

QUICK FACTS

+ LEED ${ }^{\circledR}$ Gold
+ On time / on budget
+ Teaching Spaces
+ Modern Library Spaces
+ Adaptive control strategies
+ Technology-driven suites
$+172,000$ square feet (approx.)
+ \$85-million Budget
+ Smith + Andersen Mechanical Design



## MOUNT ROYAL UNIVERSITY RIDDELL LIBRARY AND LEARNING CENTRE

## ABOUT THIS PROJECT

LOCATION
Calgary, AB

+ The "intellectual heart" of the Lincoln Park campus.
+ Features 1,500 seats, 34 group-use rooms, visualization labs, archive storage/ processing space, and media creation suites.
+ Technology-driven suites include 3D printers, AV rooms, media editing suites, touch screens, immersion studios and virtual reality technology.
+ Incorporates a highly-flexible, low energy mechanical system that allows the University to adapt to the rapidly-changing digital environment.
+ Mechanical design incorporates energy efficient features such as variable speed
SMITH + ANDERSEN SERVICES PROVIDED

Mechanical

KEY team members
Mount Royal University
DIALOG
RJC Engineers
Stuart Olson Construction

SIZE
172,223 sq. ft. (16,000 sq. m.) bearing chillers, and CO 2 monitoring/control to ensure a dynamic and energy efficient mechanical system.

BUDGET

+ Houses a large data centre, served by a dedicated HVAC and fire protection system.
+ An annual reduction in potable water consumption of 36.8 per cent less than an institutional building of similar occupancy.
+ Incorporates adaptive control strategies with intelligent building systems to continuously monitor and control building system operation.
+ Final energy consumption was modelled to be 55\% lower than the ASHRAE 90.12007 baseline model and reported an energy use intensity of $83.7 \mathrm{kBTU} / \mathrm{ft}^{2}$.


## HOT BUTTONS

MECHANICAL DESIGN $\square$ POST-SECONDARY


DATA CENTRE

## ULTRA-LOW ENERGY



