



Situated between the A13 and the river Thames within the Borough of Barking and Dagenham, Barking Riverside is to become one of the largest new mixed-use urban developments in the country.

When completed, the 443-acre development will create a sustainable community of 10,800 new mixed tenure homes, together with community facilities, and new schools, and access to two kilometres of Thames River frontage.

The development is being constructed in four stages. Stage two is a mix of riverside apartments and three/four bed houses along the Thames and includes a district centre and secondary school.

Barking Riverside is a joint venture agreement between Bellway Homes and the Homes and Communities Agency.

The Issue

Bellway Homes was looking for a solution to help smooth out the undulations in the structural roof decks of a number of residential properties on Stage Two of the development. These were installed on a series of 3-4 bed houses with flat roofs where precast concrete planks had been specified.

Although the planks were installed to within the manufacturers' tolerances, the step level between individual units was deemed unsuitable to receive the IKO PermaTEC waterproofing system.

It was critical that the developer did not fall behind on the construction schedule and so a fast track solution to the problem was essential. A traditional concrete screed layer wasn't suitable for this project, as the weight of the screed layer would impact the foundation design. It would also take too long to cure.

The Solution

Whilst considering various options, IKO provided Bellway Homes with information on their asphalt based Permascreed system, which was compatible with the PermaTEC solution to follow.

Project Sector: Housing Association

System: Mastic Asphalt / Hot Melt

Products Used: Permascreed & PermaTEC

Size: 800m² Permascreed /
3,000m² PermaTEC

IKO Contact: Marcus Lee

A major advantage of this type of screeding is that the laid material can be accessed and the waterproofing installed as soon as the Permascreed has cooled to ambient temperature. As mastic asphalt cools rapidly, this can be a matter of hours, comparing much more favourably than conventional screed, which can take days to cure.

The application of Permascreed not only ensures fast track application, but also provides a temporary waterproofing layer prior to installation of the PermaTEC top layer.

Once cured the Permascreed layer was robust enough to accept the type of traffic and concentrated loads associated with the installation of a flat roof waterproofing system.

So far 8,000m² of Permascreed has been laid on the Barking Riverside project at a thickness of 40mm, a reduction of 33% when compared with traditional screeds and this has had a bearing on the overall weight of the finished roof.

With today's time critical construction programmes, getting the screed laid and the roof waterproofed quickly is a huge benefit as it prevents delays to follow on trades.

This fast curing solution has provided the developer with a level surface and enabled them to keep to their construction programme on schedule. The finished roof, including the PermaTEC solution provided a 20 year linked guarantee.