Design Review in Wales
The experience of the Design Commission for Wales’ Design Review Panel

03 – 05
When the Welsh Assembly Government established the Design Commission for Wales in 2002 as the nation’s champion for the built environment, we hoped that as well as acting as a critical friend to the industry and the Assembly, the new body would also find ways to support change, encourage best practice and disseminate the lessons of its experience.

It has made great strides through its core work in training and development, education and advocacy and, through its Design Review service, the Commission has worked its way under the skin of regeneration and development issues in Wales to the heart of the problems facing a small but ambitious nation.

The Design Review Service, which provides the main interface with planning authorities in Wales, has been in operation for three years. This report is a timely assessment of that service and identifies lessons to be learnt from the projects reviewed by the Commission’s panel of expert advisors.

I know that there is tremendous interest in delivering development which is not only more sustainable but also secures a better quality built environment, for the people of Wales. I believe that this input is a timely contribution to this process.

Carwyn Jones AM,  
Minister for Environment, Planning and Countryside  
Welsh Assembly Government
The Design Commission for Wales (DCFW) was established in 2002 by the Welsh Assembly Government (WAG) as the nation’s champion for architecture, landscape and urban design. Its establishment and aims resulted from a wide Assembly consultation on how best to promote good design in Wales and was supported by environmental bodies, local government and business.

<table>
<thead>
<tr>
<th>Contents</th>
<th>DCFW</th>
</tr>
</thead>
<tbody>
<tr>
<td>List and Map of schemes reviewed</td>
<td>List of Panellists and affiliation</td>
</tr>
<tr>
<td>Foreword</td>
<td>References and further reading</td>
</tr>
<tr>
<td>List of illustrations</td>
<td>List of Abbreviations</td>
</tr>
<tr>
<td>List of case studies</td>
<td>Acknowledgements</td>
</tr>
</tbody>
</table>

| 1.0 | Introduction to the Design Commission for Wales |
| 2.0 | DCFW’s Design Review service |
| 2.1 | The value of design review to the Commission |
| 2.2 | Developing design criteria for reviews: What is good design? |
| 2.3 | Developing the design review process |
| 2.4 | Refreshing Panel expertise |
| 2.5 | Managing conflicts of interest |
| 2.6 | Evaluating reviews and disseminating the lessons |

| 3.0 | The Projects Reviewed |
| 3.1 | Urban design strategies, design frameworks and masterplans |
| 3.2 | Large scale residential development |
| 3.3 | High-rise residential |
| 3.4 | Minor residential infill development and intensification |
| 3.5 | Major town centre retail schemes |
| 3.6 | Supermarkets |
| 3.7 | Town centre commercial schemes |
| 3.8 | Business parks and B1 buildings |
| 3.9 | Major leisure developments |
| 3.10 | Roads, bridges and public realm |
| 3.11 | Institutional buildings |
| 3.12 | Visitor centres |

| 4.0 | Conclusions |
| 5.0 | Appendices |
| 5.1 | List of Panellists and affiliation |
| 5.2 | References and further reading |
| 5.3 | List of Abbreviations |

| Acknowledgements | 100 | |

DCFW’s Design Review in Wales
Case Study 1
Newport 2020 Central Area Masterplan
Case Study 2
Bargoed Masterplan
Case Study 3
Roath Basin Masterplan, Cardiff Bay
Case Study 4
Barry Waterfront, Vale of Glamorgan
Case Study 5
Penallta Colliery, Ystrad Mynach, Caerphilly
Case Study 6
Penarth Heights, Penarth
Case Study 7
Wood Street apartments, Cardiff
Case Study 8
Celestia, Junction Lock, Cardiff Bay
Case Study 9
Ferrara Quay, Swansea
Case Study 10
Ridgeway Park Road, Newport
Case Study 11
Former Lanes Garage, Aberavon
Case Study 12
St. David’s 2 Shopping Centre, Cardiff
Case Study 13
Mena Shopping Centre refurbishment, Bangor
Case Study 14
Cattle market redevelopment, Aberavon
Case Study 15
Callaghan Square, Cardiff
Case Study 16
Victoria Dock, Caernarfon
Case Study 17
Countryside Council for Wales Headquarters, Bryn Cegi, east of Bangor
Case Study 18
Cardiff Central Library

Fig. 1 Slate Quay Strategy, Caernarfon
Fig. 2 Cwmbran Town centre
Fig. 3 Ebbw Vale steelworks masterplan
Fig. 4 Barry Waterfront masterplan
Fig. 5 EMAG redevelopment, Brynmawr
Fig. 6 South East Rhy residential developments, Llanishen, Cardiff
Fig. 7 Parc Eirin, Tonyrefail
Fig. 8 Ely Bridge urban village, Cardiff
Fig. 9 Eco-home rating mechanism
Fig. 10 Meridian Gate, Bute Terrace, Cardiff
Fig. 11 Brackla Centre, Bridgend
Fig. 12 Residential tower, Station Road, Penarth
Fig. 13 Residential infill, Pontypool Road, Newport
Fig. 14 Residential infill, Bryngwyn Road, Newport
Fig. 15 Bethlehem, near Llandoilo, Brecon Beacons National Park
Fig. 16 Newport shopping centre
Fig. 17 Carmarthen shopping centre
Fig. 18 Eagles Meadow, Wrexham
Fig. 19 High St / Prihyhai shops, Cardigan
Fig. 20 Princess Way, Swansea
Fig. 21 Aberavon Urban Design Strategy
Fig. 22 Brynmawr Retail Park
Fig. 23 Angharad Walk, Pontypool
Fig. 24 ASDA, Bangor
Fig. 25 Tesco, Carmarthen
Fig. 26 Cambrian Way, Newport
Fig. 27 George Street, Newport
Fig. 28 St Catherine’s Corner, Pontypool
Fig. 29 Dragon Studios, Llanharan
Fig. 30 Educational Facility, Trefsaen
Fig. 31 Discovery Quay, SA1, Swansea
Fig. 32 Cardiff International Sports Village
Fig. 33 Porth and Lower Rhondda bypass, Rhondda Cynon Taff
Fig. 34 West Promenade, Rhyl
Fig. 35 Usk pedestrian bridge, Newport
Fig. 36 Willowtown School, Ebbw Vale
Fig. 37 Bangor University Environment Centre for Wales, Bangor
Fig. 38 Bangor Police Station, Bangor
Fig. 39 Snowdon Visitor Centre
Fig. 40 Cardiff Castle Visitor Centre
Fig. 41 Cardiff Central Library
“Champion high standards of architecture, landscape and urban design in Wales, promoting wider understanding of the importance of good quality in the built environment, supporting skill building, encouraging social inclusion and sustainable development.”
DCFW’s mission is to:

“Champion high standards of architecture, landscape and urban design in Wales, promoting wider understanding of the importance of good quality in the built environment, supporting skill building, encouraging social inclusion and sustainable development” (DCFW 2003).

Four strategic aims set out by the Assembly Government underpin this mission:

- To champion high standards of design and architecture to the public and private sector in Wales by promoting wider understanding of design issues and the importance of good standards in enhancing the built environment across all sectors.
- To promote design practice that is compatible with the National Assembly Sustainable Development Scheme, promoting best practice in energy efficiency, waste disposal and public transport.
- To promote design practice compatible with the highest standards in relation to equal opportunity and promoting social inclusion.
- Give due regard to promoting excellence in day to day developments, like housing estates and industrial units, as well as promoting excellence in prestige projects.

DCFW’s work is rooted in the promotion of sustainable development and recognises that if Wales is to deliver on its sustainability targets then it must:

- invest in the expertise required to genuinely transform procurement practice,
- exert greater influence on the development sector,
- tackle the skills deficit in the design and development industries.

DCFW has the expertise and status required to bring about such changes. In its work with the private and public sectors, and in its relationships with experts in the design and development fields, DCFW has prioritised education and training, skills development, design review and enabling as core activities.

The Commission has worked hard to support local authority practice through design training, as well as encouraging developers to add value through good design especially in reducing energy consumption and addressing life cycle costs. It has encouraged architects and designers to be more innovative, imaginative and sustainable in their design approach.

The Commission is therefore committed to a developmental role, aimed at strengthening design awareness and capacity in the private and regulatory sectors, and identifying, celebrating and disseminating good practice to this end. This approach accords with the various strategies of the Welsh Assembly Government, to promote the development of the skills and the capacity, to achieve sustainable development.

Carole-Anne Davies
Chief Executive
Through its own design review process, DCFW acts as a non-statutory consultee within the planning system, commenting on projects throughout Wales. DCFW’s comments can be treated as material considerations in the planning process by local planning authorities, other stakeholders and the National Assembly for Wales.
2.1 The value of design review to the Commission

The design review function is not simply viewed as the necessary input of expert design advice on major development projects of national importance. It is seen as:

- a vital outreach function to the communities, local authorities, design professionals and development community of Wales;
- a means of gathering intelligence about the problems of achieving design quality faced by those working in development;
- a way of developing a network of like-minded individuals and design professionals who can contribute to the cause of better design;
- a way of building up the Commission's critical mass, creating an expert body which can offer expertise in all facets of development and design.

2.2 Developing design criteria for reviews: what is good design?

The Commission adopts a concise definition of what constitutes good design from the Roman architect Vitruvius. Good design/architecture is defined as that which delivers 'commodity, firmness and delight'.

- Commodity refers to the capacity of the development to accommodate the needs of the user.
- Firmness refers to the structural soundness of the development and its ability to last at least its anticipated life and preferably much longer.
- Delight refers to the cultural and aesthetic value and the pleasure that a development gives to the senses of those who use the building and to the community in which it is sited.

The Panel looks for all three qualities in the developments that it reviews. It looks for evidence that urban and landscape design considerations have been fully explored alongside questions of building design, in order to ensure that a development makes a positive contribution to the community and its environment.
Developing the design review process

In August 2003 DCFW set out its ambitions and guidance on its working methods in Design Review: The Process. This identified four types of project that the Panel would be prepared to assess:

- those which are significant because of their size or public impact;
- those which are significant because of their site;
- those with an importance greater than their size, use or site would suggest;
- those which exemplify persistent design problems facing developers, local planning authorities or community and neighbourhood groups.

In practice, and in order to extend its reach and client base, the Panel has agreed to assess most schemes offered to it during its monthly review meetings. For smaller schemes it deputes one or two Panellists and an officer to give a view to the designer and/or developer through smaller scale “surgeries”.

Design Review: The Process (DCFW 2003) emphasised the importance of early consultation with the Panel at the formative stages of design development, and explained how to place a scheme in front of the Panel. It stressed the value of contextual analysis, particular landscape and townscape analyses as appropriate, and good drawings (including plans/sections and elevations, photomontages and artists’ impressions and illustrated details) to a successful presentation. An updated version of this guidance will be published in 2006.

In setting out its requirements for drawings and illustrations DCFW was underlining the valuable advice on application presentation set out in the Welsh Assembly Government’s Technical Advice Note 12: Design (2002). The Panel emphasises the importance of models to the presentation of major schemes, and the need to provide all visual material and design statements five days in advance to allow for careful scrutiny and site visits by Panellists in preparation for the meeting.

DCFW also sets out the procedure for each monthly review meeting in its guidance, including a detailed explanation of the kind of presentation required, Panellists' cross-examination, chair’s summary and subsequent report (DCFW 2003). This process is continually evaluated and refined in order that six schemes may be reviewed in one session, and continual improvement is made in the Panel’s preparedness, questioning and reporting. More information is now supplied to each Panellist in advance of the meeting, and responsibility has been given to individual Panellists to brief the rest of the Panel on individual projects and to participate in the editing of the written report (DCFW 2005). The Design Review Officer manages all the agendas and editing processes, and has a small team of part-time staff who assist her in these endeavours and in archiving the reports and submission documents.

Review sessions are kept as informal as possible and there is an emphasis upon a positive but frank exchange of views based upon mutual knowledge of development and planning constraints, design methods and procurement practices. Panellists are discouraged from making speeches or extended critiques, and the emphasis is upon creating a dialogue between the development/design team and the Panel.

Refreshing Panel expertise

Membership of the Panel is reviewed annually to maintain a balance of architectural, urban design, planning, and landscape skills with highway, civil engineering and public art expertise added as necessary. On occasions various bodies have asked to attend and observe review sessions and the Commission has readily agreed. Visitors have included the South Wales Police Architectural Liaison Officers, the Planning Division of WAG, the WAG procurement team and their advisers, and various international scholars and postgraduate urban design students.

DCFW invites expressions of interest in joining the Panel from design and development professionals and lay people with longstanding interests in this field. If such persons are considered suitable for service on the Panel then a competitive interview is arranged, and those selected are invited to serve on the Panel for three years subject to annual review. All candidates are required to participate in this appointment process.

Annual training days are used to evaluate experience and expose the Panel to wider control practises and experiences. They also update Panellists on recent innovations in planning and sustainable development policy and guidance, and other relevant, recently published documents on UK design and development.

Managing conflicts of interest

Much of the work carried out by DCFW requires the expertise of practitioners working in the fields of planning, architecture, landscape and urban design and other related industry sectors such as development and construction. It is recognised that securing such expertise is fraught with potential conflicts of interest and/or public perceptions of the same – the latter being the greater challenge.

In its Risk Assessment DCFW identifies the two greatest risks to its operation as:

- lack of integrity among Commissioners and Design Review Panel members;
- lack of credibility among Commissioners and Design Review Panel members

For this reason, and as a national agency in receipt of public funding via the Welsh Assembly Government, DCFW takes its responsibilities toward public probity very seriously. DCFW is obliged to ensure that any conflicts are identified at an early stage, and that appropriate action is taken to resolve them.

The Chairman and other Commissioners are required to declare any personal or business interests that may conflict with their responsibilities as Commissioners. Design Review Panellists are also required to do so.

DCFW maintains a register of interests appropriate to the Commission’s activities. The register lists direct or indirect interests of which members of the public might reasonably think could influence their judgment. Commissioners and Design Review Panel members are required to update their register of interests as changes occur. DCFW’s register of interests is open to the public.
“Review sessions are kept as informal as possible and there is an emphasis upon a positive but frank exchange of views based upon mutual knowledge of development and planning constraints, design methods and procurement practices.”

Managing conflicts of interest (continued)

In addition to the public record of interests Commissioners and Design Review Panel members must ensure that:

- open declarations of any conflict of interest arising in the time between annual declarations are recorded in DCFW’s register. This means they must be declared immediately they arise;
- invitations or intentions to join other organisations in whatever capacity are declared as soon as they occur;
- declarations must be made regarding any direct or indirect relationship with any company, individual, agent or other party involved in presenting a project to design review. Involvement in, or the knowledge of prospective involvement in, the same site/project for an alternative client will also constitute such a relationship. In the event that such a relationship, direct or indirect exists, the Panel member must step out of the review meeting;
- in the event that there is a public perception of such a relationship, that cannot be robustly defended in the public context against accusations of benefit or foul play and shown to be a false accusation, the Panel member or Commissioner must step out of the review meeting;
- information gained by Panelists in the course of their service should not be used for personal or political purposes, nor should Panel members or Commissioners seek to use the opportunity of service to promote the private interests of connected persons, firms, businesses or other organisations.

Evaluating reviews and disseminating the lessons

DCFW will produce a bi-annual report on the lessons of design review of which this is the first. It has also sponsored a user-review by means of a questionnaire sent to all developers and designers who have participated in reviews over the last two years. The results of this are included in the broad evaluation of the outcomes of design review included in the conclusions of this report.
Evaluating each review and distilling the lessons from the 90 or so cases that had been reviewed by August 2005 is a necessary task. Such a synthesis provides an overview of the contemporary quality of design of development in Wales, a record of the expectations of those design professionals who serve on the Panel, and hopefully some new ideas about how to approach design review in the future.
This evaluation is easiest undertaken by summarising reviews according to the type, and in some cases the scale, of development. Comparative evaluation of each type of scheme can identify common strengths and weaknesses, as well as exemplar projects and those with negative design outcomes.

It is significant that the three most commonly reviewed project types – masterplans, residential and retail development – have each been the subject of recent CABE reviews of English experience (CABE 2004b; 2004c; 2004d), produced in addition to their annual reports on design review (CABE 2004a; 2005a). So there are opportunities to compare experiences, to learn from CABE’s experience of larger scale development projects, and to assess the relative progress in Wales towards higher design standards.

The discussion begins with masterplans and proceeds through residential, retail, other town centre and out of town commercial, leisure, infrastructure and institutional development. Each of the 12 sections provides an overview of the Panel’s experience, relating this where possible to national debates on design and development and to the experience of CABE in England where relevant.

A series of short case studies of the most significant and illuminating projects reviewed are included in each section, along with the key comments of the Panel on the design issues at stake. Most sections conclude with general observations on the issues that are pertinent to that particular form of development and the lessons learned.

A concluding section reflects on the overall lessons, and the best way ahead, for the design review process.

As urban design considerations have become more important to development, redevelopment and regeneration initiatives in the UK over the last 15 years so a variety of vision documents, urban design strategies, design frameworks and masterplans have been prepared.

These have been commissioned by local planning authorities and regeneration agencies to provide a spatial planning reference for long term, large scale interventions in the built environment, and design guidance for individual pieces of development, conservation or enhancement. Increasingly such documents are described as masterplans, but often this is a misnomer as such documents are both too strategic and too indefinite about physical form to warrant the title. A masterplan might be defined as a three dimensional plan setting out the preferred pattern of development for a large site, neighbourhood or district. It should identify the movement network, the pattern of streets, spaces and building footprints, the density, use and built form including building heights, the necessary infrastructure and servicing of such development, and the nature of landscape and townscape desired and how this integrates with the locality. CABE emphasise that masterplans should not be seen as rigid blueprints for design but rather as a context for the design, development and coordination of the individual projects that will make up a complete piece of the built up area (CABE 2004e).

In their definitive guide to Creating Successful Masterplans CABE (2004e) acknowledge that masterplans benefit from being embedded in a strategic framework that can set out a sub-regional or city-wide context for new development, redevelopment or regeneration. Such strategies and frameworks might include baseline economic or social data, urban design analysis, context studies and characterisation, feasibility studies and business case preparation, and place visioning.

In this section of the report a range of projects that have been given the title of masterplan and a number of others that are studies towards masterplans are discussed. They include plans for the regeneration of whole settlements, for large brownfield sites, and for town centres. Their unifying characteristic is that they look at large scale urban and landscape design of projects that will be implemented over a long period of time, and where the process of development is as important as the product in terms of the presented plans and strategies, which are usually the focus of the design review process.

The process of masterplanning must engage the local community in the plan formulation process, employ a wide range of skilled design and development professionals in analysing the context and the site, identify development potential and feasibility, build consensus about the desired form, content and qualities of the development, and ensure lasting stakeholder commitment to the project as a whole (English Partnerships/HC 2003). Masterplans need to be capable of giving security to investors, developers, service providers and the community over an often quite lengthy period of development. So they need to display both market realism and an awareness of community needs.

The Projects Reviewed

3.0

3.1

Urban design strategies, design frameworks and masterplans

Urban design strategies, design frameworks and masterplans

Reviewing strategies, frameworks and masterplans

At design review there is an inevitable tendency to focus on the drawings and the design visions and futures that they display, and to explore how well the scheme responds to its context and lays the basis for a sustainable community. In judging this the Panel needs to give more attention to economic, and social
The Panel felt that pedestrian circulations should be at ground level on the edges of the town centre, and not segregated from the principal roads.

Fig 2: Cwmbran Town Centre. The Panel felt that pedestrian circulation should be at ground level on the edges of the town centre, and not segregated from the principal roads.

considerations as expressed in the masterplan, but it also needs to evaluate the quality of the process of masterplanning. CABE’s (2004e) checklist stresses the importance of the following:

– the commitment of the client and the local authority to quality;
– the appointment of skilled design teams on both sides and the right mix of skills;
– genuine collaboration within and between these teams;
– early consultation of all key stakeholders including the community;
– realistic implementation programmes, budgets and funding;
– recognition that an insistence on design quality will deliver both liveability and commercial success;
– flexibility in the operation of the planning system;
– commitment on both sides to delivering the vision to a high quality.

However, design review cannot address all these important issues without prolonged involvement in the plan preparation and implementation process.

Review experience

The ‘masterplans’ reviewed by the Panel have been diverse, generally large scale and long term interventions in the built environment. In the case of the masterplan for the central area of Newport the plan might be better described as a Strategic Development Framework because of the size of the area that it covers (most of the inner city around the city centre and the Usk River Corridor) and the generality of its prescriptions (see case study 1). While it does suggest the general nature of the desired movement pattern and urban morphology, including building footprints and envelopes, these are only indicative. The ‘masterplan’ acts as a strategic vision into which more detailed design studies can be inserted. Subsequently a landscape plan for the river banks and a public realm study of traffic management and pedestrian movement, have been developed to amplify the Masterplan. A similar view might be taken of the Bargoed Masterplan which proposes extensive regeneration of the town (see case study 2) in a series of interventions in the urban fabric involving extensive demolition that raised viability questions. But the ‘masterplan’ was insufficiently detailed for the Panel to assess its contextual fit, and to assess how development would be accommodated in the steep sided valley of the Rhymney.

The Panel saw a number of strategy documents that might underpin future masterplans or development design briefs, and these provided interesting examples of how large scale redevelopment plans might be best formulated, and public consultation and stakeholder involvement guaranteed.

Gwynedd County Council and the WDA commissioned the Slate Quay Strategy (Figure 1) document for the old slate quays downstream from Caernarfon Castle on the estuary of the Afon Seiont. The document assessed four development options, the Panel favouring the option which left the countryside on the west side of the estuary undisturbed but accessible by a new footbridge. The Panel argued that the quaysides should be redeveloped in a way that preserved the historic buildings within the townscape, advocating small-scaled, fine-grained and highly permeable development proposals with active frontages onto a walkway along the water’s edge.

A similar development options paper for the redevelopment of Cwmbran Town Centre was considered by the Panel (Figure 2) allowing them to discuss design ideas at a formative stage, and particularly the question as to how to extend the centre across the new town’s fast access roads, and where to return the pedestrian to ground level (see also Section 6).
The most precise masterplans can be developed where the ownership of the land is consolidated and where the landowner can, in collaboration with the local planning authority, set out the desired future form of the area in terms of quantities of different land uses, their mix and form, the intended pattern of movement and servicing, the disposition of public space, and the retention of natural environments.

The best example of a masterplan that the Panel has seen is that for Roath Basin in Cardiff Bay (case study 3). Commissioned by the WDA it provides an exemplar in terms of the conception of a large scale urban development that will create a distinctive new quarter of the city. The long term nature of this development, which is unlikely to be completed until 2020, poses significant challenges, and illustrates CABE’s axiom that the real skill “is to determine the appropriate level of prescription and standard setting, while also providing for flexibility in the face of an unpredictable future” (CABE 2004).

The most complete version of a masterplan in Wales is that being produced for the redevelopment of the BP oil refinery at Llandarcy, a project now known as Coed Darcy. This has been four years in gestation, has had the added benefit of the intervention of the Prince’s Foundation, and now a design code to increase its implementation potential (Prince’s Foundation 2005). The Panel is now examining the first phases of development emerging from this masterplan and are greatly encouraged by the quality of residential layout and design being proposed.

One of the most ambitious masterplans encountered by the Panel was that for the Corus steelworks site in Ebbw Vale (Figure 3). This was assessed as part of a very welcome briefing on the regeneration of Ebbw Vale at large by the WDA. Here an imaginative and ambitious masterplan depended on a series of public investments to kick-start development at the heart of the site, adjacent to the new Ebbw Vale Cardif railway terminus (due to be reopened to passenger traffic in 2006). But efforts to persuade the Health Authority to locate their new community hospital close to the station had failed. Furthermore, the plans for the Learning Campus that was to link the station to the town centre to the north-west lacked a clear brief and were clearly of doubtful viability, leading to much interesting but ultimately abortive design work. In this case the masterplan lacked real commitment from potential development partners in the public sector who could have provided the catalyst for private sector investment. Future investment will need to be both carefully focused and coordinated to give the plan any chance of success. (Other masterplans are discussed in case studies 4, 5 and 15).

Lessons learned

The experience of the Panel examining various Welsh masterplanning documents is that the following issues need to be urgently addressed:

- the quality of analysis of site and context;
- the level of public consultation and the existence of consensus about desirable forms of development;
- the economic feasibility of the proposals given local market conditions, and committed public funds for infrastructure and services;
- the nature of the partnership, the political commitment to the project, and the agreement about desired levels of quality;
- the delivery mechanisms and their effectiveness in the face of established speculative development practices.

However, these are also areas where the Panel is often unable to make informed judgements without further inquiry. In seeking resolution of these issues DCPW has made use of CABE’s list of “alarm bells” that signal fundamental weaknesses in masterplans. The most relevant of these have proved to be:

- lack of common ground between the local authority and developer;
- lack of clarity about what the masterplan is intended to define;
- lack of clarity about the status of “indicative” illustrations;
- failure to tackle existing infrastructure difficulties;
- failure to make connections and ‘think outside the red line’;
- failure to put in place mechanisms to secure the quality of architecture, landscape design, details and materials (CABE 2004e).

The Panel is encouraged by the Welsh Development Agency’s commitment to masterplanning as a key part of the Agency’s more environmentally and design conscious approach to the facilitation of private development. At least six years in gestation, Working Differently (A Guide to Integrating Sustainable Development and Design into Regeneration and Development) sets out a process that will produce sustainable development strategies in partnership with local authorities and development partners, and deliver these through masterplanning, development briefs, design guidelines and sustainable construction methods. These mechanisms are vital to the better implementation of design quality across Wales, but they will not be successful without a revolution in agency priorities, practices, partnering and skills.
The largest scale ‘masterplan’ in Wales’s recent history is that prepared for Newport Unlimited, the Urban Regeneration Company that is a partnership between WAG, WDA and the local authority. It was produced by the celebrated American master planners Skidmore Owings and Merrill. The Panel were particularly enthused by the positive vision it provided for the regeneration of Wales’s newest city, and the strategic thinking which could be used to underpin individual development promotion and control decisions. They strongly supported its emphasis on design quality as a generator of investor confidence, the recognition of the need for a radical rethink of the central area’s free-flow road network, and the commitment to create civilised boulevards on heavily trafficked streets. The Panel suggested that three factors could be given more emphasis – the permeability of the shopping centre proposals, the historic fabric of the city and its heritage qualities, and the linkage of the proposed landscape system along the banks of the Usk back into the surrounding countryside and coast.

Key positive factors are the distillation of the ‘masterplan’ into Draft Supplementary Planning Guidance (to be adopted by the Local Authority alongside the new Unitary Development Plan), and the development of both a public realm strategy for the city centre and a landscape strategy for the River Usk. The Panel were pleased to hear that all commercial development would be expected to achieve ‘very good’ BREEAM ratings (though naturally they would prefer to see ‘excellent’ as the norm).
The most promising example of a masterplan that the Panel has seen is the scheme for the south side of Roath Basin in Cardiff Bay prepared for the Welsh Development Agency who acquired the site from Associated British Ports. This was a model of contextual analysis with clear urban design principles to which the Panel could wholeheartedly subscribe. There was a relatively coarse grained mix of uses with the centre of the site devoted to R&D and B1 uses, and the remainder largely residential, but including a variety of house types. One quarter of the housing will be affordable, mainly to the east, while a neighbourhood commercial centre is suggested around a flooded Bute Dry Dock. Access will be provided to the east end of the Cardiff Bay Barrage allowing pedestrians and cyclists to reach Penarth. Building heights are kept low at 6-10 storeys to improve microclimate and to allow sunlight access to all quaysides, though the Panel doubt that these modest densities and building heights will be maintained through the 20 year life-span of the project.

There is a need to develop in detail the phasing of the masterplan and supporting design guidelines. The encouraging feature of the proposals is the containment of parking in basement and multi-storey car parks, but the Achilles heel is the reliance on a circular bus route to provide adequate public transport in a locality where only seven per cent of commuters currently use public transport. At the time of writing developer selection is proceeding so major revisions to the masterplan will follow.

3.1 Case Study 3
Roath Basin Masterplan, Cardiff Bay

The quality of large scale residential development remains a major concern in Wales, as it does across much of England (CABE 2004f, 2005c), and there are worries that the positive response to the design quality and sustainability agendas that are emerging in the more prosperous parts of England are not being replicated in Wales.

For example, The Welsh Housing Design Awards (RSAW 2004), and the Commission’s own Building for Life: Wales study (www.dcfw.org) did identify two projects by one volume builder worthy of recognition, but these were significantly outnumbered by the award winners in the social housing sector which produces only a small fraction of the total annual output.

CABE’s review experience (2004d) underlines the need for each development to respond to local distinctiveness and to create a sense of place: the importance of a clear distinction between public and private space and the need to ensure that public spaces act as positive focal points for each development. Further audits of the design quality of new housing in England have suggested that the legibility of estates, how easy it is to find one’s way around the estate and how memorable it is, is another major concern (CABE 2005c).

CABE emphasise that each scheme needs to think in terms of community building in terms of a mix of tenures and affordability, and opportunities for work and employment, including the provision of live-work units. They recognise that community building often begins with proper local consultation, and it continues after completion with appropriate management mechanisms to ensure that the scheme’s community assets and communal spaces are well maintained.

CABE also stress the importance of traffic calming as an integral part of the design, to retain as much car parking on the street as possible, and prevent cars from invading domestic space. They particularly recognise the diminution of housing quality caused by schemes being redesigned after planning permission in the interests of cost-cutting, and the need for local planning authorities to use conditions to prevent this. This complaint is echoed by senior Welsh city planning officers.

Finally CABE’s extensive work on housing audits has included residents’ assessments of the quality of new housing, and this has highlighted differences with professional views on matters such as ease of car movement, the importance of plenty of car parking, the availability of bus transport, the value of cul-de-sacs, and the sociability of estate design (CABE 2005d). Their common recurrence provides a challenge to the prevailing professional wisdom that guides design review in all aspects of residential development.

Review experience

The Panel has seen some dozen examples of medium to large scale residential development. These have all been brownfield sites which is encouraging. However, a number have been poorly located in terms of the availability of public transport. Equally, the Panel has been encouraged by the number of schemes adopting variants of a masterplan approach, and undertaking proper analysis of the context and the site as a prelude to developing appropriate layouts. But as the following analysis shows, there are still occasions when schemes are prepared without proper site and context appraisals (despite the requirements set out in TAN 12 (WAG 2002), and in a policy vacuum without good development/design briefs.

3.2 Large scale residential development
Fig 4: Barry Waterfront.

Themasterplanwas compromised by thenew link road the alignment of which created difficult block sizes. Surface car parking (white areas) was dominant, and subsequent housing design has not overcome these difficulties. Two Barry Waterfront schemes (case study 4) provided contrasting examples of the success and failure of a masterplanned approach to design quality, though the main explanatory variable was, as so often, the design aspirations of the developer rather than the quality of the design brief or the original masterplan (Figure 4).

A better example of the potential contribution of masterplanning was provided by the Penallta Colliery project on a reclaimed coal tip on the west side of the Nant Cylla valley north of Ystrad Mynach (case study 5). The first concept scheme developed a positive approach to the landscape potential of the site, connecting well into the footpath network and the landscape features of the site, and respected the setting of the preserved colliery buildings. As the layout developed the designers responded to Panel suggestions to develop a more linear form of development along the valley side, and were able to design a convincing layout that calmed traffic and created strongly enclosed streets.

The EMAG site to the north-east of Brynmawr was another scheme where the initial landscape analysis was exemplary, driven by the fact that the site lies on the very edge of the Brecon Beacons National Park. The first plan used the existing vegetation very imaginatively on this exposed site at the Heads of the Valleys, but such sensitivity did not survive the selling on of the site to a volume builder (Figure 5). Their scheme was seen twice in a bid to restore some of the landscape quality of the original design and create a layout that would create positive public and private space.

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The proposed layout made the most of an existing water-course, creating an attractive area of open space which could be framed by strong building lines. A boulevarded distribution road was another positive feature of the scheme.

and community facilities. The designer bravely attempted to develop a valley vernacular, and a compact urban layout in this isolated location (Figure 8), but the Panel considered a better approach would have been to link the scheme to adjacent housing estates and further exploit the landscape features. But even this would not significantly increase the sustainability of the project.

The Panel has seen two positive examples of sustainable neighbourhood design on brownfield sites in existing built up areas. At Ely Bridge in Cardiff, on a former industrial site on the banks of the River Ely, the WDA have commissioned a masterplan for an ‘urban village’, a mixed use, dense neighbourhood where there is a promise of energy efficient housing layout and design. This includes live-work units and on-street car parking that will create more opportunity for private gardens and amenity space (Figure 9). This is a project stalled by access problems and the breakdown of a partnership approach between the WDA and the Council. It is hoped that a more solar-oriented site plan, and a design code promoting energy efficient housing, will yet deliver a model project with the achievement of an excellent Eco-Home rating. But the Panel were reminded of the CABE ‘alarm bell’ ‘failure to tackle infrastructure difficulties’ when they saw promises of new rail stations but no means of delivering the same.

Another exemplary residential neighbourhood is anticipated at Penarth Heights on the site of the ‘Billy Banks’ public housing scheme of the 1960s. Here the local authority took the approach of a limited design competition using a detailed planning and design brief with a prescribed upper limit of units. They selected a preferred development/design team by means of a precise scoring mechanism for design quality (case study 6). At the time of writing the developers are still negotiating on the design and layout, and the highway engineers are questioning the feasibility of almost total on-street car parking, a similar ambition to that on the Ely Bridge scheme.

Finally brief mention should be made of the conversion of Sully Hospital in Barry to 234 residential units. This 1930s modernist jewel, often cited as the best building of the period in Wales, has been acquired by a bespoke housing developer and they have retained a specialist conservation architect to develop a design manual to control all aspects of conversion, extension and new construction as the buildings are converted to apartments. This promises to be an exemplary scheme though its gated character means that few will get to appreciate its architectural qualities.

Lessons learned

As has been seen, large scale residential development in Wales continues to be dictated by the market assessments made by the volume house builders. Where they can get away with old-fashioned highway and cul de sac dominated layouts and standard ‘any-place’ house types they will do so. It is disappointing that there are still volume house builders working in Wales who will prepare residential layouts with absolutely no analysis of the landscape and townscape context, or their connectivity with the local movement network. However, there are now examples of much more positive approaches towards topography, landscape, biodiversity and hydrology as seen at Rhyll, Penallta, Ely Bridge and Penarth and hopefully these will become the norm. The latter three schemes demonstrate that a masterplanning approach offers major potential benefits in terms of design quality.
Fig 8: Parc Erin, Tonyrefail. The Panel were most concerned about the location of this development, and the housing layout was felt to be more appropriate to an urban context. The lack of relationship to adjacent residential development was also criticized.

The key residential design issues are the following:

- The compactness of residential development in Wales is still problematic. Densities are however increasing steadily as the volume builders become more attuned to the 30 dwellings per hectare minimum prescribed in Planning Policy Guidance Note 3 (2001) in England. The Panel have seen that densities of 50-60 dwelling units per hectare are now common on suburban intensification sites, but such densities require higher design ingenuity and investment to maintain liveability, especially with regard to the location and design of car parking.

- There are very few schemes where the majority of parking is provided on the street, which is what makes the Ely Bridge and Penarth masterplans so important. Elsewhere the erosion of private amenity space by car parking, even at moderate densities, poses major problems. On a positive note there is plenty of evidence of a much stronger enclosure of residential streets, and this is helping to increase compactness, better define public from private space, and make the street both safer and more sociable.

- Road layouts generally lack innovation and integral traffic calming. A few schemes are experimenting with versions of home zones, and some are using urban spaces and landscape to ensure reduced speeds. But generally there is a lack of such imagination, and few examples of minimal standards being allowed that can help deliver very tight, and therefore very calm, circulation systems. NIMBYist attitudes are reinforcing the tendency for housing to be built in enclaves with minimal connectivity to other residential areas and this is regressive.

Fig 9: Ely Bridge, Cardiff. The masterplan had a number of positive features with its strong blocks, well enclosed streets, on-street car parking and integrated live/work units. But a more east west orientated grid would give better solar orientation. Access to the road and rail network were other major concerns.
“Very good is now a statutory requirement for the (English) Housing Corporation and English Partnerships. ‘Good’ can now be achieved simply by adhering to the new building regulations (2006).”

A good mix of house sizes, types, tenures and affordability is still elusive, and the provision of neighbourhood shops is ever more problematic. Live-work premises within neighbourhoods are beginning to be seriously considered by some developers, and this can make a significant contribution to diversity and sustainability of a community, and allow for flexible use in the future.

There is little evidence of local distinctiveness in the layout or the house types used by volume builders. In particular there are few examples of attempts to adjust standard house types to the local vernacular or a local palette of materials such as routinely happens now in England.

Negative attitudes to open space are evident in some cases, whereas it ought to be standard practice to use such amenities to create focal points and to use these to create a strong sense of place. The creation of a hierarchy of open space should be a standard approach, and offers the opportunity to give each part of a housing estate a distinctive character.

There is increasing recognition of the value of connected open space and the creation of landscape corridors on streams, rivers and ridges, and these approaches are offering much more scope for the landscape architects whose skills are not often used in Welsh housing design.

The greatest frustration felt by the Panel has been the almost total disinterest of the volume housebuilders in achieving more sustainable buildings. Few housebuilders have committed themselves to even a Pass in terms of an Eco-Home rating (Figure 10). Even those developers sensitive to design quality do not seem to see the market opportunities that exist to reduce running and maintenance costs for the house purchaser, quite apart from the moral obligation to reduce the contribution of housing occupation and construction to global warming (27 per cent of all carbon dioxide emissions).

The introduction of the new building regulations in 2006 will increase the requirements for energy efficiency and sustainable construction, but much more needs to be done.

The Panel has adopted the Eco-Home rating as a design performance measure in the review process because it conveniently synthesises energy, water, pollution, materials, transport, ecology and land use and health considerations into one measure, and provides four levels of attainment to provide comparative performance measures (very good is the minimum acceptable to the panel).

New developments in residential design guidance in Wales

Many of these design failings are addressed by the new residential design guidance commissioned by the Planning Officers’ Society of Wales (POSW) to build on the general guidance contained in TAN 12 (WAG 2002). A Model Design Guide for Wales: Residential Development (POSW 2006, www.dcfw.org) stresses the importance of design as a process responding carefully to the context and site in question rather than following prescriptive solutions. It emphasises the by now familiar principles or objectives of sustainable urban design emphasising the protection of environmental capital, and the achievement of compactness, accessibility and ease of movement, character and context, legibility, continuity and enclosure, variety and diversity, adaptability, and resource efficiency in housing layout and design. It reinforces TAN 12’s requirement for design statements to explain the rationale of the proposals, and the provision of an appropriate set of drawings and illustrative material, and has provided a basis for DCFW training exercises with Local Planning Authorities seeking to raise in-house design skills. The Panel also welcomed Building a Future for Wales: A Strategy for Sustainable Housing (Jones & Flint 2005, WWF & WSA). This document explains the various Welsh Assembly Government commitments to energy efficiency/fuel poverty initiatives, and stresses the importance of every housing project having a clear statement of sustainability.
The scheme for Penallta Colliery north of Ystrad Mynach was one of the most well-worked of the major residential schemes the Panel has reviewed. The housebuilder had retained the services of an urban design team that knew how to exploit the valley setting, its landscape potential, and the drama of the colliery head frames above the site. They also understood the value of more urbane, traffic calmed road layouts.

By the second review session a new design team had picked upon the Panel's advice on landscape and footpath connections down the valleyside, and suggestions for a more linear pattern of streets running along the valley. More variety of house types had been added to the scheme with four storey developments adjacent to the colliery buildings. The layout of the first phase of development revealed a complex block form that reinforced street enclosure, and the drama of the colliery head frames above the site. They also understood the value of more urban, traffic calmed road layouts.

Contrasting experiences with the design aspirations of volume housebuilders were experienced on Barry Waterfront. Here a 1996 masterplan/development framework, certainly one of the most prescriptive yet seen in Wales, has guided site disposal and subsequent development, but had little positive impact on design quality. Design briefs have been prepared, and design quality is factored into the selection of the best tender at the site disposal stage, but the winning schemes rarely provide any evidence of close attention to design quality.

The difference in the design outcomes in the two schemes the Panel examined lay in the winning developers' assessment of the target house buyer for adjacent schemes. On a backland, as opposed to a waterfront, location a standard lower middle market housing scheme was designed. On the latter a more up-market scheme was produced, much more refined architecturally and in landscape terms, but still failing to enclose the block or to create enough usable private amenity space on the site. In both cases design difficulties can be traced back to the masterplan whose spine road, block sizes, unenclosed street layouts, and dominance of surface car parking make good urban design very difficult.

In the middle market example the Panel were highly critical of almost every aspect of the scheme which had no coherence of layout or spaces, or any place-making attributes, and which failed to integrate well with adjacent housing or a new community centre. The Chairman of the Design Commission was moved to draw a figure ground diagram of the proposal (black indicates the building, white revealing the spaces between to illustrate the underdevelopment of the site and the poverty of the urban design. This was a clear case where better design could have created a much more compact, higher value scheme.

The waterfront development (Jackson's Quay) was certainly far better designed and its mix of town houses and apartments a major improvement on schemes to the east. The Panel were particularly concerned that the aspect of the affordable housing was improved so that it too could enjoy views of the water. It was disappointed that a scheme of this quality would do no more than conform to existing building regulations in terms of sustainable construction.

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By the second review session a new design team had picked up on the Panel’s advice on landscape and footpath connections down the valley side, and suggestions for a more linear pattern of streets running along the valley. More variety of house types had been added to the scheme with four storey developments adjacent to the colliery buildings. The layout of the first phase of development revealed a complex block form that reinforced street enclosure, but also included some properties within the core of the block to overlook the garages and parking places. But while the layout was imaginative and the density was appropriate (up to 45 dwellings per hectare) the developer was not prepared to move towards any more sustainable form of construction or greater energy efficiency, despite the fact that much of the site is above the 150 metre contour. This was to be a familiar problem with all the schemes of the major housebuilders. Another disappointment was existing local residents insisting that their street was disconnected from the new development.
3.2 Case Study 6: Penarth Heights, Penarth

A more positive outcome has been achieved on Penarth Heights overlooking Cardiff Bay. Here the local authority, the Vale of Glamorgan, used their landownership powers to launch a design competition for the site, selecting a preferred development/design team to work up a final scheme for planning permission. To judge this competition in an hour proved a major challenge to the Panel, who resorted in the end to a critique of each scheme and the identification of their relative strengths and weaknesses. Such a competition, with an explicit brief and limit on the number of units, is an excellent way of exploring the complexities of a very constrained but beautiful site, where well-designed development will command a significant market premium. It is worth noting the Panel’s comments on the scheme which eventually won the competition, concluding that this was: “the team with the best track record and design skills, the most elegant site plan and interesting house types. But its massing, layout, elevations and conflicting roof lines of this scheme were all problematic, as was the quality of public space provided on this important corner on the edge of the city centre.”

The Panel recommend any authority attempting to run design competition to refer to the criteria and weightings developed by David Lock Associates for judging this competition. It awaits the final design with great anticipation.

3.3 High-rise residential

High-rise private housebuilding has become a major phenomenon in many British city centres over the past seven years and poses new challenges for planning and urban design. The high-rise housing boom has caught most Welsh cities unprepared and the policy response has been belated and inadequate. The scale of development has been unprecedented and the impact on the citiescape has been dramatic.

The high-rise housing boom arrived in Cardiff at the end of the Millennium when three developments, the first an office block conversion, initiated an entirely new form and scale of residential development in the city centre. Existing design guidance did not mention tall buildings, though the design principles set out in the Cardiff County Council’s 1994 City Centre Design Guide were still useful to ensure good urban design. The Council used a council resolution as its main control mechanism, and it was prepared to see high-rise development along the Great Western Railway on the southern edge of the retail core with towers reaching as high as 30 storeys. Naturally this has prompted developers to try their luck with a number of speculative applications for similar buildings elsewhere and projects in Cardiff Bay, Swansea, Bridgend and Penarth have been assessed by the Panel.

Review experience

Apart from the three slab blocks on Adam Street, which will be developed on top of the St. David’s 2 (SD2) shopping scheme temporary car park after 2008, the first high-rise scheme the Panel saw was a residential tower on Wood Street in Cardiff. This was a very sophisticated scheme designed to capture the top of the market, and employing a range of features found on leading edge apartment blocks in larger UK cities (case study 7). The Panel seldom see such self-assured designers and developers and this made them relaxed about the question of whether the site was over developed. The Planning Committee clearly felt the same.

Meridian Gate at the crucial corner of Bute Terrace and Bute Avenue, the principal linkage between the city centre and the Bay, was a much more problematic design. Here the developers proposed to demolish a six storey 1990s office block and to replace it with three residential slabs above a podium containing ground floor retail and car parking (at a 0.72 standard). Building height was not an issue given the adjacent 26 storey Alto Lussio tower, but the Panel were concerned about the massing and angled roof lines, advocating a two block solution with a taller corner tower (Figure 11). They were also concerned at the quality of the public space created on Bute Terrace, and were not convinced that this would work well given its micro-climate and the main north-south flow of pedestrians.

Beyond Cardiff city centre there have been high-rise apartment towers in Cardiff Bay at the Celestia development (case study 8). The Panel were not particularly concerned with the heights of the towers arguing that on Roath Basin a tall tower would be quite appropriate given the expanse of water and the scale of adjacent development. They were concerned to change the massing of building volume on Pierhead Street to create a stronger sense of enclosure of the street and command of the corner with Falcon Drive, but they were most anxious that the interface of the housing with the quayside was not simply blank walls and car park grilles.

It is interesting to compare the introverted, defensive approach taken at Celestia with the much more imaginative approach to urban design taken by developers at Ferrara Quay in Swansea Marina (case study 9). Here the car parking is cleverly hidden and the housing is given slightly raised gardens to demarcate private from public space, while commercial units are provided on the internal quayside road to create an activity focus and enliven the west end of the Marina.
An example of how the high rise vogue is spreading throughout South Wales is provided by the Brackla Centre in Bridgend where limited improvements to the retail scheme were to be cross-subsidised by proposals for a four to nine storey U shaped block above a two storey retail podium (Figure 12). Of course 11 storeys is not usually regarded as a genuine high-rise building, but in the context of a largely two or three storey town centre it certainly is, particularly if it is a slab block rather than a tower. The Panel took the view that the maximum allowable height would be 6-7 storeys and this only if the retail scheme were significantly improved (see Section 5).

In Penarth developers have sought to erect a similar height tower on a central site adjacent to the rail station. Such a tower would command fine views south across the Bristol Channel, and would create a precedent that would soon undermine the character of this Victorian seaside resort. The site lies on the edge of a Conservation Area of three storey Victorian Villas which are still in residential use. The architect adopted the sensible approach of showing a range of alternative forms and finishes. These provided the basis for an excellent discussion, but in the end the Panel argued for a more contextual approach (Figure 13).

A year later the Panel were asked for a view on the design parameters of a 5-6 storey scheme on the site. They did support the height, massing, footprint, basement car parking, and active ground floors of the proposal, and made some suggestions on materials, detailing and sustainability features that they would like to see taken on board to ensure this was a well-crafted building. The same practice also used the Panel to comment on the idea of an eight storey tower in Cardiff Bay, again using block models intelligently to pursue a range of possible solutions to the design problem, but this has not yet proceeded to a planning application. But both reviews produced a valuable dialogue, and provided opportunities for the Panel to encourage bold design solutions within the constraints of the context and site.

Finally a scheme which might easily have become another high-rise apartment tower was the redevelopment of the Central Hotel, which also backs on to the Great Western Railway in central Cardiff. It was considered twice by the Panel, with the developer changing the design team to bring some fresh thinking to the scheme. The hotel, a pleasant Pennant stone Edwardian building, played a critical role in the townscape anchoring the southern end of the St Mary’s Street Conservation Area though crucially it had been excluded from the designation. A fire had destroyed much of the eastern elevation and demolition had been conceded. The second scheme abandoned attempts at refurbishment, and provided a simpler plan and a more efficient use of space without an atrium and with much improved massing up to nine storeys on the northern corner. Retail units and a sports cafe would be provided on the ground floor level. The Panel pursued the idea of seeking an Eco-Home rating taking advantage of the southerly aspect and emphasising that this could be achieved within normal cost constraints. They also drew attention to a number of elevational and landscaping issues that needed attention.

Lessons learned

Tall buildings pose major urban design challenges to Welsh city centre and urban waterfronts and demand close scrutiny. Tower blocks are far preferable to slab blocks because they do not have the same negative effects on skylines and views, and they do not block as much daylight and sunlight. Tall and highly visible buildings have to be well located (easy access to major transport nodes should be axiomatic) and also well designed.

As English Heritage/CABE (2003, pp14-15) have argued:

“Any new tall buildings should be of ‘first class’ design quality but residential towers need an additional investment of imagination and invention in their architectural language if they are not to be too readily associated with unpopular examples from the 50s and 60s.”

Part of the problem with the new generation of residential towers is that most of them have so far failed to display any architectural sophistication, or used a plan form that responds to views to and from key vantage points. Nor have they developed a fenestration that can take full advantage of aspect and passive solar gain. The Wood Street Tower is particularly welcome in this regard.

EH/CABE (2003) also emphasise the importance of considering:

– the relationship of form to height;
– the nature of the top of tall buildings (they suggest these should be lightweight and transparent);
– the relationship between a tower’s upper and lower parts.

But, as their review of urban housing (CABE 2004d) reveals, equally important is how the ground floor uses relate to the street, how a quality public realm is created, and what contribution landscape design can make to both public and private amenity space.

How high-rise residential buildings interact with the street should be a major element of their acceptability in a locality. In many city centre locations it will be possible to incorporate commercial uses into the base of the building and to use these to ensure a positive relationship with the public realm. In such locations it is not acceptable to have car parking intruding at street level, or forming the first few floors of the building. Parking should be hidden behind active ground floor uses and upper level residential, and the roofs of car parking can be landscaped to provide private amenity space.

Any public space created has to be carefully considered from a microclimatic perspective, and in relation to future pedestrian flows, to ensure its utility. Wind and shadowing studies should accompany the application to ensure that the negative impacts on the public realm have been minimised.

Finally, it is quite feasible for high-rise residential to achieve an excellent Eco-Home rating (as the Wood Street scheme demonstrates) and this should be the aspiration for all such schemes in the future.

The Panel has recommended the CABE’s Guidance on Tall Buildings to Swansea as the basis for policy development: it hopes to see more comprehensive design guidance for central Cardiff along these lines.
At Millennium Plaza adjacent to the Stadium, the developer had won a Council-run limited competition for the acquisition of the site (based on a financial bid and design quality). The design included a tower of 30 storeys and a separate wall of development wrapped around the site to accommodate 180 one and two bed apartments in all. The developers were keen to engage with the Commission and to enter into a dialogue on the design principles.

The Panel were delighted with the ambition to maximise Eco-Homeratings for the project, and to create winter garden style balconies that would allow the tower to retain a sleek, largely glazed exterior. The tower is freestanding, and is placed on Wood Street opposite the Vue Century Cinema and is twice its height. The rest of the accommodation is disposed in a crescent of blocks stepping down from 16 storeys on Wood Street to six storeys adjacent to the railway bridge over the Taff.

The accommodation is wrapped around a private garden on top of a two storey podium that houses the 110 car parking spaces. At the base of the tower a new public space is created, and while it will trap the afternoon sun, regrettably it is divorced from the river by an entrance to the Network Rail car park. Ground floor, arcaded retail/A3 units keep the Station approach and Wood Street frontages active. This scheme stretches the density allowance to, if not beyond, the maximum for a city of Cardiff’s size and character, but the confident design response, mixed use, provision of public and private space, the promised quality of elevations, and the Eco-Home aspiration set the standard for subsequent schemes. Subsequently there have been several changes to the site plan and massing.

This site is particularly dear to the Commission’s heart as it lies opposite their offices and obscures much of the splendid view they once enjoyed across the Bristol Channel!

But eschewing self-interest, the Panel focused principally on improving the relationship of this 300 apartment development with the public realm, seeking much more enclosure of Pierhead Street, more slender towers on the Pierhead and Falcon Drive corner, and a more positive relationship with the dock-sides to the east and south at ground floor level.

There were no objections to the tall towers overlooking Roath Basin, and the Panel were pleased to see 25 per cent of the housing provided as affordable. They criticised the deviation of much of the ground floor of the scheme to car parking with no external communal amenity space, nor any leisure facilities for residents, but they were told that underground parking would add £1 million to the development costs.

One of the key debating points was the utility of a proposed raised public square on the southern corner overlooking Roath Basin. The Panel considered that this would not be used by the public since it contained no active uses, but the Local Planning Authority disagreed and it has been retained in the final scheme.

By the second review a month later the Pierhead Street massing and siting now responded better to the street, but there had been no improvement to the way the scheme addressed the dock-side walkway, and no space had been allocated for commercial uses on the waterside, not even on the corner with Scott Harbour. The Panel felt obliged to draw the following conclusion about this scheme and similar recent developments in the Bay.

“While the Panel understand the economics of this particular site, and the difficulties of excavation for car parking, they note with increasing concern that many waterside residential developments in the Cardiff Bay area are going for a strongly gated community raised above ground level with no interaction between public and private realms. This is not a recipe for urbanity and vitality: rather it will lead to exclusion, insecurity and morbidity, and the city will be much the poorer for it.”

Case Study 7: Wood Street Apartments, Cardiff

The original scheme cleverly enclosed an amenity area on the roof of the podium. This proved to be too tight to the site boundaries and a double slab block has now been placed on the east side (right).

Case Study 8: Celestia, Junction Lock, Cardiff Bay

The development’s failure to address the quaysides creates dead and therefore unsafe walkways. The lack of any commercial uses on the quayside is similarly disappointing.

Case Study 7: Wood Street Apartments, Cardiff

Case Study 8: Celestia, Junction Lock, Cardiff Bay

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“While the Panel understand the economics of this particular site, and the difficulties of excavation for car parking, they note with increasing concern that many waterside residential developments in the Cardiff Bay area are going for a strongly gated community raised above ground level with no interaction between public and private realms. This is not a recipe for urbanity and vitality: rather it will lead to exclusion, insecurity and morbidity, and the city will be much the poorer for it.”

Case Study 7: Wood Street Apartments, Cardiff

The original scheme cleverly enclosed an amenity area on the roof of the podium. This proved to be too tight to the site boundaries and a double slab block has now been placed on the east side (right).

Case Study 8: Celestia, Junction Lock, Cardiff Bay

The development’s failure to address the quaysides creates dead and therefore unsafe walkways. The lack of any commercial uses on the quayside is similarly disappointing.

This site is particularly dear to the Commission’s heart as it lies opposite their offices and obscures much of the splendid view they once enjoyed across the Bristol Channel!
Case Study 9: Ferrara Quay, Swansea Marina

In Swansea a new 29 storey tower, elliptical in shape with a slanted roof line, is proposed at the south western end of the Marina as part of the Ferrara Quay development. As with the Wood Street scheme the Panel were immediately impressed with the quality of the design concept which fronts on to both the Marina/dock-side and the Swansea Bay promenade. The use of the tower to house the bulk of the floor space has allowed the developers to create three low towers on the sea front on a raised garden. This gives some privacy to the residents and amenity to both them and promenaders.

A public walkway is included through the scheme fronted by a north-south aligned housing block, while between the quay-side and the sea front blocks a focal space has been designed a stride the main east-west access road. This is fronted by cafe/retail units. The case for a tower was strengthened by the promise of an observation deck and restaurant on the top floor, and it is to be hoped that these were conditioned as part of the permission.

The Panel were asked subsequently to re-state their views on the acceptability of the tower and its impacts on the Swansea skyline. They viewed a series of photomontages and came to the view that the impact on the street scene was unobjectionable, especially once sites on Oystermouth Road had been developed to their potential. But as with all tall buildings the precedent factor requires the local authority to come up with clear criteria with which to judge future tower proposals, and this is where the EH/CABE (2003) Tall Buildings guidelines will be very useful.

“...The use of the tower to house the bulk of the floor space has allowed the developers to create three low towers on the sea front on a raised garden. This gives some privacy to the residents and amenity to both them and promenaders.”
Minor residential infill development and intensification

3.4

Intensification was prejudiced by over-generous back distances, overlooking concerns and car parking standards. Regrettably all the apartments are residential schemes. This was for 31 detached houses on a cul-de-sac on Bryngwyn Road in Newport.

A sequence of schemes is discussed beginning with small projects on the edge of existing residential areas and then embracing residential intensification in typical urban and suburban contexts, in conservation and rural areas.

A scheme in Torfaen showed the extent of the design deficit in many smaller residential schemes. This was for 31 detached houses on a cul-de-sac on a steep hillside adjacent to typical older terraced streets. It was a typical road standards dominated layout with indeterminate public/private open space, the houses having back gardens that sloped 45 degrees, and the whole scheme relied on extensive excavation.

What was most distressing about the layout was the willful disconnection of the development from all adjacent streets and footpaths (Figure 14). The failure to provide adequate drawings or a design statement, as set out in TAN 12, was symptomatic of the lack of care taken by the developer. A simple development brief was needed to define a set of key design considerations for the developer to follow, but the steepness of the slope posed special problems for a standard detached housing layout.

Two Newport cases illustrated the barriers to successful design of residential intensification. They demonstrated the importance of getting the community to engage positively in the management of change and adaptation of established suburbs, a process which must begin at the Local Development Plan/policy level, and which can then be taken forward in individual development control decisions.

Bryngwyn Road in Newport is within easy wakling distance of the town centre and formerly contained Edwardian villas. Concerned residents had requested numerous scheme modifications and the presented scheme offered prospective purchasers and local residents very little amenity, though it did preserve a line of trees and a steeply vegetated slope at one end of the site (Figure 15).

A key problem was the imposition of unnecessarily high parking standards in such an in-town location (1.65 spaces per unit) which minimised any communal amenity space to unusable (and inaccessible) front gardens. Objections from residents behind the scheme had resulted in reduced density and roof heights, and prevented the south facing facades from having larger windows to facilitate solar gain (on the grounds of overlooking and blockage of views) despite the existence of far more than 21 metres between windows. The Panel recommended three separate structures on this steep street. They considered that the decision to place all the entrances to the rear adjacent to the car park was detrimental to neighbourhood character. Finally, the Panel were not enamoured with the neo-classical details in the elevations, considering that more contemporary and/or more contextual elevations could have been developed.

On Ridgeway Park Road, in the 1950s suburbia of Newport, the Panel supported the developer’s third set of detailed designs and considered that they had satisfied all reasonable objection to their proposed residential infill and backland development (see case study 10). They made suggestions for further refinement and were happy to allow their largely positive comments on the scheme to be used by the developer when it went to appeal following a refusal. However, the experience of the appeal, where the DCfW witness was called by the developer but cross-examined by both sides, was that the Commission had to ensure that their evidence was sufficiently detailed, and clearly presented as independent, to influence the Inspector’s decision.

Conservation contexts

Conservation contexts demand a much greater attention to the historic character of the area, and greater attention to design detail. This is not just a matter of architectural response but of close attention to the morphology and grain of the locality and ensuring that access and servicing are sensitive.

In New Street in Mold Flintshire County Council were concerned that a Consent Area. The Panel’s view was that a full character analysis of the site and its surroundings was required to resolve the unsatisfactory access and to create an appropriate siting, massing and roofline for the development. The use of an historic lane as an access, and its improvement as a pedestrian route with housing overlooking, was seen as a key opportunity, and there was the potential to create more value in the scheme to allow better quality buildings.

In the Lanes Garage scheme in Abergavenny (case study 11) the developer had retained the appropriate design skills and produced a good scheme, particularly welcome because of its sustainable building aspirations. But the review demonstrated how a relaxation of Highway and parking standards, and a more positive attitude to the uncertain edges of the site, could further improve the scheme still further.

Rural contexts

In Bethlehem in the far west of the Brecon Beacons National Park, three detached houses were proposed on the site of a semi-derelict cottage. The developers were critical of the way that modern infill development so often destroyed village character across rural Wales. They were keen to do better and were committed to each house achieving a high level of sustainability, using the latest energy-efficient construction methods and a passive solar design. The siting of the buildings was constrained by highway requirements for forward vehicle egress on to a very quiet road, and this was necessitating both extensive driveways and increased setbacks of the buildings, and creating a suburban rather than a village character. The developer came back to the Panel with refined designs that promise both a more coherent streetscape to fit in to the hamlet and an exemplar in sustainable construction (Figure 16), and this is a valuable precedent for all rural communities in Wales to study.
Lessons learned

The lessons learned from the scrutiny of residential intensification are similar to those absorbed on major residential schemes. In many respects the approach and design principles advocated by the Model Design Guide for Wales: Residential Development (POSW 2005) provide the key design principles, as well as some valuable exemplars (see also Building for Life: Wales www.dcfw.org).

Residential intensification issues have been generally neglected in policy terms, and there is a danger of designers being forced to adhere to unnecessarily high parking requirements and inflexibly applied window-to-window distances to supposedly protect the amenities of neighbouring residents. They may well be forced to go through long attritional negotiations which will prejudice financial feasibility and reduce the money that can be spent on better design. There is a need to provide a coherent set of rules of thumb that integrate highway and planning standards into design guidance, and to use these in conjunction with consultation processes to allow them to be flexibly interpreted to fit the particular site and context (e.g. Enquiry by Design on larger sites; consultative development/design briefs on small sites).

It will not always be possible to create win-win situations through careful design, but good site planning and sensitive architecture can do a great deal to protect local amenity and ensure that the character of local streets is protected. The Welsh cities should be leading the way in charting positive new approaches to suburban intensification, and ensuring that NIMBYism does not prevent a valuable diversification of the housing stock. The Commission have explored the possibility of new highways guidance with Welsh Highway Engineers, and they look forward to WAG's new transport TAN 18 to review existing standards, as well as the publication of a new Design Bulletin 32 by the ODPM to create more flexibility for local authorities and more scope for good designers.

Highway standards and parking requirements are also problematic in villages and hamlets where they undermine local character and amenity. In the designated protected landscapes of Wales there is an especial need to respond to the local vernacular when infilling or extending settlements. This has as much to do with good site planning and the traditional ways of addressing the street, and enclosing the property, as it does with the choice of elevations or materials.

However, demands for vernacular architecture and traditional materials have to be adapted to sustainable construction criteria or good design will atrophy and residents will fail to reap the benefits of more energy efficient designs.

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**Case Study 10: Ridgeway Park Road, Newport**

A contentious case of residential infill in a suburban location in Newport led to the Commission appearing at an appeal to repeat their largely positive observations made at Design Review. Located atop the ridge which marks the northern boundary of the built-up area of Newport, this scheme filled a series of gaps in the post war suburban fabric and developed a small backland site. There had been a long history of difficult negotiations with local residents, but the developers had an outline permission and had produced a well-designed scheme (their third reserved matters application) that met many of the objections. Officers considered the scheme acceptable but members were nervous and eventually refused the scheme leading to an appeal where the Planning Inspector found with the residents. Public opposition was particularly vehement from inhabitants of a renewed prefabricated bungalow estate to the east, and from the residents backing onto to the apartments developed behind detached housing on the street.

The Panel found the proposals to be "an intelligent response to a difficult site, which deals with the issues of topography and context in an appropriate manner". It commended the way the new development fitted in to the diverse character of different streets, addressed the open space and preserved trees. It suggested two minor adjustments to the massing and siting of parts of the scheme which would, in its view, remove any possible objections. The Inspector agreed with the Panel that this was a well-designed scheme for a difficult sloping site but, as a result of looking closely at all the objections from adjacent properties, he considered that the overlooking of, and loss of amenity for, several houses was sufficient to dismiss the appeal.

Demand for vernacular architecture and traditional materials have to be adapted to sustainable construction criteria or good design will atrophy and residents will fail to reap the benefits of more energy efficient designs.
On this site, close to the town centre, the Panel were delighted to see a local developer put forward a very sensitive and sustainable housing scheme, despite being hampered by uncertainties as to the future development of the adjacent Brewery Yard.

The Panel warmly welcomed the developer’s commitment to a wide range of sustainable development features in the project, but were worried that the intention was to hand over the scheme to a design and build team once a planning permission was secured. They applauded the achievement of 31 dwellings on this small site and felt that this should be viewed as a positive virtue rather than a planning concern, and argued for a reduction in the 1:1 parking standard in this town centre location. They considered the highways objection to building over the entrance to the scheme would increase the impact of the development on the historic street.

The Panel stated their preference to see the scheme front on to the lane-way at the southern end of the site to reinforce its use as a pedestrian link into the town centre. They agreed with the planning authority that the projecting balconies proposed on some of the street elevations were out of character with the locality. The Panel wanted to see more scale and variety in the elevations while avoiding pastiche, but acknowledged the architects’ positive efforts thus far.

While residential development has boomed in Wales in the last five years, major retailing schemes have been discussed and promoted but have been slow to come to fruition. This is now changing and in the last two years the Panel has reviewed major new shopping schemes in eight of the cities and larger towns.

The Commission is keen to support the vitality and viability of town and city centre retailing, and so the Panel is always concerned to make sure that new investment is well located and reinforces the existing centre, contains a mix of town centre uses, retains the permeability of the existing town, strengthens pedestrian flows and creates new opportunities for further investment.

Correspondingly it is concerned that the servicing, and especially the car parking, are well handled and do not create more problems for the locality in terms of traffic circulation and building bulk and scale. Integration with public transport is imperative. Major retailing poses some of the biggest challenges to quality urban design and creates some of the most intractable design issues the Panel has had to face.

There is now a clear understanding of how to design major in-town shopping centres, and there are several recent reviews of current best practice produced by different bodies which deal with the key design principles (National Retail Planning Forum (NRPF) 2000; British Council of Shopping Centres (BCSC) 2002; CABE 2004c).

Perhaps the key point that CABE make is the importance of the host town or city having a design strategy or framework into which they can fit their proposals. This is especially important in the context of the wider movement framework that the town has, or is seeking to develop, in terms of pedestrianisation, public transport provision, centre-wide car parking and arterial roads. The developer can then develop a masterplan which can take on board all the Council’s aspirations and resolve the fundamental issues of the desired street grid and its hierarchy, the disposition and orientation of retail blocks, and how the new shopping will interface with all adjacent developments.

It is particularly important that the new centre does not create a back area where blank walls of retail boxes, service entrances and car parks create unattractive streets that discourage regeneration and good design on adjacent sites. Because of its scale and impact the new centre must be as much a catalyst for further investment in the town/city centre as it is an extension of existing shopping.

Case Study 11: Former Lanes Garage, Abergavenny, Monmouthshire

This residential infill to the rear of Abergavenny’s market was welcomed as a positive development of backland re-enclosing an access road. There were reservations about the elevations in this historic context.

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Review experience

With St. David’s 2 (SD2) in central Cardiff, rather than fitting in to a wider urban design strategy, it was clear that the developer’s proposals were driving the re-planning of the town centre, and leading to major changes in pedestrian movement patterns, as well as the complete reorganisation of car access and bus movement (case study 12). A principal concern of the Panel was that while they could see major benefits of the scheme, reinforcing the Hayes as a major retail street and the arcades leading through to St Mary’s Street, they were concerned that the eastern edge of the scheme would be very much the back of the project, and would not promote the regeneration of the south-east quarter of the city centre. In Newport the existence of the Masterplan and the development of a public realm strategy provided a much more proactive planning framework for intervention. Newport Unlimited were active in seeking developers for the eastern edge of the city centre and developing a scheme to link the main shopping streets with the new waterfront (Figure 17).
In Carmarthen the Council are jointly promoting a scheme on largely derelict land to the north of the town centre and have selected a preferred development/design team through a limited competition. The Panel were impressed with the way the design of the development was being approached with Debenhams moving to the site alongside a new multiplex cinema. Mansel Street would be reconnected and the market hall re-sited to create a series of urban blocks capable of mixed use development (Figure 18). By contrast, in Bridgend the Panel felt that the Council should be more proactive in bringing together the various property and retail interests in the vicinity of the Brackla Centre, and develop a vision towards which all parties could work. The refurbishment of the Brackla Centre was severely compromised by the inability to disturb existing tenants leading to a ‘facelift’ solution that did not begin to address the issues of public realm and pedestrian movement in this rather neglected backwater of the town centre.

Achieving pedestrian permeability

Maintaining the traditional fine grain of town centres and enhancing pedestrian permeability are of critical importance to good retail design. There is an increasing trend to develop naturally ventilated malls, and not to hermetically seal all the new retail streets but to keep them as open streets with additional weather protection. SD2 in Cardiff demonstrates this. The first scheme for Newport’s new central shopping mall cleverly reoriented the existing scheme towards the riverside, carefully linking back into the main shopping street and preserving 24 hour public rights-of-way through the scheme. The new mall curves northwards to connect a new pedestrian square in front of the Leisure Centre and the main entrance to the Mall to a much improved bus station (Figure 17). This space straddles the main north-south boulevard which will need to be strongly traffic calmed to work as a pedestrian place, but it connects to the new Usk pedestrian bridge which will encourage much stronger east-west pedestrian flows into the city centre. The changes of level are used intelligently to create two floors of retailing and a leisure area on the third floor, and a residential tower is also planned over the new mall. Subsequently there were changes to the design, and while the Panel welcomed the reduced size of John Frost Square, and the introduction of a hotel, they were concerned about sight lines, changes of level and the insertion of a traffic island into Usk Square. The increase in car parking and reduction in the size of the bus station was also considered to be regressive.

With the Eagles Meadow scheme in Wrexham the Panel were concerned that the design was rather introverted (Figure 19). They wanted to ensure that it was better connected to the town centre at grade rather than by pedestrian decks (difficult because of two levels of car parking below), and that the routes through the scheme were direct. They wanted to see more residential and leisure development included to create street enclosure and surveillance, and vitality after shopping hours. In Cardigan (Figure 20) there was concern that the new mall should not draw all pedestrians off Pwllhai and Chancery Lane, and that their vitality should be increased with more residential and retail frontages.

Active frontages

Once a permeable pedestrian network is established the task is to ensure that active frontages are provided along these key routes, and that the large retail units which are the norm do not disrupt the grain and scale of external streets. The Panel were particularly concerned that the east-west Mall across SD2 in Cardiff had more the grain of an arcade, while Hills Street would have its own frontage units, not merely the side windows of much larger mall-focused stores.
Mixed use

A mixed use approach provides the opportunity to introduce residential, office, leisure and community uses that can play a major part in generating external activity and surveillance that will keep the streets vital, viable and safe. SD2 in Cardiff was initially planned to have office and hotel uses, but in the end has housing as the main secondary use, with a small residential block on Barrack Lane, and a wall of apartments above the shopping mall on The Hayes. Eagles Meadow in Wrexham has some residential, and the Panel thought it could have more, while Newport and Carmarthen schemes both have integral leisure uses.

Public realm design

The importance of a skilled landscape team to design the public realm around new shopping schemes is obvious, especially as major developments are expected to revamp adjacent streets and spaces, as well as respond to different contexts. There are opportunities to create new public spaces at the entrances to the malls, and a need to create greater capacity for pedestrian movement, while at the same time creating space for citizens to rest and relax. There is increasing pressure to commercialise such spaces with outdoor cafes and tables, and a balance has to be struck that ensures that there is enough space and seating for those who do not wish to drink or eat.

In the SD2 Cardiff Scheme the landscape team for the shopping centre developers are effectively redesigning eight sections of street and remodelling five city spaces, and this is an unprecedented situation that demands close scrutiny and consistency in the choice of materials and furniture city-centre wide. A key issue is the microclimate created by the development itself, and the need to maximise sunshine and daylight to the public realm, and provide unobtrusive protection from the rain for shoppers.

The detailed issues of space and landscape design, the selection of materials, furnishings and species, the nature of lighting and the role of artists in the detailed design process and the provision of public art have been matters on which the Panel has rarely been asked to comment, and this is regrettable. It is a major concern that they do not have the opportunity, or the resources, to follow schemes through to the detailed design stage.

Elevational design

As regards detailed design of elevations the most interesting discussions were those on the replacement of the David Evans store in Swansea, on the corner of Princess Way and Castle Square. This is part of what is hoped will be a mixed use redevelopment of the entire city block, replacing the plans for the ill-fated Castle Quays scheme. The Panel sought improvements to the elevations and wanted these to respond to the different solar orientations, and thereby provide the basis for a deeper commitment to a sustainable building. The developers subsequently re-presented a scheme for three large store units each with two floors, and with a third floor of retail (a rooftop café proved unviable: Figure 21b). The revised elevations are much refined and simplified, with floor to ceiling glazing on both floors set behind a simple terracotta clad frame, while the southern façade has been fitted with sun louvres. The copper clad roof is sinuous and is brought down to the top of the ground floor on the key corner on Oxford Street.

With Wrexham’s Eagles Meadow scheme the Panel felt that the scheme needed to be refined to better respond to Wrexham’s character. Good detailing and materials and a more varied roof form were required. A townscape study was suggested to develop appropriate responses.

In Carmarthen the Panel had a number of detailed concerns about frontage and boundary treatments, the ability to provide active frontages and the retention of a public house all on St Catherine’s Street. They considered that the way that
the apparent volume of the new retail units was reduced by building them into the slope was laudable, and it reduced the disparities of scale with the adjacent residential buildings. It was particularly important that the new market hall was very well designed as it was a focal building.

In Cardigan the Council were very concerned that the development respect the historic character of the town, and particularly the setting of the listed buildings on the periphery of the scheme. The Panel were very worried about the scale, massing, roof line and blank façades of the development, and its general over-bearing nature in this finer grained historic town (Figure 20). They considered that the scheme needed to be rethought from first principles, beginning with the on-site parking which was the source of most of the design problems.

One way of ensuring that large schemes have a less monumental character is to bring different design practices in to design distinct elements of the scheme. The Chairman of the Design Commission argued for this on the SD2 Cardiff scheme from the outset, and the developers have themselves pioneered such an approach in Exeter to good effect. However, only the Public Library at SD2 was given to a different team of architects (see case study 18), while it will be interesting to see if the Newport scheme will have different architects for the retail, residential and other commercial components.

Sustainable construction

Finally, the Panel have yet to receive positive answers anywhere on issues of sustainable retail construction. They are continually told that the developer is at the mercy of the individual retailers in terms of energy use and air conditioning, and that innovative designs like green roofs are inherently risky and will inhibit tenants from taking space. While the Panel pressed the developers of SD2 for details of their sustainable construction details the main concession they were offered was that the main mall would be naturally ventilated. Discussions on the Bangor (case study 13) shopping centre design revealed the fact that shopping centre developers and owners consider themselves to be powerless when it comes to dictating heating and lighting requirements to their tenants, and that the latter potential tenants remain nervous of sources of alternative/renewable energy and deeply sceptical of design innovations like green roofs. This is an area where the British Council of Shopping Centres (BCSC) might make a positive contribution.

Lessons learned

As was stated at the outset there is now a body of very useful design advice on the development of shopping centres and how best to fit them into different town and city centre contexts. At the risk of repeating the design issues set out in the CABE (2004c) review of major retail the following are the key concerns:

- the need for a wider urban design strategy within which to fit major retail investment;
- the need to ensure a highly permeable and well connected pedestrian network with 24, or at worst 18 hour, access through the scheme;
- the full integration of public transport into the design, with inconspicuous servicing and access to car parks and adjacent streets that are traffic calmed;
- development of an appropriate scale and bulk that retains the character of the town and does not impact negatively on the microclimate of the adjacent streets;
- mixed use developments that incorporate other commercial, community, leisure and residential uses to ensure vitality beyond shopping hours;
- maintenance of active frontages on all adjacent streets with an appropriate scale and grain of units;
- elevational design and a choice of materials that respects the different townscapes into which the centre is placed;
- on the largest schemes the use of different architectural teams for different components of the centre;
- the incorporation of energy saving devices and the use of renewable and recyclable building materials.

The Panel also felt that major shopping centres required a great deal of design scrutiny in the later stages of development, both as the detailed drawings were being produced and subsequently as the details were worked out. This is largely because of the scale of these developments, but also because they occupy the most visited places in town where design quality is directly experienced by the most people. CABE (2004c) concur, commenting that: “The devil is in the detail and there are a significant number of issues that cause all parties... to struggle.”

For this reason it is the planning conditions that are imposed on the design, and their rigorous enforcement, that are of critical importance to ensure that the final drawings remain true to the lofty aspirations set at the outset.

“ The Panel have yet to receive positive answers anywhere on issues of sustainable retail construction. They are continually told that the developer is at the mercy of the individual retailers in terms of energy use and air conditioning, and that innovative designs like green roofs are inherently risky and will inhibit tenants from taking space.”
This is undoubtedly the largest single retail planning application ever in Wales. It constitutes a 28 per cent increase in the city centre’s retail floor space with an additional 100 stores to be built along a new mall that plugs into the rear of St David’s One (SD1) (completed in 1980 and owned by the same developer).

The new mall is anchored to the south by a much coveted John Lewis Department Store, and topped by 3000 car parking spaces (a modest increase of 1100 spaces on those demolished). There are also seven to nine storeys of housing on top of the Mall overlooking the Hayes, and an additional seven storeys of car parking on the top of the eastern side of the scheme. A temporary multi-storey car park 250 yards to the east will be converted into three high-rise residential blocks after the mall opens in 2008.

The enhancement and refurbishment of the public realm from the southern end of the Hayes to the top of Working Street is included in the proposals, as are extensive improvements to the public realm on the east side of the scheme around the Bridge Street entrance to the Mall. In all some seven public spaces will be refurbished or created anew, and traffic and public transport will be extensively rerouted and reorganised, in the process allowing the Council to achieve other planning goals.

The Panel have seen this scheme on four occasions (see Hannay 2003). Their main concerns were the east west movement through the scheme; whether there would be any of the promised ‘arcade’ character; the quality and microclimate of the streets and the public spaces; servicing, traffic circulation and public transport access, the humanising of the eastern façades which are primarily service oriented, and the refinement of the elevations on the Hayes. A particularly contentious issue was the huge signage for the Department Store which kept appearing in the middle of the Hayes attached to the elongated prow of the building, undermining the views south to the new library built as part of the scheme.

It is worth recording that both developers and designers were very positive about consultation, and the Panel much appreciated the opportunities that were provided to help shape the scheme as it evolved. However, as with most schemes, the Panel was not presented with any final drawings or design details, so like everyone else it will have to wait and see how these have been resolved and conditioned, and whether the promised design qualities have been achieved. The sustainability credentials of the scheme and the way that it is lit, ventilated and cooled were not defined when the scheme was last seen. Nor did the Panel see any of the public space designs except at a provisional stage.
Case Study 13: Menai Shopping Centre refurbishment, Bangor

In Bangor the refurbishment of the Menai Shopping Centre was re-thought and a new architect took on the task of making the project more sympathetic to the town in its use of materials and better servicing. The previous design team had sought to transform the centre from being introverted to providing 16 large retail units fronting on to Garth Road and the Cathedral, with a new retail frontage to Cathedral Walk at its northern end which will connect with the multi-storey car park to the east. The architects had been very bold and modern in their approach to the architecture employing strong horizontal beams and simple rectangular shapes to good effect. The use of large slate panels as the main cladding material was welcomed.

The Panel felt that a more sensitive, smaller scale approach was warranted on the High Street in order to maintain the diversity of its townscape. They congratulated the architects on their improvements to the servicing which would improve the amenity of adjacent residents and the functional efficiency for the suppliers/retailers. There was now a need to develop public realm, public art and signage strategies to achieve a high quality public realm to ensure commercial success. The corner of Garth and High Streets, and the sharp changes of level here, needed real design imagination and quality finishes to create a fine public space.
Monmouth County Council’s commissioning of an urban design strategy for Abergavenny town centre, focusing on potential supermarket sites and the redevelopment of land behind the Market Hall, is a valuable model, especially as it was followed up with a series of development briefs setting parameters for the redevelopment of these key sites. (Figure 22). On the Cattle Market site (case study 14), some 150 metres from the town centre, the result will be a much more positive integration of the supermarket into the town’s fabric and the reinforcement of an important pedestrian route into the town centre which will have significant commercial benefits for some of the back streets of the town. However, as the designs progressed the Panel found that key aspects of design quality were being eroded as the quantity of development increased.

Siting

More often the Panel finds itself having to slip into damage limitation mode on supermarket applications, unable to influence the choice of site and its accessibility by public transport, cyclists or pedestrians, its impact on traffic patterns, or even the paucity of landscaping. Instead it finds itself commenting on the palette of materials that are being used, or the elegance of a roof form supposed to reflect its setting, or the poor energy efficiency credentials of the scheme. Such was the case on the Brynmawr retail park where a very attractive lakeside site was promoted for a major retail park, while an equally accessible but lower amenity site adjacent to the town centre was left for later redevelopment. The supermarket turned a blank façade to the lake, though the Panel had some success in getting a coffee shop to enliven at least one corner of the façade (Figure 23). A public house will be built in the footpath to take advantage of the lake views, but nothing has been done to make it easier to walk to the supermarket from the centre of Brynmawr, some 300 metres away. The solution to this problem is of course proactive planning and the application of the sequential test approach to identify those sites which would best accommodate such development with maximum benefit to the locality. The whole development was a sad end to a long saga that began with the demolition of the Grade 1 listed Rubber/Semtex factory in the mid 1990s, and it clearly defined the challenge the Commission faces to deliver well-designed sustainable development in the less-advantaged towns of Wales.

Locating such supermarkets as an integral part of existing shopping centres is a much more sustainable option, but it poses other significant design challenges and often arouses significant public opposition. One of the best examples is provided by the Angharad Walk development at the north end of Pontypridd town centre where a 1960s shopping centre has decayed to the point where it is an embarrassing eyesore. Here the principal design issue was the impact of a three storey car park placed in the park opposite, and the provision of car access across the river to the doors of the supermarket, compounded by the cantilevering of the piazza out over the river, entombing the River Taff (Figure 24).

The Panel accepted that the three storey car park had to go in the park, but it considered that it could be designed to have a much more positive impact, and that shoppers could easily walk over a single footbridge into the new supermarket and the 46 stores. The supermarket was not prepared to concede this.

In Bangor the new ASDA store is to be located on the edge of the town centre on the site of Bangor City Football Club. Its site in the bottom of the bowl of the valley has lessened the impact of the store on the locality, and the decision to place the car parking underneath the store (which is raised on pilotis) means that vast expanses of open car parking are avoided (Figure 25). The Panel pointed out the opportunity for the store to remake the street, to have a truly urban entrance onto Deniil Road opposite the University which will generate many shoppers without cars, and to connect much more effectively with High Street at the top end of the town centre. The Panel also sought some simplification of the car parking and the removal of complex bus movements to make access and egress more efficient. The Panel emphasised the opportunities for a green roof on the building which is overlooked from the hills to the north and south, especially appropriate given the loss of the town’s football pitch, but it did not get a positive response on this.
Sustainable buildings

The second major issue for the Panel is the commitment of the supermarket companies to a sustainable building agenda. There is significant progress being made as companies have recognised that the cost savings that can be achieved make it good business sense to adopt sustainable construction methods and energy-saving designs. But the Panel is disturbed that there is still no Welsh example of what can be achieved. On the Carmarthen application, Tesco pointed out that their store designs use only half the steel they used eight years ago, much thinner concrete slabs, and more lightweight cladding which is a better insulator (Figure 26). In addition, energy use has been halved in the new stores. When pushed by the Panel to make major sustainability innovations they insisted they were investigating the uses of sedum roofs where the roof is a highly visible item, and are working with BP to trial photovoltaics, though they admitted that none of these innovations have reached Wales. A bus link to the town centre has been provided as part of a section 106 agreement. The Panel underlined their desire to see Tesco expand the scope of their sustainability agenda to look at matters of green roofs, natural daylight, passive ventilation and better landscaping. In Llandrindod Wells the same issues of sustainability were raised with the same response.

On the Bangor Tesco store the Panel recognised the positives in terms of the cleaner, more efficient warehouse design, rather than the Essex barn style of the 1990s, and welcomed the use of local materials using a slate aggregate, (and the reorientation of the store to face the town centre on which it previously turned its back). They acknowledged Tesco’s Environmental Statement but remained unconvinced by a design strategy based on a nationwide typology.

Their suggestions for improvement included a green roof to reduce the landscape impact and rainwater run-off, more daylight access to the store to reduce energy use, and more consideration given to recycling building components rather than total demolition.

Landscape

A third issue is the quality and quantity of landscaping and the Panel would wish to see much more response to the site and context, and much more investment in planting. This was strongly expressed on all the Tesco schemes, both in terms of more tree planting on the car parks (Carmarthen and Bangor) but also much stronger perimeter planting to blend the development into the landscape and soften its edges (Carmarthen, Llandrindod and Bangor). Many of the objections to the Sainsbury’s Angharad Walk car park could have been overcome with better design and higher quality landscaping.

Supermarkets

3.6

Case Study 14: Cattle Market, Abergavenny

On Abergavenny Market Place, some 150 metres from the town centre, the proposed ASDA store is part of a mixed use scheme, and the opportunity has been taken to place residential where the southern façade of the store would otherwise intrude on an historic street.

Similarly, the designers have partially enclosed the car park with some new residential and the re-use of a slaughter house for cultural or leisure uses. A pedestrian route is defined across the car park to create a new north-south link between the town centre, the park and the housing to the north, and this will be fronted by the glazed wall and entrances on the eastern elevation of the supermarket, ensuring its vitality and safety. The Panel commented on successive schemes, always seeking to strengthen the north-south pedestrian movement across the site and into the town centre, and to improve the design of the commercial and residential uses on Lion Street, and particularly the housing that was added later on Priory Lane. The latter was especially problematic with car parking at ground level beneath the terrace. There was every prospect of the supermarket being fitted unobtrusively into the historic market town if further refinements were made to the site planning and disposition of uses, and if the character of Lion Street and Priory Lane were respected.
Town Centre Commercial Schemes

3.7

Town centre commercial is a catch-all category for commercial office space and hotels in urban centres, and it deliberately excludes large scale retail development which has been covered previously. Welsh cities have seen limited office development in the last five years as so many financial institutions, service and utility companies have downsized and re-organised their employment base. Many office centres are seeing their secondary space in buildings that are 25 or more years old converted to other uses like residential, institutional and hotel use as the office market contracts. Yet there is a shortage of immediately available prime space that would interest inward investors or relocating companies. Hence the WDA’s Wales Investment Strategic Partnership (WISP) programme to commission three major buildings in Newport, Nantgarw (Treforest) and Swansea that would be capable of attracting new occupiers looking to relocate in Wales. Meanwhile hotels have boomed, particularly the middle market and budget chain variety, and have helped to further revitalise town centres, if rarely adding to their architectural distinction.

Review experience

Making sense of a small number of diverse cases is difficult, especially as each is defined by local market circumstances, and their particularities offer few new design lessons. Rather they underline points already made about the value of masterplanning as a coordinating and management device for a number of schemes over several years, providing both the developer and the community with some certainty as what three dimensional forms will be allowed and what will not. Two of the case studies raise issues about the quality of the masterplan and what flexibility exists to alter its provisions. But that same flexibility can be used to try to circumvent some of the masterplan’s key provisions, so there are no easy answers.

The Callaghan Square scheme on the southern flank of Cardiff city centre is part of a 1998 masterplan. Major office schemes have been slow to materialise, but now a local developer has entered into partnership with the original national developers and proposed a set of five buildings on the north side of the square, and on Bute Terrace north of the railway line (case study 15). Among several major design issues the scheme had been designed so that the main pedestrian routes were lined with car park grilles. The Panel objected strongly, and were worried that the fundamental urban character of the Square was being eroded to be replaced by buildings which had no interaction with the street, of which there were several recently-constructed examples nearby.

Another high impact scheme was that on Cambrian Way opposite the main railway station in Newport. Here the developers proposed a mixed use scheme retaining the existing retail on Cambrian Road, and adding a new office block to the south of Railway Street (which will be extended to create a new urban block). They proposed to redevelop the existing multi-storey car park to six storeys, and front it with a hotel block that cantilevered out over the corner between Cambrian Road and Queensway (Figure 27). A 24 storey residential tower is planned for the western end of the site.

The Panel welcomed the demolition on this site, and the mix of uses proposed, but considered that a less brutalist approach should be taken to the design with a more refined treatment of the street level, the cantilevered corner, and the elevations at large. The design team responded positively improving the permeability of the scheme at its western end and increasing the active frontages on the Queensway, creating a rounded form for the residential tower and a more grounded and less linear form for the hotel. A more diverse palette of materials was adopted with only the tower being finished in white acrylic render.

Fig 27: Cambrian Way, Newport. The Panel welcomed the mixed use development but regarded the design as too brutalist an approach. The Panel wanted a more refined architectural treatment at the pedestrian level and a more diverse palette of materials.

Fig 28: George Street, Newport. The Panel were concerned that this deep plan office building was too monolithic in form, and while an initial treatment did not respond well to its varied context. They applauded its pursuit of a good BREEAM rating.

Major changes are afoot in the office market nationally and new design concepts are emerging in the larger cities, with much more mixed use buildings taking advantage of accessible and lively urban locations to produce places where people really want to work by virtue of the atmosphere and environment they provide. The days of the largely office-occupied business district seem to have gone, as has the idea of the office park in town, unless some special vitally and sense of place can be created. Whether these new design ideas will penetrate into the smaller office centres in Wales is a moot point.

One location where this might have happened is Victoria Dock in Caernarfon (case study 16), but here the marginality of commercial development has always been problematic, and has undermined efforts to raise design quality. The original project for this dock-side was a large rectangular building with a 64 space car park above retail and leisure uses on the ground floor, and residential units on the first and part of the second floors. In consultation with the Commission and then the Panel the project was gradually transformed into a much more civilised design, with a series of smaller blocks of retail units with office space above, separated by a simple grid of public walkways. The elevations of the commercial space have become much more refined, but the housing designs remain deeply problematic, and the Panel still feels that the designs are unworthy of this spectacular location, with an award winning Arts Centre and a World Heritage site adjacent.

For the Panel a major issue was the lack of commitment to sustainable construction and a high BREEAM rating. Office developers blamed this on the lack of interest of occupiers in lower running costs or in reducing their environmental impacts. This problem was underlined by the experience of the WDA’s team promoting the Wales Investment Strategic Partnership (WISP) project (to develop high quality buildings for inward investors in three Welsh office centres). As with retailing the reluctance of occupiers to engage with the sustainability agenda is distressing, and requires a national government education and incentive programme that will then drive tenants to demand environmentally sustainable buildings.

An exception was an office building on George Street in Newport, the first new office building for the city for some time (Figure 28). The Panel applauded the development brief and particularly the pursuit of a good BREEAM rating, which posed special challenges for the deep plan building. They were however concerned that the building was too monolithic, and failed to respond to its
context by having the same elevational treatment on all four sides. The Panel suggested a simpler, more informal but still contemporary treatment that could respond to the adjacent conservation area, and reconsideration of the site plan, entrances and external spaces.

The issue of conservation contexts arose at St Catherine’s Corner in Pontypridd, where the Commissioners were involved in discussions with the developers prior to the establishment of the Panel. Here a multi-storey car park, with an office building on two elevations, was proposed on a ‘gateway’ corner of the inner relief road roundabout (Figure 29). The challenge was that much greater because to the north is a fine Victorian Gothic church, the setting of which needs to be protected. Much more urban design analysis of the site and three dimensional drawings were called for, and the Commissioners sought a modern design rather than a pastiche solution, with a better relationship to the level changes around the site. At the second and third reviews a more detailed critique of the elevations was provided, but the scheme remained largely unchanged.

In Newport a 57 bed budget hotel application in the Stow Hill conservation area was assessed. This is located on a steeply sloping site and would involve the demolition of a derelict nineteenth terrace house, leaving its pair isolated (efforts to acquire this have failed). The local authority had well articulated concerns about the detailed design, but the Panel took the view that “such a predominantly horizontal building should not be accepted on this historic sloping site,” and that the level floor plate should be re-thought along with the massing which was too bulky at the northern end. They considered that efforts to include both terraced houses in the scheme should be redoubled.

The Panel also commented on an outline masterplan for ten major office buildings in Cardiff Bay but this has not yet reached the planning application stage.

There are no general lessons to be drawn from these cases, but a number of issues relating to the nature of commercial office buildings have arisen in out-of-town contexts are discussed in the next section.

Case Study 15: Callaghan Square, Cardiff

Callaghan Square is a site that was part of the 1998 masterplanned Private Finance Initiative that built the new square and Lloyd George Avenue to the Bay. The most intricate part of the masterplan is this corner adjacent to Jacobs Antiques market (top left), and it made provision for a service road and pedestrian route to curve around behind the office fronting the square to give these historic buildings an appropriate frontage. The developers sought to upgrade the service road to create a small square and an attractive pedestrian route towards Central Station, but they propose to use the square for office parking which will occupy most of the space behind the main office building. The problem here is the ensuing confusion of fronts and backs of the buildings, and the Panel advocated treating the rear of these properties as private service areas, thereby ensuring that the frontages on to the square and boulevard were animated.

The Panel sought to reinforce the civility and enclosure of the square. They were largely content with the elevations which followed the masterplan’s design guidelines, but they did consider that the shading solutions should be re-thought on the south facing façades. The most contentious issue was that on the elevations facing the Square the developer was not prepared to have office suites visible from the pavement, arguing that tenants disliked the ‘goldfish bowl’ feel, so these were designed with car park grilles at pavement level. The Panel cited the positive example of the Eversheds’ building next door which had followed the masterplan design guidelines to such good effect, but the developer resisted such an urbane solution.
Case Study 16: Victoria Dock, Caernarfon

The mixed retail, office and residential scheme has been to the Panel several times in a bid to improve all aspects of the site planning and design. Having enhanced aspects of the commercial layout, particularly its permeability and active frontages, the Panel also wanted to see a refinement of the residential component.

The Commission were called in to comment on the scheme in June 2003, and the Chairman critiqued the scheme. At this stage the project had full planning permission subject to meeting CADW’s design objections. The Chairman of DCFW was critical of the design brief produced for the WDA and the lack of contextual and site analysis that underpinned it, and he asked that the architects give more thought to the context, uses, permeability, sustainability considerations and architectural coherence.

At the first presentation to the Panel a good deal more urban design analysis had been completed and the project had been substantially revised. The Panel still wanted more thought given to the pedestrian routes through the scheme, the squares and the spaces between the commercial and residential components. They considered that the design of the residential component did not take advantage of the quality of the site or respond to the locality.

More refinements were presented two months later and the Panel welcomed the simplification and rationalisation that had taken place in the retail/office elevations and the site planning. They were confused by the fact that the five to seven storeys for housing on the east and north quay-sides constituted only 50 housing units, and they asked that detailed drawings be provided showing elevations and materials. But given the need to initiate some development on the site they felt they could not hold the project up any longer.

A year later the Panel saw the scheme again and urged a complete reconsideration of the site planning and design of the housing, and a revision to the planning permission to allow many more, much smaller housing, units to be constructed within the same, or preferably a reduced, amount of floor space. It was suggested that this could enhance social inclusion and increase the affordability of the housing.

The Panel expected to see more Business Park developments but they have only commented on five schemes. These run the gamut from an individual experimental business facility on an industrial estate in Torfaen to the 760 hectare Dragon Studios project west of Llantrisant. However, within this group of schemes the Panel has encountered four building projects which have set the benchmark for sustainable commercial construction, and present a rather more optimistic picture of positive responses to the WAG sustainability agenda than hitherto.

Review experience

Dragon Studios was the most extensive scheme that the Panel reviewed being a project of some 760 hectares on a restored open cast coal mine. It is surrounded by the open countryside of the northern edge of the Vale of Glamorgan, and overlooked by the Mynydd Maendy ridge to the north. When the Panel saw the project the masterplan was in preparation and they were keen to ensure that the right decisions were taken with regard to the new motorway junction (limited rather than full access was preferred), providing a new railway station on the main line, protection of existing landscape and ecology assets, and the creation of a new landscape into which the various components of the scheme could be integrated.

The prospect of a ‘Valleywood’ film industry being established in Wales is an exciting one, especially if it could be complemented by a film academy, but the Panel were concerned at the scale of this project and the way it would perpetuate the urban sprawl between Bridgend and Llantrisant. The project incorporates two business parks, a distribution warehouse park, an unspecified leisure park, two hotels, a private hospital and a golf course plus a ‘celebrity resident’ low density housing estate (Figure 30).
The Panel did not have the opportunity to examine this project in detail, and they regretted that it did not understand how it fitted with the Welsh sustainability agenda. But it is clearly one of those sites that will offer opportunities to attract large scale inward investment for the foreseeable future.

Surprisingly the Panel has had few opportunities to comment on individual developments in business parks. However, the decision of the Countryside Council of Wales (CCW) to locate on the Bryn Cegin industrial estate east of Bangor provided an opportunity to examine how high quality, sustainable development might be delivered on greenfield locations. The Panel were delighted with CCW’s commitment to deliver a state of the art, BREEAM excellent headquarters building (case study 17), and their willingness to re-site the building to meet residents’ objections.

The only other building that the Panel has seen that might achieve a higher environmental rating is an educational facility for business to be built as part of a partnership between Torfaen Borough Council and the Carbon Trust on a local industrial estate (Figure 31). This experimental building will be designed as an exemplar of sustainable construction, even to the extent of being de-mountable, and the brief requires that it use widely replicable construction materials, methods and technologies. The project uses prefabricated timber frames and straw bales as the walling, with recycled plastic board as a rain screen. Straw will also be used to insulate the barrel vault roof and floor. The project was still in development when the Panel saw it and other environmental features like rainwater harvesting and composting toilets and solar heating remain to be considered.

Finally, the Hood Road Entrepreneurship Centre on Barry Waterfront is a mix of office and workshops intended to incubate small businesses. The Panel welcomed the ambition to achieve a BREEAM rating of ‘very good’, but they had doubts about the floorplates and sections of the proposals and thought that a more economical scheme would deliver better quality space and a better layout. Better landscaping was also required to integrate the proposals into its surroundings.

So as regards resource and energy efficient construction here are four out of five office schemes that have taken seriously the imperatives of sustainable development and vowed to meet the quite exacting requirements of BREEAM ratings... the precedents will be of considerable value in persuading speculative office developers to follow suit.
While the Commission had hoped that CCW would choose an in-town location, in the interests of urban regeneration and compact sustainable development, they were delighted with CCW’s commitment to deliver a state of the art, BREEAM excellent headquarters building. They were therefore dismayed when local residents, located on the opposite side of a trunk road and some 120 metres from the scheme, objected to the siting and height of the buildings on the basis that they overlooked their homes. To their credit the architects used the re-siting and re-design opportunities positively, removing the twin cores from the building and its two protruding drums from the roof line, but otherwise keeping the appearance of the building similar to the original. The Panel welcomed the achievement of an excellent BREEAM rating of 72+, a major achievement on a greenfield site, and commended the scheme for its natural ventilation, using the central atrium to expel stale air. They also acclaimed the locally sourced, low embodied energy materials used; the green transport plan; the sustainable drainage strategy; and the ecologically sensitive landscaping. The Panel expressed the hope that the developer would rework the original plans and design brief for the rest of the business park to set similar design standards to those achieved on this scheme.

The Panel saw two major leisure schemes, and both are of major importance to the waterfront regeneration of their host cities. Both demand extensive comment. The Swansea project is located on the River Tawe opposite the new pedestrian bridge at the entrance to the SA1 regeneration of the East Dock. It includes a multiplex cinema, a bowling alley, casino and a 16 storey residential tower. The leisure uses are grouped around a waterfront square and the leisure box is animated by two levels of bars and restaurants (Figure 32). The multi-storey car park is wrapped by seven storeys of single aspect student and affordable housing facing the water. To the rear none of the façades are active posing major problems for future development, and this is the main failing of the scheme that needs to be addressed. The 16 storey residential tower at the north end of the project was a major concern of the local planning authority, and it was agreed that further design and microclimate studies were required to refine this. But otherwise the Panel were impressed with the scheme.

The Cardiff International Sports Village (CISV) is a 30 year old project that continues to undergo radical metamorphoses as development feasibility changes with market conditions. A key project of the previous Council, they acquired the core of the site from the Cardiff Bay Development Corporation in 2000 and have remediated it. The current proposals are still very fluid despite being portrayed as a masterplan, and as always this makes design assessment very difficult as almost all the pieces of the jigsaw are moveable, and subject to changes of shape and content (Figure 33). The definite pieces of development are the new oval shaped Olympic-standard pool which anchors the southwest corner of the leisure component, and a new ice-rink/arena and multi-storey car park to be built on the north west corner. On the waterfront in the north east corner will be a Super Casino (if Central Government approves it), and associated retail and convention space with a 30+ storey hotel above. On the south east corner will be a waterfront square and ‘Snow Dome’ leisure box and an apartment hotel. The project will also include 990 apartments on the peninsula to the south, in addition to the 400 or so that are almost complete to the north. Two retail developments have been added to the west of the scheme to help meet the high infrastructure costs of the development, and these ‘out of town’ type projects with their large tracts of surface car parking fit very uncomfortably alongside the leisure complexes.

The Panel have numerous concerns about the viability, design, and sustainability of this project given its location on, and access from the Peripheral Distributor Road (PDR), its missing link to the Cogan rail station, and the level of provision of car parking. Particular concerns are the broad segregation of land uses, the
failure to fully integrate leisure and residential uses in a close grained way, and the convoluted road layout that will never deliver pleasant streets.

The public realm and landscape remains unresolved and disconnected, and apart from the waterfront, would be of doubtful quality judging by the road network, the scale of buildings and the extent of surface car parking. There was no evidence of the incorporation of any sustainability features aside from the promises of dedicated bus transport, and the whole scale of the development promises to be overwhelming with such large footprint buildings.

The Panel were sympathetic to the difficulties of coordinating and cross-funding these major pieces of development, and ensuring that something of quality and environmental sanity emerged out of the process. But they were of the opinion that this project needed stronger planning and design control if it was not to become a monument to unsustainable development in an economic, social and environmental sense.

Both these schemes are typical of a new generation of leisure schemes with associated high density residential uses. Both are aimed at revivifying the waterfront and drawing in punters regionally and nationally. While the Swansea scheme is within walking distance of the town centre the CSIv is very isolated and will depend upon express buses for access by those who do not drive. There have already been substantial revisions to the design of the CSIv with the addition of a 430 foot viewing tower and a new tri-tower concept for the 987 apartments, so the masterplan remains fluid, with a supermarket recently added that will pay for the new junction with the Cogan Spur Road, and further big box retail planned to pay for other site infrastructure. Such car-oriented development within an inner city is retrograde.
Review experience

The Porth and Lower Rhondda relief road (Figure 34) has been in gestation for 24 years, so it was a little late for the Commission to be commenting on the scheme. However, it was useful to walk the route with the engineers and look at the impacts of the scheme on the fabric of this valley town. A major road scheme like this has many complexities, not least in the new sites it creates for development and the pieces of land that are left unused.

The Commission were satisfied that virtually every aspect of the scheme had been well considered, and that it offered the prospect of a major improvement of accessibility and living conditions for the inhabitants of Ynyshir and Porth. The Rheola Bridge across the Rhondda River was well designed, and there were opportunities here to open up the amenities of the riverbanks to public use that the landscape consultants had explored imaginatively.

Further urban design studies had been undertaken to consider how the town of Porth might be remodelled, and a key discussion was the question of the fate of the old bridge across the river which the community thought might become a valued public space. The Panel were less convinced preferring to open up the river more and to have a new footbridge that could better link the town centre to the car park on the south side of the river.

The Mountain Ash Cross Valley link was a much smaller scheme which would clearly reduce traffic in the town centre and encourage environmental improvement and regeneration. But here the Panel were not convinced that pedestrian desire lines had been adequately studied and incorporated into the scheme, including links to the Cynon Trail and local employment areas. They considered that a three rather than a two span bridge would be a more elegant solution for the bridge over the Cynon River.

The Rhyl West Promenade scheme to be known as Drift Park is a key element in the town’s regeneration strategy (Figure 35). The redesign of this section of the promenade is critical to reconnect the town to its seafront. Five sheltered gardens are created each bounded by 1.5 metre high concrete walls, aligned with the groynes on the beach and each containing a play or leisure facility. The gardens are connected by a pedestrian route with a seafront and road-side promenade either side.

Lessons learned

It is hard to tease out any lessons learned from these diverse schemes, but the Panel has found it useful to explore some of the issues that arise in major civil engineering projects and particularly bridge design. All four projects underline the relevance of urban design and landscape considerations to such projects to ensure that quality landscapes and townscape are protected while new development opportunities are opened up.

Fig 35: Rhyl West Promenade. The new park between the beach/promenade (top) and the main road creates five distinctively different gardens with a variety of active and passive leisure facilities for all ages.

Fig 36: Usk Pedestrian Bridge. The size of the structure was a surprise to the Panel, but it allows the deck to only lightly touch the more natural east bank of the Usk. The detailing of the design was exemplary.

The Panel preferred the simplicity of the earlier designs rather than the more cluttered final versions of the scheme, and they wanted to improve the linkages of the promenade park with the side streets, arguing that the pathways across the promenade should be aligned with them and the steps to the beach.

The review of the Usk Pedestrian Bridge in Newport was conducted in public, as part of the Royal Society of Architects in Wales Annual Conference 2004, and was very well attended. This was a case where each and every one of the Panel’s doubts was effectively countered and the placement, alignment, structural engineering and aesthetic expression had all been fully thought through (Figure 36).

A key component of the Newport Unlimited masterplan, the bridge connects the residential community (and the rugby ground) to the east of the Usk directly with the city centre. The bridge is carefully aligned with Charles/Llanarth Street to the west and this was welcomed. It was explained that the design was functional rather than iconic, and that the height of the masts (67 metres) were necessary to bridge the span, and maintain a light touch on the east bank where a more natural waterfront edge would be developed. The height would not seem disproportionate when the west bank was developed with buildings of up to twelve storeys. The Panel commended the scheme, its clever engineering and detailing, its careful choice of materials, and a lighting plan which would respond to changes in the tide.

Lessons learned

It is hard to tease out any lessons learned from these diverse schemes, but the Panel has found it useful to explore some of the issues that arise in major civil engineering projects and particularly bridge design. All four projects underline the relevance of urban design and landscape considerations to such projects to ensure that quality landscapes and townscape are protected while new development opportunities are opened up.
The Panel saw a variety of institutional buildings including those for primary and tertiary education, a public library and a police station. The Commission was also involved in early discussions with hospital providers, but no health care buildings have been referred to the Panel, although the first are expected early in 2006.

Review experience

The two school schemes were of greatly contrasting quality. The Willowtown School in Ebbw Vale was something of an architectural gem with its industrial shed aesthetic, single overarching roof, bold use of colour and materials, and the building elements clearly expressed in the elevations (Figure 37). But while applauding the architecture the Panel considered that the site planning, external layout and landscaping of the school could be significantly improved, with car parking kept away from the building, drop-off points relocated to the north side and entrances and pathways re-thought. Better use could be made of the spaces on the sunny south side of the building. The Panel were concerned that any future value engineering did not detract from the variety of elevational treatments.

By contrast the Duffryn Infants School Integrated Children’s Centre (WAG intends one to be built in every local authority in Wales) in a very deprived area of Newport was disappointing. The vision was clear but the designs were functional and mundane, the entrance unwelcoming, and a better relationship between the building interiors and the play areas needed to be established. The demolition of existing classrooms was unnecessary and there were no elements of a sustainable building evident.

In higher education one exemplar of a sustainable building aiming for a BREEAM Excellent rating was Bangor University’s Environment Centre for Wales, co-funded by the Natural Environment Research Council and the University. This demolishes two existing campus buildings and creates a new four- (though it appears to be five because of the use of the slope) storey building set back from Deiniol Road and cut into the steep northern slope of the valley (Figure 38). This allows for the creation of a large public space in front of the new building which will feature the re-creation of a range of Welsh natural habitats and be crossed by diagonal paths.

The Panel were pleased that the building and its spaces were part of an agreed masterplan for the development of the campus. The Panel had some concern that the rich palette of materials and finishes was perhaps too ambitious, and some simplification and refinement was suggested. The Panel were keen to see experimentation with sustainable materials, and they applauded the passive ventilation for most of the building, the solar electricity and water heating, the combined heat and power plant, the geothermal heat pumps and the rainwater harvesting.

Bangor Police Station (Figure 39) was an example of what can happen when planning committee members overturn an officer’s recommendation on design grounds. In this case, it has led to a more traditional building echoing various elements from the immediate locality (Figure 40). The Panel’s view was that the new proposals promised a rather non-descript design, “an unconvincing piece of modern vernacular”. The Panel were reluctant to offer any further design advice though they felt that the landscaping could be improved together with the screening of the car park.

Another potential sustainability exemplar is the new Cardiff Central Library (case study 18) to be delivered as part of the St. David’s 2 Shopping Centre. For a while the idea of a new library was aborted as the existing one was retained at the back of the new mall, but the Commission and others pressured for a new building at the southern end of the Hayes as originally intended.

The Panel were never sold on the idea that the ground floor of the library be largely devoted to retail units facing on to Mill Lane, and considered that this demeaned the civic function and prevented the library from having enough presence on the street. They were keen that the public should be able to walk through the building from the Hayes to the new bus stops in front of the Marriott Hotel, and to be able to experience the atrium and the upper level floors and be enticed into using the library. This through route has not been achieved.
The building is designed as two elements - a cellular office component with small windows on the eastern façade opposite the Department store (left), and the open plan library floors to the west which would be much more transparent with up to 50 per cent fenestration overlooking Mill Lane.

The two components would be connected by an atrium with open corridors and bridges providing the linkage between the two. The grid of the floorplan, the mesh of the roof and the patterning of the undersides of the floors were cleverly integrated and promised to enrich the interior experience. This reinforced the Panel’s desire to see the design team complete the interior design and fitting out of the library, and their worries that it might be contracted out to cut costs.

The five storey building would be finished in copper-coloured cladding with the tall, narrow windows glazed variously with coloured and transparent glass. The vertical profiling of the cladding and the vertical fenestration would create the impression of book spines on a set of shelves, and at night the building would glow like a lantern. The Panel warmly welcomed the commitment to a BREEAM excellent rating for the building.

### Case Study 18: Cardiff Central Library

The replacement library will occupy pride of place at the southern end of The Hayes. Its elevations suggest simplicity but a BREEAM excellent rating also drives the design.
Conclusions: learning from design review

There is a strong feeling amongst Commissioners and the Panel that it is now time to become more vocal, to strengthen the critique of poorly designed and mediocre development, and to draw attention to persistent failure to adhere to national sustainability policy.
Conclusions

Design Review has been a great success for the Commission. It has brought a further 18 experts into the mainstream of Commission work and two of these became Board members in 2005. Other members of the Review Panel have become involved in procurement and sustainable development research and outreach functions, and several Panellists continue to make significant contributions to training programmes with local authority councillors, planners, highway engineers, and National Park officers. In terms of helping the Commission to develop a corpus of expertise and a community of design advocates, Design Review has far exceeded expectations.

Assessing the impact of design review

But the impact of Design Review on the projects reviewed is much harder to evaluate. Several pieces of evidence might be discussed. First the map of schemes brought to the Panel (see inside front cover) shows that the Panel has made good contacts with developers, designers and local authorities in South East Wales where development is concentrated. There are positive collaborations developing with Gwynedd, Flint and Wrexham but through much of north, west and mid Wales the Panel has not been asked to review any schemes. Attempts have been made to recruit Panellists from these areas to limited effect, and the Panel has held one review meeting in Wrexham and one in Flint in a bid to strengthen the links with north and mid Wales. It will be holding one Design Review Panel in mid Wales and one in north Wales in 2006.

Then there is the question of the utility of the Panel’s advice to developers and designers. A survey conducted by one of the design review assistants in July 2006 revealed very high levels of satisfaction with the service provided by the Panel (Roberts 2005). The survey questioned designers and developers who had attended Design Review prior to July 2005 to assess their experience and any changes made to designs as a result of the Review. A 34 per cent response was received and 84 per cent of respondents stated that they were either satisfied or very satisfied with the Design Review experience as they experienced it with only 6 per cent unsatisfied or very unsatisfied.

Further investigation of particular aspects of the review service and the way it was conducted, including its clarity, comprehensiveness and value to those presenting, revealed that more than 80 per cent of all respondents found it a positive experience in all respects. The Commission considers this to be a very solid endorsement of the value of the service.

Do reviews improve designs?

A more difficult question is the impact, if any, of Panel advice on the scheme itself. There is a lag of several years as schemes are approved and constructed, and it will be possible in the next few years to develop some kind of monitoring to assess whether the process does actually help to improve design. For the moment the general view of Panellists is that their impacts on actual developments are limited on most schemes largely because the designs are too well-advanced to be easily changed. They believe that the return of developers and designers to the Panel with new schemes provides evidence both of the utility of their advice, and the wish of developers/designers to improve their designs. However, they are also aware that attending the review process is also used to boost the legitimacy of certain design solutions regardless of the Panel’s views.

There are schemes where the Commission has had a major positive impact and others where minor modifications have improved aspects of the design. Sometimes the Panel’s comments have been used to reinforce local authority critiques of schemes, or more positively to directly persuade developers of the quality of the designers’ work, so its influence can be much more indirect and subtle.

Again the survey of those developers and designers who had brought schemes to review provided some more objective evidence of actual impacts. These were assessed by type of development, so sample sizes are very small in some cases (small-scale residential, engineering and landscaping particularly). Overall, two thirds (65 per cent) of schemes had been modified as a result of review, although the vast majority were minor changes. Changes were still being considered in a quarter (24 per cent) of the cases.

Why are many of the Panel’s recommendations not implemented?

It is an inescapable fact that many of the Panel’s recommendations are not taken on board and that major changes rarely result to the scheme presented. The principal reason for this may be that the consultation with the Panel has come too late in the design/development or planning application process for it to be taken on board. Furthermore, the time required for significant re-design may be too great for the developer to contemplate, or the local planning authority may feel that the changes would unpick too many of the delicate negotiations that have already proceeded, not just with the designers/developers, but perhaps with consultees within the authority, or with the affected public.

Sometimes the developer takes the view that changes would be too expensive to be capable of implementation, despite the fact that the Panel is always mindful of the need to generate sufficient floorspace or units to cover the costs of any suggested re-designs. Often the Panel feels that a redesign would increase the value of the scheme not only in terms of speeding up the approval process, and improving amenities and ‘kerb appeal’, but also increasing the quantity of floorspace on the site.

The Panel believes that better design does not have to cost more and is always anxious to demonstrate that better public amenities like landscape, open space, traffic calming, and pedestrian routes can be achieved through modified layout and site planning and/or intensification of use. It would, for example, be quite prepared to see significant increases in building height in locations like Cardiff Bay to pay for underground car parking so that residential units could address the quaysides and the streets and ensure a safer public realm.

Should the Panel express its views more forcibly and disseminate them more widely?

How should the Panel react to the lack of implementation of its recommendations? One response would be to strengthen its criticisms and publicise them more aggressively. In the first three years of operation the Commission has been relatively passive in press campaigns preferring to champion the good and to build up its relationships with the development industries and local
Conclusions

4.0

The Panel believes that better design does not have to cost more and is always anxious to demonstrate that better public amenities like landscape, open space, traffic calming, and pedestrian routes can be achieved through modified layout and site planning and/or intensification of use.

What are the key design issues?

What then are the design issues on which the Commission feels it must speak out and foster effective action? The following would seem to be critical:

- The failure to present applications properly, and to include design statements, to show schemes in their wider context, to include appropriate drawings (sections are seldom shown even on steeply sloping sites) and appropriate illustrative material, and to back this up with design statements. This is despite clear advice in National guidance in TAN 12 (WAG 2001 pp. 37-8) which is repeated in the POSW residential design guide. Local planning authorities should not register applications which do not have the requisite drawings, but there is a suspicion that fee income is driving acceptability, and undermining the proper preparation of applications. It will be no surprise to development controllers across Wales that the Panel rarely gets the drawings it needs to make a proper evaluation of the designs.

- The failure to properly analyse context and site and to allow these studies to inform the design process. This is clearly related to the previous point, but it is symptomatic of a deeper failure in development and design practice not to look more widely at the natural environment, built fabric, activity and movement patterns of the locality before beginning site planning and building design.

- The failure to use landscape architects early enough in the design process to understand the difference between landscape as a design opportunity/ constraint and landscaping as a design element, to adequately protect biodiversity and natural heritage, and ensure that new development blends into the locality and matures more quickly.

- The use of standard solutions or parts of previously used designs when a bespoke approach is required. Clearly the whole point of context and site analysis is to identify the factors that should shape site planning and design. This is a particular problem with volume housebuilding.

- The need for a rethink of highway standards and practices and a more design-aware approach to housing layout and especially parking standards. The Panel is aware of the legal liabilities placed on highway engineers or planning authorities who choose not to follow standard practice, but in its experience a much more flexible approach to highway engineering constraints is required on new housing estates and in situations where residential intensification is taking place. The Panel will be looking carefully at the new version of Design Bulletin 32 (being revised by the Office of the Deputy Prime Minister (DfPM) in England), the Manual for Streets.

- The need for a positive and proactive approach to residential intensification that can provide good living environments for new residents, while adequately protecting amenities for the community. The Panel have seen little evidence of a more positive approach emerging, and much evidence of NIMBYism defeating good design. They understand how resource intensive and how politically controversial locally such applications can be, but are aware that intensification should be a major plank of sustainable settlement planning, given the trend towards an ageing population and smaller households, and the need to improve accessibility to public transport and services in residential areas.

- The resistance to mixed use development: this continues to prejudice the development of sustainable communities and the successful integration of individual developments into town and local centres. Residential above retail, including supermarkets, and the incorporation of commercial units into the ground floor of residential schemes, whether central or suburban, are two areas where the Panel would hope to see more provision.

- The proper use of strategies and masterplans. The wider use of masterplans in urban regeneration and expansion is to be welcomed, but only if they provide a higher degree of certainty as to the physical form of development, and ensure the incorporation of sound urban design and landscape planning principles. The process of masterplanning must be rooted in community participation, and it must include appropriate implementation procedures where the design quality can be properly evaluated against the masterplanning principles. Too many masterplans are merely seductive artists’ impressions with no means of delivery.

- The promotion of development in unsustainable locations. Just because development is promoted on brownfield sites (many of which have been fully remediated and are ostensibly greenfield now) does not make it sustainable. Some such sites may be incapable of being served by public transport, now or in the future. Many such sites are also remote from other settlements and merely contribute to further urban sprawl. Their development, and those of poorly located peripheral greenfield sites, may merely exacerbate the increase in the use of the private car and the need to widen roads.
Conclusions

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There is a strong feeling amongst Commissioners and the Panel that it is now time to become more vocal, to strengthen the critique of poorly designed and mediocre development, and to draw attention to persistent failure to adhere to national sustainability policy.

- The failure to pursue sustainable construction objectives and Eco-Home and BREEAM ratings. It is probably the most galling of the Panel’s experiences to be repeatedly told that sustainable construction is not part of the developer’s brief, and that householders, office occupiers, and retailers have no interest in properties that will have lower running costs and less environmental impact. In housing development such excuses are indefensible given the exemplary projects that have recently won design awards (e.g Plas y Mor, Burry Port). In commercial office and especially retail development the attitudes of occupiers are apparently much more difficult to change, and this needs to be addressed forthwith with a concerted campaign across the professions and government.

Using the expertise of many Design Review Panelists the Commission is pursuing most of these issues through its research, guidance and training programmes. A wide range of other design issues of concern, specific to particular types of development, are raised in the final paragraphs of sections 3.1-3.12.

Developing an enabling capacity

Another option for the Panel is to have a deeper and more long-lasting involvement with a number of major projects, and to begin to develop an enabling capacity that would become self-funding in the medium term. The Panel recognise that their one-off evaluations of projects at or near the planning application stage is less than ideal, and that they would achieve more by becoming immersed in the design/development and/or development control processes as honest brokers. DCFW would like to develop an enabling service, much as CABE have done, so that Panelists, Commissioners or DCFW appointed enablers could work with the design/development teams to help support clients to properly plan, refine and implement schemes.

Raising design awareness and skills in local planning authorities

The Panel are most aware of the need to promote more effective and design-aware development control processes across Wales. They recognise the greater importance of more and better design patronage, more enlightened development practices and commitment to sustainability agendas on the development side if design standards are to be raised nationally. But they also believe that a more skilled, design-committed and proactive development control process, backed by sound design policies and guidance adopted locally, would help to raise design standards and reduce the number of very poor designs that get approved. CABE (2003a) have surveyed control practices in England and reached similar conclusions. The Commission is committed to working with Welsh Local Planning Authorities, POSW, WLGA and the Planning Division of the Assembly to achieve this (see below).

Design policies and guidance

The Panel are of the view that with the new generation of Local Development Plans the local planning authorities should be developing quite precise sustainable development strategies, specifying those areas for development and conservation across their locality, and implementing the necessary infrastructure to service this. They should also be developing a core set of design policies that can then be elaborated in practical design guidance. Here the new POSW (2005) residential design guide can be adopted, or preferably adapted, to serve this purpose. A new household design guide accompanying the POSW guide is now available, its preparation led by one of the Design Review Panelists, and this too can be adapted to local circumstances and used to simultaneously inform applicants and assist controllers deliver better design more speedily.

Design training

The Commission has actively involved a number of Design Review Panelists in training programmes to upgrade guidance and improve design control practices. It began with discussions on sustainable housing construction in Newport and design policy in North Wales in 2004. In 2005 it began a roll-out of the POSW Design Guide with four training days in Caerphilly and seminars with councillors and members of planning committees in Swansea and Llandudno, the latter through the Welsh Local Government Association (WLGA).

In the summer of 2006 DCFW held a seminar for the three National Parks as a prelude to their revision of design guidance. In September 2005 DCFW hosted an Urban Design Week conference with the Institute of Highway Engineers and this has led to the initiation of further discussions on best practice from a design perspective. With a new Welsh TAN on transport in production, and a rewrite of Design Bulletin 32: Residential Roads and Footpaths in the offing, there are prospects of significant improvements in highway standards and design.

Procurement of Sustainable Buildings guide

The Commission is also preparing a step-by-step guide to procuring sustainable buildings, commissioned by the Welsh Assembly Government, with major contributions from the Design Review Officer, one of the Co-Chairs of the Panel and others.

Other collaborations

A small country like Wales has to pool its various specialist design skills and work cross-professionally to build consensus as to good design and change practices for the better. The Panel and the wider Commission are playing their part in this process by their engagement with the Welsh Assembly Government’s procurement programme for three new government offices in Merthyr Tydfil, Aberystwyth and Llandudno Junction, and with the Welsh Development Agency and its WISP (Wales Investment Strategic Partnership) programme for three new office buildings in Newport, Swansea and Nantgarw.

Among other related initiatives are the revival of the Urban Design Group in Wales under the Chairmanship of Panelist Kedrick Davies, and the launch of a new MA in Urban Design, a collaboration between the architecture and planning schools at Cardiff University, with Panelist Mike Biddulph as course leader. Better promotion of the design agenda across the design and development professions, and better links with social housing and regeneration activities remain long term goals, the latter through the WDA’s Creating Sustainable Places initiative.
“A small country like Wales has to pool its various specialist design skills and work cross-professionally to build consensus as to good design and change practices for the better.”
### Appendix 1: List of Panellists

- **DFCW Chairman (2002-2006),** Professor Richard Parnaby. Head of the School of Planning & Architecture, University of the West of England.
- **Co-Chair of Design Review Panel, DCFW Commissioner Professor John Punter.** Professor of Urban Design at Cardiff University School of City & Regional Planning.
- **Co-Chair Design Review Panel, DCFW Commissioner Alan Francis.** Founding partner, Gaunt Francis Architects.
- **Wendy Richards (nee Hall), DCFW Commissioner.** Principal Urban Designer, Newport City Council, chair of the Landscape Institute Wales.
- **Paul Vanner, DCFW Commissioner (2002-2006).** Architect and urban designer, former Chairman of BJB Burgess Limited.
- **Jonathan Adams.** Lead designer at Capita Percy Thomas, President of the Royal Society of Architects in Wales.
- **Mike Biddulph.** Senior Lecturer, Urban Design at Cardiff University School of City & Regional Planning.
- **Ed Colgan.** Retired transport planner with Arup and member of ICE (Institution of Civil Engineers).
- **Kedrick Davies.** Director, CDN Planning Ltd.
- **Nick Davies.** Partner, Quad Architects.
- **Robert Firth.** Head of Architecture, Capita.
- **Nigel Hanson.** Central team leader, Cardiff City Council (resigned from panel 2004).
- **Douglas Hogg.** Retired Chief Architect with Cadw.
- **Ewan Jones.** Associate Director, Grimshaw.
- **Kieren Morgan.** Executive Director, Nightingale Associates.
- **Lyn Owen.** Former planning professional at the National Assembly for Wales, former chair RTPI Cymru.
- **Phil Roberts.** Chief Executive Tai Cartref; Director of Development and Deputy CEO of Grwp Gwalia.
- **Ben Silbert.** Senior bridge and structures engineer, Arup.
- **Ann-Marie Smale.** Director, Powell Dobson Architects.
- **Neil Taylor (until 2005).** Partner, ChandlertKB, Fellow of the Chartered Institute of Arbitrators and member of the Academy of Experts.
- **Howard Wainwright.** Director, Powell Dobson Architects; Partner Powell Dobson Urbanists; Professor Richard Weston. Professor of Architecture, Welsh School of Architecture.

### Appendix 2: References and further reading

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- **CABE (2004c).** Design review-ed: Town Centre Retail, London, CABE.
- **CABE (2004e).** Creating Successful Masterplans, London, CABE.
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- **CABE (2005a).** Design review-ed: Issue 2, London, CABE.
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- **CABE (2005d).** What’s it like to live there? London, CABE.
- **DFCW (2004c).** Design Review Panel: A guide for members, DCFW.

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**Panels members 2003-2005**

- **DCFW Chairman (2002-2006),** Professor Richard Parnaby. Head of the School of Planning & Architecture, University of the West of England.
- **Co-Chair of Design Review Panel, DCFW Commissioner Professor John Punter.** Professor of Urban Design at Cardiff University School of City & Regional Planning.
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- **Howard Wainwright.** Director, Powell Dobson Architects; Partner Powell Dobson Urbanists; Professor Richard Weston. Professor of Architecture, Welsh School of Architecture.

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**Appendices**
5.2

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WDA (2003/4)

Note:
All references to WDA work are correct at the time of writing and pre-date work done by newly created DEIN (Department for Enterprise, Innovation and Networks).

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5.3

Appendix 3: List of Abbreviations

ABDS
Architecture and Design Scotland

BCSC
British Council of Shopping Centres

BREEAM
Building Research Establishment Environmental Assessment Method

CABE
Commission for Architecture and the Built Environment

CCW
Countryside Council for Wales

DFCW
Design Commission for Wales

EN
English Heritage

EP
English Partnerships

NPRF
National Retail Planning Forum

POSW
Planning Officers Society of Wales

PPG
Planning Policy Guidance (England)

PPW
Planning Policy Wales

RSAW
Royal Society of Architects in Wales

TAN
Technical Advice Note

WAG
Welsh Assembly Government

WDA
Welsh Development Agency

WISP
Wales Investment Strategic Partnership

WLGA
Welsh Local Government Association

WDA
Welsh Development Agency

WWF
World Wildlife Fund
Acknowledgements

DCFW is consulted on projects at early masterplanning stages, prior to the submission of planning applications and sometimes when applications are lodged. DCFW's comments and details of the scheme contained in material submitted to the Design Review Panel remain confidential until the project enters the public domain.

Where a planning application has been submitted DCFW's views on the scheme will be made available to the public via its publicity platforms. This includes schemes that have been considered in confidence by the Design Review Panel prior to planning applications being submitted, but which subsequently become public through the submission of a planning application, where there is public interest, or where the applicant or others publicise or promote the project through the publication of artist impressions, other images or verbal comment, before a planning application is submitted.

DCFW may copy and/or store presentation materials specific to a project being considered. DCFW from time to time selects material for publication in its literature, case studies and/or for educational, dissemination or other purposes. DCFW's comments are not subject to approval by third parties, are independent and based on material presented to the Commission for review.

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