

"In Toronto, an unusually large number of high-rise apartments poke above the flat landscape many miles from downtown... this is a type of high-density suburban development far more progressive and able to deal with the future than the endless sprawl of the U.S. ..."

— Richard Buckminster Fuller, 1968

MAYOR'S TOWER RENEWAL

With the second highest number of high-rise buildings in North America, Toronto is a city of towers. The majority of these are concrete apartments, built throughout the region during the boom of the '60s and '70s.

Collectively, these aging towers could become one of Toronto's greatest urban assets.

Mayor's Tower Renewal is a building upgrade, community reinvestment and greening initiative, which will bring real investment to apartment neighbourhoods; foster vibrant communities, and reduce greenhouse gases throughout Toronto.

Poised to transform the city, Mayor's Tower Renewal is a key initiative towards a green, equitable and vibrant Toronto in the 21st Century.



Mayor's
Tower Renewal

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MAYOR'S TOWER RENEWAL | OPPORTUNITIES BOOK

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OPPORTUNITIES BOOK

Prepared for the City of Toronto by
E.R.A. Architects and the
University of Toronto

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Mayor's Tower Renewal: An Introduction

I am pleased to present Mayor's Tower Renewal.

Mayor's Tower Renewal is a vision for a greener, more liveable and prosperous city. By rejuvenating select neighbourhoods across Toronto, we have an extraordinary opportunity to build the great city Torontonians demand and deserve. By dramatically improving the energy efficiency of the more than 1,000 high-rise concrete residential buildings located throughout Toronto, Mayor's Tower Renewal will significantly reduce greenhouse gas emissions for the entire urban area.

But Mayor's Tower Renewal is about much more than energy consumption. It is a plan that will drive broad-reaching environmental, social, economic and cultural benefits. It will enhance the liveability and prosperity of the city and ignite creativity, innovation and unparalleled levels of partnership throughout Toronto.

Built for a young urban population during a period of unprecedented growth in the '60s and '70s, these buildings now house some of Toronto's poorest communities. Despite their larger size, many units now contain large families, struggling to make ends meet. When new immigrants come to Toronto, often these apartment neighbourhoods become their first introduction to Canada. Mayor's Tower Renewal presents a real and lasting opportunity to provide renewed housing, stronger neighbourhoods, and a cleaner environment.

Mayor's Tower Renewal fits with the major pillars of my mandate, including Transit City, a plan to deliver over 120 kilometres of high-speed public transit to every corner of our city, making vital connections to our priority neighbourhoods. It is 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, along with the work of the Neighbourhood Action Teams in Toronto's 13 priority neighbourhoods.

Mayor's Tower Renewal works in Toronto in large part because we are a city of towers. The Greater Toronto Area contains North America's second highest concentration of high-rise buildings. The majority of our towers are concrete apartment buildings built during the period of growth and optimism of the '60s and '70s, many with incentives from the Canadian Mortgage and Housing Corporation.

Now is the time to act if we are to renew and revitalize these concrete communities in a meaningful way. We also have a chance to enhance the benefits of the community development work already underway by our Neighbourhood Action Teams.

I want to thank Michael McClelland and Graeme Stewart of E.R.A Architects for their tireless efforts to make sure the City of Toronto seizes the opportunities that Mayor's Tower Renewal offers.

This **Opportunities Book** outlines our vision and principles, explains the need for pursuing energy efficiency in high-rise residential towers as a means to community revitalization and makes the case for taking action immediately. It is the story of Mayor's Tower Renewal can become a reality in Toronto.



Mayor's Tower Renewal: An Overview

Toronto is a City of Towers

Today these towers are found all across the city and are a prominent feature of most neighbourhoods. They account for nearly a third of the total housing stock, and are home to hundreds of thousands of Toronto residents. When I first emigrated to Canada, I lived in a concrete apartment tower of similar construction in Ottawa.

However, after four decades, many of these structures and their communities are facing challenges. They are desperately in need of thoughtful revitalization.

Among the most energy inefficient buildings in the city, their operation contributes significantly to our residential greenhouse gas emissions. Many of these buildings and their communities are in areas of social and economic disparity.

In response, the City of Toronto is implementing Mayor's Tower Renewal, a multi-faceted building upgrade, community revitalization and greening program of unprecedented scale.

Goals of Tower Renewal

I want to emphasize the broad range of benefits associated with Mayor's Tower Renewal. These are explained in more detail in the chapters that follow, but the major goals are built on the wide-ranging benefits the program will deliver, including:

A cleaner and greener city through significant reductions in greenhouse gas emissions, zero-carbon goals for new developments, improved public transportation, cycling and pedestrian options, applications of renewable and district energy, green roofs, greening of public spaces, urban agriculture, on-site waste management, 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 open space and outdoor recreational space, and the engagement of tenants in the planning and implementation of projects.

Increased social and cultural benefits through a focus on site and community heritage, enabling local cultural production, and improving the built and natural environment in neighbourhoods.

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

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 as seen 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 or amenities. Access to major public transportation routes is often poor, as is the environment for walking or cycling. These large spaces can be better used in service of their communities.

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 globe. The average unit size in the concrete high-rises is larger than the bachelor and one bedroom condominium units being built today. It is common to find units with two or even three bedrooms providing space for larger families at affordable rents. They are an invaluable housing resource.

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 by as much as 20 percent. Inefficient energy use in these buildings is wasting huge amounts of energy and money and delivering massive amounts of greenhouse gases into the atmosphere.

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 gas emissions and air pollutants.

Benefits of Upgrading Existing Structures

The concrete high-rise buildings are huge energy consumers. Current energy costs and the City of Toronto's commitment to reduce greenhouse gas emissions favours upgrading existing building stock over demolition whenever possible.

The majority of the 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 ultimately benefit from improved living conditions.

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

Guidelines and Best Practices

A panel to oversee consistency with Mayor's Tower Renewal objectives is essential to maintaining a high standard during the pilot projects. Our first projects will provide high quality examples of the best way to implement Mayor's Tower Renewal across our city.

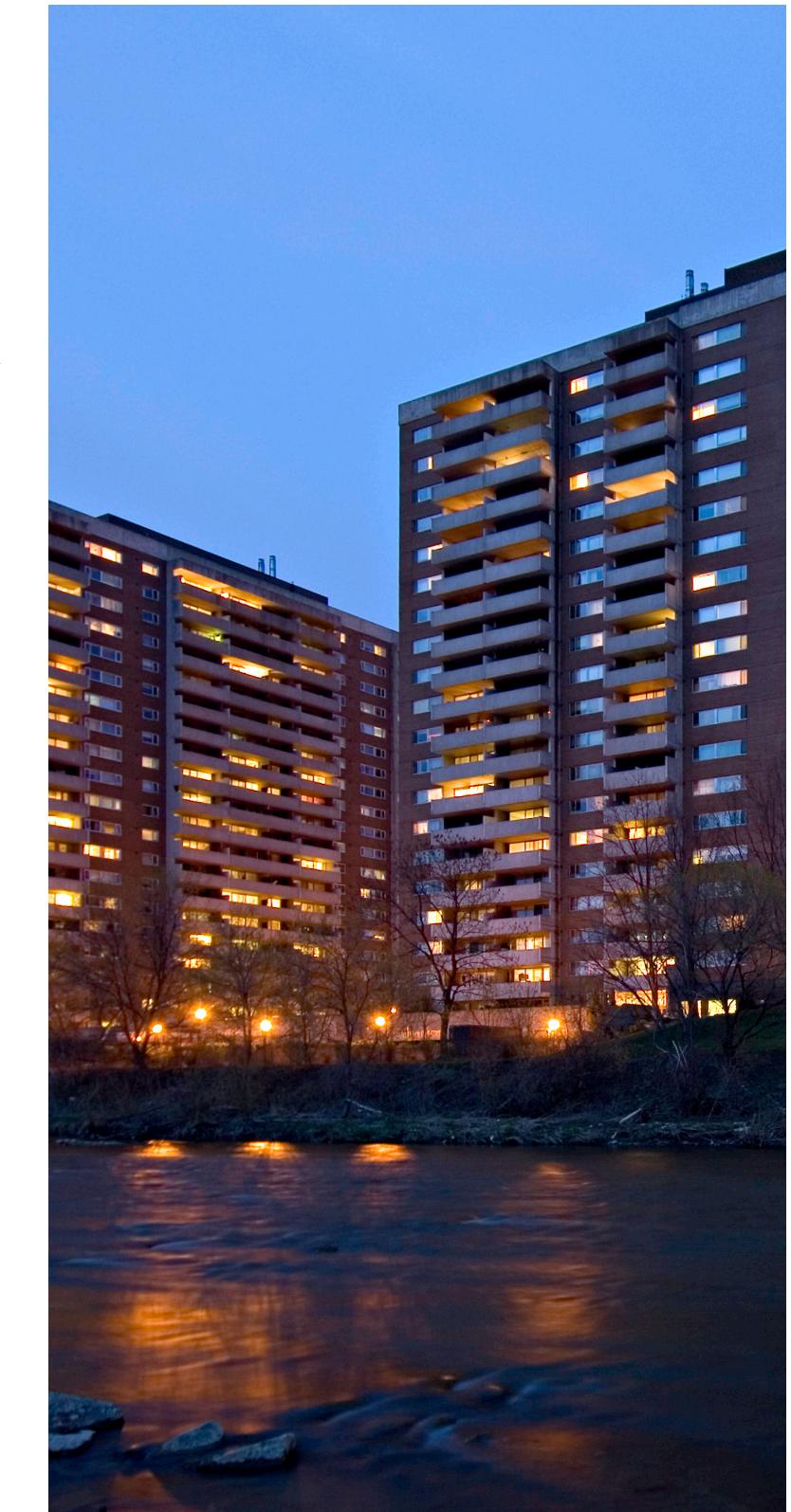
Clear guidelines and best practices will be available at www.towerrenewal.ca, from standards developed by the University of Toronto, E.R.A. Architects, associated practitioners and City divisions, derived from the opportunities presented in this book.

There will be challenges but more importantly there will be opportunities to do great things. With the skilled team at the City, the Mayor's Tower Renewal Leaders, and the talent and commitment found in every community throughout Toronto, I know we can make Mayor's Tower Renewal a resounding success and a city-building legacy.



A handwritten signature in black ink that reads "David Miller".

Mayor David Miller





THE SUSTAINABLE CITY: MAYOR'S TOWER RENEWAL



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