

Mayor's Tower Renewal

Date:	August 19, 2008
To:	Executive Committee
From:	Mayor Miller
Wards:	All
Reference Number:	

SUMMARY

Mayor's Tower Renewal is an opportunity to make tremendous progress on the major themes of city-building contained in my mandate. By dramatically improving the energy efficiency of the more than 1,000 high rise residential concrete frame buildings located throughout Toronto, Mayor's Tower Renewal will reduce greenhouse gas emissions by between three and five percent for the urban area.

Mayor's Tower Renewal will also generate social, economic and cultural benefits by creating local green jobs, increasing on-site small-scale retail and markets, upgrading green space around the buildings, providing more space for neighbourhood meetings and interactions, installing solar, wind and geothermal energy solutions, and green roofs where appropriate, increasing water conservation and on-site management of waste, increasing the demand for locally-produced green and clean technology, and fostering community gardens and urban agriculture at the sites.

Mayor's Tower Renewal also complements the goals of Transit City to deliver over 120 kilometres of rapid public transit to every corner of our city, making vital connections to our priority neighbourhoods where there is the greatest need and limited access to services. The initiative is also consistent with the objectives of the Agenda for Prosperity — including supporting a proactive, global, creative and inclusive Toronto — as well as with our Climate Change, Clean Air and Sustainable Energy Action Plan and with the work of the Neighbourhood Action Teams in the city's 13 priority neighbourhoods.

Mayor's Tower Renewal is an ambitious but important plan that will require unprecedented levels of cooperation and coordination across all City Divisions and Agencies, combined with a wide array of external partners.

RECOMMENDATIONS

The Mayor recommends that:

1. City Council adopt the objectives, principles, approach and criteria presented in the *Mayor's Tower Renewal Opportunities Book* and that they be used to define the planning and implementation of the Mayor's Tower Renewal.
2. The City Manager be directed to take steps to establish the Mayor's Tower Renewal project office by November 2008.
3. The City Manager be directed to develop and implement a *Mayor's Tower Renewal Pilot Site Strategy* in each community council area as outlined in the report on the Mayor's Tower Renewal Pilot Sites.
4. The Tower Renewal Office work with City divisions to develop the following elements of Tower Renewal for the pilot sites by March 2009:
 - a) Community energy plans for each pilot site in consultation with the appropriate stakeholders taking into account energy conservation and demand management, renewable energy, distributed generation, beneficial technologies, as well as the City of Toronto Green Development Standard and the tower renewal cost benefit analysis and best practice research underway at the University of Toronto.
 - b) A site-by-site review indicating how potential financing options, including private sector funding and possible City funding including the Sustainable Energy Funds, the Ontario Power Authority's 90 Megawatt Electricity Conservation incentives, etc, could provide financial support for the energy efficiency and renewable energy implementation related to the buildings and sites.
 - c) How to best address the planning issues associated with undertaking Mayor's Tower Renewal at the pilot sites, in a manner that maximizes the potential for achieving the goals of Mayor's Tower Renewal across the City of Toronto.
 - d) How to facilitate the permitting and approvals process at the pilot sites.
 - e) Coordinated approaches to engage tenants at the pilot sites.
 - f) How Mayor's Tower Renewal will be integrated into the work of the Neighbourhood Action Teams (in the case of pilot locations within a priority neighbourhood) and the Community Resources Unit.

- g) How on-site community use space, programming and recreational activities will be accommodated and improved at the pilot locations
- h) The outcome of safety audits in collaboration with building tenants, land/building owner(s), community stakeholders, local councillor, Toronto Police and other pertinent City partners.
- i) How to improve access to, and maintenance of, adjacent parks, ravines and natural areas, where applicable.
- j) How the Live Green Toronto program and the Eco-roof program including green roofs will support the goals of Mayor's Tower Renewal at the pilot sites.
- k) Opportunities to enhance the local tree canopy.
- l) Opportunities to advance the objectives of the Green Economic Development Strategy by introducing local green technology in the pilot projects where possible.
- m) Opportunities to advance neighbourhood cultural initiatives such as the inclusion of Mayor's Tower Renewal pilot sites in future Doors Open Toronto events and providing input into public art projects considered as site enhancements.
- n) Approaches to help ensure that any rent increases or other negative impacts to tenants that may result from energy efficiency and site improvements are avoided or minimized.
- o) Local employment strategies for each of the pilot locations with a focus on providing critical employment services and supports (e.g., pre-employment support, job skills training, apprenticeship opportunities, volunteer and paid work opportunities, job retention support, education referrals) to local residents at pilot locations and with employers involved in Mayor's Tower Renewal.
- p) Opportunities to leverage partnership and sponsorship opportunities in support of Mayor's Tower Renewal activities.
- q) Opportunities to improve the pedestrian and cycling infrastructure and other forms of sustainable transportation at the pilot sites.
- r) How the City of Toronto solid waste management policies and programs will be carried out at the pilot sites.

- s) How the Water Efficiency Plan and the Wet Weather Flow Master Plan will be implemented at the pilot sites
 - t) How greenhouse gas emissions will be monitored and reported at each site.
 - u) Any additional information resources, as required.
5. The City Manager be directed to collaborate with the Mayor's Tower Renewal Leaders on the development and implementation of the Mayor's Tower Renewal pilot site strategies to maximize the benefits of the contributions made by the Leaders and to avoid duplication of efforts.
 6. The City Manager be directed to produce an inventory of lessons learned from activities at each pilot site and a detailed strategy outlining how Mayor's Tower Renewal will be implemented across all City of Toronto neighbourhoods.
 7. Authorize and direct appropriate City officials to take the necessary action to give effect thereto.

Financial Impact

There are no direct financial implications resulting from the adoption of this report.

DECISION HISTORY

In spring 2007, E.R.A Architects presented me with academic research completed in partnership with the University of Toronto. Their research indicated it was possible to achieve high levels of greenhouse gas reductions by cladding the exterior of high-rise concrete frame residential buildings similar to those located throughout Toronto¹.

Between 2004 and 2007, Graeme Stewart and Michael McClelland of E.R.A. Architects combined the technical design and innovative materials work of the University of Toronto with community planning considerations. Their conclusion was that ***actions to improve energy efficiency at high-rise buildings can become a powerful driver of community revitalization***. Stewart and McClelland's research was strongly influenced by successful tower retrofitting and community renewal programs in cities such as Berlin and Amsterdam.

At my request, E.R.A. presented their research on tower renewal to the May 28, 2007 meeting of Executive Committee. The potential wide-ranging environmental, social,

¹ Kesik, Ted and Ivan Saleff (2004), Growing a New Skin: The Architectural Challenges of Building Envelope Retrofits. Proceedings of the 2004 ACSA Northeast Regional Meeting, Syracuse University, Syracuse NY, October 29-31, 2004

economic and cultural benefits and dramatic city building potential of the tower renewal approach was immediately apparent to members of the Executive Committee. I subsequently directed my office to work with E.R.A. to begin to clarify how the tower renewal concept could be translated into real-life community revitalization in the City of Toronto.

In July 2007, Council unanimously endorsed the Climate Change Clean Air and Sustainable Energy Action that directed staff to further develop a tower renewal framework for Toronto as a method to reach our ambitious greenhouse gas reduction goals.

ISSUE BACKGROUND

Mayor's Tower Renewal is an exceptionally strong fit with the major pillars of my mandate, including the Transit City plan to deliver over 120 kilometres of rapid public transit to every corner of our city making vital connections to our priority neighbourhoods. Mayor's Tower Renewal is also fully consistent with the objectives of the Agenda for Prosperity including supporting a proactive, global, creative and inclusive Toronto, as well as with the City of Toronto Climate Change, Clean Air and Sustainable Energy Action Plan and with the work of the Neighbourhood Action Teams in the City's 13 priority neighbourhoods.

With over 1,000 high-rise residential concrete buildings located throughout the City of Toronto, there is a tremendous opportunity to reduce costly energy use and the associated release of greenhouse gases and air pollutants. Built between the late 1950s and early 1970s — in many cases with incentives from the Canadian Mortgage and Housing Corporation — the majority of these buildings do not make use of modern insulation materials or other energy efficiency measures. Huge amounts of energy are wasted on heating and cooling.

Underused Green and Open Space

As a deterrent to urban sprawl, the incentives originally provided by the Canadian Mortgage and Housing Corporation to construct the concrete high-rise buildings linked height of the buildings to surrounding green space; the more open space associated with a building, the greater the height allowance resulting in the "tower in a park" sites found across Toronto.

Decades later, much of the space associated with the concrete towers lies vacant while residents are forced to travel away from their neighbourhoods for food, services and amenities such as parks and ravines. Access to major public transportation routes is often poor and inconvenient, as is the environment for walking or cycling.

Affordable and Larger Units

The distinctive concrete towers have a high number of rental apartments that are often home to new Torontonians who arrive from across Canada and around the world. The

average apartment size in the concrete high-rises is larger than the bachelor and one bedroom condominiums being built today. It is common to find units with two or even three bedrooms providing space for larger families seeking affordable rents.

Pilot Sites

The purpose of Mayor's Tower Renewal pilot sites is to demonstrate a wide range of tower renewal opportunities in different neighbourhood contexts. The pilot sites will consist of projects of varying scales and mandates appropriate to site conditions and the geography of each particular apartment neighbourhood. Taken together, the combination of pilot projects will demonstrate and test a full range of tower renewal objectives and actions, setting the stage for a subsequent city wide roll-out of Mayor's Tower Renewal.

COMMENTS

Mayor's Tower Renewal is a multi-faceted city-wide project that will provide social, economic, environmental, cultural, financial and other benefits to the residents of Toronto. It will tie together key pillars of my mandate as well as existing City of Toronto initiatives including the Climate Change, Clean Air and Sustainable Energy Action Plan, the Agenda for Prosperity, Transit City and the work of the Neighbourhood Action Teams in communities with poor access to services and wide spread economic challenges. It will combine the efforts and resources of all City Divisions and Agencies with the Mayor's Tower Renewal Leaders in public, private, and non-profit sectors.

Wide-ranging Benefits

I want to emphasize the particularly broad range of benefits associated with this initiative. These are explained in more detail in the *Mayor's Tower Renewal Opportunities Book* but a partial list includes:

A cleaner and more healthy environment through significant reductions in greenhouse gas emissions, zero-carbon goals for new buildings and site features, improved public transportation, cycling and pedestrian options, applications of renewable and district energy, greenroofs, greening of public spaces, urban agriculture, on-site waste management and best practice water efficiency measures and wet weather flow management.

Stronger communities through local job creation, enhanced availability of local food and services, safe and enjoyable community interactions, improved green space and outdoor recreational space, and the engagement of tenants in the planning and implementation of the pilot projects.

Greater cultural awareness and activities through a focus on collective and individual heritage, on-site public art, aesthetic qualities of external building insulation and landscape heritage.

Enhanced local economic activity through on-site retail and services, commercialization of green technology, new employment and business opportunities.

Unprecedented Need to Work Together

Mayor's Tower Renewal requires major City divisions and many City of Toronto agencies working together across diverse areas of expertise in unprecedented levels of cooperation. Working with partners of all types is a key component of Mayor's Tower Renewal. The City of Toronto can develop the framework for action but must work with property owners, residents and other business and community partners to expand, support and implement Mayor's Tower Renewal.

Mayor's Tower Renewal will also rely heavily on community partnership and my office will continue to work with the Mayor's Tower Renewal Leaders, a group of individuals who want to make significant contributions to the project as well as with the Clinton Climate Initiative who continue to provide expertise to the project.

Tower Renewal Project Office

The scope and scale of the Mayor's Tower Renewal merits a dedicated unit, particularly during the incubation phase and roll-out of the first four pilot sites. A central coordinating office during the start-up stage of the work is critical due to:

- the project complexity
- the breadth of divisional and agency input required
- the civic engagement value of the project
- the strong need for centralized, authoritative coordination and leadership
- the need for exceptionally strong understanding of the links among divisional responsibilities related to Mayor's Tower Renewal
- the need for tight timelines to realize significant financial and other benefits that are currently untapped.

Potential for Significant Energy Savings

Research conducted by E.R.A Architects and the University of Toronto indicates that energy use for individual apartment units in the buildings is often higher than nearby single detached houses.

Using best practice in building cladding and related retrofits, demand for heating and cooling the high-rise residential buildings can be reduced by at least 50 percent. The reduced energy costs create a revenue stream to pay for the improved energy technology and on-site improvements while reducing energy-related greenhouse gases emissions and air pollutants.

Benefits of Upgrading Existing Structures

The concrete frame high-rise buildings constructed during the late 1950s through to the early 1970s were produced using large quantities of energy. Current energy costs and the City of Toronto's commitments to reduce greenhouse gas emissions favour upgrading existing building stock over demolition when ever possible.

The majority of the high-rise concrete frame residential towers provide rental accommodation that, in many cases, is affordable and not available in other types of housing. By improving existing high-rise buildings residents can remain in place during retrofits and will benefit from a more comfortable environment inside and outside their apartments.

The installation of energy efficiency retrofits will allow property owners to enjoy decreased energy costs thus allowing rents to remain affordable even as the building stock is upgraded.

Speed is Imperative

The time to act on Mayor's Tower Renewal is now, to alleviate poor living conditions, unnecessary energy costs and a myriad of missed opportunities.

Inefficient energy use at high rise residential buildings is wasting huge amounts of energy and money and delivering massive amounts of greenhouse gases to the atmosphere. Residential concrete tower building retrofits could reduce greenhouse gas emissions by close to 1,000,000 tonnes. Site improvements are long overdue in many areas that currently have poor access to transit and other services and amenities.

There is a high correlation between location of many buildings that fit the Mayor's Tower Renewal profile and priority neighbourhoods. By acting quickly, we can multiply the benefits of the community development work already underway by Neighbourhood Action Teams and community development work in other areas.

Clear Definition of What Constitutes Tower Renewal

A review panel to oversee consistency with tower renewal objectives is essential to maintain a high standard of practice during the pilot project phase of Mayor's Tower Renewal. Early vigilance will also ensure that the first projects provide high quality examples of the best way to do Mayor's Tower Renewal across Toronto.

The renewal of existing high-rise residential towers is possible on a level that fails to meet the objectives of Mayor's Tower Renewal. The result is a corresponding reduction in benefits to the building owner, the residents, the local community and the City of Toronto. The Mayor's Tower Renewal brand will ensure projects result in maximum social, economic, environmental, cultural and design benefits.

Clear guidelines for what does and does not constitute Mayor's Tower Renewal will be available at www.towerrenewal.ca, from the best practice guidelines developed by the University of Toronto and associated practitioners and presented in the Mayor's Tower Renewal Opportunities Book.

CONTACT

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SIGNATURE

Mayor David Miller

ATTACHMENTS

Mayor's Tower Renewal Leaders
Mayor's Tower Renewal Pilot Sites