

Design Review in Wales

The experience of the

Design Commission for

Wales' Design Review Panel

05 – 07

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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.

DCFW

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Design Review Design Commission for Wales

1.0

Design Review in Wales 2005-07 is the second publication which seeks to analyse and disseminate the lessons learned through the Design Review service of the Design Commission for Wales.

Since DCFW published Design Review in Wales 03-05 (2005) the Welsh Assembly Government has given it a new role to review all Primary Care Developments in Wales and to approve their design and sustainability credentials prior to the release of funding. The Design Review Panel has also played a role in advising on the design development of the three new Welsh Assembly Buildings, two of which (Llandudno Junction and Aberystwyth) are reported here, and now it reviews major trunk road improvement schemes (of which four are reported here). This means DCFW has been able to exert more influence over the design of government funded projects than previously. In 2007 the Commission received an uplift in its funding from the Welsh Assembly Government, and its Design Review function has been written into the draft revised TAN 12: Design and Planning Policy Wales (WAG 2008). This wider involvement in WAG policy initiatives has allowed it to build capacity and work more closely with partners to promote high quality design for sustainable communities.

The Commission has recruited new members to its Design Review Panel bringing the number of design professionals making their expertise available free to DCFW to 26 (see Appendix 3). In October 2007 DCFW's newly appointed Development Director, formerly both a Panellist and a Commissioner, joined the organisation with a remit to increase training provision and create longer term involvement in raising the design quality of development.

DCFV's

Design Review
service

2.0

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.

2.0

“ The Panel 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.”

2.1

DCFW's Design Review service

Design Review is the process whereby a development proposal is assessed by a multidisciplinary team of design experts, usually chaired by a DCFW Commissioner or other experienced member of the Panel. Established in 2003 the Design Review Panel has now reviewed over 230 developments in Wales, and it has used this experience to develop its research, training, design guidance, and procurement advice functions. Through its 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. The Commission's comments are recognised as authoritative by the Planning Inspectorate of England and Wales.

The Design Review service is intended to support designers and developers to improve the design quality and sustainability of their products, but it also seeks to support Local Planning Authorities, public authorities and other public agencies to improve their design guidance, review, procurement and development practices.

Design Review is a robust and rigorous investigation and analysis of key design issues affecting the design quality and sustainability of projects brought forward by design teams. The Panel reserves the right to comment on wider issues affecting projects outside the 'red line', including the location, site, long-term transport implications and connectivity to and relationship with surrounding areas, whilst acknowledging that these issues may not be within the remit of the design and development team to resolve.

Panel membership

Design Review is delivered via monthly meetings of the Design Review Panel, a peripatetic group drawn from all the built environment professions (Appendix 1). There is a steady stream of applicants wishing to join the Panel and this allows the Commission to appoint only those with extensive design and development experience and proven critical abilities.

The Panel has three co-chairs, two of whom are Commissioners of DCFW. The Panel's co-chair Alan Francis was appointed Chairman of the Commission in 2006 to succeed Richard Parnaby, and maintains his role in Design Review, while Richard Parnaby also continues to serve as a Panellist. John Punter continues to serve as a co-chair, as does Wendy Richards, recently appointed DCFW's Development Director, who brings her expertise in urban design and landscape architecture as well as a local planning authority perspective to the panel. The Panel has recently strengthened its skill base with the addition of more specialists in sustainability, large scale development, and local authority design and development control expertise.

The Panel is supported by DCFW's Head of Design Review, Cindy Harris, an expert in sustainable design and construction, who manages and develops the service and the Panel, in consultation with its chairs, the Chief Executive and Commissioners. She is herself a full member of the Panel.

The Head of Design Review is supported by the part-time Design Review Assistant, trained in planning and urban design, a second assistant for review days and DCFW's office manager who help service and support the review process. At each review the Panel seeks to have architectural, urban design, landscape, transport, planning and sustainability expertise as necessary. Since early 2007 DCFW's Chief Executive has rejoined the meetings in order to provide further continuity and ensure quality of the service.

2.2

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 or local importance. It is seen as

- a vital outreach function to the communities, local authorities, design professionals and the 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 individuals and design professionals who can contribute to the cause of better design across Wales;
- a way of building up the Commission's critical mass, creating an expert body who can offer expertise in all facets of development and design.

Design Review has continued to inform and underpin DCFW's bespoke design and sustainability training programme which has been extended to five more local planning authorities and the Planning Inspectorate in Wales. Specific training on Access Statements has been delivered by DCFW to all 25 planning authorities in Wales alongside the specialist access groups and advisers in Wales.

The Commission has also published evaluation tools for assessing the Design of Primary Care Developments (10 Points for Primary Care, DCFW 2006) and is including design policy advice in its response to detailed consultation on Local Development Plans.

2.3

Developing design criteria for reviews: what is good design?

The Panel 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 the environment. The Panel also translates the strategic aims assigned to it by the Welsh Assembly Government into design criteria and is guided by both Planning Policy Wales (2002) and Technical Advice Note 12: Design (being updated) in its approach to evaluation. This emphasises the need to achieve development that is:

- sustainable with regard to its overall impact, including location, land use, mix of end uses, resource consumption and community impact;
- responds positively to site, context and local distinctiveness reinforcing a sense of place;
- creates a quality public realm of streets and spaces that is accessible, safe, comfortable, attractive, continuous and easy for all users to find their way around;
- accommodates a variety of uses and tenures with a compactness that can foster necessary services, facilities and public transport;
- includes flexible and adaptable buildings and spaces creating fine architecture, rich townscapes and landscapes that are well detailed, with good quality materials, craftsmanship and art.
- socially inclusive in terms of affordability, equal opportunities and accessibility for all.

2.4

DCFW's Design Review service

It is concerned with the promotion of excellence in day to day environments as well as prestige projects. More detailed advice on the Panel's design criteria is available in PDF via its website www.dcfw.org.

When reviewing schemes the Panel seeks to maximise the "whole life" value of a development by promoting sustainable urban design that minimises environmental impacts and reinforces social cohesion while contributing to economic prosperity. It does this through encouraging environmentally efficient, low carbon design and construction methods and building services; the use of natural daylight and ventilation; high quality, locally-derived, renewable materials wherever possible; by endorsing public participation in the design process wherever possible, and by encouraging public participation in the planning process.

Refining the Design Review process

DCFW sets out in its guide to Design Review (DCFW 2005) the types of project that the Panel would be prepared to assess:

- those which exemplify persistent design problems facing developers, local planning authorities or community and neighbourhood groups;
- those which are significant because of their size, public impact or site
- those with an importance greater than their size, use or site would suggest; e.g.: those setting precedents for future development;
- those which are in part or wholly funded and/or enabled through public sources and partnerships.

Due to significantly increased demand, the Panel now places more emphasis on early consultation, at formative stages, declining to comment on schemes which are too far advanced to accommodate significant change. In the case of Primary Care projects it has issued specific guidance allowing a proper assessment of readiness for review, and refuses to see schemes which fail to meet the criteria. Due to the administration involved DCFW now charges a cancellation fee for schemes that withdraw from review at a late stage. This is a rare occurrence, but the fee is intended to be sufficient to act as a deterrent and prevents abuse of DCFW resources.

In its guidance the Panel stresses the value of contextual analysis (particularly landscape and townscape) and good drawings (including plans/sections and elevations, photomontages, artists' impressions and illustrated details) to a successful presentation. In setting out these requirements DCFW underlines 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 two weeks in advance to allow for careful consideration.

DCFW sets out the procedure for each review meeting in its guidance, including a detailed explanation of the kind of presentation required, the Panellists' discussion and identification of key issues, the Chair's summary and subsequent report (DCFW 2008). This process is continually evaluated and refined in response to feedback from Panellists and scheme proponents and DCFW's general concern to maintain a high quality service.

In 2007 the number of schemes seen in a day was reduced from six to five to give more time for briefing and post review discussion. More detailed information on each scheme to be reviewed is now supplied to each Panellist in advance of the meeting, and responsibility has been given to individual Panellists to visit the site, brief the rest of the Panel on individual projects, lead the briefing and questioning, and contribute to the editing of the written report. More time has also been allocated to review the Chair's verbal summary to allow Panellists to add substantive points to the written report and to reach a consensus.

Mini-reviews with small Panels to accommodate extra projects have been discontinued as DCFW felt that, without a dialogue between scheme proponents and the Panel, the resultant service was inferior. Additional monthly Panel meetings are held when demand requires it, particularly to allow the prompt review of Primary Care Developments and where major schemes require early consultation. The Head of Design Review and her assistant manage the agendas; the research and registration of projects; the distribution of documentation; liaison with local authorities, and design and development teams; the drafting and editing of reports; and management of both electronic and paper archives of projects reviewed.

The Panel seeks a positive, but frank exchange of views based upon mutual knowledge of development and planning constraints, design methods and procurement practices, and the increasingly important sustainability agenda. Whilst the review is an opportunity for creative dialogue and debate, it remains (as stated in the pre-review mailing notes):

".. a rigorous process and in the short time available... comments and evaluation are likely to be direct, robust and incisive, but ..we aim to be constructive and courteous."

Panellists are discouraged from making speeches or extended critiques and direct questions or comments are favoured as the means of review. The Panel encourages feedback on its design review processes and the Head of Design Review and Chief Executive make themselves available for face to face discussions with design teams if and when presenting teams feel the need to explore issues of concern.

Finally, the Panel has streamlined its reports making them shorter and clearer especially with regard to the recommendations. Most importantly, perhaps, it has changed its headline recommendations to make its overall position and re-design requirements clearer. There are now four categories of recommendation spanning acceptable: requiring minor revisions: requiring major revisions, and unacceptable. These are unequivocal categories, and they make it clear what level of re-design is necessary to make a scheme acceptable to the Commission.

The Panel continues to reach out to the other parts of Wales and has held regional reviews in Mold, Ruthin, Wrexham, Swansea and Caernarfon, each time bringing to the Panel a different sample of schemes of local importance.

2.5

Refreshing Panel expertise

Membership of the Panel is reviewed annually to maintain quality of service and a balance of architectural, urban design, planning, landscape and sustainability skills with highway, civil engineering and public art expertise added as necessary. A formal review process after two years of service is in place for each Panellist, and a positive review will result in an offer of appointment for two more years.

DCFW continually invites expressions of interest in joining the Panel from design and development professionals. 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 two years subject to review. All candidates are required to participate in this appointment process which is overseen by an external recruitment adviser to ensure fairness and continuity.

Annual training days are used to evaluate review protocol and experience and to ensure the panel is alerted to relevant new research, emerging practice, and policy developments in Wales and throughout the UK. These sessions have also explored issues of procurement, land disposal and design control, the requirements for climate change adaptation and carbon reduction, as well as the sharing of experience with the Commission for Architecture and the Built Environment (CABE) Architecture and Design Scotland (A&DS) and the Ministerial Advisory Group in Northern Ireland.

Individuals and various bodies often ask to attend and observe review sessions and the Commission readily agrees wherever possible, and within the constraints of confidentiality.

Managing conflicts of interest

DCFW's work 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. Detailed advice issued by DCFW on conflicts of interest can be found in Appendix 2.

2.6

Evaluating reviews and disseminating the lessons

DCFW publishes all its Design Review reports on its website, where schemes are in the public domain (i.e. a planning application has been lodged or details of the development are publicly promoted, available or under discussion), and press releases are issued to national, local and trade press. This volume is the second report on the experience and lessons of design review and covers the period from mid July 2005 to the end of August 2007.

The Projects Reviewed

3.0



3.0

The Projects Reviewed

Evaluating each review and distilling the lessons from the 111 cases that have been reviewed, some of them on two or even three occasions, is a necessary task. Such a synthesis provides a number of benefits to the panel and the Commission. It provides:

- an overview of the contemporary quality of design of development in Wales;
- a record of the experiences and expectations of those design professionals who serve on the Panel;
- an opportunity to improve the continuity of design advice between often differently constituted panels;
- a chance to reflect on the quality of advice given and any opportunities missed;
- an opportunity to reflect on the standards of development being accepted and amended by local planning authorities;
- and a way of formulating some new ideas about how to approach design review in the future.

This evaluation is easiest done 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.

The same broad typology of schemes has been adopted as in the 2003-2005 review, but the pattern of submissions has been rather different. So while the review begins as previously with large scale urban design strategies and masterplans, large scale suburban residential development, medium and high density residential development, it breaks down the smaller residential schemes into a number of categories embracing student, low cost and rural housing. A separate section deals with residential intensification. All small development schemes within conservation areas have been discussed as a separate category in order to give conservation concerns more attention.

Major town centre retail development, town centre commercial, and B1 buildings and suburban offices are discussed separately as before, and there is a major new section on Primary Care developments, which make up more than a fifth of all schemes reviewed. There are three new sections on public spaces, bus and rail stations and major road schemes. Short case studies of some of the most significant and illuminating projects are included in each section, along with the key comments of the Panel on the design issues at stake. These are not a set of exemplars, but rather represent the design challenges faced across the country.

As before the attempt is made to compare Welsh experience with that elsewhere in the UK, so considerable reference is made to CABE research and design monitoring, and other research and practice debates promoted by the design and development professions. These sources are referenced in Appendix 3.

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 learned, and debates the best way ahead for the design review process and the pursuit of design quality and sustainability.

3.1

Urban design strategies, design frameworks and masterplans

In DCFW's 2003-2005 assessment of the experience of design review there was evidence that design strategies, frameworks and masterplans were becoming more widely established as valuable mechanisms in Welsh planning and development. The flow of design advice from CABE and English Partnerships, alongside the development of a series of exemplar projects, have demonstrated the value of more strategic and larger scale thinking about urban design. The Welsh Development Agency, which became part of DEIN in 2005 (Department for Economy, Innovation and Networks) and DE&T in 2006 (Department for Economy and Transport) within the Assembly Government, has systematised its project planning and development processes to emphasise the role of strategies, masterplans and briefs in raising design and sustainability standards (WDA 2004). The Panel has reviewed several examples of these in practice in Ebbw Vale, Rhyl, and Llanelli.

Larger scale urban design strategies are also beginning to find a place in Welsh practice following the success of Newport Unlimited's 2020 Central Area Masterplan as a broad, strategic document. The Panel have viewed some eight projects under its rubric and come to question the lack of more detailed design advice to set development parameters. Both Swansea and Aberystwyth have been the subject of city/town centre-wide reviews of development opportunities and constraints and 'vision'/strategy documents have emerged that can provide a focus for planning, corporate intervention, and design thinking at a settlement-wide scale. Once the vision document is agreed then the means of implementation have to be devised, and in both cases the challenge is to refine these documents, embed them within corporate programmes and policies, and make them an integral part of the new Local Development Plan.

All these documents tend to be strong on vision and seductive images but weak on implementation, and this is where most scrutiny needs to be applied in design review. What confidence can the Panel have in the delivery of both design quality and sustainable solutions when the document, unfettered by detailed guidance, is subjected to the aspirations of private developers?

Review experience

What was encouraging about the **Swansea City Centre Strategic Framework** (Case Study 1) was that the research, policy and site by site work have been done in-house, using the knowledge of planning, estates, economic development, parks and leisure and transport sections within the authority. A corporate view had been developed and was being translated into a coherent vision.

When the Panel saw the **Aberystwyth Masterplan** (Figure 1) it was the initial strategic vision. 'Masterplan' was something of a misnomer for a document which was much more of a development strategy. It was commissioned jointly by the WDA (now DEIN) and Ceredigion County Council to provide a 20 year planning framework within which a number of significant developments (including new WAG/Council offices, Law Courts (see 3.9)) could be considered. The Panel welcomed the strategic thinking and the strong urban design input in the vision, but were concerned that its planning status was clarified (adopted as supplementary planning guidance in the new LDP?) to improve its deliverability. The Panel considered that the character framework provided a good starting point for the analysis but needed to be developed in considerably more detail. It suggested that once the general framework was established, the focus should be on defining a set of development or regeneration opportunities relating to

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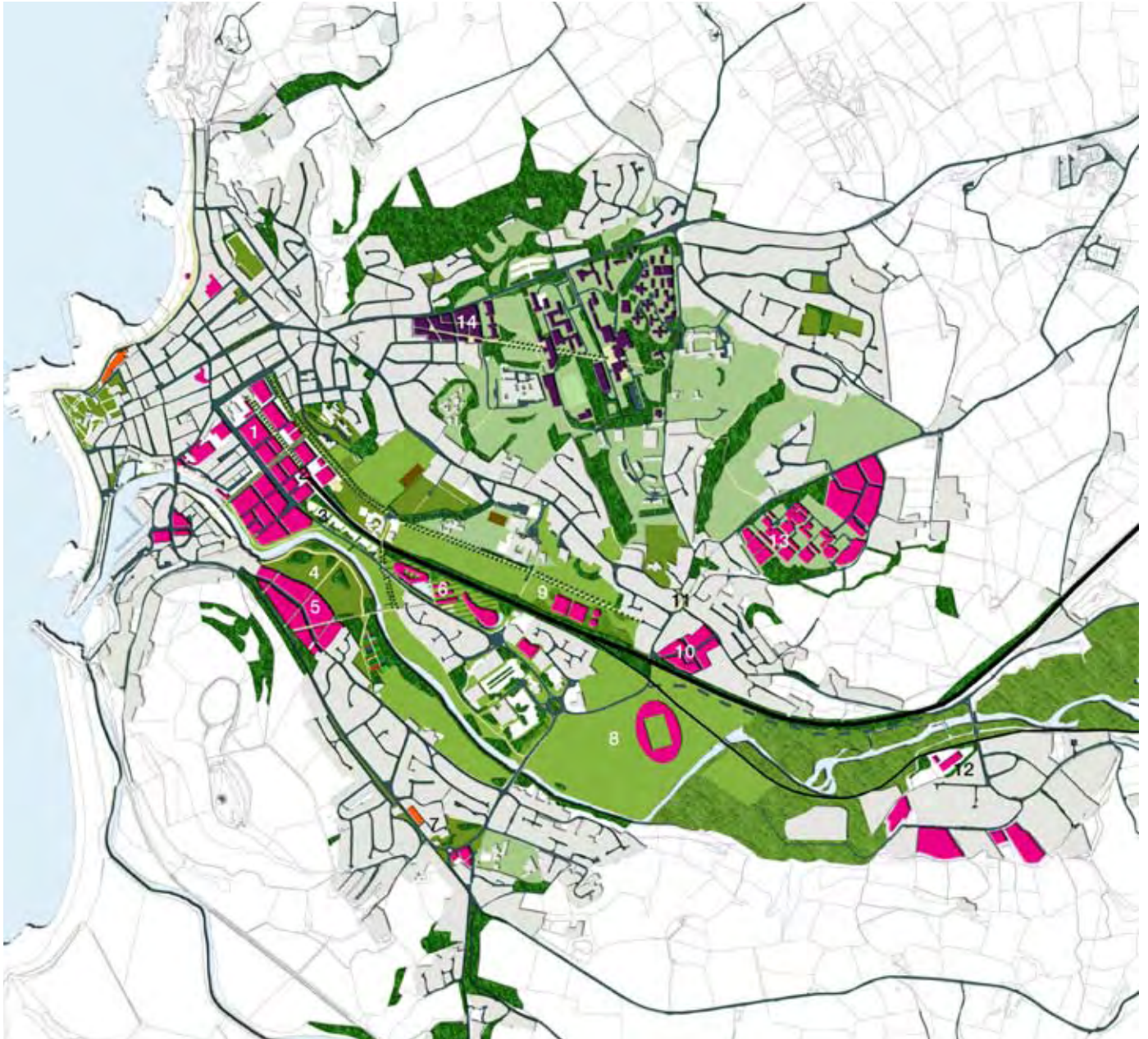


Fig 1: Aberystwyth Masterplan. The draft plan illustrates the new areas for development (in red), and the block structure that could be created, by moving the station eastwards. A strong landscape strategy will be needed to protect both the valuable woodlands and the flood plain.

3.1

the new town and station, the valley floor and the peripheral settlements, and to promoting these sites through development/design briefs. They were concerned that the funding and phasing of transport and other infrastructure should be clearly identified, and that there should be an analysis of key land holdings and how these might affect implementation.

The **Llanelli Waterside Masterplan** (Figure 2) was a Joint Venture Partnership between the Local Authority and DEIN and covered the part of the Millennium Coastal Park south and west of the town. The necessary land reclamation and infrastructure works had been carried out and the project team had access to Objective 1 Property Development Grants, and was able to reinvest capital receipts back into the project. The masterplan covered five key sites including the low density Machynys residential development next to the golf course; the Delta Lakes 'high-tech' business park; North Dock, an office/residential/leisure site with a listed pump house and the new Discovery Visitor Centre; the Old Castle Works scheduled for leisure uses including a theatre (see section 3.9); and Sandy Water Park, for tourist related uses or low density housing.

The Panel looked for stronger urban design and landscape strategies. It was concerned at the vagueness of the land use plan, the poor links between individual developments and the town, and the way that the road system separated, rather than linked, the schemes. It criticised the use of cul de sacs in the Machynys residential area and recommended more compact residential development overall (the housebuilders preference was for low density executive homes). The absence of commitment to high Eco-Homes ratings was also a concern and contrasted with the commitment to BREEAM Excellent for the commercial buildings. The Panel wanted the status of the masterplan clarified, and supported by clear design guidance, the absence of which was already undermining design quality.

The first version of the **Ebbw Vale Masterplan** featured in [Design Review in Wales 03-05](#) (pp 24-25). The site was purchased by DEIN and the first phase of reclamation and remediation was nearly complete when the panel saw the second masterplan. This now favoured residential uses on the site, but greater opportunity for leisure and tourism uses than previously. Indicative block plans showed street widths, junction spacings, shared surfaces, buildings enclosing and framing the street, and residents' parking either within the curtilage or in rear courtyards (Figure 3). It was not clear how these would be adapted to the slopes of the valley sides.

The Panel was pleased to see that a landscape and public space strategy was being developed as well as a project-wide sustainable energy strategy (with district heating systems and renewables). A design code was to accompany the outline planning application and provide a tool for the LPA and landowner to help deliver the design goals of the masterplan. A development brief would be attached to the sale of each site with specific building performance standards to be achieved, and a quality-led selection process would be used to identify preferred developers: capital receipts would not be the first priority. All these commitments to a more design quality/sustainability-driven implementation process were warmly welcomed, as was the formation of a management company to carry out maintenance, perhaps as a social enterprise, with training included.

The Ocean Plaza Masterplan, West Rhyl (Figure 4) focused on the western end of the sea front with residential, office, leisure, hotel and retail combined into a mixed use project at a 'gateway' into the town. The B5118 would be diverted through the centre of the site and the promenade would then become a pedestrian space, fronted by four residential blocks set at an angle

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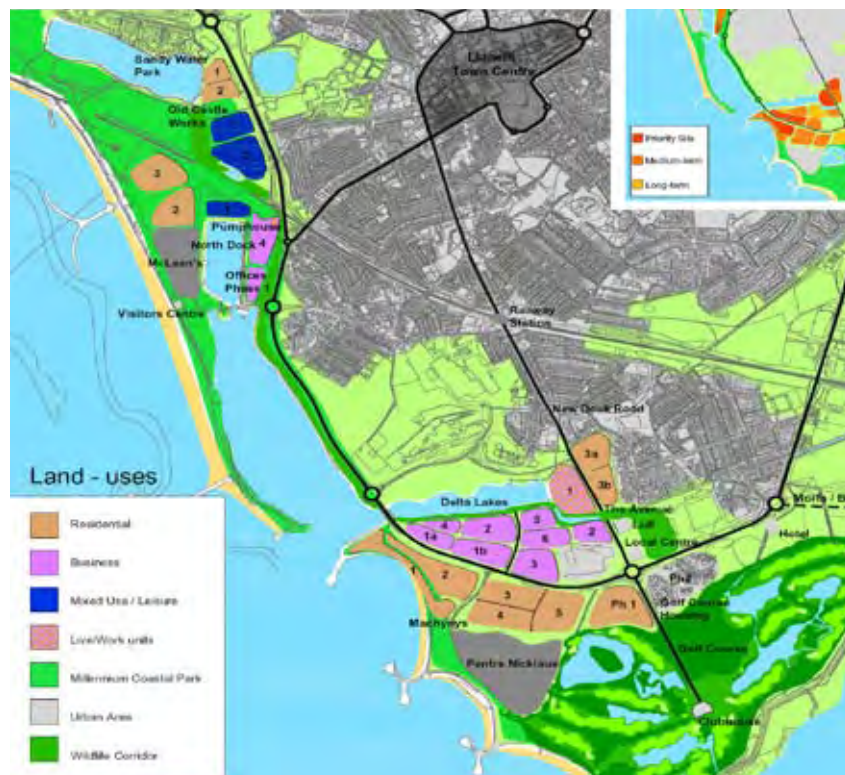


Fig 2: Llanelli Waterside Masterplan. The plan indicates the large areas allocated for major residential and business development, but the poor connectivity of the cells of development gave cause for concern.

to the promenade on a north east/south west axis. The Panel supported the architectural approach to the design of the residential blocks and considered the density appropriate, but was less convinced by the office block and its relation to the apartment blocks. It discussed the possibility of combining the hotel and office block into one landmark building, and improving overall pedestrian permeability, landscaping and integration of the affordable housing. The Panel applauded the commitment to achieve a BREEAM/Eco-Homes Excellent rating and the various other energy innovations in the project. However, it noted that no development brief had been produced for this site, though discussions with the Local Planning Authority had been ongoing and public consultation had revealed strong support for the scheme.

Lessons learned

Overall the Panel thought that considerable progress was being made across Wales in the use of design strategies, frameworks and masterplans, and that much more serious consideration was being given to the all-important means of implementation. There were still too many examples of such documents being purely illustrative with little possibility of realisation, but projects like Ebbw Vale illustrated that the right mechanisms were being developed to ensure quality control on individual sites. However, the recent publication of [Delivering Design Quality](#) (EP/HC 2007), complementing the very useful [Urban Design Compendium](#) (EP/HC 2001), was a reminder that much more serious attention needs to be given to developing the right mechanisms, processes, controls and management devices if design quality is to be routinely delivered.

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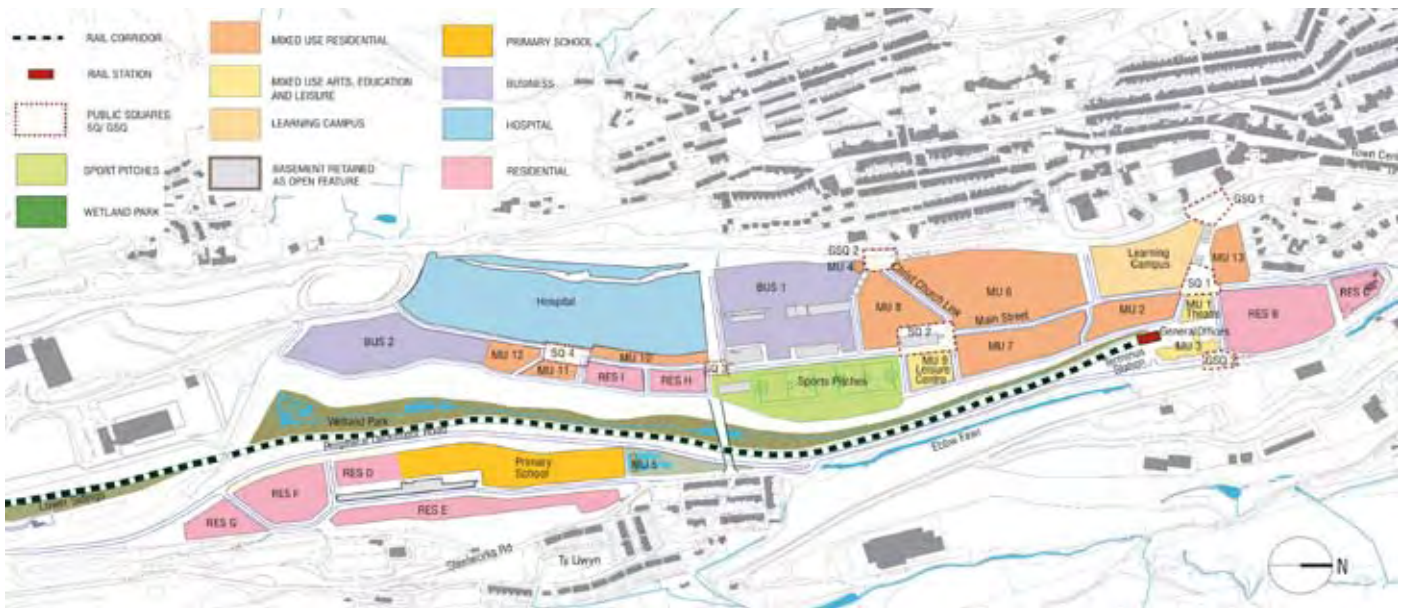


Fig 3: Ebbw Vale Masterplan. A new waterside park with wetlands was part of a sustainable drainage system (regrettably the river will remain culverted). The strong block structure was welcomed but will be difficult to implement in the business areas.

It was particularly important to use land ownership powers and the land disposal process to ensure that the design quality and sustainability of each development was considered alongside the price offered for the land, an approach the Assembly are emphasising within their Sustainable Buildings Project. Design quality needed to be properly weighted in the selection of the development/design team, and then design and sustainability criteria tied in to the conditions of sale. This clearly is not yet happening in most projects, though in Ebbw Vale there were commitments to design coding, building performance standards, and a design quality-based selection process. This was also the case in Llandarcy (see section 3.3) but these projects remain the exception rather than the rule. Welsh LPAs and regeneration agencies need to embrace the much more thoroughgoing approaches to the implementation of design quality set out in *Delivering Design Quality* (EP/HC 2007)



Fig 4: Ocean Plaza Masterplan, West Rhyl. This scheme extends the promenade westwards and makes a new pedestrian connection across the River Clwyd. The four apartment blocks were conceived as ‘ocean liners’, but other elements were unresolved.

3.1

Case Study 1: Swansea City Centre Strategic Framework



Case Study 1: Swansea City Centre Strategic Framework. The movement and places framework indicated the new pedestrian network and public spaces. The riverside walkway and the new pedestrian link south west from shopping centre to the sea were especially important.

This document was a detailed strategy for the regeneration of the city centre and its environs and integrates positive urban design and planning thinking to address the city centre’s weaknesses in terms of retailing, employment growth and low resident population. It promoted a number of large scale redevelopment projects including the Quadrant shopping centre, key waterside sites adjacent to the Council Offices and at the west end of the new River Tawe footbridge, and the extensive redevelopment of Parc Tawe.

The Panel was pleased to see the Council’s determination to promote a much more urbane, street-oriented form of development in the ‘big box’ retail areas, and to reclaim the banks of the River Tawe for residential use. However, it was cautious about the economic feasibility of such large scale redevelopment (18,000 new jobs?) and the reliance on major retail development (50,000sm?) arguing that the latter would need a very tight brief and determined control to provide the all-important pedestrian connections and quality streets, especially to the south and east.

“The Panel was pleased to see the Council’s determination to promote a much more urbane, street-oriented form of development in the ‘big box’ retail areas and to reclaim the banks of the River Tawe for residential use.”

The Panel recommended further development of landscape, public realm and sustainability strategies to coordinate all investments with their requirements enshrined in each development brief. It was particularly concerned that the framework was adopted as Supplementary Planning Guidance and supported by strong Local Development Plan policies. It favoured an Urban Regeneration Company as the vehicle to drive the strategy forward in partnership with the Assembly and private developers.

3.2

Large scale residential development

The Panel reviewed more than a dozen major residential schemes including a number that set new standards for design in Wales. Particular plaudits went to Penarth Heights and the first phase of the Llandarcy project, both of which promised higher standards of residential layout and housing design than recently achieved anywhere in the Principality. They are exemplars which can serve to drive up the general standard of housebuilding in Wales which remains at best mediocre, as it does across much of England (CABE 2005).

CABE's monitoring of the design quality of recent housing schemes in the regions of England provides a useful benchmark for evaluating housing design in Wales. Its monitoring studies used the 17 design criteria embodied in the industry-backed 'Building for Life' criteria which add aspects of internal space quality to the traditional urban design considerations. It found that 29% of housing schemes were poor and unworthy of planning permission and a further 53% were mediocre and barely worthy of permission. Only 5% were considered very good. This evidence shows that the products of the major UK homebuilders usually have a considerable way to go to meet industry-agreed urban design qualities, and the panel came to the same view on a number of housing schemes.

Review experience

Penarth Heights, Penarth was the first large scale development which the Panel could almost whole-heartedly endorse. This was largely due to the design-aware competitive process set in place by the local authority for the disposal of their land (see Design Review in Wales 05-07 (p 40)). In the full planning application a density of 54 du/ha had been achieved with 20 per cent affordable units, pepper-potted through the site, based on shared equity and renting, and developed with the United Welsh Housing Association.

Prolonged discussions with the Highway Department had achieved a clearer hierarchy of streets, with 'garden streets' ('Home Zones') running at right angles to the Ridgeway, with a mix of diagonal car parking and small courtyards (Figure 5). The main spine road had been narrowed to 16 meters with shared surfaces, public squares and parking courts to calm traffic, and car parking standards of 1.5 spaces per unit overall were in the process of being agreed at the time of review. The Panel advised against an over-engineered highway solution with lots of signage and preferred the design team's more subtle approach of slowing traffic with changes in street surfaces, and use of street furniture and trees to convey a pedestrian-dominated area.

The Panel welcomed the wider variety of house types including low to medium rise apartments, mews blocks, terraced houses and villa-style houses, the increased emphasis upon family housing, and the adoption of a 'colour strategy'. Its only concern was that the provisional Eco-Homes rating was borderline Very Good and it argued that there should be a commitment to achieving Eco-Homes Excellent and a district heating scheme, possibly including CHP (Combined Heat and Power). However, the developer stated that upgrading to Excellent was unlikely to be viable given the price paid for the site and the delays in getting a full planning permission, due in part to protracted highways negotiation.

Of equal design quality, but with more traditional architecture, was the eagerly awaited first phase of the **Llandarcy project**, in **Neath Port Talbot**. This consisted of 150 residential units, bordering on the original 1925 Llandarcy Village, now a conservation area. The proposals follow the

3.2



Fig 5: Penarth Heights, Penarth. (both above) The scheme was beautifully presented: sketches from the design statement show the 'garden streets' and town houses with corner apartments at the west end of the site, and the villas that overlook the parkland atop the cliff.

masterplan and The Town Code that prescribe mandatory (mainly relating to the public realm) and aspirational design elements. The Panel was distressed that the original design had been changed to meet conservation area objections and considered that the original scheme for South Street was a better piece of urban design than the amended proposal, and fully succeeded in creating a positive and traditional relationship with the village and its setting. However, it concluded that the proposals as a whole were "exemplary in the quality of public spaces, the layout, diversity, permeability, and the way in which ..(they).. respond to the topography and to the conservation area" (Figure 6).

The vital importance of this first development setting the right tone and value for subsequent development had been "emphatically recognised". The Panel had some reservations about "the use of 'local' historical architectural references, and were concerned that too many historic references and revivalist styles would create a pastiche effect that could undermine the value of the project as a design exemplar in Wales". But it applauded the intention to achieve Eco-Homes 'Excellent' through a low-energy design approach including solar orientation of houses, locally sourced materials and sustainable drainage systems.

The western part of the former **Corus steelworks site at Llanwern** lay within Newport's eastern expansion area, and was a top priority for development in the Wales Spatial Plan. A comprehensive masterplan for a development of some 4,000 dwellings on 395 hectares of contaminated land was

3.2



Fig 6: Phase 1 Coed Darcy, Llandarcy. The well-conceived and landscaped site plan made good use of an attractive sloping site above the Village Conservation Area. Each street received a different traditional architectural treatment, and there was a very sophisticated manipulation of five basic house types.

presented including a neighbourhood commercial centre and school to the west, and a business/industrial park (B1/2/8) to the east. Its main feature was an extensive water and landscape network with three substantial lakes and connecting drainage channels, both a flood prevention strategy and a sustainable drainage system integrated with an extensive greenspace network (Figure 7). A series of 'character zones' were defined to differentiate the residential areas and each will have a 'hamlet' node as its focus. The movement framework for the site was based on a distribution loop, which would be treated as an urban boulevard to the north and less formal lanes to south, and all properties will be within 400 metres of a bus stop.

The Panel was concerned about the apparent lack of any relationship between the proposal and the historic and ecologically valuable landscape of the Gwent Levels to the south, but it was explained that site levels had been raised by land-fill and would now be re-contoured to create water storage capacity. The Panel worried that the development was very introverted because of the loop road with only two access points from Queens Way, and the lack of a road link to the north or to commercial developments to the west. Nor was it convinced that the proposed means of delivery (design guidance with disposal tenders) would be sufficiently prescriptive to ensure the desired quality on the 18 projected residential developments and the district centre. It preferred the use of a design code with clear, strong urban design principles to set layout and urban form requirements alongside high BREEAM/Eco-Homes ratings. However, it welcomed the idea of a Community Interest Company to ensure management and maintenance of the landscape and hydrology, and thought this might encompass a district heating scheme.

Another major residential scheme for a former industrial site was **Morfa Village, Swansea** bordering the River Tawe downstream from the new Liberty Stadium. Blocks of apartments, from five to seven storeys, were proposed at right angles to the river with green courtyards between to allow for views from the lower density with two-three storey residential estate proposed behind with rear courtyard parking. Two blocks of low cost units to the south on the river would provide one-person accommodation at high density. The designers proposed a contemporary image, and modern elevational treatments. Flood prevention measures included a 'bund', formed by raising the ground level by 1.5m to form the walkway, allowing undercroft parking beneath the apartments.

The Panel welcomed the emerging landscaping for the site but wanted to see this greatly strengthened especially to buffer the arterial roads that almost encircle the site. It felt that the layout, massing, car parking and landscaping should be re-examined to better integrate the two parts of the site and their different building forms. It welcomed the architectural treatment and crisp detailing but felt that the two central towers on the

3.2

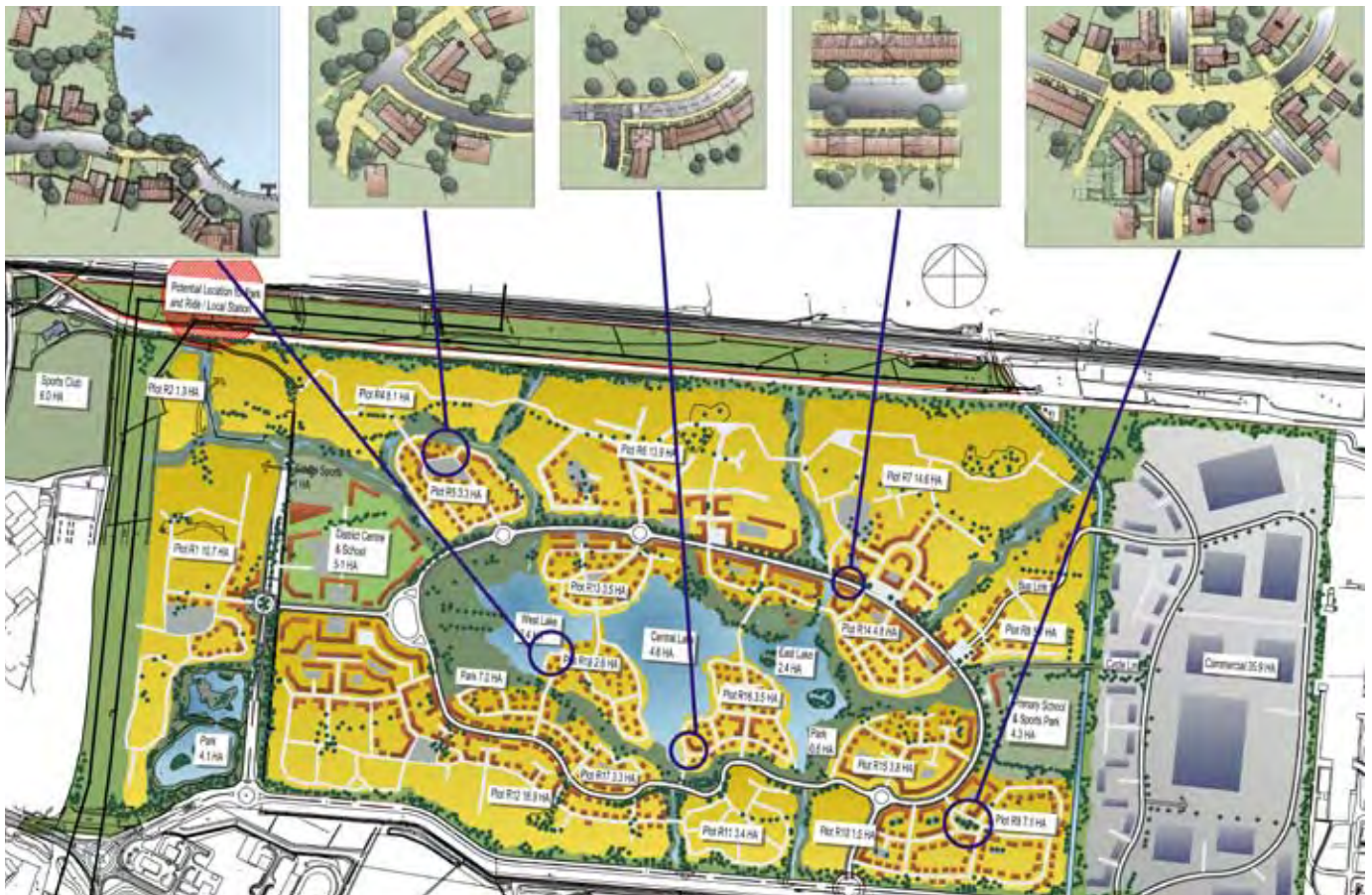


Fig 7: Corus Steelworks site at Llanwern. The first site plan showed a single loop road linking some 18 residential sites around the three new lakes, and some early ideas about their differential layout and design. The 'district centre' and school was located to the west, and a large business/industrial park to the east.

river-front could be higher, especially if this improved the amenity space and setting of the riverside blocks. The Panel wanted to see the achievement of an Eco-Homes Excellent standard for this development, and more thought given to optimising the solar orientation of the various blocks and terraces.

A third major brownfield residential scheme (440 units) and key DEIN/Merthyr Council regeneration project was the **Merthyr Heartlands** scheme on the old Dowlais ironworks in Merthyr Tydfil. The former industrial use was reflected in the topography, with a 7m high retaining wall on the south west boundary, an embankment running east/west across the site enclosing an old watercourse, and a Grade II listed foundry.

The Panel supported the traditional terraced house layout, solar orientation and perimeter blocks at a density of 40 du/ha (Figure 8) but suggested some revisions to create more enclosure and stronger perimeter blocks. It suggested a home zone approach to street layout and design which would give priority to pedestrians, with the car parking arrangements revised to improve natural surveillance and ensure that cars are kept away from the parkland edge.

The concept of the linear park, the reinstatement of the watercourse and the attenuation pond were all regarded as positive elements, and the Panel was delighted to see a strong commitment to ambitious sustainability targets, evidenced by an Eco-Homes Excellent rating based on a post-construction assessment. The Panel emphasised the need for a robust design code to guarantee implementation of the concept design and deliver the sustainability targets.

3.2

Fig 8: Merthyr Heartlands. The masterplan negotiated the different levels of the site well creating an attractive linear park. The Foundry provided a focal point for the southern neighbourhood. The panel thought the blocks could be better enclosed on the north-south streets.



Fig 9: Llanwern Village. The site planning displayed great sensitivity to the rolling landscape and integrated well with the adjacent hamlets, but this could not be considered a sustainable settlement given its location and greenfield site.

A fourth brownfield scheme, but with substantial mudflat reclamation was the **Martello Quays Marina scheme in Pembroke Dock** (Case Study 2). It posed a number of conservation challenges and was an exercise in very tight site planning.

The Panel saw three large scale greenfield housing schemes with contrasting sustainability credentials. The **Errdig scheme, Rhostyllen** (Case Study 3) for 180 houses was a sustainable urban extension to a substantial village already well served by public transport. By contrast **Llanwern Village** was a new settlement of some 1100 dwellings set in open, rolling countryside to the east of Newport embracing the existing communities of Llanwern, Little Milton and Cot Hill. The site was part of the East Newport expansion area, for which a masterplan has been prepared (SPG was in preparation at time of review) but the current proposals were for a substantially larger site than that allocated.

The Panel was concerned about the prematurity of the proposals, the uncertainties over transport infrastructure, and the inherent unsustainability of a settlement with few services and no significant employment. That said the concept design had many admirable features, particularly the way it fitted itself into the landscape, its strong landscape strategy, protection of bio-diversity, and sustainable drainage system (Figure 9). Clearly this proposal was not ‘a fully integrated, high quality and sustainable extension to the city’ as claimed, but it did demonstrate how good landscape and urban design can ensure that greenfield development makes the most of landscape assets.

3.2

Fig 10: Aberkinsey Park, south east Rhyl. The first phase of this four phase residential scheme was located to the north of the riverside park that bisects the site. The panel felt that this layout failed to enclose the streets and create a sense of place.



The Panel had previously commented on the **Aberkinsey Park, south east Rhyl** masterplan (see [Design Review in Wales 03-05](#) pp 30-32). An outline approval had been granted for 355 housing units with a primary school and community centre which included a condition that a detailed design brief be produced and this was the subject of the review, together with the detailed proposals for phase one (Figure 10).

The Panel considered that the general site layout was too dispersed with too many 'dead' spaces. There was no strategy for sustainable drainage, despite the obvious risk of flooding, and the proposals had failed to realise the aspirations and design quality embodied in the earlier masterplan. The panel argued that there was an urgent need to re-visit the original design principles, with the help of the masterplanners. There should be better connections to the town, a landscape strategy that would integrate play areas and green spaces, and a more distinctive architectural approach. The design principles contained in the [Manual for Streets](#) (Department for Transport 2007) and the POSW (2005) residential design guide should be used to establish a sense of place and continuity and enclosure of the public realm. An Excellent Eco-Homes rating should be aspired to with a single, site-wide heating and energy system, and the location and design of the affordable units needed to be addressed immediately.

3.2

“ There were also signs that proponents of the masterplanning approach were getting to grips with the means of implementation...”

Lessons learned

Overall the Panel was greatly encouraged by the emergence of some suburban residential schemes of real quality, some with a significant component of affordable homes carefully integrated into the scheme, and displaying higher standards of energy efficiency than hitherto. The better developments were more compact, their layouts well-conceived with good spaces and traffic calming, and careful responses to site and context promised some local distinctiveness.

There were also signs that proponents of the masterplanning approach were getting to grips with the means of implementation, and the more enlightened owners and development partners were putting in place the mechanisms to exercise higher levels of quality control to ensure better design and sustainability in each phase of the scheme.

Regrettably the very high standards of design achieved on the first Llandarcy scheme look unlikely to be delivered in subsequent larger scale phases, while at the Corus site at Llanwern the developer was yet to commit to significant design control over each development phase. Aberkinsey Park was an example of the failure to implement a masterplan successfully. But, by contrast, Penarth Heights, Rhostyllen and Merthyr Heartlands all promised to raise the bar in terms of suburban design and to show what is possible across different housing markets throughout Wales with strong planning and enlightened design patronage. Such built exemplars are vital to raising both local planning and housebuilders' aspirations.

A key issue remains the level of commitment to sustainable construction, a concern now strongly reinforced by Ministerial initiatives to aspire to the delivery of zero carbon housing (in energy use terms) from 2011. The Panel has taken the view that the achievement of an Eco-Homes Very Good rating is a significant achievement on greenfield sites, but on brownfield sites the aspiration should be Eco-Homes Excellent as a necessary step towards full carbon neutrality. The Panel remains concerned that many schemes are presented with long lists of potential sustainability measures but without any clear strategy about how to combine them into an energy efficient scheme. It continues to look for evidence that the choice of location, the nature of the site planning and layout, the nature of construction and the energy supply and conservation have all been carefully considered in the drive towards significantly higher standards of sustainability.

3.2

Case Study 2: Martello Quays, Pembroke Dock



Case Study 2: Martello Quays, Pembroke Dock.
The outline proposals responded well to the historic dock elements, but the scale, form and materials of the buildings would need to respond carefully to the historic town to generate a satisfactory solution.

This was a major residential and leisure proposal focused on a new marina, and would constitute a significant boost to tourism and the economic prospects of the town. The site was an area of tidal mudflats overlooked by the first street in the early 19th century 'new town', the least altered houses of which are listed buildings.

In the south east corner is a listed Dry or Graving Dock and immediately to the West was the enclosing wall of the historic Royal Dockyard of 1812 and the Martello Tower of 1848. All these listed elements would be preserved while the mudflats would be excavated to create a marina enclosed by a new sea wall and lock. A range of apartment blocks and town houses were planned on the wharves, with a hotel facing out over Milford Haven and tourist/marine related commercial development on the eastern side.

The Panel welcomed the scheme but sought better links back to the town centre, a new footbridge over the lock to complete pedestrian access all across the site and along its western edge; clarification of the scale and form of the development with more attention paid to Pembrokeshire precedents; commercial development concentrated in the south east block, rather than pepper-potted across the site; and a coherent sustainability strategy which incorporated low carbon technologies. It welcomed the prospect of a masterplan and design code for this scheme, although it was uncertain how prescriptive the latter could be. The Panel thought that a scheme of this size and prominence would benefit from having more than one designer, and that quality control of each phase would be crucial.

3.2

Case Study 3: Erddig Estate, Rhostyllen, Wrexham



Case Study 3: Erddig Estate, Rhostyllen, Wrexham. The new estate was a rational extension of the village across the main road (top) and took advantage of good bus links into town. The site plan creates a series of pleasant public spaces and well enclosed, connected streets supported by appropriate landscaping.

The National Trust had initiated an exemplary residential development on their Erddig Estate proposing a greenfield urban extension to the former colliery village of Rhostyllen. The process began with extensive public consultation with villagers and the Community Council, and culminated in a design brief that was put out to tender. A density of almost 30 du/ha was proposed with twelve urban blocks that defined a series of linked spaces and separated public fronts from private backs. Parking was mostly in rear courtyards. A community hall was provided along with the potential for cafes and shops, although these units could also serve as residential properties. 25 per cent of the housing would be affordable and pepper-potted across the site. The architecture was simple and deferential and reflected community preferences and the best of traditional local examples, but the Panel felt it bordered on the pastiche and would have preferred a more contemporary approach. All homes would be built to an Eco-Homes Excellent standard with provision of solar panels, while a centralised biomass CHP heating system was being considered. A frequent bus service already existed and there were bus stops within 250 metres of all parts of the site.

The Panel were particularly impressed with the Trust's quality implementation measures through:

- retaining land ownership and using a rigorous selection process and a 'licence to build' to retain control until completion,
- setting up a residents' management company with a warden to promote green transport measures, and to oversee the physical management of unadopted spaces,
- utilising a Section 106 agreement to ensure that the affordable housing element remains in perpetuity.

3.3

Medium and high density residential development (brownfield)



Fig 11: Jack's Pill, Newport. This CGI shows the tower block on the south eastern corner with the café below, but otherwise a lack of active river frontages and surfeit of car park grilles. Private amenity space was located above the car park.

The Panel saw seven major high-rise residential schemes, all in Newport and Cardiff. Unlike the previous review period these schemes were not single towers but larger residential complexes of towers, slab blocks and townhouses that occupy one or more city blocks. The Newport schemes were all on the city centre reach of the River Usk, while two of the Cardiff schemes bordered the River Taff and one the Bay proper. While the former benefit from the large scale Newport Unlimited masterplan the Cardiff schemes are one-offs, though the two largest have been subjected to significant pre-planning discussion whether in the form of a very flexible masterplan or a planning brief. The Cardiff schemes were the largest and highest density schemes yet seen by the Commission and both pose new challenges to design review and to the planning and design capacity of the local planning authority.

Two other high-rise residential schemes previously seen by the Panel feature in the section 3.6 as they are parts of major city centre, mixed use/commercial schemes.

Review experience

The three major higher density schemes in Newport on the banks of the River Usk included the **Rodney Parade** (Case Study 4) scheme on the east bank which covered seven narrow city blocks and a river frontage of about a kilometre. On the opposite bank of the Usk, but downstream of the George Street Bridge, three medium-high rise residential schemes were being progressed, the most northerly of which was student housing (discussed in Section 3.5).

The **Jack's Pill** scheme, the second block south of the bridge, came to the Panel immediately after an internal review by the development/design team had reworked the 'kerb appeal' of the main apartment block, removing the bold cantilevering, the industrial aesthetic, and the marine analogies, all changes the Panel supported. Six to seven storey apartment blocks on the west and north sides framed a private open space at first floor level above at-grade parking, with a slender 16 storey tower on the river and Pill corner including a café on the ground floor (Figure 11).

The private space on the podium level was quite exposed, but the bigger problem was the extensive dead frontage created by the ground floor car parking on the river and the Pill. The Environment Agency had apparently opposed undercroft parking on flooding grounds, but the Panel argued that the southern and eastern sides of the scheme could accommodate three storey townhouses adjacent to the café to create an attractive and active waterfront and a more valuable scheme. The Panel was reassured that the design team was committed to achieving an Eco-Homes Excellent rating based on a post-construction assessment (with provision being made to link into a future district heating scheme) and that green roofs and rainwater harvesting (for irrigation) were under consideration.

On the south side of Jack's Pill the **Westmark** scheme attempted to set a new standard of development with much larger apartments and attractive green spaces as well as serious energy efficiency measures. In contrast with the Jack's Pill scheme some parking was placed under the apartment blocks by raising the ground floor of the apartments by half a storey, thus creating extensive and potentially high quality public spaces between the blocks.

The Panel reviewed the first phase of the scheme of 150 apartments arranged in three blocks, two at five storeys and one at three storeys, arranged as 'fingers' pointing towards the river and evoking the historic

3.3



Fig 12: Westmark Scheme, Usk Way, Newport. The revised scheme adopted undercroft parking, removed the public walkway through the scheme, and made both enclosed spaces private. The boardwalk was varied in level, width and direction and fringed with estuarine habitats.

wharves in this location. This layout maximised potential views and aimed to give each unit either a view of the river or good solar access, and was bisected by a path from Usk Way to a new bridge across Jack's Pill.

The Panel felt that the demarcation of public and private space required clarification, and they were uncomfortable with the poor aspect of the north facing apartments. It welcomed the commitment to Eco-Homes Excellent to be achieved mainly through high levels of insulation, efficient building forms and a centralised heating plant, with a possible link with a future CHP system in the wider scheme. A revised scheme ensued without undercroft parking, the removal of the public through route and the conversion of the courtyards into private spaces (Figure 12). The Panel had argued for a clearer demarcation of public and private space but regretted these changes though they were pleased with the Eco-Home excellence aspirations and the involvement of an artist in the project. Arguments about elevational treatment continued.

The **Dumballs Road, Cardiff** scheme fronting the River Taff was a much larger residential scheme but with substantial office and hotel accommodation as well. The LPA's planning brief had defined the context well and the developer had responded with a proposal to introduce a 'European style' city quarter to Cardiff with a mix of office, hotel and creative space as well as residential (Case Study 5). The Panel welcomed many features of this scheme but were concerned with the way that the enclosed ground floor parking impacted on the street, considering that the overall density of the scheme was too great (240 du/ha). This was the major concern with the **Bay Pointe** scheme on Cardiff Bay (Case Study 6) where densities had been more than doubled since a previous review to a staggering 450 du/ha with three 'double towers' up to 41 storeys. The scheme had some excellent site planning and underground car parking, but the scale of development was considered far too great for the city and the Bay.



Fig 13: Wood Street Apartments, Cardiff. The double slab block now contained all the accommodation previously wrapped around the private gardens. The re-design impacted much more negatively on Station Square, and from many eastern and western viewpoints the tower and slab blocks now read as a single building.

The second time the Panel saw the **Wood Street apartments, Cardiff** a number of design changes had been made responding to newly discovered site and design constraints. The floor plate of the tower had been enlarged slightly and moved to the west, slightly closer to the river. The lower rise blocks of the previous scheme had been replaced by a slab block of 20-22 storeys facing on to Station Square (Figure 13). The second stage tendering process identified higher costs, and the developer had to accommodate these while trying to retain the original design philosophy and protecting the essentials of the scheme - the 'green heart' private amenity space and the glass needle. The main 32 storey tower was no longer completely enclosed with glazing. Instead the solid 'inner tube' of the tower was revealed in two central shafts with pairs of punched windows, while the outer skin glazing on the north west and south east corners of the tower provided every apartment with a 'winter garden'. It was claimed that much of the elegance of the original solution had been retained. But the Panel was concerned that the quality of the scheme was suffering in the revised design. The Panel was somewhat reassured by the new design rationale, subject to an increased differentiation between the two lower blocks through different colour render, more differentiated massing and elevational treatment, and redesign of their penthouses. The achievement of an Eco-Homes Very Good rating was regarded as a diminution of the sustainability standards originally promised.

The final high density residential scheme reviewed was adjacent to the **Royal Hamadryad Hospital in Cardiff Bay**, adjacent to the new Park and the River Taff. The 1903 Hospital is currently being refurbished as a mental health outpatient facility, but in the grounds, developers have proposed a ten storey, 117 bed retirement residence, the first of its kind in Wales, together with 38

3.3

affordable homes in a separate block. The accommodation was intermediate between sheltered housing and nursing home care (Figure 14). The Panel questioned the proposed massing and position of the main block, especially as it will tend to shade the central courtyard for much of the day. The building height was deemed acceptable, but it was suggested that it would be better located towards the southeast part of site, and if it went taller could allow lower building heights elsewhere. The Panel was concerned at the proposal to remove protected trees on the site and at the proximity of the proposed building to the boundary which created a very cramped impression. It considered that the proposed undercroft parking arrangement would lead to blank-walled ground floors reducing the quality and utility of the open space. The Panel encouraged the design team to make revisions and to commit to a BREEAM Excellent rating to complement the communal heating and recycling commitments.

Lessons learned

There were new challenges for the Panel in the scale, height, density and complexity of these large residential schemes, and the precedents that were being set for other sites, cities and towns in Wales. The boom in apartment production continues unabated driven as much by buy-to-let and other investment mechanisms as by owner-occupation. The proportion of properties which remain unoccupied in apartment projects such as those in Cardiff Bay is a major cause for concern, as is the eco-footprint of apartment living which might be significantly higher per capita than that of the population as a whole in Cardiff (Flynn and Collins 2006). This potential differential is exacerbated by the failure to get apartment developers to embrace significant increases in energy efficiency, and to aim for Eco-Home Excellent ratings.

These large scale high-rise developments are raising the question of how high residential densities should go in the medium and small-sized cities of Wales (460 du/ha at Bay Pointe and 240 du/ha on Dumballs Road). While the liveability of high densities is largely dependent on the quality and ingenuity of the design the Panel takes the view that densities much above 200 du/ha are inappropriate, and this view is supported by recent studies in the Thames Gateway where researchers have suggested that densities should not exceed 250 dwelling units per hectare in the interests of liveability. Design for London has recently defined any project with more than 150 du/ha as 'Superdensity' requiring special design guidance (DfL 2007) and much more rigorous testing through the development control process, but Cardiff is only now beginning to contemplate such guidance. On Dumballs Road the Panel felt that the 6-12 storey massing to generate these densities was likely to impair the quality of the street and public space as well as the aspect and day/sun-lighting of the living accommodation, and that without underground car parking the quality of the streets would be poor.

The good news was that some higher density schemes were forsaking the lowest common denominator approach of blocks of apartments in a sea of surface car parking, and seeking to create liveable streets and usable private amenity space. Higher densities should allow car parking to be placed underground which is the crucial first step towards quality design, but this has very rarely been fully achieved on a major project in Cardiff, although the Bay Pointe scheme promises to create new ground levels to allow it to happen. Elsewhere the key design problem remains how to hide the surface car parking so it does not deaden the street or the riverside walkways.

3.3



Fig 14: Royal Hamadryad Hospital in Cardiff Bay. The Edwardian hospital was somewhat dwarfed by the scale of the new development. The mature trees (TPO protected) around the edge of the site had been dispensed with in this scheme to relieve the cramped nature of the site planning, not an approach to be recommended.

Landscaped terraces are proposed on Rodney Parade and Bay Pointe, but generally there has been an inexplicable reluctance to cloak these car park edges with townhouses or apartments as would be done elsewhere in Europe or North America. Half basement or undercroft parking is less expensive than underground car parking, and can still allow the housing above to relate to the street, but the height of the undercroft is critical and cannot go much above 0.75 metres as the Dumballs Road case demonstrates so clearly. A new barrier to undercroft and underground parking is emerging in the form of Environment Agency concerns about flooding, and this has affected some schemes in Newport. This ought to be capable of resolution through careful design, but many homebuilders simply prefer to avoid another development complication.

The poor mix of housing units and the low levels of affordable housing are other concerns. Two bedroom apartments predominate, and the Panel feels that more attention should be devoted towards achieving up to 30 per cent affordable housing in these larger schemes. The Panel welcomes the stronger line now being taken on affordable housing policies by Welsh Assembly Government. It is keen to see the affordable component owned and administered by Registered Social Landlords (RSLs) to provide such housing in perpetuity, but it knows that RSLs have particular locational criteria. The integration of affordable units into the complex can be facilitated by pepper potting the affordable units, and ensuring that they have the same external design standards as the rest of the project to avoid any stigmatising. As for the mix of land uses there has been some move to incorporate small commercial uses within some of the projects, usually in the form of a cafe or perhaps a corner store (eg: the Rodney Parade scheme).

Finally there is the issue of the design of tall buildings which is reviewed in section 3.8. Suffice it to say that the Panel expect all tall buildings to achieve the highest sustainability, urban design, architecture and public space standards as emphasised by the updated English Heritage/CABE advice (2007).

3.3

Case Study 4: Rodney Parade housing scheme, Newport



Case Study 4: Rodney Parade housing scheme, Newport. The Panel welcomed the fine grain block structure and the increased number of commercial and live-work uses on the ground floors. The southern blocks of phase 2 are not shown.

This scheme on the east bank of the River Usk facing the city centre is one of the most forward-looking residential developments in Wales. The developers, responding positively to initial Panel criticisms in their re-designs, expanded the site to the south, and simplified the design for Clarence Square at the northern end. They narrowed the streets, doubled the amount of ground floor commercial space to create more active frontages, and better enclosed Rodney Road. But the most positive factor was the new aspiration to EcoHome Excellent for all units by improving daylighting and rainwater harvesting (although renewable energy generation or specific low carbon technologies were not included in the scheme). The façade treatments remained largely the same, with glass curtain walling on the apartments facing the river, and brick elevations onto Rodney Road. A pedestrian deck accommodated the riverside walk while protecting the river bank through minimal piling. Planted terraces between the apartment blocks on the waterfront screened the residential parking and increased biodiversity. The scheme would deliver flood defences for the whole of East Newport.

The Panel welcomed the design changes. They remained concerned about the significant changes of scale within the project, especially the juxtaposition of the 8 to 12 storey tower blocks adjacent to the existing two storey houses. No wind tunnel tests had yet been carried out, and this should be a planning requirement. The Panel were particularly critical of the most southerly blocks and the ground floor car parking fronting the riverside walkway arguing this should be replaced with townhouses. Vehicular access to the site from the south needed to be less convoluted. Given the length of the development along the river bank the Panel thought that there should be a greater variety of architectural treatment, to avoid an oppressive uniformity. The architects intended to maintain design consistency throughout phase one, but more variety would be introduced in later phases. More detailed facade treatments and elevations would accompany the detailed planning application.

The proposal featured generally well-defined streets and urban blocks with raised landscaped podiums at their centres over ground level car parking, the largest of which was shown as a public space. A new footbridge across the river would provide a much needed east-west pedestrian link from Grangetown to Butetown and Bute Dock. A promenade would be created on the River Taff frontage fronted by town houses and seven storey apartment blocks stepping up to 12 storeys away from the river, and culminating in a new public square, water bus stop, and a 24 storey hotel at the northern end. Most of the accommodation would be 1-2 bed apartments, but with some family housing, and a 30 per cent affordable requirement as social housing was warmly welcomed. Parking standards were 1.2 per unit, and the Panel felt this might be reduced given the proximity to the city centre.

3.3

Case Study 5: Dumballs Road Urban Village, Cardiff

Case Study 5: Dumballs Road Urban Village, Cardiff. Large scale commercial uses will form the northern edge to this 'urban village' while blocks of 6-12 storey residential will sit above ground floor car parking. The interiors of the blocks, raised above the street, have been redesigned as communal rather than public spaces as the Panel suggested.



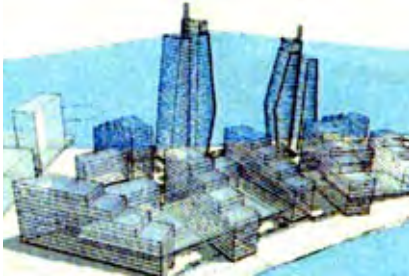
The Council brief/strategy set out many key planning parameters, and the developer and designers proposed residential streets and perimeter blocks and presented the basics of a sustainability strategy. The Panel had seven major concerns:

- the 'public' spaces being proposed in the centre of the perimeter blocks should be largely private defensible space, especially as they would be raised 1.5m above street level;
- the ground floor parking and the placing the flights of entrance steps parallel to the building frontages undermined the potential quality of the street: the ground floor level should be lowered to 0.75m above street level and the steps be at right angles to the street;
- the proposed density at 240 du/ha exceeded all but individual high rise buildings in the city centre, and required 6-12 storey building heights: the site layout should be tested under an artificial sky to eliminate any problems of overshadowing, and backed up by wind tunnel tests.
- the blocks which were predominantly aligned north/south should have dual aspect apartments to give residents better aspect, solar access and ventilation;
- a more sympathetic relationship was required (in terms of grain, detailing and materials) between the river-front buildings and the two storey terraces on the other side of the River Taff, with townhouses forming a continuous residential frontage to the river;
- the riverside 'square' space might be better dispersed through the scheme to create more residential amenity;
- the proposed footbridge across the Taff should align with the southern site boundary where links could be made east to Butetown.

The first two of these points were subsequently addressed in a revised scheme. The Panel welcomed the promises that this would be a highly sustainable project [with a district heating system driven by a ground source heat pump linked to underfloor heating] and that these high standards would be enshrined in design codes and planning conditions. On the commercial side it would be carbon positive – ie it would export more energy than it imports from the grid.

3.3

Case Study 6: Bay Pointe, Ferry Road, Cardiff Bay



Case Study 6: Bay Pointe, Ferry Road, Cardiff Bay. The new plans had doubled the number of apartments and footprint of the towers. This threatened the quality of all the well landscaped public spaces, especially the central park and the boardwalk on the Bay. A twin-tower solution was subsequently approved with a reduced number of apartments.

The Panel saw the first version of the residential development Bay Pointe, Ferry Road, Cardiff Bay alongside the International Sports Village in October 2005. Cardiff Council and their partner had selected a development and a design team with local and international experience and stated their aims for a truly sustainable, 'world class' development, reflected in 'iconic structures' and quality materials. Yet only a BREEAM Very Good rating would be sought on the brownfield site. The first proposal was for 1127 apartments largely disposed in three towers of 21-36 storeys with underground parking freeing up the ground floor for landscaping, but the Panel struggled to identify a recognisable sense of place within these proposals. When the scheme was re-presented in August 2007 the number of apartments had more than doubled, and a gross density of 461 du/ha was proposed, unprecedented for a large site in a medium-sized UK city. The Panel argued that this gross overdevelopment gave rise to problems of massing, microclimate, views and transport.

The architects had created three twin towers of 37-41, 31-35 and 30-34 storeys which the Panel considered produced a wall of development when viewed from many angles, and which would produce prolonged overshadowing of the Bay frontage. These towers prejudiced the quality of the central park wedged as it was between the two tallest towers at its northern end, and inexplicably narrowed at its southern end, creating a poor microclimate.

Positive attributes were the underground car parking (at a ratio of only 0.78 spaces per unit), the careful separation of private and public space, lively restaurant frontages on the northerly edge of the site closest to the Sports Village, and the pepper-potting of 276 social housing units across the different buildings (with funds for more than 200 more units off-site). There were concerns that the generous landscaping might be difficult to achieve in a Cardiff climate with such tall buildings altering the microclimate, and there were requests to reduce the height and ameliorate the steel pilings on the water's edge with some wetland habitats.

The sustainability proposals were considered inadequate and while the Panel welcomed proposals for natural ventilation and a CHP district heating system, it thought there needed to be an absolute commitment to Eco-Homes Excellent or the equivalent. It considered that the public transport infrastructure was wholly inadequate with a single bus loop serving 2400 apartments. The Panel drew heavily on the new English Heritage/CABE (2007) advice on tall buildings in considering this scheme. This emphasises the pre-requisites of very accessible sites (identified in the local development plan), detailed analysis of microclimatic effects, architectural and public realm excellence, and the very highest standards of energy efficiency. The project failed all of these tests.

3.4

Medium scale residential development



Fig 15a: North West Elevation Student Housing, Usk Way, Newport. This student housing block had a very narrow courtyard, and the Panel was concerned that many rooms would have a poor aspect. It sought a more limited palette of materials, colours and fenestration for the elevations.

A range of different and very specialised medium scale housing schemes were seen by the Panel and these fell primarily into three categories:

- (i) student housing and residences
- (ii) low cost housing prototypes developed by one of the mass house builders
- (iii) rural housing

Other smaller scale residential developments will be discussed under residential intensification (3.5) and developments in conservation areas (3.6).

(i) Student accommodation

Bespoke student housing has become a very distinctive feature of the landscape in many university towns where they are clustered on the approaches to the campus in a series of medium-rise, shared common room/private bedroom units with minimal external amenity space but virtually no car parking.

A series of bespoke companies are now developing these projects, and two such examples have been reviewed by the Panel. Two additional cases are explored, both commissioned by the educational establishments themselves, both highly individual and very careful responses to their sites. The difference in urban design quality achieved by these two types of scheme promoters could hardly be greater.



Fig 15b: Student Housing, Usk Way, Newport.

3.4

Fig 16: Student Residence, Atlantic College, St Donats Castle. Good solar orientation and a fine aspect for all of the student bedrooms were provided by a plan that took advantage of the slope and created an interesting courtyard approach to the building on the first floor level.



Review experience

Proposals for a student residence on **Usk Way, Newport** on a one acre site on the south west side of the George Street Bridge viaduct, but with river frontage to the east, were put forward by a specialist student housing developer. A seven to eight storey apartment block was proposed on this tight rectangular site with a small internal courtyard accessed through the block on the south side (Figure 15). No occupant parking was provided or allowed and this was a condition of tenancy.

The Panel was content with the principle of the use and the proposed scale of development, but had major concerns over the massing and orientation. It accepted the rationale for providing the communal, active uses at the main entrance on the Usk Way frontage, but were disappointed with the lack of similar active uses on the riverside frontage, or any attempt to maximise views of the river. They wanted the massing of the block to be more varied to create a less monolithic block and deliver more external amenity with the courtyard redesigned to open out towards the river.

The mass of the block was broken up with a variety of facade treatments and the Panel argued for less variety of fenestration and a reduced palette of materials, with the articulation of the block more unified and coherent. The Panel welcomed the exploration of the provision of biomass heating and noted the commitment to achieve Eco-Homes Very Good, but considered that an Excellent was achievable on this brownfield site. Overall the Panel considered this a very banal scheme that failed to take advantage of its riverside location.

It was a similar story on the former **Unit Superheaters** site on the west bank of the Tawe in **Swansea** with a mix of student rental and market housing. The

3.4

scheme proposed 300 residential units of which 12 per cent were affordable, with 1000 largely car-free student housing units in 191 shared units with a gymnasium. The Panel expressed concern about the lack of distinctiveness in the architectural treatment arguing that this area should not repeat the SA1 aesthetic or the standard student accommodation solutions. They were critical of the absence of a sense of place in this attractive waterfront and edge of city centre site, and wanted to see both a public realm and a landscape strategy to provide more enclosure and definition of streets, less permeability, and a clearer distinction between public and private space and fronts and backs. The Panel argued that a BREEAM rating of Very Good or Excellent should be specified.

The contrast between the design ambitions of the two commercial schemes and the two schemes promoted by the educational establishments could hardly be greater. **Friddoedd in Bangor** (Case Study 7) is the location for a redevelopment of student residences for Bangor University to be undertaken by social housing developers/designers. Their carefully considered, highly sustainable approach to the development had many parallels with the new student block for **Atlantic College** in the grounds of **St. Donats Castle**. This was the subject of a two-stage international competition held in 2004, and the brief called for an inspirational response to the 'College's vision of a more dynamic and open environment for student life'.

The Panel reviewed the first stage of this phased development and the design was informed by sustainability considerations with all rooms benefiting from fine views of the grounds and solar access. The concrete ground floor podium used thermal mass to store solar heat during the day, and supported a lightweight, two-storey structure of cross laminated timber panels. Oblique vertical timber fins gave privacy to the bedrooms while maintaining views. The full height glazing had opening windows top and bottom, and a mono-pitched roof formed a south facing clerestory along the length of the building (Figure 16). External materials were to be local and natural where possible, and the designers were investigating rainwater harvesting, solar panels and occupant-controlled lighting. The site as a whole already has a district heating system, partly fuelled by biomass [wood chip]. The Panel welcomed this intelligent and sensitive scheme which demonstrated the potential of contemporary architecture in a historic setting and the benefits of a traditional procurement route with the involvement throughout of the architect.

Lessons learned

Generally new forms of student housing are to be welcomed as prototypes of car-free and perhaps affordable, communal housing. They are also an important means of reclaiming many lower cost inner city neighbourhoods from 'student ghettos' where the estate management problems posed by short term tenancies, absentee landlords and tenants, and the behaviour of a student minority, have caused rapid deterioration in liveability. However, the contrasts between the aspirations of these two different types of student housing developer could not be greater in terms of response to site and context, architectural refinement and contribution to sustainability. It ought to be possible for all student housing to achieve very high sustainability ratings, and these would be directly in the operator's interests in terms of major reductions in running and maintenance costs. However, the specialist student housing providers sometimes appear to have little interest in good site planning and amenity or contributing to the sense of place, preferring standardised responses that fail to take advantage of often quite spectacular sites. The commercial providers have a lot to learn from the bespoke schemes, just as other universities and colleges have much to learn from the careful campus planning exhibited at Bangor and St. Donats.

3.4

Case Study 7: Student residences, Friddoed, Bangor University



Case Study 7a: Student residences, Friddoed, Bangor University. The seven new residential blocks either side of Summer Boulevard, and the diagonal link to Campus Green, give these pedestrian routes much more definition. The Panel suggested improvements to the elevations but welcomed all the sustainability features.

An outline consent for residences existed on the basis of a masterplan prepared by the University's architectural advisers. The site had views out to the Menai Straits, and the architects adopted the principle of a linear green park running east-west through the site. Pedestrians and cyclists would have priority and car parking would be pepper-potted throughout the site to increase natural surveillance.

The landscape strategy included structural planting, the creation of a buffer zone between the campus and local residents, and local landscaping to improve the relationship between buildings. Architecturally, the approach was to create 'villas in a landscape', four storeys high, to enclose and define the space and to protect views from across the Straits, maximising accessibility and integration with the community.

The sustainability agenda was addressed via timber frame construction from sustainably managed sources; high levels of insulation and locally sourced materials; good energy management; and a solar-responsive site layout. Inclusive design has been considered and level access is provided. The developers are working with the DEIN/DET/Construct Wales programme in order to maximise the use of local businesses and labour.

The Panel applauded the whole approach to the development and the determination to make this an exemplar project. They suggested further thought on the elevational treatment and massing of the blocks, the fenestration, varying floor levels, the amount of brickwork proposed and its

3.4

colour, and the detailing of panels and windows on the top floors. It strongly supported the design team's commitment to achieving exemplary standards of environmental performance and overall sustainability, but was concerned at the short time-scale available to develop detailed designs and resolve outstanding issues.

(ii) Low cost market housing

A number of homebuilders have developed £60,000 (construction cost) homes in response to John Prescott's 2003 challenge to the industry to provide affordable, 'open market' homes and to stimulate the 'first time buyer' market. The Redrow 'Debut' prototype housing design was designed to cost only £49,950 to build in order to be affordable to anyone earning over £17,000 per annum. It was intended to be fully replicable, contemporary in style, and capable of achieving a sense of place and community. It made full use of the benefits of Modern Methods of Construction (MMC) with construction times of 12-13 weeks, and its prefabrication made high levels of thermal and acoustic insulation possible with communal heating plants using low NO_x, gas fuelled boilers serving groups of units. Debut housing can achieve Eco-Homes Excellent ratings. The houses are sold on a leasehold basis and Redrow operate management contracts to maintain quality in the longer term. Buyers have no personal external maintenance responsibilities, but are charged a reasonable service fee and investors are excluded from purchasing through a contractual restriction. Parking is provided at a ratio of 1.2 spaces per unit.

Review experience

Three separate projects were viewed by the Panel allowing them to come to a view on the key design issues. The first scheme the panel reviewed at **North Cornelly, near Porthcawl** (Case Study 8) was considered by the Panel to need much better site planning. However, the second application of the Redrow Debut Home concept at **Black Clawson, Old Town Dock area of Newport** was much better received. Here, next to the new road bridge over the Usk River and the proposed new riverside park, 380 residential units were proposed on 3.8 hectares, with 86 'Debut' homes next to the bridge. The site layout follows the Newport Unlimited masterplan, with through routes running east/west linking the main road and city to the riverside. Strong perimeter blocks front on to streets and urban squares created where north/south and east/west routes cross. 'Landmark' apartment blocks on the river edge step up towards the new bridge, although the designers have not implemented the 12 storey option suggested by the masterplan at this corner (Figure 17). The scheme adopts a contemporary aesthetic and a common language of materials.

The Panel was impressed with the proposals but they wanted to see fewer blank facades, better finishes and more local distinctiveness. The 45 degree pitched roofs were not characteristic of the surrounding area and it seemed anomalous that bedroom and living rooms had windows of similar size. The Panel felt that the design concept was vacillating between rear courtyard parking with dense tight main streets, and a more suburban layout, while the layout was not oriented to solar gain or the river views. Among the other revisions suggested were the introduction of corner units to reinforce the character of the three main squares, narrower streets with no parking, better landscaping and dedicated cycle routes, minimisation of dead frontages associated with the undercroft parking and increased amenity space for the affordable housing. The Panel suggested that the Debut CHP scheme and their Eco-Homes Excellent ratings should be adopted across the site.

3.4

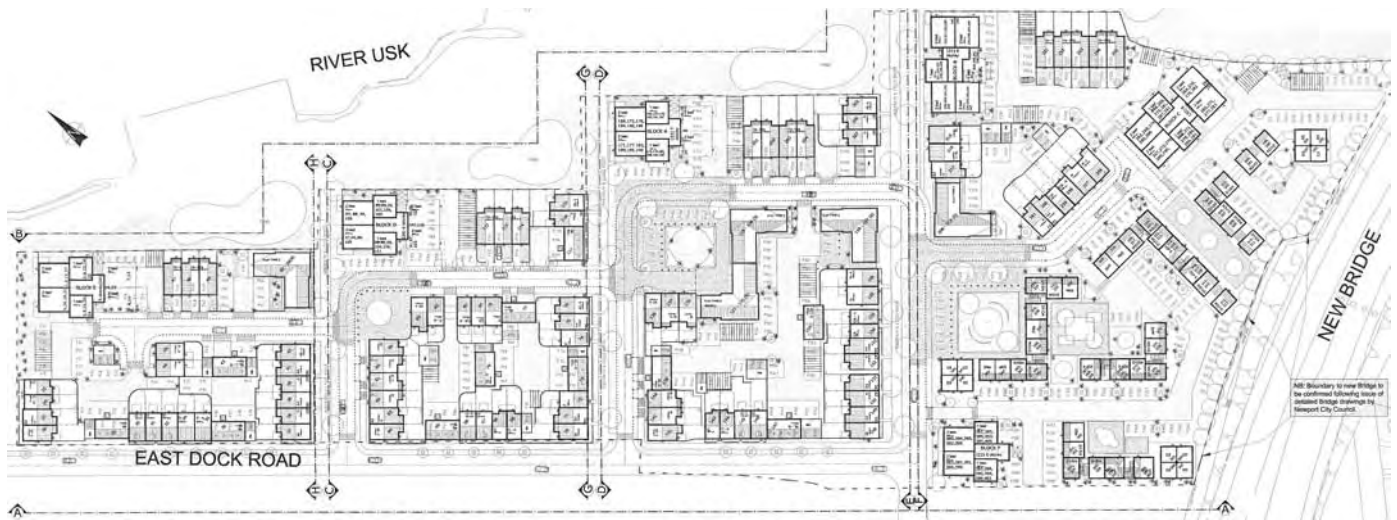


Fig 17: Debut Homes, Black Clawson, Newport. The six blocks of 5-7 storey Debut 1-2 bedroom apartments were largely confined to the north eastern edge of the site. This revised layout increased the density by five per cent but the public spaces were improved.

The third **Debut** site in **Ebbw Vale** was covered by the Ebbw Vale Masterplan (see section 3.1). It is long and narrow and bounded by a Grade II* listed blast furnace wall to the east and the River Ebbw to the west, each with 7-8 metre easements. The layout of residential blocks addressed the linear nature of the site, with a street frontage running along the river and footpath linkages across the site. The buildings were two to three storey, formed into terraces and square blocks, with a key building at the site entrance.

The Panel had some reservations as to whether acceptable standards of privacy and amenity could be achieved at this density. They urged the developers to consider some reduction in the number of units or to secure sufficient improvement to the layout, especially of amenity and parking areas, to make such a density acceptable. The Panel considered that a minimum window to window distance between dwellings of 21 metres was an unnecessary constraint on site planning for low cost homes, and that privacy should be achieved through intelligent site planning.

Lessons learned

In general the Panel view on the Debut prototype was one of strong support for its affordability and its Eco-Home Excellent ratings, but strong arguments were made that such housing needs to be located on sites that are accessible to public transport and local services, with more imaginative site planning in order to create better external spaces, and improve both the amenity and aspect of the homes. The Panel thought that with these improvements the Debut model could become widely accepted as a model starter home, and the Panel looked forward to seeing similar products emerging from other homebuilders.

3.4

Case Study 8: Debut Homes,
North Cornelly near Porthcawl

Case Study 8: Debut Homes, North Cornelly near Porthcawl. The panel welcomed the concept but felt that the site planning and landscaping had to be of a higher standard to make the scheme liveable.

The site was in the western corner of a much larger scheme then under development for two to five bedroom houses. It was close to local rail (1km) and bus services and local shops were within 400 metres. A mix of apartments and houses (providing 95 units in 2-3 storey blocks) was proposed where previously 17 detached houses were approved. A detailed planning application was recommended for approval by planning officers, but at committee a decision was deferred as objections were made to the proposal on the (mistaken) assumption that it was for social housing, and because of the large number of one bed units.

The Panel supported the principles embodied in the 'Debut' concept but considered that the layout in this case confused parking, communal hard space and through-routes. It thought that a stronger urban design concept was necessary which offered a more connected set of spaces, possibly in the form of a traditional street, with good pedestrian connections to the local footpath network, the surrounding countryside and the Site of Special Scientific Interest (SSSI).

There appeared to have been no consideration given to solar orientation, or the capturing of views, in the orientation of the blocks thus limiting the quality of

3.4

Fig 18a: Lower Chapel, Powys. This plan illustrates the rather cramped site planning and attempt to squeeze in two extra units. It was primarily these issues which undermined what would have been a useful experiment in low carbon housing.

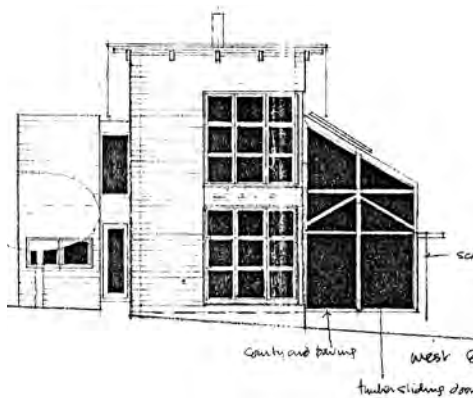


Fig 18b: Lower Chapel, Powys.

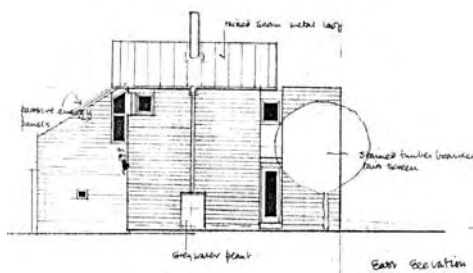


Fig 18c: Lower Chapel, Powys.

life for residents. The developers were considering the feasibility of solar water heating but with the measures taken to reduce energy and water consumption and the communal heating systems could realistically achieve Eco-Homes Excellent ratings. There was no intention to control re-sale prices. Redrow appealed against refusal in August 2006 and won the appeal.

(iii) Rural housing

Rural housing includes small schemes in open countryside, and small infill in hamlets, villages and small towns in the countryside. The Panel saw a number of such schemes particularly when they undertook peripatetic reviews. The Commission understands their importance to the more rural planning authorities in Wales and the National Parks.

Review Experience

One particularly important small residential scheme to come before the Panel was a proposal for affordable homes for sale off **Greenhill Way in Crickhowell**, a very ambitious but much needed scheme in the Brecon Beacons National Park (Case Study 9). It needed substantial revisions to be acceptable in its context, as did another sustainable housing scheme outside the Park, an eco-housing scheme in the village of **Lower Chapel, Powys**.

Set in lush rolling countryside on the B4520, five miles north of Brecon, this proposal expressed a very distinctive aesthetic. Outline planning permission existed for four houses, of which two were to be affordable, but the proposal was for six detached houses, of which two were affordable (Figure 18). The village had a mix of residential properties with no predominant design character, and access had been agreed from a new road junction to the north of the vicarage culminating in a tight courtyard with a minimum turning area.

The site layout took advantage of the slope to maximise views and solar access while maintaining privacy, but considerable local opposition had been expressed on the grounds of over-development and unsympathetic design. In the drive for sustainability the houses were to be timber framed and clad with low mono-pitched, stainless steel or zinc roofs. They would have south facing

3.4

Fig 19a: 70 Degree Hotel, Abergele Road, Old Colwyn. Development was largely confined to the footprint and building envelope of the old hotel. The apartment block was cut into the cliff to reduce its height, but it re-created a prominent coastal landmark.



Fig 19b: 70 Degree Hotel, Abergele Road, Old Colwyn.

conservatories and be insulated to high standards and heated with wood pellet/chip boilers. Provision was made for rainwater, and possible grey water, collection and recycling, and solar water heating and/or photovoltaic panels would be optional for householders. A communal area beyond the gardens would be made available to the residents (and possibly the village) and a line of trees would be planted on the southern boundary.

The Panel commended the innovative and sustainable aspirations of the design approach, but they felt that the scheme should not be approved in its present form. They suggested that the layout be adjusted to minimise overlooking, offer higher levels of privacy, and better use of private and shared external space, and enhanced site boundaries. They recommended that an Eco-Homes assessment process be undertaken which could evaluate a 'green' (turf or sedum) monopitch roof solution which might obviate the objections of both LPA and neighbours to the proposed zinc roofs. Subsequently the scheme was refused planning permission and an appeal was rejected, and an opportunity lost for much needed innovation in rural housing.

By contrast a coastal housing scheme at **Swanbridge, near Sully in the Vale of Glamorgan** (a hamlet on the coast opposite Sully Island) displayed some modernist pretensions. The proposal was for 23 small apartments and one three-bed duplex, in two, staggered 3-4 storey balconied blocks which would take up the whole depth of the site and front the north and south boundaries. The Panel did not support the idea of a corner tower on the apartment block and preferred to see a long, low-slung, sleek building with streamlined elevations with a less-complicated roof design. It did not consider this to be a sustainable location for residential development despite the pursuit of a 'Very Good' Eco-Home rating.

Similar debates ensued on the prominent cliff-top site of the former **70 Degree Hotel, Abergele Road, Old Colwyn** where a proposal for 50 apartments and townhouses was made with a promise of a contribution towards affordable housing. The architects sought to create a landmark apartment building with a strong horizontal emphasis wrapped around the cliff. A central beacon tower

3.4

on the 3-4 storey block suggested a lighthouse that could be illuminated at night (Figure 19). Excluding the lantern on top of the tower the apartment block was no higher than the existing hotel, and the amount of green space on the site was increased. The Panel suggested only minor revisions including a more integrated architectural treatment and landscaping scheme for the four blocks, and a more horizontal emphasis to the apartment block elevations, with floor to ceiling heights increased. They also suggested a 'home zone' treatment of internal streets, a reduction of parking levels and the adoption of a sustainability strategy designed to minimise energy use and include some renewable generation. The Panel did not support gated access considering this to be divisive and prejudicial to long term security.

Some similar design challenges to those faced by rural housing developers were evident on the **White House Hotel at Abersoch, Gwynedd**. A proposal was made for demolition of the house and its replacement with a 30 room, 5 star hotel. The site was in a prominent elevated position, with panoramic views and mature grounds and the design was conceived as a white mass on a slate plinth, with a curved convex form taking advantage of the southern aspect and the sea views. Various roofscape solutions were explored including an uncompromising contemporary approach which the Panel favoured, but a 'middle ground' solution with some pitched slate roofs and flat roofed dormers was settled on using local materials to create a crisp, clean effect. The Panel strongly applauded the overall concept of the curved form and the creation of a simple and crisp white block and urged the team to maintain their original commitment to a contemporary form, but they suggested some detailed design changes and recommended that the scheme achieve a BREEAM Excellent rating.

Lessons learned

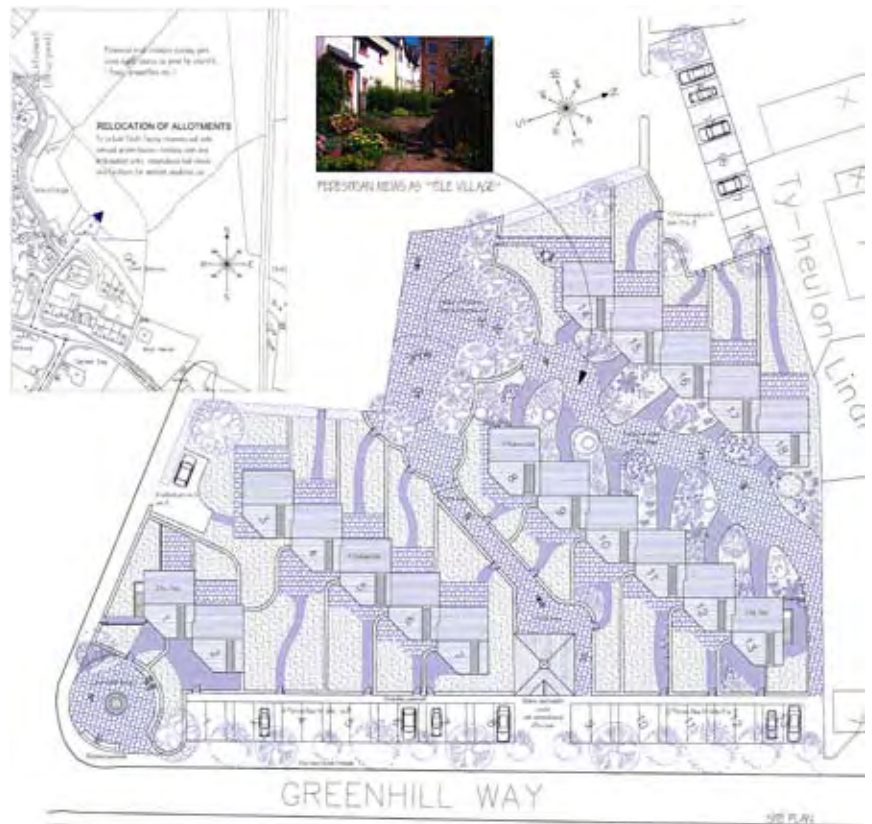
These rural case studies show the Panel taking a consistent line on the value of contemporary design as opposed to highly contrived, neo-vernacular or pastiche solutions on new houses and hotels in the countryside. But as the Panel argued in the Lower Chapel case, designing with sensitivity to the context has little to do with the adoption of any particular architectural style, and much more to do with the response to the particular site and the relationships of form, surface, colour and texture. Solar orientation, shelter, energy efficient construction and genuinely locally sourced materials should be design drivers.

More problematic, however, is the sustainability of the locations of these frequently isolated schemes, and their total reliance on car travel, reducing the benefits of domestic energy efficiency. The visual impact of development in both short and long views remains important, as does the siting of buildings and the need to respect very local circumstances of site and context. The Crickhowell case is a valuable reminder that the rural housing affordability crisis is as important as the urban one, and one that is ignored at great cost to rural communities and economies.

3.4

Case Study 9: Greenhill Way, Crickhowell

Case Study 9: Greenhill Way, Crickhowell. The rigidity of the site planning, and the over-preoccupation with solar orientation, were identified as the main failings of this scheme. The Panel lauded the affordability and sustainability aspirations.



On this low cost rural housing scheme the estimated build cost per unit [excluding the land] was £74,000 and the average salary in the area could potentially fund a house purchase of up to £120,000, given a 50 per cent shared ownership option. The development would be owned and run by a Housing Trust which would manage the site and act as client in the process of development. Houses could be sold to buyers on a freehold or leasehold basis, but the Trust would ensure that the properties remained affordable.

An illustrative scheme for 20 houses was presented, mostly three bedroom with some apartments, laid out in a staggered format to maximise solar gain, with mews walkways providing good pedestrian permeability. Communal facilities included a creche and an outdoor entertainments area. Parking was provided off street at a ratio of 2:1 and could be used by non-residents during the day. The scheme was designed to be highly sustainable, with a variety of renewable energy and construction innovations to ensure the houses were cheap to run.

The Panel considered the proposed layout of houses and public spaces to be unacceptable because they were determined solely by the requirement to maximise solar access. It felt that the layout should respond better to the existing car park and to the pedestrian links into the town. Consideration should be given to the development of a denser scheme, more similar to the historic pattern of local housing, with better integrated public spaces and more usable back gardens. Projected movement patterns should inform the design of the public realm. A landscape architect should be involved and the well-defined boundaries given a high quality treatment. Low energy use should be ensured by focusing on one or two sustainable technologies, and the benefits of a community heating system should be explored.

3.5

Residential intensification

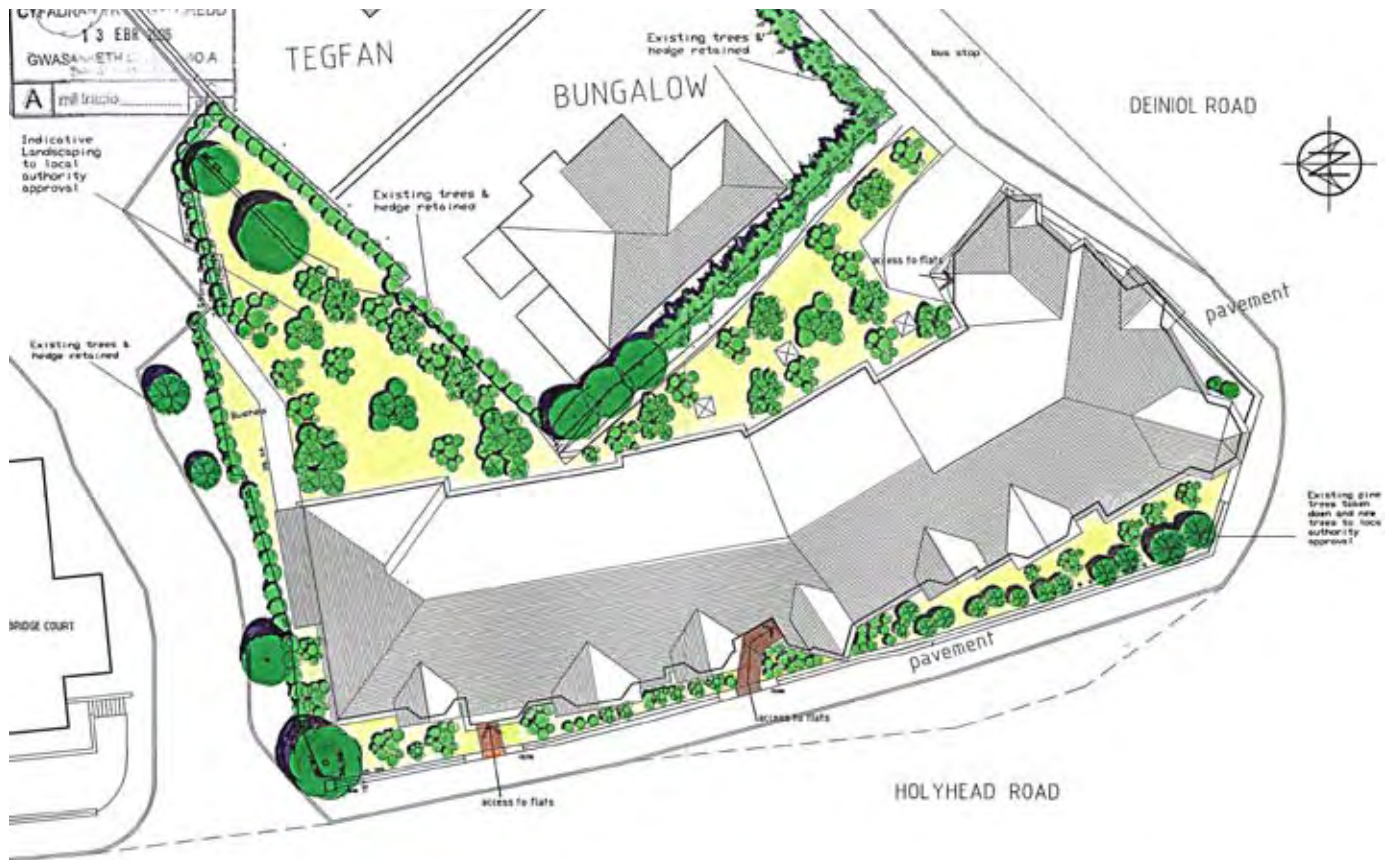


Fig 20: Deiniol Road, Bangor. The designers came back with a revised scheme with four less apartments, better landscaping, improvements to the car parking and to the elevations making the scheme acceptable. There were still concerns about the bungalow's amenity.

The Panel has had limited opportunity to comment on residential intensification projects which are increasingly common in the suburbs of the larger towns and cities of Wales. Such schemes are fuelling debates about loss of character, back gardens and parking spaces on the one hand, and lack of housing choice, affordability and viable public transport on the other.

Suburban areas continue to be under-represented in planning policy not least because a negative backlash can be expected whenever there is any proposal to actively encourage intensification and redevelopment. Nimbyism is never far from the surface in such contexts and this places a premium on careful site and context analysis and sensitive development which respects the character of the locality. Perhaps it is surprising then that the design of such schemes is often so poor, but evidently the temptation to squeeze in extra units is difficult to resist.

Review experience

The first example is from central Bangor but might be construed as a suburban context. The apartment scheme on Deiniol Road, Bangor was opposite the listed railway station but just outside the town conservation area. Surrounding properties were largely red brick, three to four storey Victorian villas, with characteristic dormer and bay windows, standing in their own grounds, whereas the proposed new building virtually filled the whole site.

3.5

Fig 22: Old Station Road in Porthcawl.

A beautifully presented and well-designed, sustainable scheme won the Panel round to this small apartment building replacing a local eyesore.



The Panel felt that the effect of this building of 'executive apartments' would be overpowering when viewed from the station (Figure 20). The inclusion of elements from surrounding buildings on a simple, modern design was poorly executed, the dormers and roof pitches on adjacent properties being steeper and the fenestration more vertical and recessed. Parking was at semi-basement level creating a problematic relationship with the street with extract grilles at eye level on the street corner. The Panel rejected the scheme as an over-development of the site, but a revised, lower density scheme was considered acceptable.



Fig 21: Penrhosgarned, south west of Bangor. A key issue was the dishonesty of all the photomontages which dramatically reduced the bulk of the 3-4 storey apartments. The elevations were institutional rather than domestic and the internal layouts were flawed.

An apartment proposal for a block of 15 apartments replacing a pair of derelict semi-detached properties at **Penrhosgarned, south west of Bangor** was strongly criticised. The LPA recommended refusal but decided to refer it to the Panel for a second opinion. The suburban site was on a significant junction of local distributor roads, and good bus services linked the site to the city centre, and to nearby settlements. The Panel supported the principle of residential intensification, but considered the proposal to be simply too dense for the site, as demonstrated by the distorted photomontages, while the elevations were institutional in character and lacked any refinement (Figure 21). The Panel advised the applicant to engage a competent and qualified architect.

A bolder approach to intensification seemed to pay off adjacent to **Old Station Road in Porthcawl** where an eight storey apartment block was proposed on the site of a former health club just off the dual carriageway. At first sight it seemed a rather random location for such a building, but the existing three storey building on the site was industrial in character and an eyesore, and the whole area was close to the town centre and would benefit from selective residential redevelopment. A quarter-circle floor plan was adopted to maximise views towards the sea and to reduce overshadowing of properties to the north. The orientation and fenestration were informed by solar access and sustainability considerations and an attempt was made to incorporate a seaside aesthetic (Figure 22).

The Panel appreciated the clear explanation of the design philosophy but was cautious about a timber frame construction at eight storeys. Omitting the ventilation panels from the facades would improve the architectural treatment,

3.5

“ Where an architect is retained the results are usually far better and design subtleties can help maximise development value while injecting a new design quality into the locality...”

while high level windows (to prevent overlooking of adjacent properties) should be included on the north facade to improve daylighting in the kitchens. The Panel welcomed the sustainability strategy but pointed out that a single central boiler with heat meters for individual apartments would give better energy efficiency and could be adapted in the future to run off biomass. It encouraged the client to commit to achieving an Eco-Homes Excellent rating.

Finally, an important aspect of suburban intensification and change is the regeneration of small commercial centres. **The Maelfa Centre on the Llanederyn Estate in Cardiff** built in the 1970s contained a mix of flats, shops and community facilities, but was very much run-down and inaccessible by virtue of the vertical segregation of vehicles and pedestrians. An outline planning application was made with a masterplan relocating the community facilities on the north-west corner around a semi-public parking courtyard.

The Panel was convinced that a design brief would have been more useful than an outline planning application in signalling to developers the Council's ambition to deliver a high quality, sustainable development, and less likely to stifle design innovation. A useful start had been made in showing the development capacity of the site, but no genuinely usable areas of public space were created. The public realm treatment needed to be more diagrammatic and greener with a clearer street pattern, and sustainability criteria needed to be embedded in the brief or tender documents, with minimum performance standards specified.

Lessons Learned

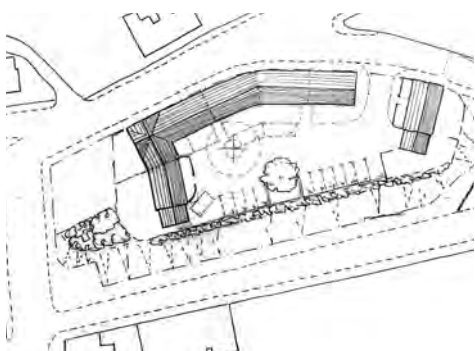
Most intensification schemes fail to adopt a sufficiently contextual approach to design in a suburban environment, and fail to propose development at an appropriate scale. Because they are usually small development projects they often lack the services of a good architect and the results are often visually illiterate. Where an architect is retained the results are usually far better and design subtleties can help maximise development value while injecting a new design quality into the locality, as seemed likely to happen in Porthcawl. The latter is an exception to the general rule that too many developments attempt to be 'landmarks' when their scale, use, site and context all suggest a background building would be more appropriate. Good background buildings are one hallmark of successful urban design.

3.6

Small scale developments in conservation contexts



Fig 23: Morriston (Clyndu Street), Swansea. A good piece of site analysis helped the Panel decide that, rather than attempt to develop on the steep sides of Harris Street, and creating overlooking problems, as proposed above a 2-3 storey terrace of houses fronting on to Clyndu Street (and perhaps bridging the access way) and leaving the Harris Street bank undeveloped would create a satisfactory solution (below).



Conservation issues hardly featured in [Design Review in Wales 03-05](#), but over the last two years a significant number of schemes in Conservation Areas have been brought to the Panel and have provided an opportunity to explore how new development might “preserve or enhance” the “character and appearance” of the locality. Most of the schemes were residential but there were also two challenging commercial schemes worth exploring at Conwy Quay (Case Study 10) and in Harlech.

Review experience

Four small residential schemes posed design challenges to their conservation contexts. In the steep and narrow terraced streets of **Morriston (Clyndu Street), Swansea** a proposal for 12 semi-detached, two and three storey houses fronting onto Clyndu Street and Harris Street followed a refusal of an initial scheme (Figure 23). The site lay derelict sloping sharply down to a steep incline on Harris Street to make any development on the latter street difficult. The Panel agreed with the LPA that the effect would be overbearing on the residents opposite, and suggested that development should be concentrated along Clyndu Street turning the corner into Upland Terrace, with a parking court behind. The terrace could rise to three storeys in places where it did not adversely affect properties opposite, thereby creating a more cost-effective solution. This would leave the eastern bank sloping down to Harris Street to be re-landscaped.

The Panel recommended that the Highways requirement for a new pavement on west side of Harris Street should be dropped and the parking standards reduced to facilitate a sensitive scheme. They thought the proposed elevations

3.6

Fig 24a: Former Victoria Hotel, Llanwrst, Conwy.
This very long running conservation saga continued after the review as the Panel continued to press for changes to the fenestration and window materials to obtain a better fit with the locality, and to create entrances from the street.



were sympathetic to the conservation area, subject to an appropriate choice of materials, and that sustainability features should be incorporated in any future proposal, informing both design and layout.

In **Well Street, Holywell**, within the conservation area and close to St Winifrede's Well and Chapel (Grade I listed and Scheduled Ancient Monuments), 26 'Bath style' 3-bed town houses with front and rear gardens were originally proposed using passive solar design and sustainable principles and materials. After consultation with the Panel, and the preparation of a local authority design brief, this was reduced to 16 town houses arranged in three terraces running across the site and facing south, linked by two courtyards, one of which will be used for parking. The Panel considered that the revised scheme was also unacceptable. Georgian references in the architectural treatment of the blocks were not helping to achieve a quality design response to the site and context, and a simple contemporary design that respected the building line, scale, proportions, and detailing of the prevailing historic buildings, and did not compromise the view down Well Street, was much preferred. The Panel agreed with the LPA's brief that the development be concentrated at the southern end of site away from the historic buildings, and wanted a real commitment to locally sourced materials, and a comprehensive landscape scheme.

The site of the **Old Victoria Hotel, Llanwrst** between listed buildings and immediately opposite the Grade I listed Pont Fawr, had long been derelict. A three storey residential scheme of two bedroom apartments was proposed aimed at the retirement market. No attempt was made to replicate the landmark nature of the former hotel allowing the bridge to take precedence, and the proposed design reflected Llanwrst's domestic architecture and predominantly rendered facades, seeking to contribute to the street scene rather than be a 'stand-alone' statement (Figure 24). A recent flood risk assessment had raised the finished floor level 1.5m above the footpath level posing problems in terms of the relation of the building with the street, but the massing respected the height of adjoining buildings. A managed development with low maintenance requirements was proposed.

The Conservation Officer and the Conservation Area Advisory Committee had criticised the scheme. The Panel found the proposals to be an acceptable response to the site but recommended that the overall composition be treated

3.6



Fig 24b: Former Victoria Hotel, Llanwrst, Conwy.

as a series of smaller buildings, with more varied fenestration responding to the buildings on either side. Windows should be timber sashes with sections copied from the originals. Roof pitches, chimneys and rainwater goods should reflect traditional detailing and materials, and front doors onto the street would increase the conviction of the design. A greater definition of public/private space was needed with some amenity space at the rear. The Panel supported the use of local sustainable materials and recommended the inclusion of a single, low-carbon heating system.

Opposite the Grade II listed **George IV Hotel, High Street, Criccieth**, a second proposal for residential development followed a refusal, and the applicant proposed a formal garden opposite the hotel, with a 40 unit sheltered housing scheme to the west in a four storey block on the High Street. The Panel considered the proposal out of scale and character with the High Street and an overdevelopment of the site. It recommended a more sophisticated architectural approach be developed by an experienced architect, redistributing the massing down the slope towards the south and accessing the premises from the rear. It argued that the choice of materials be re-thought, with greater use of local stone and Welsh Oak replacing Western Red Cedar.

The design of new infill was also an issue on the **Coal Exchange, Mount Stuart Square, Cardiff Bay**, a listed Grade II* building of great historic importance to Welsh industrial and commercial history, but sadly decayed. The proposed renovation and new build proposed to reconstitute the original south facing courtyard at the front of the building with a semi-circle of steps accessing the lower ground level and cafe and restaurant uses.

The external envelope of the building would be retained and restored with the exception of the majority of the western facade which would be demolished to accommodate four storeys of apartments where three storeys currently exist (Figure 25). Internally, the central area of the Exchange Hall and its ancillary accommodation would be preserved, the lightwells enlarged to form a larger interior courtyard for amenity and circulation space. Elsewhere, demolition behind the facades would provide 129 new apartments including duplexes, with retail uses at ground and lower ground floors.

The Panel supported the principle of refurbishment into a mixed use scheme, and suggested only minor revisions to the new west elevations, suggesting they could be given a more distinctive treatment, possibly with a lighter metallic infill which would be unconstrained by the stone panels. At the front the Panel welcomed the redesign but felt that the new public forecourt should be kept open with minimal shading, the disabled access relocated, and great care taken to replicate the original detailing of the entrance balcony and stairs. Subsequently proposals were lodged to demolish the whole of the west wing on grounds of structural instability.

3.6



Fig 25a: Coal Exchange, Mount Stuart Square, Cardiff Bay - west elevation. The restoration of the south elevation was a positive outcome of the scheme, though the disabled lift needed to be relocated. The demolition of the west elevation was a considerable price to pay to secure the future of this key building.



Fig 25b: Coal Exchange, Mount Stuart Square, Cardiff Bay - south elevation

The **Altbridge Care Village in Whitford** proposed 40-45 'assisted living' (elderly mentally infirm) care apartments, with a Day Centre on the ground floor of a Georgian house (not listed but of significant local interest). The Panel supported the design concept of retaining and enhancing the existing building, together with developing a courtyard of ancillary type buildings. They argued that elevations and materials should be simple and locally referenced. The new blocks should not be allowed to dominate the existing historic house, but should be treated as ancillary outbuildings, and for that reason the Panel preferred the option of a completely separate new development.

Outside a conservation area but in view of one of Wales's greatest castles, the **St David's Hotel, Harlech** was a controversial proposal for a 138 unit hotel/ serviced, self contained apartment scheme, with a restaurant, bar and leisure suite at ground floor level. The site was on the west side of the A496 which effectively by-passes the town below the castle crag. The former hotel building would be demolished and the new building erected on the existing plateau. An exemplar sustainable building was proposed incorporating solar shading, roof mounted wind turbines, and photovoltaic panels (Figure 26).

Contrary to what was contained in the planning statement, the Panel established that the proposed scheme represented a significant increase in height and would intrude more into the arc of view from Harlech castle. It was concerned that the roofline stepped up towards the most sensitive part of the site and this, combined with the building footprint being moved northwards, resulted in the new tower and the adjacent Coleg Harlech tower combining to form a vertical visual break in the wooded hillside behind. The Panel found the roof form aggressive and pointed out that the overhangs would not work as solar shading, even for the top floor apartments, given the low level of the sun to the west. They questioned the assumption that the site needed, and could accommodate, a statement or 'landmark' building given the sensitivity of the site. They were not convinced by the stepped, ziggurat form and would prefer to see a more lateral, horizontal emphasis with the lower level blocks were set into the hillside and following the contours. The Panel thought that the site demanded an exceptional quality of materials and detailing and the proposed build cost of £150/square foot would not be adequate to ensure this.

3.6



Fig 26: St David's Hotel, Harlech. (right of image) Various revisions were subsequently submitted, but the massing was not stepped down the hillside as the panel suggested. The removal of the sail-like roofs helped reduce the visual impact but further reductions in height were sought.

Finally the upgrade of The Glamorgan County Cricket Club to Test match standards (9,000 extra seats) at **Sophia Gardens, Cardiff** required Cadw intervention to ensure the Grade II listed park was protected. The new grandstand, which was the tallest element, ran parallel to the existing Welsh Institute of Sport building, while the new stands adjacent to the riverside walk were designed to be lower than the existing tree canopy.

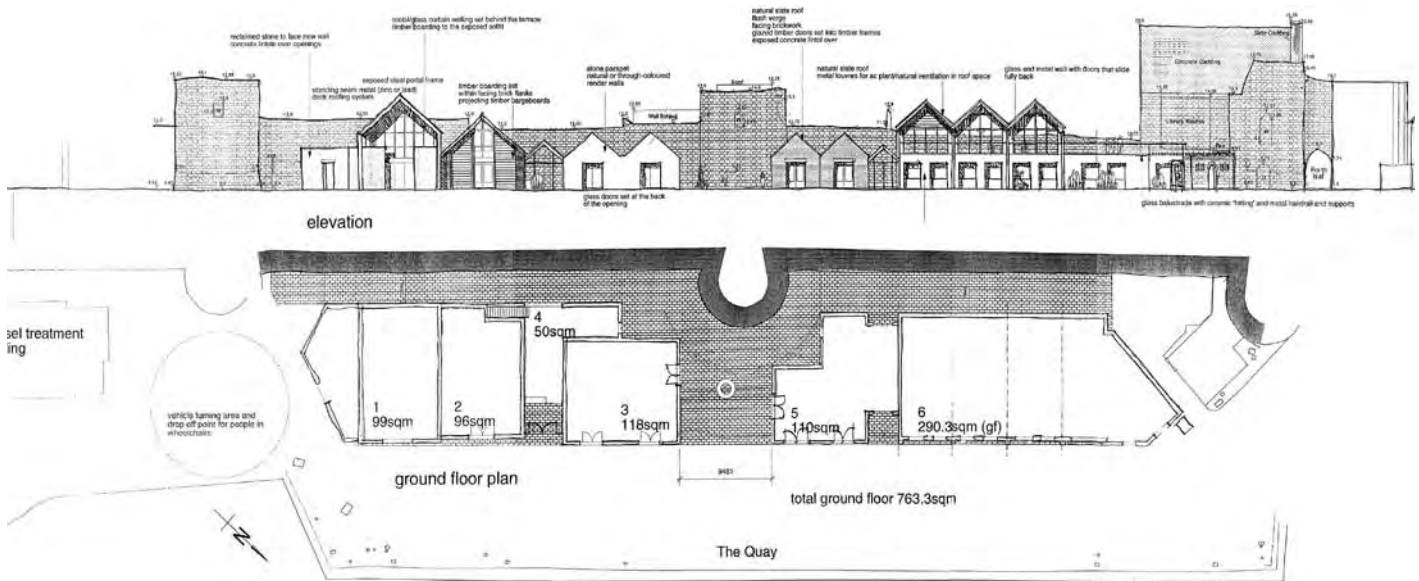
The visual impact of this re-designed scheme was much less than previous designs and did not impinge on the open spaces of Pontcanna Fields to the north. The Panel welcomed the improvements made to this scheme and considered the proposal to be an acceptable response to the site and the brief. It recommended further discussions between the architect and a structural engineer to consider various design details, but concluded that the quality of design would be determined by the procurement method and the quality of the construction team.

Lessons learned

The detail of some of these critiques illustrate that when the Panel get into the detail of conservation area generally they favour contemporary architectural approaches, but there is always a reluctance to go against the views of the Conservation Officer and the Conservation Area Advisory Committee (CAAC) because of the importance of local knowledge and sentiment in such matters. Feedback from cases in Mold, Flintshire and Pontypridd (Case Study 11) have suggested that the Panel need to be more aware of conservation area contexts, of the boundaries of conservation areas and the impact of development on these edges, and that they need to examine more closely the compatibility of 'contemporary' designs and extra storeys of development. There is a particular problem because new insertions into the historic townscape become precedents for future applications, sometimes with devastating consequences, as for example in New Street in Mold (reviewed in 2004). The issue of the erosion of conservation area character is a very live one, and is an area where the Panel and DCFW should be sharing their experiences with those of the Civic Trust for Wales and Cadw, looking across the issues of character appraisal and enhancement, and considering whether new Welsh policy and guidance should be forthcoming.

3.6

Case Study 10: Conwy Quay, Conwy



Case Study 10: Conwy Quay, Conwy. This small quayside commercial development, set close up against the town walls, posed significant design challenges. The panel thought the elevations could be less domestic and more robust.

On a derelict and underused area of Conwy Quay, Conwy a proposal for a largely single storey retail and cafe complex on Council land emerged through extensive discussions with Cadw and the Environment Agency, and won the support of the LPA and the CAAC, but not the Civic Society. Approval to demolish the existing derelict and semi-derelict buildings was granted, and the proposed new buildings were mostly single storey, in two groups of three plus a single unit, with gables facing the quay. These could be let as single units of 70 square metres or combined to form bigger units. A new bar/restaurant and a harbourmaster's house were the only two storey buildings, the former positioned at the eastern end of the site next to Porth Isaf. Proposed construction materials were Welsh slate, render and some brickwork, to create a cohesive built form. Flood protection measures had been incorporated into the design.

The Panel recognised the difficulty of creating a retail scheme in an industrial setting on a very sensitive site. It supported the proposed scale of the development, but considered that the elevational treatments, particularly on the bar/restaurant, should be simpler and better integrated. The repeated individual symmetry of the waterfront blocks appeared unnatural and the detailing was too domestic and drew on an inappropriate precedent. The Panel wanted to see a less complex roof form, with simple ridges carried through the depth of the buildings and running at right angles to the quay. The elevations of the bar/restaurant were not in character with the predominant urban form and the building should have a more positive relationship with the Liverpool Arms public house opposite. Other units should be given a double aspect to improve the space to the rear and provide natural surveillance. The Panel supported the intention to use local materials, but doubted whether PVC downpipes, painted render and stained timber would be sufficiently robust in this situation.

3.7

Major town centre retail schemes

The Panel saw far fewer major retail schemes than in the period 2003-05, and supermarket developments almost disappeared from review—only the Abergavenny cattle market scheme returning for scrutiny several times. This and the Pontypridd (Case Study 11) and Carmarthen schemes returned to the Panel emphasising the prolonged negotiations required when such major schemes are inserted into relatively small towns with intricate townscapes. A refurbished mall in Newport, and the addition of two residential towers to the Capitol Centre in Cardiff, the latter largely ignoring opportunities to increase its retail offer, complete the reviews. As previously the design issues were the scale of the development proposals set against the local context and historic townscape, the quality of public realm provided, and the compromises to be made in terms of car parking and servicing to ensure a commercially viable scheme.

Review experience

The Panel reviewed the second and third versions of the **Carmarthen Town Centre** retail proposals (see *Design Review in Wales 03-05* pp 54-55). They felt the development of the core spaces was progressing in a positive way though more space should be left around the clock tower. There were concerns about traffic impacts, pedestrian movement and public transport access, and the overall scale and massing, especially of the car parking in the sensitive transition areas. The Panel were disappointed with the lack of residential accommodation within the scheme and the undeveloped sustainability strategy. The Panel recommended the adoption of a design code to control the development and protect the scale and character of the town. These three issues were not resolved, and at the third review the Panel still had concerns about the overall massing, elevations and facade widths. With no elevational drawings presented it could not have confidence in the outcome. The Panel welcomed the detailed design and layout of the market hall and the treatment of the public realm, but felt that the inclusion of residential uses would have created a safer and more vibrant town centre. As always with retail schemes the Panel were disappointed at the lack of a genuine sustainability strategy. They argued for public art to be integrated throughout the scheme with a public competition for the major artwork.

The Panel saw the **Walmart scheme on the former Cattle Market site, Abergavenny** for a third and fourth time and continued to have major reservations about the scale, layout and design of the scheme. It found no evidence of a positive response to the conservation context in Lion Street which remained a largely blank, two storey facade, and strongly criticised the location and design of the residential provision on the western edge of the site adjacent to Priory Lane. It concluded that of the seven points of concern that had been raised in March 2006, only one had been resolved leaving six objections:

- there was no architectural coherence or consistency;
- Lion Street remained devoid of active uses on its northern side;
- the relocation of, or alternatives to, the basement parking needed investigation;
- the treatment of the northwest corner of the site, and the interface between pedestrians and traffic, should be reconsidered;
- the north/south pedestrian route should be improved and fully landscaped; and
- the design of the housing should be of a higher quality

The Panel repeated its view that a complete re-design was necessary, and at the time of writing an appeal was being withdrawn and negotiations were continuing.

3.7

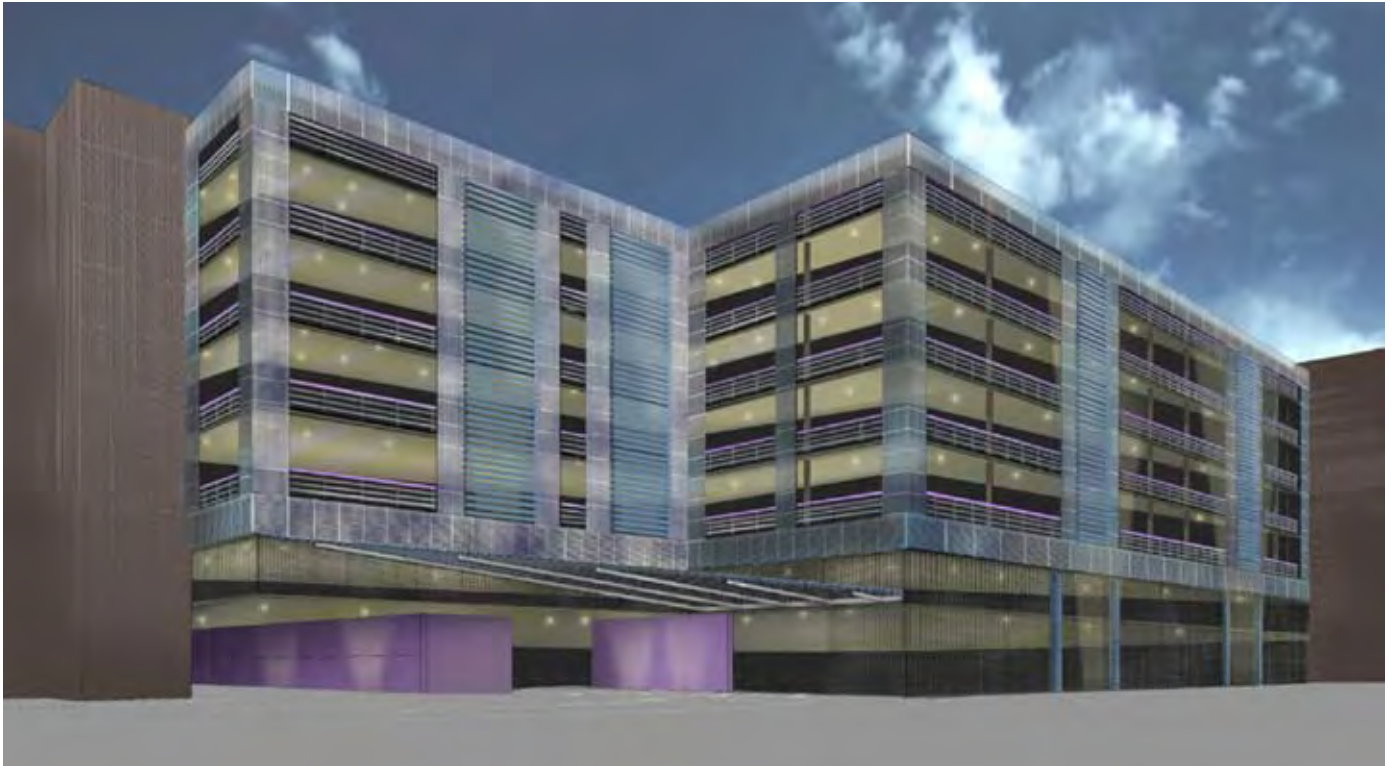


Fig 27: Kingsway Centre, off the Kingsway, Newport. The proposed improvements to the shopping centre were broadly welcomed, but the car park design, its lack of ground floor active frontages, and its poor relationship to the Leisure Centre were lamented.

The Kingsway Centre, off the Kingsway, Newport was built in the 1970s and was in need of improvement as development proceeded on the Modus scheme next door (adding a new department store and a shopping mall link to the bus station). There was an open brief for improvement and the problems of access and circulation, poor quality of internal design and tenant mix, and lack of a corporate identity were identified. Various options were explored, each with differing levels of intervention, and it was decided to remove extraneous structures and elements, open up the main pedestrian routes and improve daylight and visibility, especially at nodal points such as Bridge Square. New entrances had been designed on Kingsway and Commercial Street to give a more contemporary feel and a new identity (Figure 27).

The Panel welcomed the refurbishment and improvement of the shopping centre but were very concerned at the scale and design of the car parking, considering that such a large number of car parking spaces (1400 on eight levels) was misconceived. It thought the access, layout, massing, structure and cladding of the car park should be re-addressed and its bulk reduced. The angled protrusion into the street, the high corners and exposed gable ends were considered unsympathetic to the context and the impact of the car park on longer views across the city needed to be considered. "Greening" of the mesh elevation with hanging/climbing plants would be one of several ways of mitigating its visual impact, as would active retail frontages at the pavement level. The new elevations to John Frost Square also needed to be reconsidered, simplified and unified. The Panel considered the planning application to be premature.

The Capitol Shopping Centre, Queen Street, Cardiff anchors the east end of Queen Street, the main shopping area. It has been partially re-clad and updated in recent years giving it a schizophrenic character, and its cinemas to

3.7

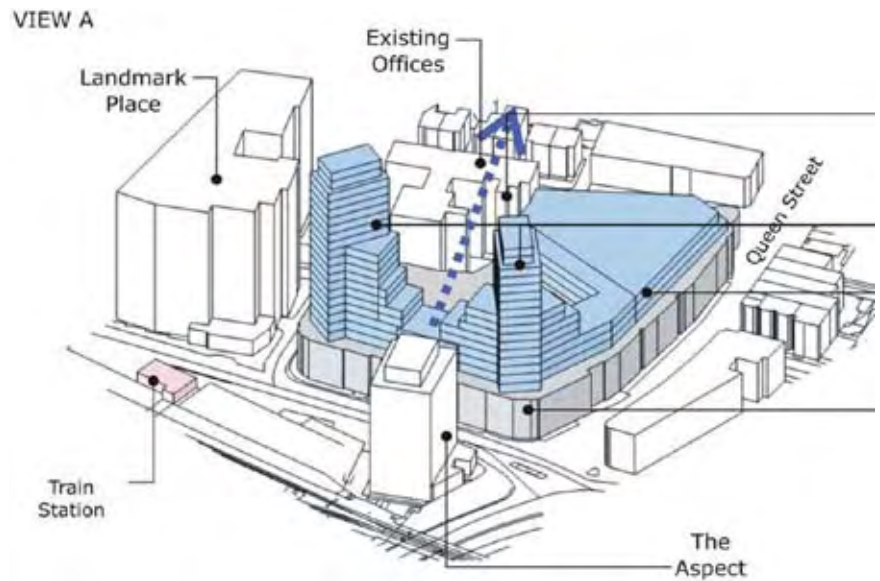


Fig 28: Capitol Centre, Queen Street, Cardiff. Whereas the Capitol Centre might have been expected to have increased its retail offer, and improve its mall, instead it sought two 'ziggurat' residential towers above a five storey podium. *A single tower solution is now under consideration.

the rear have been long closed. The proposed development consisted of two additional levels of car parking on the podium, and new residential towers, 20 storeys on the Station Terrace / Queen Street corner, and 24 storeys on the corner of Station Terrace and North Edward Street above a five storey podium (Figure 28). Surprisingly, perhaps, the planning authority raised no objections to the proposals, but the Panel pressed for an extension of the existing arcade to curve through the site and provide a welcome weather-proof pedestrian link to Queen Street Station. The owners were not interested in extending the mall arguing that it would disturb existing tenants. The Panel considered the development of the scheme thus far to be an acceptable response to the site and context, subject to environmental impact studies on the height and massing of the residential towers. It was keen to see a holistic approach to complete the urban block and unify the architectural treatment and this needed further development.

A mixed leisure and retail development on a key empty site on the south east corner of **Avenue de Clichy and Castle Street, Merthyr Tydfil** comprised A1 and A3 retail uses on the ground floor, with multiplex cinema and leisure uses above (Figure 29). The developers argued that it would complement and extend the adjacent St. Tydfil's shopping centre, which they owned, without prejudicing the longer term redevelopment of the adjacent bus station, but the LPA were not convinced and felt it prejudiced the masterplan (that had no formal planning status) for the redevelopment of the bus station. Although not a faithful interpretation of the masterplan, the Panel considered that the proposal responded positively to the line of the bus station enclosures, the new pedestrian link and accommodated the proposed footbridge that would cross the avenue and river into the College car park. Nonetheless, it felt that substantial revisions were necessary. The blank southern facade provided no surveillance of the new footbridge and the river elevation would be more

3.7



Fig 29: Multiplex and Leisure Centre, Merthyr Tydfil. The model shows the elevations and massing to the river (top) and the bus station. The blank walls to the river and the footbridge (not shown in top image) were regrettable and a missed opportunity and the retail colonnade (bottom) could have been better integrated with the multiplex entrance.



refined if the frame was continuous through to the southern facade, and especially if the building took advantage of the potential river views. On the east elevation the colonnade should make better connection with the canopy over the entrance and narrower columns on the ground floor would make it more open to the street and safer. Finally, the Panel argued that the shell construction should be used as an opportunity to include sustainable technologies leading to energy efficiency and financial savings.

Lessons learned

Major town centre retail schemes continue to pose significant challenges to both the Panel and LPAs. The fact that retailing commands 75 to 90 per cent of all property value in such centres can never be underestimated. The bargaining power of retail investors is immense, leaving local planning authorities struggling to fight their corner on all urban design issues. The British Council for Shopping Centres (BCSC 2002) emphasise the importance of a collaborative and inclusive planning process which develops a common vision and clear parameters, and makes good use of standard urban design principles to protect character, permeability, legibility, continuity and enclosure, and the quality of the public realm. This process is not well enough developed in Wales, either in terms of design/development briefing, or in terms of detailed design control and the imposition and implementation of planning conditions. One area where the LPAs face particular problems is the disinterest of investors and occupiers in energy conservation matters and sustainable construction. This depressing fact emphasises the necessity for regulation to bring all commercial buildings within the drive for carbon neutrality in energy use.

3.7

Case Study 11: Angharad Walk retail development, Pontypridd

Case Study 11: Angharad Walk, Pontypridd.

The before and after photomontages showed the problematic scale of the development in this historic town with large office, residential, department store and car park blocks all placed above the two storey podium.



This controversial shopping scheme has a long history and featured in [Design Review in Wales 03-05](#) (p65) as a supermarket anchoring a 'V' shaped single storey mall. A much larger scheme was now proposed, with the car park no longer located in Angharad Park but in a 550 space multi-storey above a three storey retail podium, and accessed by a ramp off Gelliwastad Road bridging Taff Street. It now included residential and hotel uses, as well as commercial and retail, and the supermarket had been replaced by a Debenhams department store as the principal anchor. The riverside walkway was now on two levels, the upper level being a weather-protected route leading from a vertical circulation core through the shopping centre to Bridge Street. Service vehicle access was from Taff Street via a ramp direct into the basement service area.

The Panel pressed for major changes to the scheme seeking improved massing, particularly at the northern end of the site, and a more sensitive solution respecting the scale and appearance of the adjacent listed Chapel and historic bridge. The Panel thought that there were three or four different buildings in this scheme rather than one unifying concept, although the podium design could be the unifying mechanism. It was worried by the scale of the development and the disposition, mass and form of the upper blocks, but suggested that some improvement might be achieved if the blocks were aligned with the riverside edge, and a more subtle set of forms and detailing with better quality materials were utilised. Subsequently the designers made some minor adjustments to improve the relationship of the hotel to the listed buildings. This is one scheme where the Panel chairs now feel that they were insufficiently critical, and where they went along too easily with a very bold architectural and urban design strategy, in the process failing to consider the physical impact on the historic town and its adjacent conservation area.

3.8

Major town centre commercial and institutional schemes

Fig 30: Meridian Plaza, Bute Terrace, Cardiff. The new hotel tower commanded this important corner much better than its predecessor, and was far more refined. The residential block immediately to the east was much less successful.



A variety of town centre commercial and institutional schemes were presented to the Panel confirming the continued stagnation of new office development in South Wales, but affirming a greater diversity of commercial and institutional schemes. Several schemes had been seen before by the Panel and three were re-designs following significant changes of use. The two largest schemes were both mixed use, city centre schemes and both posed major questions about the scale of development and the quality of public realm that would be provided. The three public buildings were each in their own way much more creative designs responding to complex briefs and civic aspirations.

Review experience

Two high rise schemes in central Cardiff discussed in [Design Review in Wales 03-05](#) were redesigned and submitted to the Panel. At **Meridian Plaza, Bute Terrace, Cardiff** a 13 and 17 storey block residential scheme had been given consent despite the strong reservations of the Panel, but the site was bought by another developer for an upmarket hotel to replace the taller of the two residential buildings. The footprint of the western tower, now a 200 bed hotel, had been reduced and a more slender tower resulted (Figure 30). The tower would have glazed curtain walling with solar reflective glass, aluminium projecting fins and grey-white finishes similar to Callaghan Square. The gull wing or butterfly roof feature on top of the tower had been added to give it more distinction at the request of the LPA.

The Panel welcomed the hotel use and its range of ancillary facilities. It was not concerned about the extra height of the hotel and considered it a significantly better building for this key corner site. However, it was very concerned at the lack of wind tunnel testing, arguing that an understanding of the new microclimate at ground floor level was a prerequisite for designing a quality public space. Public realm and highways considerations appeared unresolved and the former needed to be significantly improved. The Panel wanted the whole design of the residential block and its choice of materials to be reconsidered and better related to both the new hotel and the Alto Lusso tower next door. They shared the LPA's concerns about the quality of the

3.8

Fig 31: Western Mail and Echo on Park Street, Cardiff.
 Much effort was expended refining the elevational details of this mixed use scheme on a cramped site, but it could not ameliorate the poor quality of streets or the poor aspect for the residents.
 *This scheme was refused.



detailing and the choice of materials, and agreed these should be conditioned with full height sample panels erected on site prior to approval. The Panel was encouraged by the statement that the hotel developer would require high sustainability specifications but had no details, and wanted to see an energy audit, as recommended in Technical Advice Note 8 (WAG 2004).

Proposals for the site of the now demolished **Central Hotel, Penarth Road, Cardiff** were also reviewed in *Design Review in Wales 03-05* (p 42) and subsequently received planning permission. A new developer and designer wished to retain the Sports Cafe use on ground and first floor, but replace seven floors of residential apartments with nine floors of office accommodation [5600m²] to address a perceived lack of Grade A office accommodation in the city. The building footprint extended to the site boundary, and floors 2 to 7 occupied the full site area, but the top two floors were stepped back into a glazed cylindrical tower at the front. The Panel argued that this was a key corner site in the city, and a tall building would be appropriate providing it had an elegant profile and very high quality materials and detailing, but neither were evident.

The Panel were extremely concerned at the lack of relevant information and detail in the planning application, and considered this scheme to be an unacceptable response to the site and the context. A new application has now been made for a mix of hotel/residential/sports cafe uses.

Two major city centre mixed use schemes disappointed the Panel, particularly an outline application for a residential block and hotel accompanying a detailed planning application for a new office block for the **Western Mail and Echo on Park Street, Cardiff**. The proposals occupied an entire city centre block, with a modest office building at the western end of the site to provide new premises for the newspaper alongside a 218 unit apartment block, with a 250 bed, 4 star hotel at the busier eastern end of the site (Figure 31). This was a highly constrained site but the proposed building heights rose from seven storeys adjacent to Millennium Stadium to 14 on the hotel, increasing the canyon-effect in these streets. On the central residential block the northern Park

3.8

Fig 32: University of Glamorgan Centre for the Cultural Industries Building, Adam Street, Cardiff. This re-clad and extended former office now makes a bold architectural statement on a difficult site. The projections, cut-aways and full height atrium offer glimpses of the cultural activity within and create vitality in an otherwise drab street.



Street facade was continuous at 10 storeys and the entire ground floor (and basement) were devoted to car parking. The flats were all single aspect and accessed by a spinal corridor.

The Panel considered the proposals were an unacceptable over-development of the block, and made insufficient contribution to the improvement of the environment of the city centre. They had grave concerns about the general quality of the architectural treatment, the slab-like massing of the residential, and the single aspect flats, particularly on the north side, all of which promised poor liveability. Subsequently a number of detailed criticisms of the office block were taken on board in a re-design but the Planning Committee rejected the overall scheme. Some of the same criticisms were levelled at the **City Spires scheme in Newport** (Case Study 12) but it had a better site and used taller buildings to create much better quality accommodation. However, the towers themselves proved controversial.

Three public buildings in city centre locations each offered something distinctive to the locality and to civic life, and represented designs of some originality. The **University of Glamorgan Centre for the Cultural Industries Building, Adam Street, Cardiff** was intended to give the University a presence in the city centre, and was a conversion and extension of an existing office building, located off-centre between Cardiff Prison and the Valley Line rail embankment. The ground floor frontage was opened up to pedestrians and to encourage interaction between the various spaces within the building and a new theatre.

The generous floor to floor heights of the existing building were appropriate for teaching spaces and were repeated in the new build. The eastern corner elevation had a projecting bay that took advantage of an existing full-height opening in the concrete structure. A similar projection on the new west elevation allowed views into a dance studio (Figure 32). The existing building was to be re-clad and extra insulation incorporated, and a standard panel size would work on both the new and the old. The extension was intended to contrast with the existing building and be more sculpturally dynamic. These ideas provoked a lively debate with the Panel who thought that the clarity and dynamism of the new extension's form was weakened by the 'busy-ness' of the irregular elements breaking through the form's surface. It felt that the metal cladding system could look clumsy and that an alternative would

3.8



Fig 33: Glamorgan Records Office (GRO), Tresilian Way. The records office was well located even if its site planning remained somewhat unresolved. Its strong environmental credentials were matched by a strong architectural concept, but its detailing had to be of a high quality for it to succeed.

be more easily handled. Nonetheless it welcomed the re-use of the existing building and the intelligent planning and integration of the new element which would contribute significantly to the townscape. The Panel sought more commitment to a sustainable building with low carbon technologies. It was pleased that the procurement would be by management contract, with the retention of the original architect, but was concerned that changes to the brief were continuing to affect the design, and that the programme was almost impossibly tight.

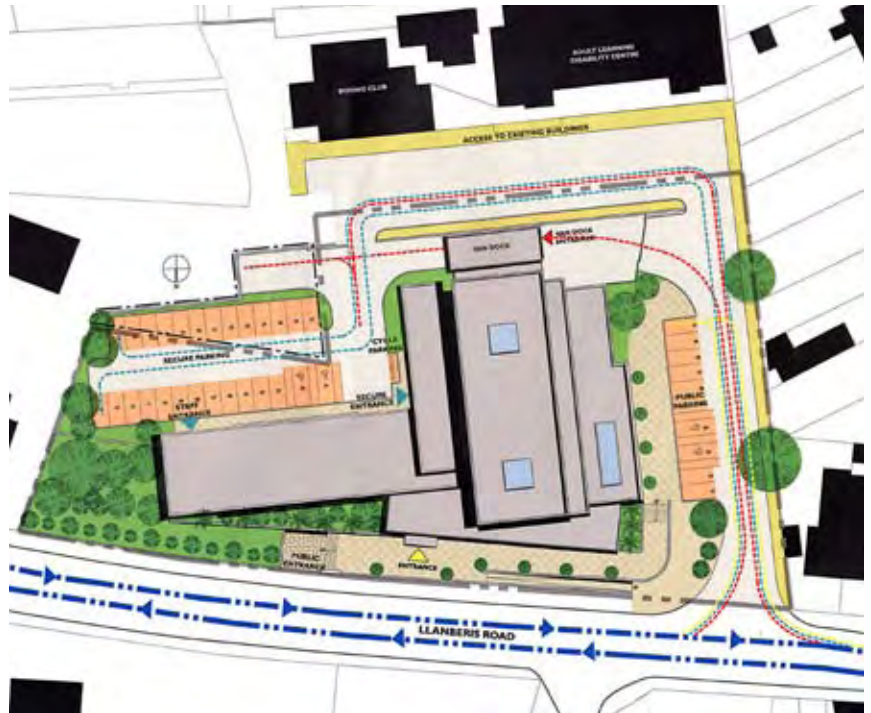
For the new **Glamorgan Records Office (GRO), Tresilian Way, Cardiff** a preferred developer had been appointed following an Official Journal of the European Union (OJEU) process and a site selected within the Callaghan Square office area close to Central Station. The main architectural concept was that of a 'box containing boxes' and the aim was for a prominent modern building to advertise the presence of the GRO.

There were rigorous environmental requirements for the storage of the records and the designers opted for a high thermal mass construction to help deliver stable temperatures, and a double wall construction to form an environmental buffer space around the repository. The facade was highly glazed to the north (public) side, and opaque on the other three sides where the storage was to be located. The brickwork facades to the south, east and west incorporated coloured bands or 'strata' to echo different historical uses of the site over particular periods of time (Figure 33).

The brief required a BREEAM Excellent rating and the provisional score exceeded that. The Design Quality Indicators (DQI) generated by the client and used to evaluate the tenders would be monitored throughout the design development. The Panel was concerned that the exact position of the building on the site had not yet been determined, but supported the architectural concept if it was applied more rigorously with a high quality of materials and detailing, and some renewable energy generation. Regrettably the scheme now appears to have been abandoned and a site is being sought in an inaccessible backland location.

3.8

Fig 34a: Criminal Justice Centre, Llanberis Road, Caernarfon. The building had to be shoe-horned into quite a tight site, and had to step down in scale on either side. While not truly a 'gateway site' the building was certainly civic and bold. The Panel was disappointed with subsequent design changes.



The **Criminal Justice Centre, Llanberis Road, Caernarfon** was the first new court building in Wales following the creation of the new amalgamated court service, and was seen as a flagship project. A 'gateway' site on one of the main approach roads to the town was selected, and the architects started with the idea of a transparent building to symbolise the judicial process, and the intention to create a building with real civic quality, while still relating to adjacent two storey residential development. The building was intended to be highly energy efficient with a BREEAM Excellent rating and fully accessible in line with the UK government's Better Public Buildings initiative.

The Panel welcomed a high quality contemporary and sustainable design with an appropriate scale and massing. In an ideal world this building would have been located in the town centre, but the Panel acknowledged the shortage of suitable sites. It felt the success of this scheme largely rested on an uncompromising commitment to excellent detailing, and expressed confidence that the proposed procurement route of 'enhanced design & build' would allow the architects to achieve this - a subsequent informal review raised concerns about cost-cutting exercises undermining the glazed towers and the civic presence of the scheme. The Panel considered the appointment of a landscape architect to be essential to the design development, and sought the reconsideration of the arrival experience, the positioning and fenestration of the administration block, the detailing of the coping and opening, and the awkward areas of left over space (Figure 34).

Lessons learned

The issues around the location and design of tall buildings continue to be handled in a very ad hoc and unsatisfactory way by local planning authorities in Wales, as indeed they are in some larger cities in England. The Panel welcomed the Swansea initiative to establish a policy for tall buildings and its own reviews indicate that the same is urgently needed for Cardiff and Newport.

3.8



Fig 34b: North Elevation, Criminal Justice Centre, Llanberis Road, Caernarfon.

To address this important issue and recent disputes over high-profile schemes, English Heritage and CABE (2007) have re-written their guidance on tall buildings to emphasise that the location and scale of towers should be plan-led. DCFW wholly endorses this document and its principles should be enshrined in the new generation of Local Development Plans in Wales where relevant.

The guidance makes a number of useful points about the kind of supporting material which should accompany an application for tall buildings, particularly simulations of significant views; accurate representations of the appearance from near, middle and distance viewpoints; accurate rendering of appearance under different weather conditions and at night; and full studies of overshadowing and wind effects. The assessment criteria for tall buildings have also been strengthened, particularly their impact on historic contexts, accessibility to public transport, architectural quality and detail of the towers, quality of public space and sense of place created, and the “credibility” of the design in terms of procurement and construction. A key statement which reinforces the Panel’s working practice is that

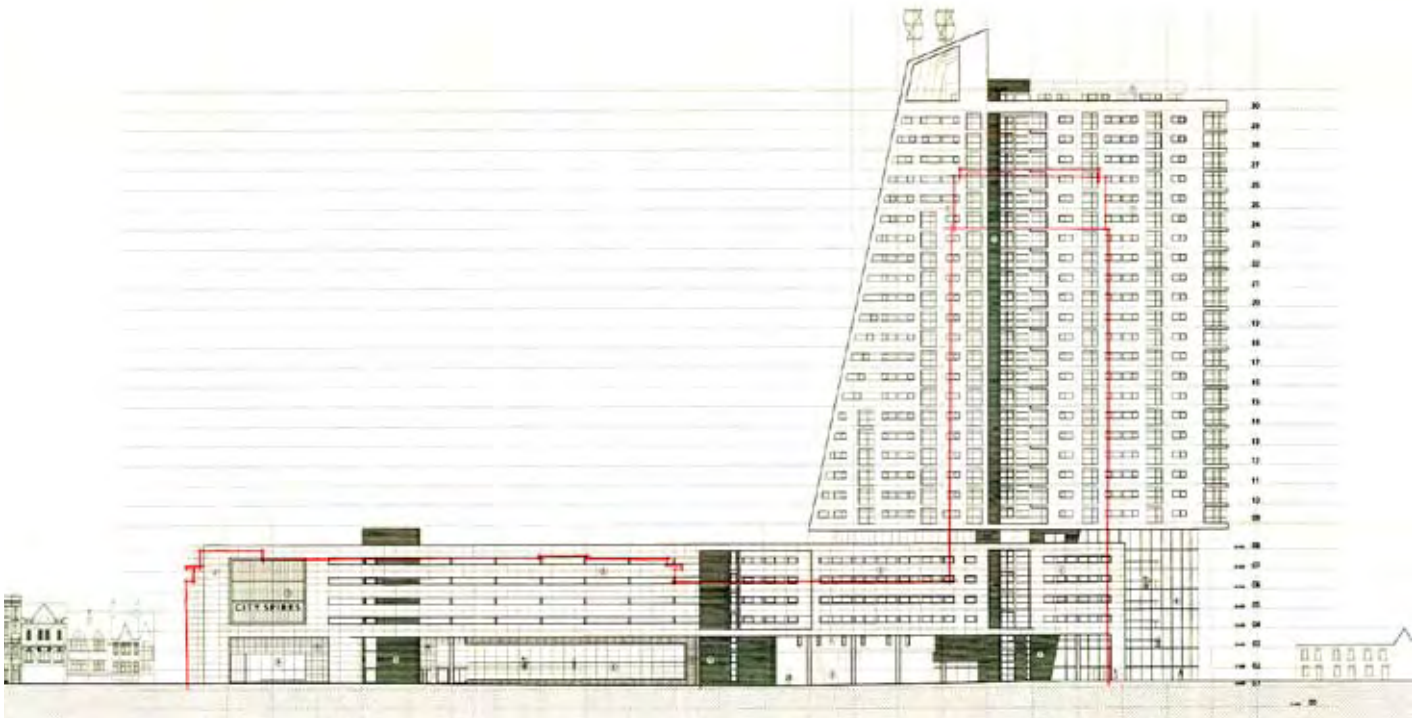
“..tall buildings should set exemplary standards in design because of their high profile and local impact. Proposals should therefore exceed the latest regulations and planning policies for minimising energy use and reducing carbon emissions over the lifetime of the development.”(EH/CABE 2007).

The Commission will press for such guidance to be included in the current revisions being made to TAN 12.

A related issue is that of overdevelopment in city centres. The Panel was uncomfortable with the revised proposals for City Spires not only because of the major increase in floorspace in the first approved scheme, but because of the impact the office tower had on the city centre conservation area. There was also the increased bulk of the residential tower which dramatically increased its impact on the city centre’s particularly attractive backdrop. In the case of the Western Mail scheme it was the number of residential units accommodated in the ten storey blocks, their aspect (especially those on the north side) and lack of any amenity space, as well as the canyon-like streets, which were problematic. The fact that City Spires was subsequently approved without significant amendment was of great concern to the Commission. Then there was the case of Bay Pointe (see section 3.3) which was seeking to set 41 storeys as the new benchmark for high rise development in the city. The uncritical approach towards the design and location of tall buildings threatens to destroy the character of both Cardiff and Newport city centres and their settings.

3.8

Case Study 12: City Spires, Cambrian Way, Newport



Case Study 12a: City Spires, Cambrian Way, Newport. The scale of the two towers, particularly the hotel/ apartment tower, (note the red line) was the major concern with this project. The large increase in the volume and mass of development was clearly indicated in the drawings requested by the LPA, but the planning committee still approved the scheme.



Case Study 12b: City Spires, Cambrian Way, Newport.

Proposals for the Cambrian Way site in central Newport were discussed in [Design Review in Wales 03-05](#) (p 68). Planning consent was granted in October 2004 and the site was sold to new developers who revised the scheme to create much more development value. They made a new planning application with more retail, office, hotel and residential floorspace rebranding it as 'City Spires'. More multi-deck car parking (880 spaces) was located above the double height ground floor retail units, forming a six to seven storey block which included a hotel towards the western end of site. A new office block fronting Railway Street comprised eight storeys of office accommodation above the base block, and the residential tower at the west end sat above the hotel space rising to 30 storeys overall. The LPA tabled various concerns over the greatly increased scale and massing of this proposal, and the relationship of the office block with the adjacent conservation area. The Panel echoed these concerns and had serious reservations about the unified treatment of the podium which obscured the different uses; the impact of the proposed office block on the conservation area; the lack of wind tunnel test to assess the impacts of the towers on the street microclimate; and the narrowness and darkness of Railway Street. They considered it an over-development of the site, exacerbated by uncompromising massing and podium. The Panel noted the commitment to a BREEAM Very Good rating, but took the view that a more detailed and practicable sustainability strategy should be developed and integrated with the design as early as possible. When final revisions were submitted the Panel still insisted that the scheme be refused but it was subsequently approved without revisions.

3.9

Business parks and other suburban commercial and public buildings

This group of cases includes a new ‘international’ business park that is regarded as a key regeneration initiative in South Wales, three high quality office/technium buildings commissioned by DEIN, two regional headquarter government buildings commissioned by Welsh Assembly Government, and a new Law Court at Aberystwyth.

These buildings have two things in common: they are all government sponsored projects in one way or another, and most are built on suburban sites. These projects raise important questions about the choice of suburban or exurban sites for major trip generators, and the perpetuation of car reliance for the journey to work. They also provide important tests of WAG’s commitment to sustainable construction and to design quality.

Review experience

The Welsh Investment Strategic Partnership (WISP) was a key initiative of the WDA to stimulate private sector commercial property development in key regeneration areas in Wales. The WDA would provide the land and obtain planning permission for private sector partners to develop particular properties considered necessary to promote business growth and boost regeneration. The first three WISP projects were high specification office buildings in SA1 Swansea, George Street Newport and Parc Nantgarw, Treforest.

The Panel conducted brief reviews of each at an early stage of project development. At the main entrance to the SA1 project on **Fabian Way, Swansea** the design challenge was seen as creating both an urban edge to the site and a focal point building. An elliptical tower was proposed as a gateway feature linked by entrance atria to two more demure rectangular blocks fronting Fabian Way. Ceilings would be exposed concrete slab and a floor voids would provide displacement ventilation using the ‘stack effect’ in the atrium. Windows would be openable by occupiers. The design team were looking into the possibility of incorporating photo-voltaic panels into the glazing. The Panel urged the designers to consider a composite timber/aluminium window frame as a better environmental alternative to aluminium. Parking provided partly at basement level, and partly on a raised [by 1.5m] podium, allowed the basement to be naturally ventilated, but limited future possibilities for integrating the whole of the urban block around a central courtyard.

At the junction of Lower Dock Street and **Usk Way, Newport**, within the George Street business quarter, the second WISP office building was set back behind the easement line with its central atrium dominating the corner. This linked a five storey, hard-edged, fin-shaped block fronting Usk Way, with a curved three storey block on Lower Dock Street. Parking was at semi-basement level but with minimum grilles on the street. A circular public space was set out in front of the atria with hard and soft landscaping to screen out traffic noise. The Panel considered that the key weakness of both proposals was a result of the required car parking provision. It argued that both sites had the ability to operate with a lower parking provision, especially as Newport is a city centre site and the Swansea site is adjacent to a multi-storey car park. The Panel was particularly disappointed that little emphasis had been placed on sustainable development within the teams’ proposals. The challenge to provide good levels of daylighting throughout had been largely met, but there was no evidence of serious attempts to improve energy efficiency.

The Panel undertook two full reviews of the WISP project at **Parc Nantgarw, Treforest** so were able to subject it to more scrutiny. The site was located away from existing buildings on the business park and had few contextual constraints, although the pre-existing masterplan suggested a landscaped buffer zone to the south. The first design created a rather square ‘pavilion

3.9



Fig 35: WISP offices, Nantgarw. The strong glazed corner and bold colour treatment were evident in this B1 business park building, but the panel were concerned that the scheme had lost its exemplar status and environmental aspirations.

in a landscape' which linked well to the river and to the existing landscape corridor and used locally-sourced boundary materials. However the Panel was concerned at the proposed deep plan floorspace. By the second review the proposal consisted of a 15 metre deep, 'L' shaped, three storey building with a fully-glazed central corner of four storeys facing the roundabout (Figure 35). It provided more flexible internal space for the small tenancies anticipated, and the opportunity for more communal space and interaction between floors. The landscaping had been significantly improved. The Panel was very concerned that this was no longer an exemplary grade 1 office building. They found the proposal to be unacceptable because of the lack of cohesion between the different elements, the positioning of the core, the confused entrances and internal links, the lack of an environmental strategy or any evidence of a sustainable design approach.

The Panel undertook double reviews of both the new regional headquarters buildings for the Welsh Assembly Government at Aberystwyth and Llandudno. The **WAG building at Llandudno Junction** was located on a brownfield plateau, to the north of the A470 junction with the A55, with some suburban residential development to the north west. The brief was the subject of wide consultation and called for open plan accommodation for 650 workers, with library, dining room, coffee bar and Ministerial accommodation. Natural ventilation, a BREEAM Excellent rating, a design which acknowledged the historic local industries of slate and copper mining and of 'an award-winning standard' were all specified. Three 3-storey blocks facing south/south west, with a 15 metre deep floorplan and a clear three metre floor-to-ceiling height were joined by a completely glazed circulation wing linking to the reception area (Figure 36). The ground floor/basement had a coffee shop, exhibition space and service and plant rooms. The two upper floors were open plan office space.

The Panel were concerned at the low budget of the project, given the original design aspirations, the building form and its potential for future expansion. They recommended the involvement of a landscape architect in the scheme forthwith, and expressed concerns about the way security concerns were

3.9



Fig 36: WAG building at Llandudno Junction. The Panel felt this project was falling victim to conflicts between building form and quality, space requirements, sustainability requirements and budget, and so it proved with the project being re-tendered.

driving the design before other fundamental issues had been addressed. They wanted to see the attenuation lake integrated into the sustainability strategy and a green transport plan introduced to minimise car usage. The Panel felt the feasibility of the deep floorplan should be revisited because it was sub-optimal for natural ventilation, and they wanted to see the heart of the building retained as an open, sociable space, and public art fully integrated into the structures and the site. At the second review the Panel was

“extremely concerned about the timescale and the lack of a fixed price... We think there is a danger of major problems occurring if construction work starts before the conflicts between space requirements, built form, sustainability and costs are resolved..... It is vital that the long term sustainability of the building is not compromised by quick and easy solutions that have serious implications for future energy use”.

At their third review the same concerns were reiterated. The design was subsequently scrapped and the scheme re-tendered.

The second of the new **Welsh Assembly Government buildings** was also problematic. It was located on **Park Avenue, Aberystwyth**, the main approach into town from the south east (Case Study 14). Adjacent to the WAG building and closer to the town centre a new **Aberystwyth Law Courts** building was proposed to house civil, youth, magistrates and criminal courts. These were all located on the first floor with administration and support functions on the ground floor. The raised, recessed entrance was partly driven by flood level considerations but would also suggest the gravitas associated with a prominent civic building. Twin-glazed stair towers framed the entrance. A large double height concourse behind the main entrance ran the full length of the building and led to a stair/lift core at either end, expressed externally as fully

3.9

Fig 37: Aberystwyth Law Courts. The Panel welcomed the aspiration to produce a highly sustainable building but felt that green roofs and natural lighting into the deep plan space should be part of the strategy.



glazed elements (Figure 37). The architects had tried to make a complicated set of adjacencies simple and legible, and the internal layout reflected a hierarchy of public/semi-public/private space. The scheme would be procured via a private developer.

The Panel preferred a more accessible site such as that in Mill Street which had been rejected because of poor car access. In its view the design would be successful if lightwells brought daylight into the circulation areas of the deep-plan space; a green roof replaced profiled metal sheeting, one central stair/lift core replaced the twin glazed stair towers and lifts, and the high wall around the building was modified. The Panel supported the decision to achieve a BREEAM Excellent rating and to link into the biomass district heating system, but would like to have seen the renewable energy generation better integrated with the design.

The Works, Llanelli Waterside was a proposal for a theatre and arts centre within the Llanelli Waterside Masterplan (see section 3.1), bordered by the railway to the south and the main road to the east, with an earth mound to its north and a lake beyond. The site was “bleak, exposed, and featureless and in need of buildings which create their own environment and make a strong and simple statement”. The architectural approach was to introduce a unifying roof covering a cluster of simple buildings, separate from, but linked with, one another (Figure 38). The scheme used the existing Tinning House, a former industrial building, as a café/gallery within a U-shaped building form, surrounding a new public piazza stepped on one side to supply seating. An arcade linked the old and new structures together. The 500 seat theatre was located to the west of the piazza, and linked to a dance studio at a high level.

The Panel thought the design concept was very exciting and believed that it could be a successful scheme if key issues were addressed. It suggested that the piazza or the Tinning House should be used as the main entrance to the site, with all access routes directed to a single point. A new north/south pedestrian route from the town should continue through the site to link up with North Dock. The Panel was concerned about the future maintenance implications and costs, and urged the design team to consider the long term economic feasibility of this structure, including value for money and whole life costs.

3.9



Fig 38: The Works, Llanelli Waterside. The Panel was excited by the design concept with its combination of conserved industrial building, theatre and piazza under a long triangular glazed canopy, but concerned about the latter's costs and maintenance.

Lessons learned

The key issue with suburban B1 or government buildings is the sustainability of their location. As major trip generators they should be located close to public transport nodes, particularly where they are required to serve the public. Site selection needs to be much more careful, and to give greater weight to the needs of the public visiting the building rather than those who want to drive to work. Ideally the WAG Buildings, the Law Courts and the theatre should be reinforcing town centre functions.

In the case of the Law Courts a central site was considered but rejected as inadequate. Another worrying trend evident in both WAG regional headquarters buildings was the drive for greater security which made them less accessible to the public and a lesser contribution to the public realm. In the case of the Aberystwyth building the whole design rationale was essentially undermined by an approach to security disproportionate to the risk, which meant that WAG and Ceredigion employees could not share what was potentially a very attractive plaza/garden between the two buildings.

The WAG buildings also highlighted three further issues of concern across a number of projects. The first of these was the adequacy of the budget to deliver buildings that possessed a high design quality; the second was the wavering commitment to BREEAM Excellent, and the adequacy of the sustainability strategy, which tended to be very risk averse rather than charting the route towards zero carbon: and the third concerned the lack of serious commitment to collaborative working in the procurement strategy. Doubts were raised in the Panel's minds about the deliverability of these buildings as exemplar projects.

The case of the Wales International Business Park (WIBP) was a deeply problematic one for the Panel, especially as they were asked to take the location as given, and the economic need as overwhelming. The Panel felt that whatever the design and landscape quality and sustainable construction measures employed the fundamental unsustainability of the location and its car reliance outweighed any benefits that might materialise.

3.9

Case Study 13: Wales International Business Park



3.9

Case Study 13: Wales International Business Park, Cardiff. This business park was carefully sited in the landscape and the buildings compactly arranged to create some usable public spaces. But the car dependence is obvious notwithstanding a planned bus interchange under the hotel in the northern development pod.

'Wales' Premier Business Park', a concept enshrined in the Wales Spatial Plan, would accommodate 100,000 square metres of B1 space on a greenfield site at Junction 33 of the M4 with Cardiff's Peripheral Distributor Road. The outline planning application was accompanied by a statement of support from the Minister for Economic Development, and there had been close WAG involvement in all stages of the development of the proposals.

The proposed mix of uses was "driven by an assessment of market demand" and aside from perhaps ten office/business buildings included a hotel and conference centre (20,000 sq m), restaurants and shops (4,500 sq m). The application was supported by a masterplan document and presented as landscape-led. A sustainable drainage system was proposed and an emphasis placed upon low energy/environmental impact buildings of high design quality. However, the masterplan would not be prescriptive in design terms and would allow for variation as development proceeded (to meet the dictates of individual investors or occupiers).

From the outset the Panel was concerned that the whole concept and its chosen location were fundamentally unsustainable, and that site planning, design and energy efficiency innovations in the buildings would do little to ameliorate this situation. Such a major employment generator ought to be at the heart of a sustainable urban extension where it could be linked to large scale residential development, and contribute to the provision of high quality public transport. The project's level of car reliance would add significantly to the high levels of congestion on the motorway junction at peak times, the 'regional transport hub' was unconvincing, and the project ought to be integrally linked to the regional public transport network with new rapid transit provisions. Rather than being an exemplar of Sustainable Wales this project was a powerful assertion that major economic development projects could continue to ignore the implications of climate change and fossil fuel shortages.

At the second review the Panel welcomed the revisions that had been made to the site layout, the increased compactness of the business space, the better visual and pedestrian connections between units, and the underground parking for the business space. However, they considered that the main green corridor through the site and its water features were undermined by the wide, dual carriageway boulevards and the large roundabouts, and that the park-and-ride car park should be decked and not allowed to sprawl across the site. They argued that a firm commitment should be made to achieving BREEAM Excellent, more options presented for renewable energy generation, and on-site water supply and waste treatment explored along with a district energy network.

3.9

Case Study 14: WAG and Ceredigion County Council Buildings, Aberystwyth



Case Study 14: Welsh Assembly Government and Ceredigion County Council Buildings, Aberystwyth. This view showed the Council Building in the foreground and the Assembly building behind, with the central space that they should share divided by a glazed screen. The full height atria provided a single central axis through both buildings and assisted natural ventilation.

The second of the new **WAG buildings** was located on **Park Avenue, Aberystwyth**, the main approach into town from the south east, with a new building for Ceredigion County Council to be built by the same developer and contractor alongside. The buildings were to be designed to achieve BREEAM Excellent and be primarily naturally ventilated. They were designed as a pair focused upon, and separated by, a central plaza with hard and soft landscaping and pools, in turn divided by a glass screen running through the middle of the amenity space. Both buildings had linear atria that ran the length of the building with three storey blocks to the road and four storey blocks to the rear. Most areas of the buildings would be passively cooled, and the materials would be timber brises-soleils and soffits, slate, and Pennant stone, with standing seam metal roofs.

The Panel did not consider this to be a 'gateway site' as claimed, nor a good site for a major government building because of its peripheral location. It argued that if this was to be a landmark building, its architectural treatment would need to be more refined, the symmetry of the two buildings more subtly differentiated, and Park Avenue addressed much more forcefully. There were concerns over the high level of security and the way this was driving both the landscaping and the pedestrian access. The Panel considered that the sustainability credentials of the project would be strengthened by the inclusion of green roofs, and the use of locally sourced structural timber, and were very concerned that the budget was insufficient to guarantee a high quality building.

At the second review the panel reiterated its desire to see the central plaza developed as a genuine focal point of the scheme and made a fully accessible public space, with the main entrances of both buildings relocated and accessed off it, and the high security barrier pulled back to the line of the WAG building. The solar shading on the two blocks had to be differentiated to respond to different orientations, and that this would help subtly differentiate the two buildings. The Panel was somewhat reassured on the matter of build costs but wished to see quality materials clearly specified and conditioned by the planning authority. They welcomed some features of the sustainability strategy but argued that the failure to increase glazing and solar collection on the atrium roof was a missed opportunity.

3.10

Primary Care Developments and Hospitals

A significant number of healthcare projects have been reviewed during the course of the last two years including four new hospitals, one primary care resource centre and seventeen Primary Care Developments, and the Panel expect to see more in the near future. It was a requirement of the Welsh Health Estates (WHE) procurement process [Welsh Health Circular 2006 061] that the Commission be consulted on each scheme, and that they approve the design and sustainability credentials prior to the submission of planning applications and the release of funding. Major healthcare sector investment comes from the Welsh Assembly Government's 'Designed for Life' strategy. Launched in 2005 the programme builds upon the work already begun in 'Building for the Future, Improving Health in Wales' and 'The Health Challenge Wales'.

The Designed for Life philosophy for the new health system for Wales identifies that facilities need to be

"... inspired yet practical, actively planned, modelled and built by experts. High quality design is durable, safe and effective – it delivers to people what they want. In short, it is fit for purpose, and our purpose here is an improving quality of life for the people in Wales – adding not just years to life, but life to years." (Dr Brian Gibbons AM: Minister for Health & Social Care 2005)

Out of this strategy Local Health Boards (LHBs), through Welsh Health Estates, are seeking to provide new primary care facilities and hospitals throughout Wales. Primary Care Resource Centres will provide services which might at present be provided separately, including General Practice Surgeries, Dentists, and related Social Services functions.

The design and spatial planning of these centres is being led by General Practitioners and LHBs working closely with their third party developer team. The majority of schemes which come to design review have already been evaluated through the 'Achieving Excellence Design Evaluation Toolkit' (AEDET) process. This toolkit evaluates the design of healthcare buildings from initial proposals through to post-project evaluation, and was developed in close collaboration with CABE and the Construction Industry Council to provide evaluation criteria which ensure that all schemes work within a common, industry-wide framework.

Each healthcare project also has to have undergone a 'NEAT' assessment. The NHS/WHO Environmental Assessment Tool (NEAT) is a software tool designed to assess the negative impact of healthcare facilities on the environment. NEAT aims to identify the environmental impact created during day-to-day operational activities. NEAT was produced as a result of the Sustainable Construction Action Plan which requires all new buildings achieve a NEAT rating of Excellent and refurbished buildings a rating of Very Good. NEAT is due to be replaced by an NHS BREEAM standard in the near future.

In addition to these two review mechanisms Welsh Health Estates published in 2007 its [Primary Care Development: Design Guide](#) and the DCFW has also produced a [10 Points for Primary Care](#) (DCFW 2006) to assist the presentation of projects at Design Review.

Review experience

Notwithstanding the amount of guidance available, and the various evaluation systems to be used by the project teams, the review process has revealed disappointing design solutions. Out of the 22 healthcare projects reviewed, only 7 were considered by the panel to require only minor amendments to the scheme, while the balance would require major amendments and a second review.

3.10

(i) Primary Care Developments

Among the 18 such centres reviewed there were essentially two types of site: in the centre of towns or villages or on their periphery. Those on the periphery of towns are inherently less accessible and sustainable and three examples of these are discussed first.

The Primary Care Development at **Corwen** went through the design review process twice. On an out of town greenfield site designated for employment use within the Denbighshire UDP, the design team proposed a 'simple' but cranked plan form with two wings accommodating a south facing waiting area, consulting rooms and dental surgery; and north facing treatment rooms, administration and pharmacy. The building form used an exposed glulam frame supporting a first floor balcony and brises soleils on the south façade, resting on steel columns at the rear.

The Panel applauded the sustainability strategy and measures that had been taken to ensure a low carbon building, based on a traditional procurement route. However it had major reservations about the design approach, particularly given the lack of a development framework for the overall site. It also felt that a stronger, simpler built form would be more appropriate, and that the location of the main and secondary pedestrian entrance should be reviewed.

At the second review the Panel argued that the landscape framework could be stronger and tighter to the building, and that this would benefit the scheme as a whole. The Panel was disappointed that the external glulam structure had been replaced with steel (the user group had not favoured it) though it remained internally, but they welcomed the detailed sustainability measures particularly the biomass heating system, the proposed sustainable drainage system and the green roofs.

The Panel could not support the proposals for the **Abergele Primary Care Development** despite the ten year search for a site, and the exploration of seven different locations. They had serious reservations about the peripheral location on an industrial estate, and about all aspects of the site planning. A new planning application was considered to be necessary and should be used to develop a radical re-design for a distinctive public building, driven by sustainability considerations. In particular the building's orientation needed to be changed 180 degrees to face south in order to optimise solar access, views, street presence and legibility. A more positive landscape approach should be adopted, using hard and soft landscaping to create an attractive, sunny, welcoming and active entrance space, facing towards the town and the street rather than the car park. The panel wanted to see a district heating option pursued and passive ventilation used to control overheating, and the most appropriate low carbon solution should be identified. A far more considered approach to a suburban site was evident in the **Port Talbot Primary Care Development**. (Case Study 15).

As regards the in-town and village sites there were a range of town and village locations with varying degrees of contextual constraints to be handled, not the least of which was often the small size of the site itself. Exemplars of in-town/village Primary Care Developments include those in Rhyl (Case Study 16) and Mountain Ash (Case Study 17). A Primary Care Development proposed in **Clydach, Swansea** had selected a central site despite significant constraints. The Panel agreed that the chosen site was the best available option, but concerns were expressed about the back lane which ran along the south eastern perimeter of the site, a public route which needed to be improved and made safe. Though the design team planned to address this with appropriate

3.10



Fig 39: Clydach Primary Care Development, Swansea. The back-land site imposed many constraints but gave the PCD a central, accessible location. Key issues were how to give the building more of a civic presence on the road (to the right), and how best to address the back lane through the site.

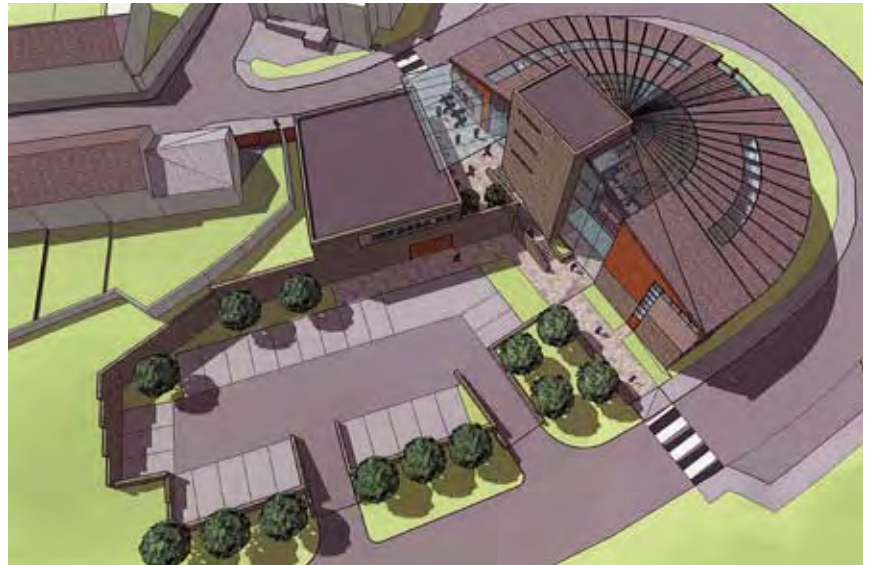
lighting, fencing and planting, the Panel doubted that this would be sufficient, and they were unconvinced by subsequent re-designs of this relationship. The Panel considered that the overall bulk and massing of the building were appropriate (Figure 39), though it disagreed with the design team's assertion that this was not a civic building. It thought that the domestic architectural treatment was inappropriate, and that the entrance should be made more visible from the High Street and the roof form simplified.

Some similar issues arose in the **Connah's Quay Primary Care Development, Flintshire**. The Panel supported choice of site and the central location and considered the contemporary design and logical internal layout would form the basis of a successful scheme. However, they regretted that the essential link through to the main street had so far proven to be undeliverable. This was the most necessary of the major revisions required because it was essential to have a safe, well-lit, high quality access route through the site linking the town centre to the north and the green spaces and park to the south. The Panel wanted to see the Local Authority prepare a development brief for the area surrounding this site and facilitate negotiations with adjacent land owners. The Panel lamented the lack of detail on sustainable design and environmental performance, and requested a fully justified and site specific strategy based on minimising the building's carbon footprint.

The proposal for a Primary Care Development (including dentistry) at **Treharris** in Merthyr Tydfil used a site at the end of Fox Street which formerly led to the Navigation Colliery. A steep bend in the road up from the valley defined the

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Fig 40: Treharris, Merthyr Tydfil. The semi-circular footprint was fitted to the bend in the road and cut into the hillside. The café and pharmacy building helped define an intimate plaza on Fox Street, and three flights of steps took a public footpath to the lower entrance, car park, and small tree-planted plaza.



site at the end of the terraced houses with good views to the north and east. The design took advantage of the vacant plot created by the bend in the road around the end of the terrace to create a semi-circular building, one and a half storeys to respect the terraced housing on Fox Street, but with three storeys on the south side. At the lower level there was space for a small staff car park. The main clinical uses were located on the ground floor, with a triple height atrium and first floor accommodation for staff only (Figure 40). The design included a health food café as well as a pharmacy located in a single storey block fronting Fox Street.

The building was primarily naturally ventilated and solar shading was proposed for the atrium. The Panel welcomed the intention to express the communal nature of the building in the design with the provision of quality public spaces and facilities. However, it felt that the current form was not as strong as that promised by the initial analysis. The roof form and massing needed to be reconsidered in relation to the different site levels, and the sense of arrival to the lower car park could be improved. The sustainability strategy needed to be developed further. On receipt of revised proposals the Panel agreed that the major issues had been addressed and the scheme should proceed.

The Panel's review of the first scheme for the **Tonypandy Primary Care Development** resulted in the design team selecting a better site, that of the old gas works. Two circular foundation pads remained, and to avoid extensive excavation and remediation one of these would be used as the base of the building. A heavy base of recycled blue Pennant stone supported rendered walls and a slate roof [which will use recycled slate if available]. Kalwall [polycarbonate] panels will be used for the lantern roof light above the waiting area. The Panel felt this was a rushed proposal, justified by CGI images rather than a carefully reasoned design rationale. Among the major issues still to be resolved were accessibility, the positioning of the main entrance and single staircase, the viability of the proposed circular plan, the commitment to biomass heating, and a landscape scheme.

Issues of design detail loomed large in the **Bethesda Primary Care Development, Gwynedd**, located off the main Bangor Road within the village. The panel reviewed the third design that had been prepared. The architects

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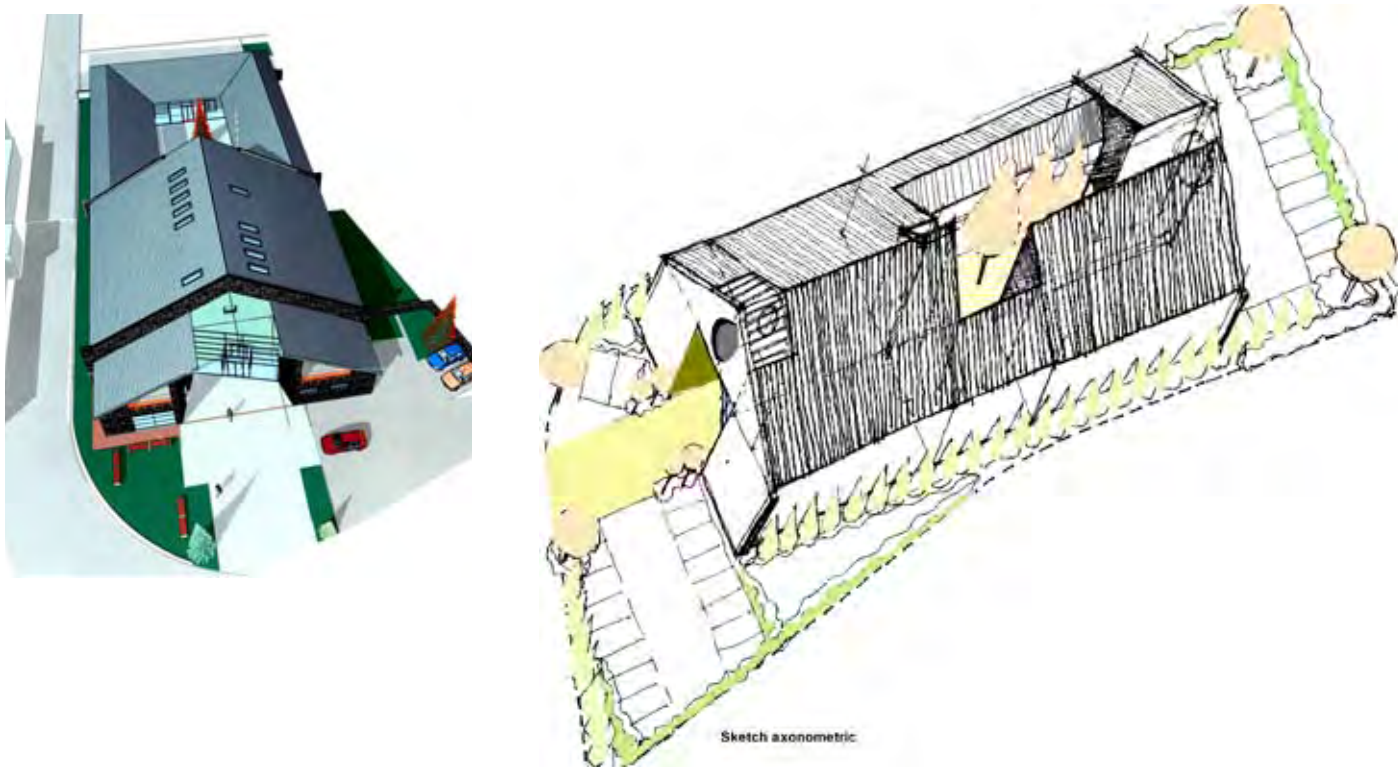


Fig 41: Bethesda Primary Care Development, Gwynedd. The architects created a very compact and contemporary scheme, but in response to the Panel's comments they simplified the design to a single, strong traditional form with a central axis linking a recessed entrance, double-height waiting area, sheltered courtyard, and rear glazed lobby. *The final refined axonometric (upper left) of the main entrance illustrates the development of the contemporary design and the use of local slate.

had sought to produce a strong but simple response to the dramatic scenery and surrounding buildings typical of a Welsh quarrying village. A single block was arranged around a central courtyard and with narrow setbacks to the site boundaries. A simple entrance path and porch addressed the street, and a double height waiting area benefited from views to the mountains and into the courtyard. The Panel thought that this scheme had a strong design idea but they preferred a contemporary design responding to its context, a reduction in scale, and a simplified floorplan (Figure 41). It suggested that a continuous slate surface linking internal and external spaces would help root the building in its surroundings, and they supported the intention to exploit the separate wings and shallow plan for natural ventilation.

Similar discussions on elevational details took place on the **Ruabon Primary Care Development, Wrexham**, where the Panel was disappointed with the minor revisions to the scheme undertaken in response to the first review (intended to keep the extant planning permission intact). It wanted to see a justification of the proposed layout based on something other than short term expediency. The Panel had reservations about the deliberately domestic style of the proposed building, given its public and civic function, and were prepared to accept it only if the detailed design was of an exemplary quality. The lack of coherent landscape and sustainability strategies was also of concern.

Criticisms of architectural form were also significant in the **Gilfach Goch Primary Care Development, Rhondda Cynon Taff**. This was another well-located scheme adjoining the main road and linking the two communities within the village. The Panel supported the aim of creating a landmark building on this site, but it did not have confidence in the design approach with its plethora of monopitch roofs at different angles, and fenestration of small square windows that did not respond to solar orientation or views (Figure 42). The overcomplicated, cranked plan, and much of the elevational detail

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Fig 42: Gilfach Goch Primary Care Development, Rhondda Cynon Taff. A well-chosen site connected both parts of the village and had a potentially pleasant aspect across the valley. The Panel felt the design did not fully exploit this, or the solar access, and would benefit from a much simpler floor plan and roof structure.

was considered unnecessary and unsuccessful and the Panel wanted to see a stronger and simpler form emerge, and more of the budget spent on improving the quality of materials and details. It urged the team to reconsider a green roof treatment and to adopt other sustainable measures including solar water heating and a biomass boiler.

In some cases the constrained nature of the urban site made the development impossible. The Panel reviewed **Padarn Surgery** in Aberystwyth on a site which has a strong green edge of mature trees to be retained and slopes steeply at about 1 in 8 from east to west. Although having an outline planning permission with a reserved matters application pending, the Panel considered the relationship of the building to the site deeply problematic and unresolved. While the internal layout of the building was simple, logical and worked well, the building footprint was simply too large for the site and did not respond to the topography or protect the existing trees.

Another problematic urban site was that chosen for the **Caernarfon Primary Care Development** in the new retail/office complex in Victoria Dock (see [Design Review in Wales 03-05](#) p 72) currently under construction. The location for the Primary Care Development was the first floor of Block A, a three storey commercial block at the centre of the scheme. Two GP surgeries were accommodated within the proposals along with other primary care

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facilities including a pharmacy. Whilst the Panel accepted the Local Health Board's claim that the site was suitable for the proposed use, the first floor location was considered problematic in terms of accessibility and a lack of civic presence. Furthermore the deep plan, on the middle floor of a three storey block, had negative implications for the introduction of daylight and the exploitation of views, as well as problems in terms of legibility, accessibility and internal circulation. This scheme is now under construction.

Finally some Primary Care Developments exhibited well-worked sustainability strategies. That at **Porth, Rhondda Cynon Taff** was located on the only available site near the town centre. A monopitch sedum roof was utilised sloping towards the north east, and the walls colour rendered with cedar cladding and the windows composite timber/aluminium with 'K' glass. Most internal spaces were naturally ventilated. A ground source heat pump would be installed for heating, and lighting would be via T5 lamp technology with PIR sensing. Solar water heating was also included. The large rooflight over the double height waiting area would facilitate passive ventilation. The Panel appreciated the rational, sustainable design approach to this constrained site and the resulting simplicity of expression. It welcomed the proposed planting and creation of the staff garden but felt that more attention should be given to the detail and extent of the landscape design to further enhance amenity.

(ii) Hospitals

The panel saw four hospitals and the issues in each case were similar to those explored in the context of Primary Care Developments. The 44 bed **Holywell Community Hospital, Flintshire** had already received planning permission when the Panel reviewed it. The site on the B5432 into Holywell was close to the A55, within half a mile of both existing hospitals, and adjacent to a GP practice, but it was a steeply sloping, north-facing and triangular in shape. The Panel welcomed many aspects of the scheme including the site layout, low built form, and interior design. However, if it had been reviewing this proposal at an earlier stage it would have recommended major revisions including a simpler, more understated, but more civic architectural expression, a more legible main entrance linked through to a rear courtyard, more daylight introduced into the central corridors, a re-arrangement of fenestration to reflect solar access and views, better material finishes, and improved pedestrian links to the south and west. The Panel applauded the NEAT Excellent rating but had concerns about how well sustainability measures had been integrated into the design process.

The **Cynon Valley Hospital, Mountain Ash** was reviewed as it approached the full business case [FBC] stage. The redevelopment of an existing building in Aberdare had been rejected and a brownfield site selected in Mountain Ash as part of the public consultation. The site was very accessible, located on the main A4059 and within 500 metres of a railway station. The building form had been generated by departmental adjacencies, as well as the nature of the site. A curved fan form responded to the curve of the river, and secure courtyards opened up to the landscape, as part of a strategy which sees the natural environment contributing to the therapeutic healing process. The design strategy embraced the imperative to build sustainably and was looking to incorporate a range of features including a biomass CHP system, sustainable drainage, and a ground source heat pump.

The Panel sought a number of major revisions to improve the site organisation which it considered confusing and dysfunctional. It argued that the quality and clarity of the internal layout was not consistent and it was not convinced that the use of curved geometry throughout offered significant benefits, or that

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Fig 43: Ystrad Mynach Hospital, Caerphilly. A very strong design concept was developed using the slope to place the car parking under the building, angling the wards off a central corridor to create a series of green courtyards/terraces...

the deep-plan elements were desirable. The Panel concluded that landscape specialists and mechanical and engineering consultants should be involved in the design development as soon as possible.

The panel reviewed two versions of the **Ystrad Mynach Hospital, Caerphilly** by different design teams. The second team were appointed to develop the scheme on the basis of 100 per cent single bed accommodation. The site alongside the river was in a semi-rural location with attractive views of the valley and hill sides. The flood plain status of the site was an important driver in the design process, and the ground floor of the building was placed at first floor level. Parking was at ground level, mostly located underneath the buildings. The main public vehicular access would be from the east, off the A469, over a new bridge across the River Rhydney.

The Panel was encouraged by the architectural approach and the quality of the design team and their presentation. It felt that the scale of the blocks needed breaking down and it questioned the location of the main entrance at one end of the linear block (Figure 43). The Panel felt the development should achieve a better relationship with Caerphilly Road and the environment to the west, with new entrances to the site and connections to the park and river corridor. It was not convinced by the transport and access strategy and questioned the assumption that virtually all visitors would arrive by car, arguing that vehicle and pedestrian access needed to be better integrated. An ambitious landscape strategy needed to be developed to enhance the setting of the development.

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The Panel applauded the inclusion of a biomass heating system but urged the team to go further in supporting new technologies and delivering an exemplary low carbon building, and to work with professional artists and consultants to ensure a high quality and well integrated artwork. Finally, the panel was concerned that the current programme was unrealistic and thought the designers needed more time to develop the detailed design and retain the promised quality. Similar concerns were expressed in the review of **Ysbyty Aneurin Bevan in Ebbw Vale**, (Case Study 18), but here it was the compatibility of the design with the aspirations of the Corus redevelopment masterplan that dominated discussions.

Lessons learned

Six key design issues emerge from the review experience of Primary Care Developments and hospitals. **Poor site selection** is the biggest concern because such centres demand high levels of access for people who have least access to a private car—the elderly, young mothers and children, and those on lower incomes. Ideally Primary Care Centres should be located at the heart of communities, where they can be easily accessible to the whole of their clientele, and where they can reinforce the viability and vitality of town and village centres. But here sites are likely to be more difficult to assemble, more expensive and far more constrained. It is hardly surprising therefore that some Trusts select less constrained sites on industrial estates or on the periphery of settlements, but such decisions are less equitable, deprive local centres of increased footfall, and contribute to ever greater car dependence. The re-planning of health service provision has not always been well integrated with the spatial planning process, robbing communities of important facilities and synergies that drive regeneration and better public transport.

Poor site selection is often the cause of the second problem—the frequent **lack of civic presence of Primary Care Developments - which are important public facilities at the heart of local communities**. Sometimes it is a matter of developing the design to give the building more presence in a settlement, sometimes a matter of the design of the entrances to ensure that they are welcoming and not swamped by car movements and parking, and sometimes a matter of the intelligent grouping of ancillary public functions to create a sense of place.

A third problem is the **procurement processes**. As part of the short listing process, the developer will be asking the architect to carry out a series of design exercises to make sure that the LHB/GP brief can be accommodated on the site. To DCFWs knowledge, the LHB does not actually formally appoint the third party developer but issues a letter of intent – meaning the developers will be working speculatively and at risk and reluctant to expend resources. As a result, frequently the architect is paid very little to work up a scheme which will support a funding bid to WAG and a planning application. This design work is often entirely speculative, and even if the scheme does get funding, it will have been many months, perhaps years, before the architects are paid. For the same reasons the third party developer will often not employ landscape architects or mechanical and electrical engineers, and as a result sensitivity to site and landscape can be weak and sustainability is retro-fitted rather than integral to the design.

A fourth problem emanating from the procurement process is that many of the centres are **drawn up in far too great detail without sufficient consideration of service delivery** and using extensive computer-modelled analysis to keep design costs down. The DCFW panel would prefer to see schemes much earlier, when broad principles have been agreed but the scheme is fluid

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“ Sometimes it is a matter of developing the design to give the building more presence in a settlement, sometimes a matter of the design of the entrances to ensure that they are welcoming and not swamped by car movements and parking, and sometimes a matter of the intelligent grouping of ancillary public functions to create a sense of place.”

enough to encompass change and improvement. The architects consider the scheme drawing to be key to their likelihood of success in a competitive process. However the further the design work is advanced the greater the reluctance to change the design when local planning authorities, DCFW or others seek amendments.

A fifth issue is the **dilution of the design concept** as the design has been developed. Initial ideas for built forms and layouts have been weakened as compromises are made to accommodate new requirements, competing clinical services or the requirements of interested parties such as DCFW, Access Groups, Pharmacy operators or planning authorities. To some extent this is inevitable given the complexities of the design process, but **clarity and careful thought about service needs at the outset are essential** to the achievement of a good quality scheme.

Finally, it must be reemphasised that **the sustainability strategies for Primary Care Developments and larger Hospitals are often inadequately developed**. Despite the requirements of the AEDT and NEAT Assessments, the sustainability strategy often remains no more than a wish-list, and the opportunity for it to drive the whole design has been lost. It is to be hoped that the new BREEAM standard replacing NEAT will require a more rigorous assessment and a more comprehensive design response. It is noteworthy that two Welsh hospitals not seen at Design Review (Ysbyty Cwm Rhondda and Ysbyty Alltwen in Tremadog) are using biomass boilers for heating and cooling with an estimated payback of 7 years. These will be the first biomass systems in new-build hospitals in the UK, and all parties in the procurement process should be giving such innovations much more serious attention.

In general, it is clear that the benefits of good daylighting, natural ventilation and a good working environment are neither understood nor promoted in Wales and as a result its Primary Care schemes are a long way behind those being built elsewhere in the UK, despite comparable budgets.

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Case Study 15: Port Talbot Primary Care Development, Neath Port Talbot



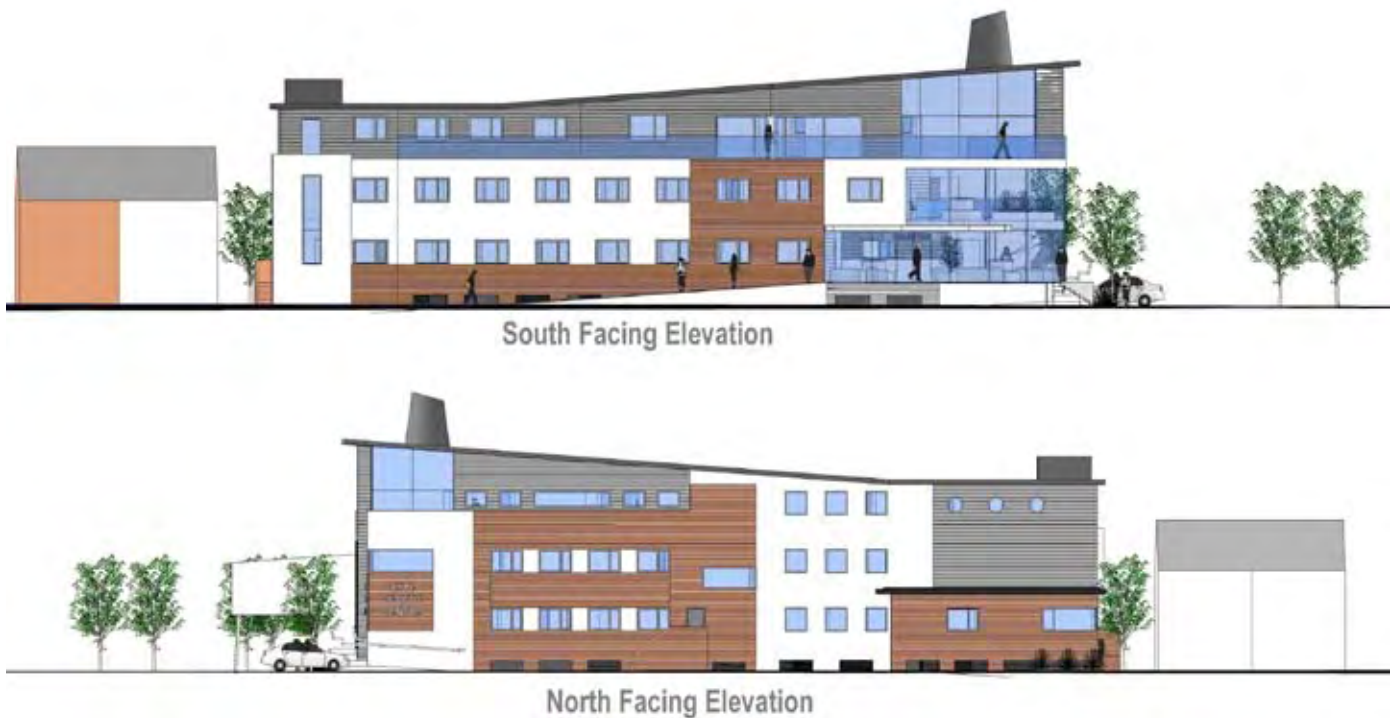
Case Study 15: Port Talbot Primary Care Development, Neath Port Talbot. The Panel applauded the design concept ('a glazed street' between the various GP and dental surgeries), the strong form, and the way the scheme exploited solar access and provided good daylight and ventilation.

Neath Port Talbot needed two Primary Care resource centres and this was the first. A steering group representing all users and stakeholders was formed to oversee the development of the bid. The group researched design options working to secure the active engagement of all partners and full patient consultation. The proposed design won wide approval as a landmark building which complements the new Baglan hospital, and as a facility which will meet the future needs of the community. The built form was conceived as two curved building elements linked by a glazed street. The southern block was configured lower to allow daylight into the street through a clerestory. Public and private external spaces were separated by the building, with staff parking to the north and public parking adjacent to the main entrance to the south. Windows appeared randomly distributed with a horizontal emphasis, but gave the same level of light into each room. Different coloured horizontal bands of brickwork and render gave interest to the facade. Overall it was felt that this was an appropriate response to a constrained site, a bold and dramatic building design.

But the Panel considered that the site needed a stronger landscape treatment, especially at the boundaries. They argued that a separate vehicular staff entrance to the north east would allow a better site layout and would take more advantage of the well-landscaped southern boundary of the site, with the building moved slightly to the north to accommodate this. This would have the added advantage of allowing uninterrupted pedestrian access to the main entrance, as well as strengthening the front/back distinction. The panel felt that the provision of 'generous free car parking facilities' contradicted the healthy living emphasis of the development, and undermined the need to develop more sustainable transport options. Bus stops were not conveniently located, there was no provision for cycle access or storage, and the pedestrian link to the south needed to be improved. The Panel was pleased to see the commitment to a NEAT Excellent rating. The biggest energy demand would be for hot water and solar thermal panels would be installed on the roof of the south-facing block. Solar shading would be provided to the ground floor facing south and to the glazed street.

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Case Study 16: Rhyl Primary Care Development, Denbighshire



Case Study 16: Rhyl Primary Care Development, Denbighshire. The two entrances from car park and street focused on a small glazed atrium between the PCC and the pharmacy on the south side. The Panel felt that the blank southern wall of the latter needed to be made more pedestrian friendly, but supported the design concept.

The site for the Rhyl Primary Care Development was chosen after an options appraisal which considered 11 possible sites. It was next to an existing car park, close to rail and bus stations and within 200m of the main shopping area. It was bordered by a main railway line to the south east, and West Kinmel Street to the north west. The building addressed the north eastern corner of the site, and a large glazed wall faced the main approach from the station and helped enclose the main entrance, with a curved wall the other side screening a separate pharmacy. A variety of materials were proposed including (local) brick, render and timber. It was proposed to cover the flat roof with thin film PhotoVoltaic cells incorporated into the roofing membrane.

The Panel was impressed by the way in which the building footprint responded to the site and addressed the approach roads. However, it thought the curved entrance wall appeared rather dominant and wanted to see it stepped down towards the car park, following the line of the ramp. The rear of the pharmacy block which bordered the cycle and pedestrian route, was an unrelieved blank wall and the Panel suggested that this facade be enlivened and re-designed to respond to the public realm, with the main signage located on the curved wall by the main entrance steps. The Panel welcomed the development of a landscape strategy for the car park and would have liked to have seen it extended to include the whole site. The Panel noted that a NEAT Excellent rating would be achieved and it supported the use of a biomass boiler, but suggested that solar water heating could be a more cost effective alternative to photovoltaics.

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Case Study 17: Mountain Ash Primary Care Development, Rhondda Cynon Taff



Case Study 17: Mountain Ash Primary Care Development. The building adopted a 'contextual but contemporary' aesthetic and provided an attractive and active frontage and forecourt to the main road. The panel suggested improvements to the internal layout to improve the aspect and internal environment.

The proposed development would house four GP practices and include a 'one-for-all' shop offering various Local Authority services. The site was well located adjacent to Mountain Ash railway station and occupied a prominent space between two roads with pedestrian access through the site connecting to the bus and train stations. A larger two storey block followed the curve of the site boundary and accommodated the Primary Care Development, with all clinical accommodation on the ground floor. A double height waiting area located in the northern corner took advantage of the views. A shared foyer and entrance on the south west corner linked this block with the single storey one-for-all shop, which provided an active street frontage. The design approach was contemporary but contextual. Red brick was used on the Primary Care Development to reflect a nearby Victorian shop unit, with snapped headers giving a textured finish. The single storey elements would be white, self-coloured render, with coloured panels denoting the main entrance. There were a small number of dedicated parking spaces provided, including disabled spaces.

The Panel supported the contemporary design approach and the enhanced legibility resulting from the use of different materials, but it had some serious concerns about aspects of the internal layout. The main waiting area was not ideally placed to capture views, and the courtyard had lost the potential to provide therapeutic contemplation. The Panel felt that the courtyard should be positioned so as to attract maximum daylight and have a clearly defined function. The Panel supported the sustainability strategy to reduce energy demand and achieve a robust building envelope with enhanced insulation and natural ventilation. However it was concerned that a NEAT assessment had not yet been carried out, and that this would have implications for different low carbon technologies which would need to be incorporated into the design from the beginning. Failure to carefully consider sustainability measures early in the process adds unnecessary cost and significantly narrows opportunities for low carbon, resource efficient buildings.

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Case Study 18: Aneurin Bevan Hospital, Ebbw Vale, Blaenau Gwent



Case Study 18: Aneurin Bevan Hospital, Ebbw Vale, Blaenau Gwent. The panel were broadly supportive of the scheme but sought more ambitious landscape and sustainability strategies, particularly with regard to green roofs and the function and use of the winter garden.

The panel reviewed two separate designs for Ysbyty Aneurin Bevan, within the Ebbw Vale masterplan, on a site at the south western corner sloping down from the main A4046 road into town. The second site analysis produced a schematic internal layout which located in-patient accommodation to the south with the best views and solar access; the outpatients department more centrally placed next to the main entrance; and the mental health facility to the north in a more private and protected location. The in-patient wings open up to the south, enclosing an open green public space and an enclosed 'winter garden' for the use of patients and visitors. The design had recently been modified to take account of the requirement for 100 per cent single bed rooms and the desire to minimise travel distances internally, and this had led to a part two storey option being developed.

The Panel supported the concept scheme but considered that there were major masterplanning issues which had not been resolved. In particular the design of the main entrance and access to the hospital, the relationship of the building to the street, and the potential to create the urban square signalled on the masterplan had not been well resolved. The decision to sell off an adjacent strip of land for housing was welcomed but this was too narrow to allow proper enclosure of the square on the north side.

The Panel argued that a more developed landscape strategy could resolve the transition from rural to boulevard boundary treatment and differentiate the urban and natural edges of the site. They thought that the architectural and material treatment was understated and would need high quality detailing and material specification to avoid appearing bland. The changes in levels on the site could be used to articulate the blocks more effectively. The panel broadly supported the sustainability strategy, but wanted to see the case for green roofs re-examined, more daylight introduced into the long corridors, and proposals to heat the winter garden dropped.

3.11

Public realm and public spaces

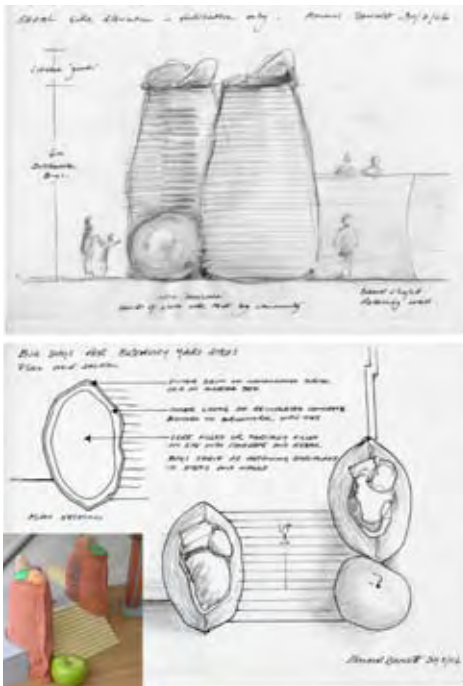


Fig 44: Brewery Yard, Abergavenny. The Panel supported most aspects of this project aside from the public art proposals, but felt that the upper level car park should be completely pedestrianised with a ramp down to the lower level.



The panel saw designs for three new, or at least reclaimed and refurbished, public spaces in three different historic towns of Wales. All three have strong conservation contexts, and all three are important components of visitor-led regeneration and attempts to better manage traffic for the benefit of pedestrians.

Review experience

Y Maes in Caernarfon is the largest public space in town and provides a large forecourt to the main gates of the castle. It is an important conservation project but also an interesting experiment in new ways of traffic calming (Case Study 19). **Brewery Yard, Abergavenny** was another market site and potentially a fine public space situated between the main shopping street and the proposed new Walmart development on the cattle mart site (see section 3.8). It is also used as a short term car park, but is unimproved, inward looking and fragmented by a three metre change of level.

The local authority had promoted the project and their aim was to develop a 'high quality open space' and a focus for many different activities. The proposed design showed a curved fan of paving spreading out from the rear of the Market Hall, and flights of steps providing access down to the Cibi Brook which will be opened up more as a feature. Two small amenity buildings will be provided at the upper level but this space will be crossed by service vehicles and those seeking the six disabled parking spaces (Figure 44). All other parking would be

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Fig 45: Welcome Centre, Monmouth. The Welcome Centre itself separated the car park and new square effectively, but the Panel felt the building was understated. The flood defences provided some sitting steps to help enclose the square which provides a new setting for the Monnow Bridge.

provided at the lower level and Market Street would be re-paved. Street furniture and artwork would reflect the history and previous use of the site as a brewery, and an artist proposed barrel forms as bench seating and pillars to enclose the space, and sculptures of oversized 'shopping bags' brimming with local produce to flank the main steps. Paving materials would be natural stone setts, locally sourced, together with clay paving to reflect the brickwork around the chapel. Signage would be integrated.

The Panel considered that the design of the space should be more under-stated and refined. A contemporary approach with quality lighting, furniture, paving and walling materials would better complement the historic setting. The Panel had strong reservations about the quality of the public art, which was in danger of 'theming' the square and over-cluttering it. It felt that the kiosk and shelter could be combined into a single building, disabled parking located at the lower level, with the upper level kept free from vehicles apart from servicing. The rear facade of the hall and its entrance could be sensitively altered to add quality and interest to the external space. Finally, the Panel wanted to see the eventual pedestrianisation of Market Street.

The Welcome Centre, Monmouth was a proposed visitor centre located between a new public space in front of the historic Monnow Bridge to the north and a major car park to the south. Community consultation and stakeholder

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workshops had been held and a public exhibition would take place when the design was resolved. A coach drop-off point would be provided alongside a 180 space car park, both of which were much needed, and new flood defences and an earth bund would accommodate new steps and seating areas (Figure 45). The new public square had been designed to enhance the approach to the Grade I listed bridge and to the town's main street, and the new building with its cafe/terrace was intended to relate well to both bridge and river.

The client and stakeholder groups wanted a contemporary building but using traditional local materials. Stone, timber, glass and copper would be used for the single storey reception building. A 'beacon' rooflight would allow daylight in and provide a glow after dark. An artist had been involved in the design of the rooflight and glazed wall panels. As well as the cafe there will an interpretation centre and a shop selling local produce.

The Panel supported the contemporary design approach of a modern pavilion and the simplicity of the square's layout and furniture. Overall it considered the scheme to be an acceptable, if rather muted, response to the site and the brief. It felt the Welcome Centre could be more inviting by having a more exciting and innovative design with a high quality of detailing.

Lessons learned

These three schemes were very much welcomed by the Panel as positive steps towards broader conservation, regeneration and tourist management goals, and as significant improvements to the public realm. The Abergavenny project would be particularly beneficial as a part of a broader strategy to create safe and attractive pedestrian links out to the principal car parks. The Caernarfon project dealt with a large and complex space, but its particular challenge was the subtle management of complex traffic movements within an area designed to be pedestrian friendly if not entirely pedestrian dominated. The Monmouth project was as much about the design of a building as a space, but the two had to be resolved together, and a strong relationship created that could work in the evenings and winter months.

In all three cases the Panel was looking for the use of local stone or slate of high quality to create a durable surface. Its preference for furniture and lighting was that it be contemporary and simple. The Panel was not enamoured of the theming they saw in Abergavenny with rather contrived furniture and sculptures, and preferred the Caernarfon approach of clutter removal and selective restoration of the most historically important artifacts, with an emphasis upon flexibility of use.

3.11

Case Study 19: Y Maes, Caernarfon



Case Study 19: Y Maes, Caernarfon. The plan shows the simplicity of treatment proposed with a central square area left open and demarcated as a pedestrian and vehicle shared area. The market stalls would be regularised and a broad staircase would lead down to Slate Quay

The public realm improvement scheme for Y Maes, Caernarfon, the historic space in front of the castle, was intended to act as a catalyst for private investment and expand the town's tourist base and retail offer. The existing market would be retained with improved facilities and a new multi-functional space created. Public consultation consisted of a series of focus groups, meetings with key stakeholders and a three-day public exhibition. A townscape analysis showed the potential of the area and the importance of establishing good pedestrian linkages and creating a strong sense of arrival. Improvements would include the return of a water feature, relocation of statues, shop front improvements and the removal of much of the clutter. Local, traditional materials would be used and local skills to lay them. New lighting and CCTV would be included. A new set of 'sitting steps' would provide a direct and dramatic link down from Y Maes to Slate Quay and the waterfront.

A major objective was to minimise unnecessary traffic movements. Roads leading into the square would have narrowed carriageways, and limited short term and disabled parking: a coach drop-off point would be provided but through traffic discouraged. New traffic signage in the town would reinforce this, but there would be an absence of signs and road markings in Y Maes itself, where traffic calming would be achieved by establishing a visible pedestrian priority over vehicles.

The Panel was excited by the innovative and informal approach to traffic management and the establishment of pedestrian priority, and they strongly supported the aspiration to create a contemporary, high quality public open space. They were delighted that the proposals had been developed with the active involvement of highways officers, and commended them for their imaginative and bold approach. The Panel argued for a greater simplification of the surface treatment of Y Maes and a reduction in the proposed variety of materials. Maintenance issues should be considered at this stage, and inform the specification. The Panel wanted to see the steps designed to encourage people to sit and linger on them.

3.12

Major transport interchanges: bus and train stations and airports



Fig 46: Newport General Railway station, Newport
This excellent drawing explained the remodelling of the station and new pedestrian bridges to access the new office park in front of the Civic Centre. (the drawing shows the first, not the final, City Spires scheme: see Case Study 12).

The panel reviewed the reconstruction of two bus stations, an extension and improved access to a major rail station and a proposal for a small airport. The first three projects were expressions of a long overdue, if modest, re-investment in public transport, and the need to make interchange facilities much more user-friendly in order to attract more patronage.

Review experience

The **Quadrant Bus Station and Travel Exchange in Swansea** (Case Study 20) was a major reconstruction of the town's main bus station which forms the western edge of both the principal shopping centre and the city centre itself. A much smaller project was the new **Bus Station in Blackwood, Caerphilly**. The Local Authority obtained DEIN funding for an improved scheme with a better palette of materials and specifications as part of a wider public realm strategy aimed at restoring retail and commercial success to the town. Three design options were put forward, and the one which did not encroach on the

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“ Providing greater comfort, security and amenity for passengers was essential, as was ensuring that the projected flows of pedestrians and passengers fitted into the pedestrian network of the town or city. ”

market square was chosen. A heated waiting area and cafe would be provided in a fully glazed space overlooking the bus bays at ground level. To protect the roof canopy, which incorporated some glazing, from vandalism a three metre high, virtually see-through mesh fence would be installed on top of the wall. A taxi pick-up rank and cycle storage are included and a public art strategy is in place.

The Panel welcomed this improvement to public transport facilities but urged the design team to re-examine vandal-proofing of the design. It wanted to see the roof area used for some kind of renewable energy generation and more detailed architectural design of the structure, glazing and roof undertaken. They felt the environmental control of the enclosed area needed to be fully considered and an integrated strategy adopted, including design, insulation and glazing specifications, heating and ventilation.

At **Newport General Rail Station** a new platform was under construction under permitted development rights. The Panel reviewed a concept scheme for associated developments. This included a new bus interchange which would be built to the south of the existing rail station along with a new ticket office (Figure 46). A (maximum) 400 space multi-storey car park was proposed to the north on the site of the existing station car park, and alongside a proposed commercial development shown as six indicative blocks of unspecified mixed uses. Two new pedestrian bridges were proposed across the tracks: a replacement footbridge to the east linking the city centre with the residential areas to the north, and a controlled access passenger bridge to the west. The buildings would be well insulated with high thermal mass to minimise the heating demand. On-site renewable energy generation would be maximised and, because lighting was likely to be the largest end use, a vertical axis wind turbine was under consideration. Existing station buildings would be reused and restored as far as possible.

The Panel had fundamental concerns with some aspects of the scheme, especially with regard to pedestrian connectivity/accessibility. It suggested that a single vertical circulation point on the south side of the railway would allow better connectivity into the city with the two bridges springing from this single point. The Panel felt that the new car parking to the north should be integrated with the proposed commercial blocks, and the proposed number of spaces should be reduced to encourage the use of public transport. Generally it was

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felt that the urban design concepts needed further development to provide a distinctive and well-composed sequence of urban experiences. A site-wide energy strategy should be adopted to drive the design development, and the achievement of high environmental standards made a condition of approval.

Finally, a proposal for a small provincial public airport to be known as **West Wales Airport Aberporth, Ceredigion** was viewed by the Panel. Situated on a greenfield site, formerly used by the RAF for training, it was located east of an expanding business park. The proposal comprised a terminal building, control tower, two hangars, a fire station, bulk fuel storage, a 48-bed hotel, and a training facility. Some 6,000 flights a year were projected and provision was made for a training facility in servicing and maintenance.

Apart from the hotel situated to the west of the main site entrance, and the training centre situated to the rear of the main terminal complex, the buildings were grouped centrally close to the runway, each with attached parking areas. Acoustic banks provided noise attenuation for local residents and a cycle network is incorporated. White composite panels on brick plinths with green coloured, profiled metal 'Plastisol' roofs were the selected building materials.

The Panel found it difficult to assess the scheme because of the limited amount of presentation material and the absence of local authority representatives. It felt the Council should prepare a development brief for the whole area before determining the application. The Panel was concerned at the ambiguity about public and private space on the site, potential legibility problems, and the poor response to landscape issues. It preferred a more flexible and higher quality architectural form with sustainability measures and renewable technologies informing the design development from the outset.

Lessons learned

The Panel welcomed these infrastructure improvements but recognised that such facilities have to be designed defensibly and in ways that ensure high levels of surveillance that can contribute significantly to personal safety and vandal-proofing. Providing greater comfort, security and amenity for passengers was essential, as was ensuring that the projected flows of pedestrians and passengers fitted into the pedestrian network of the town or city. The Panel were keen to see the extensive roofs of these facilities put to work on energy generation, as for example at Vauxhall Bridge bus interchange in London.

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Case Study 20: Quadrant Bus Station and Travel Exchange in Swansea



Case Study 20a: Quadrant Bus Station, Swansea. The fan-shaped site plan of the new concourse and bus bays was considered an elegant and functional solution.

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Case Study 20b: Quadrant Bus Station, Swansea.
There were concerns that the supporting structure for the roof was inelegant.

A new **Quadrant Bus Station** was proposed as part of Swansea's wider transport strategy combining Park & Ride provision with a new 'Metro' bus system (an articulated vehicle with the advantages of light rail transport and motor vehicle engineering). The proposal comprised 20 bus stands, a 24-hour coach interchange, taxi rank and drop-off point, as well as waiting areas, information and toilet facilities. Buses would access the interchange from Westway, and vehicular routes would be kept away from pedestrian areas. There would be access into the rear of the Debenhams store, possibly linked with a coffee shop, and offices would be located above the main concourse. The roof and first floor were supported on giant 'wishbone' structural columns which would dominate the concourse.

The Panel welcomed the vast improvement this would create for bus passengers and found the overall curved arrangement and plan to be elegant, with good pedestrian and vehicular connections. But the concept needed to be supported by a strong and simple structural design, and the Panel feared that the current proposals did not fulfill the promise of the concept drawings. In particular, the elevation to Westway appeared rather bland, with no structural expression externally: the elevation to Plymouth Street appeared fragmented, and the internal structure looked cumbersome and inelegant. The Panel felt that a simpler, more elegant structural form would also probably be more cost effective. The position and spacing of the structural columns should be more rigorously related to the glazed bays of the waiting areas.

The Panel wanted to see planting integrated into the interior design of the concourse, and good landscaping of the boundaries of the parking. They welcomed the commitment to underfloor heating, natural ventilation and rainwater harvesting, and recommended that building-integrated photovoltaic panels should be considered on the roof.

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Major Road Schemes

As part of its increasing interaction with the Welsh Assembly Government the Panel now reviews some of the major trunk road improvement schemes for which the Assembly has responsibility. Following hard on the heels of their success in being shortlisted for the Prime Minister's 'Better Buildings Award' in 2005 for improvements to the A470 east of Dolwyddelan in the Lledr valley, the highways team is developing a reputation for 'reverse engineering' to ensure that their schemes are carefully fitted into the Welsh landscape. The Panel saw four schemes, three of which were essentially road widenings, and the other a by-pass.

Review experience

The **A40 at Canaston** west of St. Clears, Carmarthenshire had been the subject of possible improvement for a decade. A single carriageway solution would be progressed, although the current brief provided for a possible future upgrade to dual carriageway standard. The six kilometre section included three new roundabouts, a bypass of the village of Robeston Wathen, provision of a new link road over the existing bridge to the new roundabout and a new bridge across the Eastern Cleddau alongside and south of the existing bridge that carries the trunk road. The Panel supported the retention of the existing bridge over the Cleddau and the realignment of the road and new bridge which encroached slightly into the National Park. They also supported the single span option for the new bridge, with sensitive treatment of the wing walls, using natural materials and screening. They welcomed the way in which landscape and biodiversity issues had been incorporated into the design and stressed that pedestrian and cycle access across and along the river should be maintained and enhanced. An even more impressive scheme in terms of sensitivity to landscape and biodiversity was the improvements to the **A470 at Gelligemlyn** (Case Study 21).

The **Porthmadog by-pass** was a proposal for a new 5.3 kilometre single carriageway road taking the A 487 Bala to Bangor road across the protected marshes of Traeth Mawr to the east of Tremadog. It required three roundabouts and eight structures and was subject to a wide range of environmental constraints from flood levels to bat flight paths. The flooding issue was addressed by elevating the road for most of its length on an embankment, and using sustainable drainage measures such as swales and wetlands.

Across Traeth Mawr the road would run to the north of the railway line, with a raised bank on its southern side to screen vehicles and lights, and protect views from the Cob towards Snowdon (Figure 47). The easternmost section from Minffordd to the Glaslyn viaduct, was mostly in cuttings. A relaxation of the Design Manual for Roads and Bridges (DMRB) standards had been agreed where safety is not compromised. Issues which remain to be resolved include techniques for noise mitigation and the design of the Aberglaslyn bridge.

The Panel was convinced by the necessity for the by-pass and strongly supported the ecological mitigation measures employed, and the selected line of the proposed route. It felt that the existing road between Tremadoc and Porthmadog could be continued as a local link to the roundabout at Bodawen Lodge, thus negating the need for the T junction, and for local traffic to travel along the new trunk road. They suggested a softer treatment for the cuttings, possibly using soil nailing techniques. The Panel wanted to see the appointment of a design champion or equivalent to oversee the implementation of the design-and-build contract with a brief to maintain the desired quality, particularly with regard to detailing and interfaces.

The fourth road project was the **Trunk Road dualling of the A465** (the Heads of the Valleys road) seen as a pre-requisite for the regeneration of the region.

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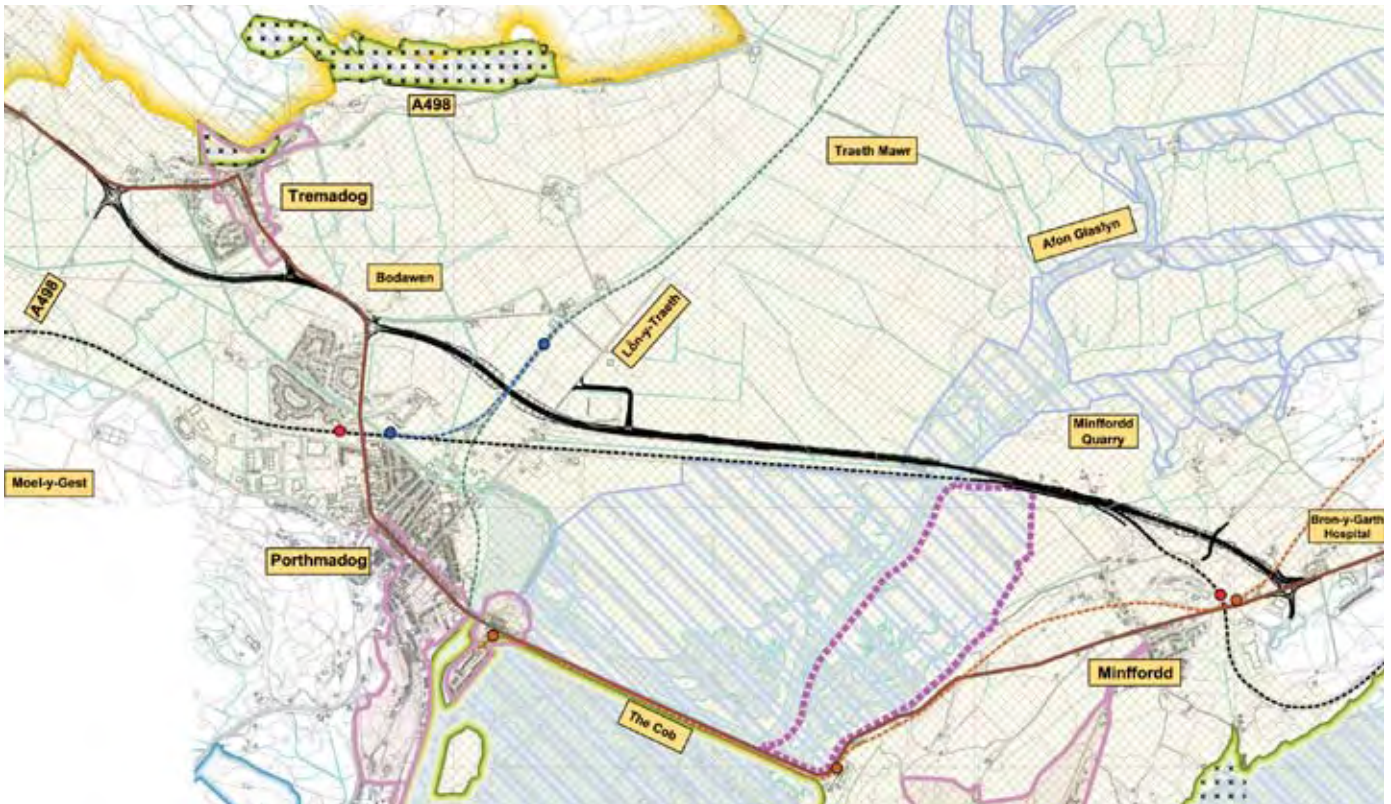


Fig 47: A487 Porthmadog By-pass. The Panel supported the route selected as the one likely to be least intrusive in this important landscape. They did however suggest retaining the line of the old road between Tremadog and Porthmadog as a more economical and less disruptive solution.

Here the Panel's focus was on the wider landscape strategy which is critical to the design of these improvements. The strategy was based on the Landmap approach to landscape analysis, and its aim was to reflect a sense of place and the diversity of the physical and cultural landscape in the road design. The sequence of experience for road users would be marked by transition zones and 'gateways', with key views exploited, and opportunities to stop and explore the surrounding areas maximised (Figure 48). The team had begun to develop more detailed guidance in the form of design codes relating to landform, cuttings, vegetation, structures, and highway furniture etc. The same public art consultant was being used as for the wider regeneration proposal.

The Panel commented that this should be an exemplar scheme learning from the mistakes made on the first sections of the dualling, and the brief should commit to this. The implementation of the design objectives should be ensured by an appropriate procurement strategy and monitoring, and the Panel would like to see the client group appoint a 'concept guardian' throughout the life of the project. It encouraged the team to adopt a flexible approach to DMRB standards, and challenge them where necessary, and supported the development of a full design code which needed to be more prescriptive than the current version. Public art should be fully integrated into the landform.

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Fig 48: Heads of the Valleys Landscape Strategy. The Strategy covers a wide landscape corridor for the whole stretch from Abergavenny to Hirwaun. It clearly identifies the design precedents to be followed and those avoided, with the most recently completed section a cautionary example.

Lessons learned

The lesson learned from these projects is the value of a ‘reverse engineering’ approach which treats landscape and biodiversity constraints as defining factors in the design and fits the road to those constraints, while always being mindful of vehicle safety. This conservationist approach is essential in Wales’ National Parks but it is clearly applicable across the country at large as a positive contribution to Welsh landscape quality and making opportunities for its appreciation. The Heads of the Valley project is a different challenge—to use the road design as a way of reading the landscape physically and culturally, and exploiting it as a tourist resource to support economic regeneration. These new approaches are turning liabilities (destructive road widenings) into assets through a positive design process that respects and enhances the landscape as a precious resource.

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Case Study 21: A 470 around Gelligemlyn, north of Dolgellau, Gwynedd

“ The Panel strongly supported the ‘reverse engineering’ approach, and the selected option. It endorsed giving short sections a different landscape treatment, and emphasised the need to involve landscape consultants as soon as possible... ”

The A 470 around Gelligemlyn forms a significant bottleneck on the whole of the north/south route through Wales, and has seen little if any improvement over recent years. It passes through the beautiful valley of the Mawddach with its environmentally sensitive areas and listed buildings. Many different improvement options have been evaluated, resulting in the development of a brief which starts with the environmental constraints and attempts to fit a road through a narrow corridor which will not allow it to meet current standards of road and verge width.

Normally improved trunk roads would be designed to take speeds of 100kph, with a carriageway width of 7.3m, 0.5m hard strips, and verge widths of 3m. These requirements were not practicable in this situation and it was decided to accept 7m wide carriageways and 0.5m wide verges, emphasising the feel of an enclosed road through woodland. The best scoring option was then tested for safety and practicality of construction. This is the first use of a ‘reverse engineering’ approach in the evaluation of design options in Wales.

The best option offered design speeds of 50-70kph, and avoided all Special Areas of Conservation (SACs) and all listed properties and gardens. Based on a 7m wide carriageway with no hard strips, it would be widened only for essential visibility. At one point, however, a 300m long cutting with a maximum 13 metre height would be required. The general intention was to avoid the use of bare concrete, provide sympathetic planting, and incorporate the best elements of the Lledr Valley scheme.

The Panel strongly supported the ‘reverse engineering’ approach, and the selected option. It endorsed giving short sections a different landscape treatment, and emphasised the need to involve landscape consultants as soon as possible (as well as possibly the Forestry Commission). Seed collection and advance planting could begin now and would facilitate design implementation. The Panel was pleased that signage would be minimal and local stone would be used wherever possible, much of it generated from cuttings and wall demolition. It strongly supported the design approach and urged that it be followed through in the detailed design.

The scheme is having to be re-considered following a land-slip.

Conclusions:
learning from
design review

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Conclusions

Design review has built on the successes of the first two years and significantly expanded its outreach. In the period since July 2005 it has reviewed nearly a third more projects and become centrally involved in the delivery of the Assembly's development programme for Primary Care Development (PCD) where scheme approval from DCFW was required by WAG prior to submission of a funding bid (WHE Circular 061). In late 2007 the mandatory requirement, coming often at the end of a lengthy process, was lifted in favour of encouraging much earlier referral to DCFW. The Assembly has also sought the Panel's involvement in both its Regional Headquarters building programme and in its trunk road improvement programme. With a new programme of school building getting underway there are hopes that these too will become part of the Panel's work.

The Panel has continued to reach out to the other parts of Wales and has held five regional reviews in different towns, each time bringing to the panel a different sample of schemes of local importance. Design Review has continued to inform and underpin DCFW's design training programme which has provided bespoke, two day design and sustainable construction training courses for five more Welsh local planning authorities, for planning committee members across Wales and for the Planning Inspectorate operating in Wales. In 2008 the Commission will publish its guide to good practice in writing Design and Access Statements and this will be incorporated in its training programme.

Questions of impact: do reviews improve design?

Design Review in Wales 03-05 concluded that "it was 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". Although DCFW and the Panel have not been able to effectively monitor its impact on all development proposals since 2005, due in part to the lack of completed schemes on the ground, it would appear that the situation has not greatly improved. DCFW is keen to conduct a monitoring study of the quality of design of those projects that have been through the review process and have now been completed, and as part of this in the coming year it will arrange tours for Panellists to view completed schemes.

The Panel has seen more schemes where the quality of design is very good, and some evidence that the general standard of development is improving. Among the residential exemplars have been Penarth Heights, and the first phase of Coed Darcy. Both are testaments to the landowner's commitment to a process of masterplanning and design quality-led competitive bidding, and to the client's aspirations and their choice of talented designers. The local authority in the Penarth case also used the review to help secure additional Eco-Home requirements which emerged during the Panel's probing of the sustainability strategy.

The Penarth scheme demonstrates how a local authority can use its land ownership powers to deliver high quality development and get a better return on their land in the process. In their design training with another authority DCFW was shown an example where a planning brief, developed with urban design expertise to indicate an optimal development pattern, and subsequently attached to a land disposal, had achieved a 25% improvement on the anticipated return to the Council. The lesson is that public land must be disposed of with design parameters firmly embedded and clearly

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signalled, so that design quality, high environmental standards and an appropriate density of development can be assured. This process is more than likely to add value for the landowner.

Also worthy of note, and a scheme which was considerably improved following the Panel's comments, was the George Wimpey housing scheme for Rodney Parade, Newport which promises a quality public realm and the first Eco-Home Excellent rating in a middle market housing scheme in Wales. Other exemplars include the National Trust's masterplan for Rhostyllen, the student residences at Bangor University and Atlantic College, and the road improvements on the A470 at Gelligemlyn, all evidence of the importance of an enlightened approach to design and development and examples of the proper stewardship of land and infrastructure.

In the campaign to raise design standards nationally such exemplars are priceless because they show what is possible, profitable and certainly more economical over the long run. In its design training DCFW has seen examples of how quite modest improvements in the standard of mass housing, commercial design and conservation infill in one local authority have been used to persuade Planning Committee members and development controllers, to negotiate harder for scheme improvements in another. This is one way that design quality in Wales will be steadily improved.

The Panel can point to significant improvements on many projects where designers have been able to take on board its suggestions which lead to a better resolution of design issues. In particular, repeat reviews provide evidence that Panel comments are valued and can lead to design improvements. But there are still far too many cases where strong criticisms and requests for major revisions are not been heeded. Across almost all of Wales there is still a widespread perception that any potential major investment must be approved despite obvious design or sustainability shortcomings. This was particularly the case at City Spires in Newport. Good planning and urban/landscape design and the promotion of sustainable development all need to be seen not as luxury items to be compromised in the pursuit of new sources of employment and development profits but as vital elements in the promotion of sustainable economic growth.

The critical design issues

In its previous monitoring report the Panel identified ten critical design issues which were undermining the quality of development. They were:

- The failure to present applications properly.
- The failure to properly analyse context and site.
- The failure to use landscape architects early enough in the design process.
- The use of standard solutions when a bespoke approach is required.
- The need for a re-think of highway standards and practices.
- The need for a positive and proactive approach to residential intensification.
- The resistance to mixed use development.
- The proper use of strategies and masterplans.
- The promotion of development in unsustainable locations.

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Each of these issues continues to be a major concern and they are repeatedly highlighted in reviews, but there is evidence that progress is being made in a number of areas. They are discussed in turn below.

As regards **the proper presentation of applications, the analysis of site and context, and the importance of landscape inputs**, the Panel particularly welcomed the emphasis placed on these factors in the Planning Officers' Society of Wales' national design guides for residential (POSW 2004) and householder development (POSW 2005). DCFW recommends their adoption and absorption into local planning practice. 11 Local Planning Authorities (LPAs) are in the process of, or have adopted/adapted, these model design guides as Supplementary Planning Guidance. DCFW has been dismayed that a number of the more rural planning authorities consider that the residential development guide is not relevant to housing in their areas, evidence of a fundamental misunderstanding of the design process.

These national design guides reinforce the fundamentals about the analysis of site and context, and integrate the well-established principles of urban design into a coherent 'thinking machine' that can be used for both designing and controlling development. Both documents include the important advice set out in TAN 12 (2002) by the WAG Planning Division on what drawings, analysis and statements need to be included in a planning application in order to achieve a speedy approval, and DCFW has prepared and made widely available a leaflet reinforcing this advice (DCFW 2007).

The introduction of design and access statements is of great relevance here because these should help the production of clear and concise statements of the chosen design approach and thinking which can then be properly tested in the planning process. There are references throughout this report to Panel complaints about the lack of adequate drawings or analytical studies necessary to explain and justify the content of designs. LPAs should not register or progress applications where this is the case.

The use of standard solutions, or parts of previously used designs, when a bespoke approach is required has been significantly less evident in the schemes the Panel has seen. But there are examples within student housing and low cost housing where this problem remains endemic. The example of Debut housing is instructive because such low cost housing demands a standardised set of units and a limited set of configurations. But their successful adaptation to a particular locality also demands sophisticated site planning and quality landscaping to ensure that the minimal external spaces are as attractive as possible. Making these schemes simultaneously both more liveable for new residents and more acceptable to existing residents is vitally important to address the national shortage of affordable housing, and to deliver basic accommodation that is both cheap to run and low carbon.

The need for a re-think of highway standards and practices has been answered in part by the immediate adoption in Wales and England of the [Manual for Streets](#) (DfT 2007). The Panel thoroughly endorses its urban design-led approach to the layout of residential development and is keen to ensure that it rapidly becomes the norm in local authorities' planning and highway practices. The continuing struggle to get a more design-led approach to highway design was especially evident in Penarth Heights,

while the schemes at Llandarcy and Rhostyllen provide valuable Welsh exemplars. A more design-led approach to all road design is now being advocated and explored more widely in the UK, and this would be of enormous benefit to the wider public realm in removing the pedestrian barricades, duplicated signage and traffic furniture, and other clutter and obstructions that deface so many streets.

The example of Y Maes in Caernarfon, designed as a pedestrian priority space where drivers receive numerous sensory clues to slow their vehicle movements, is instructive. With moves to reduce speed limits to 20mph across large tracts of the suburbs, and the potential of a much wider adoption of home zones as a means of civilising residential streets, the real challenge lies with the design of arterial roads and ways of making these more comfortable, attractive and safer for pedestrians and cyclists. Exhibition Road, Kensington is the UK exemplar and Welsh towns and cities need to follow the principles of this approach.

The Panel particularly celebrated the success of the 'reverse engineering' approach developed by Welsh trunk road engineers as models of landscape and ecological sensitivity, and the essence of this approach has much to commend itself across the whole highway network in rural and in urban areas.

The proper use of design strategies and masterplans is still a problem in Welsh practice, despite their wide adoption by DEIN and others. Urban design strategies remain thin on the ground, while masterplans rarely possess the detail worthy of the name. However, there is a growing willingness to give masterplans some teeth, and increasing attention is being paid to implementation devices.

Llandarcy relied on a design code and the Ebbw Vale team is implementing a code and development briefs with unequivocal commitments to carbon reductions conditioned in outline permissions. The National Trust used their landownership powers to the full at Errdig using building licences in addition to Section 106 agreements as well as a residents' management company to promote inclusive and sustainable design. The WIBP is considering the use of design and landscape guidelines for each building project to work with on site. By contrast the Panel was very concerned about what design parameters would be developed for the 18 sites to be sold to housebuilders at Llanwern (Corus), and how these would be enforced. A step change in masterplan implementation is now required, and there is an urgent need for public, and enlightened private, landowners and Welsh planners to adopt the mechanisms and design quality control processes set out in [Delivering Design Quality](#) (EP/HC 2007).

The panel has seen a few good examples of **mixed use development**, and some evidence that inner city housing developers are now prepared to include cafes, restaurants and other commercial and live-work units in their schemes. In Newport there are three examples of this in schemes on the banks of the Usk with the Rodney Parade development, in particular, creating small groups of commercial and live-work units, and ensuring the possibility of later conversion from residential to business use. The Dumballs Road scheme in Cardiff is similarly progressive, and has many of the characteristics of an 'urban village'.

Other examples of mixed use development have been much more problematic and raised the spectre of over-development, notably in the Park Street and Capital Centre developments in Cardiff, City Spires in Newport, and the Angharad Walk scheme in Pontypridd. The addition of residential towers and slab blocks to commercial schemes has not been properly assessed by LPAs or even the Panel on some occasions. The obverse is that all too often major commercial developments do not include any residential element (eg Carmarthen town centre), and an opportunity to create better surveillance, vitality, and diversity has been missed .

The promotion of development in unsustainable locations remains a key issue for the Panel. It has been highlighted particularly by the location of Primary Care Developments. All civic buildings with an important public function need to be well located in terms of accessibility on foot, by cycle and by public transport, and as a major community use are best located at the heart of an existing settlement. However, the new generation of centres also require significant amounts of car parking so the size of site is often quite large and their availability problematic.

The cases of the Abergele and Corwen PCCs were instructive where a number of centrally located sites were assessed, but in the end a peripheral location was selected. Counter examples are provided by the Clydach or Connah's Quay schemes where a centrally located site has been chosen, but where numerous compromises are required on matters like through routes, overlooking, privacy and access. The Panel is not in a position to assess the thoroughness of the site selection process, but it is concerned that ease of development is frequently winning out over sustainable locations, and the ambitions of the Wales Spatial Plan are thus being continuously thwarted. The question arises of how ailing town centres are to be regenerated if publicly funded developments and essential services are not used to lever in investment and increase footfall.

The Panel's biggest concern about an unsustainable location was the Wales International Business Park. It posed special problems because its broad location is specified in the Wales Spatial Plan and as such is national policy. However, by creating a free-standing business park on an already congested motorway junction, unrelated to any other urban development and well beyond any built-up area on a greenfield site, it is contrary to the sustainable development principles embodied in WAG policy generally, and PPW policy in particular. That fact is exacerbated by its high profile status which sends out powerful messages about how environmental sustainability can be overridden when a strong, but still contestable, business case is made. The importance of siting such a major employment generator at the heart of a community where it can be part of a major mixed use development (a sustainable urban extension), and can contribute to the provision of high quality public transport services, cannot be overstated. Such a view has been at the heart of sustainability planning for more than a decade.

The WIBP was the most contentious example of where the Panel found itself looking beyond the boundary of the red line on a planning application and arguing that location and accessibility made a project unacceptable **regardless** of its design characteristics. Such a position is a source of great frustration for the design teams concerned, but it is an essential part of DCFW's remit to place this strategic, sustainability perspective at the heart of its deliberations.

4.2

Emerging design concerns

The above are all long-standing concerns of the Commission. There are eight 'new' concerns that emerge from the review experience of the last two years. They are very much interlinked issues and are addressed as such.

The failure to seriously pursue sustainable construction objectives

The Panel has always argued for a much more committed approach to sustainable design and construction. In previous years it was usually deflected by standard statements of corporate responsibility and commitment to environmental care, or by declarations of determination to meet Part L of the building regulations, as if such compliance was optional.

Development and design teams now know the panel will explore the sustainability strategy in detail, so their response is now more considered. However, the response is often only a generic statement from consultants, a long list of options with no real commitment or realistic combination of provision, and not worked-up as a sustainability strategy. Often these sustainability statements fall at the first hurdle as in the case of one PCC where the building was located on a north south axis despite commitments to passive solar considerations! Of particular concern is the huge resistance to green roofs despite their proven benefits, the lack of exploration of timber frame alternatives in domestic and commercial buildings, and the hostility [often based on ignorance of the advantages] to biomass boilers and to district heating systems. This is where the examples of biomass boilers, and their rapid pay-back period (as at Ysbyty Cwm Rhondda and Ysbyty Alltwen in Tremadog) are so important.

With the 2007 Ministerial statement committing WAG to the aspiration for net zero carbon buildings (in energy use terms) from 2011, reaffirmed by the Minister for Sustainability, Environment and Housing, there is a new urgency to see dramatic improvements in energy efficiency and the provision of low carbon systems for energy generation and distribution. The panel will be strengthening its scrutiny of this dimension and making it a pre-condition of scheme acceptability. BREEAM / Eco-Homes Excellent is now the minimum standard for publicly funded buildings, and there is consequently a real need for Wales to adopt higher aspirational standards for the private sector such as the Code for Sustainable Homes being advocated in England. While all healthcare buildings are required to meet NEAT Excellent, the Panel has found that this standard can be met by relatively unambitious responses to the sustainability imperative and it eagerly awaits its replacement, the BREEAM Healthcare standard.

More worryingly, the Panel is seeing evidence that housebuilders, commercial developers and even regeneration bodies and government departments do not believe the 2011 target date will be enforced, and are not preparing accordingly for the implementation of these low carbon targets. There are current cases of WAG project evaluations where sustainability aspirations are only 7.5 per cent of the overall evaluation mix, and other cases where major regeneration strategies are being put in place which completely disregard the 2011 target in favour of 2016 (because the latter is beyond the completion date for the scheme). There is an urgent need for WAG to embody its 2011 target in the regulatory framework so that projects currently at the pre-planning stage, but which will be delivered

in two or three years time, take on board these new imperatives. These requirements must embrace all commercial and institutional buildings and not just housing.

Socially inclusive design

The importance of promoting socially inclusive design was spelled out in the Design Commission's initial terms of reference. With the decreasing affordability of housing to first-time buyers, and national shortages of social housing, the pursuit of significant proportions of affordable housing in each and every housing scheme has become imperative. WAG is taking a stronger line on this and requiring all local authorities to define their housing needs and the proportion of affordable housing they expect the homebuilders to provide in each scheme. Up until now this provision has been erratic to say the least, but it now needs to be rigorously applied. This has implications for all the other requirements placed upon private homebuilders—higher sustainability standards, additional infrastructure works for transport and district heating, and all manner of other Section 106 issues to secure amenities. There is an urgent need nationally to resolve issues around the future of the Planning Gain Supplement/Community Infrastructure Levy, as well as the provision of social housing, because these cannot all be loaded onto the developer and must be taken off the land value.

That said, the integration of affordable housing into market schemes needs to be as seamless as possible to be a success, and this is a design challenge requiring more positive collaborations between homebuilders and social housing providers, and between local authority housing and planning departments. Energy conservation measures and EcoHome Excellent ratings will make housing more affordable through being cheap to run, and this is where schemes like the 'Debut Housing' and other 'Designed for Manufacture' housing schemes have great potential to be simultaneously economical and environmentally benign. But the dual impact of sustainability and affordability requirements on the homebuilders needs to be given more attention in Planning Policy Wales, and at the Cabinet level in both the UK and Welsh Assembly governments .

The location and design of tall buildings

The question of appropriate location of tall buildings, and their need to be particularly well designed, has recurred in a number of the reviews. The lack of tall buildings policy is an achilles heel of many UK cities' planning regimes and this is now the case in Wales. The developers and their architects (and sometimes local authorities themselves) are driving up building height at a dramatic rate, and these new tall buildings are almost always residential rather than commercial.

Cardiff has seen the tallest residential buildings increase from 17 storeys to 23, 32 and now to six 34 storey towers on the Bay in only six years. Newport has a 30 storey tower proposed at City Spires, and Swansea has 29 storeys on the sea front. The Panel was pleased to see Swansea developing a policy document drawing upon the excellent advice formulated by English Heritage/CABE (2002). This advice has recently been updated and substantively improved, and new emphases have emerged on issues of conservation, sustainable design and construction (EH/CABE 2007). Particular attention has to be paid to the visual analysis, photomontages,

view simulations, wind and shadow tests that need to be conducted before the design can be satisfactorily developed, and to the detailing of the design, including how this will respond to changing weather and light conditions. The key requirement in the new English advice is that all tall buildings should demonstrate design and sustainability excellence.

For the panel a major flaw in the assessment of tall buildings is the lack of information on the microclimatic impacts. Wind tunnel and shadowing tests have rarely been conducted when the Panel sees the scheme, yet these are fundamental to ensuring that the surrounding public realm is comfortable. There is little point in including active frontages and cafe uses if pavements are inhospitable. This was a particular concern with the proposal for Bay Pointe in Cardiff where the designers had done some computer-based tests but had not yet subjected the scheme to a full wind tunnel test. In this case there were also concerns about the effect of the towers on the wind patterns for yachtsmen in the Bay, as well as the microclimate and the overshadowing of the central park and the boardwalk along the Bay.

High residential densities and the challenge of inclusive and sustainable design

The tall buildings phenomenon is but one facet of the inexorable increase in residential densities which has begun to sweep the cities of South Wales, and particularly Cardiff, as a facet of the apartment boom that has swept the UK since 2000. The Cardiff situation is the most dramatic, and here the new Local Development Plan Preferred Strategy has revealed that 69 per cent of recent residential permissions are apartments, the majority of them in schemes of unprecedented density for the city. Projects like Bay Pointe and even Dumballs Road are denser than many schemes in the UK's largest cities. In London major concerns are being expressed about 'superdensity' schemes defined as those over 150 du/ha net densities, and here new design guidance has been prepared to ensure that all higher density development observes a number of basic principles of unit and tenure mix, communal space, aural and visual privacy and management that can respond to the needs of all residents, not just apartment owners. Cardiff has approved a number of schemes that double and treble this baseline superdensity, and without ensuring any of these requirements. While Cardiff's latest planning documents recognise the need for design guidance for high density residential already there is a large stock of consents which lack adequate affordable provision (estimates suggest 14 per cent not the 30 per cent target), significantly higher energy standards, or adequate unit mix or communal space/facilities. While a generous supply of housing is essential to meet household growth projections it is essential that all towns and cities approving new high density apartment schemes need to be much more cautious about the liveability of the accommodation they are approving, and to fully consider its design implications for both new and existing residents.

The spectacular, the iconic and the over-developed

The pursuit of the tall building is an outcome of a set of circumstances that relate to government policy, developer profitability and design procurement. The drive for compact cities and higher density development on brownfield sites has been used to legitimate the return of the residential tower block

to the city, though it was never the intention to create such very high-density living. At the local level the symbolic power of the tall building, the often false messages it conveys about economic dynamism and urban competitiveness, and the 'lure of futurity' are powerful incentives to Council leaders to approve such schemes. But as has been seen, planning authorities are ill-equipped to reduce their externalities and manage their successful delivery. From the developer's perspective the promise of dramatically increased densities and much greater profitability is the lure. Architects are driven towards the spectacular at the very early stage of the project because they are often in competition to be retained. Computer generated imagery offers them the means to respond quickly and cheaply to these demands. The better looking the CGI, the taller and more flashy the building proposed, the more likely the architect is to win the scheme.

It is often difficult subsequently to persuade the client to adopt a more reticent solution that relates better to the site and context. It would also appear to be difficult to deliver these CGI design concepts because of the costs of building high or delivering higher specification buildings in provincial housing markets, or because the real constraints of the site have been inadequately investigated. What then emerges is a process of attrition where design quality diminishes and density increases to the point where the scheme moves from icon to eyesore. At this point, after prolonged negotiations, planners and councillors are pressurised to approve planning applications on the grounds of damage to economic prospects and 'reputation for business' if they refuse a scheme. There are three schemes which in various ways fit this pattern—Wood Street apartments in Cardiff, City Spires in Newport and Angharad Walk in Pontypridd—the last two in particular likely to do lasting damage to a large part of the urban fabric, and to set precedents for overdevelopment that will undermine good urban design on other sites in the future (viz Newport General Station office park).

The Panel has also recognised the dangers of the pursuit of the spectacular, the iconic and the merely 'big', and the risks of underestimating the potential impact of some of the very largest schemes on the urban fabric. It has therefore resolved collectively to pursue a more urban design focused approach to evaluation looking more critically at scale, character, public realm and microclimate. Reducing the widening gulf between what many urban designers are seeking, and what architects and often more importantly, their patrons are hoping to achieve, is a major task for both local planning authorities and regeneration agencies.

Procuring good design

The above discussion hints at some of the pressures placed upon architects to compete for commissions and to deliver good design with minimal fees and very tight time horizons while simultaneously pushing the envelope to maximise development value. These pressures were acutely evident in Primary Care Developments where many architect had produced designs speculatively with no guarantee of fees, and were understandably reluctant to revise plans as a result. There have been instances elsewhere of inadequate budgets to deliver promised quality, even on WAG 'exemplar' projects, and several occasions where there was little time to complete the requisite drawings or to refine designs in the way in which the Panel requested. The retention of architects to supervise projects through to completion is becoming less common. The pressures being placed on

architectural design are not perhaps as great as those placed upon the planning system (see below), but they are significant, and the quality of design is suffering as a result. The failure to employ a full design team with landscape, M & E/sustainability skills early in the design process is equally damaging, limiting their role to retro-fitting and revision rather than driving design, and reducing the potential for energy efficient, low carbon solutions.

The tokenism of public art strategies

The Panel very rarely sees well-developed public art strategies accompanying the designs that they review. This is partly because they now see many schemes quite early in the design/development process before consultants have been engaged. However, there is growing concern that public art is not being regarded as integral to design, and is being treated as an 'add-on' to the end of the process rather than being formative. The Panel has yet to be presented with a worked up strategy of any substance, though there were promises of substantive involvement in a number of Primary Care Development projects, Penarth Heights and in the Heads of the Valleys landscape strategy. This is worrying precisely because Wales has a good track record in engaging artists early in the development process, and the Arts Council of Wales funds a national organisation providing expertise, advice and consultancy on working with artists in major developments. However, local authorities lack the resources and skills to negotiate the involvement of such consultants and experienced artists. In healthcare the Arts Council of Wales Arts in Health Strategy (www.artswales.org.uk) is largely unrecognised and on the whole artists are too often engaged late and required to mask design related problems or provide "plop art" to humanise a hostile public realm. A more sophisticated and informed approach is required alongside a recognition that the skills and work of professional artists can add value to projects and enhance cultural value and distinctiveness.

The passivity of planning

Finally an increasing concern of the Commission is the apparent reluctance of many planning officers to attend Design Review Panels, and the frequent lack of a strong, clear view from the local planning authority about what their aspirations are for a project. The Panel interpret this as principally a matter of the workloads of development control staff, a lack of training in design and sustainability issues, and the difficulty of finding the time to be out of the office, especially if a lot of travelling is involved. Nevertheless the role of planners in Design Review is crucial and the Panel rely on the local authority planner to articulate an expert view of contextual issues and policy/guidance concerns, as well as drawing attention to any special circumstances that might be relevant to the project. There are local planning officers who come to review with a very clear design agenda, but these are very much the exception.

The Panel cannot help but be painfully aware of the pressures that local planning authorities are under, and the shortage of design skills that make positive and proactive planning so difficult. This is a problem now endemic across the UK as evidenced by the RIBA's deep concerns about the dearth of pre-application negotiations, lack of experience amongst development controllers, high application workloads and high turnover

4.3

of staff even in the most affluent areas of the country (RIBA 2007). The frequent mis-match between the confidence and experience of consultants as opposed to the uncertainty of local authority planners is painful for the Panel to observe, and is evidence of the continual undermining of notions of planning protecting public interest in the design process.

DCFW research into the design dimension of development control will be published alongside this monitoring study, and it points to serious shortcomings in terms of policy, guidance, skills and understanding of design matters in Wales, as well as potential delays in Local Development Plan production in key localities. Equally the Panel are concerned about the vacuum in local design policy that often exists, and how this undermines the consistent pursuit of good design and attractive places.

More encouraging is DCFW's experience of design training which demonstrates that where there is positive management of the planning authority, a willingness to upgrade design expertise, and a commitment to training and policy development, control officers can develop the confidence to pursue design objectives, and significant improvements can be made to standards of development.

Major challenges lie ahead with the need to successfully introduce design and access statements and to pursue carbon neutrality and other sustainability objectives. A key task will be to bring a largely privatised building control back into closer relationship with development control in order to pursue sustainable construction and energy efficiency requirements.

Raising the standards of design: defining what is acceptable

In conclusion, in its 2005 report the Panel noted its determination to be more forthright in its views and to disseminate them more vigorously. This it has begun to do in its reports and its dissemination of Design Review experience, but the Commission is mindful of the need for continual investment of significant resources in promoting public and professional awareness of design and development issues. The Panel's recommendations in each report summary are now more clearly worded and the new system of headline verdicts makes it clear where major or minor revisions are required, and that these are not optional but essential to make a scheme acceptable and capable of functioning for the purpose for which it is intended..

As the Panel seek to strengthen their critiques of development the newly revised consultation draft of TAN 12 (2008) is raising the bar in terms of design quality by reiterating the English position recently set out in Planning Policy Statement 1 (DC 2006):

"design which is inappropriate in its context, or which fails to take opportunities available for improving the character and quality of an area and the way it functions, should not be accepted (WAG 2008 para 1.4)"

The Commission and its Design Review Panel will be using this government advice more forcefully, and expecting local planning authorities and the Planning Inspectorate to raise their standards accordingly.

Appendices

Appendix 1: List of Panellists

Four Commissioners serve on the Design Review Panel which is also supported by the Head of Design Review. All other Panellists are appointed by competitive interview. All are unremunerated.

Alan Francis, Appointed to the Panel 2003 Co-chair Design Review Panel, DCFW Chairman Founding partner, Gaunt Francis Architects

Professor John Punter, Founding Chair of the Panel, 2003 Co-Chair of Design Review Panel, DCFW Commissioner Professor of Urban Design at Cardiff University School of City & Regional Planning

Wendy Richards, DCFW Development Director, Appointed to the Panel 2004

Co-Chair Design Review Professor Richard Parnaby, Appointed to the Panel 2003 (Former and founding chairman of DCFW) Head of School of Planning & Architecture, University of the West of England

Gerard Ryan, Appointed to the Panel 2005 DCFW Commissioner Nicholas Hare Architects

Head of Design Review, Cindy Harris Expert consultant in sustainable design and construction, co-author The Whole House Book (2005)

One former commissioner served until retirement in 2006

Other panellists

Jonathan Adams, Appointed 2003 Lead designer at Capita Percy Thomas, Past - President of the Royal Society of Architects in Wales

Roger Ayton, Appointed 2006 Director, APG

Ashley Bateson, Appointed 2006 Sustainability expert, Hoare Lee & Partners

Ed Colgan, Appointed 2003 Retired transport Planner with Arup and member of ICE (Institution of Civil Engineers)

Kedrick Davies, Appointed 2005 Planner and Urban Designer, Director, CDN Planning Ltd

Nick Davies, Appointed 2003 – Resigned 2007 Partner, Quad Architects

Robert Firth, Appointed 2004 – Resigned 2007 Head of Architecture, Capita

Michael Griffiths, Appointed 2006 Partner, Latitude Architects

Jonathan Hines, Appointed 2006 Partner, Architype Architects

Douglas Hogg, Appointed 2004 – Resigned 2007 Retired Chief Architect, Cadw

Ewan Jones, Appointed 2005 Director, Grimshaw

Martin Knight, Appointed 2006
Knight Architects

Kieren Morgan, Appointed 2004
Executive Director, Nightingale
Associates

Lyn Owen, Appointed 2003
Former Planner at the National
Assembly for Wales, former chair
RTPI Cymru

Elfed Roberts, Appointed 2005
Urban Designer, Gwalia Group

Phil Roberts, Appointed 2003
Chief Executive Tai Cartrefi; Director
of Development and Deputy CEO of
Grŵp Gwalia

Ben Sibert, Appointed 2003
Senior bridge and structures engineer,
Arup

Ann-Marie Smale, Appointed 2004
Director, Powell Dobson Architects

Neil Taylor, Appointed
2003 - Resigned 2005
Partner, ChandlerKBS, Fellow of the
Chartered Institute of Arbitrators and
member of the Academy of Experts

Howard Wainwright, Appointed 2003
Director, Powell Dobson Architects;
Partner Powell Dobson Urbanists

Professor Richard Weston, Appointed
2003 - Resigned 2007
Welsh School of Architecture

Mark Hallet, Appointed 2007
Igloo Regeneration

Steve Smith, Appointed 2007
Planner and urban designer, City and
County of Swansea Council

Appendix 2: List of Abbreviations

ACW

Arts Council for Wales

A&DS

Architecture and Design Scotland

BCSC

British Council of Shopping Centres

BREEAM

Building Research Establishment
Environmental Assessment Method

CAAC

Conservation Area Advisory
Committee

CABE

Commission for Architecture
and the Built Environment

CCW

Countryside Council for Wales

DCFW

Design Commission for Wales

DEIN

Department for Enterprise,
Innovation and Networks

DE&T

Department for the Economy
and Transport

DMRB

Design Manual for Roads and Bridges

EH

English Heritage

EP

English Partnerships

NPRF

National Retail Planning Forum

LPA

Local Planning Authority

MfS

Manual for Streets

OJEU

Official Journal of the
European Union

POSW

Planning Officers Society of Wales

PPS

Planning Policy Statement (England)

PPW

Planning Policy Wales

RTPI

Royal Town Planning Institute

RSAW

Royal Society of Architects in Wales

SAC

Special Area of Conservation

TAN

Technical Advice Note

WAG

Welsh Assembly Government

WDA

Welsh Development Agency

WHE

Welsh Health Estates

WISP

Wales Investment Strategic
Partnership

WLGA

Welsh Local Government Association

WSA

Welsh School of Architecture

WWF

World Wildlife Fund

Appendix 3: References and further reading

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Thomas Telford, London, CABE/ODPM

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Housing Audit: Assessing the Design
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