

## **LEEDing the Way in Green Real Estate**

We are always looking at ways to reduce our operational footprint and more often this means choosing to lease or build office space certified to green building standards, including the predominate North American standard [LEED](#). LEED stands for Leadership in Energy and Environmental Design and designates buildings that are designed and operated to meet certain energy and environmental standards. Nearly 30% of our global office space, 4.1 million square feet, is LEED certified, and we're committed to increasing that number. A description of some of our green certified buildings can be found below.

### **RBC Centre (Toronto, ON)**



Certification: LEED Gold New Construction and LEED Gold Commercial Interiors  
Property Manager: Cadillac Fairview  
Area occupied by RBC: 873,000 ft<sup>2</sup>

The RBC Centre has the unique distinction of being certified as one of the largest LEED Gold for New Construction and LEED Gold for Commercial Interiors (CI) project in Canada at the time. In order to obtain Gold certification, the building's design and RBC's interior space incorporated a number of features including: deep lake cooling; power conservation through indirect lighting and lighting sensors; light shelves that reflect natural light deep inside the building; use of Energy Star appliances; diversion of over 75% of interior construction waste from landfill; over 20% of the materials used to construct the interior space were made of recycled content; and a storage facility for bicycles. For more information visit: [RBC Centre and LEED Certification](#).

## Royal Bank Plaza (Toronto, ON)



Certification: LEED Gold for Existing Building  
Property Manager: Oxford Properties Group  
Area occupied by RBC: 557,000 ft<sup>2</sup>

RBC's iconic corporate headquarters in downtown Toronto, Royal Bank Plaza, was the first bank tower complex to achieve LEED Gold for Existing Building certification in Canada. Currently in the process of re-certification, targets have been set for an increased level of sustainability through a LEED Platinum level re-certification. A few of the initiatives that Oxford Properties implemented to achieve and maintain its sustainability status at this complex include: the use of deep lake water cooling (uses cold water from Lake Ontario to cool the building) driving an estimated 15% reduction in annual energy building consumption; extensive use of LED light bulbs in common areas, new low voltage lighting controls and floor zoning (from 2 zones to 8-14 zones). Low-flow fixtures and hands-free faucets reduce water consumption by more than 37% and have led to water usage levels that are less than half of the average Canadian office building. A comprehensive recycling program diverts more than 75% of waste from landfill.

## **RBC Meadowvale Business Park (Mississauga, ON)**



Certification: LEED Gold for Existing Building  
Property Manager: Bentall Kennedy  
Area occupied by RBC: 812,000 ft<sup>2</sup>

Located just outside the downtown core, RBC Meadowvale Business Park is one of the largest RBC properties to achieve a LEED Gold level certification for Existing Building: Operations and Maintenance (LEED EBOM). The main focus of LEED EBOM is ongoing operational energy efficiency and the reduction of environmental impacts. Increasing energy efficiency is a key focus, and these efforts have resulted in a recent increase in the Energy Star Score for this building. In 2015 RBC Meadowvale achieved an Energy Star Score of 91, establishing it as 91% more energy efficient than similar commercial office buildings in Canada. A recently upgraded lighting system was one of the many operational initiatives put in place to achieve this location's energy reduction goal. This sophisticated DALI based lighting system operates through the use of occupancy sensors and designated lighting zones, allowing lights to turn on and off based on occupancy as well as other relevant factors.

## **New Back Office Support Facility (Southwestern Ontario)**



Certification: LEED Gold for New Construction  
Area occupied by RBC: 400,000 ft<sup>2</sup>

This state-of-the-art facility opened in 2011 and is designed to maximize energy efficiency and achieve an industry leading power usage effectiveness (PUE) value of 1.4. In addition to energy considerations, the facility was designed and constructed with a number of environmental features including: advanced monitoring systems to ensure water and energy consumption are reduced; innovative siting strategies that ensure existing non-developed areas around the facility remain as natural habitat; and the use of construction materials containing recycled content.

## **Park Place (Vancouver, BC)**



Certification: LEED Gold for Existing Buildings, Operations & Maintenance  
Property Manager: GWL Realty Advisors Inc  
Area occupied by RBC: 63,000 ft<sup>2</sup>

Park Place was the first office tower in Vancouver's downtown core to receive LEED Gold for Existing Buildings, Operations & Maintenance. It achieved certification through several targeted initiatives including: an energy program that reduced overall building greenhouse gas emissions by 12%; water fixture upgrades that reduced water consumption by 30%; waste diversion program that is now achieving a 66% landfill diversion rate; and a comprehensive indoor air quality program that has significantly improved occupant comfort. With an Energy Star rating of 80, Park Place is more energy efficient than 80% of similar commercial buildings.

## Royal Centre (Vancouver, BC)



Certification: LEED Gold for Existing Buildings, Operation & Maintenance  
Property Manager: Brookfield Office Properties  
Area occupied by RBC: 171,000 ft<sup>2</sup>

Located in the largest downtown banking centre in Vancouver, Royal Centre has obtained LEED Gold status for Existing Buildings: Operation and Maintenance. As part of the process of LEED certification Royal Centre implemented new environmental policies and best practices including; Green Cleaning procedures and Sustainable Purchasing policies. As a result of the LEED certification program, Royal Centre was able to achieve a 32% water savings and 15% reduction in greenhouse gas emissions.

## Bankers Hall (Calgary, AB)



Certification: LEED Gold for Existing Buildings, Operation & Maintenance  
Property Manager: Brookfield Office Properties  
Area occupied by RBC: 202,000 ft<sup>2</sup>

Located in the heart of Calgary's financial district, Bankers Hall has been LEED Gold certified for Existing Building: Operation and Maintenance. This is the premier designation for a high performance, sustainable building. Gold status was achieved through the implementation of sustainable building best practices such as green cleaning and sustainable purchasing. Bankers Hall obtained the 84<sup>th</sup> percentile in energy performance, for offices buildings, based on [Natural Resources Canada, Energy Star guidelines](#).

## Place Ville Marie (Montreal, QC)



Certification: LEED Silver for Existing Building Operations and Maintenance (EB: O&M)  
Property Manager: Ivanhoe Cambridge  
Area occupied by RBC: 426,083 ft<sup>2</sup>

In December 2014, Place Ville Marie received LEED Silver for Existing Building Operations and Maintenance (EB: O&M). Place Ville Marie is an iconic and central hub in Montreal's business district. The building is also a two-time winner of the BOMA Building of the Year Award and a member of Hydro-Quebec's Energy Savers' Circle. Some of the improvements that Ivanhoe Cambridge undertook to achieve the Silver certification include: replacement of the chillers, modernization of the cooling towers, upgrades to the ventilation systems, upgrades to the building envelope, and installation of new and efficient plumbing equipment. Place Ville Marie is also very accessible. There are plenty of nearby transit options including 2 metro stations, 2 commuter train lines, several BIXI stations and Montreal's downtown bus terminal.



## **The Royal Bank Building (Winnipeg, MB)**



Certification: LEED Platinum Existing Building Operations and Maintenance (EB: O&M)

Property Manager: Artis REIT

Area occupied by RBC: 86,939 ft<sup>2</sup>

The Royal Bank Building at 220 Portage Avenue, Winnipeg was built in 1966 and was the first LEED Certified Existing Building in Manitoba. In order to accomplish LEED Platinum, Artis REIT implemented many initiatives, some of which include: a recommissioned HVAC system that monitors CO<sub>2</sub> levels on each floor and adjusts the amount of fresh conditioned air to meet requirements of individual tenant spaces; a new floor lighting system that is governed by motion sensors; new LED light fixtures equipped with daylight harvesting; the installation of a green roof that uses natural rain water for irrigation, has indigenous plants ensuring drought tolerance, and acts as shelter to the aviary population of downtown Winnipeg; the tracking of all durable goods, furniture, electronics and appliances leaving the building are diverted from the landfill to secondary uses. Other important areas of change include: Energy Star ratings, alternative transportation, and the implementation of a green cleaning program.

## **RBC Plaza (Minneapolis, MN)**



Certification: LEED Gold Existing Buildings, Operations & Maintenance  
Property Manager: Brookfield Office Properties  
Area occupied by RBC: 277,000 ft<sup>2</sup>

RBC Plaza, located in the Central Business District of Minneapolis, was recertified to LEED Gold for Existing Buildings, Operations & Maintenance (LEED EBOM) in 2014. LEED EBOM is the preeminent designation for high performance, sustainable building management and operations. RBC Plaza's energy performance is in the top 10% of all comparable buildings in the United States. This level of performance translates to a 40% reduction in energy consumption, savings in excess of \$800,000 and 5,350 fewer metric tons of greenhouse gas emissions compared to national averages. Washroom fixtures upgrades alone have already saved 400,000 gallons of potable water, translating into \$4,800 in annual savings.

## Goldman Sachs Tower (Jersey City, NJ)



Certification: LEED Certified for New Construction  
Property Manager: Goldman Sachs & Co.  
Area occupied by RBC: 207,000 ft<sup>2</sup>

Known for being one of the tallest buildings in New Jersey, the Goldman Sachs tower is the new home of RBC in the region. The Goldman Sachs tower was constructed on a brownfield site, a site previously fit for industrial use only. This property is easily accessible through various forms of public transportation, including the Hudson County light rail system and port authority ferry service. The building is surrounded by light coloured pavement to help mitigate the heat-island affect while being constructed with a reduced number of exterior lights to decrease light pollution. A storm water collection system used for irrigation, coupled with low-flow fixtures help save about 16 million litres of water per year. Attention was also placed on the interior with 100% of all wood used for the interior fit up certified to Forest Stewardship Council standards.

## Riverbank House (London, UK)



Certification: BREEAM Excellent  
Area occupied by RBC: 108,000 ft<sup>2</sup>

Riverbank House, RBC's office on the River Thames in London, UK has achieved an 'Excellent' rating under the [BREEAM green building rating system](#). BREEAM, widely used throughout the UK and the rest of Europe, is a building rating system that aims to quantify and reduce the environmental impacts of buildings. Combined with the use of advanced materials, triple-glazed windows and other features, Riverbank House emits 22% less greenhouse gases than local building regulation requirements. Some of the building's features include a rooftop solar energy system, a green roof, heat recovery systems and energy sub-metering.