

# Case study



04/03/2014

**For immediate release**

## **Schöck chosen for major Passivhaus residential scheme**

The Chester Balmore project, near Highgate in North London, is part of Camden Council's community investment programme and will deliver 53 new homes, a GP surgery and shops. Once a 1970's estate, the previous blocks on Chester Road and Balmore Street were in poor condition and refurbishment was not a cost-effective option. Rick Mather Architects developed the project, which consists of three elegant brick-clad blocks, housing a contemporary collection of studios and one to three bedroom flats, all set around a landscaped courtyard. It is claimed to be the UK's largest residential scheme so far to meet the Passivhaus standard, a design standard that will see energy costs throughout the development reduced by up to 75 per cent.

To achieve Passivhaus standard, property at design stage must show high levels of insulation with good use of solar and internal heat gains, plus excellent air tightness – and minimal thermal bridges – which are a frequent cause of increased heat and energy loss, damp walls and mould formation. One of the most technically advanced countermeasures against thermal bridging is the Isokorb range from Schöck. It not only thermally separates components from one another, but also acts in a structural design capacity as well.

***Tim Paul from Rick Mather comments:  
"...the advanced technology and superior performance of the Schöck Isokorb XT range offers such a high level of insulation, that we had no problem incorporating balcony design into the Chester Balmore project"***

The particular Schöck thermal break module specified for this Passivhaus scheme is the latest generation Isokorb for concrete-to-concrete applications – the type XT – for which the Passivhaus Institute in Darmstadt has awarded the "low thermal bridge construction" certificate and confirmed its suitability for Pas-

sivhaus construction. A major reason for the superior performance of the type XT is the thickness of the insulation body. This is increased from the standard 80mm thick to 120mm, providing an even more efficient solution. The type XT not only improves thermal insulation performance by up to 30% in comparison to the standard range, it also improves impact sound insulation by around 50% as well. High quality stainless steel bars with improved tensile strength is an integral part of the unit and while the same load-bearing capacity is maintained, there is a smaller rod diameter and therefore a reduction in the thermally conducting cross-section, resulting in a further increase in the heat insulation performance.

Tim Paul from Rick Mather comments: "Balconies offer practical and aesthetic advantages for residents, but they have not always been a popular choice in the context of high efficiency Passivhaus design. However, the advanced technology and superior performance of the Schöck Isokorb XT range offers such a high level of insulation, that we had no problem in incorporating balcony design into the Chester Balmore project"

The Schöck design team is always on hand to provide specifiers, structural engineers and contractors with a high level of technical support. Additionally, this now includes a discretionary in-house thermal-modelling capability, a service utilised very effectively for the Chester Balmore project.

The type XT has already seen considerable success in Germany, not least for its sound insulation characteristics. For the first time in Germany there is now a stated minimum standard requirement for balconies. Previously this only applied to covered balconies, but the Schöck Isokorb XT has the advantage that it conforms to the minimum requirements for impact sound protection – without any additional floating flooring on the balconies or covered balconies.

The Isokorb range enables connections to be made between concrete-to-concrete, concrete-to-steel and steel-to-steel – and the many different unit types available, combined with their ability to enable the transmission of shear, bending moment, tension and compression forces, also means that the options available effectively run into hundreds when the different combinations are

taken into account. All units provide BBA Certification and LABC Registration and meet full compliance with the relevant UK building regulations. The requirement described in BRE IP1/06 – a document cited in Building Regulations Approved Documents Part L1 and L2 and Section 6 in Scotland – that the temperature factor used to indicate condensation risk ( $f_{RSI}$ ) must be greater than, or equal to, 0.75 for residential buildings, is easily met by incorporating the Isokorb.

In addition, there is also compliance with the Government Standard Assessment Procedure, SAP 2009, concerning CO<sub>2</sub> emissions from buildings and respectively heat losses through non-repeating thermal bridges. Here, the lambda values of the Schöck Isokorb enable energy loss in various connective situations to be reduced by as much as 84% to 91%.

***For your free copy of the Schöck Specifiers Guide and / or the Technical Guide contact the company on 01865 290 890 or visit [www.schoeck.co.uk](http://www.schoeck.co.uk)***

- Ends -

**Press Contact for Schöck Ltd:**  
Michael Revans Communications  
47 Barn Rise, Wembley Park,  
HA9 9NH  
  
tel: 020 8904 9733  
e: [michael.revans1@btinternet.com](mailto:michael.revans1@btinternet.com)

## Notes to the editor

### **A leading European supplier**

Schöck has grown to become Europe's leading supplier of innovative structural load bearing insulation products. The main product is the Schöck Isokorb – a thermal break for various types of cantilever constructions in new buildings and for renovation. Its headquarters are at Baden-Baden in southern Germany and there are subsidiary companies in Great Britain, France, Austria, Switzerland, Italy the Netherlands, Belgium, Poland, Hungary, Russia, Japan, Canada and the USA. Sales teams and partners operate in many other European countries and also Australia and South Korea. Schöck is committed to providing the highest level of technical back up and comprehensive customer service to the construction industry.

## Pics and captions

### *Various aspects of the Chester Balmore site*



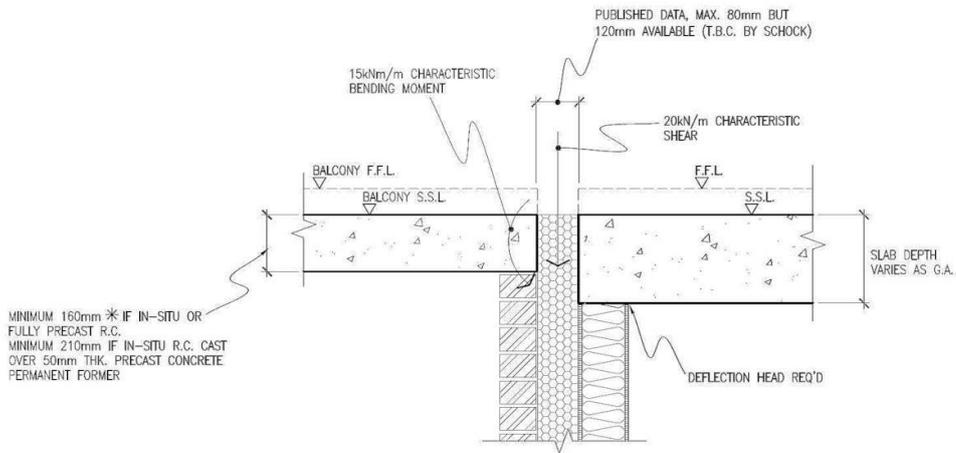
Caption: Michael Revans

### *Aerial perspective of the site*



Caption: Rick Mather Architects

**Example of balcony connection detail**



**Balcony Connection Detail Where Balcony Sits Within Depth of Structural Slab**

Caption: Rick Mather Architects