

CORPORATE GREEN BUILDING POLICY

Emphasizing sustainability considerations in municipal building design

Municipal buildings throughout Ottawa

The City of Ottawa owns 984 buildings, spanning 13.7 million square feet, with an estimated total asset value of \$3.6 billion^[1]. In 2005, the City formalized their strong commitment to a more sustainable existence and to reducing the environmental impacts of their operations by developing and implementing a corporate Green Building Policy.

The City of Ottawa continues to make significant progress on building LEED Certified, environmentally sustainable buildings. Year by year the list of Ottawa green buildings grows. We are proud of the steps we have taken to become a leader in green building practices."

– Alain Gonthier, Director of Infrastructure Services at the City of Ottawa



Reducing operating costs due to improved building energy and water use efficiency



Improving building performance through Leadership in Energy and Environmental Design (LEED™) Canada building certification rating system

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INTRODUCTION

The Green Building Policy was approved by City Council on 28 September 2005^[2]. The policy resides with Infrastructure Services, part of the Planning, Infrastructure and Economic Development Department at the City of Ottawa. The enactment of this policy aligned with commitments made in the 2003 Ottawa 20/20 Environmental Strategy^[3], which focuses on transforming Ottawa to “A Green and Environmentally Sensitive City”^[4]. The green buildings policy uses the Leadership in Energy and Environmental Design (LEED™) Canada building certification rating system, developed by the Canada Green Building Council (CaGBC), to promote and track sustainability targets for newly constructed municipal buildings.

The LEED™ rating system is a sustainability scorecard, whereby the more “green” a building is, the more points it will earn. Currently in its 4th version, LEED™ v4 assesses projects and assigns points across several different categories, ranging from Location and Transportation, Sustainable Sites, and Water Efficiency, to Energy and Atmosphere, Materials and Resources, Indoor Environmental Quality and Innovations incorporated in the design. Based on the resulting scores, buildings can qualify for one of four levels of certification, from Certified, to Silver, Gold and Platinum.

The intent is that by going through the LEED™ certification process, municipal buildings are designed and delivered with improved fiscal, environmental and corporate responsibility^[3] over the course of their whole life cycle.

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PROJECT DETAILS

In particular, the municipal Green Building Policy in Ottawa requires that all newly constructed buildings larger than 500 square meters be designed, delivered and certified to meet at least the LEED™ Certified rating. Furthermore, since 2015, in cases where upgrading to LEED™ Gold can be supported within the project scope and budget, the proposed building should be designed to this level instead^[5]. Additionally, the policy encourages those involved with the design and implementation of all new and retrofit projects to apply sustainable design principles, even if they do not formally achieve LEED™ accreditation.

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RESULTS

A growing number of LEED™ certified municipal buildings have been completed in Ottawa, with the 9,300 square meter Ottawa Paramedic Service headquarters the very first. This building, completed in December 2005 through a Public Private Partnership between the City of Ottawa and Forum Leasehold Partners Inc., achieved a LEED™ Certified rating^[6]. It offers energy savings of 25% over traditional designs, due to the clever incorporation of motion activated light fixtures, wastewater heat recovery, high efficiency boilers, pumps and fans, as well as high speed garage doors that minimize the loss of heated/cooled air from inside the building. These conservation measures result in reduced energy bills of up to \$80,000 each year^[7].

Subsequent projects include the Vars Fire Station (Certified), Rideau Valley Conservation Authority Headquarters (Gold), Shenkman Arts Centre (Silver), Huron Early Learning Centre (Silver) and Conroy Public Works Yard (Silver)^[8]. As of April 2017, the City of Ottawa owns 26 LEED™ certified facilities: five Gold, 11 Silver and 10 Certified, with a number of additional buildings undergoing certification and under development^[9].

One project worth highlighting is the Lansdowne Redevelopment project: aside from being an attraction in its own right, it is Ottawa’s first green community designed to follow LEED™. It received Silver Plan Pre-Certification under the LEED™ for Neighbourhood Development program, joining only five other neighbourhoods in Ontario and 12 across Canada to have achieved this certification level^[1].

4 CONCLUSIONS & REFLECTIONS

Through smart growth and green building, the Lansdowne neighbourhood has been transformed into a sustainable and vibrant mixed-use community, serving as a positive example for the rest of Ottawa. The redeveloped site is open and well-connected, encouraging walking, cycling and public transit use. The central location reduces urban sprawl and automobile dependence. All new buildings were designed to be energy efficient and incorporate green features. Through LEED™-guided redevelopment, Lansdowne has become a unique destination for both residents and visitors to live, work, and play.

By design, buildings have long lifespans and represent a significant commitment to the future: the majority of the buildings that currently exist in Ottawa will still be in use in fifty years from now. Policies like the Green Building Policy ensure that new buildings are designed to high standards, helping to create a more sustainable city and future, one building at a time.



Figure 1: The Lansdowne Redevelopment Project ^[1].

REFERENCES

- [1] City of Ottawa.
- [2] <http://www.ottawa.ca/calendar/ottawa/citycouncil/occ/2007/09-26/csedc/ACS2007-BTS-RPM-0007>
- [3] <http://ottawa.ca/en/city-hall/your-city-government/policies-and-administrative-structure/administrative-policies/green>
- [4] <http://ottawa.ca/cs/groups/content/@webottawa/documents/pdf/mdaw/mdc4/~edisp/cap078822.pdf>
- [5] http://app05.ottawa.ca/sirepub_fr/cache/2/jsmew5awp4xtpdjkkzyds5xi/34329412112017095848595.PDF
- [6] <http://ottwatch.ca/meetings/file/370205>
- [7] <http://ottawa.ca/en/business/doing-business-city/public-private-partnerships-p3s/ottawa-paramedic-service-headquarters>
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- [9] <http://app05.ottawa.ca/sirepub/cache/2/jsmew5awp4xtpdjkkzyds5xi/4373841211201710095249.PDF>