

NHBC has been working closely with the development team on the Summer Lake project at Cotswold Water Park, Cirencester – part of the Watermark portfolio of lakeside second homes located in the Cotswold lakes. A consultative approach saw our building control team working alongside Sanders Consulting, Emphyrean International and Keely Construction to ensure all elements of the design and build met the requirements of both the Building Regulations and NHBC standards.

Summer Lake was a continuation of our involvement in the overall development, with this phase comprising not only 50 timber framed dwellings but also commercial properties including retail, restaurant, office and health club.

discussions

Involved from the outset, we held discussions at the early design stages, working closely with the consultants as an integral part of the design team. From advising on issues at the early stages on ventilation systems and resolving design requirements for the timber frame elements, NHBC was on site, monitoring the inclusion of these elements in the finished product to ensure all relevant requirements were satisfactory.

Cotswold Water Park, Cirencester: NHBC ensured that all design and build elements met Building Regulation and NHBC standards

Working with design teams from the inception helps clients deliver the products they want. Our ability to service any type of building from residential to commercial gives us a real advantage, and being involved from the beginning always helps save time and money.

Prior to development, Summer Lake was a disused gravel extraction pit. The site was largely undeveloped comprising a number of open fields with defined

fenced boundaries and visible drainage ditches across them prior to 1960. Between 1960 and 1990 gravel extraction occurred across the area, and post-1990 the site was used as a water sport facility.

We provided specialist technical guidance throughout the project, as the difficult composition of the land meant that a traditional foundation system was not suitable. The site was deemed as generally

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Colin Blatchford-Brown, NHBC's building control manager, explains why Watermark Ltd appointed NHBC for building control services and warranty on a former gravel extraction pit for a mixed use scheme

From gravel to green



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unsuitable for the use of traditional strip and trench fill footings and a specialist piled solution was adopted. A Roger Bullivant piling system was driven into the ground until it reached the ground bearing pressure "point of refusal". When this point was found the ground was then at a suitable load bearing position to introduce reinforced concrete and a ground beam system upon which a timber floor and frame structure was then placed to form the dwelling.

site inspections

Regular site inspections were carried out, although due to site conditions and additional works further inspections were introduced as extra piles were installed at a later point to accommodate additional decking areas (similar to a pontoon structure) that projected in to the lake area.

Now completed, the Summer Lake development minimises its environmental impact and is in line to be

awarded an Excellent EcoHomes rating, making it one of the most eco-friendly residential developments in the country. In particular, Summer Lake incorporates the following design features and specifications:

- Each home is designed to be highly energy efficient with high levels of insulation, natural ventilation, condensing gas boilers and underfloor heating to ensure good levels of comfort as well as lower energy bills and carbon emissions. All appliances are A rated for energy efficiency and low energy external lighting has been specified.
- The houses are constructed using timber sourced from sustainably managed forests, with significant amounts certified under the FSC logo. All other major materials have been environmentally assessed, with low impact solutions such as ozone friendly insulation and natural materials being specified. Recycling is made easy through the use of an integrated recycling collection strategy.
- Central bicycle storage allows residents and guests

the freedom to travel locally and enjoy the surrounding countryside without relying on their car. Home office facilities such as wireless internet allow occupants to catch up on work without having to travel.

- The wide range of new and future amenities are conveniently on site to help further reduce the need for car journeys.
 - Each home incorporates facilities such as dual flush toilets and aerated taps to help reduce overall consumption. The development therefore ensures that all run-off from the site feeds directly into the lake, which means that it does not burden the mains system during periods of high rainfall.
- NHBC offers building control services to a diverse range of developments throughout England and Wales. Paul Sanders of Sanders Consulting, who worked alongside NHBC on the Summer Lake development, says: "Whether our clients are involved in residential, commercial, retail or industrial development, having NHBC on board helps us to meet the challenging deadlines clients often set. Building Regulation approval is obviously central to the progression of any construction project and having NHBC and its unrivalled expertise and experience on hand during the development of a design ensures that the right building solution is achieved at the first attempt." **hb**

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For more information please visit NHBC's website – www.nhbcbuilder.co.uk/Buildersupportservices/BuildingControl/ or contact NHBC on 0844 633 1000 and ask for Building Control

