



Chilterns

**Buildings
Design
Guide**



Foreword

An integral part of the outstanding Chilterns' landscape is its wealth of attractive villages and buildings. Many older buildings demonstrate good design and construction practice in relation to siting and orientation, the sourcing of materials, the ability to be repaired and thermal mass. The task of the Chilterns Conservation Board is to ensure the special qualities of the Area of Outstanding Natural Beauty (AONB) are conserved and enhanced. The first edition of the Chilterns Buildings Design Guide (published in 1999) provided guidance about the erection of new buildings and the extension and conversion of older ones. In the same year the annual Chilterns Buildings Design Awards scheme was instigated. This is still run in conjunction with The Chiltern Society and celebrates projects that have made a positive contribution.

The Design Guide has been supplemented by a series of Technical Notes on the use of flint, brick and roofing materials in the Chilterns. In addition environmental guidelines for the management of highways in the Chilterns have been produced. By disseminating this information the Board has done much to promote good design in the Chilterns over the past decade, and it is gratifying to see Design and Access Statements making reference to this advice and translating it into more carefully constructed and detailed buildings.

Nevertheless, pressures for development, both in the AONB and the surrounding area, have intensified. Increased housing allocations are placing strains on larger settlements around the margins of the AONB, infilling threatens to destroy the openness of many villages, the unsympathetic conversion of redundant buildings continues to erode rural character. At the same time, the framework for controlling development has continued to evolve.

There is now greater awareness of the need to ensure that developments are sustainable in their design and construction with more thought being given to the use of locally produced building materials for example. The potential impacts of climate change are also being addressed with better insulation, the use of renewable energy technologies and adaptations for severe weather events.

The Board decided that a review process should be instigated. This has involved a consideration of the whole document. The Board is keen to stress that design really matters and that it is important to get the details right from the outset. The decisions made today will produce buildings that will last for 100 years or more so we must ensure that we choose materials that will weather well and must allow enough space for landscaping that is

provided to reach maturity. If these decisions are poorly made the passage of time will not be kind.

This second edition of the Design Guide has therefore been produced to provide updated guidance and contribute to the maintenance of the Chilterns' landscape for future generations.

Sir John Johnson
Chairman
Chilterns Conservation Board



Contents

Chapter 1

Introduction

The special and distinctive character of the Chilterns	4
The Chilterns Buildings Design Guide	6
The planning context	8

Chapter 2

Settlements and buildings in the landscape

Landform	11
The landscape	12
Major land uses	12
The impact of settlements on the landscape	13
Modern development	14
Settlement patterns and village character	16

Chapter 3

Designing new buildings

The location and siting of new development	24
The individual building	27
The scale and form of new buildings	28
The 'one-off' design	29
Roofs	30
Chimneys	33
Walls	33
Windows and doors	36
Porches	38
Access, parking and garages	39
Landscape setting	41
Boundaries	41
New hedges, trees and other planting	43
Paving and other hard surfaces	44
Other small-scale permitted development	45

Chapter 4

Agricultural and other rural employment buildings

Location, siting and scale	47
Integration with existing buildings	48
Materials	49
Roof design	50
Colour	51
Other agricultural development	51

Chapter 5

Conversion of buildings

Conversion of farm buildings	53
Openings	53
Structure and original features	55
Roofs	55
Inside the building	56
Context and surroundings	56
Other buildings in the countryside	57
Bibliography	58
Acknowledgements	58
Further advice	59
Villages by general landscape type	59

Ipsden



Chapter 1 | Introduction



The Chilterns was designated an Area of Outstanding Natural Beauty in 1965. (Hughenden Valley)

The special and distinctive character of the Chilterns

1.1 A large part of the Chiltern Hills is designated as an Area of Outstanding Natural Beauty (AONB) in order to conserve and enhance the special qualities of the landscape.

1.2 The Chilterns is a belt of high ground stretching from the River Thames at Goring in Oxfordshire, north-eastward through Buckinghamshire and Bedfordshire and into Hertfordshire, where it almost reaches Hitchin. It is fringed by substantial settlements, including Luton, Dunstable, Hemel Hempstead, Berkhamsted, Chesham, Amersham, Beaconsfield, High Wycombe, Marlow, Henley-on-Thames and Reading. The hills are formed by an outcrop of chalk on the north-western side of the London basin. The chalk strata have been tilted to create a dip-slope that rises so gently to the north-west that it generally has the character of a plateau. However, it ends abruptly in a steep scarp slope, which forms the more dramatic north-western face of the Chilterns. The plateau is cut by a series of through valleys that divide it into roughly rectangular blocks, with many branching dry valleys further dividing these blocks, to create a varied mix of landscapes.

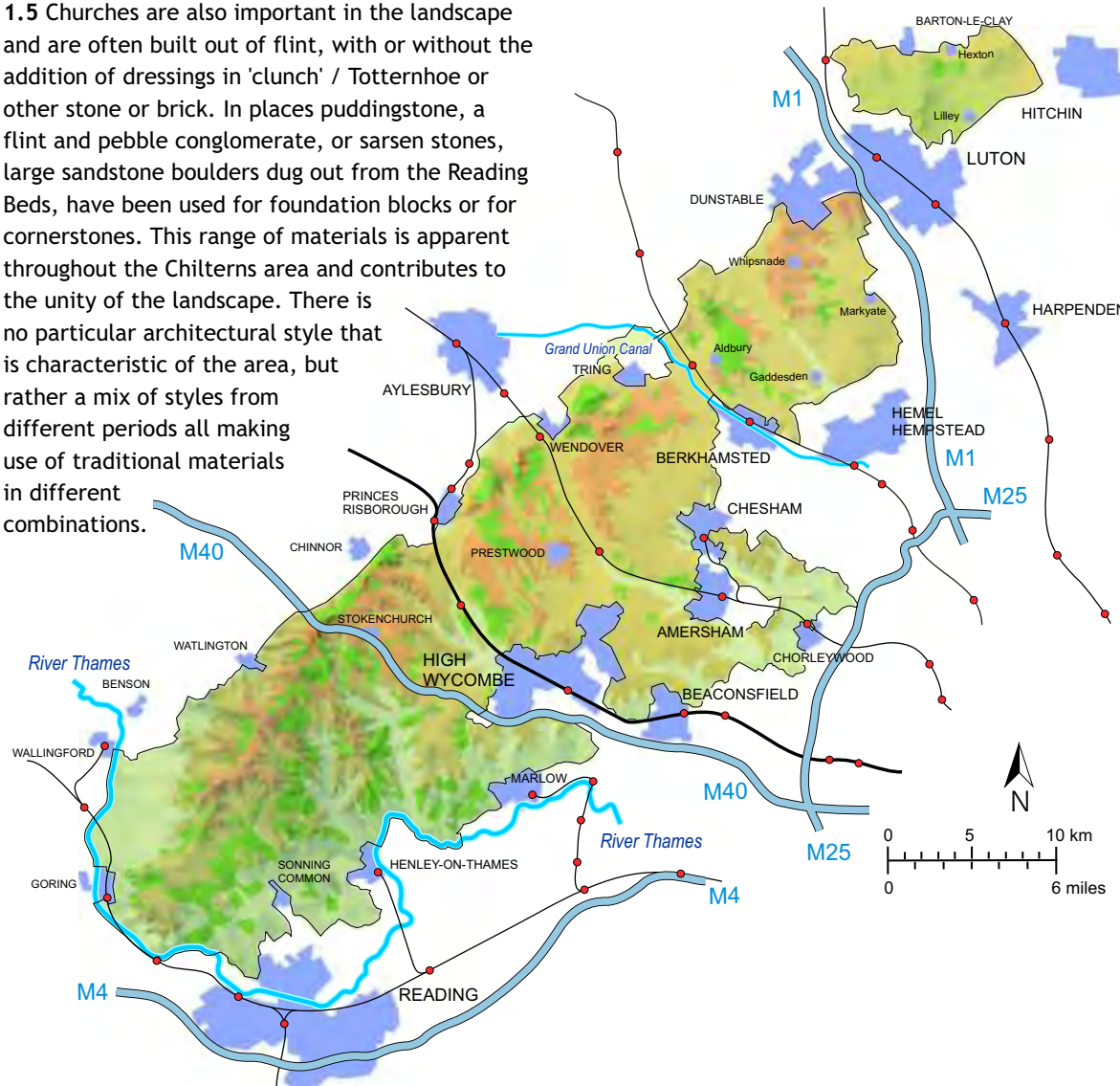
1.3 The most notable feature of the characteristic vernacular buildings in the AONB, both in villages and elsewhere, is the consistent use of materials, especially the flints that occur in both the chalk strata and the overlying clay with flints. Flint is often combined with brick, both in the walls of older buildings and in boundary walls around gardens. Most vernacular buildings also have tiled roofs, with the tiles often having been made from local iron clay. Thatch appears relatively infrequently, with notable concentrations in the northern and southern extremities of the AONB.

1.4 The use of brick, flint and tiles is characteristic of many of the historic farmsteads, which are important landscape features throughout the Chilterns. The largest and often oldest building in the farmstead is usually a timber-framed threshing barn. Other timber buildings might include hay barns, cart- and implement sheds, granaries and livestock housing. Like the barns these are often clad with black, horizontal weather-boarding. From the early 19th century, brick and flint farm buildings became more common, and barns in this style often incorporated a number of vertical ventilation slits and an owl hole. In a few places other types of

historic farm buildings remain, including occasional timbered granaries raised on saddle stones.

1.5 Churches are also important in the landscape and are often built out of flint, with or without the addition of dressings in 'clunch' / Totternhoe or other stone or brick. In places puddingstone, a flint and pebble conglomerate, or sarsen stones, large sandstone boulders dug out from the Reading Beds, have been used for foundation blocks or for cornerstones. This range of materials is apparent throughout the Chilterns area and contributes to the unity of the landscape. There is no particular architectural style that is characteristic of the area, but rather a mix of styles from different periods all making use of traditional materials in different combinations.

The Chilterns Area of Outstanding Natural Beauty



The Chilterns AONB designation

1.6 The Chilterns were designated as an Area of Outstanding Natural Beauty (AONB) in 1965 by the Government. The primary purpose of the designation is the conservation and enhancement of the natural beauty of the landscape, which includes wildlife, physiographic features and cultural heritage as well as the more conventional concepts of landscape and scenery. It is given in recognition of the special quality and character of the landscape, and encourages landowners and local authorities to manage the area in ways which will ensure its protection now and in the future.

The Chilterns Conservation Board

1.7 In 2000, the *Countryside and Rights of Way Act* (the CRow Act) allowed the formation of Conservation Boards for AONBs, and in 2004 the Chilterns Conservation Board was formally established as the statutory body to conserve and enhance the Chilterns AONB. The Board has a duty to have regard to the purpose of conserving and enhancing the natural beauty of the AONB and the purpose of increasing the understanding and enjoyment by the public of the special qualities of the AONB, with greater weight being attached to the first purpose. The Board shall also seek to foster the economic and social well-being of local communities within the AONB.

Chilterns Buildings Design Guide



Traditional buildings play an important part in the Chilterns landscape. (Hambleden)

The CRoW Act also includes the following duty:

'Section 85: In exercising or performing any functions in relation to, or so as to affect, land in an area of outstanding natural beauty, a relevant authority shall have regard to the purpose of conserving and enhancing the natural beauty of the area of outstanding natural beauty.' 'Relevant authorities' include local planning authorities.

For details of the Board and its many activities please visit the Chilterns AONB website or contact the Conservation Board office (see further advice section).

1.8 To help the management of the area and to encourage conservation of the special qualities of the AONB, a comprehensive management plan for the AONB, *A Framework for Action* - was published in 2008. The Management Plan emphasises the importance of local buildings and villages to the overall character of the Chilterns and includes various broad aims and policies applicable to the built environment.

1.9 The Chilterns AONB falls into 3 counties, 2 unitary authorities, 7 districts and 1 borough. A major task of the Chilterns Conservation Board is, therefore, to ensure the effort to conserve and enhance the Chilterns does not vary from one part to another, and between constituent local planning authorities. One of the primary reasons for producing this document is to ensure consistency between all of these authorities in promoting elements of good design and characteristics of buildings which are commonly found across the Chilterns.

The Chilterns Buildings Design Guide

1.10 The Chilterns Buildings Design Guide provides guidance on ways in which the outstanding and distinctive qualities of the Chilterns AONB can be conserved or enhanced when building takes place. This can include new buildings, extensions, conversions, redevelopment, and alterations to the environment of streets and public spaces within settlements.

1.11 This Guide provides information on the following aspects of building in the Chilterns AONB:

- The character of the Chilterns AONB
- The way in which settlements and other buildings fit into the countryside
- The special character of villages
- Ways in which new buildings can be sympathetically incorporated into the village/countryside setting
- Design features and details of individual buildings and small developments
- Materials
- Landscaping

Scope of this guidance and relationship to other design guidance produced by the Chilterns Conservation Board

1.12 This Guide is one of five documents relating to design produced by the Chilterns Conservation Board. They are:

- 1) *Chilterns Buildings Design Guide*
- 2) *Chilterns Buildings Design Guide Supplementary Technical Note - Chilterns Flint*
- 3) *Chilterns Buildings Design Guide Supplementary Technical Note - Chilterns Brick*
- 4) *Chilterns Buildings Design Guide Supplementary Technical Note - Chilterns Roofing Materials*
- 5) *Environmental Guidelines for the Management of Highways in the Chilterns*

Chilterns Buildings Design Guide



Attractive buildings add appeal to the landscape. (Bryant's Bottom)

1.13 This Guide covers all types of new buildings, which includes housing, employment and agricultural uses and the conversion of buildings for various new purposes, as well as the environment around the buildings. Some of the principles in the *Environmental Guidelines for the Management of Highways in the Chilterns* may also be applicable to some developments. It should be noted that much greater detail on the use of flint, local brick and roofing materials is provided in the three supplementary technical notes detailed above and reference should be made to these when considering these particular aspects of a building's design.

1.14 The Objectives of this Design Guide are to:

- Raise awareness of the quality of the traditional built character of the Chilterns AONB
- Help identify and protect the distinctive traditional built character of the Chilterns AONB and thereby promote local identity
- Inspire high quality design in new developments which respect the traditional built character of the AONB
- Re-establish traditional character in areas of the AONB where it has been damaged or eroded
- Provide a co-ordinated and integrated approach for design advice throughout the AONB
- Ensure that appropriate development respects its local context and the wider landscape
- Promote sustainability in design and use of resources, particularly locally produced building materials

Why has this Design Guide been produced?

1.15 The Board has long been concerned about the detrimental impacts of urbanisation on the special qualities of the AONB and believes that the Design Guide provides useful advice for all those people interested in development in the area. This particularly applies to those with limited training in design in rural areas or experience of this nationally protected landscape.

1.16 By locating and designing new buildings in ways which are sensitive to the character of the Chilterns, they should become part of the landscape and complement older buildings. This guidance is based upon an analysis of: landform, landscape, historical settlement patterns, characteristic building styles, use of materials and anticipated adjustments needed in the light of climate change.

1.17 Whilst buildings in the Chilterns have always exhibited a range of styles, they have historically been constructed using similar, local materials such as timber, flint, brick and plain clay roof tiles. Being locally produced, these materials will therefore have only travelled a short distance thus leading to limited environmental impacts from transport. Some local employment will also have been secured. During the last hundred years or so, the scale of development and the use of standardised designs and non-local materials, have become much more common. The result is that many villages are losing their distinctive character and the special sense of place created by older

Attractive new development is based on location and design principles which are sympathetic to the landscape and existing character of local villages. (Bledlow, credit HFP Architects)



Chilterns Buildings Design Guide

buildings. In the past decade or so, the tide has begun to turn due to an increasing appreciation of the importance of good design and the need to use locally-produced materials. This Guide has been produced to ensure that all new development in the AONB conserves and enhances local character rather than detracts from it. This fit can often be achieved by using traditional building materials that have been locally made.

1.18 The primary consideration is:

To ensure that any new building respects the natural beauty of the Chilterns, reinforcing the sense of place and local character.

1.19 The Design Guide identifies the primary features and characteristics which have helped to create the distinctive qualities of the built environment in the Chilterns.

1.20 By responding to these factors in the location and design of new buildings, they are more likely to become part of the built tradition of the Chilterns. This does not mean that all new designs must be a copy of buildings from previous eras, or should utilise only local materials. It gives sufficient flexibility to allow new designs and innovation, which still respect the distinctive qualities of the area.

Who should use this Design Guide?

1.21 The Design Guide is intended to be used by all involved in the development process: owners, architects, designers, builders, planning authorities, parish councils, and any organisation or individual with an interest in the built environment of the Chilterns AONB.

The planning context

National guidance

1.22 All planning authorities are being encouraged to promote high quality design in new developments and to take account of published guidance and good practice on design. It is considered proper to seek to promote or reinforce local distinctiveness where supported by clear plan policies or supplementary planning documents on design. The production of this guidance is consistent with this approach.

1.23 To accord with *Planning Policy Statement 1: Delivering Sustainable Development* and *Planning Policy Statement 7: Sustainable Development in Rural Areas*, planning authorities should prepare robust policies on design and key objectives should ensure that developments respond to their local context and create or reinforce local distinctiveness. In order to achieve this planning authorities should have regard to good practice and should seek to promote or reinforce local distinctiveness where this is supported by clear plan policies or supplementary planning documents on design. The Chilterns Buildings Design Guide has been drafted with this in mind. This approach has been taken to reflect fully the characteristics of the Chilterns AONB, which lies within 13 local planning authorities. The Chilterns Conservation Board believes this document is necessary to ensure consistency across so many local authority areas.

This typical 1960s development is not in keeping with traditional designs and use of materials. (Hyde Heath)



Chilterns Buildings Design Guide

Development plans

1.24 National planning policy to conserve and enhance 'local distinctiveness' is reflected in planning policy statements, regional spatial strategies and the development plan documents that make up Local Development Frameworks. This Design Guide is intended to supplement and complement the local development plans and other design guidance produced by local planning authorities, and does not replace these policies and guidance. It has been produced to assist planning authorities in their task of conserving and enhancing the environment of the Area of Outstanding Natural Beauty.

1.25 This Guide aims to be consistent with all Development Plans covering the Chilterns AONB and, as such, local planning authorities may use this guidance as a supplementary planning document to achieve these aims. This guidance will be reviewed periodically to ensure this aim is being achieved.

To check the status of the Chilterns Buildings Design Guide in your area, please contact your local planning authority.

1.26 It is national policy to limit new development throughout the AONB, and all the local planning authorities have adopted stringent development restraint policies in their development plans. These policies reflect the national guidelines for the protection of areas of high environmental quality and landscape importance.

1.27 In the AONB, limitations on development are reinforced by policies to maintain the Metropolitan Green Belt, and the Green Belt around Luton and Dunstable. Although there is only limited development potential, it is anticipated that there will be some opportunity for infilling, redevelopment, extensions, conversions and other small-scale development. These potentially permissible developments are regulated and defined by the relevant development plans of the local planning authorities and the application of national planning policy as it applies to the Green Belt.

Use of the Guide in making decisions on planning applications in the AONB

1.28 This Design Guide is not a statutory document, but is a material planning consideration in decision making on planning applications. Local planning authorities will expect all planning applications in the AONB to demonstrate how these guidelines have been taken into account. *Circular 01/06: Guidance on changes to the development control system*, says that design and access statements should explain the design principles and concepts that have informed a development and how access issues have been dealt with.

1.29 Adherence to the Chilterns Buildings Design Guide does not mean that development proposals will necessarily be approved. Other planning policy considerations may make a proposal unacceptable. Proposals which do not fully reflect the guidelines

are unlikely to be acceptable to the local planning authorities which have adopted them as a supplementary planning document. For planning applications where this Guide applies considerable weight should be given to it as a material planning consideration.

Conservation Areas and Listed Buildings

1.30 In conservation areas designated by local planning authorities, and in the case of buildings of special architectural or historic interest - listed buildings - specific design and planning guidance and policies are likely to apply for some, often small, changes. In some areas Article 4 Directions may be in place that require planning applications to be made for small-scale proposals. You should contact your local planning authority for details.

'Traditional' cottages help to create the unique character of the Chilterns. (Little Missenden)



Chilterns Buildings Design Guide

1.31 This document may also provide a context for the review of conservation area boundaries and the policies applying to them. In some cases appraisals and management proposals have been produced for individual Conservation Areas. These will identify the particular character of the area and may include specific design advice.

Village Design Statements and Parish Plans

1.32 In recent years, new approaches have been developed to help local communities identify and conserve local character in each village. Local communities can produce their own Village Design Statements and Parish Plans. These describe the distinctive character of individual villages and the surrounding countryside, and identify design principles which should influence future development in individual settlements.

1.33 The concepts were developed and introduced by Natural England's predecessors the Countryside Commission and Countryside Agency as a means of helping to conserve and enhance local distinctiveness. The Chilterns Buildings Design Guide provides a wider context for the preparation of Village Design Statements and Parish Plans which may be adopted by local planning authorities as supplementary planning documents. For further information about village design statements and parish plans please contact your local Parish or District Council.

1.34 The Chilterns Conservation Board encourages communities across the AONB to produce Village Design Statements and Parish Plans and in doing so it would be useful to refer to the findings detailed in the *Chilterns Historic Landscape Characterisation Project* report.

Consultation on the preparation of the Chilterns Buildings Design Guide

1.35 During April and May 2009 a consultation draft of this Design Guide was issued for public consultation. Copies of the document were sent out to: local, regional and national bodies, a significant number of interested people, libraries, local architects, developers and building companies. All local authorities in the Chilterns were consulted. At the close of the consultation period over 400 comments had been received from nearly 40 respondents representing a cross section of those consulted. The comments made were all assessed and responses were prepared and approved at the Board's Planning Committee. Following this changes were made to the document which was then approved and adopted by the Conservation Board. The Board has asked that local authorities endorse the Guide.

Settlements and buildings in the landscape

Chapter 2

2.1 The environmental features which contribute to the character of villages and buildings are:

- Landform - the topography of the Chilterns
- The landscape with its variety of land uses
- The geographical distribution of villages in the landscape
- The traditional development patterns and special characteristics of villages, groups of buildings or individual buildings
- The architectural features and designs of individual buildings
- The use of materials
- The relationship between buildings and the spaces between them

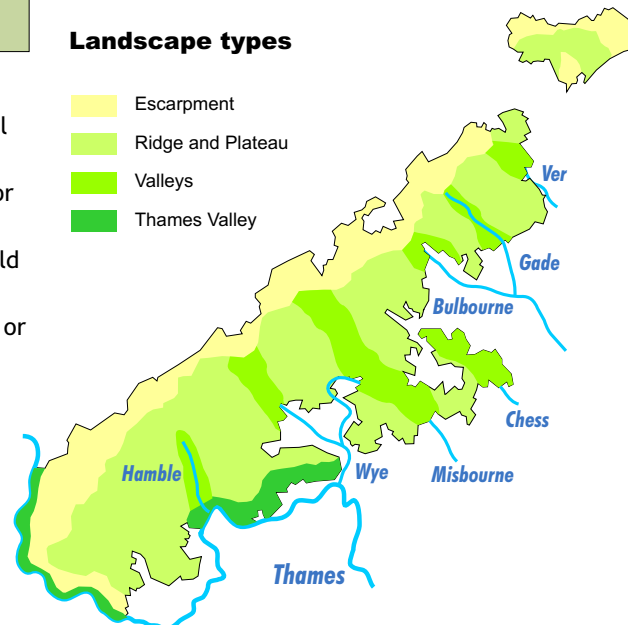
2.2 The first step when considering any new development is to think about what effects it will have on the Area of Outstanding Natural Beauty. Because many developments have implications for the landscape, an appraisal of the detrimental impacts will often be required. Any impacts should be carefully considered, avoided where possible, and where unavoidable they should be mitigated or compensated for. The starting point should therefore be a consideration of what is there at the moment, and the following descriptions of some of the key aspects of the Chilterns and the local village types will help.

Landform

2.3 The underlying chalk geology of the Chilterns creates an escarpment, rising to 265 metres running from Goring-on-Thames in the south-west, approximately 70 kilometres north-eastwards to Hitchin in Hertfordshire. The steep scarpface faces to the north-west and the gentler dip-slope south-eastwards to the Thames and London Basin. Much of the dip-slope has the appearance of a plateau and is dissected by valleys on its south-east side.

2.4 The Chilterns are divided by a series of valleys running in a north-west to south-east direction: the Hambleden, Wye, Misbourne, Chess, Bradenham,

Landscape types



Bulbourne, Gade and Ver. As a result the dip-slope is divided into areas of plateau and ridges, which are themselves divided by many small, usually dry, valleys called coombes. This creates a ridge and valley topography, sometimes with steep sides, but generally described as a rolling landscape.

2.5 In simple terms there are four components to the landform of the Chilterns: the scarpface, the ridge and plateau of the dip-slope, the main valley systems and the Thames valley. The landform may appear immune to impact from development, however, the scarpface and ridge are particularly sensitive to damage and an appreciation of topography can help to improve the location of development and minimise impacts.

The charm of local villages is the blend of their setting and the traditional buildings. (Bradenham)

Chilterns Buildings Design Guide

2.6 There are a number of basic soil types. Chalk is exposed or near to the surface on the scarpface,

The landscape

2.7 The appearance of the landscape is based upon landform and natural features such as rivers and woods, and land uses such as agriculture, forestry, transport, industry and buildings. These factors combine to influence the appearance of the countryside and contribute to the character of individual settlements in the landscape.

2.8 A comprehensive description of the Chilterns landscape was published by the Countryside Commission in 1992 (*The Chilterns Landscape*, CCP

392 1992). Further landscape characterisation work has been undertaken at the Joint Character Area level, at a regional level and at both County and District Council levels, by the former Countryside Agency and local authorities. Where areas have been the subject of assessment they are accompanied by a report which may include information to help minimise, mitigate or compensate for impacts. In addition, the *Chilterns Historic Landscape Characterisation Project* has produced a report that covers the whole of the AONB. Further details on these documents are available from Natural England and your local planning authority.

Major land uses

Woodlands

2.9 Woods and trees feature strongly in the Chilterns landscape. It appears even more heavily wooded because of the number of small copses, hedges, hedgerow and field trees and trees in gardens and villages. The 'hanging' beech woods on the upper slopes of the valley sides are particularly characteristic of the Chilterns. The wooded landscape does not stop at the edge of most villages, as a considerable number of trees in gardens help even 'leafy' suburban housing estates to mellow and blend into the landscape.

Farmland

2.10 About 60% of the Chilterns AONB is actively farmed. The mixture of small and large fields, often divided by large and ancient hedges, is a key



The Chilterns is one of the most heavily wooded areas in the country with over 20% woodland cover. (Cholesbury)

influence on landscape character. There is a mixture of farming types ranging from cereals, some root crops, dairying, beef, sheep and an increasing number of new crops such as maize, rapeseed and linseed. Generally land can be farmed up to the edge of most villages. The blight which can occur around some larger towns, where farming is very difficult, is almost absent from the Chilterns.

2.11 The farmland, farm buildings and the long association between local villages and agriculture have helped to give the area much of its special appeal, and are vital in conserving its rural character. The key issues affecting the erection of new farm buildings are considered later in this Guide.

About two thirds of the Chilterns is farmland supporting a diversity of agriculture including arable, dairying, sheep and small areas of horticulture. (Fingest, credit John Morris)



Nature conservation and recreation

2.12 A significant area of land, covering thousands of hectares in total, is managed primarily for nature conservation and recreation by organisations such as the National Trust, Natural England and the Wildlife Trusts. This includes woodland, chalk grassland, chalk streams, commonland and parkland. Often the same area is managed for both objectives, including Dunstable Downs, Coombe Hill near Wendover, Hughenden Park and Watlington Hill.

Designed landscapes

2.13 Throughout the Chilterns there are designed landscapes such as parklands and ornamental gardens, often laid out by well known garden designers such as Repton, Brown and Bridgeman. The lack of building stone limited the number of grand houses and stately homes, but where they were built wealthy landowners often invested in the parklands and large gardens. Many still survive, such as Shardeloes, Chequers, Ashridge, Mapledurham and Hughenden Manor.

Chalk grassland is a rare and declining habitat, much of it is designated for its nature conservation importance. (Ellesborough)



The impact of settlements on the landscape

2.14 An appreciation of the location, historical pattern and evolution of settlements in the landscape, and the character that has been created, will help when considering how to design and locate new buildings sustainably. This section provides a brief history of the current settlement pattern and identifies the main features and influences which should provide inspiration for new development, helping it to observe the spirit of the traditional built heritage of the Chilterns.

There are many popular recreation sites especially on the scarp ridge, such as the Ivinghoe Hills.



2.15 The impact of development on the landscape is highly variable. Some parts of the Chilterns appear to be timeless, and are comparatively free from modern development. In other parts, especially along major communication corridors and close to large towns outside the AONB, the impacts of housing, industry, modern technology (e.g. masts and pylons) and the general clutter of urban areas are more apparent and intrusive.

2.16 Whilst the general nature of the landform and quality of the landscape is largely consistent throughout the Chilterns AONB, there is no single, unique building style which is characteristic of the Chilterns and found in all parts. Elements of the Chilterns character, especially in the use of materials, can be detected in all settlements despite these variations.

2.17 Generally settlements have remained relatively small and compact, and in overall terms they do not intrude significantly on the landscape. There are some spectacular vistas along valleys

Parks designed by the great garden designers including Capability Brown and Repton can be found throughout the Chilterns. (Shardeloes)



Chilterns Buildings Design Guide



The rate of development of a lot of settlements in the Chilterns was slow and many villages have retained the character created by older buildings. (Penn)

free of major development where small settlements add focus and life to the scene. The small scale, even intimate nature of much of the countryside, has helped to screen most villages, many of which are hidden by the landform and heavily wooded landscape. Ridgetop and plateau villages, in particular, are often only visible to the visitor as the settlements gradually emerge through the trees. It is notable how seldom one village can be seen from another.

Modern development

2.18 Until the late nineteenth century the economy of the Chilterns was dominated by forestry and agriculture and locally available timber, flint and clay products were used for construction.

2.19 In the twentieth century the three main factors influencing the growth of local settlements were: the development of roads and railways, the growth of London and the expansion of local towns such as High Wycombe, Amersham, Berkhamsted and Luton. Consequently, the older settlements already on main routes and readily served by railways have faced considerable pressure for development.

2.20 During the 1920s and '30s much of the central Chilterns was referred to as Metroland, although the name was often applied to a much wider area. The Metropolitan Railway Company encouraged commuters to move out of London and settle in towns where it was involved in developing large suburban housing estates. This period of development has left a significant and lasting mark on many local towns. It represented the first wave of major migration from towns and cities to the Chilterns. It brought with it urban preconceptions of what the countryside should be like, a new approach to the promotion of countryside virtues to an urban population and introduced suburban styles and tastes.

2.21 The mobility offered by widespread car ownership has resulted in a more recent and rapid expansion of some villages on the plateau and ridges not served by railways, including Kensworth, Prestwood, Stokenchurch, Lane End and Woodcote. In fact, Woodcote was designated as a 'specified' village for development by Oxfordshire County Council in the 1960s. Recent development has been most striking in these settlements which lack a

Most modern development has used standard building designs and materials commonly used throughout the country and does not add to the character of the local area. (Prestwood)

major historical core and have less defined character.

2.22 Some may argue there is little that is locally distinctive about them as they resemble towns and villages which can be found anywhere in the country. There are, nonetheless, a small number of older buildings within them which reflect the more traditional character of villages in the Chilterns. Conservation of the quality of the landscape setting and the nature of new development are of great significance in shaping the future of these villages.

2.23 Some villages can relate periods of their growth to specific factors such as the creation of a defence establishment, as in the case of Walters Ash, near High Wycombe.

2.24 If this suggests that all modern development has diluted the character of the Chilterns, it would be a misleading impression, as some has continued to respect the traditional Chiltern location patterns, style and scale of buildings. Unfortunately, a great deal has not.



The present day

2.25 Until the late nineteenth century development was very gradual and most villages changed slowly in response to agricultural rather than industrial factors. As a result villages tend to exhibit buildings from several ages as their fortunes have fluctuated. Twentieth century development was strongly driven by commuting patterns to major towns and Greater London.

2.26 To many, the archetypal Chilterns village comprises brick and flint cottages clustered around a green and tucked away in a small valley. They do exist but can be difficult to find in some parts of the Chilterns. What is more common are buildings scattered amongst extensive twentieth century development, not destroying its previous character, but altering it with standard designs and typical twentieth century street patterns, which are commonly found across the country.

2.27 The impact of twentieth century ribbon development, often along major roads, had a disproportionate effect. A few houses strung along the roadside can give the impression of a considerable amount of development, losing the sense of villages hiding in the landscape, and even obscuring the surrounding countryside from view.

2.28 Nationally prescribed highway standards are a significant influence over the street patterns used for current housing development. These standards do not always help to integrate new developments into existing settlements, and lead to roads dominating the immediate surroundings. Designers need to be imaginative to overcome the negative

influence of these standards on the appearance and layout of the development. Useful reference works are *The Manual for Streets* published by the Department for Transport in 2007 and the *Environmental Guidelines for the Management of Highways in the Chilterns* published by the Conservation Board and the Highway authorities in 2009.

2.29 The present position is that national, regional and local planning policies severely restrict most new development. Small-scale housing proposals are likely to be the main form of development for the foreseeable future. The current housing forecasts suggest there will be continuing pressure for more housing and from people who wish to live in an attractive area, within commuting distance of London and other major towns.

2.30 Older houses with traditional designs, are in great demand and fetch a considerable premium compared to their modern equivalents. Increasingly the market is demanding houses which have character and a traditional appearance, whilst offering all modern conveniences.

2.31 This pressure is matched by a growing desire to protect local distinctiveness, which has often been undermined by the use of insensitive housing designs and layouts. The importance attached to the AONB designation is growing significantly as a reflection of society's wish to conserve the environment. It is in this overall scenario that this design guidance must be effective, and help to ensure that new development conserves the existing traditional character of settlements and wherever possible enhances it.

The impact of settlements and development adjacent to the AONB

2.32 Development pressure in surrounding towns is considerable and some of this will inevitably have an impact on the AONB itself. The boundary of the AONB is deliberately drawn to exclude many large settlements such as Henley-on-Thames, High Wycombe, Amersham, Berkhamsted, Dunstable and Luton, because of their size and urban character. Excluding them from the AONB does not, however, mean they do not have an impact on the designated area. In most cases there are extensive views from the AONB, especially from the scarp ridge and valley sides, across neighbouring towns. The development at the former cement works at Pitstone, the Wendover bypass and housing estates around High Wycombe are all examples of how the views from the Chilterns can be affected.

2.33 This guidance should also be used in connection with proposals for development outside the boundary which may have an impact on the AONB and its setting.

The view from the Chilterns can be affected by development in surrounding towns. (Luton)



Settlement patterns and village character

2.34 Nearly all settlements in the Chilterns can be found in four types of location: in valley bottoms, at the foot of the scarpface, on the ridges and plateau (where they are often associated with common land) and along the north bank of the River Thames. The names of many villages reflect their location in the landscape (such as Ridge and Bottom), or their form (Common, Green, Row and Street).

2.35 The way in which new buildings and other forms of development can be incorporated into the village will vary slightly according to the type of village and its location in the landscape. Many of the primary development issues, especially those related to scale and location, are addressed by the policies in the various development plans, planning policy guidance note for Green Belts and planning policy statements for delivering sustainable development (PPS1) and sustainable development in rural areas (PPS7).

2.36 Some individual settlements, often estate villages, developed their own particular design styles based on the use of certain materials and features which gave a special and often unique identity. When considering new development in such villages it is very important for designers to

study carefully this local style, ensuring new development proposals respect this character. Examples include Chenies, Little Gaddesden and Hexton.

2.37 The speed at which new development takes place, which is a development plan issue, can significantly affect the character of a village, especially smaller settlements faced with relatively large development pressure. Particular care is needed, in terms of the pattern of development and the appearance of new buildings, to avoid 'swamping' the older parts of the expanded settlement, thus eroding its character.

The escarpment

2.38 Although there are a few isolated buildings, the scarpface is too steep for significant settlements to develop. Many relatively small pockets of open grassland still survive, and are often owned by conservation organisations because of their wildlife importance. Such sites include Watlington Hill, Aston Rowant, Coombe Hill, Ivinghoe Beacon, Dunstable Downs and the Barton Hills. These sites provide extensive views to the north across the Vales of Oxford and Aylesbury, and are also visible from a considerable distance from the north and west.

2.39 Most settlement has therefore occurred at the foot of the escarpment. Examples of villages in this location are Ewelme, Great Kimble, Ellesborough and Hexton. Many have ancient origins and partly owe their location to the Icknield Way/Ridgeway which was an important trading

route which still follows the foot of the escarpment. Most of these settlements are still small in size but reveal their ancient origin and importance with their impressive churches and other monuments.

Valleys

2.40 There are a series of broad, but distinctive, valleys all running in a north-west to south-east direction towards the London Basin. These include the Hambleton, Wye, Misbourne, Chess, Bulbourne, Gade and Ver valleys.

2.41 The valley bottoms are largely given over to arable farming and the steeper slopes to dairy and sheep, though in recent years the keeping of livestock has declined. The tops of the valley sides are often wooded, usually by beech woodlands (sometimes known as hangers), which give a sense of enclosure. The main communication corridors historically ran along these valleys and continue to do so today. This includes roads, railways and even

Examples of flamboyant architecture can be found in estate owned and managed villages. (Bradenham)



The scarpface and ridge is the most prominent feature of the Chilterns and runs for over 70 kilometres from Goring-on-Thames to Hitchin. (Aston Rowant, credit Mike Fear)

Chilterns Buildings Design Guide

the Grand Union Canal. There are many smaller dry valleys (coombes) which are characterised by minor roads and smaller hamlets and isolated farms.

2.42 Three factors determined the location of these villages: the availability of a reliable source of water, better quality agricultural land and proximity to main communication and trading routes. Many of these villages can trace their origins back for several centuries, and entries in the Domesday Book are common. Most, if not all, have medieval churches, usually built with flint and bricks with a relatively small amount of stonework. In the case of Little Missenden some of the bricks were plundered from nearby Roman remains.

2.43 Many of these older settlements have a historic core, clustered around a green or along a high street. Some have retained their 'nucleated' form, such as Turville and Hambleden. Others have grown into more substantial settlements and have



There are a string of settlements, often very ancient in origin, nestling at the foot of the escarpment. (Ewelme)



Many valley bottom settlements mark the site of reliable springs and are usually ancient in origin. (Turville)

become stretched along the valley, as in the case of Great Missenden.

The plateau

2.44 The plateau is characterised by heavy clay soils, often with substantial quantities of flints. These areas tend to have extensive networks of hedgerows, often ancient, and are intimately mixed with woodlands, both small and large. The result is a relatively small scale landscape enclosed by woodlands where long distance views are only glimpsed.

2.45 There are subtle distinctions in the Chilterns' topography between ridges and broader areas of the plateau, which have given rise to settlements of different character. In general terms, the ridgetop villages are more linear in form than those on the plateau. Plateau settlements are generally compact and exhibit suburban characteristics.

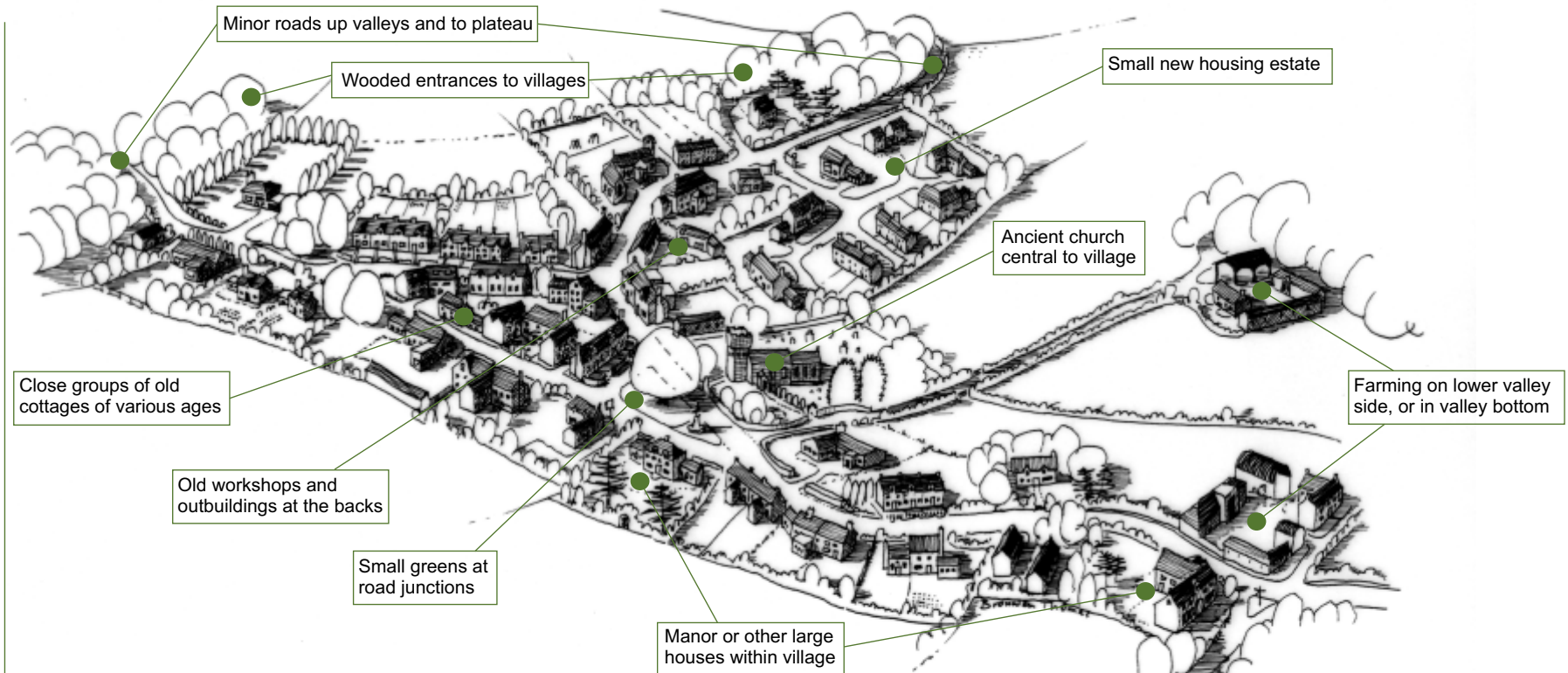
2.46 Expansion in these areas accelerated in the nineteenth century and reflects an era when population pressure drove people onto less productive land, where land prices were lower and more extensive areas of common land existed. As an indicator of their recent origin, very few of these villages 'on the tops' have churches more than 150 years old.

2.47 Some of the hamlets on the plateau, such as The Lee and Christmas Common, are little more than clusters of cottages and farms, but these are the exception. Most of the ridgetop villages are larger and have a strong linear pattern. Villages such as Bledlow Ridge, Naphill and Kensworth are linear in form, and over the years have experienced extensive infilling, creating an unbroken belt of development, sometimes for over two kilometres. A few retain strong associations with common land such as Nettlebed, Cholesbury and Whipnade. The linear pattern at Prestwood has been lost as development has swamped the common itself. Sometimes the present day village is a short distance from the original older settlement, creating 'endships' such as Church End at Kensworth.

Some plateau settlements have remained small hamlets, but several have grown rapidly in recent years. (Bledlow Ridge, credit Gerry Whitlow)



Chilterns Buildings Design Guide



Valley bottom and scarpfoot villages – nucleated form

Examples include: Hambleden, Turville, Bradenham, Lilley and Ewelme

Most villages which lie at the foot of the escarpment or in valley bottoms share similar characteristics.

Characteristic qualities

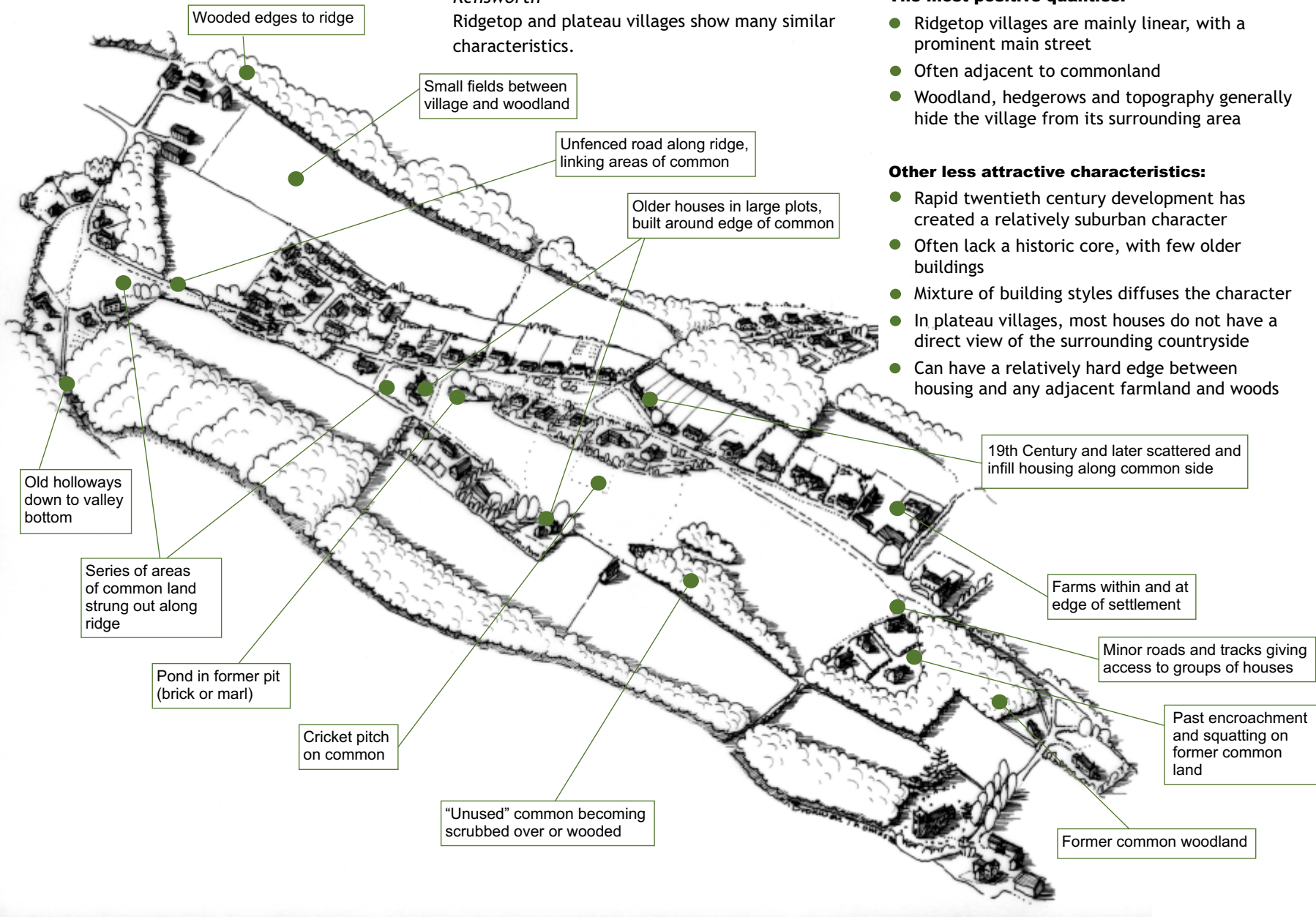
- Often nucleated with an obvious centre to the village
- Relatively compact layout, restricted by rising valley sides
- Usually have a backdrop of woodland and valley slopes
- Can be visible from elevated viewpoints on the adjacent plateau or scarp
- Generally partially hidden by trees and other landscape features
- Older buildings are prominent and establish the distinctive character

Vulnerability to insensitive development

- Development of gaps and at edges, reducing the sense of enclosure, and obstructing or spoiling views to the backdrop of countryside
- “Improvements” of minor roads, access and parking necessitated by increased usage, thus reducing the compact, small-scale character and rural atmosphere
- Unsympathetic conversions of farms and workshops, which are an integral part of the village scene
- New housing estates are likely to be of uncharacteristic layout and design, out of context with their surroundings and unsympathetic to the adjacent village

Ridgetop villages – loose linear form Examples include: *Bledlow Ridge, Naphill and Kensworth*

Ridgetop and plateau villages show many similar characteristics.



Wooded edges to ridge

Small fields between village and woodland

Unfenced road along ridge, linking areas of common

Older houses in large plots, built around edge of common

Old holloways down to valley bottom

Series of areas of common land strung out along ridge

Pond in former pit (brick or marl)

Cricket pitch on common

"Unused" common becoming scrubbed over or wooded

19th Century and later scattered and infill housing along common side

Farms within and at edge of settlement

Minor roads and tracks giving access to groups of houses

Past encroachment and squatting on former common land

Former common woodland

Characteristic qualities

The most positive qualities:

- Ridgetop villages are mainly linear, with a prominent main street
- Often adjacent to commonland
- Woodland, hedgerows and topography generally hide the village from its surrounding area

Other less attractive characteristics:

- Rapid twentieth century development has created a relatively suburban character
- Often lack a historic core, with few older buildings
- Mixture of building styles diffuses the character
- In plateau villages, most houses do not have a direct view of the surrounding countryside
- Can have a relatively hard edge between housing and any adjacent farmland and woods



Chilterns Buildings Design Guide

Plateau villages

Examples include: Woodcote, Prestwood, South Heath, Hyde Heath and Wigginton

Vulnerability to insensitive development

- Use of suburban house styles
- Mixture of styles dilutes the character
- A hard edge between housing and adjacent countryside
- Over-dominant road layout and highways infrastructure
- Excessive infilling which breaks visual links with the countryside and affects historic character



Chilterns Buildings Design Guide

Valley-sides and the scarpface

2.48 Villages on valley sides or the scarpface are scarce, Loosley Row in the Bradenham Valley being a very rare example.

Thames valley

2.49 The extent of the valley on the north side of the river is relatively restricted and in some places the hills rise up from the river itself, notably at Goring. The river and views of Berkshire to the south, rather than the Chiltern Hills, dominate the landscape. Wealthy people have long favoured this area and the riverside is characterised by large houses and estates which turn their back on the

Chilterns to face the river. They are often set in secluded gardens and parks which are more visible from south of the river. The large riverside houses and estates have their own, often highly ornate character, which has few similarities with the rest of the Chilterns. Two villages, Goring-on-Thames and Whitchurch-on-Thames are historically important as Thames crossing points.

Ribbon development

2.50 A characteristic of the period from the 1930s to 1960s was ribbon development, extending ridgetop villages in particular, effectively into open countryside. This regrettable type of development has now generally ceased, but has had the effect of



The River Thames forms the south-western boundary of the Chilterns, separating the area from the North Wessex Downs to the west and the remainder of Berkshire to the south.

giving the appearance of more extensive development in the countryside than actually exists. Examples of ribbon development include Radnage, Hughenden Valley, Bellingdon and Streatley. Other examples of ribbon development occur along the roads leading from the valley bottom to ridgetop villages. Naphill and Bledlow Ridge are affected in this way.

Village character

2.51 On page 59 all villages are classified according to their primary character type. Inevitably some settlements demonstrate more than one character type, in which case the predominant one is used.

A special category is the Thames valley where the houses often exhibit a range of styles which are sometimes unusual or even flamboyant. (Whitchurch-on-Thames)



Chilterns Buildings Design Guide

Thames-side villages

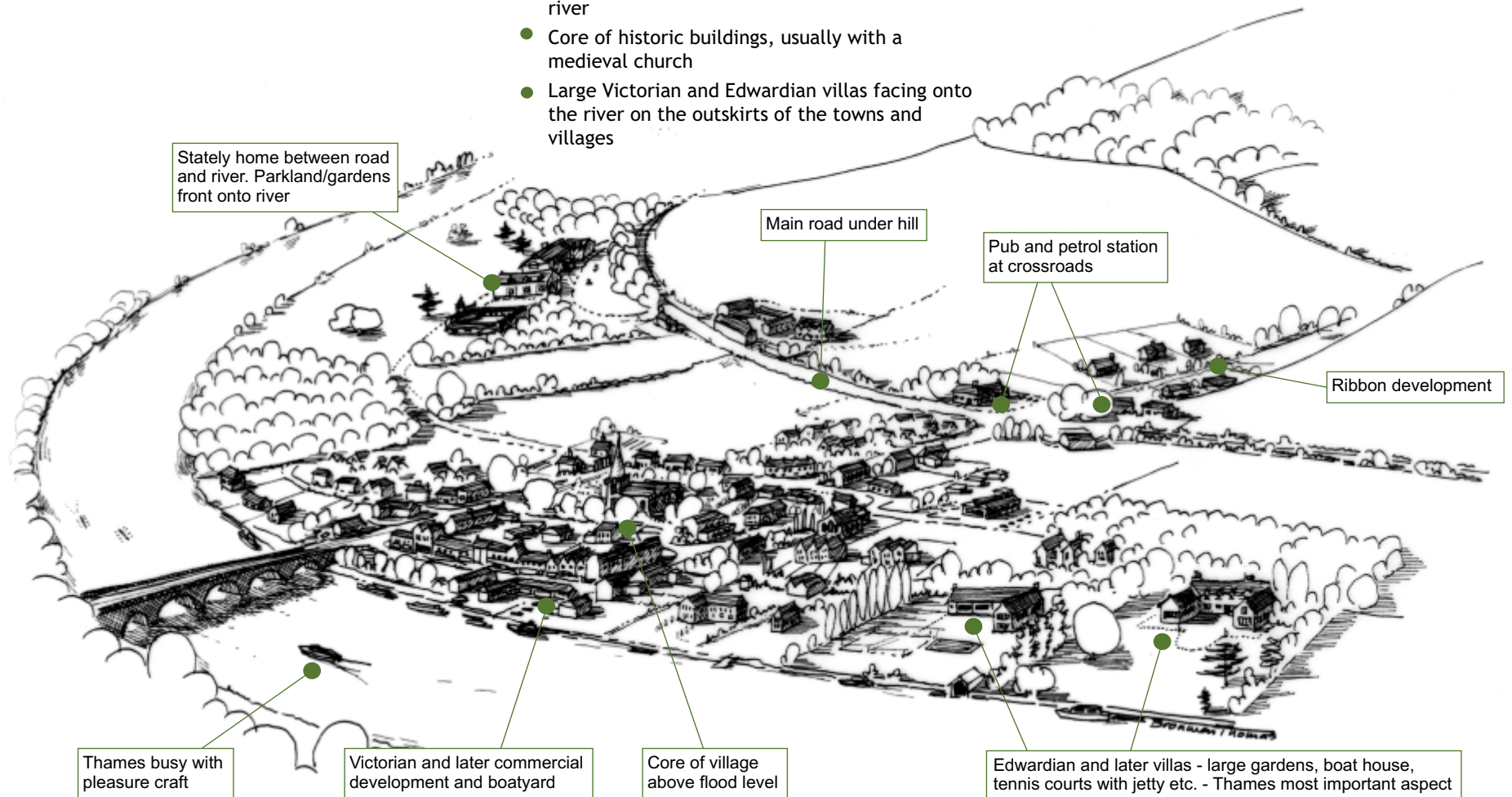
Examples include: *Goring-on-Thames, North and South Stoke, Whitchurch-on-Thames, Mapledurham and Medmenham.*

Characteristic qualities

- The river is the dominant natural and historic feature
- Small and relatively compact settlements
- Strong historic traditions
- Main street usually leads to the river (bridge or former ferry crossing point)
- Buildings tend to be orientated towards the river
- Core of historic buildings, usually with a medieval church
- Large Victorian and Edwardian villas facing onto the river on the outskirts of the towns and villages

Vulnerability to insensitive development

- Ribbon development linking core of the village with a main road
- Development which reduces the amenity and visual impact of the river



Designing new buildings

Chapter 3

3.1 The principles set out in this Guide are intended to assist not only with the design and siting of new housing, and extensions to existing housing, but also with a wide range of other buildings, such as village halls, sports pavilions, agricultural barns, rural employment buildings and other commercial premises. If the building lies within a conservation area designated by a local planning authority or is a listed building it is recommended that you seek advice from the local planning authority at an early stage, as additional controls may apply.

3.2 It is all too easy for a new building, poorly located, with an unsympathetic design and inappropriate use of materials, to detract from a neighbourhood, street, village or view. By adherence to some straight-forward principles and guidelines, new buildings and extensions can conserve or even enhance their village setting. It is also vital that the detail is appropriate, avoiding features which are ill-suited or uncharacteristic of the Chilterns traditional building heritage. This includes the need for repair or restoration work to be sensitive to the original features of the building.

3.3 Architectural trends, new building techniques and the introduction of different materials, have changed the appearance of buildings from generation to generation, introducing what were considered to be modern designs in their time. Innovative and imaginative architecture must be allowed to continue. Those designs, which are

generally acceptable and have been the most successful, owe much of their appeal to the way in which they fit into the landscape and reflect the building traditions of the area.

3.4 Traditional older buildings in the Chilterns are small in scale. They are rarely visible from a distance, except for their roofs, and 'close to' views and building details are important, for both the building itself and the street.

Environmentally sensitive design and use of materials

3.5 The use of energy efficient and environmentally sensitive materials and building techniques, combined with high quality locally distinctive architecture can provide broad based environmental benefits expected in an Area of Outstanding Natural Beauty. Greater consideration should be given to more passive sustainable approaches such as the use of greater levels of insulation (sheep's wool or recycled materials such as newsprint or plastic for example), the use of natural paints or the installation of wood fuelled burners. New developments should take advantage of these materials and techniques, where appropriate. In particular, the use, or appropriate re-use, of locally produced building materials and installation of sensitively sited and designed renewable energy technologies (solar panels and ground source heat pumps for example) should be encouraged. With the impacts of climate change

being felt more widely greater consideration will need to be given to summer cooling (by appropriate tree planting and building design and orientation for example) and the impacts of more frequent storm events (e.g. the careful design and installation of higher capacity rainwater goods or rainwater harvesting systems). Another key consideration is the possible impact of development on existing wildlife, particularly protected species and nesting birds. Opportunities should therefore be taken to build in features for biodiversity such as bat and bird boxes and holes and the planting of local and native species.



This building has been designed to fit within its site and has been orientated to make the most of the available light. (Bix)

The location and siting of new development

3.6 Most development in open countryside is severely restricted by local and national planning policies and is likely to be on a small scale and located within or on the edge of existing settlements.

3.7 The sensitive siting of a new building is vital and should result in developments sitting in harmony with the landscape. Considerable importance is placed on appropriate planting to ensure new developments are softened, though this should not be seen as a method by which a poorly designed development can be hidden. In time these buildings should be adding to the architectural heritage of the Chilterns. The approach should be to ensure that all views of new buildings are attractive in themselves and enhance their immediate environment both at close quarters and at longer distances.

3.8 The characteristics of the settlements described in Chapter 2 normally provide the context for considering the location of new development. This Guide aims to protect and promote the positive characteristic qualities of the Chilterns settlements and avoid insensitive development. There may also be opportunities to mitigate the impact of negative or unattractive characteristics.



This development makes maximum use of existing landscape features. (Ewelme)

3.9 Checklist

In general terms the location of new buildings should:

- Avoid skylines and prominent spurs
- Avoid open slopes
- Be in harmony with the landscape when considered from all views
- Not extend ribbon development
- Make maximum use of a site's contours without major earthworks and the need to excavate basements
- Make maximum use of existing trees and landscape features

Relationship of new buildings to the landscape, neighbourhood and site

3.10 Checklist

Issues to consider when designing any new development or extension:

- The setting of the village or individual building in the landscape
- The nature and pattern of development in the settlement
- The features which contribute to the character of the surrounding settlement and older buildings, or the locality of an older building
- The location of the site within the settlement
- The nature of the site itself and its existing landscape features
- The relationship of the site to its neighbours and the street
- The existing street pattern and the relationship of the proposed building to the road
- The materials used and design details of traditional buildings
- The scale and form of the proposed building in relation to the site and neighbouring buildings
- Existing and proposed landscaping, including boundary treatment, access roads and driveways
- Ensuring new buildings add to the sense of place and local character and belong to the Chilterns, rather than lead to intrusive 'anywhere' development

The landscape qualities of the site

3.11 Checklist

- Carry out a survey of all the landscape qualities and features of the site, identifying those which should be retained or removed
- Retain as many of the positive features as possible, especially those which link the site to the surrounding landscape
- Protect these features during the construction phase
- Take note of any local patterns in terms of garden size and layout
- Ensure gardens are big enough to allow some shrubs or trees to mature and help landscape the development
- Identify local landscape and design features which help the building blend in with the surrounding countryside

3.12 Because the Chilterns AONB is a nationally protected landscape, the way in which the new building respects the landscape is of paramount importance. The immediate landscape around buildings and villages is highly important to local people and it is essential that this 'intimate' landscape setting is not spoilt. New development must blend into the renowned and much loved wider scenery of the Chilterns.

3.13 Before any work begins on the site, undertake a survey of all existing landscape features, no matter how small. They are all part of the existing landscape and the retention of positive features will help to blend the new development more readily into its surroundings, and give it the character so highly prized and yet rarely found. The most usual features are trees, hedges, small earthworks, walls, fences and ponds.

3.14 The next stage is to come to a judgement about which features should be designed in and which should be designed out. A simple starting point is to retain as many of these existing features as possible. These are all difficult to replace or would take many years to provide the same effect if planted or created as part of a new development. Take particular care to give them protection during the construction phase when they are vulnerable to damage (see BS 5837 : 2005, *Trees in relation to construction* for advice). A special effort should be made to retain trees and hedges which were part of an old field pattern as they not only provide a visual link with the surroundings, but also a historical link with the past. If a hedge has been neglected and is overgrown or has gaps in it, it can be readily restored with new planting and skilful pruning and laying.

3.15 Often there is an established local pattern to garden size and general layout, for example long and narrow front or back gardens. Retaining this pattern is part of helping any new development fit into its immediate surroundings.

3.16 Historically there was often no clear edge between town and country. The scatter of cottages and the soft interface between the village and surrounding woods and fields would have retained the sense that the village was part of the countryside. This characteristic is being lost as villages have developed in ways which create a hard edge, where they 'turn their backs' on the countryside. Designers and planners should try to avoid the creation of this hard 'edge'. This can be achieved by emphasising the features which create visual links with the surrounding countryside, such as trees, hedges and earthworks. Tall solid fences and walls appear as a considerable barrier and tend to create a hard edge, and in the process restrict views from the property.

*This house uses existing landscape features to help it fit in.
(Lower Assendon,
credit John Oldridge)*





Sensitive siting of a new building is needed to avoid disrupting the relationship to the street. (Ewelme)

Street pattern

3.17 A fundamental guiding principle, not always easy to follow in practice, is that new development should be integrated with the village and its existing street pattern. This means trying



Repeated designs do not allow the development to blend into a village where irregular patterns are more common. (Chalfont St. Giles)

Older villages and hamlets tend to blend into the countryside because of irregular orientation and a less regimented street pattern. (Bradenham)

to avoid 'bolting' on new estates, often in the form of culs de sac, which are usually perceived as a separate and detached part of the village. It is difficult for this type of development to contribute much to local character or to the sense of place, since its form and layout rarely reflects the character of building in the rest of the village. The Department for Transport published the *Manual for Streets* in 2007 which contains useful advice about the need for both internal and external connectivity when considering street patterns.

Multiple plots

3.18 Large-scale building of new estates will be rare in the Chilterns AONB. More common will be the development of sites which can accommodate a small number of houses. Because of the general shortage of housing land there is a tendency to try and build as many dwellings as possible on the



site, whether they are so called suburban style 'executive homes' or smaller more affordable market, rented or social housing. The main priority must be to ensure the buildings relate well to one another, as well as to neighbouring plots within a wider context.

3.19 There has been a recent trend to try to incorporate houses with a range of superficial design features within one development, in order to market them as individually designed. This practice has usually resulted in a disjointed and unattractive mixture of houses, for example, some with Tudor style half-timbering, others with brick and flint and some with herring-bone brick work.

Disguising houses of the same size and type with a mixture of superficial features can make the development appear disjointed and usually fails to achieve the desired effect for the whole development. (Loosley Row)



Appropriately designed variety in the types of houses can have a pleasing visual effect whilst providing the mixture of housing needed to maintain balanced communities. (Great Missenden)

3.20 The use of a mixture of terraced, detached and semi-detached houses with some linking features, such as garden hedges or walls can overcome the effect of buildings floating in an unrelated fashion. All these buildings, although of differing types, should utilise complementary designs and materials. Sensitive selection of surfacing for shared areas, and variable garden sizes and shapes can also help to avoid an over rigid geometric layout.



Even small gardens can add greatly to the attractiveness of a building. (Ewelme)

Space between buildings

3.21 The space between buildings should be positively designed as part of the overall development, including space within individual plots and any shared areas. It is important to plan the layout and density so as to accommodate green space provision and strengthen the network of green spaces and links. The designer should aim to make roads and parking areas within the overall development subordinate to gardens, buildings and shared space. This will help to create a people friendly area, especially for children. This can be achieved through the use of alternative road surfacing, narrowing road width, or even avoiding a distinction between the road and a pavement by not using kerbs.

The individual building

3.22 Despite a complex historical layering of many different periods (as shown in the Chilterns HLC) the primacy of brick and emerging use of flint from the seventeenth century onwards produced what many people consider to be the archetypal Chilterns brick and flint cottage. This was generally a simple construction of one and a half storeys with low roof and dormers, constructed from locally made red brick, flint and clay tiles, sometimes with an oak timber frame. The buildings were rarely more than one room deep and adopted a 'T' or 'L' shape in order to minimise the span of the roof. They are numerous and virtually all settlements still retain buildings of this style. In many ways it is these simple cottages which create the character of villages in the Chilterns, into which the new development must fit.

3.23 Factors which can affect the appearance of the building

- Shape, scale, bulk and proportions
- Roof size and shape
- Chimneys
- Walls
- Materials, colours and textures
- Number, shape, size and pattern of windows and doors
- Porches
- Garages and parking areas
- Landscaping, walls and hedges

Detailed design considerations

3.24 Great care and attention to detail is needed to ensure buildings enhance, rather than spoil, the landscape of the Chilterns AONB. Use of 'off the shelf' designs and/or inappropriate standard materials should be avoided. It is always advisable to seek pre-application advice from your local planning authority.

3.25 Checklist

- Identify the main architectural features of the traditional buildings in the immediate area of the proposed new building, and interpret these in the design
- When building between existing properties, respect the size, shape and siting of adjacent buildings
- Avoid excessive earth works - step buildings down slopes instead
- Take care over the treatment of doors and windows which can dramatically alter the appearance of a building
- In multiple plots, use traditional design styles and features to create a consistent design theme, but avoid repeated designs and geometric patterns
- Consider mixing types of housing, (terrace, semi, detached, linked) as this adds variety in a development and the settlement, whilst using consistent designs and materials
- Use simple building layouts at right angles or parallel to the road
- Avoid deep floor plans, which create large roof spans, often unacceptably shallow in pitch

These styles of cottage with consistent scale, form and materials can be found throughout the Chilterns and exhibit many design features which are now considered to be traditional. (The Lee, Hambleden, Stonor)



Try to identify those features which are characteristic of traditional buildings in the village. (Turville, credit Richard Bossons)

The scale and form of new buildings

3.26 It is important to consider how the scale and form of a proposed new building will affect its visibility in the landscape, and its relationship to nearby buildings. It is essential that the building is designed to fit the site.

3.27 New houses should have a simple form and a pitched roof with a central ridge. Extensions can be added to buildings of this shape without creating a complicated and messy structure. More detailed advice on the way in which existing buildings can be sympathetically extended can be obtained from your local planning authority.

3.28 Buildings with a large deep plan often sit awkwardly on a sloping site and usually require substantial ground works. Rather than adopting this approach, the design and layout of the building should be changed to fit more comfortably on to the site, by 'stepping' down the hill. A house with a deep plan, exceeding 7 metres, is likely to appear as a large 'boxy' building. It is likely to have an expansive shallow pitched roof, less than the 40

Chilterns Buildings Design Guide

degree norm. This is one of the reasons why bungalows can appear to be an inappropriate building design. It will almost invariably be out of scale with the countryside and neighbouring buildings. An 'L' shaped or rectangular building is likely to be less bulky than one with a large, square floor plan.

3.29 The overriding rule is to adjust the bulk, layout and orientation of the building to fit the site without major ground works, ensuring a relatively low roof height. This can help to achieve more interesting designs and layouts, possibly using split-levels. Care should be taken to avoid the spread of the ground floor footprint beyond the roofline.

Terraces

3.30 Until the nineteenth century terraces were relatively uncommon. They were usually short, of about five dwellings or less and constructed of brick, sometimes in combination with flint. Terraces are usually balanced in appearance and this should be maintained when additions are being considered. The construction of unusual end of terrace structures, dormers and porches should be avoided particularly where they do not exist already. New terraces should also be short, and



every effort should be made to restrict the height of the building and the bulk of the roof. If the terrace is on a slope, the individual houses should be stepped. This is a useful way of allowing buildings to follow the contours, however, it is not recommended in other instances where sites are level as the stepping leads to a contrived appearance.

The 'one-off' design

3.31 This guide is intended to help conserve and enhance the Chilterns landscape by promoting locally distinctive building traditions. However, this does not mean that there is no place for contemporary and innovative architecture or more interesting designs which demonstrate adherence to the basic principle of being in harmony with their site and the surrounding buildings and countryside. By their very nature such designs are likely to come forward rarely, though should still be of the highest standard. They should therefore only be built in exceptional circumstances where it can be shown that, whether in the open countryside or a settlement, they enhance the landscape and immediate setting rather than detract from local character. They should also demonstrate the highest principles of sustainability in terms of design, use of materials and renewable energy provision for example and should have the ability to be repaired and renewed when necessary.

The Board supports the Government's policy which stresses that isolated new dwellings in the countryside will require special justification for planning permission to be granted. The exceptional

Terraces were commonly constructed from the mid nineteenth century onwards. (Aldbury)

quality or innovative nature of the design may provide the special justification. The design should be truly outstanding and ground-breaking, for example in its use of materials, methods of construction or contribution to protecting and enhancing the environment (PPS7).



3.32 Therefore, for such buildings to fit into the Chilterns AONB they should be sympathetic to their surroundings and the defining characteristics of the local area and will need to demonstrate the appropriate use of local building materials wherever possible. With current uncertainty about the likely impacts of climate change it would be sensible to incorporate renewable energy provision (particularly solar hot water, solar photovoltaics [PV], ground source heat pumps and wood fuel boilers for both heat and power), increased levels of insulation and innovative design features to reduce the impacts of summer heating (building orientation, tree planting and installation of reflective glazing) and potential storm events (permeable surfacing, larger gutters and drainpipes and water collection and recycling facilities). These principles should apply to all new buildings.

One off designs should be sensitive to the local area and enhance the landscape and immediate setting. (Marlow above, Berkhamsted and Goring below)



Roofs

(see the **Chilterns Roofing Materials Supplementary Technical Note** for more detailed advice)

3.33 Checklist

- Use a pitched roof with central ridge
- Avoid flat roofs
- Avoid roofs with unequal pitches
- Full gabled roofs with plain uncoloured mortared verges and third round ridges are preferred. Hipped and half-hipped roofs are less common
- Roof pitch should be at least 40 degrees for clay tiles and most slate roofs
- Thatched roofs should only be used where locally common
- Thatched roof pitches should be up to 55 degrees
- Consider using a double roof with valley gutters and parallel ridges for larger roofs to minimise their bulk
- Use plain red clay tiles whenever possible or slates as an alternative
- Clay tiles and slates should have a slight texture to help weathering
- Concrete tiles and pantiles should not be used
- Avoid using bargeboards and deep projecting boxed eaves on 'traditional cottage' designs
- Do not use bargeboards with highly ornamental 'alpine styling'

- Restrict the use of rooflights, however if used they should be recessed and split into small panes (to help avoid light reflection), kept low on the roof and placed on the rear elevation of buildings
- Roof mounted solar renewable energy installations (hot water and PV) should be kept low on the roof and prominent elevations of buildings should be avoided
- Dormer windows should be kept low on the roof. They should be small and designed to let in light rather than to create additional space in an attic room
- Use black painted cast metal and not uPVC for external guttering and pipework

Shape, size and materials

3.34 The shape of roofs is often overlooked as an important aspect of building design. Their shape, size, pitch and colour can all have a significant impact.

3.35 Traditionally, houses were rarely more than two storeys in height. The upper storey often used part of the attic with small dormer windows, which helped to restrict the height of the ridge and keep the bulk of the building low.

3.36 A pitched roof with plain clay tiles, or sometimes slate, is traditional to the area, as are gable-ended, and to a much lesser extent, half-hipped roofs. Tiled roofs should have pitches of at least 40 degrees, whilst slate can be as low as 30 degrees, although this can appear rather flat.



The roof of this relatively large cottage is kept in proportion by the use of a double roof with central valley gutter. (Coleshill)



A traditional brick and flint cottage with small dormer windows and plain clay tiled roof. (Watlington)

Thatch should have a pitch of up to 50-55 degrees. Unequal main pitches should be avoided. The use of flat, nearly flat, or very steep roofs are at variance with all other forms of vernacular architecture in the Chilterns.

3.37 With larger, deep two-storey buildings there is a tendency to create a bulky roof with a high ridge that is out of scale. There are many examples of how older traditional buildings have overcome this problem by using a double roof with parallel ridges and a central valley gutter to reduce the bulk of the building.

Chilterns Buildings Design Guide

3.38 A residential development where all the roofs are identical and appear to be arranged in a geometric pattern will be conspicuous and out of place, especially where they do not have chimneys. The designer should aim to break up potentially dull roofscapes by using the correct clay tiles (hand-made with double cambers) and the inclusion of chimneys in the design. If some variation is required then slate could be introduced for small and subservient extensions. A mixture of gabled ended, half-hipped and hipped roof styles should be avoided. Gabled ended roofs were the most common building style, and half-hipped structures relatively scarce. A simple break in the roofline can create the desired effect.

3.39 The materials and colour of a roof are key elements of any individual building and streetscape, and are especially important when elevated views of the building or village are possible, such as from the scarp ridge. Consistent colouring and use of materials helps to soften the view of the village and ensure new development matches older buildings.

Slate has been commonly used since the mid-nineteenth century. The roof pitch is often more shallow than for clay tiled roofs. (Great Kingshill)



The buildings fit together because the roof pitches and use of plain red clay tiles is consistent. (Little Missenden)

3.40 The traditional plain red clay tile continues to be used widely. During the mid-nineteenth century slate was introduced as a roofing material and used extensively in villages which expanded rapidly from that time. A common feature is the use of clay ridge tiles on a slate roof.

3.41 The characteristic plain red clay tiles should be used whenever possible, although slate roofs are common and familiar. The texture of roofing materials is also a consideration. Natural roofing materials such as clay tiles and natural slate are slightly textured and weather readily. Smooth and shiny roofing materials, including some clay tiles, artificial and some imported slates, lack the

Thatch can be found across the Chilterns but it is no longer as common as it once was. (Ipsden)



slightly rough texture necessary to allow them to weather. Other colours rarely fit in with their surroundings.

3.42 Concrete tiles and clay pantiles should not be used.

3.43 Thatch is still found in many parts of the Chilterns, but is no longer common. It is exceptional for thatch to be used on a modern building, and particular care is needed to avoid the building becoming an oddity, out of keeping with most of the buildings in the area.

Bargeboards

3.44 During the nineteenth century boxed eaves and bargeboards were introduced as a design feature, and are now widely used. They are appropriate for Victorian buildings but can spoil other older buildings if added, and should be avoided if a new building is being designed to reflect a traditional cottage design. Bargeboards were generally not used on brick and flint cottages which had mortared verges. Those which exhibit ornate styling can be intrusive and incongruous, and should be avoided.

Bargeboards on new cottages can appear as an unnecessary design detail. (Great Kingshill)



Boxed eaves and bargeboards have been used since the 1850s. They can add to the character of a new building if used with great care. Too often they do not. (Chenies)



Chilterns Buildings Design Guide

Dormer windows

3.45 Traditional cottages sometimes had dormers to make use of the roof space. They were usually gabled, small, restricted in number and sited low down on the roof, occasionally breaking the eaves line (less common nowadays). Cheeks and gables tended to be plain rendered, occasionally lead was used for the former, brick and flint for the latter. Tile-hanging or wood or wood-effect cladding are not traditional. If dormers are used at all, they should respect these simple rules. The roof materials and pitch should match that of the main roof. Window-frames should usually match, but be smaller than those used on the main elevation, although where sashes are being employed, attic casements would be just as appropriate. Cat-slide or flat lead covered dormers may be a useful addition for the architect trying to get more space in the roof, but where a traditional cottage look may not be appropriate. However, close attention should still be paid to the local context.

The careful use of dormer windows can add significantly to the appearance of a building. (Greenfield, Watlington)



Other forms of dormer window can add to the appeal of a roof, in these cases cat-slide and double-pitched dormers have been used. (Bockmer End)

Rooflights, solar panels and small-scale wind turbines

3.46 Rooflights and solar panels need to be carefully used and positioned to avoid disrupting the appearance of a building. They can be accommodated on relatively modern buildings but care is needed to limit the number, and ensure they are well positioned on the roof - for example, by making sure they are not too high. Consideration should be given to the siting of solar panels away from the building, if space allows and the installation can be sufficiently well screened.

3.47 They should be located away from the front or prominent elevation of the building. On older properties new rooflights and solar panels may be difficult to incorporate without spoiling the

Solar panels on the front elevation of a building can spoil the overall appearance of a roof. (Great Missenden)

appearance of the roof. Investigate other means of introducing attic light, for example by means of gable end windows where appropriate.

3.48 At present small-scale domestic wind turbines will often need planning permission and early contact should be made with the local planning authority. Such turbines (usually about 1kW capacity) will normally need to be attached to a gable wall and project above the roof in order to produce any electricity. However, with the turbulence caused by the house it is attached to and other buildings, trees and obstacles locally the power produced is likely to be limited. Despite being small-scale, roof-mounted turbines are likely to disrupt the appearance of a building unless they are very carefully positioned.



Chimneys

3.49 Checklist

- Wherever possible chimneys should be incorporated into designs
- If the house doesn't have an open fireplace, consider incorporating the central heating flue or soil stack/vent pipe in a chimney
- Traditionally chimneys often had detailing as a monument to the bricklayers skill. This is especially prominent in traditional estate villages
- Do not use fake or moulded ridge stacks

3.50 Until comparatively recently chimneys were a standard feature of all houses in rural areas, most of which had more than one chimney. They are attractive features in their own right and add interest to almost any type of building. They were



New houses without a chimney look strangely bare, drawing attention to the bulk and uniformity of the roof. (Walters Ash)

often prominent and flamboyant features of the cottages belonging to traditional estates.

3.51 Many people would argue that a fireplace is a traditional part of any house in the countryside, and a valued part of rural living is having an open fire or stove. In recent years houses have been designed without an open fireplace, and thus the house has not had a chimney. This has a surprisingly dramatic effect on the appearance of the building. As such, designers should consider incorporating an open fireplace in new houses.

3.52 If a real fireplace and working chimney is not a feature of the house, consideration should be given to housing the central heating flue or a soil stack/vent pipe in a chimney rather than simply exposing a short length of piping. A blank unadorned roof will always look out of place in the countryside and without a chimney can appear to be bulky and over bearing.

Chimneys are often prominent features, not just of the roof but of the gable wall, with large external chimney breasts. (Medmenham)

Walls

(see the *Chilterns Flint* and *Chilterns Brick* Supplementary Technical Notes for more detailed advice)

3.53 Checklist

- Use red/orange brick where this is prevalent
- Do not use other colours of brick unless there is a distinct local tradition
- Avoid using bricks with 'sharp' edges
- Use bricks with texture to help weathering
- Use an appropriate brick bond whilst avoiding the use of stretcher bond
- Flint should be fractured or knapped with the dressed face exposed
- Use appropriate lime mortars
- Only use colour banding where it is locally dominant and use variations of red brick - avoid other colours
- Consider using glazed 'headers' to provide detail
- Consider using different materials for front and side elevations (e.g. brick to front and brick and flint to sides)
- Do not use pre-cast flint blocks or token flint panels
- Hanging wall tiles, colour washing and weather-boarding should be avoided, unless characteristic of the locality
- Consider using weather-boarding stained black for garages and other out-buildings - use wide boards

Chilterns Buildings Design Guide

The use of flint is the most commonly adopted technique of creating the appearance of a 'Chilterns cottage'. The flint should usually be fractured or knapped with the dressed surface being visible and the flint should be laid in lime mortar. (Medmenham)



3.54 For centuries, locally produced 'red' bricks were the basic building blocks used in the Chilterns. Flint has also been a basic building material for centuries but it was only towards the end of the eighteenth and into the nineteenth centuries, that it was much more commonly used, often for domestic construction and usually in

The use of glazed headers to create a decorative pattern was relatively common. (Watlington)



association with the same locally produced, 'mellow' red brick. It was nearly always fractured or knapped (dressed) and used in smaller sizes. Large pieces were rarely used and almost never in the round except for ornamental purposes.

3.55 Until bricks were imported to the area, locally produced bricks were used which were nearly all red, ranging from those with orange tinges to nearly purple. Generally they were handmade and a mellow red in colour, with rounded edges, rather than the sharp and hard edge of modern machine made bricks. It was common to use bricks of slightly different colours to provide ornamental detail. Such combinations were subtle, and not based on dramatically contrasting colours. Glazed headers were often used to create decorative patterns.

3.56 Inevitably in a woodland area, timber has been extensively used for construction. Timber framing, using hardwood species, especially oak, is no longer practiced widely, nor is weatherboarding, which was the normal construction technique for barns and other 'industrial' buildings. Nevertheless the use of sustainably sourced timber for construction and finishes is encouraged.

3.57 Since the beginning of the twentieth century the range of building materials in common use expanded enormously. There is no longer a reliance on locally produced materials. Highly coloured bricks and concrete tiles, which owe little to local tradition, have sometimes displaced the familiar red bricks, clay tiles and flint.

Inappropriate use of standard designs and materials do not add to the character of settlements. (Hyde Heath)

3.58 The traditional materials of local brick, plain red clay tiles and flint are very durable and give a familiar character to a building. In contrast, many modern materials lack an appropriate colour and texture, thus retaining their 'newness', and fail to weather with age and exposure to the elements.

3.59 Red brick should be used. Other colours such as yellow, grey, brown or salmon pink have never been used widely and should not be used, unless they are a notable local feature. Hand-made bricks are still available and made in the Chilterns, and locally produced modern machine made bricks, which replicate the appearance of hand made bricks, are widely available. It is important to achieve a better quality finish with appropriate detailing.

3.60 The colour, thickness, profile and texture of mortar joints and the bond chosen all affect the final appearance of a wall. A strong cement based mortar is inappropriate as its use will result in shrinkage cracking around bricks and flints,



allowing water ingress and leading to damage to both bricks and flints as well as any mortar core. Traditional lime mortars are made with sand and lime and their use helps to improve the bond with clay bricks and flints. The subtle texture of lime mortar enhances the visual qualities of any wall it is used for. The elasticity and porosity of lime mortar allows a wall to breathe, moisture to evaporate and fine cracks to 'heal'. Its use is ecologically friendly, and even allows a wall to be demolished and reconstructed in the future without any loss of material.

3.61 For repair work such as repointing, very careful consideration needs to be given to whether the work is necessary and intervention should be the minimum necessary to retain flint and brickwork in a safe and sound condition. If the building is listed then consent may be required before attempting any repairs (contact your local authority Conservation Officer). Repointing is generally only needed when the mortar has clearly failed and is powdery, loose and crumbling or has eroded away through weathering or decay. Avoid using cement-rich mortars as they set too hard and remain intact during any movement of the wall thus tearing the flint and bricks which surround them. Specialist contractors should be employed and they should try and achieve as close a match in texture and composition as possible (see the *Chilterns Flint* and *Chilterns Brick* Supplementary Technical Notes for more detailed advice).

3.62 Tile hanging, lime rendering, lime washing and timber weather-boarding are occasionally found, but were not used widely for houses.

Weather-boarding was more commonly used for outbuildings and may be a useful design detail for garages, for example. Traditionally the sawn planks used for weather-boarding were wider than the narrow boards sometimes used today.

Mixing materials and styles

3.63 Mixing 'images' of past architectural details in an attempt to create a false sense of history and to give an anonymous building instant character such as: medieval leaded lights, mock Georgian front doors, ornamental bargeboards and Tudor half-timbering almost never achieves the desired effect and should be avoided. The designer should refer to a local Village Design Statement or Conservation Area Appraisal, if one exists for the village, which will help to identify local design styles and details.

3.64 Only use materials which are traditional to the Chilterns. Materials with colours and textures alien to the Chilterns such as stone from other areas, yellow brick, plastic, or brightly coloured cement and concrete based products cannot help to blend a new building with the countryside or the traditional character of local villages. Particular care is needed when using ornamental detailing such as coloured brick banding and unusual window shapes.

3.65 The modern practice of ad hoc use of several different types of building material gives an unbalanced and hybrid appearance to a building and development. Recently, as the market



attempts to provide new and modern but 'traditional' cottages, builders have simply added pre-cast concrete flint blocks or other token flint panels to conventional modern designs, or used bright red brick with hard edges and a smooth finish. These, too, fail to create the desired effect and should be avoided. Ill-considered pointing also mars the appearance of brick and flint.

The appearance of buildings can be significantly affected by great variations in design features, materials and scale. (Speen)



A wide variety of designs is available, but careful selection is required to ensure that windows enhance the appearance and complement the character of the building and neighbouring properties. This is especially important in terraces where the use of different window designs can disrupt their appearance. (Harpsden, Watlington and Chalfont St. Giles)



Windows and doors

3.66 Checklist

- Elevations should have a greater proportion of solid wall to window
- Windows should be slightly taller than wide with small panes of glass
- Glazing bars should be thin
- Windows should be recessed with the outer or sub-frame and sill painted black or another dark colour where appropriate
- Large windows and patio doors should be confined to the rear or screened parts of the house and should be divided by glazing bars
- White paint is the most appropriate finish for timber windows: staining is not a traditional finish and should not be used except in the case of weather-boarded elevations, where frames should be stained or painted black
- Wooden frames should be used in preference to PVC or aluminium which spoil the appearance of older houses, especially in terraces where all properties have identical windows, are unsustainable and lack local distinctiveness
- PVC doors should be avoided
- Front doors should be wood, designed to fit in with the local context and with little or no glazing. Fan lights should not be incorporated into the door itself
- Neo-Georgian style front doors should be avoided

Unusual shaped window openings and use of PVC frames rarely complement traditional buildings and should be avoided. (Great Missenden)



Traditional leaded light windows are occasionally encountered often in conjunction with iron casements. Stick on lead strips do not achieve the same effect. (Aldbury)

3.67 The elevational appearance of a building is strongly influenced by the positioning, size and detailed design of the windows. The traditional proportional dominance of solid wall over window opening should be borne in mind, and the subdivision of glazing given careful thought. Traditional window frames are, contrary to common belief, still available and are economic to install.



3.68 Traditionally, windows were slightly taller than they were wide. If a wider opening was required, the glazing was divided into separate casements or sashes to give the same vertical emphasis. The key is the subdivision of the window in a symmetrical way, with regular arrangement of areas of glass and thin glazing bars. Although there has been a tendency to use larger panes of glass than before, a well balanced design can still be achieved.

3.69 Recessing the windows into their opening (by approx 5-15 cms), painting the outer or sub-frame and sill black or another appropriate dark colour (as was done traditionally) and painting the woodwork white usually gives an attractive



Simple front door design. (Great Missenden)

appearance and provides adequate protection from the elements.

3.70 Large windows in the form of patio doors and picture windows look out of place in older buildings and the traditional balance of wall to window is lost. Patio doors and larger window openings should be designed to avoid using large panes of glass and generally confined to the rear or screened parts of the building.

3.71 The windows used in an extension should match and be in proportion to those of the main building. A mixture of window sizes, styles, colours and materials disrupts the appearance of the building and should be avoided. Similar principles apply to windows in conversions and the use of coloured staining (often a honey colour) should be avoided in all instances.

3.72 Aluminium and PVC doors and windows are not suitable as replacements in older buildings, and can spoil the intrinsic qualities of the building. For listed buildings and in conservation areas there is likely to be strict control on the appearance of new and replacement windows. The local planning authority should be contacted for further advice.

3.73 An important issue to consider when installing or replacing windows is energy conservation. This is one of the benefits sometimes put forward for PVC, but equally effective wooden alternatives are available, which are both more aesthetically pleasing and environmentally sustainable. It can also be more cost-effective to repair wooden frames than to replace them with PVC.



Front doors on adjacent properties that are in keeping with their locality. (Little Missenden)

3.74 There are no 'traditional' front door styles in the Chilterns. In general, those using simple, rural designs work well, particularly when taking account of the local context, and are generally constructed of timber, with little or no glazing and few ornaments. Georgian style front doors often look out of place, and those with large glass panels are unlikely to enhance the appearance of the building.

*Simple rural front door design.
(Hambleton,
credit Richard Bossons)*



Porches

3.75 Checklist

- For new buildings consider adding a porch or canopy as it can create interest, especially on a flat fronted detached building, though it should not be added to a traditional building or a terrace of houses simply for ornamentation
- The design of the porch should mirror the main building
- The porch must be in proportion to the house
- The materials and roof pitch should match the existing building

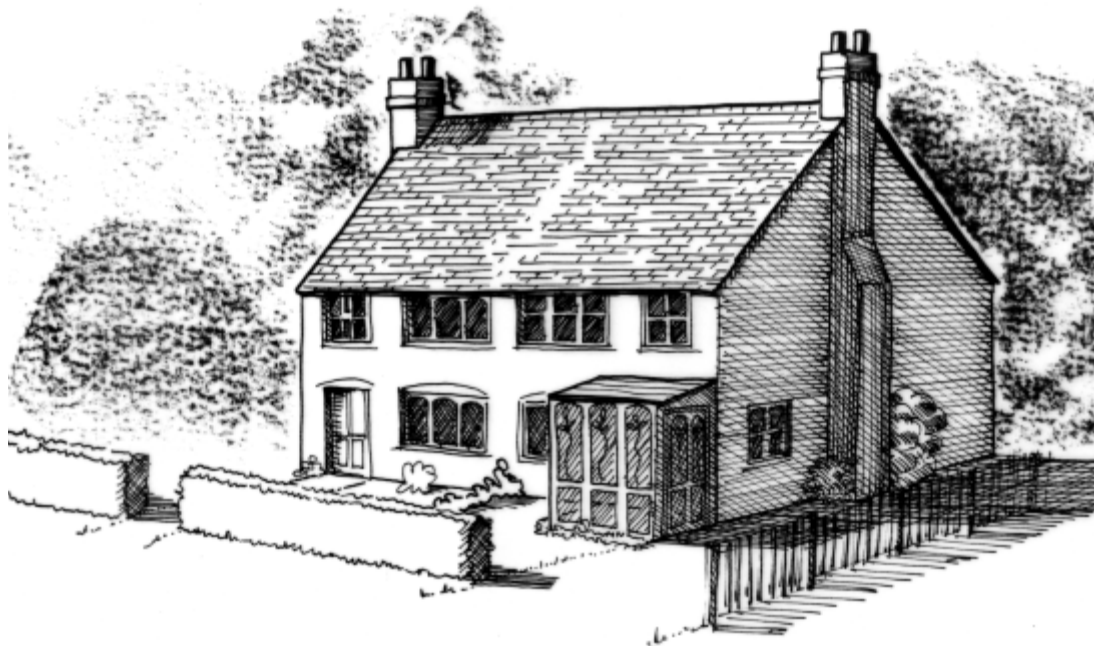
3.76 All types of porch and canopy are to be found in the Chilterns, ranging from those which serve a useful purpose (keeping out the weather for example) to those which are for little more than ornamentation. In many older properties, porches and canopies form an integral part of the overall design. Generally, they are very simple and mirror the main building. In some instances they are elegantly detailed and can add considerable interest to the building. This is particularly true of some Victorian and Edwardian buildings.

3.77 It is important that the porch or canopy matches the main building, whether it is a new house or an extension to an older property. It should be constructed using the same materials as the main building.

3.78 If an older building or terrace of houses has never had a porch or canopy and it is proposed to add one solely for decorative purposes, then consideration should be given to abandoning the proposal. If the porch or canopy is for functional purposes, constructing it in the same materials as the main house, and, if it is a porch, fitting it with either the original door or one similar will help it to blend in. The roof pitch should be as close to that of the main roof as possible.



The porch should closely match the characteristics of the main building in terms of proportions, design and use of materials. Although it works above (Nettleden), it is only partially successful below (Watlington), where greater thought given to the bulk, design and materials could have produced a better result.



Poorly designed porches can mar the appearance of the building

Access, parking and garages

3.79 Checklist

- Parking areas/driveways should be located at the side of buildings
- Drives down the side of the building, with the garage located to the side or rear of the dwelling, help to reduce the prominence of the garage and parked cars
- Avoid creating parking areas which dominate the front of the building, in full view of the street
- A drive-through archway incorporated as part of the dwelling with garage to the rear can be effective
- Front gardens should not be turned into parking areas
- Consider alternatives to standard garages such as 'cart shed' designs
- Integral garages should be avoided
- Avoid building large double garages with pyramid shaped roofs, dormers or rooflights
- Avoid large garage courts, especially if they are isolated from the main building
- Do not set garages forward of the main dwelling
- Screen parking areas
- Keep visibility splays to a minimum

3.80 Car ownership in the Chilterns is amongst the highest in the country, and is still growing. It is not uncommon for households to have two or even three cars. Some have more. They are not only a source of pollution when used but can spoil the immediate setting of the house and street.

3.81 To help reduce the visual pollution caused by cars and reflected light, it is important to reduce the prominence of vehicular access and parking areas which can become visually dominant in developments of multiple dwellings. Space which is designed solely for parking large numbers of cars is inefficient and often unattractive. It is often more effective to provide parking spaces through a combination of on-plot, off-plot, and on street where appropriate. If larger shared parking areas are necessary, they should contain no more than 10 spaces, should be sited so as to minimise their visibility both from outside and within the development and should be designed as a space which is capable of fulfilling a variety of needs, one of which is parking, and incorporate soft landscape planting and other features to break-up the space.

3.82 New development must be designed to respond to the character of the surrounding area, which may indicate the need for front boundary treatments and soft landscape planting. It may also give rise to the need for new open or play space. Care should be taken so that the need to provide access and parking is not given priority over such other requirements of the development. Hard and soft landscape materials should complement those traditionally found in the area

and the introduction of kerbs and hard surfacing should be avoided unless there is a tradition of using such materials in the area.

3.83 A recent, and often unfortunate, trend has been to allow the front of the house, and thus the street, to become dominated by large garages, driveways and parking areas. In this way attractive houses are spoilt, often by the removal of a traditional front boundary wall and streets become dominated by the car, rather than buildings, boundaries and gardens.

3.84 A very large number of houses have garages which are never used for cars, instead becoming storage areas. As cars have become less prone to rust, many people prefer to leave their cars in the driveway rather than keeping them in the garage.

This shows that adequate on-site parking provision has not been achieved. (Naphill)



Chilterns Buildings Design Guide

3.85 Garage accommodation should be designed to allow a car to be properly parked and has to be safe and convenient, otherwise it will not be used. However, this does not mean that it has to dominate the scene. If vehicle access and parking is considered from the outset, it can become an integral part of site planning and the design of new buildings or conversions.

3.86 Driveways are usually less dominant if they are sited to the side of the main frontage of a building and if they do not run directly into a garage or parking area. As a norm they need be no wider than three metres.

3.87 Rather than automatically proposing a double garage with each new house, consider whether there are more appropriate alternatives. Covered

Inventive design and imagination is needed to ensure the correct balance is achieved to prevent the car and parking areas becoming intrusive. (Wigginton)



Garages themselves can be functional and attractive. (Goring Heath, credit Paul Sargeantson)

car ports with the appearance of a cart shed or small barn may be more attractive in some circumstances and remain practical. The garage, stores and other outbuildings can be grouped around an open courtyard, reminiscent in scale and character to a small farmyard or workshop. Parked cars can be further screened and protected by hedges, trellis or pergolas.

discuss this in detail with the local planning and highway authorities. This will be especially relevant for developments away from busy highways. Specific reference should be made to the *Environmental Guidelines for the Management of Highways in the Chilterns* and *The Manual for Streets*.

3.88 Standard highways guidance can result in large visibility splays and turning heads which are out of keeping with older parts of the village and tend to result in the road dominating the scene. It is possible to use reduced specifications without compromising safety and to design the space to relate to the surrounding buildings and environment rather than specifically vehicle movement. The designer should



Landscape setting

3.89 Checklist

- Hedges and walls are preferable to fencing and in many cases hedges are preferable to walls
- Woven 'larchlap' panel and close board fences should not be used
- Do not use concrete blockwork
- Entrance gates should be simple and visibly permeable and ornamental railings should be avoided
- Avoid 'gardening' the road verge
- Don't treat the spaces between buildings as simply 'leftover' - design them into the whole development
- Locally common, locally sourced native species are preferred for landscaping, especially within and adjoining open countryside. Avoid fast growing exotic species, especially cypress and laurel
- Don't use too many different surface materials and avoid the use of highly coloured concrete paviors
- Limit the area of asphalt
- Ensure any surfacing materials are porous
- Don't use concrete kerbs, fake cobbles and patterned concrete which are suburbanising features
- Consider bound gravel finishes in place of asphalt areas

Boundaries

3.90 Brick walls, possibly incorporating flint and half round cappings, fences and hedges are the traditional forms of property boundary in the Chilterns. Older properties are often enclosed by a wall using similar materials to the house itself. In some villages, especially estate villages, walls, railings, fences and hedges can be specific to the location creating a distinct sense of place.

3.91 Walls can be used to 'tie buildings together' creating visually attractive linkages, as well as delineating boundaries, screening and enclosing one area from another. As with walls for buildings, the details of brick colour and texture, of pointing and the use of flint, needs to be carefully chosen to be in keeping with the traditions of the area. Retaining walls need particular care. Concrete blockwork for boundary walls, and paving flags laid to retain banks are not appropriate in the Chilterns.



This wall is an attractive feature in its own right. (Hailey)



Boundary hedges complement the buildings and contribute to the rural character of the lane. (Lee Common)



The garden wall matches the house. (Little Missenden)



Elaborate entrances are usually more suburban than rural in character and should be avoided. (Ipsden)

Boundary treatment and surface materials

3.92 Waist-high timber fences such as picket fences or post and rail fences where adjacent to farmland, are in keeping with most village or rural surroundings, can be supplemented by a hedge using locally common native species and are the form of enclosure preferred by the Board. Simple metal bar railings were characteristic of large houses and estates, but ornamental railings are urban and out of place in rural areas. The strong geometric shapes of close board fencing, larchlap or other solid fences, are too dominating and are cumbersome on slopes. They are also prone to wind damage and rot and require regular maintenance to avoid looking tatty and are therefore not appropriate.

3.93 Entrance, and any other, gates should be simple and visually permeable, either matching the boundary fencing or typical farm gates in the area, and timber should be used as it is more attractive than tubular steel. Ornate, high and solid gates and entrances incorporating security systems are out of place in the countryside.

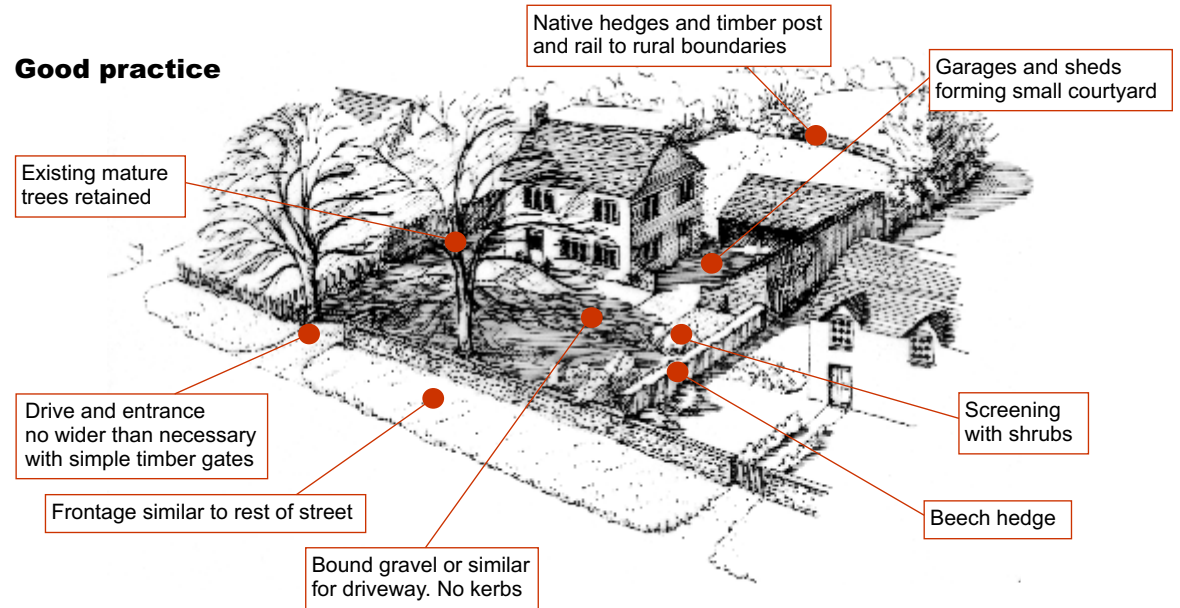
3.94 It is not traditional for gardens to be open to the road unless they are very narrow. In some villages and usually in the open countryside, grass verges are common. It is inappropriate for these to be taken over by adjacent properties and 'gardened' with manicured flower beds and close-mown grass, as this introduces an inharmonious suburban character.



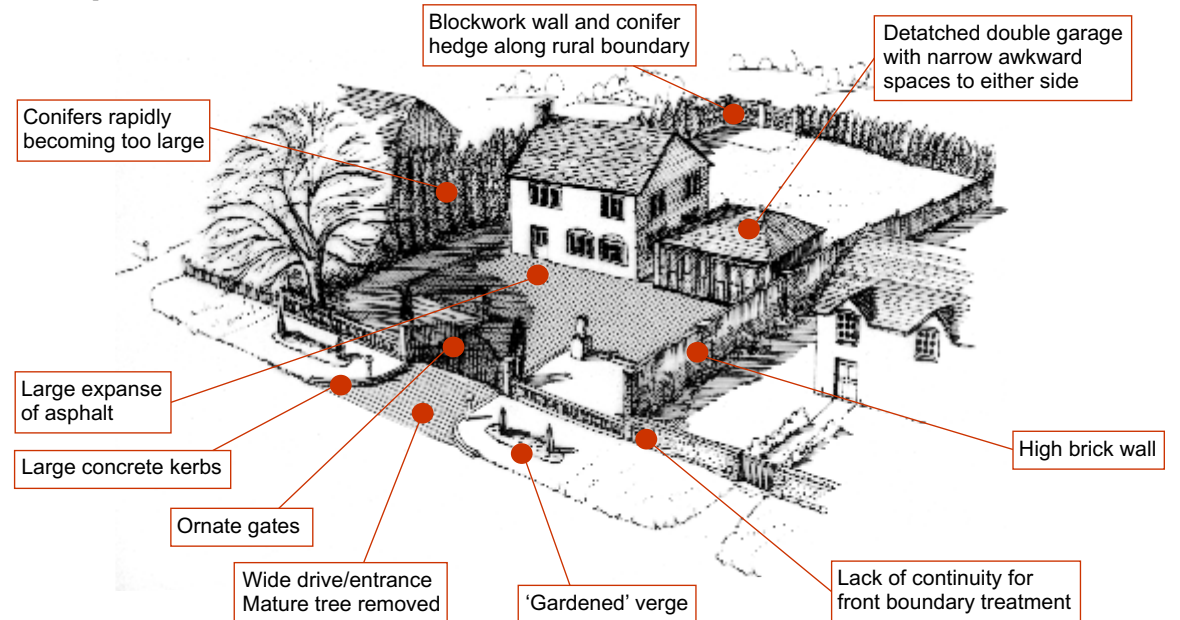
Simple and permeable gates can still be obtained and should be used where possible. (Harpsden above and Britwell Salome, credit Richard Bossons and Paul Sargeantson)



Good practice



Poor practice



New hedges, trees and other planting

3.95 If the location of a building is right and the site planning has been sensitively carried out there should be no need for new planting to screen a building from view. Screening alone should in any event be avoided since it usually suggests that other more basic considerations have been neglected. However, in some instances it is appropriate to plant trees or shrubs.

3.96 Tree and shrub planting may be required to provide shelter for a new building, or to link a new building visually with existing woodland for example. Planting should leave sufficient space around a building to allow trees scope to mature, to avoid inconvenience caused by tree roots or overhanging branches, and to prevent an obstacle to expansion should the need arise.

3.97 Existing native trees and shrubs should always be retained to assist the integration of a new building into its surroundings.

3.98 The use of locally thriving, native species is usually the most successful way to ensure that a new hedge or group of trees fits in. Species commonly found in hedgerows throughout the Chilterns include hawthorn, hazel, blackthorn, beech, yew and hornbeam, with lesser numbers of many other native shrubs such as holly, dog rose, spindle, wild privet and elderberry, and trees such as beech, ash, oak and wild cherry. Further advice

on appropriate species can be obtained from the Conservation Board and local authority staff.

3.99 If a neat hedge that remains dense throughout the year is required, a single-species planting of beech, hornbeam, holly or yew is suitable. Often exotic species such as cypresses and other conifers are planted in order to obtain a quick screen without consideration of the fact that they will continue to grow quickly after they have achieved the desired height, causing maintenance, root penetration and shading problems as well as looking out of place.

3.100 The planting of good hedges and trees from the outset of a development will provide a framework for gardens and open spaces in the future. They should be considered as an important way of integrating a development into its surroundings and providing Green Infrastructure, (see bibliography for further information) whether it be in a village or in the open landscape. With good design these features can benefit wildlife, be attractive and provide a sense of security for the owners without creating a sense of hostility to others. Further information on this matter is detailed in *Natural Security*, a leaflet which can be obtained from Hertfordshire County Council.

3.101 The positions for tree planting should be carefully considered. These may be to give shelter, to screen or break up unsightly views, to give height and visually soften rooflines or add points of interest within a street. The choice of species needs to be appropriate so that trees that will



Cypress hedges look out of place and can quickly get out of control. There are more appropriate native species.

eventually grow very large are not planted too close to buildings or where they will obscure views, and trees that will remain small will not be dwarfed by buildings. Trees can be long-lived and expensive to maintain to maturity and maintenance is therefore vital. It is advisable to seek specialist advice about planting and maintenance, and essential in the case of surveys or work to existing or mature trees. Contact your local authority for more advice.

Paving and other hard surfaces

3.102 This is an aspect of development which is often given inadequate attention, resulting in widespread use of asphalt, concrete and even brightly coloured concrete block paviers more often associated with supermarket car parks. Whatever is ultimately proposed it should be limited in extent and porous to allow storm water and run off to filter through to the ground below. Greater use should therefore be made of natural finishes including grass.

3.103 It is possible to minimise the area needed for hard surfacing and thus create a more people friendly area, by removing the standard division between highway and pedestrian pavement, if safety considerations allow. This is most likely to be appropriate in small developments away from busy public highways.



Avoid large expanses of a single surfacing material, this could have been broken up with alternative materials and more planting. (Penn Street)

3.104 A large expanse of any one surfacing material should be avoided in residential and other small developments. If a sizeable area of hard-standing is required it can be visually broken up by, for instance, defining the access to individual buildings in a different material from the shared driveway, or by having a low step to keep cars in their defined places. However, the use of too many types of surfacing can easily look overdone and unattractive.

3.105 The general absence of building stone in the Chilterns has meant that alternative materials are commonly used. The exception is the use of Denner Hill Setts, produced from sandstone boulders which are found near High Wycombe. They were used extensively in the nineteenth century, and small quantities can be still be sourced for re-use. In some conservation areas, where York stone or similar stone paving has been used, this should be retained and extended whenever possible. Likewise, where a village or street has stone setts or kerbs, the same should be used for new development. There may be other specific materials traditional to a certain location, and their continued use will reinforce the local identity of the area.

3.106 Wide concrete kerbs with a high upstand are a suburbanising element and unnecessarily harsh in rural situations. Discrete road and path edgings using bricks or other small unit paving, at a similar level to the main surface should be used where necessary.

3.107 Concrete paviers, fake cobbles and patterned concrete should be avoided as they are a suburban detail. Natural clay or stone paviers are preferred.

3.108 Where asphalt is used, consideration should be given to the use of a surface dressing such as appropriately coloured aggregates, to define estate roads and other areas of public highway. There are also various products which use a clear binder with natural aggregates to give a surface that looks like gravel but is almost as hard-wearing as asphalt. Gravel and bound gravels should be considered where there is less heavy use, as these are more attractive.

3.109 Detailed advice on roads can be obtained from your local highway authority. The Chilterns Conservation Board and the local Highway Authorities have produced the *Environmental Guidelines for the Management of Highways in the Chilterns*. These Guidelines should be applied whenever works are being considered within the highway.



More traditional surfacing materials have much less impact and are usually more permeable. (Little Missenden)

Other small-scale permitted development

3.110 Checklist

- Ensure that any change takes account of its context and is appropriate to the locality
- Ensure that renewable energy installations are sited out of the public's view
- Avoid the use of insensitive lighting installations
- Design small-scale extensions to fit with the current building and preferably place them at the rear
- Avoid the use of 'off the shelf' designs for garden buildings
- Limit the amount of domestic paraphernalia and always ensure that it is discreetly sited

3.111 Any new development in the AONB will have an impact on the built environment, and this Guide aims to provide advice on how to minimize that impact by ensuring it is of the highest quality and enhances local distinctiveness. Some development, such as changes to windows, some renewable energy installations, changes to boundary treatment the inclusion of lighting, the building of conservatories, small extensions and garden structures and incorporation of domestic paraphernalia, may not necessarily require planning permission (always check with the local planning authority). However, conditions relating to these may have been applied in respect of developments that have taken place, and similarly new developments might well have relevant

conditions attached. Where the building is listed, or is within a Conservation Area, additional restrictions may also apply. In some cases, Local authorities will have applied Article 4 Directions to control certain small-scale works and the Conservation Board is supportive of such action where it is considered that this is appropriate.

3.112 However, where a planning application is not required and development can take place without the formal approval of the local planning authority, the Conservation Board is concerned that such permitted development may have damaging impacts on the AONB and fail to conserve or enhance its natural beauty. For example, the change of windows and boundary treatments (fence, wall or hedge for example) in one house in a short terrace can have a disastrous impact on all the other adjoining houses. Owners of such properties are encouraged to ensure that any changes they wish to implement are in keeping with their immediate neighbours and the locality. Apart from the incremental damage such changes can have, the Board is also concerned at the impact that permitted development will have on the edge of settlements and within the public domain.

3.113 Where the installation of renewable energy technologies is permitted development those installing the equipment should ensure that wherever possible it is placed at the rear of a property and out of the public's view. This is particularly important with regard to the installation of domestic-scale wind turbines and consideration should also be given to bats and birds in the local area and their flight paths.



This permitted development has had a detrimental impact on the wider landscape. (Fawley)

3.114 The tranquillity of the Chilterns AONB is under threat from noise as well as light pollution. This is exacerbated by the insensitive use of external lights, particularly security lights, which tend to spill light out from a property into the countryside. Greater thought should be given to the type of lighting installed, its intensity, the direction that lighting installations face and the length of time that the lights are on. The Board recommends that if external lighting is installed it should only light a specific area such as a drive or parking area of a building and not the wider countryside. Directional cowls should be fitted to stop or limit light spillage, lights should be directed downwards not upwards, lower wattage bulbs should be used (this reduces both pollution and

Care should be taken with the installation of renewable technologies and prominent elevations should be avoided. (Great Missenden)



Chilterns Buildings Design Guide

energy demand) and lights should be fitted with timers and passive infra-red detectors to ensure that they are only on when needed. Further information is available from the Institute of Lighting Engineers.

3.115 Many extensions to dwellings and some new buildings do not require planning permission. Examples of these small additions are conservatories and garden buildings such as sheds. Some key principles for new buildings will still apply. For example roofs and ridgelines should be kept subservient, walls should be indented rather than follow existing walls, windows should match the main building and poorly designed elements of the existing building (flat roofs for example) should be removed where appropriate. When undertaking such development owners should take account of the design and materials of the building being extended and appropriate examples locally and should try and ensure that any extensions are located to the rear of the property out of the public's view. The addition of PVC conservatories is not considered to be appropriate. Other small garden buildings such as sheds should also be located to the rear of the property and should preferably be designed to fit with other buildings in the locality rather than being 'off the shelf'.

3.116 The edges of some settlements are open to the countryside and many forms of permitted development have an impact on a wide area, particularly if there are limited numbers of trees and hedges. The re-use of buildings for residential purposes often brings with it associated domestic clutter including washing lines and children's play

equipment such as swings and climbing frames, which affect the integrity of the original building. Wherever possible such equipment should be limited and preferably removed when not in use. However, in many instances it is recognised that this is not possible and greater consideration will therefore need to be given to the siting of such facilities to lessen their impact on the wider countryside. Many items of domestic clutter will be placed in rear gardens out of the public's view and with appropriate planting they will be less visible and this is welcomed. However, in some

instances open views from properties are maintained, and in these cases such equipment should be designed to fit in with the local context and the use of natural materials such as wood is particularly encouraged.

3.117 Greater consideration should also be given to the siting of satellite dishes and aerials and gas and other utility boxes and where possible these should be placed on less prominent facades and could be coloured or painted to match the part of the building on which they are placed.



The consistent treatment and pleasant appearance of the boundary of this development could be lost if changed under permitted development rights. (The Lee)

Agricultural and other rural employment buildings

Chapter 4

4.1 Checklist

- New agricultural and other rural employment buildings should be well sited and in sympathy with their surroundings
- Maintain or find suitable alternative uses for older agricultural buildings
- Avoid sensitive locations and isolated, ridgetop and prominent sites
- Link buildings to the wider landscape
- Consider more complex designs to improve the appearance of new buildings
- Use 'cut and fill' only where absolutely necessary
- Align buildings parallel to contours
- Use subdivided roof and wall structures to reduce mass
- Integrate new buildings with existing buildings
- Use traditional building materials
- Ensure that materials, designs and colours enable new buildings to complement the character and appearance of existing nearby buildings

4.2 In recent decades there have been significant changes in farming practices. Changes are reflected in differing requirements for new farm buildings. Generally, there is now a need for large

buildings which offer increased flexibility in use. Many traditionally constructed buildings are unable to meet new standards and it is recognised that many farmers are faced with the need to erect new stock buildings or storage facilities. Although traditional buildings may not be appropriate for modern agriculture they may be suited to alternative uses and local employment generation will be one key way of ensuring the retention of such buildings.

4.3 When considering the design of new agricultural and other rural employment buildings it is not suggested that they directly imitate earlier forms and styles. Rather, they should be well sited and designed to be in sympathy with the character and appearance of their surroundings.

4.4 Farmsteads in the Chilterns are often isolated groups of buildings, sometimes dominated by a multi-purpose barn. Farmhouse, barn and other buildings were typically built at various times as resources allowed and arranged to form a sheltered yard. Livestock accommodation and implement sheds were built around the central space to create an enclosure, for security and shelter from the weather. Farmsteads were located adjacent to better land near sources of water. Valley bottoms and the foot of the escarpment were, as a consequence, favoured places to build.

4.5 Chilterns' farm buildings have steep roofs, low eaves and are generally modest in size. Farmhouses and barns may be larger. Building groups are often tightly packed. The overall appearance is dominated by walls and roofs with little evidence of windows and doors.

4.6 Some old buildings are still in use for agriculture, although most of them are no longer suitable. The maintenance of such buildings is important whether in use for agriculture or for some other purpose. Finding a suitable use, which will successfully conserve the character of such buildings, is often difficult. However, before proposing a new building for employment uses consideration should be given to the sensitive

A typical Chilterns farmstead with a tightly packed group of buildings. (Smalldean Lane, Saunderton)



Chilterns Buildings Design Guide

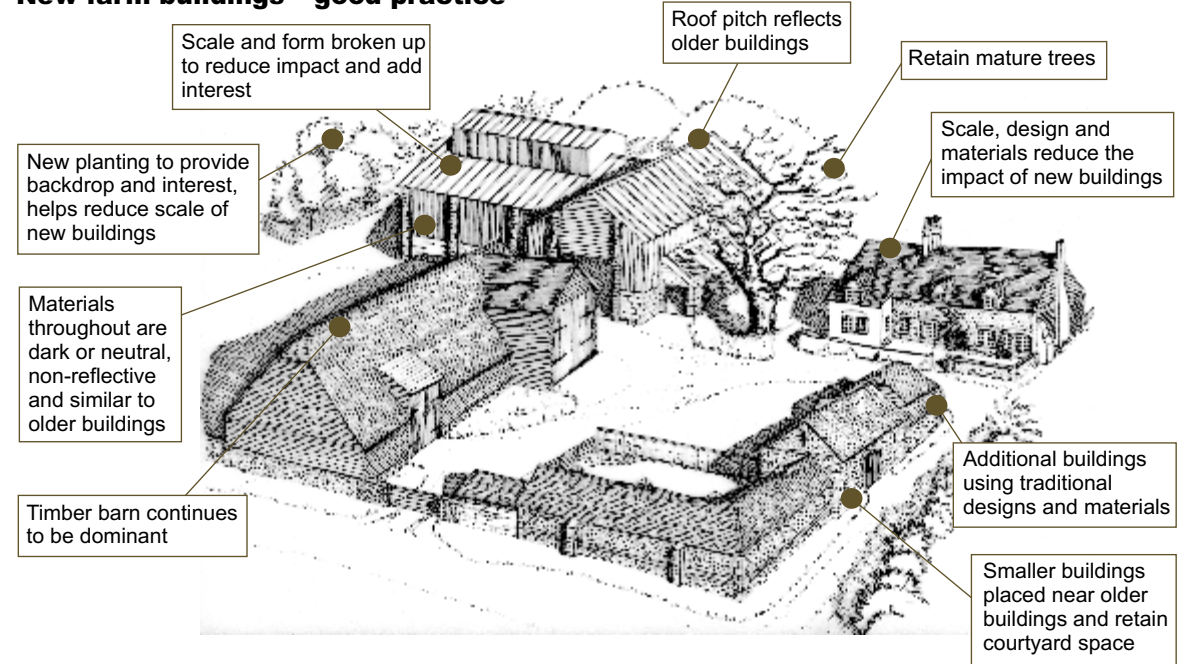
re-use of an existing building. Some former agricultural or other rural buildings can be converted to employment use without affecting their architectural integrity.

Location, siting and scale

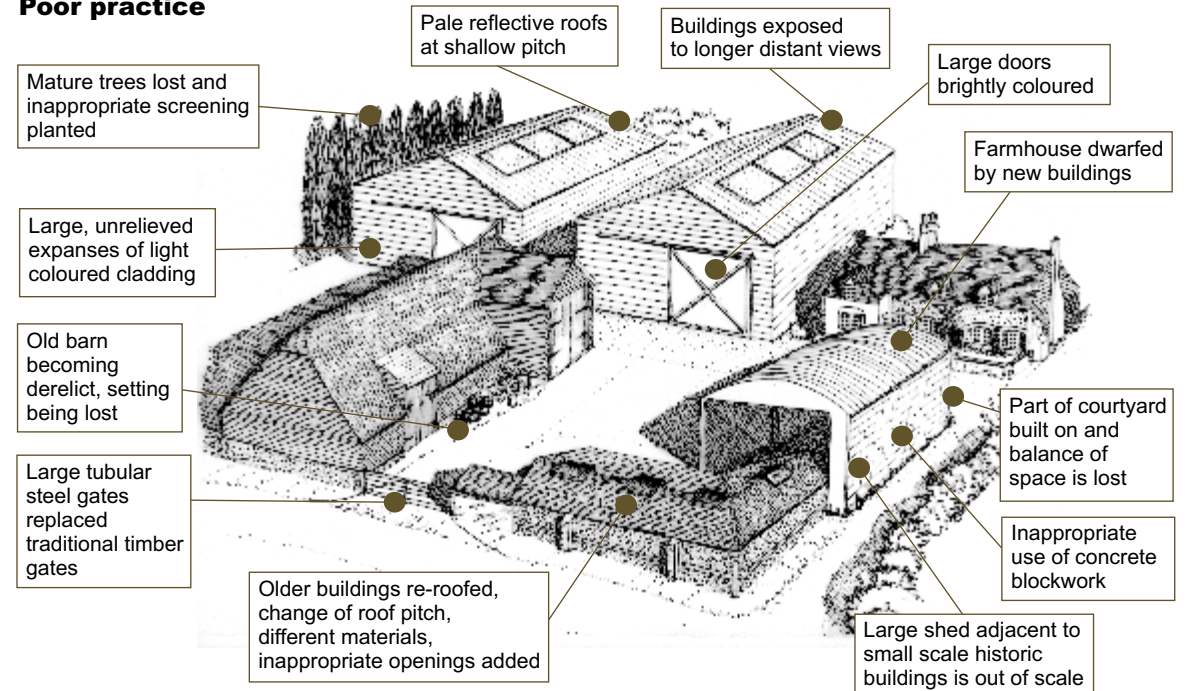
4.7 Within the AONB there are some sensitive locations where the siting, design and appearance of a new farm or employment building will be critical if assimilation into the surrounding landscape is to be achieved. Examples of such locations are sites that are close to listed buildings, ancient monuments or Conservation Areas. Such sites are best avoided if at all possible.

4.8 Isolated new buildings should also be avoided, particularly for employment use as this will tend to encourage an increasing number of journeys, often by car. When unavoidable, an isolated new building should be reduced in scale and bulk and preferably be sited in a dip or depression in the landscape or set against a hillside to reduce its visual impact. Ridgetop sites or sites that are prominent from public viewpoints should be avoided. Careful siting in relation to existing mature trees will help settle a building into the landscape. Good site planning should ensure that not all new buildings need additional planting to link them successfully with the wider landscape. Linking is not the same as screening. Furthermore, a poorly designed building is not made acceptable by screening. The aim of good design should be to integrate a building into its surroundings, not to screen a building totally from view.

New farm buildings – good practice



Poor practice



4.9 Modern farm buildings often consist of large single-span structures with a steel frame and a shallow pitched roof. In more open, prominent or sensitive locations in the AONB such buildings can have a damaging impact on the landscape. It may therefore be necessary to design a building with a more complex form.

4.10 New buildings should be sited to enable adequate access and should be based on a circular flow of traffic, though care should be taken to avoid creating a wind tunnel.

4.11 Chilterns' farmsteads are commonly sited in the bottoms of valleys. However, if used to best advantage, sloping ground can help reduce the apparent size and visual impact of large modern buildings. Cutting and filling should always be approached with caution. It should not be adopted unless there are clearly identified advantages which could not be matched by a different site. Cutting and filling carries the risk that disruption will be caused to the natural lie of the land. It should only be considered when it is clear that this would not happen.

4.12 If a building is aligned parallel to the contours, limited cutting and filling may achieve the required platform. If the span of a proposed building is significant it will be worth considering a multiple span, stepped structure, to reduce excavation and filling. The stepped appearance and shadow lines at the eaves will help to reduce the apparent size and dominance of the roof.

4.13 Cutting and filling may also be employed when building at right angles to a slope and may be unavoidable on restricted sites. When long buildings are aligned at right angles to the slope, a stepped construction should be used which will avoid an excessively high gable at one end and will subdivide an otherwise continuous length of roof.

4.14 Subdividing the walls and roof of a building will help to reduce its apparent mass and thus its dominance in the landscape. In a typical livestock building this can be achieved using a suitably coloured concrete block, brick or brick and flint wall, with stained Yorkshire boarding (spaced boards) above and a coloured profiled-sheet roof covering. Other ways of reducing the apparent mass include expressing structural elements on the exterior, the addition of lean-to's, overhanging eaves and dark-coloured roofs. For other kinds of building, such as grain stores, the problem is more difficult to resolve. In such cases other buildings and landscape features will need to be taken into account.

4.15 Earthworks associated with new buildings, for example mounds or 'cut and fill' slopes should be carefully integrated into surrounding landforms. They should also be managed. Grass seeding or appropriate shrub and tree planting should be carried out in order to link a proposal with its surroundings.

Integration with existing buildings

4.16 The relationship between a new building and existing buildings is important. Livestock buildings are best sited close to feed and straw storage facilities. New or additional waste storage facilities may also need to be considered.

4.17 Most new farm developments will be sited near existing buildings which is usually desirable. To help integration, it is preferable to align new buildings with the dominant axis of existing buildings. In most cases earlier buildings will have been orientated to reflect existing topography and are likely to suit the landscape setting in which they are located. As well as reducing visual impact by relating rooflines, there are practical benefits. Groups of buildings arranged in parallel rather than at right angles should assist with access and the movement of machinery and livestock. Care should be taken so that a new building will not inhibit future expansion.

Here the new building integrates well with the existing buildings. (Upper Assendon, credit Richard Bossons)



Chilterns Buildings Design Guide

4.18 Where existing buildings are under-utilised or redundant, consideration should be given to either siting new buildings within the perimeter of existing ones or re-using them for a suitable alternative use. If existing walls can be kept, or retained in a modified form, a similar appearance to the original building may be achieved.

4.19 In many cases the farmhouse will be the dominant building in a farm group. It is therefore important that new buildings are well related to the farmhouse, particularly if the farmhouse, or any adjoining building, is listed. A new building should not dominate the farmhouse or unduly alter the character or appearance of its immediate setting. If possible a new building should be sited on the far side of the farmhouse, as seen from public viewpoints.

4.20 It may not always be acceptable to site a new building in or around an existing farmstead either for visual or for practical reasons. Before concluding that the only available choice is to build remotely from the farmstead, consideration should be given to the repair, modification and re-use of an existing building. Grants may be available for repair and restoration in suitable cases.

4.21 Careful consideration needs to be given to any redevelopment of an existing employment site and the development should result in no greater impact on the AONB comparative to the existing site. Clearly any new development should conserve and enhance the natural beauty of the AONB.



It is important to ensure that any extensions are designed to be in keeping with existing buildings, as can be seen in the middle of this picture. (Upper Assendon)

Materials

4.22 Although the use of traditional building materials is preferable on visual and sustainability grounds, it is recognised that functional considerations may restrict their application in connection with new agricultural buildings. However, a wide range of modern materials is available in various colours, profiles and textures that may serve as satisfactory substitutes. Timber and wood products may be stained in a wide range of suitable colours to enhance the appearance of a building in its setting. Given the choice of modern materials and colours now available, the use of grey fibre cement roof cladding or poor quality concrete block for walls is not acceptable.

4.23 When deciding the type and colour of materials to employ in a new building it will be important to study older buildings nearby. The aim should be to ensure that the new building complements the character of nearby buildings and integrates well into the landscape. The shape and size of components and how they are applied, and the colour and texture of materials, should reflect those occurring locally, or be capable of serving as an acceptable alternative. The Chilterns' mix of red brick, clay tiles, grey slates, flint and black weather-boarding will provide the appropriate guide. The use of standard designs and non-local building materials for new employment buildings is not appropriate in the AONB. Careful consideration will need to be given to the design and materials to ensure that new employment buildings can be assimilated into the surrounding landscape.

4.24 In particularly sensitive locations traditional materials should be employed in ways that are locally distinctive. For smaller buildings the use of such materials and methods will be expected. For larger buildings, the roof in particular will be difficult to clad in traditional materials if it is to comply with modern standards of design and construction. Consideration should therefore be given to breaking larger buildings up into smaller components if this is achievable.

4.25 In other sensitive locations it may be necessary to build some, or all, external masonry walls in natural materials. In such cases an inner wall can be constructed using concrete blocks. This arrangement will provide a smooth internal finish and a load-bearing wall if required.

Roof design

4.26 The pitch of a roof should where practicable be chosen to complement local examples, although, as a general rule, a lower pitch will reduce the visual impact of a large modern building. For most modern farm buildings with a sheet roof covering, the usual pitch is 15 degrees. Roof design must allow for snow and wind loads which periodically, even in the Chilterns, can be considerable.

4.27 The material chosen for the roof covering should be textured to enable weathering to take place. Consideration should be given to subdividing the roof of large buildings in order to break up the apparent mass and thus reduce the impacts on the landscape.

Colour

4.28 The choice of colour for the materials used in a new building will be a matter of detailed consideration. Asbestos cement sheet was the choice of roof covering for many farm buildings constructed in the recent past. This material resulted in a roof that, immediately following construction was conspicuous, but which gradually darkened as moss and lichen growth occurred and other weathering processes took place. These changes gradually gave a more subdued and natural appearance when viewed from a distance. Fibre cement is the successor to asbestos cement. Fibre cement sheets do not seem to change in the same way. Therefore, when modern roofing materials are used, councils will expect coloured sheeting to be incorporated.



A more appropriate colour on the roofs would have helped these new buildings integrate more effectively. (Little Tring)

4.29 Traditional materials are typically brown (or shades of red and orange), grey or black in colour and do not reflect much light. Any modern materials used should reproduce these characteristics. A dark roof will counteract the effect whereby more light, for more of the day, is reflected from a roof with a relatively lower pitch. This effect gives a lighter appearance than the chosen colour suggests. Darker walls and a darker roof will also help a building settle into the landscape by avoiding the tendency to appear to float or hover.

4.30 Most manufacturers of fibre cement and steel roof coverings offer a wide range of colours applied at the factory. Standard corrugated steel roof sheets are a common form of roof covering which may be acceptable. Corrugated 'iron' is likely to be acceptable in suitable cases because, like any other steel sheet, it can be coated.

Other agricultural development

Silage clamps

4.31 The location of a clamp should be considered carefully in the context of the surrounding landscape. Where possible clamps should be built into sloping ground so that excavated spoil can be used to form banks though these should be the minimum possible and should be graded to form a natural-looking transition with the surrounding land.

Waste storage

4.32 Most slurry and liquid waste is stored in circular, vitreous-enamelled, steel containers. If slurry stores are not carefully sited they can be intrusive, largely because of their simple geometric outlines. By using natural topography and the screening afforded by buildings, the visual impact of a store may be significantly reduced.

The landscape impact of this agricultural development is widespread. (Ewelme)



Chilterns Buildings Design Guide

Consideration should also be given to additional landscape measures such as small-scale land modelling and, if appropriate in that location, tree planting. Most slurry store manufacturers now offer a choice of colours.

4.33 Earth-banked lagoons and above ground middens are sometimes used for waste storage. From a landscape point of view they must be designed to avoid abrupt links with their surroundings because they could be visually prominent.

Outdoor feed and grain bins

4.34 Outdoor feed and grain bins are normally constructed from galvanised steel and can be conspicuous owing to the high reflectivity of the material from which they are made. However, these bins could be colour treated to lessen the visual impact. Wherever possible large bins should be visually linked with other buildings, or simply screened by them. They should not be located in positions prominent from public viewpoints.

Polytunnels

4.35 Polythene-covered tunnels have become common for horticulture and for other uses. They are sometimes used as lambing shelters since they provide low cost, effective accommodation. From a landscape point of view, however, such structures are often inappropriate, particularly in sensitive settings. In the Chilterns AONB councils will therefore expect alternative, more appropriate buildings for livestock.

4.36 However, for a horticultural enterprise there may be no alternative to a polythene tunnel. Tunnels must often be sited in full light away from buildings or trees. It is not possible to address matters of materials or colour in the case of a polythene-covered structure, though innovative alternatives (colour or texture for example) will help to lessen any impact particularly in connection with permanent structures. Location, siting, orientation and landscaping are therefore of

crucial importance from a landscape point of view and can help to mitigate adverse impacts. The extent to which site planning can mitigate the potentially intrusive effects of polythene tunnels will vary from case to case. In prominent positions, visible from public viewpoints, polythene tunnels will be inappropriate. If structures are temporary they should be removed once their use has finished.



Should any conversion take place at sites like this it would be important to retain the integrity of the roofs and walls. (Ipsden)

Conversion of buildings

Chapter 5

5.1 Checklist

- Do not radically alter the appearance of a building
- Ensure extensions reflect the design of the original building
- Undertake appropriate protected species surveys and incorporate bird and bat boxes where possible
- Retain existing openings and limit the number of new openings
- Do not break roof slopes with dormer windows or roof lights
- Retain as much of the original structure as possible
- Where possible ensure materials replicate those of the existing building
- Limit the sub-division of both internal and external spaces

5.2 It is inevitable that over the years some buildings will become ill-suited or incapable of being used for the purposes for which they were originally built. In the Chilterns, changing agriculture, a dynamic economy, considerable social change and the ever present development pressure has resulted in farm buildings, in particular, changing their use. Other buildings such as mills, schools and even chapels have also been converted.

5.3 Most traditional buildings do not lend themselves easily to conversion, especially to residential use, as they have very specific forms relating to their original function. Often the spatial requirements for the proposed new use cannot be readily accommodated within a building constructed for a different purpose. This has led to some unsuccessful conversions which were based on significant changes to the original layout and insertion of inappropriate new features, especially window openings. If a proposal is to be successful the building's appearance should not be radically altered and any extensions should match that of the original building.

Conversion of farm buildings

General characteristics and design issues

5.4 The quality of traditional farm buildings across the Chilterns is extremely high and they contribute significantly to the character of the area. Many also provide roost sites for some protected species of birds and bats and it is recommended that appropriate surveys are undertaken to establish their presence or otherwise. Opportunities should be taken to include bird and bat boxes and roosts where appropriate.

5.5 Farmsteads provided a focus for development of most villages and hamlets in their formative stages. There are still many working farms, and numerous former farms now converted to other uses, most of which retain their traditional buildings and appearance. Farm houses are usually individual dwellings set back from the road, and are frequently enclosed by barns, other buildings and walls.

5.6 The traditional brick, and brick and flint buildings can still be found on most farms, nearly all of which are constructed using the red brick familiar throughout the Chilterns. A large number

Successful conversion of farm buildings involves minimal alteration to their appearance. This has been successfully achieved in this case. (Harpsden)



Chilterns Buildings Design Guide

Conversion of farm buildings**– good practice**

New buildings are sympathetic to their setting, taking account of the form, scale and materials of the existing buildings

Walling is an appropriate means of enclosure using traditional materials

Timber barn remains dominant

Limited new openings

Original openings retained

Traditional farm gate retained or replaced in similar style

Local and traditional materials used throughout

Mature trees retained and provide setting for new buildings

Sense of enclosure reinforced

Alterations respect form, scale and materials of original building

Mature hedges retained

Courtyard kept open, surface material is permeable and appropriate

Poor practice

Mature trees lost and development exposed to long distance views

New buildings do not reflect local traditions, they are too tall, with steeper roofs, inappropriate materials and dominant setting

Over-designed courtyard layout which leads to loss of openness

Small gardens around edge lead to suburbanisation

Conifer hedge cuts farmhouse off from original courtyard

Many rooflights added

Large, non-traditional dormer added

Significant number of new openings

Alterations do not respect the form, scale and materials of the original buildings

Ornate gates and pillars have suburbanising effect

Boundary hedge replaced by formal enclosure that is inappropriate

Roadside facade punctuated by many inappropriately designed windows

Bolt-on conservatory intrudes into courtyard space

Flues added above roofline and on outside facing roof slopes

of timber framed barns with distinctive black stained weather-boarding survive. Most barns have gable-ended roofs, though some have double half-hipped roofs with plain 'red' clay tiles, and low eaves. Many barns incorporate projecting gables or threshing porches and are sometimes flanked by lean-tos.

5.7 The traditional courtyard arrangement is still identifiable in most cases. It has become less dominant over time as most farmers have erected large, standard modern agricultural structures adjacent to the older buildings.

5.8 The conversion of farm buildings for residential and other uses is common throughout the Chilterns, and raises several specific issues of design. Perhaps the most common form of farm building conversion has been from redundant timber barn to residential units. Local planning policies allow for changes of use with residential being considered as a last resort, if at all. Advice on changes of use should be sought from the local planning authority. Reference should also be made to publications such as *Conversion of Traditional Farm Buildings - A Guide to Good Practice* (English Heritage).

5.9 Many agricultural barns possess strong visual forms. The conversion of barns into dwellings may not always be the best way to retain this quality. The insertion of new windows, addition of chimneys, roof lights and all the other requirements for a new house could, unless handled with the utmost skill, damage the integrity of these structures.

Openings

5.10 The intrusion of unsuitable new openings into farm buildings is perhaps one of the most obviously damaging effects of unsympathetic conversion. Traditionally, farm buildings did not have many doors or windows and adding to them is one of the easiest ways of eroding the original character.

5.11 Breaking into the roof slopes with dormer windows or roof lights is particularly destructive, as it introduces features which are alien to the traditional farm barn. Small windows inserted into the gable end might be appropriate in some cases.

5.12 Retention of existing openings and, where possible, the original doors and windows, will make both aesthetic and economic sense. Where timber has to be replaced, simple forms and regard to the original design, such as the size of lintels and doorframes, will be necessary. Traditionally, timber will have been left to weather naturally or more recently would have been creosoted. A dark oak staining of new timbers, therefore, is usually best. Aluminium or PVC windows will never be sympathetic. Window frames in black weather-boarded elevations should be black painted or stained. Any distinctive estate colours should be retained.



Structure and original features

5.13 The total demolition and rebuilding of the walls of old buildings defeats the purpose of the conservation exercise. To preserve both a building's history and its integrity it is desirable to retain as much of the original structure as possible. Where building work is needed, such work should be carried out in materials which match those of the original building. Traditional materials, especially roof tiles, should be re-used if possible.

5.14 External features such as hoists, pigeon holes and stone steps should be retained. Rainwater goods are not traditional on agricultural buildings but if they are absolutely necessary, the use of black metal varieties is recommended. Similarly, the existing plan form and internal features may be important and should be researched and recorded, if possible, when proposals for conversion works are being drawn up.

Roofs

5.15 Where the conversion works involve the repair of a roof, any interesting irregularities in both alignment and materials that the passage of time has added, should be left, providing they are consistent with good building practice. All too often these subtle distortions of shape, that are part of the charm of old buildings, are removed in reconstruction work and replaced by new, straight edged materials.

5.16 Dormer windows usually only occur in houses. Their introduction into otherwise plain and simple roof forms or other types of buildings being considered for conversion, such as barns, storage buildings and warehouses, mills and chapels, is not recommended. Similarly, the provision of prominent rooflights should be avoided, although exceptions may be made in special circumstances where it can be shown that there is no other acceptable way to light an internal space, the location is on a rear and unobtrusive elevation and a suitable type is chosen (for example those that are flush with the roof).

5.17 Raising the roof height is considered to be an extension of the building, as it can significantly affect its size and appearance, and may therefore be inappropriate. Whenever possible, the original roofing materials should be used where repairs and additions are being proposed. If this is not possible, there are often sources where matching tiles or

Farm buildings often have complex and interesting roof shapes, which should be retained. (Fingest, credit Peter Goodearl)

Chilterns Buildings Design Guide

These buildings are all in sympathy with their setting and use designs and materials which are traditional in the Chilterns. (Knotty Green and Chenies)



slates can be obtained. The use of modern substitutes is not recommended. Chimney stacks are a feature of domestic dwellings, and their addition to former agricultural buildings can cause problems and detract from original character. Metal flues, painted matt black, may be a better solution, especially on weather-boarded barns. Great care should be taken to site them as unobtrusively as possible.

5.18 Satellite dishes, which need to be positioned for maximum reception and not with any regard to any elevational appearance of the property, are not favoured. Likewise television aerials should be placed inside a roof space, where possible.

Inside the building

5.19 Wholesale sub-division of the, often spectacular, open interiors of barns can destroy or hide much of the architectural interest. Using stand-alone pods or galleries, and allowing part of the ground floor to extend into double height, thereby leaving some significant part open to the roof, are ways of overcoming this. Where internal features of interest have survived, such as stall divisions or grain bins, thought should be given to their preservation and integration in the overall



5.21 Consideration should be given to the repair and restoration of other traditional buildings in the farmstead group (historic Dutch and pole barns for example), alongside the conversion itself, to enable comprehensive preservation and a more attractive form of development which retains their Chilterns character.

The integrity of the interior of this building has been protected by the sympathetic addition. (Harpsden, credit Richard Bossons)

scheme. Disused machinery or other equipment, such as threshers and mill wheels, could also be retained and preserved, rather than discarded.

Context and surroundings

5.20 However sensitive the details of the conversion, the effect will be spoiled if there is a clutter of unsuitable additions. The division of yards and paddocks by walls or fences, the construction of garages and greenhouses, the addition of domestic clutter such as climbing frames and washing lines, and the siting of hard-standings must all be minimised if a detrimental suburban effect is to be avoided. Garages should, where possible, be accommodated in existing buildings rather than be new, freestanding structures in a farmyard setting.



Examples of other buildings to be found in the countryside include bridges (Great Missenden), post boxes (Hailey) and railway stations (Chinnor).



Other buildings in the countryside

5.22 In practice, a wide range of other forms of buildings are found in rural areas. Obvious examples include granaries, village halls, schools, churches, mills, shops and other commercial premises, and even bus shelters. There is likely to be very little new development of these types of buildings in the Chilterns AONB. Small scale development may be acceptable and involve the conversion of buildings and occasionally small new structures. The basic design principles set out earlier in this Guide should also be adopted for these buildings.

5.23 A more common issue is the appearance and design of existing commercial premises, such as garages and pubs/diners, often located prominently on roadsides. Whilst new building may rarely be an issue, the appearance of many existing business premises could be improved. For example, the appearance of many garages and petrol stations can be amended to fit in more sympathetically with the landscape. The need to be visible for trading purposes is acknowledged, but advertising and other features should be designed to be in character with the locality and attract attention through good design.



5.24 Public Houses are one of the notable features and attractions of the Chilterns and a very large number are attractive buildings in their own right. A common problem is the way in which car parks, smoking shelters, timber decking, gas heaters, exterior lighting and general clutter can spoil the appearance of the pub building and its general setting. Passing trade may be more attracted to a pub and beer garden if the car park is not an eyesore. There is an obvious appeal to the image of a rose covered cottage, which is what many Chilterns pubs actually are. Such an enduring scene is not usually enhanced by some forms of children's play equipment (plastic trees and dinosaurs for example). These should be replaced by less obtrusive alternatives that are available which are just as popular with children. In addition, advertising should be designed to be sympathetic to the building and its surroundings.

*Pubs do not need a lot of inappropriate advertising to be successful.
(Little Marlow)*



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Further Advice

For any new development proposal you should initially contact a Development Control Planning Officer in the Planning Department at your local council. Additionally, if your proposal involves a listed building or is in a Conservation Area, you should contact a Conservation/Listed Buildings Officer. You will also need to contact your Local Building Control Service.

Details of all the councils that cover the Chilterns AONB can be obtained from the Chilterns Conservation Board.

The Board will also be able to provide details of suppliers, practitioners and other useful contacts. This list may change from time to time, so it is recommended that you check it regularly if you undertake projects at different times.

For further information and advice contact the Chilterns Conservation Board at the following address:

The Lodge, 90 Station Road,
Chinnor, Oxon., OX39 4HA



Tel: 01844 355500 Fax: 01844 355501
Email: office@chilternsaonb.org
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Villages by General Landscape Type

Scarpfoot

Askett, Britwell Salome, Butlers Cross, Drayton Beauchamp, Ellesborough, Ewelme, Great Kimble, Hexton, Little Kimble, Sharpenhoe, Whiteleaf

Valley Bottom

Aldbury, Bradenham, Bryants Bottom, Chenies, Dagnall, Great Gaddesden, Great Missenden, Hambleden, Hughenden, Latimer, Little Missenden, Lower Assendon, Markyate, Middle Assendon, Nettleden, North Dean, Pheasants Hill, Radnage, Saunderton, Skirmett, Stonor, Turville, West Wycombe

Thames

Goring-on-Thames, North Stoke, Mapledurham, Medmenham, Mill End, South Stoke, Whitchurch-on-Thames



Plateau/Ridge

Ballinger, Beacons Bottom, Beamond End, Bellingdon, Binfield Heath, Bledlow Ridge, Buckland Common, Cadmore End, Chartridge, Checkendon, Cholesbury, Christmas Common, Crays Pond, Coleshill, Downley, Dunsmore, Frieth, Gallowstree Common, Great Hampden, Great Kingshill, Hawridge, Hudnall, Hyde Heath, Ibstone, Jockey End, Kensworth, Lacey Green, Lane End, Lee Common, Lilley, Little Gaddesden, Little Hampden, Little Kingshill, Little Oxley, Loosley Row, Lower Sundon, Nettlebed, Northend, Naphill, Nuffield, Penn Street, Potten End, Prestwood, Ringshall, Rotherfield Peppard, Russells Water, St Leonards, South Heath, Speen, Stokenchurch, Stoke Row, Streatley, Studham, Studley Green, The Lee, Upper Sundon, Walters Ash, Wheeler End, Wigginton, Winchmore Hill, Whipsnade, Whitchurch Hill, Woodcote

This list does not include all villages in the AONB and is used to show examples of settlements that occur in each landscape type throughout the AONB.

Radnage, a typical valley bottom village



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