



HM Government

Better public building



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As a public body, we encourage policymakers
to create places that work for people. We help
local planners apply national design policy and
advise developers and architects, persuading
them to put people's needs first. We show
public sector clients how to commission
buildings that meet the needs of their users.
And we seek to inspire the public to demand
more from their buildings and spaces. Advising,
influencing and inspiring, we work to create
well-designed, welcoming places.

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Contents

Foreword	3
Why good design matters	4
The barriers to good design	10
Leadership and recognition	12
How design makes places work	15
The evidence base for good design	18
Delivering design quality	23
What makes a good client?	24

‘Good design is about providing buildings and spaces that are fit for purpose, built to last, and lift your spirits’

**‘We must redouble
our efforts if everyone
is to benefit from
good design’**



Foreword



Good design matters. And it doesn't happen by accident.

When the government first published *Better public buildings: a proud legacy for the future* in 2000, we wanted to send a message across government calling for high-quality design in all new public buildings. In the foreword to that publication, we set out our commitment to seeing an ambitious change in the quality of building design in the public sector. We aimed high. Six years on, I am delighted to introduce this report on the progress we have made so far.

The launch of the Better Public Building programme, and the emergence of CABE, has spurred the creation of a host of well-designed public buildings. These embody exactly the kind of high-quality design I want to see. Some, like the Jubilee Library in Brighton and the City Learning Centre in Bristol, have been honoured through the annual Prime Minister's Better Public Building Award, which has quickly become a prestigious form of recognition for great design and procurement in the public sector.

More importantly, design quality has also been embedded within central government policy and procedure. Publication of *Planning policy statement 1* in 2004 stated unequivocally that good design is indivisible from good planning. This is equally clear in *Planning policy Wales* and the related *Technical advice note 12: design*. HM Treasury now requires all public sector procurement to prioritise whole-life value over short-term capital costs. The creation of Architecture + Design Scotland, the Design Commission for Wales, and the publication of a policy on architecture and the built environment for Northern Ireland, have embedded leadership on design within each nation. We also have individual design champions appointed in 70 per cent of all public bodies, and I have personally taken on the role of government design champion, charged with raising standards across every government department.

But the task is still immense and fresh challenges have emerged. This government is committed to rebuilding or refurbishing every secondary school in the country. Hundreds of new healthcare facilities are in the pipeline. We have successfully bid to bring the Olympic and Paralympic Games to Britain in 2012. And in climate change we have perhaps the toughest-ever test of the collective will and creative abilities of our design and construction industries.

Faced with all of this, it is clear there is more to lose than ever if we allow the kind of low-grade solutions that blighted so much post-war development. The cost of bad design should be uppermost in our minds.

That is why the government has recently published a set of Common Minimum Standards for construction procurement to be universally applied across the public building programme. They are comprehensive, practical and achievable, as well as cost effective. Combined with the immense talent available within our creative industries, these standards should help us leave a legacy of world-class buildings that define a generation.

I am proud of our progress so far. But I also believe we must redouble our efforts if all the people who use our public services are to benefit from good design.

A handwritten signature in black ink that reads "Tessa Jowell". The signature is written in a cursive, slightly slanted style.

Rt Hon Tessa Jowell MP
Secretary of State for Culture, Media and Sport

Why good design matters

Good design is about providing buildings and spaces that are fit for purpose, built to last and lift your spirits. Good design creates places that are safe, healthy and sustainable. It is essential for minimising the amount of energy and water consumed by our buildings and it helps reduce waste during construction and use.

The evidence reveals that good design improves public services. It makes services easier to deliver, thereby improving productivity; it can help recruit and retain staff, cutting the costs of staff turnover; and it can help reach out to sectors of society who may previously have been excluded.

Good design is inclusive: it results in places where everyone can participate equally, confidently and independently in everyday activities.

Design also reflects the ambitions and spirit of the people behind it. Think of the town halls and railway stations of the Victorians – still, for many people, the embodiment of their local identity and a source of civic pride. It is no coincidence that the most popular places to visit and do business tend to offer a high-quality environment.

The dividend of good design comes alive when you look at specific sectors – whether schools, hospitals, libraries, offices, civic buildings or public spaces. The strength of the evidence for education and healthcare is repeated across other sectors.



Education

Evidence shows that the design of schools can promote the performance of pupils, the retention of staff, and a more creative approach to teaching and learning. A UK study of pupil performance has found that capital investment in school buildings had the strongest influence on staff morale, pupil motivation and effective learning time.¹ Studies on the relationship between pupil performance, achievement and behaviour and the built environment have found that test scores in well-designed buildings were up to 11 per cent higher than in poorly designed buildings.² And approximately 60 per cent of students and staff have indicated that the quality of building design had a positive impact on their choice of university.³

The benefits of good design are measurable. At one school, the redesign of the playgrounds and school hall allowed supervisors to see the children easily in communal areas. This allowed them to reduce the number of lunchtime assistants from eight to five, and the resources they saved could be switched to direct educational expenditure.⁴

With government investment in school buildings having reached £5.5 billion in 2005/06 – and the Building Schools for the Future programme aiming to renew or rebuild every secondary school in England within 15 years – there is a golden opportunity to shape our schools so that they contribute to pupil achievement and behaviour.

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1 *Building performance: an empirical assessment of the relationship between schools capital investment and pupil performance*, PricewaterhouseCoopers Research Report No 242, 2000

2 *The value of good design*, CABE, 2002

3 *Design with distinction: the value of good building design in higher education*, CABE, 2005

4 *Building performance: an empirical assessment of the relationship between schools capital investment and pupil performance*, PricewaterhouseCoopers Research Report No 242, 2000

'If a nation invests in its children it invests in the future. We see this building as an investment in the future and as a good example of people working together to achieve the best from our children.'

Clare Barker
Former headteacher
Hoyle Early Years Centre

Hoyle Early Years Centre – a calm learning environment

Client
Bury Metropolitan Council
Principal designer
DSDHA
Principal contractor
McGoff & Byrne
Contract value
£695,000

This remodelling and extension of an existing facility for children with special educational needs won a neighbourhood nurseries competition run by CABE and the Department for Education and Skills.

The design includes a new steel frame supporting a metal roof 800mm above the top of the original walls of the main nursery building. The raised height is filled by clerestory glazing, a principle extended to the new build. A glazed courtyard provides a heart to the school and there are sliding doors to the courtyard and external play areas. Improved lighting and natural ventilation throughout the building help create the calm environment essential for the nursery.

The building also reconnects the nursery to the community by creating new frontage on to the local park.

Health

Healthcare professionals say very clearly that, in their experience, design matters. Eighty-six per cent of directors of nursing say that hospital design is 'very important' or 'important' in relation to the performance of nurses, with the most crucial aspect being the design and organisation of the hospital environment.⁵ Over 90 per cent of nurses and all directors of nursing believe that there is a significant link between recovery rates and a well-designed environment.⁶

Other studies back this up. Research at a hospital in Pennsylvania compared patients whose rooms had windows looking over natural landscapes with those looking onto a brick wall. Patients with open, natural views had shorter post-operative stays – 7.9 days compared to 8.7 days. They also took fewer strong and moderate analgesic doses, and had lower rates of minor post-surgical complications.⁷

Good design can lead to gains in productivity, too. The architect of the Advance Dental Surgery in Chelmsford, Essex, has calculated that the building's design gains an extra hour in work efficiency a day – that's six weeks a year – producing a significant return on investment.

By 2010, the NHS plans to have opened over 100 new hospital schemes. Investing in good design now will lead to reduced patient recovery times, and healthcare environments that are more conducive to recruiting and retaining staff.

5 *The role of hospital design in the recruitment, retention and performance of NHS nurses in England*, CABE/ PricewaterhouseCoopers study, 2004

6 *Attitudes towards hospitals*, CABE/ ICM study, 2003

7 Ulrich, R., *View through a window may influence recovery from surgery*, Science, Vol 224 (27), April 1984, pp 420–421



©Morley von Sternberg

Luton NHS Walk-in Centre – encouraging use of NHS services

Client
Luton Teaching Primary Care Trust
Principal designer
David Morley Architects
Principal contractor
Crispin & Borst
Contract value
£2.3 million

This is a great example of architecture and design supporting the aims behind a service and making its delivery more efficient. NHS walk-in centres are aimed at reducing pressure on doctors' surgeries and accident and emergency departments by offering no-appointment treatment by nurses and healthcare assistants. Encouraging entry into the NHS is particularly important in an area like Luton where part of the population has no easy access into the healthcare system.

Essential, then, to the success of a walk-in centre is its accessibility and openness. This building, a reconfiguration of an existing office building, is a bright, open and contemporary healthcare centre. The building feels accessible – the waiting area is modern, light and airy, with a transparent glass frontage facing the street.

The design has also incorporated features that ensure that this heavily used building is easy to maintain. The rubberised floor, for example, is hard-wearing and easy to clean.

'This design has transformed a dull, unmemorable building into a bright, contemporary setting for a modern approach to primary healthcare.'

Designed with care: design and neighbourhood healthcare buildings, CABE, 2006



The National Assembly for Wales – a national and environmental icon

Client

National Assembly for Wales

Principal designer

Richard Rogers Partnership

Principal contractor

Taylor Woodrow Construction

Contract value

£41 million

The Welsh Assembly building succeeds in forming a new symbol of open government for Wales – and can convincingly claim to be the most environmentally friendly public building in the UK.

The building's glass exterior is designed to represent transparent democracy, and the building leads by example on accessibility. Sustainable strategies and renewable energy systems are used throughout. The building harvests rainwater from the roof, which is then used to flush toilets and wash windows. A funnel topped by a mirrored cone helps bring natural light into the debating chamber, and the building draws its heat from the earth. It has been rated 'excellent' in the Building Research Establishment's assessment of sustainability, BREEAM, and managers estimate that the renewable energy systems will cut running costs by up to a half.

Environmentally sustainable design

Given the speed and severity of global warming, buildings should now be designed with the target of zero emissions. Servicing buildings accounts for around half of the UK's total energy consumption, and the need to reduce the consumption of fossil fuels is central to good design. Every new building needs to make the greatest possible contribution to mitigating climate change, in construction and in use.

None of this need add to the cost providing that environmental sustainability is fully integrated into the design process from the beginning. It can certainly be done within the commercial constraints and performance criteria of a PFI regime. Energy, water and waste are responsible for the bulk of carbon dioxide emissions and their associated costs will continue to rise, so resource-efficient buildings will be cheaper to run.

To restrict energy in use, buildings should maximise passive design which means taking advantage of natural lighting, heating and cooling. This not only cuts use of powered services such as electric and gas heating and artificial air conditioning, but also provides a healthy and pleasant environment. High thermal mass will store heat in winter and act as a heat sink for cooling in summer. A high specification of insulation for roofs and walls draws from centuries of building experience and remains one of the most valuable energy-saving measures possible. Green roofs reduce the 'heat island' effect afflicting city centres in high summer.

Low-carbon building technology is advancing quickly, from energy-efficient boilers to heat pumps and micro combined heat and power and vortex ventilation.

Windows should maximise natural light and optimise solar gain, with shading which protects from high-angle sun in summer, while allowing warmth from low-angle rays through in winter. Energy-efficient lighting should always be specified: some can automatically adjust to ambient light conditions, switching off in bright daylight.

The embodied energy in building materials has to be taken into account, alongside their eventual recycling properties. The building should be designed to be adaptable, to meet likely future needs without major alterations, and finishes should be chosen to reduce maintenance.

Since water is now a scarce environmental resource, especially in the south east, grey water recycling and rainwater harvesting are essential, along with flow-control taps, toilets and showers. Permeable surfaces outside the building to absorb heavy rainfall alleviate the problem of sudden overload in the drainage network, which can force untreated sewage into rivers.

The building's impacts on biodiversity need to be assessed, from procurement (especially of timber) through to planting and grounds maintenance.

'Sustainability is at the heart of Welsh Assembly government policies. We are committed to setting an example to both the private and public sectors and demonstrating that buildings can be designed to achieve long-term savings in running costs and emissions.'

Sue Essex
Minister for finance, local government
and public services
Welsh Assembly



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The barriers to good design

Standards of design quality in public building are rising. The departments of government concerned with capital expenditure understand and support the drive for high-quality design. HM Treasury insists that good design can make service delivery more efficient. And the Office of Government Commerce's Common Minimum Standards state that: 'All clients will aim to deliver design excellence in accordance with the principles set out in *Achieving excellence in construction procurement guide 09: design quality*.¹⁸

Design excellence is now a recognised outcome from well-managed and socially responsible constructors. An increasing number of world-class facilities are emerging, as shown by the Prime Minister's Better Public Building Award. Above all, a new generation of projects is demonstrating an ability to learn, both from experience and from users. But there are still too many instances where new public buildings fall short of the standards we expect. So we need to be clear what the issues are, and address them directly.

Some clients and constructors assume that users don't care

It is a mistake to assume that most people do not notice design, or that they would prefer the cheapest buildings irrespective of quality. Usage figures for well-designed new public buildings compared to the facilities they replace indicate that this is not the case. People flock to well-designed libraries, healthcare facilities and schools.

Some clients do not set adequate benchmarks

Failure to set clear benchmarks for the expected design quality, based on best practice, is common. Many public sector clients have not had access to design advice and have few means of measuring the quality of design. Clients must ensure that they have the right skills and expertise. They need to see design expertise as indispensable to a public building project, in the same way as legal and financial advice. This requirement is made explicit in the Office of Government Commerce's Common Minimum Standards.

Clients do not always signal the importance of design

It is vital to signal the importance of design within the procurement process at every stage. Opportunities to embed the importance of design in documentation, in the weighting given to design and design capability in the bid evaluation criteria, and in the development of contractual documentation and sign-off procedures,

should not be missed. High-quality design should, for instance, be integral to corporate strategy and objectives.

Some clients and constructors regard good design as an optional extra

It is a mistake to assume that lowest cost signifies best value. In fact, the cost of design is a tiny element of the whole-life cost of a building. Design costs are typically 0.3–0.5 per cent of these whole-life costs, while the running of public services typically forms 85 per cent of those costs. In addition, the results of design are disproportionately significant: good design can improve efficiency and reduce running costs considerably over decades of the building's use. Conversely, bad design can severely impinge on the functionality of a building and in extreme cases curtail its useful life.

Planning, design and construction are not adequately integrated

Achieving a well-designed project, delivered through an efficient and value-for-money procurement process, depends on approaching procurement and design as a holistic process. Failure to integrate adequately the planning, design and construction processes can lead to conflicting aims, with design often relegated to a subsidiary role.


User involvement can be poorly planned

Involving end-users and stakeholders early and often in the design process is a key part of delivering a successful project and so clients need to ensure that this happens. Failure to involve them enough is likely to diminish opportunities for improving service delivery. It runs the risk of delivering buildings that do not work for the people using them.

Some clients do not insist on high standards throughout the process

Good design doesn't just happen. It requires the client to define and insist on high standards in the brief, and then to manage their delivery throughout the procurement process. Value engineering can easily reduce the design quality of a scheme, and real vigilance is required right through to the end of the process. The moment when a scheme moves on site is often the time that a client loses focus, and design quality is diluted.

¹⁸ Office of Government Commerce, Common Minimum Standards, tinyurl.com/yemfxs



‘Bad design can severely impinge on the functionality of a building and in extreme cases curtail its useful life’

Leadership and recognition

The Prime Minister's Better Public Building Award

The Better Public Building initiative has been celebrated each year by the Prime Minister's Better Public Building Award. Sponsored by CABI and the Office of Government Commerce, this recognises excellence in design quality and procurement practices. It goes annually to a new building project of any size, commissioned by or on behalf of central or local government or by a grant-aided organisation.

The organisers gave the first award in 2001 to Tate Modern in London. In 2006, the award went to the City of London Academy. The variety of schemes entered for the award shows that the principles of good design are relevant to a wide range of different project types. Shortlisted entries have included roads, engineering projects, flood defence schemes and railway works, as well as schools, hospitals and government headquarters. This demonstrates the unique role of the award. It looks beyond aesthetics to how the design and procurement of construction projects can improve the delivery of public services – and have a positive impact on quality of life.

It makes obvious sense that every new public building should be well designed. But more than that, when commissioning a public building, writing a brief or appointing the design team, public sector clients should ask: will this result in a credible contender for the Prime Minister's Better Public Building Award? If not, it may be time to stop and reconsider whether the right team and the right process are in place.



2006

City of London Academy
London

'Partnering between contractor and design team produced a strong building which benefited from nearly two years of preparation.'

The award judges

'Learning by design really means something here. Natural light and ventilation permeate the whole school and result in a wonderful – and effective – environment for learning. We've been here for just over a year and results are good. The children are very proud of their building.'

Martyn Coles
Principal
City of London Academy



2005

Jubilee Library
Brighton

'This PFI project has given Brighton a long-awaited facility which has been designed and delivered with great flair.'

The award judges

'The new Jubilee Library has proved a phenomenal success with our harshest critics – our customers. It works on three levels, as a fabulous building in its own right, as a sustainable public building (with an estimated 50 per cent reduction in carbon) and, most importantly, as an efficient and accessible library for our 250,000 residents and visitors to Brighton.'

Katherine Pearce
Project manager
Brighton and Hove
City Council





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2004

A650 Bingley Relief Road
Yorkshire

‘Aside from the technical skills displayed, it shows what an excellent job was done in terms of public consultation – with exhibitions, neighbourhood forums and a project website all playing their part.’

The award judges

‘It was a highly technical project, which presented many challenges throughout the design and building phases. The contractor completed the project three months ahead of schedule – a huge achievement – and made every effort to ensure that disruption to local residents was kept to a minimum.’

Sue Housley
Highways Agency
project manager
A650 Bingley Relief Road



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2003

Bournemouth Library
Dorset

‘At night, an airy atmosphere is created in a robust piece of architecture.’

The award judges

‘The Bournemouth Library is a landmark building that is helping to regenerate a neglected part of the town centre. The extensive use of glass gives a view of the interior and people are drawn in. Visits have more than doubled since opening in April 2002. There is an art gallery and exhibition space, meeting rooms and study spaces, areas for relaxing and browsing. The building has the ‘wow’ factor – very much appreciated by the local community.’

Shelagh Levett
Head of arts, library
and museum services
Bournemouth Council



2002

City Learning Centre
Bristol

‘A good building makes education a pleasure. This building represents the standards we should be aiming for across the country. Crisp, light, airy and staggering value for money, the City Learning Centre was completed to a tight programme – 10 months from conception to completion.’

The award judges

‘Designing and building the city learning centres was a real team effort from start to finish. When we started this project we wanted to create striking, long-lasting buildings that would be stimulating learning environments for schools, businesses and the local community.’

Peter Hammond
Deputy leader responsible
for education and lifelong
learning
Bristol City Council



2001

Tate Modern
London

‘Tate Modern has set an exacting standard for the new award and shows how a well-informed, clearly focused client can have the vision to produce a splendid building at excellent construction value.’

The award judges

‘We started with the objective of creating a building that would make art accessible to large numbers and encourage new audiences. I think we have achieved this aim, and have helped to put Southwark on the world map.’

Sir Nicholas Serota
Director
Tate

Design champions

Fundamentally, delivering design quality requires strong leadership. Recognising this, the government has said that all public bodies with a responsibility for delivering and managing the built environment should appoint a design champion. The role of a design champion will vary from organisation to organisation, but their purpose remains clear: to provide leadership and motivation, ensuring that every relevant public body has a clear vision and strategy for delivering good design.

A design champion will typically be at a senior level – a cabinet-level councillor in a local authority, for example – and should be someone with a commitment and passion for design, as well as a good understanding of how their organisation actually works. An effective design champion will promote the benefits of good design and will support and challenge colleagues to be good clients. They might prompt an audit of design skills and organise appropriate training; they will commit the organisation to a clear vision that staff can work to in delivering public buildings; they might encourage incentives and targets related to quality as well as speed or volume; and they will ensure that the

organisation makes use of expert design advice in the procurement and delivery of each project.

In recognition of this important initiative, the government has said that there should be ministerial design champions in every government department. The CABI publication *Local authority design champions* gives specific advice for design champions in local authorities. Now the concept of design champion is spreading to the private sector, and a majority of the publicly quoted volume house builders have already appointed board-level design champions.

In 2006, across the public sector, there were design champions in:

- 65 per cent of local authorities
- 78 per cent of primary care trusts
- 93 per cent of acute trusts
- 67 per cent of local education authorities
- 83 per cent of police authorities.

Our critical challenge now is to build their capacity, and give them the skills and the confidence to lead and motivate others.

‘The government has said that all public bodies with a responsibility for delivering and managing the built environment should appoint a design champion’

Jo Richardson Community School, Dagenham – much more than a new school

Client
**London Borough
of Barking and Dagenham**
Principal designer
architecture plb
Principal contractor
Bouygues UK
Contract value
£29 million

Good design, use of the latest technology and ample open space provide an excellent learning environment for the 1,500 pupils at Jo Richardson Community School. But the school also brings together a public library, nursery, crèche, adult education, coffee shop, and sports and performing arts accommodation.

There are separate and clearly distinguished student and community entrances – both are generous and welcoming, with large covered forecourts. The building is arranged around a triple-height central circulation ‘street’ which has wide open balconies and is well lit by natural light. The ‘street’ forms the heart of the building – where the school and community meet. Facilities requiring direct community access are arranged on one side of the ‘street’, while four teaching wings project from the other towards the external play areas and playing fields. High-quality paving, benches and cladding materials, combined with carefully designed soft planting, provide attractive courtyards between the teaching wings.

How design makes places work

Once we had to look abroad to see how design can help spur regeneration and change people's perception of a place. No longer. In Birmingham, Manchester, Glasgow, Leeds, Newcastle and now Liverpool we have evidence of the impact that design can have in a citywide context. All these cities are experiencing a renaissance, and in each case design has added value by providing attractive, well-functioning public buildings and spaces which people want to use and which enhance civic pride and identity.

Design in this citywide context is not just an aesthetic feature. It is derived from an understanding and implementation of the urban design principles that make places work. It means encouraging mixed-use development and city centre living, for example. Understanding that populated city centres make for active places where crime and the fear of crime are likely to be lower, and economic activity higher, has helped our regional centres revive. The rise in prosperity in

Manchester, for example, has been accompanied by an increase in the city centre population from 3,500 in 1991 to around 15,000 by 2004.⁹

Providing high-quality facilities and attractive environments that make people want to spend time in city centres is pivotal. This has been clearly understood in Birmingham, where money was invested in public spaces very early in that city's regeneration strategy. Philip Singleton, Birmingham City Council's design advisor, is convinced of the economic benefits that this brought: 'Birmingham wanted to attract service industries into the city and they will only come if you offer them good spaces and cultural facilities,' he says. 'So the Symphony Hall was built and galleries were created or improved, but the most important thing was to create good places to be in. The city set about creating a web of new streets and squares across the city core and major companies began to move in, bringing with them new activity and wealth.'¹⁰

⁹ *City people: city centre living in the UK*, Max Nathan and Chris Urwin, Centre for Cities, IPPR, 2006.

¹⁰ *Design reviewed: issue 2*, CABA, 2005

'We love our new building. Firstly, because its beauty and space send staff and students a clear message every day: what we are doing is important and valued. But more significantly, because the building has been designed with a focus on our pedagogical approach to learning, we are seeing improvements to students' academic achievements and their attitudes to learning. Having the community facilities so carefully integrated into the overall design has resulted in large numbers of local people, from all backgrounds, using the site. There is no doubt it has given the whole area a boost.'

Andy Buck
Headteacher
Jo Richardson Community School





‘Piccadilly Gardens has been transformed from a declining corner of Manchester to an open enjoyable space for families and visitors to appreciate in the city centre, and one of the most used public spaces across the city!’

Councillor Richard Leese
Leader
Manchester City Council



Piccadilly Gardens – from run-down waste of space to popular gathering place

Client

Manchester City Council

Principal designer

Arup

Principal contractor

Balfour Beatty Civil Engineering

Contract value

£10 million

Piccadilly Gardens is a prime example of the transformation of public space. Once a run-down space considered unsafe, this scheme turned it into a public space of international standing.

Now Piccadilly Gardens provides a major green space in the centre of the city. It acts as an important public amenity for the community – hundreds of people gathered here to watch the 2002 Commonwealth Games. The redesign included skillful integration of the space with the major transport facilities surrounding it, and a computerised water feature has created a landmark where adults meet and children play.

You can also see the effect of excellent design at a local level, both in terms of the specific impact of a development, and the general impact on the economy. Peckham Library's bright, high-quality new building, for example, has not only increased local usage of library services dramatically; it has also contributed to an astonishing change in how a disadvantaged area in south London is perceived. Two years after the library opened in 2000, annual visits had increased from 171,000 to 500,000, and book loans had risen from 80,000 to 317,000.¹¹ Combined with major programmes of housing improvement, and initiatives such as the redesign of the nearby Bellenden Road area, the bold architectural statement made by the library has helped to redefine Peckham and kick-start regeneration. Now seen as a vibrant neighbourhood with a thriving art scene, it has enjoyed an influx of cafes, bars and businesses in recent years.

Similarly, the Building Schools for the Future programme has the potential not just to create great individual buildings but to transform whole areas. Local authorities taking part have been challenged to look strategically at their schools: in addition to providing inspiring and effective environments for learning, they should contribute towards regeneration and strong, sustainable communities.

Clearly, the quality of everyday buildings – and the spaces between them – matters greatly. Good design can create an environment that is more attractive to investors. It can improve the efficiency and effectiveness of public service delivery, and raise our spirits as consumers of the public realm. Above all, it can improve our quality of life and limit negative environmental impacts.

¹¹ London Borough
of Southwark
www.southwark.gov.uk

The evidence base for good design

Homes

With the number of households in Britain forecast to rise by a quarter over the next 20 years, the design of new homes will be more important than ever.

The layout of new housing can have a huge impact on the success of a neighbourhood. Research from Northampton has revealed lower crime levels in areas where the front windows of houses face each other across the street, creating a system of 'mutual surveillance'.¹²

Good design creates value, too. A MORI poll showed that nearly three quarters of the public believe that well-designed houses will increase in value more quickly than average.¹³ And properties adjacent to good quality parks have a 5 to 7 per cent premium compared to identical properties in the same area outside the vicinity of the park.¹⁴

¹² *The value of good design*, CABI, 2002

¹³ *Public attitudes towards architecture and the built environment*, CABI/MORI, 2002

¹⁴ *Does money grow on trees?* CABI Space, 2005

¹⁵ *Managing urban spaces in town centres – good practice guide*, Department of Education and The Association of Town Centre Management, 1997

¹⁶ *The human deterrent*, Connolly, P., in *Regeneration and Renewal*, 4 October 2002, pp 16–17, cited in *The value of public space*, CABI, 2004

¹⁷ *Public attitudes to architecture and public space: transforming neighbourhoods*, MORI research commissioned by CABI, 2004

Public spaces

The space in between buildings is as important – if not more so – than the buildings themselves. It helps define the experience of a place, the connections between places, and whether or not people stay in a place for any amount of time.

In Coventry, increased pedestrianisation, a new civic square, clearer signage and better placement of street furniture have helped to make the city centre a more pleasant place to be. Visits to the city centre have risen by 25 per cent on Saturdays since these improvements, benefiting local businesses.¹⁵

In Birmingham, there has been a 70 per cent drop in theft from shopping bags through better lighting of street markets and widening of footpaths from two to three metres to give pedestrians more space.¹⁶

And open spaces are clearly important to the public. Ninety-one per cent of people think that well-designed and maintained parks affect their quality of life.¹⁷

Cowgate Under 5's Centre, Edinburgh – an attractive community facility

Client
Buredi and Castle Rock Housing Association
Principal designer
Allan Murray Architects
Principal contractor
Mowlem plc
Contract value
£650,000

This is an excellent example of an educational centre designed to meet the needs of children and their parents. A distinctive patinated zinc curved rear wall and large-scale angular roof lights bring natural light deep into the building. Meanwhile, the building's central location helps parents by providing day care facilities close to the workplace.

The centre is an inventive design, making the most of a small and difficult site. Four classrooms, administrative facilities and meeting rooms are simply organised by a connecting circulation 'room' that maximises internal flexibility for the teaching staff.

'It has been said the Cowgate Under 5's Centre tucked away in the historic Royal Mile is like an oasis in the centre of the City, and I couldn't agree more. To create a building is one thing, to create a place where children can play and learn in a happy, secure environment is quite another. The children find the nursery enticing, a place where they can explore, enquire and discover lots to do. Our beautiful new setting supports learning through play wonderfully well.'

Lynn McNair
Head
Cowgate Under 5's Centre





'Herzog & de Meuron have designed for us the biggest and best purpose-built facility for contemporary dance in the world. Because of it we have been able to increase the quality of training for our students and increase the activities available to members of the local community. I hope this building can stand as a benchmark of excellence for future publicly funded building projects.'

Anthony Bowne
Director
Laban

Laban Dance Centre – bringing colour to Deptford

Client
Laban
Principal designer
Herzog & de Meuron
Principal contractor
Ballast Southern
Contract value
£22 million

The Laban Dance Centre at Deptford in south London not only provides wonderful accommodation for dance and theatre; through the combination of a beautiful design, community programmes and a pioneering location in a disadvantaged area of London, it has acted as a beacon for regeneration.

The centre houses professional dance training and provides classes for children, amateurs and youth groups. On its first day of opening, 6,000 people visited the building.

The stunning visual appearance of the building is achieved primarily using colour. The exterior consists of transparent or translucent glass panels, depending on whether the space behind requires a view. Coloured, transparent polycarbonate panels are mounted in front of the glass panels, serving as a protective shield against sun, glare and heat radiation and contributing to the overall energy system.

Civic and cultural buildings

Buildings that act as hubs at the centre of local life have an important role to play in facilitating community participation and cohesion.

Lincoln's new museum, The Collection, shows how a landmark building can bring new life to a neglected area. It plays a crucial part in the regeneration of the Flaxengate area which connects the upper town around the cathedral to the lower commercial part of town. The museum is a striking contemporary building, designed to link with the existing art gallery, and responds sensitively to its historic context.

The museum, which includes space for temporary exhibitions, education and social facilities, opened in October 2005. In the first three months alone, it attracted over 40,000 visitors and also stimulated visits to the gallery next door.


Offices

Investing in the quality of the workplace can reap benefits for government departments and other public agencies.

Research shows that the design of the workplace can affect staff performance by 5 per cent for individuals and by 11 per cent for teams. One major UK company found that staff turnover, an expensive operating cost for many organisations, fell by 11 per cent after moving to new premises.¹⁸

Good lighting design and adequate daylight in particular have been linked to 15 per cent reductions in absenteeism and increases of between 3 per cent and 20 per cent in productivity.¹⁹

¹⁸ *The impact of office design on business performance*, CABE and BCO, 2005
¹⁹ *ibid*



The Home Office, London SW1 – a great working environment

Client
Annes Gate Property
Principal designer
Terry Farrell and Partners
Principal contractor
Bouygues UK
Contract value
£182 million

The Home Office HQ buildings form an exemplary office scheme – a building that both works for its users and has an appropriate civic presence. And it was delivered on time and on budget.

A key driving factor in the design was the client's desire to enhance communication and integration between different sections of the workforce. The building therefore features an internal 'street' linking three office buildings and the open-plan office space within them.

Attention has been paid to providing pleasant working conditions, with 95 per cent of staff seated within 6.5 metres of an external window or naturally lit atrium. The PFI contract requires the building to be operated at 10 per cent below the best practice benchmark contained in the government's Energy Efficiency Best Practice Programme Energy Use in Offices Guide. Public art has been skilfully integrated into the design, giving the building an attractive street presence.

'Local residents enjoy the new urban spaces created around the building as well as the light effects that shine down from Liam Gillick's rainbow canopy. All this has been achieved at a saving of £95 million to the taxpayer. This should send out the message to the whole of the public sector that good design and value for money do go hand in hand.'

Joan Ryan
Minister responsible for design
Home Office

Delivering design quality

Ultimately, the responsibility for delivering high-quality projects rests with the client. It is not the procurement process itself that determines the outcome. The essential ingredients are a committed client, with the right skills and an adequate budget, focused on whole-life costs, with a quality designer as part of the procurement team.

As a client, the first step is therefore to develop a detailed understanding of what good design is in the context of the project. Thanks to CABI and the Construction Industry Council, specific help is now available in recognising good design. The design quality indicator, or DQI, is a tool that all public sector clients should use in assessing the value of design in delivering a public sector building. The DQI poses set questions to help assess the quality of a design. Clients should use the DQI early in the consideration of a project to help structure discussion, establish shared design aspirations and feed into the brief.

The DQI groups its questions under three headings:

Impact

- character and innovation
- form and materials
- internal environment
- urban and social integration.

These refer to the building's ability to create a 'sense of place' and to have a positive effect on the local community and environment.

Build quality

- performance
- engineering systems
- construction.

These relate to the engineering performance of a building, which includes structural stability and the integration, safety and robustness of the systems, finishes and fittings.

Functionality

- use
- access
- space.

These are concerned with the arrangement, quality and interrelationship of spaces and how the building is designed to be useful to everyone. Specialist additional tools for assessing design quality in particular sectors, such as AEDET²⁰ for the NHS and DEEP²¹ for the Ministry of Defence, are available. More information on the DQI is available from www.dqi.org.uk.

Achieving excellence in construction

Excellence in the conduct of procurement and in the design of the final product should go hand in hand. HM Treasury launched its 'achieving excellence' initiative in 1999 to improve the performance of central government departments, executive agencies and non-departmental bodies as clients of the construction industry. This is run by the Office of Government Commerce.

Through the initiative, public sector clients commit to sustained improvement in construction procurement performance and in the value for money achieved in construction projects, including those involving maintenance and refurbishment. Government departments aim to meet set targets on, for example, the number of projects delivered on time and to budget.

Importantly, the chief aim of achieving excellence is to secure the delivery of best value for money, not in the sense of lowest cost, but as the best balance of quality and whole-life cost to meet user requirements. The National Audit Office has said that this is the approach that public bodies must take.

Achieving excellence in construction procurement guide 09: design quality provides specific detailed advice, stressing that the client and suppliers must work together to achieve design quality of an appropriately high standard.

²⁰ *Achieving Excellence Design Evaluation Toolkit*, www.dh.gov.uk
²¹ *Design Excellence Evaluation Process*, www.defence-estates.mod.uk

What makes a good client?

Commissioning and managing the building of a public sector project is a complex task. Drawing on its expertise and experience of working with both government and built environment professionals, CABI has set out 10 clear principles that clients must follow if they are to achieve the best in public building projects.

- 1 Understand the role of design** – from city centres to individual buildings, there is clear evidence that good design has an impact on improved quality of life and reducing negative environmental impacts. Familiarity with the evidence and good real-life examples will help you understand how design can improve your project – and help you argue the case for it if necessary.
- 2 Recognise the barriers to design** – knowing the common pitfalls means you can work to avoid them, and make sure that you put the procedures in place to get an excellent result.
- 3 Insist on the importance of design from brief to on-site construction** – a commitment to design needs to be there from the start, should be a properly weighted factor in any procurement process, and should never drop out of the equation.
- 4 Consider whole-life value** – good design can improve efficiency and reduce running costs significantly over decades of a building's use. Remember, the National Audit Office and HM Treasury recognise the value that design can have on whole-life operating costs, so you must invest appropriate time and money in design.
- 5 Look at the shortlisted entries for the Prime Minister's Better Public Building Award** – ask yourself: is the design you are considering a credible contender? And if not, is it really likely to deliver value for money or be good enough for your end users?
- 6 Consult your design champion** – if you work in central or local government, a primary care trust, an acute trust, a local education authority or a police authority, the government has said that there should be a designated individual in your organisation charged with promoting good design. Use their knowledge and contacts to help guide your project.
- 7 Get design advice** – high-quality design advice throughout the life of the project is invaluable, and clients should always look to hire relevant expertise. CABI may also be able to provide advice through our enabling or design review programmes. CABI publications offer a range of practical guidance when direct help is not available.
- 8 Use the design quality indicator** – different versions of DQIs should be used throughout the design process to help you assess what you want out of a design, and whether you are achieving it.
- 9 Think about civic value** – good design should lift people's spirits. The civic buildings of the Victorians are still a source of pride and identity for many people; there is every reason why this should also be the case for the buildings we create today.
- 10 Go and see examples** – the case studies in this document are great illustrations of the principles of better public building in action. Visiting them will provide inspiration and could help provide benchmarks to check how well you are doing with your own project.

Further reading

Common Minimum Standards for the procurement of built environments in the public sector, Office of Government Commerce, 2006

Creating excellent buildings: a guide for clients, CABE, 2003

Local authority design champions, CABE, 2004

The principles of inclusive design, CABE, 2006

The value handbook: getting the most from your buildings and spaces, CABE, 2006

Websites

Architecture+Design Scotland
www.ads.org.uk

Better Public Building
www.betterpublicbuilding.org.uk

Commission for Architecture and the Built Environment
www.cabe.org.uk

Design Commission for Wales
www.dcfw.org

Office of Government Commerce
www.ogc.gov.uk

‘Good design is essential for achieving value for money in construction. But this is not just about buildings being completed on time and within budget; it is also concerned with ensuring that the costs of operating buildings over their whole life are optimised and that those who use and work in public buildings gain real value from them. In this way buildings can make a major contribution to improving public services.’²²

Sir John Bourn
Comptroller and auditor general
National Audit Office

Since the government's Better Public Building initiative was launched, we have seen high-quality building design result in some outstanding new schools, libraries, hospitals and transport infrastructure. Too much new public building, however, still falls short of the high standards we expect. *Better public building* provides the arguments and the evidence that good design makes places work better. It offers practical advice for creating new public building that is value for money, sustainable and a source of civic pride. And it sets out the steps that public bodies need to follow if they are to ensure that all those who use our public services benefit from good design.

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