

Lancaster House <u>Sa</u>ndwell Sector: Social Housing High Rise Refurbishment Before THE P MAL MATU After



Client: Sandwell Metropolitan Borough Council

Building type: 10 storey high rise block

Project Size: Approx. 3,000m²

Product: External Wall Insulation & Render

An Inspiring Landmark Refurbishment Project For Sandwell MBC

Project Background:

This 10 storey high rise block located in Rowley Regis, Sandwell was constructed in the 1960's using a concrete frame which was then infilled with a single brick skin. The client's Property Condition Survey identified that external refurbishment was required due to several problems associated with poor thermal performance.

Problems:

 \cdot The brick infill used to construct the building provided a very poor level of thermal efficiency with a U value of just 1.61 W/m²K.

• The poor thermal efficiency meant that the flats were very expensive to heat to a comfortable temperature, especially during winter.

• The building can be seen from miles around and the exterior appearance was tired looking and generally in a poor condition.

Solution:

Sandwell Metropolitan Borough Council chose Structherm's NSC2a external wall insulation (EWI) system due to:

• Structherm's excellent reputation and track record of externally refurbishing high rise blocks.

• EWI is installed externally thus residents can remain insitu throughout the refurbishment programme.

The system was able to solve all three of the problems that the client had identified.

The NSC2a system provided a cost-effective solution covering 3000m² with 90mm thick mineral fibre insulation and finished using high quality Settef Acrylic Renders in Cream & Terracotta colours to compliment each other and contrast with the rain screen tiles that were also used on the façade.

Macerend Brick Effect render was used to the ground floor in Cobridge Red to match the terracotta rain screen tiles above whilst also providing the additional robustness required at this low level.

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Installation:

The residents remained insitu and the shops below remained open throughout. As a result a complex scaffold and mast climber arrangement was set up and the render design accommodated the areas of render where the scaffold and mast were fixed to the building.

Gas risers that projected beyond their intended positions had to be considered and overcome by both Structherm's technical team and the approved installation contractor that carried out the project. This solution gave a fully rendered façade whilst maintaining the U values required. The design allowed the vertical movement joints to be located in the same space, minimising the number of breaks in the rendered finish.

Results:

• Much more thermally efficient with a U value of 0.32W/m2K due to the insulation behind the render.

• Easier and less expensive for residents to heat and maintain at a comfortable temperature.

• A colourful and inspiring landmark which local residents are proud of.

 \cdot Improved sustainability from reduced CO $_{\rm 2}$ emissions.













