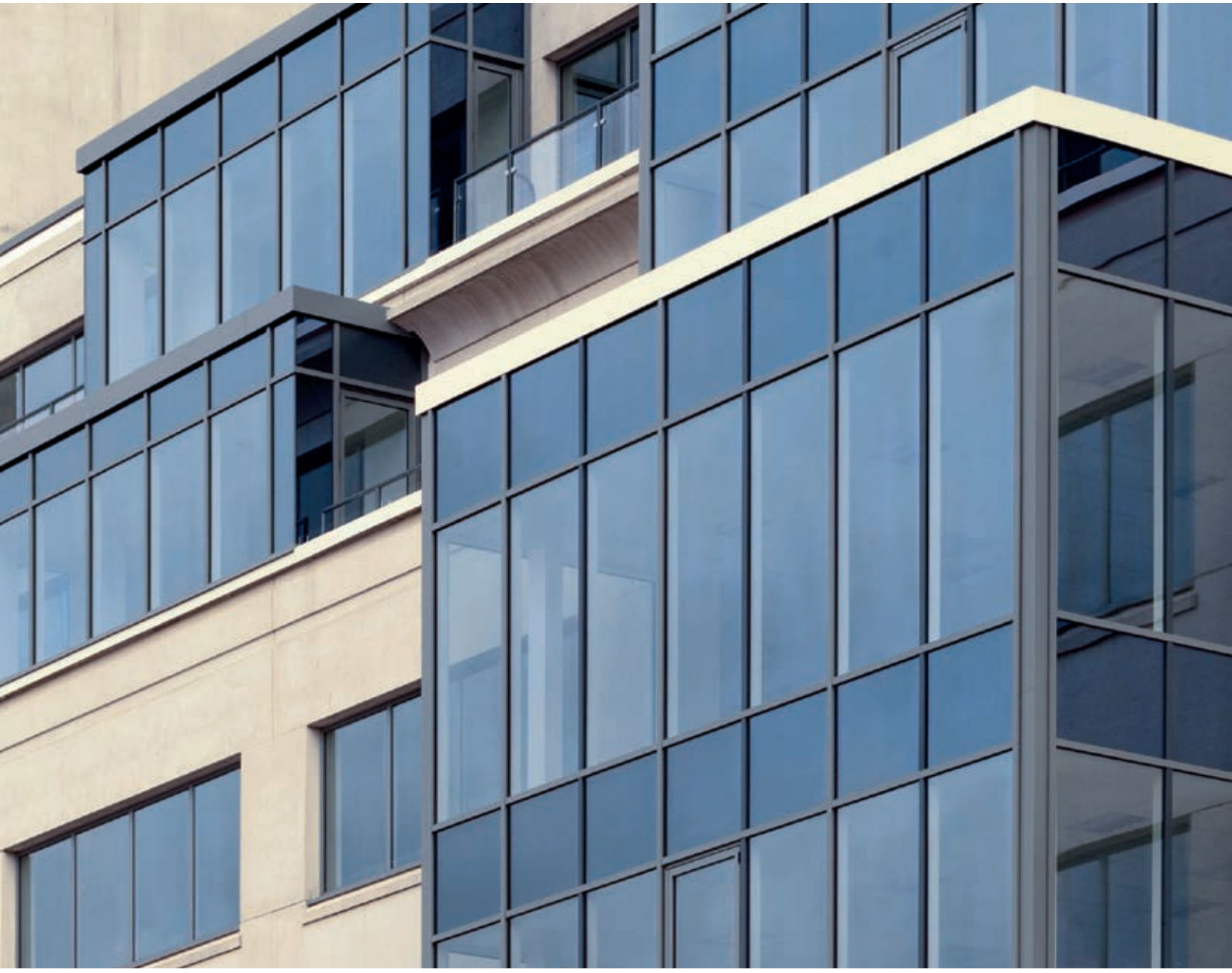
smart
architectural aluminium



# Project Portfolio

A selection of commercial projects showcasing Smart solutions

smart
architectural aluminium

**Having worked closely with the Smart technical support team, I have been delighted not only with the breadth and depth of their knowledge, but also their commitment to working closely with my team to deliver a first-class project.**

**Ultimately, of course, it is about the product. The fact that we have a highly-satisfied client and residents happy with the first-class fabricator/installer speaks volumes about the whole process and the part Smart played in it."**

David Davies, Partner, Guardian Surveyors LLP

Our dedicated, experienced team provides a full support service to architects at every stage of a project - from initial concept right the way through to project completion.

At the design stage, we are able to provide advice on the most appropriate system and glazing to not only meet the architect's design vision, but also with regard to structural,

thermal and acoustic performance requirements for each particular project. Having identified the most appropriate products, our team will prepare a comprehensive project-specific report based on the National Building Specification (NBS) protocol.

We also have product and design information available in a number of formats as required, including DWG and BIM files, as well as an online tool (The Smart Green Guide) to perform BREEAM Green Guide calculations for various window profiles and systems.

Once the product selection has been made, we then work closely with the design team to build a full and complete specification in preparation for the tender stage, at which point we will advise main contractors of a number of fabricators and installers with whom they could work.

Working through to completion of the project, we are able to provide professional advice and guidance throughout the process, attending site meetings and visit as necessary.

**Project**
Tidemill, London

**Architect**
Pollard Thomas Edwards

**Developer**
Galliford Try

bsi. ISO 9001 Quality Management FM21582
bsi. ISO 14001 Environmental Management EMS554307
bsi. OHSAS 18001 Occupational Health and Safety Management OHS571955
bsi. ISO 50001 Energy Management ENMS634370
CAB
Centre for Window and Cladding Technology


2
KINGSWAY

# Case Study: Kingsway

**Project**
**Kingsway**
2 Kingsway, Cardiff CF10 3FD

**Architect**
**AWW Architects**
Bristol, BS1 6LS


## Summary

2 Kingsway has formerly been both the head office of the Bank of Wales and the headquarters of the Welsh Development Agency. However, following the merger of the WDA into the Welsh Government in 2006, the building lay empty until it was acquired for commercial development in 2015.

Now following a major refurbishment programme, this new 40,000 square feet, six-storey office complex was officially opened in 2016. With stunning views across the castle, it is arguably one of Cardiff's most prestigious office addresses.

The design incorporated Smart's EcoFutural and MC 600 curtain wall systems in an exterior glass 'spine' running down the building's façade. Featuring a chambered polyamide thermal break, the high-performance EcoFutural fixed light windows were also fitted with acoustic, solar-controlled glazing to deliver outstanding thermal efficiency.

On some areas of the façade, the MC 600 curtain walling system spans two floors, whereas on other areas it spans just one. Balconies link these two sections on the fourth and fifth floors, where Smart Visofold doors provide external access for routine maintenance. Finally, Smart Wall external commercial doors have also been installed on the ground floor.

# Case Study: Electricity House

**Project**
**Electricity House**
Colston Avenue, Bristol, BS1 4TB

**Architect**
**Stride Treglown**
Bristol, BS8 3NE

**Developer**
**Crest Nicholson**
Chertsey, KT16 9GN

## Summary

Situated within a conservation area, the imposing, Grade II-listed Electricity House has been restored to its former glory and has been transformed into a mixed-use development of 85 high-specification luxury apartments and commercial space.

Many of the original Art Deco features have been recreated, including the style of the window and door systems from Smart, specified both for their authentic appearance and outstanding performance.

Smart's Alitherm Heritage system provided the perfect solution for windows from the first to the fifth floor of the building, with Smart EcoFutural system providing an equally elegant and thermally-efficient solution for the fifth-floor balcony doors. 10 Sets of double doors were also specified, together with seven sets of Smart Wall commercial doors for the ground floor retail areas – including one automatic door for the disabled access entrance.

In excess of 300 windows were supplied and installed, and despite the exceptionally slim lines of the Alitherm Heritage system, the units accommodated 36mm double glazed units to cater for the different acoustic requirements of the project.


ELECTRICITY HOUSE

# Case Study: Kingston Hospital

**Project**
**Kingston Hospital**
NHS Foundation Trust, Esher Wing

**Specifier**
**Pellings**
Bromley, BR1 1RY

**Main Contractor**
**ARJ**
Stevenage, SG1 2EF

## Summary

In 2014, the Kingston Hospital NHS Foundation Trust embarked on a major refurbishment programme to replace the windows and doors of the hospital's Esher Wing. The work was commissioned not only to improve the building's aesthetics, but also improve thermal performance, reduce energy costs and deliver improved patient, visitor and staff comfort.

The fenestration fabrication and installation work was carried out in just eight months, with the hospital continuing to operate throughout. Around 1,200 Smart EcoFutural windows were installed, each nominally six metres wide by three metres high and a combination of tilt and turn and bottom-hung casement windows, as well as seven sets of Smart Wall double doors and the MC 600 curtain wall grid system.

The end result is a much-improved appearance and a building which is warmer, weather-proof, more energy-efficient and better ventilated.

Paul Dancey, Operations Manager of BMI's Coombe Wing which formed part of the refurbishment programme said: "The whole project was exceptionally well managed, with the clear communications between all parties a vital component of its success. As a result of the programme, we now have state-of-the-art windows which have considerably improved patients' comfort and provided a much-improved working environment for all hospital staff."

# Case Study: Lanchester Community Free School

**Project**
**Lanchester Community Free School**
Hempstead Rd, Watford WD17 3HD

**Architect**
**Martindales Architects**
Cambridge, CB24 3DQ

**Main Contractor**
**Borras Construction**
St Albans AL1 5HT


## Summary

Windows and doors from the Smart Alitherm Heritage range featured in the refurbishment of the Art Deco-style Lanchester Building in Watford, the building being locally listed due both to its historical and its architectural significance.

Originally built in 1938, the Lanchester Building has been completely transformed by Martindales Architects into a two-form entry primary school and nursery for West Herts Community Free School Trust, and is now home to the Lanchester Community Free School.

With a requirement to retain the slim lines of the building's original steel windows, so closely associated with Art Deco buildings, while at the same time achieving thermal performance and energy efficiency gains which are made possible by modern materials, new windows and commercial doors from Smart's Alitherm Heritage ranges were specified.

Over 70 window assemblies (covering approximately 650m² in total) and 15 door entrance assemblies were installed from the Alitherm Heritage range, the doors being set in the Smart Wall framing system. The window and door profiles were all finished in white polyester powder coating at Smart's state-of-the-art paint facility, to match the materials being replaced and to provide a robust, durable and low-maintenance finish.

Despite a particularly tight build programme to meet the school's opening date, the windows and doors were all installed on-time with the architect, main contractor and installer working closely with Smart's technical support team.

The Alitherm Heritage and Smart Wall systems provided a truly authentic appearance for this sensitive refurbishment project, with the replacement windows having to replicate the original steel fenestration.

Designed specifically to meet the requirements of heritage projects and listed buildings, all Alitherm Heritage windows feature a polyamide thermal break to deliver enhanced thermal performance. This enables the system to achieve a 'B' grade window energy rating, when fabricated with the correct specification and glazed unit. Similarly, the system's doors are ideally suited to school projects, which typically have a high footfall and heavy usage. Certified to PAS24 for security and BS6375 for weather testing, rebated doors were specified for this particular project, which provide an effective 'anti-finger trap' solution.

The final refurbished building retains the authenticity of the period in which it was built, with the staff, pupils and building managers all now able to enjoy the thermal and cost benefits of a modern aluminium solution.

# Case Study: The Boat House

**Project**
**The Boat House**
Lime Kiln Road, Bristol, BS1 5AD

**Architect**
**AWW**
Bristol, BS1 6LS

**Developer**
**Linden Homes**
Bristol, BS8 1EH

## Summary

Built in the heart of Bristol's vibrant Harbourside by developer Linden Homes, The Boat House is a unique collection of ten luxury apartments over three floors, together with retail space on the ground floor.

With a design that was inspired by its stunning location, The Boat House features Smart's EcoFutural range, with fixed frame, casement and tilt and turn windows as well as single and double doors specified. Each of the systems is framed perfectly by the striking timber cladding of the building's façades, with the EcoFutural windows and doors combining not only to deliver elegant aesthetics, but also outstanding thermal performance, durability and low maintenance.

EcoFutural offers an integrated range of high performance windows and doors. Featuring Smart's chambered polyamide thermal break within its profiles, the system is perfectly suited to commercial applications where exceptional thermal efficiency is a key requirement. The system also delivers excellent weather performance and high security, with a range of window and door formats available to suit the needs of each individual application. The large format tilt and turn windows for The Boat House were specified both for their versatility and ease of operation.

# Case Study: Purifier House

**Project**
**Purifier House**
Lime Kiln Road, Bristol, BS1 5AD

**Architect**
**AWW**
Bristol, BS1 6LS

**Developer**
**Linden Homes**
Bristol, BS8 1EH

## Summary

Alitherm Heritage windows, together with Smart commercial doors and ground floor framing, were installed as part of Linden Homes' development of the Grade II listed Purifier House, which is situated alongside the Boat House in Bristol's Harbourside area.

Once a gas purifying station, Purifier House dates back to the 1820s and was in regular use up to the 1960s. The building then fell into a state of disrepair and became derelict in the 1970s. However, being situated in the City Docks Conservation Area, Purifier House was listed to Grade II status in 1985 – although all that remained of it was its existing walls, which were strapped and braced to avoid further deterioration. Linden Homes' redevelopment transformed Purifier House into elegant waterfront homes in one of Bristol's most vibrant locations. 28 Apartments have been created above ground floor retail and café space which overlooks the Harbourside and provides a valuable addition to the area.

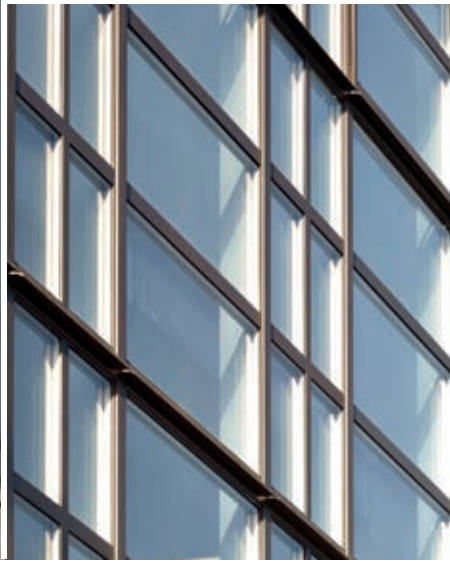
The selection of Alitherm Heritage for the scheme allowed the buildings iconic arch-headed and bullseye windows to be re-created in modern materials, maintaining its distinctive appearance while delivering the thermal and performance benefits of a modern aluminium window system.

# Case Study: Mount Pleasant

**Project**
**Mount Pleasant**
Clerkenwell, London, EC1A 1BB

**Architect**
**Boyes Rees**
Cardiff, CF10 3AL

**Main Contractor**
**Mace**
London, EC2M 6XB

## Summary

Originally built in the 1880s, Royal Mail's Mount Pleasant sorting office has now been modernised, with a major feature of the refurbishment programme being the replacement of the exiting uPVC windows in the main administration building with the Smart Alitherm Heritage window system.

The new windows replicate the aesthetics of the building's original bronze fenestration, echoing its slim sight lines and finish (the building originally featured large bronze windows, but in a 1980s refurbishment, these were replaced with white uPVC units).

Each of the Smart window units is an impressive eight metres wide by four and a half metres high and was manufactured in a dual colour format, with the external profile featuring a bronze polyester paint finish and the internal profile standard white.

Given the exceptional scale of each window unit, and their corresponding performance requirement, Smart's technical services team designed and developed a bespoke, 85mm coupling mullion to reinforce and strengthen the system, while retaining its characteristic slim profile. As part of the redevelopment, new Alitherm Heritage windows were also installed around the building's stairwell – these were externally-beaded to allow maintenance to take place without having to access the lift shaft.

# Case Study: Abbey Sands

**Project**
**Abbey Sands**
Torbay Road, Torquay, TQ2 5FB

**Architect**
**Kay Elliott**
Torquay, TQ1 2JP

**Developer**
**Havard Estates**
London, E5 9NA


## Summary

Window and door systems from Smart Architectural Aluminium were used throughout Torquay's stunning Abbey Sands development, which features four restaurants, 13 self-catering apartments and 14 residential apartments.

Standing just eight metres from the sea front, the new building features a wide range of Smart systems, including the company's large format Visoglide sliding doors, Smart Wall ground floor treatment and tilt and turn windows.

Jan Tribble, Associate at Kay Elliott said: "We selected the Smart solutions because of their excellent quality and value, which together with the selection of high quality door furniture allowed us to create glazed features to perfectly complement the building's overall aesthetic.

"Given the building's coastal location, we specified floor-to-ceiling glazing to exploit the stunning views, with Smart's 2.5m Visoglide sliding doors providing a feature for each of the apartments, really opening up the external space of the balconies to maximum effect."

Smart's standard, marine grade polyester powder coated finish was specified for the MC Wall curtain wall system for the ground floor commercial units, as well as for the Visoglide doors for the apartments above, providing long-life protection for the materials and delivering low maintenance requirements.


COSTA
PIERRE
Restricted
ZONE
No loading
ASTOR

# Case Study: Payne Road

**Project**
**Payne Road**
East London, EC1A 1BB

**Architect**
**Stockwool**
London, E1 8BU

**Main Contractor**
**Galliford Try**
Uxbridge, UB8 2AL


## Summary

Located on the edge of the Olympic Park in East London, and on the site of a former chocolate factory and warehouse, this 16-storey mixed residential and commercial development consists of 158 one and two bedroom apartments – and features studios for local artists, film makers and designers.

To retain the design style of the original structure, which featured steel windows, green polyester powder coated Smart Alitherm Heritage windows were specified for the refurbishment project, with a combination of casement, top-hung and side-hung units installed. Alitherm Heritage reflects the slim profiles and lines of traditional steel doors and windows - but with a 'B' Window Energy Rating, the system combines elegant aesthetics with outstanding thermal performance.

On the building's front elevation, arch-headed windows were set back into the original brickwork reveals to maintain the building's traditional aesthetics. Completing the project, Smart's commercial door and framing system was used for the main entrance on the ground floor and the company's Visoline doors and tilt and turn windows were installed in to a new steel frame extension constructed on the building's roof to provide additional accommodation.

# Case Study: ss Great Britain

**Project**
**ss Great Britain Visitor Centre**
Ferry Road, Bristol, BS1 6TY

**Architect**
**Stride Treglown**
Bristol, BS8 3NE

**Developer**
**Linden Homes**
Newton Abbot, TQ12 5YZ


## Summary

Located within Bristol's harbour regeneration area, this development which was completed in 2010 forms part of the historic Great Western Dockyard which is home to Brunel's ss Great Britain iron ship.

The high-profile project was part new-build and part refurbishment, with the scheme ultimately delivering a new visitor centre and museum on the site, as well as 145 one and two bedroom apartments in three main blocks and bespoke accommodation for the new 'Brunel Institute' conservation and learning centre.

The new building was designed to reflect Brunel's original Steam Engine Factory that was built in the 1830s, with the brickwork and window and door detailing echoing its original features.

A combination of some 600 Smart Visoline tilt and turn and casement windows and Visoline doors, was installed in the building, with the window combination design producing the look of 'dummy doors' on the building's balconies.

The front elevation also appears to feature arch-headed windows, although these are actually square-headed on the inside, with feature panels on the external face forming the arch. Internally, the building's walkways feature narrow window 'strips' in the kitchens of the apartments, allowing light and air into rooms, without compromising privacy.


GIFT SHOP

# Case Study: Ivanhoe College

**Project**
**Ivanhoe College**
Ashby-de-la-Zouch, LE65 1HX

**Architect**
**GSS Architecture**
Kettering, NN15 7ES

## Summary

The installation of new Smart Alitherm 600 windows made a significant improvement to Ivanhoe College in Leicestershire, not only to its outward appearance, but also to the learning environment and to the energy efficiency of the building – with fuel and heating costs having been reduced by over 25%.

The scheme to replace the building's old windows with the modern, thermally-efficient Alitherm 600 system followed the successful completion of the first phase of an extensive refurbishment programme in March 2013. The windows were installed with a minimum of disruption to both staff and pupils, which allowed the college to continue to operate throughout the work programme.

This versatile Alitherm 600 system provides a wide range of solutions for light commercial applications. Offering the design flexibility to create the appearance of a traditional casement window, or a more contemporary style for modern applications, the system is the perfect solution for schools and colleges. Incorporating Smart's innovative polyamide thermal break technology to create a barrier between the cold air outside and the warm air inside, Alitherm 600 provides excellent thermal performance and is designed to meet the exacting requirements of Document L 2010.

smart
architectural aluminium

Smart Systems Limited
Arnolds Way, Yatton, Bristol
Somerset, BS49 4QN. UK
Reg. in England No. 1314601

T +44 (0)1934 876 100
sales@smartsystems.co.uk

F +44 (0)1934 835 169
www.smartsystems.co.uk

**Project**
Saïd Business School, Oxford

**Architect**
Dixon Jones

**Developer**
Chalegrove Properties Ltd

IMS252PP.201702

The images, drawings and data shown in this brochure are for illustrative purposes only and are not binding in detail, colour or specification. We reserve the right to make changes to the product specification as technical developments dictate and without prior notice. We recommend that the user ensures that they are satisfied the product meets their requirements prior to purchase.

The 'Smart' logo and the 'Smart Spark' icon are registered Trade Marks of Smart Systems Ltd. ©Smart Systems Ltd 2017