Government of Canada Gouvernement du Canada

CANADA'S NEW EMBASSY IN BERLIN: ENVIRONMENTALLY FRIENDLY FEATURES

In April 2005, Canada will officially open a new building designed to house Canada's Embassy in Berlin, Germany. Located in the heart of the city, the Embassy has been designed and built to reflect Germany's importance to Canada as a G8 partner and a central player in the European Union.

One of the most innovative aspects of Canada's Embassy in Berlin is its integration of a sustainable development strategy created in 1998, even before solicitation of design proposals for the site began. Driven both by Berlin's planning regulations, which are intended to minimize energy costs and pollution, along with Canada's growing interest in sustainable development, the building has several energy-saving features and pollution controls.

The building's "green" roof, required by Berlin planning guidelines and designed by one of Canada's best-known landscape architects, Cornelia Oberlander, will contribute to both the internal and external atmosphere of the building. The green area, consisting of approximately 40 cm of soil covered with hardy northern planting material, will help to insulate the building from heat. Covering about 60 percent of the roof, it will also serve to reduce the urban heat sink by cooling the air as water from it evaporates—in notable contrast to traditional buildings with solid or pebbled roofs, which collect and reflect heat back into the atmosphere. The roof will also absorb rainwater and allow it to condense slowly back into the atmosphere—a particular boon during strong downpours when rain would otherwise run off quickly, potentially overloading city storm sewers.

In addition to the "green" roof, and following a one-year modelling study of potential energy costs based on the architectural design, several other innovative heating, cooling and lighting features were commissioned for the building. These include:

- interior design that maximizes access to natural light for office workers and residents, resulting in reduced use of artificial light;
- sun-shading screens, made of a translucent fabric that matches the colour of the façade, that are built into the framing of the windows and lowered automatically to cool the inside temperature on hot days;
- natural ventilation through windows that open manually;
- light sensors for the external perimeter areas that automatically shut off lights when a certain natural light level is reached; and
- a cooling system consisting of water-filled coils buried within a plaster ceiling. When cooling is required, water circulates through the coils, creating a convection current of cold air at ceiling level, which is pushed down naturally by rising warm air.

Date: April 2005

Contact:
Media Relations Division
Foreign Affairs Canada
Tel. (613) 995-1874