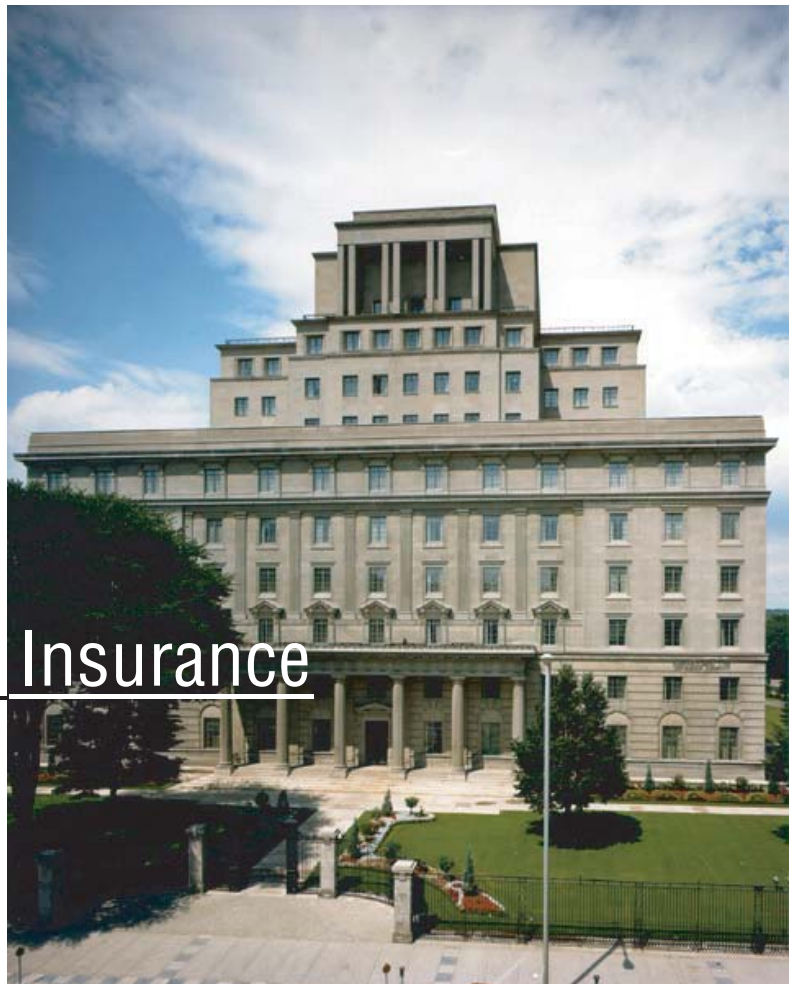


# Manufacturer's • Life Insurance Head Office Retrofit



**OWNER :** Manufacturer's Life Insurance

**DESIGN TEAM:** **Mechanical & Electrical Consultants**  
MCW Consultants Ltd.

**Architect**  
Adamson Associates

## SYSTEMS DESCRIPTION

### Mechanical

Mechanical systems include one gas fired, forced draft, steam boiler for humidification, custom factory fabricated variable air volume compartmental air handling unit, fan factory fabricated gas fired constant volume outside air supply unit with chilled water cooling, fan powered terminals for variable air volume applications, tie-ins to existing campus heating and chilled water systems, and direct digital control building automation system.

### Electrical

Electrical systems include a new step-up transformer to provide 600/346 volt power to be utilized for mechanical equipment loads and fluorescent lighting, new dedicated power bus risers for lighting, small power and mechanical equipment, new lighting throughout the building utilizing T8 lamps and electronic ballasts, an automated lighting control system, and a new integrated fire alarm and voice communication system - which are also integrated with systems existing in two other towers in the Manulife Financial complex.

## PROJECT DESCRIPTION:

The Manulife Head Office in Toronto has been designated a heritage building by the Historical Board, a condition which imposed some serious restrictions on all aspects of the design. Additional restrictions were caused by the owner's need to keep the building occupied during renovation. For this reason each floor had to be gutted and refitted separately and air conditioning, ventilation, plumbing and drainage services to floors above and below had to be maintained while work (including the relocation of washrooms) was underway. A new HVAC system was implemented while gradually dismantling the original one, providing more cooling and ventilation with greater zone diversity, control and flexibility.