

New Apartment Block  
Sparkbrook, Birmingham

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#### *Client*

Keepmoat Regeneration

#### *Consulting Engineers*

Patrick parsons

#### *Solution*

CFA piles  
Smartfoot Precast  
Modular Foundations

#### *Plant Used*

Soilmec SF50  
50 tonne Ainscough  
Mobile crane  
Concrete Compressor

#### *Total Meterage of Beam*

c 500 m

#### *Year*

2016

Van Elle was chosen to supply a total foundation solution at a project in Sparkbrook, Birmingham. The client, Keepmoat Regeneration, was constructing a 3 storey apartment block consisting of 1 & 2 bed flats on brownfield land.

121No. 300mmØ continuous flight auger piles were installed to depths of between 8 & 16m. 6m long 6H12 reinforcement cages were used in order to help support loads of up to 525kN.

The site posed several challenges including access which Van Elle engineers, alongside Keepmoat Regeneration's on site team, managed to overcome through careful planning and utilising timed deliveries.

Precast modular foundations are becoming increasingly popular within the health and education sectors due to their quick turnaround, reduced materials and therefore improved sustainability, saving in programme and the reduction of dig in comparison to more traditional methods.

Smartfoot® foundation designs are bespoke to each house type and so the engineered precast beams are always the perfect fit for each plot constructed. The post-tensioning technology means that the installation process on site is completely dry with no requirement for cast insitu joints and intersections resulting in a true precast solution. As no additional/wet products are required to complete the works with the Smartfoot® system, the follow-on trades can begin work as soon as we have moved from the plot.

Total duration on site was 5 weeks including piling and installing the 500lm of precast beam. This success has led to Keepmoat requesting a Smartfoot® solution on a number of other projects within the region.

