

2013 / 2014

ENVIRONMENT EDITION

The Parliamentary Review

A YEAR IN PERSPECTIVE

■ FOREWORDS

The Rt Hon David Cameron MP

Dan Rogerson MP

■ REPRESENTATIVES

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Review of the Year

Review of Parliament

d+b facades



Overcladding – the economic, social and environmentally sound solution

The UK's stock of 1960s high-rise buildings is here to stay. We can no longer afford financially, socially or environmentally to leave them in their original poorly-insulated condition with deteriorating appearance or to demolish and rebuild in blind preference to regeneration. High-quality overcladding is the sustainable solution for these legacy buildings.

The buildings span residential, office, health and educational sectors. All have undergone some level of internal refurbishment. All have core structures (armatures) that are sound, that have stood for 50 years and that could last for a further 200 years or more if adequately protected. Over the last 20 years, a number have had their external skins (envelopes) replaced or overclad, with varying degrees of success. Replacement entails the complete removal and disposal of the existing skin, whereas, with overcladding, a new skin is applied to the existing one with minimal disruption to occupants.

There are 25-year-old examples of sustainable overcladding that still look as new today as when they were put in place, and are set to last for a further 30 years or more. Conversely, there are 10-year-old examples that have failed, and have been replaced or will need to be replaced well ahead of their anticipated life expectancies.

So, sustainable options for solving these problems are out there. They have been tried and tested. We have the empirical evidence to prove that regeneration is viable. But financial and environmental sustainability is only fully achieved using solutions that deliver proven, rather than predicted, performance. This means that any new building skin must be long-lived and must perform against its target measures, including looking good throughout its life.

WHY D+B FACADES?

- » Design and build overcladding specialists
- » Specialists in refurbishment – no new build
- » Extensive, proven track record of success in:
 - occupied buildings without decant
 - delivery on time, within budget and with minimal disruption
- » Proven system performance and longevity
- » Single point responsibility from design through to completion
- » Industry-leading warranty

“Ours is a quality design delivering true sustainability”

Our business

d+b facades, based near Salisbury, is the UK's leading specialist overcladding organisation, with a proven track record in high-quality regeneration projects. All our projects have been delivered on time, within budget and, crucially, continue to perform and retain visual appeal.

Overcladding is the design and installation of aluminium façades with integrated fenestration, specifically designed for refurbishment rather than new-build projects. This is all we do, and it is all we have done for 25 years.

At d+b we passionately believe in our product, and we are certain that ours is a quality design delivering true sustainability. The design has changed little in over two decades, and our guarantees are the strongest and longest in the business. We do it once and we do it properly. We always encourage our prospective clients to visit our oldest sites and to do likewise for other systems they are considering.

Our market is buildings that still have their original envelope and exhibit the following key characteristics:

- » Poor insulation – The buildings consume vast amounts of heating energy, giving rise to:

- hugely inflated heating bills, paid for by residential or business tenants, or passed on indirectly to taxpayers
- unacceptable levels of carbon emissions (this energy-inefficient stock is a major contributor to the 37% of total UK greenhouse gas emissions attributable to buildings).

- » Undesirable accommodation – The consequences of poor social and working environments have been widely researched and documented. As the UK's living standards increase, the demand for substandard accommodation decreases. Buildings are the physical representation of the UK brand, and we do not want it tarnished by these ageing eyesores.

Our product

At our inception, we realised that a durable armature could carry a number of revitalised envelopes through its life. We coupled this requirement with the emerging global concerns about sustainability, and set about designing an overcladding system that would be:

- » **Environmentally sustainable:**
 - life-expectancy – true longevity, more than any alternative designs
 - recyclability – use of recycled material that is itself recyclable at end of life.
- » **Fit for high-rise performance** – the severe exposure and movement experienced by high-rise structures demand durable but flexible materials that can withstand our climate.
- » **Efficient in water management** – to prevent completely water ingress, thereby eradicating staining and system deterioration.
- » **Optimised for installation** – to avoid the need to relocate occupants and minimise disruption during the construction phase.
- » **Financially viable** – we understood that our product must pay its way, and we were aware that our emerging design requirements were

‘The majority of people think that we have built a new building.’
(Nick Roalfe, Director of Facilities and Property Management, Imperial College London)



tending towards the higher end. To ensure we remained competitive, we identified the key elements of any business case:

- savings on heating costs
 - eradication of external maintenance costs
 - asset value to be significantly and demonstrably increased
 - the greater longevity with the new skin, the lesser the whole-life cost of the building.
- » **Good looking** – we wanted finishes to match those of new state-of-the-art high-rise buildings.
- » **Choice** – our system must offer as many styles and finishes as possible (panels and windows).

Our resultant design has now stood the test of time, with a proven installed base. It has proved to be among the most sustainable of the solutions being deployed, and continues to achieve targeted savings. Crucially, our oldest projects look as good as they did when first installed more than 20 years ago, despite having never been maintained or cleaned.

Our work in industry

d+b's journey has not just been about designing and installing building envelopes that perform financially, environmentally and socially. Our business is also about learning and, equally, sharing our knowledge with the various industry sectors.

We have enjoyed an extremely healthy relationship with the higher and further education sector. At a time when the UK's universities are seeking to compete as world brands, central funds for replacement buildings have diminished, yet some buildings still require attention. We have worked closely with members of these bodies to understand the new drivers and help produce the business cases for the right solutions.

The Legacy of 1960s University Buildings is a report commissioned by AUDE in 2008. This forward-thinking document was produced ahead of the well-publicised abolition of the Learning Skills Council (LSC) and the scrapping of its ill-founded college new-build policy. The policies of the LSC's replacement, the Skills Funding Agency, are much more in line with the findings of this report.

d+b is looking to work with the Health Estates & Facilities Management Association (HefmA) as it did with members of AUDE/HEFCE to accelerate the understanding of regeneration, and to drive the viability and specific benefits of overcladding of occupied hospitals.

We are making use of Scape Framework Agreements to work with a small number of main contractors to introduce the concepts, affordability and sustainability of overcladding to other large public-sector estates.

Establishing a common understanding and strategy in the residential sector will prove more difficult, as there is no comparable body to AUDE or HefmA for this sector and the stock is in private, local authority and housing association ownership.

d+b welcomes the government's and the Greater London Authority's Estates Regeneration Fund. This initiative recognises and leverages the intrinsic value in the existing stock and introduces fresh thinking into the old private finance initiative.

We would welcome further any government initiatives that encourage positive discrimination for regeneration, irrespective of the economy. Such policies should go beyond the Decent Homes programme, by taking a holistic view of whole-life cost and setting maximum sustainability as its goal.



Getting it wrong – 6 years after the installation of a board system



Hyde Park, Sheffield, 24 years after the installation of aluminium overcladding

» KEY ASPECTS OF OUR DESIGN

- » **Materials** – our panels and frames are aluminium, which is inert, does not decay over time and is 100% recyclable.
- » **Aesthetics** – our buildings look good, some amazingly so, like a high-end new build.
- » **Performance** – empirical data show that our cladding performs as well as or above new-build regulations.
- » **Water channelling** – our unique design ensures that all water is channelled away with zero ingress.