



Simon Fraser University Water Tower Building Data Centre

Location: British Columbia
Market Sector: Data Centre
Delivery Method: Fixed Price

** Photographs courtesy of Jim Laurence*

The SFU Water Tower Building data centre houses the most powerful academic supercomputer in the nation, "Cedar". It is used to analyze crime data and research in other industries.

We were mechanical contractor on an upgrade project that makes it one of Canada's largest data centres. Our work included:

- 22,000 sq. ft renovation
- Conversion of office space into a mechanical room
- Addition of 510 tons of mechanical cooling via modular chillers
- Free cooling operation via three x 120 ton fluid coolers
- Over 3000' of chilled water distribution piping
- Tie-in to existing operational data centre
- BIM drawings for mechanical services coordination



The renovation occurred while the data centre operations were live. We also managed limitations of the space and developed a number of solutions to support the new mechanical equipment. Pre-fabrication lowered costs.

We also provided many innovative solutions, such as sensorless pumps with intelligent variable speed drives.

The project was completed on schedule and under budget. It was rewarded by the Vancouver Regional Construction Association (VRCA) with a Silver Award for construction excellence in 2017.