

BUILDING A SUSTAINABLE TORONTO

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Prepared by:

James McKellar
Professor of Real Estate and Infrastructure
Schulich School of Business
York University
jmckellar@schulich.yorku.ca

David Amborski
Professor
School of Urban and Regional Planning
Ryerson University
damborski@ryerson.ca

With the assistance of:

Cynthia Holmes
Adjunct Professor
Schulich School of Business
York University
cholmes@schulich.yorku.ca

Steven Webber
Assistant Professor
School of Urban and Regional Planning
Ryerson University
swebber@ryerson.ca

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This discussion paper was prompted by two events: The intention of the City of Toronto to pass a new bylaw in 2009 that will result in a significant increase in development charges for new development; and, an interest among some members of Toronto' housing industry to initiate constructive dialogue on the future of the city. The first reflects micro issues at the level of individual buildings, whereas, the second involves macro thinking about the collective impact of these buildings. The group formed a coalition and agreed upon an approach to bring new knowledge and information forward for discussion, and to rely on upon academic research as the primary source to do so. They also agreed on a common theme for this dialogue - building a sustainable Toronto.

This discussion paper is not and argument for or against development charges. Nor is it an answer book about the future. It is a discussion paper that will hopefully launch a constructive dialogue among politicians, academics, industry participants, and other interested parties. Out of this will hopefully come some common ground upon which to build a sustainable future for the city. The first step is a commitment to research and empirical evidence that will contribute to informed debate on issues that are fundamental to the next 25 years. The authors wish to thank the coalition and its members for supporting this initiative.

James McKellar, Schulich School of Business, York University
David Amborski, Ryerson University

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INTRODUCTION

We are on the threshold of a new era of city building in North America, the impacts of which are being felt now. The traditional model of city building we are all familiar with thrived for over five decades on three things: 1) relatively inexpensive and abundant raw land at the periphery; 2) cheap fossil fuels; and, 3) access to the automobile. We are now experiencing a convergence of significant local and global factors that are rapidly rendering the traditional growth model obsolete. The dramatic rise in carbon dioxide emissions from the burning of fossil fuels that drove the traditional model is raising the earth's temperature and threatening the chemistry of the planet and global climate; locally, raw land suitable for development is no longer abundant or inexpensive; and, high gasoline costs plus congestion, are forcing a look at alternative modes of transportation. But one thing has not changed and that is growth itself. Growth drove the traditional model and it will drive the future model. How growth is managed in the future will define those cities that will be successful and those who will not.

TRADITIONAL MODEL	FUTURE MODEL
Competing regional employment centers	Downtown as a primary attraction
Transportation spider web	Transportation integrated network
Separation/Fragmentation	Sense of community/connectivity
"Drive till you qualify" for working families	Accessible housing for service workers
Economic disparity	Social equity
Congested commutes	Easy commutes/extensive transit
Automobile dependent	Transit dependent
Nuclear families in low density housing	Wide range of households in higher density
Consumptive/polluter	Environmentally sustainable
Continuous growth	Continuous growth

That leaves us with the central question that every city needs to ask: Where do we want to be twenty-five years from now? Do we have the capacity, the foresight, and the political will to move ourselves out of the traditional model and into a non-polluting, sustainable future? Addressing this challenge is the basis of Building a Sustainable Toronto.

This discussion paper is precipitated by a seemingly innocuous event when compared to these global factors, namely, a proposed increase in development charges on new development in the City of Toronto¹. Development charges are an essential part of the traditional model of growth². In this model, a portion of the estimated costs of new growth - primarily the cost of infrastructure

¹ Provincial legislation requires Toronto to review and renew its development charges every five years. This requires that Toronto adopt a new by-law by mid-2009. The proposed increases and the Background Study is available at www.toronto.ca/finance/dev_charges_bylaw_review/

² Development charges fall into a category of project-related fees most commonly referred to in the research literature as impact fees.

to support the conversion of agricultural land to serviced building lots - are captured by local governments through project-related fees. These development charges provide revenues to fund growth and avoid burdening existing tax payers in the municipality. What has changed to cause a reexamination of this concept?

In the traditional model, calculating the costs and benefits of development charges in Ontario is defined by legislation. However, this is a “benefit principle” and not a value proposition. This approach is strongly embraced by suburban municipalities as development fees represent a primary source of revenue - at least in good times and when greenfield sites are available and desirable. There is even pressure from some politicians in the City of Toronto to adopt a suburban approach and match their schedule of development charges. This may address an immediate revenue problem for the City, but is it headed in the right direction? That brings us back to the central question: Where do we want to be 25 years from now?

The purpose of this discussion paper is to precipitate the necessary empirical research and informed discussion to address this question. It is only within this context that the matter of establishing appropriate development charges can be effectively discussed. This is not a matter of arguing for or against something. Rather, it is a matter of the City and the Toronto housing industry working together for a common goal. It is in the mutual interest of the City and the industry to succeed over the next 25 years, and beyond, and it is intended that this paper will be a first step in this direction.

The paper is organized into seven sections. The first section sets the context for this exercise, addressing the next 25 years and what it means to achieve a sustainable Toronto. Section two is a summary of the research on the topic of development charges. The third section briefly addresses the current context. The fourth summarizes the policy framework that is now in place and which is intended to guide future growth in the City. The fifth section addresses a common thread that runs through much of what we must achieve in the next 25 years, namely, intensification. Section six deals with the housing challenge that is fundamental to sustaining a healthy and prosperous Toronto. Finally, conclusions and a set of recommendations are offered based on the content of the paper.

1. A SUSTAINABLE TORONTO

In the next 25 years, growth will continue much as it has before; millions of square feet of new space - homes, offices, shopping malls, commercial and industrial buildings, not to mention all of the publicly funded structures from hospitals to local libraries, will be constructed. A recent U.S. study (Nelson 2004) estimates that in 2030, about half of the buildings in which Americans live, work, and shop will have been built after 2000, the majority of which will be residential space. This figure demonstrates that nearly half of what will comprise the built environment in 2030 does not yet exist, giving the current generation a vital opportunity to reshape future development. Will they opt to maintain the status quo or seek a very different pattern of growth? The answer in terms of rejecting the status quo is obvious, but not as obvious when it comes to defining what to

replace it with. Scoping the new urban landscape and comprehending what is required to get there in a relatively short period of time is a task for both governments and industry.

World-wide, buildings are the major contributor to human global warming, consuming 30-40 percent of all energy produced and generating an equal percentage of all CO² emissions (Brown, Southworth and Sarzynski 2008). Add to this the impact of the existing low-density spread that is the legacy of the traditional model and the challenges of the next 25 years come into focus. How can we build in ways that makes better use of the lands that we have already urbanized? How can we increase residential densities without threatening existing neighborhoods? What is the right mix of uses and activities at a given location to reduce reliance on the automobile and support public transportation? Is it realistic to assume that new buildings will rely on renewable forms of energy? Will shortening the distance between work and home become critical factors in deciding where to live and work?

Current trends are revealing. Demand is increasing for compact, walkable, and high quality living, entertainment, and work environments (Urban Land Institute 2005). Inner cities and downtowns are once again competing with the suburbs for new residents and jobs; public transit ridership is increasing; vehicle mileage is dropping for the first time ever (Puentes and Tomar 2008); and, new markets are emerging that reflect demographic trends and consumer preferences. The task for leadership is to create the right market, land use, and other regulatory climates to accommodate and channel this new growth in more sustainable ways.

Building a sustainable Toronto over the next 25 years entails four key initiatives:

- Securing the long-term economic competitiveness of the City and an ability to compete globally for the brightest people and the very best firms;
- Creatively reshaping the urban fabric to accommodate new forms of growth that will be driven by a combination of demographic trends and market forces;
- Reducing the carbon footprint of the City and mitigating the environmental consequences of its growth profile; and,
- Maintaining a range of housing choices with particular emphasis on making housing available to those whose services are essential to the future prosperity of the City.

These four initiatives are consistent with the Agenda for Prosperity released by the City of Toronto in January 2008 (Toronto 2008). To quote this report:

“This Prosperity Agenda aims to bring together everyone who can and wants to contribute to Toronto’s long-term prosperity around a single, simple agreement on an achievable vision - a vision to which we can all aspire and align our plans and actions.....It is also a call for a greater degree of cooperation among industry, labour, educators and orders of government to enhance competitiveness and stimulate sustained economic growth for the benefit of all.”

These four initiatives represent a framework against which the efficacy of future development policies and programs should be assessed and measured, including development charges and other direct and indirect forms of taxation and local user charges. Without this framework, decision-makers may fail to account for true costs and benefits of their decisions. These initiatives are fundamental to the new growth model and will distinguish those actions that will shape the future from those that are simply a reaction to the past.

Since this paper was precipitated by a proposal to increase development charges, but with the intention of affecting broad policy questions and guiding future research, it would be useful to review what the existing literature tells us about development charges.

2. WHAT THE RESEARCH TELLS US

When it comes to paying for the costs of growth, municipal governments across North America are the first line of financing. However, local revenues are never enough to pay these costs. Unlike the situation in the U.S., constitutional arrangements in Canada absolve the Federal government from any responsibility for cities and they are creatures of the province. Provincial legislation governs almost everything that cities do and cannot do and provinces have tended to play a legislative role and not a funding role. As a result, municipal governments in Canada, in addition to property taxes, have come to rely on development charges to provide facilities concurrent with the effects of growth. In Ontario, these fees are referred to as development charges, but they exist in some form in most cities right across Canada and the United States. In fact, they are so widespread that cities that do not have them are considered unusual (Burge, Nelson and Matthew 2007).

Historically, the antecedents of development charges were in-kind extractions, land dedications, or build/install requirements for the construction of specific facilities related to growth. Development charges paid as monetary contributions came into being in the 1970s and provided a more efficient and flexible means of financing local infrastructure required to support growth. As senior governments withdrew their funding, development charges increased. For example, Toronto now proposes to use a significant portion of its proposed development charge increases to support the Spadina subway extension and its commitment to portions of the Toronto waterfront revitalization. There is no question that Toronto needs money and this is driving its quest for increased development charges.³ There has been a considerable amount of academic research undertaken on the topic of development charges as a result of the controversy that usually surrounds their imposition. Development charges have numerous detractors, many of whom raise issues related to the effect on affordable housing, economic development, and forms of development. This has led to a rather disparate body of research, usually addressing one of these concerns or issues. This research has become increasingly important as cities are finding

³ See http://www.toronto.ca/finance/dev_charges_bylaw_review/index.htm

that it is difficult to raise property taxes to pay for the additional infrastructure costs of growth. Also from a political perspective, there is the desire to shift the costs of public improvements away from existing residents. Development charges are seen as a practical means to bridge the gap between the costs of new municipal infrastructure and the revenue streams that will help pay for them.

Unfortunately, the academic literature on the topic of development charges has several important shortcomings. First, it is based on municipalities on the United States which have very different institutional arrangements, access to a broad range of financial sources not available to Canadian cities and quite different legislative arrangement than their Canadian counterparts. Second, this research centers on new development that is almost exclusively new single-family tract housing in suburban locations. Third, there is no current research dealing the role of development charges on redevelopment or urban infill. In fact, in the United States redevelopment is more a matter of various tax breaks, government incentives, and in-kind contributions. Also, the dollar amount of development charges that are cited in the U.S. research falls far below the range of fees that we associate with suburban development in the Toronto region.

On the costs side of the argument, empirical research on the topic includes that of Altshuler and Gomez-Ibanez (1993), Delaney and Smith (1989a, 1989b), Downing and McCaleb (1987), Huffman et al (1988), Singell and Lilydal (1990), and Synder, Stegman, and Moreau (1986), and more recently Nelson and Moody (2003), Ihlanfeldt and Shaughnessy (2004), and Burge and Ihlanfeldt (2006b). Perhaps the most comprehensive and recent research paper is that of Burge, Nelson and Mathews (2007).

Despite this body of empirical research, most public discussions over the relative merits of development charges have been based mostly on speculation, anecdotal evidence, and what is political expedient. Much could be gained from additional research in a Canadian context and focused on urban redevelopment and intensification. However, it is still useful to summarize some of the findings of the U.S. based empirical research on development charges, acknowledging some of the shortcomings. Collectively, the most convincing empirical evidence on the price effects on development charges indicates the following (Burge, Nelson and Mathews 2007):

1. Development charges do lead to higher average house prices. Focusing on several recent studies that use reliable data and methodological approaches, the estimated price effects for new homes have mostly pointed to a range between \$1.50 (US) and \$1.70 for a \$1.00 increase in development charges.
2. Development charges do not cause price increases of similar absolute magnitudes for expensive versus more affordable homes. Instead, the increase in the willingness to pay seems to be approximately proportional to the value of the home.
3. An understanding of the market price effects of development charges is essential for local governments considering their use. Good public policy should be mindful of any potential problems low-income consumers may face from rising prices for the most affordable homes in the community, but would also recognize where the positive pressures on prices seems to

be coming from.

On the production side, the empirical research on the relationship between development charges and housing construction is comparatively thin compared to that of the impact on house prices. The literature includes Skidmore and Paddel (1998), Mayer and Somerville (2000), and Burge and Ihlanfeldt (2006b). The effects of development charges on residential construction rates are considerably more complicated than their effect on prices. Also, there are relatively few studies available. Not surprising, the understanding of the effects on development charges on housing production is somewhat less refined than the understanding of price effects. Well-designed empirical work is needed. The same can be said about the relationship between development charges and economic development. Nelson and Moody (2003) caution that more rigorous analysis must be undertaken to explore the short- and long-term impacts of development charges on job growth and other important measures of economic activity in communities. Again, more research is needed.

Closer to home, through a simulation exercise, Dunning (2005) estimated the potential impacts of price increase that are generated by government policies for the GTA that are beyond any price increases that would result from market conditions. Simulations generated estimates of impacts on housing starts, on the amount of employment that is generated by housing starts, on the amount of employment that is generated by housing starts, and on revenues generated for the three levels of government. In the 2006 to 2009 period, each \$1,000 in policy-driven price increases result in:

- 1,137 fewer housing starts over a four year period, or a loss of 284 housing starts per year.
- 1,015 fewer jobs per year.
- \$20.6 million less in revenues for the three levels of government, including \$13.9 million less for the federal government, \$4.6 million less for the provincial government, and \$2.1 million less for municipalities in the GTA.

For example, the simulation indicates that a \$20,000 policy-driven increase would reduce housing starts by 10.4 percent, employment by 11.6 percent, and government revenues by 5.1 percent

Other local analyses of policies that impact on local housing markets include several analyses of the City's land transfer tax. The analysis undertaken for the City by David Nowlan discusses one of the impacts being the capitalization effect, which he suggests will not be a problem. However, he then indicates: "The most direct effect will be to delay some developments, to keep the affected property in its original use longer than anticipated. This could be the case with respect to sites that are already earning income and for which the decision to develop is marginal." (Nowlan, 2007) This may not have been an important concern in strong markets, such as when he prepared his report. However, in weaker markets, it can provide a significant tipping point impediment to the development in some marginal areas of the city such as Scarborough and Etobicoke, including their identified growth centres.

In a more recent empirical analysis of the Land Transfer tax published by the C.D, Howe Institute, the results indicated that tax has had an impact of 1.5 percent reduction in house values and a 16% decline in houses sold. Furthermore, the authors indicate that in the first year the tax caused a reduction in household mobility, people remain in houses in which they otherwise might have moved. (Dachis, Duranton, and Turner, 2008). This effects people by encouraging them to remain in houses that are too big or too small, or too far from their place of employment which may work at cross purposes to other municipal policy objective. The research confirms that there have been far too many debates over development charges that have both sides making broad speculations about even their most basic effects, rather than drawing on evidence from careful investigation.

In the absence of convincing empirical evidence it is abundantly clear that political resistance to property tax increases has comprised the conventional approach to paying for infrastructure needs brought on by new development. The type of large, across the board property tax increases needed to pay for the full array of system and service extensions is unpopular and unlikely to be feasible in the long-run. Development charges are seen as more politically feasible in terms of raising additional revenues to meet the needs of both current and future residents. They are an indirect tax that is buried in the price of the house and not obvious to the purchaser. In the absence of development charges, cities may simply not be able to generate the necessary revenues to accommodate growth. However, it is clear that municipalities who do implement development charges have very limited understanding of their impacts and do not rely on sound empirical evidence to guide their decision-making since it simply does not exist.

In implementing development charges, the research does cite complex effects on house prices. Empirical investigations indicate that these fees do raise housing prices, but not simply because they are passed forward to house purchasers. Instead, housing prices rise because development charges reduce the burden of property taxes while still proving valuable facilities to the community, thus increasing residents' willingness to pay for housing (Burge, Nelson and Mathews 2007).

The existing literature does tell us that, while development charges are no panacea, they do provide something of value to the community in addition to simply adding cost to the development process. However, these fees are imposed on a complicated and dynamic community environment where house prices and production, economic development, and job growth all depend on many factors. The clearest evidence of their value is in the suburbs. The literature does suggest that with new suburban development they can facilitate the provision of infrastructure; improvements needed to sustain economic development, meet growing housing needs, and potentially generate more affordable housing than would otherwise be produced (Burge, Nelson and Mathews 2007).

Unfortunately, there is no research on their impacts on urban redevelopment and intensification. This should not be a license for cities to cast aside the necessity for sound empirical evidence in such circumstances and limit their case to that the need for revenues. Rather, it emphasizes the need for well designed research, careful consideration of the impacts, and a measured approach

to the level of impacts fees that are applied. With this information in hand, development charges are an effective growth management tool that reduces risk and uncertainty. In the absence of this information, the arguments on development charges revert back to speculation, anecdotal evidence, and saying what is political expedient. This is not the route to follow.

3. THE CURRENT CONTEXT

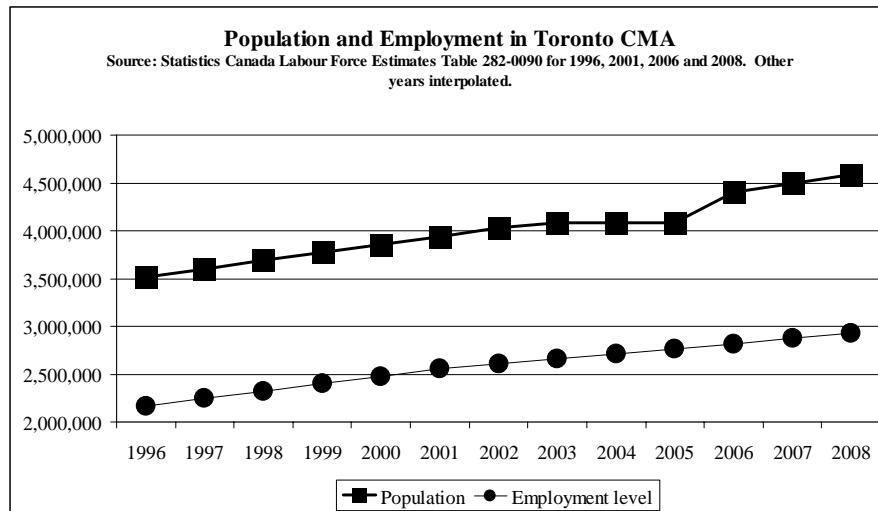
Toronto initially prospered under the traditional model and enjoyed the benefits of new growth, largely driven by immigration, and with costs shared with senior governments. Cracks in this arrangement appeared in the 1980s as new infrastructure and public projects ground to a halt and federal and provincial levels of government began to abandon cities and left them to rely largely on a single source of revenue - property taxes. The downloading of costs by senior governments to the City in the 1990s crippled municipal budgets and accelerated the rate of deterioration of everything from school buildings, highways and transit lines to public housing projects, not to mention the delivery of social services. Toronto is still struggling today with the legacy of the past two decades and it is clear that sufficient funds to drive a new agenda cannot be derived from property taxes and some of the new “user charges”.

The funding formula imposed on the City just does not work. There has been a general recognition by urban municipal leaders across Canada that there has not been adequate financial support for cities by the federal government. There is a need to recognize that cities are the economic engines of the national economy and investments in infrastructure and human capital will yield significant returns. This has been articulated in a number of reports and joint lobbying efforts that have been undertaken since the issue of Canadian cities being competitive was raised in 2001 by the Federation of Canadian Municipalities report, “Early Warning: Will Canadian Cities Compete? (Cappe 2001)” To the credit of the City of Toronto, Mayor Miller, and a range of other civic leaders and organizations, efforts have been made to persuade the federal government to provide financial investments and support for cities. This has been done in conjunction with other major cities and in response to the need for a “New Deal” for cities.

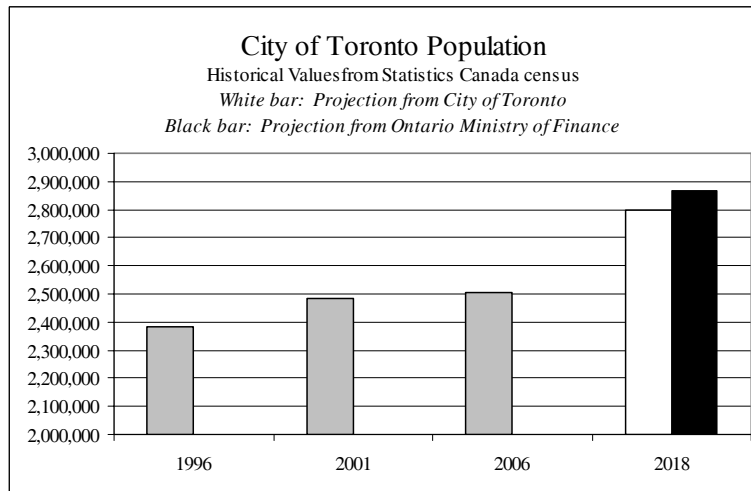
The Federal government under Paul Martin initiated the New Deal for cities and created the Ministry of State for Infrastructure and Communities. However, short lived this government was, it did initiate the federal gas tax for cities, an agreement whereby revenues to be used for “environmentally sustainable infrastructure” were transferred directly to municipalities. The current government does not share the same view of the role of cities as its predecessor and has not been willing to undertake direct agreements or make direct transfers to cities. This may change somewhat in the current economic climate given the expectation that there will be federally funded infrastructure investments in cities in an effort to stimulate the general economy.

As far as the demographic context, Toronto continues to grow in population. From 1998 to 2008, the Toronto CMA’s population grew by 24.6% (Statistics Canada 2008) and employment levels grew 26.0% as shown in the graph below. This graph is a demonstration of the simultaneous nature of population and employment growth as described by Clark and Murphy (1996).

Population can affect employment levels, employment can affect population levels and other elements such as income and amenities play a role in both.



The data shown in the graph above includes high-growth regions in the Toronto area. For the city proper, population grew by 4.9% (Statistics Canada, 2006) from 1996 to 2006. The official plan anticipates that the population will grow by 4.9% (City of Toronto 2008)⁴ from 2008 to 2018, while the Ontario Ministry of Finance anticipates a growth rate of 7.8% (Ontario 2007)⁵. The latter figure is based on more recent census data and therefore suggests that actual population growth might exceed recent City estimates. See the graph below.

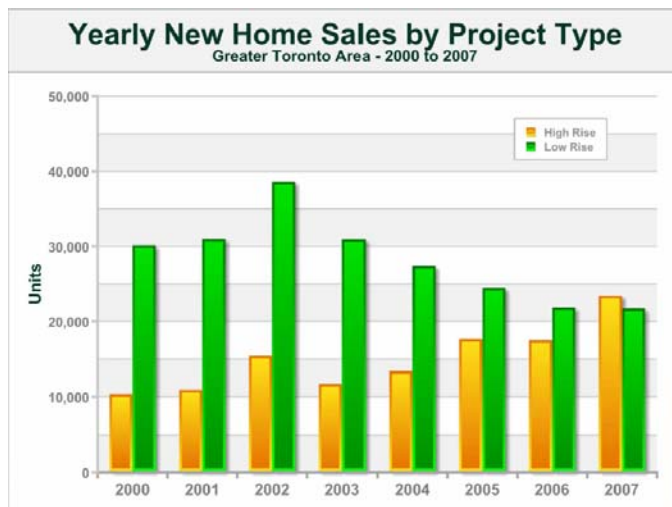


⁴ Source: Extracted from the City of Toronto's 2008 Development Charge Background Study. Values are 2,667,918 in 2008 and 2,798,497 in 2018 based on straight-line interpolation from Table 1.

⁵ Ontario Population Projections Update, Spring 2007, Ministry of Finance, Reference Projection, page 34. Values are 2,657,915 in 2007 and 2,865,275 in 2018.

It should be noted that population growth represents an increase in demand for housing and it is critical that the housing supply also be appropriately increased. Imbalances in supply and demand have pricing effects that negatively impact affordability. Supply is produced by developers and encouraged by governments in the climate of improving sustainability and intensification. The current demographic context tells us that an increased supply of housing is necessary to maintain a price equilibrium given the anticipated demand from population growth. Increased costs of development may impact affordable housing, economic development and development patterns (Burge and Mathews 2007).

What are particularly noticeable are the consequences of recent growth in the Toronto in terms of where people are choosing to live and in what housing types. High rise condominiums in the downtown are the clear winner. In 2007, for the first time in the GTA, new high-rise housing sales (condo suites and lofts) surpassed low-rise (single-detached, semi-detached, town-homes) sales. The share of the market accounted for by high-rise product has risen steadily from 25-28 per cent in the 2000-2003 period to 32 per cent in 2004, 42 per cent in 2005, 45 per cent in 2006 and 52 per cent last year in 2007. This is a market and not a policy driven phenomenon. According to a survey conducted by TD Economics, the top reasons for preferring condos over other housing types include greater affordability, lower maintenance costs, access to amenities (good building security, energy efficiency, and proximity to transit, retail, and entertainment). Condos are also set to benefit from long-term structural trends such as the aging population as older individuals seek a more supportive, maintenance-free lifestyle closer to available services and transportation.



Source: RealNet Canada Inc.

What was never anticipated is the current economic turmoil that is affecting governments, firms, and people at every level in society and in almost all mature and emerging economies. This turmoil has shaken every government, undermined many of the assumptions upon which the future was predicated, and wrought havoc with housing markets that are so fundamental to the security and prosperity of our society. The excerpt below from *CIBC World Markets Report*

December 18, 2008 is indicative of current sentiments and provides some context for decision-makers in the months ahead (Shenfeld 2008).

“However troubled the global economy looked a month or two ago, it looks much worse today. In the U.S. housing starts have now sharply eclipsed any modern day decline, the picture of job losses was revised to one much uglier than we had been led to believe, and exports have now faltered. In Canada, the housing sector looks like someone has suddenly turned out the lights, and there are enough layoffs already announced in manufacturing to put unemployment on a sharply higher track. Shutting down much of the automotive assembly business for the next couple of months will send factory activity into an even deeper dive. A winter of discontent is in store, and spring might not yet see any improvement, with our newly revised forecast point to an even deeper growth and earnings dive in both the U.S. and Canada.”

The current context tells us four things:

1. This is the time for governments to be offering stimuli and incentives. Governments across the western world, in response to the current economic crisis, have embarked on major initiatives to cut costs and increase public spending⁶. As one pundit claimed, “governments today are not only the lenders of last resort, but the spenders of last resort”;
2. Given the magnitude of the turmoil, this is a time for a shared vision and cooperation among all three levels of government in Canada, and between industry and government;
3. Many of the traditional assumptions, thinking, and approaches may no longer be relevant. This is a time for new thinking, quick action, and strong leadership; and finally,
4. The current funding formula for Canada’s cities does not work. Cities require financial support from senior governments.

What the current context has provided is a window of opportunity to stop and reconsider what lies ahead. What is certain is that the next one or two years will not be “business as usual” for governments, nor businesses. This is an opportune time to lay the necessary ground work for the decades ahead.

4. THE EXISTING POLICY FRAMEWORK

The most significant influence over the City’s policy framework comes from the Province as municipalities are “creatures of the Province”. Many of the City’s activities and policies are determined by Provincial legislation through the Municipal Act. In addition, the City of Toronto is controlled by the *City of Toronto Act* which gave the City additional powers and policy options

⁶ Canada’s federal government is now committed to deficit spending likely over the next five years, something that Toronto cannot do according to provincial legislation.

when approved in 2005. The City is governed by the provincial *Planning Act* and related planning policy and legislation when it comes to planning and development activities. This includes the *Provincial Policy Statement*, the *Greenbelt Act* and, most important, the *Places to Grow Growth Plan*.

The City, through its Official Plan, articulates land use policy and there are also expectations by the Province to support the Metrolinx Transit Plan. The Province has made a financial commitment to fund the first phase of \$11 billion over the first ten years of its implementation. There are also the transfers or grants from the Province and, to a lesser extent, from the federal government. These transfers generally reflect senior level policies and provide incentives for municipalities to implement senior government priorities, as well as City policies and programs.

Places to Grow

“Places to Grow” issued by the Ministry of Energy and Infrastructure (MEI) is the companion legislation to the Ministry of Municipal Affairs “Green Belt Act”. While the *Greenbelt Act* delineates where growth is prohibited, *Places to Grow* sets out where growth should occur and encourages intensification. The plan encourages intensification along a range of corridors throughout the Province and also requires that all new development have a minimum of 50 persons per hectare in terms of living or employment. In addition, there is a requirement for intensification which requires that 40% of all new development be accommodated via infill development. Finally, an additional policy document prepared in support of the Places to Grow Policy, “Proposed Size and Location of Urban Growth Centres in the Greater Golden Horseshoe”, identifies four Centres in the City of Toronto. These Centres include: Downtown Toronto, Etobicoke City Centre, the North York Centre and the Scarborough Centre. The Growth Plan density targets for all of these areas are 400 jobs and residents per hectare. Only the Downtown is close to this target with 380 jobs and residents per hectare and the extent to which the other three City centers fall far short of the Province’s target is most noticeable. There is the expectation of additional intensification to support the planned targets and support transit oriented development (Smart Growth Secretariat 2008) but limited information on how this can be achieved.

Density Targets and Current Density for Toronto Urban Growth Centres

Centre	Target Density	Current Density (approx)
Downtown Toronto	400 per hectare	380 per hectare
Etobicoke City Centre	400 per hectare	160 per hectare
North York Centre	400 per hectare	210 per hectare
Scarborough Centre	400 per hectare	90 per hectare

Source: Ontario Smart Growth Secretariat, “Proposed Size and Location of Urban Centres in the Greater Golden Horseshoe”, Technical Paper, Spring 2008

It is clear that intensification is at the forefront of the Provincial mandate to control and shape future growth in the Golden Horseshoe. While the Province is clear on “what” it wants, it is less

clear on “how” to achieve its own vision, particularly for residential intensification and employment lands. Implementation of provincial vision is largely a municipal responsibility through instruments that range from planning documents and zoning bylaws, to development permits and related charges. It is at this level that provincial and municipal agendas must be aligned if the provincial policy framework and its targets are to be met.

City of Toronto: Official Plan

The City of Toronto Official Plan (2002) was prepared after the amalgamation of Metro Toronto and its constituent municipalities into the new City of Toronto. The document did an excellent job of replacing the previous set of plans with one clear policy document. In many ways, this is a very significant “smart growth” document that supports and helps to implement the Province’s Places to Grow initiative. A component of this plan is to encourage development in its three identified centres and along a number of identified “avenues”. This initiative has the objective of increasing the density of development along these key areas via redevelopment and intensification. These areas are along transit corridors which make it consistent with the intent of the Places to Grow plan.

Some of the relevant highlights of the new Official Plan include:

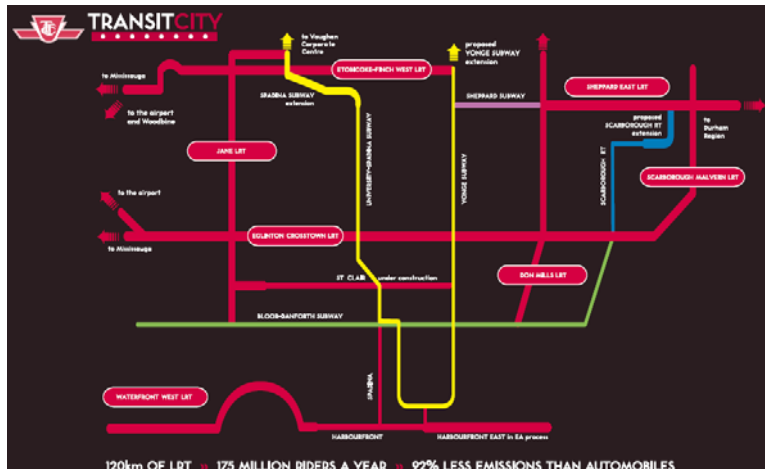
- Identifying where new jobs and housing will be encouraged
- Promoting growth that is less reliant on the automobile
- Promoting a transit based growth strategy by directing development in areas of good transit access while also improving transit in growth areas
- Contains design policies to guide the physical form of development and public realm improvements
- Emphasizes environmentally sustainable development.

As with all municipal official plans in Ontario, they are implemented, in part, through the municipal zoning by-law. When an official plan is revised, or a new one is developed, it is necessary to revise or change the zoning by-law to implement the policies in the Official Plan. This is especially true in the case for the new City of Toronto Official Plan as the new document is a policy document for the City and not a prescriptive document, and this is its strength. However, the new Official Plan is only as good as the by-laws that specify densities and this is where the City fails the test. Behind the new Official Plan lies a complex overlay of outdated zoning by-laws inherited from six former local municipalities that were amalgamated into the new City. A new zoning by-law to implement the Official Plan is yet to be approved and there does not appear to be any urgency to do so.

Metrolinx/ Transit City

Metrolinx was created by the Province in recognition that movement by public transit is not confined by local political boundaries. The mandate for Metrolinx is to plan and implement a

regional public transit system and the Regional Transit Plan was approved by the Board in late November 2008. This plan is prepared in the context of the Places to Grow and with the expectation that both regional and local municipalities will implement land use plans and policies consistent with the Metrolinx transit plan. The City of Toronto has prepared its Transit City- Light Rail Plan based on its Official Plan, the TTC Ridership Growth Strategy, and the Mayor's Transit City platform. The intent of this plan is to use electric light rail lines on their own right of way to connect existing transit routes. The plan includes seven corridors with a total length of over 120 kilometers to be completed by 2021.



Source: Toronto Transit Commission, Transit City: Moving Toronto into the Future (City of Toronto, 2008)

Other initiatives in the City include the subway extension to Vaughan and the Pearson Airport link from Union Station. Again, there is the matter of aligning Toronto's own transit proposals including Transit City with Metrolinx. The Province has announced "Move 2020" which is a plan to fund 52 transit projects in Ontario including the TTC/City light rail plan. This alignment is indicative of the need for regional cooperation among governments that essentially seek the same transit system and similar land use objectives

Climate Change/Green Policies

An important public policy issue for all levels of government is the development of "green" policies and programs to address both mitigation and adaptation to climate change. At the federal level, there is the issue of compliance with the Kyoto Agreement which the government signed and presumably supports via its policy decisions and programs. At the provincial level, there is a Climate Change Action Plan (December 2008) which is evaluated on a regular basis. The City of Toronto has a "Climate Change, Clean Air and Sustainable Energy Action Plan (July 2007). Consequently, any land use considerations or regulations that help mitigate climate change concerns should be both welcome and supported. This should include intensification to support transit usage, reduction in auto ownership and use, as well as building features, styles, approaches, materials, etc. that support climate change policy. There is also the opportunity for incentives to address these issues when undertaking new development.

A great deal is being done at a local level to make buildings "greener" and promote sustainability,

but there is no evidence at the federal level that the government understands or even acknowledges the central role that cities and buildings play in meeting their climate change targets such as the Kyoto Agreement. Without this understanding and a federal policy framework that acknowledges cities, progress towards meeting Canada’s international climate change commitments will be painfully slow.

5. INTENSIFICATION

A common theme that runs through all four key initiatives for building a sustainable Toronto, as well as being at the forefront of the Province’s Places to Grow, is intensification. Intensification is at the very nexus of creating a sustainable Toronto and the academic research confirms the many benefits that accrue to the city that gets this right. Unfortunately, intensification has its detractors, while others appear to embrace the theory, but not the practice. Detractors rely on a series of myths based on widespread misconceptions that have arisen around intensification. The myths, versus the facts, of higher density development are summarized in a document issued through a joint effort of the National Multi- Housing Council, the Sierra Club, the American Institute of Architects and the Urban Land Institute in 2005. Two of the ten common myths illustrate the level of misunderstanding that prevails.

MYTH	FACT
Higher density development overburdens public services and requires more infrastructure support systems.	The nature of who lives in higher-density housing puts less demand on public services than low-density housing and the compact nature of higher-density development requires less extensive infrastructure to support it.

“Introducing higher density projects into a community will actually increase that community’s revenue without significantly increasing the infrastructure and public service burden.”

“Increasing density provides a real economic boost to the community and helps pay for the infrastructure and public services that everyone needs.”

MYTH

Higher-density development creates more regional traffic congestion and parking problems than low-density development.

FACT

Higher-density development generates less traffic than lower-density development per unit; it makes walking and public transit more feasible and creates opportunities for shared parking

“Doubling density decreases the vehicle miles traveled by 38 percent.”

“Residents of lower-density single-family communities tend to have two or more cars per household, residents of higher-density apartments and condominiums tend to have only one care per household.”

The real benefits of intensification are widespread and gaining increased recognition in the research literature:

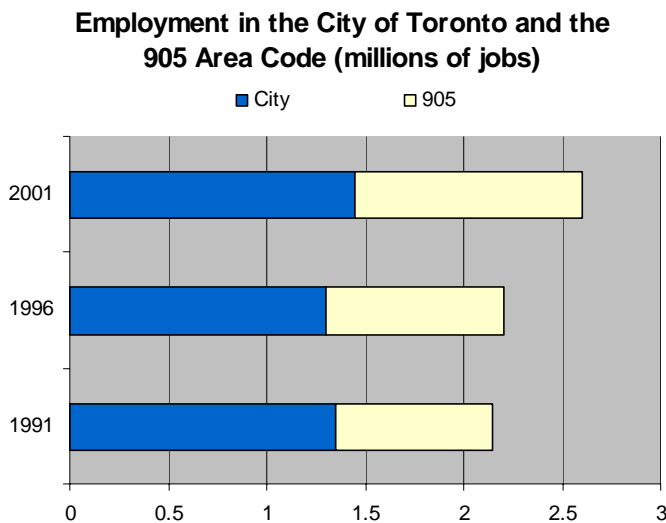
1. **Higher densities address today’s demographic and market changes.** Household preferences for accommodation among the current generation of house purchasers have changed and now high density housing represents the majority of housing starts in Toronto; families, who now represent a minority of households, are having fewer children; and household size is shrinking. Higher densities appeal to the young professionals, childless couples, baby boomers, empty nesters, elderly individuals, and those with high service jobs. These demographic and market changes have increased the ability of the City to compete with the suburbs for new residents and new jobs and to capture a bigger share of their consumer spending.

The *“Living Downtown Survey”* carried out by the City in December 2006 and published in October 2007 provides an excellent overview of just who is buying what in the Downtown (City of Toronto 2007). High rise buildings represent the majority of new residential development in a building boom that is unprecedented. Almost one-third of these buildings are 30 storeys or taller. Those moving into these buildings tend to younger, single or couples without children. They tend to be well educated, most are employed full-time within the Downtown area and household incomes among the group tend to be relatively high. Most new Downtown residents own their own home (76 percent versus 46 percent for existing residents) and most (74 percent) work or go to school in the Downtown area. The top reasons for living Downtown by the new residents according to survey are ranked below:

- 1 Close to work
- 2 Access to public transit/no need for car
- 3 Access to entertainment/nightlife
- 4 Like the lifestyle/vibrant/lots to do
- 5 Access to shops/stores/market
- 6 Convenience/accessibility
- 7 Access to amenities/services
- 8 Ability to walk everywhere

- 9 Access to culture
- 10 Central location/close to everything

2. **Higher densities yield direct economic and fiscal benefits.** Higher residential densities impact the local economy in several ways. They reinforce existing employment agglomerations by attracting new workers and reducing the home to work trip; they can tip the balance in a highly competitive environment for people and jobs in a region; and they offer direct and indirect financial benefits ranging for increased consumer spending in a given neighbourhood, to increased property and income taxes. Until very recently Toronto did not fared well in the competition for jobs and people in competition with its suburban partners (Conference Board of Canada 2006).



The clear investment choice was away from the downtown as the chart indicates. In the period from 1991-2001, employment growth in the 905 area including Mississauga, Pickering, Oakville, Markham and others outpaced that of the city proper by a factor of 10. That is now changing and, given that jobs follow people, intensification should deliver some significant employment benefits.

Source: The Conference Board of Canada, Build It and Will They Drive? Modeling Light-Duty Vehicle Travel Demand (Author)

Research in the U.S. confirms that density yields economic and fiscal benefits (Ciccone and Hall, 1996). This research indicates that economic competitiveness is enhanced by concentrations of firms and people and results in higher labour productivity and enhanced levels of innovation. Research by Harris and Ionnides (2000) indicates that doubling employment density increased average productivity by around 6 percent, generally by reducing commuting times. In the U.S., workers in the 10 states with the lowest employment densities produced 25 percent less annual output value than the 10 states with the highest employment densities. Research by Carlino (2001) linked employment density to increased innovation and showed that for every doubling of employment density, the number of patents per capita increases on average by 20 to 30 percent. Academic research also demonstrates that innovative businesses and activities are most likely to be urban and located in cities,

whereas activities that are routine are most likely found in the suburbs. Similarly, industries that hire college educated graduates are generally more centralized and industries that hire high school graduates are less urban.

Ratios and Multipliers from 1,000 Apartment Starts, Toronto, 2005

	Impact from Increase in
GDP (Thousands \$)	
Direct GDP	51,180
Direct and Indirect GDP	100,589
GDP multiplier (GDP generated per \$ of investment)	0.78
Ratio of total-to-direct GDP	1.97
Induced GDP multiplier*	0.44
Induced GDP	43,766
Total GDP including induced	144,356
Labour income (Thousands \$)	
Direct labour income	37,421
Direct and indirect labour income	67,679
Labour income multiplier (Income generated per \$ of investment)	0.53
Ratio of total-to-direct labour income	1.81
Employment (Number of jobs)	
Direct employment	742
Direct and indirect employment	1,373
Employment multiplier (per million dollars of investment)	10.67
Ratio of total-to-direct employment	1.85
Induced employment multiplier *	0.40
Induced employment	550
Total employment including induced	1,923
Gross output (Thousands \$)	
Direct gross output	128,675
Direct and Indirect gross output	232,652
Gross output multiplier	1.81
Induced output multiplier *	0.37
Induced gross output	86,889
Total gross output including induced	319,541

* Estimate based on literature review.

Source: Altus Group Economic Consulting

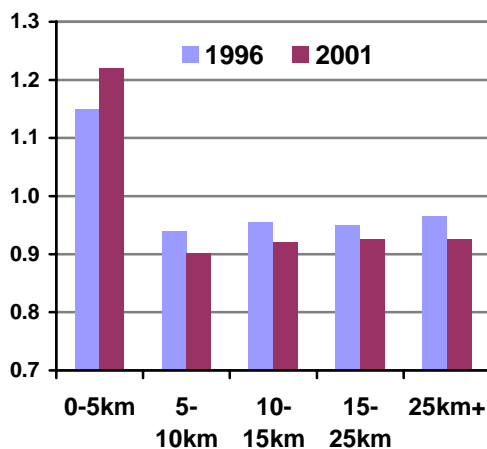
As far as impact on GDP growth, labour income, employment and gross output is concerned, the above summary of research undertaken by Altus Group Economic Consulting for the Toronto demonstrates the economic benefits for the economy based on the construction cost for a condo unit of \$128,675 per unit. The table shows the impacts based on

1,000 starts and includes estimates on a direct, indirect, and induced basis for each of the variables. It clearly identifies the economic benefit that flows not only to the city via employment, but also to the Province and Federal government economies. It helps to make the case why it is in the interest of all three levels of government to support new condominium development. The benefit of this development being intensive in nature relates to the fact that the economic benefits are achieved with infrastructure and service costs being at a relatively low level leading to advantageous net economic benefits.

- Higher densities attract well paid “knowledge workers”.** Economic development in the new model has changed - employers now follow workers rather than the other way around. Because their skills are transferable these workers choose their jobs based on quality of place and lifestyle (Florida 2002). They are drawn to vibrant and distinctive downtowns, plentiful amenities, a “thick” job market, and a positive and tolerant culture. They prefer to be among other knowledge workers and such concentrations of well educated human capital contributes to productivity. Research in the U.S. indicates that each additional year of education for a worker in a metro area leads to a 2.8 percent increase in productivity (Rauch, 1993). Thus, cities with highly skilled workers have higher income growth. In the U.S., the most highly educated metropolitan areas have per capita incomes about 20 percent higher than the average while the least educated have per capita incomes about 12 percent below the average (Gottlieb and Gogarty, 2003). Moriella (2004) found that a 1% increase in the college-educated population of a metropolitan area raises everyone else’s average wages by 0.6-1.2 percent.

Toronto CMA

Average annual earnings by distance from the city centre (kilometers), Toronto 1996-2001



Source: Statistics Canada, *Working and Commuting in Census Metropolitan Areas, 1996 to 2001*.

The census data for Toronto and the surrounding area confirms findings in the U.S. research. Jobs in the region are characterized by location with both a skills and an earnings gradient extending downward from the city centre to the suburbs (McKellar, 2005). Average earnings tend to be higher for city centre jobs and lower for jobs located away from the city centre. Relatively few jobs in the city centre are low paying compared to those in the suburbs, and more are highly paid.

Jobs in the city center are most likely to be in the producer services, having high skill requirements, and an average higher pay. These jobs are also more likely to be among the 25% best paid jobs in the city. In Toronto, the pattern is most striking; workers whose jobs are located within 5km of the city centre earned 1.15 times that of the average Toronto worker in 1996, but 1.24 times the average in 2001. At the same time, workers located outside of the city centre earned less, and their relative earnings declined.

Those households who are attracted to downtown living are likely to represent the highest skilled workers and among the best paid. In Toronto, 33.4% of workers employed within 5km of the city centre had top quintile earnings. However, there are exceptions; earnings were higher in the Highway 404-401 cluster with 35.9% of workers in the top quintile of earnings, but other clusters in the Toronto CMA were less likely to have workers in the top quintile of earnings.

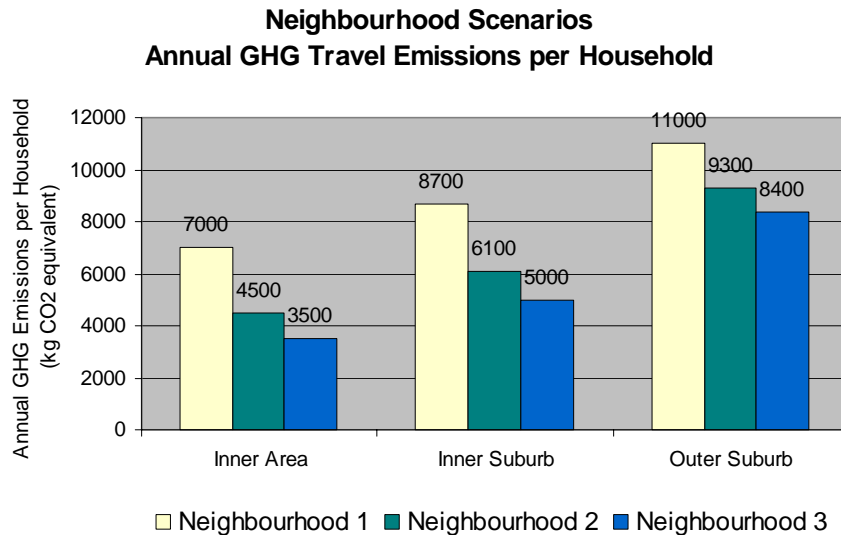
Downtowns appear to have real pulling power in the new era. They are already well anchored with a sound base of highly skilled, well paying jobs, offer the option of public transportation that connect to some suburban locations, and are typically surrounded by well established neighbourhoods in close proximity to jobs. The construction of downtown housing projects reinforces the appeal.

The best examples of this pulling power are the relocation of firms such Telus and Corus into Toronto's downtown waterfront and SAS building to the east of downtown. In the case of Telus, a firm with an average workforce age below 30, they are consolidating a number of scattered sites throughout the GTA and centering themselves amidst an emerging labour pool of young, highly educated workers. This will ensure access to future employees and enhance retention of existing employees.

4. Higher densities significantly reduce the carbon footprint and GHG emissions.

As Toronto grows over the next 25 years it is critical to plan for an urban community with long-term sustainability objectives in mind. Future urban form is a crucial element in meeting environmental targets and residential density associated with new urban development is, in particular, emerging as a primary issue for rigorous energy and environmental analysis (Norman and McLean, 2006). Residential density is the one factor over which municipal planners and local politicians have direct control and, therefore, informed decisions on any factors that directly or indirectly affect residential density must heed a number of environmental considerations. The environmental effects of urban form and residential density

have often been studied in qualitative terms for policy applications but the current level of understanding with respect to specific influences of urban form on the generation of environmental emissions and use of energy remain relatively weak.



Source: IBI Group, "Greenhouse Gas Emissions from Urban Travel: Tool for Evaluating Neighbourhood Sustainability," Research Report: Healthy Housing and Communities Series (CMHC, February 2000)

According to a CMHC research report, the single-use, dispersed neighbourhood located far from the CBD produces about three times more annual emissions per household than the mixed-use, compact neighbourhood near the CBD (CHMC 2000). Also, neighbourhood location has a stronger influence on auto use than neighbourhood design variables.

Research in the U.S. examined the relationship between GHG emissions and number of dwellings per acre (Brown, Southworth and Sarzynski 2008). Results indicated that buildings with five or more units consume only 38 percent of the energy of households in single-family homes. At a suburban density of four homes per acre, carbon dioxide emissions per household were found to be 25 percent higher than in urban neighbourhoods with 20 homes per acre. Studies also show the household vehicles miles traveled vary with residential density and access to public transit. In comparing two households that are similar in all respects except residential density, the household in a neighbourhood with 1,000 fewer housing units per square mile drives almost 1,200 miles more and consumes 65 more gallons of fuel per year over its peer household in a higher-density neighbourhood. A recent simulation exercise estimates that shifting 60 to 90 percent of new growth to development that is more compact would reduce Vehicle Miles Traveled (VMT) by 30 percent and cut carbon dioxide emissions by 7 to 10 percent by 2050, relative to the trajectory of urban sprawl.

The research of Norma and McLean (2006) involves an actual case analysis and offers a more complete life-cycle based understanding of the energy use and GHG emissions associated with typical high- and low-density residential development in a North American context. The

cases chosen are in the Toronto area, the high density case being a new 15 story residential condominium close to Toronto's downtown core at a density of 150 units/hectare, and the low density case being a new single detached house in a 161 unit subdivision located in Markham at a density of 19 units/hectare. Key findings of this study are summarized below:

Building Materials	Material production overall accounts for about 10% of total life-cycle energy and use/GHG emissions from residential development.
Building Operations	Building operations for low-density development are 2x as energy and GHG emissions intensive as high-density development per capita. They are about equal per unit of living space.
Transportation	Transportation accounts for 40-60% of life-cycle GHG emissions in residential development. Public transportation accounts for only 2-5% of total transportation energy use/GHG emissions. Transportation requirements for low density suburban development are nearly 4x as energy and GHG emission intensive as high density urban core development per capita. Transportation requirements for low density suburban development are 2x as energy and GHG emission intensive as high density urban core development per unit of living space.
Comparison of high and low urban density	Low density suburban development is 2-2.5x as energy and GHG emission intensive as high density urban core development per capita. Low density suburban development is 1-1.5x as energy and GHG emission intensive as high density urban core development per unit of living space. The choice of functional unit is highly relevant to understanding life-cycle density effects.

This research, carried out in the Toronto region, empirically confirms that increasing residential density may comprise a significant component of broader energy conservation and GHG reduction policies. The study reinforces the point that urban form and density considerations should be given a brighter spotlight in the overall energy conservation and climate change policy debate.

The consequences of congestion are also part of the equation. Transport Canada recently completed an assessment of the costs of congestion in Canada's nine largest cities. Three types of costs were aggregated: the cost of time lost due to delays; the cost of wasted fuel; and the cost of GHG emissions. The study estimates that the total annual cost of congestion in 2002 dollar values ranges from \$2.3 billion to \$3.7 billion for the major urban areas in Canada. The estimated cost of congestion for Toronto ranges between \$890 and \$1,200 million. More than 90 per cent of this cost represents the value of the time lost to auto travelers (drivers and their passengers) in congestion. The remainder represents the value of fuel consumed (around seven per cent) and GHG emitted under congestion conditions (around three per

cent). The study estimates an increase of 1.2 to 1.4 megatonnes of greenhouse gas due to congestion every year.

5. **Higher densities reduce infrastructure costs and support alternative solutions**

Reducing the distance between homes, shops, and offices also reduces the cost of public infrastructure. According to the research, “The public capital and operating costs for close-in, compact development are much lower than they are for fringe, scattered, linear, and satellite development”. Much of this research does not take into account the advantages created by making public transit more feasible as well as making delivery of basic services like mail, trash collection, and police and fire protection more efficient.

Transit Oriented Development (TOD) is heralded as a prime example of how higher density can support infrastructure costs, in this case public transit. TOD has become a significant feature of Growth Management and Smart Growth across North American jurisdictions. TOD consists of medium to high density mixed use development designed to maximize use of public transit. It may also include policies to encourage use of public transit. This may be encouraged either in conjunction with new transit facilities and stations, or in the development around existing transit stations/locations.

Transit Oriented Development can produce a broad range of planning, sustainable development and community benefits if it is undertaken appropriately and successfully. Most importantly, it promotes transportation choices via its access to public transit which result in reduced auto usage and impact on the environment. Higher density development results in the efficient use of land, infrastructure and services. It also has the potential to revitalize community centres and neighbourhoods in cases where it is part of a revitalization and infill development. This could be the case for some of the avenues. Furthermore, along these lines it helps to establish a sense of place by encouraging mixed-use development and having employment with residential uses. This can help to create vibrant and in some cases, twenty-four hour environments. The mixed use, transit-oriented environment is also an ideal location to mix in affordable housing when possible.

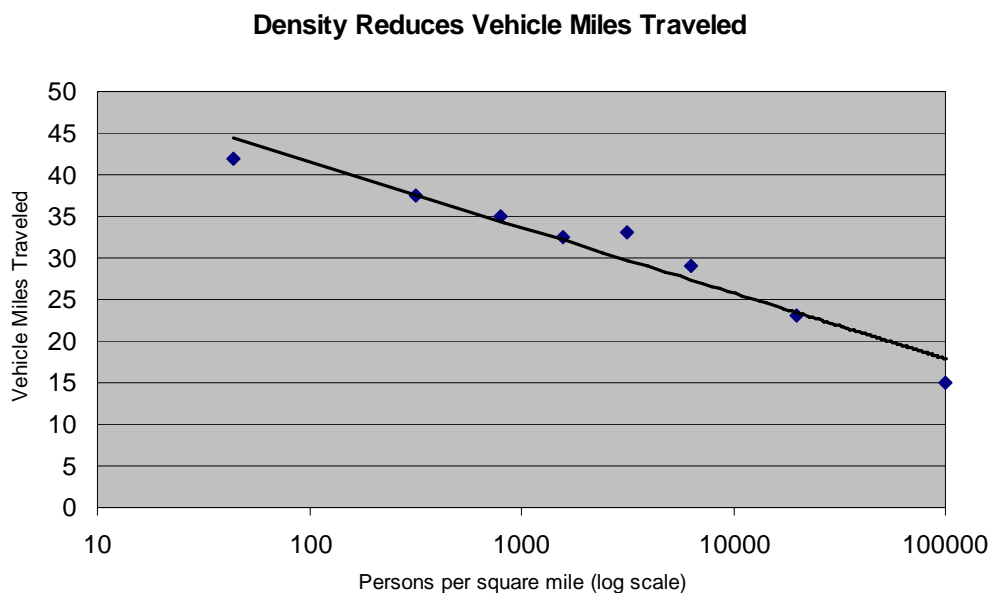
Transit Oriented Development also benefits pedestrians. A field survey carried out by Leinberger (2008) examined the relationship between transit and walkability as part of an overall study of walkability in 30 of the largest American metropolitan areas in the U.S covering 128 million people of where 46 percent of the population in the U.S lives. For Leinberger, walkability is:

- At least five times as dense as drivable sub-urban (floor-area-ratio of between 0.8 upwards of 40.0 as compared to 0.05 to 0.30 in the sub-urban).
- Mixed use (residential, office, retail, cultural, educational, etc)
- Compact
- Generally accessible by multiple transportation means (transit, bicycle, car, and foot)
- Walkable for nearly every destination once in place.

His survey found that rail transit seems to play a significant role in catalyzing walkable urban development. In the top 10 metro areas for per capita walkable urban areas, 80 percent (84 of 105) of these places have rail transit service. In the bottom 10, only 14 percent have of the walkable urban places have rail transit service. Surprisingly he also found that it is a bit of a myth that metro areas with established rail transit systems (New York, Boston, Chicago and Philadelphia) have a greater likelihood of walkable urbanism. Metro areas with newer rail transit systems can soon catch up and even surpass the older transit metro areas in terms of walkable urban development on a per capita basis (Washington, San Francisco, Denver, Portland, Pittsburgh and Miami)

6. Higher densities reduce reliance on the automobile.

Understanding where households live and where they work is fundamental to any understanding of the spatial pattern of cities and house prices. The choice where to live and where to work essentially determine the pattern of trips to work, to shopping, to almost everywhere else that household occupants must travel that are beyond walking distance of the home. Transportation is an obligatory expense for households and mobility is essential to preserve a pattern of urban growth and a lifestyle that has prevailed since the postwar era. To date, mobility has been synonymous with the car and will be served by public transportation.



Source: Joe Cortright, *Driven to the Brink: How the Gas Prices Spike Popped the Housing Bubble and Devalued the Suburbs* (CEOs for Cities, May 2008)

Census data shows that automobile dependency rises as household income rises, while public transit use falls. The tendency to commute by car also increases as a function of increasing distance from the city centre (Statistics Canada 2005). For example, Toronto experienced an

additional 208,300 workers commuting to locations more than 20 km from the city centre in 2001 than in 1996, of which nearly 90% commuted by car. In this period, the number of car commutes grew by 12% and number of commuters destined for locations more than 20km from the city centre by 25%. The rate of increase in auto-based commutes far exceeds the rates of population growth for Canada's major CMAs. Continuation of this trend has implications in terms of congestion, the future viability of public transportation, and the prospects to effectively invest in urban infrastructure in the future. The good news is that automobile usage, at least in the U.S, is diminishing for the first time and one might assume that we will begin to see the same trend in Canada. The above chart offers one explanation of this trend and underscores the direct relationship between density and automobile usage (Cortright). In one Metropolitan area studies, those living in the densest 10 percent of all neighbourhoods traveled only one-third as far as those who lived in the least dense 10 percent of all neighbourhoods (Lawton, 1999).

Number and percentage distribution of CMA workers by distance of job from the city centre, 2001

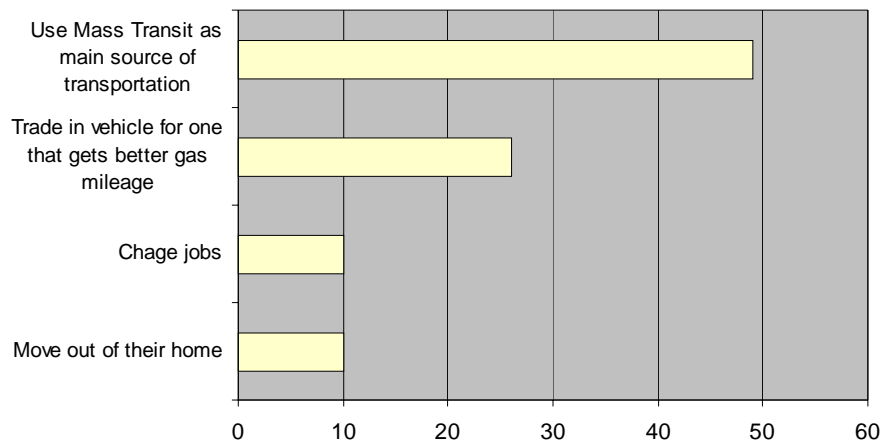
	0-5km	5-	10-	15-	20-	25km	Employment
Toronto	23.1	10.2	11.8	13.2	15.6	26.2	2,461,700
Montreal	28.1	24.3	19.2	10.3	7.5	10.6	1,699,900
Vancouver	30.8	24.0	12.9	6.5	13.2	12.7	922,900
Edmonton	34.2	34.9	17.3	1.7	0.5	11.4	462,800
Ottawa/Hull	45.6	29.1	9.0	10.5	1.7	4.1	573,000
Winnipeg	52.8	36.1	8.5	1.0	0.9	0.7	345,500
Calgary	56.4	23.7	14.6	2.0	0.5	2.8	496,700
Halifax	69.0	11.0	9.1	5.4	0.5	5.0	186,100
Regina	90.7	6.4	0.0	1.4	0.0	1.5	99,600
All CMAs	38.3	21.3	12.8	8.6	7.4	11.6	9,566,500

Source: Statistics Canada, Working and Commuting in Census Metropolitan Areas, 1996 to 2001. June 2005

A growing body of research has shown a strong relationship between increased density, transit access, and pedestrian friendliness, on the one hand, and reduced vehicle miles and automobile ownership on the other hand (Brookings 2006). With the high and rising costs of driving, owing to the long-term trend of rising gasoline prices and the increased need to drive for most household trips, the transportation savings that can result from living in a dense, convenient, and transit friendly community are considerable.

Gas Prices and Consumer Behavior

Percentage of drivers who say they would do the following if gas topped \$10 / gallon (\$2.64 / liter)



For those skeptics that believe that even the most convenient public transportation will not cause drivers to abandon their cars, a recent survey in the U.S. indicates that what good transit may not do on its own, increasing gasoline prices may be part of the solution.

For the City, the solution is intensification and the promotion of land use patterns that reduce the distances that people must travel. While the emphasis is now on “green buildings”, transportation generated by the typical office building use about 30 percent more energy than does the building itself (Wilson 2007). Intensification can reduce daily travel by as much as two-thirds from current suburban patterns (Ewing, Bartholmew, et al., 2008). Attractive inner city neighbourhoods that enable people to drive shorter distances and make convenient use of alternatives to car travel are likely to be more affordable and economically successful than places that continue with the traditional model.

For the suburbs, there are formidable challenges in promoting transit use for workers employed throughout the fringes. These areas have developed at residential densities that are not conducive to most forms of public transit that can connect suburb to suburb. For workers facing this predicament, congestion will be part of the work day and it will get much worse.

7. Higher densities offer opportunities for affordable housing.

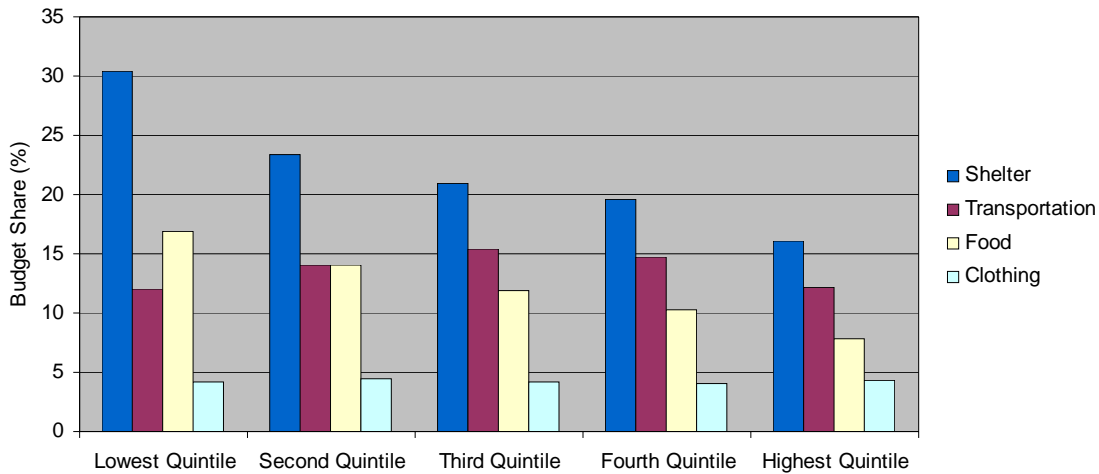
Housing affordability is the most commonly understood as the extent to which a household’s income can cover the price of a home. However this definition may be too limited and the affordability of housing should be considered in the context of the transportation costs associated with the neighbourhood in which the home is located. It is the interaction between

housing and location that provides a more meaningful measure of affordability (Brookings, 2006). The Brookings Institution has developed the Affordability Index based on the analysis and theory of the Location Efficient Mortgage® (LEM) which was developed by a group of researchers, including members of the Center for Transit-Oriented Development team.

$$\text{Affordability Index} = \frac{\text{Housing Costs} + \text{Transportation Costs}}{\text{Income}}$$

The affordability index calculates the sum of average housing costs plus the average transportation costs for a neighbourhood, divided by average neighbourhood income. Total housing costs include current sales prices or rents and total transportation costs equal the sum of costs for automobile ownership, auto use, and transit. The index was used to create a mortgage product that allows underwriters to give additional credit for location efficiency in an area.

Budget Share of Major Categories by Income Quintile, 2007



Source: Statistics Canada, The Daily Statistics Canada, December 22, 2008

What holds true for Americans also applies to Canadian households. The second most significant expenditure for the average household in Canada, after shelter costs, is transportation - principally the cost of the car. In 2007, the average Canadian household spent \$13,640 on shelter, a 5.1 percent increase over 2006 and \$9,400 on transportation, up 1.7 percent from the previous year (a 6.9 percent increase on spending on gasoline was offset by a 6.3 percent decline in average spending for automobile purchases). To put this in another way, for every dollar spent of shelter cost, the average Canadian household spends almost \$0.70 getting to and from the home (Statistics Canada 2008). These figures are for out-of-pocket costs only primarily for the car, including the purchase price, insurance, service, license

and permits, parking, and gasoline. As the chart above indicates, the combined cost of shelter and transportation places great hardship on those in the lowest quintile and this is where help is really needed. The solution should be simple - provide affordable housing near places of work. Unfortunately, implementing this solution has escaped our society for several decades.

A study of travel and housing costs in the Greater Toronto Area (GTA) noted that over 95% of GTA household expenditures on intra-urban travel are auto-based and even in the City Of Toronto with its extensive transit system, well over 90% of travel costs are auto related (Miller, Roorda and Mohammadian 2003).

The energy crisis has served to exacerbate discernable shifts in house prices between the city and the suburbs, given that average household travel costs systematically increase as the household's place of residence moves away from the city centre (Miller, Roorda and Mohammadian 2003). It is estimated that GTA households outside of the City of Toronto on average pay 43% more for housing and transportation combined than residents of Toronto. The impact will be most severe at the fringes and this may partially explain why new home prices (real, not nominal) at the fringes have remaining relatively subdued as they have for almost a decade (Bank of Canada 2004). The real beneficiaries will be the inner city locations that can capitalize on existing transportation options to reduce dependency on the car and thereby reduce true housing affordability. This highlights the critical role for intensification, combined with public investment in transportation, for low to moderate income households.

The Two Kings: Toronto's Success with Intensification

The "Two Kings" provides an example of where the City undertook a policy innovation that promoted intensification. The result was significant benefits for the City and the community in terms of the type of development that occurred without any cost to the City. It is interesting to note that the City undertook an "ex post" evaluation of the policy, something that does not normally occur in busy times when there are seldom resources available to undertake an evaluation of even innovative policies. The City is to be applauded for this effort and the resulting report.

The "Two Kings" policy took the form of amendments to the Part II Official Plans and Zoning by-laws for the two areas. It was passed in April 1996 with the intent of providing a more flexible approach to planning to encourage investment and regeneration. Among other items the policy provided for:

- As of right development permission within general height limits,
- Maximum flexibility in land use policies to permit new buildings and conversions,
- The removal of density numbers from the Part II Official Plans and zoning by-law,
- New built form regulations, and
- The relaxation of a number of general by-law standards regarding parking and loading.

The evaluation of the policy is contained in a report released by the City in November 2002. Its findings included the following:

- Since 1996, eighty six development projects were either built, under construction, or being planned at the time, with an estimated value of building permits exceeding \$396 million,
- Total taxable assessment grew in the two Kings areas by over 28% over the 1996-2002 period,
- Over 321,000 square meters of commercial (employment) space was created or was being planned,
- Employment activity in the two areas increased by 18% compared to the city wide rate of 11% for the same period,
- Transit usage by residents is high, but many residents would like to see increases in transit service,
- The pedestrian environment was considered to be important to residents, and
- 38% of residents do not own a car. (City of Toronto, City Planning Division, 2002)

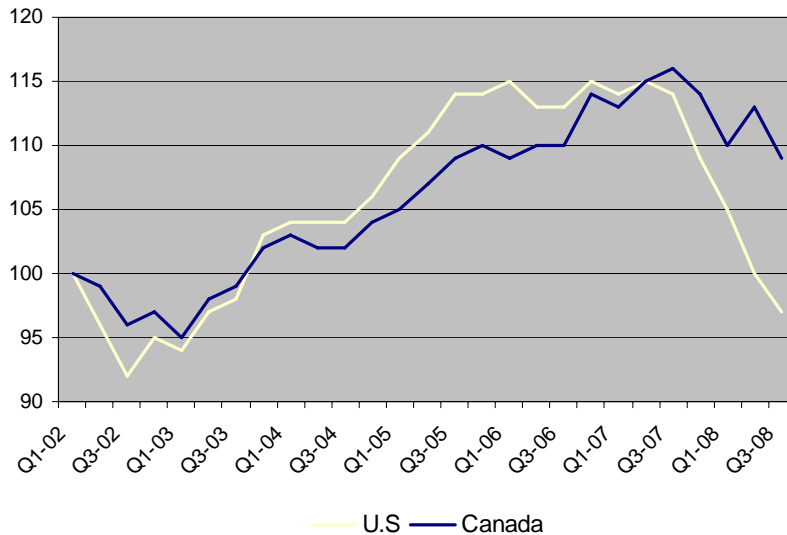
Although, it could be argued that the “Two Kings” represent special redevelopment areas of the City, many areas in the City have the potential for redevelopment, including those areas designated as “avenues” in the official plan. What this does demonstrate is the potential benefits of undertaking innovative policies that promote development that is relatively dense. This success story should encourage the City to develop more innovative policies to encourage intensification along transit routes and the “avenues”.

6. THE HOUSING CHALLENGE

The housing challenge for the City in the next 25 years cuts across all four initiatives for Building a Sustainable Toronto. Housing for workers close to where they work and accessible by other than the automobile is essential to securing the long-term economic competitiveness of the City. The City must give full recognition to the fact that jobs follow people and not the reverse. Accommodate residents from the full socio-economic spectrum and firms will follow. The City must also recognize that the housing choices and preferences of future residents will not mirror the past and will be driven by a combination of demographic trends and market forces and result in much higher densities. Since housing will be the single largest segment of new construction over this period, it must be done in a manner that reduces the carbon footprint of the City while mitigating the environmental consequences of its growth profile. This is not simply a matter of adopting “green building” standards. The environmental benefits of intensification must be factored into the equation. Finally, it is essential that housing be made available to those whose services are essential to the future prosperity of the City. For this segment of the market, costs must be kept under control and the need to reduce the substantial costs of commuting from the home to work must be recognized.

Canadians are not getting wealthier and will likely be able to afford less and not more in the future. We are moving into a much more price sensitive environment than in the recent past (Shenfeld and Tal 2008).

Canadian household Wealth Loss Milder



Source: Avery Shenfeld, "The Winter of Our Discontent," *StrategEcon (CIBC World Markets, December 18 2008)*

There are two concepts to consider in the context of affordable housing. The first is the concept of affordable market housing in terms of either rental or owner occupied units. The second concept relates to affordable social housing provided under government subsidy programs. Both of these forms of affordable housing have the potential to be provided or increased as a result of intensification policies.

This past year, more than half of the housing starts consisted of multiple condominium units. In recent years, it has become obvious that condominium units produced as part of Toronto's high density development have provided an important component of Toronto's rental housing stock. As very few traditional rental buildings have been built, investors have purchased condominium units with the express purpose of renting them. Some estimates suggest that in recent years 30% of sales of condominium units are to investors rather than owner occupiers. This has added to the rental stock and the additional units have kept vacancy rates from falling to even lower levels than those that have been experienced in this sector. The increase in the condominium apartment stock has helped to keep rental housing more affordable by adding to the existing supply. In terms of home ownership, condominium apartments are less expensive than single family or semi-detached units and therefore provide affordable entry level units for first time buyers.

In recent years, there has been a lack of federal and provincial funding for affordable/social housing. Consequently, municipalities and social housing providers have been challenged in providing new units. However, high density development may provide some avenues for providing social/affordable housing, if new innovative programs are developed or public sector land resources are levered as part of the development.

For example, in the relatively high density development proposed for the West Donlands, 20 percent of the units have been designated to be affordable by the City. Consequently, some mechanism must be developed to ensure that the requisite units in this development will be affordable. It may require some form of senior government subsidy or incentive program. This raises the issue of applying development charges to various forms of social housing. The solution is for the City and the housing industry to work together to develop innovative housing programs. Regent Park redevelopment stands out as an example of what cooperation can achieve.

On the cost side, both the theoretical literature and the empirical evidence indicate that intensification has a broad range of benefits that accrue to the developer, the city and the community in general. This suggests that if the cost or impediments to intensification are borne entirely or too heavily by the developer, there will be an impediment to intensification being encouraged and it actually taking place. In addition, it would appear that part of these costs originally paid by the developer is ultimately passed on to the purchaser or renter in the form of higher prices or rents. These costs would include increased costs of the project due to delays in receiving planning approvals and excessive or inappropriate development charges.

Take for example the case of development charges; the literature indicates that although part of development charges are capitalized into predevelopment land value, part of the charges, especially increases in development charges are passed forward to the resident in the form of increased prices or rents. (Nelson and Moody 2003). This places upward pressure on prices and rents and makes housing less affordable. Furthermore, it works against any affordable social housing programs. Consequently, whether the costs are borne by the developer or the ultimate resident they are borne by private actors. This is acceptable under the benefit principle approach provided the housing units/residents are receiving the benefits of the services for which they are contributing. The components of the development charge should be for items that are benefiting their new development. This is the essence of an appropriately structured benefit charge and it is the rationale for the Provincial legislation permitting area specific development charges. Development charges should reflect a benefit charge and not a service pricing approach. The difference is that service prices are set under pricing rules and may be set on a competitive basis to reflect prices elsewhere in the market. Benefit charges are determined based on payment being made to reflect the benefits that are received.

With the above understanding, it is important to also comment on the differential in the quantum of development charges for residential development in the 905 area relative to the City of Toronto. The differences are based on the true costs of growth related capital costs. Greenfield development regardless of density has higher infrastructure costs than infill development on a per unit basis. In an urban setting, much of the requisite infrastructure is already in place such as road and service pipes/capacity. The cost of providing the services to additional units is only marginal in terms of requirements and costs to the existing system. As development charges, as determined by the Development Charges Act, must reflect growth related capital costs, a municipality may not just set their charges, as a price, to be competitive with other jurisdictions. Rather, the costs must reflect the benefits that will be achieved for the new residential units once the infrastructure is in place.

7. CONCLUSIONS AND RECOMMENDATIONS

While the task of achieving what we all desire as a livable city for future residents of Toronto seems formidable, many of the elements are already in place. The policy framework is sound. People are returning to live and work in the downtown at a rate that gives great hope for the future. Toronto has a vibrant and robust housing industry that has the capability to meet future housing needs and there should be no doubt that over the 25 years it is the city where people and jobs will want to be. The City is on track to capture an increasing share of regional growth over the next 25 years. On the other hand, this growth brings its own challenges. Growth must be managed to reduce the City's carbon footprint, expand housing choices, protect the most vulnerable, and promote creativity and innovation.

A large part of the solution is a commitment to urban intensification. The proven benefits are substantial ranging from direct economic and fiscal benefits, to the ability to attract and retain knowledge workers, reduce automobile dependency and even lower household costs by diminishing expenditures on transportation. On the environmental side, the research clearly indicates the advantages of higher density housing and from a market perspective higher densities are what an increasing segment of the urban housing market desires.

The City is well positioned to lay the foundations for the next 25 years and use the current downturn to muster the necessary resources to get the job done. The following recommendations are seen as the first steps in the right direction:

- 1. Utilize the next two years to assemble the information we need to implement new programs and affect informed decision-making for building a sustainable Toronto.** This is not the time to be considering new incremental charges or any other fees that will increase the cost of doing business in the City of Toronto by applying the traditional model. On the contrary, it is a time to reduce fees and costs and turn to incentives to stimulate development and economic growth. New thinking can demonstrate to the senior governments the level of enthusiasm within Toronto for new programs, new ideas, and new approaches that have the backing of the housing industry. Innovative approaches, like the city's successful Two Kings, applying a better Toronto variation of Vancouver's EcoDensity program, applying a "graduated density zoning" program for land assembly, and developing an incentive program to ensure development in centres, and on the avenues and along new transit facilities need to be considered. These approaches need to be researched and developed. Creative thinking can energize the community and capture the attention of those beyond the City boundaries who may be considering Toronto as a place to live or in which to locate a business.

2. Move intensification to the forefront of the City's agenda undertaking policies and applying tools that will capitalize on the environmental, social and economic benefits. The policy framework for intensification is partially in place, and it is now necessary to implement what needs to be done. The City must ensure that monies are spent on the right infrastructure at the right locations to support intensification in key locations. This will ensure development occurs to balance the location of jobs and income across the city. An objective of Building a Sustainable Toronto is to promote social equity by addressing concerns regarding income disparities that have been identified in different areas of Toronto.. If Toronto wants to attract knowledge workers and be an established centre for innovation and creativity then it must do it through leadership and its own actions. This will include developing policies and tools to ensure intensification takes place in locations where there is infrastructure capacity.

3. Secure strong industry support and cooperation to address the single biggest challenge that the City faces - lack of financial resources to do what is necessary to build a Sustainable Toronto. The housing industry recognizes that without increased and ongoing financial support from the Province and the Federal government the City will be incapable of meeting its full potential, as well as its obligations to environmental stewardship, job creation, and the Places to Grow Plan. Industry and the City, in partnership, must go forward with this message to the Province and the Federal Government.

4. Meet Toronto's housing challenges. Housing affordability for Torontonians is about the combined costs of consuming housing services and the costs of transportation in both time and money. There is little debate about which of these two costs will increase the fastest in the years ahead. The housing challenge in Toronto is about where you live and where you work, the ability to sustain a lifestyle that moves away from automobile dependency, finding the right house at the right location, and making sure that those of modest means have access to affordable accommodation in the neighbourhoods in which these choose to live. The City must redefine its concept of housing affordability and see the housing challenge as much a process of increasing densities through intensification, providing transit access, and ensuring pedestrian friendliness, on the one hand, and reduced vehicles miles and automobile ownership, on the other. Meeting Toronto's housing challenge requires new thinking to help policy makers determine where resources should be focused to enhance housing affordability.

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