

CHSLD Champlain-Manoir Verdun is a residential and long-term care centre consisting of two service locations with a total of 448 beds. Le Manoir pavilion, also the administrative hub of the CHSLD, deals mostly with people requiring less than 2.5 hours of daily treatment whereas the Champlain pavilion serves mostly people who are less independent and who require more specialized daily care. A special unit serving intellectually disabled patients is also housed here.

Prior to the changes, the Champlain pavilion was equipped with a centralized system which had been neglected over the years and which was only somewhat functional. Additionally, a significant proportion of the mechanical equipment was antiquated and inefficient. The annual energy consumption of the pavilion stood at 23,862GJ or \$376,068.

Le Manoir pavilion did not have a centralized system, therefore, the mechanical equipment was in almost constant operation. Its annual energy consumption was measured at 18,241GJ or \$328,815.

Mandate

2003 energy savings feasibility study: Targeted reduction in annual energy consumption of 15,844GJ for a saving of \$258,406.

Plans and specifications: Five areas including automation, ventilation, electricity, plumbing pipe-work, pre-purchasing.

Project management and supervision: Automated energy management: launch, operational optimization of electro-mechanical systems, assistance to local operator, optimization of energy billing.

Project Length

- Construction: February 2005 to October 2005
- Automated energy management and follow-up: 7 years

Cost

The total estimated cost of the project is \$1.8million.

Project Highlights

At the Champlain pavilion, the heat plant has been totally refurbished, three ventilation units have been replaced and a



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130 tonne cooler has been installed. This equipment was selected and designed for optimal energy efficiency and occupant comfort. An electric boiler was installed in order to take advantage of off-peak electricity. Additionally, the building now has centralized systems.

At the Manoir pavilion, the bypass systems have been transformed into a variable flow system. Furthermore, the numerous drainage flows have been centralized and a heat recovery loop has been installed. An electric boiler was added in order to provide off-peak heating. The building also now has centralized systems.

Results

The actual savings accrued during the first year of implementation of these new measures has surpassed guaranteed savings values by more than 50%. The implementation of these measures has also alleviated many of the comfort issues that had previously hindered the occupants of the building.

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