

Animal Pathology Laboratory, Quebec / Canada



Photo: Matrix Energy

Architectural integration of solar thermal energy systems

Animal Pathology Laboratory

Research Institute building with solar collectors integrated into the façade

PROJECT

This laboratory was the first in Quebec to qualify for LEED Canada (Leadership in Energy and Environmental Design), which recognizes the ecological character of new buildings. It was designed with concern for energy efficiency and includes a solar wall - 316 m² solar collector.

The first floor houses a series of offices and a conference room accessible from a fully glazed atrium-lobby running through. Below, on the ground floor, the diagnostic laboratories are installed. The common support services are housed in the adjoining volume, located along the northern limit of the site, near the scientific Complex with which it is linked by an underground technical strip.

The laboratory got QUEBEC CITY ARCHITECTURAL MERIT AWARD in 2010 - in the "Public Buildings" category.



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Architectural integration of solar thermal energy systems

Key figures

- 316 m² solar collector
- Air volume supplied : 33000 CFM
- Energy Savings : 1024.6 GJ
- Avoided CO2 emissions : 64,7 tonnes per year

Solar collector /Heating system

MatrixAir TR (Transpired) solar collector

This transpired, solar fresh air heating system demonstrates operating efficiencies upwards of 70% with payback 's within five years on most new buildings. The perforated metal absorber is used to draw in heated fresh air off the surface of south-facing walls, where it is then distributed throughout the building as pre-heated ventilation air.



Photo: Matrix Energy

GALLERY



PHOTOS;

Matrix Energy

- Built/Completion:
2010
- Client:
Ministère de l'Agriculture, des
Pêcheries et de l'Alimentation
du Québec (MAPAQ)
- Architect:
Gagnon Letellier Cyr Ricard
Mathieu et Associés
Architectes
- Engineering:
Consortium BPR – Pellemon
- Address/Location:
205, boulevard Leclerc
Ouest Granby (Québec)
J2G 1T7
- Type of project:
Research institute



- Read more: <http://www.praa.qc.ca/en/projects/education-research/quebec-animal-pathology-specialized-laboratory.html>