



# SUSTAINABLE CONSTRUCTION ADVISORY GUIDE

January 2004



SUSTAINABLE  
CONSTRUCTION  
ADVISORY  
GUIDE



January 2004

This document has been printed on Revive gloss paper and board. At least 75% of the product is made from 100% de-inked post consumer waste (used and discarded waste paper). The recycled papers used are a combination of Totally Chlorine Free and Elemental Chlorine Free giving a minimal level of chlorine emissions to the environment.



<b>1</b>	<b>INTRODUCTION</b>	<b>1</b>
1.1	Scope and structure of the guide	1
1.2	What is sustainable design?	2
1.2.1	The environmental dimension	2
1.2.2	EcoHomes: environmental assessment for homes	2
1.2.3	The social dimension	4
1.2.4	The economic dimension	4
1.2.5	Benefits for developers	4
<b>2</b>	<b>THE PLANNING CONTEXT</b>	<b>5</b>
2.1	Sustainable locations	5
2.1.1	Further references on broader locational issues	6
2.2	Site specific planning issues	6
2.2.1	Further guidance on design	7
2.3	Relationship with other design guidance	7
<b>3</b>	<b>SITE DEVELOPMENT CHECKLIST</b>	<b>8</b>
<b>4</b>	<b>SITE MANAGEMENT STANDARDS</b>	<b>9</b>
4.1	Environmental management standards	9
<b>5</b>	<b>SITE LAYOUT</b>	<b>9</b>
5.1	Access and transport promoting alternatives to the car	10
5.1.1	Access roads	10
5.1.2	The pedestrian and cycle networks	10
5.1.3	Public transport and services vehicles	11
5.1.4	Cars and car parking	11
5.2	Density and site coverage	12
5.3	Mixed use developments	13
5.4	Crime reduction	13
5.5	Energy planning	13
5.5.1	Maximising solar gain	14
5.5.2	Creating a sheltered site	14
5.5.3	Renewable sources of energy	15
5.5.4	Distributed heat	15

## CONTENTS

<b>6</b>	<b>GREEN SPACES AND WILDLIFE</b>	<b>16</b>
6.1	Green spaces network	16
6.2	Bio-diversity	16
6.3	Protection of trees, hedges and other plants during construction	17
<b>7</b>	<b>WATER RESOURCES AND SUSTAINABLE DRAINAGE</b>	<b>19</b>
7.1	Sustainable drainage	19
<b>8</b>	<b>REFUSE MANAGEMENT</b>	<b>20</b>
8.1	Refuse and recycle collection services	21
8.2	Recycling "bring" schemes	22
8.3	Commercial development	23
<b>9</b>	<b>INDIVIDUAL BUILDING DESIGN</b>	<b>23</b>
9.1	Energy efficiency	23
9.1.1	Space and water heating systems	23
9.1.2	Appliances, lighting and ventilation	24
9.1.3	Doors, glazing and roof lights	24
9.1.4	Insulation	24
9.1.5	Building design	24
9.1.6	Advice and information	25
9.2	Water efficiency	25
9.3	Construction materials	25
9.4	Safety in the home	26
9.4.1	Reducing accidents	26
9.4.2	Child safety	27
9.4.3	Security	27
<b>10</b>	<b>FURTHER SOURCES OF HELP</b>	<b>28</b>
10.1	Relevant Aylesbury Vale District Council documents	28
10.2	Aylesbury Vale District Council contacts	28
	Planning Advice	
	Building Control	
	Energy Efficiency	
	Landscape, Design and Conservation	
	Bio-diversity / Nature Conservation	
	Waste management	
	Local Agenda 21	
10.3	Other sources of advice	29
10.4	Glossary	31

### APPENDIX A Typical current insulation levels

## FOREWORD BY LEADER OF THE COUNCIL

### Councillor Mr John Cartwright




*“Sustainability: ‘Meeting the needs and aspirations of present generations without compromising the ability of future generations to meet their own needs and aspirations”.*

Aylesbury Vale District Council believes that a sustainable approach to construction is crucial for our future well-being. Sustainability is a core value at the heart of all the Council's services. The Aylesbury Vale District Council Local Plan sets out the overall framework for this sustainable approach in relation to planning and development.

Our interest in buildings and the development process is not surprising: nearly 50% of UK carbon emissions come from energy use in buildings and construction, which directly or indirectly contributes to more than 30% of the country's waste production.

Incorporating the principles of sustainability with quality design gives us the opportunity to create better buildings as well as making them more affordable to run for residents. This Advisory Guide provides information for developers and others on how to achieve a more sustainable approach to new development. It will play an important role in producing more attractive places to live and work, as well as helping to achieve a more sustainable future for present and future generations.



## ACKNOWLEDGEMENTS

This Advisory Guide has been produced by Aylesbury Vale District Council, with support from 'SAVE' (Support Aylesbury Vale's Environment group) and the Thames Valley Energy Agency.

Aylesbury Vale District Council acknowledges the following sources:

- Green Design in Planning - The City of Lincoln Council July 2000.
- Sustainable Design and Construction Guide - Enfield Council January 2000.
- Sustainable Settlements, A Guide for Planners, Designers and Developers - The University of the West of England and the Local Government Management Board April 1995.



# 1 INTRODUCTION

This document has been prepared by Aylesbury Vale District Council and is intended to be a best practice guide for developers on 'sustainable' design for buildings and the wider built environment. It focuses on the conservation and efficient use of energy, water, construction materials and land, and also on developing opportunities for more sustainable lifestyles. It should be read in association with the AVDC Local Plan and Supplementary Planning Guidance. The Local Plan and other Council policies, to which the guidance relates, are identified in the relevant sections of the document.

Although not all aspects of the Advisory Guide will necessarily be relevant or appropriate to every development, the Council encourages developers to apply the principles laid out within the Guide in new developments.

## 1.1 Scope and structure of the guide

This Guide covers a wide range of sustainable design and construction issues and is focused particularly on the efficient use of energy, water, construction materials and land. The Guide covers both residential and non-residential development and is relevant to individual new buildings as well as larger developments. The Council encourages the application of the principles set out in this Guide to all new buildings in the Aylesbury Vale District.

The Guide is divided into sections, covering different aspects of sustainable design and construction. In practice however, there are many overlaps between these sections and the Guide seeks to encourage holistic and joined up thinking in design.

A checklist is included below in section 3, to assist developers to check that the guidance on sustainable design contained in this document has been considered and incorporated within site appraisals.



# 1 INTRODUCTION

## 1.2 What is sustainable design?

Sustainable design is essentially about incorporating sustainable solutions into the design and construction of the built environment. These solutions fall into three main categories, ensuring that:

1. Construction and design contributes to environment protection and enhancement.
2. Social aspects are considered in all developments to enhance quality of life.
3. Design and construction contribute to the creation of high quality working and living environments, that help to enhance the local economy.

This guide aims to achieve a number of sustainable development objectives:

- Increasing energy efficiency and reducing carbon dioxide (CO<sub>2</sub>) emissions.
- Sustainable use of natural resources.
- Improving health by providing buildings which are accessible, safe and economic to run.
- Discouraging waste and promoting recycling.
- Pollution levels.
- Promoting sustainable lifestyle choices.

### 1.2.1 The environmental dimension

Adopting forms of design and construction that minimise adverse impacts on the environment and protect and enhance the diversity of nature.

For example:

- Incorporating design features into buildings to ensure water, energy and other resources are used in the most efficient way.
- Adopting construction processes that minimise the production of waste and that re-use or recycle materials wherever possible.
- Minimising adverse impacts upon existing wildlife habitats and optimising opportunities for habitat creation and enhancement.



### 1.2.2 EcoHomes: environmental assessment for homes

EcoHomes, sponsored by NHBC, is the homes version of BREEAM (the BRE Environmental Assessment Method). BREEAM leads the world in setting benchmarks for the environmental performance of buildings. It is independent, authoritative and based on many years of construction and environmental research carried out by the Building Research Establishment, construction industry and Government.

EcoHomes is a flexible and independently verified environmental assessment method for homes, with environmental performance expressed as pass, good, very good and excellent. It is an easily understood, credible label for new and renovated homes including houses, apartments and sheltered accommodation. It rewards developers who improve environmental performance through good design, rather than high capital cost solutions.



EcoHomes assessments can be carried out at the design stage in a similar way to a SAP rating. Every house type on a site is considered, but the award is given for the whole development. This enables developers to use the result to promote whole sites - every home that is part of the development having the same rating.

EcoHomes considers the broad environmental concerns of climate change, resource use, impact on wildlife, and balances these against the need for a high quality of life, and a safe and healthy internal environment. All the issues in EcoHomes are optional, making it flexible and enabling developers to adopt the most appropriate aspects of sustainability for their particular development and market.

The issues assessed are grouped into the seven categories below:

- Energy.
- Transport.
- Water.
- Materials.
- Ecology and land use.
- Pollution.
- Health and well being.

EcoHomes assessments are available through organisations licensed by BRE. Contact details for the scheme are provided in Section 10.

The District Council supports the EcoHomes standard and encourages developers to consider securing the EcoHomes assessment for new developments. The EcoHomes standard is complementary to the guidance contained with this document.

# 1 INTRODUCTION

## 1.2.3 The social dimension

Providing buildings and environments that enhance the quality of life, for both present and future residents of the District.

For example by:

- Creating a built environment that is an attractive, safe and healthy place to live, work and play.
- Ensuring that buildings are accessible to all.
- Designing out crime and reducing the fear of crime.
- Ensuring that new homes are energy efficient.

## 1.2.4 The economic dimension

Creating buildings that have high quality working environments, which enhance local prosperity.

For example by:

- Ensuring that new developments have easy access to shops and local services.
- Providing working environments that can be adapted and changed to meet the changing needs of business.
- Ensuring that people have easy access to their work place by public transport, walking and cycling.

## 1.2.5 Benefits for developers

There are a number of benefits to developers of adopting sustainable construction and design principles. These include:

1. demonstrating "green" credentials to investors helping reduce investment risk.
2. demonstrating "green" credentials to appeal to ethical investors.
3. demonstrating superior environmental design to customers, resulting in:
  - reduced running costs through greater energy and water efficiency.
  - reduced maintenance.
  - access to local amenities.
  - less dependence on the car.
  - healthy, comfortable and flexible internal environments.
  - giving developers the opportunity to be market leaders and one step ahead of regulation.
  - giving developers a marketing edge over less forward thinking competitors.
  - an independently assured quality measure, if the EcoHomes approach is used, thereby boosting marketing opportunities.

## 2 THE PLANNING CONTEXT

### 2.1 Sustainable locations

In the development process, before site specific details can be considered, the wider question of a suitable location for that new development must first be addressed. Once a new development is considered to be in the most sustainable location, more site specific design issues can then be considered to make individual developments more sustainable in terms of use of energy, use of materials etc.

In assessing the locational requirements for new development, reference should be made to the Aylesbury Vale District Local Plan (AVDLP) and the Buckinghamshire County Structure Plan.

The guiding location principle for new development within the AVDLP is that priority is given to the redevelopment of previously developed sites within built up areas. A high proportion of new development should be in Aylesbury and a small proportion of new development is located within the rural areas concentrated at a limited number of settlements which offer the best prospects for limiting the need to travel and, through offering a choice of transport, minimises the use of the car. A limited amount of development may be allowed elsewhere.

This approach is supported by a series of Planning Policy Guidance Notes (PPG) that are published by the Office of the Deputy Prime Minister (ODPM).

The planning system is broadly summed up by a quote from ODPM Planning Policy Guidance Note 1 dated February 1997. This states that "A key role of the planning system is to enable the provision of homes and building, investment and jobs in a way which is consistent with the principles of sustainable development. It needs to be positive in promoting competitiveness while being protective towards the environment and amenity."

Planning has to provide for the nation's needs for employment, food production, minerals extraction, waste disposal, housing and other uses whilst protecting and enhancing the environment. The main thrust of planning policy is to use land in the most efficient way, conserve natural resources and to shape new developments in a way which minimises the need to travel.



## 2 THE PLANNING CONTEXT

To do this, consideration should first be given to locating new development on previously developed land before greenfield land is considered. In addition, those types of development which generate a large number of trips, such as new retail



warehouses, large office developments and leisure developments should be located in places that are well served by public transport, especially in town centres.

The aim is to ensure that major and higher density schemes are built in the most accessible locations so that the option exists for people to travel by means other than the car. In certain areas, such as town centres, car-free housing may be appropriate. Town centres are generally the most accessible in terms of public transport, and in locating various types of development together, the need for multiple trips is lessened, the ability to cycle and walk to work and to leisure/retail outlets is also increased and the need to use the private car is reduced.

This will also ensure that rural areas will not see substantial threats from new development, which would be detrimental to the character of the countryside and a viable agricultural economy, through loss of the best and most versatile agricultural land. This approach will also ensure that new developments are not built in remote locations where sustainable travel cannot occur. Appropriate smaller scale development will however be allowed in rural areas to ensure the continued sustained economic activity in rural locations.

### 2.1.1 Further references on broader locational issues

- Aylesbury Vale District Local Plan.
- Buckinghamshire County Structure plan.
- The ODPM provides further guidance on sustainable locations in specific guidance on Housing (PPG3-March 2000), Retail (PPG6-June 1996), The Rural Economy (PPG7-February 1997,) and Transport (PPG13-March 2001).
- Planning for Sustainable Development: Towards Better Practice (1998).

### 2.2 Site specific planning issues

Once a sustainable location has been identified, the following issues should be considered by the developer in designing a scheme.

- Accessibility to different transport types for example, public transport, cycles and walking.
- Density of use and mix of uses.

- Energy requirements and passive solar design and orientation (sun and wind).
- Existing buildings reuse.
- Existing vegetation and biodiversity.
- Need for an environmental impact assessment.
- Soil condition and contamination.
- Use of recycled materials.
- Water features, drainage and water table.
- Consideration of waste generated by the development.

Consideration of this sort of information should be included within the wider design statement for an individual site, with the aim of the site providing positive contributions on as many of the individual issues as possible. Further information on these issues is provided later in the document.

Also in designing new residential areas, consideration should be given to building sustainable communities by including community facilities, small retail outlets, public transport links, a mix of dwelling types and sizes. The aim will be to ensure that the new community is able to evolve over time, is diverse and is not dominated by certain age groups or social grouping, and can be self sufficient in local services without the need to travel by car to other areas.

### 2.2.1 Further guidance on design

- The Use of Density in Urban Planning (1998).
- Tapping the Potential: Best Practice in Assessing Housing Capacity (2000).
- "By Design. Urban Design in the Planning System: Towards Better Practice" (DETR/Commission for Architecture and the Built Environment) May 2000.
- Better places to live: by design. A companion guide to Planning Policy Guidance Note 3.

### 2.3 Relationship with design guidance

This guide should be read in conjunction with the Supplementary Planning Guidance Notes (SPG), produced by the Planning Division. These SPG Notes cover issues such as developer contributions, parking, safety through design, use of traditional farm buildings, low cost housing in rural areas, extension to dwellings, as well as site specific planning briefs. Further information on the issues covered by such publications can be obtained from the Forward Plans section. Further details on contacts are given in Section 10.

## 3 SITE DEVELOPMENT CHECKLIST

Successful use of this guide will require relevant environmental information about the proposed site to be gathered and analysed prior to the design phase commencing. Intending developers will need to survey the site to establish basic environmental conditions and use this information to identify sustainable design opportunities and constraints.

The following table contains some key environmental conditions that can be used as a checklist for the issues the site appraisal should address. It is not intended to be an exhaustive list and further elements should be added if they are identified.

EXISTING SITE ENVIRONMENT CONDITIONS	TO BE ADDRESSED IN SITE APPRAISAL		
	Yes	No	More Information needed
1. Accessibility by different transport modes, including walking, cycling and linkages to existing networks.			
2. Existing buildings and their scope for reuse.			
3. The amount and direction of sunlight - to assess opportunities for the use of solar energy, including passive solar design and solar water heating and power generation.			
4. Wind speeds and prevailing wind direction when assessing site layout.			
5. Soil conditions and contamination.			
6. Existing vegetation and ecological features, boundary features, hedges, trees - to identify features to be protected and/or enhanced.			
7. Water features, drainage and water table - to identify: features to be protected and/or enhanced, information for drainage design and to minimise the risk of flooding and water course pollution.			
8. Possibility of rain-water collection and re-use.			
9. Play areas should be located away from roads and sensitively in relation to surrounding homes.			



## 4 SITE MANAGEMENT STANDARDS

### 4.1 Environmental management standards

Reducing waste and pollution during the construction process through effective site management is essential. Construction sites are often the cause of local nuisance such as noise, dust, vibration and pollution of watercourses and groundwater. Good environmental practice is needed on all sites, not just to reduce the risks of prosecution, but also to reduce costs and nuisance to neighbours and the immediate environment. Formal environmental management systems such as ISO14001 and "The Considerate Constructors Scheme" are beginning to be adopted in construction.

Developers and contractors are strongly advised to consider gaining recognisable Environmental Management standards (ISO14001 or equivalent) or to be committed to the attainment of such a standard. In addition, all contractors are advised to consider registering the proposed site/s with the "Considerate Constructors Scheme" (see Further Sources of Help).

Some general guidelines are:

- High standards should be adopted during construction phases to minimise environmental impacts associated with the use of materials and machinery - ISO14001.
- Contractors should minimise the waste generated and maximise the quantities of material reused and recycled in low grade applications such as hardcore and landscaping fill.
- Consideration should be given to the off site manufacture and prefabrication of building elements.

## 5 SITE LAYOUT

An initial site appraisal will identify some of the qualities and opportunities of the site. These are brought more firmly into focus as the site layout is planned. As a part of any initial appraisal of the site, consideration should be given to social and environmental issues: what layout and what facilities will best contribute to the sustainability of the community with reference to its existing and proposed structure? Refer to section 2 for more information on broad site location issues. The design and layout of development should reflect the principles of the SPG "Secured by Design" (AVDC Local Plan 2004 General Policy GP45)

## 5 SITE LAYOUT

### 5.1 Access and transport - promoting alternatives to the car

This section concentrates on the role of good site planning in discouraging car use and promoting alternative modes of transport. The District Council's transport policies are set out in the General Policies section of the Aylesbury Vale District Council Local Plan.

#### 5.1.1 Access roads

Increasing the number of access points to the site can help to minimise peak vehicle flow and ensure that traffic movement is distributed more evenly throughout the site. This will have positive impacts on the provision of pedestrian and cycle networks. With traffic more evenly distributed, shared surface roads incorporating pedestrian and cycle routes can be planned. Proposals must conform to Buckinghamshire County Council's highway standards.

Site accesses should also be linked to existing routes and networks for pedestrians, cyclists and buses.

#### 5.1.2 The pedestrian and cycle networks

Enhancing the amenity of the environment en route and ensuring good links to public transport and public facilities, will help considerably to encourage use of energy efficient modes of transport.

The local environmental amenity can be enhanced for pedestrians and cyclists by taking account of:

- Providing cycle priority at junctions and segregating cyclists from other traffic where necessary.
- Incorporating landmark features, e.g. mature trees, streams, which enhance local identity and are community friendly.
- Ensuring that community safety is considered, e.g. by ensuring that routes are well lit and are community friendly.
- Providing good signposting.
- Limiting air and noise pollution from busy roads.
- Ensuring the attractiveness of routes through good landscape design.

Linking the footpath/cycle network with public transport and public facilities can be achieved by:

- Routes from houses to local facilities such as shops should be as direct as possible and avoid steep gradients.



- Making routes safe from traffic and secure for vulnerable users. Where paths are segregated from traffic and not overlooked by housing, they should be kept as short as possible with the ends visible and the planning and layout should not provide hiding places, especially in underpasses.
- Making routes accessible for those with impaired vision or mobility.
- Providing adequate cycle parking.
- Ensuring cycle routes are as continuous as possible, avoiding frequent stops and diversions.
- Phasing development so that the network can function effectively from an early stage.



At distances of less than 0.5km, the vast majority of people will walk, but at a distance of 1km, which non-car users will generally walk, most car users will rely on their vehicles.

### 5.1.3 Public transport and services vehicles

Within the context of large new housing schemes, developers should consider:

- Providing for adequate penetration of the site by bus services and access for service vehicles, including Aylesbury Vale District Council's waste collection vehicles (see Section 8.1).
- Providing passenger facilities wherever possible, in consultation with the relevant agencies.
- Designing road layouts with loops and circuits which are better for service vehicles and which reduce the nuisance of reversing and turning vehicles.

### 5.1.4 Cars and car parking

- Overall traffic speeds should be kept to a minimum and opportunities for "rat-running" avoided.
- New highways serving developments should be designed to avoid excessive traffic speeds and to offer safety to non-car modes of transport.
- Traffic calming will be encouraged.
- On street parking should be kept to a minimum. On site parking should be in accordance with the standards set out in the local plan or any revised standards subsequently adopted by the Council.
- Waiting restrictions will be considered.



## 5 SITE LAYOUT

- Car parking should be designed to allow cycle access and take into account safe access to cycle parking.
- Car parking should be visible from neighbouring dwellings to reduce the risk of car crime.

### 5.2 Density and site coverage

Deciding on the appropriate density and site coverage for a development requires careful consideration to balance a number of planning and environmental and social issues.

Higher development densities can contribute to several sustainable development aims including:

- Reducing the amount of land required for greenfield development by accommodating a higher proportion of new housing on brownfield sites.
- Supporting public transport services and other local services through increased density of population.
- Producing a tighter urban fabric, which gives priority to pedestrians.

However, in deciding upon the appropriate density for the site, a number of factors should be considered:

- Design and context - the design should accord with current urban design best practice guidance published by the Office of the Deputy Prime Minister and English Partnerships.
- Residential amenity - the development should provide adequate amenity in terms of space, privacy and noise control for its occupants and neighbours. It should also avoid noise nuisance from one dwelling to another.
- Energy demand and supply - housing which is joined together such as terraces and flats, is generally more energy efficient due to reduced heat losses. The subsequent lower heating requirements and higher densities of housing can increase the viability of combined heat and power (CHP) and district heating schemes, particularly when these can be planned into a pattern of mixed use. The design of sites for energy efficiency will need, therefore, to address the location of the site.
- Promoting sustainable lifestyles - providing facilities for recycling and composting.
- Green spaces - adequate green spaces should be incorporated with the development to meet design, visual, recreational and other planning requirements.
- Water resources - protecting existing water features, rain water collection and water treatment can all have space requirements on site.
- Access and parking - see section 5.1.



- Noise levels - the overall design of new developments should be such that likely sources of unreasonable noise should be placed away from areas of residential housing.

Density and site coverage are therefore a result of taking a balanced approach to a number of planning and environmental issues.

The District Council is likely to favour higher densities up to 40 dwellings per hectare or higher on brownfield sites in and around the town centre of Aylesbury. In more rural areas, densities of around 30 dwellings per hectare will be more appropriate. Reference should be made to the general design policies of the Aylesbury Vale District Local Plan 2004.

### 5.3 Mixed use developments

Mixed use developments form a key strand of the Government's urban agenda for revitalising urban centres and reducing the need for car travel. Mixed use developments can range from flats over shops to urban villages.

Providing opportunities for people to work and access facilities locally will help to increase the sustainability of a development. For example, larger scale developments should combine office, retail, leisure, community and high density residential uses in close proximity, linked together by the pedestrian and cycle network. This helps to increase the vitality and viability of the centre, facilitate multi-purpose trips and increase the viability and service quality of public transport.



Care needs to be taken in mixed use developments, and advice should be sought from the Environmental Health Officer.

### 5.4 Crime reduction

The design and layout of developments should reflect the principles incorporated in the Supplementary Planning Guidance document "Secured by Design" (AVDC Local Plan 2004 General Policy GP45).

### 5.5 Energy planning

Every development should incorporate solutions to reduce heat loss from buildings and consider the possibilities of renewable energy use, including district heating and Combined Heat and Power (CHP).

## 5 SITE LAYOUT

This should be reflected in the adoption of a pattern of urban and rural development that keeps energy supply options open for the future. To attain this, it is necessary to assess the likely energy inputs and outputs of a development. The Local Government Management Board (LGMB) document "Sustainable Settlements" contains more advice on energy planning and producing an energy strategy for developments (see section 10).

Energy efficiency and the use of renewable energy in individual buildings are both covered by this guide (see section 9.1).

### 5.5.1 Maximising solar gain

The layout of a site has a direct impact on the potential for maximising passive and active solar gain (or solar heating). The following guidelines should be applied:

- Orientation - for maximum access to the sun, buildings should have main elevations which are facing within 30 degrees west or east of due south.
- For housing, high densities are likely to inhibit solar gain through overshadowing, but this problem can be minimised through good design.
- Avoid unnecessary overshadowing of housing due to trees, walls, fences and other buildings.
- Maximise the use of south facing slopes to allow closer spacing of the buildings and trees without overshadowing.
- South facing elevations can increase the amount of solar gain through larger areas of glazing, including windows and conservatories.
- Opportunities for utilising active solar technology should be considered and incorporated wherever possible. Solar water heaters or photovoltaic (PV) panels, which generate electricity from the sun, can be integrated within buildings (usually in the roof) or mounted as free standing arrays externally. It is recommended that at least 10% of the façade or roof of dwellings should be orientated to assist with the installation of solar water heating/PV in the future.



### 5.5.2 Creating a sheltered site

Creating a sheltered site can reduce heat loss from buildings and minimise the effort of driving rain, which can cause damp penetration and heat loss. This can be achieved by:

- On larger sites, using carefully placed shelter belts can help to reduce wind chill, without excessive overshadowing of solar collecting elevations of buildings. The shelterbelt should

be the same height as the building and separated from it by not more than six times the tree height down wind.

- Species should be selected on the basis of their mature height in relation to surrounding buildings and of their ultimate likely water demand with the potential effect this may have on foundation design. Wherever practical native species should be selected.
- Shelter belts should be orientated at 90 degrees to the prevailing wind direction. This can reduce air infiltration into a building by 60% at a distance of 4 times the tree height.
- Grouping buildings, to avoid long uninterrupted passages that can help channel wind.
- On smaller sites, individual trees, small tree groups, hedges, mounding, walls and fences can also provide shelter.

### 5.5.3 Renewable sources of energy

Renewable energy involves harnessing energy from the wind, solar radiation, water, and fuel crops. The potential for capturing renewable energy within or adjacent to the area, should be identified early in the design phase. More guidance is available from the Thames Valley Energy Agency and contact details are given in section 10.

- Wind power is currently minimal in Aylesbury Vale, however, technology changes may mean that more of the District could be able to accommodate future turbines.
- Solar radiation - is covered in section 5.5.1 and 9.1.3.
- Fuel crops and coppicing - could play an important future role in the Aylesbury Vale area. There is potential on the outskirts of urban sites to grow these crops and to harvest them on a rotational basis, to supply a proportion of the developments total energy demand.



Aylesbury Vale District Council supports the principle of maximising the use of renewable energy.

### 5.5.4 Distributed heat

Combined heat and power (CHP) and District Heating (DH) are established methods of energy supply at and for the neighbourhood level. Heat from the industrial processes and/or generation of electricity, which would otherwise be wasted, is distributed by pipe to supply the heating and/or hot water requirements of a neighbourhood, effectively doubling fuel efficiency in some cases. With CHP electricity is also supplied from local generation.

# 6 GREEN SPACES & WILDLIFE

Green space should be planned as an integral part of any development and its potential for contributing to the development's sustainability should be fully evaluated. Green spaces can offer potential for innovative energy and water management and local food production schemes, dependent on rear gardens in new developments or the provision of allotments.



## 6.1 Green spaces network

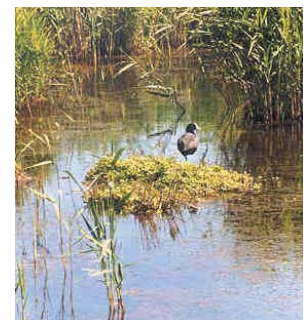
A network of open spaces within a development should provide room for recreation, wildlife habitats, water and energy management. The open space network needs to be considered at the outset of planning and development carefully shaped to allow the varied functions to be fulfilled, future maintenance to be minimised and integrated environmental management achieved.

An integrated network encourages the creation of wildlife corridors to allow species diffusion and habitat reinforcement.

## 6.2 Biodiversity

Before during and after site construction, developers should make all attempts to protect and enhance the existing site biodiversity. A positive impact on biodiversity can be achieved by:

- Full assessment of the site prior to construction to determine what flora and fauna may already exist there, particularly rare or sensitive flora or fauna, including Biodiversity Action Plan species and Protected Species.
- In the case of Protected Species, the development may require an English Nature or DEFRA licence, which would require the production of mitigation and monitoring proposals.
- Existing natural features, flora and fauna, established trees, vegetation and soil should be conserved and protected from contamination wherever possible, both in the finished scheme and during construction.





- Development sites should be designed to provide suitable habitats for wildlife. This is particularly important where sites adjoin existing woods, hedgerows and other areas of semi-natural habitats. Buffer zones should be created to protect areas of existing semi-natural habitats e.g. watercourses.
- The planting of native tree and shrub species should be encouraged, particularly those of local origin to support wildlife. A list of recommended species is available from Aylesbury Vale Countryside Service.
- Open spaces should include the creation of areas of semi-natural habitat, which are to be managed accordingly.
- Avoiding the culverting and canalisation of watercourses.

### 6.3 Protection of trees, hedges and other plants during construction

Good work at the planning and design stages can be irrecoverably lost if the construction stage of a project is not properly managed. Key to this is the need to ensure that all those trees, hedges and other plants which are intended to be retained in a scheme are properly protected during construction. An initial site survey identifying trees, hedges and other plants should be provided and will form the basis for agreeing those to be retained or removed. Planning conditions are likely to require details of the specific scheme of protection measures for a site to be agreed before any works on the site, including ground clearance works, commence.

The protection that is normally expected to be given to retained trees etc would be robust fencing erected around each tree or hedge to be retained, or clearly separating groups of trees or parts of the site "out of bounds" to construction work. This fencing should comprise a vertical and horizontal framework of scaffolding to a height of 1.5 metres, well-braced to resist impacts, and



supporting cleft chestnut pale fencing. In some instances other forms of security fencing may be appropriate, provided it is robust to impacts by site machinery and not readily removed by site workers. The fencing will need to be sited at a minimum distance to protect tree roots and crown. The distances are specified in the British Standard 5837: Trees in Relation to Construction. Types of suitable fencing are also illustrated in this BS.

## 6 GREEN SPACES & WILDLIFE

The protective fencing must be in place before site clearance or groundworking commences, and must remain in place for the remainder of the construction processes. Within the protected areas:-

- There shall not be any changes in ground levels;
- No materials (including stockpiled topsoil or subsoil) shall be stored;
- No plant or equipment or components of plant or equipment shall be parked or stored;
- No buildings or temporary buildings (including storage containers) shall be erected or stationed;
- No materials or waste shall be burnt; and
- No drain or cable runs or other trenches shall be dug or otherwise created without consent. For guidance on such work refer to the National Joint Utilities Group, Publication No 10.

Outside the protected areas:-

- Oil, bitumen, cement or other material likely to be injurious to a tree should not be stacked or discharged within 10m of a bole;
- Concrete mixing should not be carried out within 10m of a bole;
- Fires should not be lit where the flames could extend to within 5m of any part of the tree, this may require larger fires to be at least 20m from the tree.

If works are essential within the protected area, this will need specific prior discussion and agreement with the relevant planning officer who may need to involve specialist tree and/or landscape advisers.

Those undertaking developments should therefore make sure that there are suitable measures in place for control and guidance of site workers and sub-contractors, and that all fencing and other protective measures are maintained to a high standard throughout the process. Contact the local authority tree officers at the earliest opportunity. They can provide further advice.

## 7 WATER RESOURCES & SUSTAINABLE DRAINAGE

### 7.1 Sustainable drainage

In the light of the changing climate, and increases in the frequency of flooding events, the Government has issued Planning Policy Guidance Note 25 (PPG25), which outlines how flood risk issues should be addressed. The assumption is that Sustainable Drainage Systems (SUDS) will be used unless it is proven that they are not possible or applicable.

Extracts from PPG25: Development and Flood Risk, Appendix A:

"Flooding occurs when the amount of water arriving on the land (from rainfall, snow melt, surface flow, flow in watercourses or inundation by the sea) exceeds the capacity of the land to discharge that water (by infiltration, surface flow, piped drainage or surface watercourses)."

"The principal cause of river flooding is excessive rainfall or snow melt within a limited period, which overwhelms the drainage capacity of land, particularly when the ground is already saturated or when channels become blocked."

"The impacts can be aggravated by:

- the growth of built development in catchments and other changes in land use, which increase the rate and volume of run-off;
- lack of maintenance of flood defence schemes, watercourses, culverts . . . . .
- canalisation, modification and diversion of rivers and watercourses, which increase the rate of flow and decrease the time taken for water to travel within a catchment . . . ."

Increases in impermeable surfacing will increase the rate and/or volume of flow, and can cause flash flooding, even where the watercourses are comparatively minor, with resulting threat and damage to property. To minimise the effect, and in its capacity as Land Drainage Authority, AVDC is promoting the use of SUDS. PPG25 Appendix E gives essential background information on SUDS, the principle being to retain or detain surface water run-off, such that peak flows in watercourses are no greater than would occur naturally.

Changes to water courses, such as culverting and diversions, must be carried out in such a way as to take into account the natural flow paths of ground water. For example, ground water will



## 8 REFUSE MANAGEMENT

still seek a former ditch line, even when the ditch is culverted. Failure to take this flow into account will result in ground water flooding or very wet ground, either on the original ditch or stream line, or at some other unexpected location.

The following principles should be applied to minimise the adverse effects of development:

1. Before construction, the existing site hydrology should be determined:
  - a. To identify any hydrological features that must be retained e.g. flow to wells, critical water levels in some sites.
  - b. To provide information for the drainage design. All new drainage design should ensure that the risk to flooding downstream is made no worse and ideally improved by the development. This is best achieved by use of source control techniques, as appropriate for the type of development and local site conditions. Drainage design must be considered at the initial stages of infrastructure design as the source control techniques available may significantly affect the site layout. Full information to residents on the functioning of any type of drainage installed is essential to avoid later abuse/misuse of the system.
  - c. To avoid the risk of flooding and pollution of watercourses.
2. Examples of source control techniques are:
  - a. Infiltration - swales, soakaways, porous paving on porous underfill, "over the edge" drainage of paths.
  - b. Retention - balancing ponds, storage chambers, rainwater recycling.
3. Landscape schemes should be designed to retain surface water run off and thereby minimise the use of water for maintenance.

(See section 10 for sustainable drainage systems.)

## 8 REFUSE MANAGEMENT

The Council currently operates a weekly household refuse collection service and a fortnightly household door-to-door dry recycled collection service, for newspapers and magazines and for co-mingled cans and plastics. Door to door glass collection is planned for 2004. Both services are based on an edge of property collection of wheeled bins and baskets.

Developers should have regard to these arrangements in considering the design of the development to ensure proper access for the collection vehicles and that suitable provision is made for the storage of refuse both prior to collection and on the day of collection.

Developers should also note that national recycling targets are likely to mean the collection of additional materials for recycling in the future, with implications on the household storage space required for these materials. Developers are advised to contact the Council at an early stage to establish the current methodology and equipment.

This section also provides guidance on the provision of local “bring scheme” facilities for dry recyclates.

### 8.1 Refuse and recyclate collection services

In order to accommodate the weekly wheeled bins refuse collection for the edge of property and the fortnightly door to door dry recycled collection from the edge of property:

- Individual properties must be designed to have sufficient space to store wheeled refuse bins and recycling baskets and to have easy access to the edge of the property (or kerbside) to allow for the collection of the refuse and recyclates. Collection points for the bins and baskets shall be provided at such points as to allow easy access to the collection point by the refuse/recycling freighter.
- Wheeled bin and recycling baskets storage areas, must be of such dimensions as to accommodate the containers and to allow for their use whilst in that storage (i.e. will accommodate the depositing of refuse and allow the bin to be turned in the store).
- Design of vehicle access ways must allow for the safe manoeuvring and turning of the refuse recycling freighters. The standard refuse collection vehicle will be 26 tonne (GVW), 10m long x 2.5m wide, with rear end bin lifts, but may vary in the future. Please contact Aylesbury Vale District Council for the size of current freighters.
- Collection points must not exceed 5m from a suitable servicing point for the freighter.
- Where properties are of such a design that a communal refuse and recyclates storage is preferable, then the facility must be designed having regard to the above principles.
- Regard must also be given to the potential dangers of bulk refuse/recyclate storage in so far as fire or other abuse. Design should take account of the need to minimise the unauthorised movement of the containers, but should not in any way preclude their easy collection by the refuse/recycling collection service.



## 8 REFUSE MANAGEMENT

Bin sizes					
Capacity	140 litre	240 litre	330 litre	660 litre	1100 litre
Height shut	1065mm	1075mm	1075mm	1100mm	1450mm
Height open	1550mm	1800mm	1950mm	-	-
Width	458mm	580mm	660mm	1260mm	1380mm
Depth	550mm	725mm	870mm	775mm	1075mm

### 8.2 Recycling “bring” schemes

“Bring schemes” incorporate the provision of centralised facilities for the public to take pre-sorted recyclates for bulk containment. The provision of such facilities should be seen as an integral part of the new development. And therefore regard should be had to the following:-

- Access to these facilities is free to residents at all times.
- Their siting is such they are provided as part of other communal community facilities and that they allow for efficient emptying during normal working hours.
- Their design should complement the visual appearance of any development and their use should cause the minimal level of disturbance within the area.

To meet these requirements the facilities should be either:

- Underground.
- Undercover (with access for emptying).
- Screened.

Facilities should be of a size to allow for the siting of a minimum of 5 x 1100 litre bins.

The number of such sites will depend on a combination of the dwelling sizes and the type and size of container installed. However, as guidance, it is considered that one site should be provided for the first 300 properties and an additional site per 500 properties thereafter. Further advice on the number of sites required in developments can be obtained from the AVDC Environmental Health Service.

### 8.3 Commercial developments

The waste collected from commercial developments will either be trade or industrial waste. The Council is not obliged to collect such waste, however Aylesbury Vale District Council does offer this service at present. It is for occupiers to make suitable arrangements. In designing commercial units regard should be had to access for collection and the safe storage of waste materials, and in particular dangers of bulk waste storage by fire or other abuse. Consideration should also be given to the visual impact of such storage and amenity implications on neighbours, especially noise and smell.

## 9 INDIVIDUAL BUILDING DESIGN

### 9.1 Energy efficiency

Energy efficiency is about reducing the use of energy, at all stages in the design and construction of buildings and use of the built environment to comply with current building control regulations.

The Government's Standard Assessment Procedure (SAP) is used for assessing the energy efficiency of domestic buildings. The Council expects dwellings in new developments to achieve a minimum SAP rating of 120. Greater energy efficiency within individual dwellings can be achieved through the following:

#### 9.1.1 Space and water heating systems

- Energy efficient systems and boilers are required under building regulations.
- Boilers installed in dwellings should have a SEDBUK (Seasonal Efficiency of Domestic Boilers in the UK) rating of 82% for energy efficiency (until the system is replaced by an EU Directive on the energy efficiency labelling of boilers). Use the appropriate heating system to enable use at optimum efficiency.
- Full controls should be provided for all heating systems, incorporating room thermostats, thermostatic radiator valves and programmers. Controls that are installed should be simple to operate but effective in their use. Full instructions on their use should be provided to occupants.



## 9 INDIVIDUAL BUILDING DESIGN

- Intelligent heating and full zonal controls should be installed in family sized homes wherever possible. Controls that are installed should be simple to operate but effective in their use. Full instructions on use should be provided to occupants.

### 9.1.2 Appliances, lighting and ventilation

- Any white goods supplied as standard should be as energy efficient as possible.
- Natural daylight should be maximised within designs to reduce the need for artificial lighting.
- Passive rather than mechanical ventilation systems should be used wherever possible. Where mechanical ventilation systems are necessary, these should incorporate heat recovery systems.
- Careful consideration should be given to the ventilation of buildings to ensure healthy movements of air within dwellings.

### 9.1.3 Doors, glazing & roof lights

- Windows should be double glazed or better. Low-emissivity glass and gas-filled double glazing should be used in windows and glazed doors.
- Designs should ensure that stairs do not open directly into the living room.
- North facing windows should be of the minimum dimensions consistent with good daylight and ventilation. South facing windows should be maximised to make use of passive solar heating where possible.

### 9.1.4 Insulation

The minimum level of insulation used must comply with current Building Regulations. However, developers are encouraged to install insulation in excess of that required by Building Regulations, e.g. BREEAM Standard or higher. (See Appendix A for current levels.)

### 9.1.5 Building design

- House types should accord with local plan policies and should aim to provide a mix of dwelling types in order to support sustainable communities. However where possible, linked buildings should be incorporated in order to reduce heat loss through flank walls. Terraces, flats and semi-detached houses are better than detached houses in this respect. Detached bungalows tend to be the worst house type for heat losses.
- Entrances to buildings should be located away from prevailing winds and should be protected with a lobby/entrance porch to reduce heat loss.
- Ideally conservatories should be located on south or west facing walls.





### 9.1.6 Advice and information

All new occupiers should be provided with advice on the efficient operation of lighting, heating and hot water systems.

## 9.2 Water efficiency

Greater water efficiency within buildings can be achieved by:

- Fitting showers to all dwellings and spray taps to wash basins.
- Fitting toilets with dual flush systems or small capacity flushing systems.
- Introducing facilities for grey water recycling, which conserve wastewater from sinks, showers and baths, which is then reused for toilet flushing, gardens and external uses.
- Rainwater can be stored and re-used for gardening and outdoor applications, or with the addition of suitable debris filters, for any internal use where potable water is not necessary e.g. baths, showers, toilets. Examples of water recycling systems are:
  - Covered water butts for collection roof drainage, with overflow to rainwater drainage.
  - Proprietary systems for rain/grey water filtering and recycling.

## 9.3 Construction materials

All materials used must comply with current building regulations.

All modern building materials have some impact upon the environment and the sustainability of a particular material will depend on several factors:

- The amount of energy used in extraction, manufacture and transportation.
- Other environmental and social impact from the production and transport of the material.
- The management regime used for potentially renewable resources e.g. timber from a sustainably managed source.
- Pollutants, irritants, allergens and toxins in the material itself.

Sustainable design seeks to minimise or eliminate adverse impacts through care in the choice of materials and how they are used. Guidelines are:

- materials should be reclaimed and reused wherever possible during construction. This may include:
  - reuse of demolition wastes (where appropriate.)
  - use of wood for street furniture and signage, or where natural materials cannot be used as a first choice, recycled plastics should be considered.

## 9 INDIVIDUAL BUILDING DESIGN

- reuse of inert site wastes on site.
- the use of natural insulation materials rather than conventional materials.
- Timber should be approved by the Forest Stewardship Council, (FSC) or comparable internationally recognised environmental organisation, to ensure it comes from a sustainable source.
- Water based or low volatile content solvents and paints should be used.
- Existing built assets should be reused, refurbished or renovated wherever possible.
- Consider using natural materials wherever possible.
- Design buildings with sufficient flexibility and durability for a long lifetime to avoid unnecessary redundancy and demolition.

### 9.4 Safety in the home

A number of design features can be incorporated within dwellings to reduce the risks of accidents and falls. General guidelines are:

#### 9.4.1 Reducing accidents

- Carbon monoxide detectors should be installed as standard where heating appliances are fitted.
- Where fitted kitchens are provided, these should incorporate a lockable cupboard for storing chemicals and/or medicines. This should be either a high level cupboard or shelf over 1400 mm from the floor, or a low-level cupboard with child-resistant locks.
- Showers should have thermostatically controlled mixer valves.
- Wherever possible window controls should be easily accessible.
- All dwellings should be fitted with smoke alarms.
- Window restrictors should be installed on upper floor windows in rooms designed for children. If a window is less than 1350 mm from the floor it should be restricted to an aperture of 100mm. Such a device should be easily undone by an adult to provide a means of escape in the event of fire.
- Baths and showers should incorporate grab rails and slip resistant moulded surfaces.
- Access to dwellings should be level or sloping, wherever possible, avoiding steps.



### 9.4.2 Child safety

- Wherever possible outside doors should not be positioned to open directly onto driveways, car ports and garages to reduce the risk of a child running into path of a car.
- Where fences are provided they should be designed to reduce the risk of a child running into the road.

### 9.4.3 Security

The Council is required to address the requirements of Section 17 of the Crime and Disorder Act 1998. Supplementary Planning Guidance - Safety through Design, was adopted in September 2001 and deals with design and crime and community safety issues. This is a material planning consideration in the determination of planning applications, and regard should be paid to the principles contained in that document when designing new development. Advice is also received from the Police Crime Prevention Design Adviser.

In addition to that advice, all dwellings should be provided with the following British Standards items:

- window locks.
- door locks, mortice locks on front and back doors.
- spy holes.
- door chain.
- security light to the front.

Reference: Supplementary Planning Guidance - Safety through Design, September 2001, Aylesbury Vale District Council.

# 10 FURTHER SOURCES OF HELP

## 10.1 Relevant Aylesbury Vale District Council documents

- Aylesbury Vale District Council Local Plan
- Home Energy Conservation Act Report 1996 (and subsequent update reports)
- Aylesbury Vale District Council Affordable Warmth Strategy 2003
- Aylesbury Vale District Council Design Guides on a variety of design topics.

## 10.2 Aylesbury Vale District Council contacts

### Planning Advice

01296 585439

[avdlp@aylesburyvaledc.gov.uk](mailto:avdlp@aylesburyvaledc.gov.uk)

### Building Control

- Western area of the District including Aylesbury: 01296 585445 or email [bcontrol@aylesburyvaledc.gov.uk](mailto:bcontrol@aylesburyvaledc.gov.uk)
- Eastern and northern area including Winslow and Buckingham: 01296 585456 or email [bcontrol@aylesburyvaledc.gov.uk](mailto:bcontrol@aylesburyvaledc.gov.uk)

### Energy Efficiency

Sustainability Team: 01296 585605 or email [envhealth@aylesburyvaledc.gov.uk](mailto:envhealth@aylesburyvaledc.gov.uk)

### Landscape, Design and Conservation

01296 585366 or email [creativeteam@aylesburyvaledc.gov.uk](mailto:creativeteam@aylesburyvaledc.gov.uk)

### Bio-diversity / Nature Conservation

Aylesbury Vale Countryside Service: 01296 427972 or email [countrysideservice@aylesburyvaledc.gov.uk](mailto:countrysideservice@aylesburyvaledc.gov.uk)

### Waste Management

Environmental Health Services General Enquiries: 01296 585605 or email [envhealth@aylesburyvaledc.gov.uk](mailto:envhealth@aylesburyvaledc.gov.uk)

### Local Agenda 21

Sustainability Team: 01296 585605 or email [envhealth@aylesburyvaledc.gov.uk](mailto:envhealth@aylesburyvaledc.gov.uk)

Sources of grant assistance for energy efficiency and renewable energy options

Milton Keynes Bucks and East Berks Energy Efficiency Advice Centre 0800 512012 or email [envhealth@aylesburyvaledc.gov.uk](mailto:envhealth@aylesburyvaledc.gov.uk)

### 10.3 Other sources of advice

#### General Sources of Information

The **Building Research Establishment** can provide advice, guidance and tools on sustainable building practices. Information on the design advice service, the energy efficiency best practice programme, EcoHomes, BREEAM and ENVEST, tools for quantifying the environmental effect of buildings is available.

A new version of BREEAM has recently been launched to provide the construction industry with a method of improving the environmental performance of retail buildings. BREEAM Retail has been developed by BRE's Centre for Sustainable construction in partnership with FaberMaunsell, WSP environmental UK and Upstream.

BREEAM Retail can be applied to any retail development at the design stage, tenant fit-out or during occupancy. It has been tailored to meet the particular characteristics of the sector, such as its very wide range of building types and functions, the frequency with which retail premises tend to be fitted and refitted, and the large quantities of packaging waste involved in its operations. Info at [www.bre.co.uk/breem](http://www.bre.co.uk/breem)

Building Research Establishment, Garston, Watford, WD2 7JR, telephone 01923 664787  
[www.bre.co.uk](http://www.bre.co.uk)

"**Sustainable Settlements, A Guide for Planners, Designers and Developers**" - The University of the West of England and the Local Government Management Board April 1995. This publication covers many of the sustainable construction issues in more detail.

The **DTLR Sustainable Construction Team** can be contacted for further advice: Sustainable Construction Team, Zone 3/J1, Eland House, Bressenden Place, London SW1E 5DU. E-mail: [sustainable.construction@dtlr.gov.uk](mailto:sustainable.construction@dtlr.gov.uk)

**Department of the Environment, Farming and Rural Affairs** - The UK Climate Change Impacts Programme (November 2000).  
<http://www.defra.gov.uk/environment/climatechange/cm4913/index.htm>

**Department of the Environment, Transport and the Regions**, "Building a Better Quality of Life: A Strategy for More Sustainable Construction" (April 2000), contains information on what the construction industry can do to minimise the environmental impact of buildings and the processes of construction. <http://www.construction.detr.gov.uk/sustain/bql/06.htm>

The **Office of Government Commerce** publishes the Government's own construction sustainability action plan: "Achieving Sustainability in Construction Procurement" which can be downloaded from the OGC website.

The **Movement for Innovation (M4I)** has a number of demonstration projects, which show how sustainable practices, can be incorporated into new construction projects. Visit their website at [www.m4i.org.uk](http://www.m4i.org.uk)

The **Considerate Constructors Scheme**, developed by the Construction Industry Board, seeks to minimise any negative aspects of construction activity. Further details are available from: Considerate Constructors Scheme Office, PO Box 75, Great Anwell, Ware, Hertfordshire, SG12 9SF. Tel/Fax 01920 872837

**Association of Environment Conscious Builders**, Windlake House, The Pump Field, Coaley, Gloucestershire, GL11 5DX

## 10 FURTHER SOURCES OF HELP

### Energy Efficiency and Renewable Energy

The **Thames Valley Renewable Energy Agency** can provide more information on including renewable energy within planned developments and sources of financial assistance and grants for best practice schemes. Contact TV Energy, Liberty House, New Greenham Park, Newbury, Berks. RG19 6HW, telephone 01635 817420, [www.tvenergy.org](http://www.tvenergy.org)

**Energy Saving Trust**, provides more information on energy efficiency, Combined Heat and Power schemes in the residential sector and further sources of help: Energy Saving Trust, 21 Dartmouth Street, London, SW1H 9BP, Tel: 020 7222 0101, <http://www.est.org.uk/indexe.html>

**Domestic Heating Controls Group**, Westminster Tower, 3 Albert Embankment, London, SE1 7SL, 0207 793 3008

**Milton Keynes Bucks and East Berks Energy Efficiency Advice Centre** provides energy efficiency advice. Contact Chief Executive, National Energy Centre, Davy Avenue, Knowlhill, Milton Keynes, MK5 8NG, 0800 512012

### Construction Materials

The **BRE** operates the Internet based Materials Information Exchange (MIE) which has been set up on a trial basis to facilitate the increased use of recycled materials. The exchange acts as a virtual market place for those wishing to trade in construction and demolition (C&D) waste. Building Research Establishment, Garston, Watford, WD2 7JR, telephone 01923 664787 [www.bre.co.uk](http://www.bre.co.uk).

**Forest Stewardship Council (FSC)** <http://www.fsc-uk.demon.co.uk/index.html> Unit D, Station Building, Llanidloes SY18 6EB, Wales. Tel: 01686 413916 Fax: 01686 412176. Email: [fsc-uk@fsc-uk.demon.co.uk](mailto:fsc-uk@fsc-uk.demon.co.uk)

### Planning Policy

The **Department of Transport, Local Government and the Regions** "Consolidated List of National Planning Policy" is designed to help all those with an interest in finding the up to date source of information on national planning policies: <http://www.databases.dtlr.gov.uk/planning/npp/>

### Lifelong homes

**Joseph Rowntree Foundation**, The Homestead, 40 Water End, York YO30 6WP, Tel: 01904 629241, or visit <http://www.jrf.org.uk/>

### Home safety issues

**ROSPA**, Edgbaston Park, 353 Bristol Road, Birmingham B5 7ST, Tel: 0121 248 2000

**Child Accident Prevention Trust**, 18 - 20 Farringdon Lane, London EC1R 3HA, Tel: 020 7608 3828 or visit <http://www.capt.org.uk/>

### Sustainable Drainage Systems

"Proceedings of the first Nation Conference on Sustainable Drainage", Coventry University, 18-19th June 2001. ISBN 1 903818 06 0

### Green Spaces and Wildlife Team

**Bucks Bio-diversity Action Plan**, Aylesbury Vale Countryside Service, Aylesbury Vale District Council, 66 High Street, Aylesbury, Bucks. HP20 1SD, Tel: 01296 427972 or email [countrysideservice@aylesburyvaledc.gov.uk](mailto:countrysideservice@aylesburyvaledc.gov.uk)

## 10.4 GLOSSARY

**AVDC Local Plan**

Aylesbury Vale District Local Plan. The statutory plan controlling land use within the District, containing policies, proposals and a proposals map, which are used to guide day to day planning decisions.

**Biodiversity Action Plan**

For Buckinghamshire & Milton Keynes, proposes a framework for action to conserve the County's rare and important wildlife habitats and species.

**BRE**

Building Research Establishment

The principal organisation in the UK carrying out research into building construction and prevention of fire. BRE provides the technical basis for Building Regulations and many British Codes and Standards.

BRE Garston, Watford, Hertfordshire [www.bre.co.uk](http://www.bre.co.uk)

**BREEAM**

The BRE Environmental Assessment Method. The world's most widely used means of reviewing and improving the environmental performance of buildings. Launched in 1990, it increasingly offers best practice in environmental design and management.

**Bring Schemes**

The provision of sites and containers to accept materials for recycling, where the public "bring" the materials to the sites as opposed to an individual collection service from each property.

**Buckinghamshire County Structure Plan**

Statutory plan which provides the strategic framework for planning at a local level, ensuring commonality across County areas and delivery of Government policy at a local level.

**CHP**

Combined Heat and Power, also known as cogeneration is the generation of power and thermal energy from a single fuel source. CHP therefore uses heat, that is otherwise discarded from conventional power generation to produce thermal energy. The heat can be used for heating the installation building or distributed in district heating schemes.

**DEFRA**

The Department of Environment, Food and Rural Affairs

Nobel House  
17 Smith Square  
London SW1P

**EcoHomes**

This is the application of the BREEAM standards to Housing Developments. For further information see:-

[www.bre.co.uk/ecohomes](http://www.bre.co.uk/ecohomes)

**Dry Recyclables**

Materials intended for recycling including glass, paper, cans, plastics, textiles etc. but excluding green garden and kitchen waste and liquids such as oils, paints and solvents.

**Forest Stewardship Council (FSC)**

The FSC is an international non-profit organisation to support environmentally appropriate, socially beneficial and economically viable management of the world's forestry.

[www.fscoax.org](http://www.fscoax.org)

## 10 FURTHER SOURCES OF HELP

### **GVW**

Gross Vehicle Weight

### **IS14001**

An international standard that sets out a framework for systematically managing the environmental impacts of an organisation's operations.

### **NHBC**

National House Building Council

The independent regulatory body for the UK house building industry. Work involves registering house builders, setting technical standards, inspection during construction, and providing the 10 year Buildmark cover on newly built or converted homes.

[www.nhbc.co.uk](http://www.nhbc.co.uk)

### **ODPM**

Office of the Deputy Prime Minister

Formerly the DTLR (Department of Transport, Local Government & the Regions), but now excluding transport.

### **LGMB**

Local Government Management Board

### **Local Agenda 21**

The local implementation of the Agenda 21, which was agreed by world leaders at the RIO conference in 1992. Agenda 21 being a plan for sustainability in the 21st Century. Local Agenda 21 in AVDC is referred to as SAVE (see below).

### **Planning and Policy Guidance Notes (PPG)**

Government guidance notes which provide policy statements on differing land use planning issues and broaden guidance given in the main legislation.

### **Photovoltaic (PV) Panel**

A panel for the conversion of solar radiation into electricity. They have a wide range of applications from powering calculators to providing electricity for use in buildings.

### **SAP**

Standard Assessment Procedure. The method for determining the thermal efficiency of a building.

### **SAVE**

"Support Aylesbury Vale's Environment" Aylesbury Vale's response to Local Agenda 21 - a community led scheme for promoting local sustainability.

Contact [envhealth@aylesburyvaledc.gov.uk](mailto:envhealth@aylesburyvaledc.gov.uk)

### **SEDBUK**

The average annual efficiency achieved in typical domestic conditions having made reasonable assumptions about patterns of usage, climate, control and other influences.

### **Supplementary Planning Guidance (SPG)**

Local authority guidance which supplements and broadens that contained within the Aylesbury Vale District Local Plan.



# APPENDIX A

## TYPICAL CURRENT INSULATION LEVELS - September 2002

Insulation to a loft	250mm Rockwool
Insulation to a flat roof	200mm Rockwool
Cavity Wall Insulation (Brick and Dense Blocks)	100mm Dri-therm
Floor Insulation to a solid floor	120mm Jablite
Glazing UPVC Frame	16mm gap between panes and Argon filled with a low E coating

If you would like a copy of  
this document in large print  
or on tape, please telephone  
(01296) 585605

اس بک لیٹ میں اُن طریقوں کی وضاحت کی گئی ہے جن کے ذریعے صاف ستھرے  
ماحول کو برقرار رکھتے ہوئے تعمیراتی کام اور بننے والی نئی عمارت کی تعمیر کی جاسکتی ہے۔  
اس کے مفت ترجمے کے لئے برائے کرم فون کیجئے: 01296 425334

آپ پत्रیکا نئی و سادھت یوآنا آو تہ مآ ڈڑا مکا نو پرفا و رڈانہ  
پرفڈھشائی بآیا وینہ ڈہی ریتہ بंधای تہ س مآا و ہ ڈہ۔ مڈت آا پانڈر  
مہا و و ا ما ڈہ، مڈہر آا نی ڈری 01296 425334 ڈپر ڈہ ڈیکفون ڈرہ۔



Environmental Health Services  
Department of Community Services  
AYLESBURY VALE DISTRICT COUNCIL  
The Gateway Gatehouse Rd Aylesbury HP19 8FF  
Tel: 01296 585605 Textphone : 01296 585055)  
[www.aylesburyvaledc.gov.uk](http://www.aylesburyvaledc.gov.uk)