In our exploration of the Code for Sustainable Homes, we have reached the last two categories – Management, and Ecology.

A brief reminder of the methodology (described in detail in my March article):

- For each category, there are prescribed ‘issues’ relating to sustainability. On each issue, one or more credits may be awarded if the home is worthy. The credits are multiplied by the conversion factor for the category, and thereby converted into points.

- The sum of the points for the nine categories determines the Code Level. There are 100 points available in total. At least 36 points are required for Code Level 1, and at least 90 points for Code Level 6.

- A few issues have mandatory minimum requirements.

**CATEGORY 8 – MANAGEMENT**

Maximum number of credits: 9.
One credit converts to 1.11 points, so the maximum number of points is \(10\).

There are four issues in this category, the first of which is:

**Home User Guide**

*Aim*: The provision of guidance so that occupants can operate their home efficiently, and make good use of local facilities.

Credits available: 3.

As a selfbuilder, you get 2 credits for compiling a Home User Guide – for your own use as the future occupant.

The Guide should include information about:

- Environmental features of the design
  – Eg, HRV system, solar system, super insulation, SuDS scheme, etc.

- Energy
  – Information on how to operate the heating system efficiently; information about EU labelling for white goods; etc.

- Water use
  – Details of water saving measures; etc.

- Recycling and waste
  – How to use the recycling and compost bins; etc.

- Sustainable DIY
  – Your recommendations about future home improvement works from yourself as developer, to yourself as occupant. (Example: “Check for low VOC’s in paints.”, with VOC standing for ‘Volatile Organic Compound’.)

- Emergency information
  – About smoke detectors.
There’s a further credit available for a list of information about the site and its surroundings:

- Recycling and waste
  – Information about local recycling facilities.

- SuDS
  – Details of any Sustainable Drainage Systems within the site. (For more about SuDS, see my article last month.)

- Local transport
  – Details of cycle paths, public transport, Park & Ride schemes, etc.

- Local amenities
  – Location of shops, schools, post office, medical centre, leisure centre, parks, pubs, churches, etc.

- Responsible purchasing
  – Information to aid the purchase of ‘green’ white goods, organic/local food, sustainably sourced timber, etc.

- Emergency information
  – Contact details of the nearest Accident & Emergency department, the fire service, and the police.

- Links and further info.

**Considerate Constructors Scheme**

*Aim: To promote environmentally and socially considerate management of construction sites.*

Credits available: 2.

For this issue you have to make a commitment to meet best practice under the Considerate Constructors Scheme, or under a comparable scheme. (See Further Info.) Under the Considerate Constructors Scheme, assessment is made under 8 headings:

- Considerate?
  – Carry out work with consideration for others.

- Environment?
  – Minimise the environmental impact of the site, especially the air, light and noise pollution.

- Cleanliness?
  – Keep the site clean and in good order.

- Good neighbour?
  – Inform neighbours about site activities.

- Respectful?
  – No lewd dress or language on site.
• Safe?
  – Work safely: safe for both the workers and the public.

• Responsible?
  – Everyone on site should comply with this code.

• Accountable?
  – Display to the public a Considerate Constructors Scheme poster with your contact details.

Your site is scored under the headings above, and according to the score you get 1 credit for ‘best practice’, or 2 points for ‘significantly beyond best practice’.

**Construction Site Impacts**

*Aim: To lessen the environmental impact of the site.*

Credits available: 2.

You get 1 credit for undertaking two of the following; you get 2 credits for undertaking four:

• Fossil fuel energy used on site – Set targets and monitor.
• Fossil fuel energy used for commercial transport to and from the site – Monitor.
• Water consumed on site – Set targets and monitor.
• Dust pollution – Adopt best practice.
• Pollution of ground water and surface run-off – Adopt best practice.
• Site timber – 80% to be reclaimed, re-used, or responsibly sourced. (Often scaffold boards make up the majority of the site timber, and they are invariably re-used – but does your scaffolding company have the necessary documentation to confirm this?)

**Security**

*Aim: To promote the design of developments where people will feel safe and secure.*

Credits available: 2.

To obtain these two credits both of the following must be satisfied:

• At the design stage, an Architectural Liaison Officer must be consulted, and his/her recommendations incorporated into the design. This is a free service by your local police. (Alternative name for the officer: Crime Prevention Design Advisor.)

• The second section of *Secured by Design – New Homes* (dealing with Physical Security) must be complied with. (See Further Info. The first section applies to estate development.)

**CATEGORY 9 – ECOLOGY**

Maximum number of credits: 9.

One credit converts to 1.33 points, so the maximum number of points is 12.

CSH CATEGORIES 8 AND 9 3 JULY 2011.
**Ecological Value of Site**

_Aim: To encourage development to be on land that is of limited value to wildlife._

Credits available: 1.

There is one credit available if your plot is of low ecological value. There are many criteria for deciding this. For example, a credit may be awarded if the plot has contaminated land or is covered in hard-standing.

But most selfbuild plots cannot obtain this credit.

**Ecological Enhancement**

_Aim: To enhance the ecological value of a site._

Credits available: 1.

To get this credit you need to carry out the recommendations of an ecologist for enhancing the ecology of the site – eg, by planting native species, or by installing bird or bat boxes.

**Protection of Ecological Features**

_Aim: To protect the existing ecological features of a site during construction._

Credits available: 1.

One credit is available for protecting ecological features (eg, trees, hedges, ponds) during construction.

If there are no ecological features worth protecting, then this credit is awarded by default.

**Change in Ecological Value of Site**

_Aim: To improve the ecological value of the site._

Credits available: 4.

The ecological value of land is assumed to be indicated by the number of plant species present per hectare. The number does not have to be measured but can be assumed from the nature of the land. Most selfbuild plots are within a city, town or village, and in this case the plot can be classed as being within the landscape type called ‘Urban Mosaic’. According to the ground cover on the plot (infertile grassland, hard landscaping, garden, etc), the assumed average number of species can be read off a table in the Technical Guide to the Code.

After the build, the type of land will presumably be ‘garden’, or possibly ‘wildlife garden’. From the assumed figures, the change in the assumed number of plant species per hectare can be found.

<table>
<thead>
<tr>
<th>Change in number of species per hectare</th>
<th>-9</th>
<th>-3</th>
<th>3</th>
<th>9</th>
</tr>
</thead>
<tbody>
<tr>
<td>Credits</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>3 or 4</td>
</tr>
</tbody>
</table>

_Credits for changing a building plot into a garden_

Many selfbuild plots are parts of existing gardens, and most of the plot will remain a garden afterwards. In this case the development is ecologically neutral, and that results in two credits.
There are four credits available in all, but to get all four you need to employ an ecologist. And it would help to plant your garden with native species, not the exotic stuff we usually like in our garden.

**Building Footprint**

*Aim: To promote the most efficient use of a building’s footprint.*

Credits available: 2.

These credits reward you for building high, with three storeys – or for building deep, with a basement.

<table>
<thead>
<tr>
<th>Ratio of total floor area to ground floor area</th>
<th>2.5</th>
<th>3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Credits</td>
<td>1</td>
<td>2</td>
</tr>
</tbody>
</table>

**Credits for three stories**

‘Floor area’ excludes external walls, but includes cupboards, stairwells and partition walls. The ground floor area includes the area of any conservatory or garage, so these make it more difficult to gain a credit.

**Completion**

With this, my fifth article about the Code for Sustainable Homes, we have reached the end of this account of the sustainability issues covered by the Code.

The Code is important not least because the planners in some areas require a new home to reach Code Level 3. (Some of them may even be requiring Code Level 4 by the end of the year.) And for good Code Levels, discounted mortgage rates are available from the Ecological Building Society.

If you don’t need a formal Code assessment for either of these reasons, but you still wish to build green, you may like to use the Code informally for guidance.

**Confusion**

The Star Letter in the March edition of *Build It* magazine displayed some commonly held misconceptions about the relationship of the Code for Sustainable Homes and the Building Regulations.

The letter ended with:

> “It seems absurd, but my understanding of the legislation suggests that despite using very little energy, a Passivhaus would not pass the code level 6 in 2016. Instead, the builder would have to pay for unnecessary renewables to achieve the Government’s imposed standards.”

Point 1:
As we have seen previously, only Category 1 of the Code is about Energy. Moreover, only two of the 8 issues in Category 1 will necessarily result in high points for a Passivhaus, viz, Dwelling Emission Rate and Fabric Energy Efficiency (for which 22.2 points are available). So a Passivhaus makes a good start in gaining points, but it also needs to do well in many other issues to gain the 90 points required for Code Level 6.
Point 2:
The reference about ‘would not pass the code level 6 in 2016’ is confusing the Building Regulations with the Code. The Government has announced that it will change Part L of the Building Regulations in 2016. It has not said anything about Code Levels in 2016 – which officially are outside the remit of Central Government, anyway.

The confusion comes about because the maximum Dwelling Emission Rate allowed under Part L was due to be reduced in 2016 to the level currently required for Code Level 6, namely, ‘Zero Net CO\(_2\) Emissions’. (Just to add further to the confusion, the meaning of ‘Zero Net CO\(_2\) Emissions’ has still not been defined. Possibly a step forward towards a definition, but a step backwards in the quest to reduce emissions, was made in the ‘Plan for Growth’ published in March alongside the Budget. It was announced that emissions due to household appliances will not be taken into account in the requirement due in 2016 for ‘zero carbon homes’. That will make the standard for ‘zero carbon homes’ laxer than was originally envisaged. Will the definition of ‘Zero Net CO\(_2\) Emissions’ follow suit?)

By 2016, the requirement for the Dwelling Emission Rate at Code Level 6 may or may not have been changed. (The Code is occasionally updated.)

Point 3:
The Passivhaus concept is an excellent way to reduce the energy required for the space heating and ventilation of a house. The standard required is tight: not more than 15 kWh/m\(^2\) per year, where the m\(^2\) refers to floor area. Water heating is not included in this figure, although in very energy efficient houses the amount of energy required for water heating is comparable to that required for space heating and ventilation.

Water heating is included within the second Passivhaus standard: the total primary energy required for the house should not exceed 120 kWh/m\(^2\) per year. (Primary energy? – See the note in next month's article.) This figure includes the primary energy for space heating, ventilation, hot water heating, and the household appliances. In my view, this second standard is rather lax, now that renewable energy is easily available (via solar thermal systems for heat, and PV for electricity).

So in 2016 it will be quite sensible for the Government to impose energy standards which are more stringent than the present-day Passivhaus standards.

Next month: How to get to Code Level 3 the easy way.

FURTHER INFO:

**Considerate Constructors Scheme**
Operated by the Construction Confederation.
Fee: £240 for project value between £100,000 and £500,000.
www.ccscheme.org.uk.

**Secured by Design – New Homes 2010**
Free download:

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