CENTRE FOR SUSTAINABLE DEVELOPMENT
50 Saint-Catherine St. W., Montreal

Completed: 2011
Height: 5 storeys
Size: 6,360 m²
Owner: Équiterre
Architect: Menkes Shooner Dagenais Letourneaux Architects
LEED Rating: LEED® Canada New Construction Platinum certification, 2013

BUILT FOR A LOW CARBON, CLIMATE RESILIENT FUTURE
When Québec’s prominent environmental organization Équiterre set out to design and build ‘the most energy-efficient and least energy intensive building in Canada’ in collaboration with seven other socially and environmentally minded organizations in Montreal, they embarked on an unprecedented journey to understand the ‘big-picture’ implications of various design and material choices.

The project’s multidisciplinary design team found that using concrete as the structural material provided tremendous advantages across a range of criteria.

Energy Savings
The building’s design takes full advantage of the energy efficiency benefits of the concrete’s thermal mass.

The floors in the building’s office spaces are raised, leaving a 305-mm space between the exterior surface of the floor and the concrete slab below. The space houses a ventilation system that delivers conditioned air directly to occupants, using less energy than conventional ventilation.

The building has achieved energy savings of over 40% compared to an equivalent conventional building, year after year.

Fire mitigation Savings
With concrete being non-combustible, the building also achieved savings on fire mitigation estimated at $2 million. This is valuable capital that could be reallocated to energy efficiency investments.

Smaller building envelope
Concrete also allowed for a smaller building envelope, minimizing material needs, reducing operational heat loss, and maximizing interior floor space and potential rental income.

A local product
Équiterre was also attracted to the local nature of concrete, which could be sourced within 50 kilometers of the project compared to almost 1,000 kilometers for alternative materials.

Durability and Resilience Benefits
Concrete’s durability and resilience in the face of wind-driven rain and other forms of environmental degradation, which leads to lower maintenance and longer service-life structures, were also key considerations in selecting concrete.

AWARDS
• Jury's Choice Award - Energia Contest 2014
• Award of Excellence - Canadian Consulting Engineering Awards, 2013
• 2013 People’s Choice Award - Quebec Order of Architects
• Visionary Award - Quebec Consulting Engineering Awards
• 2012 Real Estate Excellence Award - Quebec Institute for Urban Development