



CASE STUDY

KNARESBOROUGH LEISURE & WELLNESS CENTRE

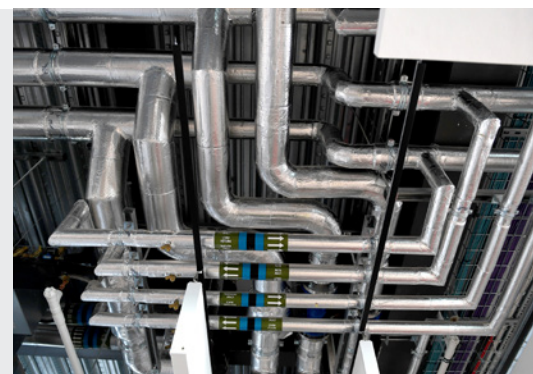
KEY FACTS

Project title:	Knarborough Leisure & Wellness Centre
Services:	Mechanical, Electrical & Public Health
Contractor:	ISG
Client:	Harrogate Borough Council and Brimhams Active
Duration:	11 months
G&H divisions:	Building Services



HEADLINES

- 20 MECHANICAL AND ELECTRICAL ENGINEERS INVOLVED IN THE PROJECT, INCLUDING TWO APPRENTICES
- HARROGATE BOROUGH COUNCIL WILL REDUCE CO2 EMISSIONS BY APPROX. 400,000 KG PER YEAR THROUGH THE LEISURE CENTRE, SUPPORTING ITS VISION TO HAVE A NET ZERO-CARBON ECONOMY BY 2038
- BREEAM EXCELLENT AND EPC 'A' RATING
- THE EXISTING LEISURE CENTRE REMAINED OPEN DURING CONSTRUCTION TO MAINTAIN COUNCIL REVENUES AND CONTINUE TO PROVIDE PUBLIC USE WITHOUT INTERRUPTION



OVERVIEW

Harrogate Borough Council pledged to make wellbeing a fundamental priority and to improve the physical and mental health of people in the community. It invested £17.5m to create a new sustainable, leisure and wellbeing centre in Knarborough.

CHALLENGE

The Council's vision is to have a net zero-carbon economy by 2038 and to help achieve this target, the brief stipulated that the new leisure centre be built to the BREEAM standard of 'Excellent'. Installation of air source heat pumps and solar panels were key features for reducing the building's carbon footprint, running and maintenance costs.



SOLUTION

G&H Group was appointed by main contractor ISG to provide an extensive mechanical, electrical and public health (MEP) build. This included:

- Installing two, dual circuit, low carbon air source heat pumps to provide all of the leisure centre's heating requirements and simultaneously meet the building's high cooling demand.
- Adding acoustic mitigation shrouds to the external plant due to planning restrictions and the leisure centre's close proximity to noise sensitive properties (school, residential).
- The installation of 160m² of PV panels to generate 38kWh of electricity.
- Energy efficient LED lighting.
- Designing and installing water saving features.
- The critical design of the pool hall's ventilation system due to the chlorine atmosphere and potential for condensation buildup.

RESULTS

G&H Group has supported the construction and delivery of Knarborough Leisure and Wellness Centre and helped set the standard for sustainable leisure centre projects. Since opening, membership is up to 1,322, a significant increase of 117 for the council, supporting its aim to improve the physical and mental health of people in the community.



Knowledgeable, confident, problem solvers is how I'd best describe working with G&H Group on Knarborough Leisure Centre. The team, drawing on their vast MEP experience, embraced the complex and innovative design to effectively deliver the project and fulfil the client's brief. They worked collaboratively, provided solutions when challenges arose and helped us raise the bar for sustainable leisure centre projects.

Julian Donnelly, Project Manager at ISG



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