

Craven Gardens - Leicestershire



Principle Contractor: Williams Homes, Leicester

Client: Williams Homes

Project: Craven Gardens is an exclusive development of eight detached four and five bedroom homes set in the gardens of a former hunting lodge located in the historic market town of Melton Mowbray

Build method: H+H Jumbo Bloks and H+H Celcon Blocks with Thin Joint Celfix mortar

Location: Craven Gardens, Baldocks Lane, Melton Mowbray, Leics

Type of contract: Design and build

Architect: Redfern Kirton Partnership

Aircrete contractor: Williams Homes

Build time: Six months

Executive summary: Williams Homes has used H+H's Thin Joint aircrete construction system for the past 10 years so it was the obvious choice for the development of eight executive homes which have been designed to combine modern materials with energy efficient, low maintenance construction.

Project description:

Williams Homes is a family run company with a reputation for building quality homes which benefit from modern day materials and construction techniques while retaining traditional styles and values.

Craven Gardens is one of the firm's most recent developments. It is a collection of eight luxury detached family homes are set in the gardens of a former hunting lodge located in the historic market town of Melton Mowbray.

Williams Homes used H+H's Thin Joint aircrete construction system to build the inner leaf of the cavity walls on this prestigious development for its impressive thermal and sound insulation properties and exceptional load bearing capabilities.

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“The Thin Joint cavity and facing brick walls flew through both the sound and air leakage tests.”

**Steve Williams,
Director, Williams Homes**

Project description continued:

The high quality, accurately dimensioned Jumbo Bloks and Thin Joint Celfix mortar are simple to work with. As a result, the system enabled the structure to be built extremely quickly, to a very high quality, which allowed follow-on trades to start work sooner in a weatherproof environment.

Using Thin Joint Celfix mortar also helped reduce construction waste to make the site easier to manage.

Jumbo Bloks were also used for the construction of the ground floor internal separating walls, while Celcon Blocks were used as a lightweight, thermally efficient infill on the beam and block floor.

Foundations:

Traditional poured concrete trench foundation strips with concrete block walls.

External walls:

100mm aircrete Jumbo Bloks for the inner leaf using Thin Joint Celfix mortar. 100mm fully filled cavity using DriTherm semi-rigid cavity slabs with a traditional facing brick outer skin.

Internal partition walls:

100mm aircrete Jumbo Bloks joined with Thin Joint Celfix mortar. Plasterboard dry lined with a plaster skim on the ground floor. Timber stud partitioning on the upper floors.

Ground floor:

Suspended beam and block construction floor with a Celcon Block infill to give a lightweight, thermally efficient solution.

First floor:

Timber joists set into the walls with a timber decking over.

Roof:

Suspended beam and block construction floor with a Celcon Block infill to give a lightweight, thermally efficient solution.

“We’ve used H+H aircrete blocks and Thin Joint technology for the last 10 years, we’ve stuck with it because it is such a good system for speed and ease of construction with minimal waste.”

**Steve Williams,
Director, Williams Homes**



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“Williams Homes has used H+H's Thin Joint aircrete construction system for the last 10 years after trialling the system and seeing the advantages it brings for speed of build and low material wastage - they've used it ever since.”

Mike Turner,
H+H Key Account Manager

Product/system benefits:

- Providing a fast watertight masonry shell enabled internal trades to start sooner compared to traditional build
- Easily met or exceeded Part L and Part E of the Building Regulations
- Simplified the construction process
- H+H aircrete products use up to 80% recycled material
- Achieves A+ rating in the BRE Green guide

Other benefits included:

- The components for Thin-Joint block-work are all available off the shelf
- Blockwork is highly adaptable, easily allowing for any last minute design changes
- Aircrete achieves an air permeability of $0.12\text{m}^3/\text{hr}/\text{m}^2$
- Celfix mortar can be stored within the footprint of the building and small quantities mixed as required
- Has excellent fire resistance with a Class 0 rating for surface spread of flame



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H+H aircrete applications:

- Internal and external leaf in cavity walls
- Solid walls
- Separating / party walls
- Flanking walls
- Partitions
- Multi-storey
- Foundations

The H+H Thin Joint aircrete construction system enables a fast, weathertight masonry shell to be built, allowing follow-on trades to start work sooner in a weatherproof environment, whilst retaining the flexibility of on-site construction. Recognised as a Modern Method of Construction, it is fully adopted as the preferred method of wall construction throughout most of northern Europe.

Aircrete is an excellent all round commercial and industrial building material. Used in partition and external walls (both solid and cavity), fire walls and as infill to steel and concrete framed buildings it provides durability, fire resistance and superb thermal and acoustic insulation.

H+H aircrete has exceptional sustainability credentials: not only does it provide excellent thermal and acoustic insulation and contributes to air-tightness but, being manufactured from up to 80% recycled materials, it is sustainable both in manufacture and in use. We also have BES 6001:2008 accreditation for responsible resourcing of materials in addition we have an A+ rating under in the BRE green guide on both cavity and solid external walls.

Couple this with H+H UK's rigorous approach to pursuing the highest environmental standards throughout the whole of its business and it's easy to see why this innovative and award winning system is now firmly established within the UK.



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For further information about the subjects covered or the H+H products used in this case study, please visit our website www.hhcelcon.co.uk