



# SPENCER BUILDING POWERED SHELL

## ABOUT THIS PROJECT

- + Multi-Phase 8MW Tier II Data Center in Vancouver, BC.
- + This project involves the design and renovation of an existing building in downtown Vancouver, BC, to create a multi-phase 8MW Tier II data center. The facility will provide both colocation and dedicated white space for end-user tenants, with each phase delivering over 2MW to the white space.
- + The renovation faced significant site constraints, requiring innovative solutions to integrate the necessary infrastructure within the existing building's footprint.
- + The mechanical design included two phases; Phase I: Installation of three air-cooled chillers and Phase II: Addition of two more chillers, including one swing chiller to ensure redundancy and flexibility.
- + Two 4MW N+1 generators provide reliable power to the data centre, while redundant substations enhance power distribution reliability.
- + We provided provisions for both centralized and decentralized UPS systems.
- + A swing generator was incorporated in Phase II to maintain N+1 redundancy across both phases, utilizing the limited roof space available.
- + A pre-action wet sprinkler system was designed to protect the data center from fire hazards.
- + Due to the tight site constraints, detailed 3D modeling of mechanical and electrical systems was performed. This included piping, trays, cables, and conduit systems to ensure that all components could be installed efficiently and effectively within the limited space.

**LOCATION**  
Vancouver, BC

**SMITH + ANDERSEN**  
**SERVICES PROVIDED**  
Electrical, Mechanical, Fire  
Protection

**KEY TEAM MEMBERS**  
Gensler

**SIZE**  
30,000 sq. ft.

**COMPLETION YEAR**  
2025

## HOT BUTTONS

MISSION CRITICAL

MECHANICAL

ELECTRICAL

DESIGN-BID

FIRE PROTECTION

DATA CENTRES

PHASED

RENOVATIONS

