



Sustainable Practices in Building Renovations

Centre Block





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- Library's Project Lead for Sustainability on the Centre Block renovation (CBR) and the construction of the Parliament Welcome Centre (PWC)
- Involved in the CBR and PWC projects since 2017



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- Originally opened in June of 1866.
- Destroyed by fire, except for the Library of Parliament, in February 1916.
- Rebuilt and reopened in 1927.
- The need to modernize the building was identified in the 2006 Long Term Vision and Plan (LTVP) for the Parliamentary precinct, Centre Block was vacated in 2019 to permit extensive renovations
- Replacement of all mechanical systems – Plumbing, heating, ventilation, air conditioning, elevators etc.
- Replacement of building envelope components – Windows, doors, roof, etc.
- Removal of hazardous materials – ie. Asbestos, lead.
- Installation of seismic protection
- Construction of the Parliament Welcome Centre
- Intent is to seek LEED Gold certification for the buildings



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- This project is part of the Canadian government's goal to reduce greenhouse gas emissions by 2025 and to achieve net-zero emissions in government facilities by 2050.
- In accordance with the commitments in the Government of Canada's [Greening Government Strategy](#).
- Standard on Embodied Carbon in Construction
- This standard sets minimum requirements for the procurement of design and construction services to disclose and reduce the embodied carbon of major construction projects
- The objective of this standard is to establish requirements to disclose and reduce the embodied carbon footprint of construction projects in accordance with the commitments in the [Greening Government Strategy](#).



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- One way we will reduce emissions during construction is by using low-carbon concrete. The production of this concrete is less carbon-intensive than other types of concrete. This means that the fuels and material mixes of the concrete, as well as technologies used, generate and emit less carbon, reducing overall greenhouse gas emissions.



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- Another sustainable approach in the project is the reuse of steel. About 200 metric tonnes of structural steel from the original Centre Block building will be reused. Re-using structural steel minimizes the overall environmental impact compared to using newly manufactured steel.
- A third measure that is being incorporated into the new building is a geo thermal system, built underneath the PWC, which will help to reduce the use of fossil fuels for heating and cooling the building.



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- It is the intention that through the implementation of these policies and practices that we will deliver a building that is carbon neutral and will realize considerable savings in operating cost and a reduction of greenhouse gas emissions while providing the occupants a safe and modern facility.
- Questions?