

Structherm at Park Central



The background

Park Central is a 20.75 hectare regeneration site located on a brownfield site in central Birmingham. Lee Bank, the former council estate, is one of five former estates that make up the Attwood Green regeneration area. There has been considerable public sector

funding from the Housing Corporation, Central Government, Optima Community Association and Birmingham City Council. Work started at Park Central in 2001 and due to the sheer scale of the project, is due for completion by 2014. The development aims to provide

in excess of 2000 housing units, with 13% being available for social rent. The mixed use development will also incorporate almost 15,000m² of retail floorspace, 13,000m² of commercial space, nearly 4000m² of leisure space and 8.5 hectares of open park land.

The partnership

Structherm worked in partnership with Crest Nicholson and Optima Community Association to build 5 apartment blocks, and apply insulated render to a number of buildings, with more planned.

Structherm Fastbuild™ has been used by Optima Community Association on three previous projects close to the Park Central site prior to this development. Thoroughly pleased with the results, Optima say that, 'they are the only buildings we have built that do not suffer from shrinkage and cracking.'

Dave Thompson, Development Manager from Optima Community

Association continues: "From the start, Optima tried to follow the Egan principles of partnering, recycling materials from dismantled tower blocks, trialing modern methods of construction and measuring costs against traditional methods. In the modern methods trials we encouraged Crest Nicholson to use Structherm Fastbuild to construct the apartment blocks. We're not afraid to be pioneers, and so far it has worked well."

John Corless, Design Manager from Crest Nicholson reports: "The Structherm Fastbuild

formula is now well rehearsed at Park Central. This has been facilitated through participation in early design co-ordination, enabling timely conclusion of this iterative process, to suit our build programme.

We have found Structherm's approach to be sufficiently knowledgeable and flexible in dealing with the variety of technical issues raised. We are pleased that this has ensured that the final product has a seamless integration with other building techniques at Park Central."

The systems

Structherm Fastbuild™ is a precast concrete building system made up of various standard components and offers full flexibility in design.

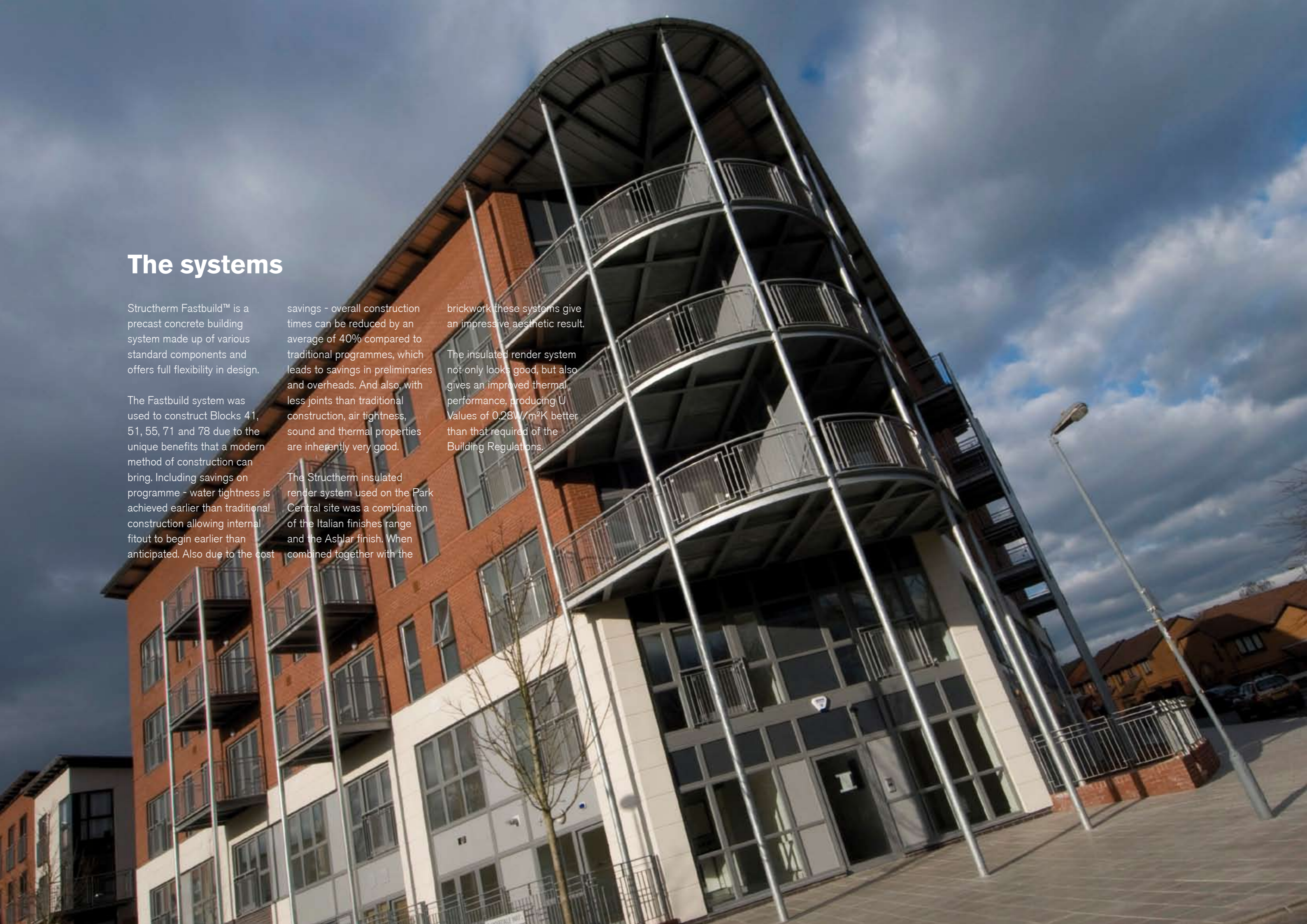
The Fastbuild system was used to construct Blocks 41, 51, 55, 71 and 78 due to the unique benefits that a modern method of construction can bring. Including savings on programme - water tightness is achieved earlier than traditional construction allowing internal fitout to begin earlier than anticipated. Also due to the cost

savings - overall construction times can be reduced by an average of 40% compared to traditional programmes, which leads to savings in preliminaries and overheads. And also, with less joints than traditional construction, air tightness, sound and thermal properties are inherently very good.

The Structherm insulated render system used on the Park Central site was a combination of the Italian finishes range and the Ashlar finish. When combined together with the

brickwork these systems give an impressive aesthetic result.

The insulated render system not only looks good, but also gives an improved thermal performance, producing U Values of 0.28W/m²K better than that required of the Building Regulations.



The blocks

The Park Central blocks have achieved good results in terms of the latest standards. The overall Eco Homes rating of the blocks is Good.

All of the blocks built using Fastbuild have achieved

considerably higher acoustic results than the Building Regulations standard.

Acoustic tests carried out on the blocks show excellent results, ranging from 55 DnT,w + Ctr/dB for Block 78,

61 DnT,w + Ctr/dB for Block 51, and 64 DnT,w + Ctr/dB for Blocks 41 and 55. This indicates that workmanship and detailing is of a consistently high standard.

Key	GIFA (m ²)	Walls (m ²)	Package
Block 41	1355	1485	Fastbuild walls, floors, staircases, lift shafts and roof.
Block 51	2413	2160	Fastbuild walls, floors, staircases, lift shafts.
Block 55	1532	1705	Fastbuild walls, floors, staircases, lift shafts and roof.
Block 71	2396	2119	Fastbuild walls, floors, staircases, lift shafts, roof and insulated render.
Block 78	2076	2594	Fastbuild walls, floors, staircases, lift shafts, roof and insulated render.
Render (R)	N/A	N/A	Insulated render



Block 41



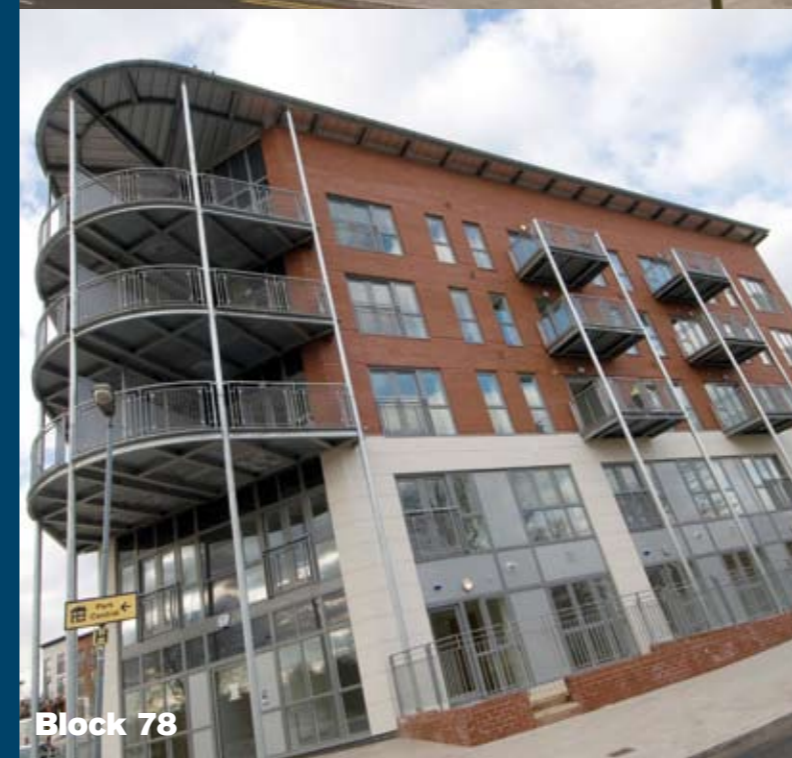
Block 51



Block 55



Block 71



Block 78



Insulated render

