Mechanical Design Services

Our design team provided innovative solutions to update the heating plant at the Justice Institute of BC, New Westminster Campus.

Modernize to improve efficiency and resiliency

Mechanical systems are essential to keeping your building operating reliably and your occupants safe. They are also one of the building systems that use the most energy. When you renew your building's equipment, implement energy measures, and increase capacity to accommodate growth, you will reap long-term benefits.

Building owners, managers and occupants will benefit from improved indoor air quality, greater efficiency, lower operating costs, and reduced environmental impact.

Our comprehensive approach includes:

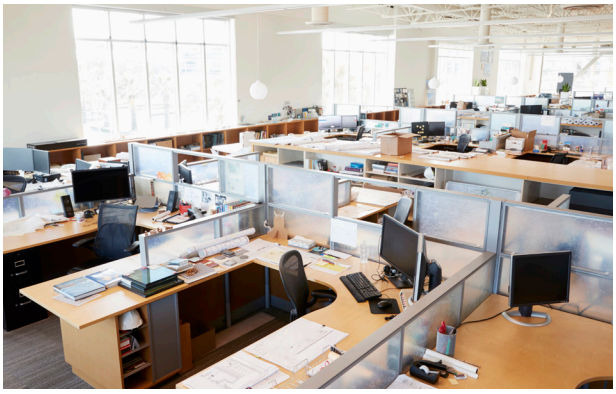
1. **Assessment and feasibility review,** including business case development, life cycle costing, concept design, resiliency assessment, and energy and carbon reduction evaluation.
2. **Detailed design and tender** documentation for competitive contractor pricing.
3. **Construction support** that includes project management assistance for all phases through to completion.
4. **Testing and commissioning** support to ensure systems are optimized and operating as designed.
5. **Monitoring and tracking** of results and performance.

Over 30 years of experience

Prism provides our customers with over 30 years of industry experience to help renew your mechanical systems and provide design solutions to maximize the life cycle of your assets. Our team of engineers, project managers and building and system specialists keeps up to date on codes and standards so that we can address your immediate priorities and design resilient systems to withstand climate change.

Prism ENGINEERING

Services



Infrastructure System Upgrades

- **Heating and cooling plants (boilers, chillers, heat pumps):** Reduce energy and maintenance costs by renewing your heating and cooling systems with optimized, integrated solutions.
- **Ventilation**: Upgrade your filtration, fan, and air distribution systems.
- **Domestic water system**: Upgrade piping and central heating equipment to minimize leaks and potential plant downtime.
- **Heat recovery:** Reduce building energy consumption by effectively recovering waste energy.
- **Building automation:** Optimize performance and improve usability for operators.

Space Upgrades and New Construction

- **Renovations:** Enhance occupant productivity and flexibility with efficient, effective design.
- **HVAC and air distribution:** Meet the requirements of changing occupancy by designing and adapting your systems.
- **Plumbing and fire protection design:** Ensure your system is up to current code and standards for life safety.

Operations Management

- **Building condition assessments**: Determine capital costs and strategic options for asset renewal.
- **Indoor air quality:** Assess how buildings satisfy required space conditions, identify non-compliance issues, and implement improvements to resolve health risks and complaints.
- **Code compliance and energy code reviews:** Determine how a space or building complies with energy and building codes.

Climate Change Mitigation and Adaptation

- **Energy upgrade implementation:** Upgrade systems to reduce environmental impact.
- **Low carbon electrification:** Minimize carbon emissions by upgrading infrastructure and distribution with high-efficiency, electrified equipment.
- **Renewable energy systems:** Review, design, and implement biomass,
solar thermal, geothermal, thermal storage, and wind systems.
- **Climate vulnerability risk assessments:** Evaluate the risk and severity
of mechanical system failures on facility operations based on current and future climate projections.
- **Adaptation to climate change:** Prepare systems for the anticipated impacts of climate change by implementing strategies that build resilience.