

Structherm | Cladding
**Balby & Intake Estate,
Doncaster**

Sector: Social Housing
Low Rise
Refurbishment



Dorman Long Property After Refurbishment (Trafalgar finishing option)



Dorman Long Property Before Refurbishment



After Refurbishment
(Shaftsbury finishing option)

Client:
St. Leger Homes of Doncaster

Building Type:
Dorman Long

Project Size:
35 Properties 3136m²

Product:
External Wall Insulation
& Render Finish

Project Background:

This is the biggest ever improvement programme for social housing in Doncaster, carried out by St. Leger Homes, an ALMO set up by Doncaster Council in 2005 to manage the day-to-day running of 21,000 council homes and to deliver a major programme of Government investment to bring the properties up to the Decent Homes Standard.

Most recently work has been completed using Structherm external wall insulation (EWI) systems on the Balby and Intake Estate which comprised of Dorman Long non-traditional steel framed properties.

Challenges:

The properties are constructed with a steel frame with a block work inner wall and a brick skin outer wall with little insulation between them. The steel frame is susceptible to corrosion, especially at the bases of the columns. In serious cases this could undermine the whole structural integrity of the building and result in a full outer wall strip. Other confirmed problems included damp, condensation and water ingress.

Design Solution:

The solution was to remove small areas of the brick skin and investigate the steel columns through small exploratory pockets. Fortunately the results of these structural surveys showed no serious corrosion therefore a costly full outer wall strip was avoided.

To resolve the problem of poor thermal performance and its related issues such as damp, condensation and water ingress, a Structherm EWI system was specified. The system consisted of a layer of high performance, 80mm thick, Enhanced EPS insulation boards fixed directly back to the outer brick wall of the properties. On to the insulation then went the Structherm "High Build" render system made up of two layers of 3mm basecoat render with polypropylene

reinforcing mesh embedded. To complete the system the client identified four finishing options for the residents to choose from, these included:

- 1. Trafalgar** - Light Cream FlessCoat Cortina TH Normale acrylic render to the first floor and Macerend brick effect render, with Golden Buff brick face and Charcoal mortar layer, to the ground floor.
- 2. Regent** - Traditional Dash Receiver & Aggregate finish to both floors using a Peach dash receiver and Arcane dash aggregate.
- 3. Shaftsbury** - Dark Cream FlessCoat Cortina TH Normale acrylic render to the first floor and traditional Dash Receiver & Aggregate finish to the ground floor using a Banana dash receiver and Fawley dash aggregate.
- 4. Oxford** - Traditional Dash Receiver & Aggregate finish to both floors using a Banana dash receiver and Fawley dash aggregate.

This striking yet complimenting choice of colours and designs has proved popular amongst residents who had an opportunity to say what they wanted their homes to look like.

Results:

- Thermal performance has improved greatly with the U value dropping from 1.42W/m²K to 0.30W/m²K.
- The properties aesthetics have been a great success, creating a fresh and modern look whilst avoiding a mishmash of finishes on the same estate.
- The refurbishment programme also included new roofs, soffits, fascias, downpipes and canopies to totally transform each property.

