WEST BROMWICH LEISURE CENTRE
WEST BROMWICH, UK

Places for People Leisure were appointed to design, build and run West Bromwich’s new town centre complex. In turn, they appointed Pellikaan Construction to design and construct the leisure centre. BuroHappold Engineering was appointed by Pellikaan to develop the MEP brief and assist Pellikaan in the management of the MEP Design and Construction.

The new leisure centre provides a much sought after 25-metre, six-lane swimming pool and learner pool, a sauna and steam room, a four-court sports hall and 100-station gym, two dance studios/activity rooms, and an indoor children’s adventure play centre and café. The client required the design to create an energy efficient building.

The site’s location presented a number of challenges for our engineers. Close proximity to residential areas and a busy road impacted the ability to naturally ventilate parts of the building and also influenced the siting and performance of mechanical plant, making the building’s energy efficiency more complex.

In response, our engineers modelled the building’s main atrium to determine the optimum number of opening vents required to make the space comfortable. Following this, natural ventilation was achieved by strategically positioning the main atrium’s opening vents away from the nearby road and utilising its natural stack effect.

The mechanical ventilation and cooling plant were selected to have good noise control, supplemented by locating the plant away from the residential areas and utilising the building as a shield. The use of combined heat power plant, alongside good construction and specialised materials, ensured that the building attained its energy efficiency and was a successful addition to the local residential area.

Alongside strategic and innovative thinking, close collaboration with the MEP contractor was also crucial to the project’s success. Combining our engineers’ design with the contractor’s construction knowledge, a collaborative approach optimised the services design and streamlined the installation and commissioning of the MEP services.