



Cumberland Avenue Estate

Salford, Greater Manchester

Sector: Social Housing
Low Rise
Refurbishment

Unity property after refurbishment showing Cortina and Macerend brick effect render finishes



Before refurbishment



After refurbishment



Client:
City West Housing Trust

Building Type:
Unity Type I

Project Size:
Phase 1 - 46 Properties

Product:
Structural External Wall
Insulation & Render Finish

Project Background:

City West Housing Trust (CWHT) were formed in 2008 to manage the social housing stock in Salford, Greater Manchester. The trust had a 5 year programme to upgrade over 300 non traditional properties comprising of various building types such as Unity, No Fines Concrete and Reema.

Phase 1 of the programme was for the refurbishment of 46 Unity properties on the Cumberland Avenue Estate built during the 1950's. These properties were in various states of disrepair, many with serious structural defects such as longitudinal cracking of the prefabricated reinforced concrete (PRC) columns and cracking and spalling of PRC lintels. They had a poor thermal performance of just 1.62W/m²K and were looking dilapidated and in a bad state of repair.

Client Requirements:

City West Housing Trust wanted a cost effective solution for externally refurbishing the properties and one that would:

- Solve the structural problems associated with the properties
- Improve thermal performance and therefore cut fuel bills
- Reduce CO₂ emissions
- Improve the external appearance of each property and the whole area

Design Solution:

Structherm's unique Structural Insulated Cladding system was chosen for the external refurbishment of the properties ahead of others as it was the only system to be able to offer a solution to the structural defects as well as meeting the clients requirements for improved thermal performance and aesthetic qualities.

The system is based on the performance of a unique, two-way spanning, lightweight galvanised steel wire space frame with a rigid insulation core - the Structural Insulated Panel. These panels were joined together with mesh to provide a rigid, continuous envelope around the properties with real structural integrity and excellent thermal performance.

A 12mm layer of basecoat render was then applied to the system which worked with the panels to provide a high degree of spanning and racking strength.

To complete the system a high performing render finish was applied. On the ground floors Macerend Brick Effect render in Aldridge Red was used whilst Settef Acrylic Flesscoat Cortina TH Plus Medio in Cream was used on the first floors. This finished layer of render provided the properties with an attractive façade that fully met the client's aesthetic expectations.

Results:

- The Structural Insulated Cladding has stabilised all the properties and anchored back areas of loose material, using BBA approved methods of structural repair. The improvements made have given the properties a further life expectancy of at least 30 years.
- Thermal performance has improved greatly with the U value dropping from 1.62W/m²K to 0.29W/m²K. The properties cost less to heat to a comfortable level and thus CO₂ emissions have significantly reduced.
- The aesthetic appearance of the Cumberland Avenue Estate has greatly improved. Residents are happy with the results, especially the render finishes which have been used to great effect, transforming tired looking properties into homes they are proud of.



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