Over the past decade, the number of LEED-certified (Leadership in Energy and Environmental Design) healthcare facilities has increased in every region of the country. Despite this, there is a notion that true sustainability isn’t attainable once a hospital becomes operative. One of Canada’s largest health authorities is proving otherwise, though.

In May 2007, Interior Health embarked on a $432.9 million capital construction project. Consisting of approximately 1.3 million square feet spread across 50 kilometres, the Kelowna and Vernon hospitals project is essential in meeting both the short- and long-term demand projections, while setting the stage for appropriate healthcare delivery throughout the region and across the wide spectrum of services required by the residents of the southern interior of B.C. The project includes a new patient care tower (Centennial building), clinical academic campus (for the University of British Columbia) and parkade at
Kelowna General Hospital (KGH), and a new patient care tower (Polson Tower) at Vernon Jubilee Hospital (VJH) — all of which have achieved a LEED gold rating — as well as major renovations to existing space at both hospitals. Since the project’s inception, an additional clinical support laboratory (Dr. Walter Anderson building) was added at KGH, and the top two floors of the VJH patient care tower fit-out.

“The goal was to achieve the highest level of environmental sustainability that we could strive for,” says Norma Malanowich, chief project officer and corporate director of capital planning for Interior Health. “The fact that we accomplished this across four new buildings in two cities is what sets this project apart as an industry leader across Canada.”

The high level of LEED certification also played a pivotal role in Interior Health’s recent CHES award win. It joined the ranks of other highly esteemed health authorities and hospitals when it was presented with the Wayne McLellan Award of Excellence in Healthcare Facilities Management at this year’s National Conference in Edmonton.

Green initiatives included removing suspended solids and other contaminants from stormwater during construction to prevent release into the local sewer system; incorporating native plants into landscaping that require no irrigation once established; utilizing recycled and regional construction materials; installing low-flow fixtures to reduce potable water consumption by 40 per cent; instituting facility-wide recycling programs to divert waste from landfills; and using high-performance glazing and insulation, energy-efficient equipment, automatic lighting controls, and occupancy sensors that set back temperatures and ventilation rates to reduce energy consumption.

Savings for both natural gas and electricity consumption in the new buildings have far exceeded expectations. The design and construction base energy target was 2.13 GJ/m² per month. The energy target has been calculated to an operating efficiency target of 1.14 GJ/m² per month.

To further improve efficiencies, Interior Health took a new, innovative approach to site facility management, which includes all non-clinical plant maintenance and related services. As part of the public-private partnership (P3) agreement with Infusion Health — a consortium of companies engaged to deliver the largest single investment in the health system for the interior of B.C. — Black & McDonald was contracted for a 30-year term to preserve the integrity of not just the new structures but all of the existing ones at the two hospital campuses as well.

“No other health authority in Canada has taken this whole-site facility management approach,” says Malanowich. “It provides integration, standardization and consistency of service on these two sites.”

The key to the success of the approach has been the early participation of, and transition with, the facility management service provider. Black & McDonald was involved in the specification and design for the construction and ongoing maintenance of the new buildings. It helped put into place the required expertise and defined accountabilities to ensure the facilities, mechanical systems and infrastructure were built and, subsequently, would be maintained to the highest quality standards for the life of the buildings. Taking over responsibility of the existing facilities early on in the contract, well before the new buildings were commissioned, has also led to a stronger management regime within the new facilities.

“If it wasn’t for the entire team’s commitment to partnership, good communications and willingness to be flexible in decision-making, this first-of-its-kind journey wouldn’t have been so smooth,” notes Malanowich.