Council Direction:
The Emergency and Community Services, at its meeting of September 17, 2008, approved the following, “That the General Manager of Community Services be directed to investigate, in collaboration with the appropriate Departments, the feasibility and costs associated respecting green roofs and living walls on new and existing CityHousing Hamilton buildings as well as in all new or existing City facilities and report back to the Emergency & Community Services Committee.”

Information:
A similar motion was approved by the Planning Economic Development Committee on August 10, 2009 directing staff to report back on the efficacy of a green roofs by-law and incentive program for Hamilton that is similar to the City of Toronto and Region of Waterloo. As the direction was given to both the Community Services and Planning and Economic Development Departments, staff from both Departments, as well as staff from the Public Works Department met to discuss the staff direction. Since the installation of green roofs and living walls is a complex technical and financial issue, with cross-departmental and community-wide implications, further study of green roofs is required.

To guide the study of green roofs and living walls in Hamilton, the Community Services Department will work with both the Planning and Economic Development and Public Works Departments to form a task force comprised of a cross-section of City of Hamilton staff, local community and environmental industry representatives. Working together, City staff and task
force members will develop a series of action items. For instance, although we can learn from neighbouring municipalities, such as Toronto and Waterloo, one of the recommendations that the task force may suggest is that a local feasibility study be completed. Consideration may also be given to hiring a consultant with the necessary environmental, building and engineering expertise to conduct the study about the potential application, value, implications and impacts of mandating green roofs. The potential costs, benefits and risks that may arise from the failure to properly design, install and maintain green roofs are among some of the key factors to be identified. Study perimeters should include the energy efficiency as well as the broader social, economic and environmental aspects of installing green roofs.

Since a green roof infrastructure requires a substantial investment, Hamilton, like other municipalities, should seek ways to maximize returns. A feasibility study would help to identify the areas of the city that have the greatest potential for green roofs and those areas where the benefits of green roofs will be most valuable. It is important to look at the upfront, annual and life cycle costs of the energy savings, maintenance costs and operational demands. By doing the required research and planning, green roofs and living walls can be considered in a proactive and systematic fashion.

It is to be noted that the City of Hamilton currently participates in several energy efficient activities. Under the guidance of the City’s Energy Policy and through numerous programs, energy retrofits have been carried out in many City-owned buildings. The improvements include updating lighting systems; installing heat recovery systems; reducing drafts and leaks around windows, walls, and doors; and, upgrading heating, ventilation, and air conditioning systems. Hamilton is incorporating a green roof into the upgraded City Hall. As a pilot project, the City Hall green roof will be an effective learning tool.

Preliminary research reveals that besides green roofs, there are other tested and cost-effective energy conservation methods that maximize energy efficiency. For instance, installation or conversion to more efficient Heating, Ventilating and Air-Conditioning systems, lighting systems, solar panels and geothermal roofs (also known as cool or white roofs, which reflect heat) are options that may carry less cost, less maintenance and less risk than green roofs. The idea of green roofs and living walls is one with a good deal of momentum, which warrants further investigation as they hold the potential to offer a wide range of benefits for Hamilton.