

# Badby Park Nursing Home



## Executive summary:

Badby Park is a unique facility dedicated to neurological illnesses and disorders, providing specialist nursing and rehabilitation in the vicinity of Northampton.

The two storey development is divided into two wings. The Meadows Wing is a spacious purpose-designed environment providing 24 specialised nursing care bedrooms with en-suites.

Staff care for and support people in an environment designed to allow free movement throughout living quarters and communal areas, which include an enclosed courtyard and walled garden. The Lantern Wing is a purpose-designed critical and palliative care environment of 17 bedrooms with facilities for relatives. The Lantern Care Centre enables those who require intensive nursing care to maintain their current status and maximise their quality of life through provision of 24-hour management and specialist critical nursing care.

**Principle Contractor:** Minett Group

**Architect:** Acanthus Clews Architects

**External render contractor:** Complete Rendering Solutions

**Client:** Chacombe Park Developments Ltd

**Type of contract:** Private

**Value:** The aircrete value was some £191,300 with the total development costing more than £5 million

**Project:** This project is a good example of the Rå Build method of construction with a solid wall approach, using large format blocks and rapid setting Celfix Thin Joint mortar. The Alsecco Basic 1 expanded polystyrene external render system completed the structure

**Location:** Badby Park Ltd, Badby Road West, Badby, Northants, NN11 4NH

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## Product used / aircrete specification:

100 and 140mm H+H Blocks were utilised with Celfix mortar throughout the site, including separating walls between accommodation units, and for the 215mm solid external walls - where the 140mm blocks were laid 'flat'

3.6N/mm<sup>2</sup> 100mm as Jumbo Bloks (610 x 270mm)

3.6, 7.3 and 8.7N/mm<sup>2</sup> 140mm Plus Blocks (610 x 215mm)

Ground floor constructed out of solid waterproof concrete (raft construction) 225-400mm thick with 150mm of insulation and a 75-80mm liquid screed finish. Upper floors made with pre-stressed concrete planks, 150mm insulation and 70 mm liquid screed finish.

The expanded polystyrene thickness on the external walls was in the main part 130mm thick with a 5mm cream colour render finish. Once completed, the exterior walls achieve a U-value of 0.25 W/m<sup>2</sup>K.

## Build time:

Excavation commenced in October 2008. 20 weeks were taken for completion of the aircrete shell, with overall project completion achieved in September 2009.

Reason for choosing H+H aircrete products Chacombe Park Developments Ltd has worked with Minett Group before and was familiar with both aircrete as a material and the advantages it brings. Key to this large development was to keep the time on site as short as possible – hence the use of the fast Rå Build system to make inner shell watertight quickly, enabling the interior trades to start work immediately.

The building's use as a care home facility made acoustic insulation very important, both for the external skin and internal partitioning walls.

"Aircrete structures are ideal for applying insulated render to. A constant flat surface means we were able to get the insulated render on quickly. Despite the size of the development it only took 6 weeks to complete our work. We would happily work on an aircrete shell again."

**Brian Smyth, Contracts Director,  
Complete Rendering Solutions**

"We were very happy with how the development has turned out and in fact Minett completed their work almost 5 weeks ahead of schedule when compared with traditional methods.

We know that using the Rå Build method of construction will mean a building meets or exceeds Building Regulations for sound and thermal insulation. Furthermore, with a 60,000 sq foot building such as this, being able to get the shell watertight quickly enabled follow on trades to start work earlier than if we used other techniques.

We are now using the Rå Build method of construction on our next construction project."

**Bob Lari, Director, Chacombe Park Developments Ltd**



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"The key on this job was the fact we had worked with the developer before. Chacombe Park knew that by employing us, and using the Râ Build method of construction, the build would be fast and efficient. The completed development would also be of a consistent and predictable quality with performance characteristics that would meet the requirements of the specification."

**Richard Afford,**  
Director, Minett Group



## Product/system benefits:

- Speed of build increased by allowing the construction of inner shell to be built by one contractor using the same method
- Easily meets or exceeds Part L and Part E of the Building Regulations
- Simplifies the construction process
- Minett Group was in complete control of block-work; not dependent upon outside agents for additional delivered supplies like mortar

## Other benefits included:

- The components for Thin-Joint block-work are all available off the shelf
- Block-work is highly adaptable and flexible at openings, or if other design elements are not as they should be
- Thin-Joint technology gives an airtight construction
- Footprint of the building and small quantities mixed as required

## H+H aircrete applications:

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

The system enables the structure of a building to be built faster allowing follow-on trades to start work sooner in a weatherproof environment, whilst retaining the flexibility of on-site 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.

The speed of build and waste reduction that can be achieved using the Râ Build method with the H+H UK Thin Joint system helps in meeting the stringent requirements of build schedules.

Added to this 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 largely from up to 80% recycled materials, it is sustainable both in manufacture and in use. 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.

## Contact details

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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](http://www.hhcelcon.co.uk)