



Toronto City Hall Green Roof Demonstration Project



Project Name: Toronto City Hall Green Roof Demonstration Project

Year: 2000

Owner: City of Toronto

Location: Toronto, ON, Canada

Building Type: Municipal/Government

Greenroof Type: Extensive & Intensive, Test/Research

Greenroof System: Single Source Provider

Roof Size: 3200 sq.ft.

Roof Slope: 1%

Access: Accessible, By Appointment

Submitted by: Linda S. Velazquez

Designers/Manufacturers of Record:

Greenroof System: Sopranature, Soprema

Greenroof System: GreenShield™, The Garland Company



On November 2, 2000, Green Roofs for Healthy Cities launched the Green Roof Infrastructure Demonstration Project, a public-private partnership between the member companies of Green Roofs for Healthy Cities and the City of Toronto, the Toronto Atmospheric Fund, the National Research Council's Institute for Research in Construction and Environment Canada. The Project includes two locations, at Toronto City Hall and the Eastview Neighbourhood Community Centre. It entailed an investment of \$260,000 and eight greenroof plots covering City Hall, containing:

- Black oak savannah, a native prairie ecosystem that is now endangered in North America. These plants are drawn from the High Park gene pool;
- Two extensive plots featuring a variety of sedum and alpine perennials, typical of industrial and commercial applications;
- Two semi-intensive plots featuring a variety of flowering plants, shrubs and small trees;
- Native butterfly and bird habitat; and
- Two urban agricultural plots featuring perennials and annuals.



Goals for the demonstration project include:

- Generating reliable technical data on green roof performance in areas such as energy efficiency, stormwater retention, the extension of roof membrane life span and plant survival in the Toronto climatic context.
- Conducting research on city-wide cooling benefits of green roofs in the summer and the potential spin off greenhouse gas, smog reduction and energy efficiency gains by reducing cooling energy needs in all buildings. For example, a 2-4°C reduction in summer temperature would reduce energy consumption by approximately 10%.
- Evaluating the costs and benefits of future public-private investments in green roofs.
- Increasing the awareness of the benefits of green roof technology by giving professionals the opportunity to visit a working demonstration site with multiple applications.

The main project elements address the following: The project combines proposed technical research at the site and city-wide level with technology demonstration. There are two demonstration sites: the publicly accessible City Hall Podium Roof and the gymnasium steel deck roof at the Eastview Neighbourhood Community Centre.

Anticipated funding from the Canadian Federal Government's Technology for Early Action Measures program would allow the National Research Council's Institute for Research in Construction to install monitors at Eastview and City Hall to measure temperature, moisture and membrane durability over the next three years.

Soprema's Sopranature and Garland's GreenShield™ are the green roof systems utilized on both sites. Guided tours of the Toronto City Hall greenroof are available during certain times of the year.

Additional thumbnail photos:



A brand new 36,500 sf greenroof is planned for the Toronto City Hall - the Nathan Phillips Square City Hall Podium Green Roof is expected to be completed early-mid 2010.

Access to the Toronto City Hall Green Roof Demonstration Project is granted depending on the availability of Security staff. Visitors wishing to take the tour may call Access Toronto (416-338-0338) to confirm access will be available. It is possible to take self-guided tours of the green roofs from Monday to Friday from 9 a.m. to 4 p.m. Brochures and access information are available from the [Access Toronto](#) information counter in the rotunda lobby at City Hall.

For more info, visit the City of Toronto City Hall website [here](#) and the Green Roofs for Healthy Cities website [here](#) and download a project PDF [here](#).

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