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**LIVE Park** 

Design & Placemaki ng Supplementary Guidance

### Introduction

Good design is not only about how the building looks but how it fits into the landscape and integrates with the wider landscape setting.

This Supplementary Guidance forms part of the statutory Local Development Plan and supports the delivery of the Local Development Plan overarching policies. It updates our previously adopted sustainable design quidance (2012).

The Plan's overarching policies aim to drive up the standards across all forms of development. The policies strive for good design, place-making and sustainability, in particular reducing greenhouse gas emissions. Your understanding of an appropriate response to the policies should result in the design of new development that will enhance and maintain the distinctiveness of the National Park. This guidance aims to help you understand the principles and what they mean in practice.

It also aims to encourage high quality design solutions for the very special places which form part of the National Park.

The focus is on the process of designing your proposal from assessing the wider setting down to the site and how this inspired the design of your proposal whether it is a small extension of a house or a large holiday park.

It provides advice on how to make your proposal sustainable from the siting considerations to how you deal with water, waste and energy in such a way that it complements the natural environment. It also provides suggestions on how to use the planning process more effectively by using design statements, involving professionals and how best to present your proposal. It should inspire you to produce a proposal that thinks about where it is - this special National Park – and how it affects the environment.

This guidance is aimed at householders, owners, architects, developers, businesses, community groups and agencies who are considering designing a new building, infrastructure or extension. It is also for us, as the planning authority, to make design a more transparent and accessible part of the planning process. Development proposals will benefit from early pre-application discussions with our Development Management officers. This will help determine whether a site is identified for development and if development is acceptable - what other planning factors apply.



This document is for. householders

### Structure of the Guidance

This Supplementary Guidance is structured into six main sections. The sections are outlined in more detail below.

### / How to approach designing your proposal

This gives an overview of the process and what professional advisors we recommend you should involve. It outlines the requirement and content for design statements to support proposals. It then goes on to describe the ecosystems approach which should be the starting point for considering your design.

#### Sense of place the National Park Context

It gives a broad introduction to the 'sense of place' of the National Park; the main landscape settings and the character of the built environment of the National Park. You should read this part of the Guidance when developing your development brief and design approach.

### Site and Area Appraisal

How to analyse the wider setting and the site - landcover, landuse and development patterns, building lines, access and recreation, biodiversity, cultural heritage and visual and scenic qualities, setting within the landscape, wind and sun analysis, water environment. It also includes siting examples – good and different scenarios such as a single building in a rural setting to an expansion of a town, and infill development in a village.

### High Quality Spaces and Places

This section provides detailed guidance to allow you to create high quality spaces and places. Firstly streets and the green network, designing car parking and entrances, boundary treatments, planting, water conservation and management.

### 5 The building details

This section of the guidance covers building massing, proportion, scale, materials and construction details including guidance on energy conservation. It also includes good and bad examples.

### ∠ Building types

A look at design considerations in the most common types of development proposals in the National Park area, including good and bad examples.

- 6.1 Holiday developments
- 6.2 Extensions
- 6.3 Outbuildings
- 6.4 Agricultural buildings
- 6.5 Conversions to traditional buildings

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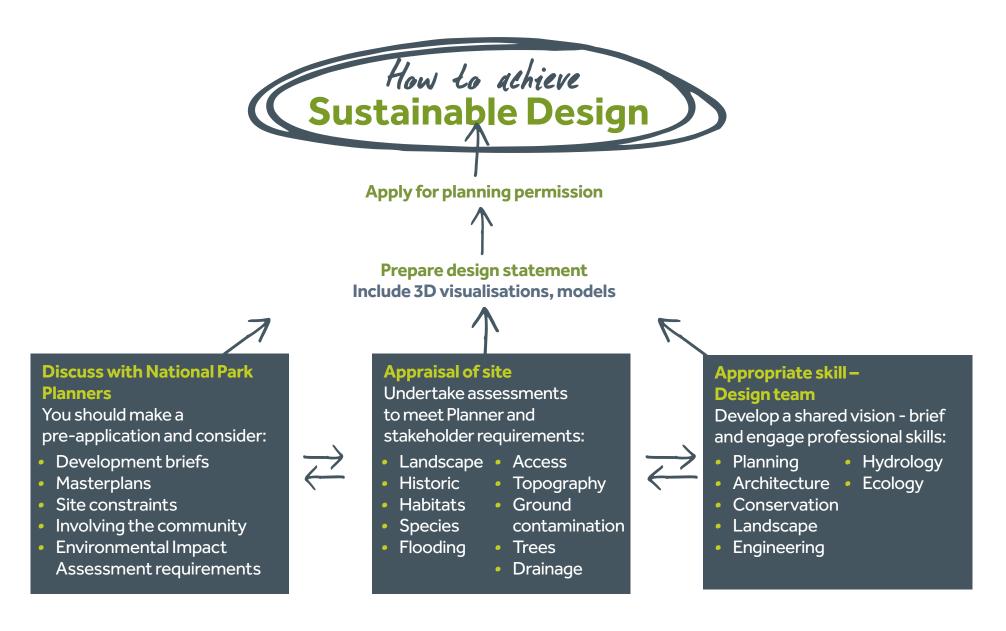
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How to approach designing your proposal

**Section** 

### Achieving exemplar design

Your approach to achieving good looking, sustainable design should consider these elements. Consider the natural systems of your site and how to harness the benefits from nature.



### Overview of the process

This is a checklist, a list of steps, to consider when designing your proposal. It highlights what professionals it may be necessary to involve and at what stage.

sed site

and Area Appraisal Who to involve at what stage

Planning Consultant

Landscape Architect

Architect

Ecologist

Flood engineer

Engineer

Roads Engineer

Archaeologist

Arboriculturalist

7 C : II

Energy Specialist

Drainage Engineer/Consultant

Site selection - reuse an existing building, or previously developed or underused site within towns and villages rather than developing a new site in the countryside



Look at key views into the site – take photographs, think outside the boundary



Work with sunlight, wind direction and shelter



Work with existing site features/topography rather than against them



Create a design that fits with the surrounding buildings and/or landscape – and appropriate to the proposed use

Consider site features and assets (ecosystems approach) – water environment, habitats, trees, species, archaeology, flooding, road access, paths and other existing recreational uses, listed buildings, conservation area















Look at the best aspects of nearby buildings for design inspiration



Consider existing building lines, create breaks in building and roof lines and add features to emphasise entrances and add character

Acknowledge the scale, mass and spirit of nearby buildings but steer clear of mimicry and pastiche







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Design innovative ways of handling sewerage and surface drainage by reducing grey infrastructure and use the green infrastructure solutions









Your design should withstand and adapt to potential impacts of future climate change, such as hotter summers, wetter winters, and an increase in extreme weather events



Design buildings that will reduce energy costs for residents and minimise public water usage (e.g. reuse roof water for gardening)



Consider the details – doors, windows, porches, flues, gutters, pipes, etc individually and how they come together to form a whole



Choose the right materials that fit harmoniously with the surroundings – colour, texture, grain and reflectivity all support harmony



Design the vegetation and boundary treatments holistically considering buildings, existing vegetation and site features



Create a layout that encourages people to walk by increasing and improving connections to nearby places, paths, streets and open space





Ensure areas of new public spaces are high quality, appropriate to the needs of the local community, integrated to the development and links to existing streets paths and wider green network











Distinguish between public outdoor space and private space







### Who to appoint



Planning Consultant



Landscape Architect



Architect



Engineer



Ecologist



Flood engineer



Roads Engineer



Archaeologist



Arboriculturalist



**Energy Specialist** 



Drainage Engineer/Consultant

#### Who to involve

It will also be helpful to involve statutory bodies in the design process, such as:

- the planning authority
- the community including neighbours
- Scottish Water
- SNH
- Roads Authority,
- Housing Authority, and
- SEPA



### **Design statements**

Even though it will involve additional work to present your ideas and thinking, in many cases it can be achieved simply and will help the public and the planning authority understand your proposal.

### When do we require a design statement?

You may wish to submit a design statement even if your proposal does not require one as it will help your application. Generally, we would require a design statement to accompany applications for sensitive or large scale applications. A sensitive proposal is one that needs to be carefully designed e.g. in a prominent location, within the grounds of a listed building or in a conservation area. A design statement is not limited to housing development and is valuable for projects involving commercial, retail, agricultural buildings, extensions and infrastructure. In some instances we may require the submission of a Masterplan and for allocated sites this is indicated on the maps by an icon within the Local Development Plan. (See 'When a design statement legally required?' section adjacent.)

### What should a design statement include?

The statement should be proportionate to the scale and sensitivity of the proposal. You may be able to write the design statement without any professional input but for a larger development a multi-professional team would need to be assembled. These are things we would expect a Design Statement to include depending on the type of proposal and the nature of the site:

#### Site details

• **Introduction** - Description of site, location, planning history, photographs of site.

#### **Brief**

- Brief and inspiration
  - aims and reasons for the project such as: social, economic, environmental and design e.g;
  - to create a family home
  - to extend my house to provide additional space for a growing family
  - to use modern building materials
  - to integrate it in the local landscape.

### Public and professional involvement

- who has been involved in the design process, professionals such as architect, developer, advisors and any involvement or consultation with the community. You may not have involved anyone in the design of your proposal so you may wish to state this.

### When is a design statement legally

They are required to be submitted, as set out in legislation, for proposals in a:

- National Scenic Area

required?

- Historic Garden or Designed Landscape
- Site of a scheduled monument
- Conservation Area
- Grounds of an 'A' listed building
- National and major category developments

Exclusions apply to the list above such as alterations and extensions to existing buildings. If you are in any doubt about whether you are required to submit a statement then please contact us.



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#### Site and area appraisal

- Architectural / Historical/Landscape context – Photographs and site plan of wider landscape setting and buildings of note nearby, if within a town or village then context within the street and village/ town.
- Site Features Vegetation, Water, Wildlife, and Boundaries etc Photographs or site plan of the trees, shrubs, site features such as walls, fences, rivers, culverts, historical etc and key points about the wildlife referring to any surveys undertaken.
- Connectivity access details both pedestrian and road, details of travel options, core paths and other existing recreational activities, facilities in the vicinity that are in walking distance.
- Orientation and Topography –
   Description and details of slopes, sun
   path, prevailing winds. For some sites we
   will expect an analysis of local landscape
   character.
- Views in and Views out This could be a selection of photographs showing the views in and out of the site and identification of the key views that need to be considered and why. For larger scale proposals we would expect a Landscape and Visual Impact Assessment of the landscape and visual baseline; landscape character, visual amenity and landscape experiential qualities.

#### **Design solution**

- Option appraisal details of the various options considered for the project i.e. the iterative design process, sketches. Your reasons for discounting them. Remember these do not need to be polished drawings. This will cover your ideas of siting within your selected site, form and massing options landscape design concepts for integration but also layout options for larger proposals. This could be shown in a basic set of drawings showing movement, buildings, private and public open space.
- Materials this could be the materials you are thinking about using and photographs of them, if available. You should describe them in terms of their appearance, durability, embodied energy, recyclable.
- Energy and Zero and Low Carbon Technology – details of how the building has been designed in terms of scale to reduce need for energy to heat, light, encouraging natural daylighting, insulation, renewable energy, home-working, adaptation and renewal, designing for climate change.
- Travel your ideas of how the proposal will connect into the existing core paths, contribute towards a green network. A green network is a linear route through an urban area allowing movement for wildlife and/or people.

- Wildlife, landscaping, boundaries, green network what features are worthy of protection or enhancement, what landscaping is required, both hard and soft, to address the landscape integration requirements, maintenance details. Your plans for building wildlife and biodiversity into the design 'utilising the existing indigenous vegetation where possible.
- Water and Waste using green infrastructure to deal with flooding (e.g. de-culverting), surface water drainage, foul drainage. Also how you will deal with storage of bins, recycling, construction management, pollution etc.

The existence of a design statement does not guarantee planning permission. It supports a planning application - it does not replace it.

We are looking for illustrations that are easy to understand. These could be site plans, photographs, models, artist's impressions, computer generated images, sectional drawings. The Scottish Government's Planning Advice Note 68: Design Statement gives examples.



### **Ecosystem approach**

What is an ecosystem approach to design in the National Park?

## There are three main principles and this is how they could apply to your proposal:

- Understand how nature works for your site your proposal is likely to be at a local scale so you should be considering hydrological flows and habitat networks. In a coastal environment, the impacts on natural processes of erosion and build up of sediment may need to be considered. These impacts should include cumulative effects if there are a number of similar projects close together.
- Value nature's services and harness the benefits you need to consider your proposal in a holistic way in terms of how it affects clean water (wastewater management) and productive soils (allotments, food production), how it affects floods in terms of climate change and carefully consider the quality of life of the people who will use your proposal for work, living or leisure (amenity, recreation, public health).

The ecosystem approach is a strategy for the integrated management of land, water and living resources that promotes conservation and sustainable use in an equitable way.

The Convention on Biological Diversity, 1994)

• Involving people – We will notify neighbours of your application and they will get a change to comment - but this is only a basic level of consultation. For a local development this is often appropriate but for medium to large scale proposals, you should go beyond consultation. You should get people in the local community to participate in the design process of your proposal.



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Carrick Golf Course, Lodges - utilising the environmental assets (trees and lagoons)

### Why should you adopt an ecosystem approach to your design?

There are increasing pressures on ecosystems due to climate change, population increase, changing consumption will result in a sense of identity for a place patterns and increase in living standards. Developers that incorporate an ecosystem services approach will add value to the overall development and ensure a sustainable development. We want you to better understand what the environment can do for you.

Green infrastructure underpins the ecosystem approach as it is a shared vision of the green spaces around a development encompassing character, beauty and multi-functionality. If you identify the natural and cultural assets that define the character of the area they can be effectively integrated into the design. It is cost-effective and sustainable, reduces visual impact, improvement to flood management and

reduces long term maintenance as grev infrastructure is replaced. It is the differing combinations of landform, watercourses. waterways, vegetation and buildings that and its uniqueness.

Examples in practice from a small site to a large site:

- Features a boundary wall, a group of trees incorporated into the design.
- Water management/flood management - adaptive measures such as deculverting to restore a natural watercourse which increases amenity and biodiversity, rainwater harvesting to use in gardens and landscaped areas, rain gardens (shallow basins or planter boxes attractively planted that collect rain from roofs), bioswales, green parking – permeable and planted, green roofs.

- **Green streets** incorporating all the green water management ideas to make an attractive street and trees to provide shade in the summer.
- Food production considering garden areas for growing food or allotments
- **Recreation/Wellbeing** Greenspaces (open space) including playparks, areas along watercourses, and edges of walkways can provide places for people to spend time, socially interact and enhance the wildlife/biodiversity.
- **Diffuse pollution/waste** this could be incorporation of reed ponds to deal with waste providing for wildlife.

The removal of a culvert (a pipe for a watercourse to pass through underground) and return to a natural watercourse

Sense of Place -The National Park Context

**Section** 

### **Sense of Place**

If somewhere has no sense of place then it has no special relationship with the place in which it is located. You are working within an internationally important landscape so your understanding of sense of place is central to making a proposal fit within this stunning National Park.

### Definition

It has been used in many different ways but to us a sense of place is; how the landscape, its form, qualities, historical development pattern and type and the relative importance of these and how they combine to and contribute to 'a sense of place'.

"The Park's landscape, both its special landscape qualities and landscape character, alongside its distinctive architecture and local materials contribute to the sense of place." Landscape character types reflects the variation in landform and topography, patterns of vegetation, landuse and built development and describes forces for change in those. The character types provide the day to day backdrops, focus and skylines to everyday life and experiences through the wide variety of scenery they support.

Of the character areas in the Park it is the **highland summits** in the north and north east that are the most visually distinctive landmarks with rugged rocky ridgelines creating a strong sense of place.

These along with steep sided ridges and hills such as the Cowal and Luss Hills provide the backdrop to upland glens with steep-sided hillside with moorland, rough grazing and woodland (including forestry). These places are interspersed with small highland towns and villages, farms and single buildings with strong rural character which take second place in the dramatic landscape. The main road and rail routes to the west of Scotland weave through the landscape contributing to the sense of place, particularly the rail route with its dramatic Victorian viaducts. In order to retain the predominantly rural character development should be well integrated into their landscape settings.

See our **Landscape Character Assessment** which divides the Park into landscape character types.



Crianlarich in Strath Fillan, sitting on the Strath Floor at a main transport junction

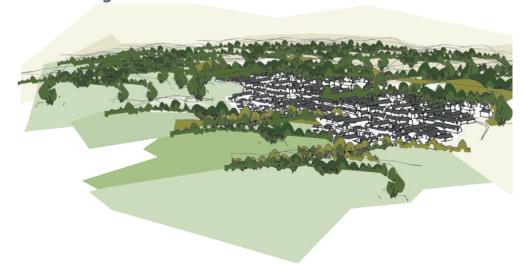
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Balmaha, Conif Hill provides backdrop

The differentiation between town and country is an important contributor to the distinctive character of Loch Lomond & The Trossachs National Park and 'sense of place'. In contrast to more built up areas (such as those found in central Scotland) there are very limited suburban development where countryside and town merge or coalesce.



It is the straths and glens, including those with lochs, coastal fringe, Loch Lomond basin are character areas that people mainly live and work. The parallel ridges associated with the Highland Boundary Fault in the south of the Park provide the backdrop to the moorland and rolling and river valley farmland. These landscapes have larger towns and villages with a more structured layout and there are also a number of mansion houses and castles with parklands and designed grounds. Throughout the whole National Park there is a clear distinction between town and countryside but this is particularly noticeable in these areas. These landscape settings are complemented by the various towns and villages, each of which has its own identity.

See the **Local Development Plan** for detailed town and village descriptions.

### Sense of Place - in the town and villages

Within a town or village then you have to assess the town setting rather than the landscape setting. The local character is dependent on the way in which individual buildings and their plots relate to each other and to the pattern of access road, streets within which they sit.



**Building line –** traditionally denser and more urban developments in the National Park share a similar building line with minimal step-backs. Where new development does not follow a similar relationship to the street as its neighbours, it can look out of place.

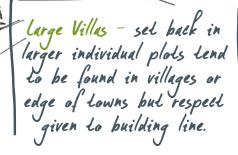
Urban grain – A distinctive identity can be achieved from a variation in density and development footprint based on consideration of successful adjacent development patterns.

Most successful developments have some buildings which have windows and entrance facing onto streets, shared spaces so that spaces feel safe and overlooked.

Historical Layouts – The street patterns and rhythm contributes to the sense of place. This is the way in which individual buildings and their plots relate to each other and to the pattern of the access roads, streets within they sit contribute to the local character. For example, to the west of Callander is the feus which has large individual plots with grand villas. Many of the towns and villages are clustered around a village square and churches and hotels provide landmark buildings.

### **Gartmore, the Trossachs**

- Common building line unites different buildings
- Repetition of eaves dormers brings rhythm to the street
- Small porches that do not dominate the front elevations



Main street 
dense blocks formed

by row of 3 or 4 buildings,

usually with shop unit at

ground floor



### Killin, Breadalbane

- shops on ground floor ensuring active street frontage
- varying heights adds character



Further guidance about historical layouts can be found in the Listed Buildings and Conservation Area Planning Guidance.

### Sense of place

These are a small selection of the typical building types, features and materials found within the National Park. Across the park there is a contrast between large Victorian Villas and small estate, farm and forestry houses.



luss, Estate Collages



Kilmun, Victorian Villa



Loch Eck, painted rubble walls, slate roof



Croflamie, red sandslone



Ardentinny, Forest Houses



Tyndrum, lerraced collages



Bridge of Dochart, Coloured



Glenbranter, Timber Cladding



Arrochar, Victorian Villa



Port of Menteith, Gabled Farmhouse



Callander, Carved gable



Callander, puddingstone

**LIVE Park** 

### Landscape setting

There is a diverse range of character across the Loch Lomond & The Trossachs National Park. Development is most likely to be focused in towns and villages within one of these five settings. These are usually surrounded by the dramatic hills and mountains which make the Park special.











Site and area appraisal

**Section** 

5

### Site and area appraisal overview

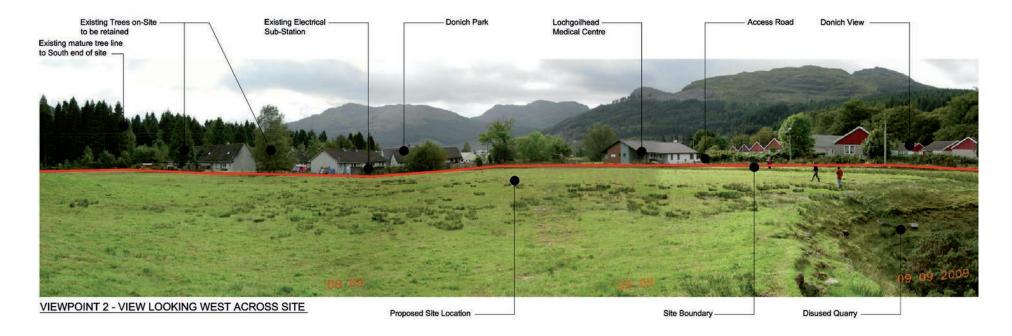
A site appraisal should be prepared at an early stage to inform the proposal preferably prior to or during pre-application discussions. At application stage it would normally be presented in a design statement. Further details on how to undertake each appraisal is included in this section and below is a summary of what should be included:

Wider, Local and Site Context – a three stage approach (as seen on page 23) to appraising the context of the site, views in and out of the site, along the street, links between paths, open spaces and nearby facilities and surrounding land uses. Also, understanding the features of the site such as features and vegetation within the site – walls, structures, paths, hedges, areas of grass, shrubs and trees and archaeologically sensitive areas.

**Detailed sun path and wind analysis –** you should appraise the sun path and wind direction to ensure your building can capture the sun and is not directly located in the prevailing wind, and uses orientation and shelter to reduce the impact of wind (see page 24).

**Site drainage and flooding** – natural drainage and flooding including all water courses, ponds, wetlands and field drainage, pipes, culverts and any sewers that might affect the layout of proposals. Depending on the findings a flood or drainage impact assessment may be required (see page 26).

Wildlife and nature conservation including Trees survey – Every development should aim to make a positive contribution to biodiversity. You should ensure that wildlife habitats are enhanced or create new ones. The first step is to survey the site to identify what is present before more detailed species and tree surveys are undertaken (see page 27).



### **Understanding the Wider, Local and Site Context**

These sketches illustrate the staged site appraisal you must take of the wider setting, the localised view and then the site itself.

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Wider landscape assessment

#### Considerations

How will the scale and nature of the development fit in the wider area? Have you considered landscape capacity or cumulative issues? How will the development relate and respond to its surroundings in the wider

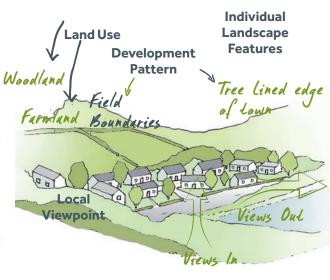
landscape and visual context?



2 local character and the community

#### Considerations

How will the development integrate into the local area visually and functionally? Have you considered; circulation, landuse, networks (vehicle, pedestrian, cycle), approaches, sense of arrival, roof and skylines and the overall composition? How will the development respond in terms of boundary treatments, watercourses, open space, access, landscape features and key views?

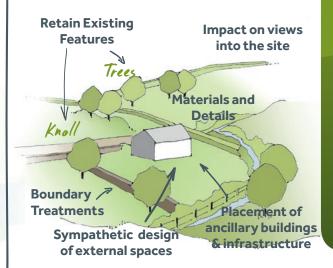


The site itself i.e. site appraisal

#### **Considerations**

How does the development confirm the relationship, response and integration of the first two stages?

How will the development respond in terms of details, materials, spaces, landscaping (soft and hard), drainage, biodiversity and green infrastructure and access points?

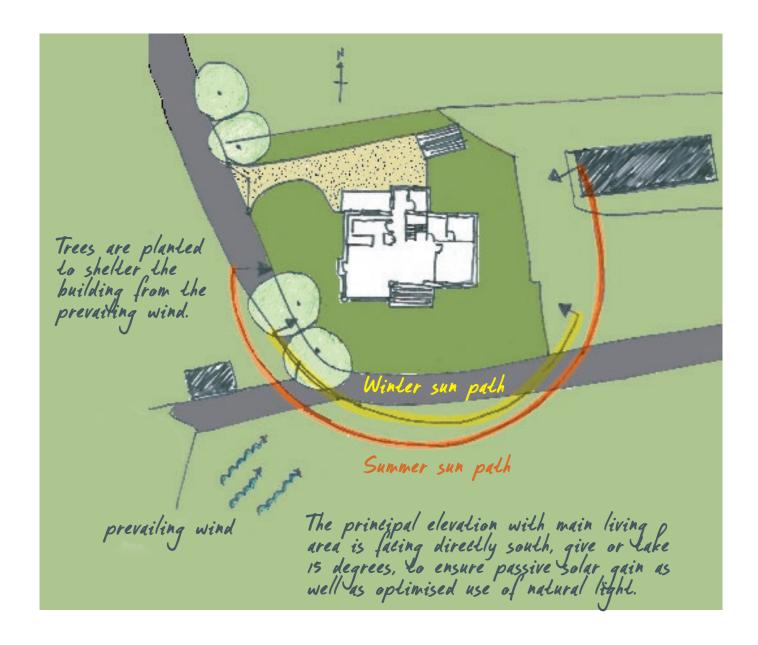


### **Energy Conservation**

In order to comply with part (a) of Overarching Policy 2 of the climate friendly design, you are required to demonstrate how the proposed building will meet a reduction in greenhouse gas emissions through minimising overall energy requirements through conservation measures.

One of the best ways to reduce energy use in a new building is to ensure the building is sheltered from prevailing winds and is capturing the sun's heat and light either by design, orientation, landscaping (including hedges and trees), other buildings or landform.

Your design statement should illustrate your analysis of the sun path and prevailing winds. This is relevant for sites both within towns and villages and in a rural setting. Where there are other built considerations such as existing building line, road frontages then they need to be balanced with considering orientation for the sun and wind. It is important to acknowledge that every site is different and this guidance is generic.



#### **Passive Solar Gain**

The cumulative surface area of the windows on the southern elevation should be greater than on the **northern** elevation.





North elevation

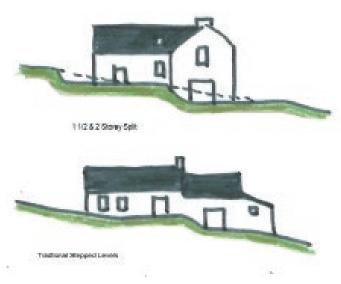
### **Density**

Flats and terraced properties have higher energy efficiency than a detached or semi-detached property due to fewer elevations exposed to the elements. Higher density is a more efficient use of land and infrastructure. It is recognised that higher density is not always appropriate, where local context suggests a lower density response, the principles of placemaking apply.

#### Topography/Landscape

The slope, tree belts and nearby landforms should be used to shelter your building as this will reduce the impact of prevailing winds thereby reducing energy demands and it would also improve integration with the land reducing visual impact.

- Avoid undue prominence and exposure of proposed buildings.
- Improve integration within the site and surrounding land to reduce impact of prevailing winds and improve visual impact.



#### Daylighting and sunlight

Daylight is different from sunlight. New buildings should be designed to capture daylight to provide natural light to reduce the use of artificial lighting. New buildings and extensions should be designed to minimise overshadowing of neighbours properties.

Overarching Policy 2 states that proposals need to address the loss of privacy/sunlight and daylight on neighbouring properties. It is considered unacceptable if there is a significant loss of sunlight leading to overshadowing for the majority of the day or where daylight is being lost in habitable rooms of a neighbouring property. A useful guideline is the British Research Establishment (BRE) quide 'Site Layout Planning' which sets out empirical quidelines and methods for assessing natural light.

### Designing in Renewable Technology - Future **Proofing the Building**

In the building details section of this guidance there is information on renewable and low zero carbon technologies and the options available to comply with part (b) of Overarching Policy 2. However, at the site appraisal stage you must ensure that you are considering:

- the pitch of the roof for solar technology optimisation:
- space in the garden for free-standing solar panels, micro wind turbine or air/ground source heat pump.
- Space for storage of wood if using biomass and access for deliveries of wood chip.

### Water environment

The water environment includes burns, rivers, loch, wetlands, groundwater, field drains and reservoirs. The water environment should be left in its natural state, where possible avoiding culverts, watercourse diversions and bank modifications.

Developments should be designed to avoid engineering activities in the water environment and avoid any impacts on Groundwater Dependent Terrestrial Ecosystems (GWDTE). A drainage impact assessment and/or flood risk assessment may be required. You should check with us if you are unsure. Development will not be supported if it does not comply with our policies on drainage and flooding (see Natural Environment Policies 11, 12 and 13).

The assessment should identify opportunities for adaptive measures e.g. deculverting, balancing ponds should be explored for multiple benefits including landscape/visual amenity and commercial benefits and access as well as flood prevention. If there is a man-made watercourse then there may be an opportunity to re-naturalise the channel, add appropriate buffer strips and remove man-made barriers to improve fish passage and sediment transport.

You need to demonstrate how the layout and design of your proposal including any hard standing has avoided impact on wetland.

Any sewers that might affect the layout of the proposals and drinking water supplies should also be considered. Further details on how to treat drainage innovatively in your proposal is included in Section 2.2, water management p44.



Top Lips

- If required, always submit your Drainage Impact or Flood Risk Assessment with your planning application or it will cause delay in determining your application.
- Always use a suitable qualified person to undertake the survey.
- Be willing to speak to us about possible mitigation measures where flooding is identified.



We aim to maintain and increase biodiversity in Loch Lomond and Trossachs through Wild Park 2020 (our National Park Biodiversity Plan). A proposal should, where possible, make a positive contribution to the natural environment including a net gain in biodiversity.

As a starting point for understanding the ecology, a preliminary desk-based study should be undertaken to collect all existing ecological data about the site, followed by an Extended Phase 1 Habitat Survey. It will help identify what habitats are present, the protected species that they may support, further survey requirements, site constraints and potential mitigation. This information will then inform the site design.

### Designing wildlife into your proposal

You should ensure that wildlife habitats are enhanced or you create new wildlife habitats. This could be through support of key species (such as bat/bird boxes, bat bricks and tiles), linking populations through habitat corridors and green networks. Attractive green features and associated wildlife in the built environment also bring important benefits for human health and wellbeing.

### Invasive non-native species

The four worst offenders in the Park are rhododendron ponticum, japanese knotweed, himalayan balsam and skunk cabbage. Where any of these species are found on site you may be required to submit a strategy for their treatment or removal.

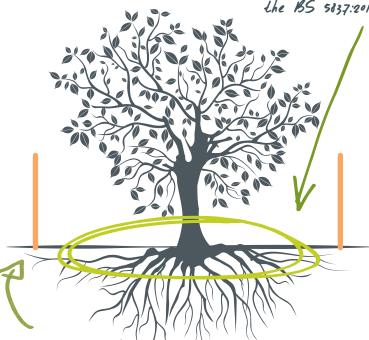
#### **Trees**

Trees bring considerable benefits to a finished development. Even one or two mature trees can greatly enhance the character and interest of a finished development. Trees also reduce noise and air pollution, provide a variety of wildlife habitats and help reduce carbon dioxide in the atmosphere.

Where your development is in close proximity to trees you should undertake a tree survey in accordance with 'British Standards 5837: Trees in relation to Design, Demolition and Construction' for all trees with a stem diameter of 75mm or more. Using this information you should design an initial site layout and identify areas for new planting.

You should then prepare a Tree Constraints Plan including root protection zones and details of the methods for construction work. Generally you should not be constructing or storing materials in the root protection zone but a no-dig method may be agreed to in some instances for a path or driveway. For further information speak to our tree officer or visit our website and click on trees under the planning section.

Rood protection zone protects the critical tree roots and should be calculated as an area equivalent to a circle with a radius 12 times the stem diameter (see method in the BS 5837:2012)



Prior to start of construction, erect tree protection fencing at extent of root protection zone

**Root Protection Zone** 

### **Protected species including birds**

A walk over survey can determine what animals and birds are using the area. Notes should be taken of otters, bats, badgers, pine martins, red squirrels and water voles. Nesting birds are protected during the nesting season so ideally scrub and other vegetation removal should take place outwith this season. We must determine if legally protected species would be affected by the development before issuing a decision. If you fail to submit protected species survey information then this may delay your planning application. It is also an offence to disturb breeding birds so any tree or scrub removal work should be undertaken outwith. breeding season or where you must remove trees in the bird breeding season then a bird survey would be required.

Where retention, creation and enhancement of a habitat is required to mitigate the effects of a proposal then we would secure this via a condition or legal agreement. You may be asked to prepare a **management plan**. Further information on Site management plans can be found in the Visitor experience planning guidance.

If you want information on what habitats are a priority for the National Park then contact us. There are also links to detailed publications on individual species within the final section of this guidance.









### **Tips**

- Always use a suitably qualified person to undertake the survey.
- Give yourself plenty of time (sometimes species hibernate or plants are not detectable in winter).
- Be prepared to accommodate species into your proposals.

Timing and seasonal constraints to surveys



### Landscape considerations

Once you understand the site context, you must ensure your proposal is located in the landscape and not on it.

The integration of any development should be led by the landscape context of the site. This does not mean hard and soft landscaping that is an afterthought but how the landscape setting, features and topography contributes to the scale and orientation of the proposal.

### Landscape design principles to ensure your development is sympathetic to its surrounding area.

- Attempt to fit or nestle your proposal within the landscape
- Consider how the site relates to its surrounding and land-cover
- Consider scale, proportion, colour. reflect site character, retain site features in the design
- Consider impacts of lighting and noise in tranquil areas

**Use existing site contours –** keep cut and fill to a minimum; avoid heavily engineered platforms, mounding, artificial raised platforms and sloping land - choosing the most appropriate location within your site can reduce earthworks, footprints and overall visual impacts.e.g. impacts of tracks, driveways and car parking areas, under-build.



Use existing natural and site landscape features and integrate these where possible in the design;

- Be guided by existing boundary treatments; these should be assessed as part of the wider site considerations. Set a development against a backdrop or make a rocky outcrop, burn or woodland a feature.
- For example use existing vegetation e.g. woodland, hedgerows, planting and watercourses to your advantage when siting the development. Where trees/ hedgerows etc. exist they should be maintained wherever possible, with care taken to protect the root area from development.

- Ledereich Lodge, Balguhidder
   consideration of wider setting
   good selection of materials and
  consideration of colour

- good use of the slope
   appropriate naturalistic planting
   'tucked in' tieing into existing woodland
   building appears to nestle into
  the landscape

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### Siting a single building in the countryside

Within the countryside, buildings are set within the landscape to make best use of sunlight, shelter, views and access. In the National Park single buildings are set in and are separated by large areas of landscape - woodland, hillside, farmland, loch and lochside

#### **Bad**

- Exposed site with no trees and not sitting in contours
- Platform created to build the house makes building look prominent
- Inappropriate suburban parking area to front
- Intrusive visible access road
- Sitting high not in the building line of neighbouring properties



#### Good

- Development does not dominate its setting
- Planting integrates the development into the setting
- Located within contours of the hills and ridges
- Does not intrude above the skyline





### Siting in a small rural community

The communities of Balmaha, Balquhidder, Brig 'O Turk, Milton of Buchanan, Kinlochard and Port of Menteith have developed because of the area's topography and the way that the land was used by its occupants. They are rural in character without formal urban elements such as streets, squares with significant amounts of pavements and street lighting.

### **Bad** Good • Typical suburban cul-de-sac approach. Respecting the existing development Ignores its setting pattern · Respect building typology, massing and Faces inwards on itself • No existing trees and hedges so exposed scale to prevailing winds and prominent in Density similar to existing • Integrated with the landscape, relates well landscape • Spacing between buildings does not fit to wooded riverside setting with existing development pattern

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Guidance

### Infill development

The National Park has attractive towns and villages based on a typical pattern with denser centres, sometimes around a public square. It is important to ensure infill developments are in keeping with the character of place and create new places.



Drymen - Salmon leap
Mixed use with retail/business on
ground floor and residential above
- space for on-street parking

### Key aims of infill development:

- Create a mixed use development that reinforces the centre of the village.
- Creation of an active frontage onto the Main Street.
- Use site to promote concentric, organise and sustainable growth of the village.



Dreadnought site, Callander design option for site adjacent
to Dreadnought hotel in Callander
respecting the height, density and
layout of adjacent hotel.

### Impact on character



On the main street in Callander the rhythm of the street has been broken by this infill development:

- Building line is not maintained
- Large setback from road
- Scale of infill development is different to neighbours
- Different materials are used to adjacent buildings
- Massing and elevation treatment has nothing in common with neighbouring buildings

### **Contemporary courtyards and mews**

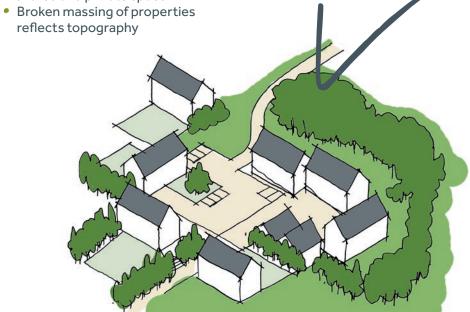
Within towns and villages of the Park you will find common design details such as continuous building lines, density that is area specific and consistent boundaries and landscaping. The emphasis should be on creating a sense of place and a community friendly environment with good access to local facilities.

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#### Good

- Based on a steading courtyard concept
- Maintains existing setbacks, landscaping and boundary treatment of the area
- Alternate orientation of properties allows for rural courtyard arrangement
- Parking well integrated in courtyard
- Simple rural boundary treatment defining shared and private space



#### Good

- Shared surface lane is main axis for development
- Houses face onto the lane
- Parking areas grouped off the courtyard



### Siting at the edge of a town or village

In the National Park town and countryside are distinct from one another. In contrast to more built-up areas (such as those found in central Scotland) there are very limited areas of suburban development. This differentiation between town and country is an important contributor to the distinctive character of the National Park. Development at the edge of built up area needs to be controlled in order to maintain a clear definition between towns or villages and the countryside.

#### **Poor**

- Significantly different development pattern
- Different orientation, inward facing

 Standardisation with standard demarcated front and back gardens and road layout

#### Good

- Grows out of existing town with appropriate development pattern respecting existing
- Integrated with landscape
- Outward looking
- Linked relationship with setting footpaths, structured landscape, public realm link
- Non-standardised road layout and parking



### **Subdivision of plots**

Small towns within the National Park have development patterns which accommodate and integrate a diverse range of neighbours in a way that makes attractive streets.

The National Park has attractive towns and villages based on a typical pattern with a denser centre, sometimes arranged around a public square. Many have long thin strips of development based on the traditional 'feu' pattern.

There are also many large plots with Victorian holiday villas alongside small traditional cottages.

#### Good

- New development is built behind existing property
- It is smaller in size and a different orientation to appear like an outbuilding.
- Consistent setback and boundary is retained at street frontage
- Original access and planting is retained

#### Good

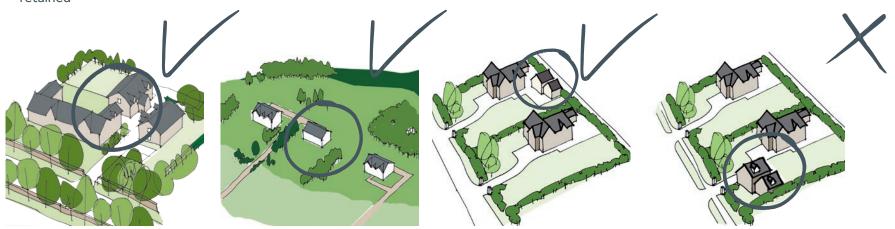
 Massing proportions, building line and orientation of new plot in keeping with existing, shared access

#### Good

 Reduced proportions to be subservient to main building, alternative orientation to minimise impact, shared access

#### **Poor**

 Sits at front of plot detracting from streetscape



Design & Placemaking Supplementa Guidance

Designing High Quality Places & Spaces

**Section** 

# **Designing High Quality Places & Spaces**

Arrochar -gardens, planting and open space contribute to placemaking

After you assessed your site you are ready to sensitively locate your proposal within the development pattern and setting, taking account of distinctive local character. By incorporating natural vegetation, trees, landscape features, water environment, access linkages and green infrastructure you can ensure the proposal will be a sustainable development. It is important to take account of natural drainage and the areas that should be left undeveloped to safeguard trees and hedges. There may be areas that should not be developed due to tree roots or drainage.

This section helps you utilise your site assets; landscape, water, wildlife including the links to wider green infrastructure and the connections to other places. It then covers issues associated with access and parking, defining public and private spaces, landscape framework and design, entrances, gateways, boundary treatments, gardens and planting. Considering all these matters will create high quality spaces and a sense of place.



# **Designing streets**

The main aim to designing streets with character is to consider place before movement i.e. how it looks and feels before function of roads and pavements. New development should avoid suburban 'could be anywhere' development based on standard roads layouts. It should use the existing site features – trees, shrubs, boundary walls – in the design.

Polnoon, Eaglesham
Award-winning placemaking with generous landscaping and priority for pedestrians over ears, creating an attractive

- Introverted, 'Could be anywhere' design
- Boundary treatment of cul de sac detaches development from adjacent village
- Landscaping is replaced by hardstanding
- Scale and proportion of space does not relate to surroundings
- Waste bins storage are not designed into the proposal

- Large areas of high boundary fencing facing onto streets
- Blind gables and blank walls
- Large 'leftover' development setbacks
- No designed connection to adjacent village or neighbourhood
- Inappropriate open plan boundary treatment
- Building line is not maintained
- Parking dominates the frontage
- Landscaping is replaced by hardstanding
- Scale is not contextual

place for everyone

Different materials and character used from surrounding buildings





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Placemaki ng Supplementa Guidance

# Creating a new landscape

Creating a new landscape – in towns and villages and in a rural site



Inherent in the approach to creating a new landscape should be a commitment for landscape mitigation and in addition identifying opportunities for enhancements for example; boundary repairs, gapping up of hedgerows, repairs to gates, tree guards, estate fencing.

In any development design the scope and appropriateness to create 'new landscape' should be considered at an early design stage be that; public realm, green spaces, recreation areas, private space, a yard, community allotments and gardens with consideration of views from them to focal points and landmarks as well as the views to the site.

To assist in the integration of development into the landscape and make a successful finished building;

- **Soften the edges of a development,** incorporate well thought out boundary treatments and approaches.
- Create or add to backdrops and settings using planting and/or fencing/walls for effective screening i.e. breaking up elevations of buildings, walls, fences etc
- Take advantage of opportunities for amenity and ecological enhancement
   e.g. use local, native species which will blend with the surroundings and provide wildlife habitats that link to adjacent woods or hedges or along existing watercourses or where opportunities for de-culverting exist.
- Plant structural tree planting for aesthetics, settings and placemaking including groups of trees, blocks of woodland, hedges and field boundary trees, parkland trees, informal and formal shrub planting, avenue trees etc. Planting may appear incongruous in some open landscapes. Consider potential size of any tree. Avoid large expanses of manicured lawn.

- Adopt rural standards by avoiding urban standards and materials, such as tarmac street, lighting and concrete kerbs and aim to be as sensitive to the landscape as possible, using carefully sourced hard landscape materials. Consideration should be given the use of appropriate materials to assist in providing sustainable drainage solutions as well adaptive measures such as de-culverting to re-establish more natural channel courses.
- Use soft engineering techniques
   where possible use new innovative
   re-engineering solutions e.g. de-culverting,
   and avoid significant earthworks; bioengineering
   approaches and designs where possible which rely
   wholly on plants coir pallets, coir rolls and incorporate
   bio-structural designs within hard structures e.g.
   vegetated gabions.

You need the best advice in developing landscaping proposals that will meet with our approval. A suitably qualified landscape architect can help you to deal with these issues and create a landscape plan.

A directory of Landscape Consultants can be found at Landscape Institute <a href="https://www.landscapeinstitute.org">www.landscapeinstitute.org</a>

### Naturalistic planting integrates rural houses and their setting









### Planting unifies development in the National Park's towns and villages



Small scale planting complements scale of estate village houses



Structured planting in new development



Avenue of trees provides 20th century housing a structured setting

### A landscape plan should include:

**Soft landscaping** – details of existing trees to be retained and proposed trees, shrubs, planted beds and grass areas. The details should include planting densities (plants per sq metre), the botanical name and stock size Wildlife planting should avoid hybrids and wild flower seeding should be appropriate for the area.

**Hard landscaping** – details of layout of hard landscaping and proposed materials for hard surfacing e.g. paths, parking areas, patios.

**Surface drainage** – details of the proposed SUDS and how it is incorporated into the above hard and soft landscaping e.g. rain gardens, permeable surfaces, swales, ponds, de-culverting solutions etc.

**Boundary treatment** – details of location, design and details of finish e.g. stain, paint, natural stone etc.

### In larger cases it should also include:

**Topographical details** – a plan with contours showing existing and proposed levels and cross-sections to accurately illustrate proposed changes in ground level.

**Ground preparation** – details of areas owhere habitats could be retained by turve management, particularly bluebell soil retention.

**External lighting** – details of lux levels, illumination splays, type, wattage and location of lights.

**Play provision** – details of play provision for family housing or large tourism. *developments.* 

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# **Boundaries, walls and gates**

Boundary treatments with a National Park character



St. Fillans, Privet hedge



Lochearnhead, Rubble wall



Dry stone wall



Callander, Metalwork



Breadalbane,



Callander, Rubble Post and wire fence wall and hedge



Loch Lomand, Dry stone wall



Strone, Rubble wall and arch



Callander, Post and wire sence



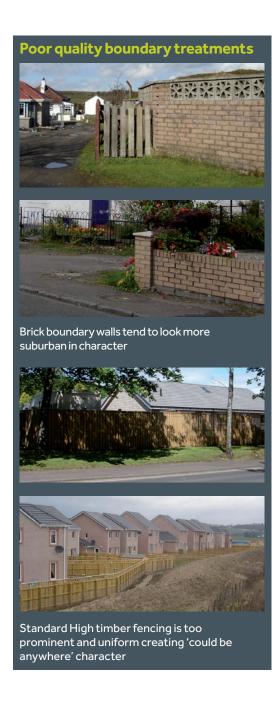
The Glassert, Boundary wall



Aldochlay, Metal estate style fence



Arrochar, Timber fencing



# **Access and parking**

Poor parking and access arrangements detracts from local distinctiveness.

Parking should not dominate the front of properties nor overwhelm their garden or street setting. Parking should be screened and where possible located to the side or rear of properties. Larger development could include shared car-parking courtyards, which can be attractive if small in scale. These can be screened effectively with landscape, topography and contours. Where there is no alternative, large parking areas should be sub-divided with strong, high quality structured landscape.

#### **Street lighting**

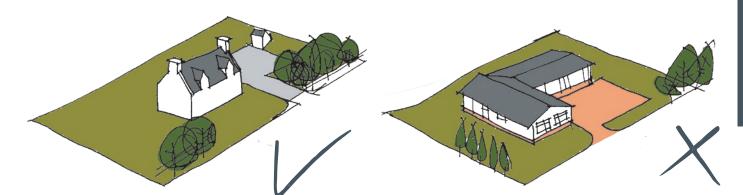
Standard street lights should be avoided in rural areas as they are urban in character and a source of light pollution. More rural alternatives should be incorporated e.g. Route marking; Bollard lighting; property floodlights. Any lighting should be designed to avoid glare.

#### Good example of rural parking

- Screened by landscaping
- At side of property
- Garage is detached from property
- Material/colour is sympathetic

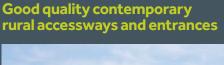
#### Poor example of rural parking

- Directly in front of property
- Not screened from road
- Integral garage increases mass of building
- Hardstanding is of obtrusive material/colour



#### Placema

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# Water management

### **Surface Drainage**

Surface drainage should not be treated as waste and simply flushed down pipes into overloaded sewerage systems. In order to reduce the impact of a development the aim is to ensure the water goes back into the natural systems i.e. the immediate drainage solutions will help us adapt to climate change – rising temperatures and increasingly extreme weather events but also it is a great way to provide for wildlife and local people. Sustainable urban drainage (SUDs) is mandatory as required by the Water Environment (Controlled activities) (Scotland) Regulations 2011. Some developments may require construction phase or completion phase SUDS.

The aim is to integrate drainage considerations into the design from the outset. Surface water runoff and attenuation must not be an afterthought and must be handled sustainably. You may be asked to submit a drainage plan or drainage assessment with your application but ideally should be incorporated into the design statement.

Solutions should be sustainable and green not grey utilising the existing site features and integrating with existing habitat networks. This benefits people and wildlife. This is known as green infrastructure like green roofs and ponds/wetlands/rain ground rather than down pipes. Sustainable gardens/planter boxes to capture rainwater and includes adaptive measures such as deculverting rather than hard surfaces such as engineered swales, cells or modules and soakaways. Grey solutions allow surface water to be stored underground and dissipate into the ground and offer no benefits to people or wildlife. Solutions such as de-culverting on the other hand offer multiple benefits for landscape/visual amenity, recreation and access, biodiversity and commercial benefits like attractiveness. to customers, lower maintenance and flood prevention.

> You could also consider a rain garden or retention pond. Retention ponds are permanent pools of water and have more amenity benefits for local residents than a reed pond. A rain garden would be planted with flowering water loving plants rather than reeds and is suited for a household aarden.



# Permeable paving

Can store and release surface water into the environment in a controlled manner but they are not a green solution.



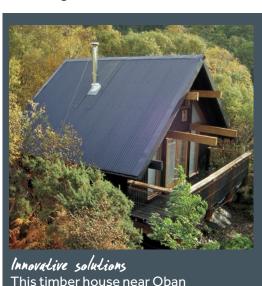
### Swales

Direct the water flow whilst slowing down the transfer of water into the ground. Vegetated swales are preferred over gravel or stones and they could be planted boxes not just grass ditches.

### Rainwater harvesting

It may seem strange to incorporate rainwater harvesting into your design in Scotland but saving on the use of treated water from a private or public system is beneficial to the environment as it saves on treatment and energy. The water collected does not have to be treated if it is not for drinking so it can be used in toilets and for washing.

On a small scale, water butts can be used to collect and store water for re-use in a garden, a simple form of rainwater harvesting.



incorporates a system for the collection and use of rainwater as the sole source of domestic water and has a reed-bed filtration system which treats sewerage.

### **Waste Water Management**

Foul drainage needs to be treated to remove contaminants; raw sewage can no longer be directly discharged into the sea or watercourses. The Natural Environment Policy 12 states that development within or adjacent to publicly sewered areas must connect to the public network. The policy provides a list of the instances where a private waste system may be agreed. Where a private waste water treatment system is required then the preference is to consider a reed bed system to enhance the biodiversity if the space is available.

Other options include a septic tank (biodisc system) that discharges to a soakaway on the land (which is SEPAs preference) rather than a watercourse. Within the National Park area are a number of areas with sensitive water bodies. In these locations detailed specification and site specific information may require to be submitted with application to ensure that any new private treatment systems have a neutral effect on water quality and in some cases improvements to existing septic tank systems in these areas may be required. If you wish to know if your proposal is within one of these areas then please contact us or make a pre-application enquiry.



### Reed pond

The reed pond is a detention pond as it stores and releases water from the roof back into the environment and does not have permanent water. It provides a habitat for wildlife and makes an attractive landscape feature.

### De-culverting and retention of existing watercourses

You should consider the removal of an existing culvert, ditch realignment, ditch and watercourse re-profiling and retention of existing watercourses to enable better integration of natural watercourses in a development proposal as part of the sympathetic design process. This will not only protect and enhance the quality of the watercourse but provide recreational opportunities and wider benefits.

These measures should be considered where physically possible and would not damage ecological or historical interests. The benefits include reducing flood risk by re-establishing a more natural flow regime and improved watercourse profile. The local environment would be enhanced significantly by a more natural profile i.e. landscape/visual amenity, local biodiversity and naturalness qualities.

Water Pollution

Developments should implement measures to prevent pollution to surface and ground water such as drain interceptors and bunded areas.

# Travel and green networks

We need to reduce the reliance on the private car and encourage the use of more sustainable modes of transport, as currently transport accounts for a fairly high percentage of Scotland's green house gas emissions. All developments should be in a sustainable location that promotes and encourages walking, cycling and the use of public transport. Green networks play an important role for wildlife but also have a role to play in encouraging social interaction by providing access to paths and provision of facilities.



# In order to reduce the reliance on the car you should:

- Develop the street layout based on Designing Streets guidance to ensure we have a attractive space to move through.
- Connect the proposal with the wider neighbourhood through attractive safe pedestrian routes that encourage walking and cycling i.e. a green network e.g. along watercourses, woodlands, field boundaries, landscape features.
- Decrease the amount of space for vehicles and maximise space for pedestrians.
- Provide links to the core paths network to allow for recreational activities.
- Provide bicycle racks, shelters, storage areas that are safe.
- Link to bus stops and where necessary contribute to providing a new bus stop.



- Provide home office space within housing to help reduce commuting.
- Design with safety and security in mind to encourage people to walk and cycle i.e. ensure open spaces and paths are overlooked and social housing is not segregated.

These guidelines apply to all types of developments – tourism, housing, commercial.





### **Active travel plans**

An Active Travel Plan should be submitted with larger developments describing how new and proposed pedestrian routes to and from the proposal will be created or enhanced. The routes should link to facilities, core paths, long distance routes, open spaces and bus stops.

The building details

**Section** 

5

# The building details overview

Successful development in the National Park has been designed to relate to the surrounding built environment.

This guidance does not suggest copying or pastiches of adjacent buildings rather that proposals are a contemporary expression of an evolving, high quality way of building and designing.

This section provides guidance on how to design the details of your building, the massing proportion and scale, and the roof, window, wall and other details that add character and result in a building that contributes to the sense of place. This section also provides details of what types of low and zero carbon technology can be incorporated into your building.



# Massing, proportion & scale

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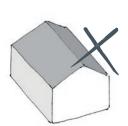
#### Building form, mass and scale

The three dimensional form of a building (height, width and depth) can be described as the building mass and scale. Where newer properties exhibit different heights, widths, roof pitch, and massing that differs to the architecture in the surrounding area they can appear out of place. The aim therefore is to avoid this and retain the best characteristics and qualities of traditional housing found in the National Park's towns, villages and countryside such as the steeply pitched roofs.

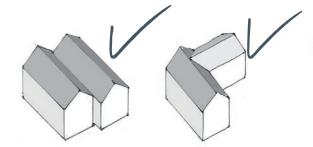
The best examples of contemporary building are based on this 'sympathetic' approach and in general, well proportioned buildings will be the most appropriate in the Park. This approach includes:

- Simple well proportioned building -A narrow plan is preferred over a deep plan which tends to generate an overly dominant roof. Deep plan houses can be attractive but only with good proportions for example, the large Victorian villas in the Park.
- Sympathetic massing larger houses can be successfully broken up into smaller elements using lean-to additions, or having a 'L' or 'T' shape plan.

- An appropriate scale minimise internal around floor levels-this can be achieved with the use of a concrete floor rather than a suspended timber floor; minimise floor to ceiling heights by offsetting low ceilings with large open plan areas; introducing double height spaces and using larger full height windows.
- Simple and straightforward roof shapes - avoid large heavy dormers which compete visually with the roof of which they are a part; use appropriate materials for any detailing e.g. concrete tiles do not work as substitutes for slate in most features.



Single storey Deep plan



Double pitch, well proportioned, reduced height and gable width



Long 2 storey break up massing.

space provided to rear

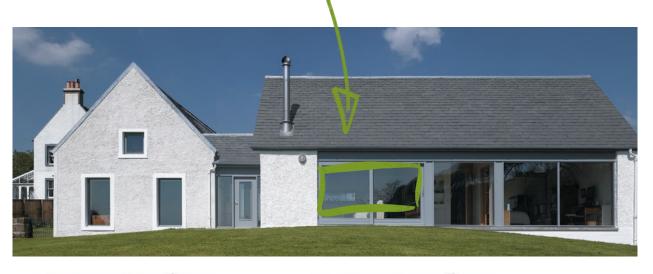
'L' shape plan,

### Window and door arrangements

The size, shape and positioning of windows significantly influences scale and proportions of a building. In the older rural buildings around the Park, the size and shape of the windows has been kept small for climatic reasons where no construction or technological solutions existed, restricting daylight and views. Victorian windows tend to be larger but the traditional window to wall ratios, elevational rhythm and symmetry is retained. Today, windows are highly insulated and engineered giving you the opportunity for larger openings making the most of solar gain and the beautiful views of the National Park.

You should follow the following principles when designing your window arrangement

- Keep the range of opening sizes to a minimum so the building does not appeared cluttered.
- Get the right balance between wall and window with eaves as low as possible.
   If there is too much space between the windows and eaves the building will look out of balance.
- Keep the arrangement simple, observing the central axis generated by the shape of the wall. Windows should be on the axis or purposefully off the axis.
- Dormers and rooflights generally should be aligned with ground floor windows and should not be bigger than the lower windows.





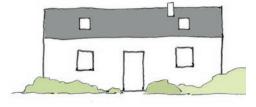
Minimal number of openings.



One single large opening to maximise solid to void appearance.



 $Windows\,off the\,ax is\,so\,symmetry\,lost.$ 



Rooflights aligned with ground floor windows and smaller than ground floor windows.





Typical 3 bay farmhouse with eaves dormers



Simple narrow plan crofter's cottage



Typical 3 bay 1.5 storey cottage



1.5 storey cottage with attic dormers

### Appropriate massing and proportions Victorian villas



Gothic style villa with turret feature



Gable fronted stone villa



3 bay rendered villa



Gothic farmhouse villa



## **Materials**

The materials that you select in the construction of your proposal are very important visually in the National Park context, and in terms of their contribution to lower carbon emissions. New buildings and their surrounding spaces should use a limited palette of high quality materials and the choice should be based on materials and details which feature in good quality existing development in the local area and elsewhere if it reflects the character of the National Park area.

Key considerations when deciding on your materials are:

- Appearance of the material and **detailing** – high quality materials and detailing offer a more attractive finish. The materials need to relate to the context of both the landscape and the built environment.
- **Embodied energy** energy components are derived from both manufacturing and transport so natural, locally sourced or recycled materials have the lowest embodied energy.
- **Durability** the longer lasting the lower the environmental impact.
- Reusable/recyclable if a material can be reused or recycled then it has a lower environmental impact.

The following pages detail materials and construction methods from throughout the National Park which, when used in the correct location, will add to the diverse character of the National Park. Some of

these material choices are derived from the wide range of construction technologies which are already used in the National Park: others are chosen because they continue the National Park's way of building - using sustainable local technologies which reflect their **special location**. New technology and materials are constantly evolving and we are open to considering newly developed techniques and materials. The materials listed in this section are therefore not exhaustive.

### Minimise, re-use and recycle materials

The minimisation of waste, from both the construction and use of a building should be a major consideration of any new development. On larger scale developments it would be expected that a site waste management plan is produced and would include ways to minimise and recycle waste. Waste separation is key to ensuring that materials do not all end up in landfill. On smaller developments it would be expected that building materials are re-used locally such as selling of natural slates.

- Key considerations:

   appearance of the material and detailing;

   embodied energy;

- reusable/recyclable

### Low embodied energy materials

Embodied energy is the energy used to extract, process and transport building materials and to construct the building.

The traditional buildings built in the Loch Lomond and Trossachs area tend to have low embodied energy as they have involved minimal processing (stone, slate) and are sourced locally (from local quarries). Local and reclaimed materials reduces the need to transport over long distances.

Manufacturing process should be considered, e.g. steelmaking uses higher levels of energy than a timber sawmill. You should aim to:

- Recycle or reuse waste materials from another site or the proposed site.
- Use of materials that are environmentally friendly e.g. non polluting, biodegradable, low embodied energy.
- Building, hard landscaping and planting materials sourced locally.
- Timber sourced from sustainably managed sources (FSC certificate).

# Walling materials







# Stone walling Render walling

Most local building stones are no longer quarried in the National Park. Sandstone can be sourced in Scotland as can granite and other materials. The use of stone can add texture and depth to your design and it is a natural durable material. The source of the stone is a key consideration and the appearance in terms of how it fits with the context of the site, both landscape and built. Walling slate is not a common material found in the National Park but it offers a high quality finish. Recycled stone is also a good option.

Newer, generally 20th Century properties are often harled, rendered or painted on concrete block. Smooth white render has become a popular modern material. Render can be a mix of various materials, although natural materials, such as lime and stones, are preferred. A wet dash harl is preferred to pebble dash on new proposals. Concrete block should be sourced locally.



Recycled stone

lake District slate L'VE Park

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Treated timber cladding

**Timber cladding and frames** 

Almost all new building now use a timber frame and timber cladding has become increasingly popular. It works well on both modern and traditional schemes. There are a number of newer timber clad houses within the Park area and these are generally stained. However, if the timber is left to weather naturally and fade to grey there is less maintenance, it is more environmentally friendly and gives a rustic/rural feel which works well in the Park's landscapes. However it is recognised that some timber needs treated due to risk of fungi and insects and treated timber may also be the preferred appearance in some instances. You should give careful consideration to aspect, exposure and treatment of the timber (i.e. moisture content). Timber can perform perfectly satisfactory in Scotland if installed correctly. Timber should be sourced locally and from a certified sustainably managed forest. Larch and Oak cladding can be sourced from Scotland and Scottish Oak and Douglas Fir can be used for timber frames.

Further information is available within Timber Cladding in Scotland – see Section 4, Sources of information

Stone and wood cladding



Weathered larch cladding





#### **Traditional roofs**

Historically roofs would have been thatched, however there is only one example in the National Park and this is a restored cottage at Lochearnhead. Roofs in the National Park were traditionally slated using slates from Luss and Aberfoyle however there are no longer any functioning slate quarries in the National Park area. Local slate is laid in diminishing courses and is usually random widths which add depth and character to a building. There are a few buildings with corrugated metal roofs.

#### **New roofs**

**Slate** is still the predominant, preferred roofing material in the National Park on new development given its durability and attractive appearance. It naturally weathers and has a thin profile. Imported slates can be at odds with the colour. and texture of traditional roofs and also have higher embodied energy due to the transportation. Locally sourced second hand slates is often the first choice for proposals in conservation areas, conversions or listed buildings. For new buildings, appropriate British slates, i.e. right colour, texture and European such as Spanish are an option. There can be differences in durability of slate depending on the source and this is a consideration.





Coldrach steading, Drymen, Reused second hand slate

Concrete tiles – there are few occasions where concrete tiles would be appropriate in a National Park context as they often create an unattractive finish and are not as sustainable as slate.

**LIVE** Park

Design & Placemaki ng Supplementary Guidance **Zinc/lead/steel/copper/iron** – metal can be successful on contemporary designs or on extensions to buildings. The embodied energy and durability of the metal should be considered. Metal can be recycled.

Clay – this is not a common material in the National Park and often has the appearance of unattractive concrete tiles. However, clay may be successful in some new proposals given its high green credentials. It is a natural rock with low embodied energy and it can be sourced from the UK; it also has a lifespan over >60 years.

Wood shingles – this is not a common material in the National Park but it can provide an attractive finish, particularly on garages and outbuildings and if sourced from a sustainable local forest it has high green credentials.

**Green roofs** or 'living' roofs are attractive and help insulate a building, slow water runoff and create a habitat for wildlife. They may not be suitable in all locations or buildings.

This list is not exhaustive and other roofing materials may be considered. If your proposal is an extension to a *listed building or in a conservation area* then see our planning guidance on this topic.







Ardoch, Garlocharn Melal Sheeling

### **Windows**

Windows are an important element of a new building. We support the use of double and triple glazed windows to reduce heat loss from buildings and therefore cut down on carbon emissions. We also encourage the use of timber and aluminium window frames over PVC-U for the following reasons:

#### **Timber windows**

This is the common material found in the National Park and modern versions can be high performance, double glazed and do not necessarily cost more than PVC-U equivalents and offer many of the same benefits. Timber is a sustainable resource as long as the timber is sourced from properly managed forests (FSC certified). Factory finished timber windows need not be repainted or re-stained for up to eight years. The advantage of timber windows is that they can be repaired and also recycled.

#### **Metal windows**

These can be found on historical properties and modern ones. The modern versions are usually aluminium but can also be traditional steel. Metal often has high embodied energy but on the upside most metals are highly recyclable and can be used again and again without loss of quality. Aluminium is also durable and highly resistant to corrosion i.e. low maintenance. In recent years, contemporary aluminium windows are polyester powder coated in various colours – slate grey, matt black, natural green or brown. They are slim which gives them an attractive appearance and are strong which means they can support large glass panes and are resistant to breakage.

#### **PVC-U window frames**

(i.e. plastic windows) PVC-U window frames can often create an unattractive finish and are not as sustainable as timber or metal and therefore are not the preferred material. We recognise that slim-line windows, sculptured and bevelled detailing that appears like timber is available, and some are better than others. We recognise the positives such as their energy efficiency rating, security, sound reduction, fire safety and low maintenance. However, they are made using plastic which comes from the petrochemical industry. They cannot be repaired if broken and there is no market for degraded PVC-U frames so ultimately they either end up being landfilled or incinerated, rather than being recycled. Additionally, the production and disposal of PVC-U windows can lead to the release of hazardous chemicals.







**LIVE Park** 

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## **Construction details**

Construction details should be carefully designed and detailed bespoke features such as barge boards, porches and entrance doors can complement local character.

# Unattractive, poor quality materials and detailing

Some new developments within the National Park use materials and construction details which are selected without any careful thought given as to whether they result in a design solution which is well integrated with their neighbours.

In these situations designs are often based on proprietary construction products and systems which promote a Scotlandwide standard 'vernacular' - based on rendered walls, poor quality quoins, standard stain colours for timber, heavy interlocking concrete tiles and bulky eaves and verge details.

Often these choices of modern materials work poorly because:

- they result in elements that are visually intrusive.
- they conflict with local character and result in proposals with a 'could be anywhere' character,
- they are associated with suburban development, rather than the National Parks rural or small town character,
- they alter the simple proportions of properties.



**Poor choice of materials;** heavy roof tiles; visually intrusive construction detail at eaves and verge; cast stone quoins; poor fenestration.











Good
Better designs
for roofs minimal
eaves and verge
details; roof coverings
are smoother and
less "bulky".

### Construction details commonly found in the National Park

This is a selection of construction details that are common throughout the National Park area. Roof dormers are extremely common; pitched roofs are the norm although some are hipped - parapet/skew gables are uncommon; verge details tend to be flush with the gable; stone quoins and window dressings are popular.



Argyll Forest, gable chimney



Argyll Forest, verge detail



Brig o' Turk, eaves spars



Buchanan Smithy, hipped roof



Bridge of Dochart, gable dormer



Callander, gable eaves dormer



Callander, tripartite dormer



Callander, sandstone bay



**Example Modern Detailing** 

Avoid: Box soffits, verges & eaves, fascia boards on closed eaves, white PVC as a material, cluttered or decorated doors, heavy verge details, over large dormers, chimney stacks which do not emerge on the ridge.

# Energy conservation and zero/ low carbon technology

Any new building requiring mass heating should be designed to to minimise energy use through conservation measures as set out on page 24 and providing on-site low and zero carbon generating technologies.

Overarching policy 2 requires you to demonstrate how your proposed building will meet a reduction in greenhouse gas emissions through:

- a) minimising overall energy requirements through conservation measures, and
- b) incorporating on-site low and zero carbon generating technologies to meet 10% of the overall energy requirement of the building rising to 20% by December 2021.

All proposed buildings including extensions to householders need to comply with part (a) of the policy which requires you to demonstrate how the building is designed to minimise overall energy requirements through conservation measures. Energy conservation measures are the first step in reduction the carbon footprint of buildings. Ultimately, the greater the level of conservation the less energy needed to service/operate the building.

Building standards energy conservation measures are largely based on internal factors such as insulation, types of windows, wall formation, materials used etc. As described in the sections 3 and 4 of this guidance we are looking for you to demonstrate how you should reduce energy use by considering external planning factors of; orientation, topography, scale, massing, solar gain and integrating your proposal into the landscape, using trees and hedges to minimise the heat loss of prevailing winds and providing shading in hotter months. This can be part of your design statement.

The second part of the policy requires incorporating on-site low and zero carbon generating technologies to meet 10% of the overall energy requirement of the building. This is also a building standards requirement but we are seeking buildings to reach the higher standards rather than the minimum.

#### **Exemptions**

There are a few buildings that are exempt from policy requirement (b) and these include:

- A building that does not use any energy for heating other than frost protection.
- Temporary buildings of less than 2 years.
- Extensions to houses and other existing buildings less than 50sqm; and
- Other ancillary domestic buildings less than 50sqm.

In exceptional circumstances, there may be some flexibility for for a change of use or conversion proposal where there are technical constraints but it is expected that an attempt is made to include low and zero carbon generating technologies. Where you are applying for an exemption to the policy, your planning application must be accompanied by a justification for not including the technology. Financial considerations do no constitute a technical constraint. Where technologies cannot feasibly be provided in a conversion it is expected that there



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is significant improvement to the energy performance of the existing building.

We appreciate that the planning stage is too early in the process to ask for detailed calculations, to demonstrate that the technology would supply 10% of the overall energy requirements as required for Building Standards regulations. Consequently, we are asking for basic information about the energy conservation measures adopted and low and zero carbon technology to demonstrate that the policy requirements are met.

Your planning application must be accompanied by a **design/energy statement** that includes details of how you have addressed the policy parts a) and b). For part (b) you must detail the on-site renewable energy or low carbon technology you intend to include in your proposed building, as suggested below. We need simple calculations at planning application stage to ensure it meets 10% of the overall energy requirement of the building.

### Calculating your energy use

You would presume that the building meets current building standards (i.e. internal conservation measures e.g. insulation) and calculate the energy use based on:

- Type of building detached, semidetached, flat, terraced
- Footprint sqm
- Height of building i.e. number of storeys
- No. of liveable rooms bedrooms, kitchen, dining, study etc. not halls

We would not expect you to take in other factors that affect energy use such as:

- every site is different in terms of topography and landscaping,
- the land use of the building may change over the lifetime of the building,
- the number of people using the building will change over the lifetime of the building,
- the energy use will change throughout the year.

Once you have calculated this basic energy use then you need to tell us the low or zero carbon technology proposed and how this is providing a minimum of 10% of the energy requirements for the building. The energy output from the technology should be evidenced from the manufacturer or supplier. Below is a list of technologies that are currently available.

### **Examples of low and zero carbon technology**

This list is not exhaustive and we recognise that new technologies may become available in the lifetime of this guidance.

- Solar electric (Electricity/Photovoltaic) consists of roof-mounted or free-standing panels or tiles which harness energy from the sun to generate electricity. These are more expensive than solar thermal panels but electricity may be sold back to the grid. The benefits are that they have no moving parts and are silent. They can harness the sun's energy on sunny and cloudy days.
- Solar thermal (solar hot water)
  usually consists of roof-mounted panels
  which harness energy from the sun to
  heat water. Solar thermal can reduce
  consumption of fossil fuels normally
  used to heat water by up to 55-70%. A
  water storage tank or existing traditional
  boiler is needed. They are very effective
  in non-domestic buildings that have a
  high demand on hot water. Unfortunately
  they rely on direct sunlight and therefore
  generate high levels of hot water in the
  summer when demand is lower.
- Water, ground and air source heat pumps extract heat from the air, water or ground (also known as geothermal) to be used for space and water heating, heat recovery, space cooling and dehumidification. Heat pumps are ideally suited for use with under floor heating. For large rural sites then the cheaper option of the horizontal loop system in trenches of 1.5m deep can be used rather than a pit of 60-100m which is more expensive.
- Ground cooling uses the relative constant ground temperature to provide summertime cooling through ground heat exchangers.
- Small scale wind turbines usually require separate planning permission and the sensitive landscape setting of the National Park is a key consideration and situations where a 3 to 6 kilowatt standlone turbine would be acceptable is limited.





- Biomass is mainly the use of logs, wood chips, wood waste or wood pellets to create heat and electricity. The flue and ventilation needs to be considered and space is required for, wood storage and access for deliveries. Small boilers are available that are no larger than a standard kitchen unit but you may need additional space for a hot water storage tank.
- Small scale hydroelectric is usually in the form of 'run of river' and is usually not available to small scale developments. However, you may be able to connect to a local or community run hydro electric scheme.
- Small combined heat and power (CHP) for individual house, group residential units and non-domestic premises are becoming available. Most systems link to an electric generator and they can replace a domestic sized boiler. The common energy source at the moment is gas or oil but fuel cells are under development.
- Home fuel cells are similar to batteries but differ as they consume fuel (usually oxygen and hydrogen) to generate power and heat on site. It could replace heating by burning oil or gas or a grid connection. Home fuel cells can either be sited an interior mechanical room or outside and they run 24/7. Since hydrogen has to be produced using coal, natural gas and oil, it is not a carbon neutral technology and its storage and transportation may indirectly lead to pollution. However they still offer a net reduction in energy consumption and CO2 emissions. Other fuel sources for fuel cells may become available in the future and consideration should be given to the full life cycle of the fuel cell.
- Heat exchange recovery systems is usually an air-to-air heat exchanger which recovers the heat produced in the house through a series of ducts around the house and in the loft space, a heat exchanger and a vent through the roof. They ventilate a house without losing heat (unlike opening of a window). The fresh air coming into the building passes through the unit and is heated by the warm air trying to escape from the house.



recovery.





Design & Placemaki ng Supplementary Guidance

**Exemplar design - local** 



Balloch









Aberfoyle



luss

**Building types** 

**Section** 

6

6.1

**Holiday developments** 

# Holiday developments

Due to the scenic beauty of the National Park, holiday developments have the potential to offer a **high quality** experience to visitors and there is a need to raise the benchmark for this type of development. We have separate visitor experience planning guidance that provides locational guidance and definitions of campsites, static caravan sites.

### New holiday park developments should:

- Be of a size appropriate for their site based on aesthetically designed layouts.
- Be sited appropriately in a way that they are either screened by landscape and natural features, or, if seen, they integrate with and enhance the landscape in which they sit and don't use intrusive road signage.
- Be carefully sited in relation to existing towns and villages to avoid impinging on their character.
- Be designed with limited infrastructure (roads, lighting, paths) to reduce the residential feel and parking could be remote from the units.
- Be designed with attractive natural communal areas integrating the development into the surroundings.
- Include play areas that are sited appropriately within the units or at an appropriate edge and where suitable using natural materials.

#### Individual holiday units should:

- Be sited attractively and make the most of natural topography and landscape.
- Have external areas for visitors to use that have some element of defensible space.
- Have natural or designed landscape between them.

### Good quality local precedent









### **Forest Holidays**

- Good consideration of landscape design concepts to produce internal landscaping as buffers/screening
- High quality detailing
- Well considered siting and spacing between chalets



### **Carrick Lodges**

- High quality construction
- Use of local building typology
- Local materials
- Landscaped setting and well considered siting



### **Forest Holidays**

- Sustainable materials
- Interesting dual-pitch roof
- Large areas of glazing to capture views
- Parking grouped at rear
- Good consideration of wider landscape concepts to inform internal landscaping

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#### Timber holiday chalets/pods/huts/ tree houses

The best holiday developments afford their residents the impression that they are living in the landscape - they are at one with nature. For this to be possible the holiday unit should be located so that their landscape setting is more prominent and important than the structure themselves.

Any new landscaping should result from sound landscape design concepts to integrate the site in an appropriate landscape setting. For example, using native woodland planting and retaining and using local landscape features such as rock outcrops, knolls, burns within the site not separated from the site by an artificial boundary. Landscaping should be of sufficient scale to compliment the visual impact of the development. Sites which need extensive screening with new planting will not usually be appropriate. The buildings and the structure should be dominated by the landscape.

Timber holiday chalets, pods, treehouses and huts will often be most dramatic and more suited to wooded or sloping sites which are not easily used for any other purpose e.g. housing (access can be designed for the disabled with ingenuity). Visitors are looking for a 'landscape experience'- similar (but not the same as) to camping; which is close to nature, calm and tranquil. Timber chalets should



Shepherds hut inshriath house

Ardlui glamping

be designed to appear 'temporary' - sitting lightly in the landscape with enough space between lodges to give residents a sense of privacy and let nature dominate. The materials and construction methods such as logs and timber cladding emphasises their rustic 'forest' character. Vehicular access tracks should be limited and parking areas grouped to avoid a residential layout.

### **Good holiday development**

- Consideration of landscape setting, pods nestled into vegetation.
- Spaced appropriately within the landscape.
- Different orientation to create privacy.

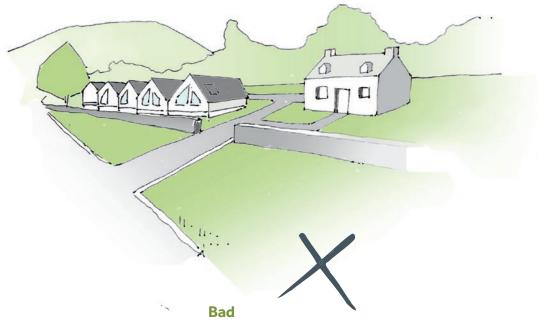
### Poor holiday accomodation solutions are unacceptable

Given the National Park's important environment, poor holiday development proposals are not appropriate within the park area.

The worst examples in the National Park are on prominent sites (often open flat land or on hillsides) where units are dense with urban looking layouts in regimented rows where existing landscaping has been overlooked from the outset and not used to sympathetically integrate the development in the landscape. There is a distinct lack of privacy and amenity for those staying in holiday units and the roads and parking often have a residential character.

Sometimes individual or small groups of units within towns and villages or nearby existing traditional buildings, usually involving subdivision of plots, can impinge on residential amenity and affect the character of the area. These types of development are **not appropriate** in the Park area as it does not give the holiday maker an experience commensurate with the quality of the National Park.

Although timber chalets can provide comfortable holiday accommodation, they are often not suitable adjacent to existing traditional buildings, particularly where they are large and dominant. Their character is distinctively different, therefore they detract from, rather than reinforce, the character of the area.



- No consideration of existing building character, materials and form.
- Roof plane not broken up.
- Regimented layout.
- Same orientation and too closely spaced.
- Formal entrance and no relationship to landscape setting.

#### **Yurts and Tipis**

Yurts, tipis (also teepee) and safari style tents are usually fitted with light coloured cotton canvas and therefore are usually more visually intrusive in the landscape. Dark green or brown canvas can also be opted for and may be more suitable in certain locations. A site can be designed with minimal footprint where existing facilities e.g. in a hotel, can be utilised and toilet blocks can be temporary. Where temporary toilets (i.e. portaloos) are proposed it would be expected that these would be screened by existing planting or fencing.

#### Houseboats

Houseboats can be an attractive option in some waterside locations particularly suited on a managed shoreline where infrastructure exists (e.g. parking, access). Given the nature of this type of proposal, houseboats are often in flood zones and therefore even though the accommodation would be afloat, the parking, sewerage requirements would need to be outwith the flood zone and access and egress to the houseboats would need to be considered in an extreme event. There are often ecological issues and houseboats are unlikely to get support if located on a sensitive natural shore.









Tipi

### **Caravan and campsites**

We are supportive of more camping, glamping and touring caravan/motorhome facilities in the Park in order to improve the outdoor experience of the National Park. Once a suitable location is identified for a site (in line with Visitor Experience Policy 1 – with safe access from public roads and, ideally, located with direct access to recreation routes and near to services and facilities), the following criteria should be considered when developing the site layout:

- The area and site appraisal should be undertaken to inform the landscape design concepts for the site and ensure that the presence of important habitats, conservation features, and scenic qualities are taken into account.
- Innovative design solutions for pitches, landscaping and car parking areas should be considered.
- A path network could be used to limit the need for roads to pitches that do not require vehicle access.
- Caravan pitches should be grouped together interspersed with trees and shrubs. In some instances naturalistic screening bunds may be appropriate. Where hard standing is required, try to utilise existing areas first to reduce hard standing as much as possible.
- Barbeque/campfire areas with picnic benches could be found at each pitch if appropriate and on more formal sites, barbeque huts may be appropriate.



- Toilet and kitchen blocks, the reception building and shop should be sited and designed to fit with the unique setting rather than being standardised. If there is an existing building on site then this should be reused or sites could be located near hotels where existing facilities can be used.
- Consideration should be given to the signage, lighting, telecoms equipment, the bin area and other ancillary structures for example foul drainage system or water tanks, and how the visual impacts from this infrastructure can be reduced.



## Holiday developments beside existing buildings and in towns and villages

Small scale holiday accommodation in existing towns and villages, as like all other developments, should be designed to retain and enhance local character. The density, siting and massing should be derived from their setting. Design should generally include a designed range of types or sizes of property to avoid a uniform, standardised appearing development. Because holiday accommodation does not generally require conventional gardens their design offers the opportunity to create characterful, semi private or part-shared external spaces.

Tended gardens have an adverse aesthetic impact and make the holiday accommodation appear like a permanent home. In a town and village setting a converted traditional outbuildings or holiday accommodation above a garage may be an option in some situations, but residential amenity and parking will be an important consideration.

### Balmaha; small collage development



#### Sympathetic holiday development

- Building style retains character of local vernacular
- Local materials are used
- High quality detailing
- Development size is limited
- Siting and density relates to existing village
- Characterful external space created
- Parking kept separate

### luss; two units in rear garden



#### Holiday units in rear garden

- Siting and density relates to existing house
- Units are subservient to main house in both size and colour
- High quality detailing including slate roofs, natural stone
- Development size is limited
- Building orientation to reduce noise impact on neighbours
- Sufficient parking kept separate away from units, no separate access road



Further locational and policy guidance on holiday developments can be found in the visitor experience planning guidance. Design & Placemaki ng Supplementary Guidance

**Extensions** 

### **Extensions**

A well designed extension can enhance the character, appearance and architectural value of a building. The design principles already set out in this guidance will apply to your proposal however the following principles should also guide the design of your extension:

- New extensions should not be larger in scale than the original building i.e. it should not overwhelm or dominate the original building.
- On a large house plot, consider a detached outbuilding or linked extension.
- Eaves and ridge heights should be no higher than existing building.
- Materials and detailing should complement the original building.
- Ensure the extension does not compromise the privacy or sunlight daylight afforded to neighbours.

Many householder extensions will be permitted development (i.e. not requiring planning permission) except in conservation areas or for listed buildings or flats.

Further information can be found in the Scottish Government's Circular on Householder Permitted Development Rights. See Section 4, sources of information



#### **Good Extension**

- Appropriate scale ridge lower than existing.
- Contemporary design and materials yet complementing original house.



### **Rural setting extension**



- Double pitch used to match scale of original house
- Contemporary materials to complement original

### **Urban setting extension**



- Use of glass to see through to original building
- Materials and roof pitch are contemporary and extension is not trying to match
- It does not overwhelm or dominate the original building.

**Outbuildings** 

## **Outbuildings**

Outbuildings can contribute to the local character of an area. For example, simple timber outbuildings of traditional form and bespoke rendered buildings are a marked contrast to prefabricated concrete buildings and garages that can detract from the character of the locality.

Outbuildings are becoming increasingly popular, either to provide additional accommodation or a variety of ancillary uses such as biomass systems to garage space. Many outbuildings in the grounds of a house will be permitted development (i.e. not requiring planning permission) except • Be subservient in scale to the main in conservation areas or for listed buildings.

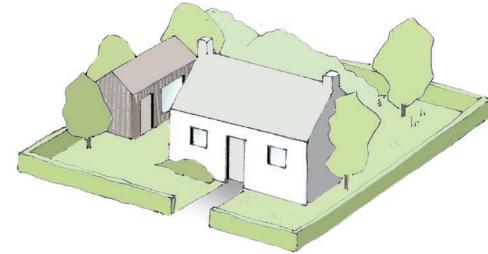
Further information can be found in the Scottish Government's Circular on Householder Permitted Development Rights. See Section 4, sources of information.

Two storey outbuildings are generally not encouraged as they can adversely impact on the character of existing buildings, as well as the amenity of neighbouring properties. Outbuildings should:

- building or house on the site.
- Harmonise with the main building to which it relates and complement the style, profile and materials.
- Avoid impact on existing trees.
- Not cause overdevelopment of the site i.e. not take up too much garden ground.
- Be designed to appear as incidental and subservient to the main building in terms of the size, scale massing and finish.
- If providing additional living space, it should not appear residential in character i.e. look like a separate dwelling house with separate private space.
- Use natural materials where appropriate that harmonise with the outside space and complement the landscape.
- Consider sustainability use local reclaimed material, encourage wildlife e.g. bat and bird boxes, water should be recycled from roofs to water butts or ponds, green roofs could be considered and roof space could be utilised, where appropriate, for solar panels.

#### **Timber outbuildings**

- The form and design harmonise with the main building.
- It does not result in overdevelopment of the site.
- Appropriate choice of materials gives subservient feel.



**Agricultural buildings** 

## **Agricultural buildings**

Agricultural is a key industry within the National Park and it helps maintain the special qualities of the Park. The same high design standards apply to new agricultural buildings as to any other proposal in the National Park.

Luss, Muirlands

This guidance is on design and siting only. Further advice on the application process can be sought using our pre-application service. You should also refer to the government's Planning Advice Note on design and sitting of agricultural buildings.

Our preference is for new buildings to be within, or well related to, existing buildings, but avoid siting near residential properties unconnected with the farm. The landscape and visual context of the site including key views to and from it, as well as the external spaces around them should inform the siting, layout and design of the buildings good landscape design being sympathetic to local character. You should follow the general siting and appraisal guidance provided in Section 3.





#### Siting and Landscaping

Cut and fill can often be the best method of providing a level site on a slope. However this approach should be kept to a minimum as it can result in large extents of unattractive steep cuttings and bare downslopes which are difficult to re-vegetate. Mitigation through the extension of the site footprint to allow gentle back slope (batter) can aid restoration and therefore achieve successful landscape integration and avoid significant landscape and visual impact in the wider and local landscape.

Retaining walls are also visually intrusive if poorly planned, designed and lacking in attention to detail. Planting mitigation can successfully be used to break up or screen retaining walls. Native hedging with field boundary trees and or woodland copses would be the most appropriate in rural settings dependant on the existing local landscape character.

Building up a level platform is not advisable as it makes a building more prominent with unsightly un-vegetated slopes and result in landscape and visual impacts.

Stepped buildings can be used and produce interesting roof patterns. Existing access roads should be used where possible but where required they should follow established field boundaries and contours.

#### Form and Design

Modern farm building are generally a single span, shallow pitched roof construction to achieve best economic and practical solution. You should vary the standard rectangular plan, break up large flat expanses of walls by using different materials, use different coloured materials for walls and roofs and divide a building where possible into smaller ones. An industrial appearance to doors, i.e. boxed runners should be avoided.

#### Materials

Farm buildings built of local materials such as rubble stone and slate provide local character. However changing farm practices and new environmental, hygiene and animal welfare requirements have created a demand for new and larger buildings which are often unattractive.

The type, colour and texture of construction materials are extremely important in the National Park context. Breeze blocks for instance are not considered appropriate in sensitive and prominent locations, as an external finish. Concrete blocks if high quality can be acceptable and a concrete plinth is also suitable where timber, stone or corrugated metal is used alongside. Use dark matt finishes such as brown, dark green, black or dark grey which blend with the landscape and choose a darker colour for the roof. The colour will depend on the local surroundings.

**Conversion of traditional buildings** 

## **Conversion of traditional buildings**

We expect sympathetic conversion and re-use of buildings of vernacular quality that retain the local historic and/or architectural interest.

The Local Development Plan has a specific policy (Historic Environment Policy 5) on conversions and the criteria of the policy must be met. We expect very high standards to retain the character of an original building.

#### Are buildings suitable for reuse?

You need to balance the practical requirements of a new use against the need extensions can add to the character. Avoid to protect the special characteristics of a traditional building. Some buildings will not be suitable for reuse due to their scale (i.e. low floor to ceiling height, or require substantial extension), their importance (have a special historic or cultural significance), their condition (be in such poor condition that they would have to be demolished and re-built).

#### What survey and reports may you need that are different from a new build proposal?

We recommend you submit an appraisal of the building history identifying its previous use (cattle shed, barn, stable, cart shed, other) and why it has become redundant. A structural assessment is required to ensure the building is capable of should be considered as an alternative being reused. You should get the building recorded on the Historic Environment Record. A wildlife and ecology survey should be undertaken. A bat and barn owl survey are usually essential.

#### **Extensions and alterations including** new window openings

You should adapt your plans to suit the existing building structure as far as possible. Guidance is provided in the above section on extensions but it is particularly important that where a building is being converted that it is not significantly extended but minor over-large dormer windows or complex roofs. New window opening should reflect the original agricultural character. Large openings can often be accommodated in old cart/machinery entrances and barn doors. Details such as lintols and window dressings should be carefully considered.

#### **Materials**

You should use lime mortar to re-point joints to existing stonework as it allows traditionally constructed buildings to breathe. Cement mortars tend to have a closed pore structure that traps water. Walls are unlikely to have damp proofing so consider a well-thought through approach to drainage and ventilation as well as new damp proof measures. Limewash to stone painting. Most roofs tend to be slate and any new sections of roofs should use salvaged slate where possible. Traditionally windows and doors were made of timber and PVC-U and aluminium windows should be avoided.



For further information read "Historic Scotland" Guide for Practitioners: Conversion of Traditional Buildings Application of the Scottish Building Regulations 2004" Even though it is out of date it is very comprehensive and useful.

## External area - including outbuilding, gardens and car parking etc.

The environs (areas surrounding) a conversion and any required outbuildings and site infrastructure should not be an afterthought. The external and internal spaces around them merit equal consideration in terms of design and layout views in and out, circulation and attention to landscape design to ensure the buildings and features relate and fit into the local and wider setting. For example where there is a group of converted farm buildings and where they are subdivided into a number of properties, you should consider retaining common open space/garden ground. This would enable local landscape character and a link to the wider countryside to be retained as well as the potential to produce a more naturalistic, integrated and appropriate landscape treatment for the landscaping.

You may need to consider separate outbuildings i.e. sheds, garages if the conversion itself has limited internal storage space. Bin storage, oil/LPG tanks and car parking should be hidden or screened and integrated into the setting, linking with the main buildings. High timber fencing should be avoided and stone walls, hedges, estate metal fencing or post and wire fencing are appropriate. Other sustainable design principles in relation to water and energy should be considered (see section above).

Further guidance on conversions in relation to our housing policies and affordable housing requirements can be found in our Supplementary Guidance on Housing.







Benmore Farm Steading, Strath Eck



**LIVE Park** 

Design & Placemaking Supplementary Guidance

Glossary and sources of information

**Section** 

# Glossary

Something that adds to a person's comfort or convenience e.g. privacy, lack of noise, attractive views.
The variety of plant and animal life in the world or in a particular habitat.
The removal of a culvert (a pipe for a watercourse to pass through underground) and return to a natural watercourse.
The result of minimising the way energy is used in the building construction or arrangement.
This is a formal process of assessing the positive and negative environmental impacts of a development proposal as required under the EIA Regulations (Scotland) 2011. A development can be 'screened' by the National Park Authority to determine if an EIA is required. The process then involves scoping of the assessment and then preparation, by the developer, of an Environmental Statement.
The energy used to extract, process and transport building materials and to construct the building, i.e. the energy embodied in the material.
Scottish form of roughcast in which the mixture of the aggregate (small even-sized pebbles) and binding material (in traditional harl sand and lime) is dashed on to a masonry wall; in traditional harls the aggregate is in the mix (wet dash) in non-traditional 20th century harls the aggregate is dashed on separately (dry dash).
The method that landscape is classified according to type area, based on a particular combinations of landform and landcover, as outlined in the National Park's Landscape Character Assessment (Scottish Natural Heritage).

Landscape setting	In the National Park any of the landscape settings are influenced by the visual distinctiveness of landmark summits and the backdrops, focii and skylines these provide in any one location. Within the National Parks' wider 'landscape setting' there are many components (i.e. woodland, farmland, hillside) which combine to make up any one 'setting' and the way setting is described.
	The principle components of this wider setting are derived from the National Parks' Special Landscape Qualities and Landscape Character. Landscape setting is also defined by the views in and out of the landscape on either side of the National Park boundary, it varies in depth according to the landscape character areas and topography.
Landscape design	Landscape design involves the practical, aesthetic, horticultural, and environmental sustainability components of the overall design of a development in the landscape. It is carried out by both Landscape Architects and Landscape Designers. The use of either or both depends on the nature and brief for a development and the qualification and skills of the appointed agents.
Layout	The way buildings, routes and open spaces are placed in relation to each other.
Listed building	Buildings of special architectural or historic interest identified by Historic Scotland on behalf of Scottish Ministers that have statutory protection under the Planning (Listed Buildings and Conservation Areas) (Scotland) Act 1997.
Microclimate	The variations of climate within a given area, usually, influenced by hills, hollows, structures or proximity to bodies of water.
National and Major Applications	These are types of planning applications which have certain legal requirements. They are defined by the Hierarchy of Development (Scotland) Regulations 2009 or any amended version. See the Government's Circular 5/2009 for further information.

Naturalistic	Not formal and closely relating to or imitating nature
Placemaking	Creating somewhere with a distinct identity
Phase 1 Habitat Survey	A survey undertaken of the general habitat of a site include target notes specifying specific plants and animals.
Sun path analysis	The method of mapping the seasonal and hourly route the sun takes in a day from east (where it rises in the morning) to west (where it sets in the evening) from summer to winter. It is used to design the optimum building design to achieve passive solar heat gain, maximise use of natural daylight, provide appropriate summer shading and minimise overshadowing of adjacent properties/outdoor spaces.
Sustainable urban drainage	A way to manage surface drainage in a sustainable manner i.e. through ponds, permeable paving so it does not go directly into sewerage pipes.
Topography	Mapping to shape of the land surface i.e. the contours or a description of features on the ground.
Tree Constraints Plan	A plan showing all the existing trees on site and the root protection area where fencing would be erected to protect the trees from construction works.
Vegetated gabions	A rectangular basket made of galvanized wire mesh and filled with rock.
Visual amenity	A pleasant or attractive element of the environment that can be seen.

### Sources of information

#### **Scottish Government policy**

- Designing Places (2010)
- Designing Streets (2010)

### Special context of Loch Lomond & The Trossachs National Park

- Landscape Character Assessment (SNH)
- Guidelines for Landscape and Visual Impact Assessment (Landscape Institute)
- Use of photography and photomontage in landscape and visual assessment (Landscape Institute)
- The Special Landscape Qualities of the Loch Lomond and the Trossachs National Park (SNH)
- Wildness Study in the Loch Lomond & the Trossachs National Park (SNH);
- Loch Lomond & the Trossachs National Park Non-Inventory Designed Landscape Study;
- Historic Designed Landscape Study (LLTNP)
- Landscape / Seascape Assessment of the Firth of Clyde
- Community Action Plans (Loch Lomond Community Partnership)
- Listed Buildings and Conservation Areas Supplementary Guidance and Background Info (see LLTNPA website)
- Community Action Plans (Loch Lomond Community Partnership)
- Conservation Area Appraisals (see LLTNPA website)
- New Design in Historic Setting (Historic Scotland)
- Town Centre Toolkit (Scottish Government, 2015)
- PAN44 Fitting New Housing Development into the Landscape (1994)
- Cork Rural Design Guide (2003)
- Dumfries and Galloway Guide to Conversions of Traditional Agricultural Properties (2014)
- PAN 39 Farm and Forestry Buildings
- PAN72 Housing in the countryside (2005)

#### Preparing a design statement or Masterplan

- PAN68 Design Statements (2003)
- Design and Access Statements CABE (2006)
- PAN 83 Master Planning (2008)

#### Sustainable design and construction

- Renewable Energy Planning Guidance (LLTNPA)
- PAN61 Planning and Sustainable Urban Drainage System (2001)
- Code for Sustainable Homes (2006)
- Sustainable Housing Design Guide for Scotland (2000) – Section 3 – planning, place and people.
- Wild Park LLTNP Biodiversity Action Plan
- Protected species advice and further links SNH website
- Landscape and Urban Design for Bats and Biodiversity, Bats Conservation Trust
- Timber Cladding in Scotland (2002, Scottish Government)
- Green Infrastructure An Integrated Approach to Land Use (Landscape Institute, 2013)
- Building Regulations 2011
- PAN67 Housing Quality (2003)
- PAN 78 Inclusive Design (2006)
- BRE's Green Guide to Specification
- Greenspec Online government guide to green building products

**LIVE Park** 

Design & Placemaking Supplementary Guidance

#### **Adopting Design Professionals**

- Landscape Architects Landscape Institute website
- Architects Royal Incorporation of Architects RIAS website
- Urban Designers Urban Design Group UDG website
- Building Conservation Institute of Historic Building Conservation website

#### **Biodiversity and Development**

- Bats and People (SNH)
- A review of the success of Bat Boxes in Houses (Bat Conservation Trust commissioned by SNH)
- Barn Owls on site A guidance for Developers and Planners (The Barn Owl Trust)
- Red Squirrels (SNH)
- Badgers and Development (SNH)
- Otters and Development (SNH)
- Conserving Scotland's Water Vole (SNH)
- Great Crested Newt Handbook (Froglife)
- How to Survey Freshwater Pearl Mussels (SNH)
- Handbook for Phase 1 Habitat Surveying (JNCC)
- Trees in Hard Landscapes A Guide for Delivery (Trees and Design Action Group)
- British Standard 5837: Trees in Relation to Design, Demolition and Construction 2012 British Standard 3998: Recommendations for Tree Work 2010
- Arboricultural Association guidance notes and leaflets

#### Sustainable Urban Drainage

- Sustainable Drainage Systems Maximising the Potential for People and Wildlife (WWF, RSPB, 2013)
- PAN 61 Planning and Sustainable Urban Drainage Systems (2001)
- Surface Water Drainage and Sustainable Drainage Systems (SUDs) Dumfries and Galloway Supplementary Planning Guidance (2014)
- The Rain Garden Guide (Bob Bray, Dusty Gedge, Gary Grant & Lani Leuthvilay, - www.raingardens.info
- Sustainable drainage systems www.ciria.com/suds
- Greener Gardens An Introduction to Raingardens for Developers (Central Scotland Green Network supported by Taylor Wimpey and Scottish Government, 2016)



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