there is public access for recreation. Accordingly, the Council may seek contributions from developers to compensate for this through the purchase and restoration of areas of heathland.

Fig 12.1



Fig 12.1 The open heathland with its sparse tree cover

Fig 12.2



Fig 12.2 The heathland's colour changes markedly with the seasons

Fig 12.3



Fig 12.3 Heathland is subject to gradual encroachment by woodland over time

13 Chalk downland

13.1 Chalk grassland has developed on shallow, lime-rich soils generally overlying the chalk of the South Downs. It is one of the richest habitats in the United Kingdom and provides a home for a wide diversity of plants and animals.

13.2 Although calcareous soils overlying rocks such as limestone occur all over the world, chalk only occurs in northwestern Europe. The surviving chalk grassland of Wealden District is therefore exceptionally rare in international terms.

13.3 Despite the international importance of this landscape, agricultural 'improvements' and pressure from development over time have destroyed much of Wealden's chalk grassland. Loss of this landscape is of local and international concern.

13.4 Large-scale losses of chalk grassland occurred after the Second World War, with the push for increased food production. Modern intensive farming, devoted to arable crops and grass leys, largely replaced the extensive grazing management. About a fifth of the country's chalk grassland was lost in only fourteen years between 1966 and 1980. Today, on the South Downs, it covers only 3% of the area. The remaining resource is largely confined to slopes too steep to plough, such as north-facing escarpments. Hence the rarity of species on the few remaining south-facing slopes. Other losses have been through commercial tree plantations, notably Friston, Charlton and Singleton Forests.

13.5 Now, chalk grassland and its rich wildlife benefit the wider community by serving as a valuable informal recreational resource, especially where there is good access and panoramic views of the surrounding landscape. The special qualities of this habitat, with its wildlife, historic and landscape value, is also an important educational resource.

13.6 The Council may seek agreements to enhance the setting of developments near to chalk grassland and to reduce visitor pressure on the rare remaining chalk grassland sites.

13.7 As developments in the Low Weald may benefit from close proximity to the amenity space offered in the future by the South Downs National Park, the Council would seek off-site enhancements of downland wherever possible. The key aims will be to conserve and enhance chalk downland and to encourage restoration of the chalk grassland landscape through development funding.

Fig 13.1



Fig 13.1 A view from the South Downs shows the pattern of agriculture

Fig 13.2



Fig 13.2 The Long Man of Wilmington is one of many figures throughout the country which rely on natural chalk outcrops

Fig 13.3



Fig 13.3 Changing choices of crop can significantly impact on the colour and character of the area

Fig 14.1



Fig 14.1 An Environmentally Sensitive Area in the South Downs

14 Designated wildlife sites

14.1 Development on designated wildlife sites will not normally be supported. This applies to local as well as higher-level designations. Advice on designations may be sought from Natural England.

Fig 14.2



Fig 14.2 Sword-leaved Helleborine

Fig 14.3



Fig 14.3 Wildflowers ranging from the commonplace, such as bluebells, to the rare native orchids enjoy protection

Fig 14.4



Fig 14.4 Detail of a Bee Orchid

Fig 14.5



Fig 14.5 A Butterfly Orchid

Fig 14.6



Fig 14.6 Human intervention, ranging from littering to the introduction of invasive species (such as Japanese Knotweed) can easily harm such sites

Fig 14.7



Fig 14.7 More recently, the increase in fly-tipping has led to physical, and visual harm to the landscape in general

15 Wildlife conservation and enhancements

15.1 The wealth of wildlife in Wealden is reflected in the Sussex Biodiversity Action Plan which defines the species and habitats of particular value and concern in the county context. Of particular interest in Wealden are:

- Woodlands
- Heathland
- Wetlands
- Hedgerows
- Unimproved pastures
- Ponds
- Brownfield sites
- Neglected arable land
- Rivers and streams

Even some road verges in the district have wildlife value and, indeed, these represent neglected opportunities for innovative habitat creation.

15.2 Guidance on planning to halt the loss of biodiversity is available from the British Standards Institute. In addition, Planning Policy Statement (PPS) 9 'Biodiversity and Geological Conservation' states that; *"Plan policies and planning decisions should aim to maintain and enhance, restore or add to, biodiversity and geological conservation interests."* In determining applications, the Council will therefore seek to ensure that there will be no net loss of biodiversity.

15.3 Wildlife enhancements *"as part of good design"* are encouraged under PPS 9. Such enhancements should reflect the character and quality of wildlife found on, or adjacent to the site when the ecological survey was carried out.

15.4 It is essential that appropriately skilled and experienced ecologists are brought into the design team at the very start of the development process (preferably prior to site acquisition) so that the ecological opportunities and constraints of the site can be assessed at the earliest stage.

15.5 Sound ecological advice combined with legal requirements, planning guidance and the Sussex Biodiversity Action Plan will determine the quantity and type of species and habitat enhancements that are appropriate for each particular site.

15.6 Such enhancements might include:

- Habitat restoration, creation and management
- Enhancement of natural networks
- Restoration of water-courses
- Creation of niche features
- Adequate provision for the long-term management of wildlife conservation areas and buffer zones

15.7 Early ecological assessment should comprise an extended Phase 1 Survey, including a records search (commissioned from the appropriate Biodiversity Record Centre) and discussion with neighbours who often have the advantage of local knowledge.

15.8 It should be noted that the absence of a species from the area's Biodiversity Records may not be a true reflection of the situation on the ground. Developers must be aware of, and take responsibility for, their own compliance (and that of all contractors and sub-contractors) with wildlife protection law.

15.9 It is very important that protected species are considered as early as possible in the development process to ensure that any necessary surveys can be carried out at the correct times of year for each group. Appropriate changes to the design and mitigation, enhancement and management measures can then be integrated into the proposals.

15.10 Early survey of, and attention to, protected species will also ensure that any requirements for Natural England licences are addressed in a timely manner. The need for a licence is in addition to planning permission. For some species, habitats or situations, their presence will affect development even after planning permission has been granted.

15.11 Development proposals adjoining or affecting designated sites of nature conservation importance, or on some other sites of nature conservation importance, will need to be accompanied by a Wildlife Conservation Management Plan. Details of the Council's preferred format are available as a guidance note.

Fig 15.1



Fig 15.1 The diversity of insect-life needs to be encouraged through appropriate land management regimes

Fig 15.2



Fig 15.2 Special consideration is required where development proposals would affect Protected Species such as the grass snake

15.12 For smaller developments, such as single unit housing, it may be appropriate to adopt a lower key approach to the requirements of habitat conservation and enhancement. In such instances the Council's guidance notes can provide appropriate advice.

15.13 It must be noted, however, that protected species may be affected by the smallest developments in even the most urban of settings. Great care must therefore be taken to ensure compliance with wildlife protection law at all times. Protected species that are commonly affected by small-scale urban developments include:

- Badgers
- Bats (various species)
- Hazel dormice
- Great crested newts.

These species are also commonly encountered on urban brownfield sites where additional care over the issue of wildlife must be taken.

Fig 15.4



Fig 15.4 Long-eared bats in a roof void

Fig 15.5



Fig 15.5 Louvred bat-roost access panels to roof void incorporated into rebuilt gable end of converted barn

Fig 15.6



Fig 15.6 Where access to roof voids already exists, individual bat-boxes can be fitted with minimal impact on historic fabric

Fig 15.3



Fig 15.3 Protected Great Crested Newts are not solely confined to ponds but make use of wider, woodland habitat

Fig 15.7



Fig 15.7 Where threatened by development, mitigation may require that protected species are caught and relocated within - or off - site in an appropriate habitat

Fig 15.8



Fig 15.8 Barns Owls, also protected, can be encouraged through inclusion of nesting boxes in new developments

Fig 15.9



Fig 15.9 Tree-mounted barn-owl nesting box

16 Boundaries

16.1 'Natural' boundaries, especially garden hedges and hedgerows, are also important as habitats and networks for wildlife dispersal. Therefore, the treatment of boundaries to and within a site is of particular importance in defining and 'protecting' spaces. They may also be used to integrate development into the wider landscape.

16.2 There is a wide variety of boundary types and treatments, many of them very localized in their use. It is therefore essential to ensure that the particular treatment(s) chosen for any specific site have a local relevance. These variants include:

- Natural boundaries with indigenous planting. These can delineate spaces in a way that complements existing rural landscapes.
- Man-made 'Ha-Has', earth banks and contouring used in conjunction with planting. Can also serve to protect developments and landscape areas from noise and pollution particularly immediately adjacent to roads
- Water features, both natural and man-made. Historically, these have been used effectively to define boundaries in addition to creating barriers, controlling access and circulation. These can be as simple as a wide, water-filled ditch or form part of a complex water system. They can also be incorporated as part of a sustainable drainage system
- 'Permeable' treatments such as railings, wooden fences or bespoke artwork also provide natural security and allow surveillance
- Solid boundaries, such as brick, stone, flint or cobble walls form an important part of the design heritage, particularly within the District's towns and villages.

16.3 Native hedges are always preferable to close-boarded fencing and can provide secure, impenetrable and ecologically diverse boundaries. Care should be taken to ensure that sufficient space is allowed for hedges and their maintenance in the layout of development proposals.

16.4 Existing hedgerows should be maintained and, where possible, extended to help integrate new development into the landscape. Where planning permission is required, applications that include boundary proposals that have no relevance to the area's historic/traditional character will be resisted.

16.5 Where boundary security is required, existing hedges should be retained, laid and maintained in the traditional manner. The use of hit-and-miss fencing or reed-matting screening may be considered acceptable as a temporary visual barrier whilst new hedging is established.

16.6 In summary, the use of natural, species-rich, hedges has advantages over man-made barriers as they:

- Provide shelter spaces from the wind as efficiently as solid barriers but without creating draughty eddies
- Can absorb noise, dust and pollutants, especially where combined with low banking
- Provide good visual screens and help preserve rural character
- Provide more security in depth (especially if well-laid thorn hedge is used) than close-boarded fencing
- Provide potential seasonal interest
- Provide food and habitat for birds, mammals, insects and wild flowers
- Are sustainable and more durable than most modern fencing or walls
- Can be less costly than most fences or walls, especially in the long-term.

Fig 16.1



Fig 16.1 Traditional buttressed brick boundary wall

Fig 16.2



Fig 16.2 Cobbled walling associated with the Pevensey Levels

Fig 16.3



Fig 16.3 Rural split-chestnut post-and-rail fencing on new development

16.7 In rural areas and in villages, native hedges are usually preferable to walls. Where the latter are proposed it is important that the walls are constructed using materials and detailing which reflects traditional local vernacular designs.

16.8 In country areas, new entrances gates and gateposts should normally be of a simple rural design, rather than elaborate brick, stone or metal structures. Lighting of entrances should be avoided. Hedges, or split chestnut post and rail, wire or estate fencing is preferable in rural settings. Ornamental and high railings and gates in rural settings are normally inappropriate and their use will be resisted.

16.9 Where man-made barriers are used, they should ideally:

- Be of a low height to front boundaries so as to ensure external surveillance
- Address known issues appropriately and sympathetically. Where an area is prone to graffiti, railings would be more suitable than solid walls
- Be designed and built to ensure that boundary walls attached to buildings do not allow easy access to roofs or gardens
- Ensure that gates, particularly for shared access, allow views through and are lockable and designed for security.

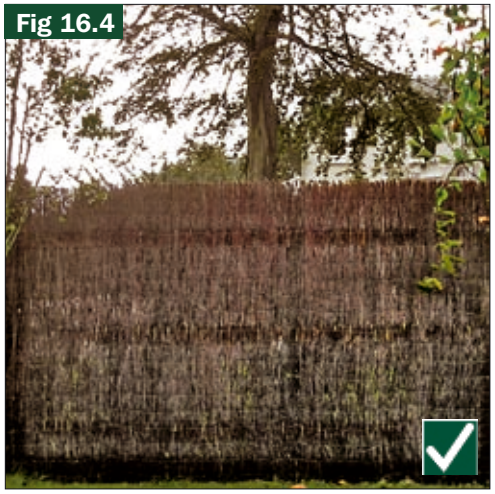


Fig 16.4 Biodegradable reed screening preserves privacy whilst more permanent natural screening matures



Fig 16.5 2m high fence panels, one a traditional 'hurdle' type and the other modern close-boarded



Fig 16.6 3m + boundary treatment is out-of-character in rural areas



Fig 16.7 Painted traditional metal 'estate' fencing



Fig 16.8 Modern painted picket fence



Fig 16.9 New gated entrances should be of a design and built in materials relevant to their context

17 Hard and Soft landscape

17.1 Landscape design needs to be properly integrated into the overall design process for the whole development scheme at the earliest stage. This includes hard and soft landscaping.

17.2 The choice of materials to be used on hard surfaces and plant species and varieties for a landscape scheme are an integral part of the landscape design process. Traditionally different surfacing materials are used within an area to reflect and emphasise a change in use, status, function or level. Equally, the choice of plants is normally informed by the landscape, ground conditions and climate (exposure). Native species tend to be sustainable and have a greater chance of survival. Use of native plants is also important when creating wildlife habitats.

17.3 The relationship between hard and soft landscaping within new developments needs to be addressed at an early stage by the applicant/ developer's design team or professional advisor/s. Further guidance is provided in Section 8 of this Guide which deals with 'Designing the Public Realm'. Additional guidance on planting, including 'Unusual varieties of native trees' and details of plants and invasive exotic species to avoid is available in the Council's Technical Guidance Notes.

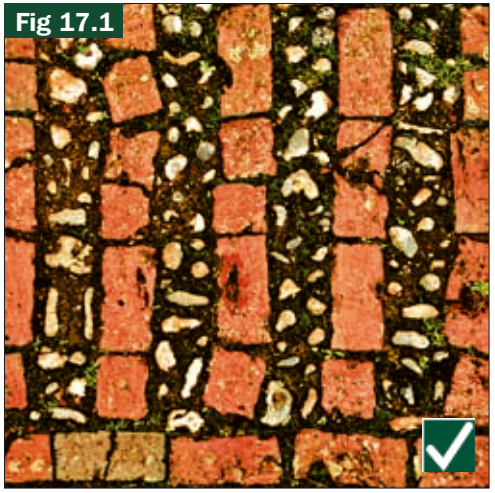


Fig 17.1 Traditional surfacing materials often relate directly to the locality and therefore tend to be more sustainable



Fig 17.2 The character of traditional surfacing is often degraded through invasive work for services, but this need not be the case



Fig 17.3 Modern concrete paviors may not weather well, and excessive usage may be visually little better than tarmac



Fig 17.6 Where natural materials were imported, there longevity makes their use both cost-effective and sustainable



Fig 17.7 Modern usage of traditional materials can both satisfy highway requirements and have the same benefits as the originals



Fig 17.8 Modern materials may not be as hard-wearing or attractive as traditional choices and may limit permeability

Fig 17.4



Fig 17.4 Concrete blocks allowing grass to grow through may be appropriate for areas of hard-standing in certain cases

Fig 17.9



Fig 17.8 Modern commercial sites are often seas of tarmac, unrelieved by meaningful, viable planting but with lighting standards of varying character

Fig 17.5



Fig 18.1 To be viable, landscaping schemes require both appropriate planting, and the preparation and implementation of management plans

18 The impact of lighting

18.1 Excessive, poorly designed and poorly sited lighting can have adverse effects on both people and wildlife in rural and urban landscapes. Although Wealden District does not suffer as much from the light pollution that affects more urban neighbouring districts, the past fifty years have seen a widespread growth in the use of external lighting which has a number of implications for the environment and wildlife. This includes:

- Artificial lighting, cumulatively, may be far stronger than moonlight and obliterates views of star-studded night skies.
- Glow from artificial lights also increases feelings of urbanisation
- In rural areas, extending day length affects the natural rhythms of a wide range of animals and plants. Impacts are greatest among nocturnal mammals and insects, although nesting or roosting birds may also be affected
- A high level of general illumination may cause night-flying insects to cease flying and settle reducing the numbers and species within towns over the past thirty to forty years
- Nocturnal animals are likely to be disturbed by the presence of lights and could be deterred from foraging in illuminated areas. Since many mammals are already under threat this represents a further pressure on remaining populations.

18.2 Security lighting or sport floodlighting on premises alongside rivers, woods, in specific foraging areas or generally near open countryside may be seriously detrimental to wildlife for the following reasons:

- Continuous roadside lighting creates light 'barriers' which species such as bats will not cross
- Artificial lighting may adversely affect the timing of natural behaviour such as territorial singing in thrushes (song thrushes being 'a species of principal importance')
- Reproduction in birds is controlled by day length. Artificial lighting has been shown to induce hormonal and physiological changes that prematurely initiate breeding in around 60 species of wild birds
- Bright lights, such as those on telecommunication towers and other tall structures, may also disorientate birds resulting in deaths
- Some species of flora will not flower if the night is artificially shortened by lighting. Other species will flower early as a result of exposure to the longer 'daylight' period
- Low-pressure sodium lamps have also been shown to disrupt the regulation of plant growth and development.

18.3 The British Astronomical Association has promoted public awareness of the issue of light pollution, starting the Campaign for Dark Skies. There are no longer professional observatories in many parts of the country and there is concern about the impacts on education and science. *The Royal Greenwich Observatory's headquarters was transferred from Wealden to Cambridge in 1990 because of deteriorating viewing conditions largely caused by light pollution.*

18.4 For lighting proposals, the following general principles should be considered:

- The minimum possible lighting should be used, especially in the rural fringe and in the countryside
- Luminaires should contain light spillage and glare control
- The functionality of security and sports lighting should be such that does not pollute or become a nuisance. Lighting of sports pitches in Areas of Outstanding Natural Beauty, or where it would adversely affect important wildlife, will not be encouraged
- The impact of lighting on views from and into the surrounding countryside, especially Areas of Outstanding Natural Beauty
- Buildings or landscaping should be used to shield lights from distant views

Fig 18.1



Fig 18.1 Giant lighting column, out of scale with its setting and a significant potential source of light pollution because of its height

Fig 18.2

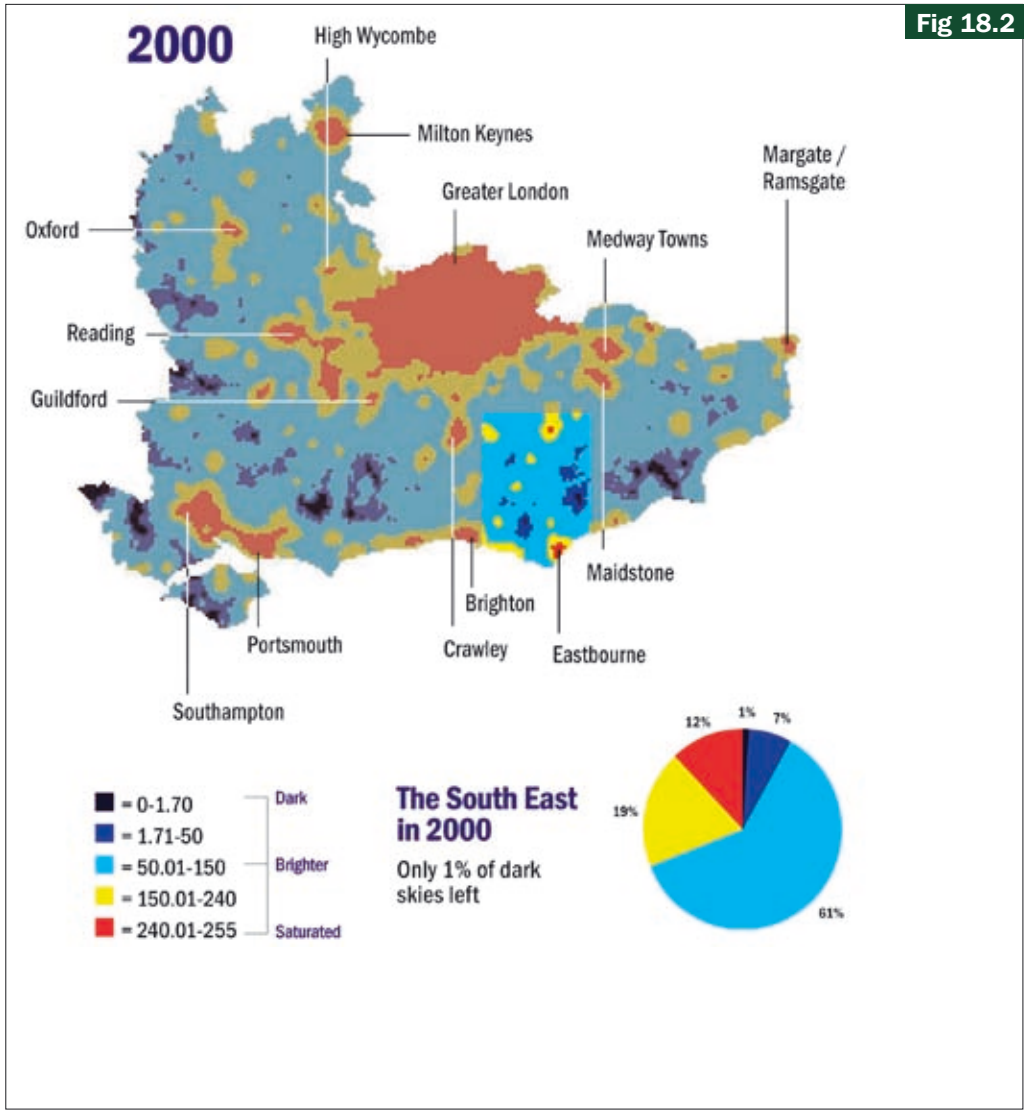


Fig 18.2 This map, prepared by the Council for the Protection of Rural England (CPRE) shows the extent of light pollution in the South-East as of 2000. From this, it can be seen that Wealden District was then one of the few areas where significant 'dark' skies remained

Fig 18.3



Fig 18.3 Careful siting, design and the choice of materials means that, to the casual observer, the site goes virtually unnoticed in daylight

Fig 18.4



Fig 18.4 At night, however, in its context the same site is all too visible against the dark sky

Technical Guidance Notes on specific topics will be issued and updated from time to time by the Council. Please check the Council's website or contact the Planning department for up-to-date details.

19 Summary

19.1 The majority of Wealden's landscape, tree and wildlife heritage (including our woodlands, downlands, heathlands and wetlands) is important at International, National and regional levels; much of the rest has value at the local level. Developers should, therefore, integrate their proposals into the landscape ensuring the conservation and enhancement of this heritage. The process of integration will include:

- survey
- analysis
- design
- construction, and
- management.

19.2 Survey: Early survey, using appropriate methodologies, at the right times of year, and carried out by trained and experienced staff is an important first step. This work can be iterative and may also need to address off-site features or habitats. Surveys for the following are essential precursors to most development:

- Ecology
- Tree survey and Arboricultural Implications Assessment (AIA)
- Historic Landscapes
- Landscape Visual Impact Assessment
- Topography
- Hydrology
- Soil Survey

19.3 Analysis of survey data will help in achieving appropriate layout and design details. Analysis should include assessment of landscape, tree and wildlife assets and opportunities for enhancement through design and maintenance.

19.4 Design proposals should realistically reflect the changes that development will bring and clearly demonstrate the asset protection, mitigation and enhancements proposed. This will help ensure an accurate assessment of the likely impacts of a development. Developers may consider providing for off-site mitigation and enhancement where this is not appropriate on-site.

19.5 Proposals should demonstrate sustainability and address impacts on, and of, climate change, landscapes, trees and wildlife. They should also include details of technical landscape, tree and wildlife solutions,; for example, 'no-dig construction methods and species-specific mitigation. Information on landscape, tree and wildlife protection measures, for works pre-, post-, and during construction will also be required

19.6 Management: Long-term management of existing and new landscape, tree and wildlife assets will often be required. This may require a management plan and interpretation material for residents, Town and Parish Councils and other stakeholders.



Sustainability

1 Background
2 New buildings
3 Historic buildings
4 Carbon emissions
5 Passive design
6 Active design
7 Water conservation and management
8 Sustainable Drainage Systems (SUDS)
9 Minimising the effects of flooding
10 Sustainable roof design
11 Materials
12 Summary

4

Where appropriate, the following symbols are used :

- Practice or Example generally acceptable
- Aspects of Practice or Example may be acceptable in specific circumstances
- Practice or Example not recommended

1 Background

1.1 The way in which we build new houses and adapt existing properties to changing needs is an issue which has a direct and quantifiable effect on energy saving and which will increasingly affect all our lives. Indeed, the link between the ways in which we produce and use energy and climate change has become a priority issue in all areas of national, regional and local government.

1.2 The need to address the effects of climate change has resulted in a wealth of advice on sustainability and energy saving having become available in recent years. Because of the rate at which such advice is changing, the Guide provides a synopsis of that currently available from a number of the key sources of technical information. Ways in which the principles of sustainability can be considered and embodied in all development proposals are also set out.

1.3 The Department of Communities and Local Government (DCLG) has reflected the priority to be placed on sustainability and climate change through:

- A White Paper (2003) which defined a long term vision for energy policy
- The 'Climate Change Programme' (2006) which includes a package of policies and measures to reduce energy demand and improve energy efficiency
- The 'Code for Sustainable Homes' (DCLG, 2006), intended to set the national technical standards for the design and construction of sustainable homes
- 'Building a Greener Future: towards zero carbon development' (DCLG, July 2007) which sets out the timetable for moving towards zero carbon new-build dwellings as well as indicating the future direction of the Building Regulations with regard to energy efficiency
- National Building Regulations which set out minimum requirements for energy conservation and which are being regularly updated (in Part L)
- Planning Policy Statement 1 (PPS 1) 'Delivering Sustainable Development' and its supplement on 'Planning and Climate Change' (2007)
- Planning Policy Statement 22 (PPS 22) 'Renewable Energy' which includes Government guidance on energy saving

1.4 At Regional level, the issues of sustainability and the mitigation of climate change is a cross-cutting theme in the emerging South East Plan, which includes policies for energy efficiency and renewable energy.

1.5 Structure and Local Plans incorporate Policies which seek to:

- Reduce, re-use and recycle waste during demolition
- Promote the sustainable design and construction of new buildings
- Support the use of renewable forms of energy
- Promote the sustainable management of water
- Support and promote sustainable methods of transport

1.6 All planning application forms are now accompanied by a 'Sustainability Checklist'. The completion of this form performs the dual purpose of encouraging applicants to consider how the proposed development addresses energy efficiency in addition to providing the Council with information on which future policy and guidance can be based.

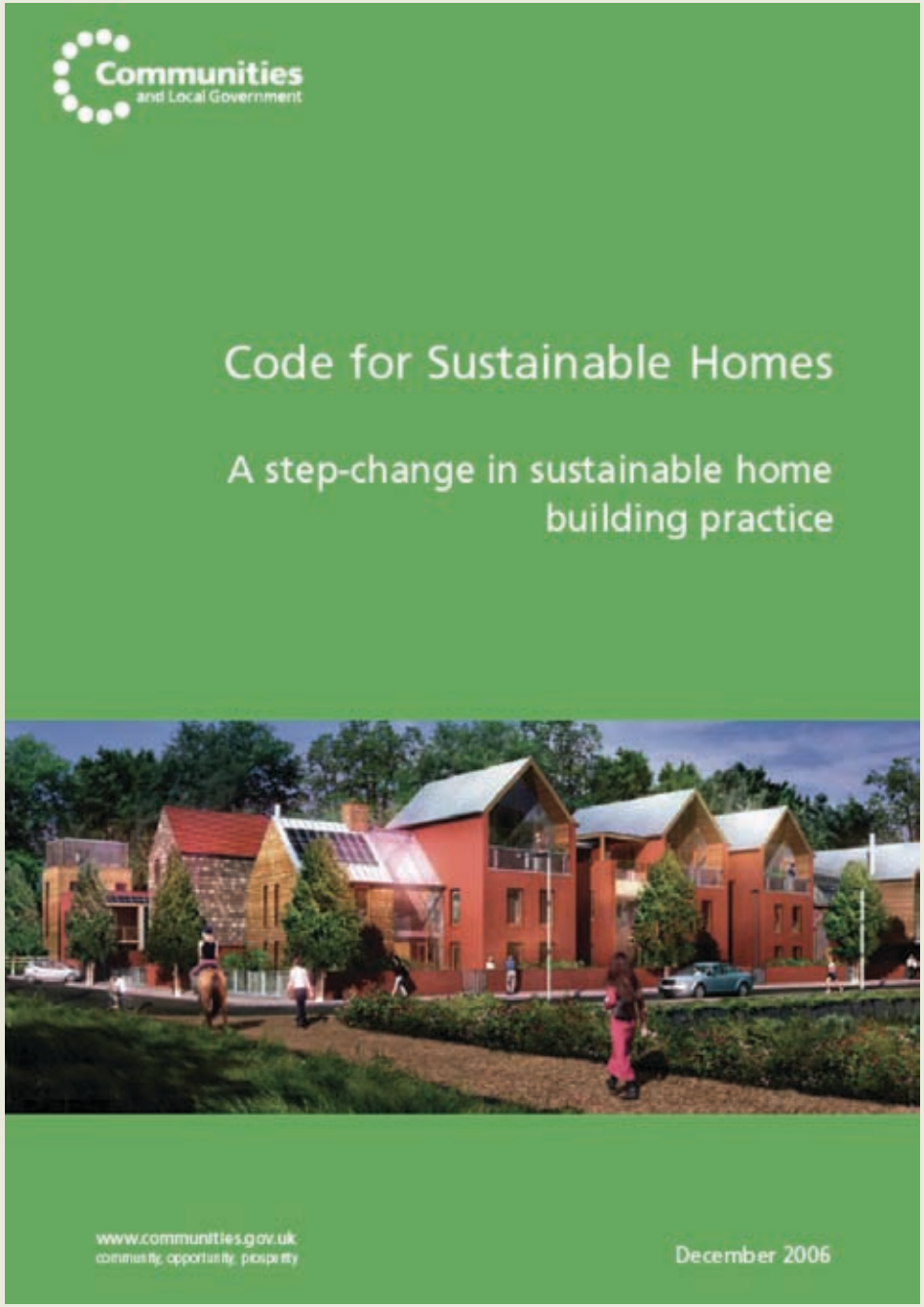
1.7 When submitting planning applications for commercial schemes developers will be encouraged to use the Toolkit provided for the Building Research Establishment Environmental Assessment Method (BREEAM) to assess potential energy efficiency. This will help to identify where there are opportunities to incorporate renewable energy and other sustainable solutions.

1.8 The results of this assessment should be submitted with the application. Buildings should be designed to achieve a high/excellent BREEAM rating (or equivalent rating where other assessment methods are used).

1.9 'Ecohomes' is a version of BREEAM applicable to existing housing. It provides an authoritative system of rating for the refurbishment of homes and incorporates a degree of flexibility regarding the means by which energy efficiency is achieved in any particular property.

1.10 From April 2007 the 'Code for Sustainable Homes' (see above) replaced the 'Ecohomes' rating system for the assessment of new housing. This Code is a voluntary star rating system that shows the sustainability of a new home as a complete package. It is now the national standard in terms of design and construction.

1.11 It should be emphasised that, in relation to planning applications, Wealden District Council will expect the recommendations contained in the Code to have been incorporated - as far as practically proven - into the development proposals.



1.12 Under Building Regulations, with particular reference to the Code, the aim is to achieve zero carbon emissions by 2016 for all new homes. Revisions to these Regulations are constantly being considered and implemented by the Government to assist in this endeavour.

1.13 New build, in particular, provides a significant opportunity to ensure that energy saving measures, energy efficient technologies and sustainability are incorporated into the design and site layout. Scope tends to be more limited when dealing with existing buildings, although there are still many ways in which energy efficiency and savings can be introduced.

1.14 The following guidance is intended to encourage all applicants to think about sustainability issues in the design and implementation of their proposals and to incorporate these basic principles into submitted schemes.

2 New buildings

2.1 The aim should be to design buildings which are energy efficient, pleasant to live in and æsthetically pleasing. This can be achieved so long as energy saving and sustainability are considered as intrinsic parts of a building's basic design from the outset.

2.2 The design and form of new buildings should aim to:

- Minimise energy consumption by incorporating best practice measures in relation to design, internal layout and optimum solar orientation
- Avoid unnecessary excavation and the transportation of inert demolition waste to landfill sites
- Minimize the use of new materials which have been produced or transported unsustainably
- Maximize the use of recycled materials and those from local and sustainable sources
- Minimize the consumption of water by incorporating methods for its sustainable management and reuse
- Protect habitats and ground water from contamination
- Be flexible and capable of being adapted for changing needs and uses
- Design for less car dependence

2.3 Particular advantages in costs and efficiency may be obtained where such technology is incorporated to serve new housing estates on a communal basis, or for commercial or retail parks.

Fig 2.1



Fig 2.1 Recent flatted development at Forest Row is of a contemporary character and adopts an eco-friendly approach to design and materials, including the use of solar heating panels. This shows it in context, between the church and a mid-C20 'modern' house

Fig 2.2



Fig 2.2 The design accommodates itself to the sloping site at Forest Row with the entrance at first-floor level

Fig 2.3



Fig 2.3 'The Wintles' development in Shropshire is one of a number of 'Living Villages' designed as sustainable communities

Fig 2.4



Fig 2.4 Not only does the 'sustainable' approach relate to the energy-saving designs and choice of materials used for the individual properties, but it also encompasses the overall site, incorporating such features as allotments for the owners

3 Historic buildings

3.1 Historic vernacular buildings are themselves highly 'sustainable' having usually been built of local, natural materials with a low inherent carbon footprint - all ultimately recyclable.

3.2 Integrating renewable energy technologies and energy saving measures into historic and listed buildings can be difficult because of their visual and physical impact. Maintaining the historic character and appearance of these buildings needs to be the prime focus and, in some cases, the possibility of harm to, or loss of, historic fabric negates such retro-fitting .

3.3 Inappropriate alterations or the thoughtless installation of energy-efficient equipment could easily compromise historic character and appearance. Once lost, historic fabric cannot be replaced, so establishing whether or not such installation will involve works which are easily 'reversible' is critical.

3.4 There may be scope in some cases to install solar or photo voltaic panels in hidden roof slopes, under existing rooflights, as an integral part of the design of glazed structures, or as freestanding elements in a visually unobtrusive part of the garden. The effect on the character, fabric and setting of a building will therefore need to be be carefully assessed in each case.

3.5 In many instances there may be a relatively simple way to improve energy efficiency within historic buildings, such as fitting thick thermal curtains or the installation of an appropriately designed system of secondary glazing.

3.6 Particular care must also be taken in Conservation Areas or locations designated as being of particular landscape importance such as 'Areas of Outstanding Natural Beauty'. Careful consideration of the siting and visibility of micro-renewables is critical if we are to achieve more sustainable forms of development whilst also ensuring that the character and appearance of these sensitive locations is maintained.

3.7 The Building Regulations permit relaxations to be considered where the character of historic buildings would be damaged. *See Section 12 for further information on Listed Buildings.*

Fig 3.1



Fig 3.1 Substitution of modern, double-glazed windows for original sashes results in loss of historic character

Fig 3.2



Fig 3.2 The use of secondary glazing ensures that original joinery can be retained, thereby maintaining essential character

Fig 3.3



Fig 3.3 Traditional timber-framed construction cannot easily be upgraded without significant change to the structure and its appearance

Fig 3.4



Fig 3.4 Flint, cobble and stone construction often results in thick walls which help to contol the buildings' internal temperature

4 Carbon emissions

4.1 There is a complex inter-relationship between levels of carbon savings nationally, the energy efficiency of individual homes, and the installation and running costs to individual consumers of their particular systems.

4.2 Maximum energy efficiency and low running costs in individual homes will not necessarily equate to lower carbon emissions nationally. Whilst the consumers' choice of electricity, gas or oil may hinge on relative costs and availability at the local level, the local choice may not be ideal in terms of overall carbon emissions.

4.3 Similarly, it should be stressed that choices on renewable technology made primarily on the length of 'payoff' time may not equate to the maximum potential reduction in national carbon emissions.

4.4 With micro-renewable energy the fundamental approach should be to adopt solutions which are best suited and 'tailored' to each individual site. For example, in the case of biomass heating, meaningful carbon savings can only be achieved where there is access to a nearby plentiful, sustainable, source of fuel.

4.5 Potential benefits would be greatly reduced or even negated in such a case were it necassary to transport the fuel over long distances by lorry.

4.6 Likewise, with individual buildings account needs to be taken of location and precise orientation. It would, for example, be pointless in most cases to locate domestic turbines on houses within comparatively dense urban developments where wind power is likely to be minimal and intermittent.

4.7 Similarly, there would be little point in locating photovoltaic cells on a north facing roof, or on a roof subject to constant shading from taller adjacent buildings or trees.

5 Passive Design

5.1 This involves the manipulation of the design, form and orientation of buildings and site layouts to minimize requirements for insulation and to take advantage of natural ventilation, solar and wind power.

5.2 Passive Solar Design: This involves the designing and siting of buildings so as to provide comfortable indoor working and living conditions at low energy and environmental cost.

In this context, Orientatation and design should aim to :

- Maximize solar gain
- Maximize natural ventilation
- Control heat loss
- Avoid overshadowing which can significantly reduce a building's passive solar heat gain
- Provide maximum daylight

5.3 In designing for solar energy it is important that safety, security and amenity are not compromised.

Fig 5.1

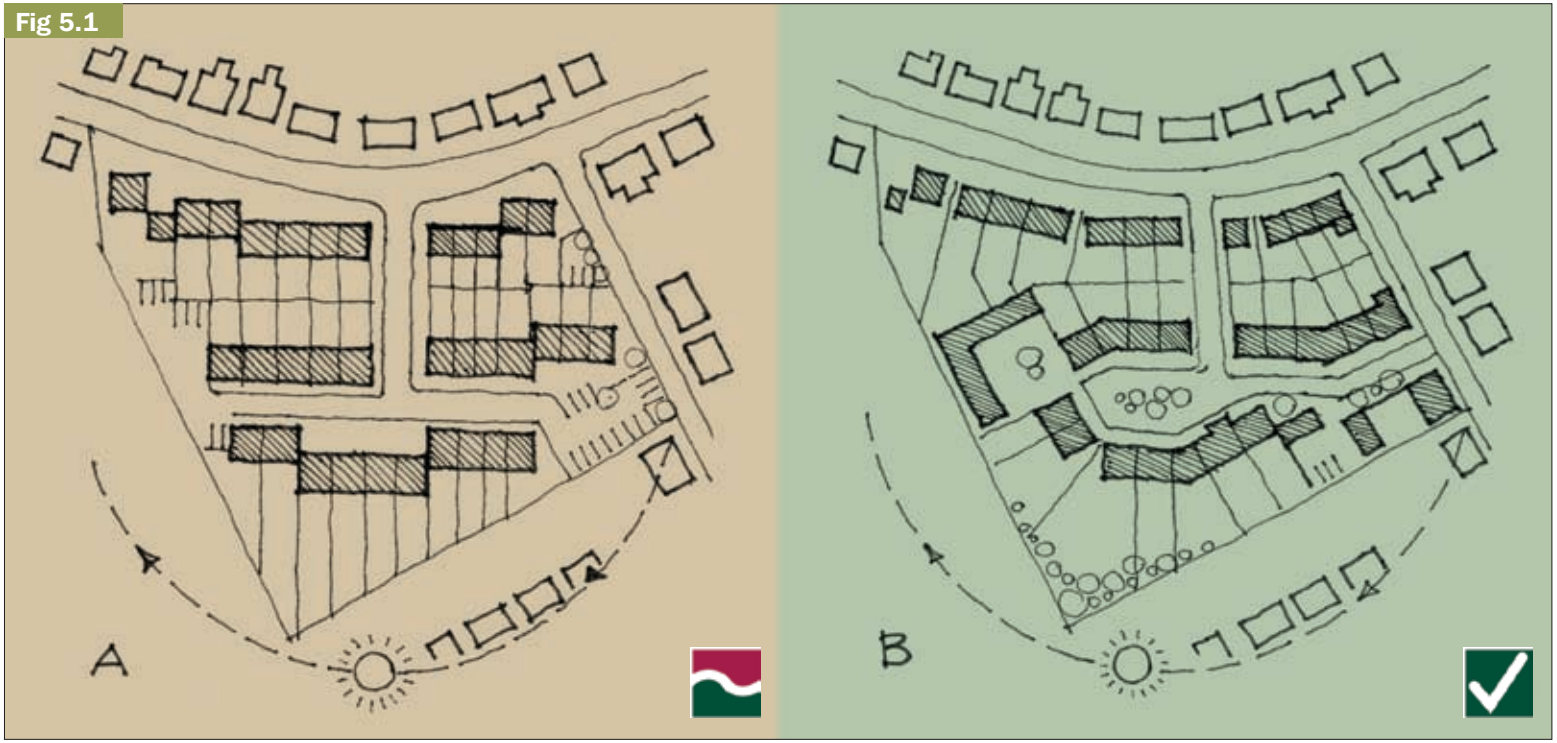


Fig 5.1 A: All buildings face due south to maximise solar gain, but the layout results in awkward plots and building alignments at site boundaries. The layout has a mechanistic appearance with identical terraces and staggered blocks, at odds with the surroundings
B: Almost every building is orientated within 30° of south, optimising solar gain, whilst relating to the street and plot boundaries on the edges of the site. Efficient use of site with no wasted space. Good sense of enclosure and streetscape.

5.4 Landscaping: Well considered landscaping can help to maximize the passive solar performance and natural ventilation opportunities of any development. Measures which can be taken to avoid overshadowing of buildings by planting include :

- Careful choice of deciduous or evergreen plant species
- Rate of growth
- Height and spread of canopy when mature
- Siting of shelter belts and windbreaks

5.5 New development will be required to demonstrate a sustainable relationship with the landscape heritage and wildlife assets of the site (see Section 3)

5.6 Ventilation: Natural ventilation, unlike fan-forced ventilation, uses the natural force of wind to deliver fresh air into buildings. Natural Ventilation systems rely on pressure differences to move fresh air through buildings. Buildings and site layouts should :

- Take advantage of natural ventilation to reduce dependence on mechanical systems
- Encourage microclimates by avoiding wind funnelling and turbulence in site layouts

Fig 5.2



Fig 5.2 In larger buildings, glazed atria can improve natural lighting to their interiors but may result in temperature control problems

Fig 5.6



Fig 5.6 One of the iconic modrern ventilator cowls to the Sutton BedZED development

Fig 5.3



Fig 5.3 Failure to recognise the implications for a new development on its smaller neighbour affects enjoyment of the latter

Fig 5.4



Fig 5.4 Proximity of tree to new-build will have implications for shading and daylight which could prejudice the tree's future

Fig 5.5



Fig 5.5 Traditional cowl to oast providing passive ventilation

Fig 5.7



Fig 5.7 Modern ventilator cowl at the Bluewater shopping centre

5.7 Insulation: External walls account for about 35% of heat loss for an average home. Heat loss can be substantially reduced by the incorporation of appropriate types and levels of insulation.

5.8 Cavity wall insulation is one of the most effective energy saving measures that can be carried out by home owners or incorporated into new buildings.

Fig 5.9

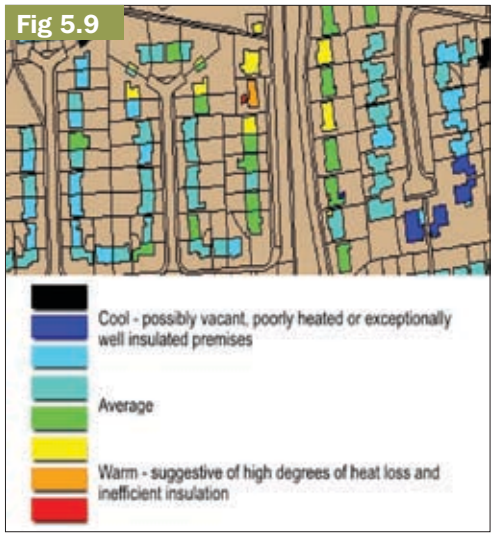


Fig 5.9 Aerial survey using thermal imaging has been used to prepare maps showing levels of roof insulation in urban areas

Fig 5.8

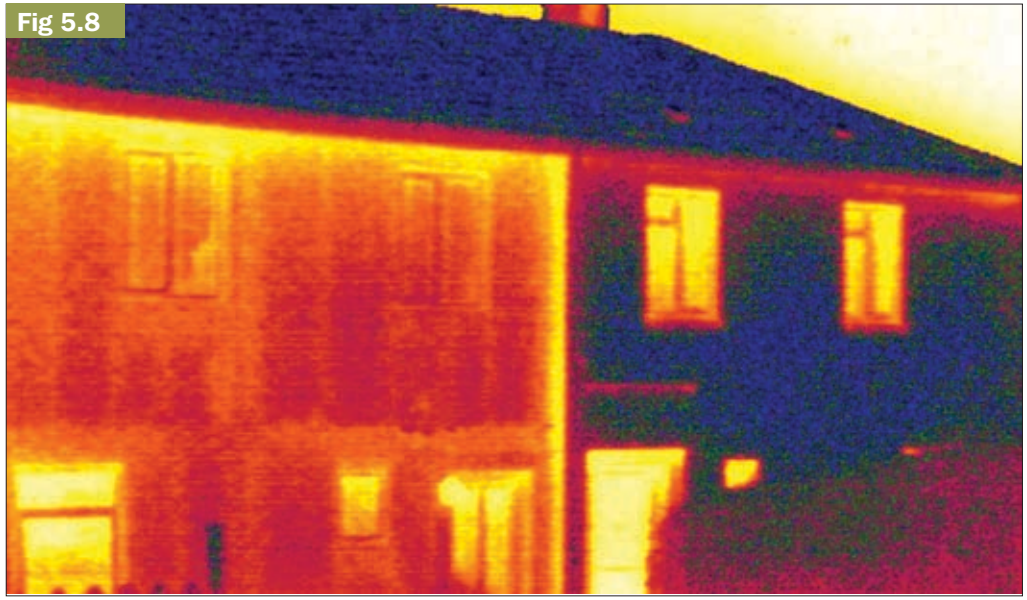


Fig 5.8 Thermal imaging techniques can be used to identify sources of heat loss, providing visual comparisons between insulated and uninsulated properties. This image shows insulation to the whole roof and the right-hand property's walls

6 Active Design

6.1 Particular energy efficient technologies (Micro-renewables) can be incorporated as part of the individual building design or overall site layout. Although such installations are most cost-effectively included as part of the original build, some can be retro-fitted to existing buildings.

6.2 Where such retro-fitting is being considered, it is advisable to have a survey carried out by an experienced specialist to establish the viability and practicalibility of undertaking the work. This is particularly important where historic buildings are concerned and, indeed, may need to form part of any necessary applications for planning approval.

6.3 In this context, the Town and Country Planning (General Permitted Development) (Amendment) (England) Order 2008, which came into force on the 6th April 2008, introduced Part 40 : Installation of Domestic Microgeneration Equipment.

6.4 This provides details of those types of such installations which are considered to be 'Permitted Development' and, therefore, would not require application for Planning Permission. This revision does not, however, alter the requirements for applications under the current legislation dealing with Listed Buildings, Conservation Areas and Building Regulations.

6.5 Solar Water Heating

Energy from the sun is used to directly heat up water.

Suitable for:

- buildings with a high hot water demand
- communal solar water systems

Not ideal for:

- schools
- high rise flats.

Advantages:

- Solar energy is free (in terms of running costs) and produces no waste or pollution

Constraints:

- most effective during summer months so only suitable for premises with year round occupation

Design and structural issues:

- visual impact of heating panels on roofs particularly on historic buildings, those in a Conservation Area or in a designated Area of Outstanding Natural Beauty
- possible effect on roof structure of historic buildings

Installation cost:

- Approx. £1800 - £2700 for a standard domestic system. £700 per square metre for commercial systems

Fig 6.1

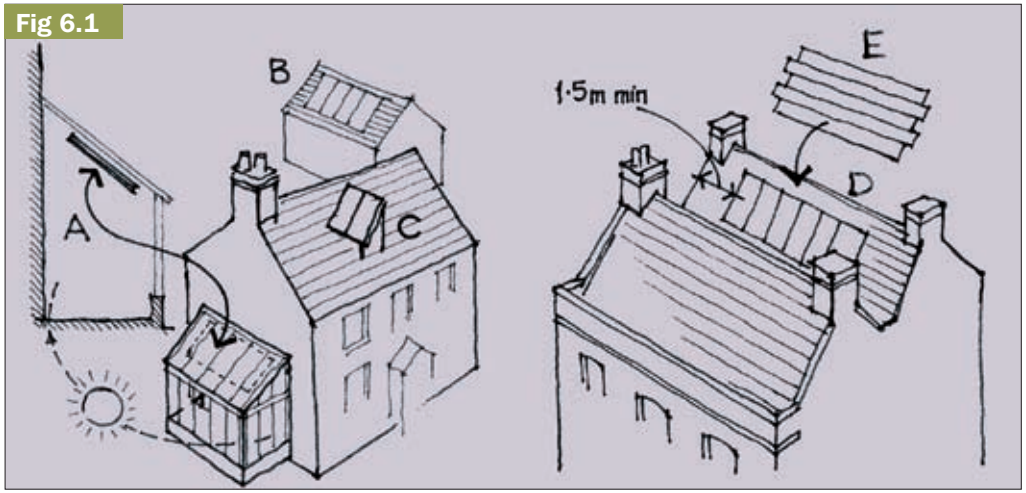


Fig 6.1
A: Photovoltaic panel mounted beneath the glazed roof of a conservatory or vinery. This also helps to maintain the condition of the panel.

B: Roofs of minor buildings, garages or outhouses may be less visible from the road.

C: Freestanding roof mounted units are inappropriate as they disrupt the roofline and will always appear to be an afterthought. The structure could be subject to wind damage.

D: Photovoltaic or solar panels on the inside pitch of a "double pile" house, to reduce their visual impact when viewed from ground level.

E: Alternatively, profiled panels which closely match the module of slate coursing can also be used to good effect to reduce visual impact.

Fig 6.2



Fig 6.2Overly-prominent, retrofitted flat solar panels in streetscene

Fig 6.3

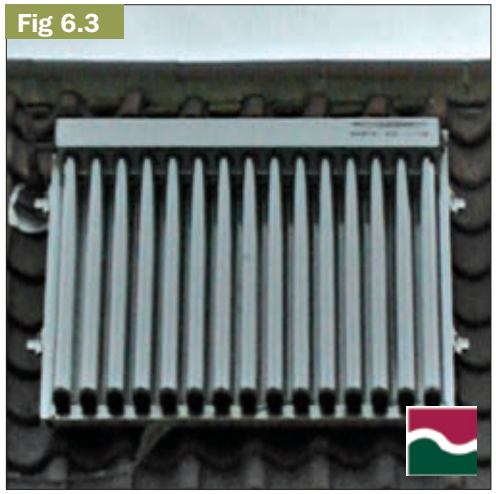


Fig 6.3 Aesthetically, solar-heating tube panels have little visual appeal

Fig 6.4



Fig 6.4 Photovoltaic panels incorporated into roof covering of modern terracing. Integration of such installations with the roof coverings tends to be less visually intrusive where modern materials are used, although natural slate can be an appropriate alternative for sensitive buildings and areas

Fig 6.5



Fig 6.5 Late C20 'House of the Future' with photovoltaic panels on raised, ventilated, ridge

6.6 Solar Photo-voltaics

Sunlight is converted into electricity. The panels can be roof mounted, roof integrated or building integrated (e.g. on facades or incorporated in glazing). It may be possible on new or replacement roofs to substitute 'solar shingles', 'sun slates', or 'solar glass laminates' in place of conventional roof coverings.

Suitable for:

- Most buildings with exposed roofs and suitable orientation

Advantages:

- Solar energy is free and produces no waste or pollution

Constraints:

- Shading, orientation, roof loading.

Design and structural issues:

- Visual impact, particularly on historic buildings, those in Conservation Areas or a designated important landscapes such as an AONB

Installation cost:

- Approx. £5000 per kW for roof mounted on a domestic building, and approx. £4000 per kW for roof mounted on a non domestic building

Energy output:

- Approx. 850 kWh per kW per year

6.7 Wind Power

Wind power can be harnessed to turn turbines which in turn generate electricity. Turbines can be 'horizontal axis' (most common at present)) or 'vertical axis'. They can be freestanding or building mounted

Suitable for:

- Many different types /sizes of building.
- Particularly useful to supply electricity in remote areas

Advantages:

- Free; requires no fuel, and produces no waste
- The land beneath installations can often be used for other purposes, such as farming, in agricultural areas

Constraints:

- Must be sited in open locations with reasonably constant wind availability

Design and structural issues:

- Visual intrusion in the landscape and where installed near to historic buildings or in a Conservation Areas
- Structural damage to buildings resulting from insecure fixings

Other issues:

- Bird strikes
- Electro-magnetic interference
- Strobing
- Local noise and loss of visual amenity

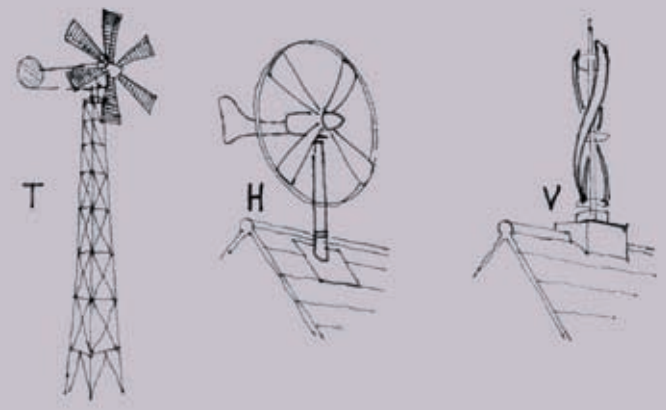
Installation cost:

- approx. £3000 per kW for a 5kW turbine

Installation cost:

- Depends on annual average windspeed but typically from 1,300-2500 kWh per kW in good wind speed site

Fig 6.5



Although horizontal turbines have to pivot to track the wind, their vertical counterparts have no need to and are capable of operating with the turbulance and lower wind-speeds encountered in urban environments

Fig 6.5 T: Traditional tower generator, with its lattice structure. Once a familiar site on many farms, it can be less intrusive than the conventional tubular tower in rural areas
H & V: Horizontal or verical rooftop micro wind generators may be appropriate but their impact may be harmful to the character of the building or its setting

Fig 6.6



Fig 6.6 With suitable additional machinery, existing, traditional mills could be used for the generation of electricity

Fig 6.7



Fig 6.7 Northern ridge-top wind farm resulting in high visibility for sustained energy output in 'high-wind' environment

Fig 6.8



Fig 6.8 Lighting columns powered by vertical wind generators and solar panels, as used at the Athens Olympics and Expo 2005

6.6 Heat Pumps (Geothermal Energy)

Below ground, temperatures remain at a fairly constant 10-12 degrees centigrade all year round. Heat is extracted from the ground to provide space and water heating. 'Horizontal' systems incorporate pipework buried about 2 metres below ground level and require large areas of open space to accommodate the extensive pipe network. 'Vertical' systems involve pipework bored into the ground to a depth of 15-150 metres. Vertical systems can also use pipework sunk to the bottom of an adjacent lake or river (although this will be less effective in winter). Air source systems also exist but performance falls steeply in winter as, unlike the ground, the air does not remain at a constant temperature.

Fig 6.9



Fig 6.9 Functional, but not æsthetically pleasing, street light with micro-renewable power sources in Brighton Marina

Suitable for:

- Most buildings, but particularly efficient where underfloor heating is to be installed
- Housing Associations as no gas is required in the building, no flues are required and there are minimal maintenance needs
- Large public, commercial and retail buildings where the underground pipework can be integrated into pile foundations during construction.

Advantages:

- Produces no pollution
- Minimal amount of fuel needed
- Once installed is cheap to run and maintain

Constraints:

- Need to ensure that there are no existing pipes, cables or sewers in the area where it is intended to dig
- Suitability of ground and soil

Design and structural issues:

- Minimal visual impact
- Horizontal systems are not generally suitable for installation in historic gardens
- Intrusion of new connecting pipework through walls of and within historic buildings

Other issues:

- Where water is to be abstracted from the ground (i.e. 'open' system) a licence is required from the Environment Agency

Installation costs:

- Horizontal £800-£900 per kW
  Vertical £1000-£1500 per kW

Running costs:

- Small running costs if replacing gas, larger if replacing electricity

6.7 Biomass Heating

Through combustion use is made of organic materials of recent origin such as wood, energy crops, agricultural residues, food and industrial waste.

Suitable for:

- Single room stoves in individual houses, communal boilers, large buildings in commercial, industrial or leisure use,

Advantages:

- The The fuel tends to be cheap
- Use of local fuel sources
- Support for local land uses and land management
- Much of the materials used would otherwise go to waste

Constraints:

- Storage, transport and accessability for fuel deliveries
- Availability of nearby fuel sources
- Only viable where there is a year round heat demand

Design and structural issues:

- Need for large storage building and high level flue for boiler
- Integration of visually acceptable access for fuel delivery vehicles

Other issues:

- Possible impact on local amenities from smoke, delivery vehicles

Installation cost:

- Approx. £500 per kW for domestic buildings – approx. £350 per kW for large commercial buildings

Fig 6.10



Fig 6.10 Wood-burning stoves of varying sizes can serve as simple 'biomass' heating solutions to individual properties

6.8 Biomass Combined Heat & Power

A flexible and very efficient way of producing electricity and heat. 'Bioconversion' uses plant and animal wastes (e.g. municipal solid waste, energy crops, wood residues, straw, and agricultural waste) to produce fuels such as methanol, natural gas, oil and diesel.. A range of conversion methods and generator types can be used.

Suitable for:

- High density housing where connected to other building types and uses
- Leisure centres, hospitals, hotels, where high heat loads are required throughout the year

Advantages:

- Fuel tends to be cheap
- Less demand on the earth's resources
- Support for local land uses and land management

Constraints:

- Only economic for year round use
- Storage and delivery of fuel
- Burning fuel produces greenhouse gases
- Digging up of roads to lay heat mains

Design and structural issues:

- Visual impact of building needed to house the generator plant
- Need for high chimney to allow for the dispersal of pollutants

6.9 It must be noted that, at the time of publication, the question of the 'pay-back' period for various types of renewable energy installations has been the subject of debate with some professional bodies suggesting that this would not be achieved within the projected lifetime of the equipment itself.

6.9 As the practicality and viability of the differing types of installation will very much be governed by the individual circumstances relevant to the intended location(s), those proposing to pursue such schemes are recommended to seek advice from experienced professionals rather than relying on generalised claims which are not site-specific.

Fig 6.12



Fig 6.12 Detail of plant to BedZED biomass heat and power unit

Fig 6.11



Fig 6.11 The combined heat & composting unit at the BedZED development was intended to supply 82 houses and one commercial building and cost £240,000 in 2002

7 Water conservation and management

7.1 Design proposals should incorporate measures which aim to:

- Reduce the demand for water
- Match non-potable supply to non-potable demand
- Utilize supply from on-site sources

7.2 Measures which could be considered include:

- The use of alternative waste water treatment systems such as reed beds
- Use of low impact storm water drainage systems
- Use of a range of water-efficient systems to reduce the level of water consumption, such as low water consumption toilets, dual flush cisterns, spray taps and (non power-) showers rather than baths
- The installation of rainwater and 'grey water' recycling systems which can reduce water use by up to 30%
- The installation of automatic leak detectors and water metering
- Collection of rainwater from roofs for garden irrigation, and the selection of drought resistant plants in landscape schemes

Fig 7.1



Fig 7.1 Simple cost-effective system of rainwater harvesting which can be easily retro-fitted to an existing building. Care needs to be taken to minimise visual impact

8 Sustainable Drainage Systems (SUDS)

8.1 Development of land reduces the surface permeability by replacing vegetation with impermeable structures and materials. This increases the amount of surface water run-off, restricts the amount of water infiltration into the ground, and intensifies the drying out of the Wealden clays.

8.2 All development requires a drainage system to re-distribute, or control, water run-off from hard surfaces. Traditionally, run-off was directed into underground pipes and drains and released into the nearest watercourse. This removed large quantities of surface water from built-up areas as quickly as possible, thereby helping to avoid flooding.

8.3 SUDS use techniques which replicate natural drainage processes to control surface water run-off before entering a watercourse, as opposed to the conventional piped drainage solution.

8.4 The primary benefits of such systems include alleviating floods, improving water quality and promoting ground water recharge. However, equally important is the contribution to the quality and attractiveness of the development by providing the opportunity for the creation of nature conservation areas, wetland landscapes, reedbeds, and amenity open spaces.

8.5 As part of a wider landscape strategy, SUDS can incorporate natural features such as ditches, species-rich wet grassland, swales, 'wet' balancing ponds, planted margins and banks to improve water managerment. At the same time biodiversity is encouraged and can provide a network of 'corridors' that will enhance movement around the site for wildlife.

8.6 Developers should actively seek to incorporate sustainable drainage options into their proposals. Planning applications for major developments should include a 'Sustainable Drainage Assessment' as part of the design concept and layout. General advice relating to individual developments is available from the Environment Agency and from the Council's Technical Services Department.

8.7 For each development site checks should be made as to whether or not:

- The site lies within an underground protection zone
- There is appropriate capacity to handle the run-off
- There are appropriate contingency measures to ensure that problems are not made worse when intensity and/or duration of rainfall, means that the quantity of run-off exceeds that for which the system was designed.

8.8 An important aspect of SUDS is that long-term maintenance is required in order to make certain that it continues to perform efficiently. Such maintenance will ensure that the risk of flooding, and inundation by surface water of the foul water drainage system, is avoided. It is therefore important that appropriate management arrangements are put in place to ensure that ongoing future maintenance will be carried out.

8.9 Revisions to Permitted Development rights effective from October 2008 recognise the problems arising from uncontrolled paving over of front gardens to create hard-standing, primarily for vehicles. Future proposals will need to clearly address the question of permeability, drainage and surface water run-off if they are to be acceptable.

Fig 8.1



Fig 8.1 Loss of front gardens to hard standing for parking is resulting in increased water run-off to the drains when it rains

9 Minimising the effects of flooding

9.1 Wealden District has not escaped from the flooding instances which have been common in many parts of the country in recent years. The scale of the problem is such that area-based priorities have had to be drawn up with regard to the implementation of community-wide flood defences.

9.2 Inevitably this will mean that many areas which in the past have been subject to flooding may remain 'vulnerable' for the foreseeable future. The Government's 'Making Space for Water' initiative is a programme to take forward the development of a new strategy for flood and coastal erosion risk management.

9.3 As part of this initiative the Department for Environment, Food and Rural Affairs (DEFRA) has developed a scheme aimed at providing grants for individual householders, particularly those in high risk urban areas, to put in place on their properties low cost but effective flood prevention measures.

9.4 'Pilot' areas, including Uckfield, have been selected to test the effectiveness of such a grant scheme.

Fig 9.1



Fig 9.1 Detail of Sussex Express aerial photograph of the October 2000 flooding in Uckfield

Fig 9.2



Fig 9.2 The River Uck in a more tranquil period, clearly showing its wide banks

Fig 9.3



Fig 9.3 Prefabricated flood barriers in place holding back the waters in Shrewsbury

10 Sustainable roof design

10.1 Modern alternatives in roof design for commercial and residential developments can be both visually interesting and physically beneficial. The use of green and brown roofs can contribute positively to the environment, both within the development site itself and the wider landscape. Such benefits include:

- Possible amenity use, such as roof gardens
- The reduction in the visual impact of development on surrounding land
- Energy savings through enhanced thermal insulation
- Improved acoustic insulation
- Enhanced protection of the roof surface from ultra-violet radiation and mechanical damage
- The control of rainwater run-off and opportunity to harvest rainwater
- Microclimate improvements through the reduction of 'heat islands' and the absorption of CO2, pollutants and dust
- Improving bioversity, and providing a habitat for invertebrates and birds
- Enhancement of natural networks and contributing to the greening of the environment

Fig 10.1



Fig 10.1 Green roofing principles can be incorporated into developments in a variety of ways, as shown by the BedZED project

10.2 The design of green roof systems is a highly specialized discipline and should ideally be carried out by those with relevant experience. A number of key considerations should be borne in mind when considering commissioning such work. These include:

Type of roof system:

- Intensive green roofs typically require pockets of deep growing media, artificial watering/drainage systems and a wide range of plant species chosen for their amenity appeal
- Green roofs are primarily used for reasons of ecology, sustainable development or æsthetic mitigation. Plants selected for their natural ability to survive harsh conditions can use thinner growing mediums and will require less-intensive management
- Grey roofs are usually surfaced with inert, recycled waste material from demolition and have low amenity and aesthetic appeal but may still be of value for wildlife

10.3 Implications for the design and construction of such roofs include:

- The need to enhance the load-bearing capacity of the building
- Design requirements for waterproofing, drainage and irrigation systems
- Methodology for putting design and materials in place
- Opportunities for recycling site materials to provide habitat and growing media
- Selection and placement of plants and hard landscape features
- Provision for access and appropriate long-term management/maintenance regime

Fig 10.2



Fig 10.2 High-level, individual, small-scale roof gardens are a feature of the original BedZED development

Fig 10.3



Fig 10.3 Flat green roofs behind parapets to new development

Fig 10.4



Fig 10.4 Pines Calyx centre near Dover uses traditional materials in innovative ways to achieve a carbon-neutral building

11 Materials

11.1 The careful selection of building materials can make a major contribution to sustainability objectives. Natural materials can be recycled and, in the case of timber are best drawn from renewable sources. This is in contrast to many modern manufactured materials, such as PvCU and even cement, which are environmentally unfriendly in their manufacture and can give rise to problems over removal and disposal.

11.2 Materials for developments should be selected on the basis of:

- Low embodied energy
- Sourcing from renewable sources
- Local sourcing to reduce pollution from transport
- The use of Independently accredited timber by the Forest Stewardship Council (FSC)
- The use of water based, preferably pre-site, timber treatment
- The use of low odour, solvent free and water based paints
- Minimising waste, including reducing and recycling packaging
- The use of recycled materials for building and landscaping works
- Avoidance of materials which are harmful to the environment and health; they should be non-toxic and give off minimum emissions of harmful compounds and vapours

Fig 11.1



Fig 11.1 Timber can be used to good effect both for structural elements and æsthetically-pleasing finishes to a building

EMBODIED ENERGY

Energy is used to extract raw materials, process and then transport them.

Further energy is then required to fit or fix them when they reach site.

The sum of all this energy is known as the "Embodied Energy" of a particular material.

This figure can be employed to give an idea as to how 'sustainable' a particular project may be insofar as the quantities and combinations of materials proposed to be used in its construction are concerned.

Fig 11.2

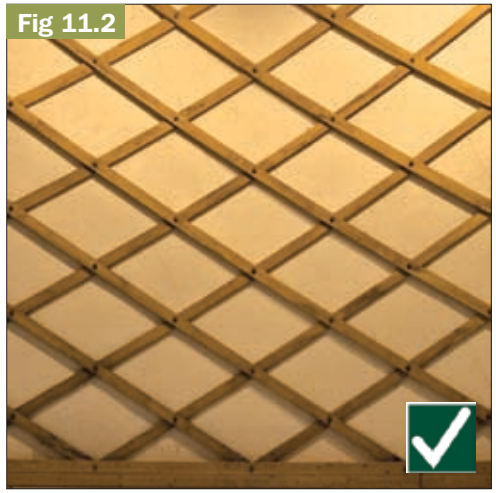


Fig 11.2 Underside of insulated, timber-laminate, 'Gridshell' roof, using short lengths of timber to produce a flexible roof-form

Fig 11.3



Fig 11.3 In addition to being highly sustainable, using local reclaimed materials can help to add character to a development

INDICATIVE EXAMPLES

Cement	:	2,860 kWh/m3
Concrete	:	600 - 800 kWh/m3
Clinker blocks	:	600 kWh/m3
Brick	:	1,462 kWh/m3
Imported softwood	:	754 kWh/m3
Local, air-dried softwood	:	110 kWh/m3
Steel	:	29,669 - 80,000 kWh/m3
Aluminium	:	2,793 - 55,868 kWh/m3
Plastics	:	47,700 kWh/m3
Gypsum	:	900 kWh/m3
Glass	:	23,000 kWh/m3
Clay tile	:	1,520 kWh/m3
Concrete tile	:	630 kWh/m3
Fibre-cement slate	:	12,783 kWh/m3

Fig 11.4



Fig 11.4 Site debris being crushed for recycling as hardcore

Fig 11.5



Fig 11.5 Traditional materials, such as timber, clay and lime are very sustainable, being locally-sourced and able to be recycled

Technical Guidance Notes on specific topics will be issued and updated from time to time by the Council. Please check the Council's website or contact the Planning department for up-to-date details.

12 Summary

12.1 As both policy and practice continue to evolve it is important to appreciate that we all have a responsibility to consider the impacts of our actions upon future generations.

12.2 Changes in the Building Regulations will also bring in mandatory elements that require higher standards to be achieved in order to increase the sustainability of development.

12.3 The Council is committed to the principles of sustainable development and wishes to see all applicants and developers considering the principles set out in this guidance and embodying them within their submitted schemes.

12.4 In order to plan for and offset the effects of climate change, successful developments will need to incorporate flood resilience measures and utilisation of appropriate landscaping and planting schemes.



Site and character appraisals

1 Background
2 Desktop site history and research
3 Site survey
4 Visual appraisal of the site in its setting
5 Larger scale and major developments
6 Collating and communicating the appraisal
7 Concepts and design principles/objectives
8 The detailed considerations
9 Robust and adaptable buildings
10 Architectural principles and details
11 Services
12 Summary

Where appropriate, the following symbols are used :

- Practice or Example generally acceptable
- Aspects of Practice or Example may be acceptable in specific circumstances
- Practice or Example not recommended

1 Background

1.1 Carrying out an appropriately detailed assessment and analysis of a site/building and the area in which it is located not only provides an understanding of the site/building itself but also defines those elements which contribute to its character and the identity of the area. Constraints and opportunities should also become apparent.

1.2 As Design and Access Statements are now required to accompany Planning Applications (other than individual householder applications with no special designations), it is now necessary for designers to demonstrate how their proposed development solutions respond to the character and constraints of the site and its wider context. Further information is provided on the nature of Design and Access Statements in Section 6.

1.3 The level of assessment, analysis and studies required for each proposed development will vary and is very much dependent on a number of issues relating to the site/building including :

- Its nature
- Its relationship with its surroundings, its size, its physical features
- The associated landscape elements
- National and statutory designations relating to it

1.4 When overlaid, the different elements of the assessment form an overall 'picture' of the site and its context. This should inform the design process - its evolution, ideas, influences, concepts and the final scheme. It also provides visible proof of the design process and how it addresses the requirements of Planning Policy Statement PPS1 'Delivering Sustainable Development', Planning Policy Statement PPS3 'Housing' and those good practice guides which promote the delivery of good design and the creation of quality places embodying sound urban design principles.

1.5 From a developer's point of view, assessment, analysis and appraisal is essential in order to gain a clear understanding of both the physical and planning constraints of the site. As the results of an appraisal are likely to affect the value of the site and viability of any development, it is recommended that studies inform the development from the outset and are not carried out with the intention of justifying a scheme in retrospect.

1.6 Whilst some desktop studies can be carried out to gather base information, a site visit is always recommended for any project – small or large. The Department of Communities & Local Government has issued 'The Validation of Planning Application: Guidance for local planning authorities' (December 2007) which indicates the statutory information required to accompany all planning applications as specified in the Town and Country (General Development Procedure) Order 1995 (as amended). This requirement is related to the 1APP on-line planning application system which came into force on 6th April 2008.

Fig 1.1



Fig 1.1 Aerial photographs provide useful information regarding the pattern of development, the relationship with spaces and vegetation as well as potential information on archaeology

2 Desktop site history and research

2.1 As a benefit of e-Government, Wealden District Council's website is such that a considerable amount of information is available online. Planning site histories, restrictive conditions on planning approvals, Section 106 Planning Agreements appropriate and relevant planning policies as well as special designations can be reviewed as part of a desktop study and information gathering process.

2.2 Designations such as Scheduled Ancient Monuments, sites of Archaeological Interest, Conservation Areas, Listed Buildings, Sites of Special Scientific Interest, Registered Historic Parks and Gardens and Tree Preservation Orders are often perceived as negative constraints. However, these designations denote the cultural value or local distinctiveness of the site and its locality, and should help inform the character of a proposed development thereby assisting in achieving a solution appropriate to the local environment.

2.3 In some instances, understanding the historical development of an area can be achieved through using sources such as :

- The compilation of a sequence of historic maps and/or archaeological records.
- Existing or newly commissioned surveys of standing 'historic' buildings
- Historical documentary evidence
- Evidence of previous and present uses of the site and the surrounding area

2.4 Such information can assist in understanding the reason why the site is as it is today which is particularly important where Listed Buildings and Conservation Areas are concerned. This information can inform the possible character, layout, architectural style and naming of a new development.

2.5 It is important to ascertain the possible archaeological significance, if any, of the site. This can indicate if archaeological investigations may be required prior to commencement or during works. In addition, an awareness of uses can assist in indicating possible hazards and contamination. Consultation with the County Archaeologist and Local Authority Conservation Officer should provide the relevant information.

2.6 For new residential development, policies relating to density, land use, development briefs and background information and the Local Development Framework can inform the design approach and assist in the preparation for a site and context survey on the ground.

3 Site survey

3.1 When considering the extension of a dwelling, the design of a new house, a new building or large scale development, it is essential that a site survey is carried out to establish the accuracy of site boundaries, levels and the position and size of existing structures both within and adjacent, such as trees (including spread and height) and hedgerows. Ordnance Survey maps are not sufficiently accurate for the level of detail required for setting out, or the agreement of, legal boundaries.

3.2 Where the site contains existing buildings, accurate measured surveys should be undertaken to produce elevations, floor and roof plans. Where a proposal involves demolition of existing buildings or structures, it is considered prudent to evaluate and survey what exists as a proper record and for comparative purposes

3.3 The site survey should therefore include :

- *An accurate measured survey* to establish site boundaries, the position of any building within, abutting or adjacent. Boundaries can vary from the flank wall of an adjacent building to the mid point of a ditch , can contribute to common elements of local distinctiveness, security, privacy, physical containment or transparency, definition of public and private space relationship to the street.
- *Record of existing building(s)* - if retained or not, can assist in shaping the scale, mass, orientation and appearance of extensions or new, more intensive, development. From a sustainable approach, the retention and re-use of buildings is encouraged. If this is proven not to be possible, then materials should be reused on site in a sustainable manner. A full and proper measured survey, noting the building style, scale, mass, height, articulation and architectural detailing is useful. In addition to drawings, a photographic record should be made
- *Levels* – changes in levels can be a natural feature of a site or man-made. The fall of the land and its contours can provide a cue to the shape or direction of potential development on a 'blank' site, or an existing pattern to follow the established grain. High energy solutions involving excessive cut and fill should be kept to a minimum
- *Existing natural landscape features and vegetation* – existing trees and hedgerows within or forming the boundary of a site can provide containment , act as wind breaks and barriers to noise. On larger sites, field patterns can be read from ditches and fields. In urban and suburban areas, trees and hedgerows can evidence the former nature of the site. Trees and hedgerows can also provide important green and wildlife corridors as well as a possible focus to green spaces. All trees and hedgerows should be accurately plotted including crown spreads and Root Protections Zones (RPZ), both within and adjacent to the site.
- *Walls and fences* – can be considered in similar ways to hedgerows but are hard features often presenting barriers to movement, solid containment and enclosure
- *Streams or watercourses* – not only can these features serve to subdivide a site and give it visual interest but they can enhance landscape quality and biodiversity. Courses and possible flood plains should be noted and mapped
- *Orientation, Microclimate and Exposure* – should shape the pattern of development on a site, assisting in the ability to maximum sustainable layouts, solar orientation, usable spaces and gardens. Microclimates and exposure can vary within and around a site. Exposure to the elements can result in cold and warm pockets, wind tunnels or lack of shade/cover from the sun. If not addressed within the design stages, unpleasant environments within developments can result or be exacerbated. Account should also be taken of the site's visual exposure to views, both immediate and distant

Fig 3.1



Fig 3.1 Existing trees and watercourses can add to a development, enhancing site design and quality of the environment

- *Access Points* - in preference to creating new openings in boundaries, breaks, existing vehicular and/or pedestrian access should be noted and used

- *Connectivity and desire lines* - Rights of Way could aid the connectivity of the site with the local network of routes and facilities. Note should be taken of the proximity of local shops, schools and bus stops and the potential for existing routes being strengthened. Creating barriers to natural 'desire lines' should be avoided

- *Adjacent buildings and buildings within the street* - should be taken into account. Their scale, height, mass and orientation should be noted and recorded. For small applications, such as an extension to an existing dwelling, a few buildings on either side should be shown to provide context to any drawn proposals, preferably accompanied by photographs of the streetscene. For larger applications existing streetscenes are necessary and visually and physically relevant. Buildings outside the site would need to be measured, recorded and accurately depicted

Fig 3.3



Fig 3.3 Even where a street is not of a uniform appearance, variation in height, scale and design sits comfortably and is visually pleasing - note the unifying materials and finishes

Fig 3.2



Fig 3.2 The existing access can be employed without disrupting the mature planting

Fig 3.4



Fig 3.4 A Public Footpath reflects historic movement patterns that can be strengthened within a new development

3.4 Depending upon the nature of the site and its previous uses, and the nature of the proposal/design project, the following surveys may be necessary ('The Validation of Planning Application: Guidance for local planning authorities' (DCLG - December 2007) :

- *Ground Conditions* – geology, bearing capacity, over ground and underground watercourses, made-up land, landfill (including nearby sites) potential contamination

- *Flood Risk* – (consult the Environment Agency for detailed advice). A Flood Risk Assessment (FRA) will be required for development proposals of 1 hectare or greater in Flood Zone 1 and for all proposals for new development located in Flood Zones 2 and 3 as designated by the Environment Agency. A FRA will also be required for any development, other than minor, in a designated 'critical drainage area' which has been notified to the Local Planning Authority by the Environment Agency. It is, however, a beneficial assessment to inform the capacity of the site to support sustainable urban drainage (SuDS), holding tanks and/or balancing ponds, having regard to climate change. Further advice is contained in Planning Policy Statement 25 'Development and Flood Risk' (December 2006) and its associated Practice Guide

Fig 3.5



Fig 3.5 A narrow river course but its flood plain is more extensive

Fig 3.6



Fig 3.6 When nature is ignored, the repercussions can be severe

- *Noise and Air Quality* – both background and ambient noise levels, noxious smells/odours should be taken into consideration and may affect the development of a site, particularly insofar as the location, siting and orientation of buildings and need for buffer planting are concerned. Developers should also consider the likely implications of their proposals on the air quality of an area.

  Where Carbon Dioxide (CO_2) emissions would be increased, it could conflict with the Government's intention to manage climate change, Further advice is contained in Supplement to PPS1 'Planning Climate Change', PPS 23 'Planning and Pollution Control' (November 2004) and from Environmental Services, Wealden DC.

- *Highway considerations* – these include access points, the existing road network and public transport availability/ provision. It is essential that there is an understanding of how the site is (or is to be) accessed from the existing road network. It may be that a site has suitable access arrangements for present uses/activities but any increase have implications for neighbours, highway safety and other road users. If roads within a new development are to be adopted, careful consideration may need to be given to lighting provision and thus consideration of the resultant environmental implications.

  As sustainability is a key consideration, the position of the site in relation to public transport, cycle lanes and local facilities could affect the level of parking provision and a Green Travel Plan. Assessing the Public Transport Accessibility of Locations (PTAL) and Pedestrian Watersheds (Ped-Sheds), if undertaken in the early stages, can assist in shaping the layout of a site and the need for additional local services.

- *Infrastructure* - including utilities – in seeking to ensure a sustainable approach to development, assessments can reveal if a site benefits from existing connections or has the potential for being connected to existing systems and utilities such as water, electricity supplies, mains gas, telecommunications and foul and surface water drainage.

  Where such connections exist or new structures are required, this can 'shape' the development through the need to provide maintenance strips and whether the provision of necessary services on site would have environmental impacts. This might include excavations in the vicinity of trees or the potential for archaeological remains. In addition to on site and desktop analysis, further information can be obtained from the relevant Utility providers.

- *Legal Searches* – legal searches might need to be carried out to ascertain if the site is affected by Rights of Way, restrictive covenants, Ancient Lights and Party Wall Agreements. Any of these constraints could have implications for design layouts unless they can be overcome or addressed.

  It should be noted that some constraints are not material planning constraints.

3.5 For applications relating to residential extensions, alterations to shopfronts, or changes of use, desktop and site surveys are still required to ensure that the proposal is depicted accurately. A proper site and planning history check will ascertain if the building is listed, in a conservation area, an archaeologically sensitive area or has another special policy designation. Any of these will have implications for a proposal and could lead to a requirement for additional supporting information.

It is suggested that applicants also consult :

- *Designing Quality Buildings – A BRE Guide*, Building Research Establishment 2007, Chapter 2.
- *Code of Practice for Site Investigation*, BS 5930 1999.
- *Design and Access Statements. How to write, read and use them*, CABE 2007
- *Manual for Streets,* DoT/DCLG 2007

4 Visual appraisal of the site in its setting

4.1 Having carried out the physical, a 'visual' appraisal needs to be undertaken to gain a more thorough and intimate understanding of the site and its context. This involves extending the analysis beyond the confines of the site itself. The extent of the area to be considered as part of this process can vary and is very much dependant on the location of the development and its relative scale. If the development relates to an urban extension, then connections with the town centre, approach and arrival points need to be considered, together with wider movement networks and attendant grounds (locations offering key views).

4.2 Few sites are totally devoid of 'cues' which can influence the character of proposed developments. Through the identification of these cues or characteristics at the outset, it is likely that a scheme will emerge that relates well to its setting.

4.3 The Townscape Appraisal and Urban Character Notation at the end of this section provides a set of tools to assist in understanding the key characteristics and elements within and around sites, streetscenes and areas. Whilst all of the information may not be appropriate to every site, it provides a useful indication of the layering of information needed to enable a scheme to move through the 'design concept' to final proposal.

4.4 The contextual characteristics which follow should be taken into consideration when visually appraising a site and identifying the quintessential elements that contribute to identity, sense of place and what is positive in terms of local distinctiveness :

- *Building Styles* – The predominant style of buildings in the street or immediate area should be noted as well as the pattern of the street. Building edges, relationship to the street, width of buildings, space between, scale, mass, heights, fenestration, roof forms and skyline interest should all be noted as individually and collectively, can assist in shaping a new development

- *Relationship with adjacent buildings* – the relationship of adjacent buildings to the site, including views to and from, orientation, the position of principal windows, existing shadowing and uses, can have an impact on the positioning of extensions proposed to existing dwellings, how new buildings are designed and orientated, siting and distances required to prevent harmful overlooking to ensure privacy is not unduly affected

Fig 4.1



Fig 4.1 Predominant patterns and styles can set the scene for future development

Fig 4.2



Fig 4.2 The poor relationship of the later development casts a shadow over the more traditional building

- *Urban Grain* – examining historic patterns of development, streets and roads, the width and length of plots, plot ratios and the amount of building coverage to garden areas, creates a picture of the development of an area over time. A new development can harness the positive aspects of historic grain to influence site planning and create a more familiar locally relevant character

- *Street Sections* – the height of buildings on each side of a street and the distance between frontages can create a ratio reflective of different architectural periods, such as Georgian buildings which have a greater floor to ceiling height than their modern counterparts and tend to line wider streets thereby balancing their overall height

- *Character and Setting* – The general setting can contribute to the identity of an area - urban, suburban, semi-rural or rural. Noting whether the area is residential, retail, commercial or mixed is important. As well as established uses, activities, noises and smells can also have a direct impact on a site or area

- *Distant Views* – the identity and character of a place can be affected by how it is seen in immediate, intermediate and more distant views. Where the local topography is varied, the visual exposure of a site can have a large bearing on the way it is planned

Fig 4.3



Fig 4.3 A narrow street with buildings of a similar scale creates a more 'human' street section

Fig 4.4



Fig 4.4 A subtle address and emphasis of a corner site. Not all corners need a substantial height of building to improve legibility

Fig 4.5



Fig 4.5 A sequence of unfolding views reveal more of the townscape and its urban form

Fig 4.6



Fig 4.6 Account should be taken of distant views of settlements. Be they nestling in a valley or on higher ground, setting is an important consideration

- *Architectural role* – certain buildings and structures may play a key role in a streetscene or area. This can include a key corner site, a building punctuating the skyline, acting as a visual stop or a 'hinge' between two areas of differing character or uses, or a 'landmark' providing orientation and legibility. On the other hand, some buildings can play a neutral or transitional role. A ontinuous terrace of buildings on either side of a street can frame views, provide visual containment and a strongly defined delineation to the street. The role of streets and buildings within a new development should seek to complement the positive elements of an existing place and shape any new layout in an informed manner

- *Local distinctiveness* – arising from a combination of the above, there are often specific identifiable elements that are typical of the area. This can include traditional and vernacular building forms, architectural elements and details, materials and their application. These can assist and inform a new development. This should not be taken to imply that to merely match what is there is the most appropriate approach. In some instances, a complementary or contemporary style that respects certain elements such as proportion and floor to ceiling heights, may offer a better solution. The Visual Glossary of 'Distinctive' Architectural Details in Appendix A provides examples

- *Materials* – the use of specific materials provides an historical record of an area, and its local industries. Such historic materials, patterning, building techniques, detailing and finishes are important to note and should be reflected/addressed in any new development. Materials can often provide uniformity in a streetscene where the building styles differ. (Refer to Visual Glossary in Appendix A).

- *Boundary Treatments* – how boundaries are defined, with fences, railings, walls (low/high), hedgerows, open spaces or a combination of these help shape the appearance of a street and sites. These elements can provide a pattern and unification in a street, an edge and delineation separating private from public space.

- *Biodiversity* - suburban gardens can provide a habitat for wildlife and protected species as much as rural sites. The type of vegetation, planting and existence of ponds, ditches and drains, needs to be noted to identify the requirement for surveys. PPS9 : Biodiversity and Geological Conservation (August 2005), PPS9 is accompanied by a Government Circular: Biodiversity and Geological Conservation – Statutory obligations and their impact within the planning system (ODPM Circular 06/2005, Defra Circular 01/2005 and Planning for 'Biodiversity and Geological Conservation: A Guide to Good Practice'

4.5 In all instances, photographic records are essential for visual referencing of the site and its surroundings. Particular vantage points and views should be marked on a map and form part of the supporting Design and Access Statement. These can be used to provide verified photomontages and overlays for 3D images.

5 Larger scale and major developments

5.1 Due to their very nature, large scale or major developments are likely to have a greater impact on an area. Whether that impact is positive or negative will be dependent on how clearly they demonstrate a thorough understanding of the area. In such situations, the number and extent of surveys and supporting information/studies required will normally be greater.

5.2 In addition to the above, and with reference to 'The Validation of Planning Application: Guidance for local planning authorities' (DCMS, December 2007), the requirement for further reports/ surveys/studies will also be dependent on the size and nature of the development proposed, existing and proposed uses, social, economic and environmental issues.

6 Collating and communicating the appraisal

6.1 Most of the information gathered can be provided in Report format but some aspects will need to be provided as annotated maps, cross-sections. Annotated maps inform and assist the design process and should lead to a more responsive scheme. Such maps can be included in the Design and Access Statement.

6.2 Captioned photographs should also be provided in order to give a visual overview of the site and any streetscenes.

6.3 As previously noted, proper analysis also assists in identifying Constraints and Opportunities and local factors that should be taken into consideration in preparing any scheme. In some instances, by working through the layers of assessment and analysis, constraints can become opportunities and used to positively benefit the development's design and character.

7 Concepts and design principles/objectives

7.1 Exploring Design Concepts

Urban Design Concept Notation can be used to explain the conceptual approach to the design project. Often more than one concept emerges thereby demonstrating the evolution of the design process through ideas and responses to the site. It is advised that any cues from the immediate context are clearly shown in addition to other sources of inspiration. Concept plans can also be layered to depict areas of varying density, height, uses and movement patterns. In addition, the requirement for key elements, such as how the street could be addressed through focal points, landmarks and key corner buildings can be explored at this stage.

7.2 Design Principles - To provide a clear direction and move a design project forward from analysis to the final scheme, a set of design principles should be developed. This should arise from a culmination of the desktop studies, site analysis and other studies, through to the conceptual stages. Design principles are relevant to all levels of development and can be very basic. For larger developments, in conjunction with the concept, these will assist in defining the sense of place and identity of place to be created.

7.3 The quality of any development has an impact on how a place functions. Good design will influence identity, legibility, permeability and safety as well as demonstrating integration with context, respecting local distinctiveness

7.4 Good urban design is essential to the delivery of places that are sustainable on all counts. (Delivering Quality Places, Compendium 2 – English Partnerships/ Housing Corporation, Sept 2007). Good planning is also indivisible from good design (PPS1 'Delivering Sustainable Development').

7.5 The goals for achieving high quality design relate to all development including individual buildings, larger development schemes as well as public and private spaces. It is now a requirement that *'good design should contribute, positively to making places better for people'* (PPS1, para 34) as opposed to a relaxed 'no harm' approach.

7.6 As an example, Key Objectives can include :

- Delivering a high quality design that instills a sense of place and identity
- Respecting context
- Achieving a sustainable, energy efficient andinclusive development.
- Making the connection and minimising the need to travel
- Creating safer, accessible places
- Creating a legible, integrated environment
- Balancing development with biodiversity.

7.7 Key principles to achieving the Objectives can include :

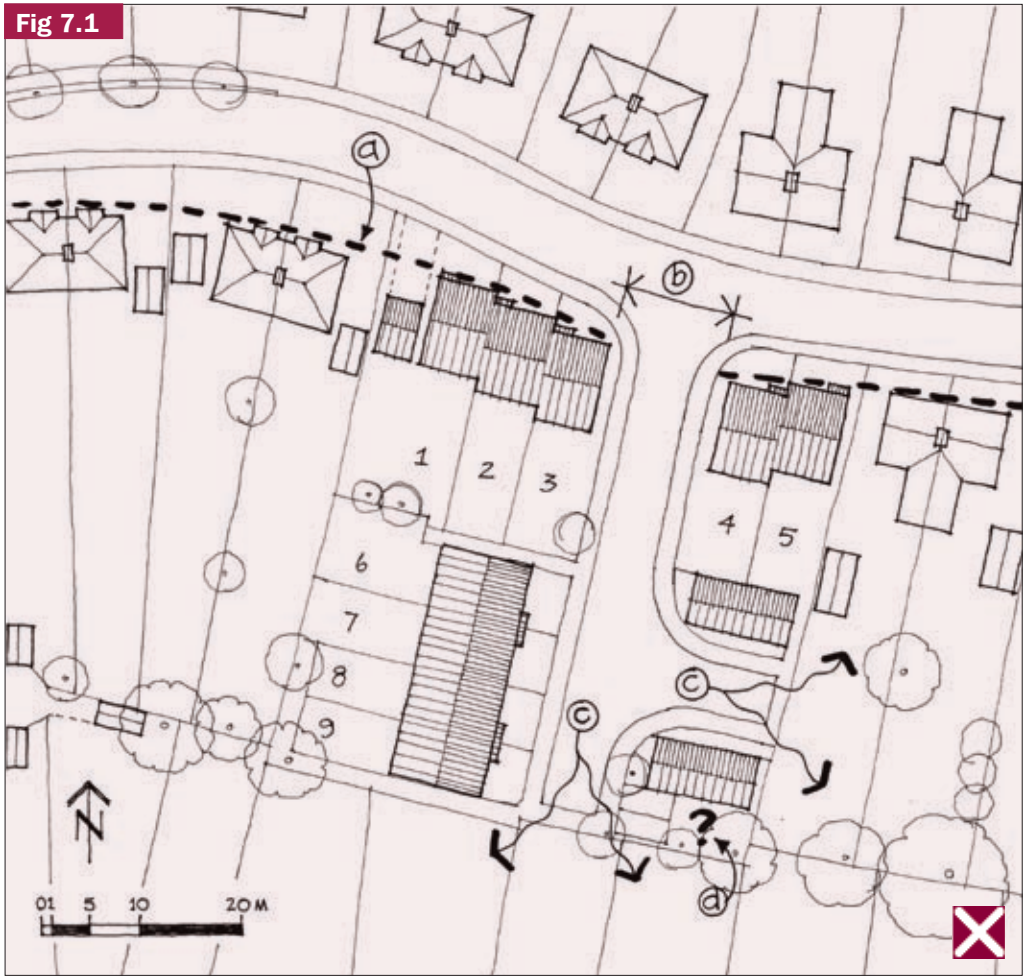
- Acknowledging and respecting the established setting and character of the area
- Relating the new building(s) to the surrounding character
- Embracing 'local distinctiveness'
- Establishing a good relationship with surrounding buildings with regard to scale, form and appearance
- Ensuring that principal elevations address the street, providing a positive approach and natural surveillance
- Taking account of street sections, space between buildings and distances from boundaries reflecting the rhythm of the street
- Considering the space/landscaping as an integral part, not a secondary element.
- Accommodating buildings that create 'gateways', frame views, or act as landmarks with a clear coherency
- Taking account of topography to ensure buildings are located in order to enhance views, address visual stops and frame spaces
- Creating an obvious hierarchy of elements and combinations of elements.
- Avoiding a confused application of architectural styles or inappropriate historical imitation and/or detailing
- Retaining an overall simplicity and functionality of form and design, avoiding the use of "bolted-on" elements
- Carefully considering the relationship, placement, size and proportions of windows and door openings
- Ensuring car parking is accommodated without dictating the shape of the development or dominating the street

7.8 Bearing in mind that the Wealden District comprises some exposed ridge-top settlements, views from high ground over low lying areas are also relevant. Outside these 'typical' settlements, and in more remote rural areas where new development is considered appropriate, key principles should be extended to include:

- Avoidance of exposed skylines and prominent ridges
- Responding to existing variations in topography
- Integration with existing vegetation including trees and hedgerows
- Taking account of building materials and their visual impact from distant views
- Taking cues from the grouping of rural buildings, such as traditional farmyard layouts
- Taking account of local building materials, techniques, finishes and details

7.8 The diagrams opposite provide two approaches. One reflects the standard approach and creates an uninspired layout with negativity. The other seeks to create a positive place and frame a space.

Fig 7.1



Poor layout : This scheme makes an inadequate contribution to the character of the street, and to adjacent properties, neither does it create its own positive sense of place. The layout is mechanistic and uniform with little differentiation in house type. The garage layout is inconvenient and could present maintenance problems

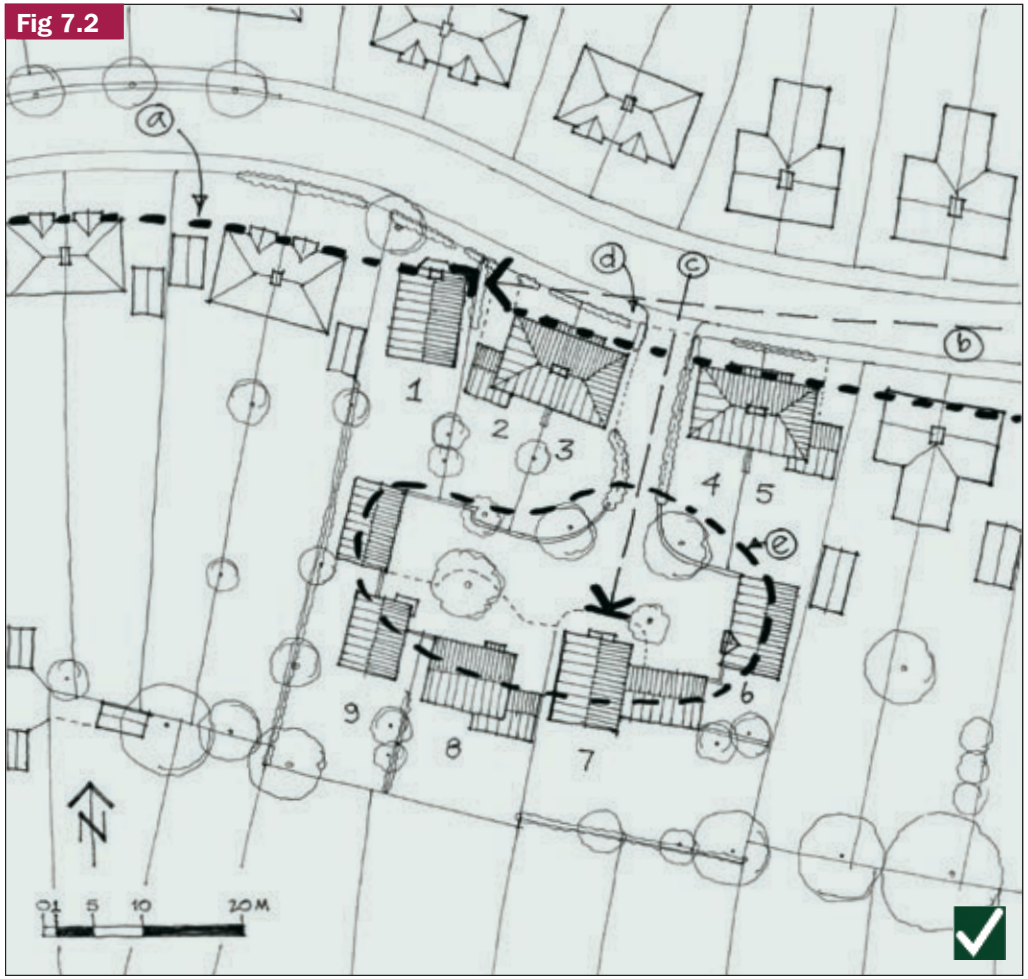
a : The continuity and spacing of the street frontage is only partially considered, but the staggered, repetitive form of the buildings creates an intrusively fussy plan and roofline

b : The junction layout and the estate road are unnecessarily wide, severing the street frontage and creating a highway-dominated scheme, with excessive land-take for road and footpaths

c : The layout of the core of the site lacks any sense of place or enclosure. It allows views of other properties, compromising privacy and the road suggests future extension of the scheme

d : Ill defined space 'left over' with little obvious use. Likely to generate maintenance problems

Fig 7.2



Improved layout : This scheme has been designed to achieve certain clear objectives

a : The continuity of the street frontage, and the general spacing and form of buildings should be maintained

b : In maintaining the general pattern of the existing street scene, the opportunity has been taken to give some accent at the bend of the road, to partially terminate the view from the east. Note the gable end, the oriel window and the chimney reinforce this accent

c : The view into the site is terminated, ensuring the enclosed, intimate 'walled garden/stable yard' character of the site

d : The access way into the site is designed to be as narrow as possible, with a tight entrance design, to emphasise the pedestrian scale of the development

e : The heart of the site is designed as a 'place', enclosed and private, with shared surfaces (no footpaths and kerbs) and soft, informal margins, which nevertheless allow delivery vehicles to manoeuvre

f : There is a variety of house types and sizes from large detached, to smaller detached and semi detached to a coach-house over three garages, (which would be appropriate in this context)

8 The detailed considerations

8.1 Local Distinctiveness

The historical growth of Wealden as a District and the settlements within it, address locality, topography, typology, local climate, urban (town or village) form, building types and materials which provide a colour signature (arising from localised mineral and clay content), social and commercial identity, all of which nuture local distinctiveness. This has been as a result of an evolutionary process and new development should be seen as the continuation of this evolution.

8.2 Unfortunately, since the middle of the 20th Century, awareness and poor interpretation of 'local distinctiveness' resulted in new development of a standard type which largely failed to build on this character. Creating a distinctive character is often approached as a cosmetic dressing of the same style of building type used throughout the country. This applies to all types of development, not just residential. Buildings and new developments which draw on local distinctions and interpret them appropriately in ways that respond to contemporary needs are likely to be more successful than a poor attempt to applying incorrectly the 'local vernacular' to "Off-the-shelf" designs. The use of inappropriate materials or detailing will generally be discouraged where it is considered that their use would be inappropriate.

8.3 As stated before, local distinctiveness needs to be addressed as part of the initial assessment process. Specific architectural cues relate to different sorts of development and building types with some details being more suited to a dwelling than an industrial unit. At the same time, there are many examples of traditional and contemporary urban and rural, industrial, commercial and retail buildings as well as 'set pieces' in the Wealden District which can provide a positive source of inspiration. The extent to which use of a common architectural vocabulary, scale, appropriate materials, finishes, colours, detailing, and high quality workmanship is used, will be key considerations when dealing with development proposals. (see the Visual Glossary of 'Distinctive' Architectural Details in Appendix A).

8.4 The use of "Off-the-shelf" designs and/or inappropriate materials or detailing will generally be discouraged. Furthermore, 'disguising' houses of the same size and type with a mixture of superficial design features will be discouraged. Such an approach generally results in a development that is visually disjointed, with an unattractive mix of property and building types that are unlikely to pay due regard to the 'local distinctiveness' of the area.

8.5 In some circumstances, traditional designs will need to be followed closely, particularly in formal terraces or where the character of the area depends on a clear similarity of style and period. The re-interpretation of traditional building forms and materials in a modern way that respects the existing context will otherwise be encouraged. Where a decision is made to use historic styles for buildings, the detailing and materials must be relevant and accurate in order to avoid an unacceptable pastiche.

8.6 Within development boundaries, new development should respect the established setting and character of both neighbouring buildings and the locality. An important element of this character is the amount of space around the building, the distance between buildings and the relationship to the street, which should have been identified by the appraisals. As stated in the previous sections, the location of new buildings must be carefully considered relative to the streetscape and neighbouring properties, particularly near common site boundaries. The visual impact of a building on the streetscape and its impact on adjoining properties with particular regard to overshadowing and overlooking (See Sections 8 and 10 on Sunlight and Daylight and Privacy) will be a material consideration in the determination of a planning application.

8.7 Outside development boundaries and in the countryside, local and national Policies seek to restrict development unless, related to the justified needs of established agricultural or forestry enterprises or an established business. Where development is exceptionally allowed in accordance with current national and local Policies, the location of new buildings should read as part of the landscape, as opposed to appearing overly dominant or uncharacteristic.

8.8 As indicated by the previous sub-sections within this section, an appraisal of a site, it context and wider setting requires assessment and analysis at varying levels. The diagram, Fig 8.1 provides a summary of the elements to be taken into account when approaching a development project within the District.

Fig 8.1

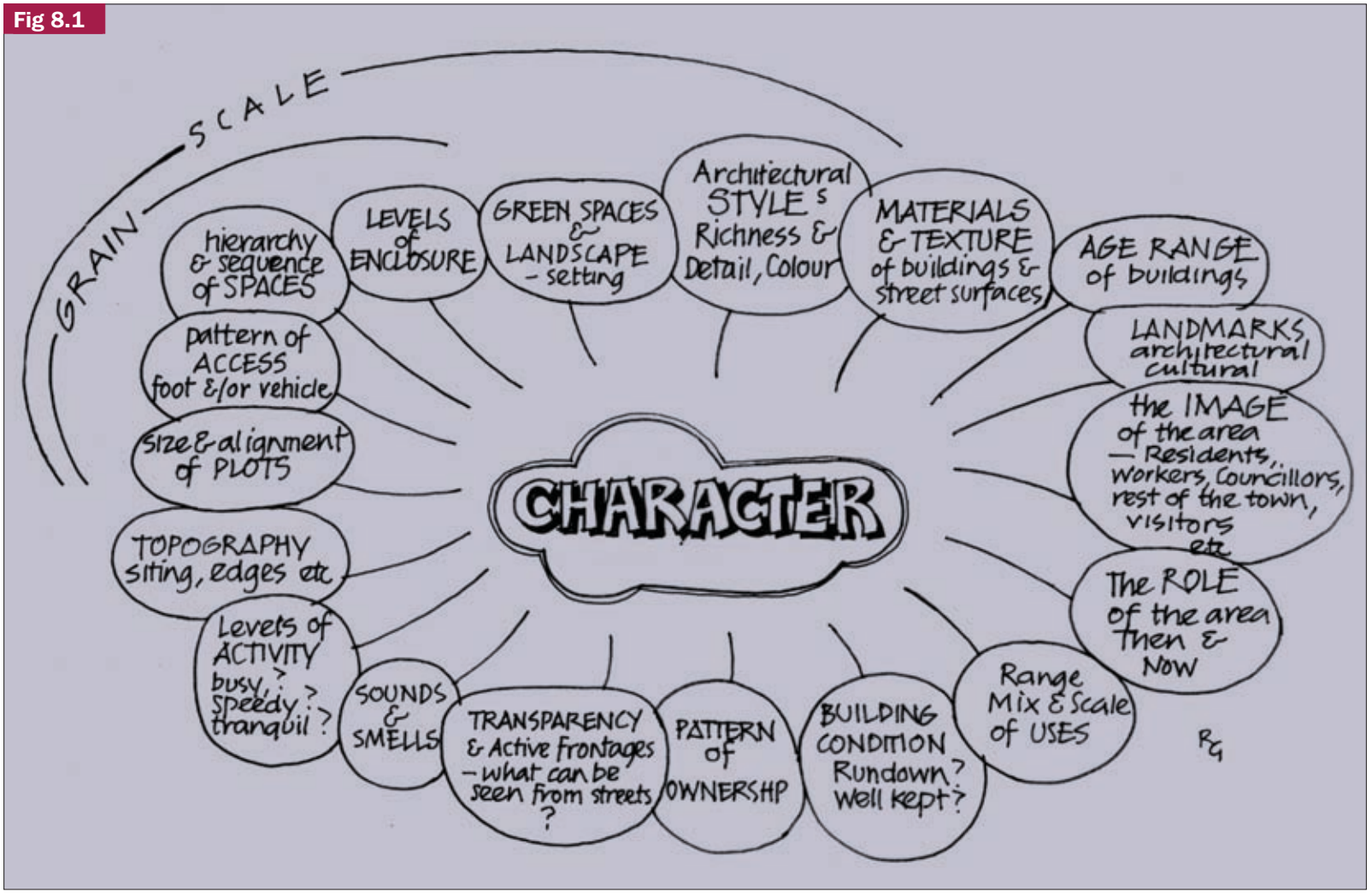


Fig 8.1 Character includes a wide range of inter-related elements. Activity, sounds, smells and use. If ignored, the positive ambience of an area can be detrimentally affected, be that the peacefulness and tranquility of a rural area or the hustle and bustle of a busy, thriving town centre

9 Robust and adaptable buildings

9.1 At the earliest stages of a design project, the life span, adaptability and flexibility of a building should be considered. Building design and layout, whether for domestic or non-domestic uses, should provide flexible spaces that can be easily adapted to accommodate changes in occupancy - including growing families, lifestyle, working practices and aspirations over time. One of the most important considerations is that there should be potential for internal adaption, including the alteration of room sizes and ability to accommodate new uses within the overall plan form. However, the appropriateness of certain design elements will be affected by the analysis of the area and will also be dependent on orientation, the existing character and streetscene, urban grain and the established rhythm of the street, together with skyline and topography. hich requires new homes

9.2 *Flexible Construction & Internal/External Spaces*– the ability of a building to be adapted will be dependent on the initial design and method of construction to be employed. Flexible construction allows for internal re-arrangement of the same building over time and includes:

- Framed or shell-core construction methods
- Lightweight demountable internal partitions to allow room sizes to increase, decrease or be multi-purpose. In dwelling houses this serves to create flexible living spaces
- Floating floors and ceiling voids to accommodate services
- Careful planning of circulation space at upper floor level to facilitate future stair access for loft conversions to create an additional habitable space
- Continuous ducts for wiring which are easily accessible
- Capacity built in for upgrading services and communication;
- Vertical stacking of kitchens and bathrooms
- Capacity built into basic structure to allow for changes of use including ceiling heights, load bearing capacity, sound and thermal insulation and vertical connections
- Large balconies and roof terraces can be provided to commercial buildings. If provided for flats, they can be used as an outdoor space or converted to create a winter garden, provided that overlooking is not an issue
- Consideration of 'Lifetime Homes' standards to encompass occupants with limited or restricted mobility, including the future provision of stair lifts, bathroom aids and adaption of ground floor to enable rooms to be used as bedrooms with level access to washing and wc facilities

9.3 *Wide frontage dwelling plans* - In designing robust and adaptable dwellings, where appropriate to context, character, urban grain and rhythm, wide frontage dwellings can offer a substantial number of advantages over the more conventional narrow terrace plan forms generally proposed. These include:

- Capacity for most habitable rooms to be designed so that they face toward the south to benefit from solar gain
- Naturally lit and ventilated rooms/ spaces
- Wide-span floor and roof from front to back of dwelling allows freedom of internal layout using non-load bearing partitions
- Short-span roof permits open attic space for future use
- Standard front to back depth combined with varying frontage, offers flexible approach to layout providing places of variety and character
- Standard front to back depth suits rationalised production
- Internal layout easily adapted to suit Lifetime Homes requirements;
- Layouts can be designed to be accessible for those with restricted mobility
- Winter gardens, conservatories and additional spaces can be easily added to front and back
- Steeper pitched roofs are more suitable for attic extension, solar water heating and photovoltaic panels
- Enables the provision of passive stack ventilation to kitchen and bathrooms

Fig 9.1



Fig 9.1 A recent study to address the needs of a lifetime in our homes and the places we live

9.4 Ability to accommodate extensions - In addition to flexible floor plans, where appropriate and space permitting, new buildings - especially dwellings, should be designed to provide opportunities for future expansion or extension through:

- Provision of suitable roof forms to enable lofts to be converted into additional space or living accommodation. Steeper pitched roofs in character with traditional building forms in Wealden facilitate the maximum potential use of roof space
- Provision of basements in new designs where topography and sustainable development permits and converting existing basements into additional space or living accommodation
- Reconfiguration of existing internal floor space to form different sized or additional rooms
- Ensuring that gardens are of a sufficient size to enable buildings to be extended at the side or rear without adversely impacting on adjoining properties (terraced houses are notably one of the most difficult to extend due to restrictions arising from their width and depth and adjacent houses).

10 Architectural principles and details

10.1 Architectural Details – the correct use of architectural details is considered to be fundamental to good design. They should be appropriate to the form and function of the building, be well designed in their own right and arranged in a coherent and legible manner consistent with the overall architectural concept. The use of corporate 'standard details' that are unrelated to the architectural style or serve no specific function will be resisted. Many of the details in this subsection are depicted in the Visual Glossary attached as Appendix A and should be cross-referenced.

10.2 When seeking to evolve a design where the concept is to harness local distinctiveness positively, particular attention should be given to established local traditions relating to masonry; roofs, eaves and verge detailing; chimney types; windows and doors. Mouldings should incorporate sufficient detail and variety to highlight and provide shadow to the elevations. Consideration should also be given to those elements that take account of established local tradition but are clearly contemporary in character. When used, architectural details should:

- Emphasise the character of the material, whether it is its size, colour, repetitive quality or grain/texture
- Address the transition between, and combination of different materials
- Reinforce the nature of the built form. A family of related details should be developed and used throughout a scheme and not appear as a shopping list of 'bolt-ons'
- Provide details that are simple, avoiding "busy" or "over fussy" solutions
- Address the issue of chimneys which, in some building types, are the norm; modern traditional dwellings lacking these can appear incomplete. Care should be taken to ensure the positioning, proportions and detailing are appropriate for the buildings with which they are associated
- The use of chimneys in different positions can be used to emphasize the roofscape, create skyline interest and can create townscape strength. Positions include through the ridge, centrally on the gable end (flush or projecting), and at the eaves projecting from a side wall
- Where bargeboards and decorative eaves are used, the detailing need not be copied exactly but used as a source of inspiration

10.3 Scale, form and massing - will have an important influence on the quality of the environment and character of the streetscape. In certain instances, the amount of accommodation provided and resultant footprint will be affected by the character of the area, townscape (urban and rural) its relationship with adjacent buildings site or design constraints When maximising the scale of new development, care needs to be taken to ensure that:

- The scale and massing does not lead to over-dominant buildings in inappropriate locations, for example, visually exposed ridges and infill sites
- The emphasis of the building does not create discord in the streetscene through the use of inappropriate scale
- It seeks to avoid the scale and massing of roofs resulting in visually top-heavy buildings
- The established eaves levels are generally respected in existing streetscenes, especially where a new building adjoins traditional, smaller scale, buildings
- The mass of roofs and gable widths do not appear discordant and out of character with the more traditional roof forms and hierarchy of roofs. Unacceptable shallow pitches or false mono-pitches should be avoided
- In more complex plan forms and shapes, a hierarchy of simple roof ranges is used which takes reference from the traditional forms and footprints
- Where modern-day accommodation requirements cannot be met within a simple plan form relating to the height and proportions of adjoining buildings, then additive forms, (preferably single storey extensions) should be considered as possible solutions
- The use of inappropriately proportioned elements, such as windows, doors and dormers are avoided. Detailing should be appropriate to neighbouring buildings and to the general locality without resulting in blandness
- Elements such as canopies, porches, bay windows, decorative eaves, ridge tiles and chimney stacks appropriate to the locality, can be considered in order to assist in design off-setting, building profiles and silhouettes
- On large developments, a variety of heights, elevational treatments and break-up of massing of buildings can be used where it does not appear contrived and where cues have been taken from existing historic streetscenes

Fig 10.1



Fig 10.1 An existing attractive streetscene where different building styles with varying heights and roof forms

Fig 10.2



Fig 10.2 Introduce a building of inappropriate design, scale, mass and roof form with no positive relationship with its neighbours, creates visual discord and townscape damage

10.4 Roofs – Roofs have already been referred to in the preceding paragraphs in relation to scale, form and massing. Roofscapes of any size are one of the most important ways of integrating new development into an existing streetscene provided that certain cues, principles and materials are taken into account. Traditional roofs in Wealden have a steep pitch of normally 40 degrees or above. Verges were simply detailed with a tile-and-a-half edges, often flaunched in with lime mortar.

10.5 Historically, with the exception of Victorian or Edwardian buildings, fascia boards and soffits are not usual. Eaves commonly featured exposed rafter ends with any guttering being supported on brackets attached to them, although buildings in agricultural use usually did not have any form of rain collection. Ventilation was provided into the roof and attic by air circulating between the rafters.

10.6 Visual interest and variety in the roofscape of developments can be achieved through the careful consideration of the grouping of buildings, the choice of roofing materials, use of different pitches, variation in eaves and verge details and the inclusion of chimney stacks or other features that break the ridge line. Unless relating to a terraced development, due to the varied nature of the Wealden District, permission is unlikely to be given for a residential scheme where all of the roofs are identical, arranged in a geometric pattern and/or lacking distinction and punctuation. Similarly, developments using different styles of roof, in a random fashion and an ad-hoc manner, will generally be unacceptable for example, an incoherent mixture of gabled, half-hipped and hipped, . Design considerations should seek to respect the following points:

- Traditional pitched roofs should be used in preference to flat roofs (including 'crown-flat' variation).
- Flat roofs, apart from their inherent maintenance problems, are generally inappropriate unless there is a clear design justification within the approach and concept, for example, adopting a modern idiom with a 'green' roof which does not harm the existing townscape/landscape
- Generally, roofs with asymmetric pitches should be avoided
- Roof pitches and detailing should relate to the material used (traditional roof forms include thatch, clay plain tiles, slate, lead (and other metals) and sheet glass roofs);
- Double roofs with valley gutters and parallel ridges should be used for larger spans to minimise their bulk and ridge height whilst maintaining traditional pitch
- Different pitches can be used for primary and secondary building elements providing a coherent hierarchy
- Dormers should not dominate the composition or the roofscape and should be smaller than windows on the same elevation and kept low on the roof, well below the ridge line. The roof materials and pitch should normally match that of the main roof although flat, leaded-topped examples may be preferable in certain circumstances. Inverted dormers are normally inappropriate
- Materials, including module size, colour and finish are important and should be chosen with care to ensure integration with either the existing building, the streetscene and landscape. Clay tiles and slate will generally be preferred although the choice of material should be informed by the character of the area
- The use of rooflights should be restricted and where necessary, located low within the roof avoiding the front and other visually prominent elevations. Recessed roof lights can help reduce light reflection - particularly important in AONBs

Fig 10.3



Fig 10.3 Traditional mansards with appropriately scaled dormers are more effective visually than the example below

Fig 10.4



Fig 10.4 A poor attempt at emulating the mansard roof form with a Crown-flat and overly large dormers

10.7 Front entrances and porches can be used to define an entrance and provide natural surveillance by directly overlooking the street. Traditionally, enclosed porches in rural areas are relatively rare, with entrance doors sometimes being recessed giving depth and substance to the external wall. Where porches do occur they are generally associated with larger, individual dwellings. Porches over front entrances are often an 'add-on' and therefore careful consideration needs to be given to their design and detailing. Poorly detailed and inappropriate styles of porch can detract from the overall appearance of the building. When considering the inclusion of porches on new buildings, careful consideration should be given to the following:

- Projecting porches should be designed as an integral part of the building
- Fully enclosed porches should be carefully designed so that they do not become over-obtrusive or read as 'stuck-on' boxes;
- Porches should be in proportion to the building in order to ensure that the size and scale does not over-dominate the elevation(s) with which they are associated
- The design should ensure the porch does not provide easy access to upper level windows, for example, by using flat roofs, thereby reducing security of the dwelling
- Roof pitches should be the same as the main building
- Detailing and materials should be appropriate to the existing building. Modern joinery, particularly, non-wood, rarely relates well to original joinery
- Ornate, pedimented 'classical' porches with decorative columns are normally not appropriate for use on vernacular building styles but, where used, should employ correct proportions

10.8 Windows and Doors – A wide range of historic window types can be seen in Wealden District, ranging from the early leaded-light iron casements set in oak frames to timber casements and vertically sliding sashes. As larger glass sheet became more readily available so windows grew larger, often with fewer panes.

10.9 From the 1850's, existing openings were often enlarged and side-hung timber casements with a thin central glazing bar were inserted, replacing many of the earlier leaded lights. Dormer windows, providing light and air to attic rooms had a secondary importance and were simply detailed, with thin cheeks, usually tile or lead covered, with pitched roofs and a pair of simple iron or timber side hung casement windows.

Fig 10.5

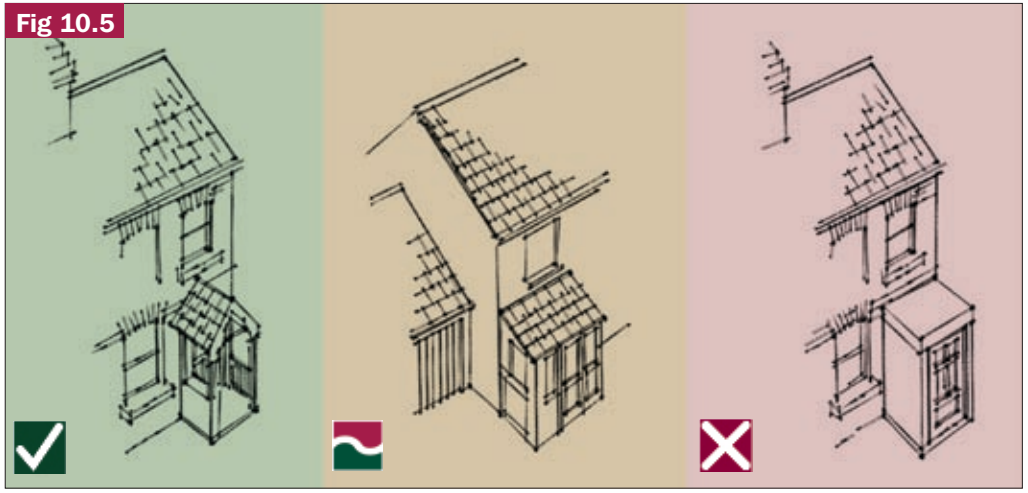


Fig 10.5 Porches should be in proportion and of a design appropriate to the main building. Flat box porches often fail to respect the style of the main dwelling. Simple porches can be added effectively providing shelter and in some instances, a small amount of internal space

Fig 10.6



Fig 10.6 Dormers should be in-keeping with the character and appearance of the main dwelling. The total width of all dormers should not exceed 1/3 the width of the main roof

Fig 10.7



Fig 10.7 Even on side elevations, a dormer should read as a subordinate element - not an extension

10.10 In selecting windows and doors for new developments, the following should be taken into consideration :

- Complicated designs, particularly those utilising inter-glazing strips or 'stuck-on' lead should be avoided due to their historical inaccuracy
- Double-glazed vertically-sliding sash windows and simple, flush-fitting casements, with minimal glazing bars, can provide thermal efficiency
- Where dormer windows are used they should be carefully detailed to match the character of the surrounding buildings
- Doors should be simple and appropriate to a building's style. These could include ledged-and-braced or basic four- or six-paneled doors, painted not stained
- Elevations should have a greater proportion of solid wall to windows unless fully glazed elevations are a key feature of the design concept
- The location, size and relationship of window and door openings requires careful consideration in order to achieve an appropriate balance between a satisfactory floor plan and a well-proportioned and attractive elevation
- Medium and wide-frontage dwellings tend to have their openings arranged symmetrically around centrally-placed front doors
- Normally, irregular compositions or asymmetrical elevations feature a strongly-emphasised axis made up of secondary symmetrical elements
- In wider frontage elevations and terraces of more than 3 properties the requirement for strongly centralised compositions is less great, unless the design concept is to produce a formal composition. In terraced arrangements, the necessities of access may require the incorporation of an opening in the main elevation for rear access

10.11 Specifically for windows, the following design considerations should be taken into account :

- Windows with a vertical emphasis help retain the visual robustness of the wall
- Window openings with a horizontal emphasis should be subdivided into equal rectangular elements
- Glazing bars should be thin
- Avoid the use of large unsubdivided or unevenly divided windows unless a fundamental element of the design
- Window areas on northerly elevations, although they should still be large enough to provide adequate daylight to the rooms they light
- Concentrate glazing on the southern façade without making window areas too large because of cost and the resultant heat losses at night
- Ensure south-facing elevations are not shaded, as far as possible, in the winter to maximise solar gain benefits where buildings incorporate thermal mass to absorb solar gain
- Carefully consider the appropriateness, location and proportions of patio doors and 'French' windows relative to the overall visual composition of the building. These should ideally be confined to the rear elevation or parts of the house that are screened from public view
- Frame thickness and pane subdivisions, as well as the provisions for ventilation and methods of opening

Fig 10.8



Fig 10.8 The PvCU door to the left is a poor imitation of the original

Fig 10.9



Fig 10.9 A modern replacement that bears no relationship to the original

Fig 10.10



Fig 10.10 Retainng the original doors adds to the visual attractiveness of entrances, especially when paired

- A hierarchy of window sizes appropriate to the use of the room and the visual integrity of the external elevation should be followed, for example, a variety of window sizes to suit daylight need with lower cills to important rooms and smaller windows on upper floors.
- Finishes to joinery should avoid modern light and mid brown stains, particularly in rural areas. Generally, painted surfaces for windows and doors is preferable.

5

"Detailed design is a key element in the creation of places of enduring quality" By Design – Better places to live. A companion guide to PPG3. DTLR and Cabe 2001

Fig 10.11



Fig 10.11 It is obvious to see how change to the frame and subdivsion of windows can harm the appearance of a dwelling

Fig 10.12



Fig 10.12 From ground floor to second floor, a perfect window hierarchy

Fig 10.13



Fig 10.13 A modern development that would have benefitted positively if a hierarchy of window sizes had been employed

Fig 10.14



Fig 10.14 A 'faux' sash in use clearly demonstrates that it is a poor imitation of - and no substitute for - a genuine, vertically-sliding sash

10.12 Balconies - Balconies provide a valuable amenity space and can contribute towards the requirements for private amenity spaces for flats above ground floor level. There is a history of the 'sleeping gallery' usage on larger houses within the District, from the late 19th century on. However, the incorporation of balconies on smaller traditional style dwellings and cottages is rarely visually appropriate. The following points should be considered in the design of balconies:

- Ensure that they do not directly overlook the 'privacy zone' of adjoining gardens
- Balance the need for privacy and outward views from the balcony. Careful selection of balustrade can assist in providing appropriate levels of enclosure and privacy
- Orientate to maximise solar gain
- Provide sufficient space for two people to sit comfortably, be usable and not merely decorative
- Where it is not possible to provide functional balconies in 'traditional style developments, the provision of "Juliet" balconies will rarely be considered an appropriate alternative
- Provide partially covered or recessed balconies where appropriate
- Avoid structures which could facilitate access to upper level windows thereby reducing security

Fig 10.15



Fig 10.15 French doors and 'Juliet' balconies creating a poor 'pastiche' of the Georgian townhouse

10.13 Conservatories and Atria - Careful siting and design of glazed structures can contribute to the creation of an energy efficient building in addition to providing valuable additional amenity space for the occupants. The use of atria has the additional advantage of potentially introducing daylight into the heart of a building and can help reduce reliance on artificial lighting. The introduction of unheated conservatories or atria can provide thermal buffering and assist natural ventilation through the heat stack effect. The design of conservatories and atria should therefore:

- Be fully insulated from the main building to avoid overheating in summer and loss of heating in winter;
- Utilise shading and natural ventilation to prevent overheating - being located on south, west or east walls , preferably to the rear of the building or away from principal elevations;
- Form and appearance should be appropriate to the status of the original dwelling and reflect precedent (lean-to's on traditional building types)
- Not normally be heated or only heated for frost protection. Where provided, should have sensitive thermostatic controls
- Normally avoid the use of ornate detailing, except on "high status" buildings
- Have controllable roof vents and external or internal shading equipment and blinds.

Fig 10.16



Fig 10.16 Good use has been made of the difference in levels and the approach is generally acceptable but for the pyramidal roof form

10.14 Garages and ancillary buildings - Vehicular access and parking must be considered from the outset as an integral part of site planning and building design to avoid both individual buildings and the street as a whole being dominated by garages and car parking. Careful consideration needs to be given to the scale, form and detailing of garages. The provision of integral garages can significantly detract from the visual quality of houses, with garage doors dominating the front elevations, and their size and scale impacting on the proportions of windows and doors. They can also greatly weaken the visual link between a dwelling and its external space. Single or double garages are generally best attached to, rather than integrated into the dwelling.

Fig 10.17



Fig 10.17 A modern interpretation of the 'Piano Nobile' providing a useful balcony and recessed garage

Fig 10.18



Fig 10.18 An atria acting as a'light' link between two wings of a building

Fig 10.19



Fig 10.19 Although the garage adopts a different roof form to the main dwelling, this is an acceptable subservient approach

10.15 Where garages or other outbuildings are concerned, the following principles should be taken into account :

- In terms of their height and width, garages doors should accommodate modern vehicles with space on either side to exit the car within the garage
- Flexibility in the location, either as a free standing structure or combining to form larger secondary structures
- Garages should normally be sited where they are well screened from public view, but are still afforded a good level of natural surveillance, and not set forward of the main dwelling
- They should normally be single storey and appropriate in scale relative to the size of the dwelling
- Avoid the use of flat roofs and doors over 2.4 metres wide
- Constructing large double garages, particularly with a pyramidal roof, or first floor accommodation, should be avoided
- The use of 'V' shaped, traditionally pitched roofs should be considered for double garages to minimise ridge height
- Side-hung timber doors will be required for sensitive sites, otherwise metal doors with a vertical emphasis will generally be acceptable. Avoid mock 'historic' styles
- Avoid pitching roofs the 'wrong' way in freestanding buildings
- Rows of doors or open forecourts which can visually dominate the residential environment should be avoided
- Ensure that the number and design of garages and their scale, detailing and materials are architecturally sympathetic to the surroundings

10.16 *Materials* - The selection of materials will significantly impact on the success of a development with regard to the appearance of the buildings and their impact on the character of the area. Within the Wealden area, the principal building materials include sandstone, clay brick and tiles, timber and flint - although their use within certain localities was dependent on availability.

10.17 In the northern part of the District, many early buildings are timber-framed with oak (later softwood) feather-edged boarding. Most of the roofs are covered with handmade clay tiles which may also be used for external wall cladding. Horsham slate roofs are still evident on a few buildings. Later walls are constructed from locally quarried sandstone and, later, locally manufactured bricks.

10.18 Flint walling is common in the south, with hand-made tiles for the roofs, although many of the later C19 buildings use imported Welsh slate. Bricks were used to form window and door openings and provide decorative detailing. The use of high quality, locally sourced materials gives an area a strong sense of local character and this should be recognised in any new development. New developments should therefore :

- Consider the construction methods, colour, finish, size and function of locally distinctive materials and match or compliment their characteristics
- Consider the impact on the existing architectural features and built form
- Use a limited palette of materials to ensure coherence, particularly on small or infill developments or in sensitive locations such as Conservation Areas and within the Sussex Downs and High Weald Areas of Outstanding Natural Beauty
- Consider the use of innovative materials and cutting edge technologies in stand-alone, individual, buildings of quality
- Use good quality, low-maintenance materials for an attractive yet enduring appearance. Key considerations include durability, water run-off and the ability to withstand weathering
- Give careful consideration to the brick bond ('stretcher' bond is often out of keeping), mortar colour and pointing style

Fig 10.20



Fig 10.20 In certain locations, particularly rural areas, a low-key wooden building providing garage as well as store can be integrated into the countryside

Fig 10.21



Fig 10.21 An obvious flaw where the garage is too narrow to perform its function for modern-day requirements

10.19 Innovative use of materials and construction methods, especially when associated with sustainability and energy efficiency, is encouraged. In selecting construction materials, preference should be given to :

- Utilising naturally renewable materials, for example timber and timber products from sustainably managed forests independently certified by the Forestry Stewardship Council (FSC)
- Reusing materials, such as inert, locally available demolition debris for fill and hardcore, and crushed concrete aggregates for foundations and paths
- Materials with a high recycled content - such as plastics from other industries, recycled construction waste and composite materials which recycle low-grade substances
- Locally produced materials with reduced embodied energy from transport
- Avoid materials known to have a detrimental environmental effect in manufacture, use or disposal

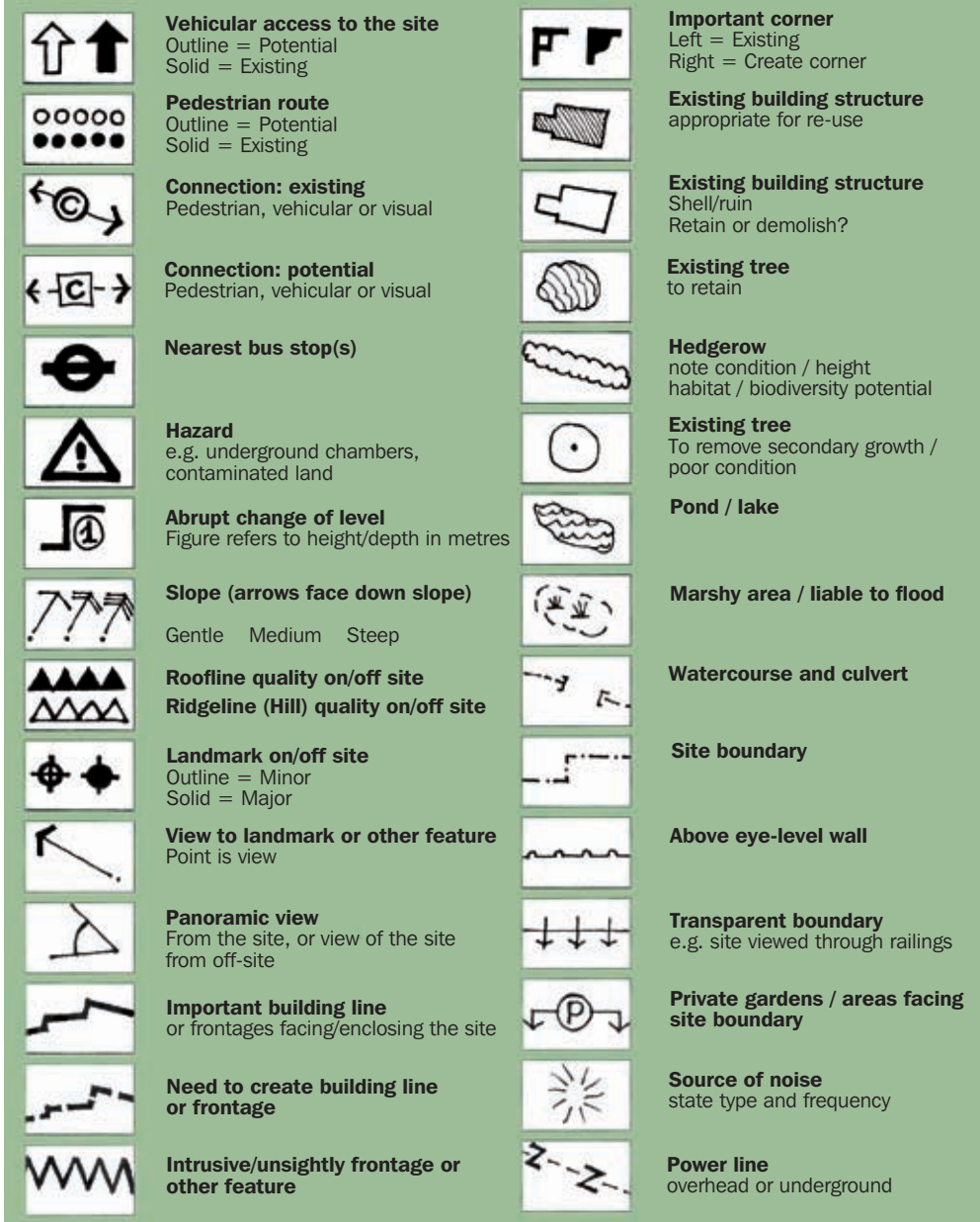
10.20 See also Section 4 regarding Sustainability. Section 2 and the Visual Glossary in the Appendix give further information on the District's positive characteristics and vernacular materials.

11 Services

11.1 Services are often not detailed correctly on submitted drawings and, if not considered properly from the outset, can mar a good scheme. An holistic approach to planning should take account of service provision and ancillary structures. Careful consideration should also be given to the following :

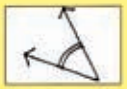
- Service pipes should be grouped and incorporated in chimney features or located on rear slopes
- All soil and waste plumbing should run internally and be kept off elevations
- Meter cupboards and service intakes can be located in less intrusive locations such as flank elevations in ground level chambers or in purpose made units which fit within the elevational treatment in sensitive locations
- Satellite dishes, television aerials and suchlike should not be visible from the public realm and an appropriate location should be identified at the design stage
- Plant should be located within the roofspace wherever possible
- Rainwater goods should be dark or neutral in colour
- Refuse/bin and cycle stores should be integrated into the built form, or designed with innovation to avoid reading as an after-thought and appearing visually intrusive within the streetscene

Site appraisal notation

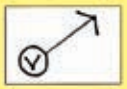


Townscape and urban characer appraisal notation

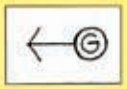
Symbols derived from Gordon Cullen and Kevin Lynch, adapted and added to by Richard Guise



Vista
A general view/panorama



View
To specific object/landmark



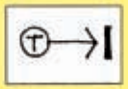
Glimpse
For instance, down an alley or through a gateway



Sequential views
Related views unfolding as one moves through the townscape



Deflected view
The eye is led round a bend, inviting exploration



Terminated view
View along a street 'stopped' by a building



Landmark
Major landmark, local landmark, significant building in a street etc.



Skyline interest



Crest/ridge



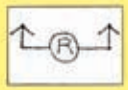
Slope/gradient



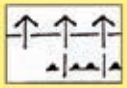
Edge
Physical/visual boundary defining an area eg railway, restricted access, property



Significant building line
Historic and/or interesting frontages



Rhythm
Regular patterns of windows, plot widths, columns etc.



Transparency
Activity visible from the street

Active frontage



Connected/linked spaces
Linked by view and foot routes



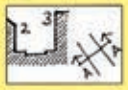
Trees of townscape significance



Area of special sense of place
eg churchyard, market etc.



Nodal point
Place of congregation and/or crossing of busy pedestrian routes



Street section
Convey relative enclosure. Select at least 5 characteristic locations



Pinchpoint
Street funnels to a 'gateway' to another space



Pivotal corner
Defining/framing spaces acting as a hinge between spaces



Texture
Interesting roof, wall or street surfaces



Area defined by noise (ff) or Quiet (pp)



Disorientation
Lack of legibility in townscape



Intrusive feature
Inappropriate building (scale, materials etc.)



Lack of enclosure
The townscape falls apart

Urban design concept notation



Continuous frontage
on back edge of pavement (number refers to storeys)



Continuous frontage
set back from pavement



Indented frontage



Discontinuous frontage



Avenue or boulevard



Significant corner



Building terminating vista



Chicane in street
used for speed reduction



Intersection



Formal square
or other enclosure



Informal urban enclosure



Informal urban green



Nodal point / meeting place



Area of spatial identity / sense of place

Bus stop
or other transport interchange

View corridor

Landmark
Solid = Existing
Outline = Potential

Skyline / roofline interest
Potential or proposed

Skyline / roofline interest
Existing

Active street frontage

Need to create connection
between existing and proposed development

Footpath

Building orientated to maximise solar gain

Pedestrian area

Trees
of townscape significance

Shelter belt / wildlife corridor
e = existing
p = proposed

Balancing pond / reedbed filter ponds

Water front / quayside

Location for public art

Re-use of existing building or structure

12 Summary

12.1 A detailed assessment and analysis of a site/building and the area in which it is located defines those elements that contribute to its character and identity. Constraints and opportunities also become apparent.

12.2 Design and Access Statements are now required to accompany most Planning Applications, apart from minor development proposals, and these must explain how the proposal responds to the character and constraints of the site. The level of assessment, analysis and studies required depends on the scale and nature of the development and should provide an overall picture of the site and its context which will inform the design process from the outset.

12.3 Whilst some desktop studies can be carried out, a site visit is always recommended. Background information gathered should include, historical development and associated designations, current policies such as those in the Local Development Framework (LDF).

12.4 Site surveys should include levels, boundaries, existing structures and natural features such as trees, hedgerows, streams and watercourses, views in to and out of the site, microclimate, orientation and exposure, access points, connectivity and desire lines, ground conditions, flood risk, noise and air quality, infrastructure, highway consideration and information provided by legal searches.

12.5 Having carried out the physical overview and desktop studies, a visual appraisal needs to be undertaken to gain a more. This assists in providing a thorough understanding of the site and its context and the identification of cues which can influence the character of the proposed development. A number of characteristics should be taken into consideration such as :

- Building styles
- Relationship with adjacent buildings
- Street sections
- Urban grain
- Character and setting
- Townscape/urban design role
- Local distinctiveness,
- Materials
- Boundaries and treatments
- Landscape and biodiversity.

12.6 These can be communicated in a variety of ways including annotated maps, sketches, captioned photos and report format.

12.7 Urban design is a useful discipline in explaining the concept behind project. Such analysis and development of a coherent concept can usefully demonstrate the design approach, sources of inspiration and demonstrate how the principles of good urban design have been addressed as well as accommodated within a scheme to ensure that a positive contribution is made to the area concerned.

12.8 Key principles of good design include the importance of architectural details, scale form and massing, roofs, windows, front entrances and porches, materials, balconies, conservatories and atria, garages and ancillary buildings, and services. The guide explains each of these features in detail and considers how they can impact on the overall design.

12.9 Local distinctiveness is particularly important and every effort should be made to avoid standard “off the shelf” designs and/or inappropriate materials or detailing or superficial attempts to reflect local character. This does not preclude less traditional solutions providing they embody the principles of good design which respects the characteristics and quality of the existing site and its surroundings.

12.10 The life span, adaptability and flexibility of a building(s) should be considered at an early stage so that change can be accommodated more easily.



Design and Access Statements : a guide for applicants

1 Background
2 What is a Design and Access Statement?
3 Appraising the site and its setting
4 The design concept
5 Access
6 Summary

6

Where appropriate, the following symbols are used :

Practice or Example generally acceptable

Aspects of Practice or Example may be acceptable in specific circumstances

Practice or Example not recommended

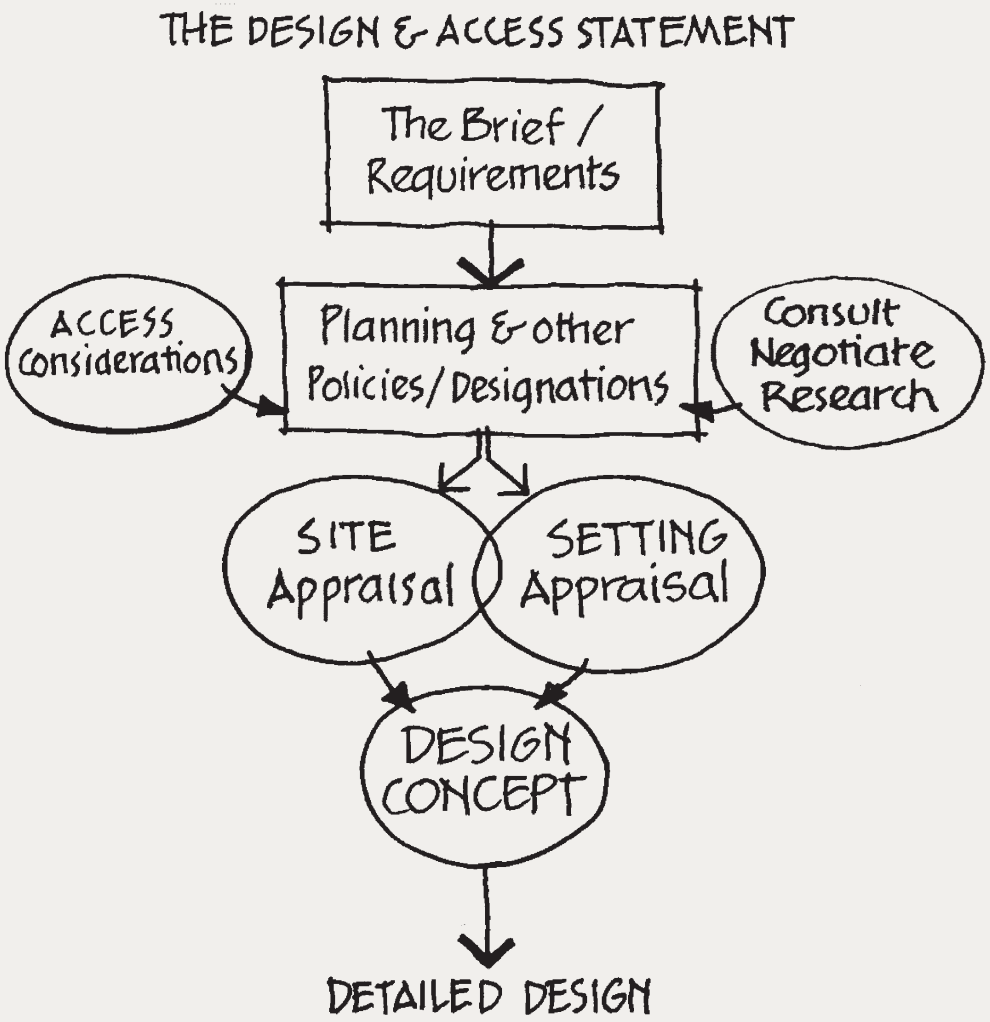
1 Background

1.1 It is a requirement ★ that Design and Access Statements accompany all Planning Applications, other than those for minor householder proposals. They are, however, required in respect of listed buildings and in areas of special designation.

1.2 These Statements can be of great benefit to Applicants, Development Control Officers, elected Members and to any other interested party. They can explain the thinking behind the design and layout of the proposed development and can identify the factors which have had to be taken into account in appraising the site and its setting and in fulfilling the requirements of the developer. The content of this Guide should help the applicant to include the appropriate information in their Design and Access Statement (DAS).

★ See the circular 'Guidance on Changes to the Development Control System' (Department of Communities and Local Government 2006). Failure to include a Statement with a Planning Application will mean that an Application is not registered for determination.

Fig 1.1



2 What is a Design and Access Statement?

2.1 The Design and Access Statement should aim to explain the design process behind the planning application, in particular :

- The use, size and technical constraints and requirements of the proposed development
- An appraisal of the site and its surroundings, identifying those features which have influenced the design
- The Design Concept - the rationale behind the design and layout of the proposals
- An Access Statement - detailing the movement pattern within the site and the ways in which people of all ages and abilities have been considered in an inclusive way throughout the design

2.2 The length and complexity of Design and Access Statements will vary depending on the nature and scale of the proposal.

Further guidance can be found in:

- *Design & Access Statements: how to write, read and use them* (Commission for Architecture and the Built Environment 2006).

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2.3 The Design and Access Statement should be as concise as possible and should 'tell the story' of the development of the design, for example, it should demonstrate how the design might have been amended as an outcome of consultation with local residents, planning officers or other parties. It should give the reasons why existing buildings on site have been demolished or retained, as with other site features :

2.4 Statements should be fully illustrated and supported by informative captions. For instance :

- Maps of the site and its environs as existing, and historic maps should be included. At least one map should show the site in relation to the settlement as a whole. If the site or its setting is hilly a set of key sections will be appropriate
- Photographic images of the existing environment will be required, and photo montages or computer aided simulations should be included to explain the impact of the proposals
- Concept diagrams showing the response to constraints and opportunities will be particularly useful
- Appraisal maps could use the notation symbols included in Section 5
- Photographic studies of materials and their colours should be included. It is not necessary to include all plans and elevations of the proposals, only a selection of key drawings, suitably reduced for inclusion in the statement

3 Appraising the site and its setting

3.1 It is essential that this appraisal is included as it will demonstrate what local factors have influenced the design. Designers are encouraged to develop an understanding of what is locally distinctive to influence and inspire the design solution. Appraisal is not merely a description but is also an evaluation of the impact of what is investigated.

3.2 Applicants and agents are advised to take account of the content of Section 5 of this Guide for more detailed guide on site appraisals. However, the following is a useful summary of this information.

3.3 The possible constraints and impacts of Policies and Designations through desktop studies, consultation with the Local Authority and other relevant agencies should be established. For example :

- Establish the existence of Conservation Areas, Listed Buildings, Tree Preservation Orders, Sites of Special Scientific Interest, areas of archaeological importance Areas of Outstanding Natural Beauty
- Identify policies and constraints in the Local Development Framework (LDF)
- Establish if there are highway, flooding, noise, air quality or Rights of Way issues.

3.4 Context and setting appraisal: This should be undertaken by direct observation of the locality. Establish all significant views within, of and from the site. Note all surrounding land uses and their possible impacts on the site. Consider potential routes to and from the site, especially the nearest bus stops, shops, for instance. Record the type and range of development in the area, relative size of units, storey and/or building heights, plot coverage, relationship of buildings to front boundaries, roof pitches, materials, details and age and style of buildings.

3.5 Site appraisal: Consider potential points of access to the site, major and minor. Record the materials, height, condition and sensitivity of all boundaries to the site and check with maps and legal documents. All trees (including height and spread), hedgerows, ditches and walls within and adjoining the site need to be recorded. Note all existing buildings (condition, materials, heights and potential for adaptation). Where there are level changes, a detailed survey may be necessary, as will trial bore holes for bearing capacity and underground hazards. Ponding and water collection areas are useful to note due to potential water logging. Consider views in and out of the site, privacy and overlooking issues and whether site features may suggest possible focal points or landmark potential.

4 The design concept

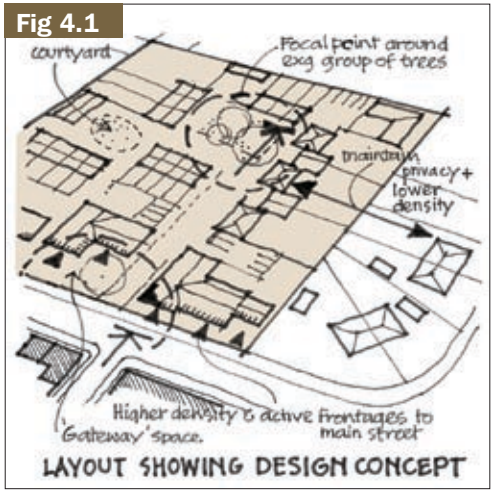
4.1 Having demonstrated how the client requirements, the proposed use/s and the appraisal of the site and its setting have influenced the design and layout of the proposed development, the Statement should then indicate the concepts underlying the development. The concept is the overall approach to the reasoning behind the priorities given to each aspect of the design, its layout, appearance and materials, giving the scheme its particular 'personality'. The following sections suggest approaches to developing a design concept.

4.2 Appearance

From analysis of the site, the elevational design of the development should :

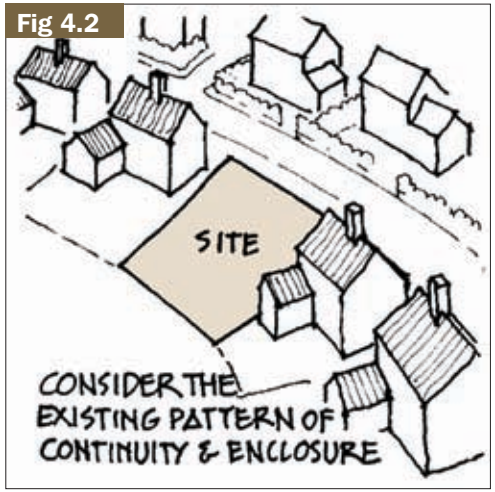
- Defer to (that is accept) the unity of the layout, heights, proportions, form, materials and details of the neighbouring buildings
- Repeat the diversity of the neighbouring buildings, for example, the variety of styles, materials, roofline and so on (as in a typical High Street)
- Contrast with any generally mundane or run down character of neighbouring buildings by conveying a fresh and contemporary approach to materials, colours, form and design

Fig 4.1



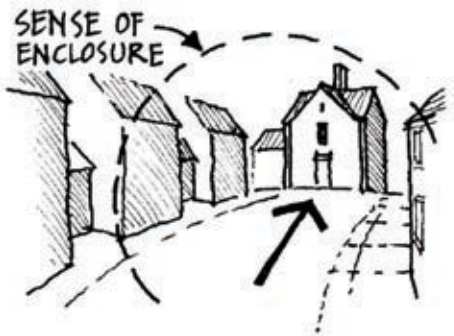
LAYOUT SHOWING DESIGN CONCEPT

Fig 4.2



CONSIDER THE EXISTING PATTERN OF CONTINUITY & ENCLOSURE

Fig 4.3



PROPOSED BUILDING TERMINATES THE VIEW ALONG A STREET

Fig 4.4



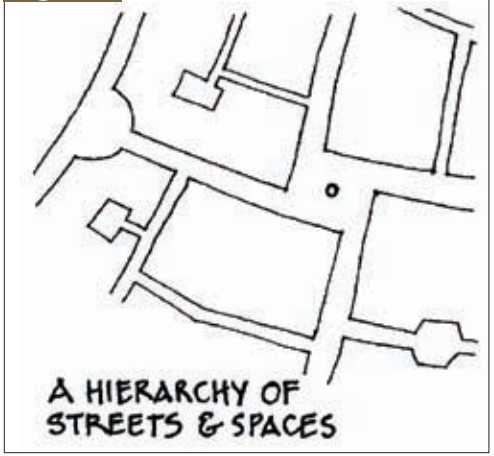
BUILDING DESIGNED TO TURN A CORNER

Fig 4.5



EDGE DEVELOPMENT ADDRESSING THE COUNTRYSIDE

Fig 4.6



A HIERARCHY OF STREETS & SPACES

Fig 4.7

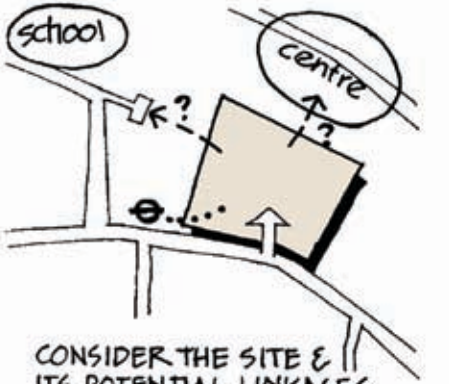
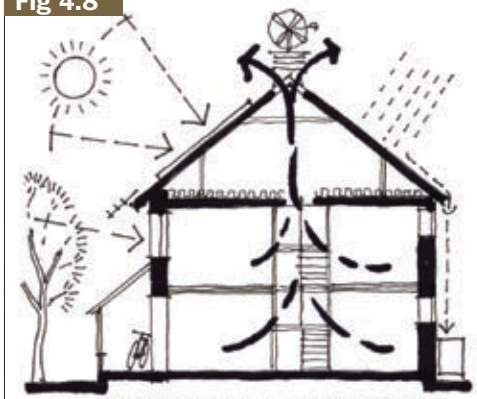


Fig 4.8



4.3 Layout

Does the site within its wider setting suggest that the proposals would :

- Maintain the continuity and enclosure of the existing street scene. Perhaps by maintaining the building line, space (or lack of space) between buildings and boundary design
- Terminate a view at the end of a street, providing closure to a view by placing a building of the appropriate scale and roofline to be seen at a distance
- Provide a corner focus, where the building/development can be seen at the junction of two or more streets and is therefore seen from two sides
- Create an edge to a settlement, perhaps forming a frontage to the countryside or a major road
- Create a gateway to a settlement, forming a frontage which signals the entrance to a settlement
- Become a landmark, either within the streetscene or within the settlement as a whole, through its significant use, location, shape and form, height, materials
- Contribute to the quality of the skyline of the settlement either by the retention of existing trees or structure and/or the height of significant parts of the proposed development, its shape or profile
- Have active frontages on all or major street frontages
- Provide a coherent network of major and minor routes and spaces
- Ensure variety in the compactness or density of the scheme, relating to that of the surrounding area
- Have internal routes connecting with those of the surrounding streets?
- Provide routes which are convenient and safe (are there potentially unsafe routes which are likely to be indirect, under-used, confusing or not overlooked by adjacent buildings?)
- Ensure that servicing and delivery vehicles can easily access all buildings manoeuvring as necessary
- Provide a clear definition between public space and private space, for example, front and back gardens, privacy and overlooking?
- Provide parking spaces within easy reach and view of the premises they serve

4.4 Sustainability

The DAS should demonstrate how the principles of Sustainable Development have been incorporated into the Design Concept.

- **Location**
  To what degree does the development encourage links with local facilities, services and infrastructure? Does the layout allow access to local bus stops, schools, shops etc, (preferably within 400 metres of the centre of the site)?
- **Movement**
  Is the development arranged to be easily walkable? Are cycle routes encouraged?
- **Density**
  Is the density or compactness of the development appropriate to the maintenance of local facilities such as neighbourhood or community shops, enterprise or services?
- **Daylight and ventilation**
  Is the daylight and natural ventilation for the buildings adequate as far as their use/s and function/s permit?
- **Orientation**
  Are the buildings wholly or have significant parts oriented to allow for optimum use of photovoltaic tiles or solar heating panels? Are the buildings oriented to maximise passive solar heating (whilst allowing for controlled shading)?
- **Towards carbon neutral energy generation**
  In addition to orientation (above), is there provision for wind generation (if there is sufficient height and exposure), geothermal heat pumps or combined heat and power generation?
- **Re-use of existing structures and materials**
  Are existing buildings to be re-used or adapted? If not, what is the rationale for their demolition? If demolished, identify how the building materials will be re-used.
- **Topography**
  How does the design and layout of the proposed development make optimum use of the existing contours and changes of level on the site, to assist drainage, create shelter, minimise cut and fill and reduce the visual impact of the development, where necessary?
- **Landscape and habitats**
  To what extent has the existing vegetation on site been retained and managed to ensure rain water retention and its slow release and sustainable drainage; shading and oxygenation; and biodiversity through the retention of habitats?
- **Use of local/sustainable building materials**
  Have building materials been sourced as locally as possible? Are timber components derived from sustainable forests?Do the building materials have a long life and are they easily maintained?

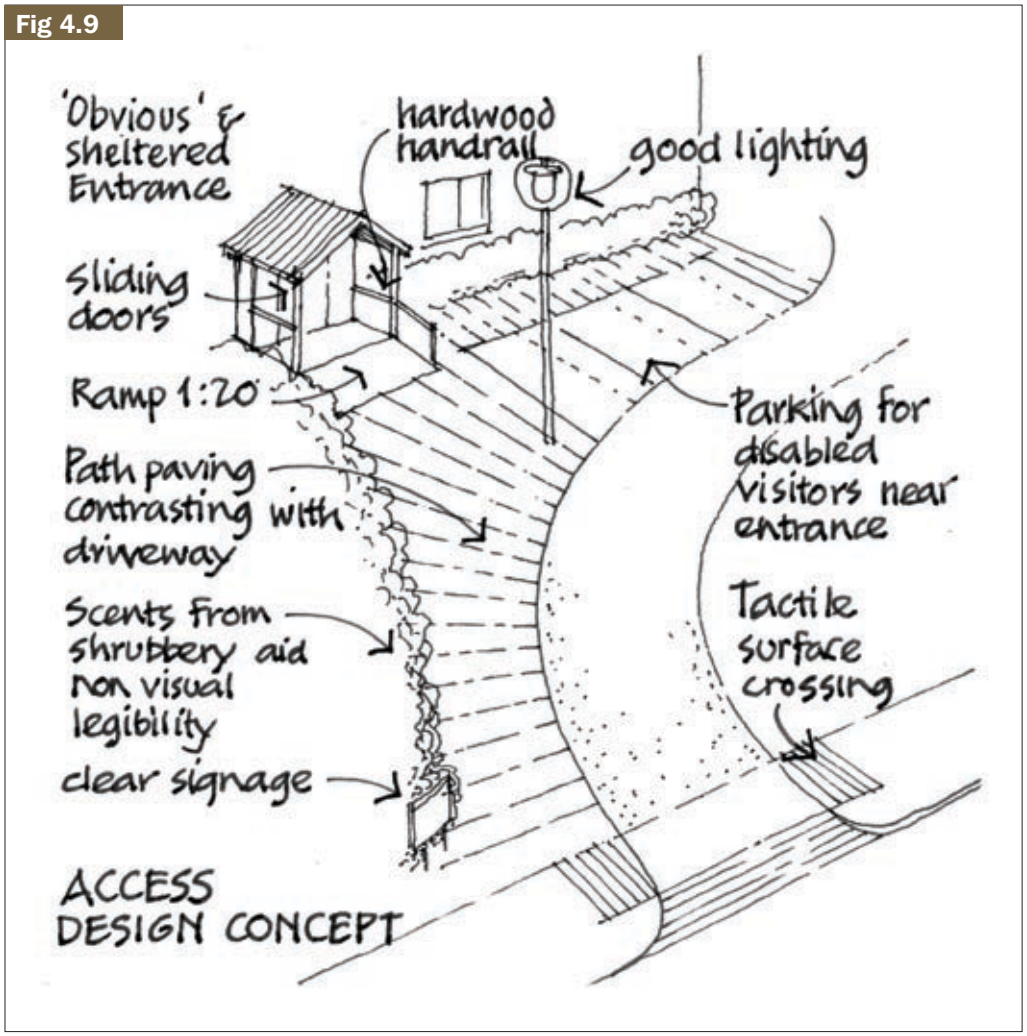
5 Access

5.1 Access has two related dimensions in the design process. The accessibility of the site by vehicles and pedestrians. This includes consideration of entrances to the site and to the buildings. It also covers the design of a coherent and legible network of routes throughout the site appropriate to occupants, visitors, maintenance, deliveries, collection of material for recycling and emergency vehicles such as fire engines and ambulances.

5.2 Accessibility : Access also means the design of a development which is accessible to everyone regardless of age or disability. Thus the principles of inclusive design should be employed, whereby the whole development is designed to be accessible to everyone without the need for separate entrances or facilities which can only be accessed by request.

5.3 Obviously, this requirement (see the Disability Discrimination Act 2004 and Part M of the Building Regulations, for minimum standards for certain building types) has great implications for the design and layout of sites and buildings, both externally and internally. Most buildings will have to comply with the Building Regulations and access requirements. Designs should be undertaken with this in mind.

Fig 4.9



Good practice to assure appropriate levels of access - General buildings

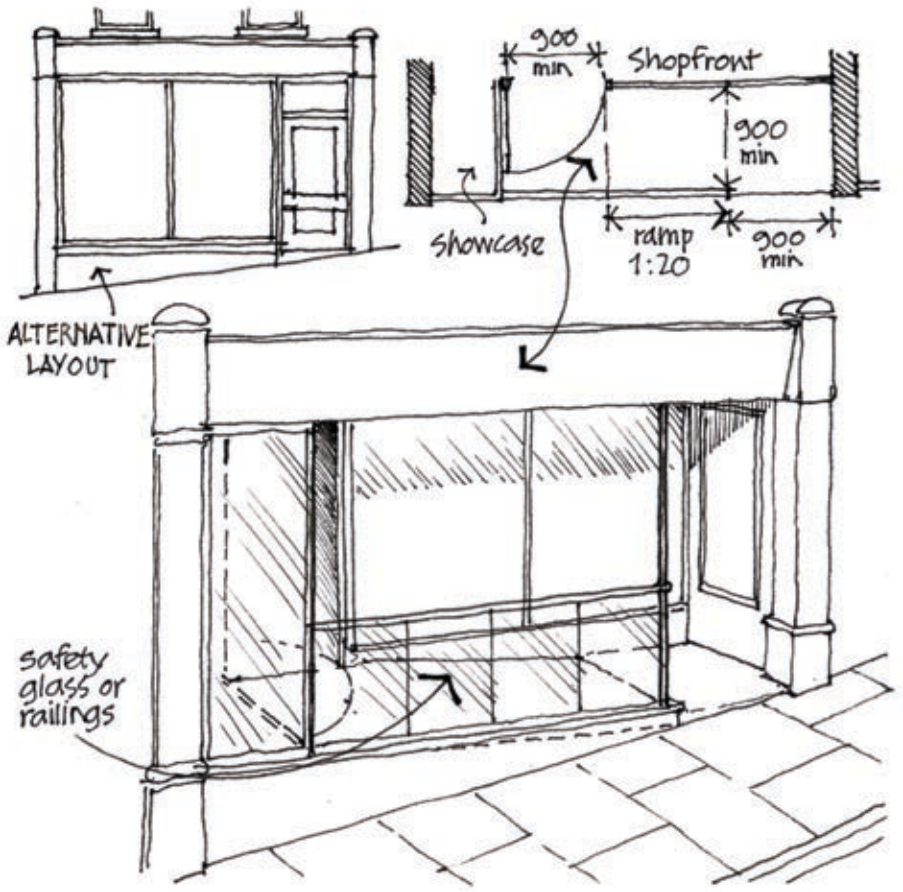
5.4 It should be remembered that those with special requirements related to access are not limited to wheelchair users, but includes people with impaired vision, hearing or mobility. In addition to the possible regular users of the development, occasional visitors will also need to be considered.

5.5 It is recognised that certain sites or the character of Listed Buildings or other existing structures, will mean that compromises may have to be made regarding the overall aim of inclusivity.

5.6 An Access Statement should include :

- The general approach or philosophy towards inclusive design related to the nature of the proposed development its uses and its site
- The approach to the layout of routes within the development: for example, the use of gradients, the legibility of routes, the design of areas outside entrances, signage, lighting, the design of changes of level, parking spaces, handrails, contrasting colours for surface materials, seating and so on■ A Green Travel Plan setting out the initiatives to be incorporated to place more emphasis on the use of other modes of transport as opposed to the private car

Fig 4.10



Good practice to assure appropriate levels of access - Shops

Please bear in mind that all buildings will be required to conform to the latest versions of the Building Regulations and BREEAM Assessments and Code for Sustainable Homes.

6 Summary

6.1 All planning applications (apart from minor household schemes) now require a Design and Access Statement as part of the proposal. This should explain the design process behind the development including :

- An appraisal of the site and its surroundings
- The design concept or rationale
- A brief description of the nature of the proposed development
- An access statement detailing the movement pattern within the site and the ways in which people of all ages and abilities have been considered in an inclusive way throughout the design

6.2 The length and complexity of Design and Access Statements will vary, depending on the nature and scale of the proposal. More complex schemes should include maps, photographs, diagrams and an evaluation of the impact of the proposals on the site itself and its surroundings.

6.3 The design concept should embrace a number of issues which are explained in more detail in this section of the Guide. They include such things as appearance in relation to the surrounding buildings, layout, sustainability and access.



New Residential Development

1 Background
2 The rôle of urban design in the development process
3 Establishing a unified 'Vision'
4 Character - A place with its own identity
5 Creating continuity and enclosure
6 Quality in the public realm
7 Ensuring legibility
8 Facilitating ease of movement
9 Including access and servicing
10 Accommodating the car
11 Establishing landscaping, private amenity and privacy
12 Environmental issues
13 'Secured by Design'
14 Extracts from a Masterplan showing component parts and context
15 Summary

7

Where appropriate, the following symbols are used :

- Practice or Example generally acceptable
- Aspects of Practice or Example may be acceptable in specific circumstances
- Practice or Example not recommended

1 Background

1.1 The design of our residential environments has a significant effect on many aspects of our day-to-day lives. The form and pattern of any new development will also have a fundamental influence on the character of the surrounding area. If designed badly, the repercussions can be significant and have long-term implications, potentially resulting in tomorrow's 'negative' environments.

1.2 Such scenarios often arise where one aspect of design is emphasised at the expense of others, creating *"faceless and monotonous places, dominated by single uses or with the car at the centre of everything"* (Urban Design: Principles, Policy and Practice – DETR 1999). These tend to be 'any place, anywhere' types of development.

1.3 For example, this can result in :

- Roads being laid out to suit refuse lorries rather than pedestrians
- Plots parceled up for one house builder not relating to those of another building immediately adjacent
- A school or similar Community building being fitted in out of the way as an afterthought, rather than having pride of place
- Landscape features, including open spaces, not being integrated into the development because the land has been used inefficiently and unimaginatively

1.4 Each development site presents a unique opportunity to create a new environment - a place with its own identity and character that respects its context, complimenting the local distinctiveness of Wealden's towns, villages and countryside. Such an environment should be designed, not only to be easy to get around, but also to be safer, more secure and sustainable.

1.5 By focusing on creating higher-quality environments, residential schemes can also expect to yield a higher residual value than conventionally designed areas (The Cost of Bad Design – Cabe 2007).

1.6 Whether the new residential development in question relates to infill sites, larger brownfield sites, or seeks to provide extension to a settlement, the guiding objectives and principles contained in this Section will assist in the preparation of high quality residential schemes.

1.7 The Wealden area is rich in character and attractive settlements which have evolved over time, responding to their context and developing a 'local distinctiveness'. Together with their attractive surroundings, they should provide visual cues to assist in arriving at a positive design solution.

1.8 Planning Policy Statements PPS1 'Delivering Sustainable Development' and PPS3 'Housing' acknowledge that good design should contribute positively to making places better for people. Further, they indicate that design which is inappropriate in its context, or which fails to take available opportunities for improving the character and quality of an area and how it functions, should not be accepted.

"New Development either contributes to making the urban fabric coherent, or undermines it."

"Many of the places which we now think of as being pleasantly distinctive grew naturally in response to local circumstances. Where such distinctiveness is ignored, new development may reflect only the marketing policies or corporate identities of national and international companies, the standard practices and products of the building industry, or the latest fashions among design professionals. Development that responds sensitively to the site and its setting, by contrast, is likely to create a place that is valued and pleasing to the eye."

'By Design - Urban Design in the Planning System - Towards Better Practice' - DTLR and CABE 2001

2 The rôle of urban design in the development process

2.1 Urban design is *"the art of making places"*. In this context, it must deal not only with how places look, but also how they function. It provides the 'tools' to assist in shaping the environment, encompassing the connections between people and places, movement and urban form, nature and the built fabric and - in the case of the Wealden District - the process for ensuring successful towns, villages and hamlets. The application of urban design is not therefore limited to 'urban' environments.

2.2 Urban design assists in establishing and promoting good design principles, recognising that every building is a part of the greater whole. Unfortunately, too many places have been blighted by development which has been designed in isolation, ignoring local urban form, detail and structure, creating meaningless left-over space that contributes little to either the existing or new 'place'.

2.3 'Place-making' is about reinforcing local distinctiveness and, given the visual richness of the Wealden District, there is no excuse for developers to ignore this and produce new developments of the sort that are specific to nowhere and can be found throughout Britain.

2.4 Creating new places, changing or integrating them with existing ones, requires the sort of wide-ranging 'vision' which urban design principles and objectives can assist in providing.

2.5 The key to successfully achieving this potential is embodied within the planning system as it provides the legislative framework which, of necessity, **must** underpin any vision relating to how a place could be developed.

2.6 The objectives listed below are based on the experience of what can commonly contribute towards successful place-making. They relate to how people use buildings and associated spaces, and what they feel about the places they live and work in or visit. These objectives include :

- Establishing a unified 'Vision'
- Defining local 'Character'
- Creating continuity and enclosure
- Providing quality in the Public Realm
- Ensuring legibility *(see* **7** *below)*
- Facilitating ease of movement
- Including access and servicing
- Establishing private amenity and privacy
- Addressing environmental issues
- Following 'Secured by Design' principles

"In a quality place, the components from which it is made are fully resolved. This requires a fusion of all elements; the building, landscape and the interface between them. All components need to have been designed and constructed with the overall scheme, its character and quality in mind. The best schemes do not appear to comprise buildings, a road and the bits in between, but rather form a place where the elements belong seamlessly to each other."

'By Design – Better Places to Live', a companion guide to PPG3. DTLR and CABE 2001

Fig 2.1

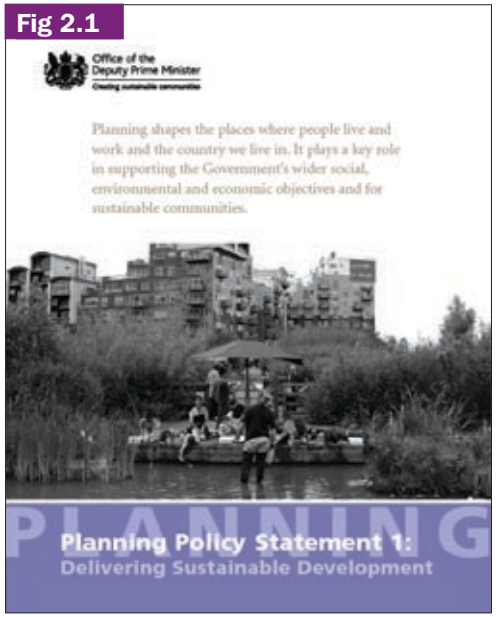


Fig 2.1 PPS1 sets out the requirement for good and positive design

Fig 2.2



Fig 2.2 This development does not reinforce local distinctiveness

3 Establishing a unified 'Vision'

3.1 Creating a place with an identifiable character is a key element in successfully integrating a new development within an established environment. Where it is intended to introduce a new identity this should be so created as to sit comfortably within its locality. In this context, it should be noted that the character of areas as we see them today has normally evolved over time and been subjected to change, both positive and negative.

3.2 Urban design utilises information and assessment derived from thorough site and contextual analysis. The information and perceptions gathered about a site and its context should define how a design project will evolve. The supporting documentation needs to demonstrate clearly the range of issues that have been considered. The successful assimilation of many disparate elements can be essential for successful development.

3.3 The resulting 'Vision' should, then, be derived from an understanding of the physical characteristics of a site, its history and geography, suggesting how development can be formulated which relates to what is already there.

3.4 Such a vision for a new residential development, based on a sound analysis, can help to shape what happens on site by providing coherence and building-in a real sense of place and local identity.

3.5 Although such a vision ought to be conceived at an early stage of the scheme's overall design, it cannot be done at the outset as it needs to be informed by the survey information gathered at the site analysis stage. It can be described in words, images and diagrams.

3.6 This initial vision can be changed and expanded , drawing upon information beyond the purely physical, such as will arise from engagement with the community and other stakeholders.

Fig 3.1

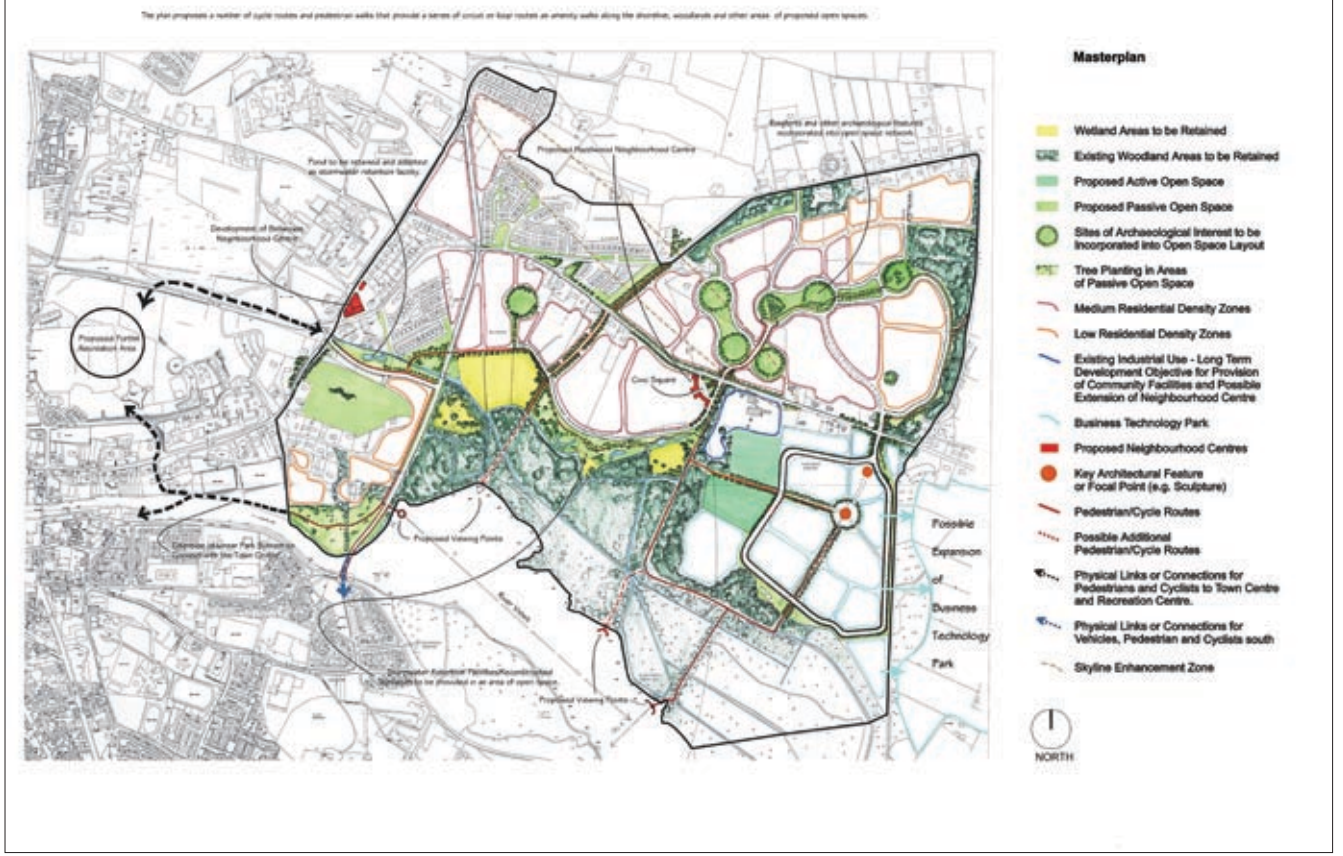


Fig 3.1 An example of a Masterplan that has been developed from a series of studies and overlays which establishes the key principles of a new residential environment. A full case study is included at **14** below

4 Character - A place with its own identity

4.1 Places that grow in response to their locality are likely to be more successful, sustainable, robust and enjoyable. Success lies in harnessing the positive features of their locality both natural and man-made, including landscape, building traditions and materials, patterns of social life and other factors which make one place different from another. The best places are memorable and have a character that is both easily recognised and appreciated.

4.2 Until recently, design considerations have tended to be focussed on a vehicle-led approach relying on engineering standards. The resultant car-dominated environments normally run counter to both local distinctiveness and character.

4.3 PPS1 and PPS3 'Housing' recognise that the condition of our surroundings has a direct impact on the quality of life. In this context, the conservation and improvement of the natural and built environments can bring about positive change. As a result, the emphasis is now on a 'design-led' approach which, by its very nature, requires all facets of design to be considered as opposed to just one overriding factor.

4.4 Adherence to guiding principles under the heading of 'Character' needs to be demonstrated throughout the evolution of the design of a new residential development and incorporated into a Design & Access Statement (see Section 6).

Fig 4.1



Fig 4.1 East Dean has a character and appearance that is easily identifiable

Fig 4.2



Fig 4.2 A contemporary development uses a reinterpretation of 'traditional' detailing to create a distinctive new character

Fig 4.3



Fig 4.3 Fletching - an example of a strong local and distinct identity

4.5 *Principle 1 - Designing for 'Local Distinctiveness' :* Rather than replicating adjacent buildings – often seen as the 'easy route' - this can involve a contemporary approach that creatively reconciles established local practices with the latest technologies, building types and needs.

4.6 New and old can coexist without disguising one as the other. This is especially true if the design of the new is a response to clear and accepted urban design objectives. Where there are no significant local traditions, the challenge to create a relevant new identity and character will be greater but lessons can be learnt from the layout and arrangement of successful traditional environments.

4.7 There are often good reasons why local building forms have developed in a particular way, be it modifying the micro climate, such as sheltering from exposed ridges or making use of locally available materials

4.8 Other factors that need to be taken into account include :

- The clustering of buildings
- The density of the built form
- The relationships between buildings, including their scale, mass and height
- The rhythm, pattern and width of streets
- The 'urban grain'
- The alignment of routes and integration of open spaces with the landscape
- The skyline and views into and out of the site

4.9 In recognising the range, complexity and richness of the existing buildings, there is also a need to identify the established materials, together with the forms, detailing and construction techniques with which they are used, where these contribute positively to the character and appearance of the locality. (See the Visual Glossary for an overview).

4.10 'Local' elements which are considered detrimental in terms of urban design and undermine the overall character of an area should not be used as a precedent for the design of new development. Many twentieth century housing developments which drew on 'national', standardised types, to the detriment of locally distinct vernacular architecture, may find themselves in this category.

4.11 PPS1 states that, *"Design which is inappropriate in its context, or which fails to take the opportunities available for improving the character and quality of an area and the way it functions, should not be accepted."*

4.12 The development potential of any site should be assessed in conjunction with its context and the quality of the built and landscaped environment rather than seeking to impose the maximum number of units, irrespective of the context.

> *"Responding to local distinctiveness means more than just flinging a few flints on the front elevation."*
>
> Francis Golding
> Royal Fine Art Commission

4.16 *Principle 2 - Integration with the landscape setting :* The layout, massing and landscape design of new residential development can be successfully integrated into the wider landscape using structured planting, shelter belts, green wedges, green chains and corridors. Local species should be used for planting to reinforce the distinct natural qualities of a place.

Fig 4.4



Fig 4.4 A traditional Wealden Hall house displaying the positive elements that are locally distinctive

Fig 4.5



Fig 4.5 Burnt brick headers, red brick detailing and handmade plain clay tiles display a different local character

Fig 4.6



Fig 4.6 Taking account of existing landscape around the edges of a development improves its overall integration

4.13 *Principle 3 - Retaining existing natural features :* Existing natural features within or adjacent to a site, can help shape a development and should, therefore, be integrated into the layout, thus contributing to a sense of place. Retaining existing features on a site is often more effective in maintaining - or creating - a tangible character than is likely to be effected by imposed change.

4.14 Knowing what elements to retain and how best to incorporate them will be informed by the appraisal and assessment of the site and its context. Such features can include the natural topography, rivers, streams, ponds, trees, woodlands, hedgerows, rocky outcrops and wildlife habitats.

4.15 This approach enables connections to be maintained to the rural and green hinterlands to urban areas through the implementation of a strategy for connecting green spaces. Landscape and countryside are not just visual assets but, in the wider sense, the basis for urban development. In addition to being used for recreation and as open space, they also serve for the production of food/energy, as habitats, as areas to enable the management of surface water, and to screen and buffer development. (Delivering Quality Places: Urban Design: Compendium 2 - English Partnerships/ The Housing Corporation 2007)

Fig 4.7



Fig 4.7 New walkway through water meadow adjacent to new development

Fig 4.8



Fig 4.8 Instead of culverting the stream, it has become a feature of this development

Fig 4.9



Fig 4.9 This walkway at the water's edge could be exploited to enhance the quality of the public realm

Fig 4.10



Fig 4.10 Existing mill stream functions as reflecting pond to new flatted development

Fig 4.11

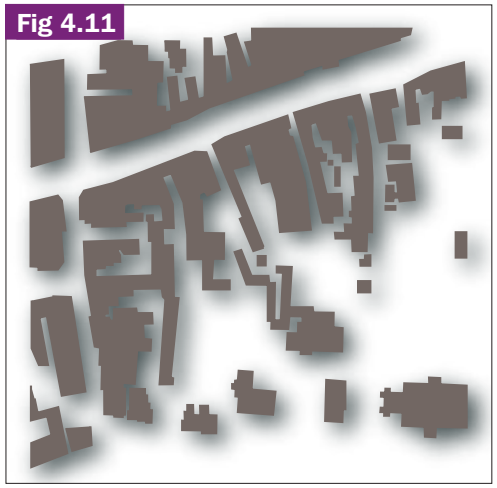


Fig 4.11 At first sight, existing built form can appear to present significant difficulties for potential development

Fig 4.12

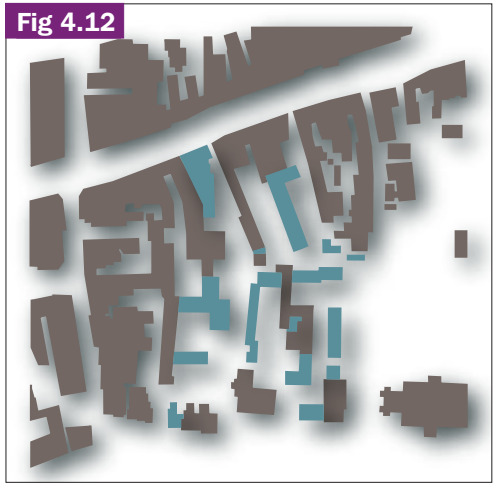


Fig 4.13



Figs 4.12 & 4.13 By taking account of the existing layout and arrangement of buildings, the development of a site (new work shown in blue) can appear 'seamless'. Traditional forms of layout can often unlock the development potential of a site, with key buildings (shown in purple) performing essential townscape and urban design roles as in this example

4.17 *Principle 4 - Development should respond to existing 'Traditional' layouts and elements :* Account should be taken of the existing layout of groups of buildings in the area as they reflect history and function, as well as connections with adjoining areas. This includes how individual buildings relate not only to one another but also to roads, streets and any other connections between them. The manner in which associated spaces complement one another, and the degree to which their arrangement has influenced historic development, can contribute to the overall interest and richness of an area and its capacity to accommodate further change.

4.18 As well as retaining buildings of locally distinctive, historic or townscape merit, integrating new development with existing buildings and structures can help to maintain the continuity of the built fabric. Where existing buildings are not being retained, a developer should demonstrate why they consider this not to be possible or sustainable.

4.19 Other 'traditional' streetscene elements also need consideration when seeking to establish or maintain the identity of a place. These include :

- Lighting (mainly in urban settings)
- Railings and fences
- Hard landscaping (including paving)
- Litter bins, seating and other furniture
- Style of street signage (including materials and lettering)

4.20 In order to prevent visual clutter a proliferation of street furniture should be avoided, particularly where this would result in a confusion of differing styles, materials and designs. In some instances, where the identity of a new residential environment seeks to complement an existing environment, a different style of street furniture may, however, be justified.

4.21 'Standard' designs for layouts or landscaping are rarely acceptable as they are unlikely to contribute positively to the creation of a distinctive identity or even make best use of a particular site. (Urban Design: principles, policy and practice – DETR 1999)

4.22 *Principle 5 – Respond to local building forms :* Developments which rely on the use of 'universal' solutions to built forms, irrespective of location, will rarely contribute to the distinctive qualities of individual places nor create a new place with a positive character or identity.

4.23 Local building forms and details contribute significantly to distinctiveness and good examples can be successfully (re-)interpreted in new development without necessarily restricting the skills or imagination of the designer. These can include distinctive types - cottages, terraces, semi-detached and detached houses. Alignment, boundary treatments, street sections, roof types (pitches and forms), window types, the palette of materials and the arrangement of spaces around also contribute to the success of a scheme.

4.24 The use of appropriate scale and proportions is essential. The common practice of 'inflating' or 'shrinking' traditional vernacular forms should be avoided. The same applies to building elements which, when their scale is changed, lose their architectural meaning.

Fig 4.14



Fig 4.14 Utilising established paving types and boundary details will help to link new development to existing built form

Fig 4.15



Fig 4.15 As an individual dwelling, the new development on the right is well proportioned and detailed. However, the differences between it and the neighbouring building (such as the floor heights) result in something of a disharmony

Fig 4.16



Fig 4.16 In isolation, this 'traditional' design might pass without comment but, in the context of an existing streetscene, its comparative scale, poor proportions (particularly the ground floor bay windows) and detailing all sit badly with surrounding properties

Fig 4.17



Fig 4.17 Successfully reinterpreting the traditional semi-detached dwelling in a sympathetic manner

Fig 4.18



Fig 4.18 Varying heights, roof forms, materials and detailing all contribute to the skyline and general character of this traditional streetscape

4.25 *Principle 6 – Consideration of scale, massing and height :* Not all new development needs to match the heights of existing adjacent buildings, but should seek to relate appropriately to them. Within a site, the logic of varying heights needs to pay respect to established patterns and avoid illogical increases or monotonous repetition.

4.26 Where supported (for example, when higher densities are required) variation in height can be used creatively in new developments. Such variation should, however, have a local relevance where traditional forms are being considered.

4.27 The resultant character should demonstrate how new buildings, especially those sharing a street frontage with established buildings, contribute to the continuity of urban form.

4.28 The overall character of a skyline is composed of the massing of numerous elements including the shape of individual roofs and chimneys, as well as the relative heights of buildings.

4.29 An individual element should only stand out from the background in the streetscene where it is required to perform a clear urban design/townscape rôle. For example, a Community Building within a new residential development emphasised as a 'landmark', or a grouping of buildings which contribute positively to local views and vistas.

4.30 As the massing of buildings can contribute to skyline interest, particular care needs to be taken to ensure that existing arrangements are positively respected when introducing new development.

Fig 4.19



Fig 4.19 A standard 'modern' pastiche which misuses traditional vernacular details has a poor overall appearance

Fig 4.20



Fig 4.20 Variations in roof form, articulation and materials all add to the visual interest of this contemporary development

Fig 4.21



Fig 4.21 A successful contemporary house with integral garage which would look quite at home in a 'traditional' street

Fig 4.22



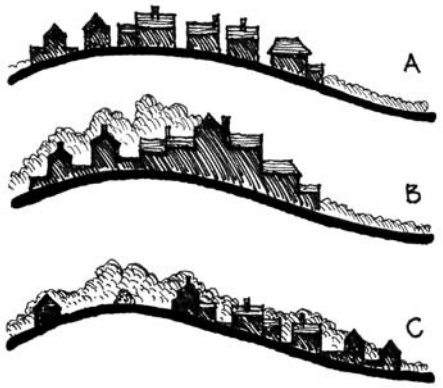
Fig 4.22 Here the somewhat 'New England' style community building is 'framed' by appropriately detailed appartment blocks

4.31 *Principle 7 – Respecting topography :* Developing sloping sites can be problematic. On such sites, buildings that follow the topography and work with the rises and falls will contribute more successfully to local character. Unfortunately, the more common developer approach is to use 'cut and fill' which often necessitates extensive excavation. Where disposal is off-site, this will add to a development's carbon footprint. Skillful 'bespoke' design can, however, create positive 'downslope' buildings with an additional under-storey.

4.32 A tell-tale sign demonstrating the imposition of a design rationale is where blank walls rise from the ground and loom over neighbouring buildings. Such an approach will only emphasise the 'alien' nature of the development and should therefore be avoided.

4.33 Mass and height could be broken up more effectively by incorporating a projecting ground floor. For example, a *piano nobile* arrangement could feature a 'terrace' at first floor level, perhaps with a garage below. Although this may seem relarively simple to achieve, great care needs to be taken to ensure that the overall appearance is 'in character'. To this end, inspiration could be sought from a traditional Mews or - dependant on location - a contemporary treatment might be considered more appropriate.

Fig 4.23



A Avoid building on open ridgelines, where development appears as a poorly considered collection of buildings resulting in a 'battlemented' silhouette

B Buildings whose massing creates a composed skyline where this would be appropriate, enhancing existing contours and tree groups

C Development avoiding the ridgeline and hilltop woodland, allowing the natural features to dominate, whilst reducing exposure to high winds and driving rain

Fig 4.23 Following basic principles in dealing with development on the ridgeline can have its advantages

Fig 4.24

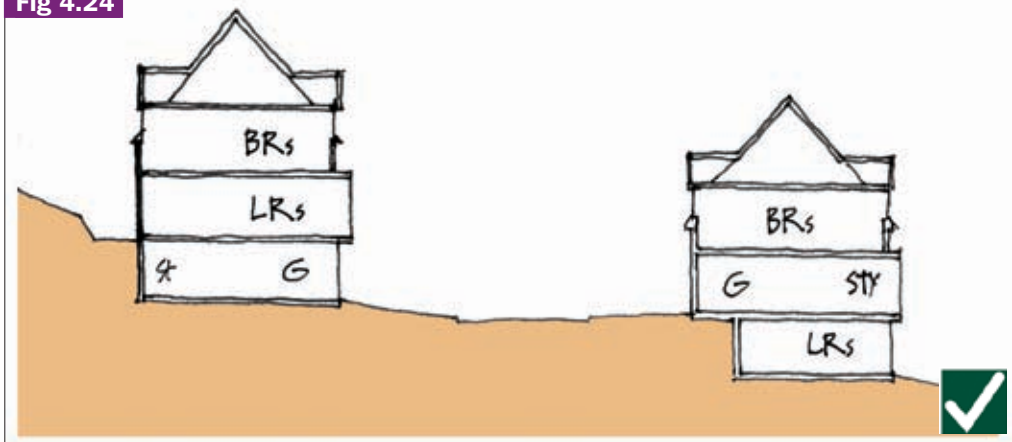


Fig 4.24 Section across a street on a sloping site. Here the buildings are specifically designed to accommodate the changes in level, thereby reducing their impact on the site and its setting

Fig 4.25



Fig 4.25 Shows a positive arrangement in plan layout

Fig 4.26



Fig 4.26 A poor layout has resulted in one owner feeling the need to defend private space with a close-boarded fence atop the plot's retaining wall. This does nothing to enhance the area

Fig 4.27



Fig 4.28



Figs 4.27 & 4.28 A modern development where the front entrance is raised and the resultant lower ground floor opens onto the (downslope) garden

Fig 4.29



Fig 4.29 Unconvincing use of a 'classical' piano nobile with terrace over garage

Fig 4.30



Fig 4.30 A building in search of a character

Fig 4.31



Fig 4.31 Here garaging to the lower ground floor us virtually unusable because of the steep slope to the short drives

Fig 4.32



Fig 4.32 In a contemporary 'take' on the piano nobile, balconies with privacy screens oversail the porches and integral garages

4.34 *Principle 8 – Creating character zones or quarters :* Some development sites may be of sufficient size to include character zones or quarters. This approach can assist in avoiding monotony within a new development and, on the edge of settlements, can encompass a transition from the urban edge to the rural fringe, enabling a reconnection with the hinterland and a hierarchy of densities to be established. Zones can overlap and are often 'blurred' around the edges, reading as a subtle transition from one to another and from the new development to the existing urban form.

Fig 4.34



Fig 4.34 Using the concept of zones or quarters can remove the monotony of a modern residential development. The character of this 'village green' differs markedly from that of a more formal Square

Fig 4.33



Fig 4.33 An historic quarter (or today a 'zone') in an urban environment

.

Fig 4.35



Fig 4.35 In this instance, although the principle of a formal Square ina semi-rural semi-urban environment as a focal point within a development has been followed, the scale and detail appear to owe their inspiration more to northern France than Sussex - a lost opportunity

5 Creating continuity and enclosure

5.1 The development of successful urban spaces, including streets, relies on built forms to enclose and define them. The relationships between buildings *in* a street and between buildings *and* the street, are the key to this. Choosing an approach to, and pattern for a development, should be informed by many factors, not least the relationship between the existing and new. The historic urban grain of a town, village or settlement where the pattern of streets that respect and create a positive character should not be ignored.

5.2 Generally, those buildings which follow the local, traditional precedents in their incorporation and containment of private space to the rear or within courtyards, are more successful than those that stand in isolation in the middle of a site. A sense of enclosure can be created with detached and semi-detached buildings through how the space between them is treated. Uncharacteristic gaps can be out of keeping with established streetscenes. Buildings with active frontages and 'live edges' provide a greater interaction with the street and increase natural security and surveillance.

5.3 *Principle 1 – Buildings forming or addressing a street :* A recognition of the existing urban grain of an area, including the pattern of development and the rhythm and spacing between buildings, will assist in shaping new streetscenes (see **Section 5**). Respecting historic/traditional building lines and their alignment helps integrate new development with the existing especially where the site has a street frontage. Such an approach should enhance the urban fabric and avoid the creation of any unnecessary wasted spaces or problematic gaps.

5.4 Perimeter blocks provide the maximum frontage to the street. They need not be square but can adopt more organic forms which responds to the topography. Focal points such as greens, squares and other open spaces can also be formed with building frontages that are not parallel.

5.6 Where a looser framework of buildings is required, the perimeter block offers the best solution, positioned near to the street with walls, gates and other landscape features used to close the gaps. Such blocks offer the ability to accommodate medium/high densities while ensuring that buildings relate positively to both the streetscene and public realm.

5.7 Where buildings are set back from the typical alignment, they should create usable, attractive spaces for pedestrians. Small projections and setbacks (bays and entrance porches) can be used to soften the impact that buildings and the public realm have on each other. Setbacks at upper floors can be used to reduce the impact of the building at street level without losing containment.

Fig 5.3

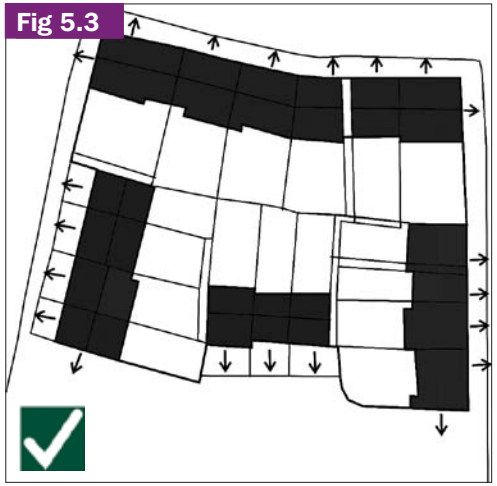


Fig 5.3 Closed block : Front/back well defined; more secure and enables rear gardens to be larger/more flexiblly orientated (Preferred)

Fig 5.1

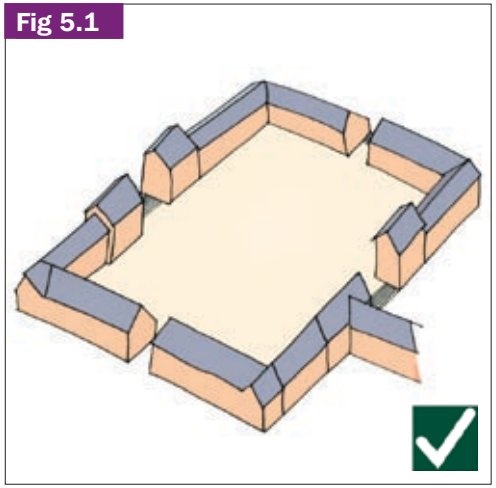


Fig 5.1 A formal square is a 'traditional' perimeter block development, maximising development enclosing/containing the street

Fig 5.2

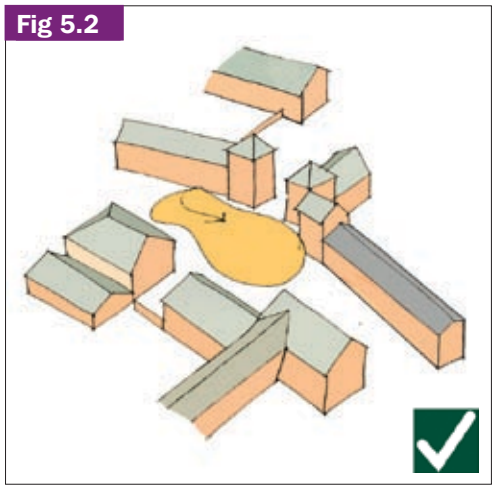


Fig 5.2 An informal arrangement can still 'contain' space whilst creating an organic form

Fig 5.4

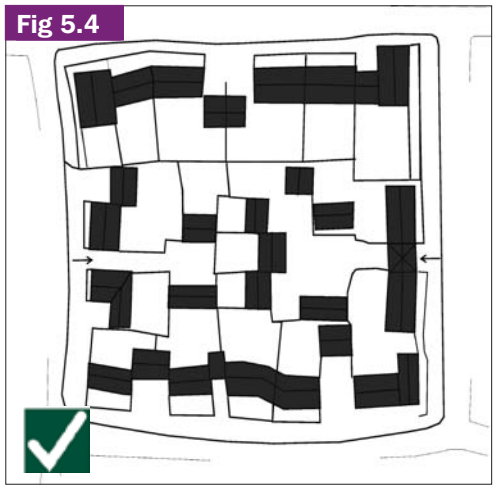


Fig 5.4 Composite block : A closed block with two courtyards providing security and variety but with frontage parking

Fig 5.5



Fig 5.5 The space to the rear of this flatted perimeter block incorporates a simple approach to rear parking in a landscaped setting

5.8 *Principle 2 – 'Active' frontages and 'live' edges:* A mark of the success of a building or a street is the ability to make a positive contribution to the public realm. This can be achieved through facing the street, animating and interacting with it, ensuring that all open space is positively used. It is this interaction that determines the relationship between 'inside' and 'outside', 'built' and 'open', 'public' and 'private', 'individual' and 'communal'.

5.9 Views into a building can provide interest to the passerby whilst views out can be the 'eyes on the street'. At the very least, windows can imply the presence of others. Adding visual interest and 'animation' means :

- More windows and doors presented to the public realm than blank wall
- Using narrow frontage buildings to give vertical rhythm
- Enlivening edges with balconies, bays, porches, canopies, verandahs or other projections, allowing a blurring of the interface with the street but avoiding visual clutter and unnecessary adornments
- Considering level changes to the front entrance to give a sense of privacy and surveillance but without constraining access for the less mobile



Fig 5.6 Traditional terrace where privacy for the ground floor has been achieved through raising it above street level



Fig 5.7 Original upper floor accommodation over an entrance/gateway, providing a degree of 'security by desgin', which could serve as an exemplar for modern FOGs



Fig 5.8 Modern variation of the raised ground floor applied to a flatted development



Fig 5.9 A modern version of a FOG, but the entrance to the flat is not too obvious from the rear car parking area…



Fig 5.10 …From the front, the FOG has an overall appearance more closely resembling a 'chalet' bungalow, with a central entrance

5.10 Entrances to residential development should be clearly identifiable and add to the understanding of a place whilst improving interaction and security. Direct access from the street for accommodation above shops, flats over garages (FOGS) and flatted blocks, rather than all access being via communal entrances, can reduce the length of blank facades For example, ground floor flats need not be served off a common access but can have their own front door to the street.

5.11 Primary access to a building by means of internal courtyards should be avoided as such arrangements reduce street activity and the 'live' connection between the street and the building. Residential buildings on corner sites are normally visually prominent, and require two frontages which many 'standard' building types fail to achieve successfully. Corner sites can offer the potential for more entrances to different parts of a building – especially if a flatted development, provided they are strongly emphasised.

5.12 *Principle 3 – Front or back ? :*
The design of residential buildings should make it clear which is the front and which is the back and how they are used in different ways. The front of a building should directly address the residential street. Less private rooms (such as living rooms) that are relatively 'public', should face the street, particularly at ground floor level.

5.13 The more private rooms, such as bedrooms and bathrooms, which contribute little or nothing to overlooking, tend to 'deaden' the street frontage. Such rooms should be located at the rear or on upper storeys. Buildings which back onto main roads and public spaces often present high fences and walls to the street - thereby reducing overlooking, and safety - presenting a negative image as well as poor site planning. (By Design: Urban Design in the Planning System: Toward Better Practice – CABE 2000)

Fig 5.11



Fig 5.11 These buildings clearly confuse as the use of canopies to their front elevations would normally mark the position of their main entrances…

Fig 5.12



Fig 5.12 …In fact, the entrances are to the rear of the buildings and not very clear as the pavements leading to them do not join up with those running alongside the main road

5.14 *Principle 4 – Clearly defining private amenity space :* Private amenity space, be it in the form of individual back gardens, back yards or inner courtyards, is best enclosed by the backs of buildings. Rear gardens are more secure if they back onto other gardens, rather than side roads, service lanes or footpaths. Within private courtyards, depending on access arrangements and use, privacy within rear ground floor rooms will need to be protected by a privacy zone, screen or effective planting.

5.15 *Principle 5 - Marking the difference between public and private space :* There is a need to indicate the extent of private ownership of space around the building, defined as a boundary between public and private space. Detailed design can make clear whether ambiguous spaces are public or private.

5.16 It is, however, an important function of the edge to preserve the privacy of the indoor activity, so that the occupiers will not feel the need to screen themselves totally from the public space, thus negating their presence. Features can include walls, fences, railings, gates, arches and changes to materials.

Fig 5.13



Fig 5.13 A walled estate may separate private amenity space but it is not the most pleasant of streetscenes or edges

Fig 5.14



Fig 5.14 Separated by a low hedge from the footpath, the semi-private area beyond incorporates an equiped childrens' play area overlooked by the houses beyond

Fig 5.15



Fig 5.15 Abundant public space in a mid C20 estate layout

6 Quality in the public realm

6.1 The public realm includes the spaces between buildings, streets, parks, squares, and pavements. It also includes the functioning parts of a development such as the network of pedestrian routes and not just the parts of a site that have not been built on They are the spaces that knit the urban fabric together to create a sense of place and identity.

6.2 The public realm provides the setting for every day life, including formal occasions and informal use, for all age groups. It is therefore important to ensure that the public realm is given as much importance as the design of the buildings and streets within the concept and vision for the site.

6.3 Open spaces often comprise a very significant part of a concept plan and the eventual layout. An open space network should include hard and soft landscape design to provide coherence in the new residential environment. The more flexibility provided - for open space and landscape within a residential development - the more there is a greater coherency and a sense of place. An integrated approach to public realm provision is an essential part of creating successful new communities.

6.4 Natural assets such as undulating topography, streams, ponds, rivers, trees and hedgerows, should be incorporated within spaces to enhance the attractiveness of the new environment, maintain the ecology and encourage biodiversity. New green spaces can improve the environmental performance of neighbourhoods by alleviating the risk of flooding as well as improving air quality. If located on the edge of an existing built-up area, the public realm should provide, and strengthen, the transition from urban to rural areas. **Section 8** provides further information on design in the public realm.

Fig 6.1



Fig 6.1 Useful elements within communal areas add to a developments attractiveness

6.5 *Principle 1 - Successful residential developments have a clear hierarchy of space:* The provision of space within a new residential development should be designed as part of a clear hierarchy. To have meaning, new spaces should be designed with a purpose in mind. Open spaces should be capable of being used as places to pause, to pass through and play in. Space 'left over' after development, without a clear function, is a wasted resource and will detract from a place's identity and be open to vandalism.

6.6 Footpaths can have a complex role to play in supporting and encouraging pedestrian use against the prohibiting effects of vehicles. The width of the pedestrian zone must be geared to the level of pedestrian movement and allow for the provision of bus shelters and cycle racks where appropriate.

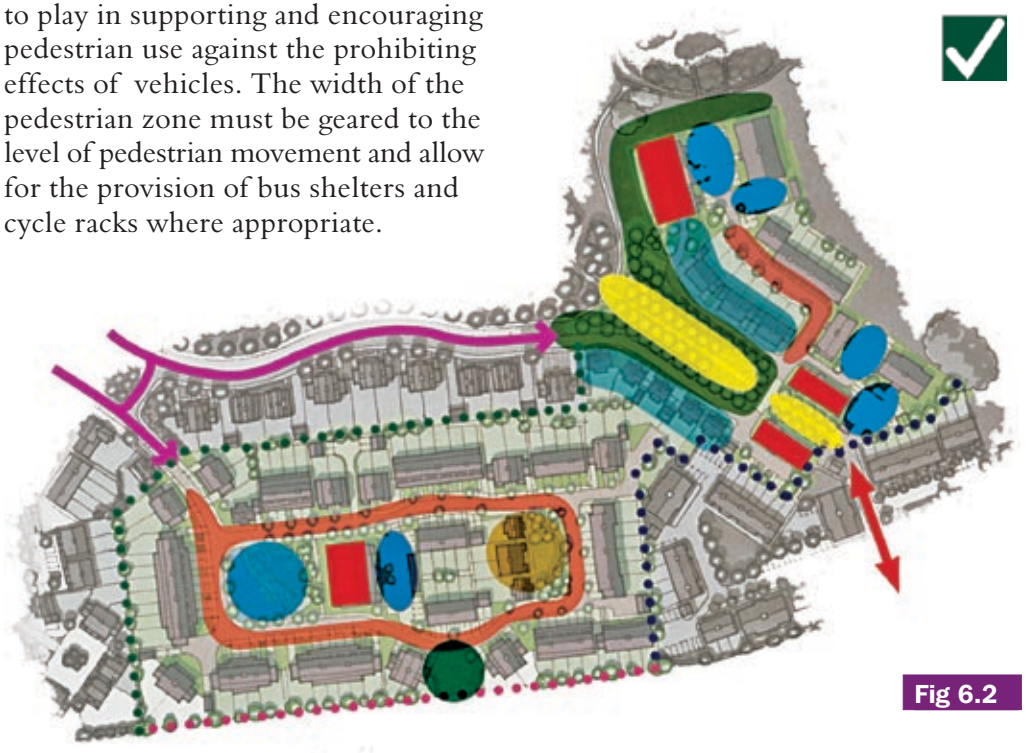


Fig 6.2

Fig 6.2 A clearly defined space strategy assists in creating quality places (extract from Worcester Park, Sutton, Masterplan)

6.7 Where the function of the space is designed for pedestrian priority, the use of vehicles should be relegated out of necessity. For example, where 'Home Zone' principles are adopted, road widths are narrowed and speeds reduced to 20 mph. Such areas can be clearly defined and made recognisable through the use of appropriately placed street furniture and structured planting.



Fig 6.3 An attractive route makes all the difference and can be designed simply



Fig 6.4 A few trees do little to lessen the impact of the extensive hard landscaping in this vehicle-dominated space



Fig 6.5 When mature, careful landscaping can define spaces and reduce the impact of vehicles, thereby enhacing a development



Fig 6.6 Even when mature planting schemes may be so basic as to be unlikely to significantly enhance 'crowded' developments



Fig 6.7 A network of pathways around a pond and throughout the development encourage pedestrian and cyclst usage



Fig 6.8 Spaces can be both functional and attractive and will be further enhanced as the associated planting matures



Fig 6.9 Green spaces as centrepieces to building groups can provide a useful communal amenity and focus



Fig 6.10 Spaces with meaning and purpose add to attractiveness

6.8 *Principle 2 –Streets and spaces should be 'addressed' and overlooked :* Within the public realm, and without causing an intrusion to privacy, neighbours should be able to see each others' houses, in particular front doors or recessed garage entrances. Streets, squares or parks, should be 'addressed' and overlooked by buildings that frame them. Car parking areas are also normally public spaces within a residential development. As such they should not provide the immediate frontage to a street at ground level unless it is designed as a multi-functional space, or in a way that means it does not read as a 'wasteland' when devoid of cars.

6.9 The benefits of designing for positive overlooking include :

- Ensuring activity and interaction with spaces/street
- Providing interest for the passerby
- Enabling views from within buildings to provide overlooking thereby contributing to safety and security
- Providing surveillance over footpaths and cycle tracks
- Ensuring play areas and communal spaces interact with the residential buildings and their users as well as providing surveillance and safe interaction with passers-by

6.10 Where shops are provided within a new residential development, good use of the opportunity to provide accommodation above should be made. All too often parades of shops become the target of vandalism but where accommodation is provided above, activity is increased to provide natural surveillance and evening activity.

Fig 6.11



Fig 6.11 Lack of overlooking of the communal green because of blank gables

Fig 6.12



Fig 6.12 Neighbouring properties designed and orientated to overlook one another without undue invasion of privacy

Fig 6.13



Fig 6.13 A mid-C20 example of 'living over the shop' in the centre of a development

6.11 *Principle 3 - Public spaces should be designed to take account of micro-climates :* The layout and massing of a residential development should take account of local climatic conditions, including solar orientation, prevailing wind direction, warm and cold spots (By Design: Urban Design in the Planning System: Toward Better Practice – Cabe 2000) and, more importantly, open spaces

6.12 The natural micro-climate will be influenced by the form of development, including the orientation of buildings and degree of enclosure. The range of activities in an outdoor place depends partly on its microclimate. People tend to follow the sun across a space, seeking or avoiding it, depending on the season. The areas of sunlight and shade can be altered through a variety of design adjustments: building mass, open space width, level changes, trees and other features within the space.

6.13 Public spaces should be protected from down-draughts and wind-tunneling created by tall buildings, as well as lateral winds. Existing and new planting can filter heat and pollution in summer, provide shade, and yet allow low winter sunlight.

6.14 *Principle 4 – Materials, street furniture and public art :* The design of the streetscape should be co-ordinated to avoid visual clutter and confusion, especially when 'knitting' into an existing urban fabric. A well-designed street or space can be spoilt by a proliferation of unnecessary street signs, lighting columns, litter bins, seats, cycle racks, and bollards.

6.15 If planned and designed-in from the start, these elements, including public art and sculpture, can add interest as well as contributing to a sense of place and identity. Their negative impact can be further exacerbated where the various elements lack visual or physical co-ordination through the often excessive use of different suppliers, designers and materials.

6.16 The materials used for street and pavement surfaces should be considered at the earliest stage, avoiding over-complicated patterns on the grounds but used to signify changes in function or priority. Where there is a dominant local material, such as clay pavers, granite or lias stone kerbs, this traditional feature should be continued into the new development. See **Section 8** for further guidance on designing the public realm.



Fig 6.14 Part of a scheme of artworks along a pedestrianised High Street



Fig 6.15 An iconic K6 telephone box appears out-of-place in the remodelled streetscape



Fig 6.16 A discrete, but effective, tree guard enables the chosen street surfacing to be carried through virtually uninterrupted



Fig 6.17 Quality materials, design and detailing set this item of street furniture apart from the 'standard' black-and-gold arrangements



Fig 6.18 Natural materials complement the overall design which deals with level changes by combining planters, seating and lit steps

7 Ensuring legibility (providing a clear, easily understood, image)

7.1 'Legible' environments present a clear impression of their form and function, are easy to understand and demonstrate how they fit with their surroundings. Legibility makes it easier for places to be used.

7.2 Legibility depends on the relationship between elements. These can be buildings, junctions, spaces, natural features or views and vistas. Its purpose is to ensure people, including residents and visitors, are able to form clear, accurate images of the overall development and its component parts. The form and positions of existing elements should have been noted in the townscape and urban design analysis of the site and its context (see **Section 5**).

7.3 Places whose form, layout and signage make them relatively easy to understand, will normally not only function well, but are also likely to be pleasant to visit (Urban Design: Principles, policy and practice – DETR 1999). It is, therefore, often easier to understand a traditional settlement than a modern counterpart, partly due to familiarity but also to feeling secure and orientated.

7.4 Legibility is often lost in modern developments or residential layouts that have no clarity or local distinctiveness, where the same road pattern and housing types (often of a 'universal' rather than 'bespoke' design) have been replicated to the extent of inducing monotony.

Fig 7.2



Fig 7.2 A development that is 'placeless' - it could be anyplace, anywhere

Fig 7.3



Fig 7.3 The composition of buildings, building form, materials and details are reognisably Westham in Wealden

Fig 7.1

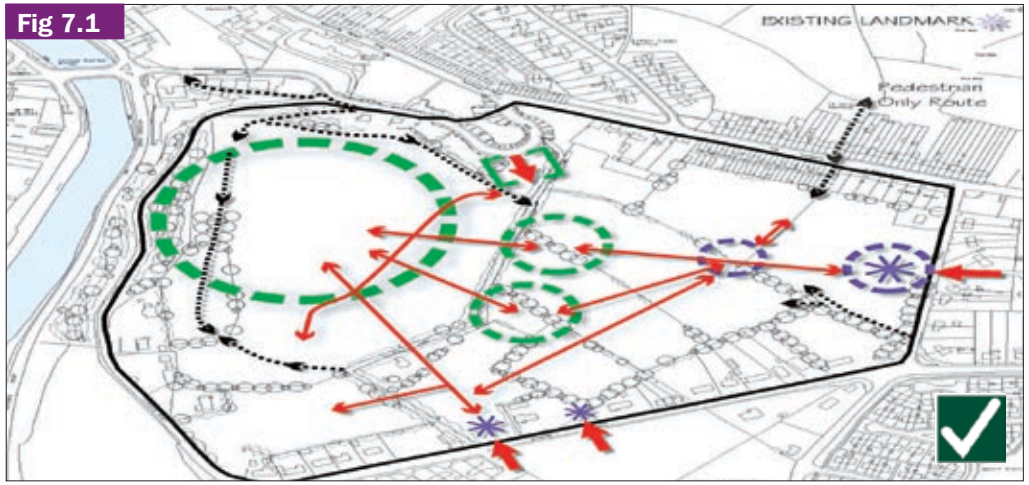


Fig 7.1 By having a clear concept of the role of 'elements', a blueprint based on legibility and linkages with its surroundings can ensure the success of a scheme when developed

Fig 7.4



Fig 7.3 This contemporary interpretation of the street appears monotonous. If it were repeated street after street, the monotony would be greater and therefore its success lies in the fact that it is specific to an area where a new identity has been introduced

7.5 It is essential that, in developing the legibility of the place, where there are key views within a site to an 'outside' element, the layout and siting of buildings together with their scale and mass, should be so arranged and designed as to reinforce these views and establish physical links between new and existing.

7.6 Certain elements (markers), if well planned for and integrated into the development, can contribute positively to creating a sense of place and identity. These can include :

- Gateways/Entrances
- Nodes/focal points
- Landmarks
- Key Views and Vistas
- Edges/boundaries
- Key Corners
- Transitions
- Street Furniture/signage
- Materials/surfacing

7.7 These physical elements constitute the 'frame' of the urban image which is developed and filled with areas of less strongly differentiated urban fabric. The 'framework' can 'signal' routes and paths through a development, providing memorable experiences which reinforce identity and the sense of place. Gateways, landmarks and focal points help people orientate themselves both within the site and from outside.

7.8 The position and movement from one element to another helps strengthen the identity of place. It also assists in shaping the 'desired' routes through and around a new residential environment from a design-led perspective, as opposed to a car-dominated approach. Natural 'desire-lines' need to be identified at the outset and incorporated or addressed in an appropriate manner in any landscaping scheme.

7.9 *Principle 1 – Creating gateways/ entrance statements :* The entrance into a new development can be subtly or boldly defined, depending on whether the new development is required to sit comfortably alongside the existing urban form, or to purposely read as a contrast.

7.10 A 'gateway' can be created by the arrangement of buildings at the entrance into a new residential environment, introducing a 'pinch point' or 'framed' approach. It can also take the form of an open space, where there is a clear logic in providing a coherent sequence and hierarchy of space with those that already exist, or taking the opportunity to provide a new feature positively contributing to the character of existing and new. In some instances, a simple place sign provides this role.

Fig 7.5



Fig 7.5 A gateway can be simply and effectively marked with a place-name sign

Fig 7.6



Fig 7.6 Here a railway viaduct acts not only as a landmark but also marks the entry into this part of Brighton

7.11 *Principle 2 – Creating nodes/ focal points :* Focal points or nodes are produced by, or in order to emphasise the convergence of activity within the urban fabric. They can be formed by the convergence of roads within a development, the creation of a central green or square, or the arrival point in the heart of a development.

7.12 Within residential developments, the extent of activity, size of the green or square will vary, dependent on the size of the site or if an extension of an established urban area.

7.13 In larger schemes, the nodal point can be formed by the grouping of a local service centre, a new community hall or school. Key focal points can be emphasised by aligning them with key views, or by pulling back from the common building line.

7.14 *Principle 3 – Landmarks :* Landmarks make it easy for people to find their way, to orientate themselves and recognize where they are, especially when new development safeguards important views between places or creates new ones. They can be distinctive buildings, strong pieces of public art, or an element of street furniture which help to provide reference points and emphasize the hierarchy of the place.

7.15 Landmarks are best placed at centres of activity or the convergence of streets. Linking key views to landmarks also strengthens their role, whereas the use of 'deflected' views create emerging interest and an unfolding townscape arriving at a point of occurrence.

7.16 Offsetting the angle of streets to focus on landmark buildings helps to create a sense of surprise, as opposed to more direct symmetrical alignments. Opportunities to open up new views should not be missed. Animating the edge of buildings and articulating elevations can assist in creating a landmark. In others, a particular feature or structured planting can provide a similar role.

7.17 Taller buildings within a development can be used to emphasize key locations, but this potential benefit needs to be weighed against possible negative impacts. For instance, if the development site occupies an exposed ridge location, or where the prevailing scale is more low-key and domestic, undue dominance may be unwelcome.

Fig 7.7



Fig 7.7 A traditional, smal village, square with a central focus and (later) seating

Fig 7.8



Fig 7.8 Former 'Model Dairy' site where the service yard has been retained as focus for residential redevelopment

Fig 7.9



Fig 7.9 A church is a common landmark that assists with orientation but also place recognition. Landmarks need not always be visually abrupt



Fig 7.10 This gantry clock, over the pavement, still provides a useful service as a marker, even though it no longer tells the time



Fig 7.11 Elements which are intended to serve as markers can be made more memorable through locally distinctive design



Fig 7.12 Thankfully now becoming rarer, the use of such standardised 'fun' elements in developments would not be encouraged



Fig 7.13 'Cave Canem' - 'Beware of the dog'. A humorous treatment with a serious message but unlikely to be long-lasting



Fig 7.14 This structure historically stood at the heart of Patcham village but has since been subsumed into Brighton, losing its relevance



Fig 7.15 Prominently located 'bespoke' signs intended to serve another purpose can be useful points of reference



Fig 7.16 Commemorative drinking fountains were once common but now their scarcity makes them useful as waymarkers



Fig 7.17 A unique hedgerow which, if well maintained, can serve as an interesting route marker

7.18 *Principle 4 - Views and vistas :*
A sequence of views – long, short, deflected or terminated (visual stops), can give visual interest to a streetscene and contribute, not only to the character of place, but also its legibility and memorability.

7.19 Views and vistas which are aligned with new or existing key landmarks and buildings are useful and strengthen their townscape role. Key vistas and views into a site from the surrounding countryside or existing urban area are as important as the views out of it, and should not be ignored.

7.20 Buildings, planting and street furniture can all serve as markers along a 'view-path', with the interplay between these elements enhancing the quality and experience of the unfolding streetscenes and occasionally offering surprise.

7

Fig 7.19

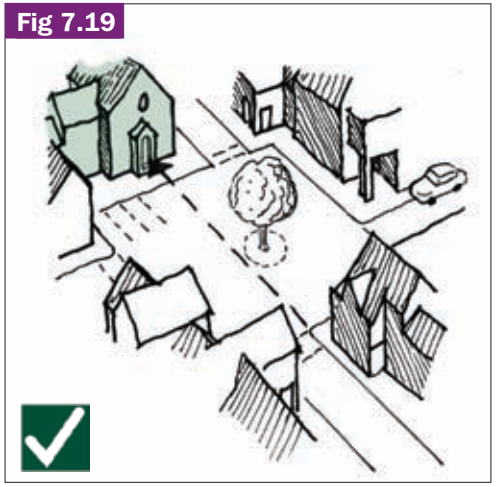


Fig 7.19 A small square with offset approaches provides opportunities for the exceptional building designs to serve as 'end-stops' in views

Fig 7.18



Fig 7.18 Sequential photographs on Tyneside of 'The Sage' coming into view between two new developments on the north bank

7.21 *Principle 5 – Defining edges :*
Edges draw attention to distinct areas with different characters or functions. They can be linear elements, such as used and disused paths, the boundary with a railway line, rivers, streams or roads. They can also relate to spaces within the design of the development, such as a key route naturally dividing the site into character zones.

7.22 An edge can form a strong, well-defined backdrop to a green space, or a 'soft' green buffer to the surrounding countryside through or over which the new development is viewed. The role of edges, hard or soft, should be as positively addressed as other key marker elements within the design of the new environment.

7.22 As with the public realm, edges are not often considered from the outset, especially when on the periphery of the site. How the edge is treated will vary, depending on the adjacent development and surroundings.

Fig 7.20

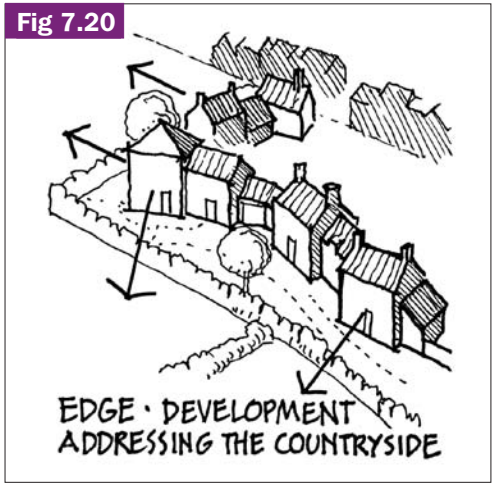


Fig 7.20 A softer edge can be created by ensuring planting defines the foreground

Fig 7.21



Fig 7.21 it is important to consider how new development will appear in views across surrounding countrysidse

7.24 *Principle 6 - Key corners:* Corners can enhance the streetscape by creating visual interest and contributing to a distinctive identity. Not all corners need buildings and not all corner buildings need to be 'landmarks', emphasised, built close to the back edge of the pavement or taller than their neighbours. Unfortunately, the approach to built form on corners often has little local relevance, relying instead on unimaginative 'universal' designs.

7.25 Corner sites can provide identity, points of orientation and visual interest as well as a hinge between two streets or different activities. This function can be achieved by a well landscaped space, a recessed building pulled back from the edge with a defined private realm or, depending on the townscape to be created, strongly defining the edge. An organic approach enables the inclusion of inverted corners which opens to space in front of the development, as well as providing rear gardens.

7.26 Depending on the position they occupy within a development, corners can perform in different ways and be treated in different ways in order to express their townscape role. These can include :

- Addressing two streets with one building
- Heightened to emphasise a node
- A setback with an increased building height to create a formality
- Creating a diagonal line to the square of a junction can create a softer 'hinge' from one street to another
- Inverted curves to provide more private landscaped realm softening the edges
- Corners projecting forward
- Asymmetrical lines to emphasise a particular direction
- Allow sunlight and daylight to penetrate without interrupting the perimeter block

Fig 7.22



Fig 7.22 Failure to address this corner, even through overlooking, has resulted in visual blight

Fig 7.23

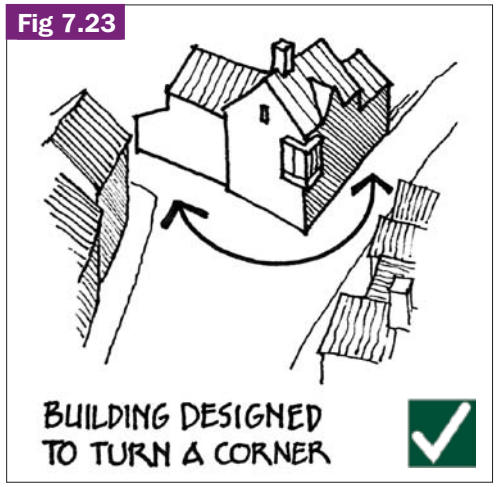


Fig 7.23 A key corner need not always be marked by a taller building but arranged in such a way that is addresses both streets

Fig 7.24

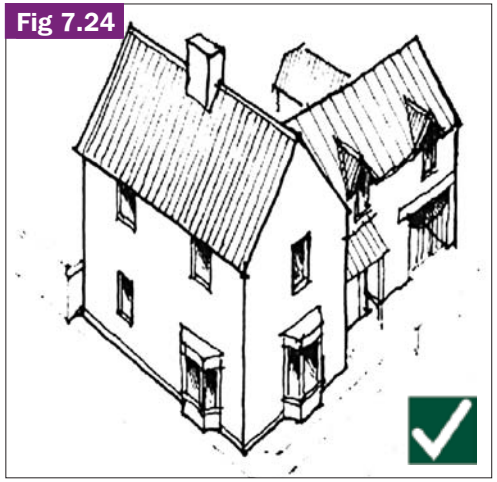


Fig 7.24 Altering roof arrangements and placing key elements to each street, subtly defines the corner

Fig 7.25



Fig 7.25 Within suburban areas, a corner turret can respond sensitively to its location. Also note the 'sleeping gallery'

Fig 7.26



Fig 7.26 Whilst the detailing is somewhat of a pastichem the building does seek to address both roads

Fig 7.27



Fig 7.27 An eclectic mix of polygonal corner turret and gables

Fig 7.28



Fig 7.28 A contemporary corner element incorporating 'juliet' balconies and non-functional detailing

Fig 7.29



Fig 7.29 A modern interpretation of the corner turret compromised by the proportion of frame to window

Fig 7.30



Fig 7.30 A dual-aspect, single dwelling which satisfactorilyaddresses the streets

Fig 7.31



Fig 7.31 Dual-aspect property with angled ground-floor bay across corner

Fig 7.32



Fig 7.32 Contemporary solutions can create a visual 'pivot'

7.27 *Principle 7 – Transition Zones :* Transition zones potentially exist where there is an edge and a centre - the arrival point. The transition zone between the elements provides an opportunity to vary character and create character zones. It can also provide the bridge between the centre of a new residential development, its edge and its surrounding context.

7.28 Transition zones need not be 'bland' environments, as they often define the edges to paths and routes, but also, a quieter and more tranquil area. They should be clear and not used as an opportunity to down-grade the quality of the proposed built form or the environment to be created.



Fig 7.32 The entry into Brighton provides a good example of 'transition zones', moving from a relatively sparse area, towards the more dense centre, passing through industrial and commercial areas and sylvan green spaces before 'arriving' at a focal building, the church. Not all routes need such extensive variety, but most should feature a number of different character areas

7.29 *Combining the elements:* Legibility depends on the relationships between any or all of the preceding elements, as much as individual design. Streets, paths and nodes should be defined by the edges of building blocks, giving each a strong character, easily distinguishable from others and that which brings out their relative functional importance.

7.30 Legibility is affected by how a street or path is enclosed, both in plan and section. Height to width ratios of new streets should take their lead from traditional established forms that exist within the existing locality. Strong enclosure can cause problems with deep-plan housing, and privacy may be affected by overlooking between windows of the adjacent building and the internal angle. This can be solved by leaving a gap at the corner of the block and designing the streetscape to ensure this does not read as a visual void.

7.31 Small blocks, containing semi-detached and detached dwellings, can produce a large number of gaps, and consequently reduce the sense of street enclosure. Short distances of walls or subtle planting can respond positively to this scenario. L-shaped corner dwellings, partly single aspect, offer a better solution without creating a deadening effect.

7.32 All junctions or spaces have the potential of being focal or nodal points but they should not all be given equal significance. A hierarchy of space within the development can assist in differentiating between primary and secondary nodes. The functional role of each node will determine how formal or informal it is to be treated, and the design of buildings around it.

7.33 Offsetting junctions and paths through nodes can create interest and increase the sense of enclosure due to the combination of visual stops and deflected views/route. In such circumstances, splayed corners and setbacks can help to deflect the eye toward the next path, as well as instilling a sense of security.

7.34 *Marker sequences :* In addition to the above elements, (depending on the scale of the development) further intermediate 'markers' may be needed to improve legibility and enhance the experience of the sense of place. As with a hierarchy of space, a hierarchy of such 'markers' can be established and developed through the initial concept. These can be placed on secondary junctions to assist in leading the way or within a curved street. Every marker need not be readily visible, but at the same time, will appear sequentially as part of a progression through the built form.

7.35 Where these markers take the form of buildings, they will need to be treated slightly differently from their neighbours. For example, the use of a turreted element at a secondary junction, differing roof pitches, slight increase in height, forward projections or simply a change in materials can all create such visual markers. A continuous chain of such markers will improve the legibility, experience and character of the new residential environment.

Fig 7.34



Fig 7.34 Diverging pedestrian/cyclist routes opening off nodal point

Fig 7.35

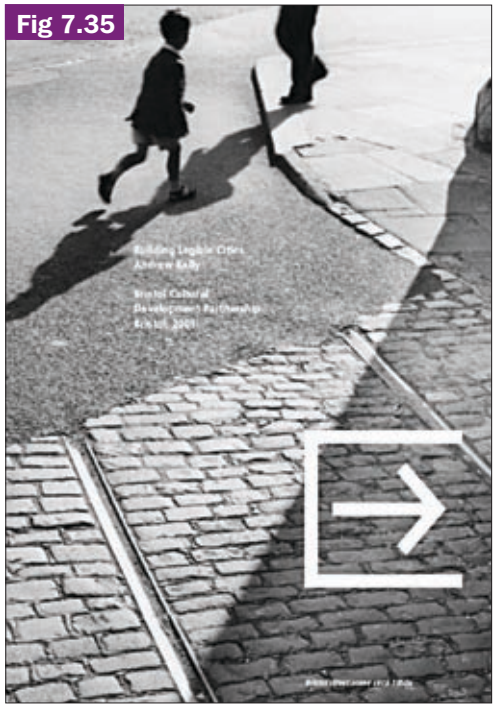


Fig 7.35 Cover for Bristol's 2001 'Building Legible Cities' document which examined issues of recognition, including 'markers'

Fig 7.36



Fig 7.36 Marker in streetscene created by building at right-angles to road

8 Facilitating ease of movement

"Designing residential streets around the functional requirements of cars, service vehicles and utilities, with inadequate attention being paid to other important amenity requirements, has been one of the greatest failings of much recent development… the consequences have included :

- *a loss of identity through the widespread application of the same standards;*
- *an incoherent relationship of dwellings to the street and to each other;*
- *a lack of any sense of enclosure;*
- *the loss of front garden areas to hardstandings for off-street car parking;*
- *the loss of boundary treatments, such as walls and well managed hedges, which define public and private space and articulate the boundaries between dwellings;*
- *often an absence of street trees."*

'By Design - Better Places to Live - A companion guide to PPG3' - DTLR and Cabe 2001

8.1 Only places that are accessible to people can offer choice. The quality of permeability, the number of alternate ways through an environment, is therefore central to making places responsive. Alternative approaches and routes need to be visually permeable and recognisable.

Fig 8.1

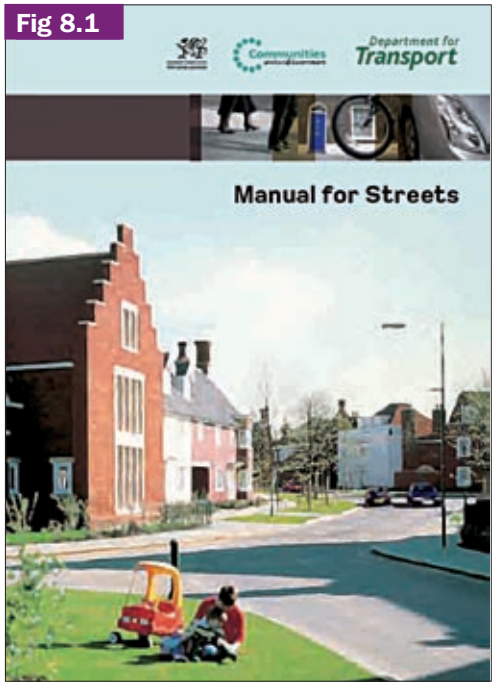


Fig 8.1 'Manual For Streets'

8.2 'Manual for Streets' (DCLG, DoT 2007) makes a clear distinction between streets and roads. Roads are defined as being essentially highways whose main function is accommodating the movement of motor traffic. Streets are defined as being typically lined with buildings and public spaces but while movement is still a key function, there are several others, of which the place function is the most important.'

8.2 The Manual now recognises that streets make up the greater part of the public realm and that better designs can not only contribute significantly to the overall quality of the built environment but also play a key role in the creation of sustainable, inclusive and mixed communities.

8.3 For new streets, the Manual supports a return to more traditional patterns which are easier to connect into existing urban areas and *'have been proven to stand the test of time in many ways.'* It also seeks to discourage the building of streets that are primarily designed to meet the needs of vehicles or control vehicles through the use of speed humps.

8.4 Speed humps where used excessively can significantly impact on the ability of emergency vehicles to safely and speedily respond to calls. Speed humps are generally visually bland and unattractive and their often poor design and construction tends to make them unsafe and unwelcome to pedestrians and cyclists and difficult to serve by public transport and poorly designed and constructed.

8.5 It is recognised that this engineering-based hierarchy did not allow for strong connections to be made. 'Manual for Streets' now reinforces the emphasis of a design-led approach with the view that the street is no longer designed on the assumption that 'place' is automatically subservient to 'movement'. Both should be considered together, taking into account the street's function within a network so that a better balance between the requirements of different street users is achieved.

8.6 Permeability has fundamental layout implications and must be considered early in the design process. The degree to which people find using and passing through buildings, places and spaces comfortable, safe and convenient, plays a large part in determining how successful the place will be. Streets are more than just conduits for vehicles and should offer an attractive environment for all. They are where people meet, thereby defining neighbourhoods, and can have individual characters and qualities (Paving the Way – Cabe/ODPM 2002)

8.7 Establishing routes will need to work hand in hand with creating the street, the hierarchy of open space and the legibility of the environment. A 'movement' strategy is therefore, an essential part of the design of the new environment's layout and this should be based on detailed consideration being given to :

- The location of new and existing routes both within the site and across the whole of its perimeter, so that pedestrian movement is not uninterrupted by vehicle-based layouts, cul-de-sacs or boundary walls
- Ensuring direct, secure pedestrian linkages to strategic local and neighbourhood amenities such as transport routes, shops, places of work, entertainment and schools
- Incorporating/availability of efficient and attractive public transport connections
- Providing safe passage for all modes of transport within streets and movement corridors with pedestrian and cyclist usage forming an integral part of road and street patterns
- Creating a quality street environment which helps to integrate the spatial needs of differing modes of transport.

(Based on Sustainable Residential Quality – Llewelyn-Davies 2000)

8.8 Well-designed streets encourage people to use them, making them a safe and pleasant experience. They also have a crucial part to play in the delivery of sustainable communities, designed as *'places where people want to live and work, now and in the future*' (PPS1 ' Delivering Sustainable Developments' DCLG 2007). Streets, according to 'Paving the Way' (Cabe/ODPM), streets have the five principal functions :

- Place
- Movement
- Access
- Parking
- Drainage, utilities and street lighting

Fig 8.2

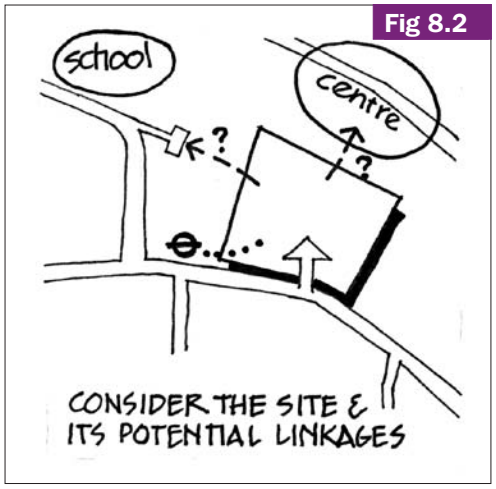


Fig 8.2 It is essential to relate a site to its wider context in order to maximise the opportunities for linkage

8.9 *Principle 1– Establishing a movement strategy :* By putting the pedestrian and cyclist at the forefront of the movement requirements within the street, this makes a positive contribution to the overall character of a place which is no longer subservient to vehicular movement.

8.10 A movement strategy will, therefore, form the basis for improving connections to the existing network and/or creating a new street pattern. Some of the factors to consider in relation to the various modes of transport (walking, cycling, bus, car) have been identified in the Urban Design Compendium (English Partnerships, Llewelyn-Davies 1999) to include :

- Safety
- Air Quality
- Convenience of journey
- Speed
- Walking up and down kerbs
- Pedestrian crossings
- Pedestrian and cycle (Toucan) crossings
- Segregated path
- Quality of public transport
- Overbridges
- Underpasses
- Severance
- Noise
- Pollution
- Visual amenity
- Variety in visual amenity
- Pavement congestion
- Road congestion
- Quality of pavements
- Quality of roads
- Cycle facilities

8.11 An analysis of movement within an existing settlement will help to mesh with a new development. It could also influence movement patterns within the new development.

8.12 Because every site is different there can be no standard formula, although developers may seek to apply 'similar' solutions used elsewhere. What suits a large suburban site will be very different from that which is applicable to a small infill site within a town centre. The level of detail and analysis will, therefore, vary between sites and locations, including the extent of existing public transport. 'Manual for Streets' indicates the following as a hierarchy of assessment :

User Hierarchy

Consider first	Pedestrians
	Cyclists
	Public Transport Users
	Specialist Service Vehicles (e.g. emergency Services, Waste etc)
Consider last	Other motor traffic

8.13 If this hierarchy is applied, it should lead to a design that increases the attractiveness and practicality of walking, cycling and the use of public transport. Cars may be of secondary importance but delays arising in their use are unlikely to be significant in residential areas.



Fig 8.3 Thumbnails demonstrating the considerations behind designing for ease of movement for a hypothetical site :

A It is important to identity the extent of the site

B A Design-led approach does not ignore the obvious, such as existing and potential connections

C A natural convergence of movement patterns can assist in defining nodal or focal points within a development

D Nodal or focal points assist in defining potential public spaces or squares within the design and justified spaces

E Design principles can assit in creating an urban grain that respects the character of the existing area, providing physical and visual links - in this instance, a perimeter-block approach works on many levels

F And, finally, the main route through can be defined

8.14 An overview masterplan, or layered plan, based on the previous elements referred to, can assist in revealing viable primary routes and paths. For large-scale proposals, including urban extensions, a wider and longer-term 'vision' for the area is required, beyond the confines of the application site and in some instances, taking account of future development opportunities in the immediate vicinity of to the subject site. Smaller-scale schemes also need to take account of future development proposals or potential proposals, in and around an application site, to prevent land-locking and reducing development potential for providing new homes (PPS3 'Housing').

8.15 The quality of different routes can be rated to help decide which should be developed or where improvements are needed to the existing network. The redevelopment of an existing site may provide opportunities to re-establish old routes that have been 'lost' or downgraded, to reveal and use 'desire lines', and to improve movement through the area - not just to and from the new site

8.16 Although pedestrians should be placed first, a 'layered' approach is needed to ensure that all of the various principal modes of travel are considered. This starts with walking, then cycling, direct pedestrian routes with open and active frontages addressing the street. Such designs will automatically result in welcoming and secure spaces, providing conditions under which sustainable forms of transport can be better integrated. Walking and cycling can also make a positive impact on the character of a place as well as, public health and climate change through the reduction of carbon emissions.

8.17 Detailed master plans are likely to be needed for schemes at the higher end of the scale due to their size and complexity. The movement strategy needs to be an integral part of the evolution of the design. As well as urban design elements, design coding can be an effective mechanism for implementing a master plan. This comprises detailed written and graphically presented rules for building on the various parts of a site.

Fig 8.4



Fig 8.4 The choice of surfacing materials and use of bollards (removable for emergency access) clearly separates the pedestrian/cycle route from the road...

Fig 8.5



Fig 8.5 ...Further along this route, however, the (overextensive) use of block-paviors for both the shared surface and the vehicular hard-standing results in both visual confusion and a somewhat sterile space

8.18 *Principle 2 – The walkable neighbourhood:* This includes traditional settlements historically suited to the pedestrian. In this respect, the past has much to offer by way of insight into the future planning of a new residential environment.

8.19 The design of new developments should seek to bring residents together, thereby establishing and reinforcing the sense of community and neighbourhood, and to ensure local facilities are within walking distance.

8.20 Sight lines and clear visibility towards destinations or intermediate points are important for pedestrian legibility and security. Therefore, the quality of the route is important and the factors referred to in Principle 1, need to be considered. This is especially important where barriers and obstructions arise, such as busy roads or railway lines.

8.21 To ensure the creation of a sustainable walkable neighbourhood, especially in a town or larger village setting, residents should normally be within :

- 250 metres (2-3 minutes) of a post box
- 400 metres of a newsagents (5 minutes)
- 800 metres (10-15 minutes) of local shops, bus stop, health centre and, preferably, a primary school

These generally apply to suburban/larger scale developments and not necessarilly villages.

8.22 However, these are not upper limits. Current guidance in Planning Policy Guidance (PPG)13 'Transport' states that walking offers the greatest potential to replace short car trips, particularly those under 2 kilometres. The walkable catchment needs to be defined to establish the distance from the new residential environment (nearest, centre and most distant) to such facilities or the requirement to include local facilities within a new residential development or contribution toward improved provision.

8.23 A development with small blocks and a finer urban grain gives more choice amongst a network of routes – direct and connected – within and beyond the site, and increased visual permeability. A finer urban grain also instills a sense of security which can be improved through incorporation of the following :

- Pedestrian routes as part of shared corridors and road space
- Building frontages (front doors and windows to habitable rooms) should be along the streets;
- Street lighting carefully sited to provide for night-time safety but avoiding street clutter and light pollution
- Car access not totally removed but controlled to maintain activity and provide natural surveillance
- Ensuring all routes are accessible to all users of all abilities

8.24 Another important consideration in reducing people's reliance on the private car and creating walkable neigbourhoods is density. PPS3 'Housing' encourages a flexible approach to this through design, with the character of the residential environment being a key consideration. Where new residential developments are close to existing public transport networks, higher densities would be justified. It is a development's density in terms of occupancy, not the number of units, that is necessary to justify a regular bus service and the viability of a local shop, thereby providing real alternatives to car usage. It should also be noted that density should not be at the expense of good design.

Fig 8.6



Fig 8.6 Overlooked, shared pedestrian and cyclists access along the edge of development from the main road

Fig 8.7



Fig 8.7 Somewhat stark separation of pavement from narrow roadway leading to isolated units on the development's edge

8.25 *Principle 3 - Creating connected routes :* The needs of people require careful analysis and should be paramount in development layouts. Streets should be both pedestrian and cycle-friendly and be designed using the 'Five C' principles :

- *Connections* (pedestrian routes that connected to places where people want to go)
- *Convenience* (direct routes with crossings that are easy to use, giving pedestrian priority)
- *Convivial* (attractive routes that are well lit and safe variety along the street)
- *Comfortable* (Quality and comfort in the width of the footway, without obstructions)
- *Conspicuousness* (easy following the route with good surface treatments and signs to guide pedestrians)

8.26 There are few new residential sites within Wealden that are 'stand-alone'. Most new residential development tends to be within, or on the edge of, existing settlements. In this context, the degree of connection in a new development is often the key to success. New routes should connect into existing routes and movement patterns. The creation of connected or 'permeable' networks also lead to a more even spread of traffic throughout the area and avoids the need for a distributor road with no frontage development.

8.27 External connectivity may often be lacking, even where there is generally good internal permeability. The number of external connections provided for the development depends on the nature of the surroundings and the potential implications for highway safety. Residential areas adjacent to each other should be well-connected. This assists in reducing isolated development patterns and neighbourhoods, creating connections and inclusiveness but should not create rat-runs.

8.28 To create a permeable network, it is generally recommended that streets with a one-way operation are avoided as these require additional signing and often result in longer vehicle journeys (Manual for Streets – DCLG, DoT 2007).

8.29 Pedestrians and cyclists should generally be accommodated on streets rather than routes segregated from traffic. Being visible to others affords a greater sense of security. However, short pedestrian and cycle–only links are generally acceptable if well designed.

8.30 Newly-created footpaths, shortcuts and minor roads can become the basis of enduring linkages. Any new footpaths that are necessary should be short and straight, avoiding dead ends and unnecessary cul-de-sacs in the interests of safety. Priority should be given to creating safe, well-lit, overlooked pedestrian routes which provide easy access to public transport and local facilities.

8.31 Appropriate surface level crossings between one side of a street and another, need to be addressed to ensure the quality of place is not degraded. Where practicable, footbridges and subways should be avoided. If necessary, level changes and distances to be travelled should be minimised to avoid inconvenience or difficulty for less able bodied persons or where fear for personal security could arise. Informal crossings and 'desire lines' should not be ignored but incorporated into a scheme to strengthen links, especially where vehicle movement can break pedestrian connections, for example, at corners and junctions.

Fig 8.8



Fig 8.8 Early C21 pedestrian/cyclist access route from through new estate from public transport to recreational area

Fig 8.9



Fig 8.9 Uninspired, but direct route through mid C20 estate to public transport

Fig 8.10



Fig 8.10 Uninviting pedestrian access to mid C20 estate shopping precinct, now unoccupied

8.32 *Principle 4 - Hierarchy of streets and spaces :* Within a new development, the hierarchy of streets should be based on urban design qualities relating to the site's topography and setting, rather than vehicular considerations as the primary objectives. Hierarchies should incorporate a variety of uses of streets and roads. Street character types can set out the basic parameters of a street such as its width, height-to-width ratios, footways, relationship to buildings and the private realm together with important details such as parking arrangements, street trees, planting and lighting. New developments should therefore :

- Ensure that an integrated road layout is provided to establish a clear character and identity that does not dominate the built form
- Establish a hierarchy of spaces and circulation routes with clear definition of public and private areas
- Provide public amenity areas that are more evenly distributed throughout a residential development with good connectivity and routes
- Consider the use of the boulevards as a means of creating continuous frontage development while still providing for pedestrian-friendly routes and vehicular movement
- Design streets that allow for stopping, parking and slow traffic where a new residential environment contains local shopping and economic activity
- Be designed with the streets as public spaces rather than a response to engineering considerations
- Not have buildings that turn their backs to main through routes
- Consider the space between buildings in relation to their scale and the importance and function of the street.
- Use landscaping to help to create a sense of enclosure where wider space is required between dwellings along primary streets
- Define building lines to create a clear visual edge that reinforces and defines the 'street'
- Respect historic and traditional building lines to assist in integrating new development into the immediate locality
- Utilise a detailed set of 'bespoke' building types and sizes that reflect local distinctiveness in helping to define the structure and hierarchy of primary streets, secondary streets, squares, courtyards and open spaces
- Ensure that the heights of buildings relate to the importance and width of the street or space which they enclose
- Design elevations that reflect the nature and importance of the street or public space
- Build in design controls to express the function of the street, including parking provision, landscape design and structural planting
- Sensitively and sensibly route services so that access and maintenance are taken into consideration and potential harm to the natural environment and site landscaping can be avoided

Fig 8.11



Fig 8.11 Rather than employing a formulaic treatment, a variety of different spaces should be incorporated in the site layout

Fig 8.12



Fig 8.12 Ubiquitous concrete block paviors and a somewhat pastiche 'Wealden' house to a peripheral element of the development

Fig 8.13



Fig 8.13 A main 'hubs' with 'gateway' buildings flanking the main vehicular route

8.33 *Principle 5 - Pedestrian and cycle access :* Pedestrians and cyclists need routes that are attractive, safe, direct, accessible and free from obstructions. Streets designed for low traffic speeds (20mph or less) are generally safe for walking and cycling without the need for separation.

8.34 As a general rule, segregated footpaths and cycleways should be avoided, except where they provide a more direct route between places than the streets. Where segregated routes are proposed, they must be well-connected, direct, kept as short as possible, have a good level of activity and afforded good levels of natural surveillance to promote greater feelings of safety.

7

8.35 In terms of pedestrian routes, the minimum design requirement for segregated footpaths are :

- Turns should be on level ground
- Appropriate visibility splays should be provided where change in direction is unavoidable
- The maximum slope across path should be 1:50, in direction of travel, 1:20 - a greater slope creates a ramp
- Level sections should be provided at intervals along the length of the slope
- There should be passing places of a minimum of 1800mm wide and a maximum distance of 30 metres apart on straight runs where the paths are narrow - closer where a path has many bends
- Where paths cross, level changes should be gradual and some indication be given of possible danger, such as a change in materials. Single steps should be avoided

Fig 8.14

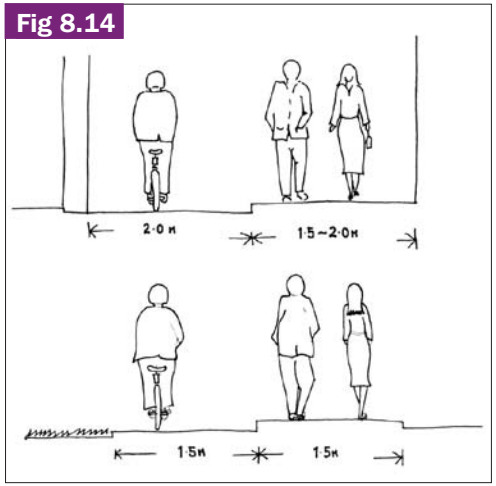


Fig 8.14 Minimum measurements for shared pedestrian/cyclist routes

Fig 8.15



Fig 8.15 Shared pedestrian/cyclist route with two-way cycle lane separated from pedestrians by grass margin

Fig 8.16



Fig 8.16 Shared route nextto main road with very narrow pedestrian element; note use of different tactile paving to each element

Fig 8.17



Fig 8.17 Emergency vehicular access marked up for use as shared route with no clear subdivision of the surface

8.36 For cycleway design, the basic requirements for safe, convenient cycling are similar to those for walking, namely that they should :

- Provide clear, direct routes, without breaks or complicated diversions
- Avoid use of extensive segregated routes which can be difficult to care for, and are seen by many people as being unsafe
- Ensure that where short segregated routes may be acceptable to give priority to walking and cycling in a development, they are overlooked for safety
- Integrated routes for pedestrians, cyclists and vehicles should incorporate appropriate traffic-calming measures
- Give careful consideration to the design of speed restraint measures, such as speed humps and chicanes, providing cycle by-pass lanes
- Locate services outside the limits of the cycleway/cycle lane as far as practicable, to reduce disturbance or degradation of the cycle provision by the activities of Statutory Undertakers
- Construct segregated routes to at least 3m wide, providing a 1.5m cycle track and 1.5m footpath/footway. Wherever possible, the width of the cycle track should be increased to 2m, particularly when bounded on one side. The separation of pedestrians and cyclists should be by raised kerb, but a white line may be acceptable on short, lightly used routes

8.37 Insofar as cycle parking is concerned, the design of residential developments should make provision for storing bicycles. This should either take the form of wall racks or, preferably, the provision of an enclosed ground floor space; the latter could be dual purpose for other forms of storage. It is preferable, safer and more secure for cycle parking to be accommodated within the curtilage of a dwelling or within the envelope of a building, even under the stairs of a flatted scheme, to provide a secure facility. If not safe and secure, cycle parking provision will not be used. It should therefore :

- Be located so as to ensure good natural surveillance
- Be protected from the weather
- Be sympathetic to the surroundings
- Contain racks with enough space in front and between to allow for proper storage

Fig 8.21



Fig 8.21 Bespoke bicycle racks, in full view, which keep the bike upright and secure

Fig 8.18



Fig 8.18 Somewhat pointless 10m length of 'reserved' cycleway on a road

Fig 8.19



Fig 8.19 Potentially confusing. isolated sign

Fig 8.20



Fig 8.20 Standard cycle racks outside new appartment block. Poorly overlooked one bike has already been damaged

Fig 8.22



Fig 8.22 Secure cycle shelter located in well overlooked communal garden in 'Home Zone'

9 Including access and servicing

9.1 Streets need to be designed to accommodate a range of vehicles, from the private car to emergency, waste collection and other large vehicles such as delivery vans and lorries. Residential streets can still meet the needs of drivers without being to the detriment of pedestrians, cyclists and public transport users.

9.2 In order to prioritise pedestrians, streets should be designed as public spaces, not just as a response to engineering considerations. Off-the-shelf highway designs do not create attractive environments – nor does slavishly copying urban design solutions. The design and layout of developments should not be dictated by the vehicle as past experience has clearly proved that such a single-minded approach can be at the expense of good design and a sense of identity.

9.3 *Principle 1 - Designing for low traffic speeds :* Traffic speeds can be managed by the arrangement of buildings and spaces. Narrowing the carriageway, physical traffic-calming measures, placing street furniture, including planting in strategic positions to reduce traffic speeds. Changes in surface materials including rumble strips, raised platforms and speed tables, can be successfully integrated into a development without compromising its physical appearance.

9.4 Where engineering standards are not employed so rigidly, smaller corner radii and T-junctions are effective measures to ensure careful vehicular movement. The presence of pedestrians on streets causes drivers to travel more slowly and encourages the 'Home-Zone' approach or car-free environments in sustainable locations. (see **10.22** below)

9.5 *Principle 2 - Accommodating access :* The requirement for larger, emergency and service, vehicles to access developments can still be accommodated without it dominating the design process. The requirements for emergency vehicles, as dictated by the fire service, need to ensure access for large fire appliances, and they will therefore suffice for police and ambulances.

9.6 'Access and Facilities for the Fire Service' (Building Regulations B5 (2000) requires a minimum carriage-way width (kerb to kerb) of 3.7m for access to single family houses and every entrance for flats/maisonettes. This can be reduced to 2.7m over short distances provided the pump appliance can get to within 45m of dwelling entrances. Narrower widths below 3.7m are not discouraged but can be considered in consultation with the local Fire Safety Officer. Where residential units are provided with sprinkler systems, standards can be more relaxed, even where car parking has been provided on-street.

9.7 More infrequent, larger service vehicles need not be fully accommodated from one end of a development to the other. The ability to reverse or undertake multi-point turns is required - this should be a consideration, not a determining factor. Shorter streets can assist access and remove the need for land-wasting turning areas at the end of streets or cul-de-sacs. It is, however recognised that where cul-de-sacs are longer than 20 metres, a turning area should be provided.

9.8 Waste collection operatives and contractors should not seek to dictate the shape of a residential development by insisting on the use of their largest vehicles. This can conflict with the quality of the residential place and it is not essential for new streets and developments to provide streets wide enough to accommodate the largest waste collection vehicle when smaller vehicles should be sufficient, especially of the kind used in existing streets.

9.9 The need to provide for waste storage and collection can often cause major problems with the layout of a new residential environment. If left as an afterthought, bin siting and storage, whilst, facilitating easy collection, can detract from the character and appearance of the area. Where collection arrangements are unduly restrictive and onerous, management agreements can be entered into to provide 'unrestricted' private management and collections (a S106 Planning Agreement would be required to secure safety mechanisms and management).

9.9 As a general rule, residents should not be required to carry waste more than 30 metres to the storage point, which should be reasonably accessible to waste collection vehicles. Such vehicles should generally be able to get within 25 metres of a storage point which should have no more than 3 steps to it, with none for 250 litre bins. Where standard service for the collection of waste cannot be agreed by the providers, private collection agreements can be entered into and secured via a Section 106 Planning Agreement.

Fig 9.1

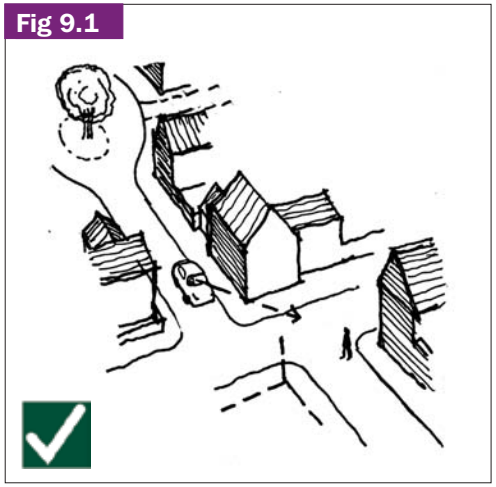
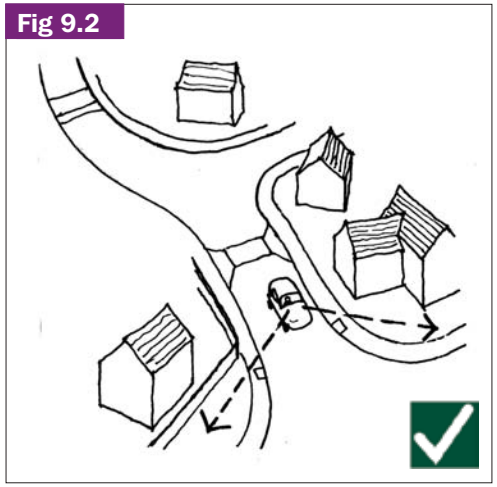


Fig 9.2



Figs 9.1 & 9.2 Various methods of reducing traffic speeds and 'engaging' the driver more fully. These include limiting visibilitym the use of 'features' in the roadway (planting. speed tables etc.) and offset junctions

9.10 The need to enter cul-de-sacs of less than 55 metres in length may not be necessary. Swept-path analysis can be used to assess layouts for accessibility. The need for access should not be based on the largest vehicles or restrictive collection methods that would undermine the quality of the place.

9.11 Adequate access and ease of use will also help to increase the uptake of these services. In many areas of Wealden, two wheelie bins per household are the norm plus additional recycling containers as appropriate. Households will also need space to store materials they take to the 'bring' sites (particularly glass bottles).

9.12 Refuse storage should be sited for easy accessibility, both for occupants and collection and be clearly identified. As a general rule, individual 'wheelie' bins and stores should :

- Be inconspicuous from public view, located to avoid risk of fire damage to property or obstruction of escape routes
- Be readily accessible to facilitate moving them to a kerbside location for emptying
- Be directly accessible to collection vehicles If in the form of communal bins
- Be lockable with an integral door lock as opposed to a padlock
- Not be located where smells would be problematic, for instance, under windows of habitable rooms
- Locate wheelie bins where they can be screened from the street and neighbours by structures, buildings or planting
- Not be sited so as to aid access onto or over built structures thereby reducing security

9.13 As with waste storage, recycling facilities can be disruptive to the character and appearance of a place if not considered in the early stages of the design of the development. Where existing 'bring' facilities are accessible, provision within the development may not be essential. 'Kerbside' collection systems require the provision of more than one bin type and more clutter and disruption to streetscenes, even on non-collection days. Underground waste containers should be considered where a multitude of bins, and/or a proliferation of storage buildings detract from the quality of the place.

Fig 9.3



Fig 9.3 Refuse truck having ro reverse into road with extreme care because access has been impeded by poor parking

Fig 9.4



Fig 9.4 Increasing recycling requirements often lead to over-many different bins for each household, resulting in storage problems

Fig 9.5



Fig 9.5 Flatted developments often lack sufficient convenient space for their bins to be effectively used and serviced

Fig 9.6



Fig 9.6 Poorly sighted bin store, immediately outside the windows of habitable rooms

Fig 9.7



Fig 9.7 A 'bespoke' bin store, secure, well ventilated and not too close to the dwellings

10 Accommodating the car

10.1 Accommodating the car, if not considered from the outset, can often be to the detriment of an otherwise good scheme. However, this needs to be considered in the light of a 'design' led approach with the car being secondary to the pedestrian/cyclist. A sure sign of a lack of vision is evident where the car dominates. The amount of parking provision necessary for a new residential development will be dependent on local 'maximum' standards (see the Council's Adopted Standards). It is not only the amount of parking that is to be provided that is a concern, but how and where it is accommodated in relation to the home, the street, and the impact it will have on the quality of the place without becoming the dominating element. The provision of good parking for cars and cycles is inseparable from good urban design practice.

10.2 The availability of alternative modes of transport, sustainable locations, and use of Green Travel Plans that introduce more imaginative responses to reducing reliance on the private car, such as contributions toward annual bus permits, subsidised car-clubs and cycle equipment, can all contribute to a reduction in the amount of parking provision.

10.3 *Principle 1 – Incorporation of on-street parking:* The street is the original shared car park and this arrangement still exists today. The advantages of street parking are that only a certain quantity can be accommodated; a formal arrangement can be part of the character of the area, bringing activity to the street with planting being employed to prevent cars from dominating the streetscene. There are many options for accommodaing car parking on streets, either parallel to one side, both sides, at right angles or angled. Care should be taken that parking bays do not cause inconvenience pedestrians or cyclists.

10.4 Disabled parking spaces should be located adjacent to, or within easy reach of the main entrance of the accommodation. Where appropriate, bays should be designed in accordance with Lifetime Homes standards.

10.5 Cars parked along the side of the street act as a buffer between the pedestrian on the footpath and vehicles on the moving carriageway. Crossing points for pedestrians need to be carefully considered to avoid creating potential danger when crossing between parked cars. They can however, have a beneficial traffic calming effect.

10.6 Squares and greens in the public realm provide shared space which can accommodate aligned parking without detracting from the design function of that space or the quality of the environment. For example, the Georgian Square or village green adapted well to the need for car parking.

Fig 10.3



Fig 10.3 Parallel parking (single direction) within narrow road

Fig 10.1



Fig 10.1 Parking at right-angles against a central square

Fig 10.2



Fig 10.2 Angled parking bays against pavement (with some cars illegally parked on pavement itself)

Fig 10.5



Fig 10.5 Parking at right-angles on one side of the street

Fig 10.4



Fig 10.4 Central 'boulevard' parking parallel to road in each direction

10.7 *Principle 2 - Successful integration of in-curtilage parking :* Where parking standards and provision are rigid, the implications can be harmful to the streetscene. The obsession to provide each unit with its own in-curtilage parking greatly interrupts the streetscene, intrudes upon the private realm and can weaken the role of landscaping. This approach also places constraints on layout and street sections with 5.5 metres for hardstandings on each side of the street and 6 metres for manouevring dictating carriageway widths.

10.8 Integral garages with hardstandings in front have replaced the street as the place to park the car. However, the provision of garages that are too small to enable easy use by modern family cars forces users to park in the front or on-street, and end-to-end, sometimes across their own drives. This has resulted in the space between the street and front door being dominated by the car.

10.9 In addition, the pedestrian footways become constantly interrupted by rises and falls for vehicular crossings. Parking in the front curtilage of the dwelling should be minimised to avoid breaking up the continuity of the street frontage, visually detracting from the streetscape as a whole and reducing the benefits of informal surveillance of public areas.

10.10 Cars parking in frontages can :

- Dominate front gardens reducing opportunities for tree and shrub planting
- Blur the distinction between the public and private realm by removing boundary enclosures such as walls and hedges which contribute to enclosure
- Remove opportunities for on-street parking
- Introduce conflicts with pedestrians and vehicular movements
- Aggravate drainage issues created by excessive run-off from impermeable hard standings

Fig 10.6



Fig 10.6 Parking bays parallel to road in new development

Fig 10.7



Fig 10.7 Proximity of attached garage opening to house gable can result in usage problems

Fig 10.8



Fig 10.8 Detached garage with insufficient width for family vehicle

Fig 10.9



Fig 10.9 Acceptable modern design but parking to front limits capacity for landscaping

Fig 10.10



Fig 10.10 A bespoke mid C20 dwelling with an integrated garage design - very much a product of its time

Fig 10.11



Fig 10.11 Generic late C20 detached house with integratal garage and 'decorative' gables

Fig 10.12



Fig 10.12 Early C20 interpretation of traditional 'Mews' house

10.11 Preferred alternatives include :

- The provision of integral garages with a practical and usable width of opening and internal dimension
- A 'piano nobile' approach where the ground projects forward to create a small balcony area at first floor but allowing the garage to be contained within the built form
- Spaces provision to the side of the house

10.12 If using Flats over Garages (FOGS) they need to be carefully designed, without ambiguity. If it is intended to resemble a commercial or industrial building, domestic features and elements should be avoided. The residential entrance should not be sited between parking spaces but placed in one 'bay', providing a ground floor entrance hall, or located to the side using an external, staired approach.

Fig 10.13



Fig 10.13 Ungainly 'Town House' design with disproportionately large dormers which exacerbate the poor overall articulation and detailing

Fig 10.14



Fig 10.14 Placement of opening to integral garaging results in 'unbalanced' appearance

Fig 10.15



Fig 10.15 Overly-domestic detailing to FOG with parking flanking through route to rear

Fig 10.16



Fig 10.16 Simple detailing to FOG itself is somewhat let down by extent of hard surfacing

Fig 10.17



Fig 10.17 Confused 'industrial' design to FOG incorporates 'domestic' entrance detail

10.13 *Principle 3 - Integrating in-court parking :* The attempt to remove cars from the street, making it easier for emergency and service vehicles to access every point of a development, resulted in parking being placed off-highway, behind buildings and in rear courtyards. If not carefully integrated with the design approach and its intended character, rear car parking can create negativity, a lack of containment, car-dominated spaces and lack of security. These areas then become intimidating, ultimately disused and targets for anti-social behaviour and force cars to be parked back on the street.

10.14 Furthermore, provision of rear courtyard parking can reduce the size of back gardens and detract from the amenity of properties as a result of noise and disturbance from vehicular movements. This activity can potentially take place at any time of the day or night.

10.15 If designed correctly, rear courtyards can accommodate rear servicing and thereby improve the appearance of the streetscene, removing vehicles from the front of buildings and/or curtilages. This also affords greater opportunities for enclosure and improving the spatial relationship between the street and buildings.

Fig 10.18



Fig 10.18 Minimal use of soft landscaping does little to reduce the detrimental impact of this car-dominated space on the general character of the development

Fig 10.19



Fig 10.19 Whilst concealing the rear parking court to the development, this boundary treatment relates poorly to the adjacent footpath

10.16 A courtyard contained by a building, for instance, a flatted development, could be designed as a multi-functional space and not read as a large expanse of empty tarmac when no vehicles are parked within it. A multi-functional space where the car is not the dominating factor could serve to provide an improved entrance approach to the rear of the building, as well as an amenity area. Where proposed, parking courts should be designed to :

- Be integrated with the development
- Be enclosed, contained and secure (without creating gated environments)
- Ensure entrances/accesses are sited and detailed to respect the street frontage
- Be overlooked
- Ensure pedestrian priority
- Ensure access to the building can be achieved without forcing the residents to walk to the 'front' door
- Avoid blocking approaches to rear 'main' entrances
- Provide a multi-functional space to enhance the amenity of the residential environment
- Accommodate effective soft landscaping with meaningful tree and shrub planting
- Avoid long stretches of solid enclosure leading to courtyards
- Accommodate no more that ten spaces in a courtyard, although an increase may be considered where the space is of a high quality with integrated landscape design or in a square which is part of a street

Fig 10.20



Fig 10.20 A mid C20 estate approach to the parking court

Fig 10.21



Fig 10.22



Figs 10.21 |& 10.22 Garaging flanks the entrance to a small, late C20 parking court which incorporates some soft landscaping that is suffering from inadequate maintenance

Fig 10.24



Fig 10.24 Poorly detailed entrance to rear parking court demonstrating excessive light spillage

Fig 10.25



Fig 10.25 The detailing used for 'bridging' the entrance to inner parking courts requires careful consideration to avoid poor character

Fig 10.26



Fig 10.26 Although well overlooked, the lack of screening to this front court results in a somewhat stark quality

Fig 10.23



Fig 10.23 Well designed and maintained soft landscaping helps to soften the character of this small courtyard

10.17 *Principle 4 - Concealed parking :* Undercroft parking has the advantage of potentially minimising the visual impact of parked cars in the streetscene. The suitability of this type of parking will be dependent on topography, ground conditions, location and type of building proposed.

10.18 Where basement parking is proposed, it should be secured with controlled access gates and well lit. Access/entrances need not be of two-way widths as this can cause unsightly visual voids or gaps in the streetscene. Safety mechanisms, including warning lights and mirrors, can be provided to fore-warn of entering or exiting vehicles.

10.19 *Principle 5 - Sustainable provision :* Allocated or unallocated? - Allocated parking is not as efficient as unallocated provision. This type of parking includes space within the curtilage of a property, such as a garage or driveway, and any space off-plot that is clearly dedicated to a particular property such as those in allocated rear courts. Spaces on the adopted public highway cannot be allocated legally unless for registered disabled users.

10.20 If the majority of a residential development's parking is unallocated, then the spaces can have a dual function of accommodating visitors and non-residents parking when the residents are elsewhere with their vehicles. If controls are required, non-residents can be time restricted to usage of unallocated spaces for a period of the day and length of stay, to ensure residents are not disadvantaged when they return. By adopting this approach, the need to provide visitor car parking within a development can be reduced or removed.

10.21 If half the parking provision for a development is provided unallocated on-street and in courts, the spaces would be used more efficiently than if allocated.

Fig 10.27



Fig 10.27 A somewhat spartan early C21 enclosed parking court

Fig 10.28



Fig 10.28 The use of ntegral, courtyard and underground parking limits the capacity for meaningful soft landscaping

Fig 10.29



Fig 10.29 Dedicated parking space for Car Club vehicle

10.22 *Principle 6 - The 'Home Zone' approach :* When new residential environments are designed as 'Home Zones' or adopt a 'Home Zone' approach, the limitations on the use of the highway exclusively for vehicles is removed. Home Zones are residential areas with streets designed to be places for people that can create a high quality street environment. They are based on a change in the way that people perceive the 'street' and can encompass streets, squares, courtyards and cul-de-sacs.

10.23 The design of each Home Zone should be unique as it is dependent on the character of the residential environment which is to be created. Motorists should feel that they have left the normal highway and entered an area where they can expect to find people using the whole width of the street - the motorist becomes the guest and should drive accordingly as the pedestrian has priority.

Home Zones are residential streets in which the road space is shared between drivers of motor vehicles and other road users, with the wider needs of residents (including people who walk and cycle, and children) in mind. The aim is to change the way that streets are used and to improve the quality of life in residential streets by making them places for people, not just for traffic. Changes to the layout of the street should emphasise this change of use, so that motorists perceive that they should give informal priority to other road users. (DLTR)

Fig 10.30



Fig 10.30 'Home Zone' design can help to make streets safer, encouraging wider usage by the community...

Fig 10.31



Fig 10.31 ...Bringing back the posibiliity of children playing in the street, as used to occur before the advent of the motor car

10.24 If designed correctly, Home Zones should :

- Reduce traffic speeds to 20 mph at the entrance point and even lower within the development
- Ensure vehicles do not have to travel more than 400 metres along a Home Zone street
- Achieve a better balance between the needs of the residents and drivers
- Create a better quality of life, encourage neighbourliness and remove social isolation
- Ensure a high proportion of residential buildings have active frontages to the street
- Be designed for all including the particular needs of disabled persons and the less mobile
- Improve safety for the pedestrian and improve natural surveillance
- Create attractive streets and spaces.
- Accommodate outdoor seating, trees and planters placed adjacent to vehicle routes to 'control' movement
- Incorporate quality surfaces with materials that indicate a shared use but some areas may be totally car-free
- Provide table heights or platforms and pavements at the same level
- Accommodate car parking in controlled marked spaces
- Enable a greater range of activities in the street space
- Create safer areas for children to play (ride bicycle and to play games)

10.25 Street furniture can be used to mark entrances and subtle signing used to mark the limits of the Home Zone area. These are not anti-car environments but do offer a highly effective way of reducing the impact of the car in residential areas. Home Zones should be designed as part of the wider open space and landscape strategy for a new residential development. There should be a continuous network of routes for pedestrians and cyclists, linking the individual Home Zone with schools, public transport, bus stops, green spaces, shops and other services/facilities.

10.26 Highway Authorities have powers to designate roads as Home Zones under Section 268 of the Transport Act 2000, with the legal procedure explained in 'Quiet Lanes and Home Zones (England) Regulations 2006 and guidance in the Department of Transport Circular 02/2006. Home Zones should be formally implemented within developments rather than having undesignated 'home zone styled' approaches.

10.27 *Principle 7 - Promoting the use of public transport :* Reduced car dependent, car-free developments and the provision of car clubs should be considered for new residential developments. In addition to the raft of compensatory contributions, car-clubs which can be successful in both urban and rural areas, should be investigated and provided. Residents can still be provided with parking within a development but provision is also made for a designated car-club space and a vehicle provided as part of a legal agreement from a recognised company. The more car-clubs are used within new residential developments and shared, the more successful they are, thereby achieving he aim of reducing dependency on the private car.

10.28 Where public transports exists or can be 'enhanced, developers should seek to demonstrate that less car parking provision can be supported within a development. When providing new stops for public transport, they should be located where they are accessible and available to as many people as possible. Being overlooked, safe and well-lit, as well as being located at points of activity can encourage usage. Where development is within easy reach of a train station, clear routes and linkages should be accommodated within a development providing connections to other locations

Fig 10.32



Fig 10.33



Fig 10.34



Fig 10.35



Fig 10.36



Fig 10.37



Figs 10.35 - 10.37 Photographs of Staiths 'Home Zone', development on Tyneside. Built on a reclaimed coal yard, the contempory-style houses reflect the local vernacular and are grouped around communal courtyards and car parking is strictly controlled

11 Establishing landscaping, private amenity and privacy

11.1 Landscape setting, landscape design, the space around the buildings as well as the public space, are as important as the buildings themselves. The location, character and function of the landscape, private amenity and open spaces should be planned and designed as an integral part of the development, from the outset. Hard and soft landscaping requires careful and specialised consideration and should reflect the character of the locality as described in Sections 3 and 8.

11.2 *Principle 1 - Landscaping within developments :* In large developments, a landscape strategy should provide a structural framework within which the built forms are to be positioned. Opportunities do occur to enable the intrinsic landscape to be used positively. Incorporating a hierarchy of space, landscape design within a new development, can enhance and reinforce the existing, and integrate the new environment with its surroundings. For example, an existing large tree can provide maturity to an open space; an old hedgerow can retain existing traditional enclosures to spaces, public or private, and hedgerow lined lanes can be used as pedestrian and cycle routes.

11.3 Distant views back toward a site may reveal areas that should be left undeveloped, landscaped and used as part of the open space network. Visual links can be used to create 'view corridors'. These can be accommodated within publicly accessible spaces to strengthen existing linkages.

11.4 A mark of the success of a scheme is that it embodies a cohesive landscape structure. Within such a structure, the requirements for private amenity and public amenity space can be met whilst making a positive contribution to the sense of place and quality of the development.

11.5 *Principle 2 -Maintaining eco-systems :* Each site and open space is an individual eco-system that is linked to other eco-systems. Any site may contain the remnants of ancient woodlands, former rural estates (with a structured landscape) and specimen plants. Woods, rivers, valleys, scrub, commons, pastures, hedgerows, ponds and ditches should be considered for retention. Vacant sites, industrial areas and existing private gardens, although man-made, can also be of great ecological importance.

Fig 11.1



Fig 11.1 An existing landscape feature on a development site of considerable potential

11.6 *Principle 3 -The value of open space:* Open space adds value for human recreation, but a balance needs to be struck between biodiversity and public access. There can be a conflict between human use and wildlife and it may be necessary to identify some spaces within a network with limited access that provide rich habitats for wildlife. For instance, refuges and green corridors could be provided that connect into the surrounding established landscape areas, thereby maintaining the migration routes and viability of wildlife corridors. This can include the arrangement of private gardens.

11.7 A landscape and open space strategy within new developments should seek to :

- Build on the site's unique physical characteristics retaining and conserving existing natural features
- Safeguard and enhance views enjoyed from outside the site
- Exploit existing views and design in new 'view corridors'
- Create a hierarchy of varied open space types
- Strengthen links with existing vegetation to provide continuous landscape corridors enabling valuable wildlife and recreational links
- Strengthen existing landscape and woodland 'buffers' where appropriate
- Ensure the provision of adequate, useable garden areas meeting adopted standards

11.8 **Section 3** provides information on the landscape character of Wealden and how landscape should be integral to good design. **Section 5** advises that the new development should seek to address its context, including landscape character and existing vegetation in the design process.

"Local Networks of high-quality and well-managed open space help to create urban environments that are attractive, clean and safe and can play a major part in improving people's sense of well-being.
Particularly where family housing is proposed, it will be important to ensure that the needs of children are taken into account and that there is good provision of recreational areas, including private gardens, play areas and informal play space. These should be well designed, safe, secure and stimulating areas with safe pedestrian access." (PPS3 'Housing')

Fig 11.2



Fig 11.2 All views into sites should be considered so as to fully evaluate the likely visual impact of any development

Fig 11.3



Fig 11.3 Local Nature Reserve adjacent to, and accessible from, housing developments

Fig 11.4



Fig 11.4 Stile leading to network of paths around development

Fig 11.5



Fig 11.5 An established parkland with shady avenues of trees framing views

Fig 11.6



Fig 11.6 Restored woodland-edge track bordering residential development

11.9 *Principle 4 - The requirement for outdoor private amenity and privacy:* With the increased trend towards higher density developments, the consideration of private amenity space around homes is often relegated to the space left over after siting the buildings and accommodating the car. Private amenity space around a dwelling or a flatted building, should be considered from the outset. This can ensure appropriate provision of privacy, an attractive outlook and retaining natural surveillance of the public realm without compromising good urban design and the creation of a quality residential environment.

11.10 Every home should have access to some outdoor space, (in addition to public spaces) whether it is a private balcony, a private garden, or a shared garden. In some developments a mix of both private garden space and shared open space is possible. For instance, a flat within a block can be provided with a private balcony but also have use of communal gardens or courtyards.

11.11 Useable balconies to upper floor flats, rather than the recent tendency for 'Juliette' types, can provide an acceptable amenity space for recreation and growing plants, provided there is no unacceptable loss of privacy to adjoining properties and the design is appropriate to the building form. With effective planting, balconies can contribute to softening the building elevation.

11.12 Where 'Secure by Design' permits, ground floor flats should have enclosed private gardens or at least a protected zone to reinforce privacy and defensible space. This provides physical protection and separation between the ground floor windows and public areas and can be achieved with appropriate planting, changes in level or surface materials. Private amenity within rear gardens and the houses of properties around it, can not only complements the greening of the environment but, also provides space for private, separate residential activities.

11.13 The application of rigid standards should be avoided as intelligent planning and flexibility can better enable satisfactory amenity, levels of privacy and imaginative designs. Unsightly regimented layouts with high fences between, are rarely the only solution. Careful integration of orientation, site planning, landscape use and planting and other ancillary structures such as garages, garden stores, garden walls and hedging can help define and screen private space between dwellings and curtilages, provided daylight and sunlight is not compromised.

11.14 Planting should be seen as an opportunity to green the environment and improve biodiversity. Its role in providing appropriate screening to maintain privacy will be carefully assessed with regard to potential problems relating to the location of buildings and possible overshadowing by trees which could ultimately lead to pressure for their removal.

11.15 *Principle 5 - Front gardens and privacy :* The front of a house is normally the main public address to the street. The degree of privacy to be expected to the front of a house will not be the same as the rear, unless relating to an individual house on a large plot. The approach to providing front privacy can be addressed through design, but also through taking cues from the existing area, even if the typical pattern is back-edge of street and direct access.

11.16 Subject to the appropriateness of the house type, local context and site constraints, 'defensible' front gardens should be provided to act as a buffer between the public street and the dwelling. Where appropriate to the local context, they should be designed to take account of the following good practice standards and have :

- A minimum depth of 2 metres, or as appropriate, relative to the characteristics of the locality/surrounding properties. For example, where terraces are sited at back of pavement
- Gardens with a combination of paving and planting, avoiding small, difficult to maintain areas of grass and avoid inviting the intrusion of the parked car
- Adequate provision for concealed refuse and recycling storage, and appropriate location of meter boxes

11.17 In order to improve internal front privacy, consideration should be given to :

- Incorporation of changes of level or entrances raised above the street providing 'reasonable' access for disabled persons or the less mobile (see Part M of the Building Regulations)
- The ground floor being placed at a higher level than the street to reduce direct inward looking by passersby and improve outlook
- Provision of front gardens or buffer zones, where appropriate to the local context
- Accommodation of a minimum street width, building to building, of no less than 5 metres in built up areas
- Avoidance of enclosures that remove 'eyes from the street'
- A clear definition of the separation between public and private space
- Placing kitchens to the front of the house for back-edge of street entrances, thereby still providing natural surveillance
- Offsetting opposing houses to prevent direct inward looking from first floor windows

11.18 *Principle 6 - Rear gardens and privacy :* Imposing standard lengths of rear gardens and back-to-back distances between dwellings can result in sterile, monotonous developments being created. A design-led approach can present imaginative solutions and flexibility in siting and planning, having regard to urban grain and the relationship between dwellings, at the same time, providing satisfactory levels of amenity and privacy.

11.19 The layout of rear gardens should ensure that the following are provided :

- Optimum solar orientation to ensure all gardens have an equal or acceptable amount of sunlight during at least part of the day
- Usable garden shapes, taking into account the height of surrounding buildings and aspect of the garden. For example, the more northerly the aspect, the longer the garden should be to reduce the impact of the house shading usable garden space
- An appropriate amount of amenity space (as a general guide the minimum size for a rear garden should be around 100m^2 for family dwellings, although 50m^2 gardens will be considered acceptable for one and two-bedroom houses in the more developed areas. Rear garden lengths should generally be a minimum of 10 metres for family housing)★
- Space around the house should be of a width that is proportionate to the size of the house and pattern of the street
- Detached or semi-detached dwellings should have a secured gated side access to the rear garden
- Where possible and/or appropriate, gardens should be large enough to accommodate existing and new mature trees (taking into account suitability for location etc) and planting
- Gardens are directly accessible to and from the dwelling

11.20 It is important to recognize that back-to-back and side-to-back distances should be interpreted flexibly in order to avoid undue, direct and invasive overlooking and loss of privacy. Generally, consideration should be given to :

- Back to back distances between conventional two storey dwellings and bungalows should not normally be less than 21 metres
- Where there are differences in site levels, dwellings or flats of more than two storeys, then the minimum distance should be increased by 3 metres for each additional storey height or equivalent over the conventional two storey house or level site
- Overlooking from rear-facing living rooms of upper storey flats can be minimised by ensuring that these rooms are normally no closer than 35 metres to the rear of any other dwelling
- Reducing overlooking resulting from oblique views over side boundaries from upper storey living rooms of flats

- Single aspect dwellings where distances may be further reduced
- Separation distances between backs of houses at more than 30 degrees to one another can be reduced to 15m from the nearest corner if one or both houses are designed in such a way as to not overlook one another
- 'Intelligent' arrangement of the interior living space to avoid principal rooms directly facing one another, including along flank elevations
- 1.8m high privacy screens to boundaries between adjacent dwellings, extending for a minimum distance of 3 metres from the building face to ensure that privacy zones/patios are not overlooked from the ground level of adjoining properties

★ *Applicants should be prepared to justify reduced garden sizes and distances through the Design and Access Statement and where the principles of good design prevail. A rigid application of standards is not always considered to be the 'norm' as each development is site and area specific.*

11.21 *Principle 7 - Communal gardens :* All flats should have access to a private usable area for sitting out or other activities with a reasonable amount of hard and soft landscaped space. As an alternative to individual gardens, new flats may include a communal garden based on the provision of a minimum area of 100m^2 for up to 4 one-bedroom flats and 15m^2 for each additional flat. For two-bedroom flats an allowance of 25m^2 per flat is recommended. Communal gardens below the size of 75m^2 will not normally be acceptable. Unusable space between car parks, roads and buildings will not be considered as part of any communal garden provision.

11.22 For sheltered housing and other types of housing for the elderly, the minimum amount of amenity space to be provided should be 75m^2 for up to 15 bed/living rooms plus 10m^2 per 5 additional bedrooms.

11.23 Where communal gardens are provided :

- Access should be provided for all units that do not have an individual garden to the appropriate standard
- They should be secure and screened from parking areas, public roads and footpaths
- Should not suffer from unacceptable levels of overshadowing
- Appropriate buffers should be introduced between the communal garden and any windows to ground floor flats through the provision of either small private gardens/patios of a minimum depth of 3 metres; an appropriate planting zone, or through appropriate changes in levels
- Careful consideration should be given to the design, detailing and selection of surface materials to create durable and low maintenance solutions
- Adequate landscaping should be included and a long term management plan produced, established and maintained

Fig 11.7



Fig 11.7 Small individual front gardens and a larger, communal garden are a feature of this mid C20 development

Fig 11.8



Fig 11.8 Easily maintained communal space

11.24 *Principle 8 - Boundary treatments :* Boundary treatments to gardens will be important in determining the quality and character of the area. Where physical boundaries are proposed, the choice should be determined by location and the need to provide an appropriate balance between privacy and security whilst reflecting existing 'local' forms.

11.25 Boundaries between rear gardens and public areas should ideally be a minimum of 1.8m high and take account of 'Secure by Design' requirements. In country villages, hedges of mixed native planting or in more formal areas, single species native planting are appropriate. Close boarded fencing in rural areas will normally be resisted. Details of suitable boundary types are shown in **Section 3** and Appendix A - Visual Glossary.

Fig 11.10



Fig 11.10 The unrelieved use of close-boarded fencing gives a poor impression to anyone driving into the site

Fig 11.11



Fig 11.11 Where there are no options but timber fencing a visually interesting variant - such as this 'hit-and-miss' - should be chosen

Fig 11.12



Fig 11.12 Ideally, native hedging should be used in rural areas, coupled with metal 'estate' or post-and-rail fencing as necessary

Fig 11.9



Fig 11.9 Although somewhat softened by the hedge which overtops it, this close-boarded fencing is hardly appropriate for widespread rural use, particularly when it is alongside a major road

Fig 11.13



Fig 11.13 A gated development erected in the middle of the countryside; such emphatic entrances often appear out-of-place where they are not associated with a single, large house

12 Environmental issues

12.1 *Microclimate :* Climate is unique to any particulate site; design can create a variety of micro climates. In Wealden, the climate can vary between the coast, within the valleys of the South Downs and along exposed ridges in the High Weald. Therefore, the effects of temperature, sunlight and wind movement need to be taken into account when considering the design and layout of a site, to avoid creating environments that are over-exposed to the elements.

12.2 Taking account of existing conditions, including daylight and sunlight, wind speed, temperature, frost pockets and topography, together with landscape design, can ensure less exposure and the ability to maximise the passive solar orientation and design of buildings. Wind and solar access are the two main considerations when designing for comfortable outdoor environments. The analysis of the site should assess existing trees, hedges and landforms for their effectiveness as buffers against exposure to wind and likelihood of obstructing solar gain.

12.3 The form of the development, including orientation of streets and buildings and their spacing, the enclosure of spaces using trees, hedges, and solid or perforated screens, can all positively influence microclimates by maximising opportunities for energy gain whilst reducing exposure to wind chill and driving rain.

Footpaths, cycleways and the public spaces that they link together, when protected in this way, will retain their usefulness for longer periods in all weather conditions throughout the year. The assessment of the local microclimate should be followed so that landscape proposals planning :

- Uses deciduous trees to provide shade in summer, allowing for sunlight to filter through in winter
- Avoids excessive overshadowing of buildings through introducing changes in levels, vegetation or walls, and by placing trees away from southerly elevations
- Provides shelter from cold northerly winds and strong prevailing winds from the west and south-west as these contribute to building heat loss
- Incorporates hedges and trees as windbreaks

Fig 11.14



Fig 11.14 Deciduous trees provide welcome shade to users of this shared route in summer whilst permitting more daylight in during winter

- Groups buildings to avoid long 'tunnels' between them
- Joins buildings to reduce the area of external walls which add to heat loss
- Orientates streets and dwellings to maximise sun penetration into open areas and gardens and natural daylight into buildings
- Carefully masses buildings to avoid/ minimise overshadowing and negative wind impacts
- Utilises shelterbelt planting for filtration of wind and dust avoiding overshadowing
- Uses natural features to provide shelter from prevailing winds;
- Designs and sites larger buildings so as to reduce air speed and turbulence and prevent wind tunnelling
- Identifies and avoids potential frost pockets; and
- Avoids building on exposed sites

Fig 12.1

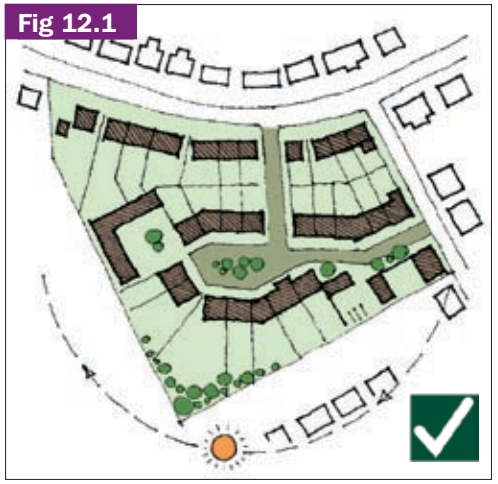


Fig 12.1 Indicative plan of proposed properties' layout to take advantage of potential solar gain through orientation

12.4 *Sunlight and daylight :* Development sites should be designed to take account of the most current Building Research Establishment's (BRE) report "Site Layout Planning for Daylight and Sunlight - a guide to good practice" (1995 reprint, with corrections). The guidelines set out in this section refer specifically to residential properties. However, many of the principles are equally applicable to non-domestic buildings where occupants have a reasonable expectation of daylight.

12.5 Layouts should be designed to maximise daylight and sunlight exposure for dwellings as far as possible. The orientation of dwellings in relation to the sun is important, not only with regard to the location of gardens, but also the buildings internal arrangements with regard to principal habitable rooms. This is to maximise internal daylighting and solar gain thereby helping to reduce energy consumption by reducing the need for artificial lighting and internal space heating.

12.6 It is important to note that while housing layouts should be designed to maximise daylight and sunlight to dwellings this should not be at the exclusion of other considerations such as privacy, good relationships between buildings and the street, security, the efficient use of land, or the achievement of an attractive streetscape.

12.7 *Daylighting :* The BRE report "Site Layout Planning for Daylight and Sunlight" 1991 sets out criteria to ensure adequate daylight provision, both ensuring good daylight for the new development and protecting the development potential of adjoining land. The following standards are indicative and will be considered along with other material design considerations set out in this document.

12.8 It is emphasised that the guidelines only relate to situations when the flank wall of the existing or proposed development has habitable room windows which are the only source of natural daylight, and does not apply when there are no main window walls on the existing building, the current new development or of any probable future development. To protect the daylight of a neighbouring property or adjoining development land, the new building should normally be :

- Below a 43° angle measured from the centre of the street, the rear garden boundary and from the side boundaries of the neighbouring rear gardens
- Below a 25° angle measured from the window wall of the neighbouring buildings
- Set back a minimum of 1 metre from the side boundaries
- Set back behind a line drawn on plan from the centre of the nearest existing ground floor window in the adjoining property at an angle of 45° (or 60° for a single storey building) but subject to the 43° angle described above

12.9 To provide adequate daylighting to the new building, BRE standards suggest that acceptable daylight in interiors is achieved if a 25° vertical angle from a point 2m above the ground is not obstructed. Where a building does not adhere to these angles, then it will necessary to assess the amount of light accessible to the window which depends upon the amount of unobstructed sky that can be seen from the centre of the window under consideration. The amount of visible sky and consequently, the amount of available skylight will need to be assessed by calculating the vertical sky component at the centre of the window.

12.10 Bathrooms, toilets, storeroom circulation areas and garages need not be assessed. Bedroom windows are considered to be less important than main living room windows. (Full details of this are set out under good practice Building Research Guidance "Site Planning for Daylight and Sunlight - a guide to good practice" 1991).

12.11 Where it is considered that a new development will have a detrimental impact by overshadowing existing buildings and open space, the Council will require the submission of a sunlight and daylight report to demonstrate the extent of any impact(s). Where existing buildings and open space rely on direct solar access, appropriate mitigation measures will be required.

12.13 New developments will generally be acceptable, subject to meeting other design considerations, provided they can demonstrate that :

- The vertical sky component is greater than 27% or that
- Any reduction below this level is minimal

12.14 *Sunlighting :* BRE has set out criteria to ensure both adequate sunlighting for new development and to protect the sunlighting of neighbouring sites :

- To protect the sunlight standards to adjoining sites and buildings the new development should be below a 25 degree angle from their existing window walls that face within 90 degrees of south and allow sunlight to reach some 60% of neighbouring back gardens between March and September
- To protect solar energy collection potential in adjoining sites and buildings the new development should be below a 13° angle from any existing solar panels or cells which face within 30° of south. Similarly, to protect the new development's potential for generating solar energy, it should have a facade facing within 30° of south and have a clear view over local buildings at a 13° angle
- To provide amenity sunlighting to the new building, its main window walls should face within 90° of due south and have no obstructions or buildings subtending the 25° angle above the horizontal

12.16 *Energy efficiency :* Careful choice of building type, form and location should ensure that potential overshadowing is limited. Key principles to be considered include :

- Orientating the development to ensure that houses have wide, south-facing façades where possible
- Private rear gardens, principal habitable rooms (living rooms and main bedrooms) should, where possible, have a sunny aspect
- Ensuring that the majority of windows face south or lie within a 30° angle of the south, thereby enabling solar energy to be collected passively and actively

Fig 12.2



Fig 12.2 A positive visual feature being made of the disposition of a solar panel array on a multi-storey, flat-roofed building

- Ensuring that south-facing elevations are not obstructed by other structures or planting which would result in overshadowing. Avoid locating projecting structures such as garages or porches, on the southern elevation of houses. Careful selection of plant species adjacent to buildings to avoid long-term problems of overshadowing
- Lower dwellings should be placed to the south and higher dwellings to the north of a development, preferably near corners or road intersections or south of open areas which have reduced requirements for sunlight, for example, car parks, to reduce overshadowing in winter
- Dwellings aligned east-west, should be spaced to allow solar access in winter - at mid-day in December, the sun's altitude is 13° at 53° latitude
- Dwellings on north-facing slopes can be spaced to allow solar gains through the roof or at upper levels of the homes
- Buildings should be designed to facilitate the penetration of light, for example, by providing appropriate breaks in terrace blocks or using semi-detached houses
- For housing, plans with front to back dimensions of 9-13 metres provide good sun and daylight penetration. Plan depths exceeding 13 metres should be avoided as they result in poor light penetration to the centre of the building therefore increasing the need for artificial lighting
- Where buildings are closely spaced, the amount of daylight can be supplemented in houses by keeping rooms shallow in plan and raising window head heights

Fig 12.5



Fig 12.5 Poor design results in significant shading for one apartment

12.17 *Noise mitigation :* Land uses such as road or rail networks, children's play or sports areas and industrial developments close to a residential site could result in potential issues by reason of either a constant or intermittent noise.

12.18 Where it is considered that a residential development will suffer from noise, the Council will require the submission of an Acoustic Survey/ Noise Impact Assessment to identify the Noise Exposure Category (NEC) of the site, the noise issues considered with regard to sources, levels, methods and assumptions in accordance with Planning Policy Guidance (PPG) 24 "Planning and Noise". The Acoustic Survey/Noise Impact Assessment should also identify any mitigation measures that are necessary to meet the following criteria :

- Where habitable rooms will be exposed to noise levels that are in excess of NEC A, mitigation should include a scheme of acoustic protection sufficient to ensure internal noise levels no greater than 30LAeq,TdB in bedrooms and living rooms, with windows closed
- Where the internal noise levels will exceed 35LAeq,TdB in bedrooms (night time) and 48LAeq,T in living rooms (daytime) with windows open, a scheme of acoustic protection should incorporate appropriate acoustically screened mechanical ventilation
- Within gardens and amenity areas the daytime 0700-2300 hours level of noise should not exceed 55dBLAeq free field, excluding front gardens

Fig 12.3



Fig 12.3 The trees in front of this mid C20 south-east facing flatted block may be visually pleasant but will have shading implications

Fig 12.4



Fig 12.4 A poor outlook is compounded by the orientation of the dwelling resulting in self-shadowing and wind-tunneling

Fig 12.6



Fig 12.6 The oppresive proximity of such a massive building, relatively speaking, results in significant overshadowing and overlooking

12.19 Design considerations : Developments will need to consider the potential impact of noise by :

- Avoiding, containing or minimising noise generation at source by detailed design and ensuring appropriate operational practices for noisy activities are employed
- Minimising noise transference between existing activities adjacent to a site, or activities within a development, where there are mixed uses
- Providing appropriate distances where possible between sensitive noise receptors such as housing and existing or potential noise generators
- Ensure appropriate land-use zoning by separating noisy uses from sensitive land-uses, for example, avoiding the siting of children's play areas away from accommodation for the elderly
- Protecting noise-sensitive uses such as dwellings, from noise by siting and design through optimal orientation of noise sensitive buildings, for example at right angles to the noise source
- Introduction of single or controlled aspect housing where sound attenuation cannot be achieved by other means
- Internal layout of the dwelling, through the location of non-habitable rooms such as bathrooms, kitchens, and circulation areas as buffers between the noise source and habitable rooms
- Incorporating acoustically designed multiple glazing, although this can be compromised when windows are opened for ventilation
- Direct screening of noise sources
- Screening by non-noise sensitive structures or barrier blocks' such as garages or walls between noise source and dwellings
- Introduction of acoustic screening such as bunding/ embankments, fencing/ walling or planting

12.20 Care must be taken to ensure that the use of noise attenuation measures does not result in a development layout which is in direct conflict with good urban design principles. Residential development that turns its back on the surrounding road network, enclosed by walls and fences thereby creating an isolated development with poor quality public realm is unacceptable both from an urban design perspective and with regard to Secured by Design advice. Applicants are advised to consult the Council's Development and Building Control and Environmental Health Departments on noise issues prior to submitting a planning application.

13 'Secured by Design'

13.1 Not all crime can be 'designed' out of a development but, when considered as an integral part of the design process, the fear of crime can be reduced. The Crime and Disorder Act 1998, imposes a new duty on Local Planning Authorities to exercise its functions with due regard to the likely effects on 'Secured by Design' and the need to reasonably ensure design assists in reducing crime and disorder. As crime and security issues are fundamental considerations in the design process they are material considerations in determining planning applications.

13.2 A residential development's layout can have a significant impact on crime to homes, cars and pedestrians. New development should, therefore, take into account the principles set out below. Failure to satisfactorily address secure by design could result in the Council refusing planning permission. In addition to consulting with the Local Planning Authority, early discussions with Police Liaison Officers is advised (Safer Places The Planning System and Crime Prevention' – ODPM/Home Office 2004).

13.3 Access ways, parking areas, public spaces and all elements of the built environment should be designed to create a safe and secure environment and to minimise opportunities for crime. The implementation of crime prevention measures early in the design process is the most economical and effective way of addressing crime risks. To attempt to incorporate crime prevention measures at later stages, particularly when the development has been built, may be expensive or even impossible.

13.4 Design and layouts should build in a high degree of natural surveillance or "self policing" of buildings and outside spaces by encouraging a sense of belonging on the part of residents and occupants. The Council encourages creative designs which balance the need to prevent crime with other design criteria, leading to an attractive, safe and high quality environment. It is important that pre-application discussions with the Council and the Sussex Police's Crime Prevention Officer are held at an early stage.

13.5 The following section highlights some key considerations in designing out crime. It is not, however, intended to be a comprehensive checklist, as many of the 'Secured by Design considerations equally overlap with good design practice and are covered in the relevant topical sections of this guide.

13.6 'Defensible' space can be classified as :

- Private - under total control of the occupant and not visually or physically accessible to the public
- Semi-private - under the control of the occupant but visually or physically accessible to the public
- Semi-public - under the control of or within the area of responsibility of a specific group of occupants and accessible to the public
- Public: where the general public has right of access

13.7 A suggested checklist for Secure Design can :

- Provide a clear distinction between public and private areas
- Ensure every area has a clearly defined function - there should be no areas of 'left over space'
- Ensure good natural surveillance of all public areas and entrances to buildings
- Avoid creating residential layouts with exposed rear gardens, fences or long blank walls limiting overlooking of public areas and resulting in vulnerable points of potential access
- Ensure direct access for vehicles, cyclists and pedestrians along clearly defined routes with easily recognised points of entry
- Minimise features that could be used to conceal or provide access to upper floors of buildings such as bin stores and flat roofed extensions or porches
- Locate parking spaces to facilitate easy supervision from buildings, paths and roads
- Ensure car, cycle and motorcycle parking areas are well illuminated, whilst avoiding potential light pollution
- Be designed to incorporate a full range of security measures, as recommended in Secured by Design, including ironmongery specification, entrance and rear doors, windows, glazing and lighting

Fig 13.1



Fig 13.1 Poorly lit back alley, prone to grafitti and with numerous blind corners

Fig 13.2



Fig 13.2 Through passage from main road to site of intended development; sublect to grafitti and unlit

Fig 13.3



Fig 13.3 Entrance in gable end to appartment is not properly overlooked and has a recess where someone could hide

Fig 13.4



Fig 13.4 Approach to rear service alley for dwellings, unlit and barely overlooked

14 Extracts from a Masterplan showing component parts and context

Fig 14.1



Fig 14.1 An example of a Masterplan, developed from a series of studies and overlays, which establishes the key principles of a new residential environment. Some of the survey photographs and maps that informed this Masterplan are shown on this and the adjoining page. Details of the developments in progress appear over the page

Fig 14.2

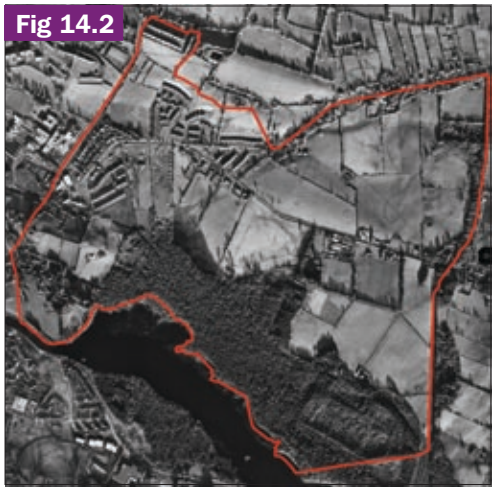


Fig 14.2 Aerial photograph of site

Fig 14.7



Fig 14.7 Oblique aerial photograph

Fig 14.3



Fig 14.3 Topography

Fig 14.4

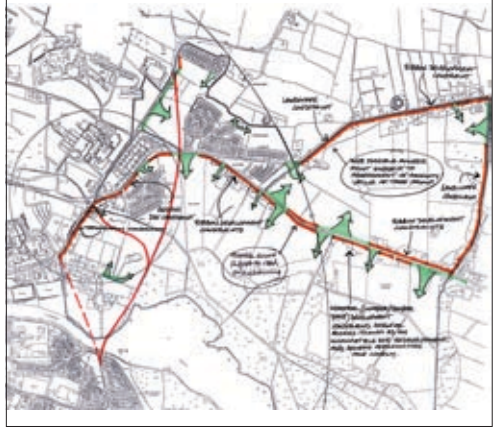


Fig 14.4 Access and constraints

Fig 14.5

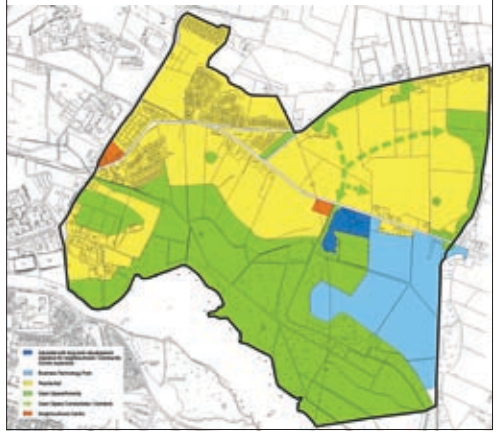


Fig 14.5 Existing Land-use assessment

Fig 14.6



Fig 14.6 Open spaces strategy and framework

7

Fig 14.8



Fig 14.8 Panorama of site looking towards town centre

Fig 14.9



Fig 14.9 View of lake from high ground

Fig 14.10



Fig 14.10 Lakeside footpath



Fig 14.11 Exploring development patterns



Fig 14.12 Aerial photograph showing example of new development with a strong focal point



Fig 14.13 Considering the appearance of a residential Crescent



Fig 14.15 Integrating landscape design and new routes from the outset sets the scene early



Fig 14.16 Links provided to the surrounding woodlands can be controlled with good management



Fig 14.17 Water as a feature improves the residential landscape



Fig 14.18 A natural flow of a water curve can be accentuated by an integrated hard and soft landscaping scheme

Fig 14.14



Fig 14.14 Existing views to the rural environs to be maintained

Fig 14.19



Fig 14.19 Introducing stepping improves movement and access to the water's edge

15 Summary

15.1 Whether new residential developments relate to infill sites, larger brownfield sites or providing extensions to existing settlements the guiding objectives and principles will assist in the preparation of high quality residential schemes. A number of issues must be considered as part of the design process and it is important that these are thought out in detail to ensure that the proposal meets all the criteria as closely as possible about how a place looks and functions.

15.2 Over the last twenty years, the vehicle has tended to dominate residential layouts resulting in faceless and sterile neighbourhoods. The recently published Government Document, "Manual for Streets" reverses this trend and accentuates the need for human scale, pedestrian priority and traffic calming. It also deals with sustainability issues such as access to services, ease of movement, maximisation of sunlight and daylight through optimum orientation of buildings.

15.3 Other issues which need to be considered when planning a residential development include privacy, security, attractive and well integrated open space and landscaping, biodiversity and access, all of which can be used to create a stronger sense of community and an attractive, locally distinctive environment, rather than a development of standard design which could be anywhere.

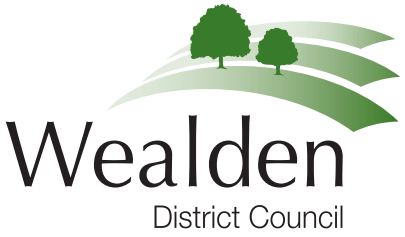
15.4 An important consideration from the outset is whether the proposal has taken full account of the positive elements of the local 'distinctive' character, history and geography or that which has an identity of its own, that nevertheless fits in and adds positively to the locality. This is more of a challenge where existing development does not have any significant value. However, characteristics of successful environments from elsewhere within the District can be applied to the new development. Indeed, the good principles of successful development from other parts of the country can often provide prompts and a source of inspiration.

15.5 Element to consider include scale, mass, height, topography, rhythm and patterns of streets and their alignment, hierarchy of spaces, creating continuity and enclosure, public and private spaces, integration of open space and landscape, skyline views into and out of the site, use of materials, detailing and construction techniques.

15.6 Quality of the public realm, including street furniture, gateways, entrances, nodal or focal points, landmarks, views, boundaries, transition zones are also important in helping to create a sense of place which is easily readable and facilitates ease of movement within and through the area. Places whose form, layout and signage make them relatively easy to understand are pleasant to visit and generally function well.

15.7 Larger developments require a movement strategy which puts the pedestrian and cyclist at the forefront and develops a user hierarchy. Access and servicing are also important as well as providing appropriate levels of and design for car parking.

15.8 Misplaced or misinterpreted 'local' elements which are considered to be detrimental and of no 'positive' value to the character of the place, should not be used as a precedent for new development.


Wealden
District Council