

Apex Temple Court Hotel

Apex Temple Court Hotel situated in the centre of London approached Granada with noise and thermal issues. Granada often hear of these issues within the hotel & leisure sector as hoteliers wish to improve a guests stay and ensure a peaceful night's sleep.

The scope of the project was to manufacture and install secondary glazing designed to decrease noise levels and increase thermal ratings.

Granada supplied and installed a test unit in the most affected room. A director of the Apex needed to ensure a substantial noise reduction was achieved and resided in the treated room for several nights.

He was delighted by the level of noise reduction and discreetness of the unit installed. Several weeks later Granada manufactured and installed over 320 secondary glazed units housing 6mm toughened low e glass.

Post installation the Apex Temple Court Hotel noted substantial energy saving and a decrease in noise complaints. As a result of the effectiveness of the installed secondary glazed units we are working with Apex to replicate the noise reduction and thermal benefits for their other hotels based around London City Centre.

Contractor: Granada supplied and installed

Products: 6mm Toughened Low e – SS2, CO3, BVS (some arched).



Bush House, London

Former home to the BBC, and now luxury office space, Bush House was renovated as part of a two-year, £60 million project back in 2012. JLL, ISG and John Robertson Architects were appointed to upgrade and restore the historic building in just 77 weeks. Nevertheless, a BREEAM environmental assessment target of 'Excellent' was set, making secondary glazing a vital aid to achieving a grade 'A' rated environment.

Part of the unique appeal of secondary glazing is the ability to bring modern thermal and acoustic insulation to buildings while remaining respectful of the original design aesthetics. Even so, in this instance, Granada worked with ISG and JRA to develop an entirely new product – the odd leg horizontal sliding sash, with 6.4mm low 'e' laminate glass. The unique 'odd leg' build out detail, provided ISG with a more appropriate and secure flush aluminium alloy sub-frame detailing.

There are few more prestigious buildings than Bush House, and there was a need to retain the original design. The mix of new technology, together with respect to tradition, has helped to improve functionality, while remaining true to its unique spirit.

Architect: John Robertson Architects

Contractor: ISG Plc

Products: Odd-Leg Horizontal Slider



Magdalen College Library, The Old Indian Institute & The Rhodes

From future Kings and High Court judges, to documentary makers, Chancellors to PLC chairmen, many of the nation's most pre-eminent figures have graced the corridors of Magdalen College, Oxford.

The library building, described by many as one of the great libraries of the world, is actually a converted 300 year old church, with 6.5m high windows and ornate, if irregular arches. With traffic noise increasing and the required acoustic performance higher than a typical building, the Granada team spent considerable time demonstrating the potential benefits of secondary glazing to an initially sceptical conservation officer.

"We knew it would be a challenge, but finding the right solution was certainly within reach," says commercial sales director, Mike Latham. "You can imagine that any solution for windows so high would raise concerns regarding the fixtures required to take the considerable weight. There were concerns, but the contractors, Stepnell, had faith in our ability to fulfil the brief. It's fair to say that the conservation officer is now a big fan!"



Marriott Hotel, Park Lane

“We were delighted with Granada’s initial design input and continuing technical support. The flexibility of their secondary glazing allowed us to reduce noise intrusion while retaining the aesthetics required by the design team. ”

Mark Spanner, Director, John Mowlem Specialist Works

This superb example of early Victorian architecture sits on the corner of Park Lane, opposite Marble Arch. Through an extensive refurb, costing some £25m, the 5-star Marriott Hotel on Park Lane has become one of London’s leading luxury hotels.

Unique, curved windows led architects RHWL to specify a combination of over 150 Granada horizontal sliders, hinged and lift-out systems. 8.8mm acoustic glass was installed, with a glass-to-glass dimension of 200mm for optimum sound insulation. This helped to achieve the key client objective to balance functionality with a genuinely sympathetic design solution.



Architect: (Aedas) RHWL

Contractor: John Mowlem Specialist Works

Products: Horizontal Slider, Hinged Casement, Lift-Out

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Fine Art Building - Leeds

The School of Fine Art – Leeds, have invested £7.6M, relocating to a refurbished building, based on University Road. The development was to give students an inspirational learning environment.

The outside of the building showcases large windows which permits a vast amount of natural light aiding the student's creative passion. Secondary glazing was specified to reduce the carbon footprint of the building and blend in seamlessly with the surrounding environment.

To maintain total functionality of the primary glazing, Granada advised the installation of heritage hinged units which can be easily opened for cleaning and maintenance. The original windows opened from the top, making it difficult for students and lecturers to open the windows for ventilation and cooling the room.

Granada developed a bespoke gearing solution which allows the primary and secondary glazing to be opened simultaneously.

Granada worked in partnership with Sewell contractors and Fuse Architects. As a result of product quality, product functionality and Granada's project management we are pleased to announce that our heritage hinged unit with bespoke gearing system has been specified again by Fuse for the University of Hull.



Contractor: Sewell Construction Ltd

Products: Heritage Hinged Unit

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Great Northern Hotel, Kings Cross

“Granada’s secondary glazing systems have provided a unique solution to the acoustic issues presented by a key city centre location, whilst remaining discreetly sympathetic to the renovation of this Grade II listed building.”

Simon Lord, Project Manager, Houston Cox

This fully refurbished boutique hotel sits within King’s Cross Central – London’s busiest transport hub, with a breath-taking 125 million annual passenger footfall. The primary issues faced in this historic context were both technical and visual. Windows had to offer both acoustic and thermal improvement, whilst minimising visual impact. Balanced vertical sliders were uniquely adapted to prevent opening, fitted with Stadip Silence glass to dramatically reduce noise levels. Slimline frames were hidden behind new internal window mouldings, with no visible handles or operating mechanisms to further reduce visibility.



Architect: Dexter Moren Associates

Contractor: Houston Cox

Products: Balanced Vertical Sliders

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St John's Institute - London

St John's Institute of Larcom Street, built at the very beginning of the 20th century under the auspices of Rev. A W Jephson, vicar at the nearby St John the Evangelist Church.

The building was in urgent need of modernisation and will be used as a community facility. The local community has shown an overwhelming interest in the redevelopment as they wanted to maintain the original character of the building. St John's Institute is Grade II Listed, meaning the original windows had to be retained to preserve the historic character and charm of the building.

Granada Glazing Ltd was selected to install bespoke secondary glazed units to improve the thermal, acoustic & security performance of the original windows. The secondary glazing needed to be sympathetic to the design and function of the original windows.

A combination of 26 heritage horizontal and vertical sliders was specified as this maintained the primary glazings function. An obscure glass was selected for the windows on the ground floor as this enhances privacy.

“Granada's speciality, is to preserve the character and charm of listed buildings. St John's institute now benefits from 21st Century fenestration while maintaining 20th Century aesthetics.”

Robert Walton (Business Development Manager), Granada Glazing



Chatham dockyard closed in 1984, now the 84 acres Georgian dockyard is managed as a visitor attraction by the Chatham Historic Dockyard Trust.

As part of a £1 million renovation the Grade II Listed property built in 1890 received a complete fit out including a new glazing package to the value of £15,000. Secondary glazing was specified to maintain the character of the property and also increase both thermal and acoustic performance.

In total 12 arched liftouts were designed, manufactured and installed by Granada with 4mm toughened glass. In addition to these 12 units, a 3-meter-wide CO3 with 6mm toughened glass (due to the large size) and two stacked arched liftouts were installed above to complete the window.

As the acoustic performance was vital to the project, the secondary glazing units were installed with a minimum cavity of 200mm. This cavity plays a critical role increasing acoustic performance.

Robert Walton - Business Development Manager notes "Working alongside, architects, contractors and conservation specialist we can ensure buildings of historical importance maintain the character and visual ascetics. The installation of Granada's secondary glazing has preserved the original windows while making visitors and employees comfortable by decreasing draughts and noise levels breaching the primary window."



Northern General Hospital, Sheffield.

"We have employed Granada on a number of projects under the P21 framework in Sheffield. Their role in introducing blink glass to the Critical Care Unit was an industry innovation at the time, and a distinct benefit to the project as a whole."

Mark Cox, Project Manager, BAM Construction Ltd.

The first of its type in the UK, this state-of-the-art two-storey care unit is one of Europe's largest Critical Care Departments and was built at a cost of £20m. Granada Secondary Glazing helped to provide hygienic and effective noise insulation, but also introduced 'blink glass' for enhanced patient privacy.

The unit's individual bays are for the care of patients in critical need, up to 36 of the sickest in the hospital. Electrically charged 'blink glass' installed in the secondary glazing applications between the bays instantly changes from clear to opaque at the press of a button. In effect, the system provides an encapsulated and hygienic blind that patients are able to control, with nurses also able to have visibility from their work stations.

Architect: Race Cottam Associates

Contractor: BAM Construction

Products: Hinged Casement



Nottingham Queens Medical Centre.

Until recently, the Nottingham Queens Medical Centre was the largest hospital in the UK, and the largest teaching hospital in Europe. With such a large number of patients to deal with, the hospital administrators were keen to ensure a newly refurbished research centre, together with haematology and post-operative recovery suites provided much comfort as possible.

With the existing primary single-glazed window offering low thermal insulation, we recommended a double-glazed hinged unit, effectively providing triple-glazing and offering maximum thermal efficiency for warmth and temperature control.

Energy transfer and heat control are becoming increasingly prominent in the medical profession, where a trend towards temperature-controlled medicines also means the efficacy of treatments or the validity of test results are heat-dependent. In addition to the benefits of reducing draughts and energy bills, secondary glazing can also play a pivotal role in hospitals in reducing the spread of bacteria. A smooth, clinically cleanable surface prevents the build-up of dust particles and anti-ligature surfaces prevent unnecessary hand use or unauthorised access.

Architect: CPMG Architects Ltd.

Contractor: Interserve Construction Ltd.

Products: Hinged Casement



Bishopthorpe Palace, York

It's incredible to think that a building with origins back to the time of Genghis Khan and Marco Polo is not only still standing, but flourishing, but that's precisely the case for Bishopthorpe Palace.

Today, it has multiple functions, as working offices, meeting rooms, worship areas and living quarters. In addition to its role as the Archbishop of York's home and office of the Northern Province of the CoE, the palace and its grounds are also used for charity open days, retreats, evening receptions, and village fetes.

Even without the cultural and historical significance, the architecture alone warrants a Grade I Listed status, and naturally the process of improving the functionality and thermal performance of the building required careful consideration.

When award-winning contractors, Simpson, looked at secondary glazing, they were already aware of the work carried out by Granada in York on behalf of Bootham School. After careful consideration, the stunning stately home was fitted with our balanced vertical sliding sash windows in two phases to dramatically enhance both thermal and acoustic performance.



Contractor: Simpson (York)

Products: Balanced Vertical Slider

Parkinson Building, Leeds University.

“The Granada team have fully achieved their part of the brief, providing a unique solution to the thermal issues at Leeds. Their secondary glazing is non-intrusive, and has helped to renovate this Grade II listed building discreetly.”

David Oldroyd, Project Manager, University of Leeds

Leeds University is one of six original “red brick” universities. The introduction of secondary glazing helped transform energy ratings at one its most iconic buildings from “F” to “C”.

A suite of horizontal sliding windows was installed to retain the original character of this Grade II listed building while providing full access to the primary windows for natural ventilation. The result has been an enormous carbon footprint reduction. Classrooms provide a quieter, warmer working environment while operating costs have been significantly reduced.

Architect: Farrell & Clark

Contractor: ISG Plc.

Products: Horizontal Slider



Nelson Road & King William Walk - Greenwich

Newly refurbished townhouses situated next to a corner unit designed by Joseph Kay in 1839 are a registered Grade II Listed Building. As part of the broader West Greenwich Conservation Area boasting stunning Architecture and Historical Importance.

The townhouses built in the 1930's as part of a separate development was brought into the 21st century with a modern internal design and the addition of secondary glazing. Large timber sash windows were showing their age as winter draughts were breaching the primary windows.

As the building is part of the West Greenwich Conservation Area, it was important to ensure the secondary glazing was unobtrusive and not visible from the exterior of the building.

Mike Latham Commercial Director notes "working within conservation areas, and listed buildings are a speciality here at Granada. The primary goals of this project were to ensure the thermal dynamics of the building was increased while adhering to the aesthetics and architecture. Our discreet aluminium secondary glazing has decreased the carbon footprint and is not visible from the outside. The installation of our secondary glazing preserves English Heritage and retains the original character and charm designed by the Architects."



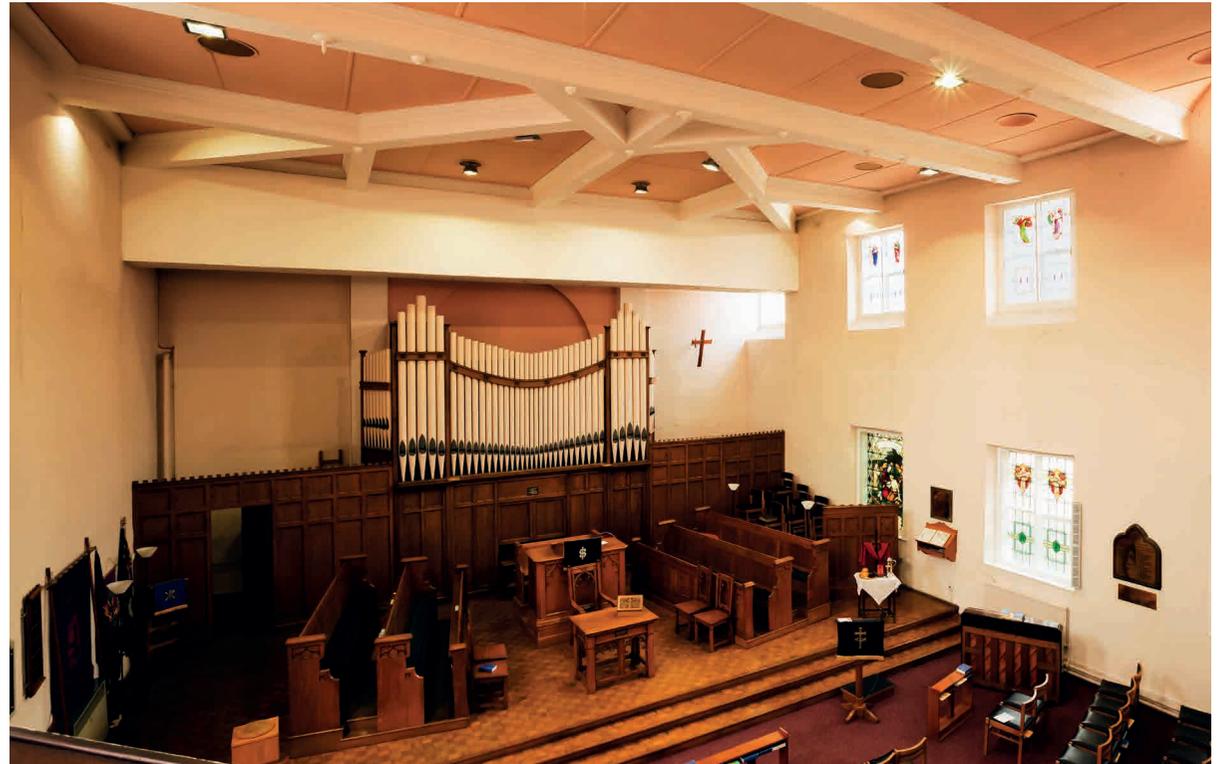
Rose Hill Church, Chesterfield

Built in 1822, Rose Hill United Reform Church is a Grade II listed building located in Chesterfield. Given its heritage, the building is in excellent condition. However, the church had been losing heat through its large stained-glass windows.

Granada was called upon to manufacture and install a bespoke secondary glazing solution that enhanced thermal performance, while retaining the building's original character.

Horizontal sliders and lift-out windows were installed to enhance thermal performance. Discreet aluminium frames align with existing mullions and transoms, ensuring existing stained-glass details remain prominent while providing easy cleaning access.

Low emissivity glass helped to achieve a U-value of 1.868W/m²K, resulting in a dramatic reduction in heating costs.



Scriptor Court.

Scriptor Court situated on Farringdon Road, London is a conservation controlled building. As a desirable office space Scriptor Court was in need of an updated glazing solution where the principal issue was to combat heat loss and maintain the clarity of the existing primary glazing.

As large glazed areas were leaking heat, and with a targeted U-Value below 2 W/m²k, Granada advised that 6mm toughened low iron e-glass would ensure the best solution. The low iron content of the glass boasts superior visual clarity and a reduced green tint inherent with other glass.

Paul Leddra, the project manager for the fit out, was delighted with the outcome, he mentions "The U-Value attained was 1.868 W/m²k which was substantially below the target. Granada provided a solution which reduced the U-Value while maintaining the visual clarity".

Mike Latham, Granada's Commercial Director, stated "Granada's fully managed process from design, manufacture and installation is a seamless process. The solutions we manufacture and install are geared to rectify principle issues, in this case, we provided a glazing package which decreased the buildings carbon footprint while maintaining visual clarity when looking through the glass".

Contractor: Virtus

Products: 6mm toughened low E – HHS & BVS



Stamford House, Altrincham.

Designed by architect Charles Heathcote in 1905, Stamford House was one of the first office blocks in Altrincham. The renovation of this Grade II listed traditional Victorian building presented a number of challenges.

It was imperative to retain the original fenestration's character while preventing noise intrusion from the adjacent railway station and busy traffic. Secondary Glazing was, therefore, an ideal solution, and was specified by the architects Hulme Upright.

To keep sight-lines to a minimum, Heritage hinged units were installed. Single glass panels help emphasise the glazing bars of the original windows, while tilt-and-turn functionality provides high-level ventilation and a secure night vent position. A heavy acoustic laminate, combined with a glass-to-glass cavity of 200mm helped to achieve a sound reduction of 52 dB.

Architect: Hulme Upright
Contractor: CKC D&B Ltd
Products: Hinged Casement



The Old Post Office, Leeds

A landmark building in the heart of City Square, the Old Post Office was unsurprisingly afforded Grade II listed status before it's conversion into a high-class restaurant and apart-hotel. Originally constructed in 1896, the building has retained many of its original features – particularly the ornate window designs. As a result, individual care was needed to introduce effective draft and thermal insulation, while respecting the fabric of the building.

Now home to Residence 6, a five-star luxury hotel featuring 23 serviced apartments and two top restaurants, it's a great place to stay, being extremely close to shopping, business and transport hubs. Of course, nearby traffic also means noise, but Granada hinged units, fitted with stadip silence glass, helped to reduce noise levels by over 50dB (Rw).

The discreet system also provides exceptional thermal insulation, concealed multi-point locking and clean, minimal site lines. Fixing methods are concealed and a sympathetic range of finishing trims and mouldings assist in blending the secondary glazing into traditional surroundings, whether square, curved or arched.

Architect: Garnett Netherwood Architects

Contractor: Topp & Holmes Builders

Products: Hinged Casement



UCL Torrington Place - London

The University College London has recently installed acoustic secondary glazing as part of a new development programme managed by the main contractor, Structuretone Ltd.

Situated on a busy road, with a high volume of traffic and footfall from pedestrians, engineering students found it challenging to concentrate as the loud rumblings of nearby traffic breached the primary window systems.

Granada's secondary glazing was specified as it is a system that would not only reduce noise from traffic, but would also improve the thermal & security performance of the original steel windows.

Granada Glazing recommended the installation of 6.4mm laminated glass within the heritage horizontal sliding range. The window sizes varied where Granada designed, manufactured & installed 2, 3, 4 & 5 panel variants of their heritage horizontal sliding window system.

“Granada's secondary glazing systems can reduce noise levels by up to 54 decibels (80%), this is apparent when walking into the treated lecture theatres. With enhanced security and the substantial reduction in noise, the students can concentrate in a learning environment fit for purpose.”

Robert Walton (Business Development Manager), Granada Glazing

Contractor: Structuretone Ltd

Products: 2, 3, 4, & 5 panel variants of heritage horizontal sliding window.

