



Local Development Framework

Design Guide
Supplementary
Planning Document

September 2011

Preface

Northumberland National Park Authority guides and controls new development within the National Park. If planning permission is needed then an application should be submitted to the Authority. We then decide whether or not to grant planning permission based on our planning policies.

This document provides a framework for the achievement of high quality, sustainable design. It seeks to promote a high standard in the design of new development and in sympathetic and sustainable alterations and extensions to traditional buildings. It will help to ensure that the principles of sustainable development are embedded in all development.

The Design Guide Supplementary Planning Document has been prepared following wide community and other stakeholder engagement both on early issues and then on the draft document. Details of the community engagement which has informed this final document is available on our website www.northumberlandnationalpark.org.uk/buildingdesignguide. As an adopted Supplementary Planning Document it will be used to inform the determination of planning applications.

Further Information

If you have any queries regarding this document you can contact us in the following ways, by:

- Letter to: Planning Team, Northumberland National Park Authority, Eastburn, South National Park, Hexham NE46 1BS
- Email to ldf@nnpa.org.uk
- Fax to 01434 611670

E-mail is not a guaranteed or secure means of communication. If you do not receive a reply within a reasonable time frame, or at least 24 hours before any deadline that may be relevant to the e-mail, then do phone us on 01434 605555 to check that the e-mail has been received and not been lost / stopped somewhere along the way.

Alternative formats of this document are available, such as large print, audio or translated – Please contact the Planning Team who will be happy to discuss your needs.

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1. Introduction

Background

1.1 The National Park Authority has had a Building Design Guide adopted as supplementary planning guidance since 1995. The Building Design Guide has been reviewed three times. The current revision was required to make amendments to the document following the adoption of the Core Strategy, and to reflect changes in design and technologies.

Northumberland National Park Vision

1.2 The role of the National Park Authority is clearly defined in our two statutory purposes which are to:

- Conserve and enhance the natural beauty, wildlife and cultural heritage; and
- Promote opportunities for the understanding and enjoyment of the special qualities of the area by the public.

In pursuing these purposes, we are also required to:

- Seek to foster the economic and social well-being of local communities within the National Park.

1.3 The Authority has a duty to prepare a National Park Management Plan as the framework for the delivery of the National Park statutory purposes and duty and to review the Plan at least every five years. The Management Plan is the single most important document for the National Park, setting out the guiding principles, vision, objectives and outcomes for managing the National Park. The current Management Plan was adopted by the Authority in June 2009.

| The Vision for Northumberland National Park |
|---|
| <p><i>'Northumberland National Park will be a truly welcoming and distinctive place, easily accessible to all.</i></p> <p><i>Its inspiring and changing landscapes, characterised by open spaces, tranquillity, diverse habitats and rich cultural heritage, will be widely recognised and valued.</i></p> <p><i>The living, working landscape will contribute positively to the wellbeing of the thriving and vibrant communities in and around the National Park.'</i></p> |

Purpose of the Supplementary Planning Document

1.4 This document is a **material planning consideration in the determination of planning applications**. Planning policy requires that Supplementary Planning Documents are consistent with adopted Development Plan Documents prepared by the Authority. They do not make new policy, but interpret and provide guidance on existing policies. This Supplementary Planning Document should be read alongside the adopted Northumberland National Park Authority Core Strategy and Development Policies (2009) and other documents contained within the Local Development Framework. This document provides design guidance for the area to improve the quality of the built environment, to contribute to safeguarding the special qualities of the area and to promote sustainable construction.

1.5 Related topics **that are not** covered by this SPD are:

- Listed Buildings – As each listed building is unique, it is difficult to provide detailed general advice on what may or may not be acceptable. Specialist Authority staff will give advice on a case by case basis;
- Archaeology – specialist Authority staff will give advice on a case by case basis;

- Landscape Character – guidance provided within the Landscape Supplementary Planning Document;
- Tree Conservation – specialist Authority staff will give advice on a case by case basis;
- Building Regulations – the Authority does not have responsibility for building regulations, you should contact Northumberland County Council for advice;
- Highways – the Authority will seek specialist input from the Highways Authority, Northumberland County Council; and
- Flood Risk and Pollution – specialist advice is available from the Environment Agency.

Guidance on where to find information on the topics above is contained within Appendix 1 of this document.

Sustainability Appraisal

1.6 Draft Supplementary Planning Documents prepared within the Local Development Framework are subject to an independent Sustainability Appraisal which considers the social, economic and environmental implications. These documents are assessed against the standard set of twenty Sustainability Appraisal Objectives that have been adopted for use throughout the Northumberland National Park Local Development Framework process. A sustainability appraisal of the draft Design Guide was undertaken and a copy of the report is available on our website.

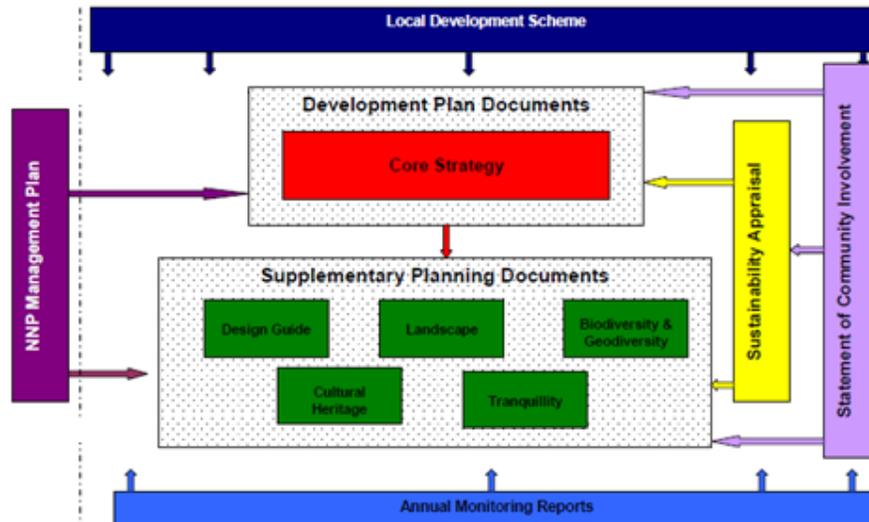
Habitats Regulations - Appropriate Assessment

1.8 In addition to the sustainability appraisal the Authority is required to undertake an Appropriate Assessment of draft Supplementary Planning Documents. The Appropriate Assessment is a mechanism for providing protection of nature conservation sites of European importance. An Appropriate Assessment was undertaken on the Core Strategy policies and this assessment was used as a basis for the assessment of the draft Supplementary Planning Document. The Appropriate Assessment concluded that the Design Guide would have no significant effect on European sites.

2. Planning Context

Northumberland National Park Development Plan

2.1 The Development Plan for the Northumberland National Park is a set of documents, which together guide new development in the National Park. This section provides some background on the different types of documents that form the Development Plan to help understand where the Design Guide Supplementary Planning Document sits. Full information on the purpose of each of the documents is available on our website.



2.2 The Northumberland National Park Development Plan contains five types of document:

- The **Statement of Community Involvement**¹ sets out how the Authority will achieve continuous community involvement in the plan-making process and in development management process.
- Documents which contain policies are known as **Development Plan Documents**. As they contain policies, they are subject to significant community consultation and testing by an independent inspector. The Authority identified the need to prepare only one Development Plan Document, the Core Strategy², this was adopted by the Authority in 2009;
- Documents which expand on policies and provide more detail, are known as **Supplementary Planning Documents**. These documents are material considerations in the determination of planning applications. They do not require examination by an independent inspector, but are subject to community involvement. This document is a Supplementary Planning Document.;
- All Development Plan Documents and Supplementary Planning Documents are subject to a **Sustainability Appraisal**³ which tests the environmental, social, and economic effects of policies to ensure sustainability;
- Project management documents – the **Local Development Scheme**⁴ and **Annual Monitoring Reports**⁵. The Local Development Scheme is the timetable for the

¹ www.northumberlandnationalNationalPark.org.uk/statementofcommunityinvolvement.htm

² <http://www.northumberlandnationalNationalPark.org.uk/corestrategy.htm>

³ www.northumberlandnationalNationalPark.org.uk/livingin/sustainabilityappraisal.htm

⁴ www.northumberlandnationalNationalPark.org.uk/localdevelopmentscheme.htm

⁵ www.northumberlandnationalNationalPark.org.uk/annualmonitoringreports.htm

preparation of documents; it also provides background information on the role and purpose of each document and the resources available to deliver. Annual Monitoring Reports assess the extent to which Development Plan policies are being successfully implemented, monitor the timetable for the preparation of document, and identify areas where new or revised policies may be required.

The Core Strategy

2.3 The Core Strategy was adopted by the Authority on the 25th of March 2009. It sets out the overall strategy for future development in the National Park and includes detailed policies which are used in when assessing planning applications.

2.4 The spatial vision for the National Park in 2021, set out within the Core Strategy, highlights that all development will make a contribution to protecting, sustaining, and enhancing the special qualities of the National Park. That is will be sensitively located and designed so as to make the best use of existing services and facilities, thereby reducing reduce the impact of development on the open countryside.

2.5 The key Core Strategy policies relevant to this Supplementary Planning Document are Policy 1: Delivering Sustainable Development and Policy 3: General Development Principles : other relevant Core Strategy policies are set out in the table below.

| Policy 1 | Delivering Sustainable Development |
|--|---|
| <p>In order to deliver sustainable development all development proposals will be required to be accompanied by a Sustainability Statement which will demonstrate the extent to which the development:</p> <ul style="list-style-type: none"> a. Conserves and enhances the special qualities of the National Park; b. Makes efficient use of land, materials, and infrastructure; c. Provides opportunities for all to understand and enjoy the special qualities of the National Park; d. Promotes the local communities economic and social well being and their ability to access services; e. Reduces the causes and impacts of climate change, particularly by maximising renewable energy generation and energy efficiency in buildings; f. Demonstrates high quality design and sustainable construction; g. Promotes accessibility via public transport, cycling, or walking; h. Conserves scarce resources; i. Conserves water resources, air, and soils; j. Reduces the amount of waste produced and increases the amount recycled; and k. Prevents inappropriate development in areas which are at risk of flooding or which contribute to the risk of flooding. | |

| Policy 3 General Development Principles | |
|--|--|
| <p>All new development, activities, and uses of land within Northumberland National Park must uphold and promote the principles of sustainable development; new development will be permitted when:</p> | |
| <p>a. The special qualities of the National Park will be conserved or enhanced;</p> | |
| <p>b. The proposal demonstrates high quality sustainable design and construction, which protects and enhances local character and distinctiveness through careful integration with the existing built form. This includes but is not restricted to ensuring:</p> <ul style="list-style-type: none"> - materials are appropriate to the site and its setting; - extensions are subservient to the main building and do not substantially increase its size; - development is sympathetic to existing buildings in terms of scale, height, massing, siting, form, materials and colour; and - the protection of open space which contributes to the amenity, character, and setting of a settlement; | |
| <p>c. The proposal supports the wellbeing of local communities by ensuring:</p> <ul style="list-style-type: none"> - amenity is not adversely affected in terms of visual impact, pollution, noise and waste; - the development will not have any detrimental effects on highway safety or the rights of way network; - the creation of a safe and secure environment; - the provision of appropriate community facilities to meet the needs of the development; and - that appropriate services and infrastructure are capable of being provided without compromising the quality of the landscape. | |

| Other Core Strategy policies relevant to the preparation of this document are: | |
|---|---|
| Policy 2 Climate Change | Seeks to mitigate, and adapt to, the impacts of climate change. |
| Policy 5 General Location of New Development | Seeks to focus new development within existing settlements and existing buildings in the open countryside |
| Policy 7 The Conversion of Buildings outside Settlements | Seeks to ensure that buildings are capable of conversion and that employment use is considered |
| Policy 15 Sustainable Tourism and Recreation Development | Seeks to support the creation and expansion of sustainable tourism. |
| Policy 17 Biodiversity and Geodiversity | Seeks to conserve and enhance biodiversity and geodiversity. |
| Policy 18 Cultural Heritage | Seeks to conserve and enhance cultural heritage. |
| Policy 20 Landscape Quality and Character | Seeks to conserve and enhance the natural beauty and heritage of the National Park whilst being responsive to landscape change. |
| Policy 21 Farming | Recognises the importance of agriculture in the maintenance and management of the National Park landscape |
| Policy 22 Trees, Woodlands and Forests | Seeks to protect and enhance the character and nature conservation value of native trees and semi-natural ancient woodlands. The policy requires the planting of native trees as part of certain developments and supports the development of sensitively located and sustainably managed woodland for sustainable uses |
| Policy 24 Military Training on the Otterburn Training Area | Seeks to ensure that the intensification of existing military development (both individually and cumulatively) will not negatively impact on the special |

| | |
|---|--|
| | qualities of the National Park. |
| Policy 25 Renewable Energy and Energy Efficiency | Seeks to ensure that new development minimises its energy requirements through energy efficiency measures and offsets 10% of its energy requirements through on-site generation of renewable energy. |

National Policy

2.6 The Government has emphasised the role of good design in both Planning Policy Statement *PPS1: Delivering Sustainable Development* and its publication *By Design – Urban Design in the Planning System and By Design – Better Places to Live*. Good design is integral to good planning and this is reflected in the national requirements for Design and Access Statements. This design guide is also clearly linked to *PPS7: Sustainable Development in Rural Areas*, *PPS12: Local Development Frameworks* and *PPS22: Renewable Energy*.

3. Understanding the Character of the National Park

This section provides a context. Understanding the character of the landscape, settlements, building form and traditional materials should be a starting point for any successful design. More detailed analysis is also available in the Northumberland National Park Landscape Character Appraisal, Landscape Supplementary Planning Document and Historic Village Atlases for the National Park villages.

Landscape and Settlements

3.1 The beauty, variety and scale of the Northumberland National Park landscape, with its wild open spaces and wide horizons underpin the distinctiveness of the National Park. Spread over the hills and valleys at the very top of England, but right in the centre of Britain, the landscape of Northumberland National Park has key distinct characteristics. To the north there are the breathtaking rolling moors and grasslands of the Cheviot Hills, with their ancient hill forts and pure rivers. In the east is the Upper Coquet Valley with the landmark Simonside Hills surrounded by beautiful villages, such as Harbottle and Holystone. To the west are the valleys of the North Tyne and Redesdale - wild, inspiring and once home to the Border Reivers. In the south is the imposing ridge of the Whin Sill with Hadrian's Wall, a World Heritage Site, striding along its crest.

3.2 The character of settlements and buildings in the National Park derive historically from the needs of people, the landscape setting and the economic use of land and materials derived from it. Hence in the north of the National Park, the deep narrow valleys have resulted in isolated farmsteads which often nestle within a larger cluster of farms and houses at the end of the valley, as seen for example at Alwinton. The western valleys of the North Tyne and Redesdale are less constrained and farmsteads and villages are more prominent in the landscape. In the south, which is dominated by the Whin Sill, the larger settlements occupy the Tyne Valley bottom (for example Falstone, Lanehead and Stannersburn) whereas individual farms stand high on the Whin Sill. National Park settlements are dispersed - with mainly small hamlets and isolated farmsteads, with a few small villages and was largely in place by the 18th and 19th centuries. The National Park contains virtually no settlement of sufficient size to have been mapped for Historic Landscape Characterisation (over 1ha). The Landscape SPD will give detailed guidance as to the types of development appropriate within each landscape character.

3.3 The Core Strategy identifies 13 settlements and they are grouped into two categories, the *Local Centres* of Alwinton, Elsdon, Falstone, Greenhaugh, Harbottle, Holystone, Lanehead and Stannersburn and the *Smaller Villages and hamlets* of Charlton, Ingram, Kirknewton, Rochester, and Stonehaugh. Outside of this hierarchy there are other smaller groupings of buildings and farmsteads.



A typical Upper North Tyne settlement, with a cluster of buildings on the valley bottom.

Building Form and Hierarchy

3.4 Form and hierarchy is evident in individual buildings, farmsteads and settlements. The functional uses and intended status have traditionally dictated form and hierarchy. The character of individual buildings is significantly the result of trends and construction skills. Typically buildings in the National Park are from the 18th and 19th centuries and have an understated appearance with a simple linear form. The living areas will be the most dominant with smaller lean-to structures on the back or sides, which fulfil a functional purpose and are hence often smaller. The same hierarchy is evident in farmsteads where the farmhouse remains the visibly dominant building with smaller outhouses and farm range attached. Their orientation is often a result of the need for shelter or to achieve a better aspect.

3.5 Settlements again follow the same principles - for example Elsdon where the fortified tower, stands in a dominant position above the village, yet historically more recent buildings such as the long, low parish church and the Public House have more of a sense of place within the village, which spreads evenly around the large open green with occasional houses radiating out into the open countryside along roads.



A typical farm steading in the Hadrian's Wall area where the farm house to the left stands as a dominant feature, with smaller subservient buildings forming the steading.

Elsdon with its dominant fortified tower standing above the village, with the church in front demonstrating a sense of place.



Traditional Materials

3.6 The use of materials varies across different areas of the National Park, and even within individual settlements. This often reflects what materials were available locally, the intended status of a building or even what was fashionable at the time of construction. The information below generalises the types of materials and styles of construction you may find across the National Park.

Walls

3.7 The most common material for walls in both domestic and farm buildings was stone. The stone used often came from local quarries and reflects the diverse geology of the area. In the Redesdale and North Tyne, uniform and fine-grained sandstone is common. However in the north harder Andesite and



Granites, plus Whin Sill in the south provide a harder, less workable material. Here, sandstone was often brought in for window surrounds and quoins, etc.



Roofs

3.8 The majority of buildings in the National Park have slate/stone roofs. Ridges were often made from stone pieces which are easily re-used if re-slating is needed. Some buildings in the Cheviot valleys have imported clay pantiles.

Windows

3.9 Predominantly constructed from timber, they often reflect the status and use of a building. In most cases window frames are set back from the outer face. Earlier windows tended to be narrow with glazing bars becoming finer and panes of glass becoming larger in the mid 19th century. Vertical sliding sash windows form the predominant type in domestic properties. Domestic window frames are typically painted white.



Doors

3.10 Again, typically constructed of timber and usually made up of small well-seasoned components, frame, panels or batons to reduce the problems of shrinkage, open cracks and draughts. It also made repairs easier, only having to replace a small section of timber.

Chimneys

3.11 Chimney stacks generally consist of a plinth rising just above the ridge, the main shaft and a cornice with a small block course above on which the pot sits. Stacks are usually placed at the gable end without an external chimney buttress.

Gutter and Downpipes

3.12 Lead and cast iron dominated the fabrication of rainwater goods until newer materials appeared in the 20th century. Usually painted black, they are fixed on drive-in brackets direct into the masonry. Hence timber boards at eaves were not necessary.

Detailing

3.13 Many buildings in the National Park have simple roof detailing. The one to the right shows a simple capping called water tabling



External Features

3.14 Features such as fences and more typically dry stone walls are often associated with buildings and settlements in the National Park. They help to tie a building to the wider landscape and anchor it into its setting. Occasionally, boundary treatments make a declaration of status.



4. The Importance of Good Design

Principles

4.1 Northumberland National Park is a special place, recognised for its national and international importance in landscape, biodiversity, geodiversity and cultural heritage conservation. Land use, buildings and development play an important role in the character of the National Park and, if done incorrectly, can cause serious and irreversible damage to its unique character.

4.2 There has been significant change since the designation of the National Park in 1956 and it is recognised that it will continue to change. It is important to conserve and enhance the wealth of traditional buildings and this must be done in a managed way with respect and understanding of the significance of particular buildings. There are many reasons why designers and developers must move forwards and embrace new technologies, designs and materials. The principles within this guide are as relevant to modern design. The National Park Authority supports contemporary design, however for this to be appropriate it should be locally distinctive with careful analysis of the established forms of building within the National Park.

4.3 The design quality of new development is of the highest importance in all planning decisions and emphasis should be given to developments which embrace all aspects of design, including siting, massing, scale, proportion, rhythm, materials, and colour and of more recent importance, their contribution towards sustainable development.



5. Sustainable Design

Sustainable design should guide a development and is now a requirement of both national and local Planning Policy. The best way to effectively achieve sustainable design is to think about it from the outset. It is now a requirement of Core Strategy Policy 1: Delivering Sustainable Development, that all planning applications for new development in the National Park are accompanied by a Sustainability Statement. A guidance template for this statement can be found on the National Park Authority website. It is highly recommended that the issues within this template are considered at the inception stage of a development as it can help to shape the proposals. Sustainable design goes much further than just the materials you use as the design considerations below demonstrate.

Design Considerations

5.1 *Conserving and enhancing the special qualities of the National Park:*

- Discuss with the National Park Authority the need for detailed surveys/ impact assessment, if they are required these should be carried out by a competent professional;
- Consider the impacts of your scheme on the historic environment – for example, an archaeological assessment prior to selecting a new site for development or a heritage statement may be required prior to the conversion of an historic building;
- Consider how your scheme could be altered to ensure there is no adverse impact on wildlife⁶ e.g. work should be scheduled to avoid sensitive times such as nesting for birds or hibernation and maternity periods for bats.
- All developments have the opportunity to create new habitats. Consider for example providing roosting / nesting spaces for bats / birds, using sustainable drainage systems or landscaping to create habitats, or managing an area for wildlife purposes;
- Refer to any relevant village appraisals such as conservation area character appraisals or Historic Village Atlas documents to inform the approach where the development could have an impact on the historic environment;
- Consider ways in which the proposed development could conserve and enhance the tranquillity of the National Park e.g. the need for external lighting – to preserve dark skies;
- Refer to the Landscape Supplementary Planning Document for further guidance on considering the impact on landscape character and sensitivity;

5.2 *Making efficient use of land, materials, and infrastructure:*

- Consider using the site and its topography to best advantage for solar gain by orientating the main glazed elevation to the south or within 30 degrees of south, and increasing the proportion of glazing on this elevation. Openings on the north elevation should be limited;
- Working with the topography of a site can help to provide shelter and may reduce excessive engineering works;
- Locally sourced materials often have a lower carbon footprint, help to sustain local economy and can help a new development to assimilate into its surroundings;
- Naturally renewable materials should be considered such as FSC (Forest Stewardship Council) certified timber as they have a lower embodied energy compared with manufactured materials such as uPVC;

⁶ Further guidance is available from Natural England
www.naturalengland.org.uk/ourwork/planningtransportlocalgov/spatialplanning/standingadvice/default.aspx

- Appropriate site selection can help to reduce the need for new infrastructure and make best use of existing roads etc.
- 5.3 *Providing opportunities for all to understand and enjoy the special qualities of the National Park:*
- Not all developments may be able to contribute to this element of sustainability, however information submitted as part of your application - such as Bat Surveys or Archaeological Reports - may be beneficial for wider research and management purposes and so you should consider how this information could be shared, for example, in the National Park's Historic Environment Record;
 - Tourism and education-related developments should consider whether measures such as providing interpretation panels may contribute.
- 5.4 *Promoting the local community's economic and social well-being and their ability to access services:*
- New businesses and business expansions should demonstrate how they can contribute, for example by providing new jobs or sourcing products locally;
 - Community facilities are particularly important in rural areas : consider how your development can help to sustain or provide community facilities;
 - Integration with existing facilities and services helps to reduce travel : consider where your nearest services are located and how these will be accessed;
 - Sustainable transport should be encouraged, for example new tourism developments should consider providing safe and secure cycle storage;
 - The accessibility needs of the whole community should be considered : it may be necessary to incorporate dropped curbs, ramps and dedicated parking for the disabled.
- 5.5 *Reducing the causes and impacts of climate change, particularly by maximising renewable energy generation and energy efficiency in buildings:*
- All new units of residential, employment, community and tourism development must include renewable energy in order to offset at least 10% of the development's predicted energy needs. Guidelines for this are contained in the Energy Infrastructure chapter;
 - Minimising the amount of energy needed is paramount : consider incorporating energy saving lighting and devices. Orientation of development, materials used and insulation can all help to reduce energy demand and operating costs.
- 5.6 *Demonstrating high quality design and sustainable construction:*
- For larger schemes accreditation such as the Building Research Establishment Environmental Assessment Method (BREEAM) should be considered;
 - Consider the size of buildings and spaces and show how they are right for the site and surroundings;
 - Think about how you would like the place to look following completion of the development. This involves considering the use of materials, architectural style, lighting, texture, setting in the landscape, gardens, hard-standing, associated outbuildings, fences and landscaping.
- 5.7 *Promoting accessibility via public transport, cycling, or walking:*
- Consider the walking distance from the proposed development to the nearest form of access to public transport;
 - Expected vehicular movements generated by the site, with reference to daily totals and distribution throughout the day, should be considered;
 - Carefully consider how many parking spaces the proposed development will provide, including spaces for disabled access and parking for bicycles.

5.8 *Conserving scarce resources:*

- Consider how the use of resources such as electricity and oil will be minimised on site : this could include, for example, energy efficiency measures and renewable energy generation;
- Any excavated soil should be re-used on site where possible to reduce the need for transportation : it may be appropriate to use it as part of a landscaping scheme or to fill raised vegetable beds;
- If any buildings are to be demolished as part of the development, consider how the demolition materials could be reused, either by salvaging materials or crushing them to provide hardcore. Major developments should also have a Demolition protocol - using the Institute of Civil Engineers Demolition Protocol methodology - and provide a target for reclaiming materials from the demolition site for re-use and recycling. It is important however to remember that hazardous substances must be disposed of appropriately;
- Archaeological remains are a finite, non-renewable resource; carefully consider what impact your scheme may have on them.

5.9 *Conserving water resources, air, and soils:*

- Consider how your proposal achieves high water efficiency standards, incorporates the use of new technologies to recycle and conserve water resources and promotes the use of sustainable drainage schemes (for example : grey-water recycling or rainwater collection systems);
- If your proposal will affect air quality, consider how this can be eliminated or reduced : also consider the prevailing wind direction and whether re-orientating the development could help.

5.10 *Reducing the amount of waste produced and increasing the amount recycled:*

- For major development a Site Waste Management Plan should be produced using the methodology recommended by the Department of Trade and Industry;
- Other developments should consider how, during the construction stage, waste materials will be reduced, re-used or recycled and should demonstrate how the proposed development aims to promote the recycling of waste;
- All developments should consider the space requirements for refuse and recycling facilities / storage.

5.11 *Preventing inappropriate development in areas which are at risk of flooding or which contribute to the risk of flooding:*

- The Environment Agency can provide details of flood risk. In the worst case, certain types of development may be unacceptable in areas at high risk of flooding;
- All developments should consider flood risk and how the impacts could be mitigated;
- The increased risk of flooding caused by the development should be considered and simple sustainable drainage⁷ measures such as increasing the amount of permeable surfaces, sustainable drainage or grey-water recycling should be incorporated where appropriate.

⁷ SUDS are an approach to managing surface water run-off which seeks to mimic natural drainage systems and retain water on or near the site. Part H of the Building Regulations 2000 establishes a hierarchy which encourages SUDS

6. Design Principles

6.1 New Development

6.1.1 Setting and Form

The setting of a building is important and an understanding of this can be partly achieved by understanding the landscape around it as described in chapter 4 of this guide. Generally, a site can be categorised as either being in the *Open Countryside* or in a *Settlement*.

Design Considerations - *Open Countryside*

- Care should be taken to consider the wider views both into and out of the development site;
- Development should sit comfortably within the landscape and take care not to harm views through appropriately coloured materials, including changes in colour due to weathering;
- Reflect the form of the surrounding landscape and buildings i.e. creating a linear form with ridge lines following the horizontal aspect of the landscape in valleys;
- Skylines are particularly important to distant views : care should be taken not to break the skyline as this would result in a very dominant building;
- Boundary treatment and landscaping should avoid a suburbanising affects.



Design Considerations – *Within Settlements*

- Look at the rhythm and form of existing buildings and how your proposal will fit within this;
- Carefully consider the height, scale and massing in relation to surrounding buildings;
- Refer to any relevant village appraisals such as conservation area character appraisals or Historic Village Atlas documents to inform the approach;
- Appropriate boundary treatments and landscaping can often help to anchor the development into the wider setting as well as creating habitats/ managing an area for wildlife purposes;
- Consider opportunities for creating new habitats e.g. roosting or nesting spaces.

6.2 Conversions

6.2.1 Principles

Almost all conversion schemes in the National Park involve a building previously used in agriculture. As agricultural practices change and farms are merged, traditional buildings are often no longer required for their original use. The appearance and character of these buildings is best preserved by retaining the original use or a closely related function, however this is often not financially viable. The change of use of such buildings can ensure they do not fall into disrepair. Policies contained within the Core Strategy provide guidance on what uses might be appropriate in a particular location. The guiding principle in any conversion is to retain as much of the original character as possible : it is, therefore, best to take a simple approach to alterations by making as few changes as possible in order to maintain form. In most cases, applications for the conversion of former agricultural buildings within the National Park may require relevant protected species surveys as part of the planning application.

6.2.2 Introducing Daylight

Agricultural buildings usually have simple door and window openings, often associated as much with ventilation and access as with light.

Design Considerations:

- Where possible existing openings, including those previously blocked up, should be used first to avoid creating new openings
- New openings should try to reflect the pattern and style of existing openings;
- Where small roof lights exist, consideration should be given to their reuse;
- Light tubes which reflect light down a slim tube projecting through the roof space, enhancing its intensity in the process, may help to introduce daylight to areas where a window is not suitable.

6.2.3 Windows and Doors

The design, appearance, colour and materials of windows and doors are particularly important in conversion schemes.

Design Considerations – *Windows*

- They should reflect the nature of the building and its previous use. Windows should be made to fit the existing openings, rather than change the shape or size of the opening;
- If original windows remain, where appropriate consideration should be given to their conservation and repair rather than replacement;
- The colour of windows is particularly important : it is often best to follow the colour of windows in the existing building or nearby buildings (typically white);
- Ventilation slits often found in old barns can be glazed by fixing glass direct to the stone just behind the outer wall plane or on the internal wall. Attempting to fit a frame to a ventilation slit would waste light and detract from the traditional character.

Design Considerations – *Doors*

- If the original doors remain, they are unlikely to be weather-tight and hence usually need replacing : their style and detail should be copied as closely as possible and any ironmongery could be retained and re-used;
- Large hemmel arches are a common feature in the National Park, their shape and form should be retained and they serve as a useful source of light and access;
- Frames within a hemmel arch could be set back from the outer plane so that from a distance the arch remains the dominant shape; and
- Subdivision of a frame is best achieved in thirds or fifths, with a vertical emphasis.

6.2.4 Chimney / Flues

Depending on their previous use, buildings for conversion may or may not have existing chimneys or flues. Many heating systems will require some form of extraction and careful consideration should be given to its impact on the character of the building.

Design Considerations:

- Existing chimneys or flues should be used where possible;
- If there is no chimney stack, this could be incorporated internally so as not to detract from the gable, or a simple insulated flue painted black may be more appropriate;
- If the conversion is to a use which requires plant or machinery, this should be accommodated internally or in a position which causes the least possible visual impact such as in a modest extension to the existing building or free-standing outhouse.

6.3 Alterations and Extensions

6.3.1 Alterations

Modern day living brings about various demands, which older buildings sometimes cannot meet. However, with careful consideration it is often possible to make minor alterations to improve the function of a building.

Design Considerations:

- Some minor alterations may be made without the need for planning permission. However, it is always best to check and if your property is a Listed Building it is crucial to check first;
- Protected species should be considered when doing any alterations, even where planning permission may not be needed e.g. conversion of roof spaces, re-pointing, or timber treatment to ensure that developers do not break the law in relation to protected species;
- Alterations should be done with care and should respect the character of the existing building;
- A particular problem in older buildings is light levels : internal reconfiguration of rooms can often help to increase the light levels, using existing openings is preferable and 'light tubes' may overcome the lack of existing openings.

6.3.2 Extensions

Successful extensions not only respect character, but are subservient to the existing building in terms of height, scale and massing.

Design Considerations:

- Smaller buildings often have less scope for extensions, indeed buildings have a threshold point beyond which further extensions may significantly affect their character;
- How the extension joins the original building is important. This can often be helped by either making the entire extension extremely lightweight and transparent or by creating contrasting link;
- Ensuring the roof level of an extension is lower than that of the existing building and that the extension is no wider than the existing building are ways of achieving subservience;
- Following roof forms can help to create a rhythm and local buildings styles are important, however a hipped roof can sometimes help to reduce the overall massing of an extension;
- Consider the scope of the extension to incorporate renewable energy e.g. could a new roof incorporate Photo Voltaic or Solar Panels?

6.3.3 Porches

Porches are very much a domestic feature, however they are not very common on older buildings in the National Park. As a porch is usually constructed on the primary elevation of a building, care should be given to its design.

Design Considerations:

- The addition of an internal door may serve the same purpose as a porch in reducing heat loss, etc. and could be a more cost-effective solution;
- Roofing and walling materials which match the existing building may help to respect character;
- A porch is usually centred around an entrance door and the door's narrow vertical emphasis may help to influence the height, width and scale of a porch;

- If a front porch is not appropriate consideration could be given to using an alternative entrance on another elevation.

6.3.4 Conservatories / Sun Rooms

Conservatories / Sun Rooms are becoming increasingly popular as extensions to existing dwellings. As well as the design considerations below, the considerations relating to extensions area also relevant to conservatories / sun rooms.

Design Considerations:

- The function of a conservatory / sun room dictates the need for large areas of glazing : however, consideration should be given to a solid roof which allows for additional levels of insulation;
- Consider the glazing patterns - often a vertical emphasis can help to visually 'anchor' the sun room;
- A 'dwarf wall' is helpful to incorporate a damp proof course. However, making this relatively small - as shown below - can allow for greater areas of glazing and thus a more visually 'light weight' structure;
- 'Transparent' conservatories can very often cause least disruption to a visual appreciation of the host building;
- Try to ensure that existing windows are not 'cut across' by the new roof line and that they are still accessible for repair and maintenance.



6.4 External Works

6.4.1 Principles

Assimilating development into the wider landscape can be aided by carefully considered landscaping. Both hard and soft landscaping should add to a development and its setting, not detract from it. The approach to landscaping is partly dictated by the site, its orientation, soil types, slope and exposure, etc : however, mistakes can be avoided by looking at what works locally. Whether in association with the siting of a new building or the increase in size of an existing plot, very careful consideration should be given to the extent of any curtilage created.

6.4.2 Hard Landscaping

Hard landscaping includes boundaries such as walls and fences, and hard surfacing such as paths, driveways and patios, etc. Hard landscaping, if done correctly, can help to visually anchor a development into the wider landscape, particularly where treatments such as stone walls form an element of the existing landscape character.

Design Considerations:

- Site boundaries should reflect surrounding character, for example if dry stone walls are common then this is likely to be the most appropriate boundary treatment;
- Fences may be a cost effective approach to boundary treatments and to be successful they should be kept simple and perhaps agricultural in appearance;
- External areas in a conversion scheme are often best left undivided;
- Retaining walls serve a specific purpose and their functionality is important : however, consideration should be given to the facing material;
- Hard surfacing should be kept to a minimum and fulfil a specific purpose : where possible, it should be created from a permeable material;

- A narrow path made from stone flags and sets skirting around the edge of a property may be useful for access and maintenance;

6.4.3 Soft Landscaping

Soft landscaping includes trees, hedges, plants and natural vegetation. The most cost effective and successful approach to soft landscaping will see the retention of existing trees, hedges and other vegetation. Although often the full benefits of new planting will not be realised until trees approach maturity, successful soft landscaping will help a building sit comfortably within the landscape and its surroundings.

Design Considerations:

- Careful observation of local vegetation and dominant native species, can help soft landscaping schemes appear more natural and avoid costly mistakes;
- Tree surveys may be necessary as part of a development and would help to inform working practices, e.g. avoiding the storage of materials under a tree canopy where root damage could be caused;
- New trees and shrubs should be planted with regard for their mature height and spread, including the root system which can cause severe damage if insufficient space is made for the species chosen;
- Consideration should be given to the care needed to ensure any new planting survives and serves its intended purpose;
- Soft landscaping can also be beneficial for wildlife, for example, native trees and shrubs support native insects and berry-bearing species can provide a food source for birds and small mammals. Planted areas that link to other natural features such as hedges, ponds and ditches can be important corridors for many species including bats;
- Simple landscaping can help to avoid suburbanisation of the countryside.

6.5 Energy Infrastructure

6.5.1 Principles

The use of renewable energy technology is encouraged by Core Strategy Policy 25: Renewable Energy and Energy Efficiency. Indeed, Policy 25 states that all new development units of residential, employment, community and tourism development will be required to embed renewable energy sources to offset at least 10% of the development's predicted energy requirements. This guide provides an introduction to some of the most popular technologies available. Technologies change over time and further information can be found on the [Energy Saving Trust website](#). It is important to ensure that renewable energy complements and not adversely impacts upon the character of a building or settlement. Further guidance on embedding renewable energy within historic buildings is available from English Heritage - [Climate Change and your home](#).

6.5.2 Solar Water Heating and Photovoltaic's

Solar panels generate hot water from solar energy. A secondary heat source such as a conventional boiler or immersion heater is then used to make the water hotter, or to provide hot water when solar energy is unavailable. Around 5 square metres of roof space is needed, which should face east to west through south and receive direct sunlight for the main part of the day. Alternatively, if you do not have a south facing roof and if you have space, you could install two panels, one facing east and one facing west - but this will make installation more costly.

Photovoltaic's generate electricity from solar energy. The optimum positioning for photovoltaic panels is the same as for solar panels. It is possible to incorporate photovoltaic's into a roof or facade as part of the design concept. They can be used innovatively by being encapsulated in glass roof panels or make up roofing tiles.

Design Considerations:

- Where possible, try to use non-shiny materials that integrate well with the existing roof;
- Avoid installations which extend above the roofline by using technologies that can be installed flush with the roof, where possible;
- Locate the installations away from prominent or important views, such as on the rear of buildings or on outhouses;
- Advice should be sought from qualified persons on potential impact of installation upon protected species, such as bats. Timing of installation avoiding the bird breeding and bat hibernation and maternity periods can help;
- Site the installation to match the position of windows or other similar features on the existing building or surrounding buildings;
- If panels are to be free-standing, where possible they should be kept within the curtilage of the building and careful consideration should be given to the cables needed to transmit energy back to the building. Overhead cables may cause a visual impact but in areas of high archaeological sensitivity they may be the only solution.



6.5.3 Small- to Medium-Scale Wind Energy

Small-scale individual wind turbines are becoming an increasingly regular sight in the National Park, particularly on remote farms. Small-scale not only refers to the height of the turbine but also the amount of energy it provides - typically for just one dwelling (up to 6kw). Medium-scale turbines may, however, be a solution to a community need or to serve more than one dwelling or a business use (sometimes up to 50kw). The erection of wind turbines must be undertaken in a manner that keeps the environmental impact to a minimum whilst still ensuring they provide sufficient power. Sensitive siting and design can reduce visual intrusion and play a part in making these installations an accepted feature.

Design Considerations:

- Turbines should be located close to and visually related to existing buildings, man-made structures or against a back-drop of trees to assimilate well with the surroundings, provided there is no impact upon bats;
- Sighting turbines, as a general rule of thumb at least 50m away from linear features such as hedges, ditches, streams and other potential feeding areas such as ponds and woodlands can reduce impact on protected species;
- Care should be taken to ensure that these are sited so as to not have an adverse impact upon any Listed Buildings or a Conservation Area, Scheduled Monument or their setting;
- The height to blade tip of the turbine should be appropriate to the height of any nearby buildings and structures, and generally no more than 50% higher than the closest buildings;
- Turbines should be designed to minimise the visual impact through use of an appropriate colour. Colours such as semi-matt white, off white or grey can help to blend the turbine with the sky, and green or black could help to blend with the trees or hills;

- Development ancillary to the turbine (such as access tracks or machinery housing) should be constructed using materials appropriate to the locality and should be sited to have minimal visual impact (including through the use of screening) and consideration should be given to undergrounding any Grid connection.

6.5.4 Biomass

Biomass fuel sources are varied, some are purpose grown such as miscanthus and others arise from a wide range of organic waste sources. In Northumberland National Park, domestic use biomass usually takes the form of wood pellets, wood chips or wood logs. Burning of wood fuel releases no more CO₂ during combustion than that which has been absorbed during the growing phase, so the system is considered to be carbon neutral. The transport of fuel can add emissions and should be considered; therefore locally sourced wood fuel is essential. There is a growing network of suppliers across the National Park and surrounding areas.

Design Considerations:

- Equipment and fuel storage should utilise existing buildings where available, otherwise they should be located so as to minimise visual impact;
- Consideration should be given as to how deliveries of fuel or timber will be made and / or how products will be taken from the site;
- Use the smallest size flue possible (subject to meeting Building Regulations requirements) and locate this to minimise visual impact and colour the flue to blend with the background.

6.5.5 Micro Hydro Power

Rivers and streams have traditionally been a source of power generation in the National Park, and with recent technological improvements hydro power is becoming increasingly more efficient. A small-scale turbine is positioned in a stream or river to produce clean renewable energy : small-scale turbines can be placed in existing rivers or streams to generate electricity from a renewable source. Potential sites are hilly areas with spring-fed streams. The available power is related to the flow rate and the difference in level (head). Lower head systems - i.e. with a shallow gradient - are possible, but may require additional infrastructure, while systems with a sufficient fall can be more efficient, even with a lower volume of water.

Design Considerations:

- Use existing buildings where they exist for housing machinery, particularly any historic buildings that were previously used for this purpose, or consider undergrounding the equipment/ grid connection, subject to ecological and archaeological assessment;
- Where possible, locate the plant away from the river if it could be better screened;
- Use materials traditional to the area to construct any new buildings;
- Bury the pipeline and restore the ground.

6.5.6 Geothermal

Used to supply low level energy heating and / or cooling, requires an adjacent area of free land in which to bury pipework coils : if there is an area of open land associated with the building, then a ground source geothermal system could be considered. Low grade heat from the ground is converted to temperatures suitable for space heating, to provide a viable alternative to the use of fossil fuels. Temperatures in this system tend to be slightly lower than for a conventional heating system, and would therefore not be considered suitable for domestic hot water. This is, however, ideal for use with under floor heating. There are minimal design issues once geothermal is in operation. Surveys to determine the extent or

discount the presence of protected species, important habitats and archaeology should be undertaken as they could strongly influence the location and/ or viability of the scheme.

6.6 Economic Development (including Agriculture)

6.6.1 New Farm Buildings

New farm buildings typically tend to have large, wide span shallow-pitched roofs of factory frame and panel components, which are rapid to erect and provide a cost-effective solution. These new buildings can, however, have a very significant impact on the open landscape of the National Park and are difficult to integrate with older farmstead buildings. Guidance on farmstead development is available on the [Farmstead Toolkit](#) website and the Regional Character Statement. Infill amongst existing buildings has many cases spoiled their character and the spaces between them as well as inhibiting the full benefit of the new. If badly sited or poorly detailed, even small buildings can be intrusive.

Design Considerations – Siting:

- Primary considerations are the availability of land in a suitable location for the intended function. It may be appropriate for a building to be located near to the user's dwelling but away from others so as to avoid impacting on amenity;
- In order to avoid an extended track and hard standing it is usually preferable in functional terms (as it is visually) for a new building to form part of an existing group rather than stand isolated;
- Massing and orientation in any situation must be carefully handled so as not to swamp the existing group, and allowance should be made for future expansion even if the current development is seen as the last addition needed;
- Try to use the existing land form to ensure that a new building does not detract from distant views or break the skyline by setting it against a hillside, for example;
- Existing mature trees could be used as screening;
- Consider surrounding buildings and their orientation and roof lines : it is likely that existing buildings have been orientated with consideration to the form of the landscape;
- If protected species are present on site or there is a strong chance that they are present, it is likely that you will be required to produce a protected species survey as part of your application;
- If a new access road is required, this should respect the surrounding topography.

Design Considerations – Materials:

- In sensitive or particularly prominent sites, the use of traditional materials is preferred: however, it is accepted that cost and functional considerations may inhibit this;
- Where non-traditional materials are proposed, the sustainability and visual impact of those materials is an important consideration;
- Vertical slatted 'Yorkshire Boarding' is an attractive, durable material which is easily fixed and replaced and which weathers well.

Design Considerations – Colour:

- The appropriate use of colour will help to reduce any adverse visual impact a new structure may have;
- Large expanses of colours which are lighter than the general tone of the landscape in which the building would be situated should be avoided;
- The roof is usually the most dominant feature of a building when seen as a feature of the wider landscape, and should generally be darker in colour than the walls;

- If roofs are designed to overhang slightly at eaves level, they will not only protect the cladding by reducing rain penetration, but will create a shadow line, making a building appear less conspicuous;
- If roof lights are needed, care should be taken as to whether they can be sited on a less prominent side of the building;
- Care should be taken over the selection of colour and greens - especially lighter ones - should be avoided, as they tend to clash with natural greens.
- In most locations, some of the best colours for roofs are either dark grey (BS 18-B-25), dark brown (BS 08-B-29), or slate blue (BS 18-B-29), depending on the type of landscape and the colours of existing roofs in the vicinity;
- As a general rule, the colours of external walls should be 'earth' colours such as browns, ochres and greys, similar to those of the soil of the surrounding land.

Design Considerations – *Landscaping*:

- Existing trees and shrubs should be retained and used as screening where appropriate;
- Spoil from site excavations can be used for ground shaping and earth mounding around the building, provided that slopes are kept shallow to avoid abrupt changes in angle which can tend to make the mounding look like an artificial bund which can be as incongruous as the building itself;
- Consideration should be given to additional landscaping - the issues raised in section 6.4 should be applied.

6.6.2 Other Economic Development

As the countryside changes and farming diversifies, there may be an increased demand for buildings associated with other economic uses such as timber processing and equine-related activities, for example. Design considerations for buildings relating to economic development are similar to those for agricultural development.

Appendix 1 - Further Information

The following topics are not covered in great detail in this Design Guide : however, further information and advice is available from the National Park Authority.

Archaeology

If a proposed development is likely to affect a site of archaeological interest, the Authority can require measures to be taken to protect or record the site. In some cases this may involve conservation of the remains *in situ*; in others, professional archaeologists may need to record what is found on site before it is lost.

If appropriate, the Authority can require developers to undertake an archaeological evaluation of their site before the application is determined. The results of this will inform how the remains are dealt with at later stages in the development. We strongly advise contacting the Authority's Historic Environment Officer regarding the archaeological potential of any site as soon as a development is being considered and certainly before an application is made.

Listed Buildings

If your property is listed or you suspect it may be listed, it is always best to check as there might be extra requirements or obligations. The Planning Team or Historic Environment Officer at Northumberland National Park Authority will be able to advise you whether or not a property is listed and what that means to you.

Landscape Character

A Landscape Character Assessment has been produced for the National Park and is available on our website. A Landscape Supplementary Planning Document is currently being prepared.

Tree Conservation

Some trees and groups of trees within the National Park are protected by tree preservation orders (TPOs). The Planning Team can advise you whether a tree is protected by a TPO and will give further information as to what that means.

The following topics are not covered in this Design Guide : however, further information and advice is available from the relevant bodies.

Building Regulations

Designers and applicants should ensure that Building Regulations requirements have been fully complied with and all necessary consents obtained. Approval under Building Regulations does not constitute planning permission, and vice versa. Please contact the Building Control Officer at Northumberland County Council.

Highways

Designers are advised to take into account the requirements of the appropriate Highway Authority in a manner that is compatible with National Park requirements. Within the National Park the Highway Authorities are the Highways Agency and Northumberland County Council.

Flood Risk

Some areas of the National Park lie within flood risk areas, contact the Environment Agency for further details.

Pollution

Developments which could generate noise or other forms of disturbance should be discussed with the Northumberland County Council's Environmental Health Officer.

Development on contaminated land will require the consent of the County Council. Where natural (e.g. lead) or industrial contamination is a possibility, designers or applicants should contact the Environmental Health Officer. In some instances, a contamination report will be expected as part of a planning application.

Environment Agency consent is required for discharges and there should be prior consultation on septic tanks or drainage matters not covered by the Building Regulations.

Other guidance may be found by following the links below:

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| Association for Environment Conscious Building | www.aecb.net |
| Building-In Sustainability | www.buildinginsustainability.co.uk |
| Building Research Establishment | www.bre.co.uk |
| Carbon Trust | www.thecarbontrust.co.uk |
| Centre for Alternative Technology | www.cat.org.uk |
| Chartered Institution of Building Services Engineers | www.cibse.org |
| CIRIA (Construction Industry Research & Information Association) | www.ciria.org.uk |
| Combined Heat and Power Association | www.chpa.co.uk |
| Commission for Architecture and the Built Environment | www.cabe.org.uk |
| Constructing Excellence | www.constructingexcellence.org.uk |
| Construction Resources | www.ecoconstruct.com |
| Energy Saving Trust | www.est.co.uk |
| English Heritage | www.english-heritage.org.uk |
| Environment Agency | www.environment-agency.gov.uk |
| Forest Stewardship Council | www.fsc.org |
| Green Building Store | www.greenbuildingstore.co.uk |
| Greenroofs | www.greenroofs.com |
| Institution of Civil Engineers Demolition Protocol | http://www.ice.org.uk/knowledge/document_details.asp?Docu_id=414&intPage=1&faculty |
| Lifetime Homes | www.lifetimehomes.org.uk |
| Livingroofs | www.livingroofs.org |
| Recycled Products Guide | www.recycledproducts.org.uk |
| Secured by Design | www.securedbydesign.com |
| Sustainable Homes | www.sustainablehomes.co.uk |
| Sustainability Works | www.sustainabilityworks.org.uk |
| Site Waste Management Plans | http://www.defra.gov.uk/environment/waste/topics/construction/pdf/swmp-toolkit.pdf |
| UK Government Sustainable Development | www.sustainable-development.gov.uk |