



Engineers

Heritage Conservation



Creative Thinking **Practical Results**



Heritage buildings are not only a window into the past — they are a part of our country's character. Conserving and restoring our historic structures and buildings is a means of preserving Canada's unique and compelling story.

Creative Thinking **Practical Results**

Since 1948, **RJC Engineers** has been an innovative solutions provider that uses engineering knowledge and constructability experience to capture our clients' vision and turn it into a reality. Our firm was founded on the principles of innovation, collaboration and engagement.

We constantly challenge ourselves by taking on projects that are unique and unconventional. We carefully consider each project, ensuring our designs are practical, sustainable and responsive to the ever-changing environment.

Ultimately, our goal is to design and restore buildings and structures that add vitality to streets, communities and city skylines.

Service **Offerings**

Bridge Design and Rehabilitation
Building Enclosure Engineering
Condition Assessments
Depreciation Reports
Façade Engineering
Fall Protection/Travel Restraint
Heritage Conservation
Parking Facility Design
Pavement Rehabilitation
Performance Assessment

Post-Tensioned Concrete
Prime Consulting
Reserve Fund Studies
Roof Consulting
Seismic Risk Mitigation
Structural Engineering
Structural Glass Engineering
Structural Restoration
Sustainable Design
Waterproofing Design

RJC's areas of practice all contribute to developing the right plan of action for our clients.



Heritage Conservation

Preserving our past

Working with historic buildings and environments requires a unique knowledge and a delicate approach. Our dedicated specialists are highly experienced in all aspects of heritage work and have contributed considerably to the restoration, conservation, protection and adaptation of many of Canada's historic structures and buildings.

Our understanding of the value of the fabric of these historic assets is a vital requirement for our engineers working in this specialized sector. Knowing historic construction practices and how to navigate heritage building legislation, combined with our expertise with building science and structural engineering, enables us to balance the needs of multiple stakeholders, while offering creative, economic and practical solutions to address historic building needs.



RJC offers services that enable the successful protection and regeneration of historic environments.

- Engineering services for evaluation, preservation, rehabilitation and restoration of historic structures and heritage building enclosures
- Façade and roof engineering
- Structural engineering
- Energy efficiency upgrade studies and design
- Seismic restraint of features and façades
- Heritage alteration permit consultation and submissions



Our Approach

From investigation to construction

RJC has successfully repaired, preserved, restored and adapted many of Canada's historic buildings and infrastructure.

RJC brings a positive attitude and collaborative spirit, combined with technical expertise and a commitment to exceptional client service, to all our heritage assignments.

We believe in taking a holistic approach to each aspect of a restoration project — from investigation through to project delivery. As a trusted advisor, we work interactively with the entire project team, involving owners, specialty trades and other heritage professionals and engineering specialties. A large part of our interaction is focused on educating owners and other team members on the principles of conservation best-practices and on the structural and building enclosure aspects of the project at hand, as well as on the technical complexity and sensitive nature of materials and building science performance.



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1. **The Exchange** | Seismic Upgrade and Heritage Restoration | **Vancouver, BC**
2. **130 Johnston St** | Heritage Restoration | **Kingston, ON**
3. **MNP Tower** | Façade Retention | **Vancouver, BC**
4. **The Janion** | Seismic Upgrade and Heritage Restoration | **Victoria, BC**

Before



After



Pacific Central Station | Masonry Façade and Brick Conservation | Vancouver, BC



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Our Experience

Heritage engineering excellence

With several locations across Canada, we are able to provide heritage engineering services for clients nationwide. Our experience includes the full range of evaluation, preservation, rehabilitation and restoration services as described in Parks Canada's Guideline for Conservation of Historic Places in Canada. Our specialists have been involved in conserving whole buildings and character defining elements, including: secondary structural elements, stone and masonry façades, timber structures, wood and steel framed windows and unique architectural elements.

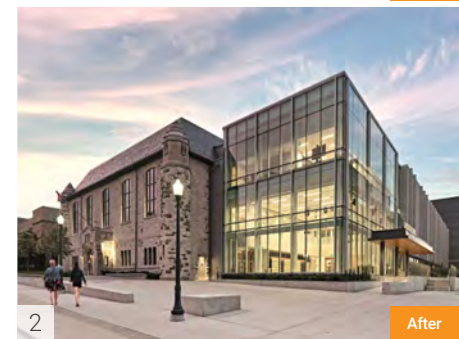
Our specialists have acquired knowledge and techniques through project work for our broad client base, including all levels of government, public and private sector, school districts and property managers.

- 1. **Central Elementary School** | Window and Masonry Restoration | Kelowna, BC
- 2. **111 Norman Rogers Drive Penitentiary Barn** | Heritage Restoration | Kingston, ON

RJC is well versed in the treatments for various historic materials used in some of Canada's oldest structures and this experience provides us with a unique understanding of modern sympathetic materials used to restore them. We understand how historic and modern materials behave or deteriorate in our distinctive Canadian climate, and how to salvage, conserve or rehabilitate antiquated materials and building systems.

This knowledge enables us to assess the condition of buildings and structures, develop cost-effective conservation programs to enhance tenant comfort and safety, preserve the integrity of structural components, and extend the service life of historic cladding and façade components of some of Canada's oldest and most revered landmarks and structures.

- 1 & 2. **Queen's University Mitchell Hall** | Heritage Façade, Window and Roof Restoration | Kingston, ON
- 3. **Point Abino Lighthouse** | Heritage Restoration | Fort Erie, ON





St. Andrew's-Wesley United Church | Heritage Conservation & Seismic Upgrade | Vancouver, BC



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- 1. Legislative Assembly of Manitoba | Masonry Restoration | Winnipeg, MB
- 2. Fairmont Banff Springs Hotel | Masonry Restoration | Banff, AB
- 3. Cape Sable Lighthouse | Heritage Restoration | Barrington, NS
- 4. 872 du Couvent - Bell Tower | Heritage Restoration | Montréal, QC



Complementary Practice Areas

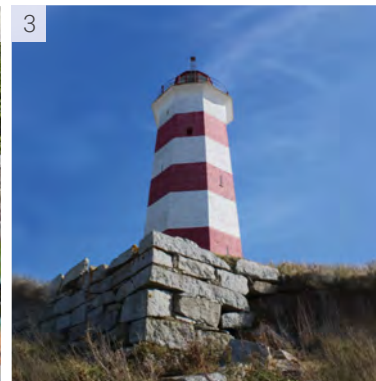
RJC's areas of practice all contribute to developing the right plan of action for our clients. From understanding antiquated construction materials to navigating modern legislation and current Codes, our experienced team has the skills to balance the needs of multiple stakeholders and offer creative, economic, and practical solutions to conserve historic structures and buildings in our communities.



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Building Science

Our building science specialists have assessed hundreds of buildings of every material type in every climate zone in Canada, and can draw on their experience in finding solutions to the next project. If the assessment and/or design of enclosures requires the use of computer modelling, our building scientists are well-versed with multiple software suites ranging from whole building simulation to hygrothermal modelling of specific envelope components.

Structural Restoration

Our engineers have experience with prime consulting, building codes and national standards relating to structural repairs, seismic reinforcement, durability, and protection for structural components. We have a well-earned reputation for practical, flexible and effective restoration solutions that meet the rigorous requirements of the structure, while minimizing the disruption to the building operations.

Structural Engineering

As part of an integrated whole building design team, we understand how structure interacts with all aspects of design. Our range of expertise encompasses many structural systems including: cast-in-place, Post-Tensioned and precast concrete, structural steel, light-gauge steel, wood frame, mass timber, masonry and glass.

1. **The Hudson** | Masonry and Window Conservation | **Victoria, BC**
2. **Cave and Basin** | Heritage Restoration | **Banff, AB**
3. **Sambro Island Lighthouse** | Heritage Restoration | **Halifax, NS**



cSPACE King Edward | Heritage Adaptive Reuse | Calgary, AB



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During



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After

1. Machias Seal Island Lighthouse | Heritage Restoration | Machias Seal Island, NB
2. The Oriental | Seismic Upgrade and Heritage Restoration | Victoria, BC
- 3 & 4. Casa Loma | Heritage Restoration | Toronto, ON
5. Picton Courthouse | Heritage Roof Replacement | Picton, ON

Contact Us



Calgary City Hall | Heritage Restoration | Calgary, AB



Brighton Block | Heritage Redevelopment | Edmonton, AB

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RJC Engineers
rjc.ca